COMMITTENTE:

RFI RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

ALTA SORVEGLIANZA:

ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

GENERAL CONTRACTOR:

IRICAV2

# INFRASTRUTTURE FERROVIARIE STRATEGICHE DEFINITE DALLA LEGGE OBIETTIVO N. 443/01

## LINEA AV/AC TORINO – VENEZIA Tratta VERONA – PADOVA

## Lotto funzionale Verona – Bivio Vicenza

## PROGETTO ESECUTIVO

OPERE CIVILI

IMPIANTI T.E. LINEA DI CONTATTO 3kVc.c. – 540mm2

PREDISPOSIZIONI OO.CC. PER OO.TT. SU INNESTO VERONA EST (LC21B) - TRACCIATO AV

Relazione di calcolo basamenti travi MEC

| GENERAL CONTRACTOR | | DIRETTORE LAVORI | SCALA |
|---|---|---|---|
| IL PROGETTISTA INTEGRATORE<br>Ing. Claudio DE GIUDICI<br>Iscritto all'ordine degli ingegneri di Udine n. 1875<br>Data: Febbraio 2023 | Consorzio<br>Iricav Due<br>ing. Paolo CARMONA<br>Data: Febbraio 2023 | | - |

| COMMESSA | LOTTO | FASE | ENTE | TIPO DOC. | OPERA/DISCIPLINA | PROGR. | REV. | FOGLIO |
|---|---|---|---|---|---|---|---|---|
| IN17 | 10 | E | I2 | CL | OC0000 | 012 | A | --- DI --- |

IRICAV2

| VISTO CONSORZIO IRICAV DUE | |
|---|---|
| Firma | Data |
| ing. Alberto LEVORATO | Febbraio 2023 |

Progettazione:

| Rev. | Descrizione | Redatto | Data | Verificato | Data | Approvato | Data | IL PROGETTISTA |
|---|---|---|---|---|---|---|---|---|
| A | EMISSIONE | Bellini | 02/2023 | Guilarte | 02/2023 | Aiello | 02/2023 | Il Responsabile (Dott. Ing. Aiello) ORDINE INGEGNERI VERONA E PROVINCIA ALBO PROVINCIALE INGEGNERI VERONA Iscrizione N° 2553 Data: Febbraio 2023 |
| | | | | | | | | |
| | | | | | | | | |

| CIG. 8377957CD1 | CUP: J41E91000000009 | File: IN1710EI2CLOC0000010A_00.DOCX |
|---|---|---|
| | | Cod. origine: |

Progetto cofinanziato dalla Unione Europea

# INDICE

# 1 DESCRIZIONE GENERALE

La presente relazione riguarda l'intervento di realizzazione dei basamenti in c.a. previsti sull'innesto di Verona EST per i pali della trazione elettrica in carpenteria metallica che compongono la Linea di Contatto della Linea AV/AC Torino – Venezia - Tratta Verona - Padova - Lotto funzionale Verona-Bivio Vicenza.

In particolare, il presente documento si riferisce alle travi MEC previste dal Piano di Elettrificazione di LC21-Innesto Verona nella **Fase 2** [elaborato: IN1712EI23PLC21B0N06C], ubicate sulla Linea AV/AC in uscita dalla Stazione di Verona Porta Vescovo verso Vicenza.

Si riportano di seguito le caratteristiche dei basamenti in esame:

| N° | FASE | PK | WBS | LATO BIN | TIPO PALO TE | TIRANTE A TERRA | TIPOLOGIA PALO | BLOCCO DI FONDAZIONE PALO | BLOCCO DI FONDAZIONE TIRANTE |
|---|---|---|---|---|---|---|---|---|---|
| 0-37 | 2 (A2) | 671,5 | RI03 | BD | LSU24b | - | Trave MEC C17 | LC21-BS.08 | - |
| 0-38 | 2 (A2) | 671,5 | RI03 | BP | LSU24b | - | Trave MEC C17 | LC21-BS.08 | - |
| 0-39 | 2 (A2) | 706 | RI03 | BD | LSU24b | - | Trave MEC C14 | LC21-BS.08 | - |
| 0-40 | 2 (A2) | 706 | RI03 | BP | LSU24b | - | Trave MEC C14 | LC21-BS.08 | - |
| 0-47 | 2 (A2) | 824 | RI04 | BD | LSU24b | TTA | Trave MEC C17 | LC21-BS.08 | TTA54 |
| 0-48 | 2 (A2) | 824 | RI04 | BP | LSU24b | - | Trave MEC C17 | LC21-BS.08 | - |
| 0-49 | 2 (A2) | 844,5 | RI04 | BD | LSU24b | - | Trave MEC C14 | LC21-BS.08 | - |
| 0-50 | 2 (A2) | 844,5 | RI04 | BP | LSU24b | - | Trave MEC C14 | LC21-BS.08 | - |

*(Nota: nella colonna Fase è indicata tra parentesi la corrispondente fase delle OOCC di SF18)*

# 2 NORMATIVA DI RIFERIMENTO

- UNI EN 197-1 giugno 2001 – “Cemento: composizione, specificazioni e criteri di conformità per cementi comuni”;
- UNI EN 11104 luglio 2016 – “Calcestruzzo: specificazione, prestazione, produzione e conformità”, Istruzioni complementari per l’applicazione delle EN 206-1;
- UNI EN 206-1 ottobre 2006 – “Calcestruzzo: specificazione, prestazione, produzione e conformità”.
- UNI EN 1998-5 (Eurocodice 8) – Gennaio 2005: “Progettazione delle strutture per la resistenza sismica – Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici”;
- UNI EN 1992-1-1 (Eurocodice 2) – Novembre 2005: “Progettazione delle strutture di calcestruzzo – Parte 1:Regole generali e regole per edifici”;
- D. M. Min. II. TT. del 14 gennaio 2008 – Norme tecniche per le costruzioni;
- CIRCOLARE 2 febbraio 2009, n.617 Istruzione per l’applicazione delle «Nuove norme tecniche per le costruzioni» di cui al decreto ministeriale 14 gennaio 2008;
- Linee guida sul calcestruzzo strutturale - Presidenza del Consiglio Superiore dei Lavori Pubblici - Servizio Tecnico Centrale;
- RFI DTC SI PS MA IFS 001 B Manuale di progettazione delle Opere Civili Parte II sezione 2 Ponti e Strutture;
- RFI DTC SI CS MA IFS 001 B Manuale di progettazione delle Opere Civili Parte II Sezione 3 Corpo Stradale.

# 3 DOCUMENTI DI RIFERIMENTO

## 3.1 Elaborati progettuali

- IN1711EI2CLLC2100N01C

# 4 METODO DI CALCOLO

Il metodo di calcolo e di verifica utilizzato è quello degli stati limite (SLU-SLE). I risultati dell'analisi strutturale condotta per le singole condizioni di carico, moltiplicati da opportuni coefficienti e combinati in casi di carico, definiscono le sollecitazioni di calcolo delle membrature da verificare.

Le opere oggetto della presente relazione sono state progettate e calcolate secondo i metodi della scienza delle costruzioni, adottando per le verifiche il criterio degli stati limite (S.L.).

I criteri generali di sicurezza sono stati assunti in conformità con il D.M. 14.01.2008 – “Norme tecniche per le costruzioni” e relativa circolare esplicativa (Circolare 02.02.2009 n. 617/C.S.LL.PP.), nonché alle Istruzioni RFI/DTC/INC/PO/SP/IFS/001/A.

# 5 CARATTERISTICHE DEI MATERIALI

## 5.1 Calcestruzzo

Per il magrone di sottofondazione si prevede l'utilizzo di calcestruzzo di classe Rck 15.

Per la realizzazione dei basamenti si prevede l'utilizzo di calcestruzzo avente classe di resistenza 25/30 (Rck≥30 N/mm$^2$) che presenta le seguenti caratteristiche:

| | |
|---|---|
| Resistenza caratteristica a compressione (cilindrica) | $f_{ck}$ = 0.83× Rck = 24.90 N/mm$^2$ |
| Resistenza media a compressione | $f_{cm} = f_{ck} + 8$ = 32.90 N/mm$^2$ |
| Modulo elastico | $E_{cm}=5700 \cdot \sqrt{R_{ck}}$ = 31220 N/mm$^2$ |
| Resistenza di calcolo a compressione | $f_{cd} = \alpha_{cc} \cdot f_{ck}/\gamma_c = 0.85 \cdot f_{ck}/1.6$= 13.28 N/mm$^2$ |
| Resistenza a trazione media | $f_{ctm} = 0.27 \cdot R_{ck}^{2/3}$ = 2.60 N/mm$^2$ |
| Resistenza a trazione | $f_{ctk} = 0.7 \cdot f_{ctm}$ = 1.79 N/mm$^2$ |
| Resistenza a trazione di calcolo | $f_{ctd} = f_{ctk} / \gamma_c$= 1.12 N/mm$^2$ |

## 5.2 Acciaio per cemento armato

Per le armature metalliche si adottano tondini in acciaio del tipo B450C saldabile, controllato in stabilimento e che presentano le seguenti caratteristiche:

| **Proprietà** | **Requisito** |
|---|---|
| Limite di snervamento $f_y$ | ≥450 MPa |
| Limite di rottura $f_t$ | ≥540 MPa |
| Allungamento totale al carico massimo $A_{gt}$ | ≥7.5% |
| Rapporto $f_t/f_y$ | 1,15 ≤ $R_m/R_e$ ≤ 1,35 |
| Rapporto $f_{y\ misurato}/ f_{ynom}$ | ≤ 1,25 |

| | |
|---|---|
| Tensione di snervamento caratteristica | $f_{yk} \geq$ 450 N/mm$^2$ |
| Tensione caratteristica a rottura | $f_{tk} \geq$ 540 N/mm$^2$ |

## 5.3 Durabilità e prescrizioni sui materiali

Per garantire la durabilità delle strutture in calcestruzzo armato ordinario, esposte all'azione dell'ambiente, si devono adottare i provvedimenti atti a limitare gli effetti di degrado indotti dall'attacco chimico, fisico e derivante dalla corrosione delle armature e dai cicli di gelo e disgelo.

Al fine di ottenere la prestazione richiesta in funzione delle condizioni ambientali, nonché per la definizione della relativa classe, si fa riferimento alle indicazioni contenute nelle Linee Guida sul calcestruzzo strutturale edite dal Servizio Tecnico Centrale del Consiglio Superiore dei Lavori Pubblici ovvero alle norme UNI EN 206-1:2006 ed UNI 11104:2004.

Per le opere della presente relazione si adotta quanto segue:

Fondazione CLASSE DI ESPOSIZIONE XC2

**Copriferro minimo:**

cm 4 per le superfici verticali a contatto con il terreno

cm. 4 (minimo) per le altre superfici (verso l'esterno)

(rif. DITCTE STC/TE 671 foglio 14 di 22 - II 2.2.2. Ricoprimento ferro per fondazioni armate)

# 6 PARAMETRI SISMICI

Si fa riferimento a quanto riportato sulla relazione di calcolo “IN1711EI2CLLC2100N01C”.

Si assumono:

Vita nominale $V_N$ = 50 anni

Classe d’uso della costruzione: III

I corrispondenti valori delle caratteristiche sismiche per lo SLV ($P_{VR}$ = 10%) sono i seguenti:

$a_g$ = 0.182g

$F_0$ = 2.452;

$T^*_c$ = 0.280 s;

Per quanto riguarda il sottosuolo su cui insiste l’opera, si assume che ricada in categoria sismica “C” e categoria topografica “T1”. I coefficienti di amplificazione stratigrafica e topografica risultano quindi:

$S_S$ = 1.432

$S_T$ = 1.0

L’accelerazione massima orizzontale viene valutata pari a:

$a_{max}$ (SLV) = S $a_g$ = 1.432 × 1.00 × 0.182 g = 0.261 g

da cui si ottiene:

$k_h$ = 0.261 g

$k_v$ = ± 0.131 g

# 7 PARAMETRI GEOTECNICI

Le fondazioni sono posate su rilevati per il quale, in accordo al MdP, si assumono i seguenti parametri di resistenza:

$ø'_k = 38°$

$\gamma = 20\ kN/m^3$

Il livello di falda non interferisce con le opere in oggetto.

# 8 CRITERI DI VERIFICA GLOBALE

## 8.1 Verifica a ribaltamento

La verifica a ribaltamento consiste nel determinare il momento risultante di tutte le forze che tendono a fare ribaltare il muro (momento ribaltante Ed) ed il momento risultante di tutte le forze che tendono a stabilizzare il muro (momento stabilizzante Rd) rispetto al punto di rotazione e verificare che il rapporto Rd/Ed sia maggiore di 1.

$$Rd/Ed \geq 1$$

L'azione ribaltante è dovuta ai carichi derivanti dalla struttura metallica e dall'azione inerziale in presenza di sisma, mentre il contributo stabilizzante dal peso del basamento e dall'azione verticale della sovrastruttura.
Si trascura il contributo stabilizzante del terreno laterale, considerando pertanto l'opera a gravità.

## 8.2 Verifica a scorrimento

Per la verifica a scorrimento deve risultare che la somma di tutte le forze parallele al piano di posa che tendono a fare scorrere il muro deve essere minore di tutte le forze, parallele al piano di scorrimento, che si oppongono allo scivolamento, ridotte globalmente di un certo coefficiente di sicurezza $\gamma_R$ funzione dell'approccio utilizzato.
La verifica a scorrimento risulta soddisfatta se il rapporto fra la risultante delle forze resistenti allo scivolamento Rd e la risultante delle forze che tendono a fare scorrere il muro Ed risulta maggiore di 1.
Deve quindi essere verificata la seguente diseguaglianza

$$Rd/Ed \geq 1$$

L'azione agente è dovuta ai carichi derivanti dalla struttura metallica e dall'azione inerziale in presenza di sisma, mentre il contributo resistente dall'attrito alla base del basamento funzione del proprio peso e dell'azione verticale della sovrastruttura.
Si trascura il contributo stabilizzante del terreno laterale, considerando pertanto l'opera a gravità.
L'adesione alla base è sempre posta pari a zero.
Nella definizione di Ed ed Rd concorrono inoltre i fattori parziali di sicurezza sulle azioni e sui parametri geotecnici funzione dell'approccio utilizzato.
In particolare si assume l'approccio 2 (A1+M1+R3) secondo i coefficienti riportati in NTC2008.

## 8.3 Verifica a carico limite

Il rapporto fra il carico ultimo in fondazione e la risultante dei carichi indotta dal muro sul terreno di fondazione deve essere superiore ad 1. Detto Ed il carico gravante in fondazione e Rd il carico ultimo in fondazione, ridotto globalmente di un certo coefficiente di sicurezza $\gamma_R$ funzione dell'approccio utilizzato, deve risultare:

$$Rd/Ed \geq 1$$

Nella definizione di Ed ed Rd concorrono inoltre i fattori parziali di sicurezza sulle azioni e sui parametri geotecnici funzione dell'approccio utilizzato.
In particolare si assume l'approccio 2 (A1+M1+R3) secondo i coefficienti riportati in NTC2008.
Si trascura il contributo stabilizzante del terreno laterale, considerando pertanto l'opera a gravità.

Per quanto riguarda la determinazione del carico ultimo in fondazione Rd si fa riferimento alla formula di Brinch-Hansen secondo le formulazioni riportate nell' Eurocodice 7 EB 1997-1:2003 App.D.

$$q_{ult} = c \cdot N_c \cdot s_c \cdot d_c \cdot i_c \cdot g_c \cdot b_c + q \cdot N_q \cdot s_q \cdot d_q \cdot i_q \cdot g_q \cdot b_q + 0.5 \cdot B \cdot \gamma \cdot N_\gamma \cdot s_\gamma \cdot d_\gamma \cdot i_\gamma \cdot g_\gamma \cdot b_\gamma$$

in cui $N_c$ , $N_q$ , $N_\gamma$ sono i fattori di capacità portante, $d_c$, $d_q$ e $d_\gamma$ sono i fattori di profondità, $s_c$ , $s_q$ e $s_\gamma$ sono i fattori di forma, $i_c$, $i_q$ e $i_\gamma$ sono i fattori di inclinazione del carico, $b_c$, $b_q$ e $b_\gamma$, sono i fattori di inclinazione del piano di posa e $g_c$, $g_q$ e $g_\gamma$ sono fattori che tengono conto del fatto che la fondazione poggi su un terreno in pendenza. Di seguito si riportano le formulazioni assunte (stralcio di EC7).

the bearing resistance:
$N_q = e^{\pi \tan\varphi'} \tan^2(45 + \varphi'/2)$
$N_c = (N_q - 1)\cot\varphi'$
$N_\gamma = 2(N_q - 1)\tan\varphi'$, where $\delta \geq \varphi'/2$ (rough base)

the inclination of the foundation base:
$b_c = b_q - (1 - b_q)/N_c \times \tan\varphi'$
$b_q = b_\gamma = (1 - \alpha \cdot \tan\varphi')^2$

the shape of foundation:
$s_q = 1 + (B'/L')\sin\varphi'$, for a rectangular shape;
$s_q = 1 + \sin\varphi'$, for a square or circular shape;

$s_\gamma = 1 - 0{,}3\,(B'/L')$, for a rectangular shape;
$s_\gamma = 0{,}7$, for a square or circular shape

$s_c = (s_q \cdot N_q - 1)/(N_q - 1)$ for rectangular, square or circular shape;

the inclination of the load, caused by a horizontal load $H$:
$i_c = i_q - (1 - i_q)/N_c \cdot \tan\varphi'$;
$i_q = [1 - H/(V + A'c'\cot\varphi')]^m$;
$i_\gamma = [1 - H/(V + A'c'\cot\varphi')]^{m+1}$.

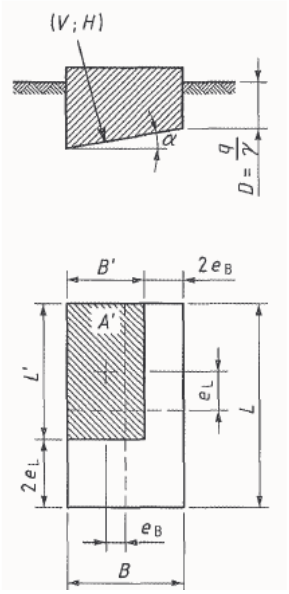
where:

$m = m_B = [2 + (B'/L')]/[1 + (B'/L')]$ when $H$ acts in the direction of $B'$;

$m = m_L = [2 + (L'/B')]/[1 + (L'/B')]$ when $H$ acts in the direction of $L'$.

In cases where the horizontal load component acts in a direction forming an angle $\theta$ with the direction of $L'$, $m$ may be calculated by:

$$m = m_\theta = m_L \cos^2\theta + m_B \sin^2\theta.$$



# 9 CRITERI DI VERIFICA STRUTTURALE

Le verifiche sono condotte secondo il metodo agli stati limite in accordo alle formulazioni riportate nel capitolo 4 di NTC 2008.

# 10 CRITERI DI CALCOLO DELLE SPINTE

Di seguito si riportano i criteri generali per il calcolo delle spinte laterali.

**Spinte attive in condizioni statiche**

Ad una generica profondità z, nel caso di terreno puramente granulare, lo sforzo orizzontale totale sulla parete è dato da:

$$\sigma_A(z) = K_A \cdot [\sigma_v(z) - u(z)] + u(z)$$

in cui

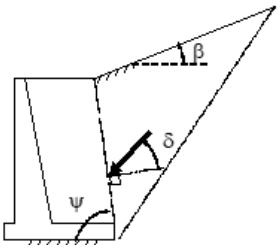
$\sigma_v(z)$ = sforzo verticale totale alla generica profondità, ossia il peso della colonna di terreno e di acqua soprastante la quota z.

$u(z)$ = pressione dell'acqua alla generica profondità

Il coefficiente di spinta attiva $K_A$ viene valutato con le note formule derivate dalla teoria di Coulomb e sviluppate da Muller-Breslau.

CONDIZIONI DI SPINTA ATTIVA
Teoria di Coulomb

$$K_A = \frac{sen^2(\psi + \phi)}{sen^2\psi\, sen(\psi - \delta)\left[1 + \sqrt{\frac{sen(\phi + \delta)sen(\phi - \beta)}{sen(\psi - \delta)sen(\psi + \beta)}}\right]^2}$$




**Spinte passive in condizioni statiche**

Ad una generica profondità z, nel caso di terreno puramente granulare, lo sforzo orizzontale totale sulla parete è dato da:

$$\sigma_P(z) = K_P \cdot [\sigma_v(z) - u(z)] + u(z)$$

in cui

$\sigma_v(z)$ = sforzo verticale totale alla generica profondità, ossia il peso della colonna di terreno e di acqua soprastante la quota z.

$u(z)$ = pressione dell'acqua alla generica profondità

Il coefficiente di spinta passiva $K_p$ viene valutato con la formula di Lancellotta (2006) considerando tan$\theta$ pari a 0.

$$K_{P,E} = \left[\frac{\cos\delta}{\cos(\beta - \theta) - \sqrt{\sin^2\phi - \sin^2(\beta - \theta)}} \times \left(\cos\delta + \sqrt{\sin^2\phi - \sin^2\delta}\right)\right] \cdot e^{2\alpha\tan(\phi)}$$

$$2\alpha = \arcsin\left(\frac{\sin\delta}{\sin\phi}\right) + \arcsin\left(\frac{\sin(\beta - \theta)}{\sin\phi}\right) + \delta + (\beta - \theta) + 2\theta$$

**Spinte attive in condizioni sismiche**

Nell'ambito dell'approccio psudo-statico, il sistema è pensato soggetto ad un'accelerazione sismica uniforme avente le seguenti componenti

Orizzontale = kh·g - Verticale = ±kv·g

La spinta totale attiva su un paramento di altezza pari ad H è data da:

$$E_d = \tfrac{1}{2}\gamma^*(1 \pm k_v)K_{A,E}H^2 + E_{ws} + E_{wd}$$

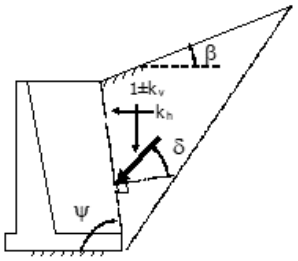
Il primo termine è la spinta attiva dovuta allo scheletro solido, il secondo termine Ews è la risultante delle pressioni idrostatiche ed il terzo Ewd è la risultante delle sovrappressioni interstiziali.

I coefficienti di spinta attiva sono dati dalle seguenti espressioni (Mononobe & Okabe, nel seguito M-O):

CONDIZIONI DI SPINTA ATTIVA – Teoria di M-O

$$\beta \le \phi - \theta: \qquad K_{A,E} = \frac{sen^2(\psi + \phi - \theta)}{\cos\theta\, sen^2\psi\, sen(\psi - \theta - \delta)\left[1 + \sqrt{\frac{sen(\phi + \delta)sen(\phi - \beta - \theta)}{sen(\psi - \theta - \delta)sen(\psi + \beta)}}\right]^2}$$

$$\beta > \phi - \theta: \qquad K_{A,E} = \frac{\text{sen}^2(\psi + \phi - \theta)}{\cos\theta\,\text{sen}^2\psi\,\text{sen}(\psi - \theta - \delta)}$$




A seconda della definizione del peso specifico $\gamma^*$ del cuneo e dell'angolo $\theta$ definito come l'angolo, rispetto alla verticale, fra le azioni esterne orizzontali e quelle verticali agenti sul cuneo di spinta di volume V, l'espressione generale può essere utilizzata per tre diverse condizioni nelle quali può trovarsi il rilevato.

*Rilevato asciutto*

Non c'è alcuna azione dovuta all'acqua: corrisponde alla configurazione originale ipotizzata da M-O. Come peso specifico $\gamma^*$ si deve assumere il peso secco $\gamma$d; la forza orizzontale Fh è pari alla massa del terreno moltiplicata per l'accelerazione orizzontale mentre la forza verticale Fv è il peso del cuneo incrementato o decrementato dall'accelerazione sismica verticale; quindi:

$\gamma^* = \gamma_d$

$$\tan\theta = \frac{k_h}{1 \pm k_v}$$

Ews = Ewd=0

*Rilevato saturo a grana fine (dinamicamente impervio: k<5·10$^{-4}$ m/s)*

In sostanza si assume che l'acqua, imprigionata negli interstizi, si muova insieme con il terreno: l'accelerazione sismica agirà quindi sulla massa complessiva (terreno+acqua) del cuneo, pari a V· $\gamma_{sat}$. Si ammette che le pressioni interstiziali non subiscano variazioni ai fini del calcolo delle azioni sulla parete. In questo caso l'equilibrio limite del cuneo è fatto al netto della risultante delle azioni idrostatiche e quindi, nelle formule generali, si assumerà:

$\gamma^* = \gamma'$

$$\tan\theta = \frac{\gamma_{sat}}{\gamma'}\frac{k_h}{1 \pm k_v}$$

Alla spinta efficace dovrà essere aggiunta la spinta idrostatica dell'acqua, mentre, per ipotesi, la componente idrodinamica non può svilupparsi. Quindi:

Ews = Ewd=0

*Rilevato saturo a grana grossa (dinamicamente permeabile: $k>5\cdot10^{-4}$ m/s)*

Si ammette che l'acqua negli interstizi possa muoversi liberamente, indipendentemente dalle deformazioni subite dal terreno: l'accelerazione sismica agirà quindi sulla massa della sola parte solida del cuneo, pari a V· $\gamma$d. L'equilibrio limite del cuneo è fatto al netto della risultante delle pressioni interstiziali e quindi, nelle formule generali, si assumerà:

$\gamma^* = \gamma'$

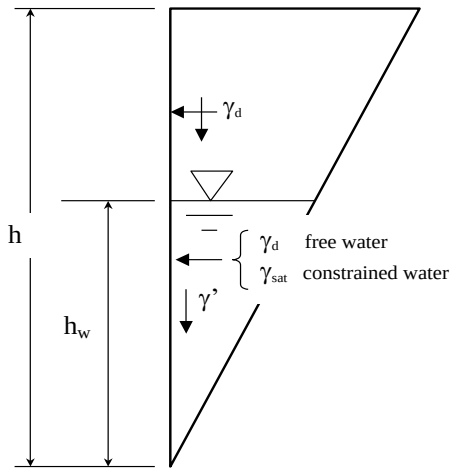
$$\tan\theta = \frac{\gamma_d}{\gamma'}\frac{k_h}{1 \pm k_v}$$

In questo caso dovranno essere aggiunte sia la spinta idrostatica sia la sovraspinta idrodinamica della stessa acqua di falda.

Ews = $\frac{1}{2}\gamma_w H^2$

Ewd = $\frac{7}{12}k_h\gamma_w H'^2$ con H' = altezza della freatica dal piede del muro.

*Rilevato parzialmente immerso*




Ebeling e Morrison (1992) indicano il modo per utilizzare, anche in questo caso, le equazioni di M-O: sostanzialmente questo caso può essere assimilato a quello di un terrapieno completamente immerso omogeneo, avente un peso specifico equivalente. Per calcolare la risultante delle spinte, si potrà operare come segue. Si definiscono i pesi specifici medi da associare rispettivamente alla componente efficace verticale ed alla componente laterale

$$\gamma_V^* = \left(\frac{h_w}{h}\right)^2 \cdot \gamma' + \left[1 - \left(\frac{h_w}{h}\right)^2\right] \cdot \gamma_d$$

$$\gamma_H^* = \begin{cases} \gamma_d & \text{se terreno din. permeabile} \\ \left(\frac{h_w}{h}\right)^2 \cdot \gamma_{sat} + \left[1 - \left(\frac{h_w}{h}\right)^2\right] \cdot \gamma_d & \text{se terreno din. impervio} \end{cases}$$

Definendo

$$\tan\theta = \frac{\gamma_H^*}{\gamma_V^*} \frac{k_h}{1 - k_v}$$

si applicheranno poi le relazioni precedentemente descritte.

Punto di applicazione delle spinte attive sismiche

Considerato che la spinta attiva complessiva è in generale composta da tre termini, occorre calcolare il punto di applicazione di ognuno di essi

1. Componente associata allo scheletro solido: è applicata come nel caso statico
2. Componente idrostatica: è applicata come nel caso statico
3. Componente idrodinamica (Ewd): se esiste, è applicata considerando la seguente distribuzione di pressioni:

   qwd(z)= $\pm \frac{7}{8} k_h \gamma_w \sqrt{H' \cdot z}$ con z quota del generico punto rispetto la base della parete.

**Spinte passive in condizioni sismiche**

Si applicano in analogia le formulazioni descritte nel caso di spinta attiva.

Il coefficiente di spinta passiva è con la formula di Lancellotta (2006).

$$K_{P,E} = \left[\frac{\cos\delta}{\cos(\beta - \theta) - \sqrt{\sin^2\phi - \sin^2(\beta - \theta)}} \times \left(\cos\delta + \sqrt{\sin^2\phi - \sin^2\delta}\right)\right] \cdot e^{2\alpha\tan(\phi)}$$

$$2\alpha = \arcsin\left(\frac{\sin\delta}{\sin\phi}\right) + \arcsin\left(\frac{\sin(\beta - \theta)}{\sin\phi}\right) + \delta + (\beta - \theta) + 2\theta$$

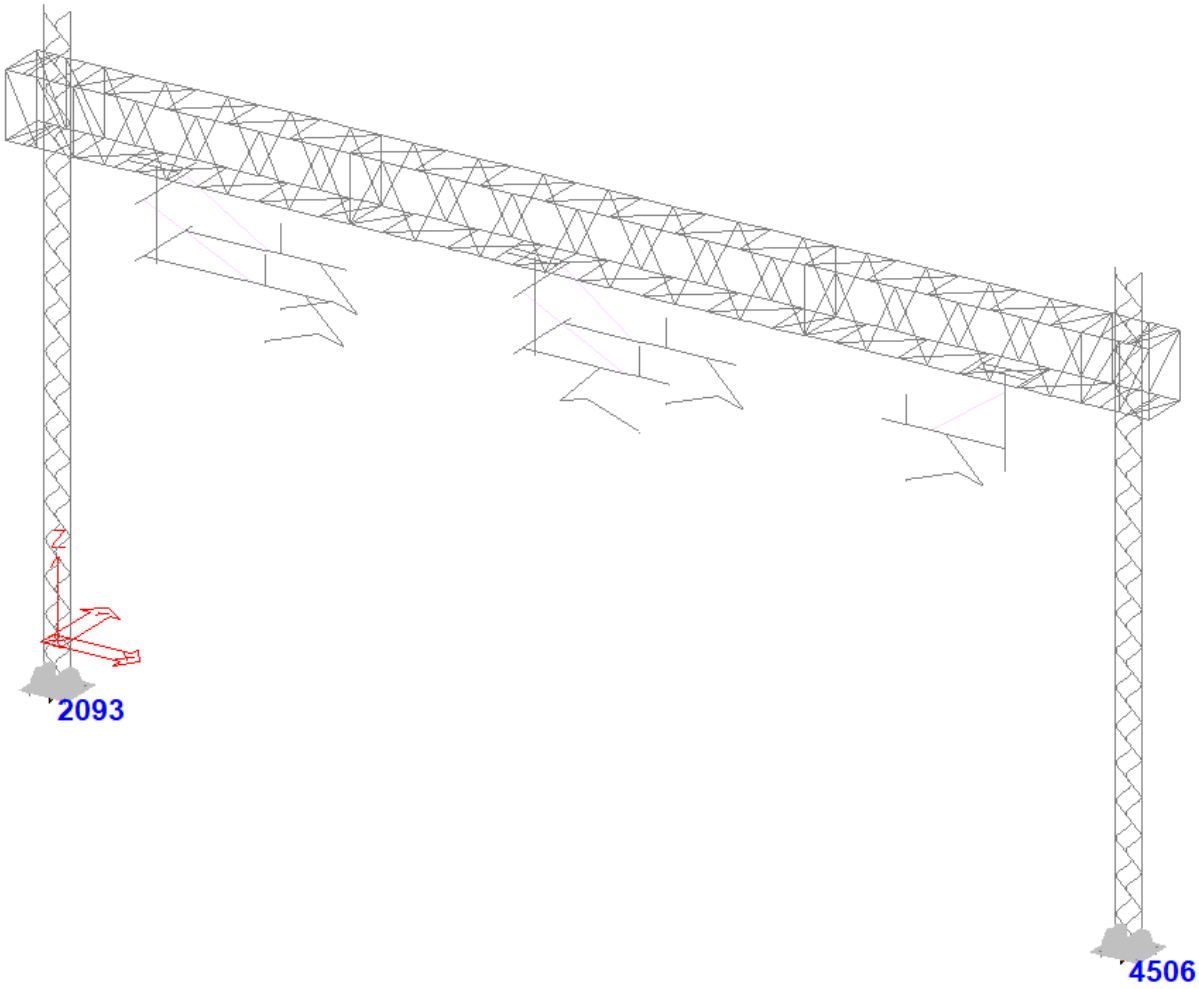
NOTE:

- Nell'ambito dell'approccio 2 la spinta passiva è ridotta del coefficiente parziale $\gamma_R$ = 1.4 (R3)

# 11 SCARICHI A TESTA BASAMENTO

Gli scarichi a testa basamento sono desunti dal documento “IN1711EI2CLLC2100N01C” citato tra i riferimenti.

**LC1**




Unità di misura: [kN], [m]

**Combinazioni statiche**

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_1 | 38.5035 | 2.6438 | 4.0309 | 21.61 | 21.76 |
| 2093_2 | 29.584 | 2.0335 | 3.878 | 16.64 | 19.44 |
| 2093_3 | 38.5345 | 2.6433 | 4.8061 | 21.65 | 26.12 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_4 | 29.6151 | 2.033 | 4.6531 | 16.68 | 23.8 |
| 2093_5 | 47.214 | 12.3719 | 1.8929 | 89.81 | 15.46 |
| 2093_6 | 38.2946 | 11.7616 | 1.7399 | 84.84 | 13.14 |
| 2093_7 | 42.9339 | 18.8598 | 2.4297 | 135.4 | 17.04 |
| 2093_8 | 34.0144 | 18.2495 | 2.2767 | 130.4 | 14.72 |
| 2093_9 | 42.8694 | 12.3731 | 2.7715 | 89.84 | 17.56 |
| 2093_10 | 33.95 | 11.7628 | 2.6185 | 84.87 | 15.23 |
| 2093_11 | 42.8999 | 12.3728 | 3.069 | 89.87 | 19.71 |
| 2093_12 | 33.9805 | 11.7625 | 2.916 | 84.9 | 17.39 |
| 2093_13 | 41.6413 | 2.5936 | 19.5705 | 21.24 | 85.52 |
| 2093_14 | 32.7218 | 1.9833 | 19.4175 | 16.26 | 83.2 |
| 2093_15 | 33.6459 | 2.5627 | 31.8924 | 21.07 | 133.8 |
| 2093_16 | 24.7265 | 1.9524 | 31.7394 | 16.1 | 131.5 |
| 2093_17 | 37.2966 | 2.5948 | 20.4491 | 21.26 | 87.61 |
| 2093_18 | 28.3772 | 1.9845 | 20.2961 | 16.29 | 85.29 |
| 2093_19 | 37.3272 | 2.5945 | 20.7466 | 21.29 | 89.77 |
| 2093_20 | 28.4077 | 1.9842 | 20.5936 | 16.32 | 87.45 |
| 2093_21 | 38.6186 | 18.8612 | 2.4914 | 135.4 | 16.13 |
| 2093_22 | 29.6991 | 18.2509 | 2.3384 | 130.4 | 13.81 |
| 2093_23 | 38.5541 | 12.3745 | 2.8332 | 89.85 | 16.65 |
| 2093_24 | 29.6347 | 11.7642 | 2.6802 | 84.88 | 14.32 |
| 2093_25 | 38.5843 | 12.3743 | 2.8123 | 89.86 | 17.33 |
| 2093_26 | 29.6649 | 11.764 | 2.6593 | 84.89 | 15 |
| 2093_27 | 31.2787 | 2.611 | 24.8257 | 21.36 | 102.2 |
| 2093_28 | 22.3593 | 2.0007 | 24.6727 | 16.39 | 99.92 |
| 2093_29 | 34.1502 | 2.6243 | 16.2338 | 21.44 | 68.32 |
| 2093_30 | 25.2308 | 2.0141 | 16.0808 | 16.47 | 65.99 |
| 2093_31 | 34.1804 | 2.6242 | 16.2129 | 21.45 | 69 |
| 2093_32 | 25.261 | 2.0139 | 16.0599 | 16.48 | 66.67 |
| 2093_33 | 38.802 | 2.6438 | 0.6382 | 21.61 | 13.84 |
| 2093_34 | 29.8825 | 2.0335 | 0.4852 | 16.64 | 11.52 |
| 2093_35 | 38.7733 | 2.6433 | 2.0919 | 21.65 | 19.79 |
| 2093_36 | 29.8539 | 2.033 | 1.9389 | 16.68 | 17.47 |
| 2093_37 | 47.349 | 7.0883 | 0.8138 | 46.77 | 8.306 |
| 2093_38 | 38.4296 | 7.6986 | 0.9668 | 51.74 | 5.983 |
| 2093_39 | 42.9996 | 13.5739 | 0.272 | 92.27 | 9.331 |
| 2093_40 | 34.0802 | 14.1842 | 0.425 | 97.24 | 7.008 |
| 2093_41 | 43.0641 | 7.0871 | 0.6138 | 46.74 | 8.814 |
| 2093_42 | 34.1446 | 7.6974 | 0.7668 | 51.71 | 6.492 |
| 2093_43 | 43.0349 | 7.0874 | 0.3623 | 46.71 | 12.55 |
| 2093_44 | 34.1155 | 7.6977 | 0.2093 | 51.69 | 10.23 |
| 2093_45 | 52.9218 | 2.69 | 18.4914 | 21.81 | 61.75 |
| 2093_46 | 44.0024 | 2.0797 | 18.6444 | 16.84 | 64.08 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_47 | 52.2876 | 2.7232 | 29.7347 | 22.03 | 107.4 |
| 2093_48 | 43.3682 | 2.1129 | 29.8876 | 17.06 | 109.8 |
| 2093_49 | 48.6369 | 2.6911 | 18.2914 | 21.84 | 61.24 |
| 2093_50 | 39.7174 | 2.0808 | 18.4444 | 16.87 | 63.57 |
| 2093_51 | 48.6077 | 2.6908 | 17.3153 | 21.86 | 57.51 |
| 2093_52 | 39.6883 | 2.0805 | 17.4683 | 16.89 | 59.83 |
| 2093_53 | 38.6843 | 13.5725 | 0.2103 | 92.26 | 8.421 |
| 2093_54 | 29.7649 | 14.1828 | 0.3633 | 97.23 | 6.098 |
| 2093_55 | 38.7488 | 7.0857 | 0.5521 | 46.73 | 7.905 |
| 2093_56 | 29.8294 | 7.696 | 0.7051 | 51.7 | 5.582 |
| 2093_57 | 38.7193 | 7.0859 | 0.1056 | 46.72 | 10.17 |
| 2093_58 | 29.7998 | 7.6962 | 0.0474 | 51.69 | 7.847 |
| 2093_59 | 46.0242 | 2.6777 | 22.5447 | 21.76 | 77.7 |
| 2093_60 | 37.1047 | 2.0674 | 22.6976 | 16.79 | 80.02 |
| 2093_61 | 43.1527 | 2.6644 | 13.9527 | 21.68 | 43.77 |
| 2093_62 | 34.2332 | 2.0541 | 14.1057 | 16.71 | 46.09 |
| 2093_63 | 43.1232 | 2.6642 | 13.295 | 21.69 | 41.5 |
| 2093_64 | 34.2037 | 2.0539 | 13.448 | 16.72 | 43.82 |
| 2093_65 | 38.5286 | 2.6459 | 0.766 | 21.43 | 0.00034 |
| 2093_66 | 29.6091 | 2.0356 | 0.919 | 16.46 | 1.982 |
| 2093_67 | 38.4999 | 2.6453 | 0.6877 | 21.47 | 6.288 |
| 2093_68 | 29.5805 | 2.0351 | 0.5347 | 16.5 | 3.966 |
| 2093_69 | 38.7674 | 2.6459 | 3.4802 | 21.43 | 5.992 |
| 2093_70 | 29.8479 | 2.0356 | 3.6332 | 16.46 | 8.315 |
| 2093_71 | 38.7984 | 2.6454 | 2.7051 | 21.47 | 1.627 |
| 2093_72 | 29.879 | 2.0351 | 2.8581 | 16.5 | 3.95 |
| 2093_73 | 30.528 | 2.034 | 0.3622 | 16.59 | 7.397 |
| 2093_74 | 32.5572 | 2.2369 | 3.929 | 18.29 | 20.21 |
| 2093_75 | 26.6109 | 1.8301 | 3.827 | 14.98 | 18.66 |
| 2093_76 | 32.5882 | 2.2364 | 4.7041 | 18.34 | 24.57 |
| 2093_77 | 26.6419 | 1.8296 | 4.6021 | 15.02 | 23.03 |
| 2093_78 | 41.2677 | 11.965 | 1.7909 | 86.5 | 13.92 |
| 2093_79 | 35.3214 | 11.5582 | 1.6889 | 83.19 | 12.37 |
| 2093_80 | 36.9876 | 18.453 | 2.3277 | 132.1 | 15.49 |
| 2093_81 | 31.0413 | 18.0461 | 2.2257 | 128.7 | 13.94 |
| 2093_82 | 36.9231 | 11.9662 | 2.6695 | 86.53 | 16.01 |
| 2093_83 | 30.9768 | 11.5594 | 2.5675 | 83.21 | 14.46 |
| 2093_84 | 36.9536 | 11.9659 | 2.967 | 86.55 | 18.16 |
| 2093_85 | 31.0073 | 11.5591 | 2.865 | 83.24 | 16.61 |
| 2093_86 | 35.695 | 2.1868 | 19.4685 | 17.92 | 83.97 |
| 2093_87 | 29.7487 | 1.7799 | 19.3665 | 14.61 | 82.43 |
| 2093_88 | 27.6996 | 2.1558 | 31.7904 | 17.76 | 132.3 |
| 2093_89 | 21.7533 | 1.749 | 31.6884 | 14.44 | 130.7 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_90 | 31.3503 | 2.1879 | 20.3471 | 17.95 | 86.07 |
| 2093_91 | 25.404 | 1.7811 | 20.2451 | 14.63 | 84.52 |
| 2093_92 | 31.3809 | 2.1877 | 20.6446 | 17.97 | 88.22 |
| 2093_93 | 25.4346 | 1.7808 | 20.5426 | 14.66 | 86.67 |
| 2093_94 | 32.6723 | 18.4544 | 2.3894 | 132.1 | 14.58 |
| 2093_95 | 26.726 | 18.0475 | 2.2874 | 128.7 | 13.03 |
| 2093_96 | 32.6078 | 11.9676 | 2.7312 | 86.54 | 15.1 |
| 2093_97 | 26.6615 | 11.5608 | 2.6292 | 83.22 | 13.55 |
| 2093_98 | 32.638 | 11.9675 | 2.7103 | 86.55 | 15.78 |
| 2093_99 | 26.6917 | 11.5606 | 2.6083 | 83.24 | 14.23 |
| 2093_100 | 25.3324 | 2.2042 | 24.7237 | 18.04 | 100.7 |
| 2093_101 | 19.3861 | 1.7973 | 24.6217 | 14.73 | 99.15 |
| 2093_102 | 28.2039 | 2.2175 | 16.1318 | 18.13 | 66.77 |
| 2093_103 | 22.2576 | 1.8106 | 16.0298 | 14.81 | 65.22 |
| 2093_104 | 28.2341 | 2.2173 | 16.1109 | 18.14 | 67.45 |
| 2093_105 | 22.2878 | 1.8105 | 16.0089 | 14.82 | 65.9 |
| 2093_106 | 32.8557 | 2.237 | 0.5362 | 18.29 | 12.29 |
| 2093_107 | 26.9094 | 1.8301 | 0.4342 | 14.98 | 10.75 |
| 2093_108 | 32.827 | 2.2364 | 1.9899 | 18.34 | 18.24 |
| 2093_109 | 26.8807 | 1.8296 | 1.8879 | 15.02 | 16.69 |
| 2093_110 | 41.4027 | 7.4952 | 0.9158 | 50.08 | 6.757 |
| 2093_111 | 35.4564 | 7.902 | 1.0178 | 53.4 | 5.209 |
| 2093_112 | 37.0533 | 13.9807 | 0.374 | 95.58 | 7.782 |
| 2093_113 | 31.107 | 14.3876 | 0.476 | 98.9 | 6.234 |
| 2093_114 | 37.1178 | 7.494 | 0.7158 | 50.05 | 7.266 |
| 2093_115 | 31.1715 | 7.9009 | 0.8178 | 53.37 | 5.717 |
| 2093_116 | 37.0886 | 7.4943 | 0.2603 | 50.03 | 11 |
| 2093_117 | 31.1423 | 7.9012 | 0.1583 | 53.34 | 9.455 |
| 2093_118 | 46.9755 | 2.2831 | 18.5934 | 18.5 | 63.3 |
| 2093_119 | 41.0292 | 1.8762 | 18.6954 | 15.18 | 64.85 |
| 2093_120 | 46.3413 | 2.3164 | 29.8366 | 18.72 | 109 |
| 2093_121 | 40.395 | 1.9095 | 29.9386 | 15.4 | 110.5 |
| 2093_122 | 42.6906 | 2.2843 | 18.3934 | 18.53 | 62.79 |
| 2093_123 | 36.7443 | 1.8774 | 18.4954 | 15.21 | 64.34 |
| 2093_124 | 42.6614 | 2.284 | 17.4173 | 18.55 | 59.05 |
| 2093_125 | 36.7151 | 1.8771 | 17.5193 | 15.24 | 60.6 |
| 2093_126 | 32.738 | 13.9793 | 0.3123 | 95.57 | 6.873 |
| 2093_127 | 26.7917 | 14.3862 | 0.4143 | 98.89 | 5.324 |
| 2093_128 | 32.8025 | 7.4926 | 0.6541 | 50.05 | 6.356 |
| 2093_129 | 26.8562 | 7.8995 | 0.7561 | 53.36 | 4.808 |
| 2093_130 | 32.773 | 7.4928 | 0.0036 | 50.03 | 8.621 |
| 2093_131 | 26.8267 | 7.8996 | 0.0984 | 53.35 | 7.072 |
| 2093_132 | 40.0779 | 2.2709 | 22.6466 | 18.45 | 79.24 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_133 | 34.1316 | 1.864 | 22.7486 | 15.13 | 80.79 |
| 2093_134 | 37.2064 | 2.2575 | 14.0547 | 18.37 | 45.31 |
| 2093_135 | 31.2601 | 1.8507 | 14.1567 | 15.05 | 46.86 |
| 2093_136 | 37.1769 | 2.2574 | 13.397 | 18.38 | 43.05 |
| 2093_137 | 31.2306 | 1.8505 | 13.499 | 15.06 | 44.6 |
| 2093_138 | 32.5823 | 2.239 | 0.868 | 18.12 | 1.208 |
| 2093_139 | 26.636 | 1.8321 | 0.97 | 14.8 | 2.757 |
| 2093_140 | 32.5536 | 2.2385 | 0.5857 | 18.16 | 4.74 |
| 2093_141 | 26.6073 | 1.8316 | 0.4837 | 14.85 | 3.191 |
| 2093_142 | 32.8211 | 2.239 | 3.5822 | 18.12 | 7.541 |
| 2093_143 | 26.8748 | 1.8322 | 3.6842 | 14.8 | 9.089 |
| 2093_144 | 32.8521 | 2.2385 | 2.8071 | 18.16 | 3.176 |
| 2093_145 | 26.9058 | 1.8317 | 2.9091 | 14.85 | 4.724 |
| 2093_146 | 29.7315 | 2.0343 | 0.5099 | 16.57 | 7.743 |
| 2093_147 | 29.632 | 2.0343 | 1.6409 | 16.57 | 10.38 |
| 2093_148 | 29.6332 | 2.0338 | 2.7553 | 16.61 | 15.54 |
| 2093_149 | 29.6539 | 2.0334 | 3.272 | 16.64 | 18.45 |
| 2093_150 | 28.8286 | 2.0011 | 13.7007 | 16.38 | 59.44 |
| 2093_151 | 26.3948 | 1.9797 | 21.3296 | 16.26 | 90.23 |
| 2093_152 | 28.849 | 2.0009 | 13.8991 | 16.4 | 60.88 |
| 2093_153 | 31.725 | 2.0003 | 13.115 | 16.37 | 58.05 |
| 2093_154 | 32.5438 | 8.52 | 1.9156 | 62.1 | 12.74 |
| 2093_155 | 32.5868 | 12.8445 | 1.6878 | 92.46 | 12.39 |
| 2093_156 | 32.5642 | 8.5198 | 2.114 | 62.12 | 14.17 |
| 2093_157 | 35.4402 | 8.5192 | 1.3299 | 62.09 | 11.34 |
| 2093_158 | 26.731 | 2.0208 | 10.8905 | 16.5 | 46.58 |
| 2093_159 | 24.8167 | 2.0119 | 16.6185 | 16.45 | 69.2 |
| 2093_160 | 26.7511 | 2.0207 | 10.8766 | 16.51 | 47.03 |
| 2093_161 | 29.6669 | 8.5209 | 1.9568 | 62.11 | 12.13 |
| 2093_162 | 29.7099 | 12.8454 | 1.7289 | 92.46 | 11.79 |
| 2093_163 | 29.6871 | 8.5208 | 1.9429 | 62.12 | 12.58 |
| 2093_164 | 29.831 | 2.0343 | 0.621 | 16.57 | 5.104 |
| 2093_165 | 29.8322 | 2.0338 | 0.4934 | 16.61 | 10.26 |
| 2093_166 | 29.8131 | 2.0334 | 1.4626 | 16.64 | 14.23 |
| 2093_167 | 36.3888 | 2.0653 | 12.1263 | 16.77 | 39.8 |
| 2093_168 | 38.8226 | 2.0867 | 19.7551 | 16.9 | 70.59 |
| 2093_169 | 36.3693 | 2.0651 | 11.4755 | 16.79 | 37.31 |
| 2093_170 | 39.2454 | 2.0645 | 12.2596 | 16.75 | 40.14 |
| 2093_171 | 32.6736 | 4.4535 | 0.3412 | 28.95 | 6.909 |
| 2093_172 | 32.6306 | 8.778 | 0.1133 | 59.3 | 7.253 |
| 2093_173 | 32.6541 | 4.4537 | 0.3095 | 28.93 | 9.401 |
| 2093_174 | 35.5302 | 4.4543 | 0.4745 | 28.97 | 6.569 |
| 2093_175 | 32.7327 | 2.0475 | 9.2338 | 16.66 | 28.14 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_176 | 34.647 | 2.0564 | 14.9618 | 16.72 | 50.76 |
| 2093_177 | 32.713 | 2.0474 | 8.7954 | 16.67 | 26.63 |
| 2093_178 | 29.7967 | 4.4526 | 0.3001 | 28.95 | 6.302 |
| 2093_179 | 29.7538 | 8.7771 | 0.0722 | 59.3 | 6.646 |
| 2093_180 | 29.7771 | 4.4527 | 0.1384 | 28.94 | 7.812 |
| 4506_1 | 39.7791 | 0.0693 | 7.512 | 3.603 | 22.34 |
| 4506_2 | 30.6335 | 0.0535 | 5.7833 | 2.756 | 16.31 |
| 4506_3 | 39.7484 | 0.0699 | 6.0555 | 3.559 | 16.38 |
| 4506_4 | 30.6028 | 0.0541 | 4.3267 | 2.712 | 10.35 |
| 4506_5 | 48.6013 | 9.7373 | 8.9733 | 71.17 | 27.87 |
| 4506_6 | 39.4557 | 9.7215 | 7.2445 | 70.33 | 21.84 |
| 4506_7 | 44.1164 | 16.1804 | 8.4363 | 116.7 | 26.87 |
| 4506_8 | 34.9708 | 16.1646 | 6.7075 | 115.8 | 20.83 |
| 4506_9 | 44.18 | 9.7363 | 8.7732 | 71.37 | 27.37 |
| 4506_10 | 35.0344 | 9.7204 | 7.0444 | 70.53 | 21.34 |
| 4506_11 | 44.1497 | 9.7366 | 7.7955 | 71.35 | 23.63 |
| 4506_12 | 35.0041 | 9.7208 | 6.0667 | 70.5 | 17.6 |
| 4506_13 | 54.1735 | 0.1189 | 26.5476 | 3.52 | 97.68 |
| 4506_14 | 45.0279 | 0.1031 | 24.8189 | 2.673 | 91.65 |
| 4506_15 | 53.4033 | 0.1497 | 37.7268 | 3.909 | 143.2 |
| 4506_16 | 44.2577 | 0.1339 | 35.998 | 3.062 | 137.2 |
| 4506_17 | 49.7522 | 0.1178 | 26.3475 | 3.719 | 97.19 |
| 4506_18 | 40.6066 | 0.102 | 24.6188 | 2.872 | 91.16 |
| 4506_19 | 49.7219 | 0.1182 | 25.3698 | 3.693 | 93.44 |
| 4506_20 | 40.5763 | 0.1023 | 23.641 | 2.847 | 87.41 |
| 4506_21 | 39.6655 | 16.1791 | 8.3757 | 116.9 | 27.79 |
| 4506_22 | 30.5199 | 16.1633 | 6.6469 | 116 | 21.76 |
| 4506_23 | 39.7292 | 9.735 | 8.7126 | 71.59 | 28.3 |
| 4506_24 | 30.5836 | 9.7192 | 6.9838 | 70.74 | 22.27 |
| 4506_25 | 39.6991 | 9.7351 | 8.0541 | 71.58 | 26.03 |
| 4506_26 | 30.5535 | 9.7193 | 6.3253 | 70.73 | 20 |
| 4506_27 | 47.0041 | 0.1017 | 30.6001 | 3.848 | 113.7 |
| 4506_28 | 37.8585 | 0.0858 | 28.8714 | 3.001 | 107.6 |
| 4506_29 | 44.1323 | 0.0885 | 22.0473 | 3.769 | 79.82 |
| 4506_30 | 34.9867 | 0.0727 | 20.3185 | 2.922 | 73.79 |
| 4506_31 | 44.1022 | 0.0887 | 21.3888 | 3.756 | 77.55 |
| 4506_32 | 34.9566 | 0.0728 | 19.66 | 2.909 | 71.52 |
| 4506_33 | 39.4805 | 0.0694 | 4.119 | 3.603 | 14.42 |
| 4506_34 | 30.3349 | 0.0535 | 2.3902 | 2.756 | 8.393 |
| 4506_35 | 39.5096 | 0.0699 | 3.341 | 3.559 | 10.05 |
| 4506_36 | 30.364 | 0.0541 | 1.6122 | 2.712 | 4.017 |
| 4506_37 | 48.4639 | 9.5951 | 6.2518 | 64.7 | 20.68 |
| 4506_38 | 39.3183 | 9.6109 | 4.523 | 65.55 | 14.65 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 4506_39 | 44.0465 | 16.0403 | 5.71 | 109.8 | 19.12 |
| 4506_40 | 34.9009 | 16.0561 | 3.9812 | 110.6 | 13.08 |
| 4506_41 | 43.9829 | 9.5961 | 5.373 | 64.51 | 18.61 |
| 4506_42 | 34.8373 | 9.612 | 3.6443 | 65.35 | 12.58 |
| 4506_43 | 44.0123 | 9.5958 | 5.0739 | 64.53 | 16.45 |
| 4506_44 | 34.8667 | 9.6117 | 3.3452 | 65.38 | 10.41 |
| 4506_45 | 42.8917 | 0.0233 | 11.3226 | 2.949 | 49.13 |
| 4506_46 | 33.7461 | 0.0075 | 13.0514 | 2.102 | 55.16 |
| 4506_47 | 34.7596 | 0.0096 | 23.5806 | 2.957 | 97.24 |
| 4506_48 | 25.614 | 0.0254 | 25.3093 | 2.11 | 103.3 |
| 4506_49 | 38.4107 | 0.0223 | 12.2013 | 3.147 | 51.21 |
| 4506_50 | 29.2651 | 0.0065 | 13.9301 | 2.3 | 57.24 |
| 4506_51 | 38.4401 | 0.0226 | 12.5004 | 3.122 | 53.37 |
| 4506_52 | 29.2945 | 0.0068 | 14.2292 | 2.275 | 59.4 |
| 4506_53 | 39.5957 | 16.0416 | 5.6494 | 109.6 | 20.04 |
| 4506_54 | 30.4501 | 16.0574 | 3.9206 | 110.4 | 14.01 |
| 4506_55 | 39.532 | 9.5974 | 5.3125 | 64.29 | 19.54 |
| 4506_56 | 30.3864 | 9.6132 | 3.5837 | 65.14 | 13.5 |
| 4506_57 | 39.5617 | 9.5973 | 5.3326 | 64.3 | 18.85 |
| 4506_58 | 30.4161 | 9.6131 | 3.6038 | 65.15 | 12.82 |
| 4506_59 | 32.2572 | 0.0359 | 16.575 | 3.453 | 65.81 |
| 4506_60 | 23.1115 | 0.0201 | 18.3038 | 2.606 | 71.84 |
| 4506_61 | 35.1289 | 0.049 | 8.0222 | 3.532 | 31.98 |
| 4506_62 | 25.9833 | 0.0332 | 9.751 | 2.685 | 38.01 |
| 4506_63 | 35.1586 | 0.0492 | 8.0021 | 3.519 | 32.66 |
| 4506_64 | 26.0129 | 0.0334 | 9.7309 | 2.673 | 38.69 |
| 4506_65 | 39.7523 | 0.0672 | 11.6417 | 3.78 | 42.22 |
| 4506_66 | 30.6067 | 0.0513 | 9.9129 | 2.933 | 36.19 |
| 4506_67 | 39.7814 | 0.0677 | 10.8638 | 3.736 | 37.84 |
| 4506_68 | 30.6358 | 0.0519 | 9.135 | 2.889 | 31.81 |
| 4506_69 | 39.5134 | 0.0672 | 8.9272 | 3.78 | 35.89 |
| 4506_70 | 30.3678 | 0.0514 | 7.1985 | 2.933 | 29.85 |
| 4506_71 | 39.4828 | 0.0677 | 7.4707 | 3.736 | 29.93 |
| 4506_72 | 30.3372 | 0.0519 | 5.7419 | 2.889 | 23.9 |
| 4506_73 | 31.1889 | 0.053 | 5.9103 | 2.798 | 20.46 |
| 4506_74 | 33.682 | 0.0588 | 6.3595 | 3.038 | 18.32 |
| 4506_75 | 27.5849 | 0.0483 | 5.207 | 2.474 | 14.3 |
| 4506_76 | 33.6514 | 0.0593 | 4.903 | 2.994 | 12.36 |
| 4506_77 | 27.5543 | 0.0488 | 3.7505 | 2.43 | 8.34 |
| 4506_78 | 42.5042 | 9.7268 | 7.8208 | 70.61 | 23.85 |
| 4506_79 | 36.4072 | 9.7162 | 6.6683 | 70.04 | 19.83 |
| 4506_80 | 38.0193 | 16.1699 | 7.2837 | 116.1 | 22.84 |
| 4506_81 | 31.9222 | 16.1593 | 6.1312 | 115.5 | 18.82 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 4506_82 | 38.0829 | 9.7257 | 7.6207 | 70.81 | 23.35 |
| 4506_83 | 31.9859 | 9.7152 | 6.4682 | 70.24 | 19.33 |
| 4506_84 | 38.0527 | 9.726 | 6.6429 | 70.78 | 19.61 |
| 4506_85 | 31.9556 | 9.7155 | 5.4904 | 70.22 | 15.59 |
| 4506_86 | 48.0764 | 0.1083 | 25.3951 | 2.956 | 93.66 |
| 4506_87 | 41.9793 | 0.0978 | 24.2426 | 2.391 | 89.64 |
| 4506_88 | 47.3062 | 0.1392 | 36.5743 | 3.345 | 139.2 |
| 4506_89 | 41.2092 | 0.1286 | 35.4218 | 2.78 | 135.2 |
| 4506_90 | 43.6551 | 0.1073 | 25.195 | 3.154 | 93.17 |
| 4506_91 | 37.558 | 0.0967 | 24.0425 | 2.59 | 89.15 |
| 4506_92 | 43.6248 | 0.1076 | 24.2173 | 3.129 | 89.42 |
| 4506_93 | 37.5278 | 0.0971 | 23.0648 | 2.564 | 85.4 |
| 4506_94 | 33.5685 | 16.1686 | 7.2232 | 116.3 | 23.77 |
| 4506_95 | 27.4714 | 16.158 | 6.0706 | 115.8 | 19.75 |
| 4506_96 | 33.6321 | 9.7244 | 7.5601 | 71.03 | 24.28 |
| 4506_97 | 27.5351 | 9.7139 | 6.4076 | 70.46 | 20.26 |
| 4506_98 | 33.602 | 9.7246 | 6.9016 | 71.01 | 22.01 |
| 4506_99 | 27.505 | 9.714 | 5.7491 | 70.45 | 17.99 |
| 4506_100 | 40.907 | 0.0911 | 29.4476 | 3.283 | 109.6 |
| 4506_101 | 34.8099 | 0.0806 | 28.2951 | 2.719 | 105.6 |
| 4506_102 | 38.0352 | 0.078 | 20.8948 | 3.204 | 75.8 |
| 4506_103 | 31.9382 | 0.0674 | 19.7423 | 2.64 | 71.77 |
| 4506_104 | 38.0052 | 0.0781 | 20.2363 | 3.192 | 73.53 |
| 4506_105 | 31.9081 | 0.0676 | 19.0837 | 2.627 | 69.51 |
| 4506_106 | 33.3835 | 0.0588 | 2.9664 | 3.039 | 10.4 |
| 4506_107 | 27.2864 | 0.0483 | 1.8139 | 2.474 | 6.383 |
| 4506_108 | 33.4125 | 0.0594 | 2.1885 | 2.994 | 6.028 |
| 4506_109 | 27.3155 | 0.0488 | 1.036 | 2.43 | 2.007 |
| 4506_110 | 42.3668 | 9.6056 | 5.0992 | 65.27 | 16.66 |
| 4506_111 | 36.2697 | 9.6162 | 3.9467 | 65.83 | 12.64 |
| 4506_112 | 37.9495 | 16.0508 | 4.5575 | 110.4 | 15.09 |
| 4506_113 | 31.8524 | 16.0614 | 3.405 | 110.9 | 11.07 |
| 4506_114 | 37.8858 | 9.6067 | 4.2205 | 65.07 | 14.59 |
| 4506_115 | 31.7887 | 9.6172 | 3.068 | 65.64 | 10.57 |
| 4506_116 | 37.9152 | 9.6064 | 3.9214 | 65.1 | 12.43 |
| 4506_117 | 31.8182 | 9.6169 | 2.7689 | 65.66 | 8.405 |
| 4506_118 | 36.7946 | 0.0128 | 12.4751 | 2.384 | 53.15 |
| 4506_119 | 30.6976 | 0.0022 | 13.6276 | 1.82 | 57.17 |
| 4506_120 | 28.6625 | 0.0201 | 24.7331 | 2.392 | 101.3 |
| 4506_121 | 22.5654 | 0.0307 | 25.8856 | 1.828 | 105.3 |
| 4506_122 | 32.3136 | 0.0117 | 13.3538 | 2.583 | 55.23 |
| 4506_123 | 26.2166 | 0.0012 | 14.5063 | 2.018 | 59.25 |
| 4506_124 | 32.3431 | 0.012 | 13.6529 | 2.557 | 57.39 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 4506_125 | 26.246 | 0.0015 | 14.8054 | 1.993 | 61.41 |
| 4506_126 | 33.4986 | 16.0521 | 4.4969 | 110.1 | 16.02 |
| 4506_127 | 27.4016 | 16.0627 | 3.3444 | 110.7 | 12 |
| 4506_128 | 33.435 | 9.608 | 4.16 | 64.85 | 15.51 |
| 4506_129 | 27.3379 | 9.6185 | 3.0074 | 65.42 | 11.49 |
| 4506_130 | 33.4646 | 9.6078 | 4.18 | 64.87 | 14.83 |
| 4506_131 | 27.3675 | 9.6184 | 3.0275 | 65.43 | 10.81 |
| 4506_132 | 26.1601 | 0.0253 | 17.7276 | 2.888 | 69.83 |
| 4506_133 | 20.063 | 0.0148 | 18.8801 | 2.324 | 73.85 |
| 4506_134 | 29.0318 | 0.0385 | 9.1747 | 2.967 | 36 |
| 4506_135 | 22.9348 | 0.028 | 10.3272 | 2.403 | 40.02 |
| 4506_136 | 29.0615 | 0.0387 | 9.1546 | 2.955 | 36.68 |
| 4506_137 | 22.9644 | 0.0281 | 10.3071 | 2.39 | 40.7 |
| 4506_138 | 33.6552 | 0.0566 | 10.4892 | 3.215 | 38.2 |
| 4506_139 | 27.5581 | 0.0461 | 9.3367 | 2.651 | 34.18 |
| 4506_140 | 33.6843 | 0.0572 | 9.7113 | 3.171 | 33.82 |
| 4506_141 | 27.5872 | 0.0466 | 8.5587 | 2.606 | 29.8 |
| 4506_142 | 33.4164 | 0.0566 | 7.7747 | 3.215 | 31.86 |
| 4506_143 | 27.3193 | 0.0461 | 6.6222 | 2.651 | 27.84 |
| 4506_144 | 33.3858 | 0.0572 | 6.3182 | 3.171 | 25.91 |
| 4506_145 | 27.2887 | 0.0466 | 5.1657 | 2.607 | 21.89 |
| 4506_146 | 30.4853 | 0.0527 | 5.7626 | 2.823 | 20.1 |
| 4506_147 | 30.5849 | 0.0527 | 6.8936 | 2.822 | 22.74 |
| 4506_148 | 30.5841 | 0.0533 | 5.7764 | 2.778 | 17.57 |
| 4506_149 | 30.5637 | 0.0536 | 4.8053 | 2.749 | 13.6 |
| 4506_150 | 37.2328 | 0.0856 | 18.3334 | 2.855 | 67.47 |
| 4506_151 | 39.6669 | 0.1068 | 25.9196 | 2.983 | 98.16 |
| 4506_152 | 37.2126 | 0.0858 | 17.6816 | 2.839 | 64.98 |
| 4506_153 | 40.1804 | 0.0863 | 18.4668 | 2.723 | 67.8 |
| 4506_154 | 33.5181 | 6.4979 | 6.6171 | 47.96 | 20.93 |
| 4506_155 | 33.4756 | 10.794 | 6.3925 | 78.15 | 20.59 |
| 4506_156 | 33.4979 | 6.4981 | 5.9653 | 47.94 | 18.43 |
| 4506_157 | 36.4656 | 6.4986 | 6.7505 | 47.83 | 21.26 |
| 4506_158 | 33.4863 | 0.066 | 15.4665 | 2.889 | 55.89 |
| 4506_159 | 35.4008 | 0.0748 | 21.1684 | 2.942 | 78.45 |
| 4506_160 | 33.4662 | 0.0661 | 15.0275 | 2.88 | 54.38 |
| 4506_161 | 30.5508 | 6.497 | 6.5768 | 48.1 | 21.55 |
| 4506_162 | 30.5084 | 10.7931 | 6.3521 | 78.3 | 21.21 |
| 4506_163 | 30.5308 | 6.4971 | 6.1377 | 48.09 | 20.04 |
| 4506_164 | 30.3858 | 0.0527 | 4.6316 | 2.823 | 17.46 |
| 4506_165 | 30.3851 | 0.0533 | 3.5143 | 2.778 | 12.3 |
| 4506_166 | 30.4045 | 0.0536 | 2.9957 | 2.749 | 9.379 |
| 4506_167 | 29.6718 | 0.0219 | 7.3658 | 2.475 | 31.46 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 4506_168 | 27.2378 | 0.0006 | 14.952 | 2.347 | 62.15 |
| 4506_169 | 29.6915 | 0.0221 | 7.5653 | 2.458 | 32.9 |
| 4506_170 | 32.6592 | 0.0226 | 6.78 | 2.342 | 30.07 |
| 4506_171 | 33.3866 | 6.3904 | 4.3504 | 42.63 | 15.08 |
| 4506_172 | 33.4291 | 10.6865 | 4.575 | 72.82 | 15.42 |
| 4506_173 | 33.4062 | 6.3902 | 4.151 | 42.64 | 13.64 |
| 4506_174 | 36.374 | 6.3897 | 4.9362 | 42.76 | 16.47 |
| 4506_175 | 27.484 | 0.0397 | 4.5798 | 2.731 | 18.64 |
| 4506_176 | 25.5695 | 0.031 | 10.2817 | 2.678 | 41.2 |
| 4506_177 | 27.5037 | 0.0398 | 4.5664 | 2.723 | 19.1 |
| 4506_178 | 30.4194 | 6.3913 | 4.31 | 42.48 | 15.7 |
| 4506_179 | 30.4618 | 10.6874 | 4.5346 | 72.68 | 16.04 |
| 4506_180 | 30.4392 | 6.3912 | 4.3234 | 42.49 | 15.25 |

NOTA: COMB da 1 a 73 STR – da 74 a 146 EQU  da 147 a 180 SLE RARA

**Combinazioni sismiche**

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_181 | 38.7765 | 4.2736 | 23.1121 | 33.61 | 92.61 |
| 2093_182 | 38.746 | 0.3541 | 23.1252 | 1.34 | 92.87 |
| 2093_183 | 20.717 | 4.4226 | 24.1451 | 34.48 | 108.4 |
| 2093_184 | 20.6865 | 0.205 | 24.132 | 0.00 | 108.1 |
| 2093_185 | 38.7765 | 4.7345 | 23.1231 | 36.13 | 92.61 |
| 2093_186 | 38.746 | 0.8149 | 23.1142 | 3.863 | 92.87 |
| 2093_187 | 20.717 | 4.8835 | 24.1341 | 37 | 108.4 |
| 2093_188 | 20.6865 | 0.6659 | 24.143 | 2.994 | 108.1 |
| 2093_189 | 32.4913 | 9.7247 | 6.5568 | 74.69 | 21.98 |
| 2093_190 | 32.3895 | 5.7008 | 6.6005 | 41.81 | 22.82 |
| 2093_191 | 29.5885 | 9.7687 | 7.3136 | 75 | 37.57 |
| 2093_192 | 26.9717 | 5.6561 | 7.5767 | 41.55 | 37.47 |
| 2093_193 | 32.0077 | 9.7727 | 5.293 | 74.97 | 16.6 |
| 2093_194 | 27.5571 | 9.7214 | 6.3566 | 74.67 | 32.93 |
| 2093_195 | 31.9059 | 5.6528 | 5.3367 | 41.53 | 17.44 |
| 2093_196 | 27.4553 | 5.7041 | 6.3129 | 41.84 | 32.09 |
| 2093_197 | 37.1643 | 4.4336 | 18.8994 | 34.56 | 74.68 |
| 2093_198 | 22.3292 | 4.2627 | 19.9324 | 33.53 | 90.42 |
| 2093_199 | 37.1338 | 0.1941 | 18.9125 | 0.00 | 74.94 |
| 2093_200 | 22.2987 | 0.365 | 19.9193 | 1.417 | 90.17 |
| 2093_201 | 37.1643 | 4.8944 | 18.9104 | 37.08 | 74.68 |
| 2093_202 | 37.1338 | 0.655 | 18.9015 | 2.918 | 74.94 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 2093_203 | 22.3292 | 4.7236 | 19.9214 | 36.06 | 90.43 |
| 2093_204 | 22.2987 | 0.8259 | 19.9303 | 3.939 | 90.16 |
| 2093_205 | 32.4913 | 11.2609 | 6.5935 | 83.1 | 21.96 |
| 2093_206 | 32.3896 | 7.2371 | 6.5638 | 50.22 | 22.85 |
| 2093_207 | 27.0734 | 11.3057 | 7.5837 | 83.36 | 38.33 |
| 2093_208 | 26.9717 | 7.1924 | 7.6134 | 49.96 | 37.44 |
| 2093_209 | 32.0076 | 11.3089 | 5.3297 | 83.38 | 16.58 |
| 2093_210 | 31.9059 | 7.1891 | 5.3 | 49.94 | 17.47 |
| 2093_211 | 27.5571 | 11.2577 | 6.3199 | 83.08 | 32.95 |
| 2093_212 | 27.4554 | 7.2403 | 6.3495 | 50.24 | 32.06 |
| 4506_181 | 21.4397 | 2.8044 | 17.7286 | 22.82 | 79.89 |
| 4506_182 | 21.4697 | 2.5488 | 17.7154 | 16.3 | 80.13 |
| 4506_183 | 39.5009 | 2.6542 | 29.2406 | 21.95 | 120.3 |
| 4506_184 | 39.531 | 2.699 | 29.2538 | 17.18 | 120.1 |
| 4506_185 | 21.4397 | 2.3433 | 17.7176 | 20.3 | 79.89 |
| 4506_186 | 21.4697 | 2.0877 | 17.7264 | 13.78 | 80.12 |
| 4506_187 | 39.501 | 2.1932 | 29.2516 | 19.43 | 120.3 |
| 4506_188 | 39.5309 | 2.2379 | 29.2428 | 14.66 | 120.1 |
| 4506_189 | 27.7261 | 8.9972 | 1.3048 | 68.17 | 9.523 |
| 4506_190 | 27.8262 | 8.8467 | 1.2608 | 62.26 | 10.34 |
| 4506_191 | 35.6598 | 8.9528 | 13.0927 | 67.85 | 51.28 |
| 4506_192 | 33.2446 | 8.8918 | 12.83 | 62.52 | 49.73 |
| 4506_193 | 28.2098 | 8.9492 | 0.046 | 67.88 | 4.164 |
| 4506_194 | 32.6608 | 9.0002 | 11.5271 | 68.19 | 45.18 |
| 4506_195 | 28.3099 | 8.8948 | 0.0019 | 62.54 | 4.979 |
| 4506_196 | 32.7609 | 8.8437 | 11.5712 | 62.24 | 44.37 |
| 4506_197 | 23.052 | 2.6443 | 13.5325 | 21.88 | 62.02 |
| 4506_198 | 37.8886 | 2.8144 | 25.0445 | 22.89 | 102.5 |
| 4506_199 | 23.0821 | 2.7089 | 13.5193 | 17.25 | 62.27 |
| 4506_200 | 37.9186 | 2.5388 | 25.0577 | 16.23 | 102.2 |
| 4506_201 | 23.0521 | 2.1832 | 13.5215 | 19.36 | 62.03 |
| 4506_202 | 23.082 | 2.2479 | 13.5303 | 14.73 | 62.26 |
| 4506_203 | 37.8886 | 2.3533 | 25.0554 | 20.37 | 102.5 |
| 4506_204 | 37.9186 | 2.0778 | 25.0467 | 13.71 | 102.2 |
| 4506_205 | 27.7262 | 7.4604 | 1.2682 | 59.76 | 9.553 |
| 4506_206 | 27.8261 | 7.3099 | 1.2974 | 53.85 | 10.31 |
| 4506_207 | 33.1446 | 7.4153 | 12.8226 | 59.49 | 50.51 |
| 4506_208 | 33.2445 | 7.3549 | 12.7933 | 54.11 | 49.76 |
| 4506_209 | 28.2099 | 7.4124 | 0.0093 | 59.47 | 4.194 |
| 4506_210 | 28.3098 | 7.3579 | 0.0386 | 54.13 | 4.949 |
| 4506_211 | 32.6609 | 7.4634 | 11.5638 | 59.78 | 45.15 |
| 4506_212 | 32.7608 | 7.3069 | 11.5345 | 53.83 | 44.4 |

Con

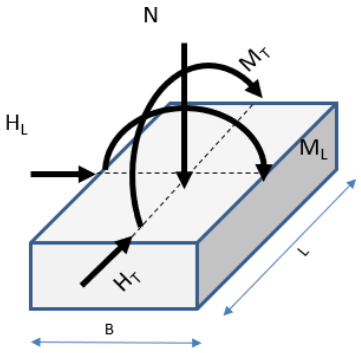
N = azione verticale

$H_L$ = taglio agente in direzione longitudinale

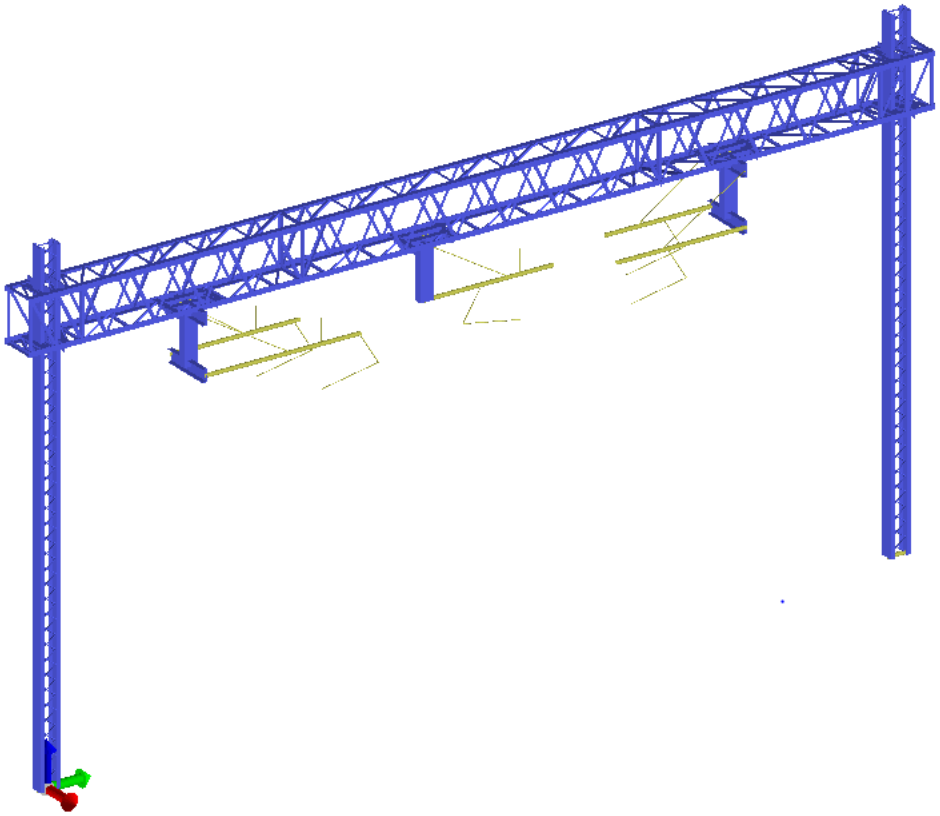
$H_T$ = taglio agente in direzione trasversale

$M_L$ = momento agente in direzione longitudinale

$M_T$ = momento agente in direzione trasversale




**LC2**



Unità di misura: [kN], [m]

**Combinazioni statiche**

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_1 | 82.13 | 1.26 | 1.29 | 7.81 | 0.65 |
| 477_2 | 63.13 | 0.97 | 2.22 | 6.00 | 4.65 |
| 477_3 | 82.18 | 1.26 | 2.26 | 7.79 | 6.71 |
| 477_4 | 63.17 | 0.97 | 3.20 | 5.97 | 10.71 |
| 477_5 | 38.35 | 11.13 | 3.04 | 76.84 | 12.97 |
| 477_6 | 31.11 | 11.41 | 1.69 | 78.50 | 7.81 |
| 477_7 | 34.79 | 19.35 | 2.60 | 132.70 | 11.81 |
| 477_8 | 27.54 | 19.62 | 1.25 | 134.40 | 6.65 |
| 477_9 | 34.74 | 11.13 | 1.99 | 76.79 | 10.40 |
| 477_10 | 27.50 | 11.41 | 0.64 | 78.45 | 5.24 |
| 477_11 | 34.79 | 11.13 | 1.69 | 76.80 | 7.53 |
| 477_12 | 27.54 | 11.41 | 0.34 | 78.46 | 2.37 |
| 477_13 | 36.04 | 1.19 | 6.92 | 6.99 | 23.86 |
| 477_14 | 28.79 | 0.92 | 8.27 | 5.33 | 29.02 |
| 477_15 | 30.93 | 1.19 | 14.01 | 7.00 | 49.58 |
| 477_16 | 23.68 | 0.92 | 15.36 | 5.34 | 54.73 |
| 477_17 | 32.43 | 1.19 | 7.98 | 7.05 | 26.43 |
| 477_18 | 25.18 | 0.92 | 9.32 | 5.38 | 31.59 |
| 477_19 | 32.47 | 1.19 | 8.28 | 7.03 | 29.30 |
| 477_20 | 25.23 | 0.92 | 9.63 | 5.37 | 34.46 |
| 477_21 | 57.84 | 19.37 | 3.32 | 132.80 | 16.95 |
| 477_22 | 44.45 | 19.64 | 1.85 | 134.40 | 11.06 |
| 477_23 | 57.80 | 11.15 | 2.71 | 76.80 | 15.54 |
| 477_24 | 44.41 | 11.42 | 1.24 | 78.46 | 9.65 |
| 477_25 | 57.84 | 11.15 | 2.86 | 76.80 | 14.79 |
| 477_26 | 44.45 | 11.42 | 1.39 | 78.47 | 8.90 |
| 477_27 | 54.99 | 1.02 | 9.37 | 5.99 | 27.27 |
| 477_28 | 41.60 | 0.75 | 10.83 | 4.33 | 33.16 |
| 477_29 | 56.08 | 1.09 | 4.90 | 6.47 | 11.00 |
| 477_30 | 42.69 | 0.81 | 6.37 | 4.81 | 16.88 |
| 477_31 | 56.13 | 1.09 | 4.76 | 6.47 | 11.75 |
| 477_32 | 42.74 | 0.81 | 6.22 | 4.80 | 17.63 |
| 477_33 | 82.59 | 1.26 | 4.68 | 7.83 | 13.04 |
| 477_34 | 63.58 | 0.97 | 3.75 | 6.01 | 9.04 |
| 477_35 | 82.54 | 1.26 | 2.51 | 7.80 | 4.25 |
| 477_36 | 63.54 | 0.97 | 1.58 | 5.98 | 0.25 |
| 477_37 | 38.72 | 13.51 | 7.78 | 90.97 | 23.80 |
| 477_38 | 31.47 | 13.24 | 6.43 | 89.31 | 18.64 |
| 477_39 | 35.15 | 21.73 | 7.32 | 147.00 | 22.56 |
| 477_40 | 27.91 | 21.45 | 5.97 | 145.30 | 17.40 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_41 | 35.20 | 13.51 | 7.92 | 91.03 | 23.97 |
| 477_42 | 27.95 | 13.24 | 6.57 | 89.36 | 18.81 |
| 477_43 | 35.15 | 13.51 | 6.43 | 91.01 | 18.36 |
| 477_44 | 27.91 | 13.24 | 5.08 | 89.35 | 13.20 |
| 477_45 | 41.04 | 1.18 | 17.75 | 7.14 | 60.63 |
| 477_46 | 33.79 | 0.91 | 16.40 | 5.48 | 55.48 |
| 477_47 | 39.01 | 1.18 | 23.92 | 7.24 | 83.95 |
| 477_48 | 31.77 | 0.91 | 22.57 | 5.58 | 78.79 |
| 477_49 | 37.52 | 1.18 | 17.89 | 7.19 | 60.80 |
| 477_50 | 30.27 | 0.91 | 16.54 | 5.53 | 55.65 |
| 477_51 | 37.47 | 1.18 | 16.39 | 7.18 | 55.19 |
| 477_52 | 30.22 | 0.91 | 15.04 | 5.52 | 50.03 |
| 477_53 | 58.21 | 21.75 | 8.03 | 147.20 | 27.69 |
| 477_54 | 44.82 | 21.47 | 6.57 | 145.50 | 21.81 |
| 477_55 | 58.25 | 13.52 | 8.64 | 91.19 | 29.11 |
| 477_56 | 44.86 | 13.25 | 7.18 | 89.53 | 23.22 |
| 477_57 | 58.21 | 13.52 | 7.60 | 91.18 | 25.61 |
| 477_58 | 44.82 | 13.25 | 6.13 | 89.52 | 19.73 |
| 477_59 | 61.07 | 1.35 | 20.72 | 8.40 | 71.92 |
| 477_60 | 47.67 | 1.08 | 19.26 | 6.74 | 66.03 |
| 477_61 | 59.97 | 1.29 | 16.26 | 7.93 | 55.64 |
| 477_62 | 46.58 | 1.01 | 14.79 | 6.26 | 49.75 |
| 477_63 | 59.92 | 1.29 | 15.21 | 7.92 | 52.15 |
| 477_64 | 46.53 | 1.01 | 13.74 | 6.25 | 46.26 |
| 477_65 | 49.34 | 1.19 | 8.48 | 7.28 | 40.43 |
| 477_66 | 37.91 | 0.91 | 6.88 | 5.61 | 34.12 |
| 477_67 | 49.29 | 1.19 | 6.30 | 7.25 | 31.64 |
| 477_68 | 37.87 | 0.91 | 4.71 | 5.58 | 25.33 |
| 477_69 | 49.71 | 1.19 | 13.25 | 7.29 | 51.38 |
| 477_70 | 38.28 | 0.91 | 11.65 | 5.62 | 45.07 |
| 477_71 | 49.75 | 1.19 | 12.27 | 7.26 | 45.33 |
| 477_72 | 38.32 | 0.91 | 10.67 | 5.60 | 39.02 |
| 477_73 | 38.10 | 0.91 | 5.33 | 5.55 | 21.04 |
| 477_74 | 69.46 | 1.06 | 1.91 | 6.60 | 3.32 |
| 477_75 | 56.79 | 0.87 | 2.53 | 5.39 | 5.98 |
| 477_76 | 69.51 | 1.06 | 2.89 | 6.58 | 9.37 |
| 477_77 | 56.84 | 0.87 | 3.51 | 5.37 | 12.04 |
| 477_78 | 33.52 | 11.32 | 2.14 | 77.95 | 9.53 |
| 477_79 | 28.69 | 11.50 | 1.24 | 79.05 | 6.09 |
| 477_80 | 29.96 | 19.53 | 1.70 | 133.80 | 8.37 |
| 477_81 | 25.13 | 19.71 | 0.80 | 134.90 | 4.94 |
| 477_82 | 29.91 | 11.32 | 1.09 | 77.89 | 6.96 |
| 477_83 | 25.08 | 11.50 | 0.19 | 79.00 | 3.52 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_84 | 29.96 | 11.32 | 0.79 | 77.91 | 4.09 |
| 477_85 | 25.13 | 11.50 | 0.11 | 79.02 | 0.65 |
| 477_86 | 31.21 | 1.01 | 7.82 | 5.89 | 27.30 |
| 477_87 | 26.37 | 0.83 | 8.72 | 4.78 | 30.74 |
| 477_88 | 26.10 | 1.01 | 14.91 | 5.90 | 53.01 |
| 477_89 | 21.27 | 0.83 | 15.81 | 4.79 | 56.45 |
| 477_90 | 27.60 | 1.01 | 8.87 | 5.94 | 29.87 |
| 477_91 | 22.76 | 0.83 | 9.77 | 4.83 | 33.31 |
| 477_92 | 27.64 | 1.01 | 9.18 | 5.92 | 32.74 |
| 477_93 | 22.81 | 0.83 | 10.08 | 4.82 | 36.18 |
| 477_94 | 48.92 | 19.55 | 2.34 | 133.90 | 13.03 |
| 477_95 | 39.99 | 19.74 | 1.36 | 135.00 | 9.10 |
| 477_96 | 48.87 | 11.33 | 1.73 | 77.90 | 11.61 |
| 477_97 | 39.94 | 11.51 | 0.76 | 79.01 | 7.69 |
| 477_98 | 48.92 | 11.33 | 1.88 | 77.91 | 10.86 |
| 477_99 | 39.99 | 11.51 | 0.90 | 79.02 | 6.94 |
| 477_100 | 46.06 | 0.84 | 10.35 | 4.88 | 31.20 |
| 477_101 | 37.13 | 0.66 | 11.32 | 3.78 | 35.12 |
| 477_102 | 47.16 | 0.91 | 5.88 | 5.36 | 14.92 |
| 477_103 | 38.23 | 0.72 | 6.86 | 4.25 | 18.84 |
| 477_104 | 47.20 | 0.91 | 5.73 | 5.36 | 15.67 |
| 477_105 | 38.27 | 0.72 | 6.71 | 4.25 | 19.60 |
| 477_106 | 69.92 | 1.06 | 4.06 | 6.62 | 10.38 |
| 477_107 | 57.25 | 0.87 | 3.43 | 5.41 | 7.71 |
| 477_108 | 69.87 | 1.06 | 1.89 | 6.59 | 1.58 |
| 477_109 | 57.20 | 0.87 | 1.26 | 5.38 | 1.08 |
| 477_110 | 33.89 | 13.33 | 6.88 | 89.86 | 20.36 |
| 477_111 | 29.06 | 13.15 | 5.98 | 88.75 | 16.92 |
| 477_112 | 30.32 | 21.54 | 6.42 | 145.80 | 19.12 |
| 477_113 | 25.49 | 21.36 | 5.52 | 144.70 | 15.68 |
| 477_114 | 30.37 | 13.33 | 7.02 | 89.92 | 20.53 |
| 477_115 | 25.54 | 13.15 | 6.12 | 88.81 | 17.09 |
| 477_116 | 30.32 | 13.33 | 5.53 | 89.90 | 14.92 |
| 477_117 | 25.49 | 13.15 | 4.63 | 88.79 | 11.48 |
| 477_118 | 36.20 | 1.00 | 16.85 | 6.03 | 57.19 |
| 477_119 | 31.37 | 0.82 | 15.95 | 4.92 | 53.76 |
| 477_120 | 34.18 | 1.00 | 23.02 | 6.13 | 80.51 |
| 477_121 | 29.35 | 0.82 | 22.12 | 5.02 | 77.07 |
| 477_122 | 32.68 | 1.00 | 16.99 | 6.09 | 57.37 |
| 477_123 | 27.85 | 0.82 | 16.09 | 4.98 | 53.93 |
| 477_124 | 32.64 | 1.00 | 15.49 | 6.07 | 51.75 |
| 477_125 | 27.81 | 0.82 | 14.59 | 4.96 | 48.32 |
| 477_126 | 49.28 | 21.56 | 7.06 | 146.10 | 23.77 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_127 | 40.35 | 21.38 | 6.08 | 145.00 | 19.85 |
| 477_128 | 49.33 | 13.34 | 7.67 | 90.08 | 25.18 |
| 477_129 | 40.40 | 13.16 | 6.69 | 88.97 | 21.26 |
| 477_130 | 49.28 | 13.34 | 6.62 | 90.07 | 21.69 |
| 477_131 | 40.35 | 13.16 | 5.64 | 88.96 | 17.77 |
| 477_132 | 52.14 | 1.17 | 19.75 | 7.29 | 67.99 |
| 477_133 | 43.21 | 0.99 | 18.77 | 6.18 | 64.07 |
| 477_134 | 51.04 | 1.10 | 15.28 | 6.82 | 51.72 |
| 477_135 | 42.11 | 0.92 | 14.30 | 5.71 | 47.79 |
| 477_136 | 51.00 | 1.10 | 14.23 | 6.81 | 48.23 |
| 477_137 | 42.07 | 0.92 | 13.26 | 5.70 | 44.30 |
| 477_138 | 41.72 | 1.01 | 7.41 | 6.17 | 36.22 |
| 477_139 | 34.10 | 0.82 | 6.34 | 5.06 | 32.01 |
| 477_140 | 41.68 | 1.01 | 5.24 | 6.14 | 27.43 |
| 477_141 | 34.06 | 0.82 | 4.17 | 5.03 | 23.22 |
| 477_142 | 42.09 | 1.01 | 12.18 | 6.18 | 47.18 |
| 477_143 | 34.47 | 0.82 | 11.12 | 5.07 | 42.97 |
| 477_144 | 42.13 | 1.01 | 11.21 | 6.15 | 41.12 |
| 477_145 | 34.51 | 0.82 | 10.14 | 5.04 | 36.92 |
| 477_146 | 38.10 | 0.91 | 5.33 | 5.55 | 21.04 |
| 477_147 | 37.94 | 0.91 | 3.34 | 5.54 | 16.47 |
| 477_148 | 63.20 | 0.97 | 0.44 | 6.01 | 1.34 |
| 477_149 | 63.23 | 0.97 | 1.09 | 6.00 | 2.69 |
| 477_150 | 24.84 | 0.92 | 4.72 | 5.44 | 15.33 |
| 477_151 | 23.84 | 0.92 | 8.74 | 5.41 | 30.76 |
| 477_152 | 24.87 | 0.92 | 4.92 | 5.43 | 17.24 |
| 477_153 | 27.25 | 0.92 | 4.01 | 5.40 | 13.62 |
| 477_154 | 26.38 | 7.30 | 1.93 | 50.45 | 9.23 |
| 477_155 | 26.41 | 12.78 | 2.33 | 87.74 | 10.17 |
| 477_156 | 26.41 | 7.30 | 1.72 | 50.46 | 7.31 |
| 477_157 | 28.79 | 7.30 | 2.63 | 50.49 | 10.94 |
| 477_158 | 43.34 | 0.85 | 2.62 | 5.05 | 4.72 |
| 477_159 | 42.61 | 0.80 | 5.59 | 4.74 | 15.57 |
| 477_160 | 43.37 | 0.85 | 2.52 | 5.05 | 5.22 |
| 477_161 | 44.48 | 7.31 | 2.46 | 50.46 | 12.97 |
| 477_162 | 44.51 | 12.79 | 2.86 | 87.78 | 13.92 |
| 477_163 | 44.51 | 7.31 | 2.56 | 50.46 | 12.47 |
| 477_164 | 63.51 | 0.97 | 5.11 | 6.05 | 17.89 |
| 477_165 | 63.51 | 0.97 | 3.54 | 6.02 | 10.47 |
| 477_166 | 63.48 | 0.97 | 2.09 | 6.00 | 4.61 |
| 477_167 | 28.23 | 0.91 | 12.53 | 5.53 | 42.83 |
| 477_168 | 29.23 | 0.91 | 16.55 | 5.56 | 58.26 |
| 477_169 | 28.20 | 0.91 | 11.53 | 5.52 | 39.09 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_170 | 30.58 | 0.91 | 12.43 | 5.50 | 42.71 |
| 477_171 | 26.69 | 9.13 | 5.88 | 61.42 | 18.27 |
| 477_172 | 26.66 | 14.61 | 5.48 | 98.71 | 17.33 |
| 477_173 | 26.66 | 9.13 | 4.88 | 61.41 | 14.53 |
| 477_174 | 29.03 | 9.13 | 5.79 | 61.38 | 18.16 |
| 477_175 | 45.93 | 0.98 | 11.49 | 6.02 | 39.71 |
| 477_176 | 46.66 | 1.02 | 14.47 | 6.34 | 50.56 |
| 477_177 | 45.90 | 0.98 | 10.79 | 6.02 | 37.38 |
| 477_178 | 44.79 | 9.14 | 6.41 | 61.53 | 22.02 |
| 477_179 | 44.76 | 14.62 | 6.01 | 98.86 | 21.08 |
| 477_180 | 44.76 | 9.14 | 5.72 | 61.53 | 19.69 |
| 478_1 | 28.79 | 1.43 | 0.20 | 10.06 | 11.33 |
| 478_2 | 22.20 | 1.10 | 0.30 | 7.75 | 9.71 |
| 478_3 | 28.75 | 1.43 | 1.97 | 10.09 | 20.12 |
| 478_4 | 22.15 | 1.10 | 1.87 | 7.78 | 18.50 |
| 478_5 | 35.45 | 10.94 | 1.04 | 74.36 | 7.70 |
| 478_6 | 28.85 | 11.21 | 1.25 | 76.27 | 5.55 |
| 478_7 | 32.11 | 19.01 | 0.59 | 129.60 | 8.87 |
| 478_8 | 25.51 | 19.28 | 0.81 | 131.50 | 6.72 |
| 478_9 | 32.15 | 10.94 | 1.18 | 74.41 | 7.55 |
| 478_10 | 25.56 | 11.21 | 1.39 | 76.33 | 5.40 |
| 478_11 | 32.11 | 10.94 | 0.32 | 74.40 | 13.16 |
| 478_12 | 25.51 | 11.21 | 0.10 | 76.31 | 11.01 |
| 478_13 | 37.77 | 1.17 | 10.81 | 8.49 | 28.59 |
| 478_14 | 31.17 | 0.90 | 11.03 | 6.58 | 30.73 |
| 478_15 | 35.97 | 1.16 | 16.88 | 8.48 | 51.61 |
| 478_16 | 29.37 | 0.89 | 17.10 | 6.57 | 53.76 |
| 478_17 | 34.47 | 1.17 | 10.95 | 8.44 | 28.74 |
| 478_18 | 27.87 | 0.90 | 11.17 | 6.53 | 30.89 |
| 478_19 | 34.42 | 1.17 | 9.46 | 8.45 | 23.13 |
| 478_20 | 27.83 | 0.90 | 9.67 | 6.54 | 25.28 |
| 478_21 | 28.38 | 19.06 | 0.01 | 130.00 | 10.62 |
| 478_22 | 21.87 | 19.33 | 0.39 | 131.90 | 7.61 |
| 478_23 | 28.43 | 10.97 | 0.57 | 74.66 | 9.30 |
| 478_24 | 21.92 | 11.24 | 0.98 | 76.57 | 6.29 |
| 478_25 | 28.38 | 10.97 | 0.47 | 74.65 | 12.79 |
| 478_26 | 21.87 | 11.24 | 0.07 | 76.56 | 9.78 |
| 478_27 | 31.24 | 1.10 | 12.51 | 7.81 | 33.10 |
| 478_28 | 24.73 | 0.83 | 12.92 | 5.90 | 36.11 |
| 478_29 | 30.14 | 1.13 | 8.09 | 8.00 | 16.93 |
| 478_30 | 23.63 | 0.86 | 8.49 | 6.09 | 19.94 |
| 478_31 | 30.09 | 1.13 | 7.04 | 8.01 | 13.44 |
| 478_32 | 23.59 | 0.86 | 7.45 | 6.10 | 16.45 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 478_33 | 28.33 | 1.43 | 5.76 | 10.04 | 25.02 |
| 478_34 | 21.74 | 1.10 | 5.67 | 7.73 | 23.40 |
| 478_35 | 28.38 | 1.43 | 6.74 | 10.07 | 31.08 |
| 478_36 | 21.79 | 1.10 | 6.64 | 7.76 | 29.45 |
| 478_37 | 35.09 | 13.28 | 3.77 | 91.20 | 18.79 |
| 478_38 | 28.49 | 13.01 | 3.56 | 89.29 | 16.65 |
| 478_39 | 31.74 | 21.35 | 4.24 | 146.30 | 20.05 |
| 478_40 | 25.15 | 21.08 | 4.02 | 144.40 | 17.90 |
| 478_41 | 31.70 | 13.28 | 4.83 | 91.14 | 21.38 |
| 478_42 | 25.10 | 13.01 | 4.61 | 89.23 | 19.23 |
| 478_43 | 31.74 | 13.28 | 5.13 | 91.16 | 24.25 |
| 478_44 | 25.15 | 13.01 | 4.91 | 89.25 | 22.10 |
| 478_45 | 32.77 | 1.17 | 13.54 | 8.35 | 55.08 |
| 478_46 | 26.17 | 0.90 | 13.33 | 6.43 | 52.93 |
| 478_47 | 27.88 | 1.18 | 20.53 | 8.25 | 80.53 |
| 478_48 | 21.29 | 0.91 | 20.31 | 6.33 | 78.38 |
| 478_49 | 29.38 | 1.17 | 14.60 | 8.29 | 57.66 |
| 478_50 | 22.78 | 0.90 | 14.38 | 6.38 | 55.51 |
| 478_51 | 29.43 | 1.17 | 14.90 | 8.31 | 60.54 |
| 478_52 | 22.83 | 0.90 | 14.69 | 6.40 | 58.39 |
| 478_53 | 28.01 | 21.40 | 4.85 | 146.50 | 21.81 |
| 478_54 | 21.51 | 21.13 | 4.44 | 144.60 | 18.80 |
| 478_55 | 27.97 | 13.31 | 5.43 | 91.23 | 23.13 |
| 478_56 | 21.46 | 13.04 | 5.03 | 89.32 | 20.12 |
| 478_57 | 28.01 | 13.31 | 5.28 | 91.24 | 23.88 |
| 478_58 | 21.51 | 13.04 | 4.88 | 89.33 | 20.87 |
| 478_59 | 25.16 | 1.24 | 17.37 | 8.77 | 65.53 |
| 478_60 | 18.65 | 0.97 | 16.96 | 6.86 | 62.52 |
| 478_61 | 26.25 | 1.21 | 12.94 | 8.57 | 49.36 |
| 478_62 | 19.75 | 0.94 | 12.54 | 6.66 | 46.35 |
| 478_63 | 26.30 | 1.21 | 12.80 | 8.58 | 50.11 |
| 478_64 | 19.79 | 0.94 | 12.39 | 6.67 | 47.11 |
| 478_65 | 28.33 | 1.17 | 4.34 | 8.21 | 9.97 |
| 478_66 | 21.83 | 0.90 | 4.80 | 6.30 | 13.21 |
| 478_67 | 28.37 | 1.17 | 3.36 | 8.24 | 3.91 |
| 478_68 | 21.88 | 0.90 | 3.82 | 6.33 | 7.16 |
| 478_69 | 27.96 | 1.17 | 0.44 | 8.20 | 0.99 |
| 478_70 | 21.47 | 0.90 | 0.02 | 6.29 | 2.26 |
| 478_71 | 27.92 | 1.17 | 2.61 | 8.22 | 9.78 |
| 478_72 | 21.42 | 0.90 | 2.15 | 6.32 | 6.53 |
| 478_73 | 21.65 | 0.90 | 1.53 | 6.36 | 10.82 |
| 478_74 | 24.40 | 1.21 | 0.27 | 8.52 | 10.25 |
| 478_75 | 20.00 | 0.99 | 0.33 | 6.98 | 9.16 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 478_76 | 24.35 | 1.21 | 1.90 | 8.55 | 19.04 |
| 478_77 | 19.96 | 0.99 | 1.84 | 7.01 | 17.96 |
| 478_78 | 31.05 | 11.12 | 1.18 | 75.64 | 6.27 |
| 478_79 | 26.66 | 11.30 | 1.33 | 76.91 | 4.84 |
| 478_80 | 27.71 | 19.19 | 0.74 | 130.90 | 7.44 |
| 478_81 | 23.31 | 19.37 | 0.88 | 132.20 | 6.00 |
| 478_82 | 27.76 | 11.12 | 1.32 | 75.69 | 6.11 |
| 478_83 | 23.36 | 11.30 | 1.47 | 76.96 | 4.68 |
| 478_84 | 27.71 | 11.12 | 0.17 | 75.67 | 11.72 |
| 478_85 | 23.31 | 11.30 | 0.03 | 76.95 | 10.29 |
| 478_86 | 33.37 | 0.99 | 10.96 | 7.22 | 30.02 |
| 478_87 | 28.97 | 0.81 | 11.10 | 5.94 | 31.45 |
| 478_88 | 31.57 | 0.98 | 17.03 | 7.21 | 53.04 |
| 478_89 | 27.17 | 0.80 | 17.17 | 5.93 | 54.48 |
| 478_90 | 30.07 | 0.99 | 11.10 | 7.16 | 30.17 |
| 478_91 | 25.67 | 0.81 | 11.24 | 5.89 | 31.61 |
| 478_92 | 30.03 | 0.99 | 9.60 | 7.18 | 24.56 |
| 478_93 | 25.63 | 0.81 | 9.74 | 5.90 | 26.00 |
| 478_94 | 24.04 | 19.24 | 0.26 | 131.20 | 8.61 |
| 478_95 | 19.70 | 19.42 | 0.53 | 132.50 | 6.61 |
| 478_96 | 24.09 | 11.15 | 0.84 | 75.93 | 7.29 |
| 478_97 | 19.75 | 11.33 | 1.11 | 77.20 | 5.29 |
| 478_98 | 24.04 | 11.15 | 0.20 | 75.92 | 10.78 |
| 478_99 | 19.70 | 11.33 | 0.07 | 77.20 | 8.78 |
| 478_100 | 26.90 | 0.92 | 12.78 | 6.53 | 35.10 |
| 478_101 | 22.56 | 0.74 | 13.05 | 5.26 | 37.11 |
| 478_102 | 25.80 | 0.95 | 8.36 | 6.73 | 18.94 |
| 478_103 | 21.46 | 0.77 | 8.63 | 5.46 | 20.94 |
| 478_104 | 25.76 | 0.95 | 7.31 | 6.74 | 15.45 |
| 478_105 | 21.42 | 0.77 | 7.58 | 5.46 | 17.45 |
| 478_106 | 23.94 | 1.21 | 5.70 | 8.50 | 23.94 |
| 478_107 | 19.55 | 0.99 | 5.64 | 6.96 | 22.86 |
| 478_108 | 23.99 | 1.21 | 6.68 | 8.53 | 29.99 |
| 478_109 | 19.59 | 0.99 | 6.61 | 6.99 | 28.91 |
| 478_110 | 30.69 | 13.10 | 3.63 | 89.92 | 17.36 |
| 478_111 | 26.29 | 12.92 | 3.48 | 88.65 | 15.93 |
| 478_112 | 27.35 | 21.17 | 4.10 | 145.10 | 18.62 |
| 478_113 | 22.95 | 20.99 | 3.95 | 143.80 | 17.19 |
| 478_114 | 27.30 | 13.10 | 4.68 | 89.87 | 19.94 |
| 478_115 | 22.90 | 12.92 | 4.54 | 88.59 | 18.51 |
| 478_116 | 27.34 | 13.10 | 4.98 | 89.88 | 22.82 |
| 478_117 | 22.95 | 12.92 | 4.84 | 88.61 | 21.38 |
| 478_118 | 28.37 | 0.99 | 13.40 | 7.07 | 53.65 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 478_119 | 23.97 | 0.81 | 13.26 | 5.80 | 52.22 |
| 478_120 | 23.48 | 1.00 | 20.39 | 6.97 | 79.10 |
| 478_121 | 19.09 | 0.82 | 20.24 | 5.70 | 77.67 |
| 478_122 | 24.98 | 0.99 | 14.46 | 7.02 | 56.23 |
| 478_123 | 20.59 | 0.81 | 14.31 | 5.74 | 54.80 |
| 478_124 | 25.03 | 0.99 | 14.76 | 7.03 | 59.10 |
| 478_125 | 20.63 | 0.81 | 14.61 | 5.76 | 57.67 |
| 478_126 | 23.68 | 21.22 | 4.58 | 145.30 | 19.80 |
| 478_127 | 19.34 | 21.04 | 4.31 | 144.00 | 17.80 |
| 478_128 | 23.63 | 13.13 | 5.16 | 89.95 | 21.13 |
| 478_129 | 19.29 | 12.95 | 4.89 | 88.68 | 19.12 |
| 478_130 | 23.68 | 13.13 | 5.01 | 89.96 | 21.88 |
| 478_131 | 19.34 | 12.95 | 4.74 | 88.69 | 19.87 |
| 478_132 | 20.82 | 1.06 | 17.10 | 7.49 | 63.52 |
| 478_133 | 16.48 | 0.88 | 16.83 | 6.22 | 61.52 |
| 478_134 | 21.92 | 1.03 | 12.67 | 7.30 | 47.36 |
| 478_135 | 17.58 | 0.85 | 12.40 | 6.02 | 45.35 |
| 478_136 | 21.96 | 1.03 | 12.53 | 7.31 | 48.11 |
| 478_137 | 17.62 | 0.85 | 12.26 | 6.03 | 46.10 |
| 478_138 | 24.00 | 0.99 | 4.64 | 6.94 | 12.13 |
| 478_139 | 19.67 | 0.81 | 4.95 | 5.66 | 14.30 |
| 478_140 | 24.04 | 0.99 | 3.67 | 6.97 | 6.08 |
| 478_141 | 19.71 | 0.81 | 3.97 | 5.69 | 8.24 |
| 478_142 | 23.63 | 0.99 | 0.13 | 6.93 | 1.18 |
| 478_143 | 19.30 | 0.81 | 0.17 | 5.65 | 3.34 |
| 478_144 | 23.59 | 0.99 | 2.30 | 6.95 | 7.62 |
| 478_145 | 19.26 | 0.81 | 2.00 | 5.68 | 5.45 |
| 478_146 | 21.65 | 0.90 | 1.53 | 6.36 | 10.82 |
| 478_147 | 21.80 | 0.90 | 0.46 | 6.37 | 6.26 |
| 478_148 | 22.12 | 1.10 | 0.09 | 7.73 | 8.28 |
| 478_149 | 22.09 | 1.10 | 1.35 | 7.75 | 14.14 |
| 478_150 | 25.91 | 0.90 | 7.21 | 6.48 | 18.21 |
| 478_151 | 26.91 | 0.90 | 11.16 | 6.50 | 33.45 |
| 478_152 | 25.88 | 0.90 | 6.21 | 6.49 | 14.47 |
| 478_153 | 28.11 | 0.90 | 7.11 | 6.51 | 18.10 |
| 478_154 | 24.37 | 7.17 | 0.69 | 48.76 | 5.99 |
| 478_155 | 24.34 | 12.56 | 0.30 | 85.55 | 6.87 |
| 478_156 | 24.34 | 7.17 | 0.31 | 48.75 | 9.73 |
| 478_157 | 26.56 | 7.17 | 0.60 | 48.72 | 6.09 |
| 478_158 | 22.99 | 0.87 | 5.21 | 6.18 | 9.95 |
| 478_159 | 23.72 | 0.85 | 8.16 | 6.05 | 20.73 |
| 478_160 | 22.95 | 0.87 | 4.51 | 6.19 | 7.63 |
| 478_161 | 21.84 | 7.19 | 0.20 | 48.92 | 7.53 |

| COMB | N | $H_L$ | $H_T$ | $M_L$ | $M_T$ |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 478_162 | 21.81 | 12.59 | 0.19 | 85.79 | 8.42 |
| 478_163 | 21.81 | 7.19 | 0.50 | 48.92 | 9.86 |
| 478_164 | 21.82 | 1.10 | 2.31 | 7.69 | 9.98 |
| 478_165 | 21.82 | 1.10 | 3.89 | 7.72 | 17.40 |
| 478_166 | 21.85 | 1.10 | 4.54 | 7.74 | 21.44 |
| 478_167 | 22.52 | 0.90 | 9.83 | 6.38 | 39.40 |
| 478_168 | 21.52 | 0.90 | 13.78 | 6.35 | 54.64 |
| 478_169 | 22.55 | 0.90 | 10.03 | 6.39 | 41.31 |
| 478_170 | 24.78 | 0.90 | 9.13 | 6.41 | 37.68 |
| 478_171 | 24.06 | 8.97 | 3.31 | 61.61 | 15.21 |
| 478_172 | 24.09 | 14.36 | 2.92 | 98.41 | 14.32 |
| 478_173 | 24.09 | 8.97 | 3.51 | 61.62 | 17.12 |
| 478_174 | 26.32 | 8.97 | 2.61 | 61.65 | 13.48 |
| 478_175 | 20.39 | 0.93 | 8.81 | 6.56 | 34.24 |
| 478_176 | 19.66 | 0.95 | 11.76 | 6.69 | 45.02 |
| 478_177 | 20.43 | 0.93 | 8.71 | 6.57 | 34.75 |
| 478_178 | 21.54 | 8.99 | 3.80 | 61.67 | 16.76 |
| 478_179 | 21.57 | 14.39 | 3.41 | 98.53 | 15.88 |
| 478_180 | 21.57 | 8.99 | 3.70 | 61.67 | 17.26 |

NOTA: COMB da 1 a 73 STR – da 74 a 146 EQU  da 147 a 180 SLE RARA

**Combinazioni sismiche**

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_181 | 36.31 | 7.13 | 0.03 | 48.12 | 2.41 |
| 477_182 | 40.30 | 6.99 | 11.03 | 47.68 | 44.88 |
| 477_183 | 35.89 | 8.82 | 0.37 | 58.77 | 2.81 |
| 477_184 | 39.88 | 8.96 | 10.69 | 59.22 | 44.49 |
| 477_185 | 36.32 | 7.02 | 0.04 | 47.84 | 2.48 |
| 477_186 | 40.30 | 7.10 | 11.05 | 47.96 | 44.95 |
| 477_187 | 35.89 | 8.92 | 0.39 | 59.05 | 2.88 |
| 477_188 | 39.87 | 8.85 | 10.70 | 58.93 | 44.56 |
| 477_189 | 36.41 | 5.93 | 0.10 | 42.12 | 2.43 |
| 477_190 | 40.40 | 5.79 | 10.96 | 41.67 | 44.86 |
| 477_191 | 35.79 | 7.62 | 0.30 | 52.76 | 2.78 |
| 477_192 | 39.78 | 7.76 | 10.76 | 53.21 | 44.51 |
| 477_193 | 36.42 | 5.82 | 0.12 | 41.83 | 2.51 |
| 477_194 | 40.39 | 5.90 | 10.97 | 41.96 | 44.93 |
| 477_195 | 35.80 | 7.73 | 0.31 | 53.05 | 2.86 |
| 477_196 | 39.77 | 7.65 | 10.78 | 52.93 | 44.58 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 477_197 | 31.51 | 1.71 | 13.05 | 11.23 | 57.72 |
| 477_198 | 44.81 | 1.25 | 23.81 | 9.74 | 99.91 |
| 477_199 | 31.38 | 3.08 | 13.15 | 20.84 | 57.84 |
| 477_200 | 44.68 | 3.53 | 23.71 | 22.32 | 99.79 |
| 477_201 | 31.54 | 1.35 | 13.07 | 9.43 | 57.73 |
| 477_202 | 44.84 | 0.89 | 23.79 | 7.94 | 99.91 |
| 477_203 | 31.35 | 2.72 | 13.13 | 19.04 | 57.83 |
| 477_204 | 44.65 | 3.17 | 23.73 | 20.52 | 99.80 |
| 477_205 | 31.54 | 1.35 | 13.10 | 10.28 | 57.96 |
| 477_206 | 44.78 | 1.60 | 23.86 | 10.69 | 100.20 |
| 477_207 | 31.41 | 3.43 | 13.20 | 21.78 | 58.08 |
| 477_208 | 44.65 | 3.18 | 23.76 | 21.37 | 100.00 |
| 477_209 | 31.57 | 0.99 | 13.12 | 8.48 | 57.97 |
| 477_210 | 44.81 | 1.24 | 23.84 | 8.89 | 100.20 |
| 477_211 | 31.38 | 3.07 | 13.18 | 19.98 | 58.08 |
| 477_212 | 44.62 | 2.82 | 23.78 | 19.57 | 100.00 |
| 478_181 | 23.24 | 3.03 | 3.75 | 25.61 | 12.07 |
| 478_182 | 19.61 | 3.18 | 6.45 | 26.27 | 33.03 |
| 478_183 | 23.69 | 4.98 | 3.40 | 39.00 | 11.38 |
| 478_184 | 20.06 | 4.83 | 6.80 | 38.34 | 33.72 |
| 478_185 | 23.26 | 3.15 | 3.77 | 26.06 | 12.16 |
| 478_186 | 19.59 | 3.06 | 6.47 | 25.82 | 33.12 |
| 478_187 | 23.71 | 4.86 | 3.42 | 38.55 | 11.47 |
| 478_188 | 20.04 | 4.95 | 6.82 | 38.78 | 33.81 |
| 478_189 | 23.15 | 4.60 | 3.65 | 34.71 | 11.93 |
| 478_190 | 19.53 | 4.74 | 6.55 | 35.37 | 33.17 |
| 478_191 | 23.77 | 6.54 | 3.50 | 48.09 | 11.52 |
| 478_192 | 20.15 | 6.40 | 6.70 | 47.44 | 33.58 |
| 478_193 | 23.17 | 4.71 | 3.68 | 35.15 | 12.02 |
| 478_194 | 19.51 | 4.62 | 6.57 | 34.92 | 33.26 |
| 478_195 | 23.79 | 6.43 | 3.52 | 47.65 | 11.62 |
| 478_196 | 20.13 | 6.51 | 6.73 | 47.88 | 33.67 |
| 478_197 | 27.62 | 0.06 | 15.53 | 2.23 | 64.45 |
| 478_198 | 15.55 | 0.54 | 18.47 | 4.42 | 85.89 |
| 478_199 | 27.75 | 2.34 | 15.42 | 17.15 | 64.24 |
| 478_200 | 15.68 | 1.86 | 18.58 | 14.96 | 86.09 |
| 478_201 | 27.59 | 0.53 | 15.50 | 4.96 | 64.41 |
| 478_202 | 15.52 | 1.01 | 18.50 | 7.15 | 85.93 |
| 478_203 | 27.78 | 2.81 | 15.45 | 19.88 | 64.28 |
| 478_204 | 15.71 | 2.33 | 18.55 | 17.69 | 86.05 |
| 478_205 | 27.68 | 0.45 | 15.60 | 3.72 | 64.75 |
| 478_206 | 15.48 | 0.15 | 18.54 | 2.93 | 86.19 |
| 478_207 | 27.82 | 1.95 | 15.49 | 15.66 | 64.54 |

| COMB | N | HL | HT | ML | MT |
|---|---|---|---|---|---|
| | kN | kN | kN | kNm | kNm |
| 478_208 | 15.62 | 2.25 | 18.65 | 16.45 | 86.40 |
| 478_209 | 27.66 | 0.92 | 15.57 | 6.45 | 64.71 |
| 478_210 | 15.46 | 0.62 | 18.57 | 5.66 | 86.23 |
| 478_211 | 27.84 | 2.42 | 15.52 | 18.39 | 64.59 |
| 478_212 | 15.64 | 2.72 | 18.62 | 19.18 | 86.35 |

Con

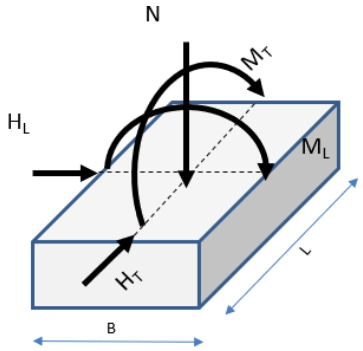
N = azione verticale

$H_L$ = taglio agente in direzione longitudinale

$H_T$ = taglio agente in direzione trasversale

$M_L$ = momento agente in direzione longitudinale

$M_T$ = momento agente in direzione trasversale




A partire dagli scarichi a testa basamento, le azioni ad intradosso plinto vengono calcolate come segue:

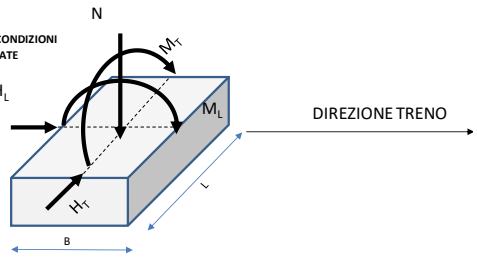
- all'azione verticale si somma il peso del plinto (e della terra sovrastante se considerato) e la relativa azione inerziale verticale in presenza di sisma (con segno meno in quanto maggiormente gravosa)
- al taglio trasversale si sottrae la differenza tra spinta passiva mobilitata e la spinta attiva e si somma l'azione inerziale orizzontale in presenza di sisma
- al momento flettente trasversale si somma il momento di trasporto dovuto al taglio trasversale come sopra definito e quello dovuto all'eccentricità trasversale del carico della sovrastruttura
- al taglio longitudinale si sottrae la differenza tra spinta passiva mobilitata e la spinta attiva e si somma l'azione inerziale orizzontale in presenza di sisma
- al momento flettente longitudinale si somma il momento di trasporto dovuto al taglio longitudinale come sopra definito e quello dovuto all'eccentricità longitudinale del carico della sovrastruttura

# 12 VERIFICHE GLOBALI FONDAZIONI DIRETTE

## 12.1 Sintesi risultati LC1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TITOLO:** | **Caso di carico MEC LC1 - combinazioni statiche** | | | | | | |
| **FONDAZIONI A PLINTO** | | | | | | | |
| **DESIGN ASSUMPTION** | **DA2** | | | | | | |
| **piano campagna sostanzialmente orizzontale** | | | | | | | |
| angolo d'attrito caratteristico ø'$_k$ | **38** | ° | 0.663 | rad | | | |
| coesione c' | **0** | kPa | | | | | |
| angolo d'attrito caratteristico ø'$_k$ alla base | **38** | ° | 0.663 | rad | | | |
| coesione alla base c' | **0** | kPa | | | | | |
| coefficiente $\gamma_\phi$ | 1.00 | | | | | | |
| coefficiente $\gamma_{c'}$ | 1.00 | | | | | | |
| coefficiente $\gamma_R$ capacità portante | 2.30 | | | | | | |
| coefficiente $\gamma_R$ scorrimento | 1.10 | | | | | | |
| coefficiente $\gamma_R$ spinta passiva | 1.40 | | | | | | |
| angolo d'attrito di design ø'$_d$ | 38.00 | ° | 0.663 | rad | tan( ø'$_d$)= | 0.78 | |
| coesione di design c'$_d$ | 0.00 | kPa | | | | | |
| coeff. attrito di design $\mu'_d$ | 0.78 | | | | | | |
| coesione alla base di design | 0.00 | kPa | | | | | |
| Dimensione fondazione B[m] (LONGITUDINALE) | **2.2** | m | | | | | |
| Dimensione fondazione L [m] (TRASVERSALE) | **2.2** | m | | | | | |
| Profondità da piano campagna D [m] | **2.2** | m | **(NB: coefficiente correttivo per rapporto D/B non considerato)** | | | | |
| Altezza plinto [m] Hp | **2.2** | m | | | | | |
| Dimensione baggiolo b[m] (LONGITUDINALE) | **0.9** | m | | | | | |
| Dimensione maggiore baggiolo l [m] (TRASVERSALE) | **0.9** | m | | | | | |
| Altezza baggiolo [m] Hb | **0.5** | m | | | | | |
| Altezza terreno sopraplinto [m] Ht | **0** | m | | | | | |
| q' = carico permanente ai lati | **44** | kPa | | | | | |
| $\gamma$ = peso specifico medio sopra la fondazione | **20** | kN/m³ | | | | | |
| $\gamma$f = peso specifico medio sotto la fondazione | **20** | kN/m³ | (valore da stabilirsi in base alla profondità di falda) | | | | |
| opzione calcolo coeff. $S_q$ e $S_\gamma$ | **1** | | **(0= Lancellotta ecc , 1 = originale EC7)** | | | | |
| | | | si useranno le formule originarie di EC7 | | | | |
| opzione calcolo per tenere in conto peso terreno di ricoprimento | **0** | (1 si - 0 no) | | | | | |
| Peso specifico medio c.a. | **25** | kN/m³ | | | | | |
| Peso proprio plinto + baggiolo + terreno sovrastante [kN] | 276 | kN | | | | | |
| Quota baricentro plinto + baggiolo + terreno sovrastante vs p.f. [kN] | **1.25** | m | | | | | |
| Coefficiente sismico kh | **0.000** | g | | | | | |
| Coefficiente sismico kv | **0.000** | g | + downward | | | | |
| Azione inerziale orizzontale plinto | 0.00 | kN | | | | | |
| Azione inerziale verticale plinto | 0.00 | kN | | | | | |

**VERIFICA IN CONDIZIONI DRENATE**

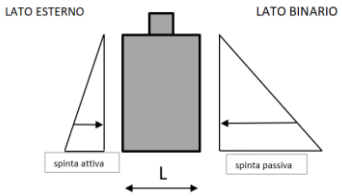



**Eccentricità degli scarichi rispetto a baricentro fondazione**

| | | | |
|---|---|---|---|
| eccentricità longitidinale eL | **0** | m | + se concorde con i momenti del traliccio |
| eccentricità trasversale eT | **0.1** | m | + se concorde con i momenti del traliccio |

**Coefficienti di spinta di progetto**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| coefficiente di spinta attiva statico Ka | **0.228** | - | | | | | |
| coefficiente di spinta attiva sismico Ka,E | **0.483** | - | | | | | |
| coefficiente di spinta passiva statico Kp | **4.395** | - | | | | | |
| coefficiente di spinta passiva sismico Kp,E | **3.251** | - | | | | | |
| coeffi. parziale riduttivo della spinta passiva | 1.40 | - | | | | | |
| moltiplicatore della spinta passiva $\alpha$ | **0.00** | long | **0.00** | trasv | | | |
| contributo delle spinte frontali long - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali long - momer | 0 | kNm | statico | 0 | kNm | sismico | |
| contributo delle spinte frontali trasv - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali trasv - mome | 0 | kNm | statico | 0 | kNm | sismico | |




CALCOLI PRELIMINARI: coefficienti di capacità portante indipendenti dai carichi

| | | | |
|---|---|---|---|
| $N_q$ = | **48.93** | $g_q$ = | 1 |
| $N_\gamma$ = | **74.90** | $g_\gamma$ = | 1 |
| $N_c$ = | **61.35** | $g_c$ = | 1 |

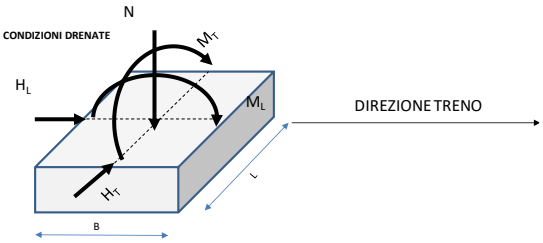
| SINTESI RISULTATI | | | | |
|---|---|---|---|---|
| Capacità portante | $F_{s\,min}$= **5.38** | n. Verif. Neg. | 0 |
| Scorrimento | $F_{s\,min}$= **5.7** | n. Verif. Neg. | 0 |
| Ribaltamento | $F_{s\,min}$= **1.34** | n. Verif. Neg. | 0 |

**TITOLO:** Caso di carico MEC LC1 - combinazioni sismiche

**FONDAZIONI A PLINTO**

| | | | | | | |
|---|---|---|---|---|---|---|
| **DESIGN ASSUMPTION** | DA2 | | | | | |
| **piano campagna sostanzialmente orizzontale** | | | | | | |
| angolo d'attrito caratteristico $\phi'_k$ | 38 | ° | 0.663 | rad | | |
| coesione c' | 0 | kPa | | | | |
| angolo d'attrito caratteristico $\phi'_k$ alla base | 38 | ° | 0.663 | rad | | |
| coesione alla base c' | 0 | kPa | | | | |
| coefficiente $\gamma_\phi$ | 1.00 | | | | | |
| coefficiente $\gamma c'$ | 1.00 | | | | | |
| coefficiente $\gamma_R$ capacità portante | 2.30 | | | | | |
| coefficiente $\gamma_R$ scorrimento | 1.10 | | | | | |
| coefficiente $\gamma_R$ spinta passiva | 1.40 | | | | | |
| angolo d'attrito di design $\phi'_d$ | 38.00 | ° | 0.663 | rad | tan( $\phi'_d$)= | 0.78 |
| coesione di design $c'_d$ | 0.00 | kPa | | | | |
| coeff. attrito di design $\mu'_d$ | 0.78 | | | | | |
| coesione alla base di design | 0.00 | kPa | | | | |
| Dimensione fondazione B[m] (LONGITUDINALE) | 2.2 | m | | | | |
| Dimensione fondazione L [m] (TRASVERSALE) | 2.2 | m | | | | |
| Profondità da piano campagna D [m] | 2.2 | m | **(NB: coefficiente correttivo per rapporto D/B non considerato)** | | | |
| Altezza plinto [m] Hp | 2.2 | m | | | | |
| Dimensione baggiolo b[m] (LONGITUDINALE) | 0.9 | m | | | | |
| Dimensione maggiore baggiolo l [m] (TRASVERSALE) | 0.9 | m | | | | |
| Altezza baggiolo [m] Hb | 0.5 | m | | | | |
| Altezza terreno sopraplinto [m] Ht | 0 | m | | | | |
| q' = carico permanente ai lati | 44 | kPa | | | | |
| $\gamma$ = peso specifico medio sopra la fondazione | 20 | kN/m³ | | | | |
| $\gamma$f = peso specifico medio sotto la fondazione | 20 | kN/m³ | (valore da stabilirsi in base alla profondità di falda) | | | |
| opzione calcolo coeff. $S_q$ e $S_\gamma$ | 1 | | **(0= Lancellotta ecc , 1 = originale EC7)** | | | |
| | | | si useranno le formule originarie di EC7 | | | |
| opzione calcolo per tenere in conto peso terreno di ricoprimento | 0 | (1 si - 0 no) | | | | |
| Peso specifico medio c.a. | 25 | kN/m³ | | | | |
| Peso proprio plinto + baggiolo + terreno sovrastante [kN] | 276 | kN | | | | |
| Quota baricentro plinto + baggiolo + terreno sovrastante vs p.f. [kN] | 1.25 | m | | | | |
| Coefficiente sismico kh | 0.261 | g | | | | |
| Coefficiente sismico kv | -0.131 | g | + downward | | | |
| Azione inerziale orizzontale plinto | 72.12 | kN | | | | |
| Azione inerziale verticale plinto | -36.06 | kN | | | | |

**VERIFICA IN CONDIZIONI DRENATE**

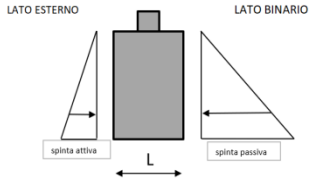



**Eccentricità degli scarichi rispetto a baricentro fondazione**

| | | | |
|---|---|---|---|
| eccentricità longitidinale eL | 0 | m | + se concorde con i momenti del traliccio |
| eccentricità trasversale eT | 0.1 | m | + se concorde con i momenti del traliccio |

**Coefficienti di spinta di progetto**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| coefficiente di spinta attiva statico Ka | 0.228 | - | | | | | |
| coefficiente di spinta attiva sismico Ka,E | 0.483 | - | | | | | |
| coefficiente di spinta passiva statico Kp | 4.395 | - | | | | | |
| coefficiente di spinta passiva sismico Kp,E | 3.251 | - | | | | | |
| coeffi. parziale riduttivo della spinta passiva $\gamma_R$ | 1.40 | - | | | | | |
| moltiplicatore della spinta passiva $\alpha$ | 0.00 | long | 0.00 | trasv | | | |
| contributo delle spinte frontali long - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali long - momento | 0 | kNm | statico | 0 | kNm | sismico | |
| contributo delle spinte frontali trasv - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali trasv - momento | 0 | kNm | statico | 0 | kNm | sismico | |




CALCOLI PRELIMINARI: coefficienti di capacità portante indipendenti dai carichi

| | | | |
|---|---|---|---|
| $N_q$ = | **48.93** | $g_q$ = | 1 |
| $N_\gamma$ = | **74.90** | $g_\gamma$ = | 1 |
| $N_c$ = | **61.35** | $g_c$ = | 1 |

**SINTESI RISULTATI**

| | | | | |
|---|---|---|---|---|
| Capacità portante | $F_{s\ min}$= | **7.94** | n. Verif. Neg. | 0 |
| Scorrimento | $F_{s\ min}$= | **3.84** | n. Verif. Neg. | 0 |
| Ribaltamento | $F_{s\ min}$= | **2.03** | n. Verif. Neg. | 0 |

Le verifiche sono soddisfatte.

## 12.2 Verifiche di dettaglio

Ribaltamento – verifiche statiche

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_1 | 346.31 | 346.31 | 28.75 | 36.49 | 9.49 | OK |
| 2093_2 | 336.50 | 336.50 | 22.13 | 32.87 | 10.24 | OK |
| 2093_3 | 346.35 | 346.35 | 28.79 | 42.95 | 8.06 | OK |
| 2093_4 | 336.53 | 336.53 | 22.17 | 39.32 | 8.56 | OK |
| 2093_5 | 355.89 | 355.89 | 123.22 | 25.29 | 2.89 | OK |
| 2093_6 | 346.08 | 346.08 | 116.60 | 21.67 | 2.97 | OK |
| 2093_7 | 351.18 | 351.18 | 186.32 | 27.89 | 1.88 | OK |
| 2093_8 | 341.37 | 341.37 | 179.67 | 24.27 | 1.90 | OK |
| 2093_9 | 351.11 | 351.11 | 123.25 | 29.33 | 2.85 | OK |
| 2093_10 | 341.30 | 341.30 | 116.63 | 25.69 | 2.93 | OK |
| 2093_11 | 351.15 | 351.15 | 123.28 | 32.29 | 2.85 | OK |
| 2093_12 | 341.34 | 341.34 | 116.66 | 28.66 | 2.93 | OK |
| 2093_13 | 349.76 | 349.76 | 28.24 | 142.52 | 2.45 | OK |
| 2093_14 | 339.95 | 339.95 | 21.62 | 138.90 | 2.45 | OK |
| 2093_15 | 340.97 | 340.97 | 27.99 | 223.27 | 1.53 | OK |
| 2093_16 | 331.16 | 331.16 | 21.37 | 219.67 | 1.51 | OK |
| 2093_17 | 344.98 | 344.98 | 28.27 | 146.55 | 2.35 | OK |
| 2093_18 | 335.17 | 335.17 | 21.65 | 142.93 | 2.35 | OK |
| 2093_19 | 345.02 | 345.02 | 28.30 | 149.52 | 2.31 | OK |
| 2093_20 | 335.21 | 335.21 | 21.68 | 145.89 | 2.30 | OK |
| 2093_21 | 346.44 | 346.44 | 186.33 | 26.72 | 1.86 | OK |
| 2093_22 | 336.63 | 336.63 | 179.68 | 23.09 | 1.87 | OK |
| 2093_23 | 346.37 | 346.37 | 123.26 | 28.16 | 2.81 | OK |
| 2093_24 | 336.56 | 336.56 | 116.64 | 24.52 | 2.89 | OK |
| 2093_25 | 346.40 | 346.40 | 123.27 | 28.78 | 2.81 | OK |
| 2093_26 | 336.59 | 336.59 | 116.65 | 25.15 | 2.89 | OK |
| 2093_27 | 338.36 | 338.36 | 28.41 | 172.36 | 1.96 | OK |
| 2093_28 | 328.55 | 328.55 | 21.79 | 168.77 | 1.95 | OK |
| 2093_29 | 341.52 | 341.52 | 28.53 | 115.57 | 2.96 | OK |
| 2093_30 | 331.71 | 331.71 | 21.91 | 111.93 | 2.96 | OK |
| 2093_31 | 341.56 | 341.56 | 28.54 | 116.19 | 2.94 | OK |
| 2093_32 | 331.74 | 331.74 | 21.92 | 112.56 | 2.95 | OK |
| 2093_33 | 346.64 | 346.64 | 28.75 | 19.44 | 12.06 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_34 | 336.83 | 336.83 | 22.13 | 15.82 | 15.22 | OK |
| 2093_35 | 346.61 | 346.61 | 28.79 | 29.32 | 11.82 | OK |
| 2093_36 | 336.80 | 336.80 | 22.17 | 25.69 | 13.11 | OK |
| 2093_37 | 356.04 | 356.04 | 65.91 | 15.24 | 5.40 | OK |
| 2093_38 | 346.23 | 346.23 | 72.53 | 12.44 | 4.77 | OK |
| 2093_39 | 351.26 | 351.26 | 128.92 | 14.37 | 2.72 | OK |
| 2093_40 | 341.45 | 341.45 | 135.54 | 11.56 | 2.52 | OK |
| 2093_41 | 351.33 | 351.33 | 65.88 | 14.78 | 5.33 | OK |
| 2093_42 | 341.52 | 341.52 | 72.49 | 11.98 | 4.71 | OK |
| 2093_43 | 351.30 | 351.30 | 65.85 | 17.83 | 5.34 | OK |
| 2093_44 | 341.48 | 341.48 | 72.47 | 14.21 | 4.71 | OK |
| 2093_45 | 362.17 | 362.17 | 29.07 | 116.97 | 3.10 | OK |
| 2093_46 | 352.36 | 352.36 | 22.46 | 118.82 | 2.97 | OK |
| 2093_47 | 361.47 | 361.47 | 29.38 | 192.91 | 1.87 | OK |
| 2093_48 | 351.66 | 351.66 | 22.77 | 194.83 | 1.80 | OK |
| 2093_49 | 357.46 | 357.46 | 29.11 | 115.49 | 3.10 | OK |
| 2093_50 | 347.65 | 347.65 | 22.49 | 117.34 | 2.96 | OK |
| 2093_51 | 357.43 | 357.43 | 29.13 | 109.12 | 3.28 | OK |
| 2093_52 | 347.61 | 347.61 | 22.51 | 110.96 | 3.13 | OK |
| 2093_53 | 346.51 | 346.51 | 128.91 | 12.86 | 2.69 | OK |
| 2093_54 | 336.70 | 336.70 | 135.52 | 10.06 | 2.48 | OK |
| 2093_55 | 346.58 | 346.58 | 65.86 | 13.27 | 5.26 | OK |
| 2093_56 | 336.77 | 336.77 | 72.48 | 10.47 | 4.65 | OK |
| 2093_57 | 346.55 | 346.55 | 65.85 | 14.33 | 5.26 | OK |
| 2093_58 | 336.74 | 336.74 | 72.47 | 10.95 | 4.65 | OK |
| 2093_59 | 354.58 | 354.58 | 28.99 | 143.17 | 2.48 | OK |
| 2093_60 | 344.77 | 344.77 | 22.37 | 145.01 | 2.38 | OK |
| 2093_61 | 351.43 | 351.43 | 28.87 | 85.76 | 4.10 | OK |
| 2093_62 | 341.61 | 341.61 | 22.26 | 87.60 | 3.90 | OK |
| 2093_63 | 351.39 | 351.39 | 28.88 | 81.71 | 4.30 | OK |
| 2093_64 | 341.58 | 341.58 | 22.27 | 83.55 | 4.09 | OK |
| 2093_65 | 346.34 | 346.34 | 28.57 | 6.26 | 12.12 | OK |
| 2093_66 | 336.53 | 336.53 | 21.96 | 7.42 | 15.33 | OK |
| 2093_67 | 346.31 | 346.31 | 28.61 | 11.99 | 12.10 | OK |
| 2093_68 | 336.50 | 336.50 | 22.00 | 8.37 | 15.30 | OK |
| 2093_69 | 346.60 | 346.60 | 28.57 | 19.27 | 12.13 | OK |
| 2093_70 | 336.79 | 336.79 | 21.96 | 21.11 | 15.34 | OK |
| 2093_71 | 346.64 | 346.64 | 28.61 | 12.81 | 12.11 | OK |
| 2093_72 | 336.82 | 336.82 | 22.00 | 14.65 | 15.31 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_73 | 337.54 | 337.54 | 22.08 | 11.43 | 15.29 | OK |
| 2093_74 | 309.37 | 309.37 | 24.33 | 34.07 | 9.08 | OK |
| 2093_75 | 302.83 | 302.83 | 19.92 | 31.65 | 9.57 | OK |
| 2093_76 | 309.41 | 309.41 | 24.38 | 40.53 | 7.63 | OK |
| 2093_77 | 302.87 | 302.87 | 19.96 | 38.12 | 7.95 | OK |
| 2093_78 | 318.96 | 318.96 | 118.81 | 22.88 | 2.68 | OK |
| 2093_79 | 312.42 | 312.42 | 114.40 | 20.46 | 2.73 | OK |
| 2093_80 | 314.25 | 314.25 | 181.92 | 25.47 | 1.73 | OK |
| 2093_81 | 307.71 | 307.71 | 177.43 | 23.05 | 1.73 | OK |
| 2093_82 | 314.18 | 314.18 | 118.84 | 26.91 | 2.64 | OK |
| 2093_83 | 307.64 | 307.64 | 114.42 | 24.49 | 2.69 | OK |
| 2093_84 | 314.21 | 314.21 | 118.86 | 29.87 | 2.64 | OK |
| 2093_85 | 307.67 | 307.67 | 114.45 | 27.45 | 2.69 | OK |
| 2093_86 | 312.83 | 312.83 | 23.83 | 140.10 | 2.23 | OK |
| 2093_87 | 306.29 | 306.29 | 19.42 | 137.69 | 2.22 | OK |
| 2093_88 | 304.03 | 304.03 | 23.58 | 220.90 | 1.38 | OK |
| 2093_89 | 297.49 | 297.49 | 19.16 | 218.43 | 1.36 | OK |
| 2093_90 | 308.05 | 308.05 | 23.86 | 144.14 | 2.14 | OK |
| 2093_91 | 301.51 | 301.51 | 19.44 | 141.72 | 2.13 | OK |
| 2093_92 | 308.08 | 308.08 | 23.88 | 147.10 | 2.09 | OK |
| 2093_93 | 301.54 | 301.54 | 19.47 | 144.68 | 2.08 | OK |
| 2093_94 | 309.50 | 309.50 | 181.93 | 24.30 | 1.70 | OK |
| 2093_95 | 302.96 | 302.96 | 177.43 | 21.88 | 1.71 | OK |
| 2093_96 | 309.43 | 309.43 | 118.85 | 25.74 | 2.60 | OK |
| 2093_97 | 302.89 | 302.89 | 114.44 | 23.31 | 2.65 | OK |
| 2093_98 | 309.46 | 309.46 | 118.86 | 26.36 | 2.60 | OK |
| 2093_99 | 302.92 | 302.92 | 114.45 | 23.94 | 2.65 | OK |
| 2093_100 | 301.43 | 301.43 | 23.99 | 169.99 | 1.77 | OK |
| 2093_101 | 294.89 | 294.89 | 19.58 | 167.57 | 1.76 | OK |
| 2093_102 | 304.59 | 304.59 | 24.12 | 113.15 | 2.69 | OK |
| 2093_103 | 298.05 | 298.05 | 19.70 | 110.73 | 2.69 | OK |
| 2093_104 | 304.62 | 304.62 | 24.13 | 113.77 | 2.68 | OK |
| 2093_105 | 298.08 | 298.08 | 19.71 | 111.35 | 2.68 | OK |
| 2093_106 | 309.70 | 309.70 | 24.33 | 17.02 | 12.73 | OK |
| 2093_107 | 303.16 | 303.16 | 19.92 | 14.61 | 15.22 | OK |
| 2093_108 | 309.67 | 309.67 | 24.38 | 26.90 | 11.51 | OK |
| 2093_109 | 303.13 | 303.13 | 19.96 | 24.48 | 12.39 | OK |
| 2093_110 | 319.10 | 319.10 | 70.32 | 13.37 | 4.54 | OK |
| 2093_111 | 312.56 | 312.56 | 74.74 | 11.50 | 4.18 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_112 | 314.32 | 314.32 | 133.33 | 12.50 | 2.36 | OK |
| 2093_113 | 307.78 | 307.78 | 137.75 | 10.63 | 2.23 | OK |
| 2093_114 | 314.39 | 314.39 | 70.28 | 12.91 | 4.47 | OK |
| 2093_115 | 307.85 | 307.85 | 74.70 | 11.04 | 4.12 | OK |
| 2093_116 | 314.36 | 314.36 | 70.27 | 15.41 | 4.47 | OK |
| 2093_117 | 307.82 | 307.82 | 74.67 | 13.00 | 4.12 | OK |
| 2093_118 | 325.23 | 325.23 | 24.67 | 118.20 | 2.75 | OK |
| 2093_119 | 318.69 | 318.69 | 20.25 | 119.43 | 2.67 | OK |
| 2093_120 | 324.54 | 324.54 | 24.98 | 194.19 | 1.67 | OK |
| 2093_121 | 318.00 | 318.00 | 20.56 | 195.37 | 1.63 | OK |
| 2093_122 | 320.52 | 320.52 | 24.70 | 116.72 | 2.75 | OK |
| 2093_123 | 313.98 | 313.98 | 20.28 | 117.95 | 2.66 | OK |
| 2093_124 | 320.49 | 320.49 | 24.72 | 110.34 | 2.90 | OK |
| 2093_125 | 313.95 | 313.95 | 20.31 | 111.57 | 2.81 | OK |
| 2093_126 | 309.57 | 309.57 | 133.32 | 10.99 | 2.32 | OK |
| 2093_127 | 303.03 | 303.03 | 137.73 | 9.12 | 2.20 | OK |
| 2093_128 | 309.64 | 309.64 | 70.28 | 11.40 | 4.41 | OK |
| 2093_129 | 303.10 | 303.10 | 74.69 | 9.54 | 4.06 | OK |
| 2093_130 | 309.61 | 309.61 | 70.26 | 11.91 | 4.41 | OK |
| 2093_131 | 303.07 | 303.07 | 74.68 | 10.02 | 4.06 | OK |
| 2093_132 | 317.65 | 317.65 | 24.58 | 144.39 | 2.20 | OK |
| 2093_133 | 311.11 | 311.11 | 20.16 | 145.62 | 2.14 | OK |
| 2093_134 | 314.49 | 314.49 | 24.47 | 86.98 | 3.62 | OK |
| 2093_135 | 307.95 | 307.95 | 20.05 | 88.21 | 3.49 | OK |
| 2093_136 | 314.46 | 314.46 | 24.48 | 82.94 | 3.79 | OK |
| 2093_137 | 307.92 | 307.92 | 20.06 | 84.17 | 3.66 | OK |
| 2093_138 | 309.40 | 309.40 | 24.17 | 6.81 | 12.80 | OK |
| 2093_139 | 302.86 | 302.86 | 19.75 | 8.04 | 15.34 | OK |
| 2093_140 | 309.37 | 309.37 | 24.20 | 9.58 | 12.78 | OK |
| 2093_141 | 302.83 | 302.83 | 19.80 | 7.16 | 15.30 | OK |
| 2093_142 | 309.66 | 309.66 | 24.17 | 20.50 | 12.81 | OK |
| 2093_143 | 303.12 | 303.12 | 19.75 | 21.72 | 13.95 | OK |
| 2093_144 | 309.70 | 309.70 | 24.20 | 14.04 | 12.79 | OK |
| 2093_145 | 303.16 | 303.16 | 19.80 | 15.27 | 15.31 | OK |
| 2093_146 | 306.27 | 306.27 | 22.06 | 12.09 | 13.88 | OK |
| 2093_147 | 336.55 | 336.55 | 22.06 | 17.77 | 15.25 | OK |
| 2093_148 | 336.55 | 336.55 | 22.10 | 25.94 | 12.97 | OK |
| 2093_149 | 336.58 | 336.58 | 22.13 | 30.25 | 11.13 | OK |
| 2093_150 | 335.67 | 335.67 | 21.78 | 99.31 | 3.38 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_151 | 332.99 | 332.99 | 21.61 | 150.46 | 2.21 | OK |
| 2093_152 | 335.69 | 335.69 | 21.80 | 101.29 | 3.31 | OK |
| 2093_153 | 338.86 | 338.86 | 21.77 | 96.63 | 3.51 | OK |
| 2093_154 | 339.76 | 339.76 | 85.11 | 21.17 | 3.99 | OK |
| 2093_155 | 339.80 | 339.80 | 127.14 | 20.21 | 2.67 | OK |
| 2093_156 | 339.78 | 339.78 | 85.12 | 23.13 | 3.99 | OK |
| 2093_157 | 342.94 | 342.94 | 85.09 | 18.47 | 4.03 | OK |
| 2093_158 | 333.36 | 333.36 | 21.96 | 78.66 | 4.24 | OK |
| 2093_159 | 331.26 | 331.26 | 21.88 | 116.55 | 2.84 | OK |
| 2093_160 | 333.38 | 333.38 | 21.97 | 79.07 | 4.22 | OK |
| 2093_161 | 336.59 | 336.59 | 85.12 | 20.38 | 3.95 | OK |
| 2093_162 | 336.64 | 336.64 | 127.14 | 19.43 | 2.65 | OK |
| 2093_163 | 336.61 | 336.61 | 85.13 | 20.79 | 3.95 | OK |
| 2093_164 | 336.77 | 336.77 | 22.06 | 9.76 | 15.26 | OK |
| 2093_165 | 336.77 | 336.77 | 22.10 | 14.58 | 15.24 | OK |
| 2093_166 | 336.75 | 336.75 | 22.13 | 21.16 | 15.22 | OK |
| 2093_167 | 343.99 | 343.99 | 22.35 | 76.18 | 4.52 | OK |
| 2093_168 | 346.66 | 346.66 | 22.54 | 127.81 | 2.71 | OK |
| 2093_169 | 343.96 | 343.96 | 22.37 | 71.93 | 4.78 | OK |
| 2093_170 | 347.13 | 347.13 | 22.33 | 77.17 | 4.50 | OK |
| 2093_171 | 339.90 | 339.90 | 40.98 | 11.10 | 8.30 | OK |
| 2093_172 | 339.85 | 339.85 | 83.00 | 10.82 | 4.09 | OK |
| 2093_173 | 339.88 | 339.88 | 40.96 | 13.50 | 8.30 | OK |
| 2093_174 | 343.04 | 343.04 | 41.00 | 11.40 | 8.37 | OK |
| 2093_175 | 339.96 | 339.96 | 22.19 | 56.34 | 6.03 | OK |
| 2093_176 | 342.07 | 342.07 | 22.27 | 94.62 | 3.62 | OK |
| 2093_177 | 339.94 | 339.94 | 22.20 | 53.65 | 6.34 | OK |
| 2093_178 | 336.73 | 336.73 | 40.97 | 10.09 | 8.22 | OK |
| 2093_179 | 336.69 | 336.69 | 83.00 | 9.82 | 4.06 | OK |
| 2093_180 | 336.71 | 336.71 | 40.96 | 11.16 | 8.22 | OK |
| 4506_1 | 347.71 | 347.71 | 3.79 | 46.60 | 7.46 | OK |
| 4506_2 | 337.65 | 337.65 | 2.90 | 34.99 | 9.65 | OK |
| 4506_3 | 347.68 | 347.68 | 3.75 | 36.70 | 9.47 | OK |
| 4506_4 | 337.62 | 337.62 | 2.86 | 25.09 | 13.46 | OK |
| 4506_5 | 357.42 | 357.42 | 97.46 | 56.96 | 3.67 | OK |
| 4506_6 | 347.36 | 347.36 | 96.58 | 45.35 | 3.60 | OK |
| 4506_7 | 352.49 | 352.49 | 160.39 | 54.06 | 2.20 | OK |
| 4506_8 | 342.43 | 342.43 | 159.45 | 42.44 | 2.15 | OK |
| 4506_9 | 352.56 | 352.56 | 97.66 | 55.48 | 3.61 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_10 | 342.50 | 342.50 | 96.78 | 43.86 | 3.54 | OK |
| 4506_11 | 352.52 | 352.52 | 97.64 | 49.09 | 3.61 | OK |
| 4506_12 | 342.46 | 342.46 | 96.75 | 37.48 | 3.54 | OK |
| 4506_13 | 363.55 | 363.55 | 3.84 | 174.78 | 2.08 | OK |
| 4506_14 | 353.49 | 353.49 | 2.95 | 163.16 | 2.17 | OK |
| 4506_15 | 362.70 | 362.70 | 4.31 | 250.40 | 1.45 | OK |
| 4506_16 | 352.64 | 352.64 | 3.42 | 238.82 | 1.48 | OK |
| 4506_17 | 358.68 | 358.68 | 4.04 | 173.30 | 2.07 | OK |
| 4506_18 | 348.62 | 348.62 | 3.15 | 161.69 | 2.16 | OK |
| 4506_19 | 358.65 | 358.65 | 4.01 | 166.91 | 2.15 | OK |
| 4506_20 | 348.59 | 348.59 | 3.12 | 155.30 | 2.24 | OK |
| 4506_21 | 347.59 | 347.59 | 160.58 | 54.37 | 2.16 | OK |
| 4506_22 | 337.53 | 337.53 | 159.64 | 42.76 | 2.11 | OK |
| 4506_23 | 347.66 | 347.66 | 97.88 | 55.80 | 3.55 | OK |
| 4506_24 | 337.60 | 337.60 | 96.98 | 44.18 | 3.48 | OK |
| 4506_25 | 347.63 | 347.63 | 97.87 | 51.75 | 3.55 | OK |
| 4506_26 | 337.57 | 337.57 | 96.97 | 40.13 | 3.48 | OK |
| 4506_27 | 355.66 | 355.66 | 4.12 | 201.02 | 1.77 | OK |
| 4506_28 | 345.60 | 345.60 | 3.23 | 189.34 | 1.83 | OK |
| 4506_29 | 352.50 | 352.50 | 4.01 | 143.76 | 2.45 | OK |
| 4506_30 | 342.44 | 342.44 | 3.12 | 132.15 | 2.59 | OK |
| 4506_31 | 352.47 | 352.47 | 4.00 | 139.71 | 2.52 | OK |
| 4506_32 | 342.41 | 342.41 | 3.11 | 128.10 | 2.67 | OK |
| 4506_33 | 347.39 | 347.39 | 3.79 | 29.49 | 11.78 | OK |
| 4506_34 | 337.33 | 337.33 | 2.90 | 17.88 | 18.87 | OK |
| 4506_35 | 347.42 | 347.42 | 3.75 | 23.02 | 15.09 | OK |
| 4506_36 | 337.36 | 337.36 | 2.86 | 11.41 | 29.58 | OK |
| 4506_37 | 357.27 | 357.27 | 90.61 | 42.41 | 3.94 | OK |
| 4506_38 | 347.21 | 347.21 | 91.50 | 30.79 | 3.79 | OK |
| 4506_39 | 352.41 | 352.41 | 153.11 | 38.94 | 2.30 | OK |
| 4506_40 | 342.35 | 342.35 | 153.95 | 27.32 | 2.22 | OK |
| 4506_41 | 352.34 | 352.34 | 90.42 | 37.52 | 3.90 | OK |
| 4506_42 | 342.28 | 342.28 | 91.30 | 25.90 | 3.75 | OK |
| 4506_43 | 352.37 | 352.37 | 90.44 | 34.55 | 3.90 | OK |
| 4506_44 | 342.31 | 342.31 | 91.33 | 22.93 | 3.75 | OK |
| 4506_45 | 351.14 | 351.14 | 3.01 | 83.99 | 4.18 | OK |
| 4506_46 | 341.08 | 341.08 | 2.12 | 93.77 | 3.64 | OK |
| 4506_47 | 342.19 | 342.19 | 2.98 | 164.38 | 2.08 | OK |
| 4506_48 | 332.13 | 332.13 | 2.18 | 174.20 | 1.91 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_49 | 346.21 | 346.21 | 3.21 | 87.99 | 3.93 | OK |
| 4506_50 | 336.15 | 336.15 | 2.32 | 97.78 | 3.44 | OK |
| 4506_51 | 346.24 | 346.24 | 3.18 | 90.97 | 3.81 | OK |
| 4506_52 | 336.18 | 336.18 | 2.29 | 100.75 | 3.34 | OK |
| 4506_53 | 347.51 | 347.51 | 152.91 | 39.25 | 2.27 | OK |
| 4506_54 | 337.45 | 337.45 | 153.76 | 27.64 | 2.19 | OK |
| 4506_55 | 347.44 | 347.44 | 90.20 | 37.84 | 3.85 | OK |
| 4506_56 | 337.38 | 337.38 | 91.10 | 26.21 | 3.70 | OK |
| 4506_57 | 347.48 | 347.48 | 90.21 | 37.20 | 3.85 | OK |
| 4506_58 | 337.42 | 337.42 | 91.11 | 25.59 | 3.70 | OK |
| 4506_59 | 339.44 | 339.44 | 3.55 | 113.79 | 2.98 | OK |
| 4506_60 | 329.38 | 329.38 | 2.66 | 123.57 | 2.67 | OK |
| 4506_61 | 342.60 | 342.60 | 3.67 | 57.15 | 5.99 | OK |
| 4506_62 | 332.54 | 332.54 | 2.78 | 66.94 | 4.97 | OK |
| 4506_63 | 342.63 | 342.63 | 3.65 | 57.78 | 5.93 | OK |
| 4506_64 | 332.57 | 332.57 | 2.76 | 67.56 | 4.92 | OK |
| 4506_65 | 347.69 | 347.69 | 3.96 | 77.63 | 4.48 | OK |
| 4506_66 | 337.62 | 337.62 | 3.07 | 66.02 | 5.11 | OK |
| 4506_67 | 347.72 | 347.72 | 3.92 | 71.15 | 4.89 | OK |
| 4506_68 | 337.66 | 337.66 | 3.03 | 59.54 | 5.67 | OK |
| 4506_69 | 347.42 | 347.42 | 3.96 | 63.94 | 5.43 | OK |
| 4506_70 | 337.36 | 337.36 | 3.07 | 52.32 | 6.45 | OK |
| 4506_71 | 347.39 | 347.39 | 3.92 | 54.05 | 6.43 | OK |
| 4506_72 | 337.33 | 337.33 | 3.03 | 42.44 | 7.95 | OK |
| 4506_73 | 338.27 | 338.27 | 2.94 | 39.54 | 8.56 | OK |
| 4506_74 | 310.61 | 310.61 | 3.20 | 38.86 | 7.99 | OK |
| 4506_75 | 303.91 | 303.91 | 2.61 | 31.12 | 9.77 | OK |
| 4506_76 | 310.58 | 310.58 | 3.16 | 28.96 | 10.72 | OK |
| 4506_77 | 303.87 | 303.87 | 2.56 | 21.22 | 14.32 | OK |
| 4506_78 | 320.32 | 320.32 | 96.87 | 49.22 | 3.31 | OK |
| 4506_79 | 313.61 | 313.61 | 96.27 | 41.48 | 3.26 | OK |
| 4506_80 | 315.38 | 315.38 | 159.76 | 46.31 | 1.97 | OK |
| 4506_81 | 308.68 | 308.68 | 159.13 | 38.57 | 1.94 | OK |
| 4506_82 | 315.45 | 315.45 | 97.07 | 47.73 | 3.25 | OK |
| 4506_83 | 308.75 | 308.75 | 96.47 | 39.99 | 3.20 | OK |
| 4506_84 | 315.42 | 315.42 | 97.04 | 41.35 | 3.25 | OK |
| 4506_85 | 308.71 | 308.71 | 96.45 | 33.61 | 3.20 | OK |
| 4506_86 | 326.45 | 326.45 | 3.25 | 167.03 | 1.95 | OK |
| 4506_87 | 319.74 | 319.74 | 2.66 | 159.29 | 2.01 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_88 | 325.60 | 325.60 | 3.72 | 242.68 | 1.34 | OK |
| 4506_89 | 318.89 | 318.89 | 3.13 | 234.96 | 1.36 | OK |
| 4506_90 | 321.58 | 321.58 | 3.44 | 165.56 | 1.94 | OK |
| 4506_91 | 314.88 | 314.88 | 2.85 | 157.82 | 2.00 | OK |
| 4506_92 | 321.55 | 321.55 | 3.42 | 159.17 | 2.02 | OK |
| 4506_93 | 314.84 | 314.84 | 2.83 | 151.43 | 2.08 | OK |
| 4506_94 | 310.49 | 310.49 | 159.96 | 46.63 | 1.94 | OK |
| 4506_95 | 303.78 | 303.78 | 159.43 | 38.89 | 1.91 | OK |
| 4506_96 | 310.56 | 310.56 | 97.29 | 48.06 | 3.19 | OK |
| 4506_97 | 303.85 | 303.85 | 96.69 | 40.31 | 3.14 | OK |
| 4506_98 | 310.52 | 310.52 | 97.27 | 44.00 | 3.19 | OK |
| 4506_99 | 303.82 | 303.82 | 96.68 | 36.26 | 3.14 | OK |
| 4506_100 | 318.56 | 318.56 | 3.53 | 193.20 | 1.65 | OK |
| 4506_101 | 311.85 | 311.85 | 2.94 | 185.48 | 1.68 | OK |
| 4506_102 | 315.40 | 315.40 | 3.42 | 136.02 | 2.32 | OK |
| 4506_103 | 308.69 | 308.69 | 2.82 | 128.27 | 2.41 | OK |
| 4506_104 | 315.37 | 315.37 | 3.40 | 131.97 | 2.39 | OK |
| 4506_105 | 308.66 | 308.66 | 2.81 | 124.23 | 2.48 | OK |
| 4506_106 | 310.28 | 310.28 | 3.20 | 21.75 | 14.27 | OK |
| 4506_107 | 303.58 | 303.58 | 2.61 | 14.01 | 21.67 | OK |
| 4506_108 | 310.32 | 310.32 | 3.16 | 15.28 | 20.31 | OK |
| 4506_109 | 303.61 | 303.61 | 2.56 | 7.54 | 40.29 | OK |
| 4506_110 | 320.17 | 320.17 | 91.21 | 34.66 | 3.51 | OK |
| 4506_111 | 313.46 | 313.46 | 91.79 | 26.92 | 3.41 | OK |
| 4506_112 | 315.31 | 315.31 | 153.74 | 31.19 | 2.05 | OK |
| 4506_113 | 308.60 | 308.60 | 154.27 | 23.45 | 2.00 | OK |
| 4506_114 | 315.24 | 315.24 | 91.01 | 29.77 | 3.46 | OK |
| 4506_115 | 308.53 | 308.53 | 91.61 | 22.03 | 3.37 | OK |
| 4506_116 | 315.27 | 315.27 | 91.04 | 26.81 | 3.46 | OK |
| 4506_117 | 308.56 | 308.56 | 91.63 | 19.06 | 3.37 | OK |
| 4506_118 | 314.04 | 314.04 | 2.42 | 90.51 | 3.47 | OK |
| 4506_119 | 307.33 | 307.33 | 1.83 | 97.03 | 3.17 | OK |
| 4506_120 | 305.09 | 305.09 | 2.45 | 170.95 | 1.78 | OK |
| 4506_121 | 298.38 | 298.38 | 1.91 | 177.45 | 1.68 | OK |
| 4506_122 | 309.11 | 309.11 | 2.62 | 94.52 | 3.27 | OK |
| 4506_123 | 302.40 | 302.40 | 2.02 | 101.04 | 2.99 | OK |
| 4506_124 | 309.14 | 309.14 | 2.59 | 97.49 | 3.17 | OK |
| 4506_125 | 302.43 | 302.43 | 2.00 | 104.01 | 2.91 | OK |
| 4506_126 | 310.41 | 310.41 | 153.44 | 31.51 | 2.02 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_127 | 303.70 | 303.70 | 154.07 | 23.77 | 1.97 | OK |
| 4506_128 | 310.34 | 310.34 | 90.79 | 30.09 | 3.42 | OK |
| 4506_129 | 303.63 | 303.63 | 91.39 | 22.34 | 3.32 | OK |
| 4506_130 | 310.37 | 310.37 | 90.81 | 29.46 | 3.42 | OK |
| 4506_131 | 303.67 | 303.67 | 91.40 | 21.72 | 3.32 | OK |
| 4506_132 | 302.34 | 302.34 | 2.96 | 120.31 | 2.51 | OK |
| 4506_133 | 295.63 | 295.63 | 2.36 | 126.83 | 2.33 | OK |
| 4506_134 | 305.50 | 305.50 | 3.07 | 63.67 | 4.80 | OK |
| 4506_135 | 298.79 | 298.79 | 2.48 | 70.20 | 4.26 | OK |
| 4506_136 | 305.53 | 305.53 | 3.06 | 64.30 | 4.75 | OK |
| 4506_137 | 298.82 | 298.82 | 2.47 | 70.83 | 4.22 | OK |
| 4506_138 | 310.58 | 310.58 | 3.37 | 69.89 | 4.44 | OK |
| 4506_139 | 303.88 | 303.88 | 2.78 | 62.14 | 4.89 | OK |
| 4506_140 | 310.61 | 310.61 | 3.33 | 63.41 | 4.90 | OK |
| 4506_141 | 303.91 | 303.91 | 2.73 | 55.67 | 5.46 | OK |
| 4506_142 | 310.32 | 310.32 | 3.37 | 56.19 | 5.52 | OK |
| 4506_143 | 303.61 | 303.61 | 2.78 | 48.45 | 6.27 | OK |
| 4506_144 | 310.29 | 310.29 | 3.33 | 46.31 | 6.70 | OK |
| 4506_145 | 303.58 | 303.58 | 2.73 | 38.57 | 7.87 | OK |
| 4506_146 | 307.10 | 307.10 | 2.97 | 38.71 | 7.93 | OK |
| 4506_147 | 337.60 | 337.60 | 2.97 | 44.41 | 7.60 | OK |
| 4506_148 | 337.60 | 337.60 | 2.92 | 36.22 | 9.32 | OK |
| 4506_149 | 337.58 | 337.58 | 2.89 | 29.63 | 11.39 | OK |
| 4506_150 | 344.91 | 344.91 | 3.09 | 120.69 | 2.86 | OK |
| 4506_151 | 347.59 | 347.59 | 3.27 | 172.11 | 2.02 | OK |
| 4506_152 | 344.89 | 344.89 | 3.07 | 116.44 | 2.96 | OK |
| 4506_153 | 348.16 | 348.16 | 2.96 | 121.68 | 2.86 | OK |
| 4506_154 | 340.83 | 340.83 | 65.51 | 42.15 | 5.20 | OK |
| 4506_155 | 340.78 | 340.78 | 107.29 | 41.20 | 3.18 | OK |
| 4506_156 | 340.81 | 340.81 | 65.49 | 37.89 | 5.20 | OK |
| 4506_157 | 344.07 | 344.07 | 65.38 | 43.13 | 5.26 | OK |
| 4506_158 | 340.79 | 340.79 | 3.07 | 101.00 | 3.37 | OK |
| 4506_159 | 342.90 | 342.90 | 3.14 | 139.14 | 2.46 | OK |
| 4506_160 | 340.77 | 340.77 | 3.06 | 98.30 | 3.47 | OK |
| 4506_161 | 337.56 | 337.56 | 65.64 | 42.36 | 5.14 | OK |
| 4506_162 | 337.52 | 337.52 | 107.44 | 41.41 | 3.14 | OK |
| 4506_163 | 337.54 | 337.54 | 65.63 | 39.66 | 5.14 | OK |
| 4506_164 | 337.38 | 337.38 | 2.97 | 33.00 | 10.22 | OK |
| 4506_165 | 337.38 | 337.38 | 2.92 | 24.83 | 13.59 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_166 | 337.40 | 337.40 | 2.89 | 20.51 | 16.45 | OK |
| 4506_167 | 336.60 | 336.60 | 2.54 | 54.31 | 6.20 | OK |
| 4506_168 | 333.92 | 333.92 | 2.35 | 105.24 | 3.17 | OK |
| 4506_169 | 336.62 | 336.62 | 2.52 | 56.30 | 5.98 | OK |
| 4506_170 | 339.88 | 339.88 | 2.40 | 51.64 | 6.58 | OK |
| 4506_171 | 340.68 | 340.68 | 59.89 | 30.16 | 5.69 | OK |
| 4506_172 | 340.73 | 340.73 | 101.67 | 31.12 | 3.35 | OK |
| 4506_173 | 340.70 | 340.70 | 59.89 | 28.19 | 5.69 | OK |
| 4506_174 | 343.97 | 343.97 | 60.01 | 33.44 | 5.73 | OK |
| 4506_175 | 334.19 | 334.19 | 2.84 | 33.75 | 9.90 | OK |
| 4506_176 | 332.08 | 332.08 | 2.76 | 71.52 | 4.64 | OK |
| 4506_177 | 334.21 | 334.21 | 2.83 | 34.18 | 9.78 | OK |
| 4506_178 | 337.42 | 337.42 | 59.74 | 30.38 | 5.65 | OK |
| 4506_179 | 337.47 | 337.47 | 101.54 | 31.33 | 3.32 | OK |
| 4506_180 | 337.44 | 337.44 | 59.75 | 29.97 | 5.65 | OK |

Scorrimento – verifiche statiche

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| COMB | kN | kN | | |
| 2093_1 | 223.6 | 4.8 | 46.39 | OK |
| 2093_2 | 217.3 | 4.4 | 49.62 | OK |
| 2093_3 | 223.6 | 5.5 | 40.77 | OK |
| 2093_4 | 217.3 | 5.1 | 42.79 | OK |
| 2093_5 | 229.8 | 12.5 | 18.36 | OK |
| 2093_6 | 223.5 | 11.9 | 18.79 | OK |
| 2093_7 | 226.8 | 19.0 | 11.92 | OK |
| 2093_8 | 220.4 | 18.4 | 11.99 | OK |
| 2093_9 | 226.7 | 12.7 | 17.88 | OK |
| 2093_10 | 220.4 | 12.1 | 18.29 | OK |
| 2093_11 | 226.7 | 12.7 | 17.79 | OK |
| 2093_12 | 220.4 | 12.1 | 18.19 | OK |
| 2093_13 | 225.8 | 19.7 | 11.44 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_14 | 219.5 | 19.5 | 11.25 | OK |
| 2093_15 | 220.2 | 32.0 | 6.88 | OK |
| 2093_16 | 213.8 | 31.8 | 6.72 | OK |
| 2093_17 | 222.8 | 20.6 | 10.81 | OK |
| 2093_18 | 216.4 | 20.4 | 10.61 | OK |
| 2093_19 | 222.8 | 20.9 | 10.65 | OK |
| 2093_20 | 216.4 | 20.7 | 10.46 | OK |
| 2093_21 | 223.7 | 19.0 | 11.76 | OK |
| 2093_22 | 217.4 | 18.4 | 11.81 | OK |
| 2093_23 | 223.6 | 12.7 | 17.62 | OK |
| 2093_24 | 217.3 | 12.1 | 18.01 | OK |
| 2093_25 | 223.7 | 12.7 | 17.63 | OK |
| 2093_26 | 217.3 | 12.1 | 18.02 | OK |
| 2093_27 | 218.5 | 25.0 | 8.75 | OK |
| 2093_28 | 212.1 | 24.8 | 8.57 | OK |
| 2093_29 | 220.5 | 16.4 | 13.41 | OK |
| 2093_30 | 214.2 | 16.2 | 13.22 | OK |
| 2093_31 | 220.5 | 16.4 | 13.43 | OK |
| 2093_32 | 214.2 | 16.2 | 13.23 | OK |
| 2093_33 | 223.8 | 2.7 | 82.30 | OK |
| 2093_34 | 217.5 | 2.1 | 104.03 | OK |
| 2093_35 | 223.8 | 3.4 | 66.39 | OK |
| 2093_36 | 217.5 | 2.8 | 77.41 | OK |
| 2093_37 | 229.9 | 7.1 | 32.22 | OK |
| 2093_38 | 223.6 | 7.8 | 28.81 | OK |
| 2093_39 | 226.8 | 13.6 | 16.71 | OK |
| 2093_40 | 220.5 | 14.2 | 15.54 | OK |
| 2093_41 | 226.8 | 7.1 | 31.89 | OK |
| 2093_42 | 220.5 | 7.7 | 28.51 | OK |
| 2093_43 | 226.8 | 7.1 | 31.96 | OK |
| 2093_44 | 220.5 | 7.7 | 28.63 | OK |
| 2093_45 | 233.9 | 18.7 | 12.51 | OK |
| 2093_46 | 227.5 | 18.8 | 12.13 | OK |
| 2093_47 | 233.4 | 29.9 | 7.82 | OK |
| 2093_48 | 227.1 | 30.0 | 7.58 | OK |
| 2093_49 | 230.8 | 18.5 | 12.48 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = (N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_50 | 224.5 | 18.6 | 12.09 | OK |
| 2093_51 | 230.8 | 17.5 | 13.17 | OK |
| 2093_52 | 224.5 | 17.6 | 12.76 | OK |
| 2093_53 | 223.7 | 13.6 | 16.48 | OK |
| 2093_54 | 217.4 | 14.2 | 15.32 | OK |
| 2093_55 | 223.8 | 7.1 | 31.49 | OK |
| 2093_56 | 217.4 | 7.7 | 28.14 | OK |
| 2093_57 | 223.8 | 7.1 | 31.58 | OK |
| 2093_58 | 217.4 | 7.7 | 28.25 | OK |
| 2093_59 | 229.0 | 22.7 | 10.08 | OK |
| 2093_60 | 222.6 | 22.8 | 9.77 | OK |
| 2093_61 | 226.9 | 14.2 | 15.97 | OK |
| 2093_62 | 220.6 | 14.3 | 15.47 | OK |
| 2093_63 | 226.9 | 13.6 | 16.73 | OK |
| 2093_64 | 220.6 | 13.6 | 16.21 | OK |
| 2093_65 | 223.6 | 2.8 | 81.18 | OK |
| 2093_66 | 217.3 | 2.2 | 97.29 | OK |
| 2093_67 | 223.6 | 2.7 | 81.81 | OK |
| 2093_68 | 217.3 | 2.1 | 103.26 | OK |
| 2093_69 | 223.8 | 4.4 | 51.19 | OK |
| 2093_70 | 217.5 | 4.2 | 52.22 | OK |
| 2093_71 | 223.8 | 3.8 | 59.15 | OK |
| 2093_72 | 217.5 | 3.5 | 61.99 | OK |
| 2093_73 | 217.9 | 2.1 | 105.49 | OK |
| 2093_74 | 199.8 | 4.5 | 44.18 | OK |
| 2093_75 | 195.5 | 4.2 | 46.09 | OK |
| 2093_76 | 199.8 | 5.2 | 38.36 | OK |
| 2093_77 | 195.6 | 5.0 | 39.49 | OK |
| 2093_78 | 205.9 | 12.1 | 17.02 | OK |
| 2093_79 | 201.7 | 11.7 | 17.27 | OK |
| 2093_80 | 202.9 | 18.6 | 10.91 | OK |
| 2093_81 | 198.7 | 18.2 | 10.93 | OK |
| 2093_82 | 202.9 | 12.3 | 16.55 | OK |
| 2093_83 | 198.6 | 11.8 | 16.78 | OK |
| 2093_84 | 202.9 | 12.3 | 16.46 | OK |
| 2093_85 | 198.7 | 11.9 | 16.68 | OK |
| 2093_86 | 202.0 | 19.6 | 10.31 | OK |
| 2093_87 | 197.8 | 19.4 | 10.17 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase} ) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_88 | 196.3 | 31.9 | 6.16 | OK |
| 2093_89 | 192.1 | 31.7 | 6.05 | OK |
| 2093_90 | 198.9 | 20.5 | 9.72 | OK |
| 2093_91 | 194.7 | 20.3 | 9.58 | OK |
| 2093_92 | 198.9 | 20.8 | 9.58 | OK |
| 2093_93 | 194.7 | 20.6 | 9.44 | OK |
| 2093_94 | 199.8 | 18.6 | 10.74 | OK |
| 2093_95 | 195.6 | 18.2 | 10.75 | OK |
| 2093_96 | 199.8 | 12.3 | 16.28 | OK |
| 2093_97 | 195.6 | 11.9 | 16.50 | OK |
| 2093_98 | 199.8 | 12.3 | 16.28 | OK |
| 2093_99 | 195.6 | 11.9 | 16.50 | OK |
| 2093_100 | 194.6 | 24.8 | 7.84 | OK |
| 2093_101 | 190.4 | 24.7 | 7.71 | OK |
| 2093_102 | 196.7 | 16.3 | 12.08 | OK |
| 2093_103 | 192.4 | 16.1 | 11.93 | OK |
| 2093_104 | 196.7 | 16.3 | 12.09 | OK |
| 2093_105 | 192.5 | 16.1 | 11.95 | OK |
| 2093_106 | 200.0 | 2.3 | 86.93 | OK |
| 2093_107 | 195.7 | 1.9 | 104.07 | OK |
| 2093_108 | 200.0 | 3.0 | 66.79 | OK |
| 2093_109 | 195.7 | 2.6 | 74.45 | OK |
| 2093_110 | 206.0 | 7.6 | 27.29 | OK |
| 2093_111 | 201.8 | 8.0 | 25.33 | OK |
| 2093_112 | 203.0 | 14.0 | 14.51 | OK |
| 2093_113 | 198.7 | 14.4 | 13.81 | OK |
| 2093_114 | 203.0 | 7.5 | 26.97 | OK |
| 2093_115 | 198.8 | 7.9 | 25.02 | OK |
| 2093_116 | 203.0 | 7.5 | 27.07 | OK |
| 2093_117 | 198.8 | 7.9 | 25.15 | OK |
| 2093_118 | 210.0 | 18.7 | 11.21 | OK |
| 2093_119 | 205.8 | 18.8 | 10.95 | OK |
| 2093_120 | 209.6 | 29.9 | 7.00 | OK |
| 2093_121 | 205.3 | 30.0 | 6.84 | OK |
| 2093_122 | 207.0 | 18.5 | 11.17 | OK |
| 2093_123 | 202.7 | 18.6 | 10.91 | OK |
| 2093_124 | 206.9 | 17.6 | 11.78 | OK |
| 2093_125 | 202.7 | 17.6 | 11.51 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_126 | 199.9 | 14.0 | 14.30 | OK |
| 2093_127 | 195.7 | 14.4 | 13.60 | OK |
| 2093_128 | 199.9 | 7.5 | 26.58 | OK |
| 2093_129 | 195.7 | 7.9 | 24.66 | OK |
| 2093_130 | 199.9 | 7.5 | 26.68 | OK |
| 2093_131 | 195.7 | 7.9 | 24.77 | OK |
| 2093_132 | 205.1 | 22.8 | 9.01 | OK |
| 2093_133 | 200.9 | 22.8 | 8.80 | OK |
| 2093_134 | 203.1 | 14.2 | 14.27 | OK |
| 2093_135 | 198.8 | 14.3 | 13.93 | OK |
| 2093_136 | 203.0 | 13.6 | 14.95 | OK |
| 2093_137 | 198.8 | 13.6 | 14.59 | OK |
| 2093_138 | 199.8 | 2.4 | 83.19 | OK |
| 2093_139 | 195.6 | 2.1 | 94.33 | OK |
| 2093_140 | 199.8 | 2.3 | 86.33 | OK |
| 2093_141 | 195.5 | 1.9 | 103.22 | OK |
| 2093_142 | 199.9 | 4.2 | 47.33 | OK |
| 2093_143 | 195.7 | 4.1 | 47.57 | OK |
| 2093_144 | 200.0 | 3.6 | 55.70 | OK |
| 2093_145 | 195.7 | 3.4 | 56.94 | OK |
| 2093_146 | 197.8 | 2.1 | 94.29 | OK |
| 2093_147 | 217.3 | 2.6 | 83.15 | OK |
| 2093_148 | 217.3 | 3.4 | 63.46 | OK |
| 2093_149 | 217.3 | 3.9 | 56.41 | OK |
| 2093_150 | 216.7 | 13.8 | 15.65 | OK |
| 2093_151 | 215.0 | 21.4 | 10.04 | OK |
| 2093_152 | 216.8 | 14.0 | 15.44 | OK |
| 2093_153 | 218.8 | 13.3 | 16.49 | OK |
| 2093_154 | 219.4 | 8.7 | 25.12 | OK |
| 2093_155 | 219.4 | 13.0 | 16.94 | OK |
| 2093_156 | 219.4 | 8.8 | 24.99 | OK |
| 2093_157 | 221.4 | 8.6 | 25.68 | OK |
| 2093_158 | 215.2 | 11.1 | 19.43 | OK |
| 2093_159 | 213.9 | 16.7 | 12.78 | OK |
| 2093_160 | 215.3 | 11.1 | 19.46 | OK |
| 2093_161 | 217.3 | 8.7 | 24.86 | OK |
| 2093_162 | 217.4 | 13.0 | 16.77 | OK |
| 2093_163 | 217.3 | 8.7 | 24.87 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_164 | 217.5 | 2.1 | 102.23 | OK |
| 2093_165 | 217.5 | 2.1 | 103.90 | OK |
| 2093_166 | 217.4 | 2.5 | 86.81 | OK |
| 2093_167 | 222.1 | 12.3 | 18.06 | OK |
| 2093_168 | 223.8 | 19.9 | 11.27 | OK |
| 2093_169 | 222.1 | 11.7 | 19.05 | OK |
| 2093_170 | 224.1 | 12.4 | 18.03 | OK |
| 2093_171 | 219.5 | 4.5 | 49.14 | OK |
| 2093_172 | 219.4 | 8.8 | 25.00 | OK |
| 2093_173 | 219.5 | 4.5 | 49.16 | OK |
| 2093_174 | 221.5 | 4.5 | 49.45 | OK |
| 2093_175 | 219.5 | 9.5 | 23.21 | OK |
| 2093_176 | 220.9 | 15.1 | 14.62 | OK |
| 2093_177 | 219.5 | 9.0 | 24.31 | OK |
| 2093_178 | 217.4 | 4.5 | 48.72 | OK |
| 2093_179 | 217.4 | 8.8 | 24.77 | OK |
| 2093_180 | 217.4 | 4.5 | 48.80 | OK |
| 4506_1 | 224.5 | 7.5 | 29.89 | OK |
| 4506_2 | 218.0 | 5.8 | 37.70 | OK |
| 4506_3 | 224.5 | 6.1 | 37.07 | OK |
| 4506_4 | 218.0 | 4.3 | 50.38 | OK |
| 4506_5 | 230.8 | 13.2 | 17.43 | OK |
| 4506_6 | 224.3 | 12.1 | 18.50 | OK |
| 4506_7 | 227.6 | 18.2 | 12.47 | OK |
| 4506_8 | 221.1 | 17.5 | 12.63 | OK |
| 4506_9 | 227.6 | 13.1 | 17.37 | OK |
| 4506_10 | 221.1 | 12.0 | 18.42 | OK |
| 4506_11 | 227.6 | 12.5 | 18.25 | OK |
| 4506_12 | 221.1 | 11.5 | 19.30 | OK |
| 4506_13 | 234.7 | 26.5 | 8.84 | OK |
| 4506_14 | 228.2 | 24.8 | 9.20 | OK |
| 4506_15 | 234.2 | 37.7 | 6.21 | OK |
| 4506_16 | 227.7 | 36.0 | 6.33 | OK |
| 4506_17 | 231.6 | 26.3 | 8.79 | OK |
| 4506_18 | 225.1 | 24.6 | 9.14 | OK |
| 4506_19 | 231.6 | 25.4 | 9.13 | OK |
| 4506_20 | 225.1 | 23.6 | 9.52 | OK |
| 4506_21 | 224.4 | 18.2 | 12.32 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = (N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_22 | 217.9 | 17.5 | 12.47 | OK |
| 4506_23 | 224.5 | 13.1 | 17.18 | OK |
| 4506_24 | 218.0 | 12.0 | 18.21 | OK |
| 4506_25 | 224.5 | 12.6 | 17.77 | OK |
| 4506_26 | 218.0 | 11.6 | 18.80 | OK |
| 4506_27 | 229.6 | 30.6 | 7.50 | OK |
| 4506_28 | 223.2 | 28.9 | 7.73 | OK |
| 4506_29 | 227.6 | 22.0 | 10.32 | OK |
| 4506_30 | 221.1 | 20.3 | 10.88 | OK |
| 4506_31 | 227.6 | 21.4 | 10.64 | OK |
| 4506_32 | 221.1 | 19.7 | 11.25 | OK |
| 4506_33 | 224.3 | 4.1 | 54.45 | OK |
| 4506_34 | 217.8 | 2.4 | 91.10 | OK |
| 4506_35 | 224.3 | 3.3 | 67.13 | OK |
| 4506_36 | 217.8 | 1.6 | 135.04 | OK |
| 4506_37 | 230.7 | 11.5 | 20.14 | OK |
| 4506_38 | 224.2 | 10.6 | 21.11 | OK |
| 4506_39 | 227.5 | 17.0 | 13.36 | OK |
| 4506_40 | 221.1 | 16.5 | 13.36 | OK |
| 4506_41 | 227.5 | 11.0 | 20.69 | OK |
| 4506_42 | 221.0 | 10.3 | 21.50 | OK |
| 4506_43 | 227.5 | 10.9 | 20.96 | OK |
| 4506_44 | 221.0 | 10.2 | 21.72 | OK |
| 4506_45 | 226.7 | 11.3 | 20.02 | OK |
| 4506_46 | 220.2 | 13.1 | 16.87 | OK |
| 4506_47 | 221.0 | 23.6 | 9.37 | OK |
| 4506_48 | 214.5 | 25.3 | 8.47 | OK |
| 4506_49 | 223.5 | 12.2 | 18.32 | OK |
| 4506_50 | 217.0 | 13.9 | 15.58 | OK |
| 4506_51 | 223.6 | 12.5 | 17.88 | OK |
| 4506_52 | 217.1 | 14.2 | 15.26 | OK |
| 4506_53 | 224.4 | 17.0 | 13.19 | OK |
| 4506_54 | 217.9 | 16.5 | 13.18 | OK |
| 4506_55 | 224.3 | 11.0 | 20.45 | OK |
| 4506_56 | 217.8 | 10.3 | 21.23 | OK |
| 4506_57 | 224.4 | 11.0 | 20.43 | OK |
| 4506_58 | 217.9 | 10.3 | 21.22 | OK |
| 4506_59 | 219.2 | 16.6 | 13.22 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_60 | 212.7 | 18.3 | 11.62 | OK |
| 4506_61 | 221.2 | 8.0 | 27.57 | OK |
| 4506_62 | 214.7 | 9.8 | 22.02 | OK |
| 4506_63 | 221.2 | 8.0 | 27.65 | OK |
| 4506_64 | 214.7 | 9.7 | 22.07 | OK |
| 4506_65 | 224.5 | 11.6 | 19.28 | OK |
| 4506_66 | 218.0 | 9.9 | 21.99 | OK |
| 4506_67 | 224.5 | 10.9 | 20.67 | OK |
| 4506_68 | 218.0 | 9.1 | 23.87 | OK |
| 4506_69 | 224.3 | 8.9 | 25.13 | OK |
| 4506_70 | 217.8 | 7.2 | 30.26 | OK |
| 4506_71 | 224.3 | 7.5 | 30.02 | OK |
| 4506_72 | 217.8 | 5.7 | 37.93 | OK |
| 4506_73 | 218.4 | 5.9 | 36.95 | OK |
| 4506_74 | 200.6 | 6.4 | 31.54 | OK |
| 4506_75 | 196.2 | 5.2 | 37.68 | OK |
| 4506_76 | 200.5 | 4.9 | 40.90 | OK |
| 4506_77 | 196.2 | 3.8 | 52.31 | OK |
| 4506_78 | 206.8 | 12.5 | 16.57 | OK |
| 4506_79 | 202.5 | 11.8 | 17.18 | OK |
| 4506_80 | 203.6 | 17.7 | 11.48 | OK |
| 4506_81 | 199.3 | 17.3 | 11.53 | OK |
| 4506_82 | 203.7 | 12.4 | 16.49 | OK |
| 4506_83 | 199.4 | 11.7 | 17.08 | OK |
| 4506_84 | 203.7 | 11.8 | 17.29 | OK |
| 4506_85 | 199.3 | 11.2 | 17.86 | OK |
| 4506_86 | 210.8 | 25.4 | 8.30 | OK |
| 4506_87 | 206.5 | 24.2 | 8.52 | OK |
| 4506_88 | 210.2 | 36.6 | 5.75 | OK |
| 4506_89 | 205.9 | 35.4 | 5.81 | OK |
| 4506_90 | 207.6 | 25.2 | 8.24 | OK |
| 4506_91 | 203.3 | 24.0 | 8.46 | OK |
| 4506_92 | 207.6 | 24.2 | 8.57 | OK |
| 4506_93 | 203.3 | 23.1 | 8.81 | OK |
| 4506_94 | 200.5 | 17.7 | 11.32 | OK |
| 4506_95 | 196.1 | 17.3 | 11.36 | OK |
| 4506_96 | 200.5 | 12.3 | 16.28 | OK |
| 4506_97 | 196.2 | 11.6 | 16.86 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_98 | 200.5 | 11.9 | 16.81 | OK |
| 4506_99 | 196.2 | 11.3 | 17.38 | OK |
| 4506_100 | 205.7 | 29.4 | 6.98 | OK |
| 4506_101 | 201.4 | 28.3 | 7.12 | OK |
| 4506_102 | 203.7 | 20.9 | 9.75 | OK |
| 4506_103 | 199.3 | 19.7 | 10.10 | OK |
| 4506_104 | 203.6 | 20.2 | 10.06 | OK |
| 4506_105 | 199.3 | 19.1 | 10.44 | OK |
| 4506_106 | 200.3 | 3.0 | 67.53 | OK |
| 4506_107 | 196.0 | 1.8 | 108.03 | OK |
| 4506_108 | 200.4 | 2.2 | 91.52 | OK |
| 4506_109 | 196.0 | 1.0 | 189.02 | OK |
| 4506_110 | 206.7 | 10.9 | 19.01 | OK |
| 4506_111 | 202.4 | 10.4 | 19.47 | OK |
| 4506_112 | 203.6 | 16.7 | 12.20 | OK |
| 4506_113 | 199.3 | 16.4 | 12.14 | OK |
| 4506_114 | 203.5 | 10.5 | 19.40 | OK |
| 4506_115 | 199.2 | 10.1 | 19.73 | OK |
| 4506_116 | 203.6 | 10.4 | 19.62 | OK |
| 4506_117 | 199.2 | 10.0 | 19.91 | OK |
| 4506_118 | 202.8 | 12.5 | 16.25 | OK |
| 4506_119 | 198.4 | 13.6 | 14.56 | OK |
| 4506_120 | 197.0 | 24.7 | 7.96 | OK |
| 4506_121 | 192.7 | 25.9 | 7.44 | OK |
| 4506_122 | 199.6 | 13.4 | 14.95 | OK |
| 4506_123 | 195.3 | 14.5 | 13.46 | OK |
| 4506_124 | 199.6 | 13.7 | 14.62 | OK |
| 4506_125 | 195.3 | 14.8 | 13.19 | OK |
| 4506_126 | 200.4 | 16.7 | 12.02 | OK |
| 4506_127 | 196.1 | 16.4 | 11.95 | OK |
| 4506_128 | 200.4 | 10.5 | 19.14 | OK |
| 4506_129 | 196.1 | 10.1 | 19.45 | OK |
| 4506_130 | 200.4 | 10.5 | 19.13 | OK |
| 4506_131 | 196.1 | 10.1 | 19.44 | OK |
| 4506_132 | 195.2 | 17.7 | 11.01 | OK |
| 4506_133 | 190.9 | 18.9 | 10.11 | OK |
| 4506_134 | 197.3 | 9.2 | 21.50 | OK |
| 4506_135 | 192.9 | 10.3 | 18.68 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_136 | 197.3 | 9.2 | 21.55 | OK |
| 4506_137 | 192.9 | 10.3 | 18.72 | OK |
| 4506_138 | 200.5 | 10.5 | 19.12 | OK |
| 4506_139 | 196.2 | 9.3 | 21.01 | OK |
| 4506_140 | 200.6 | 9.7 | 20.65 | OK |
| 4506_141 | 196.2 | 8.6 | 22.93 | OK |
| 4506_142 | 200.4 | 7.8 | 25.77 | OK |
| 4506_143 | 196.0 | 6.6 | 29.60 | OK |
| 4506_144 | 200.3 | 6.3 | 31.71 | OK |
| 4506_145 | 196.0 | 5.2 | 37.94 | OK |
| 4506_146 | 198.3 | 5.8 | 34.41 | OK |
| 4506_147 | 218.0 | 6.9 | 31.62 | OK |
| 4506_148 | 218.0 | 5.8 | 37.74 | OK |
| 4506_149 | 218.0 | 4.8 | 45.36 | OK |
| 4506_150 | 222.7 | 18.3 | 12.15 | OK |
| 4506_151 | 224.4 | 25.9 | 8.66 | OK |
| 4506_152 | 222.7 | 17.7 | 12.59 | OK |
| 4506_153 | 224.8 | 18.5 | 12.17 | OK |
| 4506_154 | 220.1 | 9.3 | 23.73 | OK |
| 4506_155 | 220.0 | 12.5 | 17.54 | OK |
| 4506_156 | 220.1 | 8.8 | 24.95 | OK |
| 4506_157 | 222.2 | 9.4 | 23.71 | OK |
| 4506_158 | 220.0 | 15.5 | 14.23 | OK |
| 4506_159 | 221.4 | 21.2 | 10.46 | OK |
| 4506_160 | 220.0 | 15.0 | 14.64 | OK |
| 4506_161 | 218.0 | 9.2 | 23.58 | OK |
| 4506_162 | 217.9 | 12.5 | 17.40 | OK |
| 4506_163 | 217.9 | 8.9 | 24.38 | OK |
| 4506_164 | 217.8 | 4.6 | 47.03 | OK |
| 4506_165 | 217.8 | 3.5 | 61.98 | OK |
| 4506_166 | 217.9 | 3.0 | 72.71 | OK |
| 4506_167 | 217.3 | 7.4 | 29.51 | OK |
| 4506_168 | 215.6 | 15.0 | 14.42 | OK |
| 4506_169 | 217.4 | 7.6 | 28.73 | OK |
| 4506_170 | 219.5 | 6.8 | 32.37 | OK |
| 4506_171 | 220.0 | 7.7 | 28.45 | OK |
| 4506_172 | 220.0 | 11.6 | 18.93 | OK |
| 4506_173 | 220.0 | 7.6 | 28.87 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = (N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_174 | 222.1 | 8.1 | 27.51 | OK |
| 4506_175 | 215.8 | 4.6 | 47.11 | OK |
| 4506_176 | 214.4 | 10.3 | 20.85 | OK |
| 4506_177 | 215.8 | 4.6 | 47.26 | OK |
| 4506_178 | 217.9 | 7.7 | 28.26 | OK |
| 4506_179 | 217.9 | 11.6 | 18.77 | OK |
| 4506_180 | 217.9 | 7.7 | 28.24 | OK |

Capacità portante – verifiche statiche

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 2093_1 | (3367. + 1028. +) /2.3 = | 1911.1 | 79.29 | 24.10 | OK |
| 2093_2 | (3360. + 1055. +) /2.3 = | 1919.2 | 74.98 | 25.60 | OK |
| 2093_3 | (3330. + 1031. +) /2.3 = | 1896.3 | 81.00 | 23.41 | OK |
| 2093_4 | (3321. + 1057. +) /2.3 = | 1903.7 | 76.62 | 24.85 | OK |
| 2093_5 | (2899. + 767. +) /2.3 = | 1594.2 | 110.07 | 14.48 | OK |
| 2093_6 | (2908. + 779. +) /2.3 = | 1603.2 | 104.58 | 15.33 | OK |
| 2093_7 | (2555. + 557. +) /2.3 = | 1353.0 | 152.63 | 8.86 | OK |
| 2093_8 | (2557. + 562. +) /2.3 = | 1355.9 | 145.73 | 9.30 | OK |
| 2093_9 | (2900. + 759. +) /2.3 = | 1590.8 | 110.88 | 14.35 | OK |
| 2093_10 | (2909. + 770. +) /2.3 = | 1599.8 | 105.31 | 15.19 | OK |
| 2093_11 | (2908. + 756. +) /2.3 = | 1593.1 | 111.93 | 14.23 | OK |
| 2093_12 | (2917. + 768. +) /2.3 = | 1602.1 | 106.33 | 15.07 | OK |
| 2093_13 | (2714. + 1034. +) /2.3 = | 1629.4 | 120.62 | 13.51 | OK |
| 2093_14 | (2692. + 1055. +) /2.3 = | 1629.0 | 115.30 | 14.13 | OK |
| 2093_15 | (2198. + 997. +) /2.3 = | 1389.1 | 202.13 | 6.87 | OK |
| 2093_16 | (2167. + 1013. +) /2.3 = | 1382.9 | 197.50 | 7.00 | OK |
| 2093_17 | (2674. + 1029. +) /2.3 = | 1609.8 | 122.71 | 13.12 | OK |
| 2093_18 | (2651. + 1049. +) /2.3 = | 1609.0 | 117.34 | 13.71 | OK |
| 2093_19 | (2658. + 1029. +) /2.3 = | 1603.1 | 124.58 | 12.87 | OK |
| 2093_20 | (2635. + 1050. +) /2.3 = | 1602.1 | 119.19 | 13.44 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 2093_21 | (2540. + 548. +) /2.3 = | 1342.7 | 152.56 | 8.80 | OK |
| 2093_22 | (2541. + 554. +) /2.3 = | 1345.4 | 145.60 | 9.24 | OK |
| 2093_23 | (2889. + 754. +) /2.3 = | 1583.6 | 109.94 | 14.40 | OK |
| 2093_24 | (2897. + 765. +) /2.3 = | 1592.5 | 104.35 | 15.26 | OK |
| 2093_25 | (2890. + 753. +) /2.3 = | 1584.2 | 110.16 | 14.38 | OK |
| 2093_26 | (2899. + 765. +) /2.3 = | 1593.2 | 104.57 | 15.24 | OK |
| 2093_27 | (2490. + 1013. +) /2.3 = | 1523.0 | 141.41 | 10.77 | OK |
| 2093_28 | (2464. + 1032. +) /2.3 = | 1519.9 | 135.91 | 11.18 | OK |
| 2093_29 | (2854. + 1028. +) /2.3 = | 1688.1 | 105.79 | 15.96 | OK |
| 2093_30 | (2835. + 1050. +) /2.3 = | 1689.1 | 100.69 | 16.78 | OK |
| 2093_31 | (2852. + 1029. +) /2.3 = | 1687.6 | 106.09 | 15.91 | OK |
| 2093_32 | (2832. + 1051. +) /2.3 = | 1688.6 | 100.98 | 16.72 | OK |
| 2093_33 | (3396. + 1048. +) /2.3 = | 1932.2 | 75.22 | 25.69 | OK |
| 2093_34 | (3417. + 1068. +) /2.3 = | 1950.2 | 71.05 | 27.45 | OK |
| 2093_35 | (3421. + 1030. +) /2.3 = | 1935.3 | 77.56 | 24.95 | OK |
| 2093_36 | (3416. + 1058. +) /2.3 = | 1945.3 | 73.31 | 26.54 | OK |
| 2093_37 | (3171. + 945. +) /2.3 = | 1789.4 | 85.74 | 20.87 | OK |
| 2093_38 | (3117. + 922. +) /2.3 = | 1756.0 | 85.33 | 20.58 | OK |
| 2093_39 | (2824. + 747. +) /2.3 = | 1552.8 | 108.68 | 14.29 | OK |
| 2093_40 | (2763. + 715. +) /2.3 = | 1512.2 | 110.08 | 13.74 | OK |
| 2093_41 | (3166. + 943. +) /2.3 = | 1786.2 | 84.78 | 21.07 | OK |
| 2093_42 | (3111. + 919. +) /2.3 = | 1752.3 | 84.39 | 20.76 | OK |
| 2093_43 | (3176. + 940. +) /2.3 = | 1789.5 | 85.55 | 20.92 | OK |
| 2093_44 | (3119. + 917. +) /2.3 = | 1754.9 | 84.96 | 20.66 | OK |
| 2093_45 | (2854. + 1016. +) /2.3 = | 1682.7 | 109.25 | 15.40 | OK |
| 2093_46 | (2810. + 1040. +) /2.3 = | 1673.7 | 106.65 | 15.69 | OK |
| 2093_47 | (2412. + 996. +) /2.3 = | 1481.9 | 158.48 | 9.35 | OK |
| 2093_48 | (2362. + 1015. +) /2.3 = | 1468.2 | 158.36 | 9.27 | OK |
| 2093_49 | (2854. + 1014. +) /2.3 = | 1682.0 | 107.98 | 15.58 | OK |
| 2093_50 | (2809. + 1038. +) /2.3 = | 1672.8 | 105.39 | 15.87 | OK |
| 2093_51 | (2893. + 1015. +) /2.3 = | 1699.2 | 105.21 | 16.15 | OK |
| 2093_52 | (2849. + 1039. +) /2.3 = | 1690.4 | 102.55 | 16.48 | OK |
| 2093_53 | (2812. + 742. +) /2.3 = | 1545.1 | 107.63 | 14.35 | OK |
| 2093_54 | (2750. + 709. +) /2.3 = | 1503.8 | 109.10 | 13.78 | OK |
| 2093_55 | (3156. + 941. +) /2.3 = | 1781.6 | 83.57 | 21.32 | OK |
| 2093_56 | (3101. + 917. +) /2.3 = | 1747.1 | 83.19 | 21.00 | OK |
| 2093_57 | (3160. + 940. +) /2.3 = | 1782.9 | 83.83 | 21.27 | OK |
| 2093_58 | (3103. + 917. +) /2.3 = | 1747.9 | 83.30 | 20.98 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | | |
|---|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | | |
| 2093_59 | (2681. + 1007. +) /2.3 = | 1603.5 | 121.65 | 13.18 | OK |
| 2093_60 | (2633. + 1030. +) /2.3 = | 1592.4 | 119.53 | 13.32 | OK |
| 2093_61 | (3025. + 1014. +) /2.3 = | 1756.0 | 95.13 | 18.46 | OK |
| 2093_62 | (2981. + 1040. +) /2.3 = | 1748.5 | 92.31 | 18.94 | OK |
| 2093_63 | (3051. + 1015. +) /2.3 = | 1767.5 | 93.70 | 18.86 | OK |
| 2093_64 | (3008. + 1041. +) /2.3 = | 1760.3 | 90.86 | 19.38 | OK |
| 2093_65 | (3347. + 1064. +) /2.3 = | 1917.9 | 72.21 | 26.56 | OK |
| 2093_66 | (3383. + 1079. +) /2.3 = | 1939.6 | 69.15 | 28.05 | OK |
| 2093_67 | (3368. + 1057. +) /2.3 = | 1924.1 | 73.45 | 26.20 | OK |
| 2093_68 | (3388. + 1078. +) /2.3 = | 1942.0 | 69.35 | 28.00 | OK |
| 2093_69 | (3370. + 1035. +) /2.3 = | 1914.9 | 75.13 | 25.49 | OK |
| 2093_70 | (3404. + 1043. +) /2.3 = | 1933.7 | 72.20 | 26.78 | OK |
| 2093_71 | (3355. + 1048. +) /2.3 = | 1914.0 | 73.69 | 25.97 | OK |
| 2093_72 | (3389. + 1058. +) /2.3 = | 1933.5 | 70.76 | 27.32 | OK |
| 2093_73 | (3400. + 1075. +) /2.3 = | 1945.7 | 70.21 | 27.71 | OK |
| 2093_74 | (3351. + 1035. +) /2.3 = | 1907.0 | 70.88 | 26.91 | OK |
| 2093_75 | (3344. + 1055. +) /2.3 = | 1912.8 | 67.99 | 28.13 | OK |
| 2093_76 | (3309. + 1039. +) /2.3 = | 1890.1 | 72.60 | 26.04 | OK |
| 2093_77 | (3302. + 1058. +) /2.3 = | 1895.4 | 69.67 | 27.21 | OK |
| 2093_78 | (2849. + 738. +) /2.3 = | 1559.6 | 102.85 | 15.16 | OK |
| 2093_79 | (2855. + 746. +) /2.3 = | 1565.6 | 99.07 | 15.80 | OK |
| 2093_80 | (2465. + 500. +) /2.3 = | 1289.1 | 152.54 | 8.45 | OK |
| 2093_81 | (2465. + 503. +) /2.3 = | 1290.3 | 147.56 | 8.74 | OK |
| 2093_82 | (2849. + 728. +) /2.3 = | 1555.3 | 103.80 | 14.98 | OK |
| 2093_83 | (2855. + 736. +) /2.3 = | 1561.2 | 99.96 | 15.62 | OK |
| 2093_84 | (2857. + 726. +) /2.3 = | 1557.8 | 104.90 | 14.85 | OK |
| 2093_85 | (2863. + 734. +) /2.3 = | 1563.8 | 101.03 | 15.48 | OK |
| 2093_86 | (2623. + 1036. +) /2.3 = | 1591.0 | 115.19 | 13.81 | OK |
| 2093_87 | (2606. + 1051. +) /2.3 = | 1590.0 | 111.59 | 14.25 | OK |
| 2093_88 | (2050. + 987. +) /2.3 = | 1320.2 | 226.42 | 5.83 | OK |
| 2093_89 | (2026. + 997. +) /2.3 = | 1314.5 | 224.74 | 5.85 | OK |
| 2093_90 | (2578. + 1030. +) /2.3 = | 1568.5 | 117.87 | 13.31 | OK |
| 2093_91 | (2560. + 1044. +) /2.3 = | 1567.1 | 114.23 | 13.72 | OK |
| 2093_92 | (2560. + 1030. +) /2.3 = | 1561.0 | 120.05 | 13.00 | OK |
| 2093_93 | (2542. + 1045. +) /2.3 = | 1559.5 | 116.39 | 13.40 | OK |
| 2093_94 | (2447. + 489. +) /2.3 = | 1276.7 | 153.05 | 8.34 | OK |
| 2093_95 | (2446. + 492. +) /2.3 = | 1277.7 | 148.03 | 8.63 | OK |
| 2093_96 | (2835. + 722. +) /2.3 = | 1546.6 | 102.93 | 15.03 | OK |
| 2093_97 | (2841. + 730. +) /2.3 = | 1552.5 | 99.06 | 15.67 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 2093_98 | (2837. + 722. +) /2.3 = | 1547.3 | 103.16 | 15.00 | OK |
| 2093_99 | (2843. + 729. +) /2.3 = | 1553.2 | 99.30 | 15.64 | OK |
| 2093_100 | (2372. + 1009. +) /2.3 = | 1470.1 | 141.07 | 10.42 | OK |
| 2093_101 | (2351. + 1023. +) /2.3 = | 1466.9 | 137.41 | 10.67 | OK |
| 2093_102 | (2777. + 1031. +) /2.3 = | 1655.7 | 98.85 | 16.75 | OK |
| 2093_103 | (2761. + 1047. +) /2.3 = | 1655.8 | 95.38 | 17.36 | OK |
| 2093_104 | (2774. + 1032. +) /2.3 = | 1655.1 | 99.18 | 16.69 | OK |
| 2093_105 | (2759. + 1048. +) /2.3 = | 1655.2 | 95.70 | 17.30 | OK |
| 2093_106 | (3403. + 1052. +) /2.3 = | 1937.2 | 66.80 | 29.00 | OK |
| 2093_107 | (3419. + 1068. +) /2.3 = | 1950.7 | 64.03 | 30.46 | OK |
| 2093_108 | (3412. + 1039. +) /2.3 = | 1934.9 | 69.14 | 27.99 | OK |
| 2093_109 | (3408. + 1059. +) /2.3 = | 1942.3 | 66.30 | 29.29 | OK |
| 2093_110 | (3102. + 908. +) /2.3 = | 1743.6 | 80.24 | 21.73 | OK |
| 2093_111 | (3062. + 890. +) /2.3 = | 1717.9 | 80.11 | 21.45 | OK |
| 2093_112 | (2717. + 682. +) /2.3 = | 1477.9 | 106.77 | 13.84 | OK |
| 2093_113 | (2671. + 656. +) /2.3 = | 1446.4 | 108.39 | 13.34 | OK |
| 2093_114 | (3095. + 905. +) /2.3 = | 1739.3 | 79.31 | 21.93 | OK |
| 2093_115 | (3054. + 886. +) /2.3 = | 1713.1 | 79.19 | 21.63 | OK |
| 2093_116 | (3105. + 903. +) /2.3 = | 1742.4 | 79.96 | 21.79 | OK |
| 2093_117 | (3062. + 885. +) /2.3 = | 1715.7 | 79.70 | 21.53 | OK |
| 2093_118 | (2763. + 1020. +) /2.3 = | 1644.8 | 103.84 | 15.84 | OK |
| 2093_119 | (2729. + 1037. +) /2.3 = | 1637.5 | 102.23 | 16.02 | OK |
| 2093_120 | (2277. + 991. +) /2.3 = | 1421.2 | 164.43 | 8.64 | OK |
| 2093_121 | (2239. + 1004. +) /2.3 = | 1410.1 | 165.60 | 8.52 | OK |
| 2093_122 | (2762. + 1018. +) /2.3 = | 1643.4 | 102.59 | 16.02 | OK |
| 2093_123 | (2728. + 1035. +) /2.3 = | 1636.0 | 100.98 | 16.20 | OK |
| 2093_124 | (2805. + 1019. +) /2.3 = | 1662.6 | 99.48 | 16.71 | OK |
| 2093_125 | (2771. + 1037. +) /2.3 = | 1655.5 | 97.81 | 16.93 | OK |
| 2093_126 | (2702. + 675. +) /2.3 = | 1468.3 | 105.89 | 13.87 | OK |
| 2093_127 | (2654. + 648. +) /2.3 = | 1436.1 | 107.58 | 13.35 | OK |
| 2093_128 | (3084. + 902. +) /2.3 = | 1733.4 | 78.11 | 22.19 | OK |
| 2093_129 | (3042. + 883. +) /2.3 = | 1706.8 | 78.00 | 21.88 | OK |
| 2093_130 | (3087. + 902. +) /2.3 = | 1734.3 | 78.23 | 22.17 | OK |
| 2093_131 | (3045. + 883. +) /2.3 = | 1707.7 | 78.12 | 21.86 | OK |
| 2093_132 | (2570. + 1008. +) /2.3 = | 1555.6 | 118.56 | 13.12 | OK |
| 2093_133 | (2533. + 1024. +) /2.3 = | 1546.5 | 117.47 | 13.17 | OK |
| 2093_134 | (2949. + 1020. +) /2.3 = | 1725.4 | 88.54 | 19.49 | OK |
| 2093_135 | (2916. + 1039. +) /2.3 = | 1719.3 | 86.71 | 19.83 | OK |
| 2093_136 | (2977. + 1020. +) /2.3 = | 1738.3 | 86.99 | 19.98 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 2093_137 | (2945. + 1040. +) /2.3 = | 1732.4 | 85.14 | 20.35 | OK |
| 2093_138 | (3359. + 1066. +) /2.3 = | 1923.9 | 64.46 | 29.85 | OK |
| 2093_139 | (3387. + 1076. +) /2.3 = | 1940.5 | 62.51 | 31.04 | OK |
| 2093_140 | (3372. + 1063. +) /2.3 = | 1928.2 | 65.05 | 29.64 | OK |
| 2093_141 | (3386. + 1079. +) /2.3 = | 1941.5 | 62.33 | 31.15 | OK |
| 2093_142 | (3384. + 1030. +) /2.3 = | 1919.0 | 67.56 | 28.41 | OK |
| 2093_143 | (3392. + 1042. +) /2.3 = | 1927.6 | 65.60 | 29.38 | OK |
| 2093_144 | (3368. + 1045. +) /2.3 = | 1918.5 | 66.10 | 29.03 | OK |
| 2093_145 | (3393. + 1052. +) /2.3 = | 1932.7 | 64.15 | 30.13 | OK |
| 2093_146 | (3395. + 1066. +) /2.3 = | 1939.3 | 64.54 | 30.05 | OK |
| 2093_147 | (3417. + 1061. +) /2.3 = | 1946.8 | 71.42 | 27.26 | OK |
| 2093_148 | (3404. + 1053. +) /2.3 = | 1938.1 | 73.31 | 26.44 | OK |
| 2093_149 | (3379. + 1056. +) /2.3 = | 1928.2 | 74.35 | 25.93 | OK |
| 2093_150 | (2930. + 1059. +) /2.3 = | 1734.2 | 95.76 | 18.11 | OK |
| 2093_151 | (2600. + 1047. +) /2.3 = | 1585.7 | 122.02 | 13.00 | OK |
| 2093_152 | (2919. + 1059. +) /2.3 = | 1729.7 | 96.57 | 17.91 | OK |
| 2093_153 | (2955. + 1062. +) /2.3 = | 1746.4 | 95.15 | 18.35 | OK |
| 2093_154 | (3073. + 873. +) /2.3 = | 1715.4 | 90.80 | 18.89 | OK |
| 2093_155 | (2834. + 738. +) /2.3 = | 1553.4 | 108.43 | 14.33 | OK |
| 2093_156 | (3079. + 871. +) /2.3 = | 1717.1 | 91.37 | 18.79 | OK |
| 2093_157 | (3070. + 878. +) /2.3 = | 1716.5 | 90.55 | 18.96 | OK |
| 2093_158 | (3056. + 1056. +) /2.3 = | 1788.1 | 87.73 | 20.38 | OK |
| 2093_159 | (2806. + 1051. +) /2.3 = | 1677.0 | 102.79 | 16.32 | OK |
| 2093_160 | (3055. + 1057. +) /2.3 = | 1787.7 | 87.88 | 20.34 | OK |
| 2093_161 | (3066. + 871. +) /2.3 = | 1711.6 | 90.07 | 19.00 | OK |
| 2093_162 | (2826. + 735. +) /2.3 = | 1548.2 | 107.83 | 14.36 | OK |
| 2093_163 | (3068. + 870. +) /2.3 = | 1712.1 | 90.20 | 18.98 | OK |
| 2093_164 | (3393. + 1076. +) /2.3 = | 1943.1 | 69.71 | 27.87 | OK |
| 2093_165 | (3412. + 1070. +) /2.3 = | 1948.8 | 70.76 | 27.54 | OK |
| 2093_166 | (3432. + 1057. +) /2.3 = | 1951.8 | 72.24 | 27.02 | OK |
| 2093_167 | (3061. + 1044. +) /2.3 = | 1784.8 | 88.76 | 20.11 | OK |
| 2093_168 | (2747. + 1038. +) /2.3 = | 1645.7 | 110.31 | 14.92 | OK |
| 2093_169 | (3088. + 1044. +) /2.3 = | 1796.6 | 87.37 | 20.56 | OK |
| 2093_170 | (3059. + 1045. +) /2.3 = | 1784.3 | 89.60 | 19.91 | OK |
| 2093_171 | (3284. + 1016. +) /2.3 = | 1869.7 | 75.04 | 24.92 | OK |
| 2093_172 | (3048. + 886. +) /2.3 = | 1710.1 | 87.24 | 19.60 | OK |
| 2093_173 | (3293. + 1013. +) /2.3 = | 1872.4 | 75.59 | 24.77 | OK |
| 2093_174 | (3287. + 1017. +) /2.3 = | 1871.2 | 75.69 | 24.72 | OK |
| 2093_175 | (3182. + 1043. +) /2.3 = | 1836.7 | 81.89 | 22.43 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 2093_176 | (2941. + 1041. +) /2.3 = | 1731.4 | 95.01 | 18.22 | OK |
| 2093_177 | (3200. + 1043. +) /2.3 = | 1844.5 | 81.11 | 22.74 | OK |
| 2093_178 | (3279. + 1016. +) /2.3 = | 1867.3 | 74.24 | 25.15 | OK |
| 2093_179 | (3040. + 884. +) /2.3 = | 1706.3 | 86.45 | 19.74 | OK |
| 2093_180 | (3283. + 1015. +) /2.3 = | 1868.6 | 74.47 | 25.09 | OK |
| 4506_1 | (3194. + 1131. +) /2.3 = | 1880.2 | 76.25 | 24.66 | OK |
| 4506_2 | (3256. + 1135. +) /2.3 = | 1908.9 | 71.37 | 26.75 | OK |
| 4506_3 | (3254. + 1131. +) /2.3 = | 1906.7 | 73.81 | 25.83 | OK |
| 4506_4 | (3318. + 1135. +) /2.3 = | 1936.2 | 69.09 | 28.02 | OK |
| 4506_5 | (3100. + 800. +) /2.3 = | 1695.4 | 109.80 | 15.44 | OK |
| 4506_6 | (3067. + 810. +) /2.3 = | 1685.3 | 103.94 | 16.21 | OK |
| 4506_7 | (2743. + 624. +) /2.3 = | 1463.8 | 143.49 | 10.20 | OK |
| 4506_8 | (2702. + 619. +) /2.3 = | 1444.1 | 137.39 | 10.51 | OK |
| 4506_9 | (3090. + 797. +) /2.3 = | 1690.0 | 108.69 | 15.55 | OK |
| 4506_10 | (3056. + 807. +) /2.3 = | 1679.4 | 102.84 | 16.33 | OK |
| 4506_11 | (3077. + 807. +) /2.3 = | 1688.3 | 106.40 | 15.87 | OK |
| 4506_12 | (3042. + 816. +) /2.3 = | 1677.3 | 100.67 | 16.66 | OK |
| 4506_13 | (2480. + 1100. +) /2.3 = | 1556.4 | 132.91 | 11.71 | OK |
| 4506_14 | (2516. + 1106. +) /2.3 = | 1574.8 | 124.35 | 12.66 | OK |
| 4506_15 | (2074. + 1055. +) /2.3 = | 1360.1 | 222.68 | 6.11 | OK |
| 4506_16 | (2098. + 1060. +) /2.3 = | 1373.1 | 207.23 | 6.63 | OK |
| 4506_17 | (2475. + 1098. +) /2.3 = | 1553.7 | 131.84 | 11.78 | OK |
| 4506_18 | (2512. + 1104. +) /2.3 = | 1572.2 | 123.23 | 12.76 | OK |
| 4506_19 | (2511. + 1101. +) /2.3 = | 1570.6 | 127.43 | 12.32 | OK |
| 4506_20 | (2549. + 1107. +) /2.3 = | 1589.6 | 119.15 | 13.34 | OK |
| 4506_21 | (2733. + 616. +) /2.3 = | 1455.7 | 143.85 | 10.12 | OK |
| 4506_22 | (2690. + 611. +) /2.3 = | 1435.4 | 137.74 | 10.42 | OK |
| 4506_23 | (3085. + 792. +) /2.3 = | 1685.6 | 108.26 | 15.57 | OK |
| 4506_24 | (3051. + 801. +) /2.3 = | 1674.6 | 102.37 | 16.36 | OK |
| 4506_25 | (3077. + 798. +) /2.3 = | 1684.7 | 106.77 | 15.78 | OK |
| 4506_26 | (3042. + 807. +) /2.3 = | 1673.4 | 100.96 | 16.57 | OK |
| 4506_27 | (2312. + 1081. +) /2.3 = | 1475.4 | 155.44 | 9.49 | OK |
| 4506_28 | (2344. + 1087. +) /2.3 = | 1492.0 | 144.92 | 10.30 | OK |
| 4506_29 | (2625. + 1108. +) /2.3 = | 1623.0 | 113.10 | 14.35 | OK |
| 4506_30 | (2667. + 1114. +) /2.3 = | 1643.9 | 105.70 | 15.55 | OK |
| 4506_31 | (2649. + 1110. +) /2.3 = | 1634.3 | 110.94 | 14.73 | OK |
| 4506_32 | (2692. + 1116. +) /2.3 = | 1655.5 | 103.70 | 15.96 | OK |
| 4506_33 | (3313. + 1139. +) /2.3 = | 1935.6 | 72.09 | 26.85 | OK |
| 4506_34 | (3379. + 1143. +) /2.3 = | 1966.0 | 67.49 | 29.13 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 4506_35 | (3350. + 1138. +) /2.3 = | 1951.1 | 70.65 | 27.62 | OK |
| 4506_36 | (3417. + 1141. +) /2.3 = | 1982.0 | 66.14 | 29.96 | OK |
| 4506_37 | (3102. + 838. +) /2.3 = | 1713.2 | 102.02 | 16.79 | OK |
| 4506_38 | (3059. + 843. +) /2.3 = | 1696.7 | 97.17 | 17.46 | OK |
| 4506_39 | (2747. + 655. +) /2.3 = | 1479.1 | 131.58 | 11.24 | OK |
| 4506_40 | (2698. + 645. +) /2.3 = | 1453.4 | 126.98 | 11.45 | OK |
| 4506_41 | (3087. + 842. +) /2.3 = | 1708.1 | 99.63 | 17.14 | OK |
| 4506_42 | (3043. + 845. +) /2.3 = | 1690.4 | 94.86 | 17.82 | OK |
| 4506_43 | (3079. + 845. +) /2.3 = | 1706.2 | 98.72 | 17.28 | OK |
| 4506_44 | (3035. + 848. +) /2.3 = | 1688.2 | 93.99 | 17.96 | OK |
| 4506_45 | (2996. + 1146. +) /2.3 = | 1801.0 | 87.44 | 20.60 | OK |
| 4506_46 | (2915. + 1145. +) /2.3 = | 1765.4 | 88.91 | 19.86 | OK |
| 4506_47 | (2499. + 1117. +) /2.3 = | 1572.1 | 124.78 | 12.60 | OK |
| 4506_48 | (2407. + 1109. +) /2.3 = | 1528.8 | 132.06 | 11.58 | OK |
| 4506_49 | (2961. + 1142. +) /2.3 = | 1783.9 | 88.00 | 20.27 | OK |
| 4506_50 | (2879. + 1140. +) /2.3 = | 1747.3 | 89.66 | 19.49 | OK |
| 4506_51 | (2946. + 1143. +) /2.3 = | 1777.4 | 89.03 | 19.97 | OK |
| 4506_52 | (2863. + 1141. +) /2.3 = | 1740.6 | 90.79 | 19.17 | OK |
| 4506_53 | (2738. + 648. +) /2.3 = | 1472.4 | 131.41 | 11.20 | OK |
| 4506_54 | (2688. + 638. +) /2.3 = | 1446.0 | 126.82 | 11.40 | OK |
| 4506_55 | (3084. + 838. +) /2.3 = | 1705.0 | 98.92 | 17.24 | OK |
| 4506_56 | (3038. + 841. +) /2.3 = | 1686.8 | 94.12 | 17.92 | OK |
| 4506_57 | (3081. + 838. +) /2.3 = | 1704.2 | 98.72 | 17.26 | OK |
| 4506_58 | (3036. + 842. +) /2.3 = | 1686.0 | 93.94 | 17.95 | OK |
| 4506_59 | (2787. + 1128. +) /2.3 = | 1701.9 | 96.92 | 17.56 | OK |
| 4506_60 | (2699. + 1124. +) /2.3 = | 1662.2 | 99.82 | 16.65 | OK |
| 4506_61 | (3140. + 1140. +) /2.3 = | 1861.1 | 78.07 | 23.84 | OK |
| 4506_62 | (3061. + 1140. +) /2.3 = | 1826.3 | 78.86 | 23.16 | OK |
| 4506_63 | (3138. + 1141. +) /2.3 = | 1860.6 | 78.24 | 23.78 | OK |
| 4506_64 | (3059. + 1141. +) /2.3 = | 1825.8 | 79.05 | 23.10 | OK |
| 4506_65 | (3013. + 1131. +) /2.3 = | 1801.7 | 85.05 | 21.18 | OK |
| 4506_66 | (3069. + 1136. +) /2.3 = | 1828.1 | 79.55 | 22.98 | OK |
| 4506_67 | (3049. + 1130. +) /2.3 = | 1817.2 | 83.05 | 21.88 | OK |
| 4506_68 | (3106. + 1135. +) /2.3 = | 1844.0 | 77.70 | 23.73 | OK |
| 4506_69 | (3106. + 1139. +) /2.3 = | 1845.9 | 80.90 | 22.82 | OK |
| 4506_70 | (3165. + 1144. +) /2.3 = | 1873.6 | 75.69 | 24.76 | OK |
| 4506_71 | (3166. + 1140. +) /2.3 = | 1872.4 | 78.15 | 23.96 | OK |
| 4506_72 | (3228. + 1145. +) /2.3 = | 1901.0 | 73.13 | 25.99 | OK |
| 4506_73 | (3236. + 1140. +) /2.3 = | 1902.6 | 72.58 | 26.22 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 4506_74 | (3211. + 1131. +) /2.3 = | 1887.9 | 67.38 | 28.02 | OK |
| 4506_75 | (3257. + 1134. +) /2.3 = | 1909.3 | 64.14 | 29.77 | OK |
| 4506_76 | (3279. + 1132. +) /2.3 = | 1917.6 | 65.00 | 29.50 | OK |
| 4506_77 | (3327. + 1134. +) /2.3 = | 1939.7 | 61.88 | 31.34 | OK |
| 4506_78 | (3038. + 775. +) /2.3 = | 1657.8 | 101.91 | 16.27 | OK |
| 4506_79 | (3012. + 781. +) /2.3 = | 1649.0 | 97.95 | 16.83 | OK |
| 4506_80 | (2638. + 570. +) /2.3 = | 1394.7 | 140.71 | 9.91 | OK |
| 4506_81 | (2607. + 564. +) /2.3 = | 1378.5 | 136.76 | 10.08 | OK |
| 4506_82 | (3026. + 771. +) /2.3 = | 1651.0 | 100.85 | 16.37 | OK |
| 4506_83 | (3000. + 777. +) /2.3 = | 1641.9 | 96.90 | 16.94 | OK |
| 4506_84 | (3011. + 781. +) /2.3 = | 1648.7 | 98.48 | 16.74 | OK |
| 4506_85 | (2984. + 786. +) /2.3 = | 1639.1 | 94.64 | 17.32 | OK |
| 4506_86 | (2417. + 1095. +) /2.3 = | 1527.0 | 126.83 | 12.04 | OK |
| 4506_87 | (2443. + 1099. +) /2.3 = | 1540.0 | 120.68 | 12.76 | OK |
| 4506_88 | (1969. + 1040. +) /2.3 = | 1307.9 | 242.93 | 5.38 | OK |
| 4506_89 | (1984. + 1044. +) /2.3 = | 1316.5 | 229.83 | 5.73 | OK |
| 4506_90 | (2411. + 1093. +) /2.3 = | 1523.5 | 125.85 | 12.11 | OK |
| 4506_91 | (2437. + 1097. +) /2.3 = | 1536.6 | 119.66 | 12.84 | OK |
| 4506_92 | (2451. + 1097. +) /2.3 = | 1542.4 | 120.88 | 12.76 | OK |
| 4506_93 | (2477. + 1101. +) /2.3 = | 1555.9 | 114.97 | 13.53 | OK |
| 4506_94 | (2624. + 560. +) /2.3 = | 1384.4 | 141.55 | 9.78 | OK |
| 4506_95 | (2591. + 553. +) /2.3 = | 1367.4 | 137.70 | 9.93 | OK |
| 4506_96 | (3019. + 765. +) /2.3 = | 1645.3 | 100.49 | 16.37 | OK |
| 4506_97 | (2992. + 770. +) /2.3 = | 1635.8 | 96.51 | 16.95 | OK |
| 4506_98 | (3010. + 771. +) /2.3 = | 1644.0 | 98.95 | 16.61 | OK |
| 4506_99 | (2983. + 776. +) /2.3 = | 1634.2 | 95.04 | 17.19 | OK |
| 4506_100 | (2230. + 1072. +) /2.3 = | 1435.9 | 153.75 | 9.34 | OK |
| 4506_101 | (2252. + 1077. +) /2.3 = | 1447.3 | 145.92 | 9.92 | OK |
| 4506_102 | (2576. + 1105. +) /2.3 = | 1600.4 | 105.30 | 15.20 | OK |
| 4506_103 | (2606. + 1109. +) /2.3 = | 1615.4 | 100.12 | 16.14 | OK |
| 4506_104 | (2603. + 1107. +) /2.3 = | 1613.1 | 102.97 | 15.67 | OK |
| 4506_105 | (2633. + 1112. +) /2.3 = | 1628.3 | 97.92 | 16.63 | OK |
| 4506_106 | (3345. + 1140. +) /2.3 = | 1950.0 | 63.33 | 30.79 | OK |
| 4506_107 | (3394. + 1143. +) /2.3 = | 1972.8 | 60.30 | 32.72 | OK |
| 4506_108 | (3386. + 1139. +) /2.3 = | 1967.3 | 61.93 | 31.76 | OK |
| 4506_109 | (3437. + 1141. +) /2.3 = | 1990.5 | 58.98 | 33.75 | OK |
| 4506_110 | (3034. + 813. +) /2.3 = | 1672.5 | 94.30 | 17.74 | OK |
| 4506_111 | (3001. + 814. +) /2.3 = | 1658.8 | 91.08 | 18.21 | OK |
| 4506_112 | (2638. + 599. +) /2.3 = | 1407.3 | 128.27 | 10.97 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | |
| 4506_113 | (2601. + 589. +) /2.3 = | 1386.8 | 125.43 | 11.06 | OK |
| 4506_114 | (3016. + 815. +) /2.3 = | 1665.5 | 91.92 | 18.12 | OK |
| 4506_115 | (2982. + 815. +) /2.3 = | 1650.9 | 88.76 | 18.60 | OK |
| 4506_116 | (3007. + 818. +) /2.3 = | 1663.2 | 91.00 | 18.28 | OK |
| 4506_117 | (2973. + 818. +) /2.3 = | 1648.4 | 87.86 | 18.76 | OK |
| 4506_118 | (2892. + 1143. +) /2.3 = | 1754.5 | 83.51 | 21.01 | OK |
| 4506_119 | (2831. + 1142. +) /2.3 = | 1727.2 | 84.87 | 20.35 | OK |
| 4506_120 | (2340. + 1102. +) /2.3 = | 1496.4 | 131.38 | 11.39 | OK |
| 4506_121 | (2269. + 1095. +) /2.3 = | 1462.6 | 139.17 | 10.51 | OK |
| 4506_122 | (2852. + 1138. +) /2.3 = | 1734.7 | 84.35 | 20.57 | OK |
| 4506_123 | (2789. + 1136. +) /2.3 = | 1706.5 | 85.87 | 19.87 | OK |
| 4506_124 | (2834. + 1139. +) /2.3 = | 1727.5 | 85.53 | 20.20 | OK |
| 4506_125 | (2771. + 1136. +) /2.3 = | 1699.1 | 87.16 | 19.49 | OK |
| 4506_126 | (2627. + 590. +) /2.3 = | 1398.8 | 128.32 | 10.90 | OK |
| 4506_127 | (2588. + 580. +) /2.3 = | 1377.4 | 125.61 | 10.97 | OK |
| 4506_128 | (3011. + 810. +) /2.3 = | 1661.2 | 91.24 | 18.21 | OK |
| 4506_129 | (2976. + 810. +) /2.3 = | 1646.1 | 88.07 | 18.69 | OK |
| 4506_130 | (3008. + 811. +) /2.3 = | 1660.4 | 91.05 | 18.24 | OK |
| 4506_131 | (2974. + 811. +) /2.3 = | 1645.3 | 87.88 | 18.72 | OK |
| 4506_132 | (2656. + 1120. +) /2.3 = | 1641.7 | 95.25 | 17.23 | OK |
| 4506_133 | (2589. + 1116. +) /2.3 = | 1610.8 | 98.04 | 16.43 | OK |
| 4506_134 | (3049. + 1138. +) /2.3 = | 1820.6 | 73.23 | 24.86 | OK |
| 4506_135 | (2989. + 1137. +) /2.3 = | 1793.9 | 73.97 | 24.25 | OK |
| 4506_136 | (3047. + 1139. +) /2.3 = | 1820.1 | 73.42 | 24.79 | OK |
| 4506_137 | (2986. + 1138. +) /2.3 = | 1793.4 | 74.18 | 24.18 | OK |
| 4506_138 | (3008. + 1132. +) /2.3 = | 1800.0 | 76.10 | 23.65 | OK |
| 4506_139 | (3050. + 1135. +) /2.3 = | 1819.6 | 72.41 | 25.13 | OK |
| 4506_140 | (3049. + 1131. +) /2.3 = | 1817.4 | 74.10 | 24.53 | OK |
| 4506_141 | (3091. + 1134. +) /2.3 = | 1837.3 | 70.52 | 26.05 | OK |
| 4506_142 | (3113. + 1141. +) /2.3 = | 1849.5 | 71.96 | 25.70 | OK |
| 4506_143 | (3157. + 1144. +) /2.3 = | 1870.2 | 68.48 | 27.31 | OK |
| 4506_144 | (3180. + 1142. +) /2.3 = | 1879.2 | 69.25 | 27.14 | OK |
| 4506_145 | (3226. + 1145. +) /2.3 = | 1900.6 | 65.91 | 28.83 | OK |
| 4506_146 | (3218. + 1138. +) /2.3 = | 1894.1 | 66.64 | 28.42 | OK |
| 4506_147 | (3201. + 1137. +) /2.3 = | 1885.9 | 73.66 | 25.60 | OK |
| 4506_148 | (3251. + 1136. +) /2.3 = | 1907.6 | 71.65 | 26.62 | OK |
| 4506_149 | (3293. + 1137. +) /2.3 = | 1925.8 | 70.11 | 27.47 | OK |
| 4506_150 | (2744. + 1121. +) /2.3 = | 1680.6 | 100.56 | 16.71 | OK |
| 4506_151 | (2453. + 1101. +) /2.3 = | 1545.4 | 130.55 | 11.84 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 4506_152 | (2770. + 1123. +) /2.3 = | 1692.3 | 98.68 | 17.15 | OK |
| 4506_153 | (2745. + 1122. +) /2.3 = | 1681.3 | 101.39 | 16.58 | OK |
| 4506_154 | (3225. + 893. +) /2.3 = | 1790.1 | 90.43 | 19.79 | OK |
| 4506_155 | (2991. + 779. +) /2.3 = | 1639.1 | 106.27 | 15.42 | OK |
| 4506_156 | (3215. + 901. +) /2.3 = | 1789.6 | 89.15 | 20.07 | OK |
| 4506_157 | (3230. + 893. +) /2.3 = | 1792.7 | 91.22 | 19.65 | OK |
| 4506_158 | (2853. + 1126. +) /2.3 = | 1729.9 | 91.80 | 18.84 | OK |
| 4506_159 | (2630. + 1113. +) /2.3 = | 1627.3 | 109.39 | 14.88 | OK |
| 4506_160 | (2870. + 1127. +) /2.3 = | 1737.7 | 90.77 | 19.14 | OK |
| 4506_161 | (3223. + 890. +) /2.3 = | 1788.1 | 90.01 | 19.87 | OK |
| 4506_162 | (2986. + 775. +) /2.3 = | 1635.5 | 106.01 | 15.43 | OK |
| 4506_163 | (3217. + 895. +) /2.3 = | 1787.9 | 89.18 | 20.05 | OK |
| 4506_164 | (3283. + 1143. +) /2.3 = | 1924.0 | 70.86 | 27.15 | OK |
| 4506_165 | (3333. + 1142. +) /2.3 = | 1945.6 | 69.00 | 28.20 | OK |
| 4506_166 | (3359. + 1141. +) /2.3 = | 1956.3 | 68.06 | 28.74 | OK |
| 4506_167 | (3152. + 1147. +) /2.3 = | 1869.5 | 75.96 | 24.61 | OK |
| 4506_168 | (2830. + 1138. +) /2.3 = | 1725.5 | 92.23 | 18.71 | OK |
| 4506_169 | (3141. + 1148. +) /2.3 = | 1865.1 | 76.50 | 24.38 | OK |
| 4506_170 | (3175. + 1150. +) /2.3 = | 1880.5 | 75.81 | 24.80 | OK |
| 4506_171 | (3226. + 929. +) /2.3 = | 1806.6 | 85.18 | 21.21 | OK |
| 4506_172 | (2994. + 806. +) /2.3 = | 1652.3 | 100.39 | 16.46 | OK |
| 4506_173 | (3221. + 932. +) /2.3 = | 1805.4 | 84.65 | 21.33 | OK |
| 4506_174 | (3235. + 924. +) /2.3 = | 1808.6 | 86.69 | 20.86 | OK |
| 4506_175 | (3278. + 1145. +) /2.3 = | 1922.9 | 70.42 | 27.31 | OK |
| 4506_176 | (3034. + 1140. +) /2.3 = | 1814.8 | 80.16 | 22.64 | OK |
| 4506_177 | (3277. + 1145. +) /2.3 = | 1922.6 | 70.52 | 27.26 | OK |
| 4506_178 | (3226. + 927. +) /2.3 = | 1805.5 | 84.63 | 21.33 | OK |
| 4506_179 | (2991. + 803. +) /2.3 = | 1649.5 | 99.94 | 16.50 | OK |
| 4506_180 | (3224. + 927. +) /2.3 = | 1804.9 | 84.52 | 21.35 | OK |

Ribaltamento – verifiche sismiche

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_1 | 346.31 | 346.31 | 28.75 | 36.49 | 9.49 | OK |
| 2093_2 | 336.50 | 336.50 | 22.13 | 32.87 | 10.24 | OK |
| 2093_3 | 346.35 | 346.35 | 28.79 | 42.95 | 8.06 | OK |
| 2093_4 | 336.53 | 336.53 | 22.17 | 39.32 | 8.56 | OK |
| 2093_5 | 355.89 | 355.89 | 123.22 | 25.29 | 2.89 | OK |
| 2093_6 | 346.08 | 346.08 | 116.60 | 21.67 | 2.97 | OK |
| 2093_7 | 351.18 | 351.18 | 186.32 | 27.89 | 1.88 | OK |
| 2093_8 | 341.37 | 341.37 | 179.67 | 24.27 | 1.90 | OK |
| 2093_9 | 351.11 | 351.11 | 123.25 | 29.33 | 2.85 | OK |
| 2093_10 | 341.30 | 341.30 | 116.63 | 25.69 | 2.93 | OK |
| 2093_11 | 351.15 | 351.15 | 123.28 | 32.29 | 2.85 | OK |
| 2093_12 | 341.34 | 341.34 | 116.66 | 28.66 | 2.93 | OK |
| 2093_13 | 349.76 | 349.76 | 28.24 | 142.52 | 2.45 | OK |
| 2093_14 | 339.95 | 339.95 | 21.62 | 138.90 | 2.45 | OK |
| 2093_15 | 340.97 | 340.97 | 27.99 | 223.27 | 1.53 | OK |
| 2093_16 | 331.16 | 331.16 | 21.37 | 219.67 | 1.51 | OK |
| 2093_17 | 344.98 | 344.98 | 28.27 | 146.55 | 2.35 | OK |
| 2093_18 | 335.17 | 335.17 | 21.65 | 142.93 | 2.35 | OK |
| 2093_19 | 345.02 | 345.02 | 28.30 | 149.52 | 2.31 | OK |
| 2093_20 | 335.21 | 335.21 | 21.68 | 145.89 | 2.30 | OK |
| 2093_21 | 346.44 | 346.44 | 186.33 | 26.72 | 1.86 | OK |
| 2093_22 | 336.63 | 336.63 | 179.68 | 23.09 | 1.87 | OK |
| 2093_23 | 346.37 | 346.37 | 123.26 | 28.16 | 2.81 | OK |
| 2093_24 | 336.56 | 336.56 | 116.64 | 24.52 | 2.89 | OK |
| 2093_25 | 346.40 | 346.40 | 123.27 | 28.78 | 2.81 | OK |
| 2093_26 | 336.59 | 336.59 | 116.65 | 25.15 | 2.89 | OK |
| 2093_27 | 338.36 | 338.36 | 28.41 | 172.36 | 1.96 | OK |
| 2093_28 | 328.55 | 328.55 | 21.79 | 168.77 | 1.95 | OK |
| 2093_29 | 341.52 | 341.52 | 28.53 | 115.57 | 2.96 | OK |
| 2093_30 | 331.71 | 331.71 | 21.91 | 111.93 | 2.96 | OK |
| 2093_31 | 341.56 | 341.56 | 28.54 | 116.19 | 2.94 | OK |
| 2093_32 | 331.74 | 331.74 | 21.92 | 112.56 | 2.95 | OK |
| 2093_33 | 346.64 | 346.64 | 28.75 | 19.44 | 12.06 | OK |
| 2093_34 | 336.83 | 336.83 | 22.13 | 15.82 | 15.22 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_35 | 346.61 | 346.61 | 28.79 | 29.32 | 11.82 | OK |
| 2093_36 | 336.80 | 336.80 | 22.17 | 25.69 | 13.11 | OK |
| 2093_37 | 356.04 | 356.04 | 65.91 | 15.24 | 5.40 | OK |
| 2093_38 | 346.23 | 346.23 | 72.53 | 12.44 | 4.77 | OK |
| 2093_39 | 351.26 | 351.26 | 128.92 | 14.37 | 2.72 | OK |
| 2093_40 | 341.45 | 341.45 | 135.54 | 11.56 | 2.52 | OK |
| 2093_41 | 351.33 | 351.33 | 65.88 | 14.78 | 5.33 | OK |
| 2093_42 | 341.52 | 341.52 | 72.49 | 11.98 | 4.71 | OK |
| 2093_43 | 351.30 | 351.30 | 65.85 | 17.83 | 5.34 | OK |
| 2093_44 | 341.48 | 341.48 | 72.47 | 14.21 | 4.71 | OK |
| 2093_45 | 362.17 | 362.17 | 29.07 | 116.97 | 3.10 | OK |
| 2093_46 | 352.36 | 352.36 | 22.46 | 118.82 | 2.97 | OK |
| 2093_47 | 361.47 | 361.47 | 29.38 | 192.91 | 1.87 | OK |
| 2093_48 | 351.66 | 351.66 | 22.77 | 194.83 | 1.80 | OK |
| 2093_49 | 357.46 | 357.46 | 29.11 | 115.49 | 3.10 | OK |
| 2093_50 | 347.65 | 347.65 | 22.49 | 117.34 | 2.96 | OK |
| 2093_51 | 357.43 | 357.43 | 29.13 | 109.12 | 3.28 | OK |
| 2093_52 | 347.61 | 347.61 | 22.51 | 110.96 | 3.13 | OK |
| 2093_53 | 346.51 | 346.51 | 128.91 | 12.86 | 2.69 | OK |
| 2093_54 | 336.70 | 336.70 | 135.52 | 10.06 | 2.48 | OK |
| 2093_55 | 346.58 | 346.58 | 65.86 | 13.27 | 5.26 | OK |
| 2093_56 | 336.77 | 336.77 | 72.48 | 10.47 | 4.65 | OK |
| 2093_57 | 346.55 | 346.55 | 65.85 | 14.33 | 5.26 | OK |
| 2093_58 | 336.74 | 336.74 | 72.47 | 10.95 | 4.65 | OK |
| 2093_59 | 354.58 | 354.58 | 28.99 | 143.17 | 2.48 | OK |
| 2093_60 | 344.77 | 344.77 | 22.37 | 145.01 | 2.38 | OK |
| 2093_61 | 351.43 | 351.43 | 28.87 | 85.76 | 4.10 | OK |
| 2093_62 | 341.61 | 341.61 | 22.26 | 87.60 | 3.90 | OK |
| 2093_63 | 351.39 | 351.39 | 28.88 | 81.71 | 4.30 | OK |
| 2093_64 | 341.58 | 341.58 | 22.27 | 83.55 | 4.09 | OK |
| 2093_65 | 346.34 | 346.34 | 28.57 | 6.26 | 12.12 | OK |
| 2093_66 | 336.53 | 336.53 | 21.96 | 7.42 | 15.33 | OK |
| 2093_67 | 346.31 | 346.31 | 28.61 | 11.99 | 12.10 | OK |
| 2093_68 | 336.50 | 336.50 | 22.00 | 8.37 | 15.30 | OK |
| 2093_69 | 346.60 | 346.60 | 28.57 | 19.27 | 12.13 | OK |
| 2093_70 | 336.79 | 336.79 | 21.96 | 21.11 | 15.34 | OK |
| 2093_71 | 346.64 | 346.64 | 28.61 | 12.81 | 12.11 | OK |
| 2093_72 | 336.82 | 336.82 | 22.00 | 14.65 | 15.31 | OK |
| 2093_73 | 337.54 | 337.54 | 22.08 | 11.43 | 15.29 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_74 | 309.37 | 309.37 | 24.33 | 34.07 | 9.08 | OK |
| 2093_75 | 302.83 | 302.83 | 19.92 | 31.65 | 9.57 | OK |
| 2093_76 | 309.41 | 309.41 | 24.38 | 40.53 | 7.63 | OK |
| 2093_77 | 302.87 | 302.87 | 19.96 | 38.12 | 7.95 | OK |
| 2093_78 | 318.96 | 318.96 | 118.81 | 22.88 | 2.68 | OK |
| 2093_79 | 312.42 | 312.42 | 114.40 | 20.46 | 2.73 | OK |
| 2093_80 | 314.25 | 314.25 | 181.92 | 25.47 | 1.73 | OK |
| 2093_81 | 307.71 | 307.71 | 177.43 | 23.05 | 1.73 | OK |
| 2093_82 | 314.18 | 314.18 | 118.84 | 26.91 | 2.64 | OK |
| 2093_83 | 307.64 | 307.64 | 114.42 | 24.49 | 2.69 | OK |
| 2093_84 | 314.21 | 314.21 | 118.86 | 29.87 | 2.64 | OK |
| 2093_85 | 307.67 | 307.67 | 114.45 | 27.45 | 2.69 | OK |
| 2093_86 | 312.83 | 312.83 | 23.83 | 140.10 | 2.23 | OK |
| 2093_87 | 306.29 | 306.29 | 19.42 | 137.69 | 2.22 | OK |
| 2093_88 | 304.03 | 304.03 | 23.58 | 220.90 | 1.38 | OK |
| 2093_89 | 297.49 | 297.49 | 19.16 | 218.43 | 1.36 | OK |
| 2093_90 | 308.05 | 308.05 | 23.86 | 144.14 | 2.14 | OK |
| 2093_91 | 301.51 | 301.51 | 19.44 | 141.72 | 2.13 | OK |
| 2093_92 | 308.08 | 308.08 | 23.88 | 147.10 | 2.09 | OK |
| 2093_93 | 301.54 | 301.54 | 19.47 | 144.68 | 2.08 | OK |
| 2093_94 | 309.50 | 309.50 | 181.93 | 24.30 | 1.70 | OK |
| 2093_95 | 302.96 | 302.96 | 177.43 | 21.88 | 1.71 | OK |
| 2093_96 | 309.43 | 309.43 | 118.85 | 25.74 | 2.60 | OK |
| 2093_97 | 302.89 | 302.89 | 114.44 | 23.31 | 2.65 | OK |
| 2093_98 | 309.46 | 309.46 | 118.86 | 26.36 | 2.60 | OK |
| 2093_99 | 302.92 | 302.92 | 114.45 | 23.94 | 2.65 | OK |
| 2093_100 | 301.43 | 301.43 | 23.99 | 169.99 | 1.77 | OK |
| 2093_101 | 294.89 | 294.89 | 19.58 | 167.57 | 1.76 | OK |
| 2093_102 | 304.59 | 304.59 | 24.12 | 113.15 | 2.69 | OK |
| 2093_103 | 298.05 | 298.05 | 19.70 | 110.73 | 2.69 | OK |
| 2093_104 | 304.62 | 304.62 | 24.13 | 113.77 | 2.68 | OK |
| 2093_105 | 298.08 | 298.08 | 19.71 | 111.35 | 2.68 | OK |
| 2093_106 | 309.70 | 309.70 | 24.33 | 17.02 | 12.73 | OK |
| 2093_107 | 303.16 | 303.16 | 19.92 | 14.61 | 15.22 | OK |
| 2093_108 | 309.67 | 309.67 | 24.38 | 26.90 | 11.51 | OK |
| 2093_109 | 303.13 | 303.13 | 19.96 | 24.48 | 12.39 | OK |
| 2093_110 | 319.10 | 319.10 | 70.32 | 13.37 | 4.54 | OK |
| 2093_111 | 312.56 | 312.56 | 74.74 | 11.50 | 4.18 | OK |
| 2093_112 | 314.32 | 314.32 | 133.33 | 12.50 | 2.36 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_113 | 307.78 | 307.78 | 137.75 | 10.63 | 2.23 | OK |
| 2093_114 | 314.39 | 314.39 | 70.28 | 12.91 | 4.47 | OK |
| 2093_115 | 307.85 | 307.85 | 74.70 | 11.04 | 4.12 | OK |
| 2093_116 | 314.36 | 314.36 | 70.27 | 15.41 | 4.47 | OK |
| 2093_117 | 307.82 | 307.82 | 74.67 | 13.00 | 4.12 | OK |
| 2093_118 | 325.23 | 325.23 | 24.67 | 118.20 | 2.75 | OK |
| 2093_119 | 318.69 | 318.69 | 20.25 | 119.43 | 2.67 | OK |
| 2093_120 | 324.54 | 324.54 | 24.98 | 194.19 | 1.67 | OK |
| 2093_121 | 318.00 | 318.00 | 20.56 | 195.37 | 1.63 | OK |
| 2093_122 | 320.52 | 320.52 | 24.70 | 116.72 | 2.75 | OK |
| 2093_123 | 313.98 | 313.98 | 20.28 | 117.95 | 2.66 | OK |
| 2093_124 | 320.49 | 320.49 | 24.72 | 110.34 | 2.90 | OK |
| 2093_125 | 313.95 | 313.95 | 20.31 | 111.57 | 2.81 | OK |
| 2093_126 | 309.57 | 309.57 | 133.32 | 10.99 | 2.32 | OK |
| 2093_127 | 303.03 | 303.03 | 137.73 | 9.12 | 2.20 | OK |
| 2093_128 | 309.64 | 309.64 | 70.28 | 11.40 | 4.41 | OK |
| 2093_129 | 303.10 | 303.10 | 74.69 | 9.54 | 4.06 | OK |
| 2093_130 | 309.61 | 309.61 | 70.26 | 11.91 | 4.41 | OK |
| 2093_131 | 303.07 | 303.07 | 74.68 | 10.02 | 4.06 | OK |
| 2093_132 | 317.65 | 317.65 | 24.58 | 144.39 | 2.20 | OK |
| 2093_133 | 311.11 | 311.11 | 20.16 | 145.62 | 2.14 | OK |
| 2093_134 | 314.49 | 314.49 | 24.47 | 86.98 | 3.62 | OK |
| 2093_135 | 307.95 | 307.95 | 20.05 | 88.21 | 3.49 | OK |
| 2093_136 | 314.46 | 314.46 | 24.48 | 82.94 | 3.79 | OK |
| 2093_137 | 307.92 | 307.92 | 20.06 | 84.17 | 3.66 | OK |
| 2093_138 | 309.40 | 309.40 | 24.17 | 6.81 | 12.80 | OK |
| 2093_139 | 302.86 | 302.86 | 19.75 | 8.04 | 15.34 | OK |
| 2093_140 | 309.37 | 309.37 | 24.20 | 9.58 | 12.78 | OK |
| 2093_141 | 302.83 | 302.83 | 19.80 | 7.16 | 15.30 | OK |
| 2093_142 | 309.66 | 309.66 | 24.17 | 20.50 | 12.81 | OK |
| 2093_143 | 303.12 | 303.12 | 19.75 | 21.72 | 13.95 | OK |
| 2093_144 | 309.70 | 309.70 | 24.20 | 14.04 | 12.79 | OK |
| 2093_145 | 303.16 | 303.16 | 19.80 | 15.27 | 15.31 | OK |
| 2093_146 | 306.27 | 306.27 | 22.06 | 12.09 | 13.88 | OK |
| 2093_147 | 336.55 | 336.55 | 22.06 | 17.77 | 15.25 | OK |
| 2093_148 | 336.55 | 336.55 | 22.10 | 25.94 | 12.97 | OK |
| 2093_149 | 336.58 | 336.58 | 22.13 | 30.25 | 11.13 | OK |
| 2093_150 | 335.67 | 335.67 | 21.78 | 99.31 | 3.38 | OK |
| 2093_151 | 332.99 | 332.99 | 21.61 | 150.46 | 2.21 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 2093_152 | 335.69 | 335.69 | 21.80 | 101.29 | 3.31 | OK |
| 2093_153 | 338.86 | 338.86 | 21.77 | 96.63 | 3.51 | OK |
| 2093_154 | 339.76 | 339.76 | 85.11 | 21.17 | 3.99 | OK |
| 2093_155 | 339.80 | 339.80 | 127.14 | 20.21 | 2.67 | OK |
| 2093_156 | 339.78 | 339.78 | 85.12 | 23.13 | 3.99 | OK |
| 2093_157 | 342.94 | 342.94 | 85.09 | 18.47 | 4.03 | OK |
| 2093_158 | 333.36 | 333.36 | 21.96 | 78.66 | 4.24 | OK |
| 2093_159 | 331.26 | 331.26 | 21.88 | 116.55 | 2.84 | OK |
| 2093_160 | 333.38 | 333.38 | 21.97 | 79.07 | 4.22 | OK |
| 2093_161 | 336.59 | 336.59 | 85.12 | 20.38 | 3.95 | OK |
| 2093_162 | 336.64 | 336.64 | 127.14 | 19.43 | 2.65 | OK |
| 2093_163 | 336.61 | 336.61 | 85.13 | 20.79 | 3.95 | OK |
| 2093_164 | 336.77 | 336.77 | 22.06 | 9.76 | 15.26 | OK |
| 2093_165 | 336.77 | 336.77 | 22.10 | 14.58 | 15.24 | OK |
| 2093_166 | 336.75 | 336.75 | 22.13 | 21.16 | 15.22 | OK |
| 2093_167 | 343.99 | 343.99 | 22.35 | 76.18 | 4.52 | OK |
| 2093_168 | 346.66 | 346.66 | 22.54 | 127.81 | 2.71 | OK |
| 2093_169 | 343.96 | 343.96 | 22.37 | 71.93 | 4.78 | OK |
| 2093_170 | 347.13 | 347.13 | 22.33 | 77.17 | 4.50 | OK |
| 2093_171 | 339.90 | 339.90 | 40.98 | 11.10 | 8.30 | OK |
| 2093_172 | 339.85 | 339.85 | 83.00 | 10.82 | 4.09 | OK |
| 2093_173 | 339.88 | 339.88 | 40.96 | 13.50 | 8.30 | OK |
| 2093_174 | 343.04 | 343.04 | 41.00 | 11.40 | 8.37 | OK |
| 2093_175 | 339.96 | 339.96 | 22.19 | 56.34 | 6.03 | OK |
| 2093_176 | 342.07 | 342.07 | 22.27 | 94.62 | 3.62 | OK |
| 2093_177 | 339.94 | 339.94 | 22.20 | 53.65 | 6.34 | OK |
| 2093_178 | 336.73 | 336.73 | 40.97 | 10.09 | 8.22 | OK |
| 2093_179 | 336.69 | 336.69 | 83.00 | 9.82 | 4.06 | OK |
| 2093_180 | 336.71 | 336.71 | 40.96 | 11.16 | 8.22 | OK |
| 4506_1 | 347.71 | 347.71 | 3.79 | 46.60 | 7.46 | OK |
| 4506_2 | 337.65 | 337.65 | 2.90 | 34.99 | 9.65 | OK |
| 4506_3 | 347.68 | 347.68 | 3.75 | 36.70 | 9.47 | OK |
| 4506_4 | 337.62 | 337.62 | 2.86 | 25.09 | 13.46 | OK |
| 4506_5 | 357.42 | 357.42 | 97.46 | 56.96 | 3.67 | OK |
| 4506_6 | 347.36 | 347.36 | 96.58 | 45.35 | 3.60 | OK |
| 4506_7 | 352.49 | 352.49 | 160.39 | 54.06 | 2.20 | OK |
| 4506_8 | 342.43 | 342.43 | 159.45 | 42.44 | 2.15 | OK |
| 4506_9 | 352.56 | 352.56 | 97.66 | 55.48 | 3.61 | OK |
| 4506_10 | 342.50 | 342.50 | 96.78 | 43.86 | 3.54 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_11 | 352.52 | 352.52 | 97.64 | 49.09 | 3.61 | OK |
| 4506_12 | 342.46 | 342.46 | 96.75 | 37.48 | 3.54 | OK |
| 4506_13 | 363.55 | 363.55 | 3.84 | 174.78 | 2.08 | OK |
| 4506_14 | 353.49 | 353.49 | 2.95 | 163.16 | 2.17 | OK |
| 4506_15 | 362.70 | 362.70 | 4.31 | 250.40 | 1.45 | OK |
| 4506_16 | 352.64 | 352.64 | 3.42 | 238.82 | 1.48 | OK |
| 4506_17 | 358.68 | 358.68 | 4.04 | 173.30 | 2.07 | OK |
| 4506_18 | 348.62 | 348.62 | 3.15 | 161.69 | 2.16 | OK |
| 4506_19 | 358.65 | 358.65 | 4.01 | 166.91 | 2.15 | OK |
| 4506_20 | 348.59 | 348.59 | 3.12 | 155.30 | 2.24 | OK |
| 4506_21 | 347.59 | 347.59 | 160.58 | 54.37 | 2.16 | OK |
| 4506_22 | 337.53 | 337.53 | 159.64 | 42.76 | 2.11 | OK |
| 4506_23 | 347.66 | 347.66 | 97.88 | 55.80 | 3.55 | OK |
| 4506_24 | 337.60 | 337.60 | 96.98 | 44.18 | 3.48 | OK |
| 4506_25 | 347.63 | 347.63 | 97.87 | 51.75 | 3.55 | OK |
| 4506_26 | 337.57 | 337.57 | 96.97 | 40.13 | 3.48 | OK |
| 4506_27 | 355.66 | 355.66 | 4.12 | 201.02 | 1.77 | OK |
| 4506_28 | 345.60 | 345.60 | 3.23 | 189.34 | 1.83 | OK |
| 4506_29 | 352.50 | 352.50 | 4.01 | 143.76 | 2.45 | OK |
| 4506_30 | 342.44 | 342.44 | 3.12 | 132.15 | 2.59 | OK |
| 4506_31 | 352.47 | 352.47 | 4.00 | 139.71 | 2.52 | OK |
| 4506_32 | 342.41 | 342.41 | 3.11 | 128.10 | 2.67 | OK |
| 4506_33 | 347.39 | 347.39 | 3.79 | 29.49 | 11.78 | OK |
| 4506_34 | 337.33 | 337.33 | 2.90 | 17.88 | 18.87 | OK |
| 4506_35 | 347.42 | 347.42 | 3.75 | 23.02 | 15.09 | OK |
| 4506_36 | 337.36 | 337.36 | 2.86 | 11.41 | 29.58 | OK |
| 4506_37 | 357.27 | 357.27 | 90.61 | 42.41 | 3.94 | OK |
| 4506_38 | 347.21 | 347.21 | 91.50 | 30.79 | 3.79 | OK |
| 4506_39 | 352.41 | 352.41 | 153.11 | 38.94 | 2.30 | OK |
| 4506_40 | 342.35 | 342.35 | 153.95 | 27.32 | 2.22 | OK |
| 4506_41 | 352.34 | 352.34 | 90.42 | 37.52 | 3.90 | OK |
| 4506_42 | 342.28 | 342.28 | 91.30 | 25.90 | 3.75 | OK |
| 4506_43 | 352.37 | 352.37 | 90.44 | 34.55 | 3.90 | OK |
| 4506_44 | 342.31 | 342.31 | 91.33 | 22.93 | 3.75 | OK |
| 4506_45 | 351.14 | 351.14 | 3.01 | 83.99 | 4.18 | OK |
| 4506_46 | 341.08 | 341.08 | 2.12 | 93.77 | 3.64 | OK |
| 4506_47 | 342.19 | 342.19 | 2.98 | 164.38 | 2.08 | OK |
| 4506_48 | 332.13 | 332.13 | 2.18 | 174.20 | 1.91 | OK |
| 4506_49 | 346.21 | 346.21 | 3.21 | 87.99 | 3.93 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_50 | 336.15 | 336.15 | 2.32 | 97.78 | 3.44 | OK |
| 4506_51 | 346.24 | 346.24 | 3.18 | 90.97 | 3.81 | OK |
| 4506_52 | 336.18 | 336.18 | 2.29 | 100.75 | 3.34 | OK |
| 4506_53 | 347.51 | 347.51 | 152.91 | 39.25 | 2.27 | OK |
| 4506_54 | 337.45 | 337.45 | 153.76 | 27.64 | 2.19 | OK |
| 4506_55 | 347.44 | 347.44 | 90.20 | 37.84 | 3.85 | OK |
| 4506_56 | 337.38 | 337.38 | 91.10 | 26.21 | 3.70 | OK |
| 4506_57 | 347.48 | 347.48 | 90.21 | 37.20 | 3.85 | OK |
| 4506_58 | 337.42 | 337.42 | 91.11 | 25.59 | 3.70 | OK |
| 4506_59 | 339.44 | 339.44 | 3.55 | 113.79 | 2.98 | OK |
| 4506_60 | 329.38 | 329.38 | 2.66 | 123.57 | 2.67 | OK |
| 4506_61 | 342.60 | 342.60 | 3.67 | 57.15 | 5.99 | OK |
| 4506_62 | 332.54 | 332.54 | 2.78 | 66.94 | 4.97 | OK |
| 4506_63 | 342.63 | 342.63 | 3.65 | 57.78 | 5.93 | OK |
| 4506_64 | 332.57 | 332.57 | 2.76 | 67.56 | 4.92 | OK |
| 4506_65 | 347.69 | 347.69 | 3.96 | 77.63 | 4.48 | OK |
| 4506_66 | 337.62 | 337.62 | 3.07 | 66.02 | 5.11 | OK |
| 4506_67 | 347.72 | 347.72 | 3.92 | 71.15 | 4.89 | OK |
| 4506_68 | 337.66 | 337.66 | 3.03 | 59.54 | 5.67 | OK |
| 4506_69 | 347.42 | 347.42 | 3.96 | 63.94 | 5.43 | OK |
| 4506_70 | 337.36 | 337.36 | 3.07 | 52.32 | 6.45 | OK |
| 4506_71 | 347.39 | 347.39 | 3.92 | 54.05 | 6.43 | OK |
| 4506_72 | 337.33 | 337.33 | 3.03 | 42.44 | 7.95 | OK |
| 4506_73 | 338.27 | 338.27 | 2.94 | 39.54 | 8.56 | OK |
| 4506_74 | 310.61 | 310.61 | 3.20 | 38.86 | 7.99 | OK |
| 4506_75 | 303.91 | 303.91 | 2.61 | 31.12 | 9.77 | OK |
| 4506_76 | 310.58 | 310.58 | 3.16 | 28.96 | 10.72 | OK |
| 4506_77 | 303.87 | 303.87 | 2.56 | 21.22 | 14.32 | OK |
| 4506_78 | 320.32 | 320.32 | 96.87 | 49.22 | 3.31 | OK |
| 4506_79 | 313.61 | 313.61 | 96.27 | 41.48 | 3.26 | OK |
| 4506_80 | 315.38 | 315.38 | 159.76 | 46.31 | 1.97 | OK |
| 4506_81 | 308.68 | 308.68 | 159.13 | 38.57 | 1.94 | OK |
| 4506_82 | 315.45 | 315.45 | 97.07 | 47.73 | 3.25 | OK |
| 4506_83 | 308.75 | 308.75 | 96.47 | 39.99 | 3.20 | OK |
| 4506_84 | 315.42 | 315.42 | 97.04 | 41.35 | 3.25 | OK |
| 4506_85 | 308.71 | 308.71 | 96.45 | 33.61 | 3.20 | OK |
| 4506_86 | 326.45 | 326.45 | 3.25 | 167.03 | 1.95 | OK |
| 4506_87 | 319.74 | 319.74 | 2.66 | 159.29 | 2.01 | OK |
| 4506_88 | 325.60 | 325.60 | 3.72 | 242.68 | 1.34 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_89 | 318.89 | 318.89 | 3.13 | 234.96 | 1.36 | OK |
| 4506_90 | 321.58 | 321.58 | 3.44 | 165.56 | 1.94 | OK |
| 4506_91 | 314.88 | 314.88 | 2.85 | 157.82 | 2.00 | OK |
| 4506_92 | 321.55 | 321.55 | 3.42 | 159.17 | 2.02 | OK |
| 4506_93 | 314.84 | 314.84 | 2.83 | 151.43 | 2.08 | OK |
| 4506_94 | 310.49 | 310.49 | 159.96 | 46.63 | 1.94 | OK |
| 4506_95 | 303.78 | 303.78 | 159.43 | 38.89 | 1.91 | OK |
| 4506_96 | 310.56 | 310.56 | 97.29 | 48.06 | 3.19 | OK |
| 4506_97 | 303.85 | 303.85 | 96.69 | 40.31 | 3.14 | OK |
| 4506_98 | 310.52 | 310.52 | 97.27 | 44.00 | 3.19 | OK |
| 4506_99 | 303.82 | 303.82 | 96.68 | 36.26 | 3.14 | OK |
| 4506_100 | 318.56 | 318.56 | 3.53 | 193.20 | 1.65 | OK |
| 4506_101 | 311.85 | 311.85 | 2.94 | 185.48 | 1.68 | OK |
| 4506_102 | 315.40 | 315.40 | 3.42 | 136.02 | 2.32 | OK |
| 4506_103 | 308.69 | 308.69 | 2.82 | 128.27 | 2.41 | OK |
| 4506_104 | 315.37 | 315.37 | 3.40 | 131.97 | 2.39 | OK |
| 4506_105 | 308.66 | 308.66 | 2.81 | 124.23 | 2.48 | OK |
| 4506_106 | 310.28 | 310.28 | 3.20 | 21.75 | 14.27 | OK |
| 4506_107 | 303.58 | 303.58 | 2.61 | 14.01 | 21.67 | OK |
| 4506_108 | 310.32 | 310.32 | 3.16 | 15.28 | 20.31 | OK |
| 4506_109 | 303.61 | 303.61 | 2.56 | 7.54 | 40.29 | OK |
| 4506_110 | 320.17 | 320.17 | 91.21 | 34.66 | 3.51 | OK |
| 4506_111 | 313.46 | 313.46 | 91.79 | 26.92 | 3.41 | OK |
| 4506_112 | 315.31 | 315.31 | 153.74 | 31.19 | 2.05 | OK |
| 4506_113 | 308.60 | 308.60 | 154.27 | 23.45 | 2.00 | OK |
| 4506_114 | 315.24 | 315.24 | 91.01 | 29.77 | 3.46 | OK |
| 4506_115 | 308.53 | 308.53 | 91.61 | 22.03 | 3.37 | OK |
| 4506_116 | 315.27 | 315.27 | 91.04 | 26.81 | 3.46 | OK |
| 4506_117 | 308.56 | 308.56 | 91.63 | 19.06 | 3.37 | OK |
| 4506_118 | 314.04 | 314.04 | 2.42 | 90.51 | 3.47 | OK |
| 4506_119 | 307.33 | 307.33 | 1.83 | 97.03 | 3.17 | OK |
| 4506_120 | 305.09 | 305.09 | 2.45 | 170.95 | 1.78 | OK |
| 4506_121 | 298.38 | 298.38 | 1.91 | 177.45 | 1.68 | OK |
| 4506_122 | 309.11 | 309.11 | 2.62 | 94.52 | 3.27 | OK |
| 4506_123 | 302.40 | 302.40 | 2.02 | 101.04 | 2.99 | OK |
| 4506_124 | 309.14 | 309.14 | 2.59 | 97.49 | 3.17 | OK |
| 4506_125 | 302.43 | 302.43 | 2.00 | 104.01 | 2.91 | OK |
| 4506_126 | 310.41 | 310.41 | 153.44 | 31.51 | 2.02 | OK |
| 4506_127 | 303.70 | 303.70 | 154.07 | 23.77 | 1.97 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_128 | 310.34 | 310.34 | 90.79 | 30.09 | 3.42 | OK |
| 4506_129 | 303.63 | 303.63 | 91.39 | 22.34 | 3.32 | OK |
| 4506_130 | 310.37 | 310.37 | 90.81 | 29.46 | 3.42 | OK |
| 4506_131 | 303.67 | 303.67 | 91.40 | 21.72 | 3.32 | OK |
| 4506_132 | 302.34 | 302.34 | 2.96 | 120.31 | 2.51 | OK |
| 4506_133 | 295.63 | 295.63 | 2.36 | 126.83 | 2.33 | OK |
| 4506_134 | 305.50 | 305.50 | 3.07 | 63.67 | 4.80 | OK |
| 4506_135 | 298.79 | 298.79 | 2.48 | 70.20 | 4.26 | OK |
| 4506_136 | 305.53 | 305.53 | 3.06 | 64.30 | 4.75 | OK |
| 4506_137 | 298.82 | 298.82 | 2.47 | 70.83 | 4.22 | OK |
| 4506_138 | 310.58 | 310.58 | 3.37 | 69.89 | 4.44 | OK |
| 4506_139 | 303.88 | 303.88 | 2.78 | 62.14 | 4.89 | OK |
| 4506_140 | 310.61 | 310.61 | 3.33 | 63.41 | 4.90 | OK |
| 4506_141 | 303.91 | 303.91 | 2.73 | 55.67 | 5.46 | OK |
| 4506_142 | 310.32 | 310.32 | 3.37 | 56.19 | 5.52 | OK |
| 4506_143 | 303.61 | 303.61 | 2.78 | 48.45 | 6.27 | OK |
| 4506_144 | 310.29 | 310.29 | 3.33 | 46.31 | 6.70 | OK |
| 4506_145 | 303.58 | 303.58 | 2.73 | 38.57 | 7.87 | OK |
| 4506_146 | 307.10 | 307.10 | 2.97 | 38.71 | 7.93 | OK |
| 4506_147 | 337.60 | 337.60 | 2.97 | 44.41 | 7.60 | OK |
| 4506_148 | 337.60 | 337.60 | 2.92 | 36.22 | 9.32 | OK |
| 4506_149 | 337.58 | 337.58 | 2.89 | 29.63 | 11.39 | OK |
| 4506_150 | 344.91 | 344.91 | 3.09 | 120.69 | 2.86 | OK |
| 4506_151 | 347.59 | 347.59 | 3.27 | 172.11 | 2.02 | OK |
| 4506_152 | 344.89 | 344.89 | 3.07 | 116.44 | 2.96 | OK |
| 4506_153 | 348.16 | 348.16 | 2.96 | 121.68 | 2.86 | OK |
| 4506_154 | 340.83 | 340.83 | 65.51 | 42.15 | 5.20 | OK |
| 4506_155 | 340.78 | 340.78 | 107.29 | 41.20 | 3.18 | OK |
| 4506_156 | 340.81 | 340.81 | 65.49 | 37.89 | 5.20 | OK |
| 4506_157 | 344.07 | 344.07 | 65.38 | 43.13 | 5.26 | OK |
| 4506_158 | 340.79 | 340.79 | 3.07 | 101.00 | 3.37 | OK |
| 4506_159 | 342.90 | 342.90 | 3.14 | 139.14 | 2.46 | OK |
| 4506_160 | 340.77 | 340.77 | 3.06 | 98.30 | 3.47 | OK |
| 4506_161 | 337.56 | 337.56 | 65.64 | 42.36 | 5.14 | OK |
| 4506_162 | 337.52 | 337.52 | 107.44 | 41.41 | 3.14 | OK |
| 4506_163 | 337.54 | 337.54 | 65.63 | 39.66 | 5.14 | OK |
| 4506_164 | 337.38 | 337.38 | 2.97 | 33.00 | 10.22 | OK |
| 4506_165 | 337.38 | 337.38 | 2.92 | 24.83 | 13.59 | OK |
| 4506_166 | 337.40 | 337.40 | 2.89 | 20.51 | 16.45 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 4506_167 | 336.60 | 336.60 | 2.54 | 54.31 | 6.20 | OK |
| 4506_168 | 333.92 | 333.92 | 2.35 | 105.24 | 3.17 | OK |
| 4506_169 | 336.62 | 336.62 | 2.52 | 56.30 | 5.98 | OK |
| 4506_170 | 339.88 | 339.88 | 2.40 | 51.64 | 6.58 | OK |
| 4506_171 | 340.68 | 340.68 | 59.89 | 30.16 | 5.69 | OK |
| 4506_172 | 340.73 | 340.73 | 101.67 | 31.12 | 3.35 | OK |
| 4506_173 | 340.70 | 340.70 | 59.89 | 28.19 | 5.69 | OK |
| 4506_174 | 343.97 | 343.97 | 60.01 | 33.44 | 5.73 | OK |
| 4506_175 | 334.19 | 334.19 | 2.84 | 33.75 | 9.90 | OK |
| 4506_176 | 332.08 | 332.08 | 2.76 | 71.52 | 4.64 | OK |
| 4506_177 | 334.21 | 334.21 | 2.83 | 34.18 | 9.78 | OK |
| 4506_178 | 337.42 | 337.42 | 59.74 | 30.38 | 5.65 | OK |
| 4506_179 | 337.47 | 337.47 | 101.54 | 31.33 | 3.32 | OK |
| 4506_180 | 337.44 | 337.44 | 59.75 | 29.97 | 5.65 | OK |

Scorrimento – verifiche sismiche

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| COMB | kN | kN | | |
| 2093_1 | 223.6 | 4.8 | 46.39 | OK |
| 2093_2 | 217.3 | 4.4 | 49.62 | OK |
| 2093_3 | 223.6 | 5.5 | 40.77 | OK |
| 2093_4 | 217.3 | 5.1 | 42.79 | OK |
| 2093_5 | 229.8 | 12.5 | 18.36 | OK |
| 2093_6 | 223.5 | 11.9 | 18.79 | OK |
| 2093_7 | 226.8 | 19.0 | 11.92 | OK |
| 2093_8 | 220.4 | 18.4 | 11.99 | OK |
| 2093_9 | 226.7 | 12.7 | 17.88 | OK |
| 2093_10 | 220.4 | 12.1 | 18.29 | OK |
| 2093_11 | 226.7 | 12.7 | 17.79 | OK |
| 2093_12 | 220.4 | 12.1 | 18.19 | OK |
| 2093_13 | 225.8 | 19.7 | 11.44 | OK |
| 2093_14 | 219.5 | 19.5 | 11.25 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_15 | 220.2 | 32.0 | 6.88 | OK |
| 2093_16 | 213.8 | 31.8 | 6.72 | OK |
| 2093_17 | 222.8 | 20.6 | 10.81 | OK |
| 2093_18 | 216.4 | 20.4 | 10.61 | OK |
| 2093_19 | 222.8 | 20.9 | 10.65 | OK |
| 2093_20 | 216.4 | 20.7 | 10.46 | OK |
| 2093_21 | 223.7 | 19.0 | 11.76 | OK |
| 2093_22 | 217.4 | 18.4 | 11.81 | OK |
| 2093_23 | 223.6 | 12.7 | 17.62 | OK |
| 2093_24 | 217.3 | 12.1 | 18.01 | OK |
| 2093_25 | 223.7 | 12.7 | 17.63 | OK |
| 2093_26 | 217.3 | 12.1 | 18.02 | OK |
| 2093_27 | 218.5 | 25.0 | 8.75 | OK |
| 2093_28 | 212.1 | 24.8 | 8.57 | OK |
| 2093_29 | 220.5 | 16.4 | 13.41 | OK |
| 2093_30 | 214.2 | 16.2 | 13.22 | OK |
| 2093_31 | 220.5 | 16.4 | 13.43 | OK |
| 2093_32 | 214.2 | 16.2 | 13.23 | OK |
| 2093_33 | 223.8 | 2.7 | 82.30 | OK |
| 2093_34 | 217.5 | 2.1 | 104.03 | OK |
| 2093_35 | 223.8 | 3.4 | 66.39 | OK |
| 2093_36 | 217.5 | 2.8 | 77.41 | OK |
| 2093_37 | 229.9 | 7.1 | 32.22 | OK |
| 2093_38 | 223.6 | 7.8 | 28.81 | OK |
| 2093_39 | 226.8 | 13.6 | 16.71 | OK |
| 2093_40 | 220.5 | 14.2 | 15.54 | OK |
| 2093_41 | 226.8 | 7.1 | 31.89 | OK |
| 2093_42 | 220.5 | 7.7 | 28.51 | OK |
| 2093_43 | 226.8 | 7.1 | 31.96 | OK |
| 2093_44 | 220.5 | 7.7 | 28.63 | OK |
| 2093_45 | 233.9 | 18.7 | 12.51 | OK |
| 2093_46 | 227.5 | 18.8 | 12.13 | OK |
| 2093_47 | 233.4 | 29.9 | 7.82 | OK |
| 2093_48 | 227.1 | 30.0 | 7.58 | OK |
| 2093_49 | 230.8 | 18.5 | 12.48 | OK |
| 2093_50 | 224.5 | 18.6 | 12.09 | OK |
| 2093_51 | 230.8 | 17.5 | 13.17 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase)} / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_52 | 224.5 | 17.6 | 12.76 | OK |
| 2093_53 | 223.7 | 13.6 | 16.48 | OK |
| 2093_54 | 217.4 | 14.2 | 15.32 | OK |
| 2093_55 | 223.8 | 7.1 | 31.49 | OK |
| 2093_56 | 217.4 | 7.7 | 28.14 | OK |
| 2093_57 | 223.8 | 7.1 | 31.58 | OK |
| 2093_58 | 217.4 | 7.7 | 28.25 | OK |
| 2093_59 | 229.0 | 22.7 | 10.08 | OK |
| 2093_60 | 222.6 | 22.8 | 9.77 | OK |
| 2093_61 | 226.9 | 14.2 | 15.97 | OK |
| 2093_62 | 220.6 | 14.3 | 15.47 | OK |
| 2093_63 | 226.9 | 13.6 | 16.73 | OK |
| 2093_64 | 220.6 | 13.6 | 16.21 | OK |
| 2093_65 | 223.6 | 2.8 | 81.18 | OK |
| 2093_66 | 217.3 | 2.2 | 97.29 | OK |
| 2093_67 | 223.6 | 2.7 | 81.81 | OK |
| 2093_68 | 217.3 | 2.1 | 103.26 | OK |
| 2093_69 | 223.8 | 4.4 | 51.19 | OK |
| 2093_70 | 217.5 | 4.2 | 52.22 | OK |
| 2093_71 | 223.8 | 3.8 | 59.15 | OK |
| 2093_72 | 217.5 | 3.5 | 61.99 | OK |
| 2093_73 | 217.9 | 2.1 | 105.49 | OK |
| 2093_74 | 199.8 | 4.5 | 44.18 | OK |
| 2093_75 | 195.5 | 4.2 | 46.09 | OK |
| 2093_76 | 199.8 | 5.2 | 38.36 | OK |
| 2093_77 | 195.6 | 5.0 | 39.49 | OK |
| 2093_78 | 205.9 | 12.1 | 17.02 | OK |
| 2093_79 | 201.7 | 11.7 | 17.27 | OK |
| 2093_80 | 202.9 | 18.6 | 10.91 | OK |
| 2093_81 | 198.7 | 18.2 | 10.93 | OK |
| 2093_82 | 202.9 | 12.3 | 16.55 | OK |
| 2093_83 | 198.6 | 11.8 | 16.78 | OK |
| 2093_84 | 202.9 | 12.3 | 16.46 | OK |
| 2093_85 | 198.7 | 11.9 | 16.68 | OK |
| 2093_86 | 202.0 | 19.6 | 10.31 | OK |
| 2093_87 | 197.8 | 19.4 | 10.17 | OK |
| 2093_88 | 196.3 | 31.9 | 6.16 | OK |
| 2093_89 | 192.1 | 31.7 | 6.05 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_90 | 198.9 | 20.5 | 9.72 | OK |
| 2093_91 | 194.7 | 20.3 | 9.58 | OK |
| 2093_92 | 198.9 | 20.8 | 9.58 | OK |
| 2093_93 | 194.7 | 20.6 | 9.44 | OK |
| 2093_94 | 199.8 | 18.6 | 10.74 | OK |
| 2093_95 | 195.6 | 18.2 | 10.75 | OK |
| 2093_96 | 199.8 | 12.3 | 16.28 | OK |
| 2093_97 | 195.6 | 11.9 | 16.50 | OK |
| 2093_98 | 199.8 | 12.3 | 16.28 | OK |
| 2093_99 | 195.6 | 11.9 | 16.50 | OK |
| 2093_100 | 194.6 | 24.8 | 7.84 | OK |
| 2093_101 | 190.4 | 24.7 | 7.71 | OK |
| 2093_102 | 196.7 | 16.3 | 12.08 | OK |
| 2093_103 | 192.4 | 16.1 | 11.93 | OK |
| 2093_104 | 196.7 | 16.3 | 12.09 | OK |
| 2093_105 | 192.5 | 16.1 | 11.95 | OK |
| 2093_106 | 200.0 | 2.3 | 86.93 | OK |
| 2093_107 | 195.7 | 1.9 | 104.07 | OK |
| 2093_108 | 200.0 | 3.0 | 66.79 | OK |
| 2093_109 | 195.7 | 2.6 | 74.45 | OK |
| 2093_110 | 206.0 | 7.6 | 27.29 | OK |
| 2093_111 | 201.8 | 8.0 | 25.33 | OK |
| 2093_112 | 203.0 | 14.0 | 14.51 | OK |
| 2093_113 | 198.7 | 14.4 | 13.81 | OK |
| 2093_114 | 203.0 | 7.5 | 26.97 | OK |
| 2093_115 | 198.8 | 7.9 | 25.02 | OK |
| 2093_116 | 203.0 | 7.5 | 27.07 | OK |
| 2093_117 | 198.8 | 7.9 | 25.15 | OK |
| 2093_118 | 210.0 | 18.7 | 11.21 | OK |
| 2093_119 | 205.8 | 18.8 | 10.95 | OK |
| 2093_120 | 209.6 | 29.9 | 7.00 | OK |
| 2093_121 | 205.3 | 30.0 | 6.84 | OK |
| 2093_122 | 207.0 | 18.5 | 11.17 | OK |
| 2093_123 | 202.7 | 18.6 | 10.91 | OK |
| 2093_124 | 206.9 | 17.6 | 11.78 | OK |
| 2093_125 | 202.7 | 17.6 | 11.51 | OK |
| 2093_126 | 199.9 | 14.0 | 14.30 | OK |
| 2093_127 | 195.7 | 14.4 | 13.60 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_128 | 199.9 | 7.5 | 26.58 | OK |
| 2093_129 | 195.7 | 7.9 | 24.66 | OK |
| 2093_130 | 199.9 | 7.5 | 26.68 | OK |
| 2093_131 | 195.7 | 7.9 | 24.77 | OK |
| 2093_132 | 205.1 | 22.8 | 9.01 | OK |
| 2093_133 | 200.9 | 22.8 | 8.80 | OK |
| 2093_134 | 203.1 | 14.2 | 14.27 | OK |
| 2093_135 | 198.8 | 14.3 | 13.93 | OK |
| 2093_136 | 203.0 | 13.6 | 14.95 | OK |
| 2093_137 | 198.8 | 13.6 | 14.59 | OK |
| 2093_138 | 199.8 | 2.4 | 83.19 | OK |
| 2093_139 | 195.6 | 2.1 | 94.33 | OK |
| 2093_140 | 199.8 | 2.3 | 86.33 | OK |
| 2093_141 | 195.5 | 1.9 | 103.22 | OK |
| 2093_142 | 199.9 | 4.2 | 47.33 | OK |
| 2093_143 | 195.7 | 4.1 | 47.57 | OK |
| 2093_144 | 200.0 | 3.6 | 55.70 | OK |
| 2093_145 | 195.7 | 3.4 | 56.94 | OK |
| 2093_146 | 197.8 | 2.1 | 94.29 | OK |
| 2093_147 | 217.3 | 2.6 | 83.15 | OK |
| 2093_148 | 217.3 | 3.4 | 63.46 | OK |
| 2093_149 | 217.3 | 3.9 | 56.41 | OK |
| 2093_150 | 216.7 | 13.8 | 15.65 | OK |
| 2093_151 | 215.0 | 21.4 | 10.04 | OK |
| 2093_152 | 216.8 | 14.0 | 15.44 | OK |
| 2093_153 | 218.8 | 13.3 | 16.49 | OK |
| 2093_154 | 219.4 | 8.7 | 25.12 | OK |
| 2093_155 | 219.4 | 13.0 | 16.94 | OK |
| 2093_156 | 219.4 | 8.8 | 24.99 | OK |
| 2093_157 | 221.4 | 8.6 | 25.68 | OK |
| 2093_158 | 215.2 | 11.1 | 19.43 | OK |
| 2093_159 | 213.9 | 16.7 | 12.78 | OK |
| 2093_160 | 215.3 | 11.1 | 19.46 | OK |
| 2093_161 | 217.3 | 8.7 | 24.86 | OK |
| 2093_162 | 217.4 | 13.0 | 16.77 | OK |
| 2093_163 | 217.3 | 8.7 | 24.87 | OK |
| 2093_164 | 217.5 | 2.1 | 102.23 | OK |
| 2093_165 | 217.5 | 2.1 | 103.90 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 2093_166 | 217.4 | 2.5 | 86.81 | OK |
| 2093_167 | 222.1 | 12.3 | 18.06 | OK |
| 2093_168 | 223.8 | 19.9 | 11.27 | OK |
| 2093_169 | 222.1 | 11.7 | 19.05 | OK |
| 2093_170 | 224.1 | 12.4 | 18.03 | OK |
| 2093_171 | 219.5 | 4.5 | 49.14 | OK |
| 2093_172 | 219.4 | 8.8 | 25.00 | OK |
| 2093_173 | 219.5 | 4.5 | 49.16 | OK |
| 2093_174 | 221.5 | 4.5 | 49.45 | OK |
| 2093_175 | 219.5 | 9.5 | 23.21 | OK |
| 2093_176 | 220.9 | 15.1 | 14.62 | OK |
| 2093_177 | 219.5 | 9.0 | 24.31 | OK |
| 2093_178 | 217.4 | 4.5 | 48.72 | OK |
| 2093_179 | 217.4 | 8.8 | 24.77 | OK |
| 2093_180 | 217.4 | 4.5 | 48.80 | OK |
| 4506_1 | 224.5 | 7.5 | 29.89 | OK |
| 4506_2 | 218.0 | 5.8 | 37.70 | OK |
| 4506_3 | 224.5 | 6.1 | 37.07 | OK |
| 4506_4 | 218.0 | 4.3 | 50.38 | OK |
| 4506_5 | 230.8 | 13.2 | 17.43 | OK |
| 4506_6 | 224.3 | 12.1 | 18.50 | OK |
| 4506_7 | 227.6 | 18.2 | 12.47 | OK |
| 4506_8 | 221.1 | 17.5 | 12.63 | OK |
| 4506_9 | 227.6 | 13.1 | 17.37 | OK |
| 4506_10 | 221.1 | 12.0 | 18.42 | OK |
| 4506_11 | 227.6 | 12.5 | 18.25 | OK |
| 4506_12 | 221.1 | 11.5 | 19.30 | OK |
| 4506_13 | 234.7 | 26.5 | 8.84 | OK |
| 4506_14 | 228.2 | 24.8 | 9.20 | OK |
| 4506_15 | 234.2 | 37.7 | 6.21 | OK |
| 4506_16 | 227.7 | 36.0 | 6.33 | OK |
| 4506_17 | 231.6 | 26.3 | 8.79 | OK |
| 4506_18 | 225.1 | 24.6 | 9.14 | OK |
| 4506_19 | 231.6 | 25.4 | 9.13 | OK |
| 4506_20 | 225.1 | 23.6 | 9.52 | OK |
| 4506_21 | 224.4 | 18.2 | 12.32 | OK |
| 4506_22 | 217.9 | 17.5 | 12.47 | OK |
| 4506_23 | 224.5 | 13.1 | 17.18 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_24 | 218.0 | 12.0 | 18.21 | OK |
| 4506_25 | 224.5 | 12.6 | 17.77 | OK |
| 4506_26 | 218.0 | 11.6 | 18.80 | OK |
| 4506_27 | 229.6 | 30.6 | 7.50 | OK |
| 4506_28 | 223.2 | 28.9 | 7.73 | OK |
| 4506_29 | 227.6 | 22.0 | 10.32 | OK |
| 4506_30 | 221.1 | 20.3 | 10.88 | OK |
| 4506_31 | 227.6 | 21.4 | 10.64 | OK |
| 4506_32 | 221.1 | 19.7 | 11.25 | OK |
| 4506_33 | 224.3 | 4.1 | 54.45 | OK |
| 4506_34 | 217.8 | 2.4 | 91.10 | OK |
| 4506_35 | 224.3 | 3.3 | 67.13 | OK |
| 4506_36 | 217.8 | 1.6 | 135.04 | OK |
| 4506_37 | 230.7 | 11.5 | 20.14 | OK |
| 4506_38 | 224.2 | 10.6 | 21.11 | OK |
| 4506_39 | 227.5 | 17.0 | 13.36 | OK |
| 4506_40 | 221.1 | 16.5 | 13.36 | OK |
| 4506_41 | 227.5 | 11.0 | 20.69 | OK |
| 4506_42 | 221.0 | 10.3 | 21.50 | OK |
| 4506_43 | 227.5 | 10.9 | 20.96 | OK |
| 4506_44 | 221.0 | 10.2 | 21.72 | OK |
| 4506_45 | 226.7 | 11.3 | 20.02 | OK |
| 4506_46 | 220.2 | 13.1 | 16.87 | OK |
| 4506_47 | 221.0 | 23.6 | 9.37 | OK |
| 4506_48 | 214.5 | 25.3 | 8.47 | OK |
| 4506_49 | 223.5 | 12.2 | 18.32 | OK |
| 4506_50 | 217.0 | 13.9 | 15.58 | OK |
| 4506_51 | 223.6 | 12.5 | 17.88 | OK |
| 4506_52 | 217.1 | 14.2 | 15.26 | OK |
| 4506_53 | 224.4 | 17.0 | 13.19 | OK |
| 4506_54 | 217.9 | 16.5 | 13.18 | OK |
| 4506_55 | 224.3 | 11.0 | 20.45 | OK |
| 4506_56 | 217.8 | 10.3 | 21.23 | OK |
| 4506_57 | 224.4 | 11.0 | 20.43 | OK |
| 4506_58 | 217.9 | 10.3 | 21.22 | OK |
| 4506_59 | 219.2 | 16.6 | 13.22 | OK |
| 4506_60 | 212.7 | 18.3 | 11.62 | OK |
| 4506_61 | 221.2 | 8.0 | 27.57 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_62 | 214.7 | 9.8 | 22.02 | OK |
| 4506_63 | 221.2 | 8.0 | 27.65 | OK |
| 4506_64 | 214.7 | 9.7 | 22.07 | OK |
| 4506_65 | 224.5 | 11.6 | 19.28 | OK |
| 4506_66 | 218.0 | 9.9 | 21.99 | OK |
| 4506_67 | 224.5 | 10.9 | 20.67 | OK |
| 4506_68 | 218.0 | 9.1 | 23.87 | OK |
| 4506_69 | 224.3 | 8.9 | 25.13 | OK |
| 4506_70 | 217.8 | 7.2 | 30.26 | OK |
| 4506_71 | 224.3 | 7.5 | 30.02 | OK |
| 4506_72 | 217.8 | 5.7 | 37.93 | OK |
| 4506_73 | 218.4 | 5.9 | 36.95 | OK |
| 4506_74 | 200.6 | 6.4 | 31.54 | OK |
| 4506_75 | 196.2 | 5.2 | 37.68 | OK |
| 4506_76 | 200.5 | 4.9 | 40.90 | OK |
| 4506_77 | 196.2 | 3.8 | 52.31 | OK |
| 4506_78 | 206.8 | 12.5 | 16.57 | OK |
| 4506_79 | 202.5 | 11.8 | 17.18 | OK |
| 4506_80 | 203.6 | 17.7 | 11.48 | OK |
| 4506_81 | 199.3 | 17.3 | 11.53 | OK |
| 4506_82 | 203.7 | 12.4 | 16.49 | OK |
| 4506_83 | 199.4 | 11.7 | 17.08 | OK |
| 4506_84 | 203.7 | 11.8 | 17.29 | OK |
| 4506_85 | 199.3 | 11.2 | 17.86 | OK |
| 4506_86 | 210.8 | 25.4 | 8.30 | OK |
| 4506_87 | 206.5 | 24.2 | 8.52 | OK |
| 4506_88 | 210.2 | 36.6 | 5.75 | OK |
| 4506_89 | 205.9 | 35.4 | 5.81 | OK |
| 4506_90 | 207.6 | 25.2 | 8.24 | OK |
| 4506_91 | 203.3 | 24.0 | 8.46 | OK |
| 4506_92 | 207.6 | 24.2 | 8.57 | OK |
| 4506_93 | 203.3 | 23.1 | 8.81 | OK |
| 4506_94 | 200.5 | 17.7 | 11.32 | OK |
| 4506_95 | 196.1 | 17.3 | 11.36 | OK |
| 4506_96 | 200.5 | 12.3 | 16.28 | OK |
| 4506_97 | 196.2 | 11.6 | 16.86 | OK |
| 4506_98 | 200.5 | 11.9 | 16.81 | OK |
| 4506_99 | 196.2 | 11.3 | 17.38 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_100 | 205.7 | 29.4 | 6.98 | OK |
| 4506_101 | 201.4 | 28.3 | 7.12 | OK |
| 4506_102 | 203.7 | 20.9 | 9.75 | OK |
| 4506_103 | 199.3 | 19.7 | 10.10 | OK |
| 4506_104 | 203.6 | 20.2 | 10.06 | OK |
| 4506_105 | 199.3 | 19.1 | 10.44 | OK |
| 4506_106 | 200.3 | 3.0 | 67.53 | OK |
| 4506_107 | 196.0 | 1.8 | 108.03 | OK |
| 4506_108 | 200.4 | 2.2 | 91.52 | OK |
| 4506_109 | 196.0 | 1.0 | 189.02 | OK |
| 4506_110 | 206.7 | 10.9 | 19.01 | OK |
| 4506_111 | 202.4 | 10.4 | 19.47 | OK |
| 4506_112 | 203.6 | 16.7 | 12.20 | OK |
| 4506_113 | 199.3 | 16.4 | 12.14 | OK |
| 4506_114 | 203.5 | 10.5 | 19.40 | OK |
| 4506_115 | 199.2 | 10.1 | 19.73 | OK |
| 4506_116 | 203.6 | 10.4 | 19.62 | OK |
| 4506_117 | 199.2 | 10.0 | 19.91 | OK |
| 4506_118 | 202.8 | 12.5 | 16.25 | OK |
| 4506_119 | 198.4 | 13.6 | 14.56 | OK |
| 4506_120 | 197.0 | 24.7 | 7.96 | OK |
| 4506_121 | 192.7 | 25.9 | 7.44 | OK |
| 4506_122 | 199.6 | 13.4 | 14.95 | OK |
| 4506_123 | 195.3 | 14.5 | 13.46 | OK |
| 4506_124 | 199.6 | 13.7 | 14.62 | OK |
| 4506_125 | 195.3 | 14.8 | 13.19 | OK |
| 4506_126 | 200.4 | 16.7 | 12.02 | OK |
| 4506_127 | 196.1 | 16.4 | 11.95 | OK |
| 4506_128 | 200.4 | 10.5 | 19.14 | OK |
| 4506_129 | 196.1 | 10.1 | 19.45 | OK |
| 4506_130 | 200.4 | 10.5 | 19.13 | OK |
| 4506_131 | 196.1 | 10.1 | 19.44 | OK |
| 4506_132 | 195.2 | 17.7 | 11.01 | OK |
| 4506_133 | 190.9 | 18.9 | 10.11 | OK |
| 4506_134 | 197.3 | 9.2 | 21.50 | OK |
| 4506_135 | 192.9 | 10.3 | 18.68 | OK |
| 4506_136 | 197.3 | 9.2 | 21.55 | OK |
| 4506_137 | 192.9 | 10.3 | 18.72 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_138 | 200.5 | 10.5 | 19.12 | OK |
| 4506_139 | 196.2 | 9.3 | 21.01 | OK |
| 4506_140 | 200.6 | 9.7 | 20.65 | OK |
| 4506_141 | 196.2 | 8.6 | 22.93 | OK |
| 4506_142 | 200.4 | 7.8 | 25.77 | OK |
| 4506_143 | 196.0 | 6.6 | 29.60 | OK |
| 4506_144 | 200.3 | 6.3 | 31.71 | OK |
| 4506_145 | 196.0 | 5.2 | 37.94 | OK |
| 4506_146 | 198.3 | 5.8 | 34.41 | OK |
| 4506_147 | 218.0 | 6.9 | 31.62 | OK |
| 4506_148 | 218.0 | 5.8 | 37.74 | OK |
| 4506_149 | 218.0 | 4.8 | 45.36 | OK |
| 4506_150 | 222.7 | 18.3 | 12.15 | OK |
| 4506_151 | 224.4 | 25.9 | 8.66 | OK |
| 4506_152 | 222.7 | 17.7 | 12.59 | OK |
| 4506_153 | 224.8 | 18.5 | 12.17 | OK |
| 4506_154 | 220.1 | 9.3 | 23.73 | OK |
| 4506_155 | 220.0 | 12.5 | 17.54 | OK |
| 4506_156 | 220.1 | 8.8 | 24.95 | OK |
| 4506_157 | 222.2 | 9.4 | 23.71 | OK |
| 4506_158 | 220.0 | 15.5 | 14.23 | OK |
| 4506_159 | 221.4 | 21.2 | 10.46 | OK |
| 4506_160 | 220.0 | 15.0 | 14.64 | OK |
| 4506_161 | 218.0 | 9.2 | 23.58 | OK |
| 4506_162 | 217.9 | 12.5 | 17.40 | OK |
| 4506_163 | 217.9 | 8.9 | 24.38 | OK |
| 4506_164 | 217.8 | 4.6 | 47.03 | OK |
| 4506_165 | 217.8 | 3.5 | 61.98 | OK |
| 4506_166 | 217.9 | 3.0 | 72.71 | OK |
| 4506_167 | 217.3 | 7.4 | 29.51 | OK |
| 4506_168 | 215.6 | 15.0 | 14.42 | OK |
| 4506_169 | 217.4 | 7.6 | 28.73 | OK |
| 4506_170 | 219.5 | 6.8 | 32.37 | OK |
| 4506_171 | 220.0 | 7.7 | 28.45 | OK |
| 4506_172 | 220.0 | 11.6 | 18.93 | OK |
| 4506_173 | 220.0 | 7.6 | 28.87 | OK |
| 4506_174 | 222.1 | 8.1 | 27.51 | OK |
| 4506_175 | 215.8 | 4.6 | 47.11 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot \mu_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 4506_176 | 214.4 | 10.3 | 20.85 | OK |
| 4506_177 | 215.8 | 4.6 | 47.26 | OK |
| 4506_178 | 217.9 | 7.7 | 28.26 | OK |
| 4506_179 | 217.9 | 11.6 | 18.77 | OK |
| 4506_180 | 217.9 | 7.7 | 28.24 | OK |

Capacità portante – verifiche sismiche

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B' \cdot L')$ kPa | | |
| 2093_1 | (3367. + 1028. +) /2.3 = | 1911.1 | 79.29 | 24.10 | OK |
| 2093_2 | (3360. + 1055. +) /2.3 = | 1919.2 | 74.98 | 25.60 | OK |
| 2093_3 | (3330. + 1031. +) /2.3 = | 1896.3 | 81.00 | 23.41 | OK |
| 2093_4 | (3321. + 1057. +) /2.3 = | 1903.7 | 76.62 | 24.85 | OK |
| 2093_5 | (2899. + 767. +) /2.3 = | 1594.2 | 110.07 | 14.48 | OK |
| 2093_6 | (2908. + 779. +) /2.3 = | 1603.2 | 104.58 | 15.33 | OK |
| 2093_7 | (2555. + 557. +) /2.3 = | 1353.0 | 152.63 | 8.86 | OK |
| 2093_8 | (2557. + 562. +) /2.3 = | 1355.9 | 145.73 | 9.30 | OK |
| 2093_9 | (2900. + 759. +) /2.3 = | 1590.8 | 110.88 | 14.35 | OK |
| 2093_10 | (2909. + 770. +) /2.3 = | 1599.8 | 105.31 | 15.19 | OK |
| 2093_11 | (2908. + 756. +) /2.3 = | 1593.1 | 111.93 | 14.23 | OK |
| 2093_12 | (2917. + 768. +) /2.3 = | 1602.1 | 106.33 | 15.07 | OK |
| 2093_13 | (2714. + 1034. +) /2.3 = | 1629.4 | 120.62 | 13.51 | OK |
| 2093_14 | (2692. + 1055. +) /2.3 = | 1629.0 | 115.30 | 14.13 | OK |
| 2093_15 | (2198. + 997. +) /2.3 = | 1389.1 | 202.13 | 6.87 | OK |
| 2093_16 | (2167. + 1013. +) /2.3 = | 1382.9 | 197.50 | 7.00 | OK |
| 2093_17 | (2674. + 1029. +) /2.3 = | 1609.8 | 122.71 | 13.12 | OK |
| 2093_18 | (2651. + 1049. +) /2.3 = | 1609.0 | 117.34 | 13.71 | OK |
| 2093_19 | (2658. + 1029. +) /2.3 = | 1603.1 | 124.58 | 12.87 | OK |
| 2093_20 | (2635. + 1050. +) /2.3 = | 1602.1 | 119.19 | 13.44 | OK |
| 2093_21 | (2540. + 548. +) /2.3 = | 1342.7 | 152.56 | 8.80 | OK |
| 2093_22 | (2541. + 554. +) /2.3 = | 1345.4 | 145.60 | 9.24 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 2093_23 | (2889. + 754. +) /2.3 = | 1583.6 | 109.94 | 14.40 | OK |
| 2093_24 | (2897. + 765. +) /2.3 = | 1592.5 | 104.35 | 15.26 | OK |
| 2093_25 | (2890. + 753. +) /2.3 = | 1584.2 | 110.16 | 14.38 | OK |
| 2093_26 | (2899. + 765. +) /2.3 = | 1593.2 | 104.57 | 15.24 | OK |
| 2093_27 | (2490. + 1013. +) /2.3 = | 1523.0 | 141.41 | 10.77 | OK |
| 2093_28 | (2464. + 1032. +) /2.3 = | 1519.9 | 135.91 | 11.18 | OK |
| 2093_29 | (2854. + 1028. +) /2.3 = | 1688.1 | 105.79 | 15.96 | OK |
| 2093_30 | (2835. + 1050. +) /2.3 = | 1689.1 | 100.69 | 16.78 | OK |
| 2093_31 | (2852. + 1029. +) /2.3 = | 1687.6 | 106.09 | 15.91 | OK |
| 2093_32 | (2832. + 1051. +) /2.3 = | 1688.6 | 100.98 | 16.72 | OK |
| 2093_33 | (3396. + 1048. +) /2.3 = | 1932.2 | 75.22 | 25.69 | OK |
| 2093_34 | (3417. + 1068. +) /2.3 = | 1950.2 | 71.05 | 27.45 | OK |
| 2093_35 | (3421. + 1030. +) /2.3 = | 1935.3 | 77.56 | 24.95 | OK |
| 2093_36 | (3416. + 1058. +) /2.3 = | 1945.3 | 73.31 | 26.54 | OK |
| 2093_37 | (3171. + 945. +) /2.3 = | 1789.4 | 85.74 | 20.87 | OK |
| 2093_38 | (3117. + 922. +) /2.3 = | 1756.0 | 85.33 | 20.58 | OK |
| 2093_39 | (2824. + 747. +) /2.3 = | 1552.8 | 108.68 | 14.29 | OK |
| 2093_40 | (2763. + 715. +) /2.3 = | 1512.2 | 110.08 | 13.74 | OK |
| 2093_41 | (3166. + 943. +) /2.3 = | 1786.2 | 84.78 | 21.07 | OK |
| 2093_42 | (3111. + 919. +) /2.3 = | 1752.3 | 84.39 | 20.76 | OK |
| 2093_43 | (3176. + 940. +) /2.3 = | 1789.5 | 85.55 | 20.92 | OK |
| 2093_44 | (3119. + 917. +) /2.3 = | 1754.9 | 84.96 | 20.66 | OK |
| 2093_45 | (2854. + 1016. +) /2.3 = | 1682.7 | 109.25 | 15.40 | OK |
| 2093_46 | (2810. + 1040. +) /2.3 = | 1673.7 | 106.65 | 15.69 | OK |
| 2093_47 | (2412. + 996. +) /2.3 = | 1481.9 | 158.48 | 9.35 | OK |
| 2093_48 | (2362. + 1015. +) /2.3 = | 1468.2 | 158.36 | 9.27 | OK |
| 2093_49 | (2854. + 1014. +) /2.3 = | 1682.0 | 107.98 | 15.58 | OK |
| 2093_50 | (2809. + 1038. +) /2.3 = | 1672.8 | 105.39 | 15.87 | OK |
| 2093_51 | (2893. + 1015. +) /2.3 = | 1699.2 | 105.21 | 16.15 | OK |
| 2093_52 | (2849. + 1039. +) /2.3 = | 1690.4 | 102.55 | 16.48 | OK |
| 2093_53 | (2812. + 742. +) /2.3 = | 1545.1 | 107.63 | 14.35 | OK |
| 2093_54 | (2750. + 709. +) /2.3 = | 1503.8 | 109.10 | 13.78 | OK |
| 2093_55 | (3156. + 941. +) /2.3 = | 1781.6 | 83.57 | 21.32 | OK |
| 2093_56 | (3101. + 917. +) /2.3 = | 1747.1 | 83.19 | 21.00 | OK |
| 2093_57 | (3160. + 940. +) /2.3 = | 1782.9 | 83.83 | 21.27 | OK |
| 2093_58 | (3103. + 917. +) /2.3 = | 1747.9 | 83.30 | 20.98 | OK |
| 2093_59 | (2681. + 1007. +) /2.3 = | 1603.5 | 121.65 | 13.18 | OK |
| 2093_60 | (2633. + 1030. +) /2.3 = | 1592.4 | 119.53 | 13.32 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 2093_61 | (3025. + 1014. +) /2.3 = | 1756.0 | 95.13 | 18.46 | OK |
| 2093_62 | (2981. + 1040. +) /2.3 = | 1748.5 | 92.31 | 18.94 | OK |
| 2093_63 | (3051. + 1015. +) /2.3 = | 1767.5 | 93.70 | 18.86 | OK |
| 2093_64 | (3008. + 1041. +) /2.3 = | 1760.3 | 90.86 | 19.38 | OK |
| 2093_65 | (3347. + 1064. +) /2.3 = | 1917.9 | 72.21 | 26.56 | OK |
| 2093_66 | (3383. + 1079. +) /2.3 = | 1939.6 | 69.15 | 28.05 | OK |
| 2093_67 | (3368. + 1057. +) /2.3 = | 1924.1 | 73.45 | 26.20 | OK |
| 2093_68 | (3388. + 1078. +) /2.3 = | 1942.0 | 69.35 | 28.00 | OK |
| 2093_69 | (3370. + 1035. +) /2.3 = | 1914.9 | 75.13 | 25.49 | OK |
| 2093_70 | (3404. + 1043. +) /2.3 = | 1933.7 | 72.20 | 26.78 | OK |
| 2093_71 | (3355. + 1048. +) /2.3 = | 1914.0 | 73.69 | 25.97 | OK |
| 2093_72 | (3389. + 1058. +) /2.3 = | 1933.5 | 70.76 | 27.32 | OK |
| 2093_73 | (3400. + 1075. +) /2.3 = | 1945.7 | 70.21 | 27.71 | OK |
| 2093_74 | (3351. + 1035. +) /2.3 = | 1907.0 | 70.88 | 26.91 | OK |
| 2093_75 | (3344. + 1055. +) /2.3 = | 1912.8 | 67.99 | 28.13 | OK |
| 2093_76 | (3309. + 1039. +) /2.3 = | 1890.1 | 72.60 | 26.04 | OK |
| 2093_77 | (3302. + 1058. +) /2.3 = | 1895.4 | 69.67 | 27.21 | OK |
| 2093_78 | (2849. + 738. +) /2.3 = | 1559.6 | 102.85 | 15.16 | OK |
| 2093_79 | (2855. + 746. +) /2.3 = | 1565.6 | 99.07 | 15.80 | OK |
| 2093_80 | (2465. + 500. +) /2.3 = | 1289.1 | 152.54 | 8.45 | OK |
| 2093_81 | (2465. + 503. +) /2.3 = | 1290.3 | 147.56 | 8.74 | OK |
| 2093_82 | (2849. + 728. +) /2.3 = | 1555.3 | 103.80 | 14.98 | OK |
| 2093_83 | (2855. + 736. +) /2.3 = | 1561.2 | 99.96 | 15.62 | OK |
| 2093_84 | (2857. + 726. +) /2.3 = | 1557.8 | 104.90 | 14.85 | OK |
| 2093_85 | (2863. + 734. +) /2.3 = | 1563.8 | 101.03 | 15.48 | OK |
| 2093_86 | (2623. + 1036. +) /2.3 = | 1591.0 | 115.19 | 13.81 | OK |
| 2093_87 | (2606. + 1051. +) /2.3 = | 1590.0 | 111.59 | 14.25 | OK |
| 2093_88 | (2050. + 987. +) /2.3 = | 1320.2 | 226.42 | 5.83 | OK |
| 2093_89 | (2026. + 997. +) /2.3 = | 1314.5 | 224.74 | 5.85 | OK |
| 2093_90 | (2578. + 1030. +) /2.3 = | 1568.5 | 117.87 | 13.31 | OK |
| 2093_91 | (2560. + 1044. +) /2.3 = | 1567.1 | 114.23 | 13.72 | OK |
| 2093_92 | (2560. + 1030. +) /2.3 = | 1561.0 | 120.05 | 13.00 | OK |
| 2093_93 | (2542. + 1045. +) /2.3 = | 1559.5 | 116.39 | 13.40 | OK |
| 2093_94 | (2447. + 489. +) /2.3 = | 1276.7 | 153.05 | 8.34 | OK |
| 2093_95 | (2446. + 492. +) /2.3 = | 1277.7 | 148.03 | 8.63 | OK |
| 2093_96 | (2835. + 722. +) /2.3 = | 1546.6 | 102.93 | 15.03 | OK |
| 2093_97 | (2841. + 730. +) /2.3 = | 1552.5 | 99.06 | 15.67 | OK |
| 2093_98 | (2837. + 722. +) /2.3 = | 1547.3 | 103.16 | 15.00 | OK |
| 2093_99 | (2843. + 729. +) /2.3 = | 1553.2 | 99.30 | 15.64 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 2093_100 | (2372. + 1009. +) /2.3 = | 1470.1 | 141.07 | 10.42 | OK |
| 2093_101 | (2351. + 1023. +) /2.3 = | 1466.9 | 137.41 | 10.67 | OK |
| 2093_102 | (2777. + 1031. +) /2.3 = | 1655.7 | 98.85 | 16.75 | OK |
| 2093_103 | (2761. + 1047. +) /2.3 = | 1655.8 | 95.38 | 17.36 | OK |
| 2093_104 | (2774. + 1032. +) /2.3 = | 1655.1 | 99.18 | 16.69 | OK |
| 2093_105 | (2759. + 1048. +) /2.3 = | 1655.2 | 95.70 | 17.30 | OK |
| 2093_106 | (3403. + 1052. +) /2.3 = | 1937.2 | 66.80 | 29.00 | OK |
| 2093_107 | (3419. + 1068. +) /2.3 = | 1950.7 | 64.03 | 30.46 | OK |
| 2093_108 | (3412. + 1039. +) /2.3 = | 1934.9 | 69.14 | 27.99 | OK |
| 2093_109 | (3408. + 1059. +) /2.3 = | 1942.3 | 66.30 | 29.29 | OK |
| 2093_110 | (3102. + 908. +) /2.3 = | 1743.6 | 80.24 | 21.73 | OK |
| 2093_111 | (3062. + 890. +) /2.3 = | 1717.9 | 80.11 | 21.45 | OK |
| 2093_112 | (2717. + 682. +) /2.3 = | 1477.9 | 106.77 | 13.84 | OK |
| 2093_113 | (2671. + 656. +) /2.3 = | 1446.4 | 108.39 | 13.34 | OK |
| 2093_114 | (3095. + 905. +) /2.3 = | 1739.3 | 79.31 | 21.93 | OK |
| 2093_115 | (3054. + 886. +) /2.3 = | 1713.1 | 79.19 | 21.63 | OK |
| 2093_116 | (3105. + 903. +) /2.3 = | 1742.4 | 79.96 | 21.79 | OK |
| 2093_117 | (3062. + 885. +) /2.3 = | 1715.7 | 79.70 | 21.53 | OK |
| 2093_118 | (2763. + 1020. +) /2.3 = | 1644.8 | 103.84 | 15.84 | OK |
| 2093_119 | (2729. + 1037. +) /2.3 = | 1637.5 | 102.23 | 16.02 | OK |
| 2093_120 | (2277. + 991. +) /2.3 = | 1421.2 | 164.43 | 8.64 | OK |
| 2093_121 | (2239. + 1004. +) /2.3 = | 1410.1 | 165.60 | 8.52 | OK |
| 2093_122 | (2762. + 1018. +) /2.3 = | 1643.4 | 102.59 | 16.02 | OK |
| 2093_123 | (2728. + 1035. +) /2.3 = | 1636.0 | 100.98 | 16.20 | OK |
| 2093_124 | (2805. + 1019. +) /2.3 = | 1662.6 | 99.48 | 16.71 | OK |
| 2093_125 | (2771. + 1037. +) /2.3 = | 1655.5 | 97.81 | 16.93 | OK |
| 2093_126 | (2702. + 675. +) /2.3 = | 1468.3 | 105.89 | 13.87 | OK |
| 2093_127 | (2654. + 648. +) /2.3 = | 1436.1 | 107.58 | 13.35 | OK |
| 2093_128 | (3084. + 902. +) /2.3 = | 1733.4 | 78.11 | 22.19 | OK |
| 2093_129 | (3042. + 883. +) /2.3 = | 1706.8 | 78.00 | 21.88 | OK |
| 2093_130 | (3087. + 902. +) /2.3 = | 1734.3 | 78.23 | 22.17 | OK |
| 2093_131 | (3045. + 883. +) /2.3 = | 1707.7 | 78.12 | 21.86 | OK |
| 2093_132 | (2570. + 1008. +) /2.3 = | 1555.6 | 118.56 | 13.12 | OK |
| 2093_133 | (2533. + 1024. +) /2.3 = | 1546.5 | 117.47 | 13.17 | OK |
| 2093_134 | (2949. + 1020. +) /2.3 = | 1725.4 | 88.54 | 19.49 | OK |
| 2093_135 | (2916. + 1039. +) /2.3 = | 1719.3 | 86.71 | 19.83 | OK |
| 2093_136 | (2977. + 1020. +) /2.3 = | 1738.3 | 86.99 | 19.98 | OK |
| 2093_137 | (2945. + 1040. +) /2.3 = | 1732.4 | 85.14 | 20.35 | OK |
| 2093_138 | (3359. + 1066. +) /2.3 = | 1923.9 | 64.46 | 29.85 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | | |
|---|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | | |
| 2093_139 | (3387. + 1076. +) /2.3 = | 1940.5 | 62.51 | 31.04 | OK | |
| 2093_140 | (3372. + 1063. +) /2.3 = | 1928.2 | 65.05 | 29.64 | OK | |
| 2093_141 | (3386. + 1079. +) /2.3 = | 1941.5 | 62.33 | 31.15 | OK | |
| 2093_142 | (3384. + 1030. +) /2.3 = | 1919.0 | 67.56 | 28.41 | OK | |
| 2093_143 | (3392. + 1042. +) /2.3 = | 1927.6 | 65.60 | 29.38 | OK | |
| 2093_144 | (3368. + 1045. +) /2.3 = | 1918.5 | 66.10 | 29.03 | OK | |
| 2093_145 | (3393. + 1052. +) /2.3 = | 1932.7 | 64.15 | 30.13 | OK | |
| 2093_146 | (3395. + 1066. +) /2.3 = | 1939.3 | 64.54 | 30.05 | OK | |
| 2093_147 | (3417. + 1061. +) /2.3 = | 1946.8 | 71.42 | 27.26 | OK | |
| 2093_148 | (3404. + 1053. +) /2.3 = | 1938.1 | 73.31 | 26.44 | OK | |
| 2093_149 | (3379. + 1056. +) /2.3 = | 1928.2 | 74.35 | 25.93 | OK | |
| 2093_150 | (2930. + 1059. +) /2.3 = | 1734.2 | 95.76 | 18.11 | OK | |
| 2093_151 | (2600. + 1047. +) /2.3 = | 1585.7 | 122.02 | 13.00 | OK | |
| 2093_152 | (2919. + 1059. +) /2.3 = | 1729.7 | 96.57 | 17.91 | OK | |
| 2093_153 | (2955. + 1062. +) /2.3 = | 1746.4 | 95.15 | 18.35 | OK | |
| 2093_154 | (3073. + 873. +) /2.3 = | 1715.4 | 90.80 | 18.89 | OK | |
| 2093_155 | (2834. + 738. +) /2.3 = | 1553.4 | 108.43 | 14.33 | OK | |
| 2093_156 | (3079. + 871. +) /2.3 = | 1717.1 | 91.37 | 18.79 | OK | |
| 2093_157 | (3070. + 878. +) /2.3 = | 1716.5 | 90.55 | 18.96 | OK | |
| 2093_158 | (3056. + 1056. +) /2.3 = | 1788.1 | 87.73 | 20.38 | OK | |
| 2093_159 | (2806. + 1051. +) /2.3 = | 1677.0 | 102.79 | 16.32 | OK | |
| 2093_160 | (3055. + 1057. +) /2.3 = | 1787.7 | 87.88 | 20.34 | OK | |
| 2093_161 | (3066. + 871. +) /2.3 = | 1711.6 | 90.07 | 19.00 | OK | |
| 2093_162 | (2826. + 735. +) /2.3 = | 1548.2 | 107.83 | 14.36 | OK | |
| 2093_163 | (3068. + 870. +) /2.3 = | 1712.1 | 90.20 | 18.98 | OK | |
| 2093_164 | (3393. + 1076. +) /2.3 = | 1943.1 | 69.71 | 27.87 | OK | |
| 2093_165 | (3412. + 1070. +) /2.3 = | 1948.8 | 70.76 | 27.54 | OK | |
| 2093_166 | (3432. + 1057. +) /2.3 = | 1951.8 | 72.24 | 27.02 | OK | |
| 2093_167 | (3061. + 1044. +) /2.3 = | 1784.8 | 88.76 | 20.11 | OK | |
| 2093_168 | (2747. + 1038. +) /2.3 = | 1645.7 | 110.31 | 14.92 | OK | |
| 2093_169 | (3088. + 1044. +) /2.3 = | 1796.6 | 87.37 | 20.56 | OK | |
| 2093_170 | (3059. + 1045. +) /2.3 = | 1784.3 | 89.60 | 19.91 | OK | |
| 2093_171 | (3284. + 1016. +) /2.3 = | 1869.7 | 75.04 | 24.92 | OK | |
| 2093_172 | (3048. + 886. +) /2.3 = | 1710.1 | 87.24 | 19.60 | OK | |
| 2093_173 | (3293. + 1013. +) /2.3 = | 1872.4 | 75.59 | 24.77 | OK | |
| 2093_174 | (3287. + 1017. +) /2.3 = | 1871.2 | 75.69 | 24.72 | OK | |
| 2093_175 | (3182. + 1043. +) /2.3 = | 1836.7 | 81.89 | 22.43 | OK | |
| 2093_176 | (2941. + 1041. +) /2.3 = | 1731.4 | 95.01 | 18.22 | OK | |
| 2093_177 | (3200. + 1043. +) /2.3 = | 1844.5 | 81.11 | 22.74 | OK | |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 2093_178 | (3279. + 1016. +) /2.3 = | 1867.3 | 74.24 | 25.15 | OK |
| 2093_179 | (3040. + 884. +) /2.3 = | 1706.3 | 86.45 | 19.74 | OK |
| 2093_180 | (3283. + 1015. +) /2.3 = | 1868.6 | 74.47 | 25.09 | OK |
| 4506_1 | (3194. + 1131. +) /2.3 = | 1880.2 | 76.25 | 24.66 | OK |
| 4506_2 | (3256. + 1135. +) /2.3 = | 1908.9 | 71.37 | 26.75 | OK |
| 4506_3 | (3254. + 1131. +) /2.3 = | 1906.7 | 73.81 | 25.83 | OK |
| 4506_4 | (3318. + 1135. +) /2.3 = | 1936.2 | 69.09 | 28.02 | OK |
| 4506_5 | (3100. + 800. +) /2.3 = | 1695.4 | 109.80 | 15.44 | OK |
| 4506_6 | (3067. + 810. +) /2.3 = | 1685.3 | 103.94 | 16.21 | OK |
| 4506_7 | (2743. + 624. +) /2.3 = | 1463.8 | 143.49 | 10.20 | OK |
| 4506_8 | (2702. + 619. +) /2.3 = | 1444.1 | 137.39 | 10.51 | OK |
| 4506_9 | (3090. + 797. +) /2.3 = | 1690.0 | 108.69 | 15.55 | OK |
| 4506_10 | (3056. + 807. +) /2.3 = | 1679.4 | 102.84 | 16.33 | OK |
| 4506_11 | (3077. + 807. +) /2.3 = | 1688.3 | 106.40 | 15.87 | OK |
| 4506_12 | (3042. + 816. +) /2.3 = | 1677.3 | 100.67 | 16.66 | OK |
| 4506_13 | (2480. + 1100. +) /2.3 = | 1556.4 | 132.91 | 11.71 | OK |
| 4506_14 | (2516. + 1106. +) /2.3 = | 1574.8 | 124.35 | 12.66 | OK |
| 4506_15 | (2074. + 1055. +) /2.3 = | 1360.1 | 222.68 | 6.11 | OK |
| 4506_16 | (2098. + 1060. +) /2.3 = | 1373.1 | 207.23 | 6.63 | OK |
| 4506_17 | (2475. + 1098. +) /2.3 = | 1553.7 | 131.84 | 11.78 | OK |
| 4506_18 | (2512. + 1104. +) /2.3 = | 1572.2 | 123.23 | 12.76 | OK |
| 4506_19 | (2511. + 1101. +) /2.3 = | 1570.6 | 127.43 | 12.32 | OK |
| 4506_20 | (2549. + 1107. +) /2.3 = | 1589.6 | 119.15 | 13.34 | OK |
| 4506_21 | (2733. + 616. +) /2.3 = | 1455.7 | 143.85 | 10.12 | OK |
| 4506_22 | (2690. + 611. +) /2.3 = | 1435.4 | 137.74 | 10.42 | OK |
| 4506_23 | (3085. + 792. +) /2.3 = | 1685.6 | 108.26 | 15.57 | OK |
| 4506_24 | (3051. + 801. +) /2.3 = | 1674.6 | 102.37 | 16.36 | OK |
| 4506_25 | (3077. + 798. +) /2.3 = | 1684.7 | 106.77 | 15.78 | OK |
| 4506_26 | (3042. + 807. +) /2.3 = | 1673.4 | 100.96 | 16.57 | OK |
| 4506_27 | (2312. + 1081. +) /2.3 = | 1475.4 | 155.44 | 9.49 | OK |
| 4506_28 | (2344. + 1087. +) /2.3 = | 1492.0 | 144.92 | 10.30 | OK |
| 4506_29 | (2625. + 1108. +) /2.3 = | 1623.0 | 113.10 | 14.35 | OK |
| 4506_30 | (2667. + 1114. +) /2.3 = | 1643.9 | 105.70 | 15.55 | OK |
| 4506_31 | (2649. + 1110. +) /2.3 = | 1634.3 | 110.94 | 14.73 | OK |
| 4506_32 | (2692. + 1116. +) /2.3 = | 1655.5 | 103.70 | 15.96 | OK |
| 4506_33 | (3313. + 1139. +) /2.3 = | 1935.6 | 72.09 | 26.85 | OK |
| 4506_34 | (3379. + 1143. +) /2.3 = | 1966.0 | 67.49 | 29.13 | OK |
| 4506_35 | (3350. + 1138. +) /2.3 = | 1951.1 | 70.65 | 27.62 | OK |
| 4506_36 | (3417. + 1141. +) /2.3 = | 1982.0 | 66.14 | 29.96 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 4506_37 | (3102. + 838. +) /2.3 = | 1713.2 | 102.02 | 16.79 | OK |
| 4506_38 | (3059. + 843. +) /2.3 = | 1696.7 | 97.17 | 17.46 | OK |
| 4506_39 | (2747. + 655. +) /2.3 = | 1479.1 | 131.58 | 11.24 | OK |
| 4506_40 | (2698. + 645. +) /2.3 = | 1453.4 | 126.98 | 11.45 | OK |
| 4506_41 | (3087. + 842. +) /2.3 = | 1708.1 | 99.63 | 17.14 | OK |
| 4506_42 | (3043. + 845. +) /2.3 = | 1690.4 | 94.86 | 17.82 | OK |
| 4506_43 | (3079. + 845. +) /2.3 = | 1706.2 | 98.72 | 17.28 | OK |
| 4506_44 | (3035. + 848. +) /2.3 = | 1688.2 | 93.99 | 17.96 | OK |
| 4506_45 | (2996. + 1146. +) /2.3 = | 1801.0 | 87.44 | 20.60 | OK |
| 4506_46 | (2915. + 1145. +) /2.3 = | 1765.4 | 88.91 | 19.86 | OK |
| 4506_47 | (2499. + 1117. +) /2.3 = | 1572.1 | 124.78 | 12.60 | OK |
| 4506_48 | (2407. + 1109. +) /2.3 = | 1528.8 | 132.06 | 11.58 | OK |
| 4506_49 | (2961. + 1142. +) /2.3 = | 1783.9 | 88.00 | 20.27 | OK |
| 4506_50 | (2879. + 1140. +) /2.3 = | 1747.3 | 89.66 | 19.49 | OK |
| 4506_51 | (2946. + 1143. +) /2.3 = | 1777.4 | 89.03 | 19.97 | OK |
| 4506_52 | (2863. + 1141. +) /2.3 = | 1740.6 | 90.79 | 19.17 | OK |
| 4506_53 | (2738. + 648. +) /2.3 = | 1472.4 | 131.41 | 11.20 | OK |
| 4506_54 | (2688. + 638. +) /2.3 = | 1446.0 | 126.82 | 11.40 | OK |
| 4506_55 | (3084. + 838. +) /2.3 = | 1705.0 | 98.92 | 17.24 | OK |
| 4506_56 | (3038. + 841. +) /2.3 = | 1686.8 | 94.12 | 17.92 | OK |
| 4506_57 | (3081. + 838. +) /2.3 = | 1704.2 | 98.72 | 17.26 | OK |
| 4506_58 | (3036. + 842. +) /2.3 = | 1686.0 | 93.94 | 17.95 | OK |
| 4506_59 | (2787. + 1128. +) /2.3 = | 1701.9 | 96.92 | 17.56 | OK |
| 4506_60 | (2699. + 1124. +) /2.3 = | 1662.2 | 99.82 | 16.65 | OK |
| 4506_61 | (3140. + 1140. +) /2.3 = | 1861.1 | 78.07 | 23.84 | OK |
| 4506_62 | (3061. + 1140. +) /2.3 = | 1826.3 | 78.86 | 23.16 | OK |
| 4506_63 | (3138. + 1141. +) /2.3 = | 1860.6 | 78.24 | 23.78 | OK |
| 4506_64 | (3059. + 1141. +) /2.3 = | 1825.8 | 79.05 | 23.10 | OK |
| 4506_65 | (3013. + 1131. +) /2.3 = | 1801.7 | 85.05 | 21.18 | OK |
| 4506_66 | (3069. + 1136. +) /2.3 = | 1828.1 | 79.55 | 22.98 | OK |
| 4506_67 | (3049. + 1130. +) /2.3 = | 1817.2 | 83.05 | 21.88 | OK |
| 4506_68 | (3106. + 1135. +) /2.3 = | 1844.0 | 77.70 | 23.73 | OK |
| 4506_69 | (3106. + 1139. +) /2.3 = | 1845.9 | 80.90 | 22.82 | OK |
| 4506_70 | (3165. + 1144. +) /2.3 = | 1873.6 | 75.69 | 24.76 | OK |
| 4506_71 | (3166. + 1140. +) /2.3 = | 1872.4 | 78.15 | 23.96 | OK |
| 4506_72 | (3228. + 1145. +) /2.3 = | 1901.0 | 73.13 | 25.99 | OK |
| 4506_73 | (3236. + 1140. +) /2.3 = | 1902.6 | 72.58 | 26.22 | OK |
| 4506_74 | (3211. + 1131. +) /2.3 = | 1887.9 | 67.38 | 28.02 | OK |
| 4506_75 | (3257. + 1134. +) /2.3 = | 1909.3 | 64.14 | 29.77 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 4506_76 | (3279. + 1132. +) /2.3 = | 1917.6 | 65.00 | 29.50 | OK |
| 4506_77 | (3327. + 1134. +) /2.3 = | 1939.7 | 61.88 | 31.34 | OK |
| 4506_78 | (3038. + 775. +) /2.3 = | 1657.8 | 101.91 | 16.27 | OK |
| 4506_79 | (3012. + 781. +) /2.3 = | 1649.0 | 97.95 | 16.83 | OK |
| 4506_80 | (2638. + 570. +) /2.3 = | 1394.7 | 140.71 | 9.91 | OK |
| 4506_81 | (2607. + 564. +) /2.3 = | 1378.5 | 136.76 | 10.08 | OK |
| 4506_82 | (3026. + 771. +) /2.3 = | 1651.0 | 100.85 | 16.37 | OK |
| 4506_83 | (3000. + 777. +) /2.3 = | 1641.9 | 96.90 | 16.94 | OK |
| 4506_84 | (3011. + 781. +) /2.3 = | 1648.7 | 98.48 | 16.74 | OK |
| 4506_85 | (2984. + 786. +) /2.3 = | 1639.1 | 94.64 | 17.32 | OK |
| 4506_86 | (2417. + 1095. +) /2.3 = | 1527.0 | 126.83 | 12.04 | OK |
| 4506_87 | (2443. + 1099. +) /2.3 = | 1540.0 | 120.68 | 12.76 | OK |
| 4506_88 | (1969. + 1040. +) /2.3 = | 1307.9 | 242.93 | 5.38 | OK |
| 4506_89 | (1984. + 1044. +) /2.3 = | 1316.5 | 229.83 | 5.73 | OK |
| 4506_90 | (2411. + 1093. +) /2.3 = | 1523.5 | 125.85 | 12.11 | OK |
| 4506_91 | (2437. + 1097. +) /2.3 = | 1536.6 | 119.66 | 12.84 | OK |
| 4506_92 | (2451. + 1097. +) /2.3 = | 1542.4 | 120.88 | 12.76 | OK |
| 4506_93 | (2477. + 1101. +) /2.3 = | 1555.9 | 114.97 | 13.53 | OK |
| 4506_94 | (2624. + 560. +) /2.3 = | 1384.4 | 141.55 | 9.78 | OK |
| 4506_95 | (2591. + 553. +) /2.3 = | 1367.4 | 137.70 | 9.93 | OK |
| 4506_96 | (3019. + 765. +) /2.3 = | 1645.3 | 100.49 | 16.37 | OK |
| 4506_97 | (2992. + 770. +) /2.3 = | 1635.8 | 96.51 | 16.95 | OK |
| 4506_98 | (3010. + 771. +) /2.3 = | 1644.0 | 98.95 | 16.61 | OK |
| 4506_99 | (2983. + 776. +) /2.3 = | 1634.2 | 95.04 | 17.19 | OK |
| 4506_100 | (2230. + 1072. +) /2.3 = | 1435.9 | 153.75 | 9.34 | OK |
| 4506_101 | (2252. + 1077. +) /2.3 = | 1447.3 | 145.92 | 9.92 | OK |
| 4506_102 | (2576. + 1105. +) /2.3 = | 1600.4 | 105.30 | 15.20 | OK |
| 4506_103 | (2606. + 1109. +) /2.3 = | 1615.4 | 100.12 | 16.14 | OK |
| 4506_104 | (2603. + 1107. +) /2.3 = | 1613.1 | 102.97 | 15.67 | OK |
| 4506_105 | (2633. + 1112. +) /2.3 = | 1628.3 | 97.92 | 16.63 | OK |
| 4506_106 | (3345. + 1140. +) /2.3 = | 1950.0 | 63.33 | 30.79 | OK |
| 4506_107 | (3394. + 1143. +) /2.3 = | 1972.8 | 60.30 | 32.72 | OK |
| 4506_108 | (3386. + 1139. +) /2.3 = | 1967.3 | 61.93 | 31.76 | OK |
| 4506_109 | (3437. + 1141. +) /2.3 = | 1990.5 | 58.98 | 33.75 | OK |
| 4506_110 | (3034. + 813. +) /2.3 = | 1672.5 | 94.30 | 17.74 | OK |
| 4506_111 | (3001. + 814. +) /2.3 = | 1658.8 | 91.08 | 18.21 | OK |
| 4506_112 | (2638. + 599. +) /2.3 = | 1407.3 | 128.27 | 10.97 | OK |
| 4506_113 | (2601. + 589. +) /2.3 = | 1386.8 | 125.43 | 11.06 | OK |
| 4506_114 | (3016. + 815. +) /2.3 = | 1665.5 | 91.92 | 18.12 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 4506_115 | (2982. + 815. +) /2.3 = | 1650.9 | 88.76 | 18.60 | OK |
| 4506_116 | (3007. + 818. +) /2.3 = | 1663.2 | 91.00 | 18.28 | OK |
| 4506_117 | (2973. + 818. +) /2.3 = | 1648.4 | 87.86 | 18.76 | OK |
| 4506_118 | (2892. + 1143. +) /2.3 = | 1754.5 | 83.51 | 21.01 | OK |
| 4506_119 | (2831. + 1142. +) /2.3 = | 1727.2 | 84.87 | 20.35 | OK |
| 4506_120 | (2340. + 1102. +) /2.3 = | 1496.4 | 131.38 | 11.39 | OK |
| 4506_121 | (2269. + 1095. +) /2.3 = | 1462.6 | 139.17 | 10.51 | OK |
| 4506_122 | (2852. + 1138. +) /2.3 = | 1734.7 | 84.35 | 20.57 | OK |
| 4506_123 | (2789. + 1136. +) /2.3 = | 1706.5 | 85.87 | 19.87 | OK |
| 4506_124 | (2834. + 1139. +) /2.3 = | 1727.5 | 85.53 | 20.20 | OK |
| 4506_125 | (2771. + 1136. +) /2.3 = | 1699.1 | 87.16 | 19.49 | OK |
| 4506_126 | (2627. + 590. +) /2.3 = | 1398.8 | 128.32 | 10.90 | OK |
| 4506_127 | (2588. + 580. +) /2.3 = | 1377.4 | 125.61 | 10.97 | OK |
| 4506_128 | (3011. + 810. +) /2.3 = | 1661.2 | 91.24 | 18.21 | OK |
| 4506_129 | (2976. + 810. +) /2.3 = | 1646.1 | 88.07 | 18.69 | OK |
| 4506_130 | (3008. + 811. +) /2.3 = | 1660.4 | 91.05 | 18.24 | OK |
| 4506_131 | (2974. + 811. +) /2.3 = | 1645.3 | 87.88 | 18.72 | OK |
| 4506_132 | (2656. + 1120. +) /2.3 = | 1641.7 | 95.25 | 17.23 | OK |
| 4506_133 | (2589. + 1116. +) /2.3 = | 1610.8 | 98.04 | 16.43 | OK |
| 4506_134 | (3049. + 1138. +) /2.3 = | 1820.6 | 73.23 | 24.86 | OK |
| 4506_135 | (2989. + 1137. +) /2.3 = | 1793.9 | 73.97 | 24.25 | OK |
| 4506_136 | (3047. + 1139. +) /2.3 = | 1820.1 | 73.42 | 24.79 | OK |
| 4506_137 | (2986. + 1138. +) /2.3 = | 1793.4 | 74.18 | 24.18 | OK |
| 4506_138 | (3008. + 1132. +) /2.3 = | 1800.0 | 76.10 | 23.65 | OK |
| 4506_139 | (3050. + 1135. +) /2.3 = | 1819.6 | 72.41 | 25.13 | OK |
| 4506_140 | (3049. + 1131. +) /2.3 = | 1817.4 | 74.10 | 24.53 | OK |
| 4506_141 | (3091. + 1134. +) /2.3 = | 1837.3 | 70.52 | 26.05 | OK |
| 4506_142 | (3113. + 1141. +) /2.3 = | 1849.5 | 71.96 | 25.70 | OK |
| 4506_143 | (3157. + 1144. +) /2.3 = | 1870.2 | 68.48 | 27.31 | OK |
| 4506_144 | (3180. + 1142. +) /2.3 = | 1879.2 | 69.25 | 27.14 | OK |
| 4506_145 | (3226. + 1145. +) /2.3 = | 1900.6 | 65.91 | 28.83 | OK |
| 4506_146 | (3218. + 1138. +) /2.3 = | 1894.1 | 66.64 | 28.42 | OK |
| 4506_147 | (3201. + 1137. +) /2.3 = | 1885.9 | 73.66 | 25.60 | OK |
| 4506_148 | (3251. + 1136. +) /2.3 = | 1907.6 | 71.65 | 26.62 | OK |
| 4506_149 | (3293. + 1137. +) /2.3 = | 1925.8 | 70.11 | 27.47 | OK |
| 4506_150 | (2744. + 1121. +) /2.3 = | 1680.6 | 100.56 | 16.71 | OK |
| 4506_151 | (2453. + 1101. +) /2.3 = | 1545.4 | 130.55 | 11.84 | OK |
| 4506_152 | (2770. + 1123. +) /2.3 = | 1692.3 | 98.68 | 17.15 | OK |
| 4506_153 | (2745. + 1122. +) /2.3 = | 1681.3 | 101.39 | 16.58 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 4506_154 | (3225. + 893. +) /2.3 = | 1790.1 | 90.43 | 19.79 | OK |
| 4506_155 | (2991. + 779. +) /2.3 = | 1639.1 | 106.27 | 15.42 | OK |
| 4506_156 | (3215. + 901. +) /2.3 = | 1789.6 | 89.15 | 20.07 | OK |
| 4506_157 | (3230. + 893. +) /2.3 = | 1792.7 | 91.22 | 19.65 | OK |
| 4506_158 | (2853. + 1126. +) /2.3 = | 1729.9 | 91.80 | 18.84 | OK |
| 4506_159 | (2630. + 1113. +) /2.3 = | 1627.3 | 109.39 | 14.88 | OK |
| 4506_160 | (2870. + 1127. +) /2.3 = | 1737.7 | 90.77 | 19.14 | OK |
| 4506_161 | (3223. + 890. +) /2.3 = | 1788.1 | 90.01 | 19.87 | OK |
| 4506_162 | (2986. + 775. +) /2.3 = | 1635.5 | 106.01 | 15.43 | OK |
| 4506_163 | (3217. + 895. +) /2.3 = | 1787.9 | 89.18 | 20.05 | OK |
| 4506_164 | (3283. + 1143. +) /2.3 = | 1924.0 | 70.86 | 27.15 | OK |
| 4506_165 | (3333. + 1142. +) /2.3 = | 1945.6 | 69.00 | 28.20 | OK |
| 4506_166 | (3359. + 1141. +) /2.3 = | 1956.3 | 68.06 | 28.74 | OK |
| 4506_167 | (3152. + 1147. +) /2.3 = | 1869.5 | 75.96 | 24.61 | OK |
| 4506_168 | (2830. + 1138. +) /2.3 = | 1725.5 | 92.23 | 18.71 | OK |
| 4506_169 | (3141. + 1148. +) /2.3 = | 1865.1 | 76.50 | 24.38 | OK |
| 4506_170 | (3175. + 1150. +) /2.3 = | 1880.5 | 75.81 | 24.80 | OK |
| 4506_171 | (3226. + 929. +) /2.3 = | 1806.6 | 85.18 | 21.21 | OK |
| 4506_172 | (2994. + 806. +) /2.3 = | 1652.3 | 100.39 | 16.46 | OK |
| 4506_173 | (3221. + 932. +) /2.3 = | 1805.4 | 84.65 | 21.33 | OK |
| 4506_174 | (3235. + 924. +) /2.3 = | 1808.6 | 86.69 | 20.86 | OK |
| 4506_175 | (3278. + 1145. +) /2.3 = | 1922.9 | 70.42 | 27.31 | OK |
| 4506_176 | (3034. + 1140. +) /2.3 = | 1814.8 | 80.16 | 22.64 | OK |
| 4506_177 | (3277. + 1145. +) /2.3 = | 1922.6 | 70.52 | 27.26 | OK |
| 4506_178 | (3226. + 927. +) /2.3 = | 1805.5 | 84.63 | 21.33 | OK |
| 4506_179 | (2991. + 803. +) /2.3 = | 1649.5 | 99.94 | 16.50 | OK |
| 4506_180 | (3224. + 927. +) /2.3 = | 1804.9 | 84.52 | 21.35 | OK |

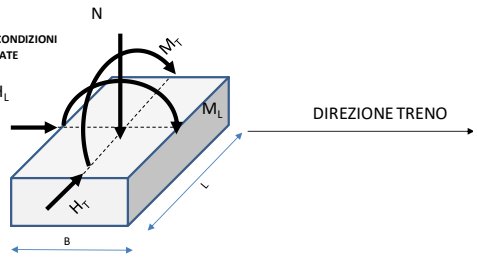
Le verifiche sono soddisfatte.

## 12.3 Sintesi risultati LC2

**TITOLO:** Caso di carico MEC LC2 - combinazioni statiche

**FONDAZIONI A PLINTO**

| | | | | | | |
|---|---|---|---|---|---|---|
| **DESIGN ASSUMPTION** | DA2 | | | | | |
| **piano campagna sostanzialmente orizzontale** | | | | | | |
| angolo d'attrito caratteristico $\phi'_k$ | 38 | ° | 0.663 | rad | | |
| coesione c' | 0 | kPa | | | | |
| angolo d'attrito caratteristico $\phi'_k$ alla base | 38 | ° | 0.663 | rad | | |
| coesione alla base c' | 0 | kPa | | | | |
| coefficiente $\gamma_\phi$ | 1.00 | | | | | |
| coefficiente $\gamma c'$ | 1.00 | | | | | |
| coefficiente $\gamma_R$ capacità portante | 2.30 | | | | | |
| coefficiente $\gamma_R$ scorrimento | 1.10 | | | | | |
| coefficiente $\gamma_R$ spinta passiva | 1.40 | | | | | |
| angolo d'attrito di design $\phi'_d$ | 38.00 | ° | 0.663 | rad | tan( $\phi'_d$)= | 0.78 |
| coesione di design $c'_d$ | 0.00 | kPa | | | | |
| coeff. attrito di design $\mu'_d$ | 0.78 | | | | | |
| coesione alla base di design | 0.00 | kPa | | | | |
| Dimensione fondazione B[m] (LONGITUDINALE) | 2.2 | m | | | | |
| Dimensione fondazione L [m] (TRASVERSALE) | 2.2 | m | | | | |
| Profondità da piano campagna D [m] | 2.2 | m | **(NB: coefficiente correttivo per rapporto D/B non considerato)** | | | |
| Altezza plinto [m] Hp | 2.2 | m | | | | |
| Dimensione baggiolo b[m] (LONGITUDINALE) | 0.9 | m | | | | |
| Dimensione maggiore baggiolo l [m] (TRASVERSALE) | 0.9 | m | | | | |
| Altezza baggiolo [m] Hb | 0.5 | m | | | | |
| Altezza terreno sopraplinto [m] Ht | 0 | m | | | | |
| q' = carico permanente ai lati | 44 | kPa | | | | |
| $\gamma$ = peso specifico medio sopra la fondazione | 20 | kN/m³ | | | | |
| $\gamma f$ = peso specifico medio sotto la fondazione | 20 | kN/m³ | (valore da stabilirsi in base alla profondità di falda) | | | |
| opzione calcolo coeff. $S_q$ e $S_\gamma$ | 1 | | **(0= Lancellotta ecc , 1 = originale EC7)** | | | |
| | | | si useranno le formule originarie di EC7 | | | |
| opzione calcolo per tenere in conto peso terreno di ricoprimento | 0 | (1 si - 0 no) | | | | |
| Peso specifico medio c.a. | 25 | kN/m³ | | | | |
| Peso proprio plinto + baggiolo + terreno sovrastante [kN] | 276 | kN | | | | |
| Quota baricentro plinto + baggiolo + terreno sovrastante vs p.f. [kN] | 1.25 | m | | | | |
| Coefficiente sismico kh | 0.000 | g | | | | |
| Coefficiente sismico kv | 0.000 | g | + downward | | | |
| Azione inerziale orizzontale plinto | 0.00 | kN | | | | |
| Azione inerziale verticale plinto | 0.00 | kN | | | | |



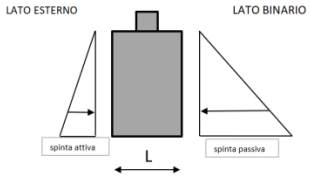

**VERIFICA IN CONDIZIONI DRENATE**

**Eccentricità degli scarichi rispetto a baricentro fondazione**

| | | | |
|---|---|---|---|
| eccentricità longitidinale eL | 0 | m | + se concorde con i momenti del traliccio |
| eccentricità trasversale eT | 0.1 | m | + se concorde con i momenti del traliccio |

**Coefficienti di spinta di progetto**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| coefficiente di spinta attiva statico Ka | 0.228 | - | | | | | |
| coefficiente di spinta attiva sismico Ka,E | 0.483 | - | | | | | |
| coefficiente di spinta passiva statico Kp | 4.395 | - | | | | | |
| coefficiente di spinta passiva sismico Kp,E | 3.251 | - | | | | | |
| coeffi. parziale riduttivo della spinta passiva | 1.40 | - | | | | | |
| moltiplicatore della spinta passiva $\alpha$ | 0.00 | long | 0.00 | trasv | | | |
| contributo delle spinte frontali long - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali long - momer | 0 | kNm | statico | 0 | kNm | sismico | |
| contributo delle spinte frontali trasv - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali trasv - mome | 0 | kNm | statico | 0 | kNm | sismico | |




CALCOLI PRELIMINARI: coefficienti di capacità portante indipendenti dai carichi

| | | | |
|---|---|---|---|
| $N_q$ = | **48.93** | $g_q$ = | 1 |
| $N_\gamma$ = | **74.90** | $g_\gamma$ = | 1 |
| $N_c$ = | **61.35** | $g_c$ = | 1 |

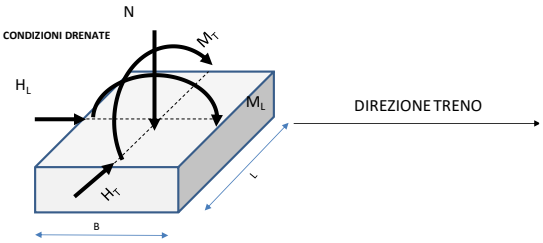
| SINTESI RISULTATI | | | | |
|---|---|---|---|---|
| Capacità portante | $F_{s\ min}$= **5.90** | n. Verif. Neg. | 0 |
| Scorrimento | $F_{s\ min}$= **8.7** | n. Verif. Neg. | 0 |
| Ribaltamento | $F_{s\ min}$= **1.47** | n. Verif. Neg. | 0 |

**TITOLO:** Caso di carico MEC LC2 - combinazioni sismiche

**FONDAZIONI A PLINTO**

| | | | | | | |
|---|---|---|---|---|---|---|
| **DESIGN ASSUMPTION** | DA2 | | | | | |
| **piano campagna sostanzialmente orizzontale** | | | | | | |
| angolo d'attrito caratteristico $\phi'_k$ | 38 | ° | 0.663 | rad | | |
| coesione c' | 0 | kPa | | | | |
| angolo d'attrito caratteristico $\phi'_k$ alla base | 38 | ° | 0.663 | rad | | |
| coesione alla base c' | 0 | kPa | | | | |
| coefficiente $\gamma_\phi$ | 1.00 | | | | | |
| coefficiente $\gamma c'$ | 1.00 | | | | | |
| coefficiente $\gamma_R$ capacità portante | 2.30 | | | | | |
| coefficiente $\gamma_R$ scorrimento | 1.10 | | | | | |
| coefficiente $\gamma_R$ spinta passiva | 1.40 | | | | | |
| angolo d'attrito di design $\phi'_d$ | 38.00 | ° | 0.663 | rad | tan( $\phi'_d$)= | 0.78 |
| coesione di design $c'_d$ | 0.00 | kPa | | | | |
| coeff. attrito di design $\mu'_d$ | 0.78 | | | | | |
| coesione alla base di design | 0.00 | kPa | | | | |
| Dimensione fondazione B[m] (LONGITUDINALE) | 2.2 | m | | | | |
| Dimensione fondazione L [m] (TRASVERSALE) | 2.2 | m | | | | |
| Profondità da piano campagna D [m] | 2.2 | m | **(NB: coefficiente correttivo per rapporto D/B non considerato)** | | | |
| Altezza plinto [m] Hp | 2.2 | m | | | | |
| Dimensione baggiolo b[m] (LONGITUDINALE) | 0.9 | m | | | | |
| Dimensione maggiore baggiolo l [m] (TRASVERSALE) | 0.9 | m | | | | |
| Altezza baggiolo [m] Hb | 0.5 | m | | | | |
| Altezza terreno sopraplinto [m] Ht | 0 | m | | | | |
| q' = carico permanente ai lati | 44 | kPa | | | | |
| $\gamma$ = peso specifico medio sopra la fondazione | 20 | kN/m³ | | | | |
| $\gamma$f = peso specifico medio sotto la fondazione | 20 | kN/m³ | (valore da stabilirsi in base alla profondità di falda) | | | |
| opzione calcolo coeff. $S_q$ e $S_\gamma$ | 1 | | **(0= Lancellotta ecc , 1 = originale EC7)** | | | |
| | | | si useranno le formule originarie di EC7 | | | |
| opzione calcolo per tenere in conto peso terreno di ricoprimento | 0 | (1 si - 0 no) | | | | |
| Peso specifico medio c.a. | 25 | kN/m³ | | | | |
| Peso proprio plinto + baggiolo + terreno sovrastante [kN] | 276 | kN | | | | |
| Quota baricentro plinto + baggiolo + terreno sovrastante vs p.f. [kN] | 1.25 | m | | | | |
| Coefficiente sismico kh | 0.261 | g | | | | |
| Coefficiente sismico kv | -0.131 | g | + downward | | | |
| Azione inerziale orizzontale plinto | 72.12 | kN | | | | |
| Azione inerziale verticale plinto | -36.06 | kN | | | | |

**VERIFICA IN CONDIZIONI DRENATE**

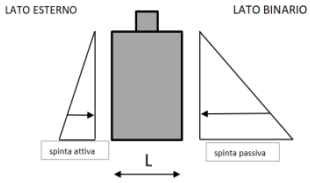



**Eccentricità degli scarichi rispetto a baricentro fondazione**

| | | | |
|---|---|---|---|
| eccentricità longitidinale eL | 0 | m | + se concorde con i momenti del traliccio |
| eccentricità trasversale eT | 0.1 | m | + se concorde con i momenti del traliccio |

**Coefficienti di spinta di progetto**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| coefficiente di spinta attiva statico Ka | 0.228 | - | | | | | |
| coefficiente di spinta attiva sismico Ka,E | 0.483 | - | | | | | |
| coefficiente di spinta passiva statico Kp | 4.395 | - | | | | | |
| coefficiente di spinta passiva sismico Kp,E | 3.251 | - | | | | | |
| coeffi. parziale riduttivo della spinta passiva $\gamma_R$ | 1.40 | - | | | | | |
| moltiplicatore della spinta passiva $\alpha$ | 0.00 | long | 0.00 | trasv | | | |
| contributo delle spinte frontali long - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali long - momento | 0 | kNm | statico | 0 | kNm | sismico | |
| contributo delle spinte frontali trasv - taglio | 0 | kN | statico | 0 | kN | sismico | |
| contributo delle spinte frontali trasv - momento | 0 | kNm | statico | 0 | kNm | sismico | |




CALCOLI PRELIMINARI: coefficienti di capacità portante indipendenti dai carichi

| | | | |
|---|---|---|---|
| $N_q$ = | **48.93** | $g_q$ = | 1 |
| $N_\gamma$ = | **74.90** | $g_\gamma$ = | 1 |
| $N_c$ = | **61.35** | $g_c$ = | 1 |

**SINTESI RISULTATI**

| | | | | |
|---|---|---|---|---|
| Capacità portante | $F_{s\ min}$= | **9.80** | n. Verif. Neg. | 0 |
| Scorrimento | $F_{s\ min}$= | **4.24** | n. Verif. Neg. | 0 |
| Ribaltamento | $F_{s\ min}$= | **2.47** | n. Verif. Neg. | 0 |

Le verifiche sono soddisfatte.

## 12.4 Verifiche di dettaglio

Ribaltamento – verifiche statiche

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_1 | 394.30 | 394.30 | 11.21 | 12.34 | 31.96 | OK |
| 477_2 | 373.40 | 373.40 | 8.61 | 16.96 | 22.01 | OK |
| 477_3 | 394.35 | 394.35 | 11.18 | 21.03 | 18.75 | OK |
| 477_4 | 373.45 | 373.45 | 8.59 | 25.66 | 14.55 | OK |
| 477_5 | 346.15 | 346.15 | 106.90 | 25.02 | 3.24 | OK |
| 477_6 | 338.17 | 338.17 | 109.30 | 15.50 | 3.09 | OK |
| 477_7 | 342.23 | 342.23 | 184.94 | 22.30 | 1.85 | OK |
| 477_8 | 334.25 | 334.25 | 187.38 | 12.78 | 1.78 | OK |
| 477_9 | 342.18 | 342.18 | 106.85 | 19.25 | 3.20 | OK |
| 477_10 | 334.20 | 334.20 | 109.25 | 9.72 | 3.06 | OK |
| 477_11 | 342.23 | 342.23 | 106.86 | 15.56 | 3.20 | OK |
| 477_12 | 334.25 | 334.25 | 109.26 | 6.04 | 3.06 | OK |
| 477_13 | 343.60 | 343.60 | 10.21 | 46.15 | 7.45 | OK |
| 477_14 | 335.63 | 335.63 | 7.81 | 54.23 | 6.19 | OK |
| 477_15 | 337.98 | 337.98 | 10.23 | 90.50 | 3.73 | OK |
| 477_16 | 330.01 | 330.01 | 7.82 | 98.57 | 3.35 | OK |
| 477_17 | 339.63 | 339.63 | 10.26 | 51.21 | 6.63 | OK |
| 477_18 | 331.66 | 331.66 | 7.86 | 59.28 | 5.59 | OK |
| 477_19 | 339.68 | 339.68 | 10.25 | 54.90 | 6.19 | OK |
| 477_20 | 331.71 | 331.71 | 7.85 | 62.97 | 5.27 | OK |
| 477_21 | 367.59 | 367.59 | 185.10 | 31.69 | 1.99 | OK |
| 477_22 | 352.86 | 352.86 | 187.44 | 20.51 | 1.88 | OK |
| 477_23 | 367.53 | 367.53 | 106.90 | 28.64 | 3.44 | OK |
| 477_24 | 352.80 | 352.80 | 109.30 | 17.45 | 3.23 | OK |
| 477_25 | 367.58 | 367.58 | 106.90 | 28.29 | 3.44 | OK |
| 477_26 | 352.86 | 352.86 | 109.31 | 17.10 | 3.23 | OK |
| 477_27 | 364.44 | 364.44 | 8.76 | 58.07 | 6.28 | OK |
| 477_28 | 349.71 | 349.71 | 6.35 | 66.57 | 5.25 | OK |
| 477_29 | 365.65 | 365.65 | 9.41 | 29.85 | 12.25 | OK |
| 477_30 | 350.92 | 350.92 | 7.01 | 38.34 | 9.15 | OK |
| 477_31 | 365.70 | 365.70 | 9.41 | 30.20 | 12.11 | OK |
| 477_32 | 350.97 | 350.97 | 7.00 | 38.70 | 9.07 | OK |
| 477_33 | 394.81 | 394.81 | 11.22 | 33.94 | 11.63 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_34 | 373.90 | 373.90 | 8.63 | 25.52 | 14.65 | OK |
| 477_35 | 394.75 | 394.75 | 11.20 | 19.29 | 20.47 | OK |
| 477_36 | 373.85 | 373.85 | 8.60 | 10.86 | 34.43 | OK |
| 477_37 | 346.55 | 346.55 | 127.45 | 48.69 | 2.72 | OK |
| 477_38 | 338.58 | 338.58 | 125.05 | 39.16 | 2.71 | OK |
| 477_39 | 342.63 | 342.63 | 205.66 | 45.83 | 1.67 | OK |
| 477_40 | 334.65 | 334.65 | 203.22 | 36.30 | 1.65 | OK |
| 477_41 | 342.68 | 342.68 | 127.51 | 48.88 | 2.69 | OK |
| 477_42 | 334.71 | 334.71 | 125.10 | 39.36 | 2.68 | OK |
| 477_43 | 342.63 | 342.63 | 127.49 | 39.23 | 2.69 | OK |
| 477_44 | 334.65 | 334.65 | 125.09 | 29.70 | 2.68 | OK |
| 477_45 | 349.10 | 349.10 | 10.34 | 112.65 | 3.10 | OK |
| 477_46 | 341.12 | 341.12 | 7.94 | 103.14 | 3.31 | OK |
| 477_47 | 346.87 | 346.87 | 10.43 | 152.44 | 2.28 | OK |
| 477_48 | 338.90 | 338.90 | 8.03 | 142.91 | 2.37 | OK |
| 477_49 | 345.23 | 345.23 | 10.39 | 112.85 | 3.06 | OK |
| 477_50 | 337.25 | 337.25 | 7.99 | 103.33 | 3.26 | OK |
| 477_51 | 345.18 | 345.18 | 10.38 | 103.20 | 3.34 | OK |
| 477_52 | 337.20 | 337.20 | 7.97 | 93.67 | 3.60 | OK |
| 477_53 | 367.99 | 367.99 | 205.92 | 55.20 | 1.79 | OK |
| 477_54 | 353.26 | 353.26 | 203.48 | 44.03 | 1.74 | OK |
| 477_55 | 368.04 | 368.04 | 127.70 | 58.27 | 2.88 | OK |
| 477_56 | 353.31 | 353.31 | 125.30 | 47.09 | 2.82 | OK |
| 477_57 | 367.99 | 367.99 | 127.69 | 51.94 | 2.88 | OK |
| 477_58 | 353.26 | 353.26 | 125.29 | 40.77 | 2.82 | OK |
| 477_59 | 371.13 | 371.13 | 12.06 | 133.98 | 2.77 | OK |
| 477_60 | 356.40 | 356.40 | 9.65 | 122.79 | 2.90 | OK |
| 477_61 | 369.92 | 369.92 | 11.40 | 105.53 | 3.51 | OK |
| 477_62 | 355.19 | 355.19 | 9.00 | 94.34 | 3.76 | OK |
| 477_63 | 369.87 | 369.87 | 11.39 | 99.21 | 3.73 | OK |
| 477_64 | 355.14 | 355.14 | 8.99 | 88.02 | 4.03 | OK |
| 477_65 | 358.23 | 358.23 | 10.48 | 68.25 | 5.25 | OK |
| 477_66 | 345.66 | 345.66 | 8.08 | 56.48 | 6.12 | OK |
| 477_67 | 358.18 | 358.18 | 10.45 | 53.59 | 6.68 | OK |
| 477_68 | 345.61 | 345.61 | 8.05 | 41.82 | 8.26 | OK |
| 477_69 | 358.63 | 358.63 | 10.49 | 92.13 | 3.89 | OK |
| 477_70 | 346.06 | 346.06 | 8.09 | 80.36 | 4.31 | OK |
| 477_71 | 358.68 | 358.68 | 10.47 | 83.44 | 4.30 | OK |
| 477_72 | 346.11 | 346.11 | 8.06 | 71.67 | 4.83 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_73 | 345.86 | 345.86 | 8.01 | 39.24 | 8.81 | OK |
| 477_74 | 349.97 | 349.97 | 9.48 | 15.42 | 22.69 | OK |
| 477_75 | 336.03 | 336.03 | 7.75 | 18.51 | 18.16 | OK |
| 477_76 | 350.02 | 350.02 | 9.45 | 24.12 | 14.51 | OK |
| 477_77 | 336.08 | 336.08 | 7.72 | 27.20 | 12.35 | OK |
| 477_78 | 310.44 | 310.44 | 108.51 | 18.67 | 2.86 | OK |
| 477_79 | 305.12 | 305.12 | 110.10 | 12.32 | 2.77 | OK |
| 477_80 | 306.52 | 306.52 | 186.54 | 15.95 | 1.64 | OK |
| 477_81 | 301.20 | 301.20 | 188.13 | 9.60 | 1.60 | OK |
| 477_82 | 306.46 | 306.46 | 108.45 | 12.90 | 2.83 | OK |
| 477_83 | 301.15 | 301.15 | 110.05 | 6.55 | 2.74 | OK |
| 477_84 | 306.52 | 306.52 | 108.47 | 9.21 | 2.83 | OK |
| 477_85 | 301.20 | 301.20 | 110.07 | 3.47 | 2.74 | OK |
| 477_86 | 307.89 | 307.89 | 8.61 | 51.54 | 5.97 | OK |
| 477_87 | 302.57 | 302.57 | 7.01 | 56.92 | 5.32 | OK |
| 477_88 | 302.27 | 302.27 | 8.63 | 95.87 | 3.15 | OK |
| 477_89 | 296.95 | 296.95 | 7.02 | 101.26 | 2.93 | OK |
| 477_90 | 303.92 | 303.92 | 8.66 | 56.59 | 5.37 | OK |
| 477_91 | 298.60 | 298.60 | 7.06 | 61.98 | 4.82 | OK |
| 477_92 | 303.97 | 303.97 | 8.65 | 60.28 | 5.04 | OK |
| 477_93 | 298.65 | 298.65 | 7.05 | 65.67 | 4.55 | OK |
| 477_94 | 327.37 | 327.37 | 186.69 | 24.24 | 1.75 | OK |
| 477_95 | 317.55 | 317.55 | 188.29 | 16.79 | 1.69 | OK |
| 477_96 | 327.32 | 327.32 | 108.49 | 21.18 | 3.02 | OK |
| 477_97 | 317.50 | 317.50 | 110.10 | 13.73 | 2.88 | OK |
| 477_98 | 327.37 | 327.37 | 108.50 | 20.83 | 3.02 | OK |
| 477_99 | 317.55 | 317.55 | 110.11 | 13.38 | 2.88 | OK |
| 477_100 | 324.23 | 324.23 | 7.15 | 63.74 | 5.09 | OK |
| 477_101 | 314.41 | 314.41 | 5.55 | 69.41 | 4.53 | OK |
| 477_102 | 325.43 | 325.43 | 7.81 | 35.51 | 9.16 | OK |
| 477_103 | 315.61 | 315.61 | 6.21 | 41.18 | 7.66 | OK |
| 477_104 | 325.48 | 325.48 | 7.80 | 35.87 | 9.07 | OK |
| 477_105 | 315.66 | 315.66 | 6.20 | 41.54 | 7.60 | OK |
| 477_106 | 350.47 | 350.47 | 9.49 | 28.33 | 12.37 | OK |
| 477_107 | 336.53 | 336.53 | 7.76 | 22.71 | 14.82 | OK |
| 477_108 | 350.42 | 350.42 | 9.46 | 13.67 | 25.64 | OK |
| 477_109 | 336.48 | 336.48 | 7.73 | 10.22 | 32.94 | OK |
| 477_110 | 310.84 | 310.84 | 125.85 | 42.34 | 2.47 | OK |
| 477_111 | 305.52 | 305.52 | 124.24 | 35.98 | 2.46 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_112 | 306.92 | 306.92 | 203.97 | 39.47 | 1.50 | OK |
| 477_113 | 301.60 | 301.60 | 202.37 | 33.12 | 1.49 | OK |
| 477_114 | 306.97 | 306.97 | 125.91 | 42.53 | 2.44 | OK |
| 477_115 | 301.65 | 301.65 | 124.30 | 36.18 | 2.43 | OK |
| 477_116 | 306.92 | 306.92 | 125.89 | 32.88 | 2.44 | OK |
| 477_117 | 301.60 | 301.60 | 124.28 | 26.52 | 2.43 | OK |
| 477_118 | 313.39 | 313.39 | 8.74 | 106.30 | 2.95 | OK |
| 477_119 | 308.07 | 308.07 | 7.14 | 99.96 | 3.08 | OK |
| 477_120 | 311.16 | 311.16 | 8.83 | 146.09 | 2.13 | OK |
| 477_121 | 305.85 | 305.85 | 7.23 | 139.74 | 2.19 | OK |
| 477_122 | 309.51 | 309.51 | 8.79 | 106.51 | 2.91 | OK |
| 477_123 | 304.20 | 304.20 | 7.19 | 100.15 | 3.04 | OK |
| 477_124 | 309.46 | 309.46 | 8.77 | 96.84 | 3.20 | OK |
| 477_125 | 304.15 | 304.15 | 7.17 | 90.50 | 3.36 | OK |
| 477_126 | 327.77 | 327.77 | 204.32 | 47.75 | 1.60 | OK |
| 477_127 | 317.95 | 317.95 | 202.73 | 40.30 | 1.57 | OK |
| 477_128 | 327.82 | 327.82 | 126.10 | 50.81 | 2.60 | OK |
| 477_129 | 318.00 | 318.00 | 124.50 | 43.36 | 2.55 | OK |
| 477_130 | 327.77 | 327.77 | 126.09 | 44.49 | 2.60 | OK |
| 477_131 | 317.95 | 317.95 | 124.49 | 37.04 | 2.55 | OK |
| 477_132 | 330.91 | 330.91 | 10.45 | 126.52 | 2.62 | OK |
| 477_133 | 321.09 | 321.09 | 8.85 | 119.07 | 2.70 | OK |
| 477_134 | 329.71 | 329.71 | 9.80 | 98.08 | 3.36 | OK |
| 477_135 | 319.89 | 319.89 | 8.19 | 90.62 | 3.53 | OK |
| 477_136 | 329.66 | 329.66 | 9.79 | 91.76 | 3.59 | OK |
| 477_137 | 319.84 | 319.84 | 8.19 | 84.30 | 3.79 | OK |
| 477_138 | 319.46 | 319.46 | 8.88 | 60.40 | 5.29 | OK |
| 477_139 | 311.07 | 311.07 | 7.28 | 52.55 | 5.92 | OK |
| 477_140 | 319.41 | 319.41 | 8.85 | 45.74 | 6.98 | OK |
| 477_141 | 311.02 | 311.02 | 7.25 | 37.89 | 8.21 | OK |
| 477_142 | 319.86 | 319.86 | 8.89 | 84.29 | 3.79 | OK |
| 477_143 | 311.48 | 311.48 | 7.29 | 76.44 | 4.07 | OK |
| 477_144 | 319.91 | 319.91 | 8.87 | 75.59 | 4.23 | OK |
| 477_145 | 311.53 | 311.53 | 7.26 | 67.75 | 4.60 | OK |
| 477_146 | 315.47 | 315.47 | 8.01 | 39.24 | 8.04 | OK |
| 477_147 | 345.69 | 345.69 | 8.01 | 29.28 | 11.81 | OK |
| 477_148 | 373.48 | 373.48 | 8.63 | 8.85 | 42.19 | OK |
| 477_149 | 373.51 | 373.51 | 8.61 | 11.96 | 31.22 | OK |
| 477_150 | 331.28 | 331.28 | 7.91 | 30.55 | 10.84 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_151 | 330.18 | 330.18 | 7.88 | 56.74 | 5.82 | OK |
| 477_152 | 331.31 | 331.31 | 7.90 | 33.01 | 10.04 | OK |
| 477_153 | 333.93 | 333.93 | 7.87 | 27.18 | 12.28 | OK |
| 477_154 | 332.98 | 332.98 | 70.16 | 17.07 | 4.75 | OK |
| 477_155 | 333.01 | 333.01 | 122.24 | 19.11 | 2.72 | OK |
| 477_156 | 333.01 | 333.01 | 70.17 | 14.61 | 4.75 | OK |
| 477_157 | 335.63 | 335.63 | 70.20 | 20.92 | 4.78 | OK |
| 477_158 | 351.63 | 351.63 | 7.34 | 16.12 | 21.82 | OK |
| 477_159 | 350.83 | 350.83 | 6.91 | 34.94 | 10.04 | OK |
| 477_160 | 351.66 | 351.66 | 7.34 | 16.36 | 21.50 | OK |
| 477_161 | 352.89 | 352.89 | 70.20 | 24.05 | 5.03 | OK |
| 477_162 | 352.92 | 352.92 | 122.32 | 26.10 | 2.89 | OK |
| 477_163 | 352.92 | 352.92 | 70.20 | 23.82 | 5.03 | OK |
| 477_164 | 373.81 | 373.81 | 8.67 | 38.04 | 9.83 | OK |
| 477_165 | 373.81 | 373.81 | 8.64 | 26.37 | 14.17 | OK |
| 477_166 | 373.78 | 373.78 | 8.62 | 16.60 | 22.51 | OK |
| 477_167 | 335.01 | 335.01 | 8.00 | 79.47 | 4.22 | OK |
| 477_168 | 336.11 | 336.11 | 8.02 | 105.86 | 3.17 | OK |
| 477_169 | 334.98 | 334.98 | 7.98 | 73.03 | 4.59 | OK |
| 477_170 | 337.59 | 337.59 | 7.96 | 79.33 | 4.26 | OK |
| 477_171 | 333.31 | 333.31 | 86.07 | 36.82 | 3.87 | OK |
| 477_172 | 333.28 | 333.28 | 138.15 | 34.78 | 2.41 | OK |
| 477_173 | 333.28 | 333.28 | 86.06 | 30.38 | 3.87 | OK |
| 477_174 | 335.89 | 335.89 | 86.03 | 36.69 | 3.90 | OK |
| 477_175 | 354.48 | 354.48 | 8.67 | 75.32 | 4.71 | OK |
| 477_176 | 355.29 | 355.29 | 9.11 | 94.28 | 3.77 | OK |
| 477_177 | 354.45 | 354.45 | 8.66 | 71.11 | 4.98 | OK |
| 477_178 | 353.22 | 353.22 | 86.20 | 43.81 | 4.10 | OK |
| 477_179 | 353.19 | 353.19 | 138.33 | 41.78 | 2.55 | OK |
| 477_180 | 353.19 | 353.19 | 86.20 | 39.60 | 4.10 | OK |
| 478_1 | 335.63 | 335.63 | 13.93 | 14.76 | 22.74 | OK |
| 478_2 | 328.38 | 328.38 | 10.72 | 12.74 | 25.78 | OK |
| 478_3 | 335.58 | 335.58 | 13.96 | 28.30 | 11.86 | OK |
| 478_4 | 328.33 | 328.33 | 10.75 | 25.76 | 12.74 | OK |
| 478_5 | 342.95 | 342.95 | 103.90 | 14.05 | 3.30 | OK |
| 478_6 | 335.70 | 335.70 | 106.54 | 11.82 | 3.15 | OK |
| 478_7 | 339.27 | 339.27 | 180.94 | 13.68 | 1.88 | OK |
| 478_8 | 332.02 | 332.02 | 183.56 | 11.45 | 1.81 | OK |
| 478_9 | 339.33 | 339.33 | 103.95 | 13.94 | 3.26 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_10 | 332.07 | 332.07 | 106.60 | 11.72 | 3.12 | OK |
| 478_11 | 339.28 | 339.28 | 103.94 | 17.23 | 3.26 | OK |
| 478_12 | 332.02 | 332.02 | 106.58 | 13.84 | 3.12 | OK |
| 478_13 | 345.50 | 345.50 | 11.64 | 61.56 | 5.61 | OK |
| 478_14 | 338.25 | 338.25 | 9.00 | 63.62 | 5.32 | OK |
| 478_15 | 343.52 | 343.52 | 11.63 | 100.79 | 3.41 | OK |
| 478_16 | 336.27 | 336.27 | 8.98 | 102.86 | 3.27 | OK |
| 478_17 | 341.87 | 341.87 | 11.59 | 61.76 | 5.54 | OK |
| 478_18 | 334.62 | 334.62 | 8.95 | 63.83 | 5.24 | OK |
| 478_19 | 341.82 | 341.82 | 11.60 | 52.11 | 6.56 | OK |
| 478_20 | 334.57 | 334.57 | 8.96 | 54.18 | 6.18 | OK |
| 478_21 | 335.17 | 335.17 | 181.47 | 13.49 | 1.85 | OK |
| 478_22 | 328.02 | 328.02 | 184.10 | 10.86 | 1.78 | OK |
| 478_23 | 335.23 | 335.23 | 104.28 | 13.69 | 3.21 | OK |
| 478_24 | 328.07 | 328.07 | 106.92 | 11.12 | 3.07 | OK |
| 478_25 | 335.17 | 335.17 | 104.27 | 16.91 | 3.21 | OK |
| 478_26 | 328.02 | 328.02 | 106.91 | 12.15 | 3.07 | OK |
| 478_27 | 338.32 | 338.32 | 10.78 | 70.00 | 4.83 | OK |
| 478_28 | 331.16 | 331.16 | 8.14 | 73.45 | 4.51 | OK |
| 478_29 | 337.11 | 337.11 | 11.05 | 41.78 | 8.07 | OK |
| 478_30 | 329.95 | 329.95 | 8.41 | 45.23 | 7.29 | OK |
| 478_31 | 337.06 | 337.06 | 11.06 | 35.46 | 9.51 | OK |
| 478_32 | 329.90 | 329.90 | 8.42 | 38.91 | 8.48 | OK |
| 478_33 | 335.12 | 335.12 | 13.91 | 43.42 | 7.72 | OK |
| 478_34 | 327.87 | 327.87 | 10.71 | 40.88 | 8.02 | OK |
| 478_35 | 335.17 | 335.17 | 13.94 | 52.12 | 6.43 | OK |
| 478_36 | 327.92 | 327.92 | 10.74 | 49.57 | 6.62 | OK |
| 478_37 | 342.55 | 342.55 | 127.06 | 32.48 | 2.70 | OK |
| 478_38 | 335.30 | 335.30 | 124.42 | 29.10 | 2.69 | OK |
| 478_39 | 338.87 | 338.87 | 203.95 | 34.67 | 1.66 | OK |
| 478_40 | 331.62 | 331.62 | 201.33 | 31.28 | 1.65 | OK |
| 478_41 | 338.82 | 338.82 | 127.00 | 37.58 | 2.67 | OK |
| 478_42 | 331.57 | 331.57 | 124.36 | 34.19 | 2.67 | OK |
| 478_43 | 338.87 | 338.87 | 127.02 | 41.27 | 2.67 | OK |
| 478_44 | 331.62 | 331.62 | 124.38 | 37.88 | 2.67 | OK |
| 478_45 | 340.00 | 340.00 | 11.52 | 94.93 | 3.58 | OK |
| 478_46 | 332.75 | 332.75 | 8.87 | 91.54 | 3.64 | OK |
| 478_47 | 334.63 | 334.63 | 11.42 | 138.75 | 2.41 | OK |
| 478_48 | 327.37 | 327.37 | 8.78 | 135.36 | 2.42 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_49 | 336.28 | 336.28 | 11.46 | 100.02 | 3.36 | OK |
| 478_50 | 329.02 | 329.02 | 8.82 | 96.63 | 3.41 | OK |
| 478_51 | 336.33 | 336.33 | 11.48 | 103.72 | 3.24 | OK |
| 478_52 | 329.07 | 329.07 | 8.84 | 100.33 | 3.28 | OK |
| 478_53 | 334.77 | 334.77 | 204.29 | 37.70 | 1.64 | OK |
| 478_54 | 327.62 | 327.62 | 201.66 | 32.94 | 1.62 | OK |
| 478_55 | 334.72 | 334.72 | 127.17 | 40.59 | 2.63 | OK |
| 478_56 | 327.57 | 327.57 | 124.53 | 35.84 | 2.63 | OK |
| 478_57 | 334.77 | 334.77 | 127.18 | 40.95 | 2.63 | OK |
| 478_58 | 327.62 | 327.62 | 124.54 | 36.19 | 2.63 | OK |
| 478_59 | 331.63 | 331.63 | 12.11 | 114.94 | 2.89 | OK |
| 478_60 | 324.47 | 324.47 | 9.47 | 110.19 | 2.94 | OK |
| 478_61 | 332.84 | 332.84 | 11.84 | 86.94 | 3.83 | OK |
| 478_62 | 325.68 | 325.68 | 9.20 | 82.18 | 3.96 | OK |
| 478_63 | 332.89 | 332.89 | 11.85 | 87.29 | 3.81 | OK |
| 478_64 | 325.73 | 325.73 | 9.21 | 82.55 | 3.95 | OK |
| 478_65 | 335.12 | 335.12 | 11.37 | 24.52 | 13.67 | OK |
| 478_66 | 327.97 | 327.97 | 8.73 | 28.34 | 11.57 | OK |
| 478_67 | 335.17 | 335.17 | 11.40 | 15.83 | 21.17 | OK |
| 478_68 | 328.02 | 328.02 | 8.76 | 19.66 | 16.68 | OK |
| 478_69 | 334.72 | 334.72 | 11.36 | 4.96 | 29.47 | OK |
| 478_70 | 327.57 | 327.57 | 8.72 | 4.46 | 37.57 | OK |
| 478_71 | 334.67 | 334.67 | 11.38 | 19.61 | 17.07 | OK |
| 478_72 | 327.52 | 327.52 | 8.75 | 14.48 | 22.62 | OK |
| 478_73 | 327.77 | 327.77 | 8.80 | 17.10 | 19.17 | OK |
| 478_74 | 300.40 | 300.40 | 11.79 | 13.42 | 22.39 | OK |
| 478_75 | 295.56 | 295.56 | 9.66 | 12.07 | 24.50 | OK |
| 478_76 | 300.35 | 300.35 | 11.82 | 26.61 | 11.29 | OK |
| 478_77 | 295.51 | 295.51 | 9.68 | 24.91 | 11.86 | OK |
| 478_78 | 307.72 | 307.72 | 105.66 | 12.57 | 2.91 | OK |
| 478_79 | 302.88 | 302.88 | 107.42 | 11.08 | 2.82 | OK |
| 478_80 | 304.04 | 304.04 | 182.72 | 12.20 | 1.66 | OK |
| 478_81 | 299.21 | 299.21 | 184.51 | 10.71 | 1.62 | OK |
| 478_82 | 304.09 | 304.09 | 105.71 | 12.46 | 2.88 | OK |
| 478_83 | 299.26 | 299.26 | 107.47 | 10.97 | 2.78 | OK |
| 478_84 | 304.04 | 304.04 | 105.69 | 14.96 | 2.88 | OK |
| 478_85 | 299.21 | 299.21 | 107.46 | 12.70 | 2.78 | OK |
| 478_86 | 310.27 | 310.27 | 9.88 | 62.94 | 4.93 | OK |
| 478_87 | 305.43 | 305.43 | 8.12 | 64.32 | 4.75 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_88 | 308.29 | 308.29 | 9.87 | 102.17 | 3.02 | OK |
| 478_89 | 303.45 | 303.45 | 8.10 | 103.56 | 2.93 | OK |
| 478_90 | 306.64 | 306.64 | 9.83 | 63.14 | 4.86 | OK |
| 478_91 | 301.80 | 301.80 | 8.07 | 64.52 | 4.68 | OK |
| 478_92 | 306.59 | 306.59 | 9.84 | 53.48 | 5.73 | OK |
| 478_93 | 301.75 | 301.75 | 8.08 | 54.87 | 5.50 | OK |
| 478_94 | 300.01 | 300.01 | 183.15 | 11.72 | 1.64 | OK |
| 478_95 | 295.24 | 295.24 | 184.94 | 10.01 | 1.60 | OK |
| 478_96 | 300.06 | 300.06 | 106.03 | 11.98 | 2.83 | OK |
| 478_97 | 295.29 | 295.29 | 107.79 | 10.27 | 2.74 | OK |
| 478_98 | 300.01 | 300.01 | 106.02 | 13.73 | 2.83 | OK |
| 478_99 | 295.24 | 295.24 | 107.79 | 10.93 | 2.74 | OK |
| 478_100 | 303.15 | 303.15 | 9.02 | 72.30 | 4.19 | OK |
| 478_101 | 298.38 | 298.38 | 7.26 | 74.60 | 4.00 | OK |
| 478_102 | 301.94 | 301.94 | 9.29 | 44.08 | 6.85 | OK |
| 478_103 | 297.17 | 297.17 | 7.53 | 46.38 | 6.41 | OK |
| 478_104 | 301.89 | 301.89 | 9.30 | 37.76 | 7.99 | OK |
| 478_105 | 297.12 | 297.12 | 7.54 | 40.06 | 7.42 | OK |
| 478_106 | 299.90 | 299.90 | 11.77 | 41.72 | 7.19 | OK |
| 478_107 | 295.06 | 295.06 | 9.64 | 40.03 | 7.37 | OK |
| 478_108 | 299.95 | 299.95 | 11.80 | 50.41 | 5.95 | OK |
| 478_109 | 295.11 | 295.11 | 9.67 | 48.72 | 6.06 | OK |
| 478_110 | 307.32 | 307.32 | 125.29 | 30.22 | 2.45 | OK |
| 478_111 | 302.48 | 302.48 | 123.53 | 27.97 | 2.45 | OK |
| 478_112 | 303.64 | 303.64 | 202.27 | 32.41 | 1.50 | OK |
| 478_113 | 298.80 | 298.80 | 200.48 | 30.16 | 1.49 | OK |
| 478_114 | 303.59 | 303.59 | 125.24 | 35.31 | 2.42 | OK |
| 478_115 | 298.75 | 298.75 | 123.47 | 33.05 | 2.42 | OK |
| 478_116 | 303.64 | 303.64 | 125.25 | 39.01 | 2.42 | OK |
| 478_117 | 298.80 | 298.80 | 123.49 | 36.74 | 2.42 | OK |
| 478_118 | 304.77 | 304.77 | 9.75 | 92.67 | 3.29 | OK |
| 478_119 | 299.93 | 299.93 | 7.99 | 90.41 | 3.32 | OK |
| 478_120 | 299.40 | 299.40 | 9.66 | 136.49 | 2.19 | OK |
| 478_121 | 294.56 | 294.56 | 7.90 | 134.24 | 2.19 | OK |
| 478_122 | 301.04 | 301.04 | 9.70 | 97.76 | 3.08 | OK |
| 478_123 | 296.21 | 296.21 | 7.94 | 95.50 | 3.10 | OK |
| 478_124 | 301.09 | 301.09 | 9.72 | 101.45 | 2.97 | OK |
| 478_125 | 296.26 | 296.26 | 7.96 | 99.19 | 2.99 | OK |
| 478_126 | 299.61 | 299.61 | 202.60 | 34.52 | 1.48 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_127 | 294.83 | 294.83 | 200.82 | 31.36 | 1.47 | OK |
| 478_128 | 299.56 | 299.56 | 125.40 | 37.43 | 2.39 | OK |
| 478_129 | 294.78 | 294.78 | 123.64 | 34.26 | 2.38 | OK |
| 478_130 | 299.61 | 299.61 | 125.41 | 37.79 | 2.39 | OK |
| 478_131 | 294.83 | 294.83 | 123.65 | 34.61 | 2.38 | OK |
| 478_132 | 296.46 | 296.46 | 10.35 | 111.77 | 2.65 | OK |
| 478_133 | 291.69 | 291.69 | 8.60 | 108.61 | 2.69 | OK |
| 478_134 | 297.67 | 297.67 | 10.08 | 83.77 | 3.55 | OK |
| 478_135 | 292.90 | 292.90 | 8.32 | 80.60 | 3.63 | OK |
| 478_136 | 297.72 | 297.72 | 10.09 | 84.13 | 3.54 | OK |
| 478_137 | 292.95 | 292.95 | 8.33 | 80.96 | 3.62 | OK |
| 478_138 | 299.96 | 299.96 | 9.61 | 27.07 | 11.08 | OK |
| 478_139 | 295.20 | 295.20 | 7.85 | 29.63 | 9.96 | OK |
| 478_140 | 300.01 | 300.01 | 9.64 | 18.38 | 16.32 | OK |
| 478_141 | 295.25 | 295.25 | 7.88 | 20.94 | 14.10 | OK |
| 478_142 | 299.56 | 299.56 | 9.60 | 3.89 | 31.20 | OK |
| 478_143 | 294.79 | 294.79 | 7.84 | 5.74 | 37.60 | OK |
| 478_144 | 299.51 | 299.51 | 9.63 | 16.19 | 18.50 | OK |
| 478_145 | 294.74 | 294.74 | 7.87 | 12.77 | 23.08 | OK |
| 478_146 | 297.38 | 297.38 | 8.80 | 17.10 | 17.39 | OK |
| 478_147 | 327.94 | 327.94 | 8.80 | 9.69 | 33.83 | OK |
| 478_148 | 328.29 | 328.29 | 10.71 | 10.74 | 30.57 | OK |
| 478_149 | 328.26 | 328.26 | 10.72 | 20.00 | 16.41 | OK |
| 478_150 | 332.46 | 332.46 | 8.90 | 40.26 | 8.26 | OK |
| 478_151 | 333.56 | 333.56 | 8.93 | 66.27 | 5.03 | OK |
| 478_152 | 332.43 | 332.43 | 8.91 | 33.82 | 9.83 | OK |
| 478_153 | 334.88 | 334.88 | 8.94 | 40.12 | 8.35 | OK |
| 478_154 | 330.76 | 330.76 | 68.13 | 10.29 | 4.85 | OK |
| 478_155 | 330.73 | 330.73 | 119.45 | 10.11 | 2.77 | OK |
| 478_156 | 330.73 | 330.73 | 68.12 | 12.99 | 4.86 | OK |
| 478_157 | 333.18 | 333.18 | 68.09 | 10.36 | 4.89 | OK |
| 478_158 | 329.24 | 329.24 | 8.54 | 26.32 | 12.51 | OK |
| 478_159 | 330.05 | 330.05 | 8.36 | 45.13 | 7.31 | OK |
| 478_160 | 329.21 | 329.21 | 8.54 | 22.11 | 14.89 | OK |
| 478_161 | 327.98 | 327.98 | 68.34 | 10.26 | 4.80 | OK |
| 478_162 | 327.95 | 327.95 | 119.78 | 11.10 | 2.74 | OK |
| 478_163 | 327.95 | 327.95 | 68.34 | 13.38 | 4.80 | OK |
| 478_164 | 327.96 | 327.96 | 10.67 | 18.41 | 17.82 | OK |
| 478_165 | 327.96 | 327.96 | 10.70 | 30.07 | 10.91 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_166 | 327.99 | 327.99 | 10.72 | 35.87 | 9.14 | OK |
| 478_167 | 328.73 | 328.73 | 8.81 | 68.19 | 4.82 | OK |
| 478_168 | 327.63 | 327.63 | 8.79 | 94.00 | 3.49 | OK |
| 478_169 | 328.76 | 328.76 | 8.83 | 70.65 | 4.65 | OK |
| 478_170 | 331.21 | 331.21 | 8.85 | 64.80 | 5.11 | OK |
| 478_171 | 330.43 | 330.43 | 85.84 | 26.56 | 3.85 | OK |
| 478_172 | 330.46 | 330.46 | 137.17 | 24.62 | 2.41 | OK |
| 478_173 | 330.46 | 330.46 | 85.85 | 29.02 | 3.85 | OK |
| 478_174 | 332.91 | 332.91 | 85.88 | 23.16 | 3.88 | OK |
| 478_175 | 326.39 | 326.39 | 9.07 | 60.07 | 5.43 | OK |
| 478_176 | 325.59 | 325.59 | 9.25 | 78.74 | 4.14 | OK |
| 478_177 | 326.43 | 326.43 | 9.07 | 60.31 | 5.41 | OK |
| 478_178 | 327.65 | 327.65 | 85.95 | 29.18 | 3.81 | OK |
| 478_179 | 327.68 | 327.68 | 137.38 | 27.25 | 2.39 | OK |
| 478_180 | 327.68 | 327.68 | 85.95 | 29.41 | 3.81 | OK |

Scorrimento – verifiche statiche

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| COMB | kN | kN | | |
| 477_1 | 254.6 | 1.8 | 141.52 | OK |
| 477_2 | 241.1 | 2.4 | 99.46 | OK |
| 477_3 | 254.6 | 2.6 | 98.36 | OK |
| 477_4 | 241.1 | 3.3 | 72.14 | OK |
| 477_5 | 223.5 | 11.5 | 19.36 | OK |
| 477_6 | 218.4 | 11.5 | 18.93 | OK |
| 477_7 | 221.0 | 19.5 | 11.32 | OK |
| 477_8 | 215.8 | 19.7 | 10.98 | OK |
| 477_9 | 220.9 | 11.3 | 19.53 | OK |
| 477_10 | 215.8 | 11.4 | 18.89 | OK |
| 477_11 | 221.0 | 11.3 | 19.62 | OK |
| 477_12 | 215.8 | 11.4 | 18.91 | OK |
| 477_13 | 221.9 | 7.0 | 31.59 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_14 | 216.7 | 8.3 | 26.04 | OK |
| 477_15 | 218.2 | 14.1 | 15.52 | OK |
| 477_16 | 213.1 | 15.4 | 13.85 | OK |
| 477_17 | 219.3 | 8.1 | 27.20 | OK |
| 477_18 | 214.1 | 9.4 | 22.86 | OK |
| 477_19 | 219.3 | 8.4 | 26.23 | OK |
| 477_20 | 214.2 | 9.7 | 22.15 | OK |
| 477_21 | 237.3 | 19.7 | 12.08 | OK |
| 477_22 | 227.8 | 19.7 | 11.55 | OK |
| 477_23 | 237.3 | 11.5 | 20.69 | OK |
| 477_24 | 227.8 | 11.5 | 19.83 | OK |
| 477_25 | 237.3 | 11.5 | 20.63 | OK |
| 477_26 | 227.8 | 11.5 | 19.80 | OK |
| 477_27 | 235.3 | 9.4 | 24.97 | OK |
| 477_28 | 225.8 | 10.9 | 20.79 | OK |
| 477_29 | 236.1 | 5.0 | 47.01 | OK |
| 477_30 | 226.6 | 6.4 | 35.29 | OK |
| 477_31 | 236.1 | 4.9 | 48.40 | OK |
| 477_32 | 226.6 | 6.3 | 36.12 | OK |
| 477_33 | 254.9 | 4.8 | 52.57 | OK |
| 477_34 | 241.4 | 3.9 | 62.39 | OK |
| 477_35 | 254.9 | 2.8 | 90.70 | OK |
| 477_36 | 241.4 | 1.8 | 130.51 | OK |
| 477_37 | 223.8 | 15.6 | 14.35 | OK |
| 477_38 | 218.6 | 14.7 | 14.85 | OK |
| 477_39 | 221.2 | 22.9 | 9.65 | OK |
| 477_40 | 216.1 | 22.3 | 9.70 | OK |
| 477_41 | 221.3 | 15.7 | 14.13 | OK |
| 477_42 | 216.1 | 14.8 | 14.62 | OK |
| 477_43 | 221.2 | 15.0 | 14.79 | OK |
| 477_44 | 216.1 | 14.2 | 15.24 | OK |
| 477_45 | 225.4 | 17.8 | 12.67 | OK |
| 477_46 | 220.3 | 16.4 | 13.41 | OK |
| 477_47 | 224.0 | 24.0 | 9.35 | OK |
| 477_48 | 218.8 | 22.6 | 9.69 | OK |
| 477_49 | 222.9 | 17.9 | 12.43 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_50 | 217.8 | 16.6 | 13.15 | OK |
| 477_51 | 222.9 | 16.4 | 13.56 | OK |
| 477_52 | 217.7 | 15.1 | 14.45 | OK |
| 477_53 | 237.6 | 23.2 | 10.25 | OK |
| 477_54 | 228.1 | 22.5 | 10.16 | OK |
| 477_55 | 237.6 | 16.0 | 14.81 | OK |
| 477_56 | 228.1 | 15.1 | 15.14 | OK |
| 477_57 | 237.6 | 15.5 | 15.32 | OK |
| 477_58 | 228.1 | 14.6 | 15.62 | OK |
| 477_59 | 239.6 | 20.8 | 11.54 | OK |
| 477_60 | 230.1 | 19.3 | 11.93 | OK |
| 477_61 | 238.9 | 16.3 | 14.65 | OK |
| 477_62 | 229.3 | 14.8 | 15.47 | OK |
| 477_63 | 238.8 | 15.3 | 15.65 | OK |
| 477_64 | 229.3 | 13.8 | 16.64 | OK |
| 477_65 | 231.3 | 8.6 | 27.03 | OK |
| 477_66 | 223.2 | 6.9 | 32.17 | OK |
| 477_67 | 231.3 | 6.4 | 36.05 | OK |
| 477_68 | 223.2 | 4.8 | 46.55 | OK |
| 477_69 | 231.6 | 13.3 | 17.41 | OK |
| 477_70 | 223.4 | 11.7 | 19.12 | OK |
| 477_71 | 231.6 | 12.3 | 18.78 | OK |
| 477_72 | 223.5 | 10.7 | 20.86 | OK |
| 477_73 | 223.3 | 5.4 | 41.30 | OK |
| 477_74 | 226.0 | 2.2 | 103.33 | OK |
| 477_75 | 217.0 | 2.7 | 80.95 | OK |
| 477_76 | 226.0 | 3.1 | 73.45 | OK |
| 477_77 | 217.0 | 3.6 | 59.98 | OK |
| 477_78 | 200.4 | 11.5 | 17.40 | OK |
| 477_79 | 197.0 | 11.6 | 17.03 | OK |
| 477_80 | 197.9 | 19.6 | 10.09 | OK |
| 477_81 | 194.5 | 19.7 | 9.86 | OK |
| 477_82 | 197.9 | 11.4 | 17.40 | OK |
| 477_83 | 194.4 | 11.5 | 16.91 | OK |
| 477_84 | 197.9 | 11.3 | 17.45 | OK |
| 477_85 | 194.5 | 11.5 | 16.91 | OK |
| 477_86 | 198.8 | 7.9 | 25.21 | OK |
| 477_87 | 195.4 | 8.8 | 22.30 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_88 | 195.2 | 14.9 | 13.06 | OK |
| 477_89 | 191.7 | 15.8 | 12.11 | OK |
| 477_90 | 196.2 | 8.9 | 21.97 | OK |
| 477_91 | 192.8 | 9.8 | 19.66 | OK |
| 477_92 | 196.3 | 9.2 | 21.26 | OK |
| 477_93 | 192.8 | 10.1 | 19.07 | OK |
| 477_94 | 211.4 | 19.7 | 10.73 | OK |
| 477_95 | 205.0 | 19.8 | 10.36 | OK |
| 477_96 | 211.3 | 11.5 | 18.44 | OK |
| 477_97 | 205.0 | 11.5 | 17.77 | OK |
| 477_98 | 211.4 | 11.5 | 18.41 | OK |
| 477_99 | 205.0 | 11.5 | 17.76 | OK |
| 477_100 | 209.3 | 10.4 | 20.17 | OK |
| 477_101 | 203.0 | 11.3 | 17.90 | OK |
| 477_102 | 210.1 | 5.9 | 35.32 | OK |
| 477_103 | 203.8 | 6.9 | 29.56 | OK |
| 477_104 | 210.2 | 5.8 | 36.21 | OK |
| 477_105 | 203.8 | 6.7 | 30.20 | OK |
| 477_106 | 226.3 | 4.2 | 53.93 | OK |
| 477_107 | 217.3 | 3.5 | 61.33 | OK |
| 477_108 | 226.3 | 2.2 | 104.37 | OK |
| 477_109 | 217.3 | 1.5 | 141.53 | OK |
| 477_110 | 200.7 | 15.0 | 13.38 | OK |
| 477_111 | 197.3 | 14.4 | 13.66 | OK |
| 477_112 | 198.2 | 22.5 | 8.82 | OK |
| 477_113 | 194.7 | 22.1 | 8.83 | OK |
| 477_114 | 198.2 | 15.1 | 13.16 | OK |
| 477_115 | 194.8 | 14.5 | 13.43 | OK |
| 477_116 | 198.2 | 14.4 | 13.73 | OK |
| 477_117 | 194.7 | 13.9 | 13.97 | OK |
| 477_118 | 202.3 | 16.9 | 11.99 | OK |
| 477_119 | 198.9 | 16.0 | 12.46 | OK |
| 477_120 | 200.9 | 23.0 | 8.72 | OK |
| 477_121 | 197.5 | 22.1 | 8.92 | OK |
| 477_122 | 199.9 | 17.0 | 11.74 | OK |
| 477_123 | 196.4 | 16.1 | 12.19 | OK |
| 477_124 | 199.8 | 15.5 | 12.87 | OK |
| 477_125 | 196.4 | 14.6 | 13.44 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase} ) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_126 | 211.6 | 22.7 | 9.33 | OK |
| 477_127 | 205.3 | 22.2 | 9.24 | OK |
| 477_128 | 211.7 | 15.4 | 13.76 | OK |
| 477_129 | 205.3 | 14.8 | 13.91 | OK |
| 477_130 | 211.6 | 14.9 | 14.21 | OK |
| 477_131 | 205.3 | 14.3 | 14.34 | OK |
| 477_132 | 213.7 | 19.8 | 10.80 | OK |
| 477_133 | 207.3 | 18.8 | 11.03 | OK |
| 477_134 | 212.9 | 15.3 | 13.90 | OK |
| 477_135 | 206.5 | 14.3 | 14.41 | OK |
| 477_136 | 212.9 | 14.3 | 14.91 | OK |
| 477_137 | 206.5 | 13.3 | 15.54 | OK |
| 477_138 | 206.3 | 7.5 | 27.59 | OK |
| 477_139 | 200.9 | 6.4 | 31.40 | OK |
| 477_140 | 206.2 | 5.3 | 38.66 | OK |
| 477_141 | 200.8 | 4.3 | 47.22 | OK |
| 477_142 | 206.5 | 12.2 | 16.89 | OK |
| 477_143 | 201.1 | 11.1 | 18.04 | OK |
| 477_144 | 206.6 | 11.3 | 18.36 | OK |
| 477_145 | 201.2 | 10.2 | 19.77 | OK |
| 477_146 | 203.7 | 5.4 | 37.67 | OK |
| 477_147 | 223.2 | 3.5 | 64.46 | OK |
| 477_148 | 241.2 | 1.1 | 226.72 | OK |
| 477_149 | 241.2 | 1.5 | 165.28 | OK |
| 477_150 | 213.9 | 4.8 | 44.52 | OK |
| 477_151 | 213.2 | 8.8 | 24.26 | OK |
| 477_152 | 213.9 | 5.0 | 42.76 | OK |
| 477_153 | 215.6 | 4.1 | 52.37 | OK |
| 477_154 | 215.0 | 7.6 | 28.47 | OK |
| 477_155 | 215.0 | 13.0 | 16.55 | OK |
| 477_156 | 215.0 | 7.5 | 28.66 | OK |
| 477_157 | 216.7 | 7.8 | 27.93 | OK |
| 477_158 | 227.0 | 2.8 | 82.53 | OK |
| 477_159 | 226.5 | 5.7 | 40.08 | OK |
| 477_160 | 227.1 | 2.7 | 85.43 | OK |
| 477_161 | 227.9 | 7.7 | 29.55 | OK |
| 477_162 | 227.9 | 13.1 | 17.38 | OK |
| 477_163 | 227.9 | 7.7 | 29.43 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_164 | 241.4 | 5.2 | 46.39 | OK |
| 477_165 | 241.4 | 3.7 | 65.79 | OK |
| 477_166 | 241.3 | 2.3 | 104.72 | OK |
| 477_167 | 216.3 | 12.6 | 17.22 | OK |
| 477_168 | 217.0 | 16.6 | 13.10 | OK |
| 477_169 | 216.3 | 11.6 | 18.70 | OK |
| 477_170 | 218.0 | 12.5 | 17.49 | OK |
| 477_171 | 215.2 | 10.9 | 19.82 | OK |
| 477_172 | 215.2 | 15.6 | 13.80 | OK |
| 477_173 | 215.2 | 10.4 | 20.78 | OK |
| 477_174 | 216.9 | 10.8 | 20.06 | OK |
| 477_175 | 228.9 | 11.5 | 19.85 | OK |
| 477_176 | 229.4 | 14.5 | 15.82 | OK |
| 477_177 | 228.9 | 10.8 | 21.12 | OK |
| 477_178 | 228.1 | 11.2 | 20.43 | OK |
| 477_179 | 228.1 | 15.8 | 14.43 | OK |
| 477_180 | 228.1 | 10.8 | 21.16 | OK |
| 478_1 | 216.7 | 1.4 | 149.88 | OK |
| 478_2 | 212.0 | 1.1 | 185.74 | OK |
| 478_3 | 216.7 | 2.4 | 89.11 | OK |
| 478_4 | 212.0 | 2.2 | 97.74 | OK |
| 478_5 | 221.4 | 11.0 | 20.15 | OK |
| 478_6 | 216.8 | 11.3 | 19.22 | OK |
| 478_7 | 219.1 | 19.0 | 11.52 | OK |
| 478_8 | 214.4 | 19.3 | 11.11 | OK |
| 478_9 | 219.1 | 11.0 | 19.91 | OK |
| 478_10 | 214.4 | 11.3 | 18.98 | OK |
| 478_11 | 219.1 | 10.9 | 20.02 | OK |
| 478_12 | 214.4 | 11.2 | 19.12 | OK |
| 478_13 | 223.1 | 10.9 | 20.51 | OK |
| 478_14 | 218.4 | 11.1 | 19.74 | OK |
| 478_15 | 221.8 | 16.9 | 13.11 | OK |
| 478_16 | 217.1 | 17.1 | 12.68 | OK |
| 478_17 | 220.7 | 11.0 | 20.04 | OK |
| 478_18 | 216.1 | 11.2 | 19.28 | OK |
| 478_19 | 220.7 | 9.5 | 23.16 | OK |
| 478_20 | 216.0 | 9.7 | 22.24 | OK |
| 478_21 | 216.4 | 19.1 | 11.35 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_22 | 211.8 | 19.3 | 10.95 | OK |
| 478_23 | 216.5 | 11.0 | 19.71 | OK |
| 478_24 | 211.8 | 11.3 | 18.78 | OK |
| 478_25 | 216.4 | 11.0 | 19.71 | OK |
| 478_26 | 211.8 | 11.2 | 18.84 | OK |
| 478_27 | 218.4 | 12.6 | 17.39 | OK |
| 478_28 | 213.8 | 12.9 | 16.52 | OK |
| 478_29 | 217.7 | 8.2 | 26.66 | OK |
| 478_30 | 213.0 | 8.5 | 24.96 | OK |
| 478_31 | 217.6 | 7.1 | 30.52 | OK |
| 478_32 | 213.0 | 7.5 | 28.42 | OK |
| 478_33 | 216.4 | 5.9 | 36.43 | OK |
| 478_34 | 211.7 | 5.8 | 36.67 | OK |
| 478_35 | 216.4 | 6.9 | 31.41 | OK |
| 478_36 | 211.7 | 6.7 | 31.44 | OK |
| 478_37 | 221.2 | 13.8 | 16.02 | OK |
| 478_38 | 216.5 | 13.5 | 16.05 | OK |
| 478_39 | 218.8 | 21.8 | 10.05 | OK |
| 478_40 | 214.1 | 21.5 | 9.98 | OK |
| 478_41 | 218.8 | 14.1 | 15.48 | OK |
| 478_42 | 214.1 | 13.8 | 15.51 | OK |
| 478_43 | 218.8 | 14.2 | 15.37 | OK |
| 478_44 | 214.1 | 13.9 | 15.40 | OK |
| 478_45 | 219.5 | 13.6 | 16.15 | OK |
| 478_46 | 214.9 | 13.4 | 16.08 | OK |
| 478_47 | 216.1 | 20.6 | 10.51 | OK |
| 478_48 | 211.4 | 20.3 | 10.39 | OK |
| 478_49 | 217.1 | 14.6 | 14.83 | OK |
| 478_50 | 212.4 | 14.4 | 14.74 | OK |
| 478_51 | 217.2 | 14.9 | 14.53 | OK |
| 478_52 | 212.5 | 14.7 | 14.44 | OK |
| 478_53 | 216.2 | 21.9 | 9.85 | OK |
| 478_54 | 211.5 | 21.6 | 9.80 | OK |
| 478_55 | 216.1 | 14.4 | 15.03 | OK |
| 478_56 | 211.5 | 14.0 | 15.13 | OK |
| 478_57 | 216.2 | 14.3 | 15.09 | OK |
| 478_58 | 211.5 | 13.9 | 15.19 | OK |
| 478_59 | 214.1 | 17.4 | 12.30 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_60 | 209.5 | 17.0 | 12.33 | OK |
| 478_61 | 214.9 | 13.0 | 16.53 | OK |
| 478_62 | 210.3 | 12.6 | 16.72 | OK |
| 478_63 | 214.9 | 12.9 | 16.72 | OK |
| 478_64 | 210.3 | 12.4 | 16.92 | OK |
| 478_65 | 216.4 | 4.5 | 48.15 | OK |
| 478_66 | 211.8 | 4.9 | 43.39 | OK |
| 478_67 | 216.4 | 3.6 | 60.79 | OK |
| 478_68 | 211.8 | 3.9 | 53.97 | OK |
| 478_69 | 216.1 | 1.2 | 173.05 | OK |
| 478_70 | 211.5 | 0.9 | 234.87 | OK |
| 478_71 | 216.1 | 2.9 | 75.63 | OK |
| 478_72 | 211.5 | 2.3 | 90.76 | OK |
| 478_73 | 211.6 | 1.8 | 119.51 | OK |
| 478_74 | 194.0 | 1.2 | 156.34 | OK |
| 478_75 | 190.8 | 1.0 | 182.52 | OK |
| 478_76 | 193.9 | 2.3 | 86.04 | OK |
| 478_77 | 190.8 | 2.1 | 91.43 | OK |
| 478_78 | 198.7 | 11.2 | 17.77 | OK |
| 478_79 | 195.6 | 11.4 | 17.19 | OK |
| 478_80 | 196.3 | 19.2 | 10.22 | OK |
| 478_81 | 193.2 | 19.4 | 9.96 | OK |
| 478_82 | 196.3 | 11.2 | 17.53 | OK |
| 478_83 | 193.2 | 11.4 | 16.96 | OK |
| 478_84 | 196.3 | 11.1 | 17.65 | OK |
| 478_85 | 193.2 | 11.3 | 17.10 | OK |
| 478_86 | 200.3 | 11.0 | 18.21 | OK |
| 478_87 | 197.2 | 11.1 | 17.72 | OK |
| 478_88 | 199.1 | 17.1 | 11.67 | OK |
| 478_89 | 195.9 | 17.2 | 11.40 | OK |
| 478_90 | 198.0 | 11.1 | 17.77 | OK |
| 478_91 | 194.9 | 11.3 | 17.29 | OK |
| 478_92 | 198.0 | 9.7 | 20.51 | OK |
| 478_93 | 194.8 | 9.8 | 19.93 | OK |
| 478_94 | 193.7 | 19.2 | 10.07 | OK |
| 478_95 | 190.6 | 19.4 | 9.81 | OK |
| 478_96 | 193.7 | 11.2 | 17.33 | OK |
| 478_97 | 190.7 | 11.4 | 16.75 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_98 | 193.7 | 11.2 | 17.37 | OK |
| 478_99 | 190.6 | 11.3 | 16.83 | OK |
| 478_100 | 195.7 | 12.8 | 15.28 | OK |
| 478_101 | 192.7 | 13.1 | 14.74 | OK |
| 478_102 | 195.0 | 8.4 | 23.18 | OK |
| 478_103 | 191.9 | 8.7 | 22.16 | OK |
| 478_104 | 194.9 | 7.4 | 26.44 | OK |
| 478_105 | 191.8 | 7.6 | 25.18 | OK |
| 478_106 | 193.6 | 5.8 | 33.23 | OK |
| 478_107 | 190.5 | 5.7 | 33.30 | OK |
| 478_108 | 193.7 | 6.8 | 28.54 | OK |
| 478_109 | 190.6 | 6.7 | 28.50 | OK |
| 478_110 | 198.4 | 13.6 | 14.60 | OK |
| 478_111 | 195.3 | 13.4 | 14.60 | OK |
| 478_112 | 196.1 | 21.6 | 9.09 | OK |
| 478_113 | 192.9 | 21.4 | 9.03 | OK |
| 478_114 | 196.0 | 13.9 | 14.09 | OK |
| 478_115 | 192.9 | 13.7 | 14.09 | OK |
| 478_116 | 196.1 | 14.0 | 13.99 | OK |
| 478_117 | 192.9 | 13.8 | 13.98 | OK |
| 478_118 | 196.8 | 13.4 | 14.64 | OK |
| 478_119 | 193.7 | 13.3 | 14.58 | OK |
| 478_120 | 193.3 | 20.4 | 9.47 | OK |
| 478_121 | 190.2 | 20.3 | 9.39 | OK |
| 478_122 | 194.4 | 14.5 | 13.41 | OK |
| 478_123 | 191.3 | 14.3 | 13.34 | OK |
| 478_124 | 194.4 | 14.8 | 13.14 | OK |
| 478_125 | 191.3 | 14.6 | 13.07 | OK |
| 478_126 | 193.5 | 21.7 | 8.91 | OK |
| 478_127 | 190.4 | 21.5 | 8.86 | OK |
| 478_128 | 193.4 | 14.1 | 13.71 | OK |
| 478_129 | 190.3 | 13.8 | 13.75 | OK |
| 478_130 | 193.5 | 14.1 | 13.76 | OK |
| 478_131 | 190.4 | 13.8 | 13.80 | OK |
| 478_132 | 191.4 | 17.1 | 11.17 | OK |
| 478_133 | 188.3 | 16.9 | 11.18 | OK |
| 478_134 | 192.2 | 12.7 | 15.11 | OK |
| 478_135 | 189.1 | 12.4 | 15.21 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_136 | 192.2 | 12.6 | 15.29 | OK |
| 478_137 | 189.2 | 12.3 | 15.39 | OK |
| 478_138 | 193.7 | 4.7 | 40.79 | OK |
| 478_139 | 190.6 | 5.0 | 38.01 | OK |
| 478_140 | 193.7 | 3.8 | 50.99 | OK |
| 478_141 | 190.6 | 4.1 | 47.02 | OK |
| 478_142 | 193.4 | 1.0 | 193.63 | OK |
| 478_143 | 190.3 | 0.8 | 229.71 | OK |
| 478_144 | 193.4 | 2.5 | 77.18 | OK |
| 478_145 | 190.3 | 2.2 | 88.32 | OK |
| 478_146 | 192.0 | 1.8 | 108.43 | OK |
| 478_147 | 211.7 | 1.0 | 209.02 | OK |
| 478_148 | 212.0 | 1.1 | 191.84 | OK |
| 478_149 | 212.0 | 1.7 | 121.49 | OK |
| 478_150 | 214.7 | 7.3 | 29.56 | OK |
| 478_151 | 215.4 | 11.2 | 19.24 | OK |
| 478_152 | 214.6 | 6.3 | 34.21 | OK |
| 478_153 | 216.2 | 7.2 | 30.16 | OK |
| 478_154 | 213.6 | 7.2 | 29.64 | OK |
| 478_155 | 213.5 | 12.6 | 17.00 | OK |
| 478_156 | 213.5 | 7.2 | 29.74 | OK |
| 478_157 | 215.1 | 7.2 | 29.89 | OK |
| 478_158 | 212.6 | 5.3 | 40.24 | OK |
| 478_159 | 213.1 | 8.2 | 25.97 | OK |
| 478_160 | 212.6 | 4.6 | 46.24 | OK |
| 478_161 | 211.8 | 7.2 | 29.43 | OK |
| 478_162 | 211.8 | 12.6 | 16.82 | OK |
| 478_163 | 211.8 | 7.2 | 29.37 | OK |
| 478_164 | 211.8 | 2.6 | 82.69 | OK |
| 478_165 | 211.8 | 4.0 | 52.43 | OK |
| 478_166 | 211.8 | 4.7 | 45.36 | OK |
| 478_167 | 212.3 | 9.9 | 21.51 | OK |
| 478_168 | 211.5 | 13.8 | 15.32 | OK |
| 478_169 | 212.3 | 10.1 | 21.08 | OK |
| 478_170 | 213.9 | 9.2 | 23.32 | OK |
| 478_171 | 213.4 | 9.6 | 22.31 | OK |
| 478_172 | 213.4 | 14.6 | 14.57 | OK |
| 478_173 | 213.4 | 9.6 | 22.14 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_174 | 215.0 | 9.3 | 23.00 | OK |
| 478_175 | 210.7 | 8.9 | 23.79 | OK |
| 478_176 | 210.2 | 11.8 | 17.82 | OK |
| 478_177 | 210.8 | 8.8 | 24.06 | OK |
| 478_178 | 211.6 | 9.8 | 21.67 | OK |
| 478_179 | 211.6 | 14.8 | 14.31 | OK |
| 478_180 | 211.6 | 9.7 | 21.76 | OK |

Capacità portante – verifiche statiche

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B' \cdot L')$ kPa | | |
| 477_1 | (3449. + 1108. +) /2.3 = | 1981.1 | 78.69 | 25.18 | OK |
| 477_2 | (3411. + 1118. +) /2.3 = | 1969.1 | 75.21 | 26.18 | OK |
| 477_3 | (3407. + 1113. +) /2.3 = | 1965.2 | 80.53 | 24.40 | OK |
| 477_4 | (3366. + 1121. +) /2.3 = | 1951.0 | 77.09 | 25.31 | OK |
| 477_5 | (2962. + 804. +) /2.3 = | 1637.4 | 101.40 | 16.15 | OK |
| 477_6 | (2912. + 795. +) /2.3 = | 1611.8 | 98.36 | 16.39 | OK |
| 477_7 | (2518. + 543. +) /2.3 = | 1330.9 | 149.62 | 8.90 | OK |
| 477_8 | (2465. + 522. +) /2.3 = | 1298.5 | 148.56 | 8.74 | OK |
| 477_9 | (2942. + 805. +) /2.3 = | 1629.3 | 99.02 | 16.45 | OK |
| 477_10 | (2890. + 795. +) /2.3 = | 1602.5 | 96.05 | 16.68 | OK |
| 477_11 | (2933. + 808. +) /2.3 = | 1626.2 | 97.92 | 16.61 | OK |
| 477_12 | (2881. + 798. +) /2.3 = | 1599.3 | 94.99 | 16.84 | OK |
| 477_13 | (3222. + 1105. +) /2.3 = | 1881.5 | 76.83 | 24.49 | OK |
| 477_14 | (3154. + 1114. +) /2.3 = | 1855.7 | 76.98 | 24.11 | OK |
| 477_15 | (2931. + 1096. +) /2.3 = | 1750.6 | 89.40 | 19.58 | OK |
| 477_16 | (2857. + 1102. +) /2.3 = | 1721.2 | 90.53 | 19.01 | OK |
| 477_17 | (3182. + 1102. +) /2.3 = | 1862.6 | 77.46 | 24.05 | OK |
| 477_18 | (3113. + 1110. +) /2.3 = | 1836.0 | 77.70 | 23.63 | OK |
| 477_19 | (3163. + 1104. +) /2.3 = | 1855.2 | 78.47 | 23.64 | OK |
| 477_20 | (3093. + 1112. +) /2.3 = | 1828.4 | 78.77 | 23.21 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 477_21 | (2601. + 583. +) /2.3 = | 1384.7 | 152.20 | 9.10 | OK |
| 477_22 | (2531. + 555. +) /2.3 = | 1341.5 | 150.10 | 8.94 | OK |
| 477_23 | (3004. + 822. +) /2.3 = | 1663.7 | 105.57 | 15.76 | OK |
| 477_24 | (2941. + 810. +) /2.3 = | 1630.9 | 101.01 | 16.15 | OK |
| 477_25 | (3003. + 822. +) /2.3 = | 1663.1 | 105.47 | 15.77 | OK |
| 477_26 | (2940. + 810. +) /2.3 = | 1630.5 | 100.91 | 16.16 | OK |
| 477_27 | (3152. + 1108. +) /2.3 = | 1852.3 | 83.43 | 22.20 | OK |
| 477_28 | (3076. + 1114. +) /2.3 = | 1822.0 | 82.63 | 22.05 | OK |
| 477_29 | (3325. + 1108. +) /2.3 = | 1927.5 | 76.76 | 25.11 | OK |
| 477_30 | (3255. + 1116. +) /2.3 = | 1900.6 | 75.51 | 25.17 | OK |
| 477_31 | (3326. + 1110. +) /2.3 = | 1928.6 | 76.85 | 25.10 | OK |
| 477_32 | (3256. + 1118. +) /2.3 = | 1901.8 | 75.60 | 25.16 | OK |
| 477_33 | (3331. + 1110. +) /2.3 = | 1931.0 | 83.51 | 23.12 | OK |
| 477_34 | (3359. + 1117. +) /2.3 = | 1945.8 | 77.15 | 25.22 | OK |
| 477_35 | (3410. + 1109. +) /2.3 = | 1964.8 | 80.23 | 24.49 | OK |
| 477_36 | (3442. + 1115. +) /2.3 = | 1981.2 | 74.02 | 26.76 | OK |
| 477_37 | (2893. + 714. +) /2.3 = | 1568.2 | 119.78 | 13.09 | OK |
| 477_38 | (2872. + 721. +) /2.3 = | 1561.9 | 114.03 | 13.70 | OK |
| 477_39 | (2438. + 464. +) /2.3 = | 1261.4 | 185.84 | 6.79 | OK |
| 477_40 | (2411. + 459. +) /2.3 = | 1247.8 | 179.52 | 6.95 | OK |
| 477_41 | (2886. + 708. +) /2.3 = | 1562.6 | 119.56 | 13.07 | OK |
| 477_42 | (2864. + 715. +) /2.3 = | 1556.1 | 113.77 | 13.68 | OK |
| 477_43 | (2865. + 718. +) /2.3 = | 1558.1 | 115.74 | 13.46 | OK |
| 477_44 | (2843. + 725. +) /2.3 = | 1551.1 | 110.15 | 14.08 | OK |
| 477_45 | (2809. + 1089. +) /2.3 = | 1694.6 | 99.77 | 16.99 | OK |
| 477_46 | (2844. + 1099. +) /2.3 = | 1714.3 | 94.03 | 18.23 | OK |
| 477_47 | (2566. + 1073. +) /2.3 = | 1582.1 | 119.84 | 13.20 | OK |
| 477_48 | (2596. + 1083. +) /2.3 = | 1599.4 | 112.74 | 14.19 | OK |
| 477_49 | (2799. + 1087. +) /2.3 = | 1689.3 | 99.32 | 17.01 | OK |
| 477_50 | (2834. + 1097. +) /2.3 = | 1709.0 | 93.54 | 18.27 | OK |
| 477_51 | (2858. + 1090. +) /2.3 = | 1716.2 | 95.35 | 18.00 | OK |
| 477_52 | (2895. + 1099. +) /2.3 = | 1736.5 | 89.82 | 19.33 | OK |
| 477_53 | (2528. + 508. +) /2.3 = | 1319.8 | 184.63 | 7.15 | OK |
| 477_54 | (2481. + 493. +) /2.3 = | 1293.1 | 178.77 | 7.23 | OK |
| 477_55 | (2952. + 729. +) /2.3 = | 1600.3 | 125.77 | 12.72 | OK |
| 477_56 | (2916. + 731. +) /2.3 = | 1585.7 | 118.64 | 13.37 | OK |
| 477_57 | (2939. + 736. +) /2.3 = | 1597.9 | 123.24 | 12.96 | OK |
| 477_58 | (2903. + 738. +) /2.3 = | 1582.9 | 116.23 | 13.62 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 477_59 | (2736. + 1084. +) /2.3 = | 1660.5 | 112.75 | 14.73 | OK |
| 477_60 | (2762. + 1091. +) /2.3 = | 1675.0 | 104.97 | 15.96 | OK |
| 477_61 | (2895. + 1094. +) /2.3 = | 1734.4 | 100.31 | 17.29 | OK |
| 477_62 | (2928. + 1102. +) /2.3 = | 1751.9 | 93.21 | 18.80 | OK |
| 477_63 | (2932. + 1096. +) /2.3 = | 1751.5 | 97.95 | 17.88 | OK |
| 477_64 | (2967. + 1104. +) /2.3 = | 1769.7 | 90.99 | 19.45 | OK |
| 477_65 | (3127. + 1121. +) /2.3 = | 1847.0 | 85.63 | 21.57 | OK |
| 477_66 | (3178. + 1130. +) /2.3 = | 1872.8 | 79.46 | 23.57 | OK |
| 477_67 | (3215. + 1121. +) /2.3 = | 1885.3 | 81.49 | 23.13 | OK |
| 477_68 | (3268. + 1130. +) /2.3 = | 1912.5 | 75.61 | 25.29 | OK |
| 477_69 | (2968. + 1107. +) /2.3 = | 1771.8 | 93.38 | 18.97 | OK |
| 477_70 | (3012. + 1116. +) /2.3 = | 1794.9 | 86.69 | 20.71 | OK |
| 477_71 | (3014. + 1106. +) /2.3 = | 1791.3 | 90.44 | 19.81 | OK |
| 477_72 | (3060. + 1114. +) /2.3 = | 1815.1 | 83.94 | 21.62 | OK |
| 477_73 | (3269. + 1121. +) /2.3 = | 1908.6 | 75.01 | 25.44 | OK |
| 477_74 | (3420. + 1111. +) /2.3 = | 1970.1 | 70.68 | 27.87 | OK |
| 477_75 | (3390. + 1118. +) /2.3 = | 1959.8 | 68.37 | 28.66 | OK |
| 477_76 | (3372. + 1115. +) /2.3 = | 1951.0 | 72.57 | 26.88 | OK |
| 477_77 | (3339. + 1122. +) /2.3 = | 1939.5 | 70.30 | 27.59 | OK |
| 477_78 | (2874. + 763. +) /2.3 = | 1581.2 | 95.38 | 16.58 | OK |
| 477_79 | (2836. + 754. +) /2.3 = | 1561.2 | 93.44 | 16.71 | OK |
| 477_80 | (2385. + 464. +) /2.3 = | 1238.5 | 155.16 | 7.98 | OK |
| 477_81 | (2345. + 446. +) /2.3 = | 1213.5 | 155.67 | 7.80 | OK |
| 477_82 | (2851. + 762. +) /2.3 = | 1571.0 | 93.00 | 16.89 | OK |
| 477_83 | (2812. + 753. +) /2.3 = | 1550.1 | 91.12 | 17.01 | OK |
| 477_84 | (2841. + 765. +) /2.3 = | 1567.6 | 91.86 | 17.06 | OK |
| 477_85 | (2804. + 755. +) /2.3 = | 1547.1 | 90.19 | 17.15 | OK |
| 477_86 | (3147. + 1107. +) /2.3 = | 1849.6 | 71.45 | 25.88 | OK |
| 477_87 | (3096. + 1113. +) /2.3 = | 1829.9 | 71.66 | 25.54 | OK |
| 477_88 | (2823. + 1093. +) /2.3 = | 1702.6 | 85.59 | 19.89 | OK |
| 477_89 | (2767. + 1097. +) /2.3 = | 1680.1 | 86.69 | 19.38 | OK |
| 477_90 | (3102. + 1102. +) /2.3 = | 1828.1 | 72.20 | 25.32 | OK |
| 477_91 | (3050. + 1108. +) /2.3 = | 1807.7 | 72.49 | 24.94 | OK |
| 477_92 | (3081. + 1105. +) /2.3 = | 1819.7 | 73.30 | 24.82 | OK |
| 477_93 | (3028. + 1110. +) /2.3 = | 1799.2 | 73.64 | 24.43 | OK |
| 477_94 | (2468. + 507. +) /2.3 = | 1293.6 | 154.54 | 8.37 | OK |
| 477_95 | (2414. + 482. +) /2.3 = | 1259.2 | 154.70 | 8.14 | OK |
| 477_96 | (2914. + 782. +) /2.3 = | 1607.0 | 98.32 | 16.34 | OK |
| 477_97 | (2866. + 770. +) /2.3 = | 1580.7 | 95.42 | 16.57 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 477_98 | (2913. + 782. +) /2.3 = | 1606.5 | 98.22 | 16.36 | OK |
| 477_99 | (2865. + 770. +) /2.3 = | 1580.3 | 95.32 | 16.58 | OK |
| 477_100 | (3067. + 1108. +) /2.3 = | 1815.3 | 77.51 | 23.42 | OK |
| 477_101 | (3009. + 1112. +) /2.3 = | 1791.7 | 77.15 | 23.22 | OK |
| 477_102 | (3261. + 1110. +) /2.3 = | 1900.1 | 70.30 | 27.03 | OK |
| 477_103 | (3207. + 1115. +) /2.3 = | 1879.1 | 69.54 | 27.02 | OK |
| 477_104 | (3262. + 1111. +) /2.3 = | 1901.4 | 70.39 | 27.01 | OK |
| 477_105 | (3208. + 1117. +) /2.3 = | 1880.5 | 69.64 | 27.00 | OK |
| 477_106 | (3338. + 1111. +) /2.3 = | 1934.3 | 73.61 | 26.28 | OK |
| 477_107 | (3359. + 1116. +) /2.3 = | 1945.4 | 69.38 | 28.04 | OK |
| 477_108 | (3427. + 1109. +) /2.3 = | 1972.2 | 70.39 | 28.02 | OK |
| 477_109 | (3443. + 1116. +) /2.3 = | 1982.2 | 66.71 | 29.71 | OK |
| 477_110 | (2817. + 677. +) /2.3 = | 1519.2 | 113.57 | 13.38 | OK |
| 477_111 | (2801. + 681. +) /2.3 = | 1513.5 | 109.63 | 13.81 | OK |
| 477_112 | (2312. + 390. +) /2.3 = | 1174.7 | 197.23 | 5.96 | OK |
| 477_113 | (2291. + 384. +) /2.3 = | 1163.4 | 193.43 | 6.01 | OK |
| 477_114 | (2808. + 670. +) /2.3 = | 1512.3 | 113.47 | 13.33 | OK |
| 477_115 | (2791. + 674. +) /2.3 = | 1506.5 | 109.50 | 13.76 | OK |
| 477_116 | (2786. + 680. +) /2.3 = | 1506.9 | 109.46 | 13.77 | OK |
| 477_117 | (2769. + 683. +) /2.3 = | 1500.8 | 105.65 | 14.21 | OK |
| 477_118 | (2771. + 1088. +) /2.3 = | 1677.8 | 91.63 | 18.31 | OK |
| 477_119 | (2796. + 1096. +) /2.3 = | 1692.0 | 87.69 | 19.30 | OK |
| 477_120 | (2501. + 1069. +) /2.3 = | 1552.4 | 113.39 | 13.69 | OK |
| 477_121 | (2522. + 1076. +) /2.3 = | 1564.7 | 108.33 | 14.44 | OK |
| 477_122 | (2759. + 1086. +) /2.3 = | 1671.7 | 91.23 | 18.32 | OK |
| 477_123 | (2784. + 1093. +) /2.3 = | 1686.0 | 87.25 | 19.32 | OK |
| 477_124 | (2824. + 1089. +) /2.3 = | 1701.6 | 87.07 | 19.54 | OK |
| 477_125 | (2851. + 1097. +) /2.3 = | 1716.4 | 83.29 | 20.61 | OK |
| 477_126 | (2401. + 436. +) /2.3 = | 1233.6 | 191.34 | 6.45 | OK |
| 477_127 | (2364. + 422. +) /2.3 = | 1211.3 | 188.72 | 6.42 | OK |
| 477_128 | (2874. + 693. +) /2.3 = | 1550.7 | 118.42 | 13.09 | OK |
| 477_129 | (2846. + 692. +) /2.3 = | 1538.2 | 113.66 | 13.53 | OK |
| 477_130 | (2860. + 700. +) /2.3 = | 1547.7 | 115.77 | 13.37 | OK |
| 477_131 | (2832. + 698. +) /2.3 = | 1534.9 | 111.09 | 13.82 | OK |
| 477_132 | (2688. + 1081. +) /2.3 = | 1638.3 | 103.91 | 15.77 | OK |
| 477_133 | (2705. + 1086. +) /2.3 = | 1648.3 | 98.57 | 16.72 | OK |
| 477_134 | (2865. + 1093. +) /2.3 = | 1721.1 | 90.85 | 18.94 | OK |
| 477_135 | (2889. + 1099. +) /2.3 = | 1733.6 | 86.04 | 20.15 | OK |
| 477_136 | (2907. + 1096. +) /2.3 = | 1740.3 | 88.43 | 19.68 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 477_137 | (2932. + 1101. +) /2.3 = | 1753.3 | 83.72 | 20.94 | OK |
| 477_138 | (3130. + 1124. +) /2.3 = | 1849.6 | 76.11 | 24.30 | OK |
| 477_139 | (3168. + 1131. +) /2.3 = | 1868.9 | 71.99 | 25.96 | OK |
| 477_140 | (3228. + 1125. +) /2.3 = | 1892.6 | 72.02 | 26.28 | OK |
| 477_141 | (3269. + 1131. +) /2.3 = | 1912.9 | 68.11 | 28.08 | OK |
| 477_142 | (2952. + 1109. +) /2.3 = | 1765.3 | 83.91 | 21.04 | OK |
| 477_143 | (2984. + 1115. +) /2.3 = | 1782.2 | 79.39 | 22.45 | OK |
| 477_144 | (3004. + 1107. +) /2.3 = | 1787.2 | 80.92 | 22.09 | OK |
| 477_145 | (3037. + 1113. +) /2.3 = | 1804.7 | 76.56 | 23.57 | OK |
| 477_146 | (3248. + 1118. +) /2.3 = | 1898.4 | 69.44 | 27.34 | OK |
| 477_147 | (3339. + 1125. +) /2.3 = | 1940.9 | 72.62 | 26.73 | OK |
| 477_148 | (3461. + 1118. +) /2.3 = | 1991.2 | 73.55 | 27.07 | OK |
| 477_149 | (3444. + 1119. +) /2.3 = | 1984.0 | 74.19 | 26.74 | OK |
| 477_150 | (3304. + 1114. +) /2.3 = | 1920.8 | 70.22 | 27.35 | OK |
| 477_151 | (3131. + 1112. +) /2.3 = | 1844.8 | 76.72 | 24.05 | OK |
| 477_152 | (3291. + 1115. +) /2.3 = | 1915.8 | 70.80 | 27.06 | OK |
| 477_153 | (3331. + 1116. +) /2.3 = | 1933.2 | 69.93 | 27.65 | OK |
| 477_154 | (3132. + 915. +) /2.3 = | 1759.5 | 83.52 | 21.07 | OK |
| 477_155 | (2838. + 743. +) /2.3 = | 1557.1 | 104.84 | 14.85 | OK |
| 477_156 | (3124. + 918. +) /2.3 = | 1757.4 | 82.89 | 21.20 | OK |
| 477_157 | (3144. + 912. +) /2.3 = | 1763.6 | 85.01 | 20.75 | OK |
| 477_158 | (3400. + 1117. +) /2.3 = | 1964.2 | 70.70 | 27.78 | OK |
| 477_159 | (3280. + 1119. +) /2.3 = | 1912.5 | 74.65 | 25.62 | OK |
| 477_160 | (3401. + 1118. +) /2.3 = | 1964.9 | 70.75 | 27.77 | OK |
| 477_161 | (3172. + 921. +) /2.3 = | 1779.7 | 88.79 | 20.04 | OK |
| 477_162 | (2892. + 762. +) /2.3 = | 1588.6 | 109.55 | 14.50 | OK |
| 477_163 | (3171. + 921. +) /2.3 = | 1779.2 | 88.74 | 20.05 | OK |
| 477_164 | (3294. + 1121. +) /2.3 = | 1919.5 | 80.02 | 23.99 | OK |
| 477_165 | (3359. + 1119. +) /2.3 = | 1947.0 | 77.33 | 25.18 | OK |
| 477_166 | (3415. + 1118. +) /2.3 = | 1970.7 | 75.20 | 26.21 | OK |
| 477_167 | (2986. + 1106. +) /2.3 = | 1778.9 | 84.51 | 21.05 | OK |
| 477_168 | (2822. + 1099. +) /2.3 = | 1704.9 | 94.41 | 18.06 | OK |
| 477_169 | (3027. + 1107. +) /2.3 = | 1797.4 | 82.43 | 21.81 | OK |
| 477_170 | (2992. + 1107. +) /2.3 = | 1782.0 | 84.89 | 20.99 | OK |
| 477_171 | (3083. + 836. +) /2.3 = | 1703.8 | 94.88 | 17.96 | OK |
| 477_172 | (2778. + 677. +) /2.3 = | 1502.0 | 119.38 | 12.58 | OK |
| 477_173 | (3068. + 845. +) /2.3 = | 1701.3 | 92.86 | 18.32 | OK |
| 477_174 | (3086. + 839. +) /2.3 = | 1706.6 | 95.21 | 17.92 | OK |
| 477_175 | (3046. + 1110. +) /2.3 = | 1806.9 | 86.67 | 20.85 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 477_176 | (2933. + 1104. +) /2.3 = | 1755.3 | 93.23 | 18.83 | OK |
| 477_177 | (3072. + 1111. +) /2.3 = | 1818.8 | 85.37 | 21.31 | OK |
| 477_178 | (3125. + 845. +) /2.3 = | 1726.0 | 100.19 | 17.23 | OK |
| 477_179 | (2835. + 698. +) /2.3 = | 1536.1 | 123.68 | 12.42 | OK |
| 477_180 | (3116. + 851. +) /2.3 = | 1724.8 | 98.84 | 17.45 | OK |
| 478_1 | (3451. + 1094. +) /2.3 = | 1975.8 | 68.80 | 28.72 | OK |
| 478_2 | (3450. + 1108. +) /2.3 = | 1982.0 | 66.33 | 29.88 | OK |
| 478_3 | (3379. + 1104. +) /2.3 = | 1949.1 | 71.82 | 27.14 | OK |
| 478_4 | (3379. + 1118. +) /2.3 = | 1954.9 | 69.18 | 28.26 | OK |
| 478_5 | (2945. + 819. +) /2.3 = | 1636.4 | 96.36 | 16.98 | OK |
| 478_6 | (2912. + 804. +) /2.3 = | 1615.6 | 95.74 | 16.88 | OK |
| 478_7 | (2515. + 554. +) /2.3 = | 1334.4 | 142.28 | 9.38 | OK |
| 478_8 | (2476. + 531. +) /2.3 = | 1307.4 | 144.46 | 9.05 | OK |
| 478_9 | (2939. + 815. +) /2.3 = | 1632.0 | 95.82 | 17.03 | OK |
| 478_10 | (2905. + 800. +) /2.3 = | 1610.8 | 95.22 | 16.92 | OK |
| 478_11 | (2949. + 813. +) /2.3 = | 1635.6 | 96.78 | 16.90 | OK |
| 478_12 | (2912. + 799. +) /2.3 = | 1613.5 | 95.84 | 16.84 | OK |
| 478_13 | (3107. + 1084. +) /2.3 = | 1822.5 | 81.72 | 22.30 | OK |
| 478_14 | (3079. + 1096. +) /2.3 = | 1815.2 | 80.39 | 22.58 | OK |
| 478_15 | (2860. + 1077. +) /2.3 = | 1711.5 | 94.52 | 18.11 | OK |
| 478_16 | (2828. + 1086. +) /2.3 = | 1701.9 | 93.49 | 18.20 | OK |
| 478_17 | (3100. + 1083. +) /2.3 = | 1818.7 | 81.12 | 22.42 | OK |
| 478_18 | (3072. + 1094. +) /2.3 = | 1811.2 | 79.80 | 22.70 | OK |
| 478_19 | (3162. + 1084. +) /2.3 = | 1845.9 | 78.41 | 23.54 | OK |
| 478_20 | (3134. + 1095. +) /2.3 = | 1839.0 | 77.05 | 23.87 | OK |
| 478_21 | (2500. + 545. +) /2.3 = | 1323.9 | 143.04 | 9.26 | OK |
| 478_22 | (2460. + 522. +) /2.3 = | 1296.3 | 145.23 | 8.93 | OK |
| 478_23 | (2930. + 810. +) /2.3 = | 1626.1 | 95.29 | 17.07 | OK |
| 478_24 | (2895. + 795. +) /2.3 = | 1604.4 | 94.62 | 16.96 | OK |
| 478_25 | (2939. + 808. +) /2.3 = | 1629.3 | 96.24 | 16.93 | OK |
| 478_26 | (2899. + 794. +) /2.3 = | 1605.7 | 94.92 | 16.92 | OK |
| 478_27 | (3036. + 1082. +) /2.3 = | 1790.6 | 82.76 | 21.64 | OK |
| 478_28 | (2998. + 1093. +) /2.3 = | 1778.8 | 81.95 | 21.71 | OK |
| 478_29 | (3219. + 1084. +) /2.3 = | 1870.8 | 74.73 | 25.03 | OK |
| 478_30 | (3183. + 1096. +) /2.3 = | 1860.6 | 73.70 | 25.25 | OK |
| 478_31 | (3261. + 1085. +) /2.3 = | 1889.5 | 73.15 | 25.83 | OK |
| 478_32 | (3226. + 1097. +) /2.3 = | 1879.7 | 72.09 | 26.07 | OK |
| 478_33 | (3258. + 1093. +) /2.3 = | 1891.9 | 75.45 | 25.08 | OK |
| 478_34 | (3254. + 1105. +) /2.3 = | 1895.4 | 72.73 | 26.06 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 478_35 | (3207. + 1097. +) /2.3 = | 1871.1 | 77.78 | 24.06 | OK |
| 478_36 | (3202. + 1108. +) /2.3 = | 1874.2 | 75.02 | 24.98 | OK |
| 478_37 | (2862. + 730. +) /2.3 = | 1561.8 | 112.99 | 13.82 | OK |
| 478_38 | (2854. + 732. +) /2.3 = | 1559.2 | 109.65 | 14.22 | OK |
| 478_39 | (2424. + 467. +) /2.3 = | 1257.0 | 178.09 | 7.06 | OK |
| 478_40 | (2409. + 462. +) /2.3 = | 1248.3 | 175.04 | 7.13 | OK |
| 478_41 | (2866. + 721. +) /2.3 = | 1559.5 | 114.49 | 13.62 | OK |
| 478_42 | (2858. + 722. +) /2.3 = | 1556.8 | 111.11 | 14.01 | OK |
| 478_43 | (2876. + 718. +) /2.3 = | 1562.5 | 115.93 | 13.48 | OK |
| 478_44 | (2868. + 719. +) /2.3 = | 1559.8 | 112.52 | 13.86 | OK |
| 478_45 | (2928. + 1101. +) /2.3 = | 1751.4 | 91.70 | 19.10 | OK |
| 478_46 | (2925. + 1109. +) /2.3 = | 1753.8 | 88.58 | 19.80 | OK |
| 478_47 | (2639. + 1084. +) /2.3 = | 1618.7 | 111.17 | 14.56 | OK |
| 478_48 | (2632. + 1091. +) /2.3 = | 1618.5 | 107.73 | 15.02 | OK |
| 478_49 | (2885. + 1096. +) /2.3 = | 1731.0 | 93.07 | 18.60 | OK |
| 478_50 | (2881. + 1104. +) /2.3 = | 1733.0 | 89.90 | 19.28 | OK |
| 478_51 | (2866. + 1098. +) /2.3 = | 1723.4 | 94.57 | 18.22 | OK |
| 478_52 | (2862. + 1106. +) /2.3 = | 1725.3 | 91.37 | 18.88 | OK |
| 478_53 | (2413. + 456. +) /2.3 = | 1247.5 | 181.80 | 6.86 | OK |
| 478_54 | (2396. + 451. +) /2.3 = | 1237.9 | 177.95 | 6.96 | OK |
| 478_55 | (2864. + 712. +) /2.3 = | 1554.4 | 115.38 | 13.47 | OK |
| 478_56 | (2853. + 714. +) /2.3 = | 1550.8 | 111.46 | 13.91 | OK |
| 478_57 | (2865. + 712. +) /2.3 = | 1555.3 | 115.53 | 13.46 | OK |
| 478_58 | (2854. + 714. +) /2.3 = | 1551.6 | 111.60 | 13.90 | OK |
| 478_59 | (2776. + 1084. +) /2.3 = | 1678.0 | 98.94 | 16.96 | OK |
| 478_60 | (2779. + 1092. +) /2.3 = | 1682.9 | 95.06 | 17.70 | OK |
| 478_61 | (2958. + 1094. +) /2.3 = | 1761.6 | 87.74 | 20.08 | OK |
| 478_62 | (2965. + 1102. +) /2.3 = | 1768.1 | 84.20 | 21.00 | OK |
| 478_63 | (2959. + 1095. +) /2.3 = | 1762.8 | 87.88 | 20.06 | OK |
| 478_64 | (2966. + 1104. +) /2.3 = | 1769.3 | 84.34 | 20.98 | OK |
| 478_65 | (3349. + 1092. +) /2.3 = | 1930.9 | 70.30 | 27.47 | OK |
| 478_66 | (3313. + 1105. +) /2.3 = | 1921.2 | 69.27 | 27.73 | OK |
| 478_67 | (3400. + 1088. +) /2.3 = | 1951.4 | 68.40 | 28.53 | OK |
| 478_68 | (3365. + 1102. +) /2.3 = | 1942.3 | 67.34 | 28.84 | OK |
| 478_69 | (3432. + 1112. +) /2.3 = | 1975.5 | 66.06 | 29.91 | OK |
| 478_70 | (3445. + 1121. +) /2.3 = | 1985.2 | 64.08 | 30.98 | OK |
| 478_71 | (3396. + 1100. +) /2.3 = | 1955.0 | 69.12 | 28.28 | OK |
| 478_72 | (3414. + 1109. +) /2.3 = | 1966.7 | 66.13 | 29.74 | OK |
| 478_73 | (3413. + 1118. +) /2.3 = | 1970.3 | 66.75 | 29.52 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 478_74 | (3448. + 1098. +) /2.3 = | 1976.4 | 61.47 | 32.15 | OK |
| 478_75 | (3447. + 1109. +) /2.3 = | 1981.0 | 59.83 | 33.11 | OK |
| 478_76 | (3368. + 1109. +) /2.3 = | 1946.7 | 64.43 | 30.21 | OK |
| 478_77 | (3368. + 1119. +) /2.3 = | 1951.0 | 62.67 | 31.13 | OK |
| 478_78 | (2868. + 774. +) /2.3 = | 1583.3 | 91.77 | 17.25 | OK |
| 478_79 | (2843. + 762. +) /2.3 = | 1567.1 | 91.50 | 17.13 | OK |
| 478_80 | (2391. + 474. +) /2.3 = | 1245.7 | 149.10 | 8.35 | OK |
| 478_81 | (2361. + 455. +) /2.3 = | 1224.3 | 152.05 | 8.05 | OK |
| 478_82 | (2860. + 769. +) /2.3 = | 1577.7 | 91.29 | 17.28 | OK |
| 478_83 | (2834. + 756. +) /2.3 = | 1561.2 | 91.04 | 17.15 | OK |
| 478_84 | (2869. + 767. +) /2.3 = | 1580.9 | 92.07 | 17.17 | OK |
| 478_85 | (2841. + 756. +) /2.3 = | 1563.7 | 91.58 | 17.07 | OK |
| 478_86 | (3051. + 1085. +) /2.3 = | 1798.3 | 75.51 | 23.82 | OK |
| 478_87 | (3030. + 1093. +) /2.3 = | 1792.6 | 74.66 | 24.01 | OK |
| 478_88 | (2777. + 1075. +) /2.3 = | 1674.6 | 89.47 | 18.72 | OK |
| 478_89 | (2753. + 1082. +) /2.3 = | 1667.0 | 88.90 | 18.75 | OK |
| 478_90 | (3042. + 1084. +) /2.3 = | 1793.9 | 74.93 | 23.94 | OK |
| 478_91 | (3021. + 1092. +) /2.3 = | 1788.0 | 74.08 | 24.13 | OK |
| 478_92 | (3110. + 1085. +) /2.3 = | 1824.2 | 72.07 | 25.31 | OK |
| 478_93 | (3090. + 1093. +) /2.3 = | 1818.7 | 71.18 | 25.55 | OK |
| 478_94 | (2374. + 462. +) /2.3 = | 1233.0 | 150.55 | 8.19 | OK |
| 478_95 | (2342. + 444. +) /2.3 = | 1211.2 | 153.65 | 7.88 | OK |
| 478_96 | (2849. + 763. +) /2.3 = | 1570.3 | 90.78 | 17.30 | OK |
| 478_97 | (2822. + 750. +) /2.3 = | 1553.3 | 90.50 | 17.16 | OK |
| 478_98 | (2855. + 762. +) /2.3 = | 1572.3 | 91.33 | 17.22 | OK |
| 478_99 | (2825. + 750. +) /2.3 = | 1554.3 | 90.70 | 17.14 | OK |
| 478_100 | (2965. + 1082. +) /2.3 = | 1759.6 | 77.07 | 22.83 | OK |
| 478_101 | (2936. + 1090. +) /2.3 = | 1750.4 | 76.59 | 22.85 | OK |
| 478_102 | (3167. + 1086. +) /2.3 = | 1848.9 | 68.52 | 26.98 | OK |
| 478_103 | (3140. + 1095. +) /2.3 = | 1841.0 | 67.86 | 27.13 | OK |
| 478_104 | (3213. + 1087. +) /2.3 = | 1869.8 | 66.87 | 27.96 | OK |
| 478_105 | (3187. + 1096. +) /2.3 = | 1862.3 | 66.18 | 28.14 | OK |
| 478_106 | (3233. + 1096. +) /2.3 = | 1882.0 | 68.11 | 27.63 | OK |
| 478_107 | (3229. + 1105. +) /2.3 = | 1884.5 | 66.29 | 28.43 | OK |
| 478_108 | (3176. + 1099. +) /2.3 = | 1858.7 | 70.50 | 26.37 | OK |
| 478_109 | (3172. + 1108. +) /2.3 = | 1860.8 | 68.64 | 27.11 | OK |
| 478_110 | (2793. + 689. +) /2.3 = | 1514.0 | 108.08 | 14.01 | OK |
| 478_111 | (2787. + 689. +) /2.3 = | 1511.3 | 105.82 | 14.28 | OK |
| 478_112 | (2304. + 392. +) /2.3 = | 1172.2 | 191.25 | 6.13 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 478_113 | (2292. + 386. +) /2.3 = | 1164.6 | 189.71 | 6.14 | OK |
| 478_114 | (2796. + 678. +) /2.3 = | 1510.8 | 109.84 | 13.75 | OK |
| 478_115 | (2790. + 679. +) /2.3 = | 1508.0 | 107.54 | 14.02 | OK |
| 478_116 | (2807. + 675. +) /2.3 = | 1514.0 | 111.39 | 13.59 | OK |
| 478_117 | (2800. + 676. +) /2.3 = | 1511.3 | 109.07 | 13.86 | OK |
| 478_118 | (2871. + 1100. +) /2.3 = | 1726.8 | 84.98 | 20.32 | OK |
| 478_119 | (2869. + 1106. +) /2.3 = | 1728.2 | 82.86 | 20.86 | OK |
| 478_120 | (2551. + 1079. +) /2.3 = | 1578.2 | 106.80 | 14.78 | OK |
| 478_121 | (2544. + 1084. +) /2.3 = | 1577.4 | 104.45 | 15.10 | OK |
| 478_122 | (2823. + 1095. +) /2.3 = | 1703.7 | 86.52 | 19.69 | OK |
| 478_123 | (2820. + 1101. +) /2.3 = | 1704.8 | 84.37 | 20.21 | OK |
| 478_124 | (2802. + 1097. +) /2.3 = | 1695.2 | 88.14 | 19.23 | OK |
| 478_125 | (2799. + 1103. +) /2.3 = | 1696.2 | 85.96 | 19.73 | OK |
| 478_126 | (2289. + 379. +) /2.3 = | 1159.9 | 196.45 | 5.90 | OK |
| 478_127 | (2275. + 374. +) /2.3 = | 1151.7 | 194.33 | 5.93 | OK |
| 478_128 | (2790. + 669. +) /2.3 = | 1503.9 | 110.60 | 13.60 | OK |
| 478_129 | (2781. + 670. +) /2.3 = | 1500.5 | 107.91 | 13.90 | OK |
| 478_130 | (2792. + 669. +) /2.3 = | 1504.8 | 110.76 | 13.59 | OK |
| 478_131 | (2783. + 670. +) /2.3 = | 1501.3 | 108.07 | 13.89 | OK |
| 478_132 | (2707. + 1080. +) /2.3 = | 1646.9 | 92.62 | 17.78 | OK |
| 478_133 | (2709. + 1086. +) /2.3 = | 1650.1 | 89.94 | 18.35 | OK |
| 478_134 | (2910. + 1093. +) /2.3 = | 1740.4 | 80.54 | 21.61 | OK |
| 478_135 | (2914. + 1099. +) /2.3 = | 1744.9 | 78.12 | 22.34 | OK |
| 478_136 | (2911. + 1095. +) /2.3 = | 1741.8 | 80.68 | 21.59 | OK |
| 478_137 | (2916. + 1101. +) /2.3 = | 1746.3 | 78.26 | 22.31 | OK |
| 478_138 | (3310. + 1096. +) /2.3 = | 1915.4 | 63.98 | 29.94 | OK |
| 478_139 | (3283. + 1105. +) /2.3 = | 1907.9 | 63.32 | 30.13 | OK |
| 478_140 | (3367. + 1092. +) /2.3 = | 1938.5 | 62.02 | 31.26 | OK |
| 478_141 | (3341. + 1102. +) /2.3 = | 1931.4 | 61.33 | 31.49 | OK |
| 478_142 | (3434. + 1115. +) /2.3 = | 1978.0 | 58.89 | 33.59 | OK |
| 478_143 | (3453. + 1118. +) /2.3 = | 1987.2 | 58.01 | 34.25 | OK |
| 478_144 | (3401. + 1101. +) /2.3 = | 1957.6 | 61.45 | 31.86 | OK |
| 478_145 | (3414. + 1108. +) /2.3 = | 1966.3 | 59.46 | 33.07 | OK |
| 478_146 | (3407. + 1115. +) /2.3 = | 1965.8 | 61.07 | 32.19 | OK |
| 478_147 | (3457. + 1114. +) /2.3 = | 1987.6 | 65.22 | 30.47 | OK |
| 478_148 | (3459. + 1106. +) /2.3 = | 1984.7 | 65.90 | 30.12 | OK |
| 478_149 | (3410. + 1113. +) /2.3 = | 1966.5 | 67.88 | 28.97 | OK |
| 478_150 | (3228. + 1100. +) /2.3 = | 1881.6 | 73.00 | 25.77 | OK |
| 478_151 | (3061. + 1097. +) /2.3 = | 1807.9 | 80.34 | 22.50 | OK |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 478_152 | (3271. + 1100. +) /2.3 = | 1900.2 | 71.43 | 26.60 | OK |
| 478_153 | (3232. + 1100. +) /2.3 = | 1883.8 | 73.42 | 25.66 | OK |
| 478_154 | (3120. + 928. +) /2.3 = | 1759.8 | 80.75 | 21.79 | OK |
| 478_155 | (2827. + 756. +) /2.3 = | 1557.5 | 100.31 | 15.53 | OK |
| 478_156 | (3129. + 925. +) /2.3 = | 1762.9 | 81.43 | 21.65 | OK |
| 478_157 | (3123. + 929. +) /2.3 = | 1761.9 | 81.18 | 21.70 | OK |
| 478_158 | (3315. + 1100. +) /2.3 = | 1919.3 | 69.00 | 27.81 | OK |
| 478_159 | (3189. + 1099. +) /2.3 = | 1864.5 | 73.68 | 25.31 | OK |
| 478_160 | (3343. + 1100. +) /2.3 = | 1932.1 | 68.05 | 28.39 | OK |
| 478_161 | (3116. + 925. +) /2.3 = | 1757.1 | 80.33 | 21.87 | OK |
| 478_162 | (2822. + 751. +) /2.3 = | 1553.2 | 100.44 | 15.46 | OK |
| 478_163 | (3126. + 922. +) /2.3 = | 1760.2 | 81.12 | 21.70 | OK |
| 478_164 | (3402. + 1103. +) /2.3 = | 1958.9 | 67.46 | 29.04 | OK |
| 478_165 | (3328. + 1106. +) /2.3 = | 1928.1 | 70.11 | 27.50 | OK |
| 478_166 | (3294. + 1109. +) /2.3 = | 1914.1 | 71.51 | 26.77 | OK |
| 478_167 | (3069. + 1112. +) /2.3 = | 1817.8 | 80.05 | 22.71 | OK |
| 478_168 | (2899. + 1107. +) /2.3 = | 1741.8 | 88.68 | 19.64 | OK |
| 478_169 | (3055. + 1114. +) /2.3 = | 1812.7 | 80.82 | 22.43 | OK |
| 478_170 | (3097. + 1115. +) /2.3 = | 1831.1 | 79.47 | 23.04 | OK |
| 478_171 | (3063. + 852. +) /2.3 = | 1702.4 | 91.17 | 18.67 | OK |
| 478_172 | (2760. + 686. +) /2.3 = | 1498.3 | 114.66 | 13.07 | OK |
| 478_173 | (3071. + 849. +) /2.3 = | 1704.5 | 91.93 | 18.54 | OK |
| 478_174 | (3058. + 859. +) /2.3 = | 1703.0 | 90.57 | 18.80 | OK |
| 478_175 | (3116. + 1110. +) /2.3 = | 1837.5 | 77.28 | 23.78 | OK |
| 478_176 | (2991. + 1105. +) /2.3 = | 1781.0 | 83.02 | 21.45 | OK |
| 478_177 | (3117. + 1111. +) /2.3 = | 1838.3 | 77.36 | 23.76 | OK |
| 478_178 | (3065. + 846. +) /2.3 = | 1700.4 | 91.58 | 18.57 | OK |
| 478_179 | (2759. + 679. +) /2.3 = | 1494.6 | 115.59 | 12.93 | OK |
| 478_180 | (3067. + 846. +) /2.3 = | 1701.1 | 91.66 | 18.56 | OK |

Ribaltamento – verifiche sismiche

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 477_181 | 332.00 | 332.00 | 58.10 | 6.08 | 5.71 | OK |
| 477_182 | 336.39 | 336.39 | 57.47 | 64.35 | 5.23 | OK |
| 477_183 | 331.53 | 331.53 | 71.12 | 6.91 | 4.66 | OK |
| 477_184 | 335.92 | 335.92 | 71.76 | 63.44 | 4.68 | OK |
| 477_185 | 332.01 | 332.01 | 57.67 | 6.17 | 5.76 | OK |
| 477_186 | 336.38 | 336.38 | 57.90 | 64.45 | 5.22 | OK |
| 477_187 | 331.54 | 331.54 | 71.54 | 7.01 | 4.63 | OK |
| 477_188 | 335.91 | 335.91 | 71.32 | 63.53 | 4.71 | OK |
| 477_189 | 332.11 | 332.11 | 50.42 | 6.22 | 6.59 | OK |
| 477_190 | 336.50 | 336.50 | 49.78 | 64.24 | 5.24 | OK |
| 477_191 | 331.42 | 331.42 | 63.43 | 6.77 | 5.23 | OK |
| 477_192 | 335.81 | 335.81 | 64.07 | 63.56 | 5.24 | OK |
| 477_193 | 332.12 | 332.12 | 49.98 | 6.31 | 6.64 | OK |
| 477_194 | 336.49 | 336.49 | 50.22 | 64.33 | 5.23 | OK |
| 477_195 | 331.43 | 331.43 | 63.87 | 6.87 | 5.19 | OK |
| 477_196 | 335.80 | 335.80 | 63.64 | 63.65 | 5.28 | OK |
| 477_197 | 326.72 | 326.72 | 13.62 | 79.14 | 4.13 | OK |
| 477_198 | 341.35 | 341.35 | 11.49 | 137.73 | 2.48 | OK |
| 477_199 | 326.58 | 326.58 | 25.15 | 79.39 | 4.11 | OK |
| 477_200 | 341.21 | 341.21 | 27.27 | 137.45 | 2.48 | OK |
| 477_201 | 326.75 | 326.75 | 11.32 | 79.18 | 4.13 | OK |
| 477_202 | 341.38 | 341.38 | 9.19 | 137.70 | 2.48 | OK |
| 477_203 | 326.54 | 326.54 | 22.84 | 79.34 | 4.12 | OK |
| 477_204 | 341.17 | 341.17 | 24.96 | 137.49 | 2.48 | OK |
| 477_205 | 326.75 | 326.75 | 12.17 | 79.45 | 4.11 | OK |
| 477_206 | 341.32 | 341.32 | 12.94 | 138.08 | 2.47 | OK |
| 477_207 | 326.61 | 326.61 | 26.58 | 79.70 | 4.10 | OK |
| 477_208 | 341.18 | 341.18 | 25.82 | 137.73 | 2.48 | OK |
| 477_209 | 326.78 | 326.78 | 9.87 | 79.50 | 4.11 | OK |
| 477_210 | 341.35 | 341.35 | 10.63 | 138.06 | 2.47 | OK |
| 477_211 | 326.57 | 326.57 | 24.28 | 79.67 | 4.10 | OK |
| 477_212 | 341.14 | 341.14 | 23.52 | 137.76 | 2.48 | OK |
| 478_181 | 317.62 | 317.62 | 29.85 | 19.65 | 10.64 | OK |
| 478_182 | 313.63 | 313.63 | 30.72 | 44.02 | 7.13 | OK |
| 478_183 | 318.11 | 318.11 | 45.97 | 18.50 | 6.92 | OK |
| 478_184 | 314.13 | 314.13 | 45.10 | 45.25 | 6.94 | OK |
| 478_185 | 317.64 | 317.64 | 30.47 | 19.77 | 10.43 | OK |
| 478_186 | 313.61 | 313.61 | 30.10 | 44.14 | 7.11 | OK |

| Azioni a base plinto | VERIFICA A RIBALTAMENTO EQU | | | | | |
|---|---|---|---|---|---|---|
| | Rd | | Ed | | Rd/Ed | |
| COMB | dir. L | dir.T | dir. L | dir.T | | |
| | kNm | kNm | kNm | kNm | | |
| 478_187 | 318.13 | 318.13 | 45.35 | 18.63 | 7.01 | OK |
| 478_188 | 314.11 | 314.11 | 45.71 | 45.37 | 6.87 | OK |
| 478_189 | 317.52 | 317.52 | 41.15 | 19.36 | 7.72 | OK |
| 478_190 | 313.54 | 313.54 | 42.01 | 44.29 | 7.08 | OK |
| 478_191 | 318.21 | 318.21 | 57.25 | 18.79 | 5.56 | OK |
| 478_192 | 314.22 | 314.22 | 56.40 | 44.98 | 5.57 | OK |
| 478_193 | 317.54 | 317.54 | 41.75 | 19.48 | 7.61 | OK |
| 478_194 | 313.52 | 313.52 | 41.39 | 44.41 | 7.06 | OK |
| 478_195 | 318.23 | 318.23 | 56.65 | 18.92 | 5.62 | OK |
| 478_196 | 314.20 | 314.20 | 57.00 | 45.10 | 5.51 | OK |
| 478_197 | 322.44 | 322.44 | 2.31 | 88.95 | 3.62 | OK |
| 478_198 | 309.16 | 309.16 | 5.18 | 113.30 | 2.73 | OK |
| 478_199 | 322.59 | 322.59 | 20.43 | 88.60 | 3.64 | OK |
| 478_200 | 309.31 | 309.31 | 17.56 | 113.67 | 2.72 | OK |
| 478_201 | 322.41 | 322.41 | 5.70 | 88.87 | 3.63 | OK |
| 478_202 | 309.13 | 309.13 | 8.57 | 113.38 | 2.73 | OK |
| 478_203 | 322.62 | 322.62 | 23.82 | 88.69 | 3.64 | OK |
| 478_204 | 309.33 | 309.33 | 20.95 | 113.59 | 2.72 | OK |
| 478_205 | 322.51 | 322.51 | 4.35 | 89.36 | 3.61 | OK |
| 478_206 | 309.09 | 309.09 | 3.15 | 113.70 | 2.72 | OK |
| 478_207 | 322.66 | 322.66 | 18.39 | 89.01 | 3.62 | OK |
| 478_208 | 309.24 | 309.24 | 19.60 | 114.07 | 2.71 | OK |
| 478_209 | 322.48 | 322.48 | 7.74 | 89.27 | 3.61 | OK |
| 478_210 | 309.06 | 309.06 | 6.53 | 113.78 | 2.72 | OK |
| 478_211 | 322.69 | 322.69 | 21.78 | 89.11 | 3.62 | OK |
| 478_212 | 309.26 | 309.26 | 22.99 | 113.98 | 2.71 | OK |

Scorrimento – verifiche sismiche

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| COMB | | | | |
| | kN | kN | | |
| 477_181 | 214.4 | 36.0 | 5.95 | OK |
| 477_182 | 217.2 | 43.4 | 5.00 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 477_183 | 214.1 | 37.6 | 5.70 | OK |
| 477_184 | 216.9 | 44.5 | 4.87 | OK |
| 477_185 | 214.4 | 35.9 | 5.97 | OK |
| 477_186 | 217.2 | 43.5 | 4.99 | OK |
| 477_187 | 214.1 | 37.7 | 5.68 | OK |
| 477_188 | 216.9 | 44.4 | 4.88 | OK |
| 477_189 | 214.4 | 35.1 | 6.11 | OK |
| 477_190 | 217.3 | 42.6 | 5.10 | OK |
| 477_191 | 214.0 | 36.6 | 5.85 | OK |
| 477_192 | 216.8 | 43.7 | 4.96 | OK |
| 477_193 | 214.4 | 35.0 | 6.12 | OK |
| 477_194 | 217.3 | 42.7 | 5.09 | OK |
| 477_195 | 214.0 | 36.7 | 5.84 | OK |
| 477_196 | 216.8 | 43.7 | 4.96 | OK |
| 477_197 | 211.0 | 41.8 | 5.05 | OK |
| 477_198 | 220.4 | 50.9 | 4.33 | OK |
| 477_199 | 210.9 | 42.7 | 4.94 | OK |
| 477_200 | 220.3 | 51.9 | 4.25 | OK |
| 477_201 | 211.0 | 41.6 | 5.07 | OK |
| 477_202 | 220.4 | 50.7 | 4.35 | OK |
| 477_203 | 210.8 | 42.4 | 4.97 | OK |
| 477_204 | 220.3 | 51.7 | 4.26 | OK |
| 477_205 | 211.0 | 41.7 | 5.07 | OK |
| 477_206 | 220.4 | 51.1 | 4.31 | OK |
| 477_207 | 210.9 | 42.9 | 4.91 | OK |
| 477_208 | 220.3 | 51.7 | 4.26 | OK |
| 477_209 | 211.0 | 41.5 | 5.09 | OK |
| 477_210 | 220.4 | 50.9 | 4.33 | OK |
| 477_211 | 210.9 | 42.7 | 4.94 | OK |
| 477_212 | 220.3 | 51.6 | 4.27 | OK |
| 478_181 | 205.1 | 35.4 | 5.79 | OK |
| 478_182 | 202.5 | 37.5 | 5.40 | OK |
| 478_183 | 205.4 | 36.5 | 5.62 | OK |
| 478_184 | 202.8 | 38.8 | 5.22 | OK |
| 478_185 | 205.1 | 35.5 | 5.78 | OK |
| 478_186 | 202.5 | 37.4 | 5.41 | OK |
| 478_187 | 205.4 | 36.5 | 5.63 | OK |
| 478_188 | 202.8 | 38.9 | 5.21 | OK |

| Azioni a base plinto | VERIFICA A SCORRIMENTO | | | |
|---|---|---|---|---|
| COMB | $R_d = ( N \cdot m_d + (B' \cdot L') \cdot c'_{dbase}) / \gamma_R$ | $E_d$ | $R_d/E_d$ | |
| | kN | kN | | |
| 478_189 | 205.0 | 36.4 | 5.63 | OK |
| 478_190 | 202.4 | 38.6 | 5.24 | OK |
| 478_191 | 205.5 | 37.8 | 5.44 | OK |
| 478_192 | 202.9 | 39.9 | 5.09 | OK |
| 478_193 | 205.0 | 36.5 | 5.61 | OK |
| 478_194 | 202.4 | 38.5 | 5.25 | OK |
| 478_195 | 205.5 | 37.7 | 5.45 | OK |
| 478_196 | 202.9 | 40.0 | 5.08 | OK |
| 478_197 | 208.2 | 43.0 | 4.84 | OK |
| 478_198 | 199.6 | 45.8 | 4.36 | OK |
| 478_199 | 208.3 | 44.1 | 4.72 | OK |
| 478_200 | 199.7 | 46.6 | 4.29 | OK |
| 478_201 | 208.2 | 43.2 | 4.81 | OK |
| 478_202 | 199.6 | 46.1 | 4.33 | OK |
| 478_203 | 208.3 | 44.4 | 4.69 | OK |
| 478_204 | 199.7 | 46.8 | 4.27 | OK |
| 478_205 | 208.2 | 43.3 | 4.81 | OK |
| 478_206 | 199.6 | 45.7 | 4.37 | OK |
| 478_207 | 208.3 | 44.0 | 4.74 | OK |
| 478_208 | 199.7 | 46.8 | 4.26 | OK |
| 478_209 | 208.2 | 43.5 | 4.79 | OK |
| 478_210 | 199.6 | 46.0 | 4.34 | OK |
| 478_211 | 208.4 | 44.3 | 4.71 | OK |
| 478_212 | 199.7 | 47.1 | 4.24 | OK |

Capacità portante – verifiche sismiche

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | | |
|---|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N/(B' \cdot L')$ kPa | | | |
| 477_181 | (2338. + 641. +) /2.3 = | 1295.4 | 77.00 | 16.82 | OK | |
| 477_182 | (2375. + 572. +) /2.3 = | 1281.1 | 94.23 | 13.60 | OK | |
| 477_183 | (2280. + 610. +) /2.3 = | 1256.2 | 80.96 | 15.52 | OK | |
| 477_184 | (2355. + 538. +) /2.3 = | 1257.6 | 98.91 | 12.71 | OK | |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | | |
|---|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | | |
| 477_185 | (2341. + 642. +) /2.3 = | 1297.0 | 76.90 | 16.87 | OK | |
| 477_186 | (2375. + 570. +) /2.3 = | 1280.4 | 94.40 | 13.56 | OK | |
| 477_187 | (2277. + 608. +) /2.3 = | 1254.6 | 81.12 | 15.47 | OK | |
| 477_188 | (2357. + 538. +) /2.3 = | 1259.0 | 98.78 | 12.75 | OK | |
| 477_189 | (2375. + 659. +) /2.3 = | 1318.7 | 74.95 | 17.60 | OK | |
| 477_190 | (2362. + 598. +) /2.3 = | 1287.3 | 91.68 | 14.04 | OK | |
| 477_191 | (2316. + 628. +) /2.3 = | 1280.0 | 78.59 | 16.29 | OK | |
| 477_192 | (2391. + 550. +) /2.3 = | 1278.8 | 96.14 | 13.30 | OK | |
| 477_193 | (2377. + 660. +) /2.3 = | 1320.3 | 74.86 | 17.64 | OK | |
| 477_194 | (2362. + 597. +) /2.3 = | 1286.6 | 91.85 | 14.01 | OK | |
| 477_195 | (2313. + 627. +) /2.3 = | 1278.4 | 78.74 | 16.23 | OK | |
| 477_196 | (2393. + 551. +) /2.3 = | 1280.2 | 96.02 | 13.33 | OK | |
| 477_197 | (2204. + 713. +) /2.3 = | 1268.2 | 84.51 | 15.01 | OK | |
| 477_198 | (1945. + 710. +) /2.3 = | 1154.6 | 111.23 | 10.38 | OK | |
| 477_199 | (2221. + 673. +) /2.3 = | 1258.4 | 87.80 | 14.33 | OK | |
| 477_200 | (1966. + 663. +) /2.3 = | 1143.2 | 116.64 | 9.80 | OK | |
| 477_201 | (2201. + 721. +) /2.3 = | 1270.2 | 83.91 | 15.14 | OK | |
| 477_202 | (1943. + 717. +) /2.3 = | 1156.7 | 110.44 | 10.47 | OK | |
| 477_203 | (2218. + 681. +) /2.3 = | 1260.6 | 87.12 | 14.47 | OK | |
| 477_204 | (1963. + 670. +) /2.3 = | 1144.8 | 115.81 | 9.89 | OK | |
| 477_205 | (2202. + 718. +) /2.3 = | 1269.4 | 84.23 | 15.07 | OK | |
| 477_206 | (1945. + 705. +) /2.3 = | 1152.2 | 111.91 | 10.30 | OK | |
| 477_207 | (2221. + 668. +) /2.3 = | 1255.9 | 88.34 | 14.22 | OK | |
| 477_208 | (1963. + 668. +) /2.3 = | 1144.1 | 116.26 | 9.84 | OK | |
| 477_209 | (2198. + 726. +) /2.3 = | 1271.4 | 83.64 | 15.20 | OK | |
| 477_210 | (1943. + 712. +) /2.3 = | 1154.4 | 111.12 | 10.39 | OK | |
| 477_211 | (2218. + 676. +) /2.3 = | 1258.1 | 87.65 | 14.35 | OK | |
| 477_212 | (1960. + 675. +) /2.3 = | 1145.7 | 115.43 | 9.92 | OK | |
| 478_181 | (2447. + 663. +) /2.3 = | 1352.5 | 70.19 | 19.27 | OK | |
| 478_182 | (2398. + 647. +) /2.3 = | 1324.0 | 75.97 | 17.43 | OK | |
| 478_183 | (2377. + 634. +) /2.3 = | 1309.5 | 74.16 | 17.66 | OK | |
| 478_184 | (2422. + 595. +) /2.3 = | 1311.8 | 80.49 | 16.30 | OK | |
| 478_185 | (2445. + 662. +) /2.3 = | 1350.5 | 70.37 | 19.19 | OK | |
| 478_186 | (2397. + 650. +) /2.3 = | 1324.4 | 75.83 | 17.47 | OK | |
| 478_187 | (2381. + 636. +) /2.3 = | 1311.5 | 74.02 | 17.72 | OK | |
| 478_188 | (2420. + 593. +) /2.3 = | 1310.1 | 80.70 | 16.23 | OK | |
| 478_189 | (2396. + 641. +) /2.3 = | 1320.2 | 72.97 | 18.09 | OK | |
| 478_190 | (2418. + 604. +) /2.3 = | 1314.0 | 79.19 | 16.59 | OK | |
| 478_191 | (2325. + 610. +) /2.3 = | 1276.1 | 77.45 | 16.48 | OK | |

| Azioni a base plinto | VERIFICA A CAPACITA' PORTANTE | | | | |
|---|---|---|---|---|---|
| | $R_d$ | | $E_d$ | $R_d/E_d$ | |
| COMB | $q_{u,d}$ kPa | | $q_{E,d} = N /(B'\cdot L')$ kPa | | |
| 478_192 | (2369. + 574. +) /2.3 = | 1279.7 | 83.95 | 15.24 | OK |
| 478_193 | (2393. + 639. +) /2.3 = | 1318.2 | 73.16 | 18.02 | OK |
| 478_194 | (2416. + 607. +) /2.3 = | 1314.3 | 79.04 | 16.63 | OK |
| 478_195 | (2329. + 611. +) /2.3 = | 1278.2 | 77.31 | 16.53 | OK |
| 478_196 | (2366. + 573. +) /2.3 = | 1277.7 | 84.18 | 15.18 | OK |
| 478_197 | (2120. + 741. +) /2.3 = | 1243.7 | 84.24 | 14.76 | OK |
| 478_198 | (1977. + 719. +) /2.3 = | 1172.1 | 93.22 | 12.57 | OK |
| 478_199 | (2150. + 681. +) /2.3 = | 1230.8 | 89.18 | 13.80 | OK |
| 478_200 | (1993. + 679. +) /2.3 = | 1161.8 | 97.38 | 11.93 | OK |
| 478_201 | (2125. + 729. +) /2.3 = | 1241.0 | 85.11 | 14.58 | OK |
| 478_202 | (1980. + 708. +) /2.3 = | 1168.7 | 94.31 | 12.39 | OK |
| 478_203 | (2155. + 669. +) /2.3 = | 1227.8 | 90.23 | 13.61 | OK |
| 478_204 | (1999. + 668. +) /2.3 = | 1159.3 | 98.49 | 11.77 | OK |
| 478_205 | (2120. + 733. +) /2.3 = | 1240.6 | 84.94 | 14.61 | OK |
| 478_206 | (1972. + 726. +) /2.3 = | 1173.2 | 92.78 | 12.64 | OK |
| 478_207 | (2146. + 688. +) /2.3 = | 1232.0 | 88.75 | 13.88 | OK |
| 478_208 | (1993. + 671. +) /2.3 = | 1158.5 | 98.26 | 11.79 | OK |
| 478_209 | (2125. + 722. +) /2.3 = | 1237.9 | 85.82 | 14.43 | OK |
| 478_210 | (1976. + 714. +) /2.3 = | 1169.8 | 93.86 | 12.46 | OK |
| 478_211 | (2150. + 676. +) /2.3 = | 1229.0 | 89.79 | 13.69 | OK |
| 478_212 | (1999. + 660. +) /2.3 = | 1156.1 | 99.38 | 11.63 | OK |

Le verifiche sono soddisfatte.

# 13 VERIFICHE STRUTTURALI FONDAZIONI DIRETTE

## 13.1 Verifica baggiolo

Per semplicità operativa, le verifiche vengono svolte considerando le sollecitazioni massime agenti alla base del baggiolo risultanti dai valori di inviluppo dei casi precedentemente illustrati ($H_{baggiolo}$ = 50 cm), riportate di seguito.

**Azioni di verifica a pressoflessione**

$N_{Ed}$ trascurato conservativamente

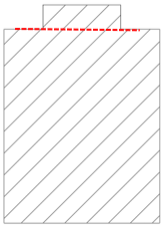
$M_{Ed,L}$ = 136 kNm (valore massimo)

$M_{Ed,T}$ = 144 kNm (valore massimo)

**Azioni di verifica a taglio**

$V_{Ed}$ = 43 kN (valore massimo)

**Sezione di verifica**



**Geometria**

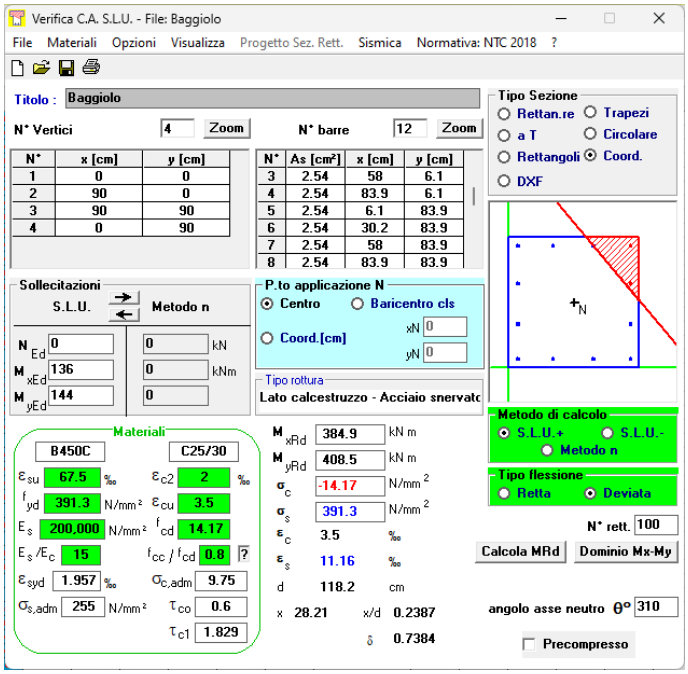
B = H = 90 cm

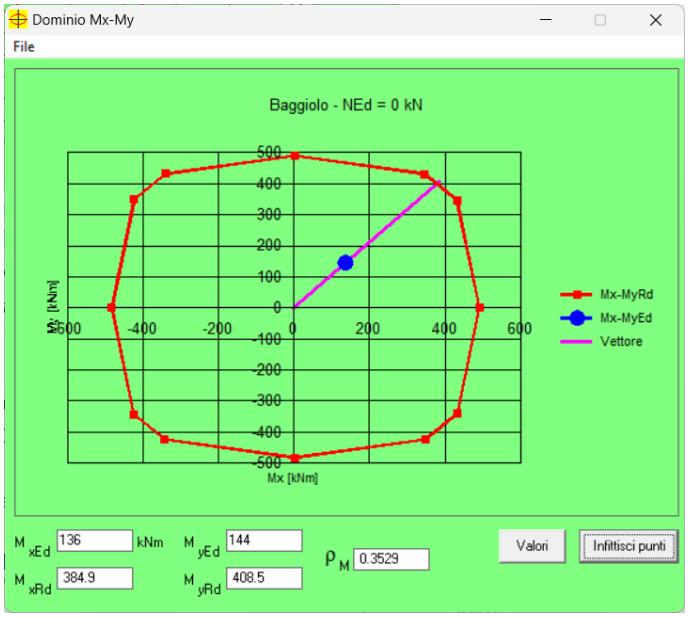
**Armatura**

12ø18

**Verifica**

*Verifica a pressoflessione*






$\rho_M < 1$ → Verifica soddisfatta

*Verifica a taglio*

Azioni di verifica

$V_{Ed}$ = 43 kN (valore massimo)

Geometria

B = H = 90 cm

Armatura

Si trascura l'armatura a taglio

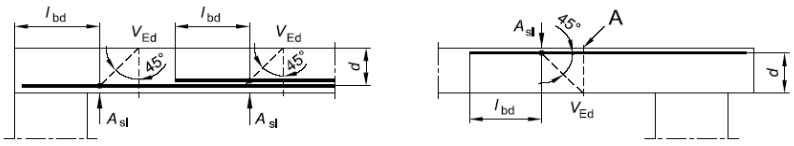
Verifica

| § 4.1.2.1.3.1 - ELEMENTI SENZA ARMATURE TRASVERSALI RESISTENTI A TAGLIO | | | |
|---|---|---|---|
| Azione di Taglio sollecitante a Stato Limite Ultimo | $V_{Ed}$ | 43 | [kN] |
| Considerare o meno il contributo dell'armatura tesa nel calcolo | | si | [-] |
| Coefficiente $C_{Rd,c}$ | $C_{Rd,c}$ | 0.12 | [-] |
| Coefficiente k | k | 1.49 | [-] |
| | | 1.49 | [-] |
| Rapporto geometrico d'armatura che si estende per non meno di $l_{bd}$ + d | $\rho_l$ | 0 | [-] |
| | | 0 | [-] |

figura 6.3 **Definizione di $A_{sl}$ nella espressione (6.2)**

Legenda

A Sezione considerata




| | | | |
|---|---|---|---|
| Resistenza a taglio offerta dal calcestruzzo teso | $V_{Rd,c}$ | 0.00 | [kN] |
| Resistenza minima del calcestruzzo teso | $V_{Rd,min}$ | 239.91 | [kN] |
| **Resistenza a taglio offerta dal calcestruzzo teso** | **$V_{Rd}$** | **239.91** | **[kN]** |

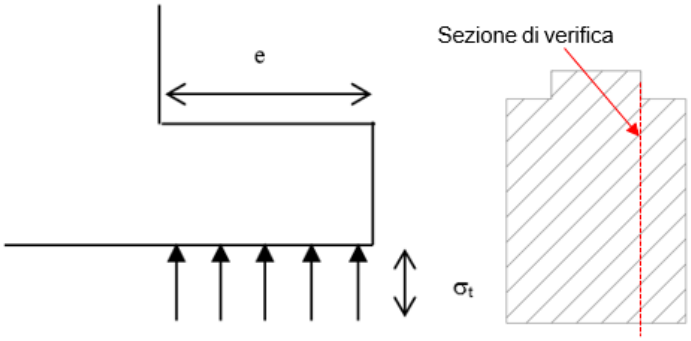
VEd < VRd

Verifica soddisfatta

## 13.2 Verifica basamento

Per le verifiche strutturali del plinto si utilizza un modello di trave inflessa.

Lo schema di calcolo è riportato nella seguente figura.




*Schema di calcolo*

La mensola di lunghezza “e” e larghezza pari a “B” si suppone caricata con una pressione pari alla pressione massima scaricata al suolo.

Pertanto:

$\sigma_{t,max}$ = 243 kPa

e = 0.65 m

B = 1 m

$V_{Ed} = \sigma_{t,max} \cdot e \cdot B$ = 158 kN

$M_{Ed} = (\sigma_{t,max} \cdot e^2 / 2) \cdot B$ = 52 kNm

**Verifica a flessione**

Azioni di verifica

$M_{Ed}$ = 52 kNm

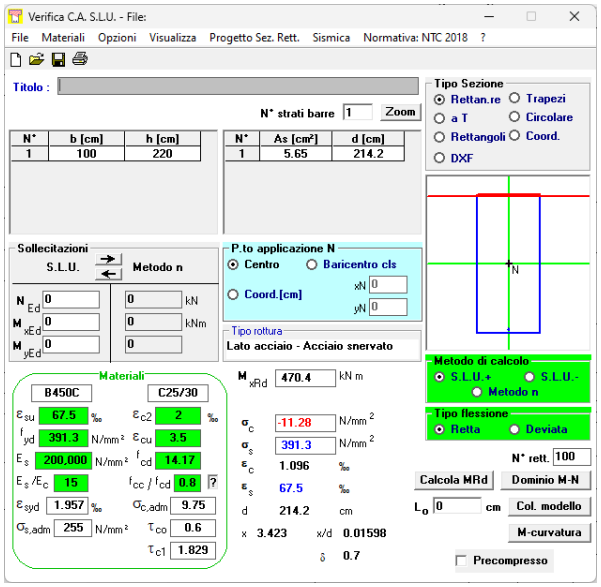
Geometria

B = 100 cm H = 220 cm

Armatura

ø12/20

Verifica




MEd < MRd

Verifica soddisfatta

**Verifica a taglio**

Azioni di verifica

$V_{Ed}$ = 52 kN

Geometria

B = 100 cm H = 220 cm

Armatura

Si trascura l'armatura a taglio.

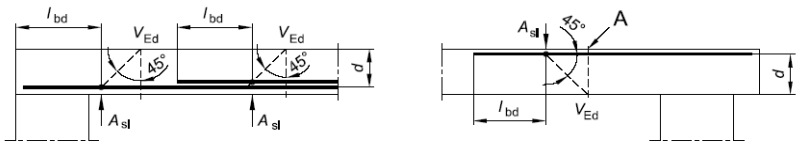
Verifica

| § 4.1.2.1.3.1 - ELEMENTI SENZA ARMATURE TRASVERSALI RESISTENTI A TAGLIO | | | |
|---|---|---|---|
| Azione di Taglio sollecitante a Stato Limite Ultimo | $V_{Ed}$ | 52 | [kN] |
| Considerare o meno il contributo dell'armatura tesa nel calcolo | | si | [-] |
| Coefficiente $C_{Rd,c}$ | $C_{Rd,c}$ | 0.12 | [-] |
| Coefficiente k | k | 1.31 | [-] |
| | | 1.31 | [-] |
| Rapporto geometrico d'armatura che si estende per non meno di $l_{bd}$ + d | $\rho_l$ | 0 | [-] |
| | | 0 | [-] |

figura 6.3 **Definizione di $A_{sl}$ nella espressione (6.2)**

Legenda

A Sezione considerata




| | | | |
|---|---|---|---|
| Resistenza a taglio offerta dal calcestruzzo teso | $V_{Rd,c}$ | 0.00 | [kN] |
| Resistenza minima del calcestruzzo teso | $V_{Rd,min}$ | 559.19 | [kN] |
| **Resistenza a taglio offerta dal calcestruzzo teso** | **$V_{Rd}$** | **559.19** | **[kN]** |

VEd < VRd

Verifica soddisfatta