REGIONE PIEMONTE

PROVINCIA DI TORINO

COMUNE DI SANT'ANTONINO DI SUSA

OGGETTO

PROGETTO ESECUTIVO

Progetto relativo alla realizzazione di costruzione da adibirsi a canile sanitario ed area parco

ACSEL s.p.a.

Acsel s.p.a. - Cap. soc. int. versato € 120.000 - P.IVA 08876820013

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FIRMA R.U.P.

FIRMA E TIMBRO
AMM. DELEGATO DOTT. P. BORBON

INDIRIZZO

Via Susa n. 46

CONTENUTO

RELAZIONE STRUTTURALE

STUDIO DI PROGETTAZIONE
Ing. Roberto CIMARELLA

Via Almese n. 33B
10040 Villar Dora - TO
Tel. 011.9352570

FIRMA E TIMBRO

RIFERIMENTI CATASTALI

NCT fg. 1 N. 492 -180

EMISSIONE: Novembre 2014

REVISIONE:

SCALA ELABORATI

NUM. ELAB. GRAFICI

TAVOLA

R14

2 NORMATIVE

Nel seguito è riportato il dettaglio delle norme tecniche, procedurali ed amministrative alle quali si è fatto riferimento durante la progettazione:

Decreto del Presidente della Repubblica 6 giugno 2001, n. 380
Testo unico delle disposizioni legislative e regolamentari in materia edilizia Circ. n.11651 del 14/02/1974

DM 14/01/2008, "orme Tecniche per le Costruzioni"
Normativa tecnica di riferimento. Essendo un documento generale di carattere prestazionale per la definizione di parametri specifici e per le regole di dettaglio, come previsto dal Decreto stesso, ci si è riferiti alle seguenti normative:

Ministero delle infrastrutture e dei Trasporti, circolare n. 617 del 2 febbraio 2009
Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni" di cui al D.M. 14 Gennaio 2008.

UI E 1990:2006
Eurocodice – Criteri generali di progettazione strutturale

UI E 1991-1-1:2004
Eurocodice 1 – Azioni sulle strutture – Parte 1-1: Azioni in Generale – Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.

UI E 1991-1-4:2005
Eurocodice 1 – Azioni sulle strutture – Parte 1-4: Azioni in Generale – Azioni del Vento

UI E 1992-1-1:2005
Eurocodice 2 – Progettazione delle strutture di calcestruzzo – Parte 1-1: Regole generali e regole per gli edifici.

UI E 1993-1-1:2005
Eurocodice 3 - Progettazione delle strutture di acciaio – Parte 1-1: Regole generali e regole per gli edifici.

UI E 1998-1:2005
Eurocodice 8 - Progettazione delle strutture per la resistenza sismica – Parte 1: Regole generali, azioni sismiche e regole per gli edifici.

UI E 206-1:2006
Calcestruzzo – Parte 1: Specificazione, prestazione e conformità.

UI 11104:2004
Calcestruzzo: Specificazione, prestazione e conformità. Istruzioni complementari per l'applicazione della EN 206-1

Circ. Min. LL.PP. 14.02.1974, n.11951
"Applicazione della legge 05.11.1971, n. 1086"

Circ. Min. LL.PP. 31.07.1979, n.19581
"Legge 05.11.1971, n. 1086, art. 7- Collaudo Statico"

Circ. Min. LL.PP. 23.10.1979, n.19777
"Competenza amministrativa: Legge 05.11.1971, n. 1086 02.02.1974, n.64"

Circ. Min. LL.PP. 09.01.1980, n.20049
"Istruzioni relative ai controlli sul conglomerato cementizio adoperato per le strutture in cemento armato".

Circ. Min. LL.PP. 01.09.1987, n.29010
"Legge 05.11.1971, n. 1086 DM 27.07.1985, Controllo dei materiali in genere e degli acciai per cemento armato normale in particolare".

CR-DT 207/2008
"Istruzioni per la valutazione delle azioni e degli effetti del vento sulle costruzioni.

3 CRITERI GEERALI DI PROGETTAZIONE

Le verifiche degli elementi strutturali vengono eseguite col metodo degli stati limite.

3.1 Vita nominale, classi d'uso e periodo di riferimento

La vita nominale di un'opera strutturale VN è intesa come il numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve potere essere usata per lo scopo al quale è destinata.
L'area e l'oggetto dell'intervento ricadono in Classe II in quanto riconducibile a "Costruzioni il cui uso preveda normali affollamenti". Essendo inoltre l'opera di tipo ordinario, ne deriva la seguente classificazione:

Vita nominale	50 anni
Classe d'uso	II
Vita di riferimento per l'azione sismica	50 anni

3.2 Verifiche della sicurezza e delle prestazioni

3.2.1 Stati limite ultimi

Per la situazione permanente e transitoria si verifica che l'azione sollecitante di calcolo Sd sia inferiore alla resistenza ultima di calcolo Rd.
Le azioni sollecitanti di calcolo vanno calcolate secondo la seguente formulazione:

$$F_d = \gamma_g \cdot G_k + \gamma_p \cdot P_k + \gamma_q \cdot \left[Q_{1k} + \sum \left(\psi_{0i} \cdot Q_{ik} \right) \right]$$

dove:
G_k è il valore caratteristico delle azioni permanenti;
P_k è il valore caratteristico delle azioni di precompressione;
Q_{1k} è il valore caratteristico dell'azione base di ogni combinazione;
Q_{ki} i valori caratteristici delle azioni variabili tra loro indipendenti;
γ_g = 1,3/1,5 (1,0 se il suo contributo aumenta la sicurezza);
γ_p = 0,9 (1,2 se il suo contributo diminuisce la sicurezza);
γ_q = 1,5 (0 se il suo contributo aumenta la sicurezza);
ψ_{0i} = coefficiente di combinazione allo SLU

3.2.2 Stato limite di esercizio

Per le verifiche di stati limite di esercizio si fa riferimento alle seguenti combinazioni di carico:

Combinazione rara: $F_r = G_k + P_k + Q_{1k} + \sum \left(\psi_{0i} \cdot Q_{ki} \right)$

Combinazione frequente: $F_r = G_k + P_k + \psi_{1} \cdot Q_{1k} + \sum \left(\psi_{2i} \cdot Q_{ki} \right)$

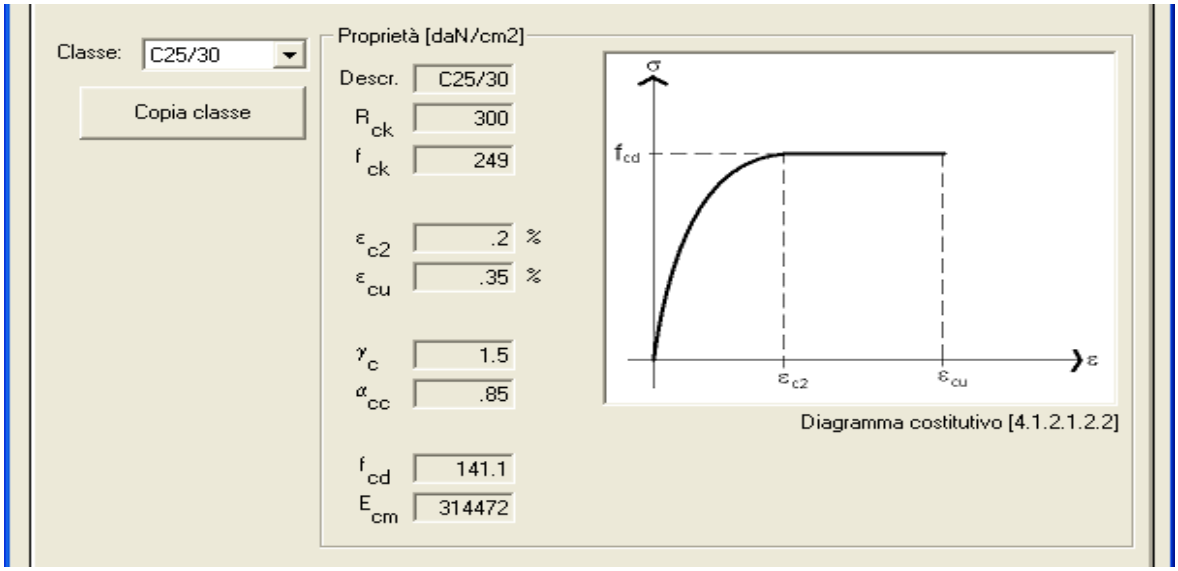
Combinazione quasi permanente: $F_r = G_k + P_k + \sum \left(\psi_{2i} \cdot Q_{ki} \right)$

dove:
$\gamma_g = \gamma_p = \gamma_q = 1{,}0$;
ψ_{1i} = coefficiente atto a definire i valori delle azioni ammissibili ai frattili di ordine 0,95 delle distribuzioni dei valori istantanei;
ψ_{2i}= coefficiente atto a definire i valori quasi permanenti delle azioni ammissibili ai valori medi delle distribuzioni dei valori istantanei;

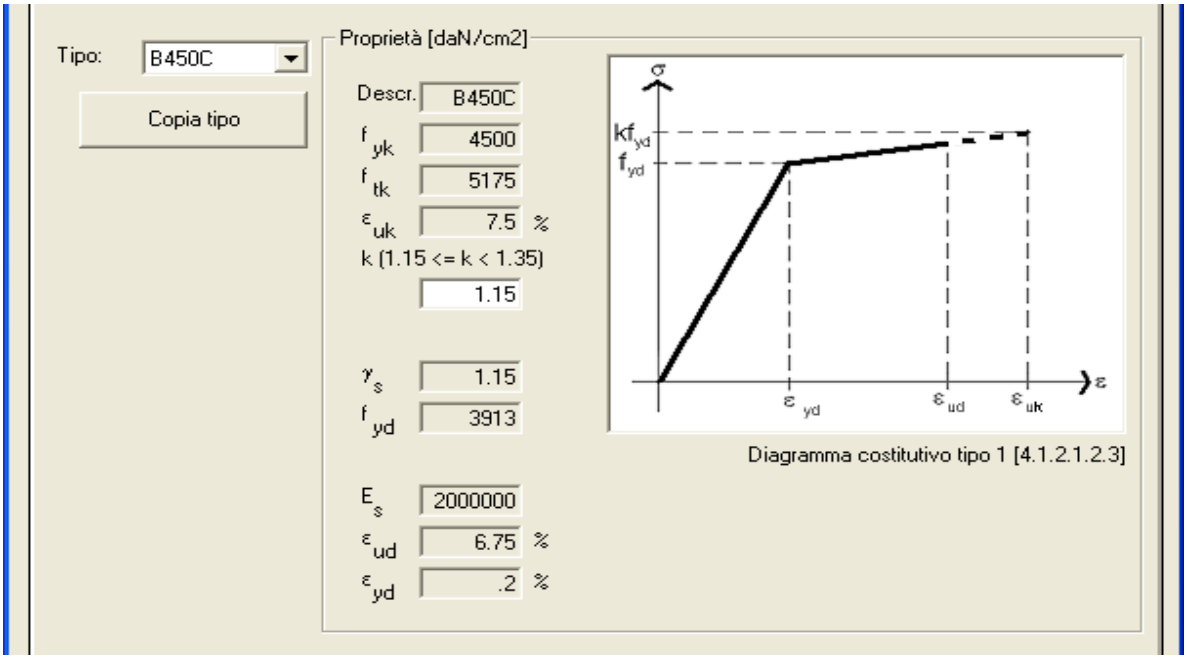
4 CARATTERISTICHE DEI MATERIALI

Le strutture dell'opera in progetto verranno realizzate in carpenteria metallica. L'impiego del calcestruzzo è limitato alla cappa della lamiera grecata di copertura.
Le caratteristiche dei materiali adoperati sono le seguenti.

4.1 Caratteristiche del Calcestruzzo gettato in opera



4.1 Caratteristiche dell'acciaio di armatura



4.3 Copriferri

Il copriferro minimo deve essere determinato in funzione della classe di esposizione ambientale
Le relative normative di riferimento sulla durabilità del calcestruzzo (UNI EN 1992-1-1:2005) definiscono i valori di copriferro minimi da rispettare per garantire le prestazioni richieste.
Il copriferro minimo da adottare per garantire la durabilità è:
c_{min} = 30 mm

5 ANALISI DEI CARICHI

Le azioni che gravano sulla struttura in esame sono determinate a partire dalle dimensioni geometriche e, soprattutto dai pesi per unità di volume di cui è composta la costruzione, nonché dalle destinazioni d'uso a cui è destinato il corpo fabbrica.

5.1 Peso proprio

Il peso proprio degli elementi strutturali viene automaticamente preso in considerazione dal codice di calcolo agli elementi finiti utilizzato per la modellazione delle vasche. I pesi specifici adottati sono quelli abituali ossia 2500 kg/m3 per gli elementi in c.a. e 7850 kg/m3 per le strutture in acciaio.

5.2 Sovraccarichi permanenti e variabili

I sovraccarichi permanenti derivano derivano dalle caratteristiche architettoniche e stratigrafiche della costruzione in esame: nello specifico:

Schematizzazione dei carichi adottati per la modellazione

Solai

Peso proprio solaio	250 Kg/mq
Carico permanente non strutturale	150 Kg/mq
Carico variabile	200 Kg/mq

Tetto in acciaio

Peso proprio copertura	15 Kg/mq
Carico variabile (neve)	145 Kg/mq

Come sovraccarico variabile antropico si considera la manutenzione ordinaria, perntanto pari a 50 *kg/mq*. Tale valore risulterà significativamente inferiore rispetto al sovraccarico neve, e pertanto non verrà considerato ai fini del dimensionamento delle strutture

5.3 Azioni della neve

5.3.1 Neve

Zona Neve = I Alpina

Provincia di Torino , Comune di S.Antonino di Susa
Altitudine [m]: 380
Valore caratteristico del carico al suolo (qsk Ce) = 180.36 daN/mq
Angolo di inclinazione della falda = 15.0°
$\alpha 1$ = 0.80 Il carico neve in copertura assume pertanto il valore di ***Q=145 kg/mq***

5.5 Azione sismica

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.
Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito http://esse1.mi.ingv.it/. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).
L'azione sismica viene definita in relazione ad un periodo di riferimento Vr che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento Vr e la probabilità di superamento Pver associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno Tr e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;
Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura

Classe d'uso:	II
Vita Vn [anni]	50
Coeff. Uso	1.0
Periodo Vr [anni]	50
Tipo di suolo	C
Categoria topografica	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:
S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente S = Ss*St (3.2.5)
Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale
Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale
Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.
Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.
Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.
Coordinate S.Antonino si Susa :(long. 7.275 lat. 45.10690)

6 MODELLAZIONE AGLI ELEMENTI FINITI (FEM)

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo e' ad elementi finiti. Il calcolo sismico e' stato effettuato tramite analisi dinamica modale. La verifica delle membrature in cemento armato viene eseguita considerando tutte le caratteristiche di sollecitazione.

Per il calcolo delle sollecitazioni e per la verifica di travi e pilastri in cemento armato si e' fatto ricorso all'elaboratore elettronico utilizzando il seguente programma di calcolo:
DOLMEN WIN (R), versione 11.0 del 2011 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

Questa procedura e' sviluppata in ambiente Windows, ed e' stata scritta utilizzando i linguaggi Fortran e C. DOLMEN WIN permette l'analisi elastica lineare di strutture tridimensionali con nodi a sei gradi di liberta' utilizzando un solutore ad elementi finiti. Gli elementi considerati sono la trave, con eventuali svincoli interni o rotazione attorno al proprio asse, ed il guscio, sia rettangolare che triangolare, avente comportamento di membrana e di piastra. I carichi possono essere applicati sia ai nodi, come forze o coppie concentrate, sia sulle travi, comme forze distribuite, trapezie, concentrate, come coppie e come distorsioni termiche. I vincoli sono forniti tramite le sei costanti di rigidezza elastica.

A supporto del programma e' fornito un ampio manuale d'uso contenente fra l'altro una vasta serie di test di validazione sia su esempi classici di Scienza delle Costruzioni, sia su strutture particolarmente impegnative e reperibili nella bibliografia specializzata.

L' affidabilita' del codice di calcolo e' garantita dall'esistenza di un ampia documentazioe di supporto, come indicato nel paragrafo precedente. La presenza di un modulo CAD per l'introduzione di dati permette la visualizzazione dettagliata degli elementi introdotti. E' possibile inoltre ottenere rappresentazioni grafiche di deformate e sollecitazioni della struttura. Al termine dell'elaborazione viene inoltre valutata la qualita' della soluzione, in base all'uguaglianza del lavoro esterno e dell'energia di deformazione.

DOLMEN WIN permette in campo elastico lineare un'analisi dettagliata del comportamento dell'intera

struttura, tenendo conto del comportamento irrigidente di setti anche complessi e solai considerati con la loro effettiva rigidezza. E' possibile inoltre scegliere il grado di affinamento dell'analisi di elementi complessi utilizzando mesh via via piu' dettagliate.

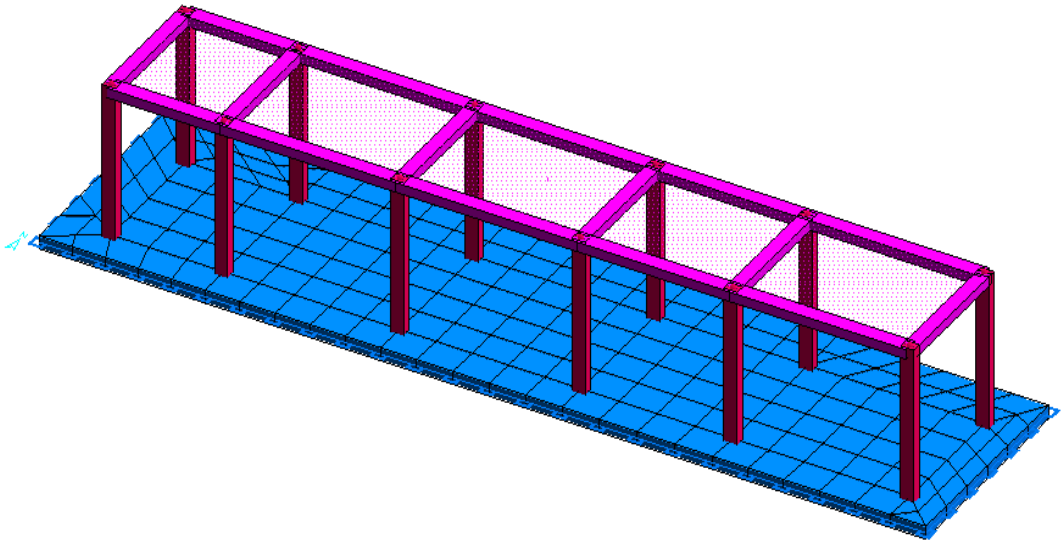
Il modello di calcolo adottato e' da ritenersi appropriato in quanto non sono state riscontrate labilita', le reazioni vincolari equilibrano i carichi applicati, la simmetria di carichi e struttura da' origine a sollecitazioni simmetriche.

L'analisi critica dei risultati e dei parametri di controllo nonche' il confronto con calcolazioni di massima eseguite manualmente porta ad confermare la validita' dei risultati.

La struttura e' stata schematizzata escludendo il contributo degli elementi aventi rigidezza e resistenza trascurabili a fronte dei principali. E' quindi stata considerata l'orditura a telaio tridimensionale, i solai ed i setti verticali ad elevata rigidezza (vano ascensore, setti in cls).
I plinti di fondazione vengono assimilati a vincoli elastici di cui e' fornita la costante di rigidezza. Le travi di fondazione sono schematizzate come poggianti su vincoli elastici distribuiti. (Winkler)

La struttura e' modellata con il metodo degli elementi finiti, applicato a sistemi tridimensionali. Gli elementi utilizzati sono sia monodimensionali (trave con eventuali sconnessioni interne), che bidimensionali (piastre e membrane triangolari e quadrangolari). I vincoli sono considerati puntuali ed inseriti tramite le sei costanti di rigidezza elastica, oppure come elementi asta poggianti su suolo elastico. Le sezioni oggetto di verifica nelle travi sono stampate a passo costante; dei gusci si conoscono le sollecitazioni nel baricentro dell'elemento stesso.
La struttura in esame è composta:
Travi di fondazione e platea di fondazione, pilastri verticali in C.A, solette piane con appoggiata la

6.1 Dati della struttura
Canile Sanitario



MODELLO DI CALCOLO CANILE SANITARIO

*** DATI STRUTTURA

Unita` di misura :
LUNGHEZZE : cm
SUPERFICI : cm2
DATI SEZIONALI : cm
ANGOLI : gradi
FORZE : daN
MOMENTI : daNcm
CARICHI LINEARI : daN/cm
CARICHI SUPERFIC.: daN/cm2
TENSIONI : daN/cm2
PESI DI VOLUME : daN/cm3
COEFF. DI WINKLER: daN/cm3
RIGIDEZZE VINCOL.: daN/cm - daNcm/rad

NODI--|-----------|-----------|-----------|-----------|-----------|num.= 228

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133	130067.800	22252.800	0.000
134	130067.800	22168.100	0.000
135	129972.500	22422.300	0.000
136	129972.500	22337.600	0.000
137	129972.500	22252.800	0.000
138	129972.500	22168.100	0.000
139	129877.300	22422.300	0.000
140	129877.300	22337.600	0.000
141	129877.300	22252.800	0.000
142	129877.300	22168.100	0.000
143	129875.500	22082.600	0.000
144	129970.900	22082.600	0.000
145	130066.300	22082.600	0.000
146	130161.700	22082.600	0.000
147	130257.000	22082.600	0.000
148	130356.100	22082.600	0.000
149	130358.300	22168.100	0.000
150	130455.100	22082.600	0.000
151	130458.300	22168.100	0.000
152	130554.100	22082.600	0.000
153	130558.300	22168.100	0.000
154	130653.200	22082.600	0.000
155	130658.300	22252.800	0.000
156	130558.300	22252.800	0.000
157	130658.300	22337.600	0.000
158	130558.300	22337.600	0.000
159	130658.300	22422.300	0.000
160	130558.300	22422.300	0.000
161	130558.300	22507.100	0.000
162	130458.300	22252.800	0.000
163	130458.300	22337.600	0.000
164	130458.300	22422.300	0.000
165	130458.300	22507.100	0.000
166	130358.300	22252.800	0.000
167	130358.300	22337.600	0.000
168	130358.300	22422.300	0.000
169	130358.300	22507.100	0.000
170	130359.800	22574.800	0.000
171	130361.300	22642.600	0.000
172	130459.000	22574.800	0.000
173	130459.700	22642.600	0.000
174	130558.200	22574.800	0.000
175	130558.200	22642.600	0.000

176	130657.400	22574.800	0.000
177	130656.600	22642.600	0.000
178	131075.200	22574.800	0.000
179	131168.000	22574.800	0.000
180	131213.300	22642.600	0.000
181	131120.500	22642.600	0.000
182	131029.900	22507.100	0.000
183	130982.300	22574.800	0.000
184	131027.700	22642.600	0.000
185	130937.000	22507.100	0.000
186	130889.500	22574.800	0.000
187	130934.900	22642.600	0.000
188	130844.100	22507.100	0.000
189	130796.700	22574.800	0.000
190	130842.200	22642.600	0.000
191	130751.200	22507.100	0.000
192	130703.800	22574.800	0.000
193	130749.400	22642.600	0.000
194	131168.000	22125.300	0.000
195	131213.300	22082.600	0.000
196	131213.300	22175.900	0.000
197	131168.000	22214.400	0.000
198	131122.800	22252.800	0.000
199	131213.300	22269.200	0.000
200	131168.000	22303.400	0.000
201	131122.800	22337.600	0.000
202	131213.300	22362.600	0.000
203	131168.000	22392.500	0.000
204	131122.800	22422.300	0.000
205	131213.300	22455.900	0.000
206	131168.000	22481.500	0.000
207	131213.300	22549.200	0.000
208	130746.500	22082.600	0.000
209	130751.200	22168.100	0.000
210	130839.900	22082.600	0.000
211	130844.100	22168.100	0.000
212	130933.200	22082.600	0.000
213	130937.000	22168.100	0.000
214	131026.600	22082.600	0.000
215	131029.900	22168.100	0.000
216	131119.900	22082.600	0.000
217	131029.900	22252.800	0.000
218	131029.900	22337.600	0.000
219	131029.900	22422.300	0.000
220	130937.000	22252.800	0.000
221	130937.000	22337.600	0.000
222	130937.000	22422.300	0.000
223	130844.100	22252.800	0.000
224	130844.100	22337.600	0.000
225	130844.100	22422.300	0.000
226	130751.200	22252.800	0.000
227	130751.200	22337.600	0.000
228	130751.200	22422.300	0.000

ASTE--|-----------|-----------|-----------|-----------|-----------|num.= 28

Nome	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.	Orient.
1	1	1	2			0.0
2	1	3	4			0.0
3	1	5	6			0.0
4	1	7	8			0.0
5	1	9	10			0.0
6	1	11	12			0.0
7	1	13	14			0.0
8	1	15	16			0.0
9	1	17	18			0.0
10	1	19	20			0.0
11	1	21	22			0.0
12	1	23	24			0.0
13	2	4	8			0.0
14	2	8	12			0.0
15	2	12	14			0.0
16	2	14	20			0.0
17	2	20	22			0.0
18	2	18	24			0.0
19	2	16	18			0.0
20	2	10	16			0.0
21	2	6	10			0.0
22	2	2	6			0.0
23	3	2	4			0.0
24	3	6	8			0.0
25	3	10	12			0.0
26	3	16	14			0.0
27	3	18	20			0.0
28	3	24	22			0.0

GUSCI TRIANGOLARI--|-----------|-----------|-----------|num.= 12

Nome	Proprieta`	Nodo 1	Nodo 2	Nodo 3
9	1	38	1	37
10	1	39	37	36
14	1	3	44	43
21	1	51	7	52
22	1	49	51	53
24	1	53	54	55
41	1	40	71	38
151	1	19	192	176
161	1	21	206	179
163	1	179	207	180

169	1	216	195	194	
170	1	216	194	23	

GUSCI RETTANGOLARI|----------|----------|----------|----------|num.= 178

Nome	Proprieta`	Nodo 1	Nodo 2	Nodo 3	Nodo 4
1	1	25	26	27	28
2	1	26	29	3	27
3	1	30	31	26	25
4	1	31	32	29	26
5	1	33	34	31	30
6	1	34	35	32	31
7	1	36	37	34	33
8	1	37	1	35	34
11	1	40	38	37	39
12	1	27	41	42	28
13	1	3	43	41	27
15	1	41	45	46	42
16	1	43	47	45	41
17	1	44	48	47	43
18	1	45	49	50	46
19	1	47	51	49	45
20	1	48	7	51	47
23	1	51	52	54	53
25	1	49	53	55	50
26	1	29	56	44	3
27	1	56	57	48	44
28	1	57	58	7	48
29	1	32	59	56	29
30	1	59	60	57	56
31	1	60	61	58	57
32	1	35	62	59	32
33	1	62	63	60	59
34	1	63	64	61	60
35	1	1	65	62	35
36	1	65	66	63	62
37	1	66	5	64	63
38	1	67	68	5	66
39	1	69	67	66	65
40	1	70	69	65	1
42	1	71	70	1	38
43	1	72	73	9	74
44	1	75	72	74	76
45	1	77	75	76	78
46	1	79	77	78	80
47	1	68	79	80	5
48	1	74	9	81	82
49	1	82	81	83	84
50	1	84	83	85	86
51	1	86	85	11	87
52	1	76	74	82	88
53	1	88	82	84	89
54	1	89	84	86	90
55	1	90	86	87	91
56	1	78	76	88	92
57	1	92	88	89	93
58	1	93	89	90	94
59	1	94	90	91	95
60	1	80	78	92	96
61	1	96	92	93	97
62	1	97	93	94	98
63	1	98	94	95	99
64	1	5	80	96	64
65	1	64	96	97	61
66	1	61	97	98	58
67	1	58	98	99	7
68	1	87	11	100	101
69	1	101	100	102	103
70	1	91	87	101	104
71	1	104	101	103	105
72	1	95	91	104	106
73	1	106	104	105	107
74	1	99	95	106	108
75	1	108	106	107	109
76	1	7	99	108	52
77	1	52	108	109	54
78	1	110	13	111	112
79	1	112	111	113	114
80	1	115	110	112	116
81	1	116	112	114	117
82	1	118	115	116	119
83	1	119	116	117	120
84	1	121	118	119	122
85	1	122	119	120	123
86	1	11	121	122	100
87	1	100	122	123	102
88	1	124	125	13	110
89	1	126	127	125	124
90	1	128	129	127	126
91	1	130	15	129	128
92	1	131	124	110	115
93	1	132	126	124	131
94	1	133	128	126	132
95	1	134	130	128	133
96	1	135	131	115	118
97	1	136	132	131	135
98	1	137	133	132	136
99	1	138	134	133	137

100	1	139	135	118	121
101	1	140	136	135	139
102	1	141	137	136	140
103	1	142	138	137	141
104	1	85	139	121	11
105	1	83	140	139	85
106	1	81	141	140	83
107	1	9	142	141	81
108	1	73	143	142	9
109	1	143	144	138	142
110	1	144	145	134	138
111	1	145	146	130	134
112	1	146	147	15	130
113	1	147	148	149	15
114	1	148	150	151	149
115	1	150	152	153	151
116	1	152	154	17	153
117	1	153	17	155	156
118	1	156	155	157	158
119	1	158	157	159	160
120	1	160	159	19	161
121	1	151	153	156	162
122	1	162	156	158	163
123	1	163	158	160	164
124	1	164	160	161	165
125	1	149	151	162	166
126	1	166	162	163	167
127	1	167	163	164	168
128	1	168	164	165	169
129	1	15	149	166	129
130	1	129	166	167	127
131	1	127	167	168	125
132	1	125	168	169	13
133	1	13	169	170	111
134	1	111	170	171	113
135	1	169	165	172	170
136	1	170	172	173	171
137	1	165	161	174	172
138	1	172	174	175	173
139	1	161	19	176	174
140	1	174	176	177	175
141	1	178	179	180	181
142	1	182	21	179	178
143	1	183	178	181	184
144	1	185	182	178	183
145	1	186	183	184	187
146	1	188	185	183	186
147	1	189	186	187	190
148	1	191	188	186	189
149	1	192	189	190	193
150	1	19	191	189	192
152	1	176	192	193	177
153	1	194	195	196	197
154	1	23	194	197	198
155	1	197	196	199	200
156	1	198	197	200	201
157	1	200	199	202	203
158	1	201	200	203	204
159	1	203	202	205	206
160	1	204	203	206	21
162	1	206	205	207	179
164	1	154	208	209	17
165	1	208	210	211	209
166	1	210	212	213	211
167	1	212	214	215	213
168	1	214	216	23	215
171	1	215	23	198	217
172	1	217	198	201	218
173	1	218	201	204	219
174	1	219	204	21	182
175	1	213	215	217	220
176	1	220	217	218	221
177	1	221	218	219	222
178	1	222	219	182	185
179	1	211	213	220	223
180	1	223	220	221	224
181	1	224	221	222	225
182	1	225	222	185	188
183	1	209	211	223	226
184	1	226	223	224	227
185	1	227	224	225	228
186	1	228	225	188	191
187	1	17	209	226	155
188	1	155	226	227	157
189	1	157	227	228	159
190	1	159	228	191	19

PROPRIETA` ASTE					num.= 3
Nome	Materiale	Base	Altezza	Area	Area tag. Y	Area tag. Z
		Kw vertic.	Kw orizz.	J tors.	J fless. Y	J fless. Z
1	1	25.00	35.00	8.75000E+02	7.29167E+02	7.29167E+02
		0.000000	0.000000	1.02039E+05	4.55729E+04	8.93229E+04
2	1	40.00	22.00	8.80000E+02	7.33333E+02	7.33333E+02
		0.000000	0.000000	9.31538E+04	1.17333E+05	3.54933E+04
3	1	35.00	22.00	7.70000E+02	6.41667E+02	6.41667E+02
		0.000000	0.000000	7.56721E+04	7.86042E+04	3.10567E+04

PROPRIETA` GUSCI--|-----------|-----------|-----------|-----------|num.=   1

Nome	Materiale	Sp.membr.	Sp. piastra	Kw
1	1	30.00	30.00	4.000000

MATERIALI---------|-----------|-----------|-----------|-----------|num.=   1

Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.
1	3.00000E+05	1.50000E-01	1.30000E+05	2.50000E-03	1.00000E-05

VINCOLI-----------|-----------|-----------|-----------|-----------|-----------|num.=   204

Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ
25	bloccato	bloccato	libero	libero	libero	libero
26	bloccato	bloccato	libero	libero	libero	libero
27	bloccato	bloccato	libero	libero	libero	libero
28	bloccato	bloccato	libero	libero	libero	libero
29	bloccato	bloccato	libero	libero	libero	libero
30	bloccato	bloccato	libero	libero	libero	libero
31	bloccato	bloccato	libero	libero	libero	libero
32	bloccato	bloccato	libero	libero	libero	libero
33	bloccato	bloccato	libero	libero	libero	libero
34	bloccato	bloccato	libero	libero	libero	libero
35	bloccato	bloccato	libero	libero	libero	libero
36	bloccato	bloccato	libero	libero	libero	libero
37	bloccato	bloccato	libero	libero	libero	libero
38	bloccato	bloccato	libero	libero	libero	libero
39	bloccato	bloccato	libero	libero	libero	libero
40	bloccato	bloccato	libero	libero	libero	libero
41	bloccato	bloccato	libero	libero	libero	libero
42	bloccato	bloccato	libero	libero	libero	libero
43	bloccato	bloccato	libero	libero	libero	libero
44	bloccato	bloccato	libero	libero	libero	libero
45	bloccato	bloccato	libero	libero	libero	libero
46	bloccato	bloccato	libero	libero	libero	libero
47	bloccato	bloccato	libero	libero	libero	libero
48	bloccato	bloccato	libero	libero	libero	libero
49	bloccato	bloccato	libero	libero	libero	libero
50	bloccato	bloccato	libero	libero	libero	libero
51	bloccato	bloccato	libero	libero	libero	libero
52	bloccato	bloccato	libero	libero	libero	libero
53	bloccato	bloccato	libero	libero	libero	libero
54	bloccato	bloccato	libero	libero	libero	libero
55	bloccato	bloccato	libero	libero	libero	libero
56	bloccato	bloccato	libero	libero	libero	libero
57	bloccato	bloccato	libero	libero	libero	libero
58	bloccato	bloccato	libero	libero	libero	libero
59	bloccato	bloccato	libero	libero	libero	libero
60	bloccato	bloccato	libero	libero	libero	libero
61	bloccato	bloccato	libero	libero	libero	libero
62	bloccato	bloccato	libero	libero	libero	libero
63	bloccato	bloccato	libero	libero	libero	libero
64	bloccato	bloccato	libero	libero	libero	libero
65	bloccato	bloccato	libero	libero	libero	libero
66	bloccato	bloccato	libero	libero	libero	libero
67	bloccato	bloccato	libero	libero	libero	libero
68	bloccato	bloccato	libero	libero	libero	libero
69	bloccato	bloccato	libero	libero	libero	libero
70	bloccato	bloccato	libero	libero	libero	libero
71	bloccato	bloccato	libero	libero	libero	libero
72	bloccato	bloccato	libero	libero	libero	libero
73	bloccato	bloccato	libero	libero	libero	libero
74	bloccato	bloccato	libero	libero	libero	libero
75	bloccato	bloccato	libero	libero	libero	libero
76	bloccato	bloccato	libero	libero	libero	libero
77	bloccato	bloccato	libero	libero	libero	libero
78	bloccato	bloccato	libero	libero	libero	libero
79	bloccato	bloccato	libero	libero	libero	libero
80	bloccato	bloccato	libero	libero	libero	libero
81	bloccato	bloccato	libero	libero	libero	libero
82	bloccato	bloccato	libero	libero	libero	libero
83	bloccato	bloccato	libero	libero	libero	libero
84	bloccato	bloccato	libero	libero	libero	libero
85	bloccato	bloccato	libero	libero	libero	libero
86	bloccato	bloccato	libero	libero	libero	libero
87	bloccato	bloccato	libero	libero	libero	libero
88	bloccato	bloccato	libero	libero	libero	libero
89	bloccato	bloccato	libero	libero	libero	libero
90	bloccato	bloccato	libero	libero	libero	libero
91	bloccato	bloccato	libero	libero	libero	libero
92	bloccato	bloccato	libero	libero	libero	libero
93	bloccato	bloccato	libero	libero	libero	libero
94	bloccato	bloccato	libero	libero	libero	libero
95	bloccato	bloccato	libero	libero	libero	libero
96	bloccato	bloccato	libero	libero	libero	libero
97	bloccato	bloccato	libero	libero	libero	libero
98	bloccato	bloccato	libero	libero	libero	libero
99	bloccato	bloccato	libero	libero	libero	libero
100	bloccato	bloccato	libero	libero	libero	libero
101	bloccato	bloccato	libero	libero	libero	libero
102	bloccato	bloccato	libero	libero	libero	libero
103	bloccato	bloccato	libero	libero	libero	libero
104	bloccato	bloccato	libero	libero	libero	libero
105	bloccato	bloccato	libero	libero	libero	libero
106	bloccato	bloccato	libero	libero	libero	libero
107	bloccato	bloccato	libero	libero	libero	libero
108	bloccato	bloccato	libero	libero	libero	libero
109	bloccato	bloccato	libero	libero	libero	libero
110	bloccato	bloccato	libero	libero	libero	libero
111	bloccato	bloccato	libero	libero	libero	libero

112	bloccato	bloccato	libero	libero	libero	libero
113	bloccato	bloccato	libero	libero	libero	libero
114	bloccato	bloccato	libero	libero	libero	libero
115	bloccato	bloccato	libero	libero	libero	libero
116	bloccato	bloccato	libero	libero	libero	libero
117	bloccato	bloccato	libero	libero	libero	libero
118	bloccato	bloccato	libero	libero	libero	libero
119	bloccato	bloccato	libero	libero	libero	libero
120	bloccato	bloccato	libero	libero	libero	libero
121	bloccato	bloccato	libero	libero	libero	libero
122	bloccato	bloccato	libero	libero	libero	libero
123	bloccato	bloccato	libero	libero	libero	libero
124	bloccato	bloccato	libero	libero	libero	libero
125	bloccato	bloccato	libero	libero	libero	libero
126	bloccato	bloccato	libero	libero	libero	libero
127	bloccato	bloccato	libero	libero	libero	libero
128	bloccato	bloccato	libero	libero	libero	libero
129	bloccato	bloccato	libero	libero	libero	libero
130	bloccato	bloccato	libero	libero	libero	libero
131	bloccato	bloccato	libero	libero	libero	libero
132	bloccato	bloccato	libero	libero	libero	libero
133	bloccato	bloccato	libero	libero	libero	libero
134	bloccato	bloccato	libero	libero	libero	libero
135	bloccato	bloccato	libero	libero	libero	libero
136	bloccato	bloccato	libero	libero	libero	libero
137	bloccato	bloccato	libero	libero	libero	libero
138	bloccato	bloccato	libero	libero	libero	libero
139	bloccato	bloccato	libero	libero	libero	libero
140	bloccato	bloccato	libero	libero	libero	libero
141	bloccato	bloccato	libero	libero	libero	libero
142	bloccato	bloccato	libero	libero	libero	libero
143	bloccato	bloccato	libero	libero	libero	libero
144	bloccato	bloccato	libero	libero	libero	libero
145	bloccato	bloccato	libero	libero	libero	libero
146	bloccato	bloccato	libero	libero	libero	libero
147	bloccato	bloccato	libero	libero	libero	libero
148	bloccato	bloccato	libero	libero	libero	libero
149	bloccato	bloccato	libero	libero	libero	libero
150	bloccato	bloccato	libero	libero	libero	libero
151	bloccato	bloccato	libero	libero	libero	libero
152	bloccato	bloccato	libero	libero	libero	libero
153	bloccato	bloccato	libero	libero	libero	libero
154	bloccato	bloccato	libero	libero	libero	libero
155	bloccato	bloccato	libero	libero	libero	libero
156	bloccato	bloccato	libero	libero	libero	libero
157	bloccato	bloccato	libero	libero	libero	libero
158	bloccato	bloccato	libero	libero	libero	libero
159	bloccato	bloccato	libero	libero	libero	libero
160	bloccato	bloccato	libero	libero	libero	libero
161	bloccato	bloccato	libero	libero	libero	libero
162	bloccato	bloccato	libero	libero	libero	libero
163	bloccato	bloccato	libero	libero	libero	libero
164	bloccato	bloccato	libero	libero	libero	libero
165	bloccato	bloccato	libero	libero	libero	libero
166	bloccato	bloccato	libero	libero	libero	libero
167	bloccato	bloccato	libero	libero	libero	libero
168	bloccato	bloccato	libero	libero	libero	libero
169	bloccato	bloccato	libero	libero	libero	libero
170	bloccato	bloccato	libero	libero	libero	libero
171	bloccato	bloccato	libero	libero	libero	libero
172	bloccato	bloccato	libero	libero	libero	libero
173	bloccato	bloccato	libero	libero	libero	libero
174	bloccato	bloccato	libero	libero	libero	libero
175	bloccato	bloccato	libero	libero	libero	libero
176	bloccato	bloccato	libero	libero	libero	libero
177	bloccato	bloccato	libero	libero	libero	libero
178	bloccato	bloccato	libero	libero	libero	libero
179	bloccato	bloccato	libero	libero	libero	libero
180	bloccato	bloccato	libero	libero	libero	libero
181	bloccato	bloccato	libero	libero	libero	libero
182	bloccato	bloccato	libero	libero	libero	libero
183	bloccato	bloccato	libero	libero	libero	libero
184	bloccato	bloccato	libero	libero	libero	libero
185	bloccato	bloccato	libero	libero	libero	libero
186	bloccato	bloccato	libero	libero	libero	libero
187	bloccato	bloccato	libero	libero	libero	libero
188	bloccato	bloccato	libero	libero	libero	libero
189	bloccato	bloccato	libero	libero	libero	libero
190	bloccato	bloccato	libero	libero	libero	libero
191	bloccato	bloccato	libero	libero	libero	libero
192	bloccato	bloccato	libero	libero	libero	libero
193	bloccato	bloccato	libero	libero	libero	libero
194	bloccato	bloccato	libero	libero	libero	libero
195	bloccato	bloccato	libero	libero	libero	libero
196	bloccato	bloccato	libero	libero	libero	libero
197	bloccato	bloccato	libero	libero	libero	libero
198	bloccato	bloccato	libero	libero	libero	libero
199	bloccato	bloccato	libero	libero	libero	libero
200	bloccato	bloccato	libero	libero	libero	libero
201	bloccato	bloccato	libero	libero	libero	libero
202	bloccato	bloccato	libero	libero	libero	libero
203	bloccato	bloccato	libero	libero	libero	libero
204	bloccato	bloccato	libero	libero	libero	libero
205	bloccato	bloccato	libero	libero	libero	libero
206	bloccato	bloccato	libero	libero	libero	libero
207	bloccato	bloccato	libero	libero	libero	libero
208	bloccato	bloccato	libero	libero	libero	libero

209	bloccato	bloccato	libero	libero	libero	libero
210	bloccato	bloccato	libero	libero	libero	libero
211	bloccato	bloccato	libero	libero	libero	libero
212	bloccato	bloccato	libero	libero	libero	libero
213	bloccato	bloccato	libero	libero	libero	libero
214	bloccato	bloccato	libero	libero	libero	libero
215	bloccato	bloccato	libero	libero	libero	libero
216	bloccato	bloccato	libero	libero	libero	libero
217	bloccato	bloccato	libero	libero	libero	libero
218	bloccato	bloccato	libero	libero	libero	libero
219	bloccato	bloccato	libero	libero	libero	libero
220	bloccato	bloccato	libero	libero	libero	libero
221	bloccato	bloccato	libero	libero	libero	libero
222	bloccato	bloccato	libero	libero	libero	libero
223	bloccato	bloccato	libero	libero	libero	libero
224	bloccato	bloccato	libero	libero	libero	libero
225	bloccato	bloccato	libero	libero	libero	libero
226	bloccato	bloccato	libero	libero	libero	libero
227	bloccato	bloccato	libero	libero	libero	libero
228	bloccato	bloccato	libero	libero	libero	libero

CARICHI NODI------|-----------|-----------|-----------|-----------|num.= 72

Nome	Nodo	Direzione	Intensita`
1 - 48	: Forze Dinamiche (Autovettori)		
49 - 72	: Momenti Torcenti Addizionali		

CARICHI DI SOLAIO-|-----------|-----------|-----------|-----------|num.= 3

Nome	Cos X	Cos Y	Cos Z	Cond.	Rifer.	Intens.	Quota
1	0.0000	1.0000	0.0000	2	glob	-0.02000	365.00
2	0.0000	1.0000	0.0000	1	glob	-0.02500	365.00
3	0.0000	1.0000	0.0000	4	glob	-0.02000	365.00

CARICHI ASTE------|-----------|-----------|-----------|-----------|num.= 58

Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4
73 S001-p.proprioh=18+4	13	Z	FT	glo	-4.237	-4.237	0.000	0.000
74 S001-p.proprioh=18+4	14	Z	FT	glo	-4.237	-4.237	0.000	0.000
75 S001-p.proprioh=18+4	15	Z	FT	glo	-4.237	-4.237	0.000	0.000
76 S001-p.proprioh=18+4	16	Z	FT	glo	-4.237	-4.237	0.000	0.000
77 S001-p.proprioh=18+4	17	Z	FT	glo	-4.237	-4.237	0.000	0.000
78 S001-p.proprioh=18+4	18	Z	FT	glo	-4.237	-4.237	0.000	0.000
79 S001-p.proprioh=18+4	19	Z	FT	glo	-4.237	-4.237	0.000	0.000
80 S001-p.proprioh=18+4	20	Z	FT	glo	-4.237	-4.237	0.000	0.000
81 S001-p.proprioh=18+4	21	Z	FT	glo	-4.237	-4.237	0.000	0.000
82 S001-p.proprioh=18+4	22	Z	FT	glo	-4.237	-4.237	0.000	0.000
83 S001-SOTTOTETTO	13	Z	FT	glo	-3.390	-3.390	0.000	0.000
84 S001-SOTTOTETTO	14	Z	FT	glo	-3.390	-3.390	0.000	0.000
85 S001-SOTTOTETTO	15	Z	FT	glo	-3.390	-3.390	0.000	0.000
86 S001-SOTTOTETTO	16	Z	FT	glo	-3.390	-3.390	0.000	0.000
87 S001-SOTTOTETTO	17	Z	FT	glo	-3.390	-3.390	0.000	0.000
88 S001-SOTTOTETTO	18	Z	FT	glo	-3.390	-3.390	0.000	0.000
89 S001-SOTTOTETTO	19	Z	FT	glo	-3.390	-3.390	0.000	0.000
90 S001-SOTTOTETTO	20	Z	FT	glo	-3.390	-3.390	0.000	0.000
91 S001-SOTTOTETTO	21	Z	FT	glo	-3.390	-3.390	0.000	0.000
92 S001-SOTTOTETTO	22	Z	FT	glo	-3.390	-3.390	0.000	0.000
93 S001-VAR_NEVE	13	Z	FT	glo	-3.390	-3.390	0.000	0.000
94 S001-VAR_NEVE	14	Z	FT	glo	-3.390	-3.390	0.000	0.000
95 S001-VAR_NEVE	15	Z	FT	glo	-3.390	-3.390	0.000	0.000
96 S001-VAR_NEVE	16	Z	FT	glo	-3.390	-3.390	0.000	0.000
97 S001-VAR_NEVE	17	Z	FT	glo	-3.390	-3.390	0.000	0.000
98 S001-VAR_NEVE	18	Z	FT	glo	-3.390	-3.390	0.000	0.000
99 S001-VAR_NEVE	19	Z	FT	glo	-3.390	-3.390	0.000	0.000
100 S001-VAR_NEVE	20	Z	FT	glo	-3.390	-3.390	0.000	0.000
101 S001-VAR_NEVE	21	Z	FT	glo	-3.390	-3.390	0.000	0.000
102 S001-VAR_NEVE	22	Z	FT	glo	-3.390	-3.390	0.000	0.000

PESI PROPRI ASTE--|-----------|-----------|-----------|-----------|-----------|

Cond.	Nome Carichi	Aste
1	103-130	1-28

CARICHI DI LINEA |-----------|-----------|-----------|-----------|num.= 0

Nome	numero coordinata inizio	fine	Cond.	Direz.	Intensità inizio	fine	Descrizione

CARICHI GUSCI-----|-----------|-----------|-----------|-----------|num.= 380

Nome	Guscio	Dir	Tip	RIF	Intensita`
131 SUPLATEA	1	Z	FD	glo	-0.07500
132 SUPLATEA	2	Z	FD	glo	-0.07500
133 SUPLATEA	3	Z	FD	glo	-0.07500
134 SUPLATEA	4	Z	FD	glo	-0.07500
135 SUPLATEA	5	Z	FD	glo	-0.07500
136 SUPLATEA	6	Z	FD	glo	-0.07500
137 SUPLATEA	7	Z	FD	glo	-0.07500
138 SUPLATEA	8	Z	FD	glo	-0.07500
139 SUPLATEA	9	Z	FD	glo	-0.07500
140 SUPLATEA	10	Z	FD	glo	-0.07500
141 SUPLATEA	11	Z	FD	glo	-0.07500
142 SUPLATEA	12	Z	FD	glo	-0.07500
143 SUPLATEA	13	Z	FD	glo	-0.07500
144 SUPLATEA	14	Z	FD	glo	-0.07500
145 SUPLATEA	15	Z	FD	glo	-0.07500
146 SUPLATEA	16	Z	FD	glo	-0.07500
147 SUPLATEA	17	Z	FD	glo	-0.07500
148 SUPLATEA	18	Z	FD	glo	-0.07500
149 SUPLATEA	19	Z	FD	glo	-0.07500
150 SUPLATEA	20	Z	FD	glo	-0.07500
151 SUPLATEA	21	Z	FD	glo	-0.07500
152 SUPLATEA	22	Z	FD	glo	-0.07500

153	SUPLATEA	23	Z	FD	glo	-0.07500
154	SUPLATEA	24	Z	FD	glo	-0.07500
155	SUPLATEA	25	Z	FD	glo	-0.07500
156	SUPLATEA	26	Z	FD	glo	-0.07500
157	SUPLATEA	27	Z	FD	glo	-0.07500
158	SUPLATEA	28	Z	FD	glo	-0.07500
159	SUPLATEA	29	Z	FD	glo	-0.07500
160	SUPLATEA	30	Z	FD	glo	-0.07500
161	SUPLATEA	31	Z	FD	glo	-0.07500
162	SUPLATEA	32	Z	FD	glo	-0.07500
163	SUPLATEA	33	Z	FD	glo	-0.07500
164	SUPLATEA	34	Z	FD	glo	-0.07500
165	SUPLATEA	35	Z	FD	glo	-0.07500
166	SUPLATEA	36	Z	FD	glo	-0.07500
167	SUPLATEA	37	Z	FD	glo	-0.07500
168	SUPLATEA	38	Z	FD	glo	-0.07500
169	SUPLATEA	39	Z	FD	glo	-0.07500
170	SUPLATEA	40	Z	FD	glo	-0.07500
171	SUPLATEA	41	Z	FD	glo	-0.07500
172	SUPLATEA	42	Z	FD	glo	-0.07500
173	SUPLATEA	43	Z	FD	glo	-0.07500
174	SUPLATEA	44	Z	FD	glo	-0.07500
175	SUPLATEA	45	Z	FD	glo	-0.07500
176	SUPLATEA	46	Z	FD	glo	-0.07500
177	SUPLATEA	47	Z	FD	glo	-0.07500
178	SUPLATEA	48	Z	FD	glo	-0.07500
179	SUPLATEA	49	Z	FD	glo	-0.07500
180	SUPLATEA	50	Z	FD	glo	-0.07500
181	SUPLATEA	51	Z	FD	glo	-0.07500
182	SUPLATEA	52	Z	FD	glo	-0.07500
183	SUPLATEA	53	Z	FD	glo	-0.07500
184	SUPLATEA	54	Z	FD	glo	-0.07500
185	SUPLATEA	55	Z	FD	glo	-0.07500
186	SUPLATEA	56	Z	FD	glo	-0.07500
187	SUPLATEA	57	Z	FD	glo	-0.07500
188	SUPLATEA	58	Z	FD	glo	-0.07500
189	SUPLATEA	59	Z	FD	glo	-0.07500
190	SUPLATEA	60	Z	FD	glo	-0.07500
191	SUPLATEA	61	Z	FD	glo	-0.07500
192	SUPLATEA	62	Z	FD	glo	-0.07500
193	SUPLATEA	63	Z	FD	glo	-0.07500
194	SUPLATEA	64	Z	FD	glo	-0.07500
195	SUPLATEA	65	Z	FD	glo	-0.07500
196	SUPLATEA	66	Z	FD	glo	-0.07500
197	SUPLATEA	67	Z	FD	glo	-0.07500
198	SUPLATEA	68	Z	FD	glo	-0.07500
199	SUPLATEA	69	Z	FD	glo	-0.07500
200	SUPLATEA	70	Z	FD	glo	-0.07500
201	SUPLATEA	71	Z	FD	glo	-0.07500
202	SUPLATEA	72	Z	FD	glo	-0.07500
203	SUPLATEA	73	Z	FD	glo	-0.07500
204	SUPLATEA	74	Z	FD	glo	-0.07500
205	SUPLATEA	75	Z	FD	glo	-0.07500
206	SUPLATEA	76	Z	FD	glo	-0.07500
207	SUPLATEA	77	Z	FD	glo	-0.07500
208	SUPLATEA	78	Z	FD	glo	-0.07500
209	SUPLATEA	79	Z	FD	glo	-0.07500
210	SUPLATEA	80	Z	FD	glo	-0.07500
211	SUPLATEA	81	Z	FD	glo	-0.07500
212	SUPLATEA	82	Z	FD	glo	-0.07500
213	SUPLATEA	83	Z	FD	glo	-0.07500
214	SUPLATEA	84	Z	FD	glo	-0.07500
215	SUPLATEA	85	Z	FD	glo	-0.07500
216	SUPLATEA	86	Z	FD	glo	-0.07500
217	SUPLATEA	87	Z	FD	glo	-0.07500
218	SUPLATEA	88	Z	FD	glo	-0.07500
219	SUPLATEA	89	Z	FD	glo	-0.07500
220	SUPLATEA	90	Z	FD	glo	-0.07500
221	SUPLATEA	91	Z	FD	glo	-0.07500
222	SUPLATEA	92	Z	FD	glo	-0.07500
223	SUPLATEA	93	Z	FD	glo	-0.07500
224	SUPLATEA	94	Z	FD	glo	-0.07500
225	SUPLATEA	95	Z	FD	glo	-0.07500
226	SUPLATEA	96	Z	FD	glo	-0.07500
227	SUPLATEA	97	Z	FD	glo	-0.07500
228	SUPLATEA	98	Z	FD	glo	-0.07500
229	SUPLATEA	99	Z	FD	glo	-0.07500
230	SUPLATEA	100	Z	FD	glo	-0.07500
231	SUPLATEA	101	Z	FD	glo	-0.07500
232	SUPLATEA	102	Z	FD	glo	-0.07500
233	SUPLATEA	103	Z	FD	glo	-0.07500
234	SUPLATEA	104	Z	FD	glo	-0.07500
235	SUPLATEA	105	Z	FD	glo	-0.07500
236	SUPLATEA	106	Z	FD	glo	-0.07500
237	SUPLATEA	107	Z	FD	glo	-0.07500
238	SUPLATEA	108	Z	FD	glo	-0.07500
239	SUPLATEA	109	Z	FD	glo	-0.07500
240	SUPLATEA	110	Z	FD	glo	-0.07500
241	SUPLATEA	111	Z	FD	glo	-0.07500
242	SUPLATEA	112	Z	FD	glo	-0.07500
243	SUPLATEA	113	Z	FD	glo	-0.07500
244	SUPLATEA	114	Z	FD	glo	-0.07500
245	SUPLATEA	115	Z	FD	glo	-0.07500
246	SUPLATEA	116	Z	FD	glo	-0.07500
247	SUPLATEA	117	Z	FD	glo	-0.07500
248	SUPLATEA	118	Z	FD	glo	-0.07500
249	SUPLATEA	119	Z	FD	glo	-0.07500

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   250 SUPLATEA                120  Z   FD glo    -0.07500
   251 SUPLATEA                121  Z   FD glo    -0.07500
   252 SUPLATEA                122  Z   FD glo    -0.07500
   253 SUPLATEA                123  Z   FD glo    -0.07500
   254 SUPLATEA                124  Z   FD glo    -0.07500
   255 SUPLATEA                125  Z   FD glo    -0.07500
   256 SUPLATEA                126  Z   FD glo    -0.07500
   257 SUPLATEA                127  Z   FD glo    -0.07500
   258 SUPLATEA                128  Z   FD glo    -0.07500
   259 SUPLATEA                129  Z   FD glo    -0.07500
   260 SUPLATEA                130  Z   FD glo    -0.07500
   261 SUPLATEA                131  Z   FD glo    -0.07500
   262 SUPLATEA                132  Z   FD glo    -0.07500
   263 SUPLATEA                133  Z   FD glo    -0.07500
   264 SUPLATEA                134  Z   FD glo    -0.07500
   265 SUPLATEA                135  Z   FD glo    -0.07500
   266 SUPLATEA                136  Z   FD glo    -0.07500
   267 SUPLATEA                137  Z   FD glo    -0.07500
   268 SUPLATEA                138  Z   FD glo    -0.07500
   269 SUPLATEA                139  Z   FD glo    -0.07500
   270 SUPLATEA                140  Z   FD glo    -0.07500
   271 SUPLATEA                141  Z   FD glo    -0.07500
   272 SUPLATEA                142  Z   FD glo    -0.07500
   273 SUPLATEA                143  Z   FD glo    -0.07500
   274 SUPLATEA                144  Z   FD glo    -0.07500
   275 SUPLATEA                145  Z   FD glo    -0.07500
   276 SUPLATEA                146  Z   FD glo    -0.07500
   277 SUPLATEA                147  Z   FD glo    -0.07500
   278 SUPLATEA                148  Z   FD glo    -0.07500
   279 SUPLATEA                149  Z   FD glo    -0.07500
   280 SUPLATEA                150  Z   FD glo    -0.07500
   281 SUPLATEA                151  Z   FD glo    -0.07500
   282 SUPLATEA                152  Z   FD glo    -0.07500
   283 SUPLATEA                153  Z   FD glo    -0.07500
   284 SUPLATEA                154  Z   FD glo    -0.07500
   285 SUPLATEA                155  Z   FD glo    -0.07500
   286 SUPLATEA                156  Z   FD glo    -0.07500
   287 SUPLATEA                157  Z   FD glo    -0.07500
   288 SUPLATEA                158  Z   FD glo    -0.07500
   289 SUPLATEA                159  Z   FD glo    -0.07500
   290 SUPLATEA                160  Z   FD glo    -0.07500
   291 SUPLATEA                161  Z   FD glo    -0.07500
   292 SUPLATEA                162  Z   FD glo    -0.07500
   293 SUPLATEA                163  Z   FD glo    -0.07500
   294 SUPLATEA                164  Z   FD glo    -0.07500
   295 SUPLATEA                165  Z   FD glo    -0.07500
   296 SUPLATEA                166  Z   FD glo    -0.07500
   297 SUPLATEA                167  Z   FD glo    -0.07500
   298 SUPLATEA                168  Z   FD glo    -0.07500
   299 SUPLATEA                169  Z   FD glo    -0.07500
   300 SUPLATEA                170  Z   FD glo    -0.07500
   301 SUPLATEA                171  Z   FD glo    -0.07500
   302 SUPLATEA                172  Z   FD glo    -0.07500
   303 SUPLATEA                173  Z   FD glo    -0.07500
   304 SUPLATEA                174  Z   FD glo    -0.07500
   305 SUPLATEA                175  Z   FD glo    -0.07500
   306 SUPLATEA                176  Z   FD glo    -0.07500
   307 SUPLATEA                177  Z   FD glo    -0.07500
   308 SUPLATEA                178  Z   FD glo    -0.07500
   309 SUPLATEA                179  Z   FD glo    -0.07500
   310 SUPLATEA                180  Z   FD glo    -0.07500
   311 SUPLATEA                181  Z   FD glo    -0.07500
   312 SUPLATEA                182  Z   FD glo    -0.07500
   313 SUPLATEA                183  Z   FD glo    -0.07500
   314 SUPLATEA                184  Z   FD glo    -0.07500
   315 SUPLATEA                185  Z   FD glo    -0.07500
   316 SUPLATEA                186  Z   FD glo    -0.07500
   317 SUPLATEA                187  Z   FD glo    -0.07500
   318 SUPLATEA                188  Z   FD glo    -0.07500
   319 SUPLATEA                189  Z   FD glo    -0.07500
   320 SUPLATEA                190  Z   FD glo    -0.07500

PESI PROPRI GUSCI-|-----------|-----------|-----------|-----------|-----------|
  Cond.  Nome Carichi          Gusci
     5   321-510               1-190

CONDIZIONI DI CARICO----------|-----------|-----------|-----------|num.=     11
  Nome
     1  Peso_proprio________   N. carichi:   38
        Lista carichi: 73-82, 103-130

     2  Permanente_________   N. carichi:   10
        Lista carichi: 83-92

     3  A:Var_abitazione___   N. carichi:    0
        Lista carichi:

     4  Neve_(<1000m_slm)__   N. carichi:   10
        Lista carichi: 93-102

     5           PERM_FONDA   N. carichi:  380
        Lista carichi: 131-510

     6      Torcente_add._X   N. carichi:   12
        Lista carichi: 49-60

     7      Torcente_add._Y   N. carichi:   12
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       Lista carichi: 61-72

    8     Autovett_001_(Y)   N. carichi:   12
       Lista carichi: 1-12

    9     Autovett_002_(X)   N. carichi:   12
       Lista carichi: 13-24

   10     Autovett_002_(Y)   N. carichi:   12
       Lista carichi: 25-36

   11     Autovett_003_(X)   N. carichi:   12
       Lista carichi: 37-48

 RISULTANTI DEI CARICHI (punto di applicazione nell'origine degli assi):
 cond.          FX            FY            FZ            MX            MY            MZ
    1  0.000000E+00  0.000000E+00 -4.052133E+04 -9.051491E+08  5.270124E+09  0.000000E+00
    2  0.000000E+00  0.000000E+00 -1.423122E+04 -3.178913E+08  1.851102E+09  0.000000E+00
    3  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00
    4  0.000000E+00  0.000000E+00 -1.423122E+04 -3.178913E+08  1.851102E+09  0.000000E+00
    5  0.000000E+00  0.000000E+00 -1.957200E+05 -4.376808E+09  2.545305E+10  0.000000E+00
    6  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00 -1.192974E+05
    7  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  7.386779E+05
    8  0.000000E+00  6.848910E+03  0.000000E+00 -2.499852E+06  0.000000E+00  8.915223E+08
    9  9.000000E-02  0.000000E+00  0.000000E+00  0.000000E+00  3.285000E+01 -3.035859E+03
   10  0.000000E+00  1.893200E+02  0.000000E+00 -6.910180E+04  0.000000E+00  2.390725E+07
   11  7.038240E+03  0.000000E+00  0.000000E+00  0.000000E+00  2.568958E+06 -1.572164E+08
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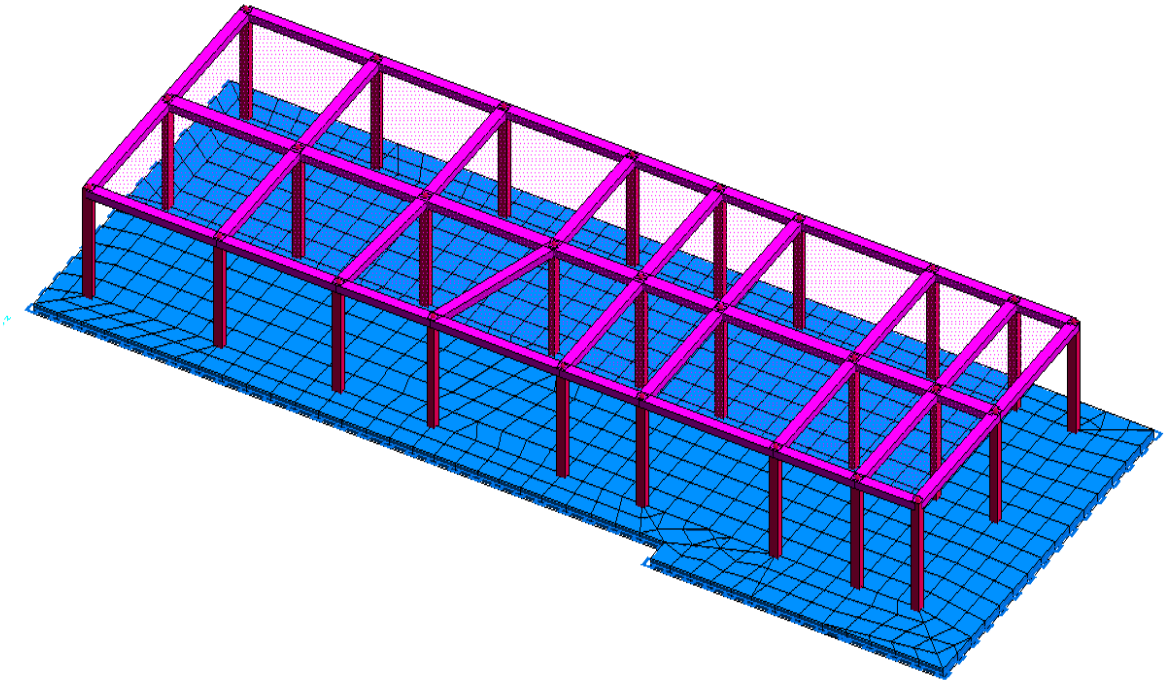
Canile Rifugio



MODELLO DI CALCOLO CANILE RIFUGIO

```
*** DATI STRUTTURA

Unita` di misura :
LUNGHEZZE         : cm
SUPERFICI         : cm2
DATI SEZIONALI    : cm
ANGOLI            : gradi
FORZE             : daN
MOMENTI           : daNcm
CARICHI LINEARI   : daN/cm
CARICHI SUPERFIC.: daN/cm2
TENSIONI          : daN/cm2
PESI DI VOLUME    : daN/cm3
COEFF. DI WINKLER: daN/cm3
RIGIDEZZE VINCOL.: daN/cm - daNcm/rad


NODI--|-----------|-----------|-----------|-----------|-----------|num.=    795
  Nome     Coord. X    Coord. Y    Coord. Z
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443	117816.200	30079.300	0.000
444	117902.400	30079.300	0.000
445	117471.600	29989.400	0.000
446	117557.700	29989.400	0.000
447	117643.900	29989.400	0.000
448	117730.100	29989.400	0.000
449	117816.200	29989.400	0.000
450	117471.600	29899.500	0.000
451	117557.700	29899.500	0.000
452	117643.900	29899.500	0.000
453	117730.100	29899.500	0.000
454	117816.200	29899.500	0.000
455	117902.400	29899.500	0.000
456	117471.600	29809.600	0.000
457	117557.700	29809.600	0.000
458	117643.900	29809.600	0.000
459	117730.100	29809.600	0.000
460	117816.200	29809.600	0.000
461	117902.400	29809.600	0.000
462	117471.600	29719.700	0.000
463	117557.700	29719.700	0.000
464	117643.900	29719.700	0.000
465	117730.100	29719.700	0.000
466	117816.200	29719.700	0.000
467	117902.400	29719.700	0.000
468	117471.600	29629.800	0.000
469	117557.700	29629.800	0.000
470	117643.900	29629.800	0.000
471	117730.100	29629.800	0.000
472	117816.200	29629.800	0.000
473	117902.400	29629.800	0.000
474	117471.600	29539.800	0.000
475	117557.700	29539.800	0.000
476	117643.900	29539.800	0.000
477	117730.100	29539.800	0.000
478	117816.200	29539.800	0.000
479	117902.400	29539.800	0.000
480	117986.600	29989.400	0.000
481	117986.600	30079.300	0.000
482	118070.700	29989.400	0.000
483	118070.700	30079.300	0.000
484	118154.900	29989.400	0.000
485	118154.900	30079.300	0.000
486	118239.100	29989.400	0.000
487	118239.100	30079.300	0.000
488	118323.200	29989.400	0.000
489	118323.200	30079.300	0.000
490	118407.400	30079.300	0.000
491	117986.600	30169.300	0.000
492	118070.700	30169.300	0.000
493	118154.900	30169.300	0.000
494	118239.100	30169.300	0.000
495	118323.200	30169.300	0.000
496	118407.400	30169.300	0.000
497	117986.600	30259.200	0.000
498	118070.700	30259.200	0.000
499	118154.900	30259.200	0.000
500	118239.100	30259.200	0.000
501	118323.200	30259.200	0.000
502	118407.400	30259.200	0.000
503	117986.600	30349.100	0.000
504	118070.700	30349.100	0.000
505	118154.900	30349.100	0.000
506	118239.100	30349.100	0.000
507	118323.200	30349.100	0.000

508	118407.400	30349.100	0.000
509	117986.600	30439.000	0.000
510	118070.700	30439.000	0.000
511	118154.900	30439.000	0.000
512	118239.100	30439.000	0.000
513	118323.200	30439.000	0.000
514	118407.400	30439.000	0.000
515	118379.900	29539.800	0.000
516	118284.400	29539.800	0.000
517	118188.900	29539.800	0.000
518	118093.400	29539.800	0.000
519	117997.900	29539.800	0.000
520	118385.400	29629.800	0.000
521	118288.800	29629.800	0.000
522	118192.200	29629.800	0.000
523	118095.600	29629.800	0.000
524	117999.000	29629.800	0.000
525	118390.900	29719.700	0.000
526	118293.200	29719.700	0.000
527	118195.500	29719.700	0.000
528	118097.800	29719.700	0.000
529	118000.100	29719.700	0.000
530	118396.400	29809.600	0.000
531	118297.600	29809.600	0.000
532	118198.800	29809.600	0.000
533	118100.000	29809.600	0.000
534	118001.200	29809.600	0.000
535	118401.900	29899.500	0.000
536	118302.000	29899.500	0.000
537	118202.100	29899.500	0.000
538	118102.200	29899.500	0.000
539	118002.300	29899.500	0.000
540	118492.200	29989.400	0.000
541	118492.200	30079.300	0.000
542	118577.100	29989.400	0.000
543	118577.100	30079.300	0.000
544	118661.900	29989.400	0.000
545	118661.900	30079.300	0.000
546	118746.700	29989.400	0.000
547	118746.700	30079.300	0.000
548	118831.600	29989.400	0.000
549	118831.600	30079.300	0.000
550	118916.400	30079.300	0.000
551	118492.200	30169.300	0.000
552	118577.100	30169.300	0.000
553	118661.900	30169.300	0.000
554	118746.700	30169.300	0.000
555	118831.600	30169.300	0.000
556	118916.400	30169.300	0.000
557	118492.200	30259.200	0.000
558	118577.100	30259.200	0.000
559	118661.900	30259.200	0.000
560	118746.700	30259.200	0.000
561	118831.600	30259.200	0.000
562	118916.400	30259.200	0.000
563	118492.200	30349.100	0.000
564	118577.100	30349.100	0.000
565	118661.900	30349.100	0.000
566	118746.700	30349.100	0.000
567	118831.600	30349.100	0.000
568	118916.400	30349.100	0.000
569	118492.200	30439.000	0.000
570	118577.100	30439.000	0.000
571	118661.900	30439.000	0.000
572	118746.700	30439.000	0.000
573	118831.600	30439.000	0.000
574	118916.400	30439.000	0.000
575	118774.600	29541.900	0.000
576	118675.900	29541.400	0.000
577	118577.200	29540.900	0.000
578	118478.600	29540.400	0.000
579	118802.900	29631.400	0.000
580	118719.400	29631.100	0.000
581	118635.900	29630.800	0.000
582	118552.400	29630.400	0.000
583	118468.900	29630.100	0.000
584	118831.300	29720.900	0.000
585	118743.200	29720.700	0.000
586	118655.200	29720.400	0.000
587	118567.100	29720.200	0.000
588	118479.000	29719.900	0.000
589	118859.700	29810.400	0.000
590	118767.000	29810.300	0.000
591	118674.400	29810.100	0.000
592	118581.700	29809.900	0.000
593	118489.100	29809.800	0.000
594	118888.000	29899.900	0.000
595	118790.800	29899.800	0.000
596	118693.600	29899.800	0.000
597	118596.400	29899.700	0.000
598	118499.100	29899.600	0.000
599	118981.600	29899.800	0.000
600	119002.900	29989.400	0.000
601	119075.200	29899.700	0.000
602	119089.400	29989.400	0.000
603	119168.800	29899.600	0.000
604	119175.900	29989.400	0.000

605	119262.400	29899.500	0.000
606	118940.200	29810.300	0.000
607	119020.800	29810.100	0.000
608	119101.300	29809.900	0.000
609	119181.900	29809.800	0.000
610	119262.400	29809.600	0.000
611	118917.500	29720.700	0.000
612	119003.800	29720.400	0.000
613	119090.000	29720.200	0.000
614	119176.200	29719.900	0.000
615	119262.400	29719.700	0.000
616	118894.800	29631.100	0.000
617	118986.700	29630.800	0.000
618	119078.600	29630.400	0.000
619	119170.500	29630.100	0.000
620	119262.400	29629.800	0.000
621	118872.100	29541.500	0.000
622	118969.700	29541.100	0.000
623	119067.300	29540.700	0.000
624	119164.800	29540.300	0.000
625	119262.400	29539.800	0.000
626	119341.200	29899.500	0.000
627	119341.200	29989.400	0.000
628	119419.900	29899.500	0.000
629	119419.900	29989.400	0.000
630	119498.700	29899.500	0.000
631	119498.700	29989.400	0.000
632	119577.400	29899.500	0.000
633	119341.200	29809.600	0.000
634	119419.900	29809.600	0.000
635	119498.700	29809.600	0.000
636	119577.400	29809.600	0.000
637	119341.200	29719.700	0.000
638	119419.900	29719.700	0.000
639	119498.700	29719.700	0.000
640	119577.400	29719.700	0.000
641	119341.200	29629.800	0.000
642	119419.900	29629.800	0.000
643	119498.700	29629.800	0.000
644	119577.400	29629.800	0.000
645	119341.200	29539.800	0.000
646	119419.900	29539.800	0.000
647	119498.700	29539.800	0.000
648	119577.400	29539.800	0.000
649	119175.900	30439.000	0.000
650	119262.400	30439.000	0.000
651	119089.400	30439.000	0.000
652	119002.900	30439.000	0.000
653	119175.900	30349.100	0.000
654	119262.400	30349.100	0.000
655	119089.400	30349.100	0.000
656	119002.900	30349.100	0.000
657	119175.900	30259.200	0.000
658	119262.400	30259.200	0.000
659	119089.400	30259.200	0.000
660	119002.900	30259.200	0.000
661	119175.900	30169.300	0.000
662	119262.400	30169.300	0.000
663	119089.400	30169.300	0.000
664	119002.900	30169.300	0.000
665	119175.900	30079.300	0.000
666	119262.400	30079.300	0.000
667	119089.400	30079.300	0.000
668	119002.900	30079.300	0.000
669	119341.200	30079.300	0.000
670	119419.900	30079.300	0.000
671	119498.700	30079.300	0.000
672	119577.400	30079.300	0.000
673	119341.200	30169.300	0.000
674	119419.900	30169.300	0.000
675	119498.700	30169.300	0.000
676	119577.400	30169.300	0.000
677	119341.200	30259.200	0.000
678	119419.900	30259.200	0.000
679	119498.700	30259.200	0.000
680	119577.400	30259.200	0.000
681	119341.200	30349.100	0.000
682	119419.900	30349.100	0.000
683	119498.700	30349.100	0.000
684	119577.400	30349.100	0.000
685	119341.200	30439.000	0.000
686	119419.900	30439.000	0.000
687	119498.700	30439.000	0.000
688	119577.400	30439.000	0.000
689	119665.600	30439.000	0.000
690	119753.700	30439.000	0.000
691	119841.900	30439.000	0.000
692	119930.100	30439.000	0.000
693	120018.200	30439.000	0.000
694	120106.400	30439.000	0.000
695	119665.600	30349.100	0.000
696	119753.700	30349.100	0.000
697	119841.900	30349.100	0.000
698	119930.100	30349.100	0.000
699	120018.200	30349.100	0.000
700	120106.400	30349.100	0.000
701	119665.600	30259.200	0.000

702	119753.700	30259.200	0.000
703	119841.900	30259.200	0.000
704	119930.100	30259.200	0.000
705	120018.200	30259.200	0.000
706	120106.400	30259.200	0.000
707	119665.600	30169.300	0.000
708	119753.700	30169.300	0.000
709	119841.900	30169.300	0.000
710	119930.100	30169.300	0.000
711	120018.200	30169.300	0.000
712	120106.400	30169.300	0.000
713	119665.600	30079.300	0.000
714	119753.700	30079.300	0.000
715	119841.900	30079.300	0.000
716	119930.100	30079.300	0.000
717	120018.200	30079.300	0.000
718	120106.400	30079.300	0.000
719	119665.600	29989.400	0.000
720	119753.700	29989.400	0.000
721	119841.900	29989.400	0.000
722	119930.100	29989.400	0.000
723	120018.200	29989.400	0.000
724	119665.600	29899.500	0.000
725	119753.700	29899.500	0.000
726	119841.900	29899.500	0.000
727	119930.100	29899.500	0.000
728	120018.200	29899.500	0.000
729	120106.400	29899.500	0.000
730	119665.600	29809.600	0.000
731	119753.700	29809.600	0.000
732	119841.900	29809.600	0.000
733	119930.100	29809.600	0.000
734	120018.200	29809.600	0.000
735	120106.400	29809.600	0.000
736	119665.600	29719.700	0.000
737	119753.700	29719.700	0.000
738	119841.900	29719.700	0.000
739	119930.100	29719.700	0.000
740	120018.200	29719.700	0.000
741	120106.400	29719.700	0.000
742	119665.600	29629.800	0.000
743	119753.700	29629.800	0.000
744	119841.900	29629.800	0.000
745	119930.100	29629.800	0.000
746	120018.200	29629.800	0.000
747	120106.400	29629.800	0.000
748	119665.600	29539.800	0.000
749	119753.700	29539.800	0.000
750	119841.900	29539.800	0.000
751	119930.100	29539.800	0.000
752	120018.200	29539.800	0.000
753	120106.400	29539.800	0.000
754	120187.200	29899.500	0.000
755	120187.200	29989.400	0.000
756	120267.900	29899.500	0.000
757	120267.900	29989.400	0.000
758	120348.700	29899.500	0.000
759	120348.700	29989.400	0.000
760	120429.400	29899.500	0.000
761	120187.200	29809.600	0.000
762	120267.900	29809.600	0.000
763	120348.700	29809.600	0.000
764	120429.400	29809.600	0.000
765	120187.200	29719.700	0.000
766	120267.900	29719.700	0.000
767	120348.700	29719.700	0.000
768	120429.400	29719.700	0.000
769	120187.200	29629.800	0.000
770	120267.900	29629.800	0.000
771	120348.700	29629.800	0.000
772	120429.400	29629.800	0.000
773	120187.200	29539.800	0.000
774	120267.900	29539.800	0.000
775	120348.700	29539.800	0.000
776	120429.400	29539.800	0.000
777	120348.700	30439.000	0.000
778	120429.400	30439.000	0.000
779	120267.900	30439.000	0.000
780	120187.200	30439.000	0.000
781	120348.700	30349.100	0.000
782	120429.400	30349.100	0.000
783	120267.900	30349.100	0.000
784	120187.200	30349.100	0.000
785	120348.700	30259.200	0.000
786	120429.400	30259.200	0.000
787	120267.900	30259.200	0.000
788	120187.200	30259.200	0.000
789	120348.700	30169.300	0.000
790	120429.400	30169.300	0.000
791	120267.900	30169.300	0.000
792	120187.200	30169.300	0.000
793	120348.700	30079.300	0.000
794	120429.400	30079.300	0.000
795	120267.900	30079.300	0.000
796	120187.200	30079.300	0.000
797	120508.600	29989.400	0.000
798	120508.400	30079.300	0.000

799	120587.800	29989.400	0.000	
800	120587.500	30079.300	0.000	
801	120508.300	30169.300	0.000	
802	120587.200	30169.300	0.000	
803	120508.200	30259.200	0.000	
804	120586.900	30259.200	0.000	
805	120508.000	30349.100	0.000	
806	120586.600	30349.100	0.000	
807	120507.900	30439.000	0.000	
808	120586.400	30439.000	0.000	
809	120508.600	29899.700	0.000	
810	120587.800	29899.800	0.000	
811	120508.600	29809.900	0.000	
812	120587.800	29810.200	0.000	
813	120508.600	29720.100	0.000	
814	120587.800	29720.500	0.000	
815	120508.600	29630.300	0.000	
816	120587.700	29630.900	0.000	
817	120508.600	29540.500	0.000	
818	120587.700	29541.200	0.000	

ASTE--|----------|----------|----------|----------|----------|num.= 69

Nome	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.	Orient.
1	2	1	2			90.0
2	2	3	4			90.0
3	2	5	6			90.0
4	2	7	8			90.0
5	2	9	10			90.0
6	2	11	12			90.0
7	2	13	14			90.0
8	2	15	16			90.0
9	2	17	18			0.0
10	2	19	20			90.0
11	2	21	22			90.0
12	2	23	24			0.0
13	2	25	26			90.0
14	2	27	28			90.0
15	2	29	30			0.0
16	2	31	32			0.0
17	2	33	34			90.0
18	2	35	36			90.0
19	2	37	38			90.0
20	1	39	40			90.0
21	2	41	42			90.0
22	2	43	44			90.0
23	2	45	46			90.0
24	2	47	48			90.0
25	1	49	50			0.0
26	1	51	52			0.0
27	2	53	54			90.0
44	4	18	20			0.0
45	4	20	22			0.0
46	4	22	24			0.0
47	4	24	26			0.0
48	4	26	28			0.0
49	4	28	30			0.0
50	4	30	32			0.0
51	4	32	52			0.0
52	3	16	54			0.0
53	3	14	16			0.0
54	3	12	14			0.0
55	3	10	12			0.0
56	3	8	10			0.0
57	3	6	8			0.0
58	3	4	6			0.0
59	3	2	4			0.0
60	3	34	36			0.0
61	3	36	38			0.0
62	3	38	40			0.0
63	3	40	42			0.0
64	3	42	44			0.0
65	3	44	46			0.0
66	3	46	48			0.0
67	3	48	50			0.0
68	3	50	52			0.0
69	3	52	54			0.0
70	3	32	16			0.0
71	3	48	32			0.0
72	3	30	14			0.0
73	3	46	30			0.0
74	3	28	12			0.0
75	3	44	28			0.0
76	3	26	10			0.0
77	3	42	26			0.0
78	3	24	8			0.0
79	3	40	24			0.0
80	3	22	6			0.0
81	3	38	22			0.0
82	3	20	4			0.0
83	3	36	20			0.0
84	3	18	2			0.0
85	3	34	18			0.0

GUSCI TRIANGOLARI--|----------|----------|----------|----------|num.= 33

Nome	Proprieta`	Nodo 1	Nodo 2	Nodo 3
13	1	74	17	73
27	1	93	33	92

41	1	111	112	35
81	1	166	167	43
83	1	165	169	168
102	1	193	195	196
104	1	194	197	198
106	1	43	167	199
107	1	167	168	199
108	1	200	45	201
110	1	196	202	197
111	1	196	195	202
113	1	169	205	193
118	1	195	210	200
122	1	213	214	45
134	1	216	230	215
140	1	236	237	232
144	1	240	241	237
149	1	223	245	244
172	1	49	232	275
174	1	237	241	276
176	1	276	277	274
196	1	53	300	301
205	1	302	303	314
207	1	53	301	312
208	1	301	313	312
267	1	397	395	396
281	1	57	1	413
418	1	484	537	486
463	1	576	580	581
483	1	546	595	548
493	1	606	607	599
513	1	154	151	621

GUSCI RETTANGOLARI|----------|----------|----------|----------|num.= 695

Nome	Proprieta`	Nodo 1	Nodo 2	Nodo 3	Nodo 4
1	1	55	56	57	58
2	1	56	59	1	57
3	1	60	61	56	55
4	1	61	62	59	56
5	1	63	64	61	60
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674	1	747	769	765	741
675	1	769	770	766	765
676	1	770	771	767	766
677	1	771	772	768	767
678	1	753	773	769	747
679	1	773	774	770	769
680	1	774	775	771	770
681	1	775	776	772	771
682	1	45	229	773	753
683	1	229	225	774	773
684	1	225	219	775	774
685	1	219	47	776	775
686	1	777	778	15	323
687	1	779	777	323	320
688	1	780	779	320	315
689	1	694	780	315	13
690	1	781	782	778	777
691	1	783	781	777	779
692	1	784	783	779	780
693	1	700	784	780	694
694	1	785	786	782	781

695	1	787	785	781	783
696	1	788	787	783	784
697	1	706	788	784	700
698	1	789	790	786	785
699	1	791	789	785	787
700	1	792	791	787	788
701	1	712	792	788	706
702	1	793	794	790	789
703	1	795	793	789	791
704	1	796	795	791	792
705	1	718	796	792	712
706	1	759	31	794	793
707	1	757	759	793	795
708	1	755	757	795	796
709	1	29	755	796	718
710	1	31	797	798	794
711	1	797	799	800	798
712	1	799	51	281	800
713	1	794	798	801	790
714	1	798	800	802	801
715	1	800	281	285	802
716	1	790	801	803	786
717	1	801	802	804	803
718	1	802	285	289	804
719	1	786	803	805	782
720	1	803	804	806	805
721	1	804	289	293	806
722	1	782	805	807	778
723	1	805	806	808	807
724	1	806	293	297	808
725	1	778	807	308	15
726	1	807	808	311	308
727	1	808	297	53	311
728	1	760	809	797	31
729	1	809	810	799	797
730	1	810	256	51	799
731	1	764	811	809	760
732	1	811	812	810	809
733	1	812	260	256	810
734	1	768	813	811	764
735	1	813	814	812	811
736	1	814	264	260	812
737	1	772	815	813	768
738	1	815	816	814	813
739	1	816	268	264	814
740	1	776	817	815	772
741	1	817	818	816	815
742	1	818	272	268	816
743	1	47	235	817	776
744	1	235	233	818	817
745	1	233	49	272	818

PROPRIETA` ASTE---|----------|----------|----------|----------|num.= 4

Nome	Materiale	Base Kw vertic.	Altezza Kw orizz.	Area J tors.	Area tag. Y J fless. Y	Area tag. Z J fless. Z
1	1	30.00	30.00	9.00000E+02	7.50000E+02	7.50000E+02
		0.000000	0.000000	1.14073E+05	6.75000E+04	6.75000E+04
2	1	35.00	25.00	8.75000E+02	7.29167E+02	7.29167E+02
		0.000000	0.000000	1.02039E+05	8.93229E+04	4.55729E+04
3	1	40.00	22.00	8.80000E+02	7.33333E+02	7.33333E+02
		0.000000	0.000000	9.31538E+04	1.17333E+05	3.54933E+04
4	1	50.00	22.00	1.10000E+03	9.16667E+02	9.16667E+02
		0.000000	0.000000	1.28425E+05	2.29167E+05	4.43667E+04

PROPRIETA` GUSCI--|----------|----------|----------|----------|num.= 1

Nome	Materiale	Sp.membr.	Sp. piastra	Kw
1	1	30.00	30.00	4.000000

MATERIALI---------|----------|----------|----------|----------|num.= 1

Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.
1	3.00000E+05	1.50000E-01	1.30000E+05	2.50000E-03	1.00000E-05

VINCOLI-----------|----------|----------|----------|----------|num.= 741

Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ
55	bloccato	bloccato	libero	libero	libero	libero
56	bloccato	bloccato	libero	libero	libero	libero
57	bloccato	bloccato	libero	libero	libero	libero
58	bloccato	bloccato	libero	libero	libero	libero
59	bloccato	bloccato	libero	libero	libero	libero
60	bloccato	bloccato	libero	libero	libero	libero
61	bloccato	bloccato	libero	libero	libero	libero
62	bloccato	bloccato	libero	libero	libero	libero
63	bloccato	bloccato	libero	libero	libero	libero
64	bloccato	bloccato	libero	libero	libero	libero
65	bloccato	bloccato	libero	libero	libero	libero
66	bloccato	bloccato	libero	libero	libero	libero
67	bloccato	bloccato	libero	libero	libero	libero
68	bloccato	bloccato	libero	libero	libero	libero
69	bloccato	bloccato	libero	libero	libero	libero
70	bloccato	bloccato	libero	libero	libero	libero
71	bloccato	bloccato	libero	libero	libero	libero
72	bloccato	bloccato	libero	libero	libero	libero
73	bloccato	bloccato	libero	libero	libero	libero
74	bloccato	bloccato	libero	libero	libero	libero
75	bloccato	bloccato	libero	libero	libero	libero
76	bloccato	bloccato	libero	libero	libero	libero
77	bloccato	bloccato	libero	libero	libero	libero

78	bloccato	bloccato	libero	libero	libero	libero
79	bloccato	bloccato	libero	libero	libero	libero
80	bloccato	bloccato	libero	libero	libero	libero
81	bloccato	bloccato	libero	libero	libero	libero
82	bloccato	bloccato	libero	libero	libero	libero
83	bloccato	bloccato	libero	libero	libero	libero
84	bloccato	bloccato	libero	libero	libero	libero
85	bloccato	bloccato	libero	libero	libero	libero
86	bloccato	bloccato	libero	libero	libero	libero
87	bloccato	bloccato	libero	libero	libero	libero
88	bloccato	bloccato	libero	libero	libero	libero
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91	bloccato	bloccato	libero	libero	libero	libero
92	bloccato	bloccato	libero	libero	libero	libero
93	bloccato	bloccato	libero	libero	libero	libero
94	bloccato	bloccato	libero	libero	libero	libero
95	bloccato	bloccato	libero	libero	libero	libero
96	bloccato	bloccato	libero	libero	libero	libero
97	bloccato	bloccato	libero	libero	libero	libero
98	bloccato	bloccato	libero	libero	libero	libero
99	bloccato	bloccato	libero	libero	libero	libero
100	bloccato	bloccato	libero	libero	libero	libero
101	bloccato	bloccato	libero	libero	libero	libero
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103	bloccato	bloccato	libero	libero	libero	libero
104	bloccato	bloccato	libero	libero	libero	libero
105	bloccato	bloccato	libero	libero	libero	libero
106	bloccato	bloccato	libero	libero	libero	libero
107	bloccato	bloccato	libero	libero	libero	libero
108	bloccato	bloccato	libero	libero	libero	libero
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717	bloccato	bloccato	libero	libero	libero	libero
718	bloccato	bloccato	libero	libero	libero	libero
719	bloccato	bloccato	libero	libero	libero	libero
720	bloccato	bloccato	libero	libero	libero	libero
721	bloccato	bloccato	libero	libero	libero	libero
722	bloccato	bloccato	libero	libero	libero	libero
723	bloccato	bloccato	libero	libero	libero	libero
724	bloccato	bloccato	libero	libero	libero	libero
725	bloccato	bloccato	libero	libero	libero	libero
726	bloccato	bloccato	libero	libero	libero	libero
727	bloccato	bloccato	libero	libero	libero	libero
728	bloccato	bloccato	libero	libero	libero	libero
729	bloccato	bloccato	libero	libero	libero	libero
730	bloccato	bloccato	libero	libero	libero	libero
731	bloccato	bloccato	libero	libero	libero	libero
732	bloccato	bloccato	libero	libero	libero	libero
733	bloccato	bloccato	libero	libero	libero	libero
734	bloccato	bloccato	libero	libero	libero	libero
735	bloccato	bloccato	libero	libero	libero	libero
736	bloccato	bloccato	libero	libero	libero	libero
737	bloccato	bloccato	libero	libero	libero	libero
738	bloccato	bloccato	libero	libero	libero	libero
739	bloccato	bloccato	libero	libero	libero	libero
740	bloccato	bloccato	libero	libero	libero	libero
741	bloccato	bloccato	libero	libero	libero	libero
742	bloccato	bloccato	libero	libero	libero	libero
743	bloccato	bloccato	libero	libero	libero	libero
744	bloccato	bloccato	libero	libero	libero	libero
745	bloccato	bloccato	libero	libero	libero	libero
746	bloccato	bloccato	libero	libero	libero	libero
747	bloccato	bloccato	libero	libero	libero	libero
748	bloccato	bloccato	libero	libero	libero	libero
749	bloccato	bloccato	libero	libero	libero	libero
750	bloccato	bloccato	libero	libero	libero	libero
751	bloccato	bloccato	libero	libero	libero	libero
752	bloccato	bloccato	libero	libero	libero	libero
753	bloccato	bloccato	libero	libero	libero	libero
754	bloccato	bloccato	libero	libero	libero	libero
755	bloccato	bloccato	libero	libero	libero	libero
756	bloccato	bloccato	libero	libero	libero	libero
757	bloccato	bloccato	libero	libero	libero	libero
758	bloccato	bloccato	libero	libero	libero	libero
759	bloccato	bloccato	libero	libero	libero	libero
760	bloccato	bloccato	libero	libero	libero	libero
761	bloccato	bloccato	libero	libero	libero	libero
762	bloccato	bloccato	libero	libero	libero	libero
763	bloccato	bloccato	libero	libero	libero	libero
764	bloccato	bloccato	libero	libero	libero	libero
765	bloccato	bloccato	libero	libero	libero	libero
766	bloccato	bloccato	libero	libero	libero	libero
767	bloccato	bloccato	libero	libero	libero	libero
768	bloccato	bloccato	libero	libero	libero	libero
769	bloccato	bloccato	libero	libero	libero	libero
770	bloccato	bloccato	libero	libero	libero	libero
771	bloccato	bloccato	libero	libero	libero	libero
772	bloccato	bloccato	libero	libero	libero	libero
773	bloccato	bloccato	libero	libero	libero	libero
774	bloccato	bloccato	libero	libero	libero	libero
775	bloccato	bloccato	libero	libero	libero	libero
776	bloccato	bloccato	libero	libero	libero	libero
777	bloccato	bloccato	libero	libero	libero	libero
778	bloccato	bloccato	libero	libero	libero	libero
779	bloccato	bloccato	libero	libero	libero	libero

780	bloccato	bloccato	libero	libero	libero	libero
781	bloccato	bloccato	libero	libero	libero	libero
782	bloccato	bloccato	libero	libero	libero	libero
783	bloccato	bloccato	libero	libero	libero	libero
784	bloccato	bloccato	libero	libero	libero	libero
785	bloccato	bloccato	libero	libero	libero	libero
786	bloccato	bloccato	libero	libero	libero	libero
787	bloccato	bloccato	libero	libero	libero	libero
788	bloccato	bloccato	libero	libero	libero	libero
789	bloccato	bloccato	libero	libero	libero	libero
790	bloccato	bloccato	libero	libero	libero	libero
791	bloccato	bloccato	libero	libero	libero	libero
792	bloccato	bloccato	libero	libero	libero	libero
793	bloccato	bloccato	libero	libero	libero	libero
794	bloccato	bloccato	libero	libero	libero	libero
795	bloccato	bloccato	libero	libero	libero	libero
796	bloccato	bloccato	libero	libero	libero	libero
797	bloccato	bloccato	libero	libero	libero	libero
798	bloccato	bloccato	libero	libero	libero	libero
799	bloccato	bloccato	libero	libero	libero	libero
800	bloccato	bloccato	libero	libero	libero	libero
801	bloccato	bloccato	libero	libero	libero	libero
802	bloccato	bloccato	libero	libero	libero	libero
803	bloccato	bloccato	libero	libero	libero	libero
804	bloccato	bloccato	libero	libero	libero	libero
805	bloccato	bloccato	libero	libero	libero	libero
806	bloccato	bloccato	libero	libero	libero	libero
807	bloccato	bloccato	libero	libero	libero	libero
808	bloccato	bloccato	libero	libero	libero	libero
809	bloccato	bloccato	libero	libero	libero	libero
810	bloccato	bloccato	libero	libero	libero	libero
811	bloccato	bloccato	libero	libero	libero	libero
812	bloccato	bloccato	libero	libero	libero	libero
813	bloccato	bloccato	libero	libero	libero	libero
814	bloccato	bloccato	libero	libero	libero	libero
815	bloccato	bloccato	libero	libero	libero	libero
816	bloccato	bloccato	libero	libero	libero	libero
817	bloccato	bloccato	libero	libero	libero	libero
818	bloccato	bloccato	libero	libero	libero	libero

CARICHI NODI------|-----------|-----------|-----------|-----------|num.= 213

Nome	Nodo	Direzione	Intensita`
1 -	159 : Forze Dinamiche (Autovettori)		
160 -	213 : Momenti Torcenti Addizionali		

CARICHI DI SOLAIO-|-----------|-----------|-----------|-----------|num.= 3

Nome	Cos X	Cos Y	Cos Z	Cond.	Rifer.	Intens.	Quota
1	0.0000	1.0000	0.0000	1	glob	-0.02500	340.00
2	0.0000	1.0000	0.0000	2	glob	-0.02000	340.00
3	0.0000	1.0000	0.0000	4	glob	-0.02000	340.00

CARICHI ASTE------|-----------|-----------|-----------|-----------|num.= 147

Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4
214 S001-p.proprioh=18+4	44	Z	FT	glo	-13.488	-13.488	0.000	0.000
215 S001-p.proprioh=18+4	45	Z	FT	glo	-13.899	-12.635	0.000	0.000
216 S001-p.proprioh=18+4	46	Z	FT	glo	-14.976	-9.711	0.000	0.000
217 S001-p.proprioh=18+4	47	Z	FT	glo	-13.466	-13.487	0.000	0.000
218 S001-p.proprioh=18+4	48	Z	FT	glo	-13.487	-13.487	0.000	0.000
219 S001-p.proprioh=18+4	49	Z	FT	glo	-13.487	-13.487	0.000	0.000
220 S001-p.proprioh=18+4	50	Z	FT	glo	-13.487	-13.487	0.000	0.000
221 S001-p.proprioh=18+4	51	Z	FT	glo	-13.488	-13.456	0.000	0.000
222 S001-p.proprioh=18+4	52	Z	FT	glo	-6.744	-6.744	0.000	0.000
223 S001-p.proprioh=18+4	53	Z	FT	glo	-6.744	-6.744	0.000	0.000
224 S001-p.proprioh=18+4	54	Z	FT	glo	-6.744	-6.744	0.000	0.000
225 S001-p.proprioh=18+4	55	Z	FT	glo	-6.744	-6.744	0.000	0.000
226 S001-p.proprioh=18+4	56	Z	FT	glo	-6.744	-6.744	0.000	0.000
227 S001-p.proprioh=18+4	57	Z	FT	glo	-6.744	-6.744	0.000	0.000
228 S001-p.proprioh=18+4	58	Z	FT	glo	-6.744	-6.744	0.000	0.000
229 S001-p.proprioh=18+4	59	Z	FT	glo	-6.744	-6.744	0.000	0.000
230 S001-p.proprioh=18+4	60	Z	FT	glo	-6.744	-6.744	0.000	0.000
231 S001-p.proprioh=18+4	61	Z	FT	glo	-6.744	-6.744	0.000	0.000
232 S001-p.proprioh=18+4	62	Z	FT	glo	-5.600	-7.258	0.000	0.000
233 S001-p.proprioh=18+4	63	Z	FT	glo	-3.016	-8.227	0.000	0.000
234 S001-p.proprioh=18+4	64	Z	FT	glo	-6.744	-6.744	0.000	0.000
235 S001-p.proprioh=18+4	65	Z	FT	glo	-6.744	-6.744	0.000	0.000
236 S001-p.proprioh=18+4	66	Z	FT	glo	-6.744	-6.744	0.000	0.000
237 S001-p.proprioh=18+4	67	Z	FT	glo	-6.743	-6.712	0.000	0.000
238 S001-p.proprioh=18+4	79	Z	FT	glo	-2.028	-2.031	0.000	0.000
239 S001-p.proprioh=18+4	81	Z	FT	glo	-0.412	-0.412	0.000	0.000
240 S001-sottotetto_non_	44	Z	FT	glo	-10.790	-10.790	0.000	0.000
241 S001-sottotetto_non_	45	Z	FT	glo	-11.120	-10.108	0.000	0.000
242 S001-sottotetto_non_	46	Z	FT	glo	-11.980	-7.769	0.000	0.000
243 S001-sottotetto_non_	47	Z	FT	glo	-10.773	-10.790	0.000	0.000
244 S001-sottotetto_non_	48	Z	FT	glo	-10.790	-10.790	0.000	0.000
245 S001-sottotetto_non_	49	Z	FT	glo	-10.790	-10.790	0.000	0.000
246 S001-sottotetto_non_	50	Z	FT	glo	-10.790	-10.790	0.000	0.000
247 S001-sottotetto_non_	51	Z	FT	glo	-10.790	-10.764	0.000	0.000
248 S001-sottotetto_non_	52	Z	FT	glo	-5.395	-5.395	0.000	0.000
249 S001-sottotetto_non_	53	Z	FT	glo	-5.395	-5.395	0.000	0.000
250 S001-sottotetto_non_	54	Z	FT	glo	-5.395	-5.395	0.000	0.000
251 S001-sottotetto_non_	55	Z	FT	glo	-5.395	-5.395	0.000	0.000
252 S001-sottotetto_non_	56	Z	FT	glo	-5.395	-5.395	0.000	0.000
253 S001-sottotetto_non_	57	Z	FT	glo	-5.395	-5.395	0.000	0.000
254 S001-sottotetto_non_	58	Z	FT	glo	-5.395	-5.395	0.000	0.000
255 S001-sottotetto_non_	59	Z	FT	glo	-5.395	-5.395	0.000	0.000
256 S001-sottotetto_non_	60	Z	FT	glo	-5.395	-5.395	0.000	0.000
257 S001-sottotetto_non_	61	Z	FT	glo	-5.395	-5.395	0.000	0.000

258	S001-sottotetto_non_	62	Z	FT	glo	-4.480	-5.806	0.000	0.000
259	S001-sottotetto_non_	63	Z	FT	glo	-2.413	-6.582	0.000	0.000
260	S001-sottotetto_non_	64	Z	FT	glo	-5.395	-5.395	0.000	0.000
261	S001-sottotetto_non_	65	Z	FT	glo	-5.395	-5.395	0.000	0.000
262	S001-sottotetto_non_	66	Z	FT	glo	-5.395	-5.395	0.000	0.000
263	S001-sottotetto_non_	67	Z	FT	glo	-5.395	-5.370	0.000	0.000
264	S001-sottotetto_non_	79	Z	FT	glo	-1.623	-1.625	0.000	0.000
265	S001-sottotetto_non_	81	Z	FT	glo	-0.329	-0.329	0.000	0.000
266	S001-variabile_neve_	44	Z	FT	glo	-10.790	-10.790	0.000	0.000
267	S001-variabile_neve_	45	Z	FT	glo	-11.120	-10.108	0.000	0.000
268	S001-variabile_neve_	46	Z	FT	glo	-11.980	-7.769	0.000	0.000
269	S001-variabile_neve_	47	Z	FT	glo	-10.773	-10.790	0.000	0.000
270	S001-variabile_neve_	48	Z	FT	glo	-10.790	-10.790	0.000	0.000
271	S001-variabile_neve_	49	Z	FT	glo	-10.790	-10.790	0.000	0.000
272	S001-variabile_neve_	50	Z	FT	glo	-10.790	-10.790	0.000	0.000
273	S001-variabile_neve_	51	Z	FT	glo	-10.790	-10.764	0.000	0.000
274	S001-variabile_neve_	52	Z	FT	glo	-5.395	-5.395	0.000	0.000
275	S001-variabile_neve_	53	Z	FT	glo	-5.395	-5.395	0.000	0.000
276	S001-variabile_neve_	54	Z	FT	glo	-5.395	-5.395	0.000	0.000
277	S001-variabile_neve_	55	Z	FT	glo	-5.395	-5.395	0.000	0.000
278	S001-variabile_neve_	56	Z	FT	glo	-5.395	-5.395	0.000	0.000
279	S001-variabile_neve_	57	Z	FT	glo	-5.395	-5.395	0.000	0.000
280	S001-variabile_neve_	58	Z	FT	glo	-5.395	-5.395	0.000	0.000
281	S001-variabile_neve_	59	Z	FT	glo	-5.395	-5.395	0.000	0.000
282	S001-variabile_neve_	60	Z	FT	glo	-5.395	-5.395	0.000	0.000
283	S001-variabile_neve_	61	Z	FT	glo	-5.395	-5.395	0.000	0.000
284	S001-variabile_neve_	62	Z	FT	glo	-4.480	-5.806	0.000	0.000
285	S001-variabile_neve_	63	Z	FT	glo	-2.413	-6.582	0.000	0.000
286	S001-variabile_neve_	64	Z	FT	glo	-5.395	-5.395	0.000	0.000
287	S001-variabile_neve_	65	Z	FT	glo	-5.395	-5.395	0.000	0.000
288	S001-variabile_neve_	66	Z	FT	glo	-5.395	-5.395	0.000	0.000
289	S001-variabile_neve_	67	Z	FT	glo	-5.395	-5.370	0.000	0.000
290	S001-variabile_neve_	79	Z	FT	glo	-1.623	-1.625	0.000	0.000
291	S001-variabile_neve_	81	Z	FT	glo	-0.329	-0.329	0.000	0.000

PESI PROPRI ASTE--|----------|----------|----------|----------|----------|

Cond.	Nome Carichi	Aste
1	292-360	1-27, 44-85

CARICHI DI LINEA |----------|----------|----------|----------|num.= 0

Nome	numero coordinata inizio	fine	Cond.	Direz.	Intensità inizio	fine	Descrizione

CARICHI GUSCI-----|----------|----------|----------|----------|num.= 1456

Nome	Guscio	Dir	Tip	RIF	Intensita`
361	caricosuplatea	1	Z	FD	glo	-0.07500
362	caricosuplatea	2	Z	FD	glo	-0.07500
363	caricosuplatea	3	Z	FD	glo	-0.07500
364	caricosuplatea	4	Z	FD	glo	-0.07500
365	caricosuplatea	5	Z	FD	glo	-0.07500
366	caricosuplatea	6	Z	FD	glo	-0.07500
367	caricosuplatea	7	Z	FD	glo	-0.07500
368	caricosuplatea	8	Z	FD	glo	-0.07500
369	caricosuplatea	9	Z	FD	glo	-0.07500
370	caricosuplatea	10	Z	FD	glo	-0.07500
371	caricosuplatea	11	Z	FD	glo	-0.07500
372	caricosuplatea	12	Z	FD	glo	-0.07500
373	caricosuplatea	13	Z	FD	glo	-0.07500
374	caricosuplatea	14	Z	FD	glo	-0.07500
375	caricosuplatea	15	Z	FD	glo	-0.07500
376	caricosuplatea	16	Z	FD	glo	-0.07500
377	caricosuplatea	17	Z	FD	glo	-0.07500
378	caricosuplatea	18	Z	FD	glo	-0.07500
379	caricosuplatea	19	Z	FD	glo	-0.07500
380	caricosuplatea	20	Z	FD	glo	-0.07500
381	caricosuplatea	21	Z	FD	glo	-0.07500
382	caricosuplatea	22	Z	FD	glo	-0.07500
383	caricosuplatea	23	Z	FD	glo	-0.07500
384	caricosuplatea	24	Z	FD	glo	-0.07500
385	caricosuplatea	25	Z	FD	glo	-0.07500
386	caricosuplatea	26	Z	FD	glo	-0.07500
387	caricosuplatea	27	Z	FD	glo	-0.07500
388	caricosuplatea	28	Z	FD	glo	-0.07500
389	caricosuplatea	29	Z	FD	glo	-0.07500
390	caricosuplatea	30	Z	FD	glo	-0.07500
391	caricosuplatea	31	Z	FD	glo	-0.07500
392	caricosuplatea	32	Z	FD	glo	-0.07500
393	caricosuplatea	33	Z	FD	glo	-0.07500
394	caricosuplatea	34	Z	FD	glo	-0.07500
395	caricosuplatea	35	Z	FD	glo	-0.07500
396	caricosuplatea	36	Z	FD	glo	-0.07500
397	caricosuplatea	37	Z	FD	glo	-0.07500
398	caricosuplatea	38	Z	FD	glo	-0.07500
399	caricosuplatea	39	Z	FD	glo	-0.07500
400	caricosuplatea	40	Z	FD	glo	-0.07500
401	caricosuplatea	41	Z	FD	glo	-0.07500
402	caricosuplatea	42	Z	FD	glo	-0.07500
403	caricosuplatea	43	Z	FD	glo	-0.07500
404	caricosuplatea	44	Z	FD	glo	-0.07500
405	caricosuplatea	45	Z	FD	glo	-0.07500
406	caricosuplatea	46	Z	FD	glo	-0.07500
407	caricosuplatea	47	Z	FD	glo	-0.07500
408	caricosuplatea	48	Z	FD	glo	-0.07500
409	caricosuplatea	49	Z	FD	glo	-0.07500
410	caricosuplatea	50	Z	FD	glo	-0.07500
411	caricosuplatea	51	Z	FD	glo	-0.07500
412	caricosuplatea	52	Z	FD	glo	-0.07500

413	caricosuplatea	53	Z	FD	glo	-0.07500
414	caricosuplatea	54	Z	FD	glo	-0.07500
415	caricosuplatea	55	Z	FD	glo	-0.07500
416	caricosuplatea	56	Z	FD	glo	-0.07500
417	caricosuplatea	57	Z	FD	glo	-0.07500
418	caricosuplatea	58	Z	FD	glo	-0.07500
419	caricosuplatea	59	Z	FD	glo	-0.07500
420	caricosuplatea	60	Z	FD	glo	-0.07500
421	caricosuplatea	61	Z	FD	glo	-0.07500
422	caricosuplatea	62	Z	FD	glo	-0.07500
423	caricosuplatea	63	Z	FD	glo	-0.07500
424	caricosuplatea	64	Z	FD	glo	-0.07500
425	caricosuplatea	65	Z	FD	glo	-0.07500
426	caricosuplatea	66	Z	FD	glo	-0.07500
427	caricosuplatea	67	Z	FD	glo	-0.07500
428	caricosuplatea	68	Z	FD	glo	-0.07500
429	caricosuplatea	69	Z	FD	glo	-0.07500
430	caricosuplatea	70	Z	FD	glo	-0.07500
431	caricosuplatea	71	Z	FD	glo	-0.07500
432	caricosuplatea	72	Z	FD	glo	-0.07500
433	caricosuplatea	73	Z	FD	glo	-0.07500
434	caricosuplatea	74	Z	FD	glo	-0.07500
435	caricosuplatea	75	Z	FD	glo	-0.07500
436	caricosuplatea	76	Z	FD	glo	-0.07500
437	caricosuplatea	77	Z	FD	glo	-0.07500
438	caricosuplatea	78	Z	FD	glo	-0.07500
439	caricosuplatea	79	Z	FD	glo	-0.07500
440	caricosuplatea	80	Z	FD	glo	-0.07500
441	caricosuplatea	81	Z	FD	glo	-0.07500
442	caricosuplatea	82	Z	FD	glo	-0.07500
443	caricosuplatea	83	Z	FD	glo	-0.07500
444	caricosuplatea	101	Z	FD	glo	-0.07500
445	caricosuplatea	102	Z	FD	glo	-0.07500
446	caricosuplatea	103	Z	FD	glo	-0.07500
447	caricosuplatea	104	Z	FD	glo	-0.07500
448	caricosuplatea	105	Z	FD	glo	-0.07500
449	caricosuplatea	106	Z	FD	glo	-0.07500
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PESI PROPRI GUSCI-|-----------|-----------|-----------|-----------|-----------|

Cond.	Nome Carichi	Gusci

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     5   1089-1816              1-83, 101-745

CONDIZIONI DI CARICO----------|-----------|-----------|-----------|num.=     13
  Nome
     1  Peso_proprio_______   N. carichi:   95
        Lista carichi: 214-239, 292-360

     2  Permanente_________   N. carichi:   26
        Lista carichi: 240-265

     3  A:Var_abitazione___   N. carichi:    0
        Lista carichi:

     4  Neve_(<1000m_slm)__   N. carichi:   26
        Lista carichi: 266-291

     5  Peso_proprio_fondaz   N. carichi: 1456
        Lista carichi: 361-1816

     6      Torcente_add._X   N. carichi:   27
        Lista carichi: 160-186

     7      Torcente_add._Y   N. carichi:   27
        Lista carichi: 187-213

     8     Autovett_001_(X)   N. carichi:   27
        Lista carichi: 1-27

     9     Autovett_001_(Y)   N. carichi:   27
        Lista carichi: 28-54

    10     Autovett_002_(X)   N. carichi:   27
        Lista carichi: 55-81

    11     Autovett_002_(Y)   N. carichi:   27
        Lista carichi: 82-108

    12     Autovett_003_(X)   N. carichi:   27
        Lista carichi: 109-135

    13     Autovett_003_(Y)   N. carichi:   24
        Lista carichi: 136-159

  RISULTANTI DEI CARICHI (punto di applicazione nell'origine degli assi):
  cond.         FX            FY            FZ            MX            MY            MZ
     1  0.000000E+00  0.000000E+00 -1.534818E+05 -4.602808E+09  1.827461E+10  0.000000E+00
     2  0.000000E+00  0.000000E+00 -7.077298E+04 -2.122447E+09  8.423809E+09  0.000000E+00
     3  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00
     4  0.000000E+00  0.000000E+00 -7.077298E+04 -2.122447E+09  8.423809E+09  0.000000E+00
     5  0.000000E+00  0.000000E+00 -7.581267E+05 -2.272348E+10  9.029508E+10  0.000000E+00
     6  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00 -1.705303E+06
     7  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  0.000000E+00  5.186228E+06
     8  4.960000E+00  0.000000E+00  0.000000E+00  0.000000E+00  1.686400E+03 -1.303857E+05
     9  0.000000E+00  2.828780E+04  0.000000E+00 -9.617852E+06  0.000000E+00  3.358757E+09
    10  1.082400E+02  0.000000E+00  0.000000E+00  0.000000E+00  3.680160E+04 -2.996074E+06
    11  0.000000E+00  3.319600E+03  0.000000E+00 -1.128664E+06  0.000000E+00  4.040307E+08
    12  3.149598E+04  0.000000E+00  0.000000E+00  0.000000E+00  1.070863E+07 -9.448134E+08
    13  0.000000E+00  1.680000E+00  0.000000E+00 -5.712000E+02  0.000000E+00  2.122044E+05
```

6.2Dati analisi sismica

6.3

DATI ANALISI SISMICA sanitario:

```
ANALISI DINAMICA                                lavoro :\P-SANI
PARAMETRI DI CALCOLO:

Calcolo secondo NTC 2008
Modello generale
Assi di vibrazione:   X   Y
Somma quadratica semplice (SRSS)
DATI PROGETTO
Edificio  sito in località  SANT'ANTONINO DI S ( long. 7.275   lat. 45.106900 )

Categoria del suolo di fondazione  = C

Coeff. di amplificazione stratigrafica Ss = 1.500

Coeff. di amplificazione topografica   ST = 1.000

S   =  1.500
Vita nominale dell'opera VN     = 50  anni

Coefficiente d'uso CU           = 1.0

Periodo di riferimento VR       = 50.0

PVR : probabilità di superamento  in VR   = 10 %

Tempo di ritorno                = 475

Coeff. di smorzamento viscoso   = 5.0

Valori risultanti per :
ag  1.263  [g/10]
Fo  2.454
TC* 0.260

Edificio con struttura in cem. armato  :
Fattore di struttura q             = 3.300

   q = q0 * KR * KW    dove :
       q0 = 3.00 *  1.1 ( A telaio di un piano)   ( Classe di duttilità "B" ( bassa ) )
       KR = 1.0 ( Edifici regolari in altezza )
       KW = 1.00

Rapporto spettro di esercizio / spettro di progetto   = 1.251


CONDIZIONI DI RIFERIMENTO   COEFFICIENTE       PESO RISULTANTE
                                                    [daN]
                1.                 1.000              40521.3
                2.                 1.000              14231.2
                3.                 0.300                  0.0
                  ***  TABELLA AUTOVETTORI  ***

 n | PERIODO  |     MASSA ATTIVATA    |        COEFFICIENTI DI CORRELAZIONE
   |  [sec]   |   %X     %Y     %Z    |   n+1    n+2    n+3    n+4    n+5    n+6    n+7
 1 | 0.290123 |  0.000 88.797  0.000 |  0.000  0.000
 2 | 0.249288 |  0.001  2.455  0.000 |  0.000
 3 | 0.216796 | 91.253  0.000  0.000 |
-----------------------------------------
   MASSA TOTALE 91.254 91.252  0.000 |
```

SPOSTAMENTI NODALI:

```
                    VERIFICA SPOSTAMENTI SISMICI

spostamento limite interpiano = 0.5% dell'altezza

CASO n.  6  - SLD con SISMAX PRINC:

     Zinf |     Zsup |      h   | spost.max |     %h  |   nodo |   sest.| ver.
     [cm]       [cm]       [cm]       [cm]
     0.00 |   365.00 |   365.00 |  0.279646 |   0.077 |     24 |     12 | SI

CASO n.  7  - SLD con SISMAY PRINC:

     Zinf |     Zsup |      h   | spost.max |     %h  |   nodo |   sest.| ver.
     [cm]       [cm]       [cm]       [cm]
     0.00 |   365.00 |   365.00 |  0.538625 |   0.148 |     24 |     15 | SI

Fattore Mud (NTC 7.3.3.3) =   5.897
-----------------------------------
```

DATI ANALISI SISMICA parco:

ANALISI DINAMICA lavoro :\P-PARK

PARAMETRI DI CALCOLO:

Calcolo secondo NTC 2008
Modello generale
Assi di vibrazione: X Y
Somma quadratica semplice (SRSS)

DATI PROGETTO

Edificio sito in località SANT'ANTONINO DI S (long. 7.275 lat. 45.106900)

Categoria del suolo di fondazione = C

Coeff. di amplificazione stratigrafica Ss = 1.500

Coeff. di amplificazione topografica ST = 1.000

S = 1.500

Vita nominale dell'opera VN = 50 anni

Coefficiente d'uso CU = 1.0

Periodo di riferimento VR = 50.0

PVR : probabilità di superamento in VR = 10 %

Tempo di ritorno = 475

Coeff. di smorzamento viscoso = 5.0

Valori risultanti per :
ag 1.263 [g/10]
Fo 2.454
TC* 0.260

Edificio con struttura in cem. armato :
Fattore di struttura q = 3.150

q = q0 * KR * KW dove :
q0 = 3.00 * 1.1 (A telaio di un piano) (Classe di duttilità "B" (bassa))
KR = 1.0 (Edifici regolari in altezza)
KW = 1.00

Rapporto spettro di esercizio / spettro di progetto = 1.194

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE [daN]
1.	1.000	153481.8
2.	1.000	70773.0
3.	0.300	0.0

*** TABELLA AUTOVETTORI ***

n	PERIODO [sec]	MASSA ATTIVATA %X	%Y	%Z	COEFFICIENTI DI CORRELAZIONE n+1	n+2	n+3	n+4	n+5	n+6	n+7
1	0.353573	0.015	85.474	0.000	0.000	0.000					
2	0.286734	0.327	10.031	0.000	0.000						
3	0.273684	95.169	0.005	0.000							
	MASSA TOTALE	95.510	95.510	0.000							

SPOSTAMENTI NODALI:

VERIFICA SPOSTAMENTI SISMICI

spostamento limite interpiano = 0.5% dell'altezza

CASO n. 6 - SLD con SISMAX PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
0.00	340.00	340.00	0.438747	0.129	34	7	SI

CASO n. 7 - SLD con SISMAY PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
0.00	340.00	340.00	0.804905	0.237	2	5	SI

Fattore Mud (NTC 7.3.3.3) = 5.818

6.3 Descrizione casi di carico

I carichi agenti sulla struttura sono combinati secondo quanto prescritto dalle norme tecniche ed in particolare:

– Combinazione fondamentale, generalmente impiegata per gli stati limite ultimi (SLU):

$$\gamma_{G1}\cdot G_1 + \gamma_{G2}\cdot G_2 + \gamma_P\cdot P + \gamma_{Q1}\cdot Q_{k1} + \gamma_{Q2}\cdot\psi_{02}\cdot Q_{k2} + \gamma_{Q3}\cdot\psi_{03}\cdot Q_{k3} + \ldots \quad (2.5.1)$$

– Combinazione caratteristica (rara), generalmente impiegata per gli stati limite di esercizio (SLE) irreversibili, da utilizzarsi nelle verifiche alle tensioni ammissibili di cui al § 2.7:

$$G_1 + G_2 + P + Q_{k1} + \psi_{02}\cdot Q_{k2} + \psi_{03}\cdot Q_{k3} + \ldots \quad (2.5.2)$$

– Combinazione frequente, generalmente impiegata per gli stati limite di esercizio (SLE) reversibili:

$$G_1 + G_2 + P + \psi_{11}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \psi_{23}\cdot Q_{k3} + \ldots \quad (2.5.3)$$

– Combinazione quasi permanente (SLE), generalmente impiegata per gli effetti a lungo termine:

$$G_1 + G_2 + P + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \psi_{23}\cdot Q_{k3} + \ldots \quad (2.5.4)$$

– Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E (v. § 3.2):

$$E + G_1 + G_2 + P + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \ldots \quad (2.5.5)$$

– Combinazione eccezionale, impiegata per gli stati limite ultimi connessi alle azioni eccezionali di progetto A_d (v. § 3.6):

$$G_1 + G_2 + P + A_d + \psi_{21}\cdot Q_{k1} + \psi_{22}\cdot Q_{k2} + \ldots \quad (2.5.6)$$

I valori dei coefficienti parziali di sicurezza γ_{Gi} e γ_{Qj} sono dati in § 2.6.1, Tab. 2.6.I

Tabella 2.5.I – *Valori dei coefficienti di combinazione*

Categoria/Azione variabile	ψ**0j**	ψ**1j**	ψ**2j**
Categoria A Ambienti ad uso residenziale	0,7	0,5	0,3
Categoria B Uffici	0,7	0,5	0,3
Categoria C Ambienti suscettibili di affollamento	0,7	0,7	0,6
Categoria D Ambienti ad uso commerciale	0,7	0,7	0,6
Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	1,0	0,9	0,8
Categoria F Rimesse e parcheggi (per autoveicoli di peso ≤ 30 kN)	0,7	0,7	0,6
Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	0,7	0,5	0,3
Categoria H Coperture	0,0	0,0	0,0
Vento	0,6	0,2	0,0
Neve (a quota ≤ 1000 m s.l.m.)	0,5	0,2	0,0
Neve (a quota > 1000 m s.l.m.)	0,7	0,5	0,2
Variazioni termiche	0,6	0,5	0,0

Le varie combinazione di carico sono gestite dal programma di calcolo che genera tutti i casi di carico necessari per le verifiche

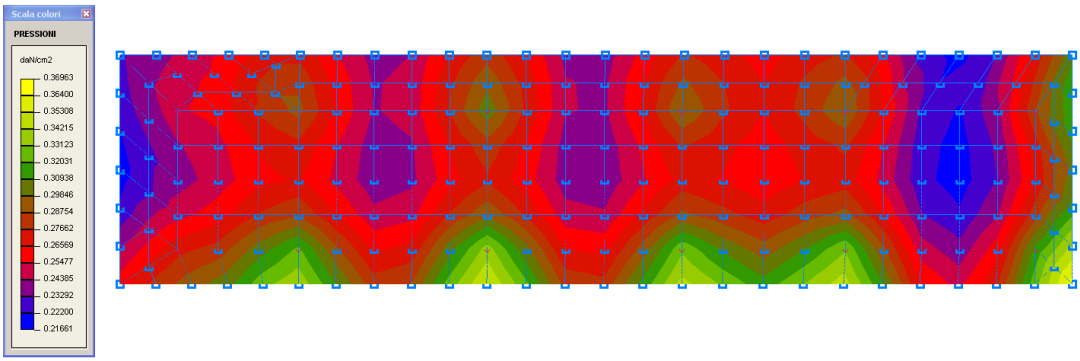
6.4 Analisi delle sollecitazioni

L'analisi del modello globale porta a valori di **inviluppo** delle sollecitazioni agenti sui vari elementi strutturali, sulla base dei quali è stata effettuata la progettazione dei singoli elementi strutturali.

6.5 Pressioni sul terreno e analisi delle fondazioni

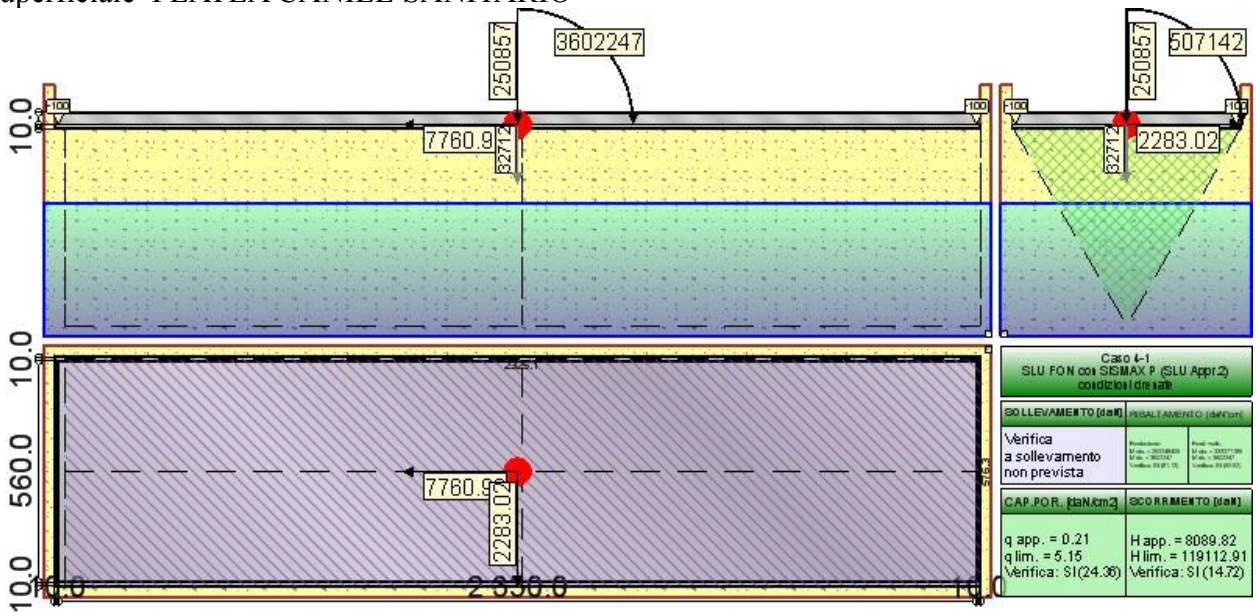
Le azioni trasmesse in fondazione derivano dall'analisi del comportamento dell'intera opera, in genere condotta esaminando la sola struttura in elevazione alla quale sono applicate le azioni statiche e sismiche, come previsto al punto 7.2.5 delle NTC.
Per la struttura in progetto, avendo una CD "B", il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azioni in fondazione le resistenze degli elementi strutturali soprastanti.
Più precisamente, la forza assiale negli elementi strutturali verticali derivante dalla combinazione delle azioni di cui al § 3.2.4 deve essere associata al concomitante valore resistente del momento flettente e del taglio; si richiede tuttavia che tali azioni risultino non maggiori di quelle trasferite dagli elementi soprastanti, amplificate con un γ_{Rd} pari a 1,1 in CD "B".
Le fondazioni superficiali sono state progettate per rimanere in campo elastico. Non sono quindi necessarie armature specifiche per ottenere un comportamento duttile.
Le platee di fondazione in c.a. presentano armature longitudinali in percentuale non inferiore allo 0,2%, sia inferiormente che superiormente, per l'intera lunghezza.
L'inviluppo delle sollecitazioni sugli elementi fondazioni, rappresentate nel diagramma delle pressioni sul terreno allegato, e nelle verifiche strutturali di ogni singolo elemento strutturale di fondazione, sono stati elaborati secondo i casi di carico agli stati limite ultimi per STR, GEO, EQU, come già illustrato nella tabella dei casi di carico presedentemente allegata.

CANILE SANITARIO



PRESSIONI CANILE SANITARIO

Valutazione della stabilità, capacità portante e resistenza a scorrimento di una fondazione superficiale PLATEA CANILE SANITARIO



Rappresentazione della fondazione.

Descrizione dei Casi di calcolo e riassunto dei risultati.

Segue il riassunto dei Casi di calcolo analizzati. I dettagli di ciascun Caso (sollecitazioni, verifiche, ecc.) sono specificati nei paragrafi successivi.

Indici e nomi dei casi di carico			Elenco delle verifiche eseguite per ciascun caso				Sisma
Caso	Nome	Sestetti	Ver. dren.	Ver. non dren.	Ver. equ.	Ver. upl.	Coef. sism.
1	SLU SENZA SISMA (SLU Appr.2)	1-1	Si	No	Si	No	$k_{h,x}$ = 0.00, $k_{h,y}$ = 0.00
1-1 Caso 1-1							
2	SLU con SISMAX PRINC (SLU Appr.2)	da 2-1 a 2-16	Si	No	Si	No	$k_{h,x}$ = 0.05, $k_{h,y}$ = 0.01
2-1 Caso 4-1; 2-2 Caso 4-2; 2-3 Caso 4-3; 2-4 Caso 4-4; 2-5 Caso 4-5; 2-6 Caso 4-6; 2-7 Caso 4-7; 2-8 Caso 4-8; 2-9 Caso 4-9; 2-10 Caso 4-10; 2-11 Caso 4-11; 2-12 Caso 4-12; 2-13 Caso 4-13; 2-14 Caso 4-14; 2-15 Caso 4-15; 2-16 Caso 4-16							
3	SLU con SISMAY PRINC (SLU Appr.2)	da 3-1 a 3-16	Si	No	Si	No	$k_{h,x}$ = 0.01, $k_{h,y}$ = 0.05
3-1 Caso 5-1; 3-2 Caso 5-2; 3-3 Caso 5-3; 3-4 Caso 5-4; 3-5 Caso 5-5; 3-6 Caso 5-6; 3-7 Caso 5-7; 3-8 Caso 5-8; 3-9 Caso 5-9; 3-10 Caso 5-10; 3-11 Caso 5-11; 3-12 Caso 5-12; 3-13 Caso 5-13; 3-14 Caso 5-14; 3-15 Caso 5-15; 3-16 Caso 5-16							
4	SLU FON con SISMAX P (SLU Appr.2)	da 4-1 a 4-16	Si	No	Si	No	$k_{h,x}$ = 0.05, $k_{h,y}$ = 0.01
4-1 Caso 8-1; 4-2 Caso 8-2; 4-3 Caso 8-3; 4-4 Caso 8-4; 4-5 Caso 8-5; 4-6 Caso 8-6; 4-7 Caso 8-7; 4-8 Caso 8-8; 4-9 Caso 8-9; 4-10 Caso 8-10; 4-11 Caso 8-11; 4-12 Caso 8-12; 4-13 Caso 8-13; 4-14 Caso 8-14; 4-15 Caso 8-15; 4-16 Caso 8-16							
5	SLU FON con SISMAY P (SLU Appr.2)	da 5-1 a 5-16	Si	No	Si	No	$k_{h,x}$ = 0.01, $k_{h,y}$ = 0.05
5-1 Caso 9-1; 5-2 Caso 9-2; 5-3 Caso 9-3; 5-4 Caso 9-4; 5-5 Caso 9-5; 5-6 Caso 9-6; 5-7 Caso 9-7; 5-8 Caso 9-8; 5-9 Caso 9-9; 5-10 Caso 9-10; 5-11 Caso 9-11; 5-12 Caso 9-12; 5-13 Caso 9-13; 5-14 Caso 9-14; 5-15 Caso 9-15; 5-16 Caso 9-16							
6	SLUEqu (SLU EQU)	6-1	No	No	Si	No	Non sismico
6-1 Caso 13-1							

La seguente tabella elenca i coefficienti di sicurezza parziali, applicati alle caratteristiche meccaniche del terreno, alla capacità portante, alla resistenza a scorrimento e del terreno, per ciascun Caso di calcolo.

Caso	$\gamma_{G1,fav}$	$\gamma_{G1,sfa}$	$\gamma_{G2,fav}$	$\gamma_{G2,sfa}$	$\gamma_{Qi,fav}$	$\gamma_{Qi,sfa}$	γ_{γ}	γ_{φ}	$\gamma_{c'}$	$\gamma_{R;v}$	$\gamma_{R;h}$	$\gamma_{R;e}$	$\gamma_{R;equ}$	$\gamma_{R;upl}$
1	1.00	1.30	0.00	1.50	0.00	1.50	1.00	1.00	1.00	2.30	1.10	1.00	-	-
2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
6	0.90	1.10	0.00	1.50	0.00	1.50	1.00	1.25	1.25	-	-	-	1.00	1.00

Segue la tabella riassuntiva di tutte le verifiche a ***ribaltamento***.

	Fondazione			Fondazione e Sottofondo		
Caso	R_d [daN*cm]	E_d [daN*cm]	Verifica	R_d [daN*cm]	E_d [daN*cm]	Verifica
1-1	98103040	2315460	SI	113939140	2315460	SI

			(98103040/2315460 = 42.37 >= 1.0)			(113939140/2315460 = 49.21 >= 1.0)
2-1	292249570	3340510	SI (292249570/3340510 = 87.49 >= 1.0)	333265300	3340510	SI (333265300/3340510 = 99.76 >= 1.0)
2-2	292249570	3343930	SI (292249570/3343930 = 87.40 >= 1.0)	333265300	3343930	SI (333265300/3343930 = 99.66 >= 1.0)
2-3	70250320	2065780	SI (70250320/2065780 = 34.01 >= 1.0)	82266490	2065780	SI (82266490/2065780 = 39.82 >= 1.0)
2-4	70250320	2065480	SI (70250320/2065480 = 34.01 >= 1.0)	82266490	2065480	SI (82266490/2065480 = 39.83 >= 1.0)
2-5	292249570	3338660	SI (292249570/3338660 = 87.53 >= 1.0)	333265300	3338660	SI (333265300/3338660 = 99.82 >= 1.0)
2-6	292249570	3342090	SI (292249570/3342090 = 87.45 >= 1.0)	333265300	3342090	SI (333265300/3342090 = 99.72 >= 1.0)
2-7	70250600	2065940	SI (70250600/2065940 = 34.00 >= 1.0)	82266780	2065940	SI (82266780/2065940 = 39.82 >= 1.0)
2-8	70250320	2065640	SI (70250320/2065640 = 34.01 >= 1.0)	82266490	2065640	SI (82266490/2065640 = 39.83 >= 1.0)
2-9	70232960	591710	SI (70232960/591710 > 100)	82227760	612470	SI (82227760/612470 > 100)
2-10	70232960	591410	SI (70232960/591410 > 100)	82227760	612160	SI (82227760/612160 > 100)
2-11	70243320	2075660	SI (70243320/2075660 = 33.84 >= 1.0)	82259240	2075660	SI (82259240/2075660 = 39.63 >= 1.0)
2-12	70243320	2075360	SI (70243320/2075360 = 33.85 >= 1.0)	82259240	2075360	SI (82259240/2075360 = 39.64 >= 1.0)
2-13	70233240	591880	SI (70233240/591880 > 100)	82228050	612630	SI (82228050/612630 > 100)
2-14	70232960	591570	SI (70232960/591570 > 100)	82227760	612330	SI (82227760/612330 > 100)
2-15	70243320	2075830	SI (70243320/2075830 = 33.84 >= 1.0)	82259240	2075830	SI (82259240/2075830 = 39.63 >= 1.0)
2-16	70243320	2075520	SI (70243320/2075520 = 33.84 >= 1.0)	82259240	2075520	SI (82259240/2075520 = 39.63 >= 1.0)
3-1	70225960	1145580	SI (70225960/1145580 = 61.30 >= 1.0)	82289690	1145580	SI (82289690/1145580 = 71.83 >= 1.0)
3-2	70225960	1145530	SI (70225960/1145530 = 61.30 >= 1.0)	82289690	1145530	SI (82289690/1145530 = 71.84 >= 1.0)
3-3	70223720	1142610	SI (70223720/1142610 = 61.46 >= 1.0)	82287370	1142610	SI (82287370/1142610 = 72.02 >= 1.0)
3-4	70223720	1142560	SI (70223720/1142560 = 61.46 >= 1.0)	82287370	1142560	SI (82287370/1142560 = 72.02 >= 1.0)
3-5	70225680	1146590	SI (70225680/1146590 = 61.25 >= 1.0)	82289400	1146590	SI (82289400/1146590 = 71.77 >= 1.0)
3-6	70225680	1146540	SI (70225680/1146540 = 61.25 >= 1.0)	82289400	1146540	SI (82289400/1146540 = 71.77 >= 1.0)
3-7	70223440	1143630	SI (70223440/1143630 = 61.40 >= 1.0)	82287080	1143630	SI (82287080/1143630 = 71.95 >= 1.0)
3-8	70223440	1143580	SI (70223440/1143580 = 61.41 >= 1.0)	82287080	1143580	SI (82287080/1143580 = 71.96 >= 1.0)
3-9	70259840	3800930	SI (70259840/3800930 = 18.48 >= 1.0)	82324780	3800930	SI (82324780/3800930 = 21.66 >= 1.0)
3-10	70259840	3800980	SI (70259840/3800980 = 18.48 >= 1.0)	82324780	3800980	SI (82324780/3800980 = 21.66 >= 1.0)
3-11	70257880	3803900	SI (70257880/3803900 = 18.47 >= 1.0)	82322750	3803900	SI (82322750/3803900 = 21.64 >= 1.0)

3-12	70257880	3803940	SI (70257880/3803940 = 18.47 >= 1.0)	82322750	3803940	SI (82322750/3803940 = 21.64 >= 1.0)
3-13	70259560	3799920	SI (70259560/3799920 = 18.49 >= 1.0)	82324490	3799920	SI (82324490/3799920 = 21.66 >= 1.0)
3-14	70259560	3799970	SI (70259560/3799970 = 18.49 >= 1.0)	82324490	3799970	SI (82324490/3799970 = 21.66 >= 1.0)
3-15	70257600	3802880	SI (70257600/3802880 = 18.47 >= 1.0)	82322460	3802880	SI (82322460/3802880 = 21.65 >= 1.0)
3-16	70257600	3802930	SI (70257600/3802930 = 18.47 >= 1.0)	82322460	3802930	SI (82322460/3802930 = 21.65 >= 1.0)
4-1	292248400	3602250	SI (292248400/3602250 = 81.13 >= 1.0)	333271180	3602250	SI (333271180/3602250 = 92.52 >= 1.0)
4-2	292248400	3606020	SI (292248400/3606020 = 81.04 >= 1.0)	333271180	3606020	SI (333271180/3606020 = 92.42 >= 1.0)
4-3	70251160	2139490	SI (70251160/2139490 = 32.84 >= 1.0)	82269440	2139490	SI (82269440/2139490 = 38.45 >= 1.0)
4-4	70251160	2139160	SI (70251160/2139160 = 32.84 >= 1.0)	82269440	2139160	SI (82269440/2139160 = 38.46 >= 1.0)
4-5	292249570	3600220	SI (292249570/3600220 = 81.18 >= 1.0)	333272360	3600220	SI (333272360/3600220 = 92.57 >= 1.0)
4-6	292248400	3603990	SI (292248400/3603990 = 81.09 >= 1.0)	333271180	3603990	SI (333271180/3603990 = 92.47 >= 1.0)
4-7	70251440	2139670	SI (70251440/2139670 = 32.83 >= 1.0)	82269730	2139670	SI (82269730/2139670 = 38.45 >= 1.0)
4-8	70251160	2139340	SI (70251160/2139340 = 32.84 >= 1.0)	82269440	2139340	SI (82269440/2139340 = 38.46 >= 1.0)
4-9	292215780	2156990	SI (292215780/2156990 > 100)	82226890	540850	SI (82226890/540850 > 100)
4-10	70232120	517680	SI (70232120/517680 > 100)	82226890	540510	SI (82226890/540510 > 100)
4-11	70243320	2150360	SI (70243320/2150360 = 32.67 >= 1.0)	82261320	2150360	SI (82261320/2150360 = 38.25 >= 1.0)
4-12	70243320	2150030	SI (70243320/2150030 = 32.67 >= 1.0)	82261320	2150030	SI (82261320/2150030 = 38.26 >= 1.0)
4-13	292215780	2159020	SI (292215780/2159020 > 100)	82226890	541030	SI (82226890/541030 > 100)
4-14	292215780	2155250	SI (292215780/2155250 > 100)	82226890	540690	SI (82226890/540690 > 100)
4-15	70243600	2150540	SI (70243600/2150540 = 32.66 >= 1.0)	82261610	2150540	SI (82261610/2150540 = 38.25 >= 1.0)
4-16	70243320	2150210	SI (70243320/2150210 = 32.67 >= 1.0)	82261320	2150210	SI (82261320/2150210 = 38.26 >= 1.0)
5-1	70224280	1393000	SI (70224280/1393000 = 50.41 >= 1.0)	82294870	1393000	SI (82294870/1393000 = 59.08 >= 1.0)
5-2	70224280	1392950	SI (70224280/1392950 = 50.41 >= 1.0)	82294870	1392950	SI (82294870/1392950 = 59.08 >= 1.0)
5-3	70222040	1389740	SI (70222040/1389740 = 50.53 >= 1.0)	82292550	1389740	SI (82292550/1389740 = 59.21 >= 1.0)
5-4	70222040	1389690	SI (70222040/1389690 = 50.53 >= 1.0)	82292550	1389690	SI (82292550/1389690 = 59.22 >= 1.0)
5-5	70224000	1394120	SI (70224000/1394120 = 50.37 >= 1.0)	82294580	1394120	SI (82294580/1394120 = 59.03 >= 1.0)
5-6	70224000	1394060	SI (70224000/1394060	82294580	1394060	SI (82294580/1394060

			= 50.37 >= 1.0)			= 59.03 >= 1.0)
5-7	70221760	1390860	SI (70221760/1390860 = 50.49 >= 1.0)	82292260	1390860	SI (82292260/1390860 = 59.17 >= 1.0)
5-8	70221760	1390800	SI (70221760/1390800 = 50.49 >= 1.0)	82292260	1390800	SI (82292260/1390800 = 59.17 >= 1.0)
5-9	70261800	4048160	SI (70261800/4048160 = 17.36 >= 1.0)	82333730	4048160	SI (82333730/4048160 = 20.34 >= 1.0)
5-10	70261800	4048210	SI (70261800/4048210 = 17.36 >= 1.0)	82333730	4048210	SI (82333730/4048210 = 20.34 >= 1.0)
5-11	70259280	4051420	SI (70259280/4051420 = 17.34 >= 1.0)	82331120	4051420	SI (82331120/4051420 = 20.32 >= 1.0)
5-12	70259560	4051470	SI (70259560/4051470 = 17.34 >= 1.0)	82331410	4051470	SI (82331410/4051470 = 20.32 >= 1.0)
5-13	70261520	4047040	SI (70261520/4047040 = 17.36 >= 1.0)	82333440	4047040	SI (82333440/4047040 = 20.34 >= 1.0)
5-14	70261520	4047100	SI (70261520/4047100 = 17.36 >= 1.0)	82333440	4047100	SI (82333440/4047100 = 20.34 >= 1.0)
5-15	70259000	4050300	SI (70259000/4050300 = 17.35 >= 1.0)	82330830	4050300	SI (82330830/4050300 = 20.33 >= 1.0)
5-16	70259000	4050360	SI (70259000/4050360 = 17.35 >= 1.0)	82330830	4050360	SI (82330830/4050360 = 20.33 >= 1.0)
6-1	84853440	2118920	SI (84853440/2118920 = 40.05 >= 1.0)	96421750	2118920	SI (96421750/2118920 = 45.51 >= 1.0)

Segue la tabella riassuntiva di tutte le verifiche di ***capacità portante***, i dettagli sono riportati nei paragrafi successivi.

	Cond. drenate			Cond. non drenate		
Caso	E_d [daN]	R_d [daN]	Verifica	E_d [daN]	R_d [daN]	Verifica
1-1	392893.6	8723446.7	SI (8723446.7/392893.6 = 22.20 >= 1.0)	Verifica non richiesta.		
2-1	283570	6947549.3	SI (6947549.3/283570 = 24.50 >= 1.0)	Verifica non richiesta.		
2-2	283570	6947520.9	SI (6947520.9/283570 = 24.50 >= 1.0)	Verifica non richiesta.		
2-3	283606	6764613	SI (6764613/283606 = 23.85 >= 1.0)	Verifica non richiesta.		
2-4	283606	6764585.9	SI (6764585.9/283606 = 23.85 >= 1.0)	Verifica non richiesta.		
2-5	283570	6947564.6	SI (6947564.6/283570 = 24.50 >= 1.0)	Verifica non richiesta.		
2-6	283570	6947536.2	SI (6947536.2/283570 = 24.50 >= 1.0)	Verifica non richiesta.		
2-7	283607	6764630.3	SI (6764630.3/283607 = 23.85 >= 1.0)	Verifica non richiesta.		
2-8	283606	6764600.6	SI (6764600.6/283606 = 23.85 >= 1.0)	Verifica non richiesta.		
2-9	283544	6976278.5	SI (6976278.5/283544 = 24.60 >= 1.0)	Verifica non richiesta.		
2-10	283544	6976385.3	SI (6976385.3/283544 = 24.60 >= 1.0)	Verifica non richiesta.		
2-11	283581	6789455.9	SI (6789455.9/283581 = 23.94 >= 1.0)	Verifica non richiesta.		
2-12	283581	6789560.3	SI (6789560.3/283581 = 23.94 >= 1.0)	Verifica non richiesta.		
2-13	283545	6976223.1	SI	Verifica non richiesta.		

			(6976223.1/283545 = 24.60 >= 1.0)	
2-14	283544	6976327.8	SI (6976327.8/283544 = 24.60 >= 1.0)	Verifica non richiesta.
2-15	283581	6789399.5	SI (6789399.5/283581 = 23.94 >= 1.0)	Verifica non richiesta.
2-16	283581	6789504.1	SI (6789504.1/283581 = 23.94 >= 1.0)	Verifica non richiesta.
3-1	283519	6852685	SI (6852685/283519 = 24.17 >= 1.0)	Verifica non richiesta.
3-2	283519	6852701.9	SI (6852701.9/283519 = 24.17 >= 1.0)	Verifica non richiesta.
3-3	283511	6885817.4	SI (6885817.4/283511 = 24.29 >= 1.0)	Verifica non richiesta.
3-4	283511	6885813	SI (6885813/283511 = 24.29 >= 1.0)	Verifica non richiesta.
3-5	283518	6852333.4	SI (6852333.4/283518 = 24.17 >= 1.0)	Verifica non richiesta.
3-6	283518	6852350.4	SI (6852350.4/283518 = 24.17 >= 1.0)	Verifica non richiesta.
3-7	283510	6885904.7	SI (6885904.7/283510 = 24.29 >= 1.0)	Verifica non richiesta.
3-8	283510	6885900.3	SI (6885900.3/283510 = 24.29 >= 1.0)	Verifica non richiesta.
3-9	283640	6521672	SI (6521672/283640 = 22.99 >= 1.0)	Verifica non richiesta.
3-10	283640	6521676	SI (6521676/283640 = 22.99 >= 1.0)	Verifica non richiesta.
3-11	283633	6542700.9	SI (6542700.9/283633 = 23.07 >= 1.0)	Verifica non richiesta.
3-12	283633	6542684.6	SI (6542684.6/283633 = 23.07 >= 1.0)	Verifica non richiesta.
3-13	283639	6521586	SI (6521586/283639 = 22.99 >= 1.0)	Verifica non richiesta.
3-14	283639	6521590	SI (6521590/283639 = 22.99 >= 1.0)	Verifica non richiesta.
3-15	283632	6543033.9	SI (6543033.9/283632 = 23.07 >= 1.0)	Verifica non richiesta.
3-16	283632	6543017.6	SI (6543017.6/283632 = 23.07 >= 1.0)	Verifica non richiesta.
4-1	283569	6906950.9	SI (6906950.9/283569 = 24.36 >= 1.0)	Verifica non richiesta.
4-2	283569	6906919.7	SI (6906919.7/283569 = 24.36 >= 1.0)	Verifica non richiesta.
4-3	283609	6707284.6	SI (6707284.6/283609 = 23.65 >= 1.0)	Verifica non richiesta.
4-4	283609	6707255	SI (6707255/283609 = 23.65 >= 1.0)	Verifica non richiesta.
4-5	283570	6906969.9	SI (6906969.9/283570 = 24.36 >= 1.0)	Verifica non richiesta.
4-6	283569	6906936.4	SI (6906936.4/283569 = 24.36 >= 1.0)	Verifica non richiesta.
4-7	283610	6707303.4	SI (6707303.4/283610 = 23.65 >= 1.0)	Verifica non richiesta.
4-8	283609	6707270.9	SI (6707270.9/283609 = 23.65 >= 1.0)	Verifica non richiesta.
4-9	283541	6935568	SI (6935568/283541 = 24.46 >= 1.0)	Verifica non richiesta.
4-10	283541	6935684.7	SI	Verifica non richiesta.

			(6935684.7/283541 = 24.46 >= 1.0)	
4-11	283581	6731646.2	SI (6731646.2/283581 = 23.74 >= 1.0)	Verifica non richiesta.
4-12	283581	6731760.3	SI (6731760.3/283581 = 23.74 >= 1.0)	Verifica non richiesta.
4-13	283541	6935505.1	SI (6935505.1/283541 = 24.46 >= 1.0)	Verifica non richiesta.
4-14	283541	6935621.9	SI (6935621.9/283541 = 24.46 >= 1.0)	Verifica non richiesta.
4-15	283582	6731587.5	SI (6731587.5/283582 = 23.74 >= 1.0)	Verifica non richiesta.
4-16	283581	6731698.9	SI (6731698.9/283581 = 23.74 >= 1.0)	Verifica non richiesta.
5-1	283513	6769566.9	SI (6769566.9/283513 = 23.88 >= 1.0)	Verifica non richiesta.
5-2	283513	6769585.4	SI (6769585.4/283513 = 23.88 >= 1.0)	Verifica non richiesta.
5-3	283505	6802827.2	SI (6802827.2/283505 = 24.00 >= 1.0)	Verifica non richiesta.
5-4	283505	6802822.5	SI (6802822.5/283505 = 24.00 >= 1.0)	Verifica non richiesta.
5-5	283512	6769184.4	SI (6769184.4/283512 = 23.88 >= 1.0)	Verifica non richiesta.
5-6	283512	6769202.8	SI (6769202.8/283512 = 23.88 >= 1.0)	Verifica non richiesta.
5-7	283504	6802921.6	SI (6802921.6/283504 = 24.00 >= 1.0)	Verifica non richiesta.
5-8	283504	6802916.9	SI (6802916.9/283504 = 24.00 >= 1.0)	Verifica non richiesta.
5-9	283647	6442381.4	SI (6442381.4/283647 = 22.71 >= 1.0)	Verifica non richiesta.
5-10	283647	6442385.7	SI (6442385.7/283647 = 22.71 >= 1.0)	Verifica non richiesta.
5-11	283638	6462610.4	SI (6462610.4/283638 = 22.78 >= 1.0)	Verifica non richiesta.
5-12	283639	6462596.3	SI (6462596.3/283639 = 22.78 >= 1.0)	Verifica non richiesta.
5-13	283646	6442288.4	SI (6442288.4/283646 = 22.71 >= 1.0)	Verifica non richiesta.
5-14	283646	6442292.7	SI (6442292.7/283646 = 22.71 >= 1.0)	Verifica non richiesta.
5-15	283637	6462972.8	SI (6462972.8/283637 = 22.79 >= 1.0)	Verifica non richiesta.
5-16	283637	6462955.1	SI (6462955.1/283637 = 22.79 >= 1.0)	Verifica non richiesta.

Segue la tabella riassuntiva di tutte le verifiche di ***resistenza a scorrimento***, i dettagli sono riportati nei paragrafi successivi.

	Cond. drenate			Cond. non drenate		
Caso	E_d [daN]	R_d [daN]	Verifica	E_d [daN]	R_d [daN]	Verifica
1-1	0	147947.1	SI (147947.1/0 = 1.00 >= 1.0)	Verifica non richiesta.		
2-1	7354.4	119113.3	SI (119113.3/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.		
2-2	7354.4	119113.3	SI (119113.3/7354.4	Verifica non richiesta.		

			= 16.20 >= 1.0)	
2-3	7321.3	119154.9	SI (119154.9/7321.3 = 16.28 >= 1.0)	Verifica non richiesta.
2-4	7321.3	119154.9	SI (119154.9/7321.3 = 16.28 >= 1.0)	Verifica non richiesta.
2-5	7354.4	119113.3	SI (119113.3/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
2-6	7354.4	119113.3	SI (119113.3/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
2-7	7321.3	119155.3	SI (119155.3/7321.3 = 16.28 >= 1.0)	Verifica non richiesta.
2-8	7321.3	119154.9	SI (119154.9/7321.3 = 16.28 >= 1.0)	Verifica non richiesta.
2-9	7321.3	119131.6	SI (119131.6/7321.3 = 16.27 >= 1.0)	Verifica non richiesta.
2-10	7321.3	119131.6	SI (119131.6/7321.3 = 16.27 >= 1.0)	Verifica non richiesta.
2-11	7354.4	119117.4	SI (119117.4/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
2-12	7354.4	119117.4	SI (119117.4/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
2-13	7321.3	119131.9	SI (119131.9/7321.3 = 16.27 >= 1.0)	Verifica non richiesta.
2-14	7321.3	119131.6	SI (119131.6/7321.3 = 16.27 >= 1.0)	Verifica non richiesta.
2-15	7354.4	119117.4	SI (119117.4/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
2-16	7354.4	119117.4	SI (119117.4/7354.4 = 16.20 >= 1.0)	Verifica non richiesta.
3-1	7250.1	131366.2	SI (131366.2/7250.1 = 18.12 >= 1.0)	Verifica non richiesta.
3-2	7250.1	131366.2	SI (131366.2/7250.1 = 18.12 >= 1.0)	Verifica non richiesta.
3-3	7216.6	131385	SI (131385/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-4	7216.6	131385	SI (131385/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-5	7250.1	131365.8	SI (131365.8/7250.1 = 18.12 >= 1.0)	Verifica non richiesta.
3-6	7250.1	131365.8	SI (131365.8/7250.1 = 18.12 >= 1.0)	Verifica non richiesta.
3-7	7216.6	131384.7	SI (131384.7/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-8	7216.6	131384.7	SI (131384.7/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-9	7216.6	131433.6	SI (131433.6/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-10	7216.6	131433.6	SI (131433.6/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-11	7250.1	131409.1	SI (131409.1/7250.1 = 18.13 >= 1.0)	Verifica non richiesta.
3-12	7250.1	131409.1	SI (131409.1/7250.1 = 18.13 >= 1.0)	Verifica non richiesta.
3-13	7216.6	131433.2	SI (131433.2/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-14	7216.6	131433.2	SI (131433.2/7216.6 = 18.21 >= 1.0)	Verifica non richiesta.
3-15	7250.1	131408.7	SI (131408.7/7250.1 = 18.13 >= 1.0)	Verifica non richiesta.
3-16	7250.1	131408.7	SI (131408.7/7250.1 = 18.13 >= 1.0)	Verifica non richiesta.
4-1	8089.8	119112.9	SI (119112.9/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-2	8089.8	119112.9	SI (119112.9/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-3	8053.5	119156	SI (119156/8053.5 = 14.80 >= 1.0)	Verifica non richiesta.
4-4	8053.5	119156	SI (119156/8053.5 = 14.80 >= 1.0)	Verifica non richiesta.
4-5	8089.8	119113.3	SI (119113.3/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-6	8089.8	119112.9	SI (119112.9/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-7	8053.5	119156.4	SI (119156.4/8053.5 = 14.80 >= 1.0)	Verifica non richiesta.
4-8	8053.5	119156	SI (119156/8053.5 = 14.80 >= 1.0)	Verifica non richiesta.
4-9	8053.5	119130.4	SI (119130.4/8053.5	Verifica non richiesta.

			= 14.79 >= 1.0)	
4-10	8053.5	119130.4	SI (119130.4/8053.5 = 14.79 >= 1.0)	Verifica non richiesta.
4-11	8089.8	119117.4	SI (119117.4/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-12	8089.8	119117.4	SI (119117.4/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-13	8053.5	119130.4	SI (119130.4/8053.5 = 14.79 >= 1.0)	Verifica non richiesta.
4-14	8053.5	119130.4	SI (119130.4/8053.5 = 14.79 >= 1.0)	Verifica non richiesta.
4-15	8089.8	119117.8	SI (119117.8/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
4-16	8089.8	119117.4	SI (119117.4/8089.8 = 14.72 >= 1.0)	Verifica non richiesta.
5-1	7975.1	131363.9	SI (131363.9/7975.1 = 16.47 >= 1.0)	Verifica non richiesta.
5-2	7975.1	131363.9	SI (131363.9/7975.1 = 16.47 >= 1.0)	Verifica non richiesta.
5-3	7938.2	131382.8	SI (131382.8/7938.2 = 16.55 >= 1.0)	Verifica non richiesta.
5-4	7938.2	131382.8	SI (131382.8/7938.2 = 16.55 >= 1.0)	Verifica non richiesta.
5-5	7975.1	131363.5	SI (131363.5/7975.1 = 16.47 >= 1.0)	Verifica non richiesta.
5-6	7975.1	131363.5	SI (131363.5/7975.1 = 16.47 >= 1.0)	Verifica non richiesta.
5-7	7938.2	131382.4	SI (131382.4/7938.2 = 16.55 >= 1.0)	Verifica non richiesta.
5-8	7938.2	131382.4	SI (131382.4/7938.2 = 16.55 >= 1.0)	Verifica non richiesta.
5-9	7938.2	131436.3	SI (131436.3/7938.2 = 16.56 >= 1.0)	Verifica non richiesta.
5-10	7938.2	131436.3	SI (131436.3/7938.2 = 16.56 >= 1.0)	Verifica non richiesta.
5-11	7975.1	131411	SI (131411/7975.1 = 16.48 >= 1.0)	Verifica non richiesta.
5-12	7975.1	131411.4	SI (131411.4/7975.1 = 16.48 >= 1.0)	Verifica non richiesta.
5-13	7938.2	131435.9	SI (131435.9/7938.2 = 16.56 >= 1.0)	Verifica non richiesta.
5-14	7938.2	131435.9	SI (131435.9/7938.2 = 16.56 >= 1.0)	Verifica non richiesta.
5-15	7975.1	131410.6	SI (131410.6/7975.1 = 16.48 >= 1.0)	Verifica non richiesta.
5-16	7975.1	131410.6	SI (131410.6/7975.1 = 16.48 >= 1.0)	Verifica non richiesta.

Descrizione del metodo di calcolo.
Il calcolo della capacità portante viene eseguito secondo la formula trinomia, considerando separatamente i contributi dovuti alla coesione, al sovraccarico laterale ed al peso del terreno.
Per le verifiche in condizioni drenate, si utilizzano i coefficienti di capacità portante Nq (Prandtl, 1921), Nc (Reissner, 1924), N_γ (Vesic, 1973), i coefficienti correttivi dovuti alla forma della fondazione (s, Meyerhof, 1951 e 1963), all'approfondimento (d, Brinch Hansen, 1970), all'inclinazione del carico (i, Vesic, 1973), all'inclinazione del piano di posa (b, Vesic, 1973), all'inclinazione del piano campagna (g, Vesic, 1973), e all'azione sismica (h - Maugeri e Novità, 2004).
Nel caso di terreno eterogeneo (litologie differenti, presenza di falda), i parametri meccanici utilizzati nel calcolo sono ottenuti come media ponderata dei valori rinvenuti all'interno del cuneo di rottura.
La resistenza a scorrimento, viene ottenuta sommando i contributi del carico normale al piano di posa moltiplicato per il coefficiente d'attrito, e dell'area del piano di posa (eventualmente ridotta per carico verticale eccentrico) per l'adesione fondazione-terreno. In condizioni drenate, l'attrito fondazione terreno è assunto pari all'angolo di resistenza al taglio del terreno moltiplicato per il coefficiente 0.75, l'adesione fondazione terreno è trascurata (assunta pari a 0). Si considera il contributo della pressione del terreno a lato della fondazione. La resistenza laterale del terreno è assunta pari alla resistenza passiva disponibile moltiplicata per 0.50.
Descrizione della fondazione.
La fondazione ha piano di posa rettangolare, con lato X di 2350 [cm], lato Y di 580 [cm], e centro

alla quota z = -110 [cm]. Il piano di posa è orizzontale.

Descrizione del terreno.

La stratigrafia è omogenea, presenta un solo strato							
n.	nome	z_i [cm]	z_f [cm]	γ_d [daN/cm^3]	γ_t [daN/cm^3]	c' [daN/cm^2]	φ' [°]
1	Sabbia	0	-1690	0.0019	0.0019	0	30

La stratigrafia contiene una falda			
n.	z_i [cm]	z_f [cm]	γ_w [daN/cm^3]
1	-300	-1690	0.00098

Verifiche in condizioni drenate.

Sollecitazioni al piano di posa.

Si riportano di seguito le componenti della sollecitazione applicata e la distanza del punto di applicazione dal centro del piano di posa della fondazione.

Rispetto al sistema di rif. globale:								
Caso	Fx [daN]	Fy [daN]	Fz [daN]	Mx [daN*cm]	My [daN*cm]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-392893.6	2315459	1563226	0	0	10
2-1	-7055.45	-2075.47	-283570	581827	3340506	0	0	10
2-2	-7055.45	-2075.47	-283570	581523	3343933	0	0	10
2-3	-7021.03	2075.38	-283606	2065780	3339774	0	0	10
2-4	-7021.03	2075.38	-283606	2065476	3343201	0	0	10
2-5	-7055.45	-2075.47	-283570	581990	3338662	0	0	10
2-6	-7055.45	-2075.47	-283570	581687	3342088	0	0	10
2-7	-7021.03	2075.38	-283607	2065943	3337930	0	0	10
2-8	-7021.03	2075.38	-283606	2065639	3341357	0	0	10
2-9	7021.03	-2075.38	-283544	591713	-1895167	0	0	10
2-10	7021.03	-2075.38	-283544	591409	-1891741	0	0	10
2-11	7055.45	2075.47	-283581	2075665	-1895899	0	0	10
2-12	7055.45	2075.47	-283581	2075362	-1892473	0	0	10
2-13	7021.03	-2075.38	-283545	591876	-1897012	0	0	10
2-14	7021.03	-2075.38	-283544	591573	-1893585	0	0	10
2-15	7055.45	2075.47	-283581	2075829	-1897744	0	0	10
2-16	7055.45	2075.47	-283581	2075525	-1894317	0	0	10
3-1	-2168.84	-6918.1	-283519	-1145580	1504231	0	0	10
3-2	-2168.84	-6918.1	-283519	-1145531	1503678	0	0	10
3-3	2054.11	-6918.07	-283511	-1142614	-66471	0	0	10
3-4	2054.11	-6918.07	-283511	-1142565	-67025	0	0	10
3-5	-2168.84	-6918.1	-283518	-1146592	1515653	0	0	10
3-6	-2168.84	-6918.1	-283518	-1146543	1515100	0	0	10
3-7	2054.11	-6918.07	-283510	-1143626	-55049	0	0	10
3-8	2054.11	-6918.07	-283510	-1143577	-55602	0	0	10
3-9	-2054.11	6918.07	-283640	3800929	1501792	0	0	10
3-10	-2054.11	6918.07	-283640	3800978	1501238	0	0	10
3-11	2168.84	6918.1	-283633	3803895	-68911	0	0	10
3-12	2168.84	6918.1	-283633	3803944	-69464	0	0	10
3-13	-2054.11	6918.07	-283639	3799917	1513214	0	0	10
3-14	-2054.11	6918.07	-283639	3799966	1512660	0	0	10
3-15	2168.84	6918.1	-283632	3802883	-57488	0	0	10
3-16	2168.84	6918.1	-283632	3802932	-58042	0	0	10
4-1	-7760.99	-2283.02	-283569	507142	3602247	0	0	10
4-2	-7760.99	-2283.02	-283569	506808	3606017	0	0	10
4-3	-7723.13	2282.91	-283609	2139490	3601442	0	0	10
4-4	-7723.13	2282.91	-283609	2139156	3605212	0	0	10
4-5	-7760.99	-2283.02	-283570	507322	3600218	0	0	10
4-6	-7760.99	-2283.02	-283569	506988	3603988	0	0	10
4-7	-7723.13	2282.91	-283610	2139670	3599413	0	0	10
4-8	-7723.13	2282.91	-283609	2139336	3603183	0	0	10
4-9	7723.13	-2282.91	-283541	518016	-2156994	0	0	10
4-10	7723.13	-2282.91	-283541	517682	-2153224	0	0	10
4-11	7760.99	2283.02	-283581	2150364	-2157799	0	0	10
4-12	7760.99	2283.02	-283581	2150030	-2154029	0	0	10
4-13	7723.13	-2282.91	-283541	518196	-2159023	0	0	10
4-14	7723.13	-2282.91	-283541	517862	-2155253	0	0	10
4-15	7760.99	2283.02	-283582	2150544	-2159828	0	0	10
4-16	7760.99	2283.02	-283581	2150210	-2156058	0	0	10
5-1	-2385.72	-7609.91	-283513	-1393005	1582345	0	0	10
5-2	-2385.72	-7609.91	-283513	-1392951	1581736	0	0	10
5-3	2259.52	-7609.87	-283505	-1389743	-145428	0	0	10
5-4	2259.52	-7609.87	-283505	-1389689	-146036	0	0	10
5-5	-2385.72	-7609.91	-283512	-1394119	1594909	0	0	10
5-6	-2385.72	-7609.91	-283512	-1394065	1594300	0	0	10
5-7	2259.52	-7609.87	-283504	-1390857	-132863	0	0	10
5-8	2259.52	-7609.87	-283504	-1390803	-133472	0	0	10
5-9	-2259.52	7609.87	-283647	4048155	1579661	0	0	10
5-10	-2259.52	7609.87	-283647	4048209	1579053	0	0	10
5-11	2385.72	7609.91	-283638	4051417	-148111	0	0	10
5-12	2385.72	7609.91	-283639	4051471	-148720	0	0	10

5-13	-2259.52	7609.87	-283646	4047041	1592226	0	0	10
5-14	-2259.52	7609.87	-283646	4047095	1591617	0	0	10
5-15	2385.72	7609.91	-283637	4050303	-135547	0	0	10
5-16	2385.72	7609.91	-283637	4050357	-136155	0	0	10
Rispetto al sistema di rif. locale (centro piano di posa):								
Caso	Hx [daN]	Hy [daN]	Vz [daN]	Mx [daN*cm]	My [daN*cm]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-392893.6	2315459	1563226	-	-	-
2-1	-7055.45	-2075.47	-283570	602582	3269952	-	-	-
2-2	-7055.45	-2075.47	-283570	602278	3273378	-	-	-
2-3	-7021.03	2075.38	-283606	2045026	3269564	-	-	-
2-4	-7021.03	2075.38	-283606	2044722	3272991	-	-	-
2-5	-7055.45	-2075.47	-283570	602745	3268108	-	-	-
2-6	-7055.45	-2075.47	-283570	602442	3271534	-	-	-
2-7	-7021.03	2075.38	-283607	2045189	3267720	-	-	-
2-8	-7021.03	2075.38	-283606	2044885	3271147	-	-	-
2-9	7021.03	-2075.38	-283544	612467	-1824957	-	-	-
2-10	7021.03	-2075.38	-283544	612163	-1821531	-	-	-
2-11	7055.45	2075.47	-283581	2054910	-1825344	-	-	-
2-12	7055.45	2075.47	-283581	2054607	-1821918	-	-	-
2-13	7021.03	-2075.38	-283545	612630	-1826802	-	-	-
2-14	7021.03	-2075.38	-283544	612327	-1823375	-	-	-
2-15	7055.45	2075.47	-283581	2055074	-1827190	-	-	-
2-16	7055.45	2075.47	-283581	2054770	-1823762	-	-	-
3-1	-2168.84	-6918.1	-283519	-1076399	1482543	-	-	-
3-2	-2168.84	-6918.1	-283519	-1076350	1481990	-	-	-
3-3	2054.11	-6918.07	-283511	-1073433	-45930	-	-	-
3-4	2054.11	-6918.07	-283511	-1073384	-46484	-	-	-
3-5	-2168.84	-6918.1	-283518	-1077411	1493965	-	-	-
3-6	-2168.84	-6918.1	-283518	-1077362	1493412	-	-	-
3-7	2054.11	-6918.07	-283510	-1074445	-34508	-	-	-
3-8	2054.11	-6918.07	-283510	-1074396	-35061	-	-	-
3-9	-2054.11	6918.07	-283640	3731748	1481251	-	-	-
3-10	-2054.11	6918.07	-283640	3731797	1480697	-	-	-
3-11	2168.84	6918.1	-283633	3734714	-47223	-	-	-
3-12	2168.84	6918.1	-283633	3734763	-47776	-	-	-
3-13	-2054.11	6918.07	-283639	3730736	1492673	-	-	-
3-14	-2054.11	6918.07	-283639	3730785	1492119	-	-	-
3-15	2168.84	6918.1	-283632	3733702	-35800	-	-	-
3-16	2168.84	6918.1	-283632	3733751	-36354	-	-	-
4-1	-7760.99	-2283.02	-283569	529972	3524637	-	-	-
4-2	-7760.99	-2283.02	-283569	529638	3528407	-	-	-
4-3	-7723.13	2282.91	-283609	2116661	3524211	-	-	-
4-4	-7723.13	2282.91	-283609	2116327	3527981	-	-	-
4-5	-7760.99	-2283.02	-283570	530152	3522608	-	-	-
4-6	-7760.99	-2283.02	-283569	529818	3526378	-	-	-
4-7	-7723.13	2282.91	-283610	2116841	3522182	-	-	-
4-8	-7723.13	2282.91	-283609	2116507	3525952	-	-	-
4-9	7723.13	-2282.91	-283541	540845	-2079763	-	-	-
4-10	7723.13	-2282.91	-283541	540511	-2075993	-	-	-
4-11	7760.99	2283.02	-283581	2127534	-2080189	-	-	-
4-12	7760.99	2283.02	-283581	2127200	-2076419	-	-	-
4-13	7723.13	-2282.91	-283541	541025	-2081792	-	-	-
4-14	7723.13	-2282.91	-283541	540691	-2078022	-	-	-
4-15	7760.99	2283.02	-283582	2127714	-2082218	-	-	-
4-16	7760.99	2283.02	-283581	2127380	-2078448	-	-	-
5-1	-2385.72	-7609.91	-283513	-1316906	1558488	-	-	-
5-2	-2385.72	-7609.91	-283513	-1316852	1557879	-	-	-
5-3	2259.52	-7609.87	-283505	-1313644	-122833	-	-	-
5-4	2259.52	-7609.87	-283505	-1313590	-123441	-	-	-
5-5	-2385.72	-7609.91	-283512	-1318020	1571052	-	-	-
5-6	-2385.72	-7609.91	-283512	-1317966	1570443	-	-	-
5-7	2259.52	-7609.87	-283504	-1314758	-110268	-	-	-
5-8	2259.52	-7609.87	-283504	-1314704	-110877	-	-	-
5-9	-2259.52	7609.87	-283647	3972056	1557066	-	-	-
5-10	-2259.52	7609.87	-283647	3972110	1556458	-	-	-
5-11	2385.72	7609.91	-283638	3975318	-124254	-	-	-
5-12	2385.72	7609.91	-283639	3975372	-124863	-	-	-
5-13	-2259.52	7609.87	-283646	3970942	1569631	-	-	-
5-14	-2259.52	7609.87	-283646	3970996	1569022	-	-	-
5-15	2385.72	7609.91	-283637	3974204	-111690	-	-	-
5-16	2385.72	7609.91	-283637	3974258	-112298	-	-	-

Le sollecitazioni applicate provocano un' eccentricità lungo X (max = 12.44 [cm]) e lungo Y (max = 14.02 [cm]), percio' le verifiche vengono eseguite sulla fondazione ridotta rettangolare.

Caso	ecc. X [cm]	ecc. Y [cm]	Asse B	Asse L
1-1	3.98	5.89	asse Y	asse X
2-1	11.53	2.12	asse Y	asse X
2-2	11.54	2.12	asse Y	asse X

2-3	11.53	7.21	asse Y	asse X
2-4	11.54	7.21	asse Y	asse X
2-5	11.52	2.13	asse Y	asse X
2-6	11.54	2.12	asse Y	asse X
2-7	11.52	7.21	asse Y	asse X
2-8	11.53	7.21	asse Y	asse X
2-9	6.44	2.16	asse Y	asse X
2-10	6.42	2.16	asse Y	asse X
2-11	6.44	7.25	asse Y	asse X
2-12	6.42	7.25	asse Y	asse X
2-13	6.44	2.16	asse Y	asse X
2-14	6.43	2.16	asse Y	asse X
2-15	6.44	7.25	asse Y	asse X
2-16	6.43	7.25	asse Y	asse X
3-1	5.23	3.8	asse Y	asse X
3-2	5.23	3.8	asse Y	asse X
3-3	0.16	3.79	asse Y	asse X
3-4	0.16	3.79	asse Y	asse X
3-5	5.27	3.8	asse Y	asse X
3-6	5.27	3.8	asse Y	asse X
3-7	0.12	3.79	asse Y	asse X
3-8	0.12	3.79	asse Y	asse X
3-9	5.22	13.16	asse Y	asse X
3-10	5.22	13.16	asse Y	asse X
3-11	0.17	13.17	asse Y	asse X
3-12	0.17	13.17	asse Y	asse X
3-13	5.26	13.15	asse Y	asse X
3-14	5.26	13.15	asse Y	asse X
3-15	0.13	13.16	asse Y	asse X
3-16	0.13	13.16	asse Y	asse X
4-1	12.43	1.87	asse Y	asse X
4-2	12.44	1.87	asse Y	asse X
4-3	12.43	7.46	asse Y	asse X
4-4	12.44	7.46	asse Y	asse X
4-5	12.42	1.87	asse Y	asse X
4-6	12.44	1.87	asse Y	asse X
4-7	12.42	7.46	asse Y	asse X
4-8	12.43	7.46	asse Y	asse X
4-9	7.33	1.91	asse Y	asse X
4-10	7.32	1.91	asse Y	asse X
4-11	7.34	7.5	asse Y	asse X
4-12	7.32	7.5	asse Y	asse X
4-13	7.34	1.91	asse Y	asse X
4-14	7.33	1.91	asse Y	asse X
4-15	7.34	7.5	asse Y	asse X
4-16	7.33	7.5	asse Y	asse X
5-1	5.5	4.64	asse Y	asse X
5-2	5.49	4.64	asse Y	asse X
5-3	0.43	4.63	asse Y	asse X
5-4	0.44	4.63	asse Y	asse X
5-5	5.54	4.65	asse Y	asse X
5-6	5.54	4.65	asse Y	asse X
5-7	0.39	4.64	asse Y	asse X
5-8	0.39	4.64	asse Y	asse X
5-9	5.49	14	asse Y	asse X
5-10	5.49	14	asse Y	asse X
5-11	0.44	14.02	asse Y	asse X
5-12	0.44	14.02	asse Y	asse X
5-13	5.53	14	asse Y	asse X
5-14	5.53	14	asse Y	asse X
5-15	0.39	14.01	asse Y	asse X
5-16	0.4	14.01	asse Y	asse X

Capacità portante.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, del peso di volume alleggerito, della coesione efficace, del sovraccarico alleggerito, e dei fattori e coefficienti introdotti nel calcolo della capacità portante.

Caso	γ_{φ}	γ_{γ}	φ [°]	γ' [daN/cm^3]	N_{γ}	s_{γ}	d_{γ}	$i_{b\gamma}$	$i_{l\gamma}$	b_{γ}	g_{γ}	h_{γ}	$q'_{lim,\gamma}$ [daN/cm^2]
1-1	1.00	1.00	30	0.00153	22.40	1.07	1.00	1.00	1.00	1.00	1.00	-	10.45
2-1	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-2	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-3	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.84
2-4	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.84
2-5	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-6	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-7	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.84

2-8	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.84
2-9	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-10	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-11	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.83
2-12	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.83
2-13	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-14	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.94
2-15	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.83
2-16	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.95	1.00	1.00	0.81	7.83
3-1	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-2	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-3	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-4	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-5	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-6	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-7	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-8	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.83
3-9	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.64
3-10	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.64
3-11	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.63
3-12	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.63
3-13	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.64
3-14	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.64
3-15	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.63
3-16	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.63
4-1	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-2	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-3	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.78
4-4	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.78
4-5	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-6	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-7	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.78
4-8	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.78
4-9	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-10	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-11	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.77
4-12	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.77
4-13	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-14	1.00	1.00	30	0.00152	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.89
4-15	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.77
4-16	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.98	0.94	1.00	1.00	0.81	7.77
5-1	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.74
5-2	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.74
5-3	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.75
5-4	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.75
5-5	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.74
5-6	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.74
5-7	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.75
5-8	1.00	1.00	30	0.00153	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.75
5-9	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.55
5-10	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.55
5-11	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.54
5-12	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.54
5-13	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.55
5-14	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.55
5-15	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.54
5-16	1.00	1.00	30	0.00154	22.40	1.07	1.00	0.93	0.98	1.00	1.00	0.81	7.54

Caso	$\gamma_{c'}$	c' [daN/cm^2]	N_c	s_c	d_c	i_{bc}	i_{lc}	b_c	g_c	h_c	$q'_{lim,c}$ [daN/cm^2]
1-1	1.00	0	30.14	1.15	1.06	1.00	1.00	1.00	1.00	-	0
2-1	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-2	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-3	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-4	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-5	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-6	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-7	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-8	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-9	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-10	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-11	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-12	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-13	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-14	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-15	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
2-16	1.00	0	30.14	1.15	1.06	0.99	0.97	1.00	1.00	0.92	0
3-1	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-2	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0

3-3	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-4	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-5	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-6	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-7	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-8	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
3-9	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-10	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-11	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-12	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-13	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-14	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-15	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
3-16	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
4-1	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-2	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-3	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-4	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-5	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-6	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-7	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-8	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-9	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-10	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-11	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-12	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-13	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-14	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-15	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
4-16	1.00	0	30.14	1.15	1.06	0.98	0.97	1.00	1.00	0.92	0
5-1	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-2	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-3	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-4	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-5	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-6	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-7	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-8	1.00	0	30.14	1.15	1.06	0.95	0.99	1.00	1.00	0.92	0
5-9	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-10	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-11	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-12	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-13	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-14	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-15	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0
5-16	1.00	0	30.14	1.14	1.06	0.95	0.99	1.00	1.00	0.92	0

Caso	q' [daN/cm^2]	N_q	s_q	d_q	i_{bq}	i_{lq}	b_q	g_q	h_q	$q'_{lim,q}$ [daN/cm^2]
1-1	0.21	18.40	1.07	1.06	1.00	1.00	1.00	1.00	-	4.36
2-1	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-2	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-3	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-4	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-5	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-6	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-7	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-8	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-9	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-10	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-11	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-12	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-13	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-14	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-15	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
2-16	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.71
3-1	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-2	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-3	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-4	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-5	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-6	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-7	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-8	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-9	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-10	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-11	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-12	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-13	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67

3-14	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-15	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
3-16	0.21	18.40	1.07	1.06	0.96	0.99	1.00	1.00	0.89	3.67
4-1	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-2	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-3	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-4	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-5	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-6	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-7	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-8	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-9	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-10	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-11	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-12	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-13	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-14	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-15	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
4-16	0.21	18.40	1.07	1.06	0.99	0.97	1.00	1.00	0.89	3.69
5-1	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-2	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-3	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-4	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-5	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-6	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-7	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-8	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-9	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-10	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-11	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-12	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-13	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-14	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-15	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65
5-16	0.21	18.40	1.07	1.06	0.95	0.99	1.00	1.00	0.89	3.65

Segue il confronto fra la pressione limite ed applicata.

Caso	$\gamma_{R;v}$	q'_{lim} [daN/cm^2]	A [cm^2]	R_d [daN]	E_d [daN]	Verifica
1-1	2.30	6.56	1330779.7	8723446.7	392893.6	SI (8723446.7/392893.6 = 22.20 >= 1.0)
2-1	2.30	5.19	1339734.2	6947549.3	283570	SI (6947549.3/283570 = 24.50 >= 1.0)
2-2	2.30	5.19	1339725.27	6947520.9	283570	SI (6947520.9/283570 = 24.50 >= 1.0)
2-3	2.30	5.14	1316068.65	6764613	283606	SI (6764613/283606 = 23.85 >= 1.0)
2-4	2.30	5.14	1316059.97	6764585.9	283606	SI (6764585.9/283606 = 23.85 >= 1.0)
2-5	2.30	5.19	1339739.01	6947564.6	283570	SI (6947564.6/283570 = 24.50 >= 1.0)
2-6	2.30	5.19	1339730.07	6947536.2	283570	SI (6947536.2/283570 = 24.50 >= 1.0)
2-7	2.30	5.14	1316073.49	6764630.3	283607	SI (6764630.3/283607 = 23.85 >= 1.0)
2-8	2.30	5.14	1316064.65	6764600.6	283606	SI (6764600.6/283606 = 23.85 >= 1.0)
2-9	2.30	5.19	1345437.38	6976278.5	283544	SI (6976278.5/283544 = 24.60 >= 1.0)
2-10	2.30	5.19	1345456.3	6976385.3	283544	SI (6976385.3/283544 = 24.60 >= 1.0)
2-11	2.30	5.14	1321662.36	6789455.9	283581	SI (6789455.9/283581 = 23.94 >= 1.0)
2-12	2.30	5.14	1321681.02	6789560.3	283581	SI (6789560.3/283581 = 23.94 >= 1.0)
2-13	2.30	5.19	1345427.26	6976223.1	283545	SI (6976223.1/283545 = 24.60 >= 1.0)

2-14	2.30	5.19	1345446.11	6976327.8	283544	SI (6976327.8/283544 = 24.60 >= 1.0)
2-15	2.30	5.14	1321652.3	6789399.5	283581	SI (6789399.5/283581 = 23.94 >= 1.0)
2-16	2.30	5.14	1321670.97	6789504.1	283581	SI (6789504.1/283581 = 23.94 >= 1.0)
3-1	2.30	5.12	1339169.81	6852685	283519	SI (6852685/283519 = 24.17 >= 1.0)
3-2	2.30	5.12	1339172.86	6852701.9	283519	SI (6852701.9/283519 = 24.17 >= 1.0)
3-3	2.30	5.12	1345019.32	6885817.4	283511	SI (6885817.4/283511 = 24.29 >= 1.0)
3-4	2.30	5.12	1345017.9	6885813	283511	SI (6885813/283511 = 24.29 >= 1.0)
3-5	2.30	5.12	1339106.91	6852333.4	283518	SI (6852333.4/283518 = 24.17 >= 1.0)
3-6	2.30	5.12	1339109.95	6852350.4	283518	SI (6852350.4/283518 = 24.17 >= 1.0)
3-7	2.30	5.12	1345048.61	6885904.7	283510	SI (6885904.7/283510 = 24.29 >= 1.0)
3-8	2.30	5.12	1345047.19	6885900.3	283510	SI (6885900.3/283510 = 24.29 >= 1.0)
3-9	2.30	5.03	1295380.78	6521672	283640	SI (6521672/283640 = 22.99 >= 1.0)
3-10	2.30	5.03	1295382.14	6521676	283640	SI (6521676/283640 = 22.99 >= 1.0)
3-11	2.30	5.03	1300928.78	6542700.9	283633	SI (6542700.9/283633 = 23.07 >= 1.0)
3-12	2.30	5.03	1300925.81	6542684.6	283633	SI (6542684.6/283633 = 23.07 >= 1.0)
3-13	2.30	5.03	1295352.65	6521586	283639	SI (6521586/283639 = 22.99 >= 1.0)
3-14	2.30	5.03	1295354	6521590	283639	SI (6521590/283639 = 22.99 >= 1.0)
3-15	2.30	5.03	1300989.92	6543033.9	283632	SI (6543033.9/283632 = 23.07 >= 1.0)
3-16	2.30	5.03	1300986.95	6543017.6	283632	SI (6543017.6/283632 = 23.07 >= 1.0)
4-1	2.30	5.15	1339890.64	6906950.9	283569	SI (6906950.9/283569 = 24.36 >= 1.0)
4-2	2.30	5.15	1339880.79	6906919.7	283569	SI (6906919.7/283569 = 24.36 >= 1.0)
4-3	2.30	5.1	1313878.92	6707284.6	283609	SI (6707284.6/283609 = 23.65 >= 1.0)
4-4	2.30	5.1	1313869.37	6707255	283609	SI (6707255/283609 = 23.65 >= 1.0)
4-5	2.30	5.15	1339896.01	6906969.9	283570	SI (6906969.9/283570 = 24.36 >= 1.0)
4-6	2.30	5.15	1339886.09	6906936.4	283569	SI (6906936.4/283569 = 24.36 >= 1.0)
4-7	2.30	5.1	1313884.22	6707303.4	283610	SI (6707303.4/283610 = 23.65 >= 1.0)
4-8	2.30	5.1	1313874.5	6707270.9	283609	SI (6707270.9/283609 = 23.65 >= 1.0)
4-9	2.30	5.15	1345582.31	6935568	283541	SI (6935568/283541 = 24.46 >= 1.0)
4-10	2.30	5.15	1345603.14	6935684.7	283541	SI (6935684.7/283541 = 24.46 >= 1.0)

4-11	2.30	5.1	1319449.82	6731646.2	283581	SI (6731646.2/283581 = 23.74 >= 1.0)
4-12	2.30	5.1	1319470.35	6731760.3	283581	SI (6731760.3/283581 = 23.74 >= 1.0)
4-13	2.30	5.15	1345571.1	6935505.1	283541	SI (6935505.1/283541 = 24.46 >= 1.0)
4-14	2.30	5.15	1345591.93	6935621.9	283541	SI (6935621.9/283541 = 24.46 >= 1.0)
4-15	2.30	5.1	1319438.93	6731587.5	283582	SI (6731587.5/283582 = 23.74 >= 1.0)
4-16	2.30	5.1	1319459.3	6731698.9	283581	SI (6731698.9/283581 = 23.74 >= 1.0)
5-1	2.30	5.07	1334894.24	6769566.9	283513	SI (6769566.9/283513 = 23.88 >= 1.0)
5-2	2.30	5.07	1334897.59	6769585.4	283513	SI (6769585.4/283513 = 23.88 >= 1.0)
5-3	2.30	5.07	1340727.6	6802827.2	283505	SI (6802827.2/283505 = 24.00 >= 1.0)
5-4	2.30	5.07	1340726.04	6802822.5	283505	SI (6802822.5/283505 = 24.00 >= 1.0)
5-5	2.30	5.07	1334825.18	6769184.4	283512	SI (6769184.4/283512 = 23.88 >= 1.0)
5-6	2.30	5.07	1334828.52	6769202.8	283512	SI (6769202.8/283512 = 23.88 >= 1.0)
5-7	2.30	5.07	1340759.65	6802921.6	283504	SI (6802921.6/283504 = 24.00 >= 1.0)
5-8	2.30	5.07	1340758.09	6802916.9	283504	SI (6802916.9/283504 = 24.00 >= 1.0)
5-9	2.30	4.99	1291123.18	6442381.4	283647	SI (6442381.4/283647 = 22.71 >= 1.0)
5-10	2.30	4.99	1291124.66	6442385.7	283647	SI (6442385.7/283647 = 22.71 >= 1.0)
5-11	2.30	4.98	1296643.72	6462610.4	283638	SI (6462610.4/283638 = 22.78 >= 1.0)
5-12	2.30	4.98	1296640.69	6462596.3	283639	SI (6462596.3/283639 = 22.78 >= 1.0)
5-13	2.30	4.99	1291092.4	6442288.4	283646	SI (6442288.4/283646 = 22.71 >= 1.0)
5-14	2.30	4.99	1291093.88	6442292.7	283646	SI (6442292.7/283646 = 22.71 >= 1.0)
5-15	2.30	4.98	1296710.84	6462972.8	283637	SI (6462972.8/283637 = 22.79 >= 1.0)
5-16	2.30	4.98	1296707.58	6462955.1	283637	SI (6462955.1/283637 = 22.79 >= 1.0)

Scorrimento.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, della coesione efficace, dell'attrito e dell'aderenza fondazione-terreno, e della resistenza disponibile sul piano di posa e sulle pareti laterali.

Caso	γ_{φ}	$\gamma_{c'}$	φ [°]	c' [daN/cm^2]	δ [°]	a [daN/cm^2]	$\gamma_{R;h}$	$\gamma_{R;e}$	R_h [daN]	R_e [daN]
1-1	1.00	1.00	30	0	22.5	0	1.10	1.00	147947.14	0
2-1	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.49	12332.79
2-2	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.49	12332.79
2-3	1.00	1.00	30	0	22.5	0	1.10	1.00	106794.05	12360.86
2-4	1.00	1.00	30	0	22.5	0	1.10	1.00	106794.05	12360.86

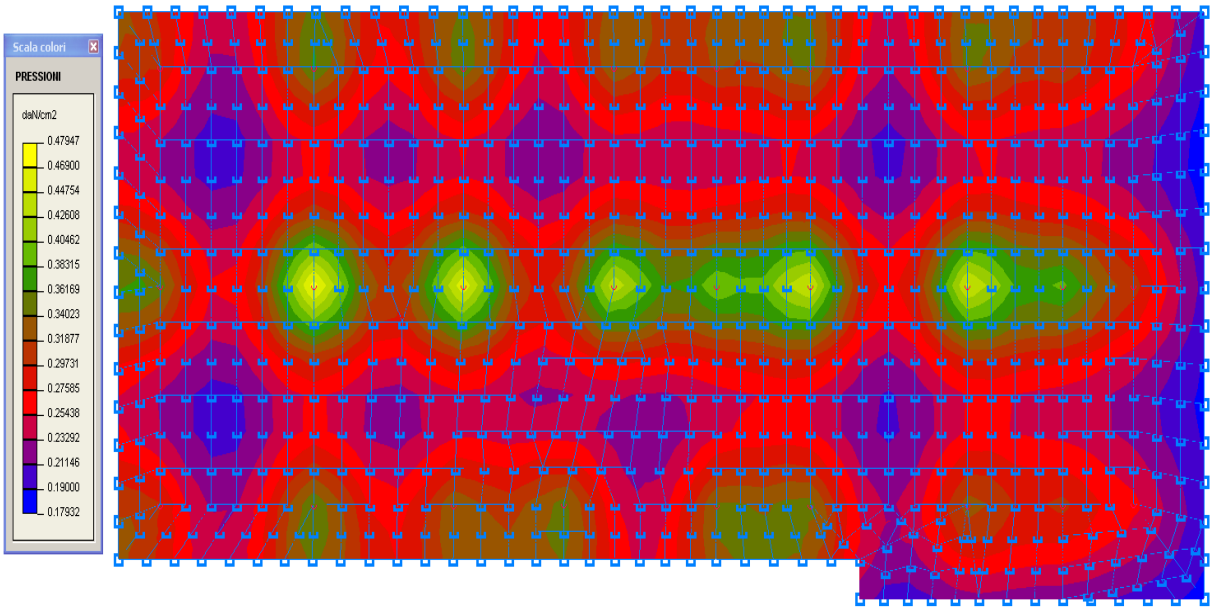
2-5	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.49	12332.79
2-6	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.49	12332.79
2-7	1.00	1.00	30	0	22.5	0	1.10	1.00	106794.42	12360.86
2-8	1.00	1.00	30	0	22.5	0	1.10	1.00	106794.05	12360.86
2-9	1.00	1.00	30	0	22.5	0	1.10	1.00	106770.7	12360.86
2-10	1.00	1.00	30	0	22.5	0	1.10	1.00	106770.7	12360.86
2-11	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.79
2-12	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.79
2-13	1.00	1.00	30	0	22.5	0	1.10	1.00	106771.08	12360.86
2-14	1.00	1.00	30	0	22.5	0	1.10	1.00	106770.7	12360.86
2-15	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.79
2-16	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.79
3-1	1.00	1.00	30	0	22.5	0	1.10	1.00	106761.29	24604.88
3-2	1.00	1.00	30	0	22.5	0	1.10	1.00	106761.29	24604.88
3-3	1.00	1.00	30	0	22.5	0	1.10	1.00	106758.27	24626.77
3-4	1.00	1.00	30	0	22.5	0	1.10	1.00	106758.27	24626.77
3-5	1.00	1.00	30	0	22.5	0	1.10	1.00	106760.91	24604.88
3-6	1.00	1.00	30	0	22.5	0	1.10	1.00	106760.91	24604.88
3-7	1.00	1.00	30	0	22.5	0	1.10	1.00	106757.9	24626.77
3-8	1.00	1.00	30	0	22.5	0	1.10	1.00	106757.9	24626.77
3-9	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.85	24626.77
3-10	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.85	24626.77
3-11	1.00	1.00	30	0	22.5	0	1.10	1.00	106804.21	24604.88
3-12	1.00	1.00	30	0	22.5	0	1.10	1.00	106804.21	24604.88
3-13	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.47	24626.77
3-14	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.47	24626.77
3-15	1.00	1.00	30	0	22.5	0	1.10	1.00	106803.84	24604.88
3-16	1.00	1.00	30	0	22.5	0	1.10	1.00	106803.84	24604.88
4-1	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.11	12332.8
4-2	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.11	12332.8
4-3	1.00	1.00	30	0	22.5	0	1.10	1.00	106795.18	12360.84
4-4	1.00	1.00	30	0	22.5	0	1.10	1.00	106795.18	12360.84
4-5	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.49	12332.8
4-6	1.00	1.00	30	0	22.5	0	1.10	1.00	106780.11	12332.8
4-7	1.00	1.00	30	0	22.5	0	1.10	1.00	106795.55	12360.84
4-8	1.00	1.00	30	0	22.5	0	1.10	1.00	106795.18	12360.84
4-9	1.00	1.00	30	0	22.5	0	1.10	1.00	106769.57	12360.84
4-10	1.00	1.00	30	0	22.5	0	1.10	1.00	106769.57	12360.84
4-11	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.8
4-12	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.8
4-13	1.00	1.00	30	0	22.5	0	1.10	1.00	106769.57	12360.84
4-14	1.00	1.00	30	0	22.5	0	1.10	1.00	106769.57	12360.84
4-15	1.00	1.00	30	0	22.5	0	1.10	1.00	106785.01	12332.8
4-16	1.00	1.00	30	0	22.5	0	1.10	1.00	106784.63	12332.8
5-1	1.00	1.00	30	0	22.5	0	1.10	1.00	106759.03	24604.88
5-2	1.00	1.00	30	0	22.5	0	1.10	1.00	106759.03	24604.88
5-3	1.00	1.00	30	0	22.5	0	1.10	1.00	106756.01	24626.76
5-4	1.00	1.00	30	0	22.5	0	1.10	1.00	106756.01	24626.76
5-5	1.00	1.00	30	0	22.5	0	1.10	1.00	106758.65	24604.88
5-6	1.00	1.00	30	0	22.5	0	1.10	1.00	106758.65	24604.88
5-7	1.00	1.00	30	0	22.5	0	1.10	1.00	106755.64	24626.76
5-8	1.00	1.00	30	0	22.5	0	1.10	1.00	106755.64	24626.76
5-9	1.00	1.00	30	0	22.5	0	1.10	1.00	106809.49	24626.76
5-10	1.00	1.00	30	0	22.5	0	1.10	1.00	106809.49	24626.76
5-11	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.1	24604.88
5-12	1.00	1.00	30	0	22.5	0	1.10	1.00	106806.47	24604.88
5-13	1.00	1.00	30	0	22.5	0	1.10	1.00	106809.11	24626.76
5-14	1.00	1.00	30	0	22.5	0	1.10	1.00	106809.11	24626.76
5-15	1.00	1.00	30	0	22.5	0	1.10	1.00	106805.72	24604.88
5-16	1.00	1.00	30	0	22.5	0	1.10	1.00	106805.72	24604.88

Segue il confronto fra la resistenza a scorrimento e l'azione applicata.

Caso	R_d [daN]	E_d [daN]	Verifica
1-1	147947.1	0	SI (147947.1/0 = 1.00 >= 1.0)
2-1	119113.3	7354.4	SI (119113.3/7354.4 = 16.20 >= 1.0)
2-2	119113.3	7354.4	SI (119113.3/7354.4 = 16.20 >= 1.0)
2-3	119154.9	7321.3	SI (119154.9/7321.3 = 16.28 >= 1.0)
2-4	119154.9	7321.3	SI (119154.9/7321.3 = 16.28 >= 1.0)
2-5	119113.3	7354.4	SI (119113.3/7354.4 = 16.20 >= 1.0)
2-6	119113.3	7354.4	SI (119113.3/7354.4 = 16.20 >= 1.0)
2-7	119155.3	7321.3	SI (119155.3/7321.3 = 16.28 >= 1.0)
2-8	119154.9	7321.3	SI (119154.9/7321.3 = 16.28 >= 1.0)
2-9	119131.6	7321.3	SI (119131.6/7321.3 = 16.27 >= 1.0)
2-10	119131.6	7321.3	SI (119131.6/7321.3 = 16.27 >= 1.0)
2-11	119117.4	7354.4	SI (119117.4/7354.4 = 16.20 >= 1.0)
2-12	119117.4	7354.4	SI (119117.4/7354.4 = 16.20 >= 1.0)
2-13	119131.9	7321.3	SI (119131.9/7321.3 = 16.27 >= 1.0)
2-14	119131.6	7321.3	SI (119131.6/7321.3 = 16.27 >= 1.0)

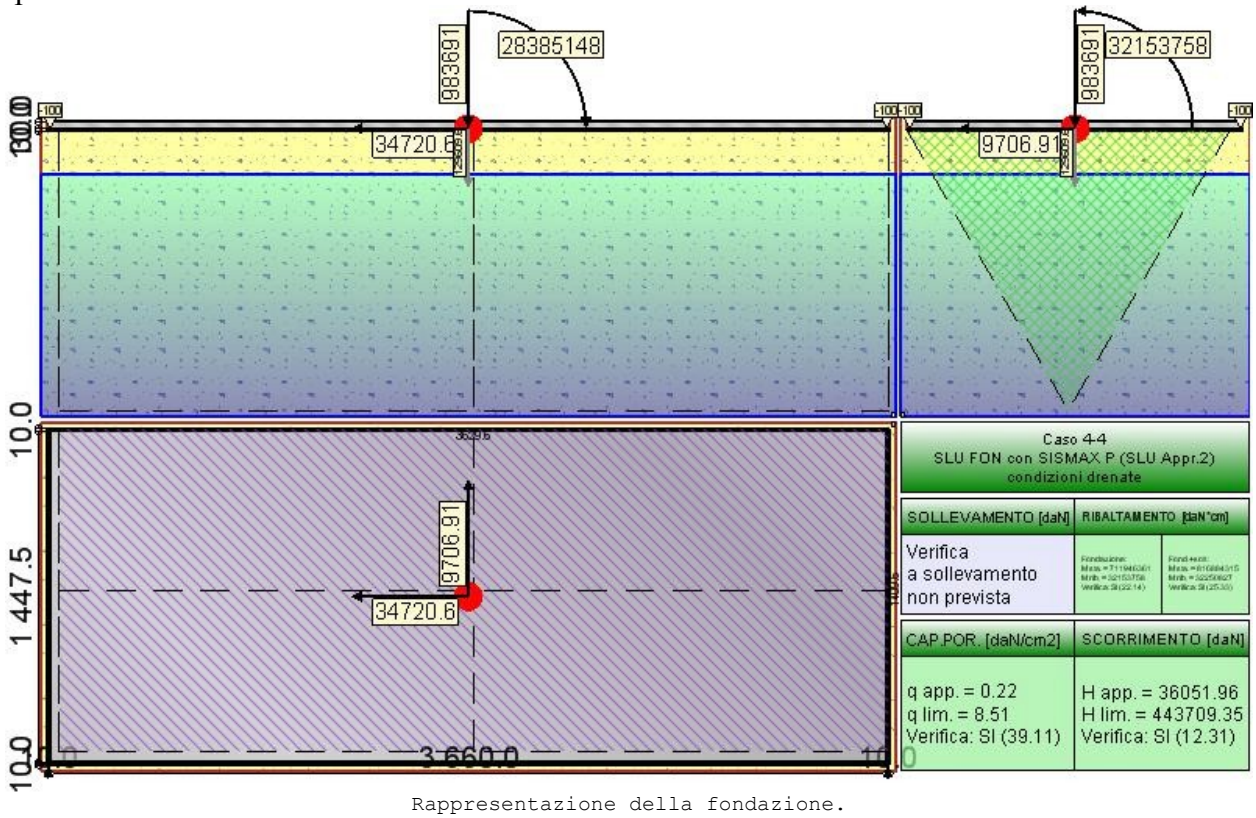
2-15	119117.4	7354.4	SI (119117.4/7354.4 = 16.20 >= 1.0)
2-16	119117.4	7354.4	SI (119117.4/7354.4 = 16.20 >= 1.0)
3-1	131366.2	7250.1	SI (131366.2/7250.1 = 18.12 >= 1.0)
3-2	131366.2	7250.1	SI (131366.2/7250.1 = 18.12 >= 1.0)
3-3	131385	7216.6	SI (131385/7216.6 = 18.21 >= 1.0)
3-4	131385	7216.6	SI (131385/7216.6 = 18.21 >= 1.0)
3-5	131365.8	7250.1	SI (131365.8/7250.1 = 18.12 >= 1.0)
3-6	131365.8	7250.1	SI (131365.8/7250.1 = 18.12 >= 1.0)
3-7	131384.7	7216.6	SI (131384.7/7216.6 = 18.21 >= 1.0)
3-8	131384.7	7216.6	SI (131384.7/7216.6 = 18.21 >= 1.0)
3-9	131433.6	7216.6	SI (131433.6/7216.6 = 18.21 >= 1.0)
3-10	131433.6	7216.6	SI (131433.6/7216.6 = 18.21 >= 1.0)
3-11	131409.1	7250.1	SI (131409.1/7250.1 = 18.13 >= 1.0)
3-12	131409.1	7250.1	SI (131409.1/7250.1 = 18.13 >= 1.0)
3-13	131433.2	7216.6	SI (131433.2/7216.6 = 18.21 >= 1.0)
3-14	131433.2	7216.6	SI (131433.2/7216.6 = 18.21 >= 1.0)
3-15	131408.7	7250.1	SI (131408.7/7250.1 = 18.13 >= 1.0)
3-16	131408.7	7250.1	SI (131408.7/7250.1 = 18.13 >= 1.0)
4-1	119112.9	8089.8	SI (119112.9/8089.8 = 14.72 >= 1.0)
4-2	119112.9	8089.8	SI (119112.9/8089.8 = 14.72 >= 1.0)
4-3	119156	8053.5	SI (119156/8053.5 = 14.80 >= 1.0)
4-4	119156	8053.5	SI (119156/8053.5 = 14.80 >= 1.0)
4-5	119113.3	8089.8	SI (119113.3/8089.8 = 14.72 >= 1.0)
4-6	119112.9	8089.8	SI (119112.9/8089.8 = 14.72 >= 1.0)
4-7	119156.4	8053.5	SI (119156.4/8053.5 = 14.80 >= 1.0)
4-8	119156	8053.5	SI (119156/8053.5 = 14.80 >= 1.0)
4-9	119130.4	8053.5	SI (119130.4/8053.5 = 14.79 >= 1.0)
4-10	119130.4	8053.5	SI (119130.4/8053.5 = 14.79 >= 1.0)
4-11	119117.4	8089.8	SI (119117.4/8089.8 = 14.72 >= 1.0)
4-12	119117.4	8089.8	SI (119117.4/8089.8 = 14.72 >= 1.0)
4-13	119130.4	8053.5	SI (119130.4/8053.5 = 14.79 >= 1.0)
4-14	119130.4	8053.5	SI (119130.4/8053.5 = 14.79 >= 1.0)
4-15	119117.8	8089.8	SI (119117.8/8089.8 = 14.72 >= 1.0)
4-16	119117.4	8089.8	SI (119117.4/8089.8 = 14.72 >= 1.0)
5-1	131363.9	7975.1	SI (131363.9/7975.1 = 16.47 >= 1.0)
5-2	131363.9	7975.1	SI (131363.9/7975.1 = 16.47 >= 1.0)
5-3	131382.8	7938.2	SI (131382.8/7938.2 = 16.55 >= 1.0)
5-4	131382.8	7938.2	SI (131382.8/7938.2 = 16.55 >= 1.0)
5-5	131363.5	7975.1	SI (131363.5/7975.1 = 16.47 >= 1.0)
5-6	131363.5	7975.1	SI (131363.5/7975.1 = 16.47 >= 1.0)
5-7	131382.4	7938.2	SI (131382.4/7938.2 = 16.55 >= 1.0)
5-8	131382.4	7938.2	SI (131382.4/7938.2 = 16.55 >= 1.0)
5-9	131436.3	7938.2	SI (131436.3/7938.2 = 16.56 >= 1.0)
5-10	131436.3	7938.2	SI (131436.3/7938.2 = 16.56 >= 1.0)
5-11	131411	7975.1	SI (131411/7975.1 = 16.48 >= 1.0)
5-12	131411.4	7975.1	SI (131411.4/7975.1 = 16.48 >= 1.0)
5-13	131435.9	7938.2	SI (131435.9/7938.2 = 16.56 >= 1.0)
5-14	131435.9	7938.2	SI (131435.9/7938.2 = 16.56 >= 1.0)
5-15	131410.6	7975.1	SI (131410.6/7975.1 = 16.48 >= 1.0)
5-16	131410.6	7975.1	SI (131410.6/7975.1 = 16.48 >= 1.0)

CANILE RIFUGIO



PRESSIONI PLATEA FABBRICATO CANILE RIFUGIO

Valutazione della stabilità, capacità portante e resistenza a scorrimento di una fondazione superficiale PLATEA CANILE RIFUGIO



Rappresentazione della fondazione.

Descrizione dei Casi di calcolo e riassunto dei risultati.

Segue il riassunto dei Casi di calcolo analizzati. I dettagli di ciascun Caso (sollecitazioni, verifiche, ecc.) sono specificati nei paragrafi successivi.

Indici e nomi dei casi di carico			Elenco delle verifiche eseguite per ciascun caso				Sisma
Caso	Nome	Sestetti	Ver. dren.	Ver. non dren.	Ver. equ.	Ver. upl.	Coef. sism.
1	SLU SENZA SISMA (SLU Appr.2)	1-1	Si	No	Si	No	$k_{h,x}$ = 0.00, $k_{h,y}$ = 0.00
1-1 Caso 1-1							
2	SLU con SISMAX PRINC (SLU Appr.2)	da 2-1 a 2-16	Si	No	Si	No	$k_{h,x}$ = 0.05, $k_{h,y}$ = 0.01
2-1 Caso 4-1; 2-2 Caso 4-2; 2-3 Caso 4-3; 2-4 Caso 4-4; 2-5 Caso 4-5; 2-6 Caso 4-6; 2-7 Caso 4-7; 2-8 Caso 4-8; 2-9 Caso 4-9; 2-10 Caso 4-10; 2-11 Caso 4-11; 2-12 Caso 4-12; 2-13 Caso 4-13; 2-14 Caso 4-14; 2-15 Caso 4-15; 2-16 Caso 4-16							
3	SLU con SISMAY PRINC (SLU Appr.2)	da 3-1 a 3-16	Si	No	Si	No	$k_{h,x}$ = 0.01, $k_{h,y}$ = 0.05
3-1 Caso 5-1; 3-2 Caso 5-2; 3-3 Caso 5-3; 3-4 Caso 5-4; 3-5 Caso 5-5; 3-6 Caso 5-6; 3-7 Caso 5-7; 3-8 Caso 5-8; 3-9 Caso 5-9; 3-10 Caso 5-10; 3-11 Caso 5-11; 3-12 Caso 5-12; 3-13 Caso 5-13; 3-14 Caso 5-14; 3-15 Caso 5-15; 3-16 Caso 5-16							
4	SLU FON con SISMAX P (SLU Appr.2)	da 4-1 a 4-16	Si	No	Si	No	$k_{h,x}$ = 0.05, $k_{h,y}$ = 0.01
4-1 Caso 8-1; 4-2 Caso 8-2; 4-3 Caso 8-3; 4-4 Caso 8-4; 4-5 Caso 8-5; 4-6 Caso 8-6; 4-7 Caso 8-7; 4-8 Caso 8-8; 4-9 Caso 8-9; 4-10 Caso 8-10; 4-11 Caso 8-11; 4-12 Caso 8-12; 4-13 Caso 8-13; 4-14 Caso 8-14; 4-15 Caso 8-15; 4-16 Caso 8-16							
5	SLU FON con SISMAY P (SLU Appr.2)	da 5-1 a 5-16	Si	No	Si	No	$k_{h,x}$ = 0.01, $k_{h,y}$ = 0.05
5-1 Caso 9-1; 5-2 Caso 9-2; 5-3 Caso 9-3; 5-4 Caso 9-4; 5-5 Caso 9-5; 5-6 Caso 9-6; 5-7 Caso 9-7; 5-8 Caso 9-8; 5-9 Caso 9-9; 5-10 Caso 9-10; 5-11 Caso 9-11; 5-12 Caso 9-12; 5-13 Caso 9-13; 5-14 Caso 9-14; 5-15 Caso 9-15; 5-16 Caso 9-16							
6	SLUEqu (SLU EQU)	6-1	No	No	Si	No	Non sismico
6-1 Caso 13-1							

La seguente tabella elenca i coefficienti di sicurezza parziali, applicati alle caratteristiche meccaniche del terreno, alla capacità portante, alla resistenza a scorrimento e del terreno, per ciascun Caso di calcolo.

Caso	$\gamma_{G1,fav}$	$\gamma_{G1,sfa}$	$\gamma_{G2,fav}$	$\gamma_{G2,sfa}$	$\gamma_{Qi,fav}$	$\gamma_{Qi,sfa}$	γ_{γ}	γ_{φ}	$\gamma_{c'}$	$\gamma_{R;v}$	$\gamma_{R;h}$	$\gamma_{R;e}$	$\gamma_{R;equ}$	$\gamma_{R;upl}$
1	1.00	1.30	0.00	1.50	0.00	1.50	1.00	1.00	1.00	2.30	1.10	1.00	-	-
2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-

4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.30	1.10	1.00	-	-
6	0.90	1.10	0.00	1.50	0.00	1.50	1.00	1.25	1.25	-	-	-	1.00	1.00

Segue la tabella riassuntiva di tutte le verifiche a ***ribaltamento***.

	Fondazione			Fondazione e Sottofondo		
Caso	R_d [daN*cm]	E_d [daN*cm]	Verifica	R_d [daN*cm]	E_d [daN*cm]	Verifica
1-1	1012767260	51914240	SI (1012767260/51914240 = 19.51 >= 1.0)	1150391950	51914240	SI (1150391950/51914240 = 22.16 >= 1.0)
2-1	711923200	38415450	SI (711923200/38415450 = 18.53 >= 1.0)	816949800	38415450	SI (816949800/38415450 = 21.27 >= 1.0)
2-2	711921750	38417120	SI (711921750/38417120 = 18.53 >= 1.0)	816948340	38417120	SI (816948340/38417120 = 21.27 >= 1.0)
2-3	711949980	32449800	SI (711949980/32449800 = 21.94 >= 1.0)	816887980	32538050	SI (816887980/32538050 = 25.11 >= 1.0)
2-4	711948530	32451480	SI (711948530/32451480 = 21.94 >= 1.0)	816886520	32539720	SI (816886520/32539720 = 25.10 >= 1.0)
2-5	711924650	38413610	SI (711924650/38413610 = 18.53 >= 1.0)	816951270	38413610	SI (816951270/38413610 = 21.27 >= 1.0)
2-6	711923200	38415280	SI (711923200/38415280 = 18.53 >= 1.0)	816949800	38415280	SI (816949800/38415280 = 21.27 >= 1.0)
2-7	711951430	32447960	SI (711951430/32447960 = 21.94 >= 1.0)	816889450	32536210	SI (816889450/32536210 = 25.11 >= 1.0)
2-8	711949980	32449640	SI (711949980/32449640 = 21.94 >= 1.0)	816887980	32537880	SI (816887980/32537880 = 25.11 >= 1.0)
2-9	711991230	38407730	SI (711991230/38407730 = 18.54 >= 1.0)	817018050	38407730	SI (817018050/38407730 = 21.27 >= 1.0)
2-10	711989790	38409400	SI (711989790/38409400 = 18.54 >= 1.0)	817016580	38409400	SI (817016580/38409400 = 21.27 >= 1.0)
2-11	712018010	32442080	SI (712018010/32442080 = 21.95 >= 1.0)	816956960	32531050	SI (816956960/32531050 = 25.11 >= 1.0)
2-12	712017290	32443760	SI (712017290/32443760 = 21.95 >= 1.0)	816956220	32532730	SI (816956220/32532730 = 25.11 >= 1.0)
2-13	711992680	38405890	SI (711992680/38405890 = 18.54 >= 1.0)	817019520	38405890	SI (817019520/38405890 = 21.27 >= 1.0)
2-14	711991230	38407570	SI (711991230/38407570 = 18.54 >= 1.0)	817018050	38407570	SI (817018050/38407570 = 21.27 >= 1.0)
2-15	712019460	32440240	SI (712019460/32440240 = 21.95 >= 1.0)	816958420	32529210	SI (816958420/32529210 = 25.11 >= 1.0)
2-16	712018740	32441920	SI (712018740/32441920 = 21.95 >= 1.0)	816957690	32530890	SI (816957690/32530890 = 25.11 >= 1.0)
3-1	711918140	45370060	SI (711918140/45370060 = 15.69 >= 1.0)	817151160	45370060	SI (817151160/45370060 = 18.01 >= 1.0)
3-2	711918140	45369510	SI (711918140/45369510 = 15.69 >= 1.0)	817151160	45369510	SI (817151160/45369510 = 18.01 >= 1.0)
3-3	711938400	45367750	SI (711938400/45367750 = 15.69 >= 1.0)	817171490	45367750	SI (817171490/45367750 = 18.01 >= 1.0)
3-4	711938400	45367190	SI (711938400/45367190 = 15.69 >= 1.0)	817171490	45367190	SI (817171490/45367190 = 18.01 >= 1.0)
3-5	711913070	45375660	SI (711913070/45375660 = 15.69 >= 1.0)	817146030	45375660	SI (817146030/45375660 = 18.01 >= 1.0)
3-6	711913790	45375100	SI (711913790/45375100 = 15.69 >= 1.0)	817146760	45375100	SI (817146760/45375100 = 18.01 >= 1.0)
3-7	711934060	45373340	SI (711934060/45373340 = 15.69 >= 1.0)	817167090	45373340	SI (817167090/45373340 = 18.01 >= 1.0)

3-8	711934060	45372790	SI (711934060/45372790 = 15.69 >= 1.0)	817167090	45372790	SI (817167090/45372790 = 18.01 >= 1.0)
3-9	712007160	25484580	SI (712007160/25484580 = 27.94 >= 1.0)	816945950	25779820	SI (816945950/25779820 = 31.69 >= 1.0)
3-10	712007880	25484030	SI (712007880/25484030 = 27.94 >= 1.0)	816946680	25779270	SI (816946680/25779270 = 31.69 >= 1.0)
3-11	712028140	25482260	SI (712028140/25482260 = 27.94 >= 1.0)	816967230	25777730	SI (816967230/25777730 = 31.69 >= 1.0)
3-12	712028140	25481710	SI (712028140/25481710 = 27.94 >= 1.0)	816967230	25777170	SI (816967230/25777170 = 31.69 >= 1.0)
3-13	712002810	25490170	SI (712002810/25490170 = 27.93 >= 1.0)	816941550	25785420	SI (816941550/25785420 = 31.68 >= 1.0)
3-14	712003540	25489620	SI (712003540/25489620 = 27.93 >= 1.0)	816942280	25784870	SI (816942280/25784870 = 31.68 >= 1.0)
3-15	712023800	25487860	SI (712023800/25487860 = 27.94 >= 1.0)	816962830	25783320	SI (816962830/25783320 = 31.69 >= 1.0)
3-16	712023800	25487300	SI (712023800/25487300 = 27.94 >= 1.0)	816962830	25782770	SI (816962830/25782770 = 31.69 >= 1.0)
4-1	711918860	38714120	SI (711918860/38714120 = 18.39 >= 1.0)	816954300	38714120	SI (816954300/38714120 = 21.10 >= 1.0)
4-2	711917410	38715970	SI (711917410/38715970 = 18.39 >= 1.0)	816952830	38715970	SI (816952830/38715970 = 21.10 >= 1.0)
4-3	711947810	32151910	SI (711947810/32151910 = 22.14 >= 1.0)	816885780	32248980	SI (816885780/32248980 = 25.33 >= 1.0)
4-4	711946360	32153760	SI (711946360/32153760 = 22.14 >= 1.0)	816884320	32250830	SI (816884320/32250830 = 25.33 >= 1.0)
4-5	711920310	38712100	SI (711920310/38712100 = 18.39 >= 1.0)	816955770	38712100	SI (816955770/38712100 = 21.10 >= 1.0)
4-6	711918860	38713940	SI (711918860/38713940 = 18.39 >= 1.0)	816954300	38713940	SI (816954300/38713940 = 21.10 >= 1.0)
4-7	711949980	32149890	SI (711949980/32149890 = 22.14 >= 1.0)	816887980	32246960	SI (816887980/32246960 = 25.33 >= 1.0)
4-8	711948530	32151740	SI (711948530/32151740 = 22.14 >= 1.0)	816886520	32248800	SI (816886520/32248800 = 25.33 >= 1.0)
4-9	711993400	38705630	SI (711993400/38705630 = 18.40 >= 1.0)	817029080	38705630	SI (817029080/38705630 = 21.11 >= 1.0)
4-10	711991960	38707480	SI (711991960/38707480 = 18.39 >= 1.0)	817027610	38707480	SI (817027610/38707480 = 21.11 >= 1.0)
4-11	712023080	32143420	SI (712023080/32143420 = 22.15 >= 1.0)	816962090	32241290	SI (816962090/32241290 = 25.34 >= 1.0)
4-12	712021630	32145270	SI (712021630/32145270 = 22.15 >= 1.0)	816960630	32243130	SI (816960630/32243130 = 25.34 >= 1.0)
4-13	711994850	38703610	SI (711994850/38703610 = 18.40 >= 1.0)	817030550	38703610	SI (817030550/38703610 = 21.11 >= 1.0)
4-14	711993400	38705450	SI (711993400/38705450 = 18.40 >= 1.0)	817029080	38705450	SI (817029080/38705450 = 21.11 >= 1.0)
4-15	712024530	32141400	SI (712024530/32141400 = 22.15 >= 1.0)	816963560	32239260	SI (816963560/32239260 = 25.34 >= 1.0)
4-16	712023080	32143240	SI (712023080/32143240 = 22.15 >= 1.0)	816962090	32241110	SI (816962090/32241110 = 25.34 >= 1.0)
5-1	711912340	46364200	SI (711912340/46364200 = 15.35 >= 1.0)	817174840	46364200	SI (817174840/46364200 = 17.63 >= 1.0)
5-2	711913070	46363590	SI	817175570	46363590	SI

			(711913070/4636359 0 = 15.36 >= 1.0)			(817175570/4636359 0 = 17.63 >= 1.0)
5-3	711934780	46361650	SI (711934780/4636165 0 = 15.36 >= 1.0)	817197350	46361650	SI (817197350/4636165 0 = 17.63 >= 1.0)
5-4	711935500	46361050	SI (711935500/4636105 0 = 15.36 >= 1.0)	817198080	46361050	SI (817198080/4636105 0 = 17.63 >= 1.0)
5-5	711907280	46370350	SI (711907280/4637035 0 = 15.35 >= 1.0)	817169700	46370350	SI (817169700/4637035 0 = 17.62 >= 1.0)
5-6	711908000	46369750	SI (711908000/4636975 0 = 15.35 >= 1.0)	817170440	46369750	SI (817170440/4636975 0 = 17.62 >= 1.0)
5-7	711929720	46367810	SI (711929720/4636781 0 = 15.35 >= 1.0)	817192210	46367810	SI (817192210/4636781 0 = 17.62 >= 1.0)
5-8	711930440	46367200	SI (711930440/4636720 0 = 15.35 >= 1.0)	817192940	46367200	SI (817192940/4636720 0 = 17.62 >= 1.0)
5-9	712011500	24490170	SI (712011500/2449017 0 = 29.07 >= 1.0)	816950350	24814940	SI (816950350/2481494 0 = 32.92 >= 1.0)
5-10	712011500	24489560	SI (712011500/2448956 0 = 29.07 >= 1.0)	816950350	24814330	SI (816950350/2481433 0 = 32.92 >= 1.0)
5-11	712033940	24487620	SI (712033940/2448762 0 = 29.08 >= 1.0)	816973100	24812630	SI (816973100/2481263 0 = 32.93 >= 1.0)
5-12	712033940	24487010	SI (712033940/2448701 0 = 29.08 >= 1.0)	816973100	24812020	SI (816973100/2481202 0 = 32.93 >= 1.0)
5-13	712006430	24496320	SI (712006430/2449632 0 = 29.07 >= 1.0)	816945220	24821090	SI (816945220/2482109 0 = 32.91 >= 1.0)
5-14	712006430	24495710	SI (712006430/2449571 0 = 29.07 >= 1.0)	816945220	24820490	SI (816945220/2482049 0 = 32.91 >= 1.0)
5-15	712028870	24493770	SI (712028870/2449377 0 = 29.07 >= 1.0)	816967960	24818780	SI (816967960/2481878 0 = 32.92 >= 1.0)
5-16	712028870	24493170	SI (712028870/2449317 0 = 29.07 >= 1.0)	816967960	24818180	SI (816967960/2481818 0 = 32.92 >= 1.0)
6-1	880632220	45517560	SI (880632220/4551756 0 = 19.35 >= 1.0)	978390790	45517560	SI (978390790/4551756 0 = 21.49 >= 1.0)

Segue la tabella riassuntiva di tutte le verifiche di ***capacità portante***, i dettagli sono riportati nei paragrafi successivi.

	Cond. drenate			Cond. non drenate		
Caso	E_d [daN]	R_d [daN]	Verifica	E_d [daN]	R_d [daN]	Verifica
1-1	1567825.5	57295548.2	SI (57295548.2/1567825.5 = 36.54 >= 1.0)	Verifica non richiesta.		
2-1	1113268.6	43328212.4	SI (43328212.4/1113268.6 = 38.92 >= 1.0)	Verifica non richiesta.		
2-2	1113266.6	43328122.7	SI (43328122.7/1113266.6 = 38.92 >= 1.0)	Verifica non richiesta.		
2-3	1113305.6	43879226.2	SI (43879226.2/1113305.6 = 39.41 >= 1.0)	Verifica non richiesta.		
2-4	1113303.6	43879137.3	SI (43879137.3/1113303.6 = 39.41 >= 1.0)	Verifica non richiesta.		
2-5	1113270.6	43328309.4	SI (43328309.4/1113270.6 = 38.92 >= 1.0)	Verifica non richiesta.		
2-6	1113268.6	43328219.7	SI (43328219.7/1113268.6 = 38.92 >= 1.0)	Verifica non richiesta.		
2-7	1113307.6	43879322.5	SI (43879322.5/1113307.6 = 39.41 >= 1.0)	Verifica non richiesta.		
2-8	1113305.6	43879233.5	SI (43879233.5/1113305	Verifica non richiesta.		

			.6 = 39.41 >= 1.0)	
2-9	1113362.6	43730720	SI (43730720/1113362.6 = 39.28 >= 1.0)	Verifica non richiesta.
2-10	1113360.6	43730629.5	SI (43730629.5/1113360 .6 = 39.28 >= 1.0)	Verifica non richiesta.
2-11	1113399.6	44294745.5	SI (44294745.5/1113399 .6 = 39.78 >= 1.0)	Verifica non richiesta.
2-12	1113398.6	44294661.9	SI (44294661.9/1113398 .6 = 39.78 >= 1.0)	Verifica non richiesta.
2-13	1113364.6	43730817.9	SI (43730817.9/1113364 .6 = 39.28 >= 1.0)	Verifica non richiesta.
2-14	1113362.6	43730727.4	SI (43730727.4/1113362 .6 = 39.28 >= 1.0)	Verifica non richiesta.
2-15	1113401.6	44294842.7	SI (44294842.7/1113401 .6 = 39.78 >= 1.0)	Verifica non richiesta.
2-16	1113400.6	44294759	SI (44294759/1113400.6 = 39.78 >= 1.0)	Verifica non richiesta.
3-1	1113261.6	42595405	SI (42595405/1113261.6 = 38.26 >= 1.0)	Verifica non richiesta.
3-2	1113261.6	42595430.4	SI (42595430.4/1113261 .6 = 38.26 >= 1.0)	Verifica non richiesta.
3-3	1113289.6	42680415.9	SI (42680415.9/1113289 .6 = 38.34 >= 1.0)	Verifica non richiesta.
3-4	1113289.6	42680441.5	SI (42680441.5/1113289 .6 = 38.34 >= 1.0)	Verifica non richiesta.
3-5	1113254.6	42595094.6	SI (42595094.6/1113254 .6 = 38.26 >= 1.0)	Verifica non richiesta.
3-6	1113255.6	42595127.4	SI (42595127.4/1113255 .6 = 38.26 >= 1.0)	Verifica non richiesta.
3-7	1113283.6	42680112.2	SI (42680112.2/1113283 .6 = 38.34 >= 1.0)	Verifica non richiesta.
3-8	1113283.6	42680137.7	SI (42680137.7/1113283 .6 = 38.34 >= 1.0)	Verifica non richiesta.
3-9	1113384.6	44415035.7	SI (44415035.7/1113384 .6 = 39.89 >= 1.0)	Verifica non richiesta.
3-10	1113385.6	44415067.3	SI (44415067.3/1113385 .6 = 39.89 >= 1.0)	Verifica non richiesta.
3-11	1113413.6	44573598.8	SI (44573598.8/1113413 .6 = 40.03 >= 1.0)	Verifica non richiesta.
3-12	1113413.6	44573624.5	SI (44573624.5/1113413 .6 = 40.03 >= 1.0)	Verifica non richiesta.
3-13	1113378.6	44414740.8	SI (44414740.8/1113378 .6 = 39.89 >= 1.0)	Verifica non richiesta.
3-14	1113379.6	44414772.4	SI (44414772.4/1113379 .6 = 39.89 >= 1.0)	Verifica non richiesta.
3-15	1113407.6	44573302.9	SI (44573302.9/1113407 .6 = 40.03 >= 1.0)	Verifica non richiesta.
3-16	1113407.6	44573328.5	SI (44573328.5/1113407 .6 = 40.03 >= 1.0)	Verifica non richiesta.
4-1	1113262.6	42935576.8	SI (42935576.8/1113262 .6 = 38.57 >= 1.0)	Verifica non richiesta.
4-2	1113260.6	42935479.7	SI (42935479.7/1113260 .6 = 38.57 >= 1.0)	Verifica non richiesta.

4-3	1113302.6	43536240	SI (43536240/1113302.6 = 39.11 >= 1.0)	Verifica non richiesta.
4-4	1113300.6	43536143.8	SI (43536143.8/1113300.6 = 39.11 >= 1.0)	Verifica non richiesta.
4-5	1113264.6	42935681.7	SI (42935681.7/1113264.6 = 38.57 >= 1.0)	Verifica non richiesta.
4-6	1113262.6	42935584.7	SI (42935584.7/1113262.6 = 38.57 >= 1.0)	Verifica non richiesta.
4-7	1113305.6	43536350.8	SI (43536350.8/1113305.6 = 39.11 >= 1.0)	Verifica non richiesta.
4-8	1113303.6	43536254.6	SI (43536254.6/1113303.6 = 39.11 >= 1.0)	Verifica non richiesta.
4-9	1113365.6	43374760.6	SI (43374760.6/1113365.6 = 38.96 >= 1.0)	Verifica non richiesta.
4-10	1113363.6	43374662.5	SI (43374662.5/1113363.6 = 38.96 >= 1.0)	Verifica non richiesta.
4-11	1113406.6	43990212.7	SI (43990212.7/1113406.6 = 39.51 >= 1.0)	Verifica non richiesta.
4-12	1113404.6	43990115.4	SI (43990115.4/1113404.6 = 39.51 >= 1.0)	Verifica non richiesta.
4-13	1113367.6	43374866.7	SI (43374866.7/1113367.6 = 38.96 >= 1.0)	Verifica non richiesta.
4-14	1113365.6	43374768.6	SI (43374768.6/1113365.6 = 38.96 >= 1.0)	Verifica non richiesta.
4-15	1113408.6	43990318	SI (43990318/1113408.6 = 39.51 >= 1.0)	Verifica non richiesta.
4-16	1113406.6	43990220.8	SI (43990220.8/1113406.6 = 39.51 >= 1.0)	Verifica non richiesta.
5-1	1113253.6	42136848	SI (42136848/1113253.6 = 37.85 >= 1.0)	Verifica non richiesta.
5-2	1113254.6	42136883.6	SI (42136883.6/1113254.6 = 37.85 >= 1.0)	Verifica non richiesta.
5-3	1113284.6	42229338.4	SI (42229338.4/1113284.6 = 37.93 >= 1.0)	Verifica non richiesta.
5-4	1113285.6	42229374	SI (42229374/1113285.6 = 37.93 >= 1.0)	Verifica non richiesta.
5-5	1113246.6	42136511.9	SI (42136511.9/1113246.6 = 37.85 >= 1.0)	Verifica non richiesta.
5-6	1113247.6	42136547.4	SI (42136547.4/1113247.6 = 37.85 >= 1.0)	Verifica non richiesta.
5-7	1113277.6	42229001.5	SI (42229001.5/1113277.6 = 37.93 >= 1.0)	Verifica non richiesta.
5-8	1113278.6	42229037	SI (42229037/1113278.6 = 37.93 >= 1.0)	Verifica non richiesta.
5-9	1113390.6	44120962.1	SI (44120962.1/1113390.6 = 39.63 >= 1.0)	Verifica non richiesta.
5-10	1113390.6	44120989.9	SI (44120989.9/1113390.6 = 39.63 >= 1.0)	Verifica non richiesta.
5-11	1113421.6	44294209.8	SI (44294209.8/1113421.6 = 39.78 >= 1.0)	Verifica non richiesta.
5-12	1113421.6	44294237.8	SI (44294237.8/1113421.6 = 39.78 >= 1.0)	Verifica non richiesta.
5-13	1113383.6	44120636	SI	Verifica non richiesta.

			(44120636/1113383.6 = 39.63 >= 1.0)	
5-14	1113383.6	44120663.8	SI (44120663.8/1113383.6 = 39.63 >= 1.0)	Verifica non richiesta.
5-15	1113414.6	44293882.6	SI (44293882.6/1113414.6 = 39.78 >= 1.0)	Verifica non richiesta.
5-16	1113414.6	44293910.6	SI (44293910.6/1113414.6 = 39.78 >= 1.0)	Verifica non richiesta.

Segue la tabella riassuntiva di tutte le verifiche di ***resistenza a scorrimento***, i dettagli sono riportati nei paragrafi successivi.

	Cond. drenate			Cond. non drenate		
Caso	E_d [daN]	R_d [daN]	Verifica	E_d [daN]	R_d [daN]	Verifica
1-1	0	590376.9	SI (590376.9/0 = 1.00 >= 1.0)	Verifica non richiesta.		
2-1	32664.1	443801.8	SI (443801.8/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-2	32664.1	443801	SI (443801/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-3	32774.5	443711.2	SI (443711.2/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-4	32774.5	443710.5	SI (443710.5/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-5	32664.1	443802.5	SI (443802.5/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-6	32664.1	443801.8	SI (443801.8/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-7	32774.5	443712	SI (443712/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-8	32774.5	443711.2	SI (443711.2/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-9	32774.5	443732.7	SI (443732.7/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-10	32774.5	443731.9	SI (443731.9/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-11	32664.1	443851.1	SI (443851.1/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-12	32664.1	443850.7	SI (443850.7/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-13	32774.5	443733.4	SI (443733.4/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-14	32774.5	443732.7	SI (443732.7/32774.5 = 13.54 >= 1.0)	Verifica non richiesta.		
2-15	32664.1	443851.9	SI (443851.9/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
2-16	32664.1	443851.5	SI (443851.5/32664.1 = 13.59 >= 1.0)	Verifica non richiesta.		
3-1	30952.7	459553.5	SI (459553.5/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-2	30952.7	459553.5	SI (459553.5/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-3	31069.2	459602.5	SI (459602.5/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-4	31069.2	459602.5	SI (459602.5/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-5	30952.7	459550.8	SI (459550.8/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-6	30952.7	459551.2	SI (459551.2/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-7	31069.2	459600.2	SI (459600.2/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-8	31069.2	459600.2	SI (459600.2/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-9	31069.2	459638.3	SI (459638.3/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-10	31069.2	459638.7	SI (459638.7/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-11	30952.7	459610.7	SI (459610.7/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-12	30952.7	459610.7	SI (459610.7/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.		
3-13	31069.2	459636	SI (459636/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		
3-14	31069.2	459636.4	SI (459636.4/31069.2 = 14.79 >= 1.0)	Verifica non richiesta.		

3-15	30952.7	459608.4	SI (459608.4/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.
3-16	30952.7	459608.4	SI (459608.4/30952.7 = 14.85 >= 1.0)	Verifica non richiesta.
4-1	35930.5	443799.5	SI (443799.5/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-2	35930.5	443798.8	SI (443798.8/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-3	36052	443710.1	SI (443710.1/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-4	36052	443709.3	SI (443709.3/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-5	35930.5	443800.3	SI (443800.3/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-6	35930.5	443799.5	SI (443799.5/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-7	36052	443711.2	SI (443711.2/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-8	36052	443710.5	SI (443710.5/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-9	36052	443733.8	SI (443733.8/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-10	36052	443733.1	SI (443733.1/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-11	35930.5	443853.7	SI (443853.7/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-12	35930.5	443853	SI (443853/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-13	36052	443734.6	SI (443734.6/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-14	36052	443733.8	SI (443733.8/36052 = 12.31 >= 1.0)	Verifica non richiesta.
4-15	35930.5	443854.5	SI (443854.5/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
4-16	35930.5	443853.7	SI (443853.7/35930.5 = 12.35 >= 1.0)	Verifica non richiesta.
5-1	34048	459550.5	SI (459550.5/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-2	34048	459550.8	SI (459550.8/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-3	34176.1	459600.6	SI (459600.6/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-4	34176.1	459601	SI (459601/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-5	34048	459547.8	SI (459547.8/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-6	34048	459548.2	SI (459548.2/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-7	34176.1	459598	SI (459598/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-8	34176.1	459598.4	SI (459598.4/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-9	34176.1	459640.5	SI (459640.5/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-10	34176.1	459640.5	SI (459640.5/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-11	34048	459613.7	SI (459613.7/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-12	34048	459613.7	SI (459613.7/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-13	34176.1	459637.9	SI (459637.9/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-14	34176.1	459637.9	SI (459637.9/34176.1 = 13.45 >= 1.0)	Verifica non richiesta.
5-15	34048	459611.1	SI (459611.1/34048 = 13.50 >= 1.0)	Verifica non richiesta.
5-16	34048	459611.1	SI (459611.1/34048 = 13.50 >= 1.0)	Verifica non richiesta.

Descrizione del metodo di calcolo.
Il calcolo della capacità portante viene eseguito secondo la formula trinomia, considerando separatamente i contributi dovuti alla coesione, al sovraccarico laterale ed al peso del terreno.
Per le verifiche in condizioni drenate, si utilizzano i coefficienti di capacità portante Nq (Prandtl, 1921), Nc (Reissner, 1924), N_γ (Vesic, 1973), i coefficienti correttivi dovuti alla forma della fondazione (s, Meyerhof, 1951 e 1963), all'approfondimento (d, Brinch Hansen, 1970), all'inclinazione del carico (i, Vesic, 1973), all'inclinazione del piano di posa (b, Vesic, 1973),

all'inclinazione del piano campagna (g, Vesic, 1973), e all'azione sismica (h - Maugeri e Novità, 2004).
Nel caso di terreno eterogeneo (litologie differenti, presenza di falda), i parametri meccanici utilizzati nel calcolo sono ottenuti come media ponderata dei valori rinvenuti all'interno del cuneo di rottura.
La resistenza a scorrimento, viene ottenuta sommando i contributi del carico normale al piano di posa moltiplicato per il coefficiente d'attrito, e dell'area del piano di posa (eventualmente ridotta per carico verticale eccentrico) per l'adesione fondazione-terreno. In condizioni drenate, l'attrito fondazione terreno è assunto pari all'angolo di resistenza al taglio del terreno moltiplicato per il coefficiente 0.75, l'adesione fondazione terreno è trascurata (assunta pari a 0). Si considera il contributo della pressione del terreno a lato della fondazione. La resistenza laterale del terreno è assunta pari alla resistenza passiva disponibile moltiplicata per 0.50.
Descrizione della fondazione.
La fondazione ha piano di posa rettangolare, con lato X di 3680 [cm], lato Y di 1467.5 [cm], e centro alla quota z = -110 [cm]. Il piano di posa è orizzontale.
Descrizione del terreno.

La stratigrafia è omogenea, presenta un solo strato							
n.	nome	z_i [cm]	z_f [cm]	γ_d [daN/cm^3]	γ_t [daN/cm^3]	c' [daN/cm^2]	φ' [°]
1	Sabbia	0	-4352.5	0.0019	0.0019	0	30

La stratigrafia contiene una falda			
n.	z_i [cm]	z_f [cm]	γ_w [daN/cm^3]
1	-300	-1500	0.00098

Verifiche in condizioni drenate.
Sollecitazioni al piano di posa.
Si riportano di seguito le componenti della sollecitazione applicata e la distanza del punto di applicazione dal centro del piano di posa della fondazione.

Rispetto al sistema di rif. globale:								
Caso	Fx [daN]	Fy [daN]	Fz [daN]	Mx [daN*cm]	My [daN*cm]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-1567825.48	-51914239	15392040	0	0	10
2-1	-31429.12	-8896.87	-1113268.6	-38415446	27269861	0	0	10
2-2	-31429.12	-8896.87	-1113266.6	-38417124	27265488	0	0	10
2-3	-31564.18	8824.46	-1113305.6	-32449801	27308378	0	0	10
2-4	-31564.18	8824.46	-1113303.6	-32451479	27304006	0	0	10
2-5	-31429.12	-8896.87	-1113270.6	-38413607	27274654	0	0	10
2-6	-31429.12	-8896.87	-1113268.6	-38415285	27270281	0	0	10
2-7	-31564.18	8824.46	-1113307.6	-32447961	27313171	0	0	10
2-8	-31564.18	8824.46	-1113305.6	-32449640	27308799	0	0	10
2-9	31564.18	-8824.46	-1113362.6	-38407727	5676377	0	0	10
2-10	31564.18	-8824.46	-1113360.6	-38409405	5672005	0	0	10
2-11	31429.12	8896.87	-1113399.6	-32442082	5714894	0	0	10
2-12	31429.12	8896.87	-1113398.6	-32443760	5710522	0	0	10
2-13	31564.18	-8824.46	-1113364.6	-38405888	5681170	0	0	10
2-14	31564.18	-8824.46	-1113362.6	-38407566	5676798	0	0	10
2-15	31429.12	8896.87	-1113401.6	-32440242	5719687	0	0	10
2-16	31429.12	8896.87	-1113400.6	-32441921	5715315	0	0	10
3-1	-9223.9	-29546.42	-1113261.6	-45370062	19673983	0	0	10
3-2	-9223.9	-29546.42	-1113261.6	-45369510	19675421	0	0	10
3-3	9674.09	-29524.7	-1113289.6	-45367746	13195938	0	0	10
3-4	9674.09	-29524.7	-1113289.6	-45367194	13197376	0	0	10
3-5	-9223.9	-29546.42	-1113254.6	-45375656	19659409	0	0	10
3-6	-9223.9	-29546.42	-1113255.6	-45375105	19660847	0	0	10
3-7	9674.09	-29524.7	-1113283.6	-45373341	13181363	0	0	10
3-8	9674.09	-29524.7	-1113283.6	-45372789	13182801	0	0	10
3-9	-9674.09	29524.7	-1113384.6	-25484578	19802374	0	0	10
3-10	-9674.09	29524.7	-1113385.6	-25484026	19803812	0	0	10
3-11	9223.9	29546.42	-1113413.6	-25482262	13324329	0	0	10
3-12	9223.9	29546.42	-1113413.6	-25481710	13325767	0	0	10
3-13	-9674.09	29524.7	-1113378.6	-25490172	19787800	0	0	10
3-14	-9674.09	29524.7	-1113379.6	-25489620	19789238	0	0	10
3-15	9223.9	29546.42	-1113407.6	-25487856	13309755	0	0	10
3-16	9223.9	29546.42	-1113407.6	-25487305	13311193	0	0	10
4-1	-34572.04	-9786.56	-1113262.6	-38714122	28347588	0	0	10
4-2	-34572.04	-9786.56	-1113260.6	-38715968	28342779	0	0	10
4-3	-34720.6	9706.91	-1113302.6	-32151912	28389957	0	0	10
4-4	-34720.6	9706.91	-1113300.6	-32153758	28385148	0	0	10
4-5	-34572.04	-9786.56	-1113264.6	-38712099	28352860	0	0	10
4-6	-34572.04	-9786.56	-1113262.6	-38713945	28348051	0	0	10
4-7	-34720.6	9706.91	-1113305.6	-32149889	28395229	0	0	10

4-8	-34720.6	9706.91	-1113303.6	-32151735	28390420	0	0	10
4-9	34720.6	-9706.91	-1113365.6	-38705631	4594756	0	0	10
4-10	34720.6	-9706.91	-1113363.6	-38707477	4589946	0	0	10
4-11	34572.04	9786.56	-1113406.6	-32143421	4637125	0	0	10
4-12	34572.04	9786.56	-1113404.6	-32145268	4632316	0	0	10
4-13	34720.6	-9706.91	-1113367.6	-38703608	4600028	0	0	10
4-14	34720.6	-9706.91	-1113365.6	-38705454	4595219	0	0	10
4-15	34572.04	9786.56	-1113408.6	-32141398	4642397	0	0	10
4-16	34572.04	9786.56	-1113406.6	-32143244	4637588	0	0	10
5-1	-10146.29	-32501.06	-1113253.6	-46364200	19992122	0	0	10
5-2	-10146.29	-32501.06	-1113254.6	-46363593	19993704	0	0	10
5-3	10641.5	-32477.17	-1113284.6	-46361653	12866273	0	0	10
5-4	10641.5	-32477.17	-1113285.6	-46361046	12867854	0	0	10
5-5	-10146.29	-32501.06	-1113246.6	-46370354	19976091	0	0	10
5-6	-10146.29	-32501.06	-1113247.6	-46369747	19977672	0	0	10
5-7	10641.5	-32477.17	-1113277.6	-46367806	12850241	0	0	10
5-8	10641.5	-32477.17	-1113278.6	-46367200	12851823	0	0	10
5-9	-10641.5	32477.17	-1113390.6	-24490167	20133353	0	0	10
5-10	-10641.5	32477.17	-1113390.6	-24489560	20134935	0	0	10
5-11	10146.29	32501.06	-1113421.6	-24487620	13007503	0	0	10
5-12	10146.29	32501.06	-1113421.6	-24487013	13009085	0	0	10
5-13	-10641.5	32477.17	-1113383.6	-24496321	20117321	0	0	10
5-14	-10641.5	32477.17	-1113383.6	-24495714	20118903	0	0	10
5-15	10146.29	32501.06	-1113414.6	-24493774	12991472	0	0	10
5-16	10146.29	32501.06	-1113414.6	-24493167	12993053	0	0	10
Rispetto al sistema di rif. locale (centro piano di posa):								
Caso	Hx [daN]	Hy [daN]	Vz [daN]	Mx [daN*cm]	My [daN*cm]	dx [cm]	dy [cm]	dz [cm]
1-1	0	0	-1567825.48	-51914239	15392040	-	-	-
2-1	-31429.12	-8896.87	-1113268.6	-38326477	26955570	-	-	-
2-2	-31429.12	-8896.87	-1113266.6	-38328155	26951197	-	-	-
2-3	-31564.18	8824.46	-1113305.6	-32538046	26992736	-	-	-
2-4	-31564.18	8824.46	-1113303.6	-32539724	26988364	-	-	-
2-5	-31429.12	-8896.87	-1113270.6	-38324638	26960363	-	-	-
2-6	-31429.12	-8896.87	-1113268.6	-38326316	26955990	-	-	-
2-7	-31564.18	8824.46	-1113307.6	-32536206	26997529	-	-	-
2-8	-31564.18	8824.46	-1113305.6	-32537885	26993157	-	-	-
2-9	31564.18	-8824.46	-1113362.6	-38319482	5992019	-	-	-
2-10	31564.18	-8824.46	-1113360.6	-38321160	5987647	-	-	-
2-11	31429.12	8896.87	-1113399.6	-32531051	6029185	-	-	-
2-12	31429.12	8896.87	-1113398.6	-32532729	6024813	-	-	-
2-13	31564.18	-8824.46	-1113364.6	-38317643	5996812	-	-	-
2-14	31564.18	-8824.46	-1113362.6	-38319321	5992440	-	-	-
2-15	31429.12	8896.87	-1113401.6	-32529211	6033978	-	-	-
2-16	31429.12	8896.87	-1113400.6	-32530890	6029606	-	-	-
3-1	-9223.9	-29546.42	-1113261.6	-45074598	19581744	-	-	-
3-2	-9223.9	-29546.42	-1113261.6	-45074046	19583182	-	-	-
3-3	9674.09	-29524.7	-1113289.6	-45072499	13292679	-	-	-
3-4	9674.09	-29524.7	-1113289.6	-45071947	13294117	-	-	-
3-5	-9223.9	-29546.42	-1113254.6	-45080192	19567170	-	-	-
3-6	-9223.9	-29546.42	-1113255.6	-45079641	19568608	-	-	-
3-7	9674.09	-29524.7	-1113283.6	-45078094	13278104	-	-	-
3-8	9674.09	-29524.7	-1113283.6	-45077542	13279542	-	-	-
3-9	-9674.09	29524.7	-1113384.6	-25779825	19705633	-	-	-
3-10	-9674.09	29524.7	-1113385.6	-25779273	19707071	-	-	-
3-11	9223.9	29546.42	-1113413.6	-25777726	13416568	-	-	-
3-12	9223.9	29546.42	-1113413.6	-25777174	13418006	-	-	-
3-13	-9674.09	29524.7	-1113378.6	-25785419	19691059	-	-	-
3-14	-9674.09	29524.7	-1113379.6	-25784867	19692497	-	-	-
3-15	9223.9	29546.42	-1113407.6	-25783320	13401994	-	-	-
3-16	9223.9	29546.42	-1113407.6	-25782769	13403432	-	-	-
4-1	-34572.04	-9786.56	-1113262.6	-38616256	28001868	-	-	-
4-2	-34572.04	-9786.56	-1113260.6	-38618102	27997059	-	-	-
4-3	-34720.6	9706.91	-1113302.6	-32248981	28042751	-	-	-
4-4	-34720.6	9706.91	-1113300.6	-32250827	28037942	-	-	-
4-5	-34572.04	-9786.56	-1113264.6	-38614233	28007140	-	-	-
4-6	-34572.04	-9786.56	-1113262.6	-38616079	28002331	-	-	-
4-7	-34720.6	9706.91	-1113305.6	-32246958	28048023	-	-	-
4-8	-34720.6	9706.91	-1113303.6	-32248804	28043214	-	-	-
4-9	34720.6	-9706.91	-1113365.6	-38608562	4941962	-	-	-
4-10	34720.6	-9706.91	-1113363.6	-38610408	4937152	-	-	-
4-11	34572.04	9786.56	-1113406.6	-32241287	4982845	-	-	-
4-12	34572.04	9786.56	-1113404.6	-32243134	4978036	-	-	-
4-13	34720.6	-9706.91	-1113367.6	-38606539	4947234	-	-	-
4-14	34720.6	-9706.91	-1113365.6	-38608385	4942425	-	-	-
4-15	34572.04	9786.56	-1113408.6	-32239264	4988117	-	-	-
4-16	34572.04	9786.56	-1113406.6	-32241110	4983308	-	-	-
5-1	-10146.29	-32501.06	-1113253.6	-46039189	19890659	-	-	-
5-2	-10146.29	-32501.06	-1113254.6	-46038582	19892241	-	-	-

5-3	10641.5	-32477.17	-1113284.6	-46036881	12972688	-	-	-
5-4	10641.5	-32477.17	-1113285.6	-46036274	12974269	-	-	-
5-5	-10146.29	-32501.06	-1113246.6	-46045343	19874628	-	-	-
5-6	-10146.29	-32501.06	-1113247.6	-46044736	19876209	-	-	-
5-7	10641.5	-32477.17	-1113277.6	-46043034	12956656	-	-	-
5-8	10641.5	-32477.17	-1113278.6	-46042428	12958238	-	-	-
5-9	-10641.5	32477.17	-1113390.6	-24814939	20026938	-	-	-
5-10	-10641.5	32477.17	-1113390.6	-24814332	20028520	-	-	-
5-11	10146.29	32501.06	-1113421.6	-24812631	13108966	-	-	-
5-12	10146.29	32501.06	-1113421.6	-24812024	13110548	-	-	-
5-13	-10641.5	32477.17	-1113383.6	-24821093	20010906	-	-	-
5-14	-10641.5	32477.17	-1113383.6	-24820486	20012488	-	-	-
5-15	10146.29	32501.06	-1113414.6	-24818785	13092935	-	-	-
5-16	10146.29	32501.06	-1113414.6	-24818178	13094516	-	-	-

Le sollecitazioni applicate provocano un' eccentricità lungo X (max = 25.19 [cm]) e lungo Y (max = 41.36 [cm]), percio' le verifiche vengono eseguite sulla fondazione ridotta rettangolare.

Caso	ecc. X [cm]	ecc. Y [cm]	Asse B	Asse L
1-1	9.82	33.11	asse Y	asse X
2-1	24.21	34.43	asse Y	asse X
2-2	24.21	34.43	asse Y	asse X
2-3	24.25	29.23	asse Y	asse X
2-4	24.24	29.23	asse Y	asse X
2-5	24.22	34.43	asse Y	asse X
2-6	24.21	34.43	asse Y	asse X
2-7	24.25	29.22	asse Y	asse X
2-8	24.25	29.23	asse Y	asse X
2-9	5.38	34.42	asse Y	asse X
2-10	5.38	34.42	asse Y	asse X
2-11	5.42	29.22	asse Y	asse X
2-12	5.41	29.22	asse Y	asse X
2-13	5.39	34.42	asse Y	asse X
2-14	5.38	34.42	asse Y	asse X
2-15	5.42	29.22	asse Y	asse X
2-16	5.42	29.22	asse Y	asse X
3-1	17.59	40.49	asse Y	asse X
3-2	17.59	40.49	asse Y	asse X
3-3	11.94	40.49	asse Y	asse X
3-4	11.94	40.49	asse Y	asse X
3-5	17.58	40.49	asse Y	asse X
3-6	17.58	40.49	asse Y	asse X
3-7	11.93	40.49	asse Y	asse X
3-8	11.93	40.49	asse Y	asse X
3-9	17.7	23.15	asse Y	asse X
3-10	17.7	23.15	asse Y	asse X
3-11	12.05	23.15	asse Y	asse X
3-12	12.05	23.15	asse Y	asse X
3-13	17.69	23.16	asse Y	asse X
3-14	17.69	23.16	asse Y	asse X
3-15	12.04	23.16	asse Y	asse X
3-16	12.04	23.16	asse Y	asse X
4-1	25.15	34.69	asse Y	asse X
4-2	25.15	34.69	asse Y	asse X
4-3	25.19	28.97	asse Y	asse X
4-4	25.18	28.97	asse Y	asse X
4-5	25.16	34.69	asse Y	asse X
4-6	25.15	34.69	asse Y	asse X
4-7	25.19	28.97	asse Y	asse X
4-8	25.19	28.97	asse Y	asse X
4-9	4.44	34.68	asse Y	asse X
4-10	4.43	34.68	asse Y	asse X
4-11	4.48	28.96	asse Y	asse X
4-12	4.47	28.96	asse Y	asse X
4-13	4.44	34.68	asse Y	asse X
4-14	4.44	34.68	asse Y	asse X
4-15	4.48	28.96	asse Y	asse X
4-16	4.48	28.96	asse Y	asse X
5-1	17.87	41.36	asse Y	asse X
5-2	17.87	41.35	asse Y	asse X
5-3	11.65	41.35	asse Y	asse X
5-4	11.65	41.35	asse Y	asse X
5-5	17.85	41.36	asse Y	asse X
5-6	17.85	41.36	asse Y	asse X
5-7	11.64	41.36	asse Y	asse X
5-8	11.64	41.36	asse Y	asse X
5-9	17.99	22.29	asse Y	asse X
5-10	17.99	22.29	asse Y	asse X
5-11	11.77	22.29	asse Y	asse X

5-12	11.78	22.28	asse Y	asse X
5-13	17.97	22.29	asse Y	asse X
5-14	17.97	22.29	asse Y	asse X
5-15	11.76	22.29	asse Y	asse X
5-16	11.76	22.29	asse Y	asse X

Capacità portante.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, del peso di volume alleggerito, della coesione efficace, del sovraccarico alleggerito, e dei fattori e coefficienti introdotti nel calcolo della capacità portante.

Caso	γ_{φ}	γ_{γ}	φ [°]	γ' [daN/cm^3]	N_{γ}	s_{γ}	d_{γ}	$i_{b\gamma}$	$i_{l\gamma}$	b_{γ}	g_{γ}	h_{γ}	$q'_{lim,\gamma}$ [daN/cm^2]
1-1	1.00	1.00	30	0.0012	22.40	1.11	1.00	1.00	1.00	1.00	1.00	-	21.04
2-1	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.64
2-2	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.64
2-3	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.74
2-4	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.74
2-5	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.64
2-6	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.64
2-7	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.74
2-8	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.74
2-9	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.94	1.00	1.00	0.81	15.62
2-10	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.94	1.00	1.00	0.81	15.62
2-11	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.73
2-12	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.73
2-13	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.94	1.00	1.00	0.81	15.62
2-14	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.94	1.00	1.00	0.81	15.62
2-15	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.73
2-16	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.94	1.00	1.00	0.81	15.73
3-1	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.43
3-2	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.43
3-3	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.42
3-4	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.42
3-5	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.43
3-6	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.43
3-7	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.42
3-8	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.93	0.98	1.00	1.00	0.81	15.42
3-9	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.76
3-10	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.76
3-11	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.77
3-12	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.77
3-13	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.76
3-14	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.76
3-15	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.77
3-16	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.93	0.98	1.00	1.00	0.81	15.77
4-1	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.5
4-2	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.5
4-3	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.61
4-4	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.61
4-5	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.5
4-6	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.5
4-7	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.61
4-8	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.61
4-9	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.93	1.00	1.00	0.81	15.48
4-10	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.93	1.00	1.00	0.81	15.48
4-11	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.59
4-12	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.59
4-13	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.93	1.00	1.00	0.81	15.48
4-14	1.00	1.00	30	0.0012	22.40	1.11	1.00	0.98	0.93	1.00	1.00	0.81	15.48
4-15	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.59
4-16	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.98	0.93	1.00	1.00	0.81	15.59
5-1	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.27
5-2	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.27
5-3	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.25
5-4	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.25
5-5	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.27
5-6	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.27
5-7	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.25
5-8	1.00	1.00	30	0.00121	22.40	1.11	1.00	0.92	0.98	1.00	1.00	0.81	15.25
5-9	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.63
5-10	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.63
5-11	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.64
5-12	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.64
5-13	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.63
5-14	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.63
5-15	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.64
5-16	1.00	1.00	30	0.0012	22.40	1.12	1.00	0.92	0.98	1.00	1.00	0.81	15.64

Caso	$\gamma_{c'}$	c' [daN/cm^2]	N_c	s_c	d_c	i_{bc}	i_{lc}	b_c	g_c	h_c	$q'_{lim,c}$ [daN/cm^2]
1-1	1.00	0	30.14	1.23	1.02	1.00	1.00	1.00	1.00	-	0
2-1	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-2	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-3	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-4	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-5	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-6	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-7	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-8	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-9	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-10	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-11	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-12	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-13	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-14	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-15	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
2-16	1.00	0	30.14	1.23	1.02	0.99	0.96	1.00	1.00	0.92	0
3-1	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-2	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-3	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-4	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-5	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-6	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-7	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-8	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-9	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-10	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-11	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-12	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-13	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-14	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-15	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
3-16	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
4-1	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-2	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-3	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-4	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-5	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-6	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-7	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-8	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-9	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-10	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-11	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-12	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-13	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-14	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-15	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
4-16	1.00	0	30.14	1.23	1.02	0.98	0.96	1.00	1.00	0.92	0
5-1	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-2	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-3	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-4	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-5	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-6	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-7	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-8	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-9	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-10	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-11	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-12	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-13	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-14	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-15	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0
5-16	1.00	0	30.14	1.23	1.02	0.95	0.99	1.00	1.00	0.92	0

Caso	q' [daN/cm^2]	N_q	s_q	d_q	i_{bq}	i_{lq}	b_q	g_q	h_q	$q'_{lim,q}$ [daN/cm^2]
1-1	0.21	18.40	1.11	1.02	1.00	1.00	1.00	1.00	-	4.38
2-1	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-2	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-3	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-4	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-5	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-6	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-7	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-8	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71

2-9	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.7
2-10	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.7
2-11	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-12	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-13	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.7
2-14	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.7
2-15	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
2-16	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.71
3-1	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-2	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-3	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-4	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-5	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-6	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-7	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-8	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.68
3-9	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-10	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-11	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-12	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-13	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-14	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-15	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
3-16	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.69
4-1	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-2	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-3	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-4	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-5	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-6	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-7	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-8	0.21	18.40	1.12	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-9	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-10	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-11	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-12	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-13	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-14	0.21	18.40	1.11	1.02	0.99	0.96	1.00	1.00	0.89	3.69
4-15	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
4-16	0.21	18.40	1.12	1.02	0.98	0.96	1.00	1.00	0.89	3.69
5-1	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-2	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-3	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-4	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-5	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-6	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-7	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-8	0.21	18.40	1.11	1.02	0.95	0.99	1.00	1.00	0.89	3.66
5-9	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-10	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-11	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-12	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-13	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-14	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-15	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67
5-16	0.21	18.40	1.12	1.02	0.95	0.99	1.00	1.00	0.89	3.67

Segue il confronto fra la pressione limite ed applicata.

Caso	$\gamma_{R;v}$	q'_{lim} [daN/cm^2]	A [cm^2]	R_d [daN]	E_d [daN]	Verifica
1-1	2.30	11.17	5129179.9	57295548.2	1567825.5	SI (57295548.2/1567825.5 = 36.54 >= 1.0)
2-1	2.30	8.53	5079286.59	43328212.4	1113268.6	SI (43328212.4/1113268.6 = 38.92 >= 1.0)
2-2	2.30	8.53	5079286.06	43328122.7	1113266.6	SI (43328122.7/1113266.6 = 38.92 >= 1.0)
2-3	2.30	8.58	5116966.52	43879226.2	1113305.6	SI (43879226.2/1113305.6 = 39.41 >= 1.0)
2-4	2.30	8.58	5116966.13	43879137.3	1113303.6	SI (43879137.3/1113303.6 = 39.41 >= 1.0)
2-5	2.30	8.53	5079287.12	43328309.4	1113270.6	SI (43328309.4/1113270.6 = 38.92 >= 1.0)
2-6	2.30	8.53	5079286.59	43328219.7	1113268.6	SI

						(43328219.7/1113268.6 = 38.92 >= 1.0)
2-7	2.30	8.58	5116966.89	43879322.5	1113307.6	SI (43879322.5/1113307.6 = 39.41 >= 1.0)
2-8	2.30	8.58	5116966.5	43879233.5	1113305.6	SI (43879233.5/1113305.6 = 39.41 >= 1.0)
2-9	2.30	8.52	5132030.08	43730720	1113362.6	SI (43730720/1113362.6 = 39.28 >= 1.0)
2-10	2.30	8.52	5132029.52	43730629.5	1113360.6	SI (43730629.5/1113360.6 = 39.28 >= 1.0)
2-11	2.30	8.57	5170096.74	44294745.5	1113399.6	SI (44294745.5/1113399.6 = 39.78 >= 1.0)
2-12	2.30	8.57	5170096.54	44294661.9	1113398.6	SI (44294661.9/1113398.6 = 39.78 >= 1.0)
2-13	2.30	8.52	5132030.63	43730817.9	1113364.6	SI (43730817.9/1113364.6 = 39.28 >= 1.0)
2-14	2.30	8.52	5132030.08	43730727.4	1113362.6	SI (43730727.4/1113362.6 = 39.28 >= 1.0)
2-15	2.30	8.57	5170097.15	44294842.7	1113401.6	SI (44294842.7/1113401.6 = 39.78 >= 1.0)
2-16	2.30	8.57	5170096.94	44294759	1113400.6	SI (44294759/1113400.6 = 39.78 >= 1.0)
3-1	2.30	8.43	5053626.07	42595405	1113261.6	SI (42595405/1113261.6 = 38.26 >= 1.0)
3-2	2.30	8.43	5053626.11	42595430.4	1113261.6	SI (42595430.4/1113261.6 = 38.26 >= 1.0)
3-3	2.30	8.42	5069313.69	42680415.9	1113289.6	SI (42680415.9/1113289.6 = 38.34 >= 1.0)
3-4	2.30	8.42	5069313.74	42680441.5	1113289.6	SI (42680441.5/1113289.6 = 38.34 >= 1.0)
3-5	2.30	8.43	5053623.58	42595094.6	1113254.6	SI (42595094.6/1113254.6 = 38.26 >= 1.0)
3-6	2.30	8.43	5053623.92	42595127.4	1113255.6	SI (42595127.4/1113255.6 = 38.26 >= 1.0)
3-7	2.30	8.42	5069311.47	42680112.2	1113283.6	SI (42680112.2/1113283.6 = 38.34 >= 1.0)
3-8	2.30	8.42	5069311.52	42680137.7	1113283.6	SI (42680137.7/1113283.6 = 38.34 >= 1.0)
3-9	2.30	8.57	5179676.23	44415035.7	1113384.6	SI (44415035.7/1113384.6 = 39.89 >= 1.0)
3-10	2.30	8.57	5179676.36	44415067.3	1113385.6	SI (44415067.3/1113385.6 = 39.89 >= 1.0)
3-11	2.30	8.58	5195750.79	44573598.8	1113413.6	SI (44573598.8/1113413.6 = 40.03 >= 1.0)
3-12	2.30	8.58	5195750.75	44573624.5	1113413.6	SI (44573624.5/1113413.6 = 40.03 >= 1.0)
3-13	2.30	8.57	5179675.63	44414740.8	1113378.6	SI (44414740.8/1113378.6 = 39.89 >= 1.0)
3-14	2.30	8.57	5179675.77	44414772.4	1113379.6	SI (44414772.4/1113379.6 = 39.89 >= 1.0)
3-15	2.30	8.58	5195750.16	44573302.9	1113407.6	SI (44573302.9/1113407.6 = 40.03 >= 1.0)
3-16	2.30	8.58	5195750.11	44573328.5	1113407.6	SI (44573328.5/1113407

						.6 = 40.03 >= 1.0)
4-1	2.30	8.46	5074766.25	42935576.8	1113262.6	SI (42935576.8/1113262 .6 = 38.57 >= 1.0)
4-2	2.30	8.46	5074765.71	42935479.7	1113260.6	SI (42935479.7/1113260 .6 = 38.57 >= 1.0)
4-3	2.30	8.51	5116192.7	43536240	1113302.6	SI (43536240/1113302.6 = 39.11 >= 1.0)
4-4	2.30	8.51	5116192.34	43536143.8	1113300.6	SI (43536143.8/1113300 .6 = 39.11 >= 1.0)
4-5	2.30	8.46	5074766.78	42935681.7	1113264.6	SI (42935681.7/1113264 .6 = 38.57 >= 1.0)
4-6	2.30	8.46	5074766.24	42935584.7	1113262.6	SI (42935584.7/1113262 .6 = 38.57 >= 1.0)
4-7	2.30	8.51	5116193.3	43536350.8	1113305.6	SI (43536350.8/1113305 .6 = 39.11 >= 1.0)
4-8	2.30	8.51	5116192.94	43536254.6	1113303.6	SI (43536254.6/1113303 .6 = 39.11 >= 1.0)
4-9	2.30	8.45	5132762.69	43374760.6	1113365.6	SI (43374760.6/1113365 .6 = 38.96 >= 1.0)
4-10	2.30	8.45	5132762.11	43374662.5	1113363.6	SI (43374662.5/1113363 .6 = 38.96 >= 1.0)
4-11	2.30	8.5	5174657.35	43990212.7	1113406.6	SI (43990212.7/1113406 .6 = 39.51 >= 1.0)
4-12	2.30	8.5	5174656.94	43990115.4	1113404.6	SI (43990115.4/1113404 .6 = 39.51 >= 1.0)
4-13	2.30	8.45	5132763.27	43374866.7	1113367.6	SI (43374866.7/1113367 .6 = 38.96 >= 1.0)
4-14	2.30	8.45	5132762.69	43374768.6	1113365.6	SI (43374768.6/1113365 .6 = 38.96 >= 1.0)
4-15	2.30	8.5	5174657.74	43990318	1113408.6	SI (43990318/1113408.6 = 39.51 >= 1.0)
4-16	2.30	8.5	5174657.34	43990220.8	1113406.6	SI (43990220.8/1113406 .6 = 39.51 >= 1.0)
5-1	2.30	8.35	5046538.88	42136848	1113253.6	SI (42136848/1113253.6 = 37.85 >= 1.0)
5-2	2.30	8.35	5046539.24	42136883.6	1113254.6	SI (42136883.6/1113254 .6 = 37.85 >= 1.0)
5-3	2.30	8.34	5063774.05	42229338.4	1113284.6	SI (42229338.4/1113284 .6 = 37.93 >= 1.0)
5-4	2.30	8.34	5063774.41	42229374	1113285.6	SI (42229374/1113285.6 = 37.93 >= 1.0)
5-5	2.30	8.35	5046536.27	42136511.9	1113246.6	SI (42136511.9/1113246 .6 = 37.85 >= 1.0)
5-6	2.30	8.35	5046536.62	42136547.4	1113247.6	SI (42136547.4/1113247 .6 = 37.85 >= 1.0)
5-7	2.30	8.34	5063771.41	42229001.5	1113277.6	SI (42229001.5/1113277 .6 = 37.93 >= 1.0)
5-8	2.30	8.34	5063771.76	42229037	1113278.6	SI (42229037/1113278.6 = 37.93 >= 1.0)
5-9	2.30	8.51	5185173.11	44120962.1	1113390.6	SI (44120962.1/1113390 .6 = 39.63 >= 1.0)
5-10	2.30	8.51	5185173.04	44120989.9	1113390.6	SI (44120989.9/1113390 .6 = 39.63 >= 1.0)

5-11	2.30	8.51	5202876.22	44294209.8	1113421.6	SI (44294209.8/1113421.6 = 39.78 >= 1.0)
5-12	2.30	8.51	5202876.16	44294237.8	1113421.6	SI (44294237.8/1113421.6 = 39.78 >= 1.0)
5-13	2.30	8.51	5185172.46	44120636	1113383.6	SI (44120636/1113383.6 = 39.63 >= 1.0)
5-14	2.30	8.51	5185172.39	44120663.8	1113383.6	SI (44120663.8/1113383.6 = 39.63 >= 1.0)
5-15	2.30	8.51	5202875.54	44293882.6	1113414.6	SI (44293882.6/1113414.6 = 39.78 >= 1.0)
5-16	2.30	8.51	5202875.49	44293910.6	1113414.6	SI (44293910.6/1113414.6 = 39.78 >= 1.0)

Scorrimento.

Le seguenti tabelle elencano il valore dell'angolo di resistenza al taglio, della coesione efficace, dell'attrito e dell'aderenza fondazione-terreno, e della resistenza disponibile sul piano di posa e sulle pareti laterali.

Caso	γ_{φ}	$\gamma_{c'}$	φ [°]	c' [daN/cm^2]	δ [°]	a [daN/cm^2]	$\gamma_{R;h}$	$\gamma_{R;e}$	R_h [daN]	R_e [daN]
1-1	1.00	1.00	30	0	22.5	0	1.10	1.00	590376.89	0
2-1	1.00	1.00	30	0	22.5	0	1.10	1.00	419209.96	24591.83
2-2	1.00	1.00	30	0	22.5	0	1.10	1.00	419209.2	24591.83
2-3	1.00	1.00	30	0	22.5	0	1.10	1.00	419223.89	24487.34
2-4	1.00	1.00	30	0	22.5	0	1.10	1.00	419223.14	24487.34
2-5	1.00	1.00	30	0	22.5	0	1.10	1.00	419210.71	24591.83
2-6	1.00	1.00	30	0	22.5	0	1.10	1.00	419209.96	24591.83
2-7	1.00	1.00	30	0	22.5	0	1.10	1.00	419224.64	24487.34
2-8	1.00	1.00	30	0	22.5	0	1.10	1.00	419223.89	24487.34
2-9	1.00	1.00	30	0	22.5	0	1.10	1.00	419245.35	24487.34
2-10	1.00	1.00	30	0	22.5	0	1.10	1.00	419244.6	24487.34
2-11	1.00	1.00	30	0	22.5	0	1.10	1.00	419259.29	24591.83
2-12	1.00	1.00	30	0	22.5	0	1.10	1.00	419258.91	24591.83
2-13	1.00	1.00	30	0	22.5	0	1.10	1.00	419246.11	24487.34
2-14	1.00	1.00	30	0	22.5	0	1.10	1.00	419245.35	24487.34
2-15	1.00	1.00	30	0	22.5	0	1.10	1.00	419260.04	24591.83
2-16	1.00	1.00	30	0	22.5	0	1.10	1.00	419259.66	24591.83
3-1	1.00	1.00	30	0	22.5	0	1.10	1.00	419207.32	40346.14
3-2	1.00	1.00	30	0	22.5	0	1.10	1.00	419207.32	40346.14
3-3	1.00	1.00	30	0	22.5	0	1.10	1.00	419217.86	40384.64
3-4	1.00	1.00	30	0	22.5	0	1.10	1.00	419217.86	40384.64
3-5	1.00	1.00	30	0	22.5	0	1.10	1.00	419204.69	40346.14
3-6	1.00	1.00	30	0	22.5	0	1.10	1.00	419205.06	40346.14
3-7	1.00	1.00	30	0	22.5	0	1.10	1.00	419215.61	40384.64
3-8	1.00	1.00	30	0	22.5	0	1.10	1.00	419215.61	40384.64
3-9	1.00	1.00	30	0	22.5	0	1.10	1.00	419253.64	40384.64
3-10	1.00	1.00	30	0	22.5	0	1.10	1.00	419254.01	40384.64
3-11	1.00	1.00	30	0	22.5	0	1.10	1.00	419264.56	40346.14
3-12	1.00	1.00	30	0	22.5	0	1.10	1.00	419264.56	40346.14
3-13	1.00	1.00	30	0	22.5	0	1.10	1.00	419251.38	40384.64
3-14	1.00	1.00	30	0	22.5	0	1.10	1.00	419251.75	40384.64
3-15	1.00	1.00	30	0	22.5	0	1.10	1.00	419262.3	40346.14
3-16	1.00	1.00	30	0	22.5	0	1.10	1.00	419262.3	40346.14
4-1	1.00	1.00	30	0	22.5	0	1.10	1.00	419207.7	24591.83
4-2	1.00	1.00	30	0	22.5	0	1.10	1.00	419206.94	24591.83
4-3	1.00	1.00	30	0	22.5	0	1.10	1.00	419222.76	24487.34
4-4	1.00	1.00	30	0	22.5	0	1.10	1.00	419222.01	24487.34
4-5	1.00	1.00	30	0	22.5	0	1.10	1.00	419208.45	24591.83
4-6	1.00	1.00	30	0	22.5	0	1.10	1.00	419207.7	24591.83
4-7	1.00	1.00	30	0	22.5	0	1.10	1.00	419223.89	24487.34
4-8	1.00	1.00	30	0	22.5	0	1.10	1.00	419223.14	24487.34
4-9	1.00	1.00	30	0	22.5	0	1.10	1.00	419246.48	24487.34
4-10	1.00	1.00	30	0	22.5	0	1.10	1.00	419245.73	24487.34
4-11	1.00	1.00	30	0	22.5	0	1.10	1.00	419261.92	24591.83
4-12	1.00	1.00	30	0	22.5	0	1.10	1.00	419261.17	24591.83
4-13	1.00	1.00	30	0	22.5	0	1.10	1.00	419247.24	24487.34
4-14	1.00	1.00	30	0	22.5	0	1.10	1.00	419246.48	24487.34
4-15	1.00	1.00	30	0	22.5	0	1.10	1.00	419262.68	24591.83
4-16	1.00	1.00	30	0	22.5	0	1.10	1.00	419261.92	24591.83
5-1	1.00	1.00	30	0	22.5	0	1.10	1.00	419204.31	40346.14
5-2	1.00	1.00	30	0	22.5	0	1.10	1.00	419204.69	40346.14
5-3	1.00	1.00	30	0	22.5	0	1.10	1.00	419215.98	40384.64
5-4	1.00	1.00	30	0	22.5	0	1.10	1.00	419216.36	40384.64

5-5	1.00	1.00	30	0	22.5	0	1.10	1.00	419201.67	40346.14
5-6	1.00	1.00	30	0	22.5	0	1.10	1.00	419202.05	40346.14
5-7	1.00	1.00	30	0	22.5	0	1.10	1.00	419213.35	40384.64
5-8	1.00	1.00	30	0	22.5	0	1.10	1.00	419213.72	40384.64
5-9	1.00	1.00	30	0	22.5	0	1.10	1.00	419255.9	40384.64
5-10	1.00	1.00	30	0	22.5	0	1.10	1.00	419255.9	40384.64
5-11	1.00	1.00	30	0	22.5	0	1.10	1.00	419267.57	40346.14
5-12	1.00	1.00	30	0	22.5	0	1.10	1.00	419267.57	40346.14
5-13	1.00	1.00	30	0	22.5	0	1.10	1.00	419253.26	40384.64
5-14	1.00	1.00	30	0	22.5	0	1.10	1.00	419253.26	40384.64
5-15	1.00	1.00	30	0	22.5	0	1.10	1.00	419264.93	40346.14
5-16	1.00	1.00	30	0	22.5	0	1.10	1.00	419264.93	40346.14

Segue il confronto fra la resistenza a scorrimento e l'azione applicata.

Caso	R_d [daN]	E_d [daN]	Verifica
1-1	590376.9	0	SI (590376.9/0 = 1.00 >= 1.0)
2-1	443801.8	32664.1	SI (443801.8/32664.1 = 13.59 >= 1.0)
2-2	443801	32664.1	SI (443801/32664.1 = 13.59 >= 1.0)
2-3	443711.2	32774.5	SI (443711.2/32774.5 = 13.54 >= 1.0)
2-4	443710.5	32774.5	SI (443710.5/32774.5 = 13.54 >= 1.0)
2-5	443802.5	32664.1	SI (443802.5/32664.1 = 13.59 >= 1.0)
2-6	443801.8	32664.1	SI (443801.8/32664.1 = 13.59 >= 1.0)
2-7	443712	32774.5	SI (443712/32774.5 = 13.54 >= 1.0)
2-8	443711.2	32774.5	SI (443711.2/32774.5 = 13.54 >= 1.0)
2-9	443732.7	32774.5	SI (443732.7/32774.5 = 13.54 >= 1.0)
2-10	443731.9	32774.5	SI (443731.9/32774.5 = 13.54 >= 1.0)
2-11	443851.1	32664.1	SI (443851.1/32664.1 = 13.59 >= 1.0)
2-12	443850.7	32664.1	SI (443850.7/32664.1 = 13.59 >= 1.0)
2-13	443733.4	32774.5	SI (443733.4/32774.5 = 13.54 >= 1.0)
2-14	443732.7	32774.5	SI (443732.7/32774.5 = 13.54 >= 1.0)
2-15	443851.9	32664.1	SI (443851.9/32664.1 = 13.59 >= 1.0)
2-16	443851.5	32664.1	SI (443851.5/32664.1 = 13.59 >= 1.0)
3-1	459553.5	30952.7	SI (459553.5/30952.7 = 14.85 >= 1.0)
3-2	459553.5	30952.7	SI (459553.5/30952.7 = 14.85 >= 1.0)
3-3	459602.5	31069.2	SI (459602.5/31069.2 = 14.79 >= 1.0)
3-4	459602.5	31069.2	SI (459602.5/31069.2 = 14.79 >= 1.0)
3-5	459550.8	30952.7	SI (459550.8/30952.7 = 14.85 >= 1.0)
3-6	459551.2	30952.7	SI (459551.2/30952.7 = 14.85 >= 1.0)
3-7	459600.2	31069.2	SI (459600.2/31069.2 = 14.79 >= 1.0)
3-8	459600.2	31069.2	SI (459600.2/31069.2 = 14.79 >= 1.0)
3-9	459638.3	31069.2	SI (459638.3/31069.2 = 14.79 >= 1.0)
3-10	459638.7	31069.2	SI (459638.7/31069.2 = 14.79 >= 1.0)
3-11	459610.7	30952.7	SI (459610.7/30952.7 = 14.85 >= 1.0)
3-12	459610.7	30952.7	SI (459610.7/30952.7 = 14.85 >= 1.0)
3-13	459636	31069.2	SI (459636/31069.2 = 14.79 >= 1.0)
3-14	459636.4	31069.2	SI (459636.4/31069.2 = 14.79 >= 1.0)
3-15	459608.4	30952.7	SI (459608.4/30952.7 = 14.85 >= 1.0)
3-16	459608.4	30952.7	SI (459608.4/30952.7 = 14.85 >= 1.0)
4-1	443799.5	35930.5	SI (443799.5/35930.5 = 12.35 >= 1.0)
4-2	443798.8	35930.5	SI (443798.8/35930.5 = 12.35 >= 1.0)
4-3	443710.1	36052	SI (443710.1/36052 = 12.31 >= 1.0)
4-4	443709.3	36052	SI (443709.3/36052 = 12.31 >= 1.0)
4-5	443800.3	35930.5	SI (443800.3/35930.5 = 12.35 >= 1.0)
4-6	443799.5	35930.5	SI (443799.5/35930.5 = 12.35 >= 1.0)
4-7	443711.2	36052	SI (443711.2/36052 = 12.31 >= 1.0)
4-8	443710.5	36052	SI (443710.5/36052 = 12.31 >= 1.0)
4-9	443733.8	36052	SI (443733.8/36052 = 12.31 >= 1.0)
4-10	443733.1	36052	SI (443733.1/36052 = 12.31 >= 1.0)
4-11	443853.7	35930.5	SI (443853.7/35930.5 = 12.35 >= 1.0)
4-12	443853	35930.5	SI (443853/35930.5 = 12.35 >= 1.0)
4-13	443734.6	36052	SI (443734.6/36052 = 12.31 >= 1.0)
4-14	443733.8	36052	SI (443733.8/36052 = 12.31 >= 1.0)
4-15	443854.5	35930.5	SI (443854.5/35930.5 = 12.35 >= 1.0)
4-16	443853.7	35930.5	SI (443853.7/35930.5 = 12.35 >= 1.0)
5-1	459550.5	34048	SI (459550.5/34048 = 13.50 >= 1.0)
5-2	459550.8	34048	SI (459550.8/34048 = 13.50 >= 1.0)
5-3	459600.6	34176.1	SI (459600.6/34176.1 = 13.45 >= 1.0)
5-4	459601	34176.1	SI (459601/34176.1 = 13.45 >= 1.0)
5-5	459547.8	34048	SI (459547.8/34048 = 13.50 >= 1.0)
5-6	459548.2	34048	SI (459548.2/34048 = 13.50 >= 1.0)
5-7	459598	34176.1	SI (459598/34176.1 = 13.45 >= 1.0)
5-8	459598.4	34176.1	SI (459598.4/34176.1 = 13.45 >= 1.0)
5-9	459640.5	34176.1	SI (459640.5/34176.1 = 13.45 >= 1.0)
5-10	459640.5	34176.1	SI (459640.5/34176.1 = 13.45 >= 1.0)
5-11	459613.7	34048	SI (459613.7/34048 = 13.50 >= 1.0)
5-12	459613.7	34048	SI (459613.7/34048 = 13.50 >= 1.0)
5-13	459637.9	34176.1	SI (459637.9/34176.1 = 13.45 >= 1.0)
5-14	459637.9	34176.1	SI (459637.9/34176.1 = 13.45 >= 1.0)

5-15	459611.1	34048	SI (459611.1/34048 = 13.50 >= 1.0)
5-16	459611.1	34048	SI (459611.1/34048 = 13.50 >= 1.0)

6.6 Verifica degli elementi strutturali

Gli elementi strutturali, travi-muri, pilastri, setti, solai sono stati verificati a seguito dell'analisi delle sollecitazioni, e sono stati rispettati i criteri secondo il D.M. 14/01/07 al punto 7.4.6, per quanto riguarda i dettagli costruttivi.

6.6.1 Dettagli costruttivi secondo D.M. (estratto)

Le indicazioni fornite nel seguito in merito ai dettagli costruttivi sono state applicate sia alle strutture in c.a. gettate in opera che alle strutture in c.a. prefabbricate. I dettagli costruttivi sono articolati in termini di:
- limitazioni geometriche
- limitazioni di armatura

7.4.6.1 Limitazioni geometriche
7.4.6.1.1 Travi
La larghezza b della trave deve essere ≥ 20 cm e, per le travi basse comunemente denominate "a spessore", deve essere non maggiore della larghezza del pilastro, aumentata da ogni lato di metà dell'altezza della sezione trasversale della trave stessa, risultando comunque non maggiore di due volte b_c, essendo b_c la larghezza del pilastro ortogonale all'asse della trave.
Il rapporto b/h tra larghezza e altezza della trave deve essere ≥ 0,25.
Non deve esserci eccentricità tra l'asse delle travi che sostengono pilastri in falso e l'asse dei pilastri
che le sostengono. Esse devono avere almeno due supporti, costituiti da pilastri o pareti. Le pareti non possono appoggiarsi in falso su travi o solette.
Le zone critiche si estendono, per CD"B", per una lunghezza pari all'altezza della sezione della trave, misurata a partire dalla faccia del nodo trave-pilastro o da entrambi i lati a partire dalla sezione di prima plasticizzazione. Per travi che sostengono un pilastro in falso, si assume una lunghezza pari a 2 volte l'altezza della sezione misurata da entrambe le facce del pilastro.
7.4.6.1.2 Pilastri
La dimensione minima della sezione trasversale non deve essere inferiore a 250 mm.
Se θ, quale

$$\theta = \frac{P \cdot d_r}{V \cdot h}$$

dove:

- *P* è il carico verticale totale della parte di struttura sovrastante l'orizzontamento in esame
- *dr* è lo spostamento orizzontale medio d'interpiano, ovvero la differenza tra lo spostamento orizzontale dell'orizzontamento considerato e lo spostamento orizzontale dell'orizzontamento immediatamente sottostante;
- *V* è la forza orizzontale totale in corrispondenza dell'orizzontamento in esame;
- *h* è la distanza tra l'orizzontamento in esame e quello immediatamente sottostante.

risulta >0,1, l'altezza della sezione non deve essere inferiore ad un decimo della maggiore tra le distanze tra il punto in cui si annulla il momento flettente e le estremità del pilastro.
In assenza di analisi più accurate si può assumere che la lunghezza della zona critica sia la maggiore
tra: l'altezza della sezione, 1/6 dell'altezza libera del pilastro, 45 cm, l'altezza libera del pilastro se questa è inferiore a 3 volte l'altezza della sezione.
7.4.6.1.3 Nodi trave-pilastro
Sono da evitare per quanto possibile eccentricità tra l'asse della trave e l'asse del pilastro

concorrenti in un nodo. Nel caso che tale eccentricità superi 1/4 della larghezza del pilastro la trasmissione degli sforzi deve essere assicurata da armature adeguatamente dimensionate allo scopo.

7.4.6.1.4 Pareti

Lo spessore delle pareti deve essere non inferiore al valore massimo tra 150 mm e 1/20 dell'altezza libera di interpiano.

Possono derogare da tale limite, su motivata indicazione del progettista, le strutture a funzionamento scatolare ad un solo piano non destinate ad uso abitativo.

Devono essere evitate aperture distribuite irregolarmente, a meno che la loro presenza non venga specificamente considerata nell'analisi, nel dimensionamento e nella disposizione delle armature.

In assenza di analisi più accurate si può assumere che l'altezza delle zone critiche sia la maggiore tra: la larghezza della parete e 1/6 della sua altezza.

7.4.6.2 Limitazioni di armatura

7.4.6.2.1 Travi

Armature longitudinali

Almeno due barre di diametro non inferiore a 14 mm devono essere presenti superiormente e inferiormente per tutta la lunghezza della trave.

In ogni sezione della trave, salvo giustificazioni che dimostrino che le modalità di collasso della sezione sono coerenti con la classe di duttilità adottata, il rapporto geometrico ρ relativo all'armatura tesa, indipendentemente dal fatto che l'armatura tesa sia quella al lembo superiore della

sezione As o quella al lembo inferiore della sezione Ai , deve essere compreso entro i seguenti limiti:

$$\frac{1,4}{f_{yk}} < \rho < \rho_{comp} + \frac{3,5}{f_{yk}}$$

dove:

- ρ *è il rapporto geometrico relativo all'armatura tesa pari ad As/(b·h) oppure ad Ai/(b·h);*
- ρ_{comp} *è il rapporto geometrico relativo all'armatura compressa;*
- *fyk è la tensione caratteristica di snervamento dell'acciaio (in Mpa).*

Nelle zone critiche della trave, inoltre, deve essere $\rho_{comp} \geq 1/2\ \rho$ e comunque $\geq 0,25\ \rho$.

L'armatura superiore, disposta per il momento negativo alle estremità delle travi, deve essere contenuta, per almeno il 75%, entro la larghezza dell'anima e comunque, per le sezioni a T o ad L, entro una fascia di soletta pari rispettivamente alla larghezza del pilastro, od alla larghezza del pilastro aumentata di 2 volte lo spessore della soletta da ciascun lato del pilastro, a seconda che nel nodo manchi o sia presente una trave ortogonale. Almeno ¼ della suddetta armatura deve essere mantenuta per tutta la lunghezza della trave.

Le armature longitudinali delle travi, sia superiori che inferiori, devono attraversare, di regola, i nodi senza ancorarsi o giuntarsi per sovrapposizione in essi. Quando ciò non risulti possibile, sono da rispettare le seguenti prescrizioni:

- le barre vanno ancorate oltre la faccia opposta a quella di intersezione con il nodo, oppure rivoltate verticalmente in corrispondenza di tale faccia, a contenimento del nodo;

- la lunghezza di ancoraggio delle armature tese va calcolata in modo da sviluppare una tensione nelle barre pari a 1,25 fyk, e misurata a partire da una distanza pari a 6 diametri dalla faccia del pilastro verso l'interno.

La parte dell'armatura longitudinale della trave che si ancora oltre il nodo non può terminare all'interno di una zona critica, ma deve ancorarsi oltre di essa.

La parte dell'armatura longitudinale della trave che si ancora nel nodo, deve essere collocata all'interno delle staffe del pilastro. Per prevenire lo sfilamento di queste armature il diametro delle barre non inclinate deve essere $\leq \alpha_{bL}$ volte l'altezza della sezione del pilastro, essendo

$$\alpha_{bL} = \begin{cases} \dfrac{7,5 \cdot f_{ctm}}{\gamma_{Rd} \cdot f_{yd}} \cdot \dfrac{1+0,8\nu_d}{1+0,75k_D \cdot \rho_{comp}/\rho} & \text{per nodi interni} \\ \dfrac{7,5 \cdot f_{ctm}}{\gamma_{Rd} \cdot f_{yd}} \cdot (1+0,8\nu_d) & \text{per nodi esterni} \end{cases}$$

dove:

vd	*è la forza assiale di progetto normalizzata;*
kD	*vale 1 o 2/3, rispettivamente per CD"A" e per CD"B";*
γRd	*vale 1,2 o 1, rispettivamente per CD"A" e per CD"B".*

Se per nodi esterni non è possibile soddisfare tale limitazione, si può prolungare la trave oltre il pilastro, si possono usare piastre saldate alla fine delle barre, si possono piegare le barre per una lunghezza minima pari a 10 volte il loro diametro disponendo un'apposita armatura trasversale dietro la piegatura.

Armature trasversali

Nelle zone critiche devono essere previste staffe di contenimento. La prima staffa di contenimento deve distare non più di 5 cm dalla sezione a filo pilastro; le successive devono essere disposte ad un passo non superiore alla minore tra le grandezze seguenti:

- un quarto dell'altezza utile della sezione trasversale;

- 225 mm per CD "B";

- 8 volte il diametro minimo delle barre longitudinali considerate ai fini delle verifiche, per CD "B"

- 24 volte il diametro delle armature trasversali.

Per staffa di contenimento si intende una staffa rettangolare, circolare o a spirale, di diametro minimo 6 mm, con ganci a 135° prolungati per almeno 10 diametri alle due estremità. I ganci devono essere assicurati alle barre longitudinali.

7.4.6.2.2 Pilastri

Nel caso in cui i tamponamenti non si estendano per l'intera altezza dei pilastri adiacenti, l'armatura

risultante deve essere estesa per una distanza pari alla profondità del pilastro oltre la zona priva di tamponamento. Nel caso in cui l'altezza della zona priva di tamponamento fosse inferiore a 1,5 volte la profondità del pilastro, debbono essere utilizzate armature bi-diagonali.

Nel caso precedente, qualora il tamponamento sia presente su un solo lato di un pilastro, l'armatura trasversale da disporre alle estremità del pilastro ai sensi del § 7.4.5.3. deve essere estesa all'intera altezza del pilastro.

Armature longitudinali

Per tutta la lunghezza del pilastro l'interasse tra le barre non deve essere superiore a 25 cm. Nella sezione corrente del pilastro, la percentuale geometrica ρ di armatura longitudinale, con ρ rapporto tra l'area dell'armatura longitudinale e l'area della sezione del pilastro, deve essere compresa entro i seguenti limiti:

$$1\% \le \rho \le 4\%$$

Se sotto l'azione del sisma la forza assiale su un pilastro è di trazione, la lunghezza di ancoraggio delle barre longitudinali deve essere incrementata del 50%.

Armature trasversali

Nelle zone critiche devono essere rispettate le condizioni seguenti: le barre disposte sugli angoli della sezione devono essere contenute dalle staffe; almeno una barra ogni due, di quelle disposte sui

lati, deve essere trattenuta da staffe interne o da legature; le barre non fissate devono trovarsi a meno di 20 cm da una barra fissata per CD"B".

Il diametro delle staffe di contenimento e legature deve essere non inferiore a 6 mm ed il loro passo

deve essere non superiore alla più piccola delle quantità seguenti:
- 1/2 del lato minore della sezione trasversale per CD"B";
- 175 mm per CD"B";
- 8 volte il diametro delle barre longitudinali che collegano per CD"B".
Si devono disporre staffe in un quantitativo minimo non inferiore a

$$\frac{A_{st}}{s} \geq \begin{cases} 0,08\dfrac{f_{cd}\cdot b_{st}}{f_{yd}} & \text{per CD"A" al di fuori della zona critica e per CD "B"} \\ 0,12\dfrac{f_{cd}\cdot b_{st}}{f_{yd}} & \text{per CD "A"} \end{cases}$$

in cui A_{st} è l'area complessiva dei bracci delle staffe, b_{st} è la distanza tra i bracci più esterni delle staffe ed s è il passo delle staffe.

7.4.6.2.3 Nodi trave-pilastro

Indipendentemente da quanto richiesto dalla verifica nel § 7.4.4.3.1, lungo le armature longitudinali del pilastro che attraversano i nodi non confinati devono essere disposte staffe di contenimento in quantità almeno pari alla maggiore prevista nelle zone del pilastro inferiore e superiore adiacenti al nodo. Questa regola può non essere osservata nel caso di nodi interamente confinati.
Per i nodi non confinati, appartenenti a strutture in CD"B", le staffe orizzontali presenti lungo l'altezza del nodo devono verificare la seguente condizione:

$$\frac{n_{st}\cdot A_{st}}{i\cdot b_j} \geq 0,05\frac{f_{ck}}{f_{yk}}$$

nella quale nst ed Ast sono rispettivamente il numero di bracci e l'area della sezione trasversale della barra della singola staffa orizzontale, i è l'interasse delle staffe, e b_j è la larghezza utile del nodo determinata come segue:

- *se la trave ha una larghezza b_w superiore a quella del pilastro b_c, allora b_j è il valore minimo fra b_w e $b_c + h_c/2$, essendo h_c la dimensione della sezione della colonna parallela alla trave;*
- *se la trave ha una larghezza b_w inferiore a quella del pilastro b_c , allora b_j è il valore minimo fra b_c e $b_w + h_c/2$.*

7.4.6.2.4 Pareti

Le armature, sia orizzontali che verticali, devono avere diametro non superiore ad 1/10 dello spessore della parete, devono essere disposte su entrambe le facce della parete, ad un passo non superiore a 30 cm, devono essere collegate con legature, in ragione di almeno nove ogni metro quadrato.
Nella zona critica si individuano alle estremità della parete due zone confinate aventi per lati lo spessore della parete e una lunghezza "confinata" l_c pari al 20% della lunghezza in pianta l della parete stessa e comunque non inferiore a 1,5 volte lo spessore della parete. In tale zona il rapporto geometrico ρ dell'armatura totale verticale, riferito all'area confinata, deve essere compreso entro i seguenti limiti:

$$1\% \leq \rho \leq 4\%$$

Nelle zone confinate l'armatura trasversale deve essere costituita da barre di diametro non inferiore a 6 mm, disposti in modo da fermare una barra verticale ogni due con un passo non superiore a 8 volte il diametro della barra o a 10 cm. Le barre non fissate devono trovarsi a meno di 15 cm da una barra fissata.
Le armature inclinate che attraversano potenziali superfici di scorrimento devono essere efficacemente ancorate al di sopra e al di sotto della superficie di scorrimento ed attraversare tutte le sezioni della parete poste al di sopra di essa e distanti da essa meno della minore tra ½ altezza

ed ½ larghezza della parete.
Nella rimanente parte della parete, in pianta ed in altezza, vanno seguite le regole delle condizioni non sismiche, con un'armatura minima orizzontale e verticale pari allo 0,2%, per controllare la fessurazione da taglio.

7.4.6.2.5 Travi di accoppiamento

Nel caso di armatura ad X, ciascuno dei due fasci di armatura deve essere racchiuso da armatura a spirale o da staffe di contenimento con passo non superiore a 100 mm.
In questo caso, in aggiunta all'armatura diagonale deve essere disposta nella trave armatura di diametro almeno 10 mm distribuita a passo 10 cm in direzione sia longitudinale che trasversale ed armatura corrente di 2 barre da 16 mm ai bordi superiore ed inferiore.
Gli ancoraggi delle armature nelle pareti devono essere del 50% più lunghi di quanto previsto per il dimensionamento in condizioni non sismiche.

6.6.2 Tabulati di calcolo e di verifica di ogni singolo elemento strutturali

FABBRICATO CANILE SANITARIO

VERIFICA GUSCI IN C.A.:

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MACROGUSCIO PLATEA

VERIFICA ARMATURE EFFETTIVE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:
    Nome  Descrizione
    1     SLU SENZA SISMA
    4     SLU con SISMAX PRINC
    5     SLU con SISMAY PRINC
    8     SLU FON con SISMAX P
    9     SLU FON con SISMAY P
    13    SLUEqu

DATI:
   tensione di snervamento acciaio (fyk): 4500    daN/cm2
   coefficiente sicurezza acciaio       : 1.15
   deformazione ultima acciaio          : 1.97    per mille
   deformazione ultima cls              :  3.5    per mille
   rapporto rottura/snervamento      (k): 1
   resistenza cilindrica cls       (fck): 249     daN/cm2
   coefficiente sicurezza cls           : 1.5
   coefficiente riduttivo         (alfa): 0.85
   copriferro inferiore  (asse armatura):  3      cm
   copriferro superiore  (asse armatura):  3      cm
   moltiplicatore sollecitazioni        :  1

LEGENDA:
   spess = spessore guscio. Verifica effettuata su sezione BxH, con B=1 cm e H="spess" cm
   Af    = area disposta al lembo teso, in cm2 al metro
   Afc   = area disposta al lembo compresso, in cm2 al metro
   Mom   = momento flettente [daNcm/cm]
   Nor   = sforzo normale [daN]
   epsC  = deformazione cls [per mille]
   epsF  = deformazione acciaio [per mille]

   L'armatura è sufficiente se le deformazioni dei materiali sono ovunque minori delle
corrispondenti deformazioni ultime.

   Per gli elementi di fondazione la permanenza in campo elastico è ottenuta limitando
la deformazione dell'acciaio alla deformazione di snervamento (1.97 per mille).
```

		INFERIORE ORIZZONTALE						INFERIORE VERTICALE					
GUSCI	spess	Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
1	30	3.14	3.14	189.	0.	0.03	0.11	3.14	3.14	465.	-1.	0.07	0.28
2	30	3.14	3.14	554.	-2.	0.09	0.33	3.14	3.14	520.	-1.	0.08	0.31
3	30	3.14	3.14	82.	0.	0.01	0.05	3.14	3.14	260.	0.	0.04	0.16
4	30	3.14	3.14	229.	-1.	0.04	0.14	3.14	3.14	219.	-1.	0.03	0.13
5	30	3.14	3.14	11.	0.	0.00	0.01	3.14	3.14	52.	0.	0.01	0.03
6	30	3.14	3.14	168.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
7	30	3.14	3.14	56.	0.	0.01	0.03	3.14	3.14	94.	0.	0.01	0.06
8	30	3.14	3.14	456.	-1.	0.07	0.27	3.14	3.14	412.	-2.	0.07	0.25
9	30	3.14	3.14	469.	-1.	0.07	0.28	3.14	3.14	334.	0.	0.05	0.20
10	30	3.14	3.14	52.	0.	0.01	0.03	3.14	3.14	239.	0.	0.04	0.14
11	30	3.14	3.14	119.	0.	0.02	0.07	3.14	3.14	315.	0.	0.05	0.19
12	30	3.14	3.14	379.	0.	0.06	0.23	3.14	3.14	174.	0.	0.03	0.11
13	30	3.14	3.14	478.	-1.	0.08	0.29	3.14	3.14	545.	-2.	0.09	0.33
14	30	3.14	3.14	265.	-1.	0.04	0.16	3.14	3.14	493.	-2.	0.08	0.30
15	30	3.14	3.14	254.	0.	0.04	0.15	3.14	3.14	79.	0.	0.01	0.05
16	30	3.14	3.14	213.	0.	0.03	0.13	3.14	3.14	184.	0.	0.03	0.11
17	30	3.14	3.14	0.	1.	0.00	0.00	3.14	3.14	372.	-1.	0.06	0.23
18	30	3.14	3.14	38.	0.	0.01	0.02	3.14	3.14	99.	0.	0.02	0.06
19	30	3.14	3.14	218.	0.	0.03	0.13	3.14	3.14	311.	0.	0.05	0.19
20	30	3.14	3.14	742.	-2.	0.12	0.44	3.14	3.14	785.	-1.	0.12	0.47

21	30	3.14	3.14	754.	-1.	0.12	0.45	3.14	3.14	741.	-2.	0.12	0.44
22	30	3.14	3.14	390.	0.	0.06	0.24	3.14	3.14	199.	0.	0.03	0.12
23	30	3.14	3.14	685.	0.	0.11	0.41	3.14	3.14	242.	0.	0.04	0.15
24	30	3.14	3.14	651.	0.	0.10	0.39	3.14	3.14	68.	0.	0.01	0.04
25	30	3.14	3.14	308.	0.	0.05	0.19	3.14	3.14	116.	0.	0.02	0.07
26	30	3.14	3.14	337.	-1.	0.05	0.20	3.14	3.14	434.	-1.	0.07	0.26
27	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	292.	0.	0.05	0.18
28	30	3.14	3.14	711.	-2.	0.11	0.43	3.14	3.14	582.	-1.	0.09	0.35
29	30	3.14	3.14	133.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
30	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
31	30	3.14	3.14	441.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
32	30	3.14	3.14	137.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
33	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
34	30	3.14	3.14	496.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
35	30	3.14	3.14	384.	-1.	0.06	0.23	3.14	3.14	402.	-2.	0.06	0.24
36	30	3.14	3.14	12.	0.	0.00	0.01	3.14	3.14	246.	0.	0.04	0.15
37	30	3.14	3.14	905.	-1.	0.14	0.55	3.14	3.14	560.	0.	0.09	0.34
38	30	3.14	3.14	1143.	-1.	0.18	0.69	3.14	3.14	469.	0.	0.07	0.28
39	30	3.14	3.14	38.	0.	0.01	0.02	3.14	3.14	178.	0.	0.03	0.11
40	30	3.14	3.14	498.	-1.	0.08	0.30	3.14	3.14	338.	-1.	0.05	0.20
41	30	3.14	3.14	171.	0.	0.03	0.10	3.14	3.14	124.	0.	0.02	0.08
42	30	3.14	3.14	640.	0.	0.10	0.39	3.14	3.14	368.	-1.	0.06	0.22
43	30	3.14	3.14	1346.	0.	0.21	0.81	3.14	3.14	537.	-1.	0.08	0.32
44	30	3.14	3.14	25.	0.	0.00	0.02	3.14	3.14	145.	0.	0.02	0.09
45	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
46	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	114.	0.	0.02	0.07
47	30	3.14	3.14	1049.	0.	0.16	0.63	3.14	3.14	422.	-1.	0.07	0.25
48	30	3.14	3.14	1070.	0.	0.17	0.65	3.14	3.14	587.	0.	0.09	0.35
49	30	3.14	3.14	639.	0.	0.10	0.39	3.14	3.14	0.	0.	0.00	0.00
50	30	3.14	3.14	620.	0.	0.10	0.38	3.14	3.14	0.	0.	0.00	0.00
51	30	3.14	3.14	1016.	0.	0.16	0.61	3.14	3.14	718.	0.	0.11	0.43
52	30	3.14	3.14	105.	0.	0.02	0.06	3.14	3.14	205.	0.	0.03	0.12
53	30	3.14	3.14	12.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
54	30	3.14	3.14	3.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
55	30	3.14	3.14	80.	0.	0.01	0.05	3.14	3.14	321.	0.	0.05	0.19
56	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
57	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
58	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
59	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	63.	0.	0.01	0.04
60	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	160.	0.	0.03	0.10
61	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
62	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
63	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	233.	0.	0.04	0.14
64	30	3.14	3.14	880.	0.	0.14	0.54	3.14	3.14	507.	-1.	0.08	0.30
65	30	3.14	3.14	426.	0.	0.06	0.26	3.14	3.14	0.	0.	0.00	0.00
66	30	3.14	3.14	403.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
67	30	3.14	3.14	756.	-1.	0.12	0.46	3.14	3.14	579.	-1.	0.09	0.35
68	30	3.14	3.14	1078.	0.	0.17	0.65	3.14	3.14	824.	-1.	0.13	0.50
69	30	3.14	3.14	940.	0.	0.15	0.57	3.14	3.14	160.	0.	0.03	0.10
70	30	3.14	3.14	59.	0.	0.01	0.04	3.14	3.14	436.	0.	0.07	0.26
71	30	3.14	3.14	145.	0.	0.02	0.09	3.14	3.14	124.	0.	0.02	0.07
72	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	120.	0.	0.02	0.07
73	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	37.	0.	0.01	0.02
74	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	331.	0.	0.05	0.20
75	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	75.	0.	0.01	0.05
76	30	3.14	3.14	802.	-1.	0.13	0.48	3.14	3.14	720.	-2.	0.11	0.43
77	30	3.14	3.14	659.	0.	0.10	0.40	3.14	3.14	188.	0.	0.03	0.11
78	30	3.14	3.14	889.	0.	0.14	0.54	3.14	3.14	818.	-2.	0.13	0.49
79	30	3.14	3.14	835.	0.	0.13	0.51	3.14	3.14	162.	0.	0.03	0.10
80	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	349.	0.	0.05	0.21
81	30	3.14	3.14	10.	0.	0.00	0.01	3.14	3.14	105.	0.	0.02	0.06
82	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	110.	0.	0.02	0.07
83	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	31.	0.	0.00	0.02
84	30	3.14	3.14	8.	0.	0.00	0.01	3.14	3.14	420.	0.	0.07	0.25
85	30	3.14	3.14	70.	0.	0.01	0.04	3.14	3.14	130.	0.	0.02	0.08
86	30	3.14	3.14	1062.	0.	0.17	0.64	3.14	3.14	831.	-1.	0.13	0.50
87	30	3.14	3.14	1018.	0.	0.16	0.62	3.14	3.14	183.	0.	0.03	0.11
88	30	3.14	3.14	881.	0.	0.14	0.53	3.14	3.14	697.	0.	0.11	0.42
89	30	3.14	3.14	460.	0.	0.07	0.28	3.14	3.14	0.	0.	0.00	0.00
90	30	3.14	3.14	480.	0.	0.07	0.29	3.14	3.14	0.	0.	0.00	0.00
91	30	3.14	3.14	950.	0.	0.15	0.58	3.14	3.14	615.	0.	0.10	0.37
92	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	263.	0.	0.04	0.16
93	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
94	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
95	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	172.	0.	0.03	0.10
96	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	51.	0.	0.01	0.03
97	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
98	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
99	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
100	30	3.14	3.14	45.	0.	0.01	0.03	3.14	3.14	317.	0.	0.05	0.19
101	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
102	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
103	30	3.14	3.14	62.	0.	0.01	0.04	3.14	3.14	205.	0.	0.03	0.12
104	30	3.14	3.14	1055.	0.	0.17	0.64	3.14	3.14	759.	0.	0.12	0.46
105	30	3.14	3.14	612.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
106	30	3.14	3.14	640.	0.	0.10	0.39	3.14	3.14	0.	0.	0.00	0.00
107	30	3.14	3.14	1134.	0.	0.18	0.69	3.14	3.14	637.	0.	0.10	0.38
108	30	3.14	3.14	1272.	0.	0.20	0.77	3.14	3.14	493.	-1.	0.08	0.30
109	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	117.	0.	0.02	0.07
110	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
111	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	129.	0.	0.02	0.08
112	30	3.14	3.14	1049.	0.	0.16	0.63	3.14	3.14	511.	-1.	0.08	0.31
113	30	3.14	3.14	1087.	-2.	0.17	0.65	3.14	3.14	519.	-1.	0.08	0.31
114	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	110.	0.	0.02	0.07
115	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	112.	0.	0.02	0.07
116	30	3.14	3.14	1184.	-1.	0.19	0.71	3.14	3.14	585.	-1.	0.09	0.35
117	30	3.14	3.14	975.	-1.	0.15	0.59	3.14	3.14	628.	-1.	0.10	0.38

118	30	3.14	3.14	553.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
119	30	3.14	3.14	544.	0.	0.09	0.33	3.14	3.14	0.	0.	0.00	0.00
120	30	3.14	3.14	930.	-1.	0.15	0.56	3.14	3.14	727.	-1.	0.11	0.44
121	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	131.	0.	0.02	0.08
122	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
123	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
124	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	263.	0.	0.04	0.16
125	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	101.	0.	0.02	0.06
126	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
127	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
128	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	243.	0.	0.04	0.15
129	30	3.14	3.14	856.	-1.	0.13	0.52	3.14	3.14	614.	-1.	0.10	0.37
130	30	3.14	3.14	468.	0.	0.07	0.28	3.14	3.14	0.	0.	0.00	0.00
131	30	3.14	3.14	457.	0.	0.07	0.28	3.14	3.14	0.	0.	0.00	0.00
132	30	3.14	3.14	796.	-1.	0.13	0.48	3.14	3.14	664.	0.	0.10	0.40
133	30	3.14	3.14	864.	-1.	0.14	0.52	3.14	3.14	811.	-1.	0.13	0.49
134	30	3.14	3.14	724.	0.	0.11	0.44	3.14	3.14	163.	0.	0.03	0.10
135	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	338.	0.	0.05	0.20
136	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	91.	0.	0.01	0.05
137	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	361.	0.	0.06	0.22
138	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	116.	0.	0.02	0.07
139	30	3.14	3.14	980.	0.	0.15	0.59	3.14	3.14	826.	-3.	0.13	0.49
140	30	3.14	3.14	813.	0.	0.13	0.49	3.14	3.14	191.	0.	0.03	0.12
141	30	3.14	3.14	494.	0.	0.08	0.30	3.14	3.14	195.	0.	0.03	0.12
142	30	3.14	3.14	642.	-2.	0.10	0.39	3.14	3.14	683.	-2.	0.11	0.41
143	30	3.14	3.14	182.	0.	0.03	0.11	3.14	3.14	100.	0.	0.02	0.06
144	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	255.	-1.	0.04	0.15
145	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	27.	0.	0.00	0.02
146	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	87.	0.	0.01	0.05
147	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	63.	0.	0.01	0.04
148	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	308.	0.	0.05	0.19
149	30	3.14	3.14	358.	0.	0.06	0.22	3.14	3.14	234.	0.	0.04	0.14
150	30	3.14	3.14	885.	-2.	0.14	0.53	3.14	3.14	838.	-3.	0.13	0.50
151	30	3.14	3.14	928.	0.	0.15	0.56	3.14	3.14	792.	-3.	0.13	0.47
152	30	3.14	3.14	897.	0.	0.14	0.54	3.14	3.14	152.	0.	0.02	0.09
153	30	3.14	3.14	362.	0.	0.06	0.22	3.14	3.14	829.	0.	0.13	0.50
154	30	3.14	3.14	838.	-2.	0.13	0.50	3.14	3.14	813.	-1.	0.13	0.49
155	30	3.14	3.14	133.	0.	0.02	0.08	3.14	3.14	454.	-1.	0.07	0.27
156	30	3.14	3.14	359.	0.	0.06	0.22	3.14	3.14	242.	-1.	0.04	0.15
157	30	3.14	3.14	75.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
158	30	3.14	3.14	208.	-1.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
159	30	3.14	3.14	173.	0.	0.03	0.10	3.14	3.14	541.	-1.	0.09	0.33
160	30	3.14	3.14	627.	-2.	0.10	0.38	3.14	3.14	724.	-1.	0.11	0.44
161	30	3.14	3.14	609.	-5.	0.10	0.36	3.14	3.14	729.	-1.	0.11	0.44
162	30	3.14	3.14	214.	0.	0.03	0.13	3.14	3.14	792.	-1.	0.12	0.48
163	30	3.14	3.14	193.	0.	0.03	0.12	3.14	3.14	302.	0.	0.05	0.18
164	30	3.14	3.14	1139.	1.	0.18	0.70	3.14	3.14	510.	-2.	0.08	0.31
165	30	3.14	3.14	3.	0.	0.00	0.00	3.14	3.14	141.	0.	0.02	0.09
166	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	14.	0.	0.00	0.01
167	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	148.	0.	0.02	0.09
168	30	3.14	3.14	581.	1.	0.09	0.36	3.14	3.14	558.	-2.	0.09	0.33
169	30	3.14	3.14	470.	0.	0.07	0.28	3.14	3.14	291.	-1.	0.05	0.18
170	30	3.14	3.14	1007.	-3.	0.16	0.60	3.14	3.14	551.	-2.	0.09	0.33
171	30	3.14	3.14	397.	0.	0.06	0.24	3.14	3.14	537.	-2.	0.09	0.32
172	30	3.14	3.14	89.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
173	30	3.14	3.14	86.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
174	30	3.14	3.14	372.	0.	0.06	0.23	3.14	3.14	574.	-2.	0.09	0.34
175	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	150.	0.	0.02	0.09
176	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
177	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
178	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	106.	0.	0.02	0.06
179	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	40.	0.	0.01	0.02
180	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
181	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
182	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	41.	0.	0.01	0.03
183	30	3.14	3.14	62.	0.	0.01	0.04	3.14	3.14	270.	0.	0.04	0.16
184	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
185	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
186	30	3.14	3.14	19.	0.	0.00	0.01	3.14	3.14	298.	0.	0.05	0.18
187	30	3.14	3.14	1020.	1.	0.16	0.62	3.14	3.14	645.	-1.	0.10	0.39
188	30	3.14	3.14	561.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
189	30	3.14	3.14	507.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
190	30	3.14	3.14	818.	0.	0.13	0.50	3.14	3.14	656.	-1.	0.10	0.39

		SUPERIORE ORIZZONTALE						SUPERIORE VERTICALE					
GUSCI	spess	Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
1	30	3.14	3.14	135.	0.	0.02	0.08	3.14	3.14	97.	0.	0.02	0.06
2	30	3.14	3.14	145.	0.	0.03	0.11	3.14	3.14	106.	-1.	0.05	0.17
3	30	3.14	3.14	73.	0.	0.02	0.06	3.14	3.14	29.	0.	0.04	0.16
4	30	3.14	3.14	53.	0.	0.02	0.09	3.14	3.14	241.	0.	0.05	0.20
5	30	3.14	3.14	15.	0.	0.01	0.05	3.14	3.14	239.	0.	0.05	0.20
6	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	320.	0.	0.06	0.23
7	30	3.14	3.14	61.	0.	0.01	0.05	3.14	3.14	350.	0.	0.06	0.24
8	30	3.14	3.14	95.	-1.	0.02	0.09	3.14	3.14	391.	0.	0.07	0.25
9	30	3.14	3.14	161.	-1.	0.03	0.10	3.14	3.14	248.	0.	0.04	0.15
10	30	3.14	3.14	93.	0.	0.01	0.06	3.14	3.14	375.	0.	0.06	0.23
11	30	3.14	3.14	92.	0.	0.01	0.06	3.14	3.14	163.	0.	0.04	0.16
12	30	3.14	3.14	100.	0.	0.02	0.07	3.14	3.14	99.	0.	0.02	0.07
13	30	3.14	3.14	132.	-1.	0.05	0.21	3.14	3.14	224.	-2.	0.04	0.13
14	30	3.14	3.14	373.	-1.	0.06	0.22	3.14	3.14	133.	-2.	0.02	0.08
15	30	3.14	3.14	78.	0.	0.05	0.18	3.14	3.14	45.	0.	0.01	0.05
16	30	3.14	3.14	341.	0.	0.05	0.21	3.14	3.14	57.	-1.	0.01	0.03
17	30	3.14	3.14	288.	1.	0.04	0.18	3.14	3.14	0.	-1.	0.00	0.00
18	30	3.14	3.14	212.	0.	0.03	0.13	3.14	3.14	60.	0.	0.01	0.04
19	30	3.14	3.14	199.	0.	0.03	0.12	3.14	3.14	0.	0.	0.00	0.02
20	30	3.14	3.14	64.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
21	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	-2.	0.00	0.00

22	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	25.	0.	0.00	0.02
23	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	24.	0.	0.00	0.02
24	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	68.	0.	0.01	0.04
25	30	3.14	3.14	162.	0.	0.03	0.10	3.14	3.14	69.	0.	0.02	0.08
26	30	3.14	3.14	310.	-1.	0.05	0.21	3.14	3.14	235.	-1.	0.04	0.14
27	30	3.14	3.14	222.	0.	0.03	0.13	3.14	3.14	104.	0.	0.02	0.07
28	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	138.	-1.	0.03	0.11
29	30	3.14	3.14	162.	0.	0.03	0.13	3.14	3.14	319.	0.	0.05	0.19
30	30	3.14	3.14	137.	0.	0.02	0.09	3.14	3.14	332.	0.	0.06	0.23
31	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	411.	0.	0.07	0.28
32	30	3.14	3.14	150.	0.	0.04	0.14	3.14	3.14	381.	0.	0.06	0.23
33	30	3.14	3.14	165.	0.	0.03	0.13	3.14	3.14	421.	0.	0.08	0.30
34	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	494.	0.	0.08	0.32
35	30	3.14	3.14	350.	-1.	0.06	0.23	3.14	3.14	442.	-2.	0.07	0.27
36	30	3.14	3.14	258.	0.	0.04	0.17	3.14	3.14	261.	0.	0.05	0.18
37	30	3.14	3.14	41.	-1.	0.01	0.02	3.14	3.14	282.	0.	0.06	0.23
38	30	3.14	3.14	74.	-1.	0.01	0.04	3.14	3.14	61.	-1.	0.01	0.06
39	30	3.14	3.14	285.	0.	0.04	0.17	3.14	3.14	63.	0.	0.01	0.04
40	30	3.14	3.14	404.	-1.	0.06	0.24	3.14	3.14	142.	-1.	0.02	0.09
41	30	3.14	3.14	77.	0.	0.01	0.05	3.14	3.14	91.	0.	0.01	0.06
42	30	3.14	3.14	138.	-1.	0.03	0.10	3.14	3.14	96.	0.	0.03	0.11
43	30	3.14	3.14	119.	-1.	0.02	0.07	3.14	3.14	84.	-1.	0.01	0.05
44	30	3.14	3.14	566.	0.	0.09	0.34	3.14	3.14	133.	0.	0.02	0.08
45	30	3.14	3.14	684.	0.	0.12	0.45	3.14	3.14	135.	0.	0.02	0.08
46	30	3.14	3.14	437.	0.	0.10	0.37	3.14	3.14	135.	0.	0.02	0.09
47	30	3.14	3.14	14.	0.	0.05	0.17	3.14	3.14	71.	0.	0.01	0.06
48	30	3.14	3.14	108.	0.	0.02	0.07	3.14	3.14	305.	-1.	0.06	0.22
49	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	535.	0.	0.09	0.34
50	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	443.	0.	0.08	0.31
51	30	3.14	3.14	80.	0.	0.01	0.05	3.14	3.14	85.	-1.	0.03	0.11
52	30	3.14	3.14	536.	0.	0.08	0.32	3.14	3.14	301.	0.	0.05	0.20
53	30	3.14	3.14	383.	0.	0.06	0.24	3.14	3.14	460.	0.	0.09	0.33
54	30	3.14	3.14	321.	0.	0.05	0.19	3.14	3.14	366.	0.	0.07	0.27
55	30	3.14	3.14	415.	0.	0.07	0.25	3.14	3.14	117.	0.	0.02	0.10
56	30	3.14	3.14	606.	0.	0.11	0.41	3.14	3.14	246.	0.	0.04	0.16
57	30	3.14	3.14	493.	0.	0.09	0.34	3.14	3.14	359.	0.	0.06	0.24
58	30	3.14	3.14	462.	0.	0.08	0.30	3.14	3.14	290.	0.	0.05	0.19
59	30	3.14	3.14	508.	0.	0.08	0.32	3.14	3.14	92.	0.	0.01	0.06
60	30	3.14	3.14	424.	0.	0.09	0.35	3.14	3.14	380.	0.	0.06	0.23
61	30	3.14	3.14	316.	0.	0.07	0.28	3.14	3.14	494.	0.	0.08	0.30
62	30	3.14	3.14	257.	0.	0.06	0.23	3.14	3.14	396.	0.	0.06	0.24
63	30	3.14	3.14	299.	0.	0.07	0.28	3.14	3.14	146.	0.	0.02	0.10
64	30	3.14	3.14	108.	0.	0.04	0.16	3.14	3.14	360.	-1.	0.07	0.29
65	30	3.14	3.14	0.	0.	0.02	0.09	3.14	3.14	524.	0.	0.09	0.33
66	30	3.14	3.14	0.	0.	0.01	0.05	3.14	3.14	441.	0.	0.07	0.27
67	30	3.14	3.14	0.	-1.	0.03	0.11	3.14	3.14	107.	-2.	0.03	0.13
68	30	3.14	3.14	1.	-1.	0.00	0.00	3.14	3.14	0.	-1.	0.00	0.00
69	30	3.14	3.14	2.	0.	0.00	0.00	3.14	3.14	62.	0.	0.01	0.04
70	30	3.14	3.14	380.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
71	30	3.14	3.14	404.	0.	0.06	0.24	3.14	3.14	63.	0.	0.01	0.04
72	30	3.14	3.14	521.	0.	0.08	0.33	3.14	3.14	0.	0.	0.00	0.00
73	30	3.14	3.14	510.	0.	0.08	0.31	3.14	3.14	32.	0.	0.01	0.02
74	30	3.14	3.14	269.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
75	30	3.14	3.14	314.	0.	0.07	0.28	3.14	3.14	78.	0.	0.01	0.05
76	30	3.14	3.14	0.	-1.	0.03	0.10	3.14	3.14	0.	-2.	0.01	0.03
77	30	3.14	3.14	0.	0.	0.03	0.12	3.14	3.14	45.	0.	0.01	0.06
78	30	3.14	3.14	103.	-1.	0.02	0.06	3.14	3.14	4.	-1.	0.01	0.04
79	30	3.14	3.14	105.	0.	0.02	0.06	3.14	3.14	104.	0.	0.02	0.06
80	30	3.14	3.14	442.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
81	30	3.14	3.14	464.	0.	0.07	0.28	3.14	3.14	64.	0.	0.01	0.05
82	30	3.14	3.14	523.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
83	30	3.14	3.14	519.	0.	0.08	0.32	3.14	3.14	37.	0.	0.01	0.02
84	30	3.14	3.14	206.	0.	0.06	0.25	3.14	3.14	0.	0.	0.00	0.00
85	30	3.14	3.14	250.	0.	0.07	0.26	3.14	3.14	78.	0.	0.01	0.05
86	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	0.	-1.	0.00	0.01
87	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	49.	0.	0.01	0.06
88	30	3.14	3.14	163.	0.	0.03	0.10	3.14	3.14	196.	-1.	0.04	0.15
89	30	3.14	3.14	30.	0.	0.00	0.02	3.14	3.14	458.	0.	0.08	0.30
90	30	3.14	3.14	67.	0.	0.01	0.04	3.14	3.14	588.	0.	0.09	0.36
91	30	3.14	3.14	209.	0.	0.03	0.13	3.14	3.14	428.	-1.	0.07	0.28
92	30	3.14	3.14	470.	0.	0.07	0.28	3.14	3.14	127.	0.	0.03	0.10
93	30	3.14	3.14	386.	0.	0.06	0.23	3.14	3.14	343.	0.	0.07	0.25
94	30	3.14	3.14	444.	0.	0.07	0.28	3.14	3.14	429.	0.	0.08	0.32
95	30	3.14	3.14	589.	0.	0.09	0.36	3.14	3.14	310.	0.	0.06	0.23
96	30	3.14	3.14	521.	0.	0.09	0.33	3.14	3.14	91.	0.	0.02	0.06
97	30	3.14	3.14	472.	0.	0.08	0.31	3.14	3.14	302.	0.	0.05	0.18
98	30	3.14	3.14	514.	0.	0.09	0.35	3.14	3.14	381.	0.	0.06	0.23
99	30	3.14	3.14	635.	0.	0.11	0.42	3.14	3.14	249.	0.	0.04	0.16
100	30	3.14	3.14	251.	0.	0.07	0.27	3.14	3.14	143.	0.	0.02	0.09
101	30	3.14	3.14	192.	0.	0.05	0.21	3.14	3.14	435.	0.	0.07	0.26
102	30	3.14	3.14	262.	0.	0.07	0.25	3.14	3.14	543.	0.	0.09	0.33
103	30	3.14	3.14	362.	0.	0.09	0.34	3.14	3.14	352.	0.	0.06	0.21
104	30	3.14	3.14	0.	0.	0.01	0.04	3.14	3.14	87.	-2.	0.03	0.13
105	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	485.	0.	0.08	0.31
106	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	572.	0.	0.09	0.35
107	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	280.	-2.	0.06	0.24
108	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	32.	-2.	0.01	0.05
109	30	3.14	3.14	358.	0.	0.09	0.36	3.14	3.14	103.	0.	0.02	0.09
110	30	3.14	3.14	706.	0.	0.12	0.46	3.14	3.14	131.	0.	0.02	0.09
111	30	3.14	3.14	629.	0.	0.10	0.38	3.14	3.14	159.	0.	0.02	0.10
112	30	3.14	3.14	187.	-1.	0.03	0.11	3.14	3.14	62.	-1.	0.02	0.06
113	30	3.14	3.14	0.	-2.	0.03	0.10	3.14	3.14	108.	-2.	0.02	0.06
114	30	3.14	3.14	405.	0.	0.09	0.34	3.14	3.14	87.	0.	0.01	0.06
115	30	3.14	3.14	564.	0.	0.09	0.34	3.14	3.14	125.	0.	0.02	0.08
116	30	3.14	3.14	138.	-1.	0.02	0.08	3.14	3.14	98.	-1.	0.02	0.06
117	30	3.14	3.14	131.	-1.	0.02	0.08	3.14	3.14	386.	-1.	0.07	0.26
118	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	537.	0.	0.09	0.34

119	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	445.	0.	0.08	0.30
120	30	3.14	3.14	37.	0.	0.01	0.02	3.14	3.14	107.	-1.	0.04	0.14
121	30	3.14	3.14	503.	0.	0.08	0.30	3.14	3.14	290.	0.	0.06	0.21
122	30	3.14	3.14	369.	0.	0.06	0.24	3.14	3.14	457.	0.	0.08	0.32
123	30	3.14	3.14	326.	0.	0.05	0.20	3.14	3.14	369.	0.	0.07	0.26
124	30	3.14	3.14	413.	0.	0.06	0.25	3.14	3.14	100.	0.	0.02	0.08
125	30	3.14	3.14	389.	0.	0.08	0.30	3.14	3.14	317.	0.	0.05	0.19
126	30	3.14	3.14	287.	0.	0.06	0.25	3.14	3.14	519.	0.	0.08	0.31
127	30	3.14	3.14	249.	0.	0.05	0.21	3.14	3.14	433.	0.	0.07	0.26
128	30	3.14	3.14	302.	0.	0.06	0.25	3.14	3.14	114.	0.	0.02	0.07
129	30	3.14	3.14	0.	-1.	0.03	0.12	3.14	3.14	327.	-1.	0.06	0.24
130	30	3.14	3.14	0.	0.	0.01	0.04	3.14	3.14	566.	0.	0.09	0.34
131	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	482.	0.	0.08	0.30
132	30	3.14	3.14	0.	-1.	0.03	0.10	3.14	3.14	130.	-1.	0.03	0.13
133	30	3.14	3.14	0.	-1.	0.02	0.07	3.14	3.14	0.	-2.	0.00	0.01
134	30	3.14	3.14	0.	0.	0.02	0.09	3.14	3.14	54.	0.	0.01	0.04
135	30	3.14	3.14	265.	0.	0.07	0.25	3.14	3.14	0.	0.	0.00	0.00
136	30	3.14	3.14	299.	0.	0.06	0.24	3.14	3.14	43.	0.	0.01	0.03
137	30	3.14	3.14	405.	0.	0.06	0.25	3.14	3.14	0.	0.	0.00	0.00
138	30	3.14	3.14	383.	0.	0.06	0.23	3.14	3.14	6.	0.	0.01	0.03
139	30	3.14	3.14	106.	0.	0.02	0.06	3.14	3.14	0.	-1.	0.01	0.03
140	30	3.14	3.14	98.	0.	0.01	0.06	3.14	3.14	79.	0.	0.01	0.05
141	30	3.14	3.14	416.	0.	0.07	0.26	3.14	3.14	177.	0.	0.03	0.11
142	30	3.14	3.14	535.	0.	0.08	0.33	3.14	3.14	318.	-2.	0.05	0.19
143	30	3.14	3.14	539.	0.	0.08	0.33	3.14	3.14	128.	0.	0.03	0.10
144	30	3.14	3.14	567.	0.	0.09	0.34	3.14	3.14	77.	0.	0.03	0.12
145	30	3.14	3.14	588.	0.	0.09	0.36	3.14	3.14	55.	0.	0.02	0.07
146	30	3.14	3.14	532.	0.	0.09	0.36	3.14	3.14	0.	0.	0.00	0.01
147	30	3.14	3.14	445.	0.	0.08	0.32	3.14	3.14	64.	0.	0.01	0.04
148	30	3.14	3.14	240.	0.	0.07	0.28	3.14	3.14	0.	0.	0.00	0.00
149	30	3.14	3.14	118.	0.	0.05	0.20	3.14	3.14	84.	0.	0.02	0.08
150	30	3.14	3.14	0.	-2.	0.02	0.09	3.14	3.14	20.	-3.	0.01	0.03
151	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	61.	-3.	0.01	0.04
152	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	41.	0.	0.01	0.05
153	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	236.	0.	0.04	0.15
154	30	3.14	3.14	97.	-3.	0.03	0.13	3.14	3.14	590.	-2.	0.10	0.39
155	30	3.14	3.14	77.	0.	0.02	0.07	3.14	3.14	645.	0.	0.11	0.41
156	30	3.14	3.14	124.	-1.	0.03	0.12	3.14	3.14	616.	0.	0.11	0.40
157	30	3.14	3.14	12.	0.	0.02	0.07	3.14	3.14	546.	0.	0.10	0.37
158	30	3.14	3.14	95.	0.	0.02	0.07	3.14	3.14	510.	0.	0.09	0.34
159	30	3.14	3.14	0.	0.	0.02	0.08	3.14	3.14	459.	-1.	0.07	0.29
160	30	3.14	3.14	57.	-2.	0.02	0.07	3.14	3.14	508.	-1.	0.08	0.31
161	30	3.14	3.14	233.	-5.	0.04	0.14	3.14	3.14	29.	-1.	0.01	0.02
162	30	3.14	3.14	112.	0.	0.02	0.07	3.14	3.14	0.	-1.	0.03	0.11
163	30	3.14	3.14	56.	0.	0.01	0.03	3.14	3.14	152.	0.	0.02	0.09
164	30	3.14	3.14	0.	1.	0.02	0.11	3.14	3.14	97.	-2.	0.02	0.07
165	30	3.14	3.14	380.	0.	0.09	0.34	3.14	3.14	140.	0.	0.03	0.10
166	30	3.14	3.14	687.	0.	0.12	0.46	3.14	3.14	154.	0.	0.03	0.12
167	30	3.14	3.14	738.	0.	0.12	0.47	3.14	3.14	235.	0.	0.04	0.14
168	30	3.14	3.14	647.	1.	0.09	0.40	3.14	3.14	199.	-1.	0.04	0.17
169	30	3.14	3.14	233.	0.	0.04	0.14	3.14	3.14	118.	-1.	0.02	0.07
170	30	3.14	3.14	181.	-3.	0.03	0.11	3.14	3.14	69.	-2.	0.01	0.04
171	30	3.14	3.14	644.	1.	0.10	0.40	3.14	3.14	664.	-1.	0.11	0.41
172	30	3.14	3.14	451.	0.	0.08	0.31	3.14	3.14	490.	0.	0.09	0.35
173	30	3.14	3.14	377.	0.	0.07	0.26	3.14	3.14	395.	0.	0.07	0.29
174	30	3.14	3.14	504.	1.	0.08	0.32	3.14	3.14	423.	-1.	0.08	0.30
175	30	3.14	3.14	681.	0.	0.12	0.45	3.14	3.14	392.	0.	0.08	0.33
176	30	3.14	3.14	564.	0.	0.10	0.38	3.14	3.14	339.	0.	0.07	0.26
177	30	3.14	3.14	516.	0.	0.09	0.33	3.14	3.14	264.	0.	0.05	0.20
178	30	3.14	3.14	570.	0.	0.09	0.35	3.14	3.14	193.	0.	0.05	0.19
179	30	3.14	3.14	632.	0.	0.11	0.43	3.14	3.14	289.	0.	0.05	0.19
180	30	3.14	3.14	516.	0.	0.09	0.36	3.14	3.14	342.	0.	0.05	0.21
181	30	3.14	3.14	463.	0.	0.08	0.32	3.14	3.14	270.	0.	0.04	0.16
182	30	3.14	3.14	516.	0.	0.09	0.33	3.14	3.14	119.	0.	0.02	0.09
183	30	3.14	3.14	362.	0.	0.08	0.32	3.14	3.14	427.	0.	0.07	0.26
184	30	3.14	3.14	251.	0.	0.06	0.24	3.14	3.14	514.	0.	0.08	0.31
185	30	3.14	3.14	179.	0.	0.05	0.19	3.14	3.14	396.	0.	0.06	0.24
186	30	3.14	3.14	270.	0.	0.06	0.24	3.14	3.14	212.	0.	0.03	0.13
187	30	3.14	3.14	0.	1.	0.02	0.12	3.14	3.14	424.	-3.	0.08	0.31
188	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	553.	0.	0.09	0.34
189	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	463.	0.	0.07	0.29
190	30	3.14	3.14	0.	0.	0.02	0.06	3.14	3.14	170.	-2.	0.04	0.16

L'ARMATURA È OVUNQUE > DELLA QUANTITÀ RICHIESTA: IL PUNTO 2.3 DELLE NTC È VERIFICATO (Rd > Ed)

MACROGUSCIO PLATEA

VERIFICHE A FESSURAZIONE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
14	Rara (RARA)
15	Frequente (FREQUENTE)
16	Quasi Perm (QUASI PERMANENTE)

DATI:

copriferro inferiore (asse armatura): 3 cm
copriferro superiore (asse armatura): 3 cm

Af = area effettiva tesa (cm2 al metro)
Afc = area effettiva compressa (cm2 al metro)
Mom = momento flettente [daNcm/cm]

Nor = sforzo normale [daN]
σc = tensione calcestruzzo [daN/cm2]
σc = tensione acciaio [daN/cm2]
wkR = apertura caratteristica per combinazione rara (mm) - apertura max = 0.6 mm
wkF = '' '' '' '' frequente (mm) - '' '' = 0.4 mm
wkP = '' '' '' '' quasi permanente (mm) - '' '' = 0.3 mm

ARMATURA INFERIORE ORIZZONTALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	64	0.	1.05	80.	0.009	53	0.	0.87	66.	0.008	50	0.	0.82	63.	0.007
2	3.14	3.14	199	-1	3.30	238.	0.028	169	-1	2.79	202.	0.024	161	-1	2.66	193.	0.023
3	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
4	3.14	3.14	100	0.	1.65	123.	0.015	85	0.	1.41	105.	0.013	82	0.	1.35	101.	0.012
5	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
6	3.14	3.14	72	0.	1.19	91.	0.011	64	0.	1.06	81.	0.010	62	0.	1.03	79.	0.009
7	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
8	3.14	3.14	210	0.	3.47	256.	0.030	182	0.	3.01	222.	0.026	175	0.	2.89	214.	0.025
9	3.14	3.14	245	-1	4.05	290.	0.034	212	-1	3.50	252.	0.030	203	-1	3.36	242.	0.029
10	3.14	3.14	19	0.	0.31	24.	0.003	13	0.	0.21	16.	0.002	11	0.	0.18	14.	0.002
11	3.14	3.14	25	0.	0.41	31.	0.004	18	0.	0.30	23.	0.003	17	0.	0.27	21.	0.002
12	3.14	3.14	99	0.	1.64	118.	0.014	84	0.	1.40	101.	0.012	81	0.	1.34	97.	0.011
13	3.14	3.14	197	0.	3.26	246.	0.029	173	0.	2.86	216.	0.026	167	0.	2.76	208.	0.025
14	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002
15	3.14	3.14	53	0.	0.87	71.	0.009	48	0.	0.79	64.	0.008	47	0.	0.77	62.	0.008
16	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
17	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
18	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
19	3.14	3.14	14	0.	0.22	17.	0.002	5	0.	0.08	6.	0.001	2	0.	0.04	3.	0.000
20	3.14	3.14	276	-1	4.56	337.	0.040	223	0.	3.69	273.	0.032	210	0.	3.47	257.	0.031
21	3.14	3.14	537	0.	8.87	665.	0.079	441	0.	7.28	546.	0.065	417	0.	6.88	516.	0.061
22	3.14	3.14	271	0.	4.48	338.	0.040	219	0.	3.61	273.	0.032	206	0.	3.40	256.	0.030
23	3.14	3.14	514	0.	8.48	644.	0.077	422	0.	6.97	529.	0.063	399	0.	6.59	500.	0.059
24	3.14	3.14	470	0.	7.75	588.	0.070	389	0.	6.42	487.	0.058	369	0.	6.09	462.	0.055
25	3.14	3.14	186	0.	3.06	232.	0.028	147	0.	2.42	184.	0.022	137	0.	2.26	172.	0.020
26	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002
27	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
28	3.14	3.14	430	-1	7.11	528.	0.063	351	-1	5.79	430.	0.051	331	-1	5.46	406.	0.048
29	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
30	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
31	3.14	3.14	225	0.	3.72	283.	0.034	181	0.	2.99	228.	0.027	170	0.	2.81	214.	0.026
32	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
33	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
34	3.14	3.14	246	0.	4.05	309.	0.037	197	0.	3.26	248.	0.030	185	0.	3.06	233.	0.028
35	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002
36	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
37	3.14	3.14	541	-1	8.94	667.	0.079	440	-1	7.26	542.	0.064	414	-1	6.85	511.	0.061
38	3.14	3.14	602	-1	9.95	742.	0.088	486	-1	8.03	599.	0.071	457	-1	7.55	564.	0.067
39	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
40	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
41	3.14	3.14	55	0.	0.91	69.	0.008	49	0.	0.81	61.	0.007	47	0.	0.78	59.	0.007
42	3.14	3.14	254	0.	4.19	310.	0.037	221	0.	3.66	271.	0.032	213	0.	3.53	262.	0.031
43	3.14	3.14	728	0.	12.02	911.	0.108	598	0.	9.88	748.	0.089	566	0.	9.34	708.	0.084
44	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
45	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
46	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
47	3.14	3.14	436	1	7.18	564.	0.069	362	1	5.97	468.	0.057	344	1	5.66	444.	0.054
48	3.14	3.14	666	0.	11.00	833.	0.099	547	0.	9.04	685.	0.081	518	0.	8.55	648.	0.077
49	3.14	3.14	333	0.	5.50	417.	0.050	273	0.	4.50	342.	0.041	258	0.	4.25	323.	0.038
50	3.14	3.14	311	0.	5.13	389.	0.046	254	0.	4.20	319.	0.038	240	0.	3.97	301.	0.036
51	3.14	3.14	618	0.	10.21	773.	0.092	508	0.	8.39	635.	0.076	481	0.	7.94	601.	0.071
52	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
53	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
54	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
55	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
56	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
57	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
58	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
59	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
60	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
61	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
62	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
63	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
64	3.14	3.14	412	1	6.80	533.	0.065	343	1	5.65	442.	0.054	325	1	5.36	420.	0.051
65	3.14	3.14	186	0.	3.07	235.	0.028	152	0.	2.51	192.	0.023	144	0.	2.38	182.	0.022
66	3.14	3.14	162	0.	2.68	205.	0.025	133	0.	2.20	168.	0.020	126	0.	2.07	159.	0.019
67	3.14	3.14	374	1	6.16	484.	0.059	318	1	5.24	411.	0.050	304	1	5.01	393.	0.048
68	3.14	3.14	565	0.	9.34	707.	0.084	465	0.	7.69	582.	0.069	440	0.	7.27	551.	0.065
69	3.14	3.14	562	0.	9.29	704.	0.084	464	0.	7.66	581.	0.069	439	0.	7.25	550.	0.065
70	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
71	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
72	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
73	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
74	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
75	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
76	3.14	3.14	370	1	6.09	478.	0.058	300	1	4.95	387.	0.047	283	1	4.66	365.	0.044
77	3.14	3.14	316	0.	5.21	400.	0.048	261	0.	4.31	330.	0.040	247	0.	4.08	313.	0.038
78	3.14	3.14	405	1	6.68	516.	0.062	337	0.	5.56	428.	0.051	320	0.	5.27	406.	0.049
79	3.14	3.14	449	0.	7.41	565.	0.067	373	0.	6.15	469.	0.056	354	0.	5.84	445.	0.053
80	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
81	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
82	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
83	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
84	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
85	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
86	3.14	3.14	528	0.	8.71	663.	0.079	435	0.	7.18	547.	0.065	412	0.	6.80	518.	0.062
87	3.14	3.14	553	0.	9.13	693.	0.082	456	0.	7.53	571.	0.068	432	0.	7.13	541.	0.064
88	3.14	3.14	453	1	7.47	577.	0.069	376	0.	6.20	478.	0.058	356	0.	5.88	454.	0.055
89	3.14	3.14	201	0.	3.32	253.	0.030	166	0.	2.74	209.	0.025	157	0.	2.60	198.	0.024
90	3.14	3.14	221	0.	3.65	277.	0.033	182	0.	3.01	229.	0.027	173	0.	2.85	217.	0.026
91	3.14	3.14	487	1	8.03	619.	0.074	404	0.	6.66	514.	0.062	383	0.	6.32	487.	0.059
92	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
93	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
94	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
95	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
96	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
97	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
98	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
99	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

100	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
101	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
102	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
103	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
104	3.14	3.14	581	0.	9.59	730.	0.087	478	0.	7.89	601.	0.072	452	0.	7.47	569.	0.068
105	3.14	3.14	297	0.	4.90	372.	0.044	243	0.	4.02	305.	0.036	230	0.	3.80	288.	0.034
106	3.14	3.14	321	0.	5.31	403.	0.048	263	0.	4.35	330.	0.039	249	0.	4.11	312.	0.037
107	3.14	3.14	632	0.	10.43	794.	0.095	520	0.	8.58	654.	0.078	492	0.	8.12	618.	0.074
108	3.14	3.14	691	0.	11.41	868.	0.103	569	0.	9.39	714.	0.085	538	0.	8.89	676.	0.081
109	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
110	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
111	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
112	3.14	3.14	514	1	8.47	653.	0.079	426	0.	7.03	542.	0.065	404	0.	6.67	514.	0.062
113	3.14	3.14	515	0.	8.51	639.	0.076	425	0.	7.01	526.	0.063	402	0.	6.64	498.	0.059
114	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
115	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
116	3.14	3.14	564	-1	9.32	697.	0.083	462	0.	7.64	571.	0.068	437	0.	7.22	540.	0.064
117	3.14	3.14	557	-1	9.20	689.	0.082	457	0.	7.55	565.	0.067	432	0.	7.13	534.	0.064
118	3.14	3.14	258	0.	4.25	324.	0.039	211	0.	3.48	265.	0.032	199	0.	3.28	250.	0.030
119	3.14	3.14	244	0.	4.02	306.	0.036	199	0.	3.29	250.	0.030	188	0.	3.10	236.	0.028
120	3.14	3.14	458	-1	7.57	565.	0.067	376	0.	6.22	464.	0.055	356	0.	5.88	439.	0.052
121	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
122	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
123	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
124	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
125	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
126	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
127	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
128	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
129	3.14	3.14	497	0.	8.22	616.	0.073	410	0.	6.77	508.	0.060	388	0.	6.40	481.	0.057
130	3.14	3.14	212	0.	3.50	266.	0.032	174	0.	2.87	219.	0.026	165	0.	2.72	207.	0.025
131	3.14	3.14	199	0.	3.29	250.	0.030	163	0.	2.70	205.	0.024	154	0.	2.55	194.	0.023
132	3.14	3.14	468	0.	7.73	579.	0.069	386	0.	6.37	478.	0.057	365	0.	6.03	452.	0.054
133	3.14	3.14	419	0.	6.91	518.	0.062	345	0.	5.71	428.	0.051	327	0.	5.40	406.	0.048
134	3.14	3.14	409	0.	6.76	513.	0.061	338	0.	5.59	424.	0.050	321	0.	5.30	402.	0.048
135	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
136	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
137	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
138	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
139	3.14	3.14	576	0.	9.51	713.	0.085	474	0.	7.83	587.	0.070	448	0.	7.41	556.	0.066
140	3.14	3.14	469	0.	7.75	588.	0.070	387	0.	6.38	485.	0.058	366	0.	6.04	459.	0.055
141	3.14	3.14	184	0.	3.04	237.	0.029	152	0.	2.50	195.	0.024	144	0.	2.37	185.	0.022
142	3.14	3.14	0.	1	0.00	23.	0.005	0.	1	0.00	18.	0.004	0.	1	0.00	17.	0.004
143	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
144	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
145	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
146	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
147	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
148	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
149	3.14	3.14	66	0.	1.08	84.	0.010	52	0.	0.85	66.	0.008	48	0.	0.79	61.	0.007
150	3.14	3.14	295	1	4.87	379.	0.046	244	0.	4.03	313.	0.038	231	0.	3.82	297.	0.036
151	3.14	3.14	636	1	10.49	804.	0.096	529	0.	8.73	669.	0.080	502	0.	8.29	635.	0.076
152	3.14	3.14	607	0.	10.02	767.	0.092	506	0.	8.34	638.	0.076	480	0.	7.93	606.	0.072
153	3.14	3.14	159	0.	2.62	199.	0.024	129	0.	2.13	162.	0.019	122	0.	2.01	153.	0.018
154	3.14	3.14	376	-3	6.22	423.	0.050	313	-2	5.18	355.	0.042	297	-2	4.91	337.	0.040
155	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
156	3.14	3.14	58	0.	0.97	70.	0.008	50	0.	0.83	60.	0.007	48	0.	0.79	57.	0.007
157	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
158	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
159	3.14	3.14	1	0.	0.02	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
160	3.14	3.14	306	-2	5.06	349.	0.042	257	-2	4.25	294.	0.035	244	-2	4.04	281.	0.033
161	3.14	3.14	423	-3	7.00	481.	0.057	352	-2	5.83	403.	0.048	335	-2	5.54	383.	0.046
162	3.14	3.14	53	0.	0.88	67.	0.008	41	0.	0.68	52.	0.006	39	0.	0.64	49.	0.006
163	3.14	3.14	102	0.	1.68	128.	0.015	87	0.	1.43	109.	0.013	83	0.	1.37	104.	0.012
164	3.14	3.14	605	1	9.98	773.	0.093	501	1	8.27	640.	0.077	476	1	7.84	606.	0.073
165	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
166	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
167	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
168	3.14	3.14	0.	2	0.00	32.	0.007	0.	2	0.00	25.	0.006	0.	1	0.00	23.	0.005
169	3.14	3.14	144	-3	2.38	141.	0.017	122	-2	2.01	121.	0.014	117	-2	1.92	117.	0.014
170	3.14	3.14	511	-3	8.46	596.	0.071	429	-2	7.10	503.	0.060	408	-2	6.76	479.	0.057
171	3.14	3.14	0.	2	0.00	27.	0.006	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
172	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
173	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
174	3.14	3.14	0.	2	0.00	25.	0.006	0.	1	0.00	20.	0.005	0.	1	0.00	18.	0.004
175	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
176	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
177	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
178	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
179	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
180	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
181	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
182	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
183	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
184	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
185	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
186	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
187	3.14	3.14	563	1	9.29	718.	0.087	466	1	7.68	594.	0.072	441	1	7.28	563.	0.068
188	3.14	3.14	286	0.	4.71	359.	0.043	234	0.	3.87	295.	0.035	222	0.	3.66	279.	0.033
189	3.14	3.14	255	0.	4.20	320.	0.038	209	0.	3.46	263.	0.031	198	0.	3.27	249.	0.030
190	3.14	3.14	427	1	7.04	548.	0.066	354	1	5.84	454.	0.055	336	1	5.54	431.	0.052

ARMATURA INFERIORE VERTICALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	198	0.	3.26	249.	0.030	168	0.	2.78	212.	0.025	161	0.	2.66	203.	0.024
2	3.14	3.14	183	0.	3.03	231.	0.028	154	0.	2.54	194.	0.023	146	0.	2.41	185.	0.022
3	3.14	3.14	44	0.	0.72	56.	0.007	32	0.	0.52	40.	0.005	29	0.	0.47	37.	0.004
4	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
5	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
6	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
7	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
8	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
9	3.14	3.14	112	0.	1.84	139.	0.016	93	0.	1.54	116.	0.014	89	0.	1.46	110.	0.013
10	3.14	3.14	31	0.	0.50	40.	0.005	25	0.	0.40	32.	0.004	23	0.	0.38	30.	0.004
11	3.14	3.14	94	0.	1.54	116.	0.014	76	0.	1.25	94.	0.011	71	0.	1.17	89.	0.011
12	3.14	3.14	70	0.	1.15	88.	0.010	60	0.	0.99	75.	0.009	58	0.	0.95	72.	0.009
13	3.14	3.14	143	0.	2.36	181.	0.022	121	0.	1.99	152.	0.018	115	0.	1.90	145.	0.017
14	3.14	3.14	236	0.	3.89	298.	0.036	204	0.	3.37	257.	0.031	196	0.	3.24	247.	0.029
15	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

16	3.14	3.14	76	0.	1.26	96.	0.011	64	0.	1.06	80.	0.010	61	0.	1.01	76.	0.009
17	3.14	3.14	220	0.	3.64	277.	0.033	187	0.	3.09	235.	0.028	179	0.	2.96	224.	0.027
18	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
19	3.14	3.14	97	0.	1.60	122.	0.014	78	0.	1.29	98.	0.012	73	0.	1.21	92.	0.011
20	3.14	3.14	452	0.	7.46	566.	0.067	377	0.	6.22	472.	0.056	358	0.	5.91	449.	0.053
21	3.14	3.14	450	1	7.42	572.	0.069	377	0.	6.22	479.	0.057	359	0.	5.93	455.	0.055
22	3.14	3.14	134	0.	2.21	167.	0.020	109	0.	1.80	137.	0.016	103	0.	1.70	129.	0.015
23	3.14	3.14	50	0.	0.82	62.	0.007	38	0.	0.62	47.	0.006	35	0.	0.57	44.	0.005
24	3.14	3.14	5	0.	0.08	6.	0.001	1	0.	0.02	1.	0.000	0.	0.	0.00	0.	0.000
25	3.14	3.14	61	0.	1.01	76.	0.009	47	0.	0.78	59.	0.007	44	0.	0.72	55.	0.007
26	3.14	3.14	81	0.	1.33	109.	0.014	64	0.	1.05	87.	0.011	60	0.	0.98	81.	0.010
27	3.14	3.14	124	0.	2.05	156.	0.019	96	0.	1.59	121.	0.014	89	0.	1.47	112.	0.013
28	3.14	3.14	306	0.	5.05	390.	0.047	246	0.	4.06	313.	0.038	231	0.	3.81	294.	0.035
29	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
30	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
31	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
32	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
33	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
34	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
35	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
36	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
37	3.14	3.14	104	0.	1.72	137.	0.017	75	0.	1.23	99.	0.012	68	0.	1.11	90.	0.011
38	3.14	3.14	225	0.	3.72	286.	0.034	178	0.	2.94	225.	0.027	166	0.	2.74	210.	0.025
39	3.14	3.14	42	0.	0.69	52.	0.006	26	0.	0.43	33.	0.004	22	0.	0.36	28.	0.003
40	3.14	3.14	93	0.	1.53	120.	0.015	77	0.	1.27	98.	0.012	73	0.	1.20	93.	0.011
41	3.14	3.14	16	0.	0.27	20.	0.002	12	0.	0.20	15.	0.002	11	0.	0.18	14.	0.002
42	3.14	3.14	106	0.	1.74	135.	0.016	88	0.	1.45	112.	0.013	83	0.	1.37	106.	0.013
43	3.14	3.14	254	0.	4.20	318.	0.038	201	0.	3.32	251.	0.030	188	0.	3.10	234.	0.028
44	3.14	3.14	20	0.	0.33	25.	0.003	7	0.	0.11	9.	0.001	4	0.	0.06	5.	0.001
45	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
46	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
47	3.14	3.14	173	0.	2.86	222.	0.027	135	0.	2.23	173.	0.021	126	0.	2.08	161.	0.019
48	3.14	3.14	152	0.	2.50	192.	0.023	116	0.	1.92	148.	0.018	107	0.	1.77	136.	0.016
49	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
50	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
51	3.14	3.14	284	0.	4.69	358.	0.043	228	0.	3.76	287.	0.034	213	0.	3.52	269.	0.032
52	3.14	3.14	28	0.	0.46	35.	0.004	16	0.	0.26	20.	0.002	13	0.	0.21	16.	0.002
53	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
54	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
55	3.14	3.14	114	0.	1.88	143.	0.017	89	0.	1.46	111.	0.013	82	0.	1.36	103.	0.012
56	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
57	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
58	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
59	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
60	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
61	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
62	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
63	3.14	3.14	51	0.	0.85	65.	0.008	38	0.	0.63	49.	0.006	35	0.	0.58	45.	0.005
64	3.14	3.14	196	1	3.23	254.	0.031	154	0.	2.54	201.	0.025	144	0.	2.37	188.	0.023
65	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
66	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
67	3.14	3.14	230	1	3.80	297.	0.036	186	0.	3.06	240.	0.029	175	0.	2.88	226.	0.027
68	3.14	3.14	460	0.	7.60	576.	0.068	377	0.	6.22	471.	0.056	356	0.	5.88	444.	0.053
69	3.14	3.14	38	0.	0.62	47.	0.006	25	0.	0.41	31.	0.004	22	0.	0.36	27.	0.003
70	3.14	3.14	180	0.	2.97	226.	0.027	144	0.	2.37	180.	0.021	135	0.	2.22	169.	0.020
71	3.14	3.14	48	0.	0.80	61.	0.007	33	0.	0.55	42.	0.005	29	0.	0.49	37.	0.004
72	3.14	3.14	49	0.	0.80	61.	0.007	36	0.	0.59	45.	0.005	33	0.	0.54	41.	0.005
73	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
74	3.14	3.14	130	0.	2.14	163.	0.019	104	0.	1.72	131.	0.016	98	0.	1.61	123.	0.015
75	3.14	3.14	16	0.	0.26	20.	0.002	7	0.	0.12	9.	0.001	5	0.	0.09	7.	0.001
76	3.14	3.14	385	0.	6.36	489.	0.059	322	0.	5.31	408.	0.049	306	0.	5.05	388.	0.046
77	3.14	3.14	69	0.	1.14	86.	0.010	52	0.	0.87	66.	0.008	48	0.	0.80	61.	0.007
78	3.14	3.14	486	0.	8.02	611.	0.073	399	0.	6.59	502.	0.060	378	0.	6.24	474.	0.057
79	3.14	3.14	55	0.	0.90	68.	0.008	39	0.	0.64	49.	0.006	35	0.	0.58	44.	0.005
80	3.14	3.14	141	0.	2.33	177.	0.021	112	0.	1.85	141.	0.017	105	0.	1.74	132.	0.016
81	3.14	3.14	25	0.	0.41	31.	0.004	14	0.	0.23	18.	0.002	12	0.	0.19	15.	0.002
82	3.14	3.14	43	0.	0.71	54.	0.006	31	0.	0.51	38.	0.005	28	0.	0.46	35.	0.004
83	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
84	3.14	3.14	162	0.	2.68	203.	0.024	129	0.	2.14	162.	0.019	121	0.	2.00	152.	0.018
85	3.14	3.14	37	0.	0.61	46.	0.006	24	0.	0.40	30.	0.004	21	0.	0.34	26.	0.003
86	3.14	3.14	541	0.	8.93	676.	0.080	443	0.	7.32	554.	0.066	419	0.	6.92	523.	0.062
87	3.14	3.14	67	0.	1.11	84.	0.010	49	0.	0.82	62.	0.007	45	0.	0.74	56.	0.007
88	3.14	3.14	337	0.	5.56	428.	0.051	272	0.	4.49	347.	0.042	256	0.	4.23	326.	0.039
89	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
90	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
91	3.14	3.14	221	0.	3.65	283.	0.034	175	0.	2.88	224.	0.027	163	0.	2.69	210.	0.025
92	3.14	3.14	59	0.	0.98	75.	0.009	44	0.	0.73	56.	0.007	40	0.	0.67	51.	0.006
93	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
94	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
95	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
96	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
97	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
98	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
99	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
100	3.14	3.14	89	0.	1.46	111.	0.013	68	0.	1.12	85.	0.010	63	0.	1.04	79.	0.009
101	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
102	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
103	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
104	3.14	3.14	382	0.	6.31	482.	0.058	309	0.	5.10	390.	0.047	290	0.	4.79	366.	0.044
105	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
106	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
107	3.14	3.14	265	0.	4.37	334.	0.040	210	0.	3.46	265.	0.032	196	0.	3.23	248.	0.030
108	3.14	3.14	220	0.	3.64	275.	0.033	173	0.	2.86	216.	0.026	162	0.	2.67	201.	0.024
109	3.14	3.14	11	0.	0.18	14.	0.002	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
110	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
111	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
112	3.14	3.14	195	0.	3.22	246.	0.029	153	0.	2.53	193.	0.023	143	0.	2.36	180.	0.021
113	3.14	3.14	235	0.	3.88	296.	0.035	186	0.	3.07	234.	0.028	174	0.	2.87	218.	0.026
114	3.14	3.14	7	0.	0.12	9.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
115	3.14	3.14	8	0.	0.12	9.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
116	3.14	3.14	198	0.	3.28	251.	0.030	159	0.	2.62	201.	0.024	149	0.	2.46	188.	0.022
117	3.14	3.14	115	0.	1.90	150.	0.018	86	0.	1.42	112.	0.014	79	0.	1.29	103.	0.013
118	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
119	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
120	3.14	3.14	282	0.	4.66	359.	0.043	227	0.	3.74	288.	0.035	213	0.	3.51	271.	0.033
121	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
122	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
123	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
124	3.14	3.14	67	0.	1.11	84.	0.010	50	0.	0.82	62.	0.007	46	0.	0.75	57.	0.007
125	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
126	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
127	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

128	3.14	3.14	55	0.	0.91	69.	0.008	40	0.	0.66	50.	0.006	36	0.	0.60	45.	0.005
129	3.14	3.14	99	0.	1.63	128.	0.016	73	0.	1.21	95.	0.012	67	0.	1.10	87.	0.011
130	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
131	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
132	3.14	3.14	239	0.	3.94	303.	0.036	191	0.	3.14	242.	0.029	179	0.	2.94	227.	0.027
133	3.14	3.14	412	0.	6.80	518.	0.062	338	0.	5.57	424.	0.051	319	0.	5.27	401.	0.048
134	3.14	3.14	33	0.	0.55	41.	0.005	21	0.	0.35	26.	0.003	18	0.	0.30	23.	0.003
135	3.14	3.14	162	0.	2.68	203.	0.024	129	0.	2.13	162.	0.019	121	0.	2.00	151.	0.018
136	3.14	3.14	24	0.	0.40	31.	0.004	14	0.	0.23	17.	0.002	11	0.	0.18	14.	0.002
137	3.14	3.14	170	0.	2.80	212.	0.025	136	0.	2.24	170.	0.020	127	0.	2.10	159.	0.019
138	3.14	3.14	28	0.	0.46	35.	0.004	17	0.	0.28	22.	0.003	14	0.	0.24	18.	0.002
139	3.14	3.14	422	0.	6.96	532.	0.064	347	0.	5.73	437.	0.052	328	0.	5.42	413.	0.049
140	3.14	3.14	68	0.	1.13	86.	0.010	55	0.	0.91	69.	0.008	52	0.	0.86	65.	0.008
141	3.14	3.14	55	0.	0.91	69.	0.008	39	0.	0.64	48.	0.006	34	0.	0.57	43.	0.005
142	3.14	3.14	346	1	5.70	441.	0.053	288	0.	4.75	367.	0.044	274	0.	4.52	348.	0.042
143	3.14	3.14	6	0.	0.09	7.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
144	3.14	3.14	81	0.	1.34	104.	0.013	68	0.	1.12	87.	0.010	64	0.	1.06	82.	0.010
145	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
146	3.14	3.14	34	0.	0.56	43.	0.005	26	0.	0.42	32.	0.004	24	0.	0.39	30.	0.004
147	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
148	3.14	3.14	125	0.	2.06	156.	0.019	100	0.	1.66	126.	0.015	94	0.	1.56	118.	0.014
149	3.14	3.14	82	0.	1.35	102.	0.012	63	0.	1.04	79.	0.009	59	0.	0.97	73.	0.009
150	3.14	3.14	450	0.	7.43	567.	0.068	372	0.	6.14	468.	0.056	352	0.	5.82	443.	0.053
151	3.14	3.14	460	0.	7.59	582.	0.070	381	0.	6.29	481.	0.058	361	0.	5.96	456.	0.054
152	3.14	3.14	43	0.	0.70	53.	0.006	27	0.	0.45	34.	0.004	23	0.	0.39	29.	0.003
153	3.14	3.14	337	0.	5.56	418.	0.050	276	0.	4.56	343.	0.041	261	0.	4.31	324.	0.038
154	3.14	3.14	233	0.	3.84	297.	0.036	188	0.	3.11	240.	0.029	177	0.	2.92	226.	0.027
155	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
156	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
157	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
158	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
159	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
160	3.14	3.14	111	1	1.82	151.	0.019	85	1	1.39	116.	0.015	79	1	1.29	108.	0.014
161	3.14	3.14	418	0.	6.89	526.	0.063	347	0.	5.74	437.	0.052	330	0.	5.45	415.	0.049
162	3.14	3.14	425	0.	7.02	531.	0.063	350	0.	5.79	438.	0.052	332	0.	5.48	415.	0.049
163	3.14	3.14	91	0.	1.50	114.	0.013	78	0.	1.29	98.	0.012	75	0.	1.24	94.	0.011
164	3.14	3.14	188	0.	3.10	239.	0.029	147	0.	2.43	187.	0.022	137	0.	2.26	174.	0.021
165	3.14	3.14	10	0.	0.16	13.	0.002	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
166	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
167	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
168	3.14	3.14	66	1	1.09	92.	0.012	52	0.	0.85	71.	0.009	48	0.	0.79	66.	0.008
169	3.14	3.14	104	0.	1.71	135.	0.017	84	0.	1.38	109.	0.013	78	0.	1.29	102.	0.012
170	3.14	3.14	212	1	3.49	275.	0.033	177	0.	2.91	228.	0.028	168	0.	2.77	216.	0.026
171	3.14	3.14	91	1	1.49	127.	0.016	70	1	1.15	98.	0.013	65	1	1.06	91.	0.012
172	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
173	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
174	3.14	3.14	183	1	3.01	244.	0.030	148	1	2.44	197.	0.025	140	1	2.29	186.	0.023
175	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
176	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
177	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
178	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
179	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
180	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
181	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
182	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
183	3.14	3.14	25	0.	0.42	32.	0.004	12	0.	0.21	16.	0.002	9	0.	0.15	12.	0.002
184	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
185	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
186	3.14	3.14	87	0.	1.44	110.	0.013	67	0.	1.11	85.	0.010	62	0.	1.03	79.	0.009
187	3.14	3.14	249	0.	4.10	319.	0.039	197	0.	3.25	253.	0.031	184	0.	3.03	237.	0.029
188	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
189	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
190	3.14	3.14	362	0.	5.97	460.	0.055	293	0.	4.84	374.	0.045	276	0.	4.56	352.	0.042

ARMATURA SUPERIORE ORIZZONTALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	34	0.	0.56	43.	0.005	43	0.	0.70	53.	0.006	45	0.	0.74	56.	0.007
2	3.14	3.14	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
3	3.14	3.14	26	0.	0.43	33.	0.004	27	0.	0.45	34.	0.004	28	0.	0.45	34.	0.004
4	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
5	3.14	3.14	32	0.	0.53	41.	0.005	30	0.	0.49	37.	0.004	29	0.	0.48	36.	0.004
6	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
7	3.14	3.14	53	0.	0.88	67.	0.008	51	0.	0.84	64.	0.008	50	0.	0.83	63.	0.007
8	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
9	3.14	3.14	0.	-1	0.03	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000
10	3.14	3.14	56	0.	0.93	70.	0.008	52	0.	0.86	65.	0.008	51	0.	0.85	64.	0.008
11	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
12	3.14	3.14	0.	0.	0.01	0.	0.000	5	0.	0.07	2.	0.000	7	0.	0.11	5.	0.001
13	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
14	3.14	3.14	72	1	1.17	101.	0.013	55	1	0.89	77.	0.010	50	1	0.82	71.	0.009
15	3.14	3.14	30	0.	0.49	42.	0.005	19	0.	0.30	27.	0.004	16	0.	0.26	23.	0.003
16	3.14	3.14	96	0.	1.58	125.	0.015	78	0.	1.29	102.	0.012	74	0.	1.21	96.	0.012
17	3.14	3.14	148	0.	2.44	185.	0.022	126	0.	2.09	158.	0.019	121	0.	2.00	151.	0.018
18	3.14	3.14	117	0.	1.93	147.	0.017	100	0.	1.65	125.	0.015	96	0.	1.58	120.	0.014
19	3.14	3.14	90	0.	1.49	113.	0.013	80	0.	1.32	100.	0.012	78	0.	1.28	97.	0.012
20	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
21	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
22	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
23	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
24	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
25	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
26	3.14	3.14	67	1	1.09	95.	0.012	51	1	0.84	73.	0.010	48	1	0.77	68.	0.009
27	3.14	3.14	143	0.	2.37	180.	0.021	124	0.	2.04	155.	0.018	119	0.	1.96	148.	0.018
28	3.14	3.14	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
29	3.14	3.14	75	0.	1.24	95.	0.011	63	0.	1.04	80.	0.010	60	0.	0.99	76.	0.009
30	3.14	3.14	87	0.	1.43	109.	0.013	76	0.	1.26	95.	0.011	73	0.	1.21	92.	0.011
31	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
32	3.14	3.14	65	0.	1.08	83.	0.010	55	0.	0.91	70.	0.008	53	0.	0.87	67.	0.008
33	3.14	3.14	121	0.	2.00	152.	0.018	103	0.	1.70	129.	0.015	99	0.	1.63	123.	0.015
34	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
35	3.14	3.14	86	1	1.40	120.	0.015	69	1	1.12	96.	0.012	64	1	1.05	90.	0.012
36	3.14	3.14	196	0.	3.23	245.	0.029	166	0.	2.73	207.	0.025	158	0.	2.61	198.	0.024
37	3.14	3.14	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
38	3.14	3.14	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
39	3.14	3.14	168	0.	2.77	210.	0.025	146	0.	2.41	183.	0.022	141	0.	2.32	176.	0.021
40	3.14	3.14	105	1	1.72	144.	0.018	80	1	1.31	110.	0.014	73	1	1.20	101.	0.013
41	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
42	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
43	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

44	3.14	3.14	332	0.	5.49	416.	0.049	278	0.	4.59	348.	0.041	265	0.	4.37	331.	0.039
45	3.14	3.14	536	0.	8.85	672.	0.080	446	0.	7.37	559.	0.066	424	0.	7.00	531.	0.063
46	3.14	3.14	402	0.	6.64	504.	0.060	337	0.	5.56	422.	0.050	320	0.	5.29	401.	0.048
47	3.14	3.14	0.	-1	0.00	19.	0.004	0.	-1	0.00	15.	0.003	0.	-1	0.00	14.	0.003
48	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
49	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
50	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
51	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
52	3.14	3.14	337	0.	5.57	422.	0.050	281	0.	4.64	352.	0.042	267	0.	4.41	335.	0.040
53	3.14	3.14	243	0.	4.01	304.	0.036	203	0.	3.34	254.	0.030	192	0.	3.18	241.	0.029
54	3.14	3.14	191	0.	3.15	239.	0.028	160	0.	2.63	200.	0.024	152	0.	2.51	190.	0.023
55	3.14	3.14	243	0.	4.02	305.	0.036	203	0.	3.36	255.	0.030	193	0.	3.19	242.	0.029
56	3.14	3.14	471	0.	7.77	589.	0.070	391	0.	6.46	490.	0.058	371	0.	6.13	465.	0.055
57	3.14	3.14	375	0.	6.20	470.	0.056	312	0.	5.15	390.	0.046	296	0.	4.88	370.	0.044
58	3.14	3.14	348	0.	5.74	435.	0.052	289	0.	4.77	362.	0.043	274	0.	4.53	343.	0.041
59	3.14	3.14	389	0.	6.43	488.	0.058	324	0.	5.34	405.	0.048	307	0.	5.07	385.	0.046
60	3.14	3.14	391	0.	6.46	490.	0.058	327	0.	5.40	409.	0.049	311	0.	5.13	389.	0.046
61	3.14	3.14	297	0.	4.91	372.	0.044	248	0.	4.09	311.	0.037	236	0.	3.89	295.	0.035
62	3.14	3.14	251	0.	4.14	314.	0.037	209	0.	3.45	262.	0.031	198	0.	3.28	248.	0.030
63	3.14	3.14	294	0.	4.86	368.	0.044	245	0.	4.05	307.	0.037	233	0.	3.85	292.	0.035
64	3.14	3.14	0.	1	0.00	16.	0.004	0.	1	0.00	13.	0.003	0.	1	0.00	12.	0.003
65	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
66	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
67	3.14	3.14	0.	1	0.00	16.	0.004	0.	1	0.00	13.	0.003	0.	1	0.00	12.	0.003
68	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
69	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
70	3.14	3.14	193	0.	3.19	242.	0.029	162	0.	2.67	203.	0.024	154	0.	2.54	193.	0.023
71	3.14	3.14	205	0.	3.39	257.	0.031	172	0.	2.84	215.	0.026	163	0.	2.70	205.	0.024
72	3.14	3.14	392	0.	6.46	490.	0.058	326	0.	5.38	408.	0.048	309	0.	5.11	387.	0.046
73	3.14	3.14	367	0.	6.06	460.	0.055	305	0.	5.04	383.	0.045	290	0.	4.79	363.	0.043
74	3.14	3.14	262	0.	4.32	328.	0.039	218	0.	3.60	273.	0.032	207	0.	3.43	260.	0.031
75	3.14	3.14	276	0.	4.55	345.	0.041	231	0.	3.82	290.	0.034	220	0.	3.64	276.	0.033
76	3.14	3.14	0.	1	0.00	15.	0.003	0.	1	0.00	11.	0.003	0.	1	0.00	11.	0.003
77	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
78	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
79	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
80	3.14	3.14	254	0.	4.20	318.	0.038	211	0.	3.48	264.	0.031	200	0.	3.30	250.	0.030
81	3.14	3.14	256	0.	4.23	321.	0.038	213	0.	3.52	267.	0.032	202	0.	3.34	253.	0.030
82	3.14	3.14	402	0.	6.64	504.	0.060	333	0.	5.51	418.	0.050	316	0.	5.22	396.	0.047
83	3.14	3.14	378	0.	6.25	474.	0.056	314	0.	5.18	393.	0.047	298	0.	4.92	373.	0.044
84	3.14	3.14	216	0.	3.57	271.	0.032	180	0.	2.97	225.	0.027	171	0.	2.82	214.	0.025
85	3.14	3.14	227	0.	3.74	284.	0.034	190	0.	3.13	237.	0.028	180	0.	2.98	226.	0.027
86	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
87	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
88	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
89	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
90	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
91	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
92	3.14	3.14	296	0.	4.89	371.	0.044	245	0.	4.05	307.	0.036	232	0.	3.84	291.	0.035
93	3.14	3.14	248	0.	4.09	310.	0.037	205	0.	3.39	257.	0.031	195	0.	3.21	244.	0.029
94	3.14	3.14	297	0.	4.91	372.	0.044	246	0.	4.07	308.	0.037	234	0.	3.86	292.	0.035
95	3.14	3.14	393	0.	6.48	492.	0.058	326	0.	5.38	408.	0.049	309	0.	5.11	387.	0.046
96	3.14	3.14	396	0.	6.54	496.	0.059	329	0.	5.42	411.	0.049	312	0.	5.14	390.	0.046
97	3.14	3.14	357	0.	5.90	447.	0.053	296	0.	4.89	371.	0.044	281	0.	4.63	352.	0.042
98	3.14	3.14	383	0.	6.32	479.	0.057	317	0.	5.23	397.	0.047	301	0.	4.96	376.	0.045
99	3.14	3.14	475	0.	7.84	595.	0.071	394	0.	6.50	493.	0.059	373	0.	6.17	468.	0.056
100	3.14	3.14	262	0.	4.32	328.	0.039	218	0.	3.59	272.	0.032	206	0.	3.41	259.	0.031
101	3.14	3.14	210	0.	3.47	264.	0.031	175	0.	2.89	219.	0.026	166	0.	2.74	208.	0.025
102	3.14	3.14	262	0.	4.33	329.	0.039	218	0.	3.60	273.	0.032	207	0.	3.42	259.	0.031
103	3.14	3.14	358	0.	5.91	448.	0.053	298	0.	4.92	373.	0.044	283	0.	4.67	354.	0.042
104	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.001
105	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
106	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
107	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.001
108	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
109	3.14	3.14	353	0.	5.84	443.	0.053	295	0.	4.87	369.	0.044	280	0.	4.62	351.	0.042
110	3.14	3.14	543	0.	8.96	680.	0.081	451	0.	7.44	564.	0.067	428	0.	7.06	536.	0.064
111	3.14	3.14	403	0.	6.65	504.	0.060	335	0.	5.53	419.	0.050	318	0.	5.25	398.	0.047
112	3.14	3.14	0.	1	0.00	10.	0.002	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
113	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
114	3.14	3.14	360	0.	5.94	451.	0.054	303	0.	5.00	379.	0.045	289	0.	4.76	361.	0.043
115	3.14	3.14	353	0.	5.82	442.	0.052	298	0.	4.91	373.	0.044	284	0.	4.69	356.	0.042
116	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000
117	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
118	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
119	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
120	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
121	3.14	3.14	342	0.	5.64	428.	0.051	285	0.	4.70	357.	0.042	271	0.	4.47	339.	0.040
122	3.14	3.14	250	0.	4.13	313.	0.037	209	0.	3.44	261.	0.031	198	0.	3.27	248.	0.029
123	3.14	3.14	217	0.	3.58	271.	0.032	181	0.	2.98	226.	0.027	172	0.	2.83	215.	0.026
124	3.14	3.14	253	0.	4.18	317.	0.038	211	0.	3.49	264.	0.031	201	0.	3.31	251.	0.030
125	3.14	3.14	355	0.	5.86	445.	0.053	296	0.	4.88	371.	0.044	281	0.	4.64	352.	0.042
126	3.14	3.14	264	0.	4.35	330.	0.039	219	0.	3.62	275.	0.033	208	0.	3.44	261.	0.031
127	3.14	3.14	229	0.	3.79	287.	0.034	191	0.	3.15	239.	0.028	181	0.	2.99	227.	0.027
128	3.14	3.14	270	0.	4.47	339.	0.040	226	0.	3.73	283.	0.034	214	0.	3.54	269.	0.032
129	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
130	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
131	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
132	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
133	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
134	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
135	3.14	3.14	255	0.	4.20	319.	0.038	212	0.	3.50	265.	0.032	201	0.	3.32	252.	0.030
136	3.14	3.14	246	0.	4.06	308.	0.037	205	0.	3.38	256.	0.030	195	0.	3.21	244.	0.029
137	3.14	3.14	235	0.	3.88	294.	0.035	196	0.	3.24	246.	0.029	187	0.	3.08	234.	0.028
138	3.14	3.14	224	0.	3.71	281.	0.033	188	0.	3.11	236.	0.028	179	0.	2.96	224.	0.027
139	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
140	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
141	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
142	3.14	3.14	27	1	0.36	57.	0.009	16	1	0.18	39.	0.007	14	1	0.13	34.	0.006
143	3.14	3.14	340	0.	5.61	428.	0.051	285	0.	4.71	359.	0.043	272	0.	4.48	342.	0.041
144	3.14	3.14	367	0.	6.07	460.	0.055	307	0.	5.07	385.	0.046	292	0.	4.82	366.	0.043
145	3.14	3.14	418	0.	6.91	524.	0.062	352	0.	5.82	441.	0.052	336	0.	5.55	421.	0.050
146	3.14	3.14	420	0.	6.93	526.	0.063	354	0.	5.84	443.	0.053	337	0.	5.57	423.	0.050
147	3.14	3.14	352	0.	5.81	441.	0.052	297	0.	4.91	372.	0.044	283	0.	4.68	355.	0.042
148	3.14	3.14	270	0.	4.46	338.	0.040	227	0.	3.75	285.	0.034	217	0.	3.58	271.	0.032
149	3.14	3.14	114	0.	1.88	144.	0.017	99	0.	1.63	125.	0.015	95	0.	1.57	121.	0.014
150	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
151	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
152	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
153	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
154	3.14	3.14	0.	-3	0.10	-1.	0.000	0.	-2	0.08	-1.	0.000	0.	-2	0.07	-1.	0.000
155	3.14	3.14	34	0.	0.56	43.	0.005	33	0.	0.54	41.	0.005	32	0.	0.53	41.	0.005

156	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
157	3.14	3.14	70	0.	1.15	87.	0.010	60	0.	1.00	76.	0.009	58	0.	0.96	73.	0.009
158	3.14	3.14	15	0.	0.24	20.	0.003	10	0.	0.16	13.	0.002	8	0.	0.13	12.	0.001
159	3.14	3.14	28	0.	0.47	35.	0.004	28	0.	0.46	35.	0.004	28	0.	0.46	35.	0.004
160	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.05	-1.	0.000
161	3.14	3.14	0.	-3	0.10	-2.	0.000	0.	-2	0.08	-1.	0.000	0.	-2	0.07	-1.	0.000
162	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
163	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
164	3.14	3.14	0.	1	0.00	15.	0.004	0.	1	0.00	12.	0.003	0.	1	0.00	11.	0.003
165	3.14	3.14	333	0.	5.49	417.	0.050	280	0.	4.62	351.	0.042	267	0.	4.41	334.	0.040
166	3.14	3.14	552	0.	9.12	692.	0.082	463	0.	7.65	580.	0.069	441	0.	7.29	553.	0.066
167	3.14	3.14	554	0.	9.15	694.	0.083	467	0.	7.71	585.	0.070	445	0.	7.35	558.	0.066
168	3.14	3.14	216	2	3.53	303.	0.039	174	2	2.84	242.	0.031	163	1	2.66	227.	0.029
169	3.14	3.14	0.	-3	0.08	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.06	-1.	0.000
170	3.14	3.14	0.	-3	0.09	-1.	0.000	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000
171	3.14	3.14	318	2	5.22	425.	0.053	263	1	4.32	351.	0.044	249	1	4.09	332.	0.041
172	3.14	3.14	264	0.	4.36	334.	0.040	223	0.	3.68	282.	0.034	213	0.	3.51	269.	0.032
173	3.14	3.14	208	0.	3.43	263.	0.032	176	0.	2.90	222.	0.027	168	0.	2.77	212.	0.025
174	3.14	3.14	247	2	4.05	334.	0.042	205	1	3.36	276.	0.035	194	1	3.19	262.	0.033
175	3.14	3.14	519	0.	8.57	650.	0.077	438	0.	7.23	548.	0.065	418	0.	6.89	523.	0.062
176	3.14	3.14	427	0.	7.04	534.	0.064	359	0.	5.93	450.	0.054	343	0.	5.66	429.	0.051
177	3.14	3.14	383	0.	6.32	479.	0.057	322	0.	5.32	403.	0.048	307	0.	5.07	384.	0.046
178	3.14	3.14	424	0.	7.00	531.	0.063	357	0.	5.90	447.	0.053	340	0.	5.62	426.	0.051
179	3.14	3.14	494	0.	8.16	619.	0.074	414	0.	6.83	518.	0.062	394	0.	6.50	493.	0.059
180	3.14	3.14	405	0.	6.69	508.	0.060	339	0.	5.60	425.	0.051	323	0.	5.33	404.	0.048
181	3.14	3.14	370	0.	6.11	463.	0.055	311	0.	5.13	389.	0.046	296	0.	4.88	370.	0.044
182	3.14	3.14	407	0.	6.72	510.	0.061	341	0.	5.63	427.	0.051	325	0.	5.36	407.	0.048
183	3.14	3.14	343	0.	5.66	430.	0.051	288	0.	4.75	360.	0.043	274	0.	4.52	343.	0.041
184	3.14	3.14	248	0.	4.09	310.	0.037	208	0.	3.43	260.	0.031	198	0.	3.26	248.	0.029
185	3.14	3.14	190	0.	3.13	238.	0.028	160	0.	2.64	200.	0.024	153	0.	2.52	191.	0.023
186	3.14	3.14	250	0.	4.12	313.	0.037	210	0.	3.46	263.	0.031	200	0.	3.30	250.	0.030
187	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	11.	0.002	0.	1	0.00	10.	0.002
188	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
189	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
190	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002

ARMATURA SUPERIORE VERTICALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
2	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
3	3.14	3.14	55	0.	0.91	69.	0.008	51	0.	0.84	65.	0.008	50	0.	0.83	63.	0.008
4	3.14	3.14	129	0.	2.12	161.	0.019	114	0.	1.89	143.	0.017	111	0.	1.83	139.	0.016
5	3.14	3.14	209	0.	3.45	262.	0.031	184	0.	3.04	231.	0.027	178	0.	2.94	223.	0.026
6	3.14	3.14	253	0.	4.18	317.	0.038	222	0.	3.67	279.	0.033	215	0.	3.55	269.	0.032
7	3.14	3.14	246	0.	4.07	308.	0.037	218	0.	3.60	273.	0.032	211	0.	3.48	264.	0.031
8	3.14	3.14	95	0.	1.57	125.	0.015	86	0.	1.41	113.	0.014	83	0.	1.37	109.	0.013
9	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
10	3.14	3.14	87	0.	1.44	111.	0.013	81	0.	1.33	103.	0.012	78	0.	1.30	100.	0.012
11	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
12	3.14	3.14	47	0.	0.78	59.	0.007	49	0.	0.80	61.	0.007	49	0.	0.81	61.	0.007
13	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
14	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
15	3.14	3.14	9	0.	0.14	11.	0.001	12	0.	0.20	15.	0.002	13	0.	0.21	16.	0.002
16	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
17	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
18	3.14	3.14	38	0.	0.62	47.	0.006	33	0.	0.55	42.	0.005	32	0.	0.53	40.	0.005
19	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
20	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
21	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
22	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
23	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
24	3.14	3.14	27	0.	0.44	34.	0.004	23	0.	0.39	29.	0.003	23	0.	0.37	28.	0.003
25	3.14	3.14	45	0.	0.75	57.	0.007	40	0.	0.67	51.	0.006	39	0.	0.65	49.	0.006
26	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
27	3.14	3.14	7	0.	0.11	9.	0.001	11	0.	0.17	14.	0.002	12	0.	0.19	15.	0.002
28	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
29	3.14	3.14	231	0.	3.82	290.	0.034	205	0.	3.38	256.	0.030	198	0.	3.27	248.	0.029
30	3.14	3.14	266	0.	4.38	333.	0.040	229	0.	3.78	286.	0.034	219	0.	3.62	275.	0.033
31	3.14	3.14	316	0.	5.22	396.	0.047	269	0.	4.45	337.	0.040	258	0.	4.26	323.	0.038
32	3.14	3.14	278	0.	4.59	348.	0.041	242	0.	4.00	304.	0.036	234	0.	3.86	292.	0.035
33	3.14	3.14	333	0.	5.49	417.	0.050	284	0.	4.69	356.	0.042	272	0.	4.49	340.	0.040
34	3.14	3.14	374	0.	6.17	468.	0.056	318	0.	5.25	398.	0.047	304	0.	5.02	381.	0.045
35	3.14	3.14	65	0.	1.06	89.	0.011	62	0.	1.01	84.	0.011	61	0.	1.00	83.	0.010
36	3.14	3.14	129	0.	2.13	162.	0.019	111	0.	1.83	140.	0.017	107	0.	1.76	134.	0.016
37	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
38	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
39	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
40	3.14	3.14	0.	0.	0.00	3.	0.001	3	0.	0.05	6.	0.001	4	0.	0.07	7.	0.001
41	3.14	3.14	2	0.	0.03	2.	0.000	5	0.	0.09	7.	0.001	6	0.	0.11	8.	0.001
42	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
43	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
44	3.14	3.14	10	0.	0.16	12.	0.001	18	0.	0.29	22.	0.003	20	0.	0.32	25.	0.003
45	3.14	3.14	78	0.	1.28	97.	0.012	73	0.	1.21	92.	0.011	72	0.	1.19	90.	0.011
46	3.14	3.14	30	0.	0.50	39.	0.005	35	0.	0.57	44.	0.005	36	0.	0.59	45.	0.005
47	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
48	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
49	3.14	3.14	406	0.	6.70	508.	0.060	340	0.	5.62	426.	0.051	324	0.	5.35	406.	0.048
50	3.14	3.14	344	0.	5.67	430.	0.051	289	0.	4.76	361.	0.043	275	0.	4.54	344.	0.041
51	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
52	3.14	3.14	200	0.	3.31	251.	0.030	173	0.	2.86	217.	0.026	166	0.	2.75	208.	0.025
53	3.14	3.14	366	0.	6.05	459.	0.055	308	0.	5.08	385.	0.046	293	0.	4.84	367.	0.044
54	3.14	3.14	292	0.	4.82	366.	0.043	246	0.	4.06	308.	0.037	234	0.	3.87	293.	0.035
55	3.14	3.14	32	0.	0.54	41.	0.005	33	0.	0.54	41.	0.005	33	0.	0.54	41.	0.005
56	3.14	3.14	157	0.	2.59	196.	0.023	136	0.	2.25	171.	0.020	131	0.	2.16	164.	0.020
57	3.14	3.14	250	0.	4.13	314.	0.037	212	0.	3.50	266.	0.032	203	0.	3.34	254.	0.030
58	3.14	3.14	201	0.	3.32	252.	0.030	171	0.	2.82	214.	0.025	163	0.	2.70	205.	0.024
59	3.14	3.14	39	0.	0.64	48.	0.006	37	0.	0.61	47.	0.006	37	0.	0.61	46.	0.005
60	3.14	3.14	194	0.	3.21	244.	0.029	170	0.	2.80	213.	0.025	164	0.	2.70	206.	0.025
61	3.14	3.14	327	0.	5.40	409.	0.049	278	0.	4.59	348.	0.041	265	0.	4.38	332.	0.040
62	3.14	3.14	261	0.	4.31	327.	0.039	222	0.	3.66	278.	0.033	212	0.	3.50	265.	0.032
63	3.14	3.14	37	0.	0.60	47.	0.006	36	0.	0.59	46.	0.006	36	0.	0.59	46.	0.006
64	3.14	3.14	3	1	0.00	12.	0.002	12	0.	0.17	22.	0.003	14	0.	0.21	25.	0.004
65	3.14	3.14	383	0.	6.33	480.	0.057	325	0.	5.37	407.	0.048	311	0.	5.13	389.	0.046
66	3.14	3.14	316	0.	5.23	396.	0.047	269	0.	4.44	336.	0.040	257	0.	4.24	321.	0.038
67	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
68	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
69	3.14	3.14	0.	0.	0.00	0.	0.000	4	0.	0.07	6.	0.001	6	0.	0.10	8.	0.001
70	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
71	3.14	3.14	50	0.	0.83	63.	0.007	47	0.	0.78	59.	0.007	46	0.	0.77	58.	0.007

72	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
73	3.14	3.14	11	0.	0.18	14.	0.002	15	0.	0.24	18.	0.002	16	0.	0.26	20.	0.002
74	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
75	3.14	3.14	45	0.	0.75	57.	0.007	44	0.	0.73	56.	0.007	44	0.	0.73	55.	0.007
76	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
77	3.14	3.14	15	0.	0.24	18.	0.002	18	0.	0.30	23.	0.003	19	0.	0.31	24.	0.003
78	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
79	3.14	3.14	11	0.	0.18	14.	0.002	15	0.	0.25	19.	0.002	16	0.	0.27	20.	0.002
80	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
81	3.14	3.14	50	0.	0.83	63.	0.007	48	0.	0.79	60.	0.007	47	0.	0.78	59.	0.007
82	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
83	3.14	3.14	9	0.	0.15	11.	0.001	14	0.	0.23	17.	0.002	15	0.	0.25	19.	0.002
84	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
85	3.14	3.14	50	0.	0.83	63.	0.007	48	0.	0.79	60.	0.007	47	0.	0.78	59.	0.007
86	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
87	3.14	3.14	5	0.	0.08	6.	0.001	10	0.	0.17	13.	0.002	11	0.	0.19	14.	0.002
88	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
89	3.14	3.14	340	0.	5.61	426.	0.051	286	0.	4.72	358.	0.043	272	0.	4.50	341.	0.041
90	3.14	3.14	408	0.	6.74	511.	0.061	343	0.	5.67	430.	0.051	327	0.	5.40	409.	0.049
91	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	1	0.	0.00	7.	0.001
92	3.14	3.14	43	0.	0.72	55.	0.007	42	0.	0.69	53.	0.006	41	0.	0.68	52.	0.006
93	3.14	3.14	274	0.	4.52	343.	0.041	231	0.	3.82	290.	0.034	221	0.	3.64	276.	0.033
94	3.14	3.14	343	0.	5.67	430.	0.051	290	0.	4.78	363.	0.043	276	0.	4.56	346.	0.041
95	3.14	3.14	202	0.	3.34	254.	0.030	175	0.	2.89	219.	0.026	168	0.	2.77	211.	0.025
96	3.14	3.14	39	0.	0.64	49.	0.006	38	0.	0.62	47.	0.006	37	0.	0.62	47.	0.006
97	3.14	3.14	197	0.	3.26	247.	0.029	167	0.	2.76	210.	0.025	160	0.	2.64	200.	0.024
98	3.14	3.14	244	0.	4.04	306.	0.036	207	0.	3.42	259.	0.031	198	0.	3.26	248.	0.029
99	3.14	3.14	152	0.	2.50	190.	0.023	132	0.	2.18	166.	0.020	127	0.	2.10	160.	0.019
100	3.14	3.14	38	0.	0.62	48.	0.006	37	0.	0.62	47.	0.006	37	0.	0.61	47.	0.006
101	3.14	3.14	285	0.	4.70	356.	0.042	240	0.	3.96	300.	0.036	229	0.	3.77	286.	0.034
102	3.14	3.14	358	0.	5.92	449.	0.053	301	0.	4.98	377.	0.045	287	0.	4.74	360.	0.043
103	3.14	3.14	203	0.	3.36	255.	0.030	176	0.	2.90	220.	0.026	169	0.	2.79	211.	0.025
104	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
105	3.14	3.14	347	0.	5.72	434.	0.052	291	0.	4.80	364.	0.043	277	0.	4.57	347.	0.041
106	3.14	3.14	413	0.	6.82	518.	0.062	347	0.	5.72	434.	0.052	330	0.	5.45	413.	0.049
107	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
108	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
109	3.14	3.14	17	0.	0.28	21.	0.003	24	0.	0.39	30.	0.004	25	0.	0.42	32.	0.004
110	3.14	3.14	78	0.	1.30	98.	0.012	74	0.	1.23	93.	0.011	73	0.	1.21	92.	0.011
111	3.14	3.14	30	0.	0.49	38.	0.005	34	0.	0.57	43.	0.005	35	0.	0.58	44.	0.005
112	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
113	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
114	3.14	3.14	0.	0.	0.00	0.	0.000	10	0.	0.17	13.	0.002	13	0.	0.21	16.	0.002
115	3.14	3.14	0.	0.	0.00	0.	0.000	12	0.	0.19	14.	0.002	15	0.	0.24	18.	0.002
116	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
117	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
118	3.14	3.14	397	0.	6.55	497.	0.059	334	0.	5.51	418.	0.050	318	0.	5.26	399.	0.047
119	3.14	3.14	334	0.	5.52	418.	0.050	281	0.	4.64	352.	0.042	268	0.	4.42	336.	0.040
120	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
121	3.14	3.14	162	0.	2.68	203.	0.024	142	0.	2.35	178.	0.021	137	0.	2.27	172.	0.020
122	3.14	3.14	357	0.	5.89	447.	0.053	301	0.	4.96	376.	0.045	287	0.	4.73	359.	0.043
123	3.14	3.14	290	0.	4.79	363.	0.043	244	0.	4.02	305.	0.036	232	0.	3.83	291.	0.035
124	3.14	3.14	6	0.	0.10	7.	0.001	11	0.	0.18	14.	0.002	12	0.	0.20	15.	0.002
125	3.14	3.14	142	0.	2.35	178.	0.021	126	0.	2.08	157.	0.019	122	0.	2.01	152.	0.018
126	3.14	3.14	344	0.	5.69	431.	0.051	290	0.	4.79	364.	0.043	277	0.	4.57	347.	0.041
127	3.14	3.14	290	0.	4.78	363.	0.043	245	0.	4.04	307.	0.036	234	0.	3.86	293.	0.035
128	3.14	3.14	0.	0.	0.00	0.	0.000	3	0.	0.05	3.	0.000	4	0.	0.07	5.	0.001
129	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
130	3.14	3.14	402	0.	6.63	503.	0.060	338	0.	5.58	423.	0.050	322	0.	5.32	403.	0.048
131	3.14	3.14	340	0.	5.61	426.	0.051	286	0.	4.72	358.	0.043	273	0.	4.50	341.	0.041
132	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
133	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
134	3.14	3.14	1	0.	0.01	1.	0.000	7	0.	0.11	9.	0.001	8	0.	0.14	10.	0.001
135	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
136	3.14	3.14	19	0.	0.32	24.	0.003	22	0.	0.37	28.	0.003	23	0.	0.38	29.	0.003
137	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
138	3.14	3.14	15	0.	0.25	19.	0.002	19	0.	0.32	24.	0.003	21	0.	0.34	26.	0.003
139	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
140	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
141	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
142	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
143	3.14	3.14	87	0.	1.44	110.	0.013	79	0.	1.31	99.	0.012	77	0.	1.28	97.	0.012
144	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
145	3.14	3.14	60	0.	0.98	75.	0.009	55	0.	0.91	69.	0.008	54	0.	0.90	68.	0.008
146	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
147	3.14	3.14	32	0.	0.53	40.	0.005	33	0.	0.54	41.	0.005	33	0.	0.55	42.	0.005
148	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
149	3.14	3.14	79	0.	1.31	99.	0.012	72	0.	1.19	90.	0.011	70	0.	1.16	88.	0.010
150	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
151	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
152	3.14	3.14	12	0.	0.20	15.	0.002	14	0.	0.23	17.	0.002	14	0.	0.24	18.	0.002
153	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
154	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
155	3.14	3.14	186	0.	3.07	236.	0.028	163	0.	2.68	206.	0.025	157	0.	2.59	198.	0.024
156	3.14	3.14	366	0.	6.04	458.	0.054	313	0.	5.17	392.	0.047	300	0.	4.95	376.	0.045
157	3.14	3.14	429	0.	7.09	538.	0.064	367	0.	6.05	459.	0.055	351	0.	5.79	440.	0.052
158	3.14	3.14	388	0.	6.40	486.	0.058	331	0.	5.47	415.	0.049	317	0.	5.24	397.	0.047
159	3.14	3.14	136	0.	2.24	172.	0.021	120	0.	1.98	152.	0.018	116	0.	1.92	147.	0.018
160	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
161	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
162	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
163	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
164	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
165	3.14	3.14	28	0.	0.46	36.	0.004	32	0.	0.54	41.	0.005	34	0.	0.55	42.	0.005
166	3.14	3.14	101	0.	1.66	126.	0.015	92	0.	1.52	115.	0.014	90	0.	1.48	112.	0.013
167	3.14	3.14	74	0.	1.21	93.	0.011	69	0.	1.14	87.	0.010	68	0.	1.12	86.	0.010
168	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
169	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
170	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
171	3.14	3.14	199	1	3.27	262.	0.032	173	1	2.85	227.	0.028	166	1	2.74	218.	0.027
172	3.14	3.14	390	0.	6.44	488.	0.058	336	0.	5.55	421.	0.050	322	0.	5.32	404.	0.048
173	3.14	3.14	316	0.	5.22	396.	0.047	273	0.	4.51	342.	0.041	262	0.	4.33	328.	0.039
174	3.14	3.14	21	1	0.31	41.	0.006	22	1	0.34	40.	0.006	22	1	0.34	39.	0.006
175	3.14	3.14	199	0.	3.29	251.	0.030	175	0.	2.88	220.	0.026	169	0.	2.78	212.	0.025
176	3.14	3.14	272	0.	4.49	340.	0.040	236	0.	3.90	296.	0.035	227	0.	3.75	284.	0.034
177	3.14	3.14	212	0.	3.49	265.	0.032	185	0.	3.05	231.	0.027	178	0.	2.94	223.	0.026
178	3.14	3.14	75	0.	1.23	95.	0.011	69	0.	1.13	87.	0.010	67	0.	1.11	85.	0.010
179	3.14	3.14	168	0.	2.78	211.	0.025	146	0.	2.42	183.	0.022	141	0.	2.33	177.	0.021
180	3.14	3.14	226	0.	3.73	283.	0.034	194	0.	3.20	243.	0.029	186	0.	3.06	232.	0.028
181	3.14	3.14	177	0.	2.92	221.	0.026	152	0.	2.51	191.	0.023	146	0.	2.41	183.	0.022
182	3.14	3.14	62	0.	1.03	78.	0.009	56	0.	0.93	70.	0.008	55	0.	0.91	69.	0.008
183	3.14	3.14	208	0.	3.43	261.	0.031	179	0.	2.96	225.	0.027	172	0.	2.84	216.	0.026

184	3.14	3.14	338	0.	5.58	423.	0.050	285	0.	4.71	357.	0.042	272	0.	4.50	341.	0.041
185	3.14	3.14	258	0.	4.25	323.	0.038	218	0.	3.61	274.	0.033	209	0.	3.45	261.	0.031
186	3.14	3.14	59	0.	0.97	74.	0.009	54	0.	0.89	68.	0.008	53	0.	0.87	67.	0.008
187	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
188	3.14	3.14	396	0.	6.53	495.	0.059	333	0.	5.50	417.	0.050	318	0.	5.24	398.	0.047
189	3.14	3.14	324	0.	5.36	406.	0.048	273	0.	4.51	342.	0.041	261	0.	4.30	326.	0.039
190	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001

VERIFICA TRAVI CONTINUE:

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 13 - Travata T001 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A13	3	3	3	0	296.	261.	13.44	1.3	2.708	59.271
2	A14	3	3	3	0	463.	428.	21.029	1.5	1.568	38.249
3	A15	3	3	3	0	476.	441.	21.645	1.5	1.49	36.349
4	A16	3	3	3	0	400.	365.	18.182	1.5	1.724	45.533
5	A17	3	3	3	0	465.	430.	21.114	1.3	1.377	29.112

CASI DI CARICO DA MODELLO 3D

	SLU	
Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

	RARE			FREQUENTI			QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive		SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-106300.	-.025	.039	-534224.	-.35	1.117	3.	.239	5.026	SI
0.	0.	3.	1.	68983.	-.018	.043	316596.	-.35	1.729	3.	.168	4.589	SI
94.	94.	3.	2.	-9708.	-.003	.008	-243761.	-.35	1.865	3.	.158	25.11	SI
148.	148.	3.	2.	116745.	-.035	.073	316171.	-.35	1.619	3.	.178	2.708	SI
270.	270.	3.	3.	-146974.	-.035	.054	-528473.	-.35	1.13	3.	.236	3.596	SI
278.	278.	3.	4.	59994.	-.011	.017	675832.	-.35	1.278	3.	.215	11.27	SI
296.	296.	3.	4.	-169456.	-.031	.044	-745152.	-.35	1.136	3.	.236	4.397	SI
296.	296.	3.	4.	45200.	-.008	.013	675832.	-.35	1.278	3.	.215	14.95	SI
> 296.	0.	3.	4.	-267293.	-.049	.069	-745152.	-.35	1.136	3.	.236	2.788	SI
313.	18.	3.	4.	6156.	-.001	.002	675832.	-.35	1.278	3.	.215	109.8	SI
335.	40.	3.	5.	43550.	-.01	.022	388917.	-.35	1.595	3.	.18	8.93	SI
512.	217.	3.	6.	247057.	-.071	.126	387472.	-.35	1.397	3.	.2	1.568	SI
758.	463.	3.	7.	-313140.	-.056	.081	-746387.	-.35	1.189	3.	.227	2.384	SI
> 758.	0.	3.	7.	-325508.	-.058	.085	-746387.	-.35	1.189	3.	.227	2.293	SI
784.	26.	3.	5.	10634.	-.003	.005	388917.	-.35	1.595	3.	.18	36.57	SI
1012.	253.	3.	6.	259967.	-.075	.133	387472.	-.35	1.397	3.	.2	1.49	SI
1217.	459.	3.	8.	1838.	0.	.001	674958.	-.35	1.231	3.	.221	367.1	SI
1234.	476.	3.	8.	-294562.	-.056	.085	-674958.	-.35	1.231	3.	.221	2.291	SI
>1234.	0.	3.	8.	-232390.	-.044	.067	-674958.	-.35	1.231	3.	.221	2.904	SI
1234.	0.	3.	8.	7726.	-.001	.002	674958.	-.35	1.231	3.	.221	87.36	SI
1261.	26.	3.	9.	45664.	-.012	.029	316531.	-.35	1.711	3.	.17	6.932	SI
1420.	185.	3.	10	183201.	-.058	.115	315901.	-.35	1.56	3.	.183	1.724	SI
1634.	400.	3.	11	-235137.	-.044	.068	-674958.	-.35	1.231	3.	.221	2.87	SI
1634.	400.	3.	11	6307.	-.001	.002	674958.	-.35	1.231	3.	.221	107.	SI
>1634.	0.	3.	11	-314794.	-.06	.091	-674958.	-.35	1.231	3.	.221	2.144	SI
1643.	9.	3.	11	804.	0.	0.	674958.	-.35	1.231	3.	.221	839.4	SI
1674.	40.	3.	5.	-226801.	-.053	.083	-530047.	-.35	1.215	3.	.224	2.337	SI
1674.	40.	3.	5.	55059.	-.013	.028	388917.	-.35	1.595	3.	.18	7.064	SI
1882.	247.	3.	6.	281316.	-.082	.144	387472.	-.35	1.397	3.	.2	1.377	SI
2099.	465.	3.	12	-230009.	-.057	.098	-459670.	-.35	1.363	3.	.204	1.998	SI
2099.	465.	3.	12	12517.	-.003	.006	388714.	-.35	1.562	3.	.183	31.05	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1750.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	4617.!	3754.	22824.	23544.	1.01	4.	1.4	SI
296.	296.	3.	-4311.!	4480.!	22824.!	23544.!	1.01	4.	1.4	SI
296.	296.	3.	1712.	4480.	22824.	23544.	1.01	4.	1.4	SI
> 296.	0.	3.	-334.	3754.	22824.	23544.	1.01	4.	1.4	SI
296.	0.	3.	4538.!	3754.	22824.	23544.	1.01	4.	1.4	SI
322.	26.	3.	-419.	4826.!	22824.	23544.	1.01	4.	1.4	SI
758.	463.	3.	-4538.!	4480.	22824.!	23544.!	1.01	4.	1.4	SI
758.	463.	3.	335.!	4480.	22824.	23544.	1.01	4.	1.4	SI
> 758.	0.	3.	4317.!	4480.	22824.	23544.	1.01	4.	1.4	SI
784.	26.	3.	-40.	4826.!	22824.	23544.	1.01	4.	1.4	SI
1234.	476.	3.	-4292.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
>1234.	0.	3.	-681.	3754.	22824.	23544.	1.01	4.	1.4	SI
1234.	0.	3.	4548.!	3754.	22824.	23544.	1.01	4.	1.4	SI
1634.	400.	3.	-4268.!	4480.!	22824.!	23544.!	1.01	4.	1.4	SI
1634.	400.	3.	617.!	4480.	22824.	23544.	1.01	4.	1.4	SI
>1634.	0.	3.	4502.!	4826.!	22824.	23544.	1.01	4.	1.4	SI
2099.	465.	3.	-4218.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-46107.	-15.1	350.6	8.01	4.85	.01	13.21	.013	SI
26.	26.	3.	1.	2941.	-1.1	38.7	4.52	5.47	.0011	18.03	.002	SI
148.	148.	3.	2.	83236.!	-34.1!	1093.9!	4.52	5.31	.0313	17.75	.055!	SI
296.	296.	3.	4.	-120017.!	-30.3	652.8	11.31	4.73	.0197	11.58	.023	SI
> 296.	0.	3.	4.	-190559.	-48.1	1036.5	11.31	4.73	.0379	11.58	.044	SI
512.	217.	3.	6.	176144.!	-66.7!	1869.5!	5.65	5.13	.0681	15.56	.106!	SI
758.	463.	3.	7.	-223271.!	-54.9	1213.3	11.31	4.77	.0463	11.6	.054	SI
> 758.	0.	3.	7.	-232072.!	-57.	1261.2	11.31	4.77	.0486	11.6	.056	SI
1012.	253.	3.	6.	185348.!	-70.2!	1967.1!	5.65	5.13	.0728	15.56	.113!	SI
1234.	476.	3.	8.	-210015.!	-54.7	1264.1	10.18	4.84	.0477	12.04	.057	SI
>1234.	0.	3.	8.	-165669.	-43.2	997.2	10.18	4.84	.035	12.04	.042	SI
1420.	185.	3.	10	130613.!	-55.4!	1715.9!	4.52	5.27	.0558	17.66	.098!	SI
1634.	400.	3.	11	-167673.!	-43.7	1009.2	10.18	4.84	.0355	12.04	.043	SI
>1634.	0.	3.	11	-224467.!	-58.5	1351.1	10.18	4.84	.0518	12.04	.062	SI
1882.	247.	3.	6.	200580.!	-76.	2128.8!	5.65	5.13	.0805	15.56	.125!	SI
2099.	465.	3.	12	-161844.	-54.	1441.6	6.79	5.05	.0509	14.24	.072	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-36653.	-12.	278.7	8.01	4.85	.008	13.21	.011	SI
26.	26.	3.	1.	2398.	-.9	31.6	4.52	5.47	.0009	18.03	.002	SI
148.	148.	3.	2.	66160.!	-27.1!	869.5!	4.52	5.31	.0248	17.75	.044!	SI
296.	296.	3.	4.	-95497.!	-24.1	519.4	11.31	4.73	.0148	11.58	.017	SI
> 296.	0.	3.	4.	-151426.!	-38.2	823.6	11.31	4.73	.0278	11.58	.032	SI
512.	217.	3.	6.	140002.!	-53.	1485.9!	5.65	5.13	.0498	15.56	.078!	SI
758.	463.	3.	7.	-177497.!	-43.6	964.6	11.31	4.77	.0345	11.6	.04	SI
> 758.	0.	3.	7.	-184442.!	-45.3	1002.3	11.31	4.77	.0363	11.6	.042	SI
1012.	253.	3.	6.	147319.!	-55.8!	1563.5!	5.65	5.13	.0535	15.56	.083!	SI
1234.	476.	3.	8.	-166930.!	-43.5	1004.8	10.18	4.84	.0353	12.04	.043	SI
>1234.	0.	3.	8.	-131630.!	-34.3	792.3	10.18	4.84	.0252	12.04	.03	SI
1420.	185.	3.	10	103806.!	-44.	1363.7!	4.52	5.27	.039	17.66	.069!	SI
1634.	400.	3.	11	-133349.!	-34.8	802.6	10.18	4.84	.0257	12.04	.031	SI
>1634.	0.	3.	11	-178493.!	-46.5	1074.4	10.18	4.84	.0386	12.04	.047	SI
1882.	247.	3.	6.	159457.!	-60.4!	1692.4!	5.65	5.13	.0597	15.56	.093!	SI
2099.	465.	3.	12	-128476.!	-42.9	1144.4	6.79	5.05	.0367	14.24	.052	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-34290.!	-11.2	260.8	8.01	4.85	.0075	13.21	.01	SI
26.	26.	3.	1.	2262.!	-.8	29.8	4.52	5.47	.0009	18.03	.002	SI
148.	148.	3.	2.	61891.!	-25.4!	813.4!	4.52	5.31	.0232	17.75	.041!	SI
296.	296.	3.	4.	-89367.!	-22.6	486.1	11.31	4.73	.0139	11.58	.016	SI
> 296.	0.	3.	4.	-141643.!	-35.8	770.4	11.31	4.73	.0253	11.58	.029	SI
512.	217.	3.	6.	130967.!	-49.6!	1390. !	5.65	5.13	.0453	15.56	.07 !	SI
758.	463.	3.	7.	-166054.!	-40.8	902.4	11.31	4.77	.0315	11.6	.037	SI
> 758.	0.	3.	7.	-172535.!	-42.4	937.6	11.31	4.77	.0332	11.6	.038	SI
1012.	253.	3.	6.	137812.!	-52.2!	1462.6!	5.65	5.13	.0487	15.56	.076!	SI
1234.	476.	3.	8.	-156159.!	-40.7	939.9	10.18	4.84	.0322	12.04	.039	SI
>1234.	0.	3.	8.	-123120.!	-32.1	741.1	10.18	4.84	.0228	12.04	.027	SI
1420.	185.	3.	10	97104.!	-41.2!	1275.7!	4.52	5.27	.0364	17.66	.064!	SI
1634.	400.	3.	11	-124768.!	-32.5	751.	10.18	4.84	.0232	12.04	.028	SI
>1634.	0.	3.	11	-167000.!	-43.5	1005.2	10.18	4.84	.0353	12.04	.043	SI
1882.	247.	3.	6.	149176.!	-56.5!	1583.2!	5.65	5.13	.0545	15.56	.085!	SI
2099.	465.	3.	12	-120134.!	-40.1	1070.1	6.79	5.05	.0332	14.24	.047	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	12.53	1.424	8.01	.91	3d14 +3d12	4.52	.514	4d12
2	7.92	.9	3.39	.386	3d12	4.52	.514	4d12
3	12.44	1.414	7.92	.9	4d12 +3d12	4.52	.514	4d12
4	21.49	2.442	11.31	1.285	4d12 +3d12 +3d12	10.18	1.157	4d12 +5d12
5	13.57	1.542	7.92	.9	4d12 +3d12	5.65	.643	5d12
6	9.05	1.028	3.39	.386	3d12	5.65	.643	5d12
7	22.62	2.57	11.31	1.285	4d12 +3d12 +3d12	11.31	1.285	5d12 +5d12
8	20.36	2.313	10.18	1.157	4d12 +3d12 +2d12	10.18	1.157	5d12 +4d12

```
  9|11.31|1.285| 6.79| .771|4d12 +2d12          | 4.52| .514|4d12                |
 10| 6.79| .771| 2.26| .257|2d12                | 4.52| .514|4d12                |
 11|20.36|2.313|10.18|1.157|4d12 +2d12 +3d12    |10.18|1.157|4d12 +5d12          |
 12|12.44|1.414| 6.79| .771|3d12 +3d12          | 5.65| .643|5d12                |
```

VERIFICA TRAVATA IN CEMENTO ARMATO

```
Nome travata       : 14 - Travata TOO2 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2
```

MATERIALI

```
CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%
```

TENSIONI E FESSURE MASSIME IN ESERCIZIO

```
GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].
```

SEZIONI UTILIZZATE

```
 3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6
```

DESCRIZIONE CAMPATE

```
Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A22|    3|    3|    3|    0|  296.|  261.| 13.44 |1.3|2.091| 47.857|
   2|       A21|    3|    3|    3|    0|  463.|  428.| 21.029|1.5|1.279| 32.294|
   3|       A20|    3|    3|    3|    0|  476.|  441.| 21.645|1.5|1.216| 30.712|
   4|       A19|    3|    3|    3|    0|  400.|  365.| 18.182|1.5|1.331| 37.285|
   5|       A18|    3|    3|    3|    0|  465.|  430.| 21.114|1.3|1.124| 24.589|
```

CASI DI CARICO DA MODELLO 3D

```
            SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

            RARE          |         FREQUENTI         |    QUASI PERMANENTI      |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara                1.|15.|Frequente           1.|16.|Quasi Perm          1.|
```

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

```
Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.| -106766.|-.028| .045| -457507.|-.35 |1.2  |3.| .226|4.285|SI|
    0.|  0.|3.|1.|   68511.|-.021| .057|  243762.|-.35 |1.866|3.| .158!3.558|SI|
   94.| 94.|3.|2.|  -10070.|-.003| .008| -243761.|-.35 |1.865|3.| .158|24.21!SI|
  148.|148.|3.|2.|  116568.!-.039| .097!  243761.|-.35 |1.865|3.| .158|2.091!SI|
  287.|287.|3.|1.| -168605.|-.044! .072| -457507.|-.35 |1.2  |3.| .226|2.713|SI|
  296.|296.|3.|3.| -168605.!-.034| .049| -672407.!-.35 |1.112|3.| .239!3.988|SI|
  296.|296.|3.|3.|   44799.|-.009| .016|  532996.!-.35 |1.431|3.| .197|11.9 |SI|
> 296.|  0.|3.|3.| -266577.|-.054| .077| -672407.|-.35 |1.112|3.| .239!2.522|SI|
  313.| 18.|3.|4.|    6174.|-.002| .004|  316531.!-.35 |1.711|3.| .17 !51.27|SI|
  512.|217.|3.|5.|  247237.!-.077| .156!  316171.|-.35 |1.619|3.| .178|1.279!SI|
  630.|335.|3.|4.|   -4896.|-.001| .002| -458811.|-.35 |1.291|3.| .213|93.7 !SI|
  750.|454.|3.|4.| -313444.|-.083! .134| -458811.|-.35 |1.291|3.| .213|1.464|SI|
  758.|463.|3.|6.| -313444.!-.062| .09 | -673850.!-.35 |1.176|3.| .229|2.15 |SI|
> 758.|  0.|3.|6.| -325537.!-.065| .094| -673850.!-.35 |1.176|3.| .229!2.07 |SI|
  767.|  9.|3.|4.| -325537.|-.086! .14 | -458811.|-.35 |1.291|3.| .213|1.409|SI|
  784.| 26.|3.|4.|   10586.|-.003| .007|  316531.!-.35 |1.711|3.| .17 !29.9 |SI|
  889.|131.|3.|4.|   -2263.|-.001| .001| -458811.|-.35 |1.291|3.| .213|202.7!SI|
 1012.|253.|3.|5.|  259970.!-.082| .164!  316171.|-.35 |1.619|3.| .178|1.216!SI|
 1234.|476.|3.|7.| -294527.|-.062| .095| -602519.|-.35 |1.224|3.| .222|2.046|SI|
>1234.|  0.|3.|7.| -232697.|-.049| .075| -602519.|-.35 |1.224|3.| .222|2.589|SI|
 1234.|  0.|3.|7.|    7461.|-.002| .003|  532528.!-.35 |1.39 |3.| .201|71.37|SI|
 1243.|  9.|3.|8.| -232697.|-.067! .119| -387472.|-.35 |1.397|3.| .2  |1.665|SI|
 1243.|  9.|3.|8.|   19926.|-.006| .016|  243762.|-.35 |1.866|3.| .158!12.23|SI|
 1420.|185.|3.|9.|  183193.!-.065| .152!  243760.|-.35 |1.865|3.| .158|1.331!SI|
 1634.|400.|3.|10| -234802.!-.049| .076| -602519.!-.35 |1.224|3.| .222!2.566|SI|
 1634.|400.|3.|10|    6159.|-.001| .002|  532528.|-.35 |1.39 |3.| .201|86.46!SI|
>1634.|  0.|3.|10| -314746.!-.067| .102| -602519.!-.35 |1.224|3.| .222!1.914|SI|
 1643.|  9.|3.|4.|     521.|0.    |0.    |  316531.!-.35 |1.711|3.| .17 !607. !SI|
 1882.|247.|3.|5.|  281412.!-.089! .178!  316171.|-.35 |1.619|3.| .178|1.124!SI|
 2099.|465.|3.|4.| -229766.|-.059| .098| -458811.|-.35 |1.291|3.| .213|1.997|SI|
 2099.|465.|3.|4.|   12303.|-.003| .008|  316531.|-.35 |1.711|3.| .17 |25.73|SI|
```

TAGLIO:

Progressive		Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1091.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	3824.!	3754.	22824.	23544.	1.01	4.	1.4	SI
26.	26.	3.	-1175.	4071.!	22824.	23544.	1.01	4.	1.4	SI
296.	296.	3.	-3652.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
296.	296.	3.	919.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 296.	0.	3.	3859.!	3754.	22824.	23544.	1.01	4.	1.4	SI
335.	40.	3.	3479.!	4480.!	22824.	23544.	1.01	4.	1.4	SI
758.	463.	3.	-4070.!	4071.	22824.!	23544.!	1.01	4.	1.4	SI
> 758.	0.	3.	4157.!	4071.	22824.	23544.	1.01	4.	1.4	SI
798.	40.	3.	3749.	4480.!	22824.	23544.	1.01	4.	1.4	SI
1234.	476.	3.	-4022.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
>1234.	0.	3.	3702.!	3754.	22824.	23544.	1.01	4.	1.4	SI
1274.	40.	3.	3137.	4071.!	22824.	23544.	1.01	4.	1.4	SI
1634.	400.	3.	-3389.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
>1634.	0.	3.	4502.!	3754.	22824.	23544.	1.01	4.	1.4	SI
1674.	40.	3.	3770.	4480.!	22824.	23544.	1.01	4.	1.4	SI
2099.	465.	3.	-3785.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-46070.	-16.4	410.8	6.79	4.96	.0117	14.12	.017	SI
26.	26.	3.	1.	2384.	-1.	41.5	3.39	5.65	.0012	22.02	.003	SI
148.	148.	3.	2.	83108.!	-38.	1440.1!	3.39	5.54	.0411	21.6	.089!	SI
287.	287.	3.	1.	-115383.	-41.1!	1028.9	6.79	4.96	.0315	14.12	.044	SI
296.	296.	3.	3.	-119405.!	-32.9	720.	10.18	4.76	.0219	11.97	.026	SI
> 296.	0.	3.	3.	-190040.	-52.4	1145.9	10.18	4.76	.0422	11.97	.051	SI
512.	217.	3.	5.	176273.!	-72.2	2316.7!	4.52	5.31	.0842	17.75	.149!	SI
750.	454.	3.	4.	-217748.	-75. !	1940.4	6.79	5.01	.0748	14.18	.106	SI
758.	463.	3.	6.	-223494.!	-59.9	1346.3	10.18	4.8	.0517	12.01	.062	SI
> 758.	0.	3.	6.	-232094.!	-62.2	1398.1	10.18	4.8	.0541	12.01	.065	SI
767.	9.	3.	4.	-226242.	-77.9!	2016.1	6.79	5.01	.0784	14.18	.111	SI
1012.	253.	3.	5.	185350.!	-76.	2436. !	4.52	5.31	.0898	17.75	.159!	SI
1234.	476.	3.	7.	-209989.	-60.1	1417.5	9.05	4.87	.0538	12.55	.067	SI
>1234.	0.	3.	7.	-165890.	-47.5	1119.8	9.05	4.87	.0396	12.55	.05	SI
1420.	185.	3.	9.	130608.!	-61.5	2260.5!	3.39	5.5	.0728	21.44	.156!	SI
1634.	400.	3.	10	-167433.!	-47.9	1130.3	9.05	4.87	.0401	12.55	.05	SI
>1634.	0.	3.	10	-224440.!	-64.2	1515.1	9.05	4.87	.0584	12.55	.073	SI
1882.	247.	3.	5.	200650.!	-82.2	2637. !	4.52	5.31	.0994	17.75	.176!	SI
2099.	465.	3.	4.	-161681.	-55.7	1440.8	6.79	5.01	.051	14.18	.072	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-36625.	-13.	326.6	6.79	4.96	.0093	14.12	.013	SI
26.	26.	3.	1.	1957.	-.8	34.	3.39	5.65	.001	22.02	.002	SI
148.	148.	3.	2.	66053.!	-30.2	1144.6!	3.39	5.54	.0327	21.6	.071!	SI
287.	287.	3.	1.	-91833.!	-32.7!	818.9	6.79	4.96	.0234	14.12	.033	SI
296.	296.	3.	3.	-95031.!	-26.2	573.	10.18	4.76	.0164	11.97	.02	SI
> 296.	0.	3.	3.	-150990.	-41.7	910.4	10.18	4.76	.031	11.97	.037	SI
512.	217.	3.	5.	140109.!	-57.4	1841.4!	4.52	5.31	.0615	17.75	.109!	SI
750.	454.	3.	4.	-173124.	-59.6!	1542.8	6.79	5.01	.0558	14.18	.079	SI
758.	463.	3.	6.	-177691.!	-47.6	1070.4	10.18	4.8	.0385	12.01	.046	SI
> 758.	0.	3.	6.	-184463.!	-49.4	1111.2	10.18	4.8	.0405	12.01	.049	SI
767.	9.	3.	4.	-179811.	-61.9!	1602.4	6.79	5.01	.0587	14.18	.083	SI
1012.	253.	3.	5.	147321.!	-60.4	1936.2!	4.52	5.31	.066	17.75	.117!	SI
1234.	476.	3.	7.	-166908.	-47.8	1126.7	9.05	4.87	.0399	12.55	.05	SI
>1234.	0.	3.	7.	-131808.	-37.7	889.8	9.05	4.87	.0286	12.55	.036	SI
1420.	185.	3.	9.	103801.!	-48.9!	1796.6!	3.39	5.5	.0513	21.44	.11 !	SI
1634.	400.	3.	10	-133155.!	-38.1	898.9	9.05	4.87	.0291	12.55	.036	SI
>1634.	0.	3.	10	-178492.!	-51.1	1204.9	9.05	4.87	.0436	12.55	.055	SI
1882.	247.	3.	5.	159516.!	-65.4!	2096.4!	4.52	5.31	.0737	17.75	.131!	SI
2099.	465.	3.	4.	-128321.	-44.2	1143.5	6.79	5.01	.0368	14.18	.052	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
18.	18.	3.	1.	-34264.	-12.2	305.5	6.79	4.96	.0087	14.12	.012	SI
26.	26.	3.	1.	1851.	-.8	32.2	3.39	5.65	.0009	22.02	.002	SI
148.	148.	3.	2.	61790.!	-28.2	1070.7!	3.39	5.54	.0306	21.6	.066!	SI
287.	287.	3.	1.	-85946.	-30.6!	766.4	6.79	4.96	.0219	14.12	.031	SI
296.	296.	3.	3.	-88937.!	-24.5	536.3	10.18	4.76	.0153	11.97	.018	SI
> 296.	0.	3.	3.	-141228.!	-39.	851.5	10.18	4.76	.0282	11.97	.034	SI
512.	217.	3.	5.	131068.!	-53.7	1722.5!	4.52	5.31	.0559	17.75	.099!	SI
750.	454.	3.	4.	-161967.	-55.8!	1443.4	6.79	5.01	.0511	14.18	.072	SI
758.	463.	3.	6.	-166241.!	-44.6	1001.4	10.18	4.8	.0352	12.01	.042	SI
> 758.	0.	3.	6.	-172555.!	-46.2	1039.4	10.18	4.8	.0371	12.01	.044	SI
767.	9.	3.	4.	-168204.	-57.9!	1498.9	6.79	5.01	.0537	14.18	.076	SI
1012.	253.	3.	5.	137814.!	-56.5	1811.2!	4.52	5.31	.0601	17.75	.107!	SI
1234.	476.	3.	7.	-156138.	-44.7	1054.	9.05	4.87	.0364	12.55	.046	SI
>1234.	0.	3.	7.	-123288.	-35.3	832.3	9.05	4.87	.0259	12.55	.032	SI
1420.	185.	3.	9.	97100.!	-45.8!	1680.6!	3.39	5.5	.048	21.44	.103!	SI
1634.	400.	3.	10	-124585.!	-35.6	841.	9.05	4.87	.0263	12.55	.033	SI
>1634.	0.	3.	10	-167004.!	-47.8	1127.4	9.05	4.87	.0399	12.55	.05	SI
1882.	247.	3.	5.	149232.!	-61.2!	1961.3!	4.52	5.31	.0672	17.75	.119!	SI
2099.	465.	3.	4.	-119981.	-41.3	1069.2	6.79	5.01	.0333	14.18	.047	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	10.18	1.157	6.79	.771	3d12 +3d12	3.39	.386	3d12

```
  2| 6.79| .771| 3.39| .386|3d12               | 3.39| .386|3d12               |
  3|18.1 |2.056|10.18|1.157|3d12 +3d12 +3d12   | 7.92| .9  |3d12 +4d12         |
  4|11.31|1.285| 6.79| .771|3d12 +3d12         | 4.52| .514|4d12               |
  5| 7.92| .9  | 3.39| .386|3d12               | 4.52| .514|4d12               |
  6|19.23|2.185|10.18|1.157|3d12 +3d12 +3d12   | 9.05|1.028|4d12 +4d12         |
  7|16.96|1.928| 9.05|1.028|3d12 +3d12 +2d12   | 7.92| .9  |4d12 +3d12         |
  8| 9.05|1.028| 5.65| .643|3d12 +2d12         | 3.39| .386|3d12               |
  9| 5.65| .643| 2.26| .257|2d12               | 3.39| .386|3d12               |
 10|16.96|1.928| 9.05|1.028|3d12 +2d12 +3d12   | 7.92| .9  |3d12 +4d12         |
```

VERIFICA TRAVATA IN CEMENTO ARMATO

```
Nome travata       : 15 - Travata T003 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2
```

MATERIALI

```
CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%
```

TENSIONI E FESSURE MASSIME IN ESERCIZIO

```
GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].
```

SEZIONI UTILIZZATE

```
 3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6
```

DESCRIZIONE CAMPATE

```
Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A23|    3|    3|    3|    0|  339.|  314.| 15.409|1. |3.368| 57.017|
```

CASI DI CARICO DA MODELLO 3D

```
            SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

            RARE          |         FREQUENTI         |    QUASI PERMANENTI      |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara                1.|15.|Frequente           1.|16.|Quasi Perm          1.|
```

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

```
Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.|  -92147.!-.033! .077! -240575.|-.35 |1.765|3.| .165|2.611!SI|
    0.|  0.|3.|1.|   69811.|-.025| .058|  240575.!-.35 |1.765|3.| .165|3.446|SI|
  214.|214.|3.|1.|  -14735.|-.005| .012| -240575.|-.35 |1.765|3.| .165|16.33!SI|
  330.|330.|3.|1.|   71439.!-.025| .059|  240575.|-.35 |1.765|3.| .165|3.368|SI|
  339.|339.|3.|1.|  -91161.|-.032| .076| -240575.!-.35 |1.765|3.| .165!2.639|SI|
  339.|339.|3.|1.|   71439.|-.025| .059|  240575.|-.35 |1.765|3.| .165|3.368|SI|
```

TAGLIO:

```
Progressive|Se|  Vsd  |  VRd  |  VRcd |  VRsd   Asw    s  ctgT|Ve|
>   0.|  0.|3.| -1117.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
    0.|  0.|3.|  1746.!  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
   34.| 34.|3.| -1159.|  3724.! 20597.| 21021.| 1.01| 4. |1.25|SI|
  339.|339.|3.| -1722.!  3285.| 20597.! 21021.! 1.01| 4. |1.25|SI|
  339.|339.|3.|  1093.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
```

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

```
Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11134.|  -5.4| 194. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15522.!  -7.6! 270.4! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

```
Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11020.|  -5.4| 192. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15457.!  -7.6! 269.3! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-10991.	-5.4	191.5	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15441.!	-7.6!	269. !	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	6.79	.881	3.39	.441	3d12	3.39	.441	3d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 16 - Travata T004 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A24	3	3	3	0	339.	314.	15.409	1.	3.368	57.018

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

RARE			FREQUENTI			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-91952.	-.033	.077	-240575.	-.35	1.765	3.	.165	2.616	SI
0.	0.	3.	1.	70933.	-.025	.059	240575.!	-.35	1.765	3.	.165	3.392	SI
124.	124.	3.	1.	-14725.	-.005	.012	-240575.	-.35	1.765	3.	.165	16.34!	SI
330.	330.	3.	1.	71438.!	-.025	.059	240575.	-.35	1.765	3.	.165	3.368	SI
339.	339.	3.	1.	-92148.!	-.033!	.077!	-240575.!	-.35	1.765	3.	.165	2.611!	SI
339.	339.	3.	1.	71438.	-.025	.059	240575.	-.35	1.765	3.	.165	3.368	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1117.	3285.	20597.	21021.	1.01	4.	1.25	SI
0.	0.	3.	1746.!	3285.	20597.	21021.	1.01	4.	1.25	SI
34.	34.	3.	-1159.	3724.!	20597.	21021.	1.01	4.	1.25	SI
339.	339.	3.	-1722.!	3285.	20597.!	21021.!	1.01	4.	1.25	SI
339.	339.	3.	1093.	3285.	20597.	21021.	1.01	4.	1.25	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15424.!	-7.5!	268.7!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve

```
    9.|  9.|3.|1.|   -11079.|  -5.4| 193. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15479.!  -7.6! 269.7! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11079.|  -5.4| 193. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15460.!  -7.6! 269.4! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|

           ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro|Totale   % |Super.   %        Barre        |Infer.   %        Barre        |
  1| 6.79| .881| 3.39| .441|3d12               | 3.39| .441|3d12               |




              VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : 17 - Travata T005 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

              MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

              TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

              SEZIONI UTILIZZATE

 3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6

              DESCRIZIONE CAMPATE

Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A25|    3|    3|    3|    0|  339.|  314.| 15.409|1. |3.302| 55.901|

              CASI DI CARICO DA MODELLO 3D

           SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

           RARE          |         FREQUENTI         |    QUASI PERMANENTI       |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara                1.|15.|Frequente          1.|16.|Quasi Perm          1.|

              VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.|  -93255.|-.033| .078| -240575.|-.35 |1.765|3.| .165|2.58 |SI|
    0.|  0.|3.|1.|   72389.|-.026| .06 |  240575.!-.35 |1.765|3.| .165|3.323|SI|
  124.|124.|3.|1.|  -15128.|-.005| .013| -240575.|-.35 |1.765|3.| .165|15.9 !SI|
  330.|330.|3.|1.|   72865.!-.026| .061|  240575.|-.35 |1.765|3.| .165|3.302|SI|
  339.|339.|3.|1.|  -93399.!-.033! .078! -240575.!-.35 |1.765|3.| .165!2.576!SI|
  339.|339.|3.|1.|   72865.|-.026| .061|  240575.|-.35 |1.765|3.| .165|3.302|SI|

TAGLIO:

Progressive|Se|  Vsd  |  VRd  |  VRcd |  VRsd   Asw    s  ctgT|Ve|
>   0.|  0.|3.| -1117.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
    0.|  0.|3.|  1746.!  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
   34.| 34.|3.| -1159.|  3724.! 20597.| 21021.| 1.01| 4. |1.25|SI|
  339.|339.|3.| -1722.!  3285.| 20597.! 21021.! 1.01| 4. |1.25|SI|
  339.|339.|3.|  1093.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|

              VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11079.|  -5.4| 193. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15497.!  -7.6! 270. ! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15535.!	-7.6!	270.7!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15512.!	-7.6!	270.3!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	6.79	.881	3.39	.441	3d12	3.39	.441	3d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 18 - Travata T006 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A26	3	3	3	0	339.	314.	15.409	1.	2.932	49.636

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

Nome	RARE Descrizione	Sest	Nome	FREQUENTI Descrizione	Sest	Nome	QUASI PERMANENTI Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-102094.	-.036	.085	-240575.	-.35	1.765	3.	.165	2.356	SI
0.	0.	3.	1.	81510.	-.029	.068	240575.!	-.35	1.765	3.	.165	2.951	SI
124.	124.	3.	1.	-18021.	-.006	.015	-240575.	-.35	1.765	3.	.165	13.35!	SI
330.	330.	3.	1.	82062.!	-.029	.068	240575.	-.35	1.765	3.	.165	2.932	SI
339.	339.	3.	1.	-102254.!	-.037!	.085!	-240575.!	-.35	1.765	3.	.165	2.353!	SI
339.	339.	3.	1.	82062.	-.029	.068	240575.	-.35	1.765	3.	.165	2.932	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1117.	3285.	20597.	21021.	1.01	4.	1.25	SI
0.	0.	3.	1746.!	3285.	20597.	21021.	1.01	4.	1.25	SI
34.	34.	3.	-1159.	3724.!	20597.	21021.	1.01	4.	1.25	SI
339.	339.	3.	-1722.!	3285.	20597.!	21021.!	1.01	4.	1.25	SI
339.	339.	3.	1093.	3285.	20597.	21021.	1.01	4.	1.25	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI

```
  184.|184.|3.|1.|    15483.!  -7.6! 269.8! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11079.|  -5.4| 193. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15523.!  -7.6! 270.5! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
    9.|  9.|3.|1.|   -11079.|  -5.4| 193. | 3.39| 5.46|  .0055| 19.64|  .011|SI|
  184.|184.|3.|1.|    15501.!  -7.6! 270.1! 3.39| 5.46|  .0077| 19.64|  .015!SI|
  339.|339.|3.|1.|   -13520.!  -6.6| 235.6| 3.39| 5.46|  .0067| 19.64|  .013|SI|

          ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro|Totale   % |Super.   %       Barre        |Infer.   %       Barre        |
  1| 6.79| .881| 3.39| .441|3d12              | 3.39| .441|3d12              |




              VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : 19 - Travata T007 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

              MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

              TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

              SEZIONI UTILIZZATE

 3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6

              DESCRIZIONE CAMPATE

Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A27|    3|    3|    3|    0|  339.|  314.| 15.409|1. |2.48 | 41.998|

              CASI DI CARICO DA MODELLO 3D

           SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

           RARE          |         FREQUENTI         |    QUASI PERMANENTI       |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara                1.|15.|Frequente           1.|16.|Quasi Perm          1.|

              VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.| -116420.|-.042| .097| -240575.|-.35 |1.765|3.| .165|2.066|SI|
    0.|  0.|3.|1.|   96630.|-.034| .08 |  240575.!-.35 |1.765|3.| .165|2.49 |SI|
  154.|154.|3.|1.|   -1453.|-.001| .001| -240575.|-.35 |1.765|3.| .165|165.6!SI|
  330.|330.|3.|1.|   96987.!-.035| .081|  240575.|-.35 |1.765|3.| .165|2.48 |SI|
  339.|339.|3.|1.| -117030.!-.042! .098! -240575.!-.35 |1.765|3.| .165!2.056!SI|
  339.|339.|3.|1.|   96987.|-.035| .081|  240575.|-.35 |1.765|3.| .165|2.48 |SI|

TAGLIO:

Progressive|Se|  Vsd  |  VRd  |  VRcd |  VRsd   Asw    s  ctgT|Ve|
>   0.|  0.|3.| -1117.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
    0.|  0.|3.|  1746.!  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|
   34.| 34.|3.| -1159.|  3724.! 20597.| 21021.| 1.01| 4. |1.25|SI|
  339.|339.|3.| -1722.!  3285.| 20597.! 21021.! 1.01| 4. |1.25|SI|
  339.|339.|3.|  1093.|  3285.| 20597.| 21021.| 1.01| 4. |1.25|SI|

              VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:
```

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
154.	154.	3.	1.	15434.!	-7.6!	268.9!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
154.	154.	3.	1.	15481.!	-7.6!	269.7!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
154.	154.	3.	1.	15461.!	-7.6!	269.4!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	6.79	.881	3.39	.441	3d12	3.39	.441	3d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 20 - Travata T008 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 35X22; A=770.; Jg=31057.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A28	3	3	3	0	339.	314.	15.409	1.	2.138	36.201

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	Sest
SLU		
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

RARE			FREQUENTI			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-131351.!	-.047!	.11 !	-240575.!	-.35	1.765	3.	.165	1.832!	SI
0.	0.	3.	1.	111181.!	-.04 !	.093 !	240575.!	-.35	1.765	3.	.165	2.164	SI
154.	154.	3.	1.	-3601.!	-.001 !	.003 !	-240575.!	-.35	1.765	3.	.165	66.8 !	SI
330.	330.	3.	1.	112516.!	-.04 !	.094 !	240575.!	-.35	1.765	3.	.165	2.138	SI
339.	339.	3.	1.	-131015.!	-.047!	.109 !	-240575.!	-.35	1.765	3.	.165!	1.836	SI
339.	339.	3.	1.	112516.!	-.04 !	.094 !	240575.!	-.35	1.765	3.	.165	2.138	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1117.!	3285.!	20597.!	21021.!	1.01	4.	1.25	SI
0.	0.	3.	1746.!	3285.!	20597.!	21021.!	1.01	4.	1.25	SI
34.	34.	3.	-1159.!	3724.!	20597.!	21021.!	1.01	4.	1.25	SI
339.	339.	3.	-1722.!	3285.!	20597.!	21021.!	1.01	4.	1.25	SI
339.	339.	3.	1093.!	3285.!	20597.!	21021.!	1.01	4.	1.25	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15472.!	-7.6!	269.6!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15522.!	-7.6!	270.4!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-11079.	-5.4	193.	3.39	5.46	.0055	19.64	.011	SI
184.	184.	3.	1.	15502.!	-7.6!	270.1!	3.39	5.46	.0077	19.64	.015!	SI
339.	339.	3.	1.	-13520.!	-6.6	235.6	3.39	5.46	.0067	19.64	.013	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	6.79	.881	3.39	.441	3d12	3.39	.441	3d12

VERIFICA PILASTRI:

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P001 (ID=1)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	4- 7	-374830.	4- 7	374840.	5-10	-526860.	5-10	526860.
1 sup	4- 7	-372100.	4- 7	372100.	5-10	-537220.	5-10	537220.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-13	-3630.1	4-13	3630.1	5- 5	-2467.	5- 5	2467.

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 7	-3010.	126788.|1.03	66337.|1.02	-.052	-63.9	.071	1495.8	SI
1	4- 7	-1362.	-10645.|1.02	-34894.|1.01	-.01	-14.3	.012	246.8	SI
1	5- 7	-2212.	-98675.|1.03	-69965.|1.02	-.045	-56.4	.061	1289.1	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 7|	-3010.3|	-116790.3|	365. |	3. |	5013.2|	9.0907|	1.0265|	.024|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 7|	-3010.3|	-188317.1|	365. |	3. |	8083.4|	11.0502|	1.0162|	.024|

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-13|	-748.7|	3630.1|	20277.1|	20277.1|	20476.7|	1.01|	11. |	2. |	SI|
1|cen|	4-13|	-748.7|	3630.1|	17425.6|	17425.6|	17596.6|	1.01|	16. |	2.5 |	SI|
1|sup|	4-13|	-748.7|	3630.1|	20277.1|	20277.1|	20347.4|	1.01|	11. |	2. |	SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 5|	601.5|	2467. |	16953.9|	16953.9|	17087.2|	1.01|	11. |	2.45|	SI|
1|cen|	5- 5|	601.5|	2467. |	11893.7|	11893.7|	16787.4|	1.01|	16. |	2.5 |	SI|
1|sup|	5- 5|	601.5|	2467. |	16953.9|	16953.9|	16979.1|	1.01|	11. |	2.45|	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	5- 7|	-3010.3|	-80250.6|	-123462.5|	2.44|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-2814. |	2749.1|	33789.8|	-10.3|	72.1|	SI|
1|cen|	14- 1|	-2414.8|	-4687.8|	-13264.6|	-5.7|	2.2|	SI|
1|sup|	14- 1|	-2015.6|	-12124.8|	-60319. |	-22.5|	423.8|	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-2466.6|	3196.9|	26625.9|	-8.4|	47.6|	SI|
1|cen|	15- 1|	-2067.4|	-4563.9|	-10598.5|	-4.9|	1.7|	SI|
1|sup|	15- 1|	-1668.2|	-12324.8|	-47823. |	-19. |	344.7|	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-2379.7|	3308.9|	24834.9|	-8. |	41.9|	SI|
1|cen|	16- 1|	-1980.5|	-4533. |	-9932. |	-4.6|	1.5|	SI|
1|sup|	16- 1|	-1581.3|	-12374.8|	-44698.9|	-18.1|	325. |	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P002 (ID=2)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1|	1|2.	|2.	|365.	|343. |	58. |	58. |	9.24|	1.056|	6ϕ14 |

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1|	SLU SENZA SISMA	SLU (statico) |	1|
4|	SLU con SISMAX PRINC	SLU (sismico) |	16|
5|	SLU con SISMAY PRINC	SLU (sismico) |	16|
10|	SLU GER SISMAX PRINC	SLU (sismico) |	16|
11|	SLU GER SISMAY PRINC	SLU (sismico) |	16|
14|	Rara	RARA |	1|
15|	Frequente	FREQUENTE |	1|
16|	Quasi Perm	QUASI PERMAN. |	1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min

1|inf|	4-15|	-391490. |	4-15|	391490. |	5-12|	-549720. |	5-12|	549720. |
1|sup|	4-15|	-385450. |	4-15|	385450. |	5- 7|	-565330. |	5- 7|	565330. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	4- 4|	-3814.5|	4- 4|	3814.6|	5- 5|	-2624.2|	5- 5|	2624.2|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1|	5- 7|	-5403.|	130403.|	1.05|	76612.|	1.03|	-.055|	-67.1|	.064|	1343.6|	SI|
1|	1- 1|	-8231.|	-6859.|	1.08|	-28463.|	1.05|	-.01 |	-14.3|	-.002|	-49.8|	SI|
1|	5- 7|	-4605.|	-101630.|	1.05|	-94607.|	1.03|	-.051|	-63.1|	.058|	1223.2|	SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 7|	-5403.1|	-117108.5|	365. |	3. |	5026.8|	9.066 |	1.0484|	.044|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 7|	-5403.1|	-188762.6|	365. |	3. |	8102.5|	11.0241|	1.0295|	.044|

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4- 4|	481. |	3814.6|	20528.5|	20784. |	20528.5|	1.01|	11. |	2.05|	SI|
1|cen|	4- 4|	481. |	3814.6|	17425.6|	17425.6|	17908.9|	1.01|	16. |	2.5 |	SI|
1|sup|	4- 4|	481. |	3814.6|	20401.1|	20784. |	20401.1|	1.01|	11. |	2.05|	SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 5|	606.1|	-2624.2|	17218.8|	17299.9|	17218.8|	1.01|	11. |	2.5 |	SI|
1|cen|	5- 5|	606.1|	-2624.2|	11893.7|	11893.7|	17165.5|	1.01|	16. |	2.5 |	SI|
1|sup|	5- 5|	606.1|	-2624.2|	17112.2|	17299.9|	17112.2|	1.01|	11. |	2.5 |	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	5- 5|	-5566.9|	-80250.6|	-123462.5|	4.51|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-6321.2|	2950.4|	37880.6|	-13.2|	-12.3|	SI|
1|cen|	14- 1|	-5922. |	-4822.9|	-19370.3|	-10.2|	-38.5|	SI|
1|sup|	14- 1|	-5522.8|	-12596.3|	-76621.1|	-25.8|	247.2|	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-5255.5|	3367.5|	29887. |	-10.9|	-11.2|	SI|
1|cen|	15- 1|	-4856.3|	-4666.3|	-15436.5|	-8.4|	-30.8|	SI|
1|sup|	15- 1|	-4457.1|	-12700.1|	-60759.9|	-21.4|	203.5|	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-4989.1|	3471.8|	27888.6|	-10.3|	-11. |	SI|
1|cen|	16- 1|	-4589.9|	-4627.2|	-14453. |	-8. |	-28.8|	SI|
1|sup|	16- 1|	-4190.6|	-12726.1|	-56794.7|	-20.3|	192.7|	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P003 (ID=3)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se|	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S|	Af	% arm	
1|	1|2.	|2.	|365.	|343. |	58. |	58. |	9.24|	1.056|	6ϕ14 |

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4-15	-404850.	4-15	404850.	5-12	-556010.	5-12	556010.
1|sup	4-15	-401860.	4-15	401860.	5- 5	-572360.	5- 5	572360.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 4	-3848.3	4- 4	3848.3	5- 1	-2666.1	5- 1	2666.1

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 4	-6285.	120852.|1.06	66177.|1.03	-.049	-60.9	.052	1086.3	SI
1	5-10	-4925.	-24431.|1.05	-8154.|1.03	-.009	-11.8	0.	4.6	SI
1	5- 4	-5487.	-95376.|1.06	-49344.|1.03	-.038	-48.	.037	786.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 4	-6285.1	-117225.8	365.	3.	5031.8	9.0569	1.0567	.051

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 4	-6285.1	-188926.8	365.	3.	8109.6	11.0145	1.0344	.051

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4- 4	606.1	3848.3	20612.	20784.	20612.	1.01	11.	2.05	SI
1|cen	4- 4	606.1	3848.3	17425.6	17425.6	17981.9	1.01	16.	2.5	SI
1|sup	4- 4	606.1	3848.3	20484.6	20784.	20484.6	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 1	563.2	-2666.1	17299.9	17299.9	17315.	1.01	11.	2.5	SI
1|cen	5- 1	563.2	-2666.1	11893.7	11893.7	17261.7	1.01	16.	2.5	SI
1|sup	5- 2	560.8	2666.1	17208.2	17299.9	17208.2	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 5	-6333.4	-80250.6	-123462.5	5.13	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-7450.8	2534.1	6783.8	-9.1	-91.8	SI
1|cen	14- 1	-7051.6	-5020.	-1230.8	-8.3	-90.8	SI
1|sup	14- 1	-6652.4	-12574.1	-9245.4	-11.	-50.8	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-6152.8	3035.7	5314.	-7.7	-74.1	SI
1|cen	15- 1	-5753.6	-4819.	-991.5	-7.	-72.4	SI
1|sup	15- 1	-5354.4	-12673.8	-7297.	-9.4	-35.	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-5828.3	3161.1	4946.5	-7.3	-69.7	SI
1|cen	16- 1	-5429.1	-4768.8	-931.7	-6.6	-67.8	SI
1|sup	16- 1	-5029.8	-12698.7	-6809.9	-9.	-31.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P004 (ID=4)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi Lnet	Lcr.I	Lcr.S	Af	% arm	
1 1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	4- 4	-398400.	4- 4	398400.	5-13	-542070.	5-13	542070.
1 sup	4- 4	-393730.	4- 4	393730.	5- 2	-562400.	5- 2	562400.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-10	-3814.9	4-10	3814.9	5- 4	-2643.6	5- 3	2643.6

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5-13	-4806.	-138374.	1.04	-74940.	1.03	-.057	-69.3	.071	1487.2	SI
1	1- 1	-8990.	-7147.	1.09	22666.	1.05	-.01	-14.2	-.003	-72.1	SI
1	5- 5	-5086.	-105304.	1.05	62648.	1.03	-.044	-55.3	.048	1010.7	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-13	-4805.8	-117029.	365.	3.	5023.4	9.0721	1.0428	.039

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-13	-4805.8	-188651.4	365.	3.	8097.8	11.0306	1.0261	.039

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4-15	-492.5	3813.8	20549.3	20784.	20549.3	1.01	11.	2.05	SI
1 cen	4-10	-494.6	3814.9	17425.6	17425.6	17969.2	1.01	16.	2.5	SI
1 sup	4-15	-492.5	3813.8	20421.9	20784.	20421.9	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	5- 7	625.9	-2643.5	17266.3	17299.9	17266.3	1.01	11.	2.5	SI
1 cen	5- 3	673.5	2643.6	11893.7	11893.7	17219.4	1.01	16.	2.5	SI
1 sup	5- 7	625.9	-2643.5	17159.7	17299.9	17159.7	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 4	-5973.3	-80250.6	-123462.5	4.84	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-6861.4	2625.6	-17134.2	-10.2	-62.3	SI
1 cen	14- 1	-6462.2	-4979.3	15353.5	-10.1	-54.2	SI
1 sup	14- 1	-6063.	-12584.3	47841.3	-17.5	51.2	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-5683.9	3113.2	-13651.7	-8.6	-50.4	SI
1 cen	15- 1	-5284.7	-4786.2	12215.	-8.3	-43.3	SI
1 sup	15- 1	-4885.5	-12685.6	38081.7	-14.8	49.4	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	16- 1	-5389.6	3235.1	-12781.	-8.2	-47.4	SI
1 cen	16- 1	-4990.3	-4737.9	11430.4	-7.9	-40.5	SI
1 sup	16- 1	-4591.1	-12710.9	35641.8	-14.1	49.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P005 (ID=5)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4-15	-399400.	4-15	399400.	5-15	-526420.	5-15	526420.
1|sup	4-15	-394120.	4-15	394120.	5- 4	-552820.	5- 4	552820.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 7	-3819.7	4- 7	3819.7	5- 2	-2655.2	5- 2	2655.2

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 4	-6120.	170947.|1.06	82562.|1.03	-.069	-80.6	.084	1769.	SI
1	5-13	-4445.	-29718.|1.04	-19252.|1.03	-.011	-15.5	.004	76.5	SI
1	5- 4	-5321.	-129823.|1.06	-93051.|1.03	-.059	-71.3	.069	1446.7	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 4	-6119.8	-117203.8	365.	3.	5030.9	9.0586	1.0551	.05

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 4	-6119.8	-188896.	365.	3.	8108.3	11.0163	1.0335	.05

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4- 7	466.8	3819.7	20558.7	20784.	20558.7	1.01	11.	2.05	SI
1|cen	4- 7	466.8	3819.7	17425.6	17425.6	17935.3	1.01	16.	2.5	SI
1|sup	4- 7	466.8	3819.7	20431.3	20784.	20431.3	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 2	781.5	2655.2	17295.	17299.9	17295.	1.01	11.	2.5	SI
1|cen	5- 2	781.5	2655.2	11893.7	11893.7	17241.7	1.01	16.	2.5	SI
1|sup	5- 2	781.5	2655.2	17188.4	17299.9	17188.4	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 2	-6137.9	-80250.6	-123462.5	4.97	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-6983.9	3566.	26253.9	-12.1	-43.8	SI
1|cen	14- 1	-6584.7	-4681.4	-17479.	-10.5	-52.5	SI
1|sup	14- 1	-6185.5	-12928.7	-61212.	-21.1	108.3	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 15- 1	-5782.5	3908.	20689.8	-10.	-36.	SI
1	cen 15- 1	-5383.3	-4536.1	-13984.2	-8.7	-41.8	SI
1	sup 15- 1	-4984.1	-12980.1	-48658.3	-17.7	94.8	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 16- 1	-5482.2	3993.5	19298.8	-9.5	-34.1	SI
1	cen 16- 1	-5083.	-4499.7	-13110.5	-8.2	-39.2	SI
1	sup 16- 1	-4683.8	-12993.	-45519.8	-16.8	91.6	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P006 (ID=6)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf 4- 4	-381350.	4- 4	381340.	5-15	-487660.	5-15	487660.
1	sup 5-13	-369060.	5-13	369060.	5- 4	-521550.	5- 4	521550.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 2	-3673.4	4- 2	3673.4	5- 4	-2516.8	5- 4	2516.8

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-13	-2660.	-183404.	1.02 -101929.	1.01	-.079	-89.3	.115	2405.5 SI
1	5-15	-2128.	-32634.	1.02 49206.	1.01	-.02	-26.9	.022	460.2 SI
1	5- 2	-3274.	-145214.	1.04 145287.	1.02	-.079	-89.6	.106	2217.6 SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu	
1	sup 5- 2	-3274.3	-116931.6	365.	3.	5019.2	9.0797	1.0361	.033	

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu	
1	sup 5- 2	-3274.3	-188514.9	365.	3.	8091.9	11.0386	1.0221	.033	

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf 4- 2	953.9	3673.4	20288.2	20784.	20288.2	1.01	11.	2.05	SI
1	cen 4- 2	953.9	3673.4	17425.6	17425.6	17698.5	1.01	16.	2.5	SI
1	sup 4- 2	953.9	3673.4	20277.1	20277.1	20465.6	1.01	11.	2.	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf 5- 4	888.9	2516.8	17001.7	17299.9	17001.7	1.01	11.	2.5	SI

1	cen	5- 4	888.9	2516.8	11893.7	11893.7	16948.4	1.01	16. | 2.5 | SI
1	sup	5- 4	888.9	2516.8	16953.9	16953.9	17142.4	1.01	11. | 2.45 | SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 2	-4072.7	-80250.6	-123462.5	3.3	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-4051.	1802.2	-65670.1	-19.1	224.9	SI
1 cen	14- 1	-3651.8	-5183.9	59298.3	-18.6	218.9	SI
1 sup	14- 1	-3252.6	-12170.1	184266.7	-58.3	1479.2	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-3450.	2399.5	-51309.1	-15.2	157.4	SI
1 cen	15- 1	-3050.8	-4980.3	47494.3	-15.2	168.8	SI
1 sup	15- 1	-2651.6	-12360.1	146297.6	-47.6	1181.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	16- 1	-3299.8	2548.8	-47718.8	-14.3	140.9	SI
1 cen	16- 1	-2900.6	-4929.4	44543.3	-14.3	156.3	SI
1 sup	16- 1	-2501.4	-12407.6	136805.4	-44.9	1107.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P007 (ID=7)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi Lnet	Lcr.I	Lcr.S	Af	% arm	
1 1	2.	2.	365.	343.	58.	58.	9.24	1.056 | 6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	4- 2	-375110.	4- 2	375110.	5- 5	-529150.	5- 5	529150.
1 sup	4- 2	-372310.	4- 2	372300.	5- 5	-537900.	5- 5	537900.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-12	-3630.7	4-12	3630.7	5-10	-2467.8	5-10	2467.7

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-12	-3019.	-125197. | 1.03	67596. | 1.02	-.052	-63.8	.071	1484.3	SI
1	4- 2	-1379.	10287. | 1.02	-34583. | 1.01	-.01	-14.	.011	239.7	SI
1	5-12	-2221.	99534. | 1.03	-70547. | 1.02	-.045	-56.9	.062	1301.5	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-12	-3019.5	-116791.5	365.	3.	5013.2	9.0906	1.0265	.024

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-12	-3019.5	-188318.8	365.	3.	8083.5	11.0501	1.0163	.024

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-12	-754.7	3630.7	20277.1	20277.1	20477.9	1.01	11.	2.	SI
1|cen	4-12	-754.7	3630.7	17425.6	17425.6	17597.6	1.01	16.	2.5	SI
1|sup	4-12	-754.7	3630.7	20277.1	20277.1	20348.5	1.01	11.	2.	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-10	-601.9	-2467.8	16953.9	16953.9	17088.8	1.01	11.	2.45	SI
1|cen	5-10	-601.9	-2467.8	11893.7	11893.7	16789.	1.01	16.	2.5	SI
1|sup	5-10	-601.9	-2467.8	16953.9	16953.9	16980.7	1.01	11.	2.45	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5-12	-3019.5	-80250.6	-123462.5	2.45	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-2830.1	-3836.9	35852.6	-11.3	89.7	SI
1|cen	14- 1	-2430.9	4973.9	-12748.2	-5.7	1.5	SI
1|sup	14- 1	-2031.7	13784.6	-61349.	-23.6	441.7	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-2479.4	-4003.8	28316.8	-9.2	60.5	SI
1|cen	15- 1	-2080.2	4828.4	-10162.3	-4.9	1.2	SI
1|sup	15- 1	-1680.9	13660.5	-48641.5	-19.8	359.3	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-2391.7	-4045.5	26432.9	-8.7	53.6	SI
1|cen	16- 1	-1992.5	4792.	-9515.9	-4.6	1.1	SI
1|sup	16- 1	-1593.3	13629.5	-45464.7	-18.9	338.9	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P008 (ID=8)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min

1|inf|	4-10|	-392080. |	4-10|	392090. |	5- 7|	-550800. |	5- 7|	550790. |
1|sup|	4-10|	-385550. |	4-10|	385550. |	5-12|	-565400. |	5-12|	565390. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	4- 4|	-3814.9|	4- 4|	3814.9|	5-10|	-2623.7|	5-10|	2623.7|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1|	5-12|	-5400.|	-127184.|1.05|	72646.|1.03|	-.053|	-65. |	.061|	1284. |	SI|
1|	1- 1|	-8222.|	7851.|1.08|	-30543.|1.05|	-.011|	-14.9|	-.002|	-43. |	SI|
1|	5-12|	-4602.|	101496.|1.05|	-93881.|1.03|	-.051|	-62.8|	.058|	1216.9|	SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5-12|	-5400.3|	-117108.1|	365. |	3. |	5026.8|	9.066 |	1.0483|	.044|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5-12|	-5400.3|	-188762. |	365. |	3. |	8102.5|	11.0241|	1.0295|	.044|

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4- 5|	479. |	-3813.7|	20527.4|	20784. |	20527.4|	1.01|	11. |	2.05|	SI|
1|cen|	4- 4|	409.3|	-3814.9|	17425.6|	17425.6|	17932.8|	1.01|	16. |	2.5 |	SI|
1|sup|	4- 5|	479. |	-3813.7|	20400. |	20784. |	20400. |	1.01|	11. |	2.05|	SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5-10|	-596.7|	2623.7|	17218.2|	17299.9|	17218.2|	1.01|	11. |	2.5 |	SI|
1|cen|	5-10|	-596.7|	2623.7|	11893.7|	11893.7|	17164.9|	1.01|	16. |	2.5 |	SI|
1|sup|	5-10|	-596.7|	2623.7|	17111.6|	17299.9|	17111.6|	1.01|	11. |	2.5 |	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	5-10|	-5562.6|	-80250.6|	-123462.5|	4.51|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-6314.9|	-1898.5|	34763.3|	-12.4|	-21. |	SI|
1|cen|	14- 1|	-5915.6|	5488.6|	-20803.1|	-10.5|	-34. |	SI|
1|sup|	14- 1|	-5516.4|	12875.6|	-76369.6|	-25.9|	247.1|	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-5250.6|	-2500.9|	27258.7|	-10.3|	-18.5|	SI|
1|cen|	15- 1|	-4851.4|	5224.1|	-16624.5|	-8.7|	-27. |	SI|
1|sup|	15- 1|	-4452.2|	12949.2|	-60507.7|	-21.4|	203.2|	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-4984.6|	-2651.5|	25382.6|	-9.7|	-17.9|	SI|
1|cen|	16- 1|	-4585.3|	5158. |	-15579.8|	-8.3|	-25.3|	SI|
1|sup|	16- 1|	-4186.1|	12967.6|	-56542.3|	-20.3|	192.4|	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P009 (ID=9)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1|	1|	2. |	2. |	365. |	343. |	58. |	58. |	9.24|	1.056|	6ϕ14 |

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4-10	-404970.	4-10	404970.	5- 5	-556680.	5- 5	556670.
1|sup	4-10	-401920.	4-10	401920.	5-12	-572460.	5-12	572450.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 4	-3848.5	4- 4	3848.5	5-13	-2666.3	5-13	2666.3

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-15	-6288.	-118167.|1.06	65790.|1.03	-.048	-59.9	.05	1053.6	SI
1	1- 1	-9820.	8337.|1.1	-1766.|1.06	-.009	-11.9	-.006	-123.8	SI
1	5-15	-5490.	95317.|1.06	-49118.|1.03	-.037	-47.9	.037	784.1	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-15	-6288.3	-117226.2	365.	3.	5031.9	9.0569	1.0567	.051

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-15	-6288.3	-188927.4	365.	3.	8109.6	11.0145	1.0344	.051

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-13	-601.9	3848.	20612.	20784.	20612.	1.01	11.	2.05	SI
1|cen	4- 4	538.9	3848.5	17425.6	17425.6	18019.5	1.01	16.	2.5	SI
1|sup	4-13	-601.9	3848.	20484.6	20784.	20484.6	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-13	-553.3	2666.3	17299.9	17299.9	17315.1	1.01	11.	2.5	SI
1|cen	5-13	-553.3	2666.3	11893.7	11893.7	17261.8	1.01	16.	2.5	SI
1|sup	5-13	-553.3	2666.3	17208.5	17299.9	17208.5	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5-10	-6336.	-80250.6	-123462.5	5.13	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-7453.4	-1266.2	6666.1	-8.8	-95.1	SI
1|cen	14- 1	-7054.2	5723.9	-1194.9	-8.5	-89.2	SI
1|sup	14- 1	-6655.	12714.1	-9056.	-11.	-50.9	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-6155.3	-2045.5	5208.1	-7.4	-76.7	SI
1|cen	15- 1	-5756.	5396.5	-961.9	-7.1	-71.1	SI
1|sup	15- 1	-5356.8	12838.4	-7131.9	-9.4	-35.	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-5830.7	-2240.3	4843.6	-7.1	-72.1	SI
1|cen	16- 1	-5431.5	5314.6	-903.7	-6.7	-66.5	SI
1|sup	16- 1	-5032.3	12869.5	-6650.9	-9.	-31.	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P010 (ID=10)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi Lnet	Lcr.I	Lcr.S	Af	% arm	
1 1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4- 5	-398590.	4- 5	398590.	5- 2	-543020.	5- 2	543020.
1|sup	4- 5	-393810.	4- 5	393810.	5-13	-562500.	5-13	562500.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-15	-3816.3	4-15	3816.3	5-16	-2643.6	5-15	2643.6

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 2	-4808.	137031.	1.04	-74151.	1.03	-.057	-68.7	.07	1466.9	SI
1	1- 1	-8993.	8154.	1.09	23108.	1.05	-.011	-14.5	-.003	-68.8	SI
1	5-10	-5089.	105222.	1.05	62182.	1.03	-.044	-55.1	.048	1006.8	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-4807.6	-117029.3	365.	3.	5023.4	9.0721	1.0428	.039

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-4807.6	-188651.7	365.	3.	8097.8	11.0306	1.0262	.039

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-10	-491.8	3813.7	20549.4	20784.	20549.4	1.01	11.	2.05	SI
1|cen	4-15	-494.5	-3816.3	17425.6	17425.6	17969.3	1.01	16.	2.5	SI
1|sup	4-10	-491.8	3813.7	20422.	20784.	20422.	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-12	-617.9	2643.5	17266.5	17299.9	17266.5	1.01	11.	2.5	SI
1|cen	5-16	-665.	-2643.6	11893.7	11893.7	17219.7	1.01	16.	2.5	SI
1|sup	5-12	-617.9	2643.5	17160.	17299.9	17160.	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5-15	-5975.5	-80250.6	-123462.5	4.84	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-6863.7	-1498.7	-16244.9	-9.8	-66.8	SI
1|cen	14- 1	-6464.5	5646.3	15654.9	-10.3	-52.	SI
1|sup	14- 1	-6065.2	12791.3	47554.7	-17.5	50.9	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-5686.	-2215.6	-12924.8	-8.3	-54.	SI
1|cen	15- 1	-5286.8	5337.9	12462.1	-8.5	-41.5	SI
1|sup	15- 1	-4887.5	12891.4	37848.9	-14.8	49.3	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-5391.6	-2394.8	-12094.8	-7.9	-50.8	SI
1|cen	16- 1	-4992.3	5260.8	11663.8	-8.1	-38.8	SI
1|sup	16- 1	-4593.1	12916.4	35422.5	-14.1	49.	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P011 (ID=11)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4-10	-399530.	4-10	399530.	5- 4	-527550.	5- 4	527550.
1|sup	4-10	-394170.	4-10	394170.	5-15	-553290.	5-15	553290.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 7	-3821.1	4- 7	3821.1	5-13	-2655.	5-13	2655.

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5-15	-6118.	-166055.	1.06	83288.	1.03	-.068	-79.3	.082	1716.9	SI
1	5- 2	-4444.	29185.	1.04	-21335.	1.03	-.012	-15.8	.004	81.2	SI
1	5-15	-5320.	129112.	1.06	-93271.	1.03	-.059	-71.1	.069	1440.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu	
1|inf	5-15	-6118.3	-117203.6	365.	3.	5030.9	9.0586	1.0551	.05	

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu	
1|inf	5-15	-6118.3	-188895.7	365.	3.	8108.2	11.0163	1.0335	.05	

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4- 2	457.7	-3818.4	20558.4	20784.	20558.4	1.01	11.	2.05	SI
1|cen	4- 7	455.3	3821.1	17425.6	17425.6	17976.9	1.01	16.	2.5	SI
1|sup	4- 2	457.7	-3818.4	20430.9	20784.	20430.9	1.01	11.	2.05	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-13	-766.2	2655.	17294.7	17299.9	17294.7	1.01	11.	2.5	SI
1|cen	5-13	-766.2	2655.	11893.7	11893.7	17241.4	1.01	16.	2.5	SI
1|sup	5-13	-766.2	2655.	17188.1	17299.9	17188.1	1.01	11.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5-13	-6135.9	-80250.6	-123462.5	4.97	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-6981.8	-1435.3	27290.6	-11.8	-46.9	SI
1|cen	14- 1	-6582.6	5611.8	-17099.3	-10.6	-51.	SI
1|sup	14- 1	-6183.4	12658.9	-61489.3	-21.1	108.7	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 15- 1	-5781.1	-2160.3	21571.7	-9.8	-38.5	SI
1	cen 15- 1	-5381.8	5310.6	-13665.2	-8.8	-40.6	SI
1	sup 15- 1	-4982.6	12781.5	-48902.1	-17.7	95.3	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 16- 1	-5480.9	-2341.6	20141.9	-9.3	-36.4	SI
1	cen 16- 1	-5081.7	5235.3	-12806.7	-8.3	-38.	SI
1	sup 16- 1	-4682.4	12812.2	-45755.2	-16.8	92.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : PO12 (ID=12)
Metodo di verifica : stati limite - NTC08 (q=3.3)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=25; alt.=35; Acls=875; iy=7.22; iz=10.1

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	365.	343.	58.	58.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf 4- 5	-381870.	4- 5	381860.	5- 4	-490830.	5- 4	490830.
1	sup 5- 2	-369150.	5- 2	369140.	5-15	-521250.	5-15	521250.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 7	-3673.2	4- 7	3673.2	5-15	-2517.1	5-15	2517.1

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 2	-2664.	179407.	1.02	-99001.	1.01	-.077	-87.5	.111	2340.3	SI
1	1- 1	-5057.	7104.	1.05	87505.	1.03	-.02	-26.7	.017	353.3	SI
1	5-13	-3278.	145536.	1.04	144717.	1.02	-.079	-89.6	.106	2216.	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	sup 5-13	-3277.8	-116932.	365.	3.	5019.2	9.0796	1.0361	.033

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	sup 5-13	-3277.8	-188515.5	365.	3.	8091.9	11.0385	1.0221	.033

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf 4- 7	939.8	3673.2	20288.4	20784.	20288.4	1.01	11.	2.05	SI
1	cen 4- 7	939.8	3673.2	17425.6	17425.6	17698.7	1.01	16.	2.5	SI
1	sup 4- 7	939.8	3673.2	20277.1	20277.1	20465.9	1.01	11.	2.	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf 5-15	-884.4	-2517.1	17002.4	17299.9	17002.4	1.01	11.	2.5	SI

```
 1|cen|  5-15|  -884.4| -2517.1| 11893.7| 11893.7| 16949.1| 1.01|16. |2.5 |SI|
 1|sup|  5-15|  -884.4| -2517.1| 16953.9| 16953.9| 17143.1| 1.01|11. |2.45|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:
Asta  | Caso |  NEd     |  Nmax    |  Ncls    |% Ncls|VE|
     1|  5-13|   -4076.2|  -80250.6| -123462.5|  3.3 |SI|

                    VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:
Asta  | Caso |  NEd     |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 14- 1|   -4057.5|   -3086.4|  -62420.4| -18.6|  203. |SI|
 1|cen| 14- 1|   -3658.3|    5136.4|   60694.7| -19. |  229.9|SI|
 1|sup| 14- 1|   -3259. |   13359.2|  183809.8| -58.8| 1480.6|SI|

FREQUENTI:
Asta  | Caso |  NEd     |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 15- 1|   -3455.1|   -3389.6|  -48580.2| -14.8|  139.7|SI|
 1|cen| 15- 1|   -3055.9|    4959.5|   48659.6| -15.5|  177.9|SI|
 1|sup| 15- 1|   -2656.6|   13308.6|  145899.4| -47.9| 1182.4|SI|

QUASI PERMANENTI:
Asta  | Caso |  NEd     |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 16- 1|   -3304.5|   -3465.4|  -45120.1| -13.8|  124.3|SI|
 1|cen| 16- 1|   -2905.3|    4915.3|   45650.8| -14.6|  165. |SI|
 1|sup| 16- 1|   -2506. |   13295.9|  136421.8| -45.2| 1107.9|SI|

 VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : S101 (travetto)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

              MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

              TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     : Scls(rara)=149.4; Scls(quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : Sacc(rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

              SEZIONI UTILIZZATE

 3) Sezione a T : 50/10X22/4; A=380.; Jg=16590.; E=314471.6

              DESCRIZIONE CAMPATE

Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|      S101|    1|    3|    1|    0|  324.|  284.| 14.727|1. |1.077| 34.773|

              CONDIZIONI DI CARICO
                                          |Molt.|Coeff. per combinazioni    |
Nro|   Descrizione      |    Tipo          |Caric|SLU   |Rare  |Freq. |Q.Per.|
 1 |Perman.strutturali  |senza permutazioni|1.   | 1.3  | 1.   | 1.   | 1.   |
 2 |Perman.non strutt.  |senza permutazioni|1.   | 1.5  | 1.   | 1.   | 1.   |
 3 |Variabili           |permutaz. campate |1.   | 1.5  | 1.   |  .5  |  .3  |

              CARICHI APPLICATI

Nro|Con|Camp.| Tipo             | Sistema  |carico 1|carico 2|dist.1|dist.2|
  1|  1|    1|Forza distribuita |Globale   |   -1.25|    -   |  -   |  -   |
  2|  2|    1|Forza distribuita |Globale   |   -1.  |    -   |  -   |  -   |
  3|  3|    1|Forza distribuita |Globale   |   -1.  |    -   |  -   |  -   |

              VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.|  -30344.|-.042| .108|  -56883.|-.35 |1.926|3.| .154|1.875|SI|
    0.|  0.|3.|1.|    6237.|-.004| .021|   70953.!-.35 |5.488|3.| .06 |11.38|SI|
  102.|102.|3.|2.|   54144.|-.032| .182|   65334.|-.249|6.75 |2.| .036!1.207|SI|
  162.|162.|3.|2.|   60689.!-.139!2.94 !   65334.|-.249|6.75 |2.| .036|1.077!SI|
  252.|252.|3.|1.|   -4800.|-.006| .017|  -56883.|-.35 |1.926|3.| .154|11.85!SI|
  324.|324.|3.|1.|  -30344.!-.042| .108|  -56883.!-.35 |1.926|3.| .154!1.875|SI|
  324.|324.|3.|1.|    6237.|-.004| .021|   70953.|-.35 |5.488|3.| .06 |11.38|SI|

TAGLIO:

Progressive|Se|  Vsd  |  VRd  |Ve|
>   0.|  0.|3.|   749.!   992.|SI|
  324.|324.|3.|  -749.!   992.!SI|

              VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:
```

Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-18289.	-34.7	1364.8	.79	5.59	.039	21.78	.085	SI
162.	162.	3.	2.	42646.!	-34.1	3003.6!	.79	6.41	.1	25.	.25 !	SI
324.	324.	3.	1.	-21323.!	-40.4	1591.2	.79	5.59	.0455	21.78	.099	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-15009.	-28.5	1120.	.79	5.59	.032	21.78	.07	SI
162.	162.	3.	2.	36086.!	-28.9	2541.5!	.79	6.41	.078	25.	.195!	SI
324.	324.	3.	1.	-18043.!	-34.2	1346.4	.79	5.59	.0385	21.78	.084	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
9.	9.	3.	1.	-13696.	-26.	1022.1	.79	5.59	.0292	21.78	.064	SI
162.	162.	3.	2.	33461.!	-26.8	2356.7!	.79	6.41	.0692	25.	.173!	SI
324.	324.	3.	1.	-16730.!	-31.7	1248.5	.79	5.59	.0357	21.78	.078	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	1.57	.413	.79	.207	1d10	.79	.207	1d10
2	.79	.207	0.	0.		.79	.207	1d10

FABBRICATO CANILE PARCO
VERIFICA GUSCI IN C.A.:

MACROGUSCIO PLATEA

VERIFICA ARMATURE EFFETTIVE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
1	SLU SENZA SISMA
4	SLU con SISMAX PRINC
5	SLU con SISMAY PRINC
8	SLU FON con SISMAX P
9	SLU FON con SISMAY P
13	SLUEqu

DATI:

tensione di snervamento acciaio (fyk)	:	4500	daN/cm2
coefficiente sicurezza acciaio	:	1.15	
deformazione ultima acciaio	:	1.97	per mille
deformazione ultima cls	:	3.5	per mille
rapporto rottura/snervamento (k)	:	1	
resistenza cilindrica cls (fck)	:	249	daN/cm2
coefficiente sicurezza cls	:	1.5	
coefficiente riduttivo (alfa)	:	0.85	
copriferro inferiore (asse armatura)	:	3	cm
copriferro superiore (asse armatura)	:	3	cm
moltiplicatore sollecitazioni	:	1	

LEGENDA:

- spess = spessore guscio. Verifica effettuata su sezione BxH, con B=1 cm e H="spess" cm
- Af = area disposta al lembo teso, in cm2 al metro
- Afc = area disposta al lembo compresso, in cm2 al metro
- Mom = momento flettente [daNcm/cm]
- Nor = sforzo normale [daN]
- epsC = deformazione cls [per mille]
- epsF = deformazione acciaio [per mille]

L'armatura è sufficiente se le deformazioni dei materiali sono ovunque minori delle corrispondenti deformazioni ultime.

Per gli elementi di fondazione la permanenza in campo elastico è ottenuta limitando la deformazione dell'acciaio alla deformazione di snervamento (1.97 per mille).

		INFERIORE ORIZZONTALE						INFERIORE VERTICALE					
GUSCI	spess	Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
1	30	3.14	3.14	365.	0.	0.06	0.22	3.14	3.14	963.	0.	0.15	0.58
2	30	3.14	3.14	1128.	-6.	0.18	0.66	3.14	3.14	846.	-1.	0.13	0.51
3	30	3.14	3.14	94.	0.	0.01	0.06	3.14	3.14	646.	0.	0.10	0.39
4	30	3.14	3.14	564.	-3.	0.09	0.34	3.14	3.14	187.	2.	0.02	0.13
5	30	3.14	3.14	27.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
6	30	3.14	3.14	177.	0.	0.03	0.11	3.14	3.14	0.	0.	0.00	0.00
7	30	3.14	3.14	14.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
8	30	3.14	3.14	120.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
9	30	3.14	3.14	118.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
10	30	3.14	3.14	597.	0.	0.09	0.36	3.14	3.14	0.	0.	0.00	0.00
11	30	3.14	3.14	409.	0.	0.06	0.25	3.14	3.14	756.	0.	0.12	0.46
12	30	3.14	3.14	1620.	-9.	0.26	0.95	3.14	3.14	2012.	1.	0.31	1.22
13	30	3.14	3.14	1535.	-12.	0.24	0.89	3.14	3.14	2016.	0.	0.32	1.22
14	30	3.14	3.14	292.	0.	0.05	0.18	3.14	3.14	2147.	-1.	0.34	1.29
15	30	3.14	3.14	414.	0.	0.07	0.25	3.14	3.14	1764.	-1.	0.28	1.07
16	30	3.14	3.14	1653.	-10.	0.26	0.96	3.14	3.14	2141.	2.	0.33	1.31
17	30	3.14	3.14	238.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
18	30	3.14	3.14	654.	0.	0.10	0.40	3.14	3.14	39.	0.	0.01	0.02
19	30	3.14	3.14	38.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
20	30	3.14	3.14	114.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
21	30	3.14	3.14	19.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
22	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
23	30	3.14	3.14	157.	0.	0.02	0.09	3.14	3.14	0.	0.	0.00	0.00
24	30	3.14	3.14	391.	-1.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
25	30	3.14	3.14	206.	0.	0.03	0.12	3.14	3.14	1007.	0.	0.16	0.61
26	30	3.14	3.14	967.	-6.	0.15	0.57	3.14	3.14	937.	1.	0.14	0.57
27	30	3.14	3.14	1017.	-6.	0.16	0.60	3.14	3.14	778.	1.	0.12	0.48
28	30	3.14	3.14	296.	0.	0.05	0.18	3.14	3.14	775.	0.	0.12	0.47
29	30	3.14	3.14	867.	-1.	0.14	0.52	3.14	3.14	311.	0.	0.05	0.19
30	30	3.14	3.14	955.	-3.	0.15	0.57	3.14	3.14	776.	2.	0.11	0.49
31	30	3.14	3.14	612.	2.	0.08	0.39	3.14	3.14	134.	0.	0.02	0.08
32	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	328.	1.	0.04	0.21
33	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	24.	0.	0.00	0.01
34	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	139.	0.	0.02	0.08
35	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	29.	0.	0.00	0.02
36	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	185.	0.	0.03	0.11
37	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	122.	0.	0.02	0.07
38	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	576.	0.	0.09	0.35
39	30	3.14	3.14	573.	0.	0.09	0.35	3.14	3.14	377.	0.	0.06	0.23
40	30	3.14	3.14	1499.	2.	0.23	0.92	3.14	3.14	1239.	0.	0.19	0.75
41	30	3.14	3.14	1605.	1.	0.25	0.98	3.14	3.14	1092.	0.	0.17	0.66
42	30	3.14	3.14	1636.	1.	0.26	1.00	3.14	3.14	250.	0.	0.04	0.15
43	30	3.14	3.14	1008.	1.	0.15	0.62	3.14	3.14	1148.	0.	0.18	0.69
44	30	3.14	3.14	1031.	1.	0.16	0.63	3.14	3.14	260.	0.	0.04	0.16
45	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	484.	0.	0.08	0.29
46	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	119.	0.	0.02	0.07
47	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	233.	0.	0.04	0.14
48	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	85.	0.	0.01	0.05
49	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	733.	0.	0.12	0.44

50	30	3.14	3.14	82.	0.	0.01	0.05	3.14	3.14	264.	0.	0.04	0.16
51	30	3.14	3.14	1851.	-1.	0.29	1.12	3.14	3.14	1213.	0.	0.19	0.74
52	30	3.14	3.14	1639.	0.	0.26	0.99	3.14	3.14	331.	0.	0.05	0.20
53	30	3.14	3.14	1446.	0.	0.23	0.87	3.14	3.14	1414.	-1.	0.22	0.85
54	30	3.14	3.14	1309.	0.	0.21	0.79	3.14	3.14	285.	0.	0.04	0.17
55	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	756.	0.	0.12	0.46
56	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	201.	0.	0.03	0.12
57	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	706.	0.	0.11	0.43
58	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	179.	0.	0.03	0.11
59	30	3.14	3.14	1248.	-1.	0.20	0.75	3.14	3.14	1223.	0.	0.19	0.74
60	30	3.14	3.14	1040.	0.	0.16	0.63	3.14	3.14	247.	0.	0.04	0.15
61	30	3.14	3.14	909.	3.	0.13	0.57	3.14	3.14	1128.	1.	0.17	0.69
62	30	3.14	3.14	989.	2.	0.15	0.61	3.14	3.14	270.	0.	0.04	0.16
63	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	535.	0.	0.08	0.33
64	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	177.	0.	0.03	0.11
65	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	130.	0.	0.02	0.08
66	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	53.	0.	0.01	0.03
67	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	180.	0.	0.03	0.11
68	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	62.	0.	0.01	0.04
69	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	687.	0.	0.11	0.42
70	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	200.	0.	0.03	0.12
71	30	3.14	3.14	1204.	1.	0.18	0.74	3.14	3.14	1323.	-2.	0.21	0.79
72	30	3.14	3.14	1280.	0.	0.20	0.78	3.14	3.14	274.	0.	0.04	0.17
73	30	3.14	3.14	1106.	0.	0.17	0.67	3.14	3.14	231.	0.	0.04	0.14
74	30	3.14	3.14	1401.	-2.	0.22	0.84	3.14	3.14	1350.	1.	0.21	0.82
75	30	3.14	3.14	27.	0.	0.00	0.02	3.14	3.14	203.	0.	0.03	0.12
76	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	893.	0.	0.14	0.54
77	30	3.14	3.14	561.	-1.	0.09	0.34	3.14	3.14	331.	0.	0.05	0.20
78	30	3.14	3.14	343.	0.	0.05	0.21	3.14	3.14	1052.	0.	0.17	0.64
79	30	3.14	3.14	1282.	1.	0.20	0.78	3.14	3.14	292.	0.	0.05	0.18
80	30	3.14	3.14	1293.	1.	0.20	0.79	3.14	3.14	1298.	1.	0.20	0.80
81	30	3.14	3.14	945.	4.	0.13	0.60	3.14	3.14	1180.	1.	0.18	0.72
82	30	3.14	3.14	776.	3.	0.11	0.49	3.14	3.14	432.	0.	0.07	0.26
83	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	108.	0.	0.02	0.07
101	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	309.	0.	0.05	0.19
102	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	304.	0.	0.05	0.18
103	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	242.	0.	0.04	0.15
104	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	305.	0.	0.05	0.18
105	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	602.	0.	0.09	0.37
106	30	3.14	3.14	715.	4.	0.09	0.46	3.14	3.14	1123.	1.	0.17	0.69
107	30	3.14	3.14	31.	1.	0.00	0.03	3.14	3.14	906.	1.	0.14	0.55
108	30	3.14	3.14	485.	4.	0.05	0.32	3.14	3.14	1092.	1.	0.17	0.67
109	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	858.	0.	0.13	0.52
110	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	284.	0.	0.04	0.17
111	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	306.	0.	0.05	0.19
112	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	82.	0.	0.01	0.05
113	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	117.	0.	0.02	0.07
114	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	68.	0.	0.01	0.04
115	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	248.	0.	0.04	0.15
116	30	3.14	3.14	63.	0.	0.01	0.04	3.14	3.14	202.	0.	0.03	0.12
117	30	3.14	3.14	80.	0.	0.01	0.05	3.14	3.14	535.	0.	0.08	0.33
118	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	775.	0.	0.12	0.47
119	30	3.14	3.14	444.	0.	0.07	0.27	3.14	3.14	154.	0.	0.02	0.09
120	30	3.14	3.14	664.	1.	0.10	0.41	3.14	3.14	442.	0.	0.07	0.27
121	30	3.14	3.14	765.	3.	0.10	0.49	3.14	3.14	1265.	1.	0.19	0.77
122	30	3.14	3.14	1219.	2.	0.18	0.75	3.14	3.14	1202.	1.	0.18	0.74
123	30	3.14	3.14	1057.	1.	0.16	0.65	3.14	3.14	288.	0.	0.04	0.18
124	30	3.14	3.14	530.	0.	0.08	0.32	3.14	3.14	13.	0.	0.00	0.01
125	30	3.14	3.14	544.	1.	0.08	0.33	3.14	3.14	1134.	0.	0.18	0.69
126	30	3.14	3.14	313.	0.	0.05	0.19	3.14	3.14	316.	0.	0.05	0.19
127	30	3.14	3.14	98.	0.	0.02	0.06	3.14	3.14	9.	0.	0.00	0.01
128	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	839.	0.	0.13	0.51
129	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	304.	0.	0.05	0.18
130	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	48.	0.	0.01	0.03
131	30	3.14	3.14	227.	0.	0.04	0.14	3.14	3.14	1148.	0.	0.18	0.69
132	30	3.14	3.14	339.	0.	0.05	0.21	3.14	3.14	476.	0.	0.07	0.29
133	30	3.14	3.14	281.	0.	0.04	0.17	3.14	3.14	61.	0.	0.01	0.04
134	30	3.14	3.14	481.	0.	0.08	0.29	3.14	3.14	0.	0.	0.00	0.00
135	30	3.14	3.14	1038.	0.	0.16	0.63	3.14	3.14	330.	0.	0.05	0.20
136	30	3.14	3.14	1569.	-3.	0.25	0.94	3.14	3.14	1376.	0.	0.21	0.84
137	30	3.14	3.14	368.	0.	0.06	0.22	3.14	3.14	752.	0.	0.12	0.45
138	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	834.	0.	0.13	0.50
139	30	3.14	3.14	681.	0.	0.11	0.41	3.14	3.14	1148.	0.	0.18	0.69
140	30	3.14	3.14	267.	0.	0.04	0.16	3.14	3.14	335.	0.	0.05	0.20
141	30	3.14	3.14	331.	0.	0.05	0.20	3.14	3.14	388.	0.	0.06	0.23
142	30	3.14	3.14	89.	0.	0.01	0.05	3.14	3.14	314.	0.	0.05	0.19
143	30	3.14	3.14	402.	0.	0.06	0.24	3.14	3.14	369.	0.	0.06	0.22
144	30	3.14	3.14	106.	0.	0.02	0.06	3.14	3.14	176.	0.	0.03	0.11
145	30	3.14	3.14	230.	0.	0.04	0.14	3.14	3.14	178.	0.	0.03	0.11
146	30	3.14	3.14	174.	0.	0.03	0.11	3.14	3.14	107.	0.	0.02	0.06
147	30	3.14	3.14	129.	0.	0.02	0.08	3.14	3.14	102.	0.	0.02	0.06
148	30	3.14	3.14	240.	0.	0.04	0.15	3.14	3.14	62.	0.	0.01	0.04
149	30	3.14	3.14	179.	0.	0.03	0.11	3.14	3.14	56.	0.	0.01	0.03
150	30	3.14	3.14	117.	0.	0.02	0.07	3.14	3.14	83.	0.	0.01	0.05
151	30	3.14	3.14	167.	0.	0.03	0.10	3.14	3.14	76.	0.	0.01	0.05
152	30	3.14	3.14	185.	0.	0.03	0.11	3.14	3.14	95.	0.	0.01	0.06
153	30	3.14	3.14	127.	0.	0.02	0.08	3.14	3.14	102.	0.	0.02	0.06
154	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	431.	0.	0.07	0.26
155	30	3.14	3.14	154.	0.	0.02	0.09	3.14	3.14	703.	0.	0.11	0.43
156	30	3.14	3.14	769.	-1.	0.12	0.46	3.14	3.14	1070.	0.	0.17	0.65
157	30	3.14	3.14	81.	0.	0.01	0.05	3.14	3.14	169.	0.	0.03	0.10
158	30	3.14	3.14	213.	0.	0.03	0.13	3.14	3.14	209.	0.	0.03	0.13
159	30	3.14	3.14	466.	0.	0.07	0.28	3.14	3.14	202.	0.	0.03	0.12
160	30	3.14	3.14	20.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
161	30	3.14	3.14	89.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
162	30	3.14	3.14	114.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
163	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00

164	30	3.14	3.14	23.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
165	30	3.14	3.14	52.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
166	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	98.	0.	0.02	0.06
167	30	3.14	3.14	109.	0.	0.02	0.07	3.14	3.14	92.	0.	0.01	0.06
168	30	3.14	3.14	238.	0.	0.04	0.14	3.14	3.14	23.	0.	0.00	0.01
169	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	256.	0.	0.04	0.15
170	30	3.14	3.14	86.	0.	0.01	0.05	3.14	3.14	446.	0.	0.07	0.27
171	30	3.14	3.14	379.	-1.	0.06	0.23	3.14	3.14	598.	0.	0.09	0.37
172	30	3.14	3.14	342.	-1.	0.05	0.21	3.14	3.14	716.	0.	0.11	0.43
173	30	3.14	3.14	160.	0.	0.03	0.10	3.14	3.14	546.	0.	0.09	0.33
174	30	3.14	3.14	70.	0.	0.01	0.04	3.14	3.14	179.	0.	0.03	0.11
175	30	3.14	3.14	42.	0.	0.01	0.03	3.14	3.14	293.	0.	0.05	0.18
176	30	3.14	3.14	7.	0.	0.00	0.00	3.14	3.14	246.	0.	0.04	0.15
177	30	3.14	3.14	79.	0.	0.01	0.05	3.14	3.14	173.	0.	0.03	0.11
178	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	438.	0.	0.07	0.27
179	30	3.14	3.14	143.	0.	0.02	0.09	3.14	3.14	718.	0.	0.11	0.43
180	30	3.14	3.14	701.	-1.	0.11	0.42	3.14	3.14	1031.	0.	0.16	0.63
181	30	3.14	3.14	76.	0.	0.01	0.05	3.14	3.14	187.	0.	0.03	0.11
182	30	3.14	3.14	214.	0.	0.03	0.13	3.14	3.14	225.	0.	0.04	0.14
183	30	3.14	3.14	440.	0.	0.07	0.27	3.14	3.14	214.	0.	0.03	0.13
184	30	3.14	3.14	20.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
185	30	3.14	3.14	96.	0.	0.02	0.06	3.14	3.14	0.	0.	0.00	0.00
186	30	3.14	3.14	118.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
187	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
188	30	3.14	3.14	36.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
189	30	3.14	3.14	61.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
190	30	3.14	3.14	36.	0.	0.01	0.02	3.14	3.14	51.	0.	0.01	0.03
191	30	3.14	3.14	134.	0.	0.02	0.08	3.14	3.14	32.	0.	0.01	0.02
192	30	3.14	3.14	256.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
193	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	166.	0.	0.03	0.10
194	30	3.14	3.14	132.	0.	0.02	0.08	3.14	3.14	338.	0.	0.05	0.21
195	30	3.14	3.14	443.	-1.	0.07	0.27	3.14	3.14	476.	0.	0.07	0.29
196	30	3.14	3.14	421.	-1.	0.07	0.25	3.14	3.14	481.	0.	0.08	0.29
197	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	401.	0.	0.06	0.24
198	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	58.	0.	0.01	0.03
199	30	3.14	3.14	568.	0.	0.09	0.34	3.14	3.14	165.	0.	0.03	0.10
200	30	3.14	3.14	737.	0.	0.12	0.45	3.14	3.14	937.	0.	0.15	0.57
201	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	147.	0.	0.02	0.09
202	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	578.	0.	0.09	0.35
203	30	3.14	3.14	319.	0.	0.05	0.19	3.14	3.14	104.	0.	0.02	0.06
204	30	3.14	3.14	264.	1.	0.03	0.17	3.14	3.14	498.	0.	0.08	0.30
205	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	41.	0.	0.01	0.02
206	30	3.14	3.14	267.	-1.	0.04	0.16	3.14	3.14	127.	0.	0.02	0.08
207	30	3.14	3.14	422.	-1.	0.07	0.25	3.14	3.14	469.	0.	0.07	0.28
208	30	3.14	3.14	408.	0.	0.06	0.25	3.14	3.14	107.	0.	0.02	0.07
209	30	3.14	3.14	1723.	-2.	0.27	1.03	3.14	3.14	1377.	1.	0.21	0.84
210	30	3.14	3.14	1437.	0.	0.23	0.87	3.14	3.14	218.	0.	0.03	0.13
211	30	3.14	3.14	124.	0.	0.02	0.07	3.14	3.14	906.	0.	0.14	0.55
212	30	3.14	3.14	271.	0.	0.04	0.16	3.14	3.14	272.	0.	0.04	0.17
213	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	586.	0.	0.09	0.35
214	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	150.	0.	0.02	0.09
215	30	3.14	3.14	585.	1.	0.09	0.36	3.14	3.14	935.	0.	0.15	0.57
216	30	3.14	3.14	548.	0.	0.08	0.33	3.14	3.14	200.	0.	0.03	0.12
217	30	3.14	3.14	1107.	4.	0.16	0.70	3.14	3.14	1207.	1.	0.18	0.74
218	30	3.14	3.14	1192.	2.	0.18	0.74	3.14	3.14	295.	0.	0.05	0.18
219	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	613.	0.	0.09	0.38
220	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	192.	0.	0.03	0.12
221	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	145.	0.	0.02	0.09
222	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	52.	0.	0.01	0.03
223	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	149.	0.	0.02	0.09
224	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	53.	0.	0.01	0.03
225	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	628.	0.	0.10	0.38
226	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	195.	0.	0.03	0.12
227	30	3.14	3.14	1162.	3.	0.17	0.73	3.14	3.14	1200.	1.	0.19	0.73
228	30	3.14	3.14	1227.	2.	0.18	0.76	3.14	3.14	277.	0.	0.04	0.17
229	30	3.14	3.14	1602.	-2.	0.25	0.96	3.14	3.14	1366.	1.	0.21	0.83
230	30	3.14	3.14	1323.	0.	0.21	0.80	3.14	3.14	235.	0.	0.04	0.14
231	30	3.14	3.14	85.	0.	0.01	0.05	3.14	3.14	910.	0.	0.14	0.55
232	30	3.14	3.14	214.	0.	0.03	0.13	3.14	3.14	273.	0.	0.04	0.17
233	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	685.	0.	0.11	0.42
234	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	168.	0.	0.03	0.10
235	30	3.14	3.14	692.	0.	0.11	0.42	3.14	3.14	1002.	0.	0.16	0.61
236	30	3.14	3.14	520.	0.	0.08	0.31	3.14	3.14	187.	0.	0.03	0.11
237	30	3.14	3.14	521.	1.	0.08	0.32	3.14	3.14	943.	0.	0.15	0.57
238	30	3.14	3.14	513.	0.	0.08	0.31	3.14	3.14	215.	0.	0.03	0.13
239	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	529.	0.	0.08	0.32
240	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	142.	0.	0.02	0.09
241	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	805.	0.	0.13	0.49
242	30	3.14	3.14	78.	0.	0.01	0.05	3.14	3.14	251.	0.	0.04	0.15
243	30	3.14	3.14	1536.	-1.	0.24	0.92	3.14	3.14	1306.	1.	0.20	0.80
244	30	3.14	3.14	1276.	0.	0.20	0.77	3.14	3.14	231.	0.	0.04	0.14
245	30	3.14	3.14	1142.	3.	0.17	0.71	3.14	3.14	1176.	1.	0.18	0.72
246	30	3.14	3.14	1189.	2.	0.18	0.73	3.14	3.14	271.	0.	0.04	0.16
247	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	654.	0.	0.10	0.40
248	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	192.	0.	0.03	0.12
249	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	186.	0.	0.03	0.11
250	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	70.	0.	0.01	0.04
251	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	229.	0.	0.04	0.14
252	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	80.	0.	0.01	0.05
253	30	3.14	3.14	39.	0.	0.01	0.02	3.14	3.14	793.	0.	0.12	0.48
254	30	3.14	3.14	207.	0.	0.03	0.13	3.14	3.14	272.	0.	0.04	0.16
255	30	3.14	3.14	1726.	0.	0.27	1.05	3.14	3.14	1398.	-1.	0.22	0.85
256	30	3.14	3.14	1519.	0.	0.24	0.92	3.14	3.14	263.	0.	0.04	0.16
257	30	3.14	3.14	1668.	0.	0.26	1.01	3.14	3.14	1404.	0.	0.22	0.85
258	30	3.14	3.14	1595.	0.	0.25	0.97	3.14	3.14	324.	0.	0.05	0.20
259	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	806.	0.	0.13	0.49
260	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	226.	0.	0.04	0.14

261	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	244.	0.	0.04	0.15
262	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	82.	0.	0.01	0.05
263	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	328.	0.	0.05	0.20
264	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	162.	0.	0.03	0.10
265	30	3.14	3.14	423.	0.	0.07	0.26	3.14	3.14	1035.	0.	0.16	0.63
266	30	3.14	3.14	1023.	0.	0.16	0.62	3.14	3.14	314.	0.	0.05	0.19
267	30	3.14	3.14	1874.	0.	0.29	1.14	3.14	3.14	178.	0.	0.03	0.11
268	30	3.14	3.14	2081.	-1.	0.33	1.26	3.14	3.14	1430.	0.	0.22	0.87
269	30	3.14	3.14	1808.	1.	0.28	1.10	3.14	3.14	383.	0.	0.06	0.23
270	30	3.14	3.14	1740.	1.	0.27	1.06	3.14	3.14	1369.	0.	0.22	0.83
271	30	3.14	3.14	179.	0.	0.03	0.11	3.14	3.14	274.	0.	0.04	0.17
272	30	3.14	3.14	46.	0.	0.01	0.03	3.14	3.14	793.	0.	0.12	0.48
273	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	58.	0.	0.01	0.04
274	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	191.	0.	0.03	0.12
275	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	32.	0.	0.01	0.02
276	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	90.	0.	0.01	0.05
277	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	144.	0.	0.01	0.09
278	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	239.	1.	0.03	0.15
279	30	3.14	3.14	749.	2.	0.10	0.47	3.14	3.14	192.	0.	0.03	0.12
280	30	3.14	3.14	472.	4.	0.05	0.32	3.14	3.14	729.	2.	0.10	0.46
281	30	3.14	3.14	1052.	-4.	0.17	0.63	3.14	3.14	813.	2.	0.12	0.51
282	30	3.14	3.14	870.	-1.	0.14	0.52	3.14	3.14	246.	0.	0.04	0.15
283	30	3.14	3.14	365.	6.	0.02	0.27	3.14	3.14	624.	3.	0.08	0.40
284	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	232.	1.	0.03	0.15
285	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	31.	0.	0.00	0.02
286	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	189.	0.	0.03	0.11
287	30	3.14	3.14	300.	0.	0.05	0.18	3.14	3.14	784.	0.	0.12	0.48
288	30	3.14	3.14	1678.	1.	0.26	1.03	3.14	3.14	1332.	1.	0.21	0.81
289	30	3.14	3.14	218.	1.	0.03	0.15	3.14	3.14	0.	0.	0.00	0.00
290	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
291	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
292	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
293	30	3.14	3.14	233.	0.	0.04	0.14	3.14	3.14	18.	0.	0.00	0.01
294	30	3.14	3.14	1032.	0.	0.16	0.63	3.14	3.14	0.	0.	0.00	0.00
295	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
296	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
297	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
298	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
299	30	3.14	3.14	32.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
300	30	3.14	3.14	395.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
301	30	3.14	3.14	81.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
302	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
303	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
304	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
305	30	3.14	3.14	261.	0.	0.04	0.16	3.14	3.14	0.	0.	0.00	0.00
306	30	3.14	3.14	665.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
307	30	3.14	3.14	518.	2.	0.07	0.33	3.14	3.14	275.	0.	0.04	0.17
308	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	170.	0.	0.03	0.10
309	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	40.	0.	0.01	0.02
310	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	310.	0.	0.05	0.19
311	30	3.14	3.14	597.	0.	0.09	0.36	3.14	3.14	596.	0.	0.09	0.36
312	30	3.14	3.14	1833.	1.	0.29	1.12	3.14	3.14	428.	0.	0.07	0.26
313	30	3.14	3.14	753.	8.	0.07	0.52	3.14	3.14	1857.	2.	0.29	1.14
314	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	745.	1.	0.11	0.46
315	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	405.	0.	0.06	0.25
316	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	751.	0.	0.12	0.45
317	30	3.14	3.14	445.	0.	0.07	0.27	3.14	3.14	1996.	0.	0.31	1.21
318	30	3.14	3.14	2851.	2.	0.45	1.74	3.14	3.14	2903.	1.	0.46	1.76
319	30	3.14	3.14	761.	9.	0.07	0.53	3.14	3.14	1632.	2.	0.25	1.01
320	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	795.	2.	0.12	0.49
321	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	402.	0.	0.06	0.24
322	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	749.	0.	0.12	0.45
323	30	3.14	3.14	374.	0.	0.06	0.23	3.14	3.14	1989.	0.	0.31	1.21
324	30	3.14	3.14	3011.	2.	0.47	1.84	3.14	3.14	3071.	1.	0.48	1.87
325	30	3.14	3.14	544.	2.	0.08	0.34	3.14	3.14	311.	0.	0.05	0.19
326	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	165.	0.	0.03	0.10
327	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	34.	0.	0.01	0.02
328	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	309.	0.	0.05	0.19
329	30	3.14	3.14	597.	0.	0.09	0.36	3.14	3.14	593.	0.	0.09	0.36
330	30	3.14	3.14	1915.	1.	0.30	1.17	3.14	3.14	415.	0.	0.07	0.25
331	30	3.14	3.14	69.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
332	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
333	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
334	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
335	30	3.14	3.14	266.	0.	0.04	0.16	3.14	3.14	0.	0.	0.00	0.00
336	30	3.14	3.14	662.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
337	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
338	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
339	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
340	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
341	30	3.14	3.14	33.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
342	30	3.14	3.14	387.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
343	30	3.14	3.14	218.	2.	0.02	0.15	3.14	3.14	0.	0.	0.00	0.00
344	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
345	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
346	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
347	30	3.14	3.14	212.	0.	0.03	0.13	3.14	3.14	12.	0.	0.00	0.01
348	30	3.14	3.14	923.	1.	0.14	0.56	3.14	3.14	0.	0.	0.00	0.00
349	30	3.14	3.14	415.	7.	0.02	0.30	3.14	3.14	709.	3.	0.10	0.45
350	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	247.	1.	0.03	0.16
351	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	34.	0.	0.01	0.02
352	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	169.	0.	0.03	0.10
353	30	3.14	3.14	229.	0.	0.04	0.14	3.14	3.14	738.	0.	0.11	0.45
354	30	3.14	3.14	1406.	2.	0.21	0.86	3.14	3.14	1158.	1.	0.18	0.71
355	30	3.14	3.14	2948.	-1.	0.46	1.78	3.14	3.14	2971.	0.	0.47	1.80
356	30	3.14	3.14	308.	0.	0.05	0.19	3.14	3.14	2011.	0.	0.32	1.22
357	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	852.	0.	0.13	0.52

358	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	799.	0.	0.13	0.48
359	30	3.14	3.14	166.	0.	0.03	0.10	3.14	3.14	1974.	0.	0.31	1.20
360	30	3.14	3.14	2653.	0.	0.42	1.61	3.14	3.14	2833.	0.	0.44	1.72
361	30	3.14	3.14	1835.	0.	0.29	1.11	3.14	3.14	293.	0.	0.05	0.18
362	30	3.14	3.14	514.	0.	0.08	0.31	3.14	3.14	536.	0.	0.08	0.32
363	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	126.	0.	0.02	0.08
364	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	98.	0.	0.02	0.06
365	30	3.14	3.14	416.	0.	0.07	0.25	3.14	3.14	509.	0.	0.08	0.31
366	30	3.14	3.14	1668.	0.	0.26	1.01	3.14	3.14	302.	0.	0.05	0.18
367	30	3.14	3.14	608.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
368	30	3.14	3.14	91.	0.	0.01	0.06	3.14	3.14	0.	0.	0.00	0.00
369	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
370	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
371	30	3.14	3.14	32.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
372	30	3.14	3.14	538.	0.	0.08	0.33	3.14	3.14	0.	0.	0.00	0.00
373	30	3.14	3.14	388.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
374	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
375	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
376	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
377	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
378	30	3.14	3.14	336.	0.	0.05	0.20	3.14	3.14	0.	0.	0.00	0.00
379	30	3.14	3.14	1029.	0.	0.16	0.62	3.14	3.14	0.	0.	0.00	0.00
380	30	3.14	3.14	157.	0.	0.02	0.10	3.14	3.14	0.	0.	0.00	0.00
381	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
382	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
383	30	3.14	3.14	108.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
384	30	3.14	3.14	942.	0.	0.15	0.57	3.14	3.14	0.	0.	0.00	0.00
385	30	3.14	3.14	1728.	-1.	0.27	1.04	3.14	3.14	1253.	1.	0.19	0.76
386	30	3.14	3.14	296.	0.	0.05	0.18	3.14	3.14	789.	0.	0.12	0.48
387	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	199.	0.	0.03	0.12
388	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	182.	0.	0.03	0.11
389	30	3.14	3.14	176.	0.	0.03	0.11	3.14	3.14	761.	0.	0.12	0.46
390	30	3.14	3.14	1615.	0.	0.25	0.98	3.14	3.14	1310.	1.	0.20	0.80
391	30	3.14	3.14	1032.	2.	0.15	0.64	3.14	3.14	958.	2.	0.14	0.59
392	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	480.	1.	0.07	0.30
393	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	153.	0.	0.02	0.09
394	30	3.14	3.14	103.	0.	0.02	0.06	3.14	3.14	671.	0.	0.11	0.41
395	30	3.14	3.14	1641.	-1.	0.26	0.99	3.14	3.14	1226.	1.	0.19	0.75
396	30	3.14	3.14	576.	1.	0.09	0.36	3.14	3.14	0.	0.	0.00	0.00
397	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
398	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
399	30	3.14	3.14	18.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
400	30	3.14	3.14	920.	0.	0.14	0.56	3.14	3.14	0.	0.	0.00	0.00
401	30	3.14	3.14	186.	0.	0.03	0.11	3.14	3.14	0.	0.	0.00	0.00
402	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
403	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
404	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
405	30	3.14	3.14	374.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
406	30	3.14	3.14	430.	0.	0.07	0.26	3.14	3.14	0.	0.	0.00	0.00
407	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
408	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
409	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
410	30	3.14	3.14	577.	0.	0.09	0.35	3.14	3.14	0.	0.	0.00	0.00
411	30	3.14	3.14	1383.	0.	0.22	0.84	3.14	3.14	373.	0.	0.06	0.23
412	30	3.14	3.14	104.	0.	0.02	0.06	3.14	3.14	349.	0.	0.05	0.21
413	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	30.	0.	0.00	0.02
414	30	3.14	3.14	277.	0.	0.04	0.17	3.14	3.14	456.	0.	0.07	0.28
415	30	3.14	3.14	1717.	0.	0.27	1.04	3.14	3.14	345.	0.	0.05	0.21
416	30	3.14	3.14	2776.	0.	0.44	1.68	3.14	3.14	3042.	0.	0.48	1.85
417	30	3.14	3.14	56.	0.	0.01	0.03	3.14	3.14	1881.	0.	0.30	1.14
418	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	709.	0.	0.11	0.43
419	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	807.	0.	0.13	0.49
420	30	3.14	3.14	224.	0.	0.04	0.14	3.14	3.14	1929.	0.	0.30	1.17
421	30	3.14	3.14	2873.	-1.	0.45	1.73	3.14	3.14	3050.	0.	0.48	1.85
422	30	3.14	3.14	2670.	0.	0.42	1.62	3.14	3.14	2831.	0.	0.44	1.71
423	30	3.14	3.14	269.	0.	0.04	0.16	3.14	3.14	1867.	0.	0.29	1.13
424	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	755.	0.	0.12	0.46
425	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	682.	0.	0.11	0.41
426	30	3.14	3.14	46.	0.	0.01	0.03	3.14	3.14	1705.	0.	0.27	1.03
427	30	3.14	3.14	1948.	2.	0.30	1.20	3.14	3.14	2337.	-2.	0.37	1.41
428	30	3.14	3.14	1711.	0.	0.27	1.04	3.14	3.14	367.	0.	0.06	0.22
429	30	3.14	3.14	478.	0.	0.08	0.29	3.14	3.14	525.	0.	0.08	0.32
430	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	120.	0.	0.02	0.07
431	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	84.	0.	0.01	0.05
432	30	3.14	3.14	297.	0.	0.05	0.18	3.14	3.14	485.	0.	0.08	0.29
433	30	3.14	3.14	1318.	1.	0.20	0.80	3.14	3.14	390.	0.	0.06	0.24
434	30	3.14	3.14	564.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
435	30	3.14	3.14	103.	0.	0.02	0.06	3.14	3.14	0.	0.	0.00	0.00
436	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
437	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
438	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
439	30	3.14	3.14	403.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
440	30	3.14	3.14	345.	0.	0.05	0.21	3.14	3.14	0.	0.	0.00	0.00
441	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
442	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
443	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
444	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
445	30	3.14	3.14	207.	0.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
446	30	3.14	3.14	974.	0.	0.15	0.59	3.14	3.14	0.	0.	0.00	0.00
447	30	3.14	3.14	167.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
448	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
449	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
450	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
451	30	3.14	3.14	695.	1.	0.10	0.43	3.14	3.14	0.	0.	0.00	0.00
452	30	3.14	3.14	1554.	0.	0.24	0.94	3.14	3.14	1235.	1.	0.19	0.75
453	30	3.14	3.14	255.	0.	0.04	0.15	3.14	3.14	750.	0.	0.12	0.46
454	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	167.	0.	0.03	0.10

455	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	121.	0.	0.02	0.07
456	30	3.14	3.14	22.	0.	0.00	0.01	3.14	3.14	607.	1.	0.09	0.37
457	30	3.14	3.14	1175.	3.	0.17	0.73	3.14	3.14	1076.	1.	0.16	0.66
458	30	3.14	3.14	1351.	-1.	0.21	0.82	3.14	3.14	937.	2.	0.14	0.58
459	30	3.14	3.14	86.	0.	0.01	0.05	3.14	3.14	637.	1.	0.10	0.39
460	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	489.	0.	0.08	0.30
461	30	3.14	3.14	1135.	-2.	0.18	0.68	3.14	3.14	971.	1.	0.15	0.60
462	30	3.14	3.14	709.	1.	0.11	0.43	3.14	3.14	0.	0.	0.00	0.00
463	30	3.14	3.14	111.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
464	30	3.14	3.14	22.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
465	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
466	30	3.14	3.14	448.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
467	30	3.14	3.14	175.	0.	0.03	0.11	3.14	3.14	0.	0.	0.00	0.00
468	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
469	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
470	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
471	30	3.14	3.14	231.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
472	30	3.14	3.14	278.	0.	0.04	0.17	3.14	3.14	0.	0.	0.00	0.00
473	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
474	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
475	30	3.14	3.14	195.	0.	0.03	0.12	3.14	3.14	0.	0.	0.00	0.00
476	30	3.14	3.14	544.	0.	0.09	0.33	3.14	3.14	0.	0.	0.00	0.00
477	30	3.14	3.14	971.	0.	0.15	0.59	3.14	3.14	542.	0.	0.09	0.33
478	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	241.	0.	0.04	0.15
479	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	25.	0.	0.00	0.02
480	30	3.14	3.14	465.	0.	0.07	0.28	3.14	3.14	463.	0.	0.07	0.28
481	30	3.14	3.14	1735.	0.	0.27	1.05	3.14	3.14	342.	0.	0.05	0.21
482	30	3.14	3.14	2030.	4.	0.31	1.26	3.14	3.14	2527.	2.	0.39	1.55
483	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1355.	0.	0.21	0.82
484	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	797.	0.	0.13	0.48
485	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	694.	0.	0.11	0.42
486	30	3.14	3.14	279.	0.	0.04	0.17	3.14	3.14	1827.	0.	0.29	1.11
487	30	3.14	3.14	2616.	0.	0.41	1.59	3.14	3.14	2849.	0.	0.45	1.73
488	30	3.14	3.14	2425.	-1.	0.38	1.46	3.14	3.14	2480.	2.	0.39	1.52
489	30	3.14	3.14	307.	0.	0.05	0.19	3.14	3.14	1836.	0.	0.29	1.11
490	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1335.	0.	0.21	0.81
491	30	3.14	3.14	999.	1.	0.15	0.61	3.14	3.14	1951.	0.	0.31	1.19
492	30	3.14	3.14	1391.	0.	0.22	0.84	3.14	3.14	75.	0.	0.01	0.05
493	30	3.14	3.14	534.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
494	30	3.14	3.14	243.	0.	0.04	0.15	3.14	3.14	287.	0.	0.05	0.17
495	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	63.	0.	0.01	0.04
496	30	3.14	3.14	410.	0.	0.06	0.25	3.14	3.14	155.	0.	0.02	0.09
497	30	3.14	3.14	415.	0.	0.07	0.25	3.14	3.14	0.	0.	0.00	0.00
498	30	3.14	3.14	174.	0.	0.03	0.11	3.14	3.14	0.	0.	0.00	0.00
499	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
500	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
501	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
502	30	3.14	3.14	169.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
503	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
504	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
505	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
506	30	3.14	3.14	43.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
507	30	3.14	3.14	540.	0.	0.08	0.33	3.14	3.14	35.	0.	0.01	0.02
508	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
509	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
510	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
511	30	3.14	3.14	544.	1.	0.08	0.34	3.14	3.14	0.	0.	0.00	0.00
512	30	3.14	3.14	1231.	3.	0.18	0.77	3.14	3.14	1137.	3.	0.17	0.71
513	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	583.	0.	0.09	0.36
514	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	186.	0.	0.03	0.11
515	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	33.	0.	0.01	0.02
516	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	538.	1.	0.08	0.33
517	30	3.14	3.14	982.	3.	0.14	0.62	3.14	3.14	1047.	2.	0.16	0.65
518	30	3.14	3.14	1131.	-1.	0.18	0.68	3.14	3.14	2094.	0.	0.33	1.27
519	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1655.	0.	0.26	1.00
520	30	3.14	3.14	287.	0.	0.05	0.17	3.14	3.14	2137.	0.	0.34	1.29
521	30	3.14	3.14	2606.	-4.	0.41	1.55	3.14	3.14	2782.	1.	0.44	1.69
522	30	3.14	3.14	512.	0.	0.08	0.31	3.14	3.14	55.	0.	0.01	0.03
523	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	44.	0.	0.01	0.03
524	30	3.14	3.14	339.	0.	0.05	0.21	3.14	3.14	267.	0.	0.04	0.16
525	30	3.14	3.14	1431.	0.	0.22	0.87	3.14	3.14	102.	0.	0.02	0.06
526	30	3.14	3.14	24.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
527	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
528	30	3.14	3.14	70.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
529	30	3.14	3.14	367.	0.	0.06	0.22	3.14	3.14	0.	0.	0.00	0.00
530	30	3.14	3.14	69.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
531	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
532	30	3.14	3.14	35.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
533	30	3.14	3.14	224.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
534	30	3.14	3.14	492.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
535	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
536	30	3.14	3.14	37.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
537	30	3.14	3.14	584.	0.	0.09	0.35	3.14	3.14	0.	0.	0.00	0.00
538	30	3.14	3.14	1274.	-3.	0.20	0.76	3.14	3.14	1054.	1.	0.16	0.65
539	30	3.14	3.14	56.	0.	0.01	0.03	3.14	3.14	848.	0.	0.13	0.51
540	30	3.14	3.14	139.	0.	0.02	0.08	3.14	3.14	850.	0.	0.13	0.52
541	30	3.14	3.14	1395.	-3.	0.22	0.83	3.14	3.14	1132.	1.	0.17	0.69
542	30	3.14	3.14	537.	1.	0.08	0.33	3.14	3.14	797.	1.	0.12	0.49
543	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	430.	0.	0.07	0.26
544	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	691.	0.	0.11	0.42
545	30	3.14	3.14	1417.	-2.	0.22	0.85	3.14	3.14	1096.	1.	0.17	0.67
546	30	3.14	3.14	135.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
547	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
548	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
549	30	3.14	3.14	687.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
550	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
551	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00

552	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
553	30	3.14	3.14	230.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
554	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
555	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
556	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
557	30	3.14	3.14	353.	0.	0.06	0.21	3.14	3.14	0.	0.	0.00	0.00
558	30	3.14	3.14	433.	0.	0.07	0.26	3.14	3.14	194.	0.	0.03	0.12
559	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	68.	0.	0.01	0.04
560	30	3.14	3.14	178.	0.	0.03	0.11	3.14	3.14	309.	0.	0.05	0.19
561	30	3.14	3.14	1334.	0.	0.21	0.81	3.14	3.14	208.	0.	0.03	0.13
562	30	3.14	3.14	1021.	1.	0.15	0.63	3.14	3.14	2053.	0.	0.32	1.24
563	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1371.	0.	0.22	0.83
564	30	3.14	3.14	18.	0.	0.00	0.01	3.14	3.14	1798.	0.	0.28	1.09
565	30	3.14	3.14	2435.	-1.	0.38	1.47	3.14	3.14	2668.	-1.	0.42	1.61
566	30	3.14	3.14	1134.	-1.	0.18	0.68	3.14	3.14	2107.	0.	0.33	1.28
567	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1655.	0.	0.26	1.00
568	30	3.14	3.14	231.	0.	0.04	0.14	3.14	3.14	1962.	0.	0.31	1.19
569	30	3.14	3.14	2531.	-4.	0.40	1.51	3.14	3.14	2746.	1.	0.43	1.67
570	30	3.14	3.14	445.	0.	0.07	0.27	3.14	3.14	70.	0.	0.01	0.04
571	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	65.	0.	0.01	0.04
572	30	3.14	3.14	327.	0.	0.05	0.20	3.14	3.14	277.	0.	0.04	0.17
573	30	3.14	3.14	1355.	0.	0.21	0.82	3.14	3.14	108.	0.	0.02	0.07
574	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
575	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
576	30	3.14	3.14	62.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
577	30	3.14	3.14	374.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
578	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
579	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
580	30	3.14	3.14	32.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
581	30	3.14	3.14	251.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
582	30	3.14	3.14	148.	0.	0.02	0.09	3.14	3.14	0.	0.	0.00	0.00
583	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
584	30	3.14	3.14	70.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
585	30	3.14	3.14	694.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
586	30	3.14	3.14	626.	-1.	0.10	0.38	3.14	3.14	785.	0.	0.12	0.48
587	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	579.	0.	0.09	0.35
588	30	3.14	3.14	169.	0.	0.03	0.10	3.14	3.14	831.	0.	0.13	0.50
589	30	3.14	3.14	1479.	-3.	0.23	0.89	3.14	3.14	1117.	1.	0.17	0.68
590	30	3.14	3.14	1204.	3.	0.17	0.75	3.14	3.14	1114.	2.	0.17	0.69
591	30	3.14	3.14	43.	0.	0.01	0.03	3.14	3.14	616.	1.	0.09	0.38
592	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	91.	0.	0.01	0.05
593	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	84.	0.	0.01	0.05
594	30	3.14	3.14	25.	0.	0.00	0.02	3.14	3.14	604.	1.	0.09	0.37
595	30	3.14	3.14	1159.	4.	0.16	0.73	3.14	3.14	1090.	2.	0.16	0.67
596	30	3.14	3.14	717.	1.	0.11	0.44	3.14	3.14	0.	0.	0.00	0.00
597	30	3.14	3.14	14.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
598	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
599	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
600	30	3.14	3.14	8.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
601	30	3.14	3.14	715.	1.	0.10	0.44	3.14	3.14	0.	0.	0.00	0.00
602	30	3.14	3.14	209.	0.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
603	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
604	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
605	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
606	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
607	30	3.14	3.14	220.	0.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
608	30	3.14	3.14	421.	0.	0.07	0.26	3.14	3.14	0.	0.	0.00	0.00
609	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
610	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
611	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
612	30	3.14	3.14	8.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
613	30	3.14	3.14	435.	0.	0.07	0.26	3.14	3.14	0.	0.	0.00	0.00
614	30	3.14	3.14	1302.	2.	0.20	0.80	3.14	3.14	433.	0.	0.07	0.26
615	30	3.14	3.14	245.	0.	0.04	0.15	3.14	3.14	484.	0.	0.08	0.29
616	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	66.	0.	0.01	0.04
617	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	80.	0.	0.01	0.05
618	30	3.14	3.14	278.	0.	0.04	0.17	3.14	3.14	487.	0.	0.08	0.30
619	30	3.14	3.14	1355.	1.	0.21	0.83	3.14	3.14	412.	0.	0.06	0.25
620	30	3.14	3.14	2006.	6.	0.30	1.26	3.14	3.14	2408.	2.	0.38	1.47
621	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1625.	1.	0.25	0.99
622	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	547.	0.	0.09	0.33
623	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	567.	0.	0.09	0.34
624	30	3.14	3.14	83.	0.	0.01	0.05	3.14	3.14	1656.	1.	0.26	1.01
625	30	3.14	3.14	2116.	4.	0.32	1.31	3.14	3.14	2470.	1.	0.39	1.51
626	30	3.14	3.14	2148.	6.	0.32	1.35	3.14	3.14	2630.	2.	0.41	1.61
627	30	3.14	3.14	34.	0.	0.01	0.02	3.14	3.14	1621.	1.	0.25	0.99
628	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	551.	0.	0.09	0.33
629	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	563.	0.	0.09	0.34
630	30	3.14	3.14	26.	0.	0.00	0.02	3.14	3.14	1648.	1.	0.26	1.00
631	30	3.14	3.14	2263.	4.	0.35	1.40	3.14	3.14	2635.	1.	0.41	1.61
632	30	3.14	3.14	1366.	2.	0.21	0.84	3.14	3.14	422.	0.	0.07	0.26
633	30	3.14	3.14	240.	0.	0.04	0.15	3.14	3.14	480.	0.	0.08	0.29
634	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	63.	0.	0.01	0.04
635	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	75.	0.	0.01	0.05
636	30	3.14	3.14	278.	0.	0.04	0.17	3.14	3.14	480.	0.	0.08	0.29
637	30	3.14	3.14	1428.	1.	0.22	0.88	3.14	3.14	405.	0.	0.06	0.25
638	30	3.14	3.14	400.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
639	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
640	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
641	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
642	30	3.14	3.14	13.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
643	30	3.14	3.14	439.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
644	30	3.14	3.14	178.	0.	0.03	0.11	3.14	3.14	0.	0.	0.00	0.00
645	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
646	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
647	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
648	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00

649	30	3.14	3.14	223.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
650	30	3.14	3.14	650.	1.	0.09	0.40	3.14	3.14	0.	0.	0.00	0.00
651	30	3.14	3.14	10.	0.	0.00	0.01	3.14	3.14	35.	0.	0.01	0.02
652	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
653	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
654	30	3.14	3.14	47.	0.	0.01	0.03	3.14	3.14	58.	0.	0.01	0.03
655	30	3.14	3.14	628.	1.	0.09	0.39	3.14	3.14	7.	0.	0.00	0.00
656	30	3.14	3.14	1052.	4.	0.15	0.67	3.14	3.14	1155.	2.	0.17	0.71
657	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	669.	1.	0.10	0.41
658	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	191.	0.	0.03	0.12
659	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	198.	0.	0.03	0.12
660	30	3.14	3.14	11.	0.	0.00	0.01	3.14	3.14	686.	1.	0.10	0.42
661	30	3.14	3.14	890.	4.	0.12	0.57	3.14	3.14	1233.	2.	0.19	0.76
662	30	3.14	3.14	2587.	-3.	0.41	1.55	3.14	3.14	2763.	1.	0.43	1.68
663	30	3.14	3.14	277.	0.	0.04	0.17	3.14	3.14	2026.	0.	0.32	1.23
664	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1457.	0.	0.23	0.88
665	30	3.14	3.14	1076.	1.	0.17	0.66	3.14	3.14	1937.	0.	0.30	1.17
666	30	3.14	3.14	1476.	0.	0.23	0.89	3.14	3.14	147.	0.	0.02	0.09
667	30	3.14	3.14	346.	0.	0.05	0.21	3.14	3.14	316.	0.	0.05	0.19
668	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	68.	0.	0.01	0.04
669	30	3.14	3.14	455.	0.	0.07	0.28	3.14	3.14	68.	0.	0.01	0.04
670	30	3.14	3.14	395.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
671	30	3.14	3.14	61.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
672	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
673	30	3.14	3.14	26.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
674	30	3.14	3.14	259.	0.	0.04	0.16	3.14	3.14	0.	0.	0.00	0.00
675	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
676	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
677	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
678	30	3.14	3.14	743.	0.	0.12	0.45	3.14	3.14	0.	0.	0.00	0.00
679	30	3.14	3.14	113.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
680	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
681	30	3.14	3.14	218.	0.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
682	30	3.14	3.14	1499.	-3.	0.24	0.90	3.14	3.14	1371.	1.	0.21	0.84
683	30	3.14	3.14	204.	0.	0.03	0.12	3.14	3.14	992.	0.	0.16	0.60
684	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	722.	0.	0.11	0.44
685	30	3.14	3.14	557.	1.	0.08	0.34	3.14	3.14	974.	1.	0.15	0.60
686	30	3.14	3.14	502.	1.	0.07	0.31	3.14	3.14	687.	1.	0.10	0.42
687	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	480.	0.	0.07	0.29
688	30	3.14	3.14	206.	0.	0.03	0.12	3.14	3.14	818.	0.	0.13	0.50
689	30	3.14	3.14	1593.	-3.	0.25	0.95	3.14	3.14	1143.	1.	0.17	0.70
690	30	3.14	3.14	129.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
691	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
692	30	3.14	3.14	87.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
693	30	3.14	3.14	743.	0.	0.12	0.45	3.14	3.14	0.	0.	0.00	0.00
694	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
695	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
696	30	3.14	3.14	21.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
697	30	3.14	3.14	259.	0.	0.04	0.16	3.14	3.14	0.	0.	0.00	0.00
698	30	3.14	3.14	21.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
699	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
700	30	3.14	3.14	54.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
701	30	3.14	3.14	392.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
702	30	3.14	3.14	413.	0.	0.06	0.25	3.14	3.14	74.	0.	0.01	0.04
703	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	73.	0.	0.01	0.04
704	30	3.14	3.14	342.	0.	0.05	0.21	3.14	3.14	320.	0.	0.05	0.19
705	30	3.14	3.14	1399.	0.	0.22	0.85	3.14	3.14	151.	0.	0.02	0.09
706	30	3.14	3.14	992.	0.	0.15	0.60	3.14	3.14	1856.	0.	0.29	1.13
707	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	1458.	0.	0.23	0.88
708	30	3.14	3.14	222.	0.	0.03	0.13	3.14	3.14	1909.	0.	0.30	1.16
709	30	3.14	3.14	2521.	-3.	0.40	1.51	3.14	3.14	2721.	1.	0.43	1.65
710	30	3.14	3.14	1155.	0.	0.18	0.70	3.14	3.14	1818.	0.	0.29	1.10
711	30	3.14	3.14	72.	0.	0.01	0.04	3.14	3.14	1382.	0.	0.22	0.84
712	30	3.14	3.14	258.	2.	0.02	0.17	3.14	3.14	1134.	1.	0.17	0.69
713	30	3.14	3.14	652.	0.	0.10	0.40	3.14	3.14	193.	0.	0.03	0.12
714	30	3.14	3.14	178.	0.	0.03	0.11	3.14	3.14	244.	0.	0.04	0.15
715	30	3.14	3.14	219.	0.	0.03	0.14	3.14	3.14	186.	0.	0.03	0.11
716	30	3.14	3.14	86.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
717	30	3.14	3.14	7.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
718	30	3.14	3.14	61.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
719	30	3.14	3.14	14.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
720	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
721	30	3.14	3.14	30.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
722	30	3.14	3.14	306.	0.	0.05	0.19	3.14	3.14	0.	0.	0.00	0.00
723	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
724	30	3.14	3.14	73.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
725	30	3.14	3.14	677.	-1.	0.11	0.41	3.14	3.14	775.	1.	0.12	0.47
726	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	582.	0.	0.09	0.36
727	30	3.14	3.14	164.	2.	0.01	0.11	3.14	3.14	428.	1.	0.06	0.27
728	30	3.14	3.14	1167.	0.	0.18	0.71	3.14	3.14	1848.	0.	0.29	1.12
729	30	3.14	3.14	42.	0.	0.01	0.03	3.14	3.14	1378.	0.	0.22	0.84
730	30	3.14	3.14	275.	2.	0.03	0.18	3.14	3.14	1137.	1.	0.18	0.69
731	30	3.14	3.14	696.	0.	0.11	0.42	3.14	3.14	186.	0.	0.03	0.11
732	30	3.14	3.14	175.	0.	0.03	0.11	3.14	3.14	237.	0.	0.04	0.14
733	30	3.14	3.14	216.	0.	0.03	0.13	3.14	3.14	179.	0.	0.03	0.11
734	30	3.14	3.14	87.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
735	30	3.14	3.14	7.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
736	30	3.14	3.14	60.	0.	0.01	0.04	3.14	3.14	0.	0.	0.00	0.00
737	30	3.14	3.14	21.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
738	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
739	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
740	30	3.14	3.14	344.	0.	0.05	0.21	3.14	3.14	0.	0.	0.00	0.00
741	30	3.14	3.14	34.	0.	0.01	0.02	3.14	3.14	0.	0.	0.00	0.00
742	30	3.14	3.14	76.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
743	30	3.14	3.14	665.	0.	0.10	0.40	3.14	3.14	959.	1.	0.15	0.58
744	30	3.14	3.14	22.	0.	0.00	0.01	3.14	3.14	721.	0.	0.11	0.44
745	30	3.14	3.14	161.	2.	0.01	0.11	3.14	3.14	544.	1.	0.08	0.34

		SUPERIORE ORIZZONTALE						SUPERIORE VERTICALE					
GUSCI	spess	Af	Afc	Mom	Nor	epsC	epsF	Af	Afc	Mom	Nor	epsC	epsF
1	30	3.14	3.14	51.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
2	30	3.14	3.14	0.	-7.	0.00	0.00	3.14	3.14	0.	-1.	0.00	0.03
3	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.01
4	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	1.	0.08	0.30
5	30	3.14	3.14	30.	0.	0.02	0.09	3.14	3.14	333.	0.	0.10	0.37
6	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	555.	0.	0.11	0.41
7	30	3.14	3.14	31.	0.	0.02	0.07	3.14	3.14	675.	0.	0.12	0.45
8	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	736.	0.	0.12	0.45
9	30	3.14	3.14	27.	0.	0.00	0.02	3.14	3.14	632.	0.	0.11	0.41
10	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	498.	0.	0.09	0.36
11	30	3.14	3.14	133.	0.	0.02	0.08	3.14	3.14	55.	0.	0.04	0.14
12	30	3.14	3.14	0.	-5.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.02
13	30	3.14	3.14	0.	-12.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
14	30	3.14	3.14	55.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
15	30	3.14	3.14	6.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
16	30	3.14	3.14	0.	-7.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.02
17	30	3.14	3.14	39.	0.	0.01	0.02	3.14	3.14	323.	0.	0.07	0.28
18	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	261.	0.	0.07	0.28
19	30	3.14	3.14	16.	0.	0.01	0.03	3.14	3.14	695.	0.	0.11	0.43
20	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	693.	0.	0.11	0.43
21	30	3.14	3.14	13.	0.	0.01	0.04	3.14	3.14	647.	0.	0.11	0.42
22	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	666.	0.	0.10	0.40
23	30	3.14	3.14	9.	0.	0.01	0.03	3.14	3.14	257.	0.	0.07	0.25
24	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	336.	0.	0.08	0.32
25	30	3.14	3.14	15.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
26	30	3.14	3.14	0.	-7.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.02
27	30	3.14	3.14	0.	-6.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
28	30	3.14	3.14	45.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.01
29	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.01
30	30	3.14	3.14	0.	-3.	0.00	0.13	3.14	3.14	0.	2.	0.00	0.02
31	30	3.14	3.14	0.	2.	0.03	0.16	3.14	3.14	0.	0.	0.02	0.06
32	30	3.14	3.14	164.	4.	0.09	0.35	3.14	3.14	0.	1.	0.00	0.01
33	30	3.14	3.14	315.	0.	0.10	0.39	3.14	3.14	110.	0.	0.02	0.07
34	30	3.14	3.14	584.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
35	30	3.14	3.14	657.	0.	0.11	0.43	3.14	3.14	82.	0.	0.01	0.05
36	30	3.14	3.14	691.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
37	30	3.14	3.14	665.	0.	0.10	0.40	3.14	3.14	26.	0.	0.01	0.03
38	30	3.14	3.14	535.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
39	30	3.14	3.14	354.	0.	0.05	0.21	3.14	3.14	69.	0.	0.03	0.11
40	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
41	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
42	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	0.	0.01	0.05
43	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
44	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	64.	0.	0.01	0.04
45	30	3.14	3.14	661.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
46	30	3.14	3.14	675.	0.	0.11	0.41	3.14	3.14	33.	0.	0.01	0.03
47	30	3.14	3.14	714.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.00
48	30	3.14	3.14	721.	0.	0.12	0.46	3.14	3.14	27.	0.	0.00	0.02
49	30	3.14	3.14	84.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
50	30	3.14	3.14	136.	0.	0.08	0.32	3.14	3.14	52.	0.	0.01	0.04
51	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
52	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
53	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	-1.	0.00	0.00
54	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
55	30	3.14	3.14	519.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
56	30	3.14	3.14	477.	0.	0.07	0.29	3.14	3.14	0.	0.	0.00	0.00
57	30	3.14	3.14	281.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
58	30	3.14	3.14	300.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
59	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
60	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
61	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
62	30	3.14	3.14	0.	1.	0.00	0.02	3.14	3.14	49.	0.	0.00	0.03
63	30	3.14	3.14	566.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
64	30	3.14	3.14	583.	0.	0.09	0.35	3.14	3.14	64.	0.	0.01	0.04
65	30	3.14	3.14	753.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.00
66	30	3.14	3.14	776.	0.	0.12	0.47	3.14	3.14	29.	0.	0.01	0.03
67	30	3.14	3.14	651.	0.	0.12	0.47	3.14	3.14	0.	0.	0.00	0.00
68	30	3.14	3.14	653.	0.	0.11	0.44	3.14	3.14	47.	0.	0.01	0.03
69	30	3.14	3.14	138.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
70	30	3.14	3.14	121.	0.	0.07	0.28	3.14	3.14	49.	0.	0.01	0.04
71	30	3.14	3.14	0.	1.	0.00	0.02	3.14	3.14	0.	-2.	0.00	0.00
72	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
73	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
74	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
75	30	3.14	3.14	62.	0.	0.03	0.13	3.14	3.14	0.	0.	0.00	0.00
76	30	3.14	3.14	63.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
77	30	3.14	3.14	78.	0.	0.01	0.05	3.14	3.14	9.	0.	0.00	0.01
78	30	3.14	3.14	230.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
79	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	0.	0.	0.01	0.04
80	30	3.14	3.14	0.	-3.	0.00	0.01	3.14	3.14	0.	1.	0.00	0.01
81	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	1.	0.00	0.01
82	30	3.14	3.14	0.	1.	0.01	0.08	3.14	3.14	0.	0.	0.00	0.00
83	30	3.14	3.14	385.	0.	0.05	0.23	3.14	3.14	0.	0.	0.00	0.00
101	30	3.14	3.14	540.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
102	30	3.14	3.14	613.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
103	30	3.14	3.14	666.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
104	30	3.14	3.14	657.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
105	30	3.14	3.14	418.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00
106	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	1.	0.00	0.01
107	30	3.14	3.14	4.	1.	0.00	0.01	3.14	3.14	0.	1.	0.00	0.00
108	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	1.	0.00	0.00
109	30	3.14	3.14	500.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
110	30	3.14	3.14	621.	0.	0.10	0.38	3.14	3.14	0.	0.	0.00	0.00
111	30	3.14	3.14	557.	0.	0.09	0.34	3.14	3.14	0.	0.	0.00	0.00

112	30	3.14	3.14	441.	0.	0.07	0.28	3.14	3.14	78.	0.	0.01	0.05
113	30	3.14	3.14	532.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
114	30	3.14	3.14	533.	0.	0.09	0.35	3.14	3.14	34.	0.	0.02	0.07
115	30	3.14	3.14	591.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
116	30	3.14	3.14	487.	0.	0.08	0.30	3.14	3.14	152.	0.	0.03	0.13
117	30	3.14	3.14	577.	0.	0.09	0.35	3.14	3.14	32.	0.	0.03	0.10
118	30	3.14	3.14	404.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
119	30	3.14	3.14	208.	0.	0.03	0.13	3.14	3.14	234.	0.	0.04	0.14
120	30	3.14	3.14	150.	0.	0.02	0.09	3.14	3.14	204.	0.	0.04	0.15
121	30	3.14	3.14	0.	3.	0.00	0.03	3.14	3.14	0.	1.	0.00	0.01
122	30	3.14	3.14	0.	2.	0.00	0.01	3.14	3.14	0.	1.	0.00	0.01
123	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.02
124	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	143.	0.	0.02	0.09
125	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
126	30	3.14	3.14	29.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.00
127	30	3.14	3.14	10.	0.	0.00	0.01	3.14	3.14	64.	0.	0.01	0.05
128	30	3.14	3.14	322.	0.	0.05	0.20	3.14	3.14	0.	0.	0.00	0.00
129	30	3.14	3.14	207.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
130	30	3.14	3.14	158.	0.	0.02	0.10	3.14	3.14	78.	0.	0.01	0.05
131	30	3.14	3.14	0.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
132	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.01
133	30	3.14	3.14	0.	0.	0.01	0.04	3.14	3.14	81.	0.	0.02	0.06
134	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	73.	0.	0.01	0.04
135	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
136	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
137	30	3.14	3.14	0.	2.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
138	30	3.14	3.14	78.	0.	0.02	0.06	3.14	3.14	0.	0.	0.00	0.00
139	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
140	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
141	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
142	30	3.14	3.14	52.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
143	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
144	30	3.14	3.14	94.	0.	0.01	0.06	3.14	3.14	38.	0.	0.01	0.02
145	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	78.	0.	0.02	0.06
146	30	3.14	3.14	14.	0.	0.00	0.01	3.14	3.14	88.	0.	0.02	0.06
147	30	3.14	3.14	81.	0.	0.02	0.06	3.14	3.14	115.	0.	0.02	0.07
148	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	90.	0.	0.02	0.08
149	30	3.14	3.14	2.	0.	0.00	0.00	3.14	3.14	95.	0.	0.01	0.06
150	30	3.14	3.14	77.	0.	0.01	0.06	3.14	3.14	97.	0.	0.02	0.06
151	30	3.14	3.14	37.	0.	0.01	0.02	3.14	3.14	88.	0.	0.02	0.07
152	30	3.14	3.14	25.	0.	0.01	0.04	3.14	3.14	111.	0.	0.02	0.07
153	30	3.14	3.14	76.	0.	0.02	0.06	3.14	3.14	95.	0.	0.02	0.06
154	30	3.14	3.14	137.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
155	30	3.14	3.14	42.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
156	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
157	30	3.14	3.14	187.	0.	0.03	0.12	3.14	3.14	229.	0.	0.04	0.14
158	30	3.14	3.14	197.	0.	0.04	0.14	3.14	3.14	300.	0.	0.05	0.19
159	30	3.14	3.14	0.	0.	0.01	0.05	3.14	3.14	286.	0.	0.06	0.23
160	30	3.14	3.14	97.	0.	0.02	0.09	3.14	3.14	311.	0.	0.05	0.19
161	30	3.14	3.14	91.	0.	0.02	0.09	3.14	3.14	415.	0.	0.07	0.25
162	30	3.14	3.14	53.	0.	0.01	0.06	3.14	3.14	517.	0.	0.08	0.31
163	30	3.14	3.14	19.	0.	0.01	0.04	3.14	3.14	206.	0.	0.03	0.13
164	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	299.	0.	0.05	0.18
165	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	413.	0.	0.06	0.25
166	30	3.14	3.14	92.	0.	0.01	0.06	3.14	3.14	105.	0.	0.02	0.07
167	30	3.14	3.14	76.	0.	0.02	0.06	3.14	3.14	188.	0.	0.03	0.12
168	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	252.	0.	0.05	0.17
169	30	3.14	3.14	72.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
170	30	3.14	3.14	0.	0.	0.01	0.06	3.14	3.14	0.	0.	0.00	0.00
171	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
172	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
173	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	0.	0.	0.00	0.00
174	30	3.14	3.14	86.	0.	0.01	0.05	3.14	3.14	2.	0.	0.00	0.00
175	30	3.14	3.14	79.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
176	30	3.14	3.14	54.	0.	0.01	0.03	3.14	3.14	0.	0.	0.00	0.00
177	30	3.14	3.14	77.	0.	0.02	0.06	3.14	3.14	5.	0.	0.01	0.04
178	30	3.14	3.14	123.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
179	30	3.14	3.14	32.	0.	0.03	0.10	3.14	3.14	0.	0.	0.00	0.00
180	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
181	30	3.14	3.14	183.	0.	0.03	0.11	3.14	3.14	208.	0.	0.03	0.13
182	30	3.14	3.14	193.	0.	0.03	0.13	3.14	3.14	285.	0.	0.05	0.18
183	30	3.14	3.14	0.	0.	0.01	0.05	3.14	3.14	279.	0.	0.06	0.22
184	30	3.14	3.14	85.	0.	0.02	0.08	3.14	3.14	301.	0.	0.05	0.18
185	30	3.14	3.14	80.	0.	0.02	0.08	3.14	3.14	413.	0.	0.06	0.25
186	30	3.14	3.14	46.	0.	0.01	0.05	3.14	3.14	520.	0.	0.08	0.31
187	30	3.14	3.14	26.	0.	0.01	0.05	3.14	3.14	247.	0.	0.04	0.15
188	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	335.	0.	0.05	0.20
189	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	447.	0.	0.07	0.27
190	30	3.14	3.14	116.	0.	0.02	0.08	3.14	3.14	211.	0.	0.03	0.13
191	30	3.14	3.14	88.	0.	0.02	0.08	3.14	3.14	293.	0.	0.05	0.18
192	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	358.	0.	0.06	0.22
193	30	3.14	3.14	127.	0.	0.02	0.09	3.14	3.14	17.	0.	0.01	0.03
194	30	3.14	3.14	84.	0.	0.03	0.10	3.14	3.14	0.	0.	0.01	0.03
195	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
196	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
197	30	3.14	3.14	0.	0.	0.01	0.05	3.14	3.14	0.	0.	0.00	0.00
198	30	3.14	3.14	62.	0.	0.01	0.05	3.14	3.14	0.	0.	0.01	0.03
199	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
200	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
201	30	3.14	3.14	81.	0.	0.02	0.06	3.14	3.14	0.	0.	0.00	0.00
202	30	3.14	3.14	79.	0.	0.02	0.08	3.14	3.14	0.	0.	0.00	0.00
203	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
204	30	3.14	3.14	43.	2.	0.00	0.04	3.14	3.14	0.	0.	0.00	0.00
205	30	3.14	3.14	83.	0.	0.01	0.05	3.14	3.14	46.	0.	0.01	0.03
206	30	3.14	3.14	0.	-1.	0.02	0.07	3.14	3.14	0.	0.	0.01	0.04
207	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
208	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00

209	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
210	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
211	30	3.14	3.14	0.	0.	0.05	0.18	3.14	3.14	0.	0.	0.00	0.00
212	30	3.14	3.14	0.	0.	0.04	0.16	3.14	3.14	0.	0.	0.00	0.02
213	30	3.14	3.14	409.	0.	0.06	0.25	3.14	3.14	0.	0.	0.00	0.00
214	30	3.14	3.14	370.	0.	0.06	0.22	3.14	3.14	0.	0.	0.00	0.00
215	30	3.14	3.14	32.	1.	0.00	0.03	3.14	3.14	0.	0.	0.00	0.00
216	30	3.14	3.14	101.	0.	0.01	0.06	3.14	3.14	0.	0.	0.00	0.01
217	30	3.14	3.14	0.	3.	0.00	0.03	3.14	3.14	0.	1.	0.00	0.01
218	30	3.14	3.14	0.	1.	0.00	0.02	3.14	3.14	11.	0.	0.00	0.03
219	30	3.14	3.14	523.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
220	30	3.14	3.14	538.	0.	0.08	0.33	3.14	3.14	57.	0.	0.01	0.04
221	30	3.14	3.14	727.	0.	0.12	0.44	3.14	3.14	0.	0.	0.00	0.00
222	30	3.14	3.14	742.	0.	0.12	0.45	3.14	3.14	27.	0.	0.01	0.03
223	30	3.14	3.14	655.	0.	0.11	0.44	3.14	3.14	0.	0.	0.00	0.00
224	30	3.14	3.14	671.	0.	0.12	0.45	3.14	3.14	52.	0.	0.01	0.03
225	30	3.14	3.14	194.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
226	30	3.14	3.14	235.	0.	0.08	0.31	3.14	3.14	59.	0.	0.01	0.04
227	30	3.14	3.14	0.	3.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
228	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.02
229	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
230	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
231	30	3.14	3.14	294.	0.	0.05	0.18	3.14	3.14	0.	0.	0.00	0.00
232	30	3.14	3.14	254.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.01
233	30	3.14	3.14	274.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
234	30	3.14	3.14	269.	0.	0.05	0.21	3.14	3.14	0.	0.	0.00	0.00
235	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
236	30	3.14	3.14	0.	0.	0.00	0.02	3.14	3.14	0.	0.	0.00	0.01
237	30	3.14	3.14	114.	1.	0.01	0.07	3.14	3.14	0.	0.	0.00	0.00
238	30	3.14	3.14	199.	0.	0.03	0.12	3.14	3.14	19.	0.	0.01	0.04
239	30	3.14	3.14	534.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
240	30	3.14	3.14	503.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
241	30	3.14	3.14	84.	0.	0.07	0.26	3.14	3.14	0.	0.	0.00	0.00
242	30	3.14	3.14	126.	0.	0.06	0.25	3.14	3.14	0.	0.	0.00	0.02
243	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
244	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
245	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
246	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	6.	0.	0.00	0.02
247	30	3.14	3.14	526.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
248	30	3.14	3.14	548.	0.	0.09	0.33	3.14	3.14	58.	0.	0.01	0.04
249	30	3.14	3.14	754.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.00
250	30	3.14	3.14	763.	0.	0.12	0.46	3.14	3.14	8.	0.	0.01	0.03
251	30	3.14	3.14	619.	0.	0.12	0.45	3.14	3.14	0.	0.	0.00	0.00
252	30	3.14	3.14	636.	0.	0.12	0.45	3.14	3.14	53.	0.	0.01	0.03
253	30	3.14	3.14	0.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
254	30	3.14	3.14	34.	0.	0.07	0.25	3.14	3.14	0.	0.	0.01	0.05
255	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	-1.	0.00	0.00
256	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
257	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
258	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.01	0.03
259	30	3.14	3.14	527.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
260	30	3.14	3.14	602.	0.	0.09	0.36	3.14	3.14	44.	0.	0.01	0.04
261	30	3.14	3.14	809.	0.	0.13	0.50	3.14	3.14	0.	0.	0.00	0.00
262	30	3.14	3.14	821.	0.	0.13	0.50	3.14	3.14	56.	0.	0.01	0.03
263	30	3.14	3.14	588.	0.	0.13	0.49	3.14	3.14	0.	0.	0.00	0.00
264	30	3.14	3.14	555.	0.	0.12	0.46	3.14	3.14	156.	0.	0.02	0.09
265	30	3.14	3.14	0.	0.	0.06	0.24	3.14	3.14	0.	0.	0.00	0.00
266	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.03	0.13
267	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
268	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
269	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.01	0.04
270	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	0.	0.00	0.00
271	30	3.14	3.14	382.	0.	0.06	0.23	3.14	3.14	60.	0.	0.01	0.05
272	30	3.14	3.14	363.	0.	0.06	0.22	3.14	3.14	0.	0.	0.00	0.00
273	30	3.14	3.14	667.	0.	0.10	0.40	3.14	3.14	41.	0.	0.01	0.03
274	30	3.14	3.14	679.	0.	0.11	0.41	3.14	3.14	0.	0.	0.00	0.00
275	30	3.14	3.14	650.	0.	0.11	0.42	3.14	3.14	58.	0.	0.01	0.04
276	30	3.14	3.14	636.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
277	30	3.14	3.14	357.	1.	0.09	0.33	3.14	3.14	44.	0.	0.01	0.04
278	30	3.14	3.14	377.	0.	0.09	0.35	3.14	3.14	0.	1.	0.00	0.01
279	30	3.14	3.14	0.	2.	0.00	0.03	3.14	3.14	0.	0.	0.00	0.02
280	30	3.14	3.14	0.	4.	0.00	0.16	3.14	3.14	0.	2.	0.00	0.02
281	30	3.14	3.14	0.	-4.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
282	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.01	0.03
283	30	3.14	3.14	14.	6.	0.03	0.29	3.14	3.14	0.	4.	0.00	0.07
284	30	3.14	3.14	527.	0.	0.10	0.37	3.14	3.14	101.	1.	0.01	0.09
285	30	3.14	3.14	597.	0.	0.10	0.40	3.14	3.14	76.	0.	0.01	0.06
286	30	3.14	3.14	669.	0.	0.11	0.41	3.14	3.14	118.	0.	0.02	0.09
287	30	3.14	3.14	528.	0.	0.08	0.32	3.14	3.14	85.	0.	0.03	0.13
288	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	1.	0.00	0.01
289	30	3.14	3.14	145.	1.	0.04	0.19	3.14	3.14	550.	0.	0.09	0.33
290	30	3.14	3.14	449.	0.	0.09	0.33	3.14	3.14	454.	0.	0.07	0.27
291	30	3.14	3.14	473.	0.	0.08	0.32	3.14	3.14	298.	0.	0.05	0.19
292	30	3.14	3.14	513.	0.	0.09	0.37	3.14	3.14	374.	0.	0.08	0.31
293	30	3.14	3.14	377.	0.	0.06	0.24	3.14	3.14	595.	0.	0.11	0.42
294	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	653.	0.	0.11	0.44
295	30	3.14	3.14	55.	0.	0.03	0.11	3.14	3.14	645.	0.	0.10	0.39
296	30	3.14	3.14	278.	0.	0.06	0.24	3.14	3.14	513.	0.	0.08	0.31
297	30	3.14	3.14	388.	0.	0.07	0.27	3.14	3.14	413.	0.	0.06	0.25
298	30	3.14	3.14	332.	0.	0.06	0.25	3.14	3.14	446.	0.	0.09	0.33
299	30	3.14	3.14	103.	0.	0.03	0.11	3.14	3.14	644.	0.	0.12	0.47
300	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	855.	0.	0.15	0.57
301	30	3.14	3.14	121.	0.	0.04	0.16	3.14	3.14	681.	0.	0.11	0.41
302	30	3.14	3.14	395.	0.	0.08	0.32	3.14	3.14	554.	0.	0.09	0.34
303	30	3.14	3.14	453.	0.	0.09	0.34	3.14	3.14	374.	0.	0.07	0.26
304	30	3.14	3.14	532.	0.	0.10	0.40	3.14	3.14	508.	0.	0.11	0.41
305	30	3.14	3.14	354.	0.	0.07	0.27	3.14	3.14	800.	0.	0.15	0.58

306	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	955.	0.	0.15	0.58
307	30	3.14	3.14	83.	2.	0.05	0.23	3.14	3.14	380.	0.	0.08	0.31
308	30	3.14	3.14	619.	0.	0.11	0.44	3.14	3.14	354.	0.	0.06	0.21
309	30	3.14	3.14	670.	0.	0.12	0.47	3.14	3.14	136.	0.	0.03	0.11
310	30	3.14	3.14	833.	0.	0.15	0.57	3.14	3.14	282.	0.	0.07	0.29
311	30	3.14	3.14	698.	0.	0.11	0.42	3.14	3.14	586.	0.	0.12	0.44
312	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	578.	0.	0.11	0.42
313	30	3.14	3.14	0.	8.	0.00	0.19	3.14	3.14	0.	2.	0.00	0.03
314	30	3.14	3.14	541.	0.	0.11	0.45	3.14	3.14	0.	1.	0.00	0.01
315	30	3.14	3.14	836.	0.	0.14	0.57	3.14	3.14	0.	0.	0.00	0.00
316	30	3.14	3.14	931.	0.	0.15	0.57	3.14	3.14	0.	0.	0.00	0.00
317	30	3.14	3.14	660.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
318	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
319	30	3.14	3.14	0.	9.	0.00	0.18	3.14	3.14	0.	3.	0.00	0.03
320	30	3.14	3.14	561.	0.	0.11	0.46	3.14	3.14	0.	2.	0.00	0.01
321	30	3.14	3.14	836.	0.	0.15	0.57	3.14	3.14	0.	0.	0.00	0.00
322	30	3.14	3.14	909.	0.	0.14	0.55	3.14	3.14	0.	0.	0.00	0.00
323	30	3.14	3.14	602.	0.	0.09	0.36	3.14	3.14	0.	0.	0.00	0.00
324	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
325	30	3.14	3.14	52.	2.	0.05	0.23	3.14	3.14	371.	0.	0.08	0.32
326	30	3.14	3.14	624.	0.	0.12	0.45	3.14	3.14	358.	0.	0.06	0.22
327	30	3.14	3.14	669.	0.	0.12	0.47	3.14	3.14	142.	0.	0.03	0.11
328	30	3.14	3.14	830.	0.	0.15	0.56	3.14	3.14	283.	0.	0.08	0.29
329	30	3.14	3.14	697.	0.	0.11	0.42	3.14	3.14	586.	0.	0.11	0.44
330	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	588.	0.	0.11	0.42
331	30	3.14	3.14	116.	0.	0.04	0.15	3.14	3.14	682.	0.	0.11	0.41
332	30	3.14	3.14	398.	0.	0.08	0.32	3.14	3.14	554.	0.	0.09	0.34
333	30	3.14	3.14	449.	0.	0.09	0.34	3.14	3.14	375.	0.	0.07	0.26
334	30	3.14	3.14	532.	0.	0.10	0.40	3.14	3.14	509.	0.	0.11	0.41
335	30	3.14	3.14	355.	0.	0.07	0.27	3.14	3.14	798.	0.	0.15	0.57
336	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	953.	0.	0.15	0.58
337	30	3.14	3.14	63.	0.	0.03	0.11	3.14	3.14	636.	0.	0.10	0.39
338	30	3.14	3.14	276.	0.	0.06	0.23	3.14	3.14	511.	0.	0.08	0.31
339	30	3.14	3.14	386.	0.	0.07	0.26	3.14	3.14	415.	0.	0.07	0.25
340	30	3.14	3.14	334.	0.	0.06	0.25	3.14	3.14	440.	0.	0.09	0.33
341	30	3.14	3.14	96.	0.	0.03	0.11	3.14	3.14	632.	0.	0.12	0.46
342	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	844.	0.	0.15	0.57
343	30	3.14	3.14	124.	1.	0.04	0.18	3.14	3.14	509.	0.	0.09	0.33
344	30	3.14	3.14	438.	0.	0.08	0.32	3.14	3.14	448.	0.	0.07	0.27
345	30	3.14	3.14	470.	0.	0.08	0.32	3.14	3.14	302.	0.	0.05	0.18
346	30	3.14	3.14	498.	0.	0.09	0.36	3.14	3.14	362.	0.	0.08	0.30
347	30	3.14	3.14	361.	0.	0.06	0.23	3.14	3.14	577.	0.	0.11	0.41
348	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	631.	0.	0.11	0.43
349	30	3.14	3.14	68.	7.	0.02	0.24	3.14	3.14	0.	3.	0.00	0.13
350	30	3.14	3.14	539.	0.	0.09	0.36	3.14	3.14	108.	1.	0.02	0.09
351	30	3.14	3.14	595.	0.	0.10	0.40	3.14	3.14	77.	0.	0.01	0.06
352	30	3.14	3.14	660.	0.	0.11	0.41	3.14	3.14	126.	0.	0.02	0.09
353	30	3.14	3.14	503.	0.	0.08	0.30	3.14	3.14	131.	0.	0.03	0.12
354	30	3.14	3.14	0.	2.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
355	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
356	30	3.14	3.14	95.	0.	0.11	0.41	3.14	3.14	0.	0.	0.00	0.00
357	30	3.14	3.14	1033.	0.	0.18	0.70	3.14	3.14	0.	0.	0.00	0.00
358	30	3.14	3.14	1130.	0.	0.19	0.73	3.14	3.14	0.	0.	0.00	0.00
359	30	3.14	3.14	724.	0.	0.11	0.44	3.14	3.14	0.	0.	0.00	0.00
360	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
361	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	286.	0.	0.10	0.38
362	30	3.14	3.14	497.	0.	0.12	0.45	3.14	3.14	616.	0.	0.11	0.44
363	30	3.14	3.14	936.	0.	0.16	0.63	3.14	3.14	427.	0.	0.07	0.26
364	30	3.14	3.14	825.	0.	0.16	0.60	3.14	3.14	109.	0.	0.06	0.21
365	30	3.14	3.14	749.	0.	0.12	0.45	3.14	3.14	489.	0.	0.11	0.41
366	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	409.	0.	0.10	0.37
367	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	937.	0.	0.15	0.57
368	30	3.14	3.14	239.	0.	0.08	0.29	3.14	3.14	963.	0.	0.15	0.58
369	30	3.14	3.14	570.	0.	0.11	0.44	3.14	3.14	743.	0.	0.12	0.45
370	30	3.14	3.14	525.	0.	0.11	0.42	3.14	3.14	547.	0.	0.11	0.42
371	30	3.14	3.14	404.	0.	0.08	0.30	3.14	3.14	799.	0.	0.14	0.56
372	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	909.	0.	0.14	0.56
373	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	949.	0.	0.15	0.57
374	30	3.14	3.14	49.	0.	0.04	0.15	3.14	3.14	841.	0.	0.13	0.51
375	30	3.14	3.14	374.	0.	0.08	0.30	3.14	3.14	680.	0.	0.11	0.41
376	30	3.14	3.14	428.	0.	0.08	0.30	3.14	3.14	613.	0.	0.11	0.41
377	30	3.14	3.14	207.	0.	0.04	0.17	3.14	3.14	732.	0.	0.13	0.50
378	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	875.	0.	0.15	0.56
379	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	560.	0.	0.11	0.43
380	30	3.14	3.14	264.	0.	0.07	0.27	3.14	3.14	700.	0.	0.11	0.43
381	30	3.14	3.14	576.	0.	0.11	0.42	3.14	3.14	552.	0.	0.09	0.33
382	30	3.14	3.14	544.	0.	0.11	0.41	3.14	3.14	371.	0.	0.08	0.31
383	30	3.14	3.14	446.	0.	0.07	0.28	3.14	3.14	594.	0.	0.11	0.41
384	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	591.	0.	0.11	0.42
385	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
386	30	3.14	3.14	174.	0.	0.09	0.36	3.14	3.14	0.	0.	0.03	0.12
387	30	3.14	3.14	713.	0.	0.12	0.47	3.14	3.14	65.	0.	0.01	0.05
388	30	3.14	3.14	732.	0.	0.12	0.47	3.14	3.14	0.	0.	0.01	0.03
389	30	3.14	3.14	609.	0.	0.09	0.37	3.14	3.14	21.	0.	0.03	0.10
390	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
391	30	3.14	3.14	47.	2.	0.00	0.04	3.14	3.14	0.	1.	0.00	0.02
392	30	3.14	3.14	684.	0.	0.11	0.41	3.14	3.14	28.	0.	0.02	0.07
393	30	3.14	3.14	701.	0.	0.12	0.45	3.14	3.14	30.	0.	0.00	0.02
394	30	3.14	3.14	263.	0.	0.10	0.38	3.14	3.14	0.	0.	0.02	0.07
395	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
396	30	3.14	3.14	70.	0.	0.01	0.05	3.14	3.14	661.	0.	0.11	0.44
397	30	3.14	3.14	501.	0.	0.09	0.33	3.14	3.14	490.	0.	0.10	0.37
398	30	3.14	3.14	542.	0.	0.10	0.37	3.14	3.14	466.	0.	0.07	0.28
399	30	3.14	3.14	329.	0.	0.08	0.30	3.14	3.14	666.	0.	0.10	0.40
400	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	548.	0.	0.11	0.42
401	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	826.	0.	0.14	0.54
402	30	3.14	3.14	317.	0.	0.06	0.22	3.14	3.14	656.	0.	0.12	0.45

403	30	3.14	3.14	401.	0.	0.07	0.28	3.14	3.14	641.	0.	0.10	0.39
404	30	3.14	3.14	116.	0.	0.05	0.18	3.14	3.14	822.	0.	0.13	0.50
405	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	940.	0.	0.15	0.57
406	30	3.14	3.14	66.	0.	0.01	0.04	3.14	3.14	972.	0.	0.15	0.59
407	30	3.14	3.14	552.	0.	0.10	0.39	3.14	3.14	714.	0.	0.14	0.53
408	30	3.14	3.14	558.	0.	0.10	0.39	3.14	3.14	652.	0.	0.10	0.39
409	30	3.14	3.14	338.	0.	0.09	0.35	3.14	3.14	933.	0.	0.15	0.57
410	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	933.	0.	0.15	0.57
411	30	3.14	3.14	91.	0.	0.01	0.06	3.14	3.14	553.	0.	0.10	0.40
412	30	3.14	3.14	892.	0.	0.15	0.56	3.14	3.14	398.	0.	0.09	0.33
413	30	3.14	3.14	835.	0.	0.14	0.54	3.14	3.14	258.	0.	0.04	0.16
414	30	3.14	3.14	646.	0.	0.15	0.57	3.14	3.14	579.	0.	0.09	0.36
415	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	298.	0.	0.10	0.39
416	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
417	30	3.14	3.14	882.	0.	0.14	0.53	3.14	3.14	0.	0.	0.00	0.00
418	30	3.14	3.14	1245.	0.	0.20	0.75	3.14	3.14	0.	0.	0.00	0.00
419	30	3.14	3.14	1111.	0.	0.18	0.71	3.14	3.14	0.	0.	0.00	0.00
420	30	3.14	3.14	311.	0.	0.14	0.54	3.14	3.14	0.	0.	0.00	0.00
421	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
422	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
423	30	3.14	3.14	106.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
424	30	3.14	3.14	939.	0.	0.17	0.64	3.14	3.14	0.	0.	0.00	0.00
425	30	3.14	3.14	1065.	0.	0.18	0.68	3.14	3.14	0.	0.	0.00	0.00
426	30	3.14	3.14	801.	0.	0.13	0.49	3.14	3.14	0.	0.	0.00	0.00
427	30	3.14	3.14	0.	2.	0.00	0.03	3.14	3.14	0.	0.	0.00	0.00
428	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	313.	0.	0.11	0.41
429	30	3.14	3.14	507.	0.	0.11	0.44	3.14	3.14	635.	0.	0.11	0.42
430	30	3.14	3.14	889.	0.	0.15	0.59	3.14	3.14	415.	0.	0.07	0.25
431	30	3.14	3.14	792.	0.	0.15	0.57	3.14	3.14	90.	0.	0.05	0.19
432	30	3.14	3.14	774.	0.	0.12	0.47	3.14	3.14	436.	0.	0.09	0.36
433	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	577.	0.	0.10	0.40
434	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	921.	0.	0.15	0.57
435	30	3.14	3.14	246.	0.	0.07	0.29	3.14	3.14	931.	0.	0.15	0.56
436	30	3.14	3.14	540.	0.	0.11	0.41	3.14	3.14	687.	0.	0.11	0.42
437	30	3.14	3.14	510.	0.	0.11	0.41	3.14	3.14	479.	0.	0.10	0.37
438	30	3.14	3.14	438.	0.	0.08	0.32	3.14	3.14	718.	0.	0.13	0.52
439	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	922.	0.	0.14	0.56
440	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	922.	0.	0.14	0.56
441	30	3.14	3.14	51.	0.	0.04	0.14	3.14	3.14	794.	0.	0.12	0.48
442	30	3.14	3.14	351.	0.	0.07	0.28	3.14	3.14	627.	0.	0.10	0.38
443	30	3.14	3.14	407.	0.	0.07	0.28	3.14	3.14	540.	0.	0.09	0.35
444	30	3.14	3.14	233.	0.	0.05	0.19	3.14	3.14	638.	0.	0.12	0.45
445	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	803.	0.	0.14	0.53
446	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	557.	0.	0.11	0.43
447	30	3.14	3.14	267.	0.	0.07	0.26	3.14	3.14	685.	0.	0.11	0.41
448	30	3.14	3.14	544.	0.	0.10	0.39	3.14	3.14	521.	0.	0.08	0.32
449	30	3.14	3.14	513.	0.	0.10	0.38	3.14	3.14	326.	0.	0.07	0.27
450	30	3.14	3.14	460.	0.	0.08	0.30	3.14	3.14	526.	0.	0.10	0.38
451	30	3.14	3.14	34.	1.	0.00	0.02	3.14	3.14	664.	0.	0.11	0.43
452	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.00
453	30	3.14	3.14	189.	0.	0.09	0.34	3.14	3.14	0.	0.	0.03	0.11
454	30	3.14	3.14	674.	0.	0.11	0.44	3.14	3.14	79.	0.	0.02	0.06
455	30	3.14	3.14	684.	0.	0.11	0.44	3.14	3.14	1.	0.	0.01	0.04
456	30	3.14	3.14	623.	0.	0.10	0.38	3.14	3.14	64.	0.	0.02	0.10
457	30	3.14	3.14	0.	3.	0.00	0.02	3.14	3.14	0.	1.	0.00	0.01
458	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.03
459	30	3.14	3.14	513.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
460	30	3.14	3.14	292.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.00
461	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
462	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	463.	0.	0.11	0.41
463	30	3.14	3.14	76.	0.	0.01	0.05	3.14	3.14	595.	0.	0.09	0.36
464	30	3.14	3.14	404.	0.	0.06	0.24	3.14	3.14	510.	0.	0.09	0.36
465	30	3.14	3.14	187.	0.	0.05	0.19	3.14	3.14	518.	0.	0.08	0.31
466	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	554.	0.	0.10	0.38
467	30	3.14	3.14	149.	0.	0.05	0.18	3.14	3.14	892.	0.	0.16	0.61
468	30	3.14	3.14	155.	0.	0.03	0.13	3.14	3.14	748.	0.	0.12	0.48
469	30	3.14	3.14	350.	0.	0.07	0.26	3.14	3.14	834.	0.	0.13	0.51
470	30	3.14	3.14	130.	0.	0.05	0.18	3.14	3.14	896.	0.	0.14	0.54
471	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	916.	0.	0.14	0.55
472	30	3.14	3.14	494.	0.	0.08	0.31	3.14	3.14	938.	0.	0.16	0.63
473	30	3.14	3.14	432.	0.	0.09	0.35	3.14	3.14	629.	0.	0.13	0.50
474	30	3.14	3.14	561.	0.	0.10	0.39	3.14	3.14	821.	0.	0.13	0.50
475	30	3.14	3.14	321.	0.	0.08	0.31	3.14	3.14	1009.	0.	0.16	0.61
476	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	917.	0.	0.16	0.61
477	30	3.14	3.14	678.	0.	0.11	0.41	3.14	3.14	638.	0.	0.13	0.50
478	30	3.14	3.14	816.	0.	0.14	0.55	3.14	3.14	289.	0.	0.08	0.32
479	30	3.14	3.14	874.	0.	0.15	0.58	3.14	3.14	409.	0.	0.06	0.25
480	30	3.14	3.14	567.	0.	0.13	0.50	3.14	3.14	664.	0.	0.11	0.42
481	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	354.	0.	0.11	0.41
482	30	3.14	3.14	113.	1.	0.01	0.08	3.14	3.14	0.	2.	0.00	0.02
483	30	3.14	3.14	708.	0.	0.10	0.43	3.14	3.14	0.	0.	0.00	0.00
484	30	3.14	3.14	1081.	0.	0.17	0.65	3.14	3.14	0.	0.	0.00	0.00
485	30	3.14	3.14	1016.	0.	0.17	0.65	3.14	3.14	0.	0.	0.00	0.00
486	30	3.14	3.14	253.	0.	0.12	0.47	3.14	3.14	0.	0.	0.00	0.00
487	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.00
488	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	3.	0.00	0.02
489	30	3.14	3.14	33.	0.	0.10	0.40	3.14	3.14	0.	0.	0.00	0.00
490	30	3.14	3.14	745.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.00
491	30	3.14	3.14	129.	1.	0.01	0.09	3.14	3.14	0.	0.	0.00	0.00
492	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	354.	0.	0.08	0.31
493	30	3.14	3.14	10.	0.	0.00	0.01	3.14	3.14	471.	0.	0.07	0.29
494	30	3.14	3.14	355.	0.	0.09	0.36	3.14	3.14	424.	0.	0.07	0.28
495	30	3.14	3.14	562.	0.	0.09	0.34	3.14	3.14	189.	0.	0.04	0.15
496	30	3.14	3.14	246.	0.	0.04	0.15	3.14	3.14	282.	0.	0.07	0.28
497	30	3.14	3.14	179.	0.	0.03	0.11	3.14	3.14	1041.	0.	0.16	0.63
498	30	3.14	3.14	0.	0.	0.01	0.02	3.14	3.14	793.	0.	0.12	0.48
499	30	3.14	3.14	344.	0.	0.07	0.26	3.14	3.14	767.	0.	0.12	0.46

500	30	3.14	3.14	376.	0.	0.06	0.23	3.14	3.14	738.	0.	0.12	0.46
501	30	3.14	3.14	104.	0.	0.03	0.10	3.14	3.14	769.	0.	0.13	0.50
502	30	3.14	3.14	293.	0.	0.05	0.21	3.14	3.14	1029.	0.	0.16	0.62
503	30	3.14	3.14	260.	0.	0.06	0.22	3.14	3.14	897.	0.	0.14	0.54
504	30	3.14	3.14	308.	0.	0.07	0.25	3.14	3.14	681.	0.	0.12	0.46
505	30	3.14	3.14	396.	0.	0.07	0.28	3.14	3.14	812.	0.	0.14	0.54
506	30	3.14	3.14	197.	0.	0.03	0.13	3.14	3.14	927.	0.	0.15	0.57
507	30	3.14	3.14	150.	0.	0.07	0.26	3.14	3.14	786.	0.	0.14	0.52
508	30	3.14	3.14	520.	0.	0.09	0.34	3.14	3.14	707.	0.	0.11	0.43
509	30	3.14	3.14	433.	0.	0.09	0.33	3.14	3.14	445.	0.	0.08	0.31
510	30	3.14	3.14	557.	0.	0.10	0.38	3.14	3.14	593.	0.	0.11	0.42
511	30	3.14	3.14	251.	1.	0.04	0.16	3.14	3.14	740.	0.	0.13	0.49
512	30	3.14	3.14	0.	3.	0.03	0.17	3.14	3.14	0.	3.	0.01	0.14
513	30	3.14	3.14	495.	0.	0.05	0.30	3.14	3.14	0.	0.	0.00	0.00
514	30	3.14	3.14	567.	0.	0.12	0.46	3.14	3.14	69.	0.	0.01	0.05
515	30	3.14	3.14	625.	0.	0.12	0.46	3.14	3.14	72.	0.	0.02	0.09
516	30	3.14	3.14	689.	0.	0.11	0.42	3.14	3.14	150.	0.	0.03	0.14
517	30	3.14	3.14	194.	3.	0.01	0.14	3.14	3.14	0.	1.	0.01	0.09
518	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.00
519	30	3.14	3.14	420.	0.	0.09	0.35	3.14	3.14	0.	0.	0.00	0.00
520	30	3.14	3.14	489.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
521	30	3.14	3.14	0.	-5.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
522	30	3.14	3.14	0.	0.	0.01	0.06	3.14	3.14	249.	0.	0.07	0.28
523	30	3.14	3.14	305.	0.	0.06	0.22	3.14	3.14	214.	0.	0.06	0.24
524	30	3.14	3.14	365.	0.	0.06	0.22	3.14	3.14	348.	0.	0.09	0.35
525	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	314.	0.	0.09	0.33
526	30	3.14	3.14	5.	0.	0.02	0.06	3.14	3.14	832.	0.	0.13	0.52
527	30	3.14	3.14	106.	0.	0.03	0.12	3.14	3.14	837.	0.	0.14	0.53
528	30	3.14	3.14	142.	0.	0.03	0.13	3.14	3.14	911.	0.	0.15	0.57
529	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	915.	0.	0.15	0.56
530	30	3.14	3.14	0.	0.	0.01	0.05	3.14	3.14	937.	0.	0.15	0.57
531	30	3.14	3.14	73.	0.	0.02	0.09	3.14	3.14	884.	0.	0.14	0.55
532	30	3.14	3.14	51.	0.	0.02	0.06	3.14	3.14	912.	0.	0.15	0.57
533	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	933.	0.	0.15	0.57
534	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	563.	0.	0.10	0.40
535	30	3.14	3.14	109.	0.	0.03	0.11	3.14	3.14	513.	0.	0.10	0.38
536	30	3.14	3.14	94.	0.	0.03	0.10	3.14	3.14	501.	0.	0.10	0.37
537	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	530.	0.	0.10	0.40
538	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
539	30	3.14	3.14	52.	0.	0.04	0.14	3.14	3.14	0.	0.	0.00	0.00
540	30	3.14	3.14	247.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
541	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
542	30	3.14	3.14	189.	1.	0.02	0.12	3.14	3.14	0.	1.	0.00	0.03
543	30	3.14	3.14	480.	0.	0.08	0.30	3.14	3.14	0.	0.	0.00	0.00
544	30	3.14	3.14	150.	0.	0.07	0.27	3.14	3.14	0.	0.	0.00	0.01
545	30	3.14	3.14	0.	-2.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
546	30	3.14	3.14	227.	0.	0.03	0.14	3.14	3.14	553.	0.	0.10	0.38
547	30	3.14	3.14	311.	0.	0.07	0.25	3.14	3.14	473.	0.	0.08	0.32
548	30	3.14	3.14	218.	0.	0.06	0.21	3.14	3.14	606.	0.	0.10	0.38
549	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	530.	0.	0.10	0.40
550	30	3.14	3.14	168.	0.	0.03	0.13	3.14	3.14	822.	0.	0.13	0.51
551	30	3.14	3.14	227.	0.	0.05	0.18	3.14	3.14	783.	0.	0.13	0.48
552	30	3.14	3.14	71.	0.	0.03	0.13	3.14	3.14	849.	0.	0.13	0.51
553	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	891.	0.	0.14	0.54
554	30	3.14	3.14	214.	0.	0.04	0.15	3.14	3.14	796.	0.	0.13	0.50
555	30	3.14	3.14	281.	0.	0.06	0.23	3.14	3.14	755.	0.	0.12	0.46
556	30	3.14	3.14	189.	0.	0.06	0.22	3.14	3.14	879.	0.	0.14	0.53
557	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	869.	0.	0.14	0.53
558	30	3.14	3.14	308.	0.	0.05	0.19	3.14	3.14	323.	0.	0.08	0.31
559	30	3.14	3.14	476.	0.	0.09	0.35	3.14	3.14	190.	0.	0.05	0.18
560	30	3.14	3.14	425.	0.	0.09	0.33	3.14	3.14	416.	0.	0.08	0.30
561	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	243.	0.	0.08	0.32
562	30	3.14	3.14	99.	1.	0.01	0.07	3.14	3.14	0.	0.	0.00	0.00
563	30	3.14	3.14	765.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.00
564	30	3.14	3.14	196.	0.	0.11	0.42	3.14	3.14	0.	0.	0.00	0.00
565	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	-1.	0.00	0.00
566	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
567	30	3.14	3.14	421.	0.	0.09	0.36	3.14	3.14	0.	0.	0.00	0.00
568	30	3.14	3.14	475.	0.	0.07	0.29	3.14	3.14	0.	0.	0.00	0.00
569	30	3.14	3.14	0.	-5.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.02
570	30	3.14	3.14	0.	0.	0.02	0.06	3.14	3.14	236.	0.	0.07	0.26
571	30	3.14	3.14	321.	0.	0.06	0.22	3.14	3.14	194.	0.	0.06	0.23
572	30	3.14	3.14	362.	0.	0.06	0.22	3.14	3.14	323.	0.	0.09	0.33
573	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	295.	0.	0.08	0.32
574	30	3.14	3.14	37.	0.	0.02	0.09	3.14	3.14	829.	0.	0.13	0.50
575	30	3.14	3.14	145.	0.	0.03	0.13	3.14	3.14	813.	0.	0.13	0.51
576	30	3.14	3.14	134.	0.	0.03	0.12	3.14	3.14	873.	0.	0.14	0.55
577	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	894.	0.	0.14	0.56
578	30	3.14	3.14	74.	0.	0.03	0.10	3.14	3.14	847.	0.	0.13	0.52
579	30	3.14	3.14	141.	0.	0.03	0.12	3.14	3.14	850.	0.	0.13	0.52
580	30	3.14	3.14	58.	0.	0.02	0.07	3.14	3.14	879.	0.	0.14	0.55
581	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	922.	0.	0.14	0.56
582	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	517.	0.	0.10	0.37
583	30	3.14	3.14	213.	0.	0.04	0.17	3.14	3.14	504.	0.	0.09	0.35
584	30	3.14	3.14	201.	0.	0.04	0.14	3.14	3.14	567.	0.	0.11	0.41
585	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	560.	0.	0.11	0.41
586	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
587	30	3.14	3.14	256.	0.	0.05	0.21	3.14	3.14	0.	0.	0.00	0.00
588	30	3.14	3.14	308.	0.	0.05	0.19	3.14	3.14	0.	0.	0.00	0.00
589	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.01
590	30	3.14	3.14	0.	3.	0.00	0.03	3.14	3.14	0.	2.	0.00	0.02
591	30	3.14	3.14	400.	0.	0.10	0.38	3.14	3.14	19.	1.	0.03	0.12
592	30	3.14	3.14	675.	0.	0.11	0.44	3.14	3.14	113.	0.	0.02	0.07
593	30	3.14	3.14	656.	0.	0.11	0.44	3.14	3.14	41.	0.	0.02	0.06
594	30	3.14	3.14	625.	0.	0.10	0.38	3.14	3.14	96.	0.	0.03	0.11
595	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	2.	0.00	0.02
596	30	3.14	3.14	0.	1.	0.00	0.03	3.14	3.14	553.	0.	0.12	0.45

597	30	3.14	3.14	373.	0.	0.08	0.31	3.14	3.14	634.	0.	0.10	0.38
598	30	3.14	3.14	546.	0.	0.10	0.38	3.14	3.14	448.	0.	0.07	0.27
599	30	3.14	3.14	500.	0.	0.10	0.38	3.14	3.14	301.	0.	0.07	0.26
600	30	3.14	3.14	466.	0.	0.08	0.31	3.14	3.14	515.	0.	0.10	0.38
601	30	3.14	3.14	51.	1.	0.00	0.04	3.14	3.14	678.	0.	0.12	0.45
602	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	885.	0.	0.14	0.54
603	30	3.14	3.14	149.	0.	0.05	0.19	3.14	3.14	727.	0.	0.11	0.44
604	30	3.14	3.14	382.	0.	0.07	0.29	3.14	3.14	533.	0.	0.08	0.32
605	30	3.14	3.14	411.	0.	0.07	0.28	3.14	3.14	468.	0.	0.08	0.32
606	30	3.14	3.14	230.	0.	0.05	0.19	3.14	3.14	599.	0.	0.11	0.44
607	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	795.	0.	0.14	0.53
608	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	907.	0.	0.15	0.58
609	30	3.14	3.14	370.	0.	0.09	0.34	3.14	3.14	862.	0.	0.14	0.52
610	30	3.14	3.14	558.	0.	0.11	0.41	3.14	3.14	576.	0.	0.09	0.35
611	30	3.14	3.14	543.	0.	0.11	0.41	3.14	3.14	465.	0.	0.09	0.36
612	30	3.14	3.14	452.	0.	0.09	0.34	3.14	3.14	707.	0.	0.14	0.52
613	30	3.14	3.14	16.	0.	0.00	0.01	3.14	3.14	942.	0.	0.15	0.57
614	30	3.14	3.14	0.	1.	0.01	0.07	3.14	3.14	319.	0.	0.12	0.47
615	30	3.14	3.14	653.	0.	0.13	0.48	3.14	3.14	599.	0.	0.10	0.37
616	30	3.14	3.14	864.	0.	0.15	0.56	3.14	3.14	321.	0.	0.05	0.19
617	30	3.14	3.14	821.	0.	0.15	0.58	3.14	3.14	178.	0.	0.06	0.22
618	30	3.14	3.14	785.	0.	0.12	0.48	3.14	3.14	478.	0.	0.10	0.37
619	30	3.14	3.14	57.	1.	0.00	0.04	3.14	3.14	634.	0.	0.11	0.44
620	30	3.14	3.14	0.	6.	0.00	0.05	3.14	3.14	0.	2.	0.00	0.02
621	30	3.14	3.14	364.	0.	0.12	0.48	3.14	3.14	0.	1.	0.00	0.01
622	30	3.14	3.14	927.	0.	0.16	0.63	3.14	3.14	0.	0.	0.00	0.00
623	30	3.14	3.14	1003.	0.	0.16	0.63	3.14	3.14	0.	0.	0.00	0.00
624	30	3.14	3.14	808.	0.	0.12	0.49	3.14	3.14	0.	0.	0.00	0.01
625	30	3.14	3.14	0.	4.	0.00	0.04	3.14	3.14	0.	1.	0.00	0.01
626	30	3.14	3.14	0.	6.	0.00	0.05	3.14	3.14	0.	2.	0.00	0.02
627	30	3.14	3.14	404.	0.	0.13	0.50	3.14	3.14	0.	1.	0.00	0.01
628	30	3.14	3.14	939.	0.	0.16	0.63	3.14	3.14	0.	0.	0.00	0.00
629	30	3.14	3.14	996.	0.	0.16	0.63	3.14	3.14	0.	0.	0.00	0.00
630	30	3.14	3.14	761.	0.	0.12	0.46	3.14	3.14	0.	0.	0.00	0.01
631	30	3.14	3.14	0.	4.	0.00	0.04	3.14	3.14	0.	1.	0.00	0.01
632	30	3.14	3.14	0.	1.	0.01	0.07	3.14	3.14	327.	0.	0.12	0.47
633	30	3.14	3.14	659.	0.	0.13	0.50	3.14	3.14	604.	0.	0.10	0.37
634	30	3.14	3.14	870.	0.	0.15	0.58	3.14	3.14	326.	0.	0.05	0.20
635	30	3.14	3.14	817.	0.	0.15	0.57	3.14	3.14	180.	0.	0.06	0.22
636	30	3.14	3.14	780.	0.	0.12	0.47	3.14	3.14	477.	0.	0.10	0.37
637	30	3.14	3.14	54.	1.	0.00	0.04	3.14	3.14	633.	0.	0.11	0.44
638	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	907.	0.	0.15	0.57
639	30	3.14	3.14	380.	0.	0.09	0.35	3.14	3.14	860.	0.	0.14	0.52
640	30	3.14	3.14	564.	0.	0.11	0.41	3.14	3.14	575.	0.	0.09	0.35
641	30	3.14	3.14	538.	0.	0.11	0.41	3.14	3.14	459.	0.	0.09	0.36
642	30	3.14	3.14	447.	0.	0.09	0.33	3.14	3.14	696.	0.	0.13	0.51
643	30	3.14	3.14	13.	0.	0.00	0.01	3.14	3.14	927.	0.	0.15	0.56
644	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	886.	0.	0.14	0.54
645	30	3.14	3.14	171.	0.	0.05	0.20	3.14	3.14	720.	0.	0.11	0.44
646	30	3.14	3.14	383.	0.	0.07	0.28	3.14	3.14	516.	0.	0.08	0.31
647	30	3.14	3.14	404.	0.	0.07	0.28	3.14	3.14	443.	0.	0.08	0.30
648	30	3.14	3.14	211.	0.	0.04	0.17	3.14	3.14	556.	0.	0.11	0.41
649	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	737.	0.	0.13	0.50
650	30	3.14	3.14	0.	1.	0.01	0.07	3.14	3.14	558.	0.	0.12	0.46
651	30	3.14	3.14	411.	0.	0.09	0.33	3.14	3.14	606.	0.	0.10	0.37
652	30	3.14	3.14	542.	0.	0.10	0.38	3.14	3.14	406.	0.	0.06	0.25
653	30	3.14	3.14	477.	0.	0.09	0.34	3.14	3.14	232.	0.	0.05	0.20
654	30	3.14	3.14	421.	0.	0.07	0.27	3.14	3.14	405.	0.	0.08	0.30
655	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	528.	0.	0.09	0.36
656	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	2.	0.00	0.02
657	30	3.14	3.14	529.	0.	0.10	0.39	3.14	3.14	19.	1.	0.02	0.09
658	30	3.14	3.14	675.	0.	0.11	0.41	3.14	3.14	57.	0.	0.01	0.03
659	30	3.14	3.14	596.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
660	30	3.14	3.14	524.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.01
661	30	3.14	3.14	0.	4.	0.00	0.03	3.14	3.14	0.	2.	0.00	0.02
662	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
663	30	3.14	3.14	59.	0.	0.08	0.32	3.14	3.14	0.	0.	0.00	0.00
664	30	3.14	3.14	610.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
665	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
666	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	275.	0.	0.08	0.33
667	30	3.14	3.14	287.	0.	0.07	0.26	3.14	3.14	435.	0.	0.09	0.34
668	30	3.14	3.14	390.	0.	0.06	0.24	3.14	3.14	269.	0.	0.06	0.22
669	30	3.14	3.14	90.	0.	0.01	0.06	3.14	3.14	189.	0.	0.06	0.23
670	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	876.	0.	0.14	0.53
671	30	3.14	3.14	92.	0.	0.04	0.15	3.14	3.14	861.	0.	0.14	0.52
672	30	3.14	3.14	209.	0.	0.04	0.15	3.14	3.14	793.	0.	0.12	0.48
673	30	3.14	3.14	59.	0.	0.02	0.06	3.14	3.14	742.	0.	0.12	0.45
674	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	844.	0.	0.13	0.52
675	30	3.14	3.14	0.	0.	0.02	0.07	3.14	3.14	809.	0.	0.13	0.49
676	30	3.14	3.14	133.	0.	0.03	0.12	3.14	3.14	738.	0.	0.12	0.45
677	30	3.14	3.14	89.	0.	0.02	0.07	3.14	3.14	727.	0.	0.11	0.44
678	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	395.	0.	0.09	0.33
679	30	3.14	3.14	119.	0.	0.04	0.14	3.14	3.14	443.	0.	0.09	0.33
680	30	3.14	3.14	207.	0.	0.04	0.15	3.14	3.14	366.	0.	0.07	0.25
681	30	3.14	3.14	90.	0.	0.01	0.06	3.14	3.14	345.	0.	0.07	0.28
682	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
683	30	3.14	3.14	0.	0.	0.04	0.17	3.14	3.14	0.	0.	0.00	0.00
684	30	3.14	3.14	319.	0.	0.05	0.19	3.14	3.14	0.	0.	0.00	0.00
685	30	3.14	3.14	0.	1.	0.00	0.01	3.14	3.14	0.	1.	0.00	0.01
686	30	3.14	3.14	51.	1.	0.00	0.04	3.14	3.14	0.	1.	0.00	0.01
687	30	3.14	3.14	373.	0.	0.06	0.23	3.14	3.14	0.	0.	0.00	0.00
688	30	3.14	3.14	23.	0.	0.05	0.21	3.14	3.14	0.	0.	0.01	0.02
689	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.02
690	30	3.14	3.14	109.	0.	0.02	0.07	3.14	3.14	463.	0.	0.09	0.33
691	30	3.14	3.14	245.	0.	0.04	0.17	3.14	3.14	515.	0.	0.08	0.33
692	30	3.14	3.14	140.	0.	0.04	0.16	3.14	3.14	599.	0.	0.11	0.41
693	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	543.	0.	0.11	0.41

694	30	3.14	3.14	100.	0.	0.02	0.08	3.14	3.14	782.	0.	0.12	0.47
695	30	3.14	3.14	143.	0.	0.03	0.12	3.14	3.14	802.	0.	0.13	0.49
696	30	3.14	3.14	5.	0.	0.02	0.08	3.14	3.14	875.	0.	0.14	0.53
697	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	908.	0.	0.14	0.55
698	30	3.14	3.14	65.	0.	0.02	0.06	3.14	3.14	755.	0.	0.12	0.46
699	30	3.14	3.14	214.	0.	0.04	0.15	3.14	3.14	808.	0.	0.13	0.49
700	30	3.14	3.14	95.	0.	0.04	0.15	3.14	3.14	877.	0.	0.14	0.53
701	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	894.	0.	0.14	0.55
702	30	3.14	3.14	91.	0.	0.01	0.06	3.14	3.14	185.	0.	0.06	0.23
703	30	3.14	3.14	393.	0.	0.06	0.24	3.14	3.14	265.	0.	0.06	0.21
704	30	3.14	3.14	289.	0.	0.07	0.26	3.14	3.14	434.	0.	0.09	0.34
705	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	273.	0.	0.08	0.33
706	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
707	30	3.14	3.14	612.	0.	0.10	0.37	3.14	3.14	0.	0.	0.00	0.00
708	30	3.14	3.14	38.	0.	0.08	0.31	3.14	3.14	0.	0.	0.00	0.00
709	30	3.14	3.14	0.	-3.	0.00	0.00	3.14	3.14	0.	2.	0.00	0.01
710	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
711	30	3.14	3.14	124.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
712	30	3.14	3.14	66.	2.	0.00	0.06	3.14	3.14	0.	1.	0.00	0.01
713	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	243.	0.	0.08	0.30
714	30	3.14	3.14	252.	0.	0.04	0.15	3.14	3.14	343.	0.	0.07	0.27
715	30	3.14	3.14	97.	0.	0.01	0.06	3.14	3.14	272.	0.	0.06	0.22
716	30	3.14	3.14	18.	0.	0.01	0.06	3.14	3.14	760.	0.	0.12	0.46
717	30	3.14	3.14	131.	0.	0.03	0.12	3.14	3.14	707.	0.	0.11	0.43
718	30	3.14	3.14	87.	0.	0.01	0.05	3.14	3.14	611.	0.	0.10	0.37
719	30	3.14	3.14	0.	0.	0.01	0.04	3.14	3.14	738.	0.	0.12	0.45
720	30	3.14	3.14	34.	0.	0.02	0.06	3.14	3.14	652.	0.	0.10	0.40
721	30	3.14	3.14	19.	0.	0.01	0.04	3.14	3.14	550.	0.	0.09	0.33
722	30	3.14	3.14	0.	0.	0.01	0.02	3.14	3.14	466.	0.	0.09	0.35
723	30	3.14	3.14	137.	0.	0.03	0.11	3.14	3.14	485.	0.	0.08	0.31
724	30	3.14	3.14	55.	0.	0.01	0.04	3.14	3.14	409.	0.	0.07	0.26
725	30	3.14	3.14	0.	-1.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
726	30	3.14	3.14	107.	0.	0.03	0.12	3.14	3.14	0.	0.	0.00	0.03
727	30	3.14	3.14	64.	2.	0.00	0.05	3.14	3.14	0.	1.	0.00	0.01
728	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	0.	0.00	0.00
729	30	3.14	3.14	115.	0.	0.04	0.15	3.14	3.14	0.	0.	0.00	0.00
730	30	3.14	3.14	62.	2.	0.00	0.05	3.14	3.14	0.	1.	0.00	0.01
731	30	3.14	3.14	0.	0.	0.01	0.03	3.14	3.14	246.	0.	0.08	0.30
732	30	3.14	3.14	250.	0.	0.04	0.15	3.14	3.14	344.	0.	0.07	0.27
733	30	3.14	3.14	96.	0.	0.01	0.06	3.14	3.14	273.	0.	0.06	0.22
734	30	3.14	3.14	14.	0.	0.01	0.05	3.14	3.14	747.	0.	0.12	0.45
735	30	3.14	3.14	130.	0.	0.03	0.12	3.14	3.14	696.	0.	0.11	0.42
736	30	3.14	3.14	89.	0.	0.01	0.05	3.14	3.14	603.	0.	0.09	0.36
737	30	3.14	3.14	0.	0.	0.01	0.04	3.14	3.14	686.	0.	0.11	0.42
738	30	3.14	3.14	24.	0.	0.01	0.06	3.14	3.14	604.	0.	0.09	0.37
739	30	3.14	3.14	22.	0.	0.01	0.04	3.14	3.14	511.	0.	0.08	0.31
740	30	3.14	3.14	0.	0.	0.00	0.01	3.14	3.14	326.	0.	0.07	0.28
741	30	3.14	3.14	113.	0.	0.02	0.08	3.14	3.14	358.	0.	0.06	0.25
742	30	3.14	3.14	38.	0.	0.00	0.03	3.14	3.14	299.	0.	0.05	0.21
743	30	3.14	3.14	0.	0.	0.00	0.00	3.14	3.14	0.	1.	0.00	0.01
744	30	3.14	3.14	70.	0.	0.01	0.06	3.14	3.14	0.	0.	0.00	0.00
745	30	3.14	3.14	38.	2.	0.00	0.04	3.14	3.14	0.	1.	0.00	0.01

L'ARMATURA È OVUNQUE > DELLA QUANTITÀ RICHIESTA: IL PUNTO 2.3 DELLE NTC È VERIFICATO (Rd > Ed)

MACROGUSCIO PLATEA

VERIFICHE A FESSURAZIONE (EFFETTO MEMBRANA + PIASTRA)

CASI DI CARICO:

Nome	Descrizione
14	Rara (RARA)
15	Frequente (FREQUENTE)
16	Quasi Perm (QUASI PERMANENTE)

DATI:
copriferro inferiore (asse armatura): 3 cm
copriferro superiore (asse armatura): 3 cm

Af = area effettiva tesa (cm2 al metro)
Afc = area effettiva compressa (cm2 al metro)
Mom = momento flettente [daNcm/cm]
Nor = sforzo normale [daN]
σc = tensione calcestruzzo [daN/cm2]
σc = tensione acciaio [daN/cm2]
wkR = apertura caratteristica per combinazione rara (mm) - apertura max = 0.6 mm
wkF = '' '' '' '' frequente (mm) - '' '' = 0.4 mm
wkP = '' '' '' '' quasi permanente (mm) - '' '' = 0.3 mm

ARMATURA INFERIORE ORIZZONTALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	199	0.	3.28	249.	0.030	158	0.	2.61	198.	0.024	148	0.	2.45	185.	0.022
2	3.14	3.14	637	-5	10.55	724.	0.086	511	-4	8.46	583.	0.069	480	-3	7.94	548.	0.065
3	3.14	3.14	28	0.	0.47	35.	0.004	17	0.	0.28	21.	0.003	14	0.	0.23	18.	0.002
4	3.14	3.14	273	-1	4.51	332.	0.039	218	0.	3.60	265.	0.031	204	0.	3.37	248.	0.029
5	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
6	3.14	3.14	69	0.	1.13	86.	0.010	54	0.	0.89	67.	0.008	50	0.	0.83	63.	0.007
7	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
8	3.14	3.14	47	0.	0.78	59.	0.007	37	0.	0.61	47.	0.006	35	0.	0.57	43.	0.005
9	3.14	3.14	9	0.	0.14	11.	0.001	1	0.	0.01	1.	0.000	0.	0.	0.00	0.	0.000
10	3.14	3.14	248	0.	4.10	315.	0.038	200	0.	3.29	253.	0.030	187	0.	3.09	237.	0.028

11	3.14	3.14	154	0.	2.54	193.	0.023	120	0.	1.98	151.	0.018	112	0.	1.84	140.	0.017
12	3.14	3.14	934	-3	15.45	1115.	0.133	750	-3	12.40	897.	0.107	704	-2	11.64	843.	0.100
13	3.14	3.14	1095	-8	18.12	1241.	0.148	873	-6	14.44	993.	0.118	817	-6	13.53	931.	0.111
14	3.14	3.14	111	0.	1.83	139.	0.016	82	0.	1.36	103.	0.012	75	0.	1.25	94.	0.011
15	3.14	3.14	197	0.	3.26	247.	0.029	153	0.	2.53	192.	0.023	142	0.	2.35	178.	0.021
16	3.14	3.14	972	-5	16.09	1140.	0.136	774	-4	12.81	910.	0.108	725	-4	11.99	852.	0.101
17	3.14	3.14	80	0.	1.32	100.	0.012	60	0.	0.99	75.	0.009	55	0.	0.90	68.	0.008
18	3.14	3.14	271	0.	4.47	345.	0.042	217	0.	3.57	276.	0.033	203	0.	3.35	258.	0.031
19	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
20	3.14	3.14	28	0.	0.47	36.	0.004	21	0.	0.34	26.	0.003	19	0.	0.31	23.	0.003
21	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
22	3.14	3.14	2	0.	0.03	3.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
23	3.14	3.14	58	0.	0.96	73.	0.009	40	0.	0.66	50.	0.006	35	0.	0.58	44.	0.005
24	3.14	3.14	156	0.	2.57	197.	0.024	123	0.	2.02	155.	0.019	114	0.	1.89	145.	0.017
25	3.14	3.14	66	0.	1.10	83.	0.010	45	0.	0.75	57.	0.007	40	0.	0.66	50.	0.006
26	3.14	3.14	654	-5	10.82	745.	0.089	525	-4	8.69	599.	0.071	493	-3	8.15	563.	0.067
27	3.14	3.14	729	-4	12.07	842.	0.100	593	-3	9.81	687.	0.082	559	-3	9.24	649.	0.077
28	3.14	3.14	138	0.	2.29	173.	0.021	109	0.	1.80	136.	0.016	102	0.	1.68	127.	0.015
29	3.14	3.14	657	-2	10.87	790.	0.094	536	-2	8.86	646.	0.077	506	-1	8.36	610.	0.072
30	3.14	3.14	329	4	5.36	474.	0.062	279	3	4.55	397.	0.052	267	3	4.35	378.	0.049
31	3.14	3.14	83	2	1.30	136.	0.019	72	2	1.15	116.	0.016	70	1	1.11	110.	0.015
32	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
33	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
34	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
35	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
36	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
37	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
38	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
39	3.14	3.14	164	0.	2.70	206.	0.025	129	0.	2.13	162.	0.019	120	0.	1.98	151.	0.018
40	3.14	3.14	574	1	9.47	735.	0.089	463	1	7.64	593.	0.072	435	1	7.18	557.	0.067
41	3.14	3.14	1152	1	19.00	1453.	0.174	935	0.	15.43	1178.	0.141	880	0.	14.53	1110.	0.133
42	3.14	3.14	1061	1	17.51	1337.	0.160	860	0.	14.19	1083.	0.129	810	0.	13.36	1019.	0.122
43	3.14	3.14	447	1	7.36	579.	0.071	366	1	6.03	473.	0.058	345	1	5.69	447.	0.054
44	3.14	3.14	498	0.	8.23	630.	0.075	407	0.	6.72	514.	0.061	384	0.	6.35	485.	0.058
45	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
46	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
47	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
48	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
49	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
50	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
51	3.14	3.14	1040	-1	17.19	1292.	0.154	821	0.	13.56	1020.	0.121	766	0.	12.65	952.	0.113
52	3.14	3.14	951	0.	15.71	1192.	0.142	765	0.	12.62	958.	0.114	718	0.	11.85	899.	0.107
53	3.14	3.14	741	0.	12.24	922.	0.110	600	0.	9.91	747.	0.089	565	0.	9.33	703.	0.084
54	3.14	3.14	754	0.	12.46	944.	0.112	611	0.	10.08	764.	0.091	575	0.	9.49	719.	0.085
55	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
56	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
57	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
58	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
59	3.14	3.14	621	-1	10.27	765.	0.091	501	-1	8.28	618.	0.073	471	-1	7.78	581.	0.069
60	3.14	3.14	605	0.	10.00	759.	0.090	491	0.	8.10	615.	0.073	462	0.	7.63	579.	0.069
61	3.14	3.14	424	2	6.97	568.	0.071	350	2	5.75	467.	0.058	332	2	5.45	441.	0.055
62	3.14	3.14	493	1	8.13	628.	0.076	405	1	6.68	515.	0.062	383	0.	6.31	487.	0.059
63	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
64	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
65	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
66	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
67	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
68	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
69	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
70	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
71	3.14	3.14	645	1	10.63	828.	0.100	521	1	8.59	669.	0.081	490	1	8.07	629.	0.076
72	3.14	3.14	713	0.	11.77	893.	0.106	577	0.	9.52	723.	0.086	543	0.	8.96	680.	0.081
73	3.14	3.14	632	0.	10.44	793.	0.094	513	0.	8.47	643.	0.076	483	0.	7.98	605.	0.072
74	3.14	3.14	773	-2	12.77	937.	0.111	623	-1	10.30	757.	0.090	586	-1	9.69	712.	0.085
75	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
76	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
77	3.14	3.14	306	0.	5.05	383.	0.046	243	0.	4.02	305.	0.036	228	0.	3.76	285.	0.034
78	3.14	3.14	27	0.	0.45	34.	0.004	18	0.	0.30	23.	0.003	16	0.	0.26	20.	0.002
79	3.14	3.14	838	0.	13.82	1055.	0.126	678	0.	11.18	853.	0.102	638	0.	10.52	803.	0.096
80	3.14	3.14	996	-2	16.46	1221.	0.145	792	-1	13.09	973.	0.116	741	-1	12.25	910.	0.108
81	3.14	3.14	680	3	11.18	895.	0.110	556	2	9.16	730.	0.090	526	2	8.65	689.	0.085
82	3.14	3.14	300	1	4.94	388.	0.047	250	1	4.12	323.	0.039	238	1	3.92	307.	0.037
83	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
101	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
102	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
103	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
104	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
105	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
106	3.14	3.14	516	3	8.48	692.	0.086	427	2	7.02	571.	0.071	405	2	6.66	541.	0.067
107	3.14	3.14	24	1	0.38	42.	0.006	26	1	0.41	42.	0.006	27	1	0.42	42.	0.006
108	3.14	3.14	349	3	5.72	483.	0.062	287	2	4.70	396.	0.050	272	2	4.45	374.	0.048
109	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
110	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
111	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
112	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
113	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
114	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
115	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
116	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
117	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
118	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
119	3.14	3.14	261	0.	4.30	326.	0.039	209	0.	3.46	262.	0.031	197	0.	3.25	246.	0.029
120	3.14	3.14	416	0.	6.87	524.	0.063	336	0.	5.55	423.	0.051	316	0.	5.22	398.	0.047
121	3.14	3.14	513	2	8.43	676.	0.084	417	2	6.87	549.	0.068	394	2	6.48	517.	0.064
122	3.14	3.14	883	1	14.57	1126.	0.136	742	1	12.25	945.	0.114	707	1	11.67	900.	0.108
123	3.14	3.14	640	1	10.57	810.	0.097	509	0.	8.40	644.	0.077	476	0.	7.86	602.	0.072
124	3.14	3.14	262	0.	4.32	328.	0.039	211	0.	3.48	264.	0.031	198	0.	3.27	248.	0.029
125	3.14	3.14	239	1	3.94	309.	0.038	201	0.	3.30	259.	0.031	191	0.	3.14	246.	0.030
126	3.14	3.14	160	0.	2.64	200.	0.024	134	0.	2.22	168.	0.020	128	0.	2.11	160.	0.019
127	3.14	3.14	30	0.	0.49	37.	0.004	26	0.	0.43	33.	0.004	25	0.	0.42	32.	0.004
128	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
129	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
130	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
131	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
132	3.14	3.14	168	0.	2.78	211.	0.025	128	0.	2.11	160.	0.019	118	0.	1.95	148.	0.018
133	3.14	3.14	146	0.	2.41	183.	0.022	112	0.	1.85	140.	0.017	103	0.	1.71	130.	0.015
134	3.14	3.14	346	0.	5.71	433.	0.051	283	0.	4.67	354.	0.042	267	0.	4.41	334.	0.040
135	3.14	3.14	567	0.	9.36	713.	0.085	460	0.	7.59	578.	0.069	433	0.	7.15	544.	0.065
136	3.14	3.14	1026	-2	16.97	1252.	0.149	823	-2	13.61	1006.	0.120	772	-1	12.77	944.	0.112
137	3.14	3.14	185	1	3.04	244.	0.030	169	1	2.78	221.	0.027	165	1	2.72	215.	0.026
138	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
139	3.14	3.14	371	0.	6.12	460.	0.055	302	0.	4.98	375.	0.045	284	0.	4.70	354.	0.042

140	3.14	3.14	194	0.	3.21	242.	0.029	166	0.	2.75	207.	0.025	159	0.	2.63	199.	0.024
141	3.14	3.14	184	0.	3.04	233.	0.028	162	0.	2.68	205.	0.024	157	0.	2.58	197.	0.024
142	3.14	3.14	25	0.	0.41	31.	0.004	19	0.	0.31	23.	0.003	17	0.	0.28	21.	0.003
143	3.14	3.14	255	0.	4.21	319.	0.038	207	0.	3.42	259.	0.031	195	0.	3.22	244.	0.029
144	3.14	3.14	76	0.	1.26	96.	0.011	62	0.	1.02	77.	0.009	58	0.	0.96	73.	0.009
145	3.14	3.14	153	0.	2.53	192.	0.023	130	0.	2.14	163.	0.019	124	0.	2.05	155.	0.018
146	3.14	3.14	87	0.	1.44	110.	0.013	73	0.	1.21	92.	0.011	70	0.	1.15	88.	0.010
147	3.14	3.14	76	0.	1.25	95.	0.011	60	0.	0.98	75.	0.009	56	0.	0.92	70.	0.008
148	3.14	3.14	145	0.	2.40	182.	0.022	117	0.	1.93	147.	0.017	110	0.	1.82	138.	0.016
149	3.14	3.14	129	0.	2.12	161.	0.019	104	0.	1.72	131.	0.016	98	0.	1.62	123.	0.015
150	3.14	3.14	69	0.	1.14	87.	0.010	54	0.	0.90	68.	0.008	51	0.	0.83	63.	0.008
151	3.14	3.14	91	0.	1.51	114.	0.014	76	0.	1.25	95.	0.011	72	0.	1.18	90.	0.011
152	3.14	3.14	125	0.	2.06	157.	0.019	104	0.	1.72	131.	0.016	99	0.	1.64	124.	0.015
153	3.14	3.14	60	0.	0.99	75.	0.009	47	0.	0.77	58.	0.007	43	0.	0.71	54.	0.006
154	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
155	3.14	3.14	36	0.	0.59	45.	0.005	32	0.	0.52	40.	0.005	31	0.	0.50	38.	0.005
156	3.14	3.14	537	-1	8.87	652.	0.077	451	-1	7.46	549.	0.065	430	-1	7.10	523.	0.062
157	3.14	3.14	32	0.	0.53	41.	0.005	20	0.	0.32	24.	0.003	16	0.	0.27	20.	0.002
158	3.14	3.14	125	0.	2.07	157.	0.019	101	0.	1.67	127.	0.015	95	0.	1.57	119.	0.014
159	3.14	3.14	252	0.	4.15	317.	0.038	213	0.	3.52	269.	0.032	204	0.	3.37	256.	0.031
160	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
161	3.14	3.14	27	0.	0.45	34.	0.004	19	0.	0.31	24.	0.003	17	0.	0.28	21.	0.002
162	3.14	3.14	38	0.	0.62	47.	0.006	32	0.	0.53	40.	0.005	31	0.	0.50	38.	0.005
163	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
164	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
165	3.14	3.14	5	0.	0.08	6.	0.001	4	0.	0.07	5.	0.001	4	0.	0.06	5.	0.001
166	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
167	3.14	3.14	59	0.	0.98	74.	0.009	47	0.	0.78	59.	0.007	44	0.	0.72	55.	0.007
168	3.14	3.14	100	0.	1.65	126.	0.015	85	0.	1.40	107.	0.013	81	0.	1.34	102.	0.012
169	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
170	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
171	3.14	3.14	258	-1	4.26	308.	0.037	219	-1	3.63	263.	0.031	210	-1	3.47	252.	0.030
172	3.14	3.14	249	-1	4.11	299.	0.036	212	-1	3.51	256.	0.030	203	-1	3.36	246.	0.029
173	3.14	3.14	58	0.	0.96	73.	0.009	48	0.	0.79	60.	0.007	46	0.	0.75	57.	0.007
174	3.14	3.14	49	0.	0.81	62.	0.007	37	0.	0.62	47.	0.006	34	0.	0.57	43.	0.005
175	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
176	3.14	3.14	3	0.	0.05	4.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
177	3.14	3.14	34	0.	0.57	43.	0.005	26	0.	0.42	32.	0.004	24	0.	0.39	29.	0.004
178	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
179	3.14	3.14	20	0.	0.32	24.	0.003	8	0.	0.13	10.	0.001	5	0.	0.09	7.	0.001
180	3.14	3.14	420	-1	6.94	505.	0.060	353	-1	5.84	426.	0.051	337	-1	5.57	407.	0.048
181	3.14	3.14	29	0.	0.47	36.	0.004	16	0.	0.27	20.	0.002	13	0.	0.22	16.	0.002
182	3.14	3.14	127	0.	2.09	159.	0.019	102	0.	1.69	128.	0.015	96	0.	1.59	121.	0.014
183	3.14	3.14	255	0.	4.22	322.	0.038	217	0.	3.57	272.	0.032	207	0.	3.41	260.	0.031
184	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
185	3.14	3.14	30	0.	0.50	38.	0.005	21	0.	0.35	27.	0.003	19	0.	0.31	24.	0.003
186	3.14	3.14	40	0.	0.67	51.	0.006	34	0.	0.56	43.	0.005	32	0.	0.54	41.	0.005
187	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
188	3.14	3.14	5	0.	0.08	6.	0.001	0.	0.	0.01	0.	0.000	0.	0.	0.00	0.	0.000
189	3.14	3.14	10	0.	0.17	13.	0.002	9	0.	0.14	11.	0.001	8	0.	0.13	10.	0.001
190	3.14	3.14	6	0.	0.09	7.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
191	3.14	3.14	91	0.	1.50	114.	0.014	73	0.	1.21	92.	0.011	69	0.	1.14	86.	0.010
192	3.14	3.14	94	0.	1.55	118.	0.014	79	0.	1.31	100.	0.012	76	0.	1.25	96.	0.011
193	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
194	3.14	3.14	38	0.	0.63	48.	0.006	29	0.	0.47	36.	0.004	26	0.	0.43	33.	0.004
195	3.14	3.14	296	-1	4.89	353.	0.042	250	-1	4.14	301.	0.036	239	-1	3.96	288.	0.034
196	3.14	3.14	306	-1	5.07	368.	0.044	261	-1	4.32	316.	0.038	250	-1	4.13	302.	0.036
197	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
198	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
199	3.14	3.14	323	0.	5.34	405.	0.048	266	0.	4.39	333.	0.040	252	0.	4.16	315.	0.037
200	3.14	3.14	385	0.	6.36	477.	0.057	314	0.	5.19	390.	0.046	297	0.	4.90	368.	0.044
201	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
202	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
203	3.14	3.14	161	0.	2.65	209.	0.026	147	0.	2.42	189.	0.023	144	0.	2.37	184.	0.022
204	3.14	3.14	92	1	1.49	132.	0.017	89	1	1.46	125.	0.016	89	1	1.45	123.	0.016
205	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
206	3.14	3.14	34	0.	0.56	43.	0.005	26	0.	0.42	32.	0.004	23	0.	0.39	29.	0.003
207	3.14	3.14	307	-1	5.08	372.	0.044	262	-1	4.33	318.	0.038	250	-1	4.14	305.	0.036
208	3.14	3.14	298	0.	4.93	369.	0.044	257	0.	4.25	319.	0.038	247	0.	4.08	306.	0.036
209	3.14	3.14	959	-2	15.85	1166.	0.139	767	-2	12.69	935.	0.111	719	-2	11.89	877.	0.104
210	3.14	3.14	886	0.	14.62	1113.	0.133	713	0.	11.77	896.	0.107	670	0.	11.05	841.	0.100
211	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
212	3.14	3.14	62	0.	1.02	78.	0.009	42	0.	0.69	52.	0.006	37	0.	0.60	46.	0.005
213	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
214	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
215	3.14	3.14	259	1	4.27	334.	0.041	209	1	3.45	270.	0.033	197	0.	3.24	254.	0.031
216	3.14	3.14	240	0.	3.96	301.	0.036	200	0.	3.30	251.	0.030	190	0.	3.13	238.	0.028
217	3.14	3.14	537	3	8.83	715.	0.089	438	2	7.20	580.	0.072	413	2	6.79	546.	0.068
218	3.14	3.14	591	1	9.75	752.	0.090	479	1	7.90	609.	0.073	451	1	7.44	573.	0.069
219	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
220	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
221	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
222	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
223	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
224	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
225	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
226	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
227	3.14	3.14	571	2	9.39	751.	0.093	463	2	7.63	608.	0.075	437	2	7.19	572.	0.070
228	3.14	3.14	647	1	10.68	822.	0.099	525	1	8.66	665.	0.080	494	0.	8.15	626.	0.075
229	3.14	3.14	902	-2	14.90	1098.	0.131	724	-1	11.97	884.	0.105	680	-1	11.24	830.	0.099
230	3.14	3.14	814	0.	13.43	1021.	0.122	657	0.	10.85	824.	0.098	618	0.	10.20	774.	0.092
231	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
232	3.14	3.14	23	0.	0.39	29.	0.003	14	0.	0.23	17.	0.002	11	0.	0.19	14.	0.002
233	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
234	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
235	3.14	3.14	328	0.	5.41	405.	0.048	272	0.	4.49	337.	0.040	258	0.	4.26	320.	0.038
236	3.14	3.14	292	0.	4.83	366.	0.044	245	0.	4.05	307.	0.036	234	0.	3.86	292.	0.035
237	3.14	3.14	178	1	2.93	232.	0.028	152	0.	2.51	198.	0.024	146	0.	2.40	190.	0.023
238	3.14	3.14	199	0.	3.29	251.	0.030	170	0.	2.80	213.	0.025	162	0.	2.68	204.	0.024
239	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
240	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
241	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
242	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
243	3.14	3.14	824	-2	13.62	1008.	0.120	661	-1	10.93	810.	0.096	621	-1	10.26	761.	0.090
244	3.14	3.14	777	0.	12.84	976.	0.116	627	0.	10.36	787.	0.094	590	0.	9.74	740.	0.088
245	3.14	3.14	567	2	9.34	743.	0.091	463	2	7.62	605.	0.074	437	1	7.19	570.	0.070
246	3.14	3.14	617	1	10.18	782.	0.094	502	0.	8.28	636.	0.076	473	0.	7.81	599.	0.072
247	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
248	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
249	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
250	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
251	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

252	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
253	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
254	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
255	3.14	3.14	955	0.	15.76	1199.	0.143	769	0.	12.70	967.	0.115	723	0.	11.94	909.	0.108
256	3.14	3.14	960	0.	15.85	1202.	0.143	776	0.	12.81	971.	0.115	730	0.	12.04	913.	0.109
257	3.14	3.14	894	0.	14.77	1121.	0.133	721	0.	11.90	904.	0.108	677	0.	11.18	850.	0.101
258	3.14	3.14	818	0.	13.51	1024.	0.122	660	0.	10.89	826.	0.098	620	0.	10.24	776.	0.092
259	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
260	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
261	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
262	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
263	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
264	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
265	3.14	3.14	28	0.	0.47	36.	0.004	19	0.	0.31	23.	0.003	16	0.	0.27	20.	0.002
266	3.14	3.14	450	0.	7.42	563.	0.067	359	0.	5.92	449.	0.053	336	0.	5.55	421.	0.050
267	3.14	3.14	1343	0.	22.18	1681.	0.200	1087	0.	17.95	1360.	0.162	1023	0.	16.89	1280.	0.152
268	3.14	3.14	1191	0.	19.67	1484.	0.176	960	0.	15.86	1197.	0.142	902	0.	14.90	1125.	0.134
269	3.14	3.14	1004	0.	16.58	1261.	0.150	809	0.	13.36	1015.	0.121	761	0.	12.56	954.	0.114
270	3.14	3.14	911	1	15.04	1154.	0.138	734	1	12.11	929.	0.111	690	1	11.38	873.	0.105
271	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
272	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
273	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
274	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
275	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
276	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
277	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
278	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
279	3.14	3.14	433	2	7.13	571.	0.070	357	1	5.88	469.	0.058	338	1	5.57	444.	0.055
280	3.14	3.14	112	4	1.68	206.	0.031	98	3	1.50	174.	0.025	95	3	1.45	165.	0.024
281	3.14	3.14	754	-3	12.48	901.	0.107	613	-2	10.13	734.	0.087	577	-2	9.54	692.	0.082
282	3.14	3.14	250	-3	4.13	265.	0.032	203	-2	3.35	217.	0.026	191	-2	3.16	205.	0.024
283	3.14	3.14	64	5	0.68	156.	0.026	70	4	0.94	147.	0.023	71	3	1.00	145.	0.023
284	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
285	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
286	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
287	3.14	3.14	61	0.	1.01	77.	0.009	48	0.	0.79	60.	0.007	44	0.	0.73	56.	0.007
288	3.14	3.14	1000	1	16.50	1269.	0.152	804	1	13.27	1021.	0.123	755	1	12.46	959.	0.115
289	3.14	3.14	107	0.	1.76	141.	0.017	86	0.	1.41	113.	0.014	81	0.	1.33	106.	0.013
290	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
291	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
292	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
293	3.14	3.14	100	0.	1.65	125.	0.015	80	0.	1.32	100.	0.012	75	0.	1.24	94.	0.011
294	3.14	3.14	495	0.	8.17	622.	0.074	396	0.	6.54	497.	0.059	371	0.	6.13	466.	0.056
295	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
296	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
297	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
298	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
299	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
300	3.14	3.14	196	0.	3.23	245.	0.029	155	0.	2.56	194.	0.023	145	0.	2.39	181.	0.022
301	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
302	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
303	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
304	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
305	3.14	3.14	59	0.	0.97	74.	0.009	43	0.	0.72	54.	0.006	40	0.	0.65	50.	0.006
306	3.14	3.14	315	0.	5.21	395.	0.047	249	0.	4.11	311.	0.037	232	0.	3.83	291.	0.035
307	3.14	3.14	312	0.	5.15	399.	0.048	255	0.	4.21	326.	0.039	241	0.	3.98	308.	0.037
308	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
309	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
310	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
311	3.14	3.14	303	0.	5.01	380.	0.045	237	0.	3.91	297.	0.035	221	0.	3.64	276.	0.033
312	3.14	3.14	1097	0.	18.11	1376.	0.164	868	0.	14.33	1088.	0.130	810	0.	13.38	1016.	0.121
313	3.14	3.14	370	6	5.96	561.	0.076	317	5	5.12	473.	0.063	304	4	4.91	450.	0.060
314	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
315	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
316	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
317	3.14	3.14	95	0.	1.56	119.	0.014	72	0.	1.19	90.	0.011	66	0.	1.10	83.	0.010
318	3.14	3.14	1542	2	25.44	1959.	0.235	1222	1	20.16	1552.	0.186	1142	1	18.84	1450.	0.174
319	3.14	3.14	263	6	4.15	431.	0.061	229	5	3.63	364.	0.051	220	4	3.51	348.	0.048
320	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
321	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
322	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
323	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
324	3.14	3.14	1857	2	30.65	2354.	0.282	1473	1	24.31	1867.	0.224	1377	1	22.72	1745.	0.209
325	3.14	3.14	312	1	5.14	399.	0.048	255	0.	4.20	326.	0.039	241	0.	3.97	307.	0.037
326	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
327	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
328	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
329	3.14	3.14	303	0.	5.01	380.	0.045	238	0.	3.92	298.	0.035	221	0.	3.65	277.	0.033
330	3.14	3.14	1093	0.	18.05	1371.	0.163	866	0.	14.29	1086.	0.129	809	0.	13.35	1015.	0.121
331	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
332	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
333	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
334	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
335	3.14	3.14	62	0.	1.02	77.	0.009	46	0.	0.76	58.	0.007	42	0.	0.70	53.	0.006
336	3.14	3.14	314	0.	5.19	394.	0.047	249	0.	4.11	312.	0.037	233	0.	3.84	291.	0.035
337	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
338	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
339	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
340	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
341	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
342	3.14	3.14	192	0.	3.18	241.	0.029	154	0.	2.54	192.	0.023	144	0.	2.38	180.	0.021
343	3.14	3.14	77	0.	1.26	103.	0.013	61	0.	1.00	82.	0.010	57	0.	0.94	76.	0.010
344	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
345	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
346	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
347	3.14	3.14	90	0.	1.48	112.	0.013	73	0.	1.21	92.	0.011	69	0.	1.14	87.	0.010
348	3.14	3.14	466	0.	7.70	586.	0.070	374	0.	6.18	470.	0.056	351	0.	5.80	441.	0.053
349	3.14	3.14	131	4	1.99	235.	0.035	119	3	1.83	204.	0.030	115	3	1.79	196.	0.028
350	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
351	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
352	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
353	3.14	3.14	39	0.	0.64	48.	0.006	30	0.	0.49	37.	0.004	27	0.	0.45	34.	0.004
354	3.14	3.14	818	1	13.49	1046.	0.126	659	1	10.87	843.	0.102	619	1	10.21	792.	0.096
355	3.14	3.14	1685	-1	27.84	2090.	0.248	1333	-1	22.02	1654.	0.197	1245	-1	20.56	1545.	0.184
356	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
357	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
358	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
359	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
360	3.14	3.14	1475	0.	24.35	1846.	0.219	1170	0.	19.32	1465.	0.174	1094	0.	18.06	1369.	0.163
361	3.14	3.14	1056	0.	17.43	1324.	0.158	836	0.	13.81	1049.	0.125	781	0.	12.90	980.	0.117
362	3.14	3.14	230	0.	3.81	289.	0.034	181	0.	2.99	227.	0.027	169	0.	2.79	212.	0.025
363	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

364	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
365	3.14	3.14	164	0.	2.72	206.	0.024	130	0.	2.15	163.	0.019	121	0.	2.00	152.	0.018
366	3.14	3.14	971	0.	16.02	1216.	0.144	770	0.	12.71	964.	0.115	720	0.	11.88	902.	0.107
367	3.14	3.14	288	0.	4.76	361.	0.043	228	0.	3.76	285.	0.034	213	0.	3.51	266.	0.032
368	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
369	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
370	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
371	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
372	3.14	3.14	246	0.	4.06	308.	0.037	195	0.	3.22	244.	0.029	182	0.	3.01	228.	0.027
373	3.14	3.14	181	0.	2.99	227.	0.027	144	0.	2.37	180.	0.021	135	0.	2.22	168.	0.020
374	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
375	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
376	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
377	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
378	3.14	3.14	149	0.	2.45	186.	0.022	118	0.	1.95	148.	0.018	111	0.	1.83	139.	0.016
379	3.14	3.14	462	0.	7.62	579.	0.069	370	0.	6.10	464.	0.055	347	0.	5.72	435.	0.052
380	3.14	3.14	29	0.	0.47	36.	0.004	24	0.	0.40	30.	0.004	23	0.	0.38	29.	0.003
381	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
382	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
383	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
384	3.14	3.14	424	0.	7.00	532.	0.063	340	0.	5.62	426.	0.051	319	0.	5.27	400.	0.048
385	3.14	3.14	1092	-1	18.03	1357.	0.161	876	0.	14.47	1090.	0.130	822	0.	13.58	1023.	0.122
386	3.14	3.14	13	0.	0.21	16.	0.002	10	0.	0.16	12.	0.001	9	0.	0.15	11.	0.001
387	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
388	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
389	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
390	3.14	3.14	980	0.	16.18	1228.	0.146	788	0.	13.02	989.	0.118	741	0.	12.23	929.	0.111
391	3.14	3.14	544	2	8.96	708.	0.087	443	1	7.30	576.	0.070	418	1	6.88	543.	0.066
392	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
393	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
394	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
395	3.14	3.14	951	-1	15.71	1176.	0.140	776	-1	12.82	962.	0.114	733	-1	12.10	908.	0.108
396	3.14	3.14	215	0.	3.55	272.	0.033	174	0.	2.88	221.	0.026	164	0.	2.71	208.	0.025
397	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
398	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
399	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
400	3.14	3.14	423	0.	6.98	530.	0.063	338	0.	5.57	424.	0.050	316	0.	5.22	397.	0.047
401	3.14	3.14	42	0.	0.69	52.	0.006	32	0.	0.53	41.	0.005	30	0.	0.50	38.	0.004
402	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
403	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
404	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
405	3.14	3.14	163	0.	2.70	204.	0.024	128	0.	2.12	161.	0.019	120	0.	1.98	150.	0.018
406	3.14	3.14	173	0.	2.86	217.	0.026	136	0.	2.25	170.	0.020	127	0.	2.09	159.	0.019
407	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
408	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
409	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
410	3.14	3.14	271	0.	4.47	339.	0.040	213	0.	3.51	266.	0.032	198	0.	3.27	248.	0.030
411	3.14	3.14	845	0.	13.96	1059.	0.126	670	0.	11.06	839.	0.100	626	0.	10.33	784.	0.093
412	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
413	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
414	3.14	3.14	37	0.	0.60	46.	0.005	27	0.	0.44	34.	0.004	24	0.	0.40	31.	0.004
415	3.14	3.14	987	0.	16.29	1238.	0.147	780	0.	12.88	978.	0.116	728	0.	12.02	913.	0.109
416	3.14	3.14	1676	0.	27.66	2097.	0.249	1329	0.	21.95	1664.	0.198	1243	0.	20.52	1556.	0.185
417	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
418	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
419	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
420	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
421	3.14	3.14	1952	-1	32.24	2423.	0.288	1543	-1	25.49	1916.	0.228	1441	-1	23.80	1789.	0.213
422	3.14	3.14	1522	0.	25.13	1910.	0.227	1208	0.	19.94	1515.	0.180	1129	0.	18.64	1416.	0.169
423	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
424	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
425	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
426	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
427	3.14	3.14	1041	2	17.17	1332.	0.161	828	1	13.66	1059.	0.128	775	1	12.78	991.	0.120
428	3.14	3.14	996	0.	16.44	1247.	0.148	790	0.	13.04	989.	0.118	738	0.	12.18	924.	0.110
429	3.14	3.14	212	0.	3.51	266.	0.032	167	0.	2.76	209.	0.025	156	0.	2.57	195.	0.023
430	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
431	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
432	3.14	3.14	85	0.	1.41	107.	0.013	68	0.	1.12	85.	0.010	63	0.	1.04	79.	0.009
433	3.14	3.14	790	0.	13.05	992.	0.118	628	0.	10.37	788.	0.094	587	0.	9.70	737.	0.088
434	3.14	3.14	261	0.	4.30	327.	0.039	206	0.	3.41	258.	0.031	193	0.	3.18	241.	0.029
435	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
436	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
437	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
438	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
439	3.14	3.14	160	0.	2.64	200.	0.024	126	0.	2.08	158.	0.019	117	0.	1.94	147.	0.017
440	3.14	3.14	160	0.	2.64	200.	0.024	127	0.	2.09	159.	0.019	119	0.	1.96	149.	0.018
441	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
442	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
443	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
444	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
445	3.14	3.14	67	0.	1.11	84.	0.010	53	0.	0.87	66.	0.008	49	0.	0.81	62.	0.007
446	3.14	3.14	441	0.	7.28	553.	0.066	353	0.	5.83	443.	0.053	331	0.	5.47	415.	0.049
447	3.14	3.14	44	0.	0.72	55.	0.007	36	0.	0.59	45.	0.005	34	0.	0.56	42.	0.005
448	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
449	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
450	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
451	3.14	3.14	307	0.	5.06	387.	0.046	247	0.	4.07	311.	0.037	232	0.	3.82	292.	0.035
452	3.14	3.14	1018	0.	16.81	1279.	0.152	818	0.	13.50	1028.	0.123	768	0.	12.67	965.	0.115
453	3.14	3.14	16	0.	0.27	21.	0.002	12	0.	0.20	15.	0.002	11	0.	0.19	14.	0.002
454	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
455	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
456	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
457	3.14	3.14	657	2	10.81	861.	0.106	534	2	8.79	699.	0.086	503	2	8.28	658.	0.081
458	3.14	3.14	797	-1	13.16	989.	0.118	645	0.	10.65	801.	0.095	607	0.	10.03	754.	0.090
459	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
460	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
461	3.14	3.14	642	-1	10.61	786.	0.093	517	-1	8.54	634.	0.075	485	-1	8.02	595.	0.071
462	3.14	3.14	290	0.	4.79	364.	0.043	234	0.	3.87	294.	0.035	220	0.	3.64	277.	0.033
463	3.14	3.14	80	0.	1.33	101.	0.012	68	0.	1.12	85.	0.010	65	0.	1.07	81.	0.010
464	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
465	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
466	3.14	3.14	183	0.	3.02	231.	0.028	147	0.	2.43	185.	0.022	138	0.	2.28	174.	0.021
467	3.14	3.14	57	0.	0.94	71.	0.008	46	0.	0.76	58.	0.007	44	0.	0.72	55.	0.006
468	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
469	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
470	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
471	3.14	3.14	77	0.	1.27	96.	0.011	61	0.	1.01	76.	0.009	57	0.	0.94	72.	0.009
472	3.14	3.14	96	0.	1.59	121.	0.014	78	0.	1.29	98.	0.012	73	0.	1.21	92.	0.011
473	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
474	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
475	3.14	3.14	31	0.	0.51	39.	0.005	23	0.	0.38	29.	0.003	21	0.	0.34	26.	0.003

476	3.14	3.14	241	0.	3.97	302.	0.036	191	0.	3.15	239.	0.028	178	0.	2.95	223.	0.027
477	3.14	3.14	520	0.	8.59	655.	0.078	415	0.	6.85	523.	0.062	389	0.	6.42	489.	0.058
478	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
479	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
480	3.14	3.14	175	0.	2.88	219.	0.026	137	0.	2.26	171.	0.020	127	0.	2.10	160.	0.019
481	3.14	3.14	961	0.	15.86	1203.	0.143	762	0.	12.58	955.	0.113	712	0.	11.76	892.	0.106
482	3.14	3.14	1030	2	16.98	1328.	0.161	822	2	13.54	1058.	0.128	769	2	12.68	991.	0.120
483	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
484	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
485	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
486	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
487	3.14	3.14	1807	0.	29.82	2267.	0.270	1433	0.	23.66	1799.	0.214	1340	0.	22.12	1681.	0.200
488	3.14	3.14	1549	-2	25.59	1914.	0.227	1232	-1	20.35	1522.	0.181	1152	-1	19.04	1424.	0.169
489	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
490	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
491	3.14	3.14	433	1	7.14	556.	0.067	338	1	5.57	433.	0.052	314	1	5.17	403.	0.049
492	3.14	3.14	641	0.	10.58	804.	0.096	511	0.	8.43	641.	0.076	478	0.	7.90	600.	0.071
493	3.14	3.14	381	0.	6.30	476.	0.057	304	0.	5.02	379.	0.045	285	0.	4.70	355.	0.042
494	3.14	3.14	93	0.	1.53	116.	0.014	70	0.	1.15	87.	0.010	64	0.	1.06	80.	0.010
495	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
496	3.14	3.14	179	0.	2.96	225.	0.027	148	0.	2.44	186.	0.022	140	0.	2.31	176.	0.021
497	3.14	3.14	177	0.	2.92	221.	0.026	141	0.	2.33	176.	0.021	132	0.	2.18	165.	0.020
498	3.14	3.14	38	0.	0.63	48.	0.006	29	0.	0.48	37.	0.004	27	0.	0.45	34.	0.004
499	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
500	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
501	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
502	3.14	3.14	65	0.	1.07	81.	0.010	52	0.	0.86	65.	0.008	49	0.	0.81	61.	0.007
503	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
504	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
505	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
506	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
507	3.14	3.14	333	0.	5.49	420.	0.050	268	0.	4.43	339.	0.040	252	0.	4.16	318.	0.038
508	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
509	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
510	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
511	3.14	3.14	251	0.	4.14	318.	0.038	202	0.	3.33	256.	0.031	190	0.	3.13	240.	0.029
512	3.14	3.14	616	2	10.14	798.	0.097	498	1	8.20	646.	0.079	468	1	7.72	608.	0.074
513	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
514	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
515	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
516	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
517	3.14	3.14	517	3	8.50	691.	0.086	422	2	6.94	563.	0.070	399	2	6.55	531.	0.066
518	3.14	3.14	711	-1	11.75	880.	0.105	578	-1	9.54	715.	0.085	544	0.	8.99	674.	0.080
519	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
520	3.14	3.14	1	0.	0.02	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
521	3.14	3.14	1704	-3	28.17	2080.	0.247	1349	-3	22.29	1647.	0.196	1260	-2	20.82	1538.	0.183
522	3.14	3.14	188	0.	3.11	237.	0.028	160	0.	2.63	200.	0.024	152	0.	2.52	191.	0.023
523	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
524	3.14	3.14	150	0.	2.48	188.	0.022	115	0.	1.89	143.	0.017	106	0.	1.75	132.	0.016
525	3.14	3.14	693	0.	11.44	872.	0.104	551	0.	9.10	694.	0.083	516	0.	8.51	649.	0.077
526	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
527	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
528	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
529	3.14	3.14	163	0.	2.69	204.	0.024	128	0.	2.12	161.	0.019	120	0.	1.98	150.	0.018
530	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
531	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
532	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
533	3.14	3.14	86	0.	1.42	108.	0.013	68	0.	1.12	85.	0.010	64	0.	1.05	80.	0.009
534	3.14	3.14	194	0.	3.20	245.	0.029	157	0.	2.59	198.	0.024	147	0.	2.43	186.	0.022
535	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
536	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
537	3.14	3.14	260	0.	4.29	328.	0.039	208	0.	3.44	263.	0.031	195	0.	3.22	246.	0.029
538	3.14	3.14	786	-2	13.00	949.	0.113	634	-2	10.49	766.	0.091	596	-2	9.86	720.	0.086
539	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
540	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
541	3.14	3.14	776	-2	12.84	936.	0.111	635	-2	10.50	767.	0.091	600	-2	9.92	725.	0.086
542	3.14	3.14	240	1	3.95	313.	0.038	201	1	3.31	262.	0.032	192	1	3.15	249.	0.030
543	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
544	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
545	3.14	3.14	860	-2	14.22	1049.	0.125	689	-1	11.38	840.	0.100	646	-1	10.67	787.	0.094
546	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
547	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
548	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
549	3.14	3.14	283	0.	4.68	357.	0.043	225	0.	3.72	284.	0.034	211	0.	3.48	266.	0.032
550	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
551	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
552	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
553	3.14	3.14	82	0.	1.35	103.	0.012	64	0.	1.05	80.	0.009	59	0.	0.98	74.	0.009
554	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
555	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
556	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
557	3.14	3.14	151	0.	2.49	189.	0.022	118	0.	1.94	147.	0.018	109	0.	1.81	137.	0.016
558	3.14	3.14	204	0.	3.36	256.	0.031	167	0.	2.76	210.	0.025	158	0.	2.62	199.	0.024
559	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
560	3.14	3.14	13	0.	0.21	16.	0.002	6	0.	0.10	8.	0.001	5	0.	0.08	6.	0.001
561	3.14	3.14	729	0.	12.04	914.	0.109	577	0.	9.53	723.	0.086	539	0.	8.90	676.	0.080
562	3.14	3.14	464	1	7.65	593.	0.072	399	1	6.58	509.	0.061	382	1	6.31	487.	0.059
563	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
564	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
565	3.14	3.14	1313	-1	21.69	1626.	0.193	1041	-1	17.20	1290.	0.153	973	-1	16.08	1205.	0.143
566	3.14	3.14	533	-1	8.80	657.	0.078	433	0.	7.16	535.	0.064	409	0.	6.75	505.	0.060
567	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
568	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
569	3.14	3.14	1435	-3	23.72	1743.	0.207	1135	-3	18.76	1379.	0.164	1060	-2	17.52	1288.	0.153
570	3.14	3.14	171	0.	2.83	215.	0.026	146	0.	2.40	183.	0.022	139	0.	2.30	175.	0.021
571	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
572	3.14	3.14	141	0.	2.33	177.	0.021	108	0.	1.77	135.	0.016	99	0.	1.64	124.	0.015
573	3.14	3.14	695	0.	11.47	874.	0.104	553	0.	9.12	695.	0.083	517	0.	8.53	650.	0.078
574	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
575	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
576	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
577	3.14	3.14	170	0.	2.81	213.	0.025	134	0.	2.21	168.	0.020	125	0.	2.06	156.	0.019
578	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
579	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
580	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
581	3.14	3.14	104	0.	1.71	130.	0.015	82	0.	1.35	102.	0.012	76	0.	1.26	96.	0.011
582	3.14	3.14	7	0.	0.12	9.	0.001	8	0.	0.13	11.	0.001	8	0.	0.14	11.	0.001
583	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
584	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
585	3.14	3.14	304	0.	5.01	383.	0.046	242	0.	4.00	305.	0.036	227	0.	3.74	286.	0.034
586	3.14	3.14	359	0.	5.93	443.	0.053	296	0.	4.89	366.	0.043	280	0.	4.63	347.	0.041
587	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

588	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
589	3.14	3.14	920	-2	15.21	1116.	0.133	737	-2	12.18	894.	0.106	691	-2	11.43	839.	0.100
590	3.14	3.14	666	3	10.96	876.	0.108	539	2	8.87	708.	0.087	507	2	8.35	666.	0.082
591	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
592	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
593	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
594	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
595	3.14	3.14	635	3	10.45	844.	0.105	516	2	8.48	684.	0.085	486	2	7.98	644.	0.080
596	3.14	3.14	323	0.	5.32	408.	0.049	258	0.	4.26	327.	0.039	242	0.	4.00	306.	0.037
597	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
598	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
599	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
600	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
601	3.14	3.14	332	0.	5.47	420.	0.050	265	0.	4.38	336.	0.040	249	0.	4.10	315.	0.038
602	3.14	3.14	68	0.	1.13	86.	0.010	53	0.	0.87	66.	0.008	49	0.	0.81	61.	0.007
603	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
604	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
605	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
606	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
607	3.14	3.14	75	0.	1.24	94.	0.011	58	0.	0.96	73.	0.009	54	0.	0.89	67.	0.008
608	3.14	3.14	165	0.	2.72	206.	0.025	129	0.	2.13	161.	0.019	120	0.	1.98	150.	0.018
609	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
610	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
611	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
612	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
613	3.14	3.14	174	0.	2.88	218.	0.026	136	0.	2.25	170.	0.020	127	0.	2.09	159.	0.019
614	3.14	3.14	800	0.	13.21	1008.	0.120	635	0.	10.49	800.	0.095	594	0.	9.80	748.	0.089
615	3.14	3.14	54	0.	0.89	67.	0.008	42	0.	0.70	53.	0.006	39	0.	0.65	49.	0.006
616	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
617	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
618	3.14	3.14	78	0.	1.28	97.	0.012	61	0.	1.00	76.	0.009	56	0.	0.93	71.	0.008
619	3.14	3.14	824	0.	13.61	1036.	0.124	654	0.	10.79	822.	0.098	611	0.	10.09	768.	0.092
620	3.14	3.14	978	4	16.08	1292.	0.160	781	3	12.85	1030.	0.127	732	3	12.04	965.	0.119
621	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
622	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
623	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
624	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
625	3.14	3.14	1055	3	17.37	1370.	0.167	840	2	13.84	1090.	0.133	787	2	12.96	1020.	0.124
626	3.14	3.14	1242	4	20.45	1624.	0.199	992	3	16.34	1295.	0.159	930	3	15.31	1213.	0.149
627	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
628	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
629	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
630	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
631	3.14	3.14	1326	3	21.85	1710.	0.208	1056	2	17.41	1361.	0.165	989	2	16.30	1274.	0.155
632	3.14	3.14	790	0.	13.05	996.	0.119	627	0.	10.36	790.	0.094	587	0.	9.68	739.	0.088
633	3.14	3.14	51	0.	0.85	64.	0.008	40	0.	0.67	50.	0.006	38	0.	0.62	47.	0.006
634	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
635	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
636	3.14	3.14	77	0.	1.27	97.	0.011	60	0.	1.00	75.	0.009	56	0.	0.93	70.	0.008
637	3.14	3.14	822	0.	13.57	1034.	0.123	652	0.	10.76	819.	0.098	609	0.	10.06	766.	0.091
638	3.14	3.14	150	0.	2.47	187.	0.022	117	0.	1.93	146.	0.017	109	0.	1.80	136.	0.016
639	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
640	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
641	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
642	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
643	3.14	3.14	178	0.	2.94	223.	0.027	139	0.	2.30	174.	0.021	129	0.	2.14	162.	0.019
644	3.14	3.14	48	0.	0.79	60.	0.007	37	0.	0.60	46.	0.005	34	0.	0.56	42.	0.005
645	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
646	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
647	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
648	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
649	3.14	3.14	81	0.	1.33	101.	0.012	63	0.	1.03	78.	0.009	58	0.	0.96	73.	0.009
650	3.14	3.14	306	0.	5.04	386.	0.046	245	0.	4.05	310.	0.037	230	0.	3.80	291.	0.035
651	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
652	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
653	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
654	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
655	3.14	3.14	331	0.	5.47	419.	0.050	266	0.	4.39	337.	0.040	250	0.	4.12	316.	0.038
656	3.14	3.14	568	3	9.33	753.	0.093	463	2	7.62	614.	0.076	437	2	7.19	579.	0.072
657	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
658	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
659	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
660	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
661	3.14	3.14	484	3	7.94	652.	0.082	392	2	6.43	527.	0.066	369	2	6.05	496.	0.062
662	3.14	3.14	1697	-2	28.04	2086.	0.248	1341	-2	22.16	1650.	0.196	1252	-2	20.69	1540.	0.183
663	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
664	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
665	3.14	3.14	584	0.	9.65	738.	0.088	477	0.	7.87	602.	0.072	450	0.	7.43	568.	0.068
666	3.14	3.14	759	0.	12.53	954.	0.114	600	0.	9.90	753.	0.090	560	0.	9.24	703.	0.084
667	3.14	3.14	149	0.	2.46	187.	0.022	111	0.	1.83	139.	0.016	101	0.	1.67	127.	0.015
668	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
669	3.14	3.14	191	0.	3.15	240.	0.029	162	0.	2.68	203.	0.024	154	0.	2.55	194.	0.023
670	3.14	3.14	180	0.	2.97	225.	0.027	141	0.	2.32	176.	0.021	131	0.	2.16	164.	0.019
671	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
672	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
673	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
674	3.14	3.14	111	0.	1.84	140.	0.017	87	0.	1.44	109.	0.013	81	0.	1.34	102.	0.012
675	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
676	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
677	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
678	3.14	3.14	323	0.	5.34	408.	0.049	258	0.	4.25	325.	0.039	241	0.	3.98	304.	0.036
679	3.14	3.14	17	0.	0.28	21.	0.003	10	0.	0.16	12.	0.001	8	0.	0.13	10.	0.001
680	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
681	3.14	3.14	44	0.	0.72	56.	0.007	36	0.	0.60	46.	0.006	34	0.	0.57	44.	0.005
682	3.14	3.14	855	-2	14.14	1033.	0.123	684	-2	11.31	826.	0.098	641	-2	10.60	775.	0.092
683	3.14	3.14	16	0.	0.26	20.	0.002	7	0.	0.11	8.	0.001	4	0.	0.07	6.	0.001
684	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
685	3.14	3.14	294	1	4.84	380.	0.046	244	1	4.03	316.	0.039	232	1	3.82	300.	0.037
686	3.14	3.14	217	1	3.57	285.	0.035	189	1	3.12	248.	0.030	182	1	3.00	238.	0.029
687	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
688	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
689	3.14	3.14	984	-3	16.26	1192.	0.142	785	-2	12.98	951.	0.113	735	-2	12.16	891.	0.106
690	3.14	3.14	15	0.	0.24	20.	0.002	12	0.	0.20	16.	0.002	11	0.	0.19	15.	0.002
691	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
692	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
693	3.14	3.14	319	0.	5.26	402.	0.048	253	0.	4.17	319.	0.038	236	0.	3.90	298.	0.036
694	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
695	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
696	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
697	3.14	3.14	107	0.	1.76	133.	0.016	83	0.	1.37	104.	0.012	77	0.	1.27	97.	0.011
698	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
699	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

700	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
701	3.14	3.14	177	0.	2.92	221.	0.026	138	0.	2.28	173.	0.021	128	0.	2.12	161.	0.019
702	3.14	3.14	193	0.	3.18	242.	0.029	163	0.	2.69	204.	0.024	154	0.	2.54	193.	0.023
703	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
704	3.14	3.14	146	0.	2.41	183.	0.022	108	0.	1.78	135.	0.016	99	0.	1.63	123.	0.015
705	3.14	3.14	759	0.	12.52	953.	0.114	599	0.	9.89	753.	0.090	559	0.	9.24	703.	0.084
706	3.14	3.14	429	0.	7.08	543.	0.065	350	0.	5.78	443.	0.053	331	0.	5.46	418.	0.050
707	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
708	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
709	3.14	3.14	1421	-2	23.49	1741.	0.207	1122	-2	18.55	1376.	0.164	1048	-2	17.31	1285.	0.153
710	3.14	3.14	624	0.	10.31	778.	0.092	502	0.	8.30	626.	0.074	472	0.	7.79	588.	0.070
711	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
712	3.14	3.14	121	2	1.96	180.	0.024	122	1	1.98	174.	0.023	122	1	1.99	173.	0.022
713	3.14	3.14	353	0.	5.83	443.	0.053	282	0.	4.66	354.	0.042	264	0.	4.36	331.	0.039
714	3.14	3.14	93	0.	1.53	116.	0.014	73	0.	1.20	91.	0.011	68	0.	1.12	85.	0.010
715	3.14	3.14	97	0.	1.60	124.	0.015	86	0.	1.42	110.	0.013	84	0.	1.38	106.	0.013
716	3.14	3.14	3	0.	0.05	4.	0.000	2	0.	0.03	2.	0.000	2	0.	0.02	2.	0.000
717	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
718	3.14	3.14	0.	0.	0.00	0.	0.000	1	0.	0.01	1.	0.000	2	0.	0.03	2.	0.000
719	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
720	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
721	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
722	3.14	3.14	90	0.	1.49	113.	0.014	72	0.	1.19	91.	0.011	68	0.	1.12	85.	0.010
723	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
724	3.14	3.14	4	0.	0.06	7.	0.001	7	0.	0.12	11.	0.001	8	0.	0.13	12.	0.002
725	3.14	3.14	446	0.	7.37	552.	0.066	362	0.	5.97	449.	0.053	341	0.	5.63	423.	0.050
726	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
727	3.14	3.14	36	1	0.52	69.	0.010	38	1	0.57	67.	0.010	39	1	0.60	67.	0.010
728	3.14	3.14	795	0.	13.14	992.	0.118	640	0.	10.56	798.	0.095	601	0.	9.92	749.	0.089
729	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
730	3.14	3.14	88	2	1.40	139.	0.019	94	1	1.52	140.	0.019	96	1	1.55	140.	0.019
731	3.14	3.14	351	0.	5.79	440.	0.052	280	0.	4.62	351.	0.042	262	0.	4.33	329.	0.039
732	3.14	3.14	91	0.	1.50	114.	0.014	71	0.	1.17	89.	0.011	66	0.	1.09	83.	0.010
733	3.14	3.14	95	0.	1.57	121.	0.015	85	0.	1.40	108.	0.013	82	0.	1.35	104.	0.013
734	3.14	3.14	6	0.	0.09	7.	0.001	4	0.	0.06	5.	0.001	3	0.	0.06	4.	0.001
735	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
736	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	1	0.	0.01	1.	0.000
737	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
738	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
739	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
740	3.14	3.14	107	0.	1.76	134.	0.016	86	0.	1.42	108.	0.013	81	0.	1.33	101.	0.012
741	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
742	3.14	3.14	10	0.	0.17	15.	0.002	12	0.	0.20	17.	0.002	13	0.	0.21	18.	0.002
743	3.14	3.14	448	0.	7.41	556.	0.066	364	0.	6.02	453.	0.054	343	0.	5.67	427.	0.051
744	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
745	3.14	3.14	51	1	0.79	83.	0.012	55	1	0.87	85.	0.012	56	1	0.89	85.	0.012

ARMATURA INFERIORE VERTICALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	629	0.	10.39	792.	0.094	510	0.	8.42	641.	0.076	480	0.	7.93	603.	0.072
2	3.14	3.14	565	1	9.32	716.	0.086	455	0.	7.51	577.	0.069	428	0.	7.06	543.	0.065
3	3.14	3.14	187	0.	3.09	237.	0.028	146	0.	2.41	185.	0.022	136	0.	2.24	172.	0.021
4	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
5	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
6	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
7	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
8	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
9	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
10	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
11	3.14	3.14	248	0.	4.09	307.	0.037	203	0.	3.35	252.	0.030	192	0.	3.17	238.	0.028
12	3.14	3.14	676	2	11.13	874.	0.107	543	1	8.95	702.	0.085	510	1	8.41	659.	0.080
13	3.14	3.14	1374	0.	22.70	1713.	0.204	1113	0.	18.38	1388.	0.165	1048	0.	17.30	1306.	0.155
14	3.14	3.14	1368	0.	22.59	1712.	0.204	1105	0.	18.24	1383.	0.164	1039	0.	17.15	1300.	0.155
15	3.14	3.14	805	0.	13.29	1004.	0.119	652	0.	10.76	813.	0.097	613	0.	10.13	765.	0.091
16	3.14	3.14	957	2	15.77	1228.	0.149	770	1	12.70	988.	0.120	724	1	11.93	928.	0.112
17	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
18	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
19	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
20	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
21	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
22	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
23	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
24	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
25	3.14	3.14	590	0.	9.74	739.	0.088	469	0.	7.74	587.	0.070	439	0.	7.24	549.	0.065
26	3.14	3.14	458	1	7.55	597.	0.073	360	1	5.92	469.	0.057	335	1	5.51	437.	0.054
27	3.14	3.14	561	1	9.25	715.	0.086	464	1	7.66	590.	0.071	440	0.	7.26	559.	0.067
28	3.14	3.14	280	1	4.61	363.	0.044	226	1	3.72	291.	0.035	212	0.	3.50	273.	0.033
29	3.14	3.14	166	0.	2.74	208.	0.025	134	0.	2.21	168.	0.020	126	0.	2.08	158.	0.019
30	3.14	3.14	424	1	6.98	551.	0.067	349	1	5.76	451.	0.055	331	1	5.45	426.	0.052
31	3.14	3.14	74	0.	1.23	93.	0.011	51	0.	0.84	64.	0.008	45	0.	0.74	56.	0.007
32	3.14	3.14	159	0.	2.62	207.	0.025	134	0.	2.20	172.	0.021	127	0.	2.10	164.	0.020
33	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
34	3.14	3.14	70	0.	1.15	87.	0.010	56	0.	0.93	70.	0.008	53	0.	0.87	66.	0.008
35	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
36	3.14	3.14	87	0.	1.44	109.	0.013	68	0.	1.13	86.	0.010	64	0.	1.05	80.	0.009
37	3.14	3.14	11	0.	0.19	14.	0.002	3	0.	0.05	4.	0.000	1	0.	0.02	1.	0.000
38	3.14	3.14	276	0.	4.55	345.	0.041	220	0.	3.63	276.	0.033	206	0.	3.41	259.	0.031
39	3.14	3.14	140	0.	2.32	176.	0.021	109	0.	1.79	136.	0.016	101	0.	1.66	126.	0.015
40	3.14	3.14	764	0.	12.61	957.	0.114	618	0.	10.20	773.	0.092	581	0.	9.60	727.	0.086
41	3.14	3.14	783	0.	12.93	982.	0.117	636	0.	10.49	795.	0.094	599	0.	9.89	748.	0.089
42	3.14	3.14	90	0.	1.49	113.	0.013	68	0.	1.12	85.	0.010	62	0.	1.02	78.	0.009
43	3.14	3.14	745	0.	12.29	930.	0.111	603	0.	9.96	752.	0.089	568	0.	9.37	707.	0.084
44	3.14	3.14	108	0.	1.79	136.	0.016	82	0.	1.35	102.	0.012	75	0.	1.24	94.	0.011
45	3.14	3.14	221	0.	3.66	278.	0.033	176	0.	2.90	220.	0.026	164	0.	2.71	206.	0.025
46	3.14	3.14	42	0.	0.69	53.	0.006	27	0.	0.45	34.	0.004	24	0.	0.39	30.	0.004
47	3.14	3.14	112	0.	1.85	140.	0.017	86	0.	1.41	107.	0.013	79	0.	1.31	99.	0.012
48	3.14	3.14	14	0.	0.22	17.	0.002	4	0.	0.06	5.	0.001	1	0.	0.02	2.	0.000
49	3.14	3.14	336	0.	5.54	420.	0.050	265	0.	4.38	332.	0.039	248	0.	4.09	310.	0.037
50	3.14	3.14	130	0.	2.14	162.	0.019	97	0.	1.60	122.	0.014	89	0.	1.47	111.	0.013
51	3.14	3.14	772	0.	12.74	968.	0.115	622	0.	10.28	779.	0.093	585	0.	9.66	732.	0.087
52	3.14	3.14	166	0.	2.74	208.	0.025	129	0.	2.13	161.	0.019	120	0.	1.98	150.	0.018
53	3.14	3.14	814	-1	13.44	1000.	0.119	656	-1	10.84	805.	0.096	616	-1	10.19	757.	0.090
54	3.14	3.14	89	0.	1.47	112.	0.013	65	0.	1.08	82.	0.010	59	0.	0.98	74.	0.009
55	3.14	3.14	374	0.	6.17	468.	0.056	298	0.	4.92	373.	0.044	279	0.	4.61	350.	0.042
56	3.14	3.14	90	0.	1.49	113.	0.013	67	0.	1.11	84.	0.010	62	0.	1.02	77.	0.009
57	3.14	3.14	359	0.	5.93	450.	0.053	286	0.	4.72	358.	0.043	267	0.	4.41	335.	0.040
58	3.14	3.14	77	0.	1.28	97.	0.012	55	0.	0.91	69.	0.008	49	0.	0.81	62.	0.007
59	3.14	3.14	703	0.	11.61	879.	0.105	568	0.	9.38	709.	0.084	534	0.	8.82	666.	0.079
60	3.14	3.14	69	0.	1.13	86.	0.010	49	0.	0.81	62.	0.007	44	0.	0.73	56.	0.007

61	3.14	3.14	755	1	12.45	955.	0.114	614	0.	10.14	775.	0.093	579	0.	9.56	730.	0.087
62	3.14	3.14	123	0.	2.03	154.	0.018	94	0.	1.55	118.	0.014	87	0.	1.44	109.	0.013
63	3.14	3.14	222	0.	3.67	280.	0.033	177	0.	2.93	223.	0.027	166	0.	2.74	209.	0.025
64	3.14	3.14	53	0.	0.87	66.	0.008	37	0.	0.61	46.	0.005	33	0.	0.54	41.	0.005
65	3.14	3.14	38	0.	0.62	47.	0.006	27	0.	0.44	33.	0.004	24	0.	0.39	30.	0.004
66	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
67	3.14	3.14	71	0.	1.18	89.	0.011	52	0.	0.87	66.	0.008	48	0.	0.79	60.	0.007
68	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
69	3.14	3.14	291	0.	4.80	366.	0.044	230	0.	3.80	290.	0.035	215	0.	3.55	271.	0.032
70	3.14	3.14	99	0.	1.63	124.	0.015	73	0.	1.21	91.	0.011	67	0.	1.10	83.	0.010
71	3.14	3.14	877	-2	14.49	1073.	0.128	706	-1	11.67	863.	0.103	664	-1	10.97	811.	0.096
72	3.14	3.14	128	0.	2.11	160.	0.019	97	0.	1.60	121.	0.014	89	0.	1.47	111.	0.013
73	3.14	3.14	57	0.	0.94	71.	0.008	40	0.	0.66	50.	0.006	36	0.	0.59	44.	0.005
74	3.14	3.14	764	1	12.61	965.	0.115	619	0.	10.21	780.	0.093	583	0.	9.62	734.	0.088
75	3.14	3.14	101	0.	1.66	126.	0.015	75	0.	1.24	94.	0.011	68	0.	1.13	86.	0.010
76	3.14	3.14	516	0.	8.52	646.	0.077	413	0.	6.82	517.	0.061	387	0.	6.39	485.	0.058
77	3.14	3.14	205	0.	3.39	257.	0.031	161	0.	2.65	201.	0.024	150	0.	2.47	187.	0.022
78	3.14	3.14	677	0.	11.18	846.	0.101	543	0.	8.96	678.	0.081	509	0.	8.40	636.	0.076
79	3.14	3.14	94	0.	1.55	118.	0.014	72	0.	1.19	90.	0.011	66	0.	1.10	83.	0.010
80	3.14	3.14	898	1	14.81	1136.	0.136	727	0.	12.00	918.	0.110	685	0.	11.30	864.	0.103
81	3.14	3.14	847	1	13.98	1072.	0.128	688	0.	11.36	869.	0.104	649	0.	10.71	818.	0.098
82	3.14	3.14	227	0.	3.75	285.	0.034	181	0.	2.99	227.	0.027	169	0.	2.80	212.	0.025
83	3.14	3.14	77	0.	1.26	96.	0.011	60	0.	0.99	75.	0.009	55	0.	0.92	69.	0.008
101	3.14	3.14	176	0.	2.90	220.	0.026	140	0.	2.32	176.	0.021	131	0.	2.17	165.	0.020
102	3.14	3.14	218	0.	3.59	273.	0.032	176	0.	2.91	221.	0.026	166	0.	2.74	208.	0.025
103	3.14	3.14	144	0.	2.38	180.	0.021	116	0.	1.91	145.	0.017	109	0.	1.80	136.	0.016
104	3.14	3.14	220	0.	3.63	275.	0.033	181	0.	2.98	226.	0.027	171	0.	2.82	214.	0.025
105	3.14	3.14	306	0.	5.05	383.	0.046	248	0.	4.10	311.	0.037	234	0.	3.86	293.	0.035
106	3.14	3.14	808	1	13.32	1026.	0.123	660	1	10.89	836.	0.100	623	0.	10.29	789.	0.094
107	3.14	3.14	650	0.	10.72	820.	0.098	527	0.	8.70	664.	0.079	496	0.	8.19	625.	0.075
108	3.14	3.14	785	0.	12.96	989.	0.118	642	0.	10.60	808.	0.096	607	0.	10.01	762.	0.091
109	3.14	3.14	486	0.	8.02	610.	0.073	399	0.	6.59	501.	0.060	378	0.	6.24	474.	0.056
110	3.14	3.14	205	0.	3.38	257.	0.031	169	0.	2.80	212.	0.025	160	0.	2.65	201.	0.024
111	3.14	3.14	220	0.	3.64	276.	0.033	182	0.	3.00	228.	0.027	172	0.	2.84	216.	0.026
112	3.14	3.14	1	0.	0.02	2.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
113	3.14	3.14	83	0.	1.37	104.	0.012	64	0.	1.06	81.	0.010	60	0.	0.99	75.	0.009
114	3.14	3.14	9	0.	0.15	11.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
115	3.14	3.14	122	0.	2.02	153.	0.018	96	0.	1.58	120.	0.014	89	0.	1.47	111.	0.013
116	3.14	3.14	92	0.	1.52	115.	0.014	68	0.	1.12	85.	0.010	62	0.	1.02	77.	0.009
117	3.14	3.14	287	0.	4.74	360.	0.043	228	0.	3.76	285.	0.034	213	0.	3.52	267.	0.032
118	3.14	3.14	556	0.	9.18	699.	0.083	452	0.	7.46	567.	0.068	426	0.	7.03	535.	0.064
119	3.14	3.14	70	0.	1.15	87.	0.010	50	0.	0.82	62.	0.007	45	0.	0.74	56.	0.007
120	3.14	3.14	227	0.	3.74	284.	0.034	178	0.	2.95	223.	0.027	166	0.	2.75	208.	0.025
121	3.14	3.14	865	1	14.27	1093.	0.131	699	0.	11.54	882.	0.105	658	0.	10.86	829.	0.099
122	3.14	3.14	862	1	14.22	1090.	0.130	699	0.	11.53	881.	0.105	658	0.	10.86	829.	0.099
123	3.14	3.14	110	0.	1.82	138.	0.016	86	0.	1.41	107.	0.013	80	0.	1.31	100.	0.012
124	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
125	3.14	3.14	755	0.	12.47	940.	0.112	626	0.	10.34	778.	0.092	594	0.	9.80	737.	0.088
126	3.14	3.14	141	0.	2.32	176.	0.021	116	0.	1.92	146.	0.017	110	0.	1.82	138.	0.016
127	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
128	3.14	3.14	502	0.	8.29	629.	0.075	410	0.	6.77	514.	0.061	387	0.	6.40	486.	0.058
129	3.14	3.14	171	0.	2.82	214.	0.025	134	0.	2.21	167.	0.020	124	0.	2.05	156.	0.019
130	3.14	3.14	16	0.	0.26	19.	0.002	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
131	3.14	3.14	738	0.	12.19	922.	0.110	595	0.	9.83	744.	0.088	559	0.	9.24	699.	0.083
132	3.14	3.14	249	0.	4.11	312.	0.037	197	0.	3.26	247.	0.029	184	0.	3.04	231.	0.027
133	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
134	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
135	3.14	3.14	126	0.	2.08	158.	0.019	102	0.	1.68	127.	0.015	96	0.	1.58	120.	0.014
136	3.14	3.14	927	0.	15.30	1169.	0.140	757	0.	12.50	953.	0.114	715	0.	11.80	899.	0.107
137	3.14	3.14	501	0.	8.27	625.	0.074	433	0.	7.15	538.	0.064	416	0.	6.87	516.	0.061
138	3.14	3.14	508	0.	8.39	636.	0.076	427	0.	7.05	534.	0.064	407	0.	6.72	509.	0.060
139	3.14	3.14	680	0.	11.23	848.	0.101	565	0.	9.33	703.	0.084	536	0.	8.85	667.	0.079
140	3.14	3.14	244	0.	4.02	305.	0.036	207	0.	3.42	260.	0.031	198	0.	3.27	248.	0.030
141	3.14	3.14	202	0.	3.33	253.	0.030	167	0.	2.76	209.	0.025	158	0.	2.61	198.	0.024
142	3.14	3.14	193	0.	3.19	242.	0.029	153	0.	2.52	192.	0.023	143	0.	2.36	179.	0.021
143	3.14	3.14	164	0.	2.71	206.	0.024	127	0.	2.10	159.	0.019	118	0.	1.95	148.	0.018
144	3.14	3.14	127	0.	2.10	159.	0.019	105	0.	1.74	132.	0.016	100	0.	1.65	125.	0.015
145	3.14	3.14	91	0.	1.50	114.	0.014	72	0.	1.18	90.	0.011	67	0.	1.10	84.	0.010
146	3.14	3.14	48	0.	0.80	61.	0.007	31	0.	0.51	39.	0.005	27	0.	0.44	33.	0.004
147	3.14	3.14	47	0.	0.78	59.	0.007	29	0.	0.48	36.	0.004	24	0.	0.40	31.	0.004
148	3.14	3.14	10	0.	0.16	12.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
149	3.14	3.14	39	0.	0.64	48.	0.006	27	0.	0.44	33.	0.004	24	0.	0.39	30.	0.004
150	3.14	3.14	38	0.	0.63	48.	0.006	27	0.	0.44	34.	0.004	24	0.	0.40	30.	0.004
151	3.14	3.14	47	0.	0.77	58.	0.007	34	0.	0.56	42.	0.005	31	0.	0.50	38.	0.005
152	3.14	3.14	58	0.	0.97	73.	0.009	44	0.	0.72	55.	0.007	40	0.	0.66	50.	0.006
153	3.14	3.14	60	0.	0.99	75.	0.009	47	0.	0.77	59.	0.007	44	0.	0.72	55.	0.006
154	3.14	3.14	263	0.	4.35	330.	0.039	217	0.	3.58	272.	0.032	206	0.	3.39	258.	0.031
155	3.14	3.14	458	0.	7.56	573.	0.068	383	0.	6.32	479.	0.057	364	0.	6.01	456.	0.054
156	3.14	3.14	588	0.	9.71	744.	0.089	493	0.	8.13	623.	0.075	469	0.	7.74	593.	0.071
157	3.14	3.14	78	0.	1.29	98.	0.012	64	0.	1.06	80.	0.010	61	0.	1.00	76.	0.009
158	3.14	3.14	90	0.	1.49	113.	0.013	75	0.	1.23	93.	0.011	71	0.	1.17	88.	0.011
159	3.14	3.14	54	0.	0.89	67.	0.008	43	0.	0.71	53.	0.006	40	0.	0.66	50.	0.006
160	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
161	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
162	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
163	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
164	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
165	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
166	3.14	3.14	32	0.	0.53	41.	0.005	26	0.	0.43	33.	0.004	24	0.	0.40	31.	0.004
167	3.14	3.14	14	0.	0.23	17.	0.002	10	0.	0.17	13.	0.002	10	0.	0.16	12.	0.001
168	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
169	3.14	3.14	142	0.	2.34	178.	0.021	118	0.	1.94	147.	0.018	112	0.	1.84	140.	0.017
170	3.14	3.14	280	0.	4.62	350.	0.042	235	0.	3.88	295.	0.035	224	0.	3.70	281.	0.033
171	3.14	3.14	312	1	5.15	401.	0.049	263	1	4.34	338.	0.041	251	1	4.14	323.	0.039
172	3.14	3.14	524	0.	8.66	655.	0.078	454	0.	7.50	566.	0.067	437	0.	7.21	544.	0.065
173	3.14	3.14	302	0.	4.99	378.	0.045	257	0.	4.25	321.	0.038	246	0.	4.06	307.	0.036
174	3.14	3.14	129	0.	2.14	162.	0.019	108	0.	1.78	135.	0.016	102	0.	1.69	128.	0.015
175	3.14	3.14	192	0.	3.17	240.	0.029	160	0.	2.65	201.	0.024	153	0.	2.52	191.	0.023
176	3.14	3.14	178	0.	2.94	223.	0.027	150	0.	2.48	188.	0.022	144	0.	2.37	180.	0.021
177	3.14	3.14	114	0.	1.88	143.	0.017	94	0.	1.54	117.	0.014	88	0.	1.46	111.	0.013
178	3.14	3.14	258	0.	4.26	323.	0.038	213	0.	3.51	267.	0.032	202	0.	3.33	253.	0.030
179	3.14	3.14	464	0.	7.67	581.	0.069	388	0.	6.41	486.	0.058	369	0.	6.09	462.	0.055
180	3.14	3.14	598	0.	9.87	756.	0.091	501	0.	8.27	633.	0.076	477	0.	7.86	602.	0.072
181	3.14	3.14	91	0.	1.50	113.	0.013	75	0.	1.23	94.	0.011	71	0.	1.17	89.	0.011
182	3.14	3.14	102	0.	1.68	127.	0.015	84	0.	1.39	105.	0.013	80	0.	1.32	100.	0.012
183	3.14	3.14	61	0.	1.00	76.	0.009	49	0.	0.80	61.	0.007	46	0.	0.75	57.	0.007
184	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
185	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
186	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
187	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
188	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
189	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

190	3.14	3.14	3	0.	0.04	3.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
191	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
192	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
193	3.14	3.14	93	0.	1.54	117.	0.014	73	0.	1.21	92.	0.011	68	0.	1.12	85.	0.010
194	3.14	3.14	205	0.	3.38	256.	0.030	168	0.	2.77	210.	0.025	159	0.	2.62	198.	0.024
195	3.14	3.14	236	1	3.88	305.	0.037	195	1	3.21	253.	0.031	185	1	3.04	240.	0.029
196	3.14	3.14	352	0.	5.81	441.	0.052	305	0.	5.04	381.	0.045	293	0.	4.85	366.	0.044
197	3.14	3.14	205	0.	3.39	257.	0.031	174	0.	2.88	218.	0.026	166	0.	2.75	208.	0.025
198	3.14	3.14	29	0.	0.48	36.	0.004	19	0.	0.31	24.	0.003	16	0.	0.27	20.	0.002
199	3.14	3.14	37	0.	0.61	46.	0.006	25	0.	0.41	31.	0.004	22	0.	0.36	27.	0.003
200	3.14	3.14	530	0.	8.76	660.	0.078	440	0.	7.27	546.	0.065	417	0.	6.90	518.	0.062
201	3.14	3.14	63	0.	1.04	79.	0.009	46	0.	0.75	57.	0.007	41	0.	0.68	52.	0.006
202	3.14	3.14	323	0.	5.34	406.	0.048	269	0.	4.44	337.	0.040	255	0.	4.21	320.	0.038
203	3.14	3.14	31	0.	0.51	39.	0.005	21	0.	0.35	27.	0.003	19	0.	0.31	23.	0.003
204	3.14	3.14	325	0.	5.36	406.	0.048	279	0.	4.61	347.	0.041	268	0.	4.42	332.	0.040
205	3.14	3.14	29	0.	0.48	37.	0.004	23	0.	0.38	29.	0.003	22	0.	0.36	27.	0.003
206	3.14	3.14	58	0.	0.97	73.	0.009	47	0.	0.77	58.	0.007	44	0.	0.72	55.	0.006
207	3.14	3.14	344	0.	5.68	430.	0.051	300	0.	4.96	374.	0.044	289	0.	4.78	360.	0.043
208	3.14	3.14	78	0.	1.28	97.	0.012	64	0.	1.06	80.	0.010	61	0.	1.00	76.	0.009
209	3.14	3.14	804	1	13.27	1019.	0.122	650	0.	10.73	821.	0.098	611	0.	10.09	772.	0.092
210	3.14	3.14	59	0.	0.98	74.	0.009	42	0.	0.70	53.	0.006	38	0.	0.63	48.	0.006
211	3.14	3.14	534	0.	8.81	667.	0.079	425	0.	7.02	532.	0.063	398	0.	6.57	498.	0.059
212	3.14	3.14	153	0.	2.52	191.	0.023	117	0.	1.94	147.	0.017	109	0.	1.79	136.	0.016
213	3.14	3.14	321	0.	5.30	403.	0.048	259	0.	4.28	325.	0.039	244	0.	4.02	306.	0.036
214	3.14	3.14	64	0.	1.06	81.	0.010	46	0.	0.77	58.	0.007	42	0.	0.69	53.	0.006
215	3.14	3.14	599	0.	9.89	745.	0.089	494	0.	8.16	613.	0.073	468	0.	7.73	580.	0.069
216	3.14	3.14	75	0.	1.24	94.	0.011	57	0.	0.94	71.	0.008	52	0.	0.87	66.	0.008
217	3.14	3.14	815	1	13.44	1034.	0.124	660	1	10.89	835.	0.100	621	0.	10.25	785.	0.094
218	3.14	3.14	146	0.	2.42	183.	0.022	112	0.	1.85	141.	0.017	104	0.	1.71	130.	0.015
219	3.14	3.14	239	0.	3.94	300.	0.036	189	0.	3.12	238.	0.028	177	0.	2.92	223.	0.027
220	3.14	3.14	62	0.	1.03	78.	0.009	44	0.	0.72	55.	0.006	39	0.	0.64	49.	0.006
221	3.14	3.14	51	0.	0.84	63.	0.008	36	0.	0.60	45.	0.005	33	0.	0.54	41.	0.005
222	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
223	3.14	3.14	54	0.	0.89	67.	0.008	39	0.	0.64	48.	0.006	35	0.	0.58	44.	0.005
224	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
225	3.14	3.14	252	0.	4.15	317.	0.038	199	0.	3.29	251.	0.030	186	0.	3.07	234.	0.028
226	3.14	3.14	72	0.	1.20	91.	0.011	52	0.	0.85	65.	0.008	46	0.	0.77	58.	0.007
227	3.14	3.14	811	1	13.38	1026.	0.123	657	0.	10.84	829.	0.099	618	0.	10.21	779.	0.093
228	3.14	3.14	130	0.	2.14	162.	0.019	99	0.	1.63	124.	0.015	91	0.	1.50	114.	0.014
229	3.14	3.14	801	1	13.22	1012.	0.121	648	0.	10.69	817.	0.098	610	0.	10.06	768.	0.092
230	3.14	3.14	76	0.	1.26	95.	0.011	56	0.	0.92	70.	0.008	51	0.	0.84	64.	0.008
231	3.14	3.14	544	0.	8.98	680.	0.081	433	0.	7.15	541.	0.064	405	0.	6.69	507.	0.060
232	3.14	3.14	149	0.	2.45	186.	0.022	114	0.	1.89	143.	0.017	106	0.	1.74	132.	0.016
233	3.14	3.14	381	0.	6.29	477.	0.057	306	0.	5.05	383.	0.046	287	0.	4.75	360.	0.043
234	3.14	3.14	73	0.	1.21	92.	0.011	54	0.	0.89	68.	0.008	49	0.	0.81	62.	0.007
235	3.14	3.14	579	0.	9.55	721.	0.086	474	0.	7.82	589.	0.070	447	0.	7.39	555.	0.066
236	3.14	3.14	48	0.	0.79	60.	0.007	33	0.	0.55	42.	0.005	30	0.	0.49	37.	0.004
237	3.14	3.14	622	0.	10.27	774.	0.092	510	0.	8.42	633.	0.075	482	0.	7.96	598.	0.071
238	3.14	3.14	80	0.	1.32	100.	0.012	60	0.	0.99	75.	0.009	55	0.	0.91	69.	0.008
239	3.14	3.14	289	0.	4.77	363.	0.043	232	0.	3.83	291.	0.035	217	0.	3.59	273.	0.032
240	3.14	3.14	56	0.	0.92	70.	0.008	39	0.	0.65	49.	0.006	35	0.	0.58	44.	0.005
241	3.14	3.14	415	0.	6.84	518.	0.062	330	0.	5.44	412.	0.049	308	0.	5.09	386.	0.046
242	3.14	3.14	131	0.	2.17	164.	0.020	97	0.	1.60	122.	0.014	89	0.	1.46	111.	0.013
243	3.14	3.14	754	0.	12.44	952.	0.114	609	0.	10.06	768.	0.092	573	0.	9.46	722.	0.086
244	3.14	3.14	67	0.	1.11	84.	0.010	49	0.	0.80	61.	0.007	44	0.	0.72	55.	0.007
245	3.14	3.14	802	1	13.24	1014.	0.121	651	0.	10.74	820.	0.098	613	0.	10.12	772.	0.092
246	3.14	3.14	128	0.	2.11	160.	0.019	98	0.	1.61	122.	0.015	90	0.	1.49	113.	0.013
247	3.14	3.14	265	0.	4.37	333.	0.040	211	0.	3.48	265.	0.032	197	0.	3.25	248.	0.030
248	3.14	3.14	71	0.	1.17	89.	0.011	51	0.	0.84	64.	0.008	46	0.	0.76	57.	0.007
249	3.14	3.14	75	0.	1.23	94.	0.011	56	0.	0.92	70.	0.008	51	0.	0.84	64.	0.008
250	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
251	3.14	3.14	98	0.	1.63	123.	0.015	74	0.	1.23	93.	0.011	68	0.	1.13	86.	0.010
252	3.14	3.14	10	0.	0.16	12.	0.001	1	0.	0.02	1.	0.000	0.	0.	0.00	0.	0.000
253	3.14	3.14	391	0.	6.45	490.	0.058	309	0.	5.11	388.	0.046	289	0.	4.77	362.	0.043
254	3.14	3.14	156	0.	2.58	196.	0.023	119	0.	1.97	149.	0.018	110	0.	1.82	138.	0.016
255	3.14	3.14	819	0.	13.53	1018.	0.121	662	0.	10.93	821.	0.098	622	0.	10.28	771.	0.092
256	3.14	3.14	86	0.	1.43	108.	0.013	64	0.	1.06	80.	0.010	58	0.	0.96	73.	0.009
257	3.14	3.14	956	0.	15.79	1191.	0.142	771	0.	12.73	959.	0.114	725	0.	11.97	901.	0.107
258	3.14	3.14	146	0.	2.41	183.	0.022	111	0.	1.84	139.	0.017	102	0.	1.69	128.	0.015
259	3.14	3.14	354	0.	5.84	443.	0.053	281	0.	4.63	352.	0.042	262	0.	4.33	329.	0.039
260	3.14	3.14	74	0.	1.21	92.	0.011	52	0.	0.87	66.	0.008	47	0.	0.78	59.	0.007
261	3.14	3.14	113	0.	1.86	141.	0.017	86	0.	1.43	108.	0.013	80	0.	1.32	100.	0.012
262	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
263	3.14	3.14	151	0.	2.50	189.	0.023	117	0.	1.93	147.	0.017	108	0.	1.79	136.	0.016
264	3.14	3.14	35	0.	0.58	44.	0.005	20	0.	0.33	25.	0.003	16	0.	0.26	20.	0.002
265	3.14	3.14	559	0.	9.23	700.	0.083	443	0.	7.31	554.	0.066	414	0.	6.83	518.	0.062
266	3.14	3.14	167	0.	2.75	209.	0.025	127	0.	2.10	159.	0.019	117	0.	1.94	147.	0.017
267	3.14	3.14	126	0.	2.08	158.	0.019	98	0.	1.62	123.	0.015	91	0.	1.50	114.	0.014
268	3.14	3.14	907	0.	14.98	1134.	0.135	730	0.	12.05	910.	0.108	685	0.	11.31	854.	0.101
269	3.14	3.14	162	0.	2.67	203.	0.024	124	0.	2.06	156.	0.019	115	0.	1.90	144.	0.017
270	3.14	3.14	932	0.	15.40	1165.	0.139	750	0.	12.39	936.	0.111	705	0.	11.64	878.	0.104
271	3.14	3.14	153	0.	2.53	192.	0.023	116	0.	1.92	145.	0.017	107	0.	1.76	134.	0.016
272	3.14	3.14	360	0.	5.94	451.	0.054	284	0.	4.69	356.	0.042	265	0.	4.37	332.	0.040
273	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
274	3.14	3.14	74	0.	1.23	93.	0.011	55	0.	0.91	69.	0.008	51	0.	0.83	63.	0.008
275	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
276	3.14	3.14	19	0.	0.32	24.	0.003	12	0.	0.20	15.	0.002	10	0.	0.17	13.	0.002
277	3.14	3.14	49	0.	0.80	61.	0.007	33	0.	0.55	41.	0.005	29	0.	0.48	37.	0.004
278	3.14	3.14	96	0.	1.57	124.	0.015	78	0.	1.29	101.	0.012	74	0.	1.22	95.	0.012
279	3.14	3.14	76	0.	1.25	95.	0.011	52	0.	0.86	65.	0.008	46	0.	0.76	58.	0.007
280	3.14	3.14	441	1	7.26	572.	0.070	360	1	5.94	465.	0.057	340	1	5.60	438.	0.053
281	3.14	3.14	583	1	9.60	751.	0.091	471	1	7.77	605.	0.073	443	1	7.31	568.	0.069
282	3.14	3.14	109	0.	1.81	137.	0.016	89	0.	1.46	111.	0.013	83	0.	1.38	104.	0.012
283	3.14	3.14	388	2	6.37	524.	0.066	310	2	5.08	419.	0.053	290	2	4.76	393.	0.049
284	3.14	3.14	53	0.	0.86	71.	0.009	42	0.	0.69	57.	0.007	39	0.	0.65	54.	0.007
285	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
286	3.14	3.14	40	0.	0.66	50.	0.006	26	0.	0.43	33.	0.004	23	0.	0.37	28.	0.003
287	3.14	3.14	434	0.	7.17	546.	0.065	344	0.	5.68	432.	0.051	321	0.	5.30	404.	0.048
288	3.14	3.14	763	1	12.59	968.	0.116	604	1	9.96	767.	0.092	564	1	9.30	717.	0.086
289	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
290	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
291	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
292	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
293	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
294	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
295	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
296	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
297	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
298	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
299	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
300	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
301	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

302	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
303	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
304	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
305	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
306	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
307	3.14	3.14	76	0.	1.25	95.	0.011	58	0.	0.96	73.	0.009	54	0.	0.89	68.	0.008
308	3.14	3.14	43	0.	0.72	54.	0.006	39	0.	0.65	49.	0.006	38	0.	0.63	48.	0.006
309	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
310	3.14	3.14	81	0.	1.34	102.	0.012	61	0.	1.01	77.	0.009	56	0.	0.93	70.	0.008
311	3.14	3.14	292	0.	4.82	366.	0.043	229	0.	3.78	287.	0.034	213	0.	3.52	267.	0.032
312	3.14	3.14	77	0.	1.27	96.	0.011	59	0.	0.98	74.	0.009	55	0.	0.90	68.	0.008
313	3.14	3.14	941	2	15.51	1214.	0.147	766	2	12.62	986.	0.120	722	2	11.90	929.	0.113
314	3.14	3.14	368	0.	6.08	467.	0.056	305	0.	5.04	387.	0.046	290	0.	4.78	367.	0.044
315	3.14	3.14	199	0.	3.29	249.	0.030	162	0.	2.67	203.	0.024	153	0.	2.52	191.	0.023
316	3.14	3.14	360	0.	5.94	451.	0.054	286	0.	4.73	358.	0.043	268	0.	4.42	335.	0.040
317	3.14	3.14	1144	0.	18.88	1434.	0.171	907	0.	14.97	1137.	0.135	848	0.	13.99	1063.	0.126
318	3.14	3.14	1938	1	32.00	2437.	0.291	1536	0.	25.36	1931.	0.230	1436	0.	23.70	1805.	0.215
319	3.14	3.14	995	2	16.40	1285.	0.156	809	2	13.33	1043.	0.127	762	2	12.57	982.	0.119
320	3.14	3.14	373	0.	6.15	473.	0.057	309	0.	5.10	392.	0.047	293	0.	4.84	372.	0.045
321	3.14	3.14	197	0.	3.26	247.	0.029	161	0.	2.65	201.	0.024	151	0.	2.50	190.	0.023
322	3.14	3.14	359	0.	5.92	449.	0.053	285	0.	4.71	357.	0.042	267	0.	4.40	334.	0.040
323	3.14	3.14	1141	0.	18.84	1431.	0.170	905	0.	14.94	1135.	0.135	846	0.	13.96	1061.	0.126
324	3.14	3.14	1933	1	31.91	2432.	0.290	1533	1	25.30	1928.	0.230	1432	0.	23.65	1802.	0.215
325	3.14	3.14	83	0.	1.37	104.	0.012	65	0.	1.07	81.	0.010	60	0.	0.99	75.	0.009
326	3.14	3.14	36	0.	0.60	45.	0.005	33	0.	0.55	42.	0.005	33	0.	0.54	41.	0.005
327	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
328	3.14	3.14	81	0.	1.34	101.	0.012	61	0.	1.00	76.	0.009	56	0.	0.92	70.	0.008
329	3.14	3.14	292	0.	4.82	366.	0.043	229	0.	3.78	287.	0.034	213	0.	3.52	267.	0.032
330	3.14	3.14	71	0.	1.18	89.	0.011	54	0.	0.90	68.	0.008	50	0.	0.83	63.	0.007
331	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
332	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
333	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
334	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
335	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
336	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
337	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
338	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
339	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
340	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
341	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
342	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
343	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
344	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
345	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
346	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
347	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
348	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
349	3.14	3.14	387	2	6.35	523.	0.066	308	2	5.05	417.	0.052	288	2	4.72	390.	0.049
350	3.14	3.14	66	0.	1.08	88.	0.011	54	0.	0.88	72.	0.009	51	0.	0.84	68.	0.008
351	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
352	3.14	3.14	33	0.	0.54	41.	0.005	21	0.	0.34	26.	0.003	18	0.	0.29	22.	0.003
353	3.14	3.14	400	0.	6.60	503.	0.060	317	0.	5.24	399.	0.048	297	0.	4.90	373.	0.044
354	3.14	3.14	753	1	12.41	956.	0.115	598	1	9.86	761.	0.092	559	1	9.22	712.	0.086
355	3.14	3.14	1675	0.	27.65	2105.	0.251	1327	0.	21.91	1668.	0.199	1240	0.	20.48	1558.	0.186
356	3.14	3.14	1233	0.	20.36	1544.	0.184	977	0.	16.13	1223.	0.145	913	0.	15.07	1143.	0.136
357	3.14	3.14	452	0.	7.46	566.	0.067	357	0.	5.89	447.	0.053	333	0.	5.50	418.	0.050
358	3.14	3.14	425	0.	7.03	533.	0.063	336	0.	5.55	421.	0.050	314	0.	5.19	393.	0.047
359	3.14	3.14	1146	0.	18.91	1435.	0.171	908	0.	14.99	1137.	0.135	849	0.	14.01	1063.	0.126
360	3.14	3.14	1890	0.	31.22	2365.	0.281	1500	0.	24.76	1877.	0.223	1402	0.	23.15	1754.	0.209
361	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
362	3.14	3.14	226	0.	3.73	283.	0.034	178	0.	2.94	223.	0.027	166	0.	2.74	208.	0.025
363	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
364	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
365	3.14	3.14	212	0.	3.50	265.	0.032	167	0.	2.76	209.	0.025	156	0.	2.58	195.	0.023
366	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
367	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
368	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
369	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
370	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
371	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
372	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
373	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
374	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
375	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
376	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
377	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
378	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
379	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
380	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
381	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
382	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
383	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
384	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
385	3.14	3.14	588	1	9.69	745.	0.089	462	0.	7.63	587.	0.070	431	0.	7.11	548.	0.066
386	3.14	3.14	441	0.	7.28	552.	0.066	349	0.	5.76	437.	0.052	326	0.	5.38	408.	0.049
387	3.14	3.14	49	0.	0.81	62.	0.007	34	0.	0.57	43.	0.005	30	0.	0.50	38.	0.005
388	3.14	3.14	33	0.	0.55	42.	0.005	21	0.	0.35	27.	0.003	18	0.	0.31	23.	0.003
389	3.14	3.14	423	0.	6.98	530.	0.063	336	0.	5.55	421.	0.050	314	0.	5.19	394.	0.047
390	3.14	3.14	745	0.	12.29	939.	0.112	590	0.	9.74	746.	0.089	552	0.	9.10	697.	0.084
391	3.14	3.14	514	1	8.47	665.	0.081	408	1	6.73	529.	0.065	382	1	6.29	495.	0.060
392	3.14	3.14	162	0.	2.68	206.	0.025	128	0.	2.12	163.	0.020	120	0.	1.98	152.	0.018
393	3.14	3.14	21	0.	0.35	27.	0.003	12	0.	0.19	15.	0.002	9	0.	0.15	12.	0.001
394	3.14	3.14	343	0.	5.66	429.	0.051	272	0.	4.49	341.	0.040	254	0.	4.20	318.	0.038
395	3.14	3.14	610	1	10.07	773.	0.093	482	1	7.95	612.	0.073	450	0.	7.42	571.	0.069
396	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
397	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
398	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
399	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
400	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
401	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
402	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
403	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
404	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
405	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
406	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
407	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
408	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
409	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
410	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
411	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
412	3.14	3.14	146	0.	2.41	183.	0.022	118	0.	1.95	148.	0.018	111	0.	1.83	139.	0.017
413	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

414	3.14	3.14	189	0.	3.12	237.	0.028	148	0.	2.44	185.	0.022	137	0.	2.27	172.	0.020
415	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
416	3.14	3.14	1861	0.	30.73	2334.	0.278	1478	0.	24.40	1853.	0.221	1382	0.	22.82	1733.	0.206
417	3.14	3.14	973	0.	16.07	1219.	0.145	776	0.	12.81	972.	0.116	727	0.	12.00	910.	0.108
418	3.14	3.14	506	0.	8.36	634.	0.075	404	0.	6.67	506.	0.060	379	0.	6.25	474.	0.056
419	3.14	3.14	469	0.	7.74	587.	0.070	373	0.	6.16	467.	0.056	349	0.	5.76	437.	0.052
420	3.14	3.14	1154	0.	19.05	1445.	0.172	915	0.	15.11	1146.	0.136	855	0.	14.12	1071.	0.127
421	3.14	3.14	1622	0.	26.78	2040.	0.243	1285	0.	21.21	1615.	0.193	1201	0.	19.82	1509.	0.180
422	3.14	3.14	1587	0.	26.20	1984.	0.236	1259	0.	20.79	1574.	0.187	1177	0.	19.44	1472.	0.175
423	3.14	3.14	1139	0.	18.80	1426.	0.170	904	0.	14.92	1132.	0.135	845	0.	13.95	1058.	0.126
424	3.14	3.14	386	0.	6.37	483.	0.057	306	0.	5.06	384.	0.046	286	0.	4.73	359.	0.043
425	3.14	3.14	360	0.	5.94	450.	0.054	285	0.	4.71	358.	0.043	267	0.	4.41	334.	0.040
426	3.14	3.14	967	0.	15.97	1213.	0.144	772	0.	12.75	968.	0.115	723	0.	11.94	906.	0.108
427	3.14	3.14	1670	0.	27.58	2084.	0.248	1328	0.	21.92	1657.	0.197	1242	0.	20.51	1550.	0.184
428	3.14	3.14	46	0.	0.76	57.	0.007	35	0.	0.58	44.	0.005	32	0.	0.53	40.	0.005
429	3.14	3.14	232	0.	3.84	291.	0.035	183	0.	3.02	229.	0.027	171	0.	2.82	214.	0.025
430	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
431	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
432	3.14	3.14	211	0.	3.49	265.	0.031	167	0.	2.76	209.	0.025	156	0.	2.57	195.	0.023
433	3.14	3.14	58	0.	0.96	73.	0.009	44	0.	0.73	55.	0.007	41	0.	0.67	51.	0.006
434	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
435	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
436	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
437	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
438	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
439	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
440	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
441	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
442	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
443	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
444	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
445	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
446	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
447	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
448	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
449	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
450	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
451	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
452	3.14	3.14	576	0.	9.51	729.	0.087	454	0.	7.49	576.	0.069	424	0.	6.99	538.	0.065
453	3.14	3.14	432	0.	7.13	541.	0.064	342	0.	5.64	429.	0.051	319	0.	5.27	401.	0.048
454	3.14	3.14	37	0.	0.61	46.	0.006	24	0.	0.40	30.	0.004	21	0.	0.34	26.	0.003
455	3.14	3.14	4	0.	0.07	5.	0.001	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
456	3.14	3.14	294	0.	4.84	371.	0.044	238	0.	3.93	301.	0.036	224	0.	3.70	283.	0.034
457	3.14	3.14	613	1	10.11	788.	0.095	487	1	8.03	627.	0.076	455	1	7.51	586.	0.071
458	3.14	3.14	472	2	7.76	621.	0.077	377	2	6.20	497.	0.061	353	1	5.81	466.	0.057
459	3.14	3.14	365	0.	6.03	460.	0.055	291	0.	4.80	366.	0.044	272	0.	4.49	343.	0.041
460	3.14	3.14	210	0.	3.47	263.	0.031	164	0.	2.72	206.	0.024	153	0.	2.53	192.	0.023
461	3.14	3.14	411	1	6.77	527.	0.064	324	1	5.34	416.	0.050	302	1	4.98	389.	0.047
462	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
463	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
464	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
465	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
466	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
467	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
468	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
469	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
470	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
471	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
472	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
473	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
474	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
475	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
476	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
477	3.14	3.14	198	0.	3.27	248.	0.029	159	0.	2.62	199.	0.024	149	0.	2.46	187.	0.022
478	3.14	3.14	1	0.	0.01	1.	0.000	2	0.	0.04	3.	0.000	3	0.	0.04	3.	0.000
479	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
480	3.14	3.14	205	0.	3.39	257.	0.031	160	0.	2.64	200.	0.024	148	0.	2.45	186.	0.022
481	3.14	3.14	1	0.	0.02	2.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
482	3.14	3.14	1539	2	25.39	1956.	0.235	1231	1	20.30	1563.	0.188	1154	1	19.03	1465.	0.176
483	3.14	3.14	968	0.	15.99	1215.	0.145	776	0.	12.81	974.	0.116	728	0.	12.01	913.	0.109
484	3.14	3.14	430	0.	7.10	538.	0.064	344	0.	5.67	430.	0.051	322	0.	5.32	403.	0.048
485	3.14	3.14	362	0.	5.98	454.	0.054	288	0.	4.75	361.	0.043	269	0.	4.45	337.	0.040
486	3.14	3.14	1088	0.	17.97	1363.	0.162	864	0.	14.26	1082.	0.129	808	0.	13.33	1012.	0.120
487	3.14	3.14	1542	0.	25.46	1937.	0.231	1224	0.	20.20	1537.	0.183	1144	0.	18.89	1437.	0.171
488	3.14	3.14	1398	2	23.07	1779.	0.214	1117	1	18.42	1420.	0.171	1046	1	17.26	1330.	0.160
489	3.14	3.14	1165	0.	19.24	1460.	0.173	928	0.	15.33	1163.	0.138	869	0.	14.35	1088.	0.129
490	3.14	3.14	739	0.	12.20	926.	0.110	594	0.	9.80	744.	0.088	558	0.	9.20	699.	0.083
491	3.14	3.14	1201	0.	19.82	1511.	0.180	968	0.	15.98	1217.	0.145	909	0.	15.01	1144.	0.136
492	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
493	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
494	3.14	3.14	36	0.	0.60	46.	0.005	30	0.	0.49	37.	0.004	28	0.	0.47	35.	0.004
495	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
496	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
497	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
498	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
499	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
500	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
501	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
502	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
503	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
504	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
505	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
506	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
507	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
508	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
509	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
510	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
511	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
512	3.14	3.14	652	2	10.74	849.	0.104	524	2	8.63	683.	0.084	492	2	8.10	641.	0.078
513	3.14	3.14	416	0.	6.87	525.	0.063	334	0.	5.52	422.	0.050	314	0.	5.18	396.	0.047
514	3.14	3.14	38	0.	0.63	48.	0.006	27	0.	0.44	33.	0.004	24	0.	0.39	30.	0.004
515	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
516	3.14	3.14	200	0.	3.30	252.	0.030	161	0.	2.65	203.	0.024	151	0.	2.49	191.	0.023
517	3.14	3.14	586	1	9.66	756.	0.092	465	1	7.66	601.	0.073	435	1	7.16	562.	0.068
518	3.14	3.14	1090	0.	17.99	1370.	0.163	877	0.	14.48	1103.	0.131	824	0.	13.61	1036.	0.123
519	3.14	3.14	882	0.	14.56	1104.	0.131	707	0.	11.68	886.	0.105	664	0.	10.96	831.	0.099
520	3.14	3.14	1252	0.	20.67	1566.	0.186	996	0.	16.44	1245.	0.148	932	0.	15.38	1165.	0.139
521	3.14	3.14	1502	1	24.79	1900.	0.228	1195	1	19.72	1512.	0.181	1118	1	18.45	1414.	0.169
522	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
523	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
524	3.14	3.14	18	0.	0.29	22.	0.003	11	0.	0.19	14.	0.002	10	0.	0.16	12.	0.001
525	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

526	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
527	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
528	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
529	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
530	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
531	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
532	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
533	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
534	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
535	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
536	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
537	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
538	3.14	3.14	479	1	7.89	617.	0.075	380	1	6.26	490.	0.060	355	1	5.85	458.	0.056
539	3.14	3.14	437	0.	7.21	546.	0.065	347	0.	5.73	434.	0.052	325	0.	5.36	406.	0.048
540	3.14	3.14	403	0.	6.66	505.	0.060	319	0.	5.27	400.	0.048	298	0.	4.93	373.	0.044
541	3.14	3.14	518	1	8.54	665.	0.081	408	1	6.72	524.	0.064	380	1	6.26	489.	0.059
542	3.14	3.14	402	1	6.64	515.	0.062	321	1	5.28	411.	0.050	300	1	4.95	385.	0.047
543	3.14	3.14	164	0.	2.71	207.	0.025	129	0.	2.12	162.	0.019	120	0.	1.98	151.	0.018
544	3.14	3.14	334	0.	5.52	418.	0.050	262	0.	4.33	328.	0.039	244	0.	4.03	305.	0.036
545	3.14	3.14	495	1	8.16	634.	0.077	389	1	6.42	499.	0.060	363	1	5.98	466.	0.056
546	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
547	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
548	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
549	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
550	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
551	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
552	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
553	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
554	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
555	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
556	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
557	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
558	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
559	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
560	3.14	3.14	69	0.	1.14	86.	0.010	51	0.	0.85	64.	0.008	47	0.	0.77	59.	0.007
561	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
562	3.14	3.14	1237	0.	20.42	1552.	0.185	996	0.	16.45	1250.	0.149	936	0.	15.45	1174.	0.140
563	3.14	3.14	754	0.	12.44	944.	0.112	605	0.	10.00	759.	0.090	568	0.	9.38	712.	0.085
564	3.14	3.14	1027	0.	16.96	1286.	0.153	819	0.	13.52	1025.	0.122	767	0.	12.66	960.	0.114
565	3.14	3.14	1492	0.	24.64	1863.	0.222	1186	0.	19.58	1481.	0.176	1109	0.	18.32	1386.	0.165
566	3.14	3.14	1108	0.	18.29	1390.	0.165	891	0.	14.72	1118.	0.133	837	0.	13.82	1050.	0.125
567	3.14	3.14	890	0.	14.70	1114.	0.132	714	0.	11.79	894.	0.106	670	0.	11.06	839.	0.100
568	3.14	3.14	1256	0.	20.74	1572.	0.187	999	0.	16.50	1250.	0.149	935	0.	15.44	1170.	0.139
569	3.14	3.14	1511	1	24.93	1911.	0.229	1202	1	19.84	1520.	0.182	1125	1	18.57	1422.	0.170
570	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
571	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
572	3.14	3.14	26	0.	0.42	32.	0.004	18	0.	0.30	22.	0.003	16	0.	0.26	20.	0.002
573	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
574	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
575	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
576	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
577	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
578	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
579	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
580	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
581	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
582	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
583	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
584	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
585	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
586	3.14	3.14	330	0.	5.44	420.	0.051	260	0.	4.29	333.	0.040	243	0.	4.01	311.	0.038
587	3.14	3.14	232	0.	3.84	291.	0.035	183	0.	3.03	230.	0.027	171	0.	2.82	214.	0.025
588	3.14	3.14	419	0.	6.92	524.	0.062	331	0.	5.46	414.	0.049	309	0.	5.10	386.	0.046
589	3.14	3.14	516	1	8.50	662.	0.080	406	1	6.69	522.	0.063	378	1	6.24	487.	0.059
590	3.14	3.14	625	1	10.30	805.	0.098	496	1	8.17	640.	0.078	464	1	7.64	599.	0.073
591	3.14	3.14	310	0.	5.12	391.	0.047	250	0.	4.13	315.	0.038	235	0.	3.88	297.	0.035
592	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
593	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
594	3.14	3.14	293	0.	4.84	370.	0.044	237	0.	3.91	300.	0.036	223	0.	3.68	282.	0.034
595	3.14	3.14	624	2	10.28	806.	0.098	495	1	8.15	640.	0.078	462	1	7.62	599.	0.073
596	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
597	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
598	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
599	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
600	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
601	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
602	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
603	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
604	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
605	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
606	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
607	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
608	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
609	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
610	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
611	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
612	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
613	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
614	3.14	3.14	82	0.	1.36	103.	0.012	64	0.	1.05	80.	0.009	59	0.	0.97	74.	0.009
615	3.14	3.14	226	0.	3.73	283.	0.034	179	0.	2.95	224.	0.027	167	0.	2.75	209.	0.025
616	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
617	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
618	3.14	3.14	227	0.	3.75	285.	0.034	180	0.	2.97	225.	0.027	168	0.	2.77	210.	0.025
619	3.14	3.14	67	0.	1.10	84.	0.010	52	0.	0.85	65.	0.008	48	0.	0.79	60.	0.007
620	3.14	3.14	1634	2	26.96	2070.	0.248	1302	1	21.49	1650.	0.198	1219	1	20.12	1544.	0.185
621	3.14	3.14	851	0.	14.06	1070.	0.128	682	0.	11.27	858.	0.102	640	0.	10.57	805.	0.096
622	3.14	3.14	284	0.	4.70	356.	0.042	227	0.	3.75	284.	0.034	213	0.	3.51	267.	0.032
623	3.14	3.14	296	0.	4.89	371.	0.044	236	0.	3.90	296.	0.035	222	0.	3.66	277.	0.033
624	3.14	3.14	897	0.	14.81	1126.	0.134	718	0.	11.86	902.	0.107	673	0.	11.12	845.	0.101
625	3.14	3.14	1656	1	27.32	2091.	0.250	1319	1	21.77	1665.	0.199	1235	1	20.38	1559.	0.186
626	3.14	3.14	1625	2	26.81	2060.	0.247	1295	1	21.36	1641.	0.197	1212	1	20.00	1537.	0.184
627	3.14	3.14	852	0.	14.06	1071.	0.128	683	0.	11.27	858.	0.102	641	0.	10.57	805.	0.096
628	3.14	3.14	283	0.	4.67	354.	0.042	226	0.	3.73	283.	0.034	212	0.	3.49	265.	0.031
629	3.14	3.14	294	0.	4.86	368.	0.044	235	0.	3.87	294.	0.035	220	0.	3.63	275.	0.033
630	3.14	3.14	893	0.	14.74	1121.	0.134	715	0.	11.80	897.	0.107	670	0.	11.06	841.	0.100
631	3.14	3.14	1645	1	27.15	2079.	0.249	1310	1	21.62	1655.	0.198	1226	1	20.23	1549.	0.185
632	3.14	3.14	74	0.	1.21	92.	0.011	57	0.	0.94	71.	0.008	52	0.	0.87	66.	0.008
633	3.14	3.14	223	0.	3.68	279.	0.033	176	0.	2.91	220.	0.026	164	0.	2.71	206.	0.024
634	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
635	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
636	3.14	3.14	222	0.	3.67	279.	0.033	176	0.	2.90	220.	0.026	164	0.	2.70	205.	0.024
637	3.14	3.14	63	0.	1.04	79.	0.009	48	0.	0.79	60.	0.007	44	0.	0.73	56.	0.007

638	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
639	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
640	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
641	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
642	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
643	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
644	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
645	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
646	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
647	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
648	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
649	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
650	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
651	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
652	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
653	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
654	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
655	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
656	3.14	3.14	670	1	11.05	861.	0.104	533	1	8.78	686.	0.083	498	1	8.21	642.	0.078
657	3.14	3.14	359	0.	5.93	453.	0.054	293	0.	4.84	370.	0.044	276	0.	4.55	348.	0.042
658	3.14	3.14	64	0.	1.06	81.	0.010	49	0.	0.81	61.	0.007	45	0.	0.74	56.	0.007
659	3.14	3.14	68	0.	1.12	85.	0.010	52	0.	0.85	65.	0.008	48	0.	0.79	60.	0.007
660	3.14	3.14	337	0.	5.56	425.	0.051	274	0.	4.52	346.	0.041	258	0.	4.26	326.	0.039
661	3.14	3.14	761	1	12.55	977.	0.118	609	1	10.04	783.	0.095	571	1	9.41	734.	0.089
662	3.14	3.14	1493	1	24.64	1884.	0.225	1187	1	19.59	1498.	0.179	1111	1	18.33	1401.	0.167
663	3.14	3.14	1208	0.	19.95	1512.	0.180	961	0.	15.86	1202.	0.143	899	0.	14.84	1125.	0.134
664	3.14	3.14	781	0.	12.90	979.	0.116	629	0.	10.38	788.	0.094	591	0.	9.75	740.	0.088
665	3.14	3.14	1139	0.	18.80	1429.	0.170	923	0.	15.24	1158.	0.138	869	0.	14.35	1091.	0.130
666	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
667	3.14	3.14	64	0.	1.05	80.	0.010	46	0.	0.76	58.	0.007	42	0.	0.69	53.	0.006
668	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
669	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
670	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
671	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
672	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
673	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
674	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
675	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
676	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
677	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
678	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
679	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
680	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
681	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
682	3.14	3.14	732	1	12.08	935.	0.113	587	1	9.68	750.	0.090	550	1	9.08	703.	0.085
683	3.14	3.14	566	0.	9.34	708.	0.084	454	0.	7.50	569.	0.068	426	0.	7.04	534.	0.063
684	3.14	3.14	355	0.	5.86	446.	0.053	289	0.	4.77	363.	0.043	272	0.	4.49	342.	0.041
685	3.14	3.14	536	1	8.84	682.	0.082	437	1	7.20	557.	0.067	412	1	6.79	525.	0.063
686	3.14	3.14	365	1	6.02	468.	0.057	292	1	4.82	376.	0.046	274	1	4.52	353.	0.043
687	3.14	3.14	185	0.	3.05	233.	0.028	145	0.	2.40	183.	0.022	135	0.	2.23	171.	0.020
688	3.14	3.14	423	0.	6.98	529.	0.063	332	0.	5.49	416.	0.049	310	0.	5.12	388.	0.046
689	3.14	3.14	525	1	8.65	675.	0.082	413	1	6.80	532.	0.065	385	1	6.34	497.	0.060
690	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
691	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
692	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
693	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
694	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
695	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
696	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
697	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
698	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
699	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
700	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
701	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
702	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
703	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
704	3.14	3.14	65	0.	1.08	82.	0.010	48	0.	0.79	60.	0.007	43	0.	0.71	54.	0.006
705	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
706	3.14	3.14	1148	0.	18.95	1439.	0.171	931	0.	15.37	1167.	0.139	877	0.	14.48	1100.	0.131
707	3.14	3.14	785	0.	12.96	983.	0.117	632	0.	10.44	792.	0.094	594	0.	9.81	744.	0.088
708	3.14	3.14	1211	0.	20.00	1516.	0.180	963	0.	15.91	1205.	0.143	901	0.	14.88	1128.	0.134
709	3.14	3.14	1502	1	24.78	1894.	0.226	1195	1	19.72	1506.	0.180	1118	1	18.45	1409.	0.168
710	3.14	3.14	1010	0.	16.67	1266.	0.151	820	0.	13.53	1028.	0.122	772	0.	12.75	968.	0.115
711	3.14	3.14	845	0.	13.95	1060.	0.126	692	0.	11.42	868.	0.103	653	0.	10.79	820.	0.098
712	3.14	3.14	634	1	10.46	803.	0.096	532	0.	8.78	674.	0.081	507	0.	8.36	641.	0.077
713	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
714	3.14	3.14	55	0.	0.91	69.	0.008	38	0.	0.63	48.	0.006	34	0.	0.56	43.	0.005
715	3.14	3.14	30	0.	0.50	38.	0.005	19	0.	0.32	24.	0.003	17	0.	0.28	21.	0.002
716	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
717	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
718	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
719	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
720	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
721	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
722	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
723	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
724	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
725	3.14	3.14	329	0.	5.43	420.	0.051	261	0.	4.30	334.	0.040	244	0.	4.02	312.	0.038
726	3.14	3.14	290	0.	4.79	366.	0.044	232	0.	3.83	292.	0.035	218	0.	3.59	274.	0.033
727	3.14	3.14	182	1	2.99	242.	0.030	147	1	2.42	197.	0.025	138	1	2.27	186.	0.023
728	3.14	3.14	1000	0.	16.52	1255.	0.149	812	0.	13.40	1018.	0.121	764	0.	12.62	959.	0.114
729	3.14	3.14	839	0.	13.86	1053.	0.125	687	0.	11.34	861.	0.103	649	0.	10.71	814.	0.097
730	3.14	3.14	628	1	10.36	796.	0.095	527	0.	8.70	668.	0.080	502	0.	8.28	635.	0.076
731	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
732	3.14	3.14	52	0.	0.85	65.	0.008	35	0.	0.58	44.	0.005	31	0.	0.51	39.	0.005
733	3.14	3.14	27	0.	0.44	34.	0.004	16	0.	0.27	21.	0.002	14	0.	0.23	17.	0.002
734	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
735	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
736	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
737	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
738	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
739	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
740	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
741	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
742	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
743	3.14	3.14	478	0.	7.89	607.	0.073	388	0.	6.40	493.	0.059	366	0.	6.03	465.	0.056
744	3.14	3.14	410	0.	6.76	515.	0.061	336	0.	5.55	422.	0.050	318	0.	5.24	399.	0.048
745	3.14	3.14	275	1	4.52	358.	0.044	229	1	3.78	300.	0.037	218	1	3.59	286.	0.035

ARMATURA SUPERIORE ORIZZONTALE

	COMBINAZIONE RARA	COMBINAZIONE FREQUENTE	COMBINAZIONE QUASI PERMANENTE

GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
2	3.14	3.14	0.	-5	0.15	-2.	0.000	0.	-4	0.12	-2.	0.000	0.	-3	0.11	-2.	0.000
3	3.14	3.14	3	0.	0.04	3.	0.000	7	0.	0.12	9.	0.001	8	0.	0.14	11.	0.001
4	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000
5	3.14	3.14	99	0.	1.64	124.	0.015	83	0.	1.38	104.	0.012	79	0.	1.31	99.	0.012
6	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
7	3.14	3.14	59	0.	0.98	74.	0.009	53	0.	0.87	66.	0.008	51	0.	0.85	64.	0.008
8	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
9	3.14	3.14	4	0.	0.07	6.	0.001	13	0.	0.21	16.	0.002	15	0.	0.24	18.	0.002
10	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
11	3.14	3.14	0.	0.	0.00	0.	0.000	4	0.	0.07	5.	0.001	7	0.	0.12	9.	0.001
12	3.14	3.14	0.	-3	0.11	-2.	0.000	0.	-3	0.09	-1.	0.000	0.	-2	0.08	-1.	0.000
13	3.14	3.14	0.	-8	0.27	-4.	0.000	0.	-6	0.20	-3.	0.000	0.	-6	0.19	-3.	0.000
14	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
15	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
16	3.14	3.14	0.	-5	0.16	-2.	0.000	0.	-4	0.12	-2.	0.000	0.	-4	0.11	-2.	0.000
17	3.14	3.14	7	0.	0.12	9.	0.001	15	0.	0.25	19.	0.002	17	0.	0.29	22.	0.003
18	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
19	3.14	3.14	29	0.	0.49	37.	0.004	32	0.	0.52	40.	0.005	32	0.	0.53	41.	0.005
20	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
21	3.14	3.14	46	0.	0.77	58.	0.007	44	0.	0.73	55.	0.007	44	0.	0.72	54.	0.006
22	3.14	3.14	9	0.	0.15	11.	0.001	11	0.	0.18	13.	0.002	11	0.	0.18	14.	0.002
23	3.14	3.14	25	0.	0.41	31.	0.004	28	0.	0.46	35.	0.004	29	0.	0.47	36.	0.004
24	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
25	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
26	3.14	3.14	0.	-5	0.15	-2.	0.000	0.	-4	0.12	-2.	0.000	0.	-3	0.11	-2.	0.000
27	3.14	3.14	0.	-4	0.14	-2.	0.000	0.	-3	0.11	-2.	0.000	0.	-3	0.10	-2.	0.000
28	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
29	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.05	-1.	0.000	0.	-1	0.05	-1.	0.000
30	3.14	3.14	0.	4	0.00	61.	0.014	0.	3	0.00	47.	0.011	0.	3	0.00	44.	0.010
31	3.14	3.14	154	2	2.49	225.	0.030	118	2	1.92	173.	0.023	110	1	1.78	160.	0.021
32	3.14	3.14	241	0.	3.98	302.	0.036	191	0.	3.15	239.	0.028	179	0.	2.95	224.	0.027
33	3.14	3.14	402	0.	6.64	504.	0.060	327	0.	5.40	409.	0.049	308	0.	5.09	386.	0.046
34	3.14	3.14	452	0.	7.46	566.	0.067	366	0.	6.05	459.	0.055	345	0.	5.70	432.	0.051
35	3.14	3.14	495	0.	8.18	620.	0.074	404	0.	6.67	506.	0.060	381	0.	6.29	477.	0.057
36	3.14	3.14	505	0.	8.33	632.	0.075	410	0.	6.77	514.	0.061	386	0.	6.38	484.	0.058
37	3.14	3.14	413	0.	6.81	517.	0.061	338	0.	5.57	423.	0.050	319	0.	5.27	399.	0.047
38	3.14	3.14	283	0.	4.67	354.	0.042	231	0.	3.82	290.	0.034	218	0.	3.60	273.	0.032
39	3.14	3.14	34	0.	0.57	44.	0.005	31	0.	0.52	40.	0.005	31	0.	0.51	39.	0.005
40	3.14	3.14	0.	1	0.00	16.	0.004	0.	1	0.00	13.	0.003	0.	1	0.00	12.	0.003
41	3.14	3.14	0.	1	0.00	11.	0.003	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
42	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
43	3.14	3.14	0.	1	0.00	19.	0.004	0.	1	0.00	15.	0.004	0.	1	0.00	14.	0.003
44	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
45	3.14	3.14	397	0.	6.56	498.	0.059	321	0.	5.30	402.	0.048	302	0.	4.99	379.	0.045
46	3.14	3.14	399	0.	6.59	500.	0.059	323	0.	5.34	405.	0.048	304	0.	5.02	381.	0.045
47	3.14	3.14	562	0.	9.28	704.	0.084	456	0.	7.52	571.	0.068	429	0.	7.08	537.	0.064
48	3.14	3.14	539	0.	8.90	675.	0.080	437	0.	7.22	547.	0.065	412	0.	6.80	515.	0.061
49	3.14	3.14	240	0.	3.96	300.	0.036	196	0.	3.24	246.	0.029	186	0.	3.06	232.	0.028
50	3.14	3.14	234	0.	3.87	293.	0.035	192	0.	3.17	241.	0.029	182	0.	3.00	228.	0.027
51	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000
52	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
53	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
54	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
55	3.14	3.14	286	0.	4.72	358.	0.043	233	0.	3.85	292.	0.035	220	0.	3.63	275.	0.033
56	3.14	3.14	265	0.	4.38	332.	0.039	217	0.	3.59	272.	0.032	205	0.	3.39	257.	0.031
57	3.14	3.14	307	0.	5.06	384.	0.046	250	0.	4.13	313.	0.037	236	0.	3.89	295.	0.035
58	3.14	3.14	287	0.	4.74	360.	0.043	234	0.	3.87	294.	0.035	221	0.	3.65	277.	0.033
59	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
60	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
61	3.14	3.14	0.	2	0.00	37.	0.009	0.	2	0.00	28.	0.007	0.	2	0.00	26.	0.006
62	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	8.	0.002	0.	0.	0.00	7.	0.002
63	3.14	3.14	332	0.	5.47	415.	0.049	269	0.	4.43	336.	0.040	253	0.	4.17	317.	0.038
64	3.14	3.14	331	0.	5.47	415.	0.049	268	0.	4.43	336.	0.040	253	0.	4.17	316.	0.038
65	3.14	3.14	549	0.	9.07	688.	0.082	447	0.	7.38	560.	0.067	421	0.	6.95	527.	0.063
66	3.14	3.14	547	0.	9.02	684.	0.081	444	0.	7.34	557.	0.066	419	0.	6.92	525.	0.062
67	3.14	3.14	534	0.	8.82	669.	0.080	435	0.	7.19	545.	0.065	411	0.	6.78	514.	0.061
68	3.14	3.14	512	0.	8.46	642.	0.076	418	0.	6.90	524.	0.062	394	0.	6.51	494.	0.059
69	3.14	3.14	226	0.	3.73	283.	0.034	183	0.	3.03	229.	0.027	173	0.	2.85	216.	0.026
70	3.14	3.14	216	0.	3.57	271.	0.032	178	0.	2.94	223.	0.027	169	0.	2.78	211.	0.025
71	3.14	3.14	0.	1	0.00	20.	0.005	0.	1	0.00	17.	0.004	0.	1	0.00	16.	0.004
72	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
73	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
74	3.14	3.14	0.	-2	0.06	-1.	0.000	0.	-1	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000
75	3.14	3.14	98	0.	1.62	123.	0.015	83	0.	1.37	104.	0.012	79	0.	1.31	99.	0.012
76	3.14	3.14	124	0.	2.05	156.	0.019	103	0.	1.71	130.	0.015	98	0.	1.62	123.	0.015
77	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
78	3.14	3.14	26	0.	0.43	33.	0.004	25	0.	0.41	31.	0.004	24	0.	0.40	31.	0.004
79	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
80	3.14	3.14	0.	-2	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000	0.	-1	0.04	-1.	0.000
81	3.14	3.14	0.	3	0.00	44.	0.010	0.	2	0.00	33.	0.008	0.	2	0.00	31.	0.007
82	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	9.	0.002
83	3.14	3.14	275	0.	4.55	345.	0.041	220	0.	3.64	276.	0.033	207	0.	3.41	259.	0.031
101	3.14	3.14	389	0.	6.43	487.	0.058	316	0.	5.22	396.	0.047	298	0.	4.91	373.	0.044
102	3.14	3.14	440	0.	7.27	552.	0.066	359	0.	5.92	449.	0.053	338	0.	5.59	424.	0.050
103	3.14	3.14	466	0.	7.70	584.	0.069	380	0.	6.28	476.	0.057	359	0.	5.93	449.	0.053
104	3.14	3.14	472	0.	7.79	591.	0.070	384	0.	6.35	481.	0.057	363	0.	5.99	454.	0.054
105	3.14	3.14	377	0.	6.23	473.	0.056	307	0.	5.08	385.	0.046	290	0.	4.79	363.	0.043
106	3.14	3.14	0.	3	0.00	45.	0.011	0.	2	0.00	36.	0.008	0.	2	0.00	33.	0.008
107	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	9.	0.002
108	3.14	3.14	0.	3	0.00	45.	0.011	0.	2	0.00	36.	0.008	0.	2	0.00	33.	0.008
109	3.14	3.14	284	0.	4.68	355.	0.042	231	0.	3.81	289.	0.034	217	0.	3.59	272.	0.032
110	3.14	3.14	445	0.	7.35	558.	0.066	361	0.	5.96	452.	0.054	340	0.	5.62	426.	0.051
111	3.14	3.14	399	0.	6.59	500.	0.059	322	0.	5.32	403.	0.048	303	0.	5.00	379.	0.045
112	3.14	3.14	309	0.	5.10	387.	0.046	255	0.	4.22	320.	0.038	242	0.	3.99	303.	0.036
113	3.14	3.14	382	0.	6.31	479.	0.057	313	0.	5.16	392.	0.047	295	0.	4.88	370.	0.044
114	3.14	3.14	395	0.	6.53	495.	0.059	326	0.	5.38	408.	0.048	308	0.	5.09	386.	0.046
115	3.14	3.14	430	0.	7.10	538.	0.064	354	0.	5.85	443.	0.053	335	0.	5.53	420.	0.050
116	3.14	3.14	344	0.	5.67	430.	0.051	281	0.	4.64	352.	0.042	266	0.	4.39	333.	0.040
117	3.14	3.14	387	0.	6.40	485.	0.058	315	0.	5.21	395.	0.047	297	0.	4.91	372.	0.044
118	3.14	3.14	289	0.	4.78	362.	0.043	235	0.	3.87	294.	0.035	221	0.	3.65	277.	0.033
119	3.14	3.14	92	0.	1.53	116.	0.014	77	0.	1.28	97.	0.012	74	0.	1.22	92.	0.011
120	3.14	3.14	7	0.	0.11	12.	0.002	7	0.	0.12	11.	0.002	7	0.	0.12	11.	0.002
121	3.14	3.14	0.	2	0.00	34.	0.008	0.	2	0.00	26.	0.006	0.	2	0.00	24.	0.006
122	3.14	3.14	0.	1	0.00	20.	0.005	0.	1	0.00	15.	0.004	0.	1	0.00	14.	0.003
123	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
124	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
125	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
126	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
127	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000

128	3.14	3.14	238	0.	3.94	299.	0.035	197	0.	3.25	246.	0.029	186	0.	3.08	233.	0.028
129	3.14	3.14	140	0.	2.31	175.	0.021	117	0.	1.93	147.	0.017	111	0.	1.84	140.	0.017
130	3.14	3.14	88	0.	1.45	110.	0.013	73	0.	1.20	91.	0.011	69	0.	1.14	87.	0.010
131	3.14	3.14	65	0.	1.07	81.	0.010	59	0.	0.97	74.	0.009	58	0.	0.95	72.	0.009
132	3.14	3.14	31	0.	0.51	38.	0.005	30	0.	0.49	37.	0.004	30	0.	0.49	37.	0.004
133	3.14	3.14	6	0.	0.09	7.	0.001	9	0.	0.15	11.	0.001	10	0.	0.16	12.	0.001
134	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
135	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
136	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.05	-1.	0.000	0.	-1	0.05	-1.	0.000
137	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002
138	3.14	3.14	67	0.	1.10	84.	0.010	52	0.	0.86	65.	0.008	48	0.	0.80	61.	0.007
139	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.00	0.	0.000
140	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
141	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
142	3.14	3.14	44	0.	0.72	55.	0.006	31	0.	0.51	38.	0.005	27	0.	0.45	34.	0.004
143	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
144	3.14	3.14	69	0.	1.15	87.	0.010	61	0.	1.01	77.	0.009	59	0.	0.97	74.	0.009
145	3.14	3.14	38	0.	0.62	47.	0.006	31	0.	0.51	39.	0.005	29	0.	0.49	37.	0.004
146	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
147	3.14	3.14	67	0.	1.10	84.	0.010	50	0.	0.82	62.	0.007	45	0.	0.75	57.	0.007
148	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
149	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
150	3.14	3.14	61	0.	1.01	77.	0.009	45	0.	0.74	56.	0.007	41	0.	0.68	51.	0.006
151	3.14	3.14	9	0.	0.15	12.	0.001	3	0.	0.05	3.	0.000	1	0.	0.02	1.	0.000
152	3.14	3.14	38	0.	0.62	47.	0.006	31	0.	0.52	39.	0.005	30	0.	0.49	37.	0.004
153	3.14	3.14	69	0.	1.14	86.	0.010	63	0.	1.04	79.	0.009	61	0.	1.01	77.	0.009
154	3.14	3.14	111	0.	1.83	139.	0.017	100	0.	1.65	125.	0.015	97	0.	1.60	121.	0.014
155	3.14	3.14	85	0.	1.40	106.	0.013	77	0.	1.28	97.	0.012	75	0.	1.24	94.	0.011
156	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
157	3.14	3.14	139	0.	2.30	174.	0.021	124	0.	2.04	155.	0.018	120	0.	1.98	150.	0.018
158	3.14	3.14	160	0.	2.64	200.	0.024	137	0.	2.26	171.	0.020	131	0.	2.16	164.	0.020
159	3.14	3.14	40	0.	0.65	51.	0.006	29	0.	0.49	38.	0.005	27	0.	0.44	35.	0.004
160	3.14	3.14	86	0.	1.42	108.	0.013	79	0.	1.30	99.	0.012	77	0.	1.27	96.	0.011
161	3.14	3.14	80	0.	1.32	100.	0.012	70	0.	1.16	88.	0.010	68	0.	1.12	85.	0.010
162	3.14	3.14	65	0.	1.07	81.	0.010	52	0.	0.86	65.	0.008	49	0.	0.81	62.	0.007
163	3.14	3.14	34	0.	0.56	43.	0.005	35	0.	0.58	44.	0.005	36	0.	0.59	45.	0.005
164	3.14	3.14	9	0.	0.15	11.	0.001	12	0.	0.20	15.	0.002	13	0.	0.21	16.	0.002
165	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
166	3.14	3.14	72	0.	1.18	90.	0.011	68	0.	1.13	86.	0.010	68	0.	1.12	85.	0.010
167	3.14	3.14	70	0.	1.16	88.	0.010	64	0.	1.06	80.	0.010	62	0.	1.03	78.	0.009
168	3.14	3.14	6	0.	0.10	8.	0.001	5	0.	0.09	7.	0.001	5	0.	0.08	7.	0.001
169	3.14	3.14	68	0.	1.12	85.	0.010	65	0.	1.07	81.	0.010	64	0.	1.05	80.	0.010
170	3.14	3.14	37	0.	0.62	47.	0.006	36	0.	0.60	45.	0.005	36	0.	0.59	45.	0.005
171	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
172	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
173	3.14	3.14	21	0.	0.34	26.	0.003	20	0.	0.32	25.	0.003	19	0.	0.32	24.	0.003
174	3.14	3.14	64	0.	1.05	80.	0.009	58	0.	0.95	72.	0.009	56	0.	0.93	70.	0.008
175	3.14	3.14	61	0.	1.01	77.	0.009	57	0.	0.95	72.	0.009	57	0.	0.93	71.	0.008
176	3.14	3.14	40	0.	0.66	50.	0.006	36	0.	0.60	45.	0.005	35	0.	0.58	44.	0.005
177	3.14	3.14	66	0.	1.08	82.	0.010	61	0.	1.00	76.	0.009	59	0.	0.98	74.	0.009
178	3.14	3.14	96	0.	1.59	120.	0.014	88	0.	1.45	110.	0.013	85	0.	1.41	107.	0.013
179	3.14	3.14	74	0.	1.21	92.	0.011	62	0.	1.03	78.	0.009	59	0.	0.98	74.	0.009
180	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
181	3.14	3.14	135	0.	2.23	169.	0.020	120	0.	1.98	150.	0.018	116	0.	1.92	146.	0.017
182	3.14	3.14	156	0.	2.58	195.	0.023	133	0.	2.20	167.	0.020	128	0.	2.11	160.	0.019
183	3.14	3.14	35	0.	0.57	45.	0.006	25	0.	0.41	33.	0.004	23	0.	0.37	30.	0.004
184	3.14	3.14	77	0.	1.28	97.	0.012	71	0.	1.18	90.	0.011	70	0.	1.16	88.	0.010
185	3.14	3.14	72	0.	1.18	90.	0.011	63	0.	1.04	79.	0.009	61	0.	1.00	76.	0.009
186	3.14	3.14	58	0.	0.97	73.	0.009	47	0.	0.77	59.	0.007	44	0.	0.73	55.	0.007
187	3.14	3.14	38	0.	0.64	48.	0.006	41	0.	0.67	51.	0.006	41	0.	0.68	52.	0.006
188	3.14	3.14	11	0.	0.17	13.	0.002	14	0.	0.23	18.	0.002	15	0.	0.24	19.	0.002
189	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
190	3.14	3.14	93	0.	1.54	117.	0.014	87	0.	1.44	109.	0.013	86	0.	1.41	107.	0.013
191	3.14	3.14	82	0.	1.36	103.	0.012	75	0.	1.23	93.	0.011	73	0.	1.20	91.	0.011
192	3.14	3.14	4	0.	0.06	6.	0.001	4	0.	0.06	5.	0.001	4	0.	0.06	5.	0.001
193	3.14	3.14	102	0.	1.69	128.	0.015	95	0.	1.57	119.	0.014	93	0.	1.54	117.	0.014
194	3.14	3.14	87	0.	1.44	109.	0.013	82	0.	1.36	103.	0.012	81	0.	1.34	101.	0.012
195	3.14	3.14	0.	-1	0.03	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000
196	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
197	3.14	3.14	50	0.	0.83	63.	0.007	47	0.	0.78	59.	0.007	46	0.	0.77	58.	0.007
198	3.14	3.14	60	0.	0.99	75.	0.009	57	0.	0.94	71.	0.008	56	0.	0.93	70.	0.008
199	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
200	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
201	3.14	3.14	67	0.	1.10	84.	0.010	52	0.	0.85	65.	0.008	48	0.	0.79	60.	0.007
202	3.14	3.14	89	0.	1.46	111.	0.013	71	0.	1.18	89.	0.011	67	0.	1.11	84.	0.010
203	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
204	3.14	3.14	0.	1	0.00	17.	0.004	0.	1	0.00	13.	0.003	0.	1	0.00	12.	0.003
205	3.14	3.14	62	0.	1.03	78.	0.009	58	0.	0.96	73.	0.009	57	0.	0.94	71.	0.008
206	3.14	3.14	43	0.	0.71	54.	0.006	42	0.	0.69	52.	0.006	41	0.	0.68	52.	0.006
207	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
208	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
209	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.05	-1.	0.000	0.	-2	0.05	-1.	0.000
210	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
211	3.14	3.14	108	0.	1.79	136.	0.016	96	0.	1.58	120.	0.014	92	0.	1.52	116.	0.014
212	3.14	3.14	80	0.	1.32	100.	0.012	73	0.	1.20	91.	0.011	71	0.	1.17	88.	0.011
213	3.14	3.14	298	0.	4.93	374.	0.044	246	0.	4.06	308.	0.037	233	0.	3.84	292.	0.035
214	3.14	3.14	252	0.	4.15	315.	0.037	209	0.	3.45	261.	0.031	198	0.	3.27	248.	0.029
215	3.14	3.14	0.	1	0.00	10.	0.002	0.	1	0.00	8.	0.002	0.	0.	0.00	8.	0.002
216	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000
217	3.14	3.14	0.	3	0.00	42.	0.010	0.	2	0.00	32.	0.007	0.	2	0.00	29.	0.007
218	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002
219	3.14	3.14	287	0.	4.74	360.	0.043	234	0.	3.86	293.	0.035	220	0.	3.64	276.	0.033
220	3.14	3.14	297	0.	4.90	372.	0.044	242	0.	3.99	303.	0.036	228	0.	3.76	285.	0.034
221	3.14	3.14	532	0.	8.78	666.	0.079	433	0.	7.14	542.	0.064	408	0.	6.73	511.	0.061
222	3.14	3.14	525	0.	8.67	658.	0.078	427	0.	7.05	535.	0.064	403	0.	6.65	504.	0.060
223	3.14	3.14	530	0.	8.75	663.	0.079	431	0.	7.12	540.	0.064	406	0.	6.71	509.	0.060
224	3.14	3.14	517	0.	8.54	648.	0.077	421	0.	6.95	527.	0.063	397	0.	6.55	497.	0.059
225	3.14	3.14	276	0.	4.56	346.	0.041	225	0.	3.71	282.	0.033	212	0.	3.50	266.	0.032
226	3.14	3.14	267	0.	4.40	334.	0.040	218	0.	3.59	273.	0.032	205	0.	3.39	257.	0.031
227	3.14	3.14	0.	2	0.00	36.	0.008	0.	2	0.00	27.	0.006	0.	2	0.00	25.	0.006
228	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	8.	0.002	0.	0.	0.00	8.	0.002
229	3.14	3.14	0.	-2	0.06	-1.	0.000	0.	-1	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000
230	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
231	3.14	3.14	116	0.	1.92	145.	0.017	99	0.	1.63	124.	0.015	94	0.	1.56	118.	0.014
232	3.14	3.14	90	0.	1.49	113.	0.013	78	0.	1.29	98.	0.012	75	0.	1.24	94.	0.011
233	3.14	3.14	267	0.	4.41	335.	0.040	218	0.	3.60	273.	0.032	206	0.	3.40	258.	0.031
234	3.14	3.14	222	0.	3.66	278.	0.033	181	0.	3.00	227.	0.027	171	0.	2.83	215.	0.026
235	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
236	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
237	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
238	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
239	3.14	3.14	379	0.	6.26	475.	0.056	309	0.	5.10	387.	0.046	291	0.	4.81	365.	0.043

240	3.14	3.14	344	0.	5.67	430.	0.051	280	0.	4.63	351.	0.042	265	0.	4.37	331.	0.039
241	3.14	3.14	212	0.	3.50	265.	0.032	176	0.	2.91	221.	0.026	168	0.	2.77	210.	0.025
242	3.14	3.14	193	0.	3.19	242.	0.029	162	0.	2.67	202.	0.024	154	0.	2.54	192.	0.023
243	3.14	3.14	0.	-2	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000	0.	-1	0.03	-1.	0.000
244	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
245	3.14	3.14	0.	2	0.00	32.	0.008	0.	2	0.00	25.	0.006	0.	1	0.00	23.	0.005
246	3.14	3.14	0.	1	0.00	10.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
247	3.14	3.14	285	0.	4.71	357.	0.042	231	0.	3.81	289.	0.034	218	0.	3.59	272.	0.032
248	3.14	3.14	294	0.	4.85	368.	0.044	238	0.	3.94	299.	0.035	225	0.	3.71	281.	0.033
249	3.14	3.14	552	0.	9.11	691.	0.082	447	0.	7.39	560.	0.067	421	0.	6.96	528.	0.063
250	3.14	3.14	540	0.	8.92	677.	0.080	439	0.	7.24	549.	0.065	413	0.	6.82	518.	0.062
251	3.14	3.14	524	0.	8.66	657.	0.078	426	0.	7.03	533.	0.063	401	0.	6.62	502.	0.060
252	3.14	3.14	503	0.	8.30	630.	0.075	409	0.	6.75	512.	0.061	385	0.	6.36	482.	0.057
253	3.14	3.14	157	0.	2.60	197.	0.023	129	0.	2.13	162.	0.019	122	0.	2.01	153.	0.018
254	3.14	3.14	156	0.	2.58	196.	0.023	128	0.	2.12	161.	0.019	121	0.	2.00	152.	0.018
255	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
256	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
257	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
258	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
259	3.14	3.14	232	0.	3.84	291.	0.035	188	0.	3.11	236.	0.028	177	0.	2.93	222.	0.026
260	3.14	3.14	330	0.	5.44	413.	0.049	267	0.	4.41	335.	0.040	252	0.	4.15	315.	0.037
261	3.14	3.14	588	0.	9.70	736.	0.087	475	0.	7.84	594.	0.071	446	0.	7.37	559.	0.066
262	3.14	3.14	588	0.	9.70	736.	0.087	475	0.	7.85	595.	0.071	447	0.	7.38	560.	0.067
263	3.14	3.14	524	0.	8.65	656.	0.078	424	0.	6.99	531.	0.063	399	0.	6.58	499.	0.059
264	3.14	3.14	426	0.	7.03	533.	0.063	345	0.	5.70	432.	0.051	325	0.	5.36	407.	0.048
265	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
266	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
267	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
268	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
269	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
270	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
271	3.14	3.14	153	0.	2.53	192.	0.023	127	0.	2.10	159.	0.019	120	0.	1.99	151.	0.018
272	3.14	3.14	127	0.	2.10	160.	0.019	106	0.	1.75	133.	0.016	101	0.	1.66	126.	0.015
273	3.14	3.14	460	0.	7.59	576.	0.068	376	0.	6.21	471.	0.056	355	0.	5.86	444.	0.053
274	3.14	3.14	464	0.	7.67	581.	0.069	379	0.	6.26	475.	0.056	358	0.	5.91	448.	0.053
275	3.14	3.14	487	0.	8.05	610.	0.073	398	0.	6.57	498.	0.059	375	0.	6.20	470.	0.056
276	3.14	3.14	502	0.	8.28	628.	0.075	409	0.	6.76	513.	0.061	386	0.	6.38	484.	0.058
277	3.14	3.14	304	0.	5.03	381.	0.045	245	0.	4.05	307.	0.037	231	0.	3.81	289.	0.034
278	3.14	3.14	374	0.	6.18	469.	0.056	303	0.	5.01	380.	0.045	285	0.	4.71	357.	0.042
279	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
280	3.14	3.14	0.	4	0.00	64.	0.015	0.	3	0.00	49.	0.012	0.	3	0.00	46.	0.011
281	3.14	3.14	0.	-3	0.09	-1.	0.000	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000
282	3.14	3.14	0.	-3	0.10	-1.	0.000	0.	-2	0.08	-1.	0.000	0.	-2	0.07	-1.	0.000
283	3.14	3.14	139	5	2.12	249.	0.037	114	4	1.74	202.	0.030	108	3	1.65	190.	0.028
284	3.14	3.14	442	0.	7.30	553.	0.066	361	0.	5.97	452.	0.054	341	0.	5.63	427.	0.051
285	3.14	3.14	457	0.	7.54	572.	0.068	372	0.	6.15	466.	0.055	352	0.	5.81	441.	0.052
286	3.14	3.14	498	0.	8.22	623.	0.074	404	0.	6.68	507.	0.060	381	0.	6.29	477.	0.057
287	3.14	3.14	292	0.	4.82	365.	0.043	238	0.	3.93	298.	0.035	225	0.	3.71	281.	0.033
288	3.14	3.14	0.	1	0.00	16.	0.004	0.	1	0.00	13.	0.003	0.	1	0.00	13.	0.003
289	3.14	3.14	181	0.	2.98	234.	0.028	148	0.	2.44	190.	0.023	139	0.	2.30	180.	0.022
290	3.14	3.14	359	0.	5.93	449.	0.053	293	0.	4.84	367.	0.044	277	0.	4.57	347.	0.041
291	3.14	3.14	355	0.	5.87	445.	0.053	290	0.	4.79	364.	0.043	274	0.	4.52	343.	0.041
292	3.14	3.14	391	0.	6.45	489.	0.058	317	0.	5.23	397.	0.047	298	0.	4.92	373.	0.044
293	3.14	3.14	251	0.	4.15	315.	0.037	205	0.	3.38	256.	0.030	193	0.	3.19	242.	0.029
294	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
295	3.14	3.14	103	0.	1.69	129.	0.015	85	0.	1.41	107.	0.013	81	0.	1.34	102.	0.012
296	3.14	3.14	240	0.	3.96	300.	0.036	194	0.	3.21	243.	0.029	183	0.	3.02	229.	0.027
297	3.14	3.14	302	0.	4.98	378.	0.045	244	0.	4.02	305.	0.036	229	0.	3.78	287.	0.034
298	3.14	3.14	244	0.	4.04	306.	0.036	199	0.	3.28	249.	0.030	187	0.	3.10	235.	0.028
299	3.14	3.14	66	0.	1.09	83.	0.010	56	0.	0.93	70.	0.008	54	0.	0.89	67.	0.008
300	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
301	3.14	3.14	169	0.	2.79	212.	0.025	137	0.	2.26	171.	0.020	129	0.	2.12	161.	0.019
302	3.14	3.14	324	0.	5.35	406.	0.048	261	0.	4.32	327.	0.039	246	0.	4.06	308.	0.037
303	3.14	3.14	355	0.	5.86	444.	0.053	283	0.	4.67	354.	0.042	265	0.	4.37	332.	0.039
304	3.14	3.14	401	0.	6.62	502.	0.060	320	0.	5.28	400.	0.048	299	0.	4.94	375.	0.045
305	3.14	3.14	240	0.	3.97	301.	0.036	191	0.	3.16	239.	0.028	179	0.	2.95	224.	0.027
306	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
307	3.14	3.14	201	0.	3.31	259.	0.032	158	0.	2.61	204.	0.025	148	0.	2.43	190.	0.023
308	3.14	3.14	492	0.	8.12	616.	0.073	396	0.	6.54	496.	0.059	372	0.	6.15	466.	0.055
309	3.14	3.14	507	0.	8.37	635.	0.075	402	0.	6.63	503.	0.060	376	0.	6.21	471.	0.056
310	3.14	3.14	627	0.	10.36	786.	0.093	500	0.	8.25	626.	0.074	468	0.	7.72	586.	0.070
311	3.14	3.14	448	0.	7.40	562.	0.067	357	0.	5.89	447.	0.053	334	0.	5.52	418.	0.050
312	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
313	3.14	3.14	0.	6	0.00	96.	0.023	0.	5	0.00	74.	0.017	0.	4	0.00	69.	0.016
314	3.14	3.14	486	0.	8.03	609.	0.072	388	0.	6.40	486.	0.058	363	0.	5.99	455.	0.054
315	3.14	3.14	662	0.	10.92	829.	0.098	531	0.	8.76	664.	0.079	498	0.	8.22	623.	0.074
316	3.14	3.14	671	0.	11.08	841.	0.100	536	0.	8.85	671.	0.080	502	0.	8.29	629.	0.075
317	3.14	3.14	298	0.	4.92	373.	0.044	238	0.	3.93	298.	0.035	223	0.	3.68	279.	0.033
318	3.14	3.14	0.	2	0.00	28.	0.006	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
319	3.14	3.14	0.	6	0.00	99.	0.023	0.	5	0.00	77.	0.018	0.	4	0.00	71.	0.017
320	3.14	3.14	512	0.	8.46	641.	0.076	409	0.	6.75	512.	0.061	383	0.	6.33	480.	0.057
321	3.14	3.14	661	0.	10.91	827.	0.098	530	0.	8.75	663.	0.079	497	0.	8.21	623.	0.074
322	3.14	3.14	642	0.	10.60	804.	0.096	513	0.	8.48	643.	0.076	481	0.	7.94	603.	0.072
323	3.14	3.14	217	0.	3.59	272.	0.032	174	0.	2.88	218.	0.026	164	0.	2.70	205.	0.024
324	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
325	3.14	3.14	174	1	2.86	226.	0.028	136	0.	2.25	177.	0.022	127	0.	2.09	165.	0.020
326	3.14	3.14	496	0.	8.19	621.	0.074	400	0.	6.60	501.	0.060	376	0.	6.20	471.	0.056
327	3.14	3.14	505	0.	8.33	632.	0.075	400	0.	6.60	501.	0.060	375	0.	6.19	469.	0.056
328	3.14	3.14	626	0.	10.33	783.	0.093	498	0.	8.22	624.	0.074	466	0.	7.70	584.	0.069
329	3.14	3.14	448	0.	7.40	561.	0.067	356	0.	5.88	446.	0.053	333	0.	5.50	417.	0.050
330	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
331	3.14	3.14	166	0.	2.74	208.	0.025	134	0.	2.22	168.	0.020	127	0.	2.09	159.	0.019
332	3.14	3.14	325	0.	5.37	407.	0.048	263	0.	4.34	329.	0.039	247	0.	4.08	309.	0.037
333	3.14	3.14	353	0.	5.84	443.	0.053	282	0.	4.65	353.	0.042	264	0.	4.36	330.	0.039
334	3.14	3.14	401	0.	6.62	502.	0.060	319	0.	5.27	400.	0.048	299	0.	4.93	374.	0.044
335	3.14	3.14	241	0.	3.98	302.	0.036	191	0.	3.16	239.	0.028	179	0.	2.95	224.	0.027
336	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
337	3.14	3.14	108	0.	1.78	135.	0.016	90	0.	1.48	113.	0.013	85	0.	1.41	107.	0.013
338	3.14	3.14	238	0.	3.94	298.	0.035	193	0.	3.19	242.	0.029	182	0.	3.01	228.	0.027
339	3.14	3.14	301	0.	4.97	377.	0.045	243	0.	4.01	304.	0.036	228	0.	3.77	286.	0.034
340	3.14	3.14	242	0.	3.99	303.	0.036	194	0.	3.20	243.	0.029	183	0.	3.02	229.	0.027
341	3.14	3.14	61	0.	1.00	76.	0.009	52	0.	0.85	65.	0.008	49	0.	0.82	62.	0.007
342	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
343	3.14	3.14	170	0.	2.81	220.	0.027	139	0.	2.29	180.	0.022	131	0.	2.17	170.	0.021
344	3.14	3.14	352	0.	5.82	441.	0.052	288	0.	4.76	361.	0.043	272	0.	4.49	341.	0.041
345	3.14	3.14	353	0.	5.83	442.	0.053	288	0.	4.76	361.	0.043	272	0.	4.50	341.	0.041
346	3.14	3.14	379	0.	6.26	475.	0.056	307	0.	5.08	385.	0.046	289	0.	4.78	363.	0.043
347	3.14	3.14	240	0.	3.97	301.	0.036	196	0.	3.23	245.	0.029	184	0.	3.04	231.	0.027
348	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
349	3.14	3.14	111	4	1.63	209.	0.032	83	3	1.22	161.	0.024	77	3	1.11	148.	0.023
350	3.14	3.14	430	0.	7.10	539.	0.064	352	0.	5.82	441.	0.052	333	0.	5.50	417.	0.050
351	3.14	3.14	451	0.	7.44	565.	0.067	370	0.	6.11	463.	0.055	350	0.	5.78	438.	0.052

352	3.14	3.14	491	0.	8.11	615.	0.073	399	0.	6.59	500.	0.059	376	0.	6.21	471.	0.056
353	3.14	3.14	305	0.	5.04	382.	0.045	249	0.	4.11	312.	0.037	235	0.	3.87	294.	0.035
354	3.14	3.14	0.	1	0.00	22.	0.005	0.	1	0.00	17.	0.004	0.	1	0.00	16.	0.004
355	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
356	3.14	3.14	272	0.	4.50	341.	0.041	217	0.	3.59	272.	0.032	203	0.	3.36	255.	0.030
357	3.14	3.14	831	0.	13.72	1041.	0.124	660	0.	10.90	827.	0.098	618	0.	10.20	773.	0.092
358	3.14	3.14	817	0.	13.48	1023.	0.122	647	0.	10.69	810.	0.096	605	0.	9.99	757.	0.090
359	3.14	3.14	337	0.	5.56	422.	0.050	268	0.	4.42	336.	0.040	251	0.	4.14	314.	0.037
360	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
361	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
362	3.14	3.14	477	0.	7.88	598.	0.071	379	0.	6.26	475.	0.056	355	0.	5.86	444.	0.053
363	3.14	3.14	692	0.	11.43	867.	0.103	550	0.	9.07	688.	0.082	514	0.	8.49	644.	0.077
364	3.14	3.14	673	0.	11.11	843.	0.100	535	0.	8.83	670.	0.080	500	0.	8.26	627.	0.075
365	3.14	3.14	487	0.	8.04	609.	0.072	387	0.	6.38	484.	0.058	362	0.	5.97	453.	0.054
366	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
367	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
368	3.14	3.14	266	0.	4.39	333.	0.040	212	0.	3.49	265.	0.031	198	0.	3.27	248.	0.029
369	3.14	3.14	435	0.	7.18	545.	0.065	346	0.	5.72	434.	0.052	324	0.	5.35	406.	0.048
370	3.14	3.14	426	0.	7.03	533.	0.063	339	0.	5.60	425.	0.050	317	0.	5.24	398.	0.047
371	3.14	3.14	276	0.	4.56	346.	0.041	220	0.	3.62	275.	0.033	205	0.	3.39	257.	0.031
372	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
373	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
374	3.14	3.14	116	0.	1.91	145.	0.017	95	0.	1.56	118.	0.014	89	0.	1.47	112.	0.013
375	3.14	3.14	310	0.	5.12	389.	0.046	249	0.	4.11	312.	0.037	234	0.	3.86	293.	0.035
376	3.14	3.14	318	0.	5.25	398.	0.047	255	0.	4.21	319.	0.038	239	0.	3.95	300.	0.036
377	3.14	3.14	137	0.	2.26	172.	0.020	111	0.	1.83	139.	0.017	105	0.	1.73	131.	0.016
378	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
379	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
380	3.14	3.14	286	0.	4.72	358.	0.043	232	0.	3.82	290.	0.034	218	0.	3.60	273.	0.032
381	3.14	3.14	446	0.	7.36	558.	0.066	359	0.	5.93	450.	0.053	337	0.	5.57	423.	0.050
382	3.14	3.14	441	0.	7.29	553.	0.066	356	0.	5.87	445.	0.053	334	0.	5.52	418.	0.050
383	3.14	3.14	299	0.	4.94	375.	0.045	242	0.	3.99	303.	0.036	227	0.	3.75	285.	0.034
384	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
385	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000
386	3.14	3.14	325	0.	5.36	407.	0.048	268	0.	4.42	335.	0.040	254	0.	4.19	318.	0.038
387	3.14	3.14	576	0.	9.51	721.	0.086	465	0.	7.68	583.	0.069	438	0.	7.22	548.	0.065
388	3.14	3.14	573	0.	9.47	718.	0.085	463	0.	7.64	580.	0.069	435	0.	7.19	545.	0.065
389	3.14	3.14	325	0.	5.36	407.	0.048	265	0.	4.38	332.	0.039	250	0.	4.13	313.	0.037
390	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
391	3.14	3.14	0.	2	0.00	26.	0.006	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
392	3.14	3.14	453	0.	7.47	567.	0.067	367	0.	6.06	460.	0.055	346	0.	5.71	433.	0.051
393	3.14	3.14	514	0.	8.49	644.	0.077	416	0.	6.87	521.	0.062	391	0.	6.46	490.	0.058
394	3.14	3.14	349	0.	5.77	438.	0.052	285	0.	4.71	357.	0.042	269	0.	4.44	337.	0.040
395	3.14	3.14	0.	-1	0.03	0.	0.000	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000
396	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
397	3.14	3.14	360	0.	5.95	451.	0.054	291	0.	4.81	365.	0.043	274	0.	4.53	344.	0.041
398	3.14	3.14	395	0.	6.53	495.	0.059	318	0.	5.26	399.	0.047	299	0.	4.94	374.	0.045
399	3.14	3.14	321	0.	5.30	402.	0.048	260	0.	4.29	326.	0.039	245	0.	4.04	307.	0.036
400	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
401	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
402	3.14	3.14	212	0.	3.50	265.	0.032	171	0.	2.83	215.	0.026	161	0.	2.66	202.	0.024
403	3.14	3.14	312	0.	5.16	391.	0.047	250	0.	4.13	313.	0.037	235	0.	3.87	294.	0.035
404	3.14	3.14	158	0.	2.61	198.	0.024	129	0.	2.13	161.	0.019	121	0.	2.00	152.	0.018
405	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
406	3.14	3.14	10	0.	0.16	12.	0.001	8	0.	0.13	10.	0.001	7	0.	0.12	9.	0.001
407	3.14	3.14	389	0.	6.43	488.	0.058	309	0.	5.10	387.	0.046	289	0.	4.77	362.	0.043
408	3.14	3.14	400	0.	6.61	501.	0.060	318	0.	5.26	399.	0.047	298	0.	4.92	373.	0.044
409	3.14	3.14	327	0.	5.41	410.	0.049	261	0.	4.30	326.	0.039	244	0.	4.03	305.	0.036
410	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
411	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
412	3.14	3.14	602	0.	9.94	754.	0.090	477	0.	7.88	597.	0.071	446	0.	7.36	558.	0.066
413	3.14	3.14	587	0.	9.69	735.	0.087	465	0.	7.69	583.	0.069	435	0.	7.18	545.	0.065
414	3.14	3.14	583	0.	9.62	730.	0.087	463	0.	7.65	580.	0.069	433	0.	7.16	543.	0.065
415	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
416	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
417	3.14	3.14	472	0.	7.79	591.	0.070	375	0.	6.19	469.	0.056	350	0.	5.78	439.	0.052
418	3.14	3.14	886	0.	14.63	1110.	0.132	700	0.	11.56	877.	0.104	654	0.	10.80	819.	0.097
419	3.14	3.14	815	0.	13.46	1021.	0.121	647	0.	10.68	810.	0.096	605	0.	9.99	758.	0.090
420	3.14	3.14	424	0.	7.01	531.	0.063	338	0.	5.58	423.	0.050	316	0.	5.22	396.	0.047
421	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	-1.	0.000	0.	-1	0.03	0.	0.000
422	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.001
423	3.14	3.14	273	0.	4.51	342.	0.041	218	0.	3.60	273.	0.032	204	0.	3.37	255.	0.030
424	3.14	3.14	757	0.	12.50	948.	0.113	602	0.	9.95	754.	0.090	564	0.	9.31	706.	0.084
425	3.14	3.14	776	0.	12.80	971.	0.115	619	0.	10.22	775.	0.092	580	0.	9.57	726.	0.086
426	3.14	3.14	434	0.	7.17	543.	0.065	345	0.	5.70	432.	0.051	323	0.	5.33	404.	0.048
427	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
428	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
429	3.14	3.14	472	0.	7.79	591.	0.070	375	0.	6.19	470.	0.056	351	0.	5.79	440.	0.052
430	3.14	3.14	659	0.	10.89	826.	0.098	525	0.	8.66	657.	0.078	491	0.	8.10	615.	0.073
431	3.14	3.14	639	0.	10.55	800.	0.095	510	0.	8.42	639.	0.076	478	0.	7.89	598.	0.071
432	3.14	3.14	516	0.	8.51	646.	0.077	412	0.	6.80	516.	0.061	386	0.	6.37	483.	0.057
433	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
434	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
435	3.14	3.14	260	0.	4.30	326.	0.039	207	0.	3.42	259.	0.031	194	0.	3.20	243.	0.029
436	3.14	3.14	411	0.	6.79	515.	0.061	328	0.	5.41	411.	0.049	307	0.	5.07	385.	0.046
437	3.14	3.14	413	0.	6.81	517.	0.061	330	0.	5.44	413.	0.049	309	0.	5.10	387.	0.046
438	3.14	3.14	311	0.	5.13	389.	0.046	248	0.	4.10	311.	0.037	233	0.	3.84	291.	0.035
439	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
440	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
441	3.14	3.14	109	0.	1.81	137.	0.016	90	0.	1.48	112.	0.013	85	0.	1.40	106.	0.013
442	3.14	3.14	292	0.	4.82	365.	0.043	235	0.	3.88	294.	0.035	221	0.	3.64	276.	0.033
443	3.14	3.14	303	0.	5.01	380.	0.045	243	0.	4.01	304.	0.036	228	0.	3.76	285.	0.034
444	3.14	3.14	164	0.	2.71	205.	0.024	133	0.	2.20	167.	0.020	126	0.	2.08	157.	0.019
445	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
446	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
447	3.14	3.14	275	0.	4.55	345.	0.041	223	0.	3.69	280.	0.033	210	0.	3.47	263.	0.031
448	3.14	3.14	421	0.	6.95	527.	0.063	340	0.	5.61	425.	0.051	319	0.	5.27	400.	0.048
449	3.14	3.14	408	0.	6.74	511.	0.061	331	0.	5.46	414.	0.049	311	0.	5.14	390.	0.046
450	3.14	3.14	324	0.	5.35	406.	0.048	263	0.	4.34	329.	0.039	248	0.	4.09	310.	0.037
451	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001
452	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
453	3.14	3.14	300	0.	4.95	376.	0.045	246	0.	4.07	309.	0.037	233	0.	3.85	292.	0.035
454	3.14	3.14	539	0.	8.89	674.	0.080	436	0.	7.20	546.	0.065	410	0.	6.78	514.	0.061
455	3.14	3.14	531	0.	8.77	666.	0.079	431	0.	7.12	540.	0.064	406	0.	6.71	509.	0.060
456	3.14	3.14	392	0.	6.47	491.	0.058	318	0.	5.26	399.	0.047	300	0.	4.95	376.	0.045
457	3.14	3.14	0.	2	0.00	38.	0.009	0.	2	0.00	30.	0.007	0.	2	0.00	28.	0.007
458	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
459	3.14	3.14	262	0.	4.33	329.	0.039	213	0.	3.51	266.	0.032	200	0.	3.31	251.	0.030
460	3.14	3.14	286	0.	4.73	359.	0.043	234	0.	3.87	293.	0.035	221	0.	3.65	277.	0.033
461	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
462	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
463	3.14	3.14	53	0.	0.87	66.	0.008	40	0.	0.66	50.	0.006	36	0.	0.60	46.	0.005

464	3.14	3.14	288	0.	4.76	361.	0.043	233	0.	3.85	292.	0.035	220	0.	3.62	275.	0.033
465	3.14	3.14	186	0.	3.07	233.	0.028	152	0.	2.51	190.	0.023	144	0.	2.37	180.	0.021
466	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
467	3.14	3.14	144	0.	2.37	180.	0.021	115	0.	1.90	144.	0.017	108	0.	1.79	136.	0.016
468	3.14	3.14	104	0.	1.72	130.	0.016	82	0.	1.35	103.	0.012	76	0.	1.26	96.	0.011
469	3.14	3.14	294	0.	4.85	368.	0.044	237	0.	3.91	297.	0.035	223	0.	3.68	279.	0.033
470	3.14	3.14	185	0.	3.06	232.	0.028	149	0.	2.45	186.	0.022	139	0.	2.30	175.	0.021
471	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
472	3.14	3.14	322	0.	5.31	403.	0.048	258	0.	4.26	323.	0.038	242	0.	3.99	303.	0.036
473	3.14	3.14	349	0.	5.76	437.	0.052	279	0.	4.61	350.	0.042	262	0.	4.32	328.	0.039
474	3.14	3.14	404	0.	6.67	506.	0.060	322	0.	5.32	404.	0.048	302	0.	4.99	378.	0.045
475	3.14	3.14	317	0.	5.24	397.	0.047	253	0.	4.18	317.	0.038	237	0.	3.91	297.	0.035
476	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
477	3.14	3.14	294	0.	4.85	372.	0.045	235	0.	3.87	297.	0.036	220	0.	3.63	278.	0.033
478	3.14	3.14	613	0.	10.13	768.	0.091	489	0.	8.08	613.	0.073	458	0.	7.57	574.	0.068
479	3.14	3.14	638	0.	10.53	799.	0.095	508	0.	8.39	637.	0.076	476	0.	7.86	596.	0.071
480	3.14	3.14	535	0.	8.83	670.	0.080	426	0.	7.03	533.	0.063	399	0.	6.58	499.	0.059
481	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
482	3.14	3.14	0.	2	0.00	38.	0.009	0.	2	0.00	29.	0.007	0.	2	0.00	27.	0.006
483	3.14	3.14	504	0.	8.32	631.	0.075	399	0.	6.59	500.	0.059	373	0.	6.15	467.	0.055
484	3.14	3.14	729	0.	12.04	913.	0.109	581	0.	9.59	727.	0.086	544	0.	8.98	681.	0.081
485	3.14	3.14	775	0.	12.79	970.	0.115	617	0.	10.19	773.	0.092	578	0.	9.54	723.	0.086
486	3.14	3.14	392	0.	6.47	491.	0.058	312	0.	5.16	391.	0.046	292	0.	4.83	366.	0.044
487	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
488	3.14	3.14	0.	-2	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000	0.	-1	0.04	-1.	0.000
489	3.14	3.14	299	0.	4.94	375.	0.045	240	0.	3.97	301.	0.036	226	0.	3.73	283.	0.034
490	3.14	3.14	539	0.	8.89	674.	0.080	430	0.	7.11	539.	0.064	403	0.	6.66	505.	0.060
491	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002
492	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
493	3.14	3.14	6	0.	0.10	6.	0.001	3	0.	0.05	2.	0.000	2	0.	0.04	1.	0.000
494	3.14	3.14	369	0.	6.10	463.	0.055	296	0.	4.88	370.	0.044	277	0.	4.58	347.	0.041
495	3.14	3.14	360	0.	5.95	451.	0.054	289	0.	4.77	362.	0.043	271	0.	4.48	340.	0.040
496	3.14	3.14	116	0.	1.91	146.	0.017	90	0.	1.49	114.	0.014	84	0.	1.38	106.	0.013
497	3.14	3.14	26	0.	0.42	32.	0.004	22	0.	0.37	28.	0.003	22	0.	0.36	27.	0.003
498	3.14	3.14	27	0.	0.45	34.	0.004	22	0.	0.36	27.	0.003	21	0.	0.34	26.	0.003
499	3.14	3.14	299	0.	4.94	375.	0.045	241	0.	3.98	302.	0.036	227	0.	3.74	284.	0.034
500	3.14	3.14	243	0.	4.01	304.	0.036	195	0.	3.22	244.	0.029	183	0.	3.02	229.	0.027
501	3.14	3.14	90	0.	1.49	113.	0.013	71	0.	1.18	89.	0.011	67	0.	1.10	83.	0.010
502	3.14	3.14	227	0.	3.75	284.	0.034	184	0.	3.03	230.	0.027	173	0.	2.85	216.	0.026
503	3.14	3.14	201	0.	3.33	252.	0.030	165	0.	2.72	206.	0.024	155	0.	2.56	194.	0.023
504	3.14	3.14	281	0.	4.65	352.	0.042	228	0.	3.76	285.	0.034	214	0.	3.54	268.	0.032
505	3.14	3.14	308	0.	5.08	386.	0.046	248	0.	4.10	311.	0.037	233	0.	3.85	292.	0.035
506	3.14	3.14	157	0.	2.59	197.	0.023	127	0.	2.09	159.	0.019	119	0.	1.97	149.	0.018
507	3.14	3.14	219	0.	3.62	277.	0.033	177	0.	2.93	224.	0.027	167	0.	2.75	211.	0.025
508	3.14	3.14	397	0.	6.55	497.	0.059	322	0.	5.32	404.	0.048	304	0.	5.01	380.	0.045
509	3.14	3.14	382	0.	6.30	478.	0.057	311	0.	5.13	389.	0.046	293	0.	4.83	367.	0.044
510	3.14	3.14	422	0.	6.97	529.	0.063	343	0.	5.66	429.	0.051	323	0.	5.33	404.	0.048
511	3.14	3.14	126	0.	2.09	162.	0.020	103	0.	1.69	132.	0.016	97	0.	1.60	124.	0.015
512	3.14	3.14	0.	2	0.00	27.	0.006	0.	1	0.00	22.	0.005	0.	1	0.00	21.	0.005
513	3.14	3.14	355	0.	5.86	445.	0.053	288	0.	4.75	360.	0.043	271	0.	4.47	339.	0.040
514	3.14	3.14	528	0.	8.72	661.	0.079	429	0.	7.09	538.	0.064	405	0.	6.68	507.	0.060
515	3.14	3.14	519	0.	8.57	650.	0.077	423	0.	6.98	530.	0.063	399	0.	6.59	499.	0.059
516	3.14	3.14	470	0.	7.76	588.	0.070	382	0.	6.31	478.	0.057	360	0.	5.94	451.	0.054
517	3.14	3.14	0.	3	0.00	42.	0.010	0.	2	0.00	34.	0.008	0.	2	0.00	32.	0.007
518	3.14	3.14	0.	-1	0.02	0.	0.000	0.	-1	0.02	0.	0.000	0.	0.	0.02	0.	0.000
519	3.14	3.14	394	0.	6.51	494.	0.059	315	0.	5.20	394.	0.047	295	0.	4.87	370.	0.044
520	3.14	3.14	208	0.	3.43	260.	0.031	170	0.	2.80	212.	0.025	160	0.	2.64	200.	0.024
521	3.14	3.14	0.	-3	0.11	-2.	0.000	0.	-3	0.09	-1.	0.000	0.	-2	0.08	-1.	0.000
522	3.14	3.14	7	0.	0.12	10.	0.001	4	0.	0.06	5.	0.001	3	0.	0.05	4.	0.001
523	3.14	3.14	230	0.	3.80	288.	0.034	187	0.	3.08	234.	0.028	176	0.	2.90	220.	0.026
524	3.14	3.14	244	0.	4.02	305.	0.036	195	0.	3.23	245.	0.029	183	0.	3.03	230.	0.027
525	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
526	3.14	3.14	81	0.	1.33	101.	0.012	64	0.	1.06	80.	0.010	60	0.	0.99	75.	0.009
527	3.14	3.14	121	0.	2.00	152.	0.018	95	0.	1.58	120.	0.014	89	0.	1.47	111.	0.013
528	3.14	3.14	114	0.	1.89	143.	0.017	92	0.	1.51	115.	0.014	86	0.	1.42	108.	0.013
529	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
530	3.14	3.14	26	0.	0.44	33.	0.004	21	0.	0.34	26.	0.003	19	0.	0.32	24.	0.003
531	3.14	3.14	97	0.	1.60	122.	0.014	78	0.	1.28	97.	0.012	73	0.	1.20	91.	0.011
532	3.14	3.14	44	0.	0.72	55.	0.006	35	0.	0.58	44.	0.005	33	0.	0.55	42.	0.005
533	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
534	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
535	3.14	3.14	123	0.	2.02	154.	0.018	100	0.	1.65	125.	0.015	94	0.	1.56	118.	0.014
536	3.14	3.14	95	0.	1.57	119.	0.014	79	0.	1.30	99.	0.012	75	0.	1.24	94.	0.011
537	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
538	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.05	-1.	0.000
539	3.14	3.14	119	0.	1.96	149.	0.018	99	0.	1.63	124.	0.015	94	0.	1.55	118.	0.014
540	3.14	3.14	114	0.	1.88	142.	0.017	95	0.	1.57	119.	0.014	90	0.	1.49	113.	0.013
541	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.05	-1.	0.000
542	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
543	3.14	3.14	351	0.	5.80	440.	0.052	286	0.	4.72	358.	0.043	269	0.	4.45	337.	0.040
544	3.14	3.14	236	0.	3.90	296.	0.035	195	0.	3.22	244.	0.029	184	0.	3.05	231.	0.027
545	3.14	3.14	0.	-2	0.06	-1.	0.000	0.	-1	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000
546	3.14	3.14	139	0.	2.30	175.	0.021	112	0.	1.85	141.	0.017	105	0.	1.74	133.	0.016
547	3.14	3.14	269	0.	4.45	337.	0.040	219	0.	3.62	275.	0.033	207	0.	3.42	259.	0.031
548	3.14	3.14	225	0.	3.71	282.	0.033	183	0.	3.03	230.	0.027	173	0.	2.86	217.	0.026
549	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
550	3.14	3.14	147	0.	2.43	184.	0.022	118	0.	1.95	148.	0.018	111	0.	1.83	139.	0.017
551	3.14	3.14	198	0.	3.27	248.	0.029	160	0.	2.63	200.	0.024	150	0.	2.48	188.	0.022
552	3.14	3.14	113	0.	1.86	141.	0.017	93	0.	1.54	116.	0.014	88	0.	1.45	110.	0.013
553	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
554	3.14	3.14	177	0.	2.92	221.	0.026	141	0.	2.32	176.	0.021	132	0.	2.18	165.	0.020
555	3.14	3.14	229	0.	3.79	287.	0.034	185	0.	3.06	232.	0.028	174	0.	2.87	218.	0.026
556	3.14	3.14	199	0.	3.28	249.	0.030	159	0.	2.63	199.	0.024	149	0.	2.47	187.	0.022
557	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
558	3.14	3.14	142	0.	2.34	179.	0.021	111	0.	1.83	139.	0.017	103	0.	1.70	130.	0.015
559	3.14	3.14	397	0.	6.55	497.	0.059	319	0.	5.26	399.	0.047	299	0.	4.94	375.	0.045
560	3.14	3.14	385	0.	6.36	482.	0.057	308	0.	5.08	385.	0.046	288	0.	4.76	361.	0.043
561	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
562	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002
563	3.14	3.14	541	0.	8.94	678.	0.081	432	0.	7.13	541.	0.064	405	0.	6.68	507.	0.060
564	3.14	3.14	334	0.	5.52	419.	0.050	269	0.	4.44	337.	0.040	253	0.	4.18	317.	0.038
565	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
566	3.14	3.14	0.	-1	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
567	3.14	3.14	395	0.	6.52	494.	0.059	315	0.	5.21	395.	0.047	295	0.	4.88	370.	0.044
568	3.14	3.14	182	0.	3.00	228.	0.027	149	0.	2.47	187.	0.022	141	0.	2.33	177.	0.021
569	3.14	3.14	0.	-3	0.11	-2.	0.000	0.	-3	0.09	-1.	0.000	0.	-2	0.08	-1.	0.000
570	3.14	3.14	7	0.	0.12	10.	0.001	4	0.	0.06	5.	0.001	3	0.	0.05	4.	0.001
571	3.14	3.14	242	0.	3.99	303.	0.036	196	0.	3.23	245.	0.029	184	0.	3.04	231.	0.027
572	3.14	3.14	239	0.	3.95	299.	0.036	192	0.	3.17	240.	0.029	180	0.	2.97	225.	0.027
573	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
574	3.14	3.14	101	0.	1.68	127.	0.015	80	0.	1.33	101.	0.012	75	0.	1.24	94.	0.011
575	3.14	3.14	138	0.	2.29	173.	0.021	109	0.	1.81	137.	0.016	102	0.	1.69	128.	0.015

576	3.14	3.14	104	0.	1.72	130.	0.015	84	0.	1.38	105.	0.012	79	0.	1.30	99.	0.012
577	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
578	3.14	3.14	115	0.	1.90	144.	0.017	91	0.	1.51	115.	0.014	85	0.	1.41	107.	0.013
579	3.14	3.14	130	0.	2.15	163.	0.019	105	0.	1.73	132.	0.016	99	0.	1.63	124.	0.015
580	3.14	3.14	54	0.	0.90	68.	0.008	46	0.	0.75	57.	0.007	43	0.	0.71	54.	0.006
581	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
582	3.14	3.14	57	0.	0.94	72.	0.009	45	0.	0.75	57.	0.007	42	0.	0.70	53.	0.006
583	3.14	3.14	176	0.	2.91	220.	0.026	144	0.	2.37	180.	0.021	136	0.	2.24	170.	0.020
584	3.14	3.14	146	0.	2.42	183.	0.022	119	0.	1.97	150.	0.018	113	0.	1.86	141.	0.017
585	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
586	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
587	3.14	3.14	246	0.	4.06	308.	0.037	201	0.	3.31	251.	0.030	189	0.	3.13	237.	0.028
588	3.14	3.14	142	0.	2.35	178.	0.021	118	0.	1.96	148.	0.018	112	0.	1.86	141.	0.017
589	3.14	3.14	0.	-2	0.07	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.05	-1.	0.000
590	3.14	3.14	0.	3	0.00	42.	0.010	0.	2	0.00	33.	0.008	0.	2	0.00	31.	0.007
591	3.14	3.14	396	0.	6.54	496.	0.059	323	0.	5.33	404.	0.048	304	0.	5.02	381.	0.045
592	3.14	3.14	524	0.	8.65	656.	0.078	426	0.	7.03	533.	0.063	401	0.	6.63	503.	0.060
593	3.14	3.14	522	0.	8.62	654.	0.078	424	0.	7.01	531.	0.063	400	0.	6.60	501.	0.060
594	3.14	3.14	400	0.	6.60	501.	0.060	325	0.	5.37	408.	0.048	307	0.	5.07	384.	0.046
595	3.14	3.14	0.	3	0.00	48.	0.011	0.	2	0.00	38.	0.009	0.	2	0.00	35.	0.008
596	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
597	3.14	3.14	331	0.	5.47	415.	0.049	269	0.	4.45	337.	0.040	254	0.	4.19	318.	0.038
598	3.14	3.14	413	0.	6.83	518.	0.062	335	0.	5.53	419.	0.050	315	0.	5.20	395.	0.047
599	3.14	3.14	409	0.	6.75	512.	0.061	331	0.	5.47	415.	0.049	312	0.	5.15	391.	0.046
600	3.14	3.14	329	0.	5.43	412.	0.049	267	0.	4.41	335.	0.040	252	0.	4.16	316.	0.038
601	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
602	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
603	3.14	3.14	166	0.	2.74	208.	0.025	136	0.	2.24	170.	0.020	128	0.	2.11	160.	0.019
604	3.14	3.14	306	0.	5.05	383.	0.046	247	0.	4.07	309.	0.037	232	0.	3.83	290.	0.034
605	3.14	3.14	300	0.	4.95	376.	0.045	242	0.	4.00	303.	0.036	228	0.	3.76	285.	0.034
606	3.14	3.14	161	0.	2.66	202.	0.024	132	0.	2.17	165.	0.020	124	0.	2.05	156.	0.018
607	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
608	3.14	3.14	22	0.	0.36	27.	0.003	19	0.	0.31	23.	0.003	18	0.	0.30	22.	0.003
609	3.14	3.14	328	0.	5.42	411.	0.049	262	0.	4.33	329.	0.039	246	0.	4.06	308.	0.037
610	3.14	3.14	415	0.	6.85	520.	0.062	332	0.	5.48	415.	0.049	311	0.	5.13	389.	0.046
611	3.14	3.14	418	0.	6.91	524.	0.062	334	0.	5.52	419.	0.050	313	0.	5.17	392.	0.047
612	3.14	3.14	322	0.	5.31	403.	0.048	257	0.	4.24	322.	0.038	241	0.	3.98	302.	0.036
613	3.14	3.14	1	0.	0.02	2.	0.000	3	0.	0.05	4.	0.000	3	0.	0.06	4.	0.001
614	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
615	3.14	3.14	548	0.	9.05	686.	0.082	437	0.	7.22	548.	0.065	410	0.	6.76	513.	0.061
616	3.14	3.14	632	0.	10.44	792.	0.094	505	0.	8.33	632.	0.075	473	0.	7.80	592.	0.070
617	3.14	3.14	635	0.	10.49	796.	0.095	507	0.	8.37	635.	0.075	475	0.	7.84	595.	0.071
618	3.14	3.14	536	0.	8.85	671.	0.080	428	0.	7.06	536.	0.064	401	0.	6.62	502.	0.060
619	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
620	3.14	3.14	0.	4	0.00	67.	0.016	0.	3	0.00	52.	0.012	0.	3	0.00	48.	0.011
621	3.14	3.14	416	0.	6.87	521.	0.062	331	0.	5.47	415.	0.049	310	0.	5.12	389.	0.046
622	3.14	3.14	735	0.	12.14	921.	0.109	587	0.	9.68	735.	0.087	549	0.	9.07	688.	0.082
623	3.14	3.14	741	0.	12.24	928.	0.110	591	0.	9.76	740.	0.088	554	0.	9.14	693.	0.082
624	3.14	3.14	454	0.	7.49	568.	0.068	362	0.	5.97	453.	0.054	339	0.	5.59	424.	0.050
625	3.14	3.14	0.	3	0.00	49.	0.011	0.	2	0.00	37.	0.009	0.	2	0.00	35.	0.008
626	3.14	3.14	0.	4	0.00	67.	0.016	0.	3	0.00	52.	0.012	0.	3	0.00	48.	0.011
627	3.14	3.14	478	0.	7.90	599.	0.071	381	0.	6.29	477.	0.057	357	0.	5.89	446.	0.053
628	3.14	3.14	746	0.	12.31	934.	0.111	595	0.	9.82	745.	0.089	557	0.	9.20	698.	0.083
629	3.14	3.14	730	0.	12.05	914.	0.109	582	0.	9.62	729.	0.087	545	0.	9.01	683.	0.081
630	3.14	3.14	390	0.	6.44	489.	0.058	311	0.	5.14	390.	0.046	292	0.	4.82	365.	0.043
631	3.14	3.14	0.	3	0.00	49.	0.011	0.	2	0.00	38.	0.009	0.	2	0.00	35.	0.008
632	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
633	3.14	3.14	552	0.	9.12	692.	0.082	441	0.	7.28	552.	0.066	413	0.	6.82	517.	0.061
634	3.14	3.14	636	0.	10.50	797.	0.095	508	0.	8.38	636.	0.076	476	0.	7.85	596.	0.071
635	3.14	3.14	632	0.	10.43	791.	0.094	504	0.	8.32	631.	0.075	472	0.	7.79	591.	0.070
636	3.14	3.14	532	0.	8.79	666.	0.079	425	0.	7.01	532.	0.063	398	0.	6.57	498.	0.059
637	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
638	3.14	3.14	28	0.	0.46	35.	0.004	24	0.	0.39	30.	0.004	23	0.	0.37	28.	0.003
639	3.14	3.14	336	0.	5.55	421.	0.050	268	0.	4.43	336.	0.040	252	0.	4.15	315.	0.037
640	3.14	3.14	419	0.	6.91	524.	0.062	335	0.	5.52	419.	0.050	314	0.	5.18	393.	0.047
641	3.14	3.14	415	0.	6.84	519.	0.062	331	0.	5.47	415.	0.049	310	0.	5.12	389.	0.046
642	3.14	3.14	318	0.	5.25	398.	0.047	254	0.	4.19	318.	0.038	238	0.	3.93	298.	0.035
643	3.14	3.14	0.	0.	0.00	0.	0.000	1	0.	0.02	1.	0.000	1	0.	0.02	2.	0.000
644	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
645	3.14	3.14	177	0.	2.93	222.	0.026	145	0.	2.39	181.	0.022	136	0.	2.25	171.	0.020
646	3.14	3.14	305	0.	5.03	381.	0.045	246	0.	4.05	308.	0.037	231	0.	3.81	289.	0.034
647	3.14	3.14	295	0.	4.87	369.	0.044	237	0.	3.91	296.	0.035	222	0.	3.66	278.	0.033
648	3.14	3.14	145	0.	2.40	182.	0.022	119	0.	1.96	149.	0.018	112	0.	1.85	141.	0.017
649	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
650	3.14	3.14	13	0.	0.21	20.	0.003	12	0.	0.19	18.	0.002	12	0.	0.19	17.	0.002
651	3.14	3.14	346	0.	5.72	434.	0.052	282	0.	4.65	353.	0.042	265	0.	4.38	332.	0.039
652	3.14	3.14	408	0.	6.74	511.	0.061	331	0.	5.46	414.	0.049	312	0.	5.14	390.	0.046
653	3.14	3.14	375	0.	6.20	470.	0.056	304	0.	5.02	381.	0.045	286	0.	4.72	358.	0.043
654	3.14	3.14	289	0.	4.78	362.	0.043	235	0.	3.88	294.	0.035	221	0.	3.66	277.	0.033
655	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
656	3.14	3.14	0.	3	0.00	42.	0.010	0.	2	0.00	33.	0.008	0.	2	0.00	31.	0.007
657	3.14	3.14	433	0.	7.15	542.	0.064	356	0.	5.87	446.	0.053	336	0.	5.55	421.	0.050
658	3.14	3.14	499	0.	8.24	625.	0.074	407	0.	6.72	509.	0.061	384	0.	6.34	481.	0.057
659	3.14	3.14	436	0.	7.19	546.	0.065	353	0.	5.83	442.	0.053	332	0.	5.49	416.	0.049
660	3.14	3.14	297	0.	4.91	372.	0.044	242	0.	3.99	303.	0.036	228	0.	3.76	285.	0.034
661	3.14	3.14	0.	3	0.00	46.	0.011	0.	2	0.00	36.	0.009	0.	2	0.00	34.	0.008
662	3.14	3.14	0.	-2	0.08	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.06	-1.	0.000
663	3.14	3.14	236	0.	3.90	295.	0.035	194	0.	3.21	243.	0.029	184	0.	3.04	230.	0.027
664	3.14	3.14	421	0.	6.95	527.	0.063	340	0.	5.62	426.	0.051	320	0.	5.28	401.	0.048
665	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
666	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
667	3.14	3.14	284	0.	4.69	356.	0.042	229	0.	3.78	286.	0.034	215	0.	3.55	269.	0.032
668	3.14	3.14	239	0.	3.95	300.	0.036	198	0.	3.27	248.	0.030	188	0.	3.11	236.	0.028
669	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
670	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
671	3.14	3.14	132	0.	2.17	165.	0.020	107	0.	1.76	133.	0.016	100	0.	1.66	126.	0.015
672	3.14	3.14	155	0.	2.55	194.	0.023	123	0.	2.04	155.	0.018	116	0.	1.91	145.	0.017
673	3.14	3.14	60	0.	0.99	75.	0.009	51	0.	0.85	64.	0.008	49	0.	0.81	62.	0.007
674	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
675	3.14	3.14	51	0.	0.84	64.	0.008	44	0.	0.73	55.	0.007	42	0.	0.70	53.	0.006
676	3.14	3.14	129	0.	2.13	162.	0.019	105	0.	1.74	132.	0.016	100	0.	1.64	125.	0.015
677	3.14	3.14	84	0.	1.39	105.	0.013	68	0.	1.13	86.	0.010	65	0.	1.07	81.	0.010
678	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
679	3.14	3.14	147	0.	2.43	184.	0.022	121	0.	2.00	152.	0.018	115	0.	1.89	143.	0.017
680	3.14	3.14	162	0.	2.68	203.	0.024	135	0.	2.22	169.	0.020	128	0.	2.11	160.	0.019
681	3.14	3.14	38	0.	0.63	49.	0.006	33	0.	0.54	42.	0.005	31	0.	0.52	40.	0.005
682	3.14	3.14	0.	-2	0.08	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.06	-1.	0.000
683	3.14	3.14	114	0.	1.88	143.	0.017	97	0.	1.60	122.	0.014	93	0.	1.53	116.	0.014
684	3.14	3.14	233	0.	3.86	292.	0.035	192	0.	3.17	240.	0.029	181	0.	2.99	227.	0.027
685	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
686	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	11.	0.003	0.	1	0.00	10.	0.002
687	3.14	3.14	272	0.	4.49	341.	0.041	224	0.	3.70	280.	0.033	212	0.	3.50	265.	0.032

688	3.14	3.14	154	0.	2.54	192.	0.023	130	0.	2.15	163.	0.019	124	0.	2.05	155.	0.018
689	3.14	3.14	0.	-3	0.08	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.06	-1.	0.000
690	3.14	3.14	55	0.	0.91	70.	0.008	47	0.	0.78	60.	0.007	45	0.	0.75	58.	0.007
691	3.14	3.14	177	0.	2.92	222.	0.026	148	0.	2.44	185.	0.022	141	0.	2.32	176.	0.021
692	3.14	3.14	169	0.	2.80	212.	0.025	139	0.	2.30	175.	0.021	132	0.	2.18	165.	0.020
693	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
694	3.14	3.14	93	0.	1.54	116.	0.014	76	0.	1.26	95.	0.011	72	0.	1.19	90.	0.011
695	3.14	3.14	136	0.	2.25	171.	0.020	112	0.	1.85	140.	0.017	106	0.	1.75	133.	0.016
696	3.14	3.14	64	0.	1.06	80.	0.010	55	0.	0.91	69.	0.008	53	0.	0.87	66.	0.008
697	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
698	3.14	3.14	64	0.	1.06	81.	0.010	55	0.	0.91	69.	0.008	53	0.	0.87	66.	0.008
699	3.14	3.14	159	0.	2.62	199.	0.024	127	0.	2.09	159.	0.019	119	0.	1.96	149.	0.018
700	3.14	3.14	134	0.	2.22	168.	0.020	109	0.	1.80	136.	0.016	102	0.	1.69	128.	0.015
701	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
702	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
703	3.14	3.14	242	0.	4.00	303.	0.036	200	0.	3.31	251.	0.030	190	0.	3.14	238.	0.028
704	3.14	3.14	285	0.	4.71	357.	0.042	230	0.	3.80	288.	0.034	216	0.	3.57	271.	0.032
705	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
706	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
707	3.14	3.14	421	0.	6.95	527.	0.063	340	0.	5.61	426.	0.051	320	0.	5.28	401.	0.048
708	3.14	3.14	205	0.	3.39	257.	0.031	171	0.	2.82	214.	0.025	162	0.	2.67	203.	0.024
709	3.14	3.14	0.	-2	0.08	-1.	0.000	0.	-2	0.06	-1.	0.000	0.	-2	0.06	-1.	0.000
710	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
711	3.14	3.14	152	0.	2.51	190.	0.023	119	0.	1.96	149.	0.018	111	0.	1.83	139.	0.016
712	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
713	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
714	3.14	3.14	186	0.	3.07	233.	0.028	143	0.	2.36	179.	0.021	132	0.	2.18	166.	0.020
715	3.14	3.14	12	0.	0.20	18.	0.002	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
716	3.14	3.14	72	0.	1.18	90.	0.011	55	0.	0.91	69.	0.008	51	0.	0.84	64.	0.008
717	3.14	3.14	112	0.	1.85	140.	0.017	86	0.	1.43	108.	0.013	80	0.	1.32	100.	0.012
718	3.14	3.14	66	0.	1.09	82.	0.010	48	0.	0.80	61.	0.007	44	0.	0.73	55.	0.007
719	3.14	3.14	36	0.	0.59	45.	0.005	30	0.	0.49	37.	0.004	28	0.	0.46	35.	0.004
720	3.14	3.14	47	0.	0.77	59.	0.007	38	0.	0.62	47.	0.006	35	0.	0.58	44.	0.005
721	3.14	3.14	26	0.	0.43	32.	0.004	18	0.	0.31	23.	0.003	17	0.	0.27	21.	0.002
722	3.14	3.14	8	0.	0.12	10.	0.001	6	0.	0.09	7.	0.001	5	0.	0.08	7.	0.001
723	3.14	3.14	115	0.	1.90	144.	0.017	90	0.	1.49	113.	0.013	84	0.	1.39	106.	0.013
724	3.14	3.14	20	0.	0.34	28.	0.003	12	0.	0.20	17.	0.002	10	0.	0.16	14.	0.002
725	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
726	3.14	3.14	107	0.	1.77	134.	0.016	84	0.	1.39	106.	0.013	79	0.	1.30	99.	0.012
727	3.14	3.14	0.	1	0.00	23.	0.005	0.	1	0.00	19.	0.004	0.	1	0.00	18.	0.004
728	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
729	3.14	3.14	139	0.	2.30	174.	0.021	110	0.	1.81	137.	0.016	102	0.	1.69	128.	0.015
730	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
731	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
732	3.14	3.14	185	0.	3.05	231.	0.028	142	0.	2.35	178.	0.021	131	0.	2.17	165.	0.020
733	3.14	3.14	12	0.	0.20	18.	0.002	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
734	3.14	3.14	69	0.	1.13	86.	0.010	53	0.	0.87	66.	0.008	49	0.	0.81	61.	0.007
735	3.14	3.14	111	0.	1.84	139.	0.017	86	0.	1.42	107.	0.013	79	0.	1.31	99.	0.012
736	3.14	3.14	68	0.	1.12	85.	0.010	50	0.	0.83	63.	0.007	46	0.	0.76	57.	0.007
737	3.14	3.14	26	0.	0.44	33.	0.004	22	0.	0.36	28.	0.003	21	0.	0.34	26.	0.003
738	3.14	3.14	39	0.	0.65	49.	0.006	31	0.	0.52	39.	0.005	29	0.	0.48	37.	0.004
739	3.14	3.14	30	0.	0.49	37.	0.004	22	0.	0.36	27.	0.003	20	0.	0.33	25.	0.003
740	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
741	3.14	3.14	92	0.	1.51	115.	0.014	71	0.	1.18	89.	0.011	66	0.	1.09	83.	0.010
742	3.14	3.14	7	0.	0.11	11.	0.001	2	0.	0.03	4.	0.001	1	0.	0.00	2.	0.000
743	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
744	3.14	3.14	67	0.	1.11	84.	0.010	53	0.	0.88	67.	0.008	50	0.	0.82	62.	0.007
745	3.14	3.14	0.	1	0.00	20.	0.005	0.	1	0.00	16.	0.004	0.	1	0.00	15.	0.004

ARMATURA SUPERIORE VERTICALE

			COMBINAZIONE RARA					COMBINAZIONE FREQUENTE					COMBINAZIONE QUASI PERMANENTE				
GUSCI	Af	Afc	Mom	Nor	σc	σf	WkR	Mom	Nor	σc	σf	WkF	Mom	Nor	σc	σf	WkP
1	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
2	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
3	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	3	0.	0.04	6.	0.001
4	3.14	3.14	128	0.	2.12	160.	0.019	111	0.	1.82	138.	0.016	106	0.	1.75	133.	0.016
5	3.14	3.14	343	0.	5.66	429.	0.051	284	0.	4.68	355.	0.042	269	0.	4.44	337.	0.040
6	3.14	3.14	431	0.	7.12	540.	0.064	354	0.	5.84	443.	0.053	334	0.	5.52	419.	0.050
7	3.14	3.14	513	0.	8.47	642.	0.076	418	0.	6.90	523.	0.062	394	0.	6.51	494.	0.059
8	3.14	3.14	527	0.	8.70	660.	0.078	428	0.	7.06	536.	0.064	403	0.	6.66	505.	0.060
9	3.14	3.14	418	0.	6.91	524.	0.062	339	0.	5.60	425.	0.050	319	0.	5.28	400.	0.048
10	3.14	3.14	330	0.	5.44	413.	0.049	265	0.	4.37	332.	0.039	249	0.	4.11	311.	0.037
11	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
12	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
13	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
14	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
15	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
16	3.14	3.14	0.	2	0.00	30.	0.007	0.	1	0.00	23.	0.005	0.	1	0.00	21.	0.005
17	3.14	3.14	233	0.	3.84	291.	0.035	189	0.	3.13	237.	0.028	178	0.	2.95	224.	0.027
18	3.14	3.14	187	0.	3.09	234.	0.028	150	0.	2.48	188.	0.022	141	0.	2.33	177.	0.021
19	3.14	3.14	500	0.	8.25	626.	0.074	406	0.	6.70	508.	0.060	383	0.	6.32	479.	0.057
20	3.14	3.14	508	0.	8.39	636.	0.076	411	0.	6.79	515.	0.061	387	0.	6.39	485.	0.058
21	3.14	3.14	468	0.	7.73	587.	0.070	384	0.	6.33	480.	0.057	362	0.	5.98	454.	0.054
22	3.14	3.14	485	0.	8.00	607.	0.072	397	0.	6.56	497.	0.059	375	0.	6.20	470.	0.056
23	3.14	3.14	183	0.	3.01	229.	0.027	155	0.	2.56	194.	0.023	148	0.	2.44	185.	0.022
24	3.14	3.14	285	0.	4.71	357.	0.042	237	0.	3.92	297.	0.035	225	0.	3.72	282.	0.034
25	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
26	3.14	3.14	0.	1	0.00	23.	0.005	0.	1	0.00	19.	0.004	0.	1	0.00	18.	0.004
27	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002
28	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	8.	0.002	0.	0.	0.00	7.	0.002
29	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
30	3.14	3.14	0.	1	0.00	20.	0.005	0.	1	0.00	14.	0.003	0.	1	0.00	12.	0.003
31	3.14	3.14	23	0.	0.38	29.	0.003	18	0.	0.30	23.	0.003	17	0.	0.28	21.	0.003
32	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
33	3.14	3.14	76	0.	1.25	95.	0.011	67	0.	1.10	84.	0.010	64	0.	1.06	81.	0.010
34	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
35	3.14	3.14	39	0.	0.64	49.	0.006	37	0.	0.61	46.	0.006	36	0.	0.60	46.	0.005
36	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
37	3.14	3.14	21	0.	0.34	26.	0.003	24	0.	0.39	30.	0.004	25	0.	0.41	31.	0.004
38	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
39	3.14	3.14	82	0.	1.35	103.	0.012	72	0.	1.20	91.	0.011	70	0.	1.16	88.	0.010
40	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
41	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
42	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
43	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
44	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
45	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
46	3.14	3.14	32	0.	0.53	40.	0.005	33	0.	0.54	41.	0.005	33	0.	0.54	41.	0.005
47	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
48	3.14	3.14	2	0.	0.03	2.	0.000	8	0.	0.14	10.	0.001	10	0.	0.16	13.	0.001

49	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
50	3.14	3.14	44	0.	0.73	55.	0.007	42	0.	0.70	53.	0.006	42	0.	0.69	52.	0.006
51	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
52	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
53	3.14	3.14	0.	-1	0.04	-1.	0.000	0.	-1	0.03	0.	0.000	0.	-1	0.03	0.	0.000
54	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
55	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
56	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	1	0.	0.01	1.	0.000
57	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
58	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
59	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
60	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
61	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001
62	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
63	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
64	3.14	3.14	46	0.	0.76	57.	0.007	43	0.	0.71	54.	0.006	43	0.	0.70	53.	0.006
65	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
66	3.14	3.14	33	0.	0.55	41.	0.005	33	0.	0.55	42.	0.005	33	0.	0.55	42.	0.005
67	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
68	3.14	3.14	29	0.	0.47	36.	0.004	30	0.	0.50	38.	0.005	31	0.	0.51	39.	0.005
69	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
70	3.14	3.14	40	0.	0.67	51.	0.006	40	0.	0.66	50.	0.006	40	0.	0.66	50.	0.006
71	3.14	3.14	0.	-2	0.05	-1.	0.000	0.	-1	0.04	-1.	0.000	0.	-1	0.04	-1.	0.000
72	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
73	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
74	3.14	3.14	0.	1	0.00	8.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
75	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
76	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
77	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
78	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
79	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
80	3.14	3.14	0.	1	0.00	11.	0.003	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
81	3.14	3.14	0.	1	0.00	11.	0.003	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
82	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
83	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
101	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
102	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
103	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
104	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
105	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
106	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002
107	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001
108	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
109	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
110	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
111	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
112	3.14	3.14	46	0.	0.76	58.	0.007	44	0.	0.73	55.	0.007	44	0.	0.72	55.	0.007
113	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
114	3.14	3.14	57	0.	0.94	72.	0.009	56	0.	0.93	70.	0.008	56	0.	0.92	70.	0.008
115	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
116	3.14	3.14	137	0.	2.27	172.	0.020	120	0.	1.98	150.	0.018	116	0.	1.91	145.	0.017
117	3.14	3.14	83	0.	1.37	104.	0.012	73	0.	1.21	92.	0.011	71	0.	1.17	89.	0.011
118	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
119	3.14	3.14	179	0.	2.96	225.	0.027	153	0.	2.53	192.	0.023	147	0.	2.43	184.	0.022
120	3.14	3.14	131	0.	2.17	164.	0.020	109	0.	1.81	137.	0.016	104	0.	1.72	130.	0.015
121	3.14	3.14	0.	1	0.00	10.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
122	3.14	3.14	0.	1	0.00	10.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
123	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
124	3.14	3.14	90	0.	1.48	113.	0.013	79	0.	1.31	99.	0.012	77	0.	1.27	96.	0.011
125	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
126	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
127	3.14	3.14	56	0.	0.93	71.	0.008	49	0.	0.80	61.	0.007	47	0.	0.78	59.	0.007
128	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
129	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
130	3.14	3.14	45	0.	0.74	56.	0.007	42	0.	0.70	53.	0.006	41	0.	0.68	52.	0.006
131	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
132	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
133	3.14	3.14	62	0.	1.03	78.	0.009	57	0.	0.94	71.	0.008	55	0.	0.92	69.	0.008
134	3.14	3.14	54	0.	0.89	68.	0.008	49	0.	0.81	61.	0.007	48	0.	0.79	60.	0.007
135	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
136	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
137	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
138	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
139	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
140	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
141	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
142	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
143	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
144	3.14	3.14	28	0.	0.47	36.	0.004	26	0.	0.42	32.	0.004	25	0.	0.41	31.	0.004
145	3.14	3.14	59	0.	0.98	74.	0.009	53	0.	0.87	66.	0.008	51	0.	0.84	64.	0.008
146	3.14	3.14	68	0.	1.12	85.	0.010	60	0.	0.99	75.	0.009	58	0.	0.96	72.	0.009
147	3.14	3.14	79	0.	1.31	99.	0.012	68	0.	1.13	85.	0.010	65	0.	1.08	82.	0.010
148	3.14	3.14	82	0.	1.36	103.	0.012	69	0.	1.13	86.	0.010	65	0.	1.08	82.	0.010
149	3.14	3.14	68	0.	1.11	85.	0.010	53	0.	0.88	67.	0.008	50	0.	0.82	62.	0.007
150	3.14	3.14	68	0.	1.13	86.	0.010	53	0.	0.87	66.	0.008	49	0.	0.81	61.	0.007
151	3.14	3.14	73	0.	1.20	91.	0.011	60	0.	0.99	75.	0.009	57	0.	0.94	71.	0.008
152	3.14	3.14	81	0.	1.34	102.	0.012	72	0.	1.18	90.	0.011	69	0.	1.15	87.	0.010
153	3.14	3.14	69	0.	1.14	86.	0.010	65	0.	1.08	82.	0.010	65	0.	1.07	81.	0.010
154	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
155	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
156	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
157	3.14	3.14	150	0.	2.47	188.	0.022	126	0.	2.08	158.	0.019	120	0.	1.98	150.	0.018
158	3.14	3.14	204	0.	3.37	256.	0.030	171	0.	2.82	214.	0.025	163	0.	2.68	204.	0.024
159	3.14	3.14	224	0.	3.69	280.	0.033	186	0.	3.07	233.	0.028	177	0.	2.92	221.	0.026
160	3.14	3.14	210	0.	3.47	263.	0.031	177	0.	2.92	221.	0.026	168	0.	2.78	211.	0.025
161	3.14	3.14	275	0.	4.54	345.	0.041	231	0.	3.81	289.	0.034	220	0.	3.63	275.	0.033
162	3.14	3.14	355	0.	5.86	444.	0.053	296	0.	4.89	371.	0.044	281	0.	4.64	352.	0.042
163	3.14	3.14	136	0.	2.24	170.	0.020	118	0.	1.95	148.	0.018	113	0.	1.87	142.	0.017
164	3.14	3.14	194	0.	3.21	244.	0.029	165	0.	2.73	207.	0.025	158	0.	2.61	198.	0.024
165	3.14	3.14	276	0.	4.56	346.	0.041	233	0.	3.84	291.	0.035	222	0.	3.66	278.	0.033
166	3.14	3.14	65	0.	1.07	81.	0.010	58	0.	0.95	72.	0.009	56	0.	0.93	70.	0.008
167	3.14	3.14	122	0.	2.02	153.	0.018	106	0.	1.75	133.	0.016	102	0.	1.68	127.	0.015
168	3.14	3.14	181	0.	2.99	227.	0.027	152	0.	2.51	190.	0.023	145	0.	2.39	181.	0.022
169	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
170	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
171	3.14	3.14	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002	0.	1	0.00	8.	0.002
172	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
173	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
174	3.14	3.14	2	0.	0.03	2.	0.000	3	0.	0.04	3.	0.000	3	0.	0.05	3.	0.000
175	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
176	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
177	3.14	3.14	15	0.	0.24	18.	0.002	16	0.	0.26	20.	0.002	16	0.	0.27	20.	0.002

178	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
179	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
180	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
181	3.14	3.14	133	0.	2.20	167.	0.020	112	0.	1.84	140.	0.017	106	0.	1.76	133.	0.016
182	3.14	3.14	192	0.	3.17	240.	0.029	160	0.	2.65	201.	0.024	152	0.	2.52	191.	0.023
183	3.14	3.14	217	0.	3.58	272.	0.032	180	0.	2.97	226.	0.027	171	0.	2.82	214.	0.025
184	3.14	3.14	200	0.	3.31	251.	0.030	168	0.	2.78	211.	0.025	160	0.	2.65	201.	0.024
185	3.14	3.14	271	0.	4.48	340.	0.040	227	0.	3.75	285.	0.034	216	0.	3.57	271.	0.032
186	3.14	3.14	356	0.	5.88	446.	0.053	297	0.	4.90	372.	0.044	282	0.	4.66	353.	0.042
187	3.14	3.14	166	0.	2.74	208.	0.025	143	0.	2.36	179.	0.021	137	0.	2.27	172.	0.020
188	3.14	3.14	220	0.	3.63	275.	0.033	188	0.	3.10	235.	0.028	180	0.	2.97	225.	0.027
189	3.14	3.14	301	0.	4.98	377.	0.045	255	0.	4.20	319.	0.038	243	0.	4.01	304.	0.036
190	3.14	3.14	142	0.	2.34	177.	0.021	125	0.	2.06	156.	0.019	121	0.	1.99	151.	0.018
191	3.14	3.14	200	0.	3.30	250.	0.030	173	0.	2.86	217.	0.026	167	0.	2.75	209.	0.025
192	3.14	3.14	255	0.	4.22	320.	0.038	218	0.	3.60	273.	0.032	208	0.	3.43	260.	0.031
193	3.14	3.14	26	0.	0.44	33.	0.004	31	0.	0.51	39.	0.005	32	0.	0.53	40.	0.005
194	3.14	3.14	0.	0.	0.00	0.	0.000	7	0.	0.12	9.	0.001	9	0.	0.16	12.	0.001
195	3.14	3.14	0.	1	0.00	10.	0.002	0.	1	0.00	8.	0.002	0.	1	0.00	8.	0.002
196	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
197	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
198	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	1	0.	0.01	1.	0.000
199	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
200	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
201	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
202	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
203	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
204	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000
205	3.14	3.14	35	0.	0.58	44.	0.005	34	0.	0.57	43.	0.005	34	0.	0.56	43.	0.005
206	3.14	3.14	43	0.	0.70	53.	0.006	41	0.	0.68	52.	0.006	41	0.	0.68	51.	0.006
207	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.01	0.	0.000
208	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
209	3.14	3.14	0.	1	0.00	12.	0.003	0.	0.	0.00	7.	0.002	0.	0.	0.00	6.	0.001
210	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
211	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
212	3.14	3.14	12	0.	0.20	15.	0.002	15	0.	0.25	19.	0.002	16	0.	0.27	20.	0.002
213	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
214	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
215	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
216	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	2	0.	0.03	2.	0.000
217	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	8.	0.002	0.	0.	0.00	7.	0.002
218	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
219	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
220	3.14	3.14	40	0.	0.66	50.	0.006	39	0.	0.64	49.	0.006	39	0.	0.64	48.	0.006
221	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
222	3.14	3.14	29	0.	0.48	37.	0.004	31	0.	0.50	38.	0.005	31	0.	0.51	39.	0.005
223	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
224	3.14	3.14	33	0.	0.54	41.	0.005	33	0.	0.55	42.	0.005	33	0.	0.55	42.	0.005
225	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
226	3.14	3.14	44	0.	0.72	55.	0.007	42	0.	0.69	52.	0.006	41	0.	0.68	52.	0.006
227	3.14	3.14	0.	1	0.00	10.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001
228	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
229	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
230	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
231	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
232	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
233	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
234	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
235	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
236	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
237	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
238	3.14	3.14	25	0.	0.42	32.	0.004	27	0.	0.45	34.	0.004	27	0.	0.45	34.	0.004
239	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
240	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
241	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
242	3.14	3.14	11	0.	0.18	14.	0.002	15	0.	0.25	19.	0.002	16	0.	0.26	20.	0.002
243	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
244	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
245	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
246	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
247	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
248	3.14	3.14	44	0.	0.72	55.	0.007	42	0.	0.69	52.	0.006	41	0.	0.68	51.	0.006
249	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
250	3.14	3.14	21	0.	0.35	27.	0.003	24	0.	0.40	30.	0.004	25	0.	0.41	31.	0.004
251	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
252	3.14	3.14	28	0.	0.46	35.	0.004	30	0.	0.49	37.	0.004	30	0.	0.49	37.	0.004
253	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
254	3.14	3.14	51	0.	0.84	63.	0.008	47	0.	0.78	59.	0.007	46	0.	0.77	58.	0.007
255	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.02	0.	0.000	0.	0.	0.02	0.	0.000
256	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
257	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
258	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
259	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
260	3.14	3.14	36	0.	0.59	45.	0.005	35	0.	0.58	44.	0.005	35	0.	0.58	44.	0.005
261	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
262	3.14	3.14	7	0.	0.12	9.	0.001	12	0.	0.20	15.	0.002	14	0.	0.23	17.	0.002
263	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
264	3.14	3.14	91	0.	1.50	114.	0.014	80	0.	1.32	100.	0.012	77	0.	1.28	97.	0.012
265	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
266	3.14	3.14	45	0.	0.74	56.	0.007	42	0.	0.70	53.	0.006	41	0.	0.68	52.	0.006
267	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
268	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
269	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
270	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
271	3.14	3.14	39	0.	0.65	49.	0.006	38	0.	0.63	48.	0.006	38	0.	0.62	47.	0.006
272	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
273	3.14	3.14	33	0.	0.54	41.	0.005	33	0.	0.55	42.	0.005	34	0.	0.55	42.	0.005
274	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
275	3.14	3.14	37	0.	0.61	47.	0.006	37	0.	0.61	46.	0.005	37	0.	0.61	46.	0.005
276	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
277	3.14	3.14	41	0.	0.68	51.	0.006	39	0.	0.64	49.	0.006	39	0.	0.64	48.	0.006
278	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
279	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
280	3.14	3.14	0.	1	0.00	20.	0.005	0.	1	0.00	14.	0.003	0.	1	0.00	12.	0.003
281	3.14	3.14	0.	1	0.00	21.	0.005	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003
282	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
283	3.14	3.14	0.	2	0.00	38.	0.009	0.	2	0.00	31.	0.007	0.	2	0.00	29.	0.007
284	3.14	3.14	84	0.	1.39	111.	0.014	76	0.	1.25	99.	0.012	74	0.	1.21	97.	0.012
285	3.14	3.14	41	0.	0.68	51.	0.006	37	0.	0.60	46.	0.005	37	0.	0.61	46.	0.005
286	3.14	3.14	103	0.	1.70	129.	0.015	88	0.	1.46	110.	0.013	85	0.	1.40	106.	0.013
287	3.14	3.14	37	0.	0.61	48.	0.006	37	0.	0.61	47.	0.006	37	0.	0.61	47.	0.006
288	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	11.	0.003	0.	1	0.00	11.	0.003
289	3.14	3.14	388	0.	6.40	486.	0.058	322	0.	5.31	403.	0.048	305	0.	5.04	382.	0.045

290	3.14	3.14	289	0.	4.77	362.	0.043	242	0.	3.99	303.	0.036	230	0.	3.80	288.	0.034
291	3.14	3.14	179	0.	2.95	224.	0.027	150	0.	2.48	188.	0.022	143	0.	2.36	179.	0.021
292	3.14	3.14	311	0.	5.13	389.	0.046	253	0.	4.18	317.	0.038	238	0.	3.94	299.	0.036
293	3.14	3.14	469	0.	7.74	587.	0.070	380	0.	6.27	476.	0.057	358	0.	5.91	448.	0.053
294	3.14	3.14	442	0.	7.29	553.	0.066	357	0.	5.90	448.	0.053	336	0.	5.55	421.	0.050
295	3.14	3.14	443	0.	7.32	555.	0.066	365	0.	6.02	457.	0.054	345	0.	5.69	432.	0.051
296	3.14	3.14	336	0.	5.55	421.	0.050	277	0.	4.57	347.	0.041	262	0.	4.33	328.	0.039
297	3.14	3.14	283	0.	4.68	355.	0.042	231	0.	3.81	289.	0.034	218	0.	3.60	273.	0.032
298	3.14	3.14	346	0.	5.71	433.	0.051	280	0.	4.63	351.	0.042	264	0.	4.36	330.	0.039
299	3.14	3.14	514	0.	8.48	643.	0.076	414	0.	6.83	518.	0.062	388	0.	6.41	486.	0.058
300	3.14	3.14	659	0.	10.88	825.	0.098	528	0.	8.71	661.	0.079	495	0.	8.17	620.	0.074
301	3.14	3.14	481	0.	7.95	603.	0.072	392	0.	6.48	492.	0.058	370	0.	6.11	464.	0.055
302	3.14	3.14	352	0.	5.81	441.	0.052	289	0.	4.76	361.	0.043	273	0.	4.50	341.	0.041
303	3.14	3.14	257	0.	4.25	322.	0.038	206	0.	3.41	259.	0.031	194	0.	3.20	243.	0.029
304	3.14	3.14	414	0.	6.84	519.	0.062	330	0.	5.45	413.	0.049	309	0.	5.10	387.	0.046
305	3.14	3.14	631	0.	10.42	790.	0.094	502	0.	8.29	629.	0.075	470	0.	7.76	588.	0.070
306	3.14	3.14	688	0.	11.36	862.	0.102	548	0.	9.04	686.	0.082	512	0.	8.46	642.	0.076
307	3.14	3.14	314	0.	5.18	393.	0.047	255	0.	4.20	319.	0.038	240	0.	3.96	300.	0.036
308	3.14	3.14	207	0.	3.42	260.	0.031	171	0.	2.83	214.	0.025	162	0.	2.68	203.	0.024
309	3.14	3.14	60	0.	0.99	75.	0.009	45	0.	0.74	56.	0.007	41	0.	0.68	52.	0.006
310	3.14	3.14	264	0.	4.36	331.	0.039	208	0.	3.44	261.	0.031	194	0.	3.21	243.	0.029
311	3.14	3.14	464	0.	7.66	581.	0.069	368	0.	6.08	461.	0.055	344	0.	5.68	431.	0.051
312	3.14	3.14	316	0.	5.21	395.	0.047	251	0.	4.14	314.	0.037	234	0.	3.87	293.	0.035
313	3.14	3.14	0.	2	0.00	35.	0.008	0.	2	0.00	27.	0.006	0.	2	0.00	25.	0.006
314	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
315	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
316	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
317	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
318	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
319	3.14	3.14	0.	2	0.00	38.	0.009	0.	2	0.00	29.	0.007	0.	2	0.00	27.	0.006
320	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001
321	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
322	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
323	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
324	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002
325	3.14	3.14	303	0.	5.01	380.	0.045	246	0.	4.06	308.	0.037	232	0.	3.83	290.	0.035
326	3.14	3.14	216	0.	3.56	270.	0.032	178	0.	2.93	223.	0.026	168	0.	2.78	211.	0.025
327	3.14	3.14	63	0.	1.03	78.	0.009	47	0.	0.77	59.	0.007	43	0.	0.71	54.	0.006
328	3.14	3.14	265	0.	4.37	332.	0.039	209	0.	3.45	261.	0.031	195	0.	3.21	244.	0.029
329	3.14	3.14	464	0.	7.66	581.	0.069	368	0.	6.07	461.	0.055	344	0.	5.68	431.	0.051
330	3.14	3.14	328	0.	5.41	410.	0.049	260	0.	4.30	326.	0.039	244	0.	4.02	305.	0.036
331	3.14	3.14	478	0.	7.90	599.	0.071	390	0.	6.44	489.	0.058	368	0.	6.08	461.	0.055
332	3.14	3.14	354	0.	5.84	443.	0.053	290	0.	4.79	363.	0.043	274	0.	4.52	343.	0.041
333	3.14	3.14	259	0.	4.27	324.	0.039	208	0.	3.43	260.	0.031	195	0.	3.22	244.	0.029
334	3.14	3.14	414	0.	6.84	519.	0.062	330	0.	5.45	413.	0.049	309	0.	5.10	387.	0.046
335	3.14	3.14	629	0.	10.38	788.	0.094	500	0.	8.26	626.	0.074	468	0.	7.73	586.	0.070
336	3.14	3.14	688	0.	11.35	861.	0.102	547	0.	9.03	685.	0.081	512	0.	8.45	641.	0.076
337	3.14	3.14	438	0.	7.23	549.	0.065	360	0.	5.95	451.	0.054	341	0.	5.63	427.	0.051
338	3.14	3.14	337	0.	5.56	421.	0.050	277	0.	4.57	347.	0.041	262	0.	4.33	328.	0.039
339	3.14	3.14	286	0.	4.71	358.	0.043	233	0.	3.84	292.	0.035	220	0.	3.63	275.	0.033
340	3.14	3.14	339	0.	5.60	425.	0.051	275	0.	4.54	344.	0.041	259	0.	4.27	324.	0.039
341	3.14	3.14	504	0.	8.32	631.	0.075	406	0.	6.70	508.	0.060	381	0.	6.30	478.	0.057
342	3.14	3.14	652	0.	10.77	817.	0.097	522	0.	8.63	654.	0.078	490	0.	8.09	614.	0.073
343	3.14	3.14	375	0.	6.19	469.	0.056	312	0.	5.15	390.	0.046	296	0.	4.89	371.	0.044
344	3.14	3.14	289	0.	4.78	363.	0.043	242	0.	4.00	304.	0.036	231	0.	3.81	289.	0.034
345	3.14	3.14	181	0.	3.00	227.	0.027	152	0.	2.52	191.	0.023	145	0.	2.40	182.	0.022
346	3.14	3.14	301	0.	4.97	377.	0.045	245	0.	4.04	307.	0.036	231	0.	3.81	289.	0.034
347	3.14	3.14	454	0.	7.50	569.	0.068	368	0.	6.07	461.	0.055	346	0.	5.72	434.	0.052
348	3.14	3.14	431	0.	7.12	540.	0.064	349	0.	5.76	437.	0.052	328	0.	5.42	411.	0.049
349	3.14	3.14	0.	2	0.00	38.	0.009	5	2	0.00	37.	0.008	7	2	0.00	38.	0.008
350	3.14	3.14	87	0.	1.43	114.	0.014	78	0.	1.29	103.	0.013	76	0.	1.26	100.	0.012
351	3.14	3.14	36	0.	0.59	45.	0.005	37	0.	0.61	46.	0.005	37	0.	0.61	46.	0.005
352	3.14	3.14	111	0.	1.83	139.	0.017	94	0.	1.55	118.	0.014	90	0.	1.48	112.	0.013
353	3.14	3.14	70	0.	1.16	90.	0.011	63	0.	1.03	80.	0.010	61	0.	1.00	78.	0.009
354	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	12.	0.003	0.	1	0.00	12.	0.003
355	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
356	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
357	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
358	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
359	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
360	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
361	3.14	3.14	243	0.	4.01	304.	0.036	193	0.	3.19	242.	0.029	181	0.	2.99	227.	0.027
362	3.14	3.14	446	0.	7.36	559.	0.066	354	0.	5.85	444.	0.053	331	0.	5.47	415.	0.049
363	3.14	3.14	224	0.	3.70	281.	0.033	178	0.	2.94	223.	0.027	167	0.	2.76	209.	0.025
364	3.14	3.14	159	0.	2.63	200.	0.024	128	0.	2.11	160.	0.019	120	0.	1.98	150.	0.018
365	3.14	3.14	413	0.	6.82	518.	0.062	329	0.	5.43	412.	0.049	308	0.	5.09	386.	0.046
366	3.14	3.14	232	0.	3.83	290.	0.035	185	0.	3.05	232.	0.028	173	0.	2.86	217.	0.026
367	3.14	3.14	679	0.	11.22	851.	0.101	541	0.	8.93	678.	0.081	506	0.	8.36	634.	0.075
368	3.14	3.14	656	0.	10.83	821.	0.098	522	0.	8.61	653.	0.078	488	0.	8.06	611.	0.073
369	3.14	3.14	467	0.	7.71	585.	0.070	372	0.	6.14	466.	0.055	348	0.	5.75	436.	0.052
370	3.14	3.14	429	0.	7.08	537.	0.064	342	0.	5.65	428.	0.051	320	0.	5.29	401.	0.048
371	3.14	3.14	627	0.	10.35	785.	0.093	499	0.	8.24	625.	0.074	467	0.	7.71	585.	0.070
372	3.14	3.14	659	0.	10.88	825.	0.098	525	0.	8.67	658.	0.078	492	0.	8.12	616.	0.073
373	3.14	3.14	680	0.	11.22	851.	0.101	544	0.	8.98	681.	0.081	510	0.	8.42	638.	0.076
374	3.14	3.14	576	0.	9.51	722.	0.086	462	0.	7.62	578.	0.069	433	0.	7.15	542.	0.064
375	3.14	3.14	446	0.	7.37	559.	0.066	357	0.	5.90	448.	0.053	335	0.	5.53	420.	0.050
376	3.14	3.14	444	0.	7.33	556.	0.066	356	0.	5.88	446.	0.053	334	0.	5.51	418.	0.050
377	3.14	3.14	559	0.	9.24	701.	0.083	449	0.	7.41	562.	0.067	421	0.	6.95	527.	0.063
378	3.14	3.14	661	0.	10.91	827.	0.098	529	0.	8.74	663.	0.079	496	0.	8.19	621.	0.074
379	3.14	3.14	422	0.	6.96	528.	0.063	341	0.	5.63	427.	0.051	321	0.	5.30	402.	0.048
380	3.14	3.14	493	0.	8.15	618.	0.073	399	0.	6.58	499.	0.059	375	0.	6.19	470.	0.056
381	3.14	3.14	343	0.	5.67	430.	0.051	278	0.	4.59	348.	0.041	261	0.	4.32	327.	0.039
382	3.14	3.14	308	0.	5.08	386.	0.046	249	0.	4.12	312.	0.037	235	0.	3.88	294.	0.035
383	3.14	3.14	469	0.	7.74	587.	0.070	379	0.	6.26	475.	0.056	357	0.	5.89	447.	0.053
384	3.14	3.14	405	0.	6.69	507.	0.060	328	0.	5.41	411.	0.049	309	0.	5.10	387.	0.046
385	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002
386	3.14	3.14	9	0.	0.16	12.	0.001	16	0.	0.26	19.	0.002	17	0.	0.28	21.	0.003
387	3.14	3.14	56	0.	0.92	70.	0.008	51	0.	0.85	64.	0.008	50	0.	0.83	63.	0.007
388	3.14	3.14	27	0.	0.45	34.	0.004	28	0.	0.46	35.	0.004	28	0.	0.46	35.	0.004
389	3.14	3.14	1	0.	0.02	2.	0.000	8	0.	0.13	11.	0.001	10	0.	0.16	13.	0.002
390	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
391	3.14	3.14	0.	1	0.00	21.	0.005	0.	1	0.00	18.	0.004	0.	1	0.00	17.	0.004
392	3.14	3.14	31	0.	0.50	41.	0.005	31	0.	0.51	41.	0.005	31	0.	0.51	41.	0.005
393	3.14	3.14	2	0.	0.03	2.	0.000	6	0.	0.11	8.	0.001	8	0.	0.13	10.	0.001
394	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	2	0.	0.03	2.	0.000
395	3.14	3.14	0.	1	0.00	9.	0.002	0.	1	0.00	8.	0.002	0.	0.	0.00	8.	0.002
396	3.14	3.14	437	0.	7.22	548.	0.065	354	0.	5.84	443.	0.053	333	0.	5.49	416.	0.050
397	3.14	3.14	396	0.	6.54	496.	0.059	322	0.	5.32	403.	0.048	304	0.	5.02	380.	0.045
398	3.14	3.14	281	0.	4.63	351.	0.042	227	0.	3.75	285.	0.034	214	0.	3.53	268.	0.032
399	3.14	3.14	451	0.	7.44	564.	0.067	365	0.	6.02	457.	0.054	343	0.	5.66	430.	0.051
400	3.14	3.14	405	0.	6.69	507.	0.060	328	0.	5.41	411.	0.049	309	0.	5.10	387.	0.046
401	3.14	3.14	625	0.	10.32	783.	0.093	502	0.	8.28	628.	0.075	471	0.	7.77	590.	0.070

402	3.14	3.14	497	0.	8.21	622.	0.074	400	0.	6.61	501.	0.060	376	0.	6.21	471.	0.056
403	3.14	3.14	438	0.	7.24	549.	0.065	352	0.	5.81	441.	0.052	330	0.	5.45	413.	0.049
404	3.14	3.14	545	0.	8.99	682.	0.081	437	0.	7.22	548.	0.065	410	0.	6.78	514.	0.061
405	3.14	3.14	666	0.	10.99	834.	0.099	533	0.	8.80	668.	0.079	500	0.	8.26	626.	0.074
406	3.14	3.14	669	0.	11.05	838.	0.100	534	0.	8.81	668.	0.079	500	0.	8.25	626.	0.074
407	3.14	3.14	572	0.	9.44	716.	0.085	457	0.	7.54	572.	0.068	428	0.	7.06	536.	0.064
408	3.14	3.14	405	0.	6.69	507.	0.060	324	0.	5.35	405.	0.048	303	0.	5.01	380.	0.045
409	3.14	3.14	616	0.	10.17	771.	0.092	491	0.	8.10	614.	0.073	459	0.	7.58	575.	0.068
410	3.14	3.14	667	0.	11.01	835.	0.099	532	0.	8.78	666.	0.079	498	0.	8.22	623.	0.074
411	3.14	3.14	252	0.	4.17	316.	0.038	202	0.	3.34	253.	0.030	189	0.	3.13	237.	0.028
412	3.14	3.14	354	0.	5.85	443.	0.053	283	0.	4.67	354.	0.042	265	0.	4.37	332.	0.039
413	3.14	3.14	91	0.	1.50	114.	0.014	73	0.	1.20	91.	0.011	68	0.	1.13	86.	0.010
414	3.14	3.14	373	0.	6.16	467.	0.056	297	0.	4.90	372.	0.044	278	0.	4.59	348.	0.041
415	3.14	3.14	232	0.	3.83	290.	0.034	186	0.	3.06	232.	0.028	174	0.	2.87	218.	0.026
416	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001
417	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
418	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
419	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
420	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
421	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	6.	0.001	0.	0.	0.00	6.	0.001
422	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.00	0.	0.000
423	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
424	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
425	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
426	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
427	3.14	3.14	0.	0.	0.02	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
428	3.14	3.14	310	0.	5.11	388.	0.046	246	0.	4.06	308.	0.037	230	0.	3.80	288.	0.034
429	3.14	3.14	434	0.	7.16	543.	0.065	345	0.	5.70	432.	0.051	323	0.	5.33	404.	0.048
430	3.14	3.14	216	0.	3.57	271.	0.032	172	0.	2.84	216.	0.026	161	0.	2.66	202.	0.024
431	3.14	3.14	142	0.	2.34	177.	0.021	114	0.	1.88	143.	0.017	107	0.	1.77	134.	0.016
432	3.14	3.14	371	0.	6.13	465.	0.055	298	0.	4.92	373.	0.044	279	0.	4.61	350.	0.042
433	3.14	3.14	295	0.	4.87	369.	0.044	236	0.	3.90	296.	0.035	222	0.	3.66	278.	0.033
434	3.14	3.14	678	0.	11.19	849.	0.101	540	0.	8.91	676.	0.080	505	0.	8.34	633.	0.075
435	3.14	3.14	622	0.	10.27	779.	0.093	495	0.	8.18	620.	0.074	464	0.	7.65	581.	0.069
436	3.14	3.14	426	0.	7.03	534.	0.063	340	0.	5.61	426.	0.051	319	0.	5.26	399.	0.047
437	3.14	3.14	379	0.	6.25	474.	0.056	303	0.	5.00	380.	0.045	284	0.	4.69	356.	0.042
438	3.14	3.14	568	0.	9.37	711.	0.085	455	0.	7.50	569.	0.068	426	0.	7.04	534.	0.063
439	3.14	3.14	645	0.	10.66	808.	0.096	516	0.	8.53	647.	0.077	484	0.	7.99	606.	0.072
440	3.14	3.14	654	0.	10.79	818.	0.097	523	0.	8.64	656.	0.078	491	0.	8.11	615.	0.073
441	3.14	3.14	540	0.	8.92	677.	0.080	434	0.	7.17	543.	0.065	407	0.	6.73	510.	0.061
442	3.14	3.14	409	0.	6.75	512.	0.061	329	0.	5.42	411.	0.049	308	0.	5.09	386.	0.046
443	3.14	3.14	382	0.	6.31	479.	0.057	308	0.	5.08	386.	0.046	289	0.	4.78	362.	0.043
444	3.14	3.14	492	0.	8.12	616.	0.073	397	0.	6.55	497.	0.059	373	0.	6.16	467.	0.056
445	3.14	3.14	610	0.	10.07	764.	0.091	491	0.	8.11	615.	0.073	462	0.	7.62	578.	0.069
446	3.14	3.14	438	0.	7.23	548.	0.065	354	0.	5.85	443.	0.053	333	0.	5.50	417.	0.050
447	3.14	3.14	469	0.	7.75	588.	0.070	380	0.	6.27	476.	0.057	358	0.	5.91	448.	0.053
448	3.14	3.14	320	0.	5.28	400.	0.048	259	0.	4.28	325.	0.039	244	0.	4.04	306.	0.036
449	3.14	3.14	271	0.	4.48	339.	0.040	221	0.	3.65	277.	0.033	209	0.	3.45	262.	0.031
450	3.14	3.14	419	0.	6.91	524.	0.062	341	0.	5.64	427.	0.051	322	0.	5.32	403.	0.048
451	3.14	3.14	430	0.	7.10	539.	0.064	350	0.	5.77	438.	0.052	330	0.	5.44	413.	0.049
452	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
453	3.14	3.14	9	0.	0.15	12.	0.002	15	0.	0.24	19.	0.002	16	0.	0.26	21.	0.003
454	3.14	3.14	67	0.	1.10	83.	0.010	60	0.	0.99	75.	0.009	58	0.	0.96	73.	0.009
455	3.14	3.14	43	0.	0.72	54.	0.006	41	0.	0.68	52.	0.006	41	0.	0.67	51.	0.006
456	3.14	3.14	43	0.	0.70	56.	0.007	42	0.	0.69	55.	0.007	41	0.	0.68	54.	0.007
457	3.14	3.14	0.	1	0.00	19.	0.005	0.	1	0.00	17.	0.004	0.	1	0.00	16.	0.004
458	3.14	3.14	0.	2	0.00	30.	0.007	0.	2	0.00	25.	0.006	0.	1	0.00	23.	0.005
459	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
460	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
461	3.14	3.14	0.	1	0.00	12.	0.003	0.	1	0.00	11.	0.002	0.	1	0.00	10.	0.002
462	3.14	3.14	380	0.	6.27	475.	0.057	307	0.	5.06	384.	0.046	288	0.	4.76	361.	0.043
463	3.14	3.14	425	0.	7.02	533.	0.063	342	0.	5.65	428.	0.051	321	0.	5.30	402.	0.048
464	3.14	3.14	399	0.	6.59	500.	0.059	323	0.	5.33	404.	0.048	304	0.	5.01	380.	0.045
465	3.14	3.14	319	0.	5.27	400.	0.048	258	0.	4.26	323.	0.038	243	0.	4.01	304.	0.036
466	3.14	3.14	395	0.	6.51	494.	0.059	320	0.	5.28	401.	0.048	301	0.	4.97	377.	0.045
467	3.14	3.14	696	0.	11.49	872.	0.104	562	0.	9.28	704.	0.084	529	0.	8.73	662.	0.079
468	3.14	3.14	512	0.	8.45	641.	0.076	414	0.	6.83	518.	0.062	389	0.	6.42	487.	0.058
469	3.14	3.14	572	0.	9.45	717.	0.085	460	0.	7.59	575.	0.068	431	0.	7.12	540.	0.064
470	3.14	3.14	625	0.	10.32	783.	0.093	500	0.	8.26	627.	0.074	469	0.	7.75	587.	0.070
471	3.14	3.14	655	0.	10.82	821.	0.098	525	0.	8.67	657.	0.078	492	0.	8.13	617.	0.073
472	3.14	3.14	730	0.	12.05	914.	0.109	586	0.	9.68	734.	0.087	551	0.	9.09	690.	0.082
473	3.14	3.14	515	0.	8.51	645.	0.077	415	0.	6.86	520.	0.062	390	0.	6.44	489.	0.058
474	3.14	3.14	519	0.	8.56	650.	0.077	414	0.	6.84	519.	0.062	388	0.	6.41	486.	0.058
475	3.14	3.14	694	0.	11.46	869.	0.103	554	0.	9.14	693.	0.082	518	0.	8.56	649.	0.077
476	3.14	3.14	677	0.	11.17	847.	0.101	540	0.	8.92	676.	0.080	506	0.	8.35	633.	0.075
477	3.14	3.14	492	0.	8.13	617.	0.073	394	0.	6.50	493.	0.059	369	0.	6.10	462.	0.055
478	3.14	3.14	297	0.	4.90	372.	0.044	240	0.	3.96	300.	0.036	225	0.	3.72	282.	0.034
479	3.14	3.14	187	0.	3.08	234.	0.028	149	0.	2.46	186.	0.022	139	0.	2.30	174.	0.021
480	3.14	3.14	447	0.	7.39	560.	0.067	357	0.	5.89	447.	0.053	334	0.	5.52	418.	0.050
481	3.14	3.14	305	0.	5.04	382.	0.045	244	0.	4.03	305.	0.036	229	0.	3.77	286.	0.034
482	3.14	3.14	0.	2	0.00	29.	0.007	0.	1	0.00	22.	0.005	0.	1	0.00	20.	0.005
483	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
484	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
485	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
486	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
487	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
488	3.14	3.14	0.	2	0.00	28.	0.007	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
489	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
490	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
491	3.14	3.14	0.	0.	0.00	6.	0.001	0.	0.	0.00	5.	0.001	0.	0.	0.00	5.	0.001
492	3.14	3.14	196	0.	3.23	245.	0.029	154	0.	2.55	193.	0.023	144	0.	2.38	181.	0.021
493	3.14	3.14	334	0.	5.52	419.	0.050	262	0.	4.32	328.	0.039	244	0.	4.03	305.	0.036
494	3.14	3.14	279	0.	4.61	350.	0.042	220	0.	3.64	276.	0.033	206	0.	3.40	258.	0.031
495	3.14	3.14	71	0.	1.17	89.	0.011	57	0.	0.95	72.	0.009	54	0.	0.90	68.	0.008
496	3.14	3.14	231	0.	3.81	289.	0.034	186	0.	3.08	233.	0.028	175	0.	2.89	219.	0.026
497	3.14	3.14	728	0.	12.03	912.	0.108	585	0.	9.67	733.	0.087	550	0.	9.07	688.	0.082
498	3.14	3.14	529	0.	8.74	663.	0.079	424	0.	7.00	531.	0.063	398	0.	6.57	498.	0.059
499	3.14	3.14	539	0.	8.90	675.	0.080	431	0.	7.12	540.	0.064	404	0.	6.67	506.	0.060
500	3.14	3.14	516	0.	8.52	646.	0.077	414	0.	6.83	518.	0.062	388	0.	6.41	486.	0.058
501	3.14	3.14	570	0.	9.42	714.	0.085	459	0.	7.58	575.	0.068	431	0.	7.12	540.	0.064
502	3.14	3.14	738	0.	12.18	924.	0.110	595	0.	9.82	745.	0.089	559	0.	9.23	700.	0.083
503	3.14	3.14	591	0.	9.75	740.	0.088	476	0.	7.87	597.	0.071	448	0.	7.40	561.	0.067
504	3.14	3.14	514	0.	8.49	644.	0.077	413	0.	6.82	518.	0.062	388	0.	6.41	486.	0.058
505	3.14	3.14	605	0.	9.99	758.	0.090	488	0.	8.06	612.	0.073	459	0.	7.58	575.	0.068
506	3.14	3.14	678	0.	11.19	849.	0.101	548	0.	9.05	686.	0.082	516	0.	8.51	646.	0.077
507	3.14	3.14	586	0.	9.67	733.	0.087	475	0.	7.85	595.	0.071	448	0.	7.39	561.	0.067
508	3.14	3.14	456	0.	7.54	572.	0.068	371	0.	6.13	465.	0.055	350	0.	5.78	438.	0.052
509	3.14	3.14	305	0.	5.03	381.	0.045	248	0.	4.10	311.	0.037	234	0.	3.86	293.	0.035
510	3.14	3.14	468	0.	7.74	587.	0.070	382	0.	6.31	479.	0.057	361	0.	5.96	452.	0.054
511	3.14	3.14	526	0.	8.69	659.	0.078	430	0.	7.09	538.	0.064	405	0.	6.69	508.	0.060
512	3.14	3.14	0.	2	0.00	32.	0.007	0.	2	0.00	26.	0.006	0.	2	0.00	25.	0.006
513	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001

514	3.14	3.14	61	0.	1.01	77.	0.009	52	0.	0.86	65.	0.008	50	0.	0.82	62.	0.007
515	3.14	3.14	97	0.	1.60	121.	0.014	85	0.	1.41	107.	0.013	82	0.	1.36	103.	0.012
516	3.14	3.14	99	0.	1.63	125.	0.015	87	0.	1.44	111.	0.013	84	0.	1.39	107.	0.013
517	3.14	3.14	0.	1	0.00	22.	0.005	0.	1	0.00	18.	0.004	0.	1	0.00	18.	0.004
518	3.14	3.14	0.	0.	0.00	5.	0.001	0.	0.	0.00	4.	0.001	0.	0.	0.00	4.	0.001
519	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
520	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
521	3.14	3.14	0.	1	0.00	19.	0.005	0.	1	0.00	15.	0.004	0.	1	0.00	14.	0.003
522	3.14	3.14	188	0.	3.10	235.	0.028	151	0.	2.49	189.	0.022	142	0.	2.34	178.	0.021
523	3.14	3.14	132	0.	2.17	165.	0.020	103	0.	1.70	129.	0.015	96	0.	1.58	120.	0.014
524	3.14	3.14	288	0.	4.75	360.	0.043	228	0.	3.76	285.	0.034	213	0.	3.52	267.	0.032
525	3.14	3.14	220	0.	3.63	276.	0.033	176	0.	2.91	221.	0.026	165	0.	2.73	207.	0.025
526	3.14	3.14	605	0.	9.99	758.	0.090	488	0.	8.06	612.	0.073	459	0.	7.58	575.	0.068
527	3.14	3.14	606	0.	10.01	759.	0.090	485	0.	8.01	607.	0.072	455	0.	7.51	570.	0.068
528	3.14	3.14	667	0.	11.02	836.	0.099	534	0.	8.81	668.	0.079	500	0.	8.26	627.	0.074
529	3.14	3.14	665	0.	10.98	833.	0.099	533	0.	8.80	667.	0.079	500	0.	8.25	626.	0.074
530	3.14	3.14	658	0.	10.87	825.	0.098	530	0.	8.75	664.	0.079	498	0.	8.22	624.	0.074
531	3.14	3.14	641	0.	10.59	803.	0.095	516	0.	8.53	647.	0.077	485	0.	8.01	608.	0.072
532	3.14	3.14	651	0.	10.75	816.	0.097	523	0.	8.64	655.	0.078	491	0.	8.11	615.	0.073
533	3.14	3.14	677	0.	11.17	847.	0.101	544	0.	8.98	681.	0.081	511	0.	8.44	640.	0.076
534	3.14	3.14	390	0.	6.44	488.	0.058	318	0.	5.26	399.	0.047	301	0.	4.96	376.	0.045
535	3.14	3.14	382	0.	6.31	478.	0.057	311	0.	5.14	390.	0.046	293	0.	4.84	367.	0.044
536	3.14	3.14	367	0.	6.07	460.	0.055	298	0.	4.92	373.	0.044	281	0.	4.64	352.	0.042
537	3.14	3.14	392	0.	6.48	491.	0.058	319	0.	5.27	399.	0.047	301	0.	4.96	376.	0.045
538	3.14	3.14	0.	1	0.00	17.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	14.	0.003
539	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
540	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
541	3.14	3.14	0.	1	0.00	16.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003
542	3.14	3.14	0.	1	0.00	11.	0.002	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002
543	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
544	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
545	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	12.	0.003	0.	1	0.00	11.	0.003
546	3.14	3.14	409	0.	6.75	512.	0.061	336	0.	5.54	421.	0.050	318	0.	5.24	398.	0.047
547	3.14	3.14	334	0.	5.51	418.	0.050	275	0.	4.54	344.	0.041	260	0.	4.29	326.	0.039
548	3.14	3.14	414	0.	6.84	519.	0.062	337	0.	5.56	422.	0.050	317	0.	5.24	398.	0.047
549	3.14	3.14	396	0.	6.53	495.	0.059	322	0.	5.32	404.	0.048	304	0.	5.02	381.	0.045
550	3.14	3.14	600	0.	9.91	752.	0.089	487	0.	8.04	610.	0.072	459	0.	7.57	574.	0.068
551	3.14	3.14	560	0.	9.25	701.	0.083	453	0.	7.49	568.	0.068	427	0.	7.05	535.	0.064
552	3.14	3.14	593	0.	9.80	743.	0.088	479	0.	7.91	600.	0.071	451	0.	7.44	564.	0.067
553	3.14	3.14	646	0.	10.67	809.	0.096	521	0.	8.60	652.	0.077	489	0.	8.08	613.	0.073
554	3.14	3.14	589	0.	9.72	738.	0.088	476	0.	7.85	596.	0.071	447	0.	7.39	560.	0.067
555	3.14	3.14	512	0.	8.45	641.	0.076	412	0.	6.80	516.	0.061	387	0.	6.39	485.	0.058
556	3.14	3.14	601	0.	9.93	753.	0.090	482	0.	7.96	604.	0.072	452	0.	7.47	566.	0.067
557	3.14	3.14	630	0.	10.41	790.	0.094	506	0.	8.35	633.	0.075	474	0.	7.83	594.	0.071
558	3.14	3.14	251	0.	4.14	314.	0.037	203	0.	3.36	255.	0.030	192	0.	3.16	240.	0.029
559	3.14	3.14	115	0.	1.90	144.	0.017	96	0.	1.58	120.	0.014	91	0.	1.50	114.	0.014
560	3.14	3.14	269	0.	4.44	337.	0.040	214	0.	3.54	269.	0.032	201	0.	3.31	251.	0.030
561	3.14	3.14	198	0.	3.27	248.	0.029	159	0.	2.63	200.	0.024	150	0.	2.47	188.	0.022
562	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
563	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
564	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
565	3.14	3.14	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000	0.	0.	0.01	0.	0.000
566	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
567	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
568	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
569	3.14	3.14	0.	1	0.00	18.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003
570	3.14	3.14	172	0.	2.85	216.	0.026	140	0.	2.30	175.	0.021	131	0.	2.17	165.	0.020
571	3.14	3.14	115	0.	1.90	144.	0.017	90	0.	1.49	113.	0.013	84	0.	1.39	105.	0.013
572	3.14	3.14	270	0.	4.45	338.	0.040	214	0.	3.53	268.	0.032	200	0.	3.30	250.	0.030
573	3.14	3.14	210	0.	3.46	263.	0.031	168	0.	2.77	210.	0.025	157	0.	2.60	197.	0.023
574	3.14	3.14	592	0.	9.77	741.	0.088	477	0.	7.87	597.	0.071	448	0.	7.39	561.	0.067
575	3.14	3.14	581	0.	9.60	728.	0.087	466	0.	7.70	584.	0.069	438	0.	7.23	548.	0.065
576	3.14	3.14	640	0.	10.56	801.	0.095	512	0.	8.46	642.	0.076	480	0.	7.93	602.	0.072
577	3.14	3.14	657	0.	10.84	822.	0.098	526	0.	8.69	659.	0.078	494	0.	8.15	618.	0.073
578	3.14	3.14	613	0.	10.12	768.	0.091	497	0.	8.20	622.	0.074	467	0.	7.72	585.	0.070
579	3.14	3.14	605	0.	10.00	758.	0.090	489	0.	8.08	613.	0.073	460	0.	7.60	576.	0.068
580	3.14	3.14	636	0.	10.51	797.	0.095	513	0.	8.46	642.	0.076	482	0.	7.95	603.	0.072
581	3.14	3.14	673	0.	11.11	842.	0.100	542	0.	8.94	678.	0.081	509	0.	8.40	637.	0.076
582	3.14	3.14	380	0.	6.28	476.	0.057	310	0.	5.11	388.	0.046	292	0.	4.83	366.	0.044
583	3.14	3.14	343	0.	5.66	429.	0.051	281	0.	4.63	352.	0.042	265	0.	4.38	332.	0.040
584	3.14	3.14	430	0.	7.10	539.	0.064	349	0.	5.76	437.	0.052	329	0.	5.43	412.	0.049
585	3.14	3.14	405	0.	6.68	507.	0.060	330	0.	5.44	413.	0.049	311	0.	5.13	389.	0.046
586	3.14	3.14	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
587	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
588	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
589	3.14	3.14	0.	1	0.00	17.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	14.	0.003
590	3.14	3.14	0.	1	0.00	22.	0.005	0.	1	0.00	19.	0.004	0.	1	0.00	18.	0.004
591	3.14	3.14	61	0.	1.01	80.	0.010	57	0.	0.94	74.	0.009	56	0.	0.92	72.	0.009
592	3.14	3.14	85	0.	1.40	106.	0.013	75	0.	1.24	94.	0.011	73	0.	1.20	91.	0.011
593	3.14	3.14	64	0.	1.06	81.	0.010	58	0.	0.96	73.	0.009	57	0.	0.94	71.	0.008
594	3.14	3.14	66	0.	1.09	87.	0.011	61	0.	1.00	79.	0.010	60	0.	0.98	77.	0.009
595	3.14	3.14	0.	2	0.00	25.	0.006	0.	1	0.00	21.	0.005	0.	1	0.00	20.	0.005
596	3.14	3.14	445	0.	7.34	557.	0.066	362	0.	5.98	453.	0.054	341	0.	5.64	428.	0.051
597	3.14	3.14	421	0.	6.95	527.	0.063	343	0.	5.67	430.	0.051	324	0.	5.35	406.	0.048
598	3.14	3.14	278	0.	4.59	348.	0.041	228	0.	3.76	285.	0.034	215	0.	3.55	269.	0.032
599	3.14	3.14	256	0.	4.22	320.	0.038	209	0.	3.46	262.	0.031	198	0.	3.27	248.	0.029
600	3.14	3.14	416	0.	6.87	521.	0.062	340	0.	5.61	426.	0.051	321	0.	5.30	402.	0.048
601	3.14	3.14	440	0.	7.27	551.	0.066	359	0.	5.92	449.	0.053	338	0.	5.59	424.	0.050
602	3.14	3.14	611	0.	10.09	766.	0.091	492	0.	8.13	617.	0.073	463	0.	7.64	580.	0.069
603	3.14	3.14	472	0.	7.80	592.	0.070	382	0.	6.31	478.	0.057	359	0.	5.93	450.	0.053
604	3.14	3.14	348	0.	5.74	435.	0.052	281	0.	4.64	352.	0.042	264	0.	4.36	331.	0.039
605	3.14	3.14	343	0.	5.67	430.	0.051	278	0.	4.58	348.	0.041	261	0.	4.31	327.	0.039
606	3.14	3.14	471	0.	7.77	590.	0.070	381	0.	6.29	477.	0.057	358	0.	5.91	448.	0.053
607	3.14	3.14	609	0.	10.06	763.	0.091	491	0.	8.11	615.	0.073	461	0.	7.62	578.	0.069
608	3.14	3.14	681	0.	11.24	853.	0.101	544	0.	8.97	681.	0.081	509	0.	8.41	638.	0.076
609	3.14	3.14	560	0.	9.25	701.	0.083	448	0.	7.40	561.	0.067	420	0.	6.94	526.	0.063
610	3.14	3.14	346	0.	5.70	433.	0.051	277	0.	4.58	347.	0.041	260	0.	4.29	326.	0.039
611	3.14	3.14	371	0.	6.12	464.	0.055	297	0.	4.91	372.	0.044	279	0.	4.60	349.	0.042
612	3.14	3.14	563	0.	9.29	705.	0.084	451	0.	7.44	564.	0.067	422	0.	6.98	529.	0.063
613	3.14	3.14	665	0.	10.97	832.	0.099	531	0.	8.78	666.	0.079	498	0.	8.23	624.	0.074
614	3.14	3.14	345	0.	5.70	432.	0.051	275	0.	4.54	344.	0.041	257	0.	4.25	322.	0.038
615	3.14	3.14	390	0.	6.44	489.	0.058	312	0.	5.15	391.	0.046	293	0.	4.83	366.	0.044
616	3.14	3.14	149	0.	2.46	187.	0.022	119	0.	1.97	150.	0.018	112	0.	1.85	140.	0.017
617	3.14	3.14	194	0.	3.20	243.	0.029	155	0.	2.56	194.	0.023	145	0.	2.40	182.	0.022
618	3.14	3.14	396	0.	6.53	495.	0.059	316	0.	5.22	396.	0.047	296	0.	4.89	371.	0.044
619	3.14	3.14	324	0.	5.36	406.	0.048	259	0.	4.28	325.	0.039	243	0.	4.01	304.	0.036
620	3.14	3.14	0.	2	0.00	24.	0.006	0.	1	0.00	19.	0.004	0.	1	0.00	17.	0.004
621	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
622	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
623	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
624	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
625	3.14	3.14	0.	1	0.00	18.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003

626	3.14	3.14	0.	2	0.00	26.	0.006	0.	1	0.00	20.	0.005	0.	1	0.00	18.	0.004
627	3.14	3.14	0.	0.	0.00	4.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
628	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
629	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
630	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000
631	3.14	3.14	0.	1	0.00	19.	0.004	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003
632	3.14	3.14	350	0.	5.78	439.	0.052	279	0.	4.61	349.	0.042	261	0.	4.31	327.	0.039
633	3.14	3.14	394	0.	6.51	494.	0.059	316	0.	5.21	395.	0.047	296	0.	4.89	371.	0.044
634	3.14	3.14	153	0.	2.52	191.	0.023	123	0.	2.02	153.	0.018	115	0.	1.90	144.	0.017
635	3.14	3.14	194	0.	3.21	243.	0.029	156	0.	2.57	195.	0.023	146	0.	2.41	183.	0.022
636	3.14	3.14	395	0.	6.52	495.	0.059	316	0.	5.22	396.	0.047	296	0.	4.89	371.	0.044
637	3.14	3.14	324	0.	5.35	406.	0.048	259	0.	4.28	325.	0.039	243	0.	4.01	304.	0.036
638	3.14	3.14	681	0.	11.25	853.	0.101	544	0.	8.98	681.	0.081	510	0.	8.41	638.	0.076
639	3.14	3.14	560	0.	9.24	701.	0.083	448	0.	7.40	561.	0.067	420	0.	6.94	526.	0.063
640	3.14	3.14	344	0.	5.69	431.	0.051	276	0.	4.56	346.	0.041	259	0.	4.28	325.	0.039
641	3.14	3.14	366	0.	6.04	458.	0.054	293	0.	4.84	367.	0.044	275	0.	4.54	344.	0.041
642	3.14	3.14	554	0.	9.15	694.	0.083	443	0.	7.32	555.	0.066	416	0.	6.86	521.	0.062
643	3.14	3.14	652	0.	10.76	816.	0.097	521	0.	8.60	652.	0.078	488	0.	8.06	611.	0.073
644	3.14	3.14	611	0.	10.09	765.	0.091	492	0.	8.12	616.	0.073	462	0.	7.63	579.	0.069
645	3.14	3.14	464	0.	7.66	581.	0.069	375	0.	6.19	470.	0.056	353	0.	5.82	442.	0.052
646	3.14	3.14	334	0.	5.51	418.	0.050	269	0.	4.44	337.	0.040	253	0.	4.18	317.	0.038
647	3.14	3.14	321	0.	5.29	402.	0.048	259	0.	4.27	324.	0.039	243	0.	4.02	305.	0.036
648	3.14	3.14	436	0.	7.19	546.	0.065	352	0.	5.80	440.	0.052	331	0.	5.46	414.	0.049
649	3.14	3.14	566	0.	9.35	709.	0.084	456	0.	7.52	571.	0.068	428	0.	7.06	536.	0.064
650	3.14	3.14	465	0.	7.68	583.	0.069	377	0.	6.22	472.	0.056	354	0.	5.85	444.	0.053
651	3.14	3.14	396	0.	6.53	495.	0.059	322	0.	5.32	404.	0.048	304	0.	5.02	381.	0.045
652	3.14	3.14	243	0.	4.01	304.	0.036	198	0.	3.28	249.	0.030	187	0.	3.09	235.	0.028
653	3.14	3.14	198	0.	3.28	249.	0.030	162	0.	2.67	202.	0.024	152	0.	2.52	191.	0.023
654	3.14	3.14	326	0.	5.39	409.	0.049	265	0.	4.38	332.	0.039	250	0.	4.13	313.	0.037
655	3.14	3.14	323	0.	5.34	405.	0.048	262	0.	4.32	328.	0.039	246	0.	4.07	309.	0.037
656	3.14	3.14	0.	1	0.00	22.	0.005	0.	1	0.00	18.	0.004	0.	1	0.00	18.	0.004
657	3.14	3.14	47	0.	0.77	61.	0.008	45	0.	0.74	59.	0.007	45	0.	0.74	58.	0.007
658	3.14	3.14	28	0.	0.46	35.	0.004	28	0.	0.46	35.	0.004	28	0.	0.46	35.	0.004
659	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
660	3.14	3.14	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001	0.	0.	0.00	3.	0.001
661	3.14	3.14	0.	1	0.00	24.	0.006	0.	1	0.00	20.	0.005	0.	1	0.00	19.	0.004
662	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	11.	0.003	0.	1	0.00	10.	0.002
663	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
664	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
665	3.14	3.14	0.	0.	0.00	2.	0.001	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000
666	3.14	3.14	217	0.	3.59	272.	0.032	174	0.	2.88	218.	0.026	163	0.	2.70	205.	0.024
667	3.14	3.14	297	0.	4.90	371.	0.044	235	0.	3.87	294.	0.035	219	0.	3.62	274.	0.033
668	3.14	3.14	125	0.	2.06	156.	0.019	97	0.	1.60	122.	0.014	90	0.	1.49	113.	0.013
669	3.14	3.14	146	0.	2.41	183.	0.022	120	0.	1.98	150.	0.018	113	0.	1.87	142.	0.017
670	3.14	3.14	635	0.	10.48	795.	0.094	509	0.	8.40	637.	0.076	477	0.	7.88	598.	0.071
671	3.14	3.14	619	0.	10.23	776.	0.092	496	0.	8.19	621.	0.074	465	0.	7.68	582.	0.069
672	3.14	3.14	538	0.	8.89	674.	0.080	433	0.	7.15	542.	0.064	406	0.	6.71	509.	0.060
673	3.14	3.14	533	0.	8.80	668.	0.079	431	0.	7.12	540.	0.064	405	0.	6.69	508.	0.060
674	3.14	3.14	615	0.	10.16	771.	0.092	495	0.	8.17	620.	0.074	465	0.	7.67	582.	0.069
675	3.14	3.14	563	0.	9.29	705.	0.084	454	0.	7.49	568.	0.068	426	0.	7.04	534.	0.063
676	3.14	3.14	519	0.	8.58	651.	0.077	421	0.	6.95	527.	0.063	396	0.	6.54	496.	0.059
677	3.14	3.14	520	0.	8.59	652.	0.077	424	0.	7.00	531.	0.063	400	0.	6.60	501.	0.060
678	3.14	3.14	296	0.	4.89	371.	0.044	240	0.	3.96	300.	0.036	226	0.	3.73	283.	0.034
679	3.14	3.14	327	0.	5.40	410.	0.049	263	0.	4.35	330.	0.039	247	0.	4.08	310.	0.037
680	3.14	3.14	223	0.	3.68	279.	0.033	180	0.	2.97	225.	0.027	169	0.	2.79	211.	0.025
681	3.14	3.14	249	0.	4.11	312.	0.037	207	0.	3.42	259.	0.031	196	0.	3.24	246.	0.029
682	3.14	3.14	0.	1	0.00	18.	0.004	0.	1	0.00	15.	0.003	0.	1	0.00	14.	0.003
683	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
684	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
685	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002
686	3.14	3.14	0.	1	0.00	11.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	10.	0.002
687	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
688	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
689	3.14	3.14	0.	1	0.00	18.	0.004	0.	1	0.00	15.	0.004	0.	1	0.00	15.	0.003
690	3.14	3.14	333	0.	5.50	418.	0.050	277	0.	4.57	347.	0.041	263	0.	4.34	329.	0.039
691	3.14	3.14	329	0.	5.43	412.	0.049	268	0.	4.43	336.	0.040	253	0.	4.18	317.	0.038
692	3.14	3.14	436	0.	7.21	547.	0.065	354	0.	5.85	443.	0.053	334	0.	5.51	418.	0.050
693	3.14	3.14	404	0.	6.67	506.	0.060	329	0.	5.43	412.	0.049	310	0.	5.12	389.	0.046
694	3.14	3.14	559	0.	9.23	700.	0.083	457	0.	7.54	572.	0.068	431	0.	7.12	540.	0.064
695	3.14	3.14	561	0.	9.26	702.	0.083	456	0.	7.52	571.	0.068	429	0.	7.09	538.	0.064
696	3.14	3.14	613	0.	10.11	767.	0.091	495	0.	8.17	620.	0.074	465	0.	7.68	583.	0.069
697	3.14	3.14	663	0.	10.95	830.	0.099	534	0.	8.82	669.	0.080	502	0.	8.29	629.	0.075
698	3.14	3.14	543	0.	8.97	680.	0.081	439	0.	7.25	550.	0.065	413	0.	6.82	518.	0.062
699	3.14	3.14	549	0.	9.06	687.	0.082	441	0.	7.29	553.	0.066	414	0.	6.84	519.	0.062
700	3.14	3.14	631	0.	10.41	790.	0.094	505	0.	8.34	633.	0.075	474	0.	7.82	593.	0.071
701	3.14	3.14	648	0.	10.70	811.	0.096	520	0.	8.58	651.	0.077	487	0.	8.05	610.	0.073
702	3.14	3.14	143	0.	2.35	179.	0.021	117	0.	1.93	146.	0.017	111	0.	1.82	138.	0.016
703	3.14	3.14	122	0.	2.02	153.	0.018	95	0.	1.56	118.	0.014	88	0.	1.45	110.	0.013
704	3.14	3.14	294	0.	4.86	369.	0.044	233	0.	3.84	291.	0.035	217	0.	3.59	272.	0.032
705	3.14	3.14	215	0.	3.55	270.	0.032	172	0.	2.85	216.	0.026	162	0.	2.67	202.	0.024
706	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
707	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
708	3.14	3.14	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000	0.	0.	0.00	0.	0.000
709	3.14	3.14	0.	1	0.00	13.	0.003	0.	1	0.00	10.	0.002	0.	1	0.00	9.	0.002
710	3.14	3.14	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
711	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000
712	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
713	3.14	3.14	227	0.	3.75	285.	0.034	178	0.	2.93	222.	0.026	165	0.	2.73	207.	0.025
714	3.14	3.14	226	0.	3.73	283.	0.034	180	0.	2.96	225.	0.027	168	0.	2.77	210.	0.025
715	3.14	3.14	183	0.	3.02	229.	0.027	148	0.	2.44	185.	0.022	139	0.	2.30	175.	0.021
716	3.14	3.14	546	0.	9.02	684.	0.081	444	0.	7.33	556.	0.066	418	0.	6.91	524.	0.062
717	3.14	3.14	486	0.	8.03	609.	0.072	398	0.	6.57	498.	0.059	376	0.	6.20	470.	0.056
718	3.14	3.14	418	0.	6.89	523.	0.062	345	0.	5.70	432.	0.051	327	0.	5.40	409.	0.049
719	3.14	3.14	518	0.	8.56	649.	0.077	426	0.	7.04	534.	0.063	403	0.	6.66	505.	0.060
720	3.14	3.14	447	0.	7.39	560.	0.067	371	0.	6.12	464.	0.055	352	0.	5.81	441.	0.052
721	3.14	3.14	375	0.	6.18	469.	0.056	314	0.	5.18	393.	0.047	299	0.	4.93	374.	0.044
722	3.14	3.14	358	0.	5.91	448.	0.053	294	0.	4.86	368.	0.044	278	0.	4.60	349.	0.041
723	3.14	3.14	333	0.	5.50	417.	0.050	277	0.	4.57	347.	0.041	263	0.	4.34	329.	0.039
724	3.14	3.14	279	0.	4.61	349.	0.042	236	0.	3.90	296.	0.035	225	0.	3.72	282.	0.034
725	3.14	3.14	0.	0.	0.00	8.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
726	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
727	3.14	3.14	0.	1	0.00	14.	0.003	0.	1	0.00	13.	0.003	0.	1	0.00	12.	0.003
728	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
729	3.14	3.14	0.	0.	0.00	2.	0.000	0.	0.	0.00	1.	0.000	0.	0.	0.00	1.	0.000
730	3.14	3.14	0.	1	0.00	9.	0.002	0.	0.	0.00	7.	0.002	0.	0.	0.00	7.	0.002
731	3.14	3.14	228	0.	3.77	286.	0.034	179	0.	2.96	224.	0.027	167	0.	2.75	209.	0.025
732	3.14	3.14	226	0.	3.73	283.	0.034	180	0.	2.97	225.	0.027	168	0.	2.78	211.	0.025
733	3.14	3.14	185	0.	3.05	231.	0.028	150	0.	2.48	188.	0.022	141	0.	2.34	177.	0.021
734	3.14	3.14	537	0.	8.87	673.	0.080	437	0.	7.21	547.	0.065	411	0.	6.79	515.	0.061
735	3.14	3.14	479	0.	7.90	600.	0.071	391	0.	6.46	490.	0.058	370	0.	6.10	463.	0.055
736	3.14	3.14	413	0.	6.82	517.	0.061	341	0.	5.63	427.	0.051	323	0.	5.34	405.	0.048
737	3.14	3.14	481	0.	7.95	603.	0.072	395	0.	6.52	494.	0.059	373	0.	6.16	467.	0.056

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738  |  3.14  3.14|    414     0.   6.83  518. 0.062|    342     0.   5.65  429. 0.051|    325     0.   5.36  407. 0.048|
739  |  3.14  3.14|    348     0.   5.74  436. 0.052|    290     0.   4.80  364. 0.043|    276     0.   4.56  346. 0.041|
740  |  3.14  3.14|    247     0.   4.09  310. 0.037|    201     0.   3.32  252. 0.030|    190     0.   3.13  237. 0.028|
741  |  3.14  3.14|    246     0.   4.06  308. 0.037|    203     0.   3.35  254. 0.030|    192     0.   3.17  240. 0.029|
742  |  3.14  3.14|    204     0.   3.36  255. 0.030|    170     0.   2.81  213. 0.025|    160     0.   2.65  201. 0.024|
743  |  3.14  3.14|     0.     0.   0.00    8. 0.002|     0.     0.   0.00    7. 0.002|     0.     0.   0.00    7. 0.002|
744  |  3.14  3.14|     0.     0.   0.00    2. 0.000|     0.     0.   0.00    1. 0.000|     0.     0.   0.00    1. 0.000|
745  |  3.14  3.14|     0.     1   0.00   14. 0.003|     0.     1   0.00   13. 0.003|     0.     1   0.00   12. 0.003|
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VERIFICA TRAVI CONTINUE:

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                VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : 28 - Travata T001 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

                MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

                TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

                SEZIONI UTILIZZATE

 4) Rettangolare: 45X22; A=990.; Jg=39930.; E=314471.6

                DESCRIZIONE CAMPATE

Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K  |r.Ar.|lam.max|
   1|      T101+|    3|    4|    3|    0|  517.|  482.| 23.5  |1.3|1.238| 24.588|
   2|       T102|    3|    4|    3|    0|  505.|  470.| 22.955|1.5|1.214| 28.79 |
   3|       T103|    3|    4|    3|    0|  509.|  474.| 23.136|1.5|1.195| 28.348|
   4|       T104|    3|    4|    3|    0|  346.|  311.| 15.727|1.5|2.062| 51.12 |
   5|       T105|    3|    4|    3|    0|  315.|  280.| 14.318|1.5|2.428| 60.174|
   6|       T106|    3|    4|    3|    0|  529.|  494.| 24.045|1.5|1.362| 31.206|
   7|       T107|    3|    4|    3|    0|  323.|  288.| 14.682|1.5|2.319| 57.475|
   8|       T108|    3|    4|    3|    0|  235.|  200.| 10.682|1.3|3.615| 77.656|

                CASI DI CARICO DA MODELLO 3D

            SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

            RARE          |         FREQUENTI         |    QUASI PERMANENTI       |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara               1.|15.|Frequente          1.|16.|Quasi Perm         1.|

                VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|4.|1.| -430878.|-.087| .156| -542524.|-.35 |1.466|3.| .193!1.259|SI|
    0.|  0.|4.|1.|   30823.|-.006| .009|  669098.|-.35 |1.191|3.| .227|21.71|SI|
  133.|133.|4.|2.|  363877.|-.083| .107|  657840.|-.35 |  .851|3.| .291|1.808|SI|
  258.|258.|4.|2.|  531372.!-.128! .158!  657840.|-.35 |  .851|3.| .291|1.238!SI|
  508.|508.|4.|4.|    7001.|-.001| .001| 1169900.!-.35 |  .879|3.| .285|167.1!SI|
  517.|517.|4.|5.| -616828.!-.082| .109|-1100844.!-.35 |1.132|3.| .236|1.785|SI|
> 517.|  0.|4.|5.| -546319.!-.072| .096|-1100844.!-.35 |1.132|3.| .236|2.015|SI|
  534.| 18.|4.|6.| -531636.|-.098| .118| -875425.|-.35 |  .895|3.| .281|1.647|SI|
  534.| 18.|4.|6.|    9374.|-.002| .003|  545349.!-.35 |1.546|3.| .185!58.18!SI|
  769.|253.|4.|7.|  443990.!-.112! .162!  538829.|-.35 |1.105|3.| .241|1.214!SI|
 1022.|505.|4.|10| -542368.|-.078| .108| -973834.|-.35 |1.176|3.| .229|1.796|SI|
>1022.|  0.|4.|10| -557701.!-.08 | .111| -973834.!-.35 |1.176|3.| .229|1.746|SI|
 1040.| 18.|4.|8.| -542652.|-.105| .14 | -754091.|-.35 |1.065|3.| .247!1.39 |SI|
 1048.| 26.|4.|8.|   12744.|-.002| .005|  544911.!-.35 |1.501|3.| .189!42.76|SI|
 1276.|254.|4.|7.|  450907.!-.114! .165!  538829.|-.35 |1.105|3.| .241|1.195!SI|
 1399.|377.|4.|11|   -2616.|0.    | .001| -637969.|-.35 |1.241|3.| .22  |243.9!SI|
 1531.|509.|4.|13| -502185.|-.078| .114| -854693.|-.35 |1.228|3.| .222|1.702|SI|
>1531.|  0.|4.|13| -317392.!-.048| .072| -854693.!-.35 |1.228|3.| .222|2.693|SI|
 1531.|  0.|4.|13|   50043.|-.007| .01 |  931384.!-.35 |1.098|3.| .242|18.61|SI|
 1540.|  9.|4.|12| -317392.|-.054| .097! -641284.|-.35 |1.455|3.| .194|2.02 !SI|
 1540.|  9.|4.|12|   63784.|-.01 | .013|  924966.|-.35 |  .929|3.| .274!14.5 |SI|
 1557.| 26.|4.|14| -279269.|-.058! .086| -635660.|-.35 |1.131|3.| .236|2.276|SI|
 1660.|128.|4.|14|   -5646.|-.001| .002| -635660.|-.35 |1.131|3.| .236|112.6!SI|
 1719.|188.|4.|15|  205036.!-.053| .096|  422870.|-.35 |1.404|3.| .2   |2.062|SI|
 1778.|247.|4.|15|  -25866.|-.007| .021| -246809.|-.35 |1.928|3.| .154!9.542|SI|
 1877.|346.|4.|17| -208949.|-.033| .047| -852913.|-.35 |1.157|3.| .232|4.082|SI|
 1877.|346.|4.|17|   71010.|-.011| .017|  814455.|-.35 |1.225|3.| .222|11.47|SI|
>1877.|  0.|4.|17| -190566.|-.03 | .043| -852913.|-.35 |1.157|3.| .232|4.476|SI|
 1877.|  0.|4.|17|   98750.|-.015| .023|  814455.|-.35 |1.225|3.| .222|8.248|SI|
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1975.	98.	4.	15	-26805.	-.008	.022	-246809.	-.35	1.928	3.	.154	9.207	SI
2034.	157.	4.	15	174184.	-.044	.081	422870.	-.35	1.404	3.	.2	2.428	SI
2064.	187.	4.	18	-15652.	-.003	.004	-749674.	-.35	.939	3.	.271	47.9	SI
2174.	297.	4.	18	-303562.	-.059	.078	-749674.	-.35	.939	3.	.271	2.47	SI
2183.	306.	4.	19	-313605.	-.048	.08	-761184.	-.35	1.381	3.	.202	2.427	SI
2183.	306.	4.	19	90465.	-.013	.017	1050993.	-.35	.894	3.	.281	11.62	SI
2192.	315.	4.	20	-313605.	-.044	.062	-973950.	-.35	1.181	3.	.229	3.106	SI
2192.	315.	4.	20	79392.	-.011	.014	1057915.	-.35	1.05	3.	.25	13.33	SI
>2192.	0.	4.	20	-547851.	-.079	.109	-973950.	-.35	1.181	3.	.229	1.778	SI
2201.	9.	4.	19	-547851.	-.086	.14	-761184.	-.35	1.381	3.	.202	1.389	SI
2218.	26.	4.	21	5313.	-.001	.002	671852.	-.35	1.339	3.	.207	126.5	SI
2351.	160.	4.	2.	354032.	-.08	.104	657840.	-.35	.851	3.	.291	1.858	SI
2441.	250.	4.	2.	483103.	-.115	.143	657840.	-.35	.851	3.	.291	1.362	SI
2695.	503.	4.	21	2232.	0.	.001	671852.	-.35	1.339	3.	.207	301.1	SI
2712.	520.	4.	22	-560686.	-.088	.144	-761184.	-.35	1.381	3.	.202	1.358	SI
2721.	529.	4.	23	-560686.	-.081	.112	-973950.	-.35	1.181	3.	.229	1.737	SI
>2721.	0.	4.	23	-315099.	-.044	.063	-973950.	-.35	1.181	3.	.229	3.091	SI
2721.	0.	4.	23	63668.	-.009	.012	1057915.	-.35	1.05	3.	.25	16.62	SI
2730.	9.	4.	22	75927.	-.011	.014	1050993.	-.35	.894	3.	.281	13.84	SI
2738.	18.	4.	18	-304806.	-.06	.079	-749674.	-.35	.939	3.	.271	2.46	SI
2852.	131.	4.	18	-9466.	-.002	.002	-749674.	-.35	.939	3.	.271	79.2	SI
2882.	162.	4.	15	182363.	-.047	.085	422870.	-.35	1.404	3.	.2	2.319	SI
2944.	222.	4.	15	-14186.	-.004	.012	-246809.	-.35	1.928	3.	.154	17.4	SI
3044.	323.	4.	17	-179750.	-.028	.041	-852913.	-.35	1.157	3.	.232	4.745	SI
3044.	323.	4.	17	82273.	-.013	.02	814455.	-.35	1.225	3.	.222	9.899	SI
>3044.	0.	4.	17	-188898.	-.03	.043	-852913.	-.35	1.157	3.	.232	4.515	SI
3044.	0.	4.	17	72807.	-.011	.017	814455.	-.35	1.225	3.	.222	11.19	SI
3053.	9.	4.	16	74840.	-.013	.018	810473.	-.35	1.075	3.	.246	10.83	SI
3136.	92.	4.	14	-11104.	-.002	.003	-635660.	-.35	1.131	3.	.236	57.25	SI
3188.	144.	4.	15	-28663.	-.008	.024	-246809.	-.35	1.928	3.	.154	8.611	SI
3253.	209.	4.	24	117393.	-.026	.055	424381.	-.35	1.595	3.	.18	3.615	SI
3279.	235.	4.	24	-196085.	-.042	.071	-540533.	-.35	1.307	3.	.211	2.757	SI
3279.	235.	4.	24	116139.	-.026	.054	424381.	-.35	1.595	3.	.18	3.654	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	4.	6808.	4224.	25056.	25226.	1.01	4.	1.5	SI
133.	133.	4.	-1203.	6324.	18720.	12012.	1.01	14.	2.5	SI
517.	517.	4.	-7084.	4224.	25056.	25226.	1.01	4.	1.5	SI
> 517.	0.	4.	6544.	4224.	25056.	25226.	1.01	4.	1.5	SI
556.	40.	4.	5932.	5871.	25056.	25226.	1.01	4.	1.5	SI
1022.	505.	4.	-6528.	4224.	25056.	25226.	1.01	4.	1.5	SI
>1022.	0.	4.	6704.	5871.	25056.	25226.	1.01	4.	1.5	SI
1531.	509.	4.	-6478.	5371.	25056.	25226.	1.01	4.	1.5	SI
>1531.	0.	4.	-990.	4224.	25056.	25226.	1.01	4.	1.5	SI
1531.	0.	4.	5635.	4224.	25056.	25226.	1.01	4.	1.5	SI
1570.	40.	4.	-1306.	5371.	25056.	25226.	1.01	4.	1.5	SI
1877.	346.	4.	-5450.	4224.	25056.	25226.	1.01	4.	1.5	SI
1877.	346.	4.	674.	4224.	25056.	25226.	1.01	4.	1.5	SI
>1877.	0.	4.	-1674.	4224.	25056.	25226.	1.01	4.	1.5	SI
1877.	0.	4.	5543.	4224.	25056.	25226.	1.01	4.	1.5	SI
1916.	40.	4.	-1989.	5371.	25056.	25226.	1.01	4.	1.5	SI
2192.	315.	4.	-5689.	4224.	25056.	25226.	1.01	4.	1.5	SI
2192.	315.	4.	1026.	4224.	25056.	25226.	1.01	4.	1.5	SI
>2192.	0.	4.	6844.	5871.	25056.	25226.	1.01	4.	1.5	SI
2231.	40.	4.	6233.	6324.	25056.	25226.	1.01	4.	1.5	SI
2721.	529.	4.	-6895.	5871.	25056.	25226.	1.01	4.	1.5	SI
>2721.	0.	4.	-1165.	4224.	25056.	25226.	1.01	4.	1.5	SI
2721.	0.	4.	5902.	4224.	25056.	25226.	1.01	4.	1.5	SI
3044.	323.	4.	-5294.	5371.	25056.	25226.	1.01	4.	1.5	SI
3044.	323.	4.	1271.	5371.	25056.	25226.	1.01	4.	1.5	SI
>3044.	0.	4.	-3424.	4224.	25056.	25226.	1.01	4.	1.5	SI
3044.	0.	4.	6209.	4224.	25056.	25226.	1.01	4.	1.5	SI
3084.	40.	4.	-3739.	5371.	25056.	25226.	1.01	4.	1.5	SI
3279.	235.	4.	-6292.	4224.	25056.	25226.	1.01	4.	1.5	SI
3279.	235.	4.	2839.	4224.	25056.	25226.	1.01	4.	1.5	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-302503.	-81.2	2284.9	8.01	5.13	.0915	14.23	.13	SI
18.	18.	4.	1.	-265814.	-71.3	2007.8	8.01	5.13	.0783	14.23	.111	SI
26.	26.	4.	1.	-229964.	-61.7	1737.	8.01	5.13	.0654	14.23	.093	SI
40.	40.	4.	1.	-173569.	-46.6	1311.	8.01	5.13	.0451	14.23	.064	SI
258.	258.	4.	2.	377026.	-110.8	2301.4	10.05	4.68	.0961	13.18	.127	SI
517.	517.	4.	5.	-437649.	-79.4	1608.	16.84	4.64	.0673	10.45	.07	SI
> 517.	0.	4.	5.	-387651.	-70.3	1424.3	16.84	4.64	.0585	10.45	.061	SI
769.	253.	4.	7.	315031.	-99.2	2376.9	8.04	4.89	.0966	14.93	.144	SI
1022.	505.	4.	10	-384818.	-75.2	1600.6	14.83	4.72	.066	10.86	.072	SI
>1022.	0.	4.	10	-395737.	-77.3	1646.	14.83	4.72	.0682	10.86	.074	SI
1276.	254.	4.	7.	319939.	-100.8	2414.	8.04	4.89	.0984	14.93	.147	SI
1531.	509.	4.	13	-356297.	-75.2	1691.5	12.94	4.8	.0692	11.47	.079	SI
>1531.	0.	4.	13	-223959.	-47.2	1063.2	12.94	4.8	.0392	11.47	.045	SI
1540.	9.	4.	12	-217194.	-50.5	1383.4	9.55	5.09	.0509	13.21	.067	SI
1719.	188.	4.	15	145482.	-50.1	1416.1	6.16	5.14	.0459	16.76	.077	SI
1877.	346.	4.	17	-141221.	-31.	671.2	12.94	4.74	.0207	11.43	.024	SI
>1877.	0.	4.	17	-109521.	-24.	520.5	12.94	4.74	.0149	11.43	.017	SI
2034.	157.	4.	15	123594.	-42.6	1203.	6.16	5.14	.0357	16.76	.06	SI
2174.	297.	4.	18	-194444.	-51.	1046.4	11.44	4.66	.0376	12.02	.045	SI
2192.	315.	4.	20	-221534.	-43.2	921.3	14.83	4.72	.0336	10.86	.037	SI
>2192.	0.	4.	20	-388738.	-75.7	1616.7	14.83	4.72	.0668	10.86	.072	SI
2441.	250.	4.	2.	342779.	-100.7	2092.4	10.05	4.68	.0862	13.18	.114	SI
2721.	529.	4.	23	-397829.	-77.5	1654.5	14.83	4.72	.0686	10.86	.074	SI

>2721.	0.	4.	23	-222784.	-43.4	926.5	14.83	4.72	.0339	10.86	.037	SI
2738.	18.	4.	18	-195164.	-51.2	1050.3	11.44	4.66	.0378	12.02	.045	SI
2882.	162.	4.	15	129400.	-44.6	1259.5	6.16	5.14	.0384	16.76	.064	SI
3044.	323.	4.	17	-110356.	-24.2	524.5	12.94	4.74	.015	11.43	.017	SI
>3044.	0.	4.	17	-79883.	-17.5	379.7	12.94	4.74	.0108	11.43	.012	SI
3162.	118.	4.	15	78349.	-27.	762.6	6.16	5.14	.0218	16.76	.037	SI
3279.	235.	4.	24	-54833.	-16.1	414.6	8.01	5.	.0118	14.07	.017	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-236437.	-63.5	1785.9	8.01	5.13	.0677	14.23	.096	SI
18.	18.	4.	1.	-207770.	-55.8	1569.4	8.01	5.13	.0574	14.23	.082	SI
26.	26.	4.	1.	-179759.	-48.2	1357.8	8.01	5.13	.0474	14.23	.067	SI
40.	40.	4.	1.	-135694.	-36.4	1024.9	8.01	5.13	.0315	14.23	.045	SI
258.	258.	4.	2.	294550.	-86.5	1798.	10.05	4.68	.0722	13.18	.095	SI
517.	517.	4.	5.	-341881.	-62.	1256.1	16.84	4.64	.0505	10.45	.053	SI
> 517.	0.	4.	5.	-302905.	-54.9	1112.9	16.84	4.64	.0437	10.45	.046	SI
769.	253.	4.	7.	246132.	-77.5	1857.1	8.04	4.89	.0718	14.93	.107	SI
1022.	505.	4.	10	-300611.	-58.7	1250.3	14.83	4.72	.0493	10.86	.054	SI
>1022.	0.	4.	10	-309251.	-60.4	1286.3	14.83	4.72	.051	10.86	.055	SI
1276.	254.	4.	7.	249968.	-78.7	1886.	8.04	4.89	.0732	14.93	.109	SI
1531.	509.	4.	13	-278297.	-58.7	1321.2	12.94	4.8	.0515	11.47	.059	SI
>1531.	0.	4.	13	-175102.	-36.9	831.3	12.94	4.8	.0282	11.47	.032	SI
1540.	9.	4.	12	-169814.	-39.5	1081.6	9.55	5.09	.0366	13.21	.048	SI
1719.	188.	4.	15	113664.	-39.1	1106.4	6.16	5.14	.0316	16.76	.053	SI
1877.	346.	4.	17	-110229.	-24.2	523.9	12.94	4.74	.015	11.43	.017	SI
>1877.	0.	4.	17	-85595.	-18.8	406.8	12.94	4.74	.0116	11.43	.013	SI
2034.	157.	4.	15	96570.	-33.3	940.	6.16	5.14	.0269	16.76	.045	SI
2174.	297.	4.	18	-151868.	-39.8	817.3	11.44	4.66	.0267	12.02	.032	SI
2192.	315.	4.	20	-173032.	-33.7	719.6	14.83	4.72	.024	10.86	.026	SI
>2192.	0.	4.	20	-303753.	-59.2	1263.3	14.83	4.72	.0499	10.86	.054	SI
2441.	250.	4.	2.	267796.	-78.7	1634.7	10.05	4.68	.0644	13.18	.085	SI
2721.	529.	4.	23	-310814.	-60.6	1292.7	14.83	4.72	.0513	10.86	.056	SI
>2721.	0.	4.	23	-174189.	-33.9	724.4	14.83	4.72	.0243	10.86	.026	SI
2738.	18.	4.	18	-152600.	-40.	821.2	11.44	4.66	.0269	12.02	.032	SI
2882.	162.	4.	15	101114.	-34.8	984.2	6.16	5.14	.0281	16.76	.047	SI
3044.	323.	4.	17	-86044.	-18.9	409.	12.94	4.74	.0117	11.43	.013	SI
>3044.	0.	4.	17	-62394.	-13.7	296.5	12.94	4.74	.0085	11.43	.01	SI
3162.	118.	4.	15	61186.	-21.1	595.6	6.16	5.14	.017	16.76	.029	SI
3279.	235.	4.	24	-42939.	-12.6	324.6	8.01	5.	.0093	14.07	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-219921.	-59.	1661.1	8.01	5.13	.0618	14.23	.088	SI
18.	18.	4.	1.	-193259.	-51.9	1459.8	8.01	5.13	.0522	14.23	.074	SI
26.	26.	4.	1.	-167208.	-44.9	1263.	8.01	5.13	.0428	14.23	.061	SI
40.	40.	4.	1.	-126225.	-33.9	953.4	8.01	5.13	.0281	14.23	.04	SI
258.	258.	4.	2.	273931.	-80.5	1672.1	10.05	4.68	.0662	13.18	.087	SI
517.	517.	4.	5.	-317939.	-57.7	1168.2	16.84	4.64	.0463	10.45	.048	SI
> 517.	0.	4.	5.	-281718.	-51.1	1035.1	16.84	4.64	.04	10.45	.042	SI
769.	253.	4.	7.	228907.	-72.1	1727.1	8.04	4.89	.0656	14.93	.098	SI
1022.	505.	4.	10	-279559.	-54.6	1162.8	14.83	4.72	.0451	10.86	.049	SI
>1022.	0.	4.	10	-287629.	-56.2	1196.3	14.83	4.72	.0467	10.86	.051	SI
1276.	254.	4.	7.	232475.	-73.2	1754.	8.04	4.89	.0669	14.93	.1	SI
1531.	509.	4.	13	-258797.	-54.6	1228.6	12.94	4.8	.0471	11.47	.054	SI
>1531.	0.	4.	13	-162887.	-34.4	773.3	12.94	4.8	.0254	11.47	.029	SI
1540.	9.	4.	12	-157970.	-36.8	1006.2	9.55	5.09	.033	13.21	.044	SI
1719.	188.	4.	15	105709.	-36.4	1028.9	6.16	5.14	.0294	16.76	.049	SI
1877.	346.	4.	17	-102481.	-22.5	487.1	12.94	4.74	.0139	11.43	.016	SI
>1877.	0.	4.	17	-79613.	-17.5	378.4	12.94	4.74	.0108	11.43	.012	SI
2034.	157.	4.	15	89814.	-30.9	874.2	6.16	5.14	.025	16.76	.042	SI
2174.	297.	4.	18	-141224.	-37.1	760.	11.44	4.66	.024	12.02	.029	SI
2192.	315.	4.	20	-160906.	-31.3	669.2	14.83	4.72	.0216	10.86	.023	SI
>2192.	0.	4.	20	-282507.	-55.	1174.9	14.83	4.72	.0457	10.86	.05	SI
2441.	250.	4.	2.	249050.	-73.2	1520.2	10.05	4.68	.0589	13.18	.078	SI
2721.	529.	4.	23	-289060.	-56.3	1202.2	14.83	4.72	.047	10.86	.051	SI
>2721.	0.	4.	23	-162040.	-31.6	673.9	14.83	4.72	.0219	10.86	.024	SI
2738.	18.	4.	18	-141960.	-37.2	763.9	11.44	4.66	.0242	12.02	.029	SI
2882.	162.	4.	15	94043.	-32.4	915.4	6.16	5.14	.0262	16.76	.044	SI
3044.	323.	4.	17	-79966.	-17.5	380.1	12.94	4.74	.0109	11.43	.012	SI
>3044.	0.	4.	17	-58021.	-12.7	275.8	12.94	4.74	.0079	11.43	.009	SI
3162.	118.	4.	15	56895.	-19.6	553.8	6.16	5.14	.0158	16.76	.027	SI
3279.	235.	4.	24	-39966.	-11.7	302.2	8.01	5.	.0086	14.07	.012	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.06	1.825	8.01	.809	3d14 +3d12	10.05	1.015	5d16
2	13.45	1.358	3.39	.343	3d12	10.05	1.015	5d16
3	23.5	2.374	13.45	1.358	5d16 +3d12	10.05	1.015	5d16
4	31.54	3.186	13.45	1.358	5d16 +3d12	18.1	1.828	5d16 +4d16
5	34.93	3.529	16.84	1.701	5d16 +3d12 +3d12	18.1	1.828	5d16 +4d16
6	21.49	2.171	13.45	1.358	5d16 +3d12	8.04	.812	4d16
7	11.44	1.155	3.39	.343	3d12	8.04	.812	4d16
8	19.48	1.967	11.44	1.155	4d16 +3d12	8.04	.812	4d16
9	27.52	2.78	11.44	1.155	4d16 +3d12	16.08	1.625	4d16 +4d16
10	30.91	3.123	14.83	1.498	4d16 +3d12 +3d12	16.08	1.625	4d16 +4d16
11	17.59	1.777	9.55	.965	4d14 +3d12	8.04	.812	4d16
12	23.75	2.399	9.55	.965	4d14 +3d12	14.2	1.434	4d16 +4d14
13	27.14	2.742	12.94	1.307	4d14 +3d12 +3d12	14.2	1.434	4d16 +4d14
14	15.71	1.587	9.55	.965	4d14 +3d12	6.16	.622	4d14
15	9.55	.965	3.39	.343	3d12	6.16	.622	4d14
16	21.87	2.209	9.55	.965	4d14 +3d12	12.32	1.244	4d14 +4d14
17	25.26	2.551	12.94	1.307	4d14 +3d12 +3d12	12.32	1.244	4d14 +4d14

18	17.59	1.777	11.44	1.155	4d16 +3d12		6.16	.622	4d14	
19	27.65	2.793	11.44	1.155	4d16 +3d12		16.21	1.637	4d14 +5d16	
20	31.04	3.135	14.83	1.498	4d16 +3d12	+3d12	16.21	1.637	4d14 +5d16	
21	21.49	2.171	11.44	1.155	4d16 +3d12		10.05	1.015	5d16	
22	27.65	2.793	11.44	1.155	4d16 +3d12		16.21	1.637	5d16 +4d14	
23	31.04	3.135	14.83	1.498	4d16 +3d12	+3d12	16.21	1.637	5d16 +4d14	
24	14.17	1.431	8.01	.809	3d14 +3d12		6.16	.622	4d14	

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 29 - Travata T002 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

5) Rettangolare: 55X22; A=1210.; Jg=48803.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A44	3	5	3	0	517.	487.	23.5	1.3	1.234	22.503
2	A45	3	5	3	0	505.	470.	22.955	1.5	1.328	28.558
3	A46	3	5	3	0	509.	479.	23.136	1.5	1.265	27.825
4	A47	3	5	3	0	346.	316.	15.727	1.5	1.986	46.078
5	A48	3	5	3	0	315.	280.	14.318	1.5	2.706	60.565
6	A49	3	5	3	0	529.	499.	24.045	1.5	1.307	27.778
7	A50	3	5	3	0	323.	298.	14.682	1.5	2.614	58.631
8	A51	3	5	3	0	237.	210.	10.795	1.3	2.895	59.734

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

Nome	RARE Descrizione	Sest	Nome	FREQUENTI Descrizione	Sest	Nome	QUASI PERMANENTI Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive		SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	5.	1.	-891232.	-.106	.143	-1212389.	-.35	1.172	3.	.23	1.36	SI
9.	9.	5.	1.	12934.	-.001	.002	1311569.	-.35	1.048	3.	.25	101.4	SI
129.	129.	5.	2.	713241.	-.109	.107	1254819.	-.35	.502	3.	.411	1.759	SI
161.	161.	5.	2.	852228.	-.135	.129	1254819.	-.35	.502	3.	.411	1.472	SI
193.	193.	5.	2.	962750.	-.157	.146	1254819.	-.35	.502	3.	.411	1.303	SI
224.	224.	5.	2.	995305.	-.163	.151	1254819.	-.35	.502	3.	.411	1.261	SI
256.	256.	5.	2.	1016928.!	-.168!	.155!	1254819.	-.35	.502	3.	.411	1.234	SI
288.	288.	5.	2.	965045.	-.157	.147	1254819.	-.35	.502	3.	.411	1.3	SI
319.	319.	5.	2.	887647.	-.142	.134	1254819.	-.35	.502	3.	.411	1.414	SI
351.	351.	5.	2.	737788.	-.114	.111	1254819.	-.35	.502	3.	.411	1.701	SI
446.	446.	5.	4.	-562070.	-.055	.051	-2079219.	-.35	.44	3.	.443	3.699	SI
446.	446.	5.	4.	243457.	-.022	.036	1322913.!	-.35	1.361	3.	.205	5.434	SI
477.	477.	5.	4.	-948389.	-.097	.086	-2079219.	-.35	.44	3.	.443	2.192	SI
477.	477.	5.	4.	-948389.	-.097	.086	-2079219.	-.35	.44	3.	.443	2.192	SI
491.	491.	5.	4.	-1123024.	-.116	.102	-2079219.	-.35	.44	3.	.443	1.851	SI
517.	517.	5.	5.	-1236635.!	-.095	.11	-2162446.!	-.35	1.05	3.	.25	1.749	SI
> 517.	0.	5.	5.	-1065084.!	-.081	.095	-2162446.!	-.35	1.05	3.	.25	2.03	SI
543.	26.	5.	6.	-961007.	-.102	.087	-2040805.	-.35	.341	3.	.506	2.124	SI
543.	26.	5.	6.	10315.	-.001	.002	1195638.!	-.35	1.424	3.	.197	115.9!	SI
556.	40.	5.	6.	-801026.	-.084	.073	-2040805.	-.35	.341	3.	.506	2.548	SI
556.	40.	5.	6.	-801026.	-.084	.073	-2040805.	-.35	.341	3.	.506	2.548	SI
587.	70.	5.	6.	-463852.	-.047	.042	-2040805.	-.35	.341	3.	.506	4.4	SI
678.	161.	5.	8.	643484.	-.107	.108	1127830.	-.35	.5	3.	.412	1.753	SI
709.	192.	5.	8.	762200.	-.13	.128	1127830.	-.35	.5	3.	.412	1.48	SI
739.	222.	5.	8.	812857.	-.141	.137	1127830.	-.35	.5	3.	.412	1.387	SI
769.	253.	5.	8.	849279.!	-.149!	.143!	1127830.	-.35	.5	3.	.412	1.328	SI

800.	283.	5.	8.	812970.	-.141	.137	1127830.	-.35	.5	3.	.412	1.387	SI
830.	313.	5.	8.	762470.	-.13	.128	1127830.	-.35	.5	3.	.412	1.479	SI
861.	344.	5.	8.	645406.	-.107	.108	1127830.	-.35	.5	3.	.412	1.747	SI
1022.	505.	5.	11	-1003986.	-.086	.113	-1710485.	-.35	1.182	3.	.228	1.704	SI
>1022.	0.	5.	11	-1044873.	-.09	.118	-1710485.	-.35	1.182	3.	.228	1.637	SI
1040.	18.	5.	12	-1016247.	-.121	.117	-1672792.	-.35	.673	3.	.342	1.646	SI
1048.	26.	5.	12	-939909.	-.111	.108	-1672792.	-.35	.673	3.	.342	1.78	SI
1062.	40.	5.	12	-778565.	-.09	.089	-1672792.	-.35	.673	3.	.342	2.149	SI
1062.	40.	5.	12	32065.	-.003	.006	1066010.	-.35	1.4	3.	.2	33.25	SI
1062.	40.	5.	12	-778565.	-.09	.089	-1672792.	-.35	.673	3.	.342	2.149	SI
1093.	71.	5.	12	-433239.	-.048	.049	-1672792.	-.35	.673	3.	.342	3.861	SI
1155.	133.	5.	13	-4695.	-.001	.001	-1337889.	-.35	.939	3.	.272	285.	SI
1186.	164.	5.	14	612648.	-.108	.115	1013612.	-.35	.564	3.	.383	1.654	SI
1217.	195.	5.	14	725513.	-.133	.137	1013612.	-.35	.564	3.	.383	1.397	SI
1248.	226.	5.	14	771660.	-.143	.146	1013612.	-.35	.564	3.	.383	1.314	SI
1279.	257.	5.	14	800993.	-.15	.151	1013612.	-.35	.564	3.	.383	1.265	SI
1310.	288.	5.	14	765438.	-.142	.144	1013612.	-.35	.564	3.	.383	1.324	SI
1341.	319.	5.	14	714188.	-.13	.134	1013612.	-.35	.564	3.	.383	1.419	SI
1372.	350.	5.	14	597224.	-.105	.112	1013612.	-.35	.564	3.	.383	1.697	SI
1531.	509.	5.	17	-839710.	-.084	.123	-1328336.	-.35	1.275	3.	.215	1.582	SI
>1531.	0.	5.	17	-670855.	-.066	.098	-1328336.	-.35	1.275	3.	.215	1.98	SI
1540.	9.	5.	18	-670855.	-.09	.099	-1302885.	-.35	.784	3.	.309	1.942	SI
1540.	9.	5.	18	5498.	-.001	.001	809373.	-.35	1.484	3.	.191	147.2	SI
1717.	186.	5.	20	396499.	-.075	.097	787268.	-.35	.812	3.	.301	1.986	SI
1860.	329.	5.	23	103521.	-.011	.012	1664861.	-.35	.673	3.	.342	16.08	SI
1868.	337.	5.	23	73303.	-.008	.008	1664861.	-.35	.673	3.	.342	22.71	SI
1877.	346.	5.	23	-362527.	-.039	.066	-1058015.	-.35	1.403	3.	.2	2.918	SI
1877.	346.	5.	23	44436.	-.005	.005	1664861.	-.35	.673	3.	.342	37.47	SI
>1877.	0.	5.	23	-306714.	-.033	.056	-1058015.	-.35	1.403	3.	.2	3.45	SI
1877.	0.	5.	23	95798.	-.01	.011	1664861.	-.35	.673	3.	.342	17.38	SI
1886.	9.	5.	23	119802.	-.013	.014	1664861.	-.35	.673	3.	.342	13.9	SI
1975.	98.	5.	26	-10255.	-.002	.006	-326032.	-.35	1.876	3.	.157	31.79	SI
1975.	98.	5.	26	296897.	-.051	.062	908055.	-.35	.731	3.	.324	3.058	SI
2005.	128.	5.	26	327475.	-.056	.069	908055.	-.35	.731	3.	.324	2.773	SI
2034.	157.	5.	26	335593.	-.058	.071	908055.	-.35	.731	3.	.324	2.706	SI
2064.	187.	5.	27	-6241.	-.001	.001	-1332535.	-.35	.857	3.	.29	213.5	SI
2152.	275.	5.	28	-425829.	-.049	.049	-1645624.	-.35	.514	3.	.405	3.865	SI
2152.	275.	5.	28	-425829.	-.049	.049	-1645624.	-.35	.514	3.	.405	3.865	SI
2166.	289.	5.	28	-539053.	-.063	.062	-1645624.	-.35	.514	3.	.405	3.053	SI
2174.	297.	5.	29	111497.	-.01	.01	2183103.	-.35	.749	3.	.318	19.58	SI
2192.	315.	5.	29	-612783.	-.051	.069	-1710485.	-.35	1.182	3.	.228	2.791	SI
2192.	315.	5.	29	57280.	-.005	.005	2183103.	-.35	.749	3.	.318	38.11	SI
>2192.	0.	5.	29	-1069900.	-.092	.121	-1710485.	-.35	1.182	3.	.228	1.599	SI
2231.	40.	5.	30	12777.	-.001	.002	1319290.	-.35	1.244	3.	.22	103.3	SI
2353.	161.	5.	32	680096.	-.11	.103	1220517.	-.35	.385	3.	.476	1.795	SI
2383.	191.	5.	32	820003.	-.138	.125	1220517.	-.35	.385	3.	.476	1.488	SI
2413.	221.	5.	32	893998.	-.154	.137	1220517.	-.35	.385	3.	.476	1.365	SI
2444.	252.	5.	32	933990.	-.163	.143	1220517.	-.35	.385	3.	.476	1.307	SI
2474.	282.	5.	32	929118.	-.162	.142	1220517.	-.35	.385	3.	.476	1.314	SI
2504.	312.	5.	32	890166.	-.153	.136	1220517.	-.35	.385	3.	.476	1.371	SI
2535.	343.	5.	32	807586.	-.136	.123	1220517.	-.35	.385	3.	.476	1.511	SI
2565.	373.	5.	32	666809.	-.108	.101	1220517.	-.35	.385	3.	.476	1.83	SI
2656.	464.	5.	33	164706.	-.016	.024	1319290.	-.35	1.244	3.	.22	8.01	SI
2721.	529.	5.	34	-1056734.	-.091	.119	-1710317.	-.35	1.178	3.	.229	1.618	SI
>2721.	0.	5.	34	-713636.	-.06	.08	-1710317.	-.35	1.178	3.	.229	2.397	SI
2730.	9.	5.	34	18464.	-.002	.002	2169967.	-.35	.756	3.	.316	117.5	SI
2733.	13.	5.	35	-701638.	-.085	.081	-1642271.	-.35	.499	3.	.412	2.341	SI
2742.	21.	5.	35	-658123.	-.079	.076	-1642271.	-.35	.499	3.	.412	2.495	SI
2755.	35.	5.	35	-538659.	-.064	.062	-1642271.	-.35	.499	3.	.412	3.049	SI
2755.	35.	5.	35	-538659.	-.064	.062	-1642271.	-.35	.499	3.	.412	3.049	SI
2897.	176.	5.	37	342678.	-.059	.073	895675.	-.35	.748	3.	.319	2.614	SI
2953.	232.	5.	37	-4251.	-.001	.003	-326032.	-.35	1.876	3.	.157	76.7	SI
3044.	323.	5.	39	-341091.	-.04	.072	-917769.	-.35	1.449	3.	.195	2.691	SI
3044.	323.	5.	39	42796.	-.005	.006	1477721.	-.35	.72	3.	.327	34.53	SI
>3044.	0.	5.	39	-250533.	-.029	.053	-917769.	-.35	1.449	3.	.195	3.663	SI
3044.	0.	5.	39	54748.	-.006	.007	1477721.	-.35	.72	3.	.327	26.99	SI
3162.	117.	5.	41	215226.	-.041	.067	623091.	-.35	1.202	3.	.226	2.895	SI
3217.	173.	5.	41	-48906.	-.011	.03	-326038.	-.35	1.88	3.	.157	6.667	SI
3281.	237.	5.	42	-198191.	-.032	.054	-717504.	-.35	1.298	3.	.212	3.62	SI
3281.	237.	5.	42	119278.	-.02	.037	627449.	-.35	1.468	3.	.193	5.26	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	5.	12725.	5162.	28997.	28589.	1.01	4.	1.7	SI
517.	517.	5.	-13988.	10794.	28997.	28589.	1.01	4.	1.7	SI
> 517.	0.	5.	12821.	10794.	28997.	28589.	1.01	4.	1.7	SI
1022.	505.	5.	-12495.	9957.	28997.	28589.	1.01	4.	1.7	SI
1022.	505.	5.	304.	9957.	28997.	28589.	1.01	4.	1.7	SI
>1022.	0.	5.	12836.	9957.	28997.	28589.	1.01	4.	1.7	SI
1531.	509.	5.	-10710.	9128.	28997.	28589.	1.01	4.	1.7	SI
>1531.	0.	5.	-663.	5162.	28997.	28589.	1.01	4.	1.7	SI
1531.	0.	5.	10774.	5162.	28997.	28589.	1.01	4.	1.7	SI
1596.	65.	5.	-2073.	7683.	22880.	14014.	1.01	12.	2.5	SI
1877.	346.	5.	-9198.	5162.	28997.	28589.	1.01	4.	1.7	SI
1877.	346.	5.	1766.	5162.	28997.	28589.	1.01	4.	1.7	SI
>1877.	0.	5.	-4458.	5162.	28997.	28589.	1.01	4.	1.7	SI
1877.	0.	5.	10703.	5162.	28997.	28589.	1.01	4.	1.7	SI
2005.	128.	5.	-7445.	8088.	22880.	14014.	1.01	12.	2.5	SI
2192.	315.	5.	-12026.	5162.	28997.	28589.	1.01	4.	1.7	SI
2192.	315.	5.	2190.	5162.	28997.	28589.	1.01	4.	1.7	SI
>2192.	0.	5.	13295.	9349.	28997.	28589.	1.01	4.	1.7	SI
2721.	529.	5.	-13391.	9957.	28997.	28589.	1.01	4.	1.7	SI
>2721.	0.	5.	-1220.	5162.	28997.	28589.	1.01	4.	1.7	SI
2721.	0.	5.	11883.	5162.	28997.	28589.	1.01	4.	1.7	SI
2755.	35.	5.	-1814.	8045.	28997.	28589.	1.01	4.	1.7	SI
3044.	323.	5.	-9612.	5162.	28997.	28589.	1.01	4.	1.7	SI

3044.	323.	5.	3153.	5162.	28997.	28589.	1.01	4.	1.7	SI
>3044.	0.	5.	-2041.	5162.	28997.	28589.	1.01	4.	1.7	SI
3044.	0.	5.	9116.!	5162.	28997.	28589.	1.01	4.	1.7	SI
3134.	90.	5.	-4130.	7028.!	22880.	14014.	1.01	12.	2.5	SI
3281.	237.	5.	-7710.!	5162.	28997.!	28589.!	1.01	4.	1.7	SI
3281.	237.	5.	2704.	5162.	28997.	28589.	1.01	4.	1.7	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	5.	1.	-531161.	-83.8	1774.2	18.47	4.71	.0744	11.16	.083	SI
21.	21.	5.	1.	-463394.	-73.1	1547.8	18.47	4.71	.0636	11.16	.071	SI
34.	34.	5.	1.	-356791.	-56.3	1191.8	18.47	4.71	.0467	11.16	.052	SI
256.	256.	5.	2.	719136.!	-139. !	2241.1	20.11	4.28	.0978	10.67	.104!	SI
517.	517.	5.	5.	-874531.!	-92.3	1629.9	33.46	4.42	.0708	9.3	.066	SI
> 517.	0.	5.	5.	-753214.!	-79.5	1403.8	33.46	4.42	.06	9.3	.056	SI
769.	253.	5.	8.	600626.!	-124.9	2075. !	18.1	4.33	.0891	11.06	.099!	SI
1022.	505.	5.	11	-710072.	-83.7	1676.9	26.26	4.62	.0719	9.81	.071	SI
>1022.	0.	5.	11	-739311.!	-87.2	1746.	26.26	4.62	.0752	9.81	.074	SI
1279.	257.	5.	14	566809.!	-124.9	2192.8	16.08	4.42	.0938	11.59	.109!	SI
1531.	509.	5.	17	-593901.	-81.4	1810.9	20.23	4.78	.0766	10.72	.082	SI
>1531.	0.	5.	17	-475027.!	-65.1	1448.4!	20.23	4.78	.0594	10.72	.064	SI
1540.	9.	5.	18	-456471.	-80.6	1405.8	20.23	4.4	.0579	10.5	.061	SI
1717.	186.	5.	20	280286.!	-69.	1425.7	12.06	4.67	.0543	13.27	.072!	SI
1877.	346.	5.	23	-253417.	-38.4	973.6	15.96	4.98	.0347	11.49	.04	SI
>1877.	0.	5.	23	-211058.!	-32.	810.8	15.96	4.98	.027	11.49	.031	SI
2034.	157.	5.	26	237317.!	-54.3	1041.7	14.07	4.55	.0377	12.32	.046!	SI
2192.	315.	5.	29	-433409.!	-51.1	1023.6	26.26	4.62	.0408	9.81	.04	SI
>2192.	0.	5.	29	-756561.!	-89.2	1786.7	26.26	4.62	.0771	9.81	.076	SI
2444.	252.	5.	32	660479.!	-133.5	2065.7	20.11	4.22	.0895	10.62	.095!	SI
2721.	529.	5.	34	-747269.	-88.4	1764.9	26.26	4.62	.0761	9.81	.075	SI
>2721.	0.	5.	34	-504742.!	-59.7	1192.1!	26.26	4.62	.0488	9.81	.048!	SI
2733.	13.	5.	35	-465484.	-74.4	1115.4	26.26	4.17	.0456	9.58	.044	SI
2897.	176.	5.	37	242326.!	-55.7	1079.6	13.85	4.57	.0393	12.14	.048	SI
3044.	323.	5.	39	-241203.	-40.	1070.8	13.76	5.06	.0379	12.38	.047	SI
>3044.	0.	5.	39	-174922.!	-29.	776.6	13.76	5.06	.0239	12.38	.03	SI
3162.	117.	5.	41	152198.!	-39.7!	996.7!	9.24	4.97	.0298	14.86	.044!	SI
3281.	237.	5.	42	-132828.	-30.	755.4	10.68	4.97	.0216	13.51	.029	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	5.	1.	-409925.	-64.7	1369.2	18.47	4.71	.0551	11.16	.061	SI
21.	21.	5.	1.	-357628.	-56.4	1194.6	18.47	4.71	.0468	11.16	.052	SI
34.	34.	5.	1.	-275361.	-43.5	919.8	18.47	4.71	.0337	11.16	.038	SI
256.	256.	5.	2.	555033.!	-107.3	1729.7!	20.11	4.28	.0734	10.67	.078!	SI
517.	517.	5.	5.	-675042.!	-71.2	1258.1	33.46	4.42	.0531	9.3	.049	SI
> 517.	0.	5.	5.	-581403.!	-61.4	1083.6	33.46	4.42	.0448	9.3	.042	SI
769.	253.	5.	8.	463695.!	-96.4	1601.9!	18.1	4.33	.0666	11.06	.074!	SI
1022.	505.	5.	11	-548290.	-64.7	1294.9	26.26	4.62	.0537	9.81	.053	SI
>1022.	0.	5.	11	-571774.!	-67.4	1350.3	26.26	4.62	.0563	9.81	.055	SI
1279.	257.	5.	14	438528.!	-96.6	1696.5!	16.08	4.42	.0702	11.59	.081!	SI
1531.	509.	5.	17	-458625.	-62.9	1398.4	20.23	4.78	.057	10.72	.061	SI
>1531.	0.	5.	17	-368387.!	-50.5	1123.3!	20.23	4.78	.0439	10.72	.047	SI
1540.	9.	5.	18	-354044.!	-62.5!	1090.4	20.23	4.4	.0428	10.5	.045	SI
1717.	186.	5.	20	216033.!	-53.2	1098.9	12.06	4.67	.0387	13.27	.051!	SI
1877.	346.	5.	23	-194819.	-29.5	748.5	15.96	4.98	.024	11.49	.028	SI
>1877.	0.	5.	23	-162641.	-24.6	624.8	15.96	4.98	.0181	11.49	.021	SI
2034.	157.	5.	26	183154.!	-41.9!	803.9!	14.07	4.55	.0264	12.32	.032!	SI
2192.	315.	5.	29	-334705.!	-39.5	790.5	26.26	4.62	.0297	9.81	.029	SI
>2192.	0.	5.	29	-583818.!	-68.9	1378.8	26.26	4.62	.0577	9.81	.057	SI
2444.	252.	5.	32	509745.!	-103.1	1594.3!	20.11	4.22	.067	10.62	.071!	SI
2721.	529.	5.	34	-576700.	-68.2	1362.1	26.26	4.62	.0569	9.81	.056	SI
>2721.	0.	5.	34	-389800.!	-46.1	920.6!	26.26	4.62	.0359	9.81	.035!	SI
2733.	13.	5.	35	-359497.	-57.4!	861.4	26.26	4.17	.0335	9.58	.032	SI
2897.	176.	5.	37	187018.!	-43.	833.2	13.85	4.57	.0276	12.14	.033	SI
3044.	323.	5.	39	-186147.	-30.8	826.4	13.76	5.06	.0262	12.38	.032	SI
>3044.	0.	5.	39	-134875.!	-22.4	598.8	13.76	5.06	.0171	12.38	.021	SI
3162.	117.	5.	41	117460.!	-30.6!	769.2!	9.24	4.97	.022	14.86	.033!	SI
3281.	237.	5.	42	-102512.	-23.1	583.	10.68	4.97	.0167	13.51	.023	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	5.	1.	-379615.	-59.9	1268.	18.47	4.71	.0503	11.16	.056	SI
21.	21.	5.	1.	-331186.	-52.3	1106.2	18.47	4.71	.0426	11.16	.048	SI
34.	34.	5.	1.	-255003.	-40.2	851.8	18.47	4.71	.0305	11.16	.034	SI
256.	256.	5.	2.	514008.!	-99.3!	1601.8!	20.11	4.28	.0673	10.67	.072!	SI
517.	517.	5.	5.	-625170.!	-66.	1165.1	33.46	4.42	.0487	9.3	.045	SI
> 517.	0.	5.	5.	-538450.!	-56.8	1003.5	33.46	4.42	.041	9.3	.038	SI
769.	253.	5.	8.	429462.!	-89.3!	1483.7!	18.1	4.33	.061	11.06	.067!	SI
1022.	505.	5.	11	-507844.	-59.9	1199.3	26.26	4.62	.0491	9.81	.048	SI
>1022.	0.	5.	11	-529890.!	-62.5	1251.4	26.26	4.62	.0516	9.81	.051	SI
1279.	257.	5.	14	406457.!	-89.6!	1572.5!	16.08	4.42	.0643	11.59	.074!	SI
1531.	509.	5.	17	-424806.	-58.2	1295.3	20.23	4.78	.0521	10.72	.056	SI
>1531.	0.	5.	17	-341727.!	-46.8	1042. !	20.23	4.78	.04	10.72	.043	SI
1540.	9.	5.	18	-328438.	-58. !	1011.5	20.23	4.4	.0391	10.5	.041	SI
1717.	186.	5.	20	199970.!	-49.2	1017.1	12.06	4.67	.0348	13.27	.046!	SI
1877.	346.	5.	23	-180170.	-27.3	692.2	15.96	4.98	.0213	11.49	.025	SI
>1877.	0.	5.	23	-150537.!	-22.8	578.3	15.96	4.98	.0165	11.49	.019	SI
2034.	157.	5.	26	169613.!	-38.8!	744.5!	14.07	4.55	.0235	12.32	.029!	SI
2192.	315.	5.	29	-310029.!	-36.6	732.2	26.26	4.62	.0269	9.81	.026	SI
>2192.	0.	5.	29	-540633.!	-63.8	1276.8	26.26	4.62	.0528	9.81	.052	SI
2444.	252.	5.	32	472062.!	-95.4!	1476.4!	20.11	4.22	.0614	10.62	.065!	SI

2721.	529.	5.	34	-534057.	-63.2	1261.4	26.26	4.62	.0521	9.81	.051	SI
>2721.	0.	5.	34	-361064.!	-42.7	852.8!	26.26	4.62	.0326	9.81	.032!	SI
2733.	13.	5.	35	-333000.!	-53.2!	798.	26.26	4.17	.0305	9.58	.029	SI
2897.	176.	5.	37	173191.!	-39.8	771.6	13.85	4.57	.0247	12.14	.03	SI
3044.	323.	5.	39	-172383.!	-28.6	765.3	13.76	5.06	.0233	12.38	.029	SI
>3044.	0.	5.	39	-124863.!	-20.7	554.3	13.76	5.06	.0158	12.38	.02	SI
3162.	117.	5.	41	108775.!	-28.4!	712.4!	9.24	4.97	.0204	14.86	.03	!SI
3281.	237.	5.	42	-94933.!	-21.4	539.9	10.68	4.97	.0154	13.51	.021	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	38.58	3.188	18.47	1.527	5d14 +7d14	20.11	1.662	10d16
2	27.8	2.298	7.7	.636	5d14	20.11	1.662	10d16
3	47.91	3.959	27.8	2.298	10d16 +5d14	20.11	1.662	10d16
4	53.56	4.427	33.46	2.765	10d16 +5d14 +5d12	20.11	1.662	10d16
5	71.66	5.922	33.46	2.765	10d16 +5d14 +5d12	38.2	3.157	10d16 +9d16
6	51.55	4.261	33.46	2.765	10d16 +5d14 +5d12	18.1	1.496	9d16
7	43.86	3.625	25.76	2.129	10d16 +5d12	18.1	1.496	9d16
8	23.75	1.963	5.65	.467	5d12	18.1	1.496	9d16
9	39.84	3.292	21.74	1.797	8d16 +5d12	18.1	1.496	9d16
10	44.36	3.666	26.26	2.171	8d16 +5d12 +4d12	18.1	1.496	9d16
11	60.44	4.995	26.26	2.171	8d16 +5d12 +4d12	34.18	2.825	9d16 +8d16
12	42.35	3.5	26.26	2.171	8d16 +5d12 +4d12	16.08	1.329	8d16
13	36.69	3.033	20.61	1.703	8d16 +4d12	16.08	1.329	8d16
14	20.61	1.703	4.52	.374	4d12	16.08	1.329	8d16
15	32.92	2.721	16.84	1.392	8d14 +4d12	16.08	1.329	8d16
16	36.32	3.001	20.23	1.672	8d14 +4d12 +3d12	16.08	1.329	8d16
17	48.38	3.998	20.23	1.672	8d14 +4d12 +3d12	28.15	2.326	8d16 +6d16
18	32.3	2.669	20.23	1.672	8d14 +4d12 +3d12	12.06	.997	6d16
19	27.77	2.295	15.71	1.298	8d14 +3d12	12.06	.997	6d16
20	15.46	1.277	3.39	.28	3d12	12.06	.997	6d16
21	23.5	1.942	11.44	.945	4d16 +3d12	12.06	.997	6d16
22	28.02	2.316	15.96	1.319	4d16 +3d12 +4d12	12.06	.997	6d16
23	42.1	3.479	15.96	1.319	4d16 +3d12 +4d12	26.14	2.16	6d16 +7d16
24	30.03	2.482	15.96	1.319	4d16 +3d12 +4d12	14.07	1.163	7d16
25	26.64	2.202	12.57	1.039	4d16 +4d12	14.07	1.163	7d16
26	18.6	1.537	4.52	.374	4d12	14.07	1.163	7d16
27	34.68	2.866	20.61	1.703	8d16 +4d12	14.07	1.163	7d16
28	40.34	3.334	26.26	2.171	8d16 +4d12 +5d12	14.07	1.163	7d16
29	60.44	4.995	26.26	2.171	8d16 +4d12 +5d12	34.18	2.825	7d16 +10d16
30	46.37	3.832	26.26	2.171	8d16 +4d12 +5d12	20.11	1.662	10d16
31	41.85	3.458	21.74	1.797	8d16 +5d12	20.11	1.662	10d16
32	25.76	2.129	5.65	.467	5d12	20.11	1.662	10d16
33	46.37	3.832	26.26	2.171	8d16 +5d12 +4d12	20.11	1.662	10d16
34	60.22	4.977	26.26	2.171	8d16 +5d12 +4d12	33.96	2.807	10d16 +9d14
35	40.12	3.316	26.26	2.171	8d16 +5d12 +4d12	13.85	1.145	9d14
36	34.46	2.848	20.61	1.703	8d16 +4d12	13.85	1.145	9d14
37	18.38	1.519	4.52	.374	4d12	13.85	1.145	9d14
38	27.61	2.282	13.76	1.137	6d14 +4d12	13.85	1.145	9d14
39	36.85	3.046	13.76	1.137	6d14 +4d12	23.09	1.908	9d14 +6d14
40	23.	1.901	13.76	1.137	6d14 +4d12	9.24	.763	6d14
41	13.76	1.137	4.52	.374	4d12	9.24	.763	6d14
42	19.92	1.646	10.68	.883	4d14 +4d12	9.24	.763	6d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 30 - Travata T003 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

4) Rettangolare: 45X22; A=990.; Jg=39930.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A60	3	4	3	0	517.	482.	23.5	1.3	1.445	27.945
2	A61	3	4	3	0	472.	437.	21.455	1.5	1.714	39.278
3	A62	3	4	3	0	372.	339.	16.9	1.5	2.344	55.596
4	A63	3	4	3	0	516.	484.	23.464	1.5	1.663	38.121

5		A64	3	4	3	0	315.	280.	14.318	1.5	2.38	52.756
6		A65	3	4	3	0	529.	494.	24.045	1.5	1.357	31.099
7		A66	3	4	3	0	323.	288.	14.682	1.5	2.849	68.059
8		A67	3	4	3	0	237.	205.	10.795	1.3	3.814	81.937

CASI DI CARICO DA MODELLO 3D

	SLU	
Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

	RARE			FREQUENTI			QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive		SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	4.	1.	-434714.	-.083	.157!	-543067.	-.35	1.519	3.	.187	1.249	SI
0.	0.	4.	1.	30719.	-.005	.007	792245.	-.35	1.008	3.	.258	25.79	SI
133.	133.	4.	2.	363450.	-.078	.09	769900.	-.35	.644	3.	.352	2.118	SI
165.	165.	4.	2.	439090.	-.097	.109	769900.	-.35	.644	3.	.352	1.753	SI
196.	196.	4.	2.	497689.	-.112	.124	769900.	-.35	.644	3.	.352	1.547	SI
227.	227.	4.	2.	518107.	-.117	.129	769900.	-.35	.644	3.	.352	1.486	SI
258.	258.	4.	2.	532945.!	-.121!	.133	769900.	-.35	.644	3.	.352	1.445	SI
290.	290.	4.	2.	506919.	-.114	.126	769900.	-.35	.644	3.	.352	1.519	SI
321.	321.	4.	2.	471105.	-.105	.117	769900.	-.35	.644	3.	.352	1.634	SI
352.	352.	4.	2.	399835.	-.087	.099	769900.	-.35	.644	3.	.352	1.926	SI
508.	508.	4.	5.	8921.	-.001	.001	1426462.!	-.35	.899	3.	.28	159.9	SI
517.	517.	4.	5.	-608335.!	-.072	.096	-1229860.!	-.35	1.151	3.	.233	2.022	SI
> 517.	0.	4.	5.	-506640.!	-.06	.08	-1229860.!	-.35	1.151	3.	.233	2.427	SI
534.	18.	4.	5.	18888.	-.002	.003	1426462.!	-.35	.899	3.	.28	75.52	SI
543.	26.	4.	6.	-454738.	-.071	.072	-1196414.	-.35	.625	3.	.359	2.631	SI
543.	26.	4.	6.	41250.	-.006	.012	674345.	-.35	1.514	3.	.188	16.35	SI
768.	251.	4.	8.	383817.!	-.088!	.113!	657840.	-.35	.851	3.	.291	1.714	SI
980.	463.	4.	11	15396.	-.002	.003	1173234.	-.35	.942	3.	.271	76.2	SI
989.	472.	4.	11	-421008.	-.057	.084	-975476.	-.35	1.238	3.	.22	2.317	SI
> 989.	0.	4.	11	-277205.	-.037	.055	-975476.	-.35	1.238	3.	.22	3.519	SI
989.	0.	4.	11	61401.	-.008	.01	1173234.!	-.35	.942	3.	.271	19.11	SI
1117.	128.	4.	13	-7897.	-.002	.007	-246802.	-.35	1.917	3.	.154	31.25	SI
1176.	187.	4.	13	229917.!	-.054	.083!	538829.	-.35	1.105	3.	.241	2.344	SI
1235.	246.	4.	12	-13194.	-.002	.003	-754091.	-.35	1.065	3.	.247	57.15	SI
1346.	357.	4.	14	-325010.	-.056	.065	-957014.	-.35	.789	3.	.307	2.945	SI
1361.	372.	4.	15	-333346.!	-.045	.066	-975476.!	-.35	1.238	3.	.22	2.926	SI
1361.	372.	4.	15	43881.	-.006	.007	1173234.	-.35	.942	3.	.271	26.74	SI
>1361.	0.	4.	15	-424072.	-.058	.084	-975476.!	-.35	1.238	3.	.22	2.3	SI
1384.	24.	4.	10	2351.	0.	.001	673309.!	-.35	1.435	3.	.196	286.4	SI
1523.	163.	4.	8.	276443.	-.061	.081	657840.	-.35	.851	3.	.291	2.38	SI
1618.	257.	4.	8.	395460.!	-.091!	.116!	657840.	-.35	.851	3.	.291	1.663	SI
1877.	516.	4.	17	-478849.!	-.071	.105	-887527.	-.35	1.257	3.	.218	1.853	SI
>1877.	0.	4.	17	-241081.	-.035	.053	-887527.	-.35	1.257	3.	.218	3.681	SI
1877.	0.	4.	17	109946.	-.016	.02	1047922.	-.35	1.	3.	.259	9.531	SI
1894.	18.	4.	18	-234551.	-.043	.052	-866928.	-.35	.754	3.	.317	3.696	SI
1894.	18.	4.	18	130283.	-.026	.062	416870.	-.35	1.696	3.	.171	3.2	SI
2005.	128.	4.	19	-14376.	-.003	.004	-666107.	-.35	1.069	3.	.247	46.33	SI
2034.	157.	4.	19	175036.!	-.038	.083!	416618.	-.35	1.65	3.	.175	2.38	SI
2174.	297.	4.	18	-280583.	-.052	.062	-866928.	-.35	.754	3.	.317	3.09	SI
2183.	306.	4.	20	115924.	-.016	.021	1047922.!	-.35	1.	3.	.259	9.04	SI
2192.	315.	4.	20	-289221.!	-.042	.063	-887527.!	-.35	1.257	3.	.218	3.069	SI
2192.	315.	4.	20	105742.	-.015	.019	1047922.	-.35	1.	3.	.259	9.91	SI
>2192.	0.	4.	20	-540976.	-.08	.118	-887527.	-.35	1.257	3.	.218	1.641	SI
2218.	26.	4.	16	7152.	-.001	.002	672806.!	-.35	1.4	3.	.2	!94.07	SI
2351.	160.	4.	8.	356939.	-.081	.105	657840.	-.35	.851	3.	.291	1.843	SI
2441.	250.	4.	8.	484756.!	-.115!	.143!	657840.	-.35	.851	3.	.291	1.357	SI
2695.	503.	4.	16	1588.	0.	0.	672806.	-.35	1.4	3.	.2	423.6	SI
2721.	529.	4.	21	-563898.!	-.075	.099	-1100474.!	-.35	1.121	3.	.238	1.952	SI
>2721.	0.	4.	21	-316805.!	-.041	.056	-1100474.!	-.35	1.121	3.	.238	3.474	SI
2721.	0.	4.	21	65042.	-.008	.011	1155637.!	-.35	1.041	3.	.252	17.77	SI
2747.	26.	4.	22	-279134.	-.046	.05	-1065253.	-.35	.591	3.	.372	3.816	SI
2852.	131.	4.	23	-10235.	-.002	.002	-874275.	-.35	.872	3.	.286	85.42	SI
2882.	162.	4.	24	181782.!	-.043	.068!	517859.	-.35	1.155	3.	.233	2.849	SI
2944.	222.	4.	24	-15585.	-.004	.013	-246803.	-.35	1.918	3.	.154	15.84	SI
3044.	323.	4.	26	-181988.	-.028	.041	-854407.	-.35	1.216	3.	.223	4.695	SI
3044.	323.	4.	26	84335.	-.013	.018	910043.	-.35	1.121	3.	.238	10.79	SI
>3044.	0.	4.	26	-187858.!	-.028	.043	-854407.!	-.35	1.216	3.	.223	4.548	SI
3044.	0.	4.	26	68866.	-.01	.015	910043.!	-.35	1.121	3.	.238	13.22	SI
3137.	93.	4.	28	-10007.	-.003	.008	-246809.	-.35	1.928	3.	.154	24.66	SI
3258.	214.	4.	29	111259.!	-.025	.052	424381.	-.35	1.595	3.	.18	3.814	SI
3281.	237.	4.	29	-181242.	-.039	.066	-540533.	-.35	1.307	3.	.211	2.982	SI
3281.	237.	4.	29	109013.	-.024	.051	424381.	-.35	1.595	3.	.18	3.893	SI

TAGLIO:

Progressive		Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	4.	-130.	4224.	25056.	25226.	1.01	4.	1.5	SI
0.	0.	4.	6833.!	4224.	25056.	25226.	1.01	4.	1.5	SI
133.	133.	4.	-1792.	6721.!	18720.	12012.	1.01	14.	2.5	SI
517.	517.	4.	-7059.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
> 517.	0.	4.	-147.	4224.	25056.	25226.	1.01	4.	1.5	SI
517.	0.	4.	6877.!	4224.	25056.	25226.	1.01	4.	1.5	SI
556.	40.	4.	-462.	6324.!	25056.	25226.	1.01	4.	1.5	SI
989.	472.	4.	-6413.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
989.	472.	4.	360.	4224.	25056.	25226.	1.01	4.	1.5	SI

> 989.	0.	4.	-1410.	4224.	25056.	25226.	1.01	4.	1.5	SI
989.	0.	4.	6129.!	4224.	25056.	25226.	1.01	4.	1.5	SI
1028.	40.	4.	-1684.	5871.!	25056.	25226.	1.01	4.	1.5	SI
1361.	372.	4.	-6086.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
1361.	372.	4.	1009.	4224.	25056.	25226.	1.01	4.	1.5	SI
>1361.	0.	4.	-292.	5871.	25056.	25226.	1.01	4.	1.5	SI
1361.	0.	4.	5598.!	5871.	25056.	25226.	1.01	4.	1.5	SI
1877.	516.	4.	-6515.!	6324.!	25056.!	25226.!	1.01	4.	1.5	SI
>1877.	0.	4.	-1596.	4224.	25056.	25226.	1.01	4.	1.5	SI
1877.	0.	4.	5753.!	4224.	25056.	25226.	1.01	4.	1.5	SI
1916.	40.	4.	-1912.	5334.!	25056.	25226.	1.01	4.	1.5	SI
2192.	315.	4.	-5611.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
2192.	315.	4.	1237.	4224.	25056.	25226.	1.01	4.	1.5	SI
>2192.	0.	4.	6825.!	6324.	25056.	25226.	1.01	4.	1.5	SI
2721.	529.	4.	-6914.!	6968.!	25056.!	25226.!	1.01	4.	1.5	SI
>2721.	0.	4.	-1903.	4224.	25056.	25226.	1.01	4.	1.5	SI
2721.	0.	4.	6580.!	4224.	25056.	25226.	1.01	4.	1.5	SI
2760.	40.	4.	-2219.	5786.!	25056.	25226.	1.01	4.	1.5	SI
3044.	323.	4.	-6033.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
3044.	323.	4.	1949.	4224.	25056.	25226.	1.01	4.	1.5	SI
>3044.	0.	4.	-2614.	4224.	25056.	25226.	1.01	4.	1.5	SI
3044.	0.	4.	6164.!	4224.	25056.	25226.	1.01	4.	1.5	SI
3070.	26.	4.	-2737.	5371.!	25056.	25226.	1.01	4.	1.5	SI
3281.	237.	4.	-5548.!	4224.	25056.!	25226.!	1.01	4.	1.5	SI
3281.	237.	4.	2765.	4224.	25056.	25226.	1.01	4.	1.5	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-305283.	-78.7	2305.7!	8.01	5.19	.0923	14.3	.132!	SI
18.	18.	4.	1.	-268440.	-69.2	2027.4	8.01	5.19	.0791	14.3	.113	SI
40.	40.	4.	1.	-175807.	-45.3	1327.8	8.01	5.19	.0458	14.3	.065	SI
258.	258.	4.	2.	378142.!	-105.3!	1942.4	12.06	4.49	.0811	12.04	.098	SI
517.	517.	4.	5.	-431631.!	-70.7	1418.7	18.85	4.62	.0589	10.16	.06	SI
> 517.	0.	4.	5.	-359488.!	-58.9	1181.6	18.85	4.62	.0476	10.16	.048	SI
768.	251.	4.	8.	272333.!	-80. !	1662.4!	10.05	4.68	.0657	13.18	.087!	SI
989.	472.	4.	11	-298684.!	-56.2	1241.	14.83	4.77	.0488	10.9	.053	SI
> 989.	0.	4.	11	-193538.!	-36.4	804.1	14.83	4.77	.028	10.9	.03	SI
1176.	187.	4.	13	165542.!	-52.1	1249. !	8.04	4.89	.0429	14.93	.064!	SI
1361.	372.	4.	15	-236534.!	-44.5	982.8	14.83	4.77	.0365	10.9	.04	SI
>1361.	0.	4.	15	-301495.!	-56.7	1252.7	14.83	4.77	.0493	10.9	.054	SI
1618.	257.	4.	8.	281122.!	-82.6	1716. !	10.05	4.68	.0683	13.18	.09 !	SI
1877.	516.	4.	17	-340137.!	-68.4	1555.	13.45	4.82	.0629	11.52	.073	SI
>1877.	0.	4.	17	-165474.!	-33.3	756.5	13.45	4.82	.0249	11.52	.029	SI
2034.	157.	4.	19	124175.!	-36.9	1234.1!	6.03	5.37	.036	20.95	.075!	SI
2174.	297.	4.	18	-177844.!	-44.7!	820.6	13.45	4.49	.0285	11.25	.032	SI
2192.	315.	4.	20	-202736.!	-40.8	926.8	13.45	4.82	.033	11.52	.038	SI
>2192.	0.	4.	20	-383830.!	-77.2	1754.7	13.45	4.82	.0725	11.52	.083	SI
2441.	250.	4.	8.	343956.!	-101.1!	2099.6!	10.05	4.68	.0865	13.18	.114!	SI
2721.	529.	4.	21	-400129.!	-73.	1470.5	16.84	4.63	.0607	10.45	.063	SI
>2721.	0.	4.	21	-223907.!	-40.9	822.9	16.84	4.63	.0299	10.45	.031	SI
2882.	162.	4.	24	128987.!	-41.2!	1014.8!	7.7	4.94	.031	14.69	.046!	SI
3044.	323.	4.	26	-110459.!	-23.5	524.5	12.94	4.79	.015	11.47	.017	SI
>3044.	0.	4.	26	-84131.!	-17.9	399.5	12.94	4.79	.0114	11.47	.013	SI
3164.	120.	4.	28	79744.!	-27.5!	776.2!	6.16	5.14	.0222	16.76	.037!	SI
3281.	237.	4.	29	-69247.!	-20.3	523.5	8.01	5.	.015	14.07	.021	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-238587.!	-61.5	1802. !	8.01	5.19	.0684	14.3	.098!	SI
18.	18.	4.	1.	-209800.!	-54.1	1584.6	8.01	5.19	.058	14.3	.083	SI
40.	40.	4.	1.	-137423.!	-35.4	1037.9	8.01	5.19	.032	14.3	.046	SI
258.	258.	4.	2.	295422.!	-82.3!	1517.5	12.06	4.49	.0608	12.04	.073	SI
517.	517.	4.	5.	-337202.!	-55.2	1108.3	18.85	4.62	.0441	10.16	.045	SI
> 517.	0.	4.	5.	-280875.!	-46.	923.2	18.85	4.62	.0353	10.16	.036	SI
768.	251.	4.	8.	212764.!	-62.5!	1298.8!	10.05	4.68	.0484	13.18	.064!	SI
989.	472.	4.	11	-233363.!	-43.9	969.6	14.83	4.77	.0359	10.9	.039	SI
> 989.	0.	4.	11	-150954.!	-28.4	627.2	14.83	4.77	.0196	10.9	.021	SI
1176.	187.	4.	13	129355.!	-40.7!	976. !	8.04	4.89	.0299	14.93	.045!	SI
1361.	372.	4.	15	-186081.!	-35.	773.1	14.83	4.77	.0265	10.9	.029	SI
>1361.	0.	4.	15	-237238.!	-44.6	985.7	14.83	4.77	.0366	10.9	.04	SI
1618.	257.	4.	8.	221120.!	-65. !	1349.8!	10.05	4.68	.0508	13.18	.067!	SI
1877.	516.	4.	17	-266795.!	-53.6	1219.7	13.45	4.82	.047	11.52	.054	SI
>1877.	0.	4.	17	-129636.!	-26.1	592.6	13.45	4.82	.0171	11.52	.02	SI
2034.	157.	4.	19	96959.!	-28.8	963.6!	6.03	5.37	.0275	20.95	.058!	SI
2174.	297.	4.	18	-138809.!	-34.9!	640.5	13.45	4.49	.0199	11.25	.022	SI
2192.	315.	4.	20	-158242.!	-31.8	723.4	13.45	4.82	.0233	11.52	.027	SI
>2192.	0.	4.	20	-299836.!	-60.3	1370.7	13.45	4.82	.0542	11.52	.062	SI
2441.	250.	4.	8.	268728.!	-79. !	1640.4!	10.05	4.68	.0647	13.18	.085!	SI
2721.	529.	4.	21	-312670.!	-57.1	1149.1	16.84	4.63	.0454	10.45	.047	SI
>2721.	0.	4.	21	-175042.!	-31.9	643.3	16.84	4.63	.0214	10.45	.022	SI
2882.	162.	4.	24	100790.!	-32.2!	792.9!	7.7	4.94	.0227	14.69	.033!	SI
3044.	323.	4.	26	-86153.!	-18.3	409.1	12.94	4.79	.0117	11.47	.013	SI
>3044.	0.	4.	26	-65628.!	-13.9	311.6	12.94	4.79	.0089	11.47	.01	SI
3164.	120.	4.	28	62290.!	-21.4!	606.3!	6.16	5.14	.0173	16.76	.029!	SI
3281.	237.	4.	29	-54106.!	-15.9	409.1	8.01	5.	.0117	14.07	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
> 0.	0.	4.	1.	-221913.!	-57.2	1676. !	8.01	5.19	.0624	14.3	.089!	SI
18.	18.	4.	1.	-195140.!	-50.3	1473.8	8.01	5.19	.0527	14.3	.075	SI
40.	40.	4.	1.	-127827.!	-32.9	965.4	8.01	5.19	.0285	14.3	.041	SI

```
  258.|258.|4.|2.|   274742.! -76.5!1411.3|12.06| 4.49|  .0558| 12.04|  .067|SI|
  517.|517.|4.|5.|  -313595.! -51.4|1030.7|18.85| 4.62|  .0404| 10.16|  .041|SI|
> 517.|  0.|4.|5.|  -261222.! -42.8| 858.6|18.85| 4.62|  .0323| 10.16|  .033|SI|
  768.|251.|4.|8.|   197872.! -58.1!1207.8|10.05| 4.68|  .0441| 13.18|  .058!SI|
  989.|472.|4.|11|  -217033.| -40.8| 901.7|14.83| 4.77|  .0326| 10.9 |  .036|SI|
> 989.|  0.|4.|11|  -140309.| -26.4| 583. |14.83| 4.77|  .0175| 10.9 |  .019|SI|
 1176.|187.|4.|13|   120308.! -37.9! 907.7! 8.04| 4.89|  .0266| 14.93|  .04 !SI|
 1361.|372.|4.|15|  -173468.! -32.6| 720.7|14.83| 4.77|  .024 | 10.9 |  .026|SI|
>1361.|  0.|4.|15|  -221173.| -41.6| 918.9|14.83| 4.77|  .0334| 10.9 |  .036|SI|
 1618.|257.|4.|8.|   206119.! -60.6!1258.2|10.05| 4.68|  .0465| 13.18|  .061!SI|
 1877.|516.|4.|17|  -248459.! -50. |1135.9|13.45| 4.82|  .043 | 11.52|  .05 |SI|
>1877.|  0.|4.|17|  -120676.| -24.3| 551.7|13.45| 4.82|  .0158| 11.52|  .018|SI|
 2034.|157.|4.|19|    90155.! -26.8| 896. ! 6.03| 5.37|  .0256| 20.95|  .054!SI|
 2174.|297.|4.|18|  -129050.| -32.4! 595.4|13.45| 4.49|  .0178| 11.25|  .02 |SI|
 2192.|315.|4.|20|  -147118.! -29.6| 672.6|13.45| 4.82|  .0209| 11.52|  .024|SI|
>2192.|  0.|4.|20|  -278837.| -56.1|1274.7|13.45| 4.82|  .0496| 11.52|  .057|SI|
 2441.|250.|4.|8.|   249921.! -73.4!1525.6|10.05| 4.68|  .0592| 13.18|  .078!SI|
 2721.|529.|4.|21|  -290805.! -53.1|1068.7|16.84| 4.63|  .0416| 10.45|  .043|SI|
>2721.|  0.|4.|21|  -162826.! -29.7| 598.4|16.84| 4.63|  .0192| 10.45|  .02 |SI|
 2882.|162.|4.|24|    93741.! -30. ! 737.5! 7.7 | 4.94|  .0211| 14.69|  .031!SI|
 3044.|323.|4.|26|   -80077.| -17. | 380.2|12.94| 4.79|  .0109| 11.47|  .012|SI|
>3044.|  0.|4.|26|   -61003.! -13. | 289.7|12.94| 4.79|  .0083| 11.47|  .009|SI|
 3164.|120.|4.|28|    57927.! -19.9! 563.8! 6.16| 5.14|  .0161| 16.76|  .027!SI|
 3281.|237.|4.|29|   -50320.| -14.8| 380.5| 8.01| 5.  |  .0109| 14.07|  .015|SI|
```

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

```
Nro|Totale   % |Super.   %        Barre        |Infer.   %        Barre        |
  1|20.07|2.028| 8.01| .809|3d12 +3d14         |12.06|1.219|6d16               |
  2|15.46|1.561| 3.39| .343|3d12               |12.06|1.219|6d16               |
  3|27.52|2.78 |15.46|1.561|6d16 +3d12         |12.06|1.219|6d16               |
  4|30.91|3.123|18.85|1.904|6d16 +3d12 +3d12   |12.06|1.219|6d16               |
  5|40.97|4.138|18.85|1.904|6d16 +3d12 +3d12   |22.12|2.234|6d16 +5d16         |
  6|28.9 |2.919|18.85|1.904|6d16 +3d12 +3d12   |10.05|1.015|5d16               |
  7|25.51|2.577|15.46|1.561|6d16 +3d12         |10.05|1.015|5d16               |
  8|13.45|1.358| 3.39| .343|3d12               |10.05|1.015|5d16               |
  9|21.49|2.171|11.44|1.155|4d16 +3d12         |10.05|1.015|5d16               |
 10|24.88|2.513|14.83|1.498|4d16 +3d12 +3d12   |10.05|1.015|5d16               |
 11|32.92|3.326|14.83|1.498|4d16 +3d12 +3d12   |18.1 |1.828|5d16 +4d16         |
 12|19.48|1.967|11.44|1.155|4d16 +3d12         | 8.04| .812|4d16               |
 13|11.44|1.155| 3.39| .343|3d12               | 8.04| .812|4d16               |
 14|22.87|2.31 |14.83|1.498|4d16 +3d12 +3d12   | 8.04| .812|4d16               |
 15|32.92|3.326|14.83|1.498|4d16 +3d12 +3d12   |18.1 |1.828|4d16 +5d16         |
 16|23.5 |2.374|13.45|1.358|5d16 +3d12         |10.05|1.015|5d16               |
 17|29.53|2.983|13.45|1.358|5d16 +3d12         |16.08|1.625|5d16 +3d16         |
 18|19.48|1.967|13.45|1.358|5d16 +3d12         | 6.03| .609|3d16               |
 19|16.08|1.625|10.05|1.015|5d16               | 6.03| .609|3d16               |
 20|29.53|2.983|13.45|1.358|5d16 +3d12         |16.08|1.625|3d16 +5d16         |
 21|34.59|3.494|16.84|1.701|5d16 +3d12 +3d12   |17.75|1.793|5d16 +5d14         |
 22|24.54|2.478|16.84|1.701|5d16 +3d12 +3d12   | 7.7 | .777|5d14               |
 23|21.14|2.136|13.45|1.358|5d16 +3d12         | 7.7 | .777|5d14               |
 24|11.09|1.12 | 3.39| .343|3d12               | 7.7 | .777|5d14               |
 25|17.25|1.742| 9.55| .965|4d14 +3d12         | 7.7 | .777|5d14               |
 26|26.8 |2.707|12.94|1.307|4d14 +3d12 +3d12   |13.85|1.399|5d14 +4d14         |
 27|15.71|1.587| 9.55| .965|4d14 +3d12         | 6.16| .622|4d14               |
 28| 9.55| .965| 3.39| .343|3d12               | 6.16| .622|4d14               |
 29|14.17|1.431| 8.01| .809|3d14 +3d12         | 6.16| .622|4d14               |
```

VERIFICA TRAVATA IN CEMENTO ARMATO

```
Nome travata       : 31 - Travata T004 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2
```

MATERIALI

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CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%
```

TENSIONI E FESSURE MASSIME IN ESERCIZIO

```
GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].
```

SEZIONI UTILIZZATE

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 3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6
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DESCRIZIONE CAMPATE

```
Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A85|    3|    3|    3|    0|  540.|  510.| 24.523|1.3|1.904| 41.668|
```

2	A84	3	3	3	0	540.	510.	24.523	1.3	1.928	42.201

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

RARE			FREQUENTI			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-229265.	-.063!	.117!	-388054.	-.35	1.467	3.	.193	1.693	SI
0.	0.	3.	1.	166212.	-.047!	.105	316450.	-.35	1.688	3.	.172	1.904	SI
128.	128.	3.	2.	-100411.	-.032	.083	-243761.	-.35	1.865	3.	.158	2.428	SI
314.	314.	3.	2.	-13164.	-.004	.011	-243761.	-.35	1.865	3.	.158	18.52!	SI
531.	531.	3.	4.	135931.	-.026	.044	604815.	-.35	1.371	3.	.203	4.449	SI
540.	540.	3.	4.	-247805.	-.047!	.064	-743575.	-.35	1.075	3.	.246	3.001	SI
540.	540.	3.	4.	135931.	-.026	.044	604815.	-.35	1.371	3.	.203	4.449	SI
> 540.	0.	3.	4.	-245623.	-.046!	.064	-743575.	-.35	1.075	3.	.246	3.027	SI
540.	0.	3.	4.	138275.	-.026	.044	604815.	-.35	1.371	3.	.203	4.374	SI
703.	164.	3.	2.	-71511.	-.023	.059	-243761.	-.35	1.865	3.	.158	3.409	SI
765.	226.	3.	2.	-12703.	-.004	.01	-243761.	-.35	1.865	3.	.158	19.19	SI
1070.	531.	3.	1.	164112.	-.046	.103	316450.	-.35	1.688	3.	.172	1.928	SI
1079.	540.	3.	1.	-231726.	-.064!	.118!	-388054.	-.35	1.467	3.	.193	1.675	SI
1079.	540.	3.	1.	164112.	-.046	.103	316450.	-.35	1.688	3.	.172	1.928	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1000.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	1900.	3754.	22824.	23544.	1.01	4.	1.4	SI
34.	34.	3.	-1049.	4480.	22824.	23544.	1.01	4.	1.4	SI
540.	540.	3.	-2121.	3754.	22824.	23544.	1.01	4.	1.4	SI
540.	540.	3.	713.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 540.	0.	3.	-751.	3754.	22824.	23544.	1.01	4.	1.4	SI
540.	0.	3.	2160.	3754.	22824.	23544.	1.01	4.	1.4	SI
579.	40.	3.	-800.	4480.	22824.	23544.	1.01	4.	1.4	SI
1079.	540.	3.	-1872.	3754.	22824.	23544.	1.01	4.	1.4	SI
1079.	540.	3.	973.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33554.	-12.3	356.1	5.65	5.17	.0102	15.62	.016	SI
34.	34.	3.	1.	-23023.	-8.4	244.3	5.65	5.17	.007	15.62	.011	SI
252.	252.	3.	2.	45464.	-18.6!	597.5!	4.52	5.31	.0171	17.75	.03 !	SI
540.	540.	3.	4.	-56522.	-14.7	307.7	11.31	4.69	.0088	11.55	.01	SI
> 540.	0.	3.	4.	-53428.	-13.9	290.9	11.31	4.69	.0083	11.55	.01	SI
827.	288.	3.	2.	45308.	-18.6!	595.5!	4.52	5.31	.017	17.75	.03 !	SI
1079.	540.	3.	1.	-39538.	-14.5	419.6	5.65	5.17	.012	15.62	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33559.	-12.3	356.1	5.65	5.17	.0102	15.62	.016	SI
34.	34.	3.	1.	-23035.	-8.4	244.4	5.65	5.17	.007	15.62	.011	SI
252.	252.	3.	2.	45399.	-18.6!	596.7!	4.52	5.31	.017	17.75	.03 !	SI
540.	540.	3.	4.	-56710.	-14.7	308.8	11.31	4.69	.0088	11.55	.01	SI
> 540.	0.	3.	4.	-54282.	-14.1	295.5	11.31	4.69	.0084	11.55	.01	SI
827.	288.	3.	2.	45278.	-18.6!	595.1!	4.52	5.31	.017	17.75	.03 !	SI
1079.	540.	3.	1.	-39538.	-14.5	419.6	5.65	5.17	.012	15.62	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33560.	-12.3	356.1	5.65	5.17	.0102	15.62	.016	SI
34.	34.	3.	1.	-23038.	-8.4	244.5	5.65	5.17	.007	15.62	.011	SI
252.	252.	3.	2.	45383.	-18.6!	596.4!	4.52	5.31	.017	17.75	.03 !	SI
540.	540.	3.	4.	-56756.	-14.7	309.	11.31	4.69	.0088	11.55	.01	SI
> 540.	0.	3.	4.	-54496.	-14.1	296.7	11.31	4.69	.0085	11.55	.01	SI
827.	288.	3.	2.	45271.	-18.6!	595. !	4.52	5.31	.017	17.75	.03 !	SI
1079.	540.	3.	1.	-39538.	-14.5	419.6	5.65	5.17	.012	15.62	.019	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	10.18	1.157	5.65	.643	2d12 +3d12	4.52	.514	4d12
2	7.92	.9	3.39	.386	3d12	4.52	.514	4d12
3	12.44	1.414	7.92	.9	4d12 +3d12	4.52	.514	4d12
4	20.36	2.313	11.31	1.285	4d12 +3d12 +3d12	9.05	1.028	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 32 - Travata T005 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A83	3	3	3	0	539.	514.	24.523	1.3	2.485	54.385
2	A82	3	3	3	0	540.	514.	24.523	1.3	2.529	55.35

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

Nome	RARE Descrizione	Sest	Nome	FREQUENTI Descrizione	Sest	Nome	QUASI PERMANENTI Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-195059.!	-.05 !	.083!	-458811.!	-.35	1.291	3.	.213	2.352!	SI
0.	0.	3.	1.	127379.!	-.035!	.08 !	316531.!	-.35	1.711	3.	.17	2.485	SI
129.	129.	3.	2.	-84042.!	-.027!	.07 !	-243761.!	-.35	1.865	3.	.158	2.9 !	SI
223.	223.	3.	2.	-13712.!	-.004!	.011!	-243761.!	-.35	1.865	3.	.158	17.78!	SI
539.	539.	3.	3.	-191725.!	-.037!	.055!	-673850.!	-.35	1.176	3.	.229	3.515	SI
539.	539.	3.	3.	81581.!	-.016!	.026!	604223.!	-.35	1.329	3.	.208	7.406	SI
> 539.	0.	3.	3.	-190937.!	-.037!	.055!	-673850.!	-.35	1.176	3.	.229	3.529	SI
539.	0.	3.	3.	81953.!	-.016!	.026!	604223.!	-.35	1.329	3.	.208	7.373	SI
548.	9.	3.	4.	81953.!	-.017!	.026!	601236.!	-.35	1.158	3.	.232	7.336	SI
699.	160.	3.	2.	-43791.!	-.014!	.036!	-243761.!	-.35	1.865	3.	.158	5.567	SI
856.	317.	3.	2.	-14425.!	-.005!	.012!	-243761.!	-.35	1.865	3.	.158	16.9 !	SI
1070.	531.	3.	1.	125157.!	-.034!	.079!	316531.!	-.35	1.711	3.	.17	2.529	SI
1079.	540.	3.	1.	-196465.!	-.05 !	.084!	-458811.!	-.35	1.291	3.	.213	2.335!	SI
1079.	540.	3.	1.	125157.!	-.034!	.079!	316531.!	-.35	1.711	3.	.17	2.529	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-563.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
0.	0.	3.	1872.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
34.	34.	3.	-611.!	4480.!	22824.!	23544.!	1.01!	4.	1.4	SI
539.	539.	3.	-1695.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
539.	539.	3.	685.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
> 539.	0.	3.	-608.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
539.	0.	3.	1721.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
605.	66.	3.	-725.!	4480.!	16640.!	11211.!	1.01!	15.	2.5	SI
1079.	540.	3.	-1740.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI
1079.	540.	3.	534.!	3754.!	22824.!	23544.!	1.01!	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33357.!	-11.5!	297.3!	6.79!	5.01!	.0085!	14.18!	.012	SI
21.	21.	3.	1.	-29196.!	-10.1!	260.2!	6.79!	5.01!	.0074!	14.18!	.011	SI
34.	34.	3.	1.	-22651.!	-7.8!	201.9!	6.79!	5.01!	.0058!	14.18!	.008	SI
254.	254.	3.	2.	45127.!	-18.5!	593.1!	4.52!	5.31!	.0169!	17.75!	.03 !	SI
539.	539.	3.	3.	-53617.!	-14.4!	323. !	10.18!	4.8 !	.0092!	12.01!	.011	SI
> 539.	0.	3.	3.	-52878.!	-14.2!	318.5!	10.18!	4.8 !	.0091!	12.01!	.011	SI
825.	285.	3.	2.	45373.!	-18.6!	596.3!	4.52!	5.31!	.017 !	17.75!	.03 !	SI
1079.	540.	3.	1.	-37287.!	-12.8!	332.3!	6.79!	5.01!	.0095!	14.18!	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33385.	-11.5	297.5	6.79	5.01	.0085	14.18	.012	SI
21.	21.	3.	1.	-29243.	-10.1	260.6	6.79	5.01	.0074	14.18	.011	SI
34.	34.	3.	1.	-22729.	-7.8	202.5	6.79	5.01	.0058	14.18	.008	SI
254.	254.	3.	2.	45401.!	-18.6!	596.7!	4.52	5.31	.017	17.75	.03 !	SI
539.	539.	3.	3.	-54817.!	-14.7	330.2	10.18	4.8	.0094	12.01	.011	SI
> 539.	0.	3.	3.	-54194.!	-14.5	326.5	10.18	4.8	.0093	12.01	.011	SI
825.	285.	3.	2.	45352.!	-18.6!	596. !	4.52	5.31	.017	17.75	.03 !	SI
1079.	540.	3.	1.	-39439.|	-13.6	351.5	6.79	5.01	.01	14.18	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33392.|	-11.5	297.6	6.79	5.01	.0085	14.18	.012	SI
21.	21.	3.	1.	-29255.|	-10.1	260.7	6.79	5.01	.0074	14.18	.011	SI
34.	34.	3.	1.	-22748.|	-7.8	202.7	6.79	5.01	.0058	14.18	.008	SI
254.	254.	3.	2.	45353.!	-18.6!	596. !	4.52	5.31	.017	17.75	.03 !	SI
539.	539.	3.	3.	-55117.!	-14.8	332.	10.18	4.8	.0095	12.01	.011	SI
> 539.	0.	3.	3.	-54526.!	-14.6	328.5	10.18	4.8	.0094	12.01	.011	SI
825.	285.	3.	2.	45346.!	-18.6!	596. !	4.52	5.31	.017	17.75	.03 !	SI
1079.	540.	3.	1.	-39439.|	-13.6	351.5	6.79	5.01	.01	14.18	.014	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	1.285	6.79	.771	3d12 +3d12	4.52	.514	4d12
2	7.92	.9	3.39	.386	3d12	4.52	.514	4d12
3	19.23	2.185	10.18	1.157	3d12 +3d12 +3d12	9.05	1.028	4d12 +4d12
4	15.83	1.799	6.79	.771	3d12 +3d12	9.05	1.028	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 33 - Travata T006 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A81	3	3	3	0	540.	514.	24.523	1.3	3.098	67.804
2	A80	3	3	3	0	540.	514.	24.523	1.3	3.058	66.935

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

Nome	RARE Descrizione	Sest	Nome	FREQUENTI Descrizione	Sest	Nome	QUASI PERMANENTI Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-187131.	-.048!	.08 !	-458811.	-.35	1.291	3.	.213	2.452!	SI
0.	0.	3.	1.	92673.	-.025	.058	316531.	-.35	1.711	3.	.17	3.416	SI
66.	66.	3.	1.	102170.	-.028	.064	316531.	-.35	1.711	3.	.17	3.098	SI
129.	129.	3.	2.	-67743.	-.022	.056	-243761.	-.35	1.865	3.	.158	3.598	SI
348.	348.	3.	2.	-3336.	-.001	.003	-243761.	-.35	1.865	3.	.158	73.07!	SI
540.	540.	3.	5.	-187588.	-.035	.049	-743575.	-.35	1.075	3.	.246	3.964!	SI
540.	540.	3.	5.	47636.	-.009	.015	604815.	-.35	1.371	3.	.203	12.7	SI
> 540.	0.	3.	5.	-175798.	-.033	.046	-743575.	-.35	1.075	3.	.246	4.23	SI
540.	0.	3.	5.	56766.	-.011	.018	604815.	-.35	1.371	3.	.203	10.65	SI
699.	160.	3.	2.	-38674.	-.012	.032	-243761.	-.35	1.865	3.	.158	6.303	SI

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  856.|317.|3.|2.|   -9145.|-.003| .008| -243761.|-.35 |1.865|3.| .158|26.65!SI|
 1070.|531.|3.|1.|  103496.!-.028| .065|  316531.|-.35 |1.711|3.| .17 |3.058|SI|
 1079.|540.|3.|1.| -171163.|-.043! .073! -458811.|-.35 |1.291|3.| .213|2.681!SI|
 1079.|540.|3.|1.|  103496.|-.028| .065|  316531.|-.35 |1.711|3.| .17 |3.058|SI|

TAGLIO:

Progressive|Se|  Vsd  |  VRd  |  VRcd |  VRsd   Asw    s  ctgT|Ve|
>   0.|  0.|3.|  -639.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
    0.|  0.|3.|  2330.!  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
   34.| 34.|3.|  -704.|  4480.! 22824.| 23544.| 1.01| 4. |1.4 |SI|
  540.|540.|3.| -2155.!  3754.| 22824.! 23544.! 1.01| 4. |1.4 |SI|
  540.|540.|3.|   740.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
> 540.|  0.|3.|  -953.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
  540.|  0.|3.|  1991.!  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
  574.| 34.|3.| -1001.|  4480.! 22824.| 23544.| 1.01| 4. |1.4 |SI|
 1079.|540.|3.| -2085.!  3754.| 22824.! 23544.! 1.01| 4. |1.4 |SI|
 1079.|540.|3.|   804.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|

              VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -49664.| -17.1| 442.6| 6.79| 5.01|  .0126| 14.18|  .018|SI|
   21.| 21.|3.|1.|   -43384.| -14.9| 386.6| 6.79| 5.01|  .011 | 14.18|  .016|SI|
   34.| 34.|3.|1.|   -33505.| -11.5| 298.6| 6.79| 5.01|  .0085| 14.18|  .012|SI|
  254.|254.|3.|2.|    67441.! -27.6! 886.3! 4.52| 5.31|  .0253| 17.75|  .045!SI|
  540.|540.|3.|5.|   -75490.! -19.6| 411. |11.31| 4.69|  .0117| 11.55|  .014|SI|
> 540.|  0.|3.|5.|   -60292.! -15.7| 328.3|11.31| 4.69|  .0094| 11.55|  .011|SI|
  825.|285.|3.|2.|    45036.! -18.5! 591.9! 4.52| 5.31|  .0169| 17.75|  .03 !SI|
 1079.|540.|3.|1.|   -39439.| -13.6| 351.5| 6.79| 5.01|  .01  | 14.18|  .014|SI|

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -45708.| -15.7| 407.3| 6.79| 5.01|  .0116| 14.18|  .017|SI|
   21.| 21.|3.|1.|   -39965.| -13.8| 356.1| 6.79| 5.01|  .0102| 14.18|  .014|SI|
   34.| 34.|3.|1.|   -30930.| -10.7| 275.6| 6.79| 5.01|  .0079| 14.18|  .011|SI|
  254.|254.|3.|2.|    62287.! -25.5! 818.6! 4.52| 5.31|  .0234| 17.75|  .042!SI|
  540.|540.|3.|5.|   -71324.! -18.5| 388.3|11.31| 4.69|  .0111| 11.55|  .013|SI|
> 540.|  0.|3.|5.|   -59776.! -15.5| 325.5|11.31| 4.69|  .0093| 11.55|  .011|SI|
  825.|285.|3.|2.|    45334.! -18.6! 595.8! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
 1079.|540.|3.|1.|   -39439.| -13.6| 351.5| 6.79| 5.01|  .01  | 14.18|  .014|SI|

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -44719.| -15.4| 398.5| 6.79| 5.01|  .0114| 14.18|  .016|SI|
   21.| 21.|3.|1.|   -39110.| -13.5| 348.5| 6.79| 5.01|  .01  | 14.18|  .014|SI|
   34.| 34.|3.|1.|   -30286.| -10.4| 269.9| 6.79| 5.01|  .0077| 14.18|  .011|SI|
  254.|254.|3.|2.|    60826.! -24.9! 799.4! 4.52| 5.31|  .0228| 17.75|  .041!SI|
  540.|540.|3.|5.|   -70283.! -18.2| 382.7|11.31| 4.69|  .0109| 11.55|  .013|SI|
> 540.|  0.|3.|5.|   -59647.! -15.5| 324.8|11.31| 4.69|  .0093| 11.55|  .011|SI|
  825.|285.|3.|2.|    45408.! -18.6! 596.8! 4.52| 5.31|  .0171| 17.75|  .03 !SI|
 1079.|540.|3.|1.|   -39439.| -13.6| 351.5| 6.79| 5.01|  .01  | 14.18|  .014|SI|

          ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro|Totale   % |Super.   %        Barre        |Infer.   %        Barre        |
  1|11.31|1.285| 6.79| .771|3d12 +3d12         | 4.52| .514|4d12               |
  2| 7.92| .9  | 3.39| .386|3d12               | 4.52| .514|4d12               |
  3|12.44|1.414| 7.92| .9  |4d12 +3d12         | 4.52| .514|4d12               |
  4|16.96|1.928| 7.92| .9  |4d12 +3d12         | 9.05|1.028|4d12 +4d12         |
  5|20.36|2.313|11.31|1.285|4d12 +3d12 +3d12   | 9.05|1.028|4d12 +4d12         |

              VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : 34 - Travata T007 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

              MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

              TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

              SEZIONI UTILIZZATE
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3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A78	3	3	3	0	539.	509.	24.523	1.3	4.501	93.882
2	A79	3	3	3	0	563.	531.	25.606	1.3	2.173	43.826

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

RARE			FREQUENTI			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive		SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-154010.	-.037	.066!	-459961.	-.35	1.39	3.	.201	2.987!	SI
0.	0.	3.	1.	93454.!	-.022	.044	420598.	-.35	1.498	3.	.189	4.501	SI
128.	128.	3.	2.	-58989.	-.018	.049	-243762.	-.35	1.866	3.	.158	4.132	SI
221.	221.	3.	2.	-1633.	0.	.001	-243762.	-.35	1.866	3.	.158	149.2!	SI
407.	407.	3.	3.	-73042.	-.015	.022	-631010.	-.35	1.059	3.	.248	8.639	SI
531.	531.	3.	3.	-186267.	-.04 !	.057	-631010.	-.35	1.059	3.	.248	3.388	SI
539.	539.	3.	4.	-186267.!	-.03	.042	-850440.!	-.35	1.175	3.	.229	4.566	SI
539.	539.	3.	4.	52357.	-.008	.011	905844.!	-.35	1.077	3.	.245	17.3	SI
> 539.	0.	3.	4.	-249442.!	-.04	.057	-850440.!	-.35	1.175	3.	.229	3.409	SI
539.	0.	3.	4.	51914.	-.008	.011	905844.!	-.35	1.077	3.	.245	17.45	SI
548.	9.	3.	5.	-249442.	-.047	.057	-838915.	-.35	.849	3.	.292	3.363	SI
701.	161.	3.	7.	-11997.	-.004	.01	-243762.	-.35	1.866	3.	.158	20.32!	SI
822.	283.	3.	7.	236034.!	-.061!	.09	512869.	-.35	1.059	3.	.248	2.173	SI
1103.	563.	3.	8.	-246840.	-.058	.105!	-460634.	-.35	1.458	3.	.194	1.866	SI
1103.	563.	3.	8.	76728.	-.017	.029	517415.	-.35	1.31	3.	.211	6.743	SI

TAGLIO:

Progressive		Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-1277.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	2135.!	3754.	22824.	23544.	1.01	4.	1.4	SI
66.	66.	3.	-1393.	4965.!	16640.	11211.	1.01	15.	2.5	SI
539.	539.	3.	-2397.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
539.	539.	3.	948.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 539.	0.	3.	3655.!	3754.	22824.	23544.	1.01	4.	1.4	SI
609.	70.	3.	-194.	5349.!	16640.	11211.	1.01	15.	2.5	SI
1103.	563.	3.	-2994.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
1103.	563.	3.	358.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33911.	-11.2	302.	6.79	5.07	.0086	14.26	.012	SI
21.	21.	3.	1.	-30062.	-9.9	267.7	6.79	5.07	.0076	14.26	.011	SI
34.	34.	3.	1.	-24007.	-7.9	213.8	6.79	5.07	.0061	14.26	.009	SI
252.	252.	3.	2.	45403.!	-16.7	444.2	6.16	5.05	.0127	15.63	.02 !	SI
531.	531.	3.	3.	-70444.	-20.8	452.2!	9.55	4.75	.0129	12.29	.016	SI
539.	539.	3.	4.	-71673.!	-16.	341.4	12.94	4.72	.0098	11.01	.011	SI
> 539.	0.	3.	4.	-165347.!	-36.9	787.6	12.94	4.72	.0271	11.01	.03	SI
822.	283.	3.	7.	170030.!	-58.2!	1344.8!	7.7	4.84	.0485	13.81	.067!	SI
1103.	563.	3.	8.	-150619.	-47.7	1341.	6.79	5.13	.0459	14.33	.066	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33824.	-11.1	301.2	6.79	5.07	.0086	14.26	.012	SI
21.	21.	3.	1.	-29915.	-9.8	266.4	6.79	5.07	.0076	14.26	.011	SI
34.	34.	3.	1.	-23767.	-7.8	211.7	6.79	5.07	.006	14.26	.009	SI
252.	252.	3.	2.	45148.!	-16.6	441.7!	6.16	5.05	.0126	15.63	.02 !	SI
531.	531.	3.	3.	-66757.	-19.7!	428.6	9.55	4.75	.0122	12.29	.015	SI
539.	539.	3.	4.	-67971.!	-15.2	323.8	12.94	4.72	.0093	11.01	.01	SI
> 539.	0.	3.	4.	-139050.!	-31.	662.3	12.94	4.72	.0212	11.01	.023	SI
822.	283.	3.	7.	140039.!	-47.9!	1107.6!	7.7	4.84	.0372	13.81	.051	SI
1103.	563.	3.	8.	-123269.	-39.	1097.5	6.79	5.13	.0343	14.33	.049	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33802.	-11.1	301.	6.79	5.07	.0086	14.26	.012	SI
21.	21.	3.	1.	-29879.	-9.8	266.1	6.79	5.07	.0076	14.26	.011	SI
34.	34.	3.	1.	-23707.	-7.8	211.1	6.79	5.07	.006	14.26	.009	SI
252.	252.	3.	2.	45348.!	-16.7	443.7!	6.16	5.05	.0127	15.63	.02 !	SI
531.	531.	3.	3.	-65835.	-19.4!	422.6	9.55	4.75	.0121	12.29	.015	SI
539.	539.	3.	4.	-67046.!	-15.	319.4	12.94	4.72	.0091	11.01	.01	SI
> 539.	0.	3.	4.	-132476.!	-29.5	631.	12.94	4.72	.0197	11.01	.022	SI
822.	283.	3.	7.	132542.!	-45.3!	1048.3!	7.7	4.84	.0344	13.81	.048!	SI
1103.	563.	3.	8.	-116431.	-36.8	1036.6	6.79	5.13	.0314	14.33	.045	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	12.94	1.471	6.79	.771	3d12 +3d12	6.16	.7	4d14
2	9.55	1.085	3.39	.386	3d12	6.16	.7	4d14
3	15.71	1.785	9.55	1.085	4d14 +3d12	6.16	.7	4d14
4	26.8	3.045	12.94	1.471	4d14 +3d12 +3d12	13.85	1.574	4d14 +5d14
5	20.64	2.345	12.94	1.471	4d14 +3d12 +3d12	7.7	.875	5d14
6	17.25	1.96	9.55	1.085	4d14 +3d12	7.7	.875	5d14
7	11.09	1.26	3.39	.386	3d12	7.7	.875	5d14
8	14.48	1.646	6.79	.771	3d12 +3d12	7.7	.875	5d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 35 - Travata TO08 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A77	3	3	3	0	539.	514.	24.522	1.3	5.	104.631
2	A76	3	3	3	0	540.	515.	24.523	1.3	5.	104.631

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

Nome	RARE Descrizione	Sest	Nome	FREQUENTI Descrizione	Sest	Nome	QUASI PERMANENTI Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-134232.	-.03	.049	-536294.	-.35	1.228	3.	.222	3.995	SI
0.	0.	3.	1.	71939.	-.017	.034	412929.	-.35	1.554	3.	.184	5.74	SI
66.	66.	3.	1.	78238.	-.018	.037	412929.	-.35	1.554	3.	.184	5.278	SI
129.	129.	3.	2.	-47327.	-.014	.039	-243762.	-.35	1.866	3.	.158	5.151	SI
348.	348.	3.	2.	-4336.	-.001	.004	-243762.	-.35	1.866	3.	.158	56.22	SI
539.	539.	3.	3.	-144050.	-.037	.038	-667984.	-.35	.329	3.	.516	4.637	NO 32 35 26
539.	539.	3.	3.	31189.	-.437	.064	22883.	-.35	.05	3.	***	.734	NO 8 10 26 1
> 539.	0.	3.	3.	-144123.	-.037	.038	-667984.	-.35	.329	3.	.516	4.635	NO 32 35 26
539.	0.	3.	3.	29345.	-.425	.061	22883.	-.35	.05	3.	***	.78	NO 8 10 26 1
548.	9.	3.	1.	31120.	-.007	.015	412929.	-.35	1.554	3.	.184	13.27	SI
699.	160.	3.	2.	-25676.	-.008	.021	-243762.	-.35	1.866	3.	.158	9.494	SI
731.	191.	3.	2.	-5859.	-.002	.005	-243762.	-.35	1.866	3.	.158	41.6	SI
1013.	474.	3.	1.	74324.	-.017	.035	412929.	-.35	1.554	3.	.184	5.556	SI
1079.	540.	3.	1.	-135390.	-.031	.049	-536294.	-.35	1.228	3.	.222	3.961	SI
1079.	540.	3.	1.	67554.	-.016	.032	412929.	-.35	1.554	3.	.184	6.113	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-785.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	1675.	3754.	22824.	23544.	1.01	4.	1.4	SI
66.	66.	3.	-902.	4931.	16640.	11211.	1.01	15.	2.5	SI
539.	539.	3.	-1917.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	539.	3.	489.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 539.	0.	3.	-516.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	0.	3.	1944.	3754.	22824.	23544.	1.01	4.	1.4	SI
605.	66.	3.	-633.	4931.	16640.	11211.	1.01	15.	2.5	SI
1079.	540.	3.	-1648.	3754.	22824.	23544.	1.01	4.	1.4	SI

1079.	540.	3.	757.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33409.	-10.4	253.8	8.01	4.92	.0073	13.28	.01	SI
254.	254.	3.	2.	45004.	-16.7	449.1	6.03	5.07	.0128	19.76	.025	SI
539.	539.	3.	3.	-55839.	-19.1	307.1	11.4	4.28	.0088	11.07	.01	SI
> 539.	0.	3.	3.	-57399.	-19.6	315.7	11.4	4.28	.009	11.07	.01	SI
825.	285.	3.	2.	45375.	-16.8	452.8	6.03	5.07	.0129	19.76	.026	SI
1079.	540.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33425.	-10.5	253.9	8.01	4.92	.0073	13.28	.01	SI
254.	254.	3.	2.	45062.	-16.7	449.6	6.03	5.07	.0128	19.76	.025	SI
539.	539.	3.	3.	-56550.	-19.3	311.	11.4	4.28	.0089	11.07	.01	SI
> 539.	0.	3.	3.	-57604.	-19.7	316.8	11.4	4.28	.0091	11.07	.01	SI
825.	285.	3.	2.	44985.	-16.7	448.9	6.03	5.07	.0128	19.76	.025	SI
1079.	540.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33429.	-10.5	253.9	8.01	4.92	.0073	13.28	.01	SI
254.	254.	3.	2.	44962.	-16.7	448.7	6.03	5.07	.0128	19.76	.025	SI
539.	539.	3.	3.	-56728.	-19.4	312.	11.4	4.28	.0089	11.07	.01	SI
> 539.	0.	3.	3.	-57656.	-19.7	317.1	11.4	4.28	.0091	11.07	.01	SI
825.	285.	3.	2.	45009.	-16.7	449.1	6.03	5.07	.0128	19.76	.025	SI
1079.	540.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	14.04	1.596	8.01	.91	3d14 +3d12	6.03	.685	3d16
2	9.42	1.071	3.39	.386	3d12	6.03	.685	3d16
3	11.4	1.296	11.4	1.296	3d14 +3d12 +3d12	0.	0.	

MESSAGGI

1) Verifica flessionale a SLU non soddisfatta - Msd > Mrd [NTC08 4.1.2.1.2.4].
8) Armatura inferiore tesa insufficiente (Af<0.26*fctm/fyk*bt*d oppure Af<0.0013*bt*d) [NTC08 4.1.6.1.1].
10) Armatura inferiore tesa insufficiente (Ro<1.4/fyk) [NTC08 7.4.6.2.1] (zone sismiche).
26) Armatura inferiore all'appoggio insufficiente ai fini del Taglio [NTC08 4.1.2.1.3.1].
32) Armatura superiore tesa eccessiva (Ro>RoComp+3.5/fyk) [NTC08 7.4.6.2.1] (solo per zone sismiche).
35) Armatura inferiore compressa insufficiente [NTC08 7.4.6.2.1] (solo per zone sismiche).

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 36 - Travata T009 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita' : bassa con gerarchia.
Unità di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A75	3	3	3	0	539.	514.	24.523	1.3	5.	104.631
2	A74	3	3	3	0	539.	514.	24.523	1.3	5.	104.631

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	SLU Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

RARE		FREQUENTI		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.
16.	Quasi Perm	1.			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive		SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-131077.	-.03	.048	-536294.	-.35	1.228	3.	.222	4.091	SI	
0.	0.	3.	1.	63285.	-.015	.03	412929.!	-.35	1.554	3.	.184	6.525	SI	
66.	66.	3.	1.	71216.!	-.017	.034	412929.	-.35	1.554	3.	.184	5.798	SI	
129.	129.	3.	2.	-45779.	-.014	.038	-243762.	-.35	1.866	3.	.158	5.325!	SI	
348.	348.	3.	2.	-3076.	-.001	.003	-243762.	-.35	1.866	3.	.158	79.25!	SI	
539.	539.	3.	3.	-137763.!	-.035	.036	-667984.!	-.35	.329	3.	.516	4.849	NO	32 35 26
539.	539.	3.	3.	26931.	-.407!	.057!	22883.	-.35	.05	3.	***	.85 !	NO	8 10 26 1
> 539.	0.	3.	3.	-136902.!	-.035	.036	-667984.!	-.35	.329	3.	.516	4.879	NO	32 35 26
539.	0.	3.	3.	27342.	-.41 !	.058!	22883.	-.35	.05	3.	***	.837!	NO	8 10 26 1
548.	9.	3.	1.	29205.	-.007	.014	412929.!	-.35	1.554	3.	.184	14.14	SI	
699.	160.	3.	2.	-22089.	-.007	.018	-243762.	-.35	1.866	3.	.158	11.04	SI	
731.	191.	3.	2.	-3057.	-.001	.003	-243762.	-.35	1.866	3.	.158	79.74!	SI	
982.	442.	3.	1.	69917.!	-.016	.033	412929.	-.35	1.554	3.	.184	5.906	SI	
1079.	539.	3.	1.	-131949.	-.03	.048	-536294.	-.35	1.228	3.	.222	4.064	SI	
1079.	539.	3.	1.	61643.	-.014	.029	412929.	-.35	1.554	3.	.184	6.699	SI	

TAGLIO:

Progressive		Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-785.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	1675.!	3754.	22824.	23544.	1.01	4.	1.4	SI
66.	66.	3.	-902.	4931.!	16640.	11211.	1.01	15.	2.5	SI
539.	539.	3.	-1916.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
539.	539.	3.	488.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 539.	0.	3.	-516.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	0.	3.	1944.!	3754.	22824.	23544.	1.01	4.	1.4	SI
605.	66.	3.	-633.	4931.!	16640.	11211.	1.01	15.	2.5	SI
1079.	539.	3.	-1648.!	3754.	22824.!	23544.!	1.01	4.	1.4	SI
1079.	539.	3.	757.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33375.	-10.4	253.5	8.01	4.92	.0072	13.28	.01	SI
254.	254.	3.	2.	45338.!	-16.8	452.4!	6.03	5.07	.0129	19.76	.026!	SI
539.	539.	3.	3.	-54393.!	-18.6!	299.2	11.4	4.28	.0085	11.07	.009	SI
> 539.	0.	3.	3.	-53661.!	-18.4!	295.1	11.4	4.28	.0084	11.07	.009	SI
825.	285.	3.	2.	44970.!	-16.7	448.7!	6.03	5.07	.0128	19.76	.025!	SI
1079.	539.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33399.	-10.4	253.7	8.01	4.92	.0072	13.28	.01	SI
254.	254.	3.	2.	45210.!	-16.7	451.1!	6.03	5.07	.0129	19.76	.025!	SI
539.	539.	3.	3.	-55436.!	-19. !	304.9	11.4	4.28	.0087	11.07	.01	SI
> 539.	0.	3.	3.	-54767.!	-18.7!	301.2	11.4	4.28	.0086	11.07	.01	SI
825.	285.	3.	2.	45406.!	-16.8	453.1!	6.03	5.07	.0129	19.76	.026!	SI
1079.	539.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive		Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33405.	-10.4	253.7	8.01	4.92	.0072	13.28	.01	SI
254.	254.	3.	2.	45178.!	-16.7	450.8!	6.03	5.07	.0129	19.76	.025!	SI
539.	539.	3.	3.	-55697.!	-19. !	306.3	11.4	4.28	.0088	11.07	.01	SI
> 539.	0.	3.	3.	-55044.!	-18.8!	302.7	11.4	4.28	.0086	11.07	.01	SI
825.	285.	3.	2.	45395.!	-16.8	453. !	6.03	5.07	.0129	19.76	.026!	SI
1079.	539.	3.	1.	-39439.	-12.3	299.6	8.01	4.92	.0086	13.28	.011	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	14.04	1.596	8.01	.91	3d14 +3d12	6.03	.685	3d16
2	9.42	1.071	3.39	.386	3d12	6.03	.685	3d16
3	11.4	1.296	11.4	1.296	3d14 +3d12 +3d12	0.	0.	

MESSAGGI

1) Verifica flessionale a SLU non soddisfatta - Msd > Mrd [NTC08 4.1.2.1.2.4].
8) Armatura inferiore tesa insufficiente (Af<0.26*fctm/fyk*bt*d oppure Af<0.0013*bt*d) [NTC08 4.1.6.1.1].
10) Armatura inferiore tesa insufficiente (Ro<1.4/fyk) [NTC08 7.4.6.2.1] (zone sismiche).
26) Armatura inferiore all'appoggio insufficiente ai fini del Taglio [NTC08 4.1.2.1.3.1].
32) Armatura superiore tesa eccessiva (Ro>RoComp+3.5/fyk) [NTC08 7.4.6.2.1] (solo per zone sismiche).
35) Armatura inferiore compressa insufficiente [NTC08 7.4.6.2.1] (solo per zone sismiche).

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 37 - Travata T010 (trave)

Metodo di verifica : stati limite (NTC08).
Duttilita'   : bassa con gerarchia.
Unità di misura   : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3 ; staffe= 2

MATERIALI

CLS   : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS   : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4 ; Wdmax(q.p.)=.3 [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

 3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A73	3	3	3	0	539.	509.	24.522	1.3	4.532	99.189
2	A72	3	3	3	0	539.	509.	24.523	1.3	4.576	100.151

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC	16
5.	SLU con SISMAY PRINC	16

RARE Nome	Descrizione	Sest	FREQUENTI Nome	Descrizione	Sest	QUASI PERMANENTI Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
0.	0.	3.	1.	-134177.	-.034	.057	-458811.	-.35	1.291	3.	.213	3.419	SI
0.	0.	3.	1.	63402.	-.017	.04	316531.	-.35	1.711	3.	.17	4.992	SI
66.	66.	3.	1.	69842.	-.019	.044	316531.	-.35	1.711	3.	.17	4.532	SI
128.	128.	3.	2.	-45799.	-.015	.038	-243761.	-.35	1.865	3.	.158	5.322	SI
190.	190.	3.	2.	-9025.	-.003	.007	-243761.	-.35	1.865	3.	.158	27.01	SI
522.	522.	3.	1.	-146434.	-.037	.062	-458811.	-.35	1.291	3.	.213	3.133	SI
531.	531.	3.	3.	42878.	-.008	.014	604223.	-.35	1.329	3.	.208	14.09	SI
539.	539.	3.	3.	-148643.	-.029	.043	-673850.	-.35	1.176	3.	.229	4.533	SI
539.	539.	3.	3.	41278.	-.008	.013	604223.	-.35	1.329	3.	.208	14.64	SI
539.	0.	3.	3.	-147458.	-.028	.042	-673850.	-.35	1.176	3.	.229	4.57	SI
539.	0.	3.	3.	41273.	-.008	.013	604223.	-.35	1.329	3.	.208	14.64	SI
557.	18.	3.	1.	-145259.	-.037	.062	-458811.	-.35	1.291	3.	.213	3.159	SI
703.	164.	3.	2.	-28701.	-.009	.024	-243761.	-.35	1.865	3.	.158	8.493	SI
889.	350.	3.	2.	-8409.	-.003	.007	-243761.	-.35	1.865	3.	.158	28.99	SI
1013.	474.	3.	1.	69170.	-.019	.043	316531.	-.35	1.711	3.	.17	4.576	SI
1079.	539.	3.	1.	-133252.	-.033	.057	-458811.	-.35	1.291	3.	.213	3.443	SI
1079.	539.	3.	1.	62503.	-.017	.039	316531.	-.35	1.711	3.	.17	5.064	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
0.	0.	3.	-871.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	2031.	3754.	22824.	23544.	1.01	4.	1.4	SI
34.	34.	3.	-920.	4480.	22824.	23544.	1.01	4.	1.4	SI
539.	539.	3.	-1992.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	539.	3.	844.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	0.	3.	-882.	3754.	22824.	23544.	1.01	4.	1.4	SI
539.	0.	3.	2031.	3754.	22824.	23544.	1.01	4.	1.4	SI
579.	40.	3.	-931.	4480.	22824.	23544.	1.01	4.	1.4	SI
1079.	539.	3.	-2003.	3754.	22824.	23544.	1.01	4.	1.4	SI
1079.	539.	3.	844.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
12.	12.	3.	1.	-33664.	-11.6	300.	6.79	5.01	.0086	14.18	.012	SI
34.	34.	3.	1.	-22944.	-7.9	204.5	6.79	5.01	.0058	14.18	.008	SI
252.	252.	3.	2.	45238.	-18.5	594.5	4.52	5.31	.017	17.75	.03	SI
539.	539.	3.	3.	-52194.	-14.	314.4	10.18	4.8	.009	12.01	.011	SI
539.	0.	3.	3.	-51535.	-13.8	310.4	10.18	4.8	.0089	12.01	.011	SI
827.	288.	3.	2.	45485.	-18.6	597.8	4.52	5.31	.0171	17.75	.03	SI
1079.	539.	3.	1.	-36628.	-12.6	326.4	6.79	5.01	.0093	14.18	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve

```
   12.| 12.|3.|1.|   -33480.| -11.5| 298.4| 6.79| 5.01|  .0085| 14.18|  .012|SI|
   34.| 34.|3.|1.|   -22818.|  -7.9| 203.3| 6.79| 5.01|  .0058| 14.18|  .008|SI|
  252.|252.|3.|2.|    45208.! -18.5! 594.1! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
  539.|539.|3.|3.|   -53382.! -14.3| 321.6|10.18| 4.8 |  .0092| 12.01|  .011|SI|
> 539.|  0.|3.|3.|   -52778.! -14.1| 317.9|10.18| 4.8 |  .0091| 12.01|  .011|SI|
  827.|288.|3.|2.|    45415.! -18.6! 596.9! 4.52| 5.31|  .0171| 17.75|  .03 !SI|
 1079.|539.|3.|1.|   -39538.| -13.6| 352.3| 6.79| 5.01|  .0101| 14.18|  .014|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

```
Progressive|Se|Ar Momento      σc     σf   | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -33487.| -11.5| 298.4| 6.79| 5.01|  .0085| 14.18|  .012|SI|
   34.| 34.|3.|1.|   -22838.|  -7.9| 203.5| 6.79| 5.01|  .0058| 14.18|  .008|SI|
  252.|252.|3.|2.|    45200.! -18.5! 594. ! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
  539.|539.|3.|3.|   -53680.! -14.4| 323.4|10.18| 4.8 |  .0092| 12.01|  .011|SI|
> 539.|  0.|3.|3.|   -53090.! -14.2| 319.8|10.18| 4.8 |  .0091| 12.01|  .011|SI|
  827.|288.|3.|2.|    45397.! -18.6! 596.6! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
 1079.|539.|3.|1.|   -39538.| -13.6| 352.3| 6.79| 5.01|  .0101| 14.18|  .014|SI|
```

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

```
Nro|Totale   % |Super.   %        Barre        |Infer.   %        Barre        |
  1|11.31|1.285| 6.79| .771|3d12 +3d12         | 4.52| .514|4d12               |
  2| 7.92| .9  | 3.39| .386|3d12               | 4.52| .514|4d12               |
  3|19.23|2.185|10.18|1.157|3d12 +3d12 +3d12   | 9.05|1.028|4d12 +4d12         |
```

VERIFICA TRAVATA IN CEMENTO ARMATO

```
Nome travata       : 38 - Travata T011 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2
```

MATERIALI

```
CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%
```

TENSIONI E FESSURE MASSIME IN ESERCIZIO

```
GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].
```

SEZIONI UTILIZZATE

```
 3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6
```

DESCRIZIONE CAMPATE

```
Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K |r.Ar.|lam.max|
   1|       A71|    3|    3|    3|    0|  539.|  509.| 24.522|1.3|4.554| 99.67 |
   2|       A70|    3|    3|    3|    0|  539.|  509.| 24.523|1.3|4.656|101.908|
```

CASI DI CARICO DA MODELLO 3D

```
            SLU           |
Nome   Descrizione    Sest|
 1.|SLU SENZA SISMA     1.|
 4.|SLU con SISMAX PRINC16|
 5.|SLU con SISMAY PRINC16|

            RARE          |         FREQUENTI         |    QUASI PERMANENTI      |
Nome   Descrizione    Sest|Nome   Descrizione    Sest|Nome   Descrizione    Sest|
14.|Rara               1.|15.|Frequente          1.|16.|Quasi Perm         1.|
```

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

```
Progressive|SE|Ar|  Msd     Epscl Epsac|   Mrd    Epscl Epsac Cam x/d |Mr/Ms|VE|
>   0.|  0.|3.|1.| -131879.|-.031| .048| -534224.|-.35 |1.117|3.| .239!4.051|SI|
    0.|  0.|3.|1.|   62989.|-.016| .04 |  316596.|-.35 |1.729|3.| .168|5.026|SI|
   66.| 66.|3.|1.|   69519.!-.018| .044|  316596.|-.35 |1.729|3.| .168|4.554|SI|
  128.|128.|3.|2.|  -44657.|-.014| .037| -243761.|-.35 |1.865|3.| .158!5.459|SI|
  190.|190.|3.|2.|   -8521.|-.003| .007| -243761.|-.35 |1.865|3.| .158|28.61!|SI|
  522.|522.|3.|3.| -146029.|-.037! .062! -458811.|-.35 |1.291|3.| .213|3.142!|SI|
  531.|531.|3.|4.|   39888.|-.008| .013|  604223.!-.35 |1.329|3.| .208|15.15|SI|
  539.|539.|3.|4.| -148233.!-.028| .043| -673850.!-.35 |1.176|3.| .229|4.546|SI|
  539.|539.|3.|4.|   38200.|-.007| .012|  604223.|-.35 |1.329|3.| .208|15.82|SI|
> 539.|  0.|3.|4.| -146481.!-.028| .042| -673850.!-.35 |1.176|3.| .229|4.6  |SI|
  539.|  0.|3.|4.|   37914.|-.007| .012|  604223.!-.35 |1.329|3.| .208|15.94|SI|
  557.| 18.|3.|3.| -144292.|-.036! .061! -458811.|-.35 |1.291|3.| .213|3.18 !SI|
  703.|164.|3.|2.|  -28401.|-.009| .023| -243761.|-.35 |1.865|3.| .158!8.583|SI|
  889.|350.|3.|2.|   -7287.|-.002| .006| -243761.|-.35 |1.865|3.| .158|33.45!|SI|
```

```
 1013.|474.|3.|1.|   67992.!-.018| .043|  316596.|-.35 |1.729|3.| .168|4.656|SI|
 1079.|539.|3.|1.| -129889.|-.031| .047| -534224.|-.35 |1.117|3.| .239!4.113|SI|
 1079.|539.|3.|1.|   61061.|-.016| .038|  316596.|-.35 |1.729|3.| .168|5.185|SI|
```

TAGLIO:

```
Progressive|Se|  Vsd  |  VRd  |  VRcd |  VRsd   Asw    s  ctgT|Ve|
>   0.|  0.|3.|  -871.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
    0.|  0.|3.|  2095.!  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
   66.| 66.|3.|  -988.|  4480.! 16640.| 11211.| 1.01|15. |2.5 |SI|
  539.|539.|3.| -1992.!  3754.| 22824.! 23544.! 1.01| 4. |1.4 |SI|
  539.|539.|3.|   909.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
> 539.|  0.|3.|  -947.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
  539.|  0.|3.|  2031.!  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
  579.| 40.|3.|  -995.|  4480.! 22824.| 23544.| 1.01| 4. |1.4 |SI|
 1079.|539.|3.| -2068.!  3754.| 22824.! 23544.! 1.01| 4. |1.4 |SI|
 1079.|539.|3.|   844.|  3754.| 22824.| 23544.| 1.01| 4. |1.4 |SI|
```

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

```
Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -33499.| -10.9| 254.8| 8.01| 4.85|  .0073| 13.21|  .01 |SI|
   34.| 34.|3.|1.|   -22870.|  -7.5| 173.9| 8.01| 4.85|  .005 | 13.21|  .007|SI|
  252.|252.|3.|2.|    45162.! -18.5! 593.5! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
  539.|539.|3.|4.|   -54180.! -14.5| 326.4|10.18| 4.8 |  .0093| 12.01|  .011|SI|
> 539.|  0.|3.|4.|   -53305.! -14.3| 321.1|10.18| 4.8 |  .0092| 12.01|  .011|SI|
  827.|288.|3.|2.|    45428.! -18.6! 597. ! 4.52| 5.31|  .0171| 17.75|  .03 !SI|
 1079.|539.|3.|1.|   -39538.| -12.9| 300.7| 8.01| 4.85|  .0086| 13.21|  .011|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

```
Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -33515.| -10.9| 254.9| 8.01| 4.85|  .0073| 13.21|  .01 |SI|
   34.| 34.|3.|1.|   -22914.|  -7.5| 174.3| 8.01| 4.85|  .005 | 13.21|  .007|SI|
  252.|252.|3.|2.|    45124.! -18.5! 593. ! 4.52| 5.31|  .0169| 17.75|  .03 !SI|
  539.|539.|3.|4.|   -54859.! -14.7| 330.5|10.18| 4.8 |  .0094| 12.01|  .011|SI|
> 539.|  0.|3.|4.|   -54097.! -14.5| 325.9|10.18| 4.8 |  .0093| 12.01|  .011|SI|
  827.|288.|3.|2.|    45376.! -18.6! 596.4! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
 1079.|539.|3.|1.|   -39538.| -12.9| 300.7| 8.01| 4.85|  .0086| 13.21|  .011|SI|
```

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

```
Progressive|Se|Ar Momento      σc     σf  | As   hc,ef   Eps%  Sr,max   Wd  |Ve|
   12.| 12.|3.|1.|   -33519.| -10.9| 254.9| 8.01| 4.85|  .0073| 13.21|  .01 |SI|
   34.| 34.|3.|1.|   -22925.|  -7.5| 174.3| 8.01| 4.85|  .005 | 13.21|  .007|SI|
  252.|252.|3.|2.|    45114.! -18.5! 592.9! 4.52| 5.31|  .0169| 17.75|  .03 !SI|
  539.|539.|3.|4.|   -55029.! -14.7| 331.5|10.18| 4.8 |  .0095| 12.01|  .011|SI|
> 539.|  0.|3.|4.|   -54295.! -14.6| 327.1|10.18| 4.8 |  .0093| 12.01|  .011|SI|
  827.|288.|3.|2.|    45363.! -18.6! 596.2! 4.52| 5.31|  .017 | 17.75|  .03 !SI|
 1079.|539.|3.|1.|   -39538.| -12.9| 300.7| 8.01| 4.85|  .0086| 13.21|  .011|SI|
```

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

```
Nro|Totale   % |Super.   %        Barre        |Infer.   %        Barre        |
  1|12.53|1.424| 8.01| .91 |3d14 +3d12         | 4.52| .514|4d12               |
  2| 7.92| .9  | 3.39| .386|3d12               | 4.52| .514|4d12               |
  3|11.31|1.285| 6.79| .771|3d12 +3d12         | 4.52| .514|4d12               |
  4|19.23|2.185|10.18|1.157|3d12 +3d12 +3d12   | 9.05|1.028|4d12 +4d12         |
```

VERIFICA TRAVATA IN CEMENTO ARMATO

```
Nome travata       : 39 - Travata T012 (trave)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2
```

MATERIALI

```
CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%
```

TENSIONI E FESSURE MASSIME IN ESERCIZIO

```
GRUPPO  : ordinario.
CLS     :  σc (rara)=149.4;  σc (quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO :  σf (rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].
```

SEZIONI UTILIZZATE

```
 3) Rettangolare: 40X22; A=880.; Jg=35493.; E=314471.6
```

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.net.	lambda	K	r.Ar.	lam.max
1	A68	3	3	3	0	537.	507.	24.409	1.3	4.372	95.694
2	A69	3	3	3	0	539.	512.	24.523	1.3	4.754	104.04

CASI DI CARICO DA MODELLO 3D

Nome	SLU Descrizione	Sest
1.	SLU SENZA SISMA	1.
4.	SLU con SISMAX PRINC16	
5.	SLU con SISMAY PRINC16	

RARE Nome	Descrizione	Sest	FREQUENTI Nome	Descrizione	Sest	QUASI PERMANENTI Nome	Descrizione	Sest
14.	Rara	1.	15.	Frequente	1.	16.	Quasi Perm	1.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-137076.	-.033	.05	-534224.	-.35	1.117	3.	.239	3.897	SI
0.	0.	3.	1.	65859.	-.017	.041	316596.	-.35	1.729	3.	.168	4.807	SI
68.	68.	3.	1.	72407.!	-.019	.046	316596.	-.35	1.729	3.	.168	4.372	SI
130.	130.	3.	2.	-48878.	-.016	.04	-243761.	-.35	1.865	3.	.158	4.987	SI
346.	346.	3.	2.	-8219.	-.003	.007	-243761.	-.35	1.865	3.	.158	29.66	SI
522.	522.	3.	3.	-143792.	-.036!	.061	-458811.	-.35	1.291	3.	.213	3.191	SI
528.	528.	3.	4.	-145486.	-.032	.062!	-461047.	-.35	1.504	3.	.189	3.169	SI
537.	537.	3.	5.	-145486.!	-.028	.042	-673850.!	-.35	1.176	3.	.229	4.632	SI
537.	537.	3.	5.	35393.	-.007	.011	604223.!	-.35	1.329	3.	.208	17.07	SI
> 537.	0.	3.	5.	-141286.!	-.027	.041	-673850.!	-.35	1.176	3.	.229	4.769	SI
537.	0.	3.	5.	29997.	-.006	.01	604223.!	-.35	1.329	3.	.208	20.14	SI
546.	9.	3.	4.	-141286.	-.031	.06 !	-461047.	-.35	1.504	3.	.189	3.263	SI
552.	15.	3.	3.	-139631.	-.035!	.059	-458811.	-.35	1.291	3.	.213	3.286	SI
699.	162.	3.	2.	-25701.	-.008	.021	-243761.	-.35	1.865	3.	.158	9.484	SI
730.	193.	3.	2.	-6697.	-.002	.006	-243761.	-.35	1.865	3.	.158	36.4 !	SI
1011.	474.	3.	1.	66598.!	-.017	.042	316596.	-.35	1.729	3.	.168	4.754	SI
1077.	539.	3.	1.	-126082.	-.03	.046	-534224.	-.35	1.117	3.	.239	4.237	SI
1077.	539.	3.	1.	58696.	-.015	.037	316596.	-.35	1.729	3.	.168	5.394	SI

TAGLIO:

Progressive	Se	Vsd	VRd	VRcd	VRsd	Asw	s	ctgT	Ve
> 0.	0.	3.	-754.	3754.	22824.	23544.	1.01	4.	1.4	SI
0.	0.	3.	2175.!	3754.	22824.	23544.	1.01	4.	1.4	SI
37.	37.	3.	-803.	4480.!	22824.	23544.	1.01	4.	1.4	SI
537.	537.	3.	-1870.!	3754.	22824.	23544.!	1.01	4.	1.4	SI
537.	537.	3.	993.	3754.	22824.	23544.	1.01	4.	1.4	SI
> 537.	0.	3.	-941.	3754.	22824.	23544.	1.01	4.	1.4	SI
537.	0.	3.	1900.!	3754.	22824.	23544.	1.01	4.	1.4	SI
605.	68.	3.	-1058.	4480.!	16640.	11211.	1.01	15.	2.5	SI
1077.	539.	3.	-2068.!	3754.	22824.	23544.!	1.01	4.	1.4	SI
1077.	539.	3.	713.	3754.	22824.	23544.	1.01	4.	1.4	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
15.	15.	3.	1.	-32361.	-10.6	246.1	8.01	4.85	.007	13.21	.009	SI
24.	24.	3.	1.	-28250.	-9.2	214.8	8.01	4.85	.0061	13.21	.008	SI
37.	37.	3.	1.	-21782.	-7.1	165.6	8.01	4.85	.0047	13.21	.006	SI
253.	253.	3.	2.	44570.!	-18.3!	585.8!	4.52	5.31	.0167	17.75	.03 !	SI
537.	537.	3.	5.	-54758.!	-14.7	329.9	10.18	4.8	.0094	12.01	.011	SI
> 537.	0.	3.	5.	-55286.!	-14.8	333.	10.18	4.8	.0095	12.01	.011	SI
824.	287.	3.	2.	45466.!	-18.6!	597.5!	4.52	5.31	.0171	17.75	.03 !	SI
1077.	539.	3.	1.	-39490.	-12.9	300.3	8.01	4.85	.0086	13.21	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
15.	15.	3.	1.	-32129.	-10.5	244.3	8.01	4.85	.007	13.21	.009	SI
24.	24.	3.	1.	-28026.	-9.1	213.1	8.01	4.85	.0061	13.21	.008	SI
37.	37.	3.	1.	-21573.	-7.	164.1	8.01	4.85	.0047	13.21	.006	SI
253.	253.	3.	2.	44557.!	-18.3!	585.6!	4.52	5.31	.0167	17.75	.03 !	SI
537.	537.	3.	5.	-55067.!	-14.8	331.7	10.18	4.8	.0095	12.01	.011	SI
> 537.	0.	3.	5.	-55696.!	-14.9	335.5	10.18	4.8	.0096	12.01	.012	SI
824.	287.	3.	2.	45426.!	-18.6!	597. !	4.52	5.31	.0171	17.75	.03 !	SI
1077.	539.	3.	1.	-39490.	-12.9	300.3	8.01	4.85	.0086	13.21	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps%	Sr,max	Wd	Ve
15.	15.	3.	1.	-32071.	-10.5	243.9	8.01	4.85	.007	13.21	.009	SI
24.	24.	3.	1.	-27971.	-9.1	212.7	8.01	4.85	.0061	13.21	.008	SI
37.	37.	3.	1.	-21521.	-7.	163.7	8.01	4.85	.0047	13.21	.006	SI
253.	253.	3.	2.	44554.!	-18.3!	585.6!	4.52	5.31	.0167	17.75	.03 !	SI
537.	537.	3.	5.	-55145.!	-14.8	332.2	10.18	4.8	.0095	12.01	.011	SI
> 537.	0.	3.	5.	-55799.!	-15.	336.1	10.18	4.8	.0096	12.01	.012	SI
824.	287.	3.	2.	45417.!	-18.6!	596.9!	4.52	5.31	.0171	17.75	.03 !	SI
1077.	539.	3.	1.	-39490.	-12.9	300.3	8.01	4.85	.0086	13.21	.011	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	12.53	1.424	8.01	.91	3d14 +3d12	4.52	.514	4d12

```
  2| 7.92| .9  | 3.39| .386|3d12               | 4.52| .514|4d12               |
  3|11.31|1.285| 6.79| .771|3d12 +3d12         | 4.52| .514|4d12               |
  4|15.83|1.799| 6.79| .771|3d12 +3d12         | 9.05|1.028|4d12 +4d12         |
  5|19.23|2.185|10.18|1.157|3d12 +3d12 +3d12   | 9.05|1.028|4d12 +4d12         |
```

VERIFICA PILASTRI:

```
                    VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro      : P001  (ID=1)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita'         : bassa con gerarchia.
Unita' di misura   : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3.5 ; staffe= 2.5

                                  MATERIALI

CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

                          TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15

                               SEZIONI UTILIZZATE

 1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

                    DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se| ez | ey |Lassi Lnet  Lcr.I Lcr.S| Af    % arm                          |
 1| 1|2.  |2.  |340. |318. | 53. | 53. |  9.24| 1.056|6ϕ14                   |

                                CASI DI CARICO

Nome|   Descrizione       |Tipo          |Ses|
   1|SLU SENZA SISMA      |SLU (statico) |  1|
   4|SLU con SISMAX PRINC |SLU (sismico) | 16|
   5|SLU con SISMAY PRINC |SLU (sismico) | 16|
  10|SLU GER SISMAX PRINC |SLU (sismico) | 16|
  11|SLU GER SISMAY PRINC |SLU (sismico) | 16|
  14|Rara                 |RARA          |  1|
  15|Frequente            |FREQUENTE     |  1|
  16|Quasi Perm           |QUASI PERMAN. |  1|

                            GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):
Asta  | caso   Myu- min | caso   Myu+ min | caso   Mzu- min | caso   Mzu+ min |
 1|inf|  5- 7| -314770. |  5- 7|  314770. |  4-15| -337510. |  4-15|  337510. |
 1|sup|  5- 5| -453240. |  5- 5|  453240. |  4-15| -307450. |  4-15|  307450. |

TAGLI GERARCHIA:
Asta  | caso   VEyd-     | caso   VEyd+     | caso   VEzd-     | caso   VEzd+     |
     1|  5- 5|   -2754.4|  5- 5|    2754.4|  4-12|   -4086.6|  4-12|    4086.6|

                        VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):
Asta Caso |  NEd    |  MEyd         |  MEzd         |E cls|  σc  |E acc|  σf  |VE|
> 1|  5-12|  -4285.|  257022.|1.02|  326809.|1.03|-.213|-141.1| .319|3923.7|SI|
  1|  5- 5|  -4957.| -123137.|1.03|  -55766.|1.04|-.043| -54.6| .047| 994.5|SI|
  1|  1- 1|  -7533.| -555485.|1.04|   54378.|1.07|-.2  |-141.1| .388|3929.3|SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5-12|  -4285.1|-217239.5|340. | 3.   |  8091.2|11.0395|  1.0201| .035|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5-12|  -4285.1|-134747.1|340. | 3.   |  5018.8| 9.0805|  1.0328| .035|

TAGLIO Y:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd    | Asw | s  |ctgT|VE|
 1|inf|  5- 5|  1741.7|  2754.4| 17187. | 17299.9| 17187. | 1.01|11. |2.5 |SI|
 1|cen|  5- 5|  1741.7|  2754.4| 11893.7| 11893.7| 17137.4| 1.01|16. |2.5 |SI|
 1|sup|  5- 5|  1741.7|  2754.4| 17087.8| 17299.9| 17087.8| 1.01|11. |2.5 |SI|

TAGLIO Z:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd    | Asw | s  |ctgT|VE|
 1|inf|  4-12|  2061.3|  4086.6| 20503.9| 20784. | 20503.9| 1.01|11. |2.05|SI|
 1|cen|  4-12|  2061.3|  4086.6| 17425.6| 17425.6| 17891.2| 1.01|16. |2.5 |SI|
 1|sup|  4-12|  2061.3|  4086.6| 20385.2| 20784. | 20385.2| 1.01|11. |2.05|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:
Asta  | Caso |  NEd    |  Nmax    |  Ncls    |% Ncls|VE|
     1|  5- 7|   -5535.|  -80250.6| -123462.5|  4.48|SI|
```

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-6131.1	150263.2	-17072.6	-50.	865.3	SI
1|cen	14- 1	-5759.2	-114171.4	10914.3	-36.7	538.7	SI
1|sup	14- 1	-5387.3	-378606.1	38901.1	-126.6	3267.4	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-5072.	116835.7	-16711.8	-40.2	659.8	SI
1|cen	15- 1	-4700.1	-89238.3	10703.3	-29.5	413.1	SI
1|sup	15- 1	-4328.3	-295312.4	38118.4	-102.4	2579.4	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-4807.2	108478.8	-16621.7	-37.7	608.6	SI
1|cen	16- 1	-4435.4	-83005.1	10650.5	-27.7	381.8	SI
1|sup	16- 1	-4063.5	-274488.9	37922.8	-96.4	2407.6	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P002 (ID=2)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	5- 7	-419540.	5- 7	419540.	4- 2	-388740.	4- 2	388730.
1|sup	5- 7	-519330.	5- 7	519330.	4- 2	-409320.	4- 2	409310.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 3	-3052.2	5- 3	3052.2	4- 4	-4369.2	4- 4	4369.2

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 5	-9410.	-199503. | 1.05	-320526. | 1.07	-.152	-133.	.187	3913.1	SI
1	5-12	-7877.	37295. | 1.04	75633. | 1.06	-.028	-36.4	.016	327.9	SI
1	5- 5	-8666.	161696. | 1.05	219170. | 1.07	-.106	-109.6	.122	2554.6	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 5	-9409.9	-218263.7	340.	3.	8129.4	10.9876	1.0451	.076

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 5	-9409.9	-135478.8	340.	3.	5046.	9.0315	1.0746	.076

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 3	1218.4	3052.2	17299.9	17299.9	17713.8	1.01	11.	2.5	SI
1|cen|	5- 3	1218.4	3052.2	11893.7	11893.7	17664.2	1.01	16.	2.5	SI
1|sup|	5- 3	1218.4	3052.2	17299.9	17299.9	17614.6	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4- 4	-1373.7	4369.2	20784.	20784.	21098.	1.01	11.	2.05	SI
1|cen|	4- 4	-1373.7	4369.2	17425.6	17425.6	18411.	1.01	16.	2.5	SI
1|sup|	4- 4	-1373.7	4369.2	20784.	20784.	20979.3	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 5	-9409.9	-80250.6	-123462.5	7.62	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1	-11667.9	-33486.3	-14164.8	-20.3	-73.9	SI
1|cen|	14- 1	-11296.1	12187.6	12695.	-16.1	-114.	SI
1|sup|	14- 1	-10924.2	57861.4	39554.7	-30.1	63.6	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1	-9397.3	-25929.5	-14437.4	-16.8	-54.3	SI
1|cen|	15- 1	-9025.4	9555.7	12084.5	-13.3	-86.8	SI
1|sup|	15- 1	-8653.5	45041.	38606.5	-25.9	76.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1	-8829.6	-24040.3	-14505.6	-16.	-49.4	SI
1|cen|	16- 1	-8457.8	8897.8	11931.9	-12.5	-80.	SI
1|sup|	16- 1	-8085.9	41835.9	38369.4	-24.8	80.6	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P003 (ID=3)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1|2.	|2.	|340.	|318.	53.	53.	9.24	1.056	6φ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5- 7	-477590.	5- 7	477590.	4-15	-396170.	4-15	396180.
1|sup|	5- 7	-538170.	5- 7	538170.	4-15	-414260.	4-15	414270.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 8	-3042.4	5- 8	3042.4	4-12	-4355.3	4-12	4355.3

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 5	-9101.	-175682.	1.04	-274600.	1.07	-.128	-123.1	.155	3247.	SI
1	5-12	-7751.	23334.	1.04	66122.	1.06	-.022	-29.6	.009	198.2	SI
1	5- 5	-8358.	104504.	1.04	190415.	1.07	-.08	-90.6	.09	1892.7	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 5	-9101.4	-218202.1	340.	3.	8127.1	10.9908	1.0435	.074

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 5	-9101.4	-135434.7	340.	3.	5044.4	9.0344	1.072	.074

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 8	1263.2	3042.4	17299.9	17299.9	17688.5	1.01	11.	2.5	SI
1|cen	5- 8	1263.2	3042.4	11893.7	11893.7	17638.9	1.01	16.	2.5	SI
1|sup	5- 8	1263.2	3042.4	17299.9	17299.9	17589.2	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-12	1235.6	4355.3	20784.	20784.	21057.5	1.01	11.	2.05	SI
1|cen	4-12	1235.6	4355.3	17425.6	17425.6	18375.6	1.01	16.	2.5	SI
1|sup	4-12	1235.6	4355.3	20784.	20784.	20938.8	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 5	-9101.4	-80250.6	-123462.5	7.37	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-11367.4	-3789.9	-13029.4	-14.8	-130.9	SI
1|cen	14- 1	-10995.5	-8061.2	12016.4	-15.	-119.3	SI
1|sup	14- 1	-10623.7	-12332.5	37062.2	-20.9	-45.	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-9163.3	-2804.1	-13629.4	-12.6	-98.5	SI
1|cen	15- 1	-8791.5	-6268.2	11560.6	-12.4	-91.1	SI
1|sup	15- 1	-8419.6	-9732.4	36750.5	-18.2	-17.4	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-8612.3	-2557.6	-13779.4	-12.1	-90.4	SI
1|cen	16- 1	-8240.4	-5820.	11446.6	-11.7	-84.	SI
1|sup	16- 1	-7868.6	-9082.4	36672.6	-17.6	-9.8	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P004 (ID=4)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16

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  11|SLU GER SISMAY PRINC |SLU (sismico) | 16|
  14|Rara                |RARA          |  1|
  15|Frequente           |FREQUENTE     |  1|
  16|Quasi Perm          |QUASI PERMAN. |  1|
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GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5- 5	-502310.	5- 5	502310.	4- 2	-353070.	4- 2	353070.
1|sup|	5- 5	-542880.	5- 5	542880.	4- 2	-369140.	4- 2	369140.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	5- 4	-2962.7	5- 4	2962.7	4-12	-4294.9	4-12	4294.9

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1|	5- 5	-7819.	-234016.	1.04	-231288.	1.06	-.131	-124.4	.158	3317.5	SI
1|	5-12	-6849.	55087.	1.03	54295.	1.06	-.025	-33.3	.014	295.2	SI
1|	5- 5	-7075.	241838.	1.04	167690.	1.06	-.111	-113.3	.134	2812.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 5	-7819.2	-217945.8	340.	3.	8117.6	11.0037	1.0372	.063

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 5	-7819.2	-135251.7	340.	3.	5037.5	9.0466	1.0614	.063

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 4	1041.8	2962.7	17299.9	17299.9	17543.7	1.01	11.	2.5	SI
1|cen|	5- 4	1041.8	2962.7	11893.7	11893.7	17494.1	1.01	16.	2.5	SI
1|sup|	5- 4	1041.8	2962.7	17299.9	17299.9	17444.5	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-12	836.3	4294.9	20784.	20784.	20926.6	1.01	11.	2.05	SI
1|cen|	4-12	836.3	4294.9	17425.6	17425.6	18261.	1.01	16.	2.5	SI
1|sup|	4-12	836.3	4294.9	20784.	20784.	20807.9	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	5- 4	-8002.2	-80250.6	-123462.5	6.48	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1	-9861.7	-73583.9	-11451.1	-25.1	37.7	SI
1|cen|	14- 1	-9489.9	39082.5	10940.1	-18.3	-38.1	SI
1|sup|	14- 1	-9118.	151748.9	33331.3	-55.4	678.5	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1	-7988.3	-57167.2	-12440.2	-20.6	33.2	SI
1|cen|	15- 1	-7616.4	30626.8	10756.2	-15.	-27.3	SI
1|sup|	15- 1	-7244.6	118420.7	33952.6	-46.2	562.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1	-7520.	-53063.	-12687.4	-19.5	32.2	SI
1|cen|	16- 1	-7148.1	28512.9	10710.3	-14.2	-24.6	SI
1|sup|	16- 1	-6776.2	110088.7	34108.	-43.9	534.2	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

```
Nome pilastro      : P005  (ID=5)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita'         : bassa con gerarchia.
Unita' di misura   : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3.5 ; staffe= 2.5
```

MATERIALI

```
CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

```
GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5- 2	-507060.	5- 2	507060.	4- 2	-361410.	4- 2	361410.
1|sup|	5- 2	-538840.	5- 2	538840.	4- 2	-376860.	4- 2	376860.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 3	-2857.6	5- 3	2857.6	4-15	-4137.2	4-15	4137.2

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 5	-5859.	-201097.	1.03	-198404.	1.05	-.111	-113.2	.139	2921.7	SI
1	5-12	-4917.	27142.	1.02	49750.	1.04	-.019	-25.1	.012	242.7	SI
1	5- 5	-5116.	167061.	1.03	146009.	1.05	-.084	-94.	.104	2184.2	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 5	-5859.5	-217554.1	340.	3.	8103.	11.0235	1.0277	.047

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5- 5	-5859.5	-134971.9	340.	3.	5027.1	9.0654	1.0454	.047

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 3	981.5	-2857.6	17269.6	17299.9	17269.6	1.01	11.	2.5	SI
1|cen|	5- 3	981.5	-2857.6	11893.7	11893.7	17219.9	1.01	16.	2.5	SI
1|sup|	5- 3	981.5	-2857.6	17170.3	17299.9	17170.3	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-15	1436.6	4137.2	20595.4	20784.	20595.4	1.01	11.	2.05	SI
1|cen|	4-15	1436.6	4137.2	17425.6	17425.6	17971.2	1.01	16.	2.5	SI
1|sup|	4-15	1436.6	4137.2	20476.7	20784.	20476.7	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 4	-5949.8	-80250.6	-123462.5	4.82	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1	-7187.6	-23162.2	-13448.6	-14.	-29.2	SI
1|cen|	14- 1	-6815.8	6752.1	11892.4	-10.6	-59.8	SI
1|sup|	14- 1	-6443.9	36666.4	37233.3	-22.8	109.	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1	-5897.	-17813.1	-13929.4	-11.9	-19.3	SI
1|cen|	15- 1	-5525.1	5319.3	11474.3	-8.9	-44.4	SI
1|sup|	15- 1	-5153.2	28451.7	36877.9	-20.7	126.8	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1	-5574.3	-16475.9	-14049.6	-11.4	-16.8	SI
1|cen|	16- 1	-5202.4	4961.1	11369.7	-8.5	-40.5	SI
1|sup|	16- 1	-4830.6	26398.	36789.1	-20.2	133.2	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P006 (ID=6)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

```
CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

```
GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	5- 4	-529400.	5- 4	529410.	4-15	-353830.	4-15	353840.
1 sup	5- 4	-558410.	5- 4	558410.	4-15	-348460.	4-15	348460.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 2	-2968.	5- 2	2968.	4- 7	-4323.	4- 7	4323.

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-12	-7063.	231049.	1.03	145946.	1.06	-.1	-106.1	.12	2510.7	SI
1	1- 1	-13456.	-90723.	1.07	18606.	1.11	-.024	-32.2	.002	36.9	SI
1	4-13	-6572.	-323897.	1.03	73826.	1.06	-.098	-104.6	.138	2899.6	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-12	-7063.5	-217794.8	340.	3.	8111.9	11.0113	1.0335	.057

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-12	-7063.5	-135143.8	340.	3.	5033.5	9.0539	1.0551	.057

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	5- 2	946.7	2968.	17299.9	17299.9	17558.9	1.01	11.	2.5	SI
1 cen	5- 2	946.7	2968.	11893.7	11893.7	17509.3	1.01	16.	2.5	SI
1 sup	5- 2	946.7	2968.	17299.9	17299.9	17459.7	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4- 7	-543.8	4323.	20784.	20784.	20960.9	1.01	11.	2.05	SI
1 cen	4- 7	-543.8	4323.	17425.6	17425.6	18291.1	1.01	16.	2.5	SI
1 sup	4- 7	-543.8	4323.	20784.	20784.	20842.2	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5- 5	-8158.9	-80250.6	-123462.5	6.61	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-9990.8	69724.9	-13737.3	-24.9	30.5	SI
1 cen	14- 1	-9618.9	-60292.7	12616.5	-22.5	9.3	SI
1 sup	14- 1	-9247.1	-190310.3	38970.3	-69.7	1039.9	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-8087.1	54257.4	-14167.8	-20.5	28.1	SI
1 cen	15- 1	-7715.2	-47149.2	12017.3	-18.3	10.	SI
1 sup	15- 1	-7343.4	-148555.8	38202.5	-57.5	843.7	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE

```
 1|inf| 16- 1|   -7611.2|   50390.5|  -14275.4| -19.4|   27.6|SI|
 1|cen| 16- 1|   -7239.3|  -43863.3|   11867.5| -17.2|   10.2|SI|
 1|sup| 16- 1|   -6867.4| -138117.2|   38010.5| -54.5|  795.2|SI|
```

VERIFICA PILASTRO IN CEMENTO ARMATO

```
Nome pilastro      : P007  (ID=7)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita'         : bassa con gerarchia.
Unita' di misura   : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3.5 ; staffe= 2.5
```

MATERIALI

```
CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

```
GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

```
 1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22
```

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

```
As Se| ez | ey |Lassi Lnet  Lcr.I Lcr.S| Af    % arm                          |
 1| 1|2.  |2.  |340. |318. | 53. | 53. |  9.24| 1.056|6ϕ14                    |
```

CASI DI CARICO

```
Nome|   Descrizione       |Tipo          |Ses|
   1|SLU SENZA SISMA      |SLU (statico) |  1|
   4|SLU con SISMAX PRINC |SLU (sismico) | 16|
   5|SLU con SISMAY PRINC |SLU (sismico) | 16|
  10|SLU GER SISMAX PRINC |SLU (sismico) | 16|
  11|SLU GER SISMAY PRINC |SLU (sismico) | 16|
  14|Rara                 |RARA          |  1|
  15|Frequente            |FREQUENTE     |  1|
  16|Quasi Perm           |QUASI PERMAN. |  1|
```

GERARCHIA DELLE RESISTENZE

```
MOMENTI ULTIMI MINIMI (CASI SISMICI):
Asta  | caso   Myu- min | caso   Myu+ min | caso   Mzu- min | caso   Mzu+ min |
 1|inf|  5- 2| -535910. |  5- 2|  535910. |  4- 2| -342310. |  4- 2|  342310. |
 1|sup|  5- 2| -559170. |  5- 2|  559170. |  4- 2| -343930. |  4- 2|  343930. |

TAGLI GERARCHIA:
Asta  | caso   VEyd-    | caso   VEyd+    | caso   VEzd-    | caso   VEzd+    |
     1|  5- 4|   -2956.8|  5- 4|    2956.8|  4-15|   -4340.1|  4-15|    4340.1|
```

VERIFICHE ALLO STATO LIMITE ULTIMO

```
PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):
Asta Caso |  NEd   |  MEyd        |  MEzd        |E cls|  σc  |E acc|  σf  |VE|
> 1|  5- 2|  -7947.| -196340.|1.04| -188762.|1.06|-.105|-109.5| .121|2544. |SI|
  1|  5-15|  -7063.|   59839.|1.04|   46535.|1.06|-.024| -31.5| .012| 250.8|SI|
  1|  4- 5|  -6735.|  342615.|1.04|   76377.|1.06|-.104|-108.6| .147|3087. |SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5- 2|  -7946.8|-217971.3|340. | 3.   |  8118.5|11.0024|  1.0378| .064|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5- 2|  -7946.8|-135269.9|340. | 3.   |  5038.2| 9.0454|  1.0624| .064|

TAGLIO Y:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  5- 4|   924.1|  2956.8| 17299.9| 17299.9| 17563.7| 1.01|11. |2.5 |SI|
 1|cen|  5- 4|   924.1|  2956.8| 11893.7| 11893.7| 17514.1| 1.01|16. |2.5 |SI|
 1|sup|  5- 4|   924.1|  2956.8| 17299.9| 17299.9| 17464.5| 1.01|11. |2.5 |SI|

TAGLIO Z:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  4-15|   821.1|  4340.1| 20784. | 20784. | 20979.2| 1.01|11. |2.05|SI|
 1|cen|  4-15|   821.1|  4340.1| 17425.6| 17425.6| 18307.1| 1.01|16. |2.5 |SI|
 1|sup|  4-15|   821.1|  4340.1| 20784. | 20784. | 20860.5| 1.01|11. |2.05|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:
Asta  | Caso |  NEd    |  Nmax    |  Ncls    |% Ncls|VE|
     1|  4-13|   -8162.7|  -80250.6| -123462.5|  6.61|SI|
```

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	14- 1	-10098.7	-95063.	-13789.8	-31.	123.4	SI
1	cen	14- 1	-9726.8	54687.5	12729.7	-21.6	-5.3	SI
1	sup	14- 1	-9354.9	204438.	39249.3	-74.2	1160.3	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	15- 1	-8172.5	-73714.5	-14231.6	-25.1	96.5	SI
1	cen	15- 1	-7800.7	42791.1	12102.	-17.6	-1.6	SI
1	sup	15- 1	-7428.8	159296.8	38435.5	-61.	934.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	16- 1	-7691.	-68377.4	-14342.1	-23.7	90.	SI
1	cen	16- 1	-7319.1	39817.1	11945.	-16.6	-.6	SI
1	sup	16- 1	-6947.3	148011.5	38232.1	-57.6	878.6	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P008 (ID=8)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf	5- 2	-516970.	5- 2	516970.	4- 2	-348510.	4- 2	348510.
1	sup	5- 2	-538820.	5- 2	538820.	4- 2	-362910.	4- 2	362910.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 4	-2839.3	5- 4	2839.3	4-15	-4155.3	4-15	4155.3

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	4- 5	-4698.	-307839.	1.02	-73872.	1.04	-.095	-101.9	.141	2955.8	SI
1	5-15	-4538.	14629.	1.02	44029.	1.04	-.015	-19.8	.008	162.8	SI
1	4- 5	-3954.	258306.	1.02	74813.	1.04	-.083	-92.8	.122	2556.6	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	4- 5	-4697.8	-217322.	340.	3.	8094.3	11.0353	1.0221	.038

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	4- 5	-4697.8	-134806.1	340.	3.	5021.	9.0765	1.0361	.038

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 4|	900.5|	2839.3|	17229.6|	17299.9|	17229.6|	1.01|11.	|2.5	|SI|
1|cen|	5- 4|	900.5|	2839.3|	11893.7|	11893.7|	17180. |	1.01|16.	|2.5	|SI|
1|sup|	5- 4|	900.5|	2839.3|	17130.3|	17299.9|	17130.3|	1.01|11.	|2.5	|SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-15|	1542.3|	-4155.3|	20606.3|	20784. |	20606.3|	1.01|11.	|2.05	|SI|
1|cen|	4-15|	1542.3|	-4155.3|	17425.6|	17425.6|	17980.7|	1.01|16.	|2.5	|SI|
1|sup|	4-15|	1542.3|	-4155.3|	20487.6|	20784. |	20487.6|	1.01|11.	|2.05	|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	4-13|	-5811.4|	-80250.6|	-123462.5|	4.71	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-6553.2|	-27489.2|	-14024. |	-14.2|	-9.5	SI|
1|cen|	14- 1|	-6181.3|	2884.1|	12057. |	-9.3|	-57.6	SI|
1|sup|	14- 1|	-5809.4|	33257.3|	38137.9|	-22.3|	125.6	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-5400.3|	-21085.4|	-14390.7|	-12.1|	-3.7	SI|
1|cen|	15- 1|	-5028.4|	2356.6|	11603.8|	-8. |	-42.5	SI|
1|sup|	15- 1|	-4656.5|	25798.5|	37598.2|	-20.4|	145.9	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-5112. |	-19484.4|	-14482.4|	-11.6|	-2.2	SI|
1|cen|	16- 1|	-4740.1|	2224.7|	11490.5|	-7.6|	-38.7	SI|
1|sup|	16- 1|	-4368.3|	23933.8|	37463.3|	-20. |	153. |	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P009 (ID=9)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se| ez	ey	Lassi	Lnet	Lcr.I	Lcr.S|	Af	% arm	
1|	1|2.	|2.	|340.	|318.	| 53.	| 53. |	9.24|	1.056|	6ϕ14

CASI DI CARICO

Nome|	Descrizione	Tipo	Ses|
1|	SLU SENZA SISMA	SLU (statico) |	1|
4|	SLU con SISMAX PRINC	SLU (sismico) |	16|
5|	SLU con SISMAY PRINC	SLU (sismico) |	16|
10|	SLU GER SISMAX PRINC	SLU (sismico) |	16|
11|	SLU GER SISMAY PRINC	SLU (sismico) |	16|
14|	Rara	RARA |	1|
15|	Frequente	FREQUENTE |	1|
16|	Quasi Perm	QUASI PERMAN. |	1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5- 4|	-497790. |	5- 4|	497790. |	4- 2|	-352750. |	4- 2|	352750. |
1|sup|	5- 4|	-520590. |	5- 4|	520600. |	4-15|	-364990. |	4-15|	364990. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	5- 4|	-2675.3|	5- 4|	2675.3|	4- 8|	-4007. |	4- 8|	4007.1|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 2	-3684.	-160000.	1.02	-177791.	1.03	-.093	-101.1	.125	2630.7	SI
1	4-12	-1244.	56156.	1.01	22587.	1.01	-.019	-25.6	.026	543.7	SI
1	4- 5	-3432.	213401.	1.02	75092.	1.03	-.072	-83.7	.104	2179.2	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5- 2	-3683.8	-217119.3	340.	3.	8086.8	11.0456	1.0173	.03

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5- 2	-3683.8	-134661.3	340.	3.	5015.6	9.0863	1.0281	.03

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	5- 4	891.1	2675.3	16953.9	16953.9	17121.7	1.01	11.	2.45	SI
1 cen	5- 4	891.1	2675.3	11893.7	11893.7	16825.	1.01	16.	2.5	SI
1 sup	5- 4	891.1	2675.3	16953.9	16953.9	17021.	1.01	11.	2.45	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4- 8	-1339.	4007.1	20326.9	20784.	20326.9	1.01	11.	2.05	SI
1 cen	4- 8	-1339.	4007.1	17425.6	17425.6	17736.3	1.01	16.	2.5	SI
1 sup	4- 8	-1339.	4007.1	20277.1	20277.1	20513.8	1.01	11.	2.	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4- 2	-4221.1	-80250.6	-123462.5	3.42	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-3499.4	-54901.4	-15394.1	-21.2	246.5	SI
1 cen	14- 1	-3127.5	10655.3	11129.6	-7.4	2.1	SI
1 sup	14- 1	-2755.7	76212.	37653.3	-38.	662.3	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-3016.8	-43283.5	-15511.3	-17.8	192.8	SI
1 cen	15- 1	-2644.9	8123.8	10881.	-6.5	4.1	SI
1 sup	15- 1	-2273.	59531.	37273.4	-33.	567.4	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	16- 1	-2896.1	-40379.1	-15540.7	-16.9	179.8	SI
1 cen	16- 1	-2524.2	7490.9	10818.9	-6.2	4.7	SI
1 sup	16- 1	-2152.3	55360.8	37178.4	-31.7	545.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P010 (ID=10)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1|2.	|2.	|340.	|318.	53.	53.	16.59	1.896	2ϕ16+4ϕ20

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16

14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	4-10	-850320.	4-10	850320.	5- 7	-446870.	5- 7	446870.
1|sup|	4-10	-665930.	4-10	665930.	5- 7	-603910.	5- 7	603910.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-12	-4803.2	4-12	4803.2	4- 7	-6532.1	4- 7	6532.1

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 7	-8560.	660199. |1.02	202629. |1.04	-.161	-135.7	.187	3913.1	SI
1	1- 1	-14860.	2549. |1.04	-194989. |1.07	-.044	-55.6	.025	525.8	SI
1	1- 1	-14377.	-29781. |5.75	-715192. |1.07	-.185	-140.3	.233	3916.8	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|sup|	1- 1	-14376.7	-444664.7	340.	3.	16561.9	5.3933	1.0357	.124

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|sup|	1- 1	-14376.7	-243086.7	340.	3.	9053.9	5.0335	1.0674	.124

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-12	-2088.7	4803.2	17299.9	17299.9	17651.2	1.01	11.	2.5	SI
1|cen|	4-12	-2088.7	4803.2	10015.7	10015.7	17601.6	1.01	19.	2.5	SI
1|sup|	4-12	-2088.7	4803.2	17299.9	17299.9	17551.9	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4- 7	-1039.8	6532.1	20784.	20784.	20994.	1.01	11.	2.05	SI
1|cen|	4- 7	-1039.8	6532.1	14674.2	14674.2	18320.1	1.01	19.	2.5	SI
1|sup|	4- 7	-1039.8	6532.1	20784.	20784.	20875.4	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-10	-8809.1	-80250.6	-123462.5	7.14	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1	-11013.8	7182.7	215414.3	-64.2	828.4	SI
1|cen|	14- 1	-10641.9	1755.2	-129236.9	-39.6	308.3	SI
1|sup|	14- 1	-10270.	-3672.3	-473888.1	-131.3	2514.9	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1	-8962.4	5662.	166117.8	-49.8	616.2	SI
1|cen|	15- 1	-8590.5	1397.2	-99890.8	-30.7	223.8	SI
1|sup|	15- 1	-8218.7	-2867.5	-365899.5	-101.6	1926.1	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1	-8449.6	5281.8	153793.7	-46.1	563.2	SI
1|cen|	16- 1	-8077.7	1307.7	-92554.3	-28.5	202.7	SI
1|sup|	16- 1	-7705.8	-2666.3	-338902.3	-94.1	1778.9	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P011 (ID=11)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	5- 7	-38943O.	5- 7	38943O.	4- 7	-42423O.	4- 7	42423O.
1|sup	5- 7	-49515O.	5- 7	49515O.	4- 7	-44428O.	4- 7	44428O.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 3	-3461.2	5- 4	3461.2	4-12	-4749.2	4-12	4749.2

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-10	-16430.	-134378.	1.08 | 377081.	1.14	-.152	-133.1	.166	3479.6	SI
1	1- 1	-30656.	47295.	1.16 | 313.	1.29	-.029	-37.9	-.018	-375.5	SI
1	5- 5	-15691.	149391.	1.08 | 302018.	1.14	-.129	-123.4	.13	2740.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-16430.1	-219666.8	340.	3.	8181.7	10.9175	1.0808	.133

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-16430.1	-136481.	340.	3.	5083.3	8.9652	1.1369	.133

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 3	1425.8	-3461.2	17299.9	17299.9	18669.5	1.01	11.	2.5	SI
1|cen	5- 3	1425.8	-3461.2	11893.7	11893.7	18619.9	1.01	16.	2.5	SI
1|sup	5- 3	1425.8	-3461.2	17299.9	17299.9	18570.2	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-12	891.9	-4749.2	21666.5	21797.8	21666.5	1.01	11.	2.15	SI
1|cen	4-12	891.9	-4749.2	17425.6	17425.6	19486.2	1.01	16.	2.5	SI
1|sup	4-12	891.9	-4749.2	21551.3	21797.8	21551.3	1.01	11.	2.15	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-10	-16441.2	-80250.6	-123462.5	13.32	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-22184.	-63007.	-3108.7	-33.2	-199.3	SI
1|cen	14- 1	-21812.1	28771.5	167.1	-26.5	-268.5	SI
1|sup	14- 1	-21440.2	120550.1	3442.9	-42.	-73.6	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-17584.3	-48683.1	-2412.6	-26.1	-160.6	SI
1|cen	15- 1	-17212.4	22219.4	115.7	-20.8	-212.9	SI
1|sup	15- 1	-16840.5	93121.9	2644.	-32.7	-61.	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-16434.3	-45102.1	-2238.5	-24.3	-150.9	SI
1|cen	16- 1	-16062.5	20581.4	102.8	-19.4	-199.	SI
1|sup	16- 1	-15690.6	86264.9	2444.2	-30.4	-57.9	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : PO12 (ID=12)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

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CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

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GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	5- 7	-456400.	5- 7	456400.	4-10	-452200.	4-10	452200.
1|sup	5- 5	-531530.	5- 5	531530.	4-15	-468800.	4-15	468800.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5- 5	-3415.6	5- 5	3415.5	4- 4	-4756.6	4- 4	4756.6

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 7	-15794.	82439.	1.08	-331818.	1.13	-.121	-118.9	.129	2704.5	SI
1	1- 1	-29373.	-14987.	1.16	7630.	1.28	-.025	-33.1	-.019	-405.	SI
1	5- 7	-15051.	-68707.	1.08	270899.	1.13	-.096	-103.1	.095	1991.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 7	-15794.3	-219539.7	340.	3.	8176.9	10.9238	1.0775	.128

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 7	-15794.3	-136390.2	340.	3.	5080.	8.9711	1.131	.128

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 5	1565.7	-3415.6	17299.9	17299.9	18591.2	1.01	11.	2.5	SI
1|cen	5- 5	1565.7	-3415.6	11893.7	11893.7	18541.5	1.01	16.	2.5	SI
1|sup	5- 5	1565.7	-3415.6	17299.9	17299.9	18491.9	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4- 4	-1206.3	4756.6	21579.8	21797.8	21579.8	1.01	11.	2.15	SI
1|cen	4- 4	-1206.3	4756.6	17425.6	17425.6	19407.9	1.01	16.	2.5	SI
1|sup	4- 4	-1206.3	4756.6	21464.6	21797.8	21464.6	1.01	11.	2.15	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4- 2	-15896.9	-80250.6	-123462.5	12.88	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-21278.7	-296.3	-9984.2	-23.5	-293.2	SI
1|cen	14- 1	-20906.8	-9172.5	4199.6	-23.3	-284.	SI
1|sup	14- 1	-20535.	-18048.7	18383.5	-27.5	-226.7	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-16890.	-226.8	-7599.2	-18.5	-233.5	SI
1|cen	15- 1	-16518.1	-7072.5	3150.1	-18.3	-225.1	SI
1|sup	15- 1	-16146.2	-13918.2	13899.4	-21.5	-180.2	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-15792.8	-209.4	-7003.	-17.3	-218.6	SI

1|cen|	16- 1|	-15420.9|	-6547.5|	2887.7|	-17.1|	-210.4|SI|
1|sup|	16- 1|	-15049. |	-12885.6|	12778.4|	-20. |	-168.5|SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P013 (ID=13)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se|	ez |	ey |	Lassi	Lnet	Lcr.I	Lcr.S|	Af	% arm	
1|	1|2.	|2.	|340.	|318.	53. |	53. |	9.24|	1.056|	6ϕ14

CASI DI CARICO

Nome|	Descrizione	Tipo	Ses|
1|	SLU SENZA SISMA	SLU (statico) |	1|
4|	SLU con SISMAX PRINC	SLU (sismico) |	16|
5|	SLU con SISMAY PRINC	SLU (sismico) |	16|
10|	SLU GER SISMAX PRINC	SLU (sismico) |	16|
11|	SLU GER SISMAY PRINC	SLU (sismico) |	16|
14|	Rara	RARA |	1|
15|	Frequente	FREQUENTE |	1|
16|	Quasi Perm	QUASI PERMAN. |	1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	4- 1|	-553620. |	4- 1|	553620. |	5- 5|	-322240. |	5- 5|	322240. |
1|sup|	4- 2|	-507870. |	4- 2|	507870. |	5- 5|	-395980. |	5- 5|	395980. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	4-12|	-3318.3|	4-12|	3318.3|	5-12|	-4692.3|	5-12|	4692.3|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso |	NEd	MEyd		MEzd		E cls|	σc	E acc|	σf	VE|
> 1|	5- 5|	-13864.|	454641.|	1.07|	-116106.|	1.11|	-.149|	-131.8|	.177|	3718.4|	SI|
1|	1- 1|	-25673.|	-36105.|	1.13|	67449.|	1.23|	-.035|	-45.3|	-.007|	-147.8|	SI|
1|	5- 5|	-13121.|	-341994.|	1.07|	180029.|	1.11|	-.141|	-128.7|	.151|	3178.4|	SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso |	NEd	NB	l0	fi eff|	Jn	Jcls/Jn|	MEd/M0Ed|	nu
1|inf|	5- 5|	-13864.3|	-219154. |	340. |	3.	|	8162.6|	10.943 |	1.0675|	.112|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso |	NEd	NB	l0	fi eff|	Jn	Jcls/Jn|	MEd/M0Ed|	nu
1|inf|	5- 5|	-13864.3|	-136114.7|	340. |	3.	|	5069.7|	8.9893|	1.1134|	.112|

TAGLIO Y:

Asta	Caso |	VEd	VEd ger. |	VRd	VRsd	VRcd	Asw |	s	ctgT|	VE|
1|inf|	4-12|	-430.5|	3318.3|	17299.9|	17299.9|	18359.7|	1.01|	11. |	2.5 |	SI|
1|cen|	4-12|	-430.5|	3318.3|	11893.7|	11893.7|	18310. |	1.01|	16. |	2.5 |	SI|
1|sup|	4-12|	-430.5|	3318.3|	17299.9|	17299.9|	18260.4|	1.01|	11. |	2.5 |	SI|

TAGLIO Z:

Asta	Caso |	VEd	VEd ger. |	VRd	VRsd	VRcd	Asw |	s	ctgT|	VE|
1|inf|	5-12|	-1672.9|	4692.3|	21290.9|	21290.9|	21607.5|	1.01|	11. |	2.1 |	SI|
1|cen|	5-12|	-1672.9|	4692.3|	17425.6|	17425.6|	19142.9|	1.01|	16. |	2.5 |	SI|
1|sup|	5-12|	-1672.9|	4692.3|	21290.9|	21290.9|	21490.6|	1.01|	11. |	2.1 |	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso |	NEd	Nmax	Ncls	% Ncls|	VE|
1|	4-12|	-14116.3|	-80250.6|	-123462.5|	11.43|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	14- 1	-18662.2	41526.1	-69257.4	-40.9	-28.4	SI
1	cen	14- 1	-18290.3	-22347.8	38845.5	-30.6	-135.4	SI
1	sup	14- 1	-17918.5	-86221.8	146948.4	-76.	524.	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	15- 1	-14871.	31497.3	-54134.2	-32.1	-28.8	SI
1	cen	15- 1	-14499.2	-16765.8	30538.9	-24.	-109.8	SI
1	sup	15- 1	-14127.3	-65028.9	115212.1	-58.9	396.2	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	16- 1	-13923.2	28990.1	-50353.4	-29.9	-28.8	SI
1	cen	16- 1	-13551.4	-15370.3	28462.3	-22.4	-103.5	SI
1	sup	16- 1	-13179.5	-59730.7	107278.	-54.6	364.4	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P014 (ID=14)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf	5- 2	-522910.	5- 2	522910.	4- 7	-398640.	4- 7	398640.
1	sup	5- 2	-550250.	5- 2	550250.	4- 7	-407660.	4- 7	407670.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-12	-3093.6	5-12	3093.6	4-15	-4428.9	4-15	4428.9

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 2	-9837.	-104228.	1.05	-229440.	1.08	-.093	-100.5	.105	2195.	SI
1	1- 1	-17876.	19860.	1.09	2431.	1.16	-.016	-21.5	-.011	-225.6	SI
1	5- 2	-9093.	103381.	1.05	183805.	1.08	-.078	-88.3	.083	1736.4	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	5- 2	-9837.2	-218349.1	340.	3.	8132.6	10.9833	1.0472	.08

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	5- 2	-9837.2	-135539.8	340.	3.	5048.3	9.0274	1.0783	.08

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE

1|inf|	5-12|	-1055.8|	3093.6|	17299.9|	17299.9|	17821.9|	1.01|	11. |	2.5 |	SI|
1|cen|	5-12|	-1055.8|	3093.6|	11893.7|	11893.7|	17772.2|	1.01|	16. |	2.5 |	SI|
1|sup|	5-12|	-1055.8|	3093.6|	17299.9|	17299.9|	17722.6|	1.01|	11. |	2.5 |	SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-15|	1229.9|	4428.9|	21018.5|	21290.9|	21018.5|	1.01|	11. |	2.1 |	SI|
1|cen|	4-15|	1229.9|	4428.9|	17425.6|	17425.6|	18619.7|	1.01|	16. |	2.5 |	SI|
1|sup|	4-15|	1229.9|	4428.9|	20901.6|	21290.9|	20901.6|	1.01|	11. |	2.1 |	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	4-15|	-10235.3|	-80250.6|	-123462.5|	8.29|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-13143.2|	-30158.8|	-4959.7|	-19.2|	-124.7|	SI|
1|cen|	14- 1|	-12771.3|	12858.2|	1472.3|	-15.2|	-161.8|	SI|
1|sup|	14- 1|	-12399.4|	55875.1|	7904.3|	-23.3|	-55.7|	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-10597.2|	-23036.4|	-3873.7|	-15.2|	-103.4|	SI|
1|cen|	15- 1|	-10225.3|	9882.9|	1091.8|	-12.1|	-130.6|	SI|
1|sup|	15- 1|	-9853.4|	42802.2|	6057.2|	-18.2|	-48. |	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-9960.7|	-21255.9|	-3602.2|	-14.2|	-98.1|	SI|
1|cen|	16- 1|	-9588.8|	9139.1|	996.7|	-11.3|	-122.7|	SI|
1|sup|	16- 1|	-9216.9|	39534. |	5595.5|	-16.9|	-46. |	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P015 (ID=15)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se|	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S|	Af	% arm	
1|	1|	2. |	2. |	340.	318. |	53. |	53. |	9.24|	1.056|	6ϕ14	

CASI DI CARICO

Nome|	Descrizione	Tipo	Ses|
1|	SLU SENZA SISMA	SLU (statico) |	1|
4|	SLU con SISMAX PRINC	SLU (sismico) |	16|
5|	SLU con SISMAY PRINC	SLU (sismico) |	16|
10|	SLU GER SISMAX PRINC	SLU (sismico) |	16|
11|	SLU GER SISMAY PRINC	SLU (sismico) |	16|
14|	Rara	RARA |	1|
15|	Frequente	FREQUENTE |	1|
16|	Quasi Perm	QUASI PERMAN. |	1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5- 4|	-562010. |	5- 4|	562010. |	4-10|	-372990. |	4-10|	372990. |
1|sup|	5- 4|	-589450. |	5- 4|	589450. |	4-10|	-313960. |	4-10|	313960. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	4- 2|	-3288.1|	4- 2|	3288.1|	4- 7|	-4701.2|	4- 7|	4701.2|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 4	-13843.	184360.	1.07	-226110.	1.11	-.112	-113.8	.108	2259.1	SI
1	1- 1	-25824.	-159339.	1.13	80.	1.24	-.04	-50.4	-.003	-65.	SI
1	1- 1	-25340.	-527301.	1.13	62629.	19.7	-.149	-131.8	.14	2940.9	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 sup	1- 1	-25340.4	-221640.9	340.	3.	8255.2	10.8202	1.1347	.213

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 sup	1- 1	-25340.4	-137891.	340.	3.	5135.9	8.8735	1.2358	.213

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4- 2	277.	3288.1	17299.9	17299.9	18412.1	1.01	11.	2.5	SI
1 cen	4- 2	277.	3288.1	11893.7	11893.7	18362.5	1.01	16.	2.5	SI
1 sup	4- 2	277.	3288.1	17299.9	17299.9	18312.9	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4- 7	-383.4	4701.2	21367.3	21797.8	21367.3	1.01	11.	2.15	SI
1 cen	4- 7	-383.4	4701.2	17425.6	17425.6	19216.4	1.01	16.	2.5	SI
1 sup	4- 7	-383.4	4701.2	21290.9	21290.9	21573.3	1.01	11.	2.1	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4- 5	-14510.	-80250.6	-123462.5	11.75	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-18767.6	129892.7	-2198.3	-40.8	-13.3	SI
1 cen	14- 1	-18395.7	-99361.3	38.7	-34.7	-78.2	SI
1 sup	14- 1	-18023.8	-328615.2	2275.6	-93.8	1287.1	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-14948.7	99891.9	-1802.8	-31.8	-19.3	SI
1 cen	15- 1	-14576.8	-76847.4	9.5	-27.2	-65.8	SI
1 sup	15- 1	-14204.9	-253586.6	1821.8	-72.3	967.7	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	16- 1	-13994.	92391.7	-1704.	-29.6	-20.7	SI
1 cen	16- 1	-13622.1	-71218.9	2.2	-25.3	-62.6	SI
1 sup	16- 1	-13250.2	-234829.5	1708.3	-67.	888.	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P016 (ID=16)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1

15	Frequente	FREQUENTE | 1 |
16	Quasi Perm	QUASI PERMAN. | 1 |

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	4- 7	-537570.	4- 7	537560.	5- 2	-404490.	5- 2	404490.
1|sup|	4- 7	-447470.	4- 7	447480.	5- 2	-452360.	5- 2	452360.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-10	-3337.2	4-10	3337.2	4-15	-4649.9	4-15	4649.9

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 2	-14136.	337504.|1.07	-135694.|1.12	-.122	-119.7	.126	2655.7	SI
1	1- 1	-26206.	1175.|1.14	102744.|1.24	-.037	-47.8	-.007	-141.4	SI
1	1- 1	-25722.	-58484.|43.8	392730.|1.24	-.137	-127.1	.116	2426.	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|sup|	1- 1	-25722.2	-221717.2	340. | 3.		8258.	10.8165	1.1368	.216

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|sup|	1- 1	-25722.2	-137945.5	340. | 3.		5137.9	8.87	1.2399	.216

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-10	-147.4	3337.2	17299.9	17299.9	18393.4	1.01	11.	2.5	SI
1|cen|	4-10	-147.4	3337.2	11893.7	11893.7	18343.7	1.01	16.	2.5	SI
1|sup|	4-10	-147.4	3337.2	17299.9	17299.9	18294.1	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4-15	-285.2	4649.9	21345.5	21797.8	21345.5	1.01	11.	2.15	SI
1|cen|	4-15	-285.2	4649.9	17425.6	17425.6	19196.7	1.01	16.	2.5	SI
1|sup|	4-15	-285.2	4649.9	21290.9	21290.9	21551.1	1.01	11.	2.1	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-13	-14369.1	-80250.6	-123462.5	11.64	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1	-19037.5	2484.7	-106728.9	-43.7	-8.2	SI
1|cen|	14- 1	-18665.7	753.5	58624.	-31.8	-136.1	SI
1|sup|	14- 1	-18293.8	-977.7	223977.	-83.5	876.2	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1	-15157.	2138.6	-82193.8	-34.1	-16.3	SI
1|cen|	15- 1	-14785.1	645.8	45315.1	-24.9	-110.4	SI
1|sup|	15- 1	-14413.2	-847.	172824.1	-64.5	655.3	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1	-14186.8	2052.	-76060.	-31.7	-18.1	SI
1|cen|	16- 1	-13815.	618.9	41987.9	-23.2	-104.	SI
1|sup|	16- 1	-13443.1	-814.3	160035.9	-59.7	600.2	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P017 (ID=17)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4- 7	-540260.	4- 7	540270.	5- 2	-387630.	5- 2	387630.
1|sup	4- 7	-540980.	4- 7	540980.	5- 2	-416380.	5- 2	416380.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4-10	-3072.8	4-10	3072.8	5-12	-4405.5	5-12	4405.5

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5- 2	-8958.	319889.	1.04	-65144.	1.07	-.094	-101.2	.121	2531.8	SI
1	5- 4	-8931.	56092.	1.04	3349.	1.07	-.014	-18.7	-.001	-13.	SI
1	4- 5	-7806.	-74618.	1.04	179173.	1.07	-.069	-80.6	.078	1648.1	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-8958.1	-218173.4	340.	3.	8126.	10.9922	1.0428	.073

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-8958.1	-135414.3	340.	3.	5043.6	9.0358	1.0708	.073

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-10	-863.4	-3072.8	17299.9	17299.9	17770.2	1.01	11.	2.5	SI
1|cen	4-10	-863.4	-3072.8	11893.7	11893.7	17720.6	1.01	16.	2.5	SI
1|sup	4-10	-863.4	-3072.8	17299.9	17299.9	17671.	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-12	-928.8	4405.5	20869.6	21290.9	20869.6	1.01	11.	2.1	SI
1|cen	5-12	-928.8	4405.5	17425.6	17425.6	18487.4	1.01	16.	2.5	SI
1|sup	5-12	-928.8	4405.5	20784.	20784.	21066.6	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-13	-9700.3	-80250.6	-123462.5	7.86	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-11959.7	2214.1	-17323.	-16.1	-132.5	SI
1|cen	14- 1	-11587.8	765.5	1607.9	-12.	-167.7	SI
1|sup	14- 1	-11215.9	-683.1	20538.9	-15.9	-116.7	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-9689.9	1925.3	-13186.6	-12.9	-109.2	SI
1|cen	15- 1	-9318.	679.3	1291.7	-9.7	-134.7	SI
1|sup	15- 1	-8946.1	-566.8	15769.9	-12.5	-94.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-9122.4	1853.1	-12152.4	-12.1	-103.3	SI
1|cen	16- 1	-8750.6	657.7	1212.6	-9.1	-126.5	SI
1|sup	16- 1	-8378.7	-537.7	14577.7	-11.7	-89.	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P018 (ID=18)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

```
CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

```
GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

1) Rettangolare: base=30; alt.=30; Acls=900; iy=8.66; iz=8.66

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	12.57	1.396	4ϕ20	

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	4- 7	-640260.	4- 7	640250.	5-15	-629470.	5-15	629470.
1|sup	4-12	-640890.	4-12	640900.	5-15	-637280.	5-15	637280.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 7	-4633.1	4- 7	4633.1	5- 4	-4535.	5- 4	4535.

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 2	-5313.	251622.|1.02	-109675.|1.02	-.07	-81.9	.085	1795.	SI
1	5- 4	-4324.	36907.|1.02	23829.|1.02	-.011	-15.4	.004	90.8	SI
1	5-13	-4496.	176868.|1.02	123167.|1.02	-.059	-70.8	.068	1424.9	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-5313.1	-298876.2	340.	3.	11131.9	6.0637	1.0181	.042

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5- 2	-5313.1	-298876.2	340.	3.	11131.9	6.0637	1.0181	.042

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4- 7	1368.8	4633.1	18042.6	18042.6	18227.9	1.01	13.	2.5	SI
1|cen	4- 7	1368.8	4633.1	9773.1	9773.1	18175.5	1.01	24.	2.5	SI
1|sup	4- 7	1368.8	4633.1	18042.6	18042.6	18123.1	1.01	13.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5- 4	1230.2	4535.	18042.6	18042.6	18051.5	1.01	13.	2.5	SI
1|cen	5- 4	1230.2	4535.	9773.1	9773.1	17999.	1.01	24.	2.5	SI
1|sup	5- 4	1230.2	4535.	17946.6	18042.6	17946.6	1.01	13.	2.5	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4- 5	-6004.8	-82543.5	-126990.	4.73	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-6157.9	1103.9	-68651.1	-18.8	101.5	SI
1|cen	14- 1	-5775.4	735.8	20284.4	-8.8	-40.6	SI
1|sup	14- 1	-5392.9	367.7	109219.9	-28.1	375.6	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-5218.4	935.8	-53537.1	-14.8	64.	SI
1|cen	15- 1	-4835.9	690.1	15515.4	-7.2	-36.6	SI
1|sup	15- 1	-4453.4	444.5	84567.9	-21.9	274.9	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-4983.5	893.8	-49758.5	-13.8	55.	SI
1|cen	16- 1	-4601.	678.7	14323.2	-6.8	-35.6	SI

```
 1|sup| 16- 1|   -4218.5|     463.6|   78404.9| -20.4|  249.9|SI|
```

VERIFICA PILASTRO IN CEMENTO ARMATO

```
Nome pilastro      : P019  (ID=19)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita'         : bassa con gerarchia.
Unita' di misura   : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3.5 ; staffe= 2.5
```

MATERIALI

```
CLS    : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
         gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
         gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%
```

TENSIONI MASSIME IN ESERCIZIO

```
GRUPPO : ordinario.
CLS    :  σc (rara)=149.4;  σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO:  σf (rara)=3600; Coeff.Omogein.=15
```

SEZIONI UTILIZZATE

```
 1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22
```

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

```
As Se| ez | ey |Lassi Lnet  Lcr.I Lcr.S| Af    % arm                          |
 1| 1|2.  |2.  |340. |318. | 53. | 53. |  9.24| 1.056|6ϕ14                    |
```

CASI DI CARICO

```
Nome|   Descrizione       |Tipo          |Ses|
   1|SLU SENZA SISMA      |SLU (statico) |  1|
   4|SLU con SISMAX PRINC |SLU (sismico) | 16|
   5|SLU con SISMAY PRINC |SLU (sismico) | 16|
  10|SLU GER SISMAX PRINC |SLU (sismico) | 16|
  11|SLU GER SISMAY PRINC |SLU (sismico) | 16|
  14|Rara                 |RARA          |  1|
  15|Frequente            |FREQUENTE     |  1|
  16|Quasi Perm           |QUASI PERMAN. |  1|
```

GERARCHIA DELLE RESISTENZE

```
MOMENTI ULTIMI MINIMI (CASI SISMICI):
Asta  | caso   Myu- min | caso   Myu+ min | caso   Mzu- min | caso   Mzu+ min |
 1|inf|  5-10| -329360. |  5-10|  329360. |  4-10| -332470. |  4-10|  332470. |
 1|sup|  5-10| -454780. |  5-10|  454780. |  4-10| -305430. |  4-10|  305430. |

TAGLI GERARCHIA:
Asta  | caso   VEyd-    | caso   VEyd+    | caso   VEzd-    | caso   VEzd+    |
     1|  5-10|   -2753.9|  5-10|    2753.9|  4-13|   -4079. |  4-13|    4079. |
```

VERIFICHE ALLO STATO LIMITE ULTIMO

```
PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):
Asta Caso |  NEd   |  MEyd        |  MEzd        |E cls|  σc  |E acc|  σf  |VE|
> 1|  5- 7|  -4296.|  265763.|1.02| -330596.|1.03|-.226|-141.1| .342|3925.5|SI|
  1|  5-10|  -4955.| -123845.|1.03|   54250.|1.04|-.043| -54.2| .047| 989.9|SI|
  1|  1- 1|  -7541.| -559834.|1.04|  -50045.|1.07|-.202|-141.1| .397|3929.9|SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5- 7|  -4295.6|-217241.6|340. | 3.   |  8091.3|11.0393|  1.0202| .035|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB     | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5- 7|  -4295.6|-134748.6|340. | 3.   |  5018.8| 9.0804|  1.0329| .035|

TAGLIO Y:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  5-10| -1722.5|  2753.9| 17186.8| 17299.9| 17186.8| 1.01|11. |2.5 |SI|
 1|cen|  5-10| -1722.5|  2753.9| 11893.7| 11893.7| 17137.1| 1.01|16. |2.5 |SI|
 1|sup|  5-10| -1722.5|  2753.9| 17087.5| 17299.9| 17087.5| 1.01|11. |2.5 |SI|

TAGLIO Z:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  4-13|  2086.9| -4079. | 20504.5| 20784. | 20504.5| 1.01|11. |2.05|SI|
 1|cen|  4-13|  2086.9| -4079. | 17425.6| 17425.6| 17891.6| 1.01|16. |2.5 |SI|
 1|sup|  4-13|  2086.9| -4079. | 20385.8| 20784. | 20385.8| 1.01|11. |2.05|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:
Asta  | Caso |  NEd    |  Nmax    |  Ncls    |% Ncls|VE|
     1|  5-12|   -5532.2|  -80250.6| -123462.5|  4.48|SI|
```

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

```
RARE:
```

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 14- 1	-6137.	155358.	11415.	-49.2	883.6	SI
1	cen 14- 1	-5765.1	-113094.5	-12298.2	-36.9	535.2	SI
1	sup 14- 1	-5393.2	-381546.9	-36011.4	-126.	3278.5	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 15- 1	-5076.5	120830.9	12230.6	-39.5	673.2	SI
1	cen 15- 1	-4704.6	-88376.2	-11806.	-29.6	410.4	SI
1	sup 15- 1	-4332.7	-297583.2	-35842.6	-102.	2587.5	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf 16- 1	-4811.4	112199.1	12434.5	-37.1	620.8	SI
1	cen 16- 1	-4439.5	-82196.6	-11683.	-27.8	379.4	SI
1	sup 16- 1	-4067.6	-276592.3	-35800.4	-96.	2414.9	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P020 (ID=20)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	5-10	-418480.	5-10	418490.	4- 7	-380020.	4- 7	380010.
1 sup	5-10	-517480.	5-10	517470.	4- 7	-402290.	4- 7	402280.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-16	-3039.7	5-16	3039.7	4- 5	-4358.4	4- 5	4358.4

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5-10	-9231.	-211468.	1.04	321229.	1.07	-.159	-135.1	.197	3913.9	SI
1	5- 7	-7734.	43355.	1.04	-76946.	1.06	-.029	-38.5	.018	376.7	SI
1	5-10	-8488.	183083.	1.04	-220111.	1.07	-.112	-113.8	.13	2732.2	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-10	-9231.3	-218228.	340.	3.	8128.1	10.9894	1.0442	.075

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5-10	-9231.3	-135453.3	340.	3.	5045.1	9.0332	1.0731	.075

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	5-16	-1216.7	3039.7	17299.9	17299.9	17692.7	1.01	11.	2.5	SI

1|cen|	5-16|	-1216.7|	3039.7|	11893.7|	11893.7|	17643.1|	1.01|16.	|2.5	|SI|
1|sup|	5-16|	-1216.7|	3039.7|	17299.9|	17299.9|	17593.5|	1.01|11.	|2.5	|SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT|VE|
1|inf|	4- 5|	-1452.1|	4358.4|	20784. |	20784. |	21068.5|	1.01|11.	|2.05|SI|
1|cen|	4- 5|	-1452.1|	4358.4|	17425.6|	17425.6|	18385.2|	1.01|16.	|2.5 |SI|
1|sup|	4- 5|	-1452.1|	4358.4|	20784. |	20784. |	20949.8|	1.01|11.	|2.05|SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls|VE|
1|	5-10|	-9231.3|	-80250.6|	-123462.5|	7.48|SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf |VE|
1|inf|	14- 1|	-11446.6|	-40848.8|	13336.7|	-21.1|	-58.1|SI|
1|cen|	14- 1|	-11074.7|	19303. |	-13711.8|	-17.3|	-94.2|SI|
1|sup|	14- 1|	-10702.8|	79454.7|	-40760.3|	-35.4|	148.7|SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf |VE|
1|inf|	15- 1|	-9224.2|	-31725.5|	13802. |	-17.5|	-41.8|SI|
1|cen|	15- 1|	-8852.4|	15120.3|	-12831.1|	-14.2|	-71.4|SI|
1|sup|	15- 1|	-8480.5|	61966.1|	-39464.2|	-30.2|	148.7|SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf |VE|
1|inf|	16- 1|	-8668.7|	-29444.7|	13918.4|	-16.6|	-37.7|SI|
1|cen|	16- 1|	-8296.8|	14074.6|	-12610.9|	-13.4|	-65.7|SI|
1|sup|	16- 1|	-7924.9|	57594. |	-39140.1|	-28.9|	149.4|SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P021 (ID=21)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se|	ez	ey |Lassi	Lnet	Lcr.I	Lcr.S|	Af	% arm	
1|	1|2.	|2.	|340.	|318. |	53. |	53. |	9.24|	1.056|6ϕ14	

CASI DI CARICO

Nome|	Descrizione	Tipo	Ses|
1|	SLU SENZA SISMA	SLU (statico) |	1|
4|	SLU con SISMAX PRINC	SLU (sismico) |	16|
5|	SLU con SISMAY PRINC	SLU (sismico) |	16|
10|	SLU GER SISMAX PRINC	SLU (sismico) |	16|
11|	SLU GER SISMAY PRINC	SLU (sismico) |	16|
14|	Rara	RARA |	1|
15|	Frequente	FREQUENTE |	1|
16|	Quasi Perm	QUASI PERMAN. |	1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min |
1|inf|	5-10|	-460110. |	5-10|	460110. |	4- 7|	-365200. |	4- 7|	365210. |
1|sup|	5-12|	-514280. |	5-12|	514280. |	4- 7|	-383030. |	4- 7|	383030. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+ |
1|	5-15|	-2946.2|	5-15|	2946.2|	4-13|	-4258.2|	4-13|	4258.2|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-10	-7518.	-218158.	1.04	277912.	1.06	-.143	-129.6	.179	3755.4	SI
1	5- 7	-6433.	46720.	1.03	-73452.	1.05	-.03	-38.7	.022	454.9	SI
1	5-10	-6774.	200244.	1.04	-202217.	1.06	-.112	-113.6	.136	2851.3	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-7517.9	-217885.6	340.	3.	8115.3	11.0067	1.0357	.061

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-7517.9	-135208.6	340.	3.	5035.9	9.0495	1.0589	.061

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-15	-1161.5	-2946.2	17299.9	17299.9	17485.2	1.01	11.	2.5	SI
1|cen	5-15	-1161.5	-2946.2	11893.7	11893.7	17435.6	1.01	16.	2.5	SI
1|sup	5-15	-1161.5	-2946.2	17299.9	17299.9	17386.	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-13	966.7	4258.2	20784.	20784.	20853.6	1.01	11.	2.05	SI
1|cen	4-13	966.7	4258.2	17425.6	17425.6	18197.2	1.01	16.	2.5	SI
1|sup	4-13	966.7	4258.2	20734.9	20784.	20734.9	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	5-12	-7607.7	-80250.6	-123462.5	6.16	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-9378.5	-50877.4	22729.1	-23.1	20.3	SI
1|cen	14- 1	-9006.6	25166.3	-19985.1	-17.6	-36.6	SI
1|sup	14- 1	-8634.7	101210.1	-62699.4	-50.7	506.7	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-7605.	-39492.5	20714.6	-18.9	19.	SI
1|cen	15- 1	-7233.1	19675.6	-17579.9	-14.4	-26.8	SI
1|sup	15- 1	-6861.2	78843.7	-55874.4	-42.3	438.	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-7161.6	-36646.3	20210.9	-17.9	18.8	SI
1|cen	16- 1	-6789.7	18302.9	-16978.6	-13.6	-24.3	SI
1|sup	16- 1	-6417.8	73252.2	-54168.2	-40.2	421.6	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P022 (ID=22)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=30; alt.=30; Acls=900; iy=8.66; iz=8.66

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	12.57	1.396	4ϕ20

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1

16|Quasi Perm |QUASI PERMAN. | 1|

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf|	5-12|	-623410. |	5-12|	623410. |	4-10|	-648770. |	4-10|	648770. |
1|sup|	5-12|	-652290. |	5-12|	652290. |	4-12|	-648680. |	4-12|	648680. |

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1|	5- 9|	-4782.2|	5- 9|	4782.2|	4- 5|	-4758.3|	4- 5|	4758.3|

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1|	5-10|	-8418.|	-115063.|1.03|	340450.|1.03|	-.09 |	-98.3|	.105|	2201.1|	SI|
1|	5- 5|	-6971.|	-17247.|1.03|	-112917.|1.03|	-.025|	-32.7|	.017|	365.5|	SI|
1|	5-15|	-7454.|	-170145.|1.03|	-245899.|1.03|	-.083|	-92.8|	.09 |	1898.5|	SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5-10|	-8418.2|	-299408.2|	340. |	3. |	11151.7|	6.0529|	1.0289|	.066|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf|	5-10|	-8418.2|	-299408.2|	340. |	3. |	11151.7|	6.0529|	1.0289|	.066|

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	5- 9|	-1686.5|	4782.2|	18042.6|	18042.6|	18559.3|	1.01|	13. |	2.5 |	SI|
1|cen|	5- 9|	-1686.5|	4782.2|	9773.1|	9773.1|	18506.8|	1.01|	24. |	2.5 |	SI|
1|sup|	5- 9|	-1686.5|	4782.2|	18042.6|	18042.6|	18454.4|	1.01|	13. |	2.5 |	SI|

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf|	4- 5|	-791.8|	4758.3|	18042.6|	18042.6|	18489. |	1.01|	13. |	2.5 |	SI|
1|cen|	4- 5|	-791.8|	4758.3|	9773.1|	9773.1|	18436.6|	1.01|	24. |	2.5 |	SI|
1|sup|	4- 5|	-791.8|	4758.3|	18042.6|	18042.6|	18384.2|	1.01|	13. |	2.5 |	SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1|	5-10|	-8418.2|	-82543.5|	-126990. |	6.63|	SI|

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	14- 1|	-10261.6|	30941.7|	56206.3|	-24.3|	29.2|	SI|
1|cen|	14- 1|	-9879.1|	-31395.4|	-43999.1|	-21.8|	8. |	SI|
1|sup|	14- 1|	-9496.6|	-93732.5|	-144204.4|	-61.7|	704.8|	SI|

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	15- 1|	-8314.3|	25123.9|	46618.9|	-19.9|	26.5|	SI|
1|cen|	15- 1|	-7931.8|	-25212.5|	-36414. |	-17.7|	8.9|	SI|
1|sup|	15- 1|	-7549.3|	-75548.8|	-119447. |	-50.6|	593.7|	SI|

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf|	16- 1|	-7827.4|	23669.4|	44222.1|	-18.8|	25.9|	SI|
1|cen|	16- 1|	-7444.9|	-23666.7|	-34517.8|	-16.7|	9.1|	SI|
1|sup|	16- 1|	-7062.4|	-71002.9|	-113257.6|	-47.8|	566. |	SI|

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P023 (ID=23)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	5-13	-519740.	5-13	519730.	4- 7	-345210.	4- 7	345210.
1|sup	5-13	-550250.	5-13	550250.	4- 7	-349700.	4- 7	349700.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-15	-2928.8	5-15	2928.8	4-10	-4284.4	4-10	4284.4

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd		MEzd		E cls	σc	E acc	σf	VE
> 1	5-10	-7229.	-244430.	1.03	199720.	1.06	-.123	-120.3	.149	3137.1	SI
1	5- 7	-6622.	63230.	1.03	-53630.	1.05	-.027	-35.4	.017	350.	SI
1	5-10	-6485.	269004.	1.03	-148644.	1.06	-.112	-113.7	.141	2954.6	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-7229.	-217827.8	340.	3.	8113.2	11.0096	1.0343	.059

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-10	-7229.	-135167.4	340.	3.	5034.4	9.0523	1.0565	.059

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-15	-979.8	-2928.8	17299.9	17299.9	17488.1	1.01	11.	2.5	SI
1|cen	5-15	-979.8	-2928.8	11893.7	11893.7	17438.4	1.01	16.	2.5	SI
1|sup	5-15	-979.8	-2928.8	17299.9	17299.9	17388.8	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-10	916.5	4284.4	20784.	20784.	20898.6	1.01	11.	2.05	SI
1|cen	4-10	916.5	4284.4	17425.6	17425.6	18236.6	1.01	16.	2.5	SI
1|sup	4-10	916.5	4284.4	20779.9	20784.	20779.9	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-12	-7669.4	-80250.6	-123462.5	6.21	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	14- 1	-9294.8	-80409.6	13397.	-26.9	84.6	SI
1|cen	14- 1	-8922.9	49710.7	-14712.7	-20.5	2.4	SI
1|sup	14- 1	-8551.	179831.	-42822.4	-68.5	1035.2	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	15- 1	-7548.2	-62794.3	13628.4	-22.	68.5	SI
1|cen	15- 1	-7176.3	39163.9	-13615.3	-16.7	5.	SI
1|sup	15- 1	-6804.5	141122.2	-40859.	-56.6	845.9	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1|inf	16- 1	-7111.6	-58390.5	13686.2	-20.8	64.7	SI
1|cen	16- 1	-6739.7	36527.3	-13340.9	-15.8	5.7	SI
1|sup	16- 1	-6367.8	131445.	-40368.1	-53.7	799.1	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P024 (ID=24)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1 inf	5-15	-528870.	5-15	528870.	4-10	-349820.	4-10	349820.
1 sup	5-15	-557450.	5-15	557450.	4-10	-337590.	4-10	337590.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-13	-2954.7	5-13	2954.7	4- 2	-4311.3	4- 2	4311.3

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5- 7	-6841.	238151.	1.03	-148514.	1.05	-.103	-108.2	.125	2624.8	SI
1	1- 1	-13077.	-100214.	1.07	-19445.	1.11	-.026	-34.1	.004	78.6	SI
1	4-12	-6339.	-335706.	1.03	-71907.	1.06	-.101	-106.2	.144	3031.8	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5- 7	-6841.4	-217750.4	340.	3.	8110.3	11.0136	1.0324	.055

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1 inf	5- 7	-6841.4	-135112.1	340.	3.	5032.3	9.056	1.0533	.055

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	5-13	-945.4	-2954.7	17299.9	17299.9	17534.5	1.01	11.	2.5	SI
1 cen	5-13	-945.4	-2954.7	11893.7	11893.7	17484.8	1.01	16.	2.5	SI
1 sup	5-13	-945.4	-2954.7	17299.9	17299.9	17435.2	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1 inf	4- 2	-507.4	4311.3	20784.	20784.	20933.8	1.01	11.	2.05	SI
1 cen	4- 2	-507.4	4311.3	17425.6	17425.6	18267.4	1.01	16.	2.5	SI
1 sup	4- 2	-507.4	4311.3	20784.	20784.	20815.1	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4- 7	-7990.5	-80250.6	-123462.5	6.47	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	14- 1	-9721.	71509.4	12183.6	-24.7	36.8	SI
1 cen	14- 1	-9349.1	-66746.8	-13188.7	-23.7	34.	SI
1 sup	14- 1	-8977.2	-205003.	-38561.	-74.3	1200.	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	15- 1	-7874.3	55518.1	12805.6	-20.3	32.	SI
1 cen	15- 1	-7502.4	-52266.2	-12465.2	-19.3	29.5	SI
1 sup	15- 1	-7130.5	-160050.5	-37735.9	-61.1	967.8	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1 inf	16- 1	-7412.6	51520.3	12961.1	-19.2	30.9	SI
1 cen	16- 1	-7040.7	-48646.	-12284.3	-18.2	28.4	SI
1 sup	16- 1	-6668.8	-148812.4	-37529.6	-57.8	910.2	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P025 (ID=25)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As Se	ez	ey	Lassi Lnet	Lcr.I	Lcr.S	Af	% arm	
1 1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1|inf	5-13	-531350.	5-13	531350.	4- 7	-338320.	4- 7	338320.
1|sup	5-13	-559050.	5-13	559050.	4- 7	-341790.	4- 7	341790.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-15	-2956.	5-15	2956.	4-10	-4340.9	4-10	4340.9

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	5-13	-7956.	-201233. | 1.04	195080. | 1.06	-.109	-111.8	.126	2649.	SI
1	5- 4	-7077.	61656. | 1.04	-45751. | 1.06	-.024	-31.7	.012	254.4	SI
1	5- 9	-7059.	280824. | 1.04	-120723. | 1.06	-.104	-108.9	.132	2764.7	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-13	-7956.4	-217973.2	340.	3.	8118.6	11.0023	1.0379	.064

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1|inf	5-13	-7956.4	-135271.3	340.	3.	5038.3	9.0453	1.0625	.064

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	5-15	-948.6	-2956.	17299.9	17299.9	17565.5	1.01	11.	2.5	SI
1|cen	5-15	-948.6	-2956.	11893.7	11893.7	17515.8	1.01	16.	2.5	SI
1|sup	5-15	-948.6	-2956.	17299.9	17299.9	17466.2	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1|inf	4-10	842.8	4340.9	20784.	20784.	20982.4	1.01	11.	2.05	SI
1|cen	4-10	842.8	4340.9	17425.6	17425.6	18309.8	1.01	16.	2.5	SI
1|sup	4-10	842.8	4340.9	20784.	20784.	20863.7	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-12	-8180.9	-80250.6	-123462.5	6.63	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE

1	inf	14- 1	-10114.9	-94542.5	18881.1	-32.4	139.8	SI
1	cen	14- 1	-9743.1	55494.9	-10433.6	-21.2	-9.9	SI
1	sup	14- 1	-9371.2	205532.4	-39748.2	-74.7	1171.5	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	15- 1	-8185.1	-73368.6	18313.4	-26.3	110.6	SI
1	cen	15- 1	-7813.2	43435.6	-10212.2	-17.3	-5.4	SI
1	sup	15- 1	-7441.4	160239.8	-38737.9	-61.4	943.7	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	16- 1	-7702.7	-68075.1	18171.5	-24.8	103.6	SI
1	cen	16- 1	-7330.8	40420.7	-10156.9	-16.3	-4.3	SI
1	sup	16- 1	-6958.9	148916.6	-38485.3	-58.	887.2	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P026 (ID=26)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=35; alt.=25; Acls=875; iy=10.1; iz=7.22

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	9.24	1.056	6ϕ14

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf	5-13	-516820.	5-13	516820.	4- 7	-350030.	4- 7	350020.
1	sup	5-13	-542580.	5-13	542590.	4- 7	-365540.	4- 7	365550.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	5-15	-2840.9	5-15	2840.9	4-10	-4149.8	4-10	4149.8

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE
> 1	4- 4	-4844.	-306015.	1.02	72764.	1.04	-.094	-101.2	.139	2912.7	SI
1	5- 4	-4545.	15090.	1.02	-44269.	1.04	-.015	-20.	.008	166.3	SI
1	4- 4	-4100.	252528.	1.02	-70884.	1.04	-.08	-90.4	.117	2454.	SI

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	4- 4	-4843.7	-217351.1	340.	3.	8095.4	11.0338	1.0228	.039

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:

Asta	Caso	NEd	NB	l0	fi eff	Jn	Jcls/Jn	MEd/M0Ed	nu
1	inf	4- 4	-4843.7	-134826.9	340.	3.	5021.7	9.0751	1.0373	.039

TAGLIO Y:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf	5-15	-899.3	2840.9	17232.8	17299.9	17232.8	1.01	11.	2.5	SI
1	cen	5-15	-899.3	2840.9	11893.7	11893.7	17183.1	1.01	16.	2.5	SI

1	sup	5-15	-899.3	2840.9	17133.5	17299.9	17133.5	1.01	11.	2.5	SI

TAGLIO Z:

Asta	Caso	VEd	VEd ger.	VRd	VRsd	VRcd	Asw	s	ctgT	VE
1	inf	4-10	1552.1	4149.8	20596.5	20784.	20596.5	1.01	11.	2.05	SI
1	cen	4-10	1552.1	4149.8	17425.6	17425.6	17972.2	1.01	16.	2.5	SI
1	sup	4-10	1552.1	4149.8	20477.8	20784.	20477.8	1.01	11.	2.05	SI

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:

Asta	Caso	NEd	Nmax	Ncls	% Ncls	VE
1	4-12	-5758.3	-80250.6	-123462.5	4.66	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	14- 1	-6615.8	-24755.9	16049.8	-14.3	-11.	SI
1	cen	14- 1	-6243.9	2068.9	-10492.4	-8.9	-63.9	SI
1	sup	14- 1	-5872.	28893.8	-37034.6	-20.8	99.3	SI

FREQUENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	15- 1	-5448.8	-19091.2	15920.8	-12.2	-4.8	SI
1	cen	15- 1	-5076.9	1704.4	-10231.8	-7.6	-47.8	SI
1	sup	15- 1	-4705.	22500.	-36384.4	-19.	120.6	SI

QUASI PERMANENTI:

Asta	Caso	NEd	MEyd	MEzd	σc	σf	VE
1	inf	16- 1	-5157.	-17675.	15888.5	-11.6	-3.2	SI
1	cen	16- 1	-4785.1	1613.3	-10166.7	-7.3	-43.8	SI
1	sup	16- 1	-4413.3	20901.6	-36221.9	-18.6	127.9	SI

VERIFICA PILASTRO IN CEMENTO ARMATO

Nome pilastro : P027 (ID=27)
Metodo di verifica : stati limite - NTC08 (q=3.15)
Duttilita' : bassa con gerarchia.
Unita' di misura : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unita' particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi) : longitudinali= 3.5 ; staffe= 2.5

MATERIALI

CLS : C25/30; Rck=300; fck=249; fctk=17.91; fctm=25.58; Ecm=314472;
gc=1.5; fcd=141.1; fbd=26.86; fctd=11.94; Ecu=0.35%
ACCIAIO: B450C; ftk=5175; fyk=4500; Es=2100000;
gs=1.15; fyd=3913; ftd=4500; fud=4439.8; Eud=6.75%

TENSIONI MASSIME IN ESERCIZIO

GRUPPO : ordinario.
CLS : σc (rara)=149.4; σc (quasi permanente)=112; fbd(esercizio)=26.86
ACCIAIO: σf (rara)=3600; Coeff.Omogein.=15

SEZIONI UTILIZZATE

1) Rettangolare: base=30; alt.=30; Acls=900; iy=8.66; iz=8.66

DESCRIZIONE ASTE E ARMATURA LONGITUDINALE

As	Se	ez	ey	Lassi	Lnet	Lcr.I	Lcr.S	Af	% arm	
1	1	2.	2.	340.	318.	53.	53.	12.57	1.396	4ϕ20

CASI DI CARICO

Nome	Descrizione	Tipo	Ses
1	SLU SENZA SISMA	SLU (statico)	1
4	SLU con SISMAX PRINC	SLU (sismico)	16
5	SLU con SISMAY PRINC	SLU (sismico)	16
10	SLU GER SISMAX PRINC	SLU (sismico)	16
11	SLU GER SISMAY PRINC	SLU (sismico)	16
14	Rara	RARA	1
15	Frequente	FREQUENTE	1
16	Quasi Perm	QUASI PERMAN.	1

GERARCHIA DELLE RESISTENZE

MOMENTI ULTIMI MINIMI (CASI SISMICI):

Asta	caso	Myu- min	caso	Myu+ min	caso	Mzu- min	caso	Mzu+ min
1	inf	4-10	-611400.	4-10	611400.	5- 4	-615880.	5- 4	615880.
1	sup	4-10	-612390.	4-10	612390.	4-12	-617410.	4-12	617410.

TAGLI GERARCHIA:

Asta	caso	VEyd-	caso	VEyd+	caso	VEzd-	caso	VEzd+
1	4- 7	-4483.2	4- 7	4483.2	5-15	-4409.6	5-15	4409.6

VERIFICHE ALLO STATO LIMITE ULTIMO

PRESSO-FLESSIONE (inclusi imperfezioni e second'ordine):

Asta	Caso	NEd	MEyd	MEzd	E cls	σc	E acc	σf	VE

```
> 1|  5-13|  -3677.| -232722.|1.01| -132353.|1.01|-.072| -83. | .091|1903.9|SI|
  1|  5- 4|  -1742.|   65356.|1.01|   23710.|1.01|-.017| -22.5| .02 | 412. |SI|
  1|  5-13|  -2912.|  151974.|1.01|  117571.|1.01|-.053| -64.6| .065|1359.2|SI|

INSTABILITA' - RIGIDEZZA NOMINALE Y [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB    | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5-13|  -3677.3|-298596. |340. | 3.   | 11121.4| 6.0694|  1.0125| .029|

INSTABILITA' - RIGIDEZZA NOMINALE Z [EC2 5.8.7]:
Asta  | Caso |  NEd    |   NB    | l0  |fi eff|  Jn    |Jcls/Jn|MEd/M0Ed| nu  |
 1|inf|  5-13|  -3677.3|-298596. |340. | 3.   | 11121.4| 6.0694|  1.0125| .029|

TAGLIO Y:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  4- 7|  1371.6| -4483.2| 17973.7| 18042.6| 17973.7| 1.01|13. |2.5 |SI|
 1|cen|  4- 7|  1371.6| -4483.2|  9773.1|  9773.1| 17921.3| 1.01|24. |2.5 |SI|
 1|sup|  4- 7|  1371.6| -4483.2| 17868.8| 18042.6| 17868.8| 1.01|13. |2.5 |SI|

TAGLIO Z:
Asta  | Caso | VEd    VEd ger. | VRd      VRsd     VRcd   | Asw | s  |ctgT|VE|
 1|inf|  5-15| -1123.5|  4409.6| 17821.9| 18042.6| 17821.9| 1.01|13. |2.5 |SI|
 1|cen|  5-15| -1123.5|  4409.6|  9773.1|  9773.1| 17769.5| 1.01|24. |2.5 |SI|
 1|sup|  5-15| -1123.5|  4409.6| 17717. | 18042.6| 17717. | 1.01|13. |2.5 |SI|

NEd LIMITE (NEd < Nmax , Nmax=65% di Ncls ; Ncls=fcd*Ac) [7.4.4.2.2.1]:
Asta  | Caso |  NEd    |  Nmax    |  Ncls    |% Ncls|VE|
     1|  4- 7|   -4138.9|  -82543.5| -126990. |  3.26|SI|

                    VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

RARE:
Asta  | Caso |  NEd    |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 14- 1|   -3495.2|  -16552.1|  -45953.8| -16.2|  144.5|SI|
 1|cen| 14- 1|   -3112.7|   12508.3|   11365.9|  -6.9|    2.8|SI|
 1|sup| 14- 1|   -2730.2|   41568.7|   68685.5| -28.9|  440.5|SI|

FREQUENTI:
Asta  | Caso |  NEd    |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 15- 1|   -3019.7|  -16697. |  -36233.3| -13.6|  114.2|SI|
 1|cen| 15- 1|   -2637.2|   12313.5|    8759.8|  -6. |    4.3|SI|
 1|sup| 15- 1|   -2254.7|   41324.1|   53752.8| -25.1|  379.7|SI|

QUASI PERMANENTI:
Asta  | Caso |  NEd    |  MEyd    |  MEzd    |  σc  |  σf   |VE|
 1|inf| 16- 1|   -2900.8|  -16733.3|  -33803.1| -13. |  106.9|SI|
 1|cen| 16- 1|   -2518.3|   12264.9|    8108.2|  -5.8|    4.7|SI|
 1|sup| 16- 1|   -2135.8|   41263. |   50019.6| -24.1|  365.2|SI|


  VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata       : SOLAIO S1-S2 (travetto)
Metodo di verifica : stati limite (NTC08).
Duttilita'         : bassa con gerarchia.
Unità di misura    : cm; daN; daN/cm; daNcm; daN/cm2; deform. %.
Unità particolari  : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.
Copriferri (assi)  : longitudinali= 3 ; staffe= 2

              MATERIALI

CLS     : Rck =300. ; fck=249. ; fctk= 17.9; fctm= 25.6; Ec= 314472. ;
          gc =1.5 ; fcd=141.1; fbd= 26.9; fctd= 11.9; Ecud=.35%
ACCIAIO : B450C; ftk=5175. ; fyk=4500. ; Es=2100000. ;
          gs =1.15; fyd=3913. ; ftd(k*fyd)=4500. ; fud=4439.8; Eud=6.75%

              TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO  : ordinario.
CLS     : Scls(rara)=149.4; Scls(quasi permanente)=112. ; fbd(esercizio)= 26.9
ACCIAIO : Sacc(rara)=3600.; Coeff.Omogein.= 15
FESSURE : Wdmax(fre.)=.4  ; Wdmax(q.p.)=.3  [4.1.2.2.4.5];
          kt=.4 [EN 1992-1 7.3.4].

              SEZIONI UTILIZZATE

 2) Sezione a T : 50/10X22/4; A=380.; Jg=16590.; E=314471.6

              DESCRIZIONE CAMPATE

Cam.| Descriz. |S.ini|Sez. |S.fin|Incl.|L.assi|L.net.|lambda | K  |r.Ar.|lam.max|
   1|        C1|    1|    2|    1|    0|  534.|  490.| 24.295|1.3|1.198| 34.981|
   2|        S2|    1|    2|    1|    0|  534.|  490.| 24.295|1.3|1.198| 34.981|

              CONDIZIONI DI CARICO
                                          |Molt.|Coeff. per combinazioni    |
Nro|   Descrizione      |    Tipo          |Caric|SLU   |Rare  |Freq. |Q.Per.|
 1 |Perman.strutturali  |senza permutazioni|1.   | 1.3  | 1.   | 1.   | 1.   |
 2 |Perman.non strutt.  |senza permutazioni|1.   | 1.5  | 1.   | 1.   | 1.   |
 3 |Variabili           |permutaz. campate |1.   | 1.5  | 1.   |  .5  |  .3  |

              CARICHI APPLICATI

Nro|Con|Camp.| Tipo             | Sistema  |carico 1|carico 2|dist.1|dist.2|
  1|  1|    1|Forza distribuita |Globale   |   -1.25|   -    |  -   |  -   |
  2|  1|    2|Forza distribuita |Globale   |   -1.25|   -    |  -   |  -   |
  3|  2|    1|Forza distribuita |Globale   |   -1.  |   -    |  -   |  -   |
```

4	2	2	Forza distribuita	Globale	-1.	-	-	-	
5	3	1	Forza distribuita	Globale	-1.	-	-	-	
6	3	2	Forza distribuita	Globale	-1.	-	-	-	

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

	Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
>	0.	0.	2.	1.	-82575.	-.085	.155	-105098.	-.35	1.472	3.	.192	1.273	SI
	0.	0.	2.	1.	8185.	-.003	.014	126838.	-.35	2.906	3.	.107	15.5	SI
	201.	201.	2.	2.	102981.	-.046	.18 !	123341.	-.35	5.351	3.	.061	1.198	SI
	328.	328.	2.	3.	75501.	-.032	.133	127887.	-.35	2.537	3.	.121	1.694	SI
	534.	534.	2.	4.	-165165.	-.119	.159	-202463.	-.35	1.157	3.	.232	1.226	SI
>	534.	0.	2.	4.	-165165.	-.119	.159	-202463.	-.35	1.157	3.	.232	1.226	SI
	645.	111.	2.	3.	6490.	-.003	.011	127887.	-.35	2.537	3.	.121	19.71	SI
	772.	238.	2.	2.	89139.	-.04	.156	123341.	-.35	5.351	3.	.061	1.384	SI
	868.	333.	2.	2.	102981.	-.046	.18 !	123341.	-.35	5.351	3.	.061	1.198	SI
	1069.	534.	2.	1.	-82575.	-.085	.155	-105098.	-.35	1.472	3.	.192	1.273	SI
	1069.	534.	2.	1.	8185.	-.003	.014	126838.	-.35	2.906	3.	.107	15.5	SI

TAGLIO:

	Progressive	Se	Vsd	VRd	Ve
	534.	534.	2.	-1545.	1564.	SI
>	534.	0.	2.	1545.	1564.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

	Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
	9.	9.	2.	1.	-53610.	-73.	2096.7	1.54	5.16	.0599	20.13	.121	SI
	9.	9.	2.	1.	5736.	-3.4	210.5	1.54	6.11	.006	23.81	.014	SI
	201.	201.	2.	2.	72002. !	-43.2	2635.3 !	1.54	6.08	.103	23.72	.244 !	SI
	526.	526.	2.	3.	-107826.	-118.1 !	2173.	3.08	4.49	.0647	17.51	.113	SI
	534.	534.	2.	4.	-116062. !	-108.7	2322.6	3.08	4.72	.07	18.41	.129	SI
>	534.	0.	2.	4.	-116062. !	-108.7	2322.6	3.08	4.72	.07	18.41	.129	SI
	543.	9.	2.	3.	-107826.	-118.1 !	2173.	3.08	4.49	.0647	17.51	.113	SI
	868.	333.	2.	2.	72002. !	-43.2	2635.3 !	1.54	6.08	.103	23.72	.244 !	SI
	1069.	534.	2.	1.	-58026.	-79.	2269.4	1.54	5.16	.0648	20.13	.131	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

	Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
	9.	9.	2.	1.	-44682.	-60.8	1747.5	1.54	5.16	.0499	20.13	.1	SI
	9.	9.	2.	1.	4755.	-2.8	174.5	1.54	6.11	.005	23.81	.012	SI
	201.	201.	2.	2.	58599. !	-35.2	2144.7 !	1.54	6.08	.0796	23.72	.189 !	SI
	526.	526.	2.	3.	-91237.	-99.9 !	1838.7	3.08	4.49	.0525	17.51	.092	SI
	534.	534.	2.	4.	-98206. !	-92.	1965.2	3.08	4.72	.0561	18.41	.103	SI
>	534.	0.	2.	4.	-98206. !	-92.	1965.2	3.08	4.72	.0561	18.41	.103	SI
	543.	9.	2.	3.	-91237.	-99.9 !	1838.7	3.08	4.49	.0525	17.51	.092	SI
	868.	333.	2.	2.	58599. !	-35.2	2144.7 !	1.54	6.08	.0796	23.72	.189 !	SI
	1069.	534.	2.	1.	-49098.	-66.8	1920.3	1.54	5.16	.0549	20.13	.11	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

	Progressive	Se	Ar	Momento	Scls	Sacc	As	hc,ef	Eps%	Sr,max	Wd	Ve
	9.	9.	2.	1.	-41112.	-56.	1607.9	1.54	5.16	.0459	20.13	.092	SI
	9.	9.	2.	1.	4363.	-2.6	160.1	1.54	6.11	.0046	23.81	.011	SI
	201.	201.	2.	2.	53238. !	-32.	1948.5 !	1.54	6.08	.0703	23.72	.167 !	SI
	526.	526.	2.	3.	-84602.	-92.7 !	1705.	3.08	4.49	.0487	17.51	.085	SI
	534.	534.	2.	4.	-91064. !	-85.3	1822.3	3.08	4.72	.0521	18.41	.096	SI
>	534.	0.	2.	4.	-91064. !	-85.3	1822.3	3.08	4.72	.0521	18.41	.096	SI
	543.	9.	2.	3.	-84602.	-92.7 !	1705.	3.08	4.49	.0487	17.51	.085	SI
	868.	333.	2.	2.	53238. !	-32.	1948.5 !	1.54	6.08	.0703	23.72	.167 !	SI
	1069.	534.	2.	1.	-45528.	-62.	1780.6	1.54	5.16	.0509	20.13	.102	SI

ARMATURE LONGITUDINALI (%=100*Af/Acls - Acls=area intera sezione)

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	3.08	.81	1.54	.405	1d14	1.54	.405	1d14
2	1.54	.405	0.	0.		1.54	.405	1d14
3	4.62	1.215	3.08	.81	2d14	1.54	.405	1d14
4	6.16	1.62	3.08	.81	2d14	3.08	.81	1d14 +1d14

VERIFICA ELEMENTI NON STRUTTURALI (TAMPONAMENTI ESTERNI)

Come prescritto dalle NCT al punto 7.2.3 occorre procedere alla verifica dei pannelli murari esterni di tompagno di spessore maggiore a 10 cm.
Nella struttura oggetto di ampliamento, i tamponamenti esterni saranno realizzati con tipologia di costruzione a "cassavuota" con interposizione di isolate termico, composta da paramento esterno con muratura di laterizio dello spessore di cm 12, e il paramento interno con muratura di laterizio di spessore cm. 8. Nel fabbricato esistente, non sono previste nuove murature
Come riportato nella circolare 617 del 02/02/09 al punto C7.3.6.3, *"La prestazione consistente nell'evitare collassi fragili e prematuri e la possibile espulsione sotto l'azione della Fa delle tamponature si può ritenere conseguita con l'inserimento di leggere reti da intonaco sui due lati della muratura, collegate tra loro ed alle strutture circostanti a distanza non superiore a 500 mm sia in direzione orizzontale sia in direzione verticale, ovvero con l'inserimento di elementi di armatura orizzontale nei letti di malta, a distanza non superiore a 500 mm.*"
Alla luce delle indicazioni riportate nella circolare n°617 e vista la limitata altezza del fabbricato (due piani fuori terra, terra e primo), si ritiene ampiamente sufficiente l'ancoraggio della muratura alla struttura in c.a. come meglio evidenziato nello schema grafico allegato, come anche riportato nella tav. 7.