



COMUNE DI MONTERIGGIONI

Provincia di Siena

RELAZIONE GEOTECNICA E SULLE FONDAZIONI

**D01.
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Progetto:

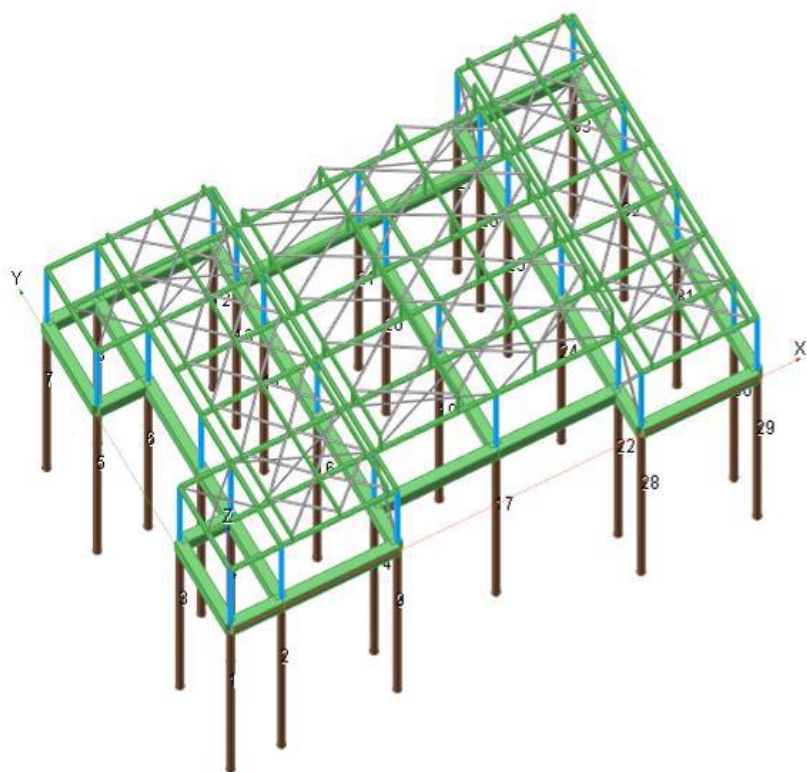
**REALIZZAZIONE DI UN NUOVO EDIFICIO
DESTINATO A MENSA CENTRALIZZATA A SERVIZIO
DELLE SCUOLE DI MONTERIGGIONI**

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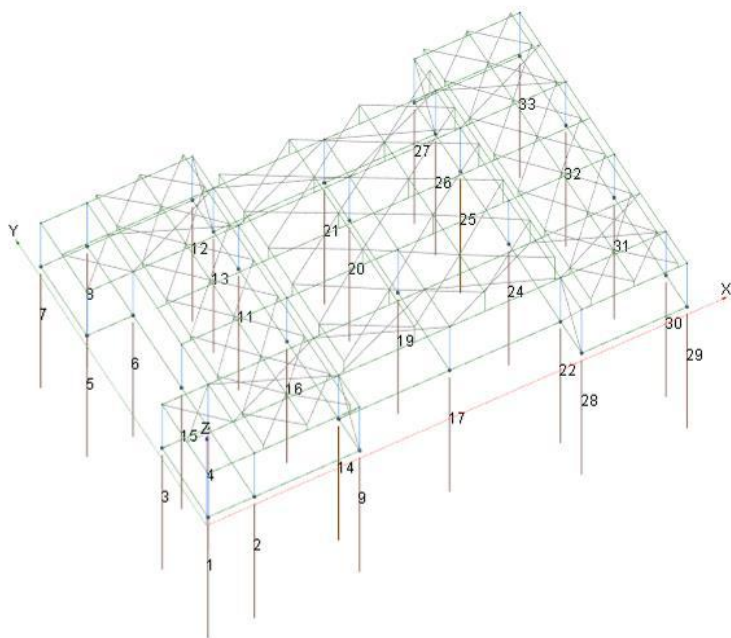
16 Ottobre 2017

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Modellazione 3d della struttura



Modellazione 3d della struttura con numerazione pali

Introduzione

Sistemi di riferimento

Le coordinate, i carichi concentrati, i cedimenti, le reazioni vincolari e gli spostamenti dei NODI sono riferiti ad una terna destra cartesiana globale con l'asse Z verticale rivolto verso l'alto. I carichi in coordinate locali e le sollecitazioni delle ASTE sono riferite ad una terna destra cartesiana locale così definita:

- origine nel nodo iniziale dell'asta;
- asse X coincidente con l'asse dell'asta e con verso dal nodo iniziale al nodo finale;
- immaginando la trave a sezione rettangolare l'asse Y è parallelo alla base e l'asse Z è parallelo all'altezza. La rotazione dell'asta comporta quindi una rotazione di tutta la terna locale.

Si può immaginare la terna locale di un'asta comunque disposta nello spazio come derivante da quella globale dopo una serie di trasformazioni:

- una rotazione intorno all'asse Z che porti l'asse X a coincidere con la proiezione dell'asse dell'asta sul piano orizzontale;
- una traslazione lungo il nuovo asse X così definito in modo da portare l'origine a coincidere con la proiezione del nodo iniziale dell'asta sul piano orizzontale;
- una traslazione lungo l'asse Z che porti l'origine a coincidere con il nodo iniziale dell'asta;
- una rotazione intorno all'asse Y così definito che porti l'asse X a coincidere con l'asse dell'asta;
- una rotazione intorno all'asse X così definito pari alla rotazione dell'asta.

In pratica le travi prive di rotazione avranno sempre l'asse Z rivolto verso l'alto e l'asse Y nel piano del solaio, mentre i pilastri privi di rotazione avranno l'asse Y parallelo all'asse Y globale e l'asse Z parallelo ma controverso all'asse X globale. Da notare quindi che per i pilastri la "base" è il lato parallelo a Y.

Le sollecitazioni ed i carichi in coordinate locali negli ELEMENTI BIDIMENSIONALI e nei MURI sono riferiti ad una terna destra cartesiana locale così definita:

- origine nel primo nodo dell'elemento;
- asse X coincidente con la congiungente il primo ed il secondo nodo dell'elemento;
- asse Y definito come prodotto vettoriale fra il versore dell'asse X e il versore della congiungente il primo e il quarto nodo. Asse Z a formare con gli altri due una terna destrorsa.

Praticamente un elemento verticale con l'asse X locale coincidente con l'asse X globale ha anche gli altri assi locali coincidenti con quelli globali.

Rotazioni e momenti

Seguendo il principio adottato per tutti i carichi che sono positivi se CONTROVERSI agli assi, anche i momenti concentrati e le rotazioni impresse in coordinate globali risultano positivi se CONTROVERSI al segno positivo delle rotazioni. Il segno positivo dei momenti e delle rotazioni è quello orario per l'osservatore posto nell'origine: X ruota su Y, Y ruota su Z, Z ruota su X. In pratica è sufficiente adottare la regola della mano destra: col pollice rivolto nella direzione dell'asse, la rotazione che porta a chiudere il palmo della mano corrisponde al segno positivo.

Normativa di riferimento

La normativa di riferimento è la seguente:

- Legge n. 64 del 2/2/1974 - Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- D.M. del 24/1/1986 - Norme tecniche relative alle costruzioni sismiche.
- Legge n. 1086 del 5/11/1971 - Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- D.M. del 14/2/1992 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 9/1/1996 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 16/1/1996 - Norme tecniche per le costruzioni in zone sismiche.
- Circolare n. 21745 del 30/7/1981 - Legge n. 219 del 14/5/1981 - Art. 10 - Istruzioni relative al rafforzamento degli edifici in muratura danneggiati dal sisma.
- Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20/6/1977 - Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura.
- D.M. del 20/11/1987 - Norme Tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento.
- Norme Tecniche C.N.R. n. 10011-85 del 18/4/1985 - Costruzioni di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Norme Tecniche C.N.R. n. 10025-84 del 14/12/1984 - Istruzioni per il progetto, l'esecuzione ed il controllo delle strutture prefabbricate in conglomerato cementizio e per le strutture costruite con sistemi industrializzati di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Circolare n. 65 del 10/4/1997 - Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. del 16/1/1996.

- Eurocodice 5 - Progettazione delle strutture di legno.
- DIN 1052 - Metodi di verifica per il legno.
- D.M. del 14/1/2008 - Norme tecniche per le costruzioni. Le verifiche degli elementi di fondazione sono eseguite utilizzando l'Approccio 2.
- Circolare n. 617 del 2/2/2009 - Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. del 14/1/2008.
- Documento Tecnico CNR-DT 200 R1/2012 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati.
- Eurocodice 3 - Progettazione delle strutture in acciaioio.

Unità di misura

Le unità di misura adottate sono le seguenti:

- lunghezze : m
- forze : daN
- masse : kg
- temperature : gradi centigradi
- angoli : gradi sessadecimali o radianti

Geometria

Elenco vincoli nodi

Simbologia
Vn = Numero del vincolo nodo
Comm. = Commento
TV = Tipo vincolo se valutato da stratigrafia
SP = Plinto senza pali
CP = Palo o plinto con pali
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	TV	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly <m>	Lz <m>	Kt <daN/cm>
1	Libero		L	L	L	L	L	L				
4	Strat	CP	E	E	E	E	E	B				f(strat.)
4	Strat	SP	B	B	B	B	B	B				f(strat.)

Elenco costanti elastiche nodali

Simbologia
Nodo = Numero del nodo
Kx = Costante elastica in dir. X
Ky = Costante elastica in dir. Y
Kz = Costante elastica in dir. Z
KRx = Costante elastica intorno all'asse X
KRy = Costante elastica intorno all'asse Y

Nodo	Kx <daN/cm>	Ky <daN/cm>	Kz <daN/cm>	KRx <daNm/rad>	KRy <daNm/rad>
1	14624.00	14624.00	159854.00	2582430.00	2582430.00
2	14624.00	14624.00	159854.00	2582430.00	2582430.00
3	14624.00	14624.00	159854.00	2582430.00	2582430.00
4	14624.00	14624.00	159854.00	2582430.00	2582430.00
5	14624.00	14624.00	159854.00	2582430.00	2582430.00
6	14624.00	14624.00	159854.00	2582430.00	2582430.00
7	14624.00	14624.00	159854.00	2582430.00	2582430.00
8	14624.00	14624.00	159854.00	2582430.00	2582430.00
9	14624.00	14624.00	159854.00	2582430.00	2582430.00
11	14624.00	14624.00	159854.00	2582430.00	2582430.00
12	14624.00	14624.00	159854.00	2582430.00	2582430.00
13	14624.00	14624.00	159854.00	2582430.00	2582430.00
14	14624.00	14624.00	159854.00	2582430.00	2582430.00
15	14624.00	14624.00	159854.00	2582430.00	2582430.00
16	14624.00	14624.00	159854.00	2582430.00	2582430.00
17	14624.00	14624.00	159854.00	2582430.00	2582430.00

Relazione di calcolo

19	14624.00	14624.00	159854.00	2582430.00	2582430.00
20	14624.00	14624.00	159854.00	2582430.00	2582430.00
21	14624.00	14624.00	159854.00	2582430.00	2582430.00
22	14624.00	14624.00	159854.00	2582430.00	2582430.00
24	14624.00	14624.00	159854.00	2582430.00	2582430.00
25	14624.00	14624.00	159854.00	2582430.00	2582430.00
26	14624.00	14624.00	159854.00	2582430.00	2582430.00
27	14624.00	14624.00	159854.00	2582430.00	2582430.00
28	14624.00	14624.00	159854.00	2582430.00	2582430.00
29	14624.00	14624.00	159854.00	2582430.00	2582430.00
30	14624.00	14624.00	159854.00	2582430.00	2582430.00
31	14624.00	14624.00	159854.00	2582430.00	2582430.00
32	14624.00	14624.00	159854.00	2582430.00	2582430.00
33	14624.00	14624.00	159854.00	2582430.00	2582430.00

Elenco nodi

Simbologia

Nodo = Numero del nodo
X = Coordinata X del nodo
Y = Coordinata Y del nodo
Z = Coordinata Z del nodo
Imp. = Numero dell'impalcato
Vn = Numero del vincolo nodo

Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn	Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn	Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn
-224	23.35	15.00	4.24	0	1	-223	23.35	10.09	4.24	0	1	-222	25.70	17.10	4.15	0	1
-221	25.70	15.00	4.15	0	1	-220	25.70	12.50	4.15	0	1	-219	25.70	10.09	4.15	0	1
-218	25.70	7.67	4.15	0	1	-217	25.70	5.06	4.15	0	1	-216	25.70	2.50	4.15	0	1
-215	25.70	0.40	4.15	0	1	-214	3.30	0.40	4.15	0	1	-213	3.30	2.50	4.15	0	1
-212	3.30	5.00	4.15	0	1	-211	3.30	7.67	4.15	0	1	-210	3.30	10.09	4.15	0	1
-209	3.30	12.50	4.15	0	1	-208	3.30	15.00	4.15	0	1	-207	3.30	17.10	4.15	0	1
-206	23.35	17.10	4.24	0	1	-205	23.35	12.50	4.24	0	1	-204	23.35	7.67	4.24	0	1
-203	23.35	5.04	4.24	0	1	-202	23.35	2.50	4.24	0	1	-201	23.35	0.40	4.24	0	1
-200	5.65	0.40	4.24	0	1	-199	5.65	2.50	4.24	0	1	-198	5.65	5.00	4.24	0	1
-197	5.65	7.67	4.24	0	1	-196	5.65	10.09	4.24	0	1	-195	5.65	12.50	4.24	0	1
-194	5.65	15.00	4.24	0	1	-193	5.65	17.10	4.24	0	1	-192	21.00	17.10	4.32	0	1
-191	21.00	15.00	4.32	0	1	-190	21.00	12.50	4.32	0	1	-189	21.00	10.09	4.32	0	1
-188	21.00	7.67	4.32	0	1	-187	21.00	5.02	4.32	0	1	-186	21.00	2.50	4.32	0	1
-185	21.00	0.40	4.32	0	1	-184	8.00	0.40	4.32	0	1	-183	8.00	2.50	4.32	0	1
-182	8.00	5.00	4.32	0	1	-181	8.00	7.67	4.32	0	1	-180	8.00	10.09	4.32	0	1
-179	8.00	12.50	4.32	0	1	-178	8.00	15.00	4.32	0	1	-177	8.00	17.10	4.32	0	1
-176	21.00	17.10	3.80	1	1	-175	25.70	17.10	3.80	1	1	-174	25.70	15.00	3.80	1	1
-173	21.00	15.00	3.80	1	1	-172	21.00	12.50	3.80	1	1	-171	25.70	12.50	3.80	1	1
-170	25.70	10.09	3.80	1	1	-169	21.00	10.09	3.80	1	1	-168	21.00	7.67	3.80	1	1
-167	25.70	7.67	3.80	1	1	-166	25.70	5.06	3.80	1	1	-165	21.00	5.02	3.80	1	1
-164	21.00	2.50	3.80	1	1	-163	25.70	2.50	3.80	1	1	-162	25.70	0.40	3.80	1	1
-161	21.00	0.40	3.80	1	1	-160	3.30	0.40	3.80	1	1	-159	8.00	0.40	3.80	1	1
-158	8.00	2.50	3.80	1	1	-157	3.30	2.50	3.80	1	1	-156	3.30	5.00	3.80	1	1
-155	8.00	5.00	3.80	1	1	-154	3.30	7.67	3.80	1	1	-153	8.00	7.67	3.80	1	1
-152	8.00	10.09	3.80	1	1	-151	3.30	10.09	3.80	1	1	-150	3.30	12.50	3.80	1	1
-149	8.00	12.50	3.80	1	1	-148	8.00	15.00	3.80	1	1	-147	3.30	15.00	3.80	1	1
-146	3.30	17.10	3.80	1	1	-145	8.00	17.10	3.80	1	1	-144	23.35	2.50	3.80	1	1
-143	23.35	5.04	3.80	1	1	-142	23.35	7.67	3.80	1	1	-141	23.35	10.09	3.80	1	1
-140	23.35	12.50	3.80	1	1	-139	23.35	15.00	3.80	1	1	-138	5.65	15.00	3.80	1	1
-137	5.65	12.50	3.80	1	1	-136	5.65	10.09	3.80	1	1	-135	5.65	7.67	3.80	1	1
-134	5.65	5.00	3.80	1	1	-133	5.65	2.50	3.80	1	1	-132	8.80	3.75	4.80	1	1
-131	8.80	6.33	4.80	1	1	-130	8.80	8.88	4.80	1	1	-129	8.80	11.29	4.80	1	1
-128	8.80	13.75	4.80	1	1	-122	12.60	3.75	5.13	1	1	-121	12.60	6.33	5.13	1	1
-120	12.60	8.88	5.13	1	1	-119	12.60	11.29	5.13	1	1	-118	12.60	13.75	5.13	1	1
-113	14.50	3.75	5.30	1	1	-112	16.40	3.75	5.47	1	1	-111	16.40	6.33	5.47	1	1
-110	16.40	8.88	5.47	1	1	-109	16.40	11.29	5.47	1	1	-108	16.40	13.75	5.47	1	1
-102	20.20	3.75	5.80	1	1	-101	20.20	6.33	5.80	1	1	-100	20.20	8.88	5.80	1	1
-99	20.20	11.29	5.80	1	1	-98	20.20	13.75	5.80	1	1	-97	20.20	10.09	5.80	1	1
-95	16.40	2.50	5.47	1	1	-93	16.40	5.00	5.47	1	1	-91	16.40	7.67	5.47	1	1
-89	16.40	10.09	5.47	1	1	-88	16.40	12.50	5.47	1	1	-85	16.40	15.00	5.47	1	1
-84	12.60	15.00	5.13	1	1	-83	12.60	12.50	5.13	1	1	-82	12.60	10.09	5.13	1	1
-81	12.60	7.67	5.13	1	1	-80	12.60	5.00	5.13	1	1	-79	12.60	2.50	5.13	1	1
-72	12.60	2.50	3.80	1	1	-71	10.70	2.50	3.80	1	1	-70	12.60	5.00	3.80	1	1
-69	10.70	5.00	3.80	1	1	-68	12.60	7.67	3.80	1	1	-67	10.70	7.67	3.80	1	1
-66	12.60	10.09	3.80	1	1	-65	10.70	10.09	3.80	1	1	-64	10.70	12.50	3.80	1	1
-63	12.60	12.50	3.80	1	1	-62	12.60	15.00	3.80	1	1	-61	10.70	15.00	3.80	1	1
-60	18.30	15.00	3.80	1	1	-59	16.40	15.00	3.80	1	1	-58	16.40	12.50	3.80	1	1
-57	18.30	12.50	3.80	1	1	-56	18.30	10.09	3.80	1	1	-55	16.40	10.09	3.80	1	1
-54	18.30	7.67	3.80	1	1	-53	16.40	7.67	3.80	1	1	-52	18.30	5.00	3.80	1	1
-51	16.40	5.00	3.80	1	1	-50	18.30	2.50	3.80	1	1	-49	16.40	2.50	3.80	1	1
-47	8.80	2.50	4.80	1	1	-46	8.80	5.00	4.80	1	1	-45	8.80	7.67	4.80	1	1
-44	8.80	10.09	4.80	1	1	-43	8.80	12.50	4.80	1	1	-42	8.80	15.00	4.80	1	1

Relazione di calcolo

-41	20.20	2.50	5.80	1	1	-40	20.20	5.00	5.80	1	1	-39	20.20	7.67	5.80	1	1
-38	20.20	12.50	5.80	1	1	-37	20.20	15.00	5.80	1	1	-36	8.80	7.67	3.80	1	1
-35	8.80	5.00	3.80	1	1	-34	8.80	10.09	3.80	1	1	-33	8.80	12.50	3.80	1	1
-32	8.80	15.00	3.80	1	1	-31	20.20	15.00	3.80	1	1	-30	20.20	12.50	3.80	1	1
-29	20.20	10.09	3.80	1	1	-28	20.20	7.67	3.80	1	1	-27	20.20	5.00	3.80	1	1
-26	20.20	2.50	3.80	1	1	-25	8.80	2.50	3.80	1	1	-24	0.30	2.50	3.80	1	1
-23	2.80	2.50	3.80	1	1	-22	2.80	15.00	3.80	1	1	-21	0.30	15.00	3.80	1	1
-20	2.80	10.09	3.80	1	1	-19	26.20	5.08	3.80	1	1	-18	26.20	15.00	3.80	1	1
-17	26.20	10.09	3.80	1	1	-16	20.50	10.09	3.80	1	1	-15	14.50	10.09	3.80	1	1
-14	8.50	10.09	3.80	1	1	-13	23.35	17.10	3.80	1	1	-9	23.35	0.40	3.80	1	1
-8	5.65	0.40	3.80	1	1	-4	5.65	17.10	3.80	1	1	1	0.30	0.40	0.00	0	4
2	2.80	0.40	0.00	0	4	3	0.30	5.00	0.00	0	4	4	2.80	5.00	0.00	0	4
5	0.30	12.50	0.00	0	4	6	2.80	12.50	0.00	0	4	7	0.30	17.10	0.00	0	4
8	2.80	17.10	0.00	0	4	9	8.50	0.40	0.00	0	4	11	8.50	12.50	0.00	0	4
12	8.50	17.10	0.00	0	4	13	8.50	15.00	0.00	0	4	14	8.50	2.50	0.00	0	4
15	2.80	7.67	0.00	0	4	16	8.50	7.67	0.00	0	4	17	14.50	2.50	0.00	0	4
19	14.50	7.67	0.00	0	4	20	14.50	12.50	0.00	0	4	21	14.50	15.00	0.00	0	4
22	20.50	2.50	0.00	0	4	24	20.50	7.67	0.00	0	4	25	20.50	12.50	0.00	0	4
26	20.50	15.00	0.00	0	4	27	20.50	17.10	0.00	0	4	28	20.50	0.40	0.00	0	4
29	26.20	0.40	0.00	0	4	30	26.20	2.50	0.00	0	4	31	26.20	7.67	0.00	0	4
32	26.20	12.50	0.00	0	4	33	26.20	17.10	0.00	0	4	101	0.30	0.40	3.80	1	1
102	2.80	0.40	3.80	1	1	103	0.30	5.00	3.80	1	1	104	2.80	5.00	3.80	1	1
105	0.30	12.50	3.80	1	1	106	2.80	12.50	3.80	1	1	107	0.30	17.10	3.80	1	1
108	2.80	17.10	3.80	1	1	109	8.50	0.40	3.80	1	1	110	8.50	5.00	3.80	1	1
111	8.50	12.50	3.80	1	1	112	8.50	17.10	3.80	1	1	113	8.50	15.00	3.80	1	1
114	8.50	2.50	3.80	1	1	115	2.80	7.67	3.80	1	1	116	8.50	7.67	3.80	1	1
117	14.50	2.50	3.80	1	1	118	14.50	5.00	3.80	1	1	119	14.50	7.67	3.80	1	1
120	14.50	12.50	3.80	1	1	121	14.50	15.00	3.80	1	1	122	20.50	2.50	3.80	1	1
123	20.50	5.00	3.80	1	1	124	20.50	7.67	3.80	1	1	125	20.50	12.50	3.80	1	1
126	20.50	15.00	3.80	1	1	127	20.50	17.10	3.80	1	1	128	20.50	0.40	3.80	1	1
129	26.20	0.40	3.80	1	1	130	26.20	2.50	3.80	1	1	131	26.20	7.67	3.80	1	1
132	26.20	12.50	3.80	1	1	133	26.20	17.10	3.80	1	1						

Elenco materiali

Simbologia

- Mat. = Numero del materiale
- Comm. = Commento
- P = Peso specifico
- E = Modulo elastico
- G = Modulo elastico tangenziale
- v = Coeff. di Poisson
- α = Coeff. di dilatazione termica

Mat.	Comm.	P <daN/mc>	E <daN/cm²>	G <daN/cm²>	v	α
1	Calcestruzzo	2500	300000.00	130000.00	0.1	1.000000E-05
2	Acciaio	7850	2100000.00	800000.00	0.3	1.000000E-05

Elenco sezioni aste

Simbologia

- Sez. = Numero della sezione
- Comm. = Commento
- Tipo = Tipologia
 - 2C = Doppia C lato labbri
 - 2Cdx = Doppia C lato costola
 - 2I = Doppia I
 - 2L = Doppia L lato labbri
 - 2Ldx = Doppia L lato costole
 - C = Sezione a C
 - Cdx = C destra
 - Cir. = Circolare
 - Cir.c = Circolare cava
 - I = Sezione a I
 - L = Sezione a L
 - Ldx = L destra
 - Om. = Omega
 - Pg = Pi greco
 - Pr = Poligono regolare
 - Prc = Poligono regolare cavo
 - Pc = Per coordinate
 - Ia = Inerzie assegnate
 - R = Rettangolare
 - Rc = Rettangolare cava
 - T = Sezione a T
 - U = Sezione a U
 - Ur = U rovescia
 - V = Sezione a V
 - Vr = V rovescia

Relazione di calcolo

Z = Sezione a Z

Zdx = Z destra

Ts = T stondata

Ls = L stondata

Cs = C stondata

Is = I stondata

Dis. = Disegnata

Mem. = Membratura

G = Generica

T = Trave

P = Pilastro

Ver. = Verifica prevista

N = Nessuna

C = Cemento armato

A = Acciaio

L = Legno

B = Base

H = Altezza

s = Spessore ala

a = Spessore anima

r = Raggio raccordo anima-ala

rl = Raggio in testa ala

A = Ala

Ma = Numero del materiale

C = Numero del criterio di progetto

Crit. C.I. = Criterio di progetto collegamento iniziale

Crit. C.F. = Criterio di progetto collegamento finale

Sez.	Comm.	Tipo	Mem.	Ver.	B <cm>	H <cm>	s <cm>	a <cm>	r <cm>	s <cm>	rl <cm>	A <cm>	Ma	C	Crit. C.I.	Crit. C.F.
1	HEA160	Is	P	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
2	HEA160	Is	T	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
3	Scat 50x100x4	Rc	G	A	5.00	10.00				0.40			2	1	1	1
5	HEA160-IPE160	Is	T	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
6	tub 120x80x4	Rc	T	A	12.00	8.00				0.40			2	1	1	1
8	Controventi	R	G	A	4.00	0.80							2	1	1	1
9	Omega 120x90x30x3	Om.	T	A	9.00	12.00	0.30					3.00	2	1	1	1
10	cv pannelli sandwich	R	G	N	8.00	0.10							2			
11	Cordolo di testa	R	T	C	50.00	60.00							1	1		

Elenco vincoli aste

Simbologia

Va = Numero del vincolo asta

Comm. = Commento

Tipo = Tipologia

SVI = Definizione di vincolamenti interni

ELA = Vincolo su suolo elastico alla Winkler

BIE-RTC = Biella resistente a trazione e a compressione

BIE-RC = Biella resistente solo a compressione

BIE-RT = Biella resistente solo a trazione

Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)

Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)

Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)

Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)

Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)

Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)

Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)

Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)

Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)

Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)

Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)

Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)

Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt <daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	
4	Cer+Cer	SVI	1	1	1	0	0	0	1	1	1	1	0	0	
5	Inc+CerY	SVI	1	1	1	1	1	1	1	1	1	1	0	1	
6	CerY+Inc	SVI	1	1	1	1	0	1	1	1	1	1	1	1	
7	CerY+CerY	SVI	1	1	1	1	0	1	1	1	1	1	0	1	

Elenco aste

Simbologia

Asta = Numero dell'asta

N1 = Nodo iniziale

N2 = Nodo finale

Sez. = Numero della sezione

Va = Numero del vincolo asta

Relazione di calcolo

Par. = Numero dei parametri aggiuntivi
 Rot. = Rotazione
 FF = Filo fisso
 Dy1 = Scost. filo fisso Y1
 Dy2 = Scost. filo fisso Y2
 Dz1 = Scost. filo fisso Z1
 Dz2 = Scost. filo fisso Z2
 Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot. <grad>	FF	Dy1 <cm>	Dy2 <cm>	Dz1 <cm>	Dz2 <cm>	Kt <daN/cmc>
0	1	2	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	1	3	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	2	4	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	2	9	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	4	3	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-24	104	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	9	14	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	14	16	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-214	-199	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	4	15	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	103	-23	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-213	-200	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-213	-198	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-212	-199	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-199	-184	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-200	-183	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-23	110	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	104	114	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-199	-182	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-198	-183	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	15	6	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-211	-198	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-197	-212	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-198	-181	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-197	-182	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	6	5	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-211	-196	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-210	-197	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	14	17	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-47	-80	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-46	-79	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	5	7	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	114	118	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	110	117	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	105	-22	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-21	106	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-210	-195	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-79	-113	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	16	11	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-197	-180	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-196	-181	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-45	-80	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	6	8	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-80	-113	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-195	-180	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	8	7	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	11	13	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-209	-196	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-46	-81	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-196	-179	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-208	-195	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-209	-194	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	106	113	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-22	111	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	17	19	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-44	-81	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-45	-82	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	17	22	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	28	22	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-113	-95	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-113	-93	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-207	-194	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-208	-193	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-195	-178	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-81	-93	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-80	-91	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	117	-27	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	118	122	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	12	8	11	1		0.00	22	0.00	0.00	0.00	0.00	

Relazione di calcolo

0	13	12	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-194	-179	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	19	20	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-44	-83	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-43	-82	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-93	-41	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-193	-178	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-194	-177	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-81	-89	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-82	-91	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	28	29	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	22	24	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-95	-40	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-185	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-201	-186	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-93	-39	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	21	13	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	111	121	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	113	120	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-43	-84	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-42	-83	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-91	-40	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-187	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	20	21	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-83	-89	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-82	-88	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-91	-97	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	29	30	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	30	31	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-186	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-202	-215	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-216	-201	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	130	-27	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	122	-19	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-89	-39	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-83	-85	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-84	-88	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-203	-216	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-217	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	24	25	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-187	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-188	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-89	-38	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-218	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-204	-217	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-188	-223	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-189	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	26	21	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	25	26	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	26	27	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-88	-97	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	121	125	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	120	126	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-88	-37	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-85	-38	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	31	32	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-223	-218	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-219	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	32	33	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-223	-190	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-189	-205	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-205	-219	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-220	-223	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	33	27	11	1		0.00	22	0.00	0.00	0.00	0.00	
0	-205	-191	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-190	-224	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	125	-18	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	126	132	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-224	-192	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-191	-206	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-224	-220	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-221	-205	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-206	-221	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-224	-222	10	7		0.00	55	0.00	0.00	0.00	0.00	
1	1	101	1	1		0.00	55	0.00	0.00	0.00	0.00	
2	2	102	1	1		0.00	55	0.00	0.00	0.00	0.00	
3	3	103	1	1		0.00	55	0.00	0.00	0.00	0.00	
4	4	104	1	1		0.00	55	0.00	0.00	0.00	0.00	
5	5	105	1	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

6	6	106	1	1		0.00	55	0.00	0.00	0.00	0.00	
7	7	107	1	1		0.00	55	0.00	0.00	0.00	0.00	
8	8	108	1	1		0.00	55	0.00	0.00	0.00	0.00	
9	9	109	1	1		0.00	55	0.00	0.00	0.00	0.00	
11	11	111	1	1		0.00	55	0.00	0.00	0.00	0.00	
12	12	112	1	1		0.00	55	0.00	0.00	0.00	0.00	
13	13	113	1	1		0.00	55	0.00	0.00	0.00	0.00	
14	14	114	1	1		0.00	55	0.00	0.00	0.00	0.00	
15	15	115	1	1		0.00	55	0.00	0.00	0.00	0.00	
16	16	116	1	1		0.00	55	0.00	0.00	0.00	0.00	
17	17	117	1	1		0.00	55	0.00	0.00	0.00	0.00	
19	19	119	1	1		0.00	55	0.00	0.00	0.00	0.00	
20	20	120	1	1		0.00	55	0.00	0.00	0.00	0.00	
21	21	121	1	1		0.00	55	0.00	0.00	0.00	0.00	
22	22	122	1	1		0.00	55	0.00	0.00	0.00	0.00	
24	24	124	1	1		0.00	55	0.00	0.00	0.00	0.00	
25	25	125	1	1		0.00	55	0.00	0.00	0.00	0.00	
26	26	126	1	1		0.00	55	0.00	0.00	0.00	0.00	
27	27	127	1	1		0.00	55	0.00	0.00	0.00	0.00	
28	28	128	1	1		0.00	55	0.00	0.00	0.00	0.00	
29	29	129	1	1		0.00	55	0.00	0.00	0.00	0.00	
30	30	130	1	1		0.00	55	0.00	0.00	0.00	0.00	
31	31	131	1	1		0.00	55	0.00	0.00	0.00	0.00	
32	32	132	1	1		0.00	55	0.00	0.00	0.00	0.00	
33	33	133	1	1		0.00	55	0.00	0.00	0.00	0.00	
72	-139	-224	6	1		0.00	55	0.00	0.00	0.00	0.00	
73	-141	-223	6	1		0.00	55	0.00	0.00	0.00	0.00	
74	-175	-222	6	1		0.00	55	0.00	0.00	0.00	0.00	
75	-174	-221	6	1		0.00	55	0.00	0.00	0.00	0.00	
76	-171	-220	6	1		0.00	55	0.00	0.00	0.00	0.00	
77	-170	-219	6	1		0.00	55	0.00	0.00	0.00	0.00	
78	-167	-218	6	1		0.00	55	0.00	0.00	0.00	0.00	
79	-166	-217	6	1		0.00	55	0.00	0.00	0.00	0.00	
80	-163	-216	6	1		0.00	55	0.00	0.00	0.00	0.00	
81	-162	-215	6	1		0.00	55	0.00	0.00	0.00	0.00	
82	-160	-214	6	1		0.00	55	0.00	0.00	0.00	0.00	
83	-157	-213	6	1		0.00	55	0.00	0.00	0.00	0.00	
84	-156	-212	6	1		0.00	55	0.00	0.00	0.00	0.00	
85	-154	-211	6	1		0.00	55	0.00	0.00	0.00	0.00	
86	-151	-210	6	1		0.00	55	0.00	0.00	0.00	0.00	
87	-150	-209	6	1		0.00	55	0.00	0.00	0.00	0.00	
88	-147	-208	6	1		0.00	55	0.00	0.00	0.00	0.00	
89	-146	-207	6	1		0.00	55	0.00	0.00	0.00	0.00	
90	-13	-206	6	1		0.00	55	0.00	0.00	0.00	0.00	
91	-140	-205	6	1		0.00	55	0.00	0.00	0.00	0.00	
92	-142	-204	6	1		0.00	55	0.00	0.00	0.00	0.00	
93	-143	-203	6	1		0.00	55	0.00	0.00	0.00	0.00	
94	-144	-202	6	1		0.00	55	0.00	0.00	0.00	0.00	
95	-9	-201	6	1		0.00	55	0.00	0.00	0.00	0.00	
96	-8	-200	6	1		0.00	55	0.00	0.00	0.00	0.00	
97	-133	-199	6	1		0.00	55	0.00	0.00	0.00	0.00	
98	-134	-198	6	1		0.00	55	0.00	0.00	0.00	0.00	
99	-135	-197	6	1		0.00	55	0.00	0.00	0.00	0.00	
100	-136	-196	6	1		0.00	55	0.00	0.00	0.00	0.00	
101	-137	-195	6	1		0.00	55	0.00	0.00	0.00	0.00	
102	-138	-194	6	1		0.00	55	0.00	0.00	0.00	0.00	
103	-4	-193	6	1		0.00	55	0.00	0.00	0.00	0.00	
104	-176	-192	6	1		0.00	55	0.00	0.00	0.00	0.00	
105	-173	-191	6	1		0.00	55	0.00	0.00	0.00	0.00	
106	-172	-190	6	1		0.00	55	0.00	0.00	0.00	0.00	
107	-169	-189	6	1		0.00	55	0.00	0.00	0.00	0.00	
108	-168	-188	6	1		0.00	55	0.00	0.00	0.00	0.00	
109	-165	-187	6	1		0.00	55	0.00	0.00	0.00	0.00	
110	-164	-186	6	1		0.00	55	0.00	0.00	0.00	0.00	
111	-161	-185	6	1		0.00	55	0.00	0.00	0.00	0.00	
112	-159	-184	6	1		0.00	55	0.00	0.00	0.00	0.00	
113	-158	-183	6	1		0.00	55	0.00	0.00	0.00	0.00	
114	-155	-182	6	1		0.00	55	0.00	0.00	0.00	0.00	
115	-153	-181	6	1		0.00	55	0.00	0.00	0.00	0.00	
116	-152	-180	6	1		0.00	55	0.00	0.00	0.00	0.00	
117	-149	-179	6	1		0.00	55	0.00	0.00	0.00	0.00	
118	-148	-178	6	1		0.00	55	0.00	0.00	0.00	0.00	
119	-145	-177	6	1		0.00	55	0.00	0.00	0.00	0.00	
199	-29	-97	6	1		0.00	55	0.00	0.00	0.00	0.00	
201	-49	-95	6	1		0.00	55	0.00	0.00	0.00	0.00	
203	-93	-51	6	1		0.00	55	0.00	0.00	0.00	0.00	
205	-91	-53	6	1		0.00	55	0.00	0.00	0.00	0.00	
207	-89	-55	6	1		0.00	55	0.00	0.00	0.00	0.00	
208	-88	-58	6	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

211	-85	-59	6	1		0.00	55	0.00	0.00	0.00	0.00	
212	-62	-84	6	1		0.00	55	0.00	0.00	0.00	0.00	
213	-63	-83	6	1		0.00	55	0.00	0.00	0.00	0.00	
214	-66	-82	6	1		0.00	55	0.00	0.00	0.00	0.00	
215	-68	-81	6	1		0.00	55	0.00	0.00	0.00	0.00	
216	-70	-80	6	1		0.00	55	0.00	0.00	0.00	0.00	
217	-72	-79	6	1		0.00	55	0.00	0.00	0.00	0.00	
249	-25	-47	6	1		0.00	55	0.00	0.00	0.00	0.00	
250	-35	-46	6	1		0.00	55	0.00	0.00	0.00	0.00	
251	-45	-36	6	1		0.00	55	0.00	0.00	0.00	0.00	
252	-44	-34	6	1		0.00	55	0.00	0.00	0.00	0.00	
253	-43	-33	6	1		0.00	55	0.00	0.00	0.00	0.00	
254	-42	-32	6	1		0.00	55	0.00	0.00	0.00	0.00	
255	-26	-41	6	1		0.00	55	0.00	0.00	0.00	0.00	
256	-27	-40	6	1		0.00	55	0.00	0.00	0.00	0.00	
257	-28	-39	6	1		0.00	55	0.00	0.00	0.00	0.00	
258	-38	-30	6	1		0.00	55	0.00	0.00	0.00	0.00	
259	-37	-31	6	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-24	-23	5	7		0.00	55	0.00	0.00	0.00	0.00	
1002	-23	-157	5	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-157	-133	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-133	-158	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-158	114	5	5		0.00	55	0.00	0.00	0.00	0.00	
1002	114	-25	2	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-25	-71	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-71	-72	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-72	117	2	5		0.00	55	0.00	0.00	0.00	0.00	
1002	117	-49	2	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-49	-50	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-50	-26	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-26	122	2	5		0.00	55	0.00	0.00	0.00	0.00	
1002	122	-164	5	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-164	-144	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-144	-163	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-163	130	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	115	-154	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-154	-135	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-135	-153	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-153	116	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	116	-36	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-36	-67	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-67	-68	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-68	119	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	119	-53	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-53	-54	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-54	-28	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-28	124	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	124	-168	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-168	-142	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-142	-167	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-167	131	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-20	-151	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-151	-136	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-136	-152	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-152	-14	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-14	-34	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-34	-65	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-65	-66	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-66	-15	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-15	-55	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-55	-56	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-56	-29	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-29	-16	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-16	-169	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-169	-141	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-141	-170	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-170	-17	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	105	106	2	7		0.00	55	0.00	0.00	0.00	0.00	
1005	106	-150	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-150	-137	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-137	-149	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-149	111	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	-33	111	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-64	-33	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-63	-64	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	120	-63	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-58	120	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	-57	-58	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-30	-57	5	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

1005	125	-30	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	125	-172	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-172	-140	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-140	-171	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-171	132	5	5		0.00	55	0.00	0.00	0.00	0.00	
1006	-21	-22	5	7		0.00	55	0.00	0.00	0.00	0.00	
1006	-22	-147	5	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-147	-138	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-138	-148	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-148	113	5	5		0.00	55	0.00	0.00	0.00	0.00	
1006	113	-32	2	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-32	-61	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-61	-62	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-62	121	2	5		0.00	55	0.00	0.00	0.00	0.00	
1006	121	-59	2	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-59	-60	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-60	-31	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-31	126	2	5		0.00	55	0.00	0.00	0.00	0.00	
1006	126	-173	5	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-173	-139	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-139	-174	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-174	-18	5	5		0.00	55	0.00	0.00	0.00	0.00	
1008	101	-24	2	1		0.00	55	0.00	0.00	0.00	0.00	
1008	-24	103	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	102	-23	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-23	104	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	104	115	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	115	-20	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-20	106	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	106	-22	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-22	108	2	1		0.00	55	0.00	0.00	0.00	0.00	
1013	14	109	3	4		0.00	55	0.00	0.00	0.00	0.00	
1014	-47	-132	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-132	-46	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-46	-131	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-131	-45	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-45	-130	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-130	-44	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-44	-129	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-129	-43	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-43	-128	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-128	-42	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-122	-79	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-80	-122	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-121	-80	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-81	-121	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-120	-81	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-82	-120	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-119	-82	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-83	-119	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-118	-83	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-84	-118	9	1		0.00	55	0.00	0.00	0.00	0.00	
1016	117	118	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	118	119	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	119	-15	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	-15	120	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	120	121	2	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-95	-112	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-112	-93	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-93	-111	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-111	-91	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-91	-110	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-110	-89	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-89	-109	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-109	-88	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-88	-108	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-108	-85	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-41	-102	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-102	-40	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-40	-101	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-101	-39	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-39	-100	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-100	-97	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-97	-99	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-99	-38	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-38	-98	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-98	-37	9	1		0.00	55	0.00	0.00	0.00	0.00	
1019	128	22	3	4		0.00	55	0.00	0.00	0.00	0.00	
1023	130	129	2	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

1023	-19	130	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	131	-19	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	-17	131	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	132	-17	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	-18	132	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	133	-18	2	1		0.00	55	0.00	0.00	0.00	0.00	
1046	103	104	2	7		0.00	55	0.00	0.00	0.00	0.00	
1046	104	-156	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-156	-134	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-134	-155	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-155	110	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	110	-35	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-35	-69	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-69	-70	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-70	118	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	118	-51	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-51	-52	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-52	-27	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-27	123	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	123	-165	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-165	-143	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-143	-166	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-166	-19	5	5		0.00	55	0.00	0.00	0.00	0.00	
1100	105	-21	2	1		0.00	55	0.00	0.00	0.00	0.00	
1100	-21	107	2	1		0.00	55	0.00	0.00	0.00	0.00	
1105	9	114	3	4		0.00	55	0.00	0.00	0.00	0.00	
1111	122	28	3	4		0.00	55	0.00	0.00	0.00	0.00	
1185	101	102	2	7		0.00	55	0.00	0.00	0.00	0.00	
1185	102	-160	2	6		0.00	55	0.00	0.00	0.00	0.00	
1185	-160	-8	2	1		0.00	55	0.00	0.00	0.00	0.00	
1185	-8	-159	2	1		0.00	55	0.00	0.00	0.00	0.00	
1185	-159	109	2	5		0.00	55	0.00	0.00	0.00	0.00	
1191	107	108	2	7		0.00	55	0.00	0.00	0.00	0.00	
1191	108	-146	2	6		0.00	55	0.00	0.00	0.00	0.00	
1191	-146	-4	2	1		0.00	55	0.00	0.00	0.00	0.00	
1191	-4	-145	2	1		0.00	55	0.00	0.00	0.00	0.00	
1191	-145	112	2	5		0.00	55	0.00	0.00	0.00	0.00	
1197	114	109	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	110	114	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	116	110	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	-14	116	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	111	-14	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	113	111	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	112	113	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	128	122	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	122	123	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	123	124	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	124	-16	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	-16	125	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	125	126	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	126	127	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	-161	128	2	5		0.00	55	0.00	0.00	0.00	0.00	
1277	-9	-161	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	-162	-9	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	129	-162	2	6		0.00	55	0.00	0.00	0.00	0.00	
1283	127	-176	2	6		0.00	55	0.00	0.00	0.00	0.00	
1283	-176	-13	2	1		0.00	55	0.00	0.00	0.00	0.00	
1283	-13	-175	2	1		0.00	55	0.00	0.00	0.00	0.00	
1283	-175	133	2	5		0.00	55	0.00	0.00	0.00	0.00	
1289	12	113	3	4		0.00	55	0.00	0.00	0.00	0.00	
1295	127	26	3	4		0.00	55	0.00	0.00	0.00	0.00	
1381	13	112	3	4		0.00	55	0.00	0.00	0.00	0.00	
1387	27	126	3	4		0.00	55	0.00	0.00	0.00	0.00	
2010	-214	-213	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-213	-212	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-212	-211	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-211	-210	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-210	-209	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-209	-208	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-208	-207	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-200	-199	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-199	-198	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-198	-197	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-197	-196	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-196	-195	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-195	-194	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-194	-193	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-184	-183	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-183	-182	9	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

2012	-182	-181	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-181	-180	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-180	-179	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-179	-178	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-178	-177	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-185	-186	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-186	-187	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-187	-188	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-188	-189	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-189	-190	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-190	-191	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-191	-192	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-201	-202	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-202	-203	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-203	-204	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-204	-223	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-223	-205	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-205	-224	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-224	-206	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-215	-216	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-216	-217	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-217	-218	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-218	-219	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-219	-220	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-220	-221	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-221	-222	9	1		0.00	55	0.00	0.00	0.00	0.00	

Elenco tipi plinti/pali

Simbologia

- Tl = Numero del tipo plinto/palo
- Tipo = Tipologia

Gra = Gradoni
 Pir = Piramidale
 P = Palo
 T3 = Triangolare 3 pali
 T3B = Triangolare 3 pali + bicchiere
 R = Rettangolare
 RB = Rettangolare + bicchiere
 R1 = Rettangolare 1 palo
 R1B = Rettangolare 1 palo + bicchiere
 R2x = Rettangolare 2 pali dir. X
 R2xB = Rettangolare 2 pali dir. X + bicchiere
 R2y = Rettangolare 2 pali dir. Y
 R2B = Rettangolare 2 pali dir. Y + bicchiere
 R4 = Rettangolare 4 pali
 R4B = Rettangolare 4 pali + bicchiere
 P5 = Pentagonale 5 pali
 P5B = Pentagonale 5 pali + bicchiere
 E6 = Esagonale 6 pali
 E6B = Esagonale 6 pali + bicchiere
- Tp = Tipo palo

ND = Non definito
 BP = Battuto prefabbricato
 BGO = Battuto gettato in opera
 T = Trivellato
 TEC = Trivellato con elica continua
 MP = Micropalo
- Comm. = Commento
- Lp = Lunghezza pali
- R = Rotazione testa

B = Bloccata
 L = Libera
- Dp = Diametro pali
- Crit. = Numero del criterio di progetto

Tl	Tipo	Tp	Comm.	Lp	R	Dp	Crit.
	1P	T	Palo	10.00	L	0.40	1

Elenco plinti/pali

Simbologia

- PL = Plinto/Palo
- Tl = Numero del tipo plinto/palo
- Nodo = Nodo plinto/palo
- Kt = Coeff. di sottofondo su suolo elastico alla Winkler

PL	Tl	Nodo	Kt	PL	Tl	Nodo	Kt	PL	Tl	Nodo	Kt	PL	Tl	Nodo	Kt
			<daN/cmc>				<daN/cmc>				<daN/cmc>				<daN/cmc>

Relazione di calcolo

1	1	1	---	2	1	2	---	3	1	3	---	4	1	4	---
5	1	5	---	6	1	6	---	7	1	7	---	8	1	8	---
9	1	9	---	11	1	11	---	12	1	12	---	13	1	13	---
14	1	14	---	15	1	15	---	16	1	16	---	17	1	17	---
19	1	19	---	20	1	20	---	21	1	21	---	22	1	22	---
24	1	24	---	25	1	25	---	26	1	26	---	27	1	27	---
28	1	28	---	29	1	29	---	30	1	30	---	31	1	31	---
32	1	32	---	33	1	33	---								

Carichi

Condizioni di carico elementari

Simbologia

CCE = Numero della condizione di carico elementare
Comm. = Commento
Mx = Moltiplicatore della massa in dir. X
My = Moltiplicatore della massa in dir. Y
Mz = Moltiplicatore della massa in dir. Z
Jpx = Moltiplicatore del momento d'inerzia intorno all'asse X
Jpy = Moltiplicatore del momento d'inerzia intorno all'asse Y
Jpz = Moltiplicatore del momento d'inerzia intorno all'asse Z
Tipo CCE = Tipo di CCE per calcolo agli stati limite
Sic. = Contributo alla sicurezza
F = a favore
S = a sfavore
A = ambigua
Var. = Tipo di variabilità
B = di base
I = indipendente
A = ambigua

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sic.	Var.
1	Permanenti strutturali	1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2	Permanenti non strutturali	1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3	Carico neve	1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4	Vento dir. 1	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
5	Vento dir.2	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B

Elenco carichi aste

Condizione di carico n. 1: Permanenti strutturali

Elenco peso proprio aste

Simbologia

Sez. = Numero della sezione
Comm. = Commento
A = Area
Mat. = Materiale
P = Peso specifico
PL = Peso specifico a metro lineare

Sez.	Comm.	A <cmq>	Mat.	P <daN/mc>	PL <daN/m>
1	HEA160	38.772600	Acciaio	7850.00	30.44
2	HEA160	38.772600	Acciaio	7850.00	30.44
3	Scat 50x100x4	11.360000	Acciaio	7850.00	8.92
5	HEA160-IPE160	38.772600	Acciaio	7850.00	30.44
6	tub 120x80x4	15.360000	Acciaio	7850.00	12.06
8	Controventi	3.200000	Acciaio	7850.00	2.51
9	Omega 120x90x30x3	11.340000	Acciaio	7850.00	8.90
10	cv pannelli sandwich	0.800000	Acciaio	7850.00	0.63
11	Cordolo di testa	3000.000000	Calcestruzzo	2500.00	750.00

Elenco carichi aste

Condizione di carico n. 2: Permanenti non strutturali

Carichi distribuiti

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
E = Elemento provenienza del carico
S = Solaio
T = Tamponatura
NE = Numero elemento di provenienza del carico
T = Tipo di carico
QA = Primo carico accidentale
QA2 = Secondo carico accidentale
QA3 = Terzo carico accidentale
QPS = Carico permanente strutturale

Relazione di calcolo

QPN = Carico permanente non strutturale
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi globali
XL,YL,ZL = secondo gli assi locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-24	-23	S	--	M	ZG	0.00	500.00	2.50	500.00
1002	-23	-157	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	-157	-133	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-133	-158	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-158	114	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	114	-25	S	--	M	ZG	0.00	250.00	0.30	250.00
1002	-71	-72	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	117	-49	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-50	-26	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	122	-164	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	-164	-144	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-144	-163	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-163	130	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	115	-154	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	-154	-135	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-135	-153	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-153	116	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	116	-36	S	--	M	ZG	0.00	500.00	0.30	500.00
1003	-67	-68	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	119	-53	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-54	-28	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	124	-168	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	-168	-142	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-142	-167	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-167	131	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-20	-151	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-151	-136	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-136	-152	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-152	-14	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-14	-34	S	--	M	ZG	0.00	500.00	0.30	500.00
1004	-65	-66	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-15	-55	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-56	-29	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-16	-169	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-169	-141	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-141	-170	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-170	-17	S	--	M	ZG	0.00	500.00	0.50	500.00
1005	105	106	S	--	M	ZG	0.00	250.00	2.50	250.00
1005	106	-150	S	--	M	ZG	0.00	500.00	0.50	500.00
1005	-150	-137	S	--	M	ZG	0.00	500.00	2.35	500.00
1005	-137	-149	S	--	M	ZG	0.00	500.00	2.35	500.00
1005	-149	111	S	--	M	ZG	0.00	500.00	0.50	500.00
1005	-33	111	S	--	M	ZG	0.00	500.00	0.30	500.00
1005	-63	-64	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-58	120	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-30	-57	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	125	-172	S	--	M	ZG	0.00	500.00	0.50	500.00
1005	-172	-140	S	--	M	ZG	0.00	500.00	2.35	500.00
1005	-140	-171	S	--	M	ZG	0.00	500.00	2.35	500.00
1005	-171	132	S	--	M	ZG	0.00	500.00	0.50	500.00
1006	-21	-22	S	--	M	ZG	0.00	500.00	2.50	500.00
1006	-22	-147	S	--	M	ZG	0.00	500.00	0.50	500.00
1006	-147	-138	S	--	M	ZG	0.00	500.00	2.35	500.00
1006	-138	-148	S	--	M	ZG	0.00	500.00	2.35	500.00
1006	-148	113	S	--	M	ZG	0.00	500.00	0.50	500.00
1006	113	-32	S	--	M	ZG	0.00	250.00	0.30	250.00
1006	-61	-62	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	121	-59	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-60	-31	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	126	-173	S	--	M	ZG	0.00	500.00	0.50	500.00
1006	-173	-139	S	--	M	ZG	0.00	500.00	2.35	500.00
1006	-139	-174	S	--	M	ZG	0.00	500.00	2.35	500.00
1006	-174	-18	S	--	M	ZG	0.00	500.00	0.50	500.00
1014	-47	-132	S	--	M	ZG	0.00	30.00	1.25	30.00
1014	-46	-131	S	--	M	ZG	0.00	30.00	1.33	30.00
1014	-45	-130	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-44	-129	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-43	-128	S	--	M	ZG	0.00	30.00	1.25	30.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-24	-23	S	--	M	ZG	0.00	75.00	2.50	75.00
1002	-23	-157	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-157	-133	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-133	-158	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-158	114	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-25	-71	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-72	117	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-49	-50	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-26	122	S	--	M	ZG	0.00	250.00	0.30	250.00
1002	122	-164	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-164	-144	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-144	-163	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-163	130	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	115	-154	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-154	-135	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-135	-153	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-153	116	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-36	-67	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-68	119	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-53	-54	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-28	124	S	--	M	ZG	0.00	500.00	0.30	500.00
1003	124	-168	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-168	-142	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-142	-167	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-167	131	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-20	-151	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-151	-136	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-136	-152	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-152	-14	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-34	-65	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-66	-15	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-55	-56	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-29	-16	S	--	M	ZG	0.00	500.00	0.30	500.00
1004	-16	-169	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-169	-141	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-141	-170	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-170	-17	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	105	106	S	--	M	ZG	0.00	38.00	2.50	38.00
1005	106	-150	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-150	-137	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-137	-149	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-149	111	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-64	-33	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	120	-63	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-57	-58	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	125	-30	S	--	M	ZG	0.00	500.00	0.30	500.00
1005	125	-172	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-172	-140	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-140	-171	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-171	132	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-21	-22	S	--	M	ZG	0.00	75.00	2.50	75.00
1006	-22	-147	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-147	-138	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-138	-148	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-148	113	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-32	-61	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-62	121	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-59	-60	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-31	126	S	--	M	ZG	0.00	250.00	0.30	250.00
1006	126	-173	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-173	-139	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-139	-174	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-174	-18	S	--	M	ZG	0.00	75.00	0.50	75.00
1014	-132	-46	S	--	M	ZG	0.00	30.00	1.25	30.00
1014	-131	-45	S	--	M	ZG	0.00	30.00	1.33	30.00
1014	-130	-44	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-129	-43	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-128	-42	S	--	M	ZG	0.00	30.00	1.25	30.00

Relazione di calcolo

1015	-122	-79	S	--	M	ZG	0.00	60.00	1.25	60.00	1015	-80	-122	S	--	M	ZG	0.00	60.00	1.25	60.00
1015	-121	-80	S	--	M	ZG	0.00	60.00	1.33	60.00	1015	-81	-121	S	--	M	ZG	0.00	60.00	1.33	60.00
1015	-120	-81	S	--	M	ZG	0.00	60.00	1.21	60.00	1015	-82	-120	S	--	M	ZG	0.00	60.00	1.21	60.00
1015	-119	-82	S	--	M	ZG	0.00	60.00	1.21	60.00	1015	-83	-119	S	--	M	ZG	0.00	60.00	1.21	60.00
1015	-118	-83	S	--	M	ZG	0.00	60.00	1.25	60.00	1015	-84	-118	S	--	M	ZG	0.00	60.00	1.25	60.00
1017	-95	-112	S	--	M	ZG	0.00	60.00	1.25	60.00	1017	-112	-93	S	--	M	ZG	0.00	60.00	1.25	60.00
1017	-93	-111	S	--	M	ZG	0.00	60.00	1.33	60.00	1017	-111	-91	S	--	M	ZG	0.00	60.00	1.33	60.00
1017	-91	-110	S	--	M	ZG	0.00	60.00	1.21	60.00	1017	-110	-89	S	--	M	ZG	0.00	60.00	1.21	60.00
1017	-89	-109	S	--	M	ZG	0.00	60.00	1.21	60.00	1017	-109	-88	S	--	M	ZG	0.00	60.00	1.21	60.00
1017	-88	-108	S	--	M	ZG	0.00	60.00	1.25	60.00	1017	-108	-85	S	--	M	ZG	0.00	60.00	1.25	60.00
1018	-41	-102	S	--	M	ZG	0.00	30.00	1.25	30.00	1018	-102	-40	S	--	M	ZG	0.00	30.00	1.25	30.00
1018	-40	-101	S	--	M	ZG	0.00	30.00	1.33	30.00	1018	-101	-39	S	--	M	ZG	0.00	30.00	1.33	30.00
1018	-39	-100	S	--	M	ZG	0.00	30.00	1.21	30.00	1018	-100	-97	S	--	M	ZG	0.00	30.00	1.21	30.00
1018	-97	-99	S	--	M	ZG	0.00	30.00	1.21	30.00	1018	-99	-38	S	--	M	ZG	0.00	30.00	1.21	30.00
1018	-38	-98	S	--	M	ZG	0.00	30.00	1.25	30.00	1018	-98	-37	S	--	M	ZG	0.00	30.00	1.25	30.00
1046	103	104	S	--	M	ZG	0.00	250.00	2.50	250.00	1046	103	104	S	--	M	ZG	0.00	38.00	2.50	38.00
1046	104	-156	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	104	-156	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	-156	-134	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-156	-134	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-134	-155	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-134	-155	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-155	110	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	-155	110	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	110	-35	S	--	M	ZG	0.00	500.00	0.30	500.00	1046	-35	-69	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	-69	-70	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-70	118	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	118	-51	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-51	-52	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	-52	-27	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-27	123	S	--	M	ZG	0.00	500.00	0.30	500.00
1046	123	-165	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	123	-165	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	-165	-143	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-165	-143	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-143	-166	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-143	-166	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-166	-19	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	-166	-19	S	--	M	ZG	0.00	75.00	0.50	75.00
1185	101	102	S	--	M	ZG	0.00	250.00	2.50	250.00	1185	101	102	S	--	M	ZG	0.00	38.00	2.50	38.00
1185	102	-160	S	--	M	ZG	0.00	250.00	0.50	250.00	1185	102	-160	S	--	M	ZG	0.00	38.00	0.50	38.00
1185	-160	-8	S	--	M	ZG	0.00	250.00	2.35	250.00	1185	-160	-8	S	--	M	ZG	0.00	38.00	2.35	38.00
1185	-8	-159	S	--	M	ZG	0.00	250.00	2.35	250.00	1185	-8	-159	S	--	M	ZG	0.00	38.00	2.35	38.00
1185	-159	109	S	--	M	ZG	0.00	250.00	0.50	250.00	1185	-159	109	S	--	M	ZG	0.00	38.00	0.50	38.00
1191	107	108	S	--	M	ZG	0.00	250.00	2.50	250.00	1191	107	108	S	--	M	ZG	0.00	38.00	2.50	38.00
1191	108	-146	S	--	M	ZG	0.00	250.00	0.50	250.00	1191	108	-146	S	--	M	ZG	0.00	38.00	0.50	38.00
1191	-146	-4	S	--	M	ZG	0.00	250.00	2.35	250.00	1191	-146	-4	S	--	M	ZG	0.00	38.00	2.35	38.00
1191	-4	-145	S	--	M	ZG	0.00	250.00	2.35	250.00	1191	-4	-145	S	--	M	ZG	0.00	38.00	2.35	38.00
1191	-145	112	S	--	M	ZG	0.00	250.00	0.50	250.00	1191	-145	112	S	--	M	ZG	0.00	38.00	0.50	38.00
1277	-161	128	S	--	M	ZG	0.00	250.00	0.50	250.00	1277	-161	128	S	--	M	ZG	0.00	38.00	0.50	38.00
1277	-9	-161	S	--	M	ZG	0.00	250.00	2.35	250.00	1277	-9	-161	S	--	M	ZG	0.00	38.00	2.35	38.00
1277	-162	-9	S	--	M	ZG	0.00	250.00	2.35	250.00	1277	-162	-9	S	--	M	ZG	0.00	38.00	2.35	38.00
1277	129	-162	S	--	M	ZG	0.00	250.00	0.50	250.00	1277	129	-162	S	--	M	ZG	0.00	38.00	0.50	38.00
1283	127	-176	S	--	M	ZG	0.00	250.00	0.50	250.00	1283	127	-176	S	--	M	ZG	0.00	38.00	0.50	38.00
1283	-176	-13	S	--	M	ZG	0.00	250.00	2.35	250.00	1283	-176	-13	S	--	M	ZG	0.00	38.00	2.35	38.00
1283	-13	-175	S	--	M	ZG	0.00	250.00	2.35	250.00	1283	-13	-175	S	--	M	ZG	0.00	38.00	2.35	38.00
1283	-175	133	S	--	M	ZG	0.00	250.00	0.50	250.00	1283	-175	133	S	--	M	ZG	0.00	38.00	0.50	38.00

Elenco carichi aste

Condizione di carico n. 3: Carico neve

Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>	Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1014	-47	-132	S	--	M	ZG	0.00	114.00	1.25	114.00	1014	-132	-46	S	--	M	ZG	0.00	114.00	1.25	114.00
1014	-46	-131	S	--	M	ZG	0.00	114.00	1.33	114.00	1014	-131	-45	S	--	M	ZG	0.00	114.00	1.33	114.00
1014	-45	-130	S	--	M	ZG	0.00	114.00	1.21	114.00	1014	-130	-44	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-44	-129	S	--	M	ZG	0.00	114.00	1.21	114.00	1014	-129	-43	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-43	-128	S	--	M	ZG	0.00	114.00	1.25	114.00	1014	-128	-42	S	--	M	ZG	0.00	114.00	1.25	114.00
1015	-122	-79	S	--	M	ZG	0.00	228.00	1.25	228.00	1015	-80	-122	S	--	M	ZG	0.00	228.00	1.25	228.00
1015	-121	-80	S	--	M	ZG	0.00	228.00	1.33	228.00	1015	-81	-121	S	--	M	ZG	0.00	228.00	1.33	228.00
1015	-120	-81	S	--	M	ZG	0.00	228.00	1.21	228.00	1015	-82	-120	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-119	-82	S	--	M	ZG	0.00	228.00	1.21	228.00	1015	-83	-119	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-118	-83	S	--	M	ZG	0.00	228.00	1.25	228.00	1015	-84	-118	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-95	-112	S	--	M	ZG	0.00	228.00	1.25	228.00	1017	-112	-93	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-93	-111	S	--	M	ZG	0.00	228.00	1.33	228.00	1017	-111	-91	S	--	M	ZG	0.00	228.00	1.33	228.00
1017	-91	-110	S	--	M	ZG	0.00	228.00	1.21	228.00	1017	-110	-89	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-89	-109	S	--	M	ZG	0.00	228.00	1.21	228.00	1017	-109	-88	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-88	-108	S	--	M	ZG	0.00	228.00	1.25	228.00	1017	-108	-85	S	--	M	ZG	0.00	228.00	1.25	228.00
1018	-41	-102	S	--	M	ZG	0.00	114.00	1.25	114.00	1018	-102	-40	S	--	M	ZG	0.00	114.00	1.25	114.00
1018	-40	-101	S	--	M	ZG	0.00	114.00	1.33	114.00	1018	-101	-39	S	--	M	ZG	0.00	114.00	1.33	114.00
1018	-39	-100	S	--	M	ZG	0.00	114.00	1.21	114.00	1018	-100	-97	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-97	-99	S	--	M	ZG	0.00	114.00	1.21	114.00	1018	-99	-38	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-38	-98	S	--	M	ZG	0.00	114.00	1.25	114.00	1018	-98	-37	S	--	M	ZG	0.00	114.00	1.25	114.00
2010	-214	-213	S	--	M	ZG	0.00	78.00	2.10	78.00	2010	-213	-212	S	--	M	ZG	0.00	78.00	2.50	78.00
2010	-212	-211	S	--	M	ZG	0.00	78.00	2.67	78.00	2010	-211	-210	S	--	M	ZG	0.00	78.00	2.42	78.00
2010	-210	-209	S	--	M	ZG	0.00	78.00	2.42	78.00	2010	-209	-208	S	--	M	ZG	0.00	78.00	2.50	78.00
2010	-208	-207	S	--	M	ZG	0.00	78.00	2.10	78.00	2011	-200	-199	S	--	M	ZG	0.00	156.00	2.10	156.00
2011	-199	-198	S	--	M	ZG	0.00	156.00	2.50	156.00	2011	-198	-197	S	--	M	ZG	0.00	156.00	2.67	156.00
2011	-197	-196	S	--	M	ZG	0.00	156.00	2.42	156.00	2011	-196	-195	S	--	M	ZG	0.00	156.00	2.42	156.00

Relazione di calcolo

2011	-195	-194	S	--	M	ZG	0.00	156.00	2.50	156.00	2011	-194	-193	S	--	M	ZG	0.00	156.00	2.10	156.00
2012	-184	-183	S	--	M	ZG	0.00	78.00	2.10	78.00	2012	-183	-182	S	--	M	ZG	0.00	78.00	2.50	78.00
2012	-182	-181	S	--	M	ZG	0.00	78.00	2.67	78.00	2012	-181	-180	S	--	M	ZG	0.00	78.00	2.42	78.00
2012	-180	-179	S	--	M	ZG	0.00	78.00	2.42	78.00	2012	-179	-178	S	--	M	ZG	0.00	78.00	2.50	78.00
2012	-178	-177	S	--	M	ZG	0.00	78.00	2.10	78.00	2020	-185	-186	S	--	M	ZG	0.00	78.00	2.10	78.00
2020	-186	-187	S	--	M	ZG	0.00	78.00	2.52	78.00	2020	-187	-188	S	--	M	ZG	0.00	78.00	2.65	78.00
2020	-188	-189	S	--	M	ZG	0.00	78.00	2.42	78.00	2020	-189	-190	S	--	M	ZG	0.00	78.00	2.42	78.00
2020	-190	-191	S	--	M	ZG	0.00	78.00	2.50	78.00	2020	-191	-192	S	--	M	ZG	0.00	78.00	2.10	78.00
2021	-201	-202	S	--	M	ZG	0.00	156.00	2.10	156.00	2021	-202	-203	S	--	M	ZG	0.00	156.00	2.54	156.00
2021	-203	-204	S	--	M	ZG	0.00	156.00	2.63	156.00	2021	-204	-223	S	--	M	ZG	0.00	156.00	2.42	156.00
2021	-223	-205	S	--	M	ZG	0.00	156.00	2.42	156.00	2021	-205	-224	S	--	M	ZG	0.00	156.00	2.50	156.00
2021	-224	-206	S	--	M	ZG	0.00	156.00	2.10	156.00	2022	-215	-216	S	--	M	ZG	0.00	78.00	2.10	78.00
2022	-216	-217	S	--	M	ZG	0.00	78.00	2.56	78.00	2022	-217	-218	S	--	M	ZG	0.00	78.00	2.61	78.00
2022	-218	-219	S	--	M	ZG	0.00	78.00	2.42	78.00	2022	-219	-220	S	--	M	ZG	0.00	78.00	2.42	78.00
2022	-220	-221	S	--	M	ZG	0.00	78.00	2.50	78.00	2022	-221	-222	S	--	M	ZG	0.00	78.00	2.10	78.00

Elenco carichi aste

Condizione di carico n. 4: Vento dir. 1

Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1	1	101	S	--	M	YG	0.00	-120.00	3.80	-120.00
3	3	103	S	--	M	YG	0.00	-60.00	3.80	-60.00
6	6	106	S	--	M	YG	0.00	-120.00	3.80	-120.00
8	8	108	S	--	M	YG	0.00	-180.00	3.80	-180.00
12	12	112	S	--	M	YG	0.00	-180.00	3.80	-180.00
17	17	117	S	--	M	YG	0.00	-480.00	3.80	-480.00
26	26	126	S	--	M	YG	0.00	-180.00	3.80	-180.00
28	28	128	S	--	M	YG	0.00	-360.00	3.80	-360.00
33	33	133	S	--	M	YG	0.00	-180.00	3.80	-180.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
2	2	102	S	--	M	YG	0.00	-360.00	3.80	-360.00
5	5	105	S	--	M	YG	0.00	-120.00	3.80	-120.00
7	7	107	S	--	M	YG	0.00	-60.00	3.80	-60.00
9	9	109	S	--	M	YG	0.00	-360.00	3.80	-360.00
13	13	113	S	--	M	YG	0.00	-180.00	3.80	-180.00
21	21	121	S	--	M	YG	0.00	-240.00	3.80	-240.00
27	27	127	S	--	M	YG	0.00	-180.00	3.80	-180.00
29	29	129	S	--	M	YG	0.00	-360.00	3.80	-360.00

Elenco carichi aste

Condizione di carico n. 5: Vento dir.2

Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1	1	101	S	--	M	XG	0.00	-240.00	3.80	-240.00
5	5	105	S	--	M	XG	0.00	-240.00	3.80	-240.00
15	15	115	S	--	M	XG	0.00	-240.00	3.80	-240.00
30	30	130	S	--	M	XG	0.00	-120.00	3.80	-120.00
32	32	132	S	--	M	XG	0.00	-120.00	3.80	-120.00
1014	-47	-132	S	--	M	ZG	0.00	60.00	1.25	60.00
1014	-46	-131	S	--	M	ZG	0.00	60.00	1.33	60.00
1014	-45	-130	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-44	-129	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-43	-128	S	--	M	ZG	0.00	60.00	1.25	60.00
1015	-122	-79	S	--	M	ZG	0.00	120.00	1.25	120.00
1015	-121	-80	S	--	M	ZG	0.00	120.00	1.33	120.00
1015	-120	-81	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-119	-82	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-118	-83	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-95	-112	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-93	-111	S	--	M	ZG	0.00	120.00	1.33	120.00
1017	-91	-110	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-89	-109	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-88	-108	S	--	M	ZG	0.00	120.00	1.25	120.00
1018	-41	-102	S	--	M	ZG	0.00	60.00	1.25	60.00
1018	-40	-101	S	--	M	ZG	0.00	60.00	1.33	60.00
1018	-39	-100	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-97	-99	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-38	-98	S	--	M	ZG	0.00	60.00	1.25	60.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
3	3	103	S	--	M	XG	0.00	-240.00	3.80	-240.00
7	7	107	S	--	M	XG	0.00	-240.00	3.80	-240.00
29	29	129	S	--	M	XG	0.00	-120.00	3.80	-120.00
31	31	131	S	--	M	XG	0.00	-120.00	3.80	-120.00
33	33	133	S	--	M	XG	0.00	-120.00	3.80	-120.00
1014	-132	-46	S	--	M	ZG	0.00	60.00	1.25	60.00
1014	-131	-45	S	--	M	ZG	0.00	60.00	1.33	60.00
1014	-130	-44	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-129	-43	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-128	-42	S	--	M	ZG	0.00	60.00	1.25	60.00
1015	-80	-122	S	--	M	ZG	0.00	120.00	1.25	120.00
1015	-81	-121	S	--	M	ZG	0.00	120.00	1.33	120.00
1015	-82	-120	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-83	-119	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-84	-118	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-112	-93	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-111	-91	S	--	M	ZG	0.00	120.00	1.33	120.00
1017	-110	-89	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-109	-88	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-108	-85	S	--	M	ZG	0.00	120.00	1.25	120.00
1018	-102	-40	S	--	M	ZG	0.00	60.00	1.25	60.00
1018	-101	-39	S	--	M	ZG	0.00	60.00	1.33	60.00
1018	-100	-97	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-99	-38	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-98	-37	S	--	M	ZG	0.00	60.00	1.25	60.00

Criteri di analisi geotecnica e progetto delle fondazioni

Fondazioni profonde

Generali	
Generali	
Calcolo capacità portante per carichi verticali	Secondo formule statiche
Considera capacità portante	Entrambe
Condizioni di calcolo per terreni coesivi sotto falda	Sia drenate che non drenate
Calcolo della profondità critica	No
Effettua calcolo elasto-plastico per cedimenti	Si
Effettua calcolo elasto-plastico per spostamenti orizzontali	Si
Rapporto di elasticità trazione/compressione pari a	1.00
Fattori di correlazione	1.70

Relazione di calcolo

Considera fattori di correlazione anche per carichi orizzontali	No
Considera peso del palo	No
Attrito laterale limite da prove in sito	
Correlato con prove CPT	No
Correlato con prove SPT	No
Fattore di riduzione attrito laterale per pali trivellati	No
Pressione limite alla base da prove in sito	
Correlata con prove CPT	No
Correlata con prove SPT	No
Fattore di riduzione pressione limite alla base per pali trivellati	No
Spostamenti orizzontali	
Spostamenti orizzontali	Risposta elastica in funzione della stratigrafia

Specifici	1
Attrito laterale limite	
Calcolo dell'attrito laterale limite	Si
-Condizioni non drenate	
-Calcolo di α	
-Pari a	
-A.G.I. (1984)	x
-A.P.I. (1984)	
-Viggiani (1999)	
-Olson e Dennis (1982)	
-Stas e Kulhavy (1984)	
-Skempton (1986)	
-Reese e O'Neill (1989)	
-Metodo di Bustamente e Doix (1985) per micropali	No
-Iniezioni ripetute	x
-Unica iniezione	
-Condizioni drenate	
-Calcolo di β	
-Pari a	0.25
-Reese e O'Neill (1989)	
-Calcolato	
-Calcolo di k	
-Pari a	
-Dal rapporto con k_0 pari a	0.00
-Fleming (1985)	
-Calcolo di δ	
-Pari a <grad>	
-Dal rapporto con ϕ' pari a	0.00
-Calcolo di a' dal rapporto con c'	1.00
Calcolo dell'attrito laterale limite per trazione	
-Considera i risultati del calcolo per l'attrito laterale limite percompressione con un fattore di riduzione pari a	0.66
-Sowa (1970)	No
-Bowles (1991)	No
Considera l'effetto dell'attrito negativo	No
-Coefficiente di Lambe	
Pressione limite alla base	
Calcolo della pressione limite alla base del palo	Si
-Terzaghi (1943)	x
-Meyerhof (1963)	
-Hansen (1970)	
-Vesic (1975)	
-Berezantzev (1961)	
-Berezantzev (1965)	
-Stagg e Zienkiewicz (1968)	
-Relazione generale, coefficienti di capacità portante	
-In condizioni drenate	
- N_q	
- N_c	
-In condizioni non drenate	
- N_c	
-Fattore di riduzione per terreni coesivi sovraconsolidati	No
Cedimenti	
Risposta elastica laterale	
-Calcolata dalla rigidezza dello strato	x
-Coefficiente di influenza	4.00
-Pari a <daN/mq>	
Risposta elastica alla base	
-Calcolata dalla rigidezza dello strato	x

Relazione di calcolo

-Pari a <daN/mq>	
Spostamenti orizzontali	
Risposta elastica	
-Vesic (1961)	
-Broms (1964)	
-Glick (1948)	
-Chen (1978)	
-Pari a <daN/mq>	
-Dal modulo elastico	x
-Coefficiente effetto tridimensionale	2.00
Resistenza limite	
-Calcolata dai parametri plastici	x
-Coefficiente effetto tridimensionale resistenza per attrito	3.00
-Coefficiente effetto tridimensionale resistenza per coesione	4.00
-Pari a <daN/mq>	

Geotecnica

Elenco colonne stratigrafiche

Simbologia	
St.	= Strato
z	= Profondità della superficie superiore dello strato
Unità geotecnica	= Unità geotecnica
Class.	= Classificazione
	Coes. = Coesivo
	Inc. = Incoerente
	Roc. = Roccia
	N. c. = Non classificato

Colonna stratigrafica numero 1

St.	z <m>	Unità geotecnica	Class.
1	0.00	1 Riporto	N. c.
2	6.00	2 Limo bassa o media plasticità bassa consistenza	Coes.
3	8.50	3 Ghiaia limosa densa	Inc.
4	12.50	4 Limo bassa o media plasticità media consistenza	Coes.

Falda a profondità: 8.00 m

Elenco unità geotecniche

1 Riporto:

Classificazione: Non classificato

Pesi:

- Peso specifico del terreno naturale: γ = 2000.00 daN/mc
- Peso specifico del terreno saturo: γ_{sat} = 2000.00 daN/mc

Parametri plastici:

- Angolo di attrito efficace: ϕ' = 15.00 grad
- Coesione efficace: c' = 0.00 daN/mq
- Coesione non drenata: c_u = 500.00 daN/mq

Caratteristiche litostatiche:

- Grado di sovraconsolidazione: OCR = 1.00
- Coeff. di spinta a riposo: κ_0 = 0.50

Parametri elastici:

- Modulo elastico normale: E = 1000000.00 daN/mq
- Modulo elastico tangenziale: G = 400000.00 daN/mq
- Esponente del parametro tensionale: k_j = 0.00
- Coeff. di Poisson: ν = 0.25
- Modulo edometrico: E_{ed} = 1200000.00 daN/mq
- Modulo elastico non drenato: E_u = 1200000.00 daN/mq

2 Limo bassa o media plasticità bassa consistenza:

Classificazione: Coesivo

Pesi:

- Peso specifico del terreno naturale: γ = 1700.00 daN/mc
- Peso specifico del terreno saturo: γ_{sat} = 1850.00 daN/mc

Proprietà indice:

- Indice di plasticità: I_p = 30.00 <%>

Parametri plastici:

- Angolo di attrito efficace: ϕ' = 22.00 grad

Relazione di calcolo

- Coesione efficace: $c' = 1200.00$ daN/mq
- Coesione non drenata: $c_u = 5000.00$ daN/mq
Caratteristiche litostatiche:
- Grado di sovraconsolidazione: $OCR = 1.00$
- Coeff. di spinta a riposo: $\kappa_0 = 0.66$

Parametri elastici:
- Modulo elastico normale: $E = 500000.00$ daN/mq
- Modulo elastico tangenziale: $G = 178571.00$ daN/mq
- Esponente del parametro tensionale: $k_j = 0.00$
- Coeff. di Poisson: $\nu = 0.40$
- Modulo edometrico: $E_{ed} = 1071430.00$ daN/mq
- Modulo elastico non drenato: $E_u = 535714.00$ daN/mq

3 Ghiaia limosa densa:

Classificazione: Incoerente

Pesi:
- Peso specifico del terreno naturale: $\gamma = 2000.00$ daN/mc
- Peso specifico del terreno saturo: $\gamma_{sat} = 2100.00$ daN/mc

Proprietà indice:
- Densità relativa: $D_r = 60.00$ <%>

Parametri plastici:
- Angolo di attrito efficace: $\phi' = 34.00$ grad
- Coesione efficace: $c' = 500.00$ daN/mq
Caratteristiche litostatiche:
- Grado di sovraconsolidazione: $OCR = 1.00$
- Coeff. di spinta a riposo: $\kappa_0 = 0.44$

Parametri elastici:
- Modulo elastico normale: $E = 13000000.00$ daN/mq
- Modulo elastico tangenziale: $G = 5000000.00$ daN/mq
- Esponente del parametro tensionale: $k_j = 0.00$
- Coeff. di Poisson: $\nu = 0.30$
- Modulo edometrico: $E_{ed} = 17500000.00$ daN/mq
- Modulo elastico non drenato: $E_u = 0.00$ daN/mq

4 Limo bassa o media plasticità media consistenza:

Classificazione: Coesivo

Pesi:
- Peso specifico del terreno naturale: $\gamma = 1800.00$ daN/mc
- Peso specifico del terreno saturo: $\gamma_{sat} = 1900.00$ daN/mc

Proprietà indice:
- Indice di plasticità: $I_p = 20.00$ <%>

Parametri plastici:
- Angolo di attrito efficace: $\phi' = 22.00$ grad
- Coesione efficace: $c' = 2500.00$ daN/mq
- Coesione non drenata: $c_u = 10000.00$ daN/mq
Caratteristiche litostatiche:
- Grado di sovraconsolidazione: $OCR = 1.00$
- Coeff. di spinta a riposo: $\kappa_0 = 0.66$

Parametri elastici:
- Modulo elastico normale: $E = 1000000.00$ daN/mq
- Modulo elastico tangenziale: $G = 357143.00$ daN/mq
- Esponente del parametro tensionale: $k_j = 0.00$
- Coeff. di Poisson: $\nu = 0.40$
- Modulo edometrico: $E_{ed} = 2142860.00$ daN/mq
- Modulo elastico non drenato: $E_u = 1071430.00$ daN/mq

Report grafico complessivo

Colonna stratigrafica numero 1

Simbologia

St.	= Strato
z	= Profondità della superficie superiore dello strato
Unità geotecnica	= Unità geotecnica
Class.	= Classificazione
	Coes. = Coesivo
	Inc. = Incoerente
	Roc. = Roccia
	N. c. = Non classificato
γ	= Peso specifico del terreno naturale

Relazione di calcolo

γ_{sat}	=	Peso specifico del terreno saturo
D_r	=	Densità relativa
I_p	=	Indice di plasticità
ϕ'	=	Angolo di attrito efficace
c'	=	Coesione efficace
c_u	=	Coesione non drenata
OCR	=	Grado di sovraconsolidazione
K_0	=	Coeff. di spinta a riposo
Crit.	=	Criterio di progetto

St.	z <m>	Unità geotecnica	Class.	γ <daN/mc>	γ_{sat} <daN/mc>	D_r	I_p	ϕ' <grad>	c' <daN/mq>	c_u <daN/mq>	OCR	K_0	Crit.
1	0.00	1 Riporto	N. c.	2000.00	2000.00			15.00	0.00	500.00	1.00	0.50	1
2	6.00	2 Limo bassa o media plasticità bassa consistenza	Coes.	1700.00	1850.00	0.00	30.00	22.00	1200.00	5000.00	1.00	0.66	1
3	8.50	3 Ghiaia limosa densa	Inc.	2000.00	2100.00	60.00	0.00	34.00	500.00		1.00	0.44	1
4	12.50	4 Limo bassa o media plasticità media consistenza	Coes.	1800.00	1900.00	0.00	20.00	22.00	2500.00	10000.00	1.00	0.66	1

Simbologia

St.	=	Strato
z	=	Profondità della superficie superiore dello strato
Unità geotecnica	=	Unità geotecnica
Class.	=	Classificazione
	Coes.	= Coesivo
	Inc.	= Incoerente
	Roc.	= Roccia
	N. c.	= Non classificato
γ	=	Peso specifico del terreno naturale
γ_{sat}	=	Peso specifico del terreno saturo
D_r	=	Densità relativa
I_p	=	Indice di plasticità
ϕ'	=	Angolo di attrito efficace
c'	=	Coesione efficace
c_u	=	Coesione non drenata
OCR	=	Grado di sovraconsolidazione
K_0	=	Coeff. di spinta a riposo
Crit.	=	Criterio di progetto

St.	z <m>	E <daN/mq>	G <daN/mq>	k_j	ν	E_{ed} <daN/mq>	E_u <daN/mq>	Crit.
1	0.00	1000000.00	400000.00	0.00	0.25	1200000.00	1200000.00	1
2	6.00	500000.00	178571.00	0.00	0.40	1071430.00	535714.00	1
3	8.50	13000000.00	5000000.00	0.00	0.30	17500000.00	0.00	1
4	12.50	1000000.00	357143.00	0.00	0.40	2142860.00	1071430.00	1

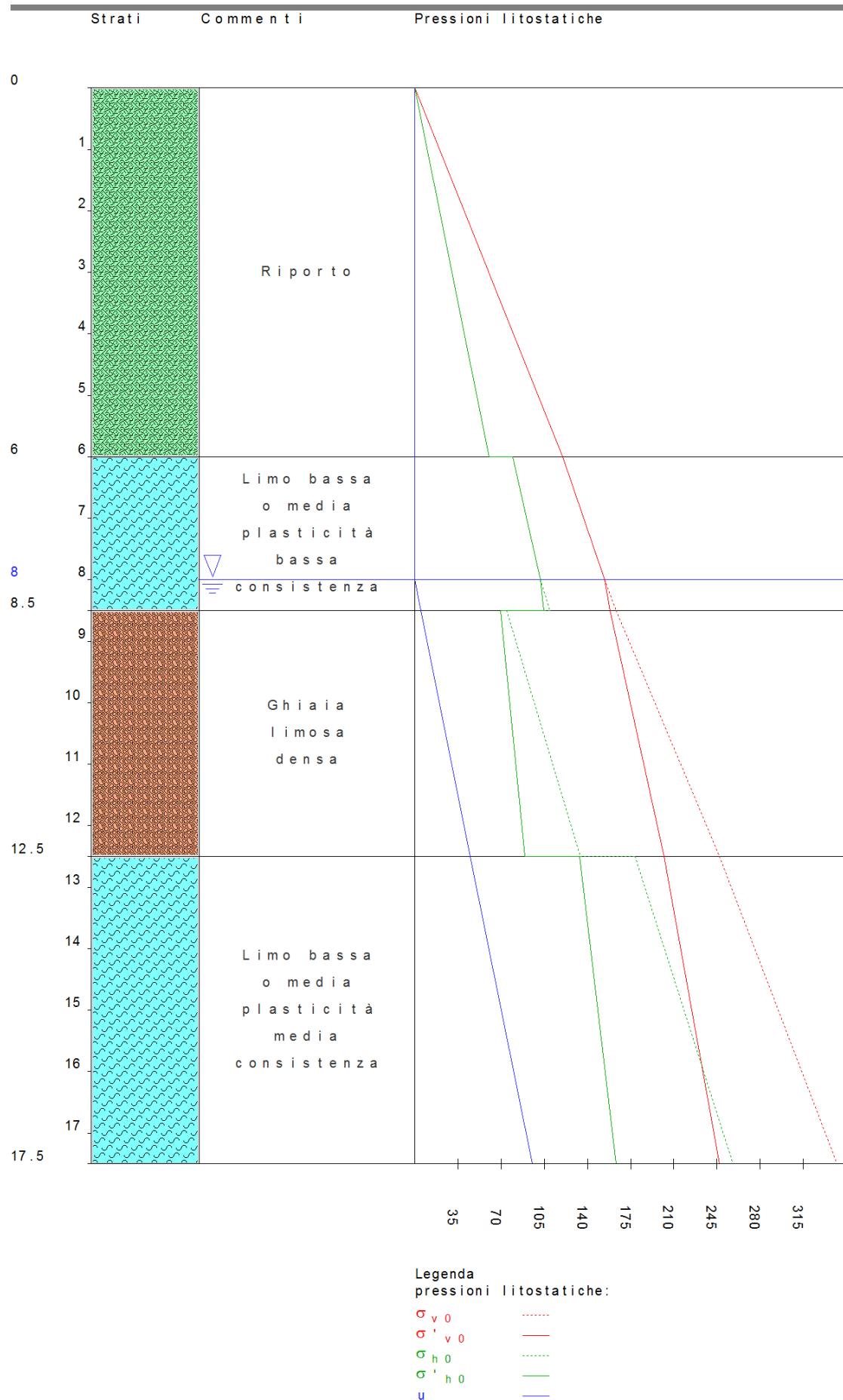


Figura numero 1: Colonna stratigrafica numero 1 Colonna stratigrafica

Le verifiche degli elementi di fondazione sono state effettuate utilizzando l'approccio 2.

Coefficienti parziali per le azioni, per verifiche in condizioni statiche:

Permanenti strutturali, sicurezza a favore $\gamma_A = 1.00$;
 Permanenti strutturali, sicurezza a sfavore $\gamma_A = 1.30$;
 Permanenti non strutturali, sicurezza a favore $\gamma_A = 0.00$;
 Permanenti non strutturali, sicurezza a sfavore $\gamma_A = 1.50$;
 Variabili, sicurezza a favore $\gamma_A = 0.00$;
 Variabili, sicurezza a sfavore $\gamma_A = 1.50$.

I coefficienti parziali per le azioni sono posti pari all'unità per le verifiche in condizioni sismiche.

Tali coefficienti sono comunque desumibili dalla tabella delle combinazioni delle CCE (Parametri di calcolo).

Coefficienti parziali per i parametri geotecnici:

Tangente dell'angolo di attrito $\gamma_M = 1.00$;
 Coesione efficace $\gamma_M = 1.00$;
 Coesione non drenata $\gamma_M = 1.00$;

Coefficienti parziali per la resistenza delle fondazioni superficiali:

Capacità portante $\gamma_R = 2.30$;
 Scorrimento $\gamma_R = 1.10$;
 Coefficienti parziali per la resistenza delle fondazioni profonde:
 Per pali infissi:

Resistenza alla base $\gamma_{R,b} = 1.15$;
 Resistenza laterale in compressione $\gamma_{R,s} = 1.15$;
 Resistenza laterale in trazione $\gamma_{R,t} = 1.25$;

Per pali trivellati:

Resistenza alla base $\gamma_{R,b} = 1.35$;
 Resistenza laterale in compressione $\gamma_{R,s} = 1.15$;
 Resistenza laterale in trazione $\gamma_{R,t} = 1.25$;

Per pali ad elica continua:

Resistenza alla base $\gamma_{R,b} = 1.30$;
 Resistenza laterale in compressione $\gamma_{R,s} = 1.15$;
 Resistenza laterale in trazione $\gamma_{R,t} = 1.25$;

Fattore di correlazione per la determinazione della resistenza caratteristica desumibile dai criteri di progetto.

Fondazioni profonde

Simbologia

Dp = Diametro pali
 Lp = Lunghezza pali
 Wp = Peso del palo
 D = Profondità della testa del palo
 QSim = Resistenza laterale di progetto per compressione
 QSim,t = Resistenza laterale di progetto per trazione
 qp = Pressione limite alla base del palo
 QP1im = Resistenza di progetto alla base del palo
 kp = Risposta elastica alla base del palo
 Zp = Profondità del tratto di integrazione
 τ_s = Attrito laterale limite per compressione
 $\tau_{s,t}$ = Attrito laterale limite per trazione
 ks = Risposta elastica laterale per compressione
 ks,t = Risposta elastica laterale per trazione
 σ_h = Pressione limite per carichi orizzontali
 kh = Risposta elastica per carichi orizzontali
 Caso = Caso di verifica
 CC = Numero della combinazione delle condizioni di carico elementari
 N = Sforzo normale
 Ced = Cedimento calcolato
 Sic.V = Sicurezza a rottura verticale
 T = Taglio in testa
 M = Momento flettente
 Sps = Spostamento
 Sic.O = Sicurezza a rottura orizzontale

Verifiche capacità portante e cedimenti

Palo n. 7

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Relazione di calcolo

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cmq>	k_s <daN/cmc>	σ_h <daN/cmq>	k_h <daN/cmc>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
q_p=67.21 <daN/cmq>
QP_{lim}=84462.20 <daN>
k_p=45.47 <daN/cmc>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cmq>	k_s <daN/cmc>	σ_h <daN/cmq>	k_h <daN/cmc>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
q_p=67.21 <daN/cmq>
QP_{lim}=84462.20 <daN>
k_p=45.47 <daN/cmc>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-838.88	0.01	65.17	1708.46	994.97	0.20	2.44
3	2	-2600.36	0.02	--	437.70	475.18	0.05	--
5	3	-6843.54	0.04	7.99	1534.71	401.38	0.14	2.80
7	4	-4348.25	0.03	--	504.35	248.29	0.04	--
9	5	-3603.62	0.02	15.17	1176.49	708.34	0.12	3.17
11	6	-4094.96	0.03	--	263.50	330.52	0.03	--
13	7	-1709.04	0.01	31.99	878.15	379.63	0.08	4.00
15	8	-3543.46	0.02	--	343.25	286.82	0.03	--
17	9	-4877.83	0.03	11.21	321.94	472.48	0.04	6.53
19	10	-4890.43	0.03	11.18	528.76	453.21	0.05	5.52
21	11	-4354.21	0.03	12.56	317.59	570.05	0.04	6.53
23	12	-3604.52	0.02	--	214.85	349.32	0.03	--
25	13	-3612.92	0.02	--	352.73	336.24	0.04	--
27	14	-3255.44	0.02	--	211.60	413.53	0.03	--
29	15	-3507.89	0.02	--	84.80	351.10	0.02	--
31	16	-3557.03	0.02	--	8.00	336.35	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-838.88	0.01	64.75	1708.46	994.97	0.20	2.44
4	2	-2600.36	0.02	--	437.70	475.18	0.05	--
6	3	-6843.54	0.04	7.94	1534.71	401.38	0.14	2.80
8	4	-4348.25	0.03	--	504.35	248.29	0.04	--
10	5	-3603.62	0.02	15.07	1176.49	708.34	0.12	3.17
12	6	-4094.96	0.03	--	263.50	330.52	0.03	--
14	7	-1709.04	0.01	31.78	878.15	379.63	0.08	4.00
16	8	-3543.46	0.02	--	343.25	286.82	0.03	--
18	9	-4877.83	0.03	11.13	321.94	472.48	0.04	6.53
20	10	-4890.43	0.03	11.11	528.76	453.21	0.05	5.52
22	11	-4354.21	0.03	12.47	317.59	570.05	0.04	6.53
24	12	-3604.52	0.02	--	214.85	349.32	0.03	--
26	13	-3612.92	0.02	--	352.73	336.24	0.04	--
28	14	-3255.44	0.02	--	211.60	413.53	0.03	--
30	15	-3507.89	0.02	--	84.80	351.10	0.02	--
32	16	-3557.03	0.02	--	8.00	336.35	0.01	--

Palo n. 8

Tipo palo=Trivellato
Rotazione testa libera
Coefficiente di efficienza=1.00

Relazione di calcolo

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cmq>	k_s <daN/cmc>	σ_h <daN/cmq>	k_h <daN/cmc>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cmq>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cmc>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cmq>	k_s <daN/cmc>	σ_h <daN/cmq>	k_h <daN/cmc>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cmq>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cmc>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-9910.10	0.06	5.52	1708.73	685.72	0.18	2.52
3	2	-7737.73	0.05	--	441.43	411.18	0.05	--
5	3	-5893.74	0.04	9.28	1547.16	89.14	0.13	2.99
7	4	-6568.61	0.04	--	504.29	206.56	0.04	--
9	5	-9857.54	0.06	5.55	1201.45	579.12	0.12	3.25
11	6	-7709.33	0.05	--	278.82	294.37	0.03	--
13	7	-5991.33	0.04	9.12	931.36	563.96	0.09	3.72
15	8	-6583.91	0.04	--	350.21	299.61	0.04	--
17	9	-10612.60	0.07	5.15	331.20	419.46	0.04	6.53
19	10	-10511.10	0.07	5.20	544.20	401.16	0.05	5.64
21	11	-10509.10	0.07	5.20	314.50	445.34	0.04	6.53
23	12	-7759.07	0.05	--	221.02	311.91	0.03	--
25	13	-7691.41	0.05	--	363.02	299.11	0.04	--
27	14	-7690.06	0.05	--	209.55	329.56	0.03	--
29	15	-7469.49	0.05	--	86.40	308.04	0.02	--
31	16	-7321.99	0.05	--	7.82	305.39	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-9910.10	0.06	5.48	1708.73	685.72	0.18	2.52
4	2	-7737.73	0.05	--	441.43	411.18	0.05	--
6	3	-5893.74	0.04	9.22	1547.16	89.14	0.13	2.99
8	4	-6568.61	0.04	--	504.29	206.56	0.04	--
10	5	-9857.54	0.06	5.51	1201.45	579.12	0.12	3.25
12	6	-7709.33	0.05	--	278.82	294.37	0.03	--
14	7	-5991.33	0.04	9.07	931.36	563.96	0.09	3.72
16	8	-6583.91	0.04	--	350.21	299.61	0.04	--
18	9	-10612.60	0.07	5.12	331.20	419.46	0.04	6.53
20	10	-10511.10	0.07	5.17	544.20	401.16	0.05	5.64
22	11	-10509.10	0.07	5.17	314.50	445.34	0.04	6.53
24	12	-7759.07	0.05	--	221.02	311.91	0.03	--
26	13	-7691.41	0.05	--	363.02	299.11	0.04	--
28	14	-7690.06	0.05	--	209.55	329.56	0.03	--
30	15	-7469.49	0.05	--	86.40	308.04	0.02	--
32	16	-7321.99	0.05	--	7.82	305.39	0.01	--

Palo n. 5

Tipo palo=Trivellato
 Rotazione testa libera

Relazione di calcolo

Coefficiente di efficienza=1.00
Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
Colonna stratigrafica numero 1 Colonna stratigrafica
Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ^q >	k_s <daN/cm ^c >	σ_h <daN/cm ^q >	k_h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
q_p=67.21 <daN/cm^q>
QP_{lim}=84462.20 <daN>
k_p=45.47 <daN/cm^c>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ^q >	k_s <daN/cm ^c >	σ_h <daN/cm ^q >	k_h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
q_p=67.21 <daN/cm^q>
QP_{lim}=84462.20 <daN>
k_p=45.47 <daN/cm^c>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-1914.75	-0.01	28.55	1687.67	1146.48	0.21	2.39
3	2	-2818.35	0.02	--	427.23	558.78	0.05	--
5	3	-8015.80	0.05	6.82	1540.45	315.65	0.14	2.84
7	4	-5508.79	0.03	--	511.69	187.00	0.04	--
9	5	-618.13	0.00	88.44	1156.85	825.07	0.13	3.09
11	6	-3815.74	0.02	--	262.89	392.43	0.03	--
13	7	-4589.42	0.03	11.91	878.62	348.12	0.08	4.03
15	8	-4971.74	0.03	--	349.14	259.73	0.03	--
17	9	-5348.43	0.03	10.22	322.11	590.65	0.04	6.53
19	10	-5217.21	0.03	10.48	528.66	572.27	0.06	5.01
21	11	-4801.07	0.03	11.39	412.34	673.86	0.06	5.53
23	12	-3970.48	0.02	--	214.97	425.20	0.03	--
25	13	-3883.00	0.02	--	352.66	413.43	0.04	--
27	14	-3605.57	0.02	--	274.55	479.68	0.04	--
29	15	-3891.82	0.02	--	85.92	407.66	0.02	--
31	16	-3990.17	0.03	--	16.43	382.32	0.02	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-1914.75	-0.01	28.37	1687.67	1146.48	0.21	2.39
4	2	-2818.35	0.02	--	427.23	558.78	0.05	--
6	3	-8015.80	0.05	6.78	1540.45	315.65	0.14	2.84
8	4	-5508.79	0.03	--	511.69	187.00	0.04	--
10	5	-618.13	0.00	87.87	1156.85	825.07	0.13	3.09
12	6	-3815.74	0.02	--	262.89	392.43	0.03	--
14	7	-4589.42	0.03	11.83	878.62	348.12	0.08	4.03
16	8	-4971.74	0.03	--	349.14	259.73	0.03	--
18	9	-5348.43	0.03	10.16	322.11	590.65	0.04	6.53
20	10	-5217.21	0.03	10.41	528.66	572.27	0.06	5.01
22	11	-4801.07	0.03	11.31	412.34	673.86	0.06	5.53
24	12	-3970.48	0.02	--	214.97	425.20	0.03	--
26	13	-3883.00	0.02	--	352.66	413.43	0.04	--
28	14	-3605.57	0.02	--	274.55	479.68	0.04	--
30	15	-3891.82	0.02	--	85.92	407.66	0.02	--
32	16	-3990.17	0.03	--	16.43	382.32	0.02	--

Palo n. 6

Tipo palo=Trivellato

Relazione di calcolo

Rotazione testa libera

Coefficiente di efficienza=1.00

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-12119.10	0.08	4.51	1687.72	1119.78	0.20	2.40
3	2	-10039.10	0.06	--	430.52	460.94	0.05	--
5	3	-4766.73	0.03	11.47	1550.65	459.61	0.15	2.75
7	4	-7898.90	0.05	--	511.75	60.48	0.04	--
9	5	-8595.01	0.05	6.36	1177.38	754.76	0.13	3.12
11	6	-8133.99	0.05	--	275.02	264.98	0.03	--
13	7	-11311.50	0.07	4.83	923.82	234.88	0.08	4.06
15	8	-8924.73	0.06	--	355.39	123.11	0.03	--
17	9	-13192.40	0.08	4.14	328.34	419.24	0.04	6.53
19	10	-12632.40	0.08	4.33	540.01	398.18	0.05	5.70
21	11	-13265.10	0.08	4.12	410.80	472.90	0.05	6.53
23	12	-9494.75	0.06	--	219.11	294.57	0.03	--
25	13	-9121.43	0.06	--	360.21	280.75	0.04	--
27	14	-9543.24	0.06	--	273.52	330.24	0.03	--
29	15	-9043.17	0.06	--	86.54	276.75	0.02	--
31	16	-8850.39	0.06	--	16.26	257.71	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-12119.10	0.08	4.48	1687.72	1119.78	0.20	2.40
4	2	-10039.10	0.06	--	430.52	460.94	0.05	--
6	3	-4766.73	0.03	11.39	1550.65	459.61	0.15	2.75
8	4	-7898.90	0.05	--	511.75	60.48	0.04	--
10	5	-8595.01	0.05	6.32	1177.38	754.76	0.13	3.12
12	6	-8133.99	0.05	--	275.02	264.98	0.03	--
14	7	-11311.50	0.07	4.80	923.82	234.88	0.08	4.06
16	8	-8924.73	0.06	--	355.39	123.11	0.03	--
18	9	-13192.40	0.08	4.12	328.34	419.24	0.04	6.53
20	10	-12632.40	0.08	4.30	540.01	398.18	0.05	5.70
22	11	-13265.10	0.08	4.09	410.80	472.90	0.05	6.53
24	12	-9494.75	0.06	--	219.11	294.57	0.03	--
26	13	-9121.43	0.06	--	360.21	280.75	0.04	--
28	14	-9543.24	0.06	--	273.52	330.24	0.03	--
30	15	-9043.17	0.06	--	86.54	276.75	0.02	--
32	16	-8850.39	0.06	--	16.26	257.71	0.01	--

Palo n. 3

Relazione di calcolo

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-2550.21	-0.00	21.44	1396.73	903.69	0.16	2.70
3	2	-2148.65	0.01	--	505.05	516.47	0.06	--
5	3	-9427.98	0.06	5.80	1813.09	527.96	0.18	2.50
7	4	-5065.18	0.03	--	429.65	183.01	0.04	--
9	5	-4381.77	0.03	12.48	680.65	267.07	0.06	5.05
11	6	-4837.11	0.03	--	392.32	202.80	0.03	--
13	7	-192.11	0.00	284.57	1282.09	742.74	0.14	2.94
15	8	-3617.54	0.02	--	195.03	322.92	0.03	--
17	9	-5311.69	0.03	10.29	318.88	448.59	0.04	6.53
19	10	-5358.90	0.03	10.20	526.06	425.51	0.05	5.70
21	11	-4424.54	0.03	12.36	470.62	555.08	0.05	5.57
23	12	-3928.71	0.02	--	212.78	327.85	0.03	--
25	13	-3960.19	0.02	--	350.89	312.81	0.04	--
27	14	-3337.28	0.02	--	313.43	397.64	0.04	--
29	15	-3733.40	0.02	--	85.99	327.68	0.02	--
31	16	-3789.85	0.02	--	17.91	310.31	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-2550.21	-0.00	21.30	1396.73	903.69	0.16	2.70
4	2	-2148.65	0.01	--	505.05	516.47	0.06	--
6	3	-9427.98	0.06	5.76	1813.09	527.96	0.18	2.50
8	4	-5065.18	0.03	--	429.65	183.01	0.04	--
10	5	-4381.77	0.03	12.40	680.65	267.07	0.06	5.05
12	6	-4837.11	0.03	--	392.32	202.80	0.03	--
14	7	-192.11	0.00	282.72	1282.09	742.74	0.14	2.94
16	8	-3617.54	0.02	--	195.03	322.92	0.03	--
18	9	-5311.69	0.03	10.23	318.88	448.59	0.04	6.53
20	10	-5358.90	0.03	10.14	526.06	425.51	0.05	5.70
22	11	-4424.54	0.03	12.28	470.62	555.08	0.05	5.57
24	12	-3928.71	0.02	--	212.78	327.85	0.03	--
26	13	-3960.19	0.02	--	350.89	312.81	0.04	--
28	14	-3337.28	0.02	--	313.43	397.64	0.04	--
30	15	-3733.40	0.02	--	85.99	327.68	0.02	--
32	16	-3789.85	0.02	--	17.91	310.31	0.01	--

Palo n. 4

Relazione di calcolo

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-10811.30	0.07	5.06	1396.76	959.57	0.16	2.68
3	2	-7933.45	0.05	--	507.40	468.18	0.05	--
5	3	-3983.11	0.02	13.73	1822.13	800.92	0.20	2.40
7	4	-5945.82	0.04	--	429.86	143.09	0.03	--
9	5	-9248.46	0.06	5.91	716.33	184.83	0.06	5.10
11	6	-7088.56	0.04	--	401.38	130.70	0.03	--
13	7	-6885.61	0.04	7.94	1312.48	742.12	0.14	2.89
15	8	-6400.76	0.04	--	204.78	223.69	0.02	--
17	9	-10538.90	0.07	5.19	326.64	318.48	0.03	6.53
19	10	-10179.80	0.06	5.37	538.41	304.58	0.05	6.40
21	11	-10629.60	0.07	5.14	469.36	402.15	0.05	6.53
23	12	-7595.67	0.05	--	217.96	229.80	0.02	--
25	13	-7356.32	0.05	--	359.13	221.27	0.03	--
27	14	-7656.13	0.05	--	312.58	284.21	0.03	--
29	15	-7228.17	0.05	--	87.56	229.13	0.01	--
31	16	-7042.80	0.04	--	18.10	214.56	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-10811.30	0.07	5.02	1396.76	959.57	0.16	2.68
4	2	-7933.45	0.05	--	507.40	468.18	0.05	--
6	3	-3983.11	0.02	13.64	1822.13	800.92	0.20	2.40
8	4	-5945.82	0.04	--	429.86	143.09	0.03	--
10	5	-9248.46	0.06	5.87	716.33	184.83	0.06	5.10
12	6	-7088.56	0.04	--	401.38	130.70	0.03	--
14	7	-6885.61	0.04	7.89	1312.48	742.12	0.14	2.89
16	8	-6400.76	0.04	--	204.78	223.69	0.02	--
18	9	-10538.90	0.07	5.15	326.64	318.48	0.03	6.53
20	10	-10179.80	0.06	5.34	538.41	304.58	0.05	6.40
22	11	-10629.60	0.07	5.11	469.36	402.15	0.05	6.53
24	12	-7595.67	0.05	--	217.96	229.80	0.02	--
26	13	-7356.32	0.05	--	359.13	221.27	0.03	--
28	14	-7656.13	0.05	--	312.58	284.21	0.03	--
30	15	-7228.17	0.05	--	87.56	229.13	0.01	--
32	16	-7042.80	0.04	--	18.10	214.56	0.01	--

Relazione di calcolo

Palo n. 1

Tipo palo=Trivellato

Rotazione testa libera

Coefficiente di efficienza=1.00

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-332.31	0.00	164.51	1420.41	847.22	0.16	2.71
3	2	-2851.34	0.02	--	524.78	491.16	0.06	--
5	3	-6375.55	0.04	8.57	1813.04	586.95	0.18	2.48
7	4	-4610.47	0.03	--	416.00	231.32	0.04	--
9	5	-1766.16	0.01	30.95	679.90	367.36	0.06	4.73
11	6	-3626.48	0.02	--	383.80	276.56	0.04	--
13	7	-3712.70	0.02	14.72	1307.15	696.24	0.14	2.93
15	8	-4193.09	0.03	--	195.51	315.01	0.03	--
17	9	-4918.47	0.03	11.12	316.57	474.56	0.04	6.53
19	10	-4866.59	0.03	11.23	524.92	477.74	0.06	5.43
21	11	-4468.78	0.03	12.23	370.82	548.07	0.05	6.53
23	12	-3639.23	0.02	--	211.19	351.39	0.03	--
25	13	-3604.64	0.02	--	350.09	353.94	0.04	--
27	14	-3339.44	0.02	--	247.17	398.12	0.03	--
29	15	-3576.36	0.02	--	85.06	341.94	0.02	--
31	16	-3645.91	0.02	--	2.56	321.34	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-332.31	0.00	163.44	1420.41	847.22	0.16	2.71
4	2	-2851.34	0.02	--	524.78	491.16	0.06	--
6	3	-6375.55	0.04	8.52	1813.04	586.95	0.18	2.48
8	4	-4610.47	0.03	--	416.00	231.32	0.04	--
10	5	-1766.16	0.01	30.75	679.90	367.36	0.06	4.73
12	6	-3626.48	0.02	--	383.80	276.56	0.04	--
14	7	-3712.70	0.02	14.63	1307.15	696.24	0.14	2.93
16	8	-4193.09	0.03	--	195.51	315.01	0.03	--
18	9	-4918.47	0.03	11.04	316.57	474.56	0.04	6.53
20	10	-4866.59	0.03	11.16	524.92	477.74	0.06	5.43
22	11	-4468.78	0.03	12.15	370.82	548.07	0.05	6.53
24	12	-3639.23	0.02	--	211.19	351.39	0.03	--
26	13	-3604.64	0.02	--	350.09	353.94	0.04	--
28	14	-3339.44	0.02	--	247.17	398.12	0.03	--
30	15	-3576.36	0.02	--	85.06	341.94	0.02	--
32	16	-3645.91	0.02	--	2.56	321.34	0.01	--

Relazione di calcolo

Palo n. 2

Tipo palo=Trivellato

Rotazione testa libera

Coefficiente di efficienza=1.00

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-8835.18	0.06	6.19	1420.90	656.95	0.15	2.80
3	2	-8073.83	0.05	--	528.14	396.06	0.05	--
5	3	-4555.83	0.03	12.00	1823.49	188.08	0.16	2.60
7	4	-6828.15	0.04	--	415.89	178.48	0.03	--
9	5	-5972.05	0.04	9.15	721.68	543.01	0.08	4.20
11	6	-6526.03	0.04	--	394.09	277.00	0.04	--
13	7	-9873.06	0.06	5.54	1343.94	572.97	0.13	2.96
15	8	-7661.58	0.05	--	208.06	277.10	0.02	--
17	9	-10147.00	0.06	5.39	326.10	437.02	0.04	6.53
19	10	-9788.84	0.06	5.58	541.33	458.39	0.06	5.37
21	11	-10471.00	0.07	5.22	367.90	416.82	0.04	6.53
23	12	-7447.31	0.05	--	217.54	323.33	0.03	--
25	13	-7208.54	0.05	--	361.03	337.23	0.04	--
27	14	-7663.33	0.05	--	245.23	309.69	0.03	--
29	15	-7342.77	0.05	--	86.55	298.59	0.02	--
31	16	-7280.66	0.05	--	2.23	284.62	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-8835.18	0.06	6.15	1420.90	656.95	0.15	2.80
4	2	-8073.83	0.05	--	528.14	396.06	0.05	--
6	3	-4555.83	0.03	11.92	1823.49	188.08	0.16	2.60
8	4	-6828.15	0.04	--	415.89	178.48	0.03	--
10	5	-5972.05	0.04	9.09	721.68	543.01	0.08	4.20
12	6	-6526.03	0.04	--	394.09	277.00	0.04	--
14	7	-9873.06	0.06	5.50	1343.94	572.97	0.13	2.96
16	8	-7661.58	0.05	--	208.06	277.10	0.02	--
18	9	-10147.00	0.06	5.35	326.10	437.02	0.04	6.53
20	10	-9788.84	0.06	5.55	541.33	458.39	0.06	5.37
22	11	-10471.00	0.07	5.19	367.90	416.82	0.04	6.53
24	12	-7447.31	0.05	--	217.54	323.33	0.03	--
26	13	-7208.54	0.05	--	361.03	337.23	0.04	--
28	14	-7663.33	0.05	--	245.23	309.69	0.03	--
30	15	-7342.77	0.05	--	86.55	298.59	0.02	--

Relazione di calcolo

32	16	-7280.66	0.05	--	2.23	284.62	0.01	--
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Palo n. 9

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7388.89	0.05	7.40	1460.53	369.01	0.13	2.93
3	2	-8308.98	0.05	--	844.72	212.28	0.07	--
5	3	2849.74	-0.05	3.81	2880.62	2272.23	0.47	1.63
7	4	-4414.13	0.03	--	424.09	576.15	0.05	--
9	5	4386.69	-0.06	2.47	2882.07	2213.71	0.46	1.64
11	6	-244.83	0.00	--	1103.82	1102.80	0.14	--
13	7	-21712.00	0.17	2.52	3819.07	2262.21	0.66	1.43
15	8	-8756.37	0.06	--	847.31	320.90	0.07	--
17	9	-5835.37	0.04	9.37	583.04	795.40	0.08	4.24
19	10	-4455.08	0.03	12.27	979.59	942.09	0.12	3.39
21	11	-7397.29	0.05	7.39	362.38	499.06	0.04	6.53
23	12	-4348.96	0.03	--	388.17	561.89	0.05	--
25	13	-3428.76	0.02	--	652.54	658.71	0.07	--
27	14	-5390.24	0.03	--	241.59	366.14	0.03	--
29	15	-4814.70	0.03	--	132.98	426.30	0.03	--
31	16	-5084.82	0.03	--	6.53	374.28	0.02	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-7388.89	0.05	7.35	1460.53	369.01	0.13	2.93
4	2	-8308.98	0.05	--	844.72	212.28	0.07	--
6	3	2849.74	-0.05	3.73	2880.62	2272.23	0.47	1.63
8	4	-4414.13	0.03	--	424.09	576.15	0.05	--
10	5	4386.69	-0.06	2.42	2882.07	2213.71	0.46	1.64
12	6	-244.83	0.00	--	1103.82	1102.80	0.14	--
14	7	-21712.00	0.17	2.50	3819.07	2262.21	0.66	1.43
16	8	-8756.37	0.06	--	847.31	320.90	0.07	--
18	9	-5835.37	0.04	9.31	583.04	795.40	0.08	4.24
20	10	-4455.08	0.03	12.19	979.59	942.09	0.12	3.39
22	11	-7397.29	0.05	7.34	362.38	499.06	0.04	6.53
24	12	-4348.96	0.03	--	388.17	561.89	0.05	--

Relazione di calcolo

26	13	-3428.76	0.02	--	652.54	658.71	0.07	--
28	14	-5390.24	0.03	--	241.59	366.14	0.03	--
30	15	-4814.70	0.03	--	132.98	426.30	0.03	--
32	16	-5084.82	0.03	--	6.53	374.28	0.02	--

Palo n. 14

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-6711.83	0.04	8.15	1460.95	990.39	0.17	2.61
3	2	-5994.72	0.04	--	844.42	512.36	0.08	--
5	3	-17345.00	0.11	3.15	2875.62	1612.51	0.41	1.69
7	4	-9089.92	0.06	--	419.70	337.90	0.04	--
9	5	-18540.90	0.13	2.95	2881.16	1383.35	0.40	1.71
11	6	-12389.50	0.08	--	1103.42	702.16	0.12	--
13	7	1481.76	-0.04	7.32	3814.29	1607.33	0.59	1.46
15	8	-5646.59	0.04	--	844.71	261.39	0.07	--
17	9	-14340.00	0.09	3.81	584.58	591.18	0.07	4.63
19	10	-14554.80	0.09	3.76	979.72	647.93	0.10	3.60
21	11	-12687.40	0.08	4.31	334.60	504.36	0.04	6.53
23	12	-10244.80	0.06	--	389.26	419.25	0.04	--
25	13	-10388.10	0.07	--	652.68	455.86	0.07	--
27	14	-9143.11	0.06	--	223.14	365.37	0.03	--
29	15	-9038.49	0.06	--	134.38	350.78	0.02	--
31	16	-8553.75	0.05	--	5.70	316.73	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-6711.83	0.04	8.09	1460.95	990.39	0.17	2.61
4	2	-5994.72	0.04	--	844.42	512.36	0.08	--
6	3	-17345.00	0.11	3.13	2875.62	1612.51	0.41	1.69
8	4	-9089.92	0.06	--	419.70	337.90	0.04	--
10	5	-18540.90	0.13	2.93	2881.16	1383.35	0.40	1.71
12	6	-12389.50	0.08	--	1103.42	702.16	0.12	--
14	7	1481.76	-0.04	7.18	3814.29	1607.33	0.59	1.46
16	8	-5646.59	0.04	--	844.71	261.39	0.07	--
18	9	-14340.00	0.09	3.79	584.58	591.18	0.07	4.63

Relazione di calcolo

20	10	-14554.80	0.09	3.73	979.72	647.93	0.10	3.60
22	11	-12687.40	0.08	4.28	334.60	504.36	0.04	6.53
24	12	-10244.80	0.06	--	389.26	419.25	0.04	--
26	13	-10388.10	0.07	--	652.68	455.86	0.07	--
28	14	-9143.11	0.06	--	223.14	365.37	0.03	--
30	15	-9038.49	0.06	--	134.38	350.78	0.02	--
32	16	-8553.75	0.05	--	5.70	316.73	0.01	--

Palo n. 17

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1im}=34928.60 <daN>
 qp=67.21 <daN/cm²>
 QP_{1im}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1im}=34235.40 <daN>
 qp=67.21 <daN/cm²>
 QP_{1im}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-10240.00	0.06	5.34	1597.51	443.33	0.15	2.71
3	2	-10077.90	0.06	--	502.38	261.19	0.04	--
5	3	-10001.00	0.06	5.47	1707.65	362.08	0.16	2.63
7	4	-10008.30	0.06	--	473.86	209.64	0.04	--
9	5	-10296.20	0.07	5.31	1339.63	506.48	0.13	3.02
11	6	-10108.30	0.06	--	414.04	311.81	0.04	--
13	7	-9896.59	0.06	5.52	1504.58	202.77	0.13	2.98
15	8	-9991.95	0.06	--	417.36	171.18	0.03	--
17	9	-14914.30	0.09	3.67	408.73	465.36	0.05	6.53
19	10	-14323.20	0.09	3.82	710.71	506.71	0.07	4.29
21	11	-14910.20	0.09	3.67	334.86	376.26	0.04	6.53
23	12	-10863.60	0.07	--	272.19	330.15	0.03	--
25	13	-10469.60	0.07	--	473.51	357.71	0.05	--
27	14	-10860.90	0.07	--	223.35	270.71	0.03	--
29	15	-10302.40	0.07	--	89.86	272.88	0.02	--
31	16	-10060.50	0.06	--	21.51	245.42	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-10240.00	0.06	5.30	1597.51	443.33	0.15	2.71
4	2	-10077.90	0.06	--	502.38	261.19	0.04	--
6	3	-10001.00	0.06	5.43	1707.65	362.08	0.16	2.63
8	4	-10008.30	0.06	--	473.86	209.64	0.04	--
10	5	-10296.20	0.07	5.28	1339.63	506.48	0.13	3.02
12	6	-10108.30	0.06	--	414.04	311.81	0.04	--
14	7	-9896.59	0.06	5.49	1504.58	202.77	0.13	2.98
16	8	-9991.95	0.06	--	417.36	171.18	0.03	--

Relazione di calcolo

18	9	-14914.30	0.09	3.64	408.73	465.36	0.05	6.53
20	10	-14323.20	0.09	3.79	710.71	506.71	0.07	4.29
22	11	-14910.20	0.09	3.64	334.86	376.26	0.04	6.53
24	12	-10863.60	0.07	--	272.19	330.15	0.03	--
26	13	-10469.60	0.07	--	473.51	357.71	0.05	--
28	14	-10860.90	0.07	--	223.35	270.71	0.03	--
30	15	-10302.40	0.07	--	89.86	272.88	0.02	--
32	16	-10060.50	0.06	--	21.51	245.42	0.01	--

Palo n. 22

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-16253.50	0.10	3.36	2572.82	1506.61	0.36	1.80
3	2	-9031.42	0.06	--	512.10	345.06	0.05	--
5	3	-6876.79	0.04	7.95	1752.05	956.84	0.20	2.41
7	4	-6301.95	0.04	--	760.03	504.26	0.08	--
9	5	-20017.30	0.15	2.73	3328.29	1713.71	0.50	1.56
11	6	-11066.10	0.07	--	787.37	564.87	0.08	--
13	7	-3028.64	-0.00	18.05	2766.50	826.51	0.33	1.83
15	8	-5206.37	0.03	--	985.87	438.74	0.09	--
17	9	-14036.90	0.09	3.89	490.73	579.86	0.06	5.27
19	10	-14054.60	0.09	3.89	835.07	614.23	0.09	3.84
21	11	-12753.80	0.08	4.29	333.92	475.52	0.04	6.53
23	12	-10043.90	0.06	--	326.70	413.26	0.04	--
25	13	-10055.70	0.06	--	556.25	435.27	0.06	--
27	14	-9188.47	0.06	--	222.74	344.11	0.03	--
29	15	-8976.21	0.06	--	111.72	351.67	0.02	--
31	16	-8545.64	0.05	--	13.90	329.47	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-16253.50	0.10	3.34	2572.82	1506.61	0.36	1.80
4	2	-9031.42	0.06	--	512.10	345.06	0.05	--
6	3	-6876.79	0.04	7.90	1752.05	956.84	0.20	2.41
8	4	-6301.95	0.04	--	760.03	504.26	0.08	--
10	5	-20017.30	0.15	2.71	3328.29	1713.71	0.50	1.56
12	6	-11066.10	0.07	--	787.37	564.87	0.08	--
14	7	-3028.64	-0.00	17.93	2766.50	826.51	0.33	1.83

Relazione di calcolo

16	8	-5206.37	0.03	--	985.87	438.74	0.09	--
18	9	-14036.90	0.09	3.87	490.73	579.86	0.06	5.27
20	10	-14054.60	0.09	3.86	835.07	614.23	0.09	3.84
22	11	-12753.80	0.08	4.26	333.92	475.52	0.04	6.53
24	12	-10043.90	0.06	--	326.70	413.26	0.04	--
26	13	-10055.70	0.06	--	556.25	435.27	0.06	--
28	14	-9188.47	0.06	--	222.74	344.11	0.03	--
30	15	-8976.21	0.06	--	111.72	351.67	0.02	--
32	16	-8545.64	0.05	--	13.90	329.47	0.01	--

Palo n. 28

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	2836.85	-0.05	3.82	2574.41	2020.67	0.40	1.74
3	2	-4140.00	0.03	--	516.02	498.00	0.06	--
5	3	-8127.21	0.05	6.73	1748.14	291.28	0.16	2.62
7	4	-8246.01	0.05	--	759.50	180.18	0.06	--
9	5	7150.55	-0.13	1.52	3329.49	2602.08	0.59	1.50
11	6	-1808.04	0.01	--	784.98	788.60	0.09	--
13	7	-16138.40	0.10	3.39	2772.77	1362.55	0.38	1.75
15	8	-9501.69	0.06	--	988.69	373.78	0.09	--
17	9	-6094.97	0.04	8.97	489.15	694.88	0.06	4.86
19	10	-4981.09	0.03	10.98	834.72	806.54	0.10	3.69
21	11	-6967.56	0.04	7.85	357.40	507.67	0.04	6.53
23	12	-4530.12	0.03	--	325.59	489.78	0.04	--
25	13	-3787.53	0.02	--	555.96	563.69	0.06	--
27	14	-5111.85	0.03	--	238.48	367.19	0.03	--
29	15	-4803.25	0.03	--	113.33	381.28	0.02	--
31	16	-5038.96	0.03	--	17.42	327.95	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	2836.85	-0.05	3.75	2574.41	2020.67	0.40	1.74
4	2	-4140.00	0.03	--	516.02	498.00	0.06	--
6	3	-8127.21	0.05	6.68	1748.14	291.28	0.16	2.62
8	4	-8246.01	0.05	--	759.50	180.18	0.06	--

Relazione di calcolo

10	5	7150.55	-0.13	1.49	3329.49	2602.08	0.59	1.50
12	6	-1808.04	0.01	--	784.98	788.60	0.09	--
14	7	-16138.40	0.10	3.37	2772.77	1362.55	0.38	1.75
16	8	-9501.69	0.06	--	988.69	373.78	0.09	--
18	9	-6094.97	0.04	8.91	489.15	694.88	0.06	4.86
20	10	-4981.09	0.03	10.90	834.72	806.54	0.10	3.69
22	11	-6967.56	0.04	7.80	357.40	507.67	0.04	6.53
24	12	-4530.12	0.03	--	325.59	489.78	0.04	--
26	13	-3787.53	0.02	--	555.96	563.69	0.06	--
28	14	-5111.85	0.03	--	238.48	367.19	0.03	--
30	15	-4803.25	0.03	--	113.33	381.28	0.02	--
32	16	-5038.96	0.03	--	17.42	327.95	0.01	--

Palo n. 29

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-5659.37	0.04	9.66	1598.49	1119.69	0.19	2.48
3	2	-4415.16	0.03	--	510.33	91.97	0.04	--
5	3	-48.60	0.00	1124.77	1706.17	1506.92	0.23	2.23
7	4	-2781.92	0.02	--	448.97	783.21	0.06	--
9	5	-2350.01	0.01	23.26	1095.83	793.87	0.12	3.26
11	6	-2626.13	0.02	--	368.19	403.38	0.04	--
13	7	-6194.56	0.04	8.83	1272.85	591.10	0.13	3.08
15	8	-3745.24	0.02	--	308.49	624.38	0.05	--
17	9	-4732.57	0.03	11.55	314.70	552.26	0.04	6.53
19	10	-4512.29	0.03	12.12	512.92	551.16	0.06	5.21
21	11	-5018.65	0.03	10.89	363.41	378.59	0.04	6.53
23	12	-3493.50	0.02	--	210.04	407.40	0.03	--
25	13	-3346.64	0.02	--	342.18	405.85	0.04	--
27	14	-3684.22	0.02	--	242.50	289.72	0.03	--
29	15	-3464.57	0.02	--	94.23	364.21	0.02	--
31	16	-3430.67	0.02	--	13.03	378.49	0.02	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-5659.37	0.04	9.60	1598.49	1119.69	0.19	2.48
4	2	-4415.16	0.03	--	510.33	91.97	0.04	--
6	3	-48.60	0.00	1117.48	1706.17	1506.92	0.23	2.23

Relazione di calcolo

8	4	-2781.92	0.02	--	448.97	783.21	0.06	--
10	5	-2350.01	0.01	23.11	1095.83	793.87	0.12	3.26
12	6	-2626.13	0.02	--	368.19	403.38	0.04	--
14	7	-6194.56	0.04	8.77	1272.85	591.10	0.13	3.08
16	8	-3745.24	0.02	--	308.49	624.38	0.05	--
18	9	-4732.57	0.03	11.48	314.70	552.26	0.04	6.53
20	10	-4512.29	0.03	12.04	512.92	551.16	0.06	5.21
22	11	-5018.65	0.03	10.82	363.41	378.59	0.04	6.53
24	12	-3493.50	0.02	--	210.04	407.40	0.03	--
26	13	-3346.64	0.02	--	342.18	405.85	0.04	--
28	14	-3684.22	0.02	--	242.50	289.72	0.03	--
30	15	-3464.57	0.02	--	94.23	364.21	0.02	--
32	16	-3430.67	0.02	--	13.03	378.49	0.02	--

Palo n. 30

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

Q_{S1im}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 Q_{P1im}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

Q_{S1im}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 Q_{P1im}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7157.26	0.05	7.64	1597.98	2781.33	0.31	2.02
3	2	-6082.07	0.04	--	513.38	536.71	0.06	--
5	3	-5182.92	0.03	10.55	1696.16	2604.55	0.31	2.01
7	4	-5507.36	0.03	--	443.46	1070.33	0.08	--
9	5	-7144.64	0.04	7.65	1092.06	1588.00	0.17	2.71
11	6	-6075.25	0.04	--	363.46	281.98	0.04	--
13	7	-5206.37	0.03	10.50	1271.68	328.13	0.11	3.38
15	8	-5511.04	0.03	--	307.64	715.19	0.05	--
17	9	-9029.53	0.06	6.05	313.49	378.73	0.04	6.53
19	10	-8692.60	0.05	6.29	510.23	365.60	0.05	6.34
21	11	-8594.10	0.05	6.36	386.69	319.10	0.04	6.53
23	12	-6496.14	0.04	--	209.24	281.85	0.03	--
25	13	-6271.52	0.04	--	340.39	273.37	0.03	--
27	14	-6205.86	0.04	--	258.11	216.21	0.03	--
29	15	-6023.09	0.04	--	98.24	242.10	0.02	--
31	16	-5879.35	0.04	--	16.84	271.72	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-7157.26	0.05	7.59	1597.98	2781.33	0.31	2.02
4	2	-6082.07	0.04	--	513.38	536.71	0.06	--

Relazione di calcolo

6	3	-5182.92	0.03	10.48	1696.16	2604.55	0.31	2.01
8	4	-5507.36	0.03	--	443.46	1070.33	0.08	--
10	5	-7144.64	0.04	7.60	1092.06	1588.00	0.17	2.71
12	6	-6075.25	0.04	--	363.46	281.98	0.04	--
14	7	-5206.37	0.03	10.43	1271.68	328.13	0.11	3.38
16	8	-5511.04	0.03	--	307.64	715.19	0.05	--
18	9	-9029.53	0.06	6.02	313.49	378.73	0.04	6.53
20	10	-8692.60	0.05	6.25	510.23	365.60	0.05	6.34
22	11	-8594.10	0.05	6.32	386.69	319.10	0.04	6.53
24	12	-6496.14	0.04	--	209.24	281.85	0.03	--
26	13	-6271.52	0.04	--	340.39	273.37	0.03	--
28	14	-6205.86	0.04	--	258.11	216.21	0.03	--
30	15	-6023.09	0.04	--	98.24	242.10	0.02	--
32	16	-5879.35	0.04	--	16.84	271.72	0.01	--

Palo n. 31

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

z _p <m>	τ _s <daN/cm ^q >	k _s <daN/cm ^c >	σ _h <daN/cm ^q >	k _h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

Q_{S1im}=34928.60 <daN>
 q_p=67.21 <daN/cm^q>
 Q_{P1im}=84462.20 <daN>
 k_p=45.47 <daN/cm^c>

Verifiche in condizioni non drenate

z _p <m>	τ _s <daN/cm ^q >	k _s <daN/cm ^c >	σ _h <daN/cm ^q >	k _h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

Q_{S1im}=34235.40 <daN>
 q_p=67.21 <daN/cm^q>
 Q_{P1im}=84462.20 <daN>
 k_p=45.47 <daN/cm^c>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7641.71	0.05	7.15	1585.14	3954.47	0.40	1.84
3	2	-7740.95	0.05	--	519.59	910.37	0.08	--
5	3	-8181.21	0.05	6.68	1613.89	3410.31	0.36	1.91
7	4	-7898.00	0.05	--	412.59	1233.64	0.08	--
9	5	-7996.79	0.05	6.84	1089.87	2160.97	0.20	2.52
11	6	-7932.90	0.05	--	336.58	63.72	0.02	--
13	7	-7521.79	0.05	7.27	1248.30	79.01	0.10	3.60
15	8	-7794.64	0.05	--	307.57	711.50	0.05	--
17	9	-12148.30	0.08	4.50	318.97	53.41	0.02	6.53
19	10	-11546.70	0.07	4.73	510.99	63.93	0.04	6.53
21	11	-11474.50	0.07	4.76	491.72	457.27	0.05	5.91
23	12	-8685.60	0.05	--	213.03	52.27	0.02	--
25	13	-8284.55	0.05	--	340.98	59.33	0.03	--
27	14	-8236.38	0.05	--	328.49	288.70	0.03	--
29	15	-8008.31	0.05	--	122.92	18.80	0.01	--
31	16	-7840.21	0.05	--	39.01	66.20	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-7641.71	0.05	7.11	1585.14	3954.47	0.40	1.84

Relazione di calcolo

4	2	-7740.95	0.05	--	519.59	910.37	0.08	--
6	3	-8181.21	0.05	6.64	1613.89	3410.31	0.36	1.91
8	4	-7898.00	0.05	--	412.59	1233.64	0.08	--
10	5	-7996.79	0.05	6.79	1089.87	2160.97	0.20	2.52
12	6	-7932.90	0.05	--	336.58	63.72	0.02	--
14	7	-7521.79	0.05	7.22	1248.30	79.01	0.10	3.60
16	8	-7794.64	0.05	--	307.57	711.50	0.05	--
18	9	-12148.30	0.08	4.47	318.97	53.41	0.02	6.53
20	10	-11546.70	0.07	4.70	510.99	63.93	0.04	6.53
22	11	-11474.50	0.07	4.73	491.72	457.27	0.05	5.91
24	12	-8685.60	0.05	--	213.03	52.27	0.02	--
26	13	-8284.55	0.05	--	340.98	59.33	0.03	--
28	14	-8236.38	0.05	--	328.49	288.70	0.03	--
30	15	-8008.31	0.05	--	122.92	18.80	0.01	--
32	16	-7840.21	0.05	--	39.01	66.20	0.01	--

Palo n. 32

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm²>	k_s <daN/cm²>	σ_h <daN/cm²>	k_h <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm²>	k_s <daN/cm²>	σ_h <daN/cm²>	k_h <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7795.02	0.05	7.01	1846.90	2837.36	0.35	1.91
3	2	-7713.17	0.05	--	438.96	947.38	0.07	--
5	3	-6961.30	0.04	7.85	1354.18	3665.10	0.34	1.98
7	4	-7470.49	0.05	--	492.47	945.61	0.08	--
9	5	-7117.06	0.04	7.68	1455.29	190.40	0.12	3.08
11	6	-7346.67	0.05	--	252.53	688.53	0.04	--
13	7	-8220.37	0.05	6.65	813.55	1953.55	0.16	2.83
15	8	-7667.84	0.05	--	385.87	65.91	0.03	--
17	9	-11481.10	0.07	4.76	319.00	107.56	0.03	6.53
19	10	-10876.00	0.07	5.03	511.54	119.63	0.04	6.53
21	11	-11027.40	0.07	4.96	457.87	351.54	0.04	6.53
23	12	-8234.14	0.05	--	213.04	88.84	0.02	--
25	13	-7830.74	0.05	--	341.35	97.58	0.03	--
27	14	-7931.67	0.05	--	305.86	213.92	0.03	--
29	15	-7678.68	0.05	--	117.71	37.34	0.01	--
31	16	-7543.66	0.05	--	35.23	93.97	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
------	----	------------	-------------	-------	------------	-------------	-------------	-------

Relazione di calcolo

2	1	-7795.02	0.05	6.97	1846.90	2837.36	0.35	1.91
4	2	-7713.17	0.05	--	438.96	947.38	0.07	--
6	3	-6961.30	0.04	7.80	1354.18	3665.10	0.34	1.98
8	4	-7470.49	0.05	--	492.47	945.61	0.08	--
10	5	-7117.06	0.04	7.63	1455.29	190.40	0.12	3.08
12	6	-7346.67	0.05	--	252.53	688.53	0.04	--
14	7	-8220.37	0.05	6.61	813.55	1953.55	0.16	2.83
16	8	-7667.84	0.05	--	385.87	65.91	0.03	--
18	9	-11481.10	0.07	4.73	319.00	107.56	0.03	6.53
20	10	-10876.00	0.07	4.99	511.54	119.63	0.04	6.53
22	11	-11027.40	0.07	4.93	457.87	351.54	0.04	6.53
24	12	-8234.14	0.05	--	213.04	88.84	0.02	--
26	13	-7830.74	0.05	--	341.35	97.58	0.03	--
28	14	-7931.67	0.05	--	305.86	213.92	0.03	--
30	15	-7678.68	0.05	--	117.71	37.34	0.01	--
32	16	-7543.66	0.05	--	35.23	93.97	0.01	--

Palo n. 33

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 qp=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 qp=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-8685.91	0.05	6.29	1860.85	608.56	0.19	2.45
3	2	-6131.18	0.04	--	418.76	178.57	0.03	--
5	3	-3152.40	0.02	17.34	1410.70	1554.58	0.20	2.48
7	4	-4520.43	0.03	--	530.21	610.22	0.06	--
9	5	-7821.53	0.05	6.99	1464.49	568.74	0.15	2.79
11	6	-5663.90	0.04	--	252.66	563.67	0.04	--
13	7	-4757.69	0.03	11.49	819.15	743.94	0.09	3.76
15	8	-4772.04	0.03	--	411.46	359.83	0.04	--
17	9	-8042.13	0.05	6.80	316.28	447.55	0.04	6.53
19	10	-7842.87	0.05	6.97	512.65	448.36	0.05	5.71
21	11	-7976.99	0.05	6.85	302.88	339.24	0.03	6.53
23	12	-5863.86	0.04	--	211.14	344.71	0.03	--
25	13	-5731.03	0.04	--	342.05	345.30	0.04	--
27	14	-5820.44	0.04	--	202.05	269.45	0.02	--
29	15	-5586.04	0.04	--	90.13	328.26	0.02	--
31	16	-5459.58	0.03	--	11.97	345.67	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N	Ced	Sic.V	T	M	Sps	Sic.O
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Relazione di calcolo

		<daN>	<cm>		<daN>	<daNm>	<cm>	
2	1	-8685.91	0.05	6.25	1860.85	608.56	0.19	2.45
4	2	-6131.18	0.04	--	418.76	178.57	0.03	--
6	3	-3152.40	0.02	17.23	1410.70	1554.58	0.20	2.48
8	4	-4520.43	0.03	--	530.21	610.22	0.06	--
10	5	-7821.53	0.05	6.94	1464.49	568.74	0.15	2.79
12	6	-5663.90	0.04	--	252.66	563.67	0.04	--
14	7	-4757.69	0.03	11.42	819.15	743.94	0.09	3.76
16	8	-4772.04	0.03	--	411.46	359.83	0.04	--
18	9	-8042.13	0.05	6.75	316.28	447.55	0.04	6.53
20	10	-7842.87	0.05	6.93	512.65	448.36	0.05	5.71
22	11	-7976.99	0.05	6.81	302.88	339.24	0.03	6.53
24	12	-5863.86	0.04	--	211.14	344.71	0.03	--
26	13	-5731.03	0.04	--	342.05	345.30	0.04	--
28	14	-5820.44	0.04	--	202.05	269.45	0.02	--
30	15	-5586.04	0.04	--	90.13	328.26	0.02	--
32	16	-5459.58	0.03	--	11.97	345.67	0.01	--

Palo n. 27

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-2359.51	0.01	23.17	2763.77	875.80	0.33	1.82
3	2	-1928.30	0.01	--	430.86	667.87	0.06	--
5	3	-15841.10	0.10	3.45	1457.61	1471.62	0.20	2.47
7	4	-5852.66	0.04	--	797.07	98.81	0.06	--
9	5	-16493.60	0.11	3.31	3485.11	1470.36	0.51	1.54
11	6	-9569.12	0.06	--	754.41	545.83	0.08	--
13	7	7266.31	-0.13	1.49	2573.41	2286.87	0.42	1.71
15	8	-1738.37	0.01	--	1007.95	589.51	0.10	--
17	9	-8649.37	0.05	6.32	520.09	309.77	0.05	6.53
19	10	-9268.34	0.06	5.90	861.02	354.07	0.08	4.07
21	11	-7054.07	0.04	7.75	296.90	352.49	0.03	6.53
23	12	-6249.09	0.04	--	346.89	235.64	0.03	--
25	13	-6661.74	0.04	--	574.18	258.90	0.05	--
27	14	-5185.56	0.03	--	198.03	267.13	0.02	--
29	15	-5408.51	0.03	--	127.04	241.97	0.02	--
31	16	-5065.09	0.03	--	5.81	250.05	0.01	--

Relazione di calcolo

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-2359.51	0.01	23.02	2763.77	875.80	0.33	1.82
4	2	-1928.30	0.01	--	430.86	667.87	0.06	--
6	3	-15841.10	0.10	3.43	1457.61	1471.62	0.20	2.47
8	4	-5852.66	0.04	--	797.07	98.81	0.06	--
10	5	-16493.60	0.11	3.29	3485.11	1470.36	0.51	1.54
12	6	-9569.12	0.06	--	754.41	545.83	0.08	--
14	7	7266.31	-0.13	1.46	2573.41	2286.87	0.42	1.71
16	8	-1738.37	0.01	--	1007.95	589.51	0.10	--
18	9	-8649.37	0.05	6.28	520.09	309.77	0.05	6.53
20	10	-9268.34	0.06	5.86	861.02	354.07	0.08	4.07
22	11	-7054.07	0.04	7.70	296.90	352.49	0.03	6.53
24	12	-6249.09	0.04	--	346.89	235.64	0.03	--
26	13	-6661.74	0.04	--	574.18	258.90	0.05	--
28	14	-5185.56	0.03	--	198.03	267.13	0.02	--
30	15	-5408.51	0.03	--	127.04	241.97	0.02	--
32	16	-5065.09	0.03	--	5.81	250.05	0.01	--

Palo n. 26

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1m}=34928.60 <daN>
 q_p=67.21 <daN/cm>
 QP_{1m}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1m}=34235.40 <daN>
 q_p=67.21 <daN/cm>
 QP_{1m}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-6955.12	0.04	7.86	2755.39	770.45	0.32	1.84
3	2	-7352.40	0.05	--	425.45	344.42	0.04	--
5	3	-182.44	0.00	299.66	1462.48	1466.51	0.20	2.47
7	4	-5380.94	0.03	--	800.34	416.83	0.08	--
9	5	-2669.76	-0.00	20.48	3476.55	711.09	0.44	1.61
11	6	-3337.43	0.02	--	751.65	439.31	0.07	--
13	7	-13975.40	0.09	3.91	2571.63	1244.94	0.33	1.84
15	8	-7542.85	0.05	--	1009.33	314.39	0.09	--
17	9	-7896.39	0.05	6.92	516.43	244.01	0.04	6.53
19	10	-7079.54	0.04	7.72	857.23	239.02	0.07	4.25
21	11	-8369.50	0.05	6.53	272.32	228.70	0.03	6.53
23	12	-5755.57	0.04	--	344.39	182.49	0.03	--
25	13	-5211.00	0.03	--	571.59	181.46	0.05	--
27	14	-6070.98	0.04	--	181.56	164.97	0.02	--
29	15	-5697.91	0.04	--	122.87	174.34	0.02	--
31	16	-5735.86	0.04	--	2.55	183.37	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-6955.12	0.04	7.81	2755.39	770.45	0.32	1.84
4	2	-7352.40	0.05	--	425.45	344.42	0.04	--
6	3	-182.44	0.00	297.72	1462.48	1466.51	0.20	2.47
8	4	-5380.94	0.03	--	800.34	416.83	0.08	--
10	5	-2669.76	-0.00	20.34	3476.55	711.09	0.44	1.61
12	6	-3337.43	0.02	--	751.65	439.31	0.07	--
14	7	-13975.40	0.09	3.89	2571.63	1244.94	0.33	1.84
16	8	-7542.85	0.05	--	1009.33	314.39	0.09	--
18	9	-7896.39	0.05	6.88	516.43	244.01	0.04	6.53
20	10	-7079.54	0.04	7.67	857.23	239.02	0.07	4.25
22	11	-8369.50	0.05	6.49	272.32	228.70	0.03	6.53
24	12	-5755.57	0.04	--	344.39	182.49	0.03	--
26	13	-5211.00	0.03	--	571.59	181.46	0.05	--
28	14	-6070.98	0.04	--	181.56	164.97	0.02	--
30	15	-5697.91	0.04	--	122.87	174.34	0.02	--
32	16	-5735.86	0.04	--	2.55	183.37	0.01	--

Palo n. 25

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ _s <daN/cm ^q >	k _s <daN/cm ^c >	σ _h <daN/cm ^q >	k _h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm^q>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm^c>

Verifiche in condizioni non drenate

Zp <m>	τ _s <daN/cm ^q >	k _s <daN/cm ^c >	σ _h <daN/cm ^q >	k _h <daN/cm ^c >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm^q>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm^c>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-9442.85	0.06	5.79	2741.19	2140.98	0.44	1.68
3	2	-9775.58	0.06	--	424.78	715.00	0.06	--
5	3	-3205.80	0.02	17.05	1455.37	2871.45	0.30	2.06
7	4	-7960.03	0.05	--	797.41	777.13	0.09	--
9	5	-2663.16	0.02	20.53	3458.93	539.87	0.42	1.64
11	6	-6110.51	0.04	--	746.02	644.41	0.08	--
13	7	-15796.70	0.10	3.46	2564.02	1508.24	0.35	1.81
15	8	-9933.53	0.06	--	1006.84	139.64	0.08	--
17	9	-12801.30	0.08	4.27	509.82	417.09	0.05	5.95
19	10	-11517.40	0.07	4.75	849.71	411.66	0.08	4.03
21	11	-13058.80	0.08	4.19	261.73	364.46	0.03	6.53
23	12	-9030.85	0.06	--	339.88	289.68	0.03	--
25	13	-8174.96	0.05	--	566.48	286.38	0.05	--
27	14	-9202.54	0.06	--	174.56	247.15	0.02	--
29	15	-8452.11	0.05	--	119.78	237.80	0.02	--
31	16	-8294.35	0.05	--	1.03	229.52	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-9442.85	0.06	5.75	2741.19	2140.98	0.44	1.68
4	2	-9775.58	0.06	--	424.78	715.00	0.06	--
6	3	-3205.80	0.02	16.94	1455.37	2871.45	0.30	2.06
8	4	-7960.03	0.05	--	797.41	777.13	0.09	--
10	5	-2663.16	0.02	20.39	3458.93	539.87	0.42	1.64
12	6	-6110.51	0.04	--	746.02	644.41	0.08	--
14	7	-15796.70	0.10	3.44	2564.02	1508.24	0.35	1.81
16	8	-9933.53	0.06	--	1006.84	139.64	0.08	--
18	9	-12801.30	0.08	4.24	509.82	417.09	0.05	5.95
20	10	-11517.40	0.07	4.72	849.71	411.66	0.08	4.03
22	11	-13058.80	0.08	4.16	261.73	364.46	0.03	6.53
24	12	-9030.85	0.06	--	339.88	289.68	0.03	--
26	13	-8174.96	0.05	--	566.48	286.38	0.05	--
28	14	-9202.54	0.06	--	174.56	247.15	0.02	--
30	15	-8452.11	0.05	--	119.78	237.80	0.02	--
32	16	-8294.35	0.05	--	1.03	229.52	0.01	--

Palo n. 24

Tipo palo=Trivellato

Rotazione testa libera

Coefficiente di efficienza=1.00

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm>	σ_h <daN/cm ² >	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>

q_p=67.21 <daN/cm²>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-14225.50	0.09	3.84	2554.43	3051.35	0.48	1.65
3	2	-11831.40	0.07	--	500.25	662.56	0.06	--
5	3	-10992.90	0.07	4.97	1701.86	2645.75	0.31	2.00
7	4	-10890.50	0.07	--	746.86	992.43	0.10	--
9	5	-15350.10	0.10	3.56	3314.83	1792.81	0.51	1.55
11	6	-12439.40	0.08	--	784.11	186.10	0.06	--
13	7	-8904.50	0.06	6.14	2728.43	447.22	0.29	1.92
15	8	-10563.10	0.07	--	973.22	613.04	0.10	--
17	9	-19396.40	0.14	2.82	498.88	127.22	0.04	6.53
19	10	-18297.50	0.13	2.99	839.58	155.76	0.07	4.48
21	11	-18555.70	0.13	2.95	257.60	141.10	0.02	6.53
23	12	-13592.00	0.09	--	332.38	100.52	0.03	--
25	13	-12859.40	0.08	--	559.50	118.89	0.04	--
27	14	-13031.50	0.08	--	171.95	84.36	0.01	--
29	15	-12163.60	0.08	--	114.29	70.18	0.01	--

Relazione di calcolo

31	16	-11642.40	0.07	--	8.32	93.83	0.00	--
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Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-14225.50	0.09	3.82	2554.43	3051.35	0.48	1.65
4	2	-11831.40	0.07	--	500.25	662.56	0.06	--
6	3	-10992.90	0.07	4.94	1701.86	2645.75	0.31	2.00
8	4	-10890.50	0.07	--	746.86	992.43	0.10	--
10	5	-15350.10	0.10	3.54	3314.83	1792.81	0.51	1.55
12	6	-12439.40	0.08	--	784.11	186.10	0.06	--
14	7	-8904.50	0.06	6.10	2728.43	447.22	0.29	1.92
16	8	-10563.10	0.07	--	973.22	613.04	0.10	--
18	9	-19396.40	0.14	2.80	498.88	127.22	0.04	6.53
20	10	-18297.50	0.13	2.97	839.58	155.76	0.07	4.48
22	11	-18555.70	0.13	2.93	257.60	141.10	0.02	6.53
24	12	-13592.00	0.09	--	332.38	100.52	0.03	--
26	13	-12859.40	0.08	--	559.50	118.89	0.04	--
28	14	-13031.50	0.08	--	171.95	84.36	0.01	--
30	15	-12163.60	0.08	--	114.29	70.18	0.01	--
32	16	-11642.40	0.07	--	8.32	93.83	0.00	--

Palo n. 19

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-11699.70	0.07	4.67	1571.54	2240.44	0.27	2.13
3	2	-11446.80	0.07	--	487.59	796.80	0.07	--
5	3	-11403.00	0.07	4.79	1660.77	2655.31	0.31	2.01
7	4	-11360.40	0.07	--	466.16	634.68	0.06	--
9	5	-11863.00	0.08	4.61	1332.29	142.87	0.11	3.47
11	6	-11535.00	0.07	--	405.55	425.78	0.04	--
13	7	-11099.80	0.07	4.93	1467.56	1496.51	0.20	2.46
15	8	-11312.90	0.07	--	412.70	62.96	0.03	--
17	9	-18679.90	0.13	2.93	407.09	105.66	0.03	6.53
19	10	-17497.60	0.12	3.12	705.30	124.94	0.05	5.46
21	11	-18667.10	0.13	2.93	252.63	250.40	0.03	6.53
23	12	-13122.80	0.08	--	271.13	85.32	0.02	--
25	13	-12334.60	0.08	--	469.94	98.35	0.04	--
27	14	-13114.20	0.08	--	168.49	172.62	0.02	--

Relazione di calcolo

29	15	-11951.90	0.08	--	85.57	91.71	0.01	--
31	16	-11436.90	0.07	--	19.50	80.12	0.00	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-11699.70	0.07	4.64	1571.54	2240.44	0.27	2.13
4	2	-11446.80	0.07	--	487.59	796.80	0.07	--
6	3	-11403.00	0.07	4.76	1660.77	2655.31	0.31	2.01
8	4	-11360.40	0.07	--	466.16	634.68	0.06	--
10	5	-11863.00	0.08	4.58	1332.29	142.87	0.11	3.47
12	6	-11535.00	0.07	--	405.55	425.78	0.04	--
14	7	-11099.80	0.07	4.89	1467.56	1496.51	0.20	2.46
16	8	-11312.90	0.07	--	412.70	62.96	0.03	--
18	9	-18679.90	0.13	2.91	407.09	105.66	0.03	6.53
20	10	-17497.60	0.12	3.10	705.30	124.94	0.05	5.46
22	11	-18667.10	0.13	2.91	252.63	250.40	0.03	6.53
24	12	-13122.80	0.08	--	271.13	85.32	0.02	--
26	13	-12334.60	0.08	--	469.94	98.35	0.04	--
28	14	-13114.20	0.08	--	168.49	172.62	0.02	--
30	15	-11951.90	0.08	--	85.57	91.71	0.01	--
32	16	-11436.90	0.07	--	19.50	80.12	0.00	--

Palo n. 20

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1m}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{1m}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	k_s <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{1m}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{1m}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-8449.41	0.05	6.47	1847.68	2205.92	0.30	2.01
3	2	-8547.33	0.05	--	408.99	557.50	0.05	--
5	3	-7982.36	0.05	6.85	1405.67	1796.25	0.21	2.40
7	4	-8411.38	0.05	--	547.80	633.45	0.06	--
9	5	-7809.79	0.05	7.00	1637.54	1250.62	0.21	2.40
11	6	-8201.55	0.05	--	309.22	125.33	0.03	--
13	7	-9170.23	0.06	5.96	1141.79	143.01	0.09	3.71
15	8	-8597.56	0.05	--	495.93	366.18	0.05	--
17	9	-13357.10	0.08	4.09	407.87	251.40	0.04	6.53
19	10	-12458.20	0.08	4.39	704.79	222.47	0.06	5.04
21	11	-13510.10	0.09	4.05	260.28	318.90	0.03	6.53
23	12	-9440.86	0.06	--	271.67	165.27	0.02	--
25	13	-8841.61	0.06	--	469.61	146.00	0.04	--

Relazione di calcolo

27	14	-9542.86	0.06	--	173.54	210.84	0.02	--
29	15	-8728.87	0.06	--	86.17	144.10	0.01	--
31	16	-8419.95	0.05	--	17.92	128.18	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-8449.41	0.05	6.43	1847.68	2205.92	0.30	2.01
4	2	-8547.33	0.05	--	408.99	557.50	0.05	--
6	3	-7982.36	0.05	6.80	1405.67	1796.25	0.21	2.40
8	4	-8411.38	0.05	--	547.80	633.45	0.06	--
10	5	-7809.79	0.05	6.95	1637.54	1250.62	0.21	2.40
12	6	-8201.55	0.05	--	309.22	125.33	0.03	--
14	7	-9170.23	0.06	5.92	1141.79	143.01	0.09	3.71
16	8	-8597.56	0.05	--	495.93	366.18	0.05	--
18	9	-13357.10	0.08	4.07	407.87	251.40	0.04	6.53
20	10	-12458.20	0.08	4.36	704.79	222.47	0.06	5.04
22	11	-13510.10	0.09	4.02	260.28	318.90	0.03	6.53
24	12	-9440.86	0.06	--	271.67	165.27	0.02	--
26	13	-8841.61	0.06	--	469.61	146.00	0.04	--
28	14	-9542.86	0.06	--	173.54	210.84	0.02	--
30	15	-8728.87	0.06	--	86.17	144.10	0.01	--
32	16	-8419.95	0.05	--	17.92	128.18	0.01	--

Palo n. 21

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

z _p <m>	τ _s <daN/cm ² >	k _s <daN/cm ² >	σ _h <daN/cm ² >	k _h <daN/cm ² >
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7290.66	0.05	7.50	1854.25	313.28	0.17	2.53
3	2	-7047.55	0.04	--	408.79	119.00	0.03	--
5	3	-6962.98	0.04	7.85	1411.88	248.73	0.12	3.12
7	4	-6952.17	0.04	--	551.46	147.67	0.04	--
9	5	-7405.42	0.05	7.38	1644.20	223.29	0.15	2.76
11	6	-7109.59	0.04	--	310.37	51.88	0.02	--
13	7	-6749.85	0.04	8.10	1145.40	244.56	0.10	3.63
15	8	-6918.76	0.04	--	498.86	154.26	0.04	--
17	9	-10144.10	0.06	5.39	408.78	180.28	0.03	6.53
19	10	-9882.57	0.06	5.53	706.16	120.14	0.05	5.47
21	11	-10089.00	0.06	5.42	272.41	224.60	0.03	6.53
23	12	-7474.92	0.05	--	272.27	109.55	0.02	--

Relazione di calcolo

25	13	-7300.59	0.05	--	470.53	69.53	0.03	--
27	14	-7438.22	0.05	--	181.61	139.18	0.02	--
29	15	-7164.85	0.05	--	86.61	97.45	0.01	--
31	16	-7028.48	0.04	--	17.92	92.97	0.00	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-7290.66	0.05	7.45	1854.25	313.28	0.17	2.53
4	2	-7047.55	0.04	--	408.79	119.00	0.03	--
6	3	-6962.98	0.04	7.80	1411.88	248.73	0.12	3.12
8	4	-6952.17	0.04	--	551.46	147.67	0.04	--
10	5	-7405.42	0.05	7.33	1644.20	223.29	0.15	2.76
12	6	-7109.59	0.04	--	310.37	51.88	0.02	--
14	7	-6749.85	0.04	8.05	1145.40	244.56	0.10	3.63
16	8	-6918.76	0.04	--	498.86	154.26	0.04	--
18	9	-10144.10	0.06	5.35	408.78	180.28	0.03	6.53
20	10	-9882.57	0.06	5.50	706.16	120.14	0.05	5.47
22	11	-10089.00	0.06	5.38	272.41	224.60	0.03	6.53
24	12	-7474.92	0.05	--	272.27	109.55	0.02	--
26	13	-7300.59	0.05	--	470.53	69.53	0.03	--
28	14	-7438.22	0.05	--	181.61	139.18	0.02	--
30	15	-7164.85	0.05	--	86.61	97.45	0.01	--
32	16	-7028.48	0.04	--	17.92	92.97	0.00	--

Palo n. 12

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm ² >	$\tau_{s,t}$ <daN/cm ² >	k_s <daN/cm ² >	$k_{s,t}$ <daN/cm ² >	σ_h <daN/cm ² >	k_h <daN/cm ² >
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-16288.00	0.10	3.36	1739.03	1639.09	0.25	2.17
3	2	-5759.73	0.04	--	778.94	91.04	0.06	--
5	3	-2962.97	0.02	18.45	2733.54	986.31	0.34	1.81
7	4	-1880.95	0.01	--	515.08	742.49	0.07	--
9	5	-22115.70	0.17	2.47	3051.23	2310.12	0.51	1.58
11	6	-8910.13	0.06	--	1086.01	492.94	0.10	--
13	7	4718.20	-0.06	2.30	3675.18	1886.58	0.59	1.47
15	8	-184.58	0.00	--	874.58	876.05	0.10	--
17	9	-9179.71	0.06	5.96	613.86	359.16	0.06	5.19

Relazione di calcolo

19	10	-10029.10	0.06	5.45	1005.60	430.00	0.09	3.71
21	11	-7371.28	0.05	7.42	308.27	315.79	0.03	6.53
23	12	-6592.98	0.04	--	409.42	265.46	0.04	--
25	13	-7159.26	0.05	--	670.58	304.79	0.06	--
27	14	-5387.37	0.03	--	205.42	242.26	0.02	--
29	15	-5586.83	0.04	--	149.06	254.18	0.02	--
31	16	-5129.17	0.03	--	13.29	273.92	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-16288.00	0.10	3.33	1739.03	1639.09	0.25	2.17
4	2	-5759.73	0.04	--	778.94	91.04	0.06	--
6	3	-2962.97	0.02	18.33	2733.54	986.31	0.34	1.81
8	4	-1880.95	0.01	--	515.08	742.49	0.07	--
10	5	-22115.70	0.17	2.46	3051.23	2310.12	0.51	1.58
12	6	-8910.13	0.06	--	1086.01	492.94	0.10	--
14	7	4718.20	-0.06	2.25	3675.18	1886.58	0.59	1.47
16	8	-184.58	0.00	--	874.58	876.05	0.10	--
18	9	-9179.71	0.06	5.92	613.86	359.16	0.06	5.19
20	10	-10029.10	0.06	5.42	1005.60	430.00	0.09	3.71
22	11	-7371.28	0.05	7.37	308.27	315.79	0.03	6.53
24	12	-6592.98	0.04	--	409.42	265.46	0.04	--
26	13	-7159.26	0.05	--	670.58	304.79	0.06	--
28	14	-5387.37	0.03	--	205.42	242.26	0.02	--
30	15	-5586.83	0.04	--	149.06	254.18	0.02	--
32	16	-5129.17	0.03	--	13.29	273.92	0.01	--

Palo n. 13

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ _s <daN/cm²>	τ _{s,t} <daN/cm²>	k _s <daN/cm²>	k _{s,t} <daN/cm²>	σ _h <daN/cm²>	k _h <daN/cm²>
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.51	0.33	0.22	0.22	11.58	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 QS_{lim,t}=23052.90 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τ _s <daN/cm²>	τ _{s,t} <daN/cm²>	k _s <daN/cm²>	k _{s,t} <daN/cm²>	σ _h <daN/cm²>	k _h <daN/cm²>
0.00	0.00	0.00	0.50	0.50	0.00	5.00
6.00	0.42	0.28	0.22	0.22	9.34	2.50
8.00	0.40	0.26	0.22	0.22	4.00	2.50
8.50	0.45	0.29	6.25	6.25	17.54	65.00
10.00	0.49	0.32	6.25	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 QS_{lim,t}=22595.40 <daN>
 q_p=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-2513.07	-0.00	21.75	1735.13	1545.71	0.24	2.20
3	2	-5327.75	0.03	--	779.50	419.82	0.07	--
5	3	-7070.28	0.04	7.73	2726.35	809.12	0.32	1.85
7	4	-7568.80	0.05	--	511.97	372.23	0.05	--
9	5	625.10	-0.03	17.35	3045.13	1433.52	0.43	1.66
11	6	-3631.28	0.02	--	1082.80	262.88	0.09	--

Relazione di calcolo

13	7	-12898.30	0.08	4.24	3671.59	902.48	0.50	1.54
15	8	-8482.28	0.05	--	874.36	418.59	0.08	--
17	9	-7679.87	0.05	7.12	610.15	231.19	0.05	5.91
19	10	-6723.61	0.04	8.13	1001.64	243.23	0.08	3.87
21	11	-8334.57	0.05	6.56	271.66	318.49	0.03	6.53
23	12	-5606.85	0.04	--	406.89	175.10	0.03	--
25	13	-4969.34	0.03	--	667.88	184.85	0.05	--
27	14	-6043.31	0.04	--	181.06	230.76	0.02	--
29	15	-5634.90	0.04	--	146.18	183.23	0.02	--
31	16	-5720.62	0.04	--	11.34	175.81	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-2513.07	-0.00	21.61	1735.13	1545.71	0.24	2.20
4	2	-5327.75	0.03	--	779.50	419.82	0.07	--
6	3	-7070.28	0.04	7.68	2726.35	809.12	0.32	1.85
8	4	-7568.80	0.05	--	511.97	372.23	0.05	--
10	5	625.10	-0.03	17.01	3045.13	1433.52	0.43	1.66
12	6	-3631.28	0.02	--	1082.80	262.88	0.09	--
14	7	-12898.30	0.08	4.21	3671.59	902.48	0.50	1.54
16	8	-8482.28	0.05	--	874.36	418.59	0.08	--
18	9	-7679.87	0.05	7.07	610.15	231.19	0.05	5.91
20	10	-6723.61	0.04	8.08	1001.64	243.23	0.08	3.87
22	11	-8334.57	0.05	6.52	271.66	318.49	0.03	6.53
24	12	-5606.85	0.04	--	406.89	175.10	0.03	--
26	13	-4969.34	0.03	--	667.88	184.85	0.05	--
28	14	-6043.31	0.04	--	181.06	230.76	0.02	--
30	15	-5634.90	0.04	--	146.18	183.23	0.02	--
32	16	-5720.62	0.04	--	11.34	175.81	0.01	--

Palo n. 11

Tipo palo=Trivellato

Rotazione testa libera

Coefficiente di efficienza=1.00

Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>

Colonna stratigrafica numero 1 Colonna stratigrafica

Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>

q_p=67.21 <daN/cm>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>

q_p=67.21 <daN/cm>

QP_{lim}=84462.20 <daN>

k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-2551.35	0.02	21.43	1718.63	2914.63	0.33	1.96
3	2	-7973.57	0.05	--	771.85	756.76	0.09	--
5	3	-9623.09	0.06	5.68	2722.11	2219.98	0.44	1.68
7	4	-10032.10	0.06	--	524.16	769.75	0.07	--
9	5	-2898.80	-0.00	18.86	3025.98	1839.05	0.46	1.64

Relazione di calcolo

11	6	-6463.07	0.04	--	1075.69	326.45	0.09	--
13	7	-14812.20	0.09	3.69	3659.03	146.21	0.42	1.62
15	8	-10845.40	0.07	--	877.97	431.71	0.08	--
17	9	-12719.70	0.08	4.30	603.84	420.56	0.06	5.03
19	10	-11302.10	0.07	4.84	993.80	421.89	0.09	3.73
21	11	-13117.60	0.08	4.17	228.71	439.53	0.03	6.53
23	12	-8974.63	0.06	--	402.59	290.28	0.04	--
25	13	-8029.60	0.05	--	662.55	291.83	0.06	--
27	14	-9239.90	0.06	--	152.21	307.58	0.02	--
29	15	-8461.18	0.05	--	139.76	249.28	0.02	--
31	16	-8345.47	0.05	--	19.04	220.83	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-2551.35	0.02	21.29	1718.63	2914.63	0.33	1.96
4	2	-7973.57	0.05	--	771.85	756.76	0.09	--
6	3	-9623.09	0.06	5.64	2722.11	2219.98	0.44	1.68
8	4	-10032.10	0.06	--	524.16	769.75	0.07	--
10	5	-2898.80	-0.00	18.74	3025.98	1839.05	0.46	1.64
12	6	-6463.07	0.04	--	1075.69	326.45	0.09	--
14	7	-14812.20	0.09	3.67	3659.03	146.21	0.42	1.62
16	8	-10845.40	0.07	--	877.97	431.71	0.08	--
18	9	-12719.70	0.08	4.27	603.84	420.56	0.06	5.03
20	10	-11302.10	0.07	4.81	993.80	421.89	0.09	3.73
22	11	-13117.60	0.08	4.14	228.71	439.53	0.03	6.53
24	12	-8974.63	0.06	--	402.59	290.28	0.04	--
26	13	-8029.60	0.05	--	662.55	291.83	0.06	--
28	14	-9239.90	0.06	--	152.21	307.58	0.02	--
30	15	-8461.18	0.05	--	139.76	249.28	0.02	--
32	16	-8345.47	0.05	--	19.04	220.83	0.01	--

Palo n. 16

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 q_p=67.21 <daN/cm>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni non drenate

Zp <m>	τ_s <daN/cm>	k_s <daN/cm>	σ_h <daN/cm>	k_h <daN/cm>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 q_p=67.21 <daN/cm>
 QP_{lim}=84462.20 <daN>
 k_p=45.47 <daN/cm>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-11052.40	0.07	4.95	1425.09	2674.34	0.28	2.11
3	2	-10811.40	0.07	--	822.70	1002.53	0.11	--
5	3	-14345.10	0.09	3.81	2848.43	3106.84	0.54	1.56
7	4	-11769.80	0.07	--	422.61	676.30	0.06	--

Relazione di calcolo

9	5	-14749.70	0.09	3.71	2868.86	565.49	0.33	1.82
11	6	-12810.10	0.08	--	1102.44	499.25	0.11	--
13	7	-7478.64	0.05	7.31	3772.27	1982.13	0.62	1.45
15	8	-10693.60	0.07	--	832.46	155.88	0.07	--
17	9	-19434.60	0.14	2.81	592.18	127.15	0.04	6.53
19	10	-18396.10	0.13	2.97	983.32	166.31	0.08	4.00
21	11	-18461.40	0.13	2.96	232.45	336.87	0.03	6.53
23	12	-13614.30	0.09	--	394.58	100.01	0.03	--
25	13	-12922.00	0.08	--	655.34	125.05	0.05	--
27	14	-12965.50	0.08	--	154.77	238.43	0.02	--
29	15	-12142.30	0.08	--	134.78	119.50	0.01	--
31	16	-11608.10	0.07	--	6.06	88.38	0.00	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-11052.40	0.07	4.91	1425.09	2674.34	0.28	2.11
4	2	-10811.40	0.07	--	822.70	1002.53	0.11	--
6	3	-14345.10	0.09	3.79	2848.43	3106.84	0.54	1.56
8	4	-11769.80	0.07	--	422.61	676.30	0.06	--
10	5	-14749.70	0.09	3.68	2868.86	565.49	0.33	1.82
12	6	-12810.10	0.08	--	1102.44	499.25	0.11	--
14	7	-7478.64	0.05	7.26	3772.27	1982.13	0.62	1.45
16	8	-10693.60	0.07	--	832.46	155.88	0.07	--
18	9	-19434.60	0.14	2.79	592.18	127.15	0.04	6.53
20	10	-18396.10	0.13	2.95	983.32	166.31	0.08	4.00
22	11	-18461.40	0.13	2.94	232.45	336.87	0.03	6.53
24	12	-13614.30	0.09	--	394.58	100.01	0.03	--
26	13	-12922.00	0.08	--	655.34	125.05	0.05	--
28	14	-12965.50	0.08	--	154.77	238.43	0.02	--
30	15	-12142.30	0.08	--	134.78	119.50	0.01	--
32	16	-11608.10	0.07	--	6.06	88.38	0.00	--

Palo n. 15

Tipo palo=Trivellato
 Rotazione testa libera
 Coefficiente di efficienza=1.00
 Dp=0.400000 <m> Lp=10.000000 <m> Wp=3141.59 <daN> D=0.00 <m>
 Colonna stratigrafica numero 1 Colonna stratigrafica
 Verifiche in condizioni drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.51	0.22	11.58	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34928.60 <daN>
 qp=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni non drenate

Zp <m>	τs <daN/cm²>	ks <daN/cm²>	σh <daN/cm²>	kh <daN/cm²>
0.00	0.00	0.50	0.00	5.00
6.00	0.42	0.22	9.34	2.50
8.00	0.40	0.22	4.00	2.50
8.50	0.45	6.25	17.54	65.00
10.00	0.49	6.25	19.30	65.00

QS_{lim}=34235.40 <daN>
 qp=67.21 <daN/cm²>
 QP_{lim}=84462.20 <daN>
 kp=45.47 <daN/cm²>

Verifiche in condizioni drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
1	1	-7686.24	0.05	7.11	1388.23	1855.07	0.22	2.39
3	2	-6345.72	0.04	--	501.57	738.95	0.07	--
5	3	-4593.32	0.03	11.90	1815.61	1939.22	0.28	2.06

Relazione di calcolo

7	4	-5445.40	0.03	--	431.42	372.35	0.04	--
9	5	-7045.09	0.04	7.76	715.71	139.76	0.06	5.29
11	6	-5999.11	0.04	--	401.60	213.00	0.04	--
13	7	-5784.02	0.04	9.45	1302.29	1288.29	0.17	2.64
15	8	-5632.03	0.04	--	204.50	149.84	0.02	--
17	9	-9176.82	0.06	5.96	327.04	236.24	0.03	6.53
19	10	-8752.57	0.06	6.25	537.97	220.01	0.04	6.53
21	11	-8919.06	0.06	6.13	499.95	530.45	0.06	5.41
23	12	-6564.64	0.04	--	218.24	166.53	0.02	--
25	13	-6281.81	0.04	--	358.84	155.80	0.03	--
27	14	-6392.81	0.04	--	332.94	361.48	0.04	--
29	15	-6105.30	0.04	--	88.67	190.27	0.01	--
31	16	-5950.62	0.04	--	21.23	147.16	0.01	--

Verifiche in condizioni non drenate

Caso	CC	N <daN>	Ced <cm>	Sic.V	T <daN>	M <daNm>	Sps <cm>	Sic.O
2	1	-7686.24	0.05	7.07	1388.23	1855.07	0.22	2.39
4	2	-6345.72	0.04	--	501.57	738.95	0.07	--
6	3	-4593.32	0.03	11.82	1815.61	1939.22	0.28	2.06
8	4	-5445.40	0.03	--	431.42	372.35	0.04	--
10	5	-7045.09	0.04	7.71	715.71	139.76	0.06	5.29
12	6	-5999.11	0.04	--	401.60	213.00	0.04	--
14	7	-5784.02	0.04	9.39	1302.29	1288.29	0.17	2.64
16	8	-5632.03	0.04	--	204.50	149.84	0.02	--
18	9	-9176.82	0.06	5.92	327.04	236.24	0.03	6.53
20	10	-8752.57	0.06	6.21	537.97	220.01	0.04	6.53
22	11	-8919.06	0.06	6.09	499.95	530.45	0.06	5.41
24	12	-6564.64	0.04	--	218.24	166.53	0.02	--
26	13	-6281.81	0.04	--	358.84	155.80	0.03	--
28	14	-6392.81	0.04	--	332.94	361.48	0.04	--
30	15	-6105.30	0.04	--	88.67	190.27	0.01	--
32	16	-5950.62	0.04	--	21.23	147.16	0.01	--