1	9/2018	REVISIONE	TRESSO	BERTERO	CASSANI
0	11/2017	PRIMA EMISSIONE	TRESSO	BERTERO	CASSANI
Revisione	**Data**	**Oggetto revisione**	**Redatto**	**Verificato**	**Approvato**

REGIONE LIGURIA

#ItaliaSicura
Presidenza del Consiglio dei Ministri

COMUNE DI GENOVA

PIANO STRALCIO PER LE AREE METROPOLITANE E LE AREE URBANE CON ALTO LIVELLO DI POPOLAZIONE ESPOSTA AL RISCHIO DI ALLUVIONI

Presidenza del Consiglio dei Ministri

PRESIDENZA DEL CONSIGLIO DEI MINISTRI
COMMISSARIO STRAORDINARIO
delegato per l'attuazione degli interventi inseriti nell'A.d.P. del 16.09.2010 e ss.ii.
(ex art. 10 del D.L. n. 91 del 24.06.2014)

Commissario straordinario
Dott. Giovanni TOTI

PROGETTISTI

CAPOGRUPPO MANDATARIA:

ROCKSOIL S.p.A.
CONSULENZA E ASSISTENZA TECNICA
nel campo della GEOINGEGNERIA

MANDANTI:

art ambiente risorse territorio

HYDRODATA INGEGNERIA DELLE RISORSE IDRICHE

Ing. Mario CANGIANO

Ing. Paolo GALLO

Ing. Francesco DE SANCTIS

Dott.ssa Francesca GIOMI

RESPONSABILE STRUTTURA COMMISSARIALE: **Ing. Luca BERRUTI**

RESPONSABILE UNICO PROCEDIMENTO: **Ing. Stefano PINASCO**

Progettista responsabile integrazioni prestazioni specialistiche e Direttore Tecnico della mandataria.
Rocksoil S.p.A.
Ing. Giovanna Cassani
Ord. Ingg. Milano N° 20997



Progettista/Progettisti responsabili elaborato
Hydrodata S.p.A.
Ing. Roberto Bertero
Ord. Ingg. Torino N° 7570L



Intervento/Opera

SECONDO LOTTO DEI LAVORI RELATIVI ALLA REALIZZAZIONE DELLA GALLERIA SCOLMATRICE DEL TORRENTE BISAGNO IN COMUNE DI GENOVA

PROGETTO ESECUTIVO

N° Progr.: ----

Codice elaborato: BIS2E - H - ALV04 - RE01 - 1

Oggetto della tavola

OPERE IN ALVEO

EDIFICIO DI CONTROLLO

Relazione di calcolo

Scala:

Data: 14 SETT. 2018

Codice FILE: BIS2E-H-ALV04-RE01-1.DWG

I DISEGNI E LE INFORMAZIONI IN ESSI CONTENUTE SONO PROPRIETA' ESCLUSIVA DELLA STRUTTURA COMMISSARIALE E NON POSSONO ESSERE MODIFICATI, RIPRODOTTI, RESI PUBBLICI O UTILIZZATI PER USI DIFFERENTI DA QUELLI PER CUI SONO STATI REDATTI, SALVO AUTORIZZAZIONE SCRITTA.

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3 MATERIALI STRUTTURALI PREVISTI IN PROGETTO 3
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1 GENERALITA'

La presente relazione di calcolo strutturale è relativa alla realizzazione dell'**Edificio di controllo all'opera di sbarramento** nell'ambito del progetto esecutivo "Secondo lotto dei lavori relativi alla realizzazione della galleria scolmatrice del torrente Bisagno in Comune di Genova".

Nello specifico vengono riportate nel seguito le analisi e le verifiche dei seguenti manufatti facenti parte dell'opera sopraccitata, in condizioni statiche e sismiche, in accordo alle vigenti normative NTC 2008:

- **Edificio di controllo all'opera di sbarramento** con struttura a telaio in cemento armato ordinario, gettato in opera e solaio di copertura in latero cemento. L'edificio ha dimensioni massime in pianta 11.30 x 11.30 m, la soletta di copertura in latero-cemento di spessore 20+4 = 24 cm è portata da travi in c.a. di sezione variabile da un minimo di 40x24 cm sino ad un massimo di 50x24 cm. Tali travi sono incastrate su pilastri di sezione 30x30 cm che sono a loro volti incastrati nella soletta di impalcato posta superiormente all'opera di presa di spessore 30 cm su travi precompresse ad U. (Allegato 1)

Nel seguito si riportano le analisi e le verifiche, eseguite con il metodo degli stati limite, in condizioni statiche e dinamiche delle opere in oggetto, attraverso la modellazione agli elementi finiti tridimensionale.

I manufatti non riportati in relazione sono stati analizzati e verificati in maniera analoga.

Il Comune di Genova dove è localizzato l'intervento, è sismico di tipo 3.

2 NORMATIVA VIGENTE

• D.M. 14 gennaio 2008 – "Nuove Norma Tecniche per le costruzioni"

• Circolare 2 febbraio 2009, n. 617 – "Istruzioni per l'applicazione delle " Nuove Norme Tecniche per le Costruzioni" di cui al D.M. 14 gennaio 2008".

• UNI EN 1992 - Progettazione delle strutture in calcestruzzo armato

• UNI EN 1993 - Progettazione delle strutture in acciaio

• UNI EN 1997 - Progettazione geotecnica

• UNI EN 1998 - Progettazione delle strutture per la resistenza sismica

3 MATERIALI STRUTTURALI PREVISTI IN PROGETTO

3.1 Acciaio per barre di armatura

- Tipo B450C
- f_{yk} = tensione caratteristica di snervamento = 450 N/mm^2
- f_{yt} = tensione caratteristica di rottura = 540 N/mm^2
- $(f_t/f_y)_k \geq 1.15$ e < 1.35
- $(f_t/f_{ynom})_k \leq 1.25$
- Allungamento $(A_{gt})_k \geq 7.5\%$
- γ_s = coefficiente di sicurezza dell'acciaio per c.a. = 1.15
- f_{yd} = resistenza di calcolo = 450 : 1.15 = 391.30 N/mm^2
- f_{bd} = resistenza tangenziale di aderenza acciaio-calcestruzzo = $f_{bk}:\gamma_c$ = 5.755 : 1.5 = 3.837 N/mm^2
- f_{bk} = resistenza tangenziale caratteristica = 2.25 x η x f_{ctk} = 2.25 x 1.0 x 2.558 = 5.755 N/mm^2

3.2 Calcestruzzo telaio in c.a. edificio

- Calcestruzzo con Classe di resistenza C 28/35
- R_{ck} = resistenza cubica del calcestruzzo = 35 N/mm^2
- f_{ck} = resistenza cilindrica a compressione = 0.83 R_{ck} = 31.15 N/mm^2
- f_{cm} = valore medio della resistenza cilindrica = f_{ck} + 8 = 39.15 N/mm^2
- f_{ctm} = resistenza media a trazione semplice assiale = 0.30 $f_{ck}^{2/3}$ = 2.97 N/mm^2
- f_{cfm} = resistenza a trazione per flessione = 1.2 f_{ctm} = 3.56 N/mm^2
- E_{cm} = modulo elastico = 22000 $(f_{cm}/10)^{0.3}$ = 33131.58 N/mm^2
- v = coefficiente di Poisson = 0.20
- Classe di consistenza: S4
- Classe d'esposizione ambientale: XC3
- Copriferro ≥ 4 mm

4 PRESTAZIONI DI PROGETTO – CLASSE DELLE STRUTTURE – VITA UTILE

Le opere in progetto risultano essere di classe d'uso IV

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

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

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

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

ed è di tipo 3 *(grandi opere)*

	TIPI DI COSTRUZIONE	Vita Nominale V_N (in anni)
1	Opere provvisorie – Opere provvisionali - Strutture in fase costruttiva[1]	≤ 10
2	Opere ordinarie, ponti, opere infrastrutturali e dighe di dimensioni contenute o di importanza normale	≥ 50
3	Grandi opere, ponti, opere infrastrutturali e dighe di grandi dimensioni o di importanza strategica	≥ 100

con vita nominale ≥ 100 anni, C_U = coefficiente d'uso = 2.0, V_R = vita di riferimento = C_U x V_N = 200 anni.

5 CARATTERIZZAZIONE GEOTECNICA DEI TERRENI

L'edificio di controllo viene realizzato al di sopra della soletta di copertura dell'opera di presa e pertanto non vengono riportati i parametri geotecnici dei terreni.

6 PARAMETRI SISMICI

L'azione dell'azione sismica di progetto viene effettuata in funzione della "pericolosità sismica di base" del sito mediante opportune formule spettrali variabili in relazione alla probabilità di superamento, nel periodo di riferimento adottato e, pertanto, in relazione al particolare stato limite considerato (SLV = Stato limite di Salvaguardia della Vita).

I valori base dei parametri utili che consentono di definire le suddette azioni sismiche, per sito di riferimento rigido orizzontale sono quelli della *"Accelerazione orizzontale massima al sito"* (a_g), del *"Fattore di amplificazione dello spettro in accelerazione"* (F_o) e del *"Periodo di inizio del tratto costante dello spettro in accelerazione"* (T_C) che, come detto sono variabili a seconda dello stato limite considerato.

Tali valori sono definiti interpolando tra i valori forniti per i vertici del reticolo di riferimento più prossimi al sito.

L'opera strutturale in oggetto è sita nel comune di Genova è in zona sismica di tipo 3, collocata secondo i seguenti valori di posizionamento:

Latitudine : 44°.405

Longitudine : 8°.936

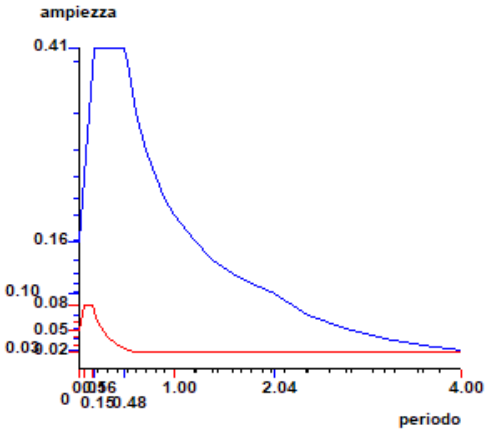
Per lo SLV si sono adottati i seguenti parametri sismici:

P_r = periodo di ritorno = 1898 anni

a_g = accelerazione massima del sito = 0.1092 g

F_o = valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale = 2.52

T^*_C = periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale = 0.31



Ai fini della definizione sismica di progetto, sulla base della caratterizzazione geotecnica dei tipo di terreno, ed eseguendo una scelta a favore di sicurezza, il terreno interessato dall'intervento può essere classificato di **tipo "B"** "*depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di Vs,30 compresi tra 360 m/s e 800 m/s (ovvero NSPT,30 > 50 nei terreni a grana grossa e cu,30 > 250 kPa nei terreni a grana fina*).

7 METODO DI CALCOLO EDIFICIO DI CONTROLLO

La struttura è stata modellata con il software agli elementi finiti "Mastersap Top 2017" della AMV Software.

La struttura e il suo comportamento sotto le azioni statiche e dinamiche è stato adeguatamente valutato, interpretato e trasferito nel modello che si caratterizza per la sua impostazione completamente tridimensionale. A tal fine ai nodi strutturali possono convergere diverse tipologie di elementi, che corrispondono nel codice numerico di calcolo in altrettante tipologie di elementi finiti. Travi e pilastri, ovvero componenti in cui una dimensione prevalente sulle altre due, vengono modellati con elementi "beam", il cui comportamento può essere opportunamente perfezionato attraverso alcune opzioni quali quelle in grado di definire le modalità di connessione all'estremità. Eventuali elementi soggetti a solo sforzo normale possono essere trattati come elementi "truss" oppure con elementi "beam" opportunamente svincolati. Piastre, muri e volte, ovvero elementi di tipo bidimensionale, sono modellati con elementi di tipo shell.

I vincoli con il mondo esterno vengono rappresentati con elementi in grado di definire le modalità di vincolo e le rigidezze nello spazio. Questi elementi consentono di modellare i casi più complessi ma più frequenti di interazione con il terreno, realizzabile tipicamente mediante fondazioni travi di fondazione. Al di sotto degli appoggi sono stati modellati appoggi elastici, con coefficienti dedotti dalle schede tecniche degli appoggi adottati.

I parametri dei materiali utilizzati per la modellazione riguardano il modulo di Young, il coefficiente di Poisson, ma sono disponibili anche opzioni per ridurre la rigidezza flessionale e tagliante dei materiali per considerare l'effetto di fenomeni fessurativi nei materiali.

Il calcolo viene condotto mediante analisi lineare, ma vengono considerati gli effetti del secondo ordine e si può simulare il comportamento di elementi resistenti a sola trazione o compressione.

La presenza di diaframmi orizzontali, se rigidi, nel piano viene gestita attraverso l'impostazione di un'apposita relazione fra i nodi strutturali coinvolti, che ne condiziona il movimento relativo. Relazioni analoghe possono essere impostate anche fra elementi contigui.

E' stata impiegata un'analisi dinamica in campo lineare con adozione di spettro di risposta conforme al D.M. 14.01.2008. Agli effetti del dimensionamento è stato quindi impiegato il metodo degli stati limite.

L'intera struttura dell'edificio di controllo è stata analizzata e verificata applicando al modello un coefficiente di struttura q = 2.0, in quanto regolare in pianta ed in altezza.

Si ritiene che il modello utilizzato sia sufficientemente rappresentativo del comportamento reale della struttura.

Sono stati inoltre valutati tutti i possibili effetti o le azioni anche transitorie che possano essere significative e avere implicazione per la struttura.

8 ALLEGATO 1

Edificio di controllo

Si riportano nel seguito le analisi e le verifiche dell'edificio di controllo soggetto ai carichi di normativa, in condizioni statiche e sismiche.

STAMPA DEI DATI DI PROGETTO

INTESTAZIONE E DATI CARATTERISTICI DELLA STRUTTURA

Nome dell'archivio di lavoro	**Edificio di controllo scolmatore - Bisagno (GE)**
Intestazione del lavoro	**Edificio di controllo scolmatore - Bisagno (GE)**
Tipo di struttura	Nello Spazio
Tipo di analisi	Statica e Dinamica
Tipo di soluzione	Lineare
Unita' di misura delle forze	kN
Unita' di misura delle lunghezze	m
Normativa	NTC-2008

NORMATIVA

Vita nominale costruzione	100 anni
Classe d'uso costruzione	IV
Vita di riferimento	200 anni
Spettro di risposta	Stato limite ultimo slv
Probabilita' di superamento periodo di riferimento	10
Tempo di ritorno del sisma	1898 anni
Localita'	Genova - (GE)
ag/g	0.1092
F0	2.52
Tc	0.31
Categoria del suolo	B
Fattore topografico	1

STATO LIMITE ULTIMO

Coefficiente di smorzamento	5%
Eccentricita' accidentale	0%
Numero di frequenze	3
Fattore q di struttura per sisma orizzontale	qor=2
Duttilita'	Bassa Duttilita'

PARAMETRI SISMICI

Angolo del sisma nel piano orizzontale	0
Sisma verticale	Assente
Combinazione dei modi	CQC
Combinazione componenti azioni sismiche	NTC - Eurocodice 8
λ	0.3
μ	0.3

RIEPILOGO DELLE SEZIONI UTILIZZATE NEL MODELLO STRUTTURALE

SEZIONI RETTANGOLARI

Codice	Base	H
1	0.300	0.300
2	0.500	0.240
3	0.400	0.240

CARICHI PER ELEMENTI TRAVE, TRAVE DI FONDAZIONE E RETICOLARE

Carico distribuito con riferimento globale X

Descrizione	Cod.	Cond. carico	Tipo Azione/categoria	Val. iniz.	Dist. iniz. nodo I	Val. finale	Dist.fin. nodo I	Aliq.inerz.	Aliq.inerz. SLD
Parete Sopravento X	2	Condizione 2	Variabile: Vento	0.802000	0.000	0.802000	0.000	0.0000	0.0000
Parete sottovento X	3	Condizione 2	Variabile: Vento	0.481000	0.000	0.481000	0.000	0.0000	0.0000

Carico distribuito con riferimento globale Y

Descrizione	Cod.	Cond. carico	Tipo Azione/categoria	Val. iniz.	Dist. iniz. nodo I	Val. finale	Dist.fin. nodo I	Aliq.inerz.	Aliq.inerz. SLD
Parete Sopravento Y	4	Condizione 2	Variabile: Vento	0.802000	0.000	0.802000	0.000	0.0000	0.0000
Parete Sottovento Y	5	Condizione 2	Variabile: Vento	0.481000	0.000	0.481000	0.000	0.0000	0.0000

Carico distribuito riferimento globale V

Descrizione	Cod.	Cond. carico	Tipo Azione/categoria	Val. iniz.	Dist. iniz. nodo I	Val. finale	Dist.fin. nodo I	Aliq.inerz.	Aliq.inerz. SLD
Carico Neve	1	Condizione 1	Variabile: Neve	0.800000	0.000	0.800000	0.000	0.0000	0.0000
Peso proprio solaio	6	Condizione peso proprio	Permanente: Peso Proprio	3.100000	0.000	3.100000	0.000	1.0000	1.0000
Peso massetti e pavimenti	7	Condizione 3	Permanente: Permanente portato	2.200000	0.000	2.200000	0.000	1.0000	1.0000
Peso sbalzi	8	Condizione 3	Permanente: Permanente portato	10.780000	0.000	10.780000	0.000	1.0000	1.0000

COMBINAZIONI DI CARICO

NORMATIVA: NORME TECNICHE PER LE COSTRUZIONI - D.M. 14/01/2008 (STATICO E SISMICO)

COMBINAZIONI PER LE VERIFICHE ALLO STATO LIMITE ULTIMO

Num.	Descrizione	Parametri	Tipo azione/categoria	Condizione	Moltiplicatore
1	Dinamica	Azione sismica: Presente	Permanente: Peso Proprio	Condizione peso proprio	1.000
			Permanente: Permanente portato	Condizione 3	1.000
			Variabile: Neve	Condizione 1	0.000
			Variabile: Vento	Condizione 2	0.000
2	Statica	Azione sismica: Sisma assente	Permanente: Peso Proprio	Condizione peso proprio	1.300
			Permanente: Permanente portato	Condizione 3	1.300
			Variabile: Neve	Condizione 1	1.500
7	Vento	Azione sismica: Sisma assente	Permanente: Peso Proprio	Condizione peso proprio	1.300
			Permanente: Permanente portato	Condizione 3	1.300
			Variabile: Vento	Condizione 2	1.500
8	Solo permanenti	Azione sismica: Sisma assente	Permanente: Peso Proprio	Condizione peso proprio	1.300
			Permanente: Permanente portato	Condizione 3	1.300

Num.	Descrizione	Parametri	Tipo azione/categoria	Condizione	Moltiplicatore
9	Solo variabili	Azione sismica: Sisma assente	Variabile: Neve	Condizione 1	1.500
			Variabile: Vento	Condizione 2	1.500

COMBINAZIONI PER LE VERIFICHE ALLO STATO LIMITE D'ESERCIZIO

Num.	Descrizione	Parametri	Tipo azione/categoria	Condizione	Moltiplicatore
3	Rara	Tipologia: Rara	Permanente: Peso Proprio	Condizione peso proprio	1.000
			Permanente: Permanente portato	Condizione 3	1.000
			Variabile: Neve	Condizione 1	1.000
			Variabile: Vento	Condizione 2	1.000
4	Frequente	Tipologia: Frequente	Permanente: Peso Proprio	Condizione peso proprio	1.000
			Permanente: Permanente portato	Condizione 3	1.000
			Variabile: Neve	Condizione 1	0.200
			Variabile: Vento	Condizione 2	0.200
5	Quasi permanente	Tipologia: Quasi permanente	Permanente: Peso Proprio	Condizione peso proprio	1.000
			Permanente: Permanente portato	Condizione 3	1.000
			Variabile: Neve	Condizione 1	0.000
			Variabile: Vento	Condizione 2	0.000

COMBINAZIONI PER LE VERIFICHE ALLO STATO LIMITE DI DANNO

Num.	Descrizione	Parametri	Tipo azione/categoria	Condizione	Moltiplicatore
6	S.L.D.	Azione sismica: Presente	Permanente: Peso Proprio	Condizione peso proprio	1.000
			Permanente: Permanente portato	Condizione 3	1.000
			Variabile: Neve	Condizione 1	0.000
			Variabile: Vento	Condizione 2	0.000

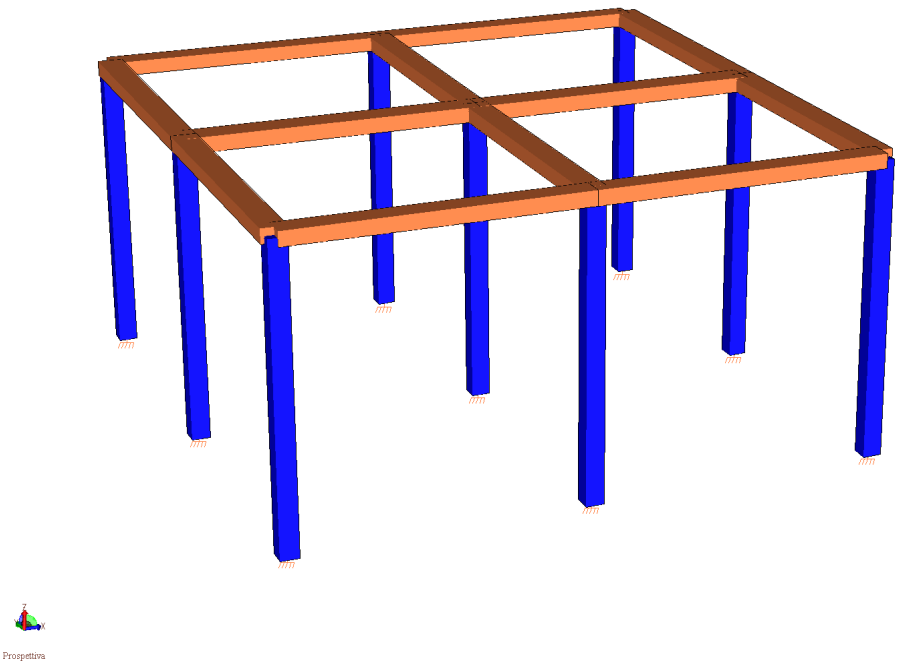


Fig. 8-1: Modello 3D struttura

TABELLA MASSE ECCITATE

FREQUENZE PROPRIE DI OSCILLAZIONE

Numero	Pulsazione	Frequenza	Periodo	Precisione
1	1.078e+001	1.716e+000	5.827e-001	4.441e-016
2	1.089e+001	1.733e+000	5.771e-001	4.441e-016
3	1.191e+001	1.896e+000	5.274e-001	4.441e-016

COEFFICIENTI DI PARTECIPAZIONE MODALE

Modo	Direz.X	Direz.Y
1	1.027e-013	-1.060e+001
2	1.060e+001	1.042e-013
3	7.162e-008	-6.619e-008

MASSA ECCITATA PER QUOTA Z MAGGIORE DI :0.00

Modo	Direz.X	%	Direz.Y	%	Direz.Z	%
Modo: 1	+1.05e-026	0	+1.12e+002	100	+1.07e-024	0
Progressiva	+1.05e-026	0	+1.12e+002	100	+1.07e-024	0
Modo: 2	+1.12e+002	100	+1.09e-026	0	+1.45e-024	0
Progressiva	+1.12e+002	100	+1.12e+002	100	+2.52e-024	0
Modo: 3	+5.13e-015	0	+4.38e-015	0	+3.22e-037	0
Progressiva	+1.12e+002	100	+1.12e+002	100	+2.52e-024	0

MASSA TOTALE ECCITABILE

Direzione X	Direzione Y	Direzione Z
+1.12e+002	+1.12e+002	+1.12e+002

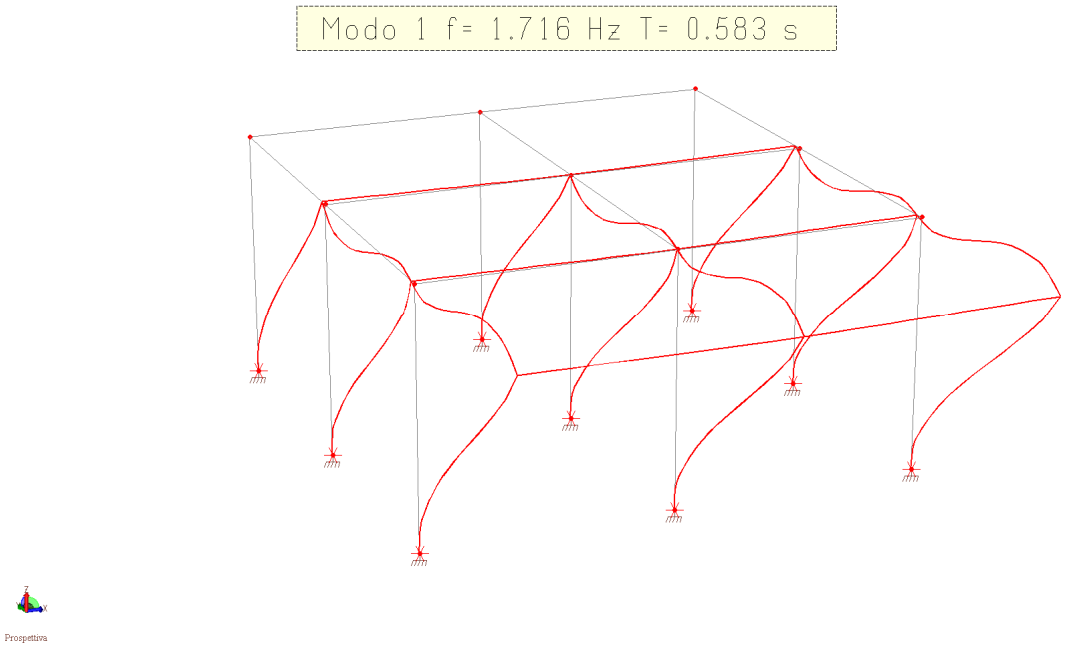


Fig. 8-2: I Modo di vibrare

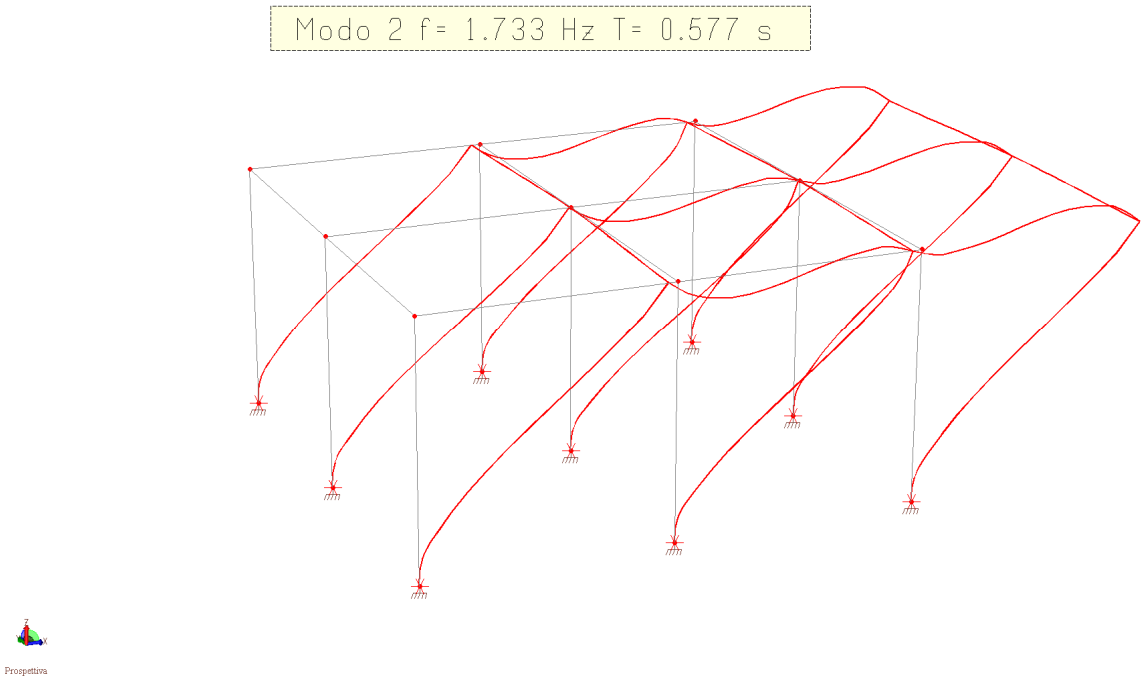


Fig. 8-3: II Modo di vibrare

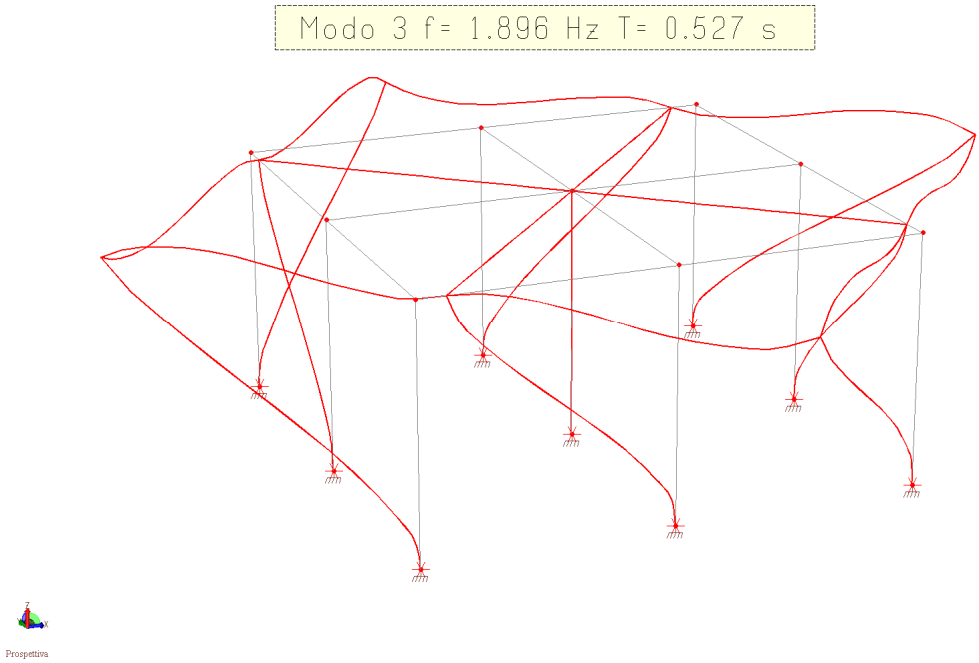


Fig. 8-4: III Modo di vibrare

Tabulati di analisi e verifiche

Si riportano nel seguito i tabulati di analisi e verifiche del manufatto in oggetto, soggetto ai carichi previsti in normativa, in combinazioni statiche e sismiche.

Il software è in grado di progettare le armature della struttura sulle base dei carichi e delle normative vigenti, restituendo un quantitativo minimo necessario, che è inferiore a quelli riportati all'interno degli elaborati grafici di progetto BIS2E-H-ALV04-RE01.

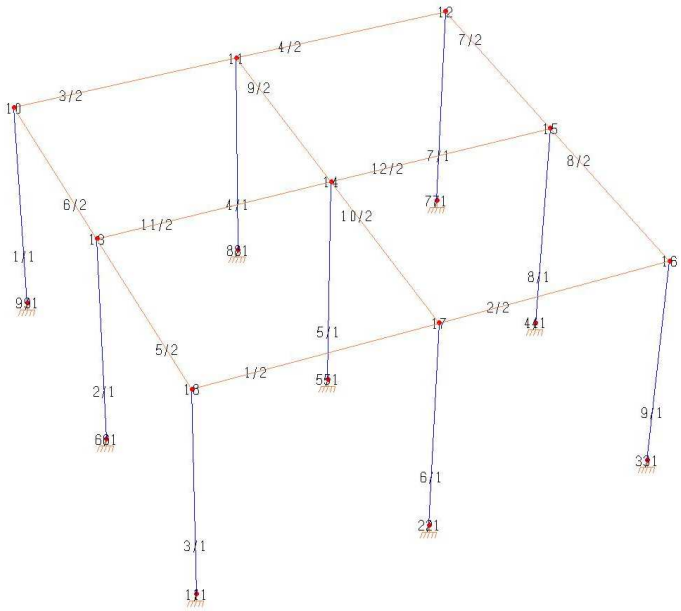


Fig. 8-5: Numerazione nodi ed elementi modello strutturale

AMV s.r.l.
Via San Lorenzo, 106 Tel. 0481/779903
34077 Ronchi dei Legionari (GO)

Lavoro: **Edificio di controllo scolmatore – Bisagno (GE)** Intestazione lavoro: **Edificio di controllo scolmatore – Bisagno (GE)**
Elemento: **TRAVE** Gruppo: **2** Tabella: **Tabella travi**
Descrizione: **Travi copertura**
Spunt. I **30.0** cm Spunt. J **30.0** cm
Rck: **35.00** N/mm^2 fyk: **450.0** N/mm^2
Copriferro superiore: **4.0** cm Copriferro inferiore: **4.0** cm Copriferro laterale: **4.0** cm
Verifica in ottemperanza alle NTC2008 x/d <= **0.30**
Diametro staffe: **8** mm Numero braccia: **2**

ASTA NUM. 1 NI 18 NF 17 SEZ. Rp B= 0.400 H= 0.240 (trave)

categoria: p.p. y Permanente Neve qy tot.
qy medio: 9.84 16.09 1.93 27.87 kN/m

armatura base = 4 X 1.54 per le armature aggiuntive consultare il tabulato

NC	x	Fx	Fy	Fz	Mx	My	Mz	APOST	AANT	AINF	ASUP	x/d	Indice resistenza	aswta	aswto	PASSO
	cm	kN			kN*m			cmq					Fx,M	Bielle V,Mx	cmq/m	cm
1A	0	-0.000	47.005	0.961	0.000	2.446	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23	1.09	2.67	0.00	5.0
1B	0	-0.000	65.615	0.961	0.000	2.446	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32	1.13	3.73	0.00	5.0
1C	0	-0.000	47.005	-0.928	0.000	-2.371	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23	1.09	2.67	0.00	5.0
1D	0	-0.000	65.615	-0.928	0.000	-2.371	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32	1.13	3.73	0.00	5.0
1E	0	-0.000	47.005	0.961	0.000	2.446	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23	1.09	2.67	0.00	5.0
1F	0	-0.000	65.615	0.961	0.000	2.446	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32	1.13	3.73	0.00	5.0
1G	0	-0.000	47.005	-0.928	0.000	-2.371	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23	1.09	2.67	0.00	5.0
1H	0	-0.000	65.615	-0.928	0.000	-2.371	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32	1.13	3.73	0.00	5.0
1I	0	-0.000	53.517	1.149	0.000	2.526	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26	1.25	3.04	0.00	5.0
1J	0	-0.000	59.103	1.149	0.000	2.526	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29	1.20	3.36	0.00	5.0
1K	0	-0.000	53.517	-1.117	0.000	-2.451	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26	1.25	3.04	0.00	5.0
1L	0	-0.000	59.103	-1.117	0.000	-2.451	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29	1.20	3.36	0.00	5.0
1M	0	-0.000	53.517	1.149	0.000	2.526	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26	1.25	3.04	0.00	5.0
1N	0	-0.000	59.103	1.149	0.000	2.526	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29	1.20	3.36	0.00	5.0
1O	0	-0.000	53.517	-1.117	0.000	-2.451	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26	1.25	3.04	0.00	5.0
1P	0	-0.000	59.103	-1.117	0.000	-2.451	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29	1.20	3.36	0.00	5.0
2	0	-0.000	79.450	0.020	0.000	0.046	-30.143	3.08	3.08	3.08	4.62	0.19	0.90	0.39	1.62	4.51	0.00	5.0
7	0	-0.000	71.170	-1.344	0.000	-3.183	-23.394	3.08	3.08	3.08	4.62	0.19	0.70	0.35	1.45	4.04	0.00	5.0
8	0	-0.000	73.200	0.021	0.000	0.049	-27.890	3.08	3.08	3.08	4.62	0.19	0.83	0.36	1.49	4.16	0.00	5.0
9	0	-0.000	4.215	-1.366	0.000	-3.233	2.564	3.08	3.08	3.08	3.08	0.17	0.11	0.02	0.10	0.00	0.00	5.0

apost= -- aant= -- ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

1A	242	-0.000	-15.625	0.961	0.000	0.125	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08	0.32	0.00	0.00	16.0

```
 1B  242  -0.000   2.985   0.961   0.000   0.125  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1C  242  -0.000 -15.625  -0.928   0.000  -0.129  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1D  242  -0.000   2.985  -0.928   0.000  -0.129  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1E  242  -0.000 -15.625   0.961   0.000   0.125  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1F  242  -0.000   2.985   0.961   0.000   0.125  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1G  242  -0.000 -15.625  -0.928   0.000  -0.129  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1H  242  -0.000   2.985  -0.928   0.000  -0.129  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1I  242  -0.000  -9.113   1.149   0.000  -0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1J  242  -0.000  -3.527   1.149   0.000  -0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1K  242  -0.000  -9.113  -1.117   0.000   0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1L  242  -0.000  -3.527  -1.117   0.000   0.245  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1M  242  -0.000  -9.113   1.149   0.000  -0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1N  242  -0.000  -3.527   1.149   0.000  -0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1O  242  -0.000  -9.113  -1.117   0.000   0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1P  242  -0.000  -3.527  -1.117   0.000   0.245  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
  2  242  -0.000  -8.970   0.020   0.000  -0.003  43.040    3.08  3.08  6.16  3.08 0.22  0.99   0.04
0.17   0.00  0.00   16.0
  7  242  -0.000 -10.250  -1.344   0.000   0.063  39.489    3.08  3.08  6.16  3.08 0.22  0.91   0.05
0.19   0.00  0.00   16.0
  8  242  -0.000  -8.220   0.021   0.000  -0.002  39.594    3.08  3.08  6.16  3.08 0.22  0.91   0.04
0.15   0.00  0.00   16.0
  9  242  -0.000  -2.783  -1.366   0.000   0.064   3.344    3.08  3.08  3.08  3.08 0.17  0.14   0.01
0.06   0.00  0.00   16.0

apost= --      aant= --      ainf= 3.08 asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 / 16.0

 1A  483  -0.000 -78.255   0.961   0.000  -2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1B  483  -0.000 -59.645   0.961   0.000  -2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1C  483  -0.000 -78.255  -0.928   0.000   2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1D  483  -0.000 -59.645  -0.928   0.000   2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1E  483  -0.000 -78.255   0.961   0.000  -2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1F  483  -0.000 -59.645   0.961   0.000  -2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1G  483  -0.000 -78.255  -0.928   0.000   2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1H  483  -0.000 -59.645  -0.928   0.000   2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1I  483  -0.000 -71.743   1.149   0.000  -3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1J  483  -0.000 -66.157   1.149   0.000  -3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1K  483  -0.000 -71.743  -1.117   0.000   2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1L  483  -0.000 -66.157  -1.117   0.000   2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1M  483  -0.000 -71.743   1.149   0.000  -3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1N  483  -0.000 -66.157   1.149   0.000  -3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1O  483  -0.000 -71.743  -1.117   0.000   2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1P  483  -0.000 -66.157  -1.117   0.000   2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
  2  483  -0.000 -97.390   0.020   0.000  -0.052 -70.781    3.08  3.08  6.16 10.78 0.28  0.98   0.48
1.49   5.53  0.00    5.0
  7  483  -0.000 -91.670  -1.344   0.000   3.308 -69.830    3.08  3.08  6.16 10.78 0.28  0.96   0.45
1.41   5.21  0.00    5.0
  8  483  -0.000 -89.640   0.021   0.000  -0.053 -65.124    3.08  3.08  6.16 10.78 0.28  0.90   0.44
1.38   5.09  0.00    5.0
  9  483  -0.000  -9.782  -1.366   0.000   3.362 -10.363    3.08  3.08  3.08  3.08 0.17  0.44   0.05
0.23   0.00  0.00    5.0
```

apost= -- aant= -- ainf= 3.08 asup= 7.70 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

ASTA NUM. 2 NI 17 NF 16 SEZ. Rp B= 0.400 H= 0.240 (trave)

categoria: p.p. y Permanente Neve qy tot.
qy medio: 9.84 16.09 1.93 27.87 kN/m

armatura base = 4 X 1.54 per le armature aggiuntive consultare il tabulato

NC	x	Fx	Fy	Fz	Mx	My	Mz	APOST	AANT	AINF	ASUP	x/d	Indice resistenza	aswta	aswto	PASSO
	cm			kN			kN*m			cmq						cm
1A	0	-0.000	59.645	0.928	0.000	2.113	-30.217	3.08	3.08	3.08	4.62	0.19	0.90	0.29	1.21	3.39
	0.00	5.0														
1B	0	-0.000	78.255	0.928	0.000	2.113	-69.978	3.08	3.08	6.16	10.78	0.28	0.97	0.38	1.20	4.44
	0.00	5.0														
1C	0	-0.000	59.645	-0.961	0.000	-2.195	-30.217	3.08	3.08	3.08	4.62	0.19	0.90	0.29	1.21	3.39
	0.00	5.0														
1D	0	-0.000	78.255	-0.961	0.000	-2.195	-69.978	3.08	3.08	6.16	10.78	0.28	0.97	0.38	1.20	4.44
	0.00	5.0														
1E	0	-0.000	59.645	0.928	0.000	2.113	-30.217	3.08	3.08	3.08	4.62	0.19	0.90	0.29	1.21	3.39
	0.00	5.0														
1F	0	-0.000	78.255	0.928	0.000	2.113	-69.978	3.08	3.08	6.16	10.78	0.28	0.97	0.38	1.20	4.44
	0.00	5.0														
1G	0	-0.000	59.645	-0.961	0.000	-2.195	-30.217	3.08	3.08	3.08	4.62	0.19	0.90	0.29	1.21	3.39
	0.00	5.0														
1H	0	-0.000	78.255	-0.961	0.000	-2.195	-69.978	3.08	3.08	6.16	10.78	0.28	0.97	0.38	1.20	4.44
	0.00	5.0														
1I	0	-0.000	66.157	1.117	0.000	2.941	-44.131	3.08	3.08	4.62	7.70	0.24	0.83	0.32	1.14	3.76
	0.00	5.0														
1J	0	-0.000	71.743	1.117	0.000	2.941	-56.064	3.08	3.08	6.16	9.24	0.25	0.89	0.35	1.16	4.07
	0.00	5.0														
1K	0	-0.000	66.157	-1.149	0.000	-3.023	-44.131	3.08	3.08	4.62	7.70	0.24	0.83	0.32	1.14	3.76
	0.00	5.0														
1L	0	-0.000	71.743	-1.149	0.000	-3.023	-56.064	3.08	3.08	6.16	9.24	0.25	0.89	0.35	1.16	4.07
	0.00	5.0														
1M	0	-0.000	66.157	1.117	0.000	2.941	-44.131	3.08	3.08	4.62	7.70	0.24	0.83	0.32	1.14	3.76
	0.00	5.0														
1N	0	-0.000	71.743	1.117	0.000	2.941	-56.064	3.08	3.08	6.16	9.24	0.25	0.89	0.35	1.16	4.07
	0.00	5.0														
1O	0	-0.000	66.157	-1.149	0.000	-3.023	-44.131	3.08	3.08	4.62	7.70	0.24	0.83	0.32	1.14	3.76
	0.00	5.0														
1P	0	-0.000	71.743	-1.149	0.000	-3.023	-56.064	3.08	3.08	6.16	9.24	0.25	0.89	0.35	1.16	4.07
	0.00	5.0														
2	0	-0.000	97.390	-0.020	0.000	-0.052	-70.781	3.08	3.08	6.16	10.78	0.28	0.98	0.48	1.49	5.53
	0.00	5.0														
7	0	-0.000	87.290	0.173	0.000	0.871	-59.967	3.08	3.08	4.62	9.24	0.26	0.95	0.43	1.41	4.96
	0.00	5.0														
8	0	-0.000	89.640	-0.021	0.000	-0.053	-65.124	3.08	3.08	6.16	10.78	0.28	0.90	0.44	1.38	5.09
	0.00	5.0														
9	0	-0.000	5.406	0.195	0.000	0.925	-0.500	3.08	3.08	3.08	3.08	0.17	0.02	0.03	0.13	0.00
	0.00	5.0														

apost= -- aant= -- ainf= 3.08 asup= 7.70 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

1A	242	-0.000	-2.985	0.928	0.000	-0.129	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01	0.06	0.00
0.00	16.0															
1B	242	-0.000	15.625	0.928	0.000	-0.129	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08	0.32	0.00
0.00	16.0															
1C	242	-0.000	-2.985	-0.961	0.000	0.125	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01	0.06	0.00
0.00	16.0															
1D	242	-0.000	15.625	-0.961	0.000	0.125	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08	0.32	0.00
0.00	16.0															
1E	242	-0.000	-2.985	0.928	0.000	-0.129	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01	0.06	0.00
0.00	16.0															
1F	242	-0.000	15.625	0.928	0.000	-0.129	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08	0.32	0.00
0.00	16.0															
1G	242	-0.000	-2.985	-0.961	0.000	0.125	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01	0.06	0.00
0.00	16.0															
1H	242	-0.000	15.625	-0.961	0.000	0.125	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08	0.32	0.00
0.00	16.0															
1I	242	-0.000	3.527	1.117	0.000	0.245	30.471	3.08	3.08	4.62	3.08	0.19	0.91	0.02	0.07	0.00
0.00	16.0															

```
 1J  242  -0.000    9.113   1.117   0.000   0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1K  242  -0.000    3.527  -1.149   0.000  -0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1L  242  -0.000    9.113  -1.149   0.000  -0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1M  242  -0.000    3.527   1.117   0.000   0.245  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1N  242  -0.000    9.113   1.117   0.000   0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1O  242  -0.000    3.527  -1.149   0.000  -0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1P  242  -0.000    9.113  -1.149   0.000  -0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
  2  242  -0.000    8.970  -0.020   0.000  -0.003  43.040    3.08  3.08  6.16  3.08 0.22  0.99   0.04
0.17   0.00  0.00   16.0
  7  242  -0.000    5.870   0.173   0.000   0.453  39.439    3.08  3.08  6.16  3.08 0.22  0.91   0.03
0.11   0.00  0.00   16.0
  8  242  -0.000    8.220  -0.021   0.000  -0.002  39.594    3.08  3.08  6.16  3.08 0.22  0.91   0.04
0.15   0.00  0.00   16.0
  9  242  -0.000   -1.592   0.195   0.000   0.455   3.294    3.08  3.08  3.08  3.08 0.17  0.14   0.01
0.04   0.00  0.00   16.0

apost= --      aant= --      ainf= 3.08 asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 / 16.0

 1A  483  -0.000 -65.615   0.928   0.000  -2.371 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1B  483  -0.000 -47.005   0.928   0.000  -2.371  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1C  483  -0.000 -65.615  -0.961   0.000   2.446 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1D  483  -0.000 -47.005  -0.961   0.000   2.446  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1E  483  -0.000 -65.615   0.928   0.000  -2.371 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1F  483  -0.000 -47.005   0.928   0.000  -2.371  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1G  483  -0.000 -65.615  -0.961   0.000   2.446 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1H  483  -0.000 -47.005  -0.961   0.000   2.446  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1I  483  -0.000 -59.103   1.117   0.000  -2.451 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1J  483  -0.000 -53.517   1.117   0.000  -2.451 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1K  483  -0.000 -59.103  -1.149   0.000   2.526 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1L  483  -0.000 -53.517  -1.149   0.000   2.526 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1M  483  -0.000 -59.103   1.117   0.000  -2.451 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1N  483  -0.000 -53.517   1.117   0.000  -2.451 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1O  483  -0.000 -59.103  -1.149   0.000   2.526 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1P  483  -0.000 -53.517  -1.149   0.000   2.526 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
  2  483  -0.000 -79.450  -0.020   0.000   0.046 -30.143    3.08  3.08  3.08  4.62 0.19  0.90   0.39
1.62   4.51  0.00    5.0
  7  483  -0.000 -75.550   0.173   0.000   0.036 -33.358    3.08  3.08  3.08  4.62 0.19  0.99   0.37
1.54   4.29  0.00    5.0
  8  483  -0.000 -73.200  -0.021   0.000   0.049 -27.890    3.08  3.08  3.08  4.62 0.19  0.83   0.36
1.49   4.16  0.00    5.0
  9  483  -0.000  -8.591   0.195   0.000  -0.015  -7.714    3.08  3.08  3.08  3.08 0.17  0.33   0.04
0.20   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 3     NI 10    NF 11    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y Permanente  Neve   qy tot.
qy medio:    9.84    16.09      1.93   27.87  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

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 NC    x      Fx      Fy      Fz      Mx      My      Mz   APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
      --     ------------------      ------------------   ------------------------       ------------
------  -----------  -----
```

	cm		kN		kN*m		cmq					Fx,M	Bielle
V,Mx	cmq/m		cm										
1A	0	-0.000	47.005	0.928	0.000	2.371	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23
1.09	2.67	0.00	5.0											
1B	0	-0.000	65.615	0.928	0.000	2.371	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32
1.13	3.73	0.00	5.0											
1C	0	-0.000	47.005	-0.961	0.000	-2.446	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23
1.09	2.67	0.00	5.0											
1D	0	-0.000	65.615	-0.961	0.000	-2.446	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32
1.13	3.73	0.00	5.0											
1E	0	-0.000	47.005	0.928	0.000	2.371	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23
1.09	2.67	0.00	5.0											
1F	0	-0.000	65.615	0.928	0.000	2.371	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32
1.13	3.73	0.00	5.0											
1G	0	-0.000	47.005	-0.961	0.000	-2.446	14.194	3.08	3.08	3.08	3.08	0.17	0.61	0.23
1.09	2.67	0.00	5.0											
1H	0	-0.000	65.615	-0.961	0.000	-2.446	-46.524	3.08	3.08	4.62	7.70	0.24	0.87	0.32
1.13	3.73	0.00	5.0											
1I	0	-0.000	53.517	1.117	0.000	2.451	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26
1.25	3.04	0.00	5.0											
1J	0	-0.000	59.103	1.117	0.000	2.451	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29
1.20	3.36	0.00	5.0											
1K	0	-0.000	53.517	-1.149	0.000	-2.526	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26
1.25	3.04	0.00	5.0											
1L	0	-0.000	59.103	-1.149	0.000	-2.526	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29
1.20	3.36	0.00	5.0											
1M	0	-0.000	53.517	1.117	0.000	2.451	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26
1.25	3.04	0.00	5.0											
1N	0	-0.000	59.103	1.117	0.000	2.451	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29
1.20	3.36	0.00	5.0											
1O	0	-0.000	53.517	-1.149	0.000	-2.526	-13.929	3.08	3.08	3.08	3.08	0.17	0.60	0.26
1.25	3.04	0.00	5.0											
1P	0	-0.000	59.103	-1.149	0.000	-2.526	-28.978	3.08	3.08	3.08	4.62	0.19	0.86	0.29
1.20	3.36	0.00	5.0											
2	0	-0.000	79.450	-0.020	0.000	-0.046	-30.143	3.08	3.08	3.08	4.62	0.19	0.90	0.39
1.62	4.51	0.00	5.0											
7	0	-0.000	71.170	-0.201	0.000	-0.028	-23.405	3.08	3.08	3.08	4.62	0.19	0.70	0.35
1.45	4.04	0.00	5.0											
8	0	-0.000	73.200	-0.021	0.000	-0.049	-27.890	3.08	3.08	3.08	4.62	0.19	0.83	0.36
1.49	4.16	0.00	5.0											
9	0	-0.000	4.216	-0.179	0.000	0.023	2.563	3.08	3.08	3.08	3.08	0.17	0.11	0.02
0.10	0.00	0.00	5.0											

apost= -- aant= -- ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

1A	242	-0.000	-15.625	0.928	0.000	0.129	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08
0.32	0.00	0.00	16.0											
1B	242	-0.000	2.985	0.928	0.000	0.129	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01
0.06	0.00	0.00	16.0											
1C	242	-0.000	-15.625	-0.961	0.000	-0.125	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08
0.32	0.00	0.00	16.0											
1D	242	-0.000	2.985	-0.961	0.000	-0.125	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01
0.06	0.00	0.00	16.0											
1E	242	-0.000	-15.625	0.928	0.000	0.129	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08
0.32	0.00	0.00	16.0											
1F	242	-0.000	2.985	0.928	0.000	0.129	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01
0.06	0.00	0.00	16.0											
1G	242	-0.000	-15.625	-0.961	0.000	-0.125	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.08
0.32	0.00	0.00	16.0											
1H	242	-0.000	2.985	-0.961	0.000	-0.125	28.533	3.08	3.08	4.62	3.08	0.19	0.85	0.01
0.06	0.00	0.00	16.0											
1I	242	-0.000	-9.113	1.117	0.000	-0.245	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.04
0.19	0.00	0.00	16.0											
1J	242	-0.000	-3.527	1.117	0.000	-0.245	30.471	3.08	3.08	4.62	3.08	0.19	0.91	0.02
0.07	0.00	0.00	16.0											
1K	242	-0.000	-9.113	-1.149	0.000	0.249	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.04
0.19	0.00	0.00	16.0											
1L	242	-0.000	-3.527	-1.149	0.000	0.249	30.471	3.08	3.08	4.62	3.08	0.19	0.91	0.02
0.07	0.00	0.00	16.0											
1M	242	-0.000	-9.113	1.117	0.000	-0.245	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.04
0.19	0.00	0.00	16.0											
1N	242	-0.000	-3.527	1.117	0.000	-0.245	30.471	3.08	3.08	4.62	3.08	0.19	0.91	0.02
0.07	0.00	0.00	16.0											
1O	242	-0.000	-9.113	-1.149	0.000	0.249	33.051	3.08	3.08	4.62	3.08	0.19	0.99	0.04
0.19	0.00	0.00	16.0											
1P	242	-0.000	-3.527	-1.149	0.000	0.249	30.471	3.08	3.08	4.62	3.08	0.19	0.91	0.02
0.07	0.00	0.00	16.0											
2	242	-0.000	-8.970	-0.020	0.000	0.003	43.040	3.08	3.08	6.16	3.08	0.22	0.99	0.04
0.17	0.00	0.00	16.0											

```
  7  242  -0.000 -10.250  -0.201   0.000   0.456  39.484    3.08  3.08  6.16  3.08 0.22  0.91   0.05
0.19   0.00  0.00   16.0
  8  242  -0.000  -8.220  -0.021   0.000   0.002  39.594    3.08  3.08  6.16  3.08 0.22  0.91   0.04
0.15   0.00  0.00   16.0
  9  242  -0.000  -2.783  -0.179   0.000   0.454   3.343    3.08  3.08  3.08  3.08 0.17  0.14   0.01
0.06   0.00  0.00   16.0

apost= --      aant= --      ainf= 3.08 asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 / 16.0

 1A  483  -0.000 -78.255   0.928   0.000  -2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1B  483  -0.000 -59.645   0.928   0.000  -2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1C  483  -0.000 -78.255  -0.961   0.000   2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1D  483  -0.000 -59.645  -0.961   0.000   2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1E  483  -0.000 -78.255   0.928   0.000  -2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1F  483  -0.000 -59.645   0.928   0.000  -2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1G  483  -0.000 -78.255  -0.961   0.000   2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1H  483  -0.000 -59.645  -0.961   0.000   2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1I  483  -0.000 -71.743   1.117   0.000  -2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1J  483  -0.000 -66.157   1.117   0.000  -2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1K  483  -0.000 -71.743  -1.149   0.000   3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1L  483  -0.000 -66.157  -1.149   0.000   3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1M  483  -0.000 -71.743   1.117   0.000  -2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1N  483  -0.000 -66.157   1.117   0.000  -2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1O  483  -0.000 -71.743  -1.149   0.000   3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1P  483  -0.000 -66.157  -1.149   0.000   3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
  2  483  -0.000 -97.390  -0.020   0.000   0.052 -70.781    3.08  3.08  6.16 10.78 0.28  0.98   0.48
1.49   5.53  0.00    5.0
  7  483  -0.000 -91.670  -0.201   0.000   0.940 -69.830    3.08  3.08  6.16 10.78 0.28  0.96   0.45
1.41   5.21  0.00    5.0
  8  483  -0.000 -89.640  -0.021   0.000   0.053 -65.124    3.08  3.08  6.16 10.78 0.28  0.90   0.44
1.38   5.09  0.00    5.0
  9  483  -0.000  -9.782  -0.179   0.000   0.886 -10.363    3.08  3.08  3.08  3.08 0.17  0.44   0.05
0.23   0.00  0.00    5.0

apost= --      aant= --      ainf= 3.08 asup= 7.70 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 4     NI 11    NF 12    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y Permanente  Neve   qy tot.
qy medio:    9.84    16.09      1.93   27.87  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

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 NC     x       Fx       Fy       Fz       Mx       My       Mz   APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
       --      ------------------       ------------------   ------------------------       ------------
------  -----------  -----
      cm               kN                    kN*m                    cmq                Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
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 1A    0  -0.000  59.645   0.961   0.000   2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1B    0  -0.000  78.255   0.961   0.000   2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1C    0  -0.000  59.645  -0.928   0.000  -2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1D    0  -0.000  78.255  -0.928   0.000  -2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1E    0  -0.000  59.645   0.961   0.000   2.195 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1F    0  -0.000  78.255   0.961   0.000   2.195 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
```

```
 1G    0  -0.000  59.645  -0.928   0.000  -2.113 -30.217    3.08  3.08  3.08  4.62 0.19  0.90   0.29
1.21   3.39  0.00    5.0
 1H    0  -0.000  78.255  -0.928   0.000  -2.113 -69.978    3.08  3.08  6.16 10.78 0.28  0.97   0.38
1.20   4.44  0.00    5.0
 1I    0  -0.000  66.157   1.149   0.000   3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1J    0  -0.000  71.743   1.149   0.000   3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1K    0  -0.000  66.157  -1.117   0.000  -2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1L    0  -0.000  71.743  -1.117   0.000  -2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1M    0  -0.000  66.157   1.149   0.000   3.023 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1N    0  -0.000  71.743   1.149   0.000   3.023 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
 1O    0  -0.000  66.157  -1.117   0.000  -2.941 -44.131    3.08  3.08  4.62  7.70 0.24  0.83   0.32
1.14   3.76  0.00    5.0
 1P    0  -0.000  71.743  -1.117   0.000  -2.941 -56.064    3.08  3.08  6.16  9.24 0.25  0.89   0.35
1.16   4.07  0.00    5.0
  2    0  -0.000  97.390   0.020   0.000   0.052 -70.781    3.08  3.08  6.16 10.78 0.28  0.98   0.48
1.49   5.53  0.00    5.0
  7    0  -0.000  87.290   1.371   0.000   3.377 -59.967    3.08  3.08  4.62  9.24 0.26  0.95   0.43
1.41   4.96  0.00    5.0
  8    0  -0.000  89.640   0.021   0.000   0.053 -65.124    3.08  3.08  6.16 10.78 0.28  0.90   0.44
1.38   5.09  0.00    5.0
  9    0  -0.000   5.406   1.350   0.000   3.323  -0.500    3.08  3.08  3.08  3.08 0.17  0.08   0.03
0.13   0.00  0.00    5.0

apost= --      aant= --      ainf= 3.08 asup= 7.70 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000  -2.985   0.961   0.000  -0.125  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1B  242  -0.000  15.625   0.961   0.000  -0.125  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1C  242  -0.000  -2.985  -0.928   0.000   0.129  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1D  242  -0.000  15.625  -0.928   0.000   0.129  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1E  242  -0.000  -2.985   0.961   0.000  -0.125  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1F  242  -0.000  15.625   0.961   0.000  -0.125  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1G  242  -0.000  -2.985  -0.928   0.000   0.129  28.533    3.08  3.08  4.62  3.08 0.19  0.85   0.01
0.06   0.00  0.00   16.0
 1H  242  -0.000  15.625  -0.928   0.000   0.129  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.08
0.32   0.00  0.00   16.0
 1I  242  -0.000   3.527   1.149   0.000   0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1J  242  -0.000   9.113   1.149   0.000   0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1K  242  -0.000   3.527  -1.117   0.000  -0.245  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1L  242  -0.000   9.113  -1.117   0.000  -0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1M  242  -0.000   3.527   1.149   0.000   0.249  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1N  242  -0.000   9.113   1.149   0.000   0.249  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
 1O  242  -0.000   3.527  -1.117   0.000  -0.245  30.471    3.08  3.08  4.62  3.08 0.19  0.91   0.02
0.07   0.00  0.00   16.0
 1P  242  -0.000   9.113  -1.117   0.000  -0.245  33.051    3.08  3.08  4.62  3.08 0.19  0.99   0.04
0.19   0.00  0.00   16.0
  2  242  -0.000   8.970   0.020   0.000   0.003  43.040    3.08  3.08  6.16  3.08 0.22  0.99   0.04
0.17   0.00  0.00   16.0
  7  242  -0.000   5.870   1.371   0.000   0.066  39.439    3.08  3.08  6.16  3.08 0.22  0.91   0.03
0.11   0.00  0.00   16.0
  8  242  -0.000   8.220   0.021   0.000   0.002  39.594    3.08  3.08  6.16  3.08 0.22  0.91   0.04
0.15   0.00  0.00   16.0
  9  242  -0.000  -1.593   1.350   0.000   0.064   3.292    3.08  3.08  3.08  3.08 0.17  0.14   0.01
0.04   0.00  0.00   16.0

apost= --      aant= --      ainf= 3.08 asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 / 16.0

 1A  483  -0.000 -65.615   0.961   0.000  -2.446 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1B  483  -0.000 -47.005   0.961   0.000  -2.446  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1C  483  -0.000 -65.615  -0.928   0.000   2.371 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1D  483  -0.000 -47.005  -0.928   0.000   2.371  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
```

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 1E  483  -0.000 -65.615   0.961   0.000  -2.446 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1F  483  -0.000 -47.005   0.961   0.000  -2.446  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1G  483  -0.000 -65.615  -0.928   0.000   2.371 -46.524    3.08  3.08  4.62  7.70 0.24  0.87   0.32
1.13   3.73  0.00    5.0
 1H  483  -0.000 -47.005  -0.928   0.000   2.371  14.194    3.08  3.08  3.08  3.08 0.17  0.61   0.23
1.09   2.67  0.00    5.0
 1I  483  -0.000 -59.103   1.149   0.000  -2.526 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1J  483  -0.000 -53.517   1.149   0.000  -2.526 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1K  483  -0.000 -59.103  -1.117   0.000   2.451 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1L  483  -0.000 -53.517  -1.117   0.000   2.451 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1M  483  -0.000 -59.103   1.149   0.000  -2.526 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1N  483  -0.000 -53.517   1.149   0.000  -2.526 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
 1O  483  -0.000 -59.103  -1.117   0.000   2.451 -28.978    3.08  3.08  3.08  4.62 0.19  0.86   0.29
1.20   3.36  0.00    5.0
 1P  483  -0.000 -53.517  -1.117   0.000   2.451 -13.929    3.08  3.08  3.08  3.08 0.17  0.60   0.26
1.25   3.04  0.00    5.0
  2  483  -0.000 -79.450   0.020   0.000  -0.046 -30.143    3.08  3.08  3.08  4.62 0.19  0.90   0.39
1.62   4.51  0.00    5.0
  7  483  -0.000 -75.550   1.371   0.000  -3.246 -33.358    3.08  3.08  3.08  4.62 0.19  0.99   0.37
1.54   4.29  0.00    5.0
  8  483  -0.000 -73.200   0.021   0.000  -0.049 -27.890    3.08  3.08  3.08  4.62 0.19  0.83   0.36
1.49   4.16  0.00    5.0
  9  483  -0.000  -8.592   1.350   0.000  -3.196  -7.717    3.08  3.08  3.08  3.08 0.17  0.33   0.04
0.20   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 5     NI 18    NF 13    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y Permanente qy tot.
qy medio:    2.35    10.78     13.13  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

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---------------------------
 NC     x      Fx      Fy      Fz      Mx      My      Mz   APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
       --      ------------------      ------------------   ------------------------       ------------
------  -----------  -----
      cm               kN                    kN*m                    cmq                Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
---------------------------

 1A    0  -0.000  25.934   1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1B    0  -0.000  31.626   1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1C    0  -0.000  25.934  -1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1D    0  -0.000  31.626  -1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1E    0  -0.000  25.934   1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1F    0  -0.000  31.626   1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1G    0  -0.000  25.934  -1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1H    0  -0.000  31.626  -1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1I    0  -0.000  19.303   1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1J    0  -0.000  38.257   1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1K    0  -0.000  19.303  -1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1L    0  -0.000  38.257  -1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1M    0  -0.000  19.303   1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1N    0  -0.000  38.257   1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
```

```
 1O    0  -0.000  19.303  -1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1P    0  -0.000  38.257  -1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
  2    0  -0.000  37.420  -0.017   0.000  -0.045 -15.137    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  7    0  -0.000  35.310   1.469   0.000   3.214 -10.473    3.08  3.08  3.08  3.08 0.17  0.45   0.17
0.82   0.00  0.00    5.0
  8    0  -0.000  37.410  -0.019   0.000  -0.048 -15.119    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  9    0  -0.000  -2.086   1.489   0.000   3.264   4.943    3.08  3.08  3.08  3.08 0.17  0.21   0.01
0.05   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 3.08 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000  -5.786   1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1B  242  -0.000  -0.094   1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1C  242  -0.000  -5.786  -1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1D  242  -0.000  -0.094  -1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1E  242  -0.000  -5.786   1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1F  242  -0.000  -0.094   1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1G  242  -0.000  -5.786  -1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1H  242  -0.000  -0.094  -1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1I  242  -0.000 -12.417   1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1J  242  -0.000   6.537   1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1K  242  -0.000 -12.417  -1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1L  242  -0.000   6.537  -1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1M  242  -0.000 -12.417   1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1N  242  -0.000   6.537   1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1O  242  -0.000 -12.417  -1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1P  242  -0.000   6.537  -1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
  2  242  -0.000  -3.815  -0.017   0.000  -0.003  19.832    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  7  242  -0.000  -5.925   1.469   0.000  -0.334  19.722    3.08  3.08  3.08  3.08 0.17  0.85   0.03
0.14   0.00  0.00   16.0
  8  242  -0.000  -3.825  -0.019   0.000  -0.002  19.822    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  9  242  -0.000  -2.086   1.489   0.000  -0.332  -0.565    3.08  3.08  3.08  3.08 0.17  0.02   0.01
0.05   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000 -37.506   1.189   0.000  -3.256 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1B  483  -0.000 -31.814   1.189   0.000  -3.256 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1C  483  -0.000 -37.506  -1.217   0.000   3.321 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1D  483  -0.000 -31.814  -1.217   0.000   3.321 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1E  483  -0.000 -37.506   1.189   0.000  -3.256 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1F  483  -0.000 -31.814   1.189   0.000  -3.256 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1G  483  -0.000 -37.506  -1.217   0.000   3.321 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1H  483  -0.000 -31.814  -1.217   0.000   3.321 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1I  483  -0.000 -44.137   1.030   0.000  -2.599 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
 1J  483  -0.000 -25.183   1.030   0.000  -2.599  -4.709    3.08  3.08  3.08  3.08 0.17  0.20   0.12
0.59   0.00  0.00    5.0
 1K  483  -0.000 -44.137  -1.059   0.000   2.665 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
```

1L	483	-0.000	-25.183	-1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1M	483	-0.000	-44.137	1.030	0.000	-2.599	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
1N	483	-0.000	-25.183	1.030	0.000	-2.599	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1O	483	-0.000	-44.137	-1.059	0.000	2.665	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
1P	483	-0.000	-25.183	-1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
2	483	-0.000	-45.050	-0.017	0.000	0.039	-32.413	3.08	3.08	3.08	4.62	0.19	0.97	0.22	0.92	0.00	0.00	5.0
7	483	-0.000	-47.160	1.469	0.000	-3.882	-37.296	3.08	3.08	3.08	6.16	0.22	0.86	0.23	0.87	0.00	0.00	5.0
8	483	-0.000	-45.060	-0.019	0.000	0.043	-32.451	3.08	3.08	3.08	4.62	0.19	0.97	0.22	0.92	0.00	0.00	5.0
9	483	-0.000	-2.086	1.489	0.000	-3.928	-4.821	3.08	3.08	3.08	3.08	0.17	0.21	0.01	0.05	0.00	0.00	5.0

apost= -- aant= -- ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

ASTA NUM. 6 NI 13 NF 10 SEZ. Rp B= 0.400 H= 0.240 (trave)

categoria: p.p. y Permanente qy tot.
qy medio: 2.35 10.78 13.13 kN/m

armatura base = 4 X 1.54 per le armature aggiuntive consultare il tabulato

NC	x	Fx	Fy	Fz	Mx	My	Mz	APOST	AANT	AINF	ASUP	x/d	Indice resistenza	aswta	aswto	PASSO
	cm	kN			kN*m			cmq					Fx,M	Bielle V,Mx	cmq/m	cm
1A	0	-0.000	31.814	1.217	0.000	3.321	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16	0.74	0.00	0.00	5.0
1B	0	-0.000	37.506	1.217	0.000	3.321	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18	0.76	0.00	0.00	5.0
1C	0	-0.000	31.814	-1.189	0.000	-3.256	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16	0.74	0.00	0.00	5.0
1D	0	-0.000	37.506	-1.189	0.000	-3.256	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18	0.76	0.00	0.00	5.0
1E	0	-0.000	31.814	1.217	0.000	3.321	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16	0.74	0.00	0.00	5.0
1F	0	-0.000	37.506	1.217	0.000	3.321	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18	0.76	0.00	0.00	5.0
1G	0	-0.000	31.814	-1.189	0.000	-3.256	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16	0.74	0.00	0.00	5.0
1H	0	-0.000	37.506	-1.189	0.000	-3.256	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18	0.76	0.00	0.00	5.0
1I	0	-0.000	25.183	1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1J	0	-0.000	44.137	1.059	0.000	2.665	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
1K	0	-0.000	25.183	-1.030	0.000	-2.599	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1L	0	-0.000	44.137	-1.030	0.000	-2.599	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
1M	0	-0.000	25.183	1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1N	0	-0.000	44.137	1.059	0.000	2.665	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
1O	0	-0.000	25.183	-1.030	0.000	-2.599	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12	0.59	0.00	0.00	5.0
1P	0	-0.000	44.137	-1.030	0.000	-2.599	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22	0.76	0.00	0.00	5.0
2	0	-0.000	45.050	0.017	0.000	0.039	-32.413	3.08	3.08	3.08	4.62	0.19	0.97	0.22	0.92	0.00	0.00	5.0
7	0	-0.000	42.640	-0.230	0.000	-0.902	-27.134	3.08	3.08	3.08	4.62	0.19	0.81	0.21	0.87	0.00	0.00	5.0
8	0	-0.000	45.060	0.019	0.000	0.043	-32.451	3.08	3.08	3.08	4.62	0.19	0.97	0.22	0.92	0.00	0.00	5.0
9	0	-0.000	-2.427	-0.250	0.000	-0.949	5.706	3.08	3.08	3.08	3.08	0.17	0.24	0.01	0.06	0.00	0.00	5.0

apost= -- aant= -- ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

```
 1A  242  -0.000    0.094   1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1B  242  -0.000    5.786   1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1C  242  -0.000    0.094  -1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1D  242  -0.000    5.786  -1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1E  242  -0.000    0.094   1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1F  242  -0.000    5.786   1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1G  242  -0.000    0.094  -1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1H  242  -0.000    5.786  -1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1I  242  -0.000   -6.537   1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1J  242  -0.000   12.417   1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1K  242  -0.000   -6.537  -1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1L  242  -0.000   12.417  -1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1M  242  -0.000   -6.537   1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1N  242  -0.000   12.417   1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1O  242  -0.000   -6.537  -1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1P  242  -0.000   12.417  -1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
  2  242  -0.000    3.815   0.017   0.000  -0.003  19.832    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  7  242  -0.000    1.405  -0.230   0.000  -0.348  19.667    3.08  3.08  3.08  3.08 0.17  0.84   0.01
0.03   0.00  0.00   16.0
  8  242  -0.000    3.825   0.019   0.000  -0.002  19.822    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  9  242  -0.000   -2.427  -0.250   0.000  -0.346  -0.702    3.08  3.08  3.08  3.08 0.17  0.03   0.01
0.06   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000 -31.626   1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1B  483  -0.000 -25.934   1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1C  483  -0.000 -31.626  -1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1D  483  -0.000 -25.934  -1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1E  483  -0.000 -31.626   1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1F  483  -0.000 -25.934   1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1G  483  -0.000 -31.626  -1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1H  483  -0.000 -25.934  -1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1I  483  -0.000 -38.257   1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1J  483  -0.000 -19.303   1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1K  483  -0.000 -38.257  -1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1L  483  -0.000 -19.303  -1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1M  483  -0.000 -38.257   1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1N  483  -0.000 -19.303   1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1O  483  -0.000 -38.257  -1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1P  483  -0.000 -19.303  -1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
  2  483  -0.000 -37.420   0.017   0.000  -0.045 -15.137    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  7  483  -0.000 -39.830  -0.230   0.000   0.207 -20.746    3.08  3.08  3.08  3.08 0.17  0.89   0.19
0.93   0.00  0.00    5.0
  8  483  -0.000 -37.410   0.019   0.000  -0.048 -15.118    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
```

```
  9  483  -0.000  -2.427  -0.250   0.000   0.257  -5.653    3.08  3.08  3.08  3.08 0.17  0.24   0.01
0.06   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 3.08 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 7     NI 12    NF 15    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y Permanente qy tot.
qy medio:    2.35    10.78     13.13  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

-------------------------------------------------------------------------------------------------------------
--------------------------
 NC     x      Fx       Fy       Fz       Mx       My       Mz   APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
       --      ------------------       -------------------   ------------------------        ------------
------  -----------  -----
       cm               kN                        kN*m                      cmq                 Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
--------------------------

 1A     0  -0.000  25.934   1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1B     0  -0.000  31.626   1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1C     0  -0.000  25.934  -1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1D     0  -0.000  31.626  -1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1E     0  -0.000  25.934   1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1F     0  -0.000  31.626   1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1G     0  -0.000  25.934  -1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1H     0  -0.000  31.626  -1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1I     0  -0.000  19.303   1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1J     0  -0.000  38.257   1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1K     0  -0.000  19.303  -1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1L     0  -0.000  38.257  -1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1M     0  -0.000  19.303   1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1N     0  -0.000  38.257   1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1O     0  -0.000  19.303  -1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1P     0  -0.000  38.257  -1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
  2     0  -0.000  37.420  -0.017   0.000  -0.045 -15.137    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  7     0  -0.000  39.830  -1.494   0.000  -3.277 -20.756    3.08  3.08  3.08  3.08 0.17  0.89   0.19
0.93   0.00  0.00    5.0
  8     0  -0.000  37.410  -0.019   0.000  -0.048 -15.119    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  9     0  -0.000   2.428  -1.474   0.000  -3.227  -5.657    3.08  3.08  3.08  3.08 0.17  0.24   0.01
0.06   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 3.08 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A   242  -0.000  -5.786   1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1B   242  -0.000  -0.094   1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1C   242  -0.000  -5.786  -1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1D   242  -0.000  -0.094  -1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1E   242  -0.000  -5.786   1.189   0.000  -0.385  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1F   242  -0.000  -0.094   1.189   0.000  -0.385  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
 1G   242  -0.000  -5.786  -1.217   0.000   0.381  17.338    3.08  3.08  3.08  3.08 0.17  0.74   0.03
0.13   0.00  0.00   16.0
 1H   242  -0.000  -0.094  -1.217   0.000   0.381  14.477    3.08  3.08  3.08  3.08 0.17  0.62   0.01
0.03   0.00  0.00   16.0
```

```
 1I  242  -0.000 -12.417   1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1J  242  -0.000   6.537   1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1K  242  -0.000 -12.417  -1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1L  242  -0.000   6.537  -1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1M  242  -0.000 -12.417   1.030   0.000  -0.112  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1N  242  -0.000   6.537   1.030   0.000  -0.112  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
 1O  242  -0.000 -12.417  -1.059   0.000   0.108  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.06
0.29   0.00  0.00   16.0
 1P  242  -0.000   6.537  -1.059   0.000   0.108  14.082    3.08  3.08  3.08  3.08 0.17  0.60   0.03
0.15   0.00  0.00   16.0
  2  242  -0.000  -3.815  -0.017   0.000  -0.003  19.832    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  7  242  -0.000  -1.405  -1.494   0.000   0.330  19.662    3.08  3.08  3.08  3.08 0.17  0.84   0.01
0.04   0.00  0.00   16.0
  8  242  -0.000  -3.825  -0.019   0.000  -0.002  19.822    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  9  242  -0.000   2.428  -1.474   0.000   0.332  -0.703    3.08  3.08  3.08  3.08 0.17  0.03   0.01
0.06   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000 -37.506   1.189   0.000  -3.256 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1B  483  -0.000 -31.814   1.189   0.000  -3.256 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1C  483  -0.000 -37.506  -1.217   0.000   3.321 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1D  483  -0.000 -31.814  -1.217   0.000   3.321 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1E  483  -0.000 -37.506   1.189   0.000  -3.256 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1F  483  -0.000 -31.814   1.189   0.000  -3.256 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1G  483  -0.000 -37.506  -1.217   0.000   3.321 -31.044    3.08  3.08  3.08  4.62 0.19  0.93   0.18
0.76   0.00  0.00    5.0
 1H  483  -0.000 -31.814  -1.217   0.000   3.321 -18.878    3.08  3.08  3.08  3.08 0.17  0.81   0.16
0.74   0.00  0.00    5.0
 1I  483  -0.000 -44.137   1.030   0.000  -2.599 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
 1J  483  -0.000 -25.183   1.030   0.000  -2.599  -4.709    3.08  3.08  3.08  3.08 0.17  0.20   0.12
0.59   0.00  0.00    5.0
 1K  483  -0.000 -44.137  -1.059   0.000   2.665 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
 1L  483  -0.000 -25.183  -1.059   0.000   2.665  -4.709    3.08  3.08  3.08  3.08 0.17  0.20   0.12
0.59   0.00  0.00    5.0
 1M  483  -0.000 -44.137   1.030   0.000  -2.599 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
 1N  483  -0.000 -25.183   1.030   0.000  -2.599  -4.709    3.08  3.08  3.08  3.08 0.17  0.20   0.12
0.59   0.00  0.00    5.0
 1O  483  -0.000 -44.137  -1.059   0.000   2.665 -45.213    3.08  3.08  4.62  7.70 0.24  0.85   0.22
0.76   0.00  0.00    5.0
 1P  483  -0.000 -25.183  -1.059   0.000   2.665  -4.709    3.08  3.08  3.08  3.08 0.17  0.20   0.12
0.59   0.00  0.00    5.0
  2  483  -0.000 -45.050  -0.017   0.000   0.039 -32.413    3.08  3.08  3.08  4.62 0.19  0.97   0.22
0.92   0.00  0.00    5.0
  7  483  -0.000 -42.640  -1.494   0.000   3.938 -27.134    3.08  3.08  3.08  4.62 0.19  0.81   0.21
0.87   0.00  0.00    5.0
  8  483  -0.000 -45.060  -0.019   0.000   0.043 -32.451    3.08  3.08  3.08  4.62 0.19  0.97   0.22
0.92   0.00  0.00    5.0
  9  483  -0.000   2.428  -1.474   0.000   3.892   5.708    3.08  3.08  3.08  3.08 0.17  0.25   0.01
0.06   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 8     NI 15    NF 16    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y Permanente qy tot.
qy medio:    2.35    10.78     13.13  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

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 NC     x       Fx       Fy       Fz       Mx       My       Mz    APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
```

	--															
		cm		kN			kN*m			cmq					Fx,M	Bielle
V,Mx		cmq/m		cm												
1A	0	-0.000	31.814	1.217	0.000	3.321	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16		
0.74	0.00	0.00	5.0													
1B	0	-0.000	37.506	1.217	0.000	3.321	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18		
0.76	0.00	0.00	5.0													
1C	0	-0.000	31.814	-1.189	0.000	-3.256	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16		
0.74	0.00	0.00	5.0													
1D	0	-0.000	37.506	-1.189	0.000	-3.256	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18		
0.76	0.00	0.00	5.0													
1E	0	-0.000	31.814	1.217	0.000	3.321	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16		
0.74	0.00	0.00	5.0													
1F	0	-0.000	37.506	1.217	0.000	3.321	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18		
0.76	0.00	0.00	5.0													
1G	0	-0.000	31.814	-1.189	0.000	-3.256	-18.878	3.08	3.08	3.08	3.08	0.17	0.81	0.16		
0.74	0.00	0.00	5.0													
1H	0	-0.000	37.506	-1.189	0.000	-3.256	-31.044	3.08	3.08	3.08	4.62	0.19	0.93	0.18		
0.76	0.00	0.00	5.0													
1I	0	-0.000	25.183	1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12		
0.59	0.00	0.00	5.0													
1J	0	-0.000	44.137	1.059	0.000	2.665	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22		
0.76	0.00	0.00	5.0													
1K	0	-0.000	25.183	-1.030	0.000	-2.599	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12		
0.59	0.00	0.00	5.0													
1L	0	-0.000	44.137	-1.030	0.000	-2.599	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22		
0.76	0.00	0.00	5.0													
1M	0	-0.000	25.183	1.059	0.000	2.665	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12		
0.59	0.00	0.00	5.0													
1N	0	-0.000	44.137	1.059	0.000	2.665	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22		
0.76	0.00	0.00	5.0													
1O	0	-0.000	25.183	-1.030	0.000	-2.599	-4.709	3.08	3.08	3.08	3.08	0.17	0.20	0.12		
0.59	0.00	0.00	5.0													
1P	0	-0.000	44.137	-1.030	0.000	-2.599	-45.213	3.08	3.08	4.62	7.70	0.24	0.85	0.22		
0.76	0.00	0.00	5.0													
2	0	-0.000	45.050	0.017	0.000	0.039	-32.413	3.08	3.08	3.08	4.62	0.19	0.97	0.22		
0.92	0.00	0.00	5.0													
7	0	-0.000	47.160	0.254	0.000	0.959	-37.296	3.08	3.08	3.08	6.16	0.22	0.86	0.23		
0.87	0.00	0.00	5.0													
8	0	-0.000	45.060	0.019	0.000	0.043	-32.451	3.08	3.08	3.08	4.62	0.19	0.97	0.22		
0.92	0.00	0.00	5.0													
9	0	-0.000	2.085	0.234	0.000	0.912	-4.818	3.08	3.08	3.08	3.08	0.17	0.21	0.01		
0.05	0.00	0.00	5.0													

apost= -- aant= -- ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

1A	242	-0.000	0.094	1.217	0.000	0.381	14.477	3.08	3.08	3.08	3.08	0.17	0.62	0.01		
0.03	0.00	0.00	16.0													
1B	242	-0.000	5.786	1.217	0.000	0.381	17.338	3.08	3.08	3.08	3.08	0.17	0.74	0.03		
0.13	0.00	0.00	16.0													
1C	242	-0.000	0.094	-1.189	0.000	-0.385	14.477	3.08	3.08	3.08	3.08	0.17	0.62	0.01		
0.03	0.00	0.00	16.0													
1D	242	-0.000	5.786	-1.189	0.000	-0.385	17.338	3.08	3.08	3.08	3.08	0.17	0.74	0.03		
0.13	0.00	0.00	16.0													
1E	242	-0.000	0.094	1.217	0.000	0.381	14.477	3.08	3.08	3.08	3.08	0.17	0.62	0.01		
0.03	0.00	0.00	16.0													
1F	242	-0.000	5.786	1.217	0.000	0.381	17.338	3.08	3.08	3.08	3.08	0.17	0.74	0.03		
0.13	0.00	0.00	16.0													
1G	242	-0.000	0.094	-1.189	0.000	-0.385	14.477	3.08	3.08	3.08	3.08	0.17	0.62	0.01		
0.03	0.00	0.00	16.0													
1H	242	-0.000	5.786	-1.189	0.000	-0.385	17.338	3.08	3.08	3.08	3.08	0.17	0.74	0.03		
0.13	0.00	0.00	16.0													
1I	242	-0.000	-6.537	1.059	0.000	0.108	14.082	3.08	3.08	3.08	3.08	0.17	0.60	0.03		
0.15	0.00	0.00	16.0													
1J	242	-0.000	12.417	1.059	0.000	0.108	17.881	3.08	3.08	3.08	3.08	0.17	0.77	0.06		
0.29	0.00	0.00	16.0													
1K	242	-0.000	-6.537	-1.030	0.000	-0.112	14.082	3.08	3.08	3.08	3.08	0.17	0.60	0.03		
0.15	0.00	0.00	16.0													
1L	242	-0.000	12.417	-1.030	0.000	-0.112	17.881	3.08	3.08	3.08	3.08	0.17	0.77	0.06		
0.29	0.00	0.00	16.0													
1M	242	-0.000	-6.537	1.059	0.000	0.108	14.082	3.08	3.08	3.08	3.08	0.17	0.60	0.03		
0.15	0.00	0.00	16.0													
1N	242	-0.000	12.417	1.059	0.000	0.108	17.881	3.08	3.08	3.08	3.08	0.17	0.77	0.06		
0.29	0.00	0.00	16.0													
1O	242	-0.000	-6.537	-1.030	0.000	-0.112	14.082	3.08	3.08	3.08	3.08	0.17	0.60	0.03		
0.15	0.00	0.00	16.0													
1P	242	-0.000	12.417	-1.030	0.000	-0.112	17.881	3.08	3.08	3.08	3.08	0.17	0.77	0.06		
0.29	0.00	0.00	16.0													

```
  2  242  -0.000    3.815   0.017   0.000  -0.003  19.832    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  7  242  -0.000    5.925   0.254   0.000   0.345  19.722    3.08  3.08  3.08  3.08 0.17  0.85   0.03
0.14   0.00  0.00   16.0
  8  242  -0.000    3.825   0.019   0.000  -0.002  19.822    3.08  3.08  3.08  3.08 0.17  0.85   0.02
0.09   0.00  0.00   16.0
  9  242  -0.000    2.085   0.234   0.000   0.347  -0.566    3.08  3.08  3.08  3.08 0.17  0.02   0.01
0.05   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000 -31.626   1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1B  483  -0.000 -25.934   1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1C  483  -0.000 -31.626  -1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1D  483  -0.000 -25.934  -1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1E  483  -0.000 -31.626   1.217   0.000  -2.558 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1F  483  -0.000 -25.934   1.217   0.000  -2.558  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1G  483  -0.000 -31.626  -1.189   0.000   2.485 -19.297    3.08  3.08  3.08  3.08 0.17  0.83   0.15
0.74   0.00  0.00    5.0
 1H  483  -0.000 -25.934  -1.189   0.000   2.485  -3.969    3.08  3.08  3.08  3.08 0.17  0.17   0.13
0.60   0.00  0.00    5.0
 1I  483  -0.000 -38.257   1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1J  483  -0.000 -19.303   1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1K  483  -0.000 -38.257  -1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1L  483  -0.000 -19.303  -1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1M  483  -0.000 -38.257   1.059   0.000  -2.448 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1N  483  -0.000 -19.303   1.059   0.000  -2.448  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
 1O  483  -0.000 -38.257  -1.030   0.000   2.375 -37.155    3.08  3.08  4.62  6.16 0.22  0.85   0.19
0.71   0.00  0.00    5.0
 1P  483  -0.000 -19.303  -1.030   0.000   2.375  17.881    3.08  3.08  3.08  3.08 0.17  0.77   0.09
0.45   0.00  0.00    5.0
  2  483  -0.000 -37.420   0.017   0.000  -0.045 -15.137    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  7  483  -0.000 -35.310   0.254   0.000  -0.269 -10.473    3.08  3.08  3.08  3.08 0.17  0.45   0.17
0.82   0.00  0.00    5.0
  8  483  -0.000 -37.410   0.019   0.000  -0.048 -15.118    3.08  3.08  3.08  3.08 0.17  0.65   0.18
0.87   0.00  0.00    5.0
  9  483  -0.000    2.085   0.234   0.000  -0.219   4.938    3.08  3.08  3.08  3.08 0.17  0.21   0.01
0.05   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 3.08 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 9     NI 11    NF 14    SEZ.  Rp  B= 0.400  H= 0.240  (trave)

categoria: p.p. y qy tot.
qy medio:    2.35    2.35  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

-------------------------------------------------------------------------------------------------------------
--------------------------
 NC     x       Fx       Fy       Fz       Mx       My       Mz    APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
       --      ------------------       ------------------    ----------------------        ------------
------  -----------  -----
       cm                kN                      kN*m                      cmq                  Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
--------------------------

 1A    0  -0.000    1.777   1.241   0.000   2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1B    0  -0.000    7.595   1.241   0.000   2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1C    0  -0.000    1.777  -1.241   0.000  -2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1D    0  -0.000    7.595  -1.241   0.000  -2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
```

```
 1E    0  -0.000   1.777   1.241   0.000   2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1F    0  -0.000   7.595   1.241   0.000   2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1G    0  -0.000   1.777  -1.241   0.000  -2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1H    0  -0.000   7.595  -1.241   0.000  -2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1I    0  -0.000  -5.010   0.372   0.000   0.850  25.505    3.08  3.08  4.62  3.08 0.19  0.76   0.02
0.10   0.00  0.00    5.0
 1J    0  -0.000  14.382   0.372   0.000   0.850 -26.695    3.08  3.08  3.08  4.62 0.19  0.80   0.07
0.29   0.00  0.00    5.0
 1K    0  -0.000  -5.010  -0.372   0.000  -0.850  25.505    3.08  3.08  4.62  3.08 0.19  0.76   0.02
0.10   0.00  0.00    5.0
 1L    0  -0.000  14.382  -0.372   0.000  -0.850 -26.695    3.08  3.08  3.08  4.62 0.19  0.80   0.07
0.29   0.00  0.00    5.0
 1M    0  -0.000  -5.010   0.372   0.000   0.850  25.505    3.08  3.08  4.62  3.08 0.19  0.76   0.02
0.10   0.00  0.00    5.0
 1N    0  -0.000  14.382   0.372   0.000   0.850 -26.695    3.08  3.08  3.08  4.62 0.19  0.80   0.07
0.29   0.00  0.00    5.0
 1O    0  -0.000  -5.010  -0.372   0.000  -0.850  25.505    3.08  3.08  4.62  3.08 0.19  0.76   0.02
0.10   0.00  0.00    5.0
 1P    0  -0.000  14.382  -0.372   0.000  -0.850 -26.695    3.08  3.08  3.08  4.62 0.19  0.80   0.07
0.29   0.00  0.00    5.0
  2    0  -0.000   6.121   0.000   0.000   0.000  -0.832    3.08  3.08  3.08  3.08 0.17  0.04   0.03
0.14   0.00  0.00    5.0
  7    0  -0.000   8.439  -1.092   0.000  -2.493  -5.933    3.08  3.08  3.08  3.08 0.17  0.25   0.04
0.20   0.00  0.00    5.0
  8    0  -0.000   6.091  -0.000   0.000  -0.000  -0.774    3.08  3.08  3.08  3.08 0.17  0.03   0.03
0.14   0.00  0.00    5.0
  9    0  -0.000   2.377  -1.092   0.000  -2.493  -5.216    3.08  3.08  3.08  3.08 0.17  0.22   0.01
0.06   0.00  0.00    5.0

apost= --      aant= --      ainf= 1.54 asup= 1.54 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000  -3.909   1.241   0.000  -0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1B  242  -0.000   1.909   1.241   0.000  -0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1C  242  -0.000  -3.909  -1.241   0.000   0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1D  242  -0.000   1.909  -1.241   0.000   0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1E  242  -0.000  -3.909   1.241   0.000  -0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1F  242  -0.000   1.909   1.241   0.000  -0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1G  242  -0.000  -3.909  -1.241   0.000   0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1H  242  -0.000   1.909  -1.241   0.000   0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1I  242  -0.000 -10.696   0.372   0.000  -0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1J  242  -0.000   8.696   0.372   0.000  -0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1K  242  -0.000 -10.696  -0.372   0.000   0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1L  242  -0.000   8.696  -0.372   0.000   0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1M  242  -0.000 -10.696   0.372   0.000  -0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1N  242  -0.000   8.696   0.372   0.000  -0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1O  242  -0.000 -10.696  -0.372   0.000   0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1P  242  -0.000   8.696  -0.372   0.000   0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
  2  242  -0.000  -1.270   0.000   0.000  -0.000   4.107    3.08  3.08  3.08  3.08 0.17  0.18   0.01
0.03   0.00  0.00   16.0
  7  242  -0.000   1.048  -1.092   0.000   0.144   4.255    3.08  3.08  3.08  3.08 0.17  0.18   0.01
0.03   0.00  0.00   16.0
  8  242  -0.000  -1.301  -0.000   0.000  -0.000   4.097    3.08  3.08  3.08  3.08 0.17  0.18   0.01
0.03   0.00  0.00   16.0
  9  242  -0.000   2.377  -1.092   0.000   0.144   0.702    3.08  3.08  3.08  3.08 0.17  0.03   0.01
0.06   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000  -9.595   1.241   0.000  -3.161 -11.345    3.08  3.08  3.08  3.08 0.17  0.49   0.05
0.22   0.00  0.00    5.0
```

1B	483	-0.000	-3.777	1.241	0.000	-3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0
1C	483	-0.000	-9.595	-1.241	0.000	3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0
1D	483	-0.000	-3.777	-1.241	0.000	3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0
1E	483	-0.000	-9.595	1.241	0.000	-3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0
1F	483	-0.000	-3.777	1.241	0.000	-3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0
1G	483	-0.000	-9.595	-1.241	0.000	3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0
1H	483	-0.000	-3.777	-1.241	0.000	3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0
1I	483	-0.000	-16.382	0.372	0.000	-0.948	-25.856	3.08	3.08	3.08	4.62	0.19	0.77	0.08	0.33	0.00	0.00	5.0
1J	483	-0.000	3.010	0.372	0.000	-0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0
1K	483	-0.000	-16.382	-0.372	0.000	0.948	-25.856	3.08	3.08	3.08	4.62	0.19	0.77	0.08	0.33	0.00	0.00	5.0
1L	483	-0.000	3.010	-0.372	0.000	0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0
1M	483	-0.000	-16.382	0.372	0.000	-0.948	-25.856	3.08	3.08	3.08	4.62	0.19	0.77	0.08	0.33	0.00	0.00	5.0
1N	483	-0.000	3.010	0.372	0.000	-0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0
1O	483	-0.000	-16.382	-0.372	0.000	0.948	-25.856	3.08	3.08	3.08	4.62	0.19	0.77	0.08	0.33	0.00	0.00	5.0
1P	483	-0.000	3.010	-0.372	0.000	0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0
2	483	-0.000	-8.662	0.000	0.000	-0.000	-6.588	3.08	3.08	3.08	3.08	0.17	0.28	0.04	0.20	0.00	0.00	5.0
7	483	-0.000	-6.344	-1.092	0.000	2.781	-1.189	3.08	3.08	3.08	3.08	0.17	0.07	0.03	0.15	0.00	0.00	5.0
8	483	-0.000	-8.692	-0.000	0.000	0.000	-6.664	3.08	3.08	3.08	3.08	0.17	0.29	0.04	0.20	0.00	0.00	5.0
9	483	-0.000	2.377	-1.092	0.000	2.781	5.908	3.08	3.08	3.08	3.08	0.17	0.25	0.01	0.06	0.00	0.00	5.0

apost= -- aant= -- ainf= -- asup= 1.54 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

ASTA NUM. 10 NI 14 NF 17 SEZ. Rp B= 0.400 H= 0.240 (trave)

categoria: p.p. y qy tot.
qy medio: 2.35 2.35 kN/m

armatura base = 4 X 1.54 per le armature aggiuntive consultare il tabulato

NC	x	Fx	Fy	Fz	Mx	My	Mz	APOST	AANT	AINF	ASUP	x/d	Indice resistenza	aswta	aswto	PASSO	Fx,M	Bielle V,Mx	cmq/m
	cm	kN			kN*m			cmq								cm			
1A	0	-0.000	3.777	1.241	0.000	3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0	
1B	0	-0.000	9.595	1.241	0.000	3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0	
1C	0	-0.000	3.777	-1.241	0.000	-3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0	
1D	0	-0.000	9.595	-1.241	0.000	-3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0	
1E	0	-0.000	3.777	1.241	0.000	3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0	
1F	0	-0.000	9.595	1.241	0.000	3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0	
1G	0	-0.000	3.777	-1.241	0.000	-3.161	1.943	3.08	3.08	3.08	3.08	0.17	0.08	0.02	0.09	0.00	0.00	5.0	
1H	0	-0.000	9.595	-1.241	0.000	-3.161	-11.345	3.08	3.08	3.08	3.08	0.17	0.49	0.05	0.22	0.00	0.00	5.0	
1I	0	-0.000	-3.010	0.372	0.000	0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0	
1J	0	-0.000	16.382	0.372	0.000	0.948	-25.856	3.08	3.08	3.08	4.62	0.19	0.77	0.08	0.33	0.00	0.00	5.0	
1K	0	-0.000	-3.010	-0.372	0.000	-0.948	16.281	3.08	3.08	3.08	3.08	0.17	0.70	0.01	0.07	0.00	0.00	5.0	

```
 1L    0  -0.000  16.382  -0.372   0.000  -0.948 -25.856    3.08  3.08  3.08  4.62 0.19  0.77   0.08
0.33   0.00  0.00    5.0
 1M    0  -0.000  -3.010   0.372   0.000   0.948  16.281    3.08  3.08  3.08  3.08 0.17  0.70   0.01
0.07   0.00  0.00    5.0
 1N    0  -0.000  16.382   0.372   0.000   0.948 -25.856    3.08  3.08  3.08  4.62 0.19  0.77   0.08
0.33   0.00  0.00    5.0
 1O    0  -0.000  -3.010  -0.372   0.000  -0.948  16.281    3.08  3.08  3.08  3.08 0.17  0.70   0.01
0.07   0.00  0.00    5.0
 1P    0  -0.000  16.382  -0.372   0.000  -0.948 -25.856    3.08  3.08  3.08  4.62 0.19  0.77   0.08
0.33   0.00  0.00    5.0
  2    0  -0.000   8.662  -0.000   0.000  -0.000  -6.588    3.08  3.08  3.08  3.08 0.17  0.28   0.04
0.20   0.00  0.00    5.0
  7    0  -0.000  10.500   1.092   0.000   2.781 -11.365    3.08  3.08  3.08  3.08 0.17  0.49   0.05
0.24   0.00  0.00    5.0
  8    0  -0.000   8.692   0.000   0.000   0.000  -6.664    3.08  3.08  3.08  3.08 0.17  0.29   0.04
0.20   0.00  0.00    5.0
  9    0  -0.000   1.781   1.092   0.000   2.781  -4.622    3.08  3.08  3.08  3.08 0.17  0.20   0.01
0.04   0.00  0.00    5.0

apost= --      aant= --      ainf= --      asup= 1.54 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000  -1.909   1.241   0.000   0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1B  242  -0.000   3.909   1.241   0.000   0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1C  242  -0.000  -1.909  -1.241   0.000  -0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1D  242  -0.000   3.909  -1.241   0.000  -0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1E  242  -0.000  -1.909   1.241   0.000   0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1F  242  -0.000   3.909   1.241   0.000   0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1G  242  -0.000  -1.909  -1.241   0.000  -0.164   2.776    3.08  3.08  3.08  3.08 0.17  0.12   0.01
0.04   0.00  0.00   16.0
 1H  242  -0.000   3.909  -1.241   0.000  -0.164   4.837    3.08  3.08  3.08  3.08 0.17  0.21   0.02
0.09   0.00  0.00   16.0
 1I  242  -0.000  -8.696   0.372   0.000   0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1J  242  -0.000  10.696   0.372   0.000   0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1K  242  -0.000  -8.696  -0.372   0.000  -0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1L  242  -0.000  10.696  -0.372   0.000  -0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1M  242  -0.000  -8.696   0.372   0.000   0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1N  242  -0.000  10.696   0.372   0.000   0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
 1O  242  -0.000  -8.696  -0.372   0.000  -0.049   2.424    3.08  3.08  3.08  3.08 0.17  0.10   0.04
0.20   0.00  0.00   16.0
 1P  242  -0.000  10.696  -0.372   0.000  -0.049   8.244    3.08  3.08  3.08  3.08 0.17  0.35   0.05
0.25   0.00  0.00   16.0
  2  242  -0.000   1.270  -0.000   0.000  -0.000   4.107    3.08  3.08  3.08  3.08 0.17  0.18   0.01
0.03   0.00  0.00   16.0
  7  242  -0.000   3.110   1.092   0.000   0.144   3.498    3.08  3.08  3.08  3.08 0.17  0.15   0.02
0.07   0.00  0.00   16.0
  8  242  -0.000   1.301   0.000   0.000  -0.000   4.097    3.08  3.08  3.08  3.08 0.17  0.18   0.01
0.03   0.00  0.00   16.0
  9  242  -0.000   1.781   1.092   0.000   0.144  -0.990    3.08  3.08  3.08  3.08 0.17  0.04   0.01
0.04   0.00  0.00   16.0

apost= --      aant= --      ainf= --      asup= --      (e arm. base= 4 X 1.54) staffe= 2 d  8 /
16.0

 1A  483  -0.000  -7.595   1.241   0.000  -2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1B  483  -0.000  -1.777   1.241   0.000  -2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1C  483  -0.000  -7.595  -1.241   0.000   2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1D  483  -0.000  -1.777  -1.241   0.000   2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1E  483  -0.000  -7.595   1.241   0.000  -2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1F  483  -0.000  -1.777   1.241   0.000  -2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
 1G  483  -0.000  -7.595  -1.241   0.000   2.833  -8.425    3.08  3.08  3.08  3.08 0.17  0.36   0.04
0.18   0.00  0.00    5.0
 1H  483  -0.000  -1.777  -1.241   0.000   2.833   7.635    3.08  3.08  3.08  3.08 0.17  0.33   0.01
0.04   0.00  0.00    5.0
```

1I	483	-0.000	-14.382	0.372	0.000	-0.850	-26.695	3.08	3.08	3.08	4.62	0.19	0.80	0.07	0.29	0.00	0.00	5.0
1J	483	-0.000	5.010	0.372	0.000	-0.850	25.505	3.08	3.08	4.62	3.08	0.19	0.76	0.02	0.10	0.00	0.00	5.0
1K	483	-0.000	-14.382	-0.372	0.000	0.850	-26.695	3.08	3.08	3.08	4.62	0.19	0.80	0.07	0.29	0.00	0.00	5.0
1L	483	-0.000	5.010	-0.372	0.000	0.850	25.505	3.08	3.08	4.62	3.08	0.19	0.76	0.02	0.10	0.00	0.00	5.0
1M	483	-0.000	-14.382	0.372	0.000	-0.850	-26.695	3.08	3.08	3.08	4.62	0.19	0.80	0.07	0.29	0.00	0.00	5.0
1N	483	-0.000	5.010	0.372	0.000	-0.850	25.505	3.08	3.08	4.62	3.08	0.19	0.76	0.02	0.10	0.00	0.00	5.0
1O	483	-0.000	-14.382	-0.372	0.000	0.850	-26.695	3.08	3.08	3.08	4.62	0.19	0.80	0.07	0.29	0.00	0.00	5.0
1P	483	-0.000	5.010	-0.372	0.000	0.850	25.505	3.08	3.08	4.62	3.08	0.19	0.76	0.02	0.10	0.00	0.00	5.0
2	483	-0.000	-6.121	-0.000	0.000	0.000	-0.832	3.08	3.08	3.08	3.08	0.17	0.04	0.03	0.14	0.00	0.00	5.0
7	483	-0.000	-4.281	1.092	0.000	-2.493	3.049	3.08	3.08	3.08	3.08	0.17	0.13	0.02	0.10	0.00	0.00	5.0
8	483	-0.000	-6.091	0.000	0.000	-0.000	-0.774	3.08	3.08	3.08	3.08	0.17	0.03	0.03	0.14	0.00	0.00	5.0
9	483	-0.000	1.781	1.092	0.000	-2.493	3.711	3.08	3.08	3.08	3.08	0.17	0.16	0.01	0.04	0.00	0.00	5.0

apost= -- aant= -- ainf= 1.54 asup= 1.54 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

ASTA NUM. 11 NI 13 NF 14 SEZ. Rp B= 0.500 H= 0.240 (trave)

categoria: p.p. y Permanente Neve qy tot.
qy medio: 17.92 10.63 3.86 32.41 kN/m

armatura base = 4 X 1.54 per le armature aggiuntive consultare il tabulato

NC	x	Fx	Fy	Fz	Mx	My	Mz	APOST	AANT	AINF	ASUP	x/d	Indice resistenza	aswta	aswto	PASSO
	--															
	cm			kN			kN*m			cmq			Fx,M	Bielle V,Mx	cmq/m	cm
1A	0	-0.000	50.300	0.539	0.000	1.121	19.865	4.62	3.08	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1B	0	-0.000	71.660	0.539	0.000	1.121	-49.773	4.62	3.08	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1C	0	-0.000	50.300	-0.539	0.000	-1.121	19.865	3.08	4.62	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1D	0	-0.000	71.660	-0.539	0.000	-1.121	-49.773	3.08	4.62	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1E	0	-0.000	50.300	0.539	0.000	1.121	19.865	4.62	3.08	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1F	0	-0.000	71.660	0.539	0.000	1.121	-49.773	4.62	3.08	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1G	0	-0.000	50.300	-0.539	0.000	-1.121	19.865	3.08	4.62	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1H	0	-0.000	71.660	-0.539	0.000	-1.121	-49.773	3.08	4.62	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1I	0	-0.000	57.776	1.796	0.000	3.737	-11.865	4.62	3.08	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1J	0	-0.000	64.184	1.796	0.000	3.737	-29.361	4.62	3.08	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1K	0	-0.000	57.776	-1.796	0.000	-3.737	-11.865	3.08	4.62	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1L	0	-0.000	64.184	-1.796	0.000	-3.737	-29.361	3.08	4.62	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1M	0	-0.000	57.776	1.796	0.000	3.737	-11.865	4.62	3.08	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1N	0	-0.000	64.184	1.796	0.000	3.737	-29.361	4.62	3.08	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1O	0	-0.000	57.776	-1.796	0.000	-3.737	-11.865	3.08	4.62	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1P	0	-0.000	64.184	-1.796	0.000	-3.737	-29.361	3.08	4.62	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
2	0	-0.000	91.810	-0.000	0.000	-0.000	-31.389	3.08	3.08	3.08	4.62	0.18	0.92	0.36	1.61	5.21	0.00	5.0
7	0	-0.000	77.310	-1.479	0.000	-3.078	-22.984	3.08	4.62	3.08	4.62	0.18	0.67	0.30	1.45	4.39	0.00	5.0

```
  8    0  -0.000  79.280  -0.000   0.000  -0.000 -26.798    3.08  3.08  3.08  4.62 0.18  0.78   0.31
1.39   4.50  0.00    5.0
  9    0  -0.000  10.550  -1.479   0.000  -3.078  -0.784    3.08  4.62  3.08  4.62 0.18  0.04   0.04
0.20   0.00  0.00    5.0

apost= 1.54 aant= 1.54 ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000 -18.625   0.539   0.000  -0.180  37.657    3.08  4.62  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1B  242  -0.000   2.735   0.539   0.000  -0.180  31.522    3.08  4.62  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1C  242  -0.000 -18.625  -0.539   0.000   0.180  37.657    4.62  3.08  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1D  242  -0.000   2.735  -0.539   0.000   0.180  31.522    4.62  3.08  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1E  242  -0.000 -18.625   0.539   0.000  -0.180  37.657    3.08  4.62  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1F  242  -0.000   2.735   0.539   0.000  -0.180  31.522    3.08  4.62  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1G  242  -0.000 -18.625  -0.539   0.000   0.180  37.657    4.62  3.08  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1H  242  -0.000   2.735  -0.539   0.000   0.180  31.522    4.62  3.08  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1I  242  -0.000 -11.149   1.796   0.000  -0.600  37.657    3.08  4.62  6.16  3.08 0.20  0.85   0.04
0.18   0.00  0.00   13.4
 1J  242  -0.000  -4.741   1.796   0.000  -0.600  34.336    3.08  4.62  6.16  3.08 0.20  0.77   0.02
0.08   0.00  0.00   13.4
 1K  242  -0.000 -11.149  -1.796   0.000   0.600  37.657    4.62  3.08  6.16  3.08 0.20  0.85   0.04
0.18   0.00  0.00   13.4
 1L  242  -0.000  -4.741  -1.796   0.000   0.600  34.336    4.62  3.08  6.16  3.08 0.20  0.77   0.02
0.08   0.00  0.00   13.4
 1M  242  -0.000 -11.149   1.796   0.000  -0.600  37.657    3.08  4.62  6.16  3.08 0.20  0.85   0.04
0.18   0.00  0.00   13.4
 1N  242  -0.000  -4.741   1.796   0.000  -0.600  34.336    3.08  4.62  6.16  3.08 0.20  0.77   0.02
0.08   0.00  0.00   13.4
 1O  242  -0.000 -11.149  -1.796   0.000   0.600  37.657    4.62  3.08  6.16  3.08 0.20  0.85   0.04
0.18   0.00  0.00   13.4
 1P  242  -0.000  -4.741  -1.796   0.000   0.600  34.336    4.62  3.08  6.16  3.08 0.20  0.77   0.02
0.08   0.00  0.00   13.4
  2  242  -0.000 -11.795  -0.000   0.000  -0.000  51.423    3.08  3.08  7.70  3.08 0.22  0.94   0.05
0.17   0.00  0.00   13.4
  7  242  -0.000 -12.295  -1.479   0.000   0.492  43.911    4.62  3.08  6.16  3.08 0.20  0.99   0.05
0.20   0.00  0.00   13.4
  8  242  -0.000 -10.330  -0.000   0.000  -0.000  44.566    3.08  3.08  7.70  3.08 0.22  0.82   0.04
0.15   0.00  0.00   13.4
  9  242  -0.000  -3.445  -1.479   0.000   0.492   6.219    4.62  3.08  4.62  3.08 0.18  0.18   0.01
0.06   0.00  0.00   13.4

apost= 1.54 aant= 1.54 ainf= 4.62 asup= --       (e arm. base= 4 X 1.54) staffe= 2 d  8 / 13.4

 1A  483  -0.000 -87.550   0.539   0.000  -1.481 -79.019    3.08  4.62  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1B  483  -0.000 -66.190   0.539   0.000  -1.481 -34.199    3.08  4.62  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1C  483  -0.000 -87.550  -0.539   0.000   1.481 -79.019    4.62  3.08  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1D  483  -0.000 -66.190  -0.539   0.000   1.481 -34.199    4.62  3.08  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1E  483  -0.000 -87.550   0.539   0.000  -1.481 -79.019    3.08  4.62  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1F  483  -0.000 -66.190   0.539   0.000  -1.481 -34.199    3.08  4.62  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1G  483  -0.000 -87.550  -0.539   0.000   1.481 -79.019    4.62  3.08  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1H  483  -0.000 -66.190  -0.539   0.000   1.481 -34.199    4.62  3.08  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1I  483  -0.000 -80.074   1.796   0.000  -4.937 -63.332    3.08  4.62  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1J  483  -0.000 -73.666   1.796   0.000  -4.937 -49.886    3.08  4.62  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1K  483  -0.000 -80.074  -1.796   0.000   4.937 -63.332    4.62  3.08  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1L  483  -0.000 -73.666  -1.796   0.000   4.937 -49.886    4.62  3.08  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1M  483  -0.000 -80.074   1.796   0.000  -4.937 -63.332    3.08  4.62  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1N  483  -0.000 -73.666   1.796   0.000  -4.937 -49.886    3.08  4.62  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1O  483  -0.000 -80.074  -1.796   0.000   4.937 -63.332    4.62  3.08  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1P  483  -0.000 -73.666  -1.796   0.000   4.937 -49.886    4.62  3.08  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
```

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  2  483  -0.000-115.400  -0.000   0.000   0.000 -84.890    3.08  3.08  7.70 13.85 0.28  0.91   0.45
1.40   6.55  0.00    5.0
  7  483  -0.000-101.900  -1.479   0.000   4.063 -78.715    4.62  3.08  6.16 12.32 0.27  0.94   0.40
1.29   5.79  0.00    5.0
  8  483  -0.000 -99.940  -0.000   0.000   0.000 -73.589    3.08  3.08  6.16 10.78 0.25  1.00   0.39
1.32   5.68  0.00    5.0
  9  483  -0.000 -17.440  -1.479   0.000   4.063 -16.384    4.62  3.08  3.08  4.62 0.18  0.48   0.07
0.33   0.00  0.00    5.0

apost= 1.54 aant= 1.54 ainf= 4.62 asup= 10.78 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

ASTA NUM. 12     NI 14    NF 15    SEZ.  Rp  B= 0.500  H= 0.240  (trave)

categoria: p.p. y Permanente  Neve   qy tot.
qy medio:   17.92    10.63      3.86   32.41  kN/m

armatura base = 4 X 1.54     per le armature aggiuntive consultare il tabulato

-------------------------------------------------------------------------------------------------------------
--------------------------
 NC    x       Fx       Fy       Fz       Mx       My       Mz   APOST  AANT  AINF  ASUP  x/d  Indice
resistenza  aswta aswto  PASSO
       --      ------------------       -------------------   ------------------------       ------------
------  -----------  -----
      cm                kN                      kN*m                     cmq                  Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
--------------------------

 1A    0  -0.000  66.190   0.539   0.000   1.481 -34.199    4.62  3.08  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1B    0  -0.000  87.550   0.539   0.000   1.481 -79.020    4.62  3.08  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1C    0  -0.000  66.190  -0.539   0.000  -1.481 -34.199    3.08  4.62  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1D    0  -0.000  87.550  -0.539   0.000  -1.481 -79.020    3.08  4.62  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1E    0  -0.000  66.190   0.539   0.000   1.481 -34.199    4.62  3.08  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1F    0  -0.000  87.550   0.539   0.000   1.481 -79.020    4.62  3.08  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1G    0  -0.000  66.190  -0.539   0.000  -1.481 -34.199    3.08  4.62  3.08  4.62 0.18  1.00   0.26
1.16   3.76  0.00    5.0
 1H    0  -0.000  87.550  -0.539   0.000  -1.481 -79.020    3.08  4.62  7.70 12.32 0.26  0.95   0.34
1.11   4.97  0.00    5.0
 1I    0  -0.000  73.666   1.796   0.000   4.937 -49.886    4.62  3.08  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1J    0  -0.000  80.074   1.796   0.000   4.937 -63.332    4.62  3.08  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1K    0  -0.000  73.666  -1.796   0.000  -4.937 -49.886    3.08  4.62  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1L    0  -0.000  80.074  -1.796   0.000  -4.937 -63.332    3.08  4.62  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1M    0  -0.000  73.666   1.796   0.000   4.937 -49.886    4.62  3.08  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1N    0  -0.000  80.074   1.796   0.000   4.937 -63.332    4.62  3.08  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
 1O    0  -0.000  73.666  -1.796   0.000  -4.937 -49.886    3.08  4.62  4.62  7.70 0.22  0.92   0.29
1.09   4.18  0.00    5.0
 1P    0  -0.000  80.074  -1.796   0.000  -4.937 -63.332    3.08  4.62  6.16  9.24 0.24  0.99   0.31
1.11   4.55  0.00    5.0
  2    0  -0.000 115.400   0.000   0.000   0.000 -84.890    3.08  3.08  7.70 13.85 0.28  0.91   0.45
1.40   6.55  0.00    5.0
  7    0  -0.000  97.340   1.479   0.000   4.063 -67.569    4.62  3.08  6.16 10.78 0.25  0.92   0.38
1.29   5.53  0.00    5.0
  8    0  -0.000  99.940   0.000   0.000   0.000 -73.589    3.08  3.08  6.16 10.78 0.25  1.00   0.39
1.32   5.68  0.00    5.0
  9    0  -0.000  12.880   1.479   0.000   4.063  -5.236    4.62  3.08  3.08  4.62 0.18  0.15   0.05
0.24   0.00  0.00    5.0

apost= 1.54 aant= 1.54 ainf= 4.62 asup= 10.78 (e arm. base= 4 X 1.54) staffe= 2 d  8 / 5.0

 1A  242  -0.000  -2.735   0.539   0.000   0.180  31.522    4.62  3.08  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1B  242  -0.000  18.625   0.539   0.000   0.180  37.657    4.62  3.08  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1C  242  -0.000  -2.735  -0.539   0.000  -0.180  31.522    3.08  4.62  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
 1D  242  -0.000  18.625  -0.539   0.000  -0.180  37.657    3.08  4.62  6.16  3.08 0.20  0.85   0.07
0.30   0.00  0.00   13.4
 1E  242  -0.000  -2.735   0.539   0.000   0.180  31.522    4.62  3.08  4.62  3.08 0.18  0.92   0.01
0.05   0.00  0.00   13.4
```

1F	242	-0.000	18.625	0.539	0.000	0.180	37.657	4.62	3.08	6.16	3.08	0.20	0.85	0.07	0.30	0.00	0.00	13.4
1G	242	-0.000	-2.735	-0.539	0.000	-0.180	31.522	3.08	4.62	4.62	3.08	0.18	0.92	0.01	0.05	0.00	0.00	13.4
1H	242	-0.000	18.625	-0.539	0.000	-0.180	37.657	3.08	4.62	6.16	3.08	0.20	0.85	0.07	0.30	0.00	0.00	13.4
1I	242	-0.000	4.741	1.796	0.000	0.600	34.336	4.62	3.08	6.16	3.08	0.20	0.77	0.02	0.08	0.00	0.00	13.4
1J	242	-0.000	11.149	1.796	0.000	0.600	37.657	4.62	3.08	6.16	3.08	0.20	0.85	0.04	0.18	0.00	0.00	13.4
1K	242	-0.000	4.741	-1.796	0.000	-0.600	34.336	3.08	4.62	6.16	3.08	0.20	0.77	0.02	0.08	0.00	0.00	13.4
1L	242	-0.000	11.149	-1.796	0.000	-0.600	37.657	3.08	4.62	6.16	3.08	0.20	0.85	0.04	0.18	0.00	0.00	13.4
1M	242	-0.000	4.741	1.796	0.000	0.600	34.336	4.62	3.08	6.16	3.08	0.20	0.77	0.02	0.08	0.00	0.00	13.4
1N	242	-0.000	11.149	1.796	0.000	0.600	37.657	4.62	3.08	6.16	3.08	0.20	0.85	0.04	0.18	0.00	0.00	13.4
1O	242	-0.000	4.741	-1.796	0.000	-0.600	34.336	3.08	4.62	6.16	3.08	0.20	0.77	0.02	0.08	0.00	0.00	13.4
1P	242	-0.000	11.149	-1.796	0.000	-0.600	37.657	3.08	4.62	6.16	3.08	0.20	0.85	0.04	0.18	0.00	0.00	13.4
2	242	-0.000	11.795	0.000	0.000	-0.000	51.423	3.08	3.08	7.70	3.08	0.22	0.94	0.05	0.17	0.00	0.00	13.4
7	242	-0.000	7.735	1.479	0.000	0.492	44.716	4.62	3.08	7.70	3.08	0.22	0.82	0.03	0.11	0.00	0.00	13.4
8	242	-0.000	10.330	0.000	0.000	-0.000	44.566	3.08	3.08	7.70	3.08	0.22	0.82	0.04	0.15	0.00	0.00	13.4
9	242	-0.000	-1.120	1.479	0.000	0.492	7.028	4.62	3.08	4.62	3.08	0.18	0.21	0.01	0.03	0.00	0.00	13.4

apost= 1.54 aant= 1.54 ainf= 4.62 asup= -- (e arm. base= 4 X 1.54) staffe= 2 d 8 / 13.4

1A	483	-0.000	-71.660	0.539	0.000	-1.121	-49.773	3.08	4.62	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1B	483	-0.000	-50.300	0.539	0.000	-1.121	19.864	3.08	4.62	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1C	483	-0.000	-71.660	-0.539	0.000	1.121	-49.773	4.62	3.08	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1D	483	-0.000	-50.300	-0.539	0.000	1.121	19.864	4.62	3.08	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1E	483	-0.000	-71.660	0.539	0.000	-1.121	-49.773	3.08	4.62	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1F	483	-0.000	-50.300	0.539	0.000	-1.121	19.864	3.08	4.62	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1G	483	-0.000	-71.660	-0.539	0.000	1.121	-49.773	4.62	3.08	4.62	7.70	0.22	0.92	0.28	1.06	4.07	0.00	5.0
1H	483	-0.000	-50.300	-0.539	0.000	1.121	19.864	4.62	3.08	4.62	3.08	0.18	0.58	0.20	0.94	0.00	0.00	5.0
1I	483	-0.000	-64.184	1.796	0.000	-3.737	-29.361	3.08	4.62	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1J	483	-0.000	-57.776	1.796	0.000	-3.737	-11.865	3.08	4.62	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1K	483	-0.000	-64.184	-1.796	0.000	3.737	-29.361	4.62	3.08	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1L	483	-0.000	-57.776	-1.796	0.000	3.737	-11.865	4.62	3.08	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1M	483	-0.000	-64.184	1.796	0.000	-3.737	-29.361	3.08	4.62	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1N	483	-0.000	-57.776	1.796	0.000	-3.737	-11.865	3.08	4.62	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
1O	483	-0.000	-64.184	-1.796	0.000	3.737	-29.361	4.62	3.08	3.08	4.62	0.18	0.86	0.25	1.13	3.65	0.00	5.0
1P	483	-0.000	-57.776	-1.796	0.000	3.737	-11.865	4.62	3.08	3.08	4.62	0.18	0.35	0.23	1.08	3.28	0.00	5.0
2	483	-0.000	-91.810	0.000	0.000	-0.000	-31.388	3.08	3.08	3.08	4.62	0.18	0.92	0.36	1.61	5.21	0.00	5.0
7	483	-0.000	-81.870	1.479	0.000	-3.078	-32.519	3.08	4.62	3.08	4.62	0.18	0.95	0.32	1.44	4.65	0.00	5.0
8	483	-0.000	-79.280	0.000	0.000	-0.000	-26.798	3.08	3.08	3.08	4.62	0.18	0.78	0.31	1.39	4.50	0.00	5.0
9	483	-0.000	-15.120	1.479	0.000	-3.078	-10.312	3.08	4.62	3.08	4.62	0.18	0.30	0.06	0.28	0.00	0.00	5.0

apost= 1.54 aant= 1.54 ainf= 1.54 asup= 4.62 (e arm. base= 4 X 1.54) staffe= 2 d 8 / 5.0

AMV s.r.l.
Via San Lorenzo, 106 Tel. 0481/779903
34077 Ronchi dei Legionari (GO)

Lavoro: **Edificio di controllo scolmatore – Bisagno (GE)** Intestazione lavoro: **Edificio di controllo scolmatore – Bisagno (GE)**
Elemento: **PILASTRO** Gruppo: **1** Tabella: **Tabella pilastri**
Descrizione: **Pilastri 30x30**
Rck: **35.00** N/mm² fyk: **450.0** N/mm² Copriferro di calcolo: **4.0** cm Copriferro di disegno: **4.0** cm
Verifica in ottemperanza alle NTC2008
Diametro staffe: **8** mm Numero braccia: **2**
ρ min.: **1.000** % Passo max. armatura longitudinale: **50.0** cm

ASTA NUM. 1 NI 9 NF 10 SEZ. Rp B= 0.300 H= 0.300 (pilastro)
PIL. NUM. 7
armatura base = 4 X 2.01 per le armature aggiuntive consultare il tabulato

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	aswta	aswto	PASSO
	--			kN			kN*m			cmq			Fx,M	Bielle V,Mx	cmq/m	cm
	cm															
1A	0	--	--	-108.127	-22.351	-0.290	0.000	6.516	55.231	4.02	4.02	3	0.78	0.10	0.32	0.00 0.00 12.8
1B	0	--	--	-108.127	4.191	-0.290	0.000	6.516	-25.162	4.02	4.02	3	0.34	0.02	0.06	0.00 0.00 12.8
1C	0	--	--	-108.127	-22.351	-8.300	0.000	-21.764	55.231	4.02	4.02	3	0.84	0.10	0.32	0.00 0.00 12.8
1D	0	--	--	-108.127	4.191	-8.300	0.000	-21.764	-25.162	4.02	4.02	3	0.47	0.04	0.12	0.00 0.00 12.8
1E	0	--	--	-83.773	-22.351	-0.290	0.000	6.516	55.231	4.02	4.02	2	0.83	0.11	0.34	0.00 0.00 12.8
1F	0	--	--	-83.773	4.191	-0.290	0.000	6.516	-25.162	4.02	4.02	3	0.36	0.02	0.07	0.00 0.00 12.8
1G	0	--	--	-83.773	-22.351	-8.300	0.000	-21.764	55.231	4.02	4.02	3	0.88	0.11	0.34	0.00 0.00 12.8
1H	0	--	--	-83.773	4.191	-8.300	0.000	-21.764	-25.162	4.02	4.02	3	0.49	0.04	0.13	0.00 0.00 12.8
1I	0	--	--	-108.244	-13.063	9.046	0.000	33.245	37.489	4.02	4.02	3	0.75	0.06	0.20	0.00 0.00 12.8
1J	0	--	--	-108.244	-5.097	9.046	0.000	33.245	22.271	4.02	4.02	3	0.56	0.04	0.14	0.00 0.00 12.8
1K	0	--	--	-108.244	-13.063	-17.636	0.000	-47.239	37.489	4.02	4.02	3	0.91	0.08	0.25	0.00 0.00 12.8
1L	0	--	--	-108.244	-5.097	-17.636	0.000	-47.239	22.271	4.02	4.02	3	0.79	0.08	0.28	0.00 0.00 12.8
1M	0	--	--	-83.656	-13.063	9.046	0.000	33.245	37.489	4.02	4.02	3	0.77	0.06	0.22	0.00 0.00 12.8
1N	0	--	--	-83.656	-5.097	9.046	0.000	33.245	22.271	4.02	4.02	3	0.58	0.04	0.15	0.00 0.00 12.8
1O	0	--	--	-83.656	-13.063	-17.636	0.000	-47.239	37.489	4.02	4.02	3	0.93	0.08	0.27	0.00 0.00 12.8
1P	0	--	--	-83.656	-5.097	-17.636	0.000	-47.239	22.271	4.02	4.02	3	0.76	0.08	0.27	0.00 0.00 12.8
2	0	--	--	-131.000	-12.900	-5.592	0.000	-9.110	21.010	4.02	4.02	3	0.30	0.06	0.16	0.00 0.00 12.8
7	0	--	--	-125.100	0.306	-14.440	0.000	-25.380	0.048	4.02	4.02	3	0.25	0.07	0.19	0.00 0.00 12.8
8	0	--	--	-124.700	-11.800	-5.584	0.000	-9.096	19.230	4.02	4.02	3	0.28	0.05	0.15	0.00 0.00 12.8
9	0	--	--	-6.643	11.020	-8.866	0.000	-16.300	-17.400	4.02	4.02	3	0.40	0.06	0.24	0.00 0.00 12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

1A	492	--	--	-97.267	-22.351	-0.290	0.000	6.516	-55.231	4.02	4.02	3	0.80	0.11	0.33	0.00 0.00 12.8
1B	492	--	--	-97.267	4.191	-0.290	0.000	6.516	-4.529	4.02	4.02	4	0.10	0.02	0.04	0.00 0.00 12.8
1C	492	--	--	-97.267	-22.351	-8.300	0.000	21.764	-55.231	4.02	4.02	3	0.86	0.11	0.33	0.00 0.00 12.8

1D	492	--	--	-97.267	4.191	-8.300	0.000	21.764	-4.529	4.02	4.02	3	0.24	0.04
0.12	0.00	0.00	12.8											
1E	492	--	--	-72.913	-22.351	-0.290	0.000	6.516	-55.231	4.02	4.02	2	0.85	0.11
0.36	0.00	0.00	12.8											
1F	492	--	--	-72.913	4.191	-0.290	0.000	6.516	-4.529	4.02	4.02	4	0.10	0.02
0.04	0.00	0.00	12.8											
1G	492	--	--	-72.913	-22.351	-8.300	0.000	21.764	-55.231	4.02	4.02	3	0.90	0.11
0.36	0.00	0.00	12.8											
1H	492	--	--	-72.913	4.191	-8.300	0.000	21.764	-4.529	4.02	4.02	3	0.27	0.04
0.13	0.00	0.00	12.8											
1I	492	--	--	-97.384	-13.063	9.046	0.000	-11.252	-37.489	4.02	4.02	3	0.57	0.06
0.21	0.00	0.00	12.8											
1J	492	--	--	-97.384	-5.097	9.046	0.000	-11.252	-22.271	4.02	4.02	3	0.34	0.04
0.11	0.00	0.00	12.8											
1K	492	--	--	-97.384	-13.063	-17.636	0.000	39.532	-37.489	4.02	4.02	3	0.83	0.08
0.28	0.00	0.00	12.8											
1L	492	--	--	-97.384	-5.097	-17.636	0.000	39.532	-22.271	4.02	4.02	3	0.64	0.08
0.28	0.00	0.00	12.8											
1M	492	--	--	-72.796	-13.063	9.046	0.000	-11.252	-37.489	4.02	4.02	3	0.60	0.06
0.23	0.00	0.00	12.8											
1N	492	--	--	-72.796	-5.097	9.046	0.000	-11.252	-22.271	4.02	4.02	3	0.35	0.04
0.13	0.00	0.00	12.8											
1O	492	--	--	-72.796	-13.063	-17.636	0.000	39.532	-37.489	4.02	4.02	3	0.85	0.08
0.27	0.00	0.00	12.8											
1P	492	--	--	-72.796	-5.097	-17.636	0.000	39.532	-22.271	4.02	4.02	3	0.71	0.08
0.31	0.00	0.00	12.8											
2	492	--	--	-116.900	-12.900	-5.592	0.000	18.400	-42.440	4.02	4.02	3	0.68	0.06
0.19	0.00	0.00	12.8											
7	492	--	--	-111.000	-13.990	-5.869	0.000	24.580	-33.610	4.02	4.02	3	0.60	0.07
0.21	0.00	0.00	12.8											
8	492	--	--	-110.600	-11.800	-5.584	0.000	18.380	-38.850	4.02	4.02	3	0.63	0.06
0.18	0.00	0.00	12.8											
9	492	--	--	-6.643	-3.274	-0.293	0.000	6.230	1.649	4.02	4.02	3	0.10	0.02
0.06	0.00	0.00	12.8											

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

Passo staffe nodo NON confinato 7.8 cm

ASTA NUM. 2 NI 6 NF 13 SEZ. Rp B= 0.300 H= 0.300 (pilastro)
PIL. NUM. 4
armatura base = 4 X 2.01 per le armature aggiuntive consultare il tabulato

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	aswta	aswto	PASSO
	--			----------	----------	----------	----------	----------	----------				----------	------	----------	-----
	cm			kN			kN*m			cmq			Fx,M	Bielle V,Mx	cmq/m	cm
1A	0	--	--	-151.900	-23.497	5.373	0.000	14.310	58.390	4.02	4.02	3	0.79	0.11		
0.30	0.00	0.00	12.8													
1B	0	--	--	-151.900	5.383	5.373	0.000	14.310	-27.700	4.02	4.02	3	0.42	0.02		
0.07	0.00	0.00	12.8													
1C	0	--	--	-151.900	-23.497	-5.373	0.000	-14.310	58.390	4.02	4.02	3	0.79	0.11		
0.30	0.00	0.00	12.8													
1D	0	--	--	-151.900	5.383	-5.373	0.000	-14.310	-27.700	4.02	4.02	3	0.42	0.02		
0.07	0.00	0.00	12.8													
1E	0	--	--	-130.500	-23.497	5.373	0.000	14.310	58.390	4.02	4.02	3	0.82	0.11		
0.32	0.00	0.00	12.8													
1F	0	--	--	-130.500	5.383	5.373	0.000	14.310	-27.700	4.02	4.02	3	0.42	0.02		
0.07	0.00	0.00	12.8													
1G	0	--	--	-130.500	-23.497	-5.373	0.000	-14.310	58.390	4.02	4.02	3	0.82	0.11		
0.32	0.00	0.00	12.8													
1H	0	--	--	-130.500	5.383	-5.373	0.000	-14.310	-27.700	4.02	4.02	3	0.42	0.02		
0.07	0.00	0.00	12.8													
1I	0	--	--	-144.410	-13.389	17.910	0.000	47.700	38.377	4.02	4.02	3	0.89	0.08		
0.23	0.00	0.00	12.8													
1J	0	--	--	-144.410	-4.725	17.910	0.000	47.700	21.223	4.02	4.02	3	0.75	0.08		
0.25	0.00	0.00	12.8													
1K	0	--	--	-144.410	-13.389	-17.910	0.000	-47.700	38.377	4.02	4.02	3	0.89	0.08		
0.23	0.00	0.00	12.8													
1L	0	--	--	-144.410	-4.725	-17.910	0.000	-47.700	21.223	4.02	4.02	3	0.75	0.08		
0.25	0.00	0.00	12.8													
1M	0	--	--	-137.990	-13.389	17.910	0.000	47.700	38.377	4.02	4.02	3	0.90	0.08		
0.23	0.00	0.00	12.8													
1N	0	--	--	-137.990	-4.725	17.910	0.000	47.700	21.223	4.02	4.02	3	0.76	0.08		
0.26	0.00	0.00	12.8													

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 1O    0  --   --  -137.990 -13.389 -17.910   0.000 -47.700  38.377   4.02   4.02    3   0.90   0.08
0.23   0.00  0.00   12.8
 1P    0  --   --  -137.990  -4.725 -17.910   0.000 -47.700  21.223   4.02   4.02    3   0.76   0.08
0.26   0.00  0.00   12.8
  2    0  --   --  -196.000 -13.490  -0.000   0.000  -0.000  21.990   4.02   4.02    4   0.25   0.06
0.14   0.00  0.00   12.8
  7    0  --   --  -181.200   8.815  -4.850   0.000 -13.230  -8.565   4.02   4.02    4   0.20   0.04
0.07   0.00  0.00   12.8
  8    0  --   --  -183.500 -11.770  -0.000   0.000  -0.000  19.190   4.02   4.02    4   0.23   0.05
0.12   0.00  0.00   12.8
  9    0  --   --   -10.210  18.870  -4.850   0.000 -13.230 -24.950   4.02   4.02    3   0.49   0.09
0.41   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

 1A  492  --   --  -141.000 -23.497   5.373   0.000 -12.123 -58.390   4.02   4.02    3   0.80   0.11
0.31   0.00  0.00   12.8
 1B  492  --   --  -141.000   5.383   5.373   0.000 -12.123  -1.210   4.02   4.02    4   0.14   0.02
0.06   0.00  0.00   12.8
 1C  492  --   --  -141.000 -23.497  -5.373   0.000  12.123 -58.390   4.02   4.02    3   0.80   0.11
0.31   0.00  0.00   12.8
 1D  492  --   --  -141.000   5.383  -5.373   0.000  12.123  -1.210   4.02   4.02    4   0.14   0.02
0.06   0.00  0.00   12.8
 1E  492  --   --  -119.600 -23.497   5.373   0.000 -12.123 -58.390   4.02   4.02    3   0.83   0.11
0.33   0.00  0.00   12.8
 1F  492  --   --  -119.600   5.383   5.373   0.000 -12.123  -1.210   4.02   4.02    4   0.13   0.03
0.06   0.00  0.00   12.8
 1G  492  --   --  -119.600 -23.497  -5.373   0.000  12.123 -58.390   4.02   4.02    3   0.83   0.11
0.33   0.00  0.00   12.8
 1H  492  --   --  -119.600   5.383  -5.373   0.000  12.123  -1.210   4.02   4.02    4   0.13   0.03
0.06   0.00  0.00   12.8
 1I  492  --   --  -133.510 -13.389  17.910   0.000 -40.410 -38.377   4.02   4.02    3   0.82   0.08
0.25   0.00  0.00   12.8
 1J  492  --   --  -133.510  -4.725  17.910   0.000 -40.410 -21.223   4.02   4.02    3   0.61   0.08
0.25   0.00  0.00   12.8
 1K  492  --   --  -133.510 -13.389 -17.910   0.000  40.410 -38.377   4.02   4.02    3   0.82   0.08
0.25   0.00  0.00   12.8
 1L  492  --   --  -133.510  -4.725 -17.910   0.000  40.410 -21.223   4.02   4.02    3   0.61   0.08
0.25   0.00  0.00   12.8
 1M  492  --   --  -127.090 -13.389  17.910   0.000 -40.410 -38.377   4.02   4.02    3   0.82   0.08
0.26   0.00  0.00   12.8
 1N  492  --   --  -127.090  -4.725  17.910   0.000 -40.410 -21.223   4.02   4.02    3   0.62   0.08
0.26   0.00  0.00   12.8
 1O  492  --   --  -127.090 -13.389 -17.910   0.000  40.410 -38.377   4.02   4.02    3   0.82   0.08
0.26   0.00  0.00   12.8
 1P  492  --   --  -127.090  -4.725 -17.910   0.000  40.410 -21.223   4.02   4.02    3   0.62   0.08
0.26   0.00  0.00   12.8
  2  492  --   --  -181.900 -13.490  -0.000   0.000   0.000 -44.400   4.02   4.02    3   0.55   0.06
0.17   0.00  0.00   12.8
  7  492  --   --  -167.100 -19.770  -4.850   0.000  10.630 -35.520   4.02   4.02    3   0.48   0.09
0.25   0.00  0.00   12.8
  8  492  --   --  -169.400 -11.770  -0.000   0.000   0.000 -38.740   4.02   4.02    3   0.48   0.05
0.15   0.00  0.00   12.8
  9  492  --   --   -10.210  -9.719  -4.850   0.000  10.630  -2.438   4.02   4.02    3   0.17   0.05
0.18   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

Passo staffe nodo NON confinato   6.9 cm

ASTA NUM. 3     NI 1    NF 18    SEZ.  Rp  B= 0.300  H= 0.300  (pilastro)
PIL. NUM. 1
armatura base = 4 X 2.01     per le armature aggiuntive consultare il tabulato

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---------------------------
 NC    x  αMy  αMz       Fx       Fy       Fz       Mx       My       Mz  APOST/  AINF/ campo Indice
resistenza  aswta aswto  PASSO
      --                 -------------------       -------------------   AANT   ASUP        ------------
------  -----------  -----
      cm                           kN                        kN*m              cmq             Fx,M  Bielle
V,Mx     cmq/m       cm
-------------------------------------------------------------------------------------------------------------
---------------------------

 1A    0  --   --  -108.127 -22.351   8.300   0.000  21.764  55.231   4.02   4.02    3   0.84   0.10
0.32   0.00  0.00   12.8
 1B    0  --   --  -108.127   4.191   8.300   0.000  21.764 -25.162   4.02   4.02    3   0.47   0.04
0.12   0.00  0.00   12.8
 1C    0  --   --  -108.127 -22.351   0.290   0.000  -6.516  55.231   4.02   4.02    3   0.78   0.10
0.32   0.00  0.00   12.8
```

```
 1D    0  --   --  -108.127   4.191   0.290   0.000  -6.516 -25.162   4.02   4.02    3   0.34   0.02
0.06   0.00  0.00   12.8
 1E    0  --   --   -83.773 -22.351   8.300   0.000  21.764  55.231   4.02   4.02    3   0.88   0.11
0.34   0.00  0.00   12.8
 1F    0  --   --   -83.773   4.191   8.300   0.000  21.764 -25.162   4.02   4.02    3   0.49   0.04
0.13   0.00  0.00   12.8
 1G    0  --   --   -83.773 -22.351   0.290   0.000  -6.516  55.231   4.02   4.02    2   0.83   0.11
0.34   0.00  0.00   12.8
 1H    0  --   --   -83.773   4.191   0.290   0.000  -6.516 -25.162   4.02   4.02    3   0.36   0.02
0.07   0.00  0.00   12.8
 1I    0  --   --  -108.244 -13.063  17.636   0.000  47.239  37.489   4.02   4.02    3   0.91   0.08
0.25   0.00  0.00   12.8
 1J    0  --   --  -108.244  -5.097  17.636   0.000  47.239  22.271   4.02   4.02    3   0.79   0.08
0.28   0.00  0.00   12.8
 1K    0  --   --  -108.244 -13.063  -9.046   0.000 -33.245  37.489   4.02   4.02    3   0.75   0.06
0.20   0.00  0.00   12.8
 1L    0  --   --  -108.244  -5.097  -9.046   0.000 -33.245  22.271   4.02   4.02    3   0.56   0.04
0.14   0.00  0.00   12.8
 1M    0  --   --   -83.656 -13.063  17.636   0.000  47.239  37.489   4.02   4.02    3   0.93   0.08
0.27   0.00  0.00   12.8
 1N    0  --   --   -83.656  -5.097  17.636   0.000  47.239  22.271   4.02   4.02    3   0.76   0.08
0.27   0.00  0.00   12.8
 1O    0  --   --   -83.656 -13.063  -9.046   0.000 -33.245  37.489   4.02   4.02    3   0.77   0.06
0.22   0.00  0.00   12.8
 1P    0  --   --   -83.656  -5.097  -9.046   0.000 -33.245  22.271   4.02   4.02    3   0.58   0.04
0.15   0.00  0.00   12.8
  2    0  --   --  -131.000 -12.900   5.592   0.000   9.110  21.010   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
  7    0  --   --  -120.600   0.308  -6.598   0.000 -10.300   0.041   4.02   4.02    4   0.12   0.03
0.07   0.00  0.00   12.8
  8    0  --   --  -124.700 -11.800   5.584   0.000   9.096  19.230   4.02   4.02    3   0.28   0.05
0.15   0.00  0.00   12.8
  9    0  --   --    -2.129  11.020 -12.170   0.000 -19.390 -17.410   4.02   4.02    3   0.43   0.06
0.28   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

 1A  492  --   --   -97.267 -22.351   8.300   0.000 -21.764 -55.231   4.02   4.02    3   0.86   0.11
0.33   0.00  0.00   12.8
 1B  492  --   --   -97.267   4.191   8.300   0.000 -21.764  -4.529   4.02   4.02    3   0.24   0.04
0.12   0.00  0.00   12.8
 1C  492  --   --   -97.267 -22.351   0.290   0.000  -6.516 -55.231   4.02   4.02    3   0.80   0.11
0.33   0.00  0.00   12.8
 1D  492  --   --   -97.267   4.191   0.290   0.000  -6.516  -4.529   4.02   4.02    4   0.10   0.02
0.04   0.00  0.00   12.8
 1E  492  --   --   -72.913 -22.351   8.300   0.000 -21.764 -55.231   4.02   4.02    3   0.90   0.11
0.36   0.00  0.00   12.8
 1F  492  --   --   -72.913   4.191   8.300   0.000 -21.764  -4.529   4.02   4.02    3   0.27   0.04
0.13   0.00  0.00   12.8
 1G  492  --   --   -72.913 -22.351   0.290   0.000  -6.516 -55.231   4.02   4.02    2   0.85   0.11
0.36   0.00  0.00   12.8
 1H  492  --   --   -72.913   4.191   0.290   0.000  -6.516  -4.529   4.02   4.02    4   0.10   0.02
0.04   0.00  0.00   12.8
 1I  492  --   --   -97.384 -13.063  17.636   0.000 -39.532 -37.489   4.02   4.02    3   0.83   0.08
0.28   0.00  0.00   12.8
 1J  492  --   --   -97.384  -5.097  17.636   0.000 -39.532 -22.271   4.02   4.02    3   0.64   0.08
0.28   0.00  0.00   12.8
 1K  492  --   --   -97.384 -13.063  -9.046   0.000  11.252 -37.489   4.02   4.02    3   0.57   0.06
0.21   0.00  0.00   12.8
 1L  492  --   --   -97.384  -5.097  -9.046   0.000  11.252 -22.271   4.02   4.02    3   0.34   0.04
0.11   0.00  0.00   12.8
 1M  492  --   --   -72.796 -13.063  17.636   0.000 -39.532 -37.489   4.02   4.02    3   0.85   0.08
0.27   0.00  0.00   12.8
 1N  492  --   --   -72.796  -5.097  17.636   0.000 -39.532 -22.271   4.02   4.02    3   0.71   0.08
0.31   0.00  0.00   12.8
 1O  492  --   --   -72.796 -13.063  -9.046   0.000  11.252 -37.489   4.02   4.02    3   0.60   0.06
0.23   0.00  0.00   12.8
 1P  492  --   --   -72.796  -5.097  -9.046   0.000  11.252 -22.271   4.02   4.02    3   0.35   0.04
0.13   0.00  0.00   12.8
  2  492  --   --  -116.900 -12.900   5.592   0.000 -18.400 -42.440   4.02   4.02    3   0.68   0.06
0.19   0.00  0.00   12.8
  7  492  --   --  -106.500 -13.990   7.696   0.000 -13.000 -33.610   4.02   4.02    3   0.51   0.07
0.21   0.00  0.00   12.8
  8  492  --   --  -110.600 -11.800   5.584   0.000 -18.380 -38.850   4.02   4.02    3   0.63   0.06
0.18   0.00  0.00   12.8
  9  492  --   --    -2.129  -3.272   2.120   0.000   5.347   1.653   4.02   4.02    3   0.09   0.02
0.07   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

Passo staffe nodo NON confinato   7.8 cm
```

ASTA NUM. 4 NI 8 NF 11 SEZ. Rp B= 0.300 H= 0.300 (pilastro)
PIL. NUM. 8
armatura base = 4 X 2.01 per le armature aggiuntive consultare il tabulato

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	aswta	aswto	PASSO
	cm			kN			kN*m			cmq			Fx,M	V,Mx	cmq/m	cm
1A	0	--	--	-156.416	-17.780	2.646	0.000	10.028	47.300	4.02	4.02	3	0.66	0.08	0.24	0.00	0.00	12.8
1B	0	--	--	-156.416	17.780	2.646	0.000	10.028	-47.300	4.02	4.02	3	0.66	0.08	0.24	0.00	0.00	12.8
1C	0	--	--	-156.416	-17.780	-5.634	0.000	-14.896	47.300	4.02	4.02	3	0.69	0.08	0.24	0.00	0.00	12.8
1D	0	--	--	-156.416	17.780	-5.634	0.000	-14.896	-47.300	4.02	4.02	3	0.69	0.08	0.24	0.00	0.00	12.8
1E	0	--	--	-150.584	-17.780	2.646	0.000	10.028	47.300	4.02	4.02	3	0.66	0.08	0.24	0.00	0.00	12.8
1F	0	--	--	-150.584	17.780	2.646	0.000	10.028	-47.300	4.02	4.02	3	0.66	0.08	0.24	0.00	0.00	12.8
1G	0	--	--	-150.584	-17.780	-5.634	0.000	-14.896	47.300	4.02	4.02	3	0.69	0.08	0.24	0.00	0.00	12.8
1H	0	--	--	-150.584	17.780	-5.634	0.000	-14.896	-47.300	4.02	4.02	3	0.69	0.08	0.24	0.00	0.00	12.8
1I	0	--	--	-163.220	-5.334	12.306	0.000	39.106	14.190	4.02	4.02	3	0.50	0.06	0.16	0.00	0.00	12.8
1J	0	--	--	-163.220	5.334	12.306	0.000	39.106	-14.190	4.02	4.02	3	0.50	0.06	0.16	0.00	0.00	12.8
1K	0	--	--	-163.220	-5.334	-15.294	0.000	-43.974	14.190	4.02	4.02	3	0.56	0.07	0.20	0.00	0.00	12.8
1L	0	--	--	-163.220	5.334	-15.294	0.000	-43.974	-14.190	4.02	4.02	3	0.56	0.07	0.20	0.00	0.00	12.8
1M	0	--	--	-143.780	-5.334	12.306	0.000	39.106	14.190	4.02	4.02	3	0.52	0.06	0.17	0.00	0.00	12.8
1N	0	--	--	-143.780	5.334	12.306	0.000	39.106	-14.190	4.02	4.02	3	0.52	0.06	0.17	0.00	0.00	12.8
1O	0	--	--	-143.780	-5.334	-15.294	0.000	-43.974	14.190	4.02	4.02	3	0.58	0.07	0.21	0.00	0.00	12.8
1P	0	--	--	-143.780	5.334	-15.294	0.000	-43.974	-14.190	4.02	4.02	3	0.58	0.07	0.21	0.00	0.00	12.8
2	0	--	--	-215.000	-0.000	-1.958	0.000	-3.190	0.000	4.02	4.02	6	0.13	0.01	0.01	0.00	0.00	12.8
7	0	--	--	-201.500	4.775	-15.960	0.000	-24.840	-13.010	4.02	4.02	3	0.33	0.07	0.16	0.00	0.00	12.8
8	0	--	--	-199.500	0.000	-1.942	0.000	-3.164	0.000	4.02	4.02	6	0.12	0.01	0.01	0.00	0.00	12.8
9	0	--	--	-17.560	4.775	-14.030	0.000	-21.700	-13.010	4.02	4.02	3	0.40	0.07	0.30	0.00	0.00	12.8

apost= 2.01 aant= 2.01 ainf= -- asup= -- (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	aswta	aswto	PASSO
	cm			kN			kN*m			cmq			Fx,M	V,Mx	cmq/m	cm
1A	492	--	--	-145.516	-17.780	2.646	0.000	-2.991	-40.160	4.02	4.02	3	0.52	0.08	0.24	0.00	0.00	12.8
1B	492	--	--	-145.516	17.780	2.646	0.000	-2.991	40.160	4.02	4.02	3	0.52	0.08	0.24	0.00	0.00	12.8
1C	492	--	--	-145.516	-17.780	-5.634	0.000	12.825	-40.160	4.02	4.02	3	0.58	0.08	0.24	0.00	0.00	12.8
1D	492	--	--	-145.516	17.780	-5.634	0.000	12.825	40.160	4.02	4.02	3	0.58	0.08	0.24	0.00	0.00	12.8
1E	492	--	--	-139.684	-17.780	2.646	0.000	-2.991	-40.160	4.02	4.02	3	0.52	0.08	0.25	0.00	0.00	12.8
1F	492	--	--	-139.684	17.780	2.646	0.000	-2.991	40.160	4.02	4.02	3	0.52	0.08	0.25	0.00	0.00	12.8
1G	492	--	--	-139.684	-17.780	-5.634	0.000	12.825	-40.160	4.02	4.02	3	0.58	0.08	0.25	0.00	0.00	12.8
1H	492	--	--	-139.684	17.780	-5.634	0.000	12.825	40.160	4.02	4.02	3	0.58	0.08	0.25	0.00	0.00	12.8
1I	492	--	--	-152.320	-5.334	12.306	0.000	-21.443	-12.048	4.02	4.02	3	0.30	0.06	0.14	0.00	0.00	12.8
1J	492	--	--	-152.320	5.334	12.306	0.000	-21.443	12.048	4.02	4.02	3	0.30	0.06	0.14	0.00	0.00	12.8
1K	492	--	--	-152.320	-5.334	-15.294	0.000	31.277	-12.048	4.02	4.02	3	0.40	0.07	0.19	0.00	0.00	12.8
1L	492	--	--	-152.320	5.334	-15.294	0.000	31.277	12.048	4.02	4.02	3	0.40	0.07	0.19	0.00	0.00	12.8

```
 1M  492  --   --  -132.880  -5.334  12.306   0.000 -21.443 -12.048   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
 1N  492  --   --  -132.880   5.334  12.306   0.000 -21.443  12.048   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
 1O  492  --   --  -132.880  -5.334 -15.294   0.000  31.277 -12.048   4.02   4.02    3   0.41   0.07
0.21   0.00  0.00   12.8
 1P  492  --   --  -132.880   5.334 -15.294   0.000  31.277  12.048   4.02   4.02    3   0.41   0.07
0.21   0.00  0.00   12.8
  2  492  --   --  -200.900  -0.000  -1.958   0.000   6.445   0.000   4.02   4.02    6   0.13   0.01
0.01   0.00  0.00   12.8
  7  492  --   --  -187.400   4.775   1.190   0.000  11.490  10.490   4.02   4.02    4   0.21   0.02
0.04   0.00  0.00   12.8
  8  492  --   --  -185.400   0.000  -1.942   0.000   6.393   0.000   4.02   4.02    5   0.13   0.01
0.01   0.00  0.00   12.8
  9  492  --   --   -17.560   4.775   3.117   0.000   5.146  10.490   4.02   4.02    3   0.18   0.02
0.10   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= --      asup= --      (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

Passo staffe nodo NON confinato   7.8 cm

ASTA NUM. 5     NI 5    NF 14    SEZ.  Rp  B= 0.300  H= 0.300  (pilastro)
PIL. NUM. 5
armatura base = 4 X 2.01     per le armature aggiuntive consultare il tabulato

-------------------------------------------------------------------------------------------------------------
---------------------------
 NC     x  αMy  αMz       Fx       Fy       Fz       Mx       My       Mz  APOST/  AINF/ campo Indice
resistenza  aswta aswto  PASSO
      --                 ------------------       ------------------   AANT   ASUP        ------------
------  -----------  -----
       cm                           kN                       kN*m              cmq             Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
---------------------------

 1A    0  --   --  -178.000 -19.130   5.535   0.000  14.739  50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1B    0  --   --  -178.000  19.130   5.535   0.000  14.739 -50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1C    0  --   --  -178.000 -19.130  -5.535   0.000 -14.739  50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1D    0  --   --  -178.000  19.130  -5.535   0.000 -14.739 -50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1E    0  --   --  -178.000 -19.130   5.535   0.000  14.739  50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1F    0  --   --  -178.000  19.130   5.535   0.000  14.739 -50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1G    0  --   --  -178.000 -19.130  -5.535   0.000 -14.739  50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1H    0  --   --  -178.000  19.130  -5.535   0.000 -14.739 -50.110   4.02   4.02    3   0.71   0.09
0.24   0.00  0.00   12.8
 1I    0  --   --  -178.000  -5.739  18.450   0.000  49.130  15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1J    0  --   --  -178.000   5.739  18.450   0.000  49.130 -15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1K    0  --   --  -178.000  -5.739 -18.450   0.000 -49.130  15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1L    0  --   --  -178.000   5.739 -18.450   0.000 -49.130 -15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1M    0  --   --  -178.000  -5.739  18.450   0.000  49.130  15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1N    0  --   --  -178.000   5.739  18.450   0.000  49.130 -15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1O    0  --   --  -178.000  -5.739 -18.450   0.000 -49.130  15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
 1P    0  --   --  -178.000   5.739 -18.450   0.000 -49.130 -15.033   4.02   4.02    3   0.62   0.08
0.24   0.00  0.00   12.8
  2    0  --   --  -262.300   0.000  -0.000   0.000  -0.000   0.000   4.02   4.02    7   0.16   0.00
0.00   0.00  0.00   12.8
  7    0  --   --  -230.200   5.364  -5.160   0.000 -14.180 -14.500   4.02   4.02    4   0.27   0.02
0.04   0.00  0.00   12.8
  8    0  --   --  -231.400   0.000  -0.000   0.000  -0.000   0.000   4.02   4.02    7   0.14   0.00
0.00   0.00  0.00   12.8
  9    0  --   --   -29.720   5.364  -5.160   0.000 -14.180 -14.500   4.02   4.02    3   0.31   0.03
0.10   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= --      asup= --      (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

 1A  492  --   --  -167.100 -19.130   5.535   0.000 -12.498 -44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
```

```
 1B  492  --   --  -167.100  19.130   5.535   0.000 -12.498  44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1C  492  --   --  -167.100 -19.130  -5.535   0.000  12.498 -44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1D  492  --   --  -167.100  19.130  -5.535   0.000  12.498  44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1E  492  --   --  -167.100 -19.130   5.535   0.000 -12.498 -44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1F  492  --   --  -167.100  19.130   5.535   0.000 -12.498  44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1G  492  --   --  -167.100 -19.130  -5.535   0.000  12.498 -44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1H  492  --   --  -167.100  19.130  -5.535   0.000  12.498  44.010   4.02   4.02    3   0.62   0.09
0.25   0.00  0.00   12.8
 1I  492  --   --  -167.100  -5.739  18.450   0.000 -41.660 -13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1J  492  --   --  -167.100   5.739  18.450   0.000 -41.660  13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1K  492  --   --  -167.100  -5.739 -18.450   0.000  41.660 -13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1L  492  --   --  -167.100   5.739 -18.450   0.000  41.660  13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1M  492  --   --  -167.100  -5.739  18.450   0.000 -41.660 -13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1N  492  --   --  -167.100   5.739  18.450   0.000 -41.660  13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1O  492  --   --  -167.100  -5.739 -18.450   0.000  41.660 -13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1P  492  --   --  -167.100   5.739 -18.450   0.000  41.660  13.203   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
  2  492  --   --  -248.100   0.000  -0.000   0.000   0.000   0.000   4.02   4.02    7   0.15   0.00
0.00   0.00  0.00   12.8
  7  492  --   --  -216.100   5.364  -5.160   0.000  11.210  11.900   4.02   4.02    4   0.22   0.02
0.04   0.00  0.00   12.8
  8  492  --   --  -217.300   0.000  -0.000   0.000   0.000   0.000   4.02   4.02    7   0.13   0.00
0.00   0.00  0.00   12.8
  9  492  --   --   -29.720   5.364  -5.160   0.000  11.210  11.900   4.02   4.02    3   0.25   0.03
0.10   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= --      asup= --      (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

ASTA NUM. 6     NI 2    NF 17    SEZ.  Rp  B= 0.300  H= 0.300  (pilastro)
PIL. NUM. 2
armatura base = 4 X 2.01     per le armature aggiuntive consultare il tabulato

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---------------------------
 NC     x  αMy  αMz       Fx      Fy      Fz      Mx      My      Mz  APOST/  AINF/ campo Indice
resistenza  aswta aswto  PASSO
       --                 -------------------     -------------------   AANT   ASUP        ------------
------  -----------  -----
      cm                           kN                      kN*m              cmq             Fx,M  Bielle
V,Mx      cmq/m       cm
-------------------------------------------------------------------------------------------------------------
---------------------------

 1A    0  --   --  -156.416 -17.780   5.634   0.000  14.896  47.300   4.02   4.02    3   0.69   0.08
0.24   0.00  0.00   12.8
 1B    0  --   --  -156.416  17.780   5.634   0.000  14.896 -47.300   4.02   4.02    3   0.69   0.08
0.24   0.00  0.00   12.8
 1C    0  --   --  -156.416 -17.780  -2.646   0.000 -10.028  47.300   4.02   4.02    3   0.66   0.08
0.24   0.00  0.00   12.8
 1D    0  --   --  -156.416  17.780  -2.646   0.000 -10.028 -47.300   4.02   4.02    3   0.66   0.08
0.24   0.00  0.00   12.8
 1E    0  --   --  -150.584 -17.780   5.634   0.000  14.896  47.300   4.02   4.02    3   0.69   0.08
0.24   0.00  0.00   12.8
 1F    0  --   --  -150.584  17.780   5.634   0.000  14.896 -47.300   4.02   4.02    3   0.69   0.08
0.24   0.00  0.00   12.8
 1G    0  --   --  -150.584 -17.780  -2.646   0.000 -10.028  47.300   4.02   4.02    3   0.66   0.08
0.24   0.00  0.00   12.8
 1H    0  --   --  -150.584  17.780  -2.646   0.000 -10.028 -47.300   4.02   4.02    3   0.66   0.08
0.24   0.00  0.00   12.8
 1I    0  --   --  -163.220  -5.334  15.294   0.000  43.974  14.190   4.02   4.02    3   0.56   0.07
0.20   0.00  0.00   12.8
 1J    0  --   --  -163.220   5.334  15.294   0.000  43.974 -14.190   4.02   4.02    3   0.56   0.07
0.20   0.00  0.00   12.8
 1K    0  --   --  -163.220  -5.334 -12.306   0.000 -39.106  14.190   4.02   4.02    3   0.50   0.06
0.16   0.00  0.00   12.8
 1L    0  --   --  -163.220   5.334 -12.306   0.000 -39.106 -14.190   4.02   4.02    3   0.50   0.06
0.16   0.00  0.00   12.8
 1M    0  --   --  -143.780  -5.334  15.294   0.000  43.974  14.190   4.02   4.02    3   0.58   0.07
0.21   0.00  0.00   12.8
```

```
 1N    0  --   --  -143.780   5.334  15.294   0.000  43.974 -14.190   4.02   4.02    3   0.58   0.07
0.21   0.00  0.00   12.8
 1O    0  --   --  -143.780  -5.334 -12.306   0.000 -39.106  14.190   4.02   4.02    3   0.52   0.06
0.17   0.00  0.00   12.8
 1P    0  --   --  -143.780   5.334 -12.306   0.000 -39.106 -14.190   4.02   4.02    3   0.52   0.06
0.17   0.00  0.00   12.8
  2    0  --   --  -215.000  -0.000   1.958   0.000   3.190   0.000   4.02   4.02    6   0.13   0.01
0.01   0.00  0.00   12.8
  7    0  --   --  -197.400   4.775 -18.570   0.000 -24.490 -13.010   4.02   4.02    3   0.33   0.08
0.19   0.00  0.00   12.8
  8    0  --   --  -199.500   0.000   1.942   0.000   3.164   0.000   4.02   4.02    6   0.12   0.01
0.01   0.00  0.00   12.8
  9    0  --   --  -13.410   4.775 -20.500   0.000 -27.620 -13.010   4.02   4.02    3   0.50   0.10
0.44   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= --      asup= --      (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

 1A  492  --   --  -145.516 -17.780   5.634   0.000 -12.825 -40.160   4.02   4.02    3   0.58   0.08
0.24   0.00  0.00   12.8
 1B  492  --   --  -145.516  17.780   5.634   0.000 -12.825  40.160   4.02   4.02    3   0.58   0.08
0.24   0.00  0.00   12.8
 1C  492  --   --  -145.516 -17.780  -2.646   0.000   2.991 -40.160   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1D  492  --   --  -145.516  17.780  -2.646   0.000   2.991  40.160   4.02   4.02    3   0.52   0.08
0.24   0.00  0.00   12.8
 1E  492  --   --  -139.684 -17.780   5.634   0.000 -12.825 -40.160   4.02   4.02    3   0.58   0.08
0.25   0.00  0.00   12.8
 1F  492  --   --  -139.684  17.780   5.634   0.000 -12.825  40.160   4.02   4.02    3   0.58   0.08
0.25   0.00  0.00   12.8
 1G  492  --   --  -139.684 -17.780  -2.646   0.000   2.991 -40.160   4.02   4.02    3   0.52   0.08
0.25   0.00  0.00   12.8
 1H  492  --   --  -139.684  17.780  -2.646   0.000   2.991  40.160   4.02   4.02    3   0.52   0.08
0.25   0.00  0.00   12.8
 1I  492  --   --  -152.320  -5.334  15.294   0.000 -31.277 -12.048   4.02   4.02    3   0.40   0.07
0.19   0.00  0.00   12.8
 1J  492  --   --  -152.320   5.334  15.294   0.000 -31.277  12.048   4.02   4.02    3   0.40   0.07
0.19   0.00  0.00   12.8
 1K  492  --   --  -152.320  -5.334 -12.306   0.000  21.443 -12.048   4.02   4.02    3   0.30   0.06
0.14   0.00  0.00   12.8
 1L  492  --   --  -152.320   5.334 -12.306   0.000  21.443  12.048   4.02   4.02    3   0.30   0.06
0.14   0.00  0.00   12.8
 1M  492  --   --  -132.880  -5.334  15.294   0.000 -31.277 -12.048   4.02   4.02    3   0.41   0.07
0.21   0.00  0.00   12.8
 1N  492  --   --  -132.880   5.334  15.294   0.000 -31.277  12.048   4.02   4.02    3   0.41   0.07
0.21   0.00  0.00   12.8
 1O  492  --   --  -132.880  -5.334 -12.306   0.000  21.443 -12.048   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
 1P  492  --   --  -132.880   5.334 -12.306   0.000  21.443  12.048   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
  2  492  --   --  -200.900  -0.000   1.958   0.000  -6.445   0.000   4.02   4.02    6   0.13   0.01
0.01   0.00  0.00   12.8
  7  492  --   --  -183.200   4.775  10.020   0.000  -3.437  10.490   4.02   4.02    4   0.16   0.04
0.07   0.00  0.00   12.8
  8  492  --   --  -185.400   0.000   1.942   0.000  -6.393   0.000   4.02   4.02    5   0.13   0.01
0.01   0.00  0.00   12.8
  9  492  --   --  -13.410   4.775   8.089   0.000   2.904  10.490   4.02   4.02    3   0.17   0.04
0.15   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= --      asup= --      (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

Passo staffe nodo NON confinato   7.8 cm

ASTA NUM. 7     NI 7    NF 12    SEZ.  Rp  B= 0.300  H= 0.300  (pilastro)
PIL. NUM. 9
armatura base = 4 X 2.01     per le armature aggiuntive consultare il tabulato

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---------------------------
 NC     x  αMy  αMz       Fx       Fy       Fz       Mx       My       Mz  APOST/  AINF/ campo Indice
resistenza  aswta aswto  PASSO
      --                 ------------------       ------------------   AANT   ASUP        ------------
------  -----------  -----
      cm                            kN                       kN*m              cmq             Fx,M  Bielle
V,Mx      cmq/m        cm
-------------------------------------------------------------------------------------------------------------
---------------------------

 1A    0  --   --  -108.127  -4.191  -0.290   0.000   6.516  25.162   4.02   4.02    3   0.34   0.02
0.06   0.00  0.00   12.8
 1B    0  --   --  -108.127  22.351  -0.290   0.000   6.516 -55.231   4.02   4.02    3   0.78   0.10
0.32   0.00  0.00   12.8
```

```
 1C    0  --   --  -108.127  -4.191  -8.300   0.000 -21.764  25.162   4.02   4.02    3   0.47   0.04
0.12   0.00  0.00   12.8
 1D    0  --   --  -108.127  22.351  -8.300   0.000 -21.764 -55.231   4.02   4.02    3   0.84   0.10
0.32   0.00  0.00   12.8
 1E    0  --   --   -83.773  -4.191  -0.290   0.000   6.516  25.162   4.02   4.02    3   0.36   0.02
0.07   0.00  0.00   12.8
 1F    0  --   --   -83.773  22.351  -0.290   0.000   6.516 -55.231   4.02   4.02    2   0.83   0.11
0.34   0.00  0.00   12.8
 1G    0  --   --   -83.773  -4.191  -8.300   0.000 -21.764  25.162   4.02   4.02    3   0.49   0.04
0.13   0.00  0.00   12.8
 1H    0  --   --   -83.773  22.351  -8.300   0.000 -21.764 -55.231   4.02   4.02    3   0.88   0.11
0.34   0.00  0.00   12.8
 1I    0  --   --  -108.244   5.097   9.046   0.000  33.245 -22.271   4.02   4.02    3   0.56   0.04
0.14   0.00  0.00   12.8
 1J    0  --   --  -108.244  13.063   9.046   0.000  33.245 -37.489   4.02   4.02    3   0.75   0.06
0.20   0.00  0.00   12.8
 1K    0  --   --  -108.244   5.097 -17.636   0.000 -47.239 -22.271   4.02   4.02    3   0.79   0.08
0.28   0.00  0.00   12.8
 1L    0  --   --  -108.244  13.063 -17.636   0.000 -47.239 -37.489   4.02   4.02    3   0.91   0.08
0.25   0.00  0.00   12.8
 1M    0  --   --   -83.656   5.097   9.046   0.000  33.245 -22.271   4.02   4.02    3   0.58   0.04
0.15   0.00  0.00   12.8
 1N    0  --   --   -83.656  13.063   9.046   0.000  33.245 -37.489   4.02   4.02    3   0.77   0.06
0.22   0.00  0.00   12.8
 1O    0  --   --   -83.656   5.097 -17.636   0.000 -47.239 -22.271   4.02   4.02    3   0.76   0.08
0.27   0.00  0.00   12.8
 1P    0  --   --   -83.656  13.063 -17.636   0.000 -47.239 -37.489   4.02   4.02    3   0.93   0.08
0.27   0.00  0.00   12.8
  2    0  --   --  -131.000  12.900  -5.592   0.000  -9.110 -21.010   4.02   4.02    3   0.30   0.06
0.16   0.00  0.00   12.8
  7    0  --   --  -129.500  20.600 -14.440   0.000 -25.390 -35.320   4.02   4.02    3   0.62   0.10
0.29   0.00  0.00   12.8
  8    0  --   --  -124.700  11.800  -5.584   0.000  -9.096 -19.230   4.02   4.02    3   0.28   0.05
0.15   0.00  0.00   12.8
  9    0  --   --   -11.020   9.887  -8.868   0.000 -16.310 -17.870   4.02   4.02    3   0.40   0.05
0.21   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8

 1A  492  --   --   -97.267  -4.191  -0.290   0.000   6.516   4.529   4.02   4.02    4   0.10   0.02
0.04   0.00  0.00   12.8
 1B  492  --   --   -97.267  22.351  -0.290   0.000   6.516  55.231   4.02   4.02    3   0.80   0.11
0.33   0.00  0.00   12.8
 1C  492  --   --   -97.267  -4.191  -8.300   0.000  21.764   4.529   4.02   4.02    3   0.24   0.04
0.12   0.00  0.00   12.8
 1D  492  --   --   -97.267  22.351  -8.300   0.000  21.764  55.231   4.02   4.02    3   0.86   0.11
0.33   0.00  0.00   12.8
 1E  492  --   --   -72.913  -4.191  -0.290   0.000   6.516   4.529   4.02   4.02    4   0.10   0.02
0.04   0.00  0.00   12.8
 1F  492  --   --   -72.913  22.351  -0.290   0.000   6.516  55.231   4.02   4.02    2   0.85   0.11
0.36   0.00  0.00   12.8
 1G  492  --   --   -72.913  -4.191  -8.300   0.000  21.764   4.529   4.02   4.02    3   0.27   0.04
0.13   0.00  0.00   12.8
 1H  492  --   --   -72.913  22.351  -8.300   0.000  21.764  55.231   4.02   4.02    3   0.90   0.11
0.36   0.00  0.00   12.8
 1I  492  --   --   -97.384   5.097   9.046   0.000 -11.252  22.271   4.02   4.02    3   0.34   0.04
0.11   0.00  0.00   12.8
 1J  492  --   --   -97.384  13.063   9.046   0.000 -11.252  37.489   4.02   4.02    3   0.57   0.06
0.21   0.00  0.00   12.8
 1K  492  --   --   -97.384   5.097 -17.636   0.000  39.532  22.271   4.02   4.02    3   0.64   0.08
0.28   0.00  0.00   12.8
 1L  492  --   --   -97.384  13.063 -17.636   0.000  39.532  37.489   4.02   4.02    3   0.83   0.08
0.28   0.00  0.00   12.8
 1M  492  --   --   -72.796   5.097   9.046   0.000 -11.252  22.271   4.02   4.02    3   0.35   0.04
0.13   0.00  0.00   12.8
 1N  492  --   --   -72.796  13.063   9.046   0.000 -11.252  37.489   4.02   4.02    3   0.60   0.06
0.23   0.00  0.00   12.8
 1O  492  --   --   -72.796   5.097 -17.636   0.000  39.532  22.271   4.02   4.02    3   0.71   0.08
0.31   0.00  0.00   12.8
 1P  492  --   --   -72.796  13.063 -17.636   0.000  39.532  37.489   4.02   4.02    3   0.85   0.08
0.27   0.00  0.00   12.8
  2  492  --   --  -116.900  12.900  -5.592   0.000  18.400  42.440   4.02   4.02    3   0.68   0.06
0.19   0.00  0.00   12.8
  7  492  --   --  -115.400  12.030  -5.871   0.000  24.590  44.950   4.02   4.02    3   0.76   0.06
0.18   0.00  0.00   12.8
  8  492  --   --  -110.600  11.800  -5.584   0.000  18.380  38.850   4.02   4.02    3   0.63   0.06
0.18   0.00  0.00   12.8
  9  492  --   --   -11.020   1.315  -0.295   0.000   6.235   9.688   4.02   4.02    3   0.19   0.01
0.03   0.00  0.00   12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d  8 / 12.8
```

Passo staffe nodo NON confinato 7.8 cm

ASTA NUM. 8 NI 4 NF 15 SEZ. Rp B= 0.300 H= 0.300 (pilastro)
PIL. NUM. 6
armatura base = 4 X 2.01 per le armature aggiuntive consultare il tabulato

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	Bielle aswta aswto
	cm			kN			kN*m			cmq			Fx,M	V,Mx cmq/m cm
1A	0	--	--	-151.900	-5.383	5.373	0.000	14.310	27.700	4.02	4.02	3	0.42	0.02 0.07 0.00 0.00 12.8
1B	0	--	--	-151.900	23.497	5.373	0.000	14.310	-58.390	4.02	4.02	3	0.79	0.11 0.30 0.00 0.00 12.8
1C	0	--	--	-151.900	-5.383	-5.373	0.000	-14.310	27.700	4.02	4.02	3	0.42	0.02 0.07 0.00 0.00 12.8
1D	0	--	--	-151.900	23.497	-5.373	0.000	-14.310	-58.390	4.02	4.02	3	0.79	0.11 0.30 0.00 0.00 12.8
1E	0	--	--	-130.500	-5.383	5.373	0.000	14.310	27.700	4.02	4.02	3	0.42	0.02 0.07 0.00 0.00 12.8
1F	0	--	--	-130.500	23.497	5.373	0.000	14.310	-58.390	4.02	4.02	3	0.82	0.11 0.32 0.00 0.00 12.8
1G	0	--	--	-130.500	-5.383	-5.373	0.000	-14.310	27.700	4.02	4.02	3	0.42	0.02 0.07 0.00 0.00 12.8
1H	0	--	--	-130.500	23.497	-5.373	0.000	-14.310	-58.390	4.02	4.02	3	0.82	0.11 0.32 0.00 0.00 12.8
1I	0	--	--	-144.410	4.725	17.910	0.000	47.700	-21.223	4.02	4.02	3	0.75	0.08 0.25 0.00 0.00 12.8
1J	0	--	--	-144.410	13.389	17.910	0.000	47.700	-38.377	4.02	4.02	3	0.89	0.08 0.23 0.00 0.00 12.8
1K	0	--	--	-144.410	4.725	-17.910	0.000	-47.700	-21.223	4.02	4.02	3	0.75	0.08 0.25 0.00 0.00 12.8
1L	0	--	--	-144.410	13.389	-17.910	0.000	-47.700	-38.377	4.02	4.02	3	0.89	0.08 0.23 0.00 0.00 12.8
1M	0	--	--	-137.990	4.725	17.910	0.000	47.700	-21.223	4.02	4.02	3	0.76	0.08 0.26 0.00 0.00 12.8
1N	0	--	--	-137.990	13.389	17.910	0.000	47.700	-38.377	4.02	4.02	3	0.90	0.08 0.23 0.00 0.00 12.8
1O	0	--	--	-137.990	4.725	-17.910	0.000	-47.700	-21.223	4.02	4.02	3	0.76	0.08 0.26 0.00 0.00 12.8
1P	0	--	--	-137.990	13.389	-17.910	0.000	-47.700	-38.377	4.02	4.02	3	0.90	0.08 0.23 0.00 0.00 12.8
2	0	--	--	-196.000	13.490	-0.000	0.000	-0.000	-21.990	4.02	4.02	4	0.25	0.06 0.14 0.00 0.00 12.8
7	0	--	--	-185.800	25.920	-4.850	0.000	-13.230	-41.060	4.02	4.02	3	0.57	0.12 0.31 0.00 0.00 12.8
8	0	--	--	-183.500	11.770	-0.000	0.000	-0.000	-19.190	4.02	4.02	4	0.23	0.05 0.12 0.00 0.00 12.8
9	0	--	--	-14.770	15.870	-4.850	0.000	-13.230	-24.680	4.02	4.02	3	0.48	0.08 0.34 0.00 0.00 12.8

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

1A	492	--	--	-141.000	-5.383	5.373	0.000	-12.123	1.210	4.02	4.02	4	0.14	0.02 0.06 0.00 0.00 12.8
1B	492	--	--	-141.000	23.497	5.373	0.000	-12.123	58.390	4.02	4.02	3	0.80	0.11 0.31 0.00 0.00 12.8
1C	492	--	--	-141.000	-5.383	-5.373	0.000	12.123	1.210	4.02	4.02	4	0.14	0.02 0.06 0.00 0.00 12.8
1D	492	--	--	-141.000	23.497	-5.373	0.000	12.123	58.390	4.02	4.02	3	0.80	0.11 0.31 0.00 0.00 12.8
1E	492	--	--	-119.600	-5.383	5.373	0.000	-12.123	1.210	4.02	4.02	4	0.13	0.03 0.06 0.00 0.00 12.8
1F	492	--	--	-119.600	23.497	5.373	0.000	-12.123	58.390	4.02	4.02	3	0.83	0.11 0.33 0.00 0.00 12.8
1G	492	--	--	-119.600	-5.383	-5.373	0.000	12.123	1.210	4.02	4.02	4	0.13	0.03 0.06 0.00 0.00 12.8
1H	492	--	--	-119.600	23.497	-5.373	0.000	12.123	58.390	4.02	4.02	3	0.83	0.11 0.33 0.00 0.00 12.8
1I	492	--	--	-133.510	4.725	17.910	0.000	-40.410	21.223	4.02	4.02	3	0.61	0.08 0.25 0.00 0.00 12.8
1J	492	--	--	-133.510	13.389	17.910	0.000	-40.410	38.377	4.02	4.02	3	0.82	0.08 0.25 0.00 0.00 12.8
1K	492	--	--	-133.510	4.725	-17.910	0.000	40.410	21.223	4.02	4.02	3	0.61	0.08 0.25 0.00 0.00 12.8

1L	492	--	--	-133.510	13.389	-17.910	0.000	40.410	38.377	4.02	4.02	3	0.82	0.08
0.25	0.00	0.00	12.8											
1M	492	--	--	-127.090	4.725	17.910	0.000	-40.410	21.223	4.02	4.02	3	0.62	0.08
0.26	0.00	0.00	12.8											
1N	492	--	--	-127.090	13.389	17.910	0.000	-40.410	38.377	4.02	4.02	3	0.82	0.08
0.26	0.00	0.00	12.8											
1O	492	--	--	-127.090	4.725	-17.910	0.000	40.410	21.223	4.02	4.02	3	0.62	0.08
0.26	0.00	0.00	12.8											
1P	492	--	--	-127.090	13.389	-17.910	0.000	40.410	38.377	4.02	4.02	3	0.82	0.08
0.26	0.00	0.00	12.8											
2	492	--	--	-181.900	13.490	-0.000	0.000	0.000	44.400	4.02	4.02	3	0.55	0.06
0.17	0.00	0.00	12.8											
7	492	--	--	-171.700	8.777	-4.850	0.000	10.630	44.300	4.02	4.02	3	0.61	0.04
0.11	0.00	0.00	12.8											
8	492	--	--	-169.400	11.770	-0.000	0.000	0.000	38.740	4.02	4.02	3	0.48	0.05
0.15	0.00	0.00	12.8											
9	492	--	--	-14.770	-1.276	-4.850	0.000	10.630	11.220	4.02	4.02	3	0.25	0.02
0.10	0.00	0.00	12.8											

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

Passo staffe nodo NON confinato 6.9 cm

ASTA NUM. 9 NI 3 NF 16 SEZ. Rp B= 0.300 H= 0.300 (pilastro)
PIL. NUM. 3
armatura base = 4 X 2.01 per le armature aggiuntive consultare il tabulato

NC	x	αMy	αMz	Fx	Fy	Fz	Mx	My	Mz	APOST/ AANT	AINF/ ASUP	campo	Indice resistenza	aswta	aswto	PASSO
	--															
	cm				kN			kN*m			cmq					
													Fx,M	Bielle V,Mx	cmq/m	cm
1A	0	--	--	-108.127	-4.191	8.300	0.000	21.764	25.162	4.02	4.02	3	0.47	0.04		
0.12	0.00	0.00	12.8													
1B	0	--	--	-108.127	22.351	8.300	0.000	21.764	-55.231	4.02	4.02	3	0.84	0.10		
0.32	0.00	0.00	12.8													
1C	0	--	--	-108.127	-4.191	0.290	0.000	-6.516	25.162	4.02	4.02	3	0.34	0.02		
0.06	0.00	0.00	12.8													
1D	0	--	--	-108.127	22.351	0.290	0.000	-6.516	-55.231	4.02	4.02	3	0.78	0.10		
0.32	0.00	0.00	12.8													
1E	0	--	--	-83.773	-4.191	8.300	0.000	21.764	25.162	4.02	4.02	3	0.49	0.04		
0.13	0.00	0.00	12.8													
1F	0	--	--	-83.773	22.351	8.300	0.000	21.764	-55.231	4.02	4.02	3	0.88	0.11		
0.34	0.00	0.00	12.8													
1G	0	--	--	-83.773	-4.191	0.290	0.000	-6.516	25.162	4.02	4.02	3	0.36	0.02		
0.07	0.00	0.00	12.8													
1H	0	--	--	-83.773	22.351	0.290	0.000	-6.516	-55.231	4.02	4.02	2	0.83	0.11		
0.34	0.00	0.00	12.8													
1I	0	--	--	-108.244	5.097	17.636	0.000	47.239	-22.271	4.02	4.02	3	0.79	0.08		
0.28	0.00	0.00	12.8													
1J	0	--	--	-108.244	13.063	17.636	0.000	47.239	-37.489	4.02	4.02	3	0.91	0.08		
0.25	0.00	0.00	12.8													
1K	0	--	--	-108.244	5.097	-9.046	0.000	-33.245	-22.271	4.02	4.02	3	0.56	0.04		
0.14	0.00	0.00	12.8													
1L	0	--	--	-108.244	13.063	-9.046	0.000	-33.245	-37.489	4.02	4.02	3	0.75	0.06		
0.20	0.00	0.00	12.8													
1M	0	--	--	-83.656	5.097	17.636	0.000	47.239	-22.271	4.02	4.02	3	0.76	0.08		
0.27	0.00	0.00	12.8													
1N	0	--	--	-83.656	13.063	17.636	0.000	47.239	-37.489	4.02	4.02	3	0.93	0.08		
0.27	0.00	0.00	12.8													
1O	0	--	--	-83.656	5.097	-9.046	0.000	-33.245	-22.271	4.02	4.02	3	0.58	0.04		
0.15	0.00	0.00	12.8													
1P	0	--	--	-83.656	13.063	-9.046	0.000	-33.245	-37.489	4.02	4.02	3	0.77	0.06		
0.22	0.00	0.00	12.8													
2	0	--	--	-131.000	12.900	5.592	0.000	9.110	-21.010	4.02	4.02	3	0.30	0.06		
0.16	0.00	0.00	12.8													
7	0	--	--	-125.000	20.600	-6.596	0.000	-10.300	-35.310	4.02	4.02	3	0.50	0.10		
0.29	0.00	0.00	12.8													
8	0	--	--	-124.700	11.800	5.584	0.000	9.096	-19.230	4.02	4.02	3	0.28	0.05		
0.15	0.00	0.00	12.8													
9	0	--	--	-6.507	9.885	-12.170	0.000	-19.380	-17.860	4.02	4.02	3	0.43	0.06		
0.27	0.00	0.00	12.8													

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

1A	492	--	--	-97.267	-4.191	8.300	0.000	-21.764	4.529	4.02	4.02	3	0.24	0.04
0.12	0.00	0.00	12.8											
1B	492	--	--	-97.267	22.351	8.300	0.000	-21.764	55.231	4.02	4.02	3	0.86	0.11
0.33	0.00	0.00	12.8											
1C	492	--	--	-97.267	-4.191	0.290	0.000	-6.516	4.529	4.02	4.02	4	0.10	0.02
0.04	0.00	0.00	12.8											
1D	492	--	--	-97.267	22.351	0.290	0.000	-6.516	55.231	4.02	4.02	3	0.80	0.11
0.33	0.00	0.00	12.8											
1E	492	--	--	-72.913	-4.191	8.300	0.000	-21.764	4.529	4.02	4.02	3	0.27	0.04
0.13	0.00	0.00	12.8											
1F	492	--	--	-72.913	22.351	8.300	0.000	-21.764	55.231	4.02	4.02	3	0.90	0.11
0.36	0.00	0.00	12.8											
1G	492	--	--	-72.913	-4.191	0.290	0.000	-6.516	4.529	4.02	4.02	4	0.10	0.02
0.04	0.00	0.00	12.8											
1H	492	--	--	-72.913	22.351	0.290	0.000	-6.516	55.231	4.02	4.02	2	0.85	0.11
0.36	0.00	0.00	12.8											
1I	492	--	--	-97.384	5.097	17.636	0.000	-39.532	22.271	4.02	4.02	3	0.64	0.08
0.28	0.00	0.00	12.8											
1J	492	--	--	-97.384	13.063	17.636	0.000	-39.532	37.489	4.02	4.02	3	0.83	0.08
0.28	0.00	0.00	12.8											
1K	492	--	--	-97.384	5.097	-9.046	0.000	11.252	22.271	4.02	4.02	3	0.34	0.04
0.11	0.00	0.00	12.8											
1L	492	--	--	-97.384	13.063	-9.046	0.000	11.252	37.489	4.02	4.02	3	0.57	0.06
0.21	0.00	0.00	12.8											
1M	492	--	--	-72.796	5.097	17.636	0.000	-39.532	22.271	4.02	4.02	3	0.71	0.08
0.31	0.00	0.00	12.8											
1N	492	--	--	-72.796	13.063	17.636	0.000	-39.532	37.489	4.02	4.02	3	0.85	0.08
0.27	0.00	0.00	12.8											
1O	492	--	--	-72.796	5.097	-9.046	0.000	11.252	22.271	4.02	4.02	3	0.35	0.04
0.13	0.00	0.00	12.8											
1P	492	--	--	-72.796	13.063	-9.046	0.000	11.252	37.489	4.02	4.02	3	0.60	0.06
0.23	0.00	0.00	12.8											
2	492	--	--	-116.900	12.900	5.592	0.000	-18.400	42.440	4.02	4.02	3	0.68	0.06
0.19	0.00	0.00	12.8											
7	492	--	--	-110.900	12.030	7.698	0.000	-13.010	44.940	4.02	4.02	3	0.68	0.06
0.19	0.00	0.00	12.8											
8	492	--	--	-110.600	11.800	5.584	0.000	-18.380	38.850	4.02	4.02	3	0.63	0.06
0.18	0.00	0.00	12.8											
9	492	--	--	-6.507	1.313	2.122	0.000	5.342	9.684	4.02	4.02	3	0.19	0.01
0.05	0.00	0.00	12.8											

apost= 2.01 aant= 2.01 ainf= 2.01 asup= 2.01 (e arm. base= 4 X 2.01) staffe= 2 d 8 / 12.8

Passo staffe nodo NON confinato 7.8 cm

STAMPA SINTETICA (stampa degli elementi con massimo IR a presso-tenso-flessione (Fx, M), IR bielle (taglio))

PILASTRI

Gruppo	El.	NC	x	Fx, M	Bielle	Note
			--	-----	------	
			cm	IR	IR	
1	3	1M	0	0.93	--	
1	8	7	0	--	0.12	

TRAVI

Gruppo	El.	NC	x	Fx, M	Bielle	Note
			--	-----	------	
			cm	IR	IR	
2	11	1B	483	1.00	--	
2	1	2	483	--	0.48	

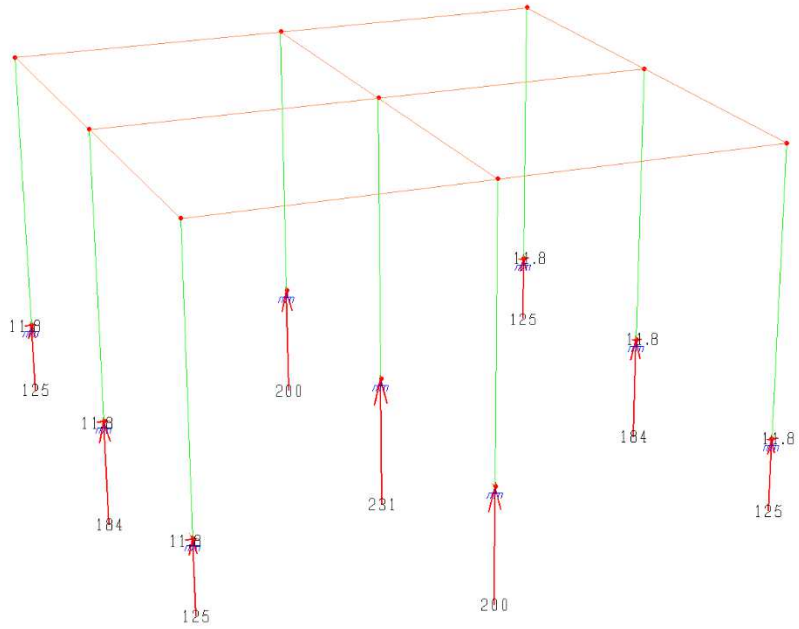


Fig. 8-6: Reazioni alla base dovute ai soli carichi permanenti [kN]

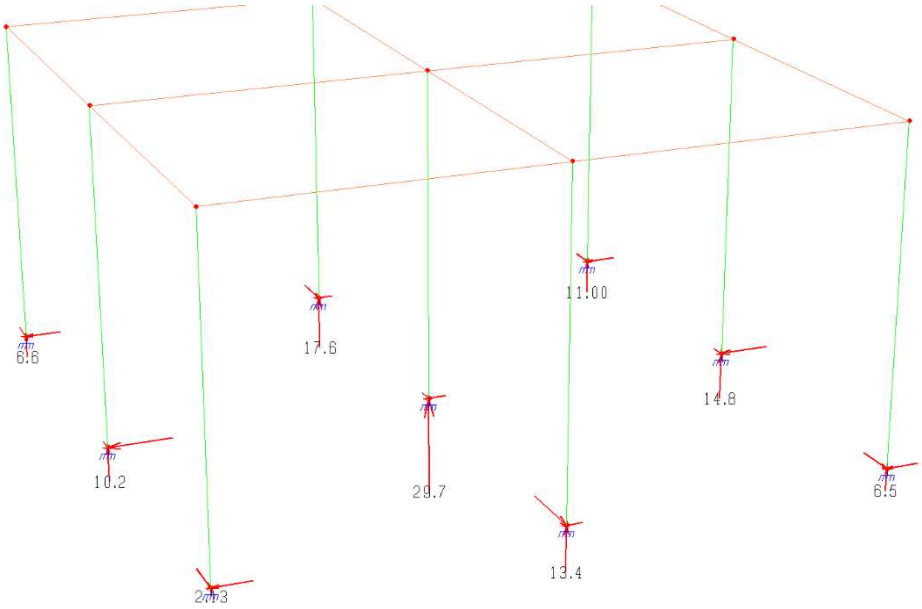
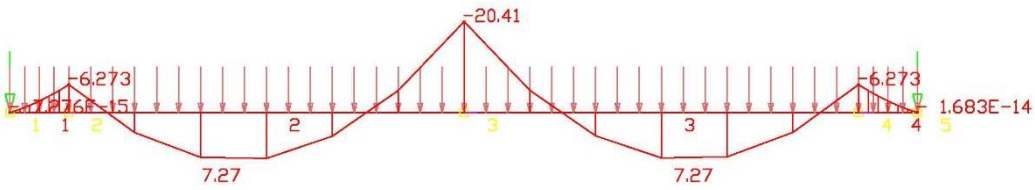


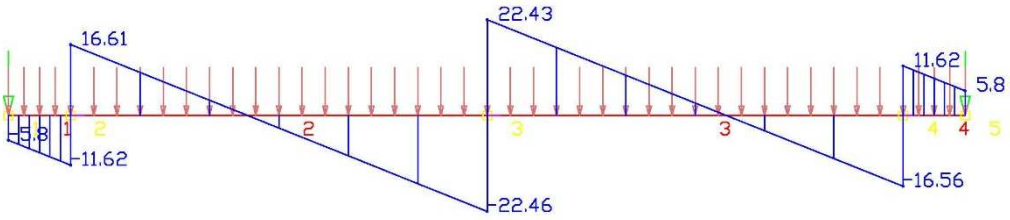
Fig. 8-7: Reazioni alla base dovute ai soli carichi variabili [kN]

Analisi e verifiche solaio in laterocemento di copertura

Sollecitazioni di progetto:



Sollecitazioni di momento flettente porzione di larghezza unitaria solaio copertura [kNm/m]



Sollecitazioni di taglio porzione di larghezza unitaria solaio copertura [kNm/m]

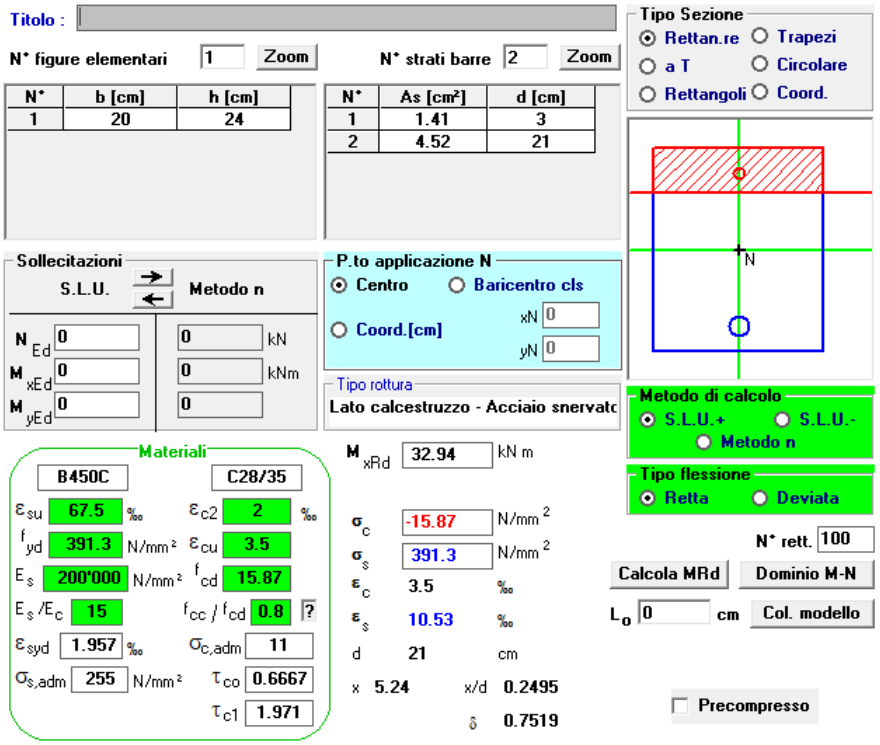
Risulta quindi che le sollecitazioni di progetto sono:

M_{+} = +7.27 kNm/m

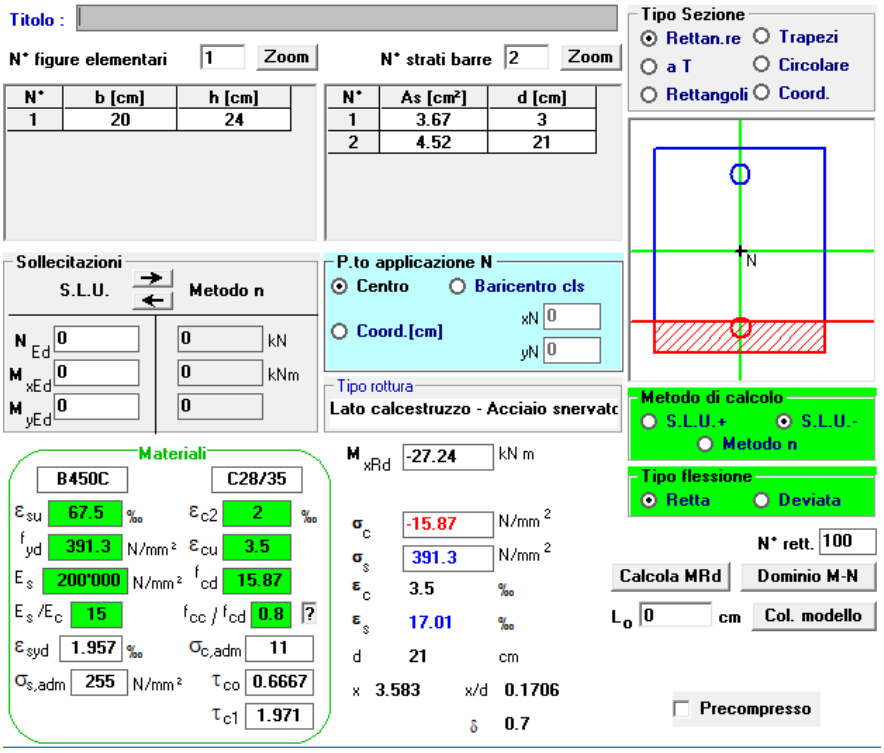
$M_{-\text{ app. centrale}}$ = -20.41 kNm/m

V = 22.46 kN/m

Essendo i singoli travetti armati al positivo in mezzeria con 2Φ12 ed al negativo sugli appoggi con 1Φ12 e con RES Φ6/20, le sollecitazioni resistenti risultano essere:



Momento resistente in campata = 32.94 kNm/m > M_{+} = +7.27 kNm/m



Momento resistente sugli appoggi= -27.24 kNm/m > $M_{-\ app.\ centrale}$ = -20.41 kNm/m

Verifica a taglio:

§4.1.2.1.3.1 - D.M.14.01.2008

f_{ck} =	28	Mpa		
γ_C =	1.5			
f_{cd} =	15.87	Mpa		
N_{Ed} =	0	N (compr)		
V_{Ed} =	22'460	N		
H =	240	mm		
b_w =	200	mm		
d =	210	mm		
$A_C = b_w H$ =	48'000	mmq		
k =	1.976			
v_{min} =	0.514			
A_{sl} =	4.52	cmq/tesi		
ρ_{sl} =	0.0108			
$\sigma_{cp} = N_{Ed}/A_c$ =	0.000	Mpa		
$[0{,}035k^{3/2}f_{ck}^{1/2}]b_w d$ =	21'604	N	=	21.60 kN
$(v_{min} + 0{,}15\sigma_{cp})b_w d$ =	21'604	N	=	21.60 kN
V_{Rd} = (eq. 6.2.a - E.C.2)	30'989	N	=	30.99 kN

$V_{Rd} \geq V_{Rd,min} = (v_{min} + 0{,}15\sigma_{cp})b_w d$ (soddisfacente)

(E.C.2 – Parte 1.1 - §6.2.2 – eq. 6.2.a e 6.2.b).

NOTA: in presenza di significativi sforzi di trazione, la resistenza al taglio del calcestruzzo è da considerarsi nulla e, in tal caso, non è possibile adottare elementi sprovvisti di armatura trasversale.

$V_{Ed\,lim} = 0{,}5\ b_w d\ 0{,}6(1 - f_{ck}/250)f_{cd}$ = 177'529 N = 177.53 kN
(eq. 6.5 - E.C.2)

V_{Ed} =	22.46 kN	<	V_{Rd} =	30.99 kN	(soddisfacente)	
V_{Ed} =	22.46 kN	<	$V_{Ed\,lim}$ =	177.53 kN	(soddisfacente)	