

Soprintendenza Speciale per i Beni Archeologici di Pompei, Ercolano e Stabia



PROGETTO COPERTURE

**MANUTENZIONE ORDINARIA E STRAORDINARIA
DELLE COPERTURE, DELLE STRUTTURE MURARIE
E DEGLI APPARATI DECORATIVI DI
“VILLA REGINA” PRESSO GLI SCAVI DI BOSCOREALE**

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Relazione di Calcolo delle Strutture e Verifiche Sismiche

Elaborato: C.6

Scala:

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ELABORATO C.6

RELAZIONE DI CALCOLO DELLE STRUTTURE E VERIFICHE SISMICHE

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1. PREMESSA

La presente relazione ha lo scopo di offrire un approfondimento delle soluzioni strutturali (scelte dei materiali e prime valutazioni dei comportamenti strutturali) affrontate nel progetto preliminare "Progetto Coperture: manutenzione ordinaria e straordinaria delle coperture, delle strutture murarie e degli apparati decorativi di "Villa Regina" presso gli Scavi di Boscoreale".

Di seguito i principali interventi previsti, in riduzione rispetto a quanto riportato nelle more della progettazione preliminare, specificatamente il progetto esecutivo prevede dal punto vista prettamente strutturale le seguenti opere:

Amb. III, VI, VII, Portico:

- Demolizione e ricostruzione di copertura ad identicum;
- Sostituzione degli architravi in c.a. con travi in legno massello (castagno)

Amb. XII, Deposito:

- Demolizione e ricostruzione di copertura *ad identicum*;

Amb. V, Vbis, XI e XIII, Quartiere Abitativo Meridionale:

- Rimozione copertura esistente e relativa struttura metallica di sostegno;
- Realizzazione di nuova struttura mista legno – acciaio e relativa copertura;

Amb. VII Piano Primo, braccio nord del Portico:

- Rimozione copertura esistente e relativa struttura metallica di sostegno;
- Realizzazione di nuova struttura in acciaio e relativa copertura in vetro;

2. NORMATIVA DI RIFERIMENTO

- Legge 05/11/1971 N° 1086 – "Norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso ed a struttura metallica".
 - D.M. 14/01/2008: "Norme tecniche per le costruzioni".
 - Circ. 02/02/2009 n.617: "Istruzioni per l'applicazione delle norme tecniche per le costruzioni".
- Direttiva del Presidente del Consiglio dei Ministri dle 09/02/2011: "Valutazione e riduzione del rischio sismico del patrimonio culturale con riferimento alle Norme tecniche per le costruzioni di cui al decreto del Ministero delle infrastrutture e dei trasporti del 14/01/2008.

3. ANALISI DEI CARICHI

Peso proprio strutture

Calcolato automaticamente dal programma di calcolo:

Acciaio	7850	kg/mc
Calcestruzzo	2500	kg/mc
Legno	600	kg/mc

Copertura Portico (amb. III, VI, VII)

Manto di copertura	60	kg/mq
Struttura in legno	30	kg/mq
<u>Residui permanenti</u>	<u>10</u>	<u>kg/mq</u>
Totale Permanenti	100	kg/mq

Variabili cat. H	50	kg/mq
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Copertura del Deposito (amb. XII)

Manto di copertura	60	kg/mq
Struttura in legno	30	kg/mq
<u>Residui permanenti</u>	<u>10</u>	<u>kg/mq</u>
Totale Permanenti	100	kg/mq
Variabili cat. H	50	kg/mq

Copertura del Quartiere Abitativo Meridionale (amb. XIII)

Manto di copertura	60	kg/mq
Struttura in legno	30	kg/mq
<u>Residui permanenti</u>	<u>10</u>	<u>kg/mq</u>
Totale Permanenti	100	kg/mq
Variabili cat. H	50	kg/mq

Copertura del tratto finale del braccio nord del Portico (Area VII)

<u>Copertura in vetro (sp. 2.5 cm)</u>	<u>62.5</u>	<u>kg/mq</u>
Totale Permanenti	62.5	kg/mq
Variabili cat. H	50	kg/mq

4. VALUTAZIONE VULNERABILITA' SISMICA

Come già riferito nelle relazioni tecniche allegate al progetto preliminare, le Direttive vigenti per i beni culturali tutelati prevedono anche solo la possibilità di effettuare interventi di *miglioramento sismico, riparazioni o interventi locali* così come disciplinato dal punto **8.4 delle vigenti NTC**.

Gli interventi oggetto della presente progettazione rientrano pienamente nella tipologia di **interventi locali** secondo il suddetto disposto normativo, in quanto interessano porzioni limitate della costruzione, seppur in ogni caso soggette a verifiche locali che attestino la conservazione delle condizioni di sicurezza preesistenti agli interventi stessi.

Si deve evidenziare altresì che gli interventi strutturali connessi con la realizzazione della nuova struttura nel *Amb.V, Vbis, XI e XIII "quartiere abitativo meridionale"*, prevedono che la stessa risulti completamente svincolata dagli apprezzi murari esistenti, ossia non si pone in essere nessun tipo di interferenza.

Pur nella consapevolezza che non sempre si possono applicare ai beni culturali tutelati le prescrizioni di modellazione e verifica indicate per gli edifici ordinari, è comunque necessario calcolare i livelli delle azioni sismiche corrispondenti al raggiungimento di ciascuno stato limite previsto per la tipologia strutturale dell'edificio; pertanto, così come già affrontato nella redazione del progetto preliminare, è stata effettuata la valutazione dell'indice di sicurezza sismica nella situazione *ante operam*, le cui risultanze sono di seguito riportate.

CARATTERISTICHE DEL SITO

- topografia: **T1** (superficie pianeggiante)

- categoria del suolo : **C**

LIVELLO DI CONOSCENZA

L'acquisizione del livello di conoscenza delle strutture secondo quanto previsto dalla vigente normativa è stato eseguito attraverso la realizzazione di un rilievo geometrico dell'intero complesso, unitamente ad una serie di indagini in situ limitate, consistenti in esami visivi della superficie muraria e della relativa consistenza, al fine di verificare forma e dimensioni dei blocchi ed eventuali ammorsature tra le pareti; è stata inoltre valutata in maniera approssimata la compattezza della malta.

Il livello di conoscenza raggiunto in seguito alle indagini effettuate è di tipo **LC1** ed il relativo fattore di confidenza è pari a **FC=1.35** secondo quanto previsto dalla vigente normativa.

PARAMETRI MECCANICI DELLE MURATURE

I valori dei parametri meccanici delle murature fanno riferimento alla Tab. C8A.2.1 della Circ. 02/02/2009 n.617 e sono stati assunti in funzione del livello di conoscenza acquisito, ossia:

LC1

Resistenze: valori minimi degli intervalli riportati in Tab. C8A.2.1

Moduli elastici: valori minimi degli intervalli riportati in Tab. C8A.2.1

I valori riportati nella suddetta tabella sono riferiti ad una muratura nelle seguenti condizioni: *malta di caratteristiche scarse, assenza di ricorsi (listature), paramenti semplicemente accostati o mal collegati, muratura non consolidata.*

Tipologia di muratura	f_m	t_0	E	G	w
	N/cm ²	N/cm ²	N/mm ²	N/mm ²	kN/mc
Muratura in pietrame disordinata (ciottoli, pietre erratiche e irregolari)	100	2.0	870	290	19

VULNERABILITÀ SISMICA

In base alle considerazioni sopra esposte, ed in riferimento all'incremento dei coefficienti di calcolo, dettati dalla vigente norma, per interventi di miglioramento sopra detti, sono state effettuate le verifiche di vulnerabilità delle strutture murarie, il cui fascicolo dei calcoli viene di seguito riportato.

Si riassumono di seguito i principali risultati ottenuti.

Vulnerabilità

Direzione Y $a_{SLV} / a_g = 0.0884 = \mathbf{8.84\%}$

Direzione X $a_{SLV} / a_g = 0.0991 = \mathbf{9.91\%}$

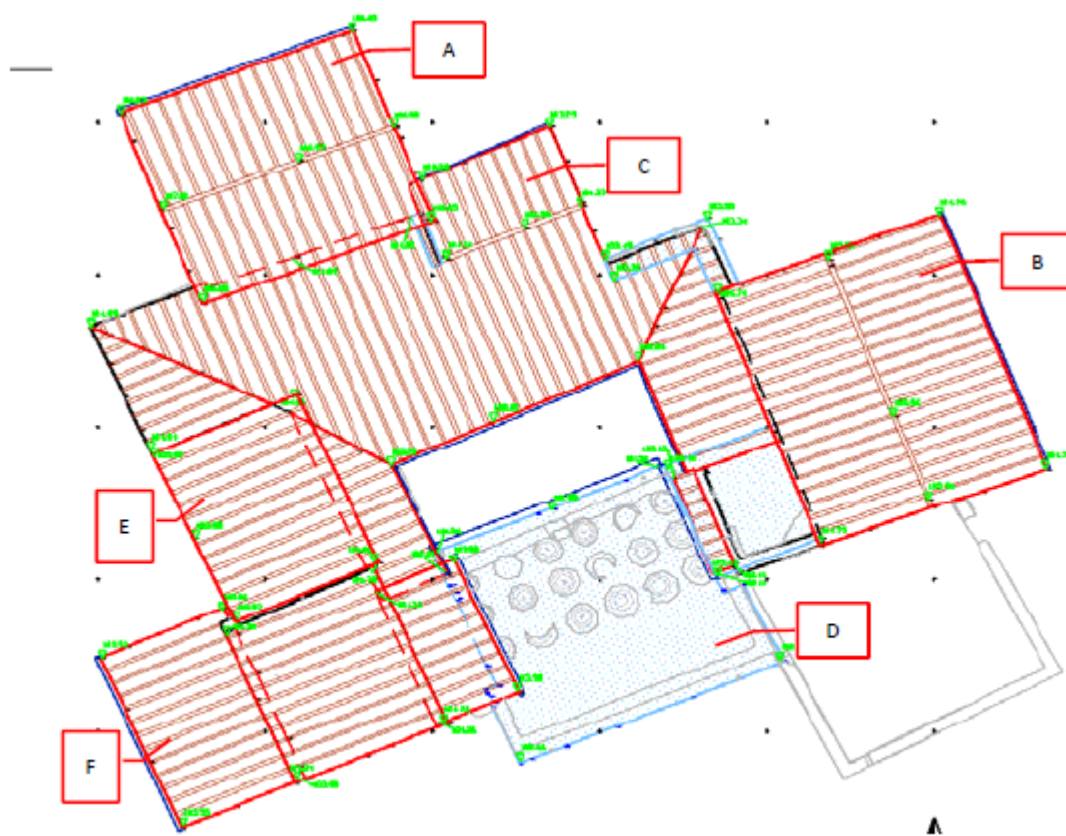
CALCOLO MASSA SISMICA DELL'EDIFICIO

Copertura

	p		
	mq	(kg/mq)	P (kg)
A	50	100	5000
B	64,5	100	6450
C	127	100	12700
D	58	50	2900
E	28,7	100	2870
F	61,5	100	6150
tot			36070

Muri

	V	w	P
	(mc)	(kg/mc)	(kg)
Dir Y	152,2	1900	289127
Dir X	300,5	1900	570995
			860122



VALORI DEI PARAMETRI MECCANICI DELLE MURATURE

	Tipologia di muratura	f_m	τ_0	E	G	w
		N/cm ²	N/cm ²	N/mm ²	N/mm ²	kN/mc
	Muratura in pietrame disordinata (ciottoli, pietre erratiche e irregolari)	100	2,0	870	290	19
COEFFICIENTI CORRETTIVI	Malta di buone caratteristiche	1,5	1,5	1,5	1,5	
	Presenza ricorsi o listature	1	1	1	1	
	Parametri modificati applicando i coefficienti correttivi migliorativi (Tab. C8A.2.2 NTC 2008)	150	3,0	1305	435	19

Fattore di confidenza	FC=	1,35
Coefficiente parziale di sicurezza	γ_M =	2
Valore di calcolo della resistenza a taglio della muratura	$\tau_{0d} = \tau_0 / (FC * \gamma_M) =$	1,11

VULNERABILITA' SISMICA EDIFICIO IN DIREZIONE Y

Calcolo A_{ji} (direzione y)					
Elemento	y(n) (m)	s(m) (m)	A(n) (m ²)	h (m)	V(mc)
1	10,5	0,45	4,725	5,25	24,8
2	4,85	0,42	2,037	4,85	9,9
3	3,56	0,4	1,424	6,3	9,0
4	3,36	0,4	1,344	4,85	6,5
5	2	0,32	0,64	4	2,6
6	3,86	0,36	1,3896	5,25	7,3
7	2,65	0,3	0,795	5,25	4,2
8	6,34	0,33	2,0922	4,8	10,0
9	10,5	0,45	4,725	5,25	24,8
10	5,03	0,4	2,012	4,6	9,3
11	9,7	0,5	4,85	4,2	20,4
12	8,95	0,5	4,475	5,25	23,5
13	0	0,36	0		0,0
14	0	0,36	0		0,0
15	3,28	0,43	1,4104		0,0
			31,9192		152,2



- a_g	accelerazione al suolo di calcolo	0,142	x	9,8	1,39 m/sec ²
- S	Coefficiente stratigrafico				1,5
- a_{slv}	accelerazione al suolo che porta al raggiungimento delle condizioni di di collasso	$q \cdot F_{slv} / (e \cdot M \cdot F_0 \cdot S)$			0,12 m/sec ²
- e	Frazione di massa partecipante sul primo modo di vibrazione				1,00
- M	massa sismica dell' edificio				914,48 kNmassa
- F_0	coefficiente di amplificazione spettrale massima				2,42
- q	coefficiente di struttura				2,25
- F_{slv}	resistenza a taglio dell' edificio	$\mu_{yi} \cdot c_{vy} \cdot c_{yvi} \cdot A \cdot \tau_{di} / \beta_{yi} \cdot \kappa_i =$			181,58 kN
- μ_{yi}	coefficiente che considera l'omogeneità di rigidità e resistenza dei maschi murari				0,80
- c_{vy}	coefficiente legato alla resistenza delle fascie murarie di piano in direzione Y				0,80
- c_{yvi}	coefficiente legato al tipo di rottura				1,00
- β_{yi}	coefficiente di irregolarità in pianta				1,25
- κ_i	rapporto tra la risultante delle forze sismiche al piano i-esimo e la forza sismica totale				1,00
- A_i	area totale della muratura in dir. Y				31,92 m ²
- σ_{0i}	tensione media dei maschi murari al piano i-esimo				0,00 KN/m ²
- τ_{0d}	resistenza a taglio di calcolo				11,11 KN/m ²
- τ_{di}	resistenza a taglio di calcolo (in presenza di compressione sui maschi murari)	$\tau_{0d} \cdot (1 + (\sigma_{0i} / 1,5 \cdot \tau_{0d}))^{0,5}$			11,11 KN/m ²

$a_{slv}/a_g = 0,0884 = 8,84\%$ Fattore di accelerazione (rapporto fra accelerazione al suolo che porta al raggiungimento delle condizioni di collasso e l'accelerazione al suolo corrispondente al periodo di ritorno di riferimento)

VULNERABILITA' SISMICA EDIFICIO IN DIREZIONE X

Calcolo $A_{s,i}$ (direzione x)					
Elemento	x(n) (m)	s(m) (m)	A(n) (m ²)	h (m)	V(mc)
20	2	0,45	0,9	4,6	4,1
21	4,55	0,41	1,8655	4,85	9,0
22	5,05	0,3	1,515	4,6	7,0
23	18,07	0,4	7,228	6,3	45,5
24	6,96	0,5	3,48	5,4	18,8
25	4,25	0,35	1,4875	6,3	9,4
26	6,97	0,5	3,485	5,4	18,8
27	3,6	0,3	1,08	27	29,2
28	4,3	0,4	1,72	4,2	7,2
29	4,3	0,4	1,72	4,2	7,2
30	8,45	0,4	3,38	30	101,4
31	10,25	0,46	4,715	5,4	25,5
32	2,34	0,48	1,1232	4,6	5,2
33	4,37	0,4	1,748	6,3	11,0
34	1	0,3	0,3	4	1,2
35,7472					300,5



- a_g	accelerazione al suolo di calcolo	0,142	x	9,8	1,39 m/sec ²
- S	Coefficiente stratigrafico				1,5
- a_{SLV}	accelerazione al suolo che porta al raggiungimento delle condizioni di di collasso	$q \cdot F_{slv} / (e \cdot M \cdot F_0 \cdot S)$			0,14 m/sec ²
- e	Frazione di massa partecipante sul primo modo di vibrazione				1,00
- M	massa sismica dell' edificio				914,48 kNmassa
- F_0	coefficiente di amplificazione spettrale massima				2,42
- q	coefficiente di struttura				2,25
- F_{slv}	resistenza a taglio dell' edificio	$\mu_{xi} \cdot \zeta_x \cdot \zeta_{xi} \cdot A \cdot \tau_{di} / \beta_{xi} \cdot \kappa_i =$			203,36 kN
- μ_{xi}	coefficiente che considera l'omogeneità di rigidezza e resistenza dei maschi murari				0,80
- ζ_x	coefficiente legato alla resistenza delle fascie murarie di piano in direzione Y				0,80
- ζ_{xi}	coefficiente legato al tipo di rottura				1,00
- β_{xi}	coefficiente di irregolarità in pianta				1,25
- κ_i	rapporto tra la risultante delle forze sismiche al piano i-esimo e la forza sismica totale				1,00
- A_i	area totale della muratura in dir. Y				35,75 m ²
- σ_{0i}	tensione media dei maschi murari al piano i-esimo				0,00 KN/m ²
- τ_{0d}	resistenza a taglio di calcolo				11,11 KN/m ²
- τ_{di}	resistenza a taglio di calcolo (in presenza di compressione sui maschi murari)	$\tau_{0d} \cdot (1 + (\sigma_{0i} / 1,5 \cdot \tau_{0d}))^{0,5}$			11,11 KN/m ²

$a_{SLV}/a_g = 0,099 = 9,91\%$ Fattore di accelerazione (rapporto fra accelerazione al suolo che porta al raggiungimento delle condizioni di collasso e l'accelerazione al suolo corrispondente al periodo di ritorno di riferimento)

5. SCHEMI STRUTTURALI ALLA BASE DEI CALCOLI

Le strutture in elevazione e di fondazione sono state progettate e verificate con il metodo agli stati limite, con l'ausilio del programma di calcolo agli elementi finiti Modest 8.3 e di fogli elettronici sviluppati ad hoc, su piattaforma software "Excel". I modelli di calcolo sono stati sviluppati in tre dimensioni come si può vedere dalle figure sotto riportate e sono costituiti da travi e pilastri sui quali sono stati riportati i carichi permanenti ed accidentali trasmessi dalle coperture e dagli altri elementi non strutturali.

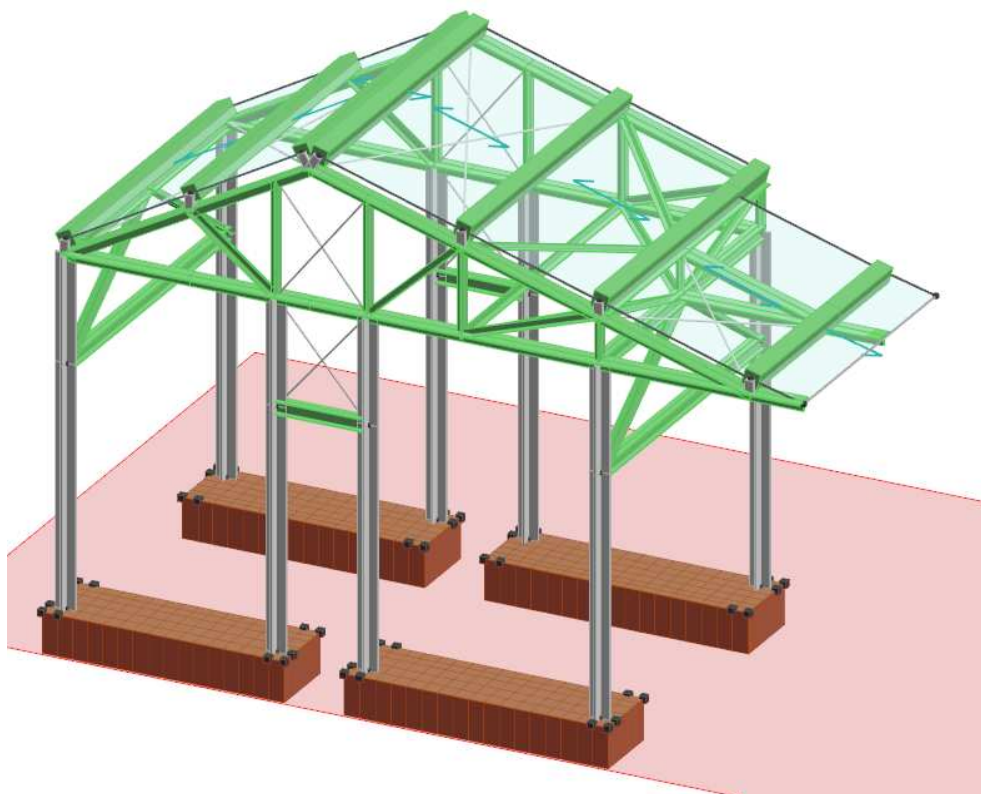


Figura 1 - Modello di calcolo Copertura del Quartiere Abitativo Meridionale

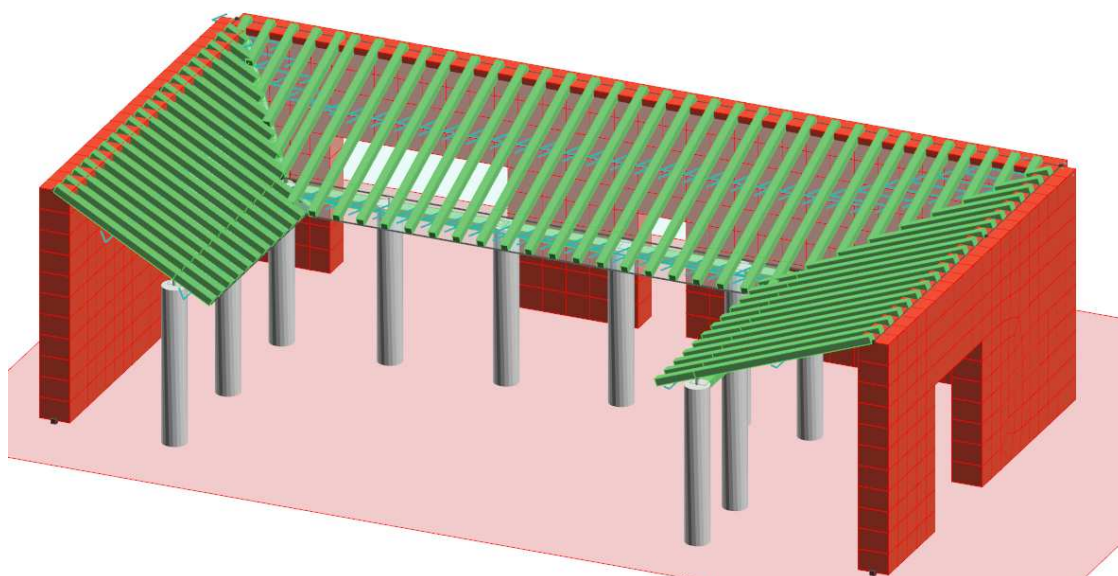


Figura 2 - Modello di calcolo Copertura del Portico

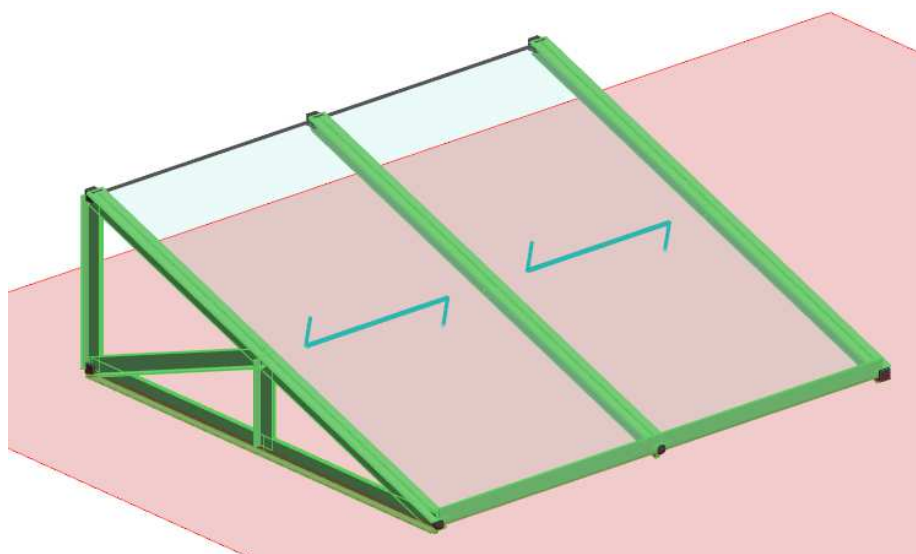


Figura 3 - Modello di calcolo Copertura del tratto finale del braccio nord del Portico (Area VII)

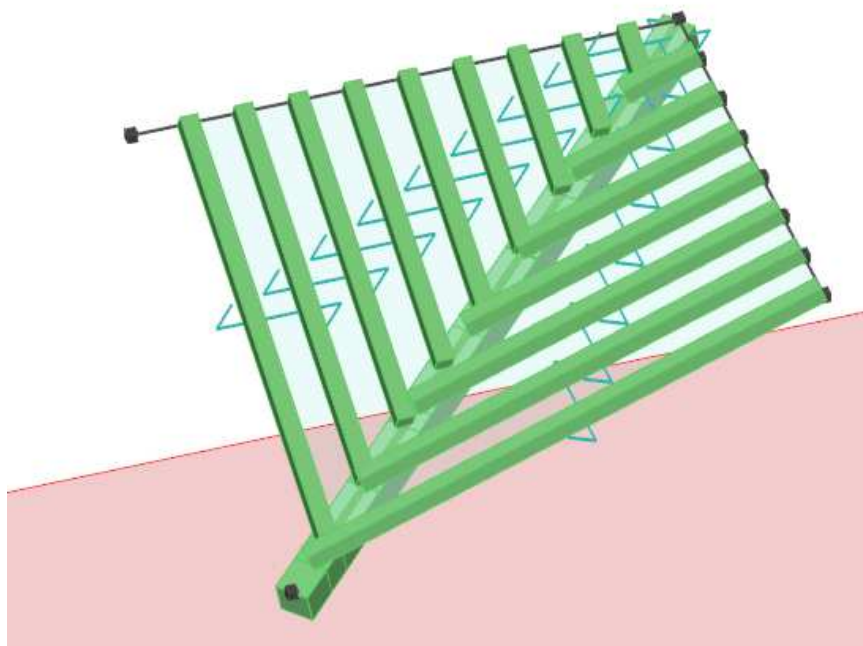


Figura 4 - Modello di calcolo Copertura del Deposito

L'interazione del terreno con la strutture in elevazione è stata tenuta in conto considerando le fondazioni su suolo elastico alla Winkler. Nei paragrafi inerenti i calcoli delle strutture sono riportate le numerazioni delle aste e dei nodi dei modelli di calcolo.

6. MATERIALI

Acciaio per Carpenteria metallica

Tipo S275 JR (UNI EN 10025)

$f_{yk \text{ nom}} =$	275 N/mm ²	Resistenza caratteristica di snervamento
$f_{tk \text{ nom}} =$	430 N/mm ²	Resistenza caratteristica di rottura

Acciaio per Piastre e squadrette

Tipo S275 JR (UNI EN 10025)

$f_{yk \text{ nom}} =$	275 N/mm ²	Resistenza caratteristica di snervamento
$f_{tk \text{ nom}} =$	430 N/mm ²	Resistenza caratteristica di rottura

Bulloni per carpenteria metallica

Bulloni per giunzioni a taglio ed attrito ad alta resistenza Classe 8.8

Viti Classe	8.8	(UNI EN ISO 898-1:2001 rif. UNI EN 14399:2005 parti 3,4)
Dadi Classe	8.8	(UNI EN 20898-2:1994 rif. UNI EN 14399 parti 3,4)
Rosette acciaio C50		(UNI EN 10083-2:2006 rif. UNI EN 14399 parti 5,6)

Tutta la bulloneria per le strutture lignee deve essere zincata.

Malta a ritiro compensato

Malta cementizia premiscelata espansiva conforme alle norme UNI 8993-8994-8996-8147-8998

Legno strutturale

Tipo Castagno Italia secondo UNI 11035-2 / UNI EN 338

Resistenze caratteristiche:

$f_{mk} =$	28	N/mm ²	Resistenza a flessione
$f_{t0k} =$	22	N/mm ²	Resistenza a trazione parallela alla fibra
$f_{t90k} =$	0.5	N/mm ²	Resistenza a trazione perpendicolare alla fibra
$f_{c0k} =$	22	N/mm ²	Resistenza a compressione parallela alla fibra
$f_{c90k} =$	22	N/mm ²	Resistenza a compressione perpendicolare alla fibra
$f_{vk} =$	0.2	N/mm ²	Resistenza a Taglio

Acciaio per strutture in c.a.

Tipo B450C (UNI EN ISO 15630-1:2004)

$f_{yk \text{ nom}} =$	450 N/mm ²	Resistenza caratteristica di snervamento
$f_{tk \text{ nom}} =$	540 N/mm ²	Resistenza caratteristica di rottura

Calcestruzzo per fondazioni

Classe di resistenza C25/30 (secondo UNI EN 206-1:2006 - UNI EN 12350-2- UNI 11104:2004)

$f_{ck} =$	25	N/mm ²	Resistenza caratteristica a compressione
$f_{ctm} =$	2.6	N/mm ²	Resistenza media a trazione

7. RELAZIONE DI CALCOLO COPERTURA DEL QUARTIERE ABITATIVO MERIDIONALE

IMMAGINI MODELLO DI CALCOLO

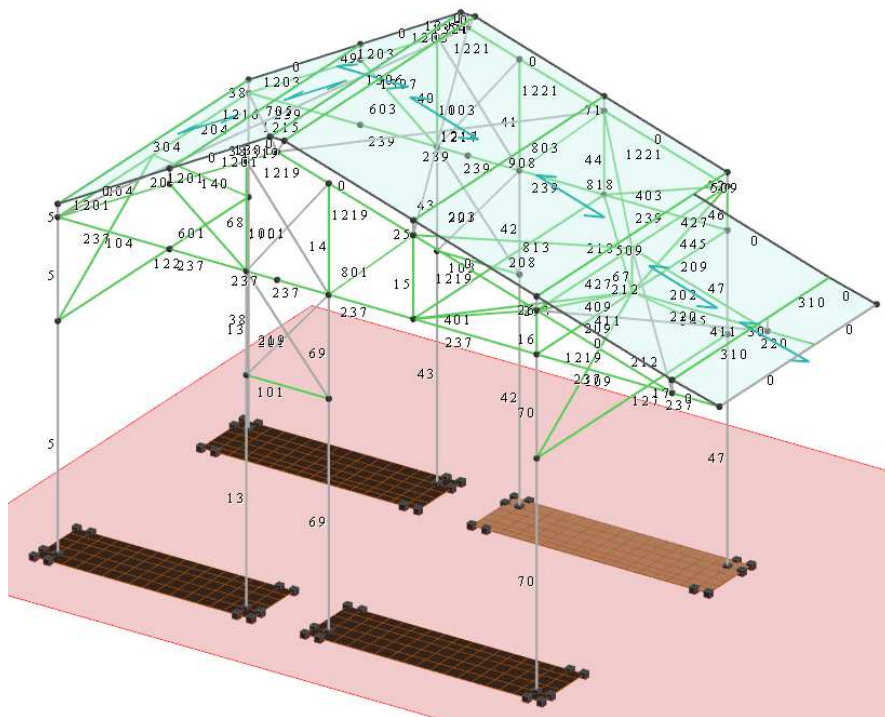


Figura 5 - Numerazione Aste Vista A

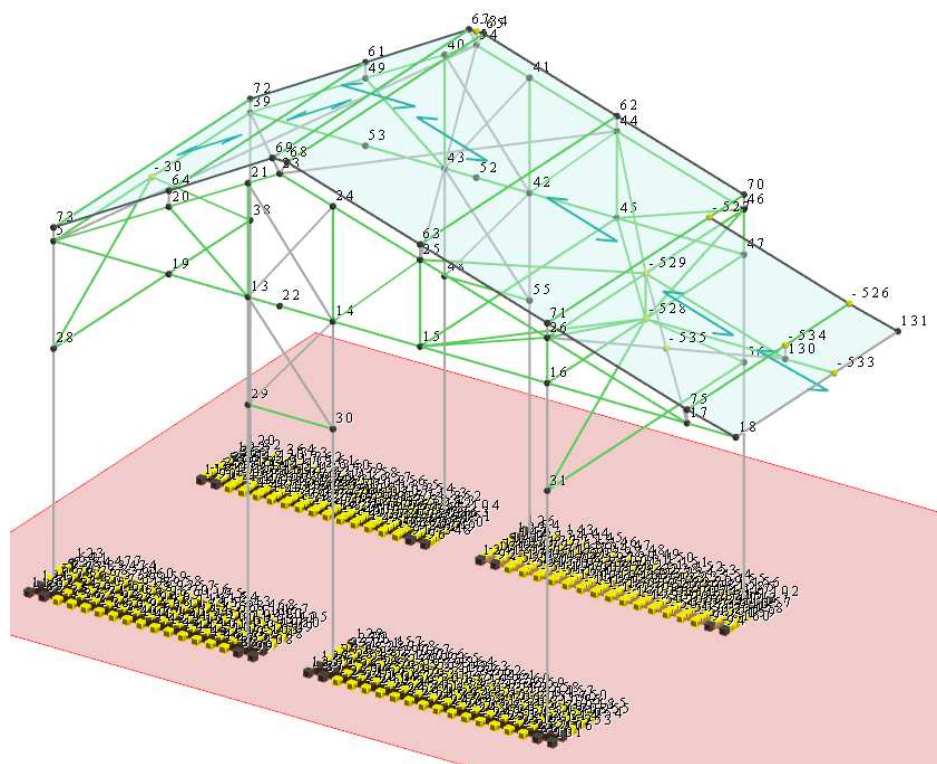


Figura 6 - Numerazione nodi Vista A

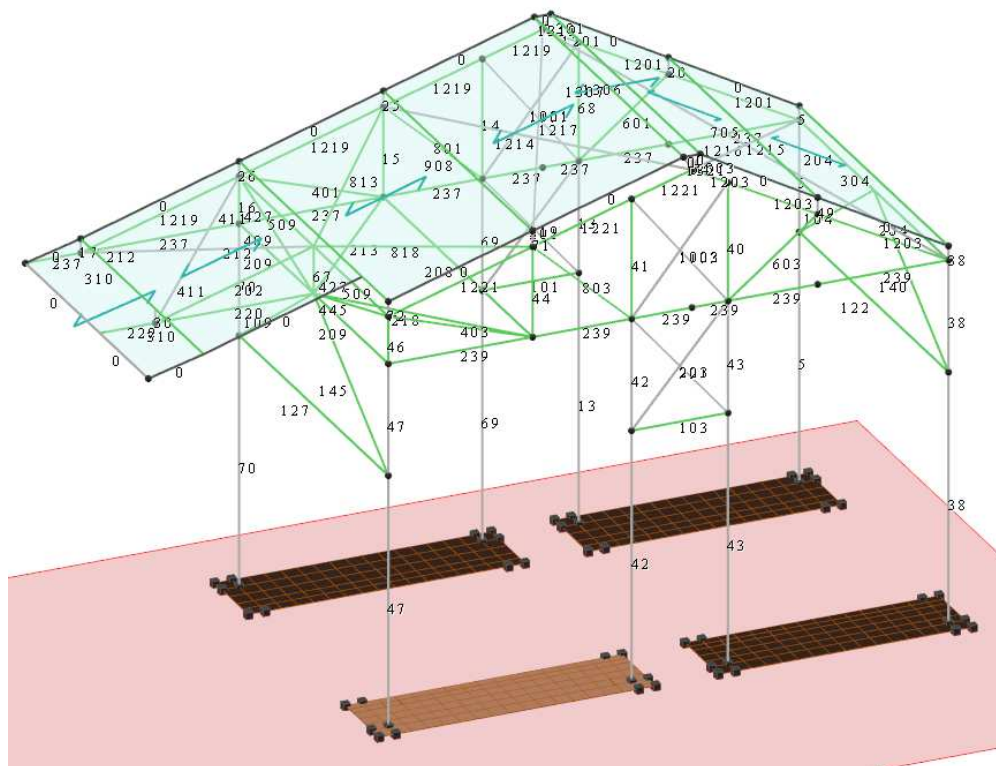


Figura 7 – Numerazione Aste Vista B

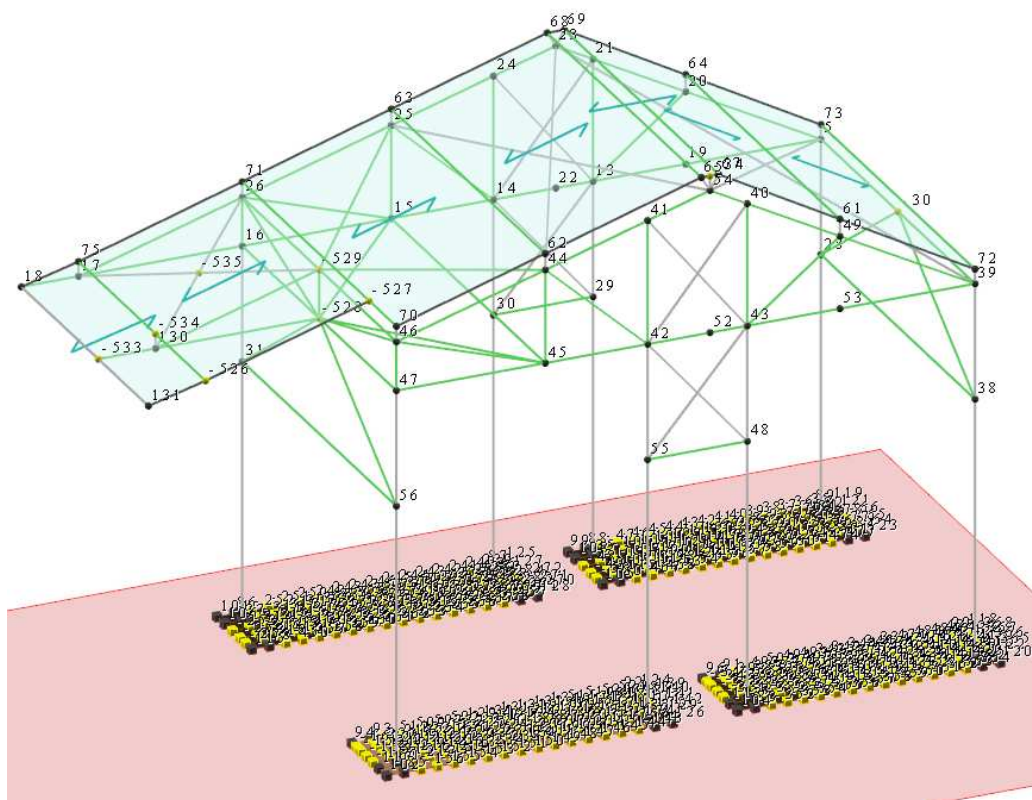


Figura 8 - Numerazione nodi Vista B

Introduzione

Sistemi di riferimento

Le coordinate, i carichi concentrati, i cedimenti, le reazioni vincolari e gli spostamenti dei NODI sono riferiti ad una terna destra cartesiana globale con l'asse Z verticale rivolto verso l'alto.

I carichi in coordinate locali e le sollecitazioni delle ASTE sono riferite ad una terna destra cartesiana locale così definita:

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

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

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

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

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

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

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

Rotazioni e momenti

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

Normativa di riferimento

La normativa di riferimento è la seguente:

- Legge n. 64 del 2/2/1974 - Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- D.M. del 24/1/1986 - Norme tecniche relative alle costruzioni sismiche.
- Legge n. 1086 del 5/11/1971 - Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- D.M. del 14/2/1992 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 9/1/1996 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 16/1/1996 - Norme tecniche per le costruzioni in zone sismiche.
- Circolare n. 21745 del 30/7/1981 - Legge n. 219 del 14/5/1981 - Art. 10 - Istruzioni relative al rafforzamento degli edifici in muratura danneggiati dal sisma.
- Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20/6/1977 - Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura.
- D.M. del 20/11/1987 - Norme Tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento.

- Norme Tecniche C.N.R. n. 10011-85 del 18/4/1985 - Costruzioni di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Norme Tecniche C.N.R. n. 10025-84 del 14/12/1984 - Istruzioni per il progetto, l'esecuzione ed il controllo delle strutture prefabbricate in conglomerato cementizio e per le strutture costruite con sistemi industrializzati di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Circolare n. 65 del 10/4/1997 - Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. del 16/1/1996.
- Eurocodice 5 - Progettazione delle strutture di legno.
- DIN 1052 - Metodi di verifica per il legno.
- D.M. del 14/1/2008 - Norme tecniche per le costruzioni. Le verifiche degli elementi di fondazione sono eseguite utilizzando l'Approccio 2.
- Circolare n. 617 del 2/2/2009 - Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. del 14/1/2008.
- Documento Tecnico CNR-DT 200 R1/2012 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati.

Unità di misura

Le unità di misura adottate sono le seguenti:

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

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
									<m>	<m>	<daN/cmc>
1	Libero	L	L	L	L	L	L				
3	El. sew 110001	B	B	L	L	L	B				

Elenco nodi

Simbologia

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

Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn
	<m>	<m>	<m>				<m>	<m>	<m>				<m>	<m>	<m>		
-535	7.63	1.00	4.63	0	1	-534	8.57	2.00	4.52	0	1	-533	9.23	2.00	4.35	0	1
-529	6.68	2.00	4.92	0	1	-528	6.68	2.00	4.35	0	1	-527	6.68	3.31	5.10	0	1
-526	8.57	3.31	4.52	0	1	-524	4.16	3.31	0.00	0	3	-522	3.97	3.31	0.00	0	3
-515	4.55	3.31	0.00	0	3	-514	4.36	3.31	0.00	0	3	-511	6.49	3.31	0.00	0	3
-509	6.30	3.31	0.00	0	3	-503	6.10	3.31	0.00	0	3	-502	5.91	3.31	0.00	0	3

-500	2.26	3.31	0.00	0	3	-498	2.45	3.31	0.00	0	3	-492	1.88	3.31	0.00	0	3
-491	2.07	3.31	0.00	0	3	-488	0.18	3.31	0.00	0	3	-486	0.37	3.31	0.00	0	3
-480	0.56	3.31	0.00	0	3	-479	0.75	3.31	0.00	0	3	-477	0.19	0.70	0.00	0	3
-474	0.37	0.70	0.00	0	3	-468	2.26	0.70	0.00	0	3	-467	2.44	0.70	0.00	0	3
-457	3.97	0.70	0.00	0	3	-450	6.49	0.70	0.00	0	3	-441	1.13	4.01	0.00	0	3
-440	1.13	3.85	0.00	0	3	-439	0.75	4.01	0.00	0	3	-438	0.75	3.85	0.00	0	3
-437	0.94	4.01	0.00	0	3	-436	0.94	3.85	0.00	0	3	-435	0.75	3.42	0.00	0	3
-434	0.75	3.53	0.00	0	3	-433	1.13	3.42	0.00	0	3	-432	1.13	3.53	0.00	0	3
-431	0.94	3.42	0.00	0	3	-430	0.94	3.53	0.00	0	3	-429	0.75	3.69	0.00	0	3
-428	0.94	3.69	0.00	0	3	-427	1.13	3.69	0.00	0	3	-426	0.37	3.53	0.00	0	3
-425	0.37	3.42	0.00	0	3	-424	-0.01	3.53	0.00	0	3	-423	-0.01	3.42	0.00	0	3
-422	0.18	3.53	0.00	0	3	-421	0.18	3.42	0.00	0	3	-420	0.18	4.01	0.00	0	3
-419	0.18	3.85	0.00	0	3	-418	-0.01	3.85	0.00	0	3	-417	0.37	4.01	0.00	0	3
-416	0.37	3.85	0.00	0	3	-415	0.37	3.69	0.00	0	3	-414	0.18	3.69	0.00	0	3
-413	-0.01	3.69	0.00	0	3	-412	0.56	4.01	0.00	0	3	-411	0.56	3.85	0.00	0	3
-410	0.56	3.69	0.00	0	3	-409	0.56	3.53	0.00	0	3	-408	0.56	3.42	0.00	0	3
-407	1.88	4.01	0.00	0	3	-406	1.88	3.85	0.00	0	3	-405	1.50	3.85	0.00	0	3
-404	1.50	4.01	0.00	0	3	-403	1.69	4.01	0.00	0	3	-402	1.69	3.85	0.00	0	3
-401	1.88	3.53	0.00	0	3	-400	1.88	3.42	0.00	0	3	-399	1.50	3.53	0.00	0	3
-398	1.50	3.42	0.00	0	3	-397	1.69	3.53	0.00	0	3	-396	1.69	3.42	0.00	0	3
-395	1.50	3.69	0.00	0	3	-394	1.69	3.69	0.00	0	3	-393	1.88	3.69	0.00	0	3
-392	2.64	3.53	0.00	0	3	-391	2.64	3.42	0.00	0	3	-390	2.26	3.53	0.00	0	3
-389	2.26	3.42	0.00	0	3	-388	2.45	3.53	0.00	0	3	-387	2.45	3.42	0.00	0	3
-386	2.64	3.85	0.00	0	3	-385	2.45	3.85	0.00	0	3	-384	2.26	3.85	0.00	0	3
-383	2.26	4.01	0.00	0	3	-382	2.45	4.01	0.00	0	3	-381	2.64	3.69	0.00	0	3
-380	2.45	3.69	0.00	0	3	-379	2.26	3.69	0.00	0	3	-378	2.07	3.42	0.00	0	3
-377	2.07	3.53	0.00	0	3	-376	2.07	3.69	0.00	0	3	-375	2.07	3.85	0.00	0	3
-374	2.07	4.01	0.00	0	3	-373	1.31	3.42	0.00	0	3	-372	1.31	3.53	0.00	0	3
-371	1.31	3.69	0.00	0	3	-370	1.31	3.85	0.00	0	3	-369	1.31	4.01	0.00	0	3
-368	-0.20	3.42	0.00	0	3	-367	-0.20	3.53	0.00	0	3	-366	-0.20	3.69	0.00	0	3
-365	-0.20	3.85	0.00	0	3	-364	0.19	4.21	0.00	0	3	-363	0.38	4.21	0.00	0	3
-362	0.56	4.21	0.00	0	3	-361	0.75	4.21	0.00	0	3	-360	0.94	4.21	0.00	0	3
-359	1.13	4.21	0.00	0	3	-358	1.31	4.21	0.00	0	3	-357	1.50	4.21	0.00	0	3
-356	1.69	4.21	0.00	0	3	-355	1.88	4.21	0.00	0	3	-354	2.07	4.21	0.00	0	3
-353	2.25	4.21	0.00	0	3	-352	2.44	4.21	0.00	0	3	-351	2.83	3.85	0.00	0	3
-350	2.83	3.69	0.00	0	3	-349	2.83	3.53	0.00	0	3	-348	2.83	3.42	0.00	0	3
-343	1.69	3.31	0.00	0	3	-342	1.50	3.31	0.00	0	3	-341	1.31	3.31	0.00	0	3
-340	1.13	3.31	0.00	0	3	-339	0.94	3.31	0.00	0	3	-334	5.33	-0.00	0.00	0	3
-333	5.33	0.20	0.00	0	3	-332	5.91	-0.00	0.00	0	3	-331	5.71	-0.00	0.00	0	3
-330	5.71	0.20	0.00	0	3	-329	5.91	0.20	0.00	0	3	-328	5.52	-0.00	0.00	0	3
-327	5.52	0.20	0.00	0	3	-326	5.71	0.55	0.00	0	3	-325	5.91	0.55	0.00	0	3
-324	5.33	0.55	0.00	0	3	-323	5.52	0.55	0.00	0	3	-322	5.91	0.40	0.00	0	3
-321	5.71	0.40	0.00	0	3	-320	5.52	0.40	0.00	0	3	-319	5.33	0.40	0.00	0	3
-318	6.68	0.55	0.00	0	3	-317	6.29	0.55	0.00	0	3	-316	6.49	0.55	0.00	0	3
-315	6.29	0.20	0.00	0	3	-314	6.68	0.20	0.00	0	3	-313	6.49	0.20	0.00	0	3
-312	6.29	-0.00	0.00	0	3	-311	6.49	-0.00	0.00	0	3	-310	6.29	0.40	0.00	0	3
-309	6.49	0.40	0.00	0	3	-308	6.68	0.40	0.00	0	3	-307	6.10	-0.00	0.00	0	3
-306	6.10	0.20	0.00	0	3	-305	6.10	0.40	0.00	0	3	-304	6.10	0.55	0.00	0	3
-303	4.94	0.55	0.00	0	3	-302	4.94	0.40	0.00	0	3	-301	4.94	-0.00	0.00	0	3
-300	4.94	0.20	0.00	0	3	-299	4.55	0.55	0.00	0	3	-298	4.55	0.40	0.00	0	3
-297	4.55	-0.00	0.00	0	3	-296	4.55	0.20	0.00	0	3	-295	4.75	0.55	0.00	0	3
-294	4.75	0.40	0.00	0	3	-293	4.75	0.20	0.00	0	3	-292	4.75	-0.00	0.00	0	3
-291	3.78	0.55	0.00	0	3	-290	4.17	0.55	0.00	0	3	-289	3.97	0.55	0.00	0	3
-288	3.97	0.20	0.00	0	3	-287	3.97	-0.00	0.00	0	3	-286	4.17	0.20	0.00	0	3
-285	4.17	-0.00	0.00	0	3	-284	3.78	0.20	0.00	0	3	-283	3.78	0.40	0.00	0	3
-282	3.97	0.40	0.00	0	3	-281	4.17	0.40	0.00	0	3	-280	4.36	0.55	0.00	0	3
-279	4.36	0.40	0.00	0	3	-278	4.36	0.20	0.00	0	3	-277	4.36	-0.00	0.00	0	3
-276	5.13	0.55	0.00	0	3	-275	5.13	0.40	0.00	0	3	-274	5.13	0.20	0.00	0	3
-273	5.13	-0.00	0.00	0	3	-272	3.58	0.20	0.00	0	3	-271	3.58	0.40	0.00	0	3
-270	3.58	0.55	0.00	0	3	-268	4.17	0.70	0.00	0	3	-267	4.36	0.70	0.00	0	3
-266	4.55	0.70	0.00	0	3	-265	4.75	0.70	0.00	0	3	-264	4.94	0.70	0.00	0	3
-263	5.13	0.70	0.00	0	3	-262	5.33	0.70	0.00	0	3	-261	5.52	0.70	0.00	0	3
-260	5.71	0.70	0.00	0	3	-259	5.91	0.70	0.00	0	3	-258	6.10	0.70	0.00	0	3
-257	6.29	0.70	0.00	0	3	-255	6.88	0.55	0.00	0	3	-254	6.88	0.40	0.00	0	3
-253	6.88	0.20	0.00	0	3	-252	6.49	-0.20	0.00	0	3	-251	6.29	-0.20	0.00	0	3
-250	6.10	-0.20	0.00	0	3	-249	5.91	-0.20	0.00	0	3	-248	5.71	-0.20	0.00	0	3
-247	5.52	-0.20	0.00	0	3	-246	5.33	-0.20	0.00	0	3	-245	5.13	-0.20	0.00	0	3
-244	4.94	-0.20	0.00	0	3	-243	4.75	-0.20	0.00	0	3	-242	4.55	-0.20	0.00	0	3
-241	4.36	-0.20	0.00	0	3	-240	4.17	-0.20	0.00	0	3	-239	3.97	-0.20	0.00	0	3
-238	5.52	4.01	0.00	0	3	-237	5.52	3.85	0.00	0	3	-236	5.91	3.85	0.00	0	3
-235	5.91	4.01	0.00	0	3	-234	5.71	4.01	0.00	0	3	-233	5.71	3.85	0.00	0	3
-232	5.91	3.42	0.00	0	3	-231	5.91	3.53	0.00	0	3	-230	5.52	3.42	0.00	0	3
-229	5.52	3.53	0.00	0	3	-228	5.71	3.42	0.00	0	3	-227	5.71	3.53	0.00	0	3
-226	5.91	3.69	0.00	0	3	-225	5.71	3.69	0.00	0	3	-224	5.52	3.69	0.00	0	3
-223	6.30	3.53	0.00	0	3	-222	6.30	3.42	0.00	0	3	-221	6.69	3.53	0.00	0	3
-220	6.69	3.42	0.00	0	3	-219	6.49	3.53	0.00	0	3	-218	6.49	3.42	0.00	0	3
-217	6.49	4.01	0.00	0	3	-216	6.49	3.85	0.00	0	3	-215	6.30	4.01	0.00	0	3
-214	6.30	3.85	0.00	0	3	-213	6.69	3.85	0.00	0	3	-212	6.30	3.69	0.00	0	3
-211	6.50	3.69	0.00	0	3	-210	6.69	3.69	0.00	0	3	-209	6.10	4.01	0.00	0	3

-208	6.10	3.85	0.00	0	3	-207	6.10	3.69	0.00	0	3	-206	6.10	3.53	0.00	0	3
-205	6.10	3.42	0.00	0	3	-204	4.55	4.01	0.00	0	3	-203	4.55	3.85	0.00	0	3
-202	5.13	3.85	0.00	0	3	-201	5.13	4.01	0.00	0	3	-200	4.94	3.85	0.00	0	3
-199	4.94	4.01	0.00	0	3	-198	4.75	4.01	0.00	0	3	-197	4.75	3.85	0.00	0	3
-196	4.55	3.53	0.00	0	3	-195	4.55	3.42	0.00	0	3	-194	5.13	3.53	0.00	0	3
-193	5.13	3.42	0.00	0	3	-192	4.94	3.53	0.00	0	3	-191	4.94	3.42	0.00	0	3
-190	4.75	3.53	0.00	0	3	-189	4.75	3.42	0.00	0	3	-188	5.13	3.69	0.00	0	3
-187	4.94	3.69	0.00	0	3	-186	4.75	3.69	0.00	0	3	-185	4.55	3.69	0.00	0	3
-184	3.77	3.53	0.00	0	3	-183	3.77	3.42	0.00	0	3	-182	4.16	3.42	0.00	0	3
-181	4.16	3.53	0.00	0	3	-180	3.97	3.53	0.00	0	3	-179	3.97	3.42	0.00	0	3
-178	3.77	3.85	0.00	0	3	-177	3.97	3.85	0.00	0	3	-176	4.16	3.85	0.00	0	3
-175	4.16	4.01	0.00	0	3	-174	3.97	4.01	0.00	0	3	-173	3.77	3.69	0.00	0	3
-172	3.96	3.69	0.00	0	3	-171	4.16	3.69	0.00	0	3	-170	4.36	3.42	0.00	0	3
-169	4.36	3.53	0.00	0	3	-168	4.36	3.69	0.00	0	3	-167	4.36	3.85	0.00	0	3
-166	4.36	4.01	0.00	0	3	-165	5.33	3.42	0.00	0	3	-164	5.33	3.53	0.00	0	3
-163	5.33	3.69	0.00	0	3	-162	5.33	3.85	0.00	0	3	-161	5.33	4.01	0.00	0	3
-160	6.88	3.42	0.00	0	3	-159	6.88	3.53	0.00	0	3	-158	6.88	3.69	0.00	0	3
-157	6.88	3.85	0.00	0	3	-156	6.49	4.21	0.00	0	3	-155	6.29	4.21	0.00	0	3
-154	6.10	4.21	0.00	0	3	-153	5.91	4.21	0.00	0	3	-152	5.71	4.21	0.00	0	3
-151	5.52	4.21	0.00	0	3	-150	5.33	4.21	0.00	0	3	-149	5.13	4.21	0.00	0	3
-148	4.94	4.21	0.00	0	3	-147	4.75	4.21	0.00	0	3	-146	4.55	4.21	0.00	0	3
-145	4.36	4.21	0.00	0	3	-144	4.17	4.21	0.00	0	3	-143	3.97	4.21	0.00	0	3
-142	3.58	3.85	0.00	0	3	-141	3.58	3.69	0.00	0	3	-140	3.58	3.53	0.00	0	3
-139	3.58	3.42	0.00	0	3	-134	4.75	3.31	0.00	0	3	-133	4.94	3.31	0.00	0	3
-132	5.13	3.31	0.00	0	3	-131	5.33	3.31	0.00	0	3	-130	5.52	3.31	0.00	0	3
-129	5.71	3.31	0.00	0	3	-124	1.88	0.55	0.00	0	3	-123	1.88	0.40	0.00	0	3
-122	1.88	-0.00	0.00	0	3	-121	1.88	0.20	0.00	0	3	-120	1.50	-0.00	0.00	0	3
-119	1.50	0.55	0.00	0	3	-118	1.50	0.40	0.00	0	3	-117	1.50	0.20	0.00	0	3
-116	1.69	0.55	0.00	0	3	-115	1.69	0.40	0.00	0	3	-114	1.69	0.20	0.00	0	3
-113	1.69	-0.00	0.00	0	3	-112	2.64	0.55	0.00	0	3	-111	2.26	0.55	0.00	0	3
-110	2.44	0.55	0.00	0	3	-109	2.26	0.20	0.00	0	3	-108	2.64	0.20	0.00	0	3
-107	2.44	0.20	0.00	0	3	-106	2.25	-0.00	0.00	0	3	-105	2.44	-0.00	0.00	0	3
-104	2.26	0.40	0.00	0	3	-103	2.45	0.40	0.00	0	3	-102	2.64	0.40	0.00	0	3
-101	2.07	-0.00	0.00	0	3	-100	2.07	0.20	0.00	0	3	-99	2.07	0.40	0.00	0	3
-98	2.07	0.55	0.00	0	3	-97	1.13	0.55	0.00	0	3	-96	1.13	0.40	0.00	0	3
-95	1.13	-0.00	0.00	0	3	-94	1.13	0.20	0.00	0	3	-93	0.75	-0.00	0.00	0	3
-92	0.75	0.55	0.00	0	3	-91	0.75	0.40	0.00	0	3	-90	0.75	0.20	0.00	0	3
-89	0.94	0.55	0.00	0	3	-88	0.94	0.40	0.00	0	3	-87	0.94	0.20	0.00	0	3
-86	0.94	-0.00	0.00	0	3	-85	0.37	0.55	0.00	0	3	-84	-0.01	0.55	0.00	0	3
-83	0.19	0.55	0.00	0	3	-82	0.19	0.20	0.00	0	3	-81	0.19	-0.00	0.00	0	3
-80	0.37	0.20	0.00	0	3	-79	0.38	-0.00	0.00	0	3	-78	-0.01	0.20	0.00	0	3
-77	-0.01	0.40	0.00	0	3	-76	0.18	0.40	0.00	0	3	-75	0.37	0.40	0.00	0	3
-74	0.56	0.55	0.00	0	3	-73	0.56	0.40	0.00	0	3	-72	0.56	0.20	0.00	0	3
-71	0.56	-0.00	0.00	0	3	-70	1.31	0.55	0.00	0	3	-69	1.31	0.40	0.00	0	3
-68	1.31	0.20	0.00	0	3	-67	1.31	-0.00	0.00	0	3	-66	-0.20	0.20	0.00	0	3
-65	-0.20	0.40	0.00	0	3	-64	-0.20	0.55	0.00	0	3	-61	0.56	0.70	0.00	0	3
-60	0.75	0.70	0.00	0	3	-59	0.94	0.70	0.00	0	3	-58	1.13	0.70	0.00	0	3
-57	1.31	0.70	0.00	0	3	-56	1.50	0.70	0.00	0	3	-55	1.69	0.70	0.00	0	3
-54	1.88	0.70	0.00	0	3	-53	2.07	0.70	0.00	0	3	-50	2.83	0.55	0.00	0	3
-49	2.83	0.40	0.00	0	3	-48	2.83	0.20	0.00	0	3	-47	2.44	-0.20	0.00	0	3
-46	2.25	-0.20	0.00	0	3	-45	2.07	-0.20	0.00	0	3	-44	1.88	-0.20	0.00	0	3
-43	1.69	-0.20	0.00	0	3	-42	1.50	-0.20	0.00	0	3	-41	1.31	-0.20	0.00	0	3
-40	1.13	-0.20	0.00	0	3	-39	0.94	-0.20	0.00	0	3	-38	0.75	-0.20	0.00	0	3
-37	0.56	-0.20	0.00	0	3	-36	0.38	-0.20	0.00	0	3	-35	0.19	-0.20	0.00	0	3
-34	3.06	4.01	6.17	0	1	-30	0.00	2.00	4.35	0	1	5	0.00	0.00	4.35	0	1
13	2.63	0.00	4.35	0	1	14	3.78	0.00	4.35	0	1	15	4.96	0.00	4.35	0	1
16	6.68	0.00	4.35	0	1	17	8.57	0.00	4.35	0	1	18	9.23	0.00	4.35	0	1
19	1.56	0.00	4.35	0	1	20	1.56	0.00	5.19	0	1	21	2.63	0.00	5.77	0	1
22	3.06	0.00	4.35	0	1	23	3.06	0.00	6.00	0	1	24	3.78	0.00	5.78	0	1
25	4.96	0.00	5.43	0	1	26	6.68	0.00	4.92	0	1	28	0.00	0.00	3.01	0	1
29	2.63	0.00	3.01	0	1	30	3.78	0.00	3.01	0	1	31	6.68	0.00	3.01	0	1
32	0.00	0.00	0.00	0	3	35	2.63	0.00	0.00	0	3	36	3.78	0.00	0.00	0	3
37	6.68	0.00	0.00	0	3	38	0.00	4.01	3.01	0	1	39	0.00	4.01	4.35	0	1
40	2.63	4.01	5.77	0	1	41	3.78	4.01	5.78	0	1	42	3.78	4.01	4.35	0	1
43	2.63	4.01	4.35	0	1	44	4.96	4.01	5.43	0	1	45	4.96	4.01	4.35	0	1
46	6.68	4.01	4.92	0	1	47	6.68	4.01	4.35	0	1	48	2.63	4.01	3.01	0	1
49	1.56	4.01	5.19	0	1	52	3.06	4.01	4.35	0	1	53	1.56	4.01	4.35	0	1
54	3.06	4.01	6.00	0	1	55	3.78	4.01	3.01	0	1	56	6.68	4.01	3.01	0	1
57	0.00	4.01	0.00	0	3	58	2.63	4.01	0.00	0	3	59	3.78	4.01	0.00	0	3
60	6.68	4.01	0.00	0	3	61	1.56	4.01	5.39	0	1	62	4.96	4.01	5.62	0	1
63	4.96	0.00	5.62	0	1	64	1.56	0.00	5.39	0	1	65	3.16	4.01	6.17	0	1
67	2.96	4.01	6.17	0	1	68	3.16	0.00	6.17	0	1	69	2.96	0.00	6.17	0	1
70	6.68	4.01	5.10	0	1	71	6.68	0.00	5.10	0	1	72	0.00	4.01	4.52	0	1
73	0.00	0.00	4.52	0	1	75	8.57	0.00	4.52	0	1	78	6.68	0.70	0.00	0	3
79	3.78	0.70	0.00	0	3	80	2.63	0.70	0.00	0	3	81	0.00	0.70	0.00	0	3
82	0.00	4.21	0.00	0	3	83	2.63	4.21	0.00	0	3	84	3.78	4.21	0.00	0	3
85	6.68	4.21	0.00	0	3	86	6.68	-0.20	0.00	0	3	87	3.78	-0.20	0.00	0	3
88	2.63	-0.20	0.00	0	3	89	0.00	-0.20	0.00	0	3	90	0.00	3.31	0.00	0	3
91	2.63	3.31	0.00	0	3	92	3.78	3.31	0.00	0	3	93	6.68	3.31	0.00	0	3

94	6.88	3.31	0.00	0	3	96	2.83	3.31	0.00	0	3	99	2.83	-0.20	0.00	0	3
101	6.88	-0.20	0.00	0	3	102	6.88	4.21	0.00	0	3	104	2.83	4.21	0.00	0	3
105	2.83	0.70	0.00	0	3	106	6.88	0.00	0.00	0	3	108	2.83	0.00	0.00	0	3
113	2.83	4.01	0.00	0	3	115	6.88	0.70	0.00	0	3	117	6.88	4.01	0.00	0	3
118	-0.20	3.31	0.00	0	3	119	-0.20	-0.20	0.00	0	3	120	-0.20	4.21	0.00	0	3
121	-0.20	0.00	0.00	0	3	122	-0.20	4.01	0.00	0	3	123	-0.20	0.70	0.00	0	3
124	3.58	3.31	0.00	0	3	125	3.58	-0.20	0.00	0	3	126	3.58	4.21	0.00	0	3
127	3.58	0.00	0.00	0	3	128	3.58	0.70	0.00	0	3	129	3.58	4.01	0.00	0	3
130	8.57	2.00	4.35	0	1	131	9.23	3.31	4.35	0	1						

Elenco materiali

Simbologia

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

Mat.	Comm.	P <daN/mc>	E <daN/cm ² >	G <daN/cm ² >	v	α
1	Calcestruzzo	2500	300000.00	130000.00	0.1	1.000000E-005
2	Acciaio	7850	2100000.00	800000.00	0.3	1.000000E-005
4	CASTAGNO	600	110000.00	9500.00	0.39	4.000000E-006
6	Rigido	1	210000000.00	80000000.00	0.3	1.000000E-005

Elenco sezioni aste

Simbologia

Sez. = Numero della sezione
Comm. = Commento
Tipo = Tipologia
2C = Doppia C lato labbri
2Cdx = Doppia C lato costola
2I = Doppia I
2L = Doppia L lato labbri
2Ldx = Doppia L lato costole
C = C
Cdx = C destra
Cir. = Circolare
Cir.c = Circolare cava
I = I
L = L
Ldx = L destra
Om. = Omega
Pg = Pi greco
Pr = Poligono regolare
Prc = Poligono regolare cavo
Pc = Per coordinate
Ia = Inerzie assegnate
R = Rettangolare
Rc = Rettangolare cava
T = T
U = U
Ur = U rovescia
V = V
Vr = V rovescia
Z = Z
Zdx = Z destra
Ts = T stondata
Ls = L stondata
Cs = C stondata
Is = I stondata
Dis. = Disegnata
Me = Membratura
G = Generica
T = Trave
P = Pilastro
Ver. = Verifica prevista
N = Nessuna
C = Cemento armato
A = Acciaio
L = Legno
B = Base

H = Altezza
s = Spessore ala
a = Spessore anima
r = Raggio raccordo anima-ala
r1 = Raggio in testa ala
% = Pendenza ala
D = Distanza
R = Raggio
Ma = Numero del materiale
C = Numero del criterio di progetto
Ccol = Numero del criterio di progetto collegamento

Sez.	Comm.	Tipo	Me	Ver.	B	H	s	a	r	r1	%	D	R	Ma	C	Ccol
					<cm>	<cm>	<cm>	<cm>	<cm>	<cm>		<cm>	<cm>			
1		Pc	G	N										2		
2	2L120*12	2Ldx	T	A	12.00	12.00	1.20		1.30	0.65	0.00	1.00		21		1
3		2Ldx	T	A	8.00	8.00	0.80		1.00	0.50	0.00	1.00		21		1
4		Cir.	G	N									1.20	2		
5	2*UNP160	2Cdx	T	A	6.50	16.00	1.05	0.75	1.05	0.55	8.00	1.00		21		1
6		R	G	N	10.00	10.00								6		
7		R	T	L	20.00	20.00								41		
9	2L120*12	2Ldx	T	A	12.00	12.00	1.20		1.30	0.65	0.00	1.00		21		1
10		2Ldx	T	A	6.00	6.00	0.60		1.00	0.50	0.00	1.00		21		1

Elenco vincoli aste

Simbologia

Va = Numero del vincolo asta
Comm. = Commento
Tipo = Tipologia
SVI = Definizione di vincolamenti interni
ELA = Vincolo su suolo elastico alla Winkler
BIE-RTC = Biella resistente a trazione e a compressione
BIE-RC = Biella resistente solo a compressione
BIE-RT = Biella resistente solo a trazione
Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)
Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)
Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)
Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)
Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)
Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)
Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)
Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt
															<daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Inc+Cer	SVI	1	1	1	1	1	1	1	1	1	0	0	0	
3	Cer+Inc	SVI	1	1	1	0	0	0	1	1	1	1	1	1	
4	Cer+Cer	SVI	1	1	1	0	0	0	1	1	1	1	0	0	
11	Inc+CerYZ	SVI	1	1	1	1	1	1	1	1	1	1	1	0	0
12	CerYZ+Inc	SVI	1	1	1	1	0	0	1	1	1	1	1	1	
13	CerYZ+CerYZ	SVI	1	1	1	1	0	0	1	1	1	1	0	0	

Elenco parametri aggiuntivi aste

Simbologia

Par. = Numero dei parametri aggiuntivi
Comm. = Commento
 β_x = Coeff. β_x (D=default da criterio)
 β_y = Coeff. β_y (D=default da criterio)
 β_z = Coeff. β_z (D=default da criterio)
Z.R. = Considerare zone rigide
S = Si
N = No
D = Default indicato in fase di calcolo
Offy = Considerare offset Y
S = Si
N = No
D = Default indicato in fase di calcolo
Offz = Considerare offset Z

S = Sì
N = No
D = Default indicato in fase di calcolo

Par. Comm. β_x β_y β_z Z.R. Offy Offz
1 2.00 2.00 2.00 D D D

Elenco aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
Sez. = Numero della sezione
Va = Numero del vincolo asta
Par. = Numero dei parametri aggiuntivi
Rot. = Rotazione
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Dz1 = Scost. filo fisso Z1
Dz2 = Scost. filo fisso Z2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot.	FF	Dy1	Dy2	Dz1	Dz2	Kt
						<grad>		<cm>	<cm>	<cm>	<cm>	<daN/cmc>
0	73	64			1	0.00	11	0.00	0.00	0.00	0.00	
0	64	69			1	0.00	11	0.00	0.00	0.00	0.00	
0	69	68			1	0.00	11	0.00	0.00	0.00	0.00	
0	63	68			1	0.00	11	0.00	0.00	0.00	0.00	
0	72	61			1	0.00	11	0.00	0.00	0.00	0.00	
0	71	63			1	0.00	11	0.00	0.00	0.00	0.00	
0	61	67			1	0.00	11	0.00	0.00	0.00	0.00	
0	67	-34			1	0.00	11	0.00	0.00	0.00	0.00	
0	-34	65			1	0.00	11	0.00	0.00	0.00	0.00	
0	75	71			1	0.00	11	0.00	0.00	0.00	0.00	
0	62	65			1	0.00	11	0.00	0.00	0.00	0.00	
0	75	18			1	0.00	11	0.00	0.00	0.00	0.00	
0	70	62			1	0.00	11	0.00	0.00	0.00	0.00	
0	18	-533			1	0.00	11	0.00	0.00	0.00	0.00	
0	-526	-527			1	0.00	11	0.00	0.00	0.00	0.00	
0	-533	131			1	0.00	11	0.00	0.00	0.00	0.00	
0	-526	131			1	0.00	11	0.00	0.00	0.00	0.00	
5	32	28		1	1	0.00	55	0.00	0.00	0.00	0.00	
5	28	5		1	1	0.00	55	0.00	0.00	0.00	0.00	
5	5	73		6	1	0.00	55	0.00	0.00	0.00	0.00	
13	35	29		1	1	0.00	55	0.00	0.00	0.00	0.00	
13	29	13		1	1	0.00	55	0.00	0.00	0.00	0.00	
14	14	24		3	4	0.00	11	0.00	0.00	0.00	0.00	
15	15	25		3	4	0.00	11	0.00	0.00	0.00	0.00	
16	16	26		3	4	0.00	11	0.00	0.00	0.00	0.00	
17	17	75		6	1	0.00	55	0.00	0.00	0.00	0.00	
20	20	64		6	1	0.00	55	0.00	0.00	0.00	0.00	
25	25	63		6	1	0.00	55	0.00	0.00	0.00	0.00	
26	26	71		6	1	0.00	55	0.00	0.00	0.00	0.00	
30	130	-534		6	2	0.00	55	0.00	0.00	0.00	0.00	
38	57	38		1	1	0.00	55	0.00	0.00	0.00	0.00	
38	38	39		1	1	0.00	55	0.00	0.00	0.00	0.00	
38	39	72		6	1	0.00	55	0.00	0.00	0.00	0.00	
40	43	40		3	4	0.00	11	0.00	0.00	0.00	0.00	
41	42	41		3	4	0.00	11	0.00	0.00	0.00	0.00	
42	59	55		1	1	0.00	55	0.00	0.00	0.00	0.00	
42	55	42		1	1	0.00	55	0.00	0.00	0.00	0.00	
43	58	48		1	1	0.00	55	0.00	0.00	0.00	0.00	
43	48	43		1	1	0.00	55	0.00	0.00	0.00	0.00	
44	45	44		3	4	0.00	11	0.00	0.00	0.00	0.00	
46	47	46		3	4	0.00	11	0.00	0.00	0.00	0.00	
47	60	56		1	1	0.00	55	0.00	0.00	0.00	0.00	
47	56	47		1	1	0.00	55	0.00	0.00	0.00	0.00	
49	49	61		6	1	0.00	55	0.00	0.00	0.00	0.00	
54	54	-34		4	4	0.00	11	0.00	0.00	0.00	0.00	
67	-528	-529		10	4	0.00	11	0.00	0.00	0.00	0.00	
68	13	21		3	4	0.00	11	0.00	0.00	0.00	0.00	
69	36	30		1	1	0.00	55	0.00	0.00	0.00	0.00	
69	30	14		1	1	0.00	55	0.00	0.00	0.00	0.00	
70	37	31		1	1	0.00	55	0.00	0.00	0.00	0.00	
70	31	16		1	1	0.00	55	0.00	0.00	0.00	0.00	
71	44	62		6	1	0.00	55	0.00	0.00	0.00	0.00	

72	46	70	6	1	0.00	55	0.00	0.00	0.00	0.00
101	29	30	5	4	0.00	11	0.00	0.00	0.00	0.00
103	48	55	5	4	0.00	11	0.00	0.00	0.00	0.00
104	28	-30	3	4	0.00	11	0.00	0.00	0.00	0.00
109	31	-528	3	4	0.00	11	0.00	0.00	0.00	0.00
122	28	38	5	4	0.00	11	0.00	0.00	0.00	0.00
127	31	56	5	4	0.00	11	0.00	0.00	0.00	0.00
140	38	-30	3	4	0.00	11	0.00	0.00	0.00	0.00
145	56	-528	3	4	0.00	11	0.00	0.00	0.00	0.00
201	29	14	4	4	0.00	11	0.00	0.00	0.00	0.00
202	-529	130	9	4	180.00	55	0.00	0.00	0.00	0.00
203	55	43	4	4	0.00	11	0.00	0.00	0.00	0.00
204	5	-30	5	3	0.00	11	0.00	0.00	0.00	0.00
204	-30	39	5	11	0.00	11	0.00	0.00	0.00	0.00
208	45	15	3	13	0.00	11	0.00	0.00	0.00	0.00
209	16	-528	5	3	0.00	55	0.00	0.00	0.00	0.00
209	-528	47	5	11	0.00	55	0.00	0.00	0.00	0.00
212	17	-535	4	12	0.00	11	0.00	0.00	0.00	0.00
212	-535	-529	4	11	0.00	11	0.00	0.00	0.00	0.00
213	-528	15	10	13	0.00	11	0.00	0.00	0.00	0.00
218	-528	45	10	13	0.00	11	0.00	0.00	0.00	0.00
219	30	13	4	4	0.00	11	0.00	0.00	0.00	0.00
220	-528	130	2	12	180.00	55	0.00	0.00	0.00	0.00
220	130	-533	2	1	180.00	55	0.00	0.00	0.00	0.00
221	48	42	4	4	0.00	11	0.00	0.00	0.00	0.00
237	5	19	2	12	180.00	55	0.00	0.00	0.00	0.00
237	19	13	2	1	180.00	55	0.00	0.00	0.00	0.00
237	13	22	2	1	180.00	55	0.00	0.00	0.00	0.00
237	22	14	2	1	180.00	55	0.00	0.00	0.00	0.00
237	14	15	2	1	180.00	55	0.00	0.00	0.00	0.00
237	15	16	2	1	180.00	55	0.00	0.00	0.00	0.00
237	16	17	2	1	180.00	55	0.00	0.00	0.00	0.00
237	17	18	2	1	180.00	55	0.00	0.00	0.00	0.00
239	39	53	2	12	180.00	55	0.00	0.00	0.00	0.00
239	53	43	2	1	180.00	55	0.00	0.00	0.00	0.00
239	43	52	2	1	180.00	55	0.00	0.00	0.00	0.00
239	52	42	2	1	180.00	55	0.00	0.00	0.00	0.00
239	42	45	2	1	180.00	55	0.00	0.00	0.00	0.00
239	45	47	2	11	180.00	55	0.00	0.00	0.00	0.00
304	72	73	7	4	27.00	55	0.00	0.00	0.00	0.00
310	-534	75	7	11	164.00	55	0.00	0.00	0.00	0.00
310	-526	-534	7	12	164.00	55	0.00	0.00	0.00	0.00
401	15	26	3	4	0.00	11	0.00	0.00	0.00	0.00
403	45	46	3	4	0.00	11	0.00	0.00	0.00	0.00
409	-528	26	10	4	0.00	11	0.00	0.00	0.00	0.00
411	-535	26	4	11	0.00	11	0.00	0.00	0.00	0.00
411	130	-535	4	12	0.00	11	0.00	0.00	0.00	0.00
427	26	-529	9	12	180.00	11	0.00	0.00	0.00	0.00
427	-529	46	9	11	180.00	11	0.00	0.00	0.00	0.00
445	-528	46	10	4	0.00	11	0.00	0.00	0.00	0.00
509	-527	71	7	11	74.00	55	0.00	0.00	0.00	0.00
509	70	-527	7	12	74.00	55	0.00	0.00	0.00	0.00
601	20	13	3	4	0.00	11	0.00	0.00	0.00	0.00
603	49	43	3	4	0.00	11	0.00	0.00	0.00	0.00
705	61	64	7	4	27.00	55	0.00	0.00	0.00	0.00
801	14	25	3	4	0.00	11	0.00	0.00	0.00	0.00
803	42	44	3	4	0.00	11	0.00	0.00	0.00	0.00
813	-529	25	10	13	0.00	11	0.00	0.00	0.00	0.00
818	-529	44	10	13	0.00	11	0.00	0.00	0.00	0.00
908	62	63	7	4	74.00	55	0.00	0.00	0.00	0.00
1001	14	21	4	4	0.00	11	0.00	0.00	0.00	0.00
1003	42	40	4	4	0.00	11	0.00	0.00	0.00	0.00
1101	13	24	4	4	0.00	11	0.00	0.00	0.00	0.00
1103	43	41	4	4	0.00	11	0.00	0.00	0.00	0.00
1201	5	20	9	12	180.00	55	0.00	0.00	0.00	0.00
1201	20	21	9	1	180.00	55	0.00	0.00	0.00	0.00
1201	21	23	9	1	180.00	55	0.00	0.00	0.00	0.00
1203	39	49	9	12	180.00	55	0.00	0.00	0.00	0.00
1203	49	40	9	1	180.00	55	0.00	0.00	0.00	0.00
1203	40	54	9	1	180.00	55	0.00	0.00	0.00	0.00
1214	54	25	4	4	0.00	11	0.00	0.00	0.00	0.00
1215	54	5	4	4	0.00	11	0.00	0.00	0.00	0.00
1216	39	23	4	4	0.00	11	0.00	0.00	0.00	0.00
1217	23	44	4	4	0.00	11	0.00	0.00	0.00	0.00
1219	23	24	9	1	180.00	55	0.00	0.00	0.00	0.00
1219	24	25	9	1	180.00	55	0.00	0.00	0.00	0.00
1219	25	26	9	1	180.00	55	0.00	0.00	0.00	0.00
1219	26	17	9	11	180.00	55	0.00	0.00	0.00	0.00
1221	54	41	9	1	180.00	55	0.00	0.00	0.00	0.00

1221	41	44	9	1	180.00	55	0.00	0.00	0.00	0.00
1221	44	46	9	1	180.00	55	0.00	0.00	0.00	0.00
1301	23	69	6	1	0.00	55	0.00	0.00	0.00	0.00
1303	54	67	6	1	0.00	55	0.00	0.00	0.00	0.00
1306	67	69	7	4	27.00	55	0.00	0.00	0.00	0.00
1307	65	68	7	4	74.00	55	0.00	0.00	0.00	0.00
1319	23	68	6	1	0.00	55	0.00	0.00	0.00	0.00
1321	54	65	6	1	0.00	55	0.00	0.00	0.00	0.00

Elenco tipi elementi bidimensionali

Simbologia

Tb = Numero del tipo muro/elemento bidimensionale
Comm. = Commento
Tipo = Tipologia
F = Flessionale
M = Membranale
W-RC = Winkler resistente solo a compressione
W-RTC = Winkler resistente a trazione e a compressione
Uso = Utilizzo
G = Generico
P = Parete
S = Soletta/Platea
N = Nucleo
M = Muratura
L = Pilastro
Mat. = Numero del materiale
Crit. = Numero del criterio di progetto
Spess. = Spessore
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Tb	Comm.	Tipo	Uso	Mat.	Crit.	Spess.	Kt
						<cm>	<daN/cmc>
1		W-RTC	S	1	1	50.00	1.00

Elenco elementi bidimensionali

Simbologia

Bid. = Numero del muro/elemento bidimensionale
Tb = Numero del tipo muro/elemento bidimensionale
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler
NN = Nodi

Bid.	Tb	FF	Dy1	Dy2	Kt	NN	Bid.	Tb	FF	Dy1	Dy2	Kt	NN
			<cm>	<cm>	<daN/cmc>					<cm>	<cm>	<daN/cmc>	
1601	1	11	0.00	0.00	1.00	-78 -77 -65 -66	1601	1	11	0.00	0.00	1.00	-78 -66 121 32
1601	1	11	0.00	0.00	1.00	121 119 89 32	1601	1	11	0.00	0.00	1.00	-78 32 -81 -82
1601	1	11	0.00	0.00	1.00	-78 -82 -76 -77	1601	1	11	0.00	0.00	1.00	32 89 -35 -81
1601	1	11	0.00	0.00	1.00	-79 -80 -82 -81	1601	1	11	0.00	0.00	1.00	-79 -81 -35 -36
1601	1	11	0.00	0.00	1.00	-80 -75 -76 -82	1601	1	11	0.00	0.00	1.00	-71 -72 -80 -79
1601	1	11	0.00	0.00	1.00	-71 -79 -36 -37	1601	1	11	0.00	0.00	1.00	-72 -73 -75 -80
1601	1	11	0.00	0.00	1.00	81 123 -64 -84	1601	1	11	0.00	0.00	1.00	-85 -74 -61 -474
1601	1	11	0.00	0.00	1.00	-84 -64 -65 -77	1601	1	11	0.00	0.00	1.00	-84 -77 -76 -83
1601	1	11	0.00	0.00	1.00	-75 -73 -74 -85	1601	1	11	0.00	0.00	1.00	-75 -85 -83 -76
1601	1	11	0.00	0.00	1.00	-85 -474 -477 -83	1601	1	11	0.00	0.00	1.00	81 -84 -83 -477
1601	1	11	0.00	0.00	1.00	-91 -88 -89 -92	1601	1	11	0.00	0.00	1.00	-91 -92 -74 -73
1601	1	11	0.00	0.00	1.00	-92 -89 -59 -60	1601	1	11	0.00	0.00	1.00	-92 -60 -61 -74
1601	1	11	0.00	0.00	1.00	-91 -73 -72 -90	1601	1	11	0.00	0.00	1.00	-91 -90 -87 -88
1601	1	11	0.00	0.00	1.00	-90 -72 -71 -93	1601	1	11	0.00	0.00	1.00	-90 -93 -86 -87
1601	1	11	0.00	0.00	1.00	-93 -71 -37 -38	1601	1	11	0.00	0.00	1.00	-93 -38 -39 -86
1601	1	11	0.00	0.00	1.00	-40 -41 -67 -95	1601	1	11	0.00	0.00	1.00	-40 -95 -86 -39
1601	1	11	0.00	0.00	1.00	-95 -67 -68 -94	1601	1	11	0.00	0.00	1.00	-95 -94 -87 -86
1601	1	11	0.00	0.00	1.00	-96 -69 -70 -97	1601	1	11	0.00	0.00	1.00	-96 -97 -89 -88
1601	1	11	0.00	0.00	1.00	-97 -70 -57 -58	1601	1	11	0.00	0.00	1.00	-97 -58 -59 -89
1601	1	11	0.00	0.00	1.00	-96 -88 -87 -94	1601	1	11	0.00	0.00	1.00	-96 -94 -68 -69
1601	1	11	0.00	0.00	1.00	35 -105 -47 88	1601	1	11	0.00	0.00	1.00	35 88 99 108
1601	1	11	0.00	0.00	1.00	-46 -47 -105 -106	1601	1	11	0.00	0.00	1.00	-46 -106 -101 -45
1601	1	11	0.00	0.00	1.00	35 108 -48 -108	1601	1	11	0.00	0.00	1.00	35 -108 -107 -105
1601	1	11	0.00	0.00	1.00	-108 -48 -49 -102	1601	1	11	0.00	0.00	1.00	-108 -102 -103 -107
1601	1	11	0.00	0.00	1.00	-104 -99 -100 -109	1601	1	11	0.00	0.00	1.00	-104 -109 -107 -103
1601	1	11	0.00	0.00	1.00	-109 -100 -101 -106	1601	1	11	0.00	0.00	1.00	-109 -106 -105 -107
1601	1	11	0.00	0.00	1.00	-104 -103 -110 -111	1601	1	11	0.00	0.00	1.00	-104 -111 -98 -99
1601	1	11	0.00	0.00	1.00	-111 -468 -53 -98	1601	1	11	0.00	0.00	1.00	-112 80 -467 -110

1601	1	11	0.00	0.00	1.00	-102	-49	-50	-112	1601	1	11	0.00	0.00	1.00	-102	-112	-110	-103
1601	1	11	0.00	0.00	1.00	-112	-50	105	80	1601	1	11	0.00	0.00	1.00	-111	-110	-467	-468
1601	1	11	0.00	0.00	1.00	-118	-115	-116	-119	1601	1	11	0.00	0.00	1.00	-118	-119	-70	-69
1601	1	11	0.00	0.00	1.00	-119	-116	-55	-56	1601	1	11	0.00	0.00	1.00	-119	-56	-57	-70
1601	1	11	0.00	0.00	1.00	-118	-69	-68	-117	1601	1	11	0.00	0.00	1.00	-118	-117	-114	-115
1601	1	11	0.00	0.00	1.00	-117	-68	-67	-120	1601	1	11	0.00	0.00	1.00	-117	-120	-113	-114
1601	1	11	0.00	0.00	1.00	-120	-67	-41	-42	1601	1	11	0.00	0.00	1.00	-120	-42	-43	-113
1601	1	11	0.00	0.00	1.00	-44	-45	-101	-122	1601	1	11	0.00	0.00	1.00	-44	-122	-113	-43
1601	1	11	0.00	0.00	1.00	-122	-101	-100	-121	1601	1	11	0.00	0.00	1.00	-122	-121	-114	-113
1601	1	11	0.00	0.00	1.00	-54	-55	-116	-124	1601	1	11	0.00	0.00	1.00	-54	-124	-98	-53
1601	1	11	0.00	0.00	1.00	-124	-116	-115	-123	1601	1	11	0.00	0.00	1.00	-124	-123	-99	-98
1601	1	11	0.00	0.00	1.00	-123	-115	-114	-121	1601	1	11	0.00	0.00	1.00	-123	-121	-100	-99
1602	1	11	0.00	0.00	1.00	-284	-283	-271	-272	1602	1	11	0.00	0.00	1.00	-328	-327	-333	-334
1602	1	11	0.00	0.00	1.00	-328	-334	-246	-247	1602	1	11	0.00	0.00	1.00	-327	-320	-319	-333
1602	1	11	0.00	0.00	1.00	-334	-333	-274	-273	1602	1	11	0.00	0.00	1.00	-334	-273	-245	-246
1602	1	11	0.00	0.00	1.00	-333	-319	-275	-274	1602	1	11	0.00	0.00	1.00	-302	-300	-274	-275
1602	1	11	0.00	0.00	1.00	-312	-307	-250	-251	1602	1	11	0.00	0.00	1.00	-312	-251	-252	-311
1602	1	11	0.00	0.00	1.00	37	-311	-252	86	1602	1	11	0.00	0.00	1.00	37	86	101	106
1602	1	11	0.00	0.00	1.00	37	106	-253	-314	1602	1	11	0.00	0.00	1.00	37	-314	-313	-311
1602	1	11	0.00	0.00	1.00	-284	-272	127	36	1602	1	11	0.00	0.00	1.00	127	125	87	36
1602	1	11	0.00	0.00	1.00	-284	36	-287	-288	1602	1	11	0.00	0.00	1.00	-284	-288	-282	-283
1602	1	11	0.00	0.00	1.00	36	87	-239	-287	1602	1	11	0.00	0.00	1.00	-287	-239	-240	-285
1602	1	11	0.00	0.00	1.00	-287	-285	-286	-288	1602	1	11	0.00	0.00	1.00	-286	-281	-282	-288
1602	1	11	0.00	0.00	1.00	-286	-278	-279	-281	1602	1	11	0.00	0.00	1.00	-277	-278	-286	-285
1602	1	11	0.00	0.00	1.00	-277	-285	-240	-241	1602	1	11	0.00	0.00	1.00	-281	-279	-280	-290
1602	1	11	0.00	0.00	1.00	-281	-290	-289	-282	1602	1	11	0.00	0.00	1.00	-290	-280	-267	-268
1602	1	11	0.00	0.00	1.00	79	-291	-289	-457	1602	1	11	0.00	0.00	1.00	79	128	-270	-291
1602	1	11	0.00	0.00	1.00	-290	-268	-457	-289	1602	1	11	0.00	0.00	1.00	-291	-270	-271	-283
1602	1	11	0.00	0.00	1.00	-291	-283	-282	-289	1602	1	11	0.00	0.00	1.00	-242	-243	-292	-297
1602	1	11	0.00	0.00	1.00	-242	-297	-277	-241	1602	1	11	0.00	0.00	1.00	-297	-292	-293	-296
1602	1	11	0.00	0.00	1.00	-297	-296	-278	-277	1602	1	11	0.00	0.00	1.00	-298	-279	-278	-296
1602	1	11	0.00	0.00	1.00	-280	-279	-298	-299	1602	1	11	0.00	0.00	1.00	-280	-299	-266	-267
1602	1	11	0.00	0.00	1.00	-299	-298	-294	-295	1602	1	11	0.00	0.00	1.00	-299	-295	-265	-266
1602	1	11	0.00	0.00	1.00	-298	-296	-293	-294	1602	1	11	0.00	0.00	1.00	-244	-245	-273	-301
1602	1	11	0.00	0.00	1.00	-244	-301	-292	-243	1602	1	11	0.00	0.00	1.00	-301	-273	-274	-300
1602	1	11	0.00	0.00	1.00	-301	-300	-293	-292	1602	1	11	0.00	0.00	1.00	-295	-294	-302	-303
1602	1	11	0.00	0.00	1.00	-295	-303	-264	-265	1602	1	11	0.00	0.00	1.00	-294	-293	-300	-302
1602	1	11	0.00	0.00	1.00	-303	-302	-275	-276	1602	1	11	0.00	0.00	1.00	-303	-276	-263	-264
1602	1	11	0.00	0.00	1.00	-319	-324	-276	-275	1602	1	11	0.00	0.00	1.00	-324	-323	-261	-262
1602	1	11	0.00	0.00	1.00	-324	-262	-263	-276	1602	1	11	0.00	0.00	1.00	-321	-326	-323	-320
1602	1	11	0.00	0.00	1.00	-325	-326	-321	-322	1602	1	11	0.00	0.00	1.00	-325	-322	-305	-304
1602	1	11	0.00	0.00	1.00	-326	-260	-261	-323	1602	1	11	0.00	0.00	1.00	-314	-253	-254	-308
1602	1	11	0.00	0.00	1.00	-314	-308	-309	-313	1602	1	11	0.00	0.00	1.00	-312	-311	-313	-315
1602	1	11	0.00	0.00	1.00	-312	-315	-306	-307	1602	1	11	0.00	0.00	1.00	-315	-313	-309	-310
1602	1	11	0.00	0.00	1.00	-315	-310	-305	-306	1602	1	11	0.00	0.00	1.00	-310	-309	-316	-317
1602	1	11	0.00	0.00	1.00	-310	-317	-304	-305	1602	1	11	0.00	0.00	1.00	-318	78	-450	-316
1602	1	11	0.00	0.00	1.00	-317	-257	-258	-304	1602	1	11	0.00	0.00	1.00	-308	-254	-255	-318
1602	1	11	0.00	0.00	1.00	-308	-318	-316	-309	1602	1	11	0.00	0.00	1.00	-318	-255	115	78
1602	1	11	0.00	0.00	1.00	-317	-316	-450	-257	1602	1	11	0.00	0.00	1.00	-319	-320	-323	-324
1602	1	11	0.00	0.00	1.00	-332	-307	-306	-329	1602	1	11	0.00	0.00	1.00	-248	-249	-332	-331
1602	1	11	0.00	0.00	1.00	-248	-331	-328	-247	1602	1	11	0.00	0.00	1.00	-249	-250	-307	-332
1602	1	11	0.00	0.00	1.00	-322	-321	-330	-329	1602	1	11	0.00	0.00	1.00	-322	-329	-306	-305
1602	1	11	0.00	0.00	1.00	-321	-320	-327	-330	1602	1	11	0.00	0.00	1.00	-259	-260	-326	-325
1602	1	11	0.00	0.00	1.00	-259	-325	-304	-258	1602	1	11	0.00	0.00	1.00	-330	-327	-328	-331
1602	1	11	0.00	0.00	1.00	-330	-331	-332	-329	1603	1	11	0.00	0.00	1.00	58	-386	-351	113
1603	1	11	0.00	0.00	1.00	-384	-385	-382	-383	1603	1	11	0.00	0.00	1.00	-384	-383	-374	-375
1603	1	11	0.00	0.00	1.00	-379	-380	-385	-384	1603	1	11	0.00	0.00	1.00	-379	-384	-375	-376
1603	1	11	0.00	0.00	1.00	-386	-385	-380	-381	1603	1	11	0.00	0.00	1.00	-386	-381	-350	-351
1603	1	11	0.00	0.00	1.00	-411	-410	-429	-438	1603	1	11	0.00	0.00	1.00	-436	-438	-429	-428
1603	1	11	0.00	0.00	1.00	-439	-438	-436	-437	1603	1	11	0.00	0.00	1.00	-439	-437	-360	-361
1603	1	11	0.00	0.00	1.00	-437	-436	-440	-441	1603	1	11	0.00	0.00	1.00	-437	-441	-359	-360
1603	1	11	0.00	0.00	1.00	-436	-428	-427	-440	1603	1	11	0.00	0.00	1.00	-441	-440	-370	-369
1603	1	11	0.00	0.00	1.00	-441	-369	-358	-359	1603	1	11	0.00	0.00	1.00	-440	-427	-371	-370
1603	1	11	0.00	0.00	1.00	-416	-417	-420	-419	1603	1	11	0.00	0.00	1.00	-416	-419	-414	-415
1603	1	11	0.00	0.00	1.00	-383	-382	-352	-353	1603	1	11	0.00	0.00	1.00	-383	-353	-354	-374
1603	1	11	0.00	0.00	1.00	83	-352	-382	58	1603	1	11	0.00	0.00	1.00	83	58	113	104
1603	1	11	0.00	0.00	1.00	-389	-390	-377	-378	1603	1	11	0.00	0.00	1.00	-391	-387	-498	91
1603	1	11	0.00	0.00	1.00	-390	-379	-376	-377	1603	1	11	0.00	0.00	1.00	-378	-400	-492	-491
1603	1	11	0.00	0.00	1.00	-389	-387	-388	-390	1603	1	11	0.00	0.00	1.00	-388	-380	-379	-390
1603	1	11	0.00	0.00	1.00	-388	-392	-381	-380	1603	1	11	0.00	0.00	1.00	-391	-392	-388	-387
1603	1	11	0.00	0.00	1.00	-389	-500	-498	-387	1603	1	11	0.00	0.00	1.00	-392	-391	-348	-349
1603	1	11	0.00	0.00	1.00	-392	-349	-350	-381	1603	1	11	0.00	0.00	1.00	-391	91	96	-348
1603	1	11	0.00	0.00	1.00	-372	-399	-395	-371	1603	1	11	0.00	0.00	1.00	-398	-399	-372	-373
1603	1	11	0.00	0.00	1.00	-398	-373	-341											

1603	1	11	0.00	0.00	1.00	-405	-395	-394	-402	1603	1	11	0.00	0.00	1.00	-369	-370	-405	-404
1603	1	11	0.00	0.00	1.00	-369	-404	-357	-358	1603	1	11	0.00	0.00	1.00	-370	-371	-395	-405
1603	1	11	0.00	0.00	1.00	-407	-355	-356	-403	1603	1	11	0.00	0.00	1.00	-407	-403	-402	-406
1603	1	11	0.00	0.00	1.00	-402	-394	-393	-406	1603	1	11	0.00	0.00	1.00	-407	-406	-375	-374
1603	1	11	0.00	0.00	1.00	-407	-374	-354	-355	1603	1	11	0.00	0.00	1.00	-406	-393	-376	-375
1603	1	11	0.00	0.00	1.00	57	-420	-364	82	1603	1	11	0.00	0.00	1.00	-419	-420	57	-418
1603	1	11	0.00	0.00	1.00	-419	-418	-413	-414	1603	1	11	0.00	0.00	1.00	-373	-433	-340	-341
1603	1	11	0.00	0.00	1.00	-372	-371	-427	-432	1603	1	11	0.00	0.00	1.00	-417	-363	-364	-420
1603	1	11	0.00	0.00	1.00	122	57	82	120	1603	1	11	0.00	0.00	1.00	-418	57	122	-365
1603	1	11	0.00	0.00	1.00	-418	-365	-366	-413	1603	1	11	0.00	0.00	1.00	-411	-412	-417	-416
1603	1	11	0.00	0.00	1.00	-411	-416	-415	-410	1603	1	11	0.00	0.00	1.00	-412	-362	-363	-417
1603	1	11	0.00	0.00	1.00	-367	-368	-423	-424	1603	1	11	0.00	0.00	1.00	-367	-424	-413	-366
1603	1	11	0.00	0.00	1.00	-368	118	90	-423	1603	1	11	0.00	0.00	1.00	-421	-422	-424	-423
1603	1	11	0.00	0.00	1.00	-431	-435	-479	-339	1603	1	11	0.00	0.00	1.00	-422	-414	-413	-424
1603	1	11	0.00	0.00	1.00	-425	-426	-422	-421	1603	1	11	0.00	0.00	1.00	-421	-423	90	-488
1603	1	11	0.00	0.00	1.00	-426	-415	-414	-422	1603	1	11	0.00	0.00	1.00	-426	-409	-410	-415
1603	1	11	0.00	0.00	1.00	-408	-409	-426	-425	1603	1	11	0.00	0.00	1.00	-425	-421	-488	-486
1603	1	11	0.00	0.00	1.00	-373	-372	-432	-433	1603	1	11	0.00	0.00	1.00	-412	-411	-438	-439
1603	1	11	0.00	0.00	1.00	-412	-439	-361	-362	1603	1	11	0.00	0.00	1.00	-431	-339	-340	-433
1603	1	11	0.00	0.00	1.00	-431	-433	-432	-430	1603	1	11	0.00	0.00	1.00	-432	-427	-428	-430
1603	1	11	0.00	0.00	1.00	-431	-430	-434	-435	1603	1	11	0.00	0.00	1.00	-435	-408	-480	-479
1603	1	11	0.00	0.00	1.00	-430	-428	-429	-434	1603	1	11	0.00	0.00	1.00	-409	-434	-429	-410
1603	1	11	0.00	0.00	1.00	-435	-434	-409	-408	1603	1	11	0.00	0.00	1.00	-408	-425	-486	-480
1603	1	11	0.00	0.00	1.00	58	-382	-385	-386	1604	1	33	0.00	0.00	1.00	-237	-224	-163	-162
1604	1	33	0.00	0.00	1.00	-238	-161	-150	-151	1604	1	33	0.00	0.00	1.00	59	-174	-177	-178
1604	1	33	0.00	0.00	1.00	59	-178	-142	129	1604	1	33	0.00	0.00	1.00	-176	-177	-174	-175
1604	1	33	0.00	0.00	1.00	-176	-175	-166	-167	1604	1	33	0.00	0.00	1.00	-176	-167	-168	-171
1604	1	33	0.00	0.00	1.00	-176	-171	-172	-177	1604	1	33	0.00	0.00	1.00	-178	-177	-172	-173
1604	1	33	0.00	0.00	1.00	-178	-173	-141	-142	1604	1	33	0.00	0.00	1.00	-175	-174	-143	-144
1604	1	33	0.00	0.00	1.00	-175	-144	-145	-166	1604	1	33	0.00	0.00	1.00	84	-143	-174	59
1604	1	33	0.00	0.00	1.00	84	59	129	126	1604	1	33	0.00	0.00	1.00	-170	-195	-515	-514
1604	1	33	0.00	0.00	1.00	-182	-179	-180	-181	1604	1	33	0.00	0.00	1.00	-180	-172	-171	-181
1604	1	33	0.00	0.00	1.00	-182	-181	-169	-170	1604	1	33	0.00	0.00	1.00	-183	-179	-522	92
1604	1	33	0.00	0.00	1.00	-181	-171	-168	-169	1604	1	33	0.00	0.00	1.00	-180	-184	-173	-172
1604	1	33	0.00	0.00	1.00	-183	-184	-180	-179	1604	1	33	0.00	0.00	1.00	-182	-524	-522	-179
1604	1	33	0.00	0.00	1.00	-184	-183	-139	-140	1604	1	33	0.00	0.00	1.00	-184	-140	-141	-173
1604	1	33	0.00	0.00	1.00	-183	92	124	-139	1604	1	33	0.00	0.00	1.00	-165	-131	-132	-193
1604	1	33	0.00	0.00	1.00	-165	-193	-194	-164	1604	1	33	0.00	0.00	1.00	-194	-188	-163	-164
1604	1	33	0.00	0.00	1.00	-194	-192	-187	-188	1604	1	33	0.00	0.00	1.00	-191	-192	-194	-193
1604	1	33	0.00	0.00	1.00	-191	-193	-132	-133	1604	1	33	0.00	0.00	1.00	-189	-190	-192	-191
1604	1	33	0.00	0.00	1.00	-189	-191	-133	-134	1604	1	33	0.00	0.00	1.00	-190	-186	-187	-192
1604	1	33	0.00	0.00	1.00	-190	-196	-185	-186	1604	1	33	0.00	0.00	1.00	-195	-196	-190	-189
1604	1	33	0.00	0.00	1.00	-182	-170	-514	-524	1604	1	33	0.00	0.00	1.00	-196	-169	-168	-185
1604	1	33	0.00	0.00	1.00	-170	-169	-196	-195	1604	1	33	0.00	0.00	1.00	-195	-189	-134	-515
1604	1	33	0.00	0.00	1.00	-198	-147	-148	-199	1604	1	33	0.00	0.00	1.00	-198	-199	-200	-197
1604	1	33	0.00	0.00	1.00	-200	-187	-186	-197	1604	1	33	0.00	0.00	1.00	-201	-202	-200	-199
1604	1	33	0.00	0.00	1.00	-201	-199	-148	-149	1604	1	33	0.00	0.00	1.00	-202	-188	-187	-200
1604	1	33	0.00	0.00	1.00	-161	-162	-202	-201	1604	1	33	0.00	0.00	1.00	-161	-201	-149	-150
1604	1	33	0.00	0.00	1.00	-162	-163	-188	-202	1604	1	33	0.00	0.00	1.00	-203	-197	-186	-185
1604	1	33	0.00	0.00	1.00	-198	-197	-203	-204	1604	1	33	0.00	0.00	1.00	-198	-204	-146	-147
1604	1	33	0.00	0.00	1.00	-204	-203	-167	-166	1604	1	33	0.00	0.00	1.00	-204	-166	-145	-146
1604	1	33	0.00	0.00	1.00	-203	-185	-168	-167	1604	1	33	0.00	0.00	1.00	60	-217	-156	85
1604	1	33	0.00	0.00	1.00	-216	-217	60	-213	1604	1	33	0.00	0.00	1.00	-216	-213	-210	-211
1604	1	33	0.00	0.00	1.00	-214	-215	-217	-216	1604	1	33	0.00	0.00	1.00	-214	-216	-211	-212
1604	1	33	0.00	0.00	1.00	-215	-155	-156	-217	1604	1	33	0.00	0.00	1.00	-214	-212	-207	-208
1604	1	33	0.00	0.00	1.00	-214	-208	-209	-215	1604	1	33	0.00	0.00	1.00	-209	-154	-155	-215
1604	1	33	0.00	0.00	1.00	117	60	85	102	1604	1	33	0.00	0.00	1.00	-213	60	117	-157
1604	1	33	0.00	0.00	1.00	-213	-157	-158	-210	1604	1	33	0.00	0.00	1.00	-159	-160	-220	-221
1604	1	33	0.00	0.00	1.00	-159	-221	-210	-158	1604	1	33	0.00	0.00	1.00	-160	94	93	-220
1604	1	33	0.00	0.00	1.00	-218	-219	-221	-220	1604	1	33	0.00	0.00	1.00	-228	-232	-502	-129
1604	1	33	0.00	0.00	1.00	-219	-211	-210	-221	1604	1	33	0.00	0.00	1.00	-222	-223	-219	-218
1604	1	33	0.00	0.00	1.00	-218	-220	93	-511	1604	1	33	0.00	0.00	1.00	-223	-212	-211	-219
1604	1	33	0.00	0.00	1.00	-223	-206	-207	-212	1604	1	33	0.00	0.00	1.00	-205	-206	-223	-222
1604	1	33	0.00	0.00	1.00	-222	-218	-511	-509	1604	1	33	0.00	0.00	1.00	-165	-164	-229	-230
1604	1	33	0.00	0.00	1.00	-165	-230	-130	-131	1604	1	33	0.00	0.00	1.00	-164	-163	-224	-229
1604	1	33	0.00	0.00	1.00	-228	-129	-130	-230	1604	1	33	0.00	0.00	1.00	-228	-230	-229	-227
1604	1	33	0.00	0.00	1.00	-229	-224	-225	-227	1604	1	33	0.00	0.00	1.00	-228	-227	-231	-232
1604	1	33	0.00	0.00	1.00	-232	-205	-503	-502	1604	1	33	0.00	0.00	1.00	-227	-225	-226	-231
1604	1	33	0.00	0.00	1.00	-206	-231	-226	-207	1604	1	33	0.00	0.00	1.00	-232	-231	-206	-205
1604	1	33	0.00	0.00	1.00	-205	-222	-509	-503	1604	1	33	0.00	0.00	1.00	-233	-236	-226	-225
1604	1	33	0.00	0.00	1.00	-235	-236	-233	-234	1604	1	33	0.00	0.00	1.00	-235	-234	-152	-153
1604	1	33	0.00	0.00	1.00	-209	-208	-236	-235	1604	1	33	0.00	0.00	1.00	-209	-235	-153	-154
1604	1	33	0.00	0.00	1.00	-208	-207	-226	-236	1604	1	33	0.00	0.00	1.00	-238	-151	-152	-234
1604	1	33	0.00	0.00	1														

Ts = Numero del tipo solaio
Comm. = Commento
Qps = Carico permanente strutturale
Qpn = Carico permanente non strutturale
Qa = Primo carico accidentale
Qa2 = Secondo carico accidentale
Qa3 = Terzo carico accidentale
Rip. ter. = Ripartizione su aste terminali
Rip. int. = Ripartizione su aste interne
s = Coeff. di riduzione
Hs = Altezza solaio
Sc = Spessore cappa
Crit. = Numero del criterio di progetto

Ts	Comm.	Qps	Qpn	Qa	Qa2	Qa3	Rip. ter.	Rip. int.	s	Hs	Sc	Crit.
		<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>				<cm>	<cm>	
1		0.00	100.00	48.00	130.00	50.00	50.00	50.00	0.33	2.00	2.00	1

Elenco solai

Simbologia

Sol. = Numero del solaio
Ts = Numero del tipo solaio
Ord. = Orditura
Nodi = Nodi del solaio

Sol.	Ts	Ord.	Nodi	Sol.	Ts	Ord.	Nodi
		<grad>				<grad>	
0	1	0.00	69 68 65 -34 67	0	1	0.00	-526 131 -533 18 75 -534
0	1	0.00	71 -527 70 62 63	0	1	0.00	63 62 65 68
0	1	0.00	61 64 69 67	0	1	0.00	71 -527 -526 -534 75
0	1	0.00	72 73 64 61				

Carichi

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2		1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3	Neve	1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4	Vento Y	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
5	Manutenzione	1.00	1.00	0.00	0.00	0.00	1.00	19 D.M. 08 Variabili Categoria H - Coperture	S	B
6	Vento +X	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
7	Vento -X	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B

Elenco carichi nodi

Condizione di carico n. 6: Vento +X

Carichi concentrati

Simbologia

Nodo = Numero del nodo
Px = Componente X della forza applicata
Py = Componente Y della forza applicata
Pz = Componente Z della forza applicata

Mx = Momento intorno all'asse X
My = Momento intorno all'asse Y
Mz = Momento intorno all'asse Z

Nodo	Px	Py	Pz	Mx	My	Mz	Nodo	Px	Py	Pz	Mx	My	Mz
	<daN>	<daN>	<daN>	<daNm>	<daNm>	<daNm>		<daN>	<daN>	<daN>	<daNm>	<daNm>	<daNm>
61	-25.00	0.00	0.00	0.00	0.00	0.00	62	-25.00	0.00	0.00	0.00	0.00	0.00
63	-25.00	0.00	0.00	0.00	0.00	0.00	64	-25.00	0.00	0.00	0.00	0.00	0.00
67	-25.00	0.00	0.00	0.00	0.00	0.00	69	-25.00	0.00	0.00	0.00	0.00	0.00
70	-25.00	0.00	0.00	0.00	0.00	0.00	71	-25.00	0.00	0.00	0.00	0.00	0.00
72	-25.00	0.00	0.00	0.00	0.00	0.00	73	-25.00	0.00	0.00	0.00	0.00	0.00
75	-25.00	0.00	0.00	0.00	0.00	0.00							

Elenco carichi nodi

Condizione di carico n. 7: Vento -X

Carichi concentrati

Nodo	Px	Py	Pz	Mx	My	Mz	Nodo	Px	Py	Pz	Mx	My	Mz
	<daN>	<daN>	<daN>	<daNm>	<daNm>	<daNm>		<daN>	<daN>	<daN>	<daNm>	<daNm>	<daNm>
61	25.00	0.00	0.00	0.00	0.00	0.00	62	25.00	0.00	0.00	0.00	0.00	0.00
63	25.00	0.00	0.00	0.00	0.00	0.00	64	25.00	0.00	0.00	0.00	0.00	0.00
67	25.00	0.00	0.00	0.00	0.00	0.00	69	25.00	0.00	0.00	0.00	0.00	0.00
70	25.00	0.00	0.00	0.00	0.00	0.00	71	25.00	0.00	0.00	0.00	0.00	0.00
72	25.00	0.00	0.00	0.00	0.00	0.00	73	25.00	0.00	0.00	0.00	0.00	0.00
75	25.00	0.00	0.00	0.00	0.00	0.00							

Elenco carichi aste

Condizione di carico n. 1:

Carichi distribuiti

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
S = Numero del solaio di provenienza
T = Tipo di carico
QA = Primo carico accidentale da solaio
QA2 = Secondo carico accidentale da solaio
QA3 = Terzo carico accidentale da solaio
QPS = Carico permanente strutturale da solaio
QPN = Carico permanente non strutturale da solaio
PP = Peso proprio
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi Globali
XL,YL,ZL = secondo gli assi Locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
5	32	28	--	PP	ZG	0.00	90.43	3.01	90.43	5	28	5	--	PP	ZG	0.00	90.43	1.34	90.43
5	5	73	--	PP	ZG	0.00	0.01	0.17	0.01	13	35	29	--	PP	ZG	0.00	90.43	3.01	90.43
13	29	13	--	PP	ZG	0.00	90.43	1.34	90.43	14	14	24	--	PP	ZG	0.00	19.26	1.43	19.26
15	15	25	--	PP	ZG	0.00	19.26	1.08	19.26	16	16	26	--	PP	ZG	0.00	19.26	0.57	19.26
17	17	75	--	PP	ZG	0.00	0.01	0.17	0.01	20	20	64	--	PP	ZG	0.00	0.01	0.20	0.01
25	25	63	--	PP	ZG	0.00	0.01	0.19	0.01	26	26	71	--	PP	ZG	0.00	0.01	0.18	0.01
30	130	-534	--	PP	ZG	0.00	0.01	0.17	0.01	38	57	38	--	PP	ZG	0.00	90.43	3.01	90.43
38	38	39	--	PP	ZG	0.00	90.43	1.34	90.43	38	39	72	--	PP	ZG	0.00	0.01	0.17	0.01
40	43	40	--	PP	ZG	0.00	19.26	1.42	19.26	41	42	41	--	PP	ZG	0.00	19.26	1.43	19.26
42	59	55	--	PP	ZG	0.00	90.43	3.01	90.43	42	55	42	--	PP	ZG	0.00	90.43	1.34	90.43
43	58	48	--	PP	ZG	0.00	90.43	3.01	90.43	43	48	43	--	PP	ZG	0.00	90.43	1.34	90.43
44	45	44	--	PP	ZG	0.00	19.26	1.08	19.26	46	47	46	--	PP	ZG	0.00	19.26	0.57	19.26
47	60	56	--	PP	ZG	0.00	90.43	3.01	90.43	47	56	47	--	PP	ZG	0.00	90.43	1.34	90.43
49	49	61	--	PP	ZG	0.00	0.01	0.20	0.01	54	54	-34	--	PP	ZG	0.00	3.55	0.17	3.55
67	-528	-529	--	PP	ZG	0.00	10.91	0.57	10.91	68	13	21	--	PP	ZG	0.00	19.26	1.42	19.26
69	36	30	--	PP	ZG	0.00	90.43	3.01	90.43	69	30	14	--	PP	ZG	0.00	90.43	1.34	90.43
70	37	31	--	PP	ZG	0.00	90.43	3.01	90.43	70	31	16	--	PP	ZG	0.00	90.43	1.34	90.43
71	44	62	--	PP	ZG	0.00	0.01	0.19	0.01	72	46	70	--	PP	ZG	0.00	0.01	0.18	0.01
101	29	30	--	PP	ZG	0.00	37.70	1.15	37.70	103	48	55	--	PP	ZG	0.00	37.70	1.15	37.70
104	28	-30	--	PP	ZG	0.00	19.26	2.41	19.26	109	31	-528	--	PP	ZG	0.00	19.26	2.41	19.26
122	28	38	--	PP	ZG	0.00	37.70	4.01	37.70	127	31	56	--	PP	ZG	0.00	37.70	4.01	37.70
140	38	-30	--	PP	ZG	0.00	19.26	2.41	19.26	145	56	-528	--	PP	ZG	0.00	19.26	2.41	19.26
201	29	14	--	PP	ZG	0.00	3.55	1.77	3.55	202	-529	130	--	PP	ZG	0.00	43.24	1.97	43.24
203	55	43	--	PP	ZG	0.00	3.55	1.77	3.55	204	5	-30	--	PP	ZG	0.00	37.70	2.00	37.70

204	-30	39	--	PP	ZG	0.00	37.70	2.00	37.70	208	45	15	--	PP	ZG	0.00	19.26	4.01	19.26
209	16	-528	--	PP	ZG	0.00	37.70	2.00	37.70	209	-528	47	--	PP	ZG	0.00	37.70	2.00	37.70
212	17	-535	--	PP	ZG	0.00	3.55	1.41	3.55	212	-535	-529	--	PP	ZG	0.00	3.55	1.41	3.55
213	-528	15	--	PP	ZG	0.00	10.91	2.64	10.91	218	-528	45	--	PP	ZG	0.00	10.91	2.64	10.91
219	30	13	--	PP	ZG	0.00	3.55	1.77	3.55	220	-528	130	--	PP	ZG	0.00	43.24	1.89	43.24
220	130	-533	--	PP	ZG	0.00	43.24	0.66	43.24	221	48	42	--	PP	ZG	0.00	3.55	1.77	3.55
237	5	19	--	PP	ZG	0.00	43.24	1.56	43.24	237	19	13	--	PP	ZG	0.00	43.24	1.07	43.24
237	13	22	--	PP	ZG	0.00	43.24	0.43	43.24	237	22	14	--	PP	ZG	0.00	43.24	0.72	43.24
237	14	15	--	PP	ZG	0.00	43.24	1.18	43.24	237	15	16	--	PP	ZG	0.00	43.24	1.72	43.24
237	16	17	--	PP	ZG	0.00	43.24	1.89	43.24	237	17	18	--	PP	ZG	0.00	43.24	0.66	43.24
239	39	53	--	PP	ZG	0.00	43.24	1.56	43.24	239	53	43	--	PP	ZG	0.00	43.24	1.07	43.24
239	43	52	--	PP	ZG	0.00	43.24	0.43	43.24	239	52	42	--	PP	ZG	0.00	43.24	0.72	43.24
239	42	45	--	PP	ZG	0.00	43.24	1.18	43.24	239	45	47	--	PP	ZG	0.00	43.24	1.72	43.24
304	72	73	--	PP	ZG	0.00	24.00	4.01	24.00	310	-534	75	--	PP	ZG	0.00	24.00	2.00	24.00
310	-526	-534	--	PP	ZG	0.00	24.00	1.30	24.00	401	15	26	--	PP	ZG	0.00	19.26	1.81	19.26
403	45	46	--	PP	ZG	0.00	19.26	1.81	19.26	409	-528	26	--	PP	ZG	0.00	10.91	2.08	10.91
411	-535	26	--	PP	ZG	0.00	3.55	1.41	3.55	411	130	-535	--	PP	ZG	0.00	3.55	1.41	3.55
427	26	-529	--	PP	ZG	0.00	43.24	2.00	43.24	427	-529	46	--	PP	ZG	0.00	43.24	2.00	43.24
445	-528	46	--	PP	ZG	0.00	10.91	2.08	10.91	509	-527	71	--	PP	ZG	0.00	24.00	3.31	24.00
509	70	-527	--	PP	ZG	0.00	24.00	0.70	24.00	601	20	13	--	PP	ZG	0.00	19.26	1.36	19.26
603	49	43	--	PP	ZG	0.00	19.26	1.36	19.26	705	61	64	--	PP	ZG	0.00	24.00	4.01	24.00
801	14	25	--	PP	ZG	0.00	19.26	1.60	19.26	803	42	44	--	PP	ZG	0.00	19.26	1.60	19.26
813	-529	25	--	PP	ZG	0.00	10.91	2.69	10.91	818	-529	44	--	PP	ZG	0.00	10.91	2.69	10.91
908	62	63	--	PP	ZG	0.00	24.00	4.01	24.00	1001	14	21	--	PP	ZG	0.00	3.55	1.83	3.55
1003	42	40	--	PP	ZG	0.00	3.55	1.83	3.55	1101	13	24	--	PP	ZG	0.00	3.55	1.84	3.55
1103	43	41	--	PP	ZG	0.00	3.55	1.84	3.55	1201	5	20	--	PP	ZG	0.00	43.24	1.77	43.24
1201	20	21	--	PP	ZG	0.00	43.24	1.22	43.24	1201	21	23	--	PP	ZG	0.00	43.24	0.49	43.24
1203	39	49	--	PP	ZG	0.00	43.24	1.77	43.24	1203	49	40	--	PP	ZG	0.00	43.24	1.22	43.24
1203	40	54	--	PP	ZG	0.00	43.24	0.49	43.24	1214	54	25	--	PP	ZG	0.00	3.55	4.47	3.55
1215	54	5	--	PP	ZG	0.00	3.55	5.31	3.55	1216	39	23	--	PP	ZG	0.00	3.55	5.31	3.55
1217	23	44	--	PP	ZG	0.00	3.55	4.47	3.55	1219	23	24	--	PP	ZG	0.00	43.24	0.75	43.24
1219	24	25	--	PP	ZG	0.00	43.24	1.23	43.24	1219	25	26	--	PP	ZG	0.00	43.24	1.80	43.24
1219	26	17	--	PP	ZG	0.00	43.24	1.97	43.24	1221	54	41	--	PP	ZG	0.00	43.24	0.75	43.24
1221	41	44	--	PP	ZG	0.00	43.24	1.23	43.24	1221	44	46	--	PP	ZG	0.00	43.24	1.80	43.24
1301	23	69	--	PP	ZG	0.00	0.01	0.20	0.01	1303	54	67	--	PP	ZG	0.00	0.01	0.20	0.01
1306	67	69	--	PP	ZG	0.00	24.00	4.01	24.00	1307	65	68	--	PP	ZG	0.00	24.00	4.01	24.00
1319	23	68	--	PP	ZG	0.00	0.01	0.20	0.01	1321	54	65	--	PP	ZG	0.00	0.01	0.20	0.01

Elenco carichi aste

Condizione di carico n. 2:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	0	QPN	ZG	0.00	89.30	4.01	89.30	310	-534	75	0	QPN	ZG	0.00	98.80	2.00	98.80
310	-534	75	0	QPN	ZG	0.00	68.15	2.00	68.15	310	-526	-534	0	QPN	ZG	0.00	98.80	1.30	98.80
310	-526	-534	0	QPN	ZG	0.00	68.15	1.30	68.15	509	-527	71	0	QPN	ZG	0.00	89.91	3.31	89.91
509	-527	71	0	QPN	ZG	0.00	98.80	3.31	98.80	509	70	-527	0	QPN	ZG	0.00	89.91	0.70	89.91
705	61	64	0	QPN	ZG	0.00	89.30	4.01	89.30	705	61	64	0	QPN	ZG	0.00	80.14	4.01	80.14
908	62	63	0	QPN	ZG	0.00	94.09	4.01	94.09	908	62	63	0	QPN	ZG	0.00	89.91	4.01	89.91
1306	67	69	0	QPN	ZG	0.00	80.14	4.01	80.14	1306	67	69	0	QPN	ZG	0.00	10.00	4.01	10.00
1307	65	68	0	QPN	ZG	0.00	10.00	4.01	10.00	1307	65	68	0	QPN	ZG	0.00	94.09	4.01	94.09

Elenco carichi aste

Condizione di carico n. 3: Neve

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	0	QA	ZG	0.00	37.44	4.01	37.44	310	-534	75	0	QA	ZG	0.00	45.36	2.00	45.36
310	-534	75	0	QA	ZG	0.00	31.68	2.00	31.68	310	-526	-534	0	QA	ZG	0.00	45.36	1.30	45.36
310	-526	-534	0	QA	ZG	0.00	31.68	1.30	31.68	509	-527	71	0	QA	ZG	0.00	41.28	3.31	41.28
509	-527	71	0	QA	ZG	0.00	45.36	3.31	45.36	509	70	-527	0	QA	ZG	0.00	41.28	0.70	41.28
705	61	64	0	QA	ZG	0.00	37.44	4.01	37.44	705	61	64	0	QA	ZG	0.00	33.60	4.01	33.60
908	62	63	0	QA	ZG	0.00	43.20	4.01	43.20	908	62	63	0	QA	ZG	0.00	41.28	4.01	41.28
1306	67	69	0	QA	ZG	0.00	33.60	4.01	33.60	1306	67	69	0	QA	ZG	0.00	4.80	4.01	4.80
1307	65	68	0	QA	ZG	0.00	4.80	4.01	4.80	1307	65	68	0	QA	ZG	0.00	43.20	4.01	43.20

Elenco carichi aste

Condizione di carico n. 4: Vento Y

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	0	QA2	ZG	0.00	101.40	4.01	101.40	310	-534	75	0	QA2	ZG	0.00	122.85	2.00	122.85
310	-534	75	0	QA2	ZG	0.00	85.80	2.00	85.80	310	-526	-534	0	QA2	ZG	0.00	122.85	1.30	122.85
310	-526	-534	0	QA2	ZG	0.00	85.80	1.30	85.80	509	-527	71	0	QA2	ZG	0.00	111.80	3.31	111.80
509	-527	71	0	QA2	ZG	1.30	122.85	3.31	122.85	509	-527	71	0	QA2	ZG	0.00	122.85	1.30	122.85

509	70	-527	0	QA2	ZG	0.00	111.80	0.70	111.80	705	61	64	0	QA2	ZG	0.00	101.40	4.01	101.40
705	61	64	0	QA2	ZG	0.00	91.00	4.01	91.00	908	62	63	0	QA2	ZG	0.00	117.00	4.01	117.00
908	62	63	0	QA2	ZG	0.00	111.80	4.01	111.80	1306	67	69	0	QA2	ZG	0.00	91.00	4.01	91.00
1306	67	69	0	QA2	ZG	0.00	13.00	4.01	13.00	1307	65	68	0	QA2	ZG	0.00	13.00	4.01	13.00
1307	65	68	0	QA2	ZG	0.00	117.00	4.01	117.00										

Elenco carichi aste

Condizione di carico n. 5: Manutenzione

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	0	QA3	ZG	0.00	39.00	4.01	39.00	310	-534	75	0	QA3	ZG	0.00	47.25	2.00	47.25
310	-534	75	0	QA3	ZG	0.00	33.00	2.00	33.00	310	-526	-534	0	QA3	ZG	0.00	47.25	1.30	47.25
310	-526	-534	0	QA3	ZG	0.00	33.00	1.30	33.00	509	-527	71	0	QA3	ZG	0.00	43.00	3.31	43.00
509	-527	71	0	QA3	ZG	0.00	47.25	3.31	47.25	509	70	-527	0	QA3	ZG	0.00	43.00	0.70	43.00
705	61	64	0	QA3	ZG	0.00	39.00	4.01	39.00	705	61	64	0	QA3	ZG	0.00	35.00	4.01	35.00
908	62	63	0	QA3	ZG	0.00	45.00	4.01	45.00	908	62	63	0	QA3	ZG	0.00	43.00	4.01	43.00
1306	67	69	0	QA3	ZG	0.00	35.00	4.01	35.00	1306	67	69	0	QA3	ZG	0.00	5.00	4.01	5.00
1307	65	68	0	QA3	ZG	0.00	5.00	4.01	5.00	1307	65	68	0	QA3	ZG	0.00	45.00	4.01	45.00

Elenco carichi aste

Condizione di carico n. 6: Vento +X

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	--	M	ZL	0.00	143.00	4.01	143.00	310	-534	75	--	M	YL	0.00	-100.00	2.00	-100.00
310	-526	-534	--	M	YL	0.00	-100.00	1.30	-100.00	509	-527	71	--	M	YL	0.00	-125.00	3.31	-125.00
509	70	-527	--	M	YL	0.00	-125.00	0.70	-125.00	705	61	64	--	M	ZL	0.00	221.00	4.01	221.00
908	62	63	--	M	YL	0.00	-125.00	4.01	-125.00	1306	67	69	--	M	ZL	0.00	104.00	4.01	104.00
1307	65	68	--	M	YL	0.00	-65.00	4.01	-65.00										

Elenco carichi aste

Condizione di carico n. 7: Vento -X

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
304	72	73	--	M	ZL	0.00	-72.00	4.01	-72.00	310	-534	75	--	M	YL	0.00	200.00	2.00	200.00
310	-526	-534	--	M	YL	0.00	200.00	1.30	200.00	509	-527	71	--	M	YL	0.00	250.00	3.31	250.00
509	70	-527	--	M	YL	0.00	250.00	0.70	250.00	705	61	64	--	M	ZL	0.00	-111.00	4.01	-111.00
908	62	63	--	M	YL	0.00	250.00	4.01	250.00	1306	67	69	--	M	ZL	0.00	-52.00	4.01	-52.00
1307	65	68	--	M	YL	0.00	130.00	4.01	130.00										

Analisi dei carichi da vento

vento boscoreale

Calcolo delle azioni del vento

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio 2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Toscana, Marche, Umbria, Lazio, Abruzzo, Molise, Puglia, Campania, Basilicata, Calabria(esclusa la Provincia di Reggio Calabria)

Tempo di ritorno 50 <anni>

Altitudine sul livello del mare: 50 <m>

Altezza dell'edificio: 5 <m>

Parametri derivati dall'area di ubicazione (tab. 3.3.I):

Vb,0 (Velocità media del vento): 27 <m/sec>

a0 (Altitudine media): 500 <m>

Ka: 0.020 <1/sec>

Velocità di riferimento: 27.00 <m/sec>

Classificazione della costruzione: Tettoie e pensiline isolate

Categoria di esposizione del sito: I

Parametri derivati dalla categoria di esposizione del sito (tab. 3.3.II):

kr: 0.17 <m>

z0: 0.01 <m>

zmin: 2 <m>

Classe di rugosità del terreno: D

Aree prive di ostacoli (aperta campagna, aeroporti, aree agricole, pascoli
zone paludose o sabbiose, superfici innevate o ghiacciate, mari, laghi, ...)

Angolo alfa: 0.0 <grad>

Pressione del vento = $q_b \cdot c_e \cdot c_p \cdot c_d$

q_b (Pressione cinetica di riferimento): 45.56 <daN/mq>

c_t (Coefficiente topografico): 1.00

c_e (Coefficiente di esposizione): 2.37

c_d (Coefficiente dinamico): 1.00

Tipologia di superficie:

Coefficienti di forma o aerodinamico esterni c_{pe} :

sopravento: 1.20 sottovento: 0.00

Pressione esterna <daN/mq>:

sopravento: +129.76 <daN/mq> sottovento: 0.00 <daN/mq>

Analisi dei carichi da neve

neve boscoreale

Calcolo delle azioni della neve

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio
2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Agrigento, Avellino, Benevento, Brindisi, Cagliari, Caltanissetta, Carbonia-Iglesias, Caserta,
Catania, Catanzaro, Cosenza, Crotone, Enna, Frosinone, Grosseto, L'Aquila, Latina, Lecce,
Livorno, Matera, Medio Campidano, Messina, Napoli, Nuoro, Ogliastro, Olbia Tempio, Oristano,
Palermo, Pisa, Potenza, Ragusa, Reggio Calabria, Rieti, Roma, Salerno, Sassari, Siena, Siracusa,
Taranto, Terni, Trapani, Vibo Valentia, Viterbo

Altitudine sul livello del mare: 50 <m>

Tipologia di copertura: Ad una falda

Pressione della neve $p_s = \mu_1 \cdot q_{sk} \cdot c_e \cdot c_t$

Parametri d'input ed intermedi:

Categoria del coefficiente d'esposizione: Normale

c_e (Coefficiente d'esposizione): 1.0

c_t (Coefficiente termico): 1.0

Angolo d'inclinazione della falda: 30.0 <grad>

μ_1 (Coefficiente di forma della copertura): 0.80

Carichi agenti:

q_{sk} (Valore di riferimento del carico neve al suolo): 60.00 <daN/mq>

q_{ss} (Carico provocato dalla neve sulle coperture): 48.00 <daN/mq>

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati
effettuati con:

ModeSt ver. 8.30, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:

Xfinest ver. 2013, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08

Tipo di calcolo: analisi sismica dinamica

Vincoli esterni: Considera sempre vincoli assegnati in modellazione

Schematizzazione piani rigidi: nessun impalcato rigido

Modalità di recupero masse secondarie: mantenere sul nodo masse e forze relative

Generazione combinazioni

- Lineari: si
- Valuta spostamenti e non sollecitazioni: no
- Buckling: no

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: no
- Uniformare i carichi variabili: no
- Massimizzare i carichi variabili: no
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente
- Modalità di combinazione momento torcente: disaccoppiare le azioni

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Zona sismica: zona 2
- Sito di costruzione: boscoreale LON. 14.48140 LAT. 40.77280
Contenuto tra ID reticolo: 33426 33648 33427 33649

Simbologia

TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
T_R = Periodo di ritorno <anni>
Ag = Accelerazione orizzontale massima al sito <g>
FO = Valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale
TC* = Periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale <sec>
S_s = Coefficiente di amplificazione stratigrafica
C_c = Coefficiente funzione della categoria del suolo

TCC	T _R	Ag	FO	TC*	S _s	C _c
SLD	50	0.0554	2.35	0.32	1.50	1.53
SLV	475	0.1449	2.43	0.36	1.49	1.47

- Tipo di opera: Opera ordinaria
- Vita nominale V_N: 50.00
- Classe d'uso: Classe II
- SL Esercizio: SLO-Pvr no, SLD-Pvr 63.00
- SL Ultimi: SLV-Pvr 10.00, SLC-Pvr no
- Classe di duttilità: Classe B
- Quota di riferimento: 0.00 <m>
- Altezza della struttura: 6.17 <m>
- Numero piani edificio: 0
- Coefficiente θ : 0.00
- Edificio regolare in altezza: no
- Edificio regolare in pianta: no
- Forze orizzontali convenzionali per stati limite non sismici: 1.00%
- Genera stati limite per verifiche di resistenza al fuoco: no

Dati di calcolo

- Categoria del suolo di fondazione: C
- Tipologia edificio: c.a. o prefabbricato a telaio a più piani e più campate

Coeff. C_1	0.075
Periodo T_1	0.29361
Coeff. λ SLD	1.00
Coeff. λ SLV	1.00
Rapporto di sovraresistenza (α_u/α_1)	1.15
Valore di riferimento del fattore di struttura (q_0)	3.45
Fattore riduttivo (K_w)	1.00
Fattore riduttivo regolarità in altezza (KR)	0.80
Fattore di struttura (q)	1.00

- Categoria topografica: T1 - Superficie pianeggiante, pendii e rilievi isolati con inclinazione media $i \leq 15^\circ$
- Coeff. amplificazione topografica S_T : 1.00
- Fattore di struttura per sisma verticale (q_v): 1.50
- Modi da calcolare: 21
- Modi da considerare: tali da movimentare una percentuale di massa pari a 85.00%
- Trascura modi con massa movimentata minore di: no
- Smorzamento spettro: 5.00

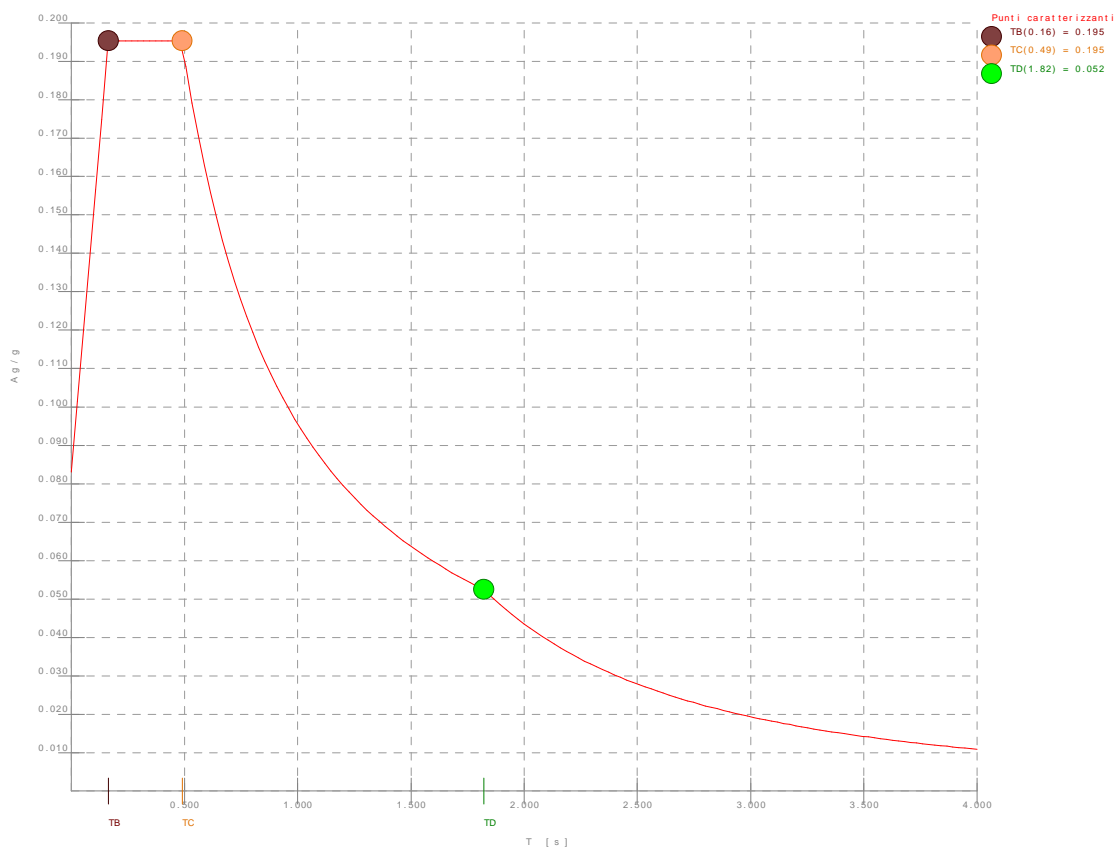


Figura numero 1: Spettro SLD

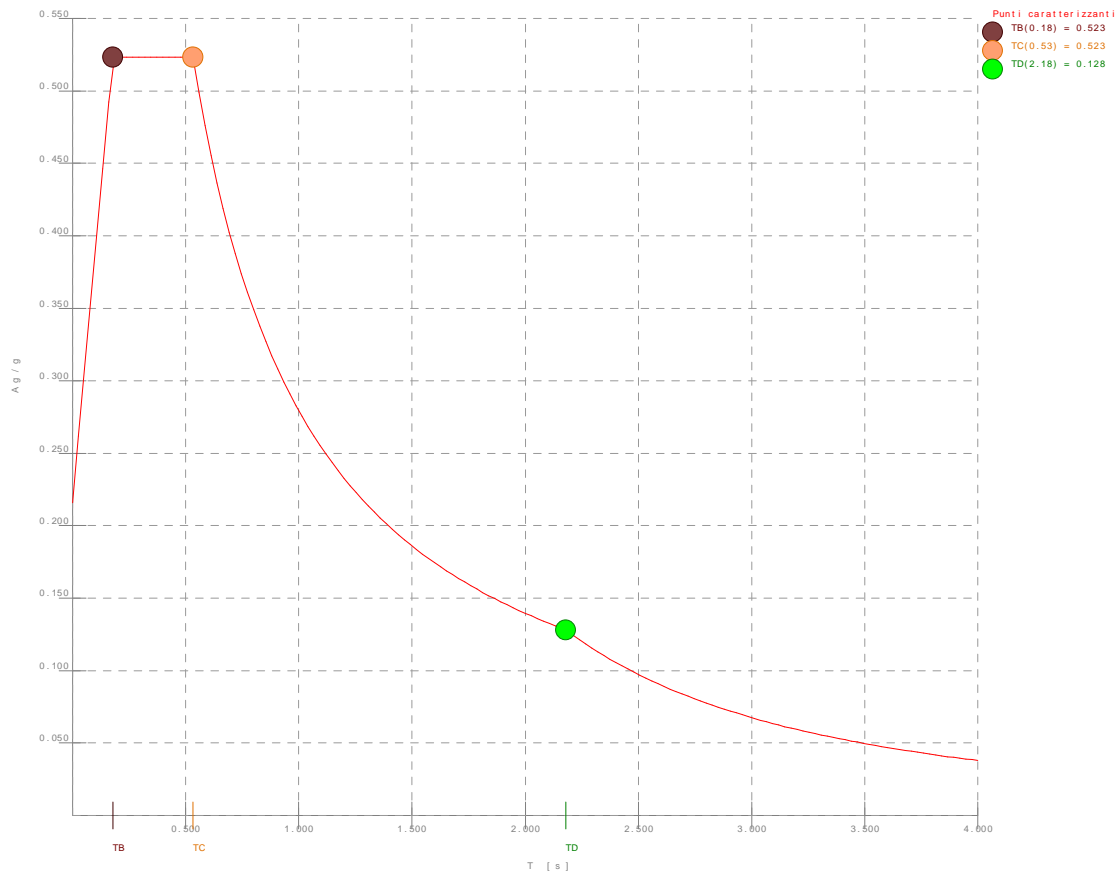


Figura numero 2: Spettro SLV

- Angolo di ingresso del sisma: 0.00 <grad>

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo	CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00		1	S	--
2		1.00	1.00	0.00	0.00	0.00	1.00		2	S	--
3	Neve	1.00	1.00	0.00	0.00	0.00	1.00		11	S	B
4	Vento Y	1.00	1.00	0.00	0.00	0.00	1.00		10	S	B
5	Manutenzione	1.00	1.00	0.00	0.00	0.00	1.00		19	S	B
6	Vento +X	1.00	1.00	0.00	0.00	0.00	1.00		10	S	B
7	Vento -X	1.00	1.00	0.00	0.00	0.00	1.00		10	S	B

Elenco tipi cce definiti

Simbologia

Tipo CCE = Tipo condizione di carico elementare
Comm. = Commento

Tipo = Tipologia
G = Permanente
Q = Variabile
I = Da ignorare
A = Azione eccezionale
P = Precompressione
Durata = Durata del carico
N = Non definita
P = Permanente
L = Lunga
M = Media
B = Breve
I = Istantanea
 $\gamma_{min.}$ = Coeff. $\gamma_{min.}$
 γ_{max} = Coeff. γ_{max}
 Ψ_0 = Coeff. Ψ_0
 Ψ_1 = Coeff. Ψ_1
 Ψ_2 = Coeff. Ψ_2
 $\Psi_{0,s}$ = Coeff. Ψ_0 sismico (D.M. 96)

Tipo CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	γ_{max}	Ψ_0	Ψ_1	Ψ_2	$\Psi_{0,s}$
1	D.M. 08 Permanenti strutturali	G	N	1.00	1.30				
2	D.M. 08 Permanenti non strutturali	G	N	0.00	1.50				
3	D.M. 08 Variabili Categoria A Ambienti ad uso residenziale	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
4	D.M. 08 Variabili Categoria B Uffici	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
5	D.M. 08 Variabili Categoria C Ambienti suscettibili di affollamento	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
6	D.M. 08 Variabili Categoria D Ambienti ad uso commerciale	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
7	D.M. 08 Variabili Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	Q	N	0.00	1.50	1.00	0.90	0.80	0.00
8	D.M. 08 Variabili Categoria F Rimesse e parcheggi (per autoveicoli di peso <= 30 kN)	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
9	D.M. 08 Variabili Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
10	D.M. 08 Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00
11	D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
12	D.M. 08 Variabili Neve (a quota > 1000 m s.l.m.)	Q	N	0.00	1.50	0.70	0.50	0.20	0.00
13	D.M. 08 Variabili Variazioni termiche	Q	N	0.00	1.50	0.60	0.50	0.00	0.00
14	D.M. 96 Permanenti	G	N	1.00	1.40				
15	D.M. 96 Variabili Abitazioni	Q	P	0.00	1.50	0.70	0.50	0.20	0.70
16	D.M. 96 Variabili Uffici, negozi, scuole, ecc.	Q	N	0.00	1.50	0.70	0.60	0.30	0.70
17	D.M. 96 Variabili Autorimesse	Q	N	0.00	1.50	0.70	0.70	0.60	0.70
18	D.M. 96 Variabili Vento	Q	N	0.00	1.50	0.70	0.20	0.00	0.00
19	D.M. 08 Variabili Categoria H - Coperture	Q	N	0.00	1.50	0.00	0.00	0.00	1.00

Ambienti di carico

Simbologia

N Numero
Comm. Commento
6 Vento +X
1
2
3 Neve
4 Vento Y
5 Manutenzione
6 Vento +X
7 Vento -X
F azioni orizzontali convenzionali
SLU Stato limite ultimo
SLR Stato limite per combinazioni rare
SLF Stato limite per combinazioni frequenti
SLQ Stato limite per combinazioni quasi permanenti o di danno

N	Comm.	1	2	3	4	5	6	7	S	SLU	SLR	SLF	SLQ
1	Calcolo sismico	si	si	si	si	si	si	si	si	no	no	no	
2	Calcolo statico	si	si	si	si	si	si	si	no	si	si	si	

Elenco combinazioni di carico simboliche

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5	6	7	±S
1 Amb. 1 (Sisma)	SLU S	1	1	Ψ_2	Ψ_2	Ψ_2	Ψ_2	Ψ_2	Ψ_2	1
2 Amb. 2 (SLU)	SLU γ max	γ max	γ max	γ max	γ max	γ max	γ max	γ max	γ max	-----
3 Amb. 2 (SLE R)	SLE R	1	1	1	1	1	1	1	1	-----
4 Amb. 2 (SLE F)	SLE F	1	1	Ψ_1	Ψ_1	Ψ_1	Ψ_1	Ψ_1	Ψ_1	-----
5 Amb. 2 (SLE Q)	SLE Q	1	1	Ψ_2	Ψ_2	Ψ_2	Ψ_2	Ψ_2	Ψ_2	-----

Genera le combinazioni con un solo carico di tipo variabile come di base: no

Considera sollecitazioni dinamiche con segno dei modi principali: no

Combinazioni delle cce

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
An. = Tipo di analisi
L = Lineare
NL = Non lineare
Bk = Buckling
S = Si
N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5	6	7	±S	X	±S	Y
1 CC 1 - Amb. 1 (SLU S)	S +X+0.3Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.30		
2 CC 2 - Amb. 1 (SLE) S	+X+0.3Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.30		
3 CC 3 - Amb. 1 (SLU S)	S +X-0.3Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	-0.30		
4 CC 4 - Amb. 1 (SLE) S	+X-0.3Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	-0.30		
5 CC 5 - Amb. 1 (SLU S)	S +0.3X+Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.30	1.00		
6 CC 6 - Amb. 1 (SLE) S	+0.3X+Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.30	1.00		
7 CC 7 - Amb. 1 (SLU S)	S -0.3X+Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	-0.30	1.00		
8 CC 8 - Amb. 1 (SLE) S	-0.3X+Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	-0.30	1.00		
9 CC 9 - Amb. 2 (SLU)		SLU	L	N	1.30	1.50	1.50	0.90	0.00	0.00	0.00	0.00	0.00		
10		SLU	L	N	1.30	1.50	1.50	0.00	0.00	0.90	0.00	0.00	0.00		
11		SLU	L	N	1.30	1.50	1.50	0.00	0.00	0.00	0.90	0.00	0.00		
12		SLU	L	N	1.30	1.50	0.75	1.50	0.00	0.00	0.00	0.00	0.00		
13		SLU	L	N	0.90	0.90	0.00	-1.50	0.00	0.00	0.00	0.00	0.00		
14		SLU	L	N	1.30	1.50	0.75	0.00	0.00	1.50	0.00	0.00	0.00		
15		SLU	L	N	1.30	1.50	0.75	0.00	0.00	0.00	1.50	0.00	0.00		
16		SLU	L	N	1.30	1.50	0.75	0.90	1.50	0.00	0.00	0.00	0.00		
17		SLU	L	N	1.30	1.50	0.75	0.00	1.50	0.90	0.00	0.00	0.00		
18		SLU	L	N	1.30	1.50	0.75	0.00	1.50	0.00	0.90	0.00	0.00		
19 CC 10 - Amb. 2 (SLE R)		SLE R	L	N	1.00	1.00	1.00	0.60	0.00	0.00	0.00	0.00	0.00		
20		SLE R	L	N	1.00	1.00	1.00	0.00	0.00	0.60	0.00	0.00	0.00		
21		SLE R	L	N	1.00	1.00	1.00	0.00	0.00	0.00	0.60	0.00	0.00		
22		SLE R	L	N	1.00	1.00	0.50	1.00	0.00	0.00	0.00	0.00	0.00		
23		SLE R	L	N	0.90	0.90	0.00	-1.00	0.00	0.00	0.00	0.00	0.00		
24		SLE R	L	N	1.00	1.00	0.50	0.00	0.00	1.00	0.00	0.00	0.00		
25		SLE R	L	N	1.00	1.00	0.50	0.00	0.00	0.00	1.00	0.00	0.00		
26		SLE R	L	N	1.00	1.00	0.50	0.60	1.00	0.00	0.00	0.00	0.00		
27		SLE R	L	N	1.00	1.00	0.50	0.00	1.00	0.60	0.00	0.00	0.00		
28		SLE R	L	N	1.00	1.00	0.50	0.00	1.00	0.00	0.60	0.00	0.00		
29 CC 11 - Amb. 2 (SLE F)		SLE F	L	N	1.00	1.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00		
30		SLE F	L	N	1.00	1.00	0.20	0.00	0.00	0.20	0.00	0.00	0.00		
31		SLE F	L	N	1.00	1.00	0.20	0.00	0.00	0.00	0.20	0.00	0.00		
32 CC 12 - Amb. 2 (SLE Q)		SLE Q	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Elenco masse nodi

Simbologia

Nodo = Numero del nodo
Mo = Massa orizzontale

Nodo	Mo	Nodo	Mo	Nodo	Mo	Nodo	Mo	Nodo	Mo	Nodo	Mo	Nodo	Mo
	<kg>		<kg>		<kg>		<kg>		<kg>		<kg>		<kg>
-535	10.18	-534	237.03	-533	14.55	-529	167.47	-528	221.74	-527	307.21	-526	176.45
-30	124.40	5	183.34	13	128.63	14	139.93	15	146.35	16	185.41	17	102.23
19	57.96	20	79.21	21	54.78	22	25.34	23	45.04	24	61.12	25	116.10
28	301.23	29	225.79	30	225.79	31	301.23	38	301.23	39	183.34	40	54.78
42	139.93	43	128.63	44	116.10	45	146.35	46	118.67	47	143.76	48	225.79
52	25.34	53	57.96	54	45.34	55	225.79	56	301.23	61	395.36	62	426.69
64	395.36	65	261.80	67	233.29	68	261.80	69	233.29	70	116.39	71	374.59
73	231.57	75	227.01	130	102.23							72	231.57

Totali masse nodi

Mo
<kg>
10090.30

Elenco modi di vibrare, masse partecipanti e coefficienti di partecipazione

Simbologia

Modo = Numero del modo di vibrare
C = * indica che il modo è stato considerato
Per. = Periodo
Diff. = Minima differenza percentuale dagli altri periodi
 Φ_x = Coefficiente di partecipazione in dir. X
 Φ_y = Coefficiente di partecipazione in dir. Y
 Φ_z = Coefficiente di partecipazione in dir. Z
%Mx = Percentuale massa partecipante in dir. X
%My = Percentuale massa partecipante in dir. Y
%Mz = Percentuale massa partecipante in dir. Z
%Jpz = Percentuale momento d'inerzia polare partecipante intorno all'asse Z

Modo	C	Per.	Diff.	Φ_x	Φ_y	Φ_z	%Mx	%My	%Mz	%Jpz
1	1.10	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1.10	0.00	-0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
3 *	0.46	74.77	0.08	-30.59	0.00	0.00	92.76	0.00	0.00	0.00
4 *	0.26	0.94	-29.77	-2.34	0.00	87.86	0.54	0.00	0.00	0.00
5	0.26	0.94	9.87	-6.86	0.00	9.65	4.66	0.00	0.00	0.00
6	0.19	34.25	0.33	2.72	0.00	0.01	0.73	0.00	0.00	0.00
7	0.14	7.37	0.03	-2.12	0.00	0.00	0.45	0.00	0.00	0.00
8	0.13	7.37	0.11	-0.67	0.00	0.00	0.04	0.00	0.00	0.00
9	0.12	8.98	0.01	-0.88	0.00	0.00	0.08	0.00	0.00	0.00
10	0.10	15.15	-0.80	-0.03	0.00	0.06	0.00	0.00	0.00	0.00
11	0.08	11.07	-0.47	-0.00	0.00	0.02	0.00	0.00	0.00	0.00
12	0.08	7.25	-0.14	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
13	0.07	7.25	-0.05	0.74	0.00	0.00	0.05	0.00	0.00	0.00
14	0.06	13.93	0.74	0.06	0.00	0.05	0.00	0.00	0.00	0.00
15	0.05	7.19	-0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00
16	0.04	7.19	0.22	-0.25	0.00	0.00	0.01	0.00	0.00	0.00
17	0.04	8.09	-0.01	1.35	0.00	0.00	0.18	0.00	0.00	0.00
18	0.04	0.21	1.48	-0.02	0.00	0.22	0.00	0.00	0.00	0.00
19	0.04	0.21	0.96	0.06	0.00	0.09	0.00	0.00	0.00	0.00
20	0.04	0.51	-1.23	-0.06	0.00	0.15	0.00	0.00	0.00	0.00
21	0.04	1.39	-2.77	0.27	0.00	0.76	0.01	0.00	0.00	0.00

Tot.cons. 87.86 93.30 0.00 0.00

Elenco coefficienti di risposta

Simbologia

Modo = Numero del modo di vibrare
Sx = Coefficiente di risposta (moltiplicato per 100) in dir. X
Sy = Coefficiente di risposta (moltiplicato per 100) in dir. Y

Stato limite di danno

Modo	Sx	Sy
1	8.67	8.67
2	8.67	8.67
3	19.53	19.53
4	19.53	19.53
5	19.53	19.53
6	19.53	19.53
7	17.82	17.82

8 17.17 17.17
9 16.44 16.44
10 15.02 15.02
11 14.14 14.14
12 13.56 13.56
13 13.20 13.20
14 12.61 12.61
15 11.57 11.57
16 11.35 11.35
17 11.13 11.13
18 10.82 10.82
19 10.81 10.81
20 10.80 10.80
21 10.77 10.77

Stato limite di salvaguardia della vita

Modo Sx Sy
1 25.33 25.33
2 25.33 25.33
3 52.32 52.32
4 52.32 52.32
5 52.32 52.32
6 52.32 52.32
7 45.47 45.47
8 43.83 43.83
9 41.99 41.99
10 38.44 38.44
11 36.22 36.22
12 34.76 34.76
13 33.87 33.87
14 32.36 32.36
15 29.77 29.77
16 29.22 29.22
17 28.65 28.65
18 27.87 27.87
19 27.86 27.86
20 27.83 27.83
21 27.74 27.74

Spostamenti dei nodi allo stato limite ultimo

Simbologia

Nodo = Numero del nodo
Sx = Spostamento in dir. X
CC = Numero della combinazione delle condizioni di carico elementari
Sy = Spostamento in dir. Y
Sz = Spostamento in dir. Z
Rx = Rotazione intorno all'asse X
Ry = Rotazione intorno all'asse Y
Rz = Rotazione intorno all'asse Z

Nodo	Sx	CC	Sy	CC	Sz	CC	Rx	CC	Ry	CC	Rz	CC
	<cm>		<cm>		<cm>		<rad>		<rad>		<rad>	
-535 Max	0.67	1	2.52	5	-0.79	13	0.01	5	0.01	5	0.00	5
-535 Min.	-0.98	1	-2.64	5	-1.94	12	-0.01	5	-0.00	5	-0.00	5
-534 Max	0.92	1	3.39	5	0.04	13	0.00	13	0.00	12	0.00	1
-534 Min.	-0.79	1	-3.59	5	-1.85	12	-0.01	12	0.00	13	-0.00	1
-533 Max	0.87	1	2.59	5	0.10	13	0.05	5	0.01	12	0.00	5
-533 Min.	-0.81	1	-2.86	5	-2.31	12	-0.05	5	0.00	13	-0.00	5
-529 Max	1.03	1	2.50	5	-0.14	13	0.00	5	0.00	12	0.00	5
-529 Min.	-0.72	1	-2.55	5	-0.55	12	-0.00	5	0.00	1	0.00	5
-528 Max	0.87	1	2.41	5	-0.14	13	0.00	5	0.00	1	0.00	5
-528 Min.	-0.81	1	-2.45	5	-0.55	12	-0.00	5	-0.00	1	0.00	5
-527 Max	1.09	1	4.11	5	0.06	13	0.01	15	0.00	1	0.00	14
-527 Min.	-0.93	1	-4.17	5	-1.40	12	-0.00	13	0.00	1	-0.00	15
-526 Max	1.17	1	3.39	5	0.22	13	0.00	1	0.00	12	0.00	1
-526 Min.	-1.03	1	-3.59	5	-2.90	12	0.00	1	0.00	13	0.00	1
-524 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-524 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
-522 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-522 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
-515 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-515 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-514 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-514 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-511 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-511 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-509 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1

-509 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-503 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-503 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-502 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-502 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-500 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-500 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-498 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-498 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-492 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-492 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-491 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-491 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-488 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-488 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-486 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-486 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-480 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-480 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-479 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-479 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-477 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-477 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-474 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-474 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-468 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-468 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-467 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-467 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-457 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-457 Min.	0.00	1	0.00	1	-0.45	5	-0.01	5	0.00	1	0.00	1
-450 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-450 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-441 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-441 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-440 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-440 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-439 Max	0.00	1	0.00	1	0.09	5	0.01	5	0.00	1	0.00	1
-439 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-438 Max	0.00	1	0.00	1	-0.00	5	0.01	5	0.00	1	0.00	1
-438 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-437 Max	0.00	1	0.00	1	0.08	5	0.01	5	0.00	1	0.00	1
-437 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-436 Max	0.00	1	0.00	1	-0.01	5	0.01	5	0.00	1	0.00	1
-436 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-435 Max	0.00	1	0.00	1	-0.03	1	0.01	5	0.00	1	0.00	1
-435 Min.	0.00	1	0.00	1	-0.33	1	-0.01	5	0.00	1	0.00	1
-434 Max	0.00	1	0.00	1	-0.06	1	0.01	5	0.00	1	0.00	1
-434 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-433 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-433 Min.	0.00	1	0.00	1	-0.32	5	-0.01	5	0.00	1	0.00	1
-432 Max	0.00	1	0.00	1	-0.07	1	0.01	5	0.00	1	0.00	1
-432 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-431 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-431 Min.	0.00	1	0.00	1	-0.32	1	-0.01	5	0.00	1	0.00	1
-430 Max	0.00	1	0.00	1	-0.07	1	0.01	5	0.00	1	0.00	1
-430 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-429 Max	0.00	1	0.00	1	-0.07	1	0.01	5	0.00	1	0.00	1
-429 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-428 Max	0.00	1	0.00	1	-0.07	1	0.01	5	0.00	1	0.00	1
-428 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-427 Max	0.00	1	0.00	1	-0.08	1	0.01	5	0.00	1	0.00	1
-427 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-426 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-426 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-425 Max	0.00	1	0.00	1	-0.01	1	0.01	5	0.00	1	0.00	1
-425 Min.	0.00	1	0.00	1	-0.34	1	-0.01	5	0.00	1	0.00	1
-424 Max	0.00	1	0.00	1	-0.03	1	0.01	5	0.00	1	0.00	1
-424 Min.	0.00	1	0.00	1	-0.32	1	-0.01	5	0.00	1	0.00	1
-423 Max	0.00	1	0.00	1	0.00	1	0.01	5	0.00	1	0.00	1
-423 Min.	0.00	1	0.00	1	-0.34	1	-0.01	5	0.00	1	0.00	1
-422 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-422 Min.	0.00	1	0.00	1	-0.32	1	-0.01	5	0.00	1	0.00	1
-421 Max	0.00	1	0.00	1	-0.01	1	0.01	5	0.00	1	0.00	1
-421 Min.	0.00	1	0.00	1	-0.34	1	-0.01	5	0.00	1	0.00	1
-420 Max	0.00	1	0.00	1	0.10	5	0.01	5	0.00	1	0.00	1
-420 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-419 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-419 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1

-418 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-418 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-417 Max	0.00	1	0.00	1	0.10	5	0.01	5	0.00	1	0.00	1
-417 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-416 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-416 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-415 Max	0.00	1	0.00	1	-0.05	1	0.01	5	0.00	1	0.00	1
-415 Min.	0.00	1	0.00	1	-0.32	1	-0.01	5	0.00	1	0.00	1
-414 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-414 Min.	0.00	1	0.00	1	-0.32	1	-0.01	5	0.00	1	0.00	1
-413 Max	0.00	1	0.00	1	-0.03	1	0.01	5	0.00	1	0.00	1
-413 Min.	0.00	1	0.00	1	-0.33	1	-0.01	5	0.00	1	0.00	1
-412 Max	0.00	1	0.00	1	0.09	5	0.01	5	0.00	1	0.00	1
-412 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-411 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-411 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-410 Max	0.00	1	0.00	1	-0.06	1	0.01	5	0.00	1	0.00	1
-410 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-409 Max	0.00	1	0.00	1	-0.05	1	0.01	5	0.00	1	0.00	1
-409 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-408 Max	0.00	1	0.00	1	-0.02	1	0.01	5	0.00	1	0.00	1
-408 Min.	0.00	1	0.00	1	-0.33	1	-0.01	5	0.00	1	0.00	1
-407 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-407 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-406 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-406 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-405 Max	0.00	1	0.00	1	-0.03	5	0.01	5	0.00	1	0.00	1
-405 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-404 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-404 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-403 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-403 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-402 Max	0.00	1	0.00	1	-0.03	5	0.01	5	0.00	1	0.00	1
-402 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-401 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-401 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-400 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-400 Min.	0.00	1	0.00	1	-0.33	5	-0.01	5	0.00	1	0.00	1
-399 Max	0.00	1	0.00	1	-0.09	1	0.01	5	0.00	1	0.00	1
-399 Min.	0.00	1	0.00	1	-0.29	1	-0.01	5	0.00	1	0.00	1
-398 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-398 Min.	0.00	1	0.00	1	-0.33	5	-0.01	5	0.00	1	0.00	1
-397 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-397 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-396 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-396 Min.	0.00	1	0.00	1	-0.33	5	-0.01	5	0.00	1	0.00	1
-395 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-395 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-394 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-394 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-393 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-393 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-392 Max	0.00	1	0.00	1	-0.14	5	0.01	5	0.00	1	0.00	1
-392 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-391 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-391 Min.	0.00	1	0.00	1	-0.34	5	-0.01	5	0.00	1	0.00	1
-390 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-390 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-389 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-389 Min.	0.00	1	0.00	1	-0.34	5	-0.01	5	0.00	1	0.00	1
-388 Max	0.00	1	0.00	1	-0.13	5	0.01	5	0.00	1	0.00	1
-388 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-387 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-387 Min.	0.00	1	0.00	1	-0.34	5	-0.01	5	0.00	1	0.00	1
-386 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-386 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-385 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-385 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-384 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-384 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-383 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-383 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-382 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-382 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-381 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-381 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-380 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-380 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-379 Max	0.00	1	0.00	1	-0.14	1	0.01	5	0.00	1	0.00	1

-379 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-378 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-378 Min.	0.00	1	0.00	1	-0.33	5	-0.01	5	0.00	1	0.00	1
-377 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-377 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-376 Max	0.00	1	0.00	1	-0.13	1	0.01	5	0.00	1	0.00	1
-376 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-375 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-375 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-374 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-374 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-373 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-373 Min.	0.00	1	0.00	1	-0.33	5	-0.01	5	0.00	1	0.00	1
-372 Max	0.00	1	0.00	1	-0.08	1	0.01	5	0.00	1	0.00	1
-372 Min.	0.00	1	0.00	1	-0.29	1	-0.01	5	0.00	1	0.00	1
-371 Max	0.00	1	0.00	1	-0.09	1	0.01	5	0.00	1	0.00	1
-371 Min.	0.00	1	0.00	1	-0.29	1	-0.01	5	0.00	1	0.00	1
-370 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-370 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-369 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-369 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-368 Max	0.00	1	0.00	1	0.01	1	0.01	5	0.00	1	0.00	1
-368 Min.	0.00	1	0.00	1	-0.35	1	-0.01	5	0.00	1	0.00	1
-367 Max	0.00	1	0.00	1	-0.02	1	0.01	5	0.00	1	0.00	1
-367 Min.	0.00	1	0.00	1	-0.33	1	-0.01	5	0.00	1	0.00	1
-366 Max	0.00	1	0.00	1	-0.02	1	0.01	5	0.00	1	0.00	1
-366 Min.	0.00	1	0.00	1	-0.34	1	-0.01	5	0.00	1	0.00	1
-365 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-365 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-364 Max	0.00	1	0.00	1	0.22	5	0.01	5	0.00	1	0.00	1
-364 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
-363 Max	0.00	1	0.00	1	0.21	5	0.01	5	0.00	1	0.00	1
-363 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
-362 Max	0.00	1	0.00	1	0.21	5	0.01	5	0.00	1	0.00	1
-362 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
-361 Max	0.00	1	0.00	1	0.20	5	0.01	5	0.00	1	0.00	1
-361 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
-360 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-360 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-359 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-359 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-358 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-358 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-357 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-357 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-356 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-356 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-355 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-355 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-354 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-354 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-353 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-353 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1
-352 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-352 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1
-351 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-351 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-350 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-350 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-349 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-349 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-348 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-348 Min.	0.00	1	0.00	1	-0.34	5	-0.01	5	0.00	1	0.00	1
-343 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-343 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-342 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-342 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-341 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-341 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-340 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-340 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-339 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-339 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-334 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-334 Min.	0.00	1	0.00	1	-0.55	5	-0.01	5	0.00	1	0.00	1
-333 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-333 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-332 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-332 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1

-331 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-331 Min.	0.00	1	0.00	1	-0.58	5	-0.01	5	0.00	1	0.00	1
-330 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-330 Min.	0.00	1	0.00	1	-0.47	12	-0.01	5	0.00	1	0.00	1
-329 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-329 Min.	0.00	1	0.00	1	-0.49	12	-0.01	5	0.00	1	0.00	1
-328 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-328 Min.	0.00	1	0.00	1	-0.56	5	-0.01	5	0.00	1	0.00	1
-327 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-327 Min.	0.00	1	0.00	1	-0.46	12	-0.01	5	0.00	1	0.00	1
-326 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-326 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-325 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-325 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-324 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-324 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-323 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-323 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-322 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-322 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-321 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-321 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-320 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-320 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-319 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-319 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-318 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-318 Min.	0.00	1	0.00	1	-0.48	12	-0.01	5	0.00	1	0.00	1
-317 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-317 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-316 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-316 Min.	0.00	1	0.00	1	-0.47	12	-0.01	5	0.00	1	0.00	1
-315 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-315 Min.	0.00	1	0.00	1	-0.51	12	-0.01	5	0.00	1	0.00	1
-314 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-314 Min.	0.00	1	0.00	1	-0.53	12	-0.01	5	0.00	1	0.00	1
-313 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-313 Min.	0.00	1	0.00	1	-0.52	12	-0.01	5	0.00	1	0.00	1
-312 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-312 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
-311 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-311 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
-310 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-310 Min.	0.00	1	0.00	1	-0.48	12	-0.01	5	0.00	1	0.00	1
-309 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-309 Min.	0.00	1	0.00	1	-0.49	12	-0.01	5	0.00	1	0.00	1
-308 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-308 Min.	0.00	1	0.00	1	-0.50	12	-0.01	5	0.00	1	0.00	1
-307 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-307 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-306 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-306 Min.	0.00	1	0.00	1	-0.50	12	-0.01	5	0.00	1	0.00	1
-305 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-305 Min.	0.00	1	0.00	1	-0.47	12	-0.01	5	0.00	1	0.00	1
-304 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-304 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-303 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-303 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
-302 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-302 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-301 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-301 Min.	0.00	1	0.00	1	-0.53	5	-0.01	5	0.00	1	0.00	1
-300 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-300 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-299 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-299 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-298 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-298 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-297 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-297 Min.	0.00	1	0.00	1	-0.52	5	-0.01	5	0.00	1	0.00	1
-296 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-296 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-295 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-295 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-294 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-294 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-293 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-293 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-292 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1

-292 Min.	0.00	1	0.00	1	-0.52	5	-0.01	5	0.00	1	0.00	1
-291 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-291 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-290 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-290 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-289 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-289 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-288 Max	0.00	1	0.00	1	-0.13	5	0.01	5	0.00	1	0.00	1
-288 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-287 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-287 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-286 Max	0.00	1	0.00	1	-0.13	5	0.01	5	0.00	1	0.00	1
-286 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-285 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-285 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-284 Max	0.00	1	0.00	1	-0.13	5	0.01	5	0.00	1	0.00	1
-284 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-283 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-283 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-282 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-282 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-281 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-281 Min.	0.00	1	0.00	1	-0.36	12	-0.01	5	0.00	1	0.00	1
-280 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-280 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-279 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-279 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-278 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-278 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-277 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-277 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
-276 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-276 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-275 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-275 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-274 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-274 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-273 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-273 Min.	0.00	1	0.00	1	-0.54	5	-0.01	5	0.00	1	0.00	1
-272 Max	0.00	1	0.00	1	-0.13	5	0.01	5	0.00	1	0.00	1
-272 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-271 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-271 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-270 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-270 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-268 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-268 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
-267 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-267 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
-266 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-266 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-265 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-265 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-264 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-264 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-263 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-263 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-262 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-262 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-261 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-261 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-260 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-260 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-259 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-259 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-258 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-258 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-257 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-257 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-255 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-255 Min.	0.00	1	0.00	1	-0.49	12	-0.01	5	0.00	1	0.00	1
-254 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-254 Min.	0.00	1	0.00	1	-0.51	12	-0.01	5	0.00	1	0.00	1
-253 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-253 Min.	0.00	1	0.00	1	-0.55	12	-0.01	5	0.00	1	0.00	1
-252 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-252 Min.	0.00	1	0.00	1	-0.78	5	-0.01	5	0.00	1	0.00	1
-251 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-251 Min.	0.00	1	0.00	1	-0.77	5	-0.01	5	0.00	1	0.00	1

-250 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-250 Min.	0.00	1	0.00	1	-0.76	5	-0.01	5	0.00	1	0.00	1
-249 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-249 Min.	0.00	1	0.00	1	-0.75	5	-0.01	5	0.00	1	0.00	1
-248 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-248 Min.	0.00	1	0.00	1	-0.73	5	-0.01	5	0.00	1	0.00	1
-247 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-247 Min.	0.00	1	0.00	1	-0.72	5	-0.01	5	0.00	1	0.00	1
-246 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-246 Min.	0.00	1	0.00	1	-0.71	5	-0.01	5	0.00	1	0.00	1
-245 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
-245 Min.	0.00	1	0.00	1	-0.70	5	-0.01	5	0.00	1	0.00	1
-244 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
-244 Min.	0.00	1	0.00	1	-0.69	5	-0.01	5	0.00	1	0.00	1
-243 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
-243 Min.	0.00	1	0.00	1	-0.68	5	-0.01	5	0.00	1	0.00	1
-242 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
-242 Min.	0.00	1	0.00	1	-0.67	5	-0.01	5	0.00	1	0.00	1
-241 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
-241 Min.	0.00	1	0.00	1	-0.67	5	-0.01	5	0.00	1	0.00	1
-240 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
-240 Min.	0.00	1	0.00	1	-0.66	5	-0.01	5	0.00	1	0.00	1
-239 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
-239 Min.	0.00	1	0.00	1	-0.65	5	-0.01	5	0.00	1	0.00	1
-238 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-238 Min.	0.00	1	0.00	1	-0.55	5	-0.01	5	0.00	1	0.00	1
-237 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-237 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-236 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-236 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-235 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-235 Min.	0.00	1	0.00	1	-0.57	5	-0.01	5	0.00	1	0.00	1
-234 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-234 Min.	0.00	1	0.00	1	-0.56	5	-0.01	5	0.00	1	0.00	1
-233 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-233 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-232 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-232 Min.	0.00	1	0.00	1	-0.41	5	-0.01	5	0.00	1	0.00	1
-231 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-231 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-230 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-230 Min.	0.00	1	0.00	1	-0.41	5	-0.01	5	0.00	1	0.00	1
-229 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-229 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-228 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-228 Min.	0.00	1	0.00	1	-0.41	5	-0.01	5	0.00	1	0.00	1
-227 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-227 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-226 Max	0.00	1	0.00	1	-0.13	1	0.01	5	0.00	1	0.00	1
-226 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-225 Max	0.00	1	0.00	1	-0.13	1	0.01	5	0.00	1	0.00	1
-225 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-224 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-224 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-223 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-223 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-222 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-222 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-221 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-221 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-220 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-220 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-219 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-219 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-218 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-218 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-217 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-217 Min.	0.00	1	0.00	1	-0.60	5	-0.01	5	0.00	1	0.00	1
-216 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-216 Min.	0.00	1	0.00	1	-0.48	12	-0.01	5	0.00	1	0.00	1
-215 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-215 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1
-214 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-214 Min.	0.00	1	0.00	1	-0.47	12	-0.01	5	0.00	1	0.00	1
-213 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-213 Min.	0.00	1	0.00	1	-0.49	12	-0.01	5	0.00	1	0.00	1
-212 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-212 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-211 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1

-211 Min.	0.00	1	0.00	1	-0.46	12	-0.01	5	0.00	1	0.00	1
-210 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-210 Min.	0.00	1	0.00	1	-0.47	12	-0.01	5	0.00	1	0.00	1
-209 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-209 Min.	0.00	1	0.00	1	-0.58	5	-0.01	5	0.00	1	0.00	1
-208 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-208 Min.	0.00	1	0.00	1	-0.46	12	-0.01	5	0.00	1	0.00	1
-207 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-207 Min.	0.00	1	0.00	1	-0.44	12	-0.01	5	0.00	1	0.00	1
-206 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-206 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-205 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-205 Min.	0.00	1	0.00	1	-0.41	5	-0.01	5	0.00	1	0.00	1
-204 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-204 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
-203 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-203 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-202 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-202 Min.	0.00	1	0.00	1	-0.42	12	-0.01	5	0.00	1	0.00	1
-201 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-201 Min.	0.00	1	0.00	1	-0.53	5	-0.01	5	0.00	1	0.00	1
-200 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-200 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-199 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-199 Min.	0.00	1	0.00	1	-0.53	5	-0.01	5	0.00	1	0.00	1
-198 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-198 Min.	0.00	1	0.00	1	-0.52	5	-0.01	5	0.00	1	0.00	1
-197 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-197 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-196 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-196 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-195 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-195 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-194 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-194 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-193 Max	0.00	1	0.00	1	-0.03	5	0.01	5	0.00	1	0.00	1
-193 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-192 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-192 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-191 Max	0.00	1	0.00	1	-0.03	5	0.01	5	0.00	1	0.00	1
-191 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-190 Max	0.00	1	0.00	1	-0.11	5	0.01	5	0.00	1	0.00	1
-190 Min.	0.00	1	0.00	1	-0.36	12	-0.01	5	0.00	1	0.00	1
-189 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-189 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-188 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-188 Min.	0.00	1	0.00	1	-0.40	12	-0.01	5	0.00	1	0.00	1
-187 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-187 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-186 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-186 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-185 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-185 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-184 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-184 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-183 Max	0.00	1	0.00	1	-0.01	5	0.01	5	0.00	1	0.00	1
-183 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-182 Max	0.00	1	0.00	1	-0.01	5	0.01	5	0.00	1	0.00	1
-182 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-181 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-181 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-180 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-180 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-179 Max	0.00	1	0.00	1	-0.01	5	0.01	5	0.00	1	0.00	1
-179 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-178 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-178 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-177 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-177 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-176 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-176 Min.	0.00	1	0.00	1	-0.38	12	-0.01	5	0.00	1	0.00	1
-175 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-175 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-174 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-174 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-173 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-173 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-172 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-172 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1

-171 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-171 Min.	0.00	1	0.00	1	-0.36	12	-0.01	5	0.00	1	0.00	1
-170 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-170 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-169 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-169 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-168 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-168 Min.	0.00	1	0.00	1	-0.37	12	-0.01	5	0.00	1	0.00	1
-167 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-167 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-166 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-166 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-165 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-165 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
-164 Max	0.00	1	0.00	1	-0.12	5	0.01	5	0.00	1	0.00	1
-164 Min.	0.00	1	0.00	1	-0.39	12	-0.01	5	0.00	1	0.00	1
-163 Max	0.00	1	0.00	1	-0.13	13	0.01	5	0.00	1	0.00	1
-163 Min.	0.00	1	0.00	1	-0.41	12	-0.01	5	0.00	1	0.00	1
-162 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-162 Min.	0.00	1	0.00	1	-0.43	12	-0.01	5	0.00	1	0.00	1
-161 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-161 Min.	0.00	1	0.00	1	-0.54	5	-0.01	5	0.00	1	0.00	1
-160 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-160 Min.	0.00	1	0.00	1	-0.45	12	-0.01	5	0.00	1	0.00	1
-159 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-159 Min.	0.00	1	0.00	1	-0.46	12	-0.01	5	0.00	1	0.00	1
-158 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-158 Min.	0.00	1	0.00	1	-0.48	12	-0.01	5	0.00	1	0.00	1
-157 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-157 Min.	0.00	1	0.00	1	-0.50	12	-0.01	5	0.00	1	0.00	1
-156 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-156 Min.	0.00	1	0.00	1	-0.76	5	-0.01	5	0.00	1	0.00	1
-155 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-155 Min.	0.00	1	0.00	1	-0.75	5	-0.01	5	0.00	1	0.00	1
-154 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-154 Min.	0.00	1	0.00	1	-0.74	5	-0.01	5	0.00	1	0.00	1
-153 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-153 Min.	0.00	1	0.00	1	-0.73	5	-0.01	5	0.00	1	0.00	1
-152 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-152 Min.	0.00	1	0.00	1	-0.72	5	-0.01	5	0.00	1	0.00	1
-151 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-151 Min.	0.00	1	0.00	1	-0.71	5	-0.01	5	0.00	1	0.00	1
-150 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-150 Min.	0.00	1	0.00	1	-0.70	5	-0.01	5	0.00	1	0.00	1
-149 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-149 Min.	0.00	1	0.00	1	-0.69	5	-0.01	5	0.00	1	0.00	1
-148 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-148 Min.	0.00	1	0.00	1	-0.68	5	-0.01	5	0.00	1	0.00	1
-147 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-147 Min.	0.00	1	0.00	1	-0.68	5	-0.01	5	0.00	1	0.00	1
-146 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-146 Min.	0.00	1	0.00	1	-0.67	5	-0.01	5	0.00	1	0.00	1
-145 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-145 Min.	0.00	1	0.00	1	-0.66	5	-0.01	5	0.00	1	0.00	1
-144 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-144 Min.	0.00	1	0.00	1	-0.65	5	-0.01	5	0.00	1	0.00	1
-143 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-143 Min.	0.00	1	0.00	1	-0.65	5	-0.01	5	0.00	1	0.00	1
-142 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-142 Min.	0.00	1	0.00	1	-0.36	12	-0.01	5	0.00	1	0.00	1
-141 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-141 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-140 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-140 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-139 Max	0.00	1	0.00	1	-0.00	5	0.01	5	0.00	1	0.00	1
-139 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
-134 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-134 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-133 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-133 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-132 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-132 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-131 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-131 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
-130 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-130 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-129 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-129 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-124 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1

-124 Min.	0.00	1	0.00	1	-0.29	12	-0.01	5	0.00	1	0.00	1
-123 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-123 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-122 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
-122 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-121 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-121 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-120 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-120 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-119 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-119 Min.	0.00	1	0.00	1	-0.29	5	-0.01	5	0.00	1	0.00	1
-118 Max	0.00	1	0.00	1	-0.13	1	0.01	5	0.00	1	0.00	1
-118 Min.	0.00	1	0.00	1	-0.29	12	-0.01	5	0.00	1	0.00	1
-117 Max	0.00	1	0.00	1	-0.05	5	0.01	5	0.00	1	0.00	1
-117 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-116 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-116 Min.	0.00	1	0.00	1	-0.29	5	-0.01	5	0.00	1	0.00	1
-115 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-115 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-114 Max	0.00	1	0.00	1	-0.06	5	0.01	5	0.00	1	0.00	1
-114 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-113 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
-113 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-112 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-112 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-111 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-111 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-110 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-110 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-109 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-109 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-108 Max	0.00	1	0.00	1	-0.09	5	0.01	5	0.00	1	0.00	1
-108 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-107 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-107 Min.	0.00	1	0.00	1	-0.35	12	-0.01	5	0.00	1	0.00	1
-106 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-106 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-105 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
-105 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
-104 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-104 Min.	0.00	1	0.00	1	-0.32	12	-0.01	5	0.00	1	0.00	1
-103 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-103 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-102 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-102 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-101 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
-101 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-100 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-100 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-99 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-99 Min.	0.00	1	0.00	1	-0.31	12	-0.01	5	0.00	1	0.00	1
-98 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-98 Min.	0.00	1	0.00	1	-0.30	12	-0.01	5	0.00	1	0.00	1
-97 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-97 Min.	0.00	1	0.00	1	-0.28	5	-0.01	5	0.00	1	0.00	1
-96 Max	0.00	1	0.00	1	-0.11	1	0.01	5	0.00	1	0.00	1
-96 Min.	0.00	1	0.00	1	-0.28	12	-0.01	5	0.00	1	0.00	1
-95 Max	0.00	1	0.00	1	0.09	5	0.01	5	0.00	1	0.00	1
-95 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-94 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-94 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-93 Max	0.00	1	0.00	1	0.10	5	0.01	5	0.00	1	0.00	1
-93 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-92 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-92 Min.	0.00	1	0.00	1	-0.28	5	-0.01	5	0.00	1	0.00	1
-91 Max	0.00	1	0.00	1	-0.09	1	0.01	5	0.00	1	0.00	1
-91 Min.	0.00	1	0.00	1	-0.28	1	-0.01	5	0.00	1	0.00	1
-90 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-90 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-89 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-89 Min.	0.00	1	0.00	1	-0.28	5	-0.01	5	0.00	1	0.00	1
-88 Max	0.00	1	0.00	1	-0.10	1	0.01	5	0.00	1	0.00	1
-88 Min.	0.00	1	0.00	1	-0.27	12	-0.01	5	0.00	1	0.00	1
-87 Max	0.00	1	0.00	1	-0.03	5	0.01	5	0.00	1	0.00	1
-87 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-86 Max	0.00	1	0.00	1	0.09	5	0.01	5	0.00	1	0.00	1
-86 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-85 Max	0.00	1	0.00	1	-0.06	1	0.01	5	0.00	1	0.00	1
-85 Min.	0.00	1	0.00	1	-0.28	1	-0.01	5	0.00	1	0.00	1

-84 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-84 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-83 Max	0.00	1	0.00	1	-0.05	1	0.01	5	0.00	1	0.00	1
-83 Min.	0.00	1	0.00	1	-0.29	1	-0.01	5	0.00	1	0.00	1
-82 Max	0.00	1	0.00	1	0.00	1	0.01	5	0.00	1	0.00	1
-82 Min.	0.00	1	0.00	1	-0.37	1	-0.01	5	0.00	1	0.00	1
-81 Max	0.00	1	0.00	1	0.12	5	0.01	5	0.00	1	0.00	1
-81 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
-80 Max	0.00	1	0.00	1	-0.01	5	0.01	5	0.00	1	0.00	1
-80 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-79 Max	0.00	1	0.00	1	0.11	5	0.01	5	0.00	1	0.00	1
-79 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-78 Max	0.00	1	0.00	1	0.01	1	0.01	5	0.00	1	0.00	1
-78 Min.	0.00	1	0.00	1	-0.38	1	-0.01	5	0.00	1	0.00	1
-77 Max	0.00	1	0.00	1	-0.04	1	0.01	5	0.00	1	0.00	1
-77 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-76 Max	0.00	1	0.00	1	-0.05	1	0.01	5	0.00	1	0.00	1
-76 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-75 Max	0.00	1	0.00	1	-0.06	1	0.01	5	0.00	1	0.00	1
-75 Min.	0.00	1	0.00	1	-0.29	1	-0.01	5	0.00	1	0.00	1
-74 Max	0.00	1	0.00	1	-0.07	5	0.01	5	0.00	1	0.00	1
-74 Min.	0.00	1	0.00	1	-0.28	5	-0.01	5	0.00	1	0.00	1
-73 Max	0.00	1	0.00	1	-0.08	1	0.01	5	0.00	1	0.00	1
-73 Min.	0.00	1	0.00	1	-0.28	1	-0.01	5	0.00	1	0.00	1
-72 Max	0.00	1	0.00	1	-0.02	5	0.01	5	0.00	1	0.00	1
-72 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-71 Max	0.00	1	0.00	1	0.11	5	0.01	5	0.00	1	0.00	1
-71 Min.	0.00	1	0.00	1	-0.50	5	-0.01	5	0.00	1	0.00	1
-70 Max	0.00	1	0.00	1	-0.08	5	0.01	5	0.00	1	0.00	1
-70 Min.	0.00	1	0.00	1	-0.29	5	-0.01	5	0.00	1	0.00	1
-69 Max	0.00	1	0.00	1	-0.12	1	0.01	5	0.00	1	0.00	1
-69 Min.	0.00	1	0.00	1	-0.29	12	-0.01	5	0.00	1	0.00	1
-68 Max	0.00	1	0.00	1	-0.04	5	0.01	5	0.00	1	0.00	1
-68 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
-67 Max	0.00	1	0.00	1	0.08	5	0.01	5	0.00	1	0.00	1
-67 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
-66 Max	0.00	1	0.00	1	0.03	1	0.01	5	0.00	1	0.00	1
-66 Min.	0.00	1	0.00	1	-0.38	1	-0.01	5	0.00	1	0.00	1
-65 Max	0.00	1	0.00	1	-0.03	1	0.01	5	0.00	1	0.00	1
-65 Min.	0.00	1	0.00	1	-0.31	1	-0.01	5	0.00	1	0.00	1
-64 Max	0.00	1	0.00	1	-0.03	1	0.01	5	0.00	1	0.00	1
-64 Min.	0.00	1	0.00	1	-0.30	1	-0.01	5	0.00	1	0.00	1
-61 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
-61 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-60 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-60 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-59 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-59 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-58 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
-58 Min.	0.00	1	0.00	1	-0.36	5	-0.01	5	0.00	1	0.00	1
-57 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-57 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-56 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
-56 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-55 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-55 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-54 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-54 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-53 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
-53 Min.	0.00	1	0.00	1	-0.37	5	-0.01	5	0.00	1	0.00	1
-50 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-50 Min.	0.00	1	0.00	1	-0.33	12	-0.01	5	0.00	1	0.00	1
-49 Max	0.00	1	0.00	1	-0.14	13	0.01	5	0.00	1	0.00	1
-49 Min.	0.00	1	0.00	1	-0.34	12	-0.01	5	0.00	1	0.00	1
-48 Max	0.00	1	0.00	1	-0.10	5	0.01	5	0.00	1	0.00	1
-48 Min.	0.00	1	0.00	1	-0.36	12	-0.01	5	0.00	1	0.00	1
-47 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
-47 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
-46 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-46 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
-45 Max	0.00	1	0.00	1	0.17	5	0.01	5	0.00	1	0.00	1
-45 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-44 Max	0.00	1	0.00	1	0.18	5	0.01	5	0.00	1	0.00	1
-44 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-43 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-43 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-42 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
-42 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-41 Max	0.00	1	0.00	1	0.20	5	0.01	5	0.00	1	0.00	1

-41 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-40 Max	0.00	1	0.00	1	0.21	5	0.01	5	0.00	1	0.00	1
-40 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
-39 Max	0.00	1	0.00	1	0.21	5	0.01	5	0.00	1	0.00	1
-39 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
-38 Max	0.00	1	0.00	1	0.22	5	0.01	5	0.00	1	0.00	1
-38 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
-37 Max	0.00	1	0.00	1	0.23	5	0.01	5	0.00	1	0.00	1
-37 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
-36 Max	0.00	1	0.00	1	0.24	5	0.01	5	0.00	1	0.00	1
-36 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
-35 Max	0.00	1	0.00	1	0.24	5	0.01	5	0.00	1	0.00	1
-35 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
-34 Max	0.00	1	0.00	1	0.03	5	0.00	1	0.00	1	0.00	1
-34 Min.	0.00	1	0.00	1	-0.50	5	0.00	1	0.00	1	0.00	1
-30 Max	0.99	1	2.00	5	-0.04	1	0.00	5	0.00	1	0.00	5
-30 Min.	-0.87	1	-2.04	5	-0.34	1	-0.00	5	-0.00	1	0.00	5
5 Max	0.81	1	2.01	5	0.13	5	0.00	5	0.00	1	0.00	5
5 Min.	-0.69	1	-2.04	5	-0.51	5	0.00	5	-0.00	1	0.00	5
13 Max	0.80	1	2.31	5	0.03	5	0.00	5	0.00	1	0.00	5
13 Min.	-0.69	1	-2.43	5	-0.49	5	-0.00	5	0.00	1	0.00	5
14 Max	0.80	1	2.33	5	0.00	5	0.00	5	0.00	1	0.00	1
14 Min.	-0.69	1	-2.42	5	-0.49	5	-0.00	5	0.00	1	0.00	1
15 Max	0.80	1	2.31	5	0.00	5	0.00	5	0.00	12	0.00	1
15 Min.	-0.69	1	-2.36	5	-0.55	5	-0.00	5	0.00	5	0.00	1
16 Max	0.80	1	2.41	5	0.03	5	0.00	5	0.00	1	0.00	5
16 Min.	-0.69	1	-2.46	5	-0.64	5	0.00	5	-0.00	1	-0.00	5
17 Max	0.80	1	2.53	5	0.01	5	0.05	5	0.00	12	0.00	5
17 Min.	-0.69	1	-2.73	5	-0.74	5	-0.05	5	0.00	13	-0.00	5
18 Max	0.80	1	2.57	5	-0.01	5	0.05	5	0.00	12	0.00	5
18 Min.	-0.69	1	-2.83	5	-0.81	12	-0.05	5	0.00	13	-0.00	5
19 Max	0.81	1	2.22	5	0.07	5	0.00	5	0.00	1	0.00	5
19 Min.	-0.69	1	-2.32	5	-0.51	5	-0.00	5	0.00	1	-0.00	5
20 Max	0.86	1	2.24	5	0.07	5	0.01	5	0.00	1	0.01	5
20 Min.	-0.72	1	-2.32	5	-0.49	5	-0.01	5	0.00	1	-0.01	5
21 Max	0.90	1	2.38	5	0.03	5	0.00	5	0.00	1	0.00	1
21 Min.	-0.74	1	-2.45	5	-0.49	5	-0.01	5	0.00	1	-0.00	1
22 Max	0.80	1	2.33	5	0.02	5	0.00	5	0.00	1	0.00	1
22 Min.	-0.69	1	-2.44	5	-0.48	5	-0.00	5	0.00	1	0.00	1
23 Max	0.92	1	2.44	5	0.02	5	0.00	5	0.00	1	0.00	5
23 Min.	-0.74	1	-2.50	5	-0.52	5	-0.00	5	0.00	1	0.00	5
24 Max	0.90	1	2.46	5	0.00	5	0.03	5	0.00	1	0.01	5
24 Min.	-0.73	1	-2.48	5	-0.49	5	-0.03	5	0.00	1	-0.01	5
25 Max	0.88	1	2.51	5	0.00	5	0.07	5	0.00	1	0.02	5
25 Min.	-0.71	1	-2.46	5	-0.55	5	-0.07	5	0.00	1	-0.02	5
26 Max	0.85	1	2.50	5	0.03	5	0.09	5	0.00	1	0.03	5
26 Min.	-0.70	1	-2.55	5	-0.64	5	-0.09	5	0.00	1	-0.03	5
28 Max	0.49	1	1.80	5	0.13	5	0.00	5	0.00	1	0.00	5
28 Min.	-0.41	1	-1.84	5	-0.51	5	-0.00	5	-0.00	1	0.00	5
29 Max	0.64	1	1.66	5	0.03	5	0.01	5	0.00	1	0.00	5
29 Min.	-0.56	1	-1.77	5	-0.49	5	-0.01	5	-0.00	1	0.00	5
30 Max	0.64	1	1.68	5	0.00	5	0.00	5	0.00	1	0.00	1
30 Min.	-0.56	1	-1.82	5	-0.48	5	-0.00	5	-0.00	1	0.00	1
31 Max	0.54	1	2.20	5	0.03	5	0.00	5	0.00	1	0.00	5
31 Min.	-0.46	1	-2.23	5	-0.64	5	-0.00	5	-0.00	1	0.00	5
32 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
32 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
35 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
35 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
36 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
36 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
37 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
37 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
38 Max	0.61	1	1.80	5	0.11	5	0.00	5	0.00	1	0.00	5
38 Min.	-0.53	1	-1.83	5	-0.49	5	-0.00	5	-0.00	1	0.00	5
39 Max	1.04	1	2.01	5	0.11	5	0.00	5	0.00	1	0.00	5
39 Min.	-0.91	1	-2.04	5	-0.49	5	0.00	5	-0.00	1	0.00	5
40 Max	1.11	1	2.40	5	0.03	5	0.01	5	0.00	1	0.00	1
40 Min.	-0.95	1	-2.42	5	-0.47	5	-0.00	5	0.00	1	-0.00	1
41 Max	1.12	1	2.43	5	0.02	5	0.03	5	0.00	1	0.01	5
41 Min.	-0.94	1	-2.52	5	-0.49	5	-0.03	5	0.00	1	-0.01	5
42 Max	1.04	1	2.38	5	0.02	5	0.00	5	0.00	1	0.00	1
42 Min.	-0.91	1	-2.37	5	-0.49	5	-0.00	5	0.00	1	0.00	1
43 Max	1.04	1	2.38	5	0.03	5	0.01	5	0.00	1	0.00	5
43 Min.	-0.91	1	-2.35	5	-0.47	5	-0.00	5	0.00	1	0.00	5
44 Max	1.10	1	2.43	5	0.02	5	0.07	5	0.00	1	0.02	5
44 Min.	-0.93	1	-2.58	5	-0.54	5	-0.07	5	0.00	1	-0.02	5
45 Max	1.04	1	2.32	5	0.02	5	0.00	5	0.00	12	0.00	1
45 Min.	-0.91	1	-2.35	5	-0.54	5	-0.00	5	0.00	1	0.00	1

46 Max	1.07	1	2.49	5	0.05	5	0.09	5	0.00	1	0.03	5
46 Min.	-0.92	1	-2.55	5	-0.62	5	-0.09	5	0.00	1	-0.03	5
47 Max	1.04	1	2.41	5	0.06	5	0.00	5	0.00	1	0.00	1
47 Min.	-0.91	1	-2.46	5	-0.62	5	0.00	5	-0.00	1	0.00	1
48 Max	0.84	1	1.72	5	0.03	5	0.01	5	0.00	1	0.00	5
48 Min.	-0.75	1	-1.67	5	-0.47	5	-0.01	5	-0.00	1	0.00	5
49 Max	1.08	1	2.27	5	0.06	5	0.01	5	0.00	1	0.01	5
49 Min.	-0.93	1	-2.28	5	-0.48	5	-0.01	5	0.00	1	-0.01	5
52 Max	1.04	1	2.40	5	0.01	5	0.00	5	0.00	1	0.00	1
52 Min.	-0.91	1	-2.37	5	-0.47	5	-0.00	5	0.00	1	0.00	1
53 Max	1.04	1	2.28	5	0.06	5	0.00	5	0.00	1	0.00	5
53 Min.	-0.91	1	-2.26	5	-0.49	5	-0.00	5	0.00	1	-0.00	5
54 Max	1.13	1	2.45	5	0.03	5	0.00	5	0.00	1	0.00	5
54 Min.	-0.95	1	-2.49	5	-0.50	5	-0.00	5	0.00	1	-0.00	5
55 Max	0.84	1	1.80	5	0.02	5	0.00	5	0.00	1	0.00	1
55 Min.	-0.75	1	-1.72	5	-0.48	5	-0.00	5	-0.00	1	0.00	1
56 Max	0.62	1	2.20	5	0.06	5	0.00	5	0.00	1	0.00	1
56 Min.	-0.52	1	-2.22	5	-0.62	5	-0.00	5	-0.00	1	0.00	1
57 Max	0.00	1	0.00	1	0.11	5	0.01	5	0.00	1	0.00	1
57 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
58 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
58 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
59 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
59 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
60 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
60 Min.	0.00	1	0.00	1	-0.61	5	-0.01	5	0.00	1	0.00	1
61 Max	1.09	1	2.53	5	0.06	5	0.01	5	0.00	1	0.01	5
61 Min.	-0.94	1	-2.57	5	-0.48	5	-0.01	5	0.00	1	-0.01	5
62 Max	1.11	1	3.74	5	0.02	5	0.07	5	0.00	1	0.02	5
62 Min.	-0.93	1	-3.80	5	-0.54	5	-0.07	5	0.00	1	-0.02	5
63 Max	0.89	1	3.74	5	0.00	5	0.07	5	0.00	1	0.02	5
63 Min.	-0.72	1	-3.80	5	-0.55	5	-0.07	5	0.00	1	-0.02	5
64 Max	0.87	1	2.53	5	0.07	5	0.01	5	0.00	1	0.01	5
64 Min.	-0.73	1	-2.57	5	-0.49	5	-0.01	5	0.00	1	-0.01	5
65 Max	1.15	1	2.48	5	0.03	5	0.00	5	0.00	1	0.00	5
65 Min.	-0.96	1	-2.53	5	-0.50	5	-0.00	5	0.00	1	-0.00	5
67 Max	1.15	1	2.47	5	0.03	5	0.00	5	0.00	1	0.00	5
67 Min.	-0.96	1	-2.52	5	-0.49	5	-0.00	5	0.00	1	-0.00	5
68 Max	0.93	1	2.48	5	0.02	5	0.00	5	0.00	1	0.00	5
68 Min.	-0.75	1	-2.53	5	-0.52	5	-0.00	5	0.00	1	0.00	5
69 Max	0.93	1	2.47	5	0.03	5	0.00	5	0.00	1	0.00	5
69 Min.	-0.75	1	-2.53	5	-0.51	5	-0.00	5	0.00	1	0.00	5
70 Max	1.08	1	4.11	5	0.05	5	0.09	5	0.00	1	0.03	5
70 Min.	-0.92	1	-4.17	5	-0.62	5	-0.09	5	0.00	1	-0.03	5
71 Max	0.86	1	4.11	5	0.03	5	0.09	5	0.00	1	0.03	5
71 Min.	-0.71	1	-4.17	5	-0.64	5	-0.09	5	0.00	1	-0.03	5
72 Max	1.10	1	2.02	5	0.11	5	0.00	5	0.00	1	0.00	5
72 Min.	-0.96	1	-2.06	5	-0.49	5	0.00	5	-0.00	1	0.00	5
73 Max	0.85	1	2.02	5	0.13	5	0.00	5	0.00	1	0.00	5
73 Min.	-0.73	1	-2.06	5	-0.51	5	0.00	5	-0.00	1	0.00	5
75 Max	0.81	1	3.39	5	0.01	5	0.05	5	0.00	12	0.00	5
75 Min.	-0.69	1	-3.59	5	-0.74	5	-0.05	5	0.00	13	-0.00	5
78 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
78 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
79 Max	0.00	1	0.00	1	0.07	5	0.01	5	0.00	1	0.00	1
79 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
80 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
80 Min.	0.00	1	0.00	1	-0.39	5	-0.01	5	0.00	1	0.00	1
81 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
81 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
82 Max	0.00	1	0.00	1	0.23	5	0.01	5	0.00	1	0.00	1
82 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
83 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
83 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1
84 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
84 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
85 Max	0.00	1	0.00	1	0.19	5	0.01	5	0.00	1	0.00	1
85 Min.	0.00	1	0.00	1	-0.77	5	-0.01	5	0.00	1	0.00	1
86 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
86 Min.	0.00	1	0.00	1	-0.79	5	-0.01	5	0.00	1	0.00	1
87 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
87 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
88 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
88 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
89 Max	0.00	1	0.00	1	0.25	5	0.01	5	0.00	1	0.00	1
89 Min.	0.00	1	0.00	1	-0.65	5	-0.01	5	0.00	1	0.00	1
90 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
90 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
91 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1

91 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
92 Max	0.00	1	0.00	1	0.08	5	0.01	5	0.00	1	0.00	1
92 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
93 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
93 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
94 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
94 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
96 Max	0.00	1	0.00	1	0.01	5	0.01	5	0.00	1	0.00	1
96 Min.	0.00	1	0.00	1	-0.41	5	-0.01	5	0.00	1	0.00	1
99 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
99 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
101 Max	0.00	1	0.00	1	0.16	5	0.01	5	0.00	1	0.00	1
101 Min.	0.00	1	0.00	1	-0.80	5	-0.01	5	0.00	1	0.00	1
102 Max	0.00	1	0.00	1	0.20	5	0.01	5	0.00	1	0.00	1
102 Min.	0.00	1	0.00	1	-0.78	5	-0.01	5	0.00	1	0.00	1
104 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
104 Min.	0.00	1	0.00	1	-0.59	5	-0.01	5	0.00	1	0.00	1
105 Max	0.00	1	0.00	1	0.00	5	0.01	5	0.00	1	0.00	1
105 Min.	0.00	1	0.00	1	-0.40	5	-0.01	5	0.00	1	0.00	1
106 Max	0.00	1	0.00	1	0.03	5	0.01	5	0.00	1	0.00	1
106 Min.	0.00	1	0.00	1	-0.64	5	-0.01	5	0.00	1	0.00	1
108 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
108 Min.	0.00	1	0.00	1	-0.48	5	-0.01	5	0.00	1	0.00	1
113 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
113 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
115 Max	0.00	1	0.00	1	-0.00	5	0.01	5	0.00	1	0.00	1
115 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
117 Max	0.00	1	0.00	1	0.06	5	0.01	5	0.00	1	0.00	1
117 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
118 Max	0.00	1	0.00	1	0.05	5	0.01	5	0.00	1	0.00	1
118 Min.	0.00	1	0.00	1	-0.38	5	-0.01	5	0.00	1	0.00	1
119 Max	0.00	1	0.00	1	0.26	5	0.01	5	0.00	1	0.00	1
119 Min.	0.00	1	0.00	1	-0.65	5	-0.01	5	0.00	1	0.00	1
120 Max	0.00	1	0.00	1	0.23	5	0.01	5	0.00	1	0.00	1
120 Min.	0.00	1	0.00	1	-0.62	5	-0.01	5	0.00	1	0.00	1
121 Max	0.00	1	0.00	1	0.14	5	0.01	5	0.00	1	0.00	1
121 Min.	0.00	1	0.00	1	-0.51	5	-0.01	5	0.00	1	0.00	1
122 Max	0.00	1	0.00	1	0.12	5	0.01	5	0.00	1	0.00	1
122 Min.	0.00	1	0.00	1	-0.49	5	-0.01	5	0.00	1	0.00	1
123 Max	0.00	1	0.00	1	0.04	5	0.01	5	0.00	1	0.00	1
123 Min.	0.00	1	0.00	1	-0.35	5	-0.01	5	0.00	1	0.00	1
124 Max	0.00	1	0.00	1	0.08	5	0.01	5	0.00	1	0.00	1
124 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
125 Max	0.00	1	0.00	1	0.13	5	0.01	5	0.00	1	0.00	1
125 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
126 Max	0.00	1	0.00	1	0.15	5	0.01	5	0.00	1	0.00	1
126 Min.	0.00	1	0.00	1	-0.63	5	-0.01	5	0.00	1	0.00	1
127 Max	0.00	1	0.00	1	-0.00	5	0.01	5	0.00	1	0.00	1
127 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
128 Max	0.00	1	0.00	1	0.08	5	0.01	5	0.00	1	0.00	1
128 Min.	0.00	1	0.00	1	-0.46	5	-0.01	5	0.00	1	0.00	1
129 Max	0.00	1	0.00	1	0.02	5	0.01	5	0.00	1	0.00	1
129 Min.	0.00	1	0.00	1	-0.47	5	-0.01	5	0.00	1	0.00	1
130 Max	0.87	1	2.54	5	0.04	13	0.05	5	0.01	12	0.00	5
130 Min.	-0.81	1	-2.75	5	-1.85	12	-0.05	5	0.00	13	-0.00	5
131 Max	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
131 Min.	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1

Tensioni sul terreno

Simbologia

Nodo = Numero del nodo

σ_t = Tensione sul terreno

CC = Numero della combinazione delle condizioni di carico elementari

Nodo	σ_t	CC	Nodo	σ_t	CC	Nodo	σ_t	CC	Nodo	σ_t	CC
	<daN/cm ² >			<daN/cm ² >			<daN/cm ² >			<daN/cm ² >	
-524 Max	0.46	5	-524 Min.	-0.07	5	-522 Max	0.46	5	-522 Min.	-0.07	5
-515 Max	0.47	5	-515 Min.	-0.06	5	-514 Max	0.47	5	-514 Min.	-0.07	5
-511 Max	0.49	5	-511 Min.	-0.02	5	-509 Max	0.48	5	-509 Min.	-0.02	5
-503 Max	0.48	5	-503 Min.	-0.03	5	-502 Max	0.48	5	-502 Min.	-0.03	5
-500 Max	0.40	5	-500 Min.	-0.02	5	-498 Max	0.40	5	-498 Min.	-0.01	5
-492 Max	0.40	5	-492 Min.	-0.02	5	-491 Max	0.40	5	-491 Min.	-0.02	5
-488 Max	0.38	5	-488 Min.	-0.04	5	-486 Max	0.38	5	-486 Min.	-0.04	5
-480 Max	0.39	5	-480 Min.	-0.04	5	-479 Max	0.39	5	-479 Min.	-0.04	5
-477 Max	0.36	5	-477 Min.	-0.03	5	-474 Max	0.36	5	-474 Min.	-0.03	5
-468 Max	0.38	5	-468 Min.	-0.00	5	-467 Max	0.39	5	-467 Min.	-0.00	5

-457 Max	0.45	5	-457 Min.	-0.07	5	-450 Max	0.50	5	-450 Min.	-0.01	5
-441 Max	0.48	5	-441 Min.	-0.07	5	-440 Max	0.37	5	-440 Min.	0.02	5
-439 Max	0.48	5	-439 Min.	-0.09	5	-438 Max	0.38	5	-438 Min.	0.00	5
-437 Max	0.48	5	-437 Min.	-0.08	5	-436 Max	0.38	5	-436 Min.	0.01	5
-435 Max	0.33	1	-435 Min.	0.03	1	-434 Max	0.31	1	-434 Min.	0.06	1
-433 Max	0.32	5	-433 Min.	0.04	5	-432 Max	0.30	1	-432 Min.	0.07	1
-431 Max	0.32	1	-431 Min.	0.04	1	-430 Max	0.30	1	-430 Min.	0.07	1
-429 Max	0.31	1	-429 Min.	0.07	1	-428 Max	0.30	1	-428 Min.	0.07	1
-427 Max	0.30	1	-427 Min.	0.08	1	-426 Max	0.31	1	-426 Min.	0.04	1
-425 Max	0.34	1	-425 Min.	0.01	1	-424 Max	0.32	1	-424 Min.	0.03	1
-423 Max	0.34	1	-423 Min.	-0.00	1	-422 Max	0.32	1	-422 Min.	0.04	1
-421 Max	0.34	1	-421 Min.	0.01	1	-420 Max	0.49	5	-420 Min.	-0.10	5
-419 Max	0.39	5	-419 Min.	-0.01	5	-418 Max	0.39	5	-418 Min.	-0.02	5
-417 Max	0.48	5	-417 Min.	-0.10	5	-416 Max	0.38	5	-416 Min.	-0.01	5
-415 Max	0.32	1	-415 Min.	0.05	1	-414 Max	0.32	1	-414 Min.	0.04	1
-413 Max	0.33	1	-413 Min.	0.03	1	-412 Max	0.48	5	-412 Min.	-0.09	5
-411 Max	0.38	5	-411 Min.	-0.00	5	-410 Max	0.31	1	-410 Min.	0.06	1
-409 Max	0.31	1	-409 Min.	0.05	1	-408 Max	0.33	1	-408 Min.	0.02	1
-407 Max	0.47	5	-407 Min.	-0.05	5	-406 Max	0.37	5	-406 Min.	0.04	5
-405 Max	0.37	5	-405 Min.	0.03	5	-404 Max	0.47	5	-404 Min.	-0.06	5
-403 Max	0.47	5	-403 Min.	-0.06	5	-402 Max	0.37	5	-402 Min.	0.03	5
-401 Max	0.30	12	-401 Min.	0.11	1	-400 Max	0.33	5	-400 Min.	0.05	5
-399 Max	0.29	1	-399 Min.	0.09	1	-398 Max	0.33	5	-398 Min.	0.05	5
-397 Max	0.30	12	-397 Min.	0.10	1	-396 Max	0.33	5	-396 Min.	0.05	5
-395 Max	0.30	12	-395 Min.	0.10	1	-394 Max	0.30	12	-394 Min.	0.11	1
-393 Max	0.31	12	-393 Min.	0.12	1	-392 Max	0.33	12	-392 Min.	0.14	5
-391 Max	0.34	5	-391 Min.	0.06	5	-390 Max	0.31	12	-390 Min.	0.12	1
-389 Max	0.34	5	-389 Min.	0.06	5	-388 Max	0.32	12	-388 Min.	0.13	5
-387 Max	0.34	5	-387 Min.	0.06	5	-386 Max	0.36	5	-386 Min.	0.06	5
-385 Max	0.37	5	-385 Min.	0.06	5	-384 Max	0.37	5	-384 Min.	0.05	5
-383 Max	0.47	5	-383 Min.	-0.04	5	-382 Max	0.47	5	-382 Min.	-0.03	5
-381 Max	0.34	12	-381 Min.	0.14	13	-380 Max	0.33	12	-380 Min.	0.14	13
-379 Max	0.32	12	-379 Min.	0.14	1	-378 Max	0.33	5	-378 Min.	0.05	5
-377 Max	0.31	12	-377 Min.	0.12	1	-376 Max	0.32	12	-376 Min.	0.13	1
-375 Max	0.37	5	-375 Min.	0.05	5	-374 Max	0.47	5	-374 Min.	-0.05	5
-373 Max	0.33	5	-373 Min.	0.04	5	-372 Max	0.29	1	-372 Min.	0.08	1
-371 Max	0.29	1	-371 Min.	0.09	1	-370 Max	0.37	5	-370 Min.	0.02	5
-369 Max	0.47	5	-369 Min.	-0.07	5	-368 Max	0.35	1	-368 Min.	-0.01	1
-367 Max	0.33	1	-367 Min.	0.02	1	-366 Max	0.34	1	-366 Min.	0.02	1
-365 Max	0.39	5	-365 Min.	-0.03	5	-364 Max	0.61	5	-364 Min.	-0.22	5
-363 Max	0.61	5	-363 Min.	-0.21	5	-362 Max	0.61	5	-362 Min.	-0.21	5
-361 Max	0.61	5	-361 Min.	-0.20	5	-360 Max	0.60	5	-360 Min.	-0.19	5
-359 Max	0.60	5	-359 Min.	-0.19	5	-358 Max	0.60	5	-358 Min.	-0.18	5
-357 Max	0.60	5	-357 Min.	-0.18	5	-356 Max	0.60	5	-356 Min.	-0.17	5
-355 Max	0.60	5	-355 Min.	-0.17	5	-354 Max	0.60	5	-354 Min.	-0.16	5
-353 Max	0.59	5	-353 Min.	-0.15	5	-352 Max	0.59	5	-352 Min.	-0.15	5
-351 Max	0.36	5	-351 Min.	0.07	5	-350 Max	0.34	12	-350 Min.	0.14	13
-349 Max	0.33	12	-349 Min.	0.14	13	-348 Max	0.34	5	-348 Min.	0.07	5
-343 Max	0.40	5	-343 Min.	-0.02	5	-342 Max	0.39	5	-342 Min.	-0.03	5
-341 Max	0.39	5	-341 Min.	-0.03	5	-340 Max	0.39	5	-340 Min.	-0.03	5
-339 Max	0.39	5	-339 Min.	-0.03	5	-334 Max	0.55	5	-334 Min.	-0.02	5
-333 Max	0.45	12	-333 Min.	0.11	5	-332 Max	0.59	5	-332 Min.	-0.02	5
-331 Max	0.58	5	-331 Min.	-0.02	5	-330 Max	0.47	12	-330 Min.	0.11	5
-329 Max	0.49	12	-329 Min.	0.11	5	-328 Max	0.56	5	-328 Min.	-0.02	5
-327 Max	0.46	12	-327 Min.	0.11	5	-326 Max	0.42	12	-326 Min.	0.09	5
-325 Max	0.43	12	-325 Min.	0.09	5	-324 Max	0.40	12	-324 Min.	0.08	5
-323 Max	0.41	12	-323 Min.	0.08	5	-322 Max	0.45	12	-322 Min.	0.13	13
-321 Max	0.44	12	-321 Min.	0.13	13	-320 Max	0.43	12	-320 Min.	0.13	13
-319 Max	0.42	12	-319 Min.	0.13	13	-318 Max	0.48	12	-318 Min.	0.10	1
-317 Max	0.45	12	-317 Min.	0.10	5	-316 Max	0.47	12	-316 Min.	0.11	1
-315 Max	0.51	12	-315 Min.	0.11	5	-314 Max	0.53	12	-314 Min.	0.10	5
-313 Max	0.52	12	-313 Min.	0.10	5	-312 Max	0.61	5	-312 Min.	-0.03	5
-311 Max	0.62	5	-311 Min.	-0.03	5	-310 Max	0.48	12	-310 Min.	0.13	13
-309 Max	0.49	12	-309 Min.	0.13	13	-308 Max	0.50	12	-308 Min.	0.13	13
-307 Max	0.60	5	-307 Min.	-0.02	5	-306 Max	0.50	12	-306 Min.	0.11	5
-305 Max	0.47	12	-305 Min.	0.13	13	-304 Max	0.44	12	-304 Min.	0.10	5
-303 Max	0.38	5	-303 Min.	0.07	5	-302 Max	0.40	12	-302 Min.	0.13	13
-301 Max	0.53	5	-301 Min.	-0.01	5	-300 Max	0.43	12	-300 Min.	0.12	5
-299 Max	0.37	5	-299 Min.	0.06	5	-298 Max	0.38	12	-298 Min.	0.14	13
-297 Max	0.52	5	-297 Min.	-0.01	5	-296 Max	0.41	12	-296 Min.	0.12	5
-295 Max	0.37	5	-295 Min.	0.06	5	-294 Max	0.39	12	-294 Min.	0.13	13
-293 Max	0.42	12	-293 Min.	0.12	5	-292 Max	0.52	5	-292 Min.	-0.01	5
-291 Max	0.36	5	-291 Min.	0.04	5	-290 Max	0.36	5	-290 Min.	0.05	5
-289 Max	0.36	5	-289 Min.	0.05	5	-288 Max	0.38	12	-288 Min.	0.13	5
-287 Max	0.49	5	-287 Min.	-0.00	5	-286 Max	0.39	12	-286 Min.	0.13	5
-285 Max	0.50	5	-285 Min.	-0.00	5	-284 Max	0.38	12	-284 Min.	0.13	5
-283 Max	0.34	12	-283 Min.	0.14	13	-282 Max	0.35	12	-282 Min.	0.14	13
-281 Max	0.36	12	-281 Min.	0.14	13	-280 Max	0.37	5	-280 Min.	0.06	5
-279 Max	0.37	12	-279 Min.	0.14	13	-278 Max	0.40	12	-278 Min.	0.12	5

-277 Max	0.51	5	-277 Min.	-0.01	5	-276 Max	0.39	12	-276 Min.	0.07	5
-275 Max	0.41	12	-275 Min.	0.13	13	-274 Max	0.44	12	-274 Min.	0.12	5
-273 Max	0.54	5	-273 Min.	-0.01	5	-272 Max	0.37	12	-272 Min.	0.13	5
-271 Max	0.34	12	-271 Min.	0.14	13	-270 Max	0.36	5	-270 Min.	0.04	5
-268 Max	0.46	5	-268 Min.	-0.06	5	-267 Max	0.46	5	-267 Min.	-0.06	5
-266 Max	0.47	5	-266 Min.	-0.06	5	-265 Max	0.47	5	-265 Min.	-0.05	5
-264 Max	0.47	5	-264 Min.	-0.05	5	-263 Max	0.48	5	-263 Min.	-0.04	5
-262 Max	0.48	5	-262 Min.	-0.04	5	-261 Max	0.48	5	-261 Min.	-0.04	5
-260 Max	0.49	5	-260 Min.	-0.03	5	-259 Max	0.49	5	-259 Min.	-0.03	5
-258 Max	0.49	5	-258 Min.	-0.02	5	-257 Max	0.50	5	-257 Min.	-0.01	5
-255 Max	0.49	12	-255 Min.	0.10	1	-254 Max	0.51	12	-254 Min.	0.13	13
-253 Max	0.55	12	-253 Min.	0.10	5	-252 Max	0.78	5	-252 Min.	-0.16	5
-251 Max	0.77	5	-251 Min.	-0.16	5	-250 Max	0.76	5	-250 Min.	-0.16	5
-249 Max	0.75	5	-249 Min.	-0.15	5	-248 Max	0.73	5	-248 Min.	-0.15	5
-247 Max	0.72	5	-247 Min.	-0.15	5	-246 Max	0.71	5	-246 Min.	-0.15	5
-245 Max	0.70	5	-245 Min.	-0.15	5	-244 Max	0.69	5	-244 Min.	-0.14	5
-243 Max	0.68	5	-243 Min.	-0.14	5	-242 Max	0.67	5	-242 Min.	-0.14	5
-241 Max	0.67	5	-241 Min.	-0.14	5	-240 Max	0.66	5	-240 Min.	-0.13	5
-239 Max	0.65	5	-239 Min.	-0.13	5	-238 Max	0.55	5	-238 Min.	-0.04	5
-237 Max	0.43	12	-237 Min.	0.07	5	-236 Max	0.45	12	-236 Min.	0.06	5
-235 Max	0.57	5	-235 Min.	-0.05	5	-234 Max	0.56	5	-234 Min.	-0.04	5
-233 Max	0.44	12	-233 Min.	0.06	5	-232 Max	0.41	5	-232 Min.	0.05	5
-231 Max	0.41	12	-231 Min.	0.12	1	-230 Max	0.41	5	-230 Min.	0.04	5
-229 Max	0.39	12	-229 Min.	0.12	1	-228 Max	0.41	5	-228 Min.	0.04	5
-227 Max	0.40	12	-227 Min.	0.12	1	-226 Max	0.43	12	-226 Min.	0.13	1
-225 Max	0.42	12	-225 Min.	0.13	1	-224 Max	0.41	12	-224 Min.	0.13	13
-223 Max	0.43	12	-223 Min.	0.11	1	-222 Max	0.42	12	-222 Min.	0.06	5
-221 Max	0.45	12	-221 Min.	0.11	1	-220 Max	0.44	12	-220 Min.	0.07	5
-219 Max	0.44	12	-219 Min.	0.11	1	-218 Max	0.43	12	-218 Min.	0.06	5
-217 Max	0.60	5	-217 Min.	-0.05	5	-216 Max	0.48	12	-216 Min.	0.05	5
-215 Max	0.59	5	-215 Min.	-0.05	5	-214 Max	0.47	12	-214 Min.	0.06	5
-213 Max	0.49	12	-213 Min.	0.05	5	-212 Max	0.45	12	-212 Min.	0.12	1
-211 Max	0.46	12	-211 Min.	0.11	1	-210 Max	0.47	12	-210 Min.	0.11	1
-209 Max	0.58	5	-209 Min.	-0.05	5	-208 Max	0.46	12	-208 Min.	0.06	5
-207 Max	0.44	12	-207 Min.	0.12	1	-206 Max	0.42	12	-206 Min.	0.11	1
-205 Max	0.41	5	-205 Min.	0.05	5	-204 Max	0.51	5	-204 Min.	-0.03	5
-203 Max	0.39	12	-203 Min.	0.08	5	-202 Max	0.42	12	-202 Min.	0.07	5
-201 Max	0.53	5	-201 Min.	-0.04	5	-200 Max	0.41	12	-200 Min.	0.07	5
-199 Max	0.53	5	-199 Min.	-0.03	5	-198 Max	0.52	5	-198 Min.	-0.03	5
-197 Max	0.40	12	-197 Min.	0.08	5	-196 Max	0.35	12	-196 Min.	0.10	5
-195 Max	0.40	5	-195 Min.	0.02	5	-194 Max	0.38	12	-194 Min.	0.11	5
-193 Max	0.40	5	-193 Min.	0.03	5	-192 Max	0.37	12	-192 Min.	0.11	5
-191 Max	0.40	5	-191 Min.	0.03	5	-190 Max	0.36	12	-190 Min.	0.11	5
-189 Max	0.40	5	-189 Min.	0.02	5	-188 Max	0.40	12	-188 Min.	0.13	13
-187 Max	0.39	12	-187 Min.	0.13	13	-186 Max	0.38	12	-186 Min.	0.13	13
-185 Max	0.37	12	-185 Min.	0.14	13	-184 Max	0.33	12	-184 Min.	0.09	5
-183 Max	0.39	5	-183 Min.	0.01	5	-182 Max	0.39	5	-182 Min.	0.01	5
-181 Max	0.34	12	-181 Min.	0.10	5	-180 Max	0.33	12	-180 Min.	0.09	5
-179 Max	0.39	5	-179 Min.	0.01	5	-178 Max	0.37	12	-178 Min.	0.09	5
-177 Max	0.37	12	-177 Min.	0.09	5	-176 Max	0.38	12	-176 Min.	0.08	5
-175 Max	0.50	5	-175 Min.	-0.02	5	-174 Max	0.49	5	-174 Min.	-0.02	5
-173 Max	0.35	12	-173 Min.	0.14	13	-172 Max	0.35	12	-172 Min.	0.14	13
-171 Max	0.36	12	-171 Min.	0.14	13	-170 Max	0.39	5	-170 Min.	0.02	5
-169 Max	0.35	12	-169 Min.	0.10	5	-168 Max	0.37	12	-168 Min.	0.14	13
-167 Max	0.39	12	-167 Min.	0.08	5	-166 Max	0.50	5	-166 Min.	-0.03	5
-165 Max	0.40	5	-165 Min.	0.04	5	-164 Max	0.39	12	-164 Min.	0.12	5
-163 Max	0.41	12	-163 Min.	0.13	13	-162 Max	0.43	12	-162 Min.	0.07	5
-161 Max	0.54	5	-161 Min.	-0.04	5	-160 Max	0.45	12	-160 Min.	0.08	5
-159 Max	0.46	12	-159 Min.	0.11	1	-158 Max	0.48	12	-158 Min.	0.10	1
-157 Max	0.50	12	-157 Min.	0.05	5	-156 Max	0.76	5	-156 Min.	-0.19	5
-155 Max	0.75	5	-155 Min.	-0.19	5	-154 Max	0.74	5	-154 Min.	-0.19	5
-153 Max	0.73	5	-153 Min.	-0.18	5	-152 Max	0.72	5	-152 Min.	-0.18	5
-151 Max	0.71	5	-151 Min.	-0.18	5	-150 Max	0.70	5	-150 Min.	-0.17	5
-149 Max	0.69	5	-149 Min.	-0.17	5	-148 Max	0.68	5	-148 Min.	-0.17	5
-147 Max	0.68	5	-147 Min.	-0.17	5	-146 Max	0.67	5	-146 Min.	-0.16	5
-145 Max	0.66	5	-145 Min.	-0.16	5	-144 Max	0.65	5	-144 Min.	-0.16	5
-143 Max	0.65	5	-143 Min.	-0.16	5	-142 Max	0.36	12	-142 Min.	0.09	5
-141 Max	0.34	12	-141 Min.	0.14	13	-140 Max	0.32	12	-140 Min.	0.09	5
-139 Max	0.39	5	-139 Min.	0.00	5	-134 Max	0.47	5	-134 Min.	-0.06	5
-133 Max	0.47	5	-133 Min.	-0.06	5	-132 Max	0.47	5	-132 Min.	-0.05	5
-131 Max	0.47	5	-131 Min.	-0.05	5	-130 Max	0.48	5	-130 Min.	-0.04	5
-129 Max	0.48	5	-129 Min.	-0.04	5	-124 Max	0.29	12	-124 Min.	0.09	5
-123 Max	0.31	12	-123 Min.	0.14	13	-122 Max	0.49	5	-122 Min.	-0.06	5
-121 Max	0.35	5	-121 Min.	0.06	5	-120 Max	0.49	5	-120 Min.	-0.07	5
-119 Max	0.29	5	-119 Min.	0.08	5	-118 Max	0.29	12	-118 Min.	0.13	1
-117 Max	0.35	5	-117 Min.	0.05	5	-116 Max	0.29	5	-116 Min.	0.09	5
-115 Max	0.30	12	-115 Min.	0.14	13	-114 Max	0.35	5	-114 Min.	0.06	5
-113 Max	0.49	5	-113 Min.	-0.07	5	-112 Max	0.32	12	-112 Min.	0.10	5
-111 Max	0.31	12	-111 Min.	0.10	5	-110 Max	0.32	12	-110 Min.	0.10	5

-109 Max	0.35	5	-109 Min.	0.08	5	-108 Max	0.35	12	-108 Min.	0.09	5
-107 Max	0.35	12	-107 Min.	0.08	5	-106 Max	0.49	5	-106 Min.	-0.05	5
-105 Max	0.48	5	-105 Min.	-0.04	5	-104 Max	0.32	12	-104 Min.	0.14	13
-103 Max	0.33	12	-103 Min.	0.14	13	-102 Max	0.34	12	-102 Min.	0.14	13
-101 Max	0.49	5	-101 Min.	-0.05	5	-100 Max	0.35	5	-100 Min.	0.07	5
-99 Max	0.31	12	-99 Min.	0.14	13	-98 Max	0.30	12	-98 Min.	0.10	5
-97 Max	0.28	5	-97 Min.	0.08	5	-96 Max	0.28	12	-96 Min.	0.11	1
-95 Max	0.49	5	-95 Min.	-0.09	5	-94 Max	0.35	5	-94 Min.	0.04	5
-93 Max	0.50	5	-93 Min.	-0.10	5	-92 Max	0.28	5	-92 Min.	0.07	5
-91 Max	0.28	1	-91 Min.	0.09	1	-90 Max	0.36	5	-90 Min.	0.02	5
-89 Max	0.28	5	-89 Min.	0.07	5	-88 Max	0.27	12	-88 Min.	0.10	1
-87 Max	0.36	5	-87 Min.	0.03	5	-86 Max	0.50	5	-86 Min.	-0.09	5
-85 Max	0.28	1	-85 Min.	0.06	1	-84 Max	0.30	1	-84 Min.	0.04	1
-83 Max	0.29	1	-83 Min.	0.05	1	-82 Max	0.37	1	-82 Min.	-0.00	1
-81 Max	0.51	5	-81 Min.	-0.12	5	-80 Max	0.36	5	-80 Min.	0.01	5
-79 Max	0.50	5	-79 Min.	-0.11	5	-78 Max	0.38	1	-78 Min.	-0.01	1
-77 Max	0.31	1	-77 Min.	0.04	1	-76 Max	0.30	1	-76 Min.	0.05	1
-75 Max	0.29	1	-75 Min.	0.06	1	-74 Max	0.28	5	-74 Min.	0.07	5
-73 Max	0.28	1	-73 Min.	0.08	1	-72 Max	0.36	5	-72 Min.	0.02	5
-71 Max	0.50	5	-71 Min.	-0.11	5	-70 Max	0.29	5	-70 Min.	0.08	5
-69 Max	0.29	12	-69 Min.	0.12	1	-68 Max	0.35	5	-68 Min.	0.04	5
-67 Max	0.49	5	-67 Min.	-0.08	5	-66 Max	0.38	1	-66 Min.	-0.03	1
-65 Max	0.31	1	-65 Min.	0.03	1	-64 Max	0.30	1	-64 Min.	0.03	1
-61 Max	0.36	5	-61 Min.	-0.03	5	-60 Max	0.36	5	-60 Min.	-0.02	5
-59 Max	0.36	5	-59 Min.	-0.02	5	-58 Max	0.36	5	-58 Min.	-0.02	5
-57 Max	0.37	5	-57 Min.	-0.01	5	-56 Max	0.37	5	-56 Min.	-0.01	5
-55 Max	0.37	5	-55 Min.	-0.00	5	-54 Max	0.37	5	-54 Min.	-0.00	5
-53 Max	0.37	5	-53 Min.	0.00	5	-50 Max	0.33	12	-50 Min.	0.10	5
-49 Max	0.34	12	-49 Min.	0.14	13	-48 Max	0.36	12	-48 Min.	0.10	5
-47 Max	0.62	5	-47 Min.	-0.16	5	-46 Max	0.62	5	-46 Min.	-0.17	5
-45 Max	0.63	5	-45 Min.	-0.17	5	-44 Max	0.63	5	-44 Min.	-0.18	5
-43 Max	0.63	5	-43 Min.	-0.19	5	-42 Max	0.63	5	-42 Min.	-0.19	5
-41 Max	0.63	5	-41 Min.	-0.20	5	-40 Max	0.63	5	-40 Min.	-0.21	5
-39 Max	0.64	5	-39 Min.	-0.21	5	-38 Max	0.64	5	-38 Min.	-0.22	5
-37 Max	0.64	5	-37 Min.	-0.23	5	-36 Max	0.64	5	-36 Min.	-0.24	5
-35 Max	0.64	5	-35 Min.	-0.24	5	32 Max	0.51	5	32 Min.	-0.13	5
35 Max	0.48	5	35 Min.	-0.03	5	36 Max	0.48	5	36 Min.	0.00	5
37 Max	0.63	5	37 Min.	-0.03	5	57 Max	0.49	5	57 Min.	-0.11	5
58 Max	0.47	5	58 Min.	-0.03	5	59 Max	0.48	5	59 Min.	-0.02	5
60 Max	0.61	5	60 Min.	-0.06	5	78 Max	0.51	5	78 Min.	-0.00	5
79 Max	0.46	5	79 Min.	-0.07	5	80 Max	0.39	5	80 Min.	-0.00	5
81 Max	0.35	5	81 Min.	-0.03	5	82 Max	0.62	5	82 Min.	-0.23	5
83 Max	0.59	5	83 Min.	-0.14	5	84 Max	0.64	5	84 Min.	-0.15	5
85 Max	0.77	5	85 Min.	-0.19	5	86 Max	0.79	5	86 Min.	-0.16	5
87 Max	0.64	5	87 Min.	-0.13	5	88 Max	0.62	5	88 Min.	-0.15	5
89 Max	0.65	5	89 Min.	-0.25	5	90 Max	0.38	5	90 Min.	-0.04	5
91 Max	0.40	5	91 Min.	-0.01	5	92 Max	0.46	5	92 Min.	-0.08	5
93 Max	0.49	5	93 Min.	-0.01	5	94 Max	0.49	5	94 Min.	-0.01	5
96 Max	0.41	5	96 Min.	-0.01	5	99 Max	0.62	5	99 Min.	-0.15	5
101 Max	0.80	5	101 Min.	-0.16	5	102 Max	0.78	5	102 Min.	-0.20	5
104 Max	0.59	5	104 Min.	-0.13	5	105 Max	0.40	5	105 Min.	-0.00	5
106 Max	0.64	5	106 Min.	-0.03	5	108 Max	0.48	5	108 Min.	-0.02	5
113 Max	0.46	5	113 Min.	-0.02	5	115 Max	0.51	5	115 Min.	0.00	5
117 Max	0.62	5	117 Min.	-0.06	5	118 Max	0.38	5	118 Min.	-0.05	5
119 Max	0.65	5	119 Min.	-0.26	5	120 Max	0.62	5	120 Min.	-0.23	5
121 Max	0.51	5	121 Min.	-0.14	5	122 Max	0.49	5	122 Min.	-0.12	5
123 Max	0.35	5	123 Min.	-0.04	5	124 Max	0.46	5	124 Min.	-0.08	5
125 Max	0.63	5	125 Min.	-0.13	5	126 Max	0.63	5	126 Min.	-0.15	5
127 Max	0.47	5	127 Min.	0.00	5	128 Max	0.46	5	128 Min.	-0.08	5
129 Max	0.47	5	129 Min.	-0.02	5						

Verifiche e armature solette/platee

Simbologia

Nodo	= Numero del nodo
X	= Coordinata X del nodo
Y	= Coordinata Y del nodo
DV	= Direzione di verifica
	XX = Verifica per momento Mxx
	YY = Verifica per momento Myy
CC	= Numero della combinazione delle condizioni di carico elementari
TCC	= Tipo di combinazione di carico
	SLU = Stato limite ultimo
	SLU S = Stato limite ultimo (azione sismica)
	SLE R = Stato limite d'esercizio, combinazione rara
	SLE F = Stato limite d'esercizio, combinazione frequente
	SLE Q = Stato limite d'esercizio, combinazione quasi permanente

SLD	= Stato limite di danno
SLV	= Stato limite di salvaguardia della vita
SLC	= Stato limite di prevenzione del collasso
SLO	= Stato limite di operatività
SLU I	= Stato limite di resistenza al fuoco
c	= Ricoprimento dell'armatura
s	= Distanza minima tra le barre
K3	= Coefficiente di forma del diagramma delle tensioni prima della fessurazione
s _{rm}	= Distanza media tra le fessure
Φ	= Diametro della barra
A _s	= Area complessiva dei ferri nell'area di calcestruzzo efficace
A _{c eff}	= Area di calcestruzzo efficace
σ _s	= Tensione nell'acciaio nella sezione fessurata
σ _{sr}	= Tensione nell'acciaio corrispondente al raggiungimento della resistenza a trazione nel calcestruzzo
ε _{sm}	= Deformazione unitaria media dell'armatura (*1000)
Wk	= Apertura delle fessure
AfE S	= Area di ferro effettiva totale presente nel punto di verifica, superiore
AfE I	= Area di ferro effettiva totale presente nel punto di verifica, inferiore
Mom	= Momento flettente
Mu	= Momento ultimo
Sic.	= Sicurezza a rottura
σ _c	= Tensione nel calcestruzzo
σ _f	= Tensione nel ferro
Spess.	= Spessore
Cf sup	= Copriferro superiore
Cf inf	= Copriferro inferiore
Cls	= Tipo di calcestruzzo
Fck	= Resistenza caratteristica cilindrica a compressione del calcestruzzo
Fctk	= Resistenza caratteristica a trazione del calcestruzzo
Fcd	= Resistenza di calcolo a compressione del calcestruzzo
Fctd	= Resistenza di calcolo a trazione del calcestruzzo
Acc.	= Tipo di acciaio
Fyk	= Tensione caratteristica di snervamento dell'acciaio
Fyd	= Resistenza di calcolo dell'acciaio

Armatura platea a quota 0.00

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf sup	Cf inf	Cls	Fck	Fctk	Fcd	Fctd	Acc.	Fyk	Fyd
<cm>	<cm>	<cm>		<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>		<daN/cm²>	<daN/cm²>
50.00	6.00	6.00	C25/30	249.00	17.91	141.10	11.94	B450C	4500.00	3913.04

Stato limite ultimo - Ferri longitudinali - Verifiche armatura

Nodo	X	Y	DV	CC	TCC	AfE S	AfE I	Mom	Mu	Sic.
	<m>	<m>				<cmq>	<cmq>	<daNm>	<daNm>	
-47	2.44	-0.20	XX	1	SLV	5.65	5.65	-2263.45	-10003.50	4.420
-239	3.97	-0.20	XX	1	SLV	5.65	5.65	-2642.17	-10003.50	3.786
-246	5.33	-0.20	XX	12	SLU	5.65	5.65	-2775.34	-10003.50	3.604
-352	2.44	4.21	XX	1	SLV	5.65	5.65	-3557.39	-10003.50	2.812
-143	3.97	4.21	XX	1	SLV	5.65	5.65	-3675.02	-10003.50	2.722
-66	-0.20	0.20	YY	5	SLV	5.65	5.65	1316.28	10003.50	7.600
-253	6.88	0.20	YY	5	SLV	5.65	5.65	2653.17	10003.50	3.770
-365	-0.20	3.85	YY	5	SLV	5.65	5.65	1760.05	10003.50	5.684
-157	6.88	3.85	YY	5	SLV	5.65	5.65	3050.88	10003.50	3.279

Stato limite esercizio - Ferri longitudinali - Verifiche armatura

Nodo	X	Y	DV	CC	TCC	AfE S	AfE I	Mom	σ _c	σ _f
	<m>	<m>				<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>
-44	1.88	-0.20	XX	24	SLE R	5.65	5.65	-833.39	5.02	356.97
-47	2.44	-0.20	XX	24	SLE R	5.65	5.65	-802.26	4.84	343.63
-41	1.31	-0.20	XX	32	SLE Q	5.65	5.65	-586.64	3.54	251.28
119	-0.20	-0.20	XX	32	SLE Q	5.65	5.65	95.86	0.58	41.06
-246	5.33	-0.20	XX	22	SLE R	5.65	5.65	-1952.78	11.77	836.43
87	3.78	-0.20	XX	24	SLE R	5.65	5.65	412.12	2.48	176.52
-246	5.33	-0.20	XX	32	SLE Q	5.65	5.65	-1248.54	7.53	534.79
-352	2.44	4.21	XX	24	SLE R	5.65	5.65	-957.29	5.77	410.03
-382	2.45	4.01	XX	24	SLE R	5.65	5.65	-952.99	5.74	408.19
-358	1.31	4.21	XX	32	SLE Q	5.65	5.65	-595.40	3.59	255.03
-174	3.97	4.01	XX	25	SLE R	5.65	5.65	-725.31	4.37	310.67
-150	5.33	4.21	XX	22	SLE R	5.65	5.65	-1745.35	10.52	747.59
102	6.88	4.21	XX	32	SLE Q	5.65	5.65	190.35	1.15	81.53
-150	5.33	4.21	XX	32	SLE Q	5.65	5.65	-1119.64	6.75	479.58
101	6.88	-0.20	XX	32	SLE Q	5.65	5.65	199.32	1.20	85.37
120	-0.20	4.21	XX	32	SLE Q	5.65	5.65	103.66	0.62	44.40
-66	-0.20	0.20	YY	22	SLE R	5.65	5.65	479.72	2.89	205.48
-66	-0.20	0.20	YY	32	SLE Q	5.65	5.65	350.30	2.11	150.04

89	0.00	-0.20	YY	25 SLE R	5.65	5.65	-55.00	0.33	23.56
89	0.00	-0.20	YY	32 SLE Q	5.65	5.65	-34.91	0.21	14.95
-253	6.88	0.20	YY	22 SLE R	5.65	5.65	1067.85	6.44	457.39
-253	6.88	0.20	YY	32 SLE Q	5.65	5.65	680.18	4.10	291.34
-418	-0.01	3.85	YY	22 SLE R	5.65	5.65	608.07	3.66	260.45
-418	-0.01	3.85	YY	32 SLE Q	5.65	5.65	436.92	2.63	187.14
-157	6.88	3.85	YY	22 SLE R	5.65	5.65	1097.93	6.62	470.28
-157	6.88	3.85	YY	32 SLE Q	5.65	5.65	702.13	4.23	300.74
85	6.68	4.21	YY	24 SLE R	5.65	5.65	-73.11	0.44	31.32
85	6.68	4.21	YY	32 SLE Q	5.65	5.65	-36.94	0.22	15.82
86	6.68	-0.20	YY	24 SLE R	5.65	5.65	-58.01	0.35	24.85
86	6.68	-0.20	YY	32 SLE Q	5.65	5.65	-27.48	0.17	11.77
82	0.00	4.21	YY	25 SLE R	5.65	5.65	-76.58	0.46	32.80
82	0.00	4.21	YY	32 SLE Q	5.65	5.65	-43.08	0.26	18.45

Verifiche stato limite di formazione delle fessure

Nodo	X	Y	DV	CC	TCC	c	s	K3	S _{rm}	Φ	A _s	A _{c eff}	σ _s	σ _{sr}	ε _{sm}	Wk	
	<m>	<m>				<mm>	<mm>		<mm>		<cmq>	<cmq>	<daN/cmq>	<daN/cmq>		<mm>	
-41	1.31	-0.20	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	251.28	5800.68	0.05	0.02
-41	1.31	-0.20	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	272.90	5800.68	0.05	0.03
119	-0.20	-0.20	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	41.06	5800.68	0.01	0.00
88	2.63	-0.20	XX	31	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	45.12	5800.68	0.01	0.00
-246	5.33	-0.20	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	534.79	5800.68	0.10	0.05
-246	5.33	-0.20	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	604.52	5800.68	0.12	0.06
-358	1.31	4.21	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	255.03	5800.68	0.05	0.02
-357	1.50	4.21	XX	30	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	279.26	5800.68	0.05	0.03
120	-0.20	4.21	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	48.01	5800.68	0.01	0.00
102	6.88	4.21	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	81.53	5800.68	0.02	0.01
102	6.88	4.21	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	92.31	5800.68	0.02	0.01
-150	5.33	4.21	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	479.58	5800.68	0.09	0.05
-150	5.33	4.21	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	541.53	5800.68	0.11	0.05
101	6.88	-0.20	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	85.37	5800.68	0.02	0.01
101	6.88	-0.20	XX	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	96.74	5800.68	0.02	0.01
120	-0.20	4.21	XX	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	44.40	5800.68	0.01	0.00
-66	-0.20	0.20	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	150.04	5800.68	0.03	0.01
-66	-0.20	0.20	YY	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	162.86	5800.68	0.03	0.02
89	0.00	-0.20	YY	31	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	16.90	5800.68	0.00	0.00
89	0.00	-0.20	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	14.95	5800.68	0.00	0.00
-253	6.88	0.20	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	291.34	5800.68	0.06	0.03
-253	6.88	0.20	YY	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	329.73	5800.68	0.06	0.03
-418	-0.01	3.85	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	187.14	5800.68	0.04	0.02
-418	-0.01	3.85	YY	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	204.09	5800.68	0.04	0.02
-157	6.88	3.85	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	300.74	5800.68	0.06	0.03
-157	6.88	3.85	YY	29	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	339.93	5800.68	0.07	0.03
85	6.68	4.21	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	15.82	5800.68	0.00	0.00
85	6.68	4.21	YY	30	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	19.16	5800.68	0.00	0.00
86	6.68	-0.20	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	11.77	5800.68	0.00	0.00
86	6.68	-0.20	YY	30	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	14.55	5800.68	0.00	0.00
82	0.00	4.21	YY	31	SLE	F	54.00	168.00	0.18	292.21	12.00	1.13	199.21	21.61	5800.68	0.00	0.00
82	0.00	4.21	YY	32	SLE	Q	54.00	168.00	0.18	292.21	12.00	1.13	199.21	18.45	5800.68	0.00	0.00

Verifiche aste in acciaio

Simbologia

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

		Ts	= T stondata
		Ls	= L stondata
		Cs	= C stondata
		Is	= I stondata
		Dis.	= Disegnata
D	<cm>		= Distanza
Area	<cmq>		= Area
Anet	<cmq>		= Area netta per compressione
Aeff	<cmq>		= Area effettiva per trazione
Jy	<cm4>		= Momento d'inerzia rispetto all'asse Y
Jz	<cm4>		= Momento d'inerzia rispetto all'asse Z
Iy	<cm>		= Raggio giratorio d'inerzia rispetto all'asse Y
Iz	<cm>		= Raggio giratorio d'inerzia rispetto all'asse Z
Wymin	<cmc>		= Modulo di resistenza minimo rispetto all'asse Y
Wzmin	<cmc>		= Modulo di resistenza minimo rispetto all'asse Z
Wy,plas	<cmc>		= Modulo di resistenza plastico intorno all'asse Y
Wz,plas	<cmc>		= Modulo di resistenza plastico intorno all'asse Z
Atag,y	<cmq>		= Area resistente a taglio in dir. Y
Atag,z	<cmq>		= Area resistente a taglio in dir. Z
J ₀	<cm6>		= Costante di ingobbamento
CC			= Numero della combinazione delle condizioni di carico elementari
Xl	<m>		= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica
N	<daN>		= Sforzo normale
N,Ed	<daN>		= Forza assiale di calcolo
Nc,Rd	<daN>		= Resistenza a compressione
L _{cr}	<m>		= Lunghezza di libera inflessione laterale fra ritegni torsionali
α-imp			= Coefficiente di imperfezione
k _c			= Coeff. di correzione momento flettente per stabilità laterale membrature inflesse
ψ			= Coeff. di correzione momento critico per stabilità laterale membrature inflesse
M _{cr}	<daNm>		= Momento critico per instabilità flesso torsionale
λ _{LT}			= Coefficiente di imperfezione per stabilità laterale membrature inflesse
λ _{LT,0}			= Coefficiente di imperfezione di confronto per stabilità laterale membrature inflesse
β _{LT}			= Coefficiente per calcolo Φ _{LT}
Φ _{LT}			= Coefficiente Φ per stabilità laterale membrature inflesse
f			= Fattore di modifica per il coefficiente di riduzione
χ _{LT}			= Coefficiente di riduzione per stabilità laterale membrature inflesse
My,Ed	<daNm>		= Momento flettente di calcolo intorno all'asse Y
My,b,Rd	<daNm>		= Resistenza di calcolo a flessione ridotta per stabilità laterale membrature inflesse
Myeq,Ed	<daNm>		= Valore equivalente del momento flettente intorno all'asse Y
My,c,Rd	<daNm>		= Resistenza di calcolo a flessione intorno all'asse Y
L			= lunghezza dell'asta
λ _y			= Snellezza per inflessione intorno all'asse y(c)
Ncr,y	<daN>		= Sforzo normale critico euleriano per inflessione intorno all'asse y(c)
λ _y [*]			= Snellezza adimensionale per inflessione intorno all'asse y(c)
Curva			= Curva di instabilità adottata
Φ _y			= Coefficiente Φ per inflessione intorno all'asse y(c)
χ _y			= Coefficiente χ di riduzione per instabilità intorno all'asse y(c)
λ _z			= Snellezza per inflessione intorno all'asse z(e)
Ncr,z	<daN>		= Sforzo normale critico euleriano per inflessione intorno all'asse z(e)
λ _z [*]			= Snellezza adimensionale per inflessione intorno all'asse z(e)
Φ _z			= Coefficiente Φ per inflessione intorno all'asse z(e)
χ _z			= Coefficiente χ di riduzione per instabilità intorno all'asse z(e)
My	<daNm>		= Momento flettente intorno all'asse Y
σ _N	<daN/cm²>		= Tensione normale per sforzo normale
σ _M	<daN/cm²>		= Tensione normale per momento flettente
τ	<daN/cm²>		= Tensione tangenziale per taglio e/o torsione
Tz	<daN>		= Taglio in dir. Z
Ty	<daN>		= Taglio in dir. Y
Mz	<daNm>		= Momento flettente intorno all'asse Z
Mx	<daNm>		= Momento torcente intorno all'asse X
χ _{min}			= Coefficiente χ di riduzione per instabilità
Nb,Rd	<daN>		= Resistenza all'instabilità
f _{z,L}	<cm>		= Freccia in direzione Z locale
f _{z,G}	<cm>		= Freccia in direzione Z globale
δ	<cm>		= Spostamento relativo asta

Caratteristiche profilati utilizzati

Sez.	Cod.	Tipo	D	Area	Anet	Aeff	Jy	Jz	Iy	Iz	Wymin	Wzmin	
			<cm>	<cmq>	<cmq>	<cmq>	<cm4>	<cm4>	<cm>	<cm>	<cmc>	<cmc>	
2	2L120*12		2Ldx	1.00	55.08	55.08	55.08	735.33	1571.65	3.65	5.34	85.47	125.73
3	2Ldx 80x80x8x10x5x0x10	T	2Ldx	1.00	24.53	24.53	24.53	144.49	330.72	2.43	3.67	25.15	38.91
5	2*UNP160		2Cdx	1.00	48.03	48.03	48.03	1849.50	432.99	6.21	3.00	231.19	61.86
9	2L120*12		2Ldx	1.00	55.08	55.08	55.08	735.33	1571.65	3.65	5.34	85.47	125.73
10	2Ldx 60x60x6x10x5x0x10	T	2Ldx	1.00	13.89	13.89	13.89	44.95	110.42	1.80	2.82	10.38	16.99

Caratteristiche profilati utilizzati

Sez.	Cod.	Wy,plas	Wz,plas	Atag,y	Atag,z	J ₀
		<cmc>	<cmc>	<cmq>	<cmq>	<cm6>
2	2L120*12	174.46	0.00	28.80	28.80	
3	2Ldx 80x80x8x10x5x0x10	51.55	0.00	12.80	12.80	
5	2*UNP160	275.41	0.00	30.33	24.51	
9	2L120*12	174.46	0.00	28.80	28.80	
10	2Ldx 60x60x6x10x5x0x10	21.55	0.00	7.20	7.20	

Asta n. 14 (14 24) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 12 Xl=0.00 - Classe 3
Sollecitazioni: N=-2228.60
N,Ed=-2228.60 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.03

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.09$ (L/1595)
Asta n. 15 (15 25) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-1093.01
N,Ed=-1093.01 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.01

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.11$ (L/966)
Asta n. 16 (16 26) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.15

- Verifica a compressione (4.2.10) - CC 12 Xl=0.00 - Classe 3
Sollecitazioni: N=-3567.38
N,Ed=-3567.38 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.04

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.03$ (L/1870)
Asta n. 40 (43 40) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 1 Xl=0.00 - Classe 3
Sollecitazioni: N=-2253.13
N,Ed=-2253.13 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.03

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.05$ (L/2991)
Asta n. 41 (42 41) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-2114.19
N,Ed=-2114.19 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.03

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.10$ (L/1462)
Asta n. 44 (45 44) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-849.14
N,Ed=-849.14 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.01

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.13$ (L/812)
Asta n. 46 (47 46) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.15

- Verifica a compressione (4.2.10) - CC 12 Xl=0.00 - Classe 3
Sollecitazioni: N=-2972.73
N,Ed=-2972.73 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.04

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.02$ (L/2525)
Asta n. 67 (-528 -529) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica a compressione (4.2.10) - CC 12 Xl=0.00 - Classe 3
Sollecitazioni: N=-423.33
N,Ed=-423.33 Nc,Rd=-46977.50 N,Ed/Nc,Rd=0.01

- Verifica spostamento relativo massimo per singola asta - CC 22
 $\delta=0.25$ (L/226)
Asta n. 68 (13 21) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica a compressione (4.2.10) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-1768.85

N,Ed=-1768.85 Nc,Rd=-82950.70 N,Ed/Nc,Rd=0.02

- Verifica spostamento relativo massimo per singola asta - CC 22

$\delta=0.05$ (L/3102)

Asta n. 101 (29 30) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3

$L_{cx}=1.15$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 9 $M_y,Ed=-8.10$ $M_y,b,Rd=7816.36$ $M_y,Ed/M_y,b,Rd=0.00$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3

Sollecitazioni: N,Ed=-69.12 Myeq,Ed=-4.67

Resistenze: Nc,Rd=81192.00 My,c,Rd=3908.18 L=115.00

$\lambda_y=18.53$ Ncr,y=2898540.00 $\lambda_y^*=0.24$ Curva b: $\Phi_y=0.54$ $\chi_y=0.98$

$\lambda_{zeq}=38.30$ Ncr,z=678586.00 $\lambda_z^*=0.50$ Curva b: $\Phi_z=0.68$ $\chi_z=0.88$

$\chi_{min}=0.88$

Verifica: $0.00 + 0.00 = 0.00$

- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,L}=0.01$ (L/9375)

- Verifica freccia massima carichi totali - CC 22

$f_{z,L}=0.03$ (L/4251)

- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.57 - Classe 3

Sollecitazioni: N=-69.12 My=-6.23

Tensioni: $\sigma_N=-1.44$ $\sigma_M=-2.70$ $\tau=0.00$ $\sigma_{max}=-4.14$

Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$

Tensioni: $\sigma_N=-1.44$ $\sigma_M=-2.70$ $\tau=0.00$ $\sigma_{ID,max}=4.14$

Asta n. 103 (48 55) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3

Sollecitazioni: N,Ed=-79.26 Myeq,Ed=-4.67

Resistenze: Nc,Rd=81192.00 My,c,Rd=3908.18 L=115.00

$\lambda_y=18.53$ Ncr,y=2898540.00 $\lambda_y^*=0.24$ Curva b: $\Phi_y=0.54$ $\chi_y=0.98$

$\lambda_{zeq}=38.30$ Ncr,z=678586.00 $\lambda_z^*=0.50$ Curva b: $\Phi_z=0.68$ $\chi_z=0.88$

$\chi_{min}=0.88$

Verifica: $0.00 + 0.00 = 0.00$

- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,L}=0.01$ (L/10350)

- Verifica freccia massima carichi totali - CC 22

$f_{z,G}=0.02$ (L/4775)

- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.57 - Classe 3

Sollecitazioni: N=-79.26 My=-6.23

Tensioni: $\sigma_N=-1.65$ $\sigma_M=-2.70$ $\tau=0.00$ $\sigma_{max}=-4.35$

Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$

Tensioni: $\sigma_N=-1.65$ $\sigma_M=-2.70$ $\tau=0.00$ $\sigma_{ID,max}=4.35$

Asta n. 104 (28 -30) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3

$L_{cx}=2.41$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 3 $M_y,Ed=-11.64$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3

Sollecitazioni: N,Ed=-3544.70 Myeq,Ed=-8.73

Resistenze: Nc,Rd=41475.40 My,c,Rd=425.17 L=241.16

$\lambda_y=99.37$ Ncr,y=51495.10 $\lambda_y^*=1.30$ Curva b: $\Phi_y=1.53$ $\chi_y=0.43$

$\lambda_{zeq}=65.68$ Ncr,z=117863.00 $\lambda_z^*=0.86$ Curva b: $\Phi_z=0.98$ $\chi_z=0.69$

$\chi_{min}=0.43$

Verifica: $0.04 + 0.01 = 0.05$

- Verifica freccia massima per soli carichi accidentali - CC 24

$f_{z,L}=0.00$ (L/141466)

- Verifica freccia massima carichi totali - CC 24
 $f_{z,L}=0.02$ (L/9716) $f_{z,G}=0.02$ (L/11559)

- Verifica in termini tensionali (4.2.5) - CC 5 $X_l=1.21$ - Classe 3
Sollecitazioni: $N=3192.43$ $M_y=-11.64$
Tensioni: $\sigma_N=130.12$ $\sigma_M=46.28$ $\tau=0.00$ $\sigma_{max}=176.40$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=130.12$ $\sigma_M=46.28$ $\tau=0.00$ $\sigma_{ID,max}=176.40$

Asta n. 109 (31 -528) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=2.41$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 3 $M_y,Ed=-11.64$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-5048.30$ $M_{y,eq,Ed}=-8.73$
Resistenze: $N_c,Rd=41475.40$ $M_{y,c,Rd}=425.17$ $L=241.16$
 $\lambda_y=99.37$ $N_{cr,y}=51495.10$ $\lambda_y^*=1.30$ Curva b: $\Phi_y=1.53$ $\chi_y=0.43$
 $\lambda_{z,eq}=65.68$ $N_{cr,z}=117863.00$ $\lambda_z^*=0.86$ Curva b: $\Phi_z=0.98$ $\chi_z=0.69$
 $\chi_{min}=0.43$
Verifica: $0.14 + 0.01 = 0.15$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/31807) $f_{z,G}=0.01$ (L/38903)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.03$ (L/7418) $f_{z,G}=0.03$ (L/9112)

- Verifica in termini tensionali (4.2.5) - CC 5 $X_l=1.21$ - Classe 3
Sollecitazioni: $N=-5035.39$ $M_y=-11.64$
Tensioni: $\sigma_N=-205.24$ $\sigma_M=-18.17$ $\tau=0.00$ $\sigma_{max}=-223.40$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-205.24$ $\sigma_M=-18.17$ $\tau=0.00$ $\sigma_{ID,max}=223.40$

Asta n. 122 (28 38) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica freccia massima per soli carichi accidentali - CC 25
 $f_{z,L}=0.00$ (L/141337)

- Verifica freccia massima carichi totali - CC 25
 $f_{z,G}=0.03$ (L/11655)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_l=2.00$ - Classe 3
Sollecitazioni: $N=522.72$ $M_y=-98.52$
Tensioni: $\sigma_N=10.88$ $\sigma_M=42.61$ $\tau=0.00$ $\sigma_{max}=53.50$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=10.88$ $\sigma_M=42.61$ $\tau=0.00$ $\sigma_{ID,max}=53.50$

Asta n. 127 (31 56) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/26549)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.06$ (L/7289)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_l=2.00$ - Classe 3
Sollecitazioni: $N=1270.89$ $M_y=-98.52$
Tensioni: $\sigma_N=26.46$ $\sigma_M=42.61$ $\tau=0.00$ $\sigma_{max}=69.07$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=26.46$ $\sigma_M=42.61$ $\tau=0.00$ $\sigma_{ID,max}=69.07$

Asta n. 140 (38 -30) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3

$L_{cr}=2.41$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 3 $M_y,Ed=-11.64$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
 Sollecitazioni: $N,Ed=-3450.17$ $M_{yeq,Ed}=-8.73$
 Resistenze: $N_c,Rd=41475.40$ $M_y,c,Rd=425.17$ $L=241.16$
 $\lambda_y=99.37$ $N_{cr,y}=51495.10$ $\lambda_y^*=1.30$ Curva b: $\Phi_y=1.53$ $\chi_y=0.43$
 $\lambda_{zeq}=65.68$ $N_{cr,z}=117863.00$ $\lambda_z^*=0.86$ Curva b: $\Phi_z=0.98$ $\chi_z=0.69$
 $\chi_{min}=0.43$
 Verifica: $0.04 + 0.01 = 0.05$

- Verifica freccia massima per soli carichi accidentali - CC 25
 $f_{z,L}=0.00$ (L/128035)

- Verifica freccia massima carichi totali - CC 25
 $f_{z,L}=0.03$ (L/9486) $f_{z,G}=0.02$ (L/11377)

- Verifica in termini tensionali (4.2.5) - CC 5 $X1=1.21$ - Classe 3
 Sollecitazioni: $N=3288.00$ $M_y=-11.64$
 Tensioni: $\sigma_N=134.01$ $\sigma_M=46.28$ $\tau=0.00$ $\sigma_{max}=180.30$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
 Tensioni: $\sigma_N=134.01$ $\sigma_M=46.28$ $\tau=0.00$ $\sigma_{ID,max}=180.30$

Asta n. 145 (56 -528) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=2.41$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 3 $M_y,Ed=-11.64$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
 Sollecitazioni: $N,Ed=-5154.49$ $M_{yeq,Ed}=-8.73$
 Resistenze: $N_c,Rd=41475.40$ $M_y,c,Rd=425.17$ $L=241.16$
 $\lambda_y=99.37$ $N_{cr,y}=51495.10$ $\lambda_y^*=1.30$ Curva b: $\Phi_y=1.53$ $\chi_y=0.43$
 $\lambda_{zeq}=65.68$ $N_{cr,z}=117863.00$ $\lambda_z^*=0.86$ Curva b: $\Phi_z=0.98$ $\chi_z=0.69$
 $\chi_{min}=0.43$
 Verifica: $0.15 + 0.01 = 0.16$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/22988) $f_{z,G}=0.01$ (L/27044)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/5973) $f_{z,G}=0.03$ (L/7014)

- Verifica in termini tensionali (4.2.5) - CC 5 $X1=1.21$ - Classe 3
 Sollecitazioni: $N=-5141.59$ $M_y=-11.64$
 Tensioni: $\sigma_N=-209.56$ $\sigma_M=-18.17$ $\tau=0.00$ $\sigma_{max}=-227.73$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
 Tensioni: $\sigma_N=-209.56$ $\sigma_M=-18.17$ $\tau=0.00$ $\sigma_{ID,max}=227.73$

Asta n. 202 (-529 130) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=1.97$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 9 $M_y,Ed=26.20$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.01$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
 Sollecitazioni: $N,Ed=-967.35$ $M_{yeq,Ed}=13.60$
 Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=197.29$
 $\lambda_y=54.00$ $N_{cr,y}=391542.00$ $\lambda_y^*=0.71$ Curva b: $\Phi_y=0.84$ $\chi_y=0.78$
 $\lambda_{zeq}=36.94$ $N_{cr,z}=836865.00$ $\lambda_z^*=0.48$ Curva b: $\Phi_z=0.67$ $\chi_z=0.89$
 $\chi_{min}=0.78$
 Verifica: $0.01 + 0.00 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.47$ (L/420) $f_{z,G}=0.45$ (L/438)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.92$ (L/214) $f_{z,G}=0.89$ (L/222)

- Verifica in termini tensionali (4.2.5) - CC 12 Xl=0.99 - Classe 3
Sollecitazioni: $N=6736.13$ $M_y=26.20$
Tensioni: $\sigma_N=122.29$ $\sigma_M=12.10$ $\tau=0.00$ $\sigma_{max}=134.39$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=122.29$ $\sigma_M=12.10$ $\tau=0.00$ $\sigma_{ID,max}=134.39$

Asta n. 204 (5 -30) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=2.00$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 3 $M_y,Ed=14.77$ $M_y,b,Rd=7816.36$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-2808.90$ $M_{yeq,Ed}=10.62$
Resistenze: $N_c,Rd=81192.00$ $M_y,c,Rd=3908.18$ $L=200.50$
 $\lambda_y=32.31$ $N_{cr,y}=953554.00$ $\lambda^*_y=0.42$ Curva b: $\Phi_y=0.63$ $\chi_y=0.92$
 $\lambda_{zeq}=66.78$ $N_{cr,z}=223240.00$ $\lambda^*_z=0.87$ Curva b: $\Phi_z=1.00$ $\chi_z=0.68$
 $\chi_{min}=0.68$
Verifica: $0.02 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 25
 $f_{z,L}=0.00$ (L/155732)
- Verifica freccia massima carichi totali - CC 24
 $f_{z,L}=0.00$ (L/73768)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=2.00 - Classe 3
Sollecitazioni: $N=-2808.90$ $T_z=-44.46$ $M_y=13.35$ $T_y=12.23$ $M_z=24.51$
Tensioni: $\sigma_N=-58.48$ $\sigma_M=-5.78$ $\tau=0.00$ $\sigma_{max}=-64.26$
Tensioni: $\sigma_N=-58.48$ $\sigma_M=-0.00$ $\tau=2.24$ $\tau_{max}=2.24$
Tensioni: $\sigma_N=-58.48$ $\sigma_M=-5.78$ $\tau=0.00$ $\sigma_{ID,max}=64.26$

Asta n. 204 (-30 39) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-2953.84$ $M_{yeq,Ed}=10.62$
Resistenze: $N_c,Rd=81192.00$ $M_y,c,Rd=3908.18$ $L=200.50$
 $\lambda_y=32.31$ $N_{cr,y}=953554.00$ $\lambda^*_y=0.42$ Curva b: $\Phi_y=0.63$ $\chi_y=0.92$
 $\lambda_{zeq}=66.78$ $N_{cr,z}=223240.00$ $\lambda^*_z=0.87$ Curva b: $\Phi_z=1.00$ $\chi_z=0.68$
 $\chi_{min}=0.68$
Verifica: $0.02 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 25
 $f_{z,G}=0.00$ (L/127417)
- Verifica freccia massima carichi totali - CC 25
 $f_{z,L}=0.00$ (L/56440)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: $N=-2953.84$ $T_z=44.46$ $M_y=13.35$ $T_y=12.23$ $M_z=24.51$
Tensioni: $\sigma_N=-61.50$ $\sigma_M=-5.78$ $\tau=0.00$ $\sigma_{max}=-67.28$
Tensioni: $\sigma_N=-61.50$ $\sigma_M=-0.00$ $\tau=2.24$ $\tau_{max}=2.24$
Tensioni: $\sigma_N=-61.50$ $\sigma_M=-5.78$ $\tau=0.00$ $\sigma_{ID,max}=67.28$

Asta n. 208 (45 15) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=4.01$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 9 $M_y,Ed=-50.33$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.06$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-478.95$ $M_{yeq,Ed}=-26.13$
Resistenze: $N_c,Rd=41475.40$ $M_y,c,Rd=425.17$ $L=401.00$
 $\lambda_y=165.24$ $N_{cr,y}=18624.00$ $\lambda^*_y=2.16$ Curva b: $\Phi_y=3.17$ $\chi_y=0.18$
 $\lambda_{zeq}=109.22$ $N_{cr,z}=42627.00$ $\lambda^*_z=1.43$ Curva b: $\Phi_z=1.73$ $\chi_z=0.37$
 $\chi_{min}=0.18$
Verifica: $0.01 + 0.03 = 0.04$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/44144)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.23$ (L/1778)
- Verifica in termini tensionali (4.2.5) - CC 12 $X_L=2.00$ - Classe 3
Sollecitazioni: $N=3836.67$ $M_y=-50.33$
Tensioni: $\sigma_N=156.38$ $\sigma_M=200.10$ $\tau=0.00$ $\sigma_{max}=356.47$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=156.38$ $\sigma_M=200.10$ $\tau=0.00$ $\sigma_{ID,max}=356.47$

Asta n. 209 (16 -528) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=2.00$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 12 $M_y,Ed=-22.29$ $M_y,b,Rd=7816.36$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-2346.73$ $M_{yeq,Ed}=25.89$
Resistenze: $N_c,Rd=81192.00$ $M_y,c,Rd=3908.18$ $L=200.50$
 $\lambda_y=32.31$ $N_{cr,y}=953554.00$ $\lambda^*_y=0.42$ Curva b: $\Phi_y=0.63$ $\chi_y=0.92$
 $\lambda_{zeq}=66.78$ $N_{cr,z}=223240.00$ $\lambda^*_z=0.87$ Curva b: $\Phi_z=1.00$ $\chi_z=0.68$
 $\chi_{min}=0.68$
Verifica: $0.01 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/29404)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.01$ (L/13607)

- Verifica in termini tensionali (4.2.5) - CC 5 $X_L=2.00$ - Classe 3
Sollecitazioni: $N=-2346.73$ $T_z=-55.01$ $M_y=34.52$ $T_y=-8.84$ $M_z=-17.73$
Tensioni: $\sigma_N=-48.86$ $\sigma_M=-14.93$ $\tau=0.00$ $\sigma_{max}=-63.79$
Tensioni: $\sigma_N=-48.86$ $\sigma_M=-0.00$ $\tau=2.77$ $\tau_{max}=2.77$
Tensioni: $\sigma_N=-48.86$ $\sigma_M=-14.93$ $\tau=0.00$ $\sigma_{ID,max}=63.79$

Asta n. 209 (-528 47) 2*UNP160 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.23

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=2.00$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 3 $M_y,Ed=-15.93$ $M_y,b,Rd=7816.36$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-2449.80$ $M_{yeq,Ed}=26.91$
Resistenze: $N_c,Rd=81192.00$ $M_y,c,Rd=3908.18$ $L=200.50$
 $\lambda_y=32.31$ $N_{cr,y}=953555.00$ $\lambda^*_y=0.42$ Curva b: $\Phi_y=0.63$ $\chi_y=0.92$
 $\lambda_{zeq}=66.78$ $N_{cr,z}=223240.00$ $\lambda^*_z=0.87$ Curva b: $\Phi_z=1.00$ $\chi_z=0.68$
 $\chi_{min}=0.68$
Verifica: $0.02 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/23958)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.03$ (L/7963)
- Verifica in termini tensionali (4.2.5) - CC 5 $X_L=0.00$ - Classe 3
Sollecitazioni: $N=-2449.80$ $T_z=55.69$ $M_y=35.87$ $T_y=8.84$ $M_z=-17.73$
Tensioni: $\sigma_N=-51.01$ $\sigma_M=-15.52$ $\tau=0.00$ $\sigma_{max}=-66.52$
Tensioni: $\sigma_N=-51.01$ $\sigma_M=-0.00$ $\tau=2.81$ $\tau_{max}=2.81$
Tensioni: $\sigma_N=-51.01$ $\sigma_M=-15.52$ $\tau=0.00$ $\sigma_{ID,max}=66.52$

Asta n. 213 (-528 15) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=2.64$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-8.56$ $M_y,b,Rd=351.06$ $M_y,Ed/M_y,b,Rd=0.02$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N,Ed=-5030.56$ $M_{yeq,Ed}=-9.28$
Resistenze: $N_c,Rd=23488.70$ $M_{y,c,Rd}=175.53$ $L=264.17$
 $\lambda_y=146.87$ $N_{cr,y}=13351.30$ $\lambda^*_y=1.92$ Curva b: $\Phi_y=2.64$ $\chi_y=0.22$
 $\lambda_{zeq}=93.71$ $N_{cr,z}=32795.30$ $\lambda^*_z=1.23$ Curva b: $\Phi_z=1.43$ $\chi_z=0.46$
 $\chi_{min}=0.22$
Verifica: $0.48 + 0.04 = 0.52$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,g}=0.02$ (L/13815)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,g}=0.10$ (L/2726)

- Verifica in termini tensionali (4.2.5) - CC 12 $Xl=1.32$ - Classe 3
Sollecitazioni: $N=-5030.56$ $M_y=-12.37$
Tensioni: $\sigma_N=-362.05$ $\sigma_M=-45.97$ $\tau=0.00$ $\sigma_{max}=-408.01$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-362.05$ $\sigma_M=-45.97$ $\tau=0.00$ $\sigma_{ID,max}=408.01$

Asta n. 218 (-528 45) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=2.64$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-8.56$ $M_y,b,Rd=351.06$ $M_y,Ed/M_y,b,Rd=0.02$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N,Ed=-4800.18$ $M_{yeq,Ed}=-9.28$
Resistenze: $N_c,Rd=23488.70$ $M_{y,c,Rd}=175.53$ $L=264.17$
 $\lambda_y=146.87$ $N_{cr,y}=13351.30$ $\lambda^*_y=1.92$ Curva b: $\Phi_y=2.64$ $\chi_y=0.22$
 $\lambda_{zeq}=93.71$ $N_{cr,z}=32795.30$ $\lambda^*_z=1.23$ Curva b: $\Phi_z=1.43$ $\chi_z=0.46$
 $\chi_{min}=0.22$
Verifica: $0.45 + 0.04 = 0.50$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.03$ (L/9373)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.11$ (L/2386)

- Verifica in termini tensionali (4.2.5) - CC 12 $Xl=1.32$ - Classe 3
Sollecitazioni: $N=-4800.18$ $M_y=-12.37$
Tensioni: $\sigma_N=-345.47$ $\sigma_M=-45.97$ $\tau=0.00$ $\sigma_{max}=-391.44$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-345.47$ $\sigma_M=-45.97$ $\tau=0.00$ $\sigma_{ID,max}=391.44$

Asta n. 220 (-528 130) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.89$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=13.37$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 15 - Classe 3
Sollecitazioni: $N,Ed=-3815.54$ $M_{yeq,Ed}=-109.08$
Resistenze: $N_c,Rd=93116.40$ $M_{y,c,Rd}=1444.83$ $L=189.00$
 $\lambda_y=51.73$ $N_{cr,y}=426654.00$ $\lambda^*_y=0.68$ Curva b: $\Phi_y=0.81$ $\chi_y=0.80$
 $\lambda_{zeq}=35.38$ $N_{cr,z}=911910.00$ $\lambda^*_z=0.46$ Curva b: $\Phi_z=0.65$ $\chi_z=0.90$
 $\chi_{min}=0.80$
Verifica: $0.02 + 0.04 = 0.06$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.45$ (L/419)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.89$ (L/213)

- Verifica in termini tensionali (4.2.5) - CC 12 $Xl=0.86$ - Classe 3

Sollecitazioni: $N=-6457.99$ $T_z=1.42$ $M_y=19.52$ $M_x=-1.16$
Tensioni: $\sigma_N=-117.24$ $\sigma_M=-22.84$ $\tau=0.00$ $\sigma_{\max}=-140.08$
Tensioni: $\sigma_N=-117.24$ $\sigma_M=-0.00$ $\tau=0.07$ $\tau_{\max}=0.07$
Tensioni: $\sigma_N=-117.24$ $\sigma_M=-22.84$ $\tau=0.00$ $\sigma_{ID,\max}=140.08$

Asta n. 220 (130 -533) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.18

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=0.66$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 9 $M_y,Ed=-12.24$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 7 - Classe 3
Sollecitazioni: $N,Ed=-1.50$ $M_{yeq,Ed}=-7.06$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=66.00$
 $\lambda_y=18.06$ $N_{cr,y}=3498740.00$ $\lambda_y^*=0.24$ Curva b: $\Phi_y=0.53$ $\chi_y=0.99$
 $\lambda_{zeq}=12.36$ $N_{cr,z}=7478040.00$ $\lambda_z^*=0.16$ Curva b: $\Phi_z=0.51$ $\chi_z=1.00$
 $\chi_{min}=0.99$
Verifica: $0.00 + 0.00 = 0.00$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.16$ (L/419)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.31$ (L/214)
- Verifica in termini tensionali (4.2.5) - CC 9 $X1=0.00$ - Classe 3
Sollecitazioni: $T_z=-37.10$ $M_y=-12.24$
Tensioni: $\sigma_N=0.00$ $\sigma_M=14.32$ $\tau=0.00$ $\sigma_{\max}=14.32$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=1.79$ $\tau_{\max}=1.79$
Tensioni: $\sigma_N=0.00$ $\sigma_M=14.32$ $\tau=0.00$ $\sigma_{ID,\max}=14.32$

Asta n. 237 (5 19) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-1305.93$ $M_{yeq,Ed}=38.42$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=156.00$
 $\lambda_y=42.70$ $N_{cr,y}=626253.00$ $\lambda_y^*=0.56$ Curva b: $\Phi_y=0.72$ $\chi_y=0.86$
 $\lambda_{zeq}=29.20$ $N_{cr,z}=1338520.00$ $\lambda_z^*=0.38$ Curva b: $\Phi_z=0.60$ $\chi_z=0.93$
 $\chi_{min}=0.86$
Verifica: $0.01 + 0.01 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/8356)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.05$ (L/3261)
- Verifica in termini tensionali (4.2.5) - CC 1 $X1=1.40$ - Classe 3
Sollecitazioni: $N=-1305.93$ $T_z=34.21$ $M_y=44.48$ $T_y=49.22$ $M_z=69.11$ $M_x=-1.14$
Tensioni: $\sigma_N=-23.71$ $\sigma_M=-52.05$ $\tau=0.00$ $\sigma_{\max}=-75.76$
Tensioni: $\sigma_N=-23.71$ $\sigma_M=-0.00$ $\tau=1.65$ $\tau_{\max}=1.65$
Tensioni: $\sigma_N=-23.71$ $\sigma_M=-52.05$ $\tau=0.00$ $\sigma_{ID,\max}=75.76$

Asta n. 237 (19 13) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-1328.87$ $M_{yeq,Ed}=-79.86$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=107.00$
 $\lambda_y=29.29$ $N_{cr,y}=1331160.00$ $\lambda_y^*=0.38$ Curva b: $\Phi_y=0.60$ $\chi_y=0.93$
 $\lambda_{zeq}=20.03$ $N_{cr,z}=2845170.00$ $\lambda_z^*=0.26$ Curva b: $\Phi_z=0.54$ $\chi_z=0.98$
 $\chi_{min}=0.93$
Verifica: $0.01 + 0.03 = 0.03$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.01$ (L/8799)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.02$ (L/5453)

- Verifica in termini tensionali (4.2.5) - CC 1 Xl=1.07 - Classe 3
Sollecitazioni: $N=1048.20$ $T_z=87.23$ $M_y=-79.86$ $T_y=32.72$ $M_z=111.79$ $M_x=-1.14$
Tensioni: $\sigma_N=19.03$ $\sigma_M=93.44$ $\tau=0.00$ $\sigma_{max}=112.47$
Tensioni: $\sigma_N=19.03$ $\sigma_M=0.00$ $\tau=4.22$ $\tau_{max}=4.22$
Tensioni: $\sigma_N=19.03$ $\sigma_M=93.44$ $\tau=0.00$ $\sigma_{ID,max}=112.47$

Asta n. 237 (13 22) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.11

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=0.43$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.63$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-12.47$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-994.02$ $M_{y,eq,Ed}=-50.32$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=43.00$
 $\lambda_y=11.77$ $N_{cr,y}=8242560.00$ $\lambda_y^*=0.15$ Curva b: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_{z,eq}=8.05$ $N_{cr,z}=17617300.00$ $\lambda_z^*=0.11$ Curva b: $\Phi_z=0.00$ $\chi_z=1.00$
 $\chi_{min}=1.00$
Verifica: $0.01 + 0.02 = 0.02$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.00$ (L/9492)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.01$ (L/4356)

- Verifica in termini tensionali (4.2.5) - CC 1 Xl=0.00 - Classe 3
Sollecitazioni: $N=-994.02$ $T_z=62.57$ $M_y=43.46$ $T_y=-101.04$ $M_z=116.33$ $M_x=-1.60$
Tensioni: $\sigma_N=-18.05$ $\sigma_M=-50.85$ $\tau=0.00$ $\sigma_{max}=-68.90$
Tensioni: $\sigma_N=-18.05$ $\sigma_M=-0.00$ $\tau=3.02$ $\tau_{max}=3.02$
Tensioni: $\sigma_N=-18.05$ $\sigma_M=-50.85$ $\tau=0.00$ $\sigma_{ID,max}=68.90$

Asta n. 237 (22 14) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=0.72$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.22$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=2.37$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-983.72$ $M_{y,eq,Ed}=-48.30$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=72.00$
 $\lambda_y=19.71$ $N_{cr,y}=2939910.00$ $\lambda_y^*=0.26$ Curva b: $\Phi_y=0.54$ $\chi_y=0.98$
 $\lambda_{z,eq}=13.48$ $N_{cr,z}=6283630.00$ $\lambda_z^*=0.18$ Curva b: $\Phi_z=0.51$ $\chi_z=1.00$
 $\chi_{min}=0.98$
Verifica: $0.01 + 0.02 = 0.02$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/9041)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.02$ (L/4069)

- Verifica in termini tensionali (4.2.5) - CC 1 Xl=0.72 - Classe 3
Sollecitazioni: $N=-183.83$ $T_z=112.30$ $M_y=-57.12$ $T_y=-107.39$ $M_z=13.53$ $M_x=-1.60$
Tensioni: $\sigma_N=-3.34$ $\sigma_M=66.84$ $\tau=0.00$ $\sigma_{max}=63.50$
Tensioni: $\sigma_N=-3.34$ $\sigma_M=0.00$ $\tau=5.43$ $\tau_{max}=5.43$
Tensioni: $\sigma_N=-3.34$ $\sigma_M=66.84$ $\tau=0.00$ $\sigma_{ID,max}=63.50$

Asta n. 237 (14 15) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.18$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.72$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-11.04$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-1523.73$ $M_{y,eq,Ed}=-119.95$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=118.00$

$\lambda_y=32.30$ Ncr,y=1094550.00 $\lambda_y^*=0.42$ Curva b: $\Phi_y=0.63$ $\chi_y=0.92$
 $\lambda_{zeq}=22.09$ Ncr,z=2339440.00 $\lambda_z^*=0.29$ Curva b: $\Phi_z=0.56$ $\chi_z=0.97$
 $\chi_{\min}=0.92$
Verifica: $0.01 + 0.04 = 0.05$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/5220)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.05$ (L/2321)
- Verifica in termini tensionali (4.2.5) - CC 1 $X_L=0.00$ - Classe 3
Sollecitazioni: $N=263.21$ $T_z=-77.93$ $M_y=-119.95$ $T_y=-81.16$ $M_z=3.28$ $M_x=1.69$
Tensioni: $\sigma_N=4.78$ $\sigma_M=140.34$ $\tau=0.00$ $\sigma_{\max}=145.12$
Tensioni: $\sigma_N=4.78$ $\sigma_M=0.00$ $\tau=3.77$ $\tau_{\max}=3.77$
Tensioni: $\sigma_N=4.78$ $\sigma_M=140.34$ $\tau=0.00$ $\sigma_{ID,\max}=145.12$

Asta n. 237 (15 16) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-1088.15$ $Myeq,Ed=-264.21$
Resistenze: $N_c,Rd=93116.40$ $My,c,Rd=1444.83$ $L=172.00$
 $\lambda_y=47.08$ Ncr,y=515160.00 $\lambda_y^*=0.62$ Curva b: $\Phi_y=0.76$ $\chi_y=0.83$
 $\lambda_{zeq}=32.20$ Ncr,z=1101080.00 $\lambda_z^*=0.42$ Curva b: $\Phi_z=0.63$ $\chi_z=0.92$
 $\chi_{\min}=0.83$
Verifica: $0.01 + 0.09 = 0.10$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.03$ (L/6630)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.06$ (L/2897)
- Verifica in termini tensionali (4.2.5) - CC 1 $X_L=1.72$ - Classe 3
Sollecitazioni: $N=-1088.15$ $T_z=-183.95$ $M_y=305.69$ $T_y=127.47$ $M_z=126.13$ $M_x=1.60$
Tensioni: $\sigma_N=-19.75$ $\sigma_M=-357.66$ $\tau=0.00$ $\sigma_{\max}=-377.42$
Tensioni: $\sigma_N=-19.75$ $\sigma_M=0.00$ $\tau=8.89$ $\tau_{\max}=8.89$
Tensioni: $\sigma_N=-19.75$ $\sigma_M=-357.66$ $\tau=0.00$ $\sigma_{ID,\max}=377.42$

Asta n. 237 (16 17) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N,Ed=-913.87$ $Myeq,Ed=-207.41$
Resistenze: $N_c,Rd=93116.40$ $My,c,Rd=1444.83$ $L=189.00$
 $\lambda_y=51.73$ Ncr,y=426653.00 $\lambda_y^*=0.68$ Curva b: $\Phi_y=0.81$ $\chi_y=0.80$
 $\lambda_{zeq}=35.38$ Ncr,z=911909.00 $\lambda_z^*=0.46$ Curva b: $\Phi_z=0.65$ $\chi_z=0.90$
 $\chi_{\min}=0.80$
Verifica: $0.00 + 0.07 = 0.08$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.05$ (L/3690)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.11$ (L/1649)
- Verifica in termini tensionali (4.2.5) - CC 1 $X_L=0.00$ - Classe 3
Sollecitazioni: $N=-299.30$ $T_z=-184.38$ $M_y=-276.54$ $T_y=-70.70$ $M_z=132.21$ $M_x=32.31$
Tensioni: $\sigma_N=-5.43$ $\sigma_M=323.56$ $\tau=0.00$ $\sigma_{\max}=318.12$
Tensioni: $\sigma_N=-5.43$ $\sigma_M=0.00$ $\tau=8.91$ $\tau_{\max}=8.91$
Tensioni: $\sigma_N=-5.43$ $\sigma_M=323.56$ $\tau=0.00$ $\sigma_{ID,\max}=318.12$

Asta n. 237 (17 18) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.18

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=0.66$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 9 $My,Ed=-12.24$ $My,b,Rd=2889.65$ $My,Ed/My,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 7 - Classe 3
Sollecitazioni: $N,Ed=-1.17$ $Myeq,Ed=-7.06$

Resistenze: $N_c, R_d = 93116.40$ My, c, $R_d = 1444.83$ L=66.00
 $\lambda_y = 18.06$ Ncr, y=3498740.00 $\lambda^*_y = 0.24$ Curva b: $\Phi_y = 0.53$ $\chi_y = 0.99$
 $\lambda_{z,eq} = 12.36$ Ncr, z=7478040.00 $\lambda^*_z = 0.16$ Curva b: $\Phi_z = 0.51$ $\chi_z = 1.00$
 $\chi_{min} = 0.99$
Verifica: $0.00 + 0.00 = 0.00$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L} = 0.02$ (L/2920)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,G} = 0.05$ (L/1300)

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $T_z = -37.10$ $M_y = -12.24$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 14.32$ $\tau = 0.00$ $\sigma_{max} = 14.32$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 0.00$ $\tau = 1.79$ $\tau_{max} = 1.79$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 14.32$ $\tau = 0.00$ $\sigma_{ID,max} = 14.32$

Asta n. 239 (39 53) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr} = 1.56$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ M, cr=0.00 $\lambda_{LT} = 0.00$
 $\lambda_{LT,0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ f=0.00 $\chi_{LT} = 1.00$
CC 1 My, Ed=60.40 My, b, Rd=2889.65 My, Ed/My, b, Rd=0.02

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: N, Ed=-112.57 Myeq, Ed=14.70
Resistenze: $N_c, R_d = 93116.40$ My, c, $R_d = 1444.83$ L=156.00
 $\lambda_y = 42.70$ Ncr, y=626253.00 $\lambda^*_y = 0.56$ Curva b: $\Phi_y = 0.72$ $\chi_y = 0.86$
 $\lambda_{z,eq} = 29.20$ Ncr, z=1338520.00 $\lambda^*_z = 0.38$ Curva b: $\Phi_z = 0.60$ $\chi_z = 0.93$
 $\chi_{min} = 0.86$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L} = 0.02$ (L/9824)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,G} = 0.04$ (L/3848)

- Verifica in termini tensionali (4.2.5) - CC 1 $X_1 = 1.56$ - Classe 3
Sollecitazioni: N=-1535.09 $T_z = 52.90$ $M_y = 60.40$ $T_y = 69.91$ $M_z = 109.07$ $M_x = 1.56$
Tensioni: $\sigma_N = -27.87$ $\sigma_M = -70.66$ $\tau = 0.00$ $\sigma_{max} = -98.53$
Tensioni: $\sigma_N = -27.87$ $\sigma_M = -0.00$ $\tau = 2.56$ $\tau_{max} = 2.56$
Tensioni: $\sigma_N = -27.87$ $\sigma_M = -70.66$ $\tau = 0.00$ $\sigma_{ID,max} = 98.53$

Asta n. 239 (53 43) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr} = 1.07$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.27$ M, cr=0.00 $\lambda_{LT} = 0.00$
 $\lambda_{LT,0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ f=0.00 $\chi_{LT} = 1.00$
CC 1 My, Ed=-111.26 My, b, Rd=2889.65 My, Ed/My, b, Rd=0.04

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 14 - Classe 3
Sollecitazioni: N, Ed=-45.89 Myeq, Ed=-51.94
Resistenze: $N_c, R_d = 93116.40$ My, c, $R_d = 1444.83$ L=107.00
 $\lambda_y = 29.29$ Ncr, y=1331160.00 $\lambda^*_y = 0.38$ Curva b: $\Phi_y = 0.60$ $\chi_y = 0.93$
 $\lambda_{z,eq} = 20.03$ Ncr, z=2845170.00 $\lambda^*_z = 0.26$ Curva b: $\Phi_z = 0.54$ $\chi_z = 0.98$
 $\chi_{min} = 0.93$
Verifica: $0.00 + 0.02 = 0.02$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G} = 0.01$ (L/9841)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L} = 0.02$ (L/6561)

- Verifica in termini tensionali (4.2.5) - CC 1 $X_1 = 1.07$ - Classe 3
Sollecitazioni: N=1625.08 $T_z = 99.17$ $M_y = -111.26$ $T_y = 53.97$ $M_z = 166.82$ $M_x = 1.56$
Tensioni: $\sigma_N = 29.50$ $\sigma_M = 130.18$ $\tau = 0.00$ $\sigma_{max} = 159.68$
Tensioni: $\sigma_N = 29.50$ $\sigma_M = 0.00$ $\tau = 4.79$ $\tau_{max} = 4.79$
Tensioni: $\sigma_N = 29.50$ $\sigma_M = 130.18$ $\tau = 0.00$ $\sigma_{ID,max} = 159.68$

Asta n. 239 (43 52) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.11

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
L_{cr}=0.43 Curva d: α -imp=0.76 k_c=0.94 ψ =1.64 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 13 My,Ed=-12.38 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.00
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: N,Ed=-952.39 Myeq,Ed=-63.92
Resistenze: N_c,Rd=93116.40 My,c,Rd=1444.83 L=43.00
 λ_y =11.77 Ncr,y=8242560.00 λ^*_y =0.15 Curva b: Φ_y =0.00 χ_y =1.00
 λ_{zeq} =8.05 Ncr,z=17617300.00 λ^*_z =0.11 Curva b: Φ_z =0.00 χ_z =1.00
 χ ,min=1.00
Verifica: 0.01 + 0.02 = 0.03
- Verifica freccia massima per soli carichi accidentali - CC 22
f_{z,L}=0.00 (L/10425)
- Verifica freccia massima carichi totali - CC 22
f_{z,L}=0.01 (L/4861)
- Verifica in termini tensionali (4.2.5) - CC 1 Xl=0.00 - Classe 3
Sollecitazioni: N=293.26 T_z=-129.51 M_y=-75.00 T_y=-51.59 M_z=170.59 M_x=1.04
Tensioni: σ_N =5.32 σ_M =87.76 τ =0.00 σ_{max} =93.08
Tensioni: σ_N =5.32 σ_M =0.00 τ =6.26 τ_{max} =6.26
Tensioni: σ_N =5.32 σ_M =87.76 τ =0.00 $\sigma_{ID,max}$ =93.08

Asta n. 239 (52 42) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
L_{cr}=0.72 Curva d: α -imp=0.76 k_c=0.94 ψ =1.11 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 13 My,Ed=2.51 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.00
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: N,Ed=-938.87 Myeq,Ed=-57.39
Resistenze: N_c,Rd=93116.40 My,c,Rd=1444.83 L=72.00
 λ_y =19.71 Ncr,y=2939910.00 λ^*_y =0.26 Curva b: Φ_y =0.54 χ_y =0.98
 λ_{zeq} =13.48 Ncr,z=6283630.00 λ^*_z =0.18 Curva b: Φ_z =0.51 χ_z =1.00
 χ ,min=0.98
Verifica: 0.01 + 0.02 = 0.02
- Verifica freccia massima per soli carichi accidentali - CC 22
f_{z,L}=0.01 (L/10032)
- Verifica freccia massima carichi totali - CC 22
f_{z,L}=0.02 (L/4610)
- Verifica in termini tensionali (4.2.5) - CC 1 Xl=0.72 - Classe 3
Sollecitazioni: N=279.74 T_z=133.94 M_y=-64.95 T_y=-57.74 M_z=106.83 M_x=1.04
Tensioni: σ_N =5.08 σ_M =76.00 τ =0.00 σ_{max} =81.07
Tensioni: σ_N =5.08 σ_M =0.00 τ =6.47 τ_{max} =6.47
Tensioni: σ_N =5.08 σ_M =76.00 τ =0.00 $\sigma_{ID,max}$ =81.07

Asta n. 239 (42 45) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
L_{cr}=1.18 Curva d: α -imp=0.76 k_c=0.94 ψ =1.58 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 13 My,Ed=-12.89 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.00
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: N,Ed=-2124.61 Myeq,Ed=-147.50
Resistenze: N_c,Rd=93116.40 My,c,Rd=1444.83 L=118.00
 λ_y =32.30 Ncr,y=1094550.00 λ^*_y =0.42 Curva b: Φ_y =0.63 χ_y =0.92
 λ_{zeq} =22.09 Ncr,z=2339440.00 λ^*_z =0.29 Curva b: Φ_z =0.56 χ_z =0.97
 χ ,min=0.92
Verifica: 0.01 + 0.05 = 0.06
- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,G}=0.02$ (L/6186)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,G}=0.04$ (L/2828)

- Verifica in termini tensionali (4.2.5) - CC 1 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=1772.22$ $T_z=-210.63$ $M_y=-196.66$ $T_y=-242.78$ $M_z=116.71$ $M_x=-1.19$
Tensioni: $\sigma_N=32.17$ $\sigma_M=230.10$ $\tau=0.00$ $\sigma_{max}=262.28$
Tensioni: $\sigma_N=32.17$ $\sigma_M=0.00$ $\tau=10.18$ $\tau_{max}=10.18$
Tensioni: $\sigma_N=32.17$ $\sigma_M=230.10$ $\tau=0.00$ $\sigma_{ID,max}=262.28$

Asta n. 239 (45 47) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 15 - Classe 3
 $L_{cr}=1.72$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 15 $M_y,Ed=35.20$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N,Ed=-17.73$ $M_{y,eq,Ed}=25.82$
Resistenze: $N_c,Rd=93116.40$ $M_{y,c,Rd}=1444.83$ $L=172.00$
 $\lambda_y=47.08$ $N_{cr,y}=515160.00$ $\lambda^*_y=0.62$ Curva b: $\Phi_y=0.76$ $\chi_y=0.83$
 $\lambda_{z,eq}=32.20$ $N_{cr,z}=1101080.00$ $\lambda^*_z=0.42$ Curva b: $\Phi_z=0.63$ $\chi_z=0.92$
 $\chi_{min}=0.83$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,G}=0.02$ (L/8670)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/3992)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_1=0.69$ - Classe 3
Sollecitazioni: $N=-17.73$ $T_z=4.20$ $M_y=34.27$ $T_y=49.07$ $M_z=-50.64$
Tensioni: $\sigma_N=-0.32$ $\sigma_M=-40.09$ $\tau=0.00$ $\sigma_{max}=-40.41$
Tensioni: $\sigma_N=-0.32$ $\sigma_M=0.00$ $\tau=0.20$ $\tau_{max}=0.20$
Tensioni: $\sigma_N=-0.32$ $\sigma_M=-40.09$ $\tau=0.00$ $\sigma_{ID,max}=40.41$

Asta n. 401 (15 26) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=1.81$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 9 $M_y,Ed=-9.75$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-386.26$ $M_{y,eq,Ed}=-5.06$
Resistenze: $N_c,Rd=41475.40$ $M_{y,c,Rd}=425.17$ $L=181.07$
 $\lambda_y=74.61$ $N_{cr,y}=91339.30$ $\lambda^*_y=0.98$ Curva b: $\Phi_y=1.11$ $\chi_y=0.61$
 $\lambda_{z,eq}=49.32$ $N_{cr,z}=209059.00$ $\lambda^*_z=0.65$ Curva b: $\Phi_z=0.78$ $\chi_z=0.81$
 $\chi_{min}=0.61$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.03$ (L/6053) $f_{z,G}=0.03$ (L/6650)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.07$ (L/2669) $f_{z,G}=0.06$ (L/2921)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_1=0.91$ - Classe 3
Sollecitazioni: $N=3185.57$ $M_y=-9.75$
Tensioni: $\sigma_N=129.84$ $\sigma_M=38.76$ $\tau=0.00$ $\sigma_{max}=168.60$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=129.84$ $\sigma_M=38.76$ $\tau=0.00$ $\sigma_{ID,max}=168.60$

Asta n. 403 (45 46) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=1.81$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 9 $M_y, Ed = -9.75$ $M_y, b, Rd = 850.35$ $M_y, Ed / M_y, b, Rd = 0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N, Ed = -362.60$ $M_{y, eq}, Ed = -5.06$
Resistenze: $N_c, Rd = 41475.40$ $M_{y, c}, Rd = 425.17$ $L = 181.07$
 $\lambda_y = 74.61$ $N_{cr, y} = 91339.30$ $\lambda^*_{y, y} = 0.98$ Curva b: $\Phi_y = 1.11$ $\chi_y = 0.61$
 $\lambda_{z, eq} = 49.32$ $N_{cr, z} = 209059.00$ $\lambda^*_{z, z} = 0.65$ Curva b: $\Phi_z = 0.78$ $\chi_z = 0.81$
 $\chi_{min} = 0.61$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.02$ (L/7849) $f_{z, G} = 0.02$ (L/8669)

- Verifica freccia massima carichi totali - CC 22
 $f_{z, L} = 0.05$ (L/3632) $f_{z, G} = 0.05$ (L/3997)

- Verifica in termini tensionali (4.2.5) - CC 5 $X_1 = 0.91$ - Classe 3
Sollecitazioni: $N = 3367.65$ $M_y = -7.50$
Tensioni: $\sigma_N = 137.26$ $\sigma_M = 29.81$ $\tau = 0.00$ $\sigma_{max} = 167.07$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 0.00$ $\tau = 0.00$ $\tau_{max} = 0.00$
Tensioni: $\sigma_N = 137.26$ $\sigma_M = 29.81$ $\tau = 0.00$ $\sigma_{ID, max} = 167.07$

Asta n. 409 (-528 26) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
 $L_{cr} = 2.08$ Curva d: $\alpha_{imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ $M_{cr} = 0.00$ $\lambda_{LT} = 0.00$
 $\lambda_{LT, 0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ $f = 0.00$ $\chi_{LT} = 1.00$
CC 10 $M_y, Ed = -7.40$ $M_y, b, Rd = 351.06$ $M_y, Ed / M_y, b, Rd = 0.02$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N, Ed = -97.14$ $M_{y, eq}, Ed = -5.55$
Resistenze: $N_c, Rd = 23488.70$ $M_{y, c}, Rd = 175.53$ $L = 208.34$
 $\lambda_y = 115.83$ $N_{cr, y} = 21466.30$ $\lambda^*_{y, y} = 1.52$ Curva b: $\Phi_y = 1.87$ $\chi_y = 0.34$
 $\lambda_{z, eq} = 73.90$ $N_{cr, z} = 52728.30$ $\lambda^*_{z, z} = 0.97$ Curva b: $\Phi_z = 1.10$ $\chi_z = 0.62$
 $\chi_{min} = 0.34$
Verifica: $0.00 + 0.02 = 0.02$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.01$ (L/25109)

- Verifica freccia massima carichi totali - CC 22
 $f_{z, L} = 0.04$ (L/5653) $f_{z, G} = 0.04$ (L/5864)

- Verifica in termini tensionali (4.2.5) - CC 5 $X_1 = 1.04$ - Classe 3
Sollecitazioni: $N = 1059.87$ $M_y = -5.70$
Tensioni: $\sigma_N = 76.28$ $\sigma_M = 54.85$ $\tau = 0.00$ $\sigma_{max} = 131.13$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 0.00$ $\tau = 0.00$ $\tau_{max} = 0.00$
Tensioni: $\sigma_N = 76.28$ $\sigma_M = 54.85$ $\tau = 0.00$ $\sigma_{ID, max} = 131.13$

Asta n. 427 (26 -529) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N, Ed = -362.57$ $M_{y, eq}, Ed = -17.57$
Resistenze: $N_c, Rd = 93116.40$ $M_{y, c}, Rd = 1444.83$ $L = 200.50$
 $\lambda_y = 54.88$ $N_{cr, y} = 379114.00$ $\lambda^*_{y, y} = 0.72$ Curva b: $\Phi_y = 0.85$ $\chi_y = 0.77$
 $\lambda_{z, eq} = 37.54$ $N_{cr, z} = 810301.00$ $\lambda^*_{z, z} = 0.49$ Curva b: $\Phi_z = 0.67$ $\chi_z = 0.89$
 $\chi_{min} = 0.77$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.01$ (L/25028)

- Verifica freccia massima carichi totali - CC 22
 $f_{z, L} = 0.02$ (L/11911)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_1 = 0.73$ - Classe 3
Sollecitazioni: $N = -362.57$ $T_2 = -3.68$ $M_y = 17.63$ $T_y = -297.82$ $M_z = -217.14$
Tensioni: $\sigma_N = -6.58$ $\sigma_M = -20.62$ $\tau = 0.00$ $\sigma_{max} = -27.20$
Tensioni: $\sigma_N = -6.58$ $\sigma_M = -0.00$ $\tau = 0.18$ $\tau_{max} = 0.18$
Tensioni: $\sigma_N = -6.58$ $\sigma_M = -20.62$ $\tau = 0.00$ $\sigma_{ID, max} = 27.20$

Asta n. 427 (-529 46) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N, Ed = -862.65$ $My, Ed = -14.97$
Resistenze: $N_c, Rd = 93116.40$ $My, c, Rd = 1444.83$ $L = 200.50$
 $\lambda_y = 54.88$ $N_{cr, y} = 379114.00$ $\lambda^*_{y} = 0.72$ Curva b: $\Phi_y = 0.85$ $\chi_y = 0.77$
 $\lambda_{z, eq} = 37.54$ $N_{cr, z} = 810301.00$ $\lambda^*_{z} = 0.49$ Curva b: $\Phi_z = 0.67$ $\chi_z = 0.89$
 $\chi_{min} = 0.77$
Verifica: $0.00 + 0.01 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.01$ (L/27040)
- Verifica freccia massima carichi totali - CC 22
 $f_{z, G} = 0.02$ (L/8511)
- Verifica in termini tensionali (4.2.5) - CC 5 $X1 = 1.09$ - Classe 3
Sollecitazioni: $N = -862.65$ $T_z = -6.02$ $M_y = 14.82$ $T_y = 69.35$ $M_z = -63.20$
Tensioni: $\sigma_N = -15.66$ $\sigma_M = -17.34$ $\tau = 0.00$ $\sigma_{max} = -33.01$
Tensioni: $\sigma_N = -15.66$ $\sigma_M = -0.00$ $\tau = 0.29$ $\tau_{max} = 0.29$
Tensioni: $\sigma_N = -15.66$ $\sigma_M = -17.34$ $\tau = 0.00$ $\sigma_{ID, max} = 33.01$

Asta n. 445 (-528 46) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr} = 2.08$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ $M, cr = 0.00$ $\lambda_{LT} = 0.00$
 $\lambda_{LT, 0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ $f = 0.00$ $\chi_{LT} = 1.00$
CC 9 $My, Ed = -7.40$ $My, b, Rd = 351.06$ $My, Ed / My, b, Rd = 0.02$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 3 - Classe 3
Sollecitazioni: $N, Ed = -17.24$ $My, Ed = -4.27$
Resistenze: $N_c, Rd = 23488.70$ $My, c, Rd = 175.53$ $L = 208.34$
 $\lambda_y = 115.83$ $N_{cr, y} = 21466.30$ $\lambda^*_{y} = 1.52$ Curva b: $\Phi_y = 1.87$ $\chi_y = 0.34$
 $\lambda_{z, eq} = 73.90$ $N_{cr, z} = 52728.40$ $\lambda^*_{z} = 0.97$ Curva b: $\Phi_z = 1.10$ $\chi_z = 0.62$
 $\chi_{min} = 0.34$
Verifica: $0.00 + 0.01 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.01$ (L/27521)
- Verifica freccia massima carichi totali - CC 22
 $f_{z, L} = 0.04$ (L/5191) $f_{z, G} = 0.04$ (L/5374)
- Verifica in termini tensionali (4.2.5) - CC 5 $X1 = 1.04$ - Classe 3
Sollecitazioni: $N = 1038.45$ $M_y = -5.70$
Tensioni: $\sigma_N = 74.74$ $\sigma_M = 54.85$ $\tau = 0.00$ $\sigma_{max} = 129.59$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 0.00$ $\tau = 0.00$ $\tau_{max} = 0.00$
Tensioni: $\sigma_N = 74.74$ $\sigma_M = 54.85$ $\tau = 0.00$ $\sigma_{ID, max} = 129.59$

Asta n. 601 (20 13) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr} = 1.36$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ $M, cr = 0.00$ $\lambda_{LT} = 0.00$
 $\lambda_{LT, 0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ $f = 0.00$ $\chi_{LT} = 1.00$
CC 13 $My, Ed = -3.16$ $My, b, Rd = 850.35$ $My, Ed / My, b, Rd = 0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 14 - Classe 3
Sollecitazioni: $N, Ed = -1297.44$ $My, Ed = -3.42$
Resistenze: $N_c, Rd = 41475.40$ $My, c, Rd = 425.17$ $L = 136.11$
 $\lambda_y = 56.08$ $N_{cr, y} = 161662.00$ $\lambda^*_{y} = 0.73$ Curva b: $\Phi_y = 0.86$ $\chi_y = 0.76$
 $\lambda_{z, eq} = 37.07$ $N_{cr, z} = 370016.00$ $\lambda^*_{z} = 0.49$ Curva b: $\Phi_z = 0.67$ $\chi_z = 0.89$
 $\chi_{min} = 0.76$
Verifica: $0.02 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z, L} = 0.02$ (L/8796) $f_{z, G} = 0.01$ (L/11746)
- Verifica freccia massima carichi totali - CC 22
 $f_{z, L} = 0.03$ (L/3939) $f_{z, G} = 0.03$ (L/5237)
- Verifica in termini tensionali (4.2.5) - CC 14 $X1 = 0.68$ - Classe 3

Sollecitazioni: $N=-1286.91$ $M_y=-4.56$
Tensioni: $\sigma_N=-52.45$ $\sigma_M=-7.11$ $\tau=0.00$ $\sigma_{max}=-59.57$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-52.45$ $\sigma_M=-7.11$ $\tau=0.00$ $\sigma_{ID,max}=59.57$

Asta n. 603 (49 43) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.36$ Curva d: $\alpha_{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-3.16$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 14 - Classe 3
Sollecitazioni: $N,Ed=-1325.55$ $Myeq,Ed=-3.42$
Resistenze: $N_{c,Rd}=41475.40$ $M_y,c,Rd=425.17$ $L=136.11$
 $\lambda_y=56.08$ $N_{cr,y}=161662.00$ $\lambda^*_y=0.73$ Curva b: $\Phi_y=0.86$ $\chi_y=0.76$
 $\lambda_{zeq}=37.07$ $N_{cr,z}=370016.00$ $\lambda^*_z=0.49$ Curva b: $\Phi_z=0.67$ $\chi_z=0.89$
 $\chi_{min}=0.76$
Verifica: $0.02 + 0.00 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/10591) $f_{z,G}=0.01$ (L/14271)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.03$ (L/4900) $f_{z,G}=0.02$ (L/6607)
- Verifica in termini tensionali (4.2.5) - CC 14 $Xl=0.68$ - Classe 3
Sollecitazioni: $N=-1315.02$ $M_y=-4.56$
Tensioni: $\sigma_N=-53.60$ $\sigma_M=-7.11$ $\tau=0.00$ $\sigma_{max}=-60.71$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-53.60$ $\sigma_M=-7.11$ $\tau=0.00$ $\sigma_{ID,max}=60.71$

Asta n. 801 (14 25) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
 $L_{cr}=1.60$ Curva d: $\alpha_{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 10 $M_y,Ed=-5.91$ $M_y,b,Rd=850.35$ $M_y,Ed/M_y,b,Rd=0.01$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 15 - Classe 3
Sollecitazioni: $N,Ed=-1021.96$ $Myeq,Ed=-4.43$
Resistenze: $N_{c,Rd}=41475.40$ $M_y,c,Rd=425.17$ $L=160.03$
 $\lambda_y=65.94$ $N_{cr,y}=116936.00$ $\lambda^*_y=0.86$ Curva b: $\Phi_y=0.99$ $\chi_y=0.68$
 $\lambda_{zeq}=43.59$ $N_{cr,z}=267644.00$ $\lambda^*_z=0.57$ Curva b: $\Phi_z=0.73$ $\chi_z=0.85$
 $\chi_{min}=0.68$
Verifica: $0.01 + 0.01 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.03$ (L/5069) $f_{z,G}=0.02$ (L/6835)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.07$ (L/2281) $f_{z,G}=0.05$ (L/3064)
- Verifica in termini tensionali (4.2.5) - CC 15 $Xl=0.80$ - Classe 3
Sollecitazioni: $N=-1008.43$ $M_y=-5.91$
Tensioni: $\sigma_N=-41.10$ $\sigma_M=-9.22$ $\tau=0.00$ $\sigma_{max}=-50.33$
Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
Tensioni: $\sigma_N=-41.10$ $\sigma_M=-9.22$ $\tau=0.00$ $\sigma_{ID,max}=50.33$

Asta n. 803 (42 44) 2Ldx 80x80x8x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.19

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 15 - Classe 3
Sollecitazioni: $N,Ed=-1204.16$ $Myeq,Ed=-4.43$
Resistenze: $N_{c,Rd}=41475.40$ $M_y,c,Rd=425.17$ $L=160.03$
 $\lambda_y=65.94$ $N_{cr,y}=116936.00$ $\lambda^*_y=0.86$ Curva b: $\Phi_y=0.99$ $\chi_y=0.68$
 $\lambda_{zeq}=43.59$ $N_{cr,z}=267644.00$ $\lambda^*_z=0.57$ Curva b: $\Phi_z=0.73$ $\chi_z=0.85$
 $\chi_{min}=0.68$
Verifica: $0.01 + 0.01 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,L}=0.03$ (L/6073) $f_{z,G}=0.02$ (L/8106)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.06$ (L/2824) $f_{z,G}=0.04$ (L/3741)

- Verifica in termini tensionali (4.2.5) - CC 15 $X_l=0.80$ - Classe 3

Sollecitazioni: $N=-1190.62$ $M_y=-5.91$

Tensioni: $\sigma_N=-48.53$ $\sigma_M=-9.22$ $\tau=0.00$ $\sigma_{max}=-57.75$

Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$

Tensioni: $\sigma_N=-48.53$ $\sigma_M=-9.22$ $\tau=0.00$ $\sigma_{ID,max}=57.75$

Asta n. 813 (-529 25) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3

$L_{cr}=2.69$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 9 $M_y, Ed=-12.60$ $M_y, b, Rd=351.06$ $M_y, Ed/M_y, b, Rd=0.04$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3

Sollecitazioni: $N, Ed=-640.86$ $M_{y,eq}, Ed=-6.54$

Resistenze: $N_c, Rd=23488.70$ $M_y, c, Rd=175.53$ $L=269.14$

$\lambda_y=149.63$ $N_{cr,y}=12862.30$ $\lambda^*_y=1.96$ Curva b: $\Phi_y=2.72$ $\chi_y=0.22$

$\lambda_{z,eq}=95.47$ $N_{cr,z}=31594.20$ $\lambda^*_z=1.25$ Curva b: $\Phi_z=1.46$ $\chi_z=0.45$

$\chi_{min}=0.22$

Verifica: $0.01 + 0.02 = 0.03$

- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,G}=0.02$ (L/14584) $f_{z,L}=0.02$ (L/16798)

- Verifica freccia massima carichi totali - CC 22

$f_{z,G}=0.10$ (L/2711) $f_{z,L}=0.10$ (L/2745)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_l=1.35$ - Classe 3

Sollecitazioni: $N=4469.63$ $M_y=-12.60$

Tensioni: $\sigma_N=321.68$ $\sigma_M=121.37$ $\tau=0.00$ $\sigma_{max}=443.04$

Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$

Tensioni: $\sigma_N=321.68$ $\sigma_M=121.37$ $\tau=0.00$ $\sigma_{ID,max}=443.04$

Asta n. 818 (-529 44) 2Ldx 60x60x6x10x5x0x10 T Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.14

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3

$L_{cr}=2.69$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 9 $M_y, Ed=-12.60$ $M_y, b, Rd=351.06$ $M_y, Ed/M_y, b, Rd=0.04$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3

Sollecitazioni: $N, Ed=-626.61$ $M_{y,eq}, Ed=-6.54$

Resistenze: $N_c, Rd=23488.70$ $M_y, c, Rd=175.53$ $L=269.14$

$\lambda_y=149.63$ $N_{cr,y}=12862.30$ $\lambda^*_y=1.96$ Curva b: $\Phi_y=2.72$ $\chi_y=0.22$

$\lambda_{z,eq}=95.47$ $N_{cr,z}=31594.20$ $\lambda^*_z=1.25$ Curva b: $\Phi_z=1.46$ $\chi_z=0.45$

$\chi_{min}=0.22$

Verifica: $0.01 + 0.02 = 0.03$

- Verifica freccia massima per soli carichi accidentali - CC 22

$f_{z,G}=0.03$ (L/9731) $f_{z,L}=0.03$ (L/10599)

- Verifica freccia massima carichi totali - CC 22

$f_{z,G}=0.11$ (L/2382) $f_{z,L}=0.11$ (L/2404)

- Verifica in termini tensionali (4.2.5) - CC 12 $X_l=1.35$ - Classe 3

Sollecitazioni: $N=4503.19$ $M_y=-12.60$

Tensioni: $\sigma_N=324.09$ $\sigma_M=121.37$ $\tau=0.00$ $\sigma_{max}=445.46$

Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$

Tensioni: $\sigma_N=324.09$ $\sigma_M=121.37$ $\tau=0.00$ $\sigma_{ID,max}=445.46$

Asta n. 1201 (5 20) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3

$L_{cr}=1.77$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 12 My,Ed=38.16 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.01

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/8110) $f_{z,G}=0.02$ (L/9200)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.05$ (L/3749) $f_{z,G}=0.04$ (L/4267)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=1.29 - Classe 3
Sollecitazioni: $N=-1679.96$ $T_z=23.33$ $M_y=28.87$ $T_y=52.82$ $M_z=68.09$ $M_x=-18.88$
Tensioni: $\sigma_N=-30.50$ $\sigma_M=-33.78$ $\tau=0.00$ $\sigma_{max}=-64.28$
Tensioni: $\sigma_N=-30.50$ $\sigma_M=-0.00$ $\tau=1.13$ $\tau_{max}=1.13$
Tensioni: $\sigma_N=-30.50$ $\sigma_M=-33.78$ $\tau=0.00$ $\sigma_{ID,max}=64.28$

Asta n. 1201 (20 21) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=1.22$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.62$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 12 My,Ed=-242.88 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.08
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/8197) $f_{z,G}=0.01$ (L/9442)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.03$ (L/3652) $f_{z,G}=0.03$ (L/4206)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=1.22 - Classe 3
Sollecitazioni: $N=2234.96$ $T_z=236.21$ $M_y=-236.96$ $T_y=136.33$ $M_z=8.12$ $M_x=19.08$
Tensioni: $\sigma_N=40.57$ $\sigma_M=277.25$ $\tau=0.00$ $\sigma_{max}=317.82$
Tensioni: $\sigma_N=40.57$ $\sigma_M=0.00$ $\tau=11.41$ $\tau_{max}=11.41$
Tensioni: $\sigma_N=40.57$ $\sigma_M=277.25$ $\tau=0.00$ $\sigma_{ID,max}=317.82$

Asta n. 1201 (21 23) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=0.49$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.30$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 12 My,Ed=480.08 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.17
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/3022) $f_{z,G}=0.01$ (L/3437)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/1393) $f_{z,G}=0.03$ (L/1588)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.49 - Classe 3
Sollecitazioni: $N=-843.55$ $T_z=-1397.97$ $M_y=462.07$ $T_y=162.41$ $M_z=72.11$ $M_x=19.08$
Tensioni: $\sigma_N=-15.31$ $\sigma_M=-540.63$ $\tau=0.00$ $\sigma_{max}=-555.94$
Tensioni: $\sigma_N=-15.31$ $\sigma_M=-0.00$ $\tau=67.55$ $\tau_{max}=67.55$
Tensioni: $\sigma_N=-15.31$ $\sigma_M=-540.63$ $\tau=0.00$ $\sigma_{ID,max}=555.94$

Asta n. 1203 (39 49) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.77$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 My,Ed=-15.43 My,b,Rd=2889.65 My,Ed/My,b,Rd=0.01
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 5 - Classe 3
Sollecitazioni: $N_{Ed}=-2130.56$ $M_{yEq,Ed}=22.85$
Resistenze: $N_{c,Rd}=93116.40$ $M_{y,c,Rd}=1444.83$ $L=177.23$
 $\lambda_y=48.51$ $N_{cr,y}=485184.00$ $\lambda^*_y=0.63$ Curva b: $\Phi_y=0.78$ $\chi_y=0.82$
 $\lambda_{zEq}=33.18$ $N_{cr,z}=1037010.00$ $\lambda^*_z=0.43$ Curva b: $\Phi_z=0.63$ $\chi_z=0.91$
 $\chi_{min}=0.82$
Verifica: $0.01 + 0.01 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/9132) $f_{z,G}=0.02$ (L/10324)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/4326) $f_{z,G}=0.04$ (L/4897)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=1.29 - Classe 3
Sollecitazioni: $N=-2104.11$ $T_z=25.07$ $M_y=29.04$ $T_y=80.29$ $M_z=103.50$ $M_x=19.49$
Tensioni: $\sigma_N=-38.20$ $\sigma_M=-33.98$ $\tau=0.00$ $\sigma_{max}=-72.18$
Tensioni: $\sigma_N=-38.20$ $\sigma_M=-0.00$ $\tau=1.21$ $\tau_{max}=1.21$
Tensioni: $\sigma_N=-38.20$ $\sigma_M=-33.98$ $\tau=0.00$ $\sigma_{ID,max}=72.18$

Asta n. 1203 (49 40) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 5 - Classe 3
 $L_{cr}=1.22$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.65$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 5 $M_y,Ed=-233.60$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.08$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/9843) $f_{z,G}=0.01$ (L/11330)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.03$ (L/4536) $f_{z,G}=0.02$ (L/5213)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=1.22 - Classe 3
Sollecitazioni: $N=2224.34$ $T_z=233.83$ $M_y=-233.60$ $T_y=214.65$ $M_z=183.69$ $M_x=-19.58$
Tensioni: $\sigma_N=40.38$ $\sigma_M=273.32$ $\tau=0.00$ $\sigma_{max}=313.70$
Tensioni: $\sigma_N=40.38$ $\sigma_M=0.00$ $\tau=11.30$ $\tau_{max}=11.30$
Tensioni: $\sigma_N=40.38$ $\sigma_M=273.32$ $\tau=0.00$ $\sigma_{ID,max}=313.70$

Asta n. 1203 (40 54) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 5 - Classe 3
 $L_{cr}=0.49$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.27$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 5 $M_y,Ed=432.79$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.15$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 3 - Classe 3
Sollecitazioni: $N,Ed=-86.15$ $M_{y,eq,Ed}=-96.67$
Resistenze: $N_{c,Rd}=93116.40$ $M_{y,c,Rd}=1444.83$ $L=48.85$
 $\lambda_y=13.37$ $N_{cr,y}=6385850.00$ $\lambda_y^*=0.17$ Curva b: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_{z,eq}=9.15$ $N_{cr,z}=13648800.00$ $\lambda_z^*=0.12$ Curva b: $\Phi_z=0.00$ $\chi_z=1.00$
 $\chi_{min}=1.00$
Verifica: $0.00 + 0.03 = 0.03$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.01$ (L/3523) $f_{z,G}=0.01$ (L/4002)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.03$ (L/1676) $f_{z,G}=0.03$ (L/1907)
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.49 - Classe 3
Sollecitazioni: $N=-1144.19$ $T_z=-1342.01$ $M_y=432.79$ $T_y=240.69$ $M_z=285.49$ $M_x=-19.58$
Tensioni: $\sigma_N=-20.77$ $\sigma_M=-506.37$ $\tau=0.00$ $\sigma_{max}=-527.14$
Tensioni: $\sigma_N=-20.77$ $\sigma_M=-0.00$ $\tau=64.85$ $\tau_{max}=64.85$
Tensioni: $\sigma_N=-20.77$ $\sigma_M=-506.37$ $\tau=0.00$ $\sigma_{ID,max}=527.14$

Asta n. 1219 (23 24) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.20

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=0.75$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.29$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 12 $M_y,Ed=493.54$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.17$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-107.12$ $M_{y,eq,Ed}=-35.09$
Resistenze: $N_{c,Rd}=93116.40$ $M_{y,c,Rd}=1444.83$ $L=75.16$
 $\lambda_y=20.57$ $N_{cr,y}=2697970.00$ $\lambda_y^*=0.27$ Curva b: $\Phi_y=0.55$ $\chi_y=0.98$
 $\lambda_{z,eq}=14.07$ $N_{cr,z}=5766520.00$ $\lambda_z^*=0.18$ Curva b: $\Phi_z=0.51$ $\chi_z=1.00$
 $\chi_{min}=0.98$
Verifica: $0.00 + 0.01 = 0.01$

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.00$ (L/23126)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.01$ (L/11536)
- Verifica in termini tensionali (4.2.5) - CC 5 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=-1003.05$ $T_z=899.12$ $M_y=462.90$ $T_y=97.55$ $M_z=-52.26$ $M_x=85.85$
Tensioni: $\sigma_N=-18.21$ $\sigma_M=-541.60$ $\tau=0.00$ $\sigma_{max}=-559.81$
Tensioni: $\sigma_N=-18.21$ $\sigma_M=-0.00$ $\tau=43.45$ $\tau_{max}=43.45$
Tensioni: $\sigma_N=-18.21$ $\sigma_M=-541.60$ $\tau=0.00$ $\sigma_{ID,max}=559.81$

Asta n. 1219 (24 25) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=1.23$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.50$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 12 $M_y,Ed=-254.99$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.09$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-170.13$ $M_{yeq,Ed}=14.65$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=123.18$
 $\lambda_y=33.71$ $N_{cr,y}=1004470.00$ $\lambda^*_y=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_{zeq}=23.06$ $N_{cr,z}=2146920.00$ $\lambda^*_z=0.30$ Curva b: $\Phi_z=0.56$ $\chi_z=0.96$
 $\chi_{min}=0.91$
Verifica: $0.00 + 0.01 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/5567)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.05$ (L/2500) $f_{z,G}=0.05$ (L/2572)
- Verifica in termini tensionali (4.2.5) - CC 12 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=3220.05$ $T_z=-294.36$ $M_y=-254.99$ $T_y=538.50$ $M_z=-92.46$ $M_x=10.49$
Tensioni: $\sigma_N=58.46$ $\sigma_M=298.35$ $\tau=0.00$ $\sigma_{max}=356.81$
Tensioni: $\sigma_N=58.46$ $\sigma_M=0.00$ $\tau=14.22$ $\tau_{max}=14.22$
Tensioni: $\sigma_N=58.46$ $\sigma_M=298.35$ $\tau=0.00$ $\sigma_{ID,max}=356.81$

Asta n. 1219 (25 26) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.80$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.12$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-13.46$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.00$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: $N,Ed=-1270.95$ $M_{yeq,Ed}=-80.31$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=179.55$
 $\lambda_y=49.14$ $N_{cr,y}=472765.00$ $\lambda^*_y=0.64$ Curva b: $\Phi_y=0.78$ $\chi_y=0.81$
 $\lambda_{zeq}=33.61$ $N_{cr,z}=1010470.00$ $\lambda^*_z=0.44$ Curva b: $\Phi_z=0.64$ $\chi_z=0.91$
 $\chi_{min}=0.81$
Verifica: $0.01 + 0.03 = 0.03$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.03$ (L/6447) $f_{z,G}=0.03$ (L/6784)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.06$ (L/2816) $f_{z,G}=0.06$ (L/2957)
- Verifica in termini tensionali (4.2.5) - CC 5 $X_1=1.80$ - Classe 3
Sollecitazioni: $N=1085.34$ $T_z=90.19$ $M_y=-70.28$ $T_y=-110.83$ $M_z=-13.49$ $M_x=-29.14$
Tensioni: $\sigma_N=19.70$ $\sigma_M=82.23$ $\tau=0.00$ $\sigma_{max}=101.94$
Tensioni: $\sigma_N=19.70$ $\sigma_M=0.00$ $\tau=4.36$ $\tau_{max}=4.36$
Tensioni: $\sigma_N=19.70$ $\sigma_M=82.23$ $\tau=0.00$ $\sigma_{ID,max}=101.94$

Asta n. 1219 (26 17) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.05$ (L/3801) $f_{z,G}=0.05$ (L/3955)

- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.12$ (L/1695) $f_{z,G}=0.11$ (L/1761)
- Verifica in termini tensionali (4.2.5) - CC 12 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=1638.34$ $T_z=-94.59$ $M_y=-81.82$ $T_y=31.90$ $M_z=-62.93$
Tensioni: $\sigma_N=29.74$ $\sigma_M=95.74$ $\tau=0.00$ $\sigma_{max}=125.48$
Tensioni: $\sigma_N=29.74$ $\sigma_M=0.00$ $\tau=4.57$ $\tau_{max}=4.57$
Tensioni: $\sigma_N=29.74$ $\sigma_M=95.74$ $\tau=0.00$ $\sigma_{ID,max}=125.48$

Asta n. 1221 (54 41) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.20

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 5 - Classe 3
 $L_{cr}=0.75$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.30$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 5 $M_y,Ed=441.54$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.15$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-134.12$ $M_{y,eq,Ed}=-39.40$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=75.16$
 $\lambda_y=20.57$ $N_{cr,y}=2697970.00$ $\lambda_y^*=0.27$ Curva b: $\Phi_y=0.55$ $\chi_y=0.98$
 $\lambda_{z,eq}=14.07$ $N_{cr,z}=5766520.00$ $\lambda_z^*=0.18$ Curva b: $\Phi_z=0.51$ $\chi_z=1.00$
 $\chi_{min}=0.98$
Verifica: $0.00 + 0.01 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 24
 $f_{z,L}=0.00$ (L/22044)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.00$ (L/16024)
- Verifica in termini tensionali (4.2.5) - CC 5 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=-1139.25$ $T_z=839.99$ $M_y=441.54$ $T_y=-341.29$ $M_z=354.64$ $M_x=-83.87$
Tensioni: $\sigma_N=-20.68$ $\sigma_M=-516.61$ $\tau=0.00$ $\sigma_{max}=-537.29$
Tensioni: $\sigma_N=-20.68$ $\sigma_M=-0.00$ $\tau=40.59$ $\tau_{max}=40.59$
Tensioni: $\sigma_N=-20.68$ $\sigma_M=-516.61$ $\tau=0.00$ $\sigma_{ID,max}=537.29$

Asta n. 1221 (41 44) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 5 - Classe 3
 $L_{cr}=1.23$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.66$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 5 $M_y,Ed=-223.41$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.08$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 13 - Classe 3
Sollecitazioni: $N,Ed=-208.53$ $M_{y,eq,Ed}=17.39$
Resistenze: $N_c,Rd=93116.40$ $M_y,c,Rd=1444.83$ $L=123.18$
 $\lambda_y=33.71$ $N_{cr,y}=1004470.00$ $\lambda_y^*=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_{z,eq}=23.06$ $N_{cr,z}=2146920.00$ $\lambda_z^*=0.30$ Curva b: $\Phi_z=0.56$ $\chi_z=0.96$
 $\chi_{min}=0.91$
Verifica: $0.00 + 0.01 = 0.01$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/6548)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/3019) $f_{z,G}=0.04$ (L/3116)
- Verifica in termini tensionali (4.2.5) - CC 5 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=3348.61$ $T_z=-223.32$ $M_y=-223.41$ $T_y=-315.04$ $M_z=98.13$ $M_x=-83.87$
Tensioni: $\sigma_N=60.79$ $\sigma_M=261.39$ $\tau=0.00$ $\sigma_{max}=322.19$
Tensioni: $\sigma_N=60.79$ $\sigma_M=0.00$ $\tau=10.79$ $\tau_{max}=10.79$
Tensioni: $\sigma_N=60.79$ $\sigma_M=261.39$ $\tau=0.00$ $\sigma_{ID,max}=322.19$

Asta n. 1221 (44 46) 2L120*12 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.28

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 13 - Classe 3
 $L_{cr}=1.80$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.74$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 13 $M_y,Ed=-16.50$ $M_y,b,Rd=2889.65$ $M_y,Ed/M_y,b,Rd=0.01$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 1 - Classe 3
Sollecitazioni: $N, Ed = -2459.27$ $My, Ed = 44.46$
Resistenze: $N, Rd = 93116.40$ $My, c, Rd = 1444.83$ $L = 179.55$
 $\lambda_y = 49.14$ $Ncr, y = 472765.00$ $\lambda^*_y = 0.64$ Curva b: $\Phi_y = 0.78$ $\chi_y = 0.81$
 $\lambda_{zeq} = 33.61$ $Ncr, z = 1010470.00$ $\lambda^*_z = 0.44$ Curva b: $\Phi_z = 0.64$ $\chi_z = 0.91$
 $\chi_{min} = 0.81$
Verifica: $0.01 + 0.02 = 0.03$
- Verifica freccia massima per soli carichi accidentali - CC 22
 $f_{z,L} = 0.02$ (L/8367) $f_{z,G} = 0.02$ (L/8880)
- Verifica freccia massima carichi totali - CC 22
 $f_{z,L} = 0.05$ (L/3830) $f_{z,G} = 0.04$ (L/4061)
- Verifica in termini tensionali (4.2.5) - CC 1 $X1 = 0.00$ - Classe 3
Sollecitazioni: $N = -2436.99$ $T_z = -74.13$ $M_y = 44.46$ $T_y = 79.42$ $M_z = -138.52$ $M_x = 20.35$
Tensioni: $\sigma_N = -44.24$ $\sigma_M = -52.02$ $\tau = 0.00$ $\sigma_{max} = -96.27$
Tensioni: $\sigma_N = -44.24$ $\sigma_M = -0.00$ $\tau = 3.58$ $\tau_{max} = 3.58$
Tensioni: $\sigma_N = -44.24$ $\sigma_M = -52.02$ $\tau = 0.00$ $\sigma_{ID, max} = 96.27$

Membratura

Asta n. 204 (5 -30 39) 2*UNP160 Crit. 1

-
- Si assume un interasse imbottiture pari a 0.23 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 25
 $f_{z,G} = 0.00$ (L/140159)
 - Verifica Freccia massima carichi totali - CC 25
 $f_{z,L} = 0.00$ (L/86600)

Membratura

Asta n. 209 (16 -528 47) 2*UNP160 Crit. 1

-
- Si assume un interasse imbottiture pari a 0.23 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L} = 0.02$ (L/26403)
 - Verifica Freccia massima carichi totali - CC 22
 $f_{z,G} = 0.04$ (L/10047)

Membratura

Asta n. 220 (-528 130 -533) 2L120*12 Crit. 1

-
- Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,G} = 0.61$ (L/419)
 - Verifica Freccia massima carichi totali - CC 22
 $f_{z,G} = 1.19$ (L/213)

Membratura

Asta n. 237 (5 19 13 22 14 15 16 17 18) 2L120*12 Crit. 1

-
- Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica di stabilità (4.2.4.1.3.1) - CC 5
Sollecitazioni: $N = -1877.11$ $L = 923.00$
 $\lambda_y = 252.62$ $Ncr, y = 17889.40$ $\lambda^*_y = 3.31$
Curva b: $\Phi_y = 6.49$ $\chi_y = 0.08$
 $\lambda_{zeq} = 172.79$ $Ncr, z = 38236.00$ $\lambda^*_z = 2.26$
Curva b: $\Phi_z = 3.41$ $\chi_z = 0.17$
 $\chi_{min} = 0.08$ $N, Ed = -1877.11$ $Nb, Rd = 15413.90$ $N, Ed/Nb, Rd = 0.12$
 - Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,G} = 0.17$ (L/5573)
 - Verifica Freccia massima carichi totali - CC 22
 $f_{z,G} = 0.37$ (L/2491)

Membratura

Asta n. 239 (39 53 43 52 42 45 47) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.08$ (L/8690)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.17$ (L/4023)

Membratura

Asta n. 427 (26 -529 46) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.02$ (L/25995)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.04$ (L/9934)

Membratura

Asta n. 1201 (5 20 21 23) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.05$ (L/6587) $f_{z,G}=0.05$ (L/7508)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.12$ (L/3011) $f_{z,G}=0.10$ (L/3440)

Membratura

Asta n. 1203 (39 49 40 54) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.05$ (L/7632) $f_{z,G}=0.04$ (L/8658)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.10$ (L/3593) $f_{z,G}=0.09$ (L/4086)

Membratura

Asta n. 1219 (23 24 25 26 17) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.10$ (L/5648) $f_{z,G}=0.10$ (L/5881)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.23$ (L/2507) $f_{z,G}=0.22$ (L/2607)

Membratura

Asta n. 1221 (54 41 44 46) 2L120*12 Crit. 1

Si assume un interasse imbottiture pari a 0.28 <m>
- Verifica Freccia massima per soli carichi accidentali - CC 22
 $f_{z,L}=0.04$ (L/9383) $f_{z,G}=0.04$ (L/9820)

- Verifica Freccia massima carichi totali - CC 22
 $f_{z,L}=0.09$ (L/4310) $f_{z,G}=0.08$ (L/4512)

VERIFICA PILASTRI

Sezione: 4L 120x120x12

Caratteristiche sezione resistente:

A=	115.2 cm ²	Area sezione resistente
A _y =	60 cm ²	Area resistente a taglio dir y
A _z =	60 cm ²	Area resistente a taglio dir z
W _y =	256 cm ³	Modulo di resistenza direzione y
W _z =	256 cm ³	Modulo di resistenza direzione z
f _{yk} =	2750 kg/cm ²	Resistenza caratteristica di snervamento
γ _m =	1.05	Coefficiente di sicurezza materiale
f _{yk} /γ _m =	2619 kg/cm ²	

σ=N/A+M_z/W_z+M_y/W_y= Tensione normale

τ=T_y/A_y+T_z/A_z= Tensione tangenziale

σ_{id}=(σ²+3τ²)^{0.5}= Tensione ideale

CS=(f_{yk}/γ_m)/σ_{id}= Coefficiente di sicurezza

Tabella di verica:

		N _{max}	N _{min}	T _y _{max}	M _z _{max}	T _z _{max}	M _y _{max}
cc		12	1	5	5	1	1
N=	(kg)	4751	-1602	2659	2393	3714	3714
T _y =	(kg)	515	60	2558	2306	118	118
M _z =	(kgm)	1153	23	3022	3386	50	50
T _z =	(kg)	75	1173	162	96	1195	1195
M _y =	(kgm)	193	1354	76	140	2144	2144

σ=	(kg/cm ²)	567	524	1233	1398	889	889
τ=	(kg/cm ²)	10	21	45	40	22	22
σ _{id} =	(kg/cm ²)	567	525	1236	1400	890	890
CS=		4.62	4.99	2.12	1.87	2.94	2.94

Verifiche aste in legno

Caratteristiche sezioni utilizzate

Sez.	= Numero della sezione
Cod.	= Codice della sezione
Tipo	= tipo di sezione:
	R = Rettangolare
	Cir. = Circolare
Area	= area della sezione
J_y, J_z	= momenti d'inerzia intorno agli assi Y, Z
I_y, I_z	= raggi d'inerzia intorno agli assi Y, Z
W_y, W_z	= moduli di resistenza intorno agli assi Y, Z

Verifiche di resistenza e stabilità

x _l	= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica <m>
N	= sforzo normale <daN>
M_y, M_z	= momenti flettenti intorno agli assi Y e Z <daNm>
T_y, T_z	= tagli in direzione Y e Z <daN>
σ_N, σ_M	= tensione per sforzo normale e per momento flettente <daN/cm ² >
τ	= tensione per taglio <daN/cm ² >
σ_{Rd}	= tensione resistente per flessione <daN/cm ² >
K_h	= coefficiente moltiplicativo per sezioni piccole (flessione)
K_m	= coefficiente di forma
K_{mod}	= coefficiente di durata dei carichi/umidità del legno
σ_{RdC}	= tensione resistente per compressione <daN/cm ² >
σ_{RdT}	= tensione resistente per trazione <daN/cm ² >
K_1	= coefficiente moltiplicativo per sezioni piccole (trazione)
τ_{Rd}	= tensione resistente per taglio <daN/cm ² >
L _{tors}	= distanza fra ritegni torsionali 228
$\lambda_{rel,m}$	= snellezza per instabilità flessione-torsionale
K_{crit}	= coefficiente per instabilità flessione-torsionale
$M_{max,Y}, M_{max,Z}$	= momenti massimi agenti intorno agli assi Y e Z <daNm>
$M_{eqx,Y}, M_{eqx,Z}$	= momenti equivalenti intorno agli assi Y e Z <daNm>

Verifiche di deformabilità

$f_{Z,L}$	= freccia in direzione Z locale <cm>
$f_{Z,G}$	= freccia in direzione Z globale <cm>

Caratteristiche sezioni utilizzate

Sez.	Cod.	Tipo	Area	Jy	Jz	Iy	Iz	Wymin	Wzmin
			<cm ² >	<cm ⁴ >	<cm ⁴ >	<cm ² >	<cm ² >	<cm ³ >	<cm ³ >
7 R	20x20	T R	400.00	13333.30	13333.30	5.77	5.77	1333.33	1333.33

Asta n. 304 (72 73) R 20x20 T Crit. 1

-
- Verifica Tensioni per flessione e compressione o flessione semplice - CC 1 SLV Xl=2.00
Sollecitazioni: N=-21.46 T_z=0.00 M_y=-202.91 T_y=0.00 M_z=103.39
Resistenze: σ_{Rd} =186.67 K_m =0.70 K_{mod} =1.00
 σ_{RdC} =146.67 K_h =1.00 σ_{RdT} =113.33 K_1 =1.00 τ_{Rd} =13.33
Tensioni: σ_N =-0.05 σ_M =-22.97 Sfr.=0.11
 - Verifica Tensioni per flessione e trazione - CC 14 SLU Xl=2.00
Sollecitazioni: N=40.93 T_z=0.00 M_y=-777.21 T_y=0.00 M_z=176.33
Resistenze: σ_{Rd} =149.33 K_m =0.70 K_{mod} =0.80
 σ_{RdC} =117.33 K_h =1.00 σ_{RdT} =90.67 K_1 =1.00 τ_{Rd} =10.67
Tensioni: σ_N =0.10 σ_M =71.52 Sfr.=0.45
 - Verifica Tensioni per taglio - CC 14 SLU Xl=0.00
Sollecitazioni: N=40.93 T_z=775.27 M_y=0.00 T_y=175.89 M_z=0.00
Resistenze: σ_{Rd} =149.33 K_m =0.70 K_{mod} =0.80
 σ_{RdC} =117.33 K_h =1.00 σ_{RdT} =90.67 K_1 =1.00 τ_{Rd} =10.67
Tensioni: τ =2.98 Sfr.=0.28
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 14 SLU
Sollecitazioni: N=40.93 M_{max,Y}=-777.21 M_{eq,Y}=-582.91 M_{max,Z}=176.33 M_{eq,Z}=132.25
Resistenze: σ_{Rd} =149.33 K_m =0.70 K_{mod} =0.80
 σ_{RdC} =117.33 K_h =1.00 σ_{RdT} =90.67 K_1 =1.00 τ_{Rd} =10.67

Ltors=401.00 $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.10$ $\sigma_M=53.64$ Sfr.=0.34

- Verifica Freccia massima - CC 24
 $f_{z,g}=0.88$ (L/454) $f_{z,L}=0.88$ (L/456)

Asta n. 310 (-534 75) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 12 SLU $Xl=0.00$
Sollecitazioni: $N=-4.42$ $T_z=-892.97$ $M_y=-529.91$ $T_y=256.06$ $M_z=-151.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.01$ $\sigma_M=51.14$ Sfr.=0.32

- Verifica Tensioni per flessione e trazione - CC 1 SLV $Xl=0.00$
Sollecitazioni: $N=32.19$ $T_z=-280.84$ $M_y=-194.13$ $T_y=142.83$ $M_z=-180.58$
Resistenze: $\sigma_{Rd}=186.67$ $K_m=0.70$ $K_{mod}=1.00$
 $\sigma_{Rdc}=146.67$ $K_h=1.00$ $\sigma_{RdT}=113.33$ $K_1=1.00$ $\tau_{Rd}=13.33$
Tensioni: $\sigma_N=0.08$ $\sigma_M=28.10$ Sfr.=0.13

- Verifica Tensioni per taglio - CC 12 SLU $Xl=0.00$
Sollecitazioni: $N=-4.42$ $T_z=-892.97$ $M_y=-529.91$ $T_y=256.06$ $M_z=-151.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.48$ Sfr.=0.33

- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
Sollecitazioni: $N=-4.42$ $M_{max,y}=-529.91$ $M_{eq,y}=-397.43$ $M_{max,z}=-151.95$ $M_{eq,z}=-113.96$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=200.50 $\lambda_{rel,m}=0.19$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.01$ $\sigma_M=-38.35$ Sfr.=0.24

- Verifica Freccia massima - CC 22
 $f_{z,g}=1.15$ (L/174) $f_{z,L}=1.10$ (L/182)

Asta n. 310 (-526 -534) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 12 SLU $Xl=1.30$
Sollecitazioni: $N=0.00$ $T_z=815.24$ $M_y=-529.91$ $T_y=-233.77$ $M_z=-151.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.00$ $\sigma_M=51.14$ Sfr.=0.32

- Verifica Tensioni per flessione e trazione - CC 1 SLV $Xl=1.30$
Sollecitazioni: $N=68.05$ $T_z=268.64$ $M_y=-194.13$ $T_y=-173.12$ $M_z=-180.59$
Resistenze: $\sigma_{Rd}=186.67$ $K_m=0.70$ $K_{mod}=1.00$
 $\sigma_{Rdc}=146.67$ $K_h=1.00$ $\sigma_{RdT}=113.33$ $K_1=1.00$ $\tau_{Rd}=13.33$
Tensioni: $\sigma_N=0.17$ $\sigma_M=28.10$ Sfr.=0.13

- Verifica Tensioni per taglio - CC 12 SLU $Xl=1.30$
Sollecitazioni: $N=0.00$ $T_z=815.24$ $M_y=-529.91$ $T_y=-233.77$ $M_z=-151.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.18$ Sfr.=0.30

- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=-529.91$ $M_{eq,y}=-397.43$ $M_{max,z}=-151.95$ $M_{eq,z}=-113.96$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=130.00 $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=38.35$ Sfr.=0.24

- Verifica Freccia massima - CC 22
 $f_{z,g}=1.06$ (L/122) $f_{z,L}=1.02$ (L/127)

Asta n. 509 (-527 71) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 1 SLV $Xl=1.24$
Sollecitazioni: $N=-74.09$ $T_z=34.73$ $M_y=-175.17$ $T_y=26.74$ $M_z=415.92$
Resistenze: $\sigma_{Rd}=186.67$ $K_m=0.70$ $K_{mod}=1.00$
 $\sigma_{Rdc}=146.67$ $K_h=1.00$ $\sigma_{RdT}=113.33$ $K_1=1.00$ $\tau_{Rd}=13.33$
Tensioni: $\sigma_N=-0.19$ $\sigma_M=-44.33$ Sfr.=0.22

- Verifica Tensioni per flessione e trazione - CC 12 SLU $X_l=1.32$
Sollecitazioni: $N=58.63$ $T_z=1.83$ $M_y=-392.66$ $T_y=6.37$ $M_z=1369.36$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.15$ $\sigma_M=132.15$ $Sfr.=0.83$
- Verifica Tensioni per taglio - CC 15 SLU $X_l=3.31$
Sollecitazioni: $N=41.83$ $T_z=-206.48$ $M_y=0.00$ $T_y=-1471.95$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=5.57$ $Sfr.=0.52$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
Sollecitazioni: $N=58.63$ $M_{max,y}=-392.66$ $M_{eq,y}=-294.49$ $M_{max,z}=1369.36$ $M_{eq,z}=1027.02$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=330.50$ $\lambda_{rel,m}=0.25$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.15$ $\sigma_M=99.11$ $Sfr.=0.62$
- Verifica Freccia massima - CC 25
 $f_{z,g}=1.65$ (L/199) $f_{z,L}=0.26$ (L/1293)

Asta n. 509 (70 -527) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 1 SLV $X_l=0.70$
Sollecitazioni: $N=-26.06$ $T_z=216.15$ $M_y=-160.19$ $T_y=311.33$ $M_z=246.70$
Resistenze: $\sigma_{Rd}=186.67$ $K_m=0.70$ $K_{mod}=1.00$
 $\sigma_{RdC}=146.67$ $K_h=1.00$ $\sigma_{RdT}=113.33$ $K_1=1.00$ $\tau_{Rd}=13.33$
Tensioni: $\sigma_N=-0.07$ $\sigma_M=-30.52$ $Sfr.=0.14$
- Verifica Tensioni per flessione e trazione - CC 15 SLU $X_l=0.70$
Sollecitazioni: $N=41.83$ $T_z=139.01$ $M_y=-111.50$ $T_y=972.27$ $M_z=825.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.10$ $\sigma_M=70.29$ $Sfr.=0.46$
- Verifica Tensioni per taglio - CC 15 SLU $X_l=0.00$
Sollecitazioni: $N=41.83$ $T_z=177.29$ $M_y=0.00$ $T_y=1370.17$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=5.18$ $Sfr.=0.49$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 15 SLU
Sollecitazioni: $N=41.83$ $M_{max,y}=-111.50$ $M_{eq,y}=-83.62$ $M_{max,z}=825.71$ $M_{eq,z}=619.28$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=70.50$ $\lambda_{rel,m}=0.12$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.10$ $\sigma_M=52.72$ $Sfr.=0.34$
- Verifica Freccia massima - CC 25
 $f_{z,g}=0.91$ (L/77) $f_{z,L}=0.15$ (L/472)

Asta n. 705 (61 64) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 13 SLU $X_l=2.00$
Sollecitazioni: $N=-6.33$ $T_z=0.00$ $M_y=205.07$ $T_y=0.00$ $M_z=-104.49$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.02$ $\sigma_M=-23.22$ $Sfr.=0.14$
- Verifica Tensioni per flessione e trazione - CC 12 SLU $X_l=2.00$
Sollecitazioni: $N=44.78$ $T_z=0.00$ $M_y=-1123.35$ $T_y=0.00$ $M_z=572.37$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.11$ $\sigma_M=127.18$ $Sfr.=0.77$
- Verifica Tensioni per taglio - CC 14 SLU $X_l=4.01$
Sollecitazioni: $N=21.66$ $T_z=-1269.63$ $M_y=0.00$ $T_y=-308.25$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=4.90$ $Sfr.=0.46$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
Sollecitazioni: $N=44.78$ $M_{max,y}=-1123.35$ $M_{eq,y}=-842.51$ $M_{max,z}=572.37$ $M_{eq,z}=429.28$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=401.00 $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.11$ $\sigma_M=95.38$ Sfr.=0.58

- Verifica Freccia massima - CC 24
 $f_{z,g}=1.46$ (L/274) $f_{z,L}=1.43$ (L/280)

Asta n. 908 (62 63) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 12 SLU $X_l=2.00$
 Sollecitazioni: $N=-113.39$ $T_z=0.00$ $M_y=-395.45$ $T_y=0.00$ $M_z=1379.10$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.28$ $\sigma_M=-133.09$ Sfr.=0.83

- Verifica Tensioni per flessione e trazione - CC 13 SLU $X_l=2.00$
 Sollecitazioni: $N=15.96$ $T_z=0.00$ $M_y=86.43$ $T_y=0.00$ $M_z=-301.41$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.04$ $\sigma_M=29.09$ Sfr.=0.18

- Verifica Tensioni per taglio - CC 15 SLU $X_l=4.01$
 Sollecitazioni: $N=-80.93$ $T_z=-204.79$ $M_y=0.00$ $T_y=-1466.08$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=5.55$ Sfr.=0.52

- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
 Sollecitazioni: $N=-113.39$ $M_{max,y}=-395.45$ $M_{eq,y}=-296.59$ $M_{max,z}=1379.10$ $M_{eq,z}=1034.33$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=401.00 $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.28$ $\sigma_M=-99.82$ Sfr.=0.63

- Verifica Freccia massima - CC 25
 $f_{z,g}=1.67$ (L/239) $f_{z,L}=0.28$ (L/1434)

Asta n. 1306 (67 69) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 13 SLU $X_l=2.00$
 Sollecitazioni: $N=-286.28$ $T_z=0.00$ $M_y=95.41$ $T_y=0.00$ $M_z=-48.61$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.72$ $\sigma_M=-10.80$ Sfr.=0.07

- Verifica Tensioni per flessione e trazione - CC 12 SLU $X_l=2.00$
 Sollecitazioni: $N=2029.96$ $T_z=0.00$ $M_y=-629.00$ $T_y=0.00$ $M_z=320.49$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=5.07$ $\sigma_M=71.21$ Sfr.=0.48

- Verifica Tensioni per taglio - CC 12 SLU $X_l=4.01$
 Sollecitazioni: $N=2029.96$ $T_z=-627.43$ $M_y=0.00$ $T_y=-319.69$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=2.64$ Sfr.=0.25

- Verifica σ_{max} per stabilità flessio-torsionale - CC 12 SLU
 Sollecitazioni: $N=2029.96$ $M_{max,y}=-629.00$ $M_{eq,y}=-471.75$ $M_{max,z}=320.49$ $M_{eq,z}=240.37$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=401.00 $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=5.07$ $\sigma_M=53.41$ Sfr.=0.38

- Verifica Freccia massima - CC 22
 $f_{z,g}=0.83$ (L/481) $f_{z,L}=0.74$ (L/540)

Asta n. 1307 (65 68) R 20x20 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 12 SLU $X_l=2.00$
 Sollecitazioni: $N=-440.38$ $T_z=0.00$ $M_y=-231.77$ $T_y=0.00$ $M_z=808.29$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N = -1.10$ $\sigma_M = -78.00$ Sfr. = 0.49

- Verifica Tensioni per flessione e trazione - CC 13 SLU $X_l = 2.00$
Sollecitazioni: $N = 61.15$ $T_z = 0.00$ $M_y = 44.17$ $T_y = 0.00$ $M_z = -154.02$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\sigma_N = 0.15$ $\sigma_M = 14.86$ Sfr. = 0.09

- Verifica Tensioni per taglio - CC 12 SLU $X_l = 4.01$
Sollecitazioni: $N = -440.38$ $T_z = -231.20$ $M_y = 0.00$ $T_y = -806.28$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\tau = 3.15$ Sfr. = 0.29

- Verifica σ_{max} per stabilità flessione-torsionale - CC 12 SLU
Sollecitazioni: $N = -440.38$ $M_{max,y} = -231.77$ $M_{eq,y} = -173.83$ $M_{max,z} = 808.29$ $M_{eq,z} = 606.22$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Ltors = 401.00 $\lambda_{rel,m} = 0.28$ $K_{crit} = 1.00$

Tensioni: $\sigma_N = -1.10$ $\sigma_M = -58.50$ Sfr. = 0.37

- Verifica Freccia massima - CC 22
 $f_{z,g} = 0.98$ (L/409) $f_{z,L} = 0.27$ (L/1493)

Geotecnica

Elenco colonne stratigrafiche

Colonna stratigrafica numero 1

Falda non presente

Simbologia

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

St. z Unità geotecnica Class.

<m>

1 0.00 1 Inc.

Elenco unità geotecniche

1 :

Classificazione: Incoerente

Pesi:

- Peso specifico del terreno naturale: $\gamma = 1800.00$ daN/mc

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

Parametri plastici:

- Angolo di attrito efficace: $\phi' = 30.00$ grad

- Coesione efficace: $c' = 0.00$

Caratteristiche litostatiche:

- Grado di sovraconsolidazione: OCR = 1.00

- Coeff. di spinta a riposo: $\kappa_0 = 0.50$

Report grafico complessivo

Colonna stratigrafica numero 1

Simbologia

St. = Strato
z = Profondità della superficie superiore dello strato
Unità geotecnica = Unità geotecnica
Class. = Classificazione
Coes. = Coesivo
Inc. = Incoerente
Roc. = Roccia
N. c. = Non classificato
 γ = Peso specifico del terreno naturale
 γ_{sat} = Peso specifico del terreno saturo
 D_r = Densità relativa
 I_p = Indice di plasticità
 ϕ' = Angolo di attrito efficace
 c' = Coesione efficace
 c_u = Coesione non drenata
OCR = Grado di sovraconsolidazione
 κ_0 = Coeff. di spinta a riposo
Crit. = Criterio di progetto

St.	z	Unità geotecnica	Class.	γ	γ_{sat}	D_r	I_p	ϕ'	c'	c_u	OCR	κ_0	Crit.
	<m>			<daN/mc>	<daN/mc>			<grad>	<daN/mq>	<daN/mq>			
1	0.00	1	Inc.	1800.00	1800.00			30.00	0.00		1.00		1

Simbologia

St. = Strato
z = Profondità della superficie superiore dello strato
E = Modulo elastico normale
G = Modulo elastico tangenziale
 k_j = Esponente del parametro tensionale
 ν = Coeff. di Poisson
 E_{ed} = Modulo edometrico
 E_u = Modulo elastico non drenato
Crit. = Criterio di progetto

St.	z	E	G	k_j	ν	E_{ed}	E_u	Crit.
	<m>	<daN/mq>	<daN/mq>			<daN/mq>	<daN/mq>	
1	0.00							1

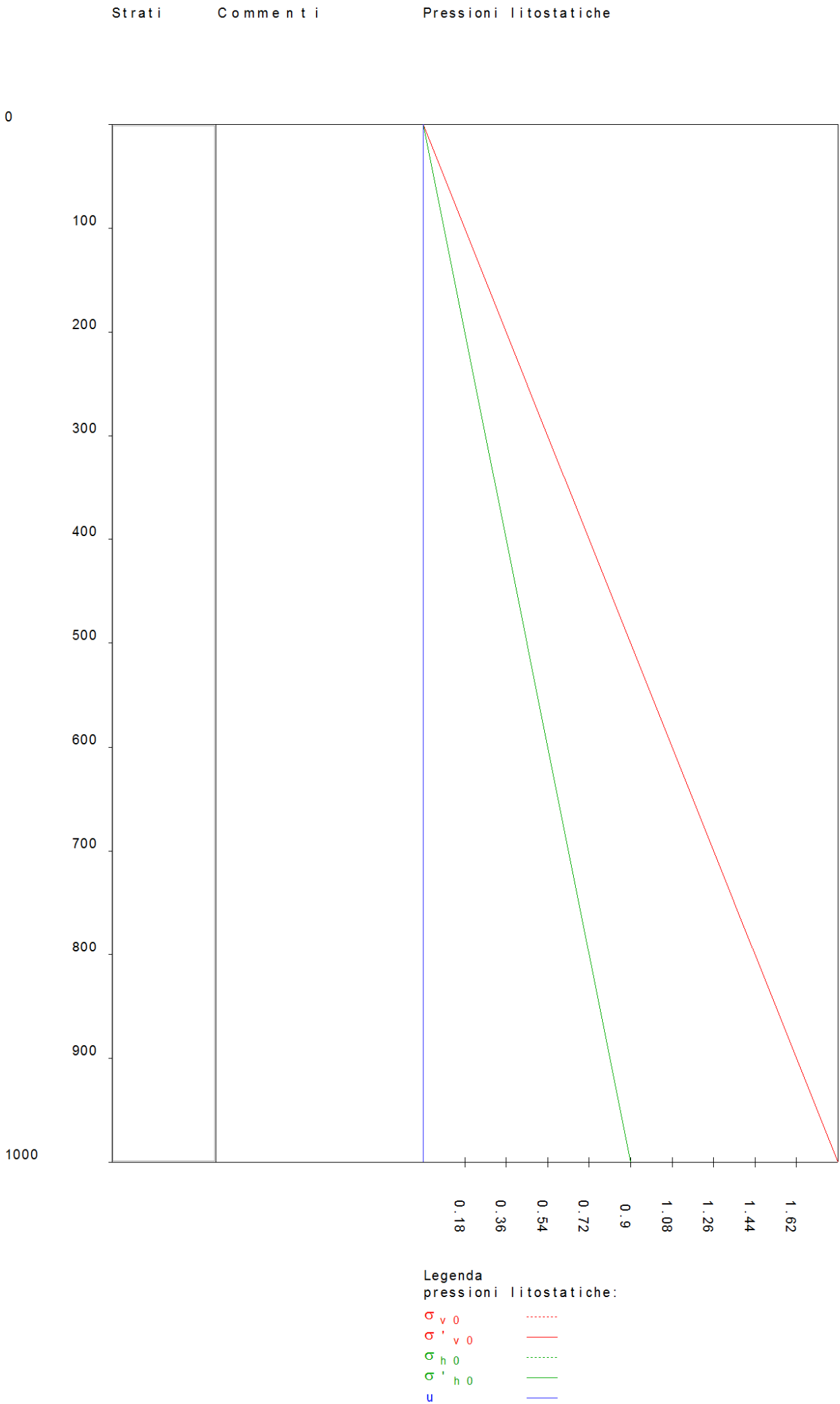


Figura numero 3: Colonna stratigrafica numero 1

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

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

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

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

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

Coefficienti parziali per i parametri geotecnici:

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

Coefficienti parziali per la resistenza delle fondazioni superficiali:

Capacità portante	$\gamma_R = 2.30;$
Scorrimento	$\gamma_R = 1.10;$

Fondazioni superficiali

Simbologia

B	= Base della fondazione
L	= Lunghezza della fondazione ($L > B$)
D	= Profondità del piano di posa della fondazione
β	= Inclinazione del piano di campagna
η	= Inclinazione del piano di posa della fondazione
γ_r	= Peso specifico rappresentativo del terreno di fondazione
$\sigma_{v0,f}$	= Pressione verticale alla profondità del piano di posa della fondazione
ϕ'_r	= Angolo di attrito rappresentativo del terreno di fondazione
c'_r	= Coesione efficace rappresentativa del terreno di fondazione
N_q	= Coefficiente di capacità portante relativo al sovraccarico laterale
N_c	= Coefficiente di capacità portante relativo alla coesione del terreno di fondazione
N_g	= Coefficiente di capacità portante relativo al peso del terreno di fondazione
b_q	= Fattore di inclinazione del piano di fondazione relativo a sovraccarico laterale
b_c	= Fattore di inclinazione del piano di fondazione relativo a coesione
b_g	= Fattore di inclinazione del piano di fondazione relativo a peso del terreno
CC	= Numero della combinazione delle condizioni di carico elementari
N	= Sforzo normale
T _x	= Taglio in dir. X
T _y	= Taglio in dir. Y
M _x	= Momento intorno all'asse X
M _y	= Momento intorno all'asse Y
B'	= Base della fondazione reagente
L'	= Lunghezza della fondazione reagente
s_q	= Fattore di forma relativo al sovraccarico laterale
s_c	= Fattore di forma relativo alla coesione
s_g	= Fattore di forma relativo al peso del terreno
i_q	= Fattore di inclinazione relativo al sovraccarico laterale
i_c	= Fattore di inclinazione relativo alla coesione
i_g	= Fattore di inclinazione relativo al peso del terreno
q_{lim}	= Pressione limite
R _d	= Resistenza di progetto (Carico limite)
Sic.	= Sicurezza a rottura

Verifiche capacità portante

Verifiche di capacità portante per rottura generale in condizioni statiche

Metodo utilizzato: Indicazioni EC7

Platea n. 1601

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>; $\beta=0.00$ <grad>; $\eta=0.00$ <grad>; $\gamma_r=1800.00$ <daN/mc>
 $\sigma_{v0,\varepsilon}=900.00$ <daN/mq>

Verifiche in condizioni drenate

$\phi'_r=30.00$ <grad>; $c'_r=0.00$ <daN/mq>;
 $N_q=18.40$; $N_c=30.14$; $N_g=20.09$; $b_q=1.00$
 $b_c=1.00$; $b_g=1.00$

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	Q _{lim} <daN/mq>	R _d <daN>	Sic.
9	7964.59	10.76	-254.06	-141.85	-694.54	0.86	2.86	1.15	1.16	0.91	1.00	1.00	1.00	33280.90	35720.50	4.48
10	7434.39	-224.08	-222.44	-115.24	-511.29	0.87	2.89	1.15	1.16	0.91	1.00	1.00	1.00	33348.80	36449.10	4.90
11	7578.07	158.47	-221.97	-128.08	-615.03	0.87	2.87	1.15	1.16	0.91	1.00	1.00	1.00	33308.50	35977.00	4.75
12	8161.83	11.21	-267.65	-150.53	-759.98	0.86	2.84	1.15	1.16	0.91	1.00	1.00	1.00	33263.00	35501.60	4.35
13	3908.64	3.78	-27.68	-27.68	48.01	0.89	3.01	1.15	1.16	0.91	1.00	1.00	1.00	33606.00	38904.30	9.95
14	7278.17	-380.18	-214.94	-106.17	-454.55	0.87	2.91	1.15	1.16	0.91	1.00	1.00	1.00	33376.40	36715.70	5.04
15	7517.65	257.40	-214.16	-127.57	-627.47	0.87	2.86	1.15	1.16	0.91	1.00	1.00	1.00	33307.80	35912.70	4.78
16	8147.75	11.18	-266.68	-149.91	-755.30	0.86	2.84	1.15	1.16	0.91	1.00	1.00	1.00	33264.30	35516.80	4.36
17	7617.55	-223.66	-235.06	-123.30	-572.05	0.87	2.88	1.15	1.16	0.91	1.00	1.00	1.00	33329.30	36211.40	4.75
18	7761.23	158.89	-234.58	-136.13	-675.80	0.87	2.86	1.15	1.16	0.91	1.00	1.00	1.00	33290.40	35756.20	4.61

Verifiche di capacità portante per rottura generale in condizioni statiche

Metodo utilizzato: Indicazioni EC7

Platea n. 1602

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>; $\beta=0.00$ <grad>; $\eta=0.00$ <grad>; $\gamma_r=1800.00$ <daN/mc>
 $\sigma_{v0,\varepsilon}=900.00$ <daN/mq>

Verifiche in condizioni drenate

$\phi'_r=30.00$ <grad>; $c'_r=0.00$ <daN/mq>;
 $N_q=18.40$; $N_c=30.14$; $N_g=20.09$; $b_q=1.00$
 $b_c=1.00$; $b_g=1.00$

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	Q _{lim} <daN/mq>	R _d <daN>	Sic.
9	12565.90	86.00	-609.54	-280.67	-1337.12	0.86	3.09	1.14	1.15	0.92	1.00	1.00	1.00	33037.40	37930.20	3.02
10	11101.50	-223.85	-489.52	-229.05	-996.22	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33087.10	38550.50	3.47
11	11612.40	250.16	-540.53	-241.29	-1154.30	0.86	3.10	1.14	1.15	0.92	1.00	1.00	1.00	33088.20	38299.80	3.30
12	13141.30	93.23	-655.03	-301.63	-1458.12	0.85	3.08	1.14	1.15	0.92	1.00	1.00	1.00	33018.50	37742.20	2.87
13	4037.13	0.97	-53.31	-24.44	52.96	0.89	3.27	1.14	1.14	0.92	1.00	1.00	1.00	33557.10	42410.70	10.51
14	10700.50	-423.19	-455.00	-215.60	-889.96	0.86	3.13	1.14	1.15	0.92	1.00	1.00	1.00	33100.20	38771.60	3.62
15	11552.00	366.83	-540.02	-235.99	-1153.43	0.86	3.10	1.14	1.15	0.92	1.00	1.00	1.00	33100.90	38334.70	3.32
16	13100.20	92.71	-651.78	-300.13	-1449.48	0.85	3.08	1.14	1.15	0.92	1.00	1.00	1.00	33019.80	37755.00	2.88
17	11635.70	-217.14	-531.76	-248.51	-1108.58	0.86	3.11	1.14	1.15	0.92	1.00	1.00	1.00	33064.90	38323.00	3.29
18	12146.60	256.87	-582.77	-260.75	-1266.66	0.86	3.09	1.14	1.15	0.92	1.00	1.00	1.00	33066.90	38093.60	3.14

Verifiche di capacità portante per rottura generale in condizioni statiche

Metodo utilizzato: Indicazioni EC7

Platea n. 1603

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>; $\beta=0.00$ <grad>; $\eta=0.00$ <grad>; $\gamma_r=1800.00$ <daN/mc>
 $\sigma_{v0,\varepsilon}=900.00$ <daN/mq>

Verifiche in condizioni drenate

$\phi'_r=30.00$ <grad>; $c'_r=0.00$ <daN/mq>;
 $N_q=18.40$; $N_c=30.14$; $N_g=20.09$; $b_q=1.00$
 $b_c=1.00$; $b_g=1.00$

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	Q _{lim} <daN/mq>	R _d <daN>	Sic.
9	7923.97	-54.29	315.39	95.52	-585.59	0.88	2.88	1.15	1.16	0.91	1.00	1.00	1.00	33472.70	36739.80	4.64
10	7420.93	-295.19	262.66	85.92	-415.24	0.88	2.92	1.15	1.16	0.91	1.00	1.00	1.00	33476.30	37241.80	5.02
11	7535.34	132.79	283.83	82.45	-541.49	0.88	2.89	1.15	1.16	0.91	1.00	1.00	1.00	33510.50	36927.00	4.90
12	8118.45	-58.95	333.86	100.47	-642.37	0.88	2.87	1.15	1.16	0.91	1.00	1.00	1.00	33465.30	36571.70	4.50
13	3902.98	0.23	68.14	25.82	53.31	0.89	3.00	1.15	1.16	0.91	1.00	1.00	1.00	33621.80	38923.60	9.97
14	7280.03	-460.45	245.98	84.47	-358.45	0.88	2.93	1.15	1.16	0.91	1.00	1.00	1.00	33470.60	37404.80	5.14
15	7470.72	252.83	281.26	78.68	-568.86	0.88	2.88	1.15	1.16	0.91	1.00	1.00	1.00	33528.10	36871.10	4.94
16	8104.56	-58.62	332.54	100.12	-638.31	0.88	2.87	1.15	1.16	0.91	1.00	1.00	1.00	33465.80	36583.40	4.51
17	7601.51	-299.52	279.81	90.52	-467.96	0.88	2.91	1.15	1.16	0.91	1.00	1.00	1.00	33468.80	37062.50	4.88

18 7715.92 128.45 300.98 87.04 -594.21 0.88 2.88 1.15 1.16 0.91 1.00 1.00 1.00 33502.30 36757.80 4.76

Verifiche di capacità portante per rottura generale in condizioni statiche

Metodo utilizzato: Indicazioni EC7

Platea n. 1604

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>; β =0.00 <grad>; η =0.00 <grad>; γ_r =1800.00 <daN/mc>

$\sigma_{v0,t}$ =900.00 <daN/mq>

Verifiche in condizioni drenate

ϕ'_r =30.00 <grad>; c'_r =0.00 <daN/mq>;

N_q =18.40 ; N_c =30.14 ; N_g =20.09 ; b_q =1.00

b_c =1.00 ; b_g =1.00

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	q _{lim} <daN/mq>	R _d <daN>	Sic.
9	11759.10	-42.47	548.21	224.71	-1032.52	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33139.60	38795.60	3.30
10	10466.80	-298.61	449.29	181.12	-723.87	0.87	3.16	1.14	1.14	0.92	1.00	1.00	1.00	33191.90	39485.40	3.77
11	10961.60	145.97	478.66	203.03	-939.13	0.86	3.13	1.14	1.15	0.92	1.00	1.00	1.00	33159.10	38924.40	3.55
12	12271.10	-45.48	588.82	241.24	-1129.63	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33122.80	38621.10	3.15
13	3991.70	-4.97	50.40	21.60	70.29	0.89	3.26	1.14	1.14	0.92	1.00	1.00	1.00	33582.00	42385.80	10.62
14	10117.30	-472.38	423.96	168.59	-615.20	0.87	3.18	1.14	1.14	0.92	1.00	1.00	1.00	33209.50	39773.80	3.93
15	10941.90	268.59	472.91	205.10	-973.97	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33153.30	38814.50	3.55
16	12234.50	-45.27	585.92	240.06	-1122.70	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33124.00	38633.00	3.16
17	10942.20	-301.41	487.00	196.47	-814.04	0.86	3.15	1.14	1.14	0.92	1.00	1.00	1.00	33172.10	39271.90	3.59
18	11437.00	143.17	516.38	218.37	-1029.30	0.86	3.12	1.14	1.15	0.92	1.00	1.00	1.00	33141.60	38744.80	3.39

Verifiche di capacità portante per rottura generale in condizioni sismiche

Metodo utilizzato: Condizioni statiche

Platea n. 1601

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>; β =0.00 <grad>; η =0.00 <grad>; γ_r =1800.00 <daN/mc>

$\sigma_{v0,t}$ =900.00 <daN/mq>

Verifiche in condizioni drenate

ϕ'_r =30.00 <grad>; c'_r =0.00 <daN/mq>;

N_q =18.40 ; N_c =30.14 ; N_g =20.09 ; b_q =1.00

b_c =1.00 ; b_g =1.00

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	q _{lim} <daN/mq>	R _d <daN>	Sic.
1	9044.83	633.18	-641.43	-449.73	624.87	0.80	2.89	1.14	1.15	0.92	1.00	1.00	1.00	32129.80	32344.30	3.58
3	6473.95	540.66	5.07	-127.58	571.91	0.86	2.85	1.15	1.16	0.91	1.00	1.00	1.00	33214.60	35464.70	5.48
5	10364.90	334.86	-1272.75	-676.37	68.83	0.77	3.02	1.13	1.13	0.92	1.00	1.00	1.00	31525.30	31821.70	3.07
7	8925.59	-13.38	-1167.38	-548.49	-460.74	0.78	2.93	1.13	1.14	0.92	1.00	1.00	1.00	31694.80	31345.70	3.51

Verifiche di capacità portante per rottura generale in condizioni sismiche

Metodo utilizzato: Condizioni statiche

Platea n. 1602

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>; β =0.00 <grad>; η =0.00 <grad>; γ_r =1800.00 <daN/mc>

$\sigma_{v0,t}$ =900.00 <daN/mq>

Verifiche in condizioni drenate

ϕ'_r =30.00 <grad>; c'_r =0.00 <daN/mq>;

N_q =18.40 ; N_c =30.14 ; N_g =20.09 ; b_q =1.00

b_c =1.00 ; b_g =1.00

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	q _{lim} <daN/mq>	R _d <daN>	Sic.
1	11085.50	1198.06	-952.35	-329.82	-1771.93	0.84	2.98	1.14	1.15	0.92	1.00	1.00	1.00	32809.90	35734.40	3.22
3	7927.49	975.97	100.67	-34.15	-1718.79	0.89	2.87	1.16	1.16	0.91	1.00	1.00	1.00	33752.10	37495.60	4.73
5	13332.80	723.13	-2088.53	-642.08	-1007.93	0.80	3.15	1.13	1.13	0.92	1.00	1.00	1.00	32095.60	35315.10	2.65
7	12101.10	93.95	-2009.38	-614.06	-299.93	0.80	3.25	1.12	1.13	0.93	1.00	1.00	1.00	31971.40	36080.10	2.98

Verifiche di capacità portante per rottura generale in condizioni sismiche

Metodo utilizzato: Condizioni statiche

Platea n. 1603

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>; $\beta=0.00$ <grad>; $\eta=0.00$ <grad>; $\gamma_r=1800.00$ <daN/mc>
 $\sigma_{v0,\varepsilon}=900.00$ <daN/mq>

Verifiche in condizioni drenate

$\phi'_r=30.00$ <grad>; $c'_r=0.00$ <daN/mq>;
 $N_q=18.40$; $N_c=30.14$; $N_g=20.09$; $b_q=1.00$
 $b_c=1.00$; $b_g=1.00$

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	Q _{lim} <daN/mq>	R _d <daN>	Sic.
1	8859.49	-1409.01	899.40	130.01	503.33	0.87	2.92	1.15	1.16	0.91	1.00	1.00	1.00	33367.50	36836.90	4.16
3	6237.53	-1259.47	253.80	-190.26	457.47	0.84	2.88	1.15	1.15	0.91	1.00	1.00	1.00	32818.10	34517.30	5.53
5	10372.40	-666.19	1368.68	562.70	56.97	0.79	3.02	1.13	1.14	0.92	1.00	1.00	1.00	31919.40	33162.20	3.20
7	9047.23	120.05	1125.31	613.30	-371.47	0.76	2.95	1.13	1.14	0.92	1.00	1.00	1.00	31456.40	30819.50	3.41

Verifiche di capacità portante per rottura generale in condizioni sismiche

Metodo utilizzato: Condizioni statiche

Platea n. 1604

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>; $\beta=0.00$ <grad>; $\eta=0.00$ <grad>; $\gamma_r=1800.00$ <daN/mc>
 $\sigma_{v0,\varepsilon}=900.00$ <daN/mq>

Verifiche in condizioni drenate

$\phi'_r=30.00$ <grad>; $c'_r=0.00$ <daN/mq>;
 $N_q=18.40$; $N_c=30.14$; $N_g=20.09$; $b_q=1.00$
 $b_c=1.00$; $b_g=1.00$

CC	N <daN>	Tx <daN>	Ty <daN>	Mx <daNm>	My <daNm>	B' <m>	L' <m>	s _q	s _c	s _g	i _q	i _c	i _g	Q _{lim} <daN/mq>	R _d <daN>	Sic.
1	11175.20	-942.74	1014.66	357.34	-1409.16	0.84	3.05	1.14	1.15	0.92	1.00	1.00	1.00	32707.10	36235.40	3.24
3	8040.38	-810.89	-36.10	63.74	-1298.99	0.88	2.98	1.15	1.16	0.91	1.00	1.00	1.00	33584.30	38432.10	4.78
5	13060.60	-497.55	2083.89	628.99	-885.85	0.80	3.16	1.13	1.13	0.92	1.00	1.00	1.00	32090.20	35482.40	2.72
7	11541.70	15.90	1949.63	568.23	-327.12	0.80	3.24	1.12	1.13	0.93	1.00	1.00	1.00	32027.50	36199.80	3.14

Verifiche di capacità portante per rottura per scorrimento

Platea n. 1601

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>

Verifiche in condizioni drenate

CC	N <daN>	Tx <daN>	Ty <daN>	R _d <daN>	Sic.
1	9044.83	633.18	-641.43	4747.30	5.27
3	6473.95	540.66	5.07	3397.94	6.28
5	10364.90	334.86	-1272.75	5440.18	4.13
7	8925.59	-13.38	-1167.38	4684.72	4.01

Verifiche di capacità portante per rottura per scorrimento

Platea n. 1602

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>

Verifiche in condizioni drenate

CC	N <daN>	Tx <daN>	Ty <daN>	R _d <daN>	Sic.
1	11085.50	1198.06	-952.35	5818.38	3.80
3	7927.49	975.97	100.67	4160.85	4.24
5	13332.80	723.13	-2088.53	6997.91	3.17
7	12101.10	93.95	-2009.38	6351.42	3.16

Verifiche di capacità portante per rottura per scorrimento

Platea n. 1603

B=0.90 <m>; L=3.03 <m>; D=0.50 <m>

Verifiche in condizioni drenate

CC	N <daN>	Tx <daN>	Ty <daN>	R _d <daN>	Sic.
1	8859.49	-1409.01	899.40	4650.02	2.78
3	6237.53	-1259.47	253.80	3273.85	2.55
5	10372.40	-666.19	1368.68	5444.10	3.58
7	9047.23	120.05	1125.31	4748.57	4.20

Verifiche di capacità portante per rottura per scorrimento

Platea n. 1604

B=0.90 <m>; L=3.30 <m>; D=0.50 <m>

Verifiche in condizioni drenate

CC	N <daN>	Tx <daN>	Ty <daN>	R _d <daN>	Sic.
1	11175.20	-942.74	1014.66	5865.48	4.23
3	8040.38	-810.89	-36.10	4220.11	5.20
5	13060.60	-497.55	2083.89	6855.02	3.20
7	11541.70	15.90	1949.63	6057.83	3.11

IMMAGINI MODELLO DI CALCOLO TRAVETTI LIGNEI

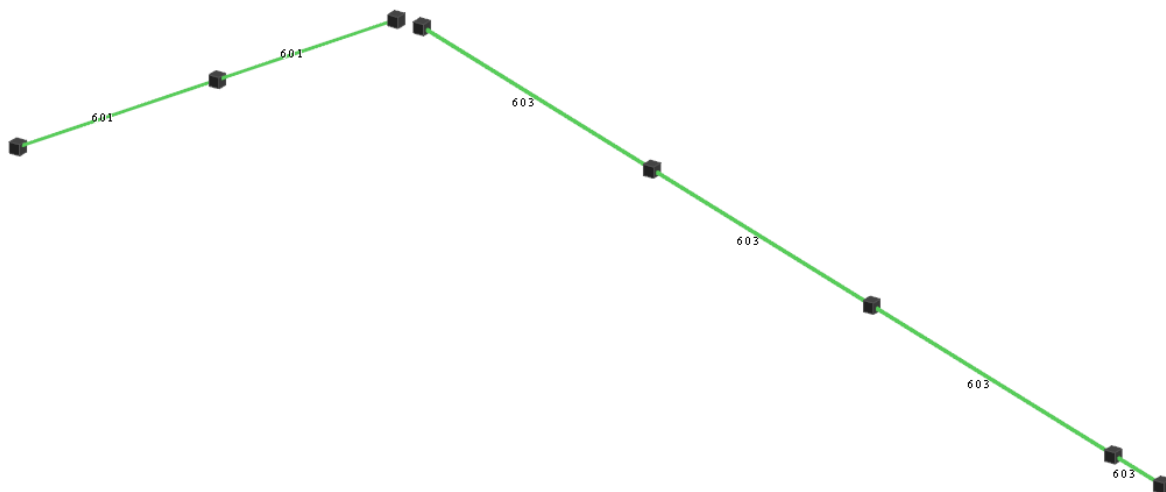


Figura 9 - Numerazione Aste

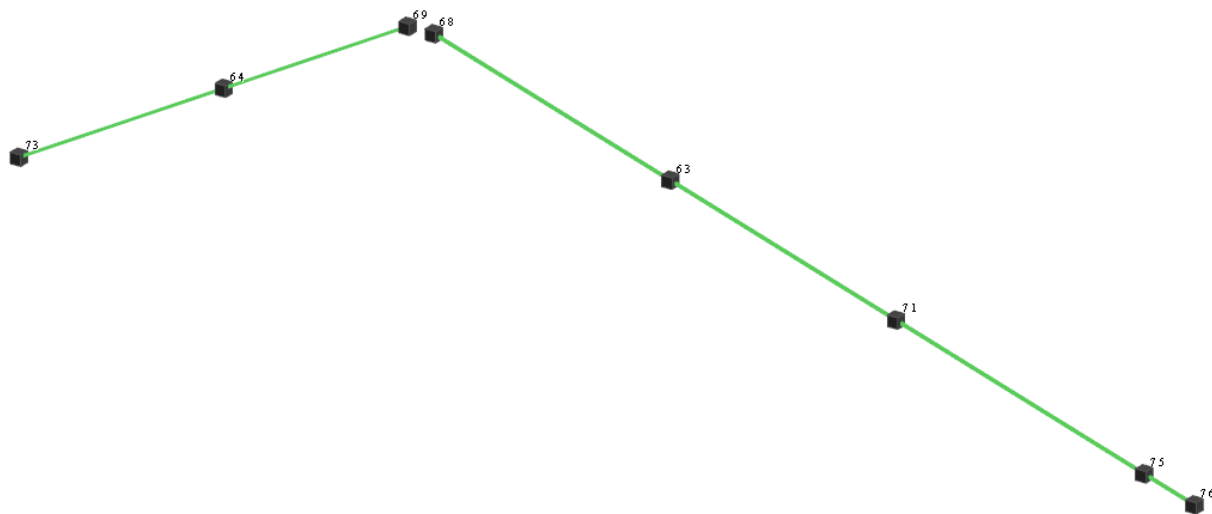


Figura 10 - Numerazione Nodi

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)

Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn Comm. Sx Sy Sz Rx Ry Rz RL Ly Lz Kt
<m> <m> <daN/cm²</sup>
4 B B B L L B

Elenco nodi

Simbologia

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

Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn
<m>	<m>	<m>				<m>	<m>	<m>	<m>			<m>	<m>	<m>	<m>			<m>	<m>	<m>	<m>		
63	4.96	0.00	5.62	0	4	64	1.56	0.00	5.39	0	4	68	3.16	0.00	6.17	0	4	69	2.96	0.00	6.17	0	4
71	6.68	0.00	5.10	0	4	73	0.00	0.00	4.52	0	4	75	8.57	0.00	4.52	0	4	76	8.95	0.00	4.40	0	4

Elenco materiali

Simbologia

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

Mat.	Comm.	P	E	G	v	α
		<daN/mc³</sup>	<daN/cm²</sup>	<daN/cm²</sup>		
2	Acciaio	7850	2100000.00	800000.00	0.3	1.000000E-005
4	Legname a media elasticità	460	120000.00	7500.00	0.39	4.000000E-006
6	Rigido	1	210000000.00	80000000.00	0.3	1.000000E-005

Elenco sezioni aste

Simbologia

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

Dis. = Disegnata
Me = Membratura
G = Generica
T = Trave
P = Pilastro
Ver. = Verifica prevista
N = Nessuna
C = Cemento armato
A = Acciaio
L = Legno
B = Base
H = Altezza
Ma = Numero del materiale
C = Numero del criterio di progetto
Ccol = Numero del criterio di progetto collegamento

Sez. Comm. Tipo Me Ver. B H Ma C Ccol
<cm> <cm>
7 R T L 8.00 8.00 4 1

Elenco parametri aggiuntivi aste

Simbologia

Par. = Numero dei parametri aggiuntivi
Comm. = Commento
 β_x = Coeff. β_x (D=default da criterio)
 β_y = Coeff. β_y (D=default da criterio)
 β_z = Coeff. β_z (D=default da criterio)
Z.R. = Considerare zone rigide
S = Sì
N = No
D = Default indicato in fase di calcolo
Offy = Considerare offset Y
S = Sì
N = No
D = Default indicato in fase di calcolo
Offz = Considerare offset Z
S = Sì
N = No
D = Default indicato in fase di calcolo

Par. Comm. β_x β_y β_z Z.R. Offy Offz
1 2.00 2.00 2.00 D D D

Elenco aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
Sez. = Numero della sezione
Va = Numero del vincolo asta
Par. = Numero dei parametri aggiuntivi
Rot. = Rotazione
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Dz1 = Scost. filo fisso Z1
Dz2 = Scost. filo fisso Z2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot.	FF	Dy1	Dy2	Dz1	Dz2	Kt
						<grad>		<cm>	<cm>	<cm>	<cm>	<daN/cmc>
601	73	64	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00
601	64	69	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00
603	63	68	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00
603	71	63	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00
603	75	71	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00
603	75	76	7	1		0.00	55	0.00	0.00	0.00	0.00	0.00

Carichi

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2		1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3	Neve	1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4	Vento Y	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
5	Manutenzione	1.00	1.00	0.00	0.00	0.00	1.00	19 D.M. 08 Variabili Categoria H - Coperture	S	B

Elenco carichi aste

Condizione di carico n. 1:

Carichi distribuiti

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
S = Numero del solaio di provenienza
T = Tipo di carico
QA = Primo carico accidentale da solaio
QA2 = Secondo carico accidentale da solaio
QA3 = Terzo carico accidentale da solaio
QPS = Carico permanente strutturale da solaio
QPN = Carico permanente non strutturale da solaio
PP = Peso proprio
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi Globali
XL,YL,ZL = secondo gli assi Locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
601	73	64	--	PP	ZG	0.00	2.94	1.79	2.94	601	64	69	--	PP	ZG	0.00	2.94	1.60	2.94
603	63	68	--	PP	ZG	0.00	2.94	1.88	2.94	603	71	63	--	PP	ZG	0.00	2.94	1.80	2.94
603	75	71	--	PP	ZG	0.00	2.94	1.98	2.94	603	75	76	--	PP	ZG	0.00	2.94	0.40	2.94

Elenco carichi aste

Condizione di carico n. 2:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
601	73	64	--	MZG	0.00	50.00	1.79	50.00	50.00	601	64	69	--	MZG	0.00	50.00	1.60	50.00	50.00
603	63	68	--	MZG	0.00	50.00	1.88	50.00	50.00	603	71	63	--	MZG	0.00	50.00	1.80	50.00	50.00
603	75	71	--	MZG	0.00	50.00	1.98	50.00	50.00	603	75	76	--	MZG	0.00	50.00	0.40	50.00	50.00

Elenco carichi aste

Condizione di carico n. 3: Neve

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
601	73	64	--	MZG	0.00	24.00	1.79	24.00	24.00	601	64	69	--	MZG	0.00	24.00	1.60	24.00	24.00
603	63	68	--	MZG	0.00	24.00	1.88	24.00	24.00	603	71	63	--	MZG	0.00	24.00	1.80	24.00	24.00
603	75	71	--	MZG	0.00	24.00	1.98	24.00	24.00	603	75	76	--	MZG	0.00	24.00	0.40	24.00	24.00

Elenco carichi aste

Condizione di carico n. 4: Vento Y

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
601	73	64	--	M	ZG	0.00	65.00	1.79	65.00	601	64	69	--	M	ZG	0.00	65.00	1.60	65.00
603	63	68	--	M	ZG	0.00	65.00	1.88	65.00	603	71	63	--	M	ZG	0.00	65.00	1.80	65.00
603	75	71	--	M	ZG	0.00	65.00	1.98	65.00	603	75	76	--	M	ZG	0.00	65.00	0.40	65.00

Elenco carichi aste

Condizione di carico n. 5: Manutenzione

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
601	73	64	--	M	ZG	0.00	25.00	1.79	25.00	601	64	69	--	M	ZG	0.00	25.00	1.60	25.00
603	63	68	--	M	ZG	0.00	25.00	1.88	25.00	603	71	63	--	M	ZG	0.00	25.00	1.80	25.00
603	75	71	--	M	ZG	0.00	25.00	1.98	25.00	603	75	76	--	M	ZG	0.00	25.00	0.40	25.00

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati effettuati con:

ModeSt ver. 8.30, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:

Xfinest ver. 2013, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08

Tipo di calcolo: calcolo statico

Vincoli esterni: Considera sempre vincoli assegnati in modellazione

Schematizzazione piani rigidi: nessun impalcato rigido

Modalità di recupero masse secondarie: mantenere sul nodo masse e forze relative

Generazione combinazioni

- Lineari: si
- Valuta spostamenti e non sollecitazioni: no
- Buckling: no

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: no
- Uniformare i carichi variabili: no
- Massimizzare i carichi variabili: no
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Tipo di opera: Opera ordinaria
- Vita nominale V_N : 50.00
- Classe d'uso: Classe II
- Forze orizzontali convenzionali per stati limite non sismici: 1.00%
- Genera stati limite per verifiche di resistenza al fuoco: no

Condizioni di carico elementari

Simbologia

CCE = Numero della condizione di carico elementare

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo	CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1	S		--
2		1.00	1.00	0.00	0.00	0.00	1.00	2	S		--
3	Neve	1.00	1.00	0.00	0.00	0.00	1.00	11	S		B
4	Vento Y	1.00	1.00	0.00	0.00	0.00	1.00	10	S		B
5	Manutenzione	1.00	1.00	0.00	0.00	0.00	1.00	19	S		B

Elenco tipi cce definiti

Simbologia

Tipo CCE = Tipo condizione di carico elementare

Comm. = Commento

Tipo = Tipologia

G = Permanente

Q = Variabile

I = Da ignorare

A = Azione eccezionale

P = Precompressione

Durata = Durata del carico

N = Non definita

P = Permanente

L = Lunga

M = Media

B = Breve

I = Istantanea

$\gamma_{min.}$ = Coeff. $\gamma_{min.}$

γ_{max} = Coeff. γ_{max}

Ψ_0 = Coeff. Ψ_0

Ψ_1 = Coeff. Ψ_1

Ψ_2 = Coeff. Ψ_2

$\Psi_{0,s}$ = Coeff. Ψ_0 sismico (D.M. 96)

Tipo	CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	γ_{max}	Ψ_0	Ψ_1	Ψ_2	$\Psi_{0,s}$
1	D.M. 08	Permanenti strutturali	G	N	1.00	1.30				
2	D.M. 08	Permanenti non strutturali	G	N	0.00	1.50				
3	D.M. 08	Variabili Categoria A Ambienti ad uso residenziale	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
4	D.M. 08	Variabili Categoria B Uffici	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
5	D.M. 08	Variabili Categoria C Ambienti suscettibili di affollamento	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
6	D.M. 08	Variabili Categoria D Ambienti ad uso commerciale	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
7	D.M. 08	Variabili Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	Q	N	0.00	1.50	1.00	0.90	0.80	0.00
8	D.M. 08	Variabili Categoria F Rimesse e parcheggi (per autoveicoli di peso ≤ 30 kN)	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
9	D.M. 08	Variabili Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
10	D.M. 08	Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00
11	D.M. 08	Variabili Neve (a quota ≤ 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
12	D.M. 08	Variabili Neve (a quota > 1000 m s.l.m.)	Q	N	0.00	1.50	0.70	0.50	0.20	0.00
13	D.M. 08	Variabili Variazioni termiche	Q	N	0.00	1.50	0.60	0.50	0.00	0.00
14	D.M. 96	Permanenti	G	N	1.00	1.40				
15	D.M. 96	Variabili Abitazioni	Q	P	0.00	1.50	0.70	0.50	0.20	0.70
16	D.M. 96	Variabili Uffici, negozi, scuole, ecc.	Q	N	0.00	1.50	0.70	0.60	0.30	0.70
17	D.M. 96	Variabili Autorimesse	Q	N	0.00	1.50	0.70	0.70	0.60	0.70
18	D.M. 96	Variabili Vento	Q	N	0.00	1.50	0.70	0.20	0.00	0.00
19	D.M. 08	Variabili Categoria H - Coperture	Q	N	0.00	1.50	0.00	0.00	0.00	1.00

Ambienti di carico

Simbologia

N Numero

Comm. Commento

1

2

3 Neve

4 Vento Y

5 Manutenzione

F azioni orizzontali convenzionali
SLU Stato limite ultimo
SLR Stato limite per combinazioni rare
SLF Stato limite per combinazioni frequenti
SLQ Stato limite per combinazioni quasi permanenti o di danno

N Comm. 1 2 3 4 5 SLU SLR SLF SLQ
1 Calcolo statico si si si si si si si si si

Elenco combinazioni di carico simboliche

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5
1 Amb.	1 (SLU)	SLU	γ_{max}	γ_{max}	γ_{max}	γ_{max}	γ_{max}
2 Amb.	1 (SLE R)	SLE R	1	1	1	1	1
3 Amb.	1 (SLE F)	SLE F	1	ψ_1	ψ_1	ψ_1	ψ_1
4 Amb.	1 (SLE Q)	SLE Q	1	ψ_2	ψ_2	ψ_2	ψ_2

Genera le combinazioni con un solo carico di tipo variabile come di base: no

Considera sollecitazioni dinamiche con segno dei modi principali: no

Combinazioni delle cce

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
An. = Tipo di analisi
L = Lineare
NL = Non lineare
Bk = Buckling
S = Si
N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5
1 CC 1 - Amb.	1 (SLU)	SLU	L	N	1.30	1.50	1.50	0.90	0.00
2		SLU	L	N	1.30	1.50	0.75	1.50	0.00
3		SLU	L	N	1.30	1.50	0.75	0.90	1.50
4 CC 2 - Amb.	1 (SLE R)	SLE R	L	N	1.00	1.00	1.00	0.60	0.00
5		SLE R	L	N	1.00	1.00	0.50	1.00	0.00
6		SLE R	L	N	1.00	1.00	0.50	0.60	1.00
7 CC 3 - Amb.	1 (SLE F)	SLE F	L	N	1.00	1.00	0.20	0.20	0.00
8 CC 4 - Amb.	1 (SLE Q)	SLE Q	L	N	1.00	1.00	0.00	0.00	0.00

Sollecitazioni aste

Simbologia

Asta = Numero dell'asta

N1 = Nodo1
N2 = Nodo2
X = Coordinata progressiva rispetto al nodo iniziale
N = Sforzo normale
CC = Numero della combinazione delle condizioni di carico elementari
Ty = Taglio in dir. Y
Mz = Momento flettente intorno all'asse Z
Tz = Taglio in dir. Z
My = Momento flettente intorno all'asse Y
Mx = Momento torcente intorno all'asse X

Asta	N1	N2	X	N	CC	Ty	CC	Mz	CC	Tz	CC	My	CC	Mx	CC
			<cm>	<daN>		<daN>		<daNm>		<daN>		<daNm>		<daNm>	
601	73	64 Max	0.00	-23.02	8	0.00	1	0.00	1	117.54	2	0.00	1	0.00	1
601	73	64 Max	69.25									40.69	2		
601	73	64 Max	178.60	84.49	2	0.00	1	0.00	1	-50.57	8	-16.56	8	0.00	1
601	73	64 Min.	0.00	-84.49	2	0.00	1	0.00	1	32.02	8	0.00	1	0.00	1
601	73	64 Min.	69.25									11.09	8		
601	73	64 Min.	178.60	23.02	8	0.00	1	0.00	1	-185.62	2	-60.80	2	0.00	1
601	64	69 Max	0.00	-20.66	8	0.00	1	0.00	1	173.96	2	-16.56	8	0.00	1
601	64	69 Max	101.88									28.34	2		
601	64	69 Max	160.28	75.83	2	0.00	1	0.00	1	-26.73	8	0.00	8	0.00	1
601	64	69 Min.	0.00	-75.83	2	0.00	1	0.00	1	47.40	8	-60.80	2	0.00	1
601	64	69 Min.	101.88									7.72	8		
601	64	69 Min.	160.28	20.66	8	0.00	1	0.00	1	-98.10	2	0.00	3	0.00	1
603	63	68 Max	0.00	-14.53	8	0.00	1	0.00	1	209.54	2	-17.76	8	0.00	1
603	63	68 Max	112.91									52.91	2		
603	63	68 Max	188.19	53.34	2	0.00	1	0.00	1	-38.21	8	0.00	3	0.00	1
603	63	68 Min.	0.00	-53.34	2	0.00	1	0.00	1	57.09	8	-65.20	2	0.00	1
603	63	68 Min.	112.91									14.42	8		
603	63	68 Min.	188.19	14.53	8	0.00	1	0.00	1	-140.25	2	0.00	2	0.00	1
603	71	63 Max	0.00	-13.89	8	0.00	1	0.00	1	161.02	2	-14.77	8	0.00	1
603	71	63 Max	86.00									15.52	2		
603	71	63 Max	179.82	50.97	2	0.00	1	0.00	1	-47.20	8	-17.76	8	0.00	1
603	71	63 Min.	0.00	-50.97	2	0.00	1	0.00	1	43.87	8	-54.22	2	0.00	1
603	71	63 Min.	86.37									4.23	8		
603	71	63 Min.	179.82	13.89	8	0.00	1	0.00	1	-173.23	2	-65.20	2	0.00	1
603	75	71 Max	0.00	-15.26	8	0.00	1	0.00	1	182.44	2	-14.13	8	0.00	1
603	75	71 Max	97.70									37.68	2		
603	75	71 Max	197.60	56.01	2	0.00	1	0.00	1	-50.36	8	-14.77	8	0.00	1
603	75	71 Min.	0.00	-56.01	2	0.00	1	0.00	1	49.71	8	-51.86	2	0.00	1
603	75	71 Min.	94.36									10.23	8		
603	75	71 Min.	197.60	15.26	8	0.00	1	0.00	1	-184.83	2	-54.22	2	0.00	1
603	75	76 Max	0.00	11.34	2	0.00	1	0.00	1	166.83	2	-14.13	8	0.00	1
603	75	76 Max	32.00									-2.18	8		
603	75	76 Max	40.00	-3.09	8	0.00	1	0.00	1	92.48	2	0.00	2	0.00	1
603	75	76 Min.	0.00	3.09	8	0.00	1	0.00	1	45.45	8	-51.86	2	0.00	1
603	75	76 Min.	32.00									-7.99	2		
603	75	76 Min.	40.00	-11.34	2	0.00	1	0.00	1	25.20	8	0.00	8	0.00	1

Verifiche aste in legno

Caratteristiche sezioni utilizzate

Sez. = Numero della sezione
Cod. = Codice della sezione
Tipo = tipo di sezione:
R = Rettangolare
Cir. = Circolare
Area = area della sezione
J_y, J_z = momenti d'inerzia intorno agli assi Y, Z
I_y, I_z = raggi d'inerzia intorno agli assi Y, Z
W_y, W_z = moduli di resistenza intorno agli assi Y, Z

Verifiche di resistenza e stabilità

xl = Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica <m>
N = sforzo normale <daN>
M_y, M_z = momenti flettenti intorno agli assi Y e Z <daNm>
T_y, T_z = tagli in direzione Y e Z <daN>
σ_N, σ_M = tensione per sforzo normale e per momento flettente <daN/cm²>
τ = tensione per taglio <daN/cm²>
σ_{Rd} = tensione resistente per flessione <daN/cm²>

K_h = coefficiente moltiplicativo per sezioni piccole (flessione)
 K_m = coefficiente di forma
 K_{mod} = coefficiente di durata dei carichi/umidità del legno
 σ_{RdC} = tensione resistente per compressione <daN/cm²>
 σ_{RdT} = tensione resistente per trazione <daN/cm²>
 K_1 = coefficiente moltiplicativo per sezioni piccole (trazione)
 τ_{Rd} = tensione resistente per taglio <daN/cm²>
 L_{tors} = distanza fra ritegni torsionali 228
 $\lambda_{rel,m}$ = snellezza per instabilità flessione-torsionale
 K_{crit} = coefficiente per instabilità flessione-torsionale
 $M_{max,Y}, M_{max,Z}$ = momenti massimi agenti intorno agli assi Y e Z <daNm>
 $M_{eqx,Y}, M_{eqx,Z}$ = momenti equivalenti intorno agli assi Y e Z <daNm>

Verifiche di deformabilità

$f_{Z,L}$ = freccia in direzione Z locale <cm>
 $f_{Z,G}$ = freccia in direzione Z globale <cm>

Caratteristiche sezioni utilizzate

Sez.	Cod.	Tipo	Area	Jy	Jz	Iy	Iz	Wymin	Wzmin
			<cm ² >	<cm ⁴ >	<cm ⁴ >	<cm ⁴ >	<cm ⁴ >	<cm ³ >	<cm ³ >
7 R	8x8	T R	64.00	341.33	341.33	2.31	2.31	85.33	85.33

Asta n. 601 (73 64) R 8x8 T Crit. 1

-
- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X_l=0.69$
 Sollecitazioni: $N=-18.97$ $T_z=0.00$ $M_y=-40.69$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.30$ $\sigma_M=-47.69$ Sfr.=0.32
 - Verifica Tensioni per flessione e trazione - CC 2 SLU $X_l=1.79$
 Sollecitazioni: $N=84.49$ $T_z=-185.62$ $M_y=60.80$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=1.32$ $\sigma_M=71.25$ Sfr.=0.49
 - Verifica Tensioni per taglio - CC 2 SLU $X_l=1.79$
 Sollecitazioni: $N=84.49$ $T_z=-185.62$ $M_y=60.80$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=4.35$ Sfr.=0.41
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 2 SLU
 Sollecitazioni: $N=-84.49$ $M_{max,Y}=60.80$ $M_{eq,Y}=45.60$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=178.60$ $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-1.32$ $\sigma_M=-53.43$ Sfr.=0.37
 - Verifica Freccia massima - CC 5
 $f_{Z,L}=0.26$ (L/694) $f_{Z,G}=0.22$ (L/794)

Asta n. 601 (64 69) R 8x8 T Crit. 1

-
- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X_l=0.00$
 Sollecitazioni: $N=-75.83$ $T_z=173.96$ $M_y=60.80$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-1.18$ $\sigma_M=-71.25$ Sfr.=0.48
 - Verifica Tensioni per flessione e trazione - CC 2 SLU $X_l=1.02$
 Sollecitazioni: $N=20.52$ $T_z=1.11$ $M_y=-28.34$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.32$ $\sigma_M=33.22$ Sfr.=0.23
 - Verifica Tensioni per taglio - CC 2 SLU $X_l=0.00$
 Sollecitazioni: $N=-75.83$ $T_z=173.96$ $M_y=60.80$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=4.08$ Sfr.=0.38
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 2 SLU
 Sollecitazioni: $N=-75.83$ $M_{max,Y}=60.80$ $M_{eq,Y}=45.60$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=160.28 $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-1.18$ $\sigma_M=-53.43$ Sfr.=0.37

- Verifica Freccia massima - CC 5
 $f_{z,L}=0.12$ (L/1314) $f_{z,G}=0.11$ (L/1504)

Asta n. 603 (63 68) R 8x8 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X1=0.00$
 Sollecitazioni: $N=-53.34$ $T_z=209.54$ $M_y=65.20$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.83$ $\sigma_M=-76.41$ Sfr.=0.51

- Verifica Tensioni per flessione e trazione - CC 2 SLU $X1=1.13$
 Sollecitazioni: $N=10.67$ $T_z=0.00$ $M_y=-52.91$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.17$ $\sigma_M=62.00$ Sfr.=0.42

- Verifica Tensioni per taglio - CC 2 SLU $X1=0.00$
 Sollecitazioni: $N=-53.34$ $T_z=209.54$ $M_y=65.20$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=4.91$ Sfr.=0.46

- Verifica σ_{max} per stabilità flessio-torsionale - CC 2 SLU
 Sollecitazioni: $N=-53.34$ $M_{max,Y}=65.20$ $M_{eq,Y}=51.18$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=188.19 $\lambda_{rel,m}=0.30$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.83$ $\sigma_M=-59.98$ Sfr.=0.41

- Verifica Freccia massima - CC 5
 $f_{z,L}=0.38$ (L/495) $f_{z,G}=0.36$ (L/517)

Asta n. 603 (71 63) R 8x8 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X1=0.00$
 Sollecitazioni: $N=-50.97$ $T_z=161.02$ $M_y=54.22$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.80$ $\sigma_M=-63.54$ Sfr.=0.43

- Verifica Tensioni per flessione e trazione - CC 2 SLU $X1=1.80$
 Sollecitazioni: $N=50.97$ $T_z=-173.23$ $M_y=65.20$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.80$ $\sigma_M=76.41$ Sfr.=0.52

- Verifica Tensioni per taglio - CC 2 SLU $X1=1.80$
 Sollecitazioni: $N=50.97$ $T_z=-173.23$ $M_y=65.20$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=4.06$ Sfr.=0.38

- Verifica σ_{max} per stabilità flessio-torsionale - CC 2 SLU
 Sollecitazioni: $N=-50.97$ $M_{max,Y}=65.20$ $M_{eq,Y}=58.47$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=179.82 $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.80$ $\sigma_M=-68.52$ Sfr.=0.47

- Verifica Freccia massima - CC 5
 $f_{z,L}=0.04$ (L/4152) $f_{z,G}=0.04$ (L/4339)

Asta n. 603 (75 71) R 8x8 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X1=0.00$
 Sollecitazioni: $N=-56.01$ $T_z=182.44$ $M_y=51.86$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N = -0.88$ $\sigma_M = -60.78$ Sfr. = 0.41

- Verifica Tensioni per flessione e trazione - CC 2 SLU $X_1 = 1.98$

Sollecitazioni: $N = 56.01$ $T_z = -184.83$ $M_y = 54.22$ $T_y = 0.00$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\sigma_N = 0.88$ $\sigma_M = 63.54$ Sfr. = 0.44

- Verifica Tensioni per taglio - CC 2 SLU $X_1 = 1.98$

Sollecitazioni: $N = 56.01$ $T_z = -184.83$ $M_y = 54.22$ $T_y = 0.00$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\tau = 4.33$ Sfr. = 0.41

- Verifica σ_{max} per stabilità flessione-torsionale - CC 2 SLU

Sollecitazioni: $N = -56.01$ $M_{max,y} = 54.22$ $M_{eq,y} = 54.22$ $M_{max,z} = 0.00$ $M_{eq,z} = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Ltors = 197.60 $\lambda_{rel,m} = 0.31$ $K_{crit} = 1.00$

Tensioni: $\sigma_N = -0.88$ $\sigma_M = -63.54$ Sfr. = 0.43

- Verifica Freccia massima - CC 5

$f_{z,L} = 0.27$ (L/745) $f_{z,G} = 0.25$ (L/779)

Asta n. 603 (75 76) R 8x8 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 2 SLU $X_1 = 0.20$

Sollecitazioni: $N = 0.00$ $T_z = 129.65$ $M_y = 22.21$ $T_y = 0.00$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\sigma_N = 0.00$ $\sigma_M = -26.03$ Sfr. = 0.17

- Verifica Tensioni per flessione e trazione - CC 2 SLU $X_1 = 0.00$

Sollecitazioni: $N = 11.34$ $T_z = 166.83$ $M_y = 51.86$ $T_y = 0.00$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\sigma_N = 0.18$ $\sigma_M = 60.78$ Sfr. = 0.41

- Verifica Tensioni per taglio - CC 2 SLU $X_1 = 0.00$

Sollecitazioni: $N = 11.34$ $T_z = 166.83$ $M_y = 51.86$ $T_y = 0.00$ $M_z = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Tensioni: $\tau = 3.91$ Sfr. = 0.37

- Verifica σ_{max} per stabilità flessione-torsionale - CC 2 SLU

Sollecitazioni: $N = -11.34$ $M_{max,y} = 51.86$ $M_{eq,y} = 38.90$ $M_{max,z} = 0.00$ $M_{eq,z} = 0.00$

Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$

$\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$

Ltors = 40.00 $\lambda_{rel,m} = 0.14$ $K_{crit} = 1.00$

Tensioni: $\sigma_N = -0.18$ $\sigma_M = -45.58$ Sfr. = 0.31

- Verifica Freccia massima - CC 5

$f_{z,L} = 0.01$ (L/2988)

8. RELAZIONE DI CALCOLO COPERTURA DEL TRATTO FINALE DEL BRACCIO NORD DEL PORTICO

IMMAGINI MODELLO DI CALCOLO

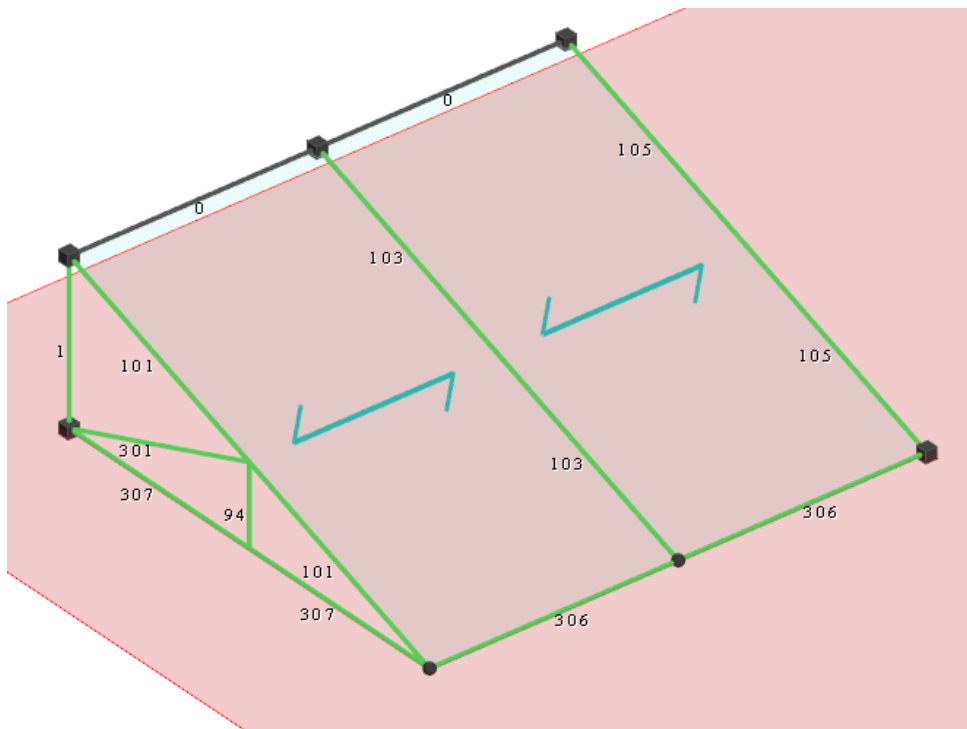


Figura 11 - Numerazione Aste

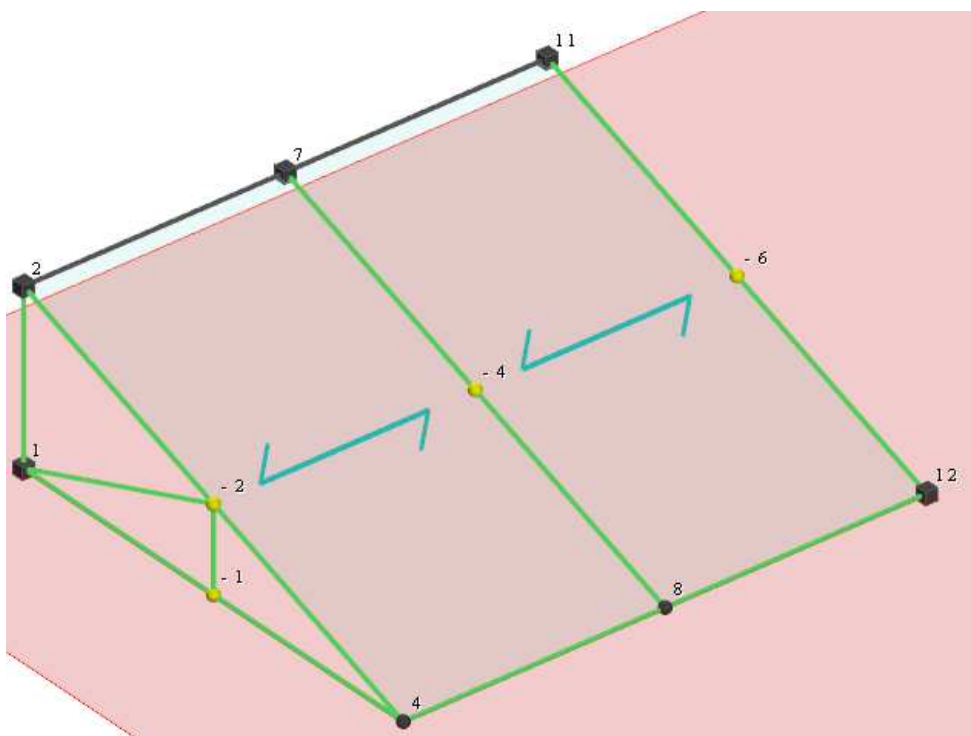


Figura 12 - Numerazione nodi

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt	Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
									<m>	<m>	<daN/cm²										<m>	<m>	<daN/cm²
1	Libero	L	L	L	L	L	L					4		B	B	B	L	L	L				

Elenco nodi

Simbologia

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

Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn
	<m>	<m>	<m>				<m>	<m>	<m>				<m>	<m>	<m>				<m>	<m>	<m>		
-6	1.40	3.12	0.50	0	1	-4	1.40	1.56	0.50	0	1	-2	1.40	0.00	0.50	0	1	-1	1.40	0.00	0.00	0	1
1	0.00	0.00	0.00	0	4	2	0.00	0.00	1.00	0	4	4	2.80	0.00	0.00	0	1	7	0.00	1.56	1.00	0	4
8	2.80	1.56	0.00	0	1	11	0.00	3.12	1.00	0	4	12	2.80	3.12	0.00	0	4						

Elenco materiali

Simbologia

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

Mat.	Comm.	P	E	G	v	α
		<daN/m³	<daN/cm²	<daN/cm²		
2	Acciaio	7850	2100000.00	800000.00	0.3	1.000000E-005

Elenco sezioni aste

Simbologia

Sez. = Numero della sezione
Comm. = Commento
Tipo = Tipologia
2C = Doppia C lato labbri
2Cdx = Doppia C lato costola
2I = Doppia I
2L = Doppia L lato labbri
2Ldx = Doppia L lato costole
C = C
Cdx = C destra
Cir. = Circolare
Cir.c = Circolare cava
I = I
L = L
Ldx = L destra

Om. = Omega
Pg = Pi greco
Pr = Poligono regolare
Prc = Poligono regolare cavo
Pc = Per coordinate
Ia = Inerzie assegnate
R = Rettangolare
Rc = Rettangolare cava
T = T
U = U
Ur = U rovescia
V = V
Vr = V rovescia
Z = Z
Zdx = Z destra
Ts = T stondata
Ls = L stondata
Cs = C stondata
Is = I stondata
Dis. = Disegnata
Me = Membratura
G = Generica
T = Trave
P = Pilastro
Ver. = Verifica prevista
N = Nessuna
C = Cemento armato
A = Acciaio
L = Legno
B = Base
H = Altezza
s = Spessore ala
r = Raggio raccordo anima-ala
rl = Raggio in testa ala
D = Distanza
Ma = Numero del materiale
C = Numero del criterio di progetto
Ccol = Numero del criterio di progetto collegamento

Sez.	Comm.	Tipo	Me	Ver.	B	H	s	r	rl	D	Ma	C	Ccol
					<cm>	<cm>	<cm>	<cm>	<cm>	<cm>			
1	2*L100x50x8	2Ldx	T	A	5.00	10.00	0.80	0.70	0.35	1.00	2	1	1
2	L100x10	Ls	T	A	10.00	10.00	1.00	1.20	0.60		2	1	1

Elenco vincoli aste

Simbologia

Va = Numero del vincolo asta
Comm. = Commento
Tipo = Tipologia
SVI = Definizione di vincolamenti interni
ELA = Vincolo su suolo elastico alla Winkler
BIE-RTC = Biella resistente a trazione e a compressione
BIE-RC = Biella resistente solo a compressione
BIE-RT = Biella resistente solo a trazione
Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)
Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)
Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)
Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)
Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)
Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)
Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)
Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt
															<daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Inc+CerYZ	SVI	1	1	1	1	1	1	1	1	1	1	0	0	0
12	CerYZ+Inc	SVI	1	1	1	1	0	0	1	1	1	1	1	1	1

Elenco aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
Sez. = Numero della sezione
Va = Numero del vincolo asta
Par. = Numero dei parametri aggiuntivi
Rot. = Rotazione
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Dz1 = Scost. filo fisso Z1
Dz2 = Scost. filo fisso Z2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot.	FF	Dy1	Dy2	Dz1	Dz2	Kt
						<grad>		<cm>	<cm>	<cm>	<cm>	<daN/cm>
0	2	7			1	0.00	11	0.00	0.00	0.00	0.00	
0	7	11			1	0.00	11	0.00	0.00	0.00	0.00	
1	1	2	1	1		180.00	11	0.00	0.00	0.00	0.00	
94	-2	-1	1	1		0.00	11	0.00	0.00	0.00	0.00	
101	2	-2	1	1		180.00	11	0.00	0.00	0.00	0.00	
101	-2	4	1	1		180.00	11	0.00	0.00	0.00	0.00	
103	7	-4	1	1		180.00	11	0.00	0.00	0.00	0.00	
103	-4	8	1	11		180.00	11	0.00	0.00	0.00	0.00	
105	11	-6	1	1		180.00	11	0.00	0.00	0.00	0.00	
105	-6	12	1	11		180.00	11	0.00	0.00	0.00	0.00	
301	1	-2	1	1		0.00	11	0.00	0.00	0.00	0.00	
306	4	8	2	12		0.00	55	0.00	0.00	0.00	0.00	
306	8	12	2	1		0.00	55	0.00	0.00	0.00	0.00	
307	1	-1	1	1		0.00	11	0.00	0.00	0.00	0.00	
307	-1	4	1	1		0.00	11	0.00	0.00	0.00	0.00	

Carichi

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2		1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3		1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4		1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
5		1.00	1.00	0.00	0.00	0.00	1.00	19 D.M. 08 Variabili Categoria H - Coperture	S	B

Elenco carichi aste

Condizione di carico n. 1:

Carichi distribuiti

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
S = Numero del solaio di provenienza
T = Tipo di carico
QA = Primo carico accidentale da solaio
QA2 = Secondo carico accidentale da solaio

QA3 = Terzo carico accidentale da solaio
QPS = Carico permanente strutturale da solaio
QPN = Carico permanente non strutturale da solaio
PP = Peso proprio
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi Globali
XL,YL,ZL = secondo gli assi Locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf		
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>		
	1	1	2	--	PP	ZG	0.00	17.92	1.00	17.92		94	-2	-1	--	PP	ZG	0.00	17.92	0.50	17.92
	101	2	-2	--	PP	ZG	0.00	17.92	1.49	17.92		101	-2	4	--	PP	ZG	0.00	17.92	1.49	17.92
	103	7	-4	--	PP	ZG	0.00	17.92	1.49	17.92		103	-4	8	--	PP	ZG	0.00	17.92	1.49	17.92
	105	11	-6	--	PP	ZG	0.00	17.92	1.49	17.92		105	-6	12	--	PP	ZG	0.00	17.92	1.49	17.92
	301	1	-2	--	PP	ZG	0.00	17.92	1.49	17.92		306	4	8	--	PP	ZG	0.00	15.04	1.56	15.04
	306	8	12	--	PP	ZG	0.00	15.04	1.56	15.04		307	1	-1	--	PP	ZG	0.00	17.92	1.40	17.92
	307	-1	4	--	PP	ZG	0.00	17.92	1.40	17.92											

Elenco carichi aste

Condizione di carico n. 2:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
101	2	-2	0	QPN	ZG	0.00	48.75	1.49	48.75	101	-2	4	0	QPN	ZG	0.00	48.75	1.49	48.75
103	7	-4	0	QPN	ZG	0.00	48.75	1.49	48.75	103	7	-4	0	QPN	ZG	0.00	48.75	1.49	48.75
103	-4	8	0	QPN	ZG	0.00	48.75	1.49	48.75	103	-4	8	0	QPN	ZG	0.00	48.75	1.49	48.75
105	11	-6	0	QPN	ZG	0.00	48.75	1.49	48.75	105	-6	12	0	QPN	ZG	0.00	48.75	1.49	48.75

Elenco carichi aste

Condizione di carico n. 3:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
101	2	-2	0	QA	ZG	0.00	35.26	1.49	35.26	101	-2	4	0	QA	ZG	0.00	35.26	1.49	35.26
103	7	-4	0	QA	ZG	0.00	35.26	1.49	35.26	103	7	-4	0	QA	ZG	0.00	35.26	1.49	35.26
103	-4	8	0	QA	ZG	0.00	35.26	1.49	35.26	103	-4	8	0	QA	ZG	0.00	35.26	1.49	35.26
105	11	-6	0	QA	ZG	0.00	35.26	1.49	35.26	105	-6	12	0	QA	ZG	0.00	35.26	1.49	35.26

Elenco carichi aste

Condizione di carico n. 4:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
101	2	-2	0	QA2	ZG	0.00	95.49	1.49	95.49	101	-2	4	0	QA2	ZG	0.00	95.49	1.49	95.49
103	7	-4	0	QA2	ZG	0.00	95.49	1.49	95.49	103	7	-4	0	QA2	ZG	0.00	95.49	1.49	95.49
103	-4	8	0	QA2	ZG	0.00	95.49	1.49	95.49	103	-4	8	0	QA2	ZG	0.00	95.49	1.49	95.49
105	11	-6	0	QA2	ZG	0.00	95.49	1.49	95.49	105	-6	12	0	QA2	ZG	0.00	95.49	1.49	95.49

Elenco carichi aste

Condizione di carico n. 5:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
101	2	-2	0	QA3	ZG	0.00	36.73	1.49	36.73	101	-2	4	0	QA3	ZG	0.00	36.73	1.49	36.73
103	7	-4	0	QA3	ZG	0.00	36.73	1.49	36.73	103	7	-4	0	QA3	ZG	0.00	36.73	1.49	36.73
103	-4	8	0	QA3	ZG	0.00	36.73	1.49	36.73	103	-4	8	0	QA3	ZG	0.00	36.73	1.49	36.73
105	11	-6	0	QA3	ZG	0.00	36.73	1.49	36.73	105	-6	12	0	QA3	ZG	0.00	36.73	1.49	36.73

Analisi dei carichi da vento

vento boscoreale

Calcolo delle azioni del vento

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio 2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Toscana, Marche, Umbria, Lazio, Abruzzo, Molise, Puglia, Campania, Basilicata, Calabria(esclusa la Provincia di Reggio Calabria)

Tempo di ritorno 50 <anni>

Altitudine sul livello del mare: 50 <m>

Altezza dell'edificio: 5 <m>

Parametri derivati dall'area di ubicazione (tab. 3.3.I):

Vb,0 (Velocità media del vento): 27 <m/sec>

a0 (Altitudine media): 500 <m>

Ka: 0.020 <1/sec>

Velocità di riferimento: 27.00 <m/sec>

Classificazione della costruzione: Tettoie e pensiline isolate

Categoria di esposizione del sito: I

Parametri derivati dalla categoria di esposizione del sito (tab. 3.3.II):

kr: 0.17 <m>

z0: 0.01 <m>

zmin: 2 <m>

Classe di rugosità del terreno: D

Aree prive di ostacoli (aperta campagna, aeroporti, aree agricole, pascoli
zone paludose o sabbiose, superfici innestate o ghiacciate, mari, laghi, ...)

Angolo alfa: 0.0 <grad>

Pressione del vento = $q_b * c_e * c_p * c_d$

qb (Pressione cinetica di riferimento): 45.56 <daN/mq>

ct (Coefficiente topografico): 1.00

ce (Coefficiente di esposizione): 2.37

cd (Coefficiente dinamico): 1.00

Tipologia di superficie:

Coefficienti di forma o aerodinamico esterni cpe:

sopravento: 1.20 sottovento: 0.00

Pressione esterna <daN/mq>:

sopravento: +-129.76 <daN/mq> sottovento: 0.00 <daN/mq>

Analisi dei carichi da neve

neve boscoreale

Calcolo delle azioni della neve

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio
2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Agrigento, Avellino, Benevento, Brindisi, Cagliari, Caltanissetta, Carbonia-Iglesias, Caserta,
Catania, Catanzaro, Cosenza, Crotone, Enna, Frosinone, Grosseto, L 'Aquila, Latina, Lecce,
Livorno, Matera, Medio Campidano, Messina, Napoli, Nuoro, Ogliastro, Olbia Tempio, Oristano,
Palermo, Pisa, Potenza, Ragusa, Reggio Calabria, Rieti, Roma, Salerno, Sassari, Siena, Siracusa,
Taranto, Terni, Trapani, Vibo Valentia, Viterbo

Altitudine sul livello del mare: 50 <m>

Tipologia di copertura: Ad una falda

Pressione della neve $p_s = \mu_l * q_{sk} * c_e * c_t$

Parametri d'input ed intermedi:

Categoria del coefficiente d'esposizione: Normale

Ce (Coefficiente d'esposizione): 1.0

Ct (Coefficiente termico): 1.0

Angolo d'inclinazione della falda: 30.0 <grad>

μ_l (Coefficiente di forma della copertura): 0.80

Carichi agenti:

qsk (Valore di riferimento del carico neve al suolo): 60.00 <daN/mq>

qss (Carico provocato dalla neve sulle coperture): 48.00 <daN/mq>

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati effettuati con:

ModeSt ver. 8.30, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:

Xfinest ver. 2013, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08

Tipo di calcolo: analisi sismica dinamica

Vincoli esterni: Considera sempre vincoli assegnati in modellazione

Schematizzazione piani rigidi: nessun impalcato rigido

Modalità di recupero masse secondarie: mantenere sul nodo masse e forze relative

Generazione combinazioni

- Lineari: si
- Valuta spostamenti e non sollecitazioni: no
- Buckling: no

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: no
- Uniformare i carichi variabili: no
- Massimizzare i carichi variabili: no
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente
- Modalità di combinazione momento torcente: disaccoppiare le azioni

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Zona sismica: zona 2
- Sito di costruzione: boscoreale LON. 14.48140 LAT. 40.77280
Contenuto tra ID reticolo: 33426 33648 33427 33649

Simbologia

TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
T_R = Periodo di ritorno <anni>
Ag = Accelerazione orizzontale massima al sito <g>
FO = Valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale
TC* = Periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale <sec>
S_S = Coefficiente di amplificazione stratigrafica
C_c = Coefficiente funzione della categoria del suolo

TCC	T _R	Ag	FO	TC*	S _s	C _c
SLD	50	0.0554	2.35	0.32	1.80	2.21
SLV	475	0.1449	2.43	0.36	1.80	2.07

- Tipo di opera: Opera ordinaria
- Vita nominale V_N: 50.00
- Classe d'uso: Classe II
- SL Esercizio: SLO-Pvr no, SLD-Pvr 63.00
- SL Ultimi: SLV-Pvr 10.00, SLC-Pvr no
- Classe di duttilità: Classe B
- Quota di riferimento: 0.00 <m>
- Altezza della struttura: 1.00 <m>
- Numero piani edificio: 0
- Coefficiente θ : 0.00
- Edificio regolare in altezza: no
- Edificio regolare in pianta: no
- Forze orizzontali convenzionali per stati limite non sismici: 1.00%
- Genera stati limite per verifiche di resistenza al fuoco: no

Dati di calcolo

- Categoria del suolo di fondazione: D
- Tipologia edificio: c.a. o prefabbricato a telaio a più piani e più campate

Coeff. C ₁	0.075
Periodo T ₁	0.075
Coeff. λ SLD	1.00
Coeff. λ SLV	1.00
Rapporto di sovraresistenza (α_u/α_1)	1.15
Valore di riferimento del fattore di struttura (q ₀)	3.45
Fattore riduttivo (K _w)	1.00
Fattore riduttivo regolarità in altezza (K _R)	0.80
Fattore di struttura (q)	1.00

- Categoria topografica: T1 - Superficie pianeggiante, pendii e rilievi isolati con inclinazione media $i \leq 15^\circ$
- Coeff. amplificazione topografica S_T: 1.00
- Fattore di struttura per sisma verticale (q_v): 1.50
- Modi da calcolare: 3
- Modi da considerare: tali da movimentare una percentuale di massa pari a 85.00%
- Trascura modi con massa movimentata minore di: no
- Smorzamento spettro: 5.00

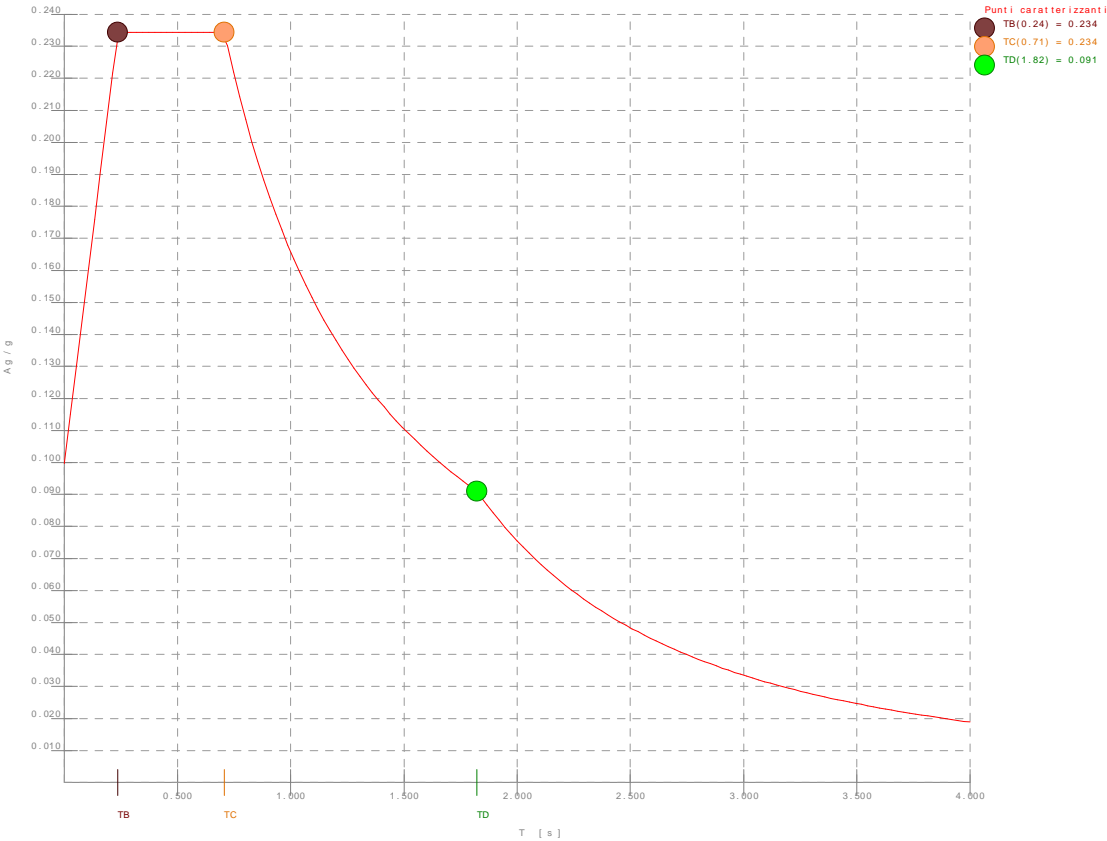


Figura numero 1: Spettro SLD

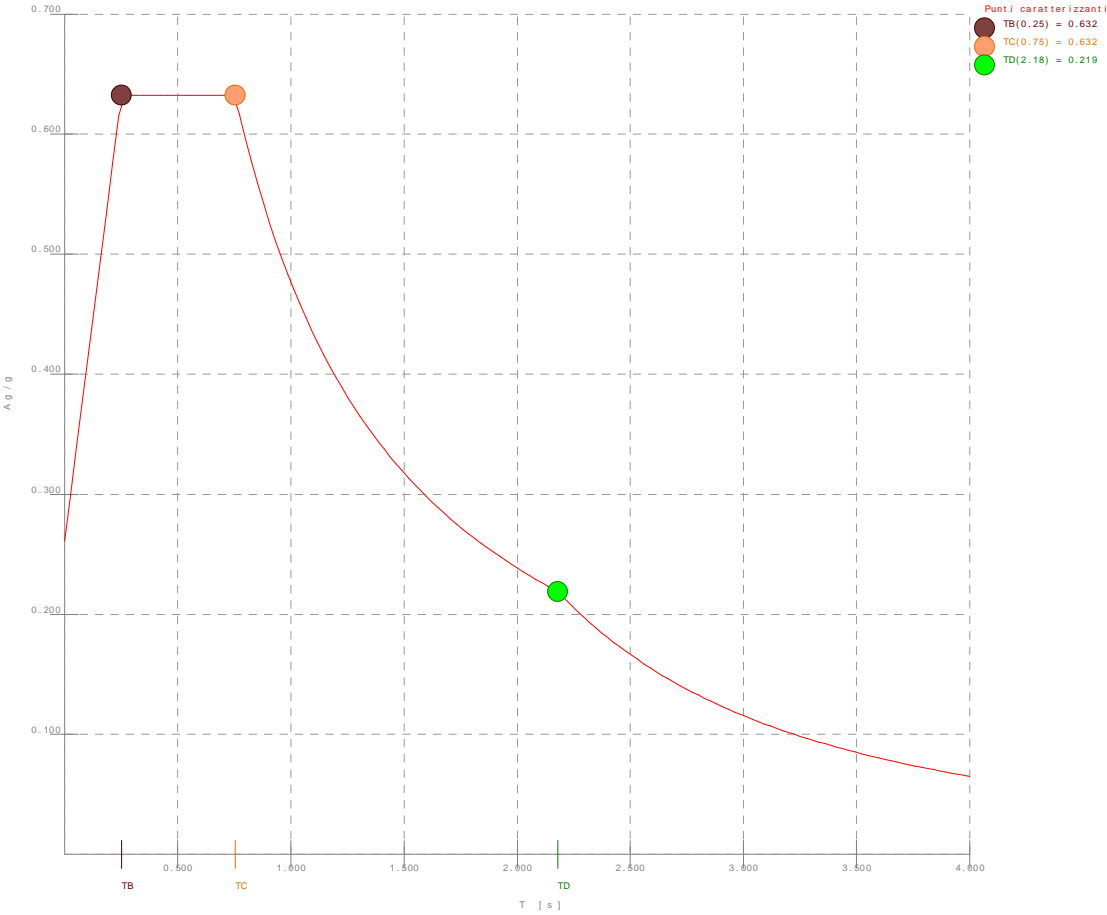


Figura numero 2: Spettro SLV

- Angolo di ingresso del sisma: 0.00 <grad>

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo	CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1	S	--	
2		1.00	1.00	0.00	0.00	0.00	1.00	2	S	--	
3		1.00	1.00	0.00	0.00	0.00	1.00	11	S	B	
4		1.00	1.00	0.00	0.00	0.00	1.00	10	S	B	
5		1.00	1.00	0.00	0.00	0.00	1.00	19	S	B	

Elenco tipi cce definiti

Simbologia

Tipo CCE = Tipo condizione di carico elementare
Comm. = Commento
Tipo = Tipologia
G = Permanente
Q = Variabile
I = Da ignorare
A = Azione eccezionale
P = Precompressione
Durata = Durata del carico
N = Non definita
P = Permanente
L = Lunga
M = Media
B = Breve
I = Istantanea
 $\gamma_{min.}$ = Coeff. $\gamma_{min.}$
 γ_{max} = Coeff. γ_{max}
 ψ_0 = Coeff. ψ_0
 ψ_1 = Coeff. ψ_1
 ψ_2 = Coeff. ψ_2
 $\psi_{0,s}$ = Coeff. ψ_0 sismico (D.M. 96)

Tipo CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	γ_{max}	ψ_0	ψ_1	ψ_2	$\psi_{0,s}$
1	D.M. 08 Permanenti strutturali	G	N	1.00	1.30				
2	D.M. 08 Permanenti non strutturali	G	N	0.00	1.50				
3	D.M. 08 Variabili Categoria A Ambienti ad uso residenziale	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
4	D.M. 08 Variabili Categoria B Uffici	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
5	D.M. 08 Variabili Categoria C Ambienti suscettibili di affollamento	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
6	D.M. 08 Variabili Categoria D Ambienti ad uso commerciale	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
7	D.M. 08 Variabili Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	Q	N	0.00	1.50	1.00	0.90	0.80	0.00
8	D.M. 08 Variabili Categoria F Rimesse e parcheggi (per autoveicoli di peso <= 30 kN)	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
9	D.M. 08 Variabili Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
10	D.M. 08 Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00
11	D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
12	D.M. 08 Variabili Neve (a quota > 1000 m s.l.m.)	Q	N	0.00	1.50	0.70	0.50	0.20	0.00
13	D.M. 08 Variabili Variazioni termiche	Q	N	0.00	1.50	0.60	0.50	0.00	0.00
14	D.M. 96 Permanenti	G	N	1.00	1.40				
15	D.M. 96 Variabili Abitazioni	Q	P	0.00	1.50	0.70	0.50	0.20	0.70
16	D.M. 96 Variabili Uffici, negozi, scuole, ecc.	Q	N	0.00	1.50	0.70	0.60	0.30	0.70
17	D.M. 96 Variabili Autorimesse	Q	N	0.00	1.50	0.70	0.70	0.60	0.70
18	D.M. 96 Variabili Vento	Q	N	0.00	1.50	0.70	0.20	0.00	0.00
19	D.M. 08 Variabili Categoria H - Coperture	Q	N	0.00	1.50	0.00	0.00	0.00	1.00

Ambienti di carico

Simbologia

N Numero
Comm. Commento
1
2
3
4
5
F azioni orizzontali convenzionali
SLU Stato limite ultimo
SLR Stato limite per combinazioni rare
SLF Stato limite per combinazioni frequenti
SLQ Stato limite per combinazioni quasi permanenti o di danno

N	Comm.	1	2	3	4	5	S	SLU	SLR	SLF	SLQ
1	Calcolo sismico	si	si	si	si	si	si	si	no	no	no
2	Calcolo statico	si	si	si	si	si	no	si	si	si	si

Elenco combinazioni di carico simboliche

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5	±S
1 Amb. 1 (Sisma)	SLU S 1	1	1	ψ_2	ψ_2	ψ_2	1	
2 Amb. 2 (SLU)	SLU γ max	γ max	γ max	γ max	γ max	γ max	γ max	-----
3 Amb. 2 (SLE R)	SLE R 1	1	1	1	1	1	1	-----
4 Amb. 2 (SLE F)	SLE F 1	1	1	ψ_1	ψ_1	ψ_1	ψ_1	-----
5 Amb. 2 (SLE Q)	SLE Q 1	1	1	ψ_2	ψ_2	ψ_2	ψ_2	-----

Genera le combinazioni con un solo carico di tipo variabile come di base: no

Considera sollecitazioni dinamiche con segno dei modi principali: no

Combinazioni delle cce

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco

An. = Tipo di analisi
L = Lineare
NL = Non lineare
Bk = Buckling
S = Si
N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5	±S X	±S Y
1 CC 1 - Amb. 1 (SLU S)	S +X+0.3Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	1.00	0.30
2 CC 2 - Amb. 1 (SLE)	S +X+0.3Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	1.00	0.30

3 CC 3 - Amb. 1 (SLU S) S +X-0.3Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	1.00	-0.30
4 CC 4 - Amb. 1 (SLE) S +X-0.3Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	1.00	-0.30
5 CC 5 - Amb. 1 (SLU S) S +0.3X+Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.30	1.00
6 CC 6 - Amb. 1 (SLE) S +0.3X+Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	0.30	1.00
7 CC 7 - Amb. 1 (SLU S) S -0.3X+Y	SLV	L	N	1.00	1.00	0.00	0.00	0.00	-0.30	1.00
8 CC 8 - Amb. 1 (SLE) S -0.3X+Y	SLD	L	N	1.00	1.00	0.00	0.00	0.00	-0.30	1.00
9 CC 9 - Amb. 2 (SLU)	SLU	L	N	1.30	1.50	1.50	0.90	0.00	0.00	0.00
10	SLU	L	N	1.30	1.50	0.75	1.50	0.00	0.00	0.00
11	SLU	L	N	1.30	1.50	0.75	0.90	1.50	0.00	0.00
12	SLU	L	N	0.90	0.90	0.00	-1.50	0.00	0.00	0.00
13	SLE R L	N	1.00	1.00	1.00	0.60	0.00	0.00	0.00	0.00
14	SLE R L	N	1.00	1.00	0.50	1.00	0.00	0.00	0.00	0.00
15 CC 10 - Amb. 2 (SLE R)	SLE R L	N	1.00	1.00	0.50	0.60	1.00	0.00	0.00	0.00
16 CC 11 - Amb. 2 (SLE F)	SLE F L	N	1.00	1.00	0.20	0.20	0.00	0.00	0.00	0.00
17 CC 12 - Amb. 2 (SLE Q)	SLE Q L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00

Elenco masse nodi

Simbologia

Nodo = Numero del nodo
Mo = Massa orizzontale

Nodo	Mo
	<kg>
-6	64.09
-4	101.03
-2	82.23

Totali masse nodi

Mo
<kg>
247.35

Elenco modi di vibrare, masse partecipanti e coefficienti di partecipazione

Simbologia

Modo = Numero del modo di vibrare
C = * indica che il modo è stato considerato
Per. = Periodo
Diff. = Minima differenza percentuale dagli altri periodi
 Φ_x = Coefficiente di partecipazione in dir. X
 Φ_y = Coefficiente di partecipazione in dir. Y
 Φ_z = Coefficiente di partecipazione in dir. Z
%Mx = Percentuale massa partecipante in dir. X
%My = Percentuale massa partecipante in dir. Y
%Mz = Percentuale massa partecipante in dir. Z
%Jpz = Percentuale momento d'inerzia polare partecipante intorno all'asse Z

Modo	C	Per.	Diff.	Φ_x	Φ_y	Φ_z	%Mx	%My	%Mz	%Jpz
1 *	0.10	24.99	0.00	3.18	0.00	0.00	40.91	0.00	0.00	0.00
2 *	0.08	0.47	-0.00	2.86	0.00	0.00	33.18	0.00	0.00	0.00
3 *	0.08	0.47	-0.00	-2.53	0.00	0.00	25.91	0.00	0.00	0.00

Tot.cons. 0.00 100.00 0.00 0.00

Elenco coefficienti di risposta

Simbologia

Modo = Numero del modo di vibrare
Sx = Coefficiente di risposta (moltiplicato per 100) in dir. X
Sy = Coefficiente di risposta (moltiplicato per 100) in dir. Y

Stato limite di danno

Modo	Sx	Sy
1	15.81	15.81
2	14.64	14.64
3	14.62	14.62

Stato limite di salvaguardia della vita

Modo	Sx	Sy
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1 41.17 41.17
2 38.15 38.15
3 38.09 38.09

Spostamenti dei nodi allo stato limite ultimo

Simbologia

Nodo = Numero del nodo

Sx = Spostamento in dir. X

CC = Numero della combinazione delle condizioni di carico elementari

Sy = Spostamento in dir. Y

Sz = Spostamento in dir. Z

Rx = Rotazione intorno all'asse X

Ry = Rotazione intorno all'asse Y

Rz = Rotazione intorno all'asse Z

Nodo	Sx	CC	Sy	CC	Sz	CC	Rx	CC	Ry	CC	Rz	CC
	<cm>		<cm>		<cm>		<rad>		<rad>		<rad>	
-6 Max	0.06	12	0.06	5	0.15	12	0.01	10	0.00	5	0.00	12
-6 Min.	-0.18	10	-0.06	5	-0.49	10	-0.00	12	0.00	5	-0.00	10
-4 Max	0.19	12	0.11	5	0.53	12	0.00	10	0.00	10	0.00	12
-4 Min.	-0.56	10	-0.11	5	-1.56	10	0.00	12	-0.00	12	0.00	10
-2 Max	0.00	10	0.06	5	0.00	12	0.00	5	0.00	10	0.00	5
-2 Min.	0.00	12	-0.06	5	-0.01	10	0.00	5	0.00	12	0.00	5
-1 Max	0.00	12	0.02	5	0.00	12	0.00	5	0.00	10	0.00	5
-1 Min.	-0.00	10	-0.02	5	-0.01	10	0.00	5	0.00	12	0.00	5
1 Max	0.00	1	0.00	1	0.00	1	0.00	5	0.00	9	0.00	5
1 Min.	0.00	1	0.00	1	0.00	1	0.00	5	0.00	12	0.00	5
2 Max	0.00	1	0.00	1	0.00	1	0.00	5	0.00	10	0.00	5
2 Min.	0.00	1	0.00	1	0.00	1	0.00	5	0.00	12	0.00	5
4 Max	0.00	12	0.00	5	0.02	12	0.00	5	0.00	10	0.00	5
4 Min.	-0.01	10	0.00	5	-0.06	10	-0.00	5	0.00	12	0.00	5
7 Max	0.00	1	0.00	1	0.00	1	0.00	5	0.02	10	0.00	5
7 Min.	0.00	1	0.00	1	0.00	1	0.00	5	-0.01	12	-0.00	5
8 Max	0.14	12	0.00	5	0.38	12	0.00	10	0.00	10	0.00	12
8 Min.	-0.44	10	0.00	5	-1.24	10	0.00	12	0.00	12	0.00	10
11 Max	0.00	1	0.00	1	0.00	1	0.01	10	0.01	10	0.00	12
11 Min.	0.00	1	0.00	1	0.00	1	-0.00	12	-0.00	12	-0.00	10
12 Max	0.00	1	0.00	1	0.00	1	0.01	10	0.00	10	0.00	12
12 Min.	0.00	1	0.00	1	0.00	1	-0.00	12	0.00	12	-0.00	10

Reazioni vincolari

Simbologia

Nodo = Numero del nodo

Rx = Reazione vincolare (forza) in dir. X

CC = Numero della combinazione delle condizioni di carico elementari

Ry = Reazione vincolare (forza) in dir. Y

Rz = Reazione vincolare (forza) in dir. Z

Mx = Reazione vincolare (momento) intorno all'asse X

My = Reazione vincolare (momento) intorno all'asse Y

Mz = Reazione vincolare (momento) intorno all'asse Z

Nodo	Rx	CC	Ry	CC	Rz	CC	Mx	CC	My	CC	Mz	CC
	<daN>		<daN>		<daN>		<daNm>		<daNm>		<daNm>	
1 Max	2384.05	10	0.00	5	311.34	10	0.00	5	0.00	10	0.00	5
1 Min.	-576.12	12	0.00	5	-20.97	12	0.00	5	0.00	12	0.00	5
2 Max	537.04	12	15.37	5	978.03	10	0.00	5	0.00	9	0.00	5
2 Min.	-2257.03	10	-15.37	5	-233.86	12	0.00	5	0.00	12	0.00	5
7 Max	78.16	12	20.42	5	847.28	10	0.00	5	0.00	12	0.00	5
7 Min.	-254.04	10	-20.42	5	-299.37	12	0.00	5	0.00	11	0.00	5
11 Max	0.00	5	11.98	5	395.59	10	0.00	12	0.00	10	0.00	10
11 Min.	0.00	5	-11.98	5	-123.74	12	0.00	10	0.00	12	0.00	12
12 Max	127.02	10	34.81	5	758.99	10	0.00	12	0.00	12	0.00	12
12 Min.	-39.08	12	-34.81	5	-224.40	12	0.00	9	0.00	10	0.00	10

Sollecitazioni aste

Simbologia

Asta = Numero dell'asta

N1 = Nodo1

N2 = Nodo2

X = Coordinata progressiva rispetto al nodo iniziale

N = Sforzo normale

CC = Numero della combinazione delle condizioni di carico elementari

Ty = Taglio in dir. Y
Mz = Momento flettente intorno all'asse Z
Tz = Taglio in dir. Z
My = Momento flettente intorno all'asse Y
Mx = Momento torcente intorno all'asse X

Asta	N1	N2	X	N	CC	Ty	CC	Mz	CC	Tz	CC	My	CC	Mx	CC
			<cm>	<daN>		<daN>		<daNm>		<daN>		<daNm>		<daNm>	
1	1	2 Max	0.00	-8.06	12	2.25	5	2.07	5	51.31	10	1.66	12	0.21	5
1	1	2 Max	100.00	11.65	9	2.25	5	0.18	5	51.31	10	32.38	10	0.21	5
1	1	2 Min.	0.00	-11.65	9	-2.25	5	-2.07	5	-10.11	12	-18.93	10	-0.21	5
1	1	2 Min.	100.00	8.06	12	-2.25	5	-0.18	5	-10.11	12	-8.45	12	-0.21	5
94	-2	-1 Max	0.00	83.00	10	4.37	5	2.00	5	18.81	12	9.89	10	0.31	5
94	-2	-1 Max	50.00	71.35	10	4.37	5	0.19	5	18.81	12	5.50	12	0.31	5
94	-2	-1 Min.	0.00	22.91	12	-4.37	5	-2.00	5	-58.01	10	-3.91	12	-0.31	5
94	-2	-1 Min.	50.00	14.85	12	-4.37	5	-0.19	5	-58.01	10	-19.12	10	-0.31	5
101	2	-2 Max	0.00	2402.25	10	13.12	5	0.14	5	50.60	12	32.38	10	0.24	5
101	2	-2 Max	64.02									7.88	12		
101	2	-2 Max	148.66	2269.20	10	13.12	5	19.37	5	204.32	10	59.22	10	0.24	5
101	2	-2 Min.	0.00	-577.60	12	-13.12	5	-0.14	5	-168.22	10	-8.45	12	-0.24	5
101	2	-2 Min.	64.02									7.88	12		
101	2	-2 Min.	148.66	-535.98	12	-13.12	5	-19.37	5	-65.93	12	-19.85	12	-0.24	5
101	-2	4 Max	0.00	1572.47	10	11.75	5	16.90	5	66.74	12	75.21	10	0.06	5
101	-2	4 Max	85.15									7.07	12		
101	-2	4 Max	148.66	1439.42	10	11.75	5	0.57	5	150.08	10	21.40	10	0.06	5
101	-2	4 Min.	0.00	-419.24	12	-11.75	5	-16.90	5	-222.46	10	-21.35	12	-0.06	5
101	-2	4 Min.	85.15									7.07	12		
101	-2	4 Min.	148.66	-377.62	12	-11.75	5	-0.57	5	-49.79	12	-8.75	12	-0.06	5
103	7	-4 Max	0.00	524.21	10	20.42	5	0.00	5	255.64	12	0.00	10	0.00	5
103	7	-4 Max	148.66	269.76	10	20.42	5	30.35	5	0.00	11	190.02	12	0.00	5
103	7	-4 Min.	0.00	-174.30	12	-20.42	5	0.00	5	-712.47	10	0.00	12	0.00	5
103	7	-4 Min.	148.66	-83.00	12	-20.42	5	-30.35	5	-0.00	12	-529.58	10	0.00	5
103	-4	8 Max	0.00	269.76	10	20.42	5	30.35	5	0.00	5	190.02	12	0.00	1
103	-4	8 Max	118.93					1.82	1			-43.24	1		
103	-4	8 Max	148.66	15.30	10	20.42	5	0.00	10	712.47	10	0.00	11	0.00	1
103	-4	8 Min.	0.00	-83.00	12	-20.42	5	-30.35	5	0.00	5	-529.58	10	0.00	1
103	-4	8 Min.	118.93									-190.65	10		
103	-4	8 Min.	148.66	8.30	12	-20.42	5	0.00	12	-255.64	12	0.00	12	0.00	1
105	11	-6 Max	0.00	133.05	10	11.98	5	0.00	10	116.53	12	0.00	11	0.00	5
105	11	-6 Max	148.66	0.00	12	11.98	5	17.80	5	0.00	11	86.62	12	0.00	5
105	11	-6 Min.	0.00	-41.62	12	-11.98	5	0.00	12	-372.54	10	0.00	12	0.00	5
105	11	-6 Min.	148.66	-0.00	11	-11.98	5	-17.80	5	-0.00	12	-276.91	10	0.00	5
105	-6	12 Max	0.00	0.00	5	11.98	5	17.80	5	0.00	5	86.62	12	0.00	1
105	-6	12 Max	118.93					1.07	1			-24.98	1		
105	-6	12 Max	148.66	41.62	12	11.98	5	0.00	5	372.54	10	0.00	11	0.00	1
105	-6	12 Min.	0.00	0.00	5	-11.98	5	-17.80	5	0.00	5	-276.91	10	0.00	1
105	-6	12 Min.	118.93									-99.69	10		
105	-6	12 Min.	148.66	-133.05	10	-11.98	5	0.00	5	-116.53	12	0.00	10	0.00	1
301	1	-2 Max	0.00	140.90	12	1.50	5	4.41	5	19.14	10	0.82	12	0.28	5
301	1	-2 Max	59.46									3.55	12		
301	1	-2 Max	148.66	148.96	12	1.50	5	2.18	5	-10.74	14	-2.41	12	0.28	5
301	1	-2 Min.	0.00	-794.40	10	-1.50	5	-4.41	5	9.12	12	-10.32	10	-0.28	5
301	1	-2 Min.	87.27									-1.97	10		
301	1	-2 Min.	148.66	-782.75	10	-1.50	5	-2.18	5	-13.94	9	-6.10	10	-0.28	5
306	4	8 Max	0.00	15.37	5	39.08	12	0.00	1	363.40	10	0.00	12	0.00	12
306	4	8 Max	156.00	15.37	5	39.08	12	60.97	12	332.91	10	543.12	10	0.00	12
306	4	8 Min.	0.00	-15.37	5	-127.02	10	0.00	1	-100.66	12	0.00	9	0.00	10
306	4	8 Min.	156.00	-15.37	5	-127.02	10	-198.15	10	-121.77	12	-173.50	12	0.00	10
306	8	12 Max	0.00	26.12	5	127.02	10	60.97	12	121.77	12	543.12	10	0.00	1
306	8	12 Max	124.80					-39.63	10			112.43	10		
306	8	12 Max	156.00	26.12	5	127.02	10	0.00	12	100.66	12	0.00	12	0.00	1
306	8	12 Min.	0.00	-26.12	5	-39.08	12	-198.15	10	-332.91	10	-173.50	12	0.00	1
306	8	12 Min.	124.80					12.19	12			-32.06	12		
306	8	12 Min.	156.00	-26.12	5	-39.08	12	0.00	10	-363.40	10	0.00	10	0.00	1
307	1	-1 Max	0.00	430.26	12	0.75	5	4.27	5	14.48	10	0.84	12	0.32	5
307	1	-1 Max	59.95									3.80	12		
307	1	-1 Max	140.00	430.26	12	0.75	5	5.32	5	-12.81	12	-1.29	12	0.32	5
307	1	-1 Min.	0.00	-1591.06	10	-0.75	5	-4.27	5	9.77	12	-8.61	10	-0.32	5
307	1	-1 Min.	62.15									-4.11	10		
307	1	-1 Min.	140.00	-1591.06	10	-0.75	5	-5.32	5	-18.16	9	-11.16	10	-0.32	5
307	-1	4 Max	0.00	411.45	12	3.62	5	5.63	5	53.22	10	4.21	12	0.13	5
307	-1	4 Max	128.22					0.29	1			4.43	1		
307	-1	4 Max	140.00	411.45	12	3.62	5	0.55	5	20.61	10	21.40	10	0.13	5
307	-1	4 Min.	0.00	-1533.06	10	-3.62	5	-5.63	5	2.04	12	-30.28	10	-0.13	5
307	-1	4 Min.	11.92									4.34	12		
307	-1	4 Min.	140.00	-1533.06	10	-3.62	5	-0.55	5	-20.54	12	-8.75	12	-0.13	5

Verifiche aste in acciaio

Simbologia

Sez.		= Numero della sezione
Cod.		= Codice
Tipo		= Tipologia
	2C	= Doppia C lato labbri
	2Cdx	= Doppia C lato costola
	2I	= Doppia I
	2L	= Doppia L lato labbri
	2Ldx	= Doppia L lato costole
	C	= C
	Cdx	= C destra
	Cir.	= Circolare
	Cir.c	= Circolare cava
	I	= I
	L	= L
	Ldx	= L destra
	Om.	= Omega
	Pg	= Pi greco
	Pr	= Poligono regolare
	Prc	= Poligono regolare cavo
	Pc	= Per coordinate
	Ia	= Inerzie assegnate
	R	= Rettangolare
	Rc	= Rettangolare cava
	T	= T
	U	= U
	Ur	= U rovescia
	V	= V
	Vr	= V rovescia
	Z	= Z
	Zdx	= Z destra
	Ts	= T stondata
	Ls	= L stondata
	Cs	= C stondata
	Is	= I stondata
	Dis.	= Disegnata
D	<cm>	= Distanza
Area	<cmq>	= Area
Anet	<cmq>	= Area netta per compressione
Aeff	<cmq>	= Area effettiva per trazione
Jy	<cm4>	= Momento d'inerzia rispetto all'asse Y
Jz	<cm4>	= Momento d'inerzia rispetto all'asse Z
Iy	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Y
Iz	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Z
Wymin	<cm>	= Modulo di resistenza minimo rispetto all'asse Y
Wzmin	<cm>	= Modulo di resistenza minimo rispetto all'asse Z
Wy,plas	<cm>	= Modulo di resistenza plastico intorno all'asse Y
Wz,plas	<cm>	= Modulo di resistenza plastico intorno all'asse Z
Atag,y	<cmq>	= Area resistente a taglio in dir. Y
Atag,z	<cmq>	= Area resistente a taglio in dir. Z
J ϕ	<cm6>	= Costante di ingobbamento
CC		= Numero della combinazione delle condizioni di carico elementari
N,Ed	<daN>	= Forza assiale di calcolo
Myeq,Ed	<daNm>	= Valore equivalente del momento flettente intorno all'asse Y
Nc,Rd	<daN>	= Resistenza a compressione
My,c,Rd	<daNm>	= Resistenza di calcolo a flessione intorno all'asse Y
L		= lunghezza dell'asta
λ_y		= Snellezza per inflessione intorno all'asse y(c)
Ncr,y	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse y(c)
λ_y^*		= Snellezza adimensionale per inflessione intorno all'asse y(c)
Curva		= Curva di instabilità adottata
Φ_y		= Coefficiente Φ per inflessione intorno all'asse y(c)
χ_y		= Coefficiente χ di riduzione per instabilità intorno all'asse y(c)
λ_z		= Snellezza per inflessione intorno all'asse z(e)
Ncr,z	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse z(e)
λ_z^*		= Snellezza adimensionale per inflessione intorno all'asse z(e)
Φ_z		= Coefficiente Φ per inflessione intorno all'asse z(e)
χ_z		= Coefficiente χ di riduzione per instabilità intorno all'asse z(e)
Xl	<m>	= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica
N	<daN>	= Sforzo normale
Tz	<daN>	= Taglio in dir. Z
My	<daNm>	= Momento flettente intorno all'asse Y
σ_N	<daN/cm²>	= Tensione normale per sforzo normale
σ_M	<daN/cm²>	= Tensione normale per momento flettente
τ	<daN/cm²>	= Tensione tangenziale per taglio e/o torsione
L _{cr}	<m>	= Lunghezza di libera inflessione laterale fra ritegni torsionali
α -imp		= Coefficiente di imperfezione
K _c		= Coeff. di correzione momento flettente per stabilità laterale membrature inflesse
ψ		= Coeff. di correzione momento critico per stabilità laterale membrature inflesse
M _{cr}	<daNm>	= Momento critico per instabilità flesso torsionale
λ_{LT}		= Coefficiente di imperfezione per stabilità laterale membrature inflesse
$\lambda_{LT,0}$		= Coefficiente di imperfezione di confronto per stabilità laterale membrature inflesse
β_{LT}		= Coefficiente per calcolo Φ_{LT}
Φ_{LT}		= Coefficiente Φ per stabilità laterale membrature inflesse
f		= Fattore di modifica per il coefficiente di riduzione
χ_{LT}		= Coefficiente di riduzione per stabilità laterale membrature inflesse
My,Ed	<daNm>	= Momento flettente di calcolo intorno all'asse Y
My,b,Rd	<daNm>	= Resistenza di calcolo a flessione ridotta per stabilità laterale membrature inflesse
Mzeq,Ed	<daNm>	= Valore equivalente del momento flettente intorno all'asse Z
Mz,c,Rd	<daNm>	= Resistenza di calcolo a flessione intorno all'asse Z
Ty	<daN>	= Taglio in dir. Y
Mz	<daNm>	= Momento flettente intorno all'asse Z
f _{z,l}	<cm>	= Freccia in direzione Z locale
f _{z,g}	<cm>	= Freccia in direzione Z globale
δ	<cm>	= Spostamento relativo asta

Caratteristiche profilati utilizzati

Sez.	Cod.	Tipo	D	Area	Anet	Aeff	Jy	Jz	Iy	Iz	Wymin	Wzmin
			<cm>	<cmq>	<cmq>	<cmq>	<cm4>	<cm4>	<cm>	<cm>	<cm>	<cm>

1 2*L100x50x8	2Ldx	1.00	22.83	22.83	22.83	232.80	100.20	3.19	2.10	36.41	18.22
2 L100x10	Ls	--	19.15	19.15	19.15	176.67	176.67	3.04	3.04	24.61	24.61

Caratteristiche profilati utilizzati

Sez.	Cod.	Wy,plas <cmc>	Wz,plas <cmc>	Atag,y <cmq>	Atag,z <cmq>	Jw <cm6>
1 2*L100x50x8		64.73	0.00	8.00	16.00	
2 L100x10		50.38	50.38	10.00	10.00	

Asta n. 1 (1 2) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3

Sollecitazioni: N,Ed=-11.65 Myeq,Ed=-32.38

Resistenze: Nc,Rd=38585.50 My,c,Rd=615.58 L=100.00

$\lambda_y=31.31$ Ncr,y=482503.00 $\lambda^*_y=0.41$ Curva b: $\Phi_y=0.62$ $\chi_y=0.92$

$\lambda_{zeq}=47.73$ Ncr,z=207675.00 $\lambda^*_z=0.62$ Curva b: $\Phi_z=0.77$ $\chi_z=0.82$

$\chi_{min}=0.82$

Verifica: $0.00 + 0.03 = 0.03$

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=1.00 - Classe 3

Sollecitazioni: N=11.65 Tz=51.31 My=-32.38

Tensioni: $\sigma_N=0.51$ $\sigma_M=88.92$ $\tau=0.00$ $\sigma_{max}=89.43$

Tensioni: $\sigma_N=0.51$ $\sigma_M=0.00$ $\tau=4.40$ $\tau_{max}=4.40$

Tensioni: $\sigma_N=0.51$ $\sigma_M=88.92$ $\tau=0.00$ $\sigma_{ID,max}=89.43$

- Verifica spostamento relativo massimo per singola asta - CC 14

$\delta=0.00$ (L/67004)

Asta n. 94 (-2 -1) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica freccia massima per soli carichi accidentali - CC 14

$f_{z,L}=0.00$ (L/17119)

- Verifica freccia massima carichi totali - CC 14

$f_{z,L}=0.00$ (L/10255)

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.50 - Classe 3

Sollecitazioni: N=71.35 Tz=-58.01 My=19.12

Tensioni: $\sigma_N=3.13$ $\sigma_M=-52.50$ $\tau=0.00$ $\sigma_{max}=-49.38$

Tensioni: $\sigma_N=3.13$ $\sigma_M=-0.00$ $\tau=4.97$ $\tau_{max}=4.97$

Tensioni: $\sigma_N=3.13$ $\sigma_M=-52.50$ $\tau=0.00$ $\sigma_{ID,max}=49.38$

Asta n. 101 (2 -2) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3

$L_{cr}=1.49$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.27$ M,cr=0.00 $\lambda_{LT}=0.00$

$\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$

CC 10 My,Ed=-59.22 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.05

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3

Sollecitazioni: N,Ed=-577.60 Myeq,Ed=18.40

Resistenze: Nc,Rd=38585.50 My,c,Rd=615.58 L=148.66

$\lambda_y=46.55$ Ncr,y=218327.00 $\lambda^*_y=0.61$ Curva b: $\Phi_y=0.76$ $\chi_y=0.83$

$\lambda_{zeq}=70.95$ Ncr,z=93970.60 $\lambda^*_z=0.93$ Curva b: $\Phi_z=1.05$ $\chi_z=0.64$

$\chi_{min}=0.64$

Verifica: $0.01 + 0.01 = 0.02$

- Verifica freccia massima per soli carichi accidentali - CC 14

$f_{z,G}=0.01$ (L/26198)

- Verifica freccia massima carichi totali - CC 14

$f_{z,G}=0.01$ (L/15079)

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=1.49 - Classe 3

Sollecitazioni: N=2269.20 Tz=204.32 My=-59.22

Tensioni: $\sigma_N=99.42$ $\sigma_M=162.62$ $\tau=0.00$ $\sigma_{max}=262.04$

Tensioni: $\sigma_N=99.42$ $\sigma_M=0.00$ $\tau=17.51$ $\tau_{max}=17.51$

Tensioni: $\sigma_N=99.42$ $\sigma_M=162.62$ $\tau=0.00$ $\sigma_{ID,max}=262.04$

Asta n. 101 (-2 4) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=1.49 Curva d: α -imp=0.76 k_c=0.94 ψ =1.48 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 10 My,Ed=-75.21 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.06
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: N,Ed=-419.24 Myeq,Ed=19.56
Resistenze: N_c,Rd=38585.50 My,c,Rd=615.58 L=148.66
 λ_y =46.55 Ncr,y=218327.00 λ_y^* =0.61 Curva b: Φ_y =0.76 χ_y =0.83
 λ_{zeq} =70.95 Ncr,z=93970.60 λ_z^* =0.93 Curva b: Φ_z =1.05 χ_z =0.64
 χ ,min=0.64
Verifica: 0.01 + 0.02 = 0.02
- Verifica freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.02 (L/7660)
- Verifica freccia massima carichi totali - CC 14
f_{z,L}=0.03 (L/4574)
- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=1572.47 T₂=-222.46 M_y=-75.21
Tensioni: σ_N =68.89 σ_M =206.53 τ =0.00 σ_{max} =275.42
Tensioni: σ_N =68.89 σ_M =0.00 τ =19.07 τ_{max} =19.07
Tensioni: σ_N =68.89 σ_M =206.53 τ =0.00 $\sigma_{ID,max}$ =275.42

Asta n. 103 (7 -4) 2*L100x50x8Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=1.49 Curva d: α -imp=0.76 k_c=0.94 ψ =1.75 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 10 My,Ed=529.58 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.43
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: N,Ed=-174.30 Myeq,Ed=-142.51
Resistenze: N_c,Rd=38585.50 My,c,Rd=615.58 L=148.66
 λ_y =46.55 Ncr,y=218327.00 λ_y^* =0.61 Curva b: Φ_y =0.76 χ_y =0.83
 λ_{zeq} =70.95 Ncr,z=93970.60 λ_z^* =0.93 Curva b: Φ_z =1.05 χ_z =0.64
 χ ,min=0.64
Verifica: 0.00 + 0.12 = 0.12
- Verifica freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.72 (L/205) f_{z,G}=0.68 (L/218)
- Verifica freccia massima carichi totali - CC 14
f_{z,L}=1.12 (L/133) f_{z,G}=1.05 (L/141)
- Verifica in termini tensionali (4.2.5) - CC 10 Xl=1.49 - Classe 3
Sollecitazioni: N=269.76 M_y=529.58
Tensioni: σ_N =11.82 σ_M =-1454.33 τ =0.00 σ_{max} =-1442.51
Tensioni: σ_N =0.00 σ_M =0.00 τ =0.00 τ_{max} =0.00
Tensioni: σ_N =11.82 σ_M =-1454.33 τ =0.00 $\sigma_{ID,max}$ =1442.51

Asta n. 103 (-4 8) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=1.49 Curva d: α -imp=0.76 k_c=0.94 ψ =1.75 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 10 My,Ed=529.58 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.43
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 12 - Classe 3
Sollecitazioni: N,Ed=-83.00 Myeq,Ed=-142.51
Resistenze: N_c,Rd=38585.50 My,c,Rd=615.58 L=148.66
 λ_y =46.55 Ncr,y=218327.00 λ_y^* =0.61 Curva b: Φ_y =0.76 χ_y =0.83
 λ_{zeq} =70.95 Ncr,z=93970.60 λ_z^* =0.93 Curva b: Φ_z =1.05 χ_z =0.64
 χ ,min=0.64
Verifica: 0.00 + 0.12 = 0.12
- Verifica freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.20 (L/728) f_{z,G}=0.19 (L/773)

- Verifica freccia massima carichi totali - CC 14
 $f_{z,L}=0.29$ (L/511) $f_{z,G}=0.27$ (L/543)
- Verifica in termini tensionali (4.2.5) - CC 10 $X_1=0.00$ - Classe 3
 Sollecitazioni: $N=269.76$ $M_y=529.58$
 Tensioni: $\sigma_N=11.82$ $\sigma_M=-1454.33$ $\tau=0.00$ $\sigma_{max}=-1442.51$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
 Tensioni: $\sigma_N=11.82$ $\sigma_M=-1454.33$ $\tau=0.00$ $\sigma_{ID,max}=1442.51$

Asta n. 105 (11 -6) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr}=1.49$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 1 $M_y,Ed=69.38$ $M_y,b,Rd=1231.15$ $M_y,Ed/M_y,b,Rd=0.06$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3
 Sollecitazioni: $N,Ed=-0.00$ $M_{y,eq,Ed}=207.68$
 Resistenze: $N_{c,Rd}=38585.50$ $M_{y,c,Rd}=615.58$ $L=148.66$
 $\lambda_y=46.55$ $N_{cr,y}=218327.00$ $\lambda^*_y=0.61$ Curva b: $\Phi_y=0.76$ $\chi_y=0.83$
 $\lambda_{z,eq}=70.95$ $N_{cr,z}=93970.60$ $\lambda^*_z=0.93$ Curva b: $\Phi_z=1.05$ $\chi_z=0.64$
 $\chi_{min}=0.64$
 Verifica: $0.00 + 0.17 = 0.17$
- Verifica freccia massima per soli carichi accidentali - CC 14
 $f_{z,L}=0.22$ (L/667) $f_{z,G}=0.21$ (L/708)
- Verifica freccia massima carichi totali - CC 14
 $f_{z,L}=0.35$ (L/420) $f_{z,G}=0.33$ (L/446)
- Verifica in termini tensionali (4.2.5) - CC 10 $X_1=1.49$ - Classe 3
 Sollecitazioni: $M_y=276.91$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=-760.45$ $\tau=0.00$ $\sigma_{max}=-760.45$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=-760.45$ $\tau=0.00$ $\sigma_{ID,max}=760.45$

Asta n. 105 (-6 12) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=1.49$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 12 $M_y,Ed=-86.62$ $M_y,b,Rd=1231.15$ $M_y,Ed/M_y,b,Rd=0.07$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3
 Sollecitazioni: $N,Ed=-133.05$ $M_{y,eq,Ed}=207.68$
 Resistenze: $N_{c,Rd}=38585.50$ $M_{y,c,Rd}=615.58$ $L=148.66$
 $\lambda_y=46.55$ $N_{cr,y}=218327.00$ $\lambda^*_y=0.61$ Curva b: $\Phi_y=0.76$ $\chi_y=0.83$
 $\lambda_{z,eq}=70.95$ $N_{cr,z}=93970.60$ $\lambda^*_z=0.93$ Curva b: $\Phi_z=1.05$ $\chi_z=0.64$
 $\chi_{min}=0.64$
 Verifica: $0.00 + 0.17 = 0.17$
- Verifica freccia massima per soli carichi accidentali - CC 14
 $f_{z,L}=0.22$ (L/667) $f_{z,G}=0.21$ (L/708)
- Verifica freccia massima carichi totali - CC 14
 $f_{z,L}=0.35$ (L/420) $f_{z,G}=0.33$ (L/446)
- Verifica in termini tensionali (4.2.5) - CC 10 $X_1=0.00$ - Classe 3
 Sollecitazioni: $M_y=276.91$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=-760.45$ $\tau=0.00$ $\sigma_{max}=-760.45$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=0.00$ $\tau=0.00$ $\tau_{max}=0.00$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=-760.45$ $\tau=0.00$ $\sigma_{ID,max}=760.45$

Asta n. 301 (1 -2) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
 $L_{cr}=1.49$ Curva d: $\alpha\text{-imp}=0.76$ $k_c=0.94$ $\psi=1.43$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
 CC 12 $M_y,Ed=-3.55$ $M_y,b,Rd=1231.15$ $M_y,Ed/M_y,b,Rd=0.00$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3
Sollecitazioni: $N, Ed = -794.40$ $My, Ed = 10.32$
Resistenze: $N, Rd = 38585.50$ $My, c, Rd = 615.58$ $L = 148.66$
 $\lambda_y = 46.55$ $Ncr, y = 218327.00$ $\lambda_y^* = 0.61$ Curva b: $\Phi_y = 0.76$ $\chi_y = 0.83$
 $\lambda_{z, eq} = 70.95$ $Ncr, z = 93970.60$ $\lambda_z^* = 0.93$ Curva b: $\Phi_z = 1.05$ $\chi_z = 0.64$
 $\chi_{min} = 0.64$
Verifica: $0.01 + 0.01 = 0.02$
- Verifica freccia massima per soli carichi accidentali - CC 14
 $f_{z, L} = 0.01$ (L/26523)
- Verifica freccia massima carichi totali - CC 14
 $f_{z, G} = 0.01$ (L/15083)
- Verifica in termini tensionali (4.2.5) - CC 10 $X1 = 0.00$ - Classe 3
Sollecitazioni: $N = -794.40$ $T_z = 19.14$ $M_y = 10.32$
Tensioni: $\sigma_N = -34.80$ $\sigma_M = -28.34$ $\tau = 0.00$ $\sigma_{max} = -63.15$
Tensioni: $\sigma_N = -34.80$ $\sigma_M = -0.00$ $\tau = 1.64$ $\tau_{max} = 1.64$
Tensioni: $\sigma_N = -34.80$ $\sigma_M = -28.34$ $\tau = 0.00$ $\sigma_{TD, max} = 63.15$

Asta n. 306 (4 8) L100x10 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
 $L_{cr} = 1.56$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ $M, cr = 0.00$ $\lambda_{LT} = 0.00$
 $\lambda_{LT, 0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ $f = 0.00$ $\chi_{LT} = 1.00$
CC 10 $My, Ed = -543.12$ $My, b, Rd = 832.21$ $My, Ed/My, b, Rd = 0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 3 - Classe 3
Sollecitazioni: $N, Ed = -4.61$ $My, Ed = -100.66$ $Mz, Ed = -37.63$
Resistenze: $N, Rd = 64760.80$ $My, c, Rd = 832.21$ $Mz, c, Rd = 832.21$ $L = 156.00$
 $\lambda_c = 40.78$ $Ncr, y = 238759.00$ $\lambda_y^* = 0.53$ Curva b: $\Phi_y = 0.70$ $\chi_y = 0.87$
 $\lambda_e = 79.91$ $Ncr, z = 62175.90$ $\lambda_z^* = 1.05$ Curva b: $\Phi_z = 1.19$ $\chi_z = 0.57$
 $\chi_{min} = 0.57$
Verifica: $0.00 + 0.12 + 0.05 = 0.17$
- Verifica freccia massima per soli carichi accidentali - CC 14
 $f_{z, L} = 0.50$ (L/312)
- Verifica freccia massima carichi totali - CC 14
 $f_{z, L} = 0.80$ (L/196)
- Verifica in termini tensionali (4.2.5) - CC 10 $X1 = 1.56$ - Classe 3
Sollecitazioni: $T_z = 332.91$ $M_y = -543.12$ $T_y = -127.02$ $M_z = -198.15$ ($M_c = -243.93$ $M_e = -524.16$)
Tensioni: $\sigma_N = 0.00$ $\sigma_M = -3004.79$ $\tau = 3.04$ $\sigma_{max} = -3004.79$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 1315.06$ $\tau = 46.36$ $\tau_{max} = 46.36$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = -3004.79$ $\tau = 3.04$ $\sigma_{TD, max} = 3004.79$

Asta n. 306 (8 12) L100x10 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
 $L_{cr} = 1.56$ Curva d: $\alpha\text{-imp} = 0.76$ $k_c = 0.94$ $\psi = 1.75$ $M, cr = 0.00$ $\lambda_{LT} = 0.00$
 $\lambda_{LT, 0} = 0.00$ $\beta_{LT} = 0.00$ $\Phi_{LT} = 0.00$ $\beta_{LT} = 0.00$ $f = 0.00$ $\chi_{LT} = 1.00$
CC 10 $My, Ed = -543.12$ $My, b, Rd = 832.21$ $My, Ed/My, b, Rd = 0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 3 - Classe 3
Sollecitazioni: $N, Ed = -7.84$ $My, Ed = -100.66$ $Mz, Ed = -37.63$
Resistenze: $N, Rd = 64760.80$ $My, c, Rd = 832.21$ $Mz, c, Rd = 832.21$ $L = 156.00$
 $\lambda_c = 40.78$ $Ncr, y = 238759.00$ $\lambda_y^* = 0.53$ Curva b: $\Phi_y = 0.70$ $\chi_y = 0.87$
 $\lambda_e = 79.91$ $Ncr, z = 62175.90$ $\lambda_z^* = 1.05$ Curva b: $\Phi_z = 1.19$ $\chi_z = 0.57$
 $\chi_{min} = 0.57$
Verifica: $0.00 + 0.12 + 0.05 = 0.17$
- Verifica freccia massima per soli carichi accidentali - CC 14
 $f_{z, L} = 0.52$ (L/298)
- Verifica freccia massima carichi totali - CC 14
 $f_{z, L} = 0.84$ (L/186)
- Verifica in termini tensionali (4.2.5) - CC 10 $X1 = 0.00$ - Classe 3
Sollecitazioni: $T_z = -332.91$ $M_y = -543.12$ $T_y = 127.02$ $M_z = -198.15$ ($M_c = -243.93$ $M_e = -524.16$)
Tensioni: $\sigma_N = 0.00$ $\sigma_M = -3004.79$ $\tau = 3.04$ $\sigma_{max} = -3004.79$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = 1315.06$ $\tau = 46.36$ $\tau_{max} = 46.36$
Tensioni: $\sigma_N = 0.00$ $\sigma_M = -3004.79$ $\tau = 3.04$ $\sigma_{TD, max} = 3004.79$

Asta n. 307 (1 -1) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
L_{cr}=1.40 Curva d: α -imp=0.76 k_c=0.94 ψ =1.19 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 12 My,Ed=-3.80 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.00
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3
Sollecitazioni: N,Ed=-1591.06 Myeq,Ed=11.16
Resistenze: N_c,Rd=38585.50 My,c,Rd=615.58 L=140.00
 λ_y =43.84 Ncr,y=246175.00 λ_y^* =0.57 Curva b: Φ_y =0.73 χ_y =0.85
 λ_{zeq} =66.82 Ncr,z=105957.00 λ_z^* =0.87 Curva b: Φ_z =1.00 χ_z =0.68
 χ ,min=0.68
Verifica: 0.02 + 0.01 = 0.03
- Verifica freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.01 (L/24993)
- Verifica freccia massima carichi totali - CC 14
f_{z,L}=0.01 (L/14127)
- Verifica in termini tensionali (4.2.5) - CC 10 Xl=1.40 - Classe 3
Sollecitazioni: N=-1591.06 T_x=-18.13 M_y=11.16
Tensioni: σ_N =-69.71 σ_M =-30.65 τ =0.00 σ_{max} =-100.36
Tensioni: σ_N =-69.71 σ_M =-0.00 τ =1.55 τ_{max} =1.55
Tensioni: σ_N =-69.71 σ_M =-30.65 τ =0.00 $\sigma_{ID,max}$ =100.36

Asta n. 307 (-1 4) 2*L100x50x8 Crit. 1

L'asta accoppiata è stata considerata imbottita, con interasse imbottiture non maggiore di 0.13

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 12 - Classe 3
L_{cr}=1.40 Curva d: α -imp=0.76 k_c=0.94 ψ =1.31 M_{cr}=0.00 λ_{LT} =0.00
 $\lambda_{LT,0}$ =0.00 β_{LT} =0.00 Φ_{LT} =0.00 β_{LT} =0.00 f=0.00 χ_{LT} =1.00
CC 12 My,Ed=8.75 My,b,Rd=1231.15 My,Ed/My,b,Rd=0.01
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 10 - Classe 3
Sollecitazioni: N,Ed=-1533.06 Myeq,Ed=30.28
Resistenze: N_c,Rd=38585.50 My,c,Rd=615.58 L=140.00
 λ_y =43.84 Ncr,y=246175.00 λ_y^* =0.57 Curva b: Φ_y =0.73 χ_y =0.85
 λ_{zeq} =66.82 Ncr,z=105957.00 λ_z^* =0.87 Curva b: Φ_z =1.00 χ_z =0.68
 χ ,min=0.68
Verifica: 0.02 + 0.02 = 0.04
- Verifica freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.02 (L/7411)
- Verifica freccia massima carichi totali - CC 14
f_{z,L}=0.03 (L/4430)
- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=-1533.06 T_x=53.22 M_y=30.28
Tensioni: σ_N =-67.17 σ_M =-83.15 τ =0.00 σ_{max} =-150.32
Tensioni: σ_N =-67.17 σ_M =-0.00 τ =4.56 τ_{max} =4.56
Tensioni: σ_N =-67.17 σ_M =-83.15 τ =0.00 $\sigma_{ID,max}$ =150.32

Membratura

Asta n. 101 (2 -2 4) 2*L100x50x8 Crit. 1

Si assume un interasse imbottiture pari a 0.13 <m>

- Verifica Freccia massima per soli carichi accidentali - CC 14
f_{z,g}=0.02 (L/12136)
- Verifica Freccia massima carichi totali - CC 14
f_{z,g}=0.04 (L/7159)

Membratura

Asta n. 103 (7 -4 8) 2*L100x50x8 Crit. 1

Si assume un interasse imbottiture pari a 0.13 <m>

- Verifica Freccia massima per soli carichi accidentali - CC 14
f_{z,L}=0.76 (L/391) f_{z,g}=0.72 (L/415)
- Verifica Freccia massima carichi totali - CC 14

$f_{z,L}=1.18$ (L/252) $f_{z,G}=1.11$ (L/267)

Membratura

Asta n. 105 (11 -6 12) 2*L100x50x8 Crit. 1

Si assume un interasse imbottiture pari a 0.13 <m>

- Verifica Freccia massima per soli carichi accidentali - CC 14
 $f_{z,L}=0.22$ (L/1335) $f_{z,G}=0.21$ (L/1417)

- Verifica Freccia massima carichi totali - CC 14
 $f_{z,L}=0.35$ (L/840) $f_{z,G}=0.33$ (L/892)

Membratura

Asta n. 306 (4 8 12) L100x10 Crit. 1

- Verifica Freccia massima per soli carichi accidentali - CC 14
 $f_{z,L}=0.52$ (L/596)

- Verifica Freccia massima carichi totali - CC 14
 $f_{z,L}=0.84$ (L/372)

Membratura

Asta n. 307 (1 -1 4) 2*L100x50x8 Crit. 1

Si assume un interasse imbottiture pari a 0.13 <m>

- Verifica Freccia massima per soli carichi accidentali - CC 14
 $f_{z,L}=0.02$ (L/11432)

- Verifica Freccia massima carichi totali - CC 14
 $f_{z,L}=0.04$ (L/6745)

9. RELAZIONE DI CALCOLO COPERTURA DEL PORTICO

IMMAGINI MODELLO DI CALCOLO

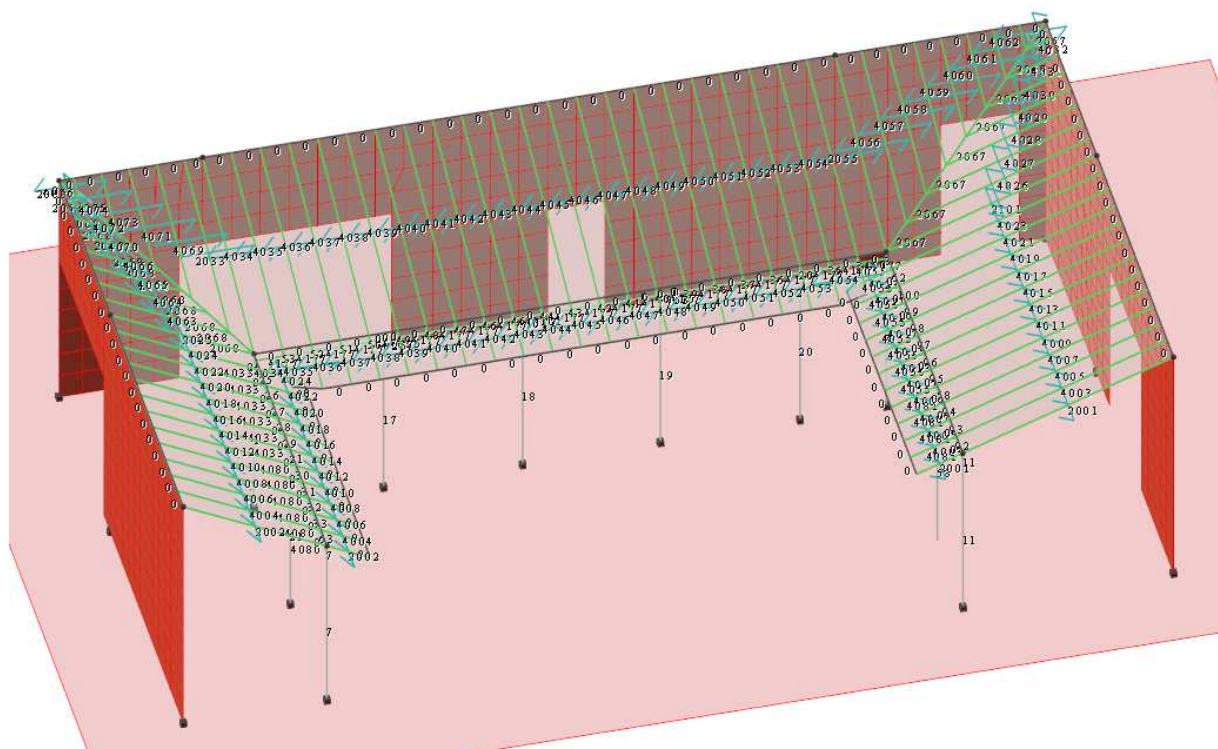


Figura 13 - Numerazione Aste

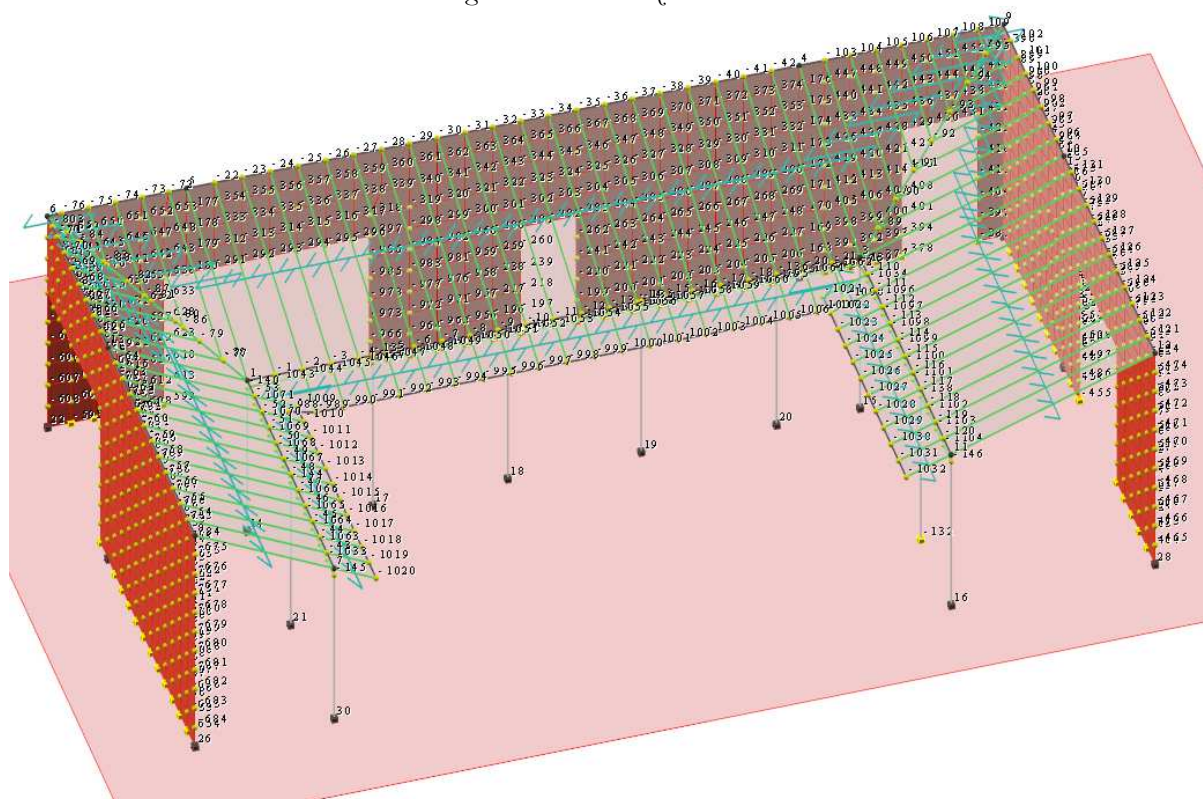


Figura 14 - Numerazione nodi

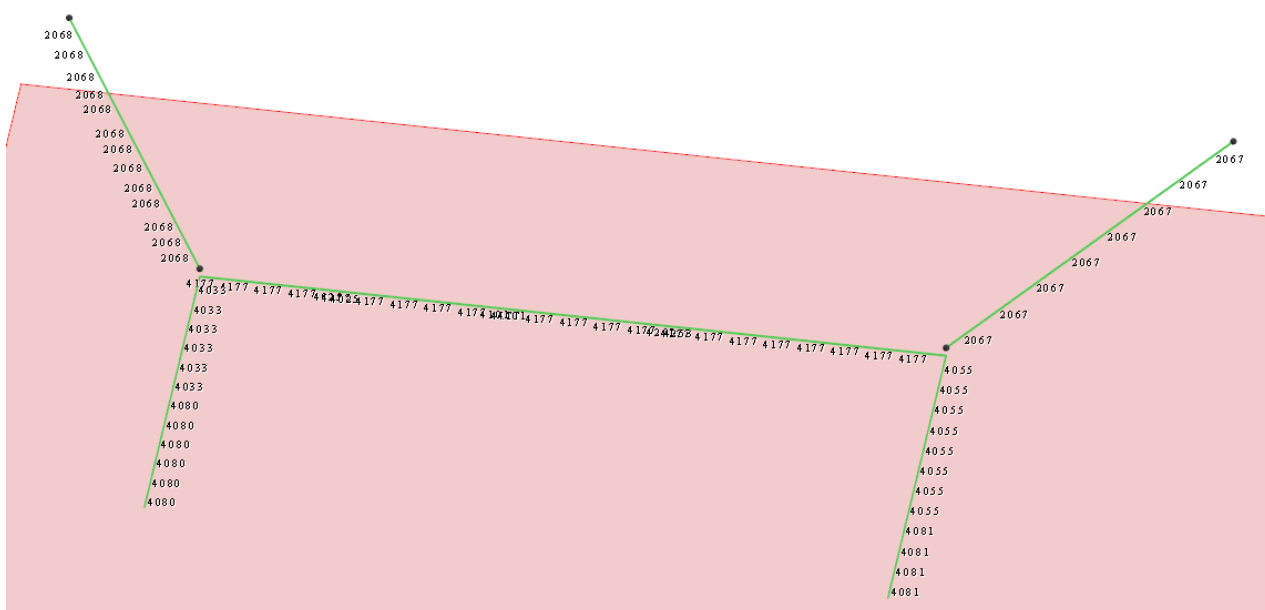


Figura 16 - Numerazione travetti

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt	Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
									<m>	<m>	<daN/cm^c>										<m>	<m>	<daN/cm^c>
1	Libero	L	L	L	L	L	L					2	Incastro	B	B	B	B	B	B				

Elenco nodi

Simbologia

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

Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn
	<m>	<m>	<m>				<m>	<m>	<m>				<m>	<m>	<m>		
-1104	8.68	-3.89	2.58	0	1	-1103	8.68	-3.53	2.58	0	1	-1102	8.68	-3.18	2.58	0	1
-1101	8.68	-2.47	2.58	0	1	-1100	8.68	-2.12	2.58	0	1	-1099	8.68	-1.77	2.58	0	1
-1098	8.68	-1.41	2.58	0	1	-1097	8.68	-1.06	2.58	0	1	-1096	8.68	-0.71	2.58	0	1
-1071	0.00	-0.34	2.58	0	1	-1070	0.00	-0.67	2.58	0	1	-1069	0.00	-1.01	2.58	0	1
-1068	0.00	-1.35	2.58	0	1	-1067	0.00	-1.68	2.58	0	1	-1066	0.00	-2.36	2.58	0	1
-1065	0.00	-2.69	2.58	0	1	-1064	0.00	-3.03	2.58	0	1	-1063	0.00	-3.37	2.58	0	1
-1062	8.29	0.00	2.58	0	1	-1061	7.89	0.00	2.58	0	1	-1060	7.10	0.00	2.58	0	1
-1059	6.71	0.00	2.58	0	1	-1058	6.31	0.00	2.58	0	1	-1057	5.92	0.00	2.58	0	1
-1056	5.52	0.00	2.58	0	1	-1055	5.13	0.00	2.58	0	1	-1054	4.73	0.00	2.58	0	1
-1053	4.34	0.00	2.58	0	1	-1052	3.95	0.00	2.58	0	1	-1051	3.55	0.00	2.58	0	1
-1050	3.16	0.00	2.58	0	1	-1049	2.76	0.00	2.58	0	1	-1048	2.37	0.00	2.58	0	1
-1047	1.97	0.00	2.58	0	1	-1046	1.58	0.00	2.58	0	1	-1045	1.18	0.00	2.58	0	1
-1044	0.79	0.00	2.58	0	1	-1043	0.39	0.00	2.58	0	1	-1034	8.68	-0.35	2.58	0	1
-1033	0.00	-3.70	2.58	0	1	-1032	8.04	-4.24	2.46	0	1	-1031	8.04	-3.89	2.46	0	1
-1030	8.04	-3.53	2.46	0	1	-1029	8.04	-3.18	2.46	0	1	-1028	8.04	-2.83	2.46	0	1
-1027	8.04	-2.47	2.46	0	1	-1026	8.04	-2.12	2.46	0	1	-1025	8.04	-1.77	2.46	0	1
-1024	8.04	-1.41	2.46	0	1	-1023	8.04	-1.06	2.46	0	1	-1022	8.04	-0.71	2.46	0	1
-1021	8.04	-0.35	2.46	0	1	-1020	0.59	-4.04	2.37	0	1	-1019	0.59	-3.70	2.37	0	1
-1018	0.59	-3.37	2.37	0	1	-1017	0.59	-3.03	2.37	0	1	-1016	0.59	-2.69	2.37	0	1
-1015	0.59	-2.36	2.37	0	1	-1014	0.59	-2.02	2.37	0	1	-1013	0.59	-1.68	2.37	0	1
-1012	0.59	-1.35	2.37	0	1	-1011	0.59	-1.01	2.37	0	1	-1010	0.59	-0.67	2.37	0	1
-1009	0.59	-0.34	2.37	0	1	-1008	8.29	-0.54	2.49	0	1	-1007	7.89	-0.63	2.46	0	1
-1006	7.50	-0.63	2.46	0	1	-1005	7.10	-0.63	2.46	0	1	-1004	6.71	-0.63	2.46	0	1
-1003	6.31	-0.63	2.46	0	1	-1002	5.92	-0.63	2.46	0	1	-1001	5.52	-0.63	2.46	0	1
-1000	5.13	-0.63	2.46	0	1	-999	4.73	-0.63	2.46	0	1	-998	4.34	-0.63	2.46	0	1
-997	3.95	-0.63	2.46	0	1	-996	3.55	-0.63	2.46	0	1	-995	3.16	-0.63	2.46	0	1
-994	2.76	-0.63	2.46	0	1	-993	2.37	-0.63	2.46	0	1	-992	1.97	-0.63	2.46	0	1
-991	1.58	-0.63	2.46	0	1	-990	1.18	-0.63	2.46	0	1	-989	0.79	-0.63	2.46	0	1
-988	0.39	-0.54	2.49	0	1	-986	2.59	2.83	1.90	0	1	-985	2.59	2.83	1.52	0	1
-984	3.16	2.83	1.90	0	1	-983	3.16	2.83	1.52	0	1	-982	3.55	2.83	1.90	0	1
-981	3.55	2.83	1.52	0	1	-978	2.59	2.83	1.14	0	1	-977	3.16	2.83	1.14	0	1
-976	3.55	2.83	1.14	0	1	-973	2.59	2.83	0.76	0	1	-972	3.16	2.83	0.76	0	1
-971	3.55	2.83	0.76	0	1	-966	2.59	2.83	0.38	0	1	-965	2.59	2.83	0.00	0	2
-964	3.16	2.83	0.38	0	1	-963	3.16	2.83	0.00	0	2	-962	3.55	2.83	0.38	0	1
-961	3.55	2.83	0.00	0	2	-960	3.95	2.83	1.90	0	1	-959	3.95	2.83	1.52	0	1
-958	3.95	2.83	1.14	0	1	-957	3.95	2.83	0.76	0	1	-956	3.95	2.83	0.38	0	1
-955	3.95	2.83	0.00	0	2	-954	11.57	0.80	0.73	0	1	-953	11.57	0.53	0.73	0	1
-952	11.57	0.50	2.02	0	1	-951	11.57	0.53	1.76	0	1	-950	11.57	0.55	1.42	0	1

-949	11.57	0.81	1.46	0	1	-948	11.57	0.78	1.84	0	1	-947	11.57	0.67	2.24	0	1
-946	11.57	0.70	2.68	0	1	-945	11.57	0.82	1.09	0	1	-944	11.57	0.54	1.08	0	1
-943	11.57	0.70	3.07	0	1	-942	11.57	1.06	3.06	0	1	-941	11.57	1.06	2.67	0	1
-940	11.57	1.06	2.27	0	1	-939	11.57	1.09	1.87	0	1	-938	11.57	1.11	1.49	0	1
-937	11.57	1.11	1.10	0	1	-936	11.57	1.11	0.73	0	1	-935	11.57	2.11	1.51	0	1
-934	11.57	1.77	1.51	0	1	-933	11.57	1.77	0.74	0	1	-932	11.57	2.12	0.75	0	1
-931	11.57	1.77	1.12	0	1	-930	11.57	2.12	1.13	0	1	-929	11.57	1.76	2.28	0	1
-928	11.57	2.11	2.28	0	1	-927	11.57	1.76	3.05	0	1	-926	11.57	2.12	3.04	0	1
-925	11.57	2.11	2.66	0	1	-924	11.57	1.76	2.67	0	1	-923	11.57	2.11	1.89	0	1
-922	11.57	1.76	1.89	0	1	-921	11.57	1.43	0.74	0	1	-920	11.57	1.43	1.11	0	1
-919	11.57	1.43	1.50	0	1	-918	11.57	1.42	1.89	0	1	-917	11.57	1.41	2.28	0	1
-916	11.57	1.41	2.67	0	1	-915	11.57	1.41	3.05	0	1	-914	11.57	0.25	0.49	0	1
-913	11.57	0.27	0.74	0	1	-912	11.57	0.28	1.06	0	1	-911	11.57	0.28	1.40	0	1
-910	11.57	0.28	1.73	0	1	-909	11.57	0.28	2.05	0	1	-908	11.57	0.33	2.36	0	1
-907	11.57	0.34	2.72	0	1	-906	11.57	0.35	3.08	0	1	-905	11.57	0.35	3.44	0	1
-904	11.57	0.71	3.43	0	1	-903	11.57	1.06	3.43	0	1	-902	11.57	1.41	3.42	0	1
-901	11.57	1.77	3.42	0	1	-900	11.57	2.12	3.42	0	1	-899	11.57	2.47	3.41	0	1
-898	11.57	2.47	3.04	0	1	-897	11.57	2.47	2.66	0	1	-896	11.57	2.47	2.28	0	1
-895	11.57	2.47	1.89	0	1	-894	11.57	2.47	1.51	0	1	-893	11.57	2.47	1.13	0	1
-892	11.57	2.47	0.75	0	1	-891	11.57	2.47	0.38	0	1	-890	11.57	2.12	0.37	0	1
-889	11.57	1.77	0.37	0	1	-888	11.57	1.42	0.37	0	1	-887	11.57	1.09	0.37	0	1
-886	11.57	0.77	0.37	0	1	-885	11.57	0.48	0.40	0	1	-884	11.57	2.48	0.00	0	2
-883	11.57	2.12	0.00	0	2	-882	11.57	1.77	0.00	0	2	-881	11.57	1.42	0.00	0	2
-880	11.57	1.06	0.00	0	2	-879	11.57	0.71	0.00	0	2	-878	11.57	0.35	0.00	0	2
-875	-1.97	0.68	2.77	0	1	-874	-1.97	1.03	2.77	0	1	-873	-1.97	1.02	3.11	0	1
-872	-1.97	0.68	3.11	0	1	-871	-1.97	0.69	2.42	0	1	-870	-1.97	1.03	2.42	0	1
-860	-1.97	2.25	2.42	0	1	-859	-1.97	2.26	2.73	0	1	-858	-1.97	2.28	3.08	0	1
-852	-1.97	1.99	2.42	0	1	-851	-1.97	1.99	2.76	0	1	-850	-1.97	1.99	3.10	0	1
-849	-1.97	1.69	3.11	0	1	-848	-1.97	1.68	2.77	0	1	-847	-1.97	1.69	2.42	0	1
-841	-1.97	1.36	3.11	0	1	-840	-1.97	1.36	2.78	0	1	-839	-1.97	1.37	2.42	0	1
-829	-1.97	2.51	2.42	0	1	-828	-1.97	2.54	2.69	0	1	-827	-1.97	2.55	3.06	0	1
-826	-1.97	2.58	3.42	0	1	-825	-1.97	2.31	3.44	0	1	-824	-1.97	2.01	3.45	0	1
-823	-1.97	1.69	3.45	0	1	-822	-1.97	1.36	3.45	0	1	-821	-1.97	1.02	3.45	0	1
-820	-1.97	0.68	3.45	0	1	-819	-1.97	0.34	3.45	0	1	-818	-1.97	0.34	3.10	0	1
-817	-1.97	0.34	2.76	0	1	-816	-1.97	0.34	2.42	0	1	-815	-1.97	0.34	2.07	0	1
-814	-1.97	0.34	1.73	0	1	-813	-1.97	0.35	1.38	0	1	-812	-1.97	0.35	1.03	0	1
-811	-1.97	0.35	0.69	0	1	-810	-1.97	0.35	0.34	0	1	-803	-1.97	2.61	3.79	0	1
-802	-1.97	0.35	0.00	0	2	-795	7.50	0.00	2.58	0	1	-794	-1.97	-0.34	3.45	0	1
-793	-1.97	-0.67	3.45	0	1	-792	-1.97	-1.01	3.45	0	1	-791	-1.97	-1.35	3.45	0	1
-790	-1.97	-1.68	3.45	0	1	-789	-1.97	-2.02	3.45	0	1	-788	-1.97	-2.36	3.45	0	1
-787	-1.97	-2.69	3.45	0	1	-786	-1.97	-3.03	3.45	0	1	-785	-1.97	-3.37	3.45	0	1
-784	-1.97	-3.70	3.45	0	1	-783	-1.97	-0.34	3.10	0	1	-782	-1.97	-0.67	3.10	0	1
-781	-1.97	-1.01	3.10	0	1	-780	-1.97	-1.35	3.10	0	1	-779	-1.97	-1.68	3.10	0	1
-778	-1.97	-2.02	3.10	0	1	-777	-1.97	-2.36	3.10	0	1	-776	-1.97	-2.69	3.10	0	1
-775	-1.97	-3.03	3.10	0	1	-774	-1.97	-3.37	3.10	0	1	-773	-1.97	-3.70	3.10	0	1
-772	-1.97	-0.34	2.76	0	1	-771	-1.97	-0.67	2.76	0	1	-770	-1.97	-1.01	2.76	0	1
-769	-1.97	-1.35	2.76	0	1	-768	-1.97	-1.68	2.76	0	1	-767	-1.97	-2.02	2.76	0	1
-766	-1.97	-2.36	2.76	0	1	-765	-1.97	-2.69	2.76	0	1	-764	-1.97	-3.03	2.76	0	1
-763	-1.97	-3.37	2.76	0	1	-762	-1.97	-3.70	2.76	0	1	-761	-1.97	-0.34	2.41	0	1
-760	-1.97	-0.67	2.41	0	1	-759	-1.97	-1.01	2.41	0	1	-758	-1.97	-1.35	2.41	0	1
-757	-1.97	-1.68	2.41	0	1	-756	-1.97	-2.02	2.41	0	1	-755	-1.97	-2.36	2.41	0	1
-754	-1.97	-2.69	2.41	0	1	-753	-1.97	-3.03	2.41	0	1	-752	-1.97	-3.37	2.41	0	1
-751	-1.97	-3.70	2.41	0	1	-750	-1.97	-0.34	2.07	0	1	-749	-1.97	-0.67	2.07	0	1
-748	-1.97	-1.01	2.07	0	1	-747	-1.97	-1.35	2.07	0	1	-746	-1.97	-1.68	2.07	0	1
-745	-1.97	-2.02	2.07	0	1	-744	-1.97	-2.36	2.07	0	1	-743	-1.97	-2.69	2.07	0	1
-742	-1.97	-3.03	2.07	0	1	-741	-1.97	-3.37	2.07	0	1	-740	-1.97	-3.70	2.07	0	1
-739	-1.97	-0.34	1.72	0	1	-738	-1.97	-0.67	1.72	0	1	-737	-1.97	-1.01	1.72	0	1
-736	-1.97	-1.35	1.72	0	1	-735	-1.97	-1.68	1.72	0	1	-734	-1.97	-2.02	1.72	0	1
-733	-1.97	-2.36	1.72	0	1	-732	-1.97	-2.69	1.72	0	1	-731	-1.97	-3.03	1.72	0	1
-730	-1.97	-3.37	1.72	0	1	-729	-1.97	-3.70	1.72	0	1	-728	-1.97	-0.34	1.38	0	1
-727	-1.97	-0.67	1.38	0	1	-726	-1.97	-1.01	1.38	0	1	-725	-1.97	-1.35	1.38	0	1
-724	-1.97	-1.68	1.38	0	1	-723	-1.97	-2.02	1.38	0	1	-722	-1.97	-2.36	1.38	0	1
-721	-1.97	-2.69	1.38	0	1	-720	-1.97	-3.03	1.38	0	1	-719	-1.97	-3.37	1.38	0	1
-718	-1.97	-3.70	1.38	0	1	-717	-1.97	-0.34	1.03	0	1	-716	-1.97	-0.67	1.03	0	1
-715	-1.97	-1.01	1.03	0	1	-714	-1.97	-1.35	1.03	0	1	-713	-1.97	-1.68	1.03	0	1
-712	-1.97	-2.02	1.03	0	1	-711	-1.97	-2.36	1.03	0	1	-710	-1.97	-2.69	1.03	0	1
-709	-1.97	-3.03	1.03	0	1	-708	-1.97	-3.37	1.03	0	1	-707	-1.97	-3.70	1.03	0	1
-706	-1.97	-0.34	0.69	0	1	-705	-1.97	-0.67	0.69	0	1	-704	-1.97	-1.01	0.69	0	1
-703	-1.97	-1.35	0.69	0	1	-702	-1.97	-1.68	0.69	0	1	-701	-1.97	-2.02	0.69	0	1
-700	-1.97	-2.36	0.69	0	1	-699	-1.97	-2.69	0.69	0	1	-698	-1.97	-3.03	0.69	0	1
-697	-1.97	-3.37	0.69	0	1	-696	-1.97	-3.70	0.69	0	1	-695	-1.97	-0.34	0.34	0	1
-694	-1.97	-0.67	0.34	0	1	-693	-1.97	-1.01	0.34	0	1	-692	-1.97	-1.35	0.34	0	1
-691	-1.97	-1.68	0.34	0	1	-690	-1.97	-2.02	0.34	0	1	-689	-1.97	-2.36	0.34	0	1
-688	-1.97	-2.69	0.34	0	1	-687	-1.97	-3.03	0.34	0	1	-686	-1.97	-3.37	0.34	0	1
-685	-1.97	-3.70	0.34	0	1	-684	-1.97	-4.04	0.34	0	1	-683	-1.97	-4.04	0.69	0	1
-682	-1.97	-4.04	1.03	0	1	-681	-1.97	-4.04	1.38	0	1	-680	-1.97	-4.04	1.72	0	1
-679	-1.97	-4.04	2.07	0	1	-678	-1.97	-4.04	2.41	0	1	-677	-1.97	-4.04	2.76	0	1
-676	-1.97	-4.04	3.10	0	1	-675	-1.97	-4.04	3.45	0	1	-674	-1.97	0.00	3.45	0	1
-673	-1.97	0.00	3.10	0	1	-672	-1.97	0.00	2.76	0	1	-671	-1.97	0.00	2.41	0	1

-670	-1.97	0.00	2.07	0	1	-669	-1.97	0.00	1.72	0	1	-668	-1.97	0.00	1.38	0	1
-667	-1.97	0.00	1.03	0	1	-666	-1.97	0.00	0.69	0	1	-665	-1.97	0.00	0.34	0	1
-664	-1.97	-0.34	0.00	0	2	-663	-1.97	-0.67	0.00	0	2	-662	-1.97	-1.01	0.00	0	2
-661	-1.97	-1.35	0.00	0	2	-660	-1.97	-1.68	0.00	0	2	-659	-1.97	-2.02	0.00	0	2
-658	-1.97	-2.36	0.00	0	2	-657	-1.97	-2.69	0.00	0	2	-656	-1.97	-3.03	0.00	0	2
-655	-1.97	-3.37	0.00	0	2	-654	-1.97	-3.70	0.00	0	2	-653	-0.30	2.83	3.41	0	1
-652	-0.65	2.83	3.41	0	1	-651	-1.00	2.83	3.41	0	1	-650	-1.35	2.83	3.41	0	1
-649	-1.69	2.83	3.41	0	1	-648	-0.32	2.83	3.03	0	1	-647	-0.65	2.83	3.03	0	1
-646	-0.99	2.83	3.03	0	1	-645	-1.33	2.83	3.03	0	1	-644	-1.66	2.83	3.03	0	1
-643	-0.33	2.83	2.65	0	1	-642	-0.66	2.83	2.65	0	1	-641	-0.99	2.83	2.65	0	1
-640	-1.32	2.83	2.65	0	1	-639	-1.65	2.83	2.65	0	1	-638	-0.33	2.83	2.27	0	1
-637	-0.66	2.83	2.27	0	1	-636	-0.99	2.83	2.27	0	1	-635	-1.32	2.83	2.27	0	1
-634	-1.64	2.83	2.27	0	1	-633	-0.33	2.83	1.90	0	1	-632	-0.66	2.83	1.90	0	1
-631	-0.99	2.83	1.90	0	1	-630	-1.31	2.83	1.90	0	1	-629	-1.64	2.83	1.90	0	1
-628	-0.33	2.83	1.52	0	1	-627	-0.66	2.83	1.52	0	1	-626	-0.99	2.83	1.52	0	1
-625	-1.31	2.83	1.52	0	1	-624	-1.64	2.83	1.52	0	1	-623	-0.33	2.83	1.14	0	1
-622	-0.66	2.83	1.14	0	1	-621	-0.99	2.83	1.14	0	1	-620	-1.31	2.83	1.14	0	1
-619	-1.64	2.83	1.14	0	1	-618	-0.33	2.83	0.76	0	1	-617	-0.66	2.83	0.76	0	1
-616	-0.99	2.83	0.76	0	1	-615	-1.31	2.83	0.76	0	1	-614	-1.64	2.83	0.76	0	1
-613	-0.33	2.83	0.38	0	1	-612	-0.66	2.83	0.38	0	1	-611	-0.98	2.83	0.38	0	1
-610	-1.31	2.83	0.38	0	1	-609	-1.64	2.83	0.38	0	1	-608	-1.97	2.83	0.38	0	1
-607	-1.97	2.83	0.76	0	1	-606	-1.97	2.83	1.14	0	1	-605	-1.97	2.83	1.52	0	1
-604	-1.97	2.83	1.90	0	1	-603	-1.97	2.83	2.42	0	1	-602	-1.97	2.83	2.65	0	1
-601	-1.97	2.83	3.03	0	1	-600	-1.97	2.83	3.41	0	1	-599	-0.33	2.83	0.00	0	2
-598	-0.66	2.83	0.00	0	2	-597	-0.98	2.83	0.00	0	2	-596	-1.31	2.83	0.00	0	2
-595	-1.64	2.83	0.00	0	2	-594	11.57	-3.89	3.45	0	1	-593	11.57	-3.53	3.45	0	1
-592	11.57	-3.18	3.45	0	1	-591	11.57	-2.83	3.45	0	1	-590	11.57	-2.47	3.45	0	1
-589	11.57	-2.12	3.45	0	1	-588	11.57	-1.77	3.45	0	1	-587	11.57	-1.41	3.45	0	1
-586	11.57	-1.06	3.45	0	1	-585	11.57	-0.71	3.45	0	1	-584	11.57	-0.35	3.45	0	1
-583	11.57	-3.89	3.10	0	1	-582	11.57	-3.53	3.10	0	1	-581	11.57	-3.18	3.10	0	1
-580	11.57	-2.83	3.10	0	1	-579	11.57	-2.47	3.10	0	1	-578	11.57	-2.12	3.10	0	1
-577	11.57	-1.77	3.10	0	1	-576	11.57	-1.41	3.10	0	1	-575	11.57	-1.06	3.10	0	1
-574	11.57	-0.71	3.10	0	1	-573	11.57	-0.35	3.10	0	1	-572	11.57	-3.89	2.76	0	1
-571	11.57	-3.53	2.76	0	1	-570	11.57	-3.18	2.76	0	1	-569	11.57	-2.83	2.76	0	1
-568	11.57	-2.47	2.76	0	1	-567	11.57	-2.12	2.76	0	1	-566	11.57	-1.77	2.76	0	1
-565	11.57	-1.41	2.76	0	1	-564	11.57	-1.06	2.76	0	1	-563	11.57	-0.71	2.76	0	1
-562	11.57	-0.35	2.76	0	1	-561	11.57	-3.89	2.41	0	1	-560	11.57	-3.53	2.41	0	1
-559	11.57	-3.18	2.41	0	1	-558	11.57	-2.83	2.41	0	1	-557	11.57	-2.47	2.41	0	1
-556	11.57	-2.12	2.41	0	1	-555	11.57	-1.77	2.41	0	1	-554	11.57	-1.41	2.41	0	1
-553	11.57	-1.06	2.41	0	1	-552	11.57	-0.71	2.41	0	1	-551	11.57	-0.35	2.41	0	1
-550	11.57	-3.89	2.07	0	1	-549	11.57	-3.53	2.07	0	1	-548	11.57	-3.18	2.07	0	1
-547	11.57	-2.83	2.07	0	1	-546	11.57	-2.47	2.07	0	1	-545	11.57	-2.12	2.07	0	1
-540	11.57	-0.35	2.07	0	1	-539	11.57	-3.89	1.72	0	1	-538	11.57	-3.53	1.72	0	1
-537	11.57	-3.18	1.72	0	1	-536	11.57	-2.83	1.72	0	1	-535	11.57	-2.47	1.72	0	1
-530	11.57	-0.71	1.72	0	1	-529	11.57	-0.35	1.72	0	1	-528	11.57	-3.89	1.38	0	1
-527	11.57	-3.53	1.38	0	1	-526	11.57	-3.18	1.38	0	1	-525	11.57	-2.83	1.38	0	1
-524	11.57	-2.47	1.38	0	1	-519	11.57	-0.71	1.38	0	1	-518	11.57	-0.35	1.38	0	1
-517	11.57	-3.89	1.03	0	1	-516	11.57	-3.53	1.03	0	1	-515	11.57	-3.18	1.03	0	1
-514	11.57	-2.83	1.03	0	1	-513	11.57	-2.47	1.03	0	1	-508	11.57	-0.71	1.03	0	1
-507	11.57	-0.35	1.03	0	1	-506	11.57	-3.89	0.69	0	1	-505	11.57	-3.53	0.69	0	1
-504	11.57	-3.18	0.69	0	1	-503	11.57	-2.83	0.69	0	1	-502	11.57	-2.47	0.69	0	1
-497	11.57	-0.71	0.69	0	1	-496	11.57	-0.35	0.69	0	1	-495	11.57	-3.89	0.34	0	1
-494	11.57	-3.53	0.34	0	1	-493	11.57	-3.18	0.34	0	1	-492	11.57	-2.83	0.34	0	1
-491	11.57	-2.47	0.34	0	1	-486	11.57	-0.71	0.34	0	1	-485	11.57	-0.35	0.34	0	1
-484	11.57	0.00	0.34	0	1	-483	11.57	0.00	0.69	0	1	-482	11.57	0.00	1.03	0	1
-481	11.57	0.00	1.38	0	1	-480	11.57	0.00	1.72	0	1	-479	11.57	0.00	2.07	0	1
-478	11.57	0.00	2.41	0	1	-477	11.57	0.00	2.76	0	1	-476	11.57	0.00	3.10	0	1
-475	11.57	0.00	3.45	0	1	-474	11.57	-4.24	3.45	0	1	-473	11.57	-4.24	3.10	0	1
-472	11.57	-4.24	2.76	0	1	-471	11.57	-4.24	2.41	0	1	-470	11.57	-4.24	2.07	0	1
-469	11.57	-4.24	1.72	0	1	-468	11.57	-4.24	1.38	0	1	-467	11.57	-4.24	1.03	0	1
-466	11.57	-4.24	0.69	0	1	-465	11.57	-4.24	0.34	0	1	-464	11.57	-3.89	0.00	0	2
-463	11.57	-3.53	0.00	0	2	-462	11.57	-3.18	0.00	0	2	-461	11.57	-2.83	0.00	0	2
-460	11.57	-2.47	0.00	0	2	-455	11.57	-0.71	0.00	0	2	-454	11.57	-0.35	0.00	0	2
-453	11.21	2.83	3.41	0	1	-452	10.85	2.83	3.41	0	1	-451	10.49	2.83	3.41	0	1
-450	10.13	2.83	3.41	0	1	-449	9.76	2.83	3.41	0	1	-448	9.40	2.83	3.41	0	1
-447	9.04	2.83	3.41	0	1	-446	11.21	2.83	3.03	0	1	-445	10.85	2.83	3.03	0	1
-444	10.49	2.83	3.03	0	1	-443	10.13	2.83	3.03	0	1	-442	9.76	2.83	3.03	0	1
-441	9.40	2.83	3.03	0	1	-440	9.04	2.83	3.03	0	1	-439	11.21	2.83	2.65	0	1
-438	10.85	2.83	2.65	0	1	-437	10.49	2.83	2.65	0	1	-436	10.13	2.83	2.65	0	1
-435	9.76	2.83	2.65	0	1	-434	9.40	2.83	2.65	0	1	-433	9.04	2.83	2.65	0	1
-432	11.21	2.83	2.27	0	1	-431	10.85	2.83	2.27	0	1	-430	10.49	2.83	2.27	0	1
-429	10.13	2.83	2.27	0	1	-428	9.76	2.83	2.27	0	1	-427	9.40	2.83	2.27	0	1
-426	9.04	2.83	2.27	0	1	-425	11.21	2.83	1.90	0	1	-422	10.13	2.83	1.90	0	1
-421	9.76	2.83	1.90	0	1	-420	9.40	2.83	1.90	0	1	-419	9.04	2.83	1.90	0	1
-418	11.21	2.83	1.52	0	1	-415	10.13	2.83	1.52	0	1	-414	9.76	2.83	1.52	0	1
-413	9.40	2.83	1.52	0	1	-412	9.04	2.83	1.52	0	1	-411	11.21	2.83	1.14	0	1
-408	10.13	2.83	1.14	0	1	-407	9.76	2.83	1.14	0	1	-406	9.40	2.83	1.14	0	1
-405	9.04	2.83	1.14	0	1	-404	11.21	2.83	0.76	0	1	-401	10.13	2.83	0.76	0	1
-400	9.76	2.83	0.76	0	1	-399	9.40	2.83	0.76	0	1	-398	9.04	2.83	0.76	0	1

-397	11.21	2.83	0.38	0	1	-394	10.13	2.83	0.38	0	1	-393	9.76	2.83	0.38	0	1
-392	9.40	2.83	0.38	0	1	-391	9.04	2.83	0.38	0	1	-390	11.57	2.83	3.41	0	1
-389	11.57	2.83	3.03	0	1	-388	11.57	2.83	2.65	0	1	-387	11.57	2.83	2.27	0	1
-386	11.57	2.83	1.90	0	1	-385	11.57	2.83	1.52	0	1	-384	11.57	2.83	1.14	0	1
-383	11.57	2.83	0.76	0	1	-382	11.57	2.83	0.38	0	1	-381	11.21	2.83	0.00	0	2
-378	10.13	2.83	0.00	0	2	-377	9.76	2.83	0.00	0	2	-376	9.40	2.83	0.00	0	2
-375	9.04	2.83	0.00	0	2	-374	8.29	2.83	3.41	0	1	-373	7.89	2.83	3.41	0	1
-372	7.50	2.83	3.41	0	1	-371	7.10	2.83	3.41	0	1	-370	6.71	2.83	3.41	0	1
-369	6.31	2.83	3.41	0	1	-368	5.92	2.83	3.41	0	1	-367	5.52	2.83	3.41	0	1
-366	5.13	2.83	3.41	0	1	-365	4.73	2.83	3.41	0	1	-364	4.34	2.83	3.41	0	1
-363	3.95	2.83	3.41	0	1	-362	3.55	2.83	3.41	0	1	-361	3.16	2.83	3.41	0	1
-360	2.76	2.83	3.41	0	1	-359	2.37	2.83	3.41	0	1	-358	1.97	2.83	3.41	0	1
-357	1.58	2.83	3.41	0	1	-356	1.18	2.83	3.41	0	1	-355	0.79	2.83	3.41	0	1
-354	0.39	2.83	3.41	0	1	-353	8.29	2.83	3.03	0	1	-352	7.89	2.83	3.03	0	1
-351	7.50	2.83	3.03	0	1	-350	7.10	2.83	3.03	0	1	-349	6.71	2.83	3.03	0	1
-348	6.31	2.83	3.03	0	1	-347	5.92	2.83	3.03	0	1	-346	5.52	2.83	3.03	0	1
-345	5.13	2.83	3.03	0	1	-344	4.73	2.83	3.03	0	1	-343	4.34	2.83	3.03	0	1
-342	3.95	2.83	3.03	0	1	-341	3.55	2.83	3.03	0	1	-340	3.16	2.83	3.03	0	1
-339	2.76	2.83	3.03	0	1	-338	2.37	2.83	3.03	0	1	-337	1.97	2.83	3.03	0	1
-336	1.58	2.83	3.03	0	1	-335	1.18	2.83	3.03	0	1	-334	0.79	2.83	3.03	0	1
-333	0.39	2.83	3.03	0	1	-332	8.29	2.83	2.65	0	1	-331	7.89	2.83	2.65	0	1
-330	7.50	2.83	2.65	0	1	-329	7.10	2.83	2.65	0	1	-328	6.71	2.83	2.65	0	1
-327	6.31	2.83	2.65	0	1	-326	5.92	2.83	2.65	0	1	-325	5.52	2.83	2.65	0	1
-324	5.13	2.83	2.65	0	1	-323	4.73	2.83	2.65	0	1	-322	4.34	2.83	2.65	0	1
-321	3.95	2.83	2.65	0	1	-320	3.55	2.83	2.65	0	1	-319	3.16	2.83	2.65	0	1
-318	2.59	2.83	2.65	0	1	-317	2.37	2.83	2.65	0	1	-316	1.97	2.83	2.65	0	1
-315	1.58	2.83	2.65	0	1	-314	1.18	2.83	2.65	0	1	-313	0.79	2.83	2.65	0	1
-312	0.39	2.83	2.65	0	1	-311	8.29	2.83	2.27	0	1	-310	7.89	2.83	2.27	0	1
-309	7.50	2.83	2.27	0	1	-308	7.10	2.83	2.27	0	1	-307	6.71	2.83	2.27	0	1
-306	6.31	2.83	2.27	0	1	-305	5.92	2.83	2.27	0	1	-304	5.52	2.83	2.27	0	1
-303	5.13	2.83	2.27	0	1	-302	4.73	2.83	2.27	0	1	-301	4.34	2.83	2.27	0	1
-300	3.95	2.83	2.27	0	1	-299	3.55	2.83	2.27	0	1	-298	3.16	2.83	2.27	0	1
-297	2.59	2.83	2.27	0	1	-296	2.37	2.83	2.27	0	1	-295	1.97	2.83	2.27	0	1
-294	1.58	2.83	2.27	0	1	-293	1.18	2.83	2.27	0	1	-292	0.79	2.83	2.27	0	1
-291	0.39	2.83	2.27	0	1	-290	8.29	2.83	1.90	0	1	-289	7.89	2.83	1.90	0	1
-288	7.50	2.83	1.90	0	1	-287	7.10	2.83	1.90	0	1	-286	6.71	2.83	1.90	0	1
-285	6.31	2.83	1.90	0	1	-284	5.92	2.83	1.90	0	1	-283	5.52	2.83	1.90	0	1
-282	5.13	2.83	1.90	0	1	-281	4.73	2.83	1.90	0	1	-280	4.34	2.83	1.90	0	1
-269	8.29	2.83	1.52	0	1	-268	7.89	2.83	1.52	0	1	-267	7.50	2.83	1.52	0	1
-266	7.10	2.83	1.52	0	1	-265	6.71	2.83	1.52	0	1	-264	6.31	2.83	1.52	0	1
-263	5.92	2.83	1.52	0	1	-262	5.52	2.83	1.52	0	1	-260	4.73	2.83	1.52	0	1
-259	4.34	2.83	1.52	0	1	-248	8.29	2.83	1.14	0	1	-247	7.89	2.83	1.14	0	1
-246	7.50	2.83	1.14	0	1	-245	7.10	2.83	1.14	0	1	-244	6.71	2.83	1.14	0	1
-243	6.31	2.83	1.14	0	1	-242	5.92	2.83	1.14	0	1	-241	5.52	2.83	1.14	0	1
-239	4.73	2.83	1.14	0	1	-238	4.34	2.83	1.14	0	1	-227	8.29	2.83	0.76	0	1
-226	7.89	2.83	0.76	0	1	-225	7.50	2.83	0.76	0	1	-224	7.10	2.83	0.76	0	1
-223	6.71	2.83	0.76	0	1	-222	6.31	2.83	0.76	0	1	-221	5.92	2.83	0.76	0	1
-220	5.52	2.83	0.76	0	1	-218	4.73	2.83	0.76	0	1	-217	4.34	2.83	0.76	0	1
-206	8.29	2.83	0.38	0	1	-205	7.89	2.83	0.38	0	1	-204	7.50	2.83	0.38	0	1
-203	7.10	2.83	0.38	0	1	-202	6.71	2.83	0.38	0	1	-201	6.31	2.83	0.38	0	1
-200	5.92	2.83	0.38	0	1	-199	5.52	2.83	0.38	0	1	-197	4.73	2.83	0.38	0	1
-196	4.34	2.83	0.38	0	1	-180	0.00	2.83	2.27	0	1	-179	0.00	2.83	2.65	0	1
-178	0.00	2.83	3.03	0	1	-177	0.00	2.83	3.41	0	1	-176	8.68	2.83	3.41	0	1
-175	8.68	2.83	3.03	0	1	-174	8.68	2.83	2.65	0	1	-173	8.68	2.83	2.27	0	1
-172	8.68	2.83	1.90	0	1	-171	8.68	2.83	1.52	0	1	-170	8.68	2.83	1.14	0	1
-169	8.68	2.83	0.76	0	1	-168	8.68	2.83	0.38	0	1	-167	8.29	2.83	0.00	0	2
-166	7.89	2.83	0.00	0	2	-165	7.50	2.83	0.00	0	2	-164	7.10	2.83	0.00	0	2
-163	6.71	2.83	0.00	0	2	-162	6.31	2.83	0.00	0	2	-161	5.92	2.83	0.00	0	2
-160	5.52	2.83	0.00	0	2	-158	4.73	2.83	0.00	0	2	-157	4.34	2.83	0.00	0	2
-146	8.68	-4.24	2.58	0	1	-145	0.00	-4.04	2.58	0	1	-144	0.00	-2.02	2.58	0	1
-142	5.58	0.00	2.58	0	1	-141	3.69	0.00	2.58	0	1	-140	0.00	0.00	2.58	0	1
-139	8.68	0.00	2.58	0	1	-138	8.68	-2.83	2.58	0	1	-137	1.78	0.00	2.58	0	1
-136	7.50	0.00	2.70	0	1	-135	5.58	0.00	2.70	0	1	-133	1.78	0.00	2.70	0	1
-132	8.68	-2.83	0.00	0	2	-131	11.57	-0.35	3.79	0	1	-130	11.57	-0.71	3.79	0	1
-129	11.57	-1.06	3.79	0	1	-128	11.57	-1.41	3.79	0	1	-127	11.57	-1.77	3.79	0	1
-126	11.57	-2.12	3.79	0	1	-125	11.57	-2.47	3.79	0	1	-124	11.57	-2.83	3.79	0	1
-123	11.57	-3.18	3.79	0	1	-122	11.57	-3.53	3.79	0	1	-121	11.57	-3.89	3.79	0	1
-120	8.68	-3.89	2.70	0	1	-119	8.68	-3.53	2.70	0	1	-118	8.68	-3.18	2.70	0	1
-117	8.68	-2.83	2.70	0	1	-116	8.68	-2.47	2.70	0	1	-115	8.68	-2.12	2.70	0	1
-114	8.68	-1.77	2.70	0	1	-113	8.68	-1.41	2.70	0	1	-112	8.68	-1.06	2.70	0	1
-111	8.68	-0.71	2.70	0	1	-110	8.68	-0.35	2.70	0	1	-109	11.21	2.83	3.79	0	1
-108	10.85	2.83	3.79	0	1	-107	10.49	2.83	3.79	0	1	-106	10.13	2.83	3.79	0	1
-105	9.76	2.83	3.79	0	1	-104	9.40	2.83	3.79	0	1	-103	9.04	2.83	3.79	0	1
-102	11.57	2.48	3.79	0	1	-101	11.57	2.12	3.79	0	1	-100	11.57	1.77	3.79	0	1
-99	11.57	1.42	3.79	0	1	-98	11.57	1.06	3.79	0	1	-97	11.57	0.71	3.79	0	1
-96	11.57	0.35	3.79	0	1	-95	11.21	2.48	3.65	0	1	-94	10.85	2.12	3.52	0	1
-93	10.49	1.77	3.38	0	1	-92	10.13	1.42	3.25	0	1	-91	9.76	1.06	3.11	0	1
-90	9.40	0.71	2.97	0	1	-89	9.04	0.35	2.84	0	1	-88	-1.39	2.00	3.47	0	1
-87	-1.01	1.45	3.26	0	1	-86	-0.63	0.90	3.05	0	1	-85	-1.77	2.54	3.68	0	1

-84	-1.66	2.38	3.62	0	1	-83	-1.42	2.04	3.49	0	1	-82	-1.18	1.70	3.35	0	1
-81	-0.95	1.36	3.22	0	1	-80	-0.71	1.02	3.09	0	1	-79	-0.47	0.68	2.96	0	1
-78	-0.25	0.36	2.84	0	1	-77	-0.24	0.34	2.83	0	1	-76	-1.77	2.83	3.79	0	1
-75	-1.39	2.83	3.79	0	1	-74	-1.01	2.83	3.79	0	1	-73	-0.63	2.83	3.79	0	1
-72	-0.25	2.83	3.79	0	1	-71	-1.97	2.38	3.79	0	1	-70	-1.97	2.04	3.79	0	1
-69	-1.97	1.70	3.79	0	1	-68	-1.97	1.36	3.79	0	1	-67	-1.97	1.02	3.79	0	1
-66	-1.97	0.68	3.79	0	1	-65	-1.97	0.34	3.79	0	1	-64	-1.97	-0.34	3.79	0	1
-63	-1.97	-0.67	3.79	0	1	-62	-1.97	-1.01	3.79	0	1	-61	-1.97	-1.35	3.79	0	1
-60	-1.97	-1.68	3.79	0	1	-59	-1.97	-2.02	3.79	0	1	-58	-1.97	-2.36	3.79	0	1
-57	-1.97	-2.69	3.79	0	1	-56	-1.97	-3.03	3.79	0	1	-55	-1.97	-3.37	3.79	0	1
-54	-1.97	-3.70	3.79	0	1	-53	0.00	-0.34	2.70	0	1	-52	0.00	-0.67	2.70	0	1
-51	0.00	-1.01	2.70	0	1	-50	0.00	-1.35	2.70	0	1	-49	0.00	-1.68	2.70	0	1
-48	0.00	-2.02	2.70	0	1	-47	0.00	-2.36	2.70	0	1	-46	0.00	-2.69	2.70	0	1
-45	0.00	-3.03	2.70	0	1	-44	0.00	-3.37	2.70	0	1	-43	0.00	-3.70	2.70	0	1
-42	8.29	2.83	3.79	0	1	-41	7.89	2.83	3.79	0	1	-40	7.50	2.83	3.79	0	1
-39	7.10	2.83	3.79	0	1	-38	6.71	2.83	3.79	0	1	-37	6.31	2.83	3.79	0	1
-36	5.92	2.83	3.79	0	1	-35	5.52	2.83	3.79	0	1	-34	5.13	2.83	3.79	0	1
-33	4.73	2.83	3.79	0	1	-32	4.34	2.83	3.79	0	1	-31	3.95	2.83	3.79	0	1
-30	3.55	2.83	3.79	0	1	-29	3.16	2.83	3.79	0	1	-28	2.76	2.83	3.79	0	1
-27	2.37	2.83	3.79	0	1	-26	1.97	2.83	3.79	0	1	-25	1.58	2.83	3.79	0	1
-24	1.18	2.83	3.79	0	1	-23	0.79	2.83	3.79	0	1	-22	0.39	2.83	3.79	0	1
-21	8.29	0.00	2.70	0	1	-20	7.89	0.00	2.70	0	1	-18	7.10	0.00	2.70	0	1
-17	6.71	0.00	2.70	0	1	-16	6.31	0.00	2.70	0	1	-15	5.92	0.00	2.70	0	1
-14	5.52	0.00	2.70	0	1	-13	5.13	0.00	2.70	0	1	-12	4.73	0.00	2.70	0	1
-11	4.34	0.00	2.70	0	1	-10	3.95	0.00	2.70	0	1	-9	3.55	0.00	2.70	0	1
-8	3.16	0.00	2.70	0	1	-7	2.76	0.00	2.70	0	1	-6	2.37	0.00	2.70	0	1
-5	1.97	0.00	2.70	0	1	-4	1.58	0.00	2.70	0	1	-3	1.18	0.00	2.70	0	1
-2	0.79	0.00	2.70	0	1	-1	0.39	0.00	2.70	0	1	1	0.00	0.00	2.70	0	1
3	8.68	0.00	2.70	0	1	4	8.68	2.83	3.79	0	1	5	0.00	2.83	3.79	0	1
6	-1.97	2.83	3.79	0	1	7	0.00	-4.04	2.70	0	1	8	-1.97	-4.04	3.79	0	1
9	11.57	2.83	3.79	0	1	10	11.57	0.00	3.79	0	1	11	8.68	-4.24	2.70	0	1
12	11.57	-4.24	3.79	0	1	13	-1.97	0.00	3.79	0	1	14	0.00	0.00	0.00	0	2
15	8.68	0.00	0.00	0	2	16	8.68	-4.24	0.00	0	2	17	1.78	0.00	0.00	0	2
18	3.69	0.00	0.00	0	2	19	5.58	0.00	0.00	0	2	20	7.50	0.00	0.00	0	2
21	0.00	-2.02	0.00	0	2	22	-1.97	2.83	0.00	0	2	23	11.57	2.83	0.00	0	2
25	8.68	2.83	0.00	0	2	26	-1.97	-4.04	0.00	0	2	27	-1.97	0.00	0.00	0	2
28	11.57	-4.24	0.00	0	2	29	11.57	0.00	0.00	0	2	30	0.00	-4.04	0.00	0	2

Elenco materiali

Simbologia

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

Mat.	Comm.	P <daN/cm³>	E <daN/cm²>	G <daN/cm²>	v	α
3	Castagno	600	111000.00	9500.00	0.39	4.000000E-006
6	muratura	2500	10800.00	3600.00	0.1	1.000000E-005
7	rigido	2500	300000000.00	120000000.00	0.1	1.000000E-005

Elenco sezioni aste

Simbologia

Sez. = Numero della sezione
Comm. = Commento
Tipo = Tipologia
2C = Doppia C lato labbri
2Cdx = Doppia C lato costola
2I = Doppia I
2L = Doppia L lato labbri
2Ldx = Doppia L lato costole
C = C
Cdx = C destra
Cir. = Circolare
Cir.c = Circolare cava
I = I
L = L
Ldx = L destra
Om. = Omega
Pg = Pi greco
Pr = Poligono regolare

Prc = Poligono regolare cavo
Pc = Per coordinate
Ia = Inerzie assegnate
R = Rettangolare
Rc = Rettangolare cava
T = T
U = U
Ur = U rovescia
V = V
Vr = V rovescia
Z = Z
Zdx = Z destra
Ts = T stondata
Ls = L stondata
Cs = C stondata
Is = I stondata
Dis. = Disegnata
Me = Membratura
G = Generica
T = Trave
P = Pilastro
Ver. = Verifica prevista
N = Nessuna
C = Cemento armato
A = Acciaio
L = Legno
B = Base
H = Altezza
R = Raggio
Ma = Numero del materiale
C = Numero del criterio di progetto
Ccol = Numero del criterio di progetto collegamento

Sez.	Comm.	Tipo	Me	Ver.	B	H	R	Ma	C	Ccol	Sez.	Comm.	Tipo	Me	Ver.	B	H	R	Ma	C	Ccol
					<cm>	<cm>	<cm>									<cm>	<cm>	<cm>			
1	R	T	L		25.00	12.00		3	2		2	R	T	L		12.00	12.00		3	1	
3	Cir.	G	N				20.00	6			4	R	T	L		20.00	20.00		3	2	
5	Cir.	G	N				3.00	7			6	R	T	L		12.00	12.00		3	3	

Elenco vincoli aste

Simbologia

Va = Numero del vincolo asta
Comm. = Commento
Tipo = Tipologia
SVI = Definizione di vincolamenti interni
ELA = Vincolo su suolo elastico alla Winkler
BIE-RTC = Biella resistente a trazione e a compressione
BIE-RC = Biella resistente solo a compressione
BIE-RT = Biella resistente solo a trazione
Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)
Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)
Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)
Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)
Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)
Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)
Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)
Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt
															<daN/cm<
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	
11	Inc+CerYZ	SVI	1	1	1	1	1	1	1	1	1	1	0	0	
12	CerYZ+Inc	SVI	1	1	1	1	0	0	1	1	1	1	1	1	
30		SVI	1	1	1	1	0	0	0	1	1	1	0	0	
31		SVI	1	1	1	1	1	1	0	1	1	1	0	0	
32		SVI	0	1	1	1	0	0	1	1	1	1	1	1	

Elenco aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
Sez. = Numero della sezione
Va = Numero del vincolo asta
Par. = Numero dei parametri aggiuntivi
Rot. = Rotazione
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Dz1 = Scost. filo fisso Z1
Dz2 = Scost. filo fisso Z2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot.	FF	Dy1	Dy2	Dz1	Dz2	Kt
						<grad>		<cm>	<cm>	<cm>	<cm>	<daN/cmc>
0	8	-54	1			0.00	22	0.00	0.00	0.00	0.00	
0	-54	-55	1			0.00	22	0.00	0.00	0.00	0.00	
0	-55	-56	1			0.00	22	0.00	0.00	0.00	0.00	
0	-56	-57	1			0.00	22	0.00	0.00	0.00	0.00	
0	-57	-58	1			0.00	22	0.00	0.00	0.00	0.00	
0	-58	-59	1			0.00	22	0.00	0.00	0.00	0.00	
0	7	-43	1			0.00	22	0.00	0.00	0.00	0.00	
0	-59	-60	1			0.00	22	0.00	0.00	0.00	0.00	
0	-43	-44	1			0.00	22	0.00	0.00	0.00	0.00	
0	-60	-61	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1019	-1020	1			0.00	88	0.00	0.00	0.00	0.00	
0	-44	-45	1			0.00	22	0.00	0.00	0.00	0.00	
0	-61	-62	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1018	-1019	1			0.00	88	0.00	0.00	0.00	0.00	
0	-45	-46	1			0.00	22	0.00	0.00	0.00	0.00	
0	-62	-63	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1017	-1018	1			0.00	88	0.00	0.00	0.00	0.00	
0	-46	-47	1			0.00	22	0.00	0.00	0.00	0.00	
0	-63	-64	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1016	-1017	1			0.00	88	0.00	0.00	0.00	0.00	
0	-47	-48	1			0.00	22	0.00	0.00	0.00	0.00	
0	-64	13	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1015	-1016	1			0.00	88	0.00	0.00	0.00	0.00	
0	-48	-49	1			0.00	22	0.00	0.00	0.00	0.00	
0	13	-65	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1014	-1015	1			0.00	88	0.00	0.00	0.00	0.00	
0	-49	-50	1			0.00	22	0.00	0.00	0.00	0.00	
0	-65	-66	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1013	-1014	1			0.00	88	0.00	0.00	0.00	0.00	
0	-50	-51	1			0.00	22	0.00	0.00	0.00	0.00	
0	-66	-67	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1012	-1013	1			0.00	88	0.00	0.00	0.00	0.00	
0	-51	-52	1			0.00	22	0.00	0.00	0.00	0.00	
0	-67	-68	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1011	-1012	1			0.00	88	0.00	0.00	0.00	0.00	
0	-52	-53	1			0.00	22	0.00	0.00	0.00	0.00	
0	-68	-69	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1010	-1011	1			0.00	88	0.00	0.00	0.00	0.00	
0	-53	1	1			0.00	22	0.00	0.00	0.00	0.00	
0	-69	-70	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1009	-1010	1			0.00	88	0.00	0.00	0.00	0.00	
0	-988	-989	1			0.00	88	0.00	0.00	0.00	0.00	
0	1	-1	1			0.00	22	0.00	0.00	0.00	0.00	
0	-70	-71	1			0.00	22	0.00	0.00	0.00	0.00	
0	-989	-990	1			0.00	88	0.00	0.00	0.00	0.00	
0	-71	-803	1			0.00	22	0.00	0.00	0.00	0.00	
0	-1	-2	1			0.00	22	0.00	0.00	0.00	0.00	
0	-990	-991	1			0.00	88	0.00	0.00	0.00	0.00	
0	-803	6	1			0.00	22	0.00	0.00	0.00	0.00	
0	6	-76	1			0.00	22	0.00	0.00	0.00	0.00	
0	-2	-3	1			0.00	22	0.00	0.00	0.00	0.00	
0	-991	-992	1			0.00	88	0.00	0.00	0.00	0.00	
0	-76	-75	1			0.00	22	0.00	0.00	0.00	0.00	
0	-3	-4	1			0.00	22	0.00	0.00	0.00	0.00	
0	-992	-993	1			0.00	88	0.00	0.00	0.00	0.00	
0	-75	-74	1			0.00	22	0.00	0.00	0.00	0.00	
0	-4	-133	1			0.00	22	0.00	0.00	0.00	0.00	
0	-4	-5	1			0.00	22	0.00	0.00	0.00	0.00	
0	-133	-5	1			0.00	22	0.00	0.00	0.00	0.00	
0	-993	-994	1			0.00	88	0.00	0.00	0.00	0.00	
0	-74	-73	1			0.00	22	0.00	0.00	0.00	0.00	
0	-5	-6	1			0.00	22	0.00	0.00	0.00	0.00	
0	-994	-995	1			0.00	88	0.00	0.00	0.00	0.00	

0	-73	-72	1	0.00	22	0.00	0.00	0.00	0.00
0	-6	-7	1	0.00	22	0.00	0.00	0.00	0.00
0	-72	5	1	0.00	22	0.00	0.00	0.00	0.00
0	-995	-996	1	0.00	88	0.00	0.00	0.00	0.00
0	-7	-8	1	0.00	22	0.00	0.00	0.00	0.00
0	5	-22	1	0.00	22	0.00	0.00	0.00	0.00
0	-996	-997	1	0.00	88	0.00	0.00	0.00	0.00
0	-8	-9	1	0.00	22	0.00	0.00	0.00	0.00
0	-22	-23	1	0.00	22	0.00	0.00	0.00	0.00
0	-997	-998	1	0.00	88	0.00	0.00	0.00	0.00
0	-9	-10	1	0.00	22	0.00	0.00	0.00	0.00
0	-23	-24	1	0.00	22	0.00	0.00	0.00	0.00
0	-998	-999	1	0.00	88	0.00	0.00	0.00	0.00
0	-1031	-1032	1	0.00	88	0.00	0.00	0.00	0.00
0	-10	-11	1	0.00	22	0.00	0.00	0.00	0.00
0	-24	-25	1	0.00	22	0.00	0.00	0.00	0.00
0	-999	-1000	1	0.00	88	0.00	0.00	0.00	0.00
0	-1030	-1031	1	0.00	88	0.00	0.00	0.00	0.00
0	-11	-12	1	0.00	22	0.00	0.00	0.00	0.00
0	-25	-26	1	0.00	22	0.00	0.00	0.00	0.00
0	-120	11	1	0.00	22	0.00	0.00	0.00	0.00
0	-1029	-1030	1	0.00	88	0.00	0.00	0.00	0.00
0	-1000	-1001	1	0.00	88	0.00	0.00	0.00	0.00
0	-12	-13	1	0.00	22	0.00	0.00	0.00	0.00
0	-119	-120	1	0.00	22	0.00	0.00	0.00	0.00
0	-26	-27	1	0.00	22	0.00	0.00	0.00	0.00
0	-1028	-1029	1	0.00	88	0.00	0.00	0.00	0.00
0	-1001	-1002	1	0.00	88	0.00	0.00	0.00	0.00
0	-118	-119	1	0.00	22	0.00	0.00	0.00	0.00
0	-13	-14	1	0.00	22	0.00	0.00	0.00	0.00
0	-1027	-1028	1	0.00	88	0.00	0.00	0.00	0.00
0	-27	-28	1	0.00	22	0.00	0.00	0.00	0.00
0	-1002	-1003	1	0.00	88	0.00	0.00	0.00	0.00
0	-14	-135	1	0.00	22	0.00	0.00	0.00	0.00
0	-117	-118	1	0.00	22	0.00	0.00	0.00	0.00
0	-14	-15	1	0.00	22	0.00	0.00	0.00	0.00
0	-1026	-1027	1	0.00	88	0.00	0.00	0.00	0.00
0	-135	-15	1	0.00	22	0.00	0.00	0.00	0.00
0	-28	-29	1	0.00	22	0.00	0.00	0.00	0.00
0	-1003	-1004	1	0.00	88	0.00	0.00	0.00	0.00
0	-116	-117	1	0.00	22	0.00	0.00	0.00	0.00
0	-1025	-1026	1	0.00	88	0.00	0.00	0.00	0.00
0	-15	-16	1	0.00	22	0.00	0.00	0.00	0.00
0	-29	-30	1	0.00	22	0.00	0.00	0.00	0.00
0	-1004	-1005	1	0.00	88	0.00	0.00	0.00	0.00
0	-115	-116	1	0.00	22	0.00	0.00	0.00	0.00
0	-1024	-1025	1	0.00	88	0.00	0.00	0.00	0.00
0	-16	-17	1	0.00	22	0.00	0.00	0.00	0.00
0	-30	-31	1	0.00	22	0.00	0.00	0.00	0.00
0	-1005	-1006	1	0.00	88	0.00	0.00	0.00	0.00
0	-114	-115	1	0.00	22	0.00	0.00	0.00	0.00
0	-1023	-1024	1	0.00	88	0.00	0.00	0.00	0.00
0	-17	-18	1	0.00	22	0.00	0.00	0.00	0.00
0	-31	-32	1	0.00	22	0.00	0.00	0.00	0.00
0	-1006	-1007	1	0.00	88	0.00	0.00	0.00	0.00
0	-113	-114	1	0.00	22	0.00	0.00	0.00	0.00
0	-1022	-1023	1	0.00	88	0.00	0.00	0.00	0.00
0	-18	-136	1	0.00	22	0.00	0.00	0.00	0.00
0	-32	-33	1	0.00	22	0.00	0.00	0.00	0.00
0	-112	-113	1	0.00	22	0.00	0.00	0.00	0.00
0	-1007	-1008	1	0.00	88	0.00	0.00	0.00	0.00
0	12	-121	1	0.00	22	0.00	0.00	0.00	0.00
0	-1021	-1022	1	0.00	88	0.00	0.00	0.00	0.00
0	-136	-20	1	0.00	22	0.00	0.00	0.00	0.00
0	-33	-34	1	0.00	22	0.00	0.00	0.00	0.00
0	-111	-112	1	0.00	22	0.00	0.00	0.00	0.00
0	-121	-122	1	0.00	22	0.00	0.00	0.00	0.00
0	-20	-21	1	0.00	22	0.00	0.00	0.00	0.00
0	-110	-111	1	0.00	22	0.00	0.00	0.00	0.00
0	-34	-35	1	0.00	22	0.00	0.00	0.00	0.00
0	-122	-123	1	0.00	22	0.00	0.00	0.00	0.00
0	-21	3	1	0.00	22	0.00	0.00	0.00	0.00
0	3	-110	1	0.00	22	0.00	0.00	0.00	0.00
0	-35	-36	1	0.00	22	0.00	0.00	0.00	0.00
0	-123	-124	1	0.00	22	0.00	0.00	0.00	0.00
0	-124	-125	1	0.00	22	0.00	0.00	0.00	0.00
0	-36	-37	1	0.00	22	0.00	0.00	0.00	0.00
0	-125	-126	1	0.00	22	0.00	0.00	0.00	0.00
0	-37	-38	1	0.00	22	0.00	0.00	0.00	0.00

0	-126	-127	1	0.00	22	0.00	0.00	0.00	0.00
0	-38	-39	1	0.00	22	0.00	0.00	0.00	0.00
0	-127	-128	1	0.00	22	0.00	0.00	0.00	0.00
0	-39	-40	1	0.00	22	0.00	0.00	0.00	0.00
0	-128	-129	1	0.00	22	0.00	0.00	0.00	0.00
0	-40	-41	1	0.00	22	0.00	0.00	0.00	0.00
0	-129	-130	1	0.00	22	0.00	0.00	0.00	0.00
0	-41	-42	1	0.00	22	0.00	0.00	0.00	0.00
0	-130	-131	1	0.00	22	0.00	0.00	0.00	0.00
0	-42	4	1	0.00	22	0.00	0.00	0.00	0.00
0	-131	10	1	0.00	22	0.00	0.00	0.00	0.00
0	4	-103	1	0.00	22	0.00	0.00	0.00	0.00
0	10	-96	1	0.00	22	0.00	0.00	0.00	0.00
0	-103	-104	1	0.00	22	0.00	0.00	0.00	0.00
0	-96	-97	1	0.00	22	0.00	0.00	0.00	0.00
0	-104	-105	1	0.00	22	0.00	0.00	0.00	0.00
0	-97	-98	1	0.00	22	0.00	0.00	0.00	0.00
0	-105	-106	1	0.00	22	0.00	0.00	0.00	0.00
0	-98	-99	1	0.00	22	0.00	0.00	0.00	0.00
0	-106	-107	1	0.00	22	0.00	0.00	0.00	0.00
0	-99	-100	1	0.00	22	0.00	0.00	0.00	0.00
0	-107	-108	1	0.00	22	0.00	0.00	0.00	0.00
0	-100	-101	1	0.00	22	0.00	0.00	0.00	0.00
0	-108	-109	1	0.00	22	0.00	0.00	0.00	0.00
0	-101	-102	1	0.00	22	0.00	0.00	0.00	0.00
0	-109	9	1	0.00	22	0.00	0.00	0.00	0.00
0	-102	9	1	0.00	22	0.00	0.00	0.00	0.00
1	14	-140	3	0.00	11	0.00	0.00	0.00	0.00
1	-140	1	5	0.00	11	0.00	0.00	0.00	0.00
3	15	-139	3	0.00	11	0.00	0.00	0.00	0.00
3	-139	3	5	0.00	11	0.00	0.00	0.00	0.00
7	30	-145	3	0.00	11	0.00	0.00	0.00	0.00
7	-145	7	5	0.00	11	0.00	0.00	0.00	0.00
11	16	-146	3	0.00	11	0.00	0.00	0.00	0.00
11	-146	11	5	0.00	11	0.00	0.00	0.00	0.00
17	17	-137	3	0.00	11	0.00	0.00	0.00	0.00
17	-137	-133	5	0.00	11	0.00	0.00	0.00	0.00
18	18	-141	3	0.00	11	0.00	0.00	0.00	0.00
19	19	-142	3	0.00	11	0.00	0.00	0.00	0.00
20	20	-795	3	0.00	55	0.00	0.00	0.00	0.00
20	-795	-136	5	0.00	55	0.00	0.00	0.00	0.00
21	21	-144	3	0.00	11	0.00	0.00	0.00	0.00
21	-144	-48	5	0.00	11	0.00	0.00	0.00	0.00
25	-1071	-53	5	0.00	88	0.00	0.00	0.00	0.00
26	-1070	-52	5	0.00	88	0.00	0.00	0.00	0.00
27	-1069	-51	5	0.00	88	0.00	0.00	0.00	0.00
28	-1068	-50	5	0.00	88	0.00	0.00	0.00	0.00
29	-1067	-49	5	0.00	88	0.00	0.00	0.00	0.00
30	-1066	-47	5	0.00	88	0.00	0.00	0.00	0.00
31	-1065	-46	5	0.00	88	0.00	0.00	0.00	0.00
32	-1064	-45	5	0.00	88	0.00	0.00	0.00	0.00
33	-1063	-44	5	0.00	88	0.00	0.00	0.00	0.00
34	-1062	-21	5	0.00	88	0.00	0.00	0.00	0.00
35	-1061	-20	5	0.00	88	0.00	0.00	0.00	0.00
36	-1060	-18	5	0.00	88	0.00	0.00	0.00	0.00
37	-1059	-17	5	0.00	88	0.00	0.00	0.00	0.00
38	-1058	-16	5	0.00	88	0.00	0.00	0.00	0.00
39	-1057	-15	5	0.00	88	0.00	0.00	0.00	0.00
40	-1056	-14	5	0.00	88	0.00	0.00	0.00	0.00
41	-1055	-13	5	0.00	88	0.00	0.00	0.00	0.00
42	-1054	-12	5	0.00	88	0.00	0.00	0.00	0.00
43	-1053	-11	5	0.00	88	0.00	0.00	0.00	0.00
44	-1052	-10	5	0.00	88	0.00	0.00	0.00	0.00
45	-1051	-9	5	0.00	88	0.00	0.00	0.00	0.00
46	-1050	-8	5	0.00	88	0.00	0.00	0.00	0.00
47	-1049	-7	5	0.00	88	0.00	0.00	0.00	0.00
48	-1048	-6	5	0.00	88	0.00	0.00	0.00	0.00
49	-1047	-5	5	0.00	88	0.00	0.00	0.00	0.00
50	-1046	-4	5	0.00	88	0.00	0.00	0.00	0.00
51	-1045	-3	5	0.00	88	0.00	0.00	0.00	0.00
52	-1044	-2	5	0.00	88	0.00	0.00	0.00	0.00
53	-1043	-1	5	0.00	88	0.00	0.00	0.00	0.00
58	-132	-138	3	0.00	11	0.00	0.00	0.00	0.00
58	-138	-117	5	0.00	11	0.00	0.00	0.00	0.00
62	-1034	-110	5	0.00	88	0.00	0.00	0.00	0.00
63	-1033	-43	5	0.00	88	0.00	0.00	0.00	0.00
92	-1104	-120	5	0.00	88	0.00	0.00	0.00	0.00
93	-1103	-119	5	0.00	88	0.00	0.00	0.00	0.00
94	-1102	-118	5	0.00	88	0.00	0.00	0.00	0.00

95	-1101	-116	5	11	0.00	88	0.00	0.00	0.00	0.00
96	-1100	-115	5	11	0.00	88	0.00	0.00	0.00	0.00
97	-1099	-114	5	11	0.00	88	0.00	0.00	0.00	0.00
98	-1098	-113	5	11	0.00	88	0.00	0.00	0.00	0.00
99	-1097	-112	5	11	0.00	88	0.00	0.00	0.00	0.00
100	-1096	-111	5	11	0.00	88	0.00	0.00	0.00	0.00
2001	-1032	11	6	1	0.00	88	0.00	0.00	0.00	0.00
2001	11	12	2	31	0.00	88	0.00	0.00	0.00	0.00
2002	8	7	2	32	0.00	88	0.00	0.00	0.00	0.00
2002	-1020	7	6	1	0.00	88	0.00	0.00	0.00	0.00
2025	13	1	2	30	0.00	88	0.00	0.00	0.00	0.00
2033	1	5	2	30	0.00	88	0.00	0.00	0.00	0.00
2055	3	4	2	30	0.00	88	0.00	0.00	0.00	0.00
2067	3	-89	4	12	0.00	22	0.00	0.00	0.00	0.00
2067	-89	-90	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-90	-91	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-91	-92	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-92	-93	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-93	-94	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-94	-95	4	1	0.00	22	0.00	0.00	0.00	0.00
2067	-95	9	4	11	0.00	22	0.00	0.00	0.00	0.00
2068	1	-77	4	12	0.00	22	0.00	0.00	0.00	0.00
2068	-77	-78	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-78	-79	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-79	-86	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-86	-80	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-80	-81	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-81	-87	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-87	-82	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-82	-88	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-88	-83	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-83	-84	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-84	-85	4	1	0.00	22	0.00	0.00	0.00	0.00
2068	-85	6	4	11	0.00	22	0.00	0.00	0.00	0.00
2101	3	10	2	30	0.00	88	0.00	0.00	0.00	0.00
4003	-1031	-120	6	1	0.00	88	0.00	0.00	0.00	0.00
4003	-120	-121	2	31	0.00	88	0.00	0.00	0.00	0.00
4004	-43	-54	2	31	0.00	88	0.00	0.00	0.00	0.00
4004	-1019	-43	6	1	0.00	88	0.00	0.00	0.00	0.00
4005	-1030	-119	6	1	0.00	88	0.00	0.00	0.00	0.00
4005	-119	-122	2	31	0.00	88	0.00	0.00	0.00	0.00
4006	-44	-55	2	31	0.00	88	0.00	0.00	0.00	0.00
4006	-1018	-44	6	1	0.00	88	0.00	0.00	0.00	0.00
4007	-1029	-118	6	1	0.00	88	0.00	0.00	0.00	0.00
4007	-118	-123	2	31	0.00	88	0.00	0.00	0.00	0.00
4008	-45	-56	2	31	0.00	88	0.00	0.00	0.00	0.00
4008	-1017	-45	6	1	0.00	88	0.00	0.00	0.00	0.00
4009	-1028	-117	6	1	0.00	88	0.00	0.00	0.00	0.00
4009	-117	-124	2	31	0.00	88	0.00	0.00	0.00	0.00
4010	-46	-57	2	31	0.00	88	0.00	0.00	0.00	0.00
4010	-1016	-46	6	1	0.00	88	0.00	0.00	0.00	0.00
4011	-1027	-116	6	1	0.00	88	0.00	0.00	0.00	0.00
4011	-116	-125	2	31	0.00	88	0.00	0.00	0.00	0.00
4012	-47	-58	2	31	0.00	88	0.00	0.00	0.00	0.00
4012	-1015	-47	6	1	0.00	88	0.00	0.00	0.00	0.00
4013	-1026	-115	6	1	0.00	88	0.00	0.00	0.00	0.00
4013	-115	-126	2	31	0.00	88	0.00	0.00	0.00	0.00
4014	-48	-59	2	31	0.00	88	0.00	0.00	0.00	0.00
4014	-1014	-48	6	1	0.00	88	0.00	0.00	0.00	0.00
4015	-1025	-114	6	1	0.00	88	0.00	0.00	0.00	0.00
4015	-114	-127	2	31	0.00	88	0.00	0.00	0.00	0.00
4016	-49	-60	2	31	0.00	88	0.00	0.00	0.00	0.00
4016	-1013	-49	6	1	0.00	88	0.00	0.00	0.00	0.00
4017	-1024	-113	6	1	0.00	88	0.00	0.00	0.00	0.00
4017	-113	-128	2	31	0.00	88	0.00	0.00	0.00	0.00
4018	-50	-61	2	31	0.00	88	0.00	0.00	0.00	0.00
4018	-1012	-50	6	1	0.00	88	0.00	0.00	0.00	0.00
4019	-1023	-112	6	1	0.00	88	0.00	0.00	0.00	0.00
4019	-112	-129	2	31	0.00	88	0.00	0.00	0.00	0.00
4020	-51	-62	2	31	0.00	88	0.00	0.00	0.00	0.00
4020	-1011	-51	6	1	0.00	88	0.00	0.00	0.00	0.00
4021	-1022	-111	6	1	0.00	88	0.00	0.00	0.00	0.00
4021	-111	-130	2	31	0.00	88	0.00	0.00	0.00	0.00
4022	-52	-63	2	31	0.00	88	0.00	0.00	0.00	0.00
4022	-1010	-52	6	1	0.00	88	0.00	0.00	0.00	0.00
4023	-1021	-110	6	1	0.00	88	0.00	0.00	0.00	0.00
4023	-110	-131	2	31	0.00	88	0.00	0.00	0.00	0.00
4024	-53	-64	2	31	0.00	88	0.00	0.00	0.00	0.00
4024	-1009	-53	6	1	0.00	88	0.00	0.00	0.00	0.00

4025	-1046	-137	1	1	0.00	22	0.00	0.00	0.00	0.00
4025	-137	-1047	1	1	0.00	22	0.00	0.00	0.00	0.00
4026	-89	-96	2	30	0.00	88	0.00	0.00	0.00	0.00
4027	-90	-97	2	30	0.00	88	0.00	0.00	0.00	0.00
4028	-91	-98	2	30	0.00	88	0.00	0.00	0.00	0.00
4029	-92	-99	2	30	0.00	88	0.00	0.00	0.00	0.00
4030	-93	-100	2	30	0.00	88	0.00	0.00	0.00	0.00
4031	-94	-101	2	30	0.00	88	0.00	0.00	0.00	0.00
4032	-95	-102	2	30	0.00	88	0.00	0.00	0.00	0.00
4033	-144	-1067	1	1	0.00	22	0.00	0.00	0.00	0.00
4033	-1067	-1068	1	1	0.00	22	0.00	0.00	0.00	0.00
4033	-1068	-1069	1	1	0.00	22	0.00	0.00	0.00	0.00
4033	-1069	-1070	1	1	0.00	22	0.00	0.00	0.00	0.00
4033	-1070	-1071	1	1	0.00	22	0.00	0.00	0.00	0.00
4033	-1071	-140	1	11	0.00	22	0.00	0.00	0.00	0.00
4034	-988	-1	6	1	0.00	88	0.00	0.00	0.00	0.00
4034	-1	-22	2	31	0.00	88	0.00	0.00	0.00	0.00
4035	-989	-2	6	1	0.00	88	0.00	0.00	0.00	0.00
4035	-2	-23	2	31	0.00	88	0.00	0.00	0.00	0.00
4036	-990	-3	6	1	0.00	88	0.00	0.00	0.00	0.00
4036	-3	-24	2	31	0.00	88	0.00	0.00	0.00	0.00
4037	-991	-4	6	1	0.00	88	0.00	0.00	0.00	0.00
4037	-4	-25	2	31	0.00	88	0.00	0.00	0.00	0.00
4038	-992	-5	6	1	0.00	88	0.00	0.00	0.00	0.00
4038	-5	-26	2	31	0.00	88	0.00	0.00	0.00	0.00
4039	-993	-6	6	1	0.00	88	0.00	0.00	0.00	0.00
4039	-6	-27	2	31	0.00	88	0.00	0.00	0.00	0.00
4040	-994	-7	6	1	0.00	88	0.00	0.00	0.00	0.00
4040	-7	-28	2	31	0.00	88	0.00	0.00	0.00	0.00
4041	-995	-8	6	1	0.00	88	0.00	0.00	0.00	0.00
4041	-8	-29	2	31	0.00	88	0.00	0.00	0.00	0.00
4042	-996	-9	6	1	0.00	88	0.00	0.00	0.00	0.00
4042	-9	-30	2	31	0.00	88	0.00	0.00	0.00	0.00
4043	-997	-10	6	1	0.00	88	0.00	0.00	0.00	0.00
4043	-10	-31	2	31	0.00	88	0.00	0.00	0.00	0.00
4044	-998	-11	6	1	0.00	88	0.00	0.00	0.00	0.00
4044	-11	-32	2	31	0.00	88	0.00	0.00	0.00	0.00
4045	-999	-12	6	1	0.00	88	0.00	0.00	0.00	0.00
4045	-12	-33	2	31	0.00	88	0.00	0.00	0.00	0.00
4046	-1000	-13	6	1	0.00	88	0.00	0.00	0.00	0.00
4046	-13	-34	2	31	0.00	88	0.00	0.00	0.00	0.00
4047	-1001	-14	6	1	0.00	88	0.00	0.00	0.00	0.00
4047	-14	-35	2	31	0.00	88	0.00	0.00	0.00	0.00
4048	-1002	-15	6	1	0.00	88	0.00	0.00	0.00	0.00
4048	-15	-36	2	31	0.00	88	0.00	0.00	0.00	0.00
4049	-1003	-16	6	1	0.00	88	0.00	0.00	0.00	0.00
4049	-16	-37	2	31	0.00	88	0.00	0.00	0.00	0.00
4050	-1004	-17	6	1	0.00	88	0.00	0.00	0.00	0.00
4050	-17	-38	2	31	0.00	88	0.00	0.00	0.00	0.00
4051	-1005	-18	6	1	0.00	88	0.00	0.00	0.00	0.00
4051	-18	-39	2	31	0.00	88	0.00	0.00	0.00	0.00
4052	-1006	-136	6	1	0.00	88	0.00	0.00	0.00	0.00
4052	-136	-40	2	31	0.00	88	0.00	0.00	0.00	0.00
4053	-1007	-20	6	1	0.00	88	0.00	0.00	0.00	0.00
4053	-20	-41	2	31	0.00	88	0.00	0.00	0.00	0.00
4054	-1008	-21	6	1	0.00	88	0.00	0.00	0.00	0.00
4054	-21	-42	2	31	0.00	88	0.00	0.00	0.00	0.00
4055	-1101	-138	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1100	-1101	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1099	-1100	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1098	-1099	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1097	-1098	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1096	-1097	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-1034	-1096	1	1	0.00	22	0.00	0.00	0.00	0.00
4055	-139	-1034	1	12	0.00	22	0.00	0.00	0.00	0.00
4056	-89	-103	2	30	0.00	88	0.00	0.00	0.00	0.00
4057	-90	-104	2	30	0.00	88	0.00	0.00	0.00	0.00
4058	-91	-105	2	30	0.00	88	0.00	0.00	0.00	0.00
4059	-92	-106	2	30	0.00	88	0.00	0.00	0.00	0.00
4060	-93	-107	2	30	0.00	88	0.00	0.00	0.00	0.00
4061	-94	-108	2	30	0.00	88	0.00	0.00	0.00	0.00
4062	-95	-109	2	30	0.00	88	0.00	0.00	0.00	0.00
4063	-65	-77	2	30	0.00	88	0.00	0.00	0.00	0.00
4064	-66	-79	2	30	0.00	88	0.00	0.00	0.00	0.00
4065	-67	-80	2	30	0.00	88	0.00	0.00	0.00	0.00
4066	-68	-81	2	30	0.00	88	0.00	0.00	0.00	0.00
4069	-78	-72	2	30	0.00	88	0.00	0.00	0.00	0.00
4070	-69	-82	2	30	0.00	88	0.00	0.00	0.00	0.00
4071	-86	-73	2	30	0.00	88	0.00	0.00	0.00	0.00

4072	-70	-83	2	30	0.00	88	0.00	0.00	0.00	0.00
4073	-87	-74	2	30	0.00	88	0.00	0.00	0.00	0.00
4074	-71	-84	2	30	0.00	88	0.00	0.00	0.00	0.00
4075	-88	-75	2	30	0.00	88	0.00	0.00	0.00	0.00
4076	-85	-76	2	30	0.00	88	0.00	0.00	0.00	0.00
4080	-145	-1033	1	1	0.00	22	0.00	0.00	0.00	0.00
4080	-1033	-1063	1	1	0.00	22	0.00	0.00	0.00	0.00
4080	-1063	-1064	1	1	0.00	22	0.00	0.00	0.00	0.00
4080	-1064	-1065	1	1	0.00	22	0.00	0.00	0.00	0.00
4080	-1065	-1066	1	1	0.00	22	0.00	0.00	0.00	0.00
4080	-1066	-144	1	1	0.00	22	0.00	0.00	0.00	0.00
4081	-1104	-146	1	1	0.00	22	0.00	0.00	0.00	0.00
4081	-1103	-1104	1	1	0.00	22	0.00	0.00	0.00	0.00
4081	-1102	-1103	1	1	0.00	22	0.00	0.00	0.00	0.00
4081	-138	-1102	1	1	0.00	22	0.00	0.00	0.00	0.00
4101	-1051	-141	1	11	0.00	22	0.00	0.00	0.00	0.00
4101	-141	-1052	1	12	0.00	22	0.00	0.00	0.00	0.00
4177	-140	-1043	1	12	0.00	22	0.00	0.00	0.00	0.00
4177	-1043	-1044	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1044	-1045	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1045	-1046	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1046	-1047	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1047	-1048	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1048	-1049	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1049	-1050	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1050	-1051	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1051	-1052	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1052	-1053	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1053	-1054	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1054	-1055	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1055	-1056	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1056	-1057	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1057	-1058	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1058	-1059	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1059	-1060	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1060	-795	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-795	-1061	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1061	-1062	1	1	0.00	22	0.00	0.00	0.00	0.00
4177	-1062	-139	1	11	0.00	22	0.00	0.00	0.00	0.00
4253	-1056	-142	1	1	0.00	22	0.00	0.00	0.00	0.00
4253	-142	-1057	1	1	0.00	22	0.00	0.00	0.00	0.00

Elenco tipi solai

Simbologia

Ts	= Numero del tipo solaio
Comm.	= Commento
Qps	= Carico permanente strutturale
Qpn	= Carico permanente non strutturale
Qa	= Primo carico accidentale
Qa2	= Secondo carico accidentale
Qa3	= Terzo carico accidentale
Rip. ter.	= Ripartizione su aste terminali
Rip. int.	= Ripartizione su aste interne
s	= Coeff. di riduzione
Hs	= Altezza solaio
Sc	= Spessore cappa
Crit.	= Numero del criterio di progetto

Ts	Comm.	Qps	Qpn	Qa	Qa2	Qa3	Rip. ter.	Rip. int.	s	Hs	Sc	Crit.
		<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>				<cm>	<cm>	
1		0.00	100.00	48.00	105.00	50.00	50.00	50.00	0.33	1.00	1.00	1

Elenco solai

Simbologia

Sol.	= Numero del solaio
Ts	= Numero del tipo solaio
Ord.	= Orditura
Nodi	= Nodi del solaio

Sol.	Ts	Ord.	Nodi	Sol.	Ts	Ord.	Nodi
		<grad>				<grad>	
0	1	0.00	-1000 -1001 -14 -13	0	1	0.00	-1001 -1002 -15 -14
0	1	0.00	-1002 -1003 -16 -15	0	1	0.00	-1003 -1004 -17 -16
0	1	0.00	-1004 -1005 -18 -17	0	1	0.00	-1005 -1006 -136 -18

0	1	0.00	-1006	-1007	-20	-136	0	1	0.00	-1007	-1008	-21	-20			
0	1	90.00	-1009	-1010	-52	-53	0	1	90.00	-1010	-1011	-51	-52			
0	1	90.00	-1011	-1012	-50	-51	0	1	90.00	-1012	-1013	-49	-50			
0	1	90.00	-1013	-1014	-48	-49	0	1	90.00	-1014	-1015	-47	-48			
0	1	90.00	-1015	-1016	-46	-47	0	1	90.00	-1016	-1017	-45	-46			
0	1	90.00	-1017	-1018	-44	-45	0	1	0.00	-988	-989	-2	-1			
0	1	0.00	-989	-990	-3	-2	0	1	0.00	-990	-991	-4	-3			
0	1	0.00	-991	-992	-5	-4	0	1	0.00	-992	-993	-6	-5			
0	1	0.00	-993	-994	-7	-6	0	1	0.00	-994	-995	-8	-7			
0	1	0.00	-995	-996	-9	-8	0	1	0.00	-996	-997	-10	-9			
0	1	0.00	-997	-998	-11	-10	0	1	0.00	-998	-999	-12	-11			
0	1	0.00	-999	-1000	-13	-12	0	1	90.00	-1031	-1032	11	-120			
0	1	90.00	-1024	-1025	-114	-113	0	1	90.00	-1025	-1026	-115	-114			
0	1	90.00	-1018	-1019	-43	-44	0	1	90.00	-1019	-1020	7	-43			
0	1	90.00	-1021	-1022	-111	-110	0	1	90.00	-1022	-1023	-112	-111			
0	1	90.00	-1023	-1024	-113	-112	0	1	90.00	-1027	-1028	-117	-116			
0	1	90.00	-1028	-1029	-118	-117	0	1	90.00	-1026	-1027	-116	-115			
0	1	90.00	-1030	-1031	-120	-119	0	1	90.00	-1029	-1030	-119	-118			
100	1	0.00	-78	-77	1	5	-72	101	1	90.00	-65	13	1	-77		
102	1	0.00	-86	-79	-78	-72	-73	103	1	0.00	-87	-81	-80	-86	-73	-74
104	1	0.00	-88	-82	-87	-74	-75	105	1	0.00	-85	-84	-83	-88	-75	-76
106	1	0.00	6	-85	-76			107	1	90.00	-71	-84	-85	6	-803	
108	1	90.00	-71	-70	-83	-84		109	1	90.00	-70	-69	-82	-88	-83	
110	1	90.00	-69	-68	-81	-87	-82	111	1	90.00	-68	-67	-80	-81		
112	1	90.00	-67	-66	-79	-86	-80	113	1	90.00	-66	-65	-77	-78	-79	
114	1	0.00	1	-1	-22	5		115	1	0.00	-1	-2	-23	-22		
116	1	0.00	-2	-3	-24	-23		117	1	0.00	-3	-4	-25	-24		
118	1	0.00	-4	-133	-5	-26	-25	119	1	0.00	-5	-6	-27	-26		
120	1	0.00	-6	-7	-28	-27		121	1	0.00	-7	-8	-29	-28		
122	1	0.00	-8	-9	-30	-29		123	1	0.00	-9	-10	-31	-30		
124	1	0.00	-10	-11	-32	-31		125	1	0.00	-11	-12	-33	-32		
126	1	0.00	-12	-13	-34	-33		127	1	0.00	-13	-14	-35	-34		
128	1	0.00	-14	-135	-15	-36	-35	129	1	0.00	-15	-16	-37	-36		
130	1	0.00	-16	-17	-38	-37		131	1	0.00	-17	-18	-39	-38		
132	1	0.00	-18	-136	-40	-39		133	1	0.00	-136	-20	-41	-40		
134	1	0.00	-20	-21	-42	-41		135	1	0.00	-21	3	4	-42		
136	1	90.00	7	-43	-54	8		137	1	90.00	-43	-44	-55	-54		
138	1	90.00	-44	-45	-56	-55		139	1	90.00	-45	-46	-57	-56		
140	1	90.00	-46	-47	-58	-57		141	1	90.00	-47	-48	-59	-58		
142	1	90.00	-48	-49	-60	-59		143	1	90.00	-49	-50	-61	-60		
144	1	90.00	-50	-51	-62	-61		145	1	90.00	-51	-52	-63	-62		
146	1	90.00	-52	-53	-64	-63		147	1	90.00	-53	1	13	-64		
148	1	90.00	10	-96	-89	3		149	1	0.00	4	-103	-89	3		
150	1	0.00	-103	-104	-90	-89		151	1	0.00	-104	-105	-91	-90		
152	1	0.00	-105	-106	-92	-91		153	1	0.00	-106	-107	-93	-92		
154	1	0.00	-107	-108	-94	-93		155	1	0.00	-108	-109	-95	-94		
156	1	0.00	-109	9	-95			157	1	90.00	-97	-96	-89	-90		
158	1	90.00	-98	-97	-90	-91		159	1	90.00	-99	-98	-91	-92		
160	1	90.00	-100	-99	-92	-93		161	1	90.00	-101	-100	-93	-94		
162	1	90.00	-102	-101	-94	-95		163	1	90.00	9	-102	-95			
164	1	90.00	3	-110	-131	10		165	1	90.00	-110	-111	-130	-131		
166	1	90.00	-111	-112	-129	-130		167	1	90.00	-112	-113	-128	-129		
168	1	90.00	-113	-114	-127	-128		169	1	90.00	-114	-115	-126	-127		
170	1	90.00	-115	-116	-125	-126		171	1	90.00	-116	-117	-124	-125		
172	1	90.00	-117	-118	-123	-124		173	1	90.00	-118	-119	-122	-123		
174	1	90.00	-119	-120	-121	-122		175	1	90.00	-120	11	12	-121		

Carichi

Condizioni di carico elementari

Simbologia

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

B = di base
I = indipendente
A = ambigua

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sicurezza	Variabilità
1	1.00	1.00	0.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2	1.00	1.00	0.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3	1.00	1.00	0.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4	1.00	1.00	0.00	0.00	0.00	0.00	1.00	18 D.M. 96 Variabili Vento	S	B
5	1.00	1.00	0.00	0.00	0.00	0.00	1.00	19 D.M. 08 Variabili Categoria H - Coperture	S	B

Elenco carichi aste **Condizione di carico n. 1:** **Carichi distribuiti**

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
S = Numero del solaio di provenienza
T = Tipo di carico
QA = Primo carico accidentale da solaio
QA2 = Secondo carico accidentale da solaio
QA3 = Terzo carico accidentale da solaio
QPS = Carico permanente strutturale da solaio
QPN = Carico permanente non strutturale da solaio
PP = Peso proprio
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi Globali
XL,YL,ZL = secondo gli assi Locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
1	14	-140	--	PP	ZG	0.00	314.16	2.58	314.16	1	-140	1	--	PP	ZG	0.00	7.07	0.12	7.07
3	15	-139	--	PP	ZG	0.00	314.16	2.58	314.16	3	-139	3	--	PP	ZG	0.00	7.07	0.12	7.07
7	30	-145	--	PP	ZG	0.00	314.16	2.58	314.16	7	-145	7	--	PP	ZG	0.00	7.07	0.12	7.07
11	16	-146	--	PP	ZG	0.00	314.16	2.58	314.16	11	-146	11	--	PP	ZG	0.00	7.07	0.12	7.07
17	17	-137	--	PP	ZG	0.00	314.16	2.58	314.16	17	-137	-133	--	PP	ZG	0.00	7.07	0.12	7.07
18	18	-141	--	PP	ZG	0.00	314.16	2.58	314.16	19	19	-142	--	PP	ZG	0.00	314.16	2.58	314.16
20	20	-795	--	PP	ZG	0.00	314.16	2.58	314.16	20	-795	-136	--	PP	ZG	0.00	7.07	0.12	7.07
21	21	-144	--	PP	ZG	0.00	314.16	2.58	314.16	21	-144	-48	--	PP	ZG	0.00	7.07	0.12	7.07
25	-1071	-53	--	PP	ZG	0.00	7.07	0.12	7.07	26	-1070	-52	--	PP	ZG	0.00	7.07	0.12	7.07
27	-1069	-51	--	PP	ZG	0.00	7.07	0.12	7.07	28	-1068	-50	--	PP	ZG	0.00	7.07	0.12	7.07
29	-1067	-49	--	PP	ZG	0.00	7.07	0.12	7.07	30	-1066	-47	--	PP	ZG	0.00	7.07	0.12	7.07
31	-1065	-46	--	PP	ZG	0.00	7.07	0.12	7.07	32	-1064	-45	--	PP	ZG	0.00	7.07	0.12	7.07
33	-1063	-44	--	PP	ZG	0.00	7.07	0.12	7.07	34	-1062	-21	--	PP	ZG	0.00	7.07	0.12	7.07
35	-1061	-20	--	PP	ZG	0.00	7.07	0.12	7.07	36	-1060	-18	--	PP	ZG	0.00	7.07	0.12	7.07
37	-1059	-17	--	PP	ZG	0.00	7.07	0.12	7.07	38	-1058	-16	--	PP	ZG	0.00	7.07	0.12	7.07
39	-1057	-15	--	PP	ZG	0.00	7.07	0.12	7.07	40	-1056	-14	--	PP	ZG	0.00	7.07	0.12	7.07
41	-1055	-13	--	PP	ZG	0.00	7.07	0.12	7.07	42	-1054	-12	--	PP	ZG	0.00	7.07	0.12	7.07
43	-1053	-11	--	PP	ZG	0.00	7.07	0.12	7.07	44	-1052	-10	--	PP	ZG	0.00	7.07	0.12	7.07
45	-1051	-9	--	PP	ZG	0.00	7.07	0.12	7.07	46	-1050	-8	--	PP	ZG	0.00	7.07	0.12	7.07
47	-1049	-7	--	PP	ZG	0.00	7.07	0.12	7.07	48	-1048	-6	--	PP	ZG	0.00	7.07	0.12	7.07
49	-1047	-5	--	PP	ZG	0.00	7.07	0.12	7.07	50	-1046	-4	--	PP	ZG	0.00	7.07	0.12	7.07
51	-1045	-3	--	PP	ZG	0.00	7.07	0.12	7.07	52	-1044	-2	--	PP	ZG	0.00	7.07	0.12	7.07
53	-1043	-1	--	PP	ZG	0.00	7.07	0.12	7.07	58	-132	-138	--	PP	ZG	0.00	314.16	2.58	314.16
58	-138	-117	--	PP	ZG	0.00	7.07	0.12	7.07	62	-1034	-110	--	PP	ZG	0.00	7.07	0.12	7.07
63	-1033	-43	--	PP	ZG	0.00	7.07	0.12	7.07	92	-1104	-120	--	PP	ZG	0.00	7.07	0.12	7.07
93	-1103	-119	--	PP	ZG	0.00	7.07	0.12	7.07	94	-1102	-118	--	PP	ZG	0.00	7.07	0.12	7.07
95	-1101	-116	--	PP	ZG	0.00	7.07	0.12	7.07	96	-1100	-115	--	PP	ZG	0.00	7.07	0.12	7.07
97	-1099	-114	--	PP	ZG	0.00	7.07	0.12	7.07	98	-1098	-113	--	PP	ZG	0.00	7.07	0.12	7.07
99	-1097	-112	--	PP	ZG	0.00	7.07	0.12	7.07	100	-1096	-111	--	PP	ZG	0.00	7.07	0.12	7.07
2001	-1032	11	--	PP	ZG	0.00	8.64	0.68	8.64	2001	11	12	--	PP	ZG	0.00	8.64	3.09	8.64
2002	8	7	--	PP	ZG	0.00	8.64	2.25	8.64	2002	-1020	7	--	PP	ZG	0.00	8.64	0.68	8.64
2025	13	1	--	PP	ZG	0.00	8.64	2.25	8.64	2033	1	5	--	PP	ZG	0.00	8.64	3.03	8.64
2055	3	4	--	PP	ZG	0.00	8.64	3.03	8.64	2067	3	-89	--	PP	ZG	0.00	24.00	0.52	24.00
2067	-89	-90	--	PP	ZG	0.00	24.00	0.52	24.00	2067	-90	-91	--	PP	ZG	0.00	24.00	0.52	24.00
2067	-91	-92	--	PP	ZG	0.00	24.00	0.52	24.00	2067	-92	-93	--	PP	ZG	0.00	24.00	0.52	24.00
2067	-93	-94	--	PP	ZG	0.00	24.00	0.52	24.00	2067	-94	-95	--	PP	ZG	0.00	24.00	0.52	24.00
2067	-95	9	--	PP	ZG	0.00	24.00	0.52	24.00	2068	1	-77	--	PP	ZG	0.00	24.00	0.43	24.00
2068	-77	-78	--	PP	ZG	0.00	24.00	0.02	24.00	2068	-78	-79	--	PP	ZG	0.00	24.00	0.41	24.00
2068	-79	-86	--	PP	ZG	0.00	24.00	0.29	24.00	2068	-86	-80	--	PP	ZG	0.00	24.00	0.15	24.00
2068	-80	-81	--	PP	ZG	0.00	24.00	0.43	24.00	2068	-81	-87	--	PP	ZG	0.00	24.00	0.12	24.00
2068	-87	-82	--	PP	ZG	0.00	24.00	0.32	24.00	2068	-82	-88	--	PP	ZG	0.00	24.00	0.38	24.00

2068	-88	-83 --	PP	ZG	0.00	24.00	0.05	24.00	2068	-83	-84 --	PP	ZG	0.00	24.00	0.43	24.00
2068	-84	-85 --	PP	ZG	0.00	24.00	0.21	24.00	2068	-85	6 --	PP	ZG	0.00	24.00	0.37	24.00
2101	3	10 --	PP	ZG	0.00	8.64	3.09	8.64	4003	-1031	-120 --	PP	ZG	0.00	8.64	0.68	8.64
4003	-120	-121 --	PP	ZG	0.00	8.64	3.09	8.64	4004	-43	-54 --	PP	ZG	0.00	8.64	2.25	8.64
4004	-1019	-43 --	PP	ZG	0.00	8.64	0.68	8.64	4005	-1030	-119 --	PP	ZG	0.00	8.64	0.68	8.64
4005	-119	-122 --	PP	ZG	0.00	8.64	3.09	8.64	4006	-44	-55 --	PP	ZG	0.00	8.64	2.25	8.64
4006	-1018	-44 --	PP	ZG	0.00	8.64	0.68	8.64	4007	-1029	-118 --	PP	ZG	0.00	8.64	0.68	8.64
4007	-118	-123 --	PP	ZG	0.00	8.64	3.09	8.64	4008	-45	-56 --	PP	ZG	0.00	8.64	2.25	8.64
4008	-1017	-45 --	PP	ZG	0.00	8.64	0.68	8.64	4009	-1028	-117 --	PP	ZG	0.00	8.64	0.68	8.64
4009	-117	-124 --	PP	ZG	0.00	8.64	3.09	8.64	4010	-46	-57 --	PP	ZG	0.00	8.64	2.25	8.64
4010	-1016	-46 --	PP	ZG	0.00	8.64	0.68	8.64	4011	-1027	-116 --	PP	ZG	0.00	8.64	0.68	8.64
4011	-116	-125 --	PP	ZG	0.00	8.64	3.09	8.64	4012	-47	-58 --	PP	ZG	0.00	8.64	2.25	8.64
4012	-1015	-47 --	PP	ZG	0.00	8.64	0.68	8.64	4013	-1026	-115 --	PP	ZG	0.00	8.64	0.68	8.64
4013	-115	-126 --	PP	ZG	0.00	8.64	3.09	8.64	4014	-48	-59 --	PP	ZG	0.00	8.64	2.25	8.64
4014	-1014	-48 --	PP	ZG	0.00	8.64	0.68	8.64	4015	-1025	-114 --	PP	ZG	0.00	8.64	0.68	8.64
4015	-114	-127 --	PP	ZG	0.00	8.64	3.09	8.64	4016	-49	-60 --	PP	ZG	0.00	8.64	2.25	8.64
4016	-1013	-49 --	PP	ZG	0.00	8.64	0.68	8.64	4017	-1024	-113 --	PP	ZG	0.00	8.64	0.68	8.64
4017	-113	-128 --	PP	ZG	0.00	8.64	3.09	8.64	4018	-50	-61 --	PP	ZG	0.00	8.64	2.25	8.64
4018	-1012	-50 --	PP	ZG	0.00	8.64	0.68	8.64	4019	-1023	-112 --	PP	ZG	0.00	8.64	0.68	8.64
4019	-112	-129 --	PP	ZG	0.00	8.64	3.09	8.64	4020	-51	-62 --	PP	ZG	0.00	8.64	2.25	8.64
4020	-1011	-51 --	PP	ZG	0.00	8.64	0.68	8.64	4021	-1022	-111 --	PP	ZG	0.00	8.64	0.68	8.64
4021	-111	-130 --	PP	ZG	0.00	8.64	3.09	8.64	4022	-52	-63 --	PP	ZG	0.00	8.64	2.25	8.64
4022	-1010	-52 --	PP	ZG	0.00	8.64	0.68	8.64	4023	-1021	-110 --	PP	ZG	0.00	8.64	0.68	8.64
4023	-110	-131 --	PP	ZG	0.00	8.64	3.09	8.64	4024	-53	-64 --	PP	ZG	0.00	8.64	2.25	8.64
4024	-1009	-53 --	PP	ZG	0.00	8.64	0.68	8.64	4025	-1046	-137 --	PP	ZG	0.00	18.00	0.20	18.00
4025	-137	-1047 --	PP	ZG	0.00	18.00	0.19	18.00	4026	-89	-96 --	PP	ZG	0.00	8.64	2.70	8.64
4027	-90	-97 --	PP	ZG	0.00	8.64	2.32	8.64	4028	-91	-98 --	PP	ZG	0.00	8.64	1.93	8.64
4029	-92	-99 --	PP	ZG	0.00	8.64	1.54	8.64	4030	-93	-100 --	PP	ZG	0.00	8.64	1.16	8.64
4031	-94	-101 --	PP	ZG	0.00	8.64	0.77	8.64	4032	-95	-102 --	PP	ZG	0.00	8.64	0.39	8.64
4033	-144	-1067 --	PP	ZG	0.00	18.00	0.34	18.00	4033	-1067	-1068 --	PP	ZG	0.00	18.00	0.34	18.00
4033	-1068	-1069 --	PP	ZG	0.00	18.00	0.34	18.00	4033	-1069	-1070 --	PP	ZG	0.00	18.00	0.34	18.00
4033	-1070	-1071 --	PP	ZG	0.00	18.00	0.34	18.00	4033	-1071	-140 --	PP	ZG	0.00	18.00	0.34	18.00
4034	-988	-1 --	PP	ZG	0.00	8.64	0.58	8.64	4034	-1	-22 --	PP	ZG	0.00	8.64	3.03	8.64
4035	-989	-2 --	PP	ZG	0.00	8.64	0.68	8.64	4035	-2	-23 --	PP	ZG	0.00	8.64	3.03	8.64
4036	-990	-3 --	PP	ZG	0.00	8.64	0.68	8.64	4036	-3	-24 --	PP	ZG	0.00	8.64	3.03	8.64
4037	-991	-4 --	PP	ZG	0.00	8.64	0.68	8.64	4037	-4	-25 --	PP	ZG	0.00	8.64	3.03	8.64
4038	-992	-5 --	PP	ZG	0.00	8.64	0.68	8.64	4038	-5	-26 --	PP	ZG	0.00	8.64	3.03	8.64
4039	-993	-6 --	PP	ZG	0.00	8.64	0.68	8.64	4039	-6	-27 --	PP	ZG	0.00	8.64	3.03	8.64
4040	-994	-7 --	PP	ZG	0.00	8.64	0.68	8.64	4040	-7	-28 --	PP	ZG	0.00	8.64	3.03	8.64
4041	-995	-8 --	PP	ZG	0.00	8.64	0.68	8.64	4041	-8	-29 --	PP	ZG	0.00	8.64	3.03	8.64
4042	-996	-9 --	PP	ZG	0.00	8.64	0.68	8.64	4042	-9	-30 --	PP	ZG	0.00	8.64	3.03	8.64
4043	-997	-10 --	PP	ZG	0.00	8.64	0.68	8.64	4043	-10	-31 --	PP	ZG	0.00	8.64	3.03	8.64
4044	-998	-11 --	PP	ZG	0.00	8.64	0.68	8.64	4044	-11	-32 --	PP	ZG	0.00	8.64	3.03	8.64
4045	-999	-12 --	PP	ZG	0.00	8.64	0.68	8.64	4045	-12	-33 --	PP	ZG	0.00	8.64	3.03	8.64
4046	-1000	-13 --	PP	ZG	0.00	8.64	0.68	8.64	4046	-13	-34 --	PP	ZG	0.00	8.64	3.03	8.64
4047	-1001	-14 --	PP	ZG	0.00	8.64	0.68	8.64	4047	-14	-35 --	PP	ZG	0.00	8.64	3.03	8.64
4048	-1002	-15 --	PP	ZG	0.00	8.64	0.68	8.64	4048	-15	-36 --	PP	ZG	0.00	8.64	3.03	8.64
4049	-1003	-16 --	PP	ZG	0.00	8.64	0.68	8.64	4049	-16	-37 --	PP	ZG	0.00	8.64	3.03	8.64
4050	-1004	-17 --	PP	ZG	0.00	8.64	0.68	8.64	4050	-17	-38 --	PP	ZG	0.00	8.64	3.03	8.64
4051	-1005	-18 --	PP	ZG	0.00	8.64	0.68	8.64	4051	-18	-39 --	PP	ZG	0.00	8.64	3.03	8.64
4052	-1006	-136 --	PP	ZG	0.00	8.64	0.68	8.64	4052	-136	-40 --	PP	ZG	0.00	8.64	3.03	8.64
4053	-1007	-20 --	PP	ZG	0.00	8.64	0.68	8.64	4053	-20	-41 --	PP	ZG	0.00	8.64	3.03	8.64
4054	-1008	-21 --	PP	ZG	0.00	8.64	0.58	8.64	4054	-21	-42 --	PP	ZG	0.00	8.64	3.03	8.64
4055	-1101	-138 --	PP	ZG	0.00	18.00	0.35	18.00	4055	-1100	-1101 --	PP	ZG	0.00	18.00	0.35	18.00
4055	-1099	-1100 --	PP	ZG	0.00	18.00	0.35	18.00	4055	-1098	-1099 --	PP	ZG	0.00	18.00	0.35	18.00
4055	-1097	-1098 --	PP	ZG	0.00	18.00	0.35	18.00	4055	-1096	-1097 --	PP	ZG	0.00	18.00	0.35	18.00
4055	-1034	-1096 --	PP	ZG	0.00	18.00	0.35	18.00	4055	-139	-1034 --	PP	ZG	0.00	18.00	0.35	18.00
4056	-89	-103 --	PP	ZG	0.00	8.64	2.65	8.64	4057	-90	-104 --	PP	ZG	0.00	8.64	2.27	8.64
4058	-91	-105 --	PP	ZG	0.00	8.64	1.90	8.64	4059	-92	-106 --	PP	ZG	0.00	8.64	1.52	8.64
4060	-93	-107 --	PP	ZG	0.00	8.64	1.14	8.64	4061	-94	-108 --	PP	ZG	0.00	8.64	0.76	8.64
4062	-95	-109 --	PP	ZG	0.00	8.64	0.38	8.64	4063	-65	-77 --	PP	ZG	0.00	8.64	1.98	8.64
4064	-66	-79 --	PP	ZG	0.00	8.64	1.71	8.64	4065	-67	-80 --	PP	ZG	0.00	8.64	1.44	8.64
4066	-68	-81 --	PP	ZG	0.00	8.64	1.17	8.64	4069	-78	-72 --	PP	ZG	0.00	8.64	2.65	8.64
4070	-69	-82 --	PP	ZG	0.00	8.64	0.90	8.64	4071	-86	-73 --	PP	ZG	0.00	8.64	2.06	8.64
4072	-70	-83 --	PP	ZG	0.00	8.64	0.63	8.64	4073	-87	-74 --	PP	ZG	0.00	8.64	1.48	8.64
4074	-71	-84 --	PP	ZG	0.00	8.64	0.36	8.64	4075	-88	-75 --	PP	ZG	0.00	8.64	0.89	8.64
4076	-85	-76 --	PP	ZG	0.00	8.64	0.31	8.64	4080	-145	-1033 --	PP	ZG	0.00	18.00	0.34	18.00
4080	-1033	-1063 --	PP	ZG	0.00	18.00	0.34	18.00	4080	-1063	-1064 --	PP	ZG	0.00	18.00	0.34	18.00
4080	-1064	-1065 --	PP	ZG	0.00	18.00	0.34	18.00	4080	-1065	-1066 --	PP	ZG	0.00	18.00	0.34	18.00
4080	-1066	-144 --	PP	ZG	0.00	18.00	0.34	18.00	4081	-1104	-146 --	PP	ZG	0.00	18.00	0.35	18.00
4081	-1103	-1104 --	PP	ZG	0.00	18.00	0.35	18.00	4081	-1102	-1103 --	PP	ZG	0.00	18.00	0.35	18.00
4081	-138	-1102 --	PP	ZG	0.00	18.00	0.35	18.00	4101	-1051	-141 --	PP	ZG	0.00	18.00	0.14	18.00
4101	-141	-1052 --	PP	ZG	0.00	18.00	0.26	18.00	4177	-140	-1043 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1043	-1044 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1044	-1045 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1045	-1046 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1046	-1047 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1047	-1048 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1048	-1049 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1049	-1050 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1050	-1051 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1051	-1052 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1052	-1053 --	PP	ZG	0.00	18.00	0.39	18.00
4177	-1053	-1054 --	PP	ZG	0.00	18.00	0.39	18.00	4177	-1054	-1055 --	PP	ZG	0.00	18.00	0.39	18.00

4177	-1055	-1056	--	PP	ZG	0.00	18.00	0.39	18.00	4177	-1056	-1057	--	PP	ZG	0.00	18.00	0.39	18.00
4177	-1057	-1058	--	PP	ZG	0.00	18.00	0.39	18.00	4177	-1058	-1059	--	PP	ZG	0.00	18.00	0.39	18.00
4177	-1059	-1060	--	PP	ZG	0.00	18.00	0.39	18.00	4177	-1060	-795	--	PP	ZG	0.00	18.00	0.39	18.00
4177	-795	-1061	--	PP	ZG	0.00	18.00	0.39	18.00	4177	-1061	-1062	--	PP	ZG	0.00	18.00	0.39	18.00
4177	-1062	-139	--	PP	ZG	0.00	18.00	0.39	18.00	4253	-1056	-142	--	PP	ZG	0.00	18.00	0.06	18.00
4253	-142	-1057	--	PP	ZG	0.00	18.00	0.34	18.00										

Elenco carichi aste

Condizione di carico n. 2:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
0	-988	-989	0	QPN	ZG	0.00	4.85	0.41	0.00	0	-1007	-1008	0	QPN	ZG	0.00	0.00	0.41	4.85
2001	-1032	11	0	QPN	ZG	0.00	17.67	0.68	17.67	2001	11	12	175	QPN	ZG	0.00	17.67	3.09	17.67
2002	8	7	136	QPN	ZG	0.00	16.83	2.25	16.83	2002	-1020	7	0	QPN	ZG	0.00	16.83	0.68	16.83
2025	13	1	147	QPN	ZG	0.00	16.83	2.25	16.83	2025	13	1	101	QPN	ZG	1.98	17.01	2.25	0.00
2025	13	1	101	QPN	ZG	0.00	17.00	1.98	17.01	2033	1	5	114	QPN	ZG	0.00	19.73	3.03	19.73
2033	1	5	100	QPN	ZG	0.39	12.51	3.03	12.50	2033	1	5	100	QPN	ZG	0.00	0.00	0.39	12.51
2055	3	4	135	QPN	ZG	0.00	19.73	3.03	19.73	2055	3	4	149	QPN	ZG	0.38	18.06	3.03	18.06
2055	3	4	149	QPN	ZG	0.00	0.00	0.38	18.06	2067	3	-89	149	QPN	ZG	0.00	0.00	0.52	13.08
2067	3	-89	148	QPN	ZG	0.00	0.00	0.52	13.04	2067	-89	-90	150	QPN	ZG	0.00	0.00	0.52	13.08
2067	-89	-90	157	QPN	ZG	0.00	0.00	0.52	13.04	2067	-90	-91	151	QPN	ZG	0.00	0.00	0.52	13.08
2067	-90	-91	158	QPN	ZG	0.00	0.00	0.52	13.04	2067	-91	-92	152	QPN	ZG	0.00	0.00	0.52	13.08
2067	-91	-92	159	QPN	ZG	0.00	0.00	0.52	13.04	2067	-92	-93	153	QPN	ZG	0.00	0.00	0.52	13.08
2067	-92	-93	160	QPN	ZG	0.00	0.00	0.52	13.04	2067	-93	-94	154	QPN	ZG	0.00	0.00	0.52	13.08
2067	-93	-94	161	QPN	ZG	0.00	0.00	0.52	13.04	2067	-94	-95	155	QPN	ZG	0.00	0.00	0.52	13.08
2067	-94	-95	162	QPN	ZG	0.00	0.00	0.52	13.04	2067	-95	9	156	QPN	ZG	0.00	0.00	0.52	13.08
2067	-95	9	163	QPN	ZG	0.00	0.00	0.52	13.04	2068	1	-77	101	QPN	ZG	0.00	0.00	0.43	10.59
2068	1	-77	100	QPN	ZG	0.00	0.00	0.43	9.93	2068	-77	-78	113	QPN	ZG	0.00	0.00	0.02	0.60
2068	-77	-78	100	QPN	ZG	0.00	9.93	0.02	10.49	2068	-78	-79	113	QPN	ZG	0.00	0.60	0.41	10.58
2068	-78	-79	102	QPN	ZG	0.00	0.00	0.41	9.36	2068	-79	-86	112	QPN	ZG	0.00	0.00	0.29	7.00
2068	-79	-86	102	QPN	ZG	0.00	9.36	0.29	15.92	2068	-86	-80	112	QPN	ZG	0.00	7.00	0.15	10.59
2068	-86	-80	103	QPN	ZG	0.00	0.00	0.15	3.36	2068	-80	-81	111	QPN	ZG	0.00	0.00	0.43	10.59
2068	-80	-81	103	QPN	ZG	0.00	3.36	0.43	13.29	2068	-81	-87	110	QPN	ZG	0.00	0.00	0.12	2.82
2068	-81	-87	103	QPN	ZG	0.00	13.29	0.12	15.94	2068	-87	-82	110	QPN	ZG	0.00	2.82	0.32	10.57
2068	-87	-82	104	QPN	ZG	0.00	0.00	0.32	7.26	2068	-82	-88	109	QPN	ZG	0.00	0.00	0.38	9.26
2068	-82	-88	104	QPN	ZG	0.00	7.26	0.38	15.95	2068	-88	-83	109	QPN	ZG	0.00	9.26	0.05	10.58
2068	-88	-83	105	QPN	ZG	0.00	0.00	0.05	1.24	2068	-83	-84	108	QPN	ZG	0.00	0.00	0.43	10.58
2068	-83	-84	105	QPN	ZG	0.00	1.24	0.43	11.17	2068	-84	-85	107	QPN	ZG	0.00	0.00	0.21	5.08
2068	-84	-85	105	QPN	ZG	0.00	11.17	0.21	15.94	2068	-85	6	107	QPN	ZG	0.00	5.08	0.37	14.01
2068	-85	6	106	QPN	ZG	0.00	0.00	0.37	8.39	2101	3	10	164	QPN	ZG	0.00	17.67	3.09	17.67
2101	3	10	148	QPN	ZG	0.39	17.69	3.09	17.69	2101	3	10	148	QPN	ZG	0.00	0.00	0.39	17.69
4003	-1031	-120	0	QPN	ZG	0.00	17.67	0.68	17.67	4003	-1031	-120	0	QPN	ZG	0.00	17.67	0.68	17.67
4003	-120	-121	175	QPN	ZG	0.00	17.67	3.09	17.67	4003	-120	-121	174	QPN	ZG	0.00	17.67	3.09	17.67
4004	-43	-54	136	QPN	ZG	0.00	16.83	2.25	16.83	4004	-43	-54	137	QPN	ZG	0.00	16.83	2.25	16.83
4004	-1019	-43	0	QPN	ZG	0.00	16.83	0.68	16.83	4004	-1019	-43	0	QPN	ZG	0.00	16.83	0.68	16.83
4005	-1030	-119	0	QPN	ZG	0.00	17.67	0.68	17.67	4005	-1030	-119	0	QPN	ZG	0.00	17.67	0.68	17.67
4005	-119	-122	174	QPN	ZG	0.00	17.67	3.09	17.67	4005	-119	-122	173	QPN	ZG	0.00	17.67	3.09	17.67
4006	-44	-55	137	QPN	ZG	0.00	16.83	2.25	16.83	4006	-44	-55	138	QPN	ZG	0.00	16.83	2.25	16.83
4006	-1018	-44	0	QPN	ZG	0.00	16.83	0.68	16.83	4006	-1018	-44	0	QPN	ZG	0.00	16.83	0.68	16.83
4007	-1029	-118	0	QPN	ZG	0.00	17.67	0.68	17.67	4007	-1029	-118	0	QPN	ZG	0.00	17.67	0.68	17.67
4007	-118	-123	173	QPN	ZG	0.00	17.67	3.09	17.67	4007	-118	-123	172	QPN	ZG	0.00	17.67	3.09	17.67
4008	-45	-56	138	QPN	ZG	0.00	16.83	2.25	16.83	4008	-45	-56	139	QPN	ZG	0.00	16.83	2.25	16.83
4008	-1017	-45	0	QPN	ZG	0.00	16.83	0.68	16.83	4008	-1017	-45	0	QPN	ZG	0.00	16.83	0.68	16.83
4009	-1028	-117	0	QPN	ZG	0.00	17.67	0.68	17.67	4009	-1028	-117	0	QPN	ZG	0.00	17.67	0.68	17.67
4009	-117	-124	172	QPN	ZG	0.00	17.67	3.09	17.67	4009	-117	-124	171	QPN	ZG	0.00	17.67	3.09	17.67
4010	-46	-57	139	QPN	ZG	0.00	16.83	2.25	16.83	4010	-46	-57	140	QPN	ZG	0.00	16.83	2.25	16.83
4010	-1016	-46	0	QPN	ZG	0.00	16.83	0.68	16.83	4010	-1016	-46	0	QPN	ZG	0.00	16.83	0.68	16.83
4011	-1027	-116	0	QPN	ZG	0.00	17.67	0.68	17.67	4011	-1027	-116	0	QPN	ZG	0.00	17.67	0.68	17.67
4011	-116	-125	171	QPN	ZG	0.00	17.67	3.09	17.67	4011	-116	-125	170	QPN	ZG	0.00	17.67	3.09	17.67
4012	-47	-58	140	QPN	ZG	0.00	16.83	2.25	16.83	4012	-47	-58	141	QPN	ZG	0.00	16.83	2.25	16.83
4012	-1015	-47	0	QPN	ZG	0.00	16.83	0.68	16.83	4012	-1015	-47	0	QPN	ZG	0.00	16.83	0.68	16.83
4013	-1026	-115	0	QPN	ZG	0.00	17.67	0.68	17.67	4013	-1026	-115	0	QPN	ZG	0.00	17.67	0.68	17.67
4013	-115	-126	170	QPN	ZG	0.00	17.67	3.09	17.67	4013	-115	-126	169	QPN	ZG	0.00	17.67	3.09	17.67
4014	-48	-59	141	QPN	ZG	0.00	16.83	2.25	16.83	4014	-48	-59	142	QPN	ZG	0.00	16.83	2.25	16.83
4014	-1014	-48	0	QPN	ZG	0.00	16.83	0.68	16.83	4014	-1014	-48	0	QPN	ZG	0.00	16.83	0.68	16.83
4015	-1025	-114	0	QPN	ZG	0.00	17.67	0.68	17.67	4015	-1025	-114	0	QPN	ZG	0.00	17.67	0.68	17.67
4015	-114	-127	169	QPN	ZG	0.00	17.67	3.09	17.67	4015	-114	-127	168	QPN	ZG	0.00	17.67	3.09	17.67
4016	-49	-60	142	QPN	ZG	0.00	16.83	2.25	16.83	4016	-49	-60	143	QPN	ZG	0.00	16.83	2.25	16.83
4016	-1013	-49	0	QPN	ZG	0.00	16.83	0.68	16.83	4016	-1013	-49	0	QPN	ZG	0.00	16.83	0.68	16.83
4017	-1024	-113	0	QPN	ZG	0.00	17.67	0.68	17.67	4017	-1024	-113	0	QPN	ZG	0.00	17.67	0.68	17.67
4017	-113	-128	168	QPN	ZG	0.00	17.67	3.09	17.67	4017	-113	-128	167	QPN	ZG	0.00	17.67	3.09	17.67
4018	-50	-61	143	QPN	ZG	0.00	16.83	2.25	16.83	4018	-50	-61	144	QPN	ZG	0.00	16.83	2.25	16.83
4018	-1012	-50	0	QPN	ZG	0.00	16.83	0.68	16.83	4018	-1012	-50	0	QPN	ZG	0.00	16.83	0.68	16.83
4019	-1023	-112	0	QPN	ZG	0.00	17.67	0.68	17.67	4019	-1023	-112	0	QPN	ZG	0.00	17.67	0.68	17.67
4019	-112	-129	167	QPN	ZG	0.00	17.67	3.09	17.67	4019	-112	-129	166	QPN	ZG	0.00	17.67	3.09	17.67
4020	-51	-62	144	QPN	ZG	0.00	16.83	2.25	16.83	4020	-51	-62	145	QPN	ZG	0.00	16.83	2.25	16.83
4020	-1011	-51	0	QPN	ZG	0.00	16.83	0.68											

4021	-1022	-111 0	QPN	ZG	0.00	17.67	0.68	17.67	4021	-1022	-111 0	QPN	ZG	0.00	17.67	0.68	17.67
4021	-111	-130 166	QPN	ZG	0.00	17.67	3.09	17.67	4021	-111	-130 165	QPN	ZG	0.00	17.67	3.09	17.67
4022	-52	-63 145	QPN	ZG	0.00	16.83	2.25	16.83	4022	-52	-63 146	QPN	ZG	0.00	16.83	2.25	16.83
4022	-1010	-52 0	QPN	ZG	0.00	16.83	0.68	16.83	4022	-1010	-52 0	QPN	ZG	0.00	16.83	0.68	16.83
4023	-1021	-110 0	QPN	ZG	0.00	17.67	0.68	17.67	4023	-110	-131 165	QPN	ZG	0.00	17.67	3.09	17.67
4023	-110	-131 164	QPN	ZG	0.00	17.67	3.09	17.67	4024	-53	-64 146	QPN	ZG	0.00	16.83	2.25	16.83
4024	-53	-64 147	QPN	ZG	0.00	16.83	2.25	16.83	4024	-1009	-53 0	QPN	ZG	0.00	16.83	0.68	16.83
4026	-89	-96 148	QPN	ZG	0.00	17.69	2.70	17.69	4026	-89	-96 157	QPN	ZG	0.39	17.69	2.70	17.69
4026	-89	-96 157	QPN	ZG	0.00	0.00	0.39	17.69	4027	-90	-97 157	QPN	ZG	0.00	17.69	2.32	17.69
4027	-90	-97 158	QPN	ZG	0.39	17.69	2.32	17.69	4027	-90	-97 158	QPN	ZG	0.00	0.00	0.39	17.69
4028	-91	-98 158	QPN	ZG	0.00	17.69	1.93	17.69	4028	-91	-98 159	QPN	ZG	0.39	17.69	1.93	17.69
4028	-91	-98 159	QPN	ZG	0.00	0.00	0.39	17.69	4029	-92	-99 159	QPN	ZG	0.00	17.69	1.54	17.69
4029	-92	-99 160	QPN	ZG	0.39	17.69	1.54	17.69	4029	-92	-99 160	QPN	ZG	0.00	0.00	0.39	17.69
4030	-93	-100 160	QPN	ZG	0.00	17.69	1.16	17.69	4030	-93	-100 161	QPN	ZG	0.39	17.69	1.16	17.69
4030	-93	-100 161	QPN	ZG	0.00	0.00	0.39	17.69	4031	-94	-101 161	QPN	ZG	0.00	17.69	0.77	17.69
4031	-94	-101 162	QPN	ZG	0.39	17.69	0.77	17.69	4031	-94	-101 162	QPN	ZG	0.00	0.00	0.39	17.69
4032	-95	-102 162	QPN	ZG	0.00	17.69	0.39	17.69	4032	-95	-102 163	QPN	ZG	0.00	0.00	0.39	17.69
4033	-144	-1067 --	M	ZG	0.00	500.00	0.34	500.00	4033	-1067	-1068 --	M	ZG	0.00	500.00	0.34	500.00
4033	-1068	-1069 --	M	ZG	0.00	500.00	0.34	500.00	4033	-1069	-1070 --	M	ZG	0.00	500.00	0.34	500.00
4033	-1070	-1071 --	M	ZG	0.00	500.00	0.34	500.00	4033	-1071	-140 --	M	ZG	0.00	500.00	0.34	500.00
4034	-988	-1 0	QPN	ZG	0.00	19.73	0.58	19.73	4034	-1	-22 114	QPN	ZG	0.00	19.73	3.03	19.73
4034	-1	-22 115	QPN	ZG	0.00	19.73	3.03	19.73	4035	-989	-2 0	QPN	ZG	0.00	0.00	0.10	19.73
4035	-989	-2 0	QPN	ZG	0.00	19.73	0.68	19.73	4035	-989	-2 0	QPN	ZG	0.10	19.73	0.68	19.73
4035	-2	-23 115	QPN	ZG	0.00	19.73	3.03	19.73	4035	-2	-23 116	QPN	ZG	0.00	19.73	3.03	19.73
4036	-990	-3 0	QPN	ZG	0.00	19.73	0.68	19.73	4036	-990	-3 0	QPN	ZG	0.00	19.73	0.68	19.73
4036	-3	-24 116	QPN	ZG	0.00	19.73	3.03	19.73	4036	-3	-24 117	QPN	ZG	0.00	19.73	3.03	19.73
4037	-991	-4 0	QPN	ZG	0.00	19.73	0.68	19.73	4037	-991	-4 0	QPN	ZG	0.00	19.73	0.68	19.73
4037	-4	-25 117	QPN	ZG	0.00	19.73	3.03	19.73	4037	-4	-25 118	QPN	ZG	0.00	19.73	3.03	19.73
4038	-992	-5 0	QPN	ZG	0.00	19.73	0.68	19.73	4038	-992	-5 0	QPN	ZG	0.00	19.73	0.68	19.73
4038	-5	-26 118	QPN	ZG	0.00	19.73	3.03	19.73	4038	-5	-26 119	QPN	ZG	0.00	19.73	3.03	19.73
4039	-993	-6 0	QPN	ZG	0.00	19.73	0.68	19.73	4039	-993	-6 0	QPN	ZG	0.00	19.73	0.68	19.73
4039	-6	-27 119	QPN	ZG	0.00	19.73	3.03	19.73	4039	-6	-27 120	QPN	ZG	0.00	19.73	3.03	19.73
4040	-994	-7 0	QPN	ZG	0.00	19.73	0.68	19.73	4040	-994	-7 0	QPN	ZG	0.00	19.73	0.68	19.73
4040	-7	-28 120	QPN	ZG	0.00	19.73	3.03	19.73	4040	-7	-28 121	QPN	ZG	0.00	19.73	3.03	19.73
4041	-995	-8 0	QPN	ZG	0.00	19.73	0.68	19.73	4041	-995	-8 0	QPN	ZG	0.00	19.73	0.68	19.73
4041	-8	-29 121	QPN	ZG	0.00	19.73	3.03	19.73	4041	-8	-29 122	QPN	ZG	0.00	19.73	3.03	19.73
4042	-996	-9 0	QPN	ZG	0.00	19.73	0.68	19.73	4042	-996	-9 0	QPN	ZG	0.00	19.73	0.68	19.73
4042	-9	-30 122	QPN	ZG	0.00	19.73	3.03	19.73	4042	-9	-30 123	QPN	ZG	0.00	19.73	3.03	19.73
4043	-997	-10 0	QPN	ZG	0.00	19.73	0.68	19.73	4043	-997	-10 0	QPN	ZG	0.00	19.73	0.68	19.73
4043	-10	-31 123	QPN	ZG	0.00	19.73	3.03	19.73	4043	-10	-31 124	QPN	ZG	0.00	19.73	3.03	19.73
4044	-998	-11 0	QPN	ZG	0.00	19.73	0.68	19.73	4044	-998	-11 0	QPN	ZG	0.00	19.73	0.68	19.73
4044	-11	-32 124	QPN	ZG	0.00	19.73	3.03	19.73	4044	-11	-32 125	QPN	ZG	0.00	19.73	3.03	19.73
4045	-999	-12 0	QPN	ZG	0.00	19.73	0.68	19.73	4045	-999	-12 0	QPN	ZG	0.00	19.73	0.68	19.73
4045	-12	-33 125	QPN	ZG	0.00	19.73	3.03	19.73	4045	-12	-33 126	QPN	ZG	0.00	19.73	3.03	19.73
4046	-1000	-13 0	QPN	ZG	0.00	19.73	0.68	19.73	4046	-1000	-13 0	QPN	ZG	0.00	19.73	0.68	19.73
4046	-13	-34 126	QPN	ZG	0.00	19.73	3.03	19.73	4046	-13	-34 127	QPN	ZG	0.00	19.73	3.03	19.73
4047	-1001	-14 0	QPN	ZG	0.00	19.73	0.68	19.73	4047	-1001	-14 0	QPN	ZG	0.00	19.73	0.68	19.73
4047	-14	-35 127	QPN	ZG	0.00	19.73	3.03	19.73	4047	-14	-35 128	QPN	ZG	0.00	19.73	3.03	19.73
4048	-1002	-15 0	QPN	ZG	0.00	19.73	0.68	19.73	4048	-1002	-15 0	QPN	ZG	0.00	19.73	0.68	19.73
4048	-15	-36 128	QPN	ZG	0.00	19.73	3.03	19.73	4048	-15	-36 129	QPN	ZG	0.00	19.73	3.03	19.73
4049	-1003	-16 0	QPN	ZG	0.00	19.73	0.68	19.73	4049	-1003	-16 0	QPN	ZG	0.00	19.73	0.68	19.73
4049	-16	-37 129	QPN	ZG	0.00	19.73	3.03	19.73	4049	-16	-37 130	QPN	ZG	0.00	19.73	3.03	19.73
4050	-1004	-17 0	QPN	ZG	0.00	19.73	0.68	19.73	4050	-1004	-17 0	QPN	ZG	0.00	19.73	0.68	19.73
4050	-17	-38 130	QPN	ZG	0.00	19.73	3.03	19.73	4050	-17	-38 131	QPN	ZG	0.00	19.73	3.03	19.73
4051	-1005	-18 0	QPN	ZG	0.00	19.73	0.68	19.73	4051	-1005	-18 0	QPN	ZG	0.00	19.73	0.68	19.73
4051	-18	-39 131	QPN	ZG	0.00	19.73	3.03	19.73	4051	-18	-39 132	QPN	ZG	0.00	19.73	3.03	19.73
4052	-1006	-136 0	QPN	ZG	0.00	19.73	0.68	19.73	4052	-1006	-136 0	QPN	ZG	0.00	19.73	0.68	19.73
4052	-136	-40 132	QPN	ZG	0.00	19.73	3.03	19.73	4052	-136	-40 133	QPN	ZG	0.00	19.73	3.03	19.73
4053	-1007	-20 0	QPN	ZG	0.00	19.73	0.68	19.73	4053	-1007	-20 0	QPN	ZG	0.10	19.73	0.68	19.73
4053	-1007	-20 0	QPN	ZG	0.00	0.00	0.10	19.73	4053	-20	-41 133	QPN	ZG	0.00	19.73	3.03	19.73
4053	-20	-41 134	QPN	ZG	0.00	19.73	3.03	19.73	4054	-1008	-21 0	QPN	ZG	0.00	19.73	0.58	19.73
4054	-21	-42 134	QPN	ZG	0.00	19.73	3.03	19.73	4054	-21	-42 135	QPN	ZG	0.00	19.73	3.03	19.73
4056	-89	-103 149	QPN	ZG	0.00	18.06	2.65	18.06	4056	-89	-103 150	QPN	ZG	0.38	18.06	2.65	18.06
4056	-89	-103 150	QPN	ZG	0.00	0.00	0.38	18.06	4057	-90	-104 150	QPN	ZG	0.00	18.06	2.27	18.06
4057	-90	-104 151	QPN	ZG	0.38	18.06	2.27	18.06	4057	-90	-104 151	QPN	ZG	0.00	0.00	0.38	18.06
4058	-91	-105 151	QPN	ZG	0.00	18.06	1.90	18.06	4058	-91	-105 152	QPN	ZG	0.38	18.06	1.90	18.06
4058	-91	-105 152	QPN	ZG	0.00	0.00	0.38	18.06	4059	-92	-106 152	QPN	ZG	0.00	18.06	1.52	18.06
4059	-92	-106 153	QPN	ZG	0.38	18.06	1.52	18.06	4059	-92	-106 153	QPN	ZG	0.00	0.00	0.38	18.06
4060	-93	-107 153	QPN	ZG	0.00	18.06	1.14	18.06	4060	-93	-107 154	QPN	ZG	0.38	18.06	1.14	18.06
4060	-93	-107 154	QPN	ZG	0.00	0.00	0.38	18.06	4061	-94	-108 154	QPN	ZG	0.00	18.06	0.76	18.06
4061	-94	-108 155	QPN	ZG	0.38	18.06	0.76	18.06	4061	-94	-108 155	QPN	ZG	0.00	0.00	0.38	18.06
4062	-95	-109 155	QPN	ZG	0.00	18.06	0.38	18.06	4062	-95	-109 156	QPN	ZG	0.00	0.00	0.38	18.06
4063	-65	-77 101	QPN	ZG	0.00	17.00	1.98	17.01	4063	-65	-77 113	QPN	ZG	1.71	16.99	1.98	0.00
4063	-65	-77 113	QPN	ZG	0.00	17.00	1.71	16.99	4064	-66	-79 113	QPN	ZG	0.00	17.00	1.71	16.99
4064	-66	-79 112	QPN	ZG	1.53	11.24	1.71	0.00	4064	-66	-79 112	QPN	ZG	1.44	17.00	1.53	11.24
4064	-66	-79 112	QPN	ZG	0.00	17.00	1.44	17.00	4065	-67	-80 112	QPN	ZG	0.00	17.00	1.44	17.00
4																	

4069	-78	-72 100	QPN	ZG	0.00	12.51	2.65	12.50	4069	-78	-72 102	QPN	ZG	0.58	18.99	2.65	19.00
4070	-69	-82 110	QPN	ZG	0.00	17.00	0.90	16.97	4070	-69	-82 109	QPN	ZG	0.63	17.00	0.90	0.00
4070	-69	-82 109	QPN	ZG	0.00	17.00	0.63	17.00	4071	-86	-73 103	QPN	ZG	0.00	0.00	0.59	19.00
4071	-86	-73 102	QPN	ZG	0.00	18.99	2.06	19.00	4071	-86	-73 103	QPN	ZG	0.59	19.00	2.06	19.00
4072	-70	-83 109	QPN	ZG	0.00	17.00	0.63	17.00	4072	-70	-83 108	QPN	ZG	0.36	17.00	0.63	0.00
4072	-70	-83 108	QPN	ZG	0.00	17.00	0.36	17.00	4073	-87	-74 104	QPN	ZG	0.00	0.00	0.59	19.02
4073	-87	-74 103	QPN	ZG	0.00	19.00	1.48	19.00	4073	-87	-74 104	QPN	ZG	0.59	19.02	1.48	19.00
4074	-71	-84 108	QPN	ZG	0.00	17.00	0.36	17.00	4074	-71	-84 107	QPN	ZG	0.00	22.50	0.36	0.00
4075	-88	-75 105	QPN	ZG	0.00	0.00	0.58	19.01	4075	-88	-75 104	QPN	ZG	0.00	19.02	0.89	19.00
4075	-88	-75 105	QPN	ZG	0.58	19.01	0.89	19.00	4076	-85	-76 106	QPN	ZG	0.00	0.00	0.31	10.00
4076	-85	-76 105	QPN	ZG	0.00	19.01	0.31	19.00	4080	-145	-1033 --	M	ZG	0.00	500.00	0.34	500.00
4080	-1033	-1063 --	M	ZG	0.00	500.00	0.34	500.00	4080	-1063	-1064 --	M	ZG	0.00	500.00	0.34	500.00
4080	-1064	-1065 --	M	ZG	0.00	500.00	0.34	500.00	4080	-1065	-1066 --	M	ZG	0.00	500.00	0.34	500.00
4080	-1066	-144 --	M	ZG	0.00	500.00	0.34	500.00									

Elenco carichi aste

Condizione di carico n. 3:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
0	-988	-989 0	QA	ZG	0.00	2.17	0.41	0.00	0.00	0	-1007	-1008 0	QA	ZG	0.00	0.00	0.41	2.17	0.00
2001	-1032	11 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	2001	11	12 175	QA	ZG	0.00	7.93	3.09	7.93	7.93
2002	8	7 136	QA	ZG	0.00	7.07	2.25	7.07	7.07	2002	-1020	7 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
2025	13	1 147	QA	ZG	0.00	7.07	2.25	7.07	7.07	2025	13	1 101	QA	ZG	1.98	7.14	2.25	0.00	0.00
2025	13	1 101	QA	ZG	0.00	7.14	1.98	7.14	7.14	2033	1	5 114	QA	ZG	0.00	8.84	3.03	8.84	8.84
2033	1	5 100	QA	ZG	0.39	5.60	3.03	5.60	5.60	2033	1	5 100	QA	ZG	0.00	0.00	0.39	5.60	5.60
2055	3	4 135	QA	ZG	0.00	8.84	3.03	8.84	8.84	2055	3	4 149	QA	ZG	0.38	8.09	3.03	8.09	8.09
2055	3	4 149	QA	ZG	0.00	0.00	0.38	8.09	8.09	2067	3	-89 149	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	3	-89 148	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-89	-90 150	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-89	-90 157	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-90	-91 151	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-90	-91 158	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-91	-92 152	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-91	-92 159	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-92	-93 153	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-92	-93 160	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-93	-94 154	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-93	-94 161	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-94	-95 155	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-94	-95 162	QA	ZG	0.00	0.00	0.52	5.86	5.86	2067	-95	9 156	QA	ZG	0.00	0.00	0.52	5.86	5.86
2067	-95	9 163	QA	ZG	0.00	0.00	0.52	5.86	5.86	2068	1	-77 101	QA	ZG	0.00	0.00	0.43	4.45	4.45
2068	1	-77 100	QA	ZG	0.00	0.00	0.43	4.45	4.45	2068	-77	-78 113	QA	ZG	0.00	0.00	0.02	0.25	0.25
2068	-77	-78 100	QA	ZG	0.00	4.45	0.02	4.70	4.70	2068	-78	-79 113	QA	ZG	0.00	0.25	0.41	4.44	4.44
2068	-78	-79 102	QA	ZG	0.00	0.00	0.41	4.19	4.19	2068	-79	-86 112	QA	ZG	0.00	0.00	0.29	2.94	2.94
2068	-79	-86 102	QA	ZG	0.00	4.19	0.29	7.13	7.13	2068	-86	-80 112	QA	ZG	0.00	2.94	0.15	4.45	4.45
2068	-86	-80 103	QA	ZG	0.00	0.00	0.15	1.51	1.51	2068	-80	-81 111	QA	ZG	0.00	0.00	0.43	4.45	4.45
2068	-80	-81 103	QA	ZG	0.00	1.51	0.43	5.95	5.95	2068	-81	-87 110	QA	ZG	0.00	0.00	0.12	1.19	1.19
2068	-81	-87 103	QA	ZG	0.00	5.95	0.12	7.14	7.14	2068	-87	-82 110	QA	ZG	0.00	1.19	0.32	4.44	4.44
2068	-87	-82 104	QA	ZG	0.00	0.00	0.32	3.25	3.25	2068	-82	-88 109	QA	ZG	0.00	0.00	0.38	3.89	3.89
2068	-82	-88 104	QA	ZG	0.00	3.25	0.38	7.14	7.14	2068	-88	-83 109	QA	ZG	0.00	3.89	0.05	4.45	4.45
2068	-88	-83 105	QA	ZG	0.00	0.00	0.05	0.56	0.56	2068	-83	-84 108	QA	ZG	0.00	0.00	0.43	4.45	4.45
2068	-83	-84 105	QA	ZG	0.00	0.56	0.43	5.00	5.00	2068	-84	-85 107	QA	ZG	0.00	0.00	0.21	2.13	2.13
2068	-84	-85 105	QA	ZG	0.00	5.00	0.21	7.14	7.14	2068	-85	6 107	QA	ZG	0.00	2.13	0.37	5.88	5.88
2068	-85	6 106	QA	ZG	0.00	0.00	0.37	3.76	3.76	2101	3	10 164	QA	ZG	0.00	7.93	3.09	7.93	7.93
2101	3	10 148	QA	ZG	0.39	7.94	3.09	7.94	7.94	2101	3	10 148	QA	ZG	0.00	0.00	0.39	7.94	7.94
4003	-1031	-120 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4003	-1031	-120 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4003	-120	-121 175	QA	ZG	0.00	7.93	3.09	7.93	7.93	4003	-120	-121 174	QA	ZG	0.00	7.93	3.09	7.93	7.93
4004	-43	-54 136	QA	ZG	0.00	7.07	2.25	7.07	7.07	4004	-43	-54 137	QA	ZG	0.00	7.07	2.25	7.07	7.07
4004	-1019	-43 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4004	-1019	-43 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4005	-1030	-119 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4005	-1030	-119 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4005	-119	-122 174	QA	ZG	0.00	7.93	3.09	7.93	7.93	4005	-119	-122 173	QA	ZG	0.00	7.93	3.09	7.93	7.93
4006	-44	-55 137	QA	ZG	0.00	7.07	2.25	7.07	7.07	4006	-44	-55 138	QA	ZG	0.00	7.07	2.25	7.07	7.07
4006	-1018	-44 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4006	-1018	-44 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4007	-1029	-118 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4007	-1029	-118 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4007	-118	-123 173	QA	ZG	0.00	7.93	3.09	7.93	7.93	4007	-118	-123 172	QA	ZG	0.00	7.93	3.09	7.93	7.93
4008	-45	-56 138	QA	ZG	0.00	7.07	2.25	7.07	7.07	4008	-45	-56 139	QA	ZG	0.00	7.07	2.25	7.07	7.07
4008	-1017	-45 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4008	-1017	-45 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4009	-1028	-117 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4009	-1028	-117 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4009	-117	-124 172	QA	ZG	0.00	7.93	3.09	7.93	7.93	4009	-117	-124 171	QA	ZG	0.00	7.93	3.09	7.93	7.93
4010	-46	-57 139	QA	ZG	0.00	7.07	2.25	7.07	7.07	4010	-46	-57 140	QA	ZG	0.00	7.07	2.25	7.07	7.07
4010	-1016	-46 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4010	-1016	-46 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4011	-1027	-116 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4011	-1027	-116 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4011	-116	-125 171	QA	ZG	0.00	7.93	3.09	7.93	7.93	4011	-116	-125 170	QA	ZG	0.00	7.93	3.09	7.93	7.93
4012	-47	-58 140	QA	ZG	0.00	7.07	2.25	7.07	7.07	4012	-47	-58 141	QA	ZG	0.00	7.07	2.25	7.07	7.07
4012	-1015	-47 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4012	-1015	-47 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4013	-1026	-115 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4013	-1026	-115 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4013	-115	-126 170	QA	ZG	0.00	7.93	3.09	7.93	7.93	4013	-115	-126 169	QA	ZG	0.00	7.93	3.09	7.93	7.93
4014	-48	-59 141	QA	ZG	0.00	7.07	2.25	7.07	7.07	4014	-48	-59 142	QA	ZG	0.00	7.07	2.25	7.07	7.07
4014	-1014	-48 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4014	-1014	-48 0	QA	ZG	0.00	7.07	0.68	7.07	7.07
4015	-1025	-114 0	QA	ZG	0.00	7.93	0.68	7.93	7.93	4015	-1025	-114 0	QA	ZG	0.00	7.93	0.68	7.93	7.93
4015	-114	-127 169	QA	ZG	0.00	7.93	3.09	7.93	7.93	4015	-114	-127 168	QA	ZG	0.00	7.93	3.09	7.93	7.93
4016	-49	-60 142	QA	ZG	0.00	7.07	2.25	7.07	7.07	4016	-49	-60 143	QA	ZG	0.00	7.07	2.25	7.07	7.07
4016	-1013	-49 0	QA	ZG	0.00	7.07	0.68	7.07	7.07	4016	-1013	-49 0	QA	ZG	0.00	7.07	0.68	7.07	7.07

4017	-1024	-113 0	QA ZG 0.00	7.93 0.68	7.93	4017	-1024	-113 0	QA ZG 0.00	7.93 0.68	7.93
4017	-113	-128 168	QA ZG 0.00	7.93 3.09	7.93	4017	-113	-128 167	QA ZG 0.00	7.93 3.09	7.93
4018	-50	-61 143	QA ZG 0.00	7.07 2.25	7.07	4018	-50	-61 144	QA ZG 0.00	7.07 2.25	7.07
4018	-1012	-50 0	QA ZG 0.00	7.07 0.68	7.07	4018	-1012	-50 0	QA ZG 0.00	7.07 0.68	7.07
4019	-1023	-112 0	QA ZG 0.00	7.93 0.68	7.93	4019	-1023	-112 0	QA ZG 0.00	7.93 0.68	7.93
4019	-112	-129 167	QA ZG 0.00	7.93 3.09	7.93	4019	-112	-129 166	QA ZG 0.00	7.93 3.09	7.93
4020	-51	-62 144	QA ZG 0.00	7.07 2.25	7.07	4020	-51	-62 145	QA ZG 0.00	7.07 2.25	7.07
4020	-1011	-51 0	QA ZG 0.00	7.07 0.68	7.07	4020	-1011	-51 0	QA ZG 0.00	7.07 0.68	7.07
4021	-1022	-111 0	QA ZG 0.00	7.93 0.68	7.93	4021	-1022	-111 0	QA ZG 0.00	7.93 0.68	7.93
4021	-111	-130 166	QA ZG 0.00	7.93 3.09	7.93	4021	-111	-130 165	QA ZG 0.00	7.93 3.09	7.93
4022	-52	-63 145	QA ZG 0.00	7.07 2.25	7.07	4022	-52	-63 146	QA ZG 0.00	7.07 2.25	7.07
4022	-1010	-52 0	QA ZG 0.00	7.07 0.68	7.07	4022	-1010	-52 0	QA ZG 0.00	7.07 0.68	7.07
4023	-1021	-110 0	QA ZG 0.00	7.93 0.68	7.93	4023	-110	-131 165	QA ZG 0.00	7.93 3.09	7.93
4023	-110	-131 164	QA ZG 0.00	7.93 3.09	7.93	4024	-53	-64 146	QA ZG 0.00	7.07 2.25	7.07
4024	-53	-64 147	QA ZG 0.00	7.07 2.25	7.07	4024	-1009	-53 0	QA ZG 0.00	7.07 0.68	7.07
4026	-89	-96 148	QA ZG 0.00	7.94 2.70	7.94	4026	-89	-96 157	QA ZG 0.39	7.94 2.70	7.94
4026	-89	-96 157	QA ZG 0.00	0.00 0.39	7.94	4027	-90	-97 157	QA ZG 0.00	7.94 2.32	7.94
4027	-90	-97 158	QA ZG 0.39	7.94 2.32	7.94	4027	-90	-97 158	QA ZG 0.00	0.00 0.39	7.94
4028	-91	-98 158	QA ZG 0.00	7.94 1.93	7.94	4028	-91	-98 159	QA ZG 0.39	7.94 1.93	7.94
4028	-91	-98 159	QA ZG 0.00	0.00 0.39	7.94	4029	-92	-99 159	QA ZG 0.00	7.94 1.54	7.94
4029	-92	-99 160	QA ZG 0.39	7.94 1.54	7.94	4029	-92	-99 160	QA ZG 0.00	0.00 0.39	7.94
4030	-93	-100 160	QA ZG 0.00	7.94 1.16	7.94	4030	-93	-100 161	QA ZG 0.39	7.94 1.16	7.94
4030	-93	-100 161	QA ZG 0.00	0.00 0.39	7.94	4031	-94	-101 161	QA ZG 0.00	7.94 0.77	7.94
4031	-94	-101 162	QA ZG 0.39	7.94 0.77	7.94	4031	-94	-101 162	QA ZG 0.00	0.00 0.39	7.94
4032	-95	-102 162	QA ZG 0.00	7.94 0.39	7.94	4032	-95	-102 163	QA ZG 0.00	0.00 0.39	7.94
4034	-988	-1 0	QA ZG 0.00	8.84 0.58	8.84	4034	-1	-22 114	QA ZG 0.00	8.84 3.03	8.84
4034	-1	-22 115	QA ZG 0.00	8.84 3.03	8.84	4035	-989	-2 0	QA ZG 0.00	0.00 0.10	8.84
4035	-989	-2 0	QA ZG 0.00	8.84 0.68	8.84	4035	-989	-2 0	QA ZG 0.10	8.84 0.68	8.84
4035	-2	-23 115	QA ZG 0.00	8.84 3.03	8.84	4035	-2	-23 116	QA ZG 0.00	8.84 3.03	8.84
4036	-990	-3 0	QA ZG 0.00	8.84 0.68	8.84	4036	-990	-3 0	QA ZG 0.00	8.84 0.68	8.84
4036	-3	-24 116	QA ZG 0.00	8.84 3.03	8.84	4036	-3	-24 117	QA ZG 0.00	8.84 3.03	8.84
4037	-991	-4 0	QA ZG 0.00	8.84 0.68	8.84	4037	-991	-4 0	QA ZG 0.00	8.84 0.68	8.84
4037	-4	-25 117	QA ZG 0.00	8.84 3.03	8.84	4037	-4	-25 118	QA ZG 0.00	8.84 3.03	8.84
4038	-992	-5 0	QA ZG 0.00	8.84 0.68	8.84	4038	-992	-5 0	QA ZG 0.00	8.84 0.68	8.84
4038	-5	-26 118	QA ZG 0.00	8.84 3.03	8.84	4038	-5	-26 119	QA ZG 0.00	8.84 3.03	8.84
4039	-993	-6 0	QA ZG 0.00	8.84 0.68	8.84	4039	-993	-6 0	QA ZG 0.00	8.84 0.68	8.84
4039	-6	-27 119	QA ZG 0.00	8.84 3.03	8.84	4039	-6	-27 120	QA ZG 0.00	8.84 3.03	8.84
4040	-994	-7 0	QA ZG 0.00	8.84 0.68	8.84	4040	-994	-7 0	QA ZG 0.00	8.84 0.68	8.84
4040	-7	-28 120	QA ZG 0.00	8.84 3.03	8.84	4040	-7	-28 121	QA ZG 0.00	8.84 3.03	8.84
4041	-995	-8 0	QA ZG 0.00	8.84 0.68	8.84	4041	-995	-8 0	QA ZG 0.00	8.84 0.68	8.84
4041	-8	-29 121	QA ZG 0.00	8.84 3.03	8.84	4041	-8	-29 122	QA ZG 0.00	8.84 3.03	8.84
4042	-996	-9 0	QA ZG 0.00	8.84 0.68	8.84	4042	-996	-9 0	QA ZG 0.00	8.84 0.68	8.84
4042	-9	-30 122	QA ZG 0.00	8.84 3.03	8.84	4042	-9	-30 123	QA ZG 0.00	8.84 3.03	8.84
4043	-997	-10 0	QA ZG 0.00	8.84 0.68	8.84	4043	-997	-10 0	QA ZG 0.00	8.84 0.68	8.84
4043	-10	-31 123	QA ZG 0.00	8.84 3.03	8.84	4043	-10	-31 124	QA ZG 0.00	8.84 3.03	8.84
4044	-998	-11 0	QA ZG 0.00	8.84 0.68	8.84	4044	-998	-11 0	QA ZG 0.00	8.84 0.68	8.84
4044	-11	-32 124	QA ZG 0.00	8.84 3.03	8.84	4044	-11	-32 125	QA ZG 0.00	8.84 3.03	8.84
4045	-999	-12 0	QA ZG 0.00	8.84 0.68	8.84	4045	-999	-12 0	QA ZG 0.00	8.84 0.68	8.84
4045	-12	-33 125	QA ZG 0.00	8.84 3.03	8.84	4045	-12	-33 126	QA ZG 0.00	8.84 3.03	8.84
4046	-1000	-13 0	QA ZG 0.00	8.84 0.68	8.84	4046	-1000	-13 0	QA ZG 0.00	8.84 0.68	8.84
4046	-13	-34 126	QA ZG 0.00	8.84 3.03	8.84	4046	-13	-34 127	QA ZG 0.00	8.84 3.03	8.84
4047	-1001	-14 0	QA ZG 0.00	8.84 0.68	8.84	4047	-1001	-14 0	QA ZG 0.00	8.84 0.68	8.84
4047	-14	-35 127	QA ZG 0.00	8.84 3.03	8.84	4047	-14	-35 128	QA ZG 0.00	8.84 3.03	8.84
4048	-1002	-15 0	QA ZG 0.00	8.84 0.68	8.84	4048	-1002	-15 0	QA ZG 0.00	8.84 0.68	8.84
4048	-15	-36 128	QA ZG 0.00	8.84 3.03	8.84	4048	-15	-36 129	QA ZG 0.00	8.84 3.03	8.84
4049	-1003	-16 0	QA ZG 0.00	8.84 0.68	8.84	4049	-1003	-16 0	QA ZG 0.00	8.84 0.68	8.84
4049	-16	-37 129	QA ZG 0.00	8.84 3.03	8.84	4049	-16	-37 130	QA ZG 0.00	8.84 3.03	8.84
4050	-1004	-17 0	QA ZG 0.00	8.84 0.68	8.84	4050	-1004	-17 0	QA ZG 0.00	8.84 0.68	8.84
4050	-17	-38 130	QA ZG 0.00	8.84 3.03	8.84	4050	-17	-38 131	QA ZG 0.00	8.84 3.03	8.84
4051	-1005	-18 0	QA ZG 0.00	8.84 0.68	8.84	4051	-1005	-18 0	QA ZG 0.00	8.84 0.68	8.84
4051	-18	-39 131	QA ZG 0.00	8.84 3.03	8.84	4051	-18	-39 132	QA ZG 0.00	8.84 3.03	8.84
4052	-1006	-136 0	QA ZG 0.00	8.84 0.68	8.84	4052	-1006	-136 0	QA ZG 0.00	8.84 0.68	8.84
4052	-136	-40 132	QA ZG 0.00	8.84 3.03	8.84	4052	-136	-40 133	QA ZG 0.00	8.84 3.03	8.84
4053	-1007	-20 0	QA ZG 0.00	8.84 0.68	8.84	4053	-1007	-20 0	QA ZG 0.10	8.84 0.68	8.84
4053	-1007	-20 0	QA ZG 0.00	0.00 0.10	8.84	4053	-20	-41 133	QA ZG 0.00	8.84 3.03	8.84
4053	-20	-41 134	QA ZG 0.00	8.84 3.03	8.84	4054	-1008	-21 0	QA ZG 0.00	8.84 0.58	8.84
4054	-21	-42 134	QA ZG 0.00	8.84 3.03	8.84	4054	-21	-42 135	QA ZG 0.00	8.84 3.03	8.84
4056	-89	-103 149	QA ZG 0.00	8.09 2.65	8.09	4056	-89	-103 150	QA ZG 0.38	8.09 2.65	8.09
4056	-89	-103 150	QA ZG 0.00	0.00 0.38	8.09	4057	-90	-104 150	QA ZG 0.00	8.09 2.27	8.09
4057	-90	-104 151	QA ZG 0.38	8.09 2.27	8.09	4057	-90	-104 151	QA ZG 0.00	0.00 0.38	8.09
4058	-91	-105 151	QA ZG 0.00	8.09 1.90	8.09	4058	-91	-105 152	QA ZG 0.38	8.09 1.90	8.09
4058	-91	-105 152	QA ZG 0.00	0.00 0.38	8.09	4059	-92	-106 152	QA ZG 0.00	8.09 1.52	8.09
4059	-92	-106 153	QA ZG 0.38	8.09 1.52	8.09	4059	-92	-106 153	QA ZG 0.00	0.00 0.38	8.09
4060	-93	-107 153	QA ZG 0.00	8.09 1.14	8.09	4060	-93	-107 154	QA ZG 0.38	8.09 1.14	8.09
4060	-93	-107 154	QA ZG 0.00	0.00 0.38	8.09	4061	-94	-108 154	QA ZG 0.00	8.09 0.76	8.09
4061	-94	-108 155	QA ZG 0.38	8.09 0.76	8.09	4061	-94	-108 155	QA ZG 0.00	0.00 0.38	8.09
4062	-95	-109 155	QA ZG 0.00	8.09 0.38	8.09	4062	-95	-109 156	QA ZG 0.00	0.00 0.38	8.09
4063	-65	-77 101	QA ZG 0.00	7.14 1.98	7.14	4063	-65	-77 113	QA ZG 1.71	7.14 1.98	0.00
4063	-65	-77 113	QA ZG 0.00	7.14 1.71	7.14	4064	-66	-79 113	QA ZG 0.00	7.14 1.71	7.14

4064	-66	-79 112	QA ZG	1.53	4.72	1.71	0.00	4064	-66	-79 112	QA ZG	1.44	7.14	1.53	4.72
4064	-66	-79 112	QA ZG	0.00	7.14	1.44	7.14	4065	-67	-80 112	QA ZG	0.00	7.14	1.44	7.14
4065	-67	-80 111	QA ZG	1.17	7.14	1.44	0.00	4065	-67	-80 111	QA ZG	0.00	7.14	1.17	7.14
4066	-68	-81 111	QA ZG	0.00	7.14	1.17	7.14	4066	-68	-81 110	QA ZG	0.90	7.13	1.17	0.00
4066	-68	-81 110	QA ZG	0.00	7.14	0.90	7.13	4069	-78	-72 102	QA ZG	0.00	0.00	0.58	8.50
4069	-78	-72 100	QA ZG	0.00	5.60	2.65	5.60	4069	-78	-72 102	QA ZG	0.58	8.50	2.65	8.51
4070	-69	-82 110	QA ZG	0.00	7.14	0.90	7.13	4070	-69	-82 109	QA ZG	0.66	6.25	0.90	0.00
4070	-69	-82 109	QA ZG	0.63	7.14	0.66	6.25	4070	-69	-82 109	QA ZG	0.00	7.14	0.63	7.14
4071	-86	-73 103	QA ZG	0.00	0.00	0.59	8.51	4071	-86	-73 102	QA ZG	0.00	8.50	2.06	8.51
4071	-86	-73 103	QA ZG	0.59	8.51	2.06	8.51	4072	-70	-83 109	QA ZG	0.00	7.14	0.63	7.14
4072	-70	-83 108	QA ZG	0.36	7.14	0.63	0.00	4072	-70	-83 108	QA ZG	0.00	7.14	0.36	7.14
4073	-87	-74 104	QA ZG	0.00	0.00	0.59	8.52	4073	-87	-74 103	QA ZG	0.00	8.51	1.48	8.51
4073	-87	-74 104	QA ZG	0.59	8.52	1.48	8.51	4074	-71	-84 108	QA ZG	0.00	7.14	0.36	7.14
4074	-71	-84 107	QA ZG	0.00	9.45	0.36	0.00	4075	-88	-75 105	QA ZG	0.00	0.00	0.58	8.51
4075	-88	-75 104	QA ZG	0.00	8.52	0.89	8.51	4075	-88	-75 105	QA ZG	0.58	8.51	0.89	8.51
4076	-85	-76 106	QA ZG	0.00	0.00	0.31	4.48	4076	-85	-76 105	QA ZG	0.00	8.51	0.31	8.51

Elenco carichi aste

Condizione di carico n. 4:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
0	-988	-989 0	QA2	ZG	0.00		4.75	0.41	0.00	0	-1007	-1008 0	QA2	ZG	0.00		0.00	0.41	4.75
2001	-1032	11 0	QA2	ZG	0.00		17.36	0.68	17.36	2001	11	12 175	QA2	ZG	0.00		17.36	3.09	17.36
2002	8	7 136	QA2	ZG	0.00		15.47	2.25	15.47	2002	-1020	7 0	QA2	ZG	0.00		15.47	0.68	15.47
2025	13	1 147	QA2	ZG	0.00		15.47	2.25	15.47	2025	13	1 101	QA2	ZG	1.98		15.62	2.25	0.00
2025	13	1 101	QA2	ZG	0.00		15.62	1.98	15.62	2033	1	5 114	QA2	ZG	0.00		19.33	3.03	19.33
2033	1	5 100	QA2	ZG	0.39		12.26	3.03	12.25	2033	1	5 100	QA2	ZG	0.00		0.00	0.39	12.26
2055	3	4 135	QA2	ZG	0.00		19.33	3.03	19.33	2055	3	4 149	QA2	ZG	0.38		17.70	3.03	17.70
2055	3	4 149	QA2	ZG	0.00		0.00	0.38	17.70	2067	3	-89 149	QA2	ZG	0.00		0.00	0.52	12.81
2067	3	-89 148	QA2	ZG	0.00		0.00	0.52	12.81	2067	-89	-90 150	QA2	ZG	0.00		0.00	0.52	12.81
2067	-89	-90 157	QA2	ZG	0.00		0.00	0.52	12.81	2067	-90	-91 151	QA2	ZG	0.00		0.00	0.52	12.81
2067	-90	-91 158	QA2	ZG	0.00		0.00	0.52	12.81	2067	-91	-92 152	QA2	ZG	0.00		0.00	0.52	12.81
2067	-91	-92 159	QA2	ZG	0.00		0.00	0.52	12.81	2067	-92	-93 153	QA2	ZG	0.00		0.00	0.52	12.81
2067	-92	-93 160	QA2	ZG	0.00		0.00	0.52	12.81	2067	-93	-94 154	QA2	ZG	0.00		0.00	0.52	12.81
2067	-93	-94 161	QA2	ZG	0.00		0.00	0.52	12.81	2067	-94	-95 155	QA2	ZG	0.00		0.00	0.52	12.81
2067	-94	-95 162	QA2	ZG	0.00		0.00	0.52	12.81	2067	-95	9 156	QA2	ZG	0.00		0.00	0.52	12.81
2067	-95	9 163	QA2	ZG	0.00		0.00	0.52	12.81	2068	1	-77 101	QA2	ZG	0.00		0.00	0.43	9.73
2068	1	-77 100	QA2	ZG	0.00		0.00	0.43	9.73	2068	-77	-78 113	QA2	ZG	0.00		0.00	0.02	0.55
2068	-77	-78 100	QA2	ZG	0.00		9.73	0.02	10.28	2068	-78	-79 113	QA2	ZG	0.00		0.55	0.41	9.73
2068	-78	-79 102	QA2	ZG	0.00		0.00	0.41	9.17	2068	-79	-86 112	QA2	ZG	0.00		0.00	0.29	6.43
2068	-79	-86 102	QA2	ZG	0.00		9.17	0.29	15.60	2068	-86	-80 112	QA2	ZG	0.00		6.43	0.15	9.73
2068	-86	-80 103	QA2	ZG	0.00		0.00	0.15	3.30	2068	-80	-81 111	QA2	ZG	0.00		0.00	0.43	9.73
2068	-80	-81 103	QA2	ZG	0.00		3.30	0.43	13.02	2068	-81	-87 110	QA2	ZG	0.00		0.00	0.12	2.59
2068	-81	-87 103	QA2	ZG	0.00		13.02	0.12	15.61	2068	-87	-82 110	QA2	ZG	0.00		2.59	0.32	9.71
2068	-87	-82 104	QA2	ZG	0.00		0.00	0.32	7.11	2068	-82	-88 109	QA2	ZG	0.00		0.00	0.38	8.51
2068	-82	-88 104	QA2	ZG	0.00		7.11	0.38	15.62	2068	-88	-83 109	QA2	ZG	0.00		8.51	0.05	9.72
2068	-88	-83 105	QA2	ZG	0.00		0.00	0.05	1.22	2068	-83	-84 108	QA2	ZG	0.00		0.00	0.43	9.72
2068	-83	-84 105	QA2	ZG	0.00		1.22	0.43	10.95	2068	-84	-85 107	QA2	ZG	0.00		0.00	0.21	4.67
2068	-84	-85 105	QA2	ZG	0.00		10.95	0.21	15.62	2068	-85	6 107	QA2	ZG	0.00		4.67	0.37	12.87
2068	-85	6 106	QA2	ZG	0.00		0.00	0.37	8.22	2101	3	10 164	QA2	ZG	0.00		17.36	3.09	17.36
2101	3	10 148	QA2	ZG	0.39		17.38	3.09	17.38	2101	3	10 148	QA2	ZG	0.00		0.00	0.39	17.38
4003	-1031	-120 0	QA2	ZG	0.00		17.36	0.68	17.36	4003	-1031	-120 0	QA2	ZG	0.00		17.36	0.68	17.36
4003	-120	-121 175	QA2	ZG	0.00		17.36	3.09	17.36	4003	-120	-121 174	QA2	ZG	0.00		17.36	3.09	17.36
4004	-43	-54 136	QA2	ZG	0.00		15.47	2.25	15.47	4004	-43	-54 137	QA2	ZG	0.00		15.47	2.25	15.47
4004	-1019	-43 0	QA2	ZG	0.00		15.47	0.68	15.47	4004	-1019	-43 0	QA2	ZG	0.00		15.47	0.68	15.47
4005	-1030	-119 0	QA2	ZG	0.00		17.36	0.68	17.36	4005	-1030	-119 0	QA2	ZG	0.00		17.36	0.68	17.36
4005	-119	-122 174	QA2	ZG	0.00		17.36	3.09	17.36	4005	-119	-122 173	QA2	ZG	0.00		17.36	3.09	17.36
4006	-44	-55 137	QA2	ZG	0.00		15.47	2.25	15.47	4006	-44	-55 138	QA2	ZG	0.00		15.47	2.25	15.47
4006	-1018	-44 0	QA2	ZG	0.00		15.47	0.68	15.47	4006	-1018	-44 0	QA2	ZG	0.00		15.47	0.68	15.47
4007	-1029	-118 0	QA2	ZG	0.00		17.36	0.68	17.36	4007	-1029	-118 0	QA2	ZG	0.00		17.36	0.68	17.36
4007	-118	-123 173	QA2	ZG	0.00		17.36	3.09	17.36	4007	-118	-123 172	QA2	ZG	0.00		17.36	3.09	17.36
4008	-45	-56 138	QA2	ZG	0.00		15.47	2.25	15.47	4008	-45	-56 139	QA2	ZG	0.00		15.47	2.25	15.47
4008	-1017	-45 0	QA2	ZG	0.00		15.47	0.68	15.47	4008	-1017	-45 0	QA2	ZG	0.00		15.47	0.68	15.47
4009	-1028	-117 0	QA2	ZG	0.00		17.36	0.68	17.36	4009	-1028	-117 0	QA2	ZG	0.00		17.36	0.68	17.36
4009	-117	-124 172	QA2	ZG	0.00		17.36	3.09	17.36	4009	-117	-124 171	QA2	ZG	0.00		17.36	3.09	17.36
4010	-46	-57 139	QA2	ZG	0.00		15.47	2.25	15.47	4010	-46	-57 140	QA2	ZG	0.00		15.47	2.25	15.47
4010	-1016	-46 0	QA2	ZG	0.00		15.47	0.68	15.47	4010	-1016	-46 0	QA2	ZG	0.00		15.47	0.68	15.47
4011	-1027	-116 0	QA2	ZG	0.00		17.36	0.68	17.36	4011	-1027	-116 0	QA2	ZG	0.00		17.36	0.68	17.36
4011	-116	-125 171	QA2	ZG	0.00		17.36	3.09	17.36	4011	-116	-125 170	QA2	ZG	0.00		17.36	3.09	17.36
4012	-47	-58 140	QA2	ZG	0.00		15.47	2.25	15.47	4012	-47	-58 141	QA2	ZG	0.00		15.47	2.25	15.47
4012	-1015	-47 0	QA2	ZG	0.00		15.47	0.68	15.47	4012	-1015	-47 0	QA2	ZG	0.00		15.47	0.68	15.47
4013	-1026	-115 0	QA2	ZG	0.00		17.36	0.68	17.36	4013	-1026	-115 0	QA2	ZG	0.00		17.36	0.68	17.36
4013	-115	-126 170	QA2	ZG	0.00		17.36	3.09	17.36	4013	-115	-126 169	QA2	ZG	0.00		17.36	3.09	17.36
4014	-48	-59 141	QA2	ZG	0.00		15.47	2.25	15.47	4014	-48	-59 142	QA2	ZG	0.00		15.47	2.25	15.47
4014	-1014	-48 0	QA2	ZG	0.00		15.47	0.68	15.47	4014	-1014	-48 0	QA2	ZG	0.00		15.47	0.68	15.47
4015	-1025	-114 0	QA2	ZG	0.00		17.36	0.68	17.36	4015	-1025	-114 0	QA2	ZG	0.00		17.36	0.68	17.36
4015	-114	-127 169	QA2	ZG	0.00		17.36	3.09	17.36	4015	-114	-127 168	QA2	ZG	0.00		17.36	3.09	17.36

4016	-49	-60 142	QA2	ZG	0.00	15.47	2.25	15.47	4016	-49	-60 143	QA2	ZG	0.00	15.47	2.25	15.47
4016	-1013	-49 0	QA2	ZG	0.00	15.47	0.68	15.47	4016	-1013	-49 0	QA2	ZG	0.00	15.47	0.68	15.47
4017	-1024	-113 0	QA2	ZG	0.00	17.36	0.68	17.36	4017	-1024	-113 0	QA2	ZG	0.00	17.36	0.68	17.36
4017	-113	-128 168	QA2	ZG	0.00	17.36	3.09	17.36	4017	-113	-128 167	QA2	ZG	0.00	17.36	3.09	17.36
4018	-50	-61 143	QA2	ZG	0.00	15.47	2.25	15.47	4018	-50	-61 144	QA2	ZG	0.00	15.47	2.25	15.47
4018	-1012	-50 0	QA2	ZG	0.00	15.47	0.68	15.47	4018	-1012	-50 0	QA2	ZG	0.00	15.47	0.68	15.47
4019	-1023	-112 0	QA2	ZG	0.00	17.36	0.68	17.36	4019	-1023	-112 0	QA2	ZG	0.00	17.36	0.68	17.36
4019	-112	-129 167	QA2	ZG	0.00	17.36	3.09	17.36	4019	-112	-129 166	QA2	ZG	0.00	17.36	3.09	17.36
4020	-51	-62 144	QA2	ZG	0.00	15.47	2.25	15.47	4020	-51	-62 145	QA2	ZG	0.00	15.47	2.25	15.47
4020	-1011	-51 0	QA2	ZG	0.00	15.47	0.68	15.47	4020	-1011	-51 0	QA2	ZG	0.00	15.47	0.68	15.47
4021	-1022	-111 0	QA2	ZG	0.00	17.36	0.68	17.36	4021	-1022	-111 0	QA2	ZG	0.00	17.36	0.68	17.36
4021	-111	-130 166	QA2	ZG	0.00	17.36	3.09	17.36	4021	-111	-130 165	QA2	ZG	0.00	17.36	3.09	17.36
4022	-52	-63 145	QA2	ZG	0.00	15.47	2.25	15.47	4022	-52	-63 146	QA2	ZG	0.00	15.47	2.25	15.47
4022	-1010	-52 0	QA2	ZG	0.00	15.47	0.68	15.47	4022	-1010	-52 0	QA2	ZG	0.00	15.47	0.68	15.47
4023	-1021	-110 0	QA2	ZG	0.00	17.36	0.68	17.36	4023	-110	-131 165	QA2	ZG	0.00	17.36	3.09	17.36
4023	-110	-131 164	QA2	ZG	0.00	17.36	3.09	17.36	4024	-53	-64 146	QA2	ZG	0.00	15.47	2.25	15.47
4024	-53	-64 147	QA2	ZG	0.00	15.47	2.25	15.47	4024	-1009	-53 0	QA2	ZG	0.00	15.47	0.68	15.47
4026	-89	-96 148	QA2	ZG	0.00	17.38	2.70	17.38	4026	-89	-96 157	QA2	ZG	0.39	17.38	2.70	17.38
4026	-89	-96 157	QA2	ZG	0.00	0.00	0.39	17.38	4027	-90	-97 157	QA2	ZG	0.00	17.38	2.32	17.38
4027	-90	-97 158	QA2	ZG	0.39	17.38	2.32	17.38	4027	-90	-97 158	QA2	ZG	0.00	0.00	0.39	17.38
4028	-91	-98 158	QA2	ZG	0.00	17.38	1.93	17.38	4028	-91	-98 159	QA2	ZG	0.39	17.38	1.93	17.38
4028	-91	-98 159	QA2	ZG	0.00	0.00	0.39	17.38	4029	-92	-99 159	QA2	ZG	0.00	17.38	1.54	17.38
4029	-92	-99 160	QA2	ZG	0.39	17.38	1.54	17.38	4029	-92	-99 160	QA2	ZG	0.00	0.00	0.39	17.38
4030	-93	-100 160	QA2	ZG	0.00	17.38	1.16	17.38	4030	-93	-100 161	QA2	ZG	0.39	17.38	1.16	17.38
4030	-93	-100 161	QA2	ZG	0.00	0.00	0.39	17.38	4031	-94	-101 161	QA2	ZG	0.00	17.38	0.77	17.38
4031	-94	-101 162	QA2	ZG	0.39	17.38	0.77	17.38	4031	-94	-101 162	QA2	ZG	0.00	0.00	0.39	17.38
4032	-95	-102 162	QA2	ZG	0.00	17.38	0.39	17.38	4032	-95	-102 163	QA2	ZG	0.00	0.00	0.39	17.38
4034	-988	-1 0	QA2	ZG	0.00	19.33	0.58	19.33	4034	-1	-22 114	QA2	ZG	0.00	19.33	3.03	19.33
4034	-1	-22 115	QA2	ZG	0.00	19.33	3.03	19.33	4035	-989	-2 0	QA2	ZG	0.00	0.00	0.10	19.33
4035	-989	-2 0	QA2	ZG	0.00	19.33	0.68	19.33	4035	-989	-2 0	QA2	ZG	0.10	19.33	0.68	19.33
4035	-2	-23 115	QA2	ZG	0.00	19.33	3.03	19.33	4035	-2	-23 116	QA2	ZG	0.00	19.33	3.03	19.33
4036	-990	-3 0	QA2	ZG	0.00	19.33	0.68	19.33	4036	-990	-3 0	QA2	ZG	0.00	19.33	0.68	19.33
4036	-3	-24 116	QA2	ZG	0.00	19.33	3.03	19.33	4036	-3	-24 117	QA2	ZG	0.00	19.33	3.03	19.33
4037	-991	-4 0	QA2	ZG	0.00	19.33	0.68	19.33	4037	-991	-4 0	QA2	ZG	0.00	19.33	0.68	19.33
4037	-4	-25 117	QA2	ZG	0.00	19.33	3.03	19.33	4037	-4	-25 118	QA2	ZG	0.00	19.33	3.03	19.33
4038	-992	-5 0	QA2	ZG	0.00	19.33	0.68	19.33	4038	-992	-5 0	QA2	ZG	0.00	19.33	0.68	19.33
4038	-5	-26 118	QA2	ZG	0.00	19.33	3.03	19.33	4038	-5	-26 119	QA2	ZG	0.00	19.33	3.03	19.33
4039	-993	-6 0	QA2	ZG	0.00	19.33	0.68	19.33	4039	-993	-6 0	QA2	ZG	0.00	19.33	0.68	19.33
4039	-6	-27 119	QA2	ZG	0.00	19.33	3.03	19.33	4039	-6	-27 120	QA2	ZG	0.00	19.33	3.03	19.33
4040	-994	-7 0	QA2	ZG	0.00	19.33	0.68	19.33	4040	-994	-7 0	QA2	ZG	0.00	19.33	0.68	19.33
4040	-7	-28 120	QA2	ZG	0.00	19.33	3.03	19.33	4040	-7	-28 121	QA2	ZG	0.00	19.33	3.03	19.33
4041	-995	-8 0	QA2	ZG	0.00	19.33	0.68	19.33	4041	-995	-8 0	QA2	ZG	0.00	19.33	0.68	19.33
4041	-8	-29 121	QA2	ZG	0.00	19.33	3.03	19.33	4041	-8	-29 122	QA2	ZG	0.00	19.33	3.03	19.33
4042	-996	-9 0	QA2	ZG	0.00	19.33	0.68	19.33	4042	-996	-9 0	QA2	ZG	0.00	19.33	0.68	19.33
4042	-9	-30 122	QA2	ZG	0.00	19.33	3.03	19.33	4042	-9	-30 123	QA2	ZG	0.00	19.33	3.03	19.33
4043	-997	-10 0	QA2	ZG	0.00	19.33	0.68	19.33	4043	-997	-10 0	QA2	ZG	0.00	19.33	0.68	19.33
4043	-10	-31 123	QA2	ZG	0.00	19.33	3.03	19.33	4043	-10	-31 124	QA2	ZG	0.00	19.33	3.03	19.33
4044	-998	-11 0	QA2	ZG	0.00	19.33	0.68	19.33	4044	-998	-11 0	QA2	ZG	0.00	19.33	0.68	19.33
4044	-11	-32 124	QA2	ZG	0.00	19.33	3.03	19.33	4044	-11	-32 125	QA2	ZG	0.00	19.33	3.03	19.33
4045	-999	-12 0	QA2	ZG	0.00	19.33	0.68	19.33	4045	-999	-12 0	QA2	ZG	0.00	19.33	0.68	19.33
4045	-12	-33 125	QA2	ZG	0.00	19.33	3.03	19.33	4045	-12	-33 126	QA2	ZG	0.00	19.33	3.03	19.33
4046	-1000	-13 0	QA2	ZG	0.00	19.33	0.68	19.33	4046	-1000	-13 0	QA2	ZG	0.00	19.33	0.68	19.33
4046	-13	-34 126	QA2	ZG	0.00	19.33	3.03	19.33	4046	-13	-34 127	QA2	ZG	0.00	19.33	3.03	19.33
4047	-1001	-14 0	QA2	ZG	0.00	19.33	0.68	19.33	4047	-1001	-14 0	QA2	ZG	0.00	19.33	0.68	19.33
4047	-14	-35 127	QA2	ZG	0.00	19.33	3.03	19.33	4047	-14	-35 128	QA2	ZG	0.00	19.33	3.03	19.33
4048	-1002	-15 0	QA2	ZG	0.00	19.33	0.68	19.33	4048	-1002	-15 0	QA2	ZG	0.00	19.33	0.68	19.33
4048	-15	-36 128	QA2	ZG	0.00	19.33	3.03	19.33	4048	-15	-36 129	QA2	ZG	0.00	19.33	3.03	19.33
4049	-1003	-16 0	QA2	ZG	0.00	19.33	0.68	19.33	4049	-1003	-16 0	QA2	ZG	0.00	19.33	0.68	19.33
4049	-16	-37 129	QA2	ZG	0.00	19.33	3.03	19.33	4049	-16	-37 130	QA2	ZG	0.00	19.33	3.03	19.33
4050	-1004	-17 0	QA2	ZG	0.00	19.33	0.68	19.33	4050	-1004	-17 0	QA2	ZG	0.00	19.33	0.68	19.33
4050	-17	-38 130	QA2	ZG	0.00	19.33	3.03	19.33	4050	-17	-38 131	QA2	ZG	0.00	19.33	3.03	19.33
4051	-1005	-18 0	QA2	ZG	0.00	19.33	0.68	19.33	4051	-1005	-18 0	QA2	ZG	0.00	19.33	0.68	19.33
4051	-18	-39 131	QA2	ZG	0.00	19.33	3.03	19.33	4051	-18	-39 132	QA2	ZG	0.00	19.33	3.03	19.33
4052	-1006	-136 0	QA2	ZG	0.00	19.33	0.68	19.33	4052	-1006	-136 0	QA2	ZG	0.00	19.33	0.68	19.33
4052	-136	-40 132	QA2	ZG	0.00	19.33	3.03	19.33	4052	-136	-40 133	QA2	ZG	0.00	19.33	3.03	19.33
4053	-1007	-20 0	QA2	ZG	0.00	19.33	0.68	19.33	4053	-1007	-20 0	QA2	ZG	0.10	19.33	0.68	19.33
4053	-1007	-20 0	QA2	ZG	0.00	0.00	0.10	19.33	4053	-20	-41 133	QA2	ZG	0.00	19.33	3.03	19.33
4053	-20	-41 134	QA2	ZG	0.00	19.33	3.03	19.33	4054	-1008	-21 0	QA2	ZG	0.00	19.33	0.58	19.33
4054	-21	-42 134	QA2	ZG	0.00	19.33	3.03	19.33	4054	-21	-42 135	QA2	ZG	0.00	19.33	3.03	19.33
4056	-89	-103 149	QA2	ZG	0.00	17.70	2.65	17.70	4056	-89	-103 150	QA2	ZG	0.38	17.70	2.65	17.70
4056	-89	-103 150	QA2	ZG	0.00	0.00	0.38	17.70	4057	-90	-104 150	QA2	ZG	0.00	17.70	2.27	17.70
4057	-90	-104 151	QA2	ZG	0.38	17.70	2.27	17.70	4057	-90	-104 151	QA2	ZG	0.00	0.00	0.38	17.70
4058	-91	-105 151	QA2	ZG	0.00	17.70	1.90	17.70	4058	-91	-105 152	QA2	ZG	0.38	17.70	1.90	17.70
4058	-91	-105 152	QA2	ZG	0.00	0.00	0.38	17.70	4059	-92	-106 152	QA2	ZG	0.00	17.70	1.52	17.70
4059	-92	-106 153	QA2	ZG	0.38	17.70	1.52	17.70	4059	-92	-106 153	QA2	ZG	0.00	0.00	0.38	17.70
4060	-93	-107 153	QA2	ZG	0.00	17.70	1.14	17.70	4060	-93	-107 154	QA2	ZG	0.38	17.70	1.14	17.70

4063	-65	-77 101	QA2	ZG	0.00	15.62	1.98	15.62	4063	-65	-77 113	QA2	ZG	1.71	15.61	1.98	0.00
4063	-65	-77 113	QA2	ZG	0.00	15.62	1.71	15.61	4064	-66	-79 113	QA2	ZG	0.00	15.62	1.71	15.61
4064	-66	-79 112	QA2	ZG	1.53	10.33	1.71	0.00	4064	-66	-79 112	QA2	ZG	1.44	15.62	1.53	10.33
4064	-66	-79 112	QA2	ZG	0.00	15.62	1.44	15.62	4065	-67	-80 112	QA2	ZG	0.00	15.62	1.44	15.62
4065	-67	-80 111	QA2	ZG	1.17	15.63	1.44	0.00	4065	-67	-80 111	QA2	ZG	0.00	15.62	1.17	15.63
4066	-68	-81 111	QA2	ZG	0.00	15.62	1.17	15.63	4066	-68	-81 110	QA2	ZG	0.90	15.59	1.17	0.00
4066	-68	-81 110	QA2	ZG	0.00	15.62	0.90	15.59	4069	-78	-72 102	QA2	ZG	0.00	0.00	0.58	18.60
4069	-78	-72 100	QA2	ZG	0.00	12.26	2.65	12.25	4069	-78	-72 102	QA2	ZG	0.58	18.60	2.65	18.62
4070	-69	-82 110	QA2	ZG	0.00	15.62	0.90	15.59	4070	-69	-82 109	QA2	ZG	0.66	13.67	0.90	0.00
4070	-69	-82 109	QA2	ZG	0.63	15.62	0.66	13.67	4070	-69	-82 109	QA2	ZG	0.00	15.62	0.63	15.62
4071	-86	-73 103	QA2	ZG	0.00	0.00	0.12	3.93	4071	-86	-73 102	QA2	ZG	0.00	18.60	2.06	18.62
4071	-86	-73 103	QA2	ZG	0.59	18.62	2.06	18.62	4071	-86	-73 103	QA2	ZG	0.49	15.63	0.59	18.62
4071	-86	-73 103	QA2	ZG	0.12	3.93	0.49	15.53	4072	-70	-83 109	QA2	ZG	0.00	15.62	0.63	15.62
4072	-70	-83 108	QA2	ZG	0.36	15.62	0.63	0.00	4072	-70	-83 108	QA2	ZG	0.00	15.62	0.36	15.62
4073	-87	-74 104	QA2	ZG	0.00	0.00	0.59	18.63	4073	-87	-74 103	QA2	ZG	0.00	18.62	1.48	18.62
4073	-87	-74 104	QA2	ZG	0.59	18.63	1.48	18.62	4074	-71	-84 108	QA2	ZG	0.00	15.62	0.36	15.62
4074	-71	-84 107	QA2	ZG	0.00	20.67	0.36	0.00	4075	-88	-75 105	QA2	ZG	0.00	0.00	0.58	18.63
4075	-88	-75 104	QA2	ZG	0.00	18.63	0.89	18.62	4075	-88	-75 105	QA2	ZG	0.58	18.63	0.89	18.62
4076	-85	-76 106	QA2	ZG	0.00	0.00	0.31	9.80	4076	-85	-76 105	QA2	ZG	0.00	18.63	0.31	18.62

Elenco carichi aste

Condizione di carico n. 5:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
0	-988	-989 0	QA3	ZG	0.00	2.26	0.41	0.00	0.00	0	-1007	-1008 0	QA3	ZG	0.00	0.00	0.41	2.26	2.26
2001	-1032	11 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	2001	11	12 175	QA3	ZG	0.00	8.27	3.09	8.27	8.27
2002	8	7 136	QA3	ZG	0.00	7.36	2.25	7.36	7.36	2002	-1020	7 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36
2025	13	1 147	QA3	ZG	0.00	7.36	2.25	7.36	7.36	2025	13	1 101	QA3	ZG	1.98	7.44	2.25	0.00	0.00
2025	13	1 101	QA3	ZG	0.00	7.44	1.98	7.44	7.44	2033	1	5 114	QA3	ZG	0.00	9.20	3.03	9.20	9.20
2033	1	5 100	QA3	ZG	0.39	5.84	3.03	5.83	5.83	2033	1	5 100	QA3	ZG	0.00	0.00	0.39	5.84	5.84
2055	3	4 135	QA3	ZG	0.00	9.20	3.03	9.20	9.20	2055	3	4 149	QA3	ZG	0.38	8.43	3.03	8.43	8.43
2055	3	4 149	QA3	ZG	0.00	0.00	0.38	8.43	8.43	2067	3	-89 149	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	3	-89 148	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-89	-90 150	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-89	-90 157	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-90	-91 151	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-90	-91 158	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-91	-92 152	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-91	-92 159	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-92	-93 153	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-92	-93 160	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-93	-94 154	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-93	-94 161	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-94	-95 155	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-94	-95 162	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2067	-95	9 156	QA3	ZG	0.00	0.00	0.52	6.10	6.10
2067	-95	9 163	QA3	ZG	0.00	0.00	0.52	6.10	6.10	2068	1	-77 101	QA3	ZG	0.00	0.00	0.43	4.63	4.63
2068	1	-77 100	QA3	ZG	0.00	0.00	0.43	4.63	4.63	2068	-77	-78 113	QA3	ZG	0.00	0.00	0.02	0.26	0.26
2068	-77	-78 100	QA3	ZG	0.00	4.63	0.02	4.89	4.89	2068	-78	-79 113	QA3	ZG	0.00	0.26	0.41	4.63	4.63
2068	-78	-79 102	QA3	ZG	0.00	0.00	0.41	4.37	4.37	2068	-79	-86 112	QA3	ZG	0.00	0.00	0.29	3.06	3.06
2068	-79	-86 102	QA3	ZG	0.00	4.37	0.29	7.43	7.43	2068	-86	-80 112	QA3	ZG	0.00	3.06	0.15	4.63	4.63
2068	-86	-80 103	QA3	ZG	0.00	0.00	0.15	1.57	1.57	2068	-80	-81 111	QA3	ZG	0.00	0.00	0.43	4.63	4.63
2068	-80	-81 103	QA3	ZG	0.00	1.57	0.43	6.20	6.20	2068	-81	-87 110	QA3	ZG	0.00	0.00	0.12	1.23	1.23
2068	-81	-87 103	QA3	ZG	0.00	6.20	0.12	7.44	7.44	2068	-87	-82 110	QA3	ZG	0.00	1.23	0.32	4.62	4.62
2068	-87	-82 104	QA3	ZG	0.00	0.00	0.32	3.39	3.39	2068	-82	-88 109	QA3	ZG	0.00	0.00	0.38	4.05	4.05
2068	-82	-88 104	QA3	ZG	0.00	3.39	0.38	7.44	7.44	2068	-88	-83 109	QA3	ZG	0.00	4.05	0.05	4.63	4.63
2068	-88	-83 105	QA3	ZG	0.00	0.00	0.05	0.58	0.58	2068	-83	-84 108	QA3	ZG	0.00	0.00	0.43	4.63	4.63
2068	-83	-84 105	QA3	ZG	0.00	0.58	0.43	5.21	5.21	2068	-84	-85 107	QA3	ZG	0.00	0.00	0.21	2.22	2.22
2068	-84	-85 105	QA3	ZG	0.00	5.21	0.21	7.44	7.44	2068	-85	6 107	QA3	ZG	0.00	2.22	0.37	6.13	6.13
2068	-85	6 106	QA3	ZG	0.00	0.00	0.37	3.91	3.91	2101	3	10 164	QA3	ZG	0.00	8.27	3.09	8.27	8.27
2101	3	10 148	QA3	ZG	0.39	8.27	3.09	8.27	8.27	2101	3	10 148	QA3	ZG	0.00	0.00	0.39	8.27	8.27
4003	-1031	-120 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	4003	-1031	-120 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27
4003	-120	-121 175	QA3	ZG	0.00	8.27	3.09	8.27	8.27	4003	-120	-121 174	QA3	ZG	0.00	8.27	3.09	8.27	8.27
4004	-43	-54 136	QA3	ZG	0.00	7.36	2.25	7.36	7.36	4004	-43	-54 137	QA3	ZG	0.00	7.36	2.25	7.36	7.36
4004	-1019	-43 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36	4004	-1019	-43 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36
4005	-1030	-119 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	4005	-1030	-119 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27
4005	-119	-122 174	QA3	ZG	0.00	8.27	3.09	8.27	8.27	4005	-119	-122 173	QA3	ZG	0.00	8.27	3.09	8.27	8.27
4006	-44	-55 137	QA3	ZG	0.00	7.36	2.25	7.36	7.36	4006	-44	-55 138	QA3	ZG	0.00	7.36	2.25	7.36	7.36
4006	-1018	-44 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36	4006	-1018	-44 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36
4007	-1029	-118 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	4007	-1029	-118 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27
4007	-118	-123 173	QA3	ZG	0.00	8.27	3.09	8.27	8.27	4007	-118	-123 172	QA3	ZG	0.00	8.27	3.09	8.27	8.27
4008	-45	-56 138	QA3	ZG	0.00	7.36	2.25	7.36	7.36	4008	-45	-56 139	QA3	ZG	0.00	7.36	2.25	7.36	7.36
4008	-1017	-45 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36	4008	-1017	-45 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36
4009	-1028	-117 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	4009	-1028	-117 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27
4009	-117	-124 172	QA3	ZG	0.00	8.27	3.09	8.27	8.27	4009	-117	-124 171	QA3	ZG	0.00	8.27	3.09	8.27	8.27
4010	-46	-57 139	QA3	ZG	0.00	7.36	2.25	7.36	7.36	4010	-46	-57 140	QA3	ZG	0.00	7.36	2.25	7.36	7.36
4010	-1016	-46 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36	4010	-1016	-46 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36
4011	-1027	-116 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27	4011	-1027	-116 0	QA3	ZG	0.00	8.27	0.68	8.27	8.27
4011	-116	-125 171	QA3	ZG	0.00	8.27	3.09	8.27	8.27	4011	-116	-125 170	QA3	ZG	0.00	8.27	3.09	8.27	8.27
4012	-47	-58 140	QA3	ZG	0.00	7.36	2.25	7.36	7.36	4012	-47	-58 141	QA3	ZG	0.00	7.36	2.25	7.36	7.36
4012	-1015	-47 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36	4012	-1015	-47 0	QA3	ZG	0.00	7.36	0.68	7.36	7.36

4014	-1014	-48 0	QA3	ZG	0.00	7.36	0.68	7.36	4014	-1014	-48 0	QA3	ZG	0.00	7.36	0.68	7.36
4015	-1025	-114 0	QA3	ZG	0.00	8.27	0.68	8.27	4015	-1025	-114 0	QA3	ZG	0.00	8.27	0.68	8.27
4015	-114	-127 169	QA3	ZG	0.00	8.27	3.09	8.27	4015	-114	-127 168	QA3	ZG	0.00	8.27	3.09	8.27
4016	-49	-60 142	QA3	ZG	0.00	7.36	2.25	7.36	4016	-49	-60 143	QA3	ZG	0.00	7.36	2.25	7.36
4016	-1013	-49 0	QA3	ZG	0.00	7.36	0.68	7.36	4016	-1013	-49 0	QA3	ZG	0.00	7.36	0.68	7.36
4017	-1024	-113 0	QA3	ZG	0.00	8.27	0.68	8.27	4017	-1024	-113 0	QA3	ZG	0.00	8.27	0.68	8.27
4017	-113	-128 168	QA3	ZG	0.00	8.27	3.09	8.27	4017	-113	-128 167	QA3	ZG	0.00	8.27	3.09	8.27
4018	-50	-61 143	QA3	ZG	0.00	7.36	2.25	7.36	4018	-50	-61 144	QA3	ZG	0.00	7.36	2.25	7.36
4018	-1012	-50 0	QA3	ZG	0.00	7.36	0.68	7.36	4018	-1012	-50 0	QA3	ZG	0.00	7.36	0.68	7.36
4019	-1023	-112 0	QA3	ZG	0.00	8.27	0.68	8.27	4019	-1023	-112 0	QA3	ZG	0.00	8.27	0.68	8.27
4019	-112	-129 167	QA3	ZG	0.00	8.27	3.09	8.27	4019	-112	-129 166	QA3	ZG	0.00	8.27	3.09	8.27
4020	-51	-62 144	QA3	ZG	0.00	7.36	2.25	7.36	4020	-51	-62 145	QA3	ZG	0.00	7.36	2.25	7.36
4020	-1011	-51 0	QA3	ZG	0.00	7.36	0.68	7.36	4020	-1011	-51 0	QA3	ZG	0.00	7.36	0.68	7.36
4021	-1022	-111 0	QA3	ZG	0.00	8.27	0.68	8.27	4021	-1022	-111 0	QA3	ZG	0.00	8.27	0.68	8.27
4021	-111	-130 166	QA3	ZG	0.00	8.27	3.09	8.27	4021	-111	-130 165	QA3	ZG	0.00	8.27	3.09	8.27
4022	-52	-63 145	QA3	ZG	0.00	7.36	2.25	7.36	4022	-52	-63 146	QA3	ZG	0.00	7.36	2.25	7.36
4022	-1010	-52 0	QA3	ZG	0.00	7.36	0.68	7.36	4022	-1010	-52 0	QA3	ZG	0.00	7.36	0.68	7.36
4023	-1021	-110 0	QA3	ZG	0.00	8.27	0.68	8.27	4023	-110	-131 165	QA3	ZG	0.00	8.27	3.09	8.27
4023	-110	-131 164	QA3	ZG	0.00	8.27	3.09	8.27	4024	-53	-64 146	QA3	ZG	0.00	7.36	2.25	7.36
4024	-53	-64 147	QA3	ZG	0.00	7.36	2.25	7.36	4024	-1009	-53 0	QA3	ZG	0.00	7.36	0.68	7.36
4026	-89	-96 148	QA3	ZG	0.00	8.27	2.70	8.27	4026	-89	-96 157	QA3	ZG	0.39	8.27	2.70	8.27
4026	-89	-96 157	QA3	ZG	0.00	0.00	0.39	8.27	4027	-90	-97 157	QA3	ZG	0.00	8.27	2.32	8.27
4027	-90	-97 158	QA3	ZG	0.39	8.27	2.32	8.27	4027	-90	-97 158	QA3	ZG	0.00	0.00	0.39	8.27
4028	-91	-98 158	QA3	ZG	0.00	8.27	1.93	8.27	4028	-91	-98 159	QA3	ZG	0.39	8.27	1.93	8.27
4028	-91	-98 159	QA3	ZG	0.00	0.00	0.39	8.27	4029	-92	-99 159	QA3	ZG	0.00	8.27	1.54	8.27
4029	-92	-99 160	QA3	ZG	0.39	8.27	1.54	8.27	4029	-92	-99 160	QA3	ZG	0.00	0.00	0.39	8.27
4030	-93	-100 160	QA3	ZG	0.00	8.27	1.16	8.27	4030	-93	-100 161	QA3	ZG	0.39	8.27	1.16	8.27
4030	-93	-100 161	QA3	ZG	0.00	0.00	0.39	8.27	4031	-94	-101 161	QA3	ZG	0.00	8.27	0.77	8.27
4031	-94	-101 162	QA3	ZG	0.39	8.27	0.77	8.27	4031	-94	-101 162	QA3	ZG	0.00	0.00	0.39	8.27
4032	-95	-102 162	QA3	ZG	0.00	8.27	0.39	8.27	4032	-95	-102 163	QA3	ZG	0.00	0.00	0.39	8.27
4034	-988	-1 0	QA3	ZG	0.00	9.20	0.58	9.20	4034	-1	-22 114	QA3	ZG	0.00	9.20	3.03	9.20
4034	-1	-22 115	QA3	ZG	0.00	9.20	3.03	9.20	4035	-989	-2 0	QA3	ZG	0.00	0.00	0.10	9.20
4035	-989	-2 0	QA3	ZG	0.00	9.20	0.68	9.20	4035	-989	-2 0	QA3	ZG	0.10	9.20	0.68	9.20
4035	-2	-23 115	QA3	ZG	0.00	9.20	3.03	9.20	4035	-2	-23 116	QA3	ZG	0.00	9.20	3.03	9.20
4036	-990	-3 0	QA3	ZG	0.00	9.20	0.68	9.20	4036	-990	-3 0	QA3	ZG	0.00	9.20	0.68	9.20
4036	-3	-24 116	QA3	ZG	0.00	9.20	3.03	9.20	4036	-3	-24 117	QA3	ZG	0.00	9.20	3.03	9.20
4037	-991	-4 0	QA3	ZG	0.00	9.20	0.68	9.20	4037	-991	-4 0	QA3	ZG	0.00	9.20	0.68	9.20
4037	-4	-25 117	QA3	ZG	0.00	9.20	3.03	9.20	4037	-4	-25 118	QA3	ZG	0.00	9.20	3.03	9.20
4038	-992	-5 0	QA3	ZG	0.00	9.20	0.68	9.20	4038	-992	-5 0	QA3	ZG	0.00	9.20	0.68	9.20
4038	-5	-26 118	QA3	ZG	0.00	9.20	3.03	9.20	4038	-5	-26 119	QA3	ZG	0.00	9.20	3.03	9.20
4039	-993	-6 0	QA3	ZG	0.00	9.20	0.68	9.20	4039	-993	-6 0	QA3	ZG	0.00	9.20	0.68	9.20
4039	-6	-27 119	QA3	ZG	0.00	9.20	3.03	9.20	4039	-6	-27 120	QA3	ZG	0.00	9.20	3.03	9.20
4040	-994	-7 0	QA3	ZG	0.00	9.20	0.68	9.20	4040	-994	-7 0	QA3	ZG	0.00	9.20	0.68	9.20
4040	-7	-28 120	QA3	ZG	0.00	9.20	3.03	9.20	4040	-7	-28 121	QA3	ZG	0.00	9.20	3.03	9.20
4041	-995	-8 0	QA3	ZG	0.00	9.20	0.68	9.20	4041	-995	-8 0	QA3	ZG	0.00	9.20	0.68	9.20
4041	-8	-29 121	QA3	ZG	0.00	9.20	3.03	9.20	4041	-8	-29 122	QA3	ZG	0.00	9.20	3.03	9.20
4042	-996	-9 0	QA3	ZG	0.00	9.20	0.68	9.20	4042	-996	-9 0	QA3	ZG	0.00	9.20	0.68	9.20
4042	-9	-30 122	QA3	ZG	0.00	9.20	3.03	9.20	4042	-9	-30 123	QA3	ZG	0.00	9.20	3.03	9.20
4043	-997	-10 0	QA3	ZG	0.00	9.20	0.68	9.20	4043	-997	-10 0	QA3	ZG	0.00	9.20	0.68	9.20
4043	-10	-31 123	QA3	ZG	0.00	9.20	3.03	9.20	4043	-10	-31 124	QA3	ZG	0.00	9.20	3.03	9.20
4044	-998	-11 0	QA3	ZG	0.00	9.20	0.68	9.20	4044	-998	-11 0	QA3	ZG	0.00	9.20	0.68	9.20
4044	-11	-32 124	QA3	ZG	0.00	9.20	3.03	9.20	4044	-11	-32 125	QA3	ZG	0.00	9.20	3.03	9.20
4045	-999	-12 0	QA3	ZG	0.00	9.20	0.68	9.20	4045	-999	-12 0	QA3	ZG	0.00	9.20	0.68	9.20
4045	-12	-33 125	QA3	ZG	0.00	9.20	3.03	9.20	4045	-12	-33 126	QA3	ZG	0.00	9.20	3.03	9.20
4046	-1000	-13 0	QA3	ZG	0.00	9.20	0.68	9.20	4046	-1000	-13 0	QA3	ZG	0.00	9.20	0.68	9.20
4046	-13	-34 126	QA3	ZG	0.00	9.20	3.03	9.20	4046	-13	-34 127	QA3	ZG	0.00	9.20	3.03	9.20
4047	-1001	-14 0	QA3	ZG	0.00	9.20	0.68	9.20	4047	-1001	-14 0	QA3	ZG	0.00	9.20	0.68	9.20
4047	-14	-35 127	QA3	ZG	0.00	9.20	3.03	9.20	4047	-14	-35 128	QA3	ZG	0.00	9.20	3.03	9.20
4048	-1002	-15 0	QA3	ZG	0.00	9.20	0.68	9.20	4048	-1002	-15 0	QA3	ZG	0.00	9.20	0.68	9.20
4048	-15	-36 128	QA3	ZG	0.00	9.20	3.03	9.20	4048	-15	-36 129	QA3	ZG	0.00	9.20	3.03	9.20
4049	-1003	-16 0	QA3	ZG	0.00	9.20	0.68	9.20	4049	-1003	-16 0	QA3	ZG	0.00	9.20	0.68	9.20
4049	-16	-37 129	QA3	ZG	0.00	9.20	3.03	9.20	4049	-16	-37 130	QA3	ZG	0.00	9.20	3.03	9.20
4050	-1004	-17 0	QA3	ZG	0.00	9.20	0.68	9.20	4050	-1004	-17 0	QA3	ZG	0.00	9.20	0.68	9.20
4050	-17	-38 130	QA3	ZG	0.00	9.20	3.03	9.20	4050	-17	-38 131	QA3	ZG	0.00	9.20	3.03	9.20
4051	-1005	-18 0	QA3	ZG	0.00	9.20	0.68	9.20	4051	-1005	-18 0	QA3	ZG	0.00	9.20	0.68	9.20
4051	-18	-39 131	QA3	ZG	0.00	9.20	3.03	9.20	4051	-18	-39 132	QA3	ZG	0.00	9.20	3.03	9.20
4052	-1006	-136 0	QA3	ZG	0.00	9.20	0.68	9.20	4052	-1006	-136 0	QA3	ZG	0.00	9.20	0.68	9.20
4052	-136	-40 132	QA3	ZG	0.00	9.20	3.03	9.20	4052	-136	-40 133	QA3	ZG	0.00	9.20	3.03	9.20
4053	-1007	-20 0	QA3	ZG	0.00	9.20	0.68	9.20	4053	-1007	-20 0	QA3	ZG	0.10	9.20	0.68	9.20
4053	-1007	-20 0	QA3	ZG	0.00	0.00	0.10	9.20	4053	-20	-41 133	QA3	ZG	0.00	9.20	3.03	9.20
4053	-20	-41 134	QA3	ZG	0.00	9.20	3.03	9.20	4054	-1008	-21 0	QA3	ZG	0.00	9.20	0.58	9.20
4054	-21	-42 134	QA3	ZG	0.00	9.20	3.03	9.20	4054	-21	-42 135	QA3	ZG	0.00	9.20	3.03	9.20
4056	-89	-103 149	QA3	ZG	0.00	8.43	2.65	8.43	4056	-89	-103 150	QA3	ZG	0.38	8.43	2.65	8.43
4056	-89	-103 150	QA3	ZG	0.00	0.00	0.38	8.43	4057	-90	-104 150	QA3	ZG	0.00	8.43	2.27	8.43
4057	-90	-104 151	QA3	ZG	0.38	8.43	2.27	8.43	4057	-90	-104 151	QA3	ZG	0.00	0.00	0.38	8.43
4058	-91	-105 151	QA3	ZG	0.00	8.43	1.90	8.43	4058	-91	-105 152	QA3	ZG	0.38	8.43	1.90	8.43
4058	-91	-105 152	QA3	ZG	0.00	0.00	0.38	8.43	4059	-92	-106 152	QA3	ZG	0.00	8.43	1.52	8.43
4059	-92	-106 153	QA3	ZG	0.38	8.43	1.52	8.43	4059	-92	-106 153	QA3	ZG	0.00			

4060	-93	-107 154	QA3	ZG	0.00	0.00	0.38	8.43	4061	-94	-108 154	QA3	ZG	0.00	8.43	0.76	8.43
4061	-94	-108 155	QA3	ZG	0.38	8.43	0.76	8.43	4061	-94	-108 155	QA3	ZG	0.00	0.00	0.38	8.43
4062	-95	-109 155	QA3	ZG	0.00	8.43	0.38	8.43	4062	-95	-109 156	QA3	ZG	0.00	0.00	0.38	8.43
4063	-65	-77 101	QA3	ZG	0.00	7.44	1.98	7.44	4063	-65	-77 113	QA3	ZG	1.71	7.43	1.98	0.00
4063	-65	-77 113	QA3	ZG	0.00	7.44	1.71	7.43	4064	-66	-79 113	QA3	ZG	0.00	7.44	1.71	7.44
4064	-66	-79 112	QA3	ZG	1.53	4.92	1.71	0.00	4064	-66	-79 112	QA3	ZG	1.44	7.44	1.53	4.92
4064	-66	-79 112	QA3	ZG	0.00	7.44	1.44	7.44	4065	-67	-80 112	QA3	ZG	0.00	7.44	1.44	7.44
4065	-67	-80 111	QA3	ZG	1.17	7.44	1.44	0.00	4065	-67	-80 111	QA3	ZG	0.00	7.44	1.17	7.44
4066	-68	-81 111	QA3	ZG	0.00	7.44	1.17	7.44	4066	-68	-81 110	QA3	ZG	0.90	7.42	1.17	0.00
4066	-68	-81 110	QA3	ZG	0.00	7.44	0.90	7.42	4069	-78	-72 102	QA3	ZG	0.00	0.00	0.58	8.86
4069	-78	-72 100	QA3	ZG	0.00	5.84	2.65	5.83	4069	-78	-72 102	QA3	ZG	0.58	8.86	2.65	8.87
4070	-69	-82 110	QA3	ZG	0.00	7.44	0.90	7.42	4070	-69	-82 109	QA3	ZG	0.66	6.51	0.90	0.00
4070	-69	-82 109	QA3	ZG	0.63	7.44	0.66	6.51	4070	-69	-82 109	QA3	ZG	0.00	7.44	0.63	7.44
4071	-86	-73 103	QA3	ZG	0.00	0.00	0.59	8.87	4071	-86	-73 102	QA3	ZG	0.00	8.86	2.06	8.87
4071	-86	-73 103	QA3	ZG	0.59	8.87	2.06	8.87	4072	-70	-83 109	QA3	ZG	0.00	7.44	0.63	7.44
4072	-70	-83 108	QA3	ZG	0.36	7.44	0.63	0.00	4072	-70	-83 108	QA3	ZG	0.00	7.44	0.36	7.44
4073	-87	-74 104	QA3	ZG	0.00	0.00	0.59	8.87	4073	-87	-74 103	QA3	ZG	0.00	8.87	1.48	8.87
4073	-87	-74 104	QA3	ZG	0.59	8.87	1.48	8.87	4074	-71	-84 108	QA3	ZG	0.00	7.44	0.36	7.44
4074	-71	-84 107	QA3	ZG	0.00	9.84	0.36	0.00	4075	-88	-75 105	QA3	ZG	0.00	0.00	0.58	8.87
4075	-88	-75 104	QA3	ZG	0.00	8.87	0.89	8.87	4075	-88	-75 105	QA3	ZG	0.58	8.87	0.89	8.87
4076	-85	-76 106	QA3	ZG	0.00	0.00	0.31	4.67	4076	-85	-76 105	QA3	ZG	0.00	8.87	0.31	8.87

Analisi dei carichi da vento

vento copertura peristilio

Calcolo delle azioni del vento

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio 2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Toscana, Marche, Umbria, Lazio, Abruzzo, Molise, Puglia, Campania, Basilicata, Calabria(esclusa la Provincia di Reggio Calabria)

Tempo di ritorno 50 <anni>

Altitudine sul livello del mare: 50 <m>

Altezza dell'edificio: 5 <m>

Parametri derivati dall'area di ubicazione (tab. 3.3.I):

Vb,0 (Velocità media del vento): 27 <m/sec>

a0 (Altitudine media): 500 <m>

Ka: 0.020 <1/sec>

Velocità di riferimento: 27.00 <m/sec>

Classificazione della costruzione: Pianta rettangolare con coperture piane, a falde, inclinate o curve

Categoria di esposizione del sito: I

Parametri derivati dalla categoria di esposizione del sito (tab. 3.3.II):

kr: 0.17 <m>

z0: 0.01 <m>

zmin: 2 <m>

Classe di rugosità del terreno: D

Aree prive di ostacoli (aperta campagna, aeroporti, aree agricole, pascoli zone paludose o sabbiose, superfici innevate o ghiacciate, mari, laghi, ...)

Angolo alfa: 30.0 <grad>

Pressione del vento = $q_b \cdot c_e \cdot c_p \cdot c_d$

qb (Pressione cinetica di riferimento): 45.56 <daN/mq>

ct (Coefficiente topografico): 1.00

ce (Coefficiente di esposizione): 2.37

cd (Coefficiente dinamico): 1.00

Tipologia di superficie:

Una parete con aperture di superficie minore di 1/3 di quella totale

Coefficiente di forma o aerodinamico interno cpi: 0.20

Coefficienti di forma o aerodinamici esterni cpe:

sopravento: 0.80 sopravento su falda: -0.10 sottovento su falda: -0.40 sottovento: -0.40

Pressione interna: 21.63 <daN/mq>
Pressioni esterne:
sopravento: 86.51 <daN/mq> sopravento su falda: -10.81 <daN/mq> sottovento su falda: -
43.25 <daN/mq> sottovento: -43.25 <daN/mq>

Analisi dei carichi da neve

neve

Calcolo delle azioni della neve

Normativa di riferimento:

Norme tecniche per le costruzioni D.M. 14 gennaio 2008 e Circolare 2 febbraio
2009, n. 617 del Ministero delle Infrastrutture e dei Trasporti

Area di ubicazione dell'edificio: Area 3

Agrigento, Avellino, Benevento, Brindisi, Cagliari, Caltanissetta, Carbonia-Iglesias, Caserta,
Catania, Catanzaro, Cosenza, Crotone, Enna, Frosinone, Grosseto, L'Aquila, Latina, Lecce,
Livorno, Matera, Medio Campidano, Messina, Napoli, Nuoro, Ogliastro, Olbia Tempio, Oristano,
Palermo, Pisa, Potenza, Ragusa, Reggio Calabria, Rieti, Roma, Salerno, Sassari, Siena, Siracusa,
Taranto, Terni, Trapani, Vibo Valentia, Viterbo

Altitudine sul livello del mare: 50 <m>

Tipologia di copertura: Ad una falda

Pressione della neve $p_s = \mu_1 \cdot q_{sk} \cdot C_e \cdot C_t$

Parametri d'input ed intermedi:

Categoria del coefficiente d'esposizione: Normale

C_e (Coefficiente d'esposizione): 1.0

C_t (Coefficiente termico): 1.0

Angolo d'inclinazione della falda: 30.0 <grad>

μ_1 (Coefficiente di forma della copertura): 0.80

Carichi agenti:

q_{sk} (Valore di riferimento del carico neve al suolo): 60.00 <daN/mq>

q_{ss} (Carico provocato dalla neve sulle coperture): 48.00 <daN/mq>

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati
effettuati con:

ModeSt ver. 8.30, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:

Xfinest ver. 2013, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08

Tipo di calcolo: calcolo statico

Vincoli esterni: Considera sempre vincoli assegnati in modellazione

Schematizzazione piani rigidi: nessun impalcato rigido

Modalità di recupero masse secondarie: mantenere sul nodo masse e forze relative

Generazione combinazioni

- Lineari: si
- Valuta spostamenti e non sollecitazioni: no
- Buckling: no

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed
elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: no
- Uniformare i carichi variabili: no
- Massimizzare i carichi variabili: no
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Tipo di opera: Opera ordinaria
- Vita nominale V_N : 50.00
- Classe d'uso: Classe II
- Forze orizzontali convenzionali per stati limite non sismici: 1.00%
- Genera stati limite per verifiche di resistenza al fuoco: no

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo	CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1	S		--
2		1.00	1.00	0.00	0.00	0.00	1.00	2	S		--
3		1.00	1.00	0.00	0.00	0.00	1.00	11	S		B
4		1.00	1.00	0.00	0.00	0.00	1.00	18	S		B
5		1.00	1.00	0.00	0.00	0.00	1.00	19	S		B

Elenco tipi cce definiti

Simbologia

Tipo CCE	= Tipo condizione di carico elementare
Comm.	= Commento
Tipo	= Tipologia
	G = Permanente
	Q = Variabile
	I = Da ignorare
	A = Azione eccezionale
	P = Precompressione
Durata	= Durata del carico
	N = Non definita
	P = Permanente
	L = Lunga
	M = Media
	B = Breve
	I = Istantanea
$\gamma_{min.}$	= Coeff. $\gamma_{min.}$
γ_{max}	= Coeff. γ_{max}
ψ_0	= Coeff. ψ_0
ψ_1	= Coeff. ψ_1
ψ_2	= Coeff. ψ_2
$\psi_{0,s}$	= Coeff. ψ_0 sismico (D.M. 96)

Tipo	CCE	Comm.
1		D.M. 08 Permanenti strutturali
2		D.M. 08 Permanenti non strutturali

Tipo	Durata	$\gamma_{min.}$	γ_{max}	ψ_0	ψ_1	ψ_2	$\psi_{0,s}$
G	N	1.00	1.30				
G	N	0.00	1.50				

3	D.M. 08 Variabili Categoria A Ambienti ad uso residenziale	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
4	D.M. 08 Variabili Categoria B Uffici	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
5	D.M. 08 Variabili Categoria C Ambienti suscettibili di affollamento	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
6	D.M. 08 Variabili Categoria D Ambienti ad uso commerciale	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
7	D.M. 08 Variabili Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	Q	N	0.00	1.50	1.00	0.90	0.80	0.00
8	D.M. 08 Variabili Categoria F Rimesse e parcheggi (per autoveicoli di peso <= 30 kN)	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
9	D.M. 08 Variabili Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
10	D.M. 08 Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00
11	D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
12	D.M. 08 Variabili Neve (a quota > 1000 m s.l.m.)	Q	N	0.00	1.50	0.70	0.50	0.20	0.00
13	D.M. 08 Variabili Variazioni termiche	Q	N	0.00	1.50	0.60	0.50	0.00	0.00
14	D.M. 96 Permanenti	G	N	1.00	1.40				
15	D.M. 96 Variabili Abitazioni	Q	P	0.00	1.50	0.70	0.50	0.20	0.70
16	D.M. 96 Variabili Uffici, negozi, scuole, ecc.	Q	N	0.00	1.50	0.70	0.60	0.30	0.70
17	D.M. 96 Variabili Autorimesse	Q	N	0.00	1.50	0.70	0.70	0.60	0.70
18	D.M. 96 Variabili Vento	Q	N	0.00	1.50	0.70	0.20	0.00	0.00
19	D.M. 08 Variabili Categoria H - Coperture	Q	N	0.00	1.50	0.00	0.00	0.00	1.00

Ambienti di carico

Simbologia

N	Numero
Comm.	Commento
1	
2	
3	
4	
5	
F	azioni orizzontali convenzionali
SLU	Stato limite ultimo
SLR	Stato limite per combinazioni rare
SLF	Stato limite per combinazioni frequenti
SLQ	Stato limite per combinazioni quasi permanenti o di danno

N	Comm.	1	2	3	4	5	SLU	SLR	SLF	SLQ
1	Calcolo statico	si	si	si	si	si	si	si	si	si

Elenco combinazioni di carico simboliche

Simbologia

CC	= Numero della combinazione delle condizioni di carico elementari
Comm.	= Commento
TCC	= Tipo di combinazione di carico
SLU	= Stato limite ultimo
SLU S	= Stato limite ultimo (azione sismica)
SLE R	= Stato limite d'esercizio, combinazione rara
SLE F	= Stato limite d'esercizio, combinazione frequente
SLE Q	= Stato limite d'esercizio, combinazione quasi permanente
SLD	= Stato limite di danno
SLV	= Stato limite di salvaguardia della vita
SLC	= Stato limite di prevenzione del collasso
SLO	= Stato limite di operatività
SLU I	= Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5
1 Amb.	1 (SLU)	SLU	γ max	γ max	γ max	γ max	γ max
2 Amb.	1 (SLE R)	SLE R	1	1	1	1	1
3 Amb.	1 (SLE F)	SLE F	1	ψ_1	ψ_1	ψ_1	ψ_1
4 Amb.	1 (SLE Q)	SLE Q	1	ψ_2	ψ_2	ψ_2	ψ_2

Genera le combinazioni con un solo carico di tipo variabile come di base: no

Considera sollecitazioni dinamiche con segno dei modi principali: no

Combinazioni delle cce

Simbologia

CC	= Numero della combinazione delle condizioni di carico elementari
Comm.	= Commento
TCC	= Tipo di combinazione di carico
SLU	= Stato limite ultimo
SLU S	= Stato limite ultimo (azione sismica)
SLE R	= Stato limite d'esercizio, combinazione rara
SLE F	= Stato limite d'esercizio, combinazione frequente
SLE Q	= Stato limite d'esercizio, combinazione quasi permanente
SLD	= Stato limite di danno
SLV	= Stato limite di salvaguardia della vita

SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
An. = Tipo di analisi
L = Lineare
NL = Non lineare
Bk = Buckling
S = Si
N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5
1 CC 1 - Amb. 1 (SLU)		SLU	L	N	1.30	1.50	1.50	0.90	0.00
2		SLU	L	N	1.30	1.50	0.75	1.50	0.00
3		SLU	L	N	1.30	1.50	0.75	0.90	1.50
4 CC 2 - Amb. 1 (SLE R)		SLE R L	N		1.00	1.00	1.00	0.60	0.00
5		SLE R L	N		1.00	1.00	0.50	1.00	0.00
6		SLE R L	N		1.00	1.00	0.50	0.60	1.00
7 CC 3 - Amb. 1 (SLE F)		SLE F L	N		1.00	1.00	0.20	0.20	0.00
8 CC 4 - Amb. 1 (SLE Q)		SLE Q L	N		1.00	1.00	0.00	0.00	0.00

Spostamenti dei nodi allo stato limite ultimo

Simbologia

Nodo = Numero del nodo
Sx = Spostamento in dir. X
CC = Numero della combinazione delle condizioni di carico elementari
Sy = Spostamento in dir. Y
Sz = Spostamento in dir. Z
Rx = Rotazione intorno all'asse X
Ry = Rotazione intorno all'asse Y
Rz = Rotazione intorno all'asse Z

Nodo	Sx	CC	Sy	CC	Sz	CC	Rx	CC	Ry	CC	Rz	CC
	<cm>		<cm>		<cm>		<rad>		<rad>		<rad>	
-1104 Max	-0.29	8	0.06	3	0.01	3	0.00	3	-0.01	8	0.00	8
-1104 Min.	-0.85	3	0.02	8	0.00	8	0.00	8	-0.02	3	0.00	3
-1103 Max	-0.28	8	0.06	3	0.04	3	0.00	3	-0.01	8	0.00	8
-1103 Min.	-0.84	3	0.02	8	0.01	8	0.00	8	-0.02	3	0.00	3
-1102 Max	-0.28	8	0.06	3	0.04	3	0.00	8	-0.01	8	0.00	8
-1102 Min.	-0.83	3	0.02	8	0.01	8	-0.00	3	-0.02	3	0.00	3
-1101 Max	-0.25	8	0.06	3	-0.13	8	-0.00	8	-0.01	8	0.00	8
-1101 Min.	-0.76	3	0.02	8	-0.35	3	-0.01	3	-0.02	3	-0.00	3
-1100 Max	-0.24	8	0.06	3	-0.25	8	-0.00	8	-0.00	8	0.00	8
-1100 Min.	-0.71	3	0.02	8	-0.70	3	-0.01	3	-0.01	3	-0.00	3
-1099 Max	-0.21	8	0.06	3	-0.35	8	-0.00	8	-0.00	8	0.00	8
-1099 Min.	-0.64	3	0.02	8	-0.98	3	-0.01	3	-0.01	3	-0.00	3
-1098 Max	-0.18	8	0.06	3	-0.40	8	0.00	8	-0.00	8	0.00	8
-1098 Min.	-0.55	3	0.02	8	-1.13	3	-0.00	3	-0.01	3	-0.00	3
-1097 Max	-0.15	8	0.06	3	-0.39	8	0.00	3	-0.00	8	-0.00	8
-1097 Min.	-0.45	3	0.02	8	-1.11	3	0.00	8	-0.01	3	-0.00	3
-1096 Max	-0.11	8	0.06	3	-0.31	8	0.01	3	-0.00	8	-0.00	8
-1096 Min.	-0.33	3	0.02	8	-0.89	3	0.00	8	-0.01	3	-0.00	3
-1071 Max	0.05	3	-0.02	8	-0.14	8	0.01	3	0.00	3	0.00	3
-1071 Min.	0.02	8	-0.04	3	-0.27	3	0.00	8	0.00	8	0.00	8
-1070 Max	0.17	3	-0.02	8	-0.22	8	0.00	3	0.00	3	0.00	3
-1070 Min.	0.06	8	-0.04	3	-0.41	3	0.00	8	0.00	8	0.00	8
-1069 Max	0.27	3	-0.02	8	-0.22	8	0.00	8	0.01	3	0.00	3
-1069 Min.	0.10	8	-0.04	3	-0.43	3	-0.00	3	0.00	8	0.00	8
-1068 Max	0.37	3	-0.02	8	-0.17	8	-0.00	8	0.01	3	0.00	3
-1068 Min.	0.13	8	-0.04	3	-0.33	3	-0.00	3	0.00	8	0.00	8
-1067 Max	0.45	3	-0.02	8	-0.10	8	-0.00	8	0.01	3	0.00	3
-1067 Min.	0.16	8	-0.04	3	-0.18	3	-0.00	3	0.00	8	0.00	8
-1066 Max	0.58	3	-0.02	8	-0.10	8	0.00	3	0.01	3	0.00	3
-1066 Min.	0.20	8	-0.04	3	-0.18	3	0.00	8	0.00	8	0.00	8
-1065 Max	0.63	3	-0.02	8	-0.17	8	0.00	3	0.01	3	0.00	3
-1065 Min.	0.22	8	-0.04	3	-0.33	3	0.00	8	0.00	8	0.00	8
-1064 Max	0.67	3	-0.02	8	-0.22	8	0.00	3	0.01	3	0.00	3
-1064 Min.	0.23	8	-0.04	3	-0.43	3	0.00	8	0.00	8	0.00	8
-1063 Max	0.70	3	-0.02	8	-0.21	8	-0.00	8	0.01	3	0.00	3
-1063 Min.	0.24	8	-0.04	3	-0.41	3	-0.00	3	0.00	8	0.00	8
-1062 Max	-0.02	8	-0.04	8	-0.02	8	0.00	3	0.00	3	0.00	3
-1062 Min.	-0.06	3	-0.13	3	-0.06	3	0.00	8	0.00	8	0.00	8
-1061 Max	-0.02	8	-0.10	8	-0.02	8	0.01	3	0.00	3	0.00	3
-1061 Min.	-0.07	3	-0.30	3	-0.05	3	0.00	8	0.00	8	0.00	8
-1060 Max	-0.02	8	-0.20	8	-0.04	8	0.01	3	0.00	8	0.00	3
-1060 Min.	-0.07	3	-0.60	3	-0.10	3	0.00	8	-0.00	3	0.00	8
-1059 Max	-0.02	8	-0.24	8	-0.05	8	0.01	3	0.00	8	0.00	3
-1059 Min.	-0.07	3	-0.73	3	-0.14	3	0.00	8	0.00	3	0.00	8

-1058 Max	-0.02	8	-0.28	8	-0.05	8	0.02	3	0.00	3	0.00	3
-1058 Min.	-0.07	3	-0.84	3	-0.13	3	0.01	8	0.00	8	0.00	8
-1057 Max	-0.02	8	-0.30	8	-0.03	8	0.02	3	0.00	3	0.00	3
-1057 Min.	-0.07	3	-0.92	3	-0.08	3	0.01	8	0.00	8	0.00	8
-1056 Max	-0.02	8	-0.33	8	-0.02	8	0.02	3	0.00	3	0.00	3
-1056 Min.	-0.07	3	-0.99	3	-0.05	3	0.01	8	0.00	8	0.00	8
-1055 Max	-0.02	8	-0.35	8	-0.03	8	0.02	3	0.00	8	0.00	3
-1055 Min.	-0.07	3	-1.05	3	-0.09	3	0.01	8	-0.00	3	0.00	8
-1054 Max	-0.02	8	-0.36	8	-0.05	8	0.02	3	0.00	8	0.00	3
-1054 Min.	-0.07	3	-1.08	3	-0.13	3	0.01	8	0.00	3	0.00	8
-1053 Max	-0.02	8	-0.36	8	-0.05	8	0.02	3	0.00	3	0.00	3
-1053 Min.	-0.07	3	-1.10	3	-0.12	3	0.01	8	0.00	8	0.00	8
-1052 Max	-0.02	8	-0.36	8	-0.03	8	0.02	3	0.00	3	0.00	8
-1052 Min.	-0.07	3	-1.09	3	-0.08	3	0.01	8	0.00	8	0.00	3
-1051 Max	-0.02	8	-0.35	8	-0.03	8	0.02	3	0.00	8	0.00	8
-1051 Min.	-0.07	3	-1.07	3	-0.06	3	0.01	8	0.00	3	0.00	3
-1050 Max	-0.02	8	-0.34	8	-0.04	8	0.02	3	0.00	8	0.00	8
-1050 Min.	-0.07	3	-1.03	3	-0.11	3	0.01	8	0.00	3	-0.00	3
-1049 Max	-0.02	8	-0.32	8	-0.05	8	0.02	3	0.00	3	0.00	8
-1049 Min.	-0.07	3	-0.96	3	-0.13	3	0.01	8	0.00	8	-0.00	3
-1048 Max	-0.02	8	-0.29	8	-0.04	8	0.01	3	0.00	3	0.00	8
-1048 Min.	-0.07	3	-0.88	3	-0.10	3	0.00	8	0.00	8	-0.00	3
-1047 Max	-0.02	8	-0.26	8	-0.02	8	0.01	3	0.00	3	0.00	8
-1047 Min.	-0.07	3	-0.78	3	-0.06	3	0.00	8	0.00	8	-0.00	3
-1046 Max	-0.02	8	-0.22	8	-0.03	8	0.01	3	0.00	8	0.00	8
-1046 Min.	-0.07	3	-0.67	3	-0.07	3	0.00	8	0.00	3	-0.00	3
-1045 Max	-0.02	8	-0.18	8	-0.05	8	0.01	3	0.00	8	-0.00	8
-1045 Min.	-0.07	3	-0.54	3	-0.13	3	0.00	8	-0.00	3	-0.00	3
-1044 Max	-0.02	8	-0.13	8	-0.06	8	0.01	3	0.00	8	-0.00	8
-1044 Min.	-0.07	3	-0.39	3	-0.17	3	0.00	8	0.00	3	-0.00	3
-1043 Max	-0.02	8	-0.07	8	-0.05	8	0.00	3	0.00	3	-0.00	8
-1043 Min.	-0.07	3	-0.22	3	-0.14	3	0.00	8	0.00	8	-0.00	3
-1034 Max	-0.07	8	0.06	3	-0.18	8	0.01	3	-0.00	8	-0.00	8
-1034 Min.	-0.20	3	0.02	8	-0.52	3	0.00	8	-0.00	3	-0.00	3
-1033 Max	0.73	3	-0.02	8	-0.14	8	-0.00	8	0.01	3	0.00	3
-1033 Min.	0.25	8	-0.04	3	-0.27	3	-0.01	3	0.00	8	0.00	8
-1032 Max	-0.40	8	0.06	3	0.24	3	0.00	3	0.00	3	0.00	8
-1032 Min.	-1.19	3	0.02	8	0.08	8	0.00	8	0.00	8	0.00	3
-1031 Max	-0.41	8	0.06	3	0.41	3	0.00	8	0.01	3	0.00	8
-1031 Min.	-1.23	3	0.02	8	0.13	8	0.00	3	0.00	8	0.00	3
-1030 Max	-0.41	8	0.07	3	0.44	3	0.00	8	0.01	3	0.00	8
-1030 Min.	-1.22	3	0.02	8	0.15	8	0.00	3	0.00	8	0.00	3
-1029 Max	-0.40	8	0.10	3	0.44	3	0.00	8	0.01	3	0.00	8
-1029 Min.	-1.19	3	0.03	8	0.14	8	0.00	3	0.00	8	0.00	3
-1028 Max	-0.38	8	0.17	3	0.31	3	0.00	8	0.01	3	0.00	8
-1028 Min.	-1.15	3	0.05	8	0.10	8	0.00	3	0.00	8	0.00	3
-1027 Max	-0.36	8	0.22	3	-0.02	8	0.00	8	0.00	3	0.00	8
-1027 Min.	-1.07	3	0.07	8	-0.04	3	-0.00	3	0.00	8	-0.00	3
-1026 Max	-0.33	8	0.23	3	-0.17	8	0.00	8	0.00	3	0.00	8
-1026 Min.	-0.97	3	0.08	8	-0.47	3	-0.00	3	0.00	8	-0.00	3
-1025 Max	-0.29	8	0.20	3	-0.29	8	-0.00	8	0.00	3	0.00	8
-1025 Min.	-0.86	3	0.07	8	-0.82	3	-0.00	3	0.00	8	-0.00	3
-1024 Max	-0.24	8	0.14	3	-0.36	8	-0.00	8	0.00	3	0.00	8
-1024 Min.	-0.73	3	0.05	8	-1.01	3	-0.00	3	0.00	8	-0.00	3
-1023 Max	-0.20	8	0.08	3	-0.35	8	-0.00	8	0.00	3	-0.00	8
-1023 Min.	-0.60	3	0.02	8	-0.99	3	-0.01	3	0.00	8	-0.00	3
-1022 Max	-0.16	8	0.01	3	-0.26	8	-0.00	8	0.00	3	-0.00	8
-1022 Min.	-0.47	3	0.00	8	-0.74	3	-0.01	3	0.00	8	-0.00	3
-1021 Max	-0.11	8	-0.01	8	-0.10	8	-0.00	8	0.00	3	-0.00	8
-1021 Min.	-0.34	3	-0.03	3	-0.25	3	-0.01	3	0.00	8	-0.00	3
-1020 Max	1.00	3	0.06	1	0.13	3	0.00	8	0.00	8	0.00	3
-1020 Min.	0.35	8	0.04	6	0.04	8	0.00	3	-0.00	3	0.00	8
-1019 Max	0.96	3	0.04	1	-0.10	6	0.00	8	0.00	8	0.00	3
-1019 Min.	0.33	8	0.02	6	-0.14	1	0.00	3	-0.00	3	0.00	8
-1018 Max	0.91	3	0.00	8	-0.20	8	0.00	8	0.00	8	0.00	3
-1018 Min.	0.31	8	-0.01	3	-0.33	3	-0.00	3	-0.00	3	0.00	8
-1017 Max	0.87	3	-0.03	8	-0.22	8	0.00	8	0.00	8	0.00	3
-1017 Min.	0.29	8	-0.07	3	-0.36	3	-0.00	3	-0.00	3	0.00	8
-1016 Max	0.83	3	-0.05	8	-0.16	8	-0.00	8	0.00	8	0.00	3
-1016 Min.	0.28	8	-0.10	3	-0.25	3	-0.00	3	-0.00	3	0.00	8
-1015 Max	0.78	3	-0.05	8	-0.04	6	-0.00	8	0.00	8	0.00	3
-1015 Min.	0.27	8	-0.10	3	-0.07	1	-0.00	3	-0.00	3	0.00	8
-1014 Max	0.72	3	-0.02	8	0.05	3	-0.00	8	0.00	8	0.00	3
-1014 Min.	0.25	8	-0.04	3	0.00	8	-0.00	3	-0.00	3	0.00	8
-1013 Max	0.61	3	0.02	1	-0.06	6	-0.00	8	0.00	8	0.00	3
-1013 Min.	0.21	8	0.01	6	-0.09	1	-0.00	3	-0.00	3	0.00	8
-1012 Max	0.48	3	0.02	1	-0.17	8	-0.00	8	0.00	8	0.00	3
-1012 Min.	0.16	8	0.01	6	-0.29	3	-0.00	3	0.00	3	0.00	8
-1011 Max	0.34	3	-0.00	8	-0.24	8	-0.00	8	0.00	8	0.00	3

-1011 Min.	0.11	8	-0.01	3	-0.43	3	-0.00	3	0.00	6	0.00	8
-1010 Max	0.21	3	-0.03	8	-0.24	8	-0.00	8	0.00	8	0.00	3
-1010 Min.	0.06	8	-0.07	3	-0.43	3	-0.01	3	0.00	6	0.00	8
-1009 Max	0.09	3	-0.06	8	-0.14	8	-0.00	8	0.00	8	0.00	3
-1009 Min.	0.03	8	-0.11	3	-0.24	3	-0.01	3	0.00	3	0.00	8
-1008 Max	-0.00	8	-0.10	8	0.26	3	-0.00	8	0.01	3	0.00	3
-1008 Min.	-0.01	3	-0.29	3	0.08	8	-0.01	3	0.00	8	0.00	8
-1007 Max	-0.00	8	-0.17	8	0.29	3	-0.00	8	0.01	3	0.00	3
-1007 Min.	-0.00	3	-0.51	3	0.09	8	-0.01	3	0.00	8	0.00	8
-1006 Max	-0.01	8	-0.23	8	0.31	3	-0.00	8	0.01	3	0.00	3
-1006 Min.	-0.03	3	-0.70	3	0.10	8	-0.01	3	0.00	8	0.00	8
-1005 Max	-0.01	8	-0.29	8	0.25	3	-0.00	8	0.01	3	0.00	3
-1005 Min.	-0.04	3	-0.87	3	0.08	8	-0.01	3	0.00	8	0.00	8
-1004 Max	-0.01	8	-0.34	8	0.21	3	-0.00	8	0.01	3	0.00	3
-1004 Min.	-0.04	3	-1.03	3	0.06	8	-0.01	3	0.00	8	0.00	8
-1003 Max	-0.01	8	-0.38	8	0.23	3	-0.00	8	0.00	3	0.00	3
-1003 Min.	-0.03	3	-1.16	3	0.07	8	-0.01	3	0.00	8	0.00	8
-1002 Max	-0.01	8	-0.42	8	0.30	3	-0.00	8	0.00	3	0.00	3
-1002 Min.	-0.03	3	-1.27	3	0.10	8	-0.01	3	0.00	8	0.00	8
-1001 Max	-0.02	8	-0.45	8	0.35	3	-0.00	8	0.00	3	0.00	3
-1001 Min.	-0.05	3	-1.35	3	0.11	8	-0.01	3	0.00	8	0.00	8
-1000 Max	-0.02	8	-0.47	8	0.31	3	-0.00	8	0.00	3	0.00	3
-1000 Min.	-0.07	3	-1.42	3	0.10	8	-0.01	3	0.00	8	0.00	8
-999 Max	-0.02	8	-0.48	8	0.26	3	-0.00	8	0.00	3	0.00	3
-999 Min.	-0.07	3	-1.46	3	0.08	8	-0.01	3	0.00	8	0.00	8
-998 Max	-0.02	8	-0.49	8	0.27	3	-0.00	8	0.00	3	0.00	3
-998 Min.	-0.07	3	-1.47	3	0.08	8	-0.01	3	0.00	8	0.00	8
-997 Max	-0.02	8	-0.48	8	0.33	3	-0.00	8	0.00	8	0.00	8
-997 Min.	-0.07	3	-1.47	3	0.10	8	-0.01	3	0.00	3	0.00	3
-996 Max	-0.03	8	-0.48	8	0.34	3	-0.00	8	0.00	8	0.00	8
-996 Min.	-0.10	3	-1.44	3	0.11	8	-0.01	3	-0.00	3	0.00	3
-995 Max	-0.04	8	-0.46	8	0.28	3	-0.00	8	0.00	8	0.00	8
-995 Min.	-0.11	3	-1.39	3	0.09	8	-0.01	3	-0.00	3	-0.00	3
-994 Max	-0.03	8	-0.43	8	0.25	3	-0.00	8	-0.00	8	0.00	8
-994 Min.	-0.10	3	-1.31	3	0.08	8	-0.01	3	-0.00	3	-0.00	3
-993 Max	-0.03	8	-0.40	8	0.28	3	-0.00	8	-0.00	8	0.00	8
-993 Min.	-0.10	3	-1.21	3	0.09	8	-0.01	3	-0.00	3	-0.00	3
-992 Max	-0.04	8	-0.36	8	0.33	3	-0.00	8	-0.00	8	0.00	8
-992 Min.	-0.12	3	-1.08	3	0.11	8	-0.01	3	-0.00	3	-0.00	3
-991 Max	-0.05	8	-0.32	8	0.30	3	-0.00	8	-0.00	8	0.00	8
-991 Min.	-0.14	3	-0.95	3	0.10	8	-0.01	3	-0.01	3	-0.00	3
-990 Max	-0.05	8	-0.26	8	0.21	3	-0.00	8	-0.00	8	-0.00	8
-990 Min.	-0.16	3	-0.78	3	0.07	8	-0.01	3	-0.01	3	-0.00	3
-989 Max	-0.05	8	-0.20	8	0.16	3	-0.00	8	-0.00	8	-0.00	8
-989 Min.	-0.15	3	-0.59	3	0.05	8	-0.01	3	-0.01	3	-0.00	3
-988 Max	-0.04	8	-0.13	8	0.18	3	-0.00	8	-0.00	8	-0.00	8
-988 Min.	-0.12	3	-0.39	3	0.05	8	-0.01	3	-0.01	3	-0.00	3
-986 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	8	0.00	8
-986 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	3	0.00	3
-985 Max	0.00	3	0.05	3	-0.02	8	0.00	8	0.00	8	0.00	3
-985 Min.	0.00	8	0.02	8	-0.02	3	0.00	3	0.00	3	0.00	8
-984 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	8	0.00	8
-984 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	3	0.00	3
-983 Max	0.00	3	0.05	3	-0.02	8	0.00	8	0.00	8	0.00	8
-983 Min.	0.00	8	0.02	8	-0.02	3	0.00	3	0.00	3	0.00	3
-982 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	8	0.00	8
-982 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	3	0.00	3
-981 Max	0.00	3	0.05	3	-0.02	8	0.00	8	0.00	8	0.00	8
-981 Min.	0.00	8	0.02	8	-0.02	3	0.00	3	0.00	3	0.00	3
-978 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	8	0.00	3
-978 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	8
-977 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	8	0.00	8
-977 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-976 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	8	0.00	8
-976 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-973 Max	0.00	6	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	3
-973 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	8
-972 Max	0.00	3	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-972 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-971 Max	0.00	3	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-971 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-966 Max	0.00	6	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	3
-966 Min.	0.00	1	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	8
-964 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	8	0.00	6
-964 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	1
-962 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	8	0.00	8
-962 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-960 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	8	0.00	8
-960 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	3	0.00	3

-959 Max	0.00	3	0.05	3	-0.02	8	0.00	8	0.00	8	0.00	8
-959 Min.	0.00	8	0.02	8	-0.02	3	0.00	3	0.00	3	0.00	3
-958 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	8	0.00	8
-958 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-957 Max	0.00	3	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-957 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-956 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	8	0.00	8
-956 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-954 Max	0.00	3	0.00	1	-0.01	8	0.00	1	0.00	3	0.00	3
-954 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-953 Max	0.00	3	0.00	1	-0.01	8	0.00	1	0.00	3	0.00	3
-953 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-952 Max	0.03	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-952 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-951 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-951 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-950 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-950 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-949 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-949 Min.	0.00	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-948 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-948 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-947 Max	0.03	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-947 Min.	0.01	8	0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-946 Max	0.04	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-946 Min.	0.01	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-945 Max	0.01	3	0.00	1	-0.01	8	0.00	1	0.00	3	0.00	3
-945 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-944 Max	0.01	3	0.00	1	-0.01	8	0.00	1	0.00	3	0.00	3
-944 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-943 Max	0.05	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-943 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-942 Max	0.03	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-942 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-941 Max	0.03	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-941 Min.	0.01	8	0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-940 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-940 Min.	0.01	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-939 Max	0.02	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-939 Min.	0.01	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-938 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-938 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-937 Max	0.01	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-937 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-936 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-936 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-935 Max	0.00	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-935 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-934 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-934 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-933 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-933 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-932 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-932 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-931 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-931 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-930 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-930 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-929 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-929 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-928 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-928 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-927 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-927 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-926 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-926 Min.	0.00	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-925 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-925 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-924 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-924 Min.	0.01	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-923 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-923 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-922 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-922 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-921 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-921 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-920 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-920 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-919 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3

-919 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-918 Max	0.01	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-918 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-917 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-917 Min.	0.01	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-916 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-916 Min.	0.01	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-915 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-915 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-914 Max	0.00	3	0.00	8	-0.00	8	0.00	2	0.00	3	0.00	3
-914 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-913 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-913 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-912 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-912 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-911 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-911 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-910 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-910 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-909 Max	0.03	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-909 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-908 Max	0.04	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-908 Min.	0.01	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-907 Max	0.05	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-907 Min.	0.02	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-906 Max	0.06	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-906 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-905 Max	0.07	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-905 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-904 Max	0.05	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-904 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-903 Max	0.04	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-903 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-902 Max	0.03	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-902 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-901 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-901 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-900 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-900 Min.	0.00	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-899 Max	0.00	3	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-899 Min.	0.00	8	-0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-898 Max	0.00	3	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-898 Min.	0.00	8	0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-897 Max	0.00	3	0.00	8	-0.02	8	0.00	3	0.00	6	0.00	3
-897 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-896 Max	0.00	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-896 Min.	0.00	8	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-895 Max	0.00	3	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-895 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-894 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-894 Min.	0.00	8	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-893 Max	0.00	3	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-893 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-892 Max	0.00	1	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-892 Min.	0.00	6	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-891 Max	0.00	1	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-891 Min.	0.00	6	0.00	6	-0.00	3	0.00	8	0.00	8	0.00	8
-890 Max	0.00	3	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-890 Min.	0.00	8	0.00	6	-0.00	3	0.00	8	0.00	8	0.00	8
-889 Max	0.00	3	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-889 Min.	0.00	8	0.00	6	-0.00	3	0.00	8	0.00	8	0.00	8
-888 Max	0.00	3	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-888 Min.	0.00	8	0.00	6	-0.00	3	0.00	8	0.00	8	0.00	8
-887 Max	0.00	3	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-887 Min.	0.00	8	0.00	6	-0.00	3	0.00	8	0.00	8	0.00	8
-886 Max	0.00	3	0.00	1	-0.00	8	0.00	1	0.00	3	0.00	3
-886 Min.	0.00	8	0.00	6	-0.01	3	0.00	6	0.00	8	0.00	8
-885 Max	0.00	3	0.00	1	-0.00	8	0.00	3	0.00	3	0.00	3
-885 Min.	0.00	8	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-875 Max	-0.00	6	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-875 Min.	-0.00	8	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-874 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-874 Min.	-0.00	8	0.01	8	-0.06	3	0.00	3	0.00	8	0.00	3
-873 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-873 Min.	0.00	8	0.01	8	-0.06	3	0.00	3	0.00	8	0.00	3
-872 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-872 Min.	-0.00	8	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-871 Max	-0.00	6	0.00	3	-0.04	8	0.00	8	0.00	3	0.00	8
-871 Min.	-0.00	8	0.00	8	-0.05	3	0.00	3	0.00	8	0.00	3

-870 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-870 Min.	-0.00	8	0.00	8	-0.06	3	0.00	3	0.00	8	0.00	3
-860 Max	0.00	3	0.02	3	-0.04	8	0.00	3	0.00	3	0.00	3
-860 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-859 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-859 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-858 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-858 Min.	0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-852 Max	0.00	3	0.02	3	-0.04	8	0.00	3	0.00	3	0.00	3
-852 Min.	-0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	8
-851 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-851 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	8
-850 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-850 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	8
-849 Max	0.01	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-849 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	3
-848 Max	0.01	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-848 Min.	0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	3
-847 Max	0.00	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	1
-847 Min.	-0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	6
-841 Max	0.01	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-841 Min.	0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	3
-840 Max	0.00	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-840 Min.	0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	3
-839 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-839 Min.	-0.00	8	0.01	8	-0.06	3	0.00	3	0.00	8	0.00	3
-829 Max	-0.00	3	0.02	3	-0.04	8	0.00	3	0.00	3	0.00	3
-829 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-828 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-828 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-827 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-827 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-826 Max	0.00	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-826 Min.	0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-825 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-825 Min.	0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-824 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-824 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	8
-823 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	8
-823 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	3
-822 Max	0.01	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-822 Min.	0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	3
-821 Max	0.01	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-821 Min.	0.00	8	0.01	8	-0.06	3	0.00	3	0.00	8	0.00	3
-820 Max	0.00	3	0.01	3	-0.04	8	0.00	8	0.00	3	0.00	8
-820 Min.	-0.00	8	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-819 Max	-0.00	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	8
-819 Min.	-0.01	3	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-818 Max	-0.00	8	0.01	3	-0.03	8	0.00	8	0.00	3	0.00	8
-818 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	3
-817 Max	-0.00	8	0.01	3	-0.03	8	0.00	8	0.00	8	0.00	8
-817 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3
-816 Max	-0.00	8	0.00	3	-0.03	8	0.00	8	0.00	8	0.00	8
-816 Min.	-0.01	3	0.00	8	-0.04	3	0.00	3	0.00	3	0.00	3
-815 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-815 Min.	-0.00	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-814 Max	-0.00	6	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-814 Min.	-0.00	1	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-813 Max	0.00	6	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-813 Min.	-0.00	1	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-812 Max	0.00	3	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-812 Min.	0.00	8	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-811 Max	0.00	3	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-811 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-810 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	8
-810 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	3
-803 Max	0.01	3	0.00	1	-0.04	8	0.00	3	0.00	3	0.00	3
-803 Min.	0.00	8	0.00	6	-0.05	3	0.00	8	0.00	8	0.00	8
-795 Max	-0.02	8	-0.15	8	-0.02	8	0.01	3	0.00	8	0.00	3
-795 Min.	-0.07	3	-0.46	3	-0.04	3	0.00	8	0.00	3	0.00	8
-794 Max	-0.01	8	0.01	3	-0.03	8	0.00	8	0.00	8	0.00	8
-794 Min.	-0.02	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3
-793 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-793 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-792 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-792 Min.	-0.04	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-791 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-791 Min.	-0.04	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-790 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8

-790 Min.	-0.05	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-789 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-789 Min.	-0.06	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-788 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-788 Min.	-0.06	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-787 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-787 Min.	-0.07	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-786 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-786 Min.	-0.07	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-785 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-785 Min.	-0.08	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-784 Max	-0.03	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-784 Min.	-0.08	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-783 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-783 Min.	-0.02	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-782 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-782 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-781 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-781 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-780 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-780 Min.	-0.04	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-779 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-779 Min.	-0.04	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-778 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-778 Min.	-0.05	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-777 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-777 Min.	-0.06	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-776 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-776 Min.	-0.06	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-775 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-775 Min.	-0.06	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-774 Max	-0.02	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-774 Min.	-0.07	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-773 Max	-0.03	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-773 Min.	-0.07	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-772 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-772 Min.	-0.02	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-771 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-771 Min.	-0.02	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-770 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-770 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-769 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-769 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-768 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-768 Min.	-0.04	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-767 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-767 Min.	-0.04	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-766 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-766 Min.	-0.05	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-765 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-765 Min.	-0.05	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-764 Max	-0.02	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-764 Min.	-0.05	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-763 Max	-0.02	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-763 Min.	-0.06	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-762 Max	-0.02	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-762 Min.	-0.06	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-761 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-761 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-760 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-760 Min.	-0.02	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-759 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-759 Min.	-0.02	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-758 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-758 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-757 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-757 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-756 Max	-0.01	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-756 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-755 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-755 Min.	-0.04	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-754 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-754 Min.	-0.04	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-753 Max	-0.02	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-753 Min.	-0.04	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-752 Max	-0.02	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-752 Min.	-0.05	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-751 Max	-0.02	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-751 Min.	-0.05	3	0.00	8	-0.02	3	0.00	6	0.00	3	0.00	3

-750 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-750 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-749 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-749 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-748 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-748 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-747 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-747 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-746 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-746 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-745 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-745 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-744 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-744 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-743 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-743 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-742 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-742 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-741 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-741 Min.	-0.04	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-740 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-740 Min.	-0.04	3	0.00	8	-0.02	3	0.00	6	0.00	3	0.00	3
-739 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-739 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-738 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-738 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-737 Max	-0.01	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-737 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-736 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-736 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-735 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-735 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-734 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-734 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-733 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-733 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-732 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-732 Min.	-0.02	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-731 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-731 Min.	-0.03	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-730 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-730 Min.	-0.03	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-729 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-729 Min.	-0.03	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-728 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-728 Min.	-0.01	3	0.00	6	-0.02	3	0.00	3	0.00	3	0.00	3
-727 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-727 Min.	-0.01	3	0.00	6	-0.02	3	0.00	3	0.00	3	0.00	3
-726 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-726 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-725 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-725 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-724 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-724 Min.	-0.01	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-723 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-723 Min.	-0.01	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-722 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-722 Min.	-0.02	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-721 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-721 Min.	-0.02	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-720 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-720 Min.	-0.02	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-719 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-719 Min.	-0.02	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-718 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-718 Min.	-0.02	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-717 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-717 Min.	-0.00	3	0.00	6	-0.02	3	0.00	3	0.00	3	0.00	3
-716 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-716 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-715 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-715 Min.	-0.01	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-714 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-714 Min.	-0.01	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-713 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-713 Min.	-0.01	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-712 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-712 Min.	-0.01	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-711 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8

-711 Min.	-0.01	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-710 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-710 Min.	-0.01	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-709 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-709 Min.	-0.01	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-708 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-708 Min.	-0.01	3	0.00	6	-0.01	3	0.00	6	0.00	3	0.00	3
-707 Max	-0.00	8	0.00	1	-0.01	8	0.00	1	0.00	8	0.00	8
-707 Min.	-0.01	3	0.00	6	-0.01	3	0.00	6	0.00	3	0.00	3
-706 Max	0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-706 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-705 Max	0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-705 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-704 Max	0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-704 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-703 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-703 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-702 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-702 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-701 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-701 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-700 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-700 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-699 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	8
-699 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-698 Max	-0.00	8	0.00	8	-0.01	8	0.00	8	0.00	8	0.00	8
-698 Min.	-0.01	3	0.00	3	-0.01	3	0.00	6	0.00	3	0.00	3
-697 Max	-0.00	8	0.00	8	-0.01	8	0.00	8	0.00	8	0.00	8
-697 Min.	-0.01	3	0.00	3	-0.01	3	0.00	6	0.00	3	0.00	3
-696 Max	-0.00	8	0.00	8	-0.00	8	0.00	1	0.00	8	0.00	8
-696 Min.	-0.01	3	0.00	3	-0.01	3	0.00	6	0.00	3	0.00	3
-695 Max	0.00	8	0.00	1	-0.00	8	0.00	8	0.00	8	0.00	8
-695 Min.	0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-694 Max	0.00	8	0.00	1	-0.00	8	0.00	8	0.00	8	0.00	8
-694 Min.	0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	3
-693 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-693 Min.	0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-692 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-692 Min.	0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-691 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-691 Min.	0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-690 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-690 Min.	-0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-689 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-689 Min.	-0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-688 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-688 Min.	-0.00	3	0.00	3	-0.00	3	0.00	3	0.00	3	0.00	3
-687 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-687 Min.	-0.00	3	0.00	3	-0.00	3	0.00	6	0.00	3	0.00	3
-686 Max	0.00	8	0.00	8	-0.00	8	0.00	8	0.00	8	0.00	8
-686 Min.	-0.00	3	0.00	3	-0.00	3	0.00	6	0.00	3	0.00	3
-685 Max	0.00	8	0.00	8	-0.00	8	0.00	1	0.00	8	0.00	8
-685 Min.	-0.00	3	0.00	3	-0.00	3	0.00	6	0.00	3	0.00	3
-684 Max	0.00	8	0.00	8	-0.00	8	0.00	1	0.00	8	0.00	3
-684 Min.	-0.00	3	0.00	3	-0.00	3	0.00	6	0.00	3	0.00	8
-683 Max	-0.00	8	0.00	8	-0.00	8	0.00	1	0.00	8	0.00	8
-683 Min.	-0.01	3	0.00	3	-0.01	3	0.00	6	0.00	3	0.00	3
-682 Max	-0.00	8	0.00	8	-0.01	8	0.00	1	0.00	8	0.00	8
-682 Min.	-0.01	3	0.00	3	-0.01	3	0.00	6	0.00	3	0.00	3
-681 Max	-0.01	8	0.00	3	-0.01	8	0.00	1	0.00	8	0.00	8
-681 Min.	-0.02	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-680 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-680 Min.	-0.03	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-679 Max	-0.01	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-679 Min.	-0.04	3	0.00	8	-0.01	3	0.00	6	0.00	3	0.00	3
-678 Max	-0.02	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-678 Min.	-0.05	3	0.00	8	-0.02	3	0.00	6	0.00	3	0.00	3
-677 Max	-0.02	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-677 Min.	-0.06	3	0.00	8	-0.02	3	0.00	6	0.00	3	0.00	3
-676 Max	-0.03	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-676 Min.	-0.08	3	0.01	8	-0.02	3	0.00	6	0.00	3	0.00	3
-675 Max	-0.03	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-675 Min.	-0.09	3	0.01	8	-0.02	3	0.00	6	0.00	3	0.00	3
-674 Max	-0.01	8	0.01	3	-0.03	8	0.00	8	0.00	8	0.00	8
-674 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3
-673 Max	-0.01	8	0.01	3	-0.03	8	0.00	8	0.00	8	0.00	8
-673 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3
-672 Max	-0.01	8	0.01	3	-0.03	8	0.00	8	0.00	8	0.00	8
-672 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3

-671 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-671 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-670 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-670 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-669 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-669 Min.	-0.01	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-668 Max	-0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-668 Min.	-0.00	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-667 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-667 Min.	-0.00	3	0.00	8	-0.02	3	0.00	3	0.00	3	0.00	3
-666 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	8	0.00	8
-666 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-665 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	8	0.00	8
-665 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	3
-653 Max	0.00	3	0.07	3	-0.04	8	0.00	8	0.00	1	0.00	3
-653 Min.	0.00	8	0.03	8	-0.06	3	0.00	3	0.00	6	0.00	8
-652 Max	0.00	3	0.06	3	-0.04	8	0.00	8	0.00	3	0.00	3
-652 Min.	0.00	8	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-651 Max	0.00	3	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-651 Min.	0.00	8	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-650 Max	0.00	6	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-650 Min.	-0.00	8	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	8
-649 Max	-0.00	6	0.02	3	-0.03	8	0.00	1	0.00	3	0.00	3
-649 Min.	-0.00	8	0.01	8	-0.05	3	0.00	6	0.00	8	0.00	8
-648 Max	-0.00	6	0.06	3	-0.04	8	0.00	8	0.00	3	0.00	3
-648 Min.	-0.00	1	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-647 Max	-0.00	6	0.05	3	-0.03	8	0.00	8	0.00	3	0.00	3
-647 Min.	-0.00	1	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-646 Max	-0.00	6	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-646 Min.	-0.00	1	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-645 Max	-0.00	6	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-645 Min.	-0.00	1	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-644 Max	-0.00	6	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	3
-644 Min.	-0.00	1	0.01	8	-0.04	3	0.00	6	0.00	8	0.00	8
-643 Max	-0.00	8	0.05	3	-0.04	8	0.00	8	0.00	3	0.00	3
-643 Min.	-0.01	3	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-642 Max	-0.00	8	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-642 Min.	-0.01	3	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-641 Max	-0.00	8	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-641 Min.	-0.01	3	0.02	8	-0.04	3	0.00	3	0.00	8	0.00	8
-640 Max	-0.00	8	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-640 Min.	-0.00	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-639 Max	-0.00	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	3
-639 Min.	-0.00	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-638 Max	-0.01	8	0.05	3	-0.03	8	0.00	8	0.00	3	0.00	3
-638 Min.	-0.01	3	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-637 Max	-0.01	8	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-637 Min.	-0.01	3	0.02	8	-0.04	3	0.00	3	0.00	8	0.00	8
-636 Max	-0.00	8	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-636 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-635 Max	-0.00	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	3
-635 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-634 Max	-0.00	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	3
-634 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-633 Max	-0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	3
-633 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-632 Max	-0.01	8	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-632 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-631 Max	-0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	3
-631 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-630 Max	-0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	3
-630 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-629 Max	-0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	3
-629 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-628 Max	-0.00	8	0.03	3	-0.02	8	0.00	8	0.00	1	0.00	3
-628 Min.	-0.00	3	0.01	8	-0.03	3	0.00	3	0.00	6	0.00	8
-627 Max	-0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	3
-627 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-626 Max	-0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	3
-626 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-625 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	3
-625 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	8
-624 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	6	0.00	3
-624 Min.	-0.01	3	0.01	8	-0.03	3	0.00	3	0.00	1	0.00	8
-623 Max	-0.00	8	0.02	3	-0.01	8	0.00	8	0.00	1	0.00	3
-623 Min.	-0.00	3	0.01	8	-0.02	3	0.00	3	0.00	6	0.00	8
-622 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	3
-622 Min.	-0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	8
-621 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	3

-621 Min.	-0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	8
-620 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	3
-620 Min.	-0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	8
-619 Max	-0.00	8	0.01	3	-0.02	8	0.00	8	0.00	6	0.00	3
-619 Min.	-0.01	3	0.01	8	-0.02	3	0.00	3	0.00	1	0.00	8
-618 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	1	0.00	3
-618 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	6	0.00	8
-617 Max	-0.00	8	0.01	3	-0.01	8	0.00	8	0.00	1	0.00	3
-617 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	6	0.00	8
-616 Max	-0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	3
-616 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	8
-615 Max	-0.00	8	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	3
-615 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	8
-614 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	6	0.00	3
-614 Min.	-0.00	3	0.00	6	-0.02	3	0.00	3	0.00	1	0.00	8
-613 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	8	0.00	3
-613 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	3	0.00	8
-612 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	1	0.00	3
-612 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	6	0.00	8
-611 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	3
-611 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	8
-610 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	3
-610 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	8
-609 Max	-0.00	8	0.00	1	-0.01	8	0.00	8	0.00	8	0.00	3
-609 Min.	-0.00	3	0.00	6	-0.01	3	0.00	3	0.00	3	0.00	8
-608 Max	-0.00	8	0.00	8	-0.01	8	0.00	6	0.00	8	0.00	3
-608 Min.	-0.00	3	0.00	3	-0.01	3	0.00	1	0.00	3	0.00	8
-607 Max	-0.00	8	0.00	8	-0.01	8	0.00	8	0.00	8	0.00	3
-607 Min.	-0.00	3	0.00	6	-0.02	3	0.00	3	0.00	3	0.00	8
-606 Max	-0.00	8	0.01	1	-0.02	8	0.00	8	0.00	8	0.00	3
-606 Min.	-0.01	3	0.00	6	-0.02	3	0.00	3	0.00	3	0.00	8
-605 Max	-0.00	8	0.01	1	-0.02	8	0.00	8	0.00	6	0.00	3
-605 Min.	-0.01	3	0.01	6	-0.03	3	0.00	3	0.00	1	0.00	8
-604 Max	-0.00	8	0.01	1	-0.02	8	0.00	8	0.00	3	0.00	3
-604 Min.	-0.01	3	0.01	6	-0.03	3	0.00	3	0.00	8	0.00	8
-603 Max	-0.00	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	3
-603 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	8
-602 Max	-0.00	8	0.02	3	-0.03	8	0.00	1	0.00	3	0.00	3
-602 Min.	-0.01	3	0.01	8	-0.04	3	0.00	6	0.00	8	0.00	8
-601 Max	-0.00	6	0.01	3	-0.03	8	0.00	1	0.00	3	0.00	3
-601 Min.	-0.00	1	0.01	8	-0.05	3	0.00	6	0.00	8	0.00	8
-600 Max	-0.00	6	0.01	3	-0.03	8	0.00	3	0.00	3	0.00	3
-600 Min.	-0.00	1	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-594 Max	0.17	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-594 Min.	0.06	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-593 Max	0.16	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-593 Min.	0.05	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-592 Max	0.16	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-592 Min.	0.05	8	0.00	6	-0.03	3	0.00	3	0.00	8	0.00	8
-591 Max	0.15	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-591 Min.	0.05	8	0.00	6	-0.04	3	0.00	3	0.00	8	0.00	8
-590 Max	0.15	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-590 Min.	0.05	8	0.00	6	-0.04	3	0.00	3	0.00	8	0.00	8
-589 Max	0.14	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-589 Min.	0.05	8	0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-588 Max	0.13	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-588 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-587 Max	0.12	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-587 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-586 Max	0.11	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-586 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-585 Max	0.10	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-585 Min.	0.03	8	-0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-584 Max	0.09	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-584 Min.	0.03	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-583 Max	0.14	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-583 Min.	0.05	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-582 Max	0.14	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-582 Min.	0.05	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-581 Max	0.14	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-581 Min.	0.05	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-580 Max	0.13	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-580 Min.	0.04	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-579 Max	0.13	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-579 Min.	0.04	8	0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-578 Max	0.12	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-578 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-577 Max	0.12	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-577 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8

-576 Max	0.11	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-576 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-575 Max	0.10	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-575 Min.	0.03	8	-0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-574 Max	0.09	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-574 Min.	0.03	8	-0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-573 Max	0.08	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-573 Min.	0.03	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-572 Max	0.12	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-572 Min.	0.04	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-571 Max	0.12	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-571 Min.	0.04	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-570 Max	0.12	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-570 Min.	0.04	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-569 Max	0.11	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-569 Min.	0.04	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-568 Max	0.11	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-568 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-567 Max	0.11	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-567 Min.	0.04	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-566 Max	0.10	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-566 Min.	0.03	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-565 Max	0.09	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-565 Min.	0.03	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-564 Max	0.09	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-564 Min.	0.03	8	-0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-563 Max	0.08	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-563 Min.	0.03	8	-0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-562 Max	0.07	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-562 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-561 Max	0.10	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-561 Min.	0.03	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-560 Max	0.10	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-560 Min.	0.03	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-559 Max	0.10	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-559 Min.	0.03	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-558 Max	0.09	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-558 Min.	0.03	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-557 Max	0.09	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-557 Min.	0.03	8	-0.01	3	-0.03	3	0.00	3	0.00	8	0.00	8
-556 Max	0.09	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-556 Min.	0.03	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-555 Max	0.08	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-555 Min.	0.03	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-554 Max	0.08	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-554 Min.	0.03	8	0.00	3	-0.04	3	0.00	6	0.00	8	0.00	8
-553 Max	0.07	3	0.00	8	-0.03	8	0.00	1	0.00	3	0.00	3
-553 Min.	0.02	8	0.00	6	-0.04	3	0.00	6	0.00	8	0.00	8
-552 Max	0.06	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-552 Min.	0.02	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-551 Max	0.05	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-551 Min.	0.02	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-550 Max	0.08	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-550 Min.	0.03	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-549 Max	0.08	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-549 Min.	0.03	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-548 Max	0.08	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-548 Min.	0.03	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-547 Max	0.07	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-547 Min.	0.02	8	-0.01	3	-0.03	3	0.00	3	0.00	8	0.00	8
-546 Max	0.07	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-546 Min.	0.02	8	-0.00	3	-0.03	3	0.00	3	0.00	8	0.00	8
-541 Max	0.05	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-541 Min.	0.02	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-540 Max	0.04	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-540 Min.	0.01	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-539 Max	0.06	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-539 Min.	0.02	8	-0.01	3	-0.02	3	0.00	6	0.00	8	0.00	8
-538 Max	0.06	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-538 Min.	0.02	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-537 Max	0.06	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-537 Min.	0.02	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-536 Max	0.05	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-536 Min.	0.02	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-535 Max	0.05	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-535 Min.	0.02	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-530 Max	0.04	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-530 Min.	0.01	8	0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-529 Max	0.03	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3

-529 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-528 Max	0.04	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-528 Min.	0.01	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-527 Max	0.04	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-527 Min.	0.01	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-526 Max	0.04	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-526 Min.	0.01	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-525 Max	0.04	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-525 Min.	0.01	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-524 Max	0.04	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-524 Min.	0.01	8	-0.00	3	-0.02	3	0.00	3	0.00	8	0.00	8
-519 Max	0.03	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-519 Min.	0.01	8	0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-518 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-518 Min.	0.01	8	0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-517 Max	0.02	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-517 Min.	0.01	8	-0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-516 Max	0.02	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-516 Min.	0.01	8	-0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-515 Max	0.02	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-515 Min.	0.01	8	-0.00	3	-0.01	3	0.00	3	0.00	8	0.00	8
-514 Max	0.02	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-514 Min.	0.01	8	-0.00	3	-0.01	3	0.00	3	0.00	8	0.00	8
-513 Max	0.02	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-513 Min.	0.01	8	-0.00	3	-0.01	3	0.00	3	0.00	8	0.00	8
-508 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-508 Min.	0.01	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-507 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-507 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-506 Max	0.01	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-506 Min.	0.00	8	-0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-505 Max	0.01	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-505 Min.	0.00	8	-0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-504 Max	0.01	3	-0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-504 Min.	0.00	8	-0.00	3	-0.01	3	0.00	3	0.00	8	0.00	8
-503 Max	0.01	3	0.00	8	-0.01	8	0.00	8	0.00	3	0.00	3
-503 Min.	0.00	8	-0.00	3	-0.01	3	0.00	3	0.00	8	0.00	8
-502 Max	0.01	3	0.00	8	-0.01	8	0.00	6	0.00	3	0.00	3
-502 Min.	0.00	8	0.00	3	-0.01	3	0.00	1	0.00	8	0.00	8
-497 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-497 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-496 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-496 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-495 Max	0.00	3	0.00	8	-0.00	8	0.00	1	0.00	3	0.00	3
-495 Min.	0.00	8	-0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-494 Max	0.00	3	0.00	8	-0.00	8	0.00	1	0.00	3	0.00	3
-494 Min.	0.00	8	-0.00	3	-0.00	3	0.00	6	0.00	8	0.00	8
-493 Max	0.00	3	0.00	8	-0.00	8	0.00	8	0.00	3	0.00	3
-493 Min.	0.00	8	0.00	3	-0.00	3	0.00	3	0.00	8	0.00	8
-492 Max	0.00	3	0.00	8	-0.00	8	0.00	8	0.00	3	0.00	3
-492 Min.	0.00	8	0.00	3	-0.00	3	0.00	3	0.00	8	0.00	8
-491 Max	0.00	3	0.00	8	-0.00	8	0.00	6	0.00	3	0.00	3
-491 Min.	0.00	8	0.00	3	-0.00	3	0.00	8	0.00	8	0.00	8
-486 Max	0.00	3	0.00	8	-0.00	8	0.00	1	0.00	3	0.00	3
-486 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-485 Max	0.00	3	0.00	8	-0.00	8	0.00	1	0.00	3	0.00	3
-485 Min.	0.00	8	0.00	3	-0.00	3	0.00	6	0.00	8	0.00	8
-484 Max	0.00	3	0.00	8	-0.00	8	0.00	3	0.00	3	0.00	3
-484 Min.	0.00	8	0.00	3	-0.00	3	0.00	8	0.00	8	0.00	8
-483 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-483 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-482 Max	0.01	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-482 Min.	0.00	8	0.00	3	-0.01	3	0.00	6	0.00	8	0.00	8
-481 Max	0.02	3	0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-481 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-480 Max	0.03	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-480 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-479 Max	0.04	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-479 Min.	0.01	8	0.00	6	-0.02	3	0.00	6	0.00	8	0.00	8
-478 Max	0.05	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-478 Min.	0.02	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-477 Max	0.06	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-477 Min.	0.02	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-476 Max	0.07	3	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-476 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-475 Max	0.08	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-475 Min.	0.03	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-474 Max	0.17	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-474 Min.	0.06	8	0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8

-473 Max	0.15	3	0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-473 Min.	0.05	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-472 Max	0.12	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-472 Min.	0.04	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-471 Max	0.10	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-471 Min.	0.03	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-470 Max	0.08	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-470 Min.	0.03	8	-0.01	3	-0.02	3	0.00	6	0.00	8	0.00	8
-469 Max	0.06	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-469 Min.	0.02	8	-0.01	3	-0.02	3	0.00	6	0.00	8	0.00	8
-468 Max	0.04	3	-0.00	8	-0.01	8	0.00	1	0.00	3	0.00	3
-468 Min.	0.01	8	-0.00	3	-0.02	3	0.00	6	0.00	8	0.00	8
-467 Max	0.02	3	-0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-467 Min.	0.01	8	-0.00	3	-0.01	3	0.00	8	0.00	8	0.00	8
-466 Max	0.01	3	-0.00	8	-0.01	8	0.00	3	0.00	3	0.00	8
-466 Min.	0.00	8	-0.00	3	-0.01	3	0.00	8	0.00	8	0.00	3
-465 Max	0.00	3	-0.00	8	-0.00	8	0.00	3	0.00	3	0.00	8
-465 Min.	0.00	8	-0.00	3	-0.01	3	0.00	8	0.00	8	0.00	3
-453 Max	0.00	8	0.00	1	-0.02	8	0.00	3	0.00	8	0.00	8
-453 Min.	-0.00	3	0.00	6	-0.03	3	0.00	8	0.00	3	0.00	3
-452 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-452 Min.	0.00	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-451 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	8	0.00	8
-451 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-450 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	8	0.00	8
-450 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	6	0.00	3
-449 Max	0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	8
-449 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-448 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-448 Min.	0.00	6	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-447 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-447 Min.	0.00	6	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-446 Max	0.00	8	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-446 Min.	0.00	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-445 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-445 Min.	0.00	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-444 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-444 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-443 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	1	0.00	8
-443 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	6	0.00	3
-442 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	3	0.00	8
-442 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-441 Max	0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	8
-441 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-440 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-440 Min.	0.00	3	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-439 Max	0.00	1	0.00	1	-0.02	8	0.00	8	0.00	8	0.00	8
-439 Min.	0.00	6	0.00	6	-0.03	3	0.00	3	0.00	3	0.00	3
-438 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-438 Min.	0.00	6	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-437 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-437 Min.	0.00	6	0.00	8	-0.03	3	0.00	3	0.00	6	0.00	3
-436 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	1	0.00	8
-436 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	6	0.00	3
-435 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	3	0.00	8
-435 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-434 Max	0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	8
-434 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-433 Max	0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	8
-433 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-432 Max	0.00	1	0.00	8	-0.02	8	0.00	8	0.00	8	0.00	8
-432 Min.	0.00	6	0.00	6	-0.03	3	0.00	3	0.00	3	0.00	3
-431 Max	0.00	1	0.00	3	-0.02	8	0.00	8	0.00	8	0.00	8
-431 Min.	0.00	6	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-430 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	1	0.00	8
-430 Min.	0.00	6	0.00	8	-0.03	3	0.00	3	0.00	6	0.00	3
-429 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	8
-429 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	8	0.00	3
-428 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	8
-428 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-427 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	3	0.00	8
-427 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-426 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	3	0.00	8
-426 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-425 Max	0.00	1	0.00	8	-0.02	8	0.00	3	0.00	6	0.00	3
-425 Min.	0.00	6	0.00	3	-0.02	3	0.00	8	0.00	8	0.00	8
-422 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	3	0.00	8
-422 Min.	0.00	3	0.00	8	-0.02	3	0.00	3	0.00	8	0.00	3
-421 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	3	0.00	8

-421 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-420 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-420 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-419 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-419 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-418 Max	0.00	1	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-418 Min.	0.00	6	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-415 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-415 Min.	0.00	6	0.00	8	-0.02	3	0.00	3	0.00	8	0.00	3
-414 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-414 Min.	0.00	3	0.00	8	-0.02	3	0.00	3	0.00	8	0.00	3
-413 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-413 Min.	0.00	3	0.00	8	-0.02	3	0.00	3	0.00	8	0.00	3
-412 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-412 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-411 Max	0.00	1	0.00	8	-0.01	8	0.00	3	0.00	3	0.00	3
-411 Min.	0.00	6	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-408 Max	0.00	1	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-408 Min.	0.00	6	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-407 Max	0.00	1	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-407 Min.	0.00	6	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-406 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-406 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-405 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-405 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-404 Max	0.00	1	0.00	8	-0.01	8	0.00	6	0.00	6	0.00	3
-404 Min.	0.00	6	0.00	6	-0.01	3	0.00	8	0.00	1	0.00	8
-401 Max	0.00	1	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-401 Min.	0.00	6	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-400 Max	0.00	1	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-400 Min.	0.00	6	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-399 Max	0.00	1	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-399 Min.	0.00	6	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-398 Max	0.00	8	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-398 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-397 Max	0.00	8	0.00	1	-0.00	8	0.00	6	0.00	8	0.00	3
-397 Min.	0.00	3	0.00	6	-0.00	3	0.00	1	0.00	3	0.00	8
-394 Max	0.00	3	0.00	8	-0.00	8	0.00	8	0.00	3	0.00	8
-394 Min.	0.00	8	0.00	3	-0.01	3	0.00	3	0.00	8	0.00	3
-393 Max	0.00	1	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-393 Min.	0.00	6	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-392 Max	0.00	1	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-392 Min.	0.00	6	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-391 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-391 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-390 Max	0.00	8	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-390 Min.	0.00	3	-0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-389 Max	0.00	8	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-389 Min.	0.00	6	0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-388 Max	0.00	1	0.00	8	-0.02	8	0.00	8	0.00	8	0.00	3
-388 Min.	0.00	6	0.00	3	-0.02	3	0.00	3	0.00	3	0.00	8
-387 Max	0.00	1	0.00	8	-0.02	8	0.00	8	0.00	6	0.00	3
-387 Min.	0.00	6	0.00	3	-0.02	3	0.00	3	0.00	1	0.00	8
-386 Max	0.00	1	0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-386 Min.	0.00	6	0.00	6	-0.02	3	0.00	3	0.00	8	0.00	8
-385 Max	0.00	1	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-385 Min.	0.00	6	0.00	6	-0.02	3	0.00	8	0.00	8	0.00	8
-384 Max	0.00	1	0.00	1	-0.01	8	0.00	3	0.00	3	0.00	3
-384 Min.	0.00	6	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-383 Max	0.00	1	0.00	1	-0.01	8	0.00	6	0.00	3	0.00	3
-383 Min.	0.00	6	0.00	6	-0.01	3	0.00	8	0.00	8	0.00	8
-382 Max	0.00	1	0.00	1	-0.00	8	0.00	6	0.00	1	0.00	3
-382 Min.	0.00	6	0.00	6	-0.01	3	0.00	1	0.00	6	0.00	8
-374 Max	0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8
-374 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-373 Max	0.00	8	0.10	3	-0.02	8	0.00	8	0.00	3	0.00	8
-373 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-372 Max	0.00	8	0.11	3	-0.02	8	0.00	8	0.00	3	0.00	8
-372 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-371 Max	-0.00	8	0.12	3	-0.02	8	0.00	8	0.00	3	0.00	8
-371 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-370 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	3	0.00	8
-370 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-369 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	3	0.00	8
-369 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-368 Max	-0.00	8	0.14	3	-0.02	8	0.00	8	0.00	3	0.00	8
-368 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-367 Max	-0.00	8	0.15	3	-0.02	8	0.00	8	0.00	3	0.00	8
-367 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3

-366 Max	-0.00	8	0.15	3	-0.02	8	0.00	8	0.00	3	0.00	8
-366 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-365 Max	-0.00	8	0.16	3	-0.02	8	0.00	8	0.00	3	0.00	8
-365 Min.	-0.01	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-364 Max	-0.00	8	0.16	3	-0.02	8	0.00	8	0.00	6	0.00	8
-364 Min.	-0.01	3	0.05	8	-0.03	3	0.00	3	0.00	1	0.00	3
-363 Max	-0.00	8	0.16	3	-0.02	8	0.00	8	0.00	8	0.00	8
-363 Min.	-0.01	3	0.05	8	-0.03	3	0.00	3	0.00	3	0.00	3
-362 Max	-0.01	8	0.16	3	-0.03	8	0.00	8	0.00	8	0.00	3
-362 Min.	-0.01	3	0.05	8	-0.04	3	0.00	3	0.00	3	0.00	8
-361 Max	-0.01	8	0.16	3	-0.03	8	0.00	8	0.00	8	0.00	3
-361 Min.	-0.01	3	0.05	8	-0.04	3	0.00	3	0.00	3	0.00	8
-360 Max	-0.01	8	0.16	3	-0.03	8	0.00	8	0.00	8	0.00	3
-360 Min.	-0.01	3	0.05	8	-0.05	3	0.00	3	0.00	3	0.00	8
-359 Max	-0.01	8	0.15	3	-0.04	8	0.00	8	0.00	8	0.00	3
-359 Min.	-0.01	3	0.05	8	-0.06	3	0.00	3	0.00	3	0.00	8
-358 Max	-0.01	8	0.15	3	-0.04	8	0.00	8	0.00	8	0.00	3
-358 Min.	-0.01	3	0.05	8	-0.06	3	0.00	3	0.00	3	0.00	8
-357 Max	-0.01	8	0.14	3	-0.05	8	0.00	8	0.00	8	0.00	3
-357 Min.	-0.01	3	0.05	8	-0.07	3	0.00	3	0.00	3	0.00	8
-356 Max	-0.00	8	0.13	3	-0.05	8	0.00	8	0.00	8	0.00	3
-356 Min.	-0.00	3	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-355 Max	-0.00	6	0.12	3	-0.05	8	0.00	8	0.00	8	0.00	3
-355 Min.	-0.00	1	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-354 Max	0.00	6	0.10	3	-0.05	8	0.00	8	0.00	8	0.00	3
-354 Min.	0.00	8	0.03	8	-0.07	3	0.00	3	0.00	6	0.00	8
-353 Max	0.00	8	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-353 Min.	0.00	3	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-352 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	3	0.00	8
-352 Min.	0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-351 Max	0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8
-351 Min.	-0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-350 Max	-0.00	8	0.10	3	-0.02	8	0.00	8	0.00	3	0.00	8
-350 Min.	-0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-349 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	3	0.00	8
-349 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-348 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	3	0.00	8
-348 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-347 Max	-0.00	8	0.12	3	-0.02	8	0.00	8	0.00	3	0.00	8
-347 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-346 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	3	0.00	8
-346 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-345 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	3	0.00	8
-345 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-344 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	6	0.00	8
-344 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-343 Max	-0.00	8	0.14	3	-0.02	8	0.00	8	0.00	6	0.00	8
-343 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	1	0.00	3
-342 Max	-0.00	8	0.14	3	-0.02	8	0.00	8	0.00	8	0.00	8
-342 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	3	0.00	3
-341 Max	-0.00	8	0.14	3	-0.03	8	0.00	8	0.00	8	0.00	8
-341 Min.	-0.00	3	0.05	8	-0.04	3	0.00	3	0.00	3	0.00	3
-340 Max	-0.00	8	0.14	3	-0.03	8	0.00	8	0.00	8	0.00	3
-340 Min.	-0.01	3	0.05	8	-0.04	3	0.00	3	0.00	3	0.00	8
-339 Max	-0.00	8	0.14	3	-0.03	8	0.00	8	0.00	8	0.00	3
-339 Min.	-0.01	3	0.05	8	-0.05	3	0.00	3	0.00	3	0.00	8
-338 Max	-0.00	8	0.13	3	-0.04	8	0.00	8	0.00	8	0.00	3
-338 Min.	-0.01	3	0.04	8	-0.05	3	0.00	3	0.00	3	0.00	8
-337 Max	-0.00	8	0.13	3	-0.04	8	0.00	8	0.00	8	0.00	3
-337 Min.	-0.01	3	0.04	8	-0.06	3	0.00	3	0.00	3	0.00	8
-336 Max	-0.00	8	0.12	3	-0.05	8	0.00	8	0.00	8	0.00	3
-336 Min.	-0.00	3	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-335 Max	-0.00	8	0.11	3	-0.05	8	0.00	8	0.00	8	0.00	3
-335 Min.	-0.00	3	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-334 Max	-0.00	6	0.10	3	-0.05	8	0.00	8	0.00	8	0.00	3
-334 Min.	-0.00	1	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-333 Max	-0.00	6	0.09	3	-0.05	8	0.00	8	0.00	8	0.00	3
-333 Min.	-0.00	1	0.03	8	-0.07	3	0.00	3	0.00	6	0.00	8
-332 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-332 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-331 Max	0.00	8	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-331 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-330 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	3	0.00	8
-330 Min.	-0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-329 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	3	0.00	8
-329 Min.	-0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-328 Max	-0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8
-328 Min.	-0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-327 Max	-0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8

-327 Min.	-0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-326 Max	-0.00	8	0.10	3	-0.02	8	0.00	8	0.00	3	0.00	8
-326 Min.	-0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-325 Max	-0.00	8	0.10	3	-0.02	8	0.00	8	0.00	6	0.00	8
-325 Min.	-0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-324 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	6	0.00	8
-324 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-323 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	3	0.00	8
-323 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-322 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	6	0.00	8
-322 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	1	0.00	3
-321 Max	-0.00	8	0.11	3	-0.02	8	0.00	8	0.00	8	0.00	8
-321 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	3	0.00	3
-320 Max	-0.00	8	0.12	3	-0.02	8	0.00	8	0.00	8	0.00	8
-320 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	3	0.00	3
-319 Max	-0.00	6	0.12	3	-0.03	8	0.00	8	0.00	8	0.00	3
-319 Min.	-0.00	1	0.04	8	-0.04	3	0.00	3	0.00	3	0.00	8
-318 Max	-0.00	6	0.12	3	-0.03	8	0.00	8	0.00	8	0.00	3
-318 Min.	-0.00	1	0.04	8	-0.05	3	0.00	3	0.00	3	0.00	8
-317 Max	-0.00	6	0.11	3	-0.04	8	0.00	8	0.00	8	0.00	3
-317 Min.	-0.00	1	0.04	8	-0.05	3	0.00	3	0.00	3	0.00	8
-316 Max	-0.00	6	0.11	3	-0.04	8	0.00	8	0.00	8	0.00	3
-316 Min.	-0.00	1	0.04	8	-0.06	3	0.00	3	0.00	3	0.00	8
-315 Max	-0.00	6	0.11	3	-0.05	8	0.00	8	0.00	8	0.00	3
-315 Min.	-0.00	1	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-314 Max	-0.00	8	0.10	3	-0.05	8	0.00	8	0.00	8	0.00	3
-314 Min.	-0.00	3	0.03	8	-0.07	3	0.00	3	0.00	3	0.00	8
-313 Max	-0.00	8	0.09	3	-0.05	8	0.00	8	0.00	8	0.00	3
-313 Min.	-0.00	3	0.03	8	-0.07	3	0.00	3	0.00	3	0.00	8
-312 Max	-0.00	8	0.08	3	-0.05	8	0.00	8	0.00	8	0.00	3
-312 Min.	-0.01	3	0.03	8	-0.07	3	0.00	3	0.00	6	0.00	8
-311 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-311 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-310 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-310 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-309 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-309 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-308 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-308 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-307 Max	0.00	8	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-307 Min.	-0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-306 Max	0.00	8	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-306 Min.	-0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-305 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	6	0.00	8
-305 Min.	-0.00	3	0.03	8	-0.02	3	0.00	3	0.00	8	0.00	3
-304 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	6	0.00	8
-304 Min.	-0.00	3	0.03	8	-0.03	3	0.00	3	0.00	1	0.00	3
-303 Max	0.00	8	0.09	3	-0.02	8	0.00	8	0.00	6	0.00	8
-303 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-302 Max	0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8
-302 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-301 Max	0.00	6	0.09	3	-0.02	8	0.00	8	0.00	6	0.00	8
-301 Min.	0.00	1	0.03	8	-0.03	3	0.00	3	0.00	1	0.00	3
-300 Max	0.00	3	0.09	3	-0.02	8	0.00	8	0.00	8	0.00	8
-300 Min.	0.00	8	0.03	8	-0.03	3	0.00	3	0.00	3	0.00	3
-299 Max	0.00	3	0.09	3	-0.02	8	0.00	8	0.00	8	0.00	8
-299 Min.	0.00	8	0.03	8	-0.03	3	0.00	3	0.00	3	0.00	3
-298 Max	0.00	3	0.09	3	-0.02	8	0.00	8	0.00	8	0.00	8
-298 Min.	0.00	8	0.03	8	-0.03	3	0.00	3	0.00	3	0.00	3
-297 Max	0.00	3	0.09	3	-0.03	8	0.00	8	0.00	8	0.00	3
-297 Min.	0.00	8	0.03	8	-0.04	3	0.00	3	0.00	3	0.00	8
-296 Max	0.01	3	0.09	3	-0.04	8	0.00	8	0.00	8	0.00	3
-296 Min.	0.00	8	0.03	8	-0.05	3	0.00	3	0.00	3	0.00	8
-295 Max	0.00	3	0.09	3	-0.04	8	0.00	8	0.00	8	0.00	3
-295 Min.	0.00	8	0.03	8	-0.06	3	0.00	3	0.00	3	0.00	8
-294 Max	0.00	3	0.09	3	-0.05	8	0.00	8	0.00	8	0.00	3
-294 Min.	0.00	8	0.03	8	-0.07	3	0.00	3	0.00	3	0.00	8
-293 Max	-0.00	6	0.08	3	-0.05	8	0.00	8	0.00	8	0.00	3
-293 Min.	-0.00	1	0.03	8	-0.07	3	0.00	3	0.00	3	0.00	8
-292 Max	-0.00	8	0.08	3	-0.05	8	0.00	8	0.00	8	0.00	3
-292 Min.	-0.01	3	0.03	8	-0.07	3	0.00	3	0.00	3	0.00	8
-291 Max	-0.01	8	0.07	3	-0.05	8	0.00	8	0.00	1	0.00	3
-291 Min.	-0.01	3	0.02	8	-0.07	3	0.00	3	0.00	6	0.00	8
-290 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	3	0.00	8
-290 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-289 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	3	0.00	8
-289 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-288 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	3	0.00	8
-288 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3

-287 Max	0.00	8	0.05	3	-0.01	8	0.00	8	0.00	3	0.00	8
-287 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-286 Max	0.00	8	0.05	3	-0.01	8	0.00	8	0.00	3	0.00	8
-286 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-285 Max	0.00	8	0.05	3	-0.01	8	0.00	8	0.00	3	0.00	8
-285 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-284 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	6	0.00	8
-284 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-283 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	6	0.00	8
-283 Min.	0.00	6	0.02	8	-0.02	3	0.00	3	0.00	1	0.00	3
-282 Max	0.00	3	0.06	3	-0.02	8	0.00	8	0.00	6	0.00	8
-282 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-281 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-281 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-280 Max	0.00	3	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-280 Min.	0.00	8	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-269 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-269 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-268 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-268 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-267 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-267 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-266 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-266 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-265 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	3	0.00	8
-265 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-264 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	6	0.00	8
-264 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-263 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	6	0.00	8
-263 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	1	0.00	3
-262 Max	0.00	8	0.04	3	-0.01	8	0.00	8	0.00	6	0.00	8
-262 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	1	0.00	3
-260 Max	0.00	3	0.04	3	-0.01	8	0.00	8	0.00	3	0.00	8
-260 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-259 Max	0.00	3	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-259 Min.	0.00	8	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-248 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-248 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-247 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-247 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	8	0.00	3
-246 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-246 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	8	0.00	3
-245 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-245 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	8	0.00	3
-244 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-244 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	8	0.00	3
-243 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	6	0.00	8
-243 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	1	0.00	3
-242 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	6	0.00	8
-242 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	1	0.00	3
-241 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	6	0.00	8
-241 Min.	0.00	3	0.01	8	-0.01	3	0.00	3	0.00	1	0.00	3
-239 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-239 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-238 Max	0.00	3	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-238 Min.	0.00	8	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-227 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-227 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-226 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-226 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-225 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-225 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-224 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-224 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-223 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	6	0.00	8
-223 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-222 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	6	0.00	8
-222 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	3
-221 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	6	0.00	8
-221 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	3
-220 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	6	0.00	8
-220 Min.	-0.00	3	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	3
-218 Max	0.00	3	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-218 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-217 Max	0.00	3	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-217 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-206 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-206 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-205 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8

-205 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-204 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-204 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-203 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-203 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-202 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	8
-202 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-201 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	8
-201 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	1	0.00	3
-200 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	8
-200 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	3
-199 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	6	0.00	3
-199 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	1	0.00	8
-197 Max	0.00	3	0.00	3	-0.01	8	0.00	8	0.00	3	0.00	8
-197 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-196 Max	0.00	3	0.00	3	-0.00	8	0.00	8	0.00	1	0.00	8
-196 Min.	0.00	8	0.00	8	-0.01	3	0.00	3	0.00	6	0.00	3
-180 Max	-0.01	8	0.05	3	-0.04	8	0.00	8	0.00	3	0.00	3
-180 Min.	-0.01	3	0.02	8	-0.06	3	0.00	3	0.00	8	0.00	8
-179 Max	-0.00	8	0.06	3	-0.04	8	0.00	8	0.00	1	0.00	3
-179 Min.	-0.00	3	0.02	8	-0.06	3	0.00	3	0.00	6	0.00	8
-178 Max	-0.00	6	0.07	3	-0.04	8	0.00	8	0.00	1	0.00	3
-178 Min.	-0.00	1	0.03	8	-0.06	3	0.00	3	0.00	6	0.00	8
-177 Max	0.00	3	0.08	3	-0.04	8	0.00	8	0.00	1	0.00	3
-177 Min.	0.00	8	0.03	8	-0.06	3	0.00	3	0.00	6	0.00	8
-176 Max	0.00	8	0.08	3	-0.02	8	0.00	8	0.00	3	0.00	8
-176 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-175 Max	0.00	8	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-175 Min.	0.00	3	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-174 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-174 Min.	0.00	3	0.02	8	-0.02	3	0.00	3	0.00	8	0.00	3
-173 Max	0.00	8	0.04	3	-0.02	8	0.00	8	0.00	3	0.00	8
-173 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-172 Max	0.00	8	0.03	3	-0.01	8	0.00	8	0.00	3	0.00	8
-172 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-171 Max	0.00	8	0.02	3	-0.01	8	0.00	8	0.00	3	0.00	8
-171 Min.	0.00	3	0.01	8	-0.02	3	0.00	3	0.00	8	0.00	3
-170 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-170 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-169 Max	0.00	8	0.01	3	-0.01	8	0.00	8	0.00	3	0.00	8
-169 Min.	0.00	3	0.00	8	-0.01	3	0.00	3	0.00	8	0.00	3
-168 Max	0.00	8	0.00	3	-0.00	8	0.00	8	0.00	3	0.00	8
-168 Min.	0.00	3	0.00	8	-0.00	3	0.00	3	0.00	8	0.00	3
-146 Max	-0.29	8	0.06	3	-0.01	8	0.00	3	-0.01	8	0.00	8
-146 Min.	-0.86	3	0.02	8	-0.01	3	0.00	8	-0.02	3	0.00	3
-145 Max	0.74	3	-0.02	8	-0.02	8	-0.00	8	0.01	3	0.00	3
-145 Min.	0.26	8	-0.04	3	-0.03	3	-0.01	3	0.00	8	0.00	8
-144 Max	0.52	3	-0.02	8	-0.04	8	0.00	3	0.01	3	0.00	3
-144 Min.	0.18	8	-0.04	3	-0.08	3	0.00	8	0.00	8	0.00	8
-142 Max	-0.02	8	-0.32	8	-0.02	8	0.02	3	0.00	3	0.00	3
-142 Min.	-0.07	3	-0.98	3	-0.04	3	0.01	8	0.00	8	0.00	8
-141 Max	-0.02	8	-0.35	8	-0.02	8	0.02	3	0.00	1	0.00	1
-141 Min.	-0.07	3	-1.08	3	-0.04	3	0.01	8	0.00	1	0.00	1
-140 Max	-0.02	8	-0.02	8	-0.03	8	0.00	3	0.00	8	0.00	3
-140 Min.	-0.07	3	-0.04	3	-0.05	3	0.00	8	0.00	3	0.00	8
-139 Max	-0.02	8	0.06	3	-0.02	8	0.00	8	0.00	8	0.00	3
-139 Min.	-0.06	3	0.02	8	-0.05	3	0.00	3	0.00	3	0.00	8
-138 Max	-0.27	8	0.06	3	-0.02	8	-0.00	8	-0.01	8	0.00	8
-138 Min.	-0.80	3	0.02	8	-0.06	3	-0.01	3	-0.02	3	0.00	3
-137 Max	-0.02	8	-0.24	8	-0.02	8	0.01	3	0.00	8	0.00	8
-137 Min.	-0.07	3	-0.72	3	-0.05	3	0.00	8	0.00	3	-0.00	3
-136 Max	-0.02	8	-0.19	8	-0.02	8	-0.00	8	0.01	3	0.00	3
-136 Min.	-0.07	3	-0.57	3	-0.04	3	-0.01	3	0.00	8	0.00	8
-135 Max	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
-135 Min.	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
-133 Max	-0.02	8	-0.29	8	-0.02	8	0.00	1	0.00	1	0.00	8
-133 Min.	-0.07	3	-0.87	3	-0.05	3	0.00	1	0.00	1	-0.00	3
-131 Max	0.10	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-131 Min.	0.03	8	-0.01	3	-0.04	3	0.00	6	0.00	8	0.00	8
-130 Max	0.12	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-130 Min.	0.04	8	-0.01	3	-0.04	3	0.00	6	0.00	8	0.00	8
-129 Max	0.13	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-129 Min.	0.04	8	-0.01	3	-0.04	3	0.00	3	0.00	8	0.00	8
-128 Max	0.14	3	-0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-128 Min.	0.05	8	-0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-127 Max	0.15	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-127 Min.	0.05	8	0.00	3	-0.04	3	0.00	3	0.00	8	0.00	8
-126 Max	0.16	3	0.00	8	-0.03	8	0.00	8	0.00	3	0.00	3
-126 Min.	0.05	8	0.00	6	-0.04	3	0.00	3	0.00	8	0.00	8

-125 Max	0.17	3	0.00	1	-0.03	8	0.00	8	0.00	3	0.00	3
-125 Min.	0.06	8	0.00	6	-0.04	3	0.00	3	0.00	8	0.00	8
-124 Max	0.17	3	0.00	1	-0.03	8	0.00	8	0.00	3	0.00	3
-124 Min.	0.06	8	0.00	6	-0.04	3	0.00	3	0.00	8	0.00	8
-123 Max	0.18	3	0.00	1	-0.02	8	0.00	8	0.00	3	0.00	3
-123 Min.	0.06	8	0.00	6	-0.03	3	0.00	3	0.00	8	0.00	8
-122 Max	0.18	3	0.00	1	-0.02	8	0.00	8	0.00	3	0.00	3
-122 Min.	0.06	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-121 Max	0.19	3	0.00	1	-0.02	8	0.00	1	0.00	3	0.00	3
-121 Min.	0.06	8	0.00	6	-0.03	3	0.00	6	0.00	8	0.00	8
-120 Max	-0.36	8	0.05	3	0.01	3	0.00	8	0.01	3	0.00	8
-120 Min.	-1.09	3	0.02	8	0.00	8	0.00	3	0.00	8	0.00	3
-119 Max	-0.36	8	0.05	3	0.04	3	0.00	8	0.01	3	0.00	8
-119 Min.	-1.07	3	0.02	8	0.01	8	0.00	3	0.00	8	0.00	3
-118 Max	-0.35	8	0.08	3	0.04	3	0.00	8	0.01	3	0.00	8
-118 Min.	-1.04	3	0.02	8	0.01	8	0.00	3	0.00	8	0.00	3
-117 Max	-0.34	8	0.13	3	-0.02	8	0.00	8	0.01	3	0.00	8
-117 Min.	-1.01	3	0.04	8	-0.06	3	0.00	3	0.00	8	0.00	3
-116 Max	-0.32	8	0.17	3	-0.13	8	0.00	8	0.01	3	0.00	8
-116 Min.	-0.95	3	0.06	8	-0.35	3	-0.00	3	0.00	8	-0.00	3
-115 Max	-0.30	8	0.17	3	-0.25	8	0.00	8	0.00	3	0.00	8
-115 Min.	-0.89	3	0.06	8	-0.70	3	-0.00	3	0.00	8	-0.00	3
-114 Max	-0.27	8	0.14	3	-0.35	8	-0.00	8	0.00	3	0.00	8
-114 Min.	-0.80	3	0.04	8	-0.98	3	-0.00	3	0.00	8	-0.00	3
-113 Max	-0.23	8	0.08	3	-0.40	8	-0.00	8	0.00	3	0.00	8
-113 Min.	-0.69	3	0.03	8	-1.13	3	-0.00	3	0.00	8	-0.00	3
-112 Max	-0.19	8	0.02	3	-0.39	8	-0.00	8	0.00	3	-0.00	8
-112 Min.	-0.56	3	0.00	8	-1.11	3	-0.01	3	0.00	8	-0.00	3
-111 Max	-0.14	8	-0.02	8	-0.31	8	-0.00	8	0.00	3	-0.00	8
-111 Min.	-0.41	3	-0.04	3	-0.89	3	-0.01	3	0.00	8	-0.00	3
-110 Max	-0.08	8	-0.03	8	-0.18	8	-0.00	8	0.00	3	-0.00	8
-110 Min.	-0.25	3	-0.08	3	-0.52	3	-0.01	3	0.00	8	-0.00	3
-109 Max	0.00	8	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	8
-109 Min.	-0.00	3	0.00	3	-0.03	3	0.00	8	0.00	3	0.00	3
-108 Max	0.00	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-108 Min.	-0.00	3	0.00	8	-0.03	3	0.00	3	0.00	3	0.00	3
-107 Max	0.00	8	0.02	3	-0.02	8	0.00	8	0.00	8	0.00	8
-107 Min.	0.00	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-106 Max	0.00	8	0.03	3	-0.02	8	0.00	8	0.00	1	0.00	8
-106 Min.	0.00	6	0.01	8	-0.03	3	0.00	3	0.00	6	0.00	3
-105 Max	0.00	8	0.05	3	-0.02	8	0.00	8	0.00	3	0.00	8
-105 Min.	0.00	6	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-104 Max	0.00	1	0.06	3	-0.02	8	0.00	8	0.00	3	0.00	8
-104 Min.	0.00	6	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-103 Max	0.00	8	0.07	3	-0.02	8	0.00	8	0.00	3	0.00	8
-103 Min.	0.00	6	0.02	8	-0.03	3	0.00	3	0.00	8	0.00	3
-102 Max	0.00	8	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-102 Min.	0.00	3	-0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-101 Max	0.01	3	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
-101 Min.	0.00	8	-0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
-100 Max	0.02	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-100 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-99 Max	0.03	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
-99 Min.	0.01	8	-0.00	3	-0.03	3	0.00	8	0.00	8	0.00	8
-98 Max	0.05	3	-0.00	8	-0.02	8	0.00	1	0.00	3	0.00	3
-98 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-97 Max	0.06	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-97 Min.	0.02	8	-0.00	3	-0.03	3	0.00	6	0.00	8	0.00	8
-96 Max	0.07	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
-96 Min.	0.02	8	-0.01	3	-0.03	3	0.00	3	0.00	8	0.00	8
-95 Max	0.03	3	0.04	3	-0.10	8	0.00	3	-0.00	8	0.00	8
-95 Min.	0.01	8	0.02	8	-0.24	3	0.00	8	-0.00	3	0.00	3
-94 Max	0.08	3	0.10	3	-0.20	8	0.00	3	-0.00	8	0.00	8
-94 Min.	0.03	8	0.04	8	-0.53	3	0.00	8	-0.00	3	0.00	3
-93 Max	0.11	3	0.15	3	-0.28	8	0.00	3	0.00	8	0.00	8
-93 Min.	0.04	8	0.05	8	-0.74	3	0.00	8	-0.00	3	0.00	3
-92 Max	0.12	3	0.18	3	-0.32	8	0.00	3	0.00	8	0.00	8
-92 Min.	0.05	8	0.06	8	-0.85	3	0.00	8	0.00	3	0.00	3
-91 Max	0.11	3	0.18	3	-0.31	8	0.00	8	0.00	3	0.00	8
-91 Min.	0.04	8	0.06	8	-0.83	3	-0.00	3	0.00	8	0.00	3
-90 Max	0.07	3	0.16	3	-0.25	8	-0.00	8	0.00	3	0.00	8
-90 Min.	0.03	8	0.06	8	-0.68	3	-0.00	3	0.00	8	0.00	3
-89 Max	0.01	3	0.12	3	-0.15	8	-0.00	8	0.00	3	0.00	8
-89 Min.	0.00	8	0.04	8	-0.40	3	-0.00	3	0.00	8	0.00	3
-88 Max	-0.04	8	0.02	3	-0.12	8	0.00	3	0.00	3	0.00	8
-88 Min.	-0.11	3	0.01	8	-0.28	3	0.00	8	0.00	8	0.00	3
-87 Max	-0.06	8	0.02	3	-0.16	8	0.00	3	0.00	3	0.00	8
-87 Min.	-0.16	3	0.01	8	-0.37	3	0.00	8	0.00	8	0.00	3
-86 Max	-0.06	8	0.00	8	-0.14	8	0.00	8	0.00	8	0.00	1

-86 Min.	-0.16	3	0.00	3	-0.35	3	-0.00	3	0.00	3	0.00	6
-85 Max	-0.01	8	0.01	3	-0.06	8	0.00	3	0.00	3	0.00	8
-85 Min.	-0.03	3	0.01	8	-0.11	3	0.00	8	0.00	8	0.00	3
-84 Max	-0.02	8	0.01	3	-0.08	8	0.00	3	0.00	3	0.00	8
-84 Min.	-0.05	3	0.01	8	-0.17	3	0.00	8	0.00	8	0.00	3
-83 Max	-0.04	8	0.02	3	-0.12	8	0.00	3	0.00	3	0.00	8
-83 Min.	-0.10	3	0.01	8	-0.27	3	0.00	8	0.00	8	0.00	3
-82 Max	-0.05	8	0.02	3	-0.15	8	0.00	3	0.00	3	0.00	8
-82 Min.	-0.14	3	0.01	8	-0.35	3	0.00	8	0.00	8	0.00	3
-81 Max	-0.06	8	0.01	3	-0.16	8	0.00	3	0.00	3	0.00	8
-81 Min.	-0.16	3	0.01	8	-0.38	3	0.00	8	0.00	8	0.00	3
-80 Max	-0.06	8	0.01	1	-0.15	8	0.00	8	0.00	8	0.00	8
-80 Min.	-0.17	3	0.00	6	-0.36	3	0.00	3	0.00	3	0.00	3
-79 Max	-0.05	8	0.00	8	-0.12	8	0.00	8	0.00	8	0.00	3
-79 Min.	-0.15	3	-0.01	3	-0.30	3	-0.00	3	-0.00	3	0.00	8
-78 Max	-0.04	8	-0.01	8	-0.08	8	0.00	8	0.00	8	0.00	3
-78 Min.	-0.12	3	-0.03	3	-0.19	3	-0.00	3	-0.00	3	0.00	8
-77 Max	-0.04	8	-0.01	8	-0.08	8	0.00	8	0.00	8	0.00	3
-77 Min.	-0.12	3	-0.03	3	-0.19	3	-0.00	3	-0.00	3	0.00	8
-76 Max	0.00	3	0.01	3	-0.03	8	0.00	3	0.00	3	0.00	3
-76 Min.	-0.00	8	0.01	8	-0.05	3	0.00	8	0.00	8	0.00	8
-75 Max	0.00	3	0.03	3	-0.03	8	0.00	8	0.00	3	0.00	3
-75 Min.	-0.00	8	0.01	8	-0.05	3	0.00	6	0.00	8	0.00	8
-74 Max	0.00	3	0.04	3	-0.03	8	0.00	8	0.00	3	0.00	3
-74 Min.	0.00	8	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-73 Max	0.00	3	0.06	3	-0.04	8	0.00	8	0.00	3	0.00	3
-73 Min.	0.00	8	0.02	8	-0.05	3	0.00	3	0.00	8	0.00	8
-72 Max	0.01	3	0.08	3	-0.04	8	0.00	8	0.00	3	0.00	3
-72 Min.	0.00	8	0.03	8	-0.06	3	0.00	3	0.00	8	0.00	8
-71 Max	0.01	3	0.00	1	-0.04	8	0.00	3	0.00	3	0.00	3
-71 Min.	0.00	8	0.00	6	-0.05	3	0.00	8	0.00	8	0.00	8
-70 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	3
-70 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	8
-69 Max	0.01	3	0.01	3	-0.04	8	0.00	3	0.00	3	0.00	8
-69 Min.	0.00	8	0.01	8	-0.06	3	0.00	8	0.00	8	0.00	3
-68 Max	0.01	3	0.01	3	-0.04	8	0.00	6	0.00	3	0.00	8
-68 Min.	0.00	8	0.01	8	-0.06	3	0.00	1	0.00	8	0.00	3
-67 Max	0.01	3	0.02	3	-0.04	8	0.00	8	0.00	3	0.00	8
-67 Min.	0.00	8	0.01	8	-0.06	3	0.00	3	0.00	8	0.00	3
-66 Max	0.00	3	0.02	3	-0.04	8	0.00	8	0.00	3	0.00	8
-66 Min.	-0.00	8	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-65 Max	-0.00	6	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	8
-65 Min.	-0.00	1	0.01	8	-0.05	3	0.00	3	0.00	8	0.00	3
-64 Max	-0.01	8	0.02	3	-0.03	8	0.00	8	0.00	8	0.00	8
-64 Min.	-0.02	3	0.01	8	-0.04	3	0.00	3	0.00	3	0.00	3
-63 Max	-0.01	8	0.02	3	-0.02	8	0.00	8	0.00	8	0.00	8
-63 Min.	-0.03	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-62 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-62 Min.	-0.04	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-61 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-61 Min.	-0.05	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-60 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-60 Min.	-0.06	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-59 Max	-0.02	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-59 Min.	-0.07	3	0.01	8	-0.03	3	0.00	3	0.00	3	0.00	3
-58 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-58 Min.	-0.07	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-57 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-57 Min.	-0.08	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-56 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-56 Min.	-0.08	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-55 Max	-0.03	8	0.01	3	-0.02	8	0.00	8	0.00	8	0.00	8
-55 Min.	-0.09	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-54 Max	-0.03	8	0.01	3	-0.01	8	0.00	8	0.00	8	0.00	8
-54 Min.	-0.09	3	0.01	8	-0.02	3	0.00	3	0.00	3	0.00	3
-53 Max	0.08	3	-0.05	8	-0.14	8	-0.00	8	0.00	8	0.00	3
-53 Min.	0.03	8	-0.11	3	-0.27	3	-0.01	3	0.00	3	0.00	8
-52 Max	0.22	3	-0.03	8	-0.22	8	-0.00	8	0.00	8	0.00	3
-52 Min.	0.08	8	-0.07	3	-0.41	3	-0.01	3	0.00	6	0.00	8
-51 Max	0.34	3	-0.01	8	-0.22	8	-0.00	8	0.00	8	0.00	3
-51 Min.	0.12	8	-0.03	3	-0.43	3	-0.00	3	0.00	3	0.00	8
-50 Max	0.46	3	0.01	8	-0.17	8	-0.00	8	0.00	8	0.00	3
-50 Min.	0.16	8	0.00	6	-0.33	3	-0.00	3	0.00	3	0.00	8
-49 Max	0.56	3	0.01	8	-0.10	8	-0.00	8	0.00	8	0.00	3
-49 Min.	0.20	8	0.00	6	-0.18	3	-0.00	3	-0.00	3	0.00	8
-48 Max	0.65	3	-0.02	8	-0.04	8	-0.00	8	0.00	8	0.00	3
-48 Min.	0.22	8	-0.04	3	-0.08	3	-0.00	3	-0.00	3	0.00	8
-47 Max	0.72	3	-0.04	8	-0.10	8	-0.00	8	0.00	8	0.00	3
-47 Min.	0.25	8	-0.09	3	-0.18	3	-0.00	3	-0.00	3	0.00	8

-46 Max	0.78	3	-0.04	8	-0.17	8	-0.00	8	0.00	8	0.00	3
-46 Min.	0.27	8	-0.09	3	-0.33	3	-0.00	3	-0.00	3	0.00	8
-45 Max	0.83	3	-0.02	8	-0.22	8	0.00	8	0.00	8	0.00	3
-45 Min.	0.29	8	-0.06	3	-0.43	3	-0.00	3	-0.00	3	0.00	8
-44 Max	0.87	3	0.00	8	-0.21	8	0.00	8	0.00	8	0.00	3
-44 Min.	0.30	8	-0.01	3	-0.41	3	-0.00	3	-0.00	3	0.00	8
-43 Max	0.89	3	0.02	1	-0.14	8	0.00	8	0.00	8	0.00	3
-43 Min.	0.31	8	0.02	6	-0.27	3	0.00	3	-0.00	3	0.00	8
-42 Max	0.00	8	0.10	3	-0.02	8	0.00	8	0.00	3	0.00	8
-42 Min.	0.00	3	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
-41 Max	0.00	8	0.11	3	-0.02	8	0.00	8	0.00	3	0.00	8
-41 Min.	0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-40 Max	0.00	8	0.12	3	-0.02	8	0.00	8	0.00	3	0.00	8
-40 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-39 Max	-0.00	8	0.13	3	-0.02	8	0.00	8	0.00	3	0.00	8
-39 Min.	-0.00	3	0.04	8	-0.03	3	0.00	3	0.00	8	0.00	3
-38 Max	-0.00	8	0.14	3	-0.02	8	0.00	8	0.00	3	0.00	8
-38 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-37 Max	-0.00	8	0.15	3	-0.02	8	0.00	8	0.00	3	0.00	8
-37 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-36 Max	-0.00	8	0.16	3	-0.02	8	0.00	8	0.00	3	0.00	8
-36 Min.	-0.00	3	0.05	8	-0.03	3	0.00	3	0.00	8	0.00	3
-35 Max	-0.00	8	0.17	3	-0.02	8	0.00	8	0.00	3	0.00	8
-35 Min.	-0.01	3	0.06	8	-0.03	3	0.00	3	0.00	8	0.00	3
-34 Max	-0.00	8	0.17	3	-0.02	8	0.00	8	0.00	3	0.00	8
-34 Min.	-0.01	3	0.06	8	-0.03	3	0.00	3	0.00	8	0.00	3
-33 Max	-0.00	8	0.18	3	-0.02	8	0.00	8	0.00	3	0.00	8
-33 Min.	-0.01	3	0.06	8	-0.03	3	0.00	3	0.00	8	0.00	3
-32 Max	-0.01	8	0.18	3	-0.02	8	0.00	8	0.00	6	0.00	8
-32 Min.	-0.01	3	0.06	8	-0.03	3	0.00	3	0.00	8	0.00	3
-31 Max	-0.01	8	0.18	3	-0.02	8	0.00	8	0.00	8	0.00	8
-31 Min.	-0.01	3	0.06	8	-0.04	3	0.00	3	0.00	3	0.00	3
-30 Max	-0.01	8	0.18	3	-0.03	8	0.00	8	0.00	8	0.00	3
-30 Min.	-0.01	3	0.06	8	-0.04	3	0.00	3	0.00	3	0.00	8
-29 Max	-0.01	8	0.18	3	-0.03	8	0.00	8	0.00	8	0.00	3
-29 Min.	-0.01	3	0.06	8	-0.04	3	0.00	3	0.00	3	0.00	8
-28 Max	-0.01	8	0.18	3	-0.03	8	0.00	8	0.00	8	0.00	3
-28 Min.	-0.02	3	0.06	8	-0.05	3	0.00	3	0.00	3	0.00	8
-27 Max	-0.01	8	0.17	3	-0.04	8	0.00	8	0.00	8	0.00	3
-27 Min.	-0.02	3	0.06	8	-0.06	3	0.00	3	0.00	3	0.00	8
-26 Max	-0.01	8	0.17	3	-0.04	8	0.00	8	0.00	8	0.00	3
-26 Min.	-0.01	3	0.05	8	-0.06	3	0.00	3	0.00	3	0.00	8
-25 Max	-0.01	8	0.16	3	-0.05	8	0.00	8	0.00	8	0.00	3
-25 Min.	-0.01	3	0.05	8	-0.07	3	0.00	3	0.00	3	0.00	8
-24 Max	-0.00	8	0.14	3	-0.05	8	0.00	8	0.00	8	0.00	3
-24 Min.	-0.01	3	0.05	8	-0.07	3	0.00	3	0.00	3	0.00	8
-23 Max	0.00	6	0.13	3	-0.05	8	0.00	8	0.00	8	0.00	3
-23 Min.	0.00	8	0.04	8	-0.07	3	0.00	3	0.00	3	0.00	8
-22 Max	0.00	3	0.11	3	-0.05	8	0.00	8	0.00	8	0.00	3
-22 Min.	0.00	8	0.04	8	-0.07	3	0.00	3	0.00	6	0.00	8
-21 Max	-0.02	8	-0.06	8	-0.02	8	-0.00	8	0.01	3	0.00	3
-21 Min.	-0.06	3	-0.17	3	-0.06	3	-0.01	3	0.00	8	0.00	8
-20 Max	-0.02	8	-0.13	8	-0.02	8	-0.00	8	0.01	3	0.00	3
-20 Min.	-0.06	3	-0.38	3	-0.05	3	-0.01	3	0.00	8	0.00	8
-18 Max	-0.03	8	-0.24	8	-0.04	8	-0.00	8	0.01	3	0.00	3
-18 Min.	-0.08	3	-0.74	3	-0.10	3	-0.01	3	0.00	8	0.00	8
-17 Max	-0.02	8	-0.29	8	-0.05	8	-0.00	8	0.01	3	0.00	3
-17 Min.	-0.07	3	-0.89	3	-0.14	3	-0.01	3	0.00	8	0.00	8
-16 Max	-0.02	8	-0.34	8	-0.05	8	-0.00	8	0.00	3	0.00	3
-16 Min.	-0.06	3	-1.02	3	-0.13	3	-0.01	3	0.00	8	0.00	8
-15 Max	-0.02	8	-0.37	8	-0.03	8	-0.00	8	0.00	3	0.00	3
-15 Min.	-0.05	3	-1.12	3	-0.08	3	-0.01	3	0.00	8	0.00	8
-14 Max	-0.02	8	-0.39	8	-0.02	8	-0.00	8	0.00	3	0.00	3
-14 Min.	-0.06	3	-1.20	3	-0.05	3	-0.01	3	0.00	8	0.00	8
-13 Max	-0.03	8	-0.42	8	-0.03	8	-0.00	8	0.00	3	0.00	3
-13 Min.	-0.08	3	-1.26	3	-0.09	3	-0.01	3	0.00	8	0.00	8
-12 Max	-0.02	8	-0.43	8	-0.05	8	-0.00	8	0.00	3	0.00	3
-12 Min.	-0.07	3	-1.31	3	-0.13	3	-0.01	3	0.00	8	0.00	8
-11 Max	-0.02	8	-0.44	8	-0.05	8	-0.00	8	0.00	3	0.00	3
-11 Min.	-0.06	3	-1.32	3	-0.12	3	-0.01	3	0.00	8	0.00	8
-10 Max	-0.02	8	-0.43	8	-0.03	8	-0.00	8	0.00	8	0.00	8
-10 Min.	-0.05	3	-1.31	3	-0.08	3	-0.01	3	0.00	3	0.00	3
-9 Max	-0.03	8	-0.42	8	-0.03	8	-0.00	8	0.00	8	0.00	8
-9 Min.	-0.08	3	-1.29	3	-0.06	3	-0.01	3	-0.00	3	0.00	3
-8 Max	-0.03	8	-0.41	8	-0.04	8	-0.00	8	0.00	8	0.00	8
-8 Min.	-0.08	3	-1.24	3	-0.11	3	-0.01	3	-0.00	3	-0.00	3
-7 Max	-0.02	8	-0.38	8	-0.05	8	-0.00	8	-0.00	8	0.00	8
-7 Min.	-0.07	3	-1.16	3	-0.13	3	-0.01	3	-0.00	3	-0.00	3
-6 Max	-0.02	8	-0.35	8	-0.04	8	-0.00	8	-0.00	8	0.00	8

-6 Min.	-0.05	3	-1.06	3	-0.10	3	-0.01	3	-0.00	3	-0.00	3
-5 Max	-0.02	8	-0.31	8	-0.02	8	-0.00	8	-0.00	8	0.00	8
-5 Min.	-0.06	3	-0.94	3	-0.06	3	-0.01	3	-0.00	3	-0.00	3
-4 Max	-0.03	8	-0.27	8	-0.03	8	-0.00	8	-0.00	8	0.00	8
-4 Min.	-0.08	3	-0.81	3	-0.07	3	-0.01	3	-0.01	3	-0.00	3
-3 Max	-0.03	8	-0.21	8	-0.05	8	-0.00	8	-0.00	8	-0.00	8
-3 Min.	-0.08	3	-0.65	3	-0.13	3	-0.01	3	-0.01	3	-0.00	3
-2 Max	-0.02	8	-0.15	8	-0.06	8	-0.00	8	-0.00	8	-0.00	8
-2 Min.	-0.07	3	-0.47	3	-0.17	3	-0.01	3	-0.01	3	-0.00	3
-1 Max	-0.02	8	-0.09	8	-0.05	8	-0.00	8	-0.00	8	-0.00	8
-1 Min.	-0.05	3	-0.27	3	-0.14	3	-0.01	3	-0.01	3	-0.00	3
1 Max	-0.02	8	-0.02	8	-0.03	8	0.00	8	0.00	8	0.00	3
1 Min.	-0.07	3	-0.05	3	-0.05	3	0.00	8	0.00	3	0.00	8
3 Max	-0.02	8	0.06	3	-0.02	8	0.00	8	0.00	8	0.00	3
3 Min.	-0.07	3	0.02	8	-0.05	3	0.00	3	0.00	3	0.00	8
4 Max	0.00	8	0.09	3	-0.02	8	0.00	8	0.00	3	0.00	8
4 Min.	0.00	6	0.03	8	-0.03	3	0.00	3	0.00	8	0.00	3
5 Max	0.01	3	0.09	3	-0.04	8	0.00	8	0.00	1	0.00	3
5 Min.	0.00	8	0.03	8	-0.06	3	0.00	3	0.00	6	0.00	8
6 Max	0.00	3	0.00	1	-0.03	8	0.00	3	0.00	3	0.00	3
6 Min.	-0.00	8	0.00	6	-0.05	3	0.00	8	0.00	8	0.00	8
7 Max	0.91	3	0.04	1	-0.02	8	0.00	8	-0.00	8	0.00	3
7 Min.	0.32	8	0.03	6	-0.03	3	0.00	3	-0.00	3	0.00	8
8 Max	-0.03	8	0.01	3	-0.01	8	0.00	1	0.00	8	0.00	8
8 Min.	-0.10	3	0.01	8	-0.02	3	0.00	6	0.00	3	0.00	3
9 Max	-0.00	8	0.00	8	-0.02	8	0.00	3	0.00	8	0.00	3
9 Min.	-0.00	3	-0.00	3	-0.03	3	0.00	8	0.00	3	0.00	8
10 Max	0.09	3	-0.00	8	-0.02	8	0.00	8	0.00	3	0.00	3
10 Min.	0.03	8	-0.01	3	-0.03	3	0.00	6	0.00	8	0.00	8
11 Max	-0.37	8	0.05	3	-0.01	8	0.00	3	0.00	3	0.00	8
11 Min.	-1.09	3	0.02	8	-0.01	3	0.00	8	0.00	8	0.00	3
12 Max	0.19	3	0.00	8	-0.02	8	0.00	3	0.00	3	0.00	3
12 Min.	0.06	8	0.00	6	-0.03	3	0.00	8	0.00	8	0.00	8
13 Max	-0.01	8	0.02	3	-0.03	8	0.00	8	0.00	3	0.00	8
13 Min.	-0.01	3	0.01	8	-0.04	3	0.00	3	0.00	8	0.00	3

Verifiche aste in legno

Caratteristiche sezioni utilizzate

Sez.	= Numero della sezione
Cod.	= Codice della sezione
Tipo	= tipo di sezione: R = Rettangolare Cir. = Circolare
Area	= area della sezione
J_y, J_z	= momenti d'inerzia intorno agli assi Y, Z
I_y, I_z	= raggi d'inerzia intorno agli assi Y, Z
W_y, W_z	= moduli di resistenza intorno agli assi Y, Z

Verifiche di resistenza e stabilità

x_l	= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica <m>
N	= sforzo normale <daN>
M_y, M_z	= momenti flettenti intorno agli assi Y e Z <daNm>
T_y, T_z	= tagli in direzione Y e Z <daN>
σ_N, σ_M	= tensione per sforzo normale e per momento flettente <daN/cm ² >
τ	= tensione per taglio <daN/cm ² >
σ_{Rd}	= tensione resistente per flessione <daN/cm ² >
K_h	= coefficiente moltiplicativo per sezioni piccole (flessione)
K_m	= coefficiente di forma
K_{mod}	= coefficiente di durata dei carichi/umidità del legno
σ_{RdC}	= tensione resistente per compressione <daN/cm ² >
σ_{RdT}	= tensione resistente per trazione <daN/cm ² >
K_l	= coefficiente moltiplicativo per sezioni piccole (trazione)
τ_{Rd}	= tensione resistente per taglio <daN/cm ² >
[Lin.], [Par.]	= tipo di momento (Lineare, Parabolico)
$M_{y, sx}, M_{y, dx}$ asta) <daNm>	= momenti flettenti intorno all'asse Y a sinistra (inizio asta) e a destra (fine asta) <daNm>
$M_{z, sx}, M_{z, dx}$ asta) <daNm>	= momenti flettenti intorno all'asse Z a sinistra (inizio asta) e a destra (fine asta) <daNm>
$M_{y, eq}, M_{z, eq}$	= momenti flettenti equivalenti intorno agli assi Y e Z <daNm>

$\lambda_{rel,y}, \lambda_{rel,z}$ = snellezze intorno agli assi Y e Z
 $K_{c,y}, K_{c,z}$ = coefficienti di riduzione per stabilità
 L_{tors} = distanza fra ritegni torsionali 228
 $\lambda_{rel,m}$ = snellezza per instabilità flessione-torsionale
 K_{crit} = coefficiente per instabilità flessione-torsionale
 $M_{max,y}, M_{max,z}$ = momenti massimi agenti intorno agli assi Y e Z <daNm>
 $M_{eqx,y}, M_{eqx,z}$ = momenti equivalenti intorno agli assi Y e Z <daNm>

Verifiche di deformabilità

$f_{z,L}$ = freccia in direzione Z locale <cm>
 $f_{z,G}$ = freccia in direzione Z globale <cm>

Caratteristiche sezioni utilizzate

Sez.	Cod.	Tipo	Area <cmq>	Jy <cm4>	Jz <cm4>	Iy <cm>	Iz <cm>	Wymin <cm>	Wzmin <cm>
1 R	0.25x0.12	T R	300.00	3600.00	15625.00	3.46	7.22	600.00	1250.00
2 R	0.12x0.12	T R	144.00	1728.00	1728.00	3.46	3.46	288.00	288.00
4 R	0.2x0.2	T R	400.00	13333.30	13333.30	5.77	5.77	1333.33	1333.33
6 R	0.12x0.12	T R	144.00	1728.00	1728.00	3.46	3.46	288.00	288.00

Asta n. 2001 (-1032 11) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU Xl=0.68
 Sollecitazioni: N=17.21 Tz=-45.62 My=15.51 Ty=0.00 Mz=0.00

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.12$ $\sigma_M=5.39$ Sfr.=0.04

- Verifica Tensioni per taglio - CC 3 SLU Xl=0.68

Sollecitazioni: N=17.21 Tz=-45.62 My=15.51 Ty=0.00 Mz=0.00

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.48$ Sfr.=0.04

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: N=-0.00 $M_{max,y}=15.51$ $M_{eq,y}=11.63$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.00$ $\sigma_M=-4.04$ Sfr.=0.03

- Verifica Freccia massima - CC 6

$f_{z,L}=0.29$ (L/235) $f_{z,G}=0.27$ (L/252)

Asta n. 2001 (11 12) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU Xl=1.49

Sollecitazioni: N=-34.47 Tz=1.06 My=-60.80 Ty=0.00 Mz=0.00

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.24$ $\sigma_M=-21.11$ Sfr.=0.14

- Verifica Tensioni per taglio - CC 3 SLU Xl=0.00

Sollecitazioni: N=-72.24 Tz=101.19 My=15.51 Ty=0.00 Mz=0.00

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.05$ Sfr.=0.10

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: N=-72.24 $M_{max,y}=-60.80$ $M_{eq,y}=-45.60$ $M_{max,z}=0.41$ $M_{eq,z}=0.30$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=308.87 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.50$ $\sigma_M=-15.94$ Sfr.=0.11

- Verifica Freccia massima - CC 6

$f_{z,L}=0.56$ (L/513) $f_{z,G}=0.26$ (L/1104)

Asta n. 2002 (8 7) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU Xl=1.12

Sollecitazioni: N=-29.15 Tz=0.00 My=-23.79 Ty=0.00 Mz=0.00

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.20$ $\sigma_M=-8.26$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.25$
Sollecitazioni: $N=-65.69$ $T_z=-66.00$ $M_y=13.50$ $T_y=0.00$ $M_z=1.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.69$ $Sfr.=0.06$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-65.69$ $M_{max,y}=-23.79$ $M_{eq,y}=-17.84$ $M_{max,z}=1.97$ $M_{eq,z}=1.48$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.46$ $\sigma_M=-6.71$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.50$ (L/409) $f_{z,G}=0.06$ (L/3686)

Asta n. 2002 (-1020 7) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=21.97$ $T_z=-39.72$ $M_y=13.50$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.15$ $\sigma_M=4.69$ $Sfr.=0.03$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=21.97$ $T_z=-39.72$ $M_y=13.50$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.41$ $Sfr.=0.04$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=13.50$ $M_{eq,y}=10.13$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-3.52$ $Sfr.=0.02$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.20$ (L/346) $f_{z,G}=0.17$ (L/396)

Asta n. 2025 (13 1) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=1.23$
Sollecitazioni: $N=56.99$ $T_z=0.00$ $M_y=-55.21$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.40$ $\sigma_M=19.17$ $Sfr.=0.13$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=117.20$ $T_z=108.94$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.13$ $Sfr.=0.11$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=-55.21$ $M_{eq,y}=-41.41$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=14.38$ $Sfr.=0.10$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.14$ (L/1485) $f_{z,G}=0.11$ (L/1888)

Asta n. 2033 (1 5) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.40$
Sollecitazioni: $N=-60.96$ $T_z=0.00$ $M_y=-110.47$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.42$ $\sigma_M=-38.36$ $Sfr.=0.26$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.80$
Sollecitazioni: $N=0.00$ $T_z=-158.20$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.65$ $Sfr.=0.15$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-119.18$ $M_{max,y}=-110.47$ $M_{eq,y}=-82.85$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.83$ $\sigma_M=-28.77$ $Sfr.=0.20$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.52$ (L/540) $f_{z,G}=0.46$ (L/612)

Asta n. 2055 (3 4) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.40$
Sollecitazioni: $N=-70.50$ $T_z=0.00$ $M_y=-127.64$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-44.32$ $Sfr.=0.30$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.80$
Sollecitazioni: $N=0.00$ $T_z=-182.87$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.90$ $Sfr.=0.18$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-137.04$ $M_{max,y}=-127.64$ $M_{eq,y}=-95.73$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.95$ $\sigma_M=-33.24$ $Sfr.=0.23$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.56$ (L/500) $f_{z,G}=0.53$ (L/530)

Asta n. 2067 (3 -89) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.52$
Sollecitazioni: $N=400.88$ $T_z=801.74$ $M_y=-431.84$ $T_y=3.56$ $M_z=1.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.00$ $\sigma_M=32.53$ $Sfr.=0.23$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=390.55$ $T_z=840.09$ $M_y=0.00$ $T_y=3.56$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.15$ $Sfr.=0.30$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=390.55$ $M_{max,y}=-431.84$ $M_{eq,y}=-323.88$ $M_{max,z}=1.86$ $M_{eq,z}=1.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=52.36$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.98$ $\sigma_M=24.40$ $Sfr.=0.17$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.39$ (L/135) $f_{z,G}=0.37$ (L/140)

Asta n. 2067 (-89 -90) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.52$
Sollecitazioni: $N=574.95$ $T_z=449.78$ $M_y=-673.91$ $T_y=2.24$ $M_z=2.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.44$ $\sigma_M=50.77$ $Sfr.=0.36$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=564.61$ $T_z=488.14$ $M_y=-426.37$ $T_y=2.24$ $M_z=1.81$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.83$ $Sfr.=0.17$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=564.61$ $M_{max,y}=-673.91$ $M_{eq,y}=-673.91$ $M_{max,z}=2.98$ $M_{eq,z}=2.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=52.36$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.41$ $\sigma_M=50.77$ $Sfr.=0.36$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.30$ (L/173) $f_{z,G}=0.29$ (L/180)

Asta n. 2067 (-90 -91) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.52$
Sollecitazioni: $N=722.44$ $T_z=150.07$ $M_y=-760.02$ $T_y=1.13$ $M_z=3.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.81$ $\sigma_M=57.26$ $Sfr.=0.40$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=712.10$ $T_z=188.42$ $M_y=-669.43$ $T_y=1.13$ $M_z=2.91$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.71$ $Sfr.=0.07$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=712.10$ $M_{max,y}=-760.02$ $M_{eq,y}=-760.02$ $M_{max,z}=3.50$ $M_{eq,z}=3.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=52.36$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.78$ $\sigma_M=57.26$ $Sfr.=0.40$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.17$ (L/307) $f_{z,G}=0.16$ (L/319)

Asta n. 2067 (-91 -92) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=833.01$ $T_z=-59.15$ $M_y=-757.70$ $T_y=0.00$ $M_z=3.42$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=2.08$ $\sigma_M=57.08$ $Sfr.=0.40$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.52$
Sollecitazioni: $N=843.35$ $T_z=-97.50$ $M_y=-718.65$ $T_y=0.00$ $M_z=3.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.37$ $Sfr.=0.03$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=833.01$ $M_{max,y}=-757.70$ $M_{eq,y}=-757.70$ $M_{max,z}=3.54$ $M_{eq,z}=3.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=52.36$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=2.08$ $\sigma_M=57.09$ $Sfr.=0.40$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.03$ (L/1753) $f_{z,G}=0.03$ (L/1827)

Asta n. 2067 (-92 -93) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=927.35$ $T_z=-254.73$ $M_y=-719.85$ $T_y=0.00$ $M_z=3.41$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=2.32$ $\sigma_M=54.24$ $Sfr.=0.39$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.52$
Sollecitazioni: $N=937.68$ $T_z=-293.09$ $M_y=-578.38$ $T_y=0.00$ $M_z=3.22$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.10$ Sfr.=0.10

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=927.35$ $M_{max,Y}=-719.85$ $M_{eq,Y}=-719.85$ $M_{max,Z}=3.41$ $M_{eq,Z}=3.41$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=52.36 $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$

Tensioni: $\sigma_N=2.32$ $\sigma_M=54.24$ Sfr.=0.39

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.12$ (L/439) $f_{z,G}=0.12$ (L/453)

Asta n. 2067 (-93 -94) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=995.09$ $T_z=-398.80$ $M_y=-585.25$ $T_y=0.00$ $M_z=3.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=2.49$ $\sigma_M=44.12$ Sfr.=0.32

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.52$
Sollecitazioni: $N=1005.43$ $T_z=-437.15$ $M_y=-368.35$ $T_y=0.00$ $M_z=2.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.64$ Sfr.=0.15

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=995.09$ $M_{max,Y}=-585.25$ $M_{eq,Y}=-585.25$ $M_{max,Z}=3.03$ $M_{eq,Z}=3.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=52.36 $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$

Tensioni: $\sigma_N=2.49$ $\sigma_M=44.12$ Sfr.=0.32

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.23$ (L/224) $f_{z,G}=0.23$ (L/231)

Asta n. 2067 (-94 -95) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=1036.28$ $T_z=-492.47$ $M_y=-386.48$ $T_y=-1.02$ $M_z=2.21$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=2.59$ $\sigma_M=29.15$ Sfr.=0.22

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.52$
Sollecitazioni: $N=1046.62$ $T_z=-530.83$ $M_y=-120.53$ $T_y=-1.02$ $M_z=1.68$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.99$ Sfr.=0.19

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=1036.28$ $M_{max,Y}=-386.48$ $M_{eq,Y}=-329.56$ $M_{max,Z}=2.21$ $M_{eq,Z}=2.21$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=52.36 $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$

Tensioni: $\sigma_N=2.59$ $\sigma_M=24.88$ Sfr.=0.19

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.31$ (L/169) $f_{z,G}=0.30$ (L/175)

Asta n. 2067 (-95 9) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=1053.13$ $T_z=-543.23$ $M_y=-195.86$ $T_y=-1.20$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=2.63$ $\sigma_M=14.69$ Sfr.=0.13

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.35$
Sollecitazioni: $N=1058.80$ $T_z=-564.28$ $M_y=0.00$ $T_y=-1.20$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.12$ Sfr.=0.20

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=1053.13$ $M_{\max,Y}=-195.86$ $M_{eq,Y}=-146.89$ $M_{\max,Z}=0.43$ $M_{eq,Z}=0.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=52.36$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=2.63$ $\sigma_M=11.04$ $Sfr.=0.10$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.23$ (L/151) $f_{z,G}=0.23$ (L/157)

Asta n. 2068 (1 -77) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.43$
Sollecitazioni: $N=318.13$ $T_z=496.98$ $M_y=-222.95$ $T_y=-130.62$ $M_z=-56.77$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.80$ $\sigma_M=20.98$ $Sfr.=0.14$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=309.53$ $T_z=524.17$ $M_y=0.00$ $T_y=-130.62$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.03$ $Sfr.=0.19$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=309.53$ $M_{\max,Y}=-222.95$ $M_{eq,Y}=-167.21$ $M_{\max,Z}=-56.77$ $M_{eq,Z}=-42.58$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=43.46$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.77$ $\sigma_M=15.73$ $Sfr.=0.11$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.15$ (L/280) $f_{z,G}=0.15$ (L/294)

Asta n. 2068 (-77 -78) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.02$
Sollecitazioni: $N=318.54$ $T_z=413.97$ $M_y=-231.38$ $T_y=-95.33$ $M_z=-58.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.80$ $\sigma_M=21.73$ $Sfr.=0.15$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=318.04$ $T_z=415.55$ $M_y=-221.16$ $T_y=-95.33$ $M_z=-56.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.60$ $Sfr.=0.15$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=318.04$ $M_{\max,Y}=-231.38$ $M_{eq,Y}=-231.38$ $M_{\max,Z}=-58.35$ $M_{eq,Z}=-58.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=2.46$ $\lambda_{rel,m}=0.02$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.80$ $\sigma_M=21.73$ $Sfr.=0.15$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/305)

Asta n. 2068 (-78 -79) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.41$
Sollecitazioni: $N=407.51$ $T_z=262.37$ $M_y=-343.80$ $T_y=-68.12$ $M_z=-86.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.02$ $\sigma_M=32.27$ $Sfr.=0.21$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=399.41$ $T_z=288.01$ $M_y=-230.21$ $T_y=-68.12$ $M_z=-58.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.11$ $Sfr.=0.10$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=399.41$ $M_{max,Y}=-343.80$ $M_{eq,Y}=-343.80$ $M_{max,Z}=-86.50$ $M_{eq,Z}=-86.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=40.96 $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.00$ $\sigma_M=32.27$ Sfr.=0.21

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.12$ (L/355) $f_{z,G}=0.11$ (L/372)

Asta n. 2068 (-79 -86) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.29$
Sollecitazioni: $N=414.95$ $T_z=170.67$ $M_y=-395.11$ $T_y=-38.61$ $M_z=-96.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.04$ $\sigma_M=36.91$ Sfr.=0.24

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=407.51$ $T_z=194.21$ $M_y=-342.39$ $T_y=-38.61$ $M_z=-85.89$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.74$ Sfr.=0.07

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=407.51$ $M_{max,Y}=-395.11$ $M_{eq,Y}=-395.11$ $M_{max,Z}=-96.98$ $M_{eq,Z}=-96.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=28.73 $\lambda_{rel,m}=0.07$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.02$ $\sigma_M=36.91$ Sfr.=0.24

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.06$ (L/509) $f_{z,G}=0.05$ (L/535)

Asta n. 2068 (-86 -80) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.15$
Sollecitazioni: $N=489.97$ $T_z=49.41$ $M_y=-402.25$ $T_y=-14.26$ $M_z=-99.26$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.22$ $\sigma_M=37.61$ Sfr.=0.25

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=487.04$ $T_z=58.67$ $M_y=-394.25$ $T_y=-14.26$ $M_z=-97.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.23$ Sfr.=0.02

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=487.04$ $M_{max,Y}=-402.25$ $M_{eq,Y}=-402.25$ $M_{max,Z}=-99.26$ $M_{eq,Z}=-99.26$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=14.73 $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.22$ $\sigma_M=37.61$ Sfr.=0.25

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/760)

Asta n. 2068 (-80 -81) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=489.97$ $T_z=-5.44$ $M_y=-401.61$ $T_y=9.49$ $M_z=-98.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.22$ $\sigma_M=37.54$ Sfr.=0.25

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.43$
Sollecitazioni: $N=500.07$ $T_z=-37.41$ $M_y=-393.33$ $T_y=9.49$ $M_z=-94.85$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.14$ Sfr.=0.01

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=489.97$ $M_{max,Y}=-401.61$ $M_{eq,Y}=-401.61$ $M_{max,Z}=-98.98$ $M_{eq,Z}=-98.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=43.46$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=1.22$ $\sigma_M=37.54$ $Sfr.=0.25$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/2178) $f_{z,G}=0.02$ (L/2295)

Asta n. 2068 (-81 -87) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=500.07$ $T_z=-78.96$ $M_y=-393.90$ $T_y=27.50$ $M_z=-95.10$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=1.25$ $\sigma_M=36.68$ $Sfr.=0.25$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.12$
 Sollecitazioni: $N=503.07$ $T_z=-88.43$ $M_y=-384.23$ $T_y=27.50$ $M_z=-91.92$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.35$ $Sfr.=0.03$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=500.07$ $M_{max,Y}=-393.90$ $M_{eq,Y}=-393.90$ $M_{max,Z}=-95.10$ $M_{eq,Z}=-95.10$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=11.58$ $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=1.25$ $\sigma_M=36.68$ $Sfr.=0.25$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.00$ (L/2854)

Asta n. 2068 (-87 -82) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=550.29$ $T_z=-160.32$ $M_y=-384.19$ $T_y=43.75$ $M_z=-91.92$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=1.38$ $\sigma_M=35.71$ $Sfr.=0.24$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.32$
 Sollecitazioni: $N=556.58$ $T_z=-180.23$ $M_y=-330.48$ $T_y=43.75$ $M_z=-78.02$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.70$ $Sfr.=0.07$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=550.29$ $M_{max,Y}=-384.19$ $M_{eq,Y}=-384.19$ $M_{max,Z}=-91.92$ $M_{eq,Z}=-91.92$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=31.78$ $\lambda_{rel,m}=0.08$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=1.38$ $\sigma_M=35.71$ $Sfr.=0.24$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.03$ (L/1037) $f_{z,G}=0.03$ (L/1082)

Asta n. 2068 (-82 -88) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=556.57$ $T_z=-208.63$ $M_y=-333.02$ $T_y=56.04$ $M_z=-79.12$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=1.39$ $\sigma_M=30.91$ $Sfr.=0.21$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.38$
 Sollecitazioni: $N=566.44$ $T_z=-239.87$ $M_y=-248.43$ $T_y=56.04$ $M_z=-57.81$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.92$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=556.57$ $M_{max,Y}=-333.02$ $M_{eq,Y}=-333.02$ $M_{max,Z}=-79.12$ $M_{eq,Z}=-79.12$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=38.03$ $\lambda_{rel,m}=0.08$ $K_{crit}=1.00$

Tensioni: $\sigma_N=1.39$ $\sigma_M=30.91$ Sfr.=0.21

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.07$ (L/553) $f_{z,G}=0.07$ (L/579)

Asta n. 2068 (-88 -83) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=588.80$ $T_z=-273.01$ $M_y=-250.18$ $T_y=63.93$ $M_z=-57.44$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.47$ $\sigma_M=23.07$ Sfr.=0.16

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.05$
Sollecitazioni: $N=589.89$ $T_z=-276.43$ $M_y=-235.26$ $T_y=63.93$ $M_z=-53.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.06$ Sfr.=0.10

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=588.80$ $M_{max,Y}=-250.18$ $M_{eq,Y}=-250.18$ $M_{max,Z}=-57.44$ $M_{eq,Z}=-57.44$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=5.43$ $\lambda_{rel,m}=0.03$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.47$ $\sigma_M=23.07$ Sfr.=0.16

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/442)

Asta n. 2068 (-83 -84) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=589.84$ $T_z=-292.09$ $M_y=-241.67$ $T_y=70.61$ $M_z=-56.74$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.47$ $\sigma_M=22.38$ Sfr.=0.16

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.43$
Sollecitazioni: $N=598.99$ $T_z=-321.05$ $M_y=-109.46$ $T_y=70.61$ $M_z=-26.05$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.23$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=589.84$ $M_{max,Y}=-241.67$ $M_{eq,Y}=-228.24$ $M_{max,Z}=-56.74$ $M_{eq,Z}=-53.82$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=43.46$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.47$ $\sigma_M=21.15$ Sfr.=0.15

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.11$ (L/380) $f_{z,G}=0.11$ (L/398)

Asta n. 2068 (-84 -85) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=598.98$ $T_z=-325.37$ $M_y=-132.10$ $T_y=72.50$ $M_z=-35.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.50$ $\sigma_M=12.60$ Sfr.=0.10

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.21$
Sollecitazioni: $N=604.38$ $T_z=-342.46$ $M_y=-62.55$ $T_y=72.50$ $M_z=-20.73$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.31$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=598.98$ $M_{max,Y}=-132.10$ $M_{eq,Y}=-126.53$ $M_{max,Z}=-35.86$ $M_{eq,Z}=-35.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=20.86$ $\lambda_{rel,m}=0.06$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.50$ $\sigma_M=12.18$ Sfr.=0.09

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.06$ (L/337) $f_{z,G}=0.06$ (L/353)

Asta n. 2068 (-85 6) R 0.2x0.2 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=606.20$ $T_z=-345.34$ $M_y=-81.10$ $T_y=73.06$ $M_z=-16.84$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=1.52$ $\sigma_M=7.35$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.23$
Sollecitazioni: $N=610.80$ $T_z=-359.89$ $M_y=0.00$ $T_y=73.06$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.38$ $Sfr.=0.13$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=606.20$ $M_{max,Y}=-81.10$ $M_{eq,Y}=-60.83$ $M_{max,Z}=-16.84$ $M_{eq,Z}=-12.63$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=36.66$ $\lambda_{rel,m}=0.08$ $K_{crit}=1.00$
Tensioni: $\sigma_N=1.52$ $\sigma_M=5.51$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.07$ (L/311) $f_{z,G}=0.07$ (L/325)

Asta n. 2101 (3 10) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.43$
Sollecitazioni: $N=-66.50$ $T_z=0.00$ $M_y=-125.35$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.46$ $\sigma_M=-43.52$ $Sfr.=0.29$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.85$
Sollecitazioni: $N=0.00$ $T_z=-176.13$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.83$ $Sfr.=0.17$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-129.10$ $M_{max,Y}=-125.35$ $M_{eq,Y}=-94.01$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.90$ $\sigma_M=-32.64$ $Sfr.=0.23$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.59$ (L/487) $f_{z,G}=0.54$ (L/531)

Asta n. 4003 (-1031 -120) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,Y}=28.59$ $M_{eq,Y}=21.44$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.43$ (L/156) $f_{z,G}=0.41$ (L/167)

Asta n. 4003 (-120 -121) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-38.92$ $Sfr.=0.26$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=0.57$ $M_{eq,z}=0.43$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-29.33$ $Sfr.=0.20$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.76$ (L/373) $f_{z,G}=0.48$ (L/597)

Asta n. 4004 (-43 -54) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=1.21$ $M_z=-1.09$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-15.51$ $Sfr.=0.10$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=1.21$ $M_z=-2.46$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ $Sfr.=0.12$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-2.46$ $M_{eq,z}=-1.84$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-11.99$ $Sfr.=0.09$
 - Verifica Freccia massima - CC 6
 $f_{z,G}=0.28$ (L/726) $f_{z,L}=0.26$ (L/788)

Asta n. 4004 (-1019 -43) R 0.12x0.12 T Crit. 3

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ $Sfr.=0.07$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.14$ (L/481) $f_{z,G}=0.12$ (L/551)

Asta n. 4005 (-1030 -119) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=28.59$ $M_{eq,y}=21.44$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/154) $f_{z,G}=0.41$ (L/165)

Asta n. 4005 (-119 -122) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-38.92$ $Sfr.=0.26$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=0.00$ $M_z=1.28$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=1.28$ $M_{eq,z}=0.96$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-29.52$ $Sfr.=0.20$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.78$ (L/365) $f_{z,G}=0.50$ (L/575)

Asta n. 4006 (-44 -55) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=1.84$ $M_z=-1.66$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-15.71$ $Sfr.=0.10$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=1.84$ $M_z=-3.75$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ $Sfr.=0.12$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-3.75$ $M_{eq,z}=-2.81$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-12.33$ $Sfr.=0.09$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.44$ (L/460) $f_{z,L}=0.15$ (L/1399)

Asta n. 4006 (-1018 -44) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ $Sfr.=0.07$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.09$ (L/769) $f_{z,G}=0.08$ (L/879)

Asta n. 4007 (-1029 -118) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=28.59$ $M_{eq,y}=21.44$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/155) $f_{z,G}=0.41$ (L/166)

Asta n. 4007 (-118 -123) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-38.92$ $Sfr.=0.26$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=0.00$ $M_z=1.99$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=1.99$ $M_{eq,z}=1.49$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-29.71$ $Sfr.=0.21$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.77$ (L/368) $f_{z,G}=0.50$ (L/574)

Asta n. 4008 (-45 -56) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=2.64$ $M_z=-2.38$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.37$ $\sigma_M=-15.96$ Sfr.=0.11

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=2.64$ $M_z=-5.36$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.26$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-5.36$ $M_{eq,z}=-4.02$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=225.14 $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.84$ $\sigma_M=-12.75$ Sfr.=0.09

- Verifica Freccia massima - CC 6

$f_{z,g}=0.46$ (L/440) $f_{z,L}=0.12$ (L/1695)

Asta n. 4008 (-1017 -45) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ Sfr.=0.06

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.76$ Sfr.=0.07

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=-6.44$ Sfr.=0.04

- Verifica Freccia massima - CC 6

$f_{z,L}=0.08$ (L/902) $f_{z,g}=0.07$ (L/1031)

Asta n. 4009 (-1028 -117) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ Sfr.=0.07

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.88$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=0.00$ $M_{max,y}=28.59$ $M_{eq,y}=21.44$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=-7.45$ Sfr.=0.05

- Verifica Freccia massima - CC 6

$f_{z,L}=0.41$ (L/165) $f_{z,g}=0.39$ (L/176)

Asta n. 4009 (-117 -124) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.49$

Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=0.00$ $M_z=1.11$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.44$ $\sigma_M=-39.30$ Sfr.=0.26

- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=0.00$ $M_z=2.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=2.32$ $M_{eq,z}=1.74$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-29.79$ $Sfr.=0.21$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.71$ (L/401) $f_{z,G}=0.47$ (L/606)

Asta n. 4010 (-46 -57) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_1=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=3.40$ $M_z=-3.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.20$ $Sfr.=0.11$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=3.40$ $M_z=-6.90$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ $Sfr.=0.12$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-6.90$ $M_{eq,z}=-5.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-13.15$ $Sfr.=0.09$
- Verifica Freccia massima - CC 6
 $f_{z,G}=0.35$ (L/576) $f_{z,L}=0.16$ (L/1232)

Asta n. 4010 (-1016 -46) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ $Sfr.=0.07$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.10$ (L/692) $f_{z,G}=0.09$ (L/791)

Asta n. 4011 (-1027 -116) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.68$

Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=28.59$ $M_{eq,y}=21.44$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.34$ (L/200) $f_{z,G}=0.32$ (L/213)

Asta n. 4011 (-116 -125) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-1.17$ $M_z=1.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-39.47$ $Sfr.=0.26$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-1.17$ $M_z=3.34$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=3.34$ $M_{eq,z}=2.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-30.06$ $Sfr.=0.21$
- Verifica Freccia massima - CC 6
 $f_{z,G}=0.64$ (L/449) $f_{z,L}=0.54$ (L/525)

Asta n. 4012 (-47 -58) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=3.92$ $M_z=-3.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.36$ $Sfr.=0.11$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=3.92$ $M_z=-7.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ $Sfr.=0.12$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-7.97$ $M_{eq,z}=-5.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-13.42$ $Sfr.=0.09$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.25$ (L/816) $f_{z,G}=0.19$ (L/1086)

Asta n. 4012 (-1015 -47) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.76$ Sfr.=0.07

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,Y}=24.73$ $M_{eq,Y}=18.55$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-6.44$ Sfr.=0.04

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.14$ (L/494) $f_{z,G}=0.12$ (L/565)

Asta n. 4013 (-1026 -115) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ Sfr.=0.07
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,Y}=28.59$ $M_{eq,Y}=21.44$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.25$ (L/267) $f_{z,G}=0.24$ (L/286)

Asta n. 4013 (-115 -126) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-1.93$ $M_z=2.63$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-39.83$ Sfr.=0.26
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-1.93$ $M_z=5.50$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ Sfr.=0.18
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,Y}=-112.08$ $M_{eq,Y}=-84.06$ $M_{max,Z}=5.50$ $M_{eq,Z}=4.13$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-30.62$ Sfr.=0.21
- Verifica Freccia massima - CC 6
 $f_{z,G}=0.85$ (L/336) $f_{z,L}=0.63$ (L/453)

Asta n. 4014 (-48 -59) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=4.01$ $M_z=-3.62$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.39$ Sfr.=0.11
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=4.01$ $M_z=-8.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ Sfr.=0.12

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{\max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{\max,z}=-8.16$ $M_{eq,z}=-6.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-13.47$ $Sfr.=0.09$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.30$ (L/667) $f_{z,G}=0.11$ (L/1784)

Asta n. 4014 (-1014 -48) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ $Sfr.=0.07$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{\max,y}=24.73$ $M_{eq,y}=18.55$ $M_{\max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.16$ (L/431) $f_{z,G}=0.14$ (L/492)

Asta n. 4015 (-1025 -114) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{\max,y}=28.59$ $M_{eq,y}=21.44$ $M_{\max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.18$ (L/377) $f_{z,G}=0.17$ (L/403)

Asta n. 4015 (-114 -127) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-2.96$ $M_z=4.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-40.31$ $Sfr.=0.27$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-2.96$ $M_z=8.44$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=-133.16$ $M_{max,y}=-112.08$ $M_{eq,y}=-84.06$ $M_{max,z}=8.44$ $M_{eq,z}=6.33$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=308.87 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-31.38$ Sfr.=0.21

- Verifica Freccia massima - CC 6
 $f_{z,g}=1.05$ (L/272) $f_{z,L}=0.80$ (L/355)

Asta n. 4016 (-49 -60) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=4.33$ $M_z=-3.90$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.49$ Sfr.=0.11

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=4.33$ $M_z=-8.79$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-8.79$ $M_{eq,z}=-6.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=225.14 $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-13.64$ Sfr.=0.09

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.19$ (L/1078) $f_{z,g}=0.18$ (L/1105)

Asta n. 4016 (-1013 -49) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ Sfr.=0.06

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ Sfr.=0.07

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-6.44$ Sfr.=0.04

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.11$ (L/617) $f_{z,g}=0.10$ (L/706)

Asta n. 4017 (-1024 -113) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ Sfr.=0.07

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=28.59$ $M_{eq,y}=21.44$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.13$ (L/503) $f_{z,G}=0.13$ (L/538)

Asta n. 4017 (-113 -128) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
 Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-4.11$ $M_z=5.60$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.44$ $\sigma_M=-40.86$ $Sfr.=0.27$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-4.11$ $M_z=11.73$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.94$ $Sfr.=0.18$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-133.16$ $M_{max,Y}=-112.08$ $M_{eq,Y}=-84.06$ $M_{max,Z}=11.73$ $M_{eq,Z}=8.80$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.92$ $\sigma_M=-32.24$ $Sfr.=0.22$

- Verifica Freccia massima - CC 6
 $f_{z,G}=1.17$ (L/244) $f_{z,L}=0.93$ (L/307)

Asta n. 4018 (-50 -61) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
 Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=5.02$ $M_z=-4.53$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.70$ $Sfr.=0.11$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=5.02$ $M_z=-10.20$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.26$ $Sfr.=0.12$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-120.32$ $M_{max,Y}=-43.58$ $M_{eq,Y}=-32.68$ $M_{max,Z}=-10.20$ $M_{eq,Z}=-7.65$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.84$ $\sigma_M=-14.01$ $Sfr.=0.10$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.34$ (L/592) $f_{z,L}=0.12$ (L/1763)

Asta n. 4018 (-1012 -50) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
 Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
 Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.76$ $Sfr.=0.07$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=0.00$ $M_{max,Y}=24.73$ $M_{eq,Y}=18.55$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=-6.44$ Sfr.=0.04

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.04$ (L/1596) $f_{z,G}=0.04$ (L/1828)

Asta n. 4019 (-1023 -112) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ Sfr.=0.07

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.88$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,Y}=28.59$ $M_{eq,Y}=21.44$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.45$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.13$ (L/525) $f_{z,G}=0.12$ (L/562)

Asta n. 4019 (-112 -129) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.49$
Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-5.24$ $M_z=7.14$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.44$ $\sigma_M=-41.39$ Sfr.=0.27

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-5.24$ $M_z=14.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ Sfr.=0.18

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,Y}=-112.08$ $M_{eq,Y}=-84.06$ $M_{max,Z}=14.95$ $M_{eq,Z}=11.22$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-33.08$ Sfr.=0.22

- Verifica Freccia massima - CC 6
 $f_{z,G}=1.15$ (L/248) $f_{z,L}=0.94$ (L/302)

Asta n. 4020 (-51 -62) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=5.90$ $M_z=-5.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-16.98$ Sfr.=0.11

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=5.90$ $M_z=-11.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,Y}=-43.58$ $M_{eq,Y}=-32.68$ $M_{max,Z}=-11.98$ $M_{eq,Z}=-8.99$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-14.47$ Sfr.=0.10

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.45$ (L/453) $f_{z,L}=0.21$ (L/971)

Asta n. 4020 (-1011 -51) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.76$ $Sfr.=0.07$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=-0.00$ $M_{max,Y}=24.73$ $M_{eq,Y}=18.55$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$

- Verifica Freccia massima - CC 8

$f_{z,L}=0.03$ (L/2068) $f_{z,G}=0.03$ (L/2361)

Asta n. 4021 (-1022 -111) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.22$ $\sigma_M=9.93$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=31.72$ $T_z=-84.09$ $M_y=28.59$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.88$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=0.00$ $M_{max,Y}=28.59$ $M_{eq,Y}=21.44$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=-7.45$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6

$f_{z,L}=0.16$ (L/413) $f_{z,G}=0.15$ (L/441)

Asta n. 4021 (-111 -130) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.49$

Sollecitazioni: $N=-63.54$ $T_z=1.95$ $M_y=-112.08$ $T_y=-6.20$ $M_z=8.45$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.44$ $\sigma_M=-41.85$ $Sfr.=0.27$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-133.16$ $T_z=186.54$ $M_y=28.59$ $T_y=-6.20$ $M_z=17.70$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.94$ $Sfr.=0.18$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=-133.16$ $M_{max,Y}=-112.08$ $M_{eq,Y}=-84.06$ $M_{max,Z}=17.70$ $M_{eq,Z}=13.28$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.92$ $\sigma_M=-33.80$ $Sfr.=0.22$

- Verifica Freccia massima - CC 6

$f_{z,G}=0.98$ (L/290) $f_{z,L}=0.85$ (L/337)

Asta n. 4022 (-52 -63) R 0.12x0.12 T Crit. 1

-
- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.13$
Sollecitazioni: $N=-53.43$ $T_z=0.00$ $M_y=-43.58$ $T_y=6.76$ $M_z=-6.10$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.37$ $\sigma_M=-17.25$ $Sfr.=0.11$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-120.32$ $T_z=120.90$ $M_y=24.73$ $T_y=6.76$ $M_z=-13.74$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.26$ $Sfr.=0.12$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-43.58$ $M_{eq,y}=-32.68$ $M_{max,z}=-13.74$ $M_{eq,z}=-10.30$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-14.93$ $Sfr.=0.10$
 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.43$ (L/477) $f_{z,L}=0.25$ (L/822)

Asta n. 4022 (-1010 -52) R 0.12x0.12 T Crit. 3

-
- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=8.59$ $Sfr.=0.06$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=40.25$ $T_z=-72.75$ $M_y=24.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.76$ $Sfr.=0.07$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=24.73$ $M_{eq,y}=18.55$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-6.44$ $Sfr.=0.04$
 - Verifica Freccia massima - CC 8
 $f_{z,L}=0.04$ (L/1662) $f_{z,g}=0.04$ (L/1898)

Asta n. 4023 (-1021 -110) R 0.12x0.12 T Crit. 3

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=17.21$ $T_z=-45.62$ $M_y=15.51$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.12$ $\sigma_M=5.39$ $Sfr.=0.04$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=17.21$ $T_z=-45.62$ $M_y=15.51$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.48$ $Sfr.=0.04$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=15.51$ $M_{eq,y}=11.63$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-4.04$ $Sfr.=0.03$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.29$ (L/236) $f_{z,g}=0.27$ (L/252)

Asta n. 4023 (-110 -131) R 0.12x0.12 T Crit. 1

-
- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.43$
Sollecitazioni: $N=-66.58$ $T_z=5.43$ $M_y=-118.23$ $T_y=-6.87$ $M_z=9.81$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.46$ $\sigma_M=-44.46$ $Sfr.=0.29$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-133.16$ $T_z=181.96$ $M_y=15.51$ $T_y=-6.87$ $M_z=19.62$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.90$ $Sfr.=0.18$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-133.16$ $M_{max,y}=-118.35$ $M_{eq,y}=-88.76$ $M_{max,z}=19.62$ $M_{eq,z}=14.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=308.87$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.92$ $\sigma_M=-35.93$ $Sfr.=0.24$
 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.76$ (L/373) $f_{z,L}=0.71$ (L/402)

Asta n. 4024 (-53 -64) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.02$
Sollecitazioni: $N=-60.16$ $T_z=6.64$ $M_y=-48.50$ $T_y=7.42$ $M_z=-7.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.42$ $\sigma_M=-19.46$ $Sfr.=0.13$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-120.32$ $T_z=115.38$ $M_y=13.50$ $T_y=7.42$ $M_z=-15.08$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.20$ $Sfr.=0.11$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-120.32$ $M_{max,y}=-48.70$ $M_{eq,y}=-36.53$ $M_{max,z}=-15.08$ $M_{eq,z}=-11.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=225.14$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.84$ $\sigma_M=-16.61$ $Sfr.=0.11$
 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.26$ (L/771) $f_{z,L}=0.21$ (L/961)

Asta n. 4024 (-1009 -53) R 0.12x0.12 T Crit. 3

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=21.97$ $T_z=-39.72$ $M_y=13.50$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.15$ $\sigma_M=4.69$ $Sfr.=0.03$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=21.97$ $T_z=-39.72$ $M_y=13.50$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.41$ $Sfr.=0.04$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=13.50$ $M_{eq,y}=10.13$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-3.52$ $Sfr.=0.02$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.03$ (L/2080) $f_{z,g}=0.03$ (L/2380)

Asta n. 4025 (-1046 -137) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.20$

Sollecitazioni: $N=86.42$ $T_z=-946.43$ $M_y=226.49$ $T_y=2.14$ $M_z=138.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.29$ $\sigma_M=48.86$ $Sfr.=0.31$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.20$
Sollecitazioni: $N=86.42$ $T_z=-946.43$ $M_y=226.49$ $T_y=2.14$ $M_z=138.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=4.73$ $Sfr.=0.44$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=86.42$ $M_{max,y}=226.49$ $M_{eq,y}=170.59$ $M_{max,z}=138.86$ $M_{eq,z}=138.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=20.18$ $\lambda_{rel,m}=0.12$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.29$ $\sigma_M=39.54$ $Sfr.=0.25$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/875)

Asta n. 4025 (-137 -1047) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=70.72$ $T_z=954.11$ $M_y=226.49$ $T_y=171.00$ $M_z=40.11$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.24$ $\sigma_M=40.96$ $Sfr.=0.27$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=70.72$ $T_z=954.11$ $M_y=226.49$ $T_y=171.00$ $M_z=40.11$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=4.85$ $Sfr.=0.45$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=70.72$ $M_{max,y}=226.49$ $M_{eq,y}=175.19$ $M_{max,z}=73.07$ $M_{eq,z}=73.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=19.27$ $\lambda_{rel,m}=0.11$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.24$ $\sigma_M=35.04$ $Sfr.=0.23$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/1832)

Asta n. 4026 (-89 -96) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.24$
Sollecitazioni: $N=-57.47$ $T_z=0.00$ $M_y=-93.61$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.40$ $\sigma_M=-32.50$ $Sfr.=0.22$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=2.47$
Sollecitazioni: $N=0.00$ $T_z=-152.24$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.59$ $Sfr.=0.15$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-111.15$ $M_{max,y}=-93.61$ $M_{eq,y}=-70.21$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=270.26$ $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.77$ $\sigma_M=-24.38$ $Sfr.=0.17$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.52$ (L/473) $f_{z,L}=0.51$ (L/483)

Asta n. 4027 (-90 -97) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.04$
Sollecitazioni: $N=-48.62$ $T_z=0.00$ $M_y=-66.42$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.34$ $\sigma_M=-23.06$ Sfr.=0.15

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.08$

Sollecitazioni: $N=0.00$ $T_z=-128.24$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.34$ Sfr.=0.13

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-93.12$ $M_{max,y}=-66.42$ $M_{eq,y}=-49.81$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=231.65 $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.65$ $\sigma_M=-17.30$ Sfr.=0.12

- Verifica Freccia massima - CC 6

$f_{z,g}=0.68$ (L/304) $f_{z,L}=0.64$ (L/322)

Asta n. 4028 (-91 -98) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.85$

Sollecitazioni: $N=-39.61$ $T_z=0.00$ $M_y=-43.84$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.28$ $\sigma_M=-15.22$ Sfr.=0.10

- Verifica Tensioni per taglio - CC 3 SLU $X_l=1.70$

Sollecitazioni: $N=0.00$ $T_z=-104.19$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.09$ Sfr.=0.10

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-75.09$ $M_{max,y}=-43.84$ $M_{eq,y}=-32.88$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=193.04 $\lambda_{rel,m}=0.25$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.52$ $\sigma_M=-11.42$ Sfr.=0.08

- Verifica Freccia massima - CC 6

$f_{z,g}=0.85$ (L/200) $f_{z,L}=0.82$ (L/207)

Asta n. 4029 (-92 -99) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.66$

Sollecitazioni: $N=-30.46$ $T_z=0.00$ $M_y=-25.87$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.21$ $\sigma_M=-8.98$ Sfr.=0.06

- Verifica Tensioni per taglio - CC 3 SLU $X_l=1.31$

Sollecitazioni: $N=0.00$ $T_z=-80.04$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.83$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-57.06$ $M_{max,y}=-25.87$ $M_{eq,y}=-19.41$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=154.44 $\lambda_{rel,m}=0.22$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.40$ $\sigma_M=-6.74$ Sfr.=0.05

- Verifica Freccia massima - CC 6

$f_{z,g}=0.87$ (L/150) $f_{z,L}=0.85$ (L/154)

Asta n. 4030 (-93 -100) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.46$

Sollecitazioni: $N=-21.58$ $T_z=1.53$ $M_y=-12.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.15$ $\sigma_M=-4.35$ Sfr.=0.03

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.92$
Sollecitazioni: $N=0.00$ $T_z=-55.69$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.58$ $Sfr.=0.05$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-39.04$ $M_{max,y}=-12.52$ $M_{eq,y}=-9.39$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=115.83$ $\lambda_{rel,m}=0.19$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.27$ $\sigma_M=-3.26$ $Sfr.=0.02$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.75$ (L/122) $f_{z,L}=0.74$ (L/125)

Asta n. 4031 (-94 -101) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.29$
Sollecitazioni: $N=-11.51$ $T_z=0.00$ $M_y=-3.83$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.08$ $\sigma_M=-1.33$ $Sfr.=0.01$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.54$
Sollecitazioni: $N=0.00$ $T_z=-30.70$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.32$ $Sfr.=0.03$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-21.01$ $M_{max,y}=-3.83$ $M_{eq,y}=-2.87$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=77.22$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.15$ $\sigma_M=-1.00$ $Sfr.=0.01$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.53$ (L/102) $f_{z,L}=0.52$ (L/104)

Asta n. 4032 (-95 -102) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-4.50$ $T_z=5.68$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.03$ $\sigma_M=0.00$ $Sfr.=0.00$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.15$
Sollecitazioni: $N=0.00$ $T_z=-6.24$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.07$ $Sfr.=0.01$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.23$ (L/67) $f_{z,L}=0.22$ (L/67)

Asta n. 4033 (-144 -1067) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-38.65$ $T_z=1756.92$ $M_y=735.12$ $T_y=-10.98$ $M_z=190.83$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.13$ $\sigma_M=-137.79$ $Sfr.=0.89$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-38.65$ $T_z=1756.92$ $M_y=735.12$ $T_y=-10.98$ $M_z=190.83$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=8.78$ $Sfr.=0.82$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-38.65$ $M_{max,y}=735.12$ $M_{eq,y}=599.67$ $M_{max,z}=190.83$ $M_{eq,z}=190.83$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.13$ $\sigma_M=-115.21$ Sfr.=0.74

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.11$ (L/299)

Asta n. 4033 (-1067 -1068) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-42.98$ $T_z=1248.26$ $M_y=186.93$ $T_y=-57.73$ $M_z=197.19$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.14$ $\sigma_M=-46.93$ Sfr.=0.28

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-42.98$ $T_z=1248.26$ $M_y=186.93$ $T_y=-57.73$ $M_z=197.19$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=6.25$ Sfr.=0.59

- Verifica σ_{max} per stabilità flesso-torsionale - CC 3 SLU
Sollecitazioni: $N=-42.98$ $M_{max,y}=-189.49$ $M_{eq,y}=-189.49$ $M_{max,z}=197.19$ $M_{eq,z}=197.19$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.14$ $\sigma_M=-47.36$ Sfr.=0.29

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.17$ (L/197)

Asta n. 4033 (-1068 -1069) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-47.99$ $T_z=479.22$ $M_y=-395.25$ $T_y=-104.48$ $M_z=154.23$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.16$ $\sigma_M=-78.21$ Sfr.=0.50

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-47.99$ $T_z=739.60$ $M_y=-190.08$ $T_y=-104.48$ $M_z=189.41$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.73$ Sfr.=0.35

- Verifica σ_{max} per stabilità flesso-torsionale - CC 3 SLU
Sollecitazioni: $N=-47.99$ $M_{max,y}=-395.25$ $M_{eq,y}=-380.47$ $M_{max,z}=189.41$ $M_{eq,z}=189.41$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.16$ $\sigma_M=-78.56$ Sfr.=0.50

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.11$ (L/309)

Asta n. 4033 (-1069 -1070) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.23$
Sollecitazioni: $N=-53.89$ $T_z=51.92$ $M_y=-428.69$ $T_y=-151.23$ $M_z=132.93$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.18$ $\sigma_M=-82.08$ Sfr.=0.53

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-53.89$ $T_z=230.93$ $M_y=-395.96$ $T_y=-151.23$ $M_z=167.93$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.38$ Sfr.=0.13

- Verifica σ_{max} per stabilità flesso-torsionale - CC 3 SLU
Sollecitazioni: $N=-53.89$ $M_{max,y}=-429.88$ $M_{eq,y}=-429.88$ $M_{max,z}=167.93$ $M_{eq,z}=167.93$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.18$ $\sigma_M=-85.08$ Sfr.=0.54

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.03$ (L/1280)

Asta n. 4033 (-1070 -1071) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-60.65$ $T_z=-277.73$ $M_y=-430.69$ $T_y=-197.98$ $M_z=132.72$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.20$ $\sigma_M=-82.40$ Sfr.=0.53
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-60.65$ $T_z=-538.11$ $M_y=-293.36$ $T_y=-197.98$ $M_z=66.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.87$ Sfr.=0.27
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-60.65$ $M_{max,y}=-430.69$ $M_{eq,y}=-430.69$ $M_{max,z}=132.72$ $M_{eq,z}=129.21$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.20$ $\sigma_M=-82.12$ Sfr.=0.53
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.16$ (L/213)

Asta n. 4033 (-1071 -140) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-68.07$ $T_z=-743.81$ $M_y=-294.25$ $T_y=-247.41$ $M_z=83.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.23$ $\sigma_M=-55.70$ Sfr.=0.36
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-68.07$ $T_z=-1004.19$ $M_y=0.00$ $T_y=-247.41$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=5.17$ Sfr.=0.48
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-68.07$ $M_{max,y}=-294.25$ $M_{eq,y}=-220.68$ $M_{max,z}=83.29$ $M_{eq,z}=62.47$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.23$ $\sigma_M=-41.78$ Sfr.=0.27
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.25$ (L/132)

Asta n. 4034 (-988 -1) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.58$
Sollecitazioni: $N=17.20$ $T_z=-44.67$ $M_y=13.56$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.12$ $\sigma_M=4.71$ Sfr.=0.03
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.58$
Sollecitazioni: $N=17.20$ $T_z=-44.67$ $M_y=13.56$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.47$ Sfr.=0.04
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.81$ $M_{max,y}=13.56$ $M_{eq,y}=10.17$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=58.00 $\lambda_{rel,m}=0.14$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.01$ $\sigma_M=3.53$ Sfr.=0.02

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.35$ (L/163) $f_{z,G}=0.33$ (L/175)

Asta n. 4034 (-1 -22) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.40$
Sollecitazioni: $N=-73.49$ $T_z=4.84$ $M_y=-126.75$ $T_y=-7.19$ $M_z=10.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.51$ $\sigma_M=-47.50$ Sfr.=0.31

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=195.64$ $M_y=13.56$ $T_y=-7.19$ $M_z=20.13$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.04$ Sfr.=0.19

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,Y}=-126.83$ $M_{eq,Y}=-95.12$ $M_{max,Z}=20.13$ $M_{eq,Z}=15.09$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-38.27$ Sfr.=0.25

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.58$ (L/480) $f_{z,G}=0.54$ (L/522)

Asta n. 4035 (-989 -2) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=34.89$ $T_z=-90.60$ $M_y=30.19$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.24$ $\sigma_M=10.48$ Sfr.=0.07

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=34.89$ $T_z=-90.60$ $M_y=30.19$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.94$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.40$ $M_{max,Y}=30.19$ $M_{eq,Y}=22.65$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=7.86$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.36$ (L/188) $f_{z,G}=0.34$ (L/202)

Asta n. 4035 (-2 -23) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.46$
Sollecitazioni: $N=-70.14$ $T_z=2.10$ $M_y=-118.84$ $T_y=-6.47$ $M_z=8.65$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-44.27$ Sfr.=0.29

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=201.58$ $M_y=30.19$ $T_y=-6.47$ $M_z=18.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,Y}=-118.84$ $M_{eq,Y}=-89.13$ $M_{max,Z}=18.12$ $M_{eq,Z}=13.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-35.67$ Sfr.=0.24

- Verifica Freccia massima - CC 6

$f_{z,L}=0.57$ (L/489) $f_{z,G}=0.51$ (L/548)

Asta n. 4036 (-990 -3) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.97$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=0.00$ $M_{max,Y}=31.52$ $M_{eq,Y}=23.64$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6

$f_{z,L}=0.38$ (L/178) $f_{z,G}=0.36$ (L/191)

Asta n. 4036 (-3 -24) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$

Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-5.55$ $M_z=7.40$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.62$ $Sfr.=0.29$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-5.55$ $M_z=15.54$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.11$ $Sfr.=0.20$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=-146.97$ $M_{max,Y}=-118.22$ $M_{eq,Y}=-88.66$ $M_{max,Z}=15.54$ $M_{eq,Z}=11.66$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-1.02$ $\sigma_M=-34.83$ $Sfr.=0.23$

- Verifica Freccia massima - CC 6

$f_{z,L}=0.63$ (L/445) $f_{z,G}=0.49$ (L/576)

Asta n. 4037 (-991 -4) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$

Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=0.97$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU

Sollecitazioni: $N=-0.00$ $M_{max,Y}=31.52$ $M_{eq,Y}=23.64$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

$L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6

$f_{z,L}=0.41$ (L/165) $f_{z,G}=0.38$ (L/177)

Asta n. 4037 (-4 -25) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_1=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-4.62$ $M_z=6.17$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.19$ $Sfr.=0.28$
 - Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-4.62$ $M_z=12.94$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ $Sfr.=0.20$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=12.94$ $M_{eq,z}=9.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-34.16$ $Sfr.=0.23$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.70$ (L/402) $f_{z,G}=0.47$ (L/601)

Asta n. 4038 (-992 -5) R 0.12x0.12 T Crit. 3

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$
 - Verifica Tensioni per taglio - CC 3 SLU $X_1=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.42$ (L/160) $f_{z,G}=0.40$ (L/171)

Asta n. 4038 (-5 -26) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_1=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-4.28$ $M_z=5.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.03$ $Sfr.=0.28$
 - Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-4.28$ $M_z=11.98$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ $Sfr.=0.20$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=11.98$ $M_{eq,z}=8.99$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-33.91$ $Sfr.=0.23$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.73$ (L/385) $f_{z,G}=0.47$ (L/597)

Asta n. 4039 (-993 -6) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.42$ (L/160) $f_{z,G}=0.39$ (L/172)

Asta n. 4039 (-6 -27) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-3.56$ $M_z=4.75$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-42.70$ $Sfr.=0.28$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-3.56$ $M_z=9.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ $Sfr.=0.20$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=9.97$ $M_{eq,z}=7.48$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-33.38$ $Sfr.=0.23$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.72$ (L/387) $f_{z,G}=0.48$ (L/582)

Asta n. 4040 (-994 -7) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.42$ (L/160) $f_{z,G}=0.39$ (L/172)

Asta n. 4040 (-7 -28) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-2.66$ $M_z=3.55$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-42.28$ Sfr.=0.28

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-2.66$ $M_z=7.45$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=7.45$ $M_{eq,z}=5.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-32.73$ Sfr.=0.22

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.72$ (L/387) $f_{z,G}=0.50$ (L/557)

Asta n. 4041 (-995 -8) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.43$ (L/157) $f_{z,G}=0.40$ (L/168)

Asta n. 4041 (-8 -29) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=-1.74$ $M_z=2.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-41.85$ Sfr.=0.28

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=-1.74$ $M_z=4.88$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=4.88$ $M_{eq,z}=3.66$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-32.06$ Sfr.=0.22

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.75$ (L/375) $f_{z,G}=0.50$ (L/564)

Asta n. 4042 (-996 -9) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.45$ (L/152) $f_{z,G}=0.42$ (L/162)

Asta n. 4042 (-9 -30) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=0.00$ $M_z=1.28$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-41.49$ Sfr.=0.28

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=0.00$ $M_z=2.69$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=2.69$ $M_{eq,z}=2.02$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-31.49$ Sfr.=0.22

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.78$ (L/358) $f_{z,G}=0.47$ (L/590)

Asta n. 4043 (-997 -10) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/152) $f_{z,G}=0.41$ (L/163)

Asta n. 4043 (-10 -31) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-41.05$ Sfr.=0.27

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=0.00$ $M_z=1.20$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=1.20$ $M_{eq,z}=0.90$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-31.10$ Sfr.=0.22
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.77$ (L/361) $f_{z,G}=0.48$ (L/579)

Asta n. 4044 (-998 -11) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ Sfr.=0.05
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.43$ (L/156) $f_{z,G}=0.40$ (L/167)

Asta n. 4044 (-11 -32) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-41.05$ Sfr.=0.27
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=0.00$ $M_z=-1.30$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=-1.30$ $M_{eq,z}=-0.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-31.12$ Sfr.=0.22
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.75$ (L/374) $f_{z,G}=0.51$ (L/547)

Asta n. 4045 (-999 -12) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.43$ (L/157) $f_{z,G}=0.40$ (L/169)

Asta n. 4045 (-12 -33) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=1.48$ $M_z=-1.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-41.73$ $Sfr.=0.28$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=1.48$ $M_z=-4.13$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ $Sfr.=0.20$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=-4.13$ $M_{eq,z}=-3.10$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-31.86$ $Sfr.=0.22$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.74$ (L/377) $f_{z,G}=0.51$ (L/543)

Asta n. 4046 (-1000 -13) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/155) $f_{z,G}=0.41$ (L/166)

Asta n. 4046 (-13 -34) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=2.42$ $M_z=-3.23$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-42.17$ $Sfr.=0.28$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=2.42$ $M_z=-6.78$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.10$ Sfr.=0.20

- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{\max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{\max,z}=-6.78$ $M_{eq,z}=-5.09$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-32.55$ Sfr.=0.22
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.75$ (L/371) $f_{z,G}=0.49$ (L/570)

Asta n. 4047 (-1001 -14) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09
- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{\max,y}=31.52$ $M_{eq,y}=23.64$ $M_{\max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ Sfr.=0.05
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/154) $f_{z,G}=0.41$ (L/165)

Asta n. 4047 (-14 -35) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=3.11$ $M_z=-4.15$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-42.49$ Sfr.=0.28
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=3.11$ $M_z=-8.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ Sfr.=0.20
- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{\max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{\max,z}=-8.71$ $M_{eq,z}=-6.54$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-33.05$ Sfr.=0.23
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.76$ (L/368) $f_{z,G}=0.47$ (L/593)

Asta n. 4048 (-1002 -15) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{\max,Y}=31.52$ $M_{eq,Y}=23.64$ $M_{\max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.42$ (L/160) $f_{z,G}=0.40$ (L/172)

Asta n. 4048 (-15 -36) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=3.48$ $M_z=-4.64$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-42.66$ $Sfr.=0.28$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=3.48$ $M_z=-9.75$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ $Sfr.=0.20$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{\max,Y}=-118.22$ $M_{eq,Y}=-88.66$ $M_{\max,Z}=-9.75$ $M_{eq,Z}=-7.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-33.32$ $Sfr.=0.23$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.72$ (L/386) $f_{z,G}=0.49$ (L/572)

Asta n. 4049 (-1003 -16) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ $Sfr.=0.08$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ $Sfr.=0.09$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{\max,Y}=31.52$ $M_{eq,Y}=23.64$ $M_{\max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-8.21$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.40$ (L/169) $f_{z,G}=0.37$ (L/181)

Asta n. 4049 (-16 -37) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=4.45$ $M_z=-5.94$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.11$ $Sfr.=0.28$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=4.45$ $M_z=-12.46$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ $Sfr.=0.20$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{\max,Y}=-118.22$ $M_{eq,Y}=-88.66$ $M_{\max,Z}=-12.46$ $M_{eq,Z}=-9.35$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=303.27 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-1.02$ $\sigma_M=-34.03$ Sfr.=0.23

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.67$ (L/415) $f_{z,G}=0.52$ (L/539)

Asta n. 4050 (-1004 -17) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
 Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
 Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.39$ (L/175) $f_{z,G}=0.36$ (L/188)

Asta n. 4050 (-17 -38) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.47$
 Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=5.44$ $M_z=-7.26$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.57$ Sfr.=0.29

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
 Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=5.44$ $M_z=-15.24$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=2.11$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=-15.24$ $M_{eq,z}=-11.43$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=303.27 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-1.02$ $\sigma_M=-34.75$ Sfr.=0.23

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.64$ (L/436) $f_{z,G}=0.52$ (L/533)

Asta n. 4051 (-1005 -18) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.68$
 Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.68$
 Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.38$ (L/177) $f_{z,G}=0.36$ (L/190)

Asta n. 4051 (-18 -39) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=6.28$ $M_z=-8.37$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-43.95$ Sfr.=0.29

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=6.28$ $M_z=-17.57$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=-17.57$ $M_{eq,z}=-13.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=303.27 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-35.36$ Sfr.=0.24

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.63$ (L/442) $f_{z,G}=0.50$ (L/561)

Asta n. 4052 (-1006 -136) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=10.94$ Sfr.=0.08

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=35.70$ $T_z=-92.69$ $M_y=31.52$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.97$ Sfr.=0.09

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=31.52$ $M_{eq,y}=23.64$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=68.00 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=-8.21$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.38$ (L/178) $f_{z,G}=0.36$ (L/191)

Asta n. 4052 (-136 -40) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.47$
Sollecitazioni: $N=-70.00$ $T_z=2.22$ $M_y=-118.22$ $T_y=6.77$ $M_z=-9.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-44.18$ Sfr.=0.29

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=202.05$ $M_y=31.52$ $T_y=6.77$ $M_z=-18.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.11$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.22$ $M_{eq,y}=-88.66$ $M_{max,z}=-18.95$ $M_{eq,z}=-14.21$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=303.27 $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-35.72$ Sfr.=0.24

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.63$ (L/446) $f_{z,G}=0.47$ (L/597)

Asta n. 4053 (-1007 -20) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=34.89$ $T_z=-90.60$ $M_y=30.19$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.24$ $\sigma_M=10.48$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.68$
Sollecitazioni: $N=34.89$ $T_z=-90.60$ $M_y=30.19$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.94$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.40$ $M_{max,y}=30.19$ $M_{eq,y}=22.65$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=68.00$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=7.86$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.37$ (L/185) $f_{z,G}=0.34$ (L/198)

Asta n. 4053 (-20 -41) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.46$
Sollecitazioni: $N=-70.14$ $T_z=2.10$ $M_y=-118.84$ $T_y=7.53$ $M_z=-10.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-44.76$ $Sfr.=0.29$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-146.97$ $T_z=201.58$ $M_y=30.19$ $T_y=7.53$ $M_z=-21.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.10$ $Sfr.=0.20$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,y}=-118.84$ $M_{eq,y}=-89.13$ $M_{max,z}=-21.07$ $M_{eq,z}=-15.80$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-36.43$ $Sfr.=0.24$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.58$ (L/478) $f_{z,G}=0.47$ (L/589)

Asta n. 4054 (-1008 -21) R 0.12x0.12 T Crit. 3

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.58$
Sollecitazioni: $N=17.20$ $T_z=-44.67$ $M_y=13.56$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.12$ $\sigma_M=4.71$ $Sfr.=0.03$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.58$
Sollecitazioni: $N=17.20$ $T_z=-44.67$ $M_y=13.56$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.47$ $Sfr.=0.04$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.81$ $M_{max,y}=13.56$ $M_{eq,y}=10.17$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=58.00$ $\lambda_{rel,m}=0.14$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.01$ $\sigma_M=3.53$ $Sfr.=0.02$

- Verifica Freccia massima - CC 6

$f_{z,L}=0.35$ (L/165) $f_{z,G}=0.33$ (L/176)

Asta n. 4054 (-21 -42) R 0.12x0.12 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.40$
Sollecitazioni: $N=-73.49$ $T_z=4.84$ $M_y=-126.75$ $T_y=8.13$ $M_z=-11.38$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.51$ $\sigma_M=-47.96$ Sfr.=0.31
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-146.97$ $T_z=195.64$ $M_y=13.56$ $T_y=8.13$ $M_z=-22.77$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.04$ Sfr.=0.19
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-146.97$ $M_{max,Y}=-126.83$ $M_{eq,Y}=-95.12$ $M_{max,Z}=-22.77$ $M_{eq,Z}=-17.08$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=303.27$ $\lambda_{rel,m}=0.31$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-38.96$ Sfr.=0.26
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.57$ (L/487) $f_{z,G}=0.52$ (L/538)

Asta n. 4055 (-1101 -138) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=25.77$ $T_z=-1347.19$ $M_y=642.33$ $T_y=-119.23$ $M_z=158.01$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.09$ $\sigma_M=119.69$ Sfr.=0.78
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=25.77$ $T_z=-1347.19$ $M_y=642.33$ $T_y=-119.23$ $M_z=158.01$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=6.76$ Sfr.=0.63
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=25.77$ $M_{max,Y}=642.33$ $M_{eq,Y}=526.57$ $M_{max,Z}=200.14$ $M_{eq,Z}=200.14$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.09$ $\sigma_M=103.77$ Sfr.=0.66
 - Verifica Freccia massima - CC 6
 $f_{z,G}=0.30$ (L/116)

Asta n. 4055 (-1100 -1101) R 0.25x0.12 T Crit. 2

-
- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=24.60$ $T_z=-1018.15$ $M_y=-193.57$ $T_y=-60.47$ $M_z=225.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.08$ $\sigma_M=50.27$ Sfr.=0.30
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=24.60$ $T_z=-1026.42$ $M_y=167.64$ $T_y=-60.47$ $M_z=203.71$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=5.14$ Sfr.=0.48
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=24.60$ $M_{max,Y}=-193.57$ $M_{eq,Y}=-193.57$ $M_{max,Z}=225.07$ $M_{eq,Z}=225.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.08$ $\sigma_M=50.27$ Sfr.=0.30
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.36$ (L/98)

Asta n. 4055 (-1099 -1100) R 0.25x0.12 T Crit. 2

-
- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=22.67$ $T_z=-697.38$ $M_y=-441.67$ $T_y=-1.71$ $M_z=231.56$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.08$ $\sigma_M=92.14$ $Sfr.=0.58$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=22.67$ $T_z=-705.65$ $M_y=-193.80$ $T_y=-1.71$ $M_z=230.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.53$ $Sfr.=0.33$
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=22.67$ $M_{max,y}=-441.67$ $M_{eq,y}=-413.05$ $M_{max,z}=231.56$ $M_{eq,z}=231.56$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.08$ $\sigma_M=87.37$ $Sfr.=0.55$
 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.30$ (L/118)

Asta n. 4055 (-1098 -1099) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=19.72$ $T_z=-376.61$ $M_y=-576.55$ $T_y=57.05$ $M_z=220.42$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.07$ $\sigma_M=113.72$ $Sfr.=0.73$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=19.72$ $T_z=-384.88$ $M_y=-442.02$ $T_y=57.05$ $M_z=240.57$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.95$ $Sfr.=0.18$
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=19.72$ $M_{max,y}=-576.55$ $M_{eq,y}=-576.55$ $M_{max,z}=240.57$ $M_{eq,z}=240.57$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.07$ $\sigma_M=115.34$ $Sfr.=0.73$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.16$ (L/227)

Asta n. 4055 (-1097 -1098) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=15.61$ $T_z=-55.83$ $M_y=-598.23$ $T_y=115.81$ $M_z=192.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.05$ $\sigma_M=115.07$ $Sfr.=0.74$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=15.61$ $T_z=-64.10$ $M_y=-577.04$ $T_y=115.81$ $M_z=232.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.66$ $Sfr.=0.06$
 - Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=15.61$ $M_{max,y}=-598.23$ $M_{eq,y}=-598.23$ $M_{max,z}=232.95$ $M_{eq,z}=232.95$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.05$ $\sigma_M=118.34$ $Sfr.=0.76$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.04$ (L/868)

Asta n. 4055 (-1096 -1097) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=10.37$ $T_z=256.67$ $M_y=-598.86$ $T_y=174.57$ $M_z=208.01$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.03$ $\sigma_M=116.45$ $Sfr.=0.75$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=10.37$ $T_z=264.94$ $M_y=-506.71$ $T_y=174.57$ $M_z=146.33$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.59$ $Sfr.=0.15$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=10.37$ $M_{max,y}=-598.86$ $M_{eq,y}=-598.86$ $M_{max,z}=208.01$ $M_{eq,z}=208.01$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.03$ $\sigma_M=116.45$ $Sfr.=0.75$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.22$ (L/158)

Asta n. 4055 (-1034 -1096) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=4.17$ $T_z=577.44$ $M_y=-507.45$ $T_y=233.33$ $M_z=165.25$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.01$ $\sigma_M=97.80$ $Sfr.=0.63$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=4.17$ $T_z=585.71$ $M_y=-301.96$ $T_y=233.33$ $M_z=82.81$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.15$ $Sfr.=0.30$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=4.17$ $M_{max,y}=-507.45$ $M_{eq,y}=-507.45$ $M_{max,z}=165.25$ $M_{eq,z}=161.24$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.01$ $\sigma_M=97.47$ $Sfr.=0.63$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.39$ (L/91)

Asta n. 4055 (-139 -1034) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=-2.70$ $T_z=852.81$ $M_y=-302.79$ $T_y=293.71$ $M_z=103.78$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.01$ $\sigma_M=58.77$ $Sfr.=0.38$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-2.70$ $T_z=861.08$ $M_y=0.00$ $T_y=293.71$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=4.55$ $Sfr.=0.43$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-2.70$ $M_{max,y}=-302.79$ $M_{eq,y}=-227.09$ $M_{max,z}=103.78$ $M_{eq,z}=77.83$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=35.33$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.01$ $\sigma_M=-44.08$ $Sfr.=0.28$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.48$ (L/72)

Asta n. 4056 (-89 -103) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.21$
Sollecitazioni: $N=-58.41$ $T_z=0.00$ $M_y=-91.35$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.41$ $\sigma_M=-31.72$ Sfr.=0.21

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.42$
 Sollecitazioni: $N=0.00$ $T_z=-151.54$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.58$ Sfr.=0.15

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=-112.97$ $M_{max,y}=-91.35$ $M_{eq,y}=-68.51$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=265.36$ $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.78$ $\sigma_M=-23.79$ Sfr.=0.17

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.52$ (L/466) $f_{z,G}=0.51$ (L/478)

Asta n. 4057 (-90 -104) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.02$
 Sollecitazioni: $N=-49.41$ $T_z=0.00$ $M_y=-64.77$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.34$ $\sigma_M=-22.49$ Sfr.=0.15

- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.04$
 Sollecitazioni: $N=0.00$ $T_z=-127.61$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.33$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=-94.61$ $M_{max,y}=-64.77$ $M_{eq,y}=-48.58$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=227.45$ $\lambda_{rel,m}=0.27$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.66$ $\sigma_M=-16.87$ Sfr.=0.12

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.68$ (L/298) $f_{z,L}=0.68$ (L/301)

Asta n. 4058 (-91 -105) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.83$
 Sollecitazioni: $N=-40.23$ $T_z=0.00$ $M_y=-42.72$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.28$ $\sigma_M=-14.83$ Sfr.=0.10

- Verifica Tensioni per taglio - CC 3 SLU $X_l=1.66$
 Sollecitazioni: $N=0.00$ $T_z=-103.63$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.08$ Sfr.=0.10

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=-76.26$ $M_{max,y}=-42.72$ $M_{eq,y}=-32.04$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=189.54$ $\lambda_{rel,m}=0.24$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.53$ $\sigma_M=-11.12$ Sfr.=0.08

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.85$ (L/196) $f_{z,L}=0.84$ (L/197)

Asta n. 4059 (-92 -106) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.64$
 Sollecitazioni: $N=-30.92$ $T_z=0.00$ $M_y=-25.18$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N = -0.21$ $\sigma_M = -8.74$ Sfr.=0.06

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 1.28$
Sollecitazioni: $N = 0.00$ $T_z = -79.56$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 0.83$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -57.91$ $M_{max,y} = -25.18$ $M_{eq,y} = -18.88$ $M_{max,z} = 0.00$ $M_{eq,z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 151.63$ $\lambda_{rel,m} = 0.22$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.40$ $\sigma_M = -6.56$ Sfr.=0.05

- Verifica Freccia massima - CC 6
 $f_{z,g} = 0.86$ (L/148) $f_{z,L} = 0.86$ (L/148)

Asta n. 4060 (-93 -107) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.45$
Sollecitazioni: $N = -21.88$ $T_z = 1.53$ $M_y = -12.15$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.15$ $\sigma_M = -4.22$ Sfr.=0.03

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 0.90$
Sollecitazioni: $N = 0.00$ $T_z = -55.28$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 0.58$ Sfr.=0.05

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -39.56$ $M_{max,y} = -12.15$ $M_{eq,y} = -9.11$ $M_{max,z} = 0.00$ $M_{eq,z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 113.72$ $\lambda_{rel,m} = 0.19$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.27$ $\sigma_M = -3.16$ Sfr.=0.02

- Verifica Freccia massima - CC 6
 $f_{z,g} = 0.75$ (L/120)

Asta n. 4061 (-94 -108) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.28$
Sollecitazioni: $N = -11.62$ $T_z = 0.00$ $M_y = -3.69$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.08$ $\sigma_M = -1.28$ Sfr.=0.01

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 0.52$
Sollecitazioni: $N = 0.00$ $T_z = -30.36$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 0.32$ Sfr.=0.03

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -21.20$ $M_{max,y} = -3.69$ $M_{eq,y} = -2.77$ $M_{max,z} = 0.00$ $M_{eq,z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 75.82$ $\lambda_{rel,m} = 0.15$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.15$ $\sigma_M = -0.96$ Sfr.=0.01

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.52$ (L/100)

Asta n. 4062 (-95 -109) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.00$
Sollecitazioni: $N = -4.45$ $T_z = 5.50$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.03$ $\sigma_M = 0.00$ Sfr.=0.00

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.15$
Sollecitazioni: $N=0.00$ $T_z=-6.04$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.06$ $Sfr.=0.01$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.22$ (L/64)

Asta n. 4063 (-65 -77) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=1.10$
Sollecitazioni: $N=49.17$ $T_z=0.00$ $M_y=-41.60$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.34$ $\sigma_M=14.44$ $Sfr.=0.10$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=101.57$ $T_z=94.76$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.99$ $Sfr.=0.09$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=0.00$ $M_{max,y}=-41.60$ $M_{eq,y}=-31.20$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=198.09$ $\lambda_{rel,m}=0.25$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.00$ $\sigma_M=10.83$ $Sfr.=0.07$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.18$ (L/953) $f_{z,G}=0.15$ (L/1176)

Asta n. 4064 (-66 -79) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.96$
Sollecitazioni: $N=41.10$ $T_z=0.00$ $M_y=-29.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.29$ $\sigma_M=10.32$ $Sfr.=0.07$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=85.42$ $T_z=80.11$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.83$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=-29.73$ $M_{eq,y}=-22.30$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=171.05$ $\lambda_{rel,m}=0.23$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-7.74$ $Sfr.=0.05$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.30$ (L/502) $f_{z,G}=0.25$ (L/589)

Asta n. 4065 (-67 -80) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.82$
Sollecitazioni: $N=33.25$ $T_z=0.00$ $M_y=-19.83$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.23$ $\sigma_M=6.88$ $Sfr.=0.05$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=69.28$ $T_z=65.43$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.68$ $Sfr.=0.06$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,y}=-19.83$ $M_{eq,y}=-14.87$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=143.99$ $\lambda_{rel,m}=0.21$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.00$ $\sigma_M=-5.16$ $Sfr.=0.03$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.37$ (L/333) $f_{z,G}=0.32$ (L/382)

Asta n. 4066 (-68 -81) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.69$
 Sollecitazioni: $N=25.06$ $T_z=0.00$ $M_y=-11.89$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.17$ $\sigma_M=4.13$ $Sfr.=0.03$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.22$
 Sollecitazioni: $N=53.09$ $T_z=50.66$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.53$ $Sfr.=0.05$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=0.00$ $M_{max,y}=-11.89$ $M_{eq,y}=-8.92$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=116.93$ $\lambda_{rel,m}=0.19$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.00$ $\sigma_M=3.10$ $Sfr.=0.02$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.38$ (L/250) $f_{z,G}=0.33$ (L/284)

Asta n. 4069 (-78 -72) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.22$
 Sollecitazioni: $N=-51.17$ $T_z=0.00$ $M_y=-79.10$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.36$ $\sigma_M=-27.47$ $Sfr.=0.18$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=2.41$
 Sollecitazioni: $N=0.00$ $T_z=-132.48$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.38$ $Sfr.=0.13$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-96.33$ $M_{max,y}=-79.10$ $M_{eq,y}=-59.33$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=264.75$ $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.67$ $\sigma_M=-20.60$ $Sfr.=0.14$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.31$ (L/769) $f_{z,L}=0.31$ (L/787)

Asta n. 4070 (-69 -82) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.52$
 Sollecitazioni: $N=19.18$ $T_z=3.71$ $M_y=-5.89$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.13$ $\sigma_M=2.04$ $Sfr.=0.02$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.22$
 Sollecitazioni: $N=36.96$ $T_z=35.84$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.37$ $Sfr.=0.03$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=0.00$ $M_{max,y}=-5.95$ $M_{eq,y}=-4.46$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=89.93$ $\lambda_{rel,m}=0.17$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.00$ $\sigma_M=1.55$ Sfr.=0.01

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.34$ (L/200) $f_{z,G}=0.30$ (L/226)

Asta n. 4071 (-86 -73) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.93$
Sollecitazioni: $N=-45.85$ $T_z=0.00$ $M_y=-53.38$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.32$ $\sigma_M=-18.54$ Sfr.=0.12

- Verifica Tensioni per taglio - CC 3 SLU $Xl=1.83$
Sollecitazioni: $N=0.00$ $T_z=-118.56$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.24$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-85.95$ $M_{max,Y}=-53.38$ $M_{eq,Y}=-40.04$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=206.31$ $\lambda_{rel,m}=0.26$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.60$ $\sigma_M=-13.90$ Sfr.=0.10

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.31$ (L/590) $f_{z,L}=0.27$ (L/668)

Asta n. 4072 (-70 -83) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.40$
Sollecitazioni: $N=10.18$ $T_z=1.45$ $M_y=-1.97$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.07$ $\sigma_M=0.68$ Sfr.=0.01

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.22$
Sollecitazioni: $N=20.81$ $T_z=20.67$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.22$ Sfr.=0.02

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-0.00$ $M_{max,Y}=-1.98$ $M_{eq,Y}=-1.49$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=62.87$ $\lambda_{rel,m}=0.14$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.00$ $\sigma_M=-0.52$ Sfr.=0.00

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.25$ (L/161) $f_{z,G}=0.23$ (L/181)

Asta n. 4073 (-87 -74) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.62$
Sollecitazioni: $N=-31.49$ $T_z=2.57$ $M_y=-23.78$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.22$ $\sigma_M=-8.26$ Sfr.=0.06

- Verifica Tensioni per taglio - CC 3 SLU $Xl=1.24$
Sollecitazioni: $N=0.00$ $T_z=-79.18$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.82$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-56.31$ $M_{max,Y}=-23.78$ $M_{eq,Y}=-17.83$ $M_{max,Z}=-0.00$ $M_{eq,Z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=147.79$ $\lambda_{rel,m}=0.22$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.39$ $\sigma_M=-6.19$ Sfr.=0.04

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.35$ (L/359) $f_{z,L}=0.31$ (L/396)

Asta n. 4074 (-71 -84) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=5.52$ $T_z=5.28$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.04$ $\sigma_M=0.00$ $Sfr.=0.00$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.22$
Sollecitazioni: $N=5.52$ $T_z=5.28$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.05$ $Sfr.=0.01$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.14$ (L/101) $f_{z,G}=0.12$ (L/114)

Asta n. 4075 (-88 -75) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.35$
Sollecitazioni: $N=-14.68$ $T_z=0.00$ $M_y=-5.73$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.10$ $\sigma_M=-1.99$ $Sfr.=0.01$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.66$
Sollecitazioni: $N=0.00$ $T_z=-38.17$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.40$ $Sfr.=0.04$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-26.62$ $M_{max,Y}=-5.73$ $M_{eq,Y}=-4.30$ $M_{max,Z}=0.00$ $M_{eq,Z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=89.25$ $\lambda_{rel,m}=0.17$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.18$ $\sigma_M=-1.49$ $Sfr.=0.01$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.25$ (L/261) $f_{z,L}=0.23$ (L/283)

Asta n. 4076 (-85 -76) R 0.12x0.12 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-2.14$ $T_z=2.73$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.01$ $\sigma_M=0.00$ $Sfr.=0.00$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.07$
Sollecitazioni: $N=0.00$ $T_z=-2.83$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.03$ $Sfr.=0.00$

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.07$ (L/102) $f_{z,L}=0.07$ (L/110)

Asta n. 4080 (-145 -1033) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.34$
Sollecitazioni: $N=-11.29$ $T_z=776.48$ $M_y=-305.36$ $T_y=148.23$ $M_z=72.10$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.04$ $\sigma_M=-56.66$ $Sfr.=0.37$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=-11.29$ $T_z=1036.86$ $M_y=0.00$ $T_y=148.23$ $M_z=22.20$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=5.24$ $Sfr.=0.49$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-11.29$ $M_{\max,y}=-305.36$ $M_{eq,y}=-229.02$ $M_{\max,z}=72.10$ $M_{eq,z}=61.30$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=33.67$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.04$ $\sigma_M=-43.07$ $Sfr.=0.28$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.26$ (L/128)

Asta n. 4080 (-1033 -1063) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-12.50$ $T_z=267.81$ $M_y=-439.50$ $T_y=101.48$ $M_z=109.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.04$ $\sigma_M=-81.98$ $Sfr.=0.53$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-12.50$ $T_z=528.19$ $M_y=-305.51$ $T_y=101.48$ $M_z=74.91$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.69$ $Sfr.=0.25$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-12.50$ $M_{\max,y}=-439.50$ $M_{eq,y}=-439.50$ $M_{\max,z}=109.07$ $M_{eq,z}=109.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=33.67$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.04$ $\sigma_M=-81.98$ $Sfr.=0.53$

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.16$ (L/206)

Asta n. 4080 (-1063 -1064) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.04$
Sollecitazioni: $N=-14.34$ $T_z=-13.01$ $M_y=-439.86$ $T_y=54.73$ $M_z=115.66$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.05$ $\sigma_M=-82.56$ $Sfr.=0.53$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-14.34$ $T_z=-240.84$ $M_y=-402.47$ $T_y=54.73$ $M_z=131.78$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.23$ $Sfr.=0.12$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-14.34$ $M_{\max,y}=-439.72$ $M_{eq,y}=-439.72$ $M_{\max,z}=131.78$ $M_{eq,z}=131.78$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=33.67$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.05$ $\sigma_M=-83.83$ $Sfr.=0.54$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.03$ (L/1152)

Asta n. 4080 (-1064 -1065) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-16.98$ $T_z=-489.13$ $M_y=-402.79$ $T_y=7.98$ $M_z=137.91$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.06$ $\sigma_M=-78.16$ $Sfr.=0.50$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.34$
Sollecitazioni: $N=-16.98$ $T_z=-749.51$ $M_y=-194.28$ $T_y=7.98$ $M_z=140.60$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.75$ $Sfr.=0.35$

- Verifica σ_{\max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-16.98$ $M_{\max,y}=-402.79$ $M_{eq,y}=-388.09$ $M_{\max,z}=140.60$ $M_{eq,z}=140.60$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.06$ $\sigma_M=-75.93$ Sfr.=0.49

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.11$ (L/312)

Asta n. 4080 (-1065 -1066) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.00$
 Sollecitazioni: $N=-20.38$ $T_z=-997.80$ $M_y=-194.69$ $T_y=-38.77$ $M_z=148.49$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.07$ $\sigma_M=-44.33$ Sfr.=0.27

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.34$
 Sollecitazioni: $N=-20.38$ $T_z=-1258.18$ $M_y=185.07$ $T_y=-38.77$ $M_z=135.44$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=6.29$ Sfr.=0.59

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-20.38$ $M_{max,Y}=-194.69$ $M_{eq,Y}=-194.69$ $M_{max,Z}=148.49$ $M_{eq,Z}=148.49$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.07$ $\sigma_M=-44.33$ Sfr.=0.27

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.17$ (L/196)

Asta n. 4080 (-1066 -144) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.34$
 Sollecitazioni: $N=-24.29$ $T_z=-1766.84$ $M_y=735.60$ $T_y=-85.52$ $M_z=115.75$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=-0.08$ $\sigma_M=-131.86$ Sfr.=0.86

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.34$
 Sollecitazioni: $N=-24.29$ $T_z=-1766.84$ $M_y=735.60$ $T_y=-85.52$ $M_z=115.75$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=8.84$ Sfr.=0.83

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=-24.29$ $M_{max,Y}=735.60$ $M_{eq,Y}=598.12$ $M_{max,Z}=144.54$ $M_{eq,Z}=144.54$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Ltors=33.67 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=-0.08$ $\sigma_M=-111.25$ Sfr.=0.72

- Verifica Freccia massima - CC 6
 $f_{z,G}=0.11$ (L/297)

Asta n. 4081 (-1104 -146) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
 Sollecitazioni: $N=13.88$ $T_z=-22.35$ $M_y=-9.37$ $T_y=-168.21$ $M_z=65.84$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.05$ $\sigma_M=6.83$ Sfr.=0.04

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.35$
 Sollecitazioni: $N=13.88$ $T_z=-30.61$ $M_y=0.00$ $T_y=-168.21$ $M_z=6.40$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=0.85$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
 Sollecitazioni: $N=13.88$ $M_{max,Y}=-9.37$ $M_{eq,Y}=-7.03$ $M_{max,Z}=65.84$ $M_{eq,Z}=49.38$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=35.33 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.05$ $\sigma_M=5.12$ Sfr.=0.03

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.03$ (L/1253)

Asta n. 4081 (-1103 -1104) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=13.69$ $T_z=298.43$ $M_y=94.59$ $T_y=-109.45$ $M_z=105.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.05$ $\sigma_M=24.17$ Sfr.=0.15

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=13.69$ $T_z=298.43$ $M_y=94.59$ $T_y=-109.45$ $M_z=105.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.59$ Sfr.=0.15

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=13.69$ $M_{max,y}=94.59$ $M_{eq,y}=70.94$ $M_{max,z}=105.12$ $M_{eq,z}=105.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=35.33 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.05$ $\sigma_M=20.23$ Sfr.=0.12

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.03$ (L/1173)

Asta n. 4081 (-1102 -1103) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=13.24$ $T_z=619.20$ $M_y=311.86$ $T_y=-50.69$ $M_z=124.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.04$ $\sigma_M=61.93$ Sfr.=0.40

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=13.24$ $T_z=619.20$ $M_y=311.86$ $T_y=-50.69$ $M_z=124.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.11$ Sfr.=0.29

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=13.24$ $M_{max,y}=311.86$ $M_{eq,y}=264.15$ $M_{max,z}=124.40$ $M_{eq,z}=124.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=35.33 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.04$ $\sigma_M=53.98$ Sfr.=0.34

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.01$ (L/3257)

Asta n. 4081 (-138 -1102) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=12.54$ $T_z=939.97$ $M_y=642.43$ $T_y=8.07$ $M_z=123.67$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.04$ $\sigma_M=116.97$ Sfr.=0.76

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=12.54$ $T_z=939.97$ $M_y=642.43$ $T_y=8.07$ $M_z=123.67$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=4.70$ Sfr.=0.44

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=12.54$ $M_{max,y}=642.43$ $M_{eq,y}=620.23$ $M_{max,z}=126.52$ $M_{eq,z}=126.52$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=35.33 $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.04$ $\sigma_M=113.49$ Sfr.=0.74

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.10$ (L/340)

Asta n. 4101 (-1051 -141) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=86.36$ $T_z=-1194.37$ $M_y=-166.35$ $T_y=-89.77$ $M_z=12.49$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.29$ $\sigma_M=28.72$ $Sfr.=0.19$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.14$
Sollecitazioni: $N=86.36$ $T_z=-1197.63$ $M_y=0.00$ $T_y=-89.77$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=6.00$ $Sfr.=0.56$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=86.36$ $M_{max,Y}=-166.35$ $M_{eq,Y}=-124.76$ $M_{max,Z}=12.49$ $M_{eq,Z}=9.36$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=13.91$ $\lambda_{rel,m}=0.10$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.29$ $\sigma_M=21.54$ $Sfr.=0.15$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/627)

Asta n. 4101 (-141 -1052) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.26$
Sollecitazioni: $N=70.85$ $T_z=364.14$ $M_y=-93.78$ $T_y=161.67$ $M_z=41.30$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.24$ $\sigma_M=18.93$ $Sfr.=0.12$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=70.85$ $T_z=370.12$ $M_y=0.00$ $T_y=161.67$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.02$ $Sfr.=0.19$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=70.85$ $M_{max,Y}=-93.78$ $M_{eq,Y}=-70.34$ $M_{max,Z}=41.30$ $M_{eq,Z}=30.97$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=25.55$ $\lambda_{rel,m}=0.13$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.24$ $\sigma_M=14.20$ $Sfr.=0.09$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.04$ (L/655)

Asta n. 4177 (-140 -1043) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=141.34$ $T_z=375.00$ $M_y=-149.77$ $T_y=290.60$ $M_z=114.66$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.47$ $\sigma_M=34.13$ $Sfr.=0.22$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=141.34$ $T_z=384.23$ $M_y=0.00$ $T_y=290.60$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.41$ $Sfr.=0.23$

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=141.34$ $M_{max,Y}=-149.77$ $M_{eq,Y}=-112.33$ $M_{max,Z}=114.66$ $M_{eq,Z}=85.99$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.47$ $\sigma_M=25.60$ $Sfr.=0.16$

- Verifica Freccia massima - CC 6

$$f_{z,L}=0.09 \text{ (L/438)}$$

Asta n. 4177 (-1043 -1044) R 0.25x0.12 T Crit. 2

-
- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=148.52$ $T_z=81.40$ $M_y=-182.85$ $T_y=223.77$ $M_z=181.38$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.50$ $\sigma_M=44.99$ $Sfr.=0.28$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=148.52$ $T_z=90.63$ $M_y=-148.91$ $T_y=223.77$ $M_z=93.09$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.21$ $Sfr.=0.11$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=148.52$ $M_{max,Y}=-182.85$ $M_{eq,Y}=-182.85$ $M_{max,Z}=181.38$ $M_{eq,Z}=178.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.50$ $\sigma_M=44.75$ $Sfr.=0.28$
 - Verifica Freccia massima - CC 6
 $f_{z,G}=0.03$ (L/1223)

Asta n. 4177 (-1044 -1045) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=155.00$ $T_z=-257.72$ $M_y=-182.07$ $T_y=159.07$ $M_z=161.96$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.52$ $\sigma_M=43.30$ $Sfr.=0.27$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=155.00$ $T_z=-266.95$ $M_y=-78.57$ $T_y=159.07$ $M_z=224.72$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.55$ $Sfr.=0.15$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=155.00$ $M_{max,Y}=-182.07$ $M_{eq,Y}=-169.42$ $M_{max,Z}=224.72$ $M_{eq,Z}=224.72$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.52$ $\sigma_M=46.21$ $Sfr.=0.28$
 - Verifica Freccia massima - CC 6
 $f_{z,G}=0.04$ (L/1031)

Asta n. 4177 (-1045 -1046) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=160.55$ $T_z=-618.00$ $M_y=164.10$ $T_y=94.54$ $M_z=245.36$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.54$ $\sigma_M=46.98$ $Sfr.=0.28$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=160.55$ $T_z=-618.00$ $M_y=164.10$ $T_y=94.54$ $M_z=245.36$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.13$ $Sfr.=0.29$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=160.55$ $M_{max,Y}=164.10$ $M_{eq,Y}=157.30$ $M_{max,Z}=245.36$ $M_{eq,Z}=245.36$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.54$ $\sigma_M=45.85$ $Sfr.=0.27$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.07$ (L/592)

Asta n. 4177 (-1046 -1047) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=78.75$ $T_z=-27.33$ $M_y=137.66$ $T_y=27.87$ $M_z=104.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.26$ $\sigma_M=31.27$ $Sfr.=0.20$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=78.75$ $T_z=-27.33$ $M_y=137.66$ $T_y=27.87$ $M_z=104.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.20$ $Sfr.=0.02$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=78.75$ $M_{max,Y}=137.66$ $M_{eq,Y}=137.66$ $M_{max,Z}=104.06$ $M_{eq,Z}=104.06$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.26$ $\sigma_M=31.27$ $Sfr.=0.20$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/2668)

Asta n. 4177 (-1047 -1048) R 0.25x0.12 T Crit. 2

-
- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=153.75$ $T_z=580.46$ $M_y=181.21$ $T_y=134.34$ $M_z=164.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.51$ $\sigma_M=43.35$ $Sfr.=0.27$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=153.75$ $T_z=580.46$ $M_y=181.21$ $T_y=134.34$ $M_z=164.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.98$ $Sfr.=0.28$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=153.75$ $M_{max,Y}=181.21$ $M_{eq,Y}=147.68$ $M_{max,Z}=217.29$ $M_{eq,Z}=217.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.51$ $\sigma_M=42.00$ $Sfr.=0.25$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.05$ (L/861)

Asta n. 4177 (-1048 -1049) R 0.25x0.12 T Crit. 2

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- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=157.31$ $T_z=220.18$ $M_y=-134.24$ $T_y=69.81$ $M_z=234.15$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.52$ $\sigma_M=41.11$ $Sfr.=0.24$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=157.31$ $T_z=229.41$ $M_y=-45.55$ $T_y=69.81$ $M_z=206.60$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.20$ $Sfr.=0.11$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=157.31$ $M_{max,Y}=-134.24$ $M_{eq,Y}=-116.87$ $M_{max,Z}=234.15$ $M_{eq,Z}=234.15$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.52$ $\sigma_M=38.21$ $Sfr.=0.22$
 - Verifica Freccia massima - CC 6
 $f_{z,G}=0.03$ (L/1287)

Asta n. 4177 (-1049 -1050) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=159.97$ $T_z=-121.63$ $M_y=-133.93$ $T_y=5.28$ $M_z=226.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.53$ $\sigma_M=40.41$ $Sfr.=0.24$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=159.97$ $T_z=-130.86$ $M_y=-84.12$ $T_y=5.28$ $M_z=228.25$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.65$ $Sfr.=0.06$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=159.97$ $M_{max,y}=-133.93$ $M_{eq,y}=-133.93$ $M_{max,z}=228.25$ $M_{eq,z}=228.25$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.53$ $\sigma_M=40.58$ $Sfr.=0.24$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/1957)

Asta n. 4177 (-1050 -1051) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=161.72$ $T_z=-481.90$ $M_y=104.40$ $T_y=-59.25$ $M_z=199.64$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.54$ $\sigma_M=33.37$ $Sfr.=0.20$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=161.72$ $T_z=-481.90$ $M_y=104.40$ $T_y=-59.25$ $M_z=199.64$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.43$ $Sfr.=0.23$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=161.72$ $M_{max,y}=104.40$ $M_{eq,y}=104.40$ $M_{max,z}=223.02$ $M_{eq,z}=223.02$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.54$ $\sigma_M=35.24$ $Sfr.=0.21$
- Verifica Freccia massima - CC 6
 $f_{z,G}=0.05$ (L/776)

Asta n. 4177 (-1051 -1052) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=76.32$ $T_z=370.66$ $M_y=270.87$ $T_y=-34.01$ $M_z=184.27$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=59.89$ $Sfr.=0.37$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=76.32$ $T_z=370.66$ $M_y=270.87$ $T_y=-34.01$ $M_z=184.27$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.86$ $Sfr.=0.17$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=76.32$ $M_{max,y}=270.87$ $M_{eq,y}=258.26$ $M_{max,z}=184.27$ $M_{eq,z}=184.27$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.25$ $\sigma_M=57.79$ $Sfr.=0.36$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.02$ (L/1810)

Asta n. 4177 (-1052 -1053) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=147.60$ $T_z=374.52$ $M_y=-116.86$ $T_y=63.13$ $M_z=235.77$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.49$ $\sigma_M=38.34$ $Sfr.=0.22$

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=147.60$ $T_z=383.76$ $M_y=32.72$ $T_y=63.13$ $M_z=210.86$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.94$ $Sfr.=0.18$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=147.60$ $M_{max,y}=-116.86$ $M_{eq,y}=-97.23$ $M_{max,z}=235.77$ $M_{eq,z}=235.77$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.49$ $\sigma_M=35.07$ $Sfr.=0.21$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.05$ (L/811)

Asta n. 4177 (-1053 -1054) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=147.13$ $T_z=23.48$ $M_y=-128.01$ $T_y=-1.40$ $M_z=236.61$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.49$ $\sigma_M=40.26$ $Sfr.=0.24$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=147.13$ $T_z=32.71$ $M_y=-116.92$ $T_y=-1.40$ $M_z=237.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.16$ $Sfr.=0.02$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=147.13$ $M_{max,y}=-128.01$ $M_{eq,y}=-128.01$ $M_{max,z}=237.16$ $M_{eq,z}=237.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.49$ $\sigma_M=40.31$ $Sfr.=0.24$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.01$ (L/4714)

Asta n. 4177 (-1054 -1055) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=145.66$ $T_z=-318.33$ $M_y=-128.19$ $T_y=-65.93$ $M_z=241.04$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.49$ $\sigma_M=40.65$ $Sfr.=0.24$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=145.66$ $T_z=-327.56$ $M_y=0.00$ $T_y=-65.93$ $M_z=215.03$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.67$ $Sfr.=0.16$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=145.66$ $M_{max,y}=-128.19$ $M_{eq,y}=-96.14$ $M_{max,z}=241.04$ $M_{eq,z}=241.04$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.49$ $\sigma_M=35.31$ $Sfr.=0.21$
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.04$ (L/896)

Asta n. 4177 (-1055 -1056) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=143.23$ $T_z=-678.61$ $M_y=264.86$ $T_y=-130.46$ $M_z=170.82$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.48$ $\sigma_M=57.81$ Sfr.=0.36

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=143.23$ $T_z=-678.61$ $M_y=264.86$ $T_y=-130.46$ $M_z=170.82$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.46$ Sfr.=0.32
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=143.23$ $M_{max,y}=264.86$ $M_{eq,y}=198.65$ $M_{max,z}=222.29$ $M_{eq,z}=222.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.48$ $\sigma_M=50.89$ Sfr.=0.31
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.04$ (L/957)

Asta n. 4177 (-1056 -1057) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=63.49$ $T_z=303.99$ $M_y=161.04$ $T_y=10.10$ $M_z=109.76$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.21$ $\sigma_M=35.62$ Sfr.=0.22
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=63.49$ $T_z=303.99$ $M_y=161.04$ $T_y=10.10$ $M_z=109.76$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.52$ Sfr.=0.14
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=63.49$ $M_{max,y}=161.04$ $M_{eq,y}=132.58$ $M_{max,z}=113.74$ $M_{eq,z}=113.74$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.21$ $\sigma_M=31.20$ Sfr.=0.19
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.04$ (L/1111)

Asta n. 4177 (-1057 -1058) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=121.30$ $T_z=429.04$ $M_y=-115.93$ $T_y=-30.58$ $M_z=235.76$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.40$ $\sigma_M=38.18$ Sfr.=0.22
- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=121.30$ $T_z=438.28$ $M_y=55.17$ $T_y=-30.58$ $M_z=247.83$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.20$ Sfr.=0.21
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=121.30$ $M_{max,y}=-115.93$ $M_{eq,y}=-111.21$ $M_{max,z}=247.83$ $M_{eq,z}=247.83$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.40$ $\sigma_M=38.36$ Sfr.=0.22
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.05$ (L/732)

Asta n. 4177 (-1058 -1059) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=116.85$ $T_z=78.00$ $M_y=-149.06$ $T_y=-95.11$ $M_z=211.59$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.39$ $\sigma_M=41.77$ Sfr.=0.25

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=116.85$ $T_z=87.23$ $M_y=-116.46$ $T_y=-95.11$ $M_z=249.11$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.65$ Sfr.=0.06

 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=116.85$ $M_{max,y}=-149.06$ $M_{eq,y}=-149.06$ $M_{max,z}=249.11$ $M_{eq,z}=249.11$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.39$ $\sigma_M=44.77$ Sfr.=0.26

 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.01$ (L/3104)
- Asta n. 4177 (-1059 -1060) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=111.41$ $T_z=-263.81$ $M_y=-149.71$ $T_y=-159.64$ $M_z=227.91$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.37$ $\sigma_M=43.19$ Sfr.=0.26

 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=111.41$ $T_z=-273.04$ $M_y=-43.81$ $T_y=-159.64$ $M_z=164.93$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.58$ Sfr.=0.15

 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=111.41$ $M_{max,y}=-149.71$ $M_{eq,y}=-125.79$ $M_{max,z}=227.91$ $M_{eq,z}=227.91$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.37$ $\sigma_M=39.20$ Sfr.=0.23

 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.05$ (L/841)
- Asta n. 4177 (-1060 -795) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=105.13$ $T_z=-624.09$ $M_y=199.85$ $T_y=-224.17$ $M_z=95.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.35$ $\sigma_M=40.93$ Sfr.=0.26

 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.39$
Sollecitazioni: $N=105.13$ $T_z=-624.09$ $M_y=199.85$ $T_y=-224.17$ $M_z=95.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.32$ Sfr.=0.31

 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=105.13$ $M_{max,y}=199.85$ $M_{eq,y}=158.87$ $M_{max,z}=183.76$ $M_{eq,z}=181.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.35$ $\sigma_M=40.99$ Sfr.=0.25

 - Verifica Freccia massima - CC 6
 $f_{z,g}=0.06$ (L/642)
- Asta n. 4177 (-795 -1061) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=83.17$ $T_z=501.28$ $M_y=199.04$ $T_y=-181.26$ $M_z=245.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.28$ $\sigma_M=52.77$ Sfr.=0.32

 - Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$
Sollecitazioni: $N=83.17$ $T_z=501.28$ $M_y=199.04$ $T_y=-181.26$ $M_z=245.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=2.67$ Sfr.=0.25

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=83.17$ $M_{max,Y}=199.04$ $M_{eq,Y}=149.28$ $M_{max,Z}=245.00$ $M_{eq,Z}=245.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.28$ $\sigma_M=44.48$ Sfr.=0.26
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.01$ (L/3158)

Asta n. 4177 (-1061 -1062) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=75.64$ $T_z=152.93$ $M_y=2.17$ $T_y=-245.96$ $M_z=196.06$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.25$ $\sigma_M=16.05$ Sfr.=0.11
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=75.64$ $T_z=152.93$ $M_y=2.17$ $T_y=-245.96$ $M_z=196.06$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.45$ Sfr.=0.14
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=75.64$ $M_{max,Y}=-56.34$ $M_{eq,Y}=-42.26$ $M_{max,Z}=196.06$ $M_{eq,Z}=191.80$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.25$ $\sigma_M=22.39$ Sfr.=0.14
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/3085)

Asta n. 4177 (-1062 -139) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
 Sollecitazioni: $N=67.51$ $T_z=-140.66$ $M_y=-57.32$ $T_y=-312.80$ $M_z=123.41$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.23$ $\sigma_M=19.43$ Sfr.=0.11
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.39$
 Sollecitazioni: $N=67.51$ $T_z=-149.90$ $M_y=0.00$ $T_y=-312.80$ $M_z=0.00$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\tau=1.73$ Sfr.=0.16
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
 Sollecitazioni: $N=67.51$ $M_{max,Y}=-57.32$ $M_{eq,Y}=-42.99$ $M_{max,Z}=123.41$ $M_{eq,Z}=92.56$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=39.45$ $\lambda_{rel,m}=0.16$ $K_{crit}=1.00$
 Tensioni: $\sigma_N=0.23$ $\sigma_M=14.57$ Sfr.=0.09
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/5048)

Asta n. 4253 (-1056 -142) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.06$
 Sollecitazioni: $N=76.63$ $T_z=-1325.72$ $M_y=178.13$ $T_y=-205.09$ $M_z=58.84$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 Tensioni: $\sigma_N=0.26$ $\sigma_M=34.40$ Sfr.=0.22
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.06$
 Sollecitazioni: $N=76.63$ $T_z=-1325.72$ $M_y=178.13$ $T_y=-205.09$ $M_z=58.84$
 Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=6.71$ Sfr.=0.63

- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=76.63$ $M_{\max,y}=178.13$ $M_{eq,y}=178.13$ $M_{\max,z}=70.40$ $M_{eq,z}=70.40$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=5.64$ $\lambda_{rel,m}=0.06$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.26$ $\sigma_M=35.32$ Sfr.=0.23

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.00$ (L/2848)

Asta n. 4253 (-142 -1057) R 0.25x0.12 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=61.30$ $T_z=493.25$ $M_y=178.13$ $T_y=23.85$ $M_z=115.57$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.20$ $\sigma_M=38.93$ Sfr.=0.24
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=61.30$ $T_z=493.25$ $M_y=178.13$ $T_y=23.85$ $M_z=115.57$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.47$ Sfr.=0.23
- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=61.30$ $M_{\max,y}=178.13$ $M_{eq,y}=133.60$ $M_{\max,z}=123.64$ $M_{eq,z}=123.64$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=33.82$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.20$ $\sigma_M=32.16$ Sfr.=0.20
- Verifica Freccia massima - CC 6
 $f_{z,g}=0.04$ (L/904)

Membratura Asta n. 2067 (3 -89 -90 -91 -92 -93 -94 -95 9) R 0.2x0.2 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.90$ (L/463) $f_{z,g}=0.87$ (L/479)

Membratura Asta n. 2068 (1 -77 -78 -79 -86 -80 -81 -87 -82 -88 -83 -84 -85 6) R 0.2x0.2 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.37$ (L/965) $f_{z,g}=0.36$ (L/1014)

Membratura Asta n. 4025 (-1046 -137 -1047) R 0.25x0.12 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,g}=0.02$ (L/1669)

Membratura Asta n. 4033 (-144 -1067 -1068 -1069 -1070 -1071 -140) R 0.25x0.12 T Crit. 2

- Verifica σ_{\max} per stabilità - CC 3 SLU
Sollecitazioni: $N=-68.07$
[Par.] $M_{y,sx}=-735.12$ $M_{y,dx}=-0.00$ $M_{y,eq}=-551.34$
[Par.] $M_{z,sx}=190.83$ $M_{z,dx}=-0.00$ $M_{z,eq}=180.22$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L=202.00$ $\lambda_{rel,y}=0.97$ $\lambda_{rel,z}=0.47$ $K_{c,y}=0.71$ $K_{c,z}=0.96$
Tensioni: $\sigma_N=-0.23$ $\sigma_M=0.00$ Sfr.=0.00

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.44$ (L/461)

Membratura Asta n. 4055 (-138 -1101 -1100 -1099 -1098 -1097 -1096 -1034 -139) R 0.25x0.12 T Crit. 2

- Verifica σ_{\max} per stabilità - CC 3 SLU
Sollecitazioni: $N=-2.70$
[Par.] $M_{y,sx}=-167.78$ $M_{y,dx}=302.79$ $M_{y,eq}=-505.24$
[Par.] $M_{z,sx}=200.14$ $M_{z,dx}=103.78$ $M_{z,eq}=230.88$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L=282.67$ $\lambda_{rel,y}=1.36$ $\lambda_{rel,z}=0.65$ $K_{c,y}=0.45$ $K_{c,z}=0.90$

Tensioni: $\sigma_N = -0.01$ $\sigma_M = -58.77$ Sfr. = 0.38

- Verifica Freccia massima - CC 6
 $f_{z,L} = 1.14$ (L/248)

Membratura Asta n. 4080 (-145 -1033 -1063 -1064 -1065 -1066 -144) R 0.25x0.12 T Crit. 2

- Verifica σ_{max} per stabilità - CC 3 SLU
Sollecitazioni: N = -24.29
[Par.] $M_{y,sx} = 0.12$ $M_{y,dx} = -735.60$ $M_{y,eq} = -551.70$
[Par.] $M_{z,sx} = 22.20$ $M_{z,dx} = 115.75$ $M_{z,eq} = 145.83$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{Rdc} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
L = 202.00 $\lambda_{rel,y} = 0.97$ $\lambda_{rel,z} = 0.47$ $K_{c,y} = 0.71$ $K_{c,z} = 0.96$
Tensioni: $\sigma_N = -0.08$ $\sigma_M = 131.86$ Sfr. = 0.87

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.46$ (L/443)

Membratura Asta n. 4081 (-146 -1104 -1103 -1102 -138) R 0.25x0.12 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.11$ (L/1230)

Membratura Asta n. 4101 (-1051 -141 -1052) R 0.25x0.12 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.04$ (L/1012)

Membratura Asta n. 4177 (-140 -1043 -1044 -1045 -1046 -1047 -1048 -1049 -1050 -1051 -1052 -1053 -
1054 -1055 -1056 -1057 -1058 -1059 -1060 -795 -1061 -1062 -139) R 0.25x0.12 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.14$ (L/6171)

Membratura Asta n. 4253 (-1056 -142 -1057) R 0.25x0.12 T Crit. 2

- Verifica Freccia massima - CC 6
 $f_{z,G} = 0.04$ (L/1055)

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt	Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
1	Libero	L	L	L	L	L	L					2	Incastro	B	B	B	B	B	B				

Elenco nodi

Simbologia

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

Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn	Nodo	X	Y	Z	Imp.	Vn
-16	1.87	2.39	5.28	0	1	-15	2.00	2.24	5.22	0	1	-14	2.25	1.95	5.11	0	1
-13	2.50	1.65	5.00	0	1	-12	2.62	1.51	4.95	0	1	-11	2.99	1.07	4.78	0	1
-10	3.00	1.06	4.77	0	1	-9	3.37	0.63	4.61	0	1	-8	3.50	0.47	4.55	0	1
-7	3.74	0.19	4.44	0	1	-6	4.00	-0.12	4.32	0	1	-5	4.11	-0.25	4.27	0	1
-4	4.48	-0.69	4.10	0	1	-3	4.50	-0.71	4.10	0	1	-2	4.86	-1.13	3.94	0	1
-1	5.00	-1.30	3.87	0	1	101	5.18	-1.51	3.79	0	2	201	1.50	-1.57	5.45	0	2
202	1.50	-1.13	5.45	0	2	203	1.50	-0.69	5.45	0	2	204	1.50	-0.25	5.45	0	2
205	1.50	0.19	5.45	0	2	206	1.50	0.63	5.45	0	2	207	1.50	1.07	5.45	0	2
208	1.50	1.51	5.45	0	2	209	1.50	1.95	5.45	0	2	210	1.50	2.39	5.45	0	2
211	1.50	2.83	5.45	0	2	212	2.00	2.83	5.45	0	2	213	2.50	2.83	5.45	0	2
214	3.00	2.83	5.45	0	2	215	3.50	2.83	5.45	0	2	216	4.00	2.83	5.45	0	2
217	4.50	2.83	5.45	0	2	218	5.00	2.83	5.45	0	2						

Elenco materiali

Simbologia

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

Mat.	Comm.	P	E	G	v	α
		<daN/cm ³ >	<daN/cm ² >	<daN/cm ² >		
3	Castagno	600	111000.00	9500.00	0.39	4.000000E-006
6	muratura	2500	10800.00	3600.00	0.1	1.000000E-005
7	rigido	2500	300000000.00	120000000.00	0.1	1.000000E-005

Elenco sezioni aste

Simbologia

Sez. = Numero della sezione
Comm. = Commento
Tipo = Tipologia
2C = Doppia C lato labbri

2Cdx = Doppia C lato costola
2I = Doppia I
2L = Doppia L lato labbri
2Ldx = Doppia L lato costole
C = C
Cdx = C destra
Cir. = Circolare
Cir.c = Circolare cava
I = I
L = L
Ldx = L destra
Om. = Omega
Pg = Pi greco
Pr = Poligono regolare
Prc = Poligono regolare cavo
Pc = Per coordinate
Ia = Inerzie assegnate
R = Rettangolare
Rc = Rettangolare cava
T = T
U = U
Ur = U rovescia
V = V
Vr = V rovescia
Z = Z
Zdx = Z destra
Ts = T stondata
Ls = L stondata
Cs = C stondata
Is = I stondata
Dis. = Disegnata
Me = Membratura
G = Generica
T = Trave
P = Pilastro
Ver. = Verifica prevista
N = Nessuna
C = Cemento armato
A = Acciaio
L = Legno
B = Base
H = Altezza
Ma = Numero del materiale
C = Numero del criterio di progetto
Ccol = Numero del criterio di progetto collegamento

Sez.	Comm.	Tipo	Me	Ver.	B	H	Ma	C	Ccol	Sez.	Comm.	Tipo	Me	Ver.	B	H	Ma	C	Ccol
					<cm>	<cm>									<cm>	<cm>			
2		R	T	L	14.00	14.00	3	1		4		R	T	L	28.00	28.00	3	2	

Elenco vincoli aste

Simbologia

Va = Numero del vincolo asta
Comm. = Commento
Tipo = Tipologia
SVI = Definizione di vincolamenti interni
ELA = Vincolo su suolo elastico alla Winkler
BIE-RTC = Biella resistente a trazione e a compressione
BIE-RC = Biella resistente solo a compressione
BIE-RT = Biella resistente solo a trazione
Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)
Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)
Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)
Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)
Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)
Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)
Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)
Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)
Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)
Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt
															<daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	1

11 Inc+CerYZ SVI	1	1	1	1	1	1	1	1	1	1	0	0
12 CerYZ+Inc SVI	1	1	1	1	0	0	1	1	1	1	1	1
30 SVI	1	1	1	0	0	0	0	1	1	1	0	0

Elenco aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale
N2 = Nodo finale
Sez. = Numero della sezione
Va = Numero del vincolo asta
Par. = Numero dei parametri aggiuntivi
Rot. = Rotazione
FF = Filo fisso
Dy1 = Scost. filo fisso Y1
Dy2 = Scost. filo fisso Y2
Dz1 = Scost. filo fisso Z1
Dz2 = Scost. filo fisso Z2
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot.	FF	Dy1	Dy2	Dz1	Dz2	Kt
						<grad>		<cm>	<cm>	<cm>	<cm>	<daN/cm>
0	201	202		1		0.00	22	0.00	0.00	0.00	0.00	
0	202	203		1		0.00	22	0.00	0.00	0.00	0.00	
0	203	204		1		0.00	22	0.00	0.00	0.00	0.00	
0	204	205		1		0.00	22	0.00	0.00	0.00	0.00	
0	205	206		1		0.00	22	0.00	0.00	0.00	0.00	
0	206	207		1		0.00	22	0.00	0.00	0.00	0.00	
0	207	208		1		0.00	22	0.00	0.00	0.00	0.00	
0	208	209		1		0.00	22	0.00	0.00	0.00	0.00	
0	209	210		1		0.00	22	0.00	0.00	0.00	0.00	
0	210	211		1		0.00	22	0.00	0.00	0.00	0.00	
0	211	212		1		0.00	22	0.00	0.00	0.00	0.00	
0	212	213		1		0.00	22	0.00	0.00	0.00	0.00	
0	213	214		1		0.00	22	0.00	0.00	0.00	0.00	
0	214	215		1		0.00	22	0.00	0.00	0.00	0.00	
0	215	216		1		0.00	22	0.00	0.00	0.00	0.00	
0	216	217		1		0.00	22	0.00	0.00	0.00	0.00	
0	217	218		1		0.00	22	0.00	0.00	0.00	0.00	
203	-4	203	2	30		0.00	88	0.00	0.00	0.00	0.00	
204	-15	212	2	30		0.00	88	0.00	0.00	0.00	0.00	
205	-13	213	2	30		0.00	88	0.00	0.00	0.00	0.00	
206	-10	214	2	30		0.00	88	0.00	0.00	0.00	0.00	
207	-8	215	2	30		0.00	88	0.00	0.00	0.00	0.00	
208	-6	216	2	30		0.00	88	0.00	0.00	0.00	0.00	
209	-3	217	2	30		0.00	88	0.00	0.00	0.00	0.00	
210	-1	218	2	30		0.00	88	0.00	0.00	0.00	0.00	
227	-2	202	2	30		0.00	88	0.00	0.00	0.00	0.00	
228	-5	204	2	30		0.00	88	0.00	0.00	0.00	0.00	
233	-7	205	2	30		0.00	88	0.00	0.00	0.00	0.00	
236	-9	206	2	30		0.00	88	0.00	0.00	0.00	0.00	
239	101	-1	4	12		0.00	22	0.00	0.00	0.00	0.00	
239	-1	-2	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-2	-3	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-3	-4	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-4	-5	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-5	-6	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-6	-7	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-7	-8	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-8	-9	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-9	-10	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-10	-11	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-11	-12	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-12	-13	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-13	-14	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-14	-15	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-15	-16	4	1		0.00	22	0.00	0.00	0.00	0.00	
239	-16	211	4	11		0.00	22	0.00	0.00	0.00	0.00	
241	-11	207	2	30		0.00	88	0.00	0.00	0.00	0.00	
244	-12	208	2	30		0.00	88	0.00	0.00	0.00	0.00	
247	-14	209	2	30		0.00	88	0.00	0.00	0.00	0.00	
250	-16	210	2	30		0.00	88	0.00	0.00	0.00	0.00	

Elenco tipi solai

Simbologia

Ts = Numero del tipo solaio
Comm. = Commento
Qps = Carico permanente strutturale
Qpn = Carico permanente non strutturale
Qa = Primo carico accidentale
Qa2 = Secondo carico accidentale
Qa3 = Terzo carico accidentale
Rip. ter. = Ripartizione su aste terminali
Rip. int. = Ripartizione su aste interne
s = Coeff. di riduzione
Hs = Altezza solaio
Sc = Spessore cappa
Crit. = Numero del criterio di progetto

Ts	Comm.	Qps	Qpn	Qa	Qa2	Qa3	Rip. ter.	Rip. int.	s	Hs	Sc	Crit.
		<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>	<daN/mq>				<cm>	<cm>	
1		0.00	100.00	48.00	105.00	50.00	50.00	50.00	0.33	1.00	1.00	1

Elenco solai

Simbologia

Sol. = Numero del solaio
Ts = Numero del tipo solaio
Ord. = Orditura
Nodi = Nodi del solaio

Sol.	Ts	Ord.	Nodi	Sol.	Ts	Ord.	Nodi
		<grad>				<grad>	
200	1	90.00	205 204 -5 -6 -7	201	1	90.00	206 205 -7 -8 -9
202	1	90.00	207 206 -9 -10 -11	203	1	90.00	208 207 -11 -12
204	1	90.00	209 208 -12 -13 -14	205	1	90.00	210 209 -14 -15 -16
206	1	90.00	211 210 -16	207	1	0.00	217 218 -1 -2 -3
208	1	0.00	216 217 -3 -4 -5 -6	209	1	0.00	215 216 -6 -7 -8
210	1	0.00	214 215 -8 -9 -10	211	1	0.00	213 214 -10 -11 -12 -13
212	1	0.00	212 213 -13 -14 -15	213	1	0.00	211 212 -15 -16
214	1	90.00	203 202 -2 -3 -4	215	1	90.00	204 203 -4 -5

Carichi

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2		1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3		1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4		1.00	1.00	0.00	0.00	0.00	1.00	18 D.M. 96 Variabili Vento	S	B
5		1.00	1.00	0.00	0.00	0.00	1.00	19 D.M. 08 Variabili Categoria H - Coperture	S	B

Elenco carichi aste

Condizione di carico n. 1:

Carichi distribuiti

Simbologia

Asta = Numero dell'asta
N1 = Nodo iniziale

N2 = Nodo finale
S = Numero del solaio di provenienza
T = Tipo di carico
QA = Primo carico accidentale da solaio
QA2 = Secondo carico accidentale da solaio
QA3 = Terzo carico accidentale da solaio
QPS = Carico permanente strutturale da solaio
QPN = Carico permanente non strutturale da solaio
PP = Peso proprio
M = Manuale
DC = Direzione del carico
XG,YG,ZG = secondo gli assi Globali
XL,YL,ZL = secondo gli assi Locali
Xi = Distanza iniziale
Qi = Carico iniziale
Xf = Distanza finale
Qf = Carico finale

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
203	-4	203	--	PP	ZG	0.00	11.76	3.27	11.76	204	-15	212	--	PP	ZG	0.00	11.76	0.63	11.76
205	-13	213	--	PP	ZG	0.00	11.76	1.26	11.76	206	-10	214	--	PP	ZG	0.00	11.76	1.89	11.76
207	-8	215	--	PP	ZG	0.00	11.76	2.53	11.76	208	-6	216	--	PP	ZG	0.00	11.76	3.16	11.76
209	-3	217	--	PP	ZG	0.00	11.76	3.79	11.76	210	-1	218	--	PP	ZG	0.00	11.76	4.42	11.76
227	-2	202	--	PP	ZG	0.00	11.76	3.68	11.76	228	-5	204	--	PP	ZG	0.00	11.76	2.86	11.76
233	-7	205	--	PP	ZG	0.00	11.76	2.46	11.76	236	-9	206	--	PP	ZG	0.00	11.76	2.05	11.76
239	101	-1	--	PP	ZG	0.00	47.04	0.29	47.04	239	-1	-2	--	PP	ZG	0.00	47.04	0.23	47.04
239	-2	-3	--	PP	ZG	0.00	47.04	0.58	47.04	239	-3	-4	--	PP	ZG	0.00	47.04	0.02	47.04
239	-4	-5	--	PP	ZG	0.00	47.04	0.60	47.04	239	-5	-6	--	PP	ZG	0.00	47.04	0.18	47.04
239	-6	-7	--	PP	ZG	0.00	47.04	0.42	47.04	239	-7	-8	--	PP	ZG	0.00	47.04	0.38	47.04
239	-8	-9	--	PP	ZG	0.00	47.04	0.22	47.04	239	-9	-10	--	PP	ZG	0.00	47.04	0.59	47.04
239	-10	-11	--	PP	ZG	0.00	47.04	0.01	47.04	239	-11	-12	--	PP	ZG	0.00	47.04	0.60	47.04
239	-12	-13	--	PP	ZG	0.00	47.04	0.19	47.04	239	-13	-14	--	PP	ZG	0.00	47.04	0.41	47.04
239	-14	-15	--	PP	ZG	0.00	47.04	0.40	47.04	239	-15	-16	--	PP	ZG	0.00	47.04	0.20	47.04
239	-16	211	--	PP	ZG	0.00	47.04	0.60	47.04	241	-11	207	--	PP	ZG	0.00	11.76	1.64	11.76
244	-12	208	--	PP	ZG	0.00	11.76	1.23	11.76	247	-14	209	--	PP	ZG	0.00	11.76	0.82	11.76
250	-16	210	--	PP	ZG	0.00	11.76	0.41	11.76										

Elenco carichi aste

Condizione di carico n. 2:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
203	-4	203	214	QPN	ZG	0.00	22.01	3.27	22.00	203	-4	203	215	QPN	ZG	0.41	22.02	3.27	22.00
203	-4	203	215	QPN	ZG	0.00	0.00	0.41	22.02	204	-15	212	213	QPN	ZG	0.00	0.00	0.63	25.00
204	-15	212	212	QPN	ZG	0.00	25.00	0.63	25.00	205	-13	213	212	QPN	ZG	0.00	0.00	0.63	25.00
205	-13	213	211	QPN	ZG	0.00	25.00	1.26	25.00	205	-13	213	212	QPN	ZG	0.63	25.00	1.26	25.00
206	-10	214	211	QPN	ZG	0.00	0.00	0.01	0.40	206	-10	214	210	QPN	ZG	0.00	25.00	1.89	25.00
206	-10	214	211	QPN	ZG	0.63	25.00	1.89	25.00	206	-10	214	211	QPN	ZG	0.01	0.40	0.63	25.00
207	-8	215	210	QPN	ZG	0.00	0.00	0.63	25.00	207	-8	215	209	QPN	ZG	0.00	25.00	2.53	25.00
207	-8	215	210	QPN	ZG	0.63	25.00	2.53	25.00	208	-6	216	209	QPN	ZG	0.00	0.00	0.63	25.00
208	-6	216	208	QPN	ZG	0.00	25.00	3.16	25.00	208	-6	216	209	QPN	ZG	0.63	25.00	3.16	25.00
209	-3	217	208	QPN	ZG	0.00	0.00	0.63	25.00	209	-3	217	207	QPN	ZG	0.00	25.00	3.79	25.00
209	-3	217	208	QPN	ZG	0.63	25.00	3.79	25.00	210	-1	218	207	QPN	ZG	0.00	0.00	0.63	25.00
210	-1	218	207	QPN	ZG	0.63	25.00	4.42	25.00	227	-2	202	214	QPN	ZG	0.00	0.00	0.39	21.11
227	-2	202	214	QPN	ZG	0.41	22.01	3.68	22.00	227	-2	202	214	QPN	ZG	0.39	21.11	0.41	22.01
228	-5	204	215	QPN	ZG	0.00	22.02	2.86	22.00	228	-5	204	200	QPN	ZG	0.41	22.01	2.86	22.00
228	-5	204	200	QPN	ZG	0.00	0.00	0.41	22.01	233	-7	205	200	QPN	ZG	0.00	22.01	2.46	22.00
233	-7	205	201	QPN	ZG	0.41	21.98	2.46	22.00	233	-7	205	201	QPN	ZG	0.00	0.00	0.41	21.98
236	-9	206	201	QPN	ZG	0.00	21.98	2.05	22.00	236	-9	206	202	QPN	ZG	0.41	22.02	2.05	22.00
236	-9	206	202	QPN	ZG	0.00	0.00	0.41	22.02	239	-1	-2	207	QPN	ZG	0.00	0.00	0.23	5.56
239	-2	-3	214	QPN	ZG	0.00	0.00	0.58	14.38	239	-2	-3	207	QPN	ZG	0.00	5.56	0.58	19.60
239	-3	-4	214	QPN	ZG	0.00	14.38	0.02	14.99	239	-3	-4	208	QPN	ZG	0.00	0.00	0.02	0.60
239	-4	-5	215	QPN	ZG	0.00	0.00	0.60	14.99	239	-4	-5	208	QPN	ZG	0.00	0.60	0.60	15.23
239	-5	-6	200	QPN	ZG	0.00	0.00	0.18	4.47	239	-5	-6	208	QPN	ZG	0.00	15.23	0.18	19.60
239	-6	-7	200	QPN	ZG	0.00	4.47	0.42	14.99	239	-6	-7	209	QPN	ZG	0.00	0.00	0.42	10.26
239	-7	-8	201	QPN	ZG	0.00	0.00	0.38	9.57	239	-7	-8	209	QPN	ZG	0.00	10.26	0.38	19.60
239	-8	-9	201	QPN	ZG	0.00	9.57	0.22	14.97	239	-8	-9	210	QPN	ZG	0.00	0.00	0.22	5.27
239	-9	-10	202	QPN	ZG	0.00	0.00	0.59	14.68	239	-9	-10	210	QPN	ZG	0.00	5.27	0.59	19.60
239	-10	-11	202	QPN	ZG	0.00	14.68	0.01	15.00	239	-10	-11	211	QPN	ZG	0.00	0.00	0.01	0.31
239	-11	-12	203	QPN	ZG	0.00	0.00	0.60	14.98	239	-11	-12	211	QPN	ZG	0.00	0.31	0.60	14.93
239	-12	-13	204	QPN	ZG	0.00	0.00	0.19	4.78	239	-12	-13	211	QPN	ZG	0.00	14.93	0.19	19.60
239	-13	-14	204	QPN	ZG	0.00	4.78	0.41	14.97	239	-13	-14	212	QPN	ZG	0.00	0.00	0.41	9.95
239	-14	-15	205	QPN	ZG	0.00	0.00	0.40	9.89	239	-14	-15	212	QPN	ZG	0.00	9.95	0.40	19.60
239	-15	-16	205	QPN	ZG	0.00	9.89	0.20	14.99	239	-15	-16	213	QPN	ZG	0.00	0.00	0.20	4.98
239	-16	211	206	QPN	ZG	0.00	0.00	0.60	14.98	239	-16	211	213	QPN	ZG	0.00	4.98	0.60	19.60
241	-11	207	202	QPN	ZG	0.00	22.02	1.64	22.00	241	-11	207	203	QPN	ZG	0.41	22.00	1.64	22.00
241	-11	207	203	QPN	ZG	0.00	0.00	0.41	22.00	244	-12	208	203	QPN	ZG	0.00	22.00	1.23	22.00

244	-12	208	204	QPN	ZG	0.41	21.98	1.23	22.00	244	-12	208	204	QPN	ZG	0.00	0.00	0.41	21.98
247	-14	209	204	QPN	ZG	0.00	21.98	0.82	22.00	247	-14	209	205	QPN	ZG	0.41	22.01	0.82	22.00
247	-14	209	205	QPN	ZG	0.00	0.00	0.41	22.01	250	-16	210	205	QPN	ZG	0.00	22.01	0.41	22.00
250	-16	210	206	QPN	ZG	0.00	0.00	0.41	22.00										

Elenco carichi aste

Condizione di carico n. 3:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
203	-4	203	214	QA	ZG	0.00	9.63	3.27	9.63	203	-4	203	215	QA	ZG	0.41	9.63	3.27	9.63
203	-4	203	215	QA	ZG	0.00	0.00	0.41	9.63	204	-15	212	213	QA	ZG	0.00	0.00	0.63	11.21
204	-15	212	212	QA	ZG	0.00	11.21	0.63	11.21	205	-13	213	212	QA	ZG	0.00	0.00	0.63	11.21
205	-13	213	211	QA	ZG	0.00	11.21	1.26	11.21	205	-13	213	212	QA	ZG	0.63	11.21	1.26	11.21
206	-10	214	211	QA	ZG	0.00	0.00	0.48	8.54	206	-10	214	210	QA	ZG	0.00	11.21	1.89	11.21
206	-10	214	211	QA	ZG	0.63	11.21	1.89	11.21	206	-10	214	211	QA	ZG	0.48	8.54	0.63	11.21
207	-8	215	210	QA	ZG	0.00	0.00	0.17	3.02	207	-8	215	209	QA	ZG	0.00	11.21	2.53	11.21
207	-8	215	210	QA	ZG	0.63	11.21	2.53	11.21	207	-8	215	210	QA	ZG	0.17	3.02	0.63	11.21
208	-6	216	209	QA	ZG	0.00	0.00	0.33	5.87	208	-6	216	208	QA	ZG	0.00	11.21	3.16	11.21
208	-6	216	209	QA	ZG	0.63	11.21	3.16	11.21	208	-6	216	209	QA	ZG	0.33	5.87	0.63	11.21
209	-3	217	208	QA	ZG	0.00	0.00	0.02	0.34	209	-3	217	207	QA	ZG	0.00	11.21	3.79	11.21
209	-3	217	208	QA	ZG	0.63	11.21	3.79	11.21	209	-3	217	208	QA	ZG	0.49	8.71	0.63	11.21
209	-3	217	208	QA	ZG	0.02	0.34	0.49	8.71	210	-1	218	207	QA	ZG	0.00	0.00	0.18	3.18
210	-1	218	207	QA	ZG	0.63	11.21	4.42	11.21	210	-1	218	207	QA	ZG	0.18	3.18	0.63	11.21
227	-2	202	214	QA	ZG	0.00	0.00	0.39	9.24	227	-2	202	214	QA	ZG	0.41	9.63	3.68	9.63
227	-2	202	214	QA	ZG	0.39	9.24	0.41	9.63	228	-5	204	215	QA	ZG	0.00	9.63	2.86	9.63
228	-5	204	200	QA	ZG	0.41	9.63	2.86	9.63	228	-5	204	200	QA	ZG	0.00	0.00	0.41	9.63
233	-7	205	200	QA	ZG	0.00	9.63	2.46	9.63	233	-7	205	201	QA	ZG	0.41	9.62	2.46	9.63
233	-7	205	201	QA	ZG	0.00	0.00	0.41	9.62	236	-9	206	201	QA	ZG	0.00	9.62	2.05	9.63
236	-9	206	202	QA	ZG	0.41	9.63	2.05	9.63	236	-9	206	202	QA	ZG	0.40	9.43	0.41	9.63
236	-9	206	202	QA	ZG	0.00	0.00	0.40	9.43	239	-1	-2	207	QA	ZG	0.00	0.00	0.23	2.49
239	-2	-3	214	QA	ZG	0.00	0.00	0.58	6.29	239	-2	-3	207	QA	ZG	0.00	2.49	0.58	8.79
239	-3	-4	214	QA	ZG	0.00	6.29	0.02	6.56	239	-3	-4	208	QA	ZG	0.00	0.00	0.02	0.27
239	-4	-5	215	QA	ZG	0.00	0.00	0.60	6.56	239	-4	-5	208	QA	ZG	0.00	0.27	0.60	6.83
239	-5	-6	200	QA	ZG	0.00	0.00	0.18	1.96	239	-5	-6	208	QA	ZG	0.00	6.83	0.18	8.79
239	-6	-7	200	QA	ZG	0.00	1.96	0.42	6.56	239	-6	-7	209	QA	ZG	0.00	0.00	0.42	4.60
239	-7	-8	201	QA	ZG	0.00	0.00	0.38	4.19	239	-7	-8	209	QA	ZG	0.00	4.60	0.38	8.79
239	-8	-9	201	QA	ZG	0.00	4.19	0.22	6.55	239	-8	-9	210	QA	ZG	0.00	0.00	0.22	2.36
239	-9	-10	202	QA	ZG	0.00	0.00	0.59	6.42	239	-9	-10	210	QA	ZG	0.00	2.36	0.59	8.79
239	-10	-11	202	QA	ZG	0.00	6.42	0.01	6.56	239	-10	-11	211	QA	ZG	0.00	0.00	0.01	0.14
239	-11	-12	203	QA	ZG	0.00	0.00	0.60	6.56	239	-11	-12	211	QA	ZG	0.00	0.14	0.60	6.70
239	-12	-13	204	QA	ZG	0.00	0.00	0.19	2.09	239	-12	-13	211	QA	ZG	0.00	6.70	0.19	8.79
239	-13	-14	204	QA	ZG	0.00	2.09	0.41	6.55	239	-13	-14	212	QA	ZG	0.00	0.00	0.41	4.46
239	-14	-15	205	QA	ZG	0.00	0.00	0.40	4.33	239	-14	-15	212	QA	ZG	0.00	4.46	0.40	8.79
239	-15	-16	205	QA	ZG	0.00	4.33	0.20	6.56	239	-15	-16	213	QA	ZG	0.00	0.00	0.20	2.23
239	-16	211	206	QA	ZG	0.00	0.00	0.60	6.56	239	-16	211	213	QA	ZG	0.00	2.23	0.60	8.79
241	-11	207	202	QA	ZG	0.00	9.63	1.64	9.63	241	-11	207	203	QA	ZG	0.41	9.63	1.64	9.63
241	-11	207	203	QA	ZG	0.00	0.00	0.41	9.63	244	-12	208	203	QA	ZG	0.00	9.63	1.23	9.63
244	-12	208	204	QA	ZG	0.41	9.62	1.23	9.63	244	-12	208	204	QA	ZG	0.00	0.00	0.41	9.62
247	-14	209	204	QA	ZG	0.00	9.62	0.82	9.63	247	-14	209	205	QA	ZG	0.41	9.63	0.82	9.63
247	-14	209	205	QA	ZG	0.00	0.00	0.41	9.63	250	-16	210	205	QA	ZG	0.00	9.63	0.41	9.63
250	-16	210	206	QA	ZG	0.00	0.00	0.41	9.63										

Elenco carichi aste

Condizione di carico n. 4:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
203	-4	203	214	QA2	ZG	0.00	21.07	3.27	21.06	203	-4	203	215	QA2	ZG	0.41	21.07	3.27	21.06
203	-4	203	215	QA2	ZG	0.00	0.00	0.41	21.07	204	-15	212	213	QA2	ZG	0.00	0.00	0.63	24.52
204	-15	212	212	QA2	ZG	0.00	24.52	0.63	24.52	205	-13	213	212	QA2	ZG	0.00	0.00	0.32	12.44
205	-13	213	211	QA2	ZG	0.00	24.52	1.26	24.52	205	-13	213	212	QA2	ZG	0.63	24.52	1.26	24.52
205	-13	213	212	QA2	ZG	0.32	12.44	0.63	24.52	206	-10	214	211	QA2	ZG	0.00	0.00	0.01	0.39
206	-10	214	210	QA2	ZG	0.00	24.52	1.89	24.52	206	-10	214	211	QA2	ZG	0.63	24.52	1.89	24.52
206	-10	214	211	QA2	ZG	0.48	18.68	0.63	24.52	206	-10	214	211	QA2	ZG	0.01	0.39	0.48	18.68
207	-8	215	210	QA2	ZG	0.00	0.00	0.17	6.60	207	-8	215	209	QA2	ZG	0.00	24.52	2.53	24.52
207	-8	215	210	QA2	ZG	0.63	24.52	2.53	24.52	207	-8	215	210	QA2	ZG	0.17	6.60	0.63	24.52
208	-6	216	209	QA2	ZG	0.00	0.00	0.33	12.84	208	-6	216	208	QA2	ZG	0.00	24.52	3.16	24.52
208	-6	216	209	QA2	ZG	0.63	24.52	3.16	24.52	208	-6	216	209	QA2	ZG	0.33	12.84	0.63	24.52
209	-3	217	208	QA2	ZG	0.00	0.00	0.02	0.75	209	-3	217	207	QA2	ZG	0.00	24.52	3.79	24.52
209	-3	217	208	QA2	ZG	0.63	24.52	3.79	24.52	209	-3	217	208	QA2	ZG	0.49	19.06	0.63	24.52
209	-3	217	208	QA2	ZG	0.02	0.75	0.49	19.06	210	-1	218	207	QA2	ZG	0.00	0.00	0.18	6.96
210	-1	218	207	QA2	ZG	0.63	24.52	4.42	24.52	210	-1	218	207	QA2	ZG	0.18	6.96	0.63	24.52
227	-2	202	214	QA2	ZG	0.00	0.00	0.39	20.21	227	-2	202	214	QA2	ZG	0.41	21.07	3.68	21.06
227	-2	202	214	QA2	ZG	0.39	20.21	0.41	21.07	228	-5	204	215	QA2	ZG	0.00	21.07	2.86	21.06
228	-5	204	200	QA2	ZG	0.41	21.06	2.86	21.06	228	-5	204	200	QA2	ZG	0.12	6.28	0.41	21.06
228	-5	204	200	QA2	ZG	0.00	0.00	0.12	6.28	233	-7	205	200	QA2	ZG	0.00	21.06	2.46	21.06

233	-7	205 201	QA2	ZG	0.41	21.04	2.46	21.06	233	-7	205 201	QA2	ZG	0.00	0.00	0.41	21.04
236	-9	206 201	QA2	ZG	0.00	21.04	2.05	21.06	236	-9	206 202	QA2	ZG	0.41	21.07	2.05	21.06
236	-9	206 202	QA2	ZG	0.40	20.63	0.41	21.07	236	-9	206 202	QA2	ZG	0.00	0.00	0.40	20.63
239	-1	-2 207	QA2	ZG	0.00	0.00	0.23	5.46	239	-2	-3 214	QA2	ZG	0.00	0.00	0.58	13.76
239	-2	-3 207	QA2	ZG	0.00	5.46	0.58	19.22	239	-3	-4 214	QA2	ZG	0.00	13.76	0.02	14.35
239	-3	-4 208	QA2	ZG	0.00	0.00	0.02	0.59	239	-4	-5 215	QA2	ZG	0.00	0.00	0.60	14.35
239	-4	-5 208	QA2	ZG	0.00	0.59	0.60	14.94	239	-5	-6 200	QA2	ZG	0.00	0.00	0.18	4.28
239	-5	-6 208	QA2	ZG	0.00	14.94	0.18	19.22	239	-6	-7 200	QA2	ZG	0.00	4.28	0.42	14.35
239	-6	-7 209	QA2	ZG	0.00	0.00	0.42	10.06	239	-7	-8 201	QA2	ZG	0.00	0.00	0.38	9.16
239	-7	-8 209	QA2	ZG	0.00	10.06	0.38	19.22	239	-8	-9 201	QA2	ZG	0.00	9.16	0.22	14.33
239	-8	-9 210	QA2	ZG	0.00	0.00	0.22	5.17	239	-9	-10 202	QA2	ZG	0.00	0.00	0.59	14.05
239	-9	-10 210	QA2	ZG	0.00	5.17	0.59	19.22	239	-10	-11 202	QA2	ZG	0.00	14.05	0.01	14.36
239	-10	-11 211	QA2	ZG	0.00	0.00	0.01	0.31	239	-11	-12 203	QA2	ZG	0.00	0.00	0.60	14.34
239	-11	-12 211	QA2	ZG	0.00	0.31	0.60	14.65	239	-12	-13 204	QA2	ZG	0.00	0.00	0.19	4.58
239	-12	-13 211	QA2	ZG	0.00	14.65	0.19	19.22	239	-13	-14 204	QA2	ZG	0.00	4.58	0.41	14.33
239	-13	-14 212	QA2	ZG	0.00	0.00	0.41	9.75	239	-14	-15 205	QA2	ZG	0.00	0.00	0.40	9.47
239	-14	-15 212	QA2	ZG	0.00	9.75	0.40	19.22	239	-15	-16 205	QA2	ZG	0.00	9.47	0.20	14.35
239	-15	-16 213	QA2	ZG	0.00	0.00	0.20	4.88	239	-16	211 206	QA2	ZG	0.00	0.00	0.60	14.34
239	-16	211 213	QA2	ZG	0.00	4.88	0.60	19.22	241	-11	207 202	QA2	ZG	0.00	21.07	1.64	21.06
241	-11	207 203	QA2	ZG	0.41	21.06	1.64	21.06	241	-11	207 203	QA2	ZG	0.00	0.00	0.41	21.06
244	-12	208 203	QA2	ZG	0.00	21.06	1.23	21.06	244	-12	208 204	QA2	ZG	0.41	21.04	1.23	21.06
244	-12	208 204	QA2	ZG	0.13	6.72	0.41	21.04	244	-12	208 204	QA2	ZG	0.00	0.00	0.13	6.72
247	-14	209 204	QA2	ZG	0.00	21.04	0.82	21.06	247	-14	209 205	QA2	ZG	0.41	21.07	0.82	21.06
247	-14	209 205	QA2	ZG	0.27	13.90	0.41	21.07	247	-14	209 205	QA2	ZG	0.00	0.00	0.27	13.90
250	-16	210 205	QA2	ZG	0.00	21.07	0.41	21.06	250	-16	210 206	QA2	ZG	0.00	0.00	0.41	21.06

Elenco carichi aste

Condizione di carico n. 5:

Carichi distribuiti

Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf	Asta	N1	N2	S	T	DC	Xi	Qi	Xf	Qf
						<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>
203	-4	203 214	QA3	ZG	0.00	10.03	3.27	10.03	203	-4	203 215	QA3	ZG	0.41	10.03	3.27	10.03		
203	-4	203 215	QA3	ZG	0.00	0.00	0.41	10.03	204	-15	212 213	QA3	ZG	0.00	0.00	0.63	11.68		
204	-15	212 212	QA3	ZG	0.00	11.68	0.63	11.68	205	-13	213 212	QA3	ZG	0.00	0.00	0.63	11.68		
205	-13	213 211	QA3	ZG	0.00	11.68	1.26	11.68	205	-13	213 212	QA3	ZG	0.63	11.68	1.26	11.68		
206	-10	214 211	QA3	ZG	0.00	0.00	0.48	8.90	206	-10	214 210	QA3	ZG	0.00	11.68	1.89	11.68		
206	-10	214 211	QA3	ZG	0.63	11.68	1.89	11.68	206	-10	214 211	QA3	ZG	0.48	8.90	0.63	11.68		
207	-8	215 210	QA3	ZG	0.00	0.00	0.17	3.14	207	-8	215 209	QA3	ZG	0.00	11.68	2.53	11.68		
207	-8	215 210	QA3	ZG	0.63	11.68	2.53	11.68	207	-8	215 210	QA3	ZG	0.17	3.14	0.63	11.68		
208	-6	216 209	QA3	ZG	0.00	0.00	0.33	6.11	208	-6	216 208	QA3	ZG	0.00	11.68	3.16	11.68		
208	-6	216 209	QA3	ZG	0.63	11.68	3.16	11.68	208	-6	216 209	QA3	ZG	0.33	6.11	0.63	11.68		
209	-3	217 208	QA3	ZG	0.00	0.00	0.02	0.36	209	-3	217 207	QA3	ZG	0.00	11.68	3.79	11.68		
209	-3	217 208	QA3	ZG	0.63	11.68	3.79	11.68	209	-3	217 208	QA3	ZG	0.49	9.08	0.63	11.68		
209	-3	217 208	QA3	ZG	0.02	0.36	0.49	9.08	210	-1	218 207	QA3	ZG	0.00	0.00	0.18	3.32		
210	-1	218 207	QA3	ZG	0.63	11.68	4.42	11.68	210	-1	218 207	QA3	ZG	0.18	3.32	0.63	11.68		
227	-2	202 214	QA3	ZG	0.00	0.00	0.39	9.62	227	-2	202 214	QA3	ZG	0.41	10.03	3.68	10.03		
227	-2	202 214	QA3	ZG	0.39	9.62	0.41	10.03	228	-5	204 215	QA3	ZG	0.00	10.03	2.86	10.03		
228	-5	204 200	QA3	ZG	0.41	10.03	2.86	10.03	228	-5	204 200	QA3	ZG	0.00	0.00	0.41	10.03		
233	-7	205 200	QA3	ZG	0.00	10.03	2.46	10.03	233	-7	205 201	QA3	ZG	0.41	10.02	2.46	10.03		
233	-7	205 201	QA3	ZG	0.00	0.00	0.41	10.02	236	-9	206 201	QA3	ZG	0.00	10.02	2.05	10.03		
236	-9	206 202	QA3	ZG	0.41	10.04	2.05	10.03	236	-9	206 202	QA3	ZG	0.40	9.82	0.41	10.04		
236	-9	206 202	QA3	ZG	0.00	0.00	0.40	9.82	239	-1	-2 207	QA3	ZG	0.00	0.00	0.23	2.60		
239	-2	-3 214	QA3	ZG	0.00	0.00	0.58	6.55	239	-2	-3 207	QA3	ZG	0.00	2.60	0.58	9.15		
239	-3	-4 214	QA3	ZG	0.00	6.55	0.02	6.83	239	-3	-4 208	QA3	ZG	0.00	0.00	0.02	0.28		
239	-4	-5 215	QA3	ZG	0.00	0.00	0.60	6.83	239	-4	-5 208	QA3	ZG	0.00	0.28	0.60	7.11		
239	-5	-6 200	QA3	ZG	0.00	0.00	0.18	2.04	239	-5	-6 208	QA3	ZG	0.00	7.11	0.18	9.15		
239	-6	-7 200	QA3	ZG	0.00	2.04	0.42	6.83	239	-6	-7 209	QA3	ZG	0.00	0.00	0.42	4.79		
239	-7	-8 201	QA3	ZG	0.00	0.00	0.38	4.36	239	-7	-8 209	QA3	ZG	0.00	4.79	0.38	9.15		
239	-8	-9 201	QA3	ZG	0.00	4.36	0.22	6.82	239	-8	-9 210	QA3	ZG	0.00	0.00	0.22	2.46		
239	-9	-10 202	QA3	ZG	0.00	0.00	0.59	6.69	239	-9	-10 210	QA3	ZG	0.00	2.46	0.59	9.15		
239	-10	-11 202	QA3	ZG	0.00	6.69	0.01	6.84	239	-10	-11 211	QA3	ZG	0.00	0.00	0.01	0.15		
239	-11	-12 203	QA3	ZG	0.00	0.00	0.60	6.83	239	-11	-12 211	QA3	ZG	0.00	0.15	0.60	6.97		
239	-12	-13 204	QA3	ZG	0.00	0.00	0.19	2.18	239	-12	-13 211	QA3	ZG	0.00	6.97	0.19	9.15		
239	-13	-14 204	QA3	ZG	0.00	2.18	0.41	6.82	239	-13	-14 212	QA3	ZG	0.00	0.00	0.41	4.64		
239	-14	-15 205	QA3	ZG	0.00	0.00	0.40	4.51	239	-14	-15 212	QA3	ZG	0.00	4.64	0.40	9.15		
239	-15	-16 205	QA3	ZG	0.00	4.51	0.20	6.83	239	-15	-16 213	QA3	ZG	0.00	0.00	0.20	2.33		
239	-16	211 206	QA3	ZG	0.00	0.00	0.60	6.83	239	-16	211 213	QA3	ZG	0.00	2.33	0.60	9.15		
241	-11	207 202	QA3	ZG	0.00	10.04	1.64	10.03	241	-11	207 203	QA3	ZG	0.41	10.03	1.64	10.03		
241	-11	207 203	QA3	ZG	0.00	0.00	0.41	10.03	244	-12	208 203	QA3	ZG	0.00	10.03	1.23	10.03		
244	-12	208 204	QA3	ZG	0.41	10.02	1.23	10.03	244	-12	208 204	QA3	ZG	0.00	0.00	0.41	10.02		
247	-14	209 204	QA3	ZG	0.00	10.02	0.82	10.03	247	-14	209 205	QA3	ZG	0.41	10.03	0.82	10.03		
247	-14	209 205	QA3	ZG	0.00	0.00	0.41	10.03	250	-16	210 205	QA3	ZG	0.00	10.03	0.41	10.03		
250	-16	210 206	QA3	ZG	0.00	0.00	0.41	10.03											

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati effettuati con:

ModeSt ver. 8.30, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:

Xfinest ver. 2013, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08

Tipo di calcolo: calcolo statico

Vincoli esterni: Considera sempre vincoli assegnati in modellazione

Schematizzazione piani rigidi: nessun impalcato rigido

Modalità di recupero masse secondarie: mantenere sul nodo masse e forze relative

Generazione combinazioni

- Lineari: si
- Valuta spostamenti e non sollecitazioni: no
- Buckling: no

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: no
- Uniformare i carichi variabili: no
- Massimizzare i carichi variabili: no
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Tipo di opera: Opera ordinaria
- Vita nominale V_N : 50.00
- Classe d'uso: Classe II
- Forze orizzontali convenzionali per stati limite non sismici: 1.00%
- Genera stati limite per verifiche di resistenza al fuoco: no

Condizioni di carico elementari

Simbologia

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

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo	CCE	Sicurezza	Variabilità
1		1.00	1.00	0.00	0.00	0.00	1.00	1	S		--
2		1.00	1.00	0.00	0.00	0.00	1.00	2	S		--
3		1.00	1.00	0.00	0.00	0.00	1.00	11	S		B
4		1.00	1.00	0.00	0.00	0.00	1.00	18	S		B
5		1.00	1.00	0.00	0.00	0.00	1.00	19	S		B

Elenco tipi cce definiti

Simbologia

Tipo CCE = Tipo condizione di carico elementare
Comm. = Commento
Tipo = Tipologia
G = Permanente
Q = Variabile
I = Da ignorare
A = Azione eccezionale
P = Precompressione
Durata = Durata del carico
N = Non definita
P = Permanente
L = Lunga
M = Media
B = Breve
I = Istantanea
 $\gamma_{min.}$ = Coeff. $\gamma_{min.}$
 γ_{max} = Coeff. γ_{max}
 ψ_0 = Coeff. ψ_0
 ψ_1 = Coeff. ψ_1
 ψ_2 = Coeff. ψ_2
 $\psi_{0,s}$ = Coeff. ψ_0 sismico (D.M. 96)

Tipo CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	γ_{max}	ψ_0	ψ_1	ψ_2	$\psi_{0,s}$
1	D.M. 08 Permanenti strutturali	G	N	1.00	1.30				
2	D.M. 08 Permanenti non strutturali	G	N	0.00	1.50				
3	D.M. 08 Variabili Categoria A Ambienti ad uso residenziale	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
4	D.M. 08 Variabili Categoria B Uffici	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
5	D.M. 08 Variabili Categoria C Ambienti suscettibili di affollamento	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
6	D.M. 08 Variabili Categoria D Ambienti ad uso commerciale	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
7	D.M. 08 Variabili Categoria E Biblioteche, archivi, magazzini e ambienti ad uso industriale	Q	N	0.00	1.50	1.00	0.90	0.80	0.00
8	D.M. 08 Variabili Categoria F Rimesse e parcheggi (per autoveicoli di peso ≤ 30 kN)	Q	N	0.00	1.50	0.70	0.70	0.60	0.00
9	D.M. 08 Variabili Categoria G Rimesse e parcheggi (per autoveicoli di peso > 30 kN)	Q	N	0.00	1.50	0.70	0.50	0.30	0.00
10	D.M. 08 Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00
11	D.M. 08 Variabili Neve (a quota ≤ 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
12	D.M. 08 Variabili Neve (a quota > 1000 m s.l.m.)	Q	N	0.00	1.50	0.70	0.50	0.20	0.00
13	D.M. 08 Variabili Variazioni termiche	Q	N	0.00	1.50	0.60	0.50	0.00	0.00
14	D.M. 96 Permanenti	G	N	1.00	1.40				
15	D.M. 96 Variabili Abitazioni	Q	P	0.00	1.50	0.70	0.50	0.20	0.70
16	D.M. 96 Variabili Uffici, negozi, scuole, ecc.	Q	N	0.00	1.50	0.70	0.60	0.30	0.70
17	D.M. 96 Variabili Autorimesse	Q	N	0.00	1.50	0.70	0.70	0.60	0.70
18	D.M. 96 Variabili Vento	Q	N	0.00	1.50	0.70	0.20	0.00	0.00
19	D.M. 08 Variabili Categoria H - Coperture	Q	N	0.00	1.50	0.00	0.00	0.00	1.00

Ambienti di carico

Simbologia

N Numero
Comm. Commento
1
2
3
4
5
F azioni orizzontali convenzionali
SLU Stato limite ultimo
SLR Stato limite per combinazioni rare
SLF Stato limite per combinazioni frequenti
SLQ Stato limite per combinazioni quasi permanenti o di danno

N Comm. 1 2 3 4 5 SLU SLR SLF SLQ
1 Calcolo statico si si si si si si si si si

Elenco combinazioni di carico simboliche

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno

SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5
1 Amb.	1 (SLU)	SLU	γ max	γ max	γ max	γ max	γ max
2 Amb.	1 (SLE R)	SLE R	1	1	1	1	1
3 Amb.	1 (SLE F)	SLE F	1	ψ_1	ψ_1	ψ_1	ψ_1
4 Amb.	1 (SLE Q)	SLE Q	1	ψ_2	ψ_2	ψ_2	ψ_2

Genera le combinazioni con un solo carico di tipo variabile come di base: no

Considera sollecitazioni dinamiche con segno dei modi principali: no

Combinazioni delle cce

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
Comm. = Commento
TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo
SLU S = Stato limite ultimo (azione sismica)
SLE R = Stato limite d'esercizio, combinazione rara
SLE F = Stato limite d'esercizio, combinazione frequente
SLE Q = Stato limite d'esercizio, combinazione quasi permanente
SLD = Stato limite di danno
SLV = Stato limite di salvaguardia della vita
SLC = Stato limite di prevenzione del collasso
SLO = Stato limite di operatività
SLU I = Stato limite di resistenza al fuoco
An. = Tipo di analisi
L = Lineare
NL = Non lineare
Bk = Buckling
S = Si
N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5
1 CC 1 - Amb.	1 (SLU)	SLU	L	N	1.30	1.50	1.50	0.90	0.00
2		SLU	L	N	1.30	1.50	0.75	1.50	0.00
3		SLU	L	N	1.30	1.50	0.75	0.90	1.50
4 CC 2 - Amb.	1 (SLE R)	SLE R	L	N	1.00	1.00	1.00	0.60	0.00
5		SLE R	L	N	1.00	1.00	0.50	1.00	0.00
6		SLE R	L	N	1.00	1.00	0.50	0.60	1.00
7 CC 3 - Amb.	1 (SLE F)	SLE F	L	N	1.00	1.00	0.20	0.20	0.00
8 CC 4 - Amb.	1 (SLE Q)	SLE Q	L	N	1.00	1.00	0.00	0.00	0.00

Spostamenti dei nodi allo stato limite ultimo

Simbologia

Nodo = Numero del nodo
Sx = Spostamento in dir. X
CC = Numero della combinazione delle condizioni di carico elementari
Sy = Spostamento in dir. Y
Sz = Spostamento in dir. Z
Rx = Rotazione intorno all'asse X
Ry = Rotazione intorno all'asse Y
Rz = Rotazione intorno all'asse Z

Nodo	Sx	CC	Sy	CC	Sz	CC	Rx	CC	Ry	CC	Rz	CC
	<cm>		<cm>		<cm>		<rad>		<rad>		<rad>	
-16 Max	-0.03	8	0.12	3	-0.19	8	0.01	3	0.01	3	0.00	3
-16 Min.	-0.08	3	0.05	8	-0.51	3	0.00	8	0.00	8	0.00	8
-15 Max	-0.04	8	0.16	3	-0.26	8	0.01	3	0.01	3	0.00	3
-15 Min.	-0.11	3	0.06	8	-0.67	3	0.00	8	0.00	8	0.00	8
-14 Max	-0.06	8	0.24	3	-0.37	8	0.01	3	0.00	3	0.00	3
-14 Min.	-0.16	3	0.09	8	-0.97	3	0.00	8	0.00	8	0.00	8
-13 Max	-0.08	8	0.30	3	-0.47	8	0.00	3	0.00	3	0.00	3
-13 Min.	-0.20	3	0.11	8	-1.24	3	0.00	8	0.00	8	0.00	8
-12 Max	-0.08	8	0.33	3	-0.51	8	0.00	3	0.00	3	0.00	3
-12 Min.	-0.22	3	0.12	8	-1.35	3	0.00	8	0.00	8	0.00	8
-11 Max	-0.10	8	0.39	3	-0.61	8	0.00	3	0.00	3	0.00	3
-11 Min.	-0.26	3	0.15	8	-1.60	3	0.00	8	0.00	8	0.00	8
-10 Max	-0.10	8	0.39	3	-0.61	8	0.00	3	0.00	3	0.00	3

-10 Min.	-0.26	3	0.15	8	-1.60	3	0.00	8	0.00	8	0.00	8
-9 Max	-0.11	8	0.41	3	-0.64	8	0.00	3	0.00	3	0.00	3
-9 Min.	-0.28	3	0.16	8	-1.69	3	0.00	8	0.00	8	0.00	8
-8 Max	-0.10	8	0.41	3	-0.64	8	0.00	8	0.00	8	0.00	8
-8 Min.	-0.28	3	0.16	8	-1.69	3	0.00	3	0.00	3	0.00	3
-7 Max	-0.10	8	0.39	3	-0.61	8	0.00	8	0.00	8	0.00	8
-7 Min.	-0.27	3	0.15	8	-1.63	3	-0.00	3	-0.00	3	0.00	3
-6 Max	-0.09	8	0.36	3	-0.56	8	-0.00	8	-0.00	8	0.00	8
-6 Min.	-0.24	3	0.14	8	-1.48	3	-0.00	3	-0.00	3	0.00	3
-5 Max	-0.09	8	0.34	3	-0.52	8	-0.00	8	-0.00	8	0.00	8
-5 Min.	-0.23	3	0.13	8	-1.39	3	-0.00	3	-0.00	3	0.00	3
-4 Max	-0.06	8	0.24	3	-0.38	8	-0.00	8	-0.00	8	0.00	8
-4 Min.	-0.16	3	0.09	8	-1.00	3	-0.01	3	-0.00	3	0.00	3
-3 Max	-0.06	8	0.24	3	-0.37	8	-0.00	8	-0.00	8	0.00	8
-3 Min.	-0.16	3	0.09	8	-0.98	3	-0.01	3	-0.00	3	0.00	3
-2 Max	-0.03	8	0.12	3	-0.19	8	-0.00	8	-0.00	8	0.00	8
-2 Min.	-0.08	3	0.04	8	-0.49	3	-0.01	3	-0.01	3	0.00	3
-1 Max	-0.02	8	0.07	3	-0.10	8	-0.00	8	-0.00	8	0.00	8
-1 Min.	-0.05	3	0.03	8	-0.28	3	-0.01	3	-0.01	3	0.00	3

Reazioni vincolari

Simbologia

Nodo = Numero del nodo

Rx = Reazione vincolare (forza) in dir. X

CC = Numero della combinazione delle condizioni di carico elementari

Ry = Reazione vincolare (forza) in dir. Y

Rz = Reazione vincolare (forza) in dir. Z

Mx = Reazione vincolare (momento) intorno all'asse X

My = Reazione vincolare (momento) intorno all'asse Y

Mz = Reazione vincolare (momento) intorno all'asse Z

Nodo	Rx	CC	Ry	CC	Rz	CC	Mx	CC	My	CC	Mz	CC
	<daN>		<daN>		<daN>		<daNm>		<daNm>		<daNm>	
101 Max	-109.21	8	310.36	3	2210.73	3	0.00	3	0.00	8	0.00	8
101 Min.	-314.36	3	105.37	8	836.17	8	0.00	8	0.00	3	0.00	3
201 Max	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
201 Min.	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
202 Max	61.59	3	-0.00	8	136.54	3	0.00	1	0.00	1	0.00	1
202 Min.	23.25	8	-0.01	3	51.54	8	0.00	1	0.00	1	0.00	1
203 Max	100.24	3	0.00	3	222.22	3	0.00	3	0.00	8	0.00	8
203 Min.	34.15	8	0.00	8	75.71	8	0.00	8	0.00	3	0.00	3
204 Max	87.63	3	0.01	3	194.27	3	0.00	3	0.00	8	0.00	8
204 Min.	29.86	8	0.00	8	66.20	8	0.00	8	0.00	3	0.00	3
205 Max	75.01	3	0.01	3	166.29	3	0.00	1	0.00	1	0.00	1
205 Min.	25.56	8	0.00	8	56.67	8	0.00	1	0.00	1	0.00	1
206 Max	62.41	3	0.00	8	138.35	3	0.00	8	0.00	8	0.00	3
206 Min.	21.27	8	-0.00	3	47.16	8	0.00	3	0.00	3	0.00	8
207 Max	49.75	3	0.01	3	110.29	3	0.00	3	0.00	8	0.00	3
207 Min.	16.97	8	0.00	8	37.61	8	0.00	8	0.00	3	0.00	8
208 Max	37.03	3	0.01	3	82.08	3	0.00	1	0.00	1	0.00	1
208 Min.	12.64	8	0.00	8	28.02	8	0.00	1	0.00	1	0.00	1
209 Max	24.17	3	-0.00	8	53.58	3	0.00	8	0.00	8	0.00	8
209 Min.	8.27	8	-0.00	3	18.34	8	0.00	3	0.00	3	0.00	3
210 Max	10.66	3	0.01	3	23.62	3	0.00	3	0.00	8	0.00	8
210 Min.	3.71	8	0.00	8	8.23	8	0.00	8	0.00	3	0.00	3
211 Max	-66.48	8	168.10	3	1430.23	3	0.00	8	0.00	3	0.00	3
211 Min.	-194.13	3	56.05	8	558.36	8	0.00	3	0.00	8	0.00	8
212 Max	0.00	1	-5.63	8	43.44	3	0.00	1	0.00	1	0.00	1
212 Min.	0.00	1	-16.62	3	14.71	8	0.00	1	0.00	1	0.00	1
213 Max	0.00	1	-12.57	8	98.66	3	0.00	1	0.00	1	0.00	1
213 Min.	0.00	1	-37.74	3	32.87	8	0.00	1	0.00	1	0.00	1
214 Max	0.00	1	-19.22	8	151.26	3	0.00	1	0.00	1	0.00	1
214 Min.	0.00	1	-57.85	3	50.26	8	0.00	1	0.00	1	0.00	1
215 Max	0.00	1	-25.80	8	203.21	3	0.00	1	0.00	1	0.00	1
215 Min.	0.00	1	-77.72	3	67.46	8	0.00	1	0.00	1	0.00	1
216 Max	0.00	1	-32.35	8	254.89	3	0.00	8	0.00	1	0.00	1
216 Min.	0.00	1	-97.49	3	84.58	8	0.00	3	0.00	1	0.00	1
217 Max	0.00	1	-38.88	8	306.44	3	0.00	1	0.00	1	0.00	1
217 Min.	0.00	1	-117.21	3	101.66	8	0.00	1	0.00	1	0.00	1
218 Max	0.00	1	-26.98	8	193.13	3	0.00	1	0.00	1	0.00	1
218 Min.	0.00	1	-73.87	3	70.53	8	0.00	1	0.00	1	0.00	1

Verifiche aste in legno

Caratteristiche sezioni utilizzate

Sez. = Numero della sezione
Cod. = Codice della sezione
Tipo = tipo di sezione:
R = Rettangolare
Cir. = Circolare
Area = area della sezione
 J_y, J_z = momenti d'inerzia intorno agli assi Y, Z
 I_y, I_z = raggi d'inerzia intorno agli assi Y, Z
 W_y, W_z = moduli di resistenza intorno agli assi Y, Z

Verifiche di resistenza e stabilità

x_l = Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica <m>
N = sforzo normale <daN>
 M_y, M_z = momenti flettenti intorno agli assi Y e Z <daNm>
 T_y, T_z = tagli in direzione Y e Z <daN>
 σ_N, σ_M = tensione per sforzo normale e per momento flettente <daN/cm²>
 τ = tensione per taglio <daN/cm²>
 σ_{Rd} = tensione resistente per flessione <daN/cm²>
 K_h = coefficiente moltiplicativo per sezioni piccole (flessione)
 K_m = coefficiente di forma
 K_{mod} = coefficiente di durata dei carichi/umidità del legno
 σ_{RdC} = tensione resistente per compressione <daN/cm²>
 σ_{RdT} = tensione resistente per trazione <daN/cm²>
 K_1 = coefficiente moltiplicativo per sezioni piccole (trazione)
 τ_{Rd} = tensione resistente per taglio <daN/cm²>
[Lin.], [Par.] = tipo di momento (Lineare, Parabolico)
 $M_{y, sx}, M_{y, dx}$ = momenti flettenti intorno all'asse Y a sinistra (inizio asta) e a destra (fine asta) <daNm>
 $M_{z, sx}, M_{z, dx}$ = momenti flettenti intorno all'asse Z a sinistra (inizio asta) e a destra (fine asta) <daNm>
 $M_{y, eq}, M_{z, eq}$ = momenti flettenti equivalenti intorno agli assi Y e Z <daNm>
 $\lambda_{rel, y}, \lambda_{rel, z}$ = snellezze intorno agli assi Y e Z
 $K_{c, y}, K_{c, z}$ = coefficienti di riduzione per stabilità
Ltors = distanza fra ritegni torsionali 228
 $\lambda_{rel, m}$ = snellezza per instabilità flessione-torsionale
 K_{crit} = coefficiente per instabilità flessione-torsionale
 $M_{max, y}, M_{max, z}$ = momenti massimi agenti intorno agli assi Y e Z <daNm>
 $M_{eqx, y}, M_{eqx, z}$ = momenti equivalenti intorno agli assi Y e Z <daNm>

Verifiche di deformabilità

$f_{z, l}$ = freccia in direzione Z locale <cm>
 $f_{z, g}$ = freccia in direzione Z globale <cm>

Caratteristiche sezioni utilizzate

Sez.	Cod.	Tipo	Area <cm²>	J_y <cm⁴>	J_z <cm⁴>	I_y <cm>	I_z <cm>	Wymin <cm>	Wzmin <cm>
2 R	0.14x0.14	T R	196.00	3201.33	3201.33	4.04	4.04	457.33	457.33
4 R	0.28x0.28	T R	784.00	51221.30	51221.30	8.08	8.08	3658.67	3658.67

Asta n. 203 (-4 203) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $x_l=1.64$
Sollecitazioni: $N=-110.16$ $T_z=0.00$ $M_y=-199.11$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.56$ $\sigma_M=-43.54$ Sfr.=0.29

- Verifica Tensioni per taglio - CC 3 SLU $x_l=3.27$
Sollecitazioni: $N=0.00$ $T_z=-243.79$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.87$ Sfr.=0.17

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-214.23$ $M_{max, y}=-199.11$ $M_{eq, y}=-149.33$ $M_{max, z}=0.00$ $M_{eq, z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Ltors=327.43 $\lambda_{rel, m}=0.30$ $K_{crit}=1.00$

Tensioni: $\sigma_N = -1.09$ $\sigma_M = -32.65$ Sfr.=0.23

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.65$ (L/505) $f_{z,G} = 0.59$ (L/554)

Asta n. 204 (-15 212) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.33$
Sollecitazioni: $N = -17.73$ $T_z = 0.00$ $M_y = -6.69$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.09$ $\sigma_M = -1.46$ Sfr.=0.01

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 0.63$
Sollecitazioni: $N = 0.00$ $T_z = -46.51$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 0.36$ Sfr.=0.03

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -32.37$ $M_{max,Y} = -6.69$ $M_{eq,Y} = -5.02$ $M_{max,Z} = 0.00$ $M_{eq,Z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 63.13$ $\lambda_{rel,m} = 0.13$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.17$ $\sigma_M = -1.10$ Sfr.=0.01

- Verifica Freccia massima

Asta n. 205 (-13 213) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.65$
Sollecitazioni: $N = -40.94$ $T_z = 1.40$ $M_y = -32.06$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.21$ $\sigma_M = -7.01$ Sfr.=0.05

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 1.26$
Sollecitazioni: $N = 0.00$ $T_z = -105.63$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 0.81$ Sfr.=0.08

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -74.38$ $M_{max,Y} = -32.06$ $M_{eq,Y} = -24.05$ $M_{max,Z} = 0.00$ $M_{eq,Z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 126.27$ $\lambda_{rel,m} = 0.18$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.38$ $\sigma_M = -5.26$ Sfr.=0.04

- Verifica Freccia massima - CC 6
 $f_{z,L} = 0.02$ (L/7885) $f_{z,G} = 0.01$ (L/8433)

Asta n. 206 (-10 214) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l = 0.95$
Sollecitazioni: $N = -62.73$ $T_z = 2.06$ $M_y = -75.37$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\sigma_N = -0.32$ $\sigma_M = -16.48$ Sfr.=0.11

- Verifica Tensioni per taglio - CC 3 SLU $X_l = 1.89$
Sollecitazioni: $N = 0.00$ $T_z = -161.95$ $M_y = 0.00$ $T_y = 0.00$ $M_z = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
Tensioni: $\tau = 1.24$ Sfr.=0.12

- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N = -116.39$ $M_{max,Y} = -75.37$ $M_{eq,Y} = -56.52$ $M_{max,Z} = 0.00$ $M_{eq,Z} = 0.00$
Resistenze: $\sigma_{Rd} = 149.33$ $K_m = 0.70$ $K_{mod} = 0.80$
 $\sigma_{RdC} = 117.33$ $K_h = 1.00$ $\sigma_{RdT} = 90.67$ $K_1 = 1.00$ $\tau_{Rd} = 10.67$
 $L_{tors} = 189.40$ $\lambda_{rel,m} = 0.23$ $K_{crit} = 1.00$
Tensioni: $\sigma_N = -0.59$ $\sigma_M = -12.36$ Sfr.=0.09

- Verifica Freccia massima - CC 6

$f_{z,L}=0.08$ (L/2287) $f_{z,G}=0.08$ (L/2447)

Asta n. 207 (-8 215) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.26$
Sollecitazioni: $N=-84.02$ $T_z=2.10$ $M_y=-136.03$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.43$ $\sigma_M=-29.74$ $Sfr.=0.20$
 - Verifica Tensioni per taglio - CC 3 SLU $Xl=2.53$
Sollecitazioni: $N=0.00$ $T_z=-217.56$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.67$ $Sfr.=0.16$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-158.40$ $M_{max,y}=-136.03$ $M_{eq,y}=-102.02$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=252.53$ $\lambda_{rel,m}=0.26$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.81$ $\sigma_M=-22.31$ $Sfr.=0.16$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.26$ (L/958) $f_{z,G}=0.25$ (L/1025)

Asta n. 208 (-6 216) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.58$
Sollecitazioni: $N=-104.72$ $T_z=0.00$ $M_y=-214.04$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.53$ $\sigma_M=-46.80$ $Sfr.=0.31$
 - Verifica Tensioni per taglio - CC 3 SLU $Xl=3.16$
Sollecitazioni: $N=0.00$ $T_z=-272.90$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.09$ $Sfr.=0.20$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-200.41$ $M_{max,y}=-214.04$ $M_{eq,y}=-160.53$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=315.67$ $\lambda_{rel,m}=0.29$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.02$ $\sigma_M=-35.10$ $Sfr.=0.24$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.65$ (L/488) $f_{z,G}=0.60$ (L/523)

Asta n. 209 (-3 217) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=1.89$
Sollecitazioni: $N=-126.03$ $T_z=1.40$ $M_y=-309.38$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.64$ $\sigma_M=-67.65$ $Sfr.=0.45$
 - Verifica Tensioni per taglio - CC 3 SLU $Xl=3.79$
Sollecitazioni: $N=0.00$ $T_z=-328.09$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.51$ $Sfr.=0.24$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-242.41$ $M_{max,y}=-309.38$ $M_{eq,y}=-232.04$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=378.80$ $\lambda_{rel,m}=0.32$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.24$ $\sigma_M=-50.74$ $Sfr.=0.35$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=1.34$ (L/282) $f_{z,G}=1.25$ (L/302)

Asta n. 210 (-1 218) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=2.22$
Sollecitazioni: $N=-79.19$ $T_z=0.00$ $M_y=-227.14$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.40$ $\sigma_M=-49.67$ $Sfr.=0.33$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=4.42$
Sollecitazioni: $N=0.00$ $T_z=-206.78$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.58$ $Sfr.=0.15$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-149.46$ $M_{max,y}=-227.14$ $M_{eq,y}=-170.35$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=441.94$ $\lambda_{rel,m}=0.35$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.76$ $\sigma_M=-37.25$ $Sfr.=0.26$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=1.38$ (L/320) $f_{z,G}=1.29$ (L/343)

Asta n. 227 (-2 202) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.84$
Sollecitazioni: $N=-67.69$ $T_z=0.00$ $M_y=-137.49$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.35$ $\sigma_M=-30.06$ $Sfr.=0.20$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=3.68$
Sollecitazioni: $N=0.00$ $T_z=-149.79$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.15$ $Sfr.=0.11$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-129.36$ $M_{max,y}=-137.49$ $M_{eq,y}=-103.12$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=368.39$ $\lambda_{rel,m}=0.32$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.66$ $\sigma_M=-22.55$ $Sfr.=0.16$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.58$ (L/631) $f_{z,G}=0.53$ (L/692)

Asta n. 228 (-5 204) R 0.14x0.14 T Crit. 1

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- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.43$
Sollecitazioni: $N=-96.28$ $T_z=0.00$ $M_y=-152.18$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.49$ $\sigma_M=-33.27$ $Sfr.=0.22$
 - Verifica Tensioni per taglio - CC 3 SLU $X_l=2.86$
Sollecitazioni: $N=0.00$ $T_z=-213.13$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.63$ $Sfr.=0.15$
 - Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-186.64$ $M_{max,y}=-152.18$ $M_{eq,y}=-114.13$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=286.47$ $\lambda_{rel,m}=0.28$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.95$ $\sigma_M=-24.96$ $Sfr.=0.18$
 - Verifica Freccia massima - CC 6
 $f_{z,L}=0.37$ (L/766) $f_{z,G}=0.34$ (L/841)

Asta n. 233 (-7 205) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.23$
Sollecitazioni: $N=-82.64$ $T_z=0.00$ $M_y=-111.50$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.42$ $\sigma_M=-24.38$ $Sfr.=0.16$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.46$
Sollecitazioni: $N=0.00$ $T_z=-182.43$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.40$ $Sfr.=0.13$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-159.03$ $M_{max,y}=-111.50$ $M_{eq,y}=-83.63$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=245.54$ $\lambda_{rel,m}=0.26$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.81$ $\sigma_M=-18.29$ $Sfr.=0.13$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.20$ (L/1201) $f_{z,G}=0.19$ (L/1317)

Asta n. 236 (-9 206) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=1.03$
Sollecitazioni: $N=-68.69$ $T_z=0.00$ $M_y=-77.18$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.35$ $\sigma_M=-16.88$ $Sfr.=0.11$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=2.05$
Sollecitazioni: $N=0.00$ $T_z=-151.78$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.16$ $Sfr.=0.11$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-131.51$ $M_{max,y}=-77.18$ $M_{eq,y}=-57.89$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=204.65$ $\lambda_{rel,m}=0.24$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.67$ $\sigma_M=-12.66$ $Sfr.=0.09$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.10$ (L/2078) $f_{z,G}=0.09$ (L/2280)

Asta n. 241 (-11 207) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.82$
Sollecitazioni: $N=-55.10$ $T_z=1.15$ $M_y=-49.04$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.28$ $\sigma_M=-10.72$ $Sfr.=0.07$
- Verifica Tensioni per taglio - CC 3 SLU $X_l=1.64$
Sollecitazioni: $N=0.00$ $T_z=-120.99$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.93$ $Sfr.=0.09$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-103.96$ $M_{max,y}=-49.04$ $M_{eq,y}=-36.78$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=163.68$ $\lambda_{rel,m}=0.21$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.53$ $\sigma_M=-8.04$ $Sfr.=0.06$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.04$ (L/4279) $f_{z,G}=0.03$ (L/4689)

Asta n. 244 (-12 208) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.62$
Sollecitazioni: $N=-40.61$ $T_z=0.00$ $M_y=-27.17$ $T_y=0.00$ $M_z=0.00$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.21$ $\sigma_M=-5.94$ $Sfr.=0.04$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=1.23$
Sollecitazioni: $N=0.00$ $T_z=-90.05$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.69$ $Sfr.=0.06$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-76.39$ $M_{max,y}=-27.17$ $M_{eq,y}=-20.38$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=122.76$ $\lambda_{rel,m}=0.18$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.39$ $\sigma_M=-4.46$ $Sfr.=0.03$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/9731) $f_{z,G}=0.01$ (L/10638)

Asta n. 247 (-14 209) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.41$
Sollecitazioni: $N=-27.38$ $T_z=1.92$ $M_y=-11.56$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.14$ $\sigma_M=-2.53$ $Sfr.=0.02$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.82$
Sollecitazioni: $N=0.00$ $T_z=-58.78$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.45$ $Sfr.=0.04$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-48.86$ $M_{max,y}=-11.56$ $M_{eq,y}=-8.67$ $M_{max,z}=0.00$ $M_{eq,z}=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=81.87$ $\lambda_{rel,m}=0.15$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.25$ $\sigma_M=-1.90$ $Sfr.=0.01$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.00$ (L/33496)

Asta n. 250 (-16 210) R 0.14x0.14 T Crit. 1

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.21$
Sollecitazioni: $N=-12.03$ $T_z=0.00$ $M_y=-2.42$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.06$ $\sigma_M=-0.53$ $Sfr.=0.00$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.41$
Sollecitazioni: $N=0.00$ $T_z=-25.92$ $M_y=0.00$ $T_y=0.00$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.20$ $Sfr.=0.02$
- Verifica σ_{max} per stabilità flessio-torsionale - CC 3 SLU
Sollecitazioni: $N=-21.30$ $M_{max,y}=-2.42$ $M_{eq,y}=-1.81$ $M_{max,z}=-0.00$ $M_{eq,z}=-0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=40.91$ $\lambda_{rel,m}=0.11$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.11$ $\sigma_M=-0.40$ $Sfr.=0.00$
- Verifica Freccia massima

Asta n. 239 (101 -1) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.29$

Sollecitazioni: $N=-1036.61$ $T_z=1981.99$ $M_y=-577.10$ $T_y=39.04$ $M_z=11.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-1.32$ $\sigma_M=-16.08$ $Sfr.=0.11$

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-1041.58$ $T_z=1999.01$ $M_y=0.00$ $T_y=39.04$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.83$ $Sfr.=0.36$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-1041.58$ $M_{max,y}=-577.10$ $M_{eq,y}=-432.82$ $M_{max,z}=11.32$ $M_{eq,z}=8.49$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=28.99$ $\lambda_{rel,m}=0.06$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.33$ $\sigma_M=-12.06$ $Sfr.=0.09$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.31$ (L/94) $f_{z,G}=0.30$ (L/98)

Asta n. 239 (-1 -2) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.23$
Sollecitazioni: $N=-914.87$ $T_z=1766.07$ $M_y=-982.80$ $T_y=86.85$ $M_z=31.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-1.17$ $\sigma_M=-27.71$ $Sfr.=0.18$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-919.39$ $T_z=1781.58$ $M_y=-577.10$ $T_y=86.85$ $M_z=11.32$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.41$ $Sfr.=0.32$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-919.39$ $M_{max,y}=-982.80$ $M_{eq,y}=-982.80$ $M_{max,z}=31.18$ $M_{eq,z}=27.63$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=22.87$ $\lambda_{rel,m}=0.06$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.17$ $\sigma_M=-27.62$ $Sfr.=0.19$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.24$ (L/96) $f_{z,G}=0.23$ (L/100)

Asta n. 239 (-2 -3) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.58$
Sollecitazioni: $N=-806.04$ $T_z=1535.19$ $M_y=-1891.18$ $T_y=39.85$ $M_z=54.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-1.03$ $\sigma_M=-53.17$ $Sfr.=0.35$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=-826.78$ $T_z=1606.29$ $M_y=-982.81$ $T_y=39.85$ $M_z=31.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=3.07$ $Sfr.=0.29$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-826.78$ $M_{max,y}=-1891.18$ $M_{eq,y}=-1868.09$ $M_{max,z}=54.16$ $M_{eq,z}=54.16$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=57.67$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-1.05$ $\sigma_M=-52.54$ $Sfr.=0.36$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.54$ (L/106) $f_{z,G}=0.52$ (L/110)

Asta n. 239 (-3 -4) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $Xl=0.02$
Sollecitazioni: $N=-615.22$ $T_z=1200.36$ $M_y=-1920.83$ $T_y=115.64$ $M_z=57.02$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.78$ $\sigma_M=-54.06$ Sfr.=0.36

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-616.00$ $T_z=1203.01$ $M_y=-1891.18$ $T_y=115.64$ $M_z=54.17$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.31$ Sfr.=0.22

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-616.00$ $M_{max,y}=-1920.83$ $M_{eq,y}=-1920.83$ $M_{max,z}=57.02$ $M_{eq,z}=57.02$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=2.47 $\lambda_{rel,m}=0.02$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.79$ $\sigma_M=-54.06$ Sfr.=0.37

- Verifica Freccia massima - CC 6

$f_{z,L}=0.02$ (L/118)

Asta n. 239 (-4 -5) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.60$

Sollecitazioni: $N=-450.21$ $T_z=866.16$ $M_y=-2464.29$ $T_y=39.20$ $M_z=80.58$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.57$ $\sigma_M=-69.56$ Sfr.=0.46

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-469.32$ $T_z=931.69$ $M_y=-1920.83$ $T_y=39.20$ $M_z=57.01$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.78$ Sfr.=0.17

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-469.32$ $M_{max,y}=-2464.29$ $M_{eq,y}=-2464.29$ $M_{max,z}=80.58$ $M_{eq,z}=80.58$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=60.13 $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.60$ $\sigma_M=-69.56$ Sfr.=0.47

- Verifica Freccia massima - CC 6

$f_{z,L}=0.43$ (L/139) $f_{z,G}=0.41$ (L/145)

Asta n. 239 (-5 -6) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.18$

Sollecitazioni: $N=-316.64$ $T_z=610.72$ $M_y=-2575.88$ $T_y=-27.65$ $M_z=75.62$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.40$ $\sigma_M=-72.47$ Sfr.=0.48

- Verifica Tensioni per taglio - CC 3 SLU $X_l=0.00$

Sollecitazioni: $N=-323.08$ $T_z=632.80$ $M_y=-2464.30$ $T_y=-27.65$ $M_z=80.58$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.21$ Sfr.=0.11

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=-323.08$ $M_{max,y}=-2575.88$ $M_{eq,y}=-2575.88$ $M_{max,z}=80.58$ $M_{eq,z}=80.58$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=17.93 $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$

Tensioni: $\sigma_N=-0.41$ $\sigma_M=-72.61$ Sfr.=0.49

- Verifica Freccia massima - CC 6

$f_{z,L}=0.10$ (L/184) $f_{z,G}=0.09$ (L/192)

Asta n. 239 (-6 -7) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_l=0.42$

Sollecitazioni: $N=-146.38$ $T_z=292.57$ $M_y=-2709.76$ $T_y=35.40$ $M_z=90.55$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=-0.19$ $\sigma_M=-76.54$ Sfr.=0.51

- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-159.55$ $T_z=337.71$ $M_y=-2575.88$ $T_y=35.40$ $M_z=75.63$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.65$ $Sfr.=0.06$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-159.55$ $M_{max,y}=-2709.76$ $M_{eq,y}=-2709.76$ $M_{max,z}=90.55$ $M_{eq,z}=90.55$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=42.17$ $\lambda_{rel,m}=0.08$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.20$ $\sigma_M=-76.54$ $Sfr.=0.51$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.17$ (L/255) $f_{z,G}=0.16$ (L/265)

Asta n. 239 (-7 -8) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e compressione o flessione semplice - CC 3 SLU $X_1=0.38$
Sollecitazioni: $N=-24.29$ $T_z=47.24$ $M_y=-2737.71$ $T_y=-21.82$ $M_z=82.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=-0.03$ $\sigma_M=-77.07$ $Sfr.=0.51$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=-38.08$ $T_z=94.51$ $M_y=-2709.77$ $T_y=-21.82$ $M_z=90.55$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.19$ $Sfr.=0.02$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=-38.08$ $M_{max,y}=-2737.71$ $M_{eq,y}=-2737.71$ $M_{max,z}=90.55$ $M_{eq,z}=90.55$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=38.37$ $\lambda_{rel,m}=0.07$ $K_{crit}=1.00$
Tensioni: $\sigma_N=-0.05$ $\sigma_M=-77.30$ $Sfr.=0.51$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.07$ (L/541) $f_{z,G}=0.07$ (L/564)

Asta n. 239 (-8 -9) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=99.88$ $T_z=-166.72$ $M_y=-2737.71$ $T_y=28.45$ $M_z=82.18$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.13$ $\sigma_M=77.07$ $Sfr.=0.51$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.22$
Sollecitazioni: $N=106.65$ $T_z=-189.93$ $M_y=-2699.21$ $T_y=28.45$ $M_z=88.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.37$ $Sfr.=0.03$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=99.88$ $M_{max,y}=-2737.71$ $M_{eq,y}=-2737.71$ $M_{max,z}=88.35$ $M_{eq,z}=88.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $Ltors=21.67$ $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.13$ $\sigma_M=77.24$ $Sfr.=0.51$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.01$ (L/3244)

Asta n. 239 (-9 -10) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X_1=0.00$
Sollecitazioni: $N=196.22$ $T_z=-352.84$ $M_y=-2699.21$ $T_y=-19.15$ $M_z=88.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.25$ $\sigma_M=76.19$ $Sfr.=0.51$
- Verifica Tensioni per taglio - CC 3 SLU $X_1=0.59$

Sollecitazioni: $N=217.40$ $T_z=-425.42$ $M_y=-2472.87$ $T_y=-19.15$ $M_z=77.07$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=0.81$ $Sfr.=0.08$

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=196.22$ $M_{max,y}=-2699.21$ $M_{eq,y}=-2699.21$ $M_{max,z}=88.35$ $M_{eq,z}=88.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=58.87$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.25$ $\sigma_M=76.19$ $Sfr.=0.51$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.10$ (L/568) $f_{z,G}=0.10$ (L/591)

Asta n. 239 (-10 -11) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=308.84$ $T_z=-580.50$ $M_y=-2472.87$ $T_y=18.24$ $M_z=77.12$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.39$ $\sigma_M=69.70$ $Sfr.=0.47$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.01$
Sollecitazioni: $N=309.24$ $T_z=-581.87$ $M_y=-2465.41$ $T_y=18.24$ $M_z=77.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.11$ $Sfr.=0.10$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=308.84$ $M_{max,y}=-2472.87$ $M_{eq,y}=-2472.87$ $M_{max,z}=77.35$ $M_{eq,z}=77.35$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=1.28$ $\lambda_{rel,m}=0.01$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.39$ $\sigma_M=69.70$ $Sfr.=0.47$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.00$ (L/309)

Asta n. 239 (-11 -12) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=379.83$ $T_z=-709.81$ $M_y=-2465.41$ $T_y=-19.69$ $M_z=77.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.48$ $\sigma_M=69.50$ $Sfr.=0.47$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.60$
Sollecitazioni: $N=398.76$ $T_z=-774.70$ $M_y=-2022.34$ $T_y=-19.69$ $M_z=65.48$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=1.48$ $Sfr.=0.14$
- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=379.83$ $M_{max,y}=-2465.41$ $M_{eq,y}=-2465.41$ $M_{max,z}=77.31$ $M_{eq,z}=77.31$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=60.08$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.48$ $\sigma_M=69.50$ $Sfr.=0.47$
- Verifica Freccia massima - CC 6
 $f_{z,L}=0.28$ (L/217) $f_{z,G}=0.27$ (L/226)

Asta n. 239 (-12 -13) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$
Sollecitazioni: $N=450.79$ $T_z=-867.52$ $M_y=-2022.34$ $T_y=-47.93$ $M_z=65.48$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{Rdc}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.57$ $\sigma_M=57.06$ $Sfr.=0.38$
- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.19$
Sollecitazioni: $N=457.68$ $T_z=-891.12$ $M_y=-1853.89$ $T_y=-47.93$ $M_z=56.29$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.71$ Sfr.=0.16

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=450.79$ $M_{max,Y}=-2022.34$ $M_{eq,Y}=-2022.34$ $M_{max,Z}=65.48$ $M_{eq,Z}=65.48$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=19.17 $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.57$ $\sigma_M=57.06$ Sfr.=0.38

- Verifica Freccia massima - CC 6

$f_{z,L}=0.12$ (L/161) $f_{z,G}=0.11$ (L/167)

Asta n. 239 (-13 -14) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$

Sollecitazioni: $N=515.97$ $T_z=-988.22$ $M_y=-1853.89$ $T_y=-23.53$ $M_z=56.29$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.66$ $\sigma_M=52.21$ Sfr.=0.35

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.41$

Sollecitazioni: $N=528.73$ $T_z=-1031.95$ $M_y=-1442.01$ $T_y=-23.53$ $M_z=46.67$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=1.97$ Sfr.=0.19

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=515.97$ $M_{max,Y}=-1853.89$ $M_{eq,Y}=-1853.89$ $M_{max,Z}=56.29$ $M_{eq,Z}=56.29$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=40.87 $\lambda_{rel,m}=0.07$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.66$ $\sigma_M=52.21$ Sfr.=0.35

- Verifica Freccia massima - CC 6

$f_{z,L}=0.30$ (L/138) $f_{z,G}=0.28$ (L/144)

Asta n. 239 (-14 -15) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$

Sollecitazioni: $N=562.04$ $T_z=-1090.19$ $M_y=-1442.01$ $T_y=-41.98$ $M_z=46.67$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.72$ $\sigma_M=40.69$ Sfr.=0.28

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.40$

Sollecitazioni: $N=576.29$ $T_z=-1139.07$ $M_y=-1000.70$ $T_y=-41.98$ $M_z=30.02$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.18$ Sfr.=0.20

- Verifica σ_{max} per stabilità flessione-torsionale - CC 3 SLU

Sollecitazioni: $N=562.04$ $M_{max,Y}=-1442.01$ $M_{eq,Y}=-1442.01$ $M_{max,Z}=46.67$ $M_{eq,Z}=46.67$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Ltors=39.67 $\lambda_{rel,m}=0.07$ $K_{crit}=1.00$

Tensioni: $\sigma_N=0.72$ $\sigma_M=40.69$ Sfr.=0.28

- Verifica Freccia massima - CC 6

$f_{z,L}=0.33$ (L/119) $f_{z,G}=0.32$ (L/124)

Asta n. 239 (-15 -16) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $Xl=0.00$

Sollecitazioni: $N=601.65$ $T_z=-1180.80$ $M_y=-1000.69$ $T_y=-31.22$ $M_z=30.02$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\sigma_N=0.77$ $\sigma_M=28.17$ Sfr.=0.20

- Verifica Tensioni per taglio - CC 3 SLU $Xl=0.20$

Sollecitazioni: $N=608.05$ $T_z=-1202.74$ $M_y=-756.88$ $T_y=-31.22$ $M_z=23.63$

Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$

$\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$

Tensioni: $\tau=2.30$ Sfr.=0.22

- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=601.65$ $M_{\max,y}=-1000.69$ $M_{eq,y}=-1000.69$ $M_{\max,z}=30.02$ $M_{eq,z}=30.02$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=20.47$ $\lambda_{rel,m}=0.05$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.77$ $\sigma_M=28.17$ $Sfr.=0.20$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.18$ (L/111) $f_{z,G}=0.18$ (L/116)

Asta n. 239 (-16 211) R 0.28x0.28 T Crit. 2

- Verifica Tensioni per flessione e trazione - CC 3 SLU $X1=0.00$
Sollecitazioni: $N=622.54$ $T_z=-1227.86$ $M_y=-756.89$ $T_y=-39.35$ $M_z=23.63$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\sigma_N=0.79$ $\sigma_M=21.33$ $Sfr.=0.15$

- Verifica Tensioni per taglio - CC 3 SLU $X1=0.60$
Sollecitazioni: $N=644.15$ $T_z=-1301.93$ $M_y=0.00$ $T_y=-39.35$ $M_z=0.00$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
Tensioni: $\tau=2.49$ $Sfr.=0.23$

- Verifica σ_{\max} per stabilità flessione-torsionale - CC 3 SLU
Sollecitazioni: $N=622.54$ $M_{\max,y}=-756.89$ $M_{eq,y}=-567.67$ $M_{\max,z}=23.63$ $M_{eq,z}=17.73$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L_{tors}=60.07$ $\lambda_{rel,m}=0.09$ $K_{crit}=1.00$
Tensioni: $\sigma_N=0.79$ $\sigma_M=16.00$ $Sfr.=0.11$

- Verifica Freccia massima - CC 6
 $f_{z,L}=0.57$ (L/106) $f_{z,G}=0.54$ (L/110)

Membratura Asta n. 239 (101 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 211) R
0.28x0.28 T Crit. 2

- Verifica σ_{\max} per stabilità - CC 3 SLU
Sollecitazioni: $N=-1041.58$
[Par.] $M_{y,sx}=0.00$ $M_{y,dx}=-0.00$ $M_{y,eq}=2337.92$
[Par.] $M_{z,sx}=0.00$ $M_{z,dx}=-0.00$ $M_{z,eq}=72.46$
Resistenze: $\sigma_{Rd}=149.33$ $K_m=0.70$ $K_{mod}=0.80$
 $\sigma_{RdC}=117.33$ $K_h=1.00$ $\sigma_{RdT}=90.67$ $K_1=1.00$ $\tau_{Rd}=10.67$
 $L=592.74$ $\lambda_{rel,y}=1.22$ $\lambda_{rel,z}=1.22$ $K_{c,y}=0.53$ $K_{c,z}=0.53$
Tensioni: $\sigma_N=-1.33$ $\sigma_M=0.00$ $Sfr.=0.02$

- Verifica Freccia massima - CC 6
 $f_{z,L}=1.88$ (L/315) $f_{z,G}=1.80$ (L/328)