COMMITTENTE:

RFI RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

DIREZIONE INVESTIMENTI
DIREZIONE PROGRAMMI INVESTIMENTI
DIRETTRICE SUD - PROGETTO ADRIATICA

DIREZIONE LAVORI:

ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

APPALTATORE:

Mandataria

A. D'AGOSTINO COSTRUZIONI GENERALI

Mandanti

ReseArch

ATLANTE

PROGETTAZIONE:

MANDATARIA

HUB ENGINEERING
CONSORZIO STABILE SOCIETÀ CONSORTILE A R.L.

MANDANTI

HYpro S.r.l.

PROGETTO ESECUTIVO

LINEA PESCARA - BARI
RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI - LESINA
LOTTI 2 e 3 - RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo pensilina copertura banchine

Firmato digitalmente da:
Facchini Massimo
Firmato il 25/03/2024 19:29
Seriale Certificato: 2702585
Valido dal 01/09/2023 al 01/09/2026
InfoCamere Qualified Electronic Signature CA

L'Appaltatore		I progettisti (il Direttore della progettazione)	
Ing. Gianguido Babini	A.A.D'AGOSTINO COSTRUZIONI GENERALI S.r.l. Il Direttore Tecnico (Ing. Gianguido Babini)	Ing. Massimo Facchini	
Data **18/12/2022**	*firma*	*Data* **18/12/2022**	*firma*

ORDINE DEGLI INGEGNERI DELLA PROVINCIA DI CASERTA
Dott. Ing. Massimo FACCHINI N. 4129 "Sez. A"

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA / DISCIPLINA	PROGR	REV	SCALA
L I 0 B	0 2	E	Z Z	C L	F V 0 1 0 0	0 0 8	B	---

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato/Data
A	Prima emissione	D.Salzillo	12/12/2022	G.Mennillo	14/12/2022	R.Fabrizio	16/12/2022	
B	Revisione per RDV LI0B-RV-0000000336	D.Salzillo	07/07/2023	G.Mennillo	10/07/2023	R.Fabrizio	12/07/2023	M. Facchini 14/07/2023

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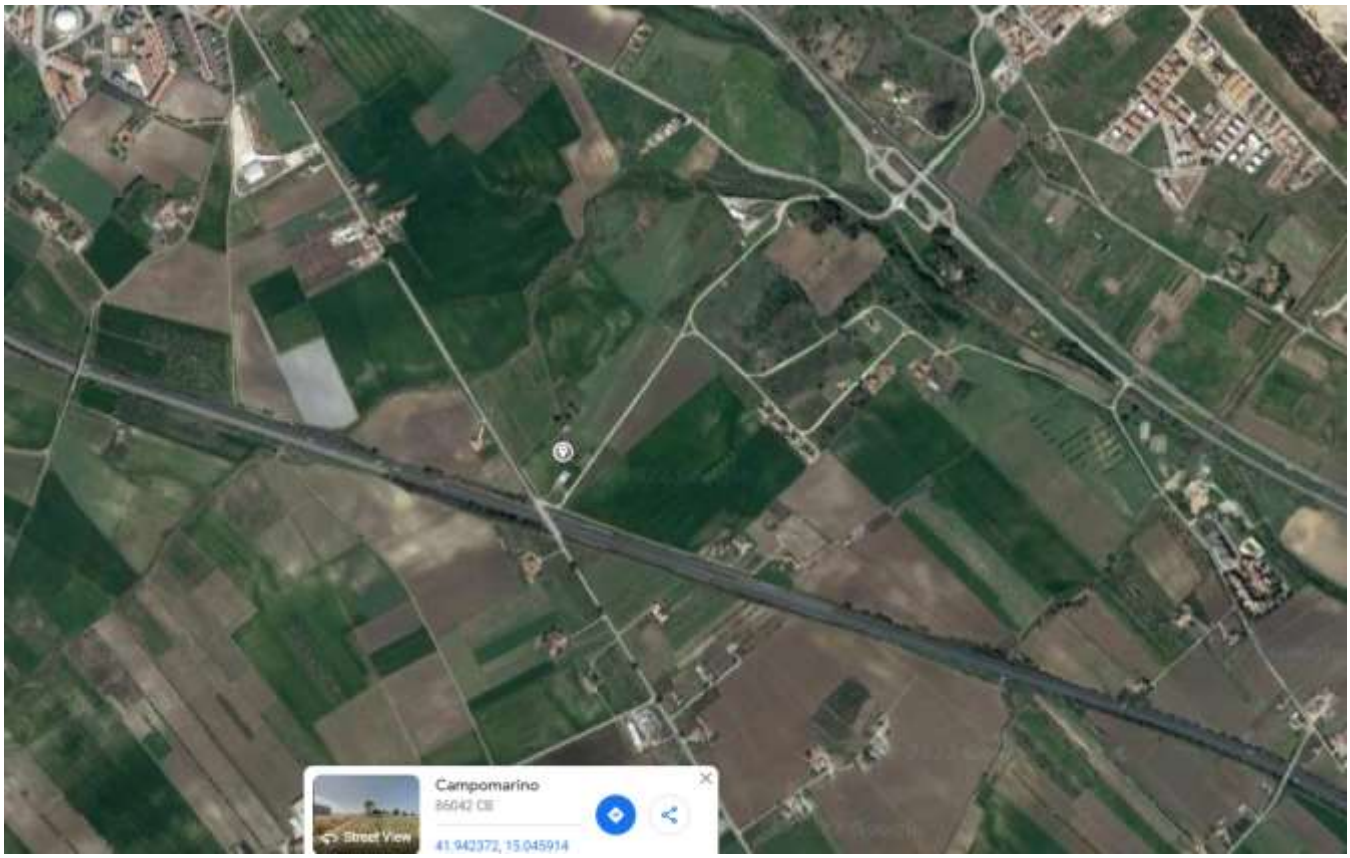
INDICE

1. PREMESSA

La presente relazione descrive la progettazione strutturale delle pensiline di copertura delle banchine presso la nuova fermata Campomarino del raddoppio ferroviario della linea Bari – Pescara, nella tratta Termoli – Ripalta, in provincia di Campobasso (CB).

Le pensiline sono state inserite in tutti e tre i modelli principali: trincea lato sinistro, trincea lato destro e passerella. Di seguito si relaziona la sola pensilina del modello trincea lato destro che risulta maggiormente sollecitata.

Si riporta di seguito la localizzazione dell'area di intervento:



Le coordinate geografiche del sito in oggetto, nel sistema WGS84, sono le seguenti:

- LATITUDINE: 41.9420;
- LONGITUDINE: 15.0500;

La struttura in esame, situata nel comune di Campomarino (CB), ricade in zona sismica 2 secondo la "Riclassificazione sismica del territorio regionale e nuova normativa sismica".

2. DESCRIZIONE DELLA STRUTTURA

Le pensiline in esame sono composte da 4 campi in direzione ortogonale all'asse dei binari, più un campo inserito per ragioni costruttive a 10 cm dall'incastro, per una lunghezza di sbalzo pari a 4.08 m.

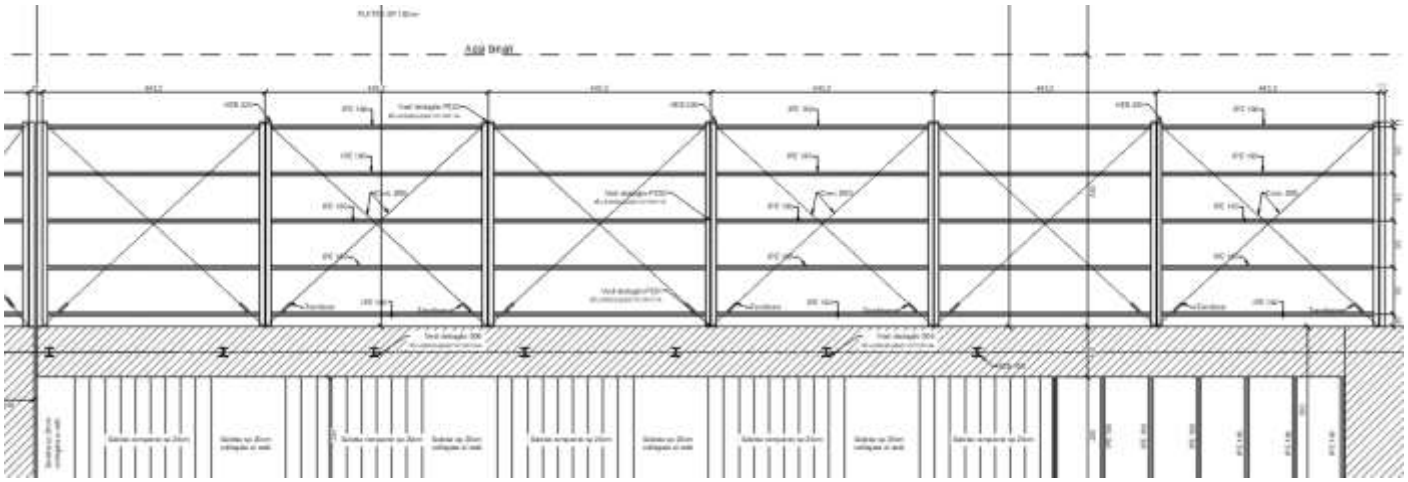
Gli elementi principali che compongono le strutture in esame sono travi ortogonali all'asse dei binari di lunghezza pari a 4.08 m tipo HEB200, collegate trasversalmente tra loro da travi di lunghezza variabile da 4.8 m a 3.2 m tipo IPE180. I campi costituiti dagli elementi suddetti sono poi irrigiditi da tondi Φ20 diagonali.

Gli assi di riferimento per le strutture sopra descritte hanno l'asse "X" (ascisse) orientato in direzione parallela all'asse dei binari e di conseguenza l'asse "Y" (ordinate) ortogonalmente ad essi.

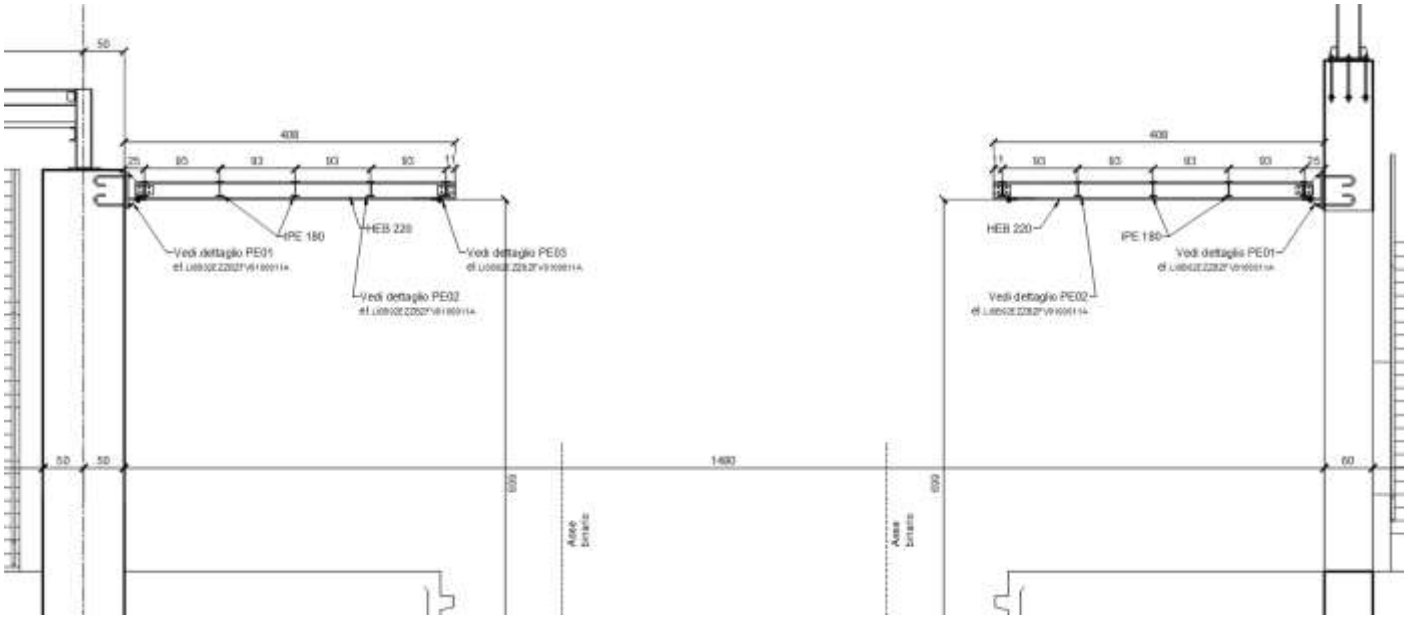
Nel seguito verranno descritte la progettazione e le verifiche delle pensiline di dimensione parallela all'asse dei binari maggiore, ovvero quelle intermedie lato sud di lunghezza parallela all'asse dei binari pari a 4.8 m.

Le pensiline vanno poi ad attestarsi nel tratto terminale su una trave a torsione in cemento armato di luce pari a 5.75 m in direzione parallela all'asse dei binari. In particolare, suddetta trave supporta dal lato nord due campi di pensiline di lunghezza ortogonale all'asse dei binari pari a 4.08 m e parallela pari a 3.2 m, mentre lato sud supporta 2 campi di lunghezza ortogonale all'asse dei binari pari a 2.71 m e parallela pari a 3.2 m.

Gli assi di riferimento per la trave a torsione sopra descritta hanno l'asse "X" (ascisse) orientato in direzione parallela al suo asse e di conseguenza l'asse "Y" (ordinate) ortogonalmente ad esso.



Carpenteria pensilina



Sezione pensilina

Per tutti i dettagli maggiori si rimanda alle tavole di carpenteria di riferimento.

3. NORME DI RIFERIMENTO

- D.Min. Infrastrutture Min. Interni e Prot. Civile 14 Gennaio 2008 e allegate "Norme tecniche per le costruzioni"
- D.Min. Infrastrutture Min. Interni e Prot. Civile CIRCOLARE 617 Febbraio 2009 e allegate Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni"
- Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni
- UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici
- UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti
- UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici
- UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali
- UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici
- UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici
- CNR-DT207/2008 Istruzioni per la valutazione delle azioni e degli effetti del vento sulle costruzioni
- UNI 11104: Calcestruzzo: Specificazione, prestazione, produzione e conformità - Istruzioni complementari per l'applicazione della EN 206-1
- Regolamento (UE) N° 1299/2014 della Commissione del 18 novembre 2014 relativo alle specifiche tecniche di interoperabilità per il sottosistema "Infrastruttura" del sistema ferroviario dell'Unione europea, modificato dal Regolamento di esecuzione (UE) N° 776/2019 della Commissione del 16 maggio 2019
- Eurocodici EN 1991-2: 2003/AC:2010
- RFI DTC SI MA IFS 001 B del 22-12-17 - Manuale di Progettazione delle Opere Civili

4. VITA NOMINALE, CLASSI D'USO E PERIODO DI RIFERIMENTO

Per la struttura vengono considerate le seguenti caratteristiche come previsto nel "Manuale di Progettazione delle Opere Civili" - RFI DTC SI AM MA IFS 001 A del 28.03.2008:

Vita nominale: 75 anni
Classe d'uso: III
Coefficiente d'uso: Cu = 1,5
Periodo di riferimento Vr = 112.5 anni.

5. MATERIALI

I materiali impiegati nella progettazione strutturale sono i seguenti:

- C32/40 per trave a torsione;
- Acciaio tipo B450C ad aderenza migliorata per i ferri di armatura;
- Acciaio S355 per carpenteria metallica;
- Bulloni, viti, perni cl 8.8;
- Saldature

Di seguito sono specificate le caratteristiche dei materiali elencati.

C32/40 per le strutture gettate in opera:

Classe	R_{ck} [MPa]	f_{ck} [MPa]	α_{cc}	γ_{cls}	f_{cd} [MPa]	f_{ctm} [MPa]	E [MPa]	G [MPa]
C32/40	40	33.20	0.85	1.5	18.81	3.10	33643	14018

Classe esposizione	Minima classe di resistenza	Rapporto $(A/C)_{max}$	Quantità minima cemento [kg/m³]
XC1	C25/30	0.6	300

B450C ad aderenza migliorata per i ferri di armatura:

Classe acciaio	f_{yk} [MPa]	γ_s	f_{tk} [MPa]	E_s [MPa]	f_{yd} [MPa]	ε_{yd}	ε_{uk}	$(f_y/f_{y,nom})_k$	ε_{ud}	$k = (f_t/f_y)_k$	$\sigma_{s,Rara}$ [MPa]
B450C	450.00	1.15	540.00	210,000	391.30	0.00186	0.07500	≤ 1.25	0.06750	1.15 - 1.35	360.00

Acciaio S355 per carpenteria metallica:

- Tipologia laminati: Laminati a caldo con profili a sezione aperta
- Spessore nominale elemento: $t \leq 40mm$
- Dimensioni secondo UNI 5397
- Saldature con elettrodi secondo UNI 5132
- Struttura non protetta
- Temperatura minima del sito $T_{md} = -25$ °C
- Temperatura di riferimento $T_{Ed} = -25$ °C

Classe acciaio	Subgrade	f_{tk} [MPa]	E_s [MPa]	ν	G_s [MPa]	f_{yk} [MPa]	γ_{Rd}	γ_{M0}	γ_{M1}	γ_{M2}	β	β_1	β_2
S 355 - UNI EN 10025-2	JR	510	210000	0.3	80769.2307692308	355	1.1	1.05	1.05	1.25	0.9	0.7	0.85

Bulloni, viti e perni:

- Caratteristiche dimensionali conformi alle norme UNI EN ISO 4016:2002 e UNI 5592:1968
- Viti conformi alla norma UNI EN ISO 898-1:2001
- Dadi conformi alla norma UNI EN 20898-2:1994
- Rosette in acciaio C 50 UNI EN 10083-2:2006 temperato e rinvenuto HRC 32-40
- Piastrine in acciaio C 50 UNI EN 10083-2:2006 temperato e rinvenuto HRC 32-40

Classe bulloni	Classe dado	f_{yb} [MPa]	f_{tb} [MPa]	α_V	γ_{M2}	γ_{M3}	$\gamma_{M6,ser}$	γ_{M7}
8.8	8	640.00	800.00	0.6	1.25	1.25	1.00	1.10

Saldature:
Le saldature dovraano essere eseguite secondo i procedimenti omlogati e qualificati previsti dalle Norme tecniche NTC2008.

Tirafondi:
Barre interamente filettate con filettatura metrica ISO a passo grosso, di caratteristiche meccaniche di classe 8.8 secondo UNI EN ISO 898 parte I; dadi con caratteristiche meccaniche di classe 8 secondo UNI EN 20898 parte II, UNI 5588.

6. TERRENO DI FONDAZIONE

Le fondazioni del fabbricato oggetto di studio interagiscono con le unità geotecniche CGC2 – Conglomerati di Campomarino (Argille limose e limi argillosi) e SSR – Sabbie di Serracapriola (Sabbia, sabbia limosa).
Si riportano di seguito i parametri geotecnici di riferimento per le due unità:

Conglomerati di Campomarino - Unità CGC2 (Argille limose e limi argillosi)

$\gamma = 18.5 \div 20.5$ kN/m^3	peso di volume naturale
c' = 15÷20 kPa	coesione drenata
φ' = 20÷26 °	angolo di resistenza al taglio
cu = 75÷250 kPa	resistenza al taglio in condizioni non drenate
Vs = 165÷200 m/s	velocità delle onde di taglio
Go = 50÷150 MPa	modulo di deformazione a taglio iniziale
Eo = 140÷400 MPa	modulo di deformazione elastico iniziale

Sabbie di Serracapriola – Unità SSR (Sabbia, sabbia limosa)

$\gamma = 19 \div 20$ kN/m^3	peso di volume naturale
c' = 0÷5 kPa	coesione drenata
φ' = 33÷37 °	angolo di resistenza al taglio
Vs = 200÷500 m/s	velocità delle onde di taglio;
Go = 75÷300 MPa	modulo di deformazione a taglio iniziale
Eo = 200÷800 MPa	modulo di deformazione elastico iniziale

Sulla base dei risultati ottenuti dalle indagini geotecniche eseguite è possibile ascrivere il sottosuolo ad una **categoria tipo C.**

7. ANALISI DEI CARICHI

7.1 CARICHI PERMANENTI STRUTTURALI

- Acciaio: W = 78.50 kN/m^3 maggiorato del 20 % per tener conto di fazzoletti, bulloni, pioli etc.
- Calcestruzzo Armato: W = 25 kN/m^3

7.2 CARICHI PERMANENTI NON STRUTTURALI

- Pannelli autoportanti di copertura più eventuali sottostrutture aggiuntive = 1 kN/mq

- Pannelli di tamponamento = 1 kN/mq

- Massetto, allettamento più pavimentazione soletta passerella = 1.5 kN/mq

7.3 CARICO VARIABILE ANTROPICO

Per quanto riguarda invece la copertura del telaio è stata applicato un carico da coperture e sottotetti:

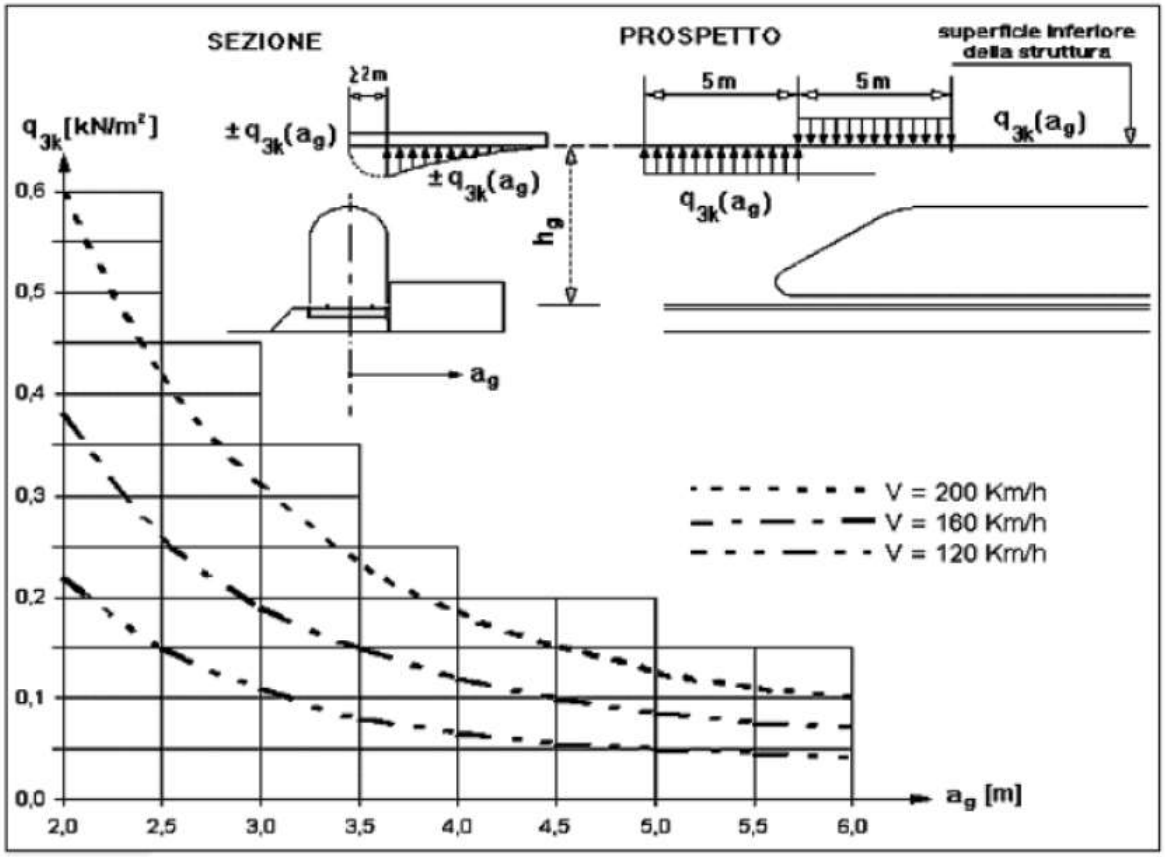
Cat.	Ambienti	q_k [kN/m^2]	Q_k [kN]	H_k [kN/m]
H	**Coperture e sottotetti**			
	Cat. H1 Coperture e sottotetti accessibili per sola manutenzione	0,50	1,20	1,00
	Cat. H2 Coperture praticabili	secondo categoria di appartenenza		
	Cat. H3 Coperture speciali (impianti, eliporti, altri) da valutarsi caso per caso	—	—	—

7.4 AZIONE DEL VENTO

In questo caso l'azione del vento induce sollecitazioni trascurabili rispetto all'azione aerodinamica dovuta al traffico ferroviario, per cui si rimanda direttamente al paragrafo relativo a questa per l'azione del vento.

7.5 AZIONE AERODINAMICA DOVUTA AL TEAFFICO FERROVIARIO

Per le azioni aerodinamiche dovute al traffico ferroviario si applica il seguente schema:



Valori caratteristici delle azioni aerodinamiche da traffico ferroviario per superfici orizzontali adiacenti al binario

Nel caso in esame:
$h_g = 5$ m; $a_g = 1.32$ m

dove h_g rappresenta la distanza dal P.F. alla superficie inferiore della struttura e a_g la distanza dall'asse dei binari più vicini.

Se la distanza hg supera i 3,80 m l'azione q3k può essere ridotta del fattore k3:

$$k_3 = \frac{(7,5 - h_g)}{3,7} \qquad \text{per } 3,8 \text{ m} < h_g < 7,5 \text{ m};$$

$$k_3 = 0 \quad \text{per } h_g \geq 7,5 \text{ m},$$

Per cui in questo caso si ha $k_3 = 0.68$.
Dal grafico riportato sopra si ottiene, per una velocità V = 200 km/h, si ottiene $q_{3k} = 0.6$ kN/m^2 sull'estremo della pensilina, essendo quest'ultimo posizionato ad una distanza inferiore ai 2 m dall'asse dei binari più vicini. Tale valore decresce poi fino a raggiungere il valore di $q_{3k} = 0.4$ kN/m^2 all'incastro della pensilina. Tuttavia, a favore di sicurezza, si assume il valore dell'azione aerodinamica come costante e pari a 0.6 kN/m^2, valore che moltiplicato per k_3 restituisce un valore dell'azione aerodinamica pari a 0.408 kN/m^2.

7.6 AZIONE DELLA NEVE

Si riporta il calcolo del carico da neve hai sensi delle NTC 2008

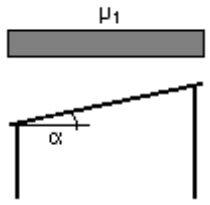
Zona Neve = II
Periodo di ritorno, Tr = 50 anni
Ctr = 1 per Tr = 50 anni
Ce (coeff. di esposizione al vento) = 1.00
Valore caratteristico del carico al suolo = qsk Ce Ctr = 100 daN/mq

Copertura ad una falda:

Angolo di inclinazione della falda $\alpha = 3.0°$

$\mu 1 = 0.80$ => Q1 = 80 daN/mq

Schema di carico:



N.B. SULLA PENSILINA E' STATO CONSIDERATO UN CARICO VARIABILE DI 160 Kg/mq CHE TIENE CONTO IN MANIERA CAUTELATIVA DEL CARICO DA NEVE E DI QUELLO DOVUTO ALL'AZIONE AERODINAMICA DEL TRAFFICO FERROVIARIO

7.7 VARIAZIONI TERMICHE

Nel caso in cui la temperatura non costituisca azione fondamentale per la sicurezza o per la efficienza funzionale della struttura è consentito tener conto, per gli edifici, della sola componente Tu, ricavandola direttamente dalla Tab. 3.5.II delle NTC 2008 che viene riportata nel seguito.

Tabella 3.5.II – *Valori di* ΔT_u *per gli edifici*

Tipo di struttura	ΔT_u
Strutture in c.a. e c.a.p. esposte	± 15 °C
Strutture in c.a. e c.a.p. protette	± 10 °C
Strutture in acciaio esposte	± 25 °C
Strutture in acciaio protette	± 15 °C

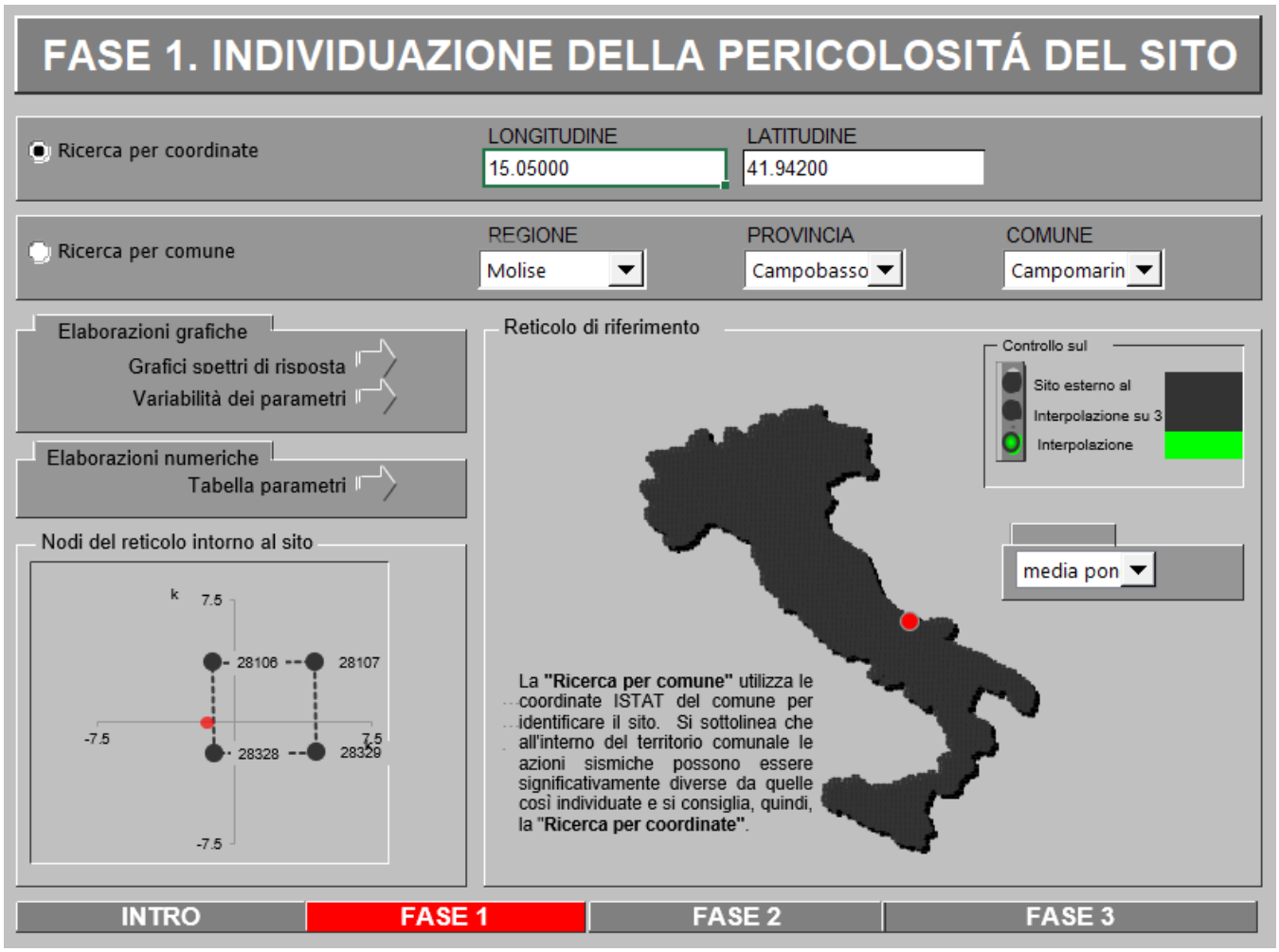
Si considerano pertanto le due condizioni di carico elementare:

Temp+) ΔT = +/-15 °C per le strutture in c.a.
Temp -) ΔT = +/-25 °C per le strutture in acciaio

Nel modello di calcolo tale differenza è considerata modificando il coefficiente di dilatazione termica dall'acciaio in modo da avere una deformata maggiore a quella del calcestruzzo e corrispondente a quanto richiesto dalla norma.

7.8 AZIONE SISMICA

Il modello di riferimento per la descrizione del moto sismico sul piano di fondazione è costituito dallo spettro di risposta elastico. Di seguito sono riportati i principali parametri dell'azione sismica presa in considerazione e gli spettri utilizzati calcolati con il foglio di calcolo del Consiglio Superiore dei Lavori Pubblici Spettri NTC 1.0.3.



Valori dei parametri a_g, F_o, T_C^* per i periodi di ritorno T_R associati a ciascuno SL

SLATO LIMITE	T_R [anni]	a_g [g]	F_o [-]	T_C^* [s]
SLO	68	0.065	2.495	0.326
SLD	113	0.081	2.548	0.333
SLV	1068	0.190	2.538	0.380
SLC	2193	0.246	2.515	0.387

FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO

Stato Limite

Stato Limite considera: SLV — info

Risposta sismica locale

Categoria di sottosuol: C — info — S_S = 1.411 — C_C = 1.445 — info

Categoria topografica: T1 — info — h/H= 0.000 — S_T = 1.000 — info

(h=quota sito, H=altezza rilievo topografico)

Compon. orizzontale

(•) Spettro di progetto elastico (SLE) — Smorzamento ξ (%) = 5 — η = 1.000 — info

( ) Spettro di progetto inelastico (SLU) — Fattore q_o = 1.5 — Regol. in altezza: sì — info

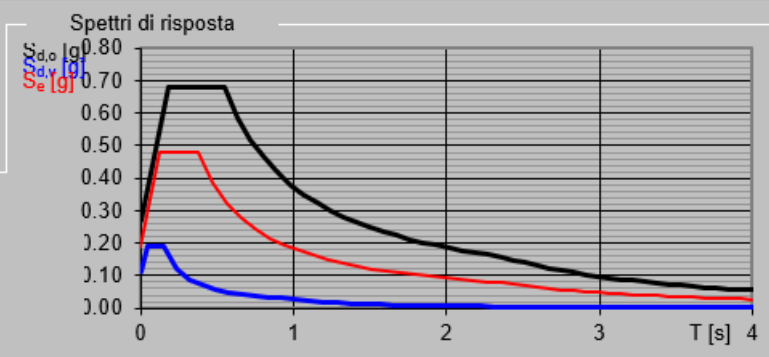
Compon. verticale

Spettro di progetto — Fattore q = 1.5 — $\eta = 1/q$ = 0.667 — info

Elaborazioni

Grafici spettri di risposta

Parametri e punti spettri di risposta



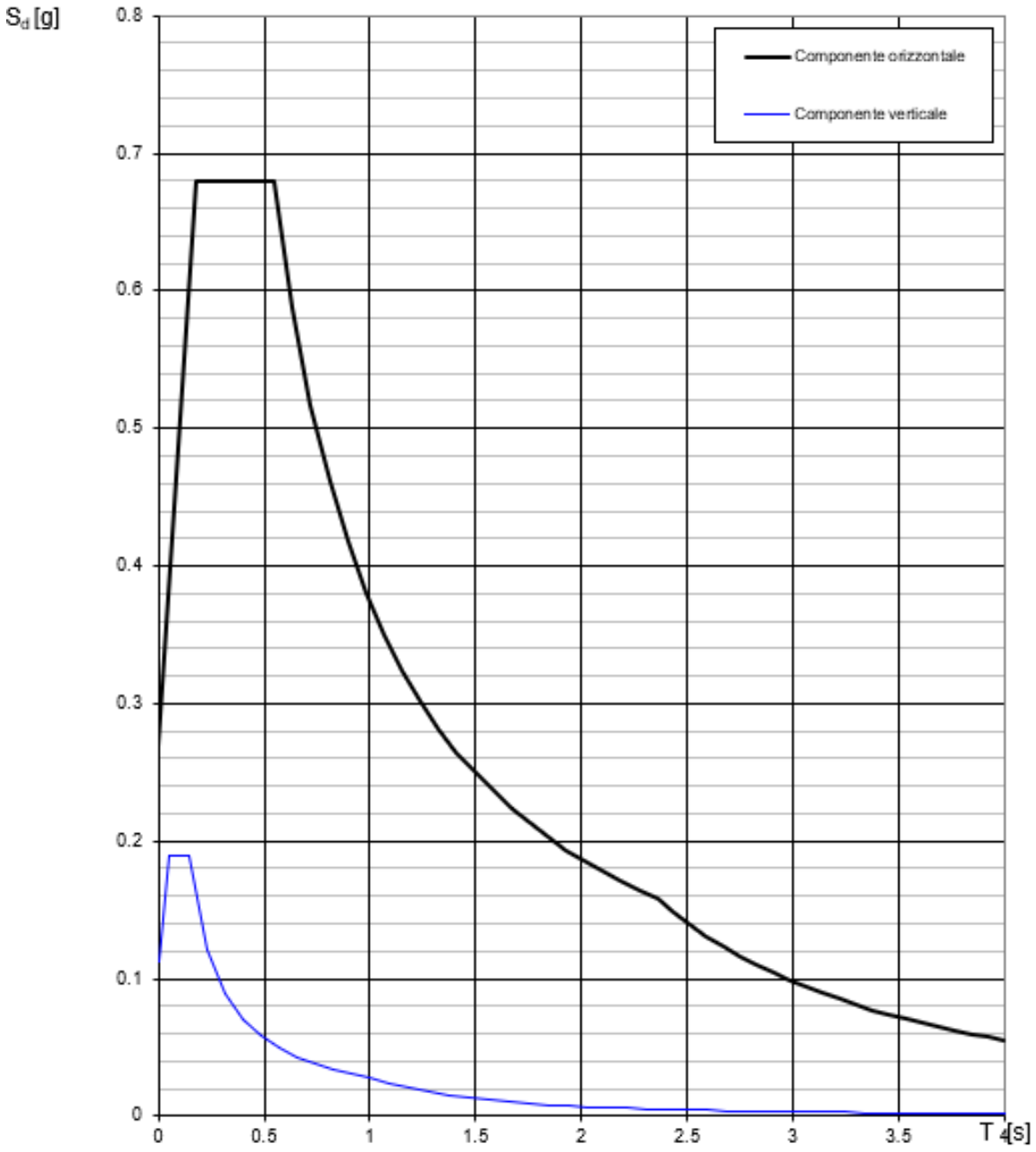
Spettro di progetto - componente orizzontale

Spettro di progetto - componente verticale

Spettro elastico di riferimento (Cat. A-T1, ξ = 5%)

INTRO | FASE 1 | FASE 2 | FASE 3

Spettri di risposta (componenti orizz. e vert.) per lo stato limite SLV



Parametri e punti dello spettro di risposta orizzontale per lo stato limite: SLV

Parametri indipendenti

STATO LIMITE	SLV
a_g	0.190 g
F_o	2.538
T_C^*	0.380 s
S_S	1.411
C_C	1.445
S_T	1.000
q	1.000

Parametri dipendenti

S	1.411
η	1.000
T_B	0.183 s
T_C	0.549 s
T_D	2.360 s

Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0.55; \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4.0 \cdot a_g / g + 1.6$ (NTC-07 Eq. 3.2.9)

Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$0 \leq T < T_B$: $S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$

$T_B \leq T < T_C$: $S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$

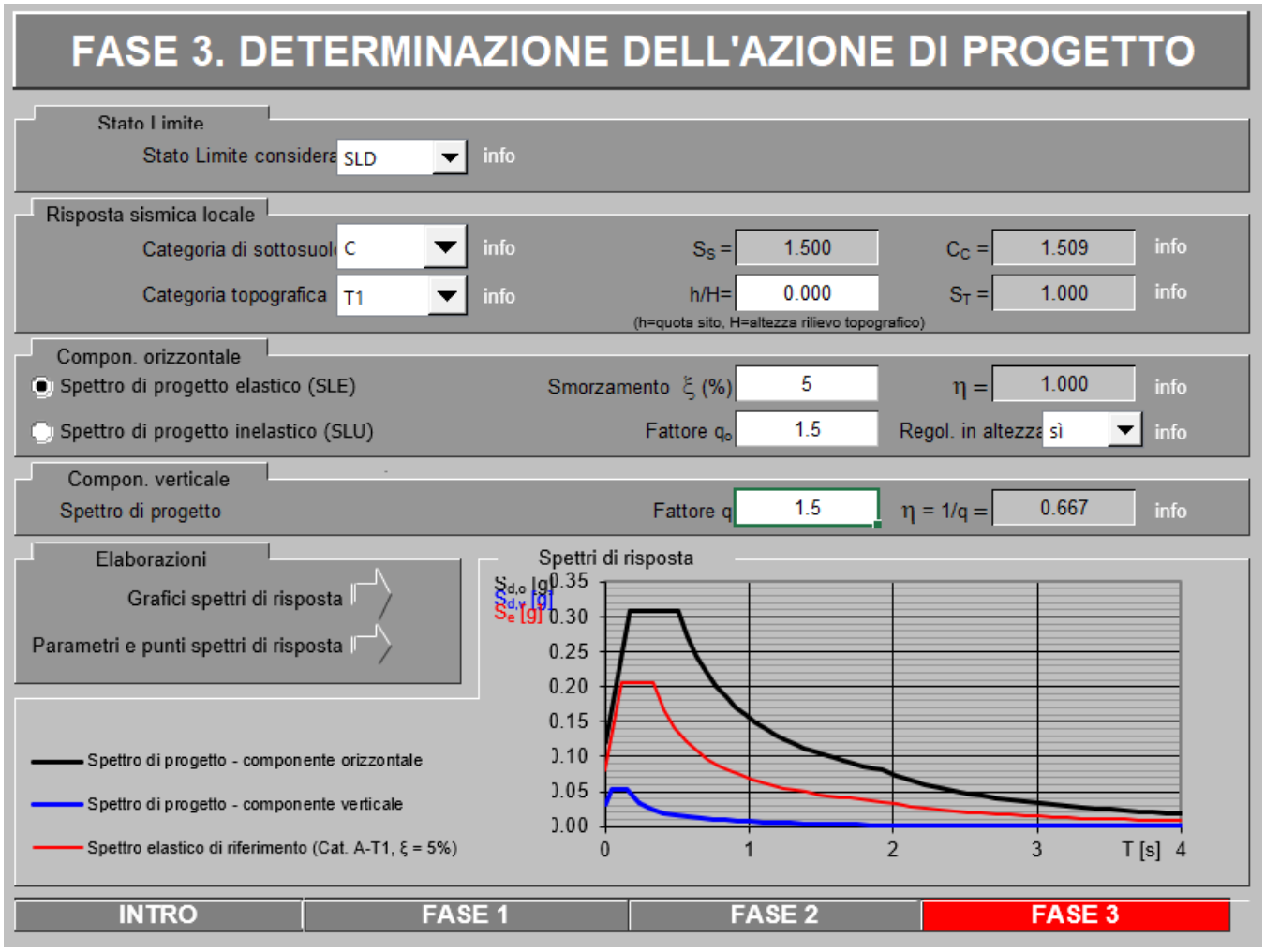
$T_C \leq T < T_D$: $S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$

$T_D \leq T$: $S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2} \right)$

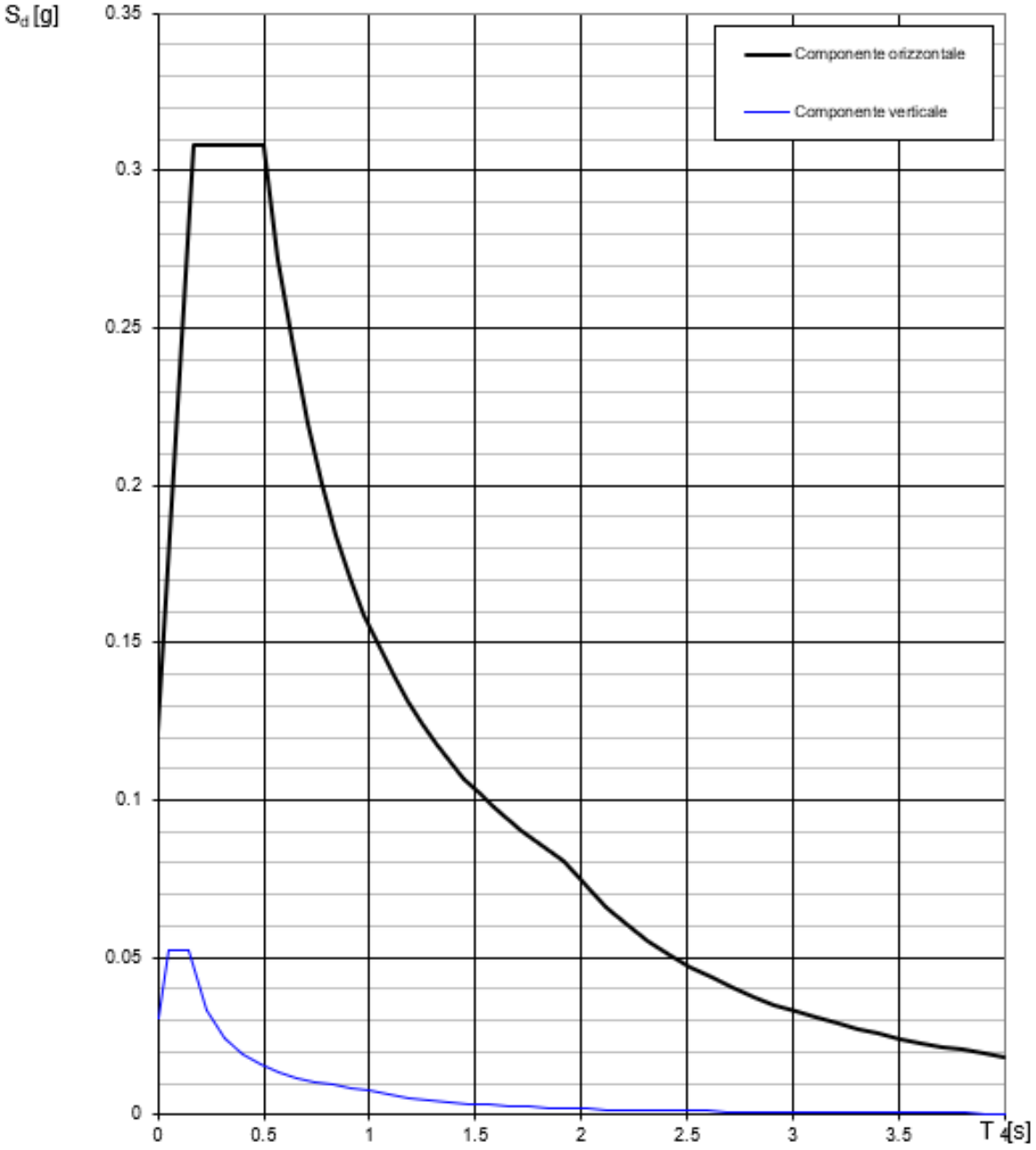
Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo η con 1/q, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

Punti dello spettro di risposta

T [s]	Se [g]	
0.000	0.268	
0.183	0.680	← T_B
0.549	0.680	← T_C
0.636	0.588	
0.722	0.518	
0.808	0.462	
0.894	0.418	
0.980	0.381	
1.067	0.350	
1.153	0.324	
1.239	0.302	
1.325	0.282	
1.411	0.265	
1.498	0.249	
1.584	0.236	
1.670	0.224	
1.756	0.213	
1.842	0.203	
1.929	0.194	
2.015	0.185	
2.101	0.178	
2.187	0.171	
2.273	0.164	
2.360	0.158	← T_D
2.438	0.148	
2.516	0.139	
2.594	0.131	
2.672	0.123	
2.750	0.117	
2.828	0.110	
2.906	0.104	
2.985	0.099	
3.063	0.094	
3.141	0.089	
3.219	0.085	
3.297	0.081	
3.375	0.077	
3.453	0.074	
3.531	0.071	
3.609	0.068	
3.688	0.065	
3.766	0.062	
3.844	0.060	
3.922	0.057	
4.000	0.055	


FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO
Stato Limite
Stato Limite considera SLD info
Risposta sismica locale
Categoria di sottosuol C info
Categoria topografica T1 info
Ss = 1.500
Cc = 1.509
h/H= 0.000
ST = 1.000
(h=quota sito, H=altezza rilievo topografico)
Compon. orizzontale
Spettro di progetto elastico (SLE)
Spettro di progetto inelastico (SLU)
Smorzamento ξ (%) 5
Fattore qo 1.5
η = 1.000
Regol. in altezza sì
Compon. verticale
Spettro di progetto
Fattore q 1.5
η = 1/q = 0.667
Elaborazioni
Grafici spettri di risposta
Parametri e punti spettri di risposta
Spettri di risposta
Sd,o [g]
Sd,v [g]
Se [g]
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
1
2
3
T [s]
4
Spettro di progetto - componente orizzontale
Spettro di progetto - componente verticale
Spettro elastico di riferimento (Cat. A-T1, ξ = 5%)
INTRO
FASE 1
FASE 2
FASE 3

Spettri di risposta (componenti orizz. e vert.) per lo stato limite SLD



Parametri e punti dello spettro di risposta orizzontale per lo stato limite: SLD

Parametri indipendenti

STATO LIMITE	SLD
a_g	0.081 g
F_o	2.548
T_C^*	0.333 s
S_S	1.500
C_C	1.509
S_T	1.000
q	1.000

Parametri dipendenti

S	1.500
η	1.000
T_B	0.168 s
T_C	0.503 s
T_D	1.923 s

Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0.55; \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4.0 \cdot a_g / g + 1.6$ (NTC-07 Eq. 3.2.9)

Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$$0 \leq T < T_B: \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \leq T < T_C: \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$$

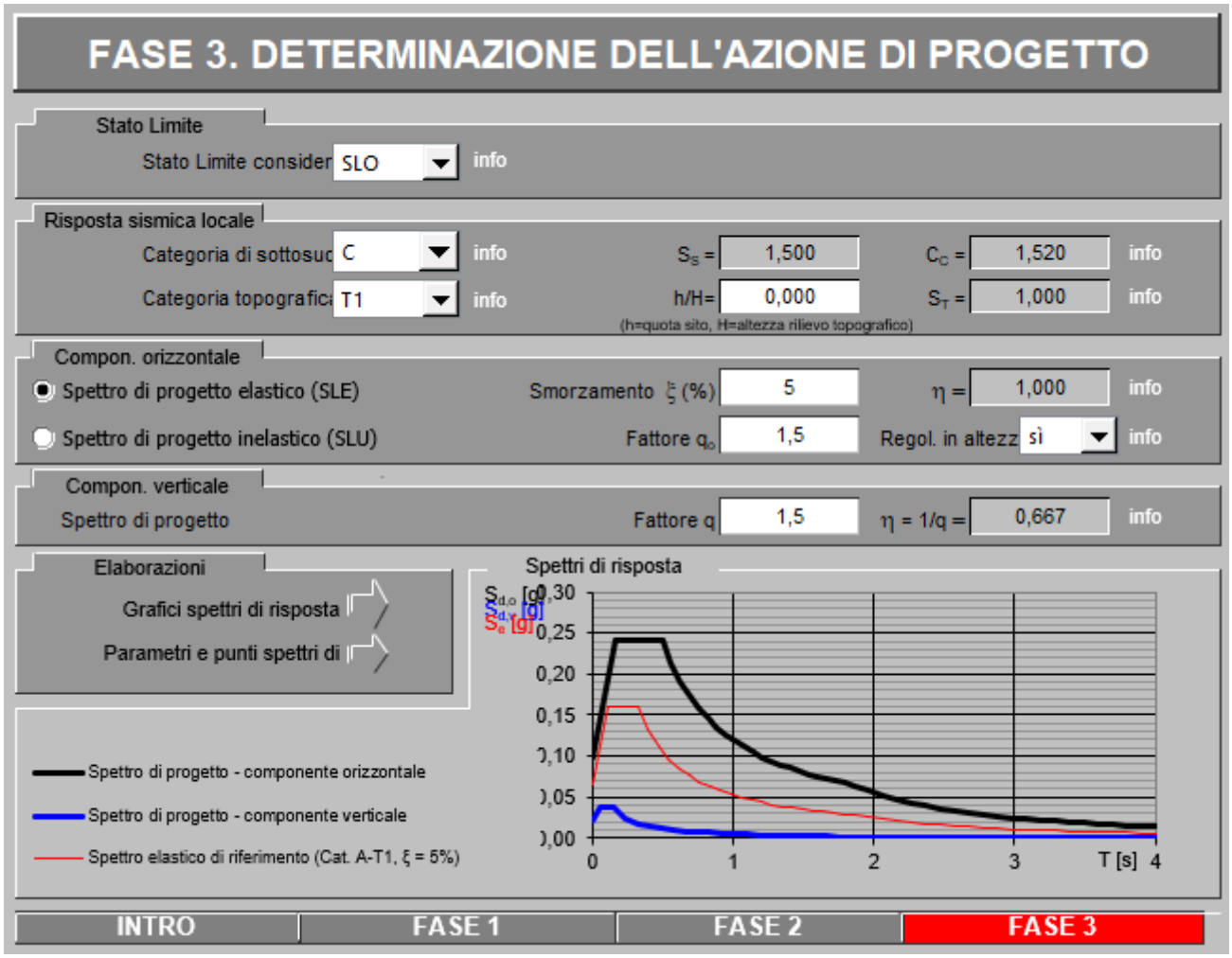
$$T_C \leq T < T_D: \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$$

$$T_D \leq T: \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2} \right)$$

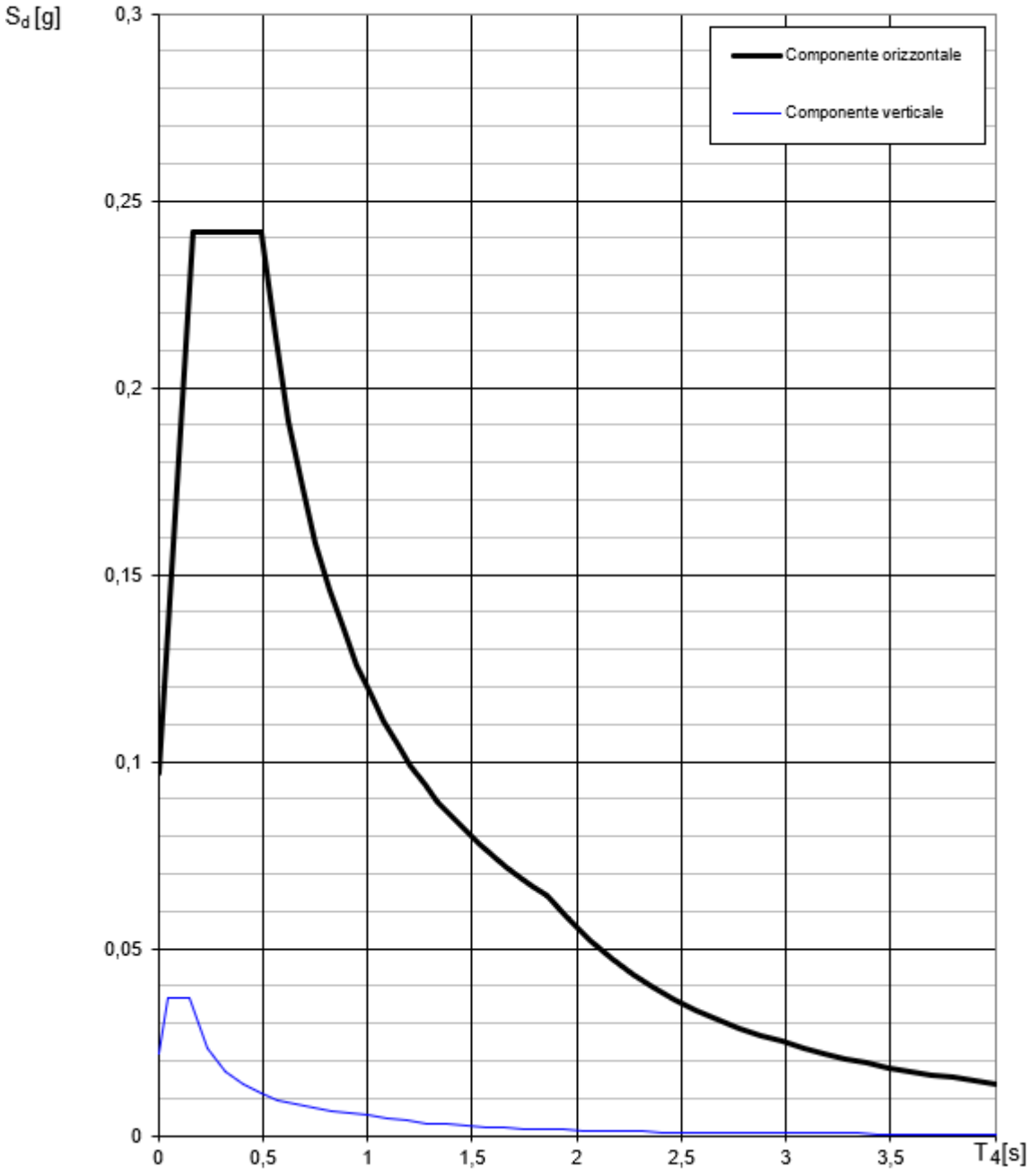
Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo η con 1/q, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

Punti dello spettro di risposta

T [s]	Se [g]	
0.000	0.121	
0.168	0.308	← T_B
0.503	0.308	← T_C
0.570	0.272	
0.638	0.243	
0.706	0.220	
0.773	0.201	
0.841	0.184	
0.908	0.171	
0.976	0.159	
1.044	0.149	
1.111	0.140	
1.179	0.132	
1.247	0.124	
1.314	0.118	
1.382	0.112	
1.449	0.107	
1.517	0.102	
1.585	0.098	
1.652	0.094	
1.720	0.090	
1.788	0.087	
1.855	0.084	
1.923	0.081	← T_D
2.022	0.073	
2.121	0.066	
2.220	0.061	
2.318	0.055	
2.417	0.051	
2.516	0.047	
2.615	0.044	
2.714	0.040	
2.813	0.038	
2.912	0.035	
3.011	0.033	
3.110	0.031	
3.209	0.029	
3.308	0.027	
3.407	0.026	
3.505	0.024	
3.604	0.023	
3.703	0.022	
3.802	0.021	
3.901	0.020	
4.000	0.019	


FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO
Stato Limite
Stato Limite consider SLO info
Risposta sismica locale
Categoria di sottosuc C info
Categoria topografica T1 info
S_S = 1,500
C_C = 1,520
h/H= 0,000
S_T = 1,000
(h=quota sito, H=altezza rilievo topografico)
Compon. orizzontale
Spettro di progetto elastico (SLE)
Spettro di progetto inelastico (SLU)
Smorzamento ξ (%) 5
Fattore q_o 1,5
η = 1,000
Regol. in altezz sì
Compon. verticale
Spettro di progetto
Fattore q 1,5
η = 1/q = 0,667
Elaborazioni
Grafici spettri di risposta
Parametri e punti spettri di
Spettri di risposta
$S_{d,o}$ [g]
$S_{d,v}$ [g]
S_e [g]
0,30
0,25
0,20
0,15
0,10
0,05
0,00
0
1
2
3
T [s] 4
Spettro di progetto - componente orizzontale
Spettro di progetto - componente verticale
Spettro elastico di riferimento (Cat. A-T1, ξ = 5%)
INTRO
FASE 1
FASE 2
FASE 3

Spettri di risposta (componenti orizz. e vert.) per lo stato limite: SLO



Parametri e punti dello spettro di risposta orizzontale per lo stato limite SLO

Parametri indipendenti

STATO LIMITE	SLO
a_g	0,065 g
F_o	2,495
T_C^*	0,326 s
S_S	1,500
C_C	1,520
S_T	1,000
q	1,000

Parametri dipendenti

S	1,500
η	1,000
T_B	0,165 s
T_C	0,495 s
T_D	1,858 s

Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0{,}55;\ \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4{,}0 \cdot a_g / g + 1{,}6$ (NTC-07 Eq. 3.2.9)

Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$0 \leq T < T_B$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$

$T_B \leq T < T_C$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$

$T_C \leq T < T_D$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$

$T_D \leq T$ $\quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2} \right)$

Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo η con 1/q, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

Punti dello spettro di risposta

	T [s]	Se [g]
	0,000	0,097
← T_B	0,165	0,241
← T_C	0,495	0,241
	0,560	0,213
	0,625	0,191
	0,690	0,173
	0,755	0,158
	0,820	0,146
	0,885	0,135
	0,949	0,126
	1,014	0,118
	1,079	0,111
	1,144	0,104
	1,209	0,099
	1,274	0,094
	1,339	0,089
	1,404	0,085
	1,469	0,081
	1,534	0,078
	1,598	0,075
	1,663	0,072
	1,728	0,069
	1,793	0,067
← T_D	1,858	0,064
	1,960	0,058
	2,062	0,052
	2,164	0,047
	2,266	0,043
	2,368	0,040
	2,470	0,036
	2,572	0,034
	2,674	0,031
	2,776	0,029
	2,878	0,027
	2,980	0,025
	3,082	0,023
	3,184	0,022
	3,286	0,021
	3,388	0,019
	3,490	0,018
	3,592	0,017
	3,694	0,016
	3,796	0,015
	3,898	0,015
	4,000	0,014

7.9 CASI DI CARICO

Il programma consente l'applicazione di diverse tipologie di casi di carico.
Sono previsti i seguenti 11 tipi di casi di carico:

	Sigla	*Tipo*	*Descrizione*
1	**Ggk**	A	caso di carico comprensivo del peso proprio struttura
2	**Gk**	NA	caso di carico con azioni permanenti
3	**Qk**	NA	caso di carico con azioni variabili
4	**Gsk**	A	caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture
5	**Qsk**	A	caso di carico comprensivo dei carichi variabili sui solai
6	**Qnk**	A	caso di carico comprensivo dei carichi di neve sulle coperture
7	**Qtk**	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
8	**Qvk**	NA	caso di carico comprensivo di azioni da vento sulla struttura
9	**Esk**	SA	caso di carico sismico con analisi statica equivalente
10	**Edk**	SA	caso di carico sismico con analisi dinamica
11	**Etk**	NA	caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica
12	**Pk**	NA	caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:
7-Qtk, in quanto richiede solo il valore della variazione termica;
9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

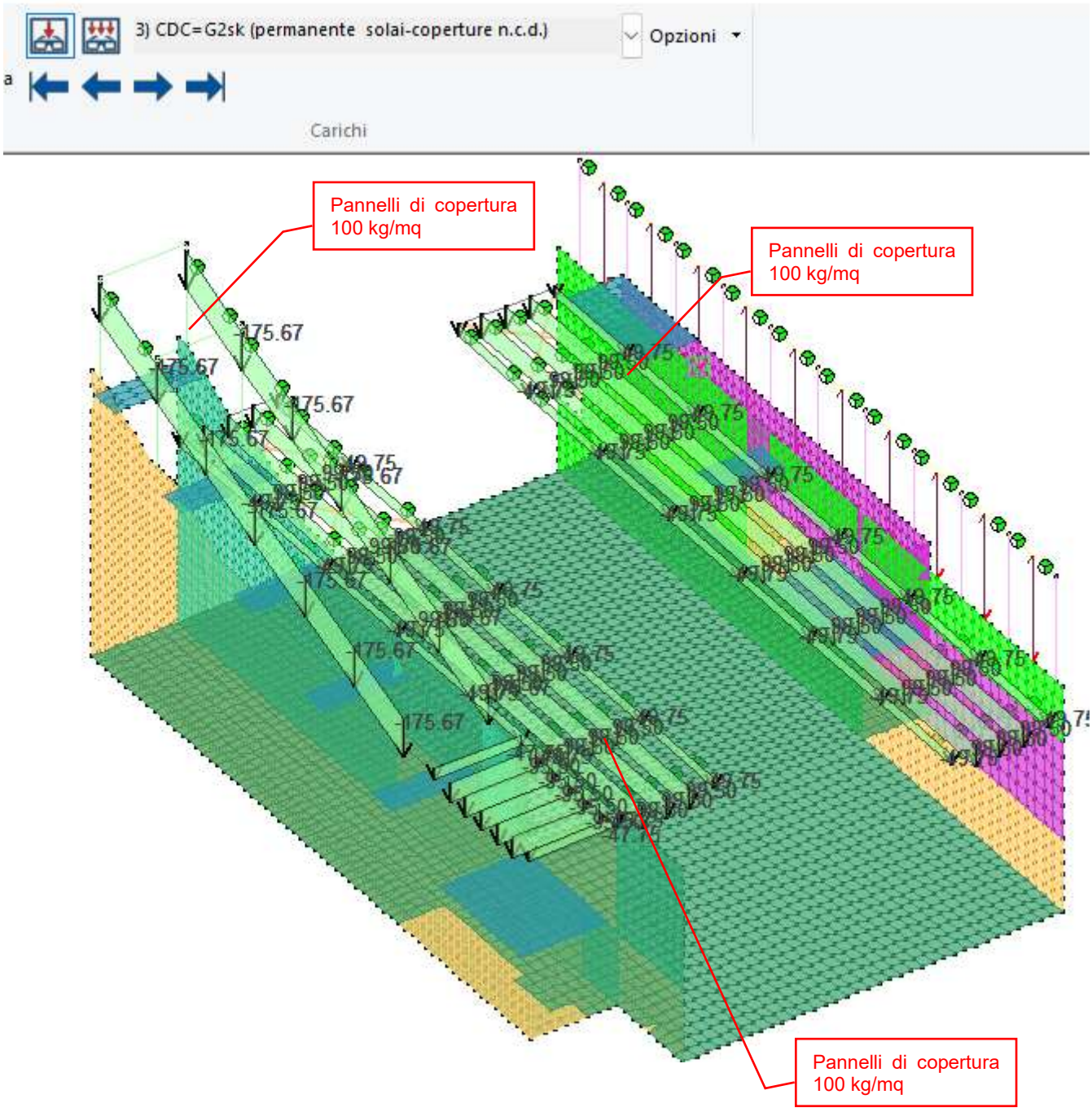
Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:
Numero Tipo e *Sigla identificativa*, *Valore di riferimento* del caso di carico (se previsto).

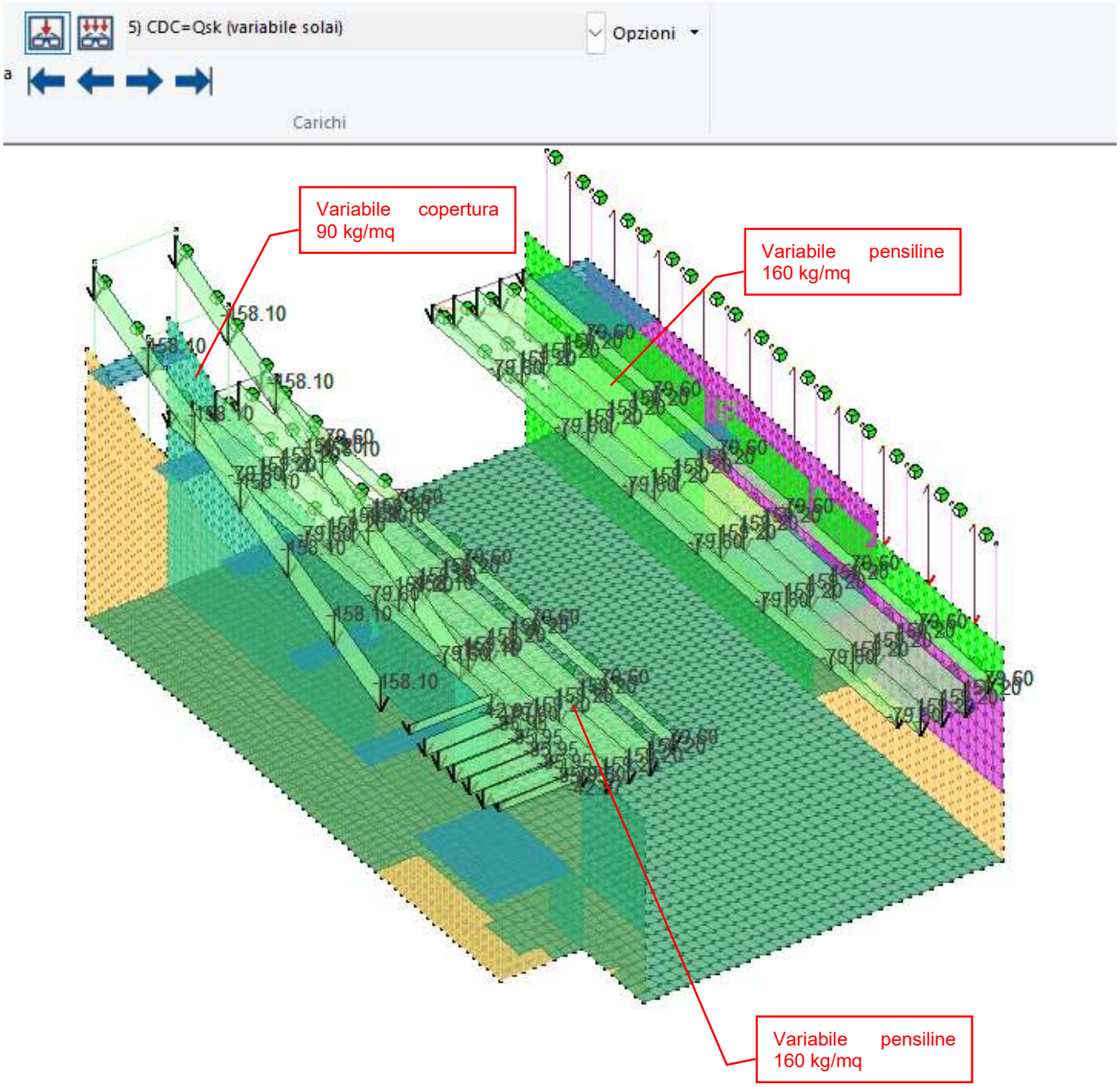
In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Gsk	CDC=G1sk (permanente solai-coperture)	
3	Gsk	CDC=G2sk (permanente solai-coperture n.c.d.)	
4	Gsk	CDC=G2pk (permanente pannelli n.c.d.)	
5	Qsk	CDC=Qsk (variabile solai)	
6	Qtk	CDC=Qtk (carico termico) dT= 15.00	variazione termica:15.00
7	Gk	CDC=G2k	Azioni applicate:
8	Qk	CDC=Qk	Azioni applicate:
9	Gk	CDC=G1k (permanente generico)	Azioni applicate:
10	Qvk	CDC=Qvk (carico da vento) dir Y +	Azioni applicate:
11	Qvk	CDC=Qvk (carico da vento) dir Y -	Azioni applicate:
12	Qk	CDC=Qk variabile treno centrale	Azioni applicate:
13	Qk	CDC=Qk variabile treno estremità	Azioni applicate:
14	Gk	SPINTA TERRENO	Azioni applicate:
15	Etk	CDC=Etk (inc. sp. terreno) SLV dir + alfa=0.0	Azioni applicate:
16	Etk	CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0	Azioni applicate:
17	Etk	CDC=Etk (inc. sp. terreno) SLV dir + alfa=90.00	Azioni applicate:
18	Etk	CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00	Azioni applicate:
19	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)
			partecipazione:1.00 per 2 CDC=G1sk (permanente solai-coperture)
			partecipazione:1.00 per 3 CDC=G2sk (permanente solai-coperture n.c.d.)
			partecipazione:1.00 per 4 CDC=G2pk (permanente pannelli n.c.d.)
			partecipazione:1.00 per 5 CDC=Qsk (variabile solai)
			partecipazione:1.00 per 7 CDC=G2k
			partecipazione:0.60 per 8 CDC=Qk
			partecipazione:1.00 per 9 CDC=G1k (permanente generico) .....
20	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico

CDC	Tipo	Sigla Id	Note
21	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
22	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
23	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
24	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
25	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
26	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
27	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)	come precedente CDC sismico
28	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)	come precedente CDC sismico
29	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)	come precedente CDC sismico
30	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)	come precedente CDC sismico


3) CDC=G2sk (permanente solai-coperture n.c.d.)
Opzioni
Carichi
Pannelli di copertura 100 kg/mq
Pannelli di copertura 100 kg/mq
Pannelli di copertura 100 kg/mq
-175.67


5) CDC=Qsk (variabile solai)
Opzioni
Carichi
Variabile copertura 90 kg/mq
Variabile pensiline 160 kg/mq
Variabile pensiline 160 kg/mq

7.10 COMBINAZIONI

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente.
Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.

Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

Combinazione fondamentale SLU

$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi 02 \cdot Qk2 + \gamma Q3 \cdot \psi 03 \cdot Qk3 + \ldots$

Combinazione caratteristica (rara) SLE

$G_1 + G_2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + \ldots$

Combinazione frequente SLE

$G_1 + G_2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \ldots$

Combinazione quasi permanente SLE

$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \ldots$

Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$E + G_1 + G_2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \ldots$

Combinazione eccezionale, impiegata per gli stati limite connessi alle azioni eccezionali

$G_1 + G_2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \ldots$

Dove:

NTC 2008 Tabella 2.5.I

Destinazione d'uso/azione	**ψ0**	**ψ1**	**ψ2**
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini,…	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli <= 30kN)	0,70	0,70	0,60
Categoria G Rimesse e parcheggi (autoveicoli > 30kN)	0,70	0,50	0,30
Categoria H Coperture	0,00	0,00	0,00
Vento	0,60	0,20	0,00
Neve a quota <= 1000 m	0,50	0,20	0,00
Neve a quota > 1000 m	0,70	0,50	0,20
Variazioni Termiche	0,60	0,50	0,00

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:
- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),
- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2008 Tabella 2.6.I

		Coefficiente γf	**EQU**	**A1**	**A2**
Carichi permanenti	Favorevoli Sfavorevoli	γG1	0,9 1,1	1,0 1,3	1,0 1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli Sfavorevoli	γG2	0,0 1,5	0,0 1,5	0,0 1,3
Carichi variabili	Favorevoli Sfavorevoli	γQi	0,0 1,5	0,0 1,5	0,0 1,3

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	SLU 1	
2	SLU	SLU 2	
3	SLU	SLU 3	
4	SLU	SLU 4	
5	SLU	SLU 5	
6	SLU	SLU 6	

Cmb	Tipo	Sigla Id	effetto P-delta
7	SLU	SLU 7	
8	SLU	SLU 8	
9	SLU	SLU 9	
10	SLU	SLU 10	
11	SLU	SLU 11	
12	SLU	SLU 12	
13	SLU	SLU 13	
14	SLU	SLU 14	
15	SLU	SLU 15	
16	SLU	SLU 16	
17	SLU	SLU 17	
18	SLU	SLU 18	
19	SLU	SLU 19	
20	SLU	SLU 20	
21	SLU	SLU 21	
22	SLU	SLU 22	
23	SLU	SLU 23	
24	SLU	SLU 24	
25	SLU	SLU 25	
26	SLU	SLU 26	
27	SLU	SLU 27	
28	SLU	SLU 28	
29	SLU	SLU 29	
30	SLU	SLU 30	
31	SLU	SLU 31	
32	SLU	SLU 32	
33	SLU	SLU 33	
34	SLU	SLU 34	
35	SLU	SLU 35	
36	SLU	SLU 36	
37	SLU	SLU 37	
38	SLU	SLU 38	
39	SLU	SLU 39	
40	SLU	SLU 40	
41	SLU	SLU 41	
42	SLU	SLU 42	
43	SLU	SLU 43	
44	SLU	SLU 44	
45	SLU	SLU 45	
46	SLU	SLU 46	
47	SLU	SLU 47	
48	SLU	SLU 48	
49	SLU	SLU 49	
50	SLU	SLU 50	
51	SLU	SLU 51	
52	SLU	SLU 52	
53	SLU	SLU 53	
54	SLU	SLU 54	
55	SLU	SLU 55	
56	SLU	SLU 56	
57	SLU	SLU 57	
58	SLU	SLU 58	
59	SLU	SLU 59	
60	SLU	SLU 60	
61	SLE(r)	SLE (rara) 61	
62	SLE(r)	SLE (rara) 62	
63	SLE(r)	SLE (rara) 63	
64	SLE(r)	SLE (rara) 64	
65	SLE(r)	SLE (rara) 65	
66	SLE(r)	SLE (rara) 66	
67	SLE(r)	SLE (rara) 67	
68	SLE(r)	SLE (rara) 68	
69	SLE(r)	SLE (rara) 69	
70	SLE(r)	SLE (rara) 70	
71	SLE(r)	SLE (rara) 71	
72	SLE(r)	SLE (rara) 72	
73	SLE(r)	SLE (rara) 73	

Cmb	Tipo	Sigla Id	effetto P-delta
74	SLE(r)	SLE (rara) 74	
75	SLE(r)	SLE (rara) 75	
76	SLE(r)	SLE (rara) 76	
77	SLE(r)	SLE (rara) 77	
78	SLE(r)	SLE (rara) 78	
79	SLE(r)	SLE (rara) 79	
80	SLE(r)	SLE (rara) 80	
81	SLE(r)	SLE (rara) 81	
82	SLE(r)	SLE (rara) 82	
83	SLE(r)	SLE (rara) 83	
84	SLE(r)	SLE (rara) 84	
85	SLE(r)	SLE (rara) 85	
86	SLE(r)	SLE (rara) 86	
87	SLE(r)	SLE (rara) 87	
88	SLE(r)	SLE (rara) 88	
89	SLE(r)	SLE (rara) 89	
90	SLE(r)	SLE (rara) 90	
91	SLE(r)	SLE (rara) 91	
92	SLE(r)	SLE (rara) 92	
93	SLE(r)	SLE (rara) 93	
94	SLE(r)	SLE (rara) 94	
95	SLE(r)	SLE (rara) 95	
96	SLE(r)	SLE (rara) 96	
97	SLE(r)	SLE (rara) 97	
98	SLE(r)	SLE (rara) 98	
99	SLE(r)	SLE (rara) 99	
100	SLE(r)	SLE (rara) 100	
101	SLE(r)	SLE (rara) 101	
102	SLE(r)	SLE (rara) 102	
103	SLE(r)	SLE (rara) 103	
104	SLE(r)	SLE (rara) 104	
105	SLE(r)	SLE (rara) 105	
106	SLE(r)	SLE (rara) 106	
107	SLE(r)	SLE (rara) 107	
108	SLE(r)	SLE (rara) 108	
109	SLE(r)	SLE (rara) 109	
110	SLE(r)	SLE (rara) 110	
111	SLE(r)	SLE (rara) 111	
112	SLE(r)	SLE (rara) 112	
113	SLE(r)	SLE (rara) 113	
114	SLE(r)	SLE (rara) 114	
115	SLE(r)	SLE (rara) 115	
116	SLE(r)	SLE (rara) 116	
117	SLE(r)	SLE (rara) 117	
118	SLE(r)	SLE (rara) 118	
119	SLE(r)	SLE (rara) 119	
120	SLE(r)	SLE (rara) 120	
121	SLE(f)	SLE (freq) 121	
122	SLE(f)	SLE (freq) 122	
123	SLE(f)	SLE (freq) 123	
124	SLE(f)	SLE (freq) 124	
125	SLE(f)	SLE (freq) 125	
126	SLE(f)	SLE (freq) 126	
127	SLE(f)	SLE (freq) 127	
128	SLE(f)	SLE (freq) 128	
129	SLE(f)	SLE (freq) 129	
130	SLE(f)	SLE (freq) 130	
131	SLE(f)	SLE (freq) 131	
132	SLE(f)	SLE (freq) 132	
133	SLE(f)	SLE (freq) 133	
134	SLE(f)	SLE (freq) 134	
135	SLE(f)	SLE (freq) 135	
136	SLE(f)	SLE (freq) 136	
137	SLE(f)	SLE (freq) 137	
138	SLE(f)	SLE (freq) 138	
139	SLE(f)	SLE (freq) 139	
140	SLE(f)	SLE (freq) 140	

Cmb	Tipo	Sigla Id	effetto P-delta
141	SLE(f)	SLE (freq) 141	
142	SLE(f)	SLE (freq) 142	
143	SLE(f)	SLE (freq) 143	
144	SLE(f)	SLE (freq) 144	
145	SLE(f)	SLE (freq) 145	
146	SLE(f)	SLE (freq) 146	
147	SLE(f)	SLE (freq) 147	
148	SLE(f)	SLE (freq) 148	
149	SLE(p)	SLE (perm) 149	
150	SLE(p)	SLE (perm) 150	
151	SLE(p)	SLE (perm) 151	
152	SLE(p)	SLE (perm) 152	
153	SLE(p)	SLE (perm) 153	
154	SLE(p)	SLE (perm) 154	
155	SLU	Comb. SLU A1 (SLV sism.) 155	
156	SLU	Comb. SLU A1 (SLV sism.) 156	
157	SLU	Comb. SLU A1 (SLV sism.) 157	
158	SLU	Comb. SLU A1 (SLV sism.) 158	
159	SLU	Comb. SLU A1 (SLV sism.) 159	
160	SLU	Comb. SLU A1 (SLV sism.) 160	
161	SLU	Comb. SLU A1 (SLV sism.) 161	
162	SLU	Comb. SLU A1 (SLV sism.) 162	
163	SLU	Comb. SLU A1 (SLV sism.) 163	
164	SLU	Comb. SLU A1 (SLV sism.) 164	
165	SLU	Comb. SLU A1 (SLV sism.) 165	
166	SLU	Comb. SLU A1 (SLV sism.) 166	
167	SLU	Comb. SLU A1 (SLV sism.) 167	
168	SLU	Comb. SLU A1 (SLV sism.) 168	
169	SLU	Comb. SLU A1 (SLV sism.) 169	
170	SLU	Comb. SLU A1 (SLV sism.) 170	
171	SLU	Comb. SLU A1 (SLV sism.) 171	
172	SLU	Comb. SLU A1 (SLV sism.) 172	
173	SLU	Comb. SLU A1 (SLV sism.) 173	
174	SLU	Comb. SLU A1 (SLV sism.) 174	
175	SLU	Comb. SLU A1 (SLV sism.) 175	
176	SLU	Comb. SLU A1 (SLV sism.) 176	
177	SLU	Comb. SLU A1 (SLV sism.) 177	
178	SLU	Comb. SLU A1 (SLV sism.) 178	
179	SLU	Comb. SLU A1 (SLV sism.) 179	
180	SLU	Comb. SLU A1 (SLV sism.) 180	
181	SLU	Comb. SLU A1 (SLV sism.) 181	
182	SLU	Comb. SLU A1 (SLV sism.) 182	
183	SLU	Comb. SLU A1 (SLV sism.) 183	
184	SLU	Comb. SLU A1 (SLV sism.) 184	
185	SLU	Comb. SLU A1 (SLV sism.) 185	
186	SLU	Comb. SLU A1 (SLV sism.) 186	
187	SLU	Comb. SLU A1 (SLV sism.) 187	
188	SLU	Comb. SLU A1 (SLV sism.) 188	
189	SLU	Comb. SLU A1 (SLV sism.) 189	
190	SLU	Comb. SLU A1 (SLV sism.) 190	
191	SLU	Comb. SLU A1 (SLV sism.) 191	
192	SLU	Comb. SLU A1 (SLV sism.) 192	
193	SLU	Comb. SLU A1 (SLV sism.) 193	
194	SLU	Comb. SLU A1 (SLV sism.) 194	
195	SLU	Comb. SLU A1 (SLV sism.) 195	
196	SLU	Comb. SLU A1 (SLV sism.) 196	
197	SLU	Comb. SLU A1 (SLV sism.) 197	
198	SLU	Comb. SLU A1 (SLV sism.) 198	
199	SLU	Comb. SLU A1 (SLV sism.) 199	
200	SLU	Comb. SLU A1 (SLV sism.) 200	
201	SLU	Comb. SLU A1 (SLV sism.) 201	
202	SLU	Comb. SLU A1 (SLV sism.) 202	
203	SLU	Comb. SLU A1 (SLV sism.) 203	
204	SLU	Comb. SLU A1 (SLV sism.) 204	
205	SLU	Comb. SLU A1 (SLV sism.) 205	
206	SLU	Comb. SLU A1 (SLV sism.) 206	
207	SLU	Comb. SLU A1 (SLV sism.) 207	

Cmb	Tipo	Sigla Id	effetto P-delta
208	SLU	Comb. SLU A1 (SLV sism.) 208	
209	SLU	Comb. SLU A1 (SLV sism.) 209	
210	SLU	Comb. SLU A1 (SLV sism.) 210	
211	SLU	Comb. SLU A1 (SLV sism.) 211	
212	SLU	Comb. SLU A1 (SLV sism.) 212	
213	SLU	Comb. SLU A1 (SLV sism.) 213	
214	SLU	Comb. SLU A1 (SLV sism.) 214	
215	SLU	Comb. SLU A1 (SLV sism.) 215	
216	SLU	Comb. SLU A1 (SLV sism.) 216	
217	SLU	Comb. SLU A1 (SLV sism.) 217	
218	SLU	Comb. SLU A1 (SLV sism.) 218	
219	SLE(sis)	Comb. SLE (SLD Danno sism.) 219	
220	SLE(sis)	Comb. SLE (SLD Danno sism.) 220	
221	SLE(sis)	Comb. SLE (SLD Danno sism.) 221	
222	SLE(sis)	Comb. SLE (SLD Danno sism.) 222	
223	SLE(sis)	Comb. SLE (SLD Danno sism.) 223	
224	SLE(sis)	Comb. SLE (SLD Danno sism.) 224	
225	SLE(sis)	Comb. SLE (SLD Danno sism.) 225	
226	SLE(sis)	Comb. SLE (SLD Danno sism.) 226	
227	SLE(sis)	Comb. SLE (SLD Danno sism.) 227	
228	SLE(sis)	Comb. SLE (SLD Danno sism.) 228	
229	SLE(sis)	Comb. SLE (SLD Danno sism.) 229	
230	SLE(sis)	Comb. SLE (SLD Danno sism.) 230	
231	SLE(sis)	Comb. SLE (SLD Danno sism.) 231	
232	SLE(sis)	Comb. SLE (SLD Danno sism.) 232	
233	SLE(sis)	Comb. SLE (SLD Danno sism.) 233	
234	SLE(sis)	Comb. SLE (SLD Danno sism.) 234	
235	SLE(sis)	Comb. SLE (SLD Danno sism.) 235	
236	SLE(sis)	Comb. SLE (SLD Danno sism.) 236	
237	SLE(sis)	Comb. SLE (SLD Danno sism.) 237	
238	SLE(sis)	Comb. SLE (SLD Danno sism.) 238	
239	SLE(sis)	Comb. SLE (SLD Danno sism.) 239	
240	SLE(sis)	Comb. SLE (SLD Danno sism.) 240	
241	SLE(sis)	Comb. SLE (SLD Danno sism.) 241	
242	SLE(sis)	Comb. SLE (SLD Danno sism.) 242	
243	SLE(sis)	Comb. SLE (SLD Danno sism.) 243	
244	SLE(sis)	Comb. SLE (SLD Danno sism.) 244	
245	SLE(sis)	Comb. SLE (SLD Danno sism.) 245	
246	SLE(sis)	Comb. SLE (SLD Danno sism.) 246	
247	SLE(sis)	Comb. SLE (SLD Danno sism.) 247	
248	SLE(sis)	Comb. SLE (SLD Danno sism.) 248	
249	SLE(sis)	Comb. SLE (SLD Danno sism.) 249	
250	SLE(sis)	Comb. SLE (SLD Danno sism.) 250	
251	SLE(sis)	Comb. SLE (SLD Danno sism.) 251	
252	SLE(sis)	Comb. SLE (SLD Danno sism.) 252	
253	SLE(sis)	Comb. SLE (SLD Danno sism.) 253	
254	SLE(sis)	Comb. SLE (SLD Danno sism.) 254	
255	SLE(sis)	Comb. SLE (SLD Danno sism.) 255	
256	SLE(sis)	Comb. SLE (SLD Danno sism.) 256	
257	SLE(sis)	Comb. SLE (SLD Danno sism.) 257	
258	SLE(sis)	Comb. SLE (SLD Danno sism.) 258	
259	SLE(sis)	Comb. SLE (SLD Danno sism.) 259	
260	SLE(sis)	Comb. SLE (SLD Danno sism.) 260	
261	SLE(sis)	Comb. SLE (SLD Danno sism.) 261	
262	SLE(sis)	Comb. SLE (SLD Danno sism.) 262	
263	SLE(sis)	Comb. SLE (SLD Danno sism.) 263	
264	SLE(sis)	Comb. SLE (SLD Danno sism.) 264	
265	SLE(sis)	Comb. SLE (SLD Danno sism.) 265	
266	SLE(sis)	Comb. SLE (SLD Danno sism.) 266	
267	SLE(sis)	Comb. SLE (SLD Danno sism.) 267	
268	SLE(sis)	Comb. SLE (SLD Danno sism.) 268	
269	SLE(sis)	Comb. SLE (SLD Danno sism.) 269	
270	SLE(sis)	Comb. SLE (SLD Danno sism.) 270	
271	SLE(sis)	Comb. SLE (SLD Danno sism.) 271	
272	SLE(sis)	Comb. SLE (SLD Danno sism.) 272	
273	SLE(sis)	Comb. SLE (SLD Danno sism.) 273	
274	SLE(sis)	Comb. SLE (SLD Danno sism.) 274	

Cmb	Tipo	Sigla Id	effetto P-delta
275	SLE(sis)	Comb. SLE (SLD Danno sism.) 275	
276	SLE(sis)	Comb. SLE (SLD Danno sism.) 276	
277	SLE(sis)	Comb. SLE (SLD Danno sism.) 277	
278	SLE(sis)	Comb. SLE (SLD Danno sism.) 278	
279	SLE(sis)	Comb. SLE (SLD Danno sism.) 279	
280	SLE(sis)	Comb. SLE (SLD Danno sism.) 280	
281	SLE(sis)	Comb. SLE (SLD Danno sism.) 281	
282	SLE(sis)	Comb. SLE (SLD Danno sism.) 282	
283	SLE(sis)	Comb. SLE (SLO Operativo sism.) 283	
284	SLE(sis)	Comb. SLE (SLO Operativo sism.) 284	
285	SLE(sis)	Comb. SLE (SLO Operativo sism.) 285	
286	SLE(sis)	Comb. SLE (SLO Operativo sism.) 286	
287	SLE(sis)	Comb. SLE (SLO Operativo sism.) 287	
288	SLE(sis)	Comb. SLE (SLO Operativo sism.) 288	
289	SLE(sis)	Comb. SLE (SLO Operativo sism.) 289	
290	SLE(sis)	Comb. SLE (SLO Operativo sism.) 290	
291	SLE(sis)	Comb. SLE (SLO Operativo sism.) 291	
292	SLE(sis)	Comb. SLE (SLO Operativo sism.) 292	
293	SLE(sis)	Comb. SLE (SLO Operativo sism.) 293	
294	SLE(sis)	Comb. SLE (SLO Operativo sism.) 294	
295	SLE(sis)	Comb. SLE (SLO Operativo sism.) 295	
296	SLE(sis)	Comb. SLE (SLO Operativo sism.) 296	
297	SLE(sis)	Comb. SLE (SLO Operativo sism.) 297	
298	SLE(sis)	Comb. SLE (SLO Operativo sism.) 298	
299	SLE(sis)	Comb. SLE (SLO Operativo sism.) 299	
300	SLE(sis)	Comb. SLE (SLO Operativo sism.) 300	
301	SLE(sis)	Comb. SLE (SLO Operativo sism.) 301	
302	SLE(sis)	Comb. SLE (SLO Operativo sism.) 302	
303	SLE(sis)	Comb. SLE (SLO Operativo sism.) 303	
304	SLE(sis)	Comb. SLE (SLO Operativo sism.) 304	
305	SLE(sis)	Comb. SLE (SLO Operativo sism.) 305	
306	SLE(sis)	Comb. SLE (SLO Operativo sism.) 306	
307	SLE(sis)	Comb. SLE (SLO Operativo sism.) 307	
308	SLE(sis)	Comb. SLE (SLO Operativo sism.) 308	
309	SLE(sis)	Comb. SLE (SLO Operativo sism.) 309	
310	SLE(sis)	Comb. SLE (SLO Operativo sism.) 310	
311	SLE(sis)	Comb. SLE (SLO Operativo sism.) 311	
312	SLE(sis)	Comb. SLE (SLO Operativo sism.) 312	
313	SLE(sis)	Comb. SLE (SLO Operativo sism.) 313	
314	SLE(sis)	Comb. SLE (SLO Operativo sism.) 314	
315	SLE(sis)	Comb. SLE (SLO Operativo sism.) 315	
316	SLE(sis)	Comb. SLE (SLO Operativo sism.) 316	
317	SLE(sis)	Comb. SLE (SLO Operativo sism.) 317	
318	SLE(sis)	Comb. SLE (SLO Operativo sism.) 318	
319	SLE(sis)	Comb. SLE (SLO Operativo sism.) 319	
320	SLE(sis)	Comb. SLE (SLO Operativo sism.) 320	
321	SLE(sis)	Comb. SLE (SLO Operativo sism.) 321	
322	SLE(sis)	Comb. SLE (SLO Operativo sism.) 322	
323	SLE(sis)	Comb. SLE (SLO Operativo sism.) 323	
324	SLE(sis)	Comb. SLE (SLO Operativo sism.) 324	
325	SLE(sis)	Comb. SLE (SLO Operativo sism.) 325	
326	SLE(sis)	Comb. SLE (SLO Operativo sism.) 326	
327	SLE(sis)	Comb. SLE (SLO Operativo sism.) 327	
328	SLE(sis)	Comb. SLE (SLO Operativo sism.) 328	
329	SLE(sis)	Comb. SLE (SLO Operativo sism.) 329	
330	SLE(sis)	Comb. SLE (SLO Operativo sism.) 330	
331	SLE(sis)	Comb. SLE (SLO Operativo sism.) 331	
332	SLE(sis)	Comb. SLE (SLO Operativo sism.) 332	
333	SLE(sis)	Comb. SLE (SLO Operativo sism.) 333	
334	SLE(sis)	Comb. SLE (SLO Operativo sism.) 334	
335	SLE(sis)	Comb. SLE (SLO Operativo sism.) 335	
336	SLE(sis)	Comb. SLE (SLO Operativo sism.) 336	
337	SLE(sis)	Comb. SLE (SLO Operativo sism.) 337	
338	SLE(sis)	Comb. SLE (SLO Operativo sism.) 338	
339	SLE(sis)	Comb. SLE (SLO Operativo sism.) 339	
340	SLE(sis)	Comb. SLE (SLO Operativo sism.) 340	
341	SLE(sis)	Comb. SLE (SLO Operativo sism.) 341	

Cmb	Tipo	Sigla Id	effetto P-delta
342	SLE(sis)	Comb. SLE (SLO Operativo sism.) 342	
343	SLE(sis)	Comb. SLE (SLO Operativo sism.) 343	
344	SLE(sis)	Comb. SLE (SLO Operativo sism.) 344	
345	SLE(sis)	Comb. SLE (SLO Operativo sism.) 345	
346	SLE(sis)	Comb. SLE (SLO Operativo sism.) 346	

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
1	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.90	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
2	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.0	0.90	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
3	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.90	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
4	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.0	0.90	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
5	1.35	1.35	1.50	1.50	1.50	0.90	1.50	1.50	1.35	0.90	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
6	1.35	1.35	1.50	1.50	1.50	0.90	1.50	1.50	1.35	0.0	0.90	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
7	1.35	1.35	1.50	1.50	1.50	-0.90	1.50	1.50	1.35	0.90	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
8	1.35	1.35	1.50	1.50	1.50	-0.90	1.50	1.50	1.35	0.0	0.90	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
9	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	1.50	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
10	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
11	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	1.50	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
12	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.0	1.50	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
13	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.90	0.0	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
14	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.0	0.90	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
15	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.90	0.0	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
16	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.0	0.90	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
17	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.90	0.0	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
18	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.0	0.90	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
19	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.90	0.0	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
20	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.0	0.90	0.0	1.45	1.35

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
21	1.00	1.00	0.0	0.0	0.0	1.50	0.0	0.0	1.00	0.90	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
22	1.00	1.00	0.0	0.0	0.0	1.50	0.0	0.0	1.00	0.0	0.90	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
23	1.00	1.00	0.0	0.0	0.0	1.50	0.0	0.0	1.00	0.90	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
24	1.00	1.00	0.0	0.0	0.0	1.50	0.0	0.0	1.00	0.0	0.90	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
25	1.00	1.00	0.0	0.0	0.0	-1.50	0.0	0.0	1.00	0.90	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
26	1.00	1.00	0.0	0.0	0.0	-1.50	0.0	0.0	1.00	0.0	0.90	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
27	1.00	1.00	0.0	0.0	0.0	-1.50	0.0	0.0	1.00	0.90	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
28	1.00	1.00	0.0	0.0	0.0	-1.50	0.0	0.0	1.00	0.0	0.90	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
29	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	1.50	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
30	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.0	1.50	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
31	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	1.50	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
32	1.00	1.00	0.0	0.0	0.0	0.90	0.0	0.0	1.00	0.0	1.50	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
33	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	1.50	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
34	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.0	1.50	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
35	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	1.50	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
36	1.00	1.00	0.0	0.0	0.0	-0.90	0.0	0.0	1.00	0.0	1.50	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
37	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.90	0.0	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
38	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.0	0.90	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
39	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.90	0.0	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
40	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.0	0.90	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
41	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.90	0.0	1.45	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
42	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.0	0.90	1.45	0.0	1.35

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
43	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.90	0.0	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
44	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.0	0.90	0.0	1.45	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
45	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.90	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
46	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.0	0.90	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
47	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.90	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
48	1.35	1.35	1.50	1.50	0.75	1.50	1.50	1.05	1.35	0.0	0.90	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
49	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.90	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
50	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.0	0.90	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
51	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.90	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
52	1.35	1.35	1.50	1.50	0.75	-1.50	1.50	1.05	1.35	0.0	0.90	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
53	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	1.50	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
54	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.0	1.50	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
55	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	1.50	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
56	1.35	1.35	1.50	1.50	0.75	0.90	1.50	1.05	1.35	0.0	1.50	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
57	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	1.50	0.0	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
58	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.0	1.50	1.16	0.0	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
59	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	1.50	0.0	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
60	1.35	1.35	1.50	1.50	0.75	-0.90	1.50	1.05	1.35	0.0	1.50	0.0	1.16	1.35
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
61	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.60	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
62	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.0	0.60	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
63	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.60	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
64	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.0	0.60	0.0	0.0	0.0

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
65	1.00	1.00	1.00	1.00	1.00	0.60	1.00	1.00	1.00	0.60	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
66	1.00	1.00	1.00	1.00	1.00	0.60	1.00	1.00	1.00	0.0	0.60	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
67	1.00	1.00	1.00	1.00	1.00	-0.60	1.00	1.00	1.00	0.60	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
68	1.00	1.00	1.00	1.00	1.00	-0.60	1.00	1.00	1.00	0.0	0.60	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
69	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	1.00	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
70	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.0	1.00	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
71	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	1.00	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
72	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.0	1.00	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
73	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.60	0.0	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
74	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0	0.60	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
75	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.60	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
76	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0	0.60	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
77	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.60	0.0	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
78	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.0	0.60	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
79	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.60	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
80	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.0	0.60	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
81	1.00	1.00	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.60	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
82	1.00	1.00	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.0	0.60	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
83	1.00	1.00	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.60	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
84	1.00	1.00	0.0	0.0	0.0	1.00	0.0	0.0	1.00	0.0	0.60	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
85	1.00	1.00	0.0	0.0	0.0	-1.00	0.0	0.0	1.00	0.60	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
86	1.00	1.00	0.0	0.0	0.0	-1.00	0.0	0.0	1.00	0.0	0.60	0.80	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
87	1.00	1.00	0.0	0.0	0.0	-1.00	0.0	0.0	1.00	0.60	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
88	1.00	1.00	0.0	0.0	0.0	-1.00	0.0	0.0	1.00	0.0	0.60	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
89	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	1.00	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
90	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0	1.00	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
91	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	1.00	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
92	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0	1.00	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
93	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	1.00	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
94	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.0	1.00	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
95	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	1.00	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
96	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.0	1.00	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
97	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.60	0.0	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
98	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.0	0.60	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
99	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.60	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
100	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.0	0.60	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
101	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.60	0.0	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
102	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.0	0.60	1.00	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
103	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.60	0.0	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
104	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.0	0.60	0.0	1.00	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
105	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.60	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
106	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.0	0.60	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
107	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.60	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
108	1.00	1.00	1.00	1.00	0.50	1.00	1.00	0.70	1.00	0.0	0.60	0.0	0.80	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
109	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.60	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
110	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.0	0.60	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
111	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.60	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
112	1.00	1.00	1.00	1.00	0.50	-1.00	1.00	0.70	1.00	0.0	0.60	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
113	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	1.00	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
114	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.0	1.00	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
115	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	1.00	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
116	1.00	1.00	1.00	1.00	0.50	0.60	1.00	0.70	1.00	0.0	1.00	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
117	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	1.00	0.0	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
118	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.0	1.00	0.80	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
119	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	1.00	0.0	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
120	1.00	1.00	1.00	1.00	0.50	-0.60	1.00	0.70	1.00	0.0	1.00	0.0	0.80	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
121	1.00	1.00	1.00	1.00	0.0	0.60	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
122	1.00	1.00	1.00	1.00	0.0	-0.60	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
123	1.00	1.00	1.00	1.00	0.60	0.50	1.00	0.75	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
124	1.00	1.00	1.00	1.00	0.60	-0.50	1.00	0.75	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
125	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.20	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
126	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.20	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
127	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.20	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
128	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.20	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
129	1.00	1.00	0.0	0.0	0.0	0.50	0.0	0.0	1.00	0.0	0.0	0.60	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
130	1.00	1.00	0.0	0.0	0.0	0.50	0.0	0.0	1.00	0.0	0.0	0.0	0.60	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
131	1.00	1.00	0.0	0.0	0.0	-0.50	0.0	0.0	1.00	0.0	0.0	0.60	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
132	1.00	1.00	0.0	0.0	0.0	-0.50	0.0	0.0	1.00	0.0	0.0	0.0	0.60	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
133	1.00	1.00	0.0	0.0	0.0	0.60	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
134	1.00	1.00	0.0	0.0	0.0	-0.60	0.0	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
135	1.00	1.00	0.0	0.0	0.0	0.50	0.0	0.0	1.00	0.20	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
136	1.00	1.00	0.0	0.0	0.0	0.50	0.0	0.0	1.00	0.0	0.20	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
137	1.00	1.00	0.0	0.0	0.0	-0.50	0.0	0.0	1.00	0.20	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
138	1.00	1.00	0.0	0.0	0.0	-0.50	0.0	0.0	1.00	0.0	0.20	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
139	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.0	0.60	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
140	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.60	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
141	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.0	0.60	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
142	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.60	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
143	1.00	1.00	1.00	1.00	0.0	0.60	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
144	1.00	1.00	1.00	1.00	0.0	-0.60	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
145	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.20	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
146	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.20	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
147	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.20	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
148	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.20	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
149	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
150	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
151	1.00	1.00	0.0	0.0	0.0	0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
152	1.00	1.00	0.0	0.0	0.0	-0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
153	1.00	1.00	1.00	1.00	0.0	0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
154	1.00	1.00	1.00	1.00	0.0	-0.50	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
155	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
156	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
157	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
158	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
159	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
160	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
161	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
162	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
163	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
164	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
165	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
166	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
167	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
168	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
169	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
170	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
171	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
172	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
173	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
174	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	1.00	0.0	0.30	0.0	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
175	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
176	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
177	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
178	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
179	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
180	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
181	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
182	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
183	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.0	0.30	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
184	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	1.00	0.30	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
185	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.0	0.30	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
186	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	1.00	0.0	0.30	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
187	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
188	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
189	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
190	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
191	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
192	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
193	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
194	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
195	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
196	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.30	1.00	0.0	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
197	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
198	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
199	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
200	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
201	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
202	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
203	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
204	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
205	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
206	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
207	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
208	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
209	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
210	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
211	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
212	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
213	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
214	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	1.00	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
215	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	0.0	1.00	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
216	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.30	1.00	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
217	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.30	0.0	0.0	1.00	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
218	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.30	0.0	1.00	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
219	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0
	0.0	0.0												
220	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0
	0.0	0.0												
221	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0
	0.0	0.0												
222	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0
	0.0	0.0												
223	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0
	0.0	0.0												
224	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0
	0.0	0.0												
225	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0
	0.0	0.0												
226	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0
	0.0	0.0												
227	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	-0.30	0.0	0.0
	0.0	0.0												
228	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	0.30	0.0	0.0
	0.0	0.0												
229	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	-0.30	0.0	0.0
	0.0	0.0												
230	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.30	0.0	0.0
	0.0	0.0												
231	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	-0.30	0.0	0.0
	0.0	0.0												
232	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	0.30	0.0	0.0
	0.0	0.0												
233	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	-0.30	0.0	0.0
	0.0	0.0												
234	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.30	0.0	0.0
	0.0	0.0												
235	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30	0.0	0.0	0.0
	0.0	0.0												
236	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.30	0.0	0.0	0.0
	0.0	0.0												
237	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.30	0.0	0.0	0.0
	0.0	0.0												
238	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.30	0.0	0.0	0.0
	0.0	0.0												
239	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30	0.0	0.0	0.0
	0.0	0.0												
240	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.30	0.0	0.0	0.0
	0.0	0.0												
241	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	-0.30	0.0	0.0	0.0
	0.0	0.0												
242	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.30	0.0	0.0	0.0
	0.0	0.0												
243	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0
	0.0	0.0												
244	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0
	0.0	0.0												
245	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0
	0.0	0.0												
246	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0
	0.0	0.0												
247	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0
	0.0	0.0												
248	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0
	0.0	0.0												
249	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0
	0.0	0.0												
250	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0
	0.0	0.0												
251	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0
	0.0	0.0												
252	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0
	0.0	0.0												
253	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0
	0.0	0.0												
254	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0
	0.0	0.0												
255	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0
	0.0	0.0												
256	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0
	0.0	0.0												
257	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0
	0.0	0.0												
258	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0
	0.0	0.0												
259	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00	0.0	0.0	0.0
	0.0	0.0												
260	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	1.00	0.0	0.0	0.0
	0.0	0.0												
261	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	-1.00	0.0	0.0	0.0
	0.0	0.0												
262	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	1.00	0.0	0.0	0.0
	0.0	0.0												
263	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00	0.0	0.0	0.0
	0.0	0.0												
264	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	1.00	0.0	0.0	0.0
	0.0	0.0												
265	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	-1.00	0.0	0.0	0.0
	0.0	0.0												
266	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	1.00	0.0	0.0	0.0
	0.0	0.0												
267	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	-1.00	0.0	0.0
	0.0	0.0												
268	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	1.00	0.0	0.0
	0.0	0.0												
269	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	-1.00	0.0	0.0
	0.0	0.0												
270	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	1.00	0.0	0.0
	0.0	0.0												
271	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	-1.00	0.0	0.0
	0.0	0.0												
272	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	1.00	0.0	0.0
	0.0	0.0												
273	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	-1.00	0.0	0.0
	0.0	0.0												
274	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	0.0	1.00	0.0	0.0
	0.0	0.0												
275	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0
	0.0	0.0												
276	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0
	0.0	0.0												
277	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0
	0.0	0.0												
278	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0
	0.0	0.0												
279	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0
	0.0	0.0												
280	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0
	0.0	0.0												
281	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0
	0.0	0.0												
282	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0
	0.0	0.0												
283	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	-0.30	0.0												
284	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.30	0.0												
285	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	-0.30	0.0												
286	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.30	0.0												
287	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	-0.30	0.0												
288	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.30	0.0												
289	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	-0.30	0.0												
290	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.30	0.0												
291	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.0	-0.30												
292	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.0	0.30												
293	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	-0.30												
294	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.30												
295	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.0	-0.30												
296	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00	0.0
	0.0	0.30												
297	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	-0.30												
298	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.30												
299	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	-0.30	0.0												
300	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.30	0.0												
301	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	-0.30	0.0												
302	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.30	0.0												
303	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	-0.30	0.0												
304	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.30	0.0												
305	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	-0.30	0.0												
306	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00

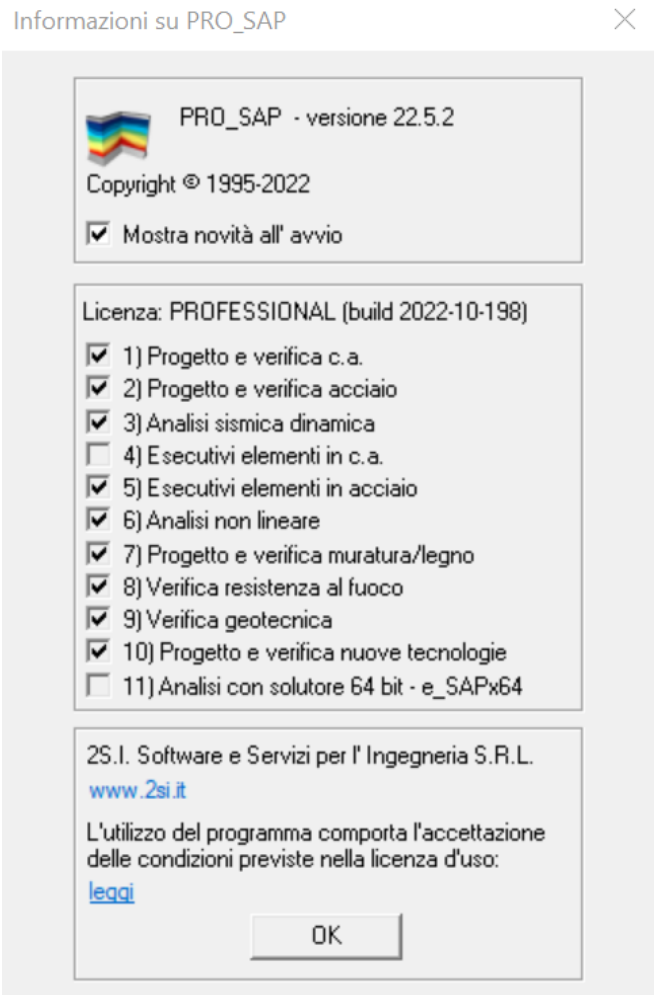
Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.30	0.0												
307	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.0	-0.30												
308	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.0	0.30												
309	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	-0.30												
310	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	0.30												
311	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.0	-0.30												
312	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.00
	0.0	0.30												
313	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	-0.30												
314	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	0.30												
315	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	-1.00	0.0												
316	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	1.00	0.0												
317	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	-1.00	0.0												
318	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	1.00	0.0												
319	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	-1.00	0.0												
320	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	1.00	0.0												
321	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	-1.00	0.0												
322	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	1.00	0.0												
323	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	-1.00	0.0												
324	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	1.00	0.0												
325	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	-1.00	0.0												
326	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	1.00	0.0												
327	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	-1.00	0.0												
328	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	1.00	0.0												
329	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	-1.00	0.0												
330	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	1.00	0.0												
331	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	0.0	-1.00												
332	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	0.0	1.00												
333	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	0.0	-1.00												
334	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	0.0	1.00												
335	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	0.0	-1.00												
336	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30	0.0
	0.0	1.00												
337	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	0.0	-1.00												
338	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	0.0
	0.0	1.00												
339	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	0.0	-1.00												
340	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	0.0	1.00												
341	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	0.0	-1.00												
342	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.0	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	0.0	1.00												
343	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	0.0	-1.00												
344	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30
	0.0	1.00												
345	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	0.0	-1.00												
346	1.00	1.00	1.00	1.00	0.0	0.0	1.00	0.60	1.00	0.0	0.0	0.0	0.0	1.00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30
	0.0	1.00												

8. INDICAZIONI SUL SOFTWARE UTILIZZATO

Per la progettazione dell' opera in esame si è impiegato il codice di calcolo strutturale PRO_SAP della 2S.I.:

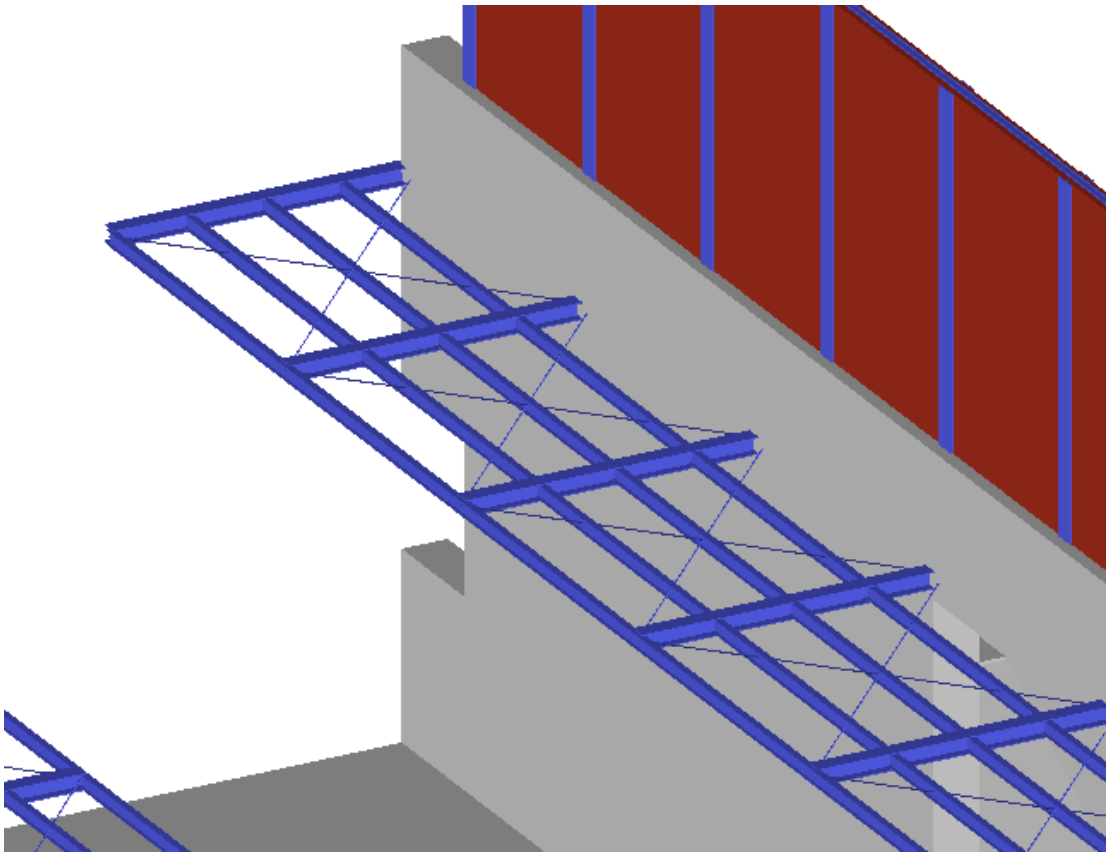
Origine e Caratteristiche dei Codici di Calcolo	
Codice di calcolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2022-10-198)
Produttore- Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l. Via Garibaldi, 90 44121 Ferrara FE (Italy) Tel. +39 0532 200091 www.2si.it



9. CRITERI DI PROGETTO E MODELLAZIONE

9.1 DESCRIZIONE MODELLO DI CALCOLO

Per il calcolo delle sollecitazioni nei vari elementi, si è modellata l'intera struttura 3D. Per la modellazione di tutti gli elementi in acciaio, travi principali, secondarie e colonne si sono utilizzati elementi frame, per tutti gli elementi in calcestruzzo, la soletta dell'impalcato, la copertura e le sottostrutture, sono state modellate con elementi shell.

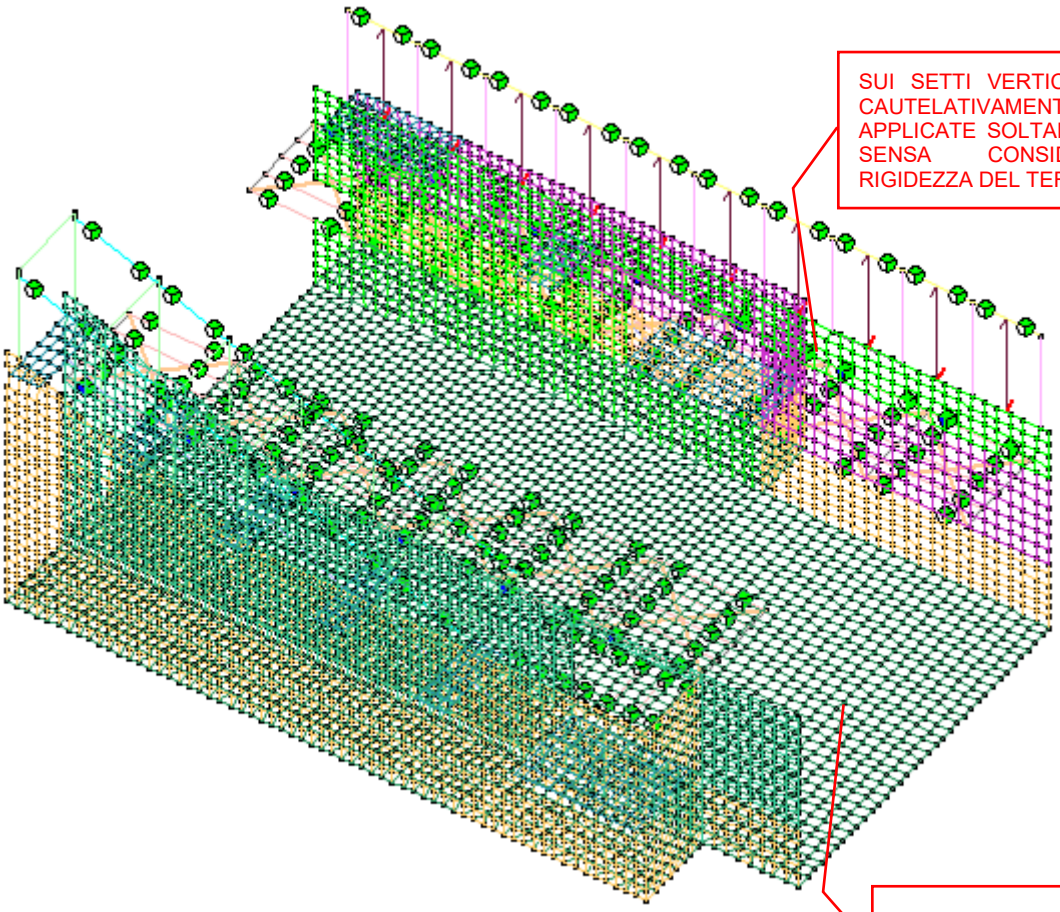


Modello di calcolo

In questa relazione verranno trattati solo gli elementi della pensilina di copertura delle banchine.

I controventi sono stati modellati come elementi tipo asta, e si è fatta l'ipotesi di comportamento solo a trazione di questi.

CONDIZIONI AL CONTORNO MODELLO



9.2 TIPOLOGIE DI VERIFICHE

Per tutte le strutture analizzate, come previsto dalle vigenti normative, sono state effettuate le seguenti verifiche:

- Verifiche allo Stato Limite Ultimo in termini di resistenza per azioni statiche e sismiche;
- Verifiche allo Stato Limite di Esercizio in termini di deformazioni, in termini di stato tensionale nei materiali, in termini di fessurazione;
- Verifiche allo SLD per azioni sismiche in termini di resistenza;
- Verifiche allo SLO per azioni sismiche in termini di deformazioni relative di piano (drift).

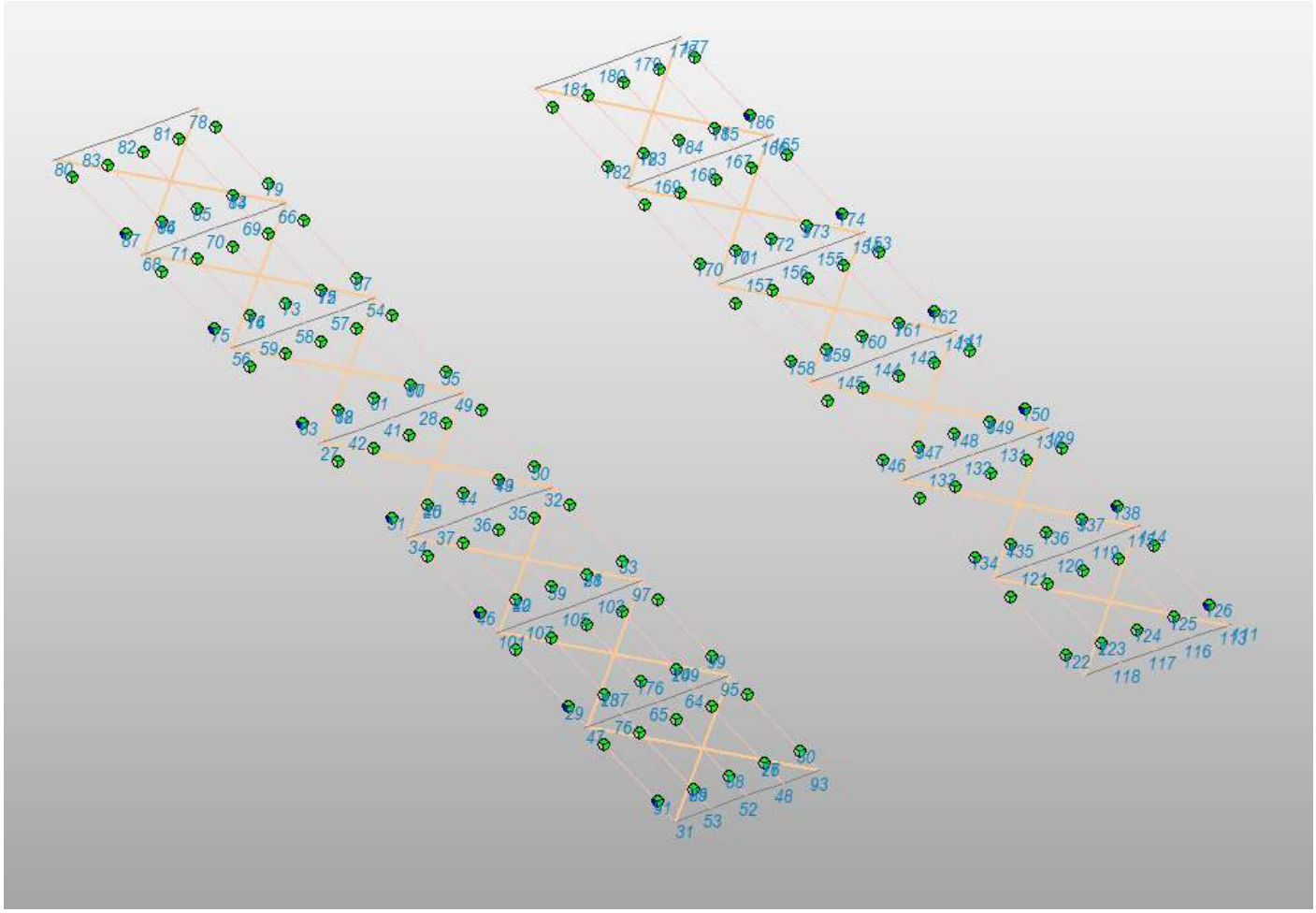
9.3 CRITERI DI PROGETTAZIONE SISMICA

Per la struttura in esame si è utilizzata la strategia di progettazione **non dissipativa con fattore di struttura q = 1.00**:

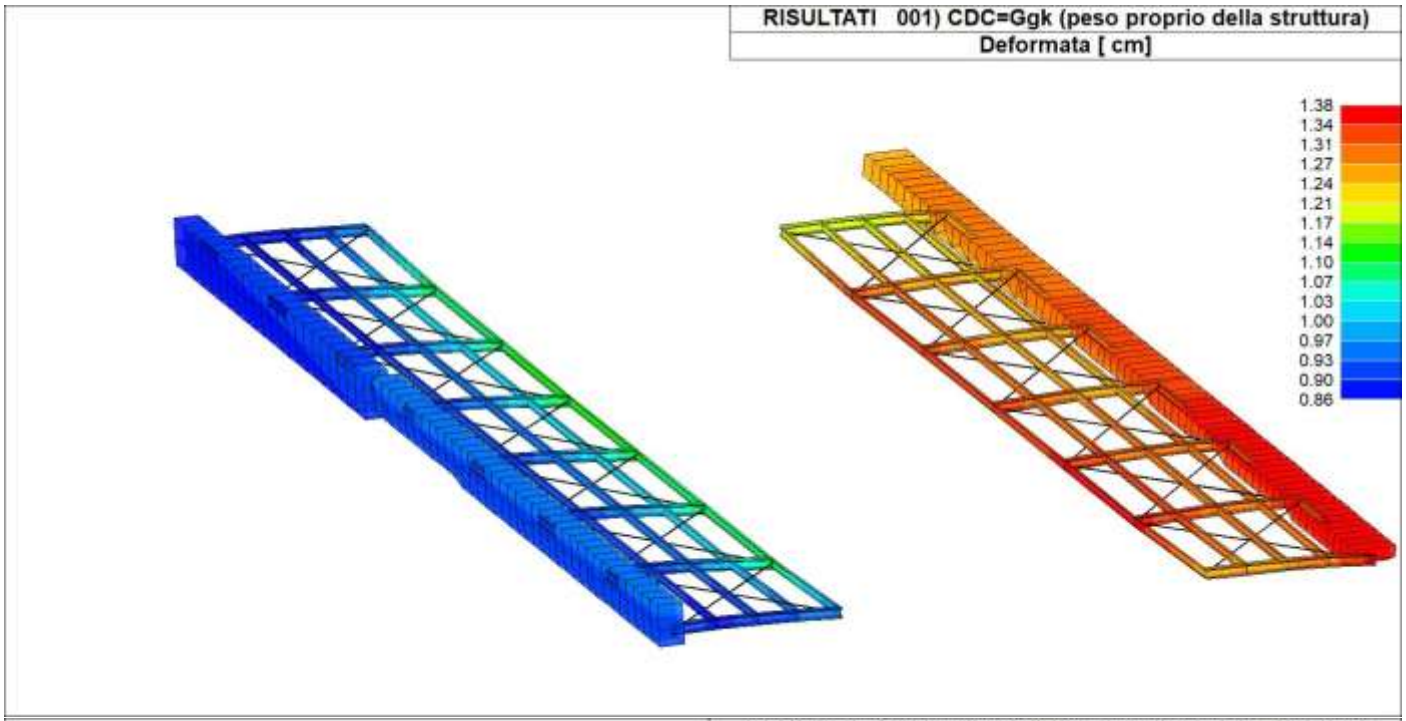
10. SCHEMI DI CALCOLO E RISULTATI DELLE ANALISI

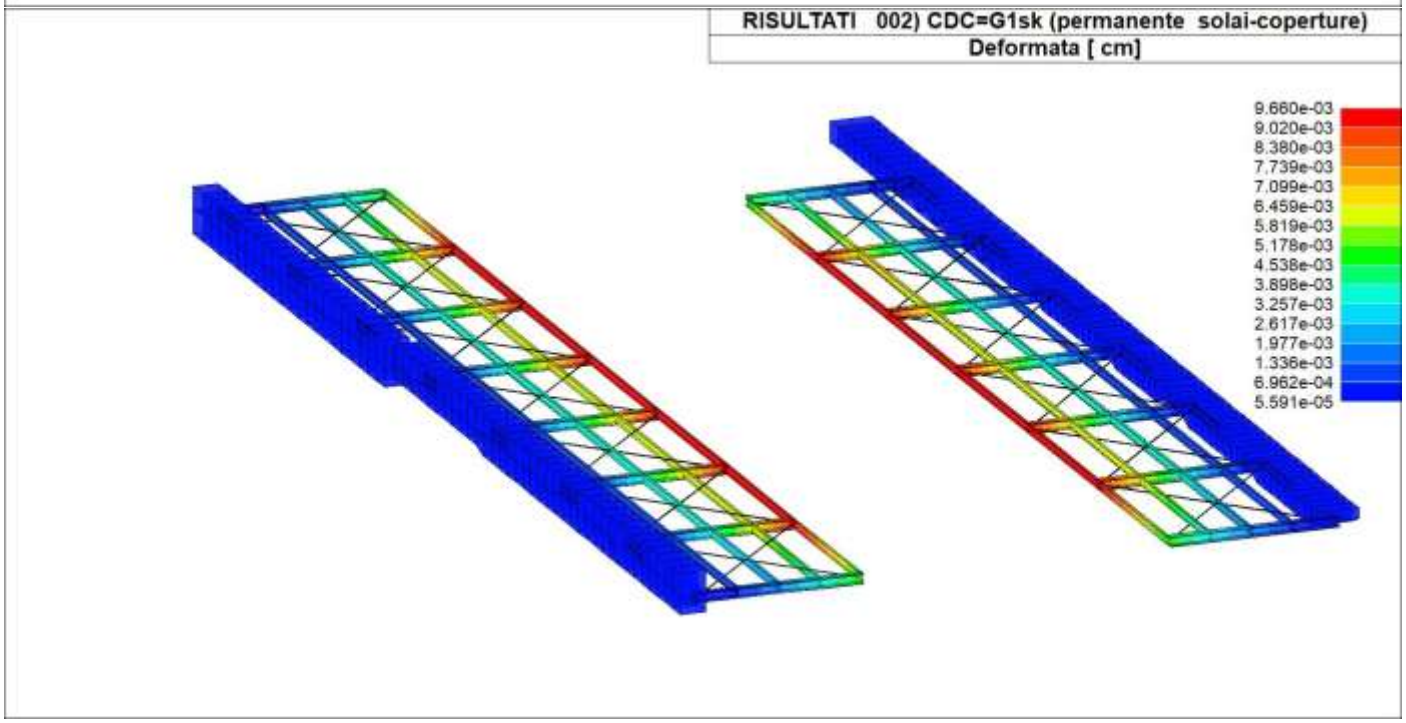
10.1 NUMERAZIONE ELEMENTI

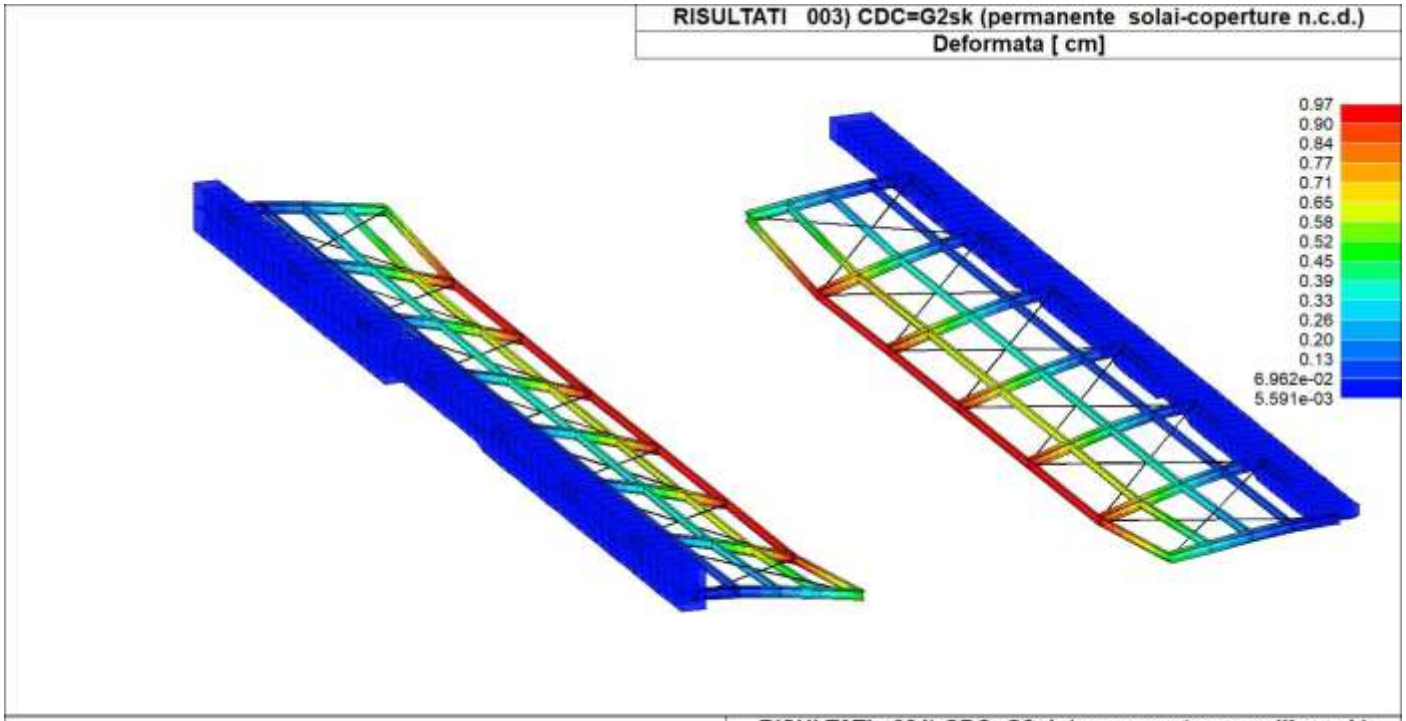
NUMERAZIONE NODI TELAI METALLICI PENSILINA

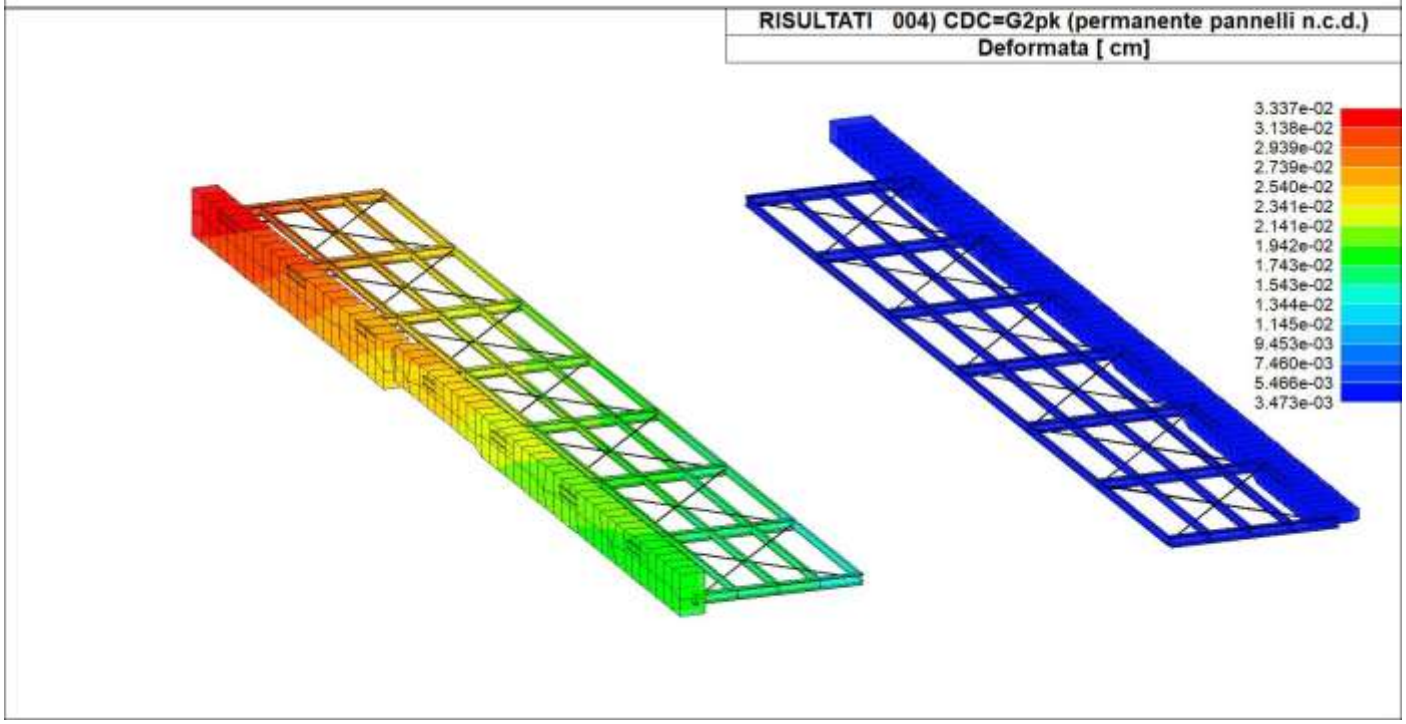


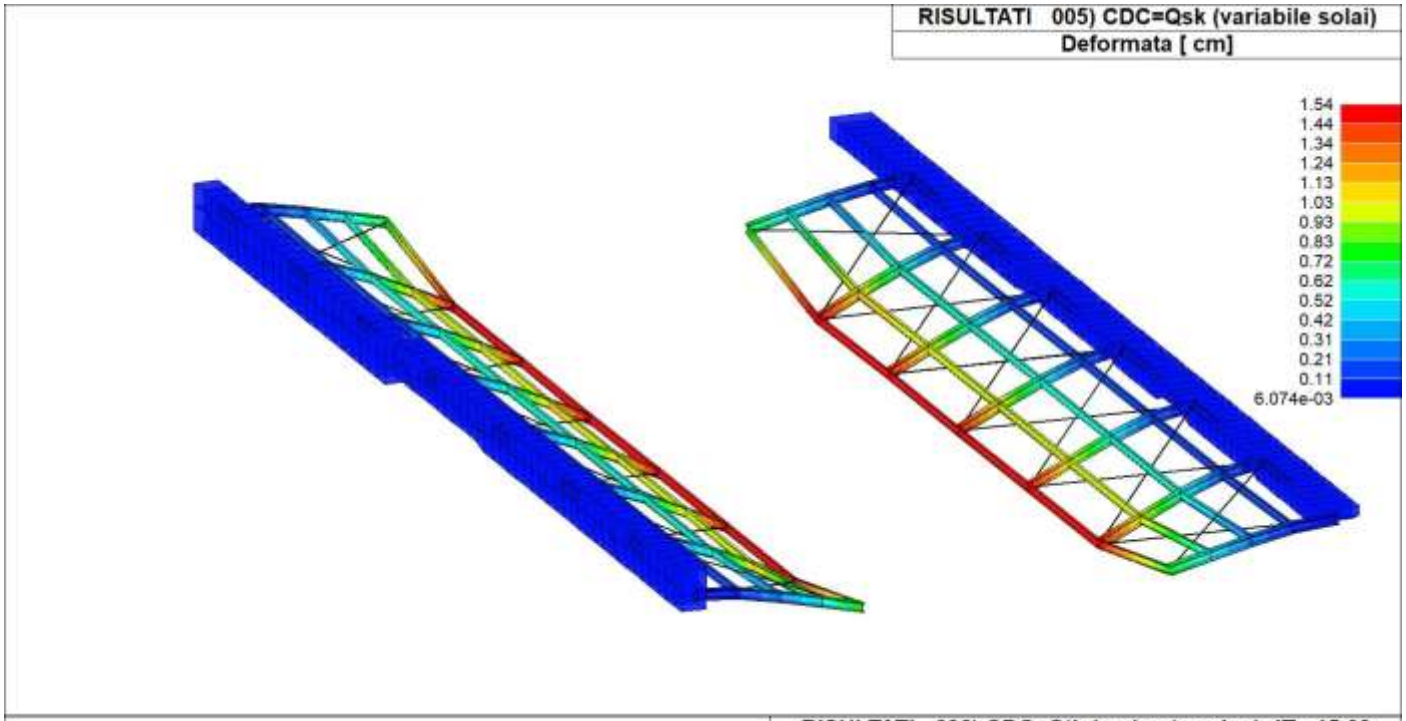
10.2 DEFORMATE PER CASO DI CARICO

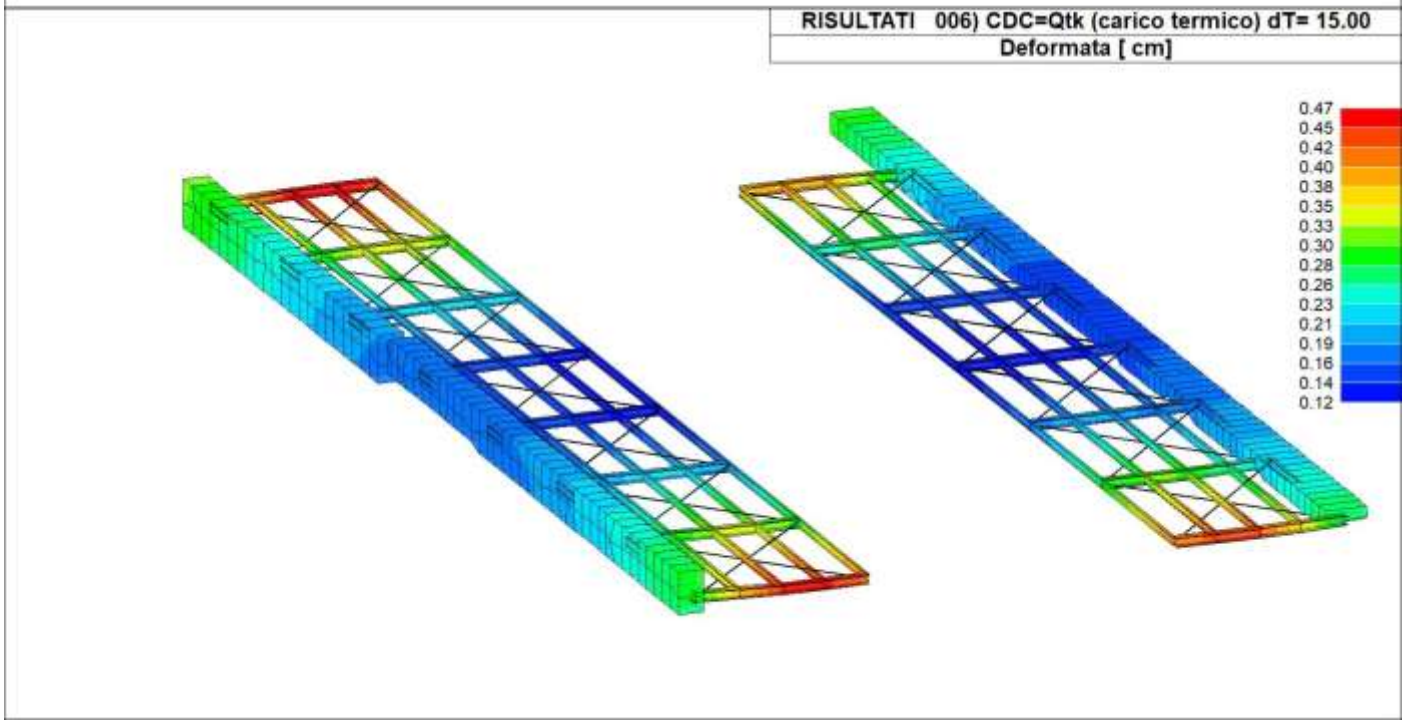


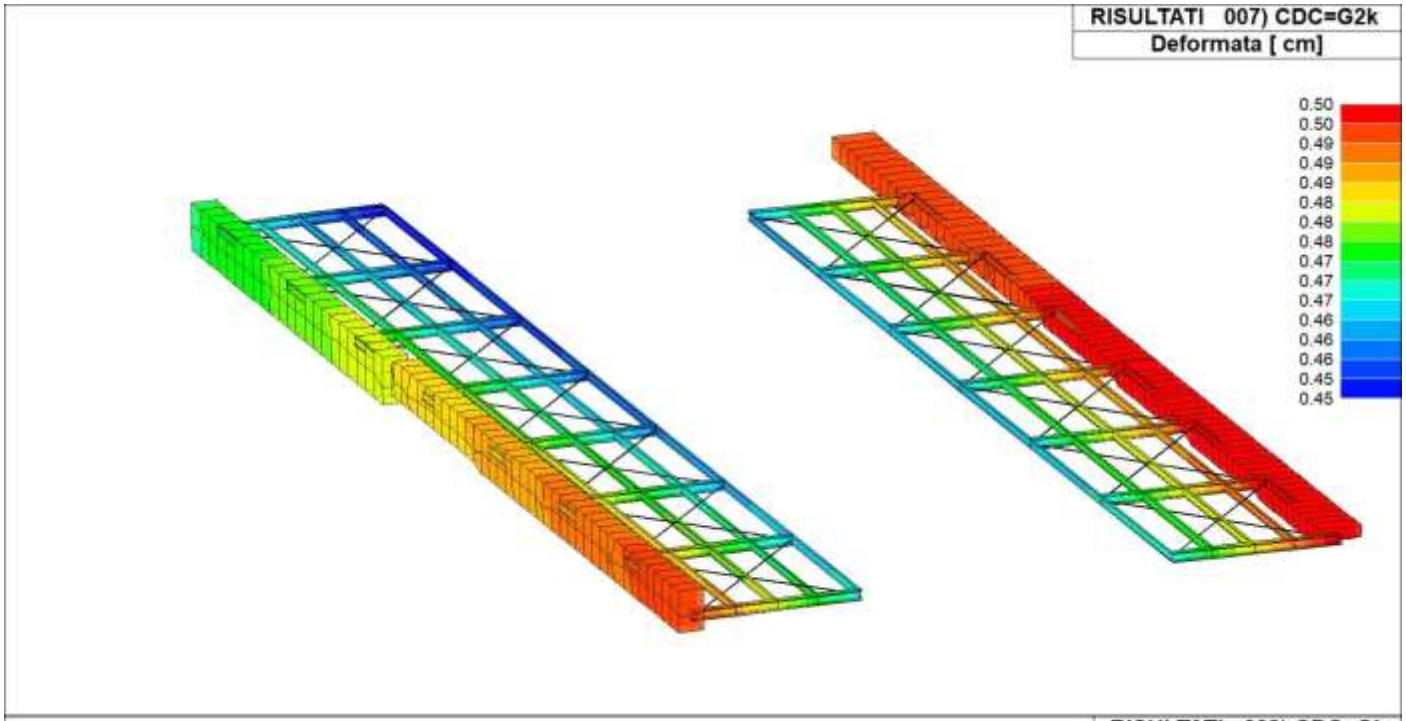


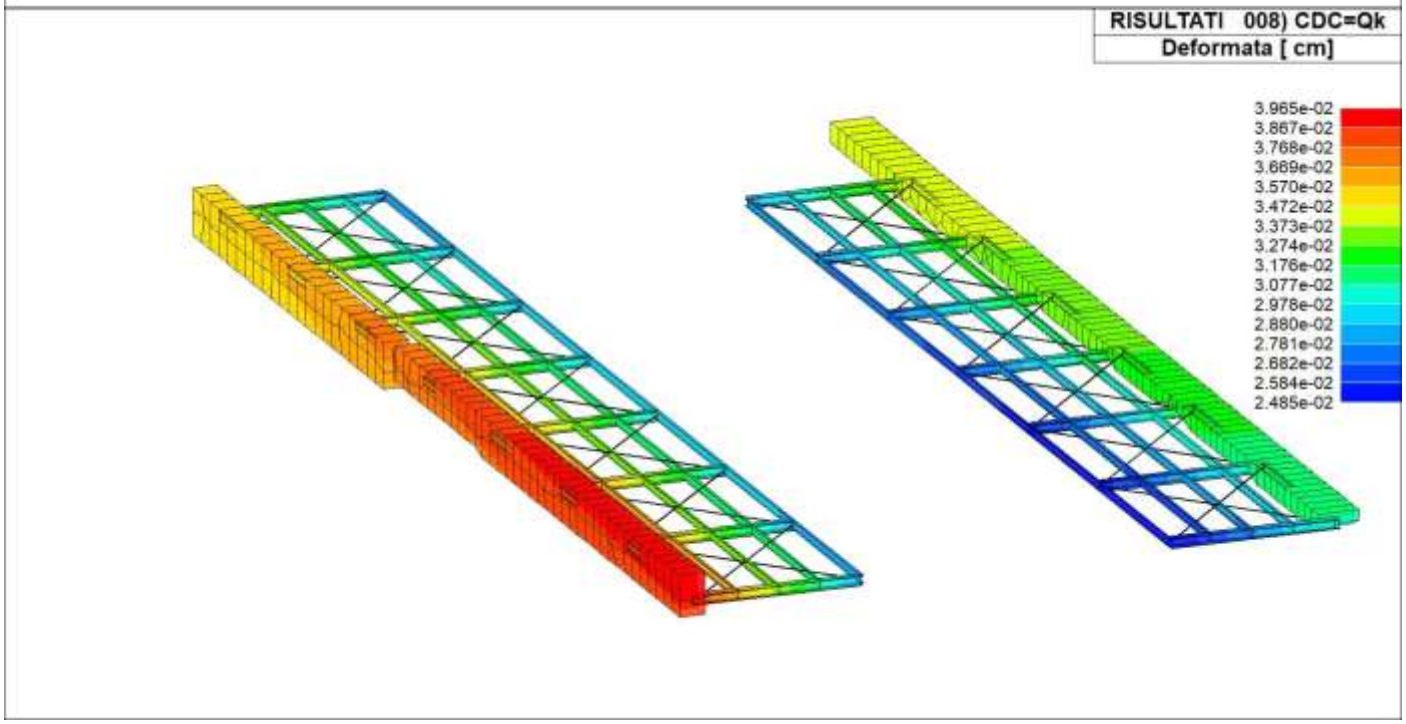

RISULTATI 003) CDC=G2sk (permanente solai-coperture n.c.d.)
Deformata [cm]
0.97
0.90
0.84
0.77
0.71
0.65
0.58
0.52
0.45
0.39
0.33
0.26
0.20
0.13
6.962e-02
5.591e-03

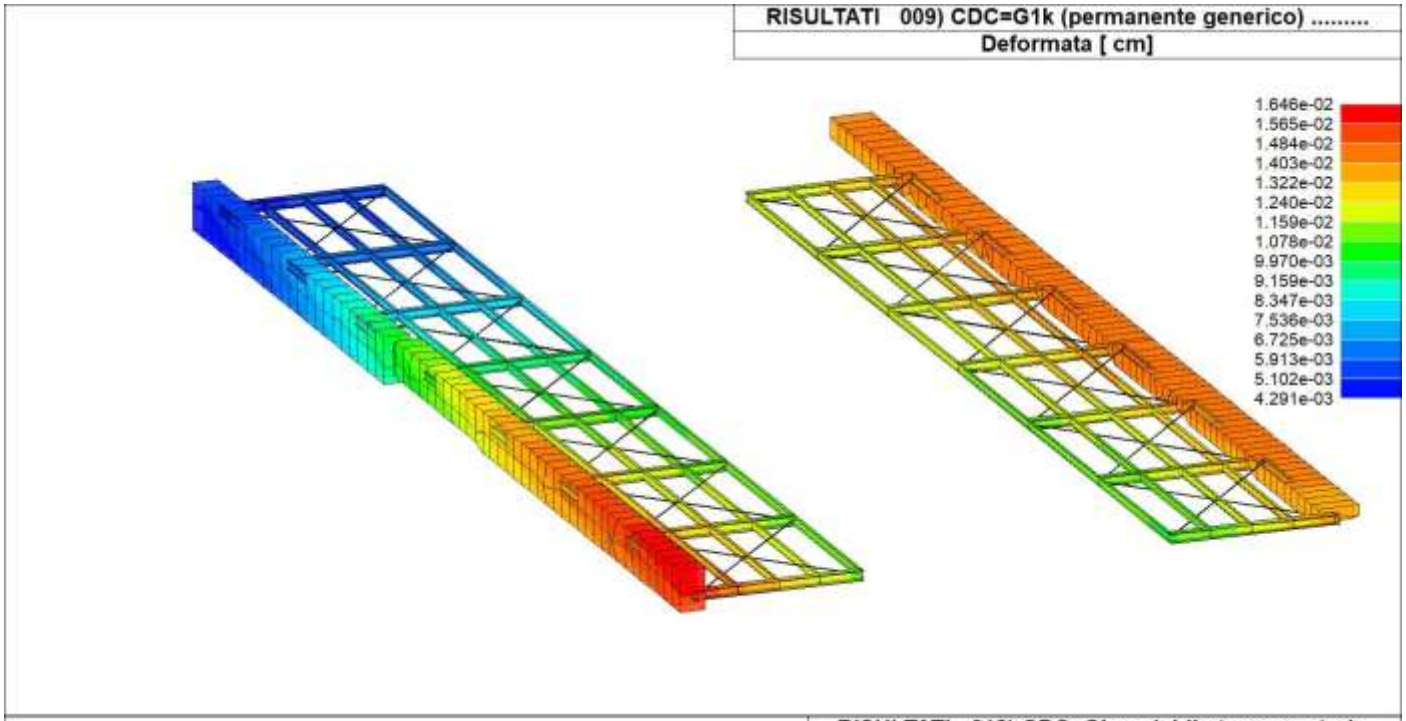

RISULTATI 004) CDC=G2pk (permanente pannelli n.c.d.)
Deformata [cm]
3.337e-02
3.138e-02
2.939e-02
2.739e-02
2.540e-02
2.341e-02
2.141e-02
1.942e-02
1.743e-02
1.543e-02
1.344e-02
1.145e-02
9.453e-03
7.460e-03
5.466e-03
3.473e-03

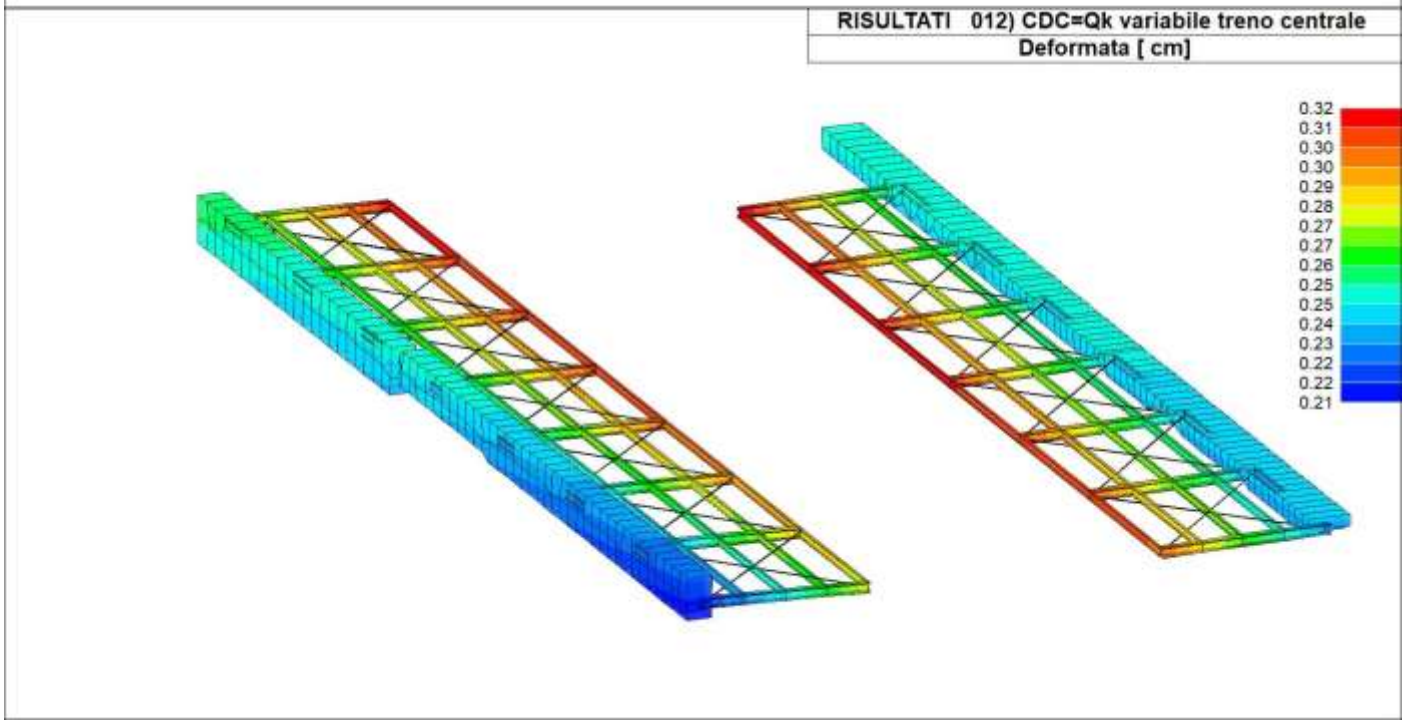

RISULTATI 005) CDC=Qsk (variabile solai)
Deformata [cm]
1.54
1.44
1.34
1.24
1.13
1.03
0.93
0.83
0.72
0.62
0.52
0.42
0.31
0.21
0.11
6.074e-03

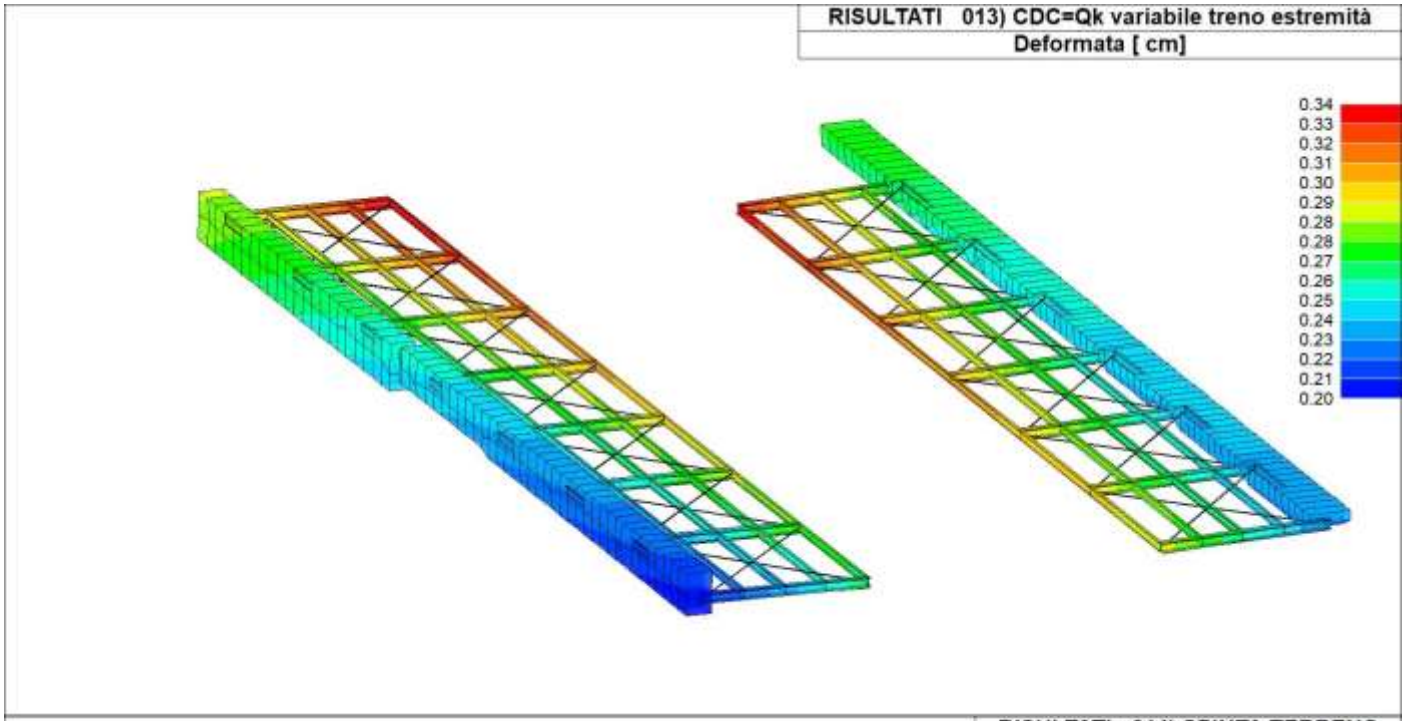

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Deformata [cm]
0.47
0.45
0.42
0.40
0.38
0.35
0.33
0.30
0.28
0.26
0.23
0.21
0.19
0.16
0.14
0.12

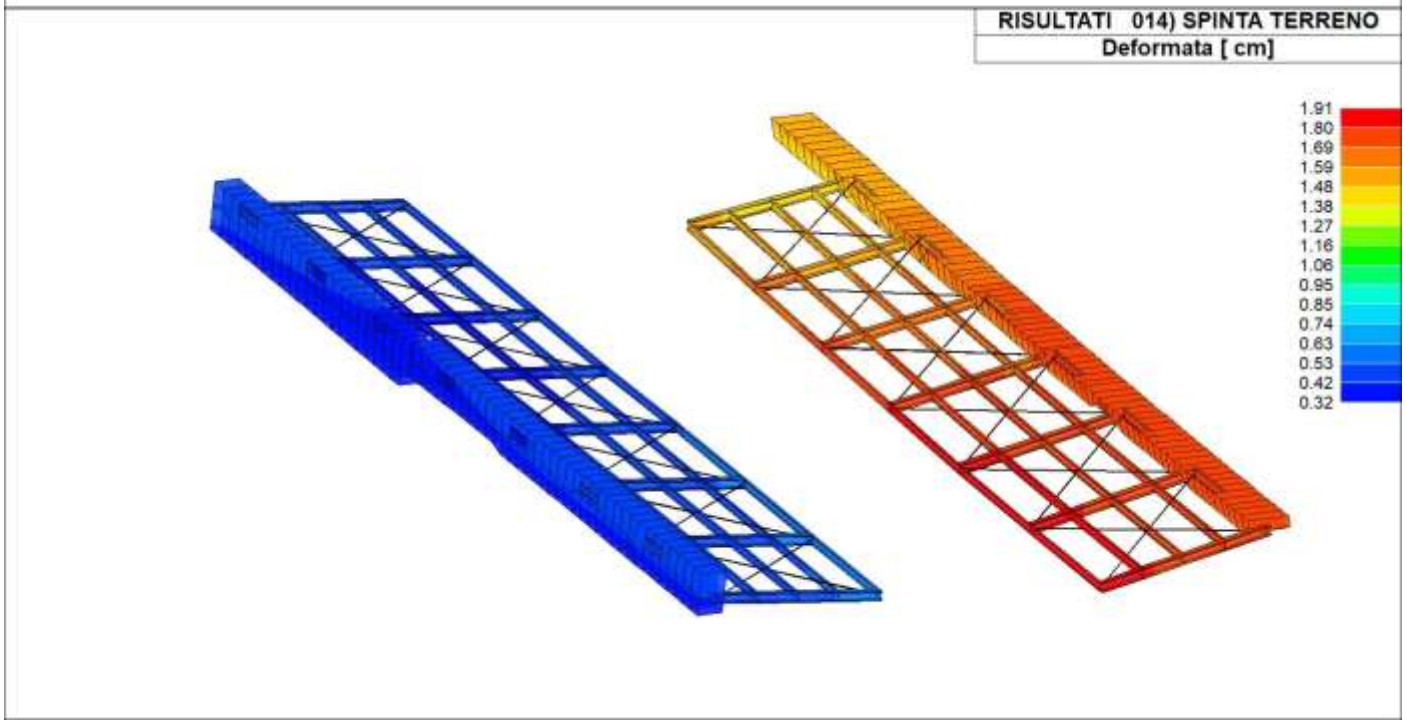

RISULTATI 007) CDC=G2k
Deformata [cm]
0.50
0.50
0.49
0.49
0.49
0.48
0.48
0.48
0.47
0.47
0.47
0.46
0.46
0.46
0.45
0.45

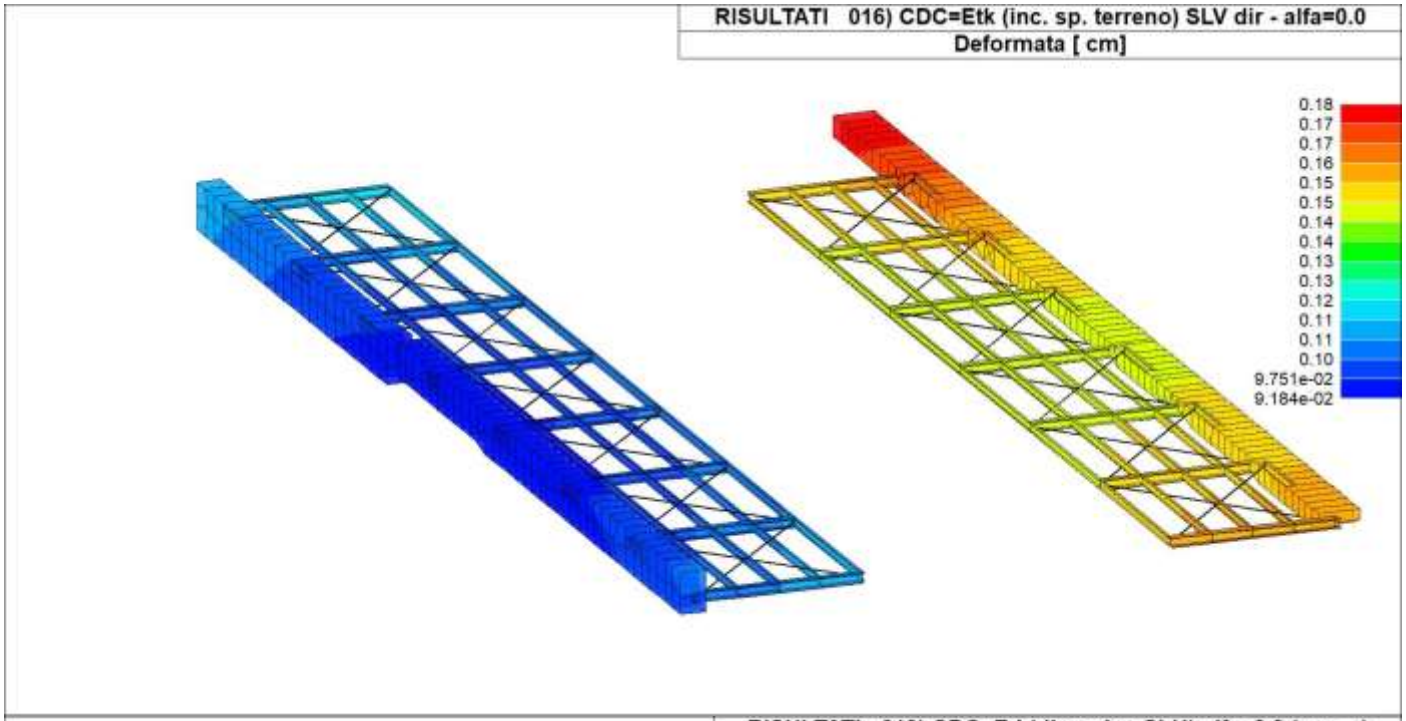

RISULTATI 008) CDC=Qk
Deformata [cm]
3.965e-02
3.867e-02
3.768e-02
3.669e-02
3.570e-02
3.472e-02
3.373e-02
3.274e-02
3.176e-02
3.077e-02
2.978e-02
2.880e-02
2.781e-02
2.682e-02
2.584e-02
2.485e-02

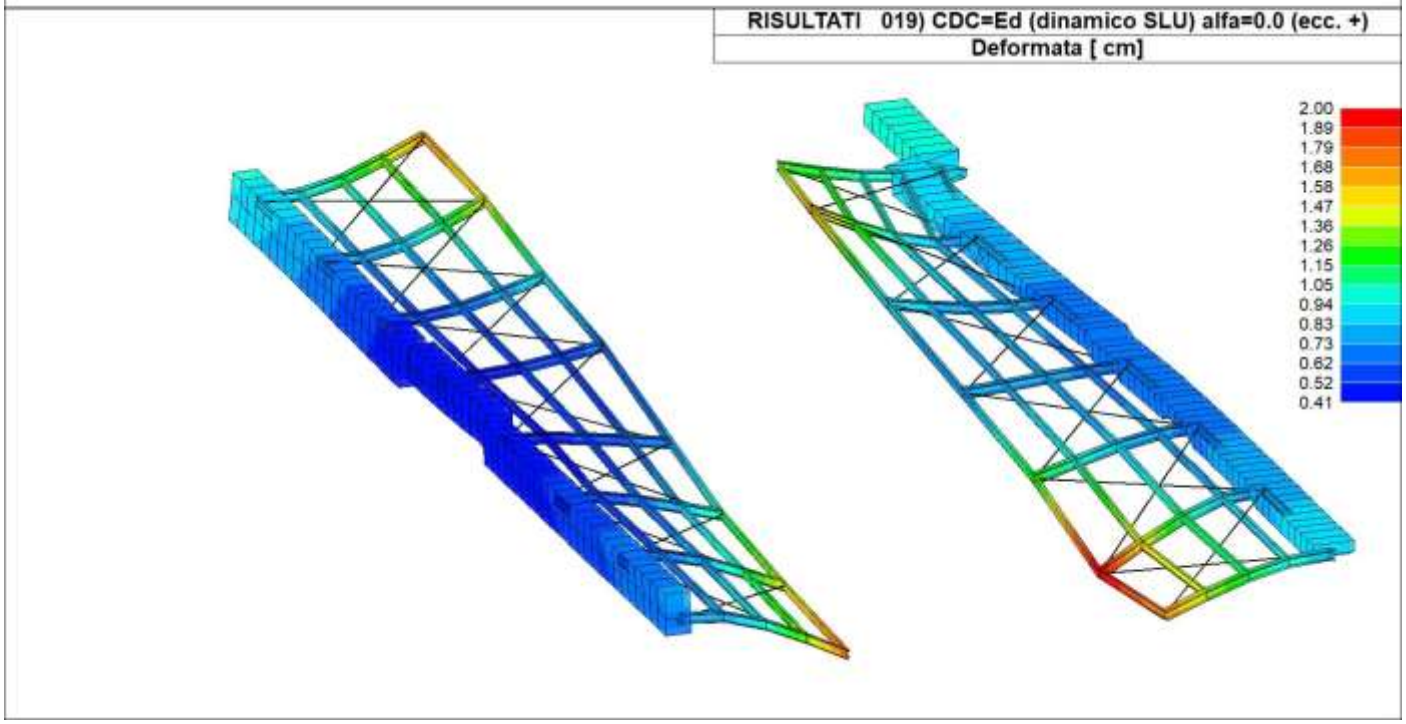

RISULTATI 009) CDC=G1k (permanente generico) .....
Deformata [cm]
1.646e-02
1.565e-02
1.484e-02
1.403e-02
1.322e-02
1.240e-02
1.159e-02
1.078e-02
9.970e-03
9.159e-03
8.347e-03
7.536e-03
6.725e-03
5.913e-03
5.102e-03
4.291e-03

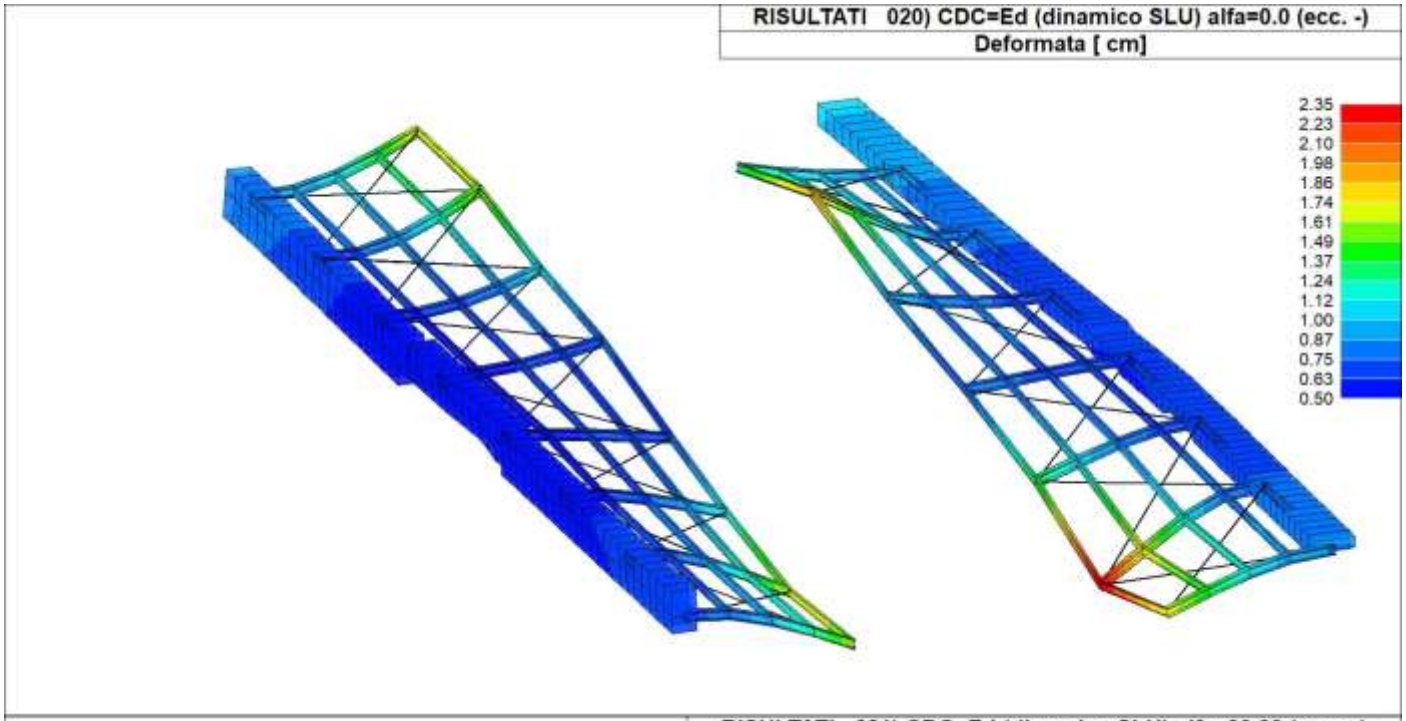

RISULTATI 012) CDC=Qk variabile treno centrale
Deformata [cm]
0.32
0.31
0.30
0.30
0.29
0.28
0.27
0.27
0.26
0.25
0.25
0.24
0.23
0.22
0.22
0.21

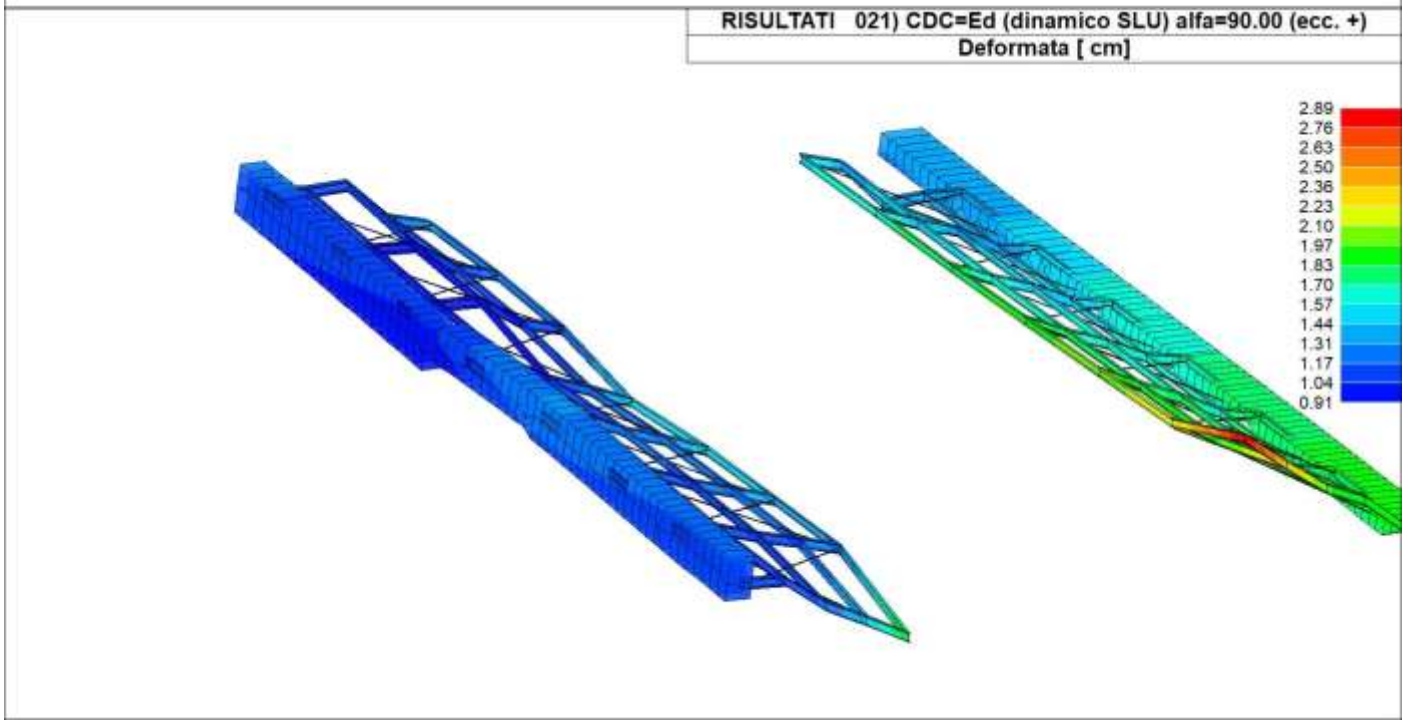

RISULTATI 013) CDC=Qk variabile treno estremità
Deformata [cm]
0.34
0.33
0.32
0.31
0.30
0.29
0.28
0.28
0.27
0.26
0.25
0.24
0.23
0.22
0.21
0.20

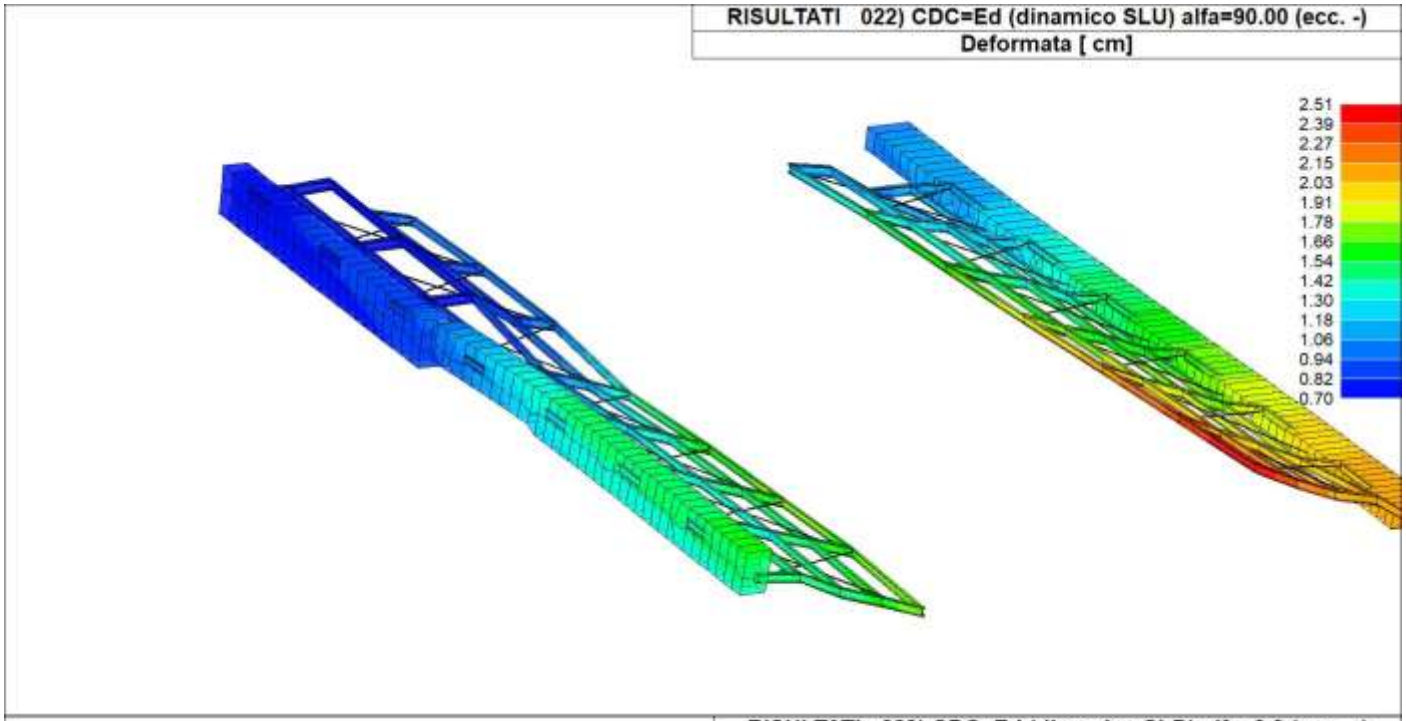

RISULTATI 014) SPINTA TERRENO
Deformata [cm]
1.91
1.80
1.69
1.59
1.48
1.38
1.27
1.16
1.06
0.95
0.85
0.74
0.63
0.53
0.42
0.32

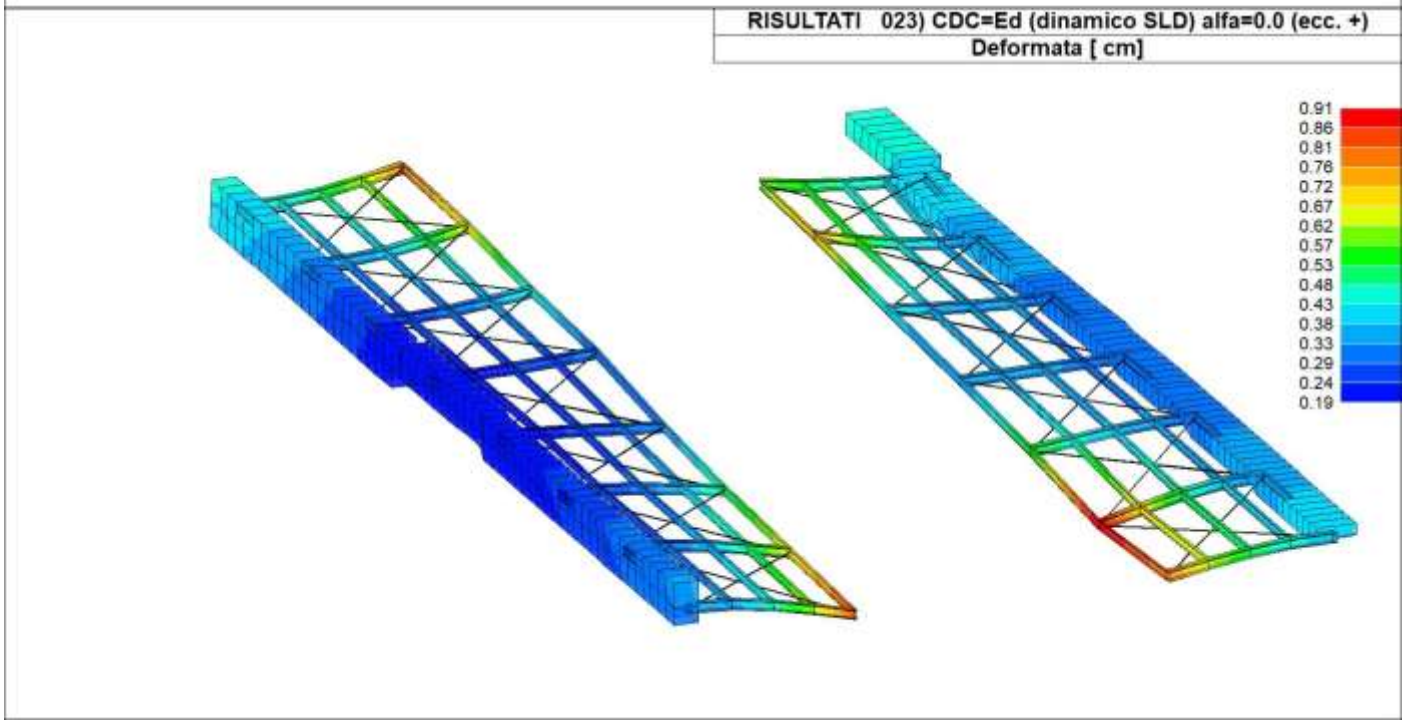

RISULTATI 016) CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0
Deformata [cm]
0.18
0.17
0.17
0.16
0.15
0.15
0.14
0.14
0.13
0.13
0.12
0.11
0.11
0.10
9.751e-02
9.184e-02

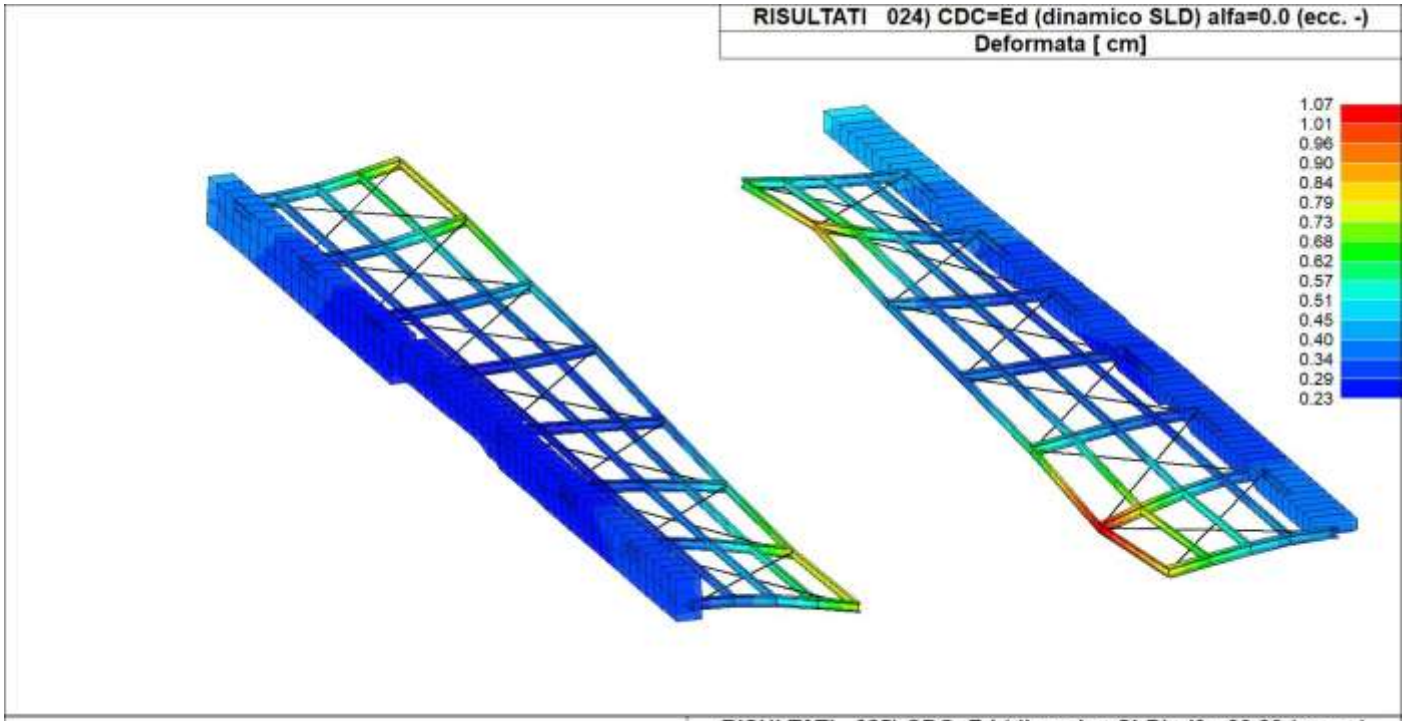

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Deformata [cm]
2.00
1.89
1.79
1.68
1.58
1.47
1.36
1.26
1.15
1.05
0.94
0.83
0.73
0.62
0.52
0.41

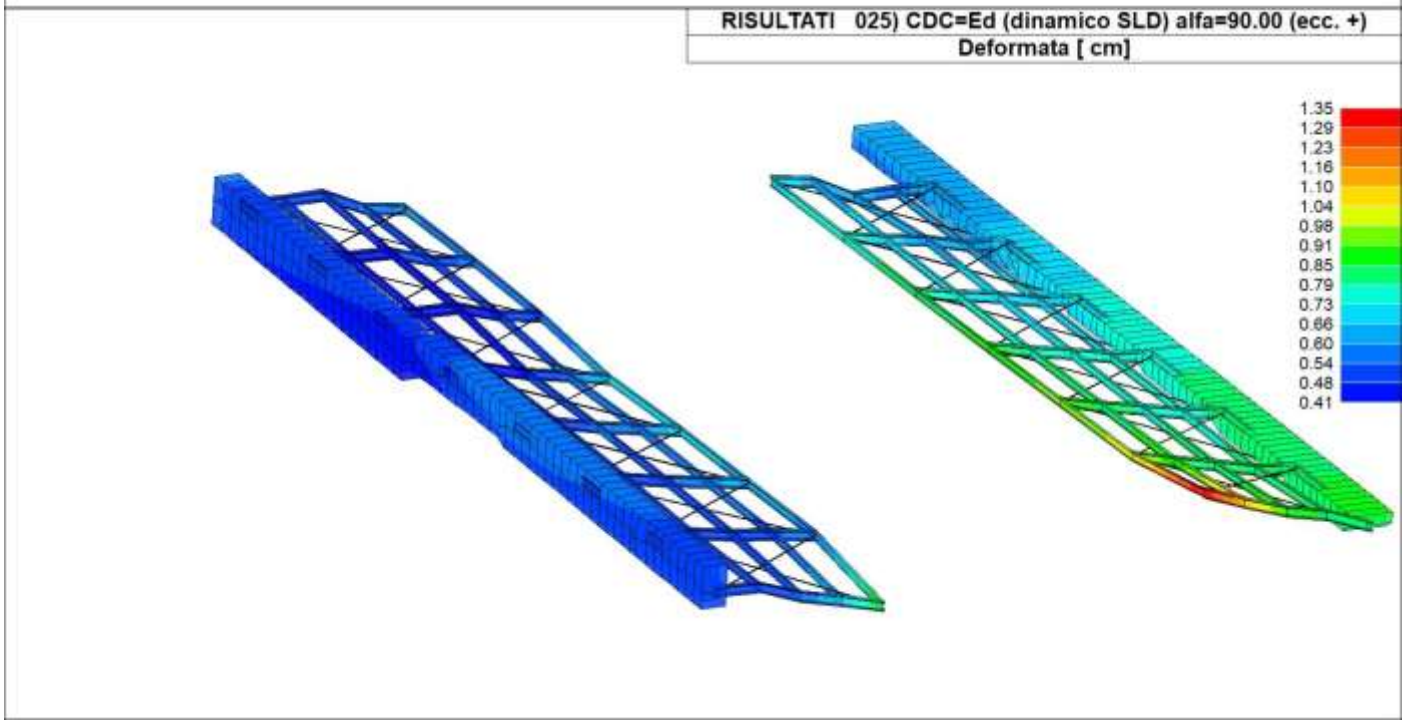

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Deformata [cm]
2.35
2.23
2.10
1.98
1.86
1.74
1.61
1.49
1.37
1.24
1.12
1.00
0.87
0.75
0.63
0.50

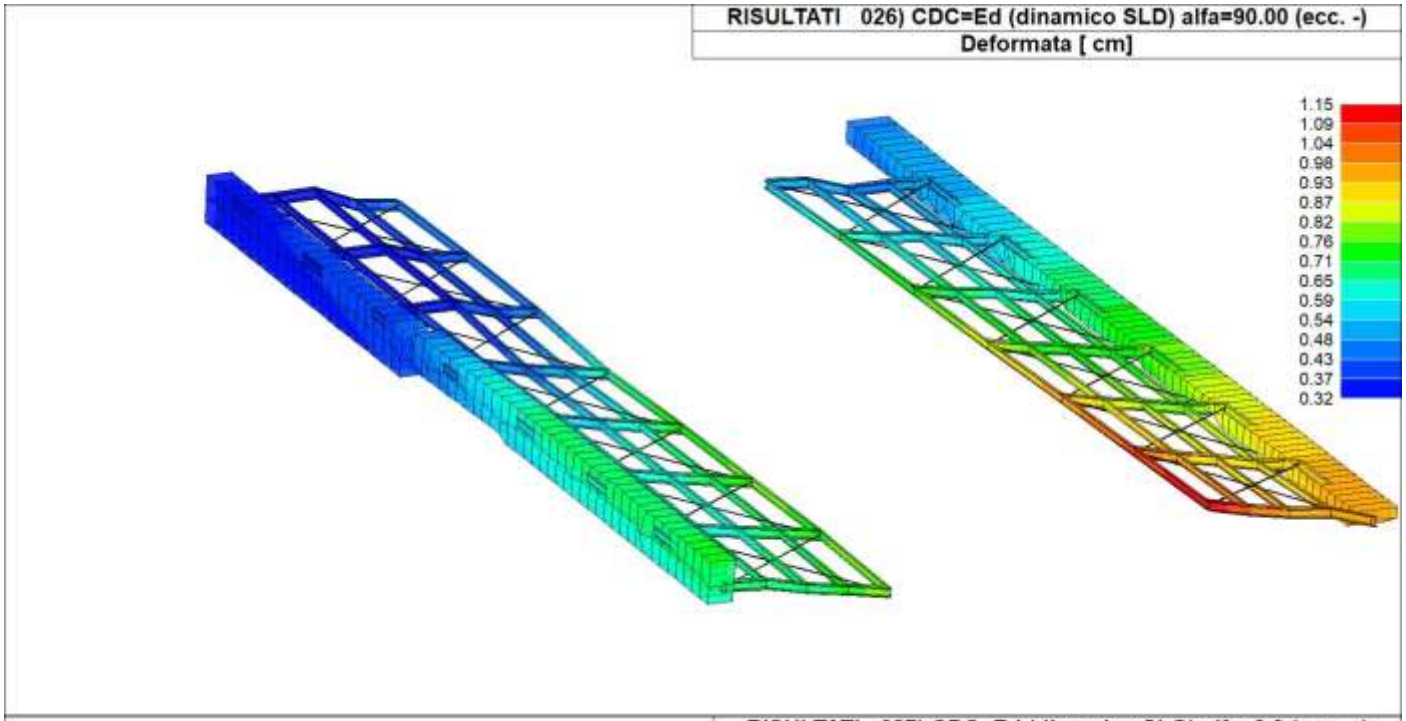

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Deformata [cm]
2.89
2.76
2.63
2.50
2.36
2.23
2.10
1.97
1.83
1.70
1.57
1.44
1.31
1.17
1.04
0.91

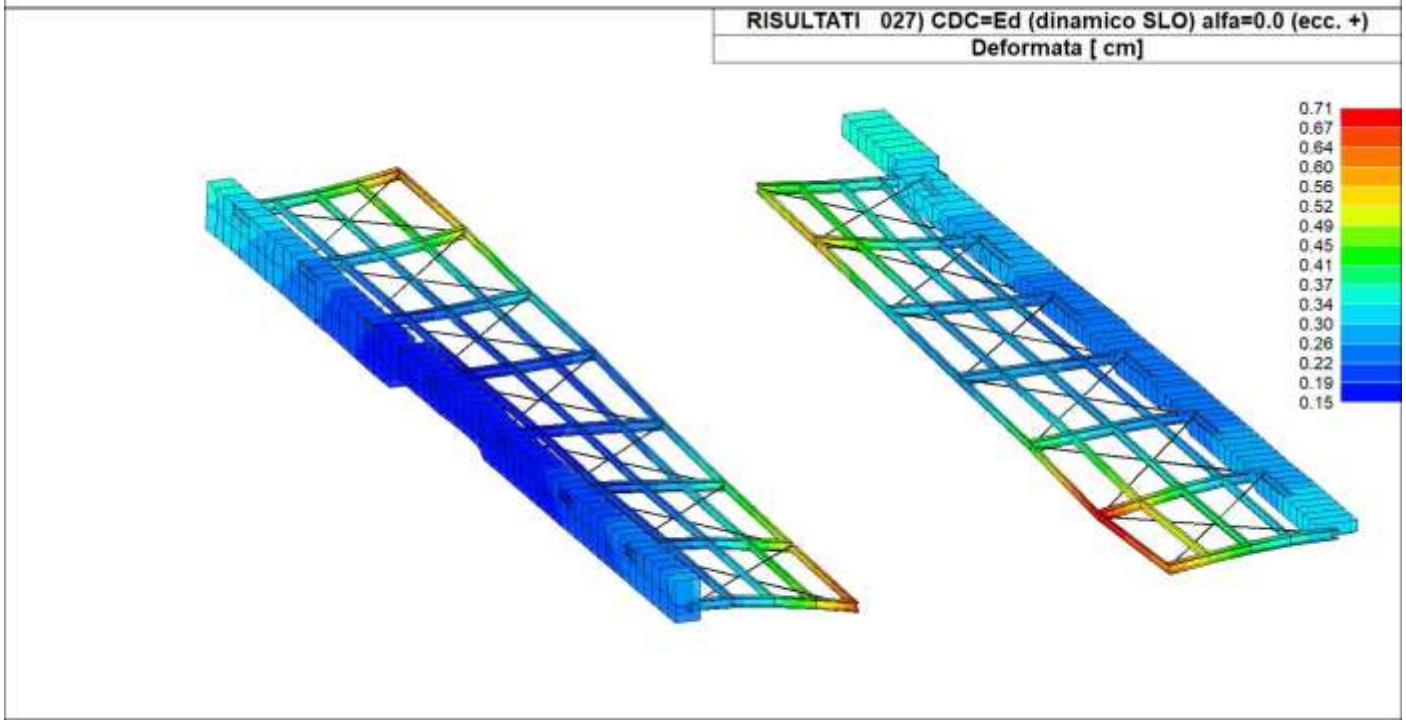

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Deformata [cm]
2.51
2.39
2.27
2.15
2.03
1.91
1.78
1.66
1.54
1.42
1.30
1.18
1.06
0.94
0.82
0.70

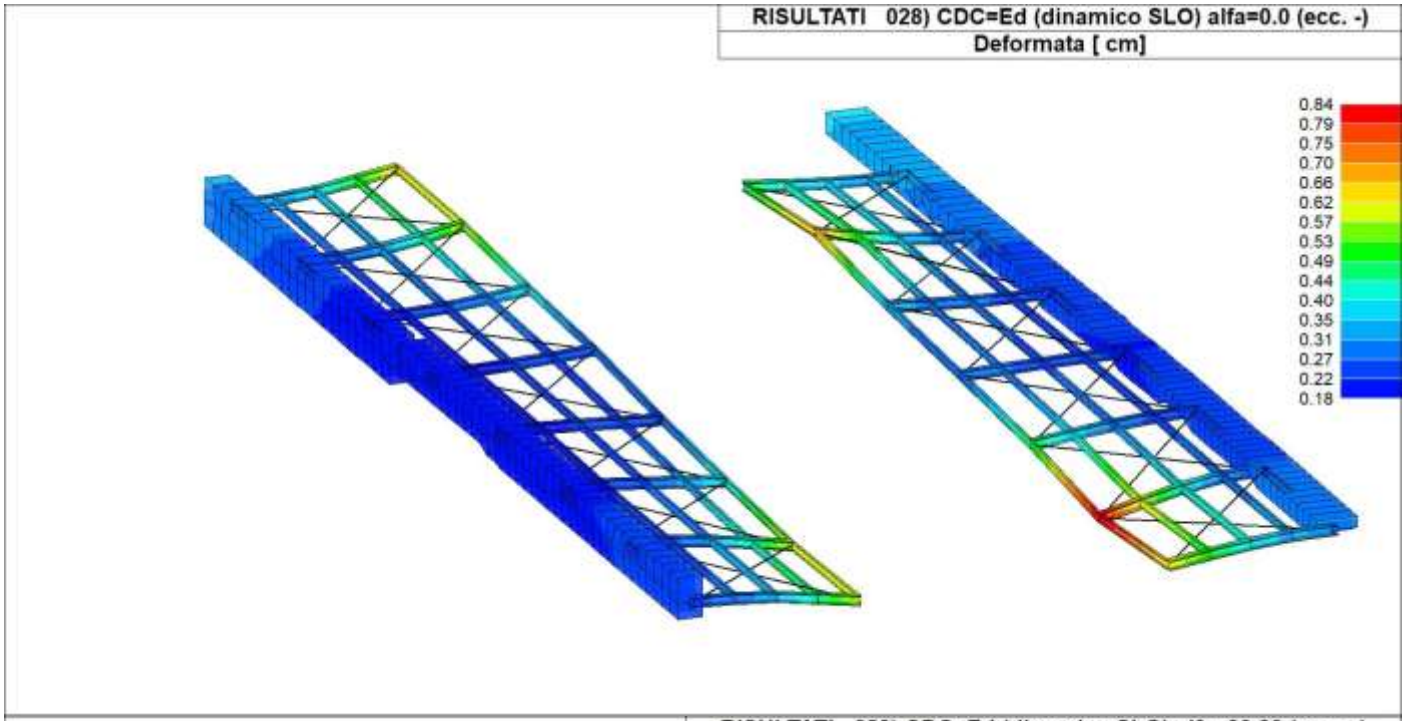

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Deformata [cm]
0.91
0.86
0.81
0.76
0.72
0.67
0.62
0.57
0.53
0.48
0.43
0.38
0.33
0.29
0.24
0.19

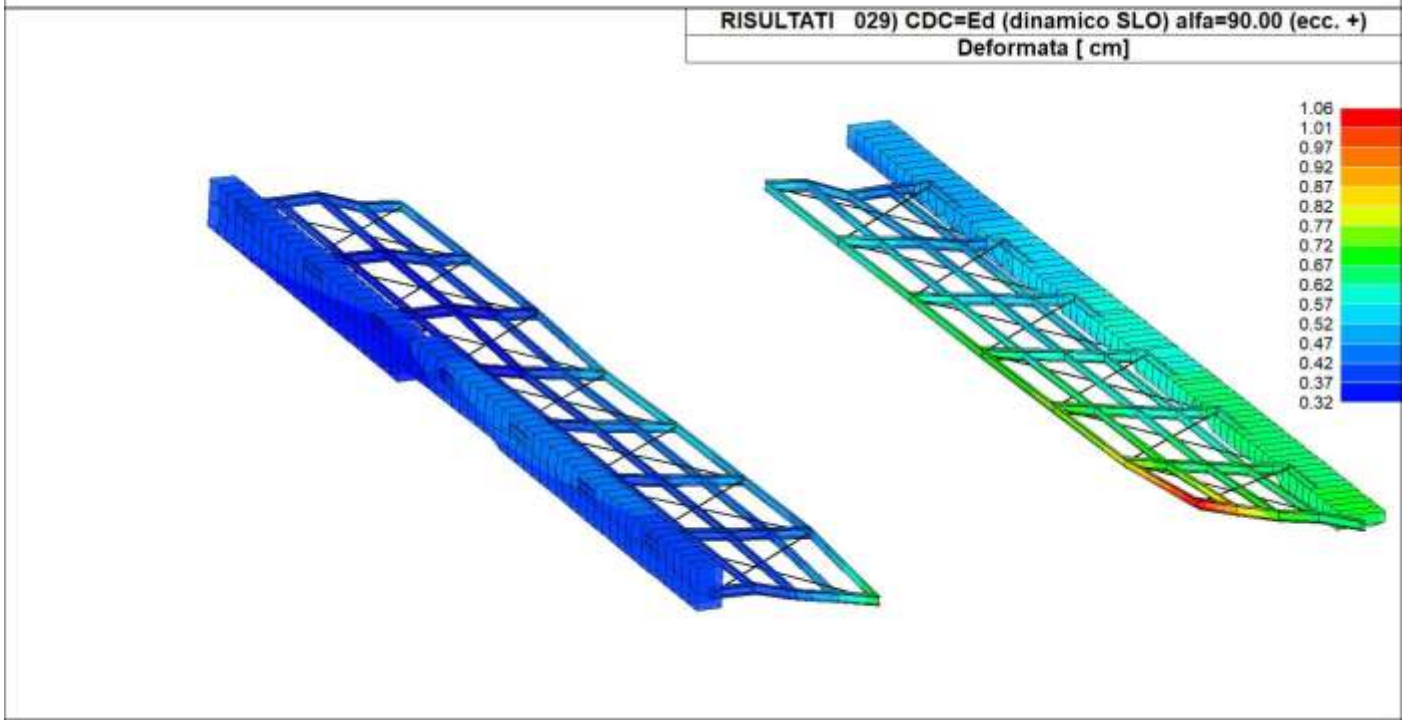

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Deformata [cm]
1.07
1.01
0.96
0.90
0.84
0.79
0.73
0.68
0.62
0.57
0.51
0.45
0.40
0.34
0.29
0.23

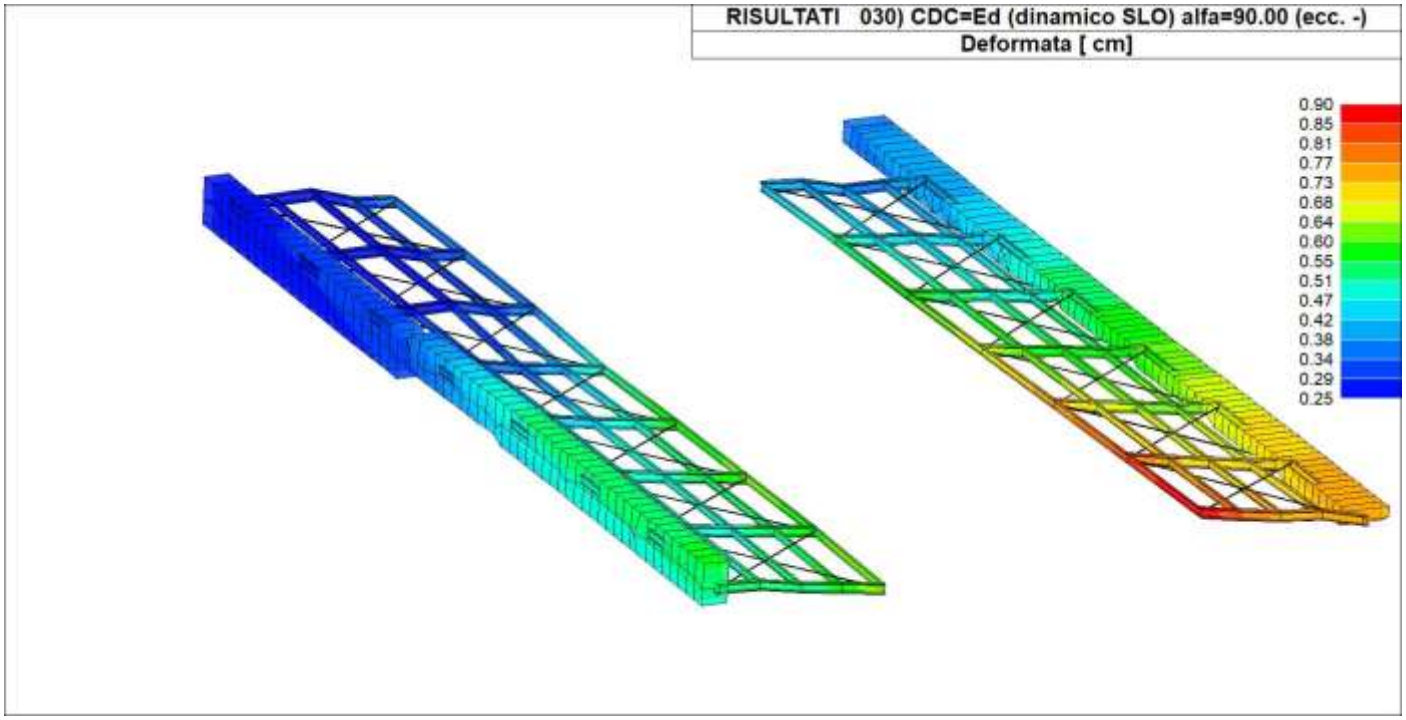

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Deformata [cm]
1.35
1.29
1.23
1.16
1.10
1.04
0.98
0.91
0.85
0.79
0.73
0.66
0.60
0.54
0.48
0.41


RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Deformata [cm]
1.15
1.09
1.04
0.98
0.93
0.87
0.82
0.76
0.71
0.65
0.59
0.54
0.48
0.43
0.37
0.32


RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Deformata [cm]
0.71
0.67
0.64
0.60
0.56
0.52
0.49
0.45
0.41
0.37
0.34
0.30
0.26
0.22
0.19
0.15

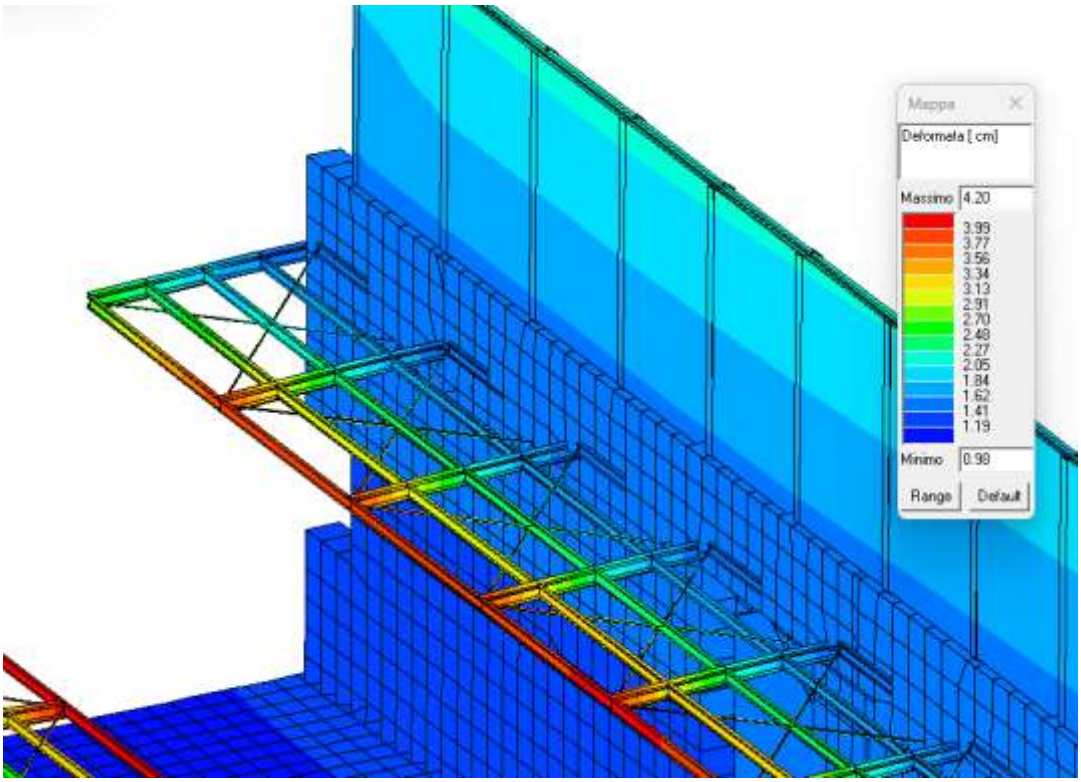

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Deformata [cm]
0.84
0.79
0.75
0.70
0.66
0.62
0.57
0.53
0.49
0.44
0.40
0.35
0.31
0.27
0.22
0.18


RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Deformata [cm]
1.06
1.01
0.97
0.92
0.87
0.82
0.77
0.72
0.67
0.62
0.57
0.52
0.47
0.42
0.37
0.32

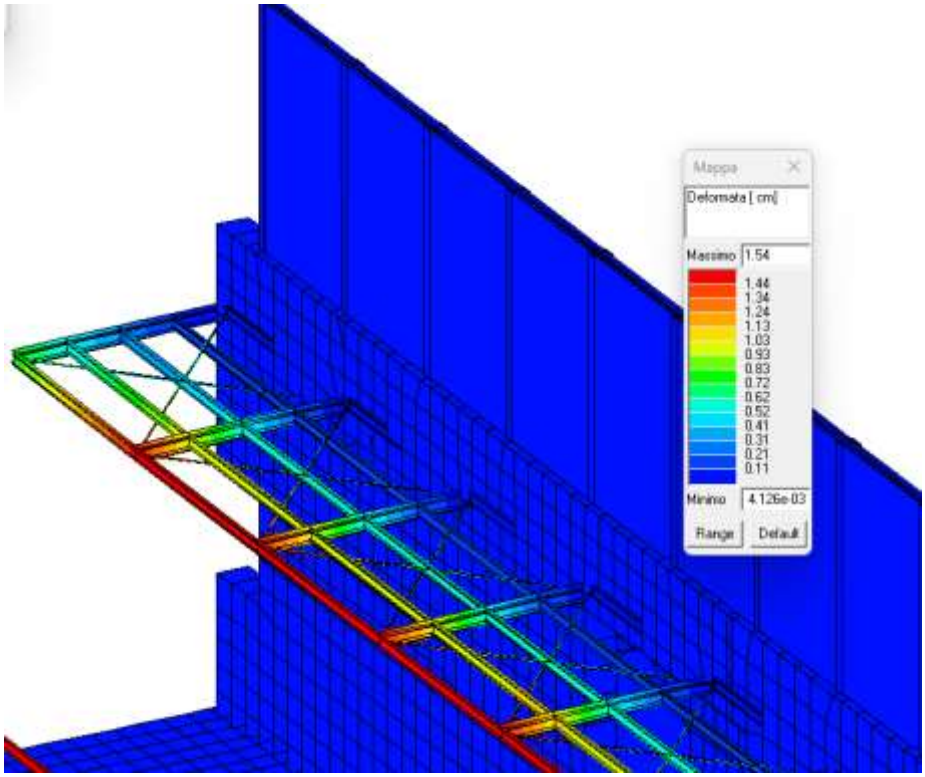

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Deformata [cm]
0.90
0.85
0.81
0.77
0.73
0.68
0.64
0.60
0.55
0.51
0.47
0.42
0.38
0.34
0.29
0.25

10.3 DEFORMATE PER COMBINAZIONI

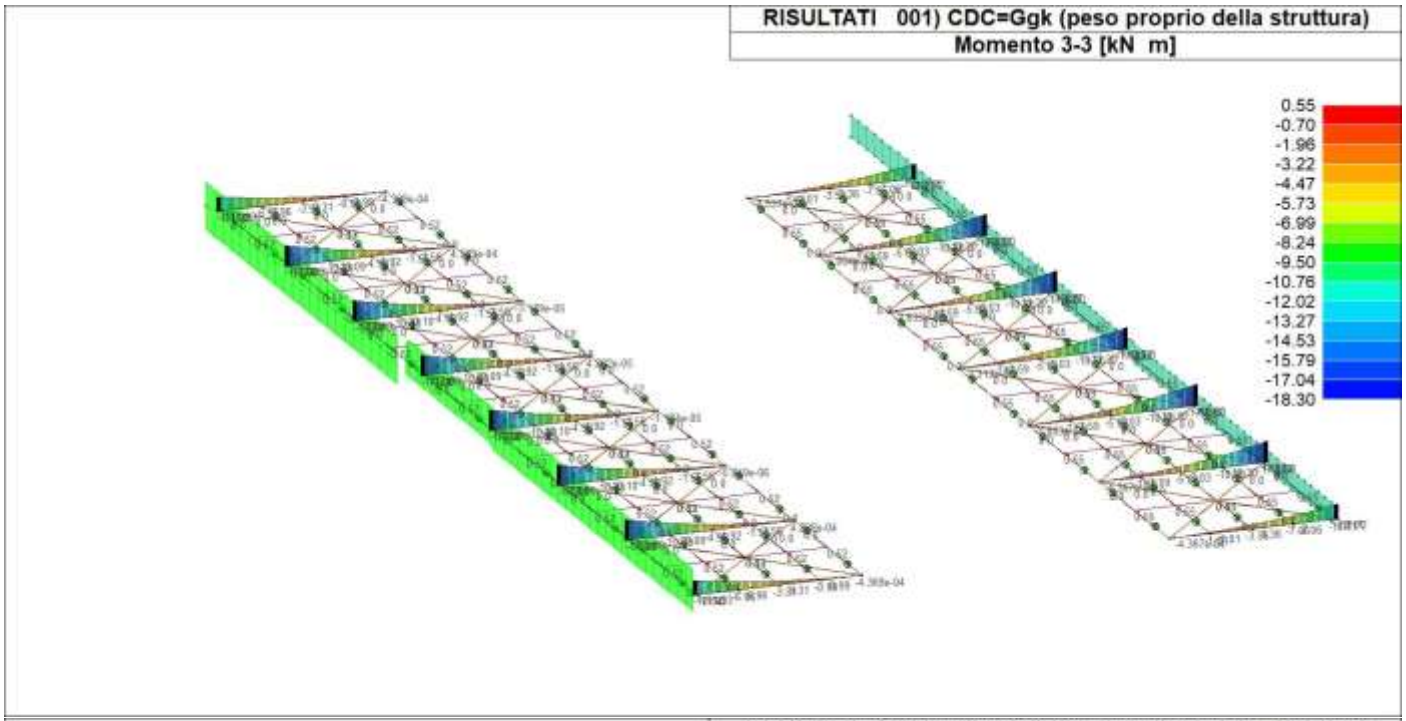
COMBINAZIONE TIPO SLE (RARA)

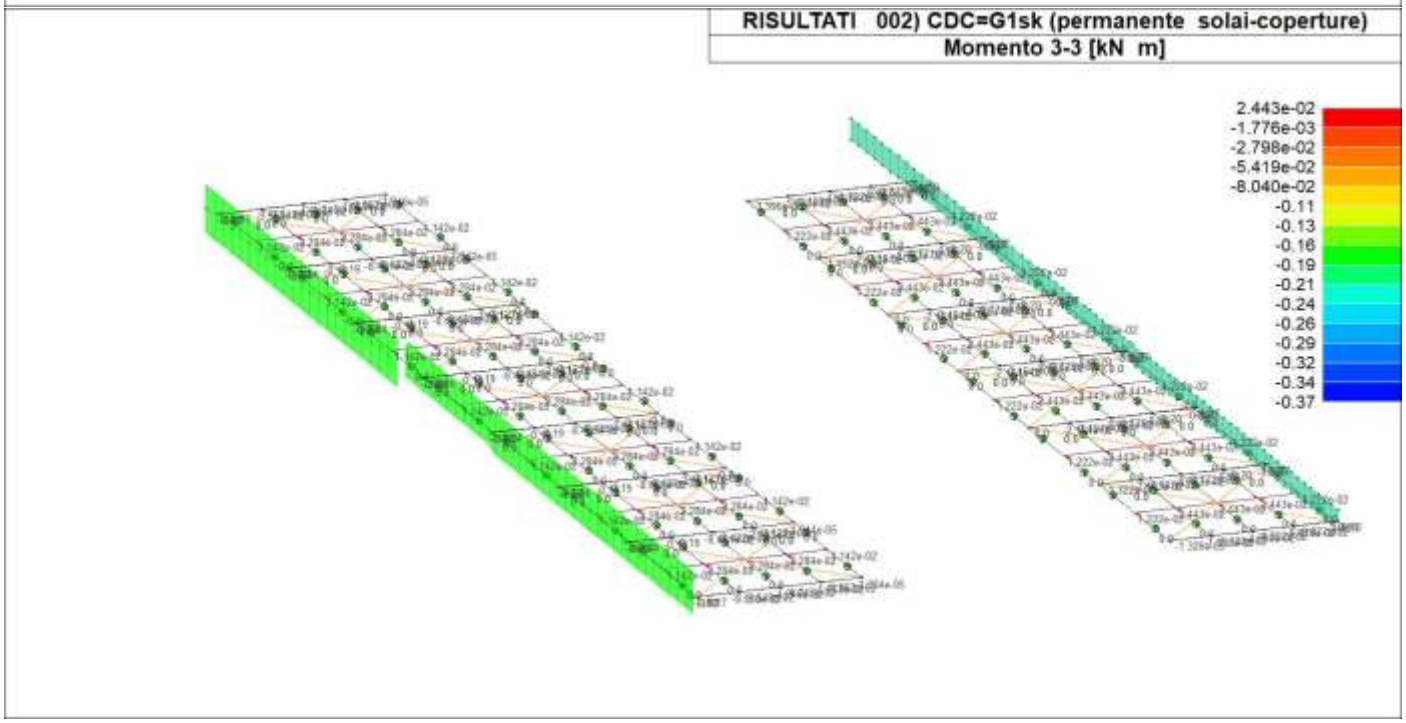


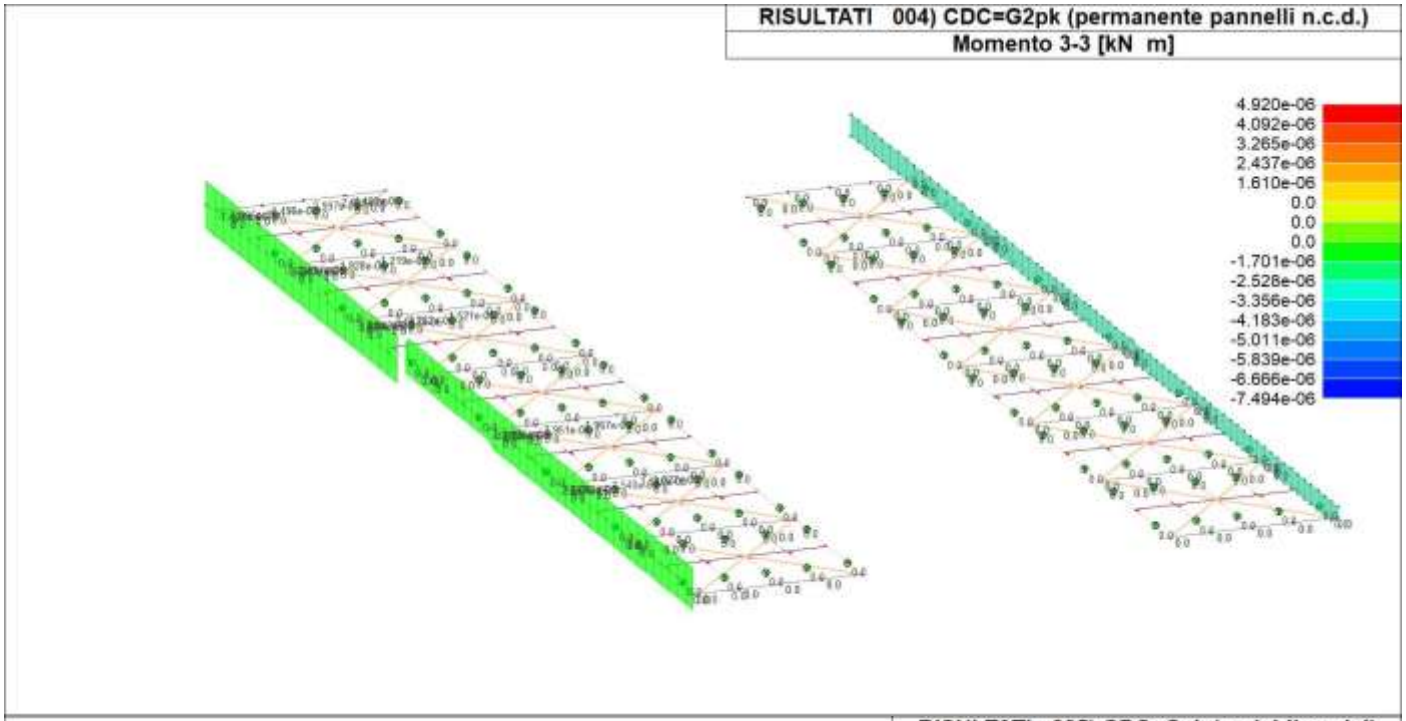
DEFORMATA PER SOLO CARICO VARIABILE

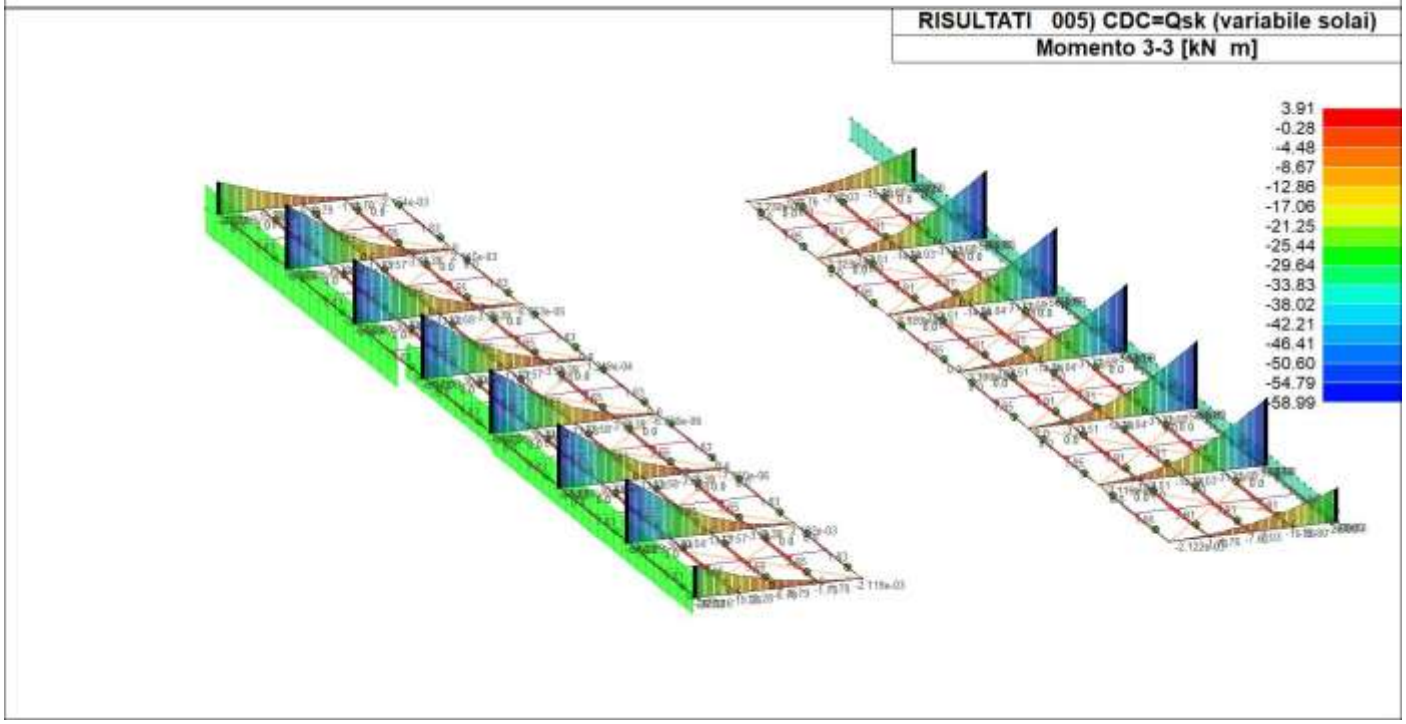


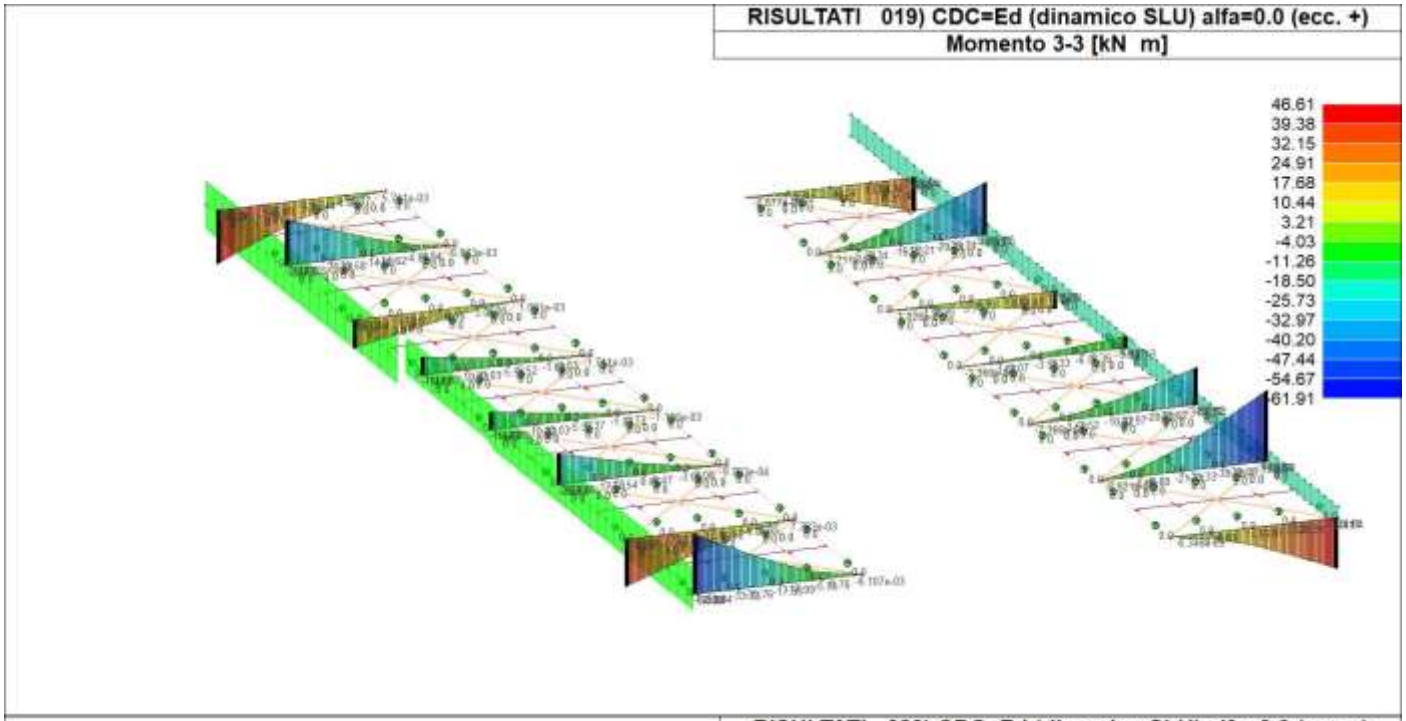
10.4 SOLLECITAZIONI PER CASO DI CARICO

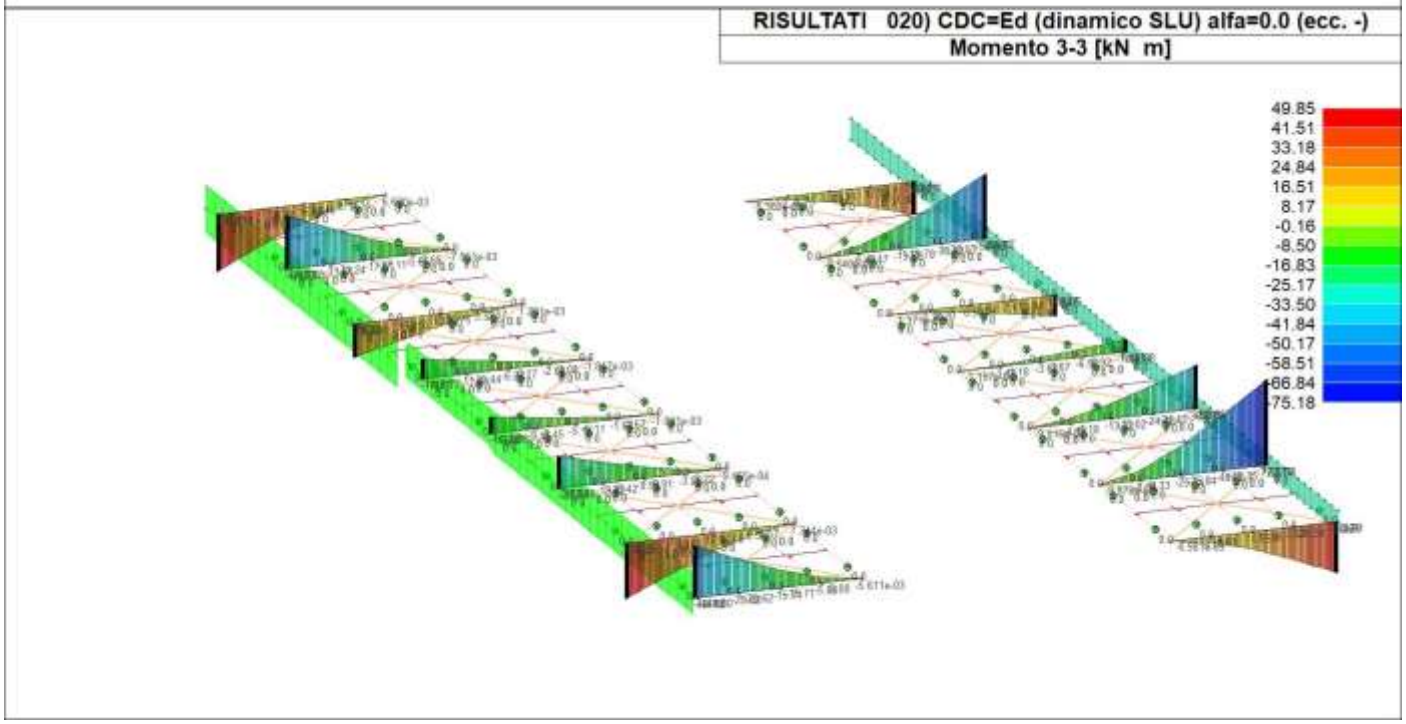


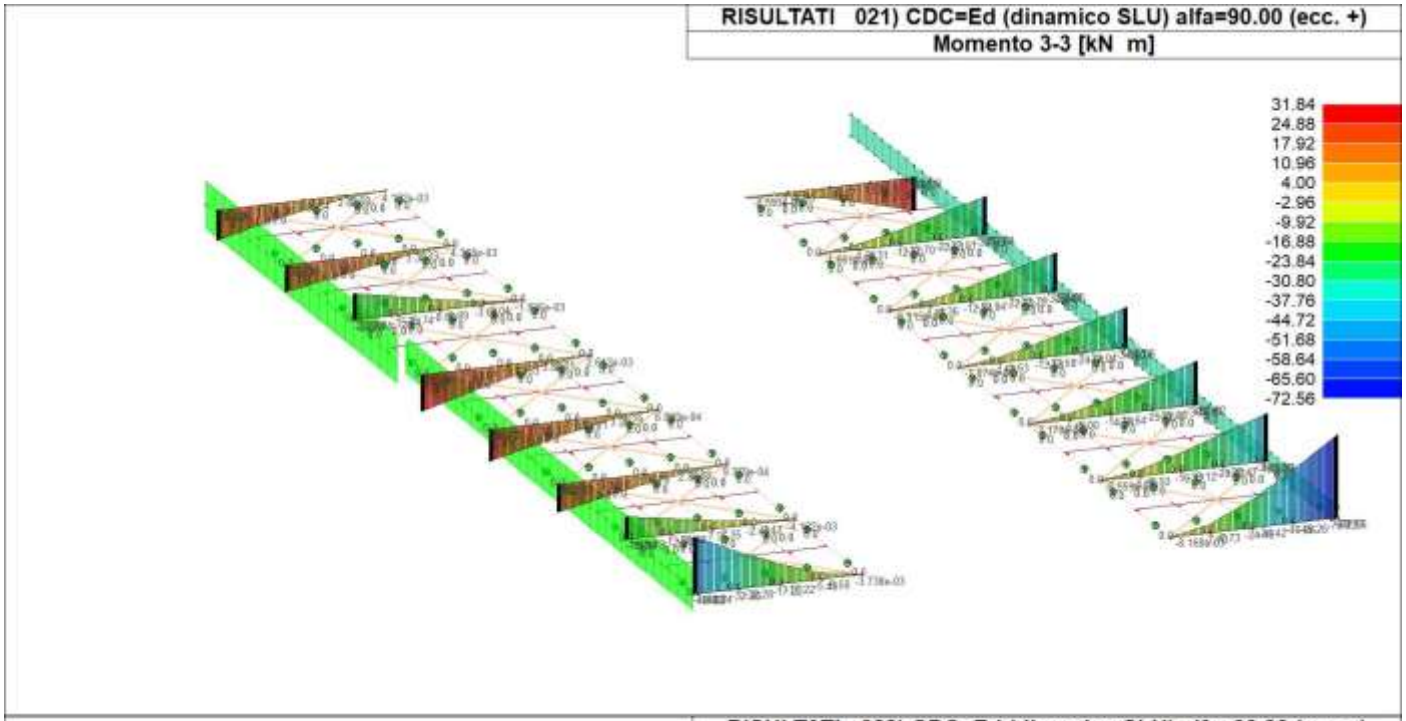


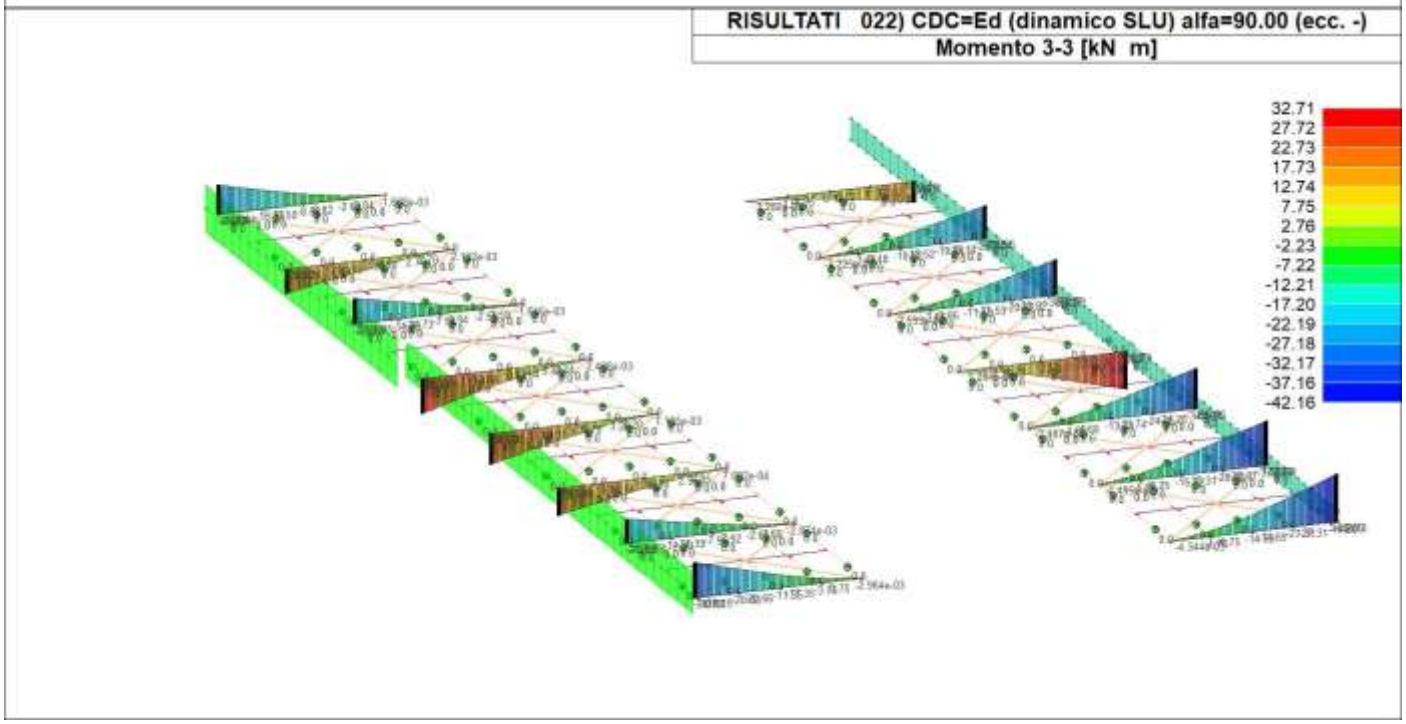

RISULTATI 004) CDC=G2pk (permanente pannelli n.c.d.)
Momento 3-3 [kN m]
4.920e-06
4.092e-06
3.265e-06
2.437e-06
1.610e-06
0.0
0.0
0.0
-1.701e-06
-2.528e-06
-3.356e-06
-4.183e-06
-5.011e-06
-5.839e-06
-6.666e-06
-7.494e-06

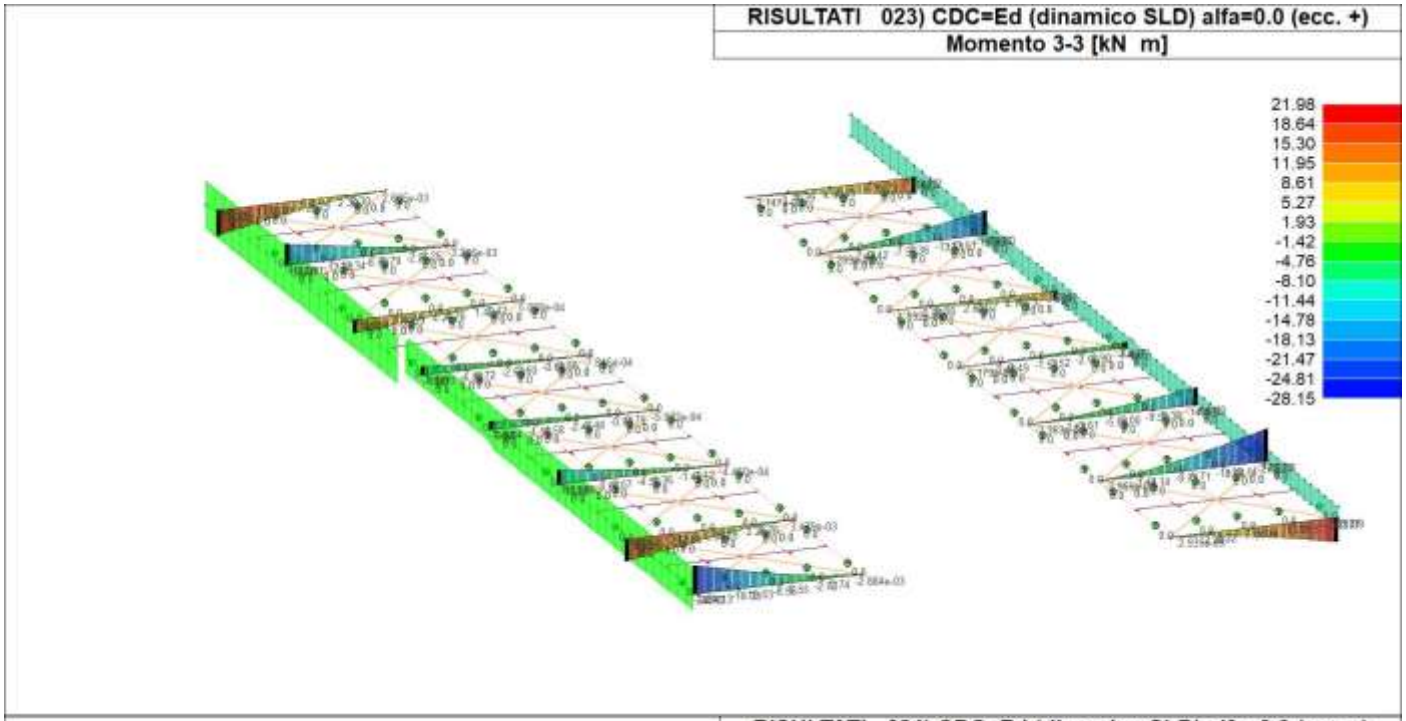

RISULTATI 005) CDC=Qsk (variabile solai)
Momento 3-3 [kN m]
3.91
-0.28
-4.48
-8.67
-12.86
-17.06
-21.25
-25.44
-29.64
-33.83
-38.02
-42.21
-46.41
-50.60
-54.79
-58.99

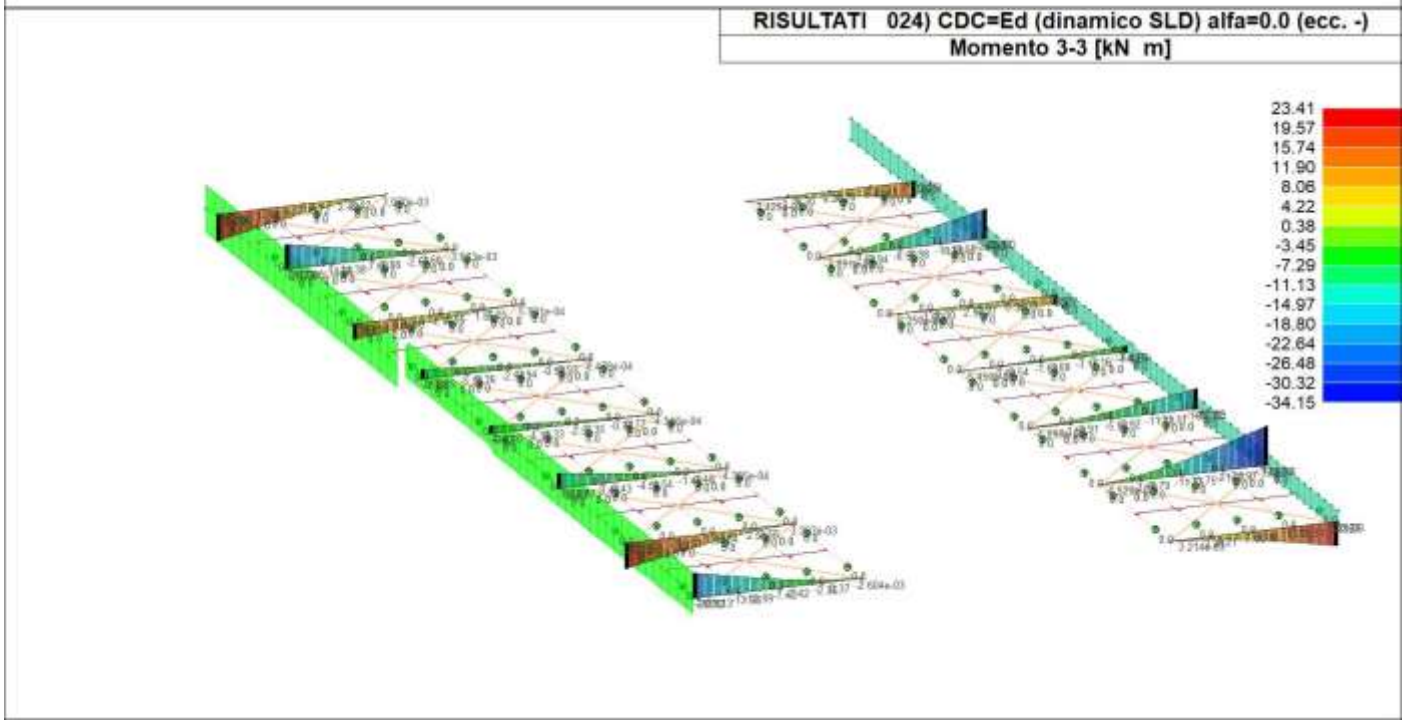

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]
46.61
39.38
32.15
24.91
17.68
10.44
3.21
-4.03
-11.26
-18.50
-25.73
-32.97
-40.20
-47.44
-54.67
-61.91

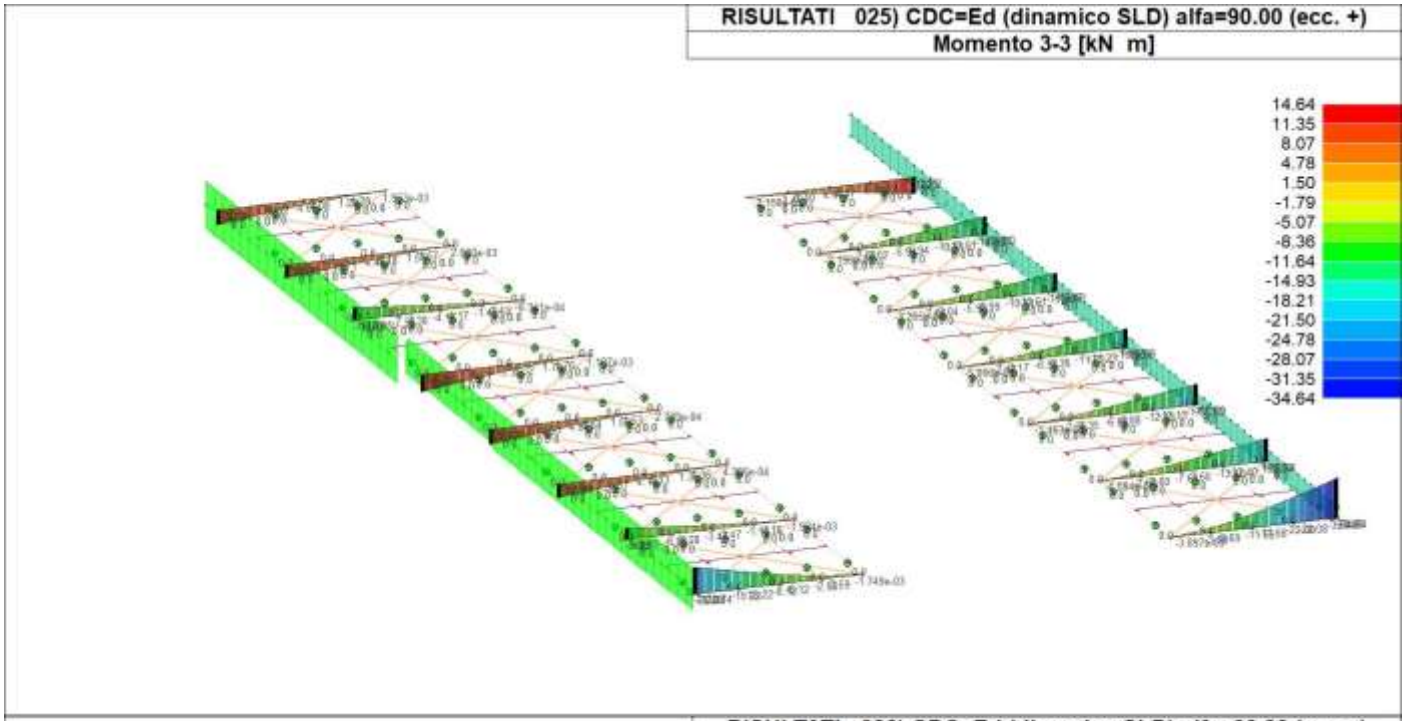

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]
49.85
41.51
33.18
24.84
16.51
8.17
-0.16
-8.50
-16.83
-25.17
-33.50
-41.84
-50.17
-58.51
-66.84
-75.18

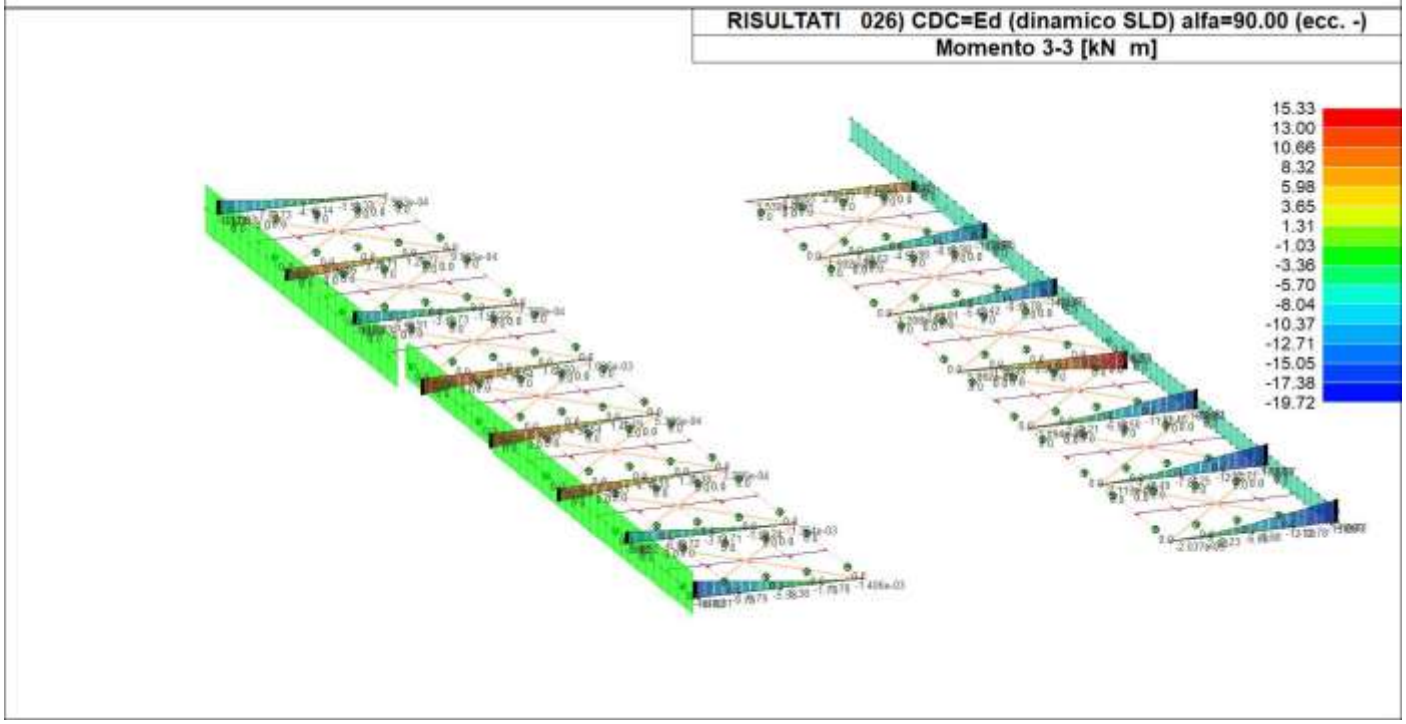

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]
31.84
24.88
17.92
10.96
4.00
-2.96
-9.92
-16.88
-23.84
-30.80
-37.76
-44.72
-51.68
-58.64
-65.60
-72.56

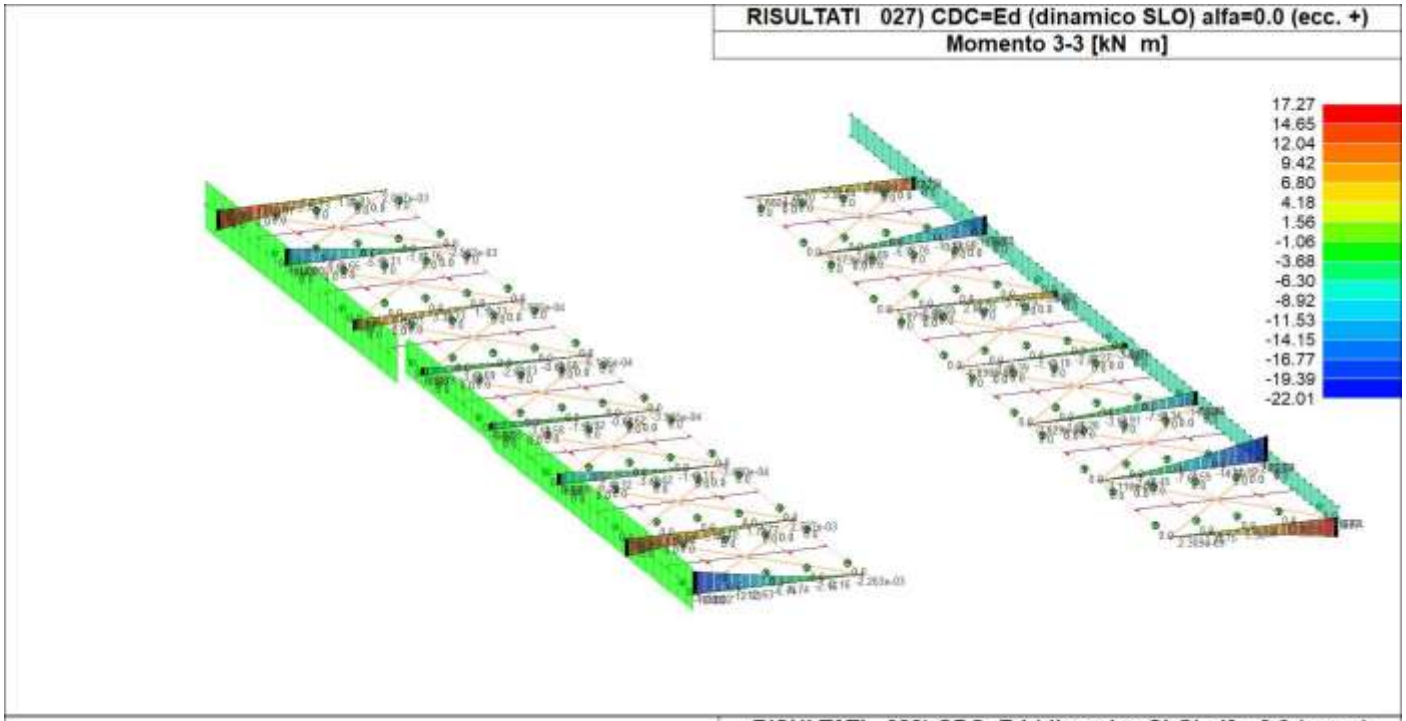

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]
32.71
27.72
22.73
17.73
12.74
7.75
2.76
-2.23
-7.22
-12.21
-17.20
-22.19
-27.18
-32.17
-37.16
-42.16

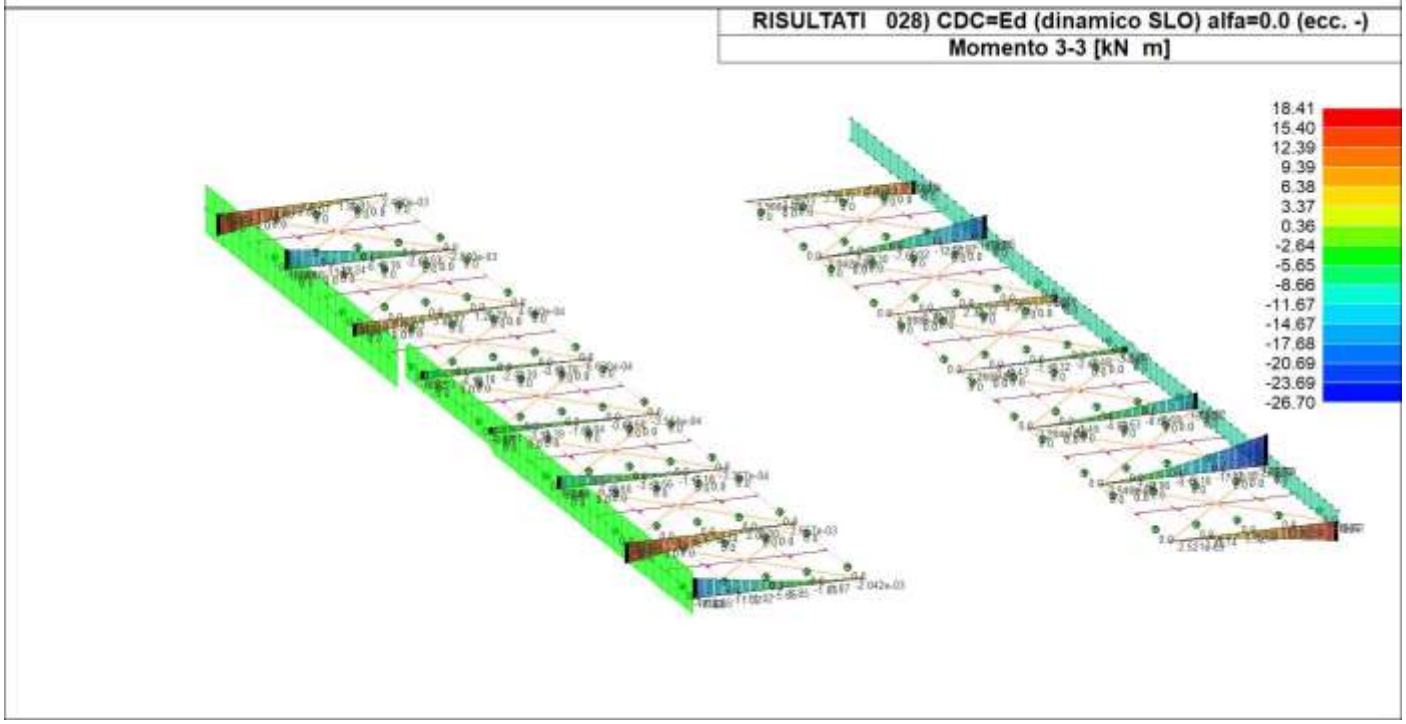

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]
21.98
18.64
15.30
11.95
8.61
5.27
1.93
-1.42
-4.76
-8.10
-11.44
-14.78
-18.13
-21.47
-24.81
-28.15

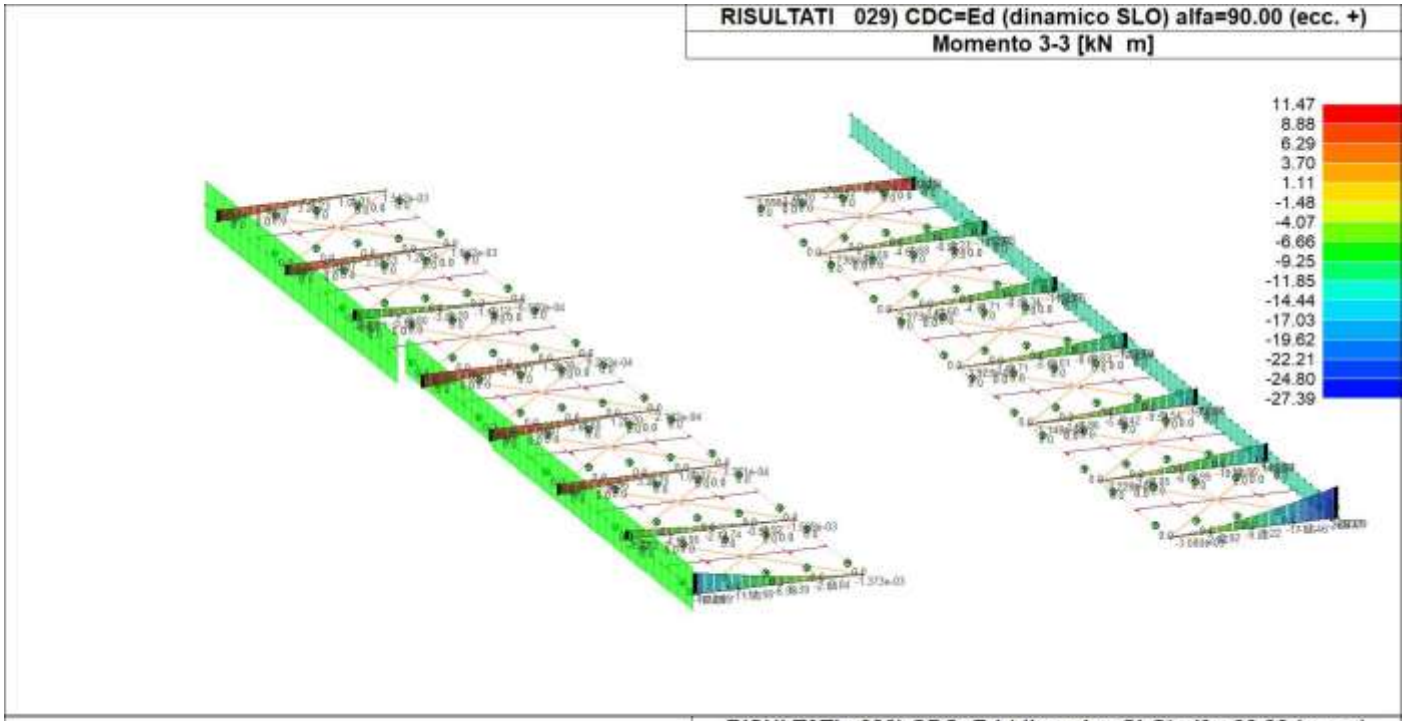

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]
23.41
19.57
15.74
11.90
8.06
4.22
0.38
-3.45
-7.29
-11.13
-14.97
-18.80
-22.64
-26.48
-30.32
-34.15

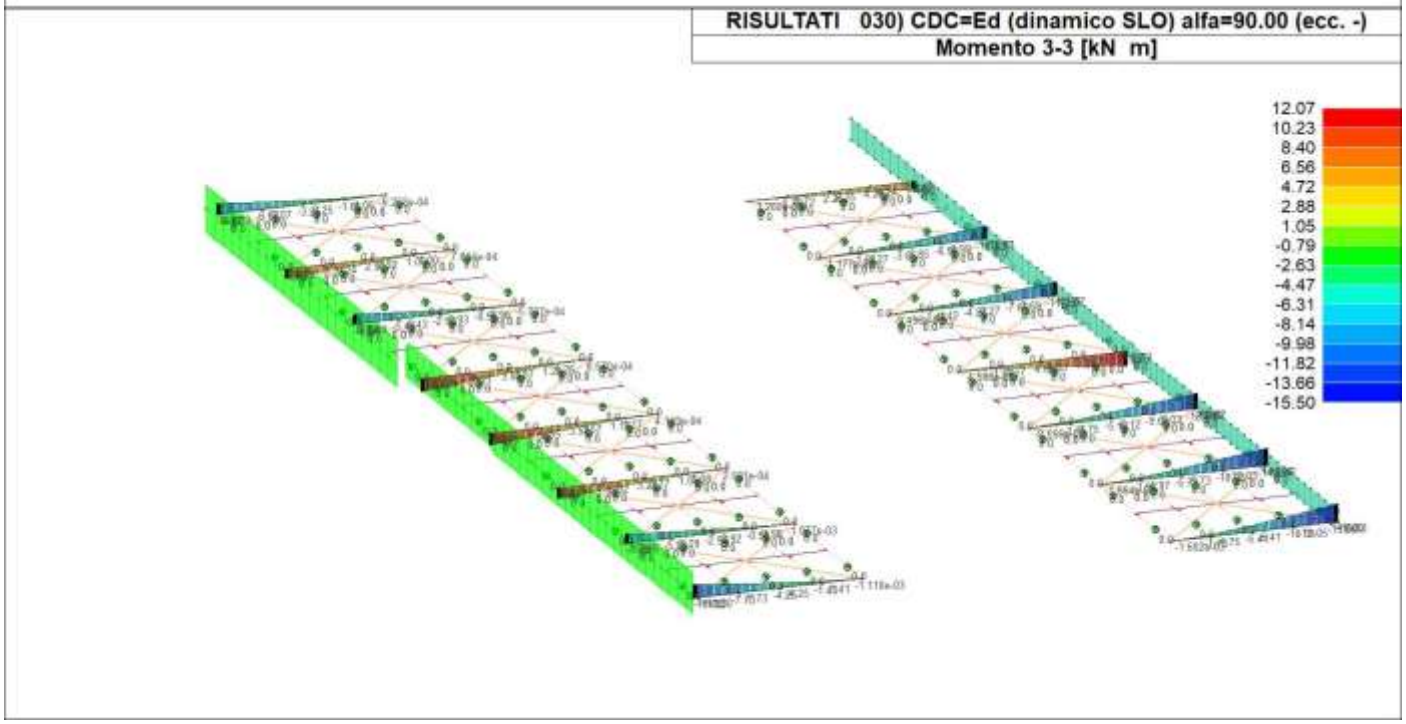

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]
14.64
11.35
8.07
4.78
1.50
-1.79
-5.07
-8.36
-11.64
-14.93
-18.21
-21.50
-24.78
-28.07
-31.35
-34.64

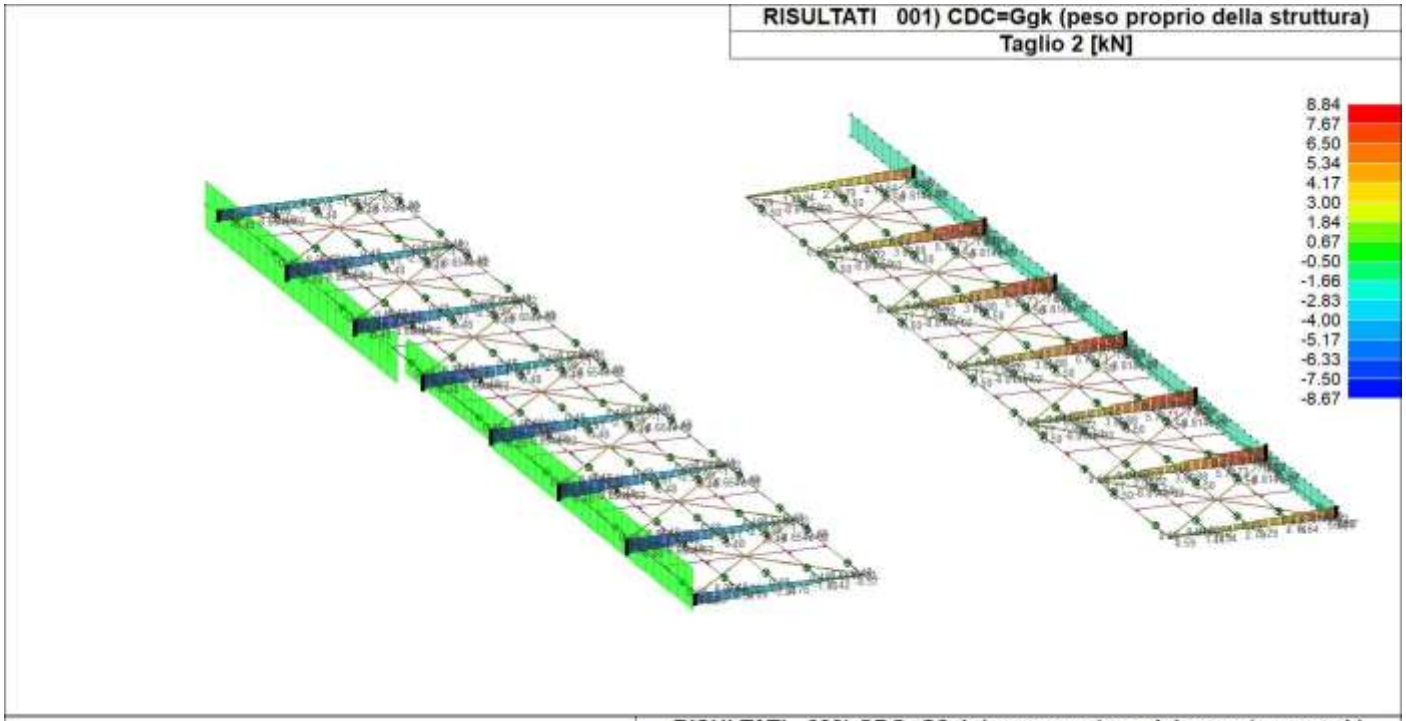

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]
15.33
13.00
10.66
8.32
5.98
3.65
1.31
-1.03
-3.36
-5.70
-8.04
-10.37
-12.71
-15.05
-17.38
-19.72

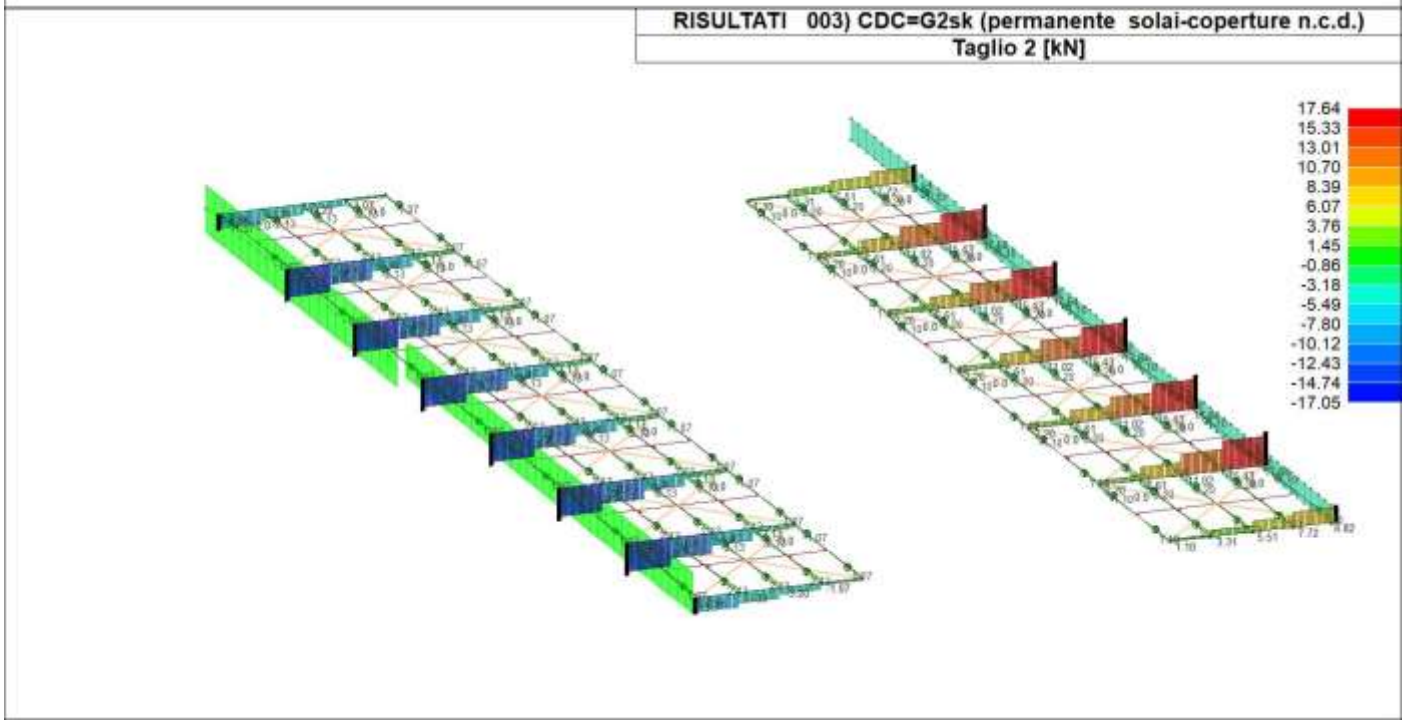

RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]
17.27
14.65
12.04
9.42
6.80
4.18
1.56
-1.06
-3.68
-6.30
-8.92
-11.53
-14.15
-16.77
-19.39
-22.01

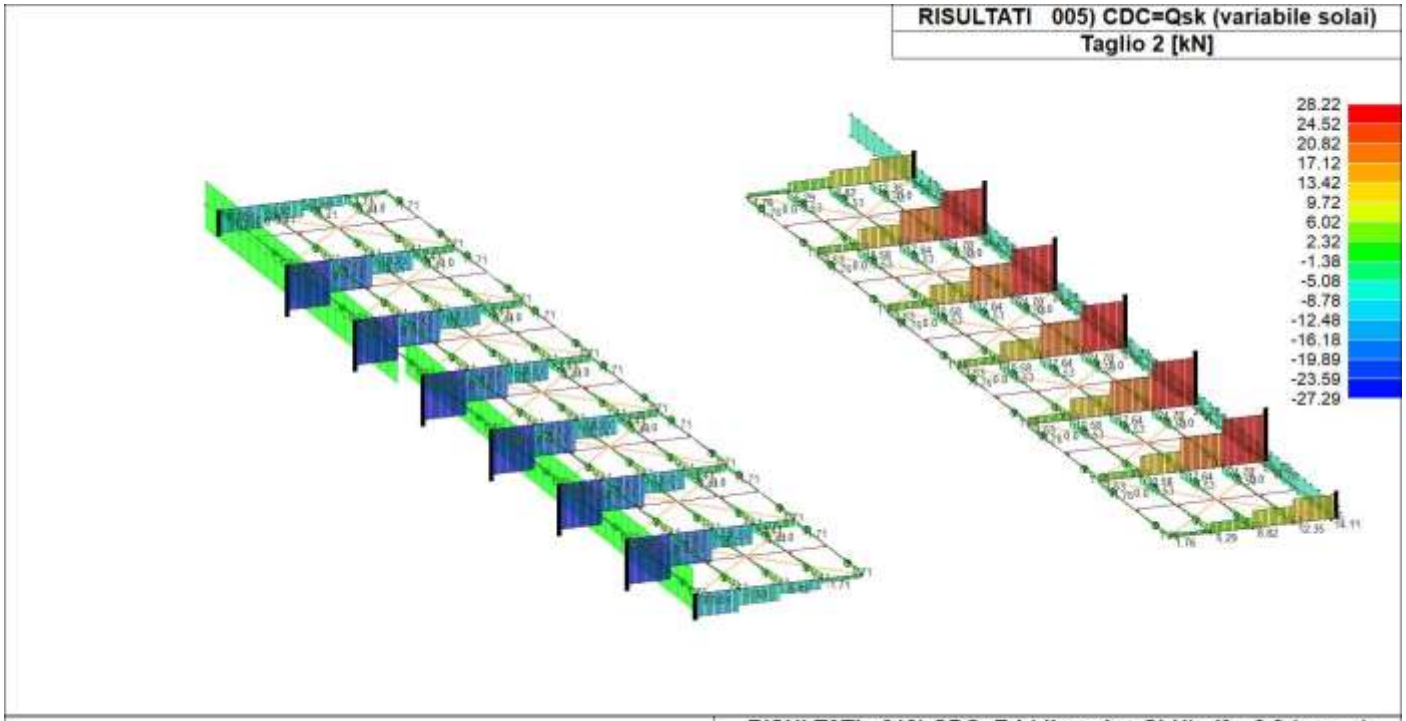

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]
18.41
15.40
12.39
9.39
6.38
3.37
0.36
-2.64
-5.65
-8.66
-11.67
-14.67
-17.68
-20.69
-23.69
-26.70

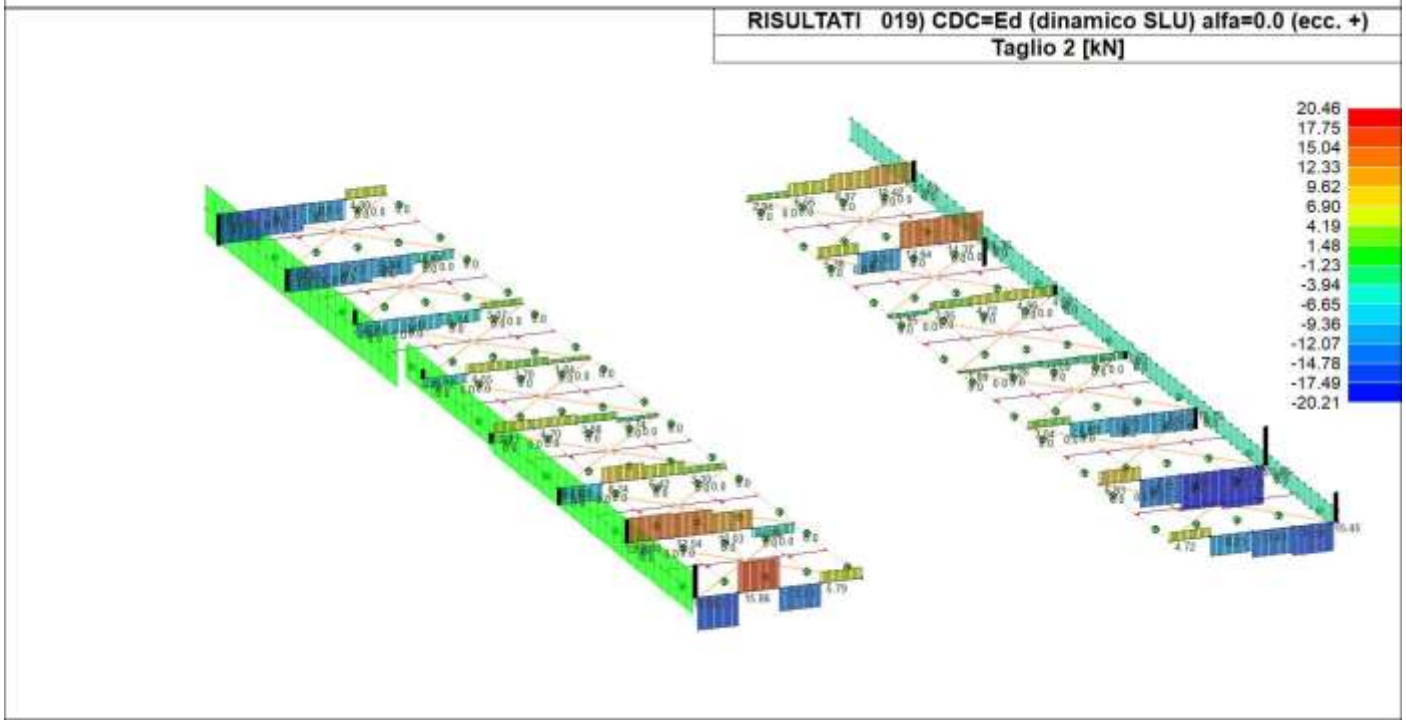

RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]
11.47
8.88
6.29
3.70
1.11
-1.48
-4.07
-6.66
-9.25
-11.85
-14.44
-17.03
-19.62
-22.21
-24.80
-27.39

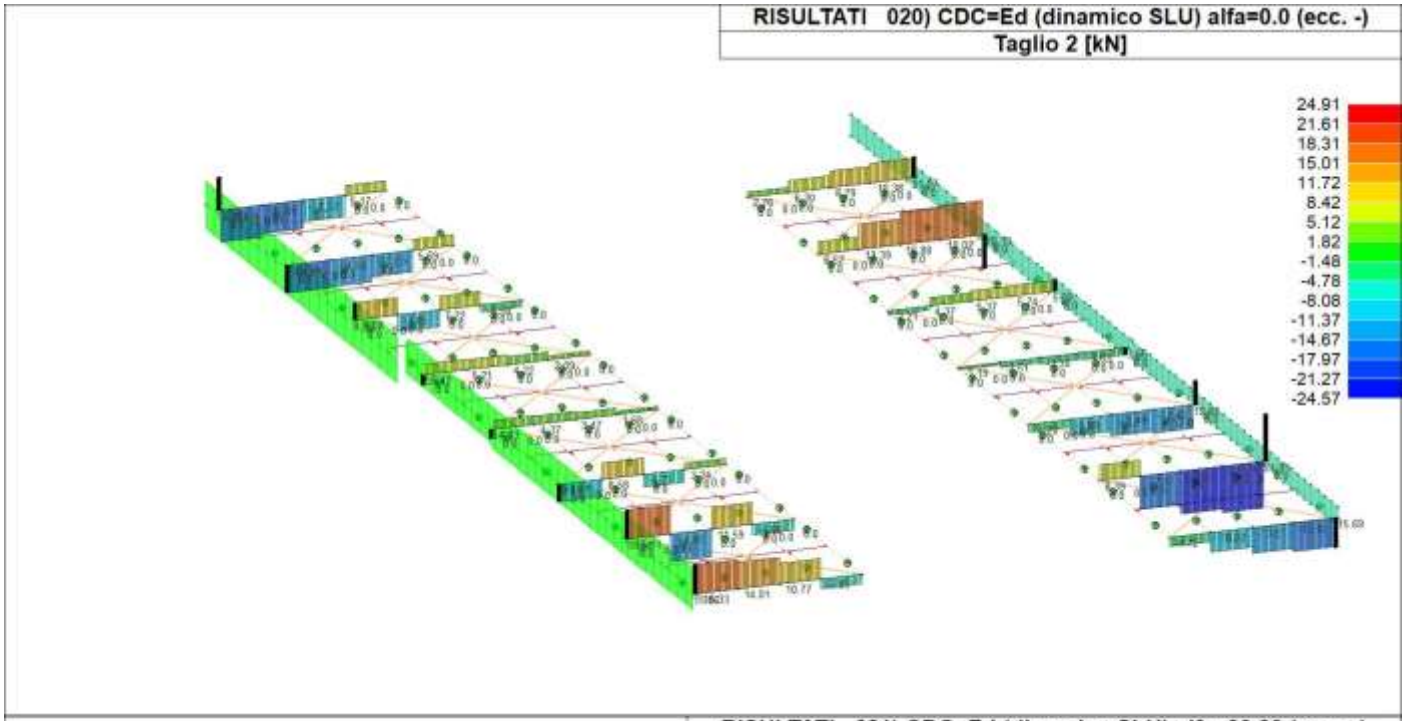

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]
12.07
10.23
8.40
6.56
4.72
2.88
1.05
-0.79
-2.63
-4.47
-6.31
-8.14
-9.98
-11.82
-13.66
-15.50

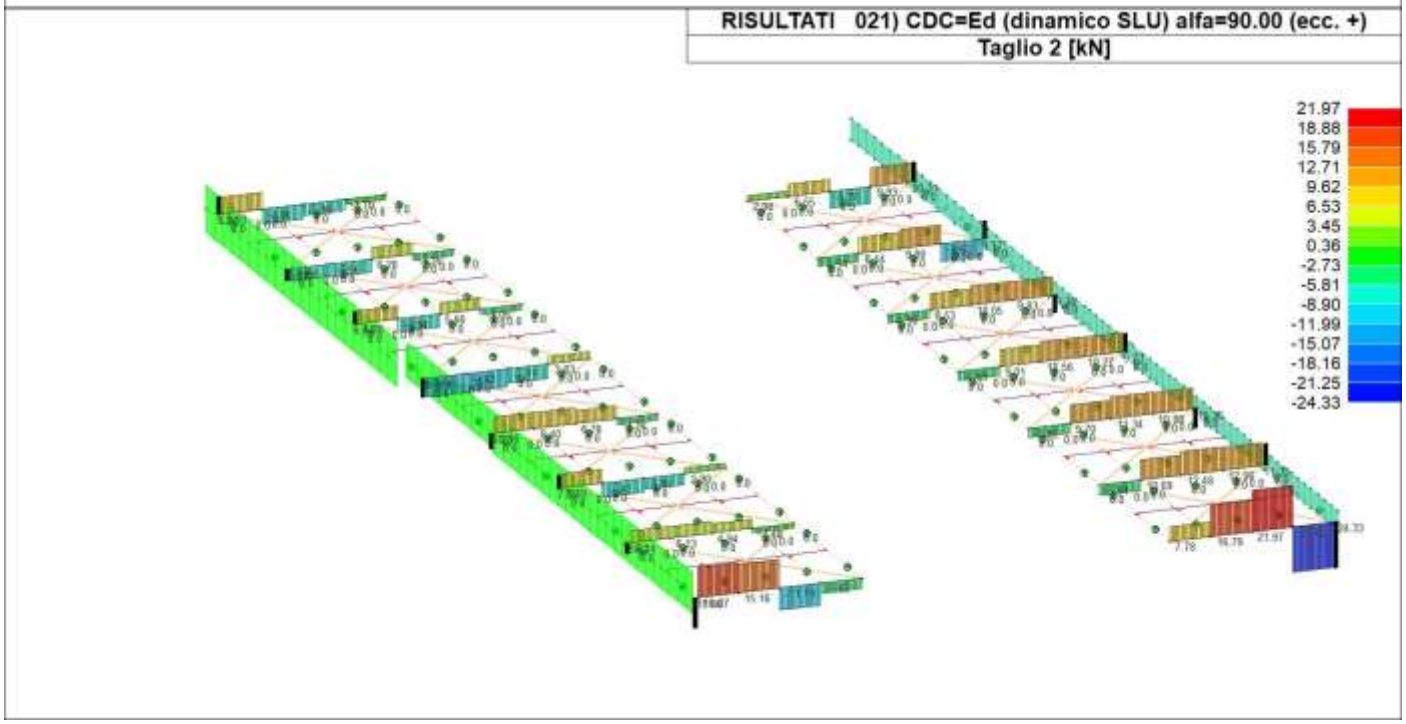

RISULTATI 001) CDC=Ggk (peso proprio della struttura)
Taglio 2 [kN]
8.84
7.67
6.50
5.34
4.17
3.00
1.84
0.67
-0.50
-1.66
-2.83
-4.00
-5.17
-6.33
-7.50
-8.67

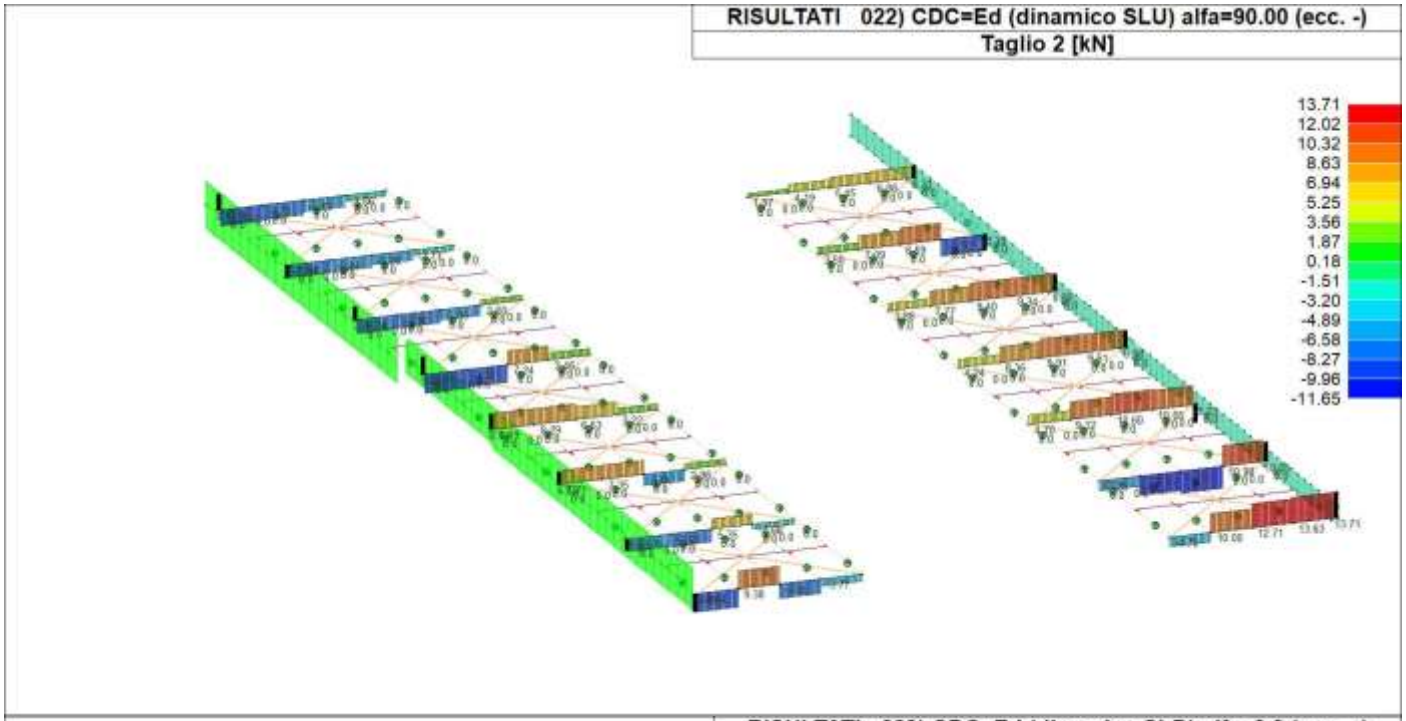

RISULTATI 003) CDC=G2sk (permanente solai-coperture n.c.d.)
Taglio 2 [kN]
17.64
15.33
13.01
10.70
8.39
6.07
3.76
1.45
-0.86
-3.18
-5.49
-7.80
-10.12
-12.43
-14.74
-17.05

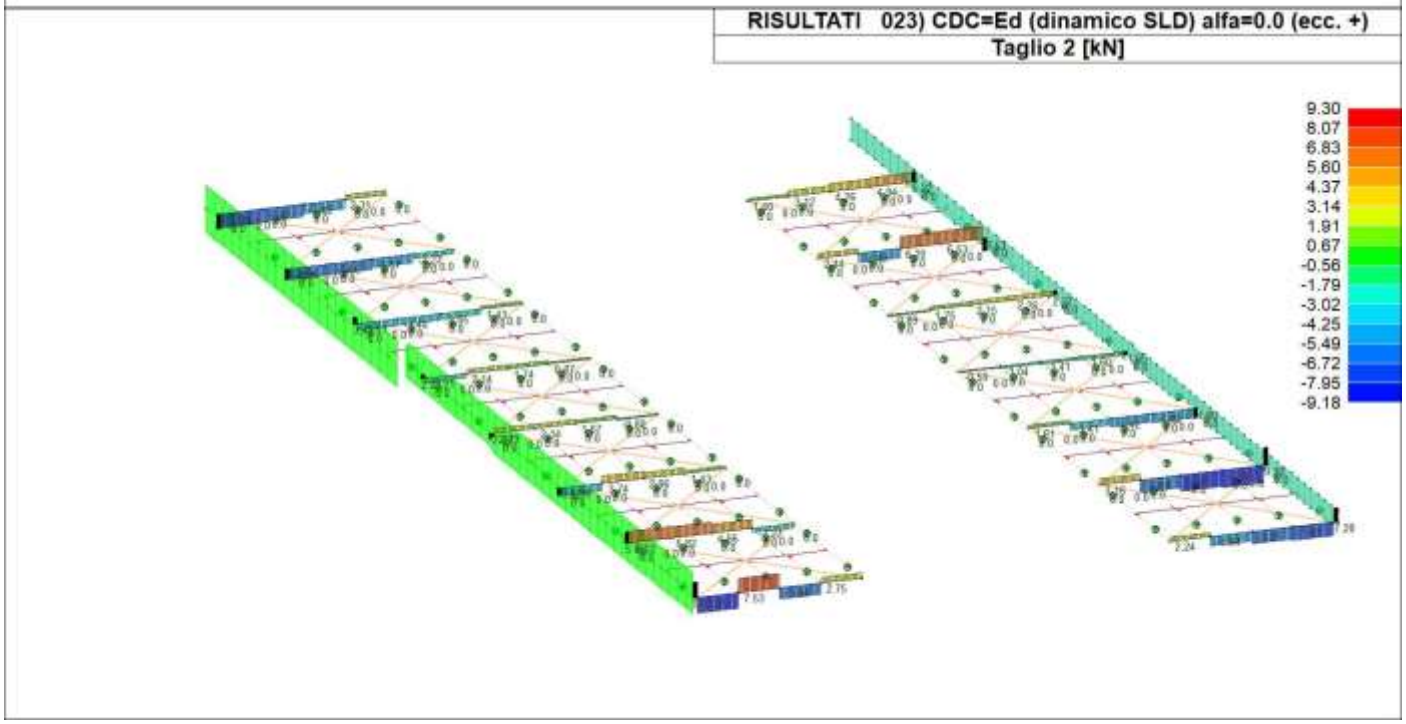

RISULTATI 005) CDC=Qsk (variabile solai)
Taglio 2 [kN]
28.22
24.52
20.82
17.12
13.42
9.72
6.02
2.32
-1.38
-5.08
-8.78
-12.48
-16.18
-19.89
-23.59
-27.29

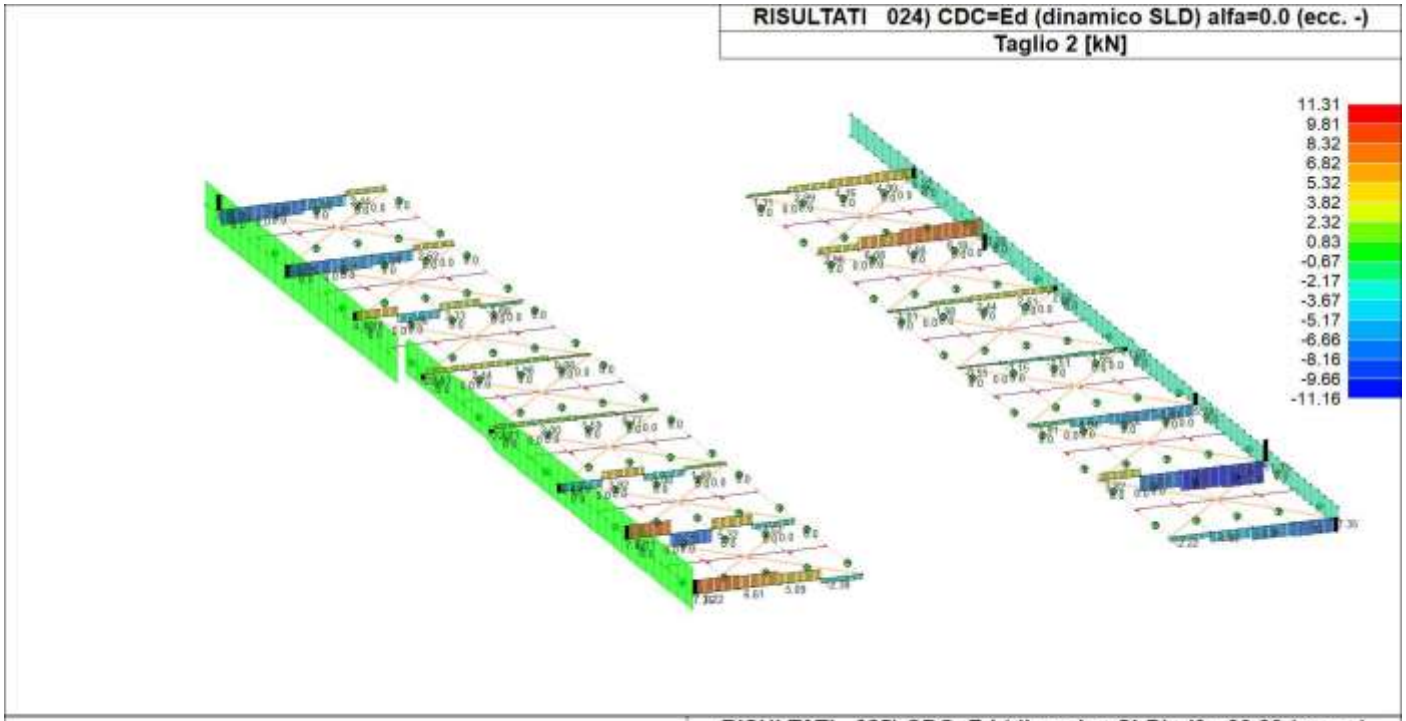

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Taglio 2 [kN]
20.46
17.75
15.04
12.33
9.62
6.90
4.19
1.48
-1.23
-3.94
-6.65
-9.36
-12.07
-14.78
-17.49
-20.21

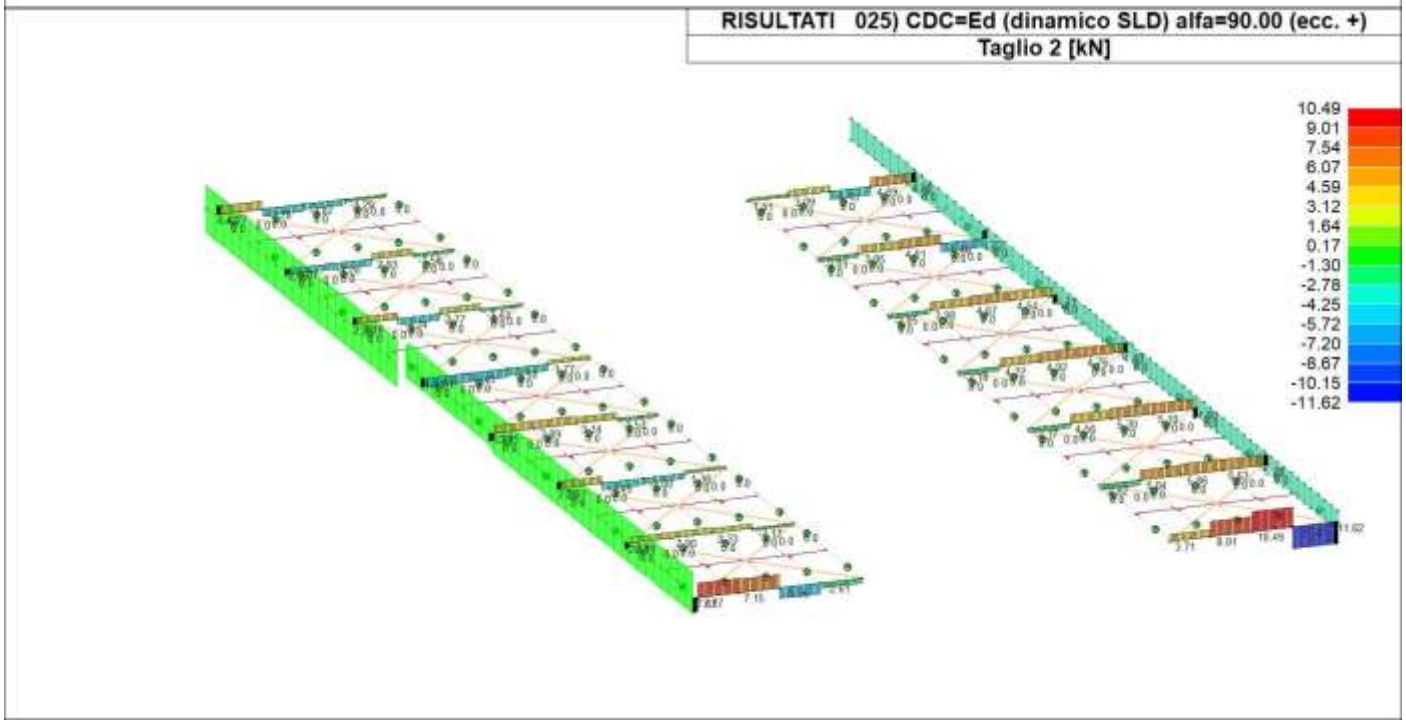

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Taglio 2 [kN]
24.91
21.61
18.31
15.01
11.72
8.42
5.12
1.82
-1.48
-4.78
-8.08
-11.37
-14.67
-17.97
-21.27
-24.57

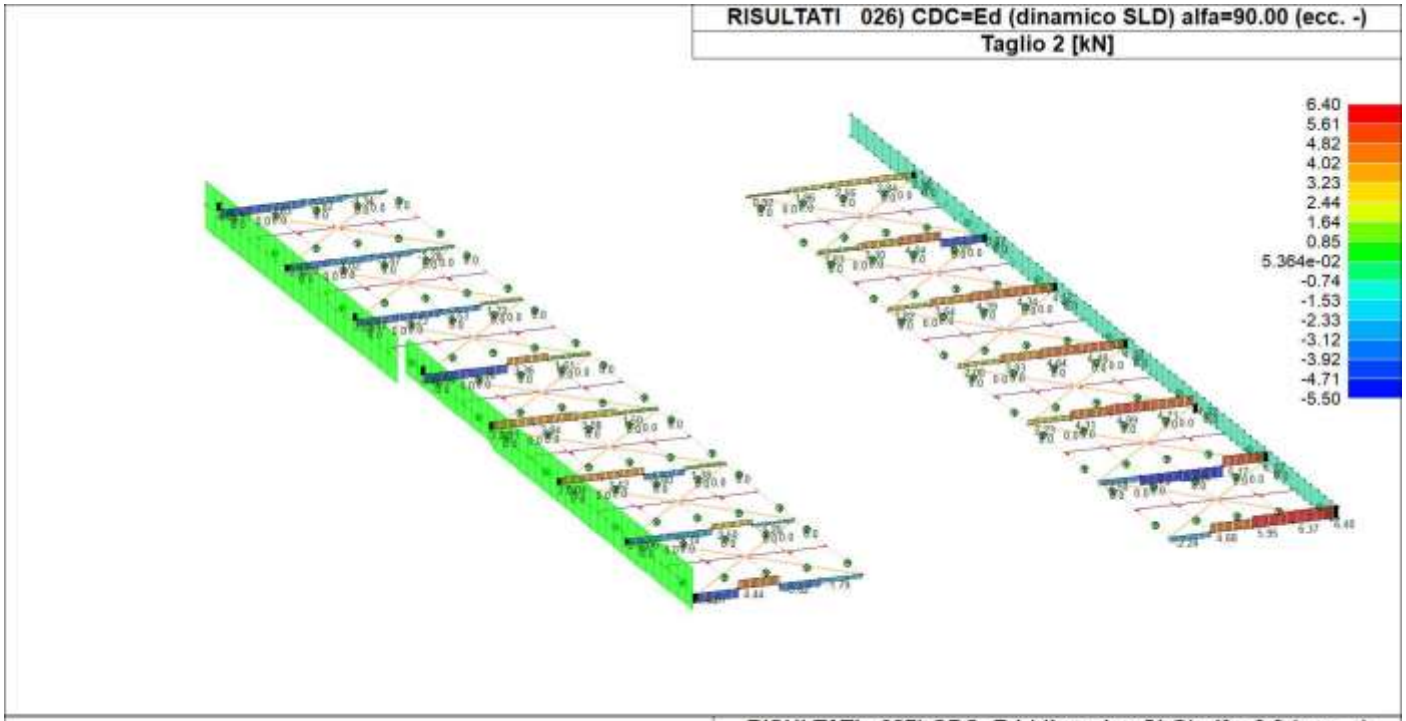

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Taglio 2 [kN]
21.97
18.88
15.79
12.71
9.62
6.53
3.45
0.36
-2.73
-5.81
-8.90
-11.99
-15.07
-18.16
-21.25
-24.33

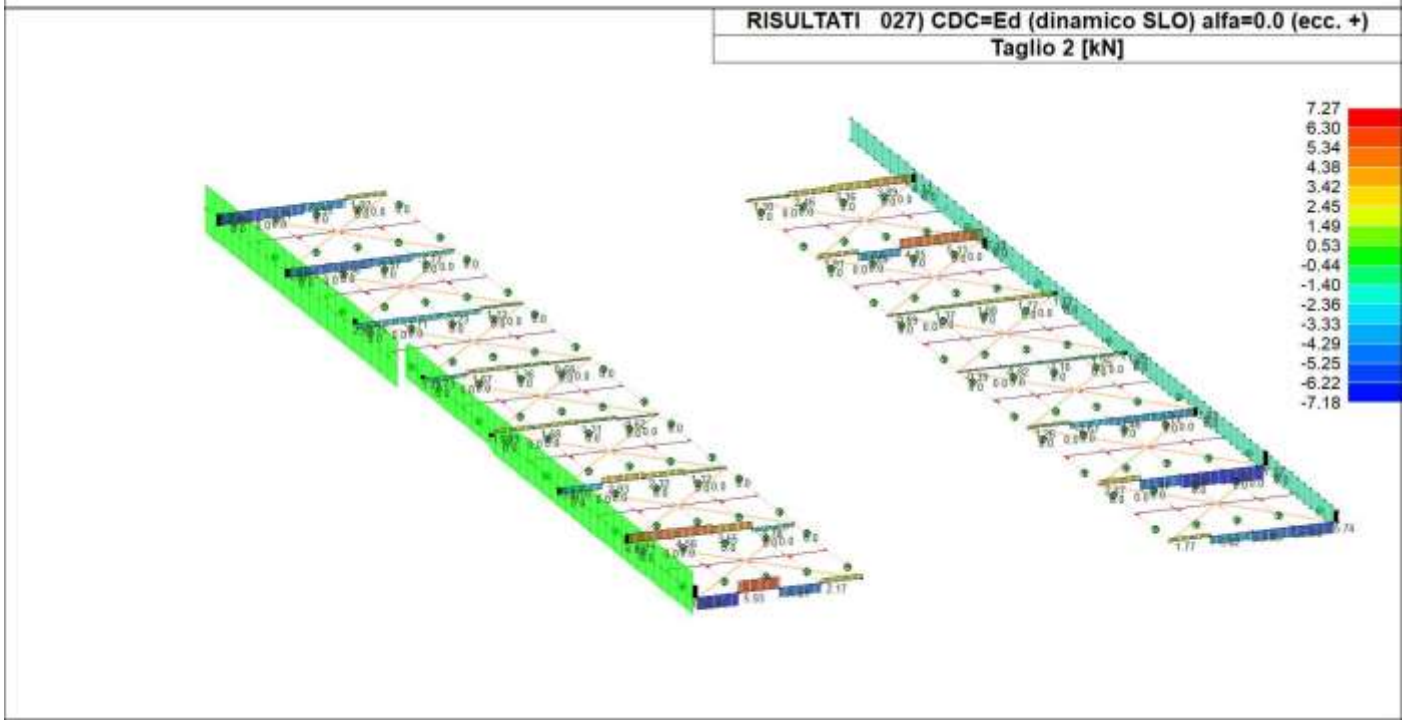

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Taglio 2 [kN]
13.71
12.02
10.32
8.63
6.94
5.25
3.56
1.87
0.18
-1.51
-3.20
-4.89
-6.58
-8.27
-9.96
-11.65

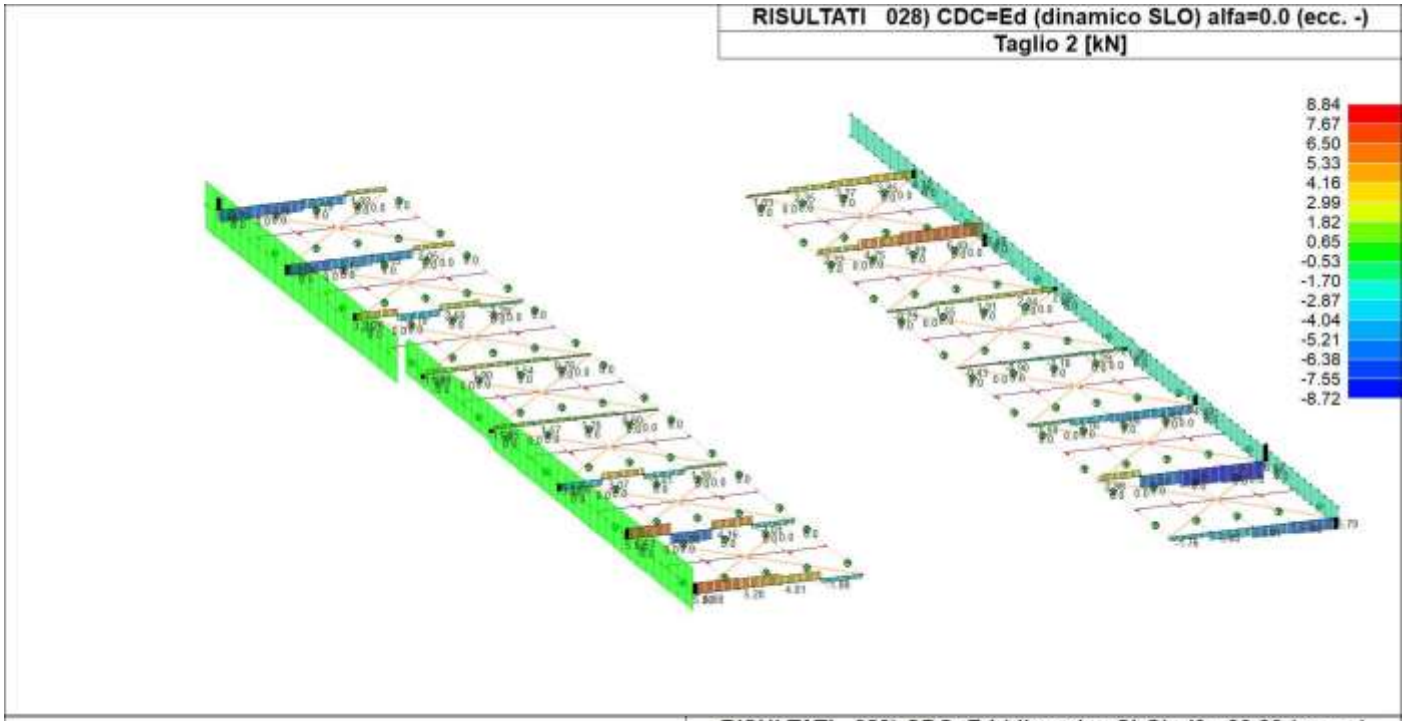

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Taglio 2 [kN]
9.30
8.07
6.83
5.60
4.37
3.14
1.91
0.67
-0.56
-1.79
-3.02
-4.25
-5.49
-6.72
-7.95
-9.18

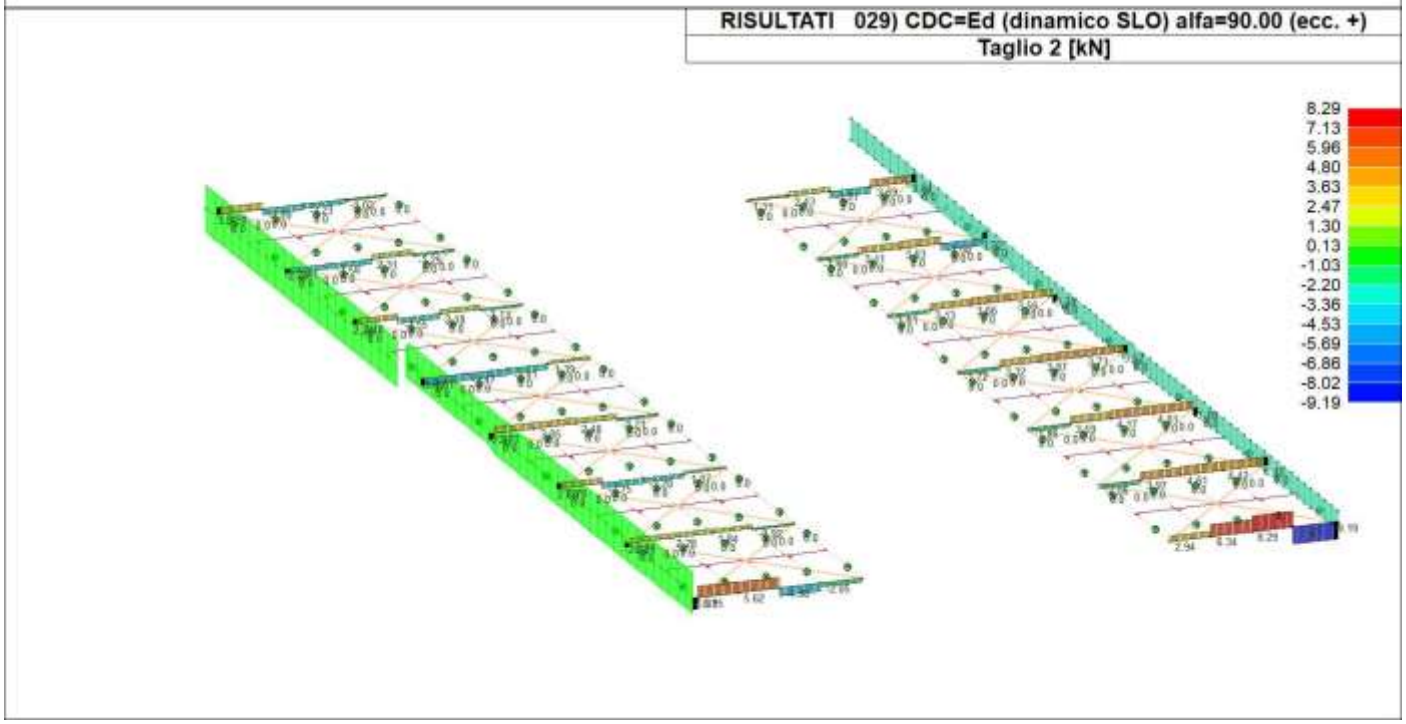

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Taglio 2 [kN]
11.31
9.81
8.32
6.82
5.32
3.82
2.32
0.83
-0.67
-2.17
-3.67
-5.17
-6.66
-8.16
-9.66
-11.16

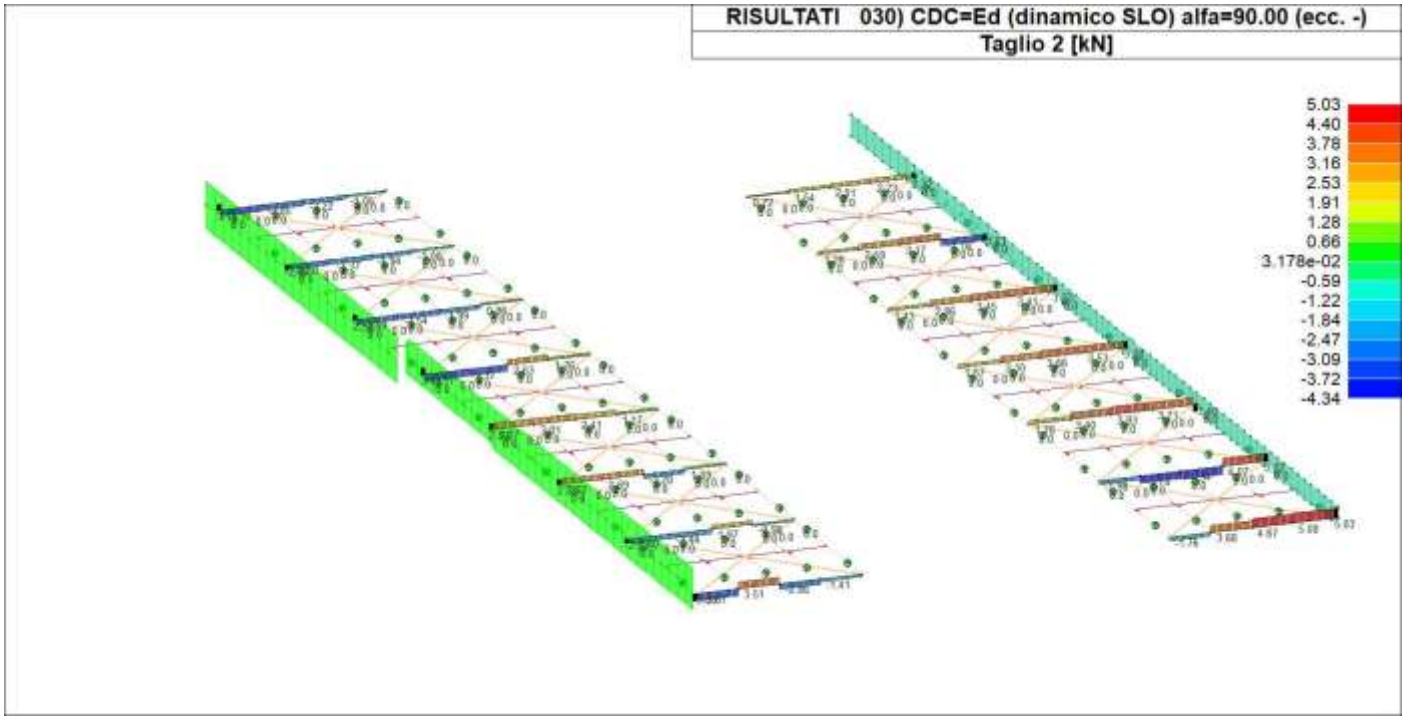

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Taglio 2 [kN]
10.49
9.01
7.54
6.07
4.59
3.12
1.64
0.17
-1.30
-2.78
-4.25
-5.72
-7.20
-8.67
-10.15
-11.62

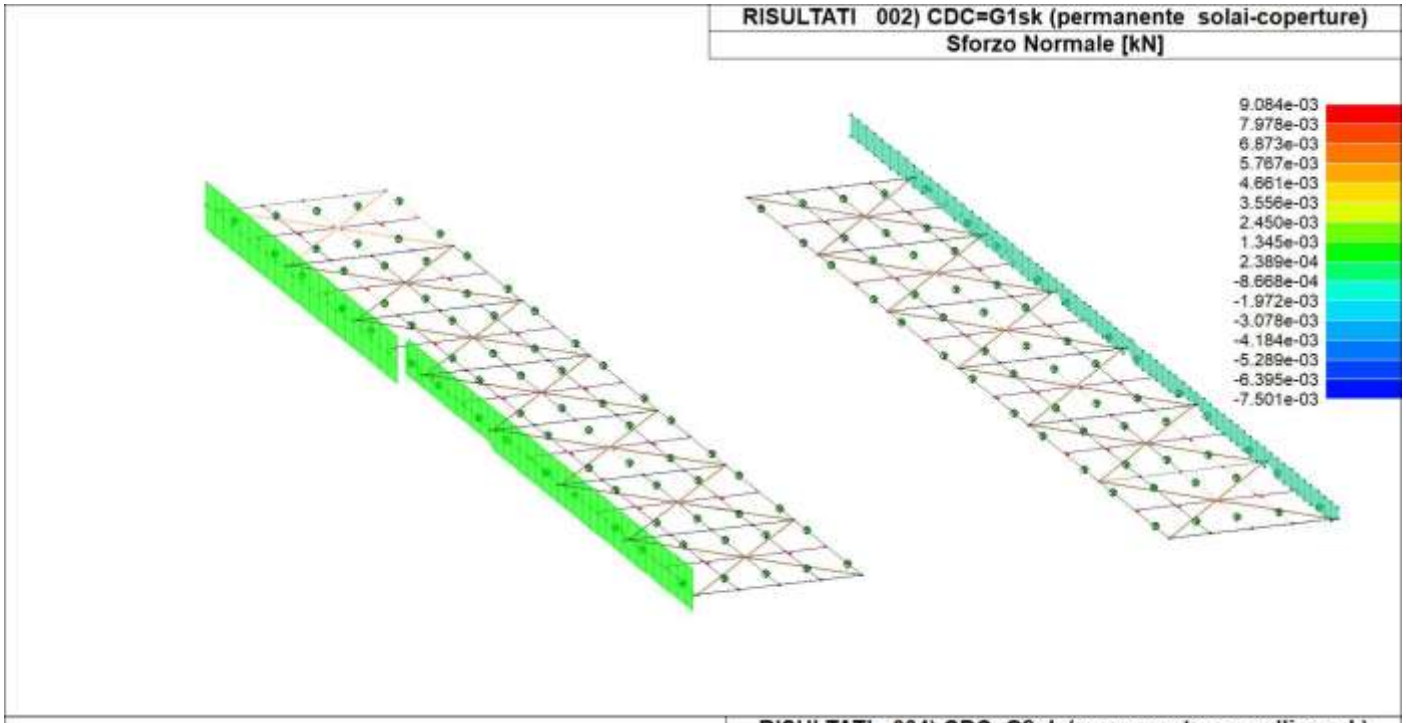

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Taglio 2 [kN]
6.40
5.61
4.82
4.02
3.23
2.44
1.64
0.85
5.364e-02
-0.74
-1.53
-2.33
-3.12
-3.92
-4.71
-5.50

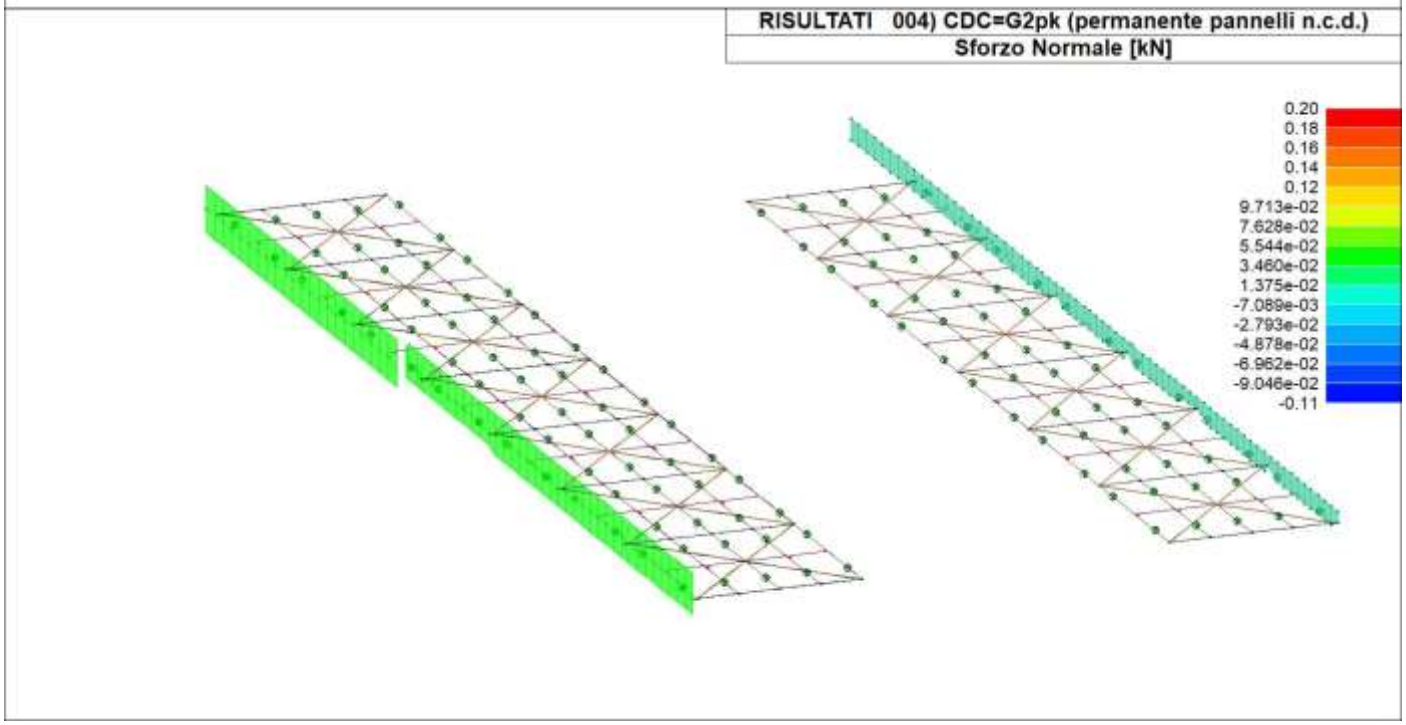

RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Taglio 2 [kN]
7.27
6.30
5.34
4.38
3.42
2.45
1.49
0.53
-0.44
-1.40
-2.36
-3.33
-4.29
-5.25
-6.22
-7.18

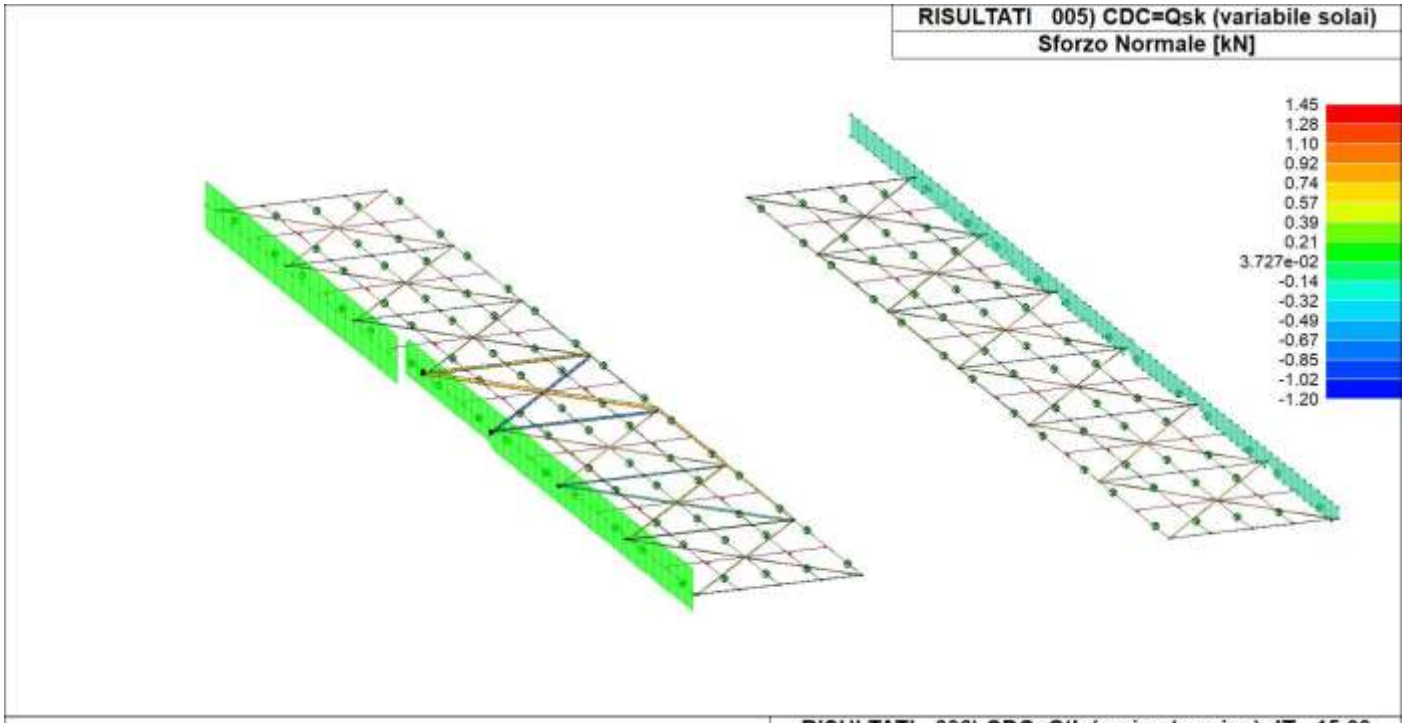

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Taglio 2 [kN]
8.84
7.67
6.50
5.33
4.16
2.99
1.82
0.65
-0.53
-1.70
-2.87
-4.04
-5.21
-6.38
-7.55
-8.72

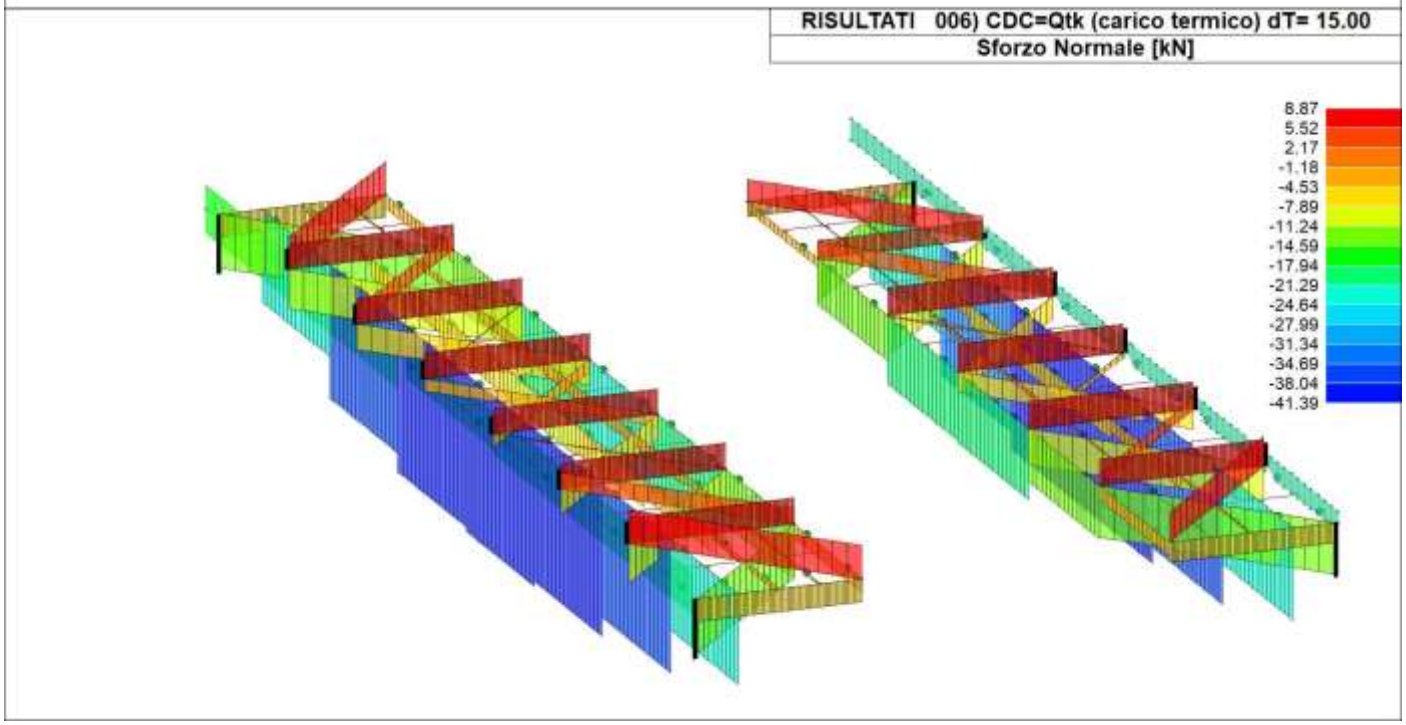

RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Taglio 2 [kN]
8.29
7.13
5.96
4.80
3.63
2.47
1.30
0.13
-1.03
-2.20
-3.36
-4.53
-5.69
-6.86
-8.02
-9.19

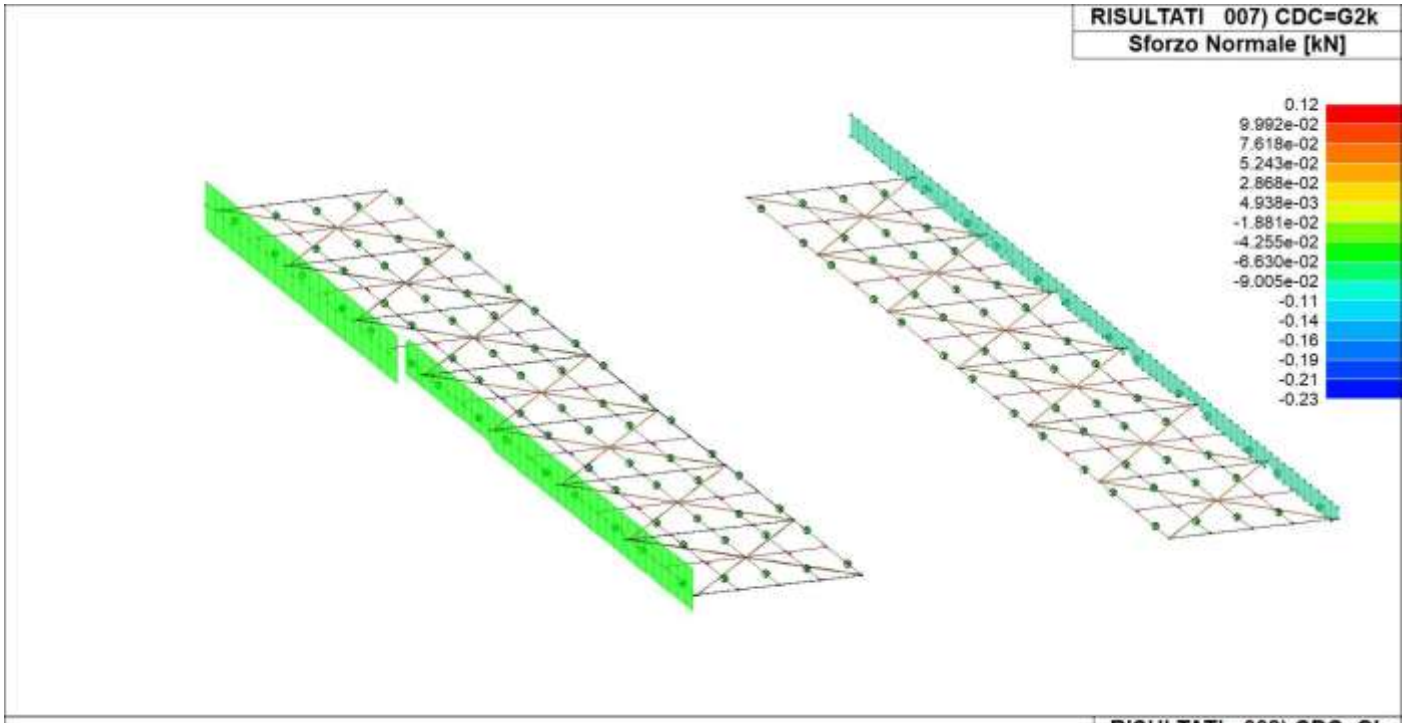

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Taglio 2 [kN]
5.03
4.40
3.78
3.16
2.53
1.91
1.28
0.66
3.178e-02
-0.59
-1.22
-1.84
-2.47
-3.09
-3.72
-4.34

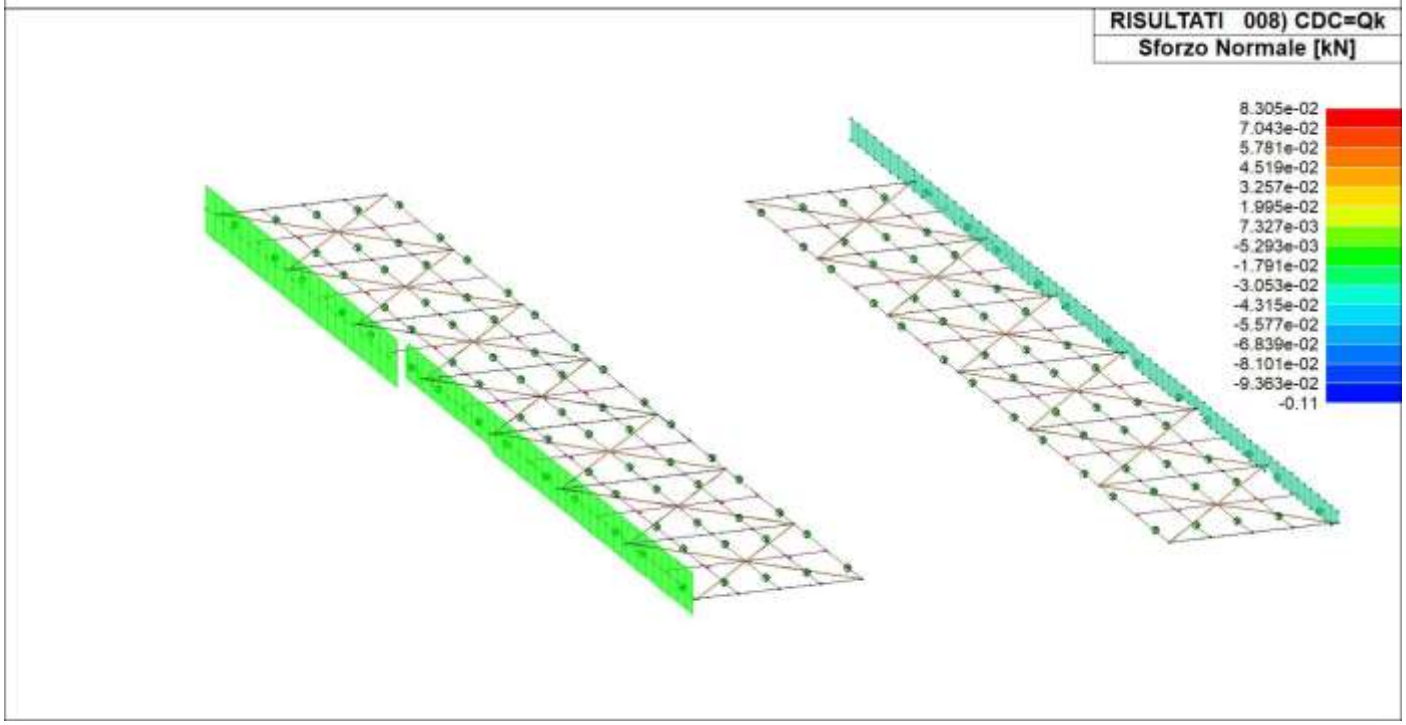

RISULTATI 002) CDC=G1sk (permanente solai-coperture)
Sforzo Normale [kN]
9.084e-03
7.978e-03
6.873e-03
5.767e-03
4.661e-03
3.556e-03
2.450e-03
1.345e-03
2.389e-04
-8.668e-04
-1.972e-03
-3.078e-03
-4.184e-03
-5.289e-03
-6.395e-03
-7.501e-03

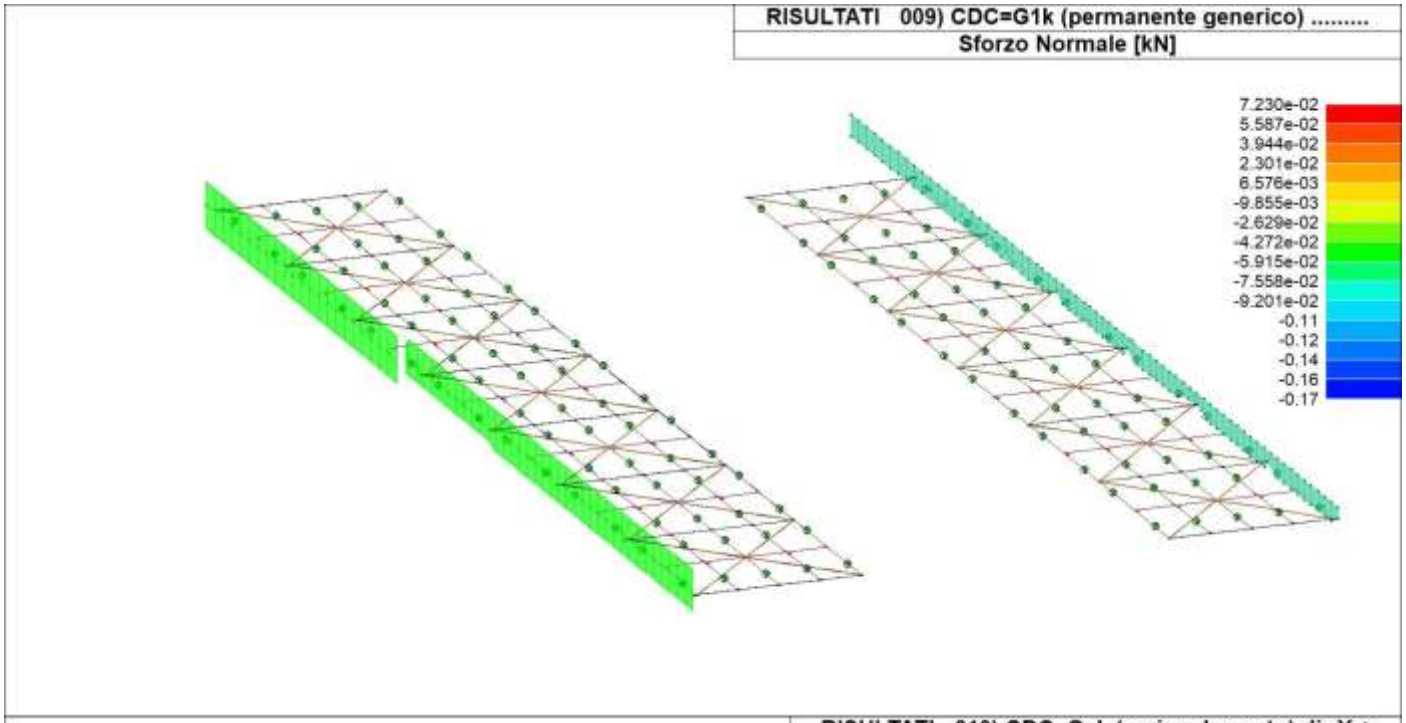

RISULTATI 004) CDC=G2pk (permanente pannelli n.c.d.)
Sforzo Normale [kN]
0.20
0.18
0.16
0.14
0.12
9.713e-02
7.628e-02
5.544e-02
3.460e-02
1.375e-02
-7.089e-03
-2.793e-02
-4.878e-02
-6.962e-02
-9.046e-02
-0.11

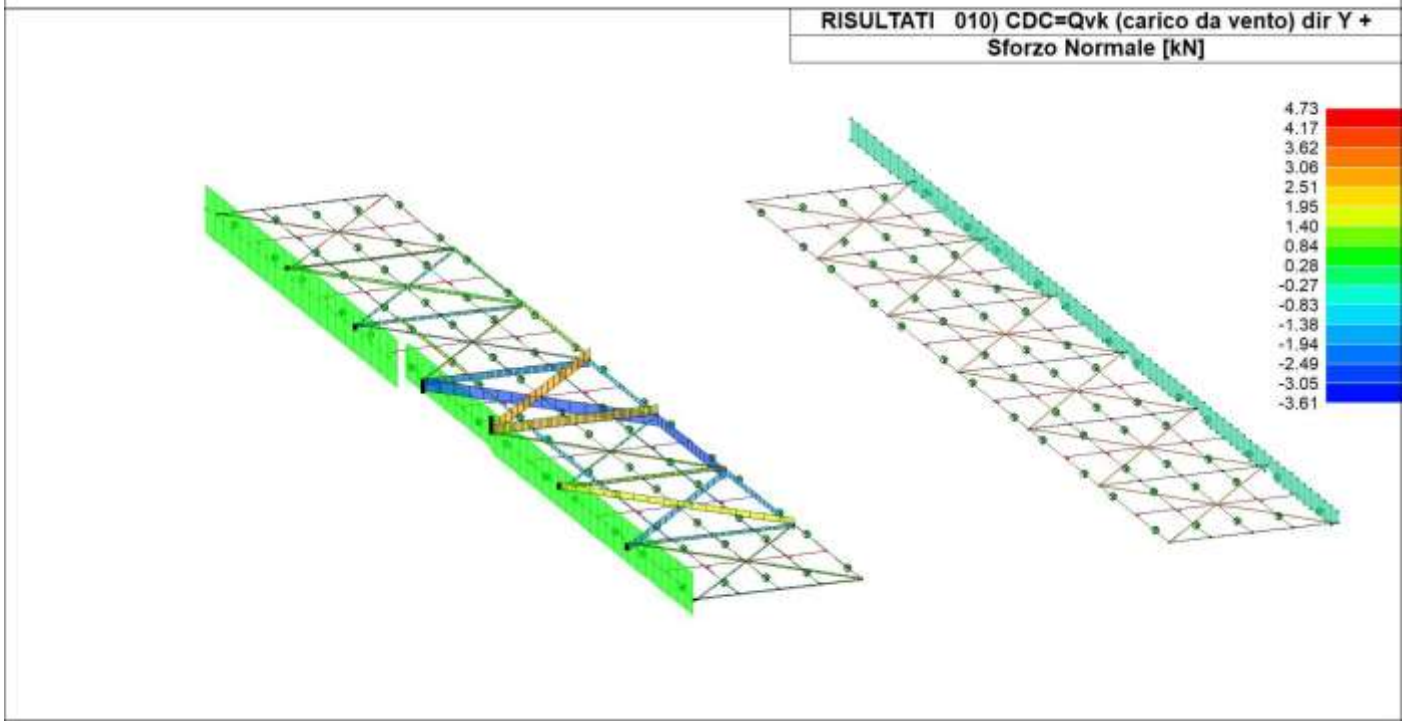

RISULTATI 005) CDC=Qsk (variabile solai)
Sforzo Normale [kN]
1.45
1.28
1.10
0.92
0.74
0.57
0.39
0.21
3.727e-02
-0.14
-0.32
-0.49
-0.67
-0.85
-1.02
-1.20

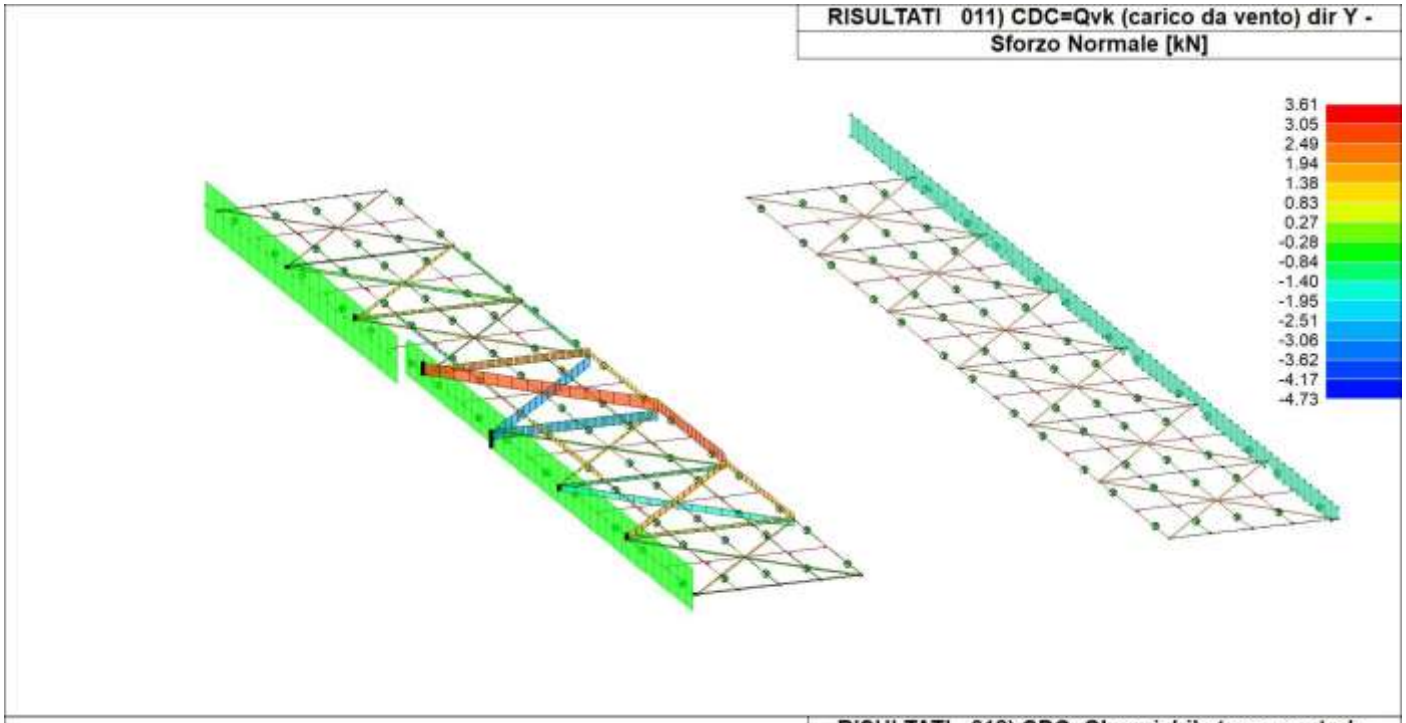

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Sforzo Normale [kN]
8.87
5.52
2.17
-1.18
-4.53
-7.89
-11.24
-14.59
-17.94
-21.29
-24.64
-27.99
-31.34
-34.69
-38.04
-41.39

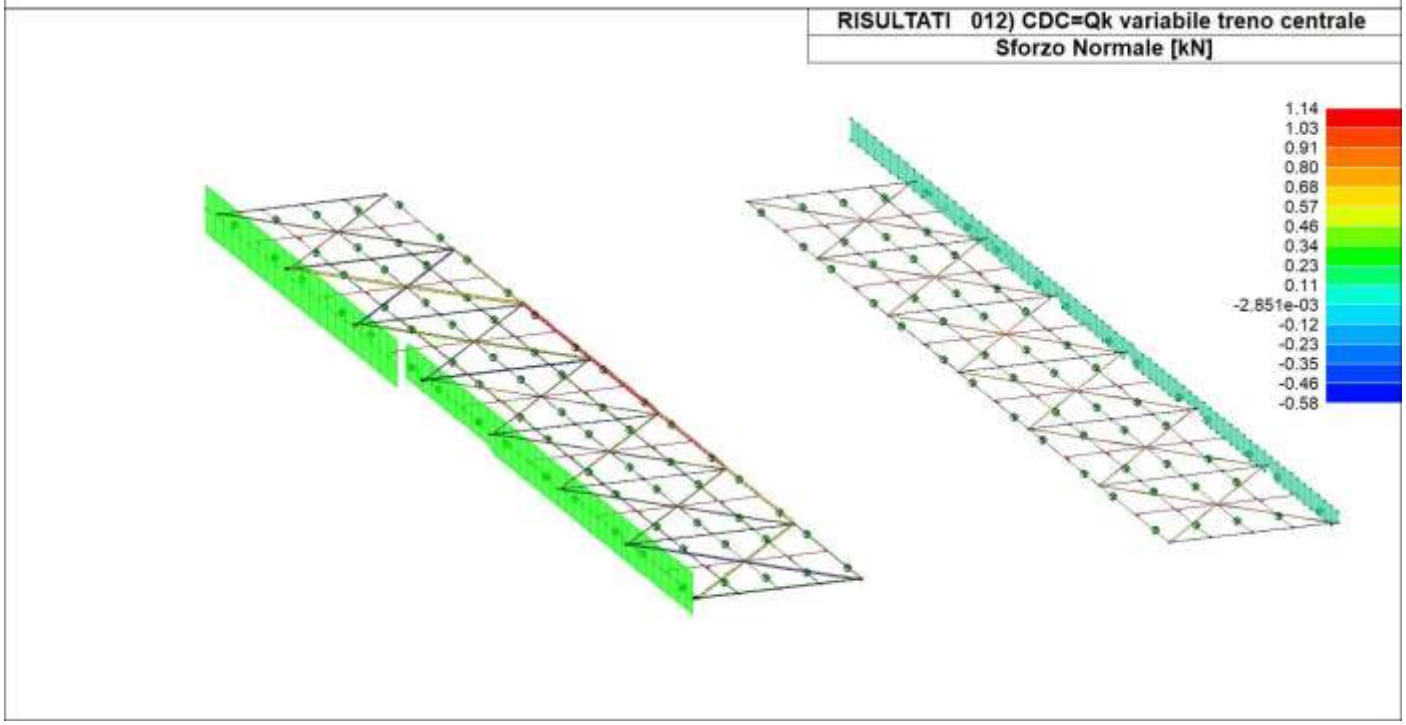

RISULTATI 007) CDC=G2k
Sforzo Normale [kN]
0.12
9.992e-02
7.618e-02
5.243e-02
2.868e-02
4.938e-03
-1.881e-02
-4.255e-02
-6.630e-02
-9.005e-02
-0.11
-0.14
-0.16
-0.19
-0.21
-0.23

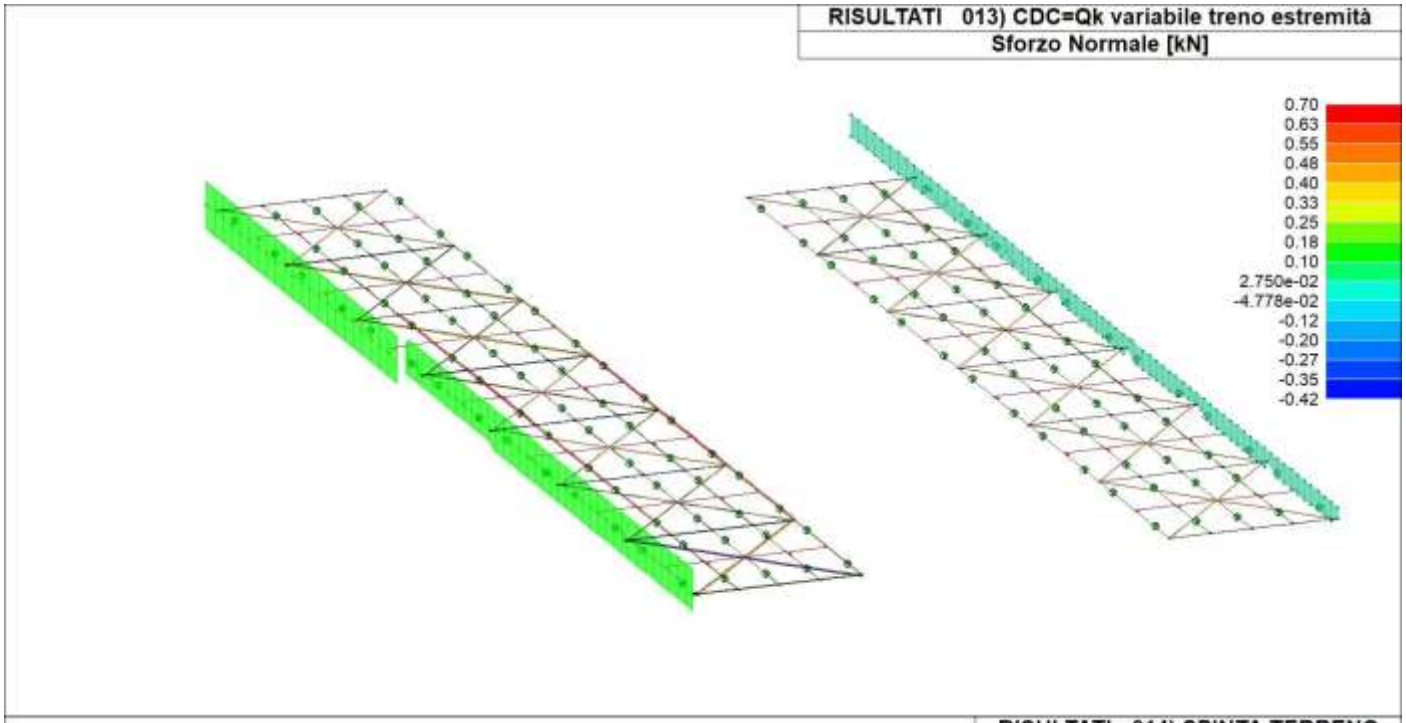

RISULTATI 008) CDC=Qk
Sforzo Normale [kN]
8.305e-02
7.043e-02
5.781e-02
4.519e-02
3.257e-02
1.995e-02
7.327e-03
-5.293e-03
-1.791e-02
-3.053e-02
-4.315e-02
-5.577e-02
-6.839e-02
-8.101e-02
-9.363e-02
-0.11

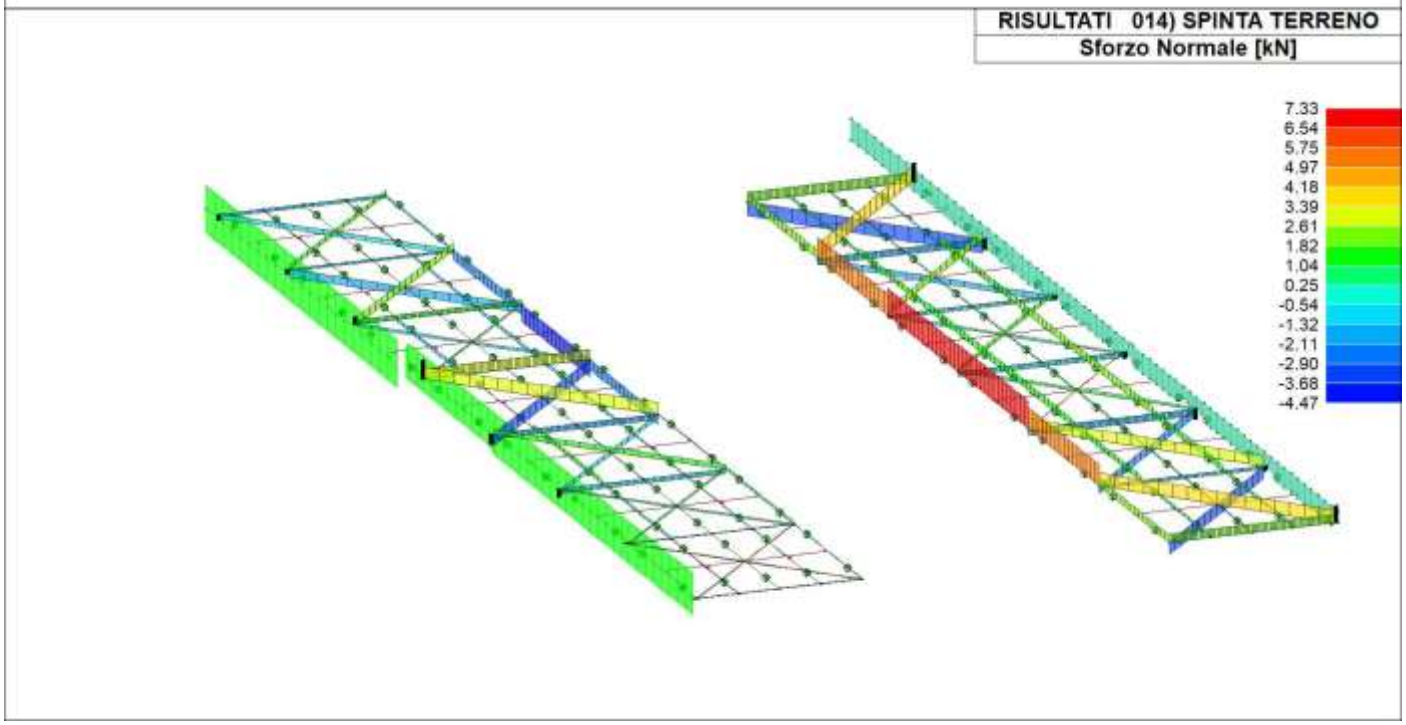

RISULTATI 009) CDC=G1k (permanente generico) .....
Sforzo Normale [kN]
7.230e-02
5.587e-02
3.944e-02
2.301e-02
6.576e-03
-9.855e-03
-2.629e-02
-4.272e-02
-5.915e-02
-7.558e-02
-9.201e-02
-0.11
-0.12
-0.14
-0.16
-0.17

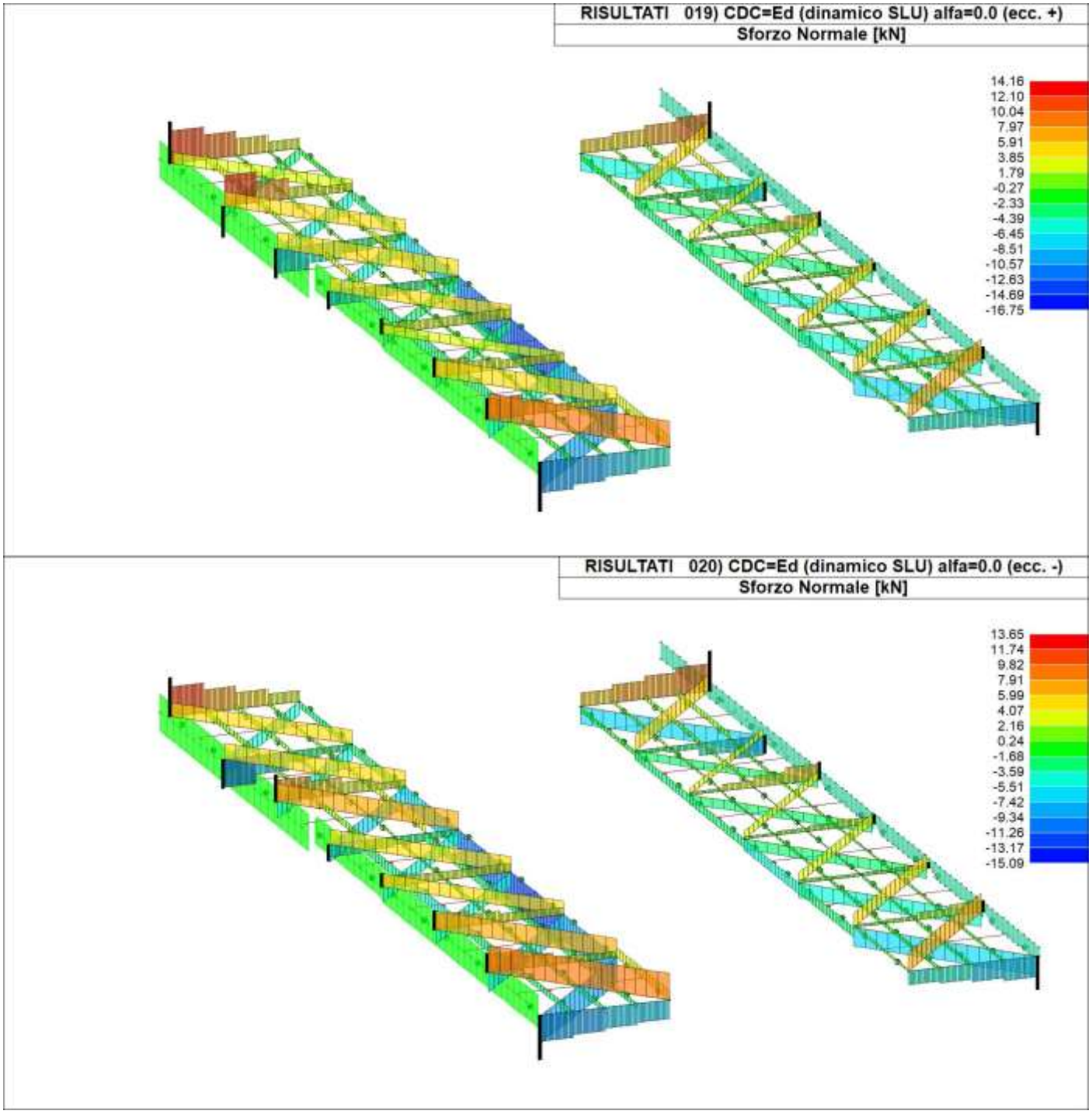

RISULTATI 010) CDC=Qvk (carico da vento) dir Y +
Sforzo Normale [kN]
4.73
4.17
3.62
3.06
2.51
1.95
1.40
0.84
0.28
-0.27
-0.83
-1.38
-1.94
-2.49
-3.05
-3.61

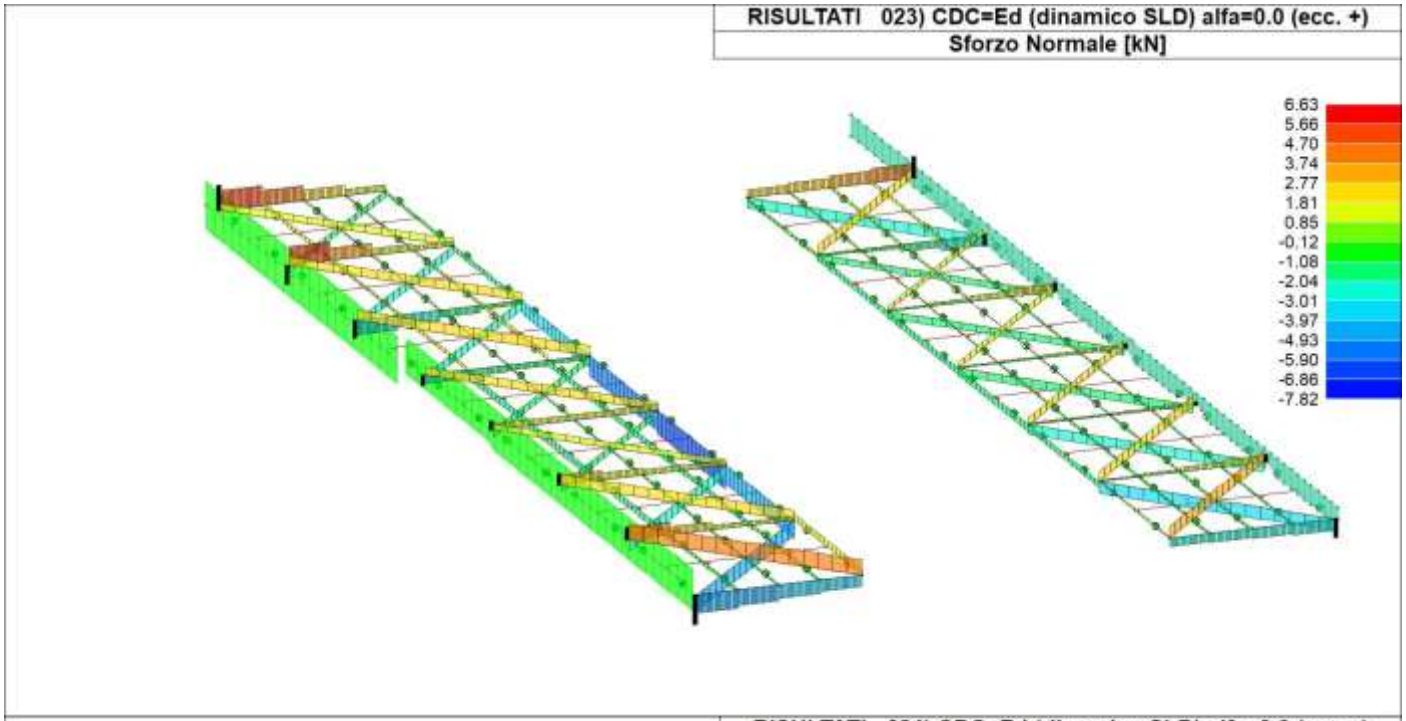

RISULTATI 011) CDC=Qvk (carico da vento) dir Y -
Sforzo Normale [kN]
3.61
3.05
2.49
1.94
1.38
0.83
0.27
-0.28
-0.84
-1.40
-1.95
-2.51
-3.06
-3.62
-4.17
-4.73

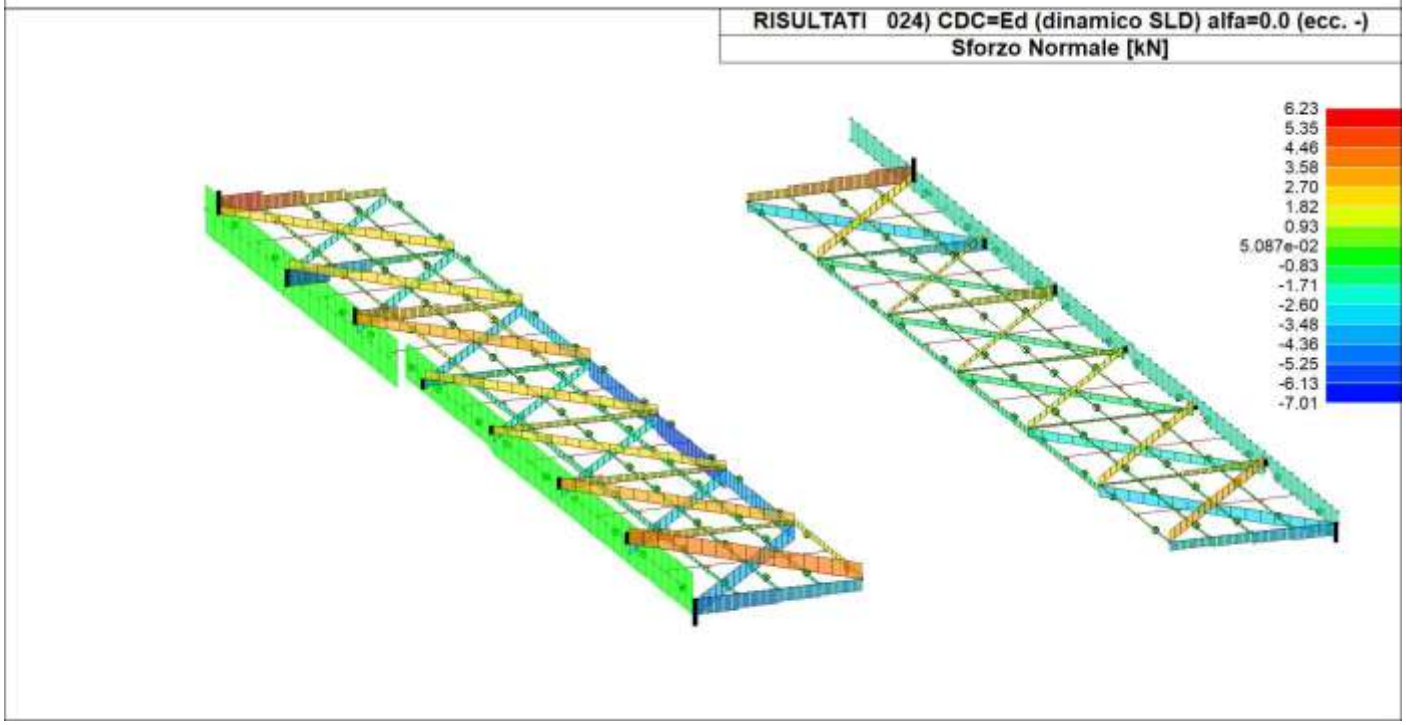

RISULTATI 012) CDC=Qk variabile treno centrale
Sforzo Normale [kN]
1.14
1.03
0.91
0.80
0.68
0.57
0.46
0.34
0.23
0.11
-2.851e-03
-0.12
-0.23
-0.35
-0.46
-0.58

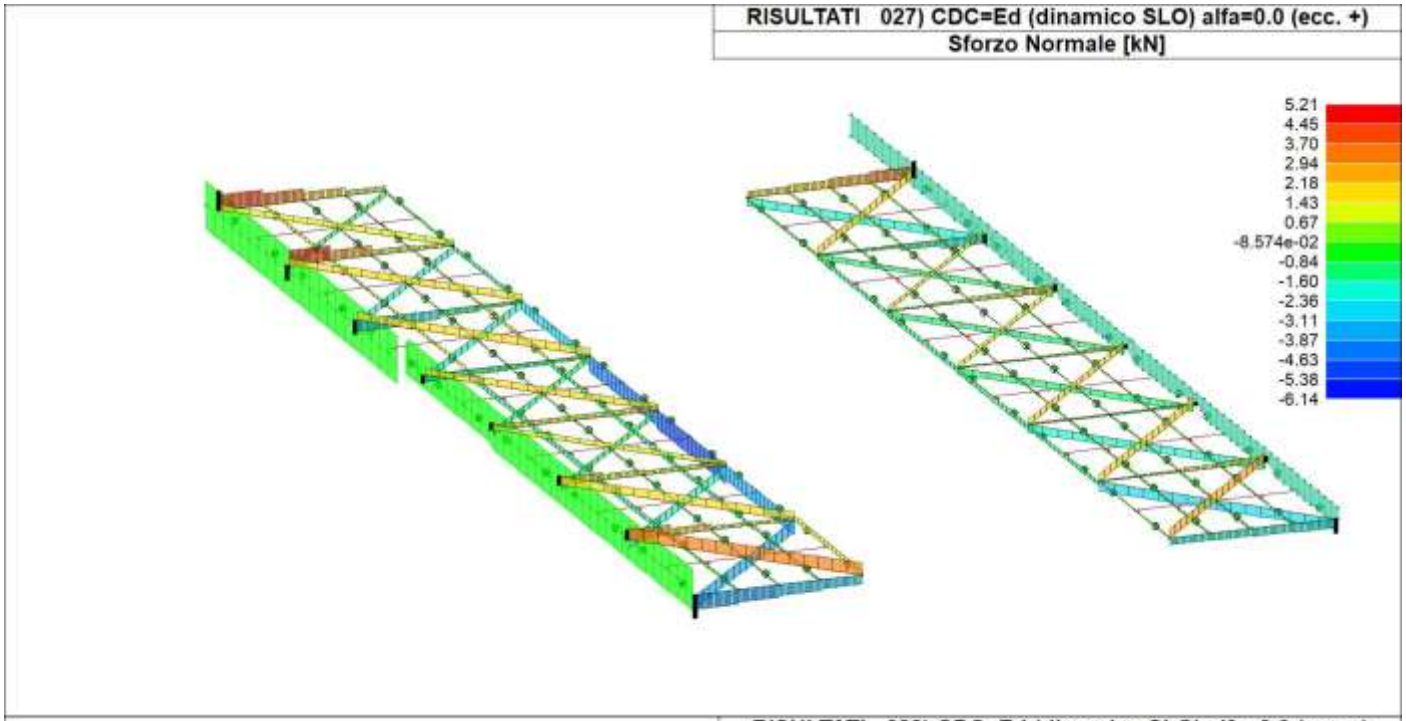

RISULTATI 013) CDC=Qk variabile treno estremità
Sforzo Normale [kN]
0.70
0.63
0.55
0.48
0.40
0.33
0.25
0.18
0.10
2.750e-02
-4.778e-02
-0.12
-0.20
-0.27
-0.35
-0.42

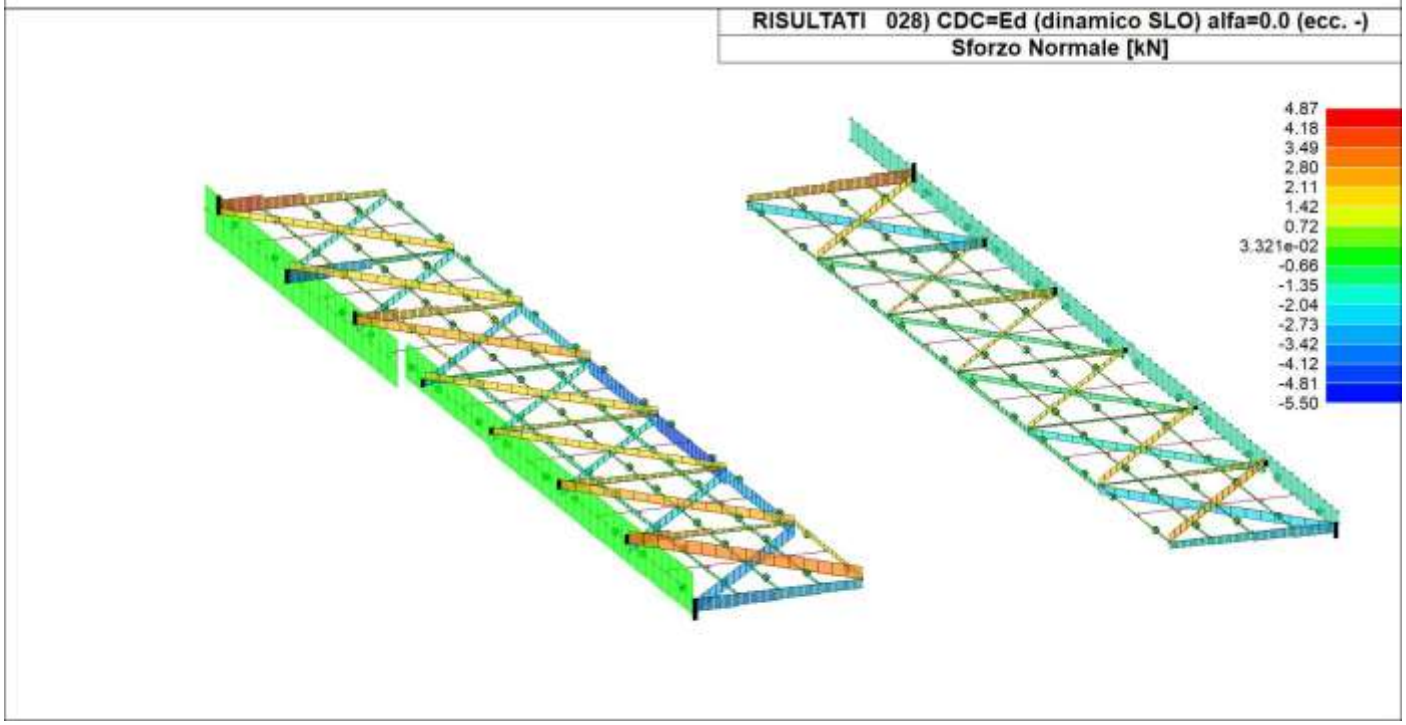

RISULTATI 014) SPINTA TERRENO
Sforzo Normale [kN]
7.33
6.54
5.75
4.97
4.18
3.39
2.61
1.82
1.04
0.25
-0.54
-1.32
-2.11
-2.90
-3.68
-4.47


RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Sforzo Normale [kN]
14.16
12.10
10.04
7.97
5.91
3.85
1.79
-0.27
-2.33
-4.39
-6.45
-8.51
-10.57
-12.63
-14.69
-16.75
RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Sforzo Normale [kN]
13.65
11.74
9.82
7.91
5.99
4.07
2.16
0.24
-1.68
-3.59
-5.51
-7.42
-9.34
-11.26
-13.17
-15.09

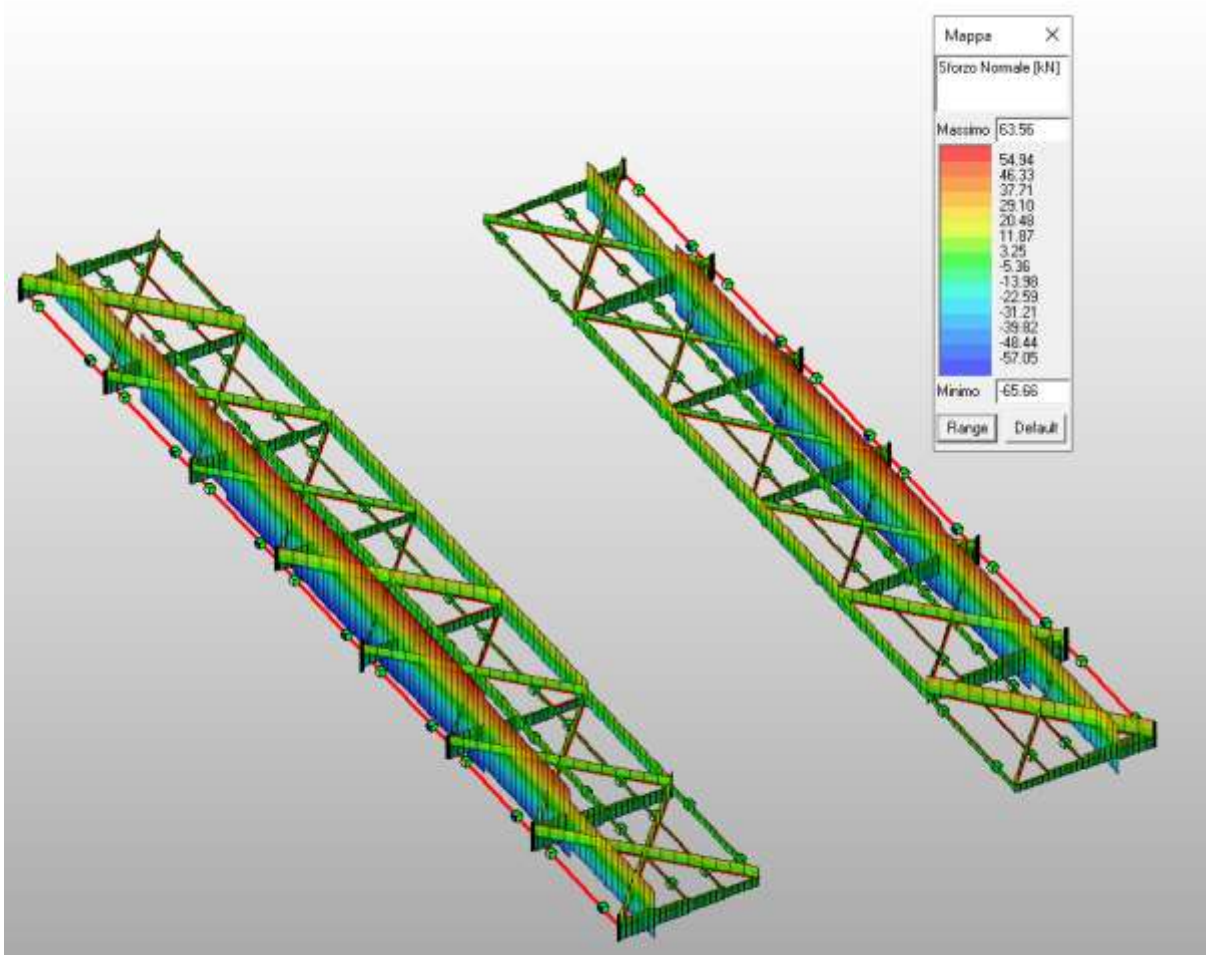

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Sforzo Normale [kN]
6.63
5.66
4.70
3.74
2.77
1.81
0.85
-0.12
-1.08
-2.04
-3.01
-3.97
-4.93
-5.90
-6.86
-7.82

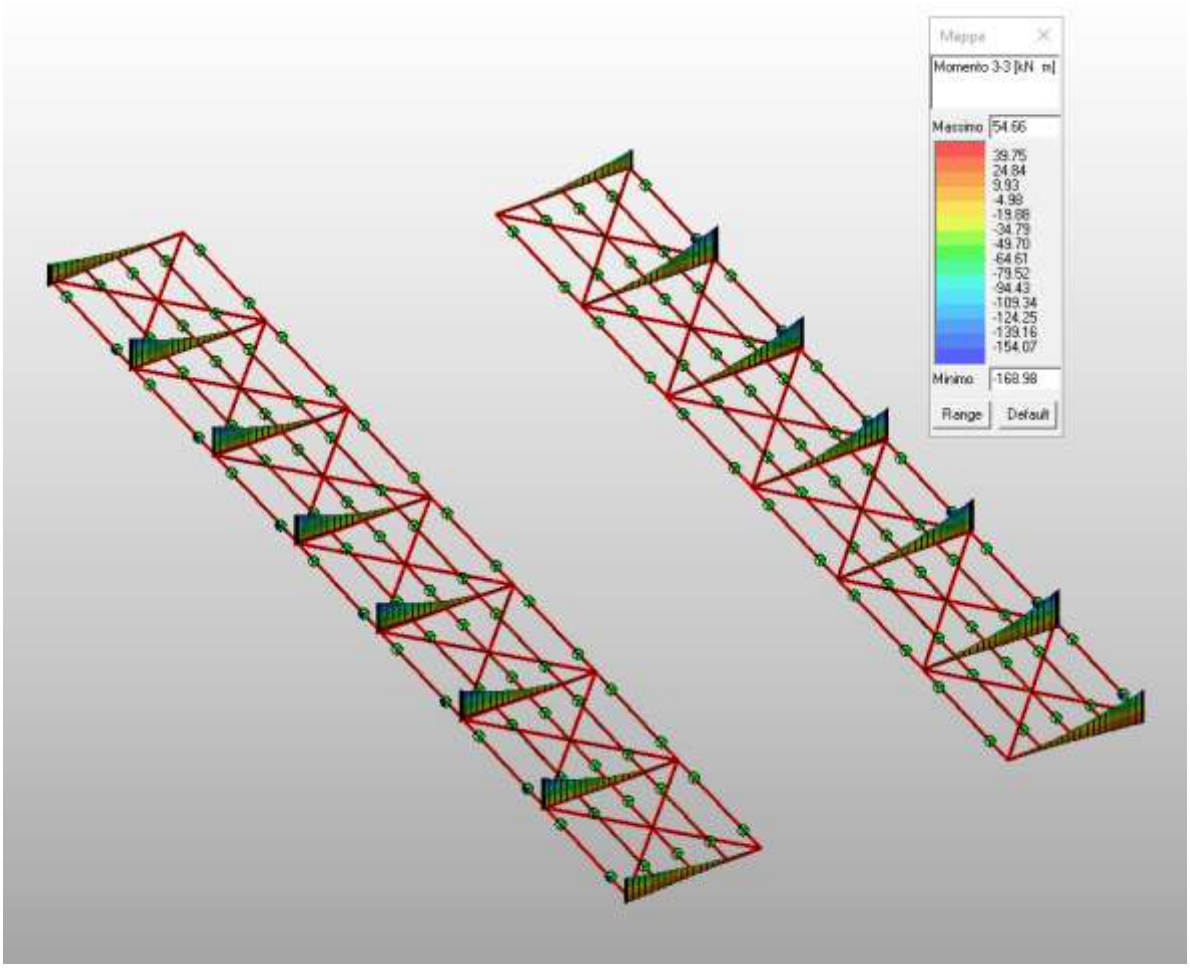

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Sforzo Normale [kN]
6.23
5.35
4.46
3.58
2.70
1.82
0.93
5.087e-02
-0.83
-1.71
-2.60
-3.48
-4.36
-5.25
-6.13
-7.01

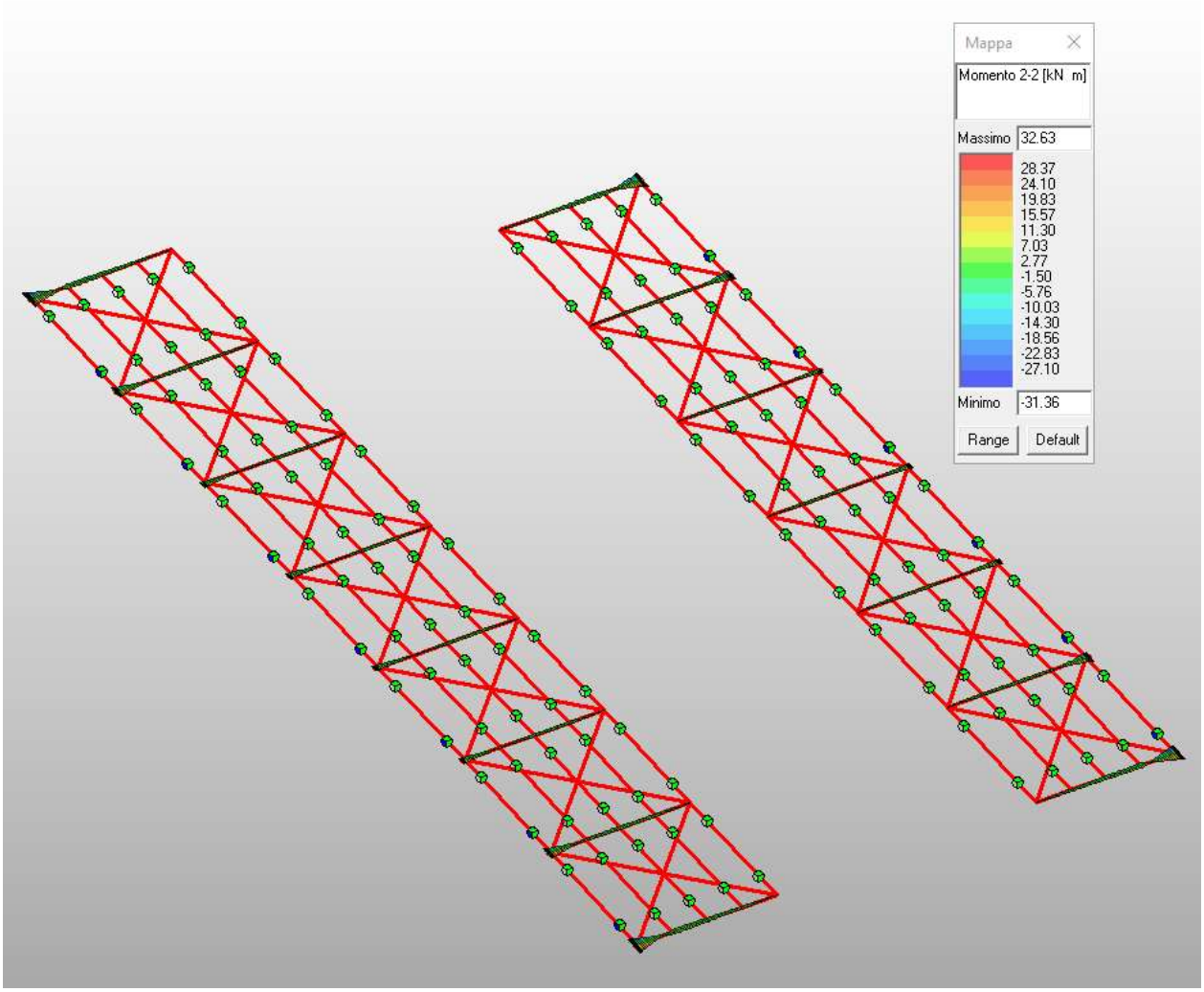

RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Sforzo Normale [kN]
5.21
4.45
3.70
2.94
2.18
1.43
0.67
-8.574e-02
-0.84
-1.60
-2.36
-3.11
-3.87
-4.63
-5.38
-6.14

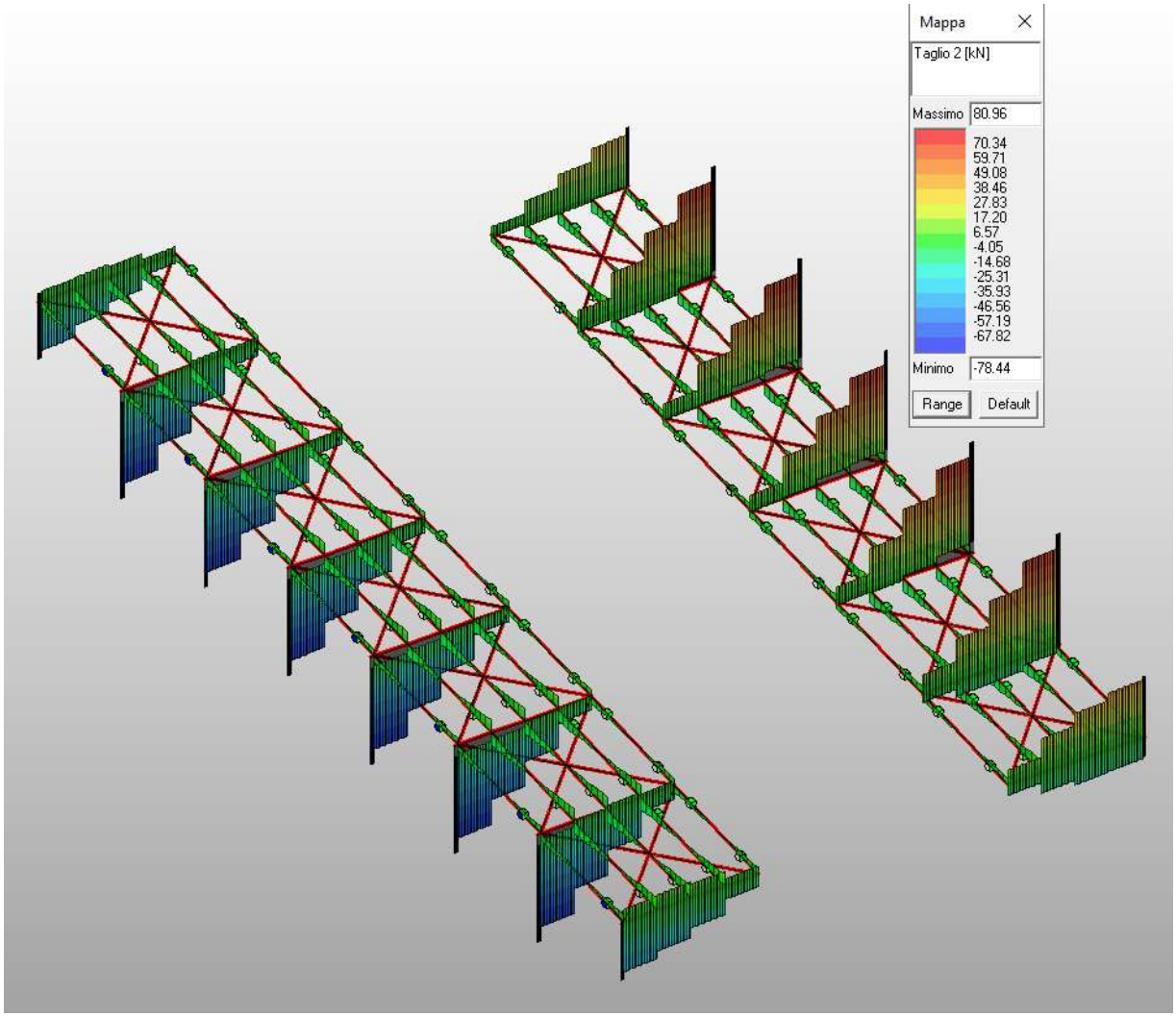

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Sforzo Normale [kN]
4.87
4.18
3.49
2.80
2.11
1.42
0.72
3.321e-02
-0.66
-1.35
-2.04
-2.73
-3.42
-4.12
-4.81
-5.50

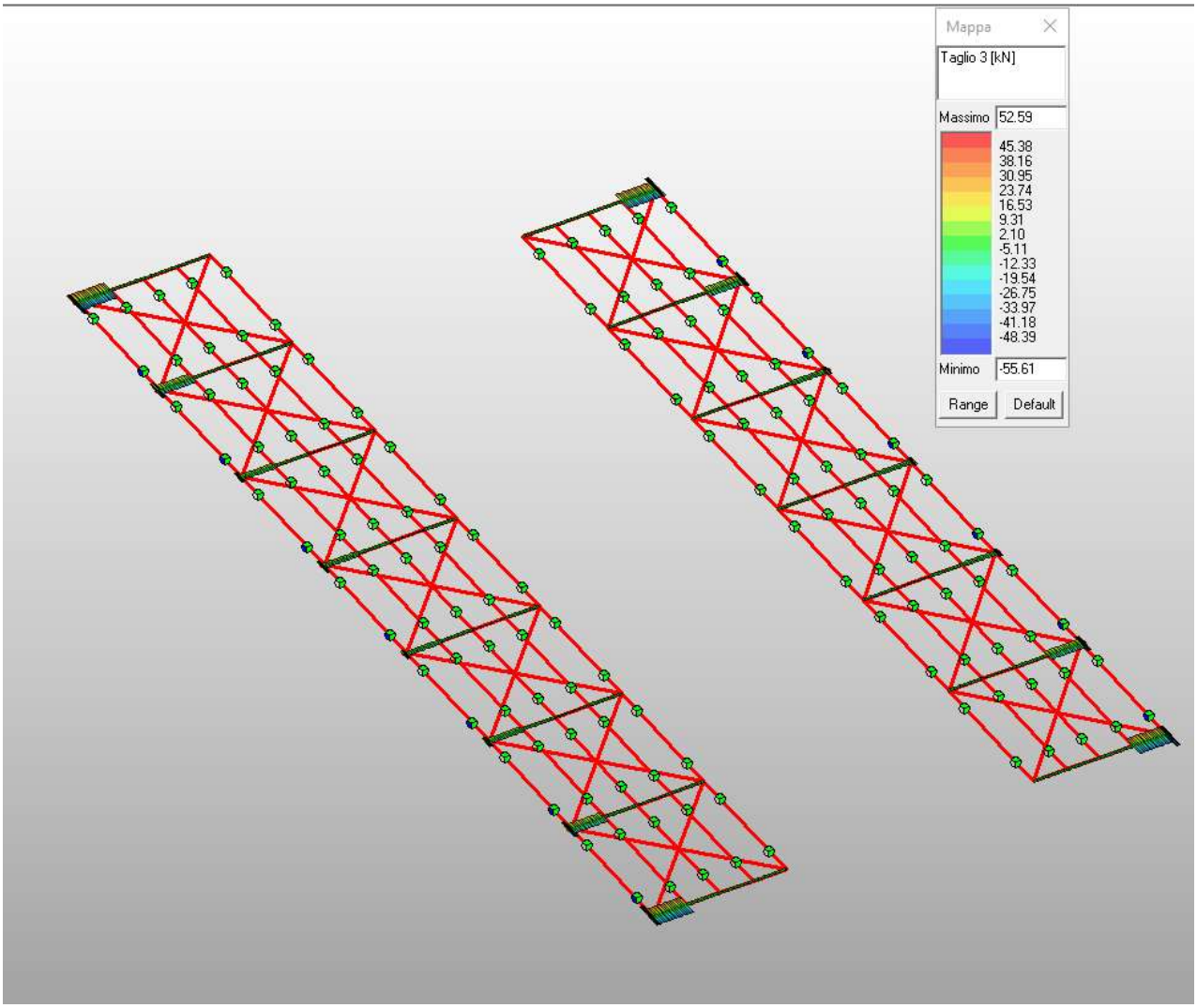
10.5 INVILUPPO SOLLECITAZIONI




Mappe
Momento 3-3 [kN m]
Massimo 54.66
39.75
24.84
9.93
-4.98
-19.88
-34.79
-49.70
-64.61
-79.52
-94.43
-109.34
-124.25
-139.16
-154.07
Minimo -168.98
Range
Default


Mappa
Momento 2-2 [kN m]
Massimo 32.63
28.37
24.10
19.83
15.57
11.30
7.03
2.77
-1.50
-5.76
-10.03
-14.30
-18.56
-22.83
-27.10
Minimo -31.36
Range
Default

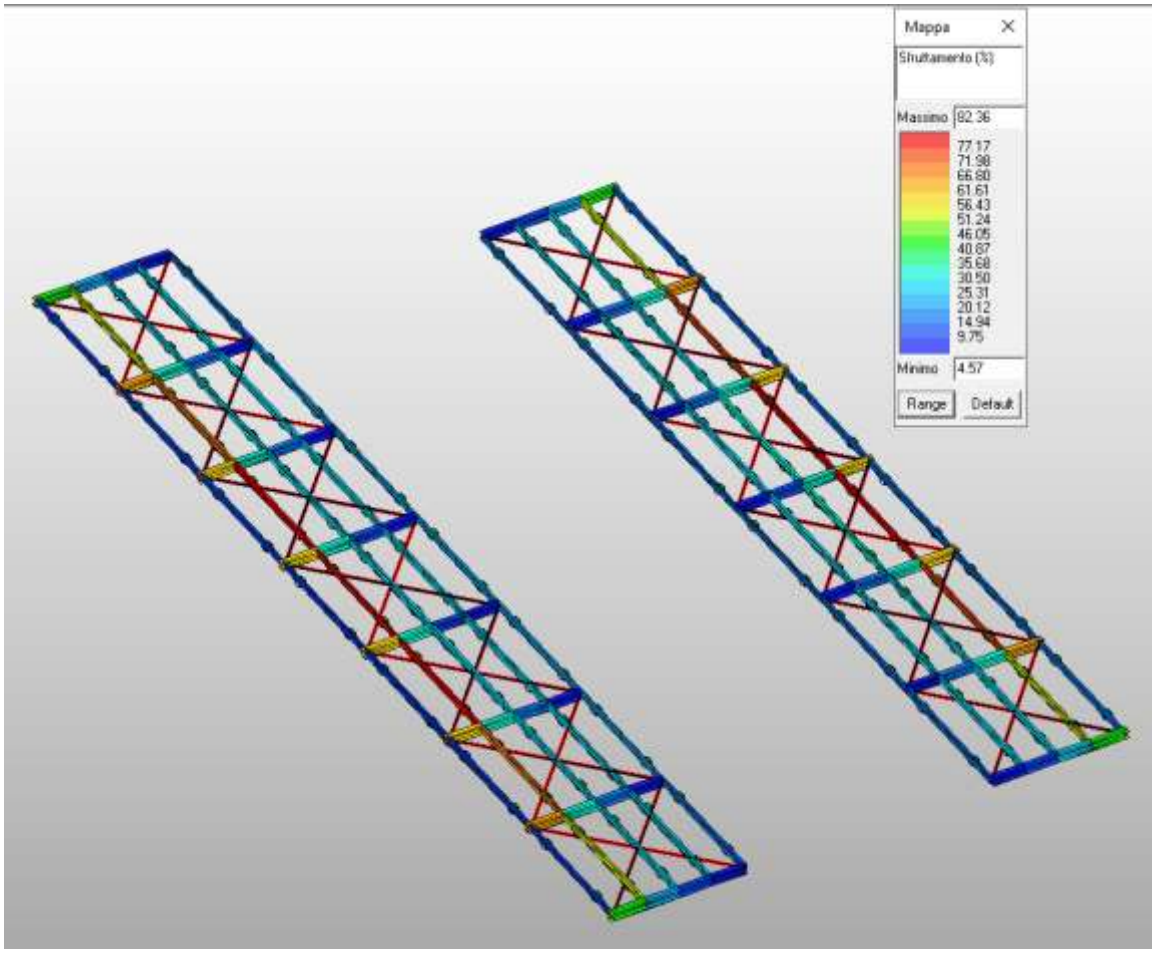

Mappa
Taglio 2 [kN]
Massimo 80.96
70.34
59.71
49.08
38.46
27.83
17.20
6.57
-4.05
-14.68
-25.31
-35.93
-46.56
-57.19
-67.82
Minimo -78.44
Range
Default

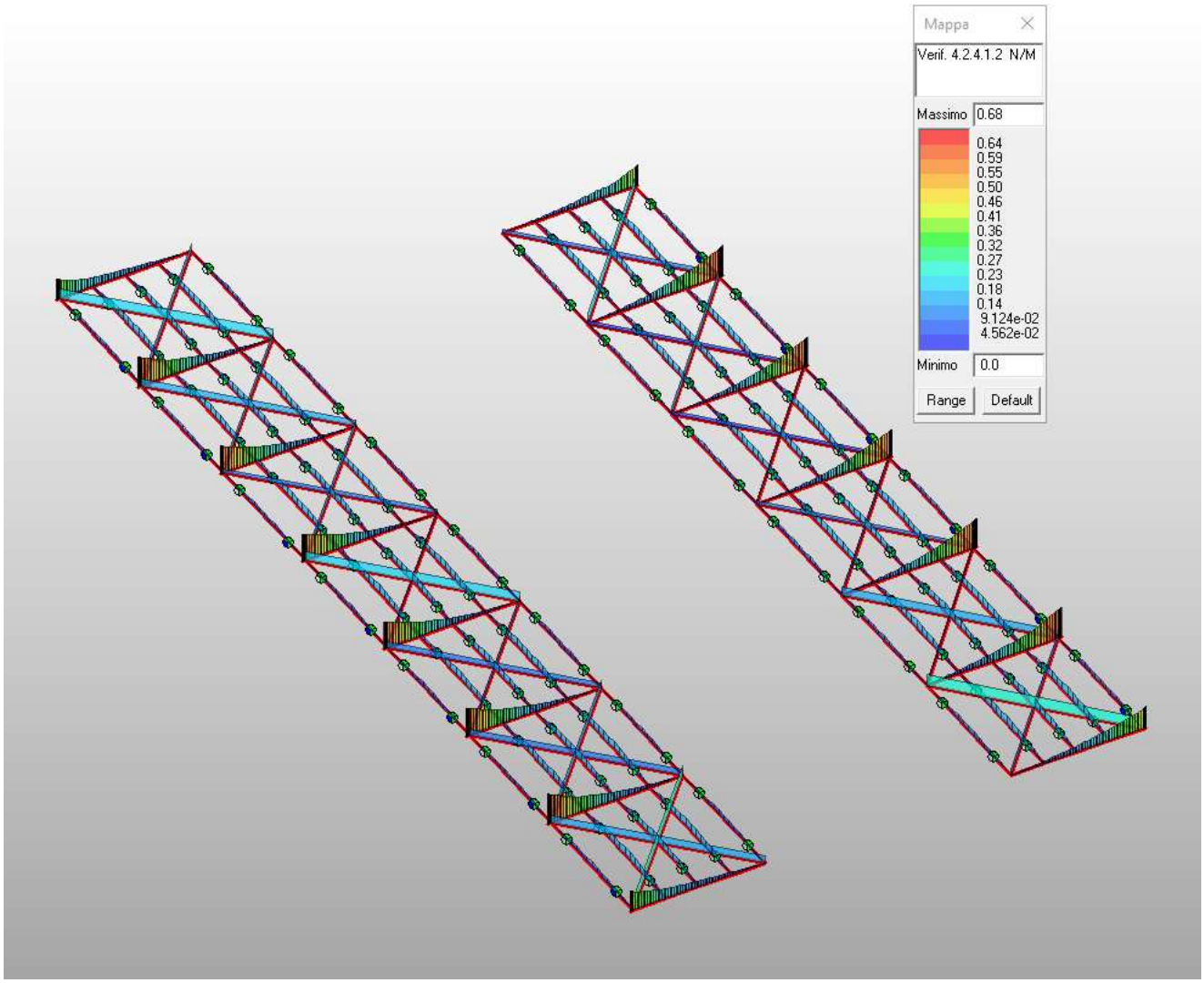

Mappa
Taglio 3 [kN]
Massimo 52.59
45.38
38.16
30.95
23.74
16.53
9.31
2.10
-5.11
-12.33
-19.54
-26.75
-33.97
-41.18
-48.39
Minimo -55.61
Range
Default

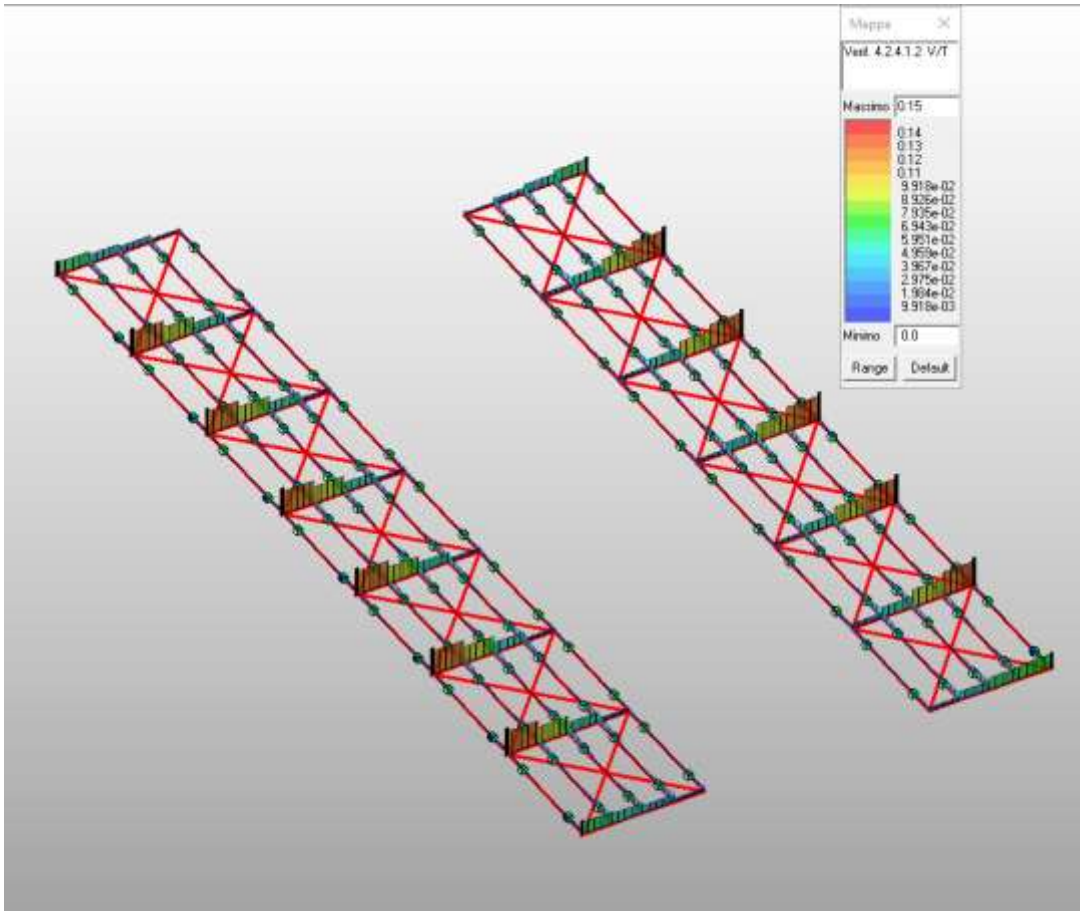
10.6 VERIFICHE

10.6.1 Verifica allo SLU

VERIFICHE DI RESISTENZA TRAVI IN ACCIAIO




Mappa
Verif. 4.2.4.1.2 N/M
Massimo 0.68
0.64
0.59
0.55
0.50
0.46
0.41
0.36
0.32
0.27
0.23
0.18
0.14
9.124e-02
4.562e-02
Minimo 0.0
Range
Default


Mappa
Vent. 4.2.4.1.2 V/T
Massimo 0.15
0.14
0.13
0.12
0.11
9.918e-02
8.926e-02
7.935e-02
6.943e-02
5.951e-02
4.959e-02
3.967e-02
2.975e-02
1.984e-02
9.918e-03
Minimo 0.0
Range
Default

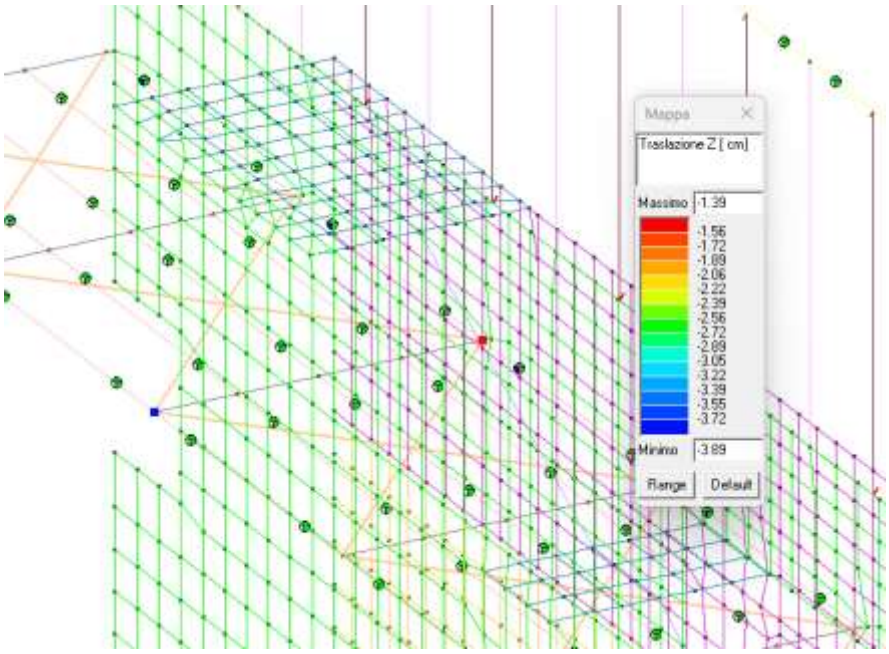
10.6.2 Verifica allo SLD in termini si resistenza

Le verifiche allo SLD in termini di resistenza non sono necessarie in quanto si è progettata la struttura allo SLV con q=1 ottentendo sollecitazioni sempre maggiori rispetto a quello allo SLD

10.6.3 Verifica allo SLE in termini di deformazione

VERIFICA DEFORMAZIONE PENSILINA

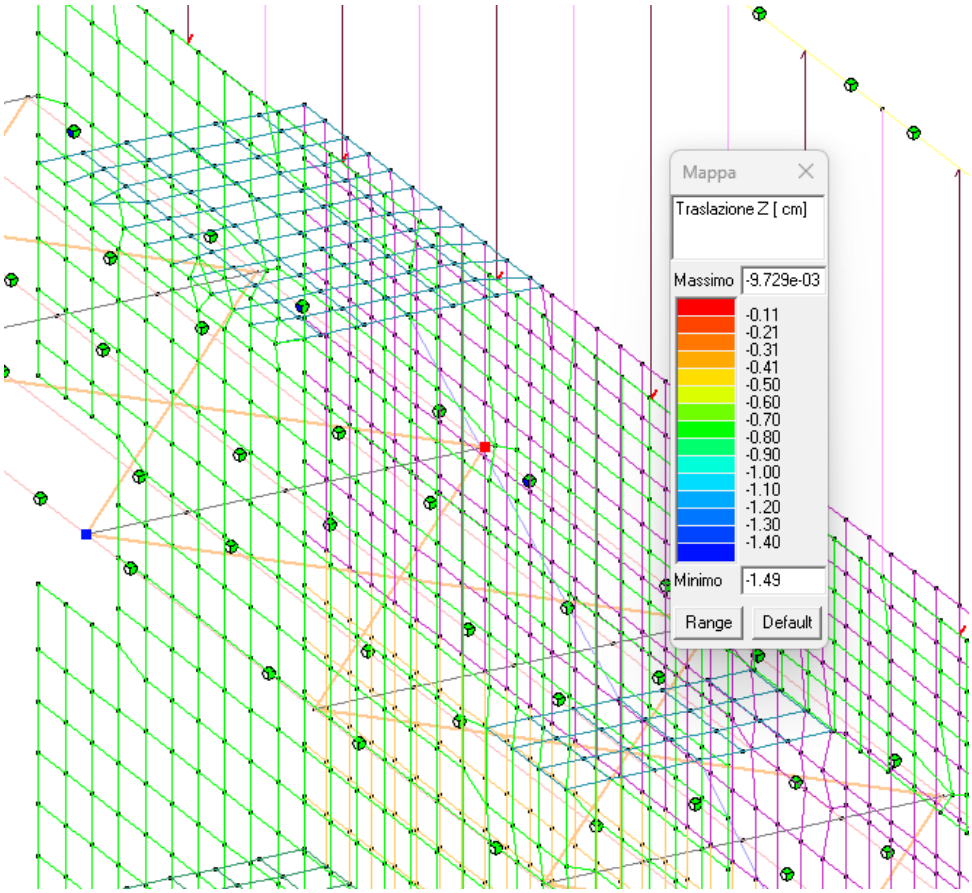
COMBINAZIONE SLE RARA



Limite normativo SLE rara= 408 / 250 X 2 = 3,26 cm

Deformata SLE rara = 2,5 cm < 3,26 cm verifica soddisfatta

CARICO VARIABILE

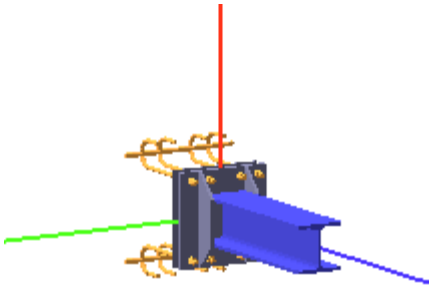


VERIFICA CAMPATA MAGGIORE

Limite normativo SLE rara= 408 / 300 X 2 = 2,72 cm

Deformata SLE rara = 1.49 cm < 2,72 cm verifica soddisfatta

10.6.4 Verifica unioni



Coefficienti di sicurezza utilizzati

γ_{M0} = 1.05
γ_{M1} = 1.10
γ_{M2} = 1.25

Trave 3

Tipo di profilo: HEB 220
Materiale: Acciaio S355 f_y = 355 N/mm^2 f_t = 510 N/mm^2 γ_{ov} = 1.25
Classe sezione: 1

Flangia:
Materiale: Acciaio S355 f_y = 355 N/mm^2 f_t = 510 N/mm^2 γ_{ov} = 1.25
Dimensioni (B x H x Sp): 440.0 x 440.0 x 27.0 mm
Spessore nervature verticali: 16.0 mm

Bullonature:
Viti cl. 8.8 Dadi 8 o 10 (f_{yb} = 640 N/mm^2, f_{tb} = 800 N/mm^2)
Diametro gambo Ø = 20 mm A_{res} = 245.0 mm^2 (ridotta per filettatura)
Diametro dado/testa d_m = 30 mm
Diametro foro $Ø_0$ = 21 mm

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):
$S_{j,ini}$ non calcolabile

Saldature:
Materiale: Acciaio S355 f_y = 355 N/mm^2 f_t = 510 N/mm^2 β_1 = 0.70 β_2 = 0.85
Spessore cordoni d'angolo s_c = 8 mm

Sollecitazioni:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
211.8	80964.4	18083.6	-1070.0	-10660000.0	-169000000.0	0.0
3018.5	80964.4	17448.4	3101.2	-10590000.0	-169000000.0	0.0
3060.8	80964.4	92.5	-5606.0	-57261.0	-169000000.0	0.0

Calcolo resistenze

Resistenza a trazione dei bulloni $F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 141145.5 N

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} =$ 622940.1 N

Bull.	$F_{f,Rd}$ [N]	$F_{t,Rd}$ [N]
1	131638.2	131638.2
2	131638.2	131638.2
3	182198.6	141145.5
4	182198.6	141145.5
5	182198.6	141145.5
6	182198.6	141145.5
7	131638.2	131638.2
8	131638.2	131638.2

Legenda

$F_{f,Rd} = M_{res,m} / (B_m \cdot R_m)$ resistenza a flessione flangia

$F_{t,Rd} = \min [F_{tb,Rd} , B_{pf,Rd} , F_{f,Rd}]$ resistenza a trazione di progetto

Resistenza a taglio dei bulloni $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$ 94097.0 N

Bull.	$F_{bf,x,Rd}$ [N]	$F_{v,x,Rd}$ [N]	$F_{bf,y,Rd}$ [N]	$F_{v,y,Rd}$ [N]
1	437142.9	94097.0	349714.3	94097.0
2	437142.9	94097.0	349714.3	94097.0
3	550800.0	94097.0	349714.3	94097.0
4	550800.0	94097.0	349714.3	94097.0
5	550800.0	94097.0	349714.3	94097.0
6	550800.0	94097.0	349714.3	94097.0
7	437142.9	94097.0	349714.3	94097.0
8	437142.9	94097.0	349714.3	94097.0

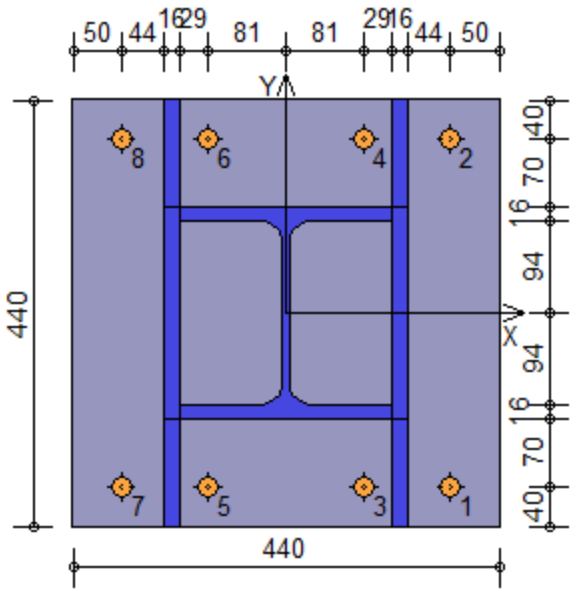
Legenda

$F_{bf,x,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione x

$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot Ø \cdot t_f / \gamma_{M2}$ resistenza a rifollamento flangia in direzione y

$F_{v,y,Rd} = \min [F_{vb,Rd} , F_{bf,y,Rd}]$ resistenza a taglio di progetto in direzione y



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 3018, CMB n. 5)

Bull.	X [mm]	Y [mm]	$F_{v,Ed}$ [N]	$F_{v,Rd}$ [N]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_1	VER
1	170.00	-180.00	10352.9	94097.0	0.0	131638.2	0.110024	Ok
2	170.00	180.00	10352.9	94097.0	113943.3	131638.2	0.728295	Ok
3	81.00	-180.00	10352.9	94097.0	0.0	141145.5	0.110024	Ok
4	81.00	180.00	10352.9	94097.0	116841.4	141145.5	0.701316	Ok
5	-81.00	-180.00	10352.9	94097.0	0.0	141145.5	0.110024	Ok
6	-81.00	180.00	10352.9	94097.0	122116.6	141145.5	0.728011	Ok
7	-170.00	-180.00	10352.9	94097.0	0.0	131638.2	0.110024	Ok
8	-170.00	180.00	10352.9	94097.0	125014.8	131638.2	0.788370	Ok

2-Trazione (Nodo n. 3018, CMB n. 5)

Bull.	X [mm]	Y [mm]	$F_{t,Ed}$ [N]	$F_{t,Rd}$ [N]	FV_2	VER
1	170.00	-180.00	0.0	131638.2	0.000000	Ok
2	170.00	180.00	113943.3	131638.2	0.865580	Ok
3	81.00	-180.00	0.0	141145.5	0.000000	Ok
4	81.00	180.00	116841.4	141145.5	0.827808	Ok
5	-81.00	-180.00	0.0	141145.5	0.000000	Ok
6	-81.00	180.00	122116.6	141145.5	0.865183	Ok
7	-170.00	-180.00	0.0	131638.2	0.000000	Ok
8	-170.00	180.00	125014.8	131638.2	0.949685	Ok

Legenda

$F_{v,Ed}$ forza di taglio agente sul bullone
$F_{v,Rd}$ resistenza a taglio di progetto del bullone
$F_{t,Ed}$ forza di trazione agente sul bullone
$F_{t,Rd}$ resistenza a trazione di progetto del bullone
$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \bullet F_{t,Rd})$
$FV_2 = F_{t,Ed} / F_{t,Rd}$
VER $\rightarrow$ $FV_i \leq 1$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 5.657$) in posizione ribaltata: vengono considerate positive le tensioni normali di trazione e le tensioni tangenziali agenti verso destra e verso il basso. Tutte le tensioni sono espresse in N/mm^2.

Verifica formula (4.2.84) (Nodo n. 3018, CMB n. 5)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_1	VER_1
Nerv. verticale lato destro esterno	440.0	-190.66	0.00	7.39	190.80	Ok
Nerv. vert. lato destro interno zona inferiore	102.0	-189.15	0.00	7.39	189.29	Ok
Nerv. vert. lato sinistro interno zona inferiore	102.0	-174.16	0.00	7.39	174.32	Ok
Nerv. verticale lato sinistro esterno	440.0	191.06	0.00	7.39	191.20	Ok
Ala inferiore esterno	220.0	-93.06	0.00	3.91	93.15	Ok
Ala inferiore interno lato destro	87.3	-82.85	0.00	3.91	82.94	Ok
Ala inferiore interno lato sinistro	87.3	-73.57	0.00	3.91	73.68	Ok
Nerv. vert. lato destro interno zona centrale	172.0	-78.38	0.00	7.39	78.73	Ok
Anima lato destro	152.0	63.02	0.00	7.39	63.46	Ok
Anima lato sinistro	152.0	63.02	0.00	7.39	63.46	Ok
Nerv. vert. lato sinistro interno zona centrale	172.0	78.78	0.00	7.39	79.13	Ok
Ala superiore interno lato destro	87.3	73.97	0.00	3.91	74.08	Ok
Ala superiore interno lato sinistro	87.3	83.25	0.00	3.91	83.35	Ok
Ala superiore esterno	220.0	101.16	0.00	3.91	101.23	Ok
Nerv. vert. lato destro interno zona superiore	102.0	174.56	0.00	7.39	174.72	Ok
Nerv. vert. lato sinistro interno zona superiore	102.0	189.55	0.00	7.39	189.69	Ok

Verifica formula (4.2.85) (Nodo n. 3018, CMB n. 5)

Cordoni	Lung.[mm]	$n_\perp$	$t_\perp$	$\tau_\parallel$	FV_2	VER_2
Nerv. verticale lato destro esterno	440.0	-190.66	0.00	7.39	190.66	Ok
Nerv. vert. lato destro interno zona inferiore	102.0	-189.15	0.00	7.39	189.15	Ok
Nerv. vert. lato sinistro interno zona inferiore	102.0	-174.16	0.00	7.39	174.16	Ok

Nerv. verticale lato sinistro esterno	440.0	191.06	0.00	7.39	191.06	Ok
Ala inferiore esterno	220.0	-93.06	0.00	3.91	93.06	Ok
Ala inferiore interno lato destro	87.3	-82.85	0.00	3.91	82.85	Ok
Ala inferiore interno lato sinistro	87.3	-73.57	0.00	3.91	73.57	Ok
Nerv. vert. lato destro interno zona centrale	172.0	-78.38	0.00	7.39	78.38	Ok
Anima lato destro	152.0	63.02	0.00	7.39	63.02	Ok
Anima lato sinistro	152.0	63.02	0.00	7.39	63.02	Ok
Nerv. vert. lato sinistro interno zona centrale	172.0	78.78	0.00	7.39	78.78	Ok
Ala superiore interno lato destro	87.3	73.97	0.00	3.91	73.97	Ok
Ala superiore interno lato sinistro	87.3	83.25	0.00	3.91	83.25	Ok
Ala superiore esterno	220.0	101.16	0.00	3.91	101.16	Ok
Nerv. vert. lato destro interno zona superiore	102.0	174.56	0.00	7.39	174.56	Ok
Nerv. vert. lato sinistro interno zona superiore	102.0	189.55	0.00	7.39	189.55	Ok

Legenda

$n_\perp$ tensione normale perpendicolare all'asse del cordone

$t_\perp$ tensione tangenziale perpendicolare all'asse del cordone

$\tau_{||}$ tensione tangenziale parallela all'asse del cordone

$FV_1 = (n_\perp^2 + t_\perp^2 + \tau_{||}^2)^{0.5}$

$FV_2 = |n_\perp| + |t_\perp|$

$VER_i \rightarrow FV_i \le \beta_i \cdot f_{yk}$ ($\beta_1 \cdot f_{yk} = 248.50$ N/mm^2 $\beta_2 \cdot f_{yk} = 301.75$ N/mm^2)

Verifiche a flessione piastra in zona compressa

Sezione parallela a X a filo della trave (Nodo n. 3060, CMB n. 8)

Pressione media a bordo piastra $p_{med} = 16.48$ N/mm^2

Carico lineare sbalzo $q_{lin} = 7249.14$ N/mm

Lunghezza sbalzo $L_s = 110.0$ mm

Modulo di resistenza minimo $W_{min} = 135500.8$ mm^3

Momento resistente $M_{p,Rd} =$ 45812190.0 N mm

Momento massimo $M_{p,Ed} =$ 43857300.0 N mm

$M_{p,Ed} / M_{p,Rd} = 0.957328$ Ok

Sezione parallela a Y a filo della nervatura verticale (Nodo n. 211, CMB n. 8)

Pressione media a bordo piastra $p_{med} = 9.19$ N/mm^2

Carico lineare sbalzo $q_{lin} = 4042.70$ N/mm

Lunghezza sbalzo $L_s = 94.0$ mm

Modulo di resistenza minimo $W_{min} = 53460.0$ mm^3

Momento resistente $M_{p,Rd} =$ 18074570.0 N mm

Momento massimo $M_{p,Ed} =$ 17860630.0 N mm

$M_{p,Ed} / M_{p,Rd} = 0.988164$ Ok

Verifica del momento di progetto del giunto (Nodo n. 3018, CMB n. 5)

Momento resistente del giunto $M_{j,Rd} =$ 193607800.0 N mm

Momento di progetto $M_{j,Ed} =$ 169542300.0 N mm

$M_{j,Ed} / M_{j,Rd} = 0.875700$ Ok

Ancoraggio

Tirafondi con uncini e bolzoni

Lunghezza tirafondi $L_t =$ 600 mm (rettilineo 332 mm, arco 188 mm, terminale 80 mm)

Lunghezza di aderenza $L_a =$ 732 mm (si considera l'uncino equivalente ad un tratto rettilineo lungo 20Ø)

Diametro bolzoni $Ø_b =$ 24 mm

Lunghezza minima tirafondi: 40 diametri (800 mm)

Calcestruzzo

Resistenza cubica caratteristica a compressione $R_{ck} =$ 40.00 N/mm^2

Resistenza cilindrica caratteristica a compressione	$f_{ck} = 0.83 \cdot R_{ck} =$	33.20 N/mm^2
Resistenza di calcolo a compressione	$f_{cd} = \alpha_{cc} \cdot f_{ck} / \gamma_C =$	18.81 N/mm^2
Resistenza caratteristica a trazione	$f_{ctk} = 0.7 \cdot 0.30 \cdot f_{ck}^{2/3} =$	2.17 N/mm^2
Resistenza tangenziale di aderenza di calcolo	$f_{bd} = 2.25 \cdot \eta_1 \cdot \eta_2 \cdot f_{ctk} / \gamma_C =$	3.25 N/mm^2

Compressione massima calcestruzzo (Nodo n. 211, CMB n. 8)

$p_{max} = 18.38$ N/mm^2 $<$ f_{cd} Ok

Verifica ancoraggio

Si considera la massima sollecitazione di trazione agente nei tirafondi (Nodo n. 3018, CMB n. 5)

Trazione di progetto dell'ancoraggio	$F_{t,an,Ed} = \max [F_{t,Ed}] =$	125014.8 N
Resistenza a trazione per aderenza	$F_{t,ad,Rd} = L_a \cdot \pi \cdot Ø \cdot f_{bd} =$	149655.8 N

$F_{t,ad,Rd} > F_{t,an,Ed}$ Ok

11. VALIDAZIONE DEI RISULTATI

Per la validazione dei risultati, essendo il modello il medesimo, si rimanda alla relazione LI0B02EZZCLTR0600001B

12. ALLEGATO FASCICOLO DEI CALCOLI