

COMMITTENTE:



DIREZIONE INVESTIMENTI
DIREZIONE PROGRAMMI INVESTIMENTI
DIRETTRICE SUD - PROGETTO ADRIATICA

DIREZIONE LAVORI:



APPALTATORE:

Mandataria

Mandanti



PROGETTAZIONE:

MANDATARIA

MANDANTI



PROGETTO ESECUTIVO

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

Relazione di calcolo muri architettonici

L'Appaltatore

Ing. Gianguido Babini

A.A. D'AGOSTINO COSTRUZIONI GENERALI S.p.A.
Il Direttore Tecnico
(Ing. Gianguido Babini)

I progettisti (il Direttore della progettazione)

Ing. Massimo Facchini

Data 18/12/2022

firma

Data 18/12/2022

firma



COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA / DISCIPLINA	PROGR	REV	SCALA
L I O B	0 2	E	Z Z	C L	T R 0 6 0 0	0 0 3	B	---

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Aut. 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 4/07/2023

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	1

INDICE

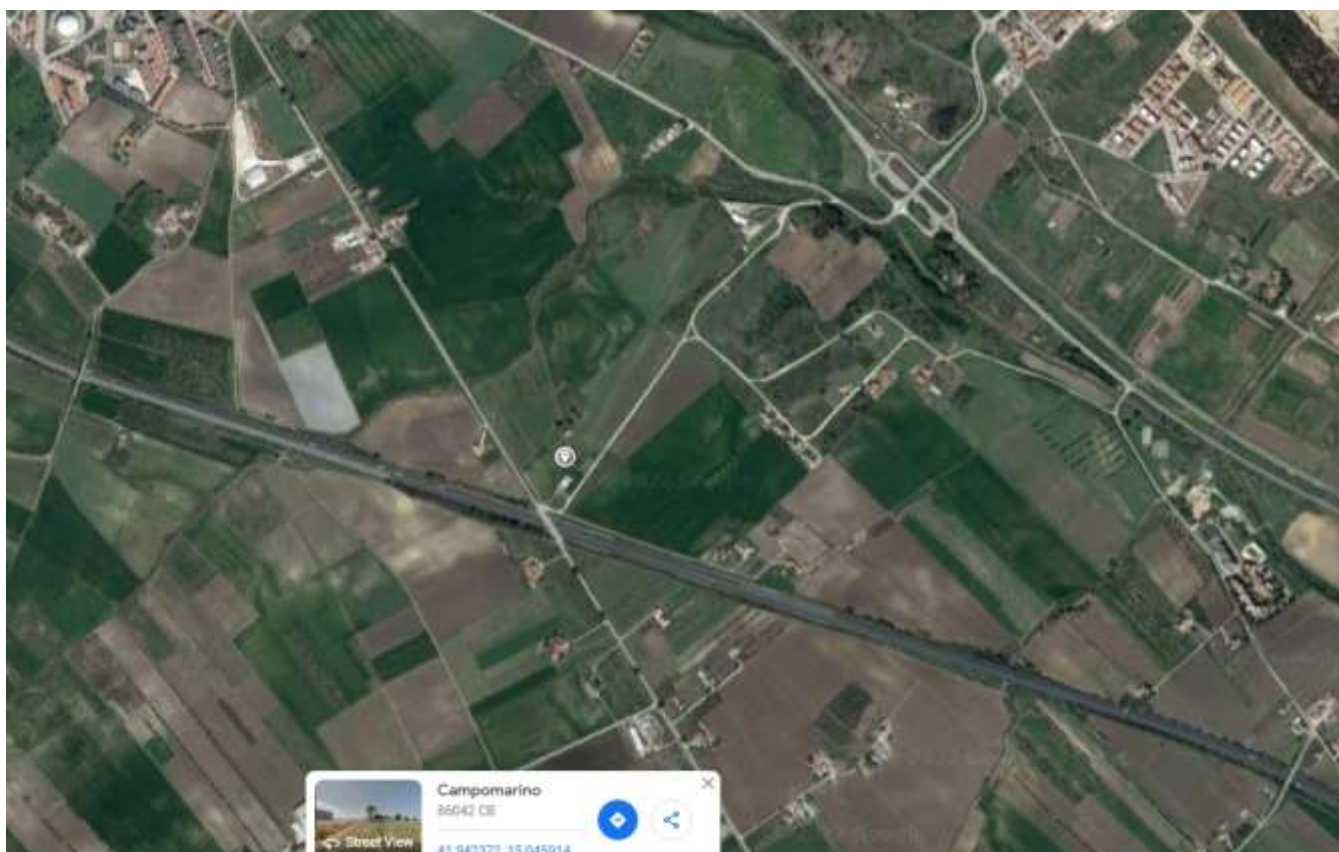
1.. PREMESSA	2
2.. DESCRIZIONE DELLA STRUTTURA	3
3.. NORME DI RIFERIMENTO	5
4.. VITA NOMINALE, CLASSI D'USO E PERIODO DI RIFERIMENTO.....	6
5.. MATERIALI.....	6
6.. ANALISI DEI CARICHI	8
6.1 Carichi permanenti strutturali.....	8
6.2 Vento	8
6.3 Azione termica	8
6.4 Descrizione dell'azione sismica	9
6.5 Casi di carico.....	20
6.6 Combinazioni	23
7.. INDICAZIONI SUL SOFTWARE UTILIZZATO.....	45
8.. CRITERI DI PROGETTO E MODELLAZIONE	46
8.1 Descrizione modello di calcolo	46
8.2 Tipologie di verifiche.....	51
8.3 Criteri di progettazione sismica.....	51
9.. SCHEMI DI CALCOLO E RISULTATI DELLE ANALISI MURO LATO SINISTRO	52
9.1 Numerazione elementi	52
9.2 Diagrammi sollecitazioni e deformate	54
9.3 Verifiche	90
10. SCHEMI DI CALCOLO E RISULTATI DELLE ANALISI MURO LATO DESTRO	95
10.1 Numerazione elementi	95
10.2 Diagrammi sollecitazioni e deformate	97
10.3 Verifiche	137
11. VERIFICA UNIONI	142
12. VALIDAZIONE DEI RISULTATI OTTENUTI CON IL MODELLO DI CALCOLO	148
13. ALLEGATO FASCICOLO DEI CALCOLI	148

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B

1. PREMESSA

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

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



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

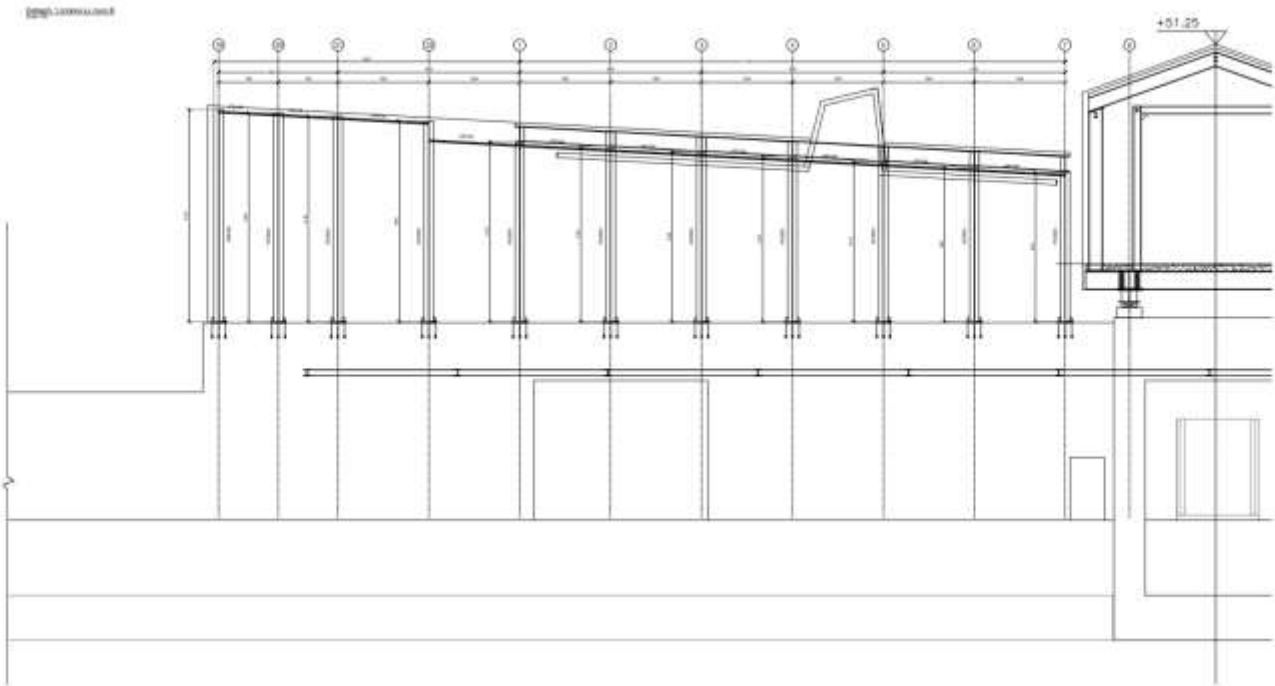
- LATITUDINE: 41.9420;
- LONGITUDINE: 15.0500;

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".

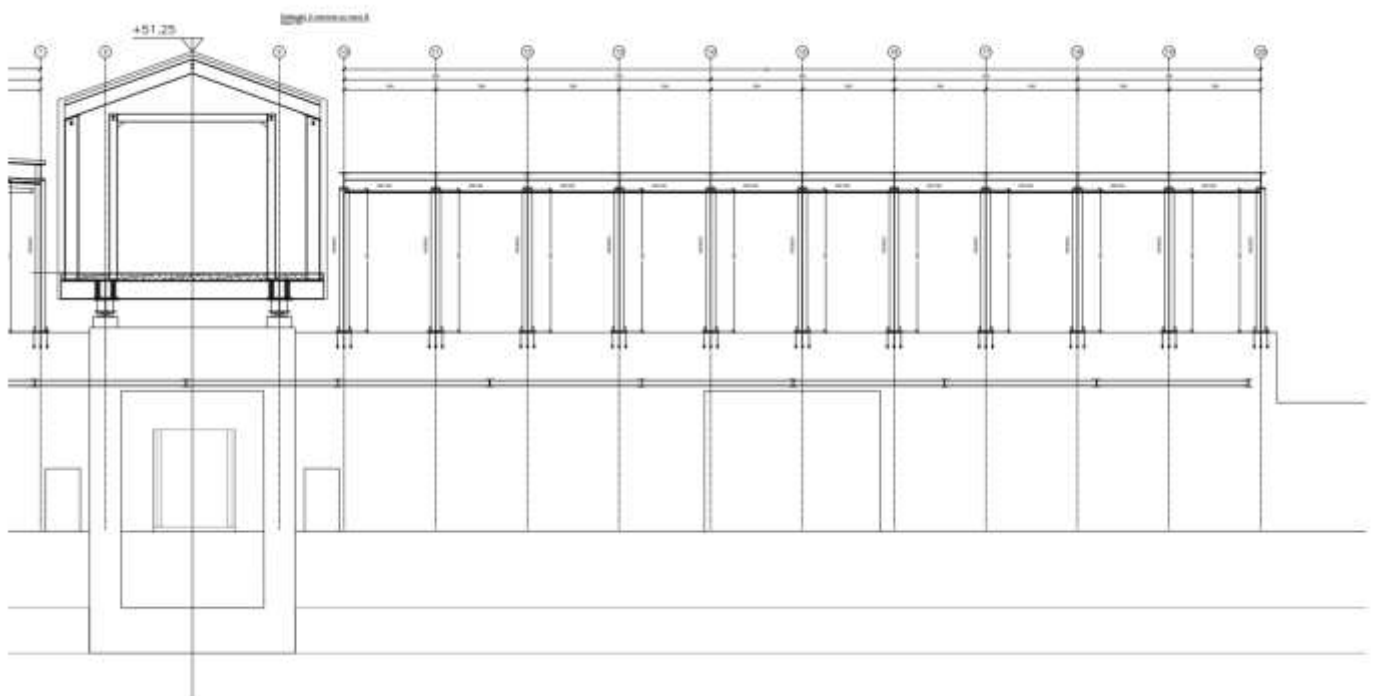
 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	3

2. DESCRIZIONE DELLA STRUTTURA

Il muro in questione è composto da un setto in cemento armato sormontato da una serie di colonne in acciaio di altezza variabile, raccordate tra di loro tramite dei correnti IPE100.



Sezione muro interno lato sinistro



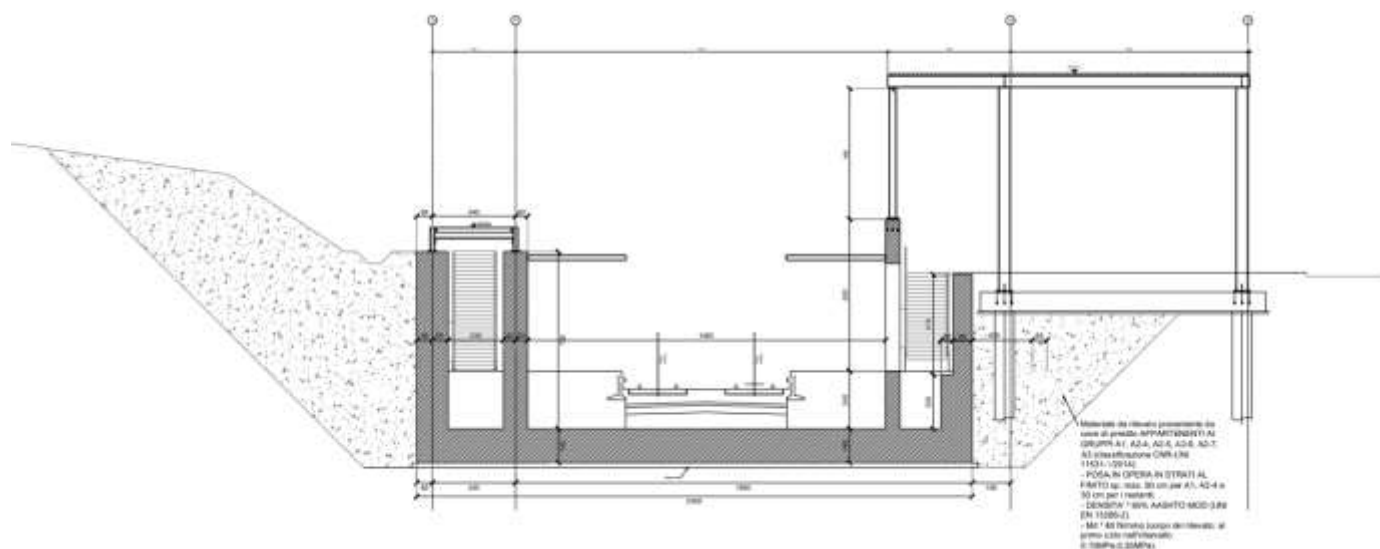
Sezione muro interno lato destro

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	4

La struttura in esame è costituita da un muro in cemento armato con delle colonne HEB300 in acciaio inghisate sulla sommità con tirafondi.

Le colonne che compongono la struttura sono pilastri di altezza variabile da 4.48 m a 6.75 m tipo HEB300 con interasse pari a 2.90 m collegati in testa tramite dei correnti di lunghezza pari a 2.90 m tipo IPE100 (in un unico tratto a causa di un infittimento delle colonne sia l'interasse che i correnti sono di dimensione ridotta pari a 1.90 m).



Sezione trasversale

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	5

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

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	6

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: $C_u = 1,5$

Periodo di riferimento $V_r = 112.5$ anni.

5. MATERIALI

I materiali impiegati nella progettazione strutturale sono i seguenti:

- Acciaio S355 per carpenteria metallica;
- Bulloni, viti, perni cl 8.8;
- Saldature

Di seguito sono specificate le caratteristiche dei materiali elencati.

Acciaio S355 per carpenteria metallica:

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

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:

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
LI0B		02	E	ZZ	CL	TR	06	00	003	B	7

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

Saldature:

Le saldature dovranno essere eseguite secondo i procedimenti omologati 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.

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	8

6. ANALISI DEI CARICHI

6.1 CARICHI PERMANENTI STRUTTURALI

- Acciaio: $W = 78.50 \text{ kN/m}^3$ maggiorato del 20 % per tener conto di fazzoletti, bulloni, pioli etc.
- Pannelli di tamponamento muri = 2 kN/mq

6.2 VENTO

Zona vento = 3

Velocità base della zona, $V_{b.o} = 27 \text{ m/s}$ (Tab. 3.3.I)

Altitudine base della zona, $A_o = 500 \text{ m}$ (Tab. 3.3.I)

Altitudine del sito, $A_s = 52 \text{ m}$

Velocità di riferimento, $V_b = 27.00 \text{ m/s}$ ($V_b = V_{b.o}$ per $A_s \leq A_o$)

Periodo di ritorno, $T_r = 50$ anni

$C_r = 1$ per $T_r = 50$ anni

Velocità riferita al periodo di ritorno di progetto, $V_r = V_b C_r = 27.00 \text{ m/s}$

Classe di rugosità del terreno: D

[Aree prive di ostacoli o con al di più rari ostacoli isolati (aperta campagna, aeroporti, aree agricole, zone paludose o sabbiose, superfici innevate o ghiacciate, mare, laghi,..)]

Esposizione: Cat. I - Mare entro 2 km dalla costa

($K_r = 0.17$; $Z_o = 0.01 \text{ m}$; $Z_{min} = 2 \text{ m}$)

Pressione cinetica di riferimento, $q_b = 46 \text{ daN/mq}$

Coefficiente di forma, $C_p = 1.00$

Coefficiente dinamico, $C_d = 1.00$

Coefficiente di esposizione, $C_e = 2.73$

Coefficiente di esposizione topografica, $C_t = 1.00$

Altezza dell'edificio, $h = 9.30 \text{ m}$

Pressione del vento, $p = q_b C_e C_p C_d = 125 \text{ daN/mq}$

A favore di sicurezza, per il telai principale, è stato considerato il vento applicato anche sulle facciate lato piazzale.

6.3 AZIONE TERMICA

Si considera una variazione termica uniforme pari a $\Delta T = \pm 15 \text{ }^\circ\text{C}$ per il calcestruzzo e per le opere in carpenteria metallica strutture in acciaio esposte $\Delta T = \pm 25 \text{ }^\circ\text{C}$.

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	9

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

6.4 DESCRIZIONE DELL'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.

FASE 1. INDIVIDUAZIONE DELLA PERICOLOSITÀ DEL SITO

Ricerca per coordinate

LONGITUDINE

LATITUDINE

Ricerca per comune

REGIONE

PROVINCIA

COMUNE

Elaborazioni grafiche


Grafici spettri di risposta

Variabilità dei parametri

Elaborazioni numeriche

Tabella parametri

Reticolo di riferimento



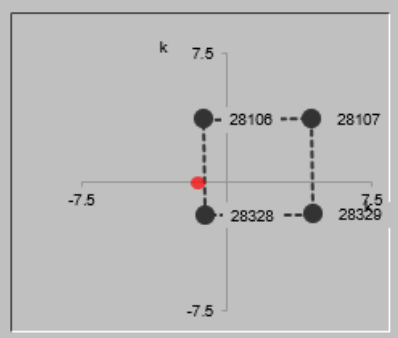
Controllo sul

- Sito esterno al
- Interpolazione su 3
- Interpolazione

media pon

La "Ricerca per comune" utilizza le coordinate ISTAT del comune per identificare il sito. Si sottolinea che all'interno del territorio comunale le azioni sismiche possono essere significativamente diverse da quelle così individuate e si consiglia, quindi, la "Ricerca per coordinate".

Nodi del reticolo intorno al sito



INTRO
FASE 1
FASE 2
FASE 3

FASE 2. SCELTA DELLA STRATEGIA DI PROGETTAZIONE

Vita nominale della costruzione (in anni) - V_N info

Coefficiente d'uso della costruzione - c_U info

Valori di

Periodo di riferimento per la costruzione (in anni) - V_R info

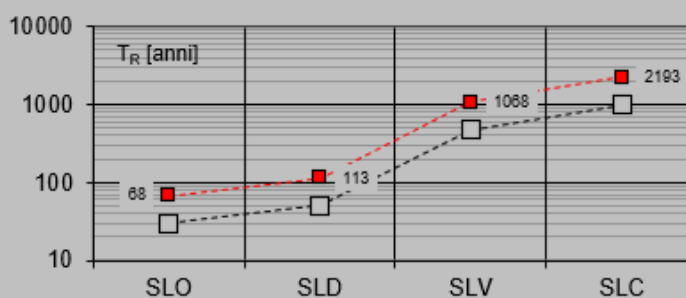
Periodi di ritorno per la definizione dell'azione sismica (in anni) - T_R info

Stati limite di esercizio - SLE	SLO - $P_{VR} = 81\%$	<input type="text" value="68"/>
	SLD - $P_{VR} = 63\%$	<input type="text" value="113"/>
Stati limite ultimi - SLU	SLV - $P_{VR} = 10\%$	<input type="text" value="1068"/>
	SLC - $P_{VR} = 5\%$	<input type="text" value="2193"/>

Elaborazioni

- Grafici parametri azione
- Grafici spettri di risposta
- Tabella parametri azione

Strategia di progettazione



LEGENDA GRAFICO

- Strategia per costruzioni ordinarie
- Strategia scelta

INTRO

FASE 1

FASE 2

FASE 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

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
	Relazione di calcolo muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003	REV B

FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO

Stato limite

Stato Limite considera SLV info

Risposta sismica locale

Categoria di sottosuolo 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 $\eta =$ 1.000 info

Spettro di progetto inelastico (SLU) Fattore q_0 1.5 Regol. in altezza si info

Compon. verticale

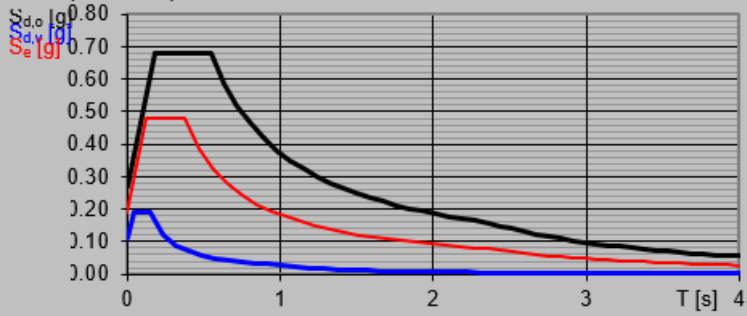
Spettro di progetto Fattore q 1.5 $\eta = 1/q =$ 0.667 info

Elaborazioni

Grafici spettri di risposta ▶▶

Parametri e punti spettri di risposta ▶▶

Spettri di risposta



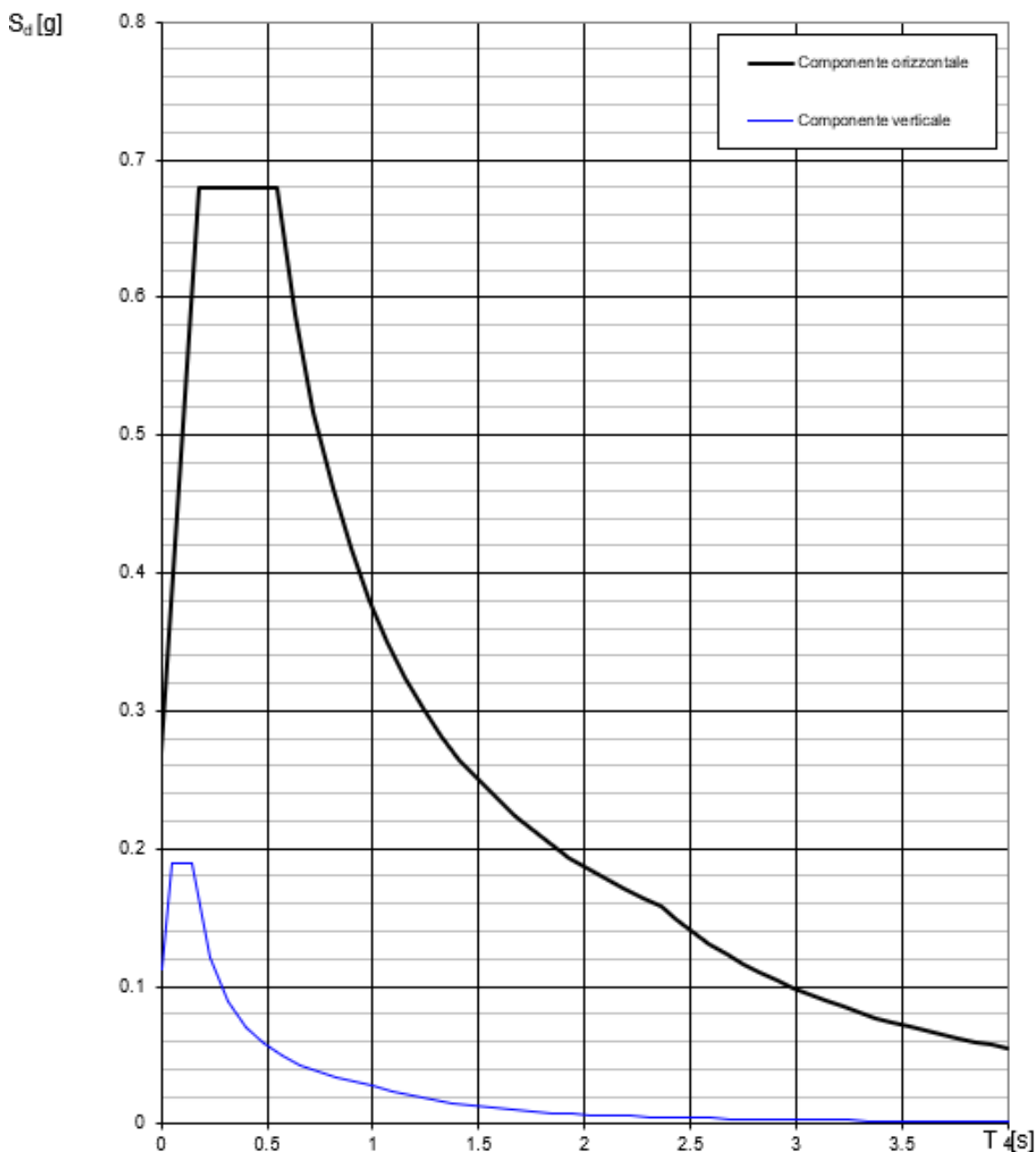
— Spettro di progetto - componente orizzontale
— Spettro di progetto - componente verticale
— Spettro elastico di riferimento (Cat. A-T1, $\xi = 5\%$)

INTRO
FASE 1
FASE 2
FASE 3

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	12

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



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	13

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

Parametri indipendenti

STATO LIMITE	SLV
a_s	0.190 g
F_n	2.538
T_c	0.380 s
S_c	1.411
C_D	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

$$S = S_c \quad (\text{NTC-08 Eq. 3.2.5})$$

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

$$T_B = T_c / \beta \quad (\text{NTC-07 Eq. 3.2.8})$$

$$T_C = C_D \cdot T_c \quad (\text{NTC-07 Eq. 3.2.7})$$

$$T_D = 4.0 \cdot a_s / g + 1.6 \quad (\text{NTC-07 Eq. 3.2.9})$$

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

$$0 \leq T < T_B \quad S_c(T) = a_s \cdot S \cdot \eta \cdot F_0 \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_0} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \leq T < T_C \quad S_c(T) = a_s \cdot S \cdot \eta \cdot F_0$$

$$T_C \leq T < T_D \quad S_c(T) = a_s \cdot S \cdot \eta \cdot F_0 \cdot \left(\frac{T_C}{T} \right)$$

$$T_D \leq T \quad S_c(T) = a_s \cdot S \cdot \eta \cdot F_0 \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)$$

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]	S_e [g]
	0.000	0.268
$\leftarrow T_B$	0.183	0.680
$\leftarrow T_C$	0.549	0.680
	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
$\leftarrow T_D$	2.360	0.158
	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

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
	Relazione di calcolo muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003	REV B

FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO

Stato limite
 Stato Limite considera SLD info

Risposta sismica locale

Categoria di sottosuoli C info $S_S =$ 1.500 $C_C =$ 1.509 info

Categoria topografica T1 info $h/H =$ 0.000 $S_T =$ 1.000 info

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

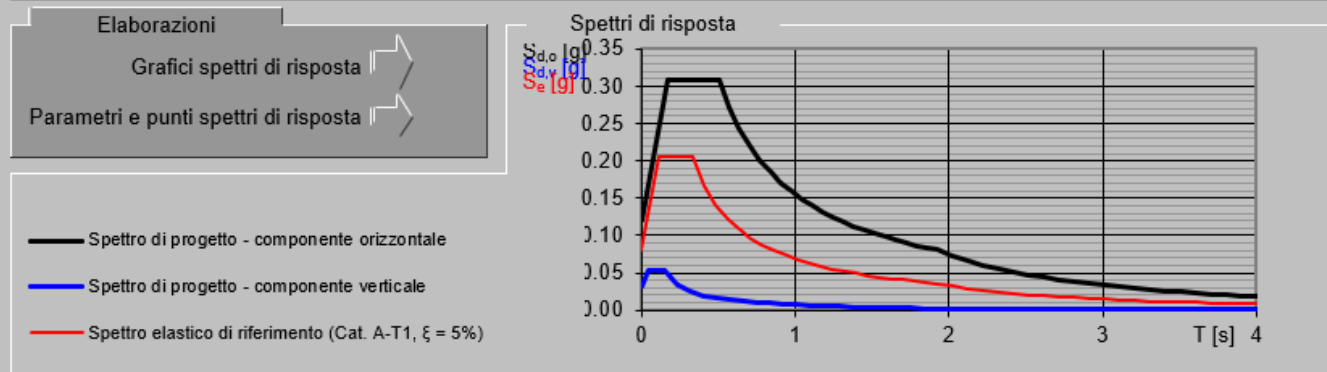
Compon. orizzontale

Spettro di progetto elastico (SLE) Smorzamento ξ (%) 5 $\eta =$ 1.000 info

Spettro di progetto inelastico (SLU) Fattore q_o 1.5 Regol. in altezza si info

Compon. verticale

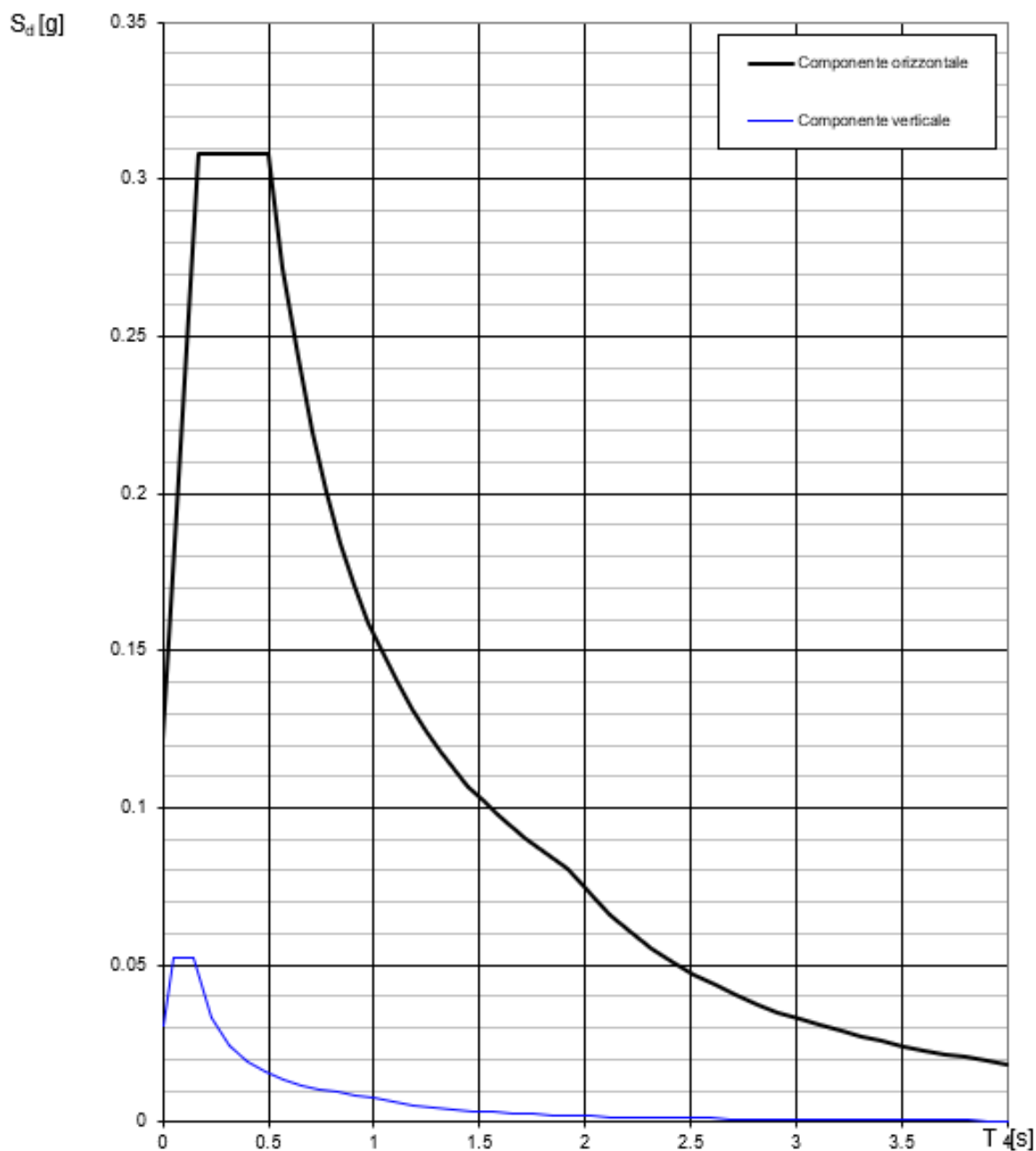
Spettro di progetto Fattore q 1.5 $\eta = 1/q =$ 0.667 info



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	15

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



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	16

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

Parametri indipendenti

STATO LIMITE	SLD
a_g	0.081 g
F_n	2.548
T_c	0.333 s
S_c	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

$$S_c = S_g \cdot S_d \quad (\text{NTC-08 Eq. 3.2.5})$$

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

$$T_B = T_c \cdot \beta \quad (\text{NTC-07 Eq. 3.2.8})$$

$$T_C = C_c \cdot T_c \quad (\text{NTC-07 Eq. 3.2.7})$$

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

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

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

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

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

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

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]	S_e [g]
	0.000	0.121
$\leftarrow T_B$	0.168	0.308
$\leftarrow T_C$	0.503	0.308
	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
$\leftarrow T_D$	1.923	0.081
	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

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
	Relazione di calcolo muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003	REV B

FASE 3. DETERMINAZIONE DELL'AZIONE DI PROGETTO

Stato Limite
 Stato Limite consider SLO info

Risposta sismica locale

Categoria di sottosuolo C info $S_s =$ 1,500 $C_c =$ 1,520 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 $\eta =$ 1,000 info

Spettro di progetto inelastico (SLU) Fattore q_o 1,5 Regol. in altezza sì info

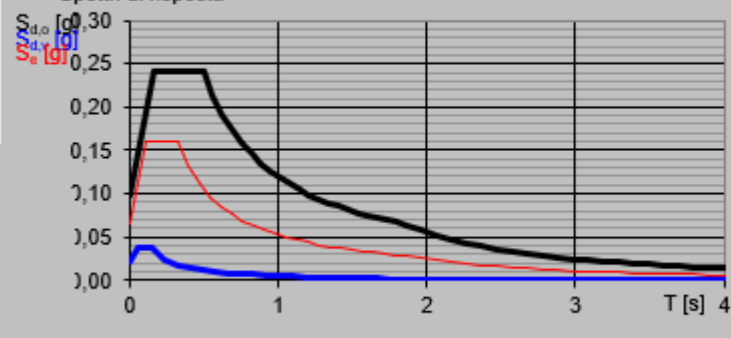
Compon. verticale
 Spettro di progetto Fattore q 1,5 $\eta = 1/q =$ 0,667 info

Elaborazioni

Grafici spettri di risposta ▶▶

Parametri e punti spettri di ▶▶

Spettri di risposta

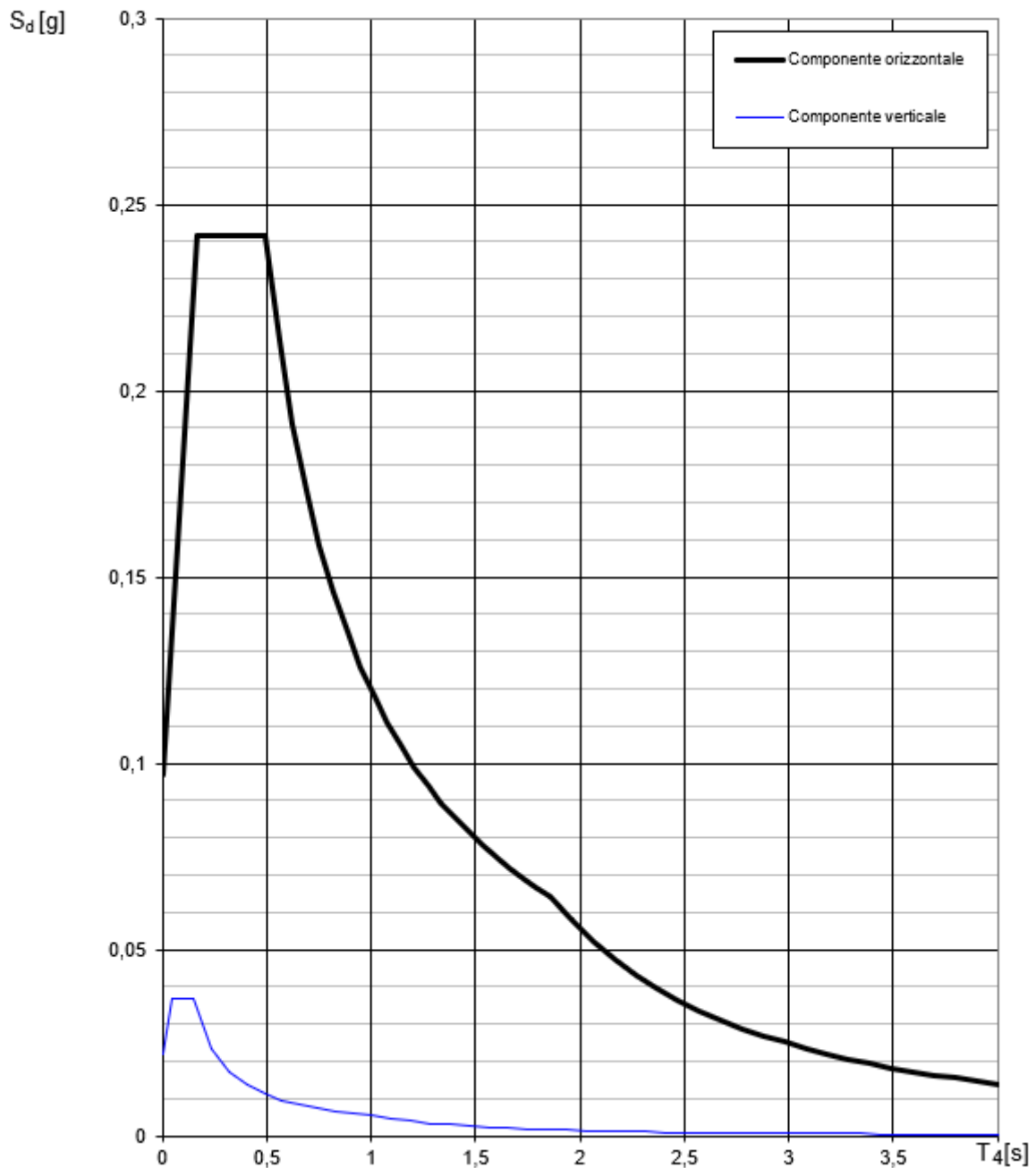


— Spettro di progetto - componente orizzontale
— Spettro di progetto - componente verticale
— Spettro elastico di riferimento (Cat. A-T1, $\xi = 5\%$)

INTRO
 FASE 1
 FASE 2
FASE 3

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	18

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



 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	19

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

$$S = S_s \cdot S_T \quad (\text{NTC-08 Eq. 3.2.5})$$

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

$$T_B = T_C / 3 \quad (\text{NTC-07 Eq. 3.2.8})$$

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

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

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

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	20

6.5 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

Relazione di calcolo muri architettonici

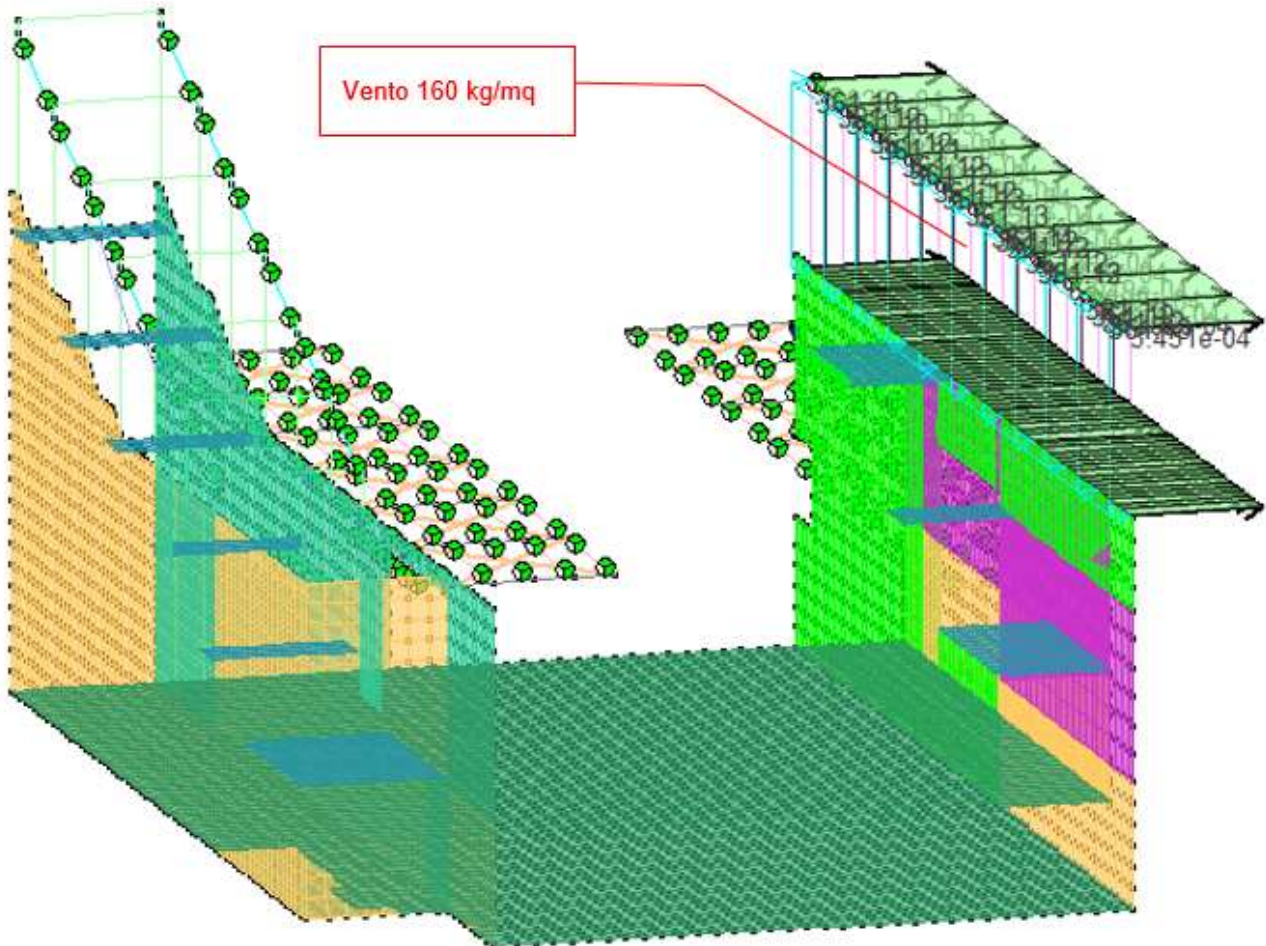
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	21

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

10) CDC=Qvk (carico da vento) dir Y +

Opzioni

Carichi



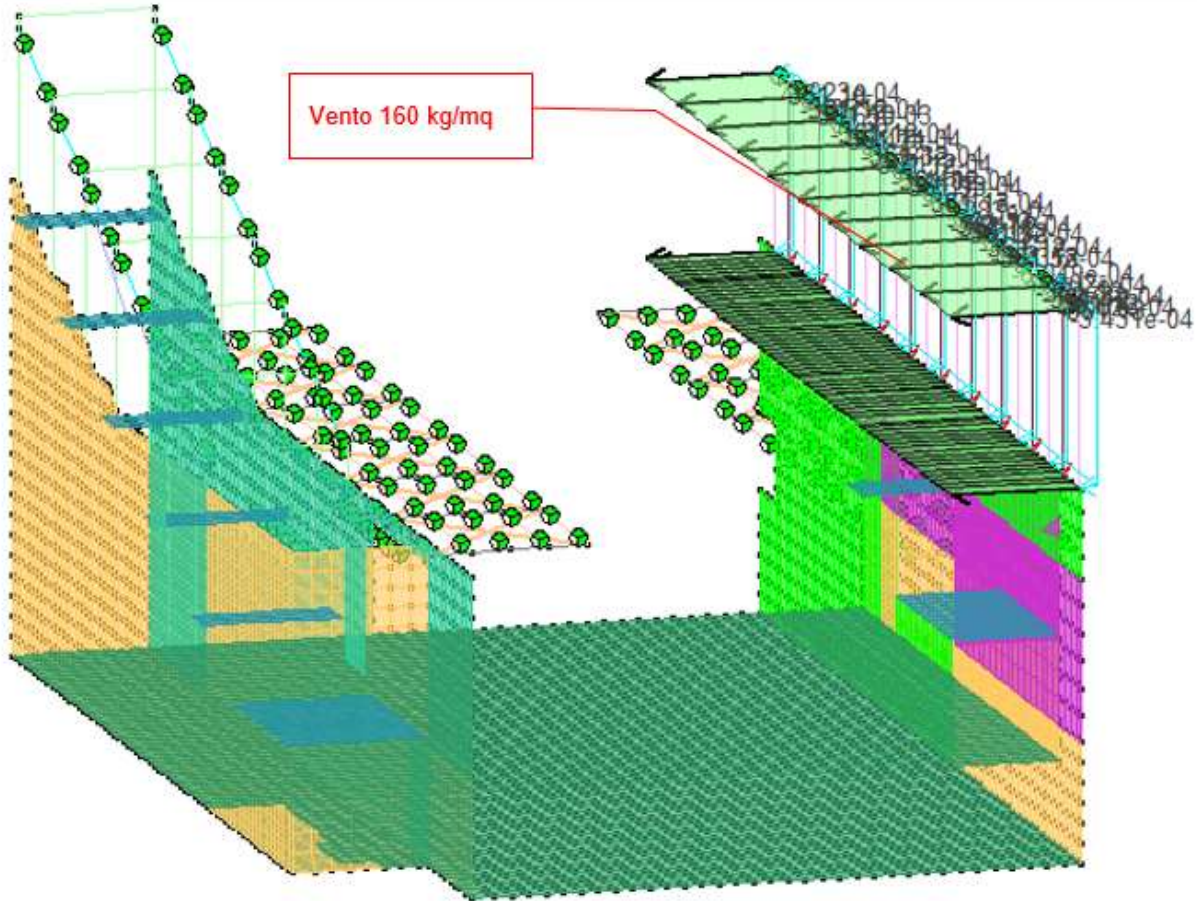
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	22

11) CDC=Qvk (carico da vento) dir Y - Opzioni

lla

Carichi



 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	23

6.6 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

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

Combinazione caratteristica (rara) SLE

$$G1 + G2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + \dots$$

Combinazione frequente SLE

$$G1 + G2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione quasi permanente SLE

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

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

$$E + G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

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

$$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Dove:

NTC 2008 Tabella 2.5.1

Destinazione d'uso/azione	$\psi 0$	$\psi 1$	$\psi 2$
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 $\leq 30kN$)	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 2.6.1

		Coefficiente γf	EQU	A1	A2
Carichi permanenti	Favorevoli	$\gamma G1$	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli	$\gamma G2$	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3
Carichi variabili	Favorevoli	γQi	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	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	

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	24

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	

Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	25

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	

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	26

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	

Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B

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	

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	28

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	

LINEA PESCARA – BARI

RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOLGIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	29

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	30

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

LINEA PESCARA – BARI

RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOLLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	31

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



LINEA PESCARA – BARI

RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	32

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

**LINEA PESCARA – BARI****RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	33

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
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

LINEA PESCARA – BARI**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	34

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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	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												
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

LINEA PESCARA – BARI

RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	36

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



LINEA PESCARA – BARI

RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	37

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

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	38

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	39

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	40

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOLGIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	41

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	42

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

LINEA PESCARA – BARI
**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
 LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	43

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

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B


7. 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

Informazioni su PRO_SAP





PRO_SAP - versione 22.5.2

Copyright © 1995-2022

Mostra novità all' avvio

Licenza: PROFESSIONAL (build 2022-10-198)

- 1) Progetto e verifica c.a.
- 2) Progetto e verifica acciaio
- 3) Analisi sismica dinamica
- 4) Esecutivi elementi in c.a.
- 5) Esecutivi elementi in acciaio
- 6) Analisi non lineare
- 7) Progetto e verifica muratura/legno
- 8) Verifica resistenza al fuoco
- 9) Verifica geotecnica
- 10) Progetto e verifica nuove tecnologie
- 11) Analisi con solutore 64 bit - e_SAPx64

2S.I. Software e Servizi per l' Ingegneria S.R.L.

www.2si.it

L'utilizzo del programma comporta l'accettazione delle condizioni previste nella licenza d'uso:

[leggi](#)

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	46

8. CRITERI DI PROGETTO E MODELLAZIONE

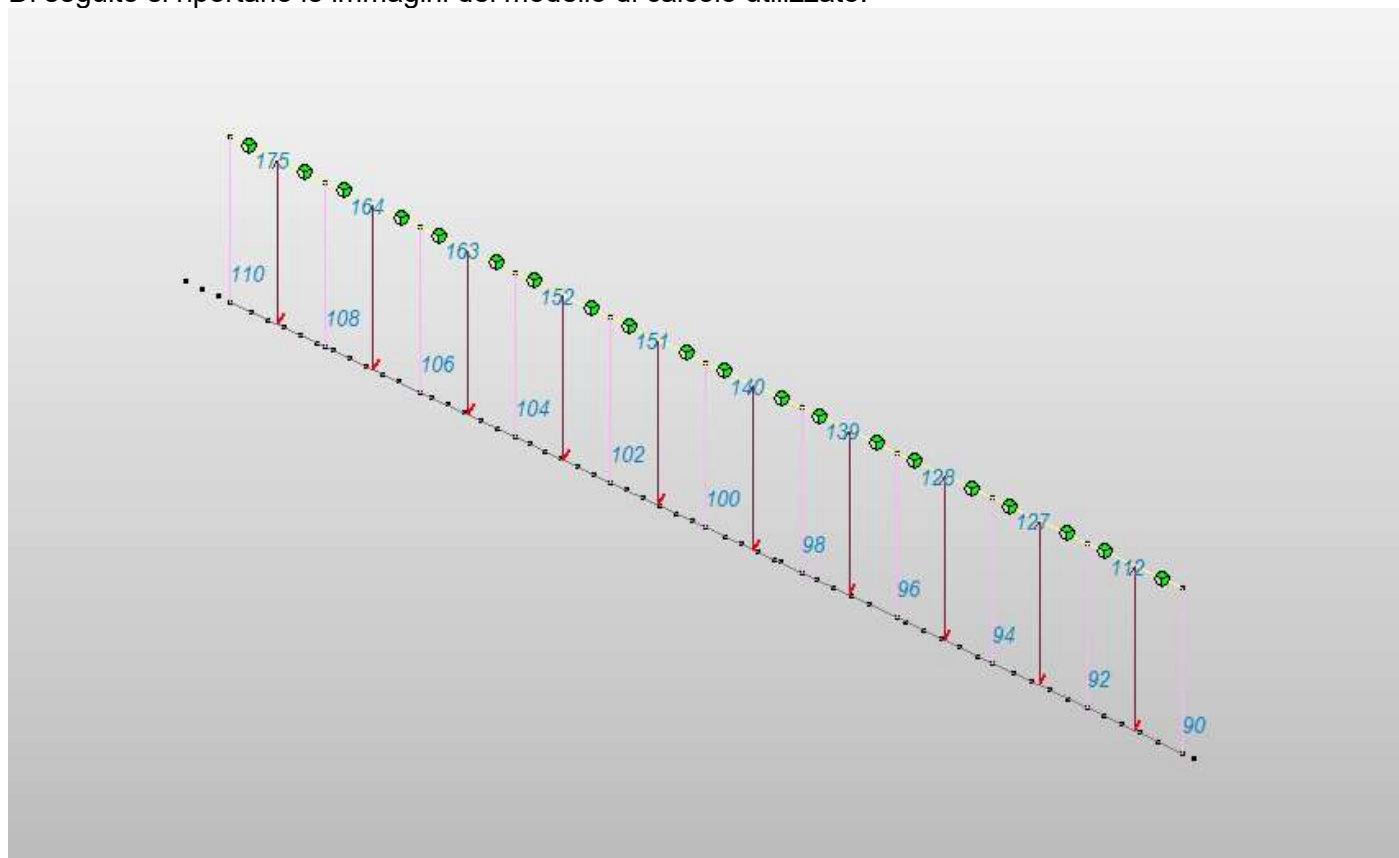
Il muro architettonico è posizionato sopra i muri della trincea della stazione, al fine di cogliere il reale comportamento è stato creato un unico modello con la sottostruttura non essendo opere indipendenti. Tale scelta permette di considerare in maniera realistica il comportamento dinamico delle strutture e valutare correttamente l'amplificazione sismica sulle strutture in elevazione. Tale scelta è stata seguita sia per il muro lato destro che lato sinistro.

8.1 DESCRIZIONE MODELLO DI CALCOLO

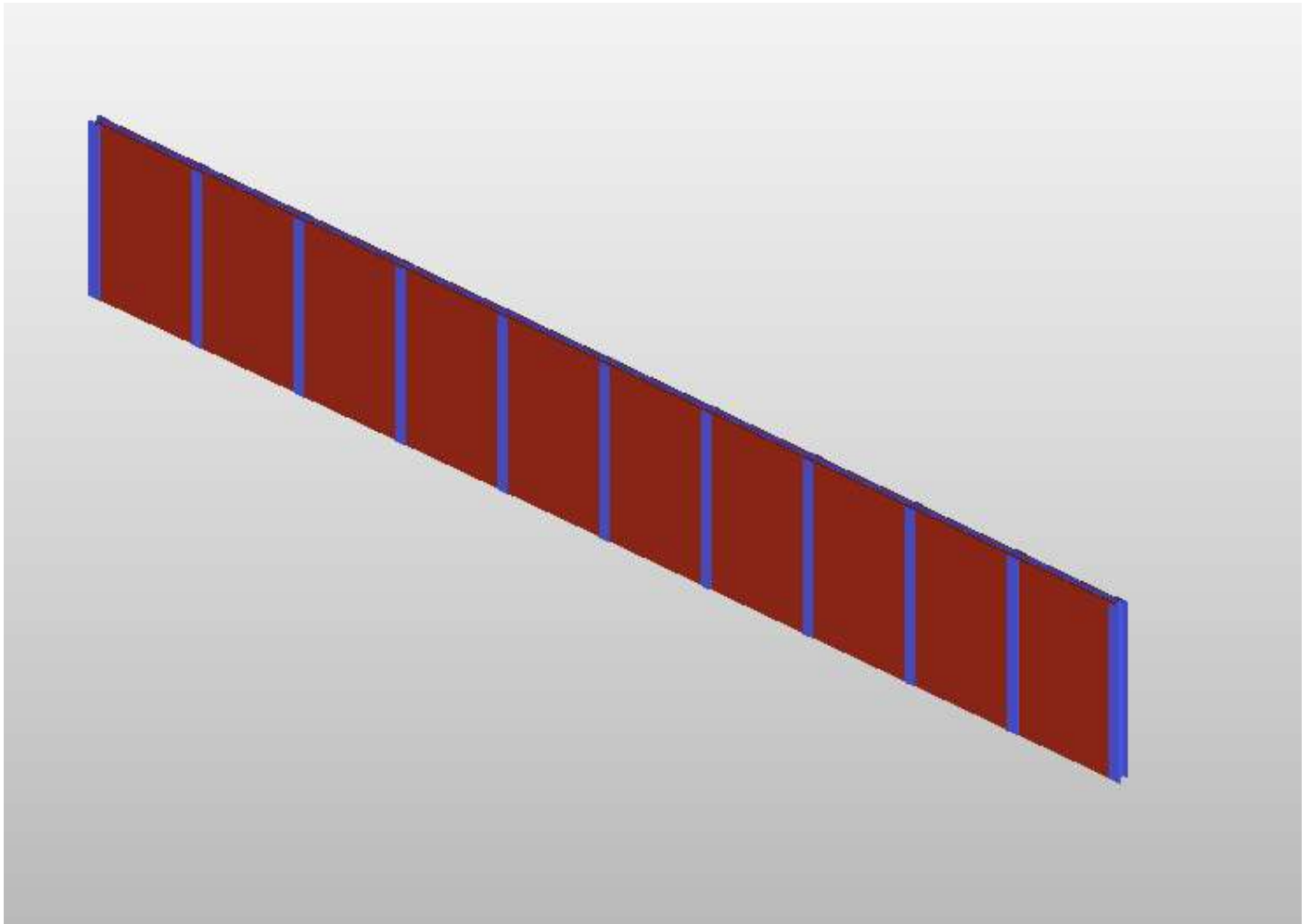
Le caratteristiche principali del modello del muro sono le seguenti:

- Elementi tipo trave (frame) utilizzati per modellare travi e pilastri;
- Elementi tipo shell impiegati per modellare la platea di fondazione e muri;
- Tamponature modellate con apposito elemento pannello.

Di seguito si riportano le immagini del modello di calcolo utilizzato:



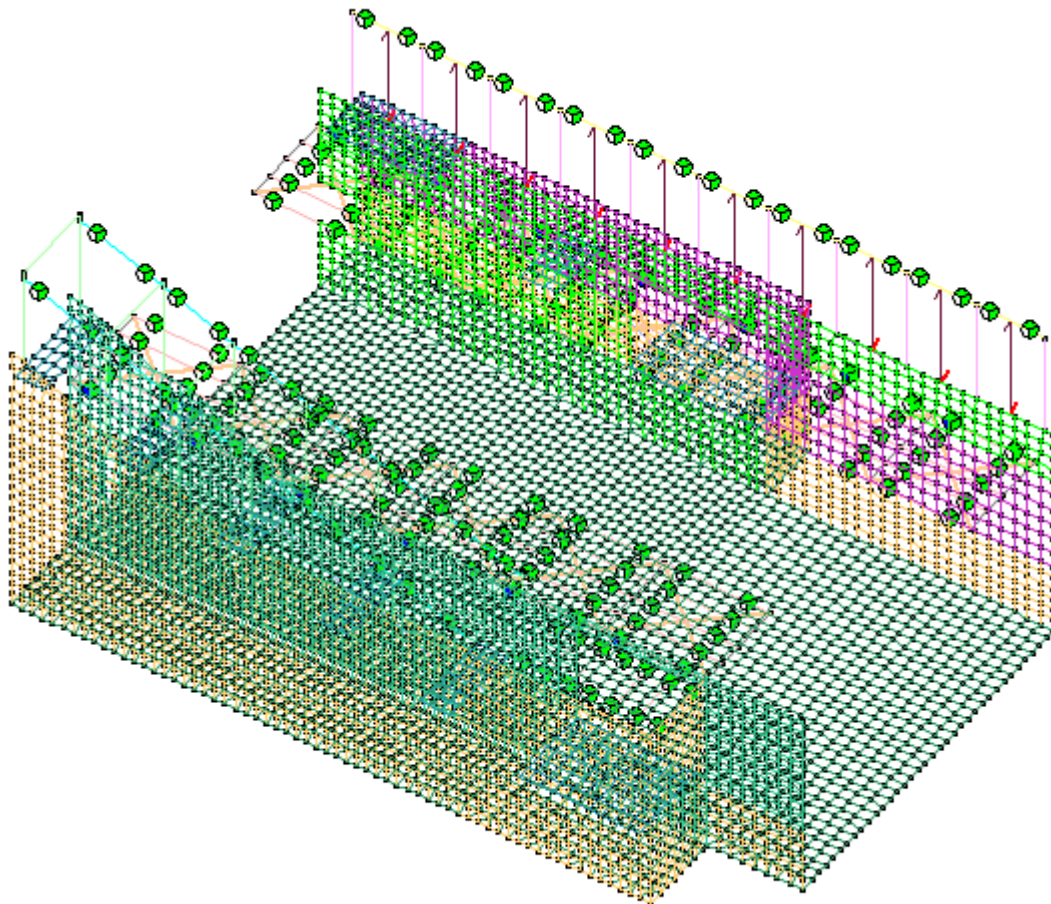
 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	47



Si riportano anche delle immagini dell'intero modello.

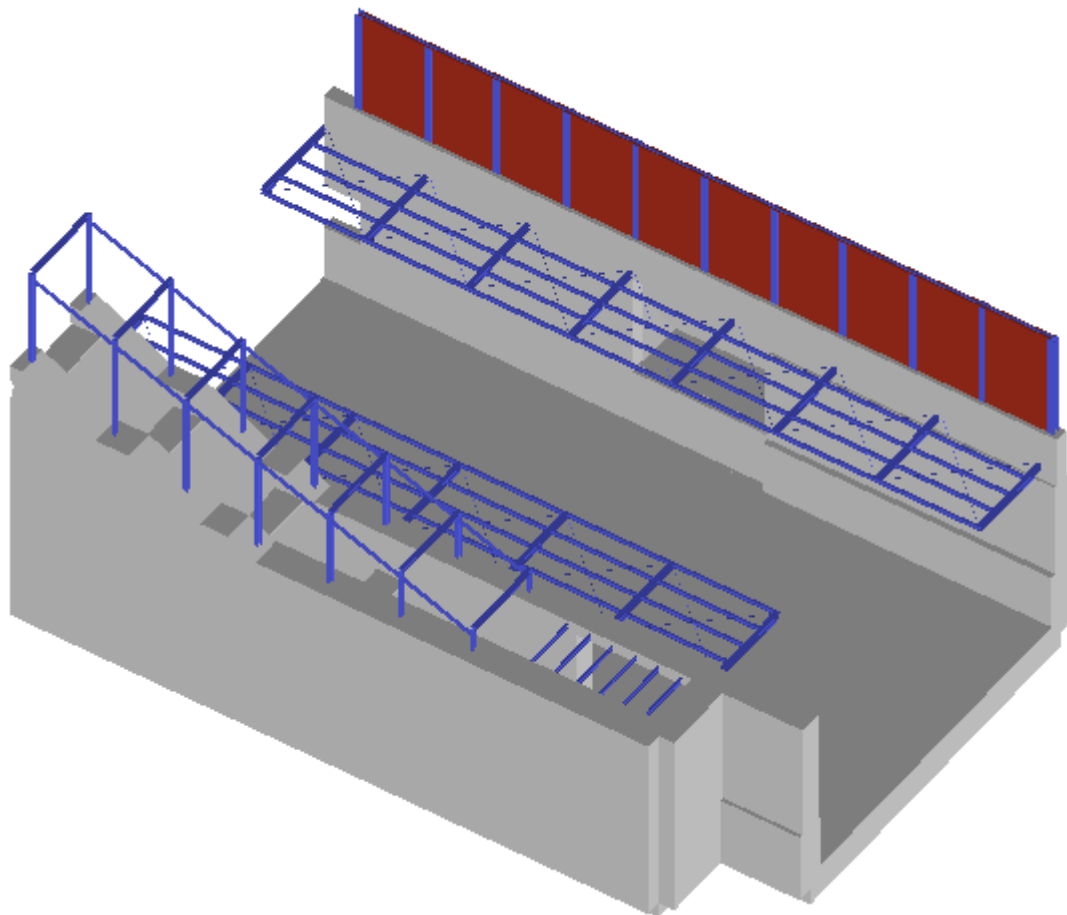
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	48



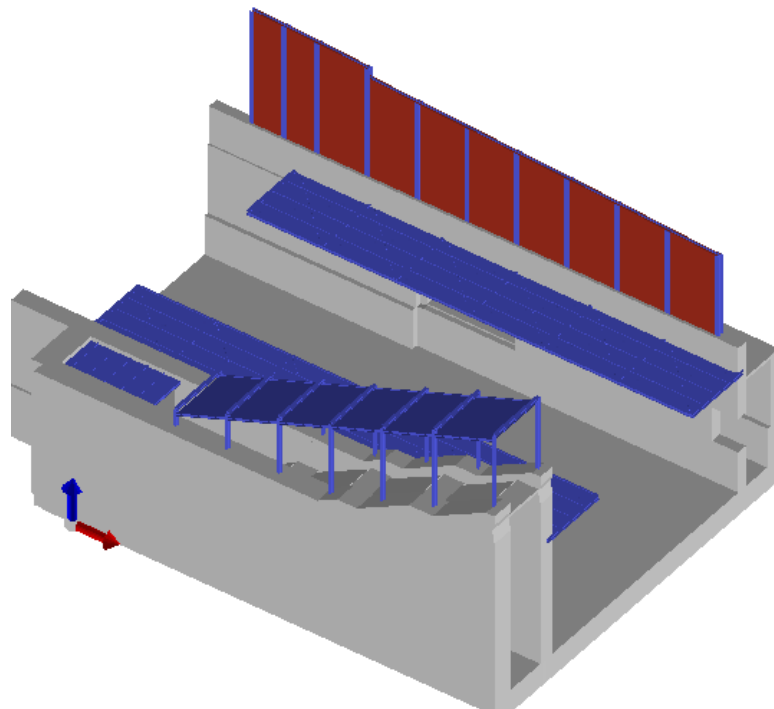
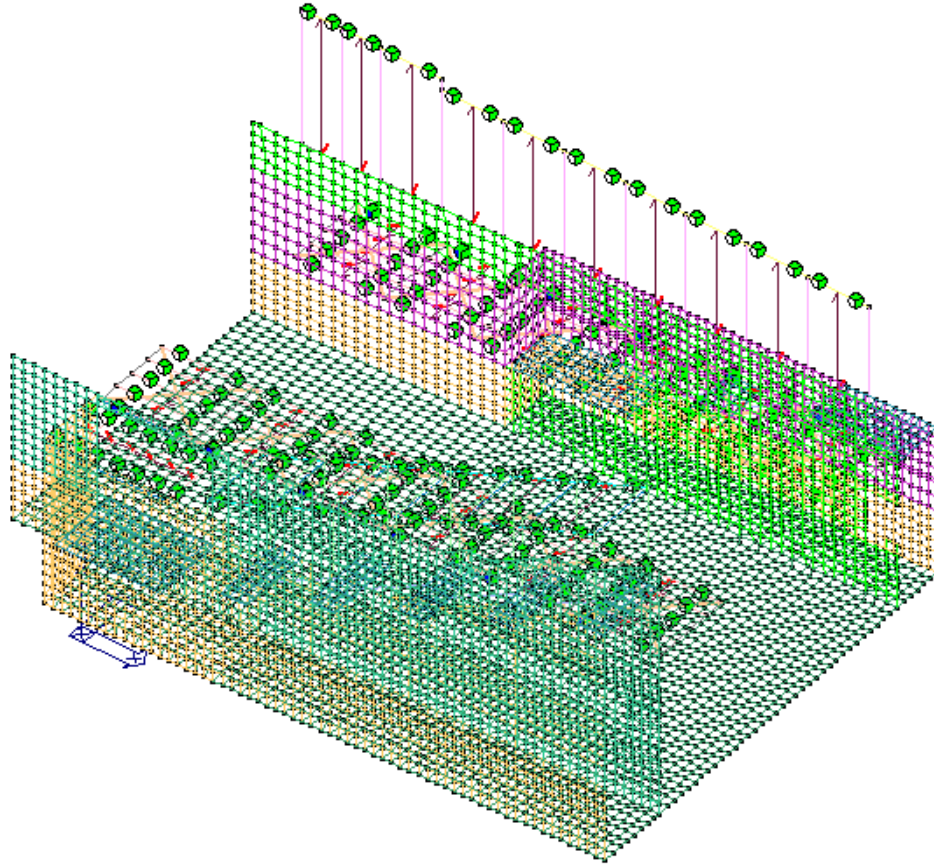
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	49



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	50



 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	51

8.2 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).

8.3 CRITERI DI PROGETTAZIONE SISMICA

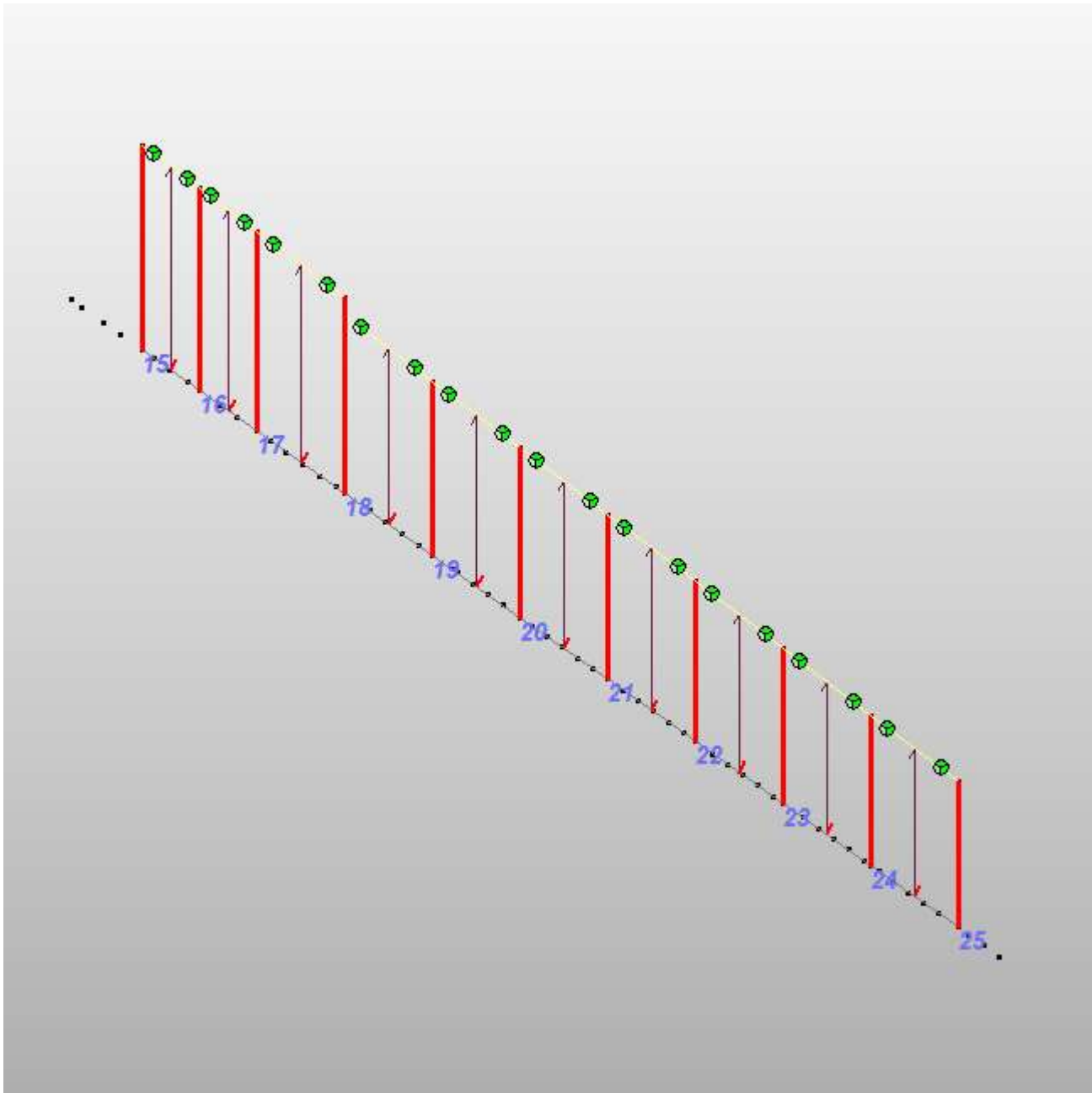
Per la struttura in esame si è utilizzata la strategia di progettazione **non dissipativa con fattore di struttura $q = 1.00$** :

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	52

9. SCHEMI DI CALCOLO E RISULTATI DELLE ANALISI MURO LATO SINISTRO

9.1 NUMERAZIONE ELEMENTI

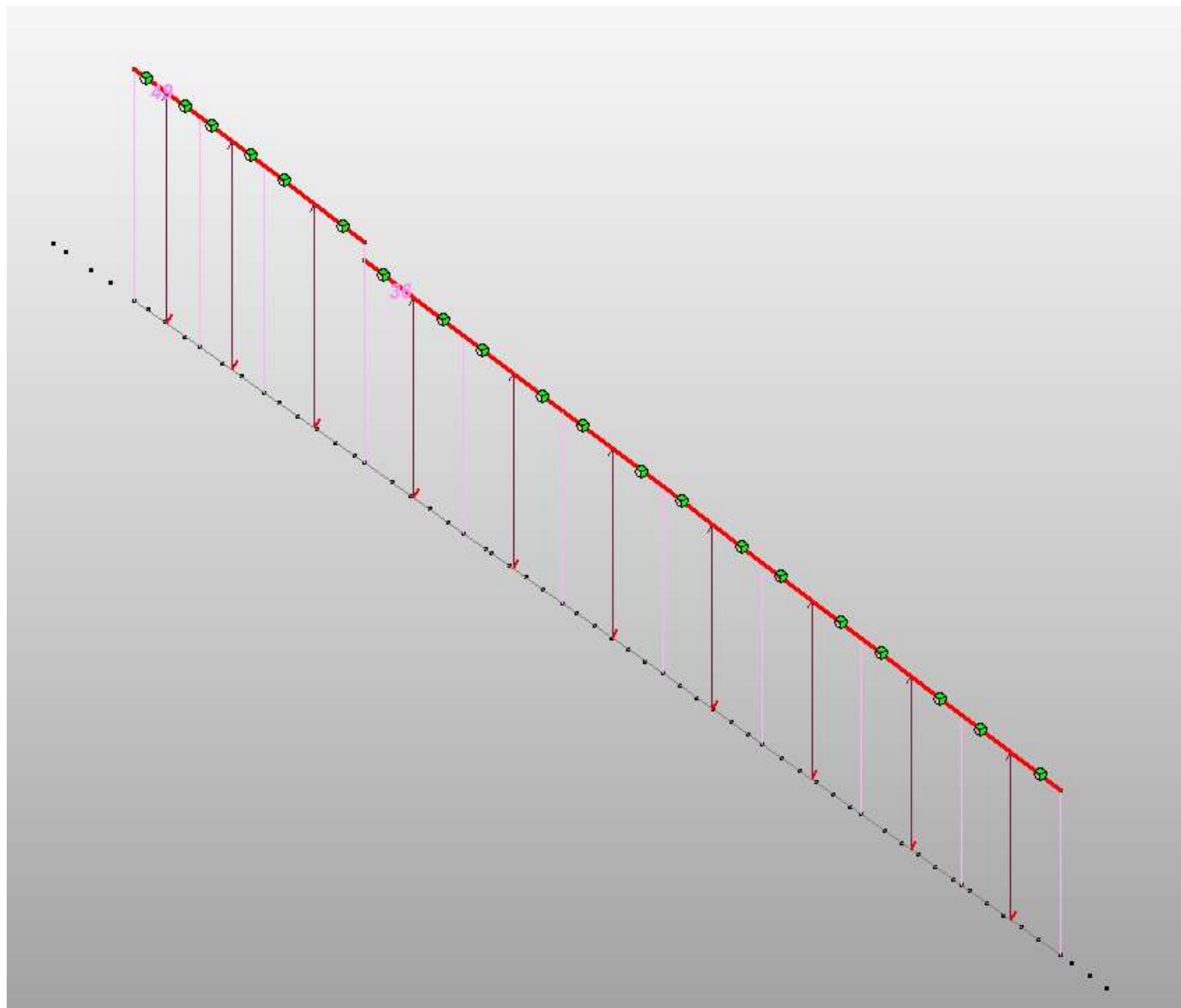
NUMERAZIONE COLONNE



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	53

NUMERAZIONE TRAVI

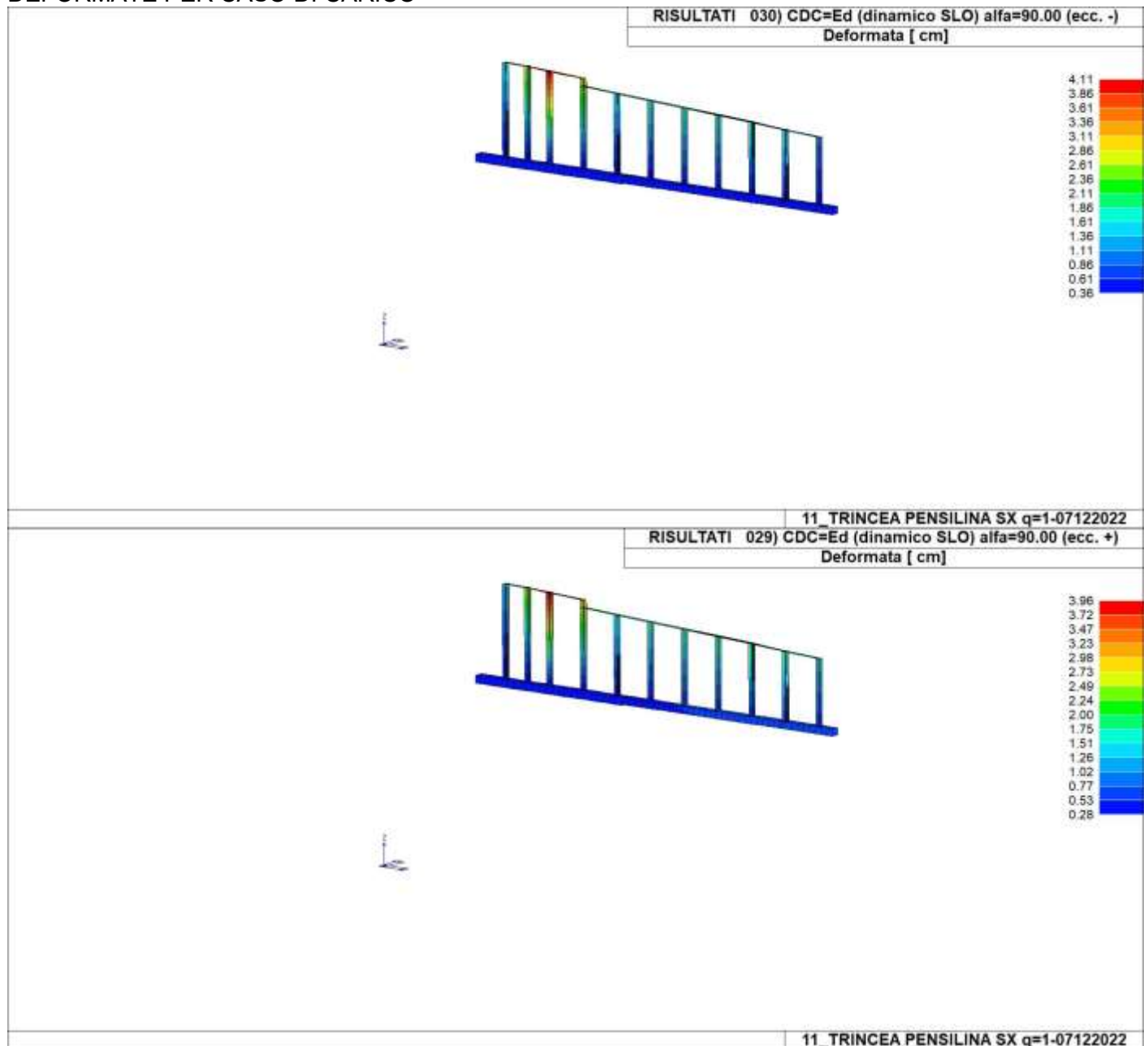


 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	54

9.2 DIAGRAMMI SOLLECITAZIONI E DEFORMATE

9.2.1 Deformate

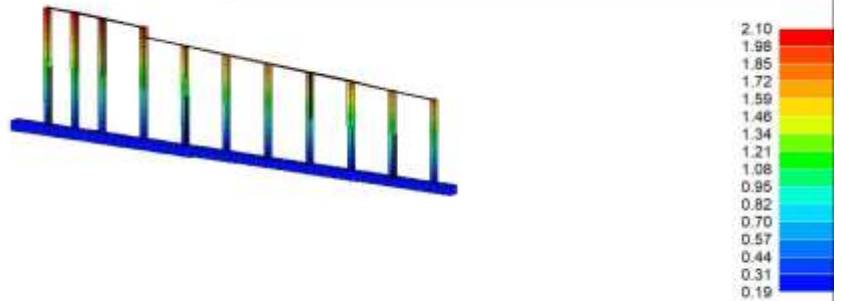
DEFORMATE PER CASO DI CARICO



Relazione di calcolo muri architettonici

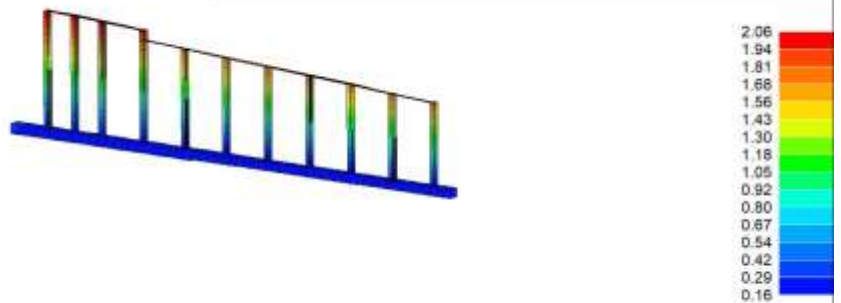
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	55

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Deformata [cm]

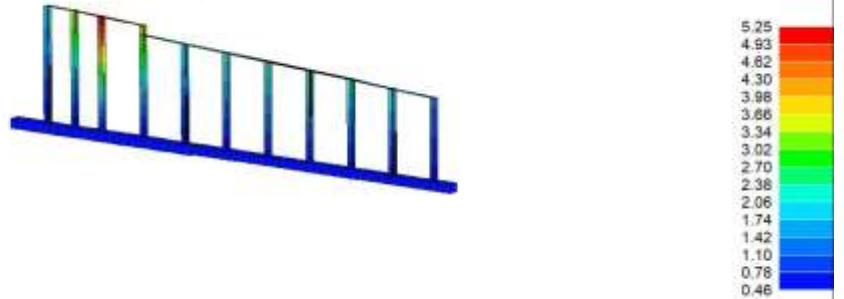


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

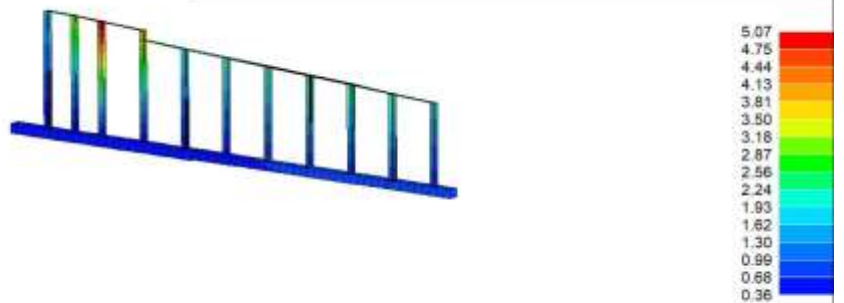
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	56

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Deformata [cm]

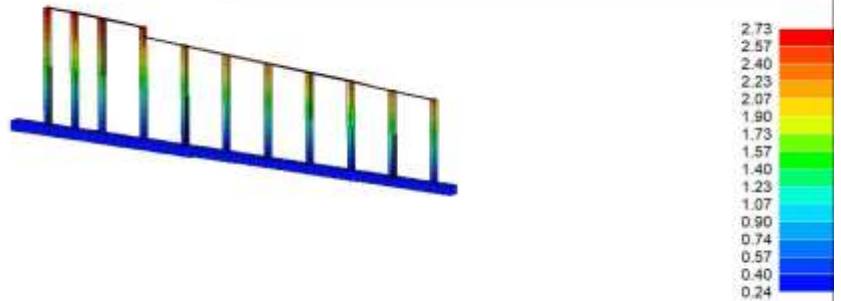


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

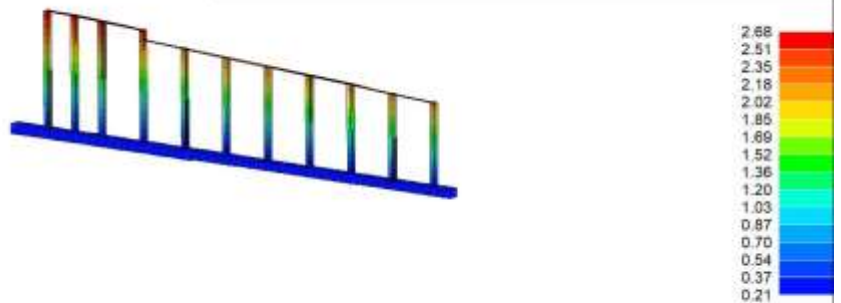
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	57

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Deformata [cm]

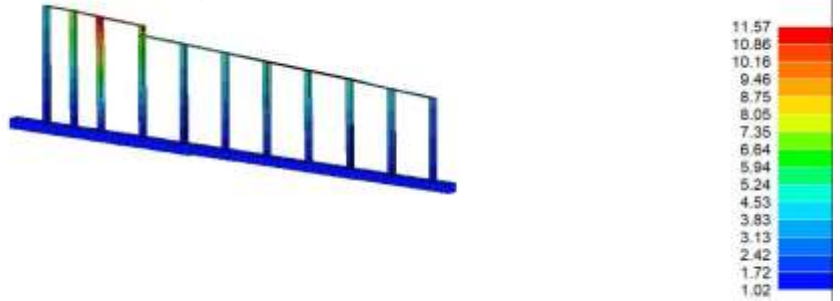


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

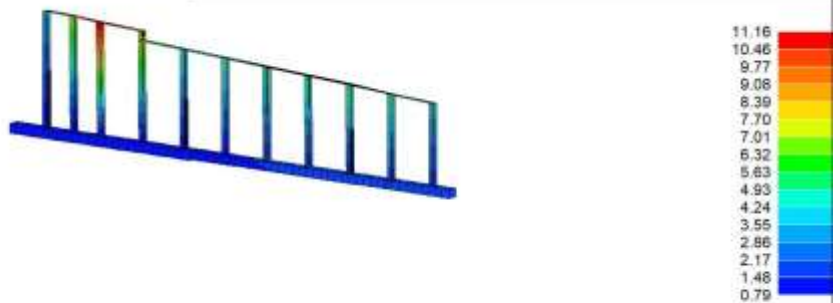
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	58

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Deformata [cm]

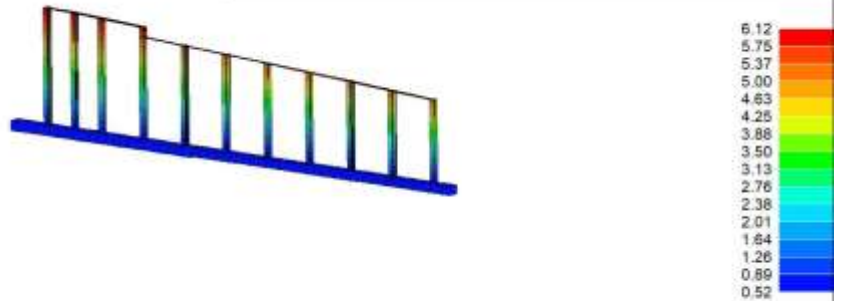


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

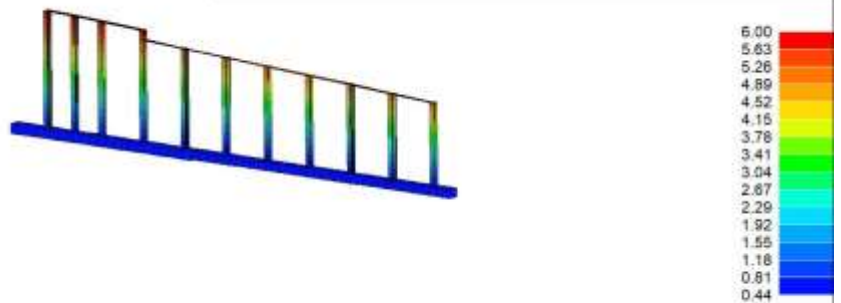
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	59

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Deformata [cm]

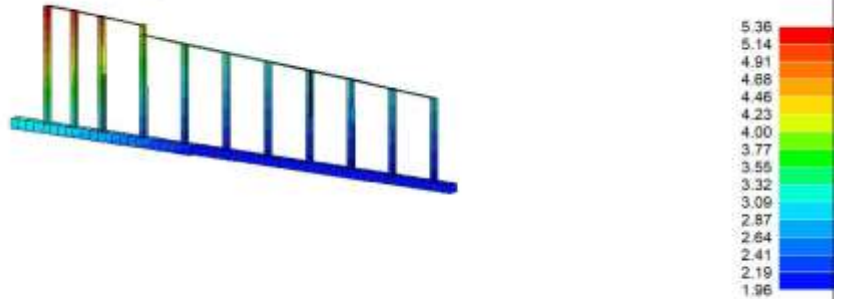


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

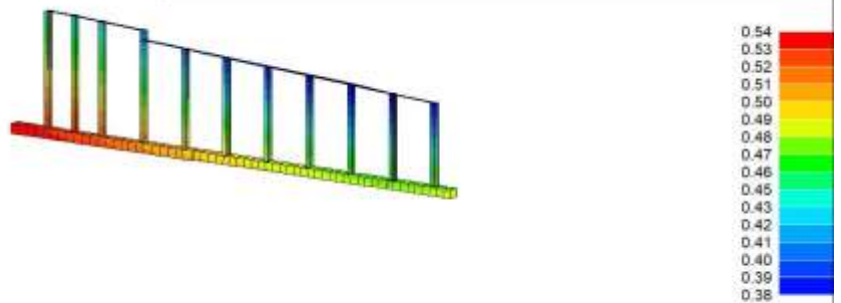
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	60

RISULTATI 018) CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 017) CDC=Etk (inc. sp. terreno) SLV dir + alfa=90.00
Deformata [cm]

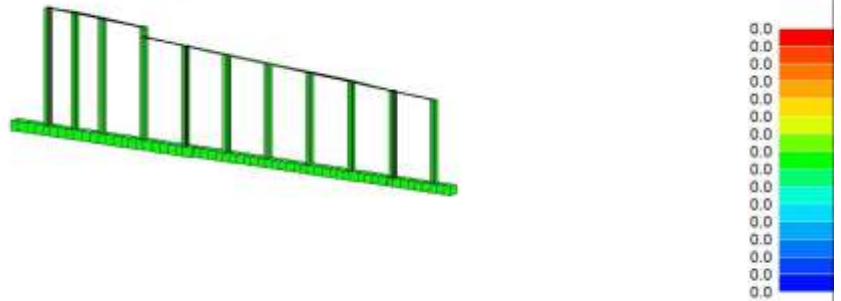


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

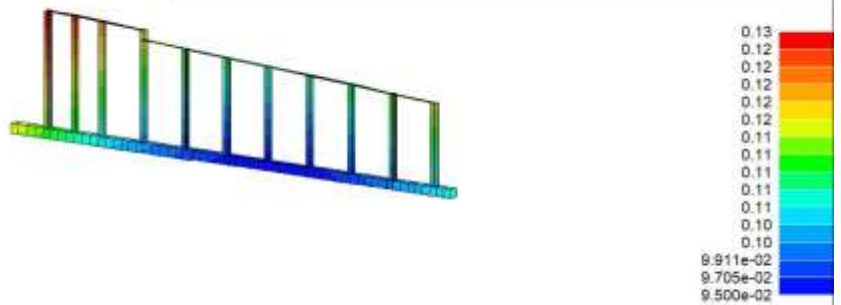
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	61

RISULTATI 016) CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 015) CDC=Etk (inc. sp. terreno) SLV dir + alfa=0.0
Deformata [cm]

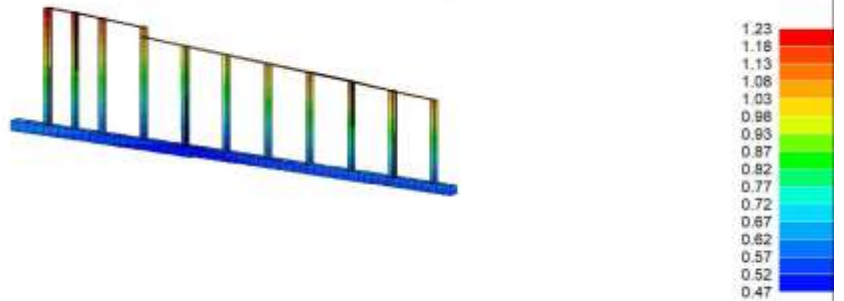


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

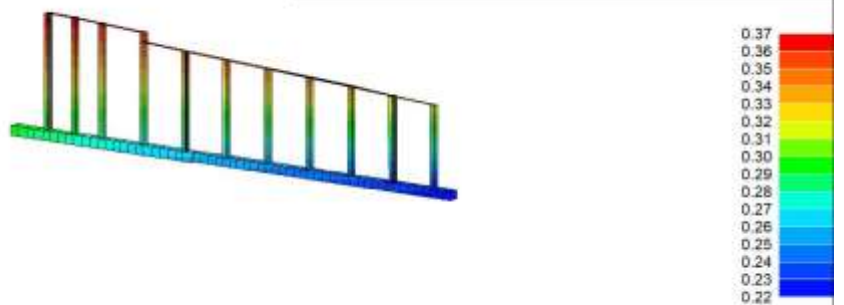
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	62

RISULTATI 014) SPINTA TERRENO
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 013) CDC=Qk variabile treno estremità
Deformata [cm]

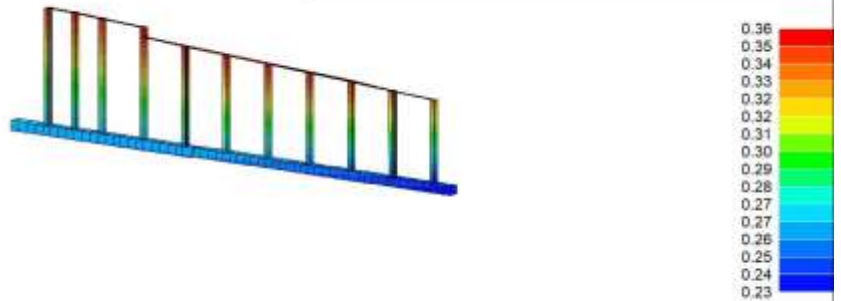


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

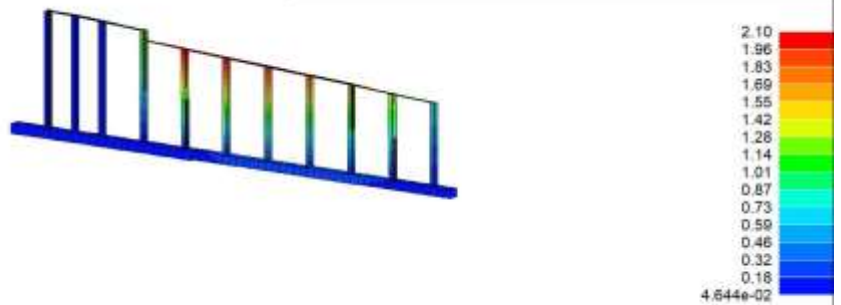
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	63

RISULTATI 012) CDC=Qk variabile treno centrale
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 011) CDC=Qvk (carico da vento) dir Y -
Deformata [cm]

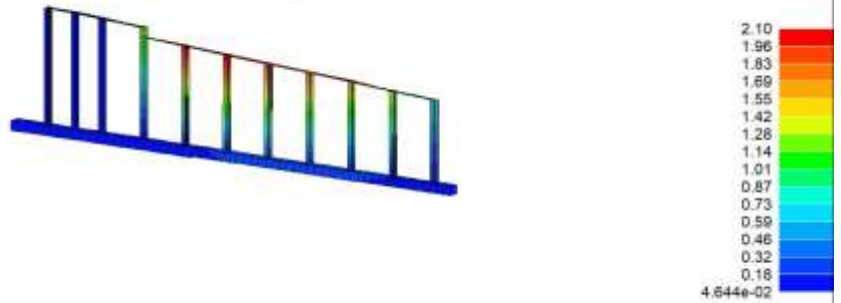


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

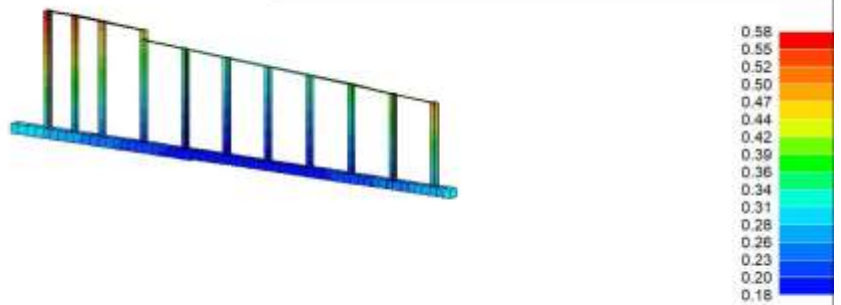
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	64

RISULTATI 010) CDC=Qvk (carico da vento) dir Y +
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Deformata [cm]

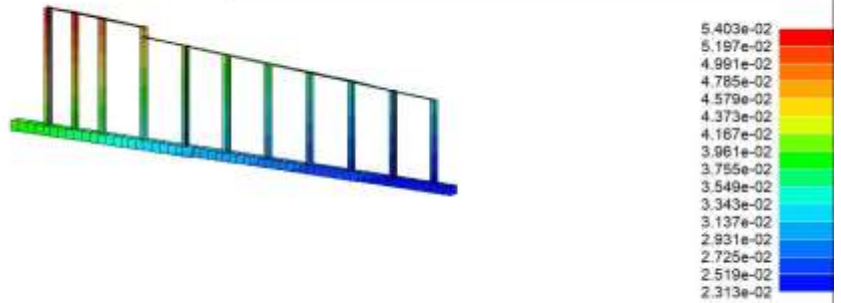


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

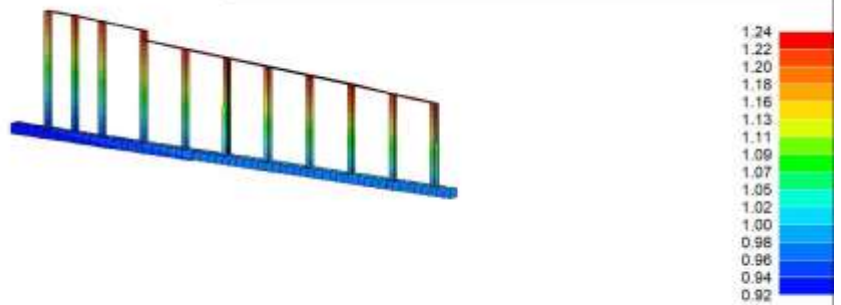
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	65

RISULTATI 004) CDC=G2pk (permanente pannelli n.c.d.)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

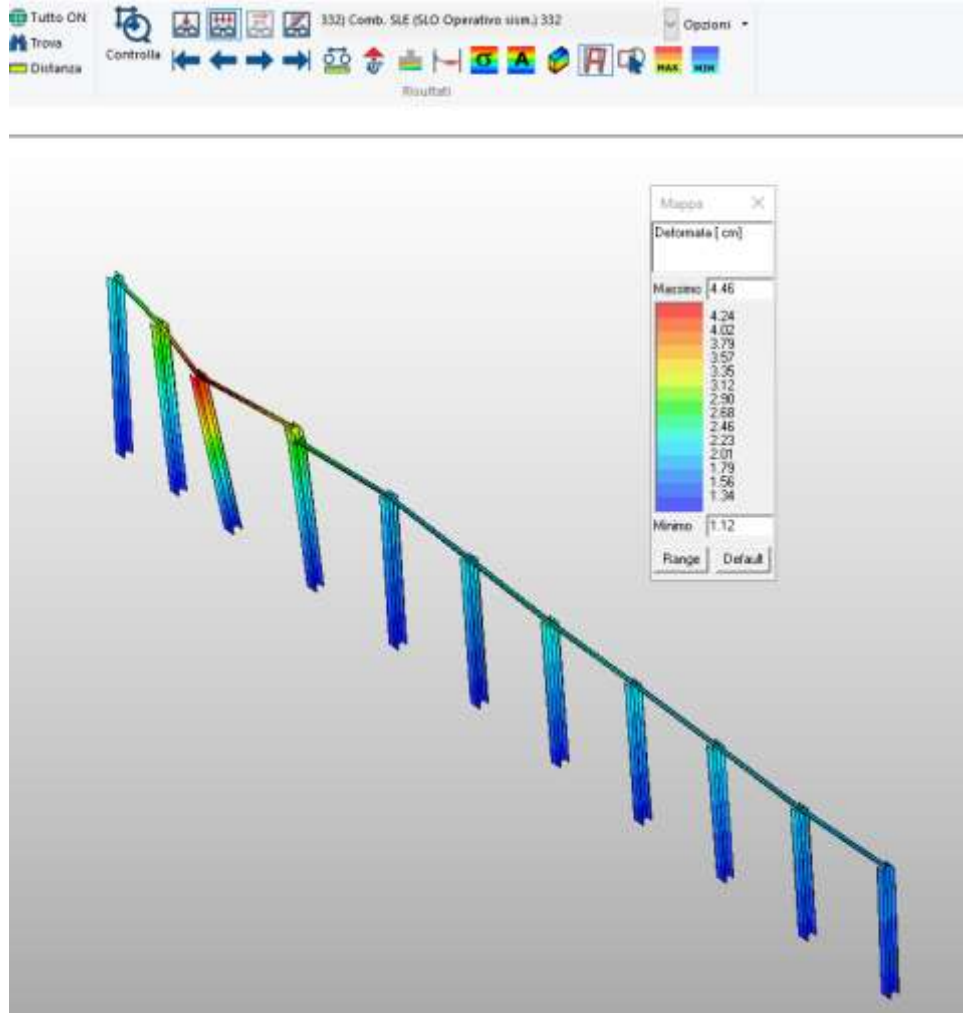
RISULTATI 001) CDC=Ggk (peso proprio della struttura)
Deformata [cm]



11_TRINCEA PENSILINA SX q=1-07122022

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	66

COMBINAZIONE TIPO SLO

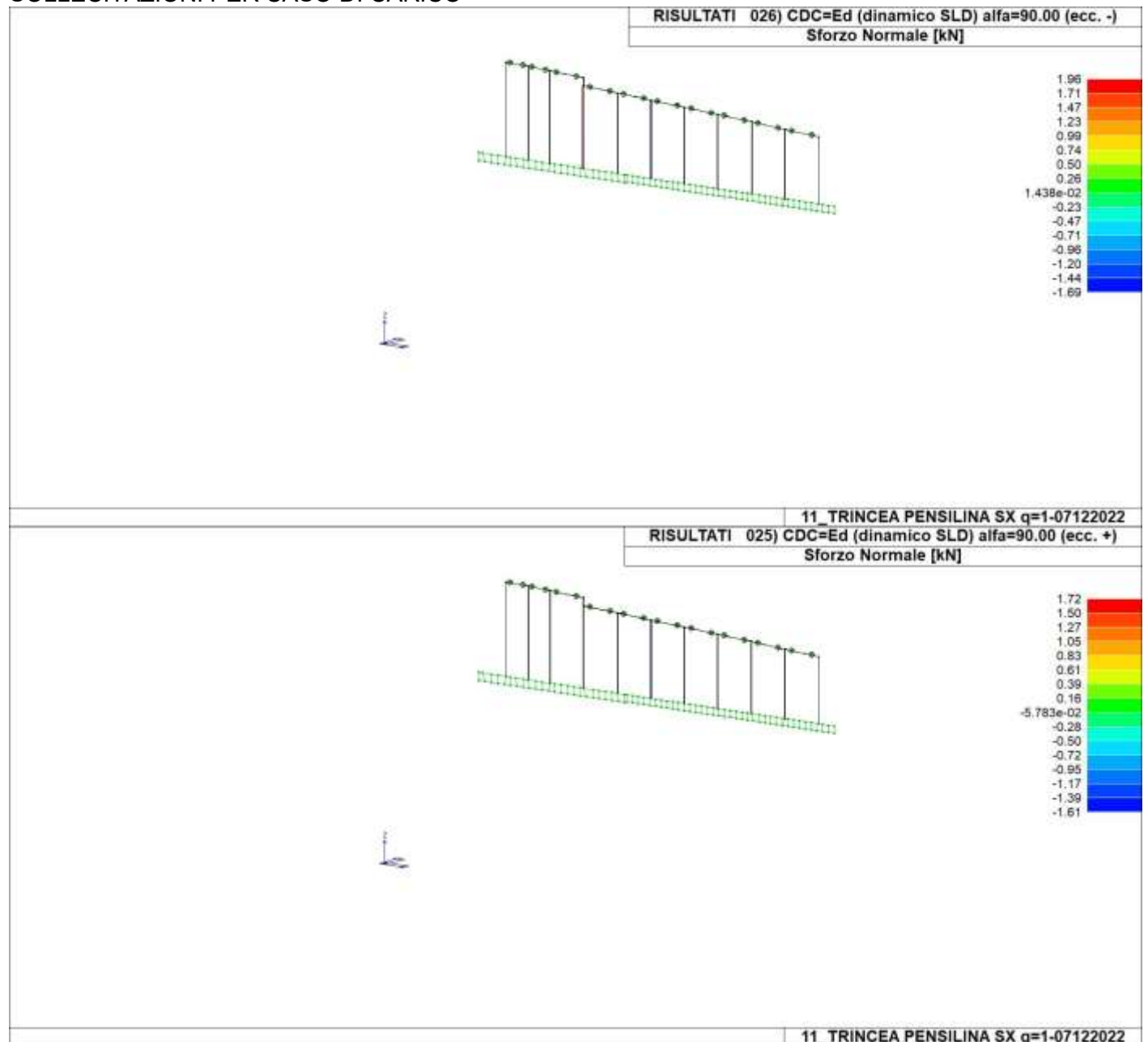


Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06 00	003	B	67

9.2.2 Sollecitazioni telai metallici

Si riporta l'involuppo delle sollecitazioni.

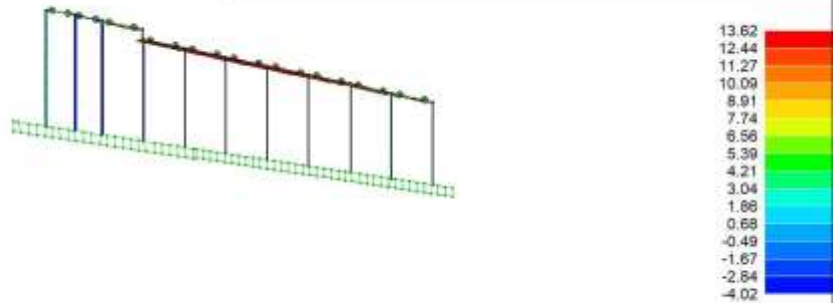
SOLLECITAZIONI PER CASO DI CARICO



Relazione di calcolo muri architettonici

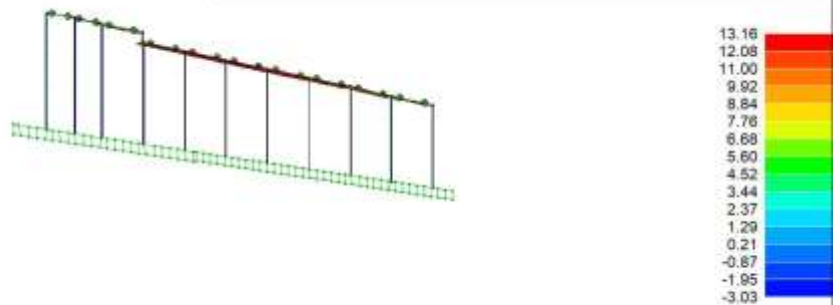
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	68

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Sforzo Normale [kN]

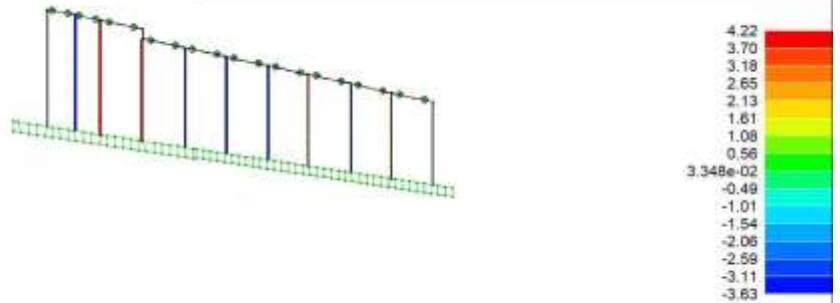


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

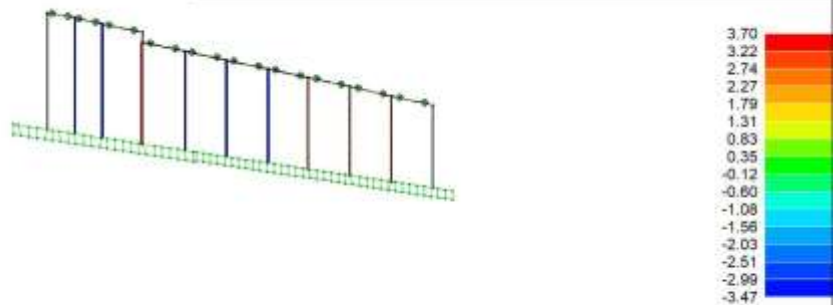
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	69

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Sforzo Normale [kN]

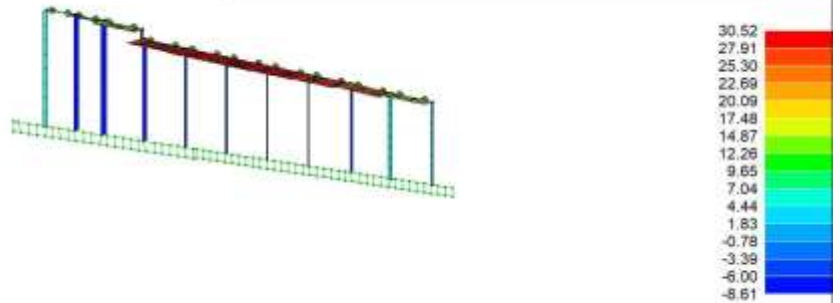


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

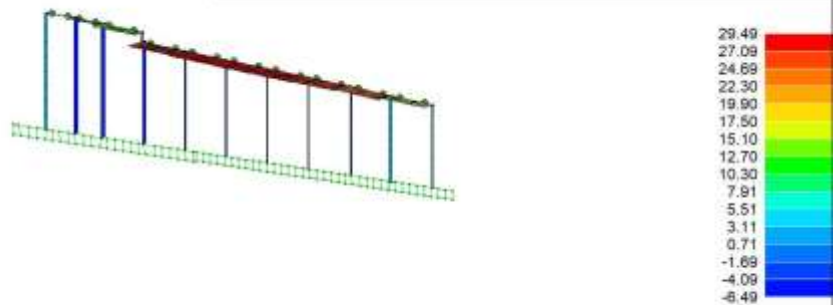
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	70

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Sforzo Normale [kN]

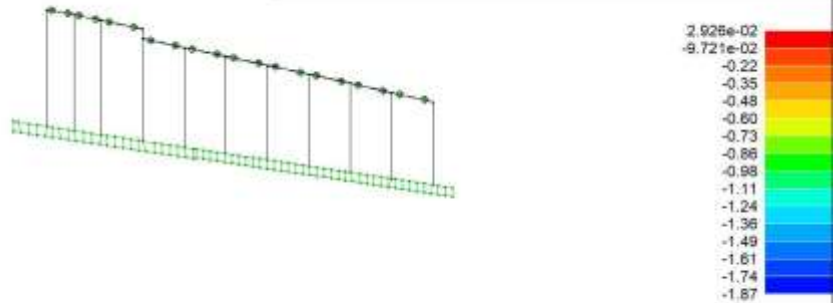


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

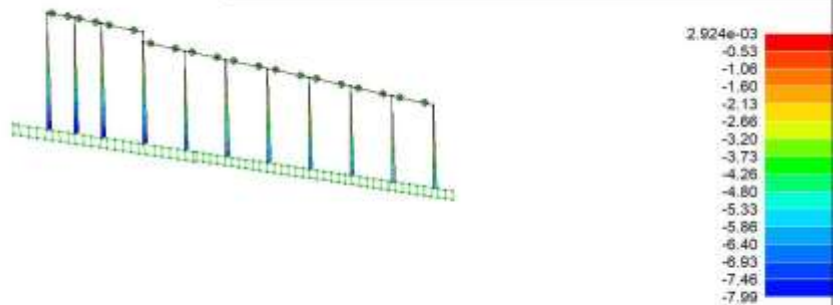
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	71

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Sforzo Normale [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 001) CDC=Ggk (peso proprio della struttura)
Sforzo Normale [kN]

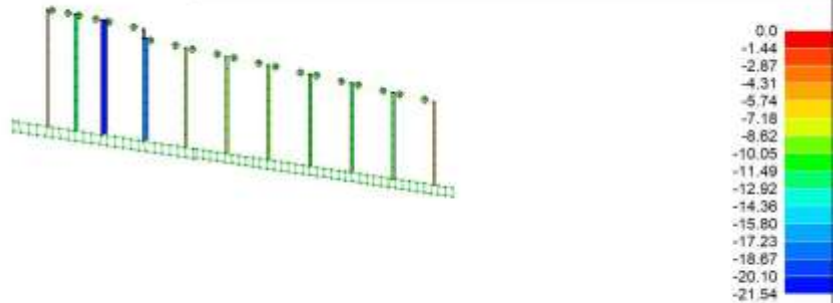


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

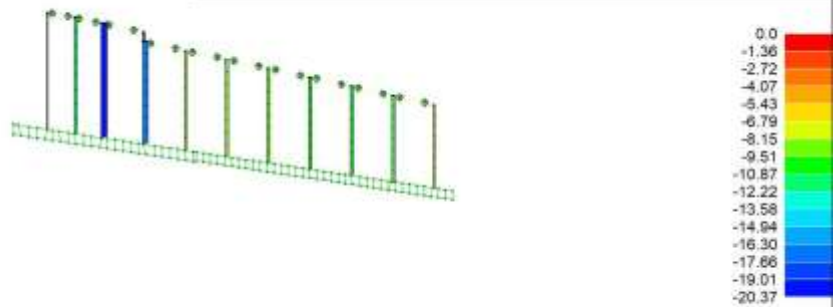
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	72

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Taglio 2 [kN]

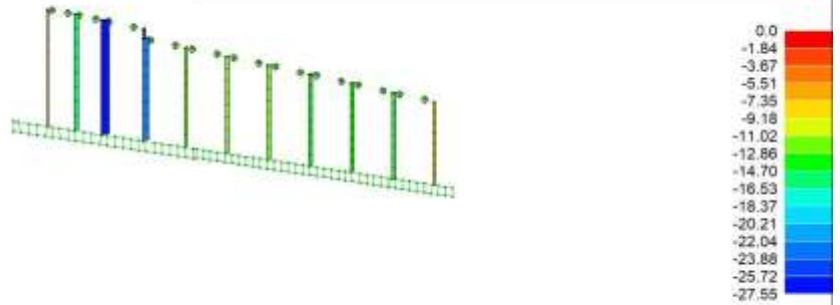


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

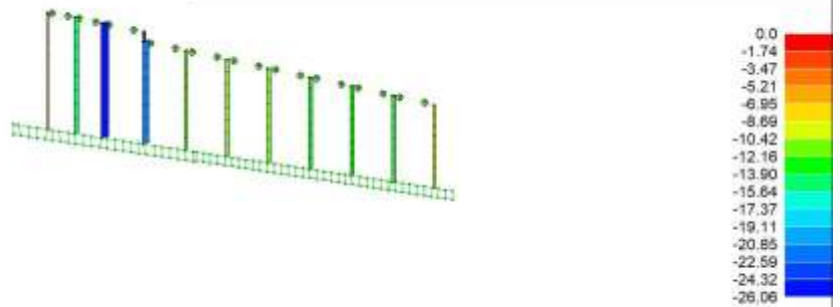
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	73

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Taglio 2 [kN]

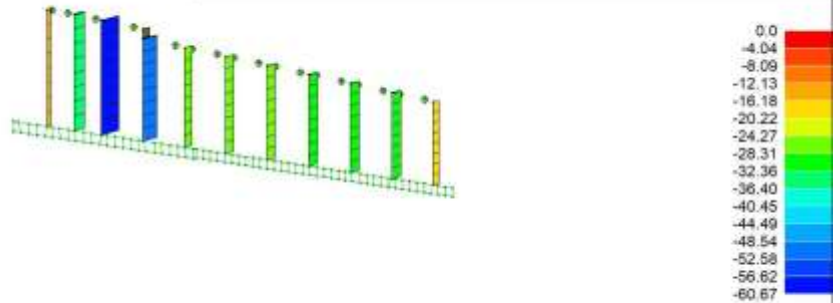


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

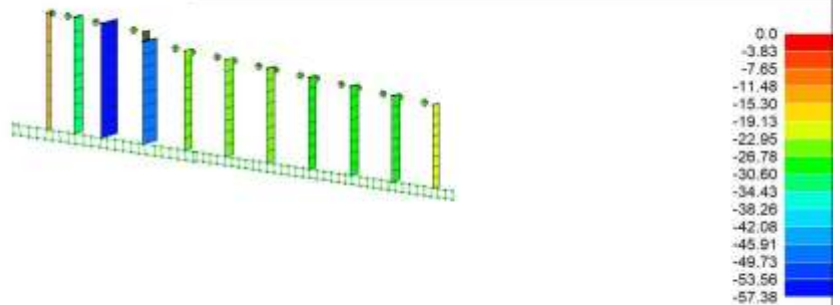
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	74

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Taglio 2 [kN]

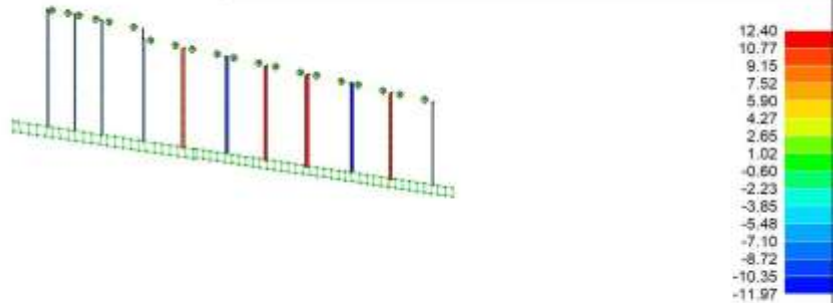


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

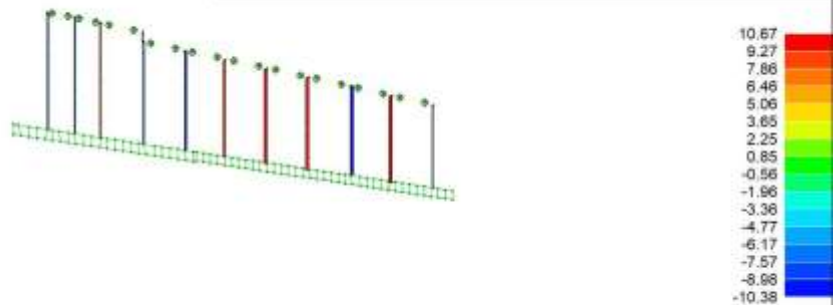
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	75

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Taglio 2 [kN]

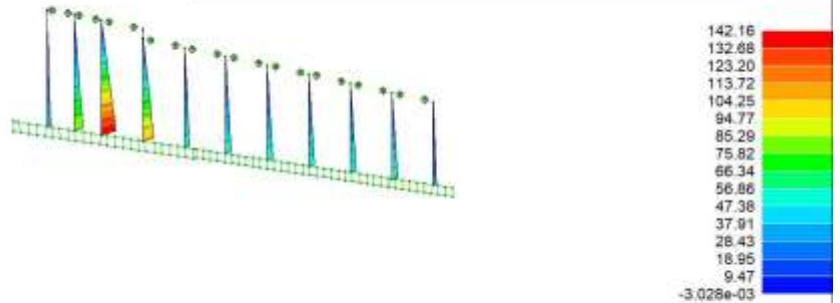


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

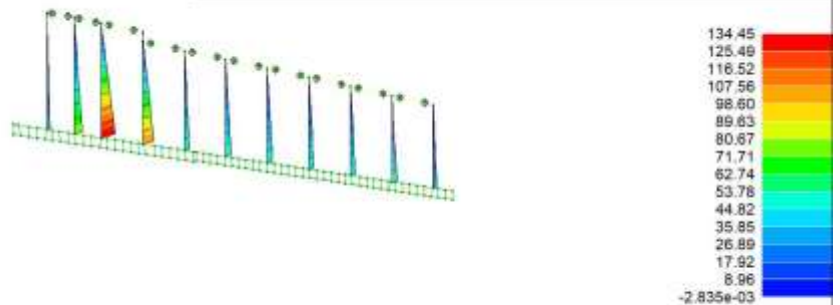
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	76

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

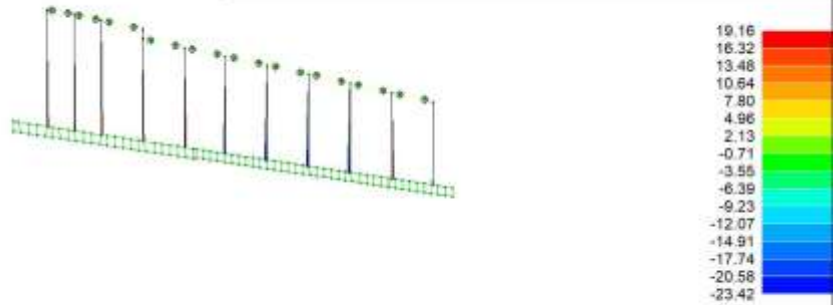


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

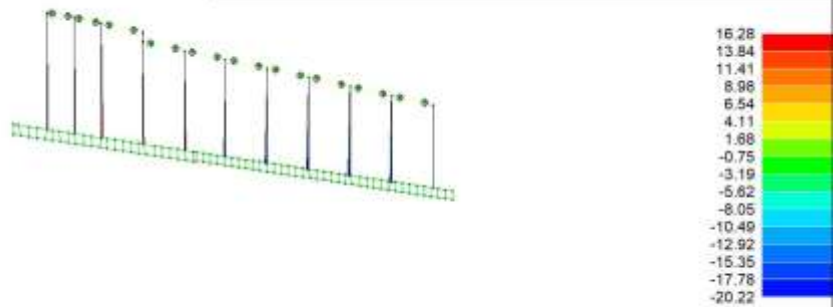
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	77

RISULTATI 028) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 027) CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]

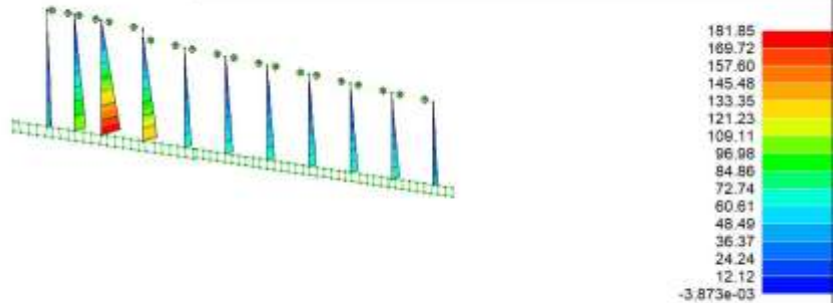


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

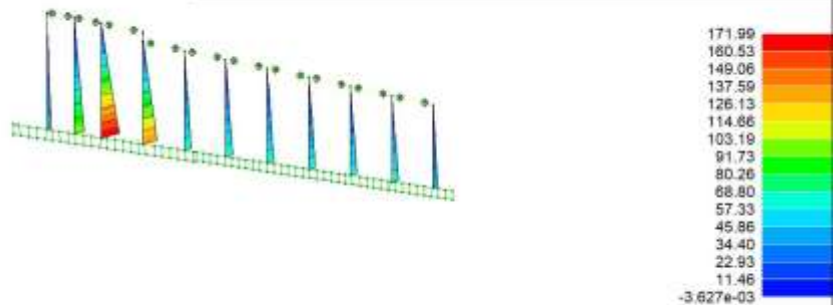
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	78

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

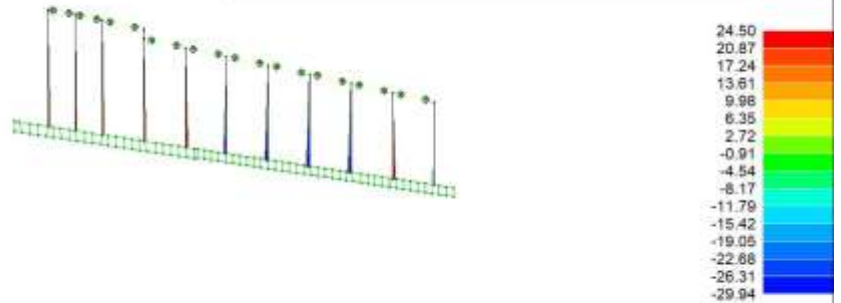


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

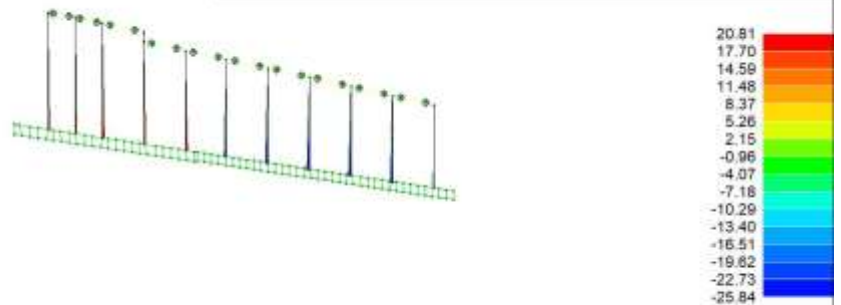
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	79

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]

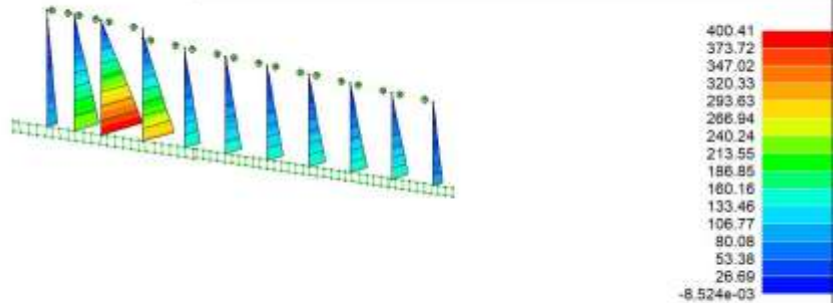


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

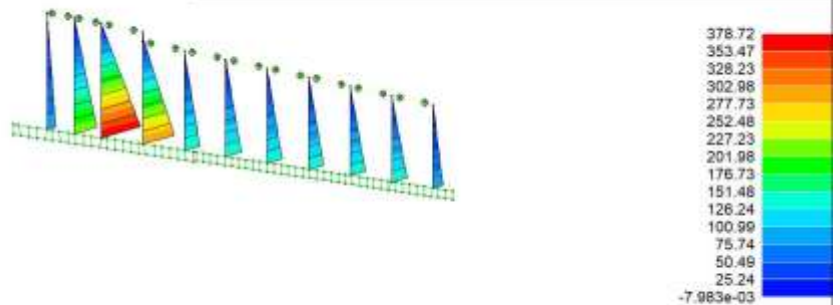
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	80

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

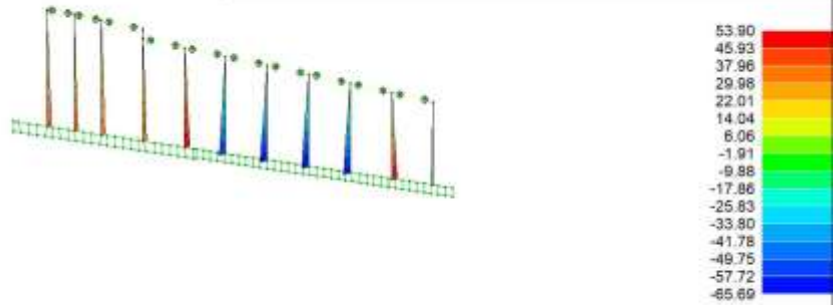


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

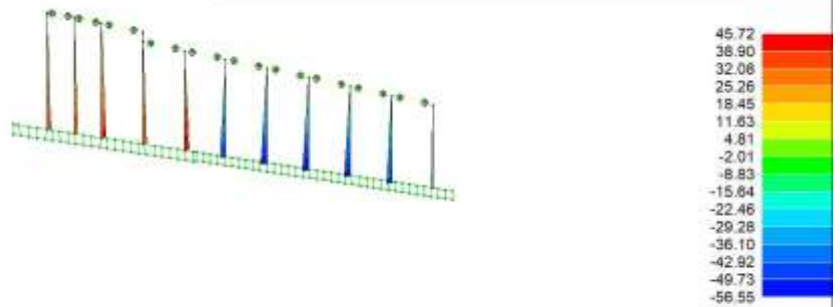
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	81

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA SX q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]

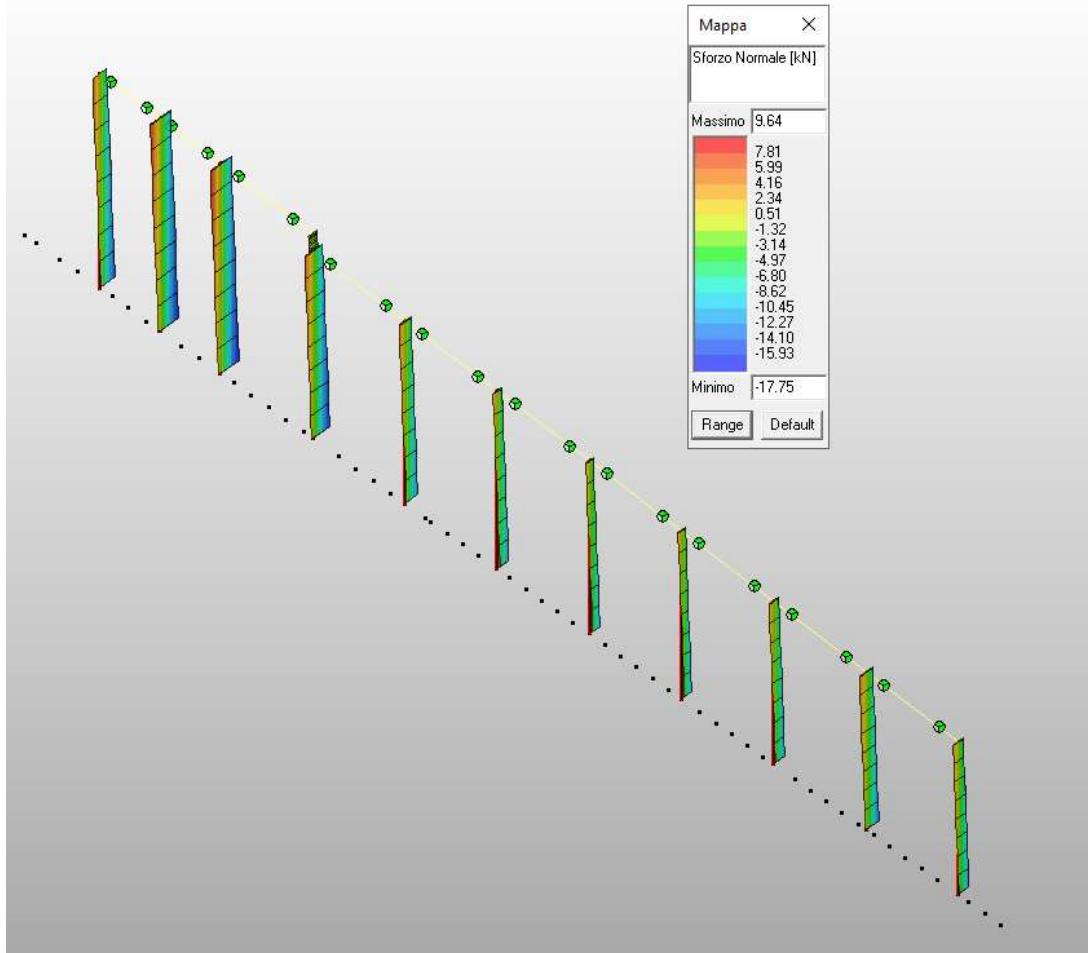


11_TRINCEA PENSILINA SX q=1-07122022

Relazione di calcolo muri architettonici

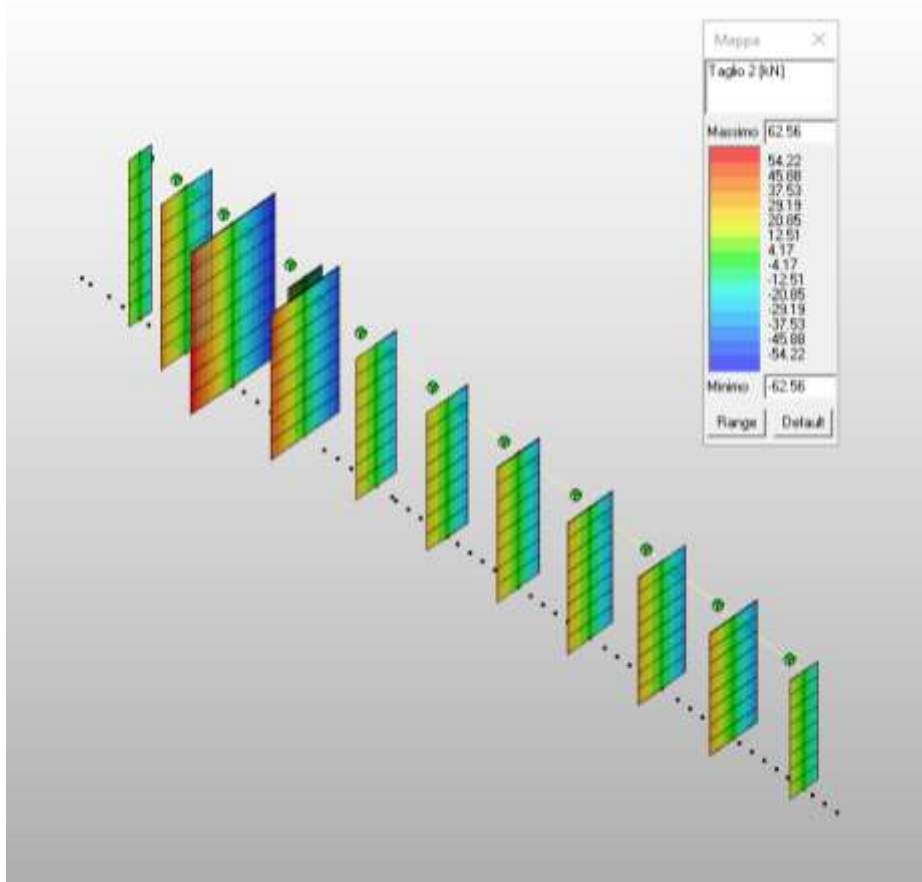
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	82

**INVILUPPO
PILASTRI**



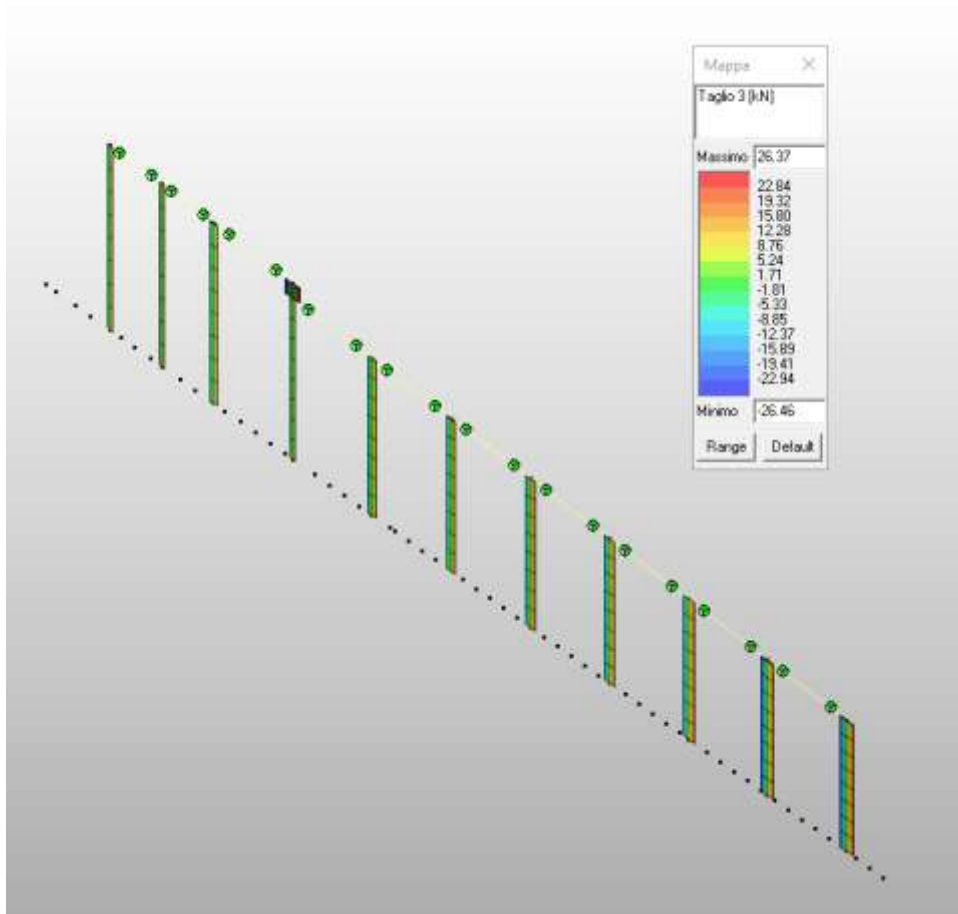
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	83



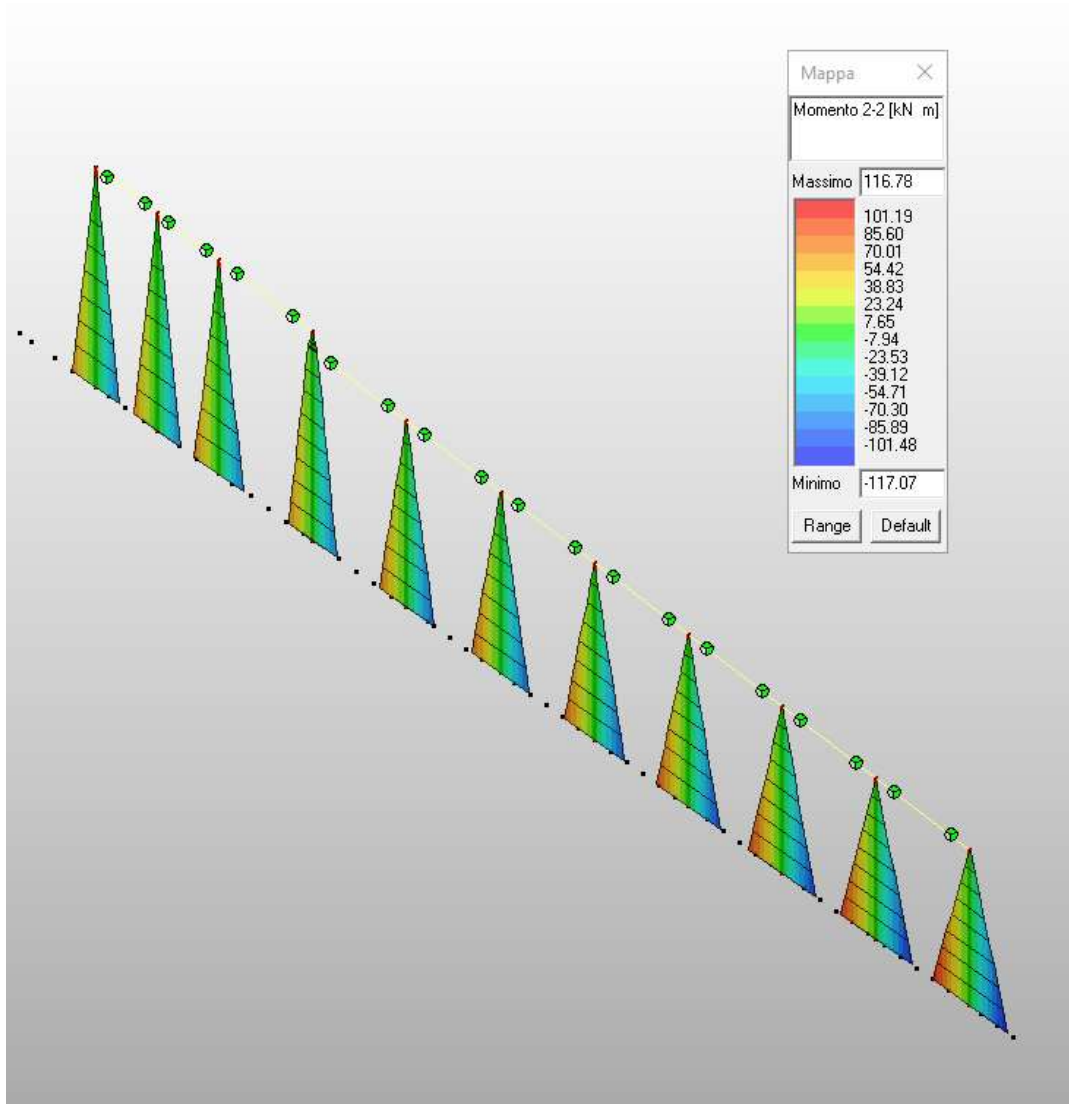
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	84



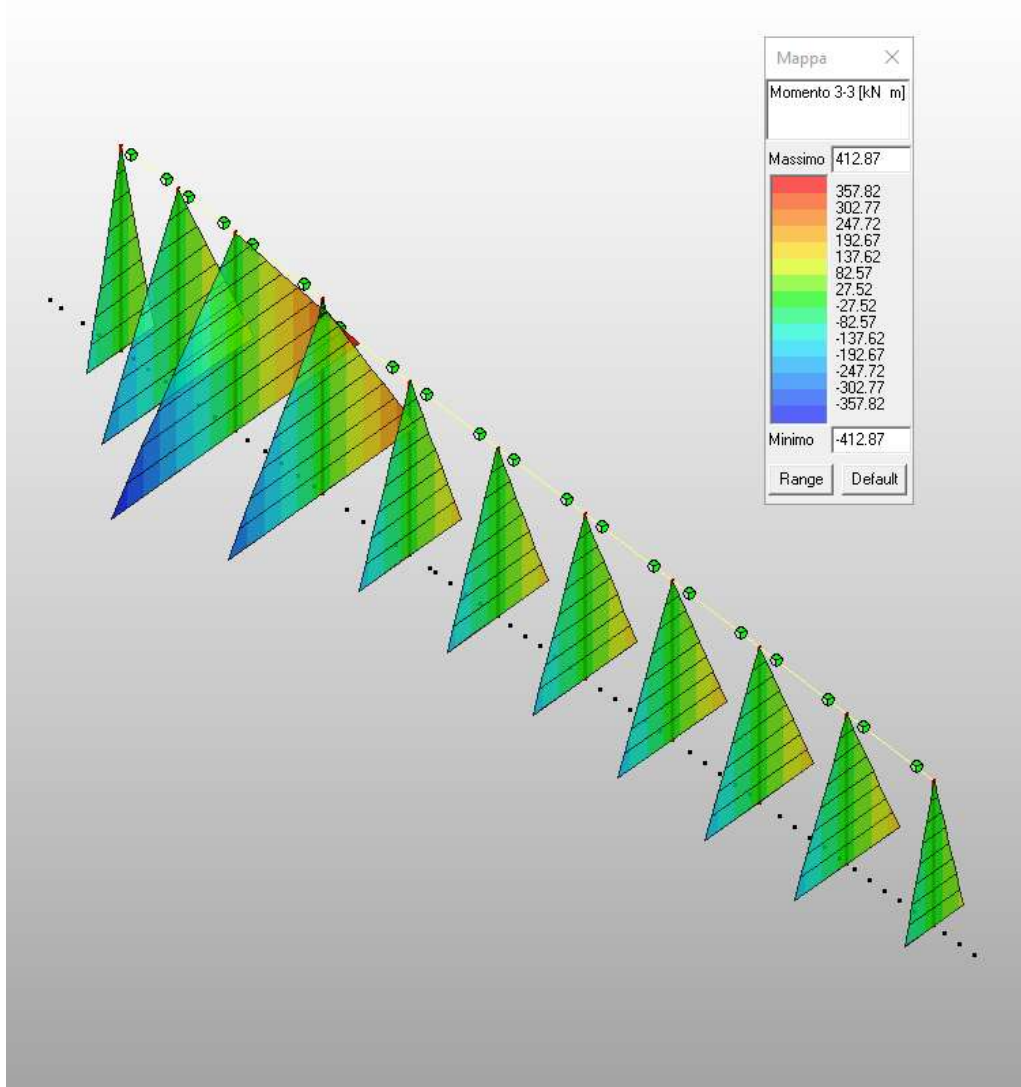
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	85



Relazione di calcolo muri architettonici

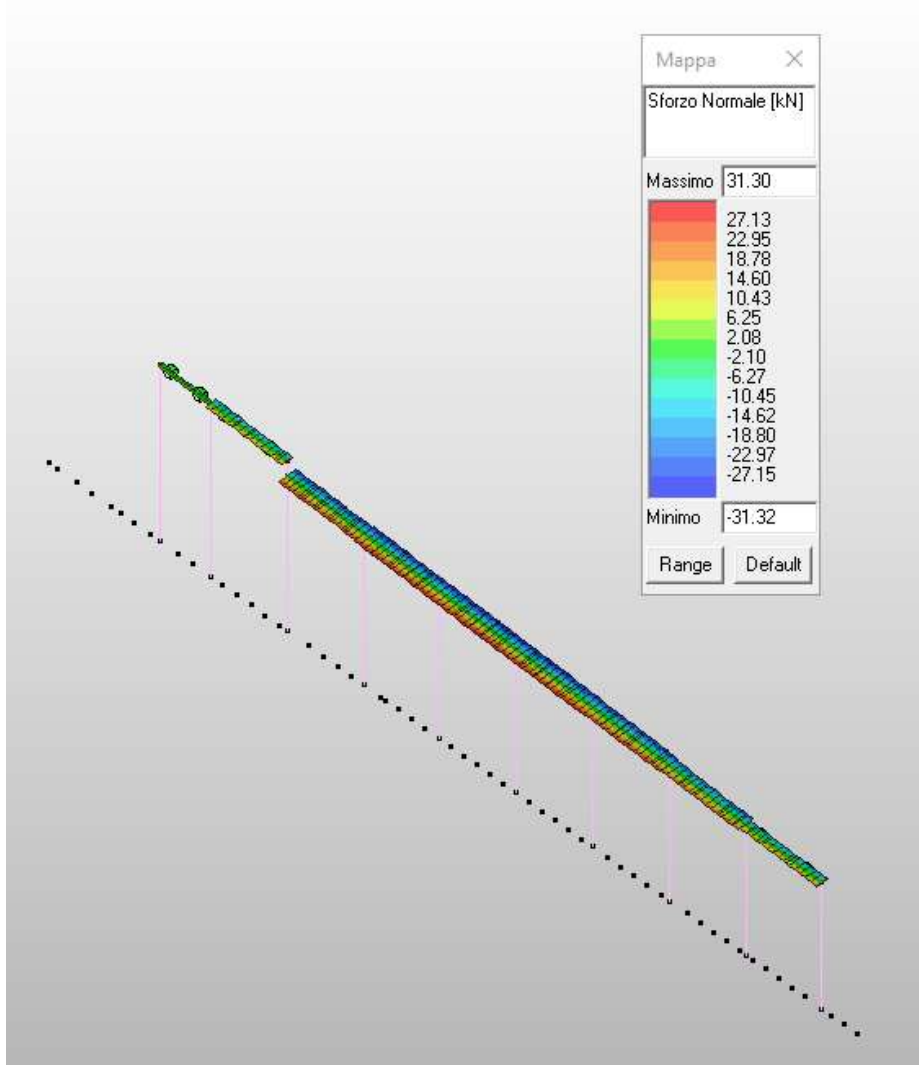
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	86



TRAVI

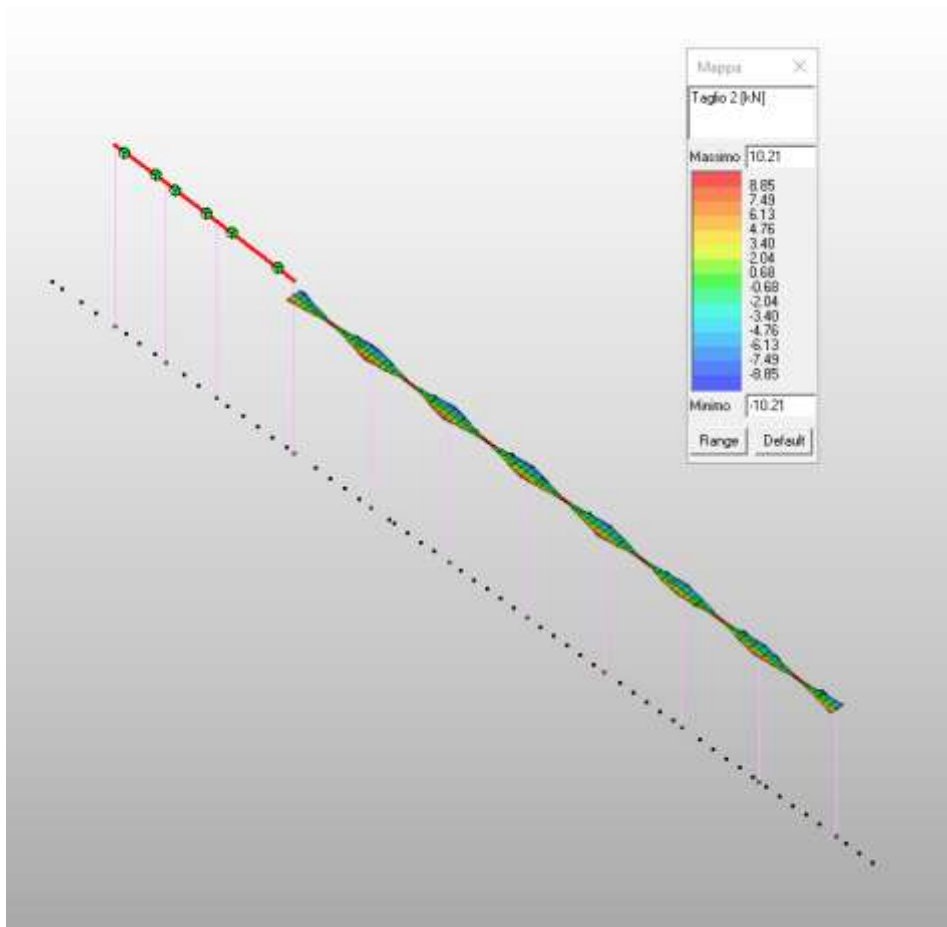
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	87



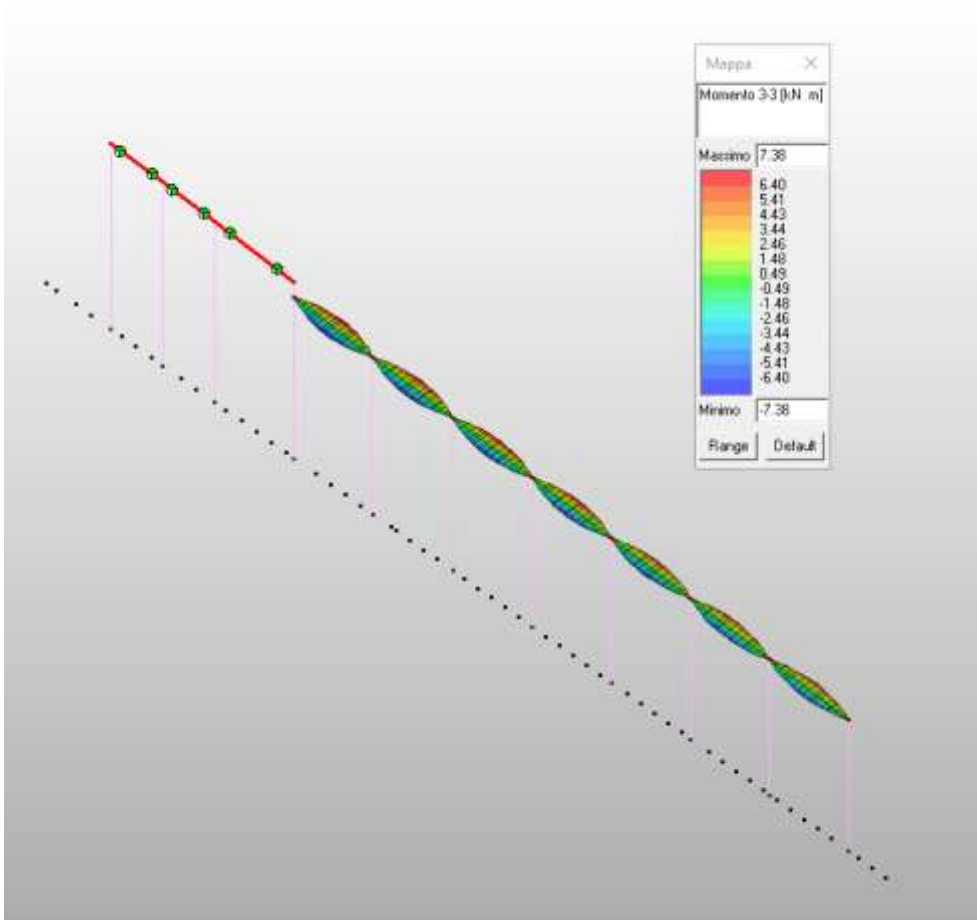
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	88



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	89

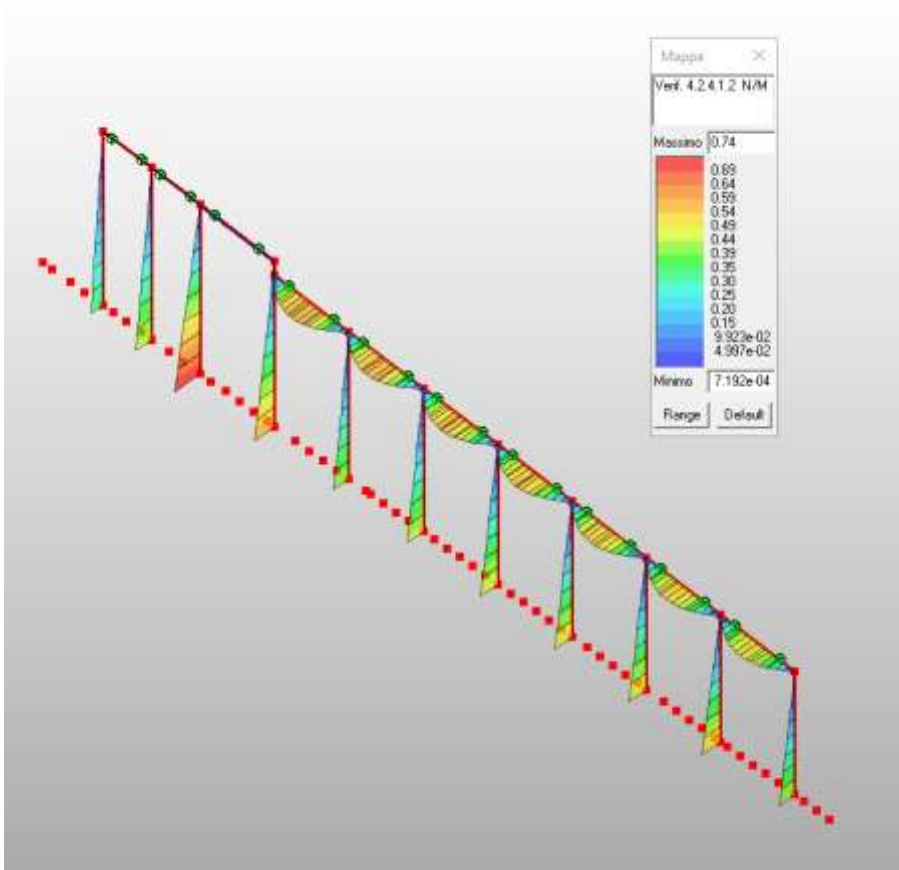


 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	90

9.3 VERIFICHE

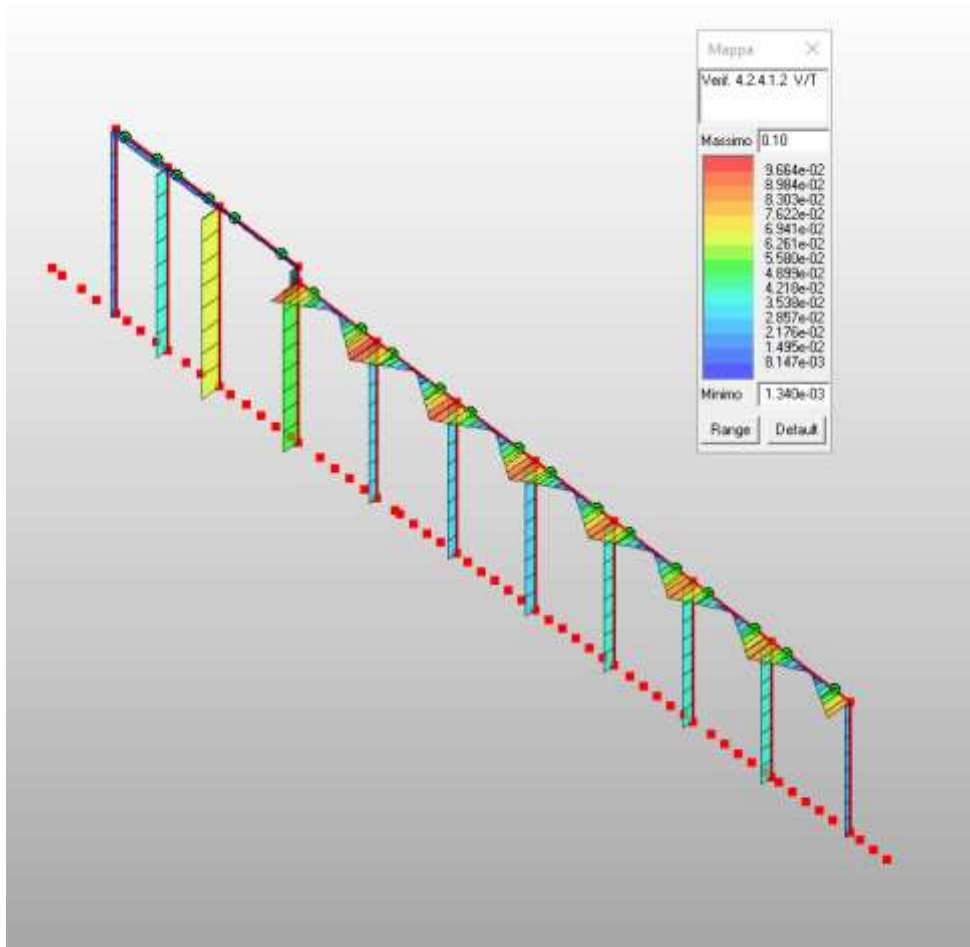
9.3.1 Verifica allo SLU

VERIFICHE DI RESISTENZA TELAI IN ACCIAIO



Relazione di calcolo muri architettonici

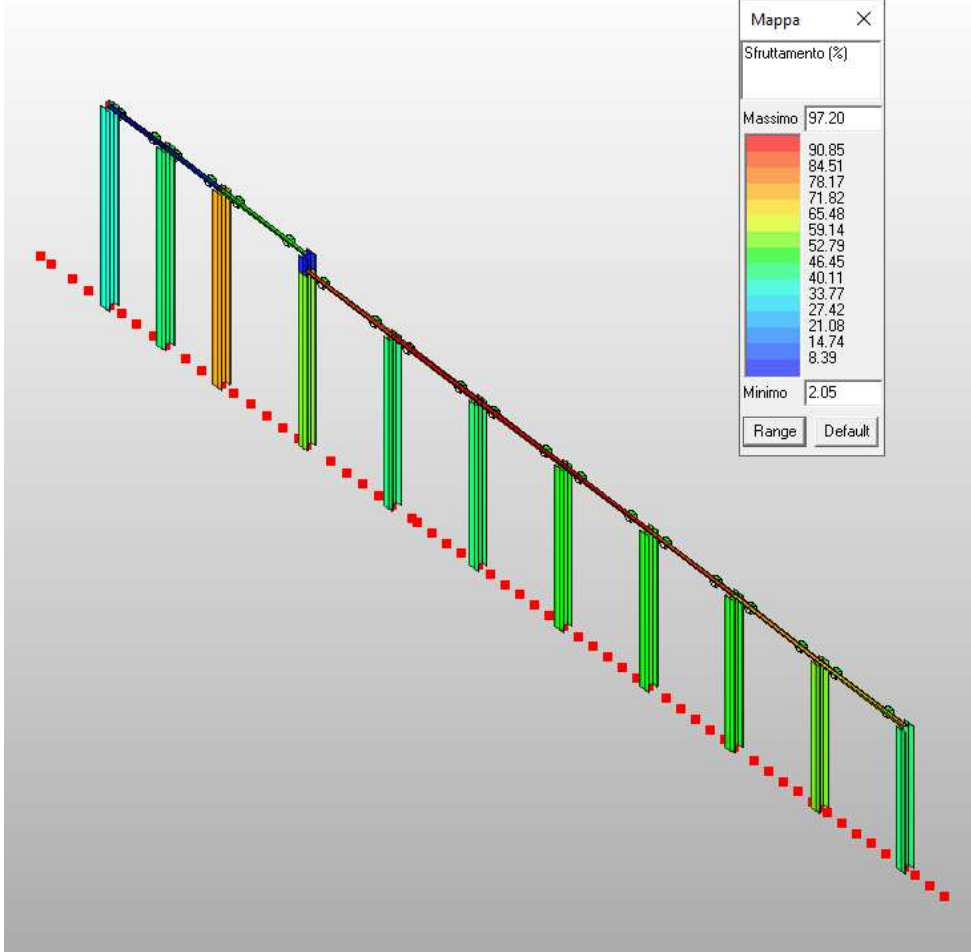
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	91



Tramite mappa di colore si riportano i valori di sfruttamento degli elementi strutturali espressi, in percentuale, come il maggiore dei tre rapporti tra le tensioni massime (resistenza, stabilità, svergolamento) e quelle limite di progetto.

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	92



 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	93

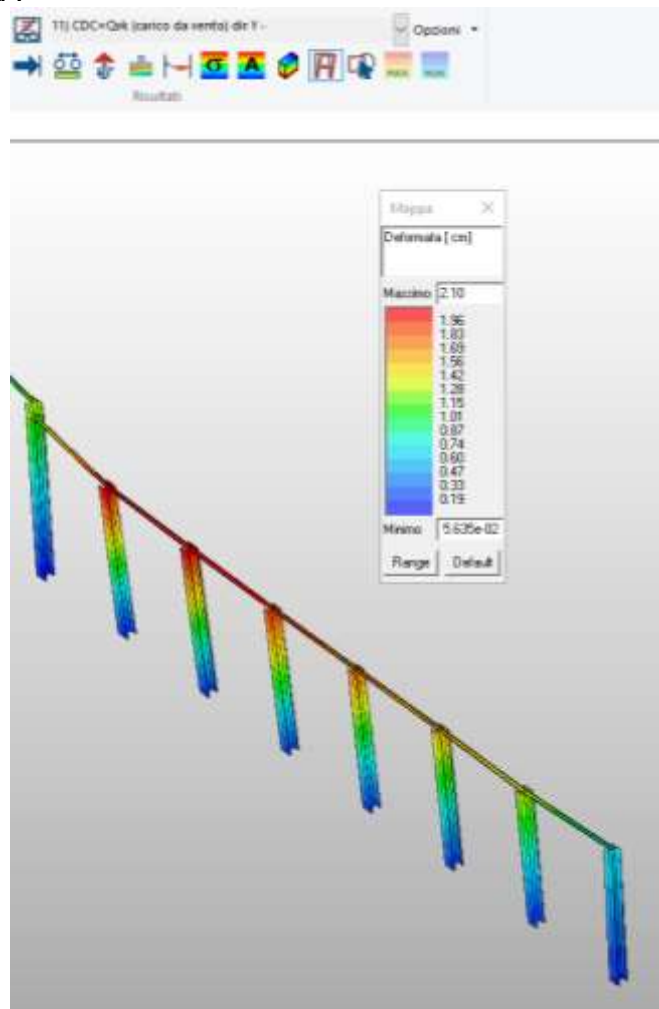
9.3.2 Verifica allo SLD in termini si resistenza

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

9.3.3 Verifica allo SLE in termini di deformazione

VERIFICA DEFORMAZIONE

COMBINAZIONE SLE RARA

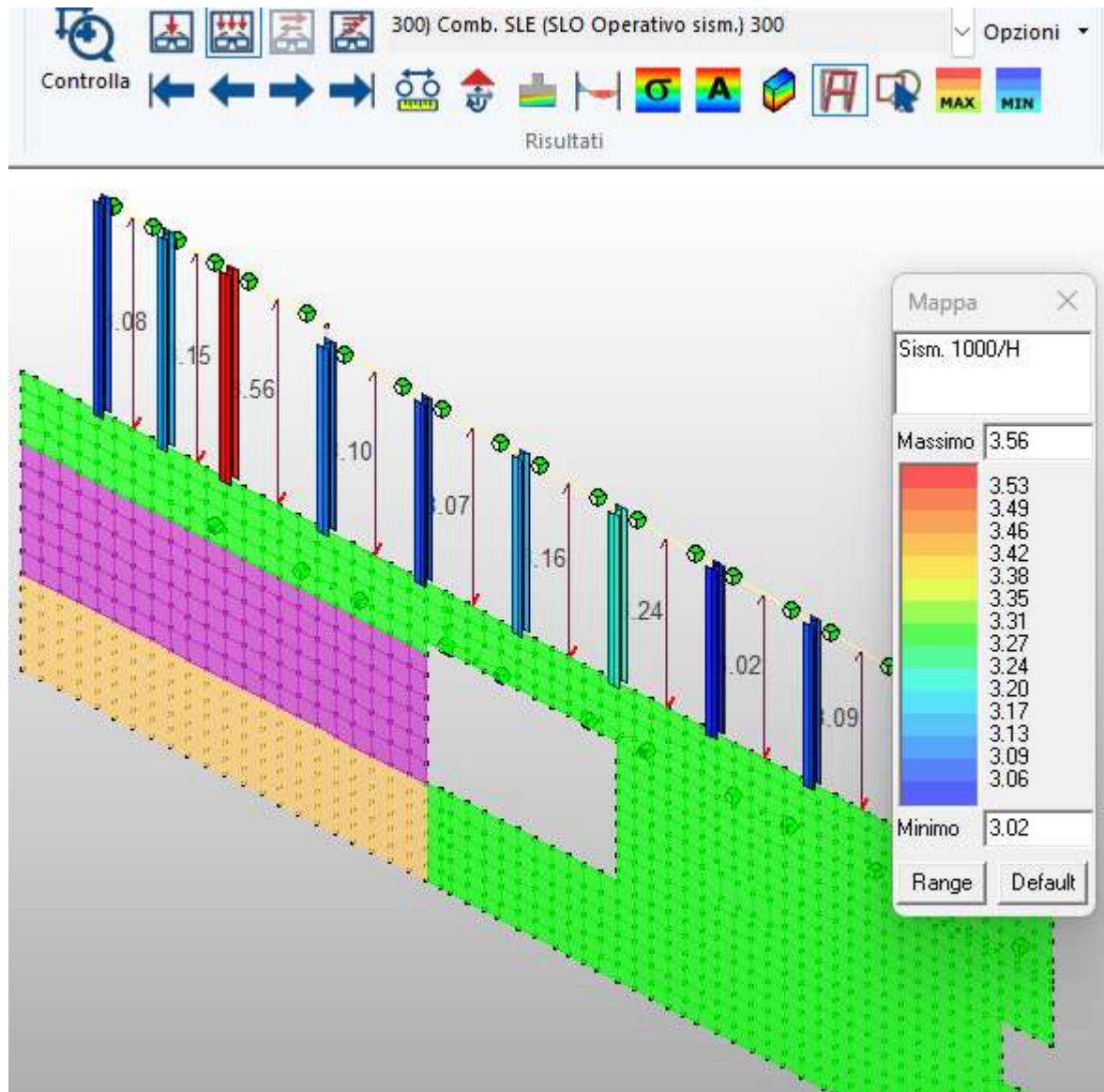


Il valore della freccia del 3.75 per mille si mantiene al di sotto del limite di normativa del 5 per mille ($L/200$). La verifica risulta pertanto soddisfatta.

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOLGIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	94

9.3.4 Verifica allo SLO in termini di deformazione

Come previsto al paragrafo 7.3.6.1 per tipologie di strutture con tamponature di tipo duttile, il limite di verifica allo SLO deve rispettare il limite di $\frac{2}{3} * 0.0075 h$ ovvero $0.005 h$



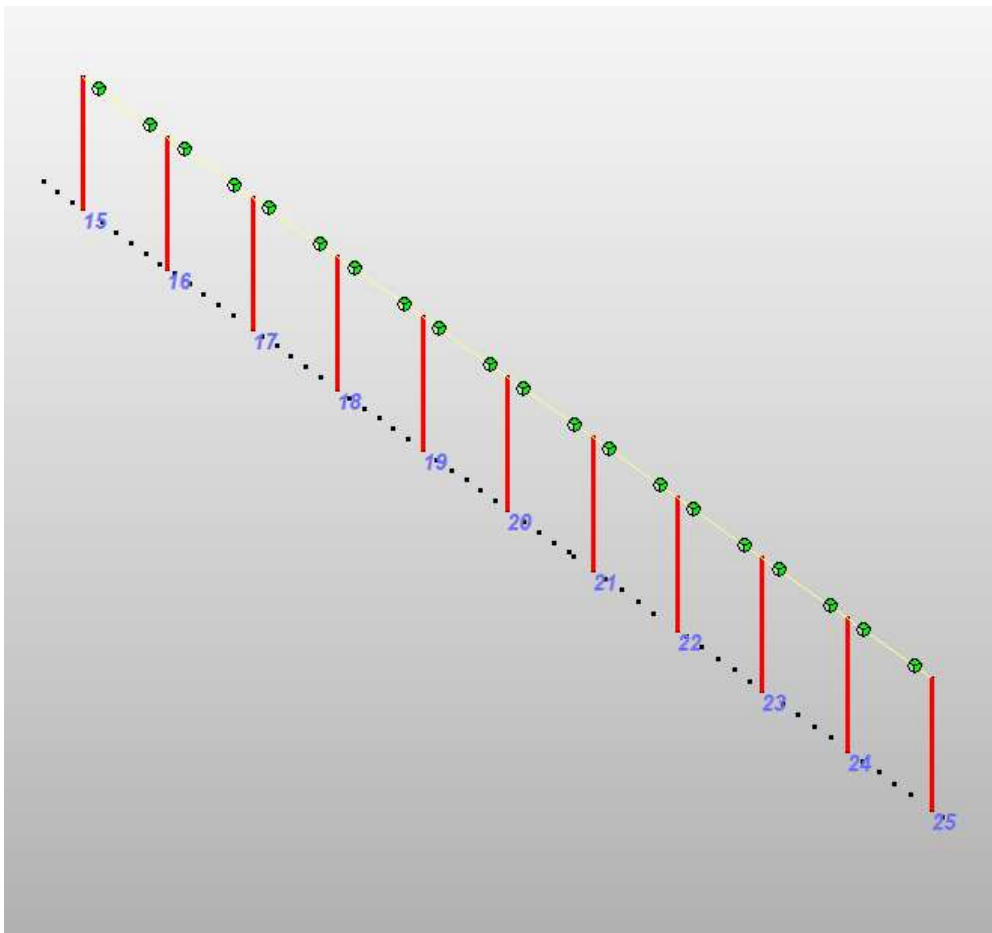
Il drift massimo ottenuto risulta essere pari a $0.0036 h <$ del limite normativo

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
LI0B		02	E	ZZ	CL	TR	06	00	003	B	95

10. SCHEMI DI CALCOLO E RISULTATI DELLE ANALISI MURO LATO DESTRO

10.1 NUMERAZIONE ELEMENTI

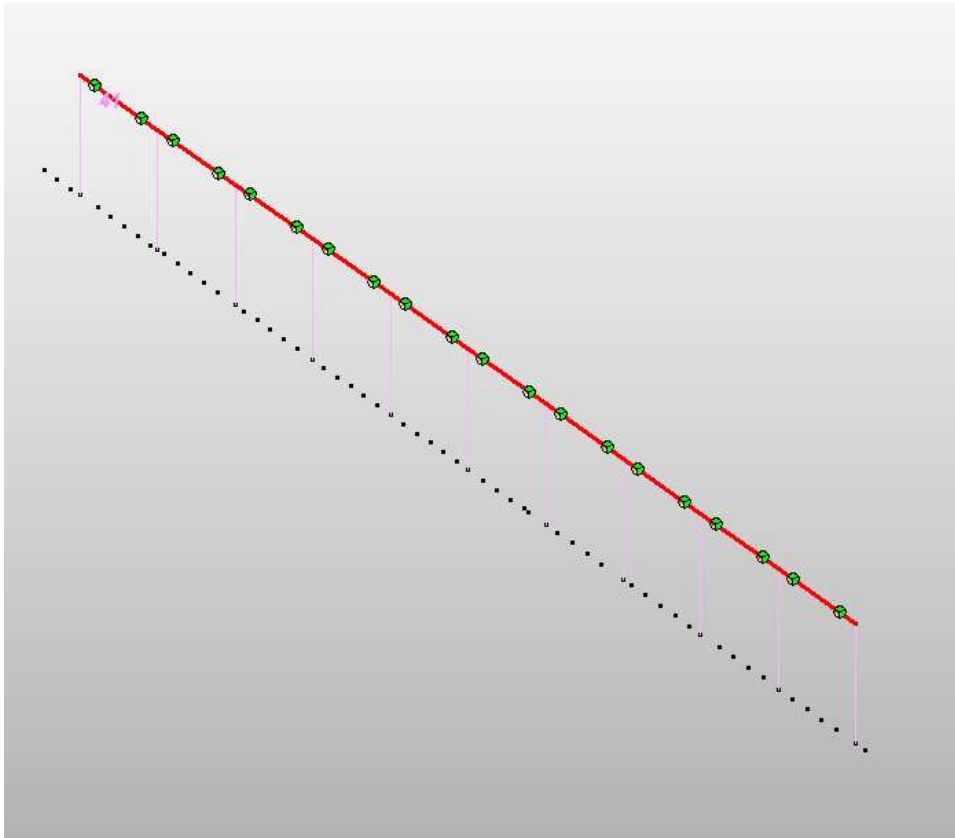
NUMERAZIONE COLONNE



NUMERAZIONE TRAVI

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	96

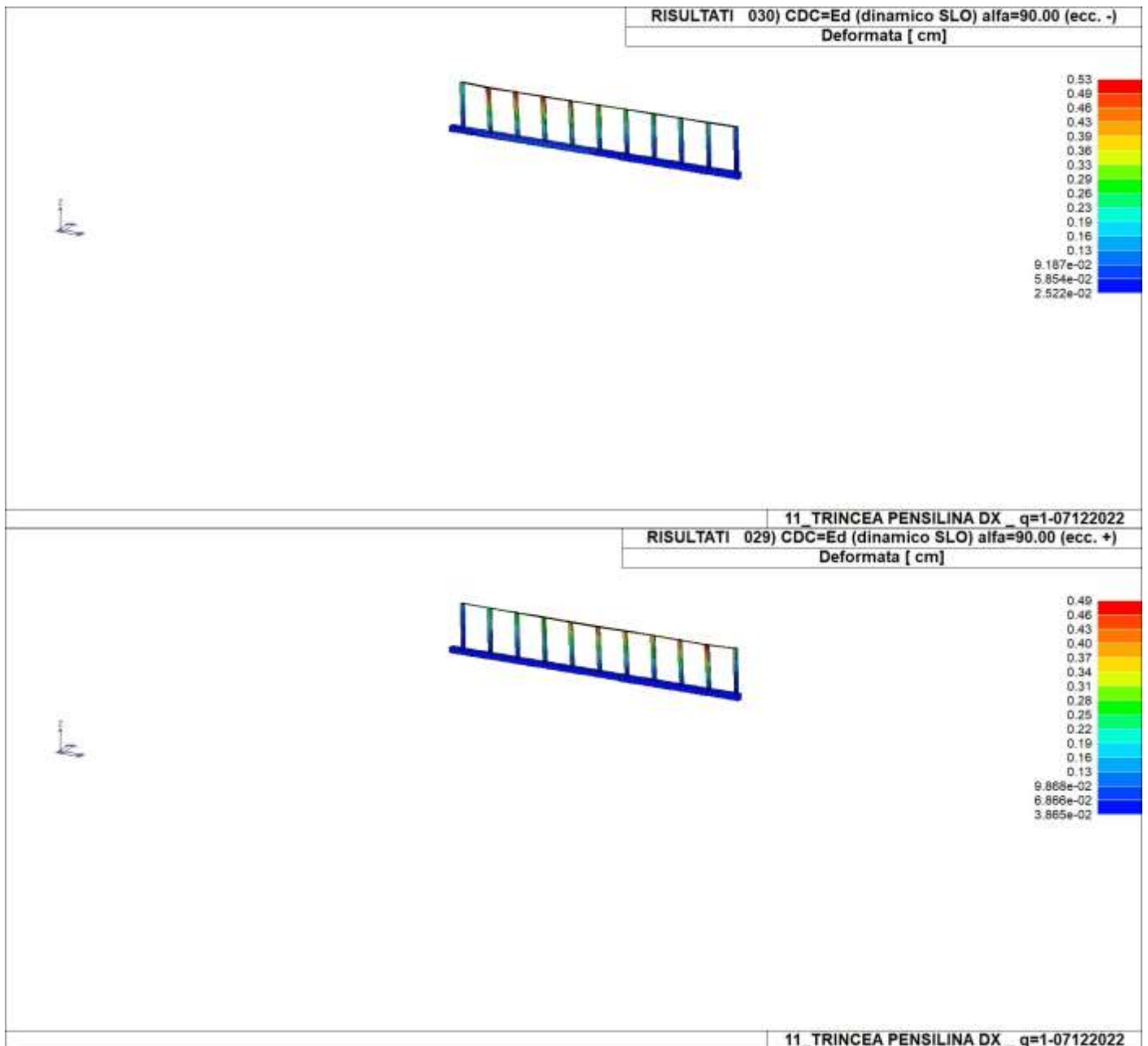


 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	97

10.2 DIAGRAMMI SOLLECITAZIONI E DEFORMATE

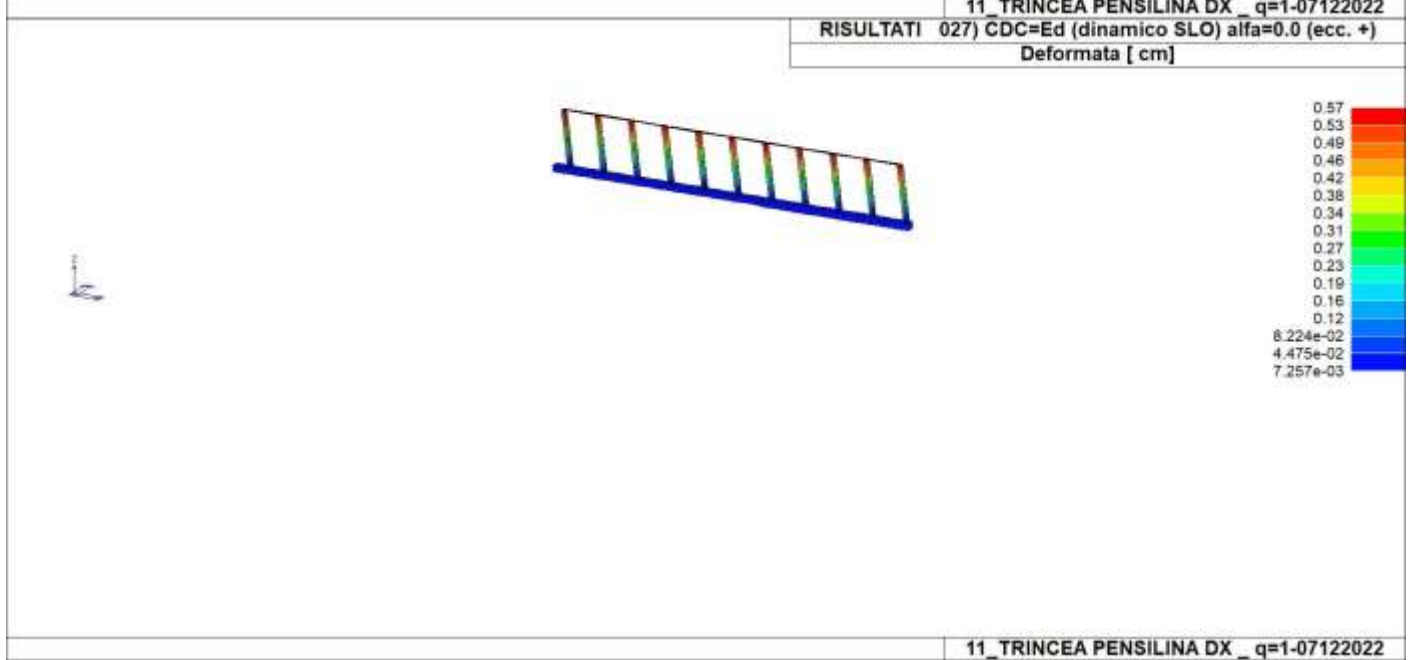
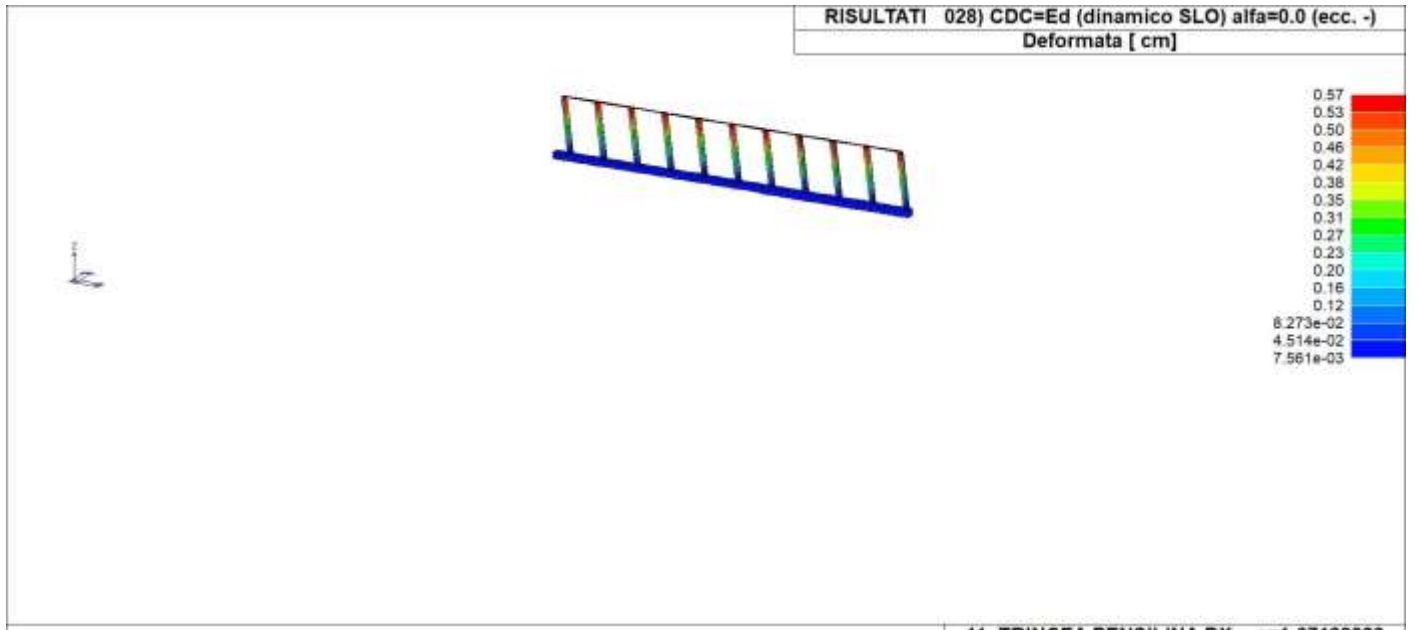
10.2.1 Deformate

DEFORMATE PER CASO DI CARICO



Relazione di calcolo muri architettonici

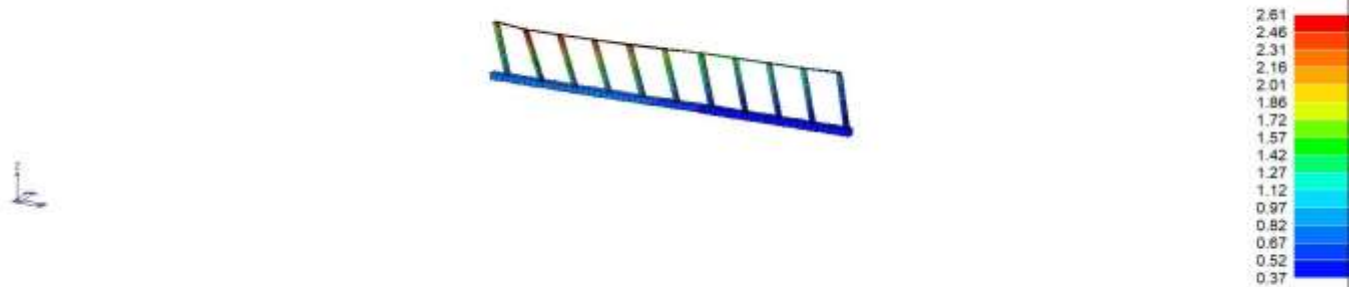
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	98



Relazione di calcolo muri architettonici

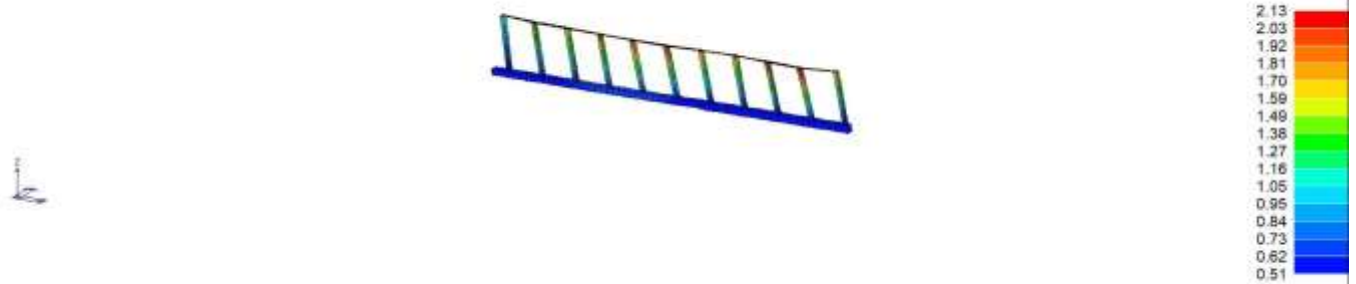
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	99

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

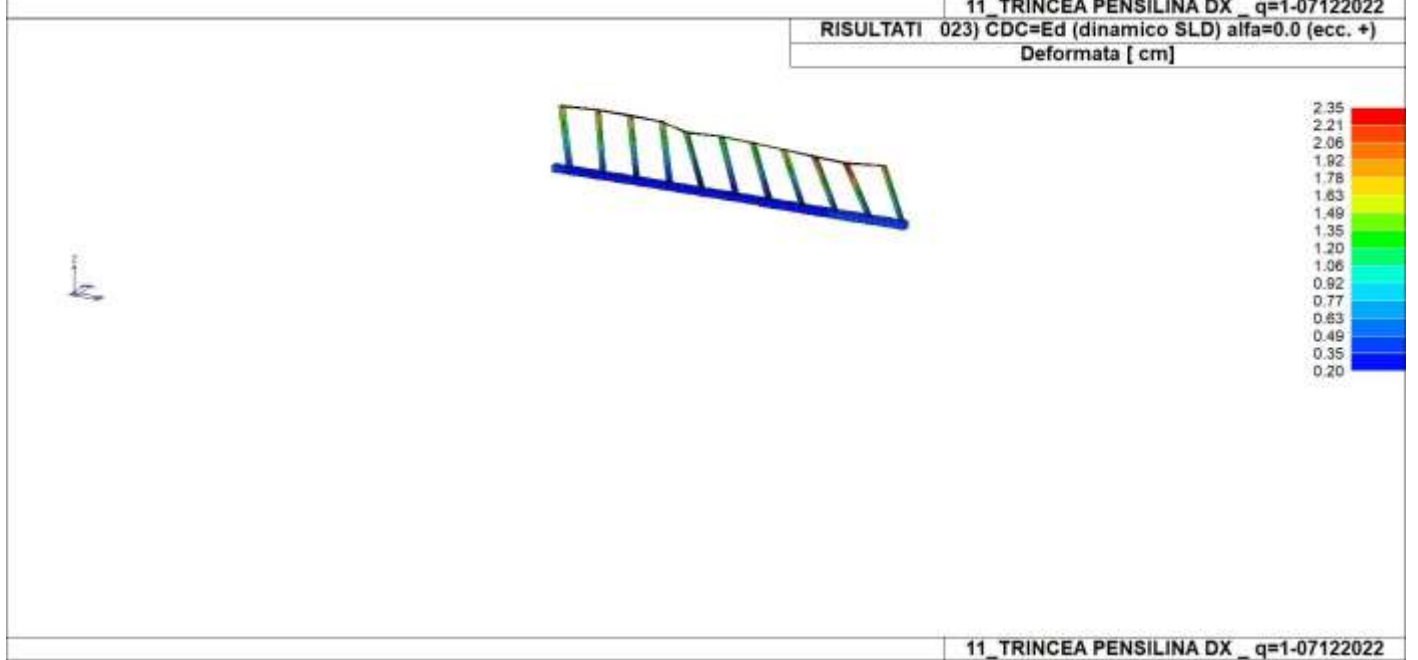
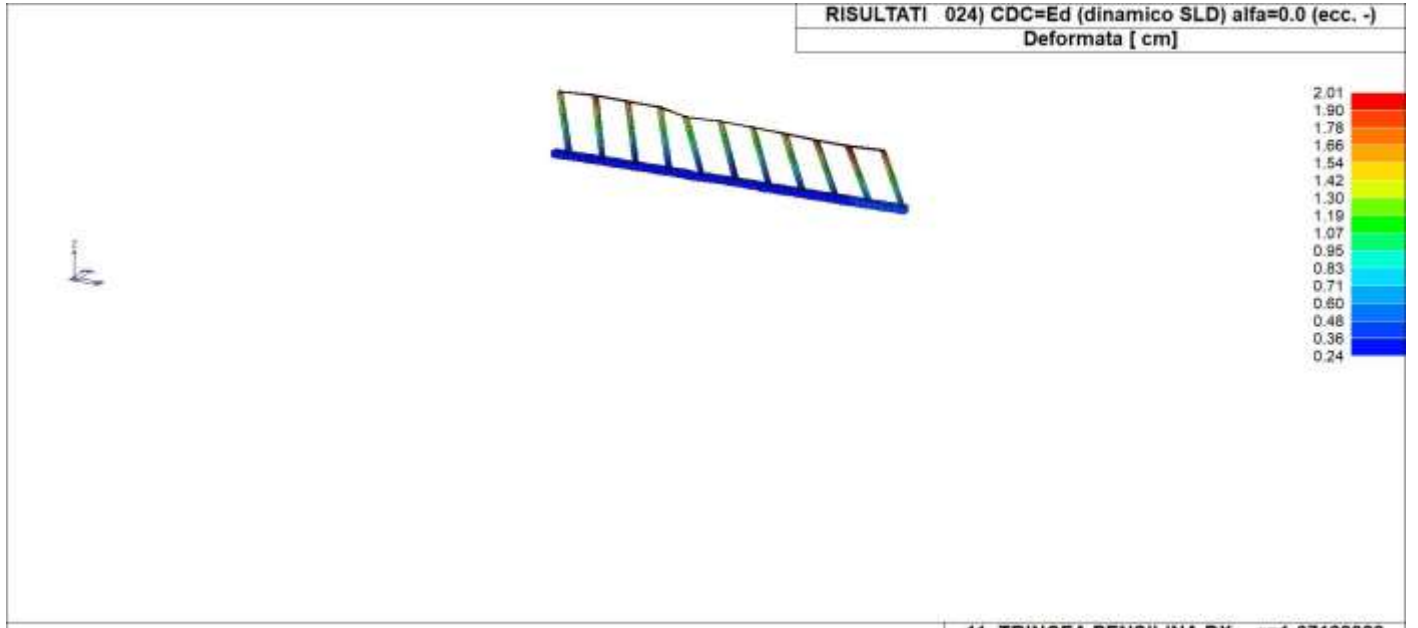
RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

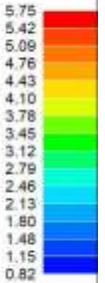
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	100



Relazione di calcolo muri architettonici

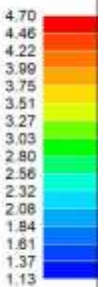
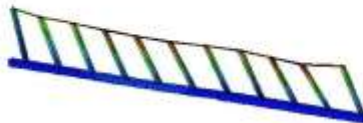
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	101

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Deformata [cm]

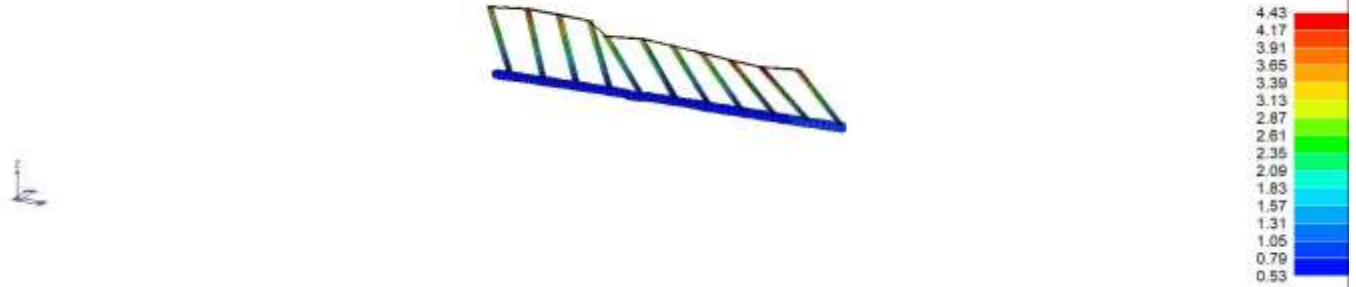


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

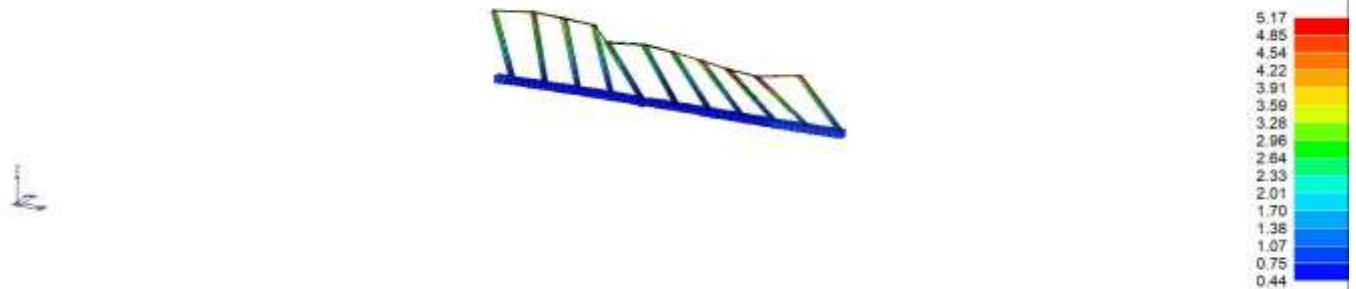
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	102

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Deformata [cm]

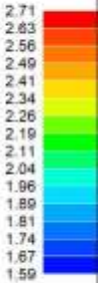


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

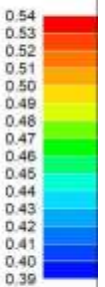
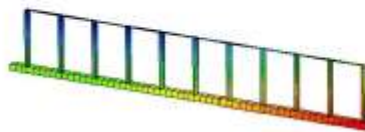
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	103

RISULTATI 018) CDC=Etk (inc. sp. terreno) SLV dir - alfa=90.00
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 017) CDC=Etk (inc. sp. terreno) SLV dir + alfa=90.00
Deformata [cm]

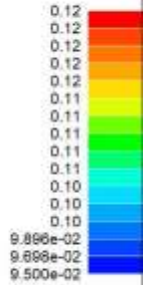


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

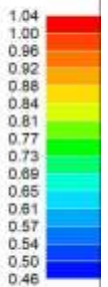
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	104

RISULTATI 016) CDC=Etk (inc. sp. terreno) SLV dir - alfa=0.0
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 014) SPINTA TERRENO
Deformata [cm]

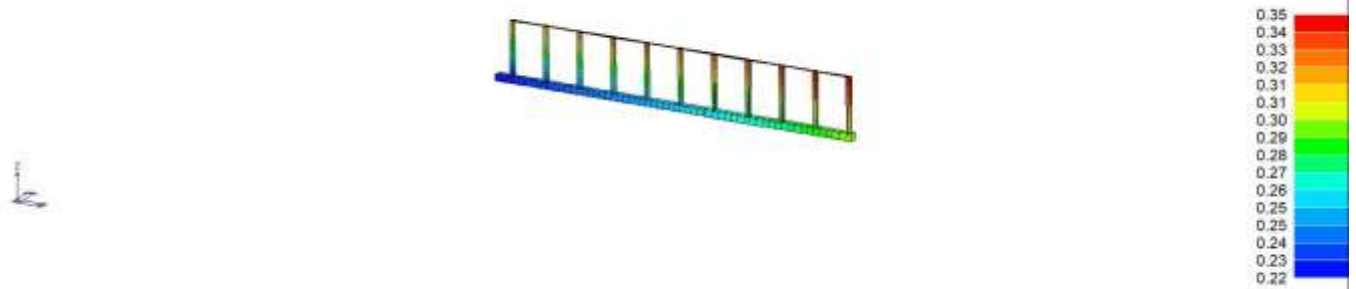


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

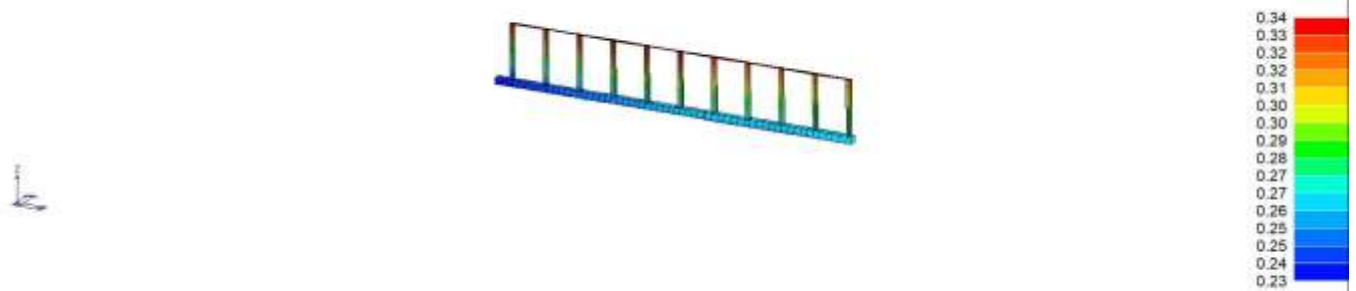
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	105

RISULTATI 013) CDC=Qk variabile treno estremità
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 012) CDC=Qk variabile treno centrale
Deformata [cm]

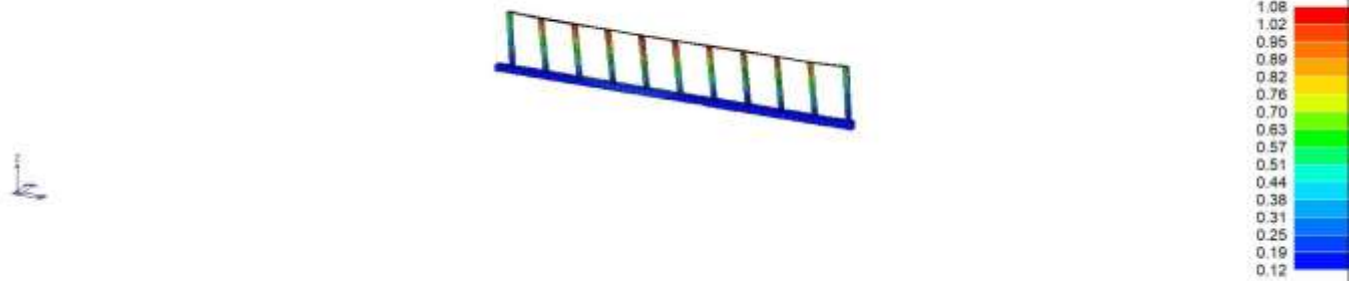


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

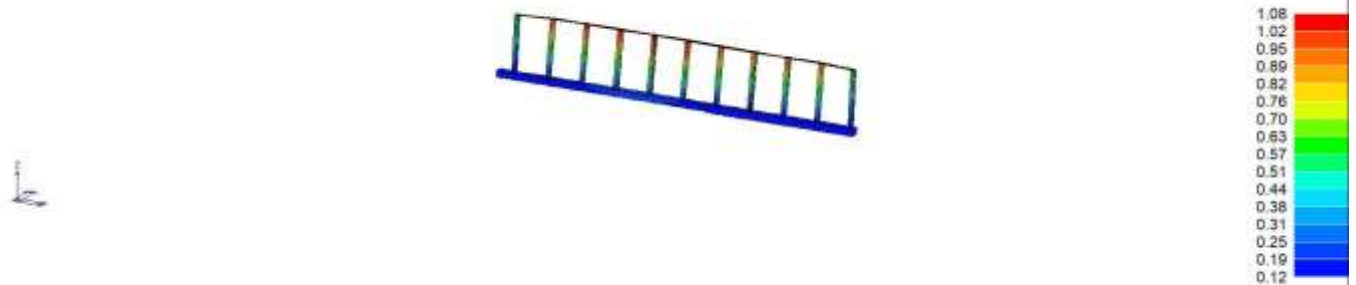
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	106

**RISULTATI 011) CDC=Qvk (carico da vento) dir Y -
Deformata [cm]**



11_TRINCEA PENSILINA DX _q=1-07122022

**RISULTATI 010) CDC=Qvk (carico da vento) dir Y +
Deformata [cm]**

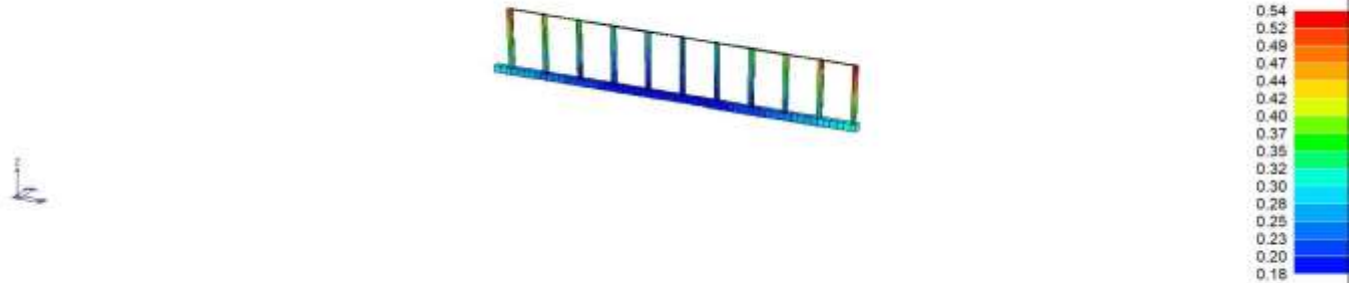


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

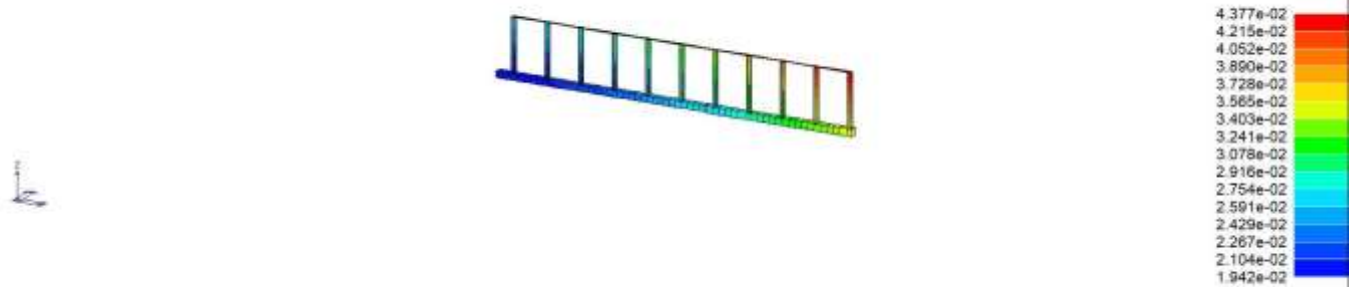
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	107

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 004) CDC=G2pk (permanente pannelli n.c.d.)
Deformata [cm]



11_TRINCEA PENSILINA DX _q=1-07122022

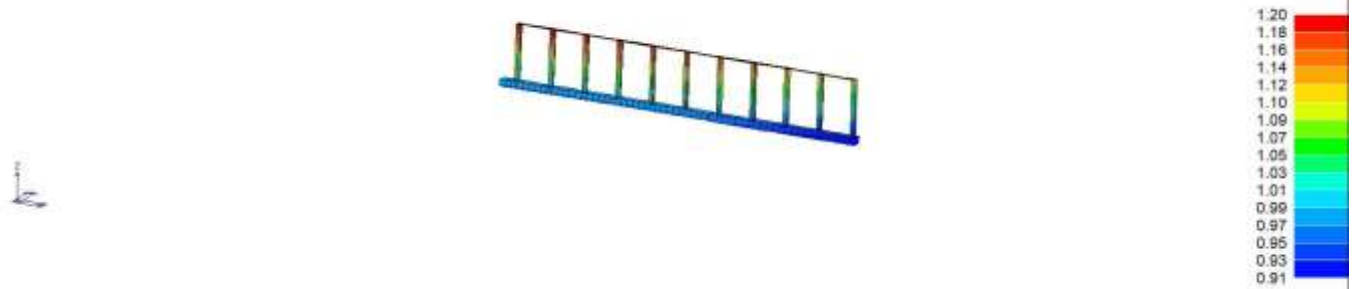
LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Relazione di calcolo muri architettonici

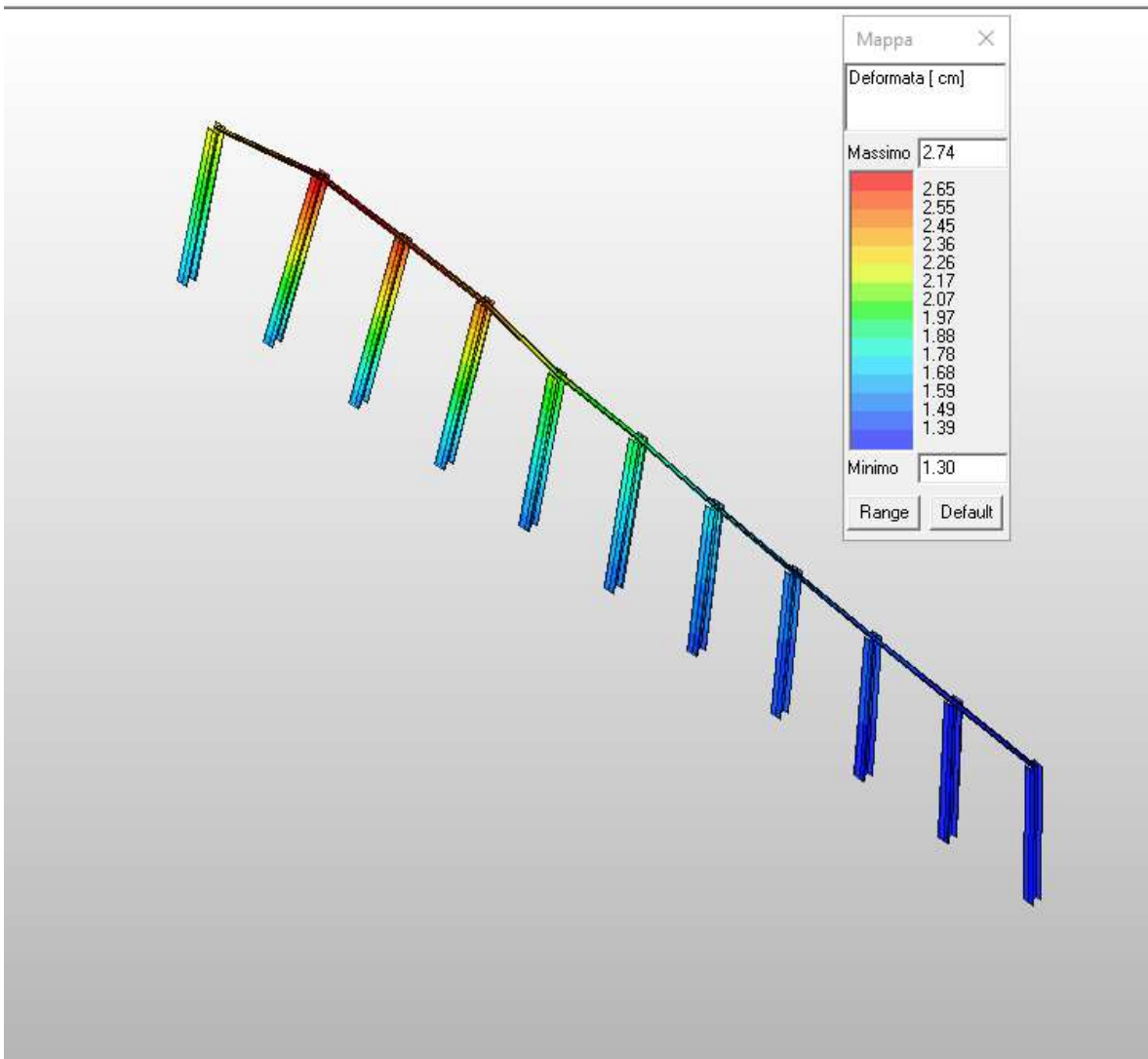
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	108

RISULTATI 001) CDC=Ggk (peso proprio della struttura)
Deformata [cm]



 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B

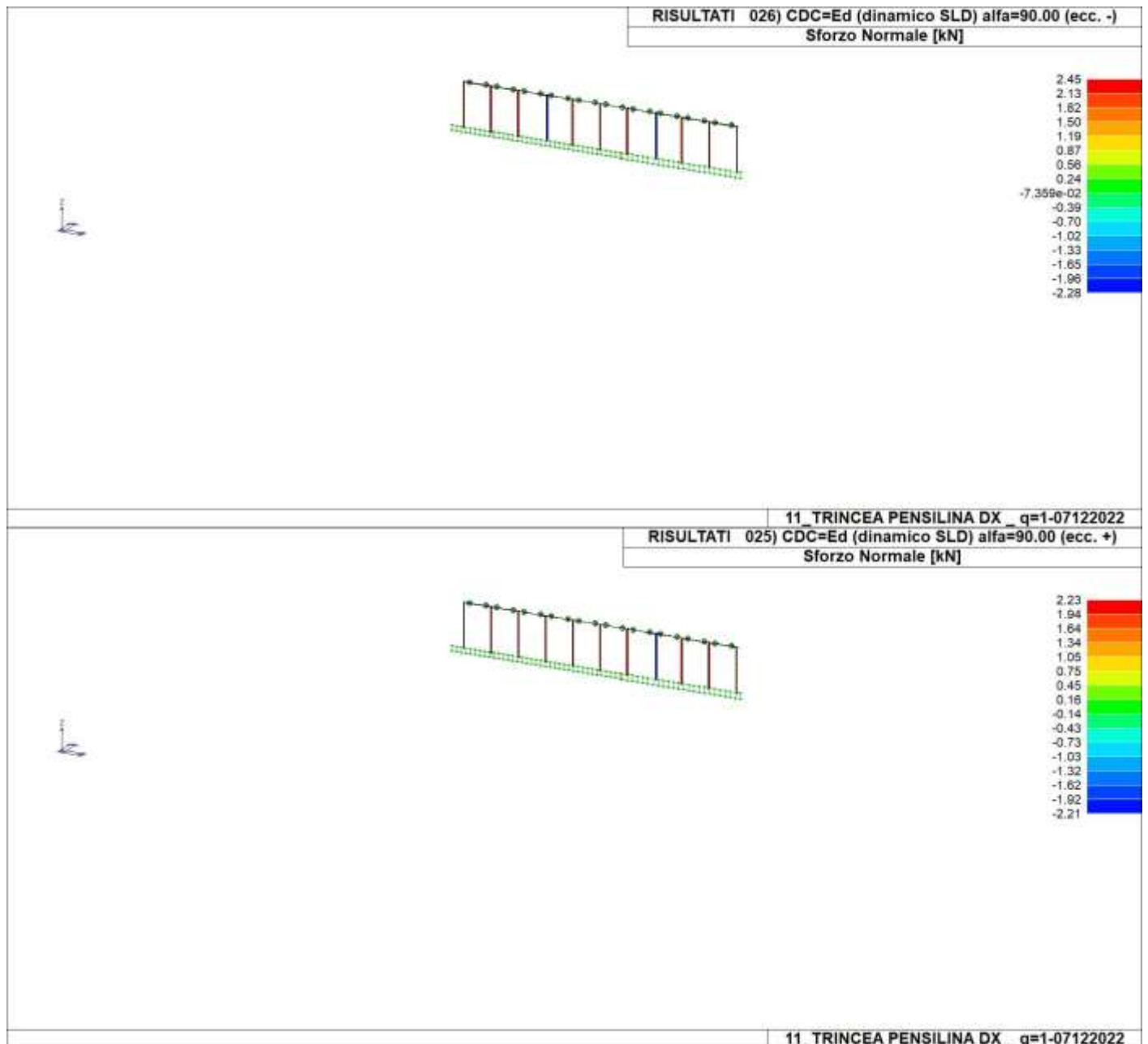
COMBINAZIONE TIPO SLO



Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06 00	003	B	110

10.2.2 Sollecitazioni telai metallici

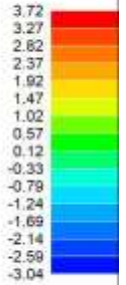
SOLLECITAZIONI PER CASO DI CARICO



Relazione di calcolo muri architettonici

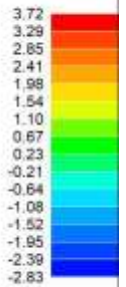
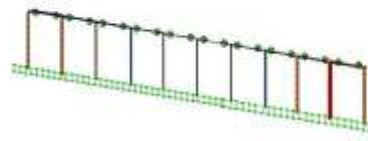
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	111

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Sforzo Normale [kN]

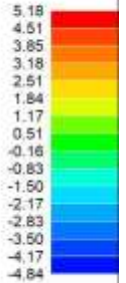
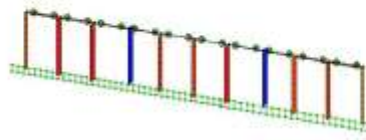


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

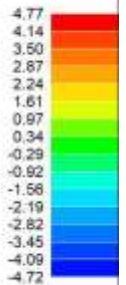
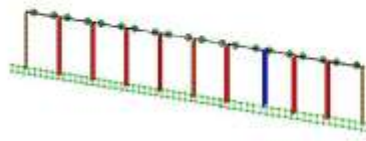
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	112

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Sforzo Normale [kN]

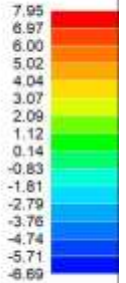


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

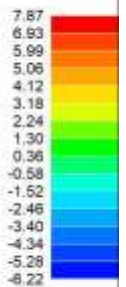
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	113

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Sforzo Normale [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Sforzo Normale [kN]

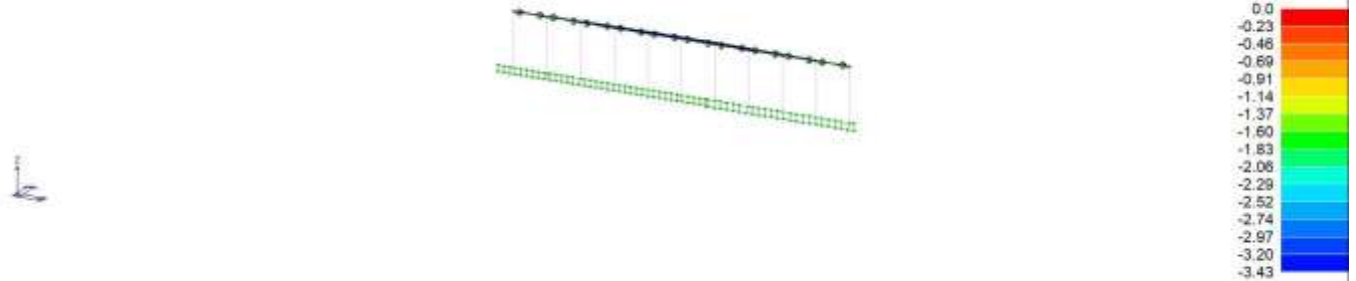


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

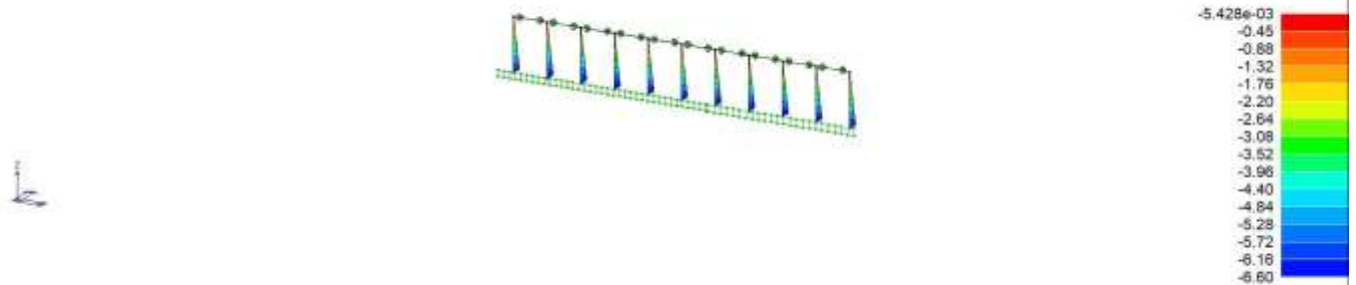
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	114

RISULTATI 006) CDC=Qtk (carico termico) dT= 15.00
Sforzo Normale [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 001) CDC=Ggk (peso proprio della struttura)
Sforzo Normale [kN]

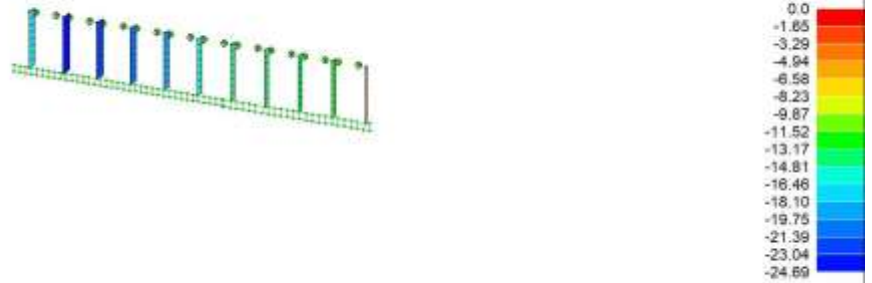


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

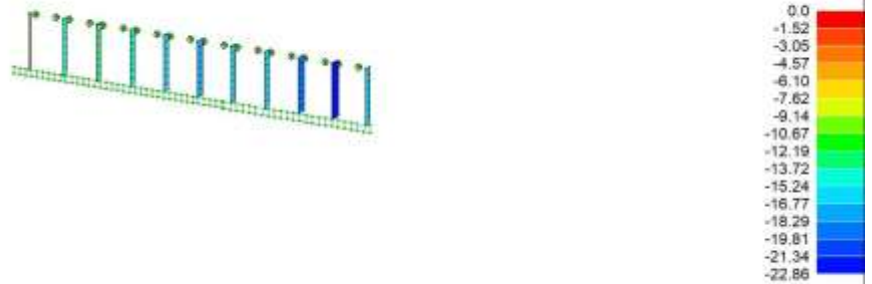
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	115

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Taglio 2 [kN]

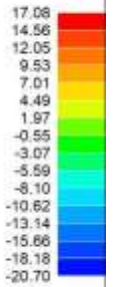
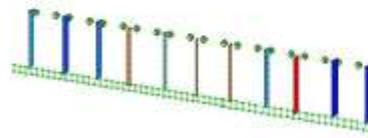


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

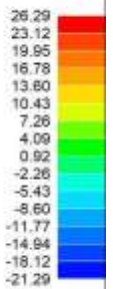
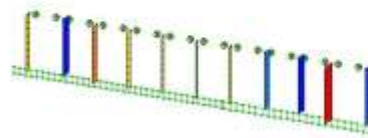
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	116

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Taglio 2 [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

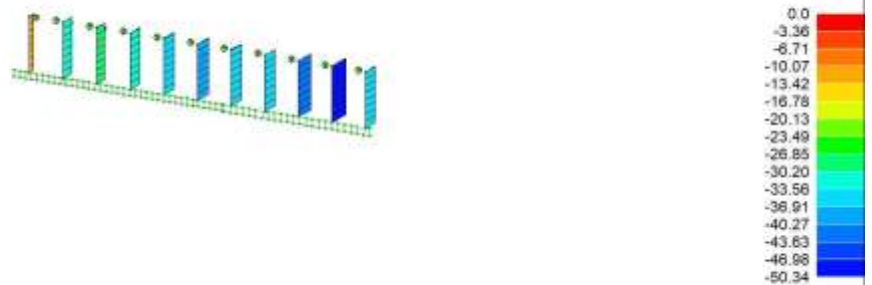
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	117

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Taglio 2 [kN]

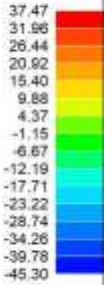
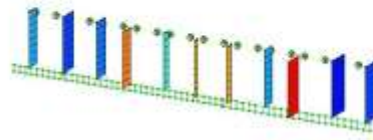


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

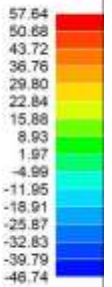
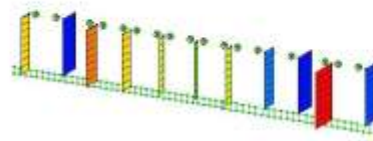
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	118

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Taglio 2 [kN]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Taglio 2 [kN]

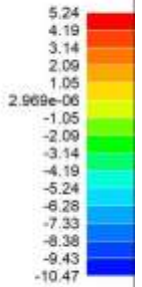
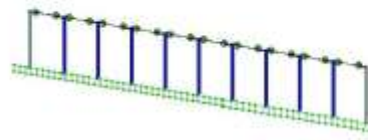


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

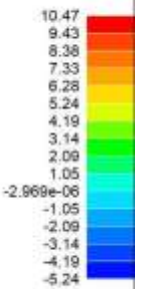
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	119

**RISULTATI 011) CDC=Qvk (carico da vento) dir Y -
Taglio 2 [kN]**



11_TRINCEA PENSILINA DX _q=1-07122022

**RISULTATI 010) CDC=Qvk (carico da vento) dir Y +
Taglio 2 [kN]**

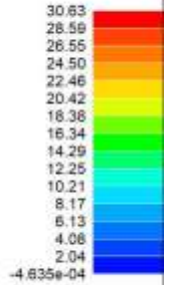
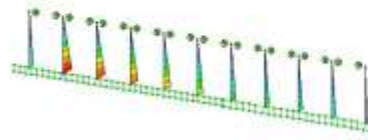


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

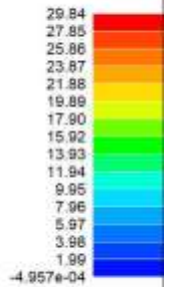
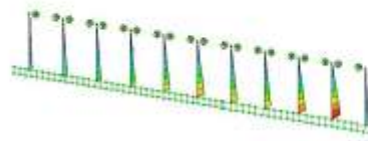
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	120

RISULTATI 030) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 029) CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

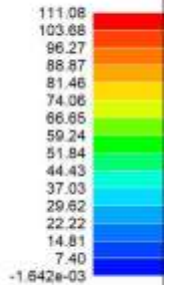


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

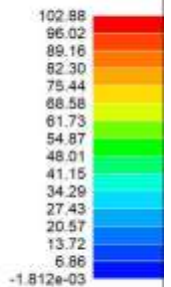
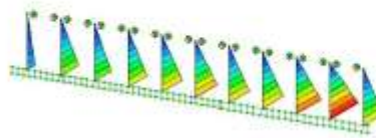
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	121

RISULTATI 026) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 025) CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

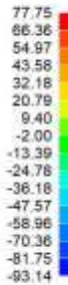
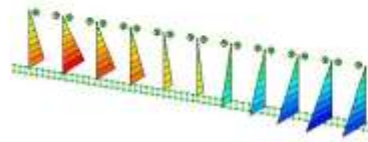


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

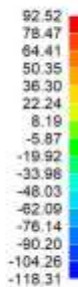
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B 122

RISULTATI 024) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 023) CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]

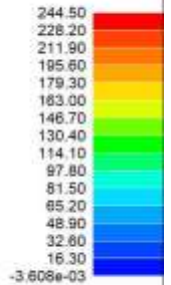
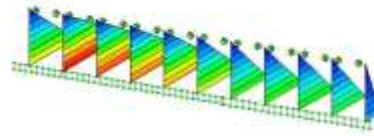


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

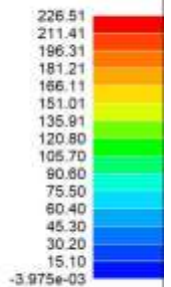
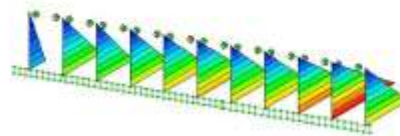
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B 123

RISULTATI 022) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 021) CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)
Momento 3-3 [kN m]

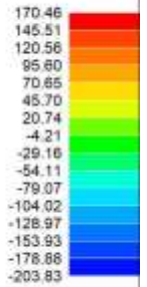


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

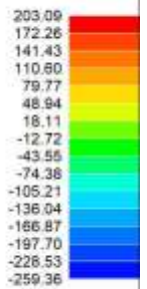
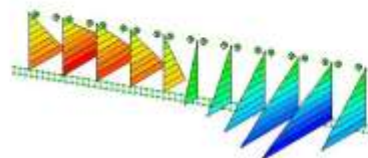
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	124

RISULTATI 020) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)
Momento 3-3 [kN m]



11_TRINCEA PENSILINA DX _q=1-07122022

RISULTATI 019) CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)
Momento 3-3 [kN m]

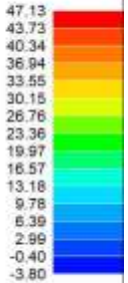
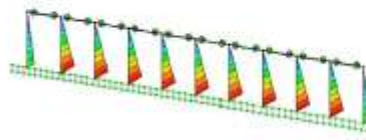


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici

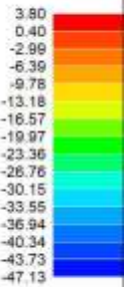
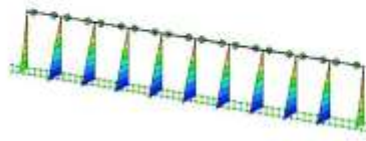
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B 125

**RISULTATI 011) CDC=Qvk (carico da vento) dir Y -
Momento 3-3 [kN m]**



11_TRINCEA PENSILINA DX _q=1-07122022

**RISULTATI 010) CDC=Qvk (carico da vento) dir Y +
Momento 3-3 [kN m]**

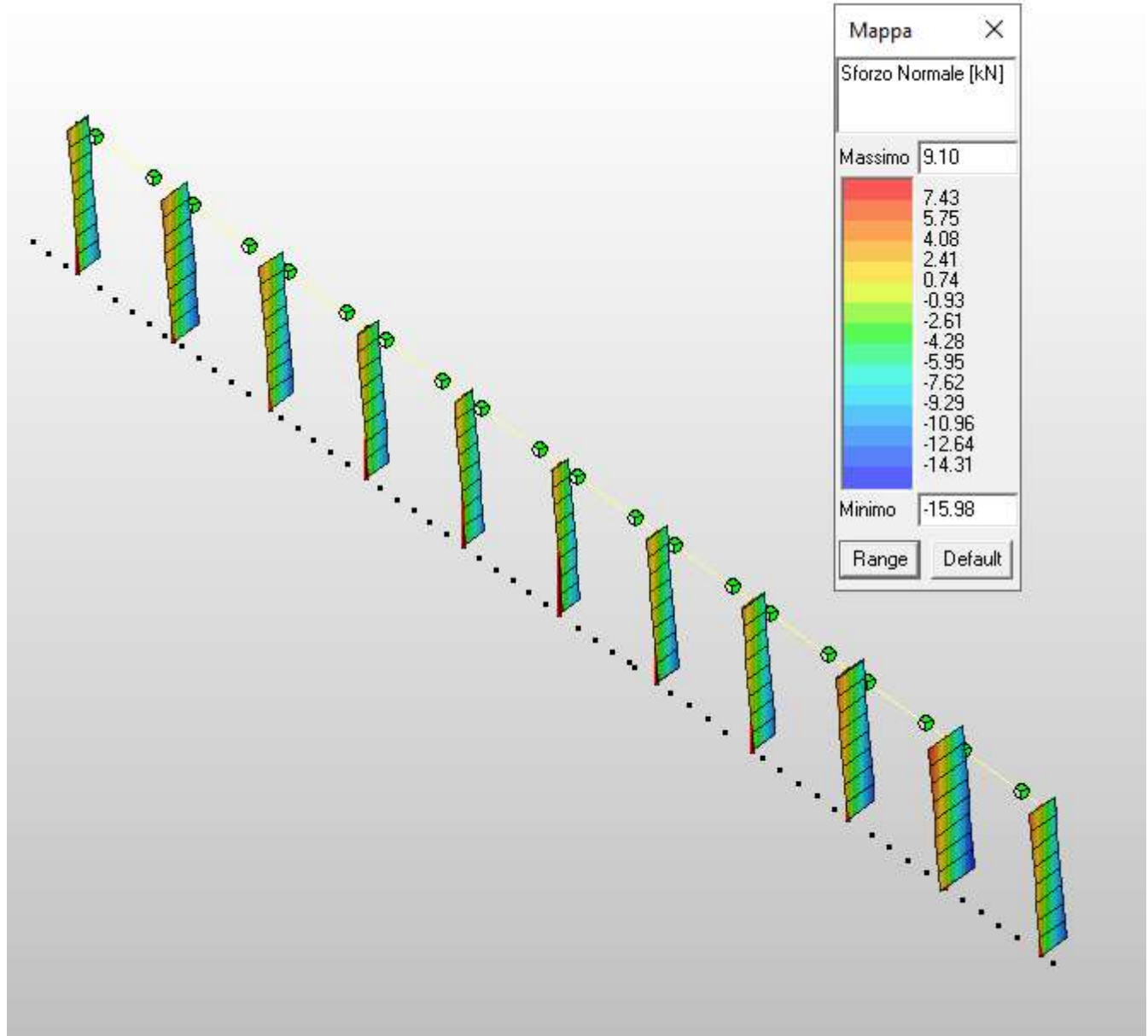


11_TRINCEA PENSILINA DX _q=1-07122022

Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	126

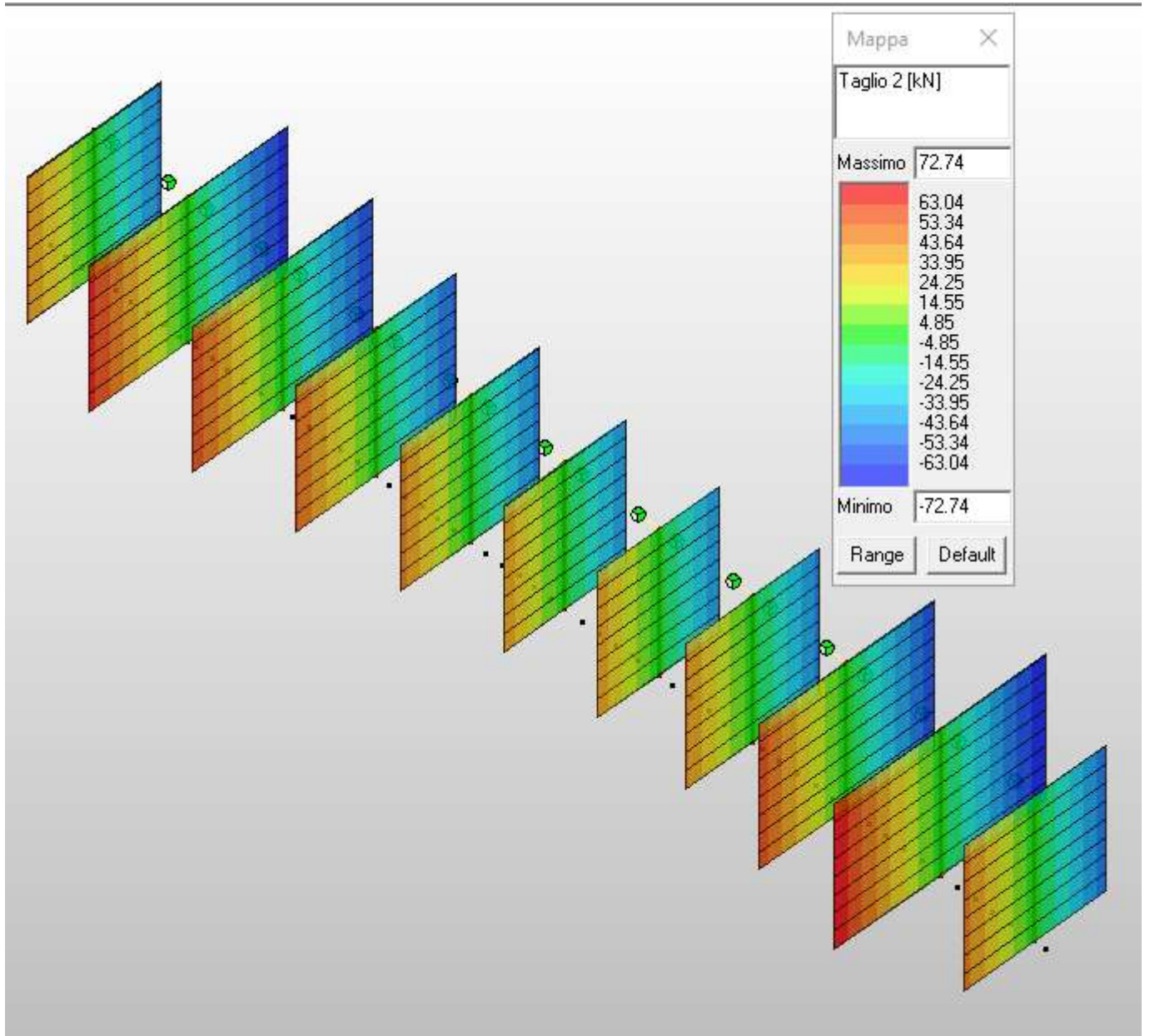
SI RIPORTA L'INVILUPPO DELLE SOLLECITAZIONI.

PILASTRI



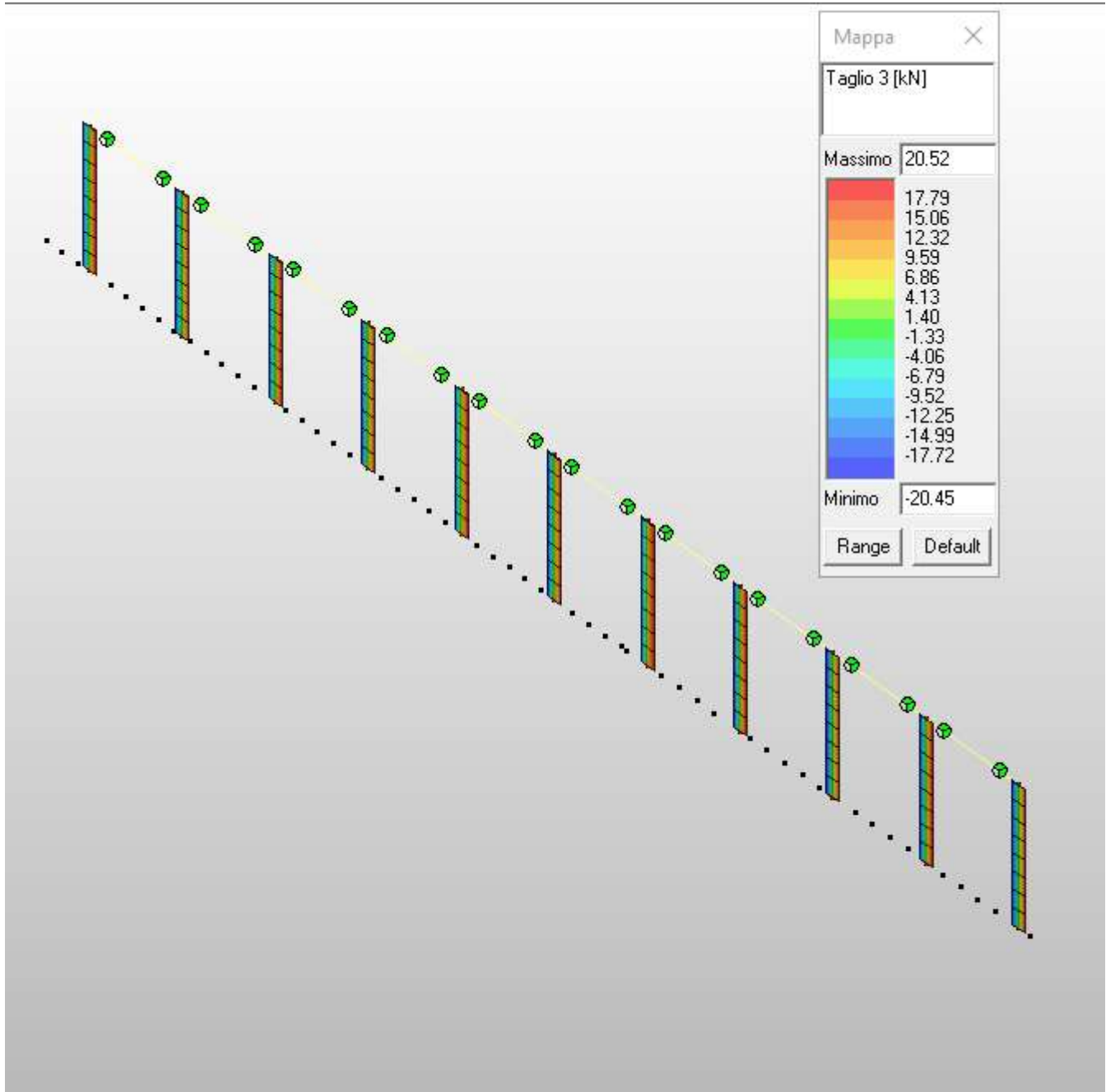
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B 127



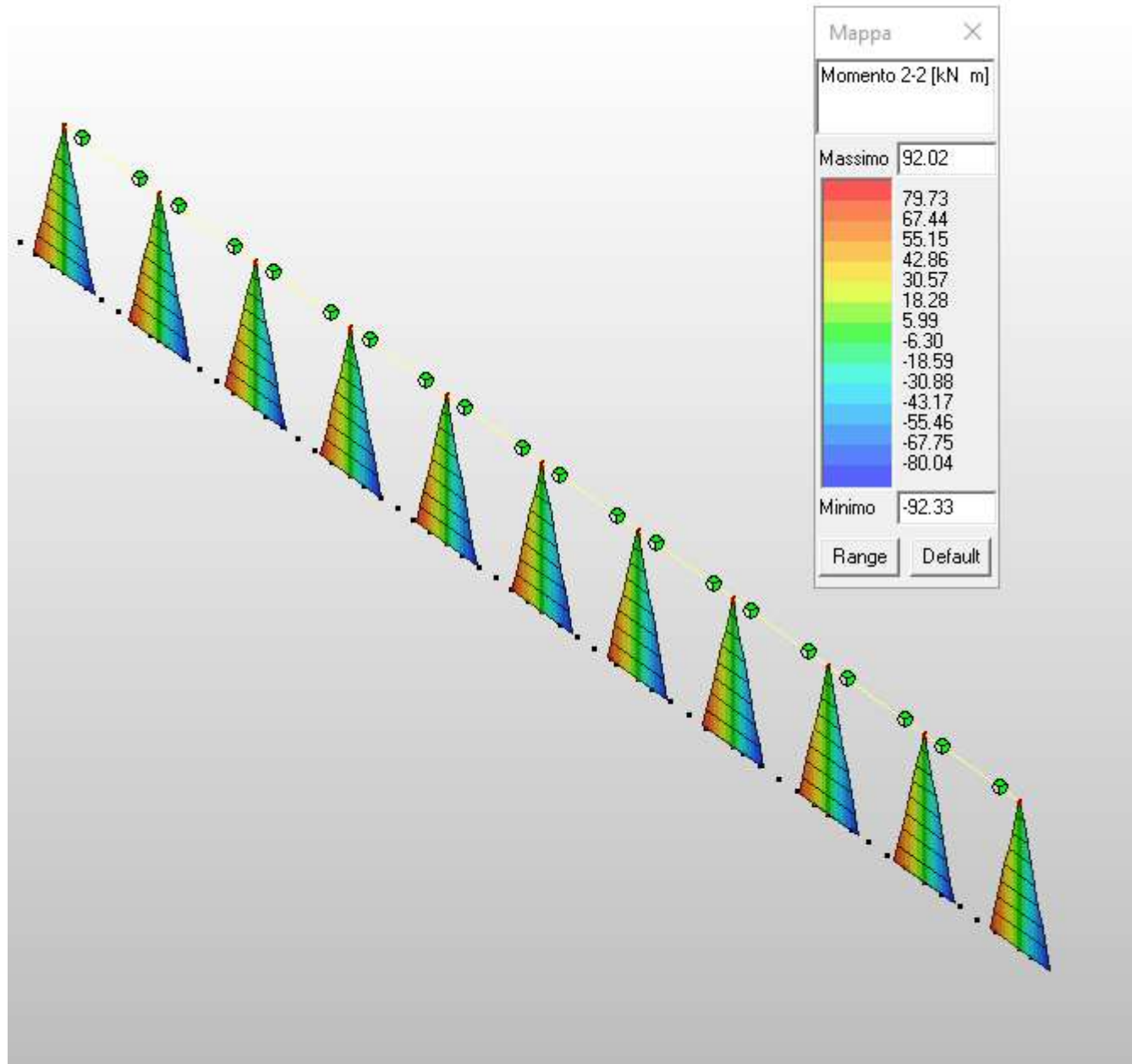
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	128



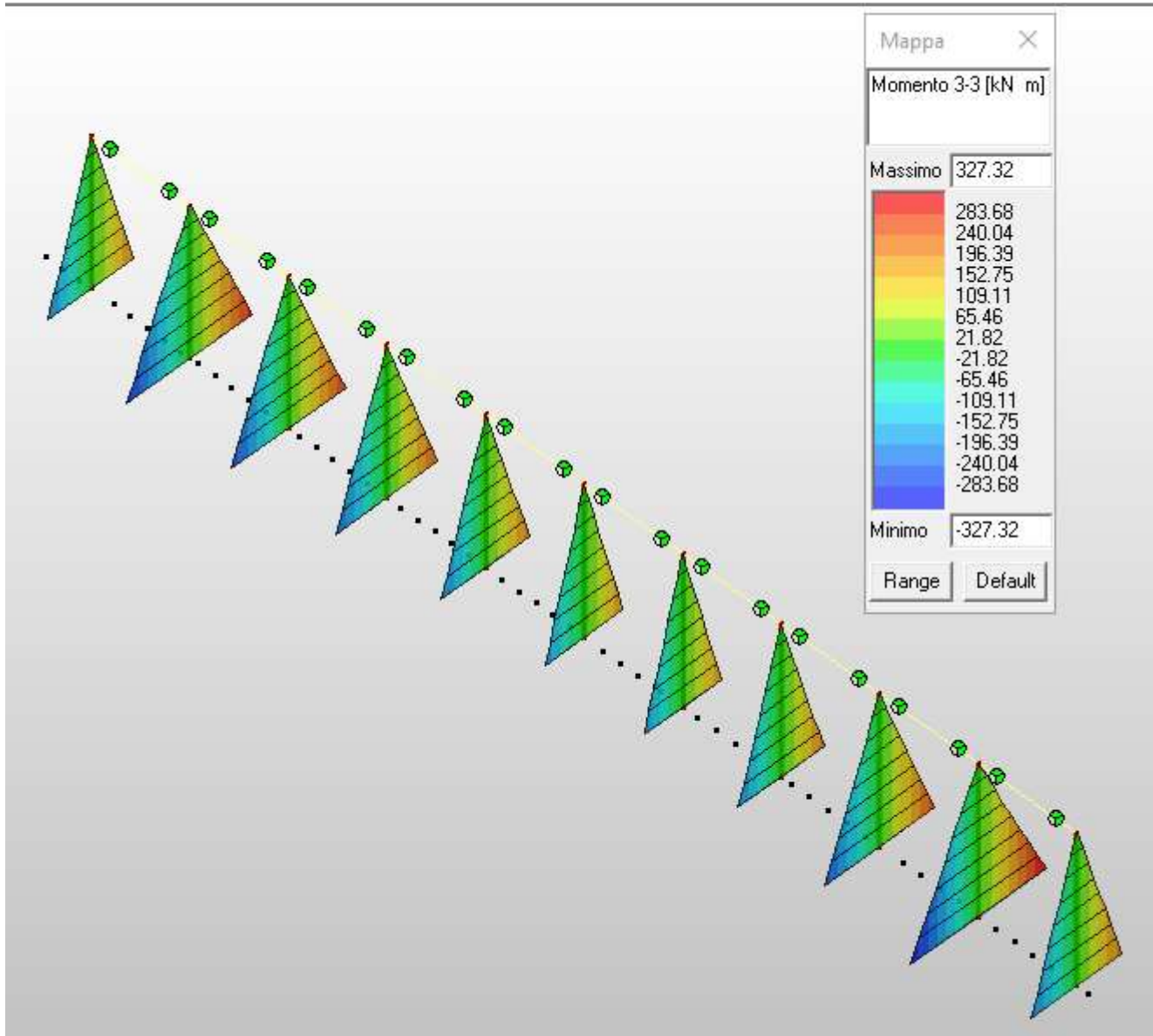
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	129



Relazione di calcolo muri architettonici

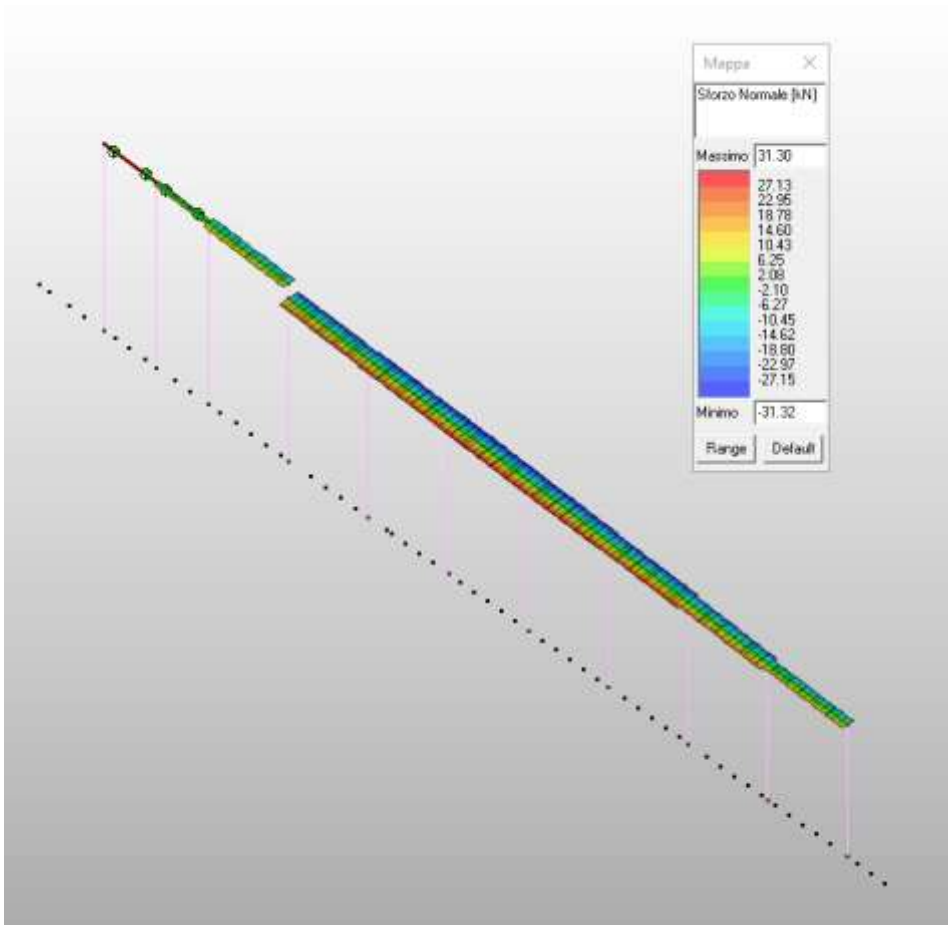
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	130



TRAVI

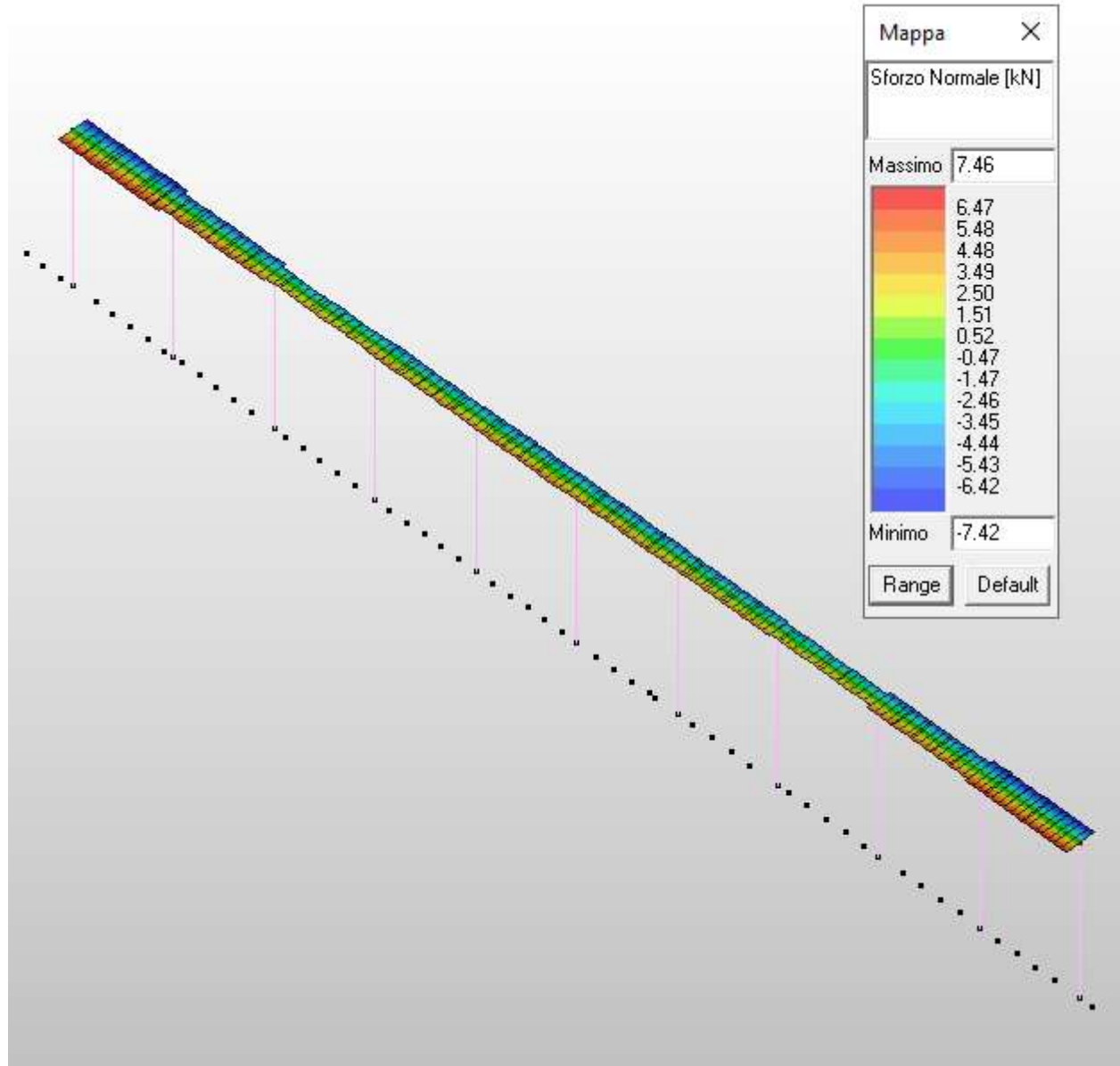
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	131



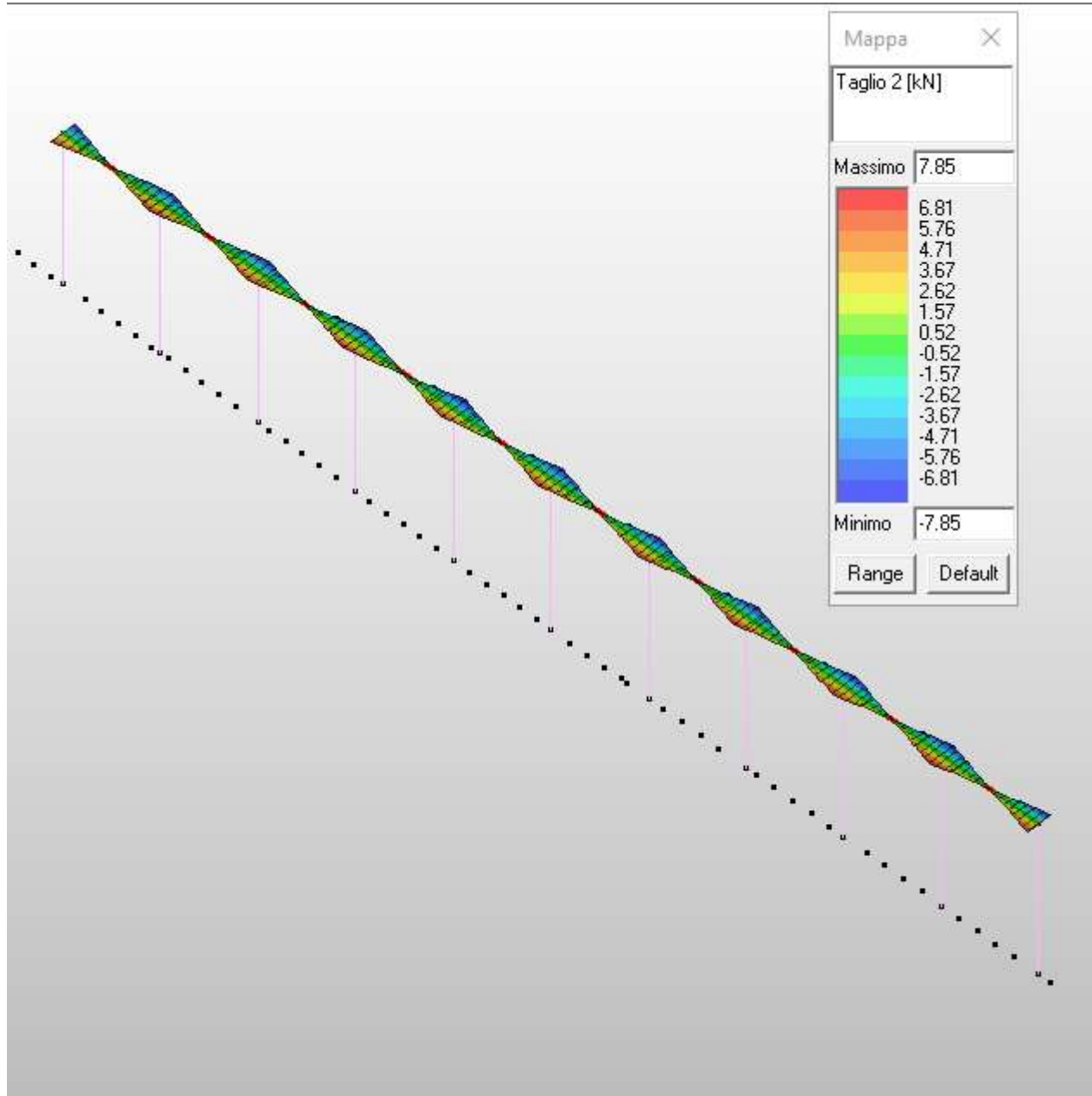
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	132



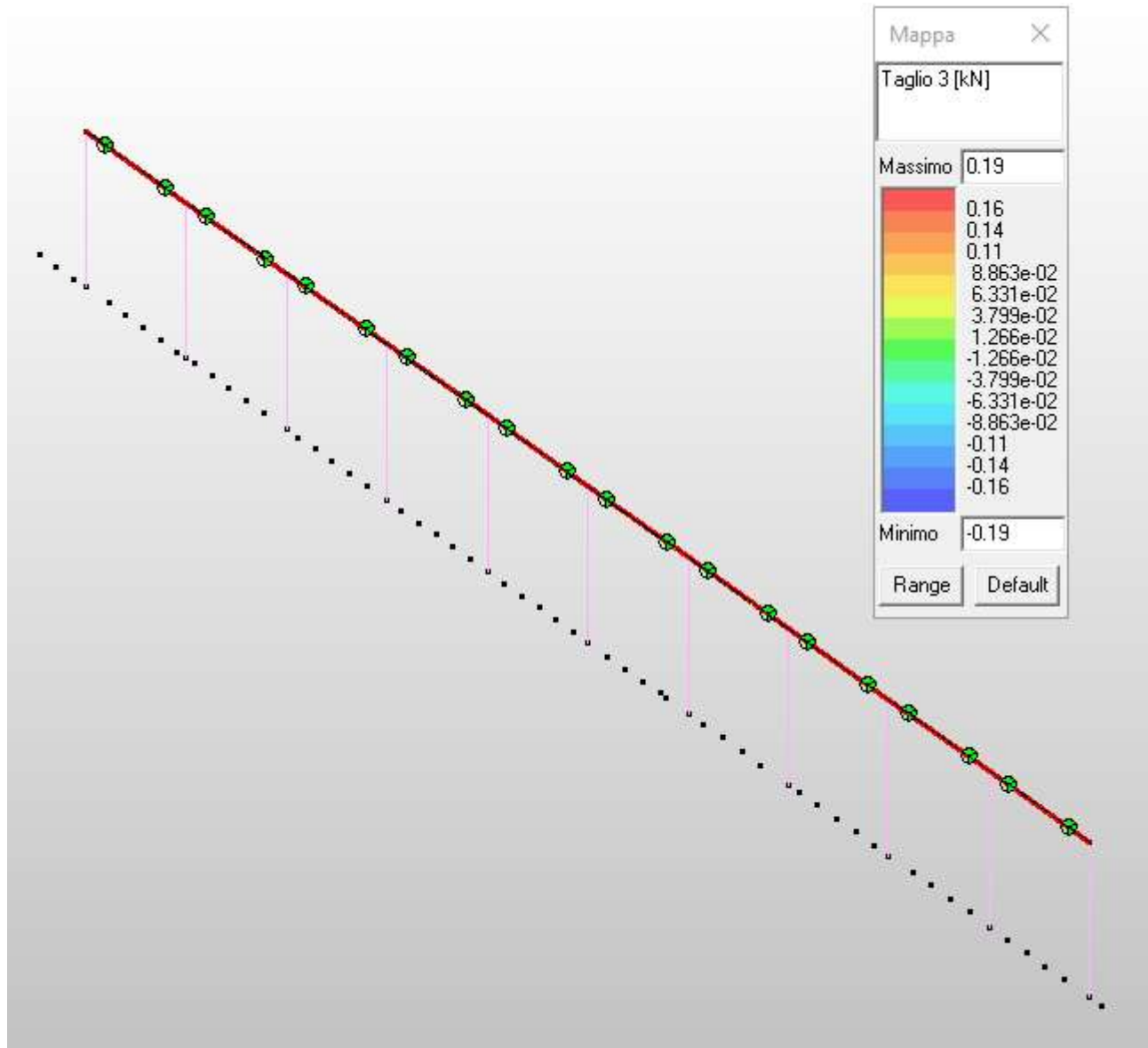
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	133



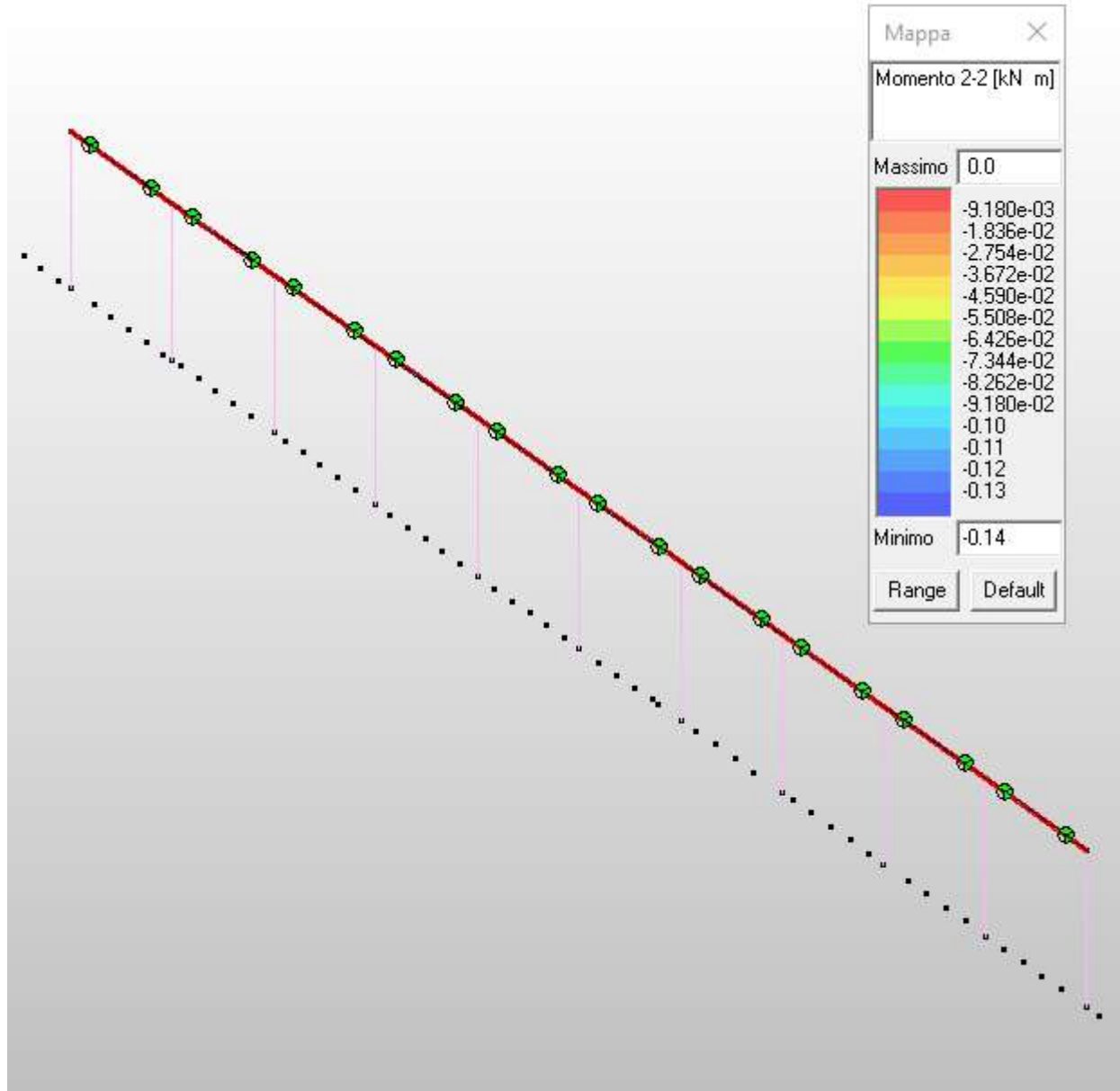
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	134



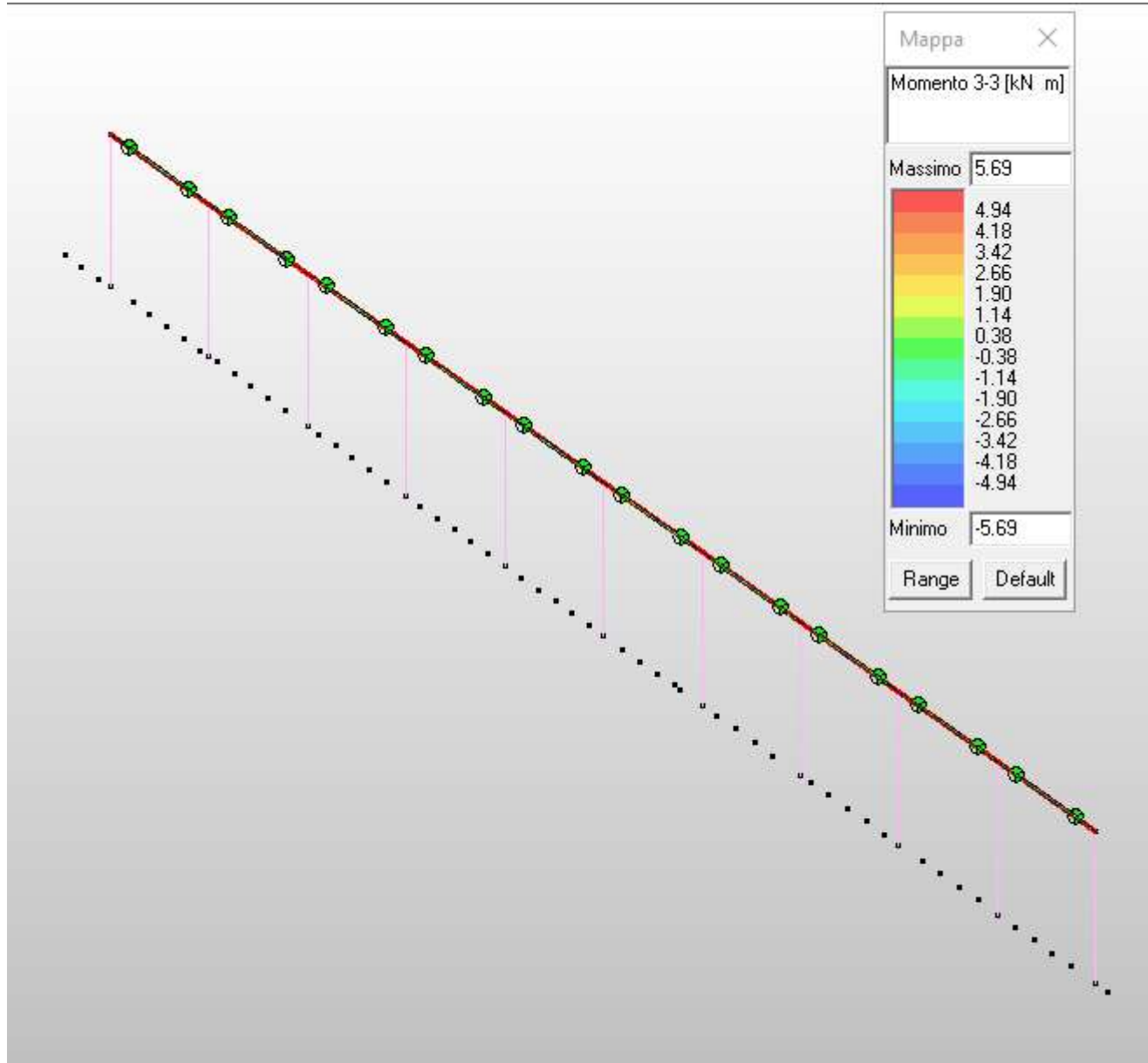
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	135



Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	136



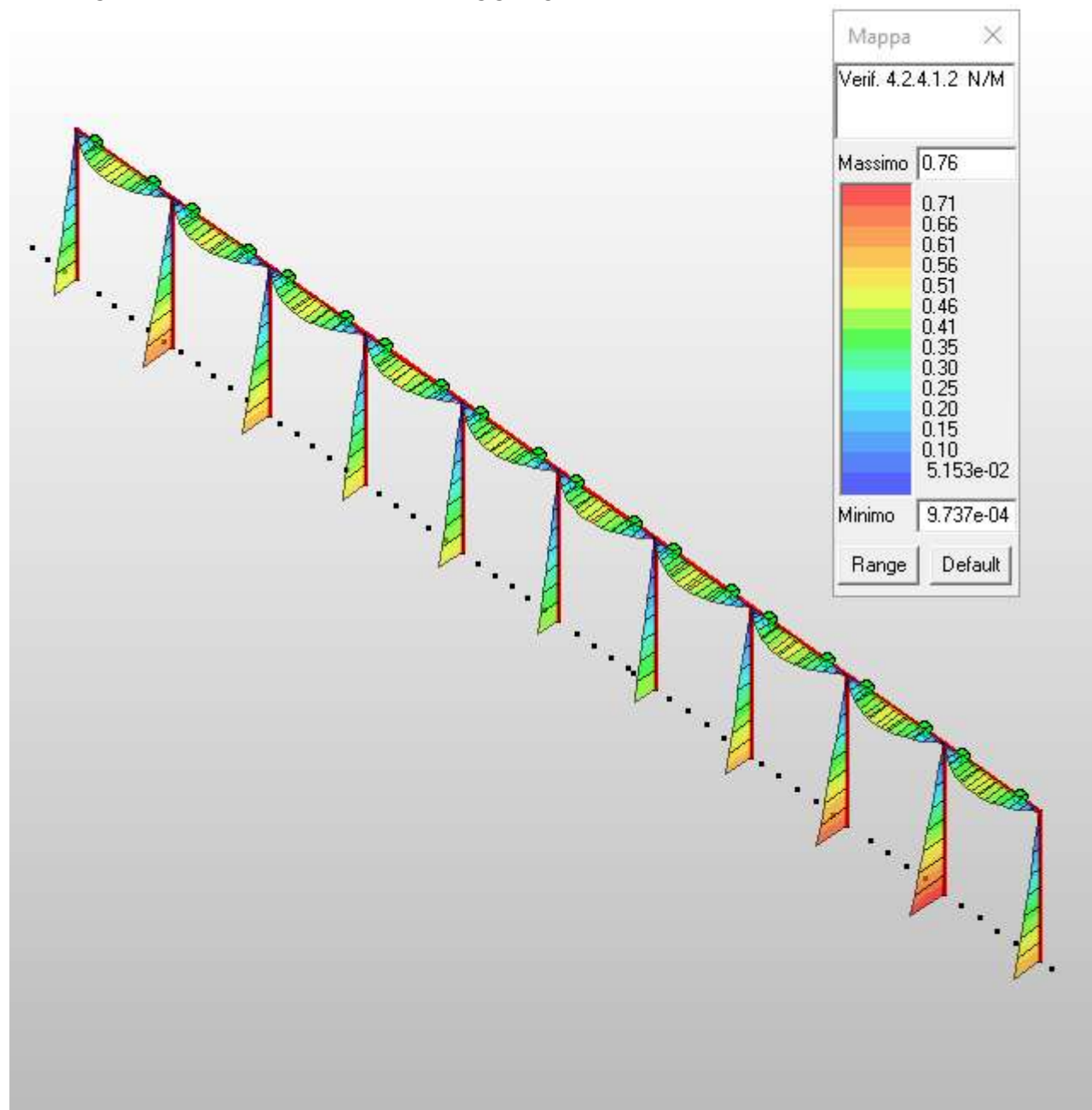
Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	137

10.3 VERIFICHE

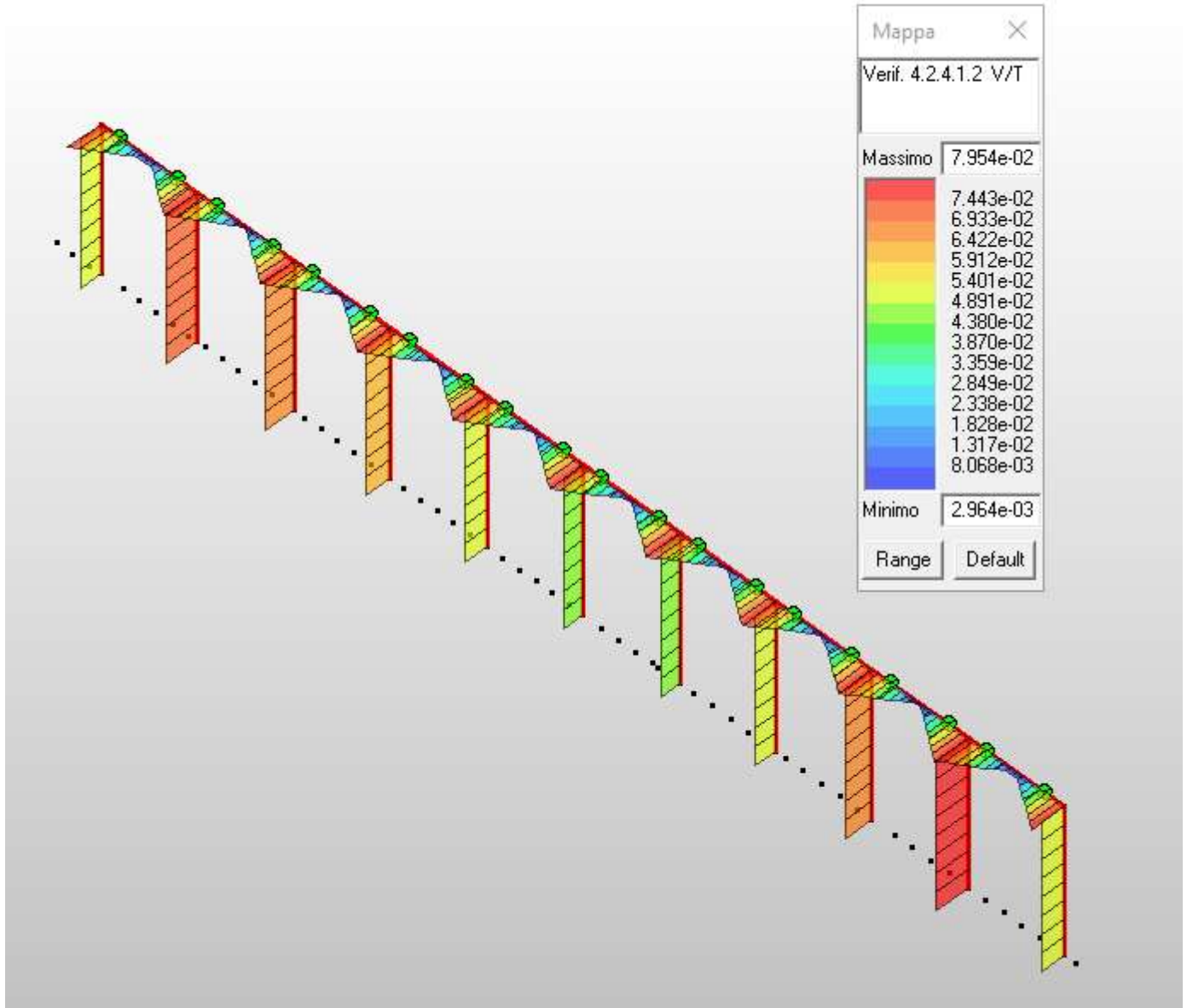
10.3.1 Verifica allo SLU

VERIFICHE DI RESISTENZA TELAI IN ACCIAIO



Relazione di calcolo muri architettonici

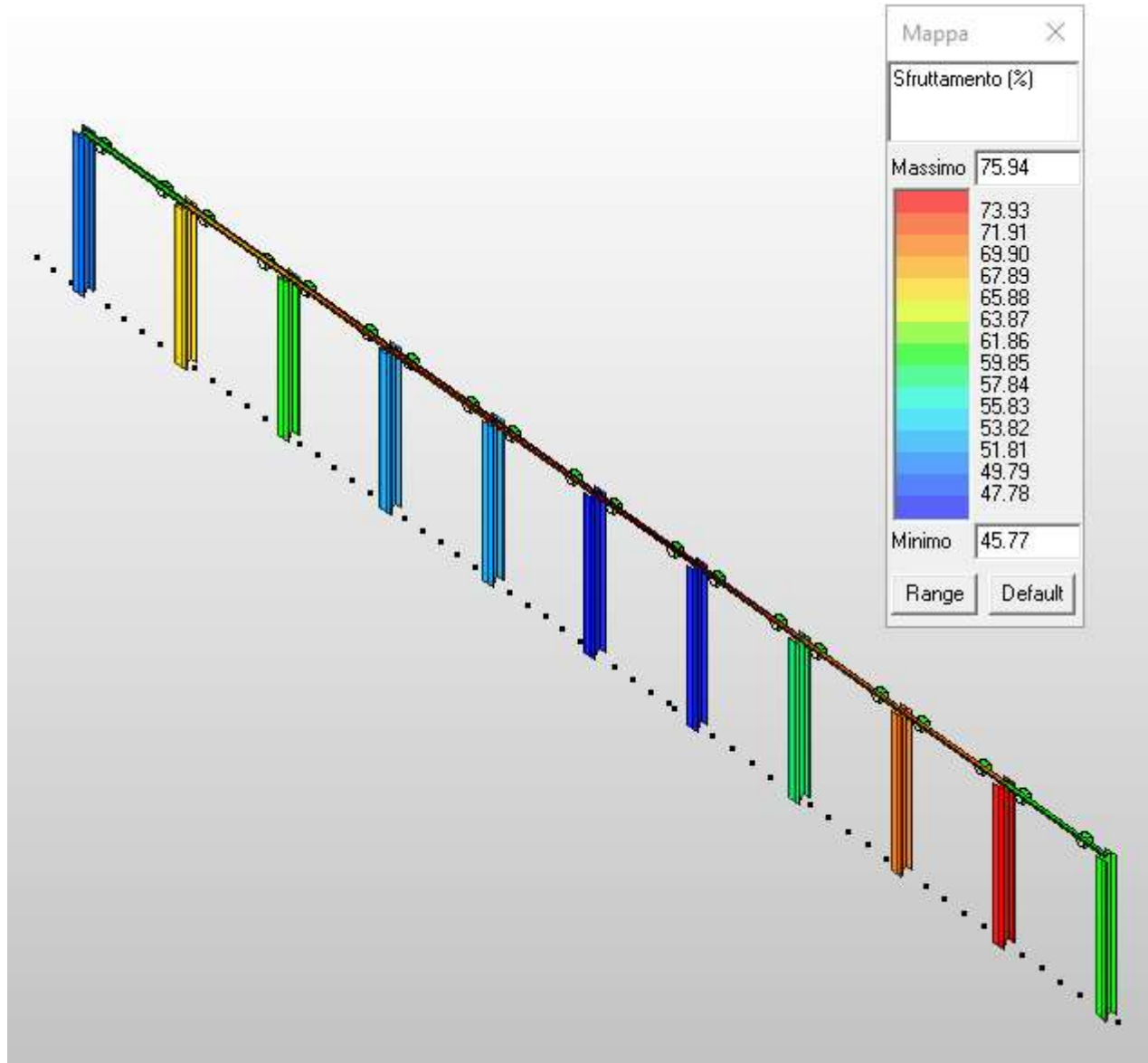
COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO	
LI0B	02	E	ZZ	CL	TR	06	00	003	B	138



Tramite mappa di colore si riportano i valori di sfruttamento degli elementi strutturali espressi, in percentuale, come il maggiore dei tre rapporti tra le tensioni massime (resistenza, stabilità, svergolamento) e quelle limite di progetto.

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	139



 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	140

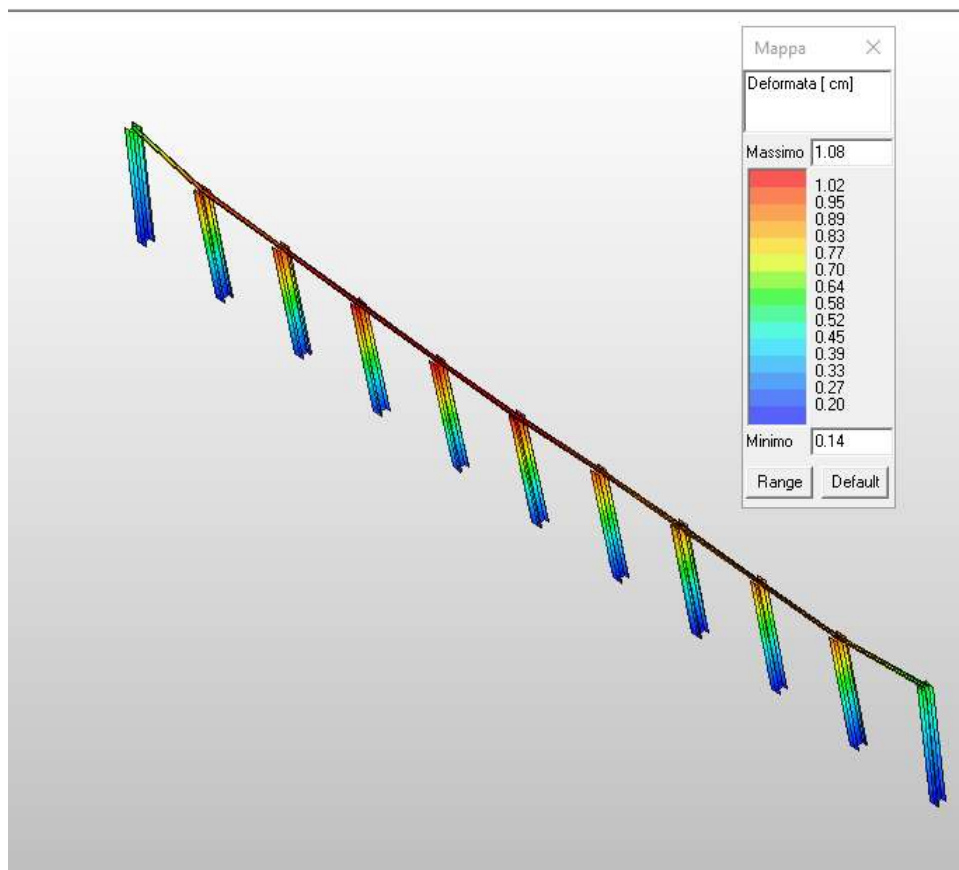
10.3.2 Verifica allo SLD in termini di resistenza

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

10.3.3 Verifica allo SLE in termini di deformazione

VERIFICA DEFORMAZIONE MURO

COMBINAZIONE SLE RARA

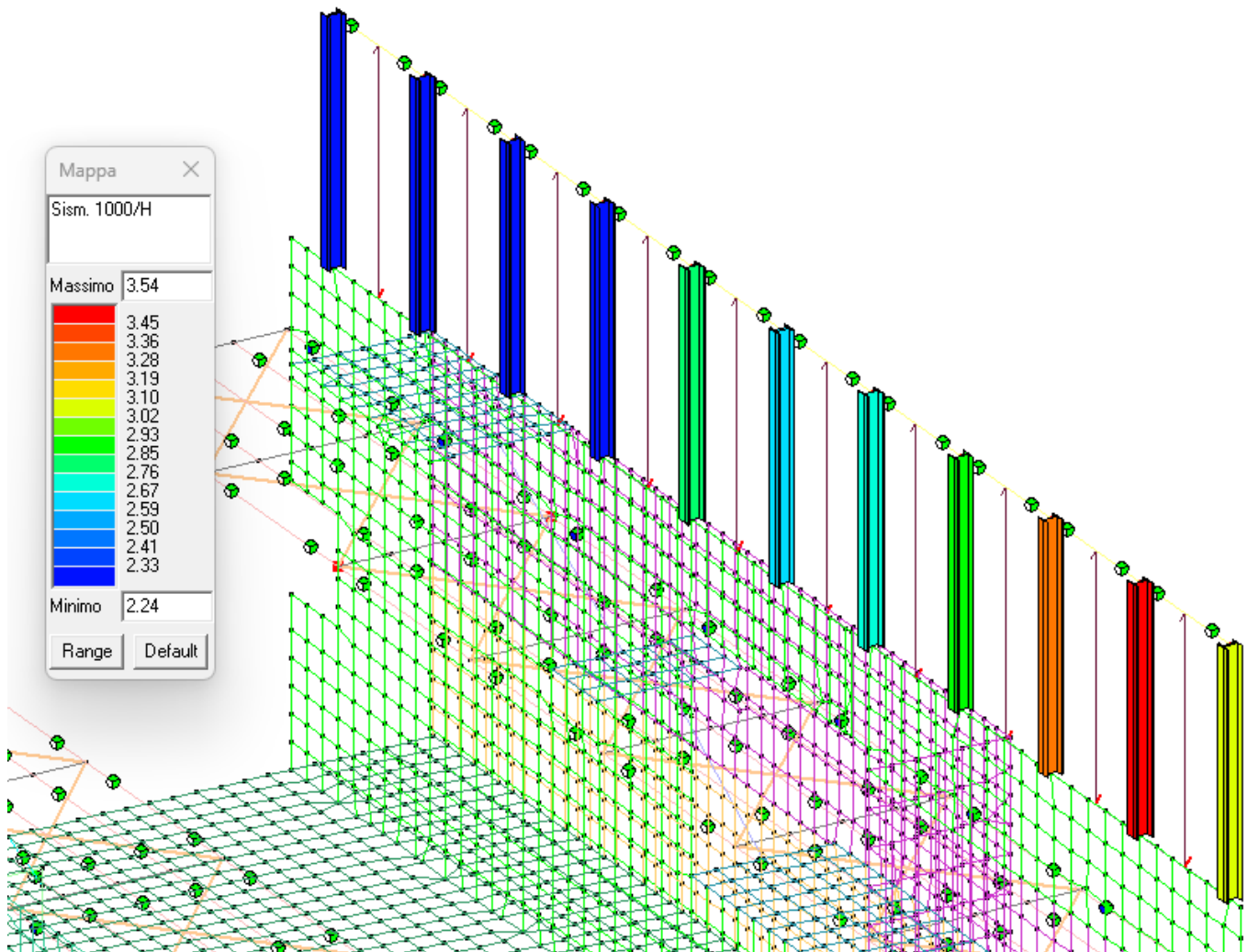


Il valore della freccia del 2.4 per mille si mantiene al di sotto del limite di normativa del 5 per mille ($L/200$). La verifica risulta pertanto soddisfatta.

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA								
Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B

10.3.4 Verifica allo SLO in termini di deformazione

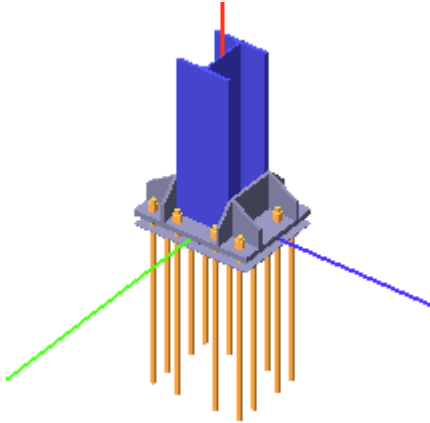
Come previsto al paragrafo 7.3.6.1 per tipologie di strutture con tamponature di tipo duttile, il limite di verifica allo SLO deve rispettare il limite di $\frac{2}{3} * 0.0075 h$ ovvero $0.005 h$



Il drift massimo ottenuto risulta essere pari a $0.00354 h <$ del limite normativo

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
	Relazione di calcolo muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003	REV B

11. VERIFICA UNIONI



Coefficienti di sicurezza utilizzati

$$\gamma_{M0} = 1.05$$

$$\gamma_{M1} = 1.10$$

$$\gamma_{M2} = 1.25$$

Colonna

Tipo di profilo: HEB 300

Materiale: Acciaio S355 $f_y = 355 \text{ N/mm}^2$ $f_t = 510 \text{ N/mm}^2$ $\gamma_{ov} = 1.25$

Classe sezione: 1

Flangia:

Materiale: Acciaio S355 $f_y = 355 \text{ N/mm}^2$ $f_t = 510 \text{ N/mm}^2$ $\gamma_{ov} = 1.25$

Dimensioni (B x H x Sp): 650.0 x 500.0 x 30.0 mm

Spessore nervature verticali: 19.0 mm

Spessore nervature orizzontali: 19.0 mm

Bullonature:

Viti cl. 8.8 Dadi 8 o 10 ($f_{yb} = 640 \text{ N/mm}^2$, $f_{tb} = 800 \text{ N/mm}^2$)

Diametro gambo $\varnothing = 27 \text{ mm}$ $A_{res} = 458.0 \text{ mm}^2$ (ridotta per filettatura)

Diametro dado/testa $d_m = 41 \text{ mm}$

Diametro foro $\varnothing_0 = 28.5 \text{ mm}$

Rigidezza giunto (calcolata secondo EN 1993-1-8 : 2005 par. 6.3):

$S_{j,ini}$ non calcolabile

Saldature:

Materiale: Acciaio S355 $f_y = 355 \text{ N/mm}^2$ $f_t = 510 \text{ N/mm}^2$ $\beta_1 = 0.70$ $\beta_2 = 0.85$

Spessore cordoni d'angolo $s_c = 14 \text{ mm}$

Sollecitazioni:

Nodo.CMB	V2 [N]	V3 [N]	N [N]	M2 [N mm]	M3 [N mm]	T [N mm]
1399.203	58781.3	-3797.6	-10070.1	25060000.0	-412900000.0	-419.0
1399.206	-58781.3	3835.5	-5766.4	-25310000.0	412900000.0	420.0

Calcolo resistenze

Resistenza a trazione dei bulloni

$$F_{tb,Rd} = 0.9 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} =$$

263833.4 N

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
LI0B		02	E	ZZ	CL	TR	06	00	003	B	143

Resistenza a punzonamento flangia $B_{pf,Rd} = 0.6 \cdot \pi \cdot d_m \cdot t_f \cdot f_{tk} / \gamma_{M2} = 945946.1 \text{ N}$

Bull.	$F_{f,Rd} \text{ [N]}$	$F_{t,Rd} \text{ [N]}$
1	229006.9	229006.9
2	234340.6	234340.6
3	234340.6	234340.6
4	229006.9	229006.9
5	295510.2	263833.4
6	295510.2	263833.4
7	295510.2	263833.4
8	295510.2	263833.4
9	229006.9	229006.9
10	234340.6	234340.6
11	234340.6	234340.6
12	229006.9	229006.9

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 $F_{vb,Rd} = 0.6 \cdot f_{tb} \cdot A_{res} / \gamma_{M2} = 175889.0 \text{ N}$

Bull.	$F_{bf,x,Rd} \text{ [N]}$	$F_{v,x,Rd} \text{ [N]}$	$F_{bf,y,Rd} \text{ [N]}$	$F_{v,y,Rd} \text{ [N]}$
1	724736.8	175889.0	483157.9	175889.0
2	724736.8	175889.0	826200.0	175889.0
3	724736.8	175889.0	826200.0	175889.0
4	724736.8	175889.0	483157.9	175889.0
5	826200.0	175889.0	483157.9	175889.0
6	826200.0	175889.0	483157.9	175889.0
7	826200.0	175889.0	483157.9	175889.0
8	826200.0	175889.0	483157.9	175889.0
9	724736.8	175889.0	483157.9	175889.0
10	724736.8	175889.0	826200.0	175889.0
11	724736.8	175889.0	826200.0	175889.0
12	724736.8	175889.0	483157.9	175889.0

Legenda

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

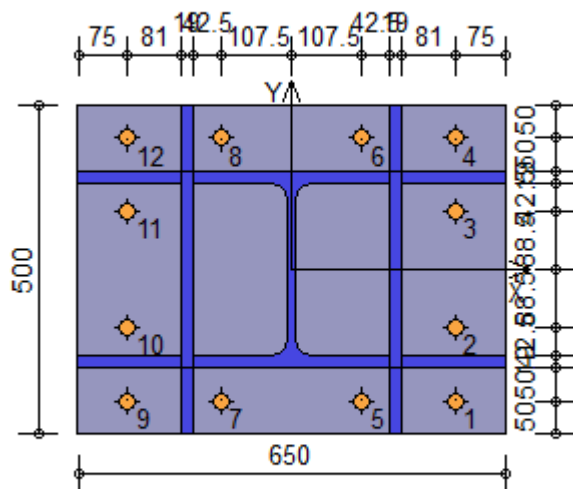
$F_{v,x,Rd} = \min [F_{vb,Rd} , F_{bf,x,Rd}]$ resistenza a taglio di progetto in direzione x

$F_{bf,y,Rd} = k \cdot \alpha \cdot f_{tk} \cdot \emptyset \cdot t_f / \gamma_{M2}$ 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

Relazione di calcolo muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	144



Verifiche sui bulloni

1-Taglio e trazione (Nodo n. 1399, CMB n. 206)

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	250.00	-200.00	4909.0	175889.0	209626.9	229006.9	0.681748	Ok
2	250.00	-88.50	4909.0	175889.0	121314.9	234340.6	0.397685	Ok
3	250.00	88.50	4909.0	175889.0	0.0	234340.6	0.027909	Ok
4	250.00	200.00	4909.0	175889.0	0.0	229006.9	0.027909	Ok
5	107.50	-200.00	4908.9	175889.0	213917.6	263833.4	0.607056	Ok
6	107.50	200.00	4908.9	175889.0	0.0	263833.4	0.027909	Ok
7	-107.50	-200.00	4908.8	175889.0	220391.4	263833.4	0.624582	Ok
8	-107.50	200.00	4908.8	175889.0	0.0	263833.4	0.027909	Ok
9	-250.00	-200.00	4908.7	175889.0	224682.2	229006.9	0.728705	Ok
10	-250.00	-88.50	4908.7	175889.0	136370.1	234340.6	0.443573	Ok
11	-250.00	88.50	4908.7	175889.0	0.0	234340.6	0.027908	Ok
12	-250.00	200.00	4908.7	175889.0	0.0	229006.9	0.027908	Ok

2-Trazione (Nodo n. 1399, CMB n. 206)

Bull.	X [mm]	Y [mm]	F _{t,Ed} [N]	F _{t,Rd} [N]	FV ₂	VER
1	250.00	-200.00	209626.9	229006.9	0.915374	Ok
2	250.00	-88.50	121314.9	234340.6	0.517686	Ok
3	250.00	88.50	0.0	234340.6	0.000000	Ok
4	250.00	200.00	0.0	229006.9	0.000000	Ok
5	107.50	-200.00	213917.6	263833.4	0.810806	Ok
6	107.50	200.00	0.0	263833.4	0.000000	Ok
7	-107.50	-200.00	220391.4	263833.4	0.835343	Ok
8	-107.50	200.00	0.0	263833.4	0.000000	Ok
9	-250.00	-200.00	224682.2	229006.9	0.981116	Ok
10	-250.00	-88.50	136370.1	234340.6	0.581931	Ok
11	-250.00	88.50	0.0	234340.6	0.000000	Ok
12	-250.00	200.00	0.0	229006.9	0.000000	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

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	145

$F_{t,Rd}$ resistenza a trazione di progetto del bullone

$$FV_1 = F_{v,Ed} / F_{v,Rd} + F_{t,Ed} / (1.4 \cdot F_{t,Rd})$$

$$FV_2 = F_{t,Ed} / F_{t,Rd}$$

$$VER \rightarrow FV_i \leq 1$$

Verifiche sulle saldature profilo-flangia (versione beta)

Si considera la sezione di gola (avente altezza $a = s_c / 2^{0.5} = 9.899$) 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/mm².

Verifica formula (4.2.84) (Nodo n. 1399, CMB n. 203)

Cordoni	Lung.[mm]	n_{\perp}	t_{\perp}	τ_{\parallel}	FV ₁	VER ₁
Nerv. verticale lato destro esterno	500.0	127.29	0.00	2.67	127.32	Ok
Nerv. vert. lato destro interno zona inferiore	86.0	-121.61	0.00	2.67	121.64	Ok
Nerv. vert. lato sinistro interno zona inferiore	86.0	-127.19	0.00	2.67	127.22	Ok
Nerv. verticale lato sinistro esterno	500.0	-127.75	0.00	2.67	127.78	Ok
Nerv. orizz. inferiore lato destro esterno	142.0	-73.67	0.00	-0.17	73.67	Ok
Ala inferiore esterno	300.0	-80.08	0.00	-0.17	80.08	Ok
Nerv. orizz. inferiore lato sinistro esterno	142.0	-83.45	0.00	-0.17	83.45	Ok
Nerv. orizz. inferiore lato destro interno	142.0	-59.31	0.00	-0.17	59.32	Ok
Ala inferiore interno lato destro	117.5	-62.21	0.00	-0.17	62.21	Ok
Ala inferiore interno lato sinistro	117.5	-65.72	0.00	-0.17	65.72	Ok
Nerv. orizz. inferiore lato sinistro interno	142.0	-69.09	0.00	-0.17	69.09	Ok
Nerv. vert. lato destro interno zona centrale	234.0	60.68	0.00	2.67	60.73	Ok
Anima lato destro	208.0	-51.89	0.00	2.67	51.95	Ok
Anima lato sinistro	208.0	-51.89	0.00	2.67	51.95	Ok
Nerv. vert. lato sinistro interno zona centrale	234.0	-61.13	0.00	2.67	61.19	Ok
Nerv. orizz. superiore lato destro interno	142.0	68.63	0.00	-0.17	68.63	Ok
Ala superiore interno lato destro	117.5	65.27	0.00	-0.17	65.27	Ok
Ala superiore interno lato sinistro	117.5	61.75	0.00	-0.17	61.75	Ok
Nerv. orizz. superiore lato sinistro interno	142.0	58.86	0.00	-0.17	58.86	Ok
Nerv. orizz. superiore lato destro esterno	142.0	82.99	0.00	-0.17	82.99	Ok
Ala superiore esterno	300.0	76.73	0.00	-0.17	76.73	Ok
Nerv. orizz. superiore lato sinistro esterno	142.0	73.21	0.00	-0.17	73.21	Ok
Nerv. vert. lato destro interno zona superiore	86.0	126.74	0.00	2.67	126.76	Ok
Nerv. vert. lato sinistro interno zona superiore	86.0	121.15	0.00	2.67	121.18	Ok

Verifica formula (4.2.85) (Nodo n. 1399, CMB n. 203)

Cordoni	Lung.[mm]	n_{\perp}	t_{\perp}	τ_{\parallel}	FV ₂	VER ₂
Nerv. verticale lato destro esterno	500.0	127.29	0.00	2.67	127.29	Ok
Nerv. vert. lato destro interno zona inferiore	86.0	-121.61	0.00	2.67	121.61	Ok
Nerv. vert. lato sinistro interno zona inferiore	86.0	-127.19	0.00	2.67	127.19	Ok
Nerv. verticale lato sinistro esterno	500.0	-127.75	0.00	2.67	127.75	Ok
Nerv. orizz. inferiore lato destro esterno	142.0	-73.67	0.00	-0.17	73.67	Ok
Ala inferiore esterno	300.0	-80.08	0.00	-0.17	80.08	Ok
Nerv. orizz. inferiore lato sinistro esterno	142.0	-83.45	0.00	-0.17	83.45	Ok
Nerv. orizz. inferiore lato destro interno	142.0	-59.31	0.00	-0.17	59.31	Ok
Ala inferiore interno lato destro	117.5	-62.21	0.00	-0.17	62.21	Ok
Ala inferiore interno lato sinistro	117.5	-65.72	0.00	-0.17	65.72	Ok
Nerv. orizz. inferiore lato sinistro interno	142.0	-69.09	0.00	-0.17	69.09	Ok
Nerv. vert. lato destro interno zona centrale	234.0	60.68	0.00	2.67	60.68	Ok
Anima lato destro	208.0	-51.89	0.00	2.67	51.89	Ok
Anima lato sinistro	208.0	-51.89	0.00	2.67	51.89	Ok
Nerv. vert. lato sinistro interno zona centrale	234.0	-61.13	0.00	2.67	61.13	Ok
Nerv. orizz. superiore lato destro interno	142.0	68.63	0.00	-0.17	68.63	Ok
Ala superiore interno lato destro	117.5	65.27	0.00	-0.17	65.27	Ok
Ala superiore interno lato sinistro	117.5	61.75	0.00	-0.17	61.75	Ok
Nerv. orizz. superiore lato sinistro interno	142.0	58.86	0.00	-0.17	58.86	Ok

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Relazione di calcolo muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00			PROGR 003	REV B

Nerv. orizz. superiore lato destro esterno	142.0	82.99	0.00	-0.17	82.99	Ok
Ala superiore esterno	300.0	76.73	0.00	-0.17	76.73	Ok
Nerv. orizz. superiore lato sinistro esterno	142.0	73.21	0.00	-0.17	73.21	Ok
Nerv. vert. lato destro interno zona superiore	86.0	126.74	0.00	2.67	126.74	Ok
Nerv. vert. lato sinistro interno zona superiore	86.0	121.15	0.00	2.67	121.15	Ok

Legenda

n_{\perp} tensione normale perpendicolare all'asse del cordone
 t_{\perp} tensione tangenziale perpendicolare all'asse del cordone
 τ_{\parallel} tensione tangenziale parallela all'asse del cordone
 $FV_1 = (n_{\perp}^2 + t_{\perp}^2 + \tau_{\parallel}^2)^{0.5}$
 $FV_2 = |n_{\perp}| + |t_{\perp}|$
 $VER_i \rightarrow FV_i \leq \beta_i \cdot f_{yk} \quad (\beta_1 \cdot f_{yk} = 248.50 \text{ N/mm}^2 \quad \beta_2 \cdot f_{yk} = 301.75 \text{ N/mm}^2)$

Verifiche a flessione piastra in zona compressa

Sezione parallela a X a filo della colonna (Nodo n. 1399, CMB n. 203)

Pressione media a bordo piastra	$p_{med} = 20.28 \text{ N/mm}^2$
Carico lineare sbalzo	$q_{lin} = 13183.15 \text{ N/mm}$
Lunghezza sbalzo	$L_s = 100.0 \text{ mm}$
Modulo di resistenza minimo	$W_{min} = 542374.9 \text{ mm}^3$
Momento resistente	$M_{p,Rd} = 183374400.0 \text{ N mm}$
Momento massimo	$M_{p,Ed} = 65915730.0 \text{ N mm}$
$M_{p,Ed} / M_{p,Rd} = 0.359460 \text{ Ok}$	

Sezione parallela a Y a filo della nervatura verticale (Nodo n. 1399, CMB n. 206)

Pressione media a bordo piastra	$p_{med} = 10.85 \text{ N/mm}^2$
Carico lineare sbalzo	$q_{lin} = 5423.34 \text{ N/mm}$
Lunghezza sbalzo	$L_s = 156.0 \text{ mm}$
Modulo di resistenza minimo	$W_{min} = 528383.5 \text{ mm}^3$
Momento resistente	$M_{p,Rd} = 178644000.0 \text{ N mm}$
Momento massimo	$M_{p,Ed} = 65991160.0 \text{ N mm}$
$M_{p,Ed} / M_{p,Rd} = 0.369401 \text{ Ok}$	

Verifica del momento di progetto del giunto

 (Nodo n. 1399, CMB n. 206)

Momento resistente del giunto	$M_{j,Rd} = 516685800.0 \text{ N mm}$
Momento di progetto	$M_{j,Ed} = 411797500.0 \text{ N mm}$
$M_{j,Ed} / M_{j,Rd} = 0.796998 \text{ Ok}$	

Ancoraggio

Tirafondi ad aderenza

Lunghezza tirafondi $L_t = 900 \text{ mm}$

Lunghezza minima tirafondi: 40 diametri (1080 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. 1399, CMB n. 206)

$\rho_{max} = 21.69 \text{ N/mm}^2 > f_{cd} \text{ N.V.}$

Verifica ancoraggio

Si considera la massima sollecitazione di trazione agente nei tirafondi (Nodo n. 1399, CMB n. 206)

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	147

Trazione di progetto dell'ancoraggio

$$F_{t,an,Ed} = \max [F_{t,Ed}] = 224682.2 \text{ N}$$

Resistenza a trazione per aderenza

$$F_{t,ad,Rd} = L_t \cdot \pi \cdot \varnothing \cdot f_{bd} = 248404.1 \text{ N}$$

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

 		LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
Relazione di calcolo muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	148

12. VALIDAZIONE DEI RISULTATI OTTENUTI CON IL MODELLO DI CALCOLO

I muri architettonici sono stati inseriti nel modello globale di calcolo dei muri fermata Campomarino . Per la validazione del modello si rimanda alla relazione completa di tale fabbricato (LI0B02EZZCLTR0600001B- Relazione di calcolo muro fermata Campomarino).

13. ALLEGATO FASCICOLO DEI CALCOLI

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	1

FASCICOLO DEI CALCOLI

DIMOSTRAZIONE NUMERICA DELLA SICUREZZA DELL'OPERA E DEL RAGGIUNGIMENTO DELLE PRESTAZIONI ATTESE

Muri architettonici

<small>MANDATARIA</small>  <small>CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.</small>	<small>MANDANTI</small> 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici	<small>COMMESSA</small>	<small>LOTTO</small>	<small>FASE</small>	<small>ENTE</small>	<small>TIPO DOC</small>	<small>OPERA 7 DISCIPLINA</small>		<small>PROGR</small>	<small>REV</small>	<small>FOGLIO</small>
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	2

INDICE

MURO LATO SINISTRO	3
CARATTERISTICHE MATERIALI UTILIZZATI	3
MODELLAZIONE DELLE SEZIONI.....	15
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE.....	18
MODELLAZIONE DELLE AZIONI	20
SCHEMATIZZAZIONE DEI CASI DI CARICO.....	24
DEFINIZIONE DELLE COMBINAZIONI	27
AZIONE SISMICA	73
Parametri della struttura.....	73
RISULTATI ANALISI SISMICHE	74
VERIFICHE PER ELEMENTI IN ACCIAIO	154
STATI LIMITE D' ESERCIZIO ACCIAIO	158
MURO LATO DESTRO.....	158
CARATTERISTICHE MATERIALI UTILIZZATI.....	158
MODELLAZIONE DELLE SEZIONI.....	176
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE.....	180
MODELLAZIONE DELLE AZIONI	183
SCHEMATIZZAZIONE DEI CASI DI CARICO.....	186
DEFINIZIONE DELLE COMBINAZIONI	188
AZIONE SISMICA	236
Parametri della struttura.....	236
RISULTATI ANALISI SISMICHE	Errore. Il segnalibro non è definito.
1. Parametri della struttura.....	Errore. Il segnalibro non è definito.
2. RISULTATI ANALISI SISMICHE	237
VERIFICHE PER ELEMENTI IN ACCIAIO	321
STATI LIMITE D' ESERCIZIO ACCIAIO	326

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	3

MURO LATO SINISTRO

CARATTERISTICHE MATERIALI UTILIZZATI

LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

1	cemento armato	Resistenza Rc	resistenza a compressione cubica
		Resistenza fctm	resistenza media a trazione semplice

	Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	
	Tensione ft	Valore della tensione di rottura
	Tensione fy	Valore della tensione di snervamento
	Resistenza fd	Resistenza di calcolo per SL CNR-UNI 10011
	Resistenza fd (>40)	Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm
	Tensione ammissibile	Tensione ammissibile CNR-UNI 10011
	Tensione ammissibile (>40)	Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura	
	a	
	Muratura consolidata	Muratura per la quale si prevedono interventi di rinforzo"
	Incremento resistenza	Incremento conseguito in termini di resistenza
	Incremento rigidezza	Incremento conseguito in termini di rigidezza
	Resistenza f	Valore della resistenza a compressione
	Resistenza fv0	Valore della resistenza a taglio in assenza di tensioni normali
	Resistenza fh	Valore della resistenza a compressione orizzontale
	Resistenza fb	Valore della resistenza a compressione dei blocchi
	Resistenza fbh	Valore della resistenza a compressione dei blocchi in direzione orizzontale
	Resistenza fv0h	Valore della resistenza a taglio in assenza di tensioni normali per le travi
	Resistenza ft	Valore della resistenza a trazione per fessurazione diagonale
	Resistenza fvlim	Valore della massima resistenza a taglio
	Resistenza fbt	Valore della resistenza a trazione dei blocchi
	Coefficiente mu	Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4)
	Coefficiente fi	Coefficiente d'ingranamento utilizzato per la resistenza a taglio

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	5

	Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
4	legno	
	E0,05	Modulo di elasticità corrispondente ad un frattile del 5%
	Resistenza fc0	Valore della resistenza a compressione parallela
	Resistenza ft0	Valore della resistenza a trazione parallela
	Resistenza fm	Valore della resistenza a flessione
	Resistenza fv	Valore della resistenza a taglio
	Resist. ft0k	Resistenza caratteristica (tensione amm. per REGLES) per trazione
	Resist. fmk	Resistenza caratteristica (tensione amm. per REGLES) per flessione
	Resist. fvk	Resistenza caratteristica (tensione amm. per REGLES) per taglio
	Modulo E0,05	Modulo elastico parallelo caratteristico
	Lamellare	lamellare o massiccio

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamiciatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
5	Calcestruzzo Classe C32/40			3.364e+05	0.20	1.402e+05	2.50e-03	1.00e-05	
	Resistenza Rc	400.0							
	Resistenza fctm		31.0						
	Rapporto Rfessurata (assiale)								1.00
	Rapporto Rfessurata (flessione)								1.00
	Rapporto Rfessurata (taglio)								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
12	Acciaio Fe430 - S275-acciaio Fe430-S275			2.100e+06	0.30	8.077e+05	7.85e-03	1.20e-05	
	Tensione ft	4300.0							

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	7

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
	Rapporto HRDv								1.00e-05

Aste acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Beta assegnato	0.80	0.80	0.80	0.80	0.80	0.80
Verifica come controvento	NO	NO	NO	NO	NO	NO
Usa condizioni I e II	SI	SI	SI	SI	SI	SI
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25

Pilastrici acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
Metodo di calcolo 2-2	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato
2-2 Beta assegnato	2.00	2.00	2.00	2.00	2.00	2.00
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
Metodo di calcolo 3-3	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato
3-3 Beta assegnato	2.00	2.00	2.00	2.00	2.00	2.00
3-3 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
1-1 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
Generalità						
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25
Effetti del 2 ordine	SI	SI	SI	SI	SI	SI
Momenti equivalenti	SI	SI	SI	SI	SI	SI
Usa condizioni I e II	SI	SI	SI	SI	SI	SI

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	8

Travi acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
3-3 Beta * L automatico	SI	SI	SI	SI	SI	NO
3-3 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
3-3 Beta assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
2-2 Beta * L automatico	SI	SI	SI	SI	SI	NO
2-2 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
1-1 Beta * L automatico	SI	SI	SI	SI	SI	NO
1-1 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
Generalità						
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25
Luce di taglio per GR [cm]	1.00	1.00	1.00	1.00	1.00	1.00
Usa condizioni I e II	SI	SI	SI	SI	SI	SI
Momenti equivalenti	SI	SI	SI	SI	SI	SI

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetto armatura	Singolo elemento	Singolo elemento FONDAZIONE	Singolo elemento NON DISSIPATIVO	Singolo elemento	Parete estesa debolmente armata	Singolo elemento NON DISSIPATIVO
Armatura						
Inclinazione Av [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
Angolo Av-Ao [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
Minima tesa	0.20	0.20	0.20	2.000e-02	0.20	0.20
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
Maglia unica centrale	NO	NO	NO	NO	NO	NO

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	9

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Unico strato verticale	NO	NO	NO	NO	NO	NO
Unico strato orizzontale	NO	NO	NO	NO	NO	NO
Copriferro [cm]	2.00	2.00	2.00	2.00	2.00	2.00
Maglia V						
diametro	10	10	10	10	10	10
passo	25	25	25	25	25	25
diametro aggiuntivi	12	12	12	12	12	12
Maglia O						
diametro	10	10	10	10	10	10
passo	25	25	25	25	25	25
diametro aggiuntivi	12	12	12	12	12	12
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
Verifiche con N costante	SI	SI	SI	SI	SI	SI
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50	97.50	97.50	97.50	97.50	97.50
Tensione amm. acciaio [daN/cm2]	2600.00	2600.00	2600.00	2600.00	2600.00	2600.00
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
Parete estesa debolmente armata						
Fattore amplificazione taglio V	0.0	1.50	1.50	0.0	0.0	1.50
Hcrit. par. 7.4.4.5.1	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	10

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
cm]						
Hcrit. par. 7.4.6.1.4 [cm]	0.0	0.0	0.0	0.0	0.0	0.0
Diagramma inviluppo taglio	NO	NO	NO	NO	NO	NO
Vincolo lati	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato
Verifica come fascia	NO	NO	NO	NO	SI	NO
Diametro di estremità	0	0	0	0	0	0
Zona confinata						
Minima tesa	1.00	1.00	1.00	1.00	1.00	1.00
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
Distanza barre [cm]	2.00	2.00	2.00	2.00	2.00	2.00
Interferro	2	2	2	2	2	2
Armatura inclinata						
Area barre [cm2]	0.0	0.0	0.0	0.0	0.0	0.0
Angolo orizzontale [gradi]	0.0	0.0	0.0	0.0	0.0	0.0
Distanza di base [cm]	0.0	0.0	0.0	0.0	0.0	0.0
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
3+ estradosso	NO	NO	NO	NO	NO	NO
Tempo di esposizione R	15	15	15	15	15	15

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Armatura						
Inclinazione Ax [gradi]	0.0	0.0	0.0	0.0	0.0	0.0
Angolo Ax-Ay [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
Minima tesa	0.31	0.10	0.13	2.000e-02	0.31	0.13
Massima tesa	0.78	4.00	4.00	4.00	0.78	4.00
Maglia unica centrale	NO	NO	NO	NO	NO	NO

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	11

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Copriferro [cm]	2.00	3.00	2.00	2.00	2.00	2.00
Maglia x						
diámetro	10	12	10	10	10	10
passo	20	20	20	20	20	20
diámetro aggiuntivi	12	12	12	12	12	12
Maglia y						
diámetro	10	12	10	10	10	10
passo	20	20	20	20	20	20
diámetro aggiuntivi	12	12	12	12	12	12
Stati limite ultimi						
Tensione fy [daN/cm2]	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
Verifiche con N costante	SI	SI	SI	SI	SI	SI
Applica SLU da DIN	NO	NO	NO	NO	NO	NO
Tensioni ammissibili						
Tensione amm. cls [daN/cm2]	97.50	97.50	97.50	97.50	97.50	97.50
Tensione amm. acciaio [daN/cm2]	2600.00	2600.00	2600.00	2600.00	2600.00	2600.00
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
3+ estradosso	NO	NO	NO	NO	NO	NO
Tempo di esposizione R	15	15	15	15	15	15

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetta a filo	NO	NO	NO	NO	NO	NO
Af inf: da q*L*L /	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	14

Solai e pannelli	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
Verifica freccia						
Infinita	250.00	250.00	250.00	250.00	250.00	250.00
Istantanea	500.00	500.00	500.00	500.00	500.00	500.00
Fattore viscosità	3.00	3.00	3.00	3.00	3.00	3.00
Usa J non fessurato	NO	NO	NO	NO	NO	NO
Elementi non strutturali						
Tamponatura antiespulsione	NO	NO	NO	NO	NO	NO
Tamponatura con armatura	NO	NO	NO	NO	NO	NO
Fattore di struttura/comportamento	2.00	2.00	2.00	2.00	2.00	2.00
Coefficiente gamma m	0.0	0.0	0.0	0.0	0.0	0.0
Periodo Ta	0.0	0.0	0.0	0.0	0.0	0.0
Altezza pannello	0.0	0.0	0.0	0.0	0.0	0.0

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

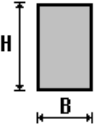
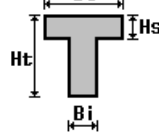
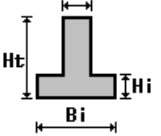
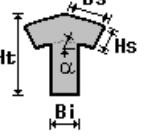
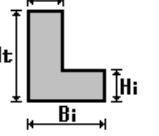
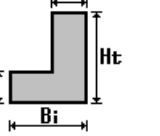
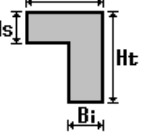
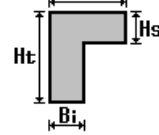
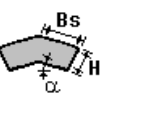
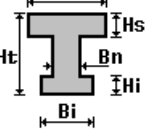
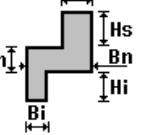
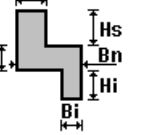
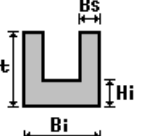
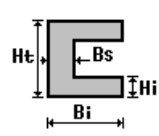
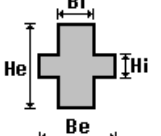
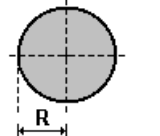
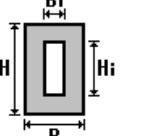
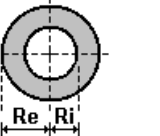
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

 rettangolare	 a T	 a T rovescia	 a T di colmo	 a L	 a L specchiata
 a L specchiata rovescia	 a L rovescia	 a L di colmo	 a doppio T	 a quattro specchiata	 a quattro
 a U	 a C	 a croce	 circolare	 rettangolare cava	 circolare cava

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	16

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	17

Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):
i valori dimensionali con prefisso B sono riferiti all'asse 2
i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
1	HEB 500	238.60	0.0	0.0	538.40	1.262e+04	1.072e+05	841.60	4287.00	1291.60	4814.60
24	HEB 220	91.00	0.0	0.0	76.60	2843.00	8091.00	258.50	735.50	393.90	827.00
25	IPE 180	23.90	0.0	0.0	4.80	101.00	1317.00	22.20	146.30	34.60	166.40
26	Circolare: r=1	3.14	2.65	2.65	1.57	0.79	0.79	0.79	0.79	1.33	1.33
27	IPE 100	10.30	0.0	0.0	1.20	16.00	171.00	5.80	34.20	9.10	39.40
28	HEB 180	65.30	0.0	0.0	42.20	1363.00	3831.00	151.40	425.70	231.00	481.40
29	UNP 160	24.00	0.0	0.0	7.39	85.10	925.00	18.20	116.00	35.20	138.00
30	Rettangolare: b=220 h=20	4400.00	3666.67	3666.67	5.531e+05	1.775e+07	1.467e+05	1.613e+05	1.467e+04	2.420e+05	2.200e+04
31	HEB 300	149.10	0.0	0.0	185.00	8563.00	2.517e+04	570.90	1677.70	870.10	1868.70

MANDATARIA HUB ENGINEERING <small>CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.</small>	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00	PROGR 003

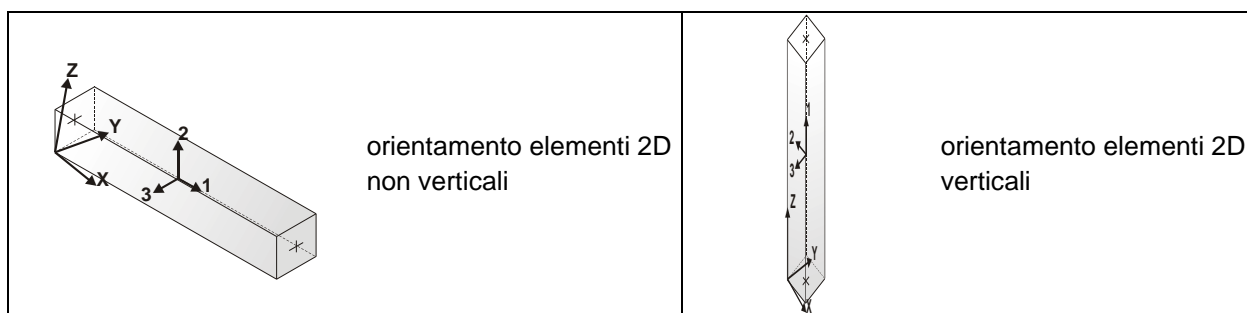
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.

Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	19

Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz.	Svincolo I	Svincolo J	Wink V	Wink O
51	Pilas.	274	101	13	31	3	90.00				
53	Pilas.	93	1851	13	31	3	90.00				
55	Pilas.	2157	115	13	31	3	90.00				
57	Pilas.	1868	97	13	31	3	90.00				
59	Pilas.	33	1847	13	31	3	90.00				
60	Trave	97	1847	13	27	6	90.00	000011	000011		
62	Trave	113	62	13	27	6	90.00	000011	000011		
63	Pilas.	1352	62	13	31	3	90.00				
115	Pilas.	113	2214	13	31	3	90.00				
116	Trave	62	1852	13	27	6	90.00	000011	000011		
118	Trave	1852	101	13	27	6	90.00	000011	000011		
119	Trave	101	1851	13	27	6	90.00	000011	000011		
123	Trave	1851	115	13	27	6	90.00	000011	000011		
124	Trave	115	97	13	27	6	90.00	000011	000011		
129	Pilas.	1456	1852	13	31	3	90.00				
131	Pilas.	1399	82	13	31	3	90.00				
133	Pilas.	1375	113	13	31	3	90.00				
134	Pilas.	1411	2213	13	31	3	90.00				
136	Trave	82	2214	13	27	6	90.00	000011	000011		
137	Trave	2213	82	13	27	6	90.00	000011	000011		

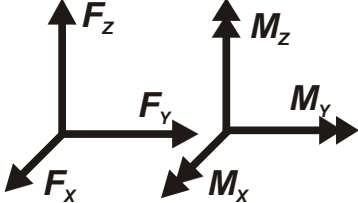
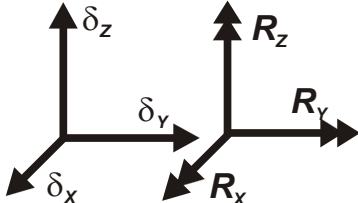
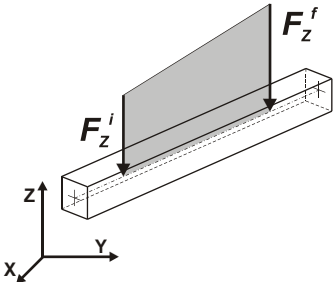
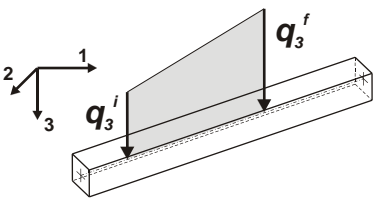
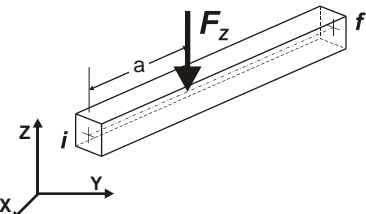
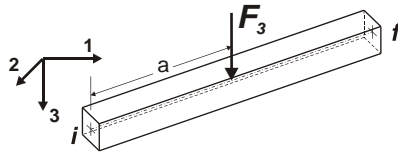
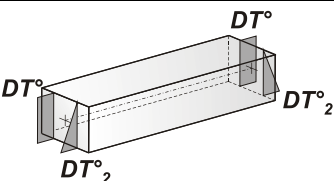
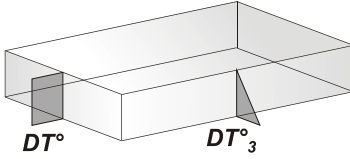
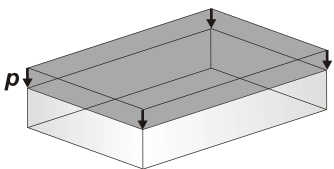
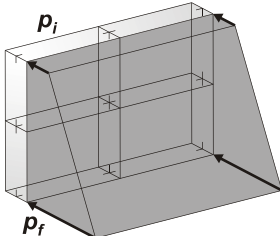
 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	20

MODELLAZIONE DELLE AZIONI

LEGENDA TABELLA DATI AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

1	carico concentrato nodale 6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz)
2	spostamento nodale impresso 6 dati (spostamento Tx, Ty, Tz, rotazione Rx, Ry, Rz)
3	carico distribuito globale su elemento tipo trave 7 dati (fx, fy, fz, mx, my, mz, ascissa di inizio carico) 7 dati (fx, fy, fz, mx, my, mz, ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f1, f2, f3, m1, m2, m3, ascissa di inizio carico) 7 dati (f1, f2, f3, m1, m2, m3, ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (Fx, Fy, Fz, Mx, My, Mz, ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell' impronta, interasse tra i carichi)

 <p>Carico concentrato nodale</p>	 <p>Spostamento impresso</p>
 <p>Carico distribuito globale</p>	 <p>Carico distribuito locale</p>
 <p>Carico concentrato globale</p>	 <p>Carico concentrato locale</p>
 <p>Carico termico 2D</p>	 <p>Carico termico 3D</p>
 <p>Carico pressione uniforme</p>	 <p>Carico pressione variabile</p>

Tipo carico distribuito globale su trave

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		m	daN/ m	daN/ m	daN/ m	daN	daN	daN
9	Q scale-DG:Fzi=-6.50 Fzf=-6.50	0.0	0.0	0.0	-650.00	0.0	0.0	0.0

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	22

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		0.0	0.0	0.0	-650.00	0.0	0.0	0.0
10	G1 scale-DG:Fzi=-4.40 Fzf=-4.40	0.0	0.0	0.0	-440.00	0.0	0.0	0.0
		0.0	0.0	0.0	-440.00	0.0	0.0	0.0

Tipo	carico di pressione uniforme su piastra
-------------	--

Id	Tipo	pressione
		daN/ m2
5	ETK PAN ++ sovraspinta sismica terreno (lato sud)-P3:p=0.73	7253.00
7	QVK PAN ++ vento*0.4 (da personalizzare)-P3:p= 5.350e-03	53.50
8	QVK PAN -- vento*0.4 (da personalizzare)-P3:p= 5.350e-03	53.50
16	ETK PAN -- sovraspinta sismica terreno (LATO STRUTTURE)-P3:p=0.51	5083.00
17	ETK PAN ++ sovraspinta sismica terreno (LATO STRUTTURE)-P3:p=0.51	5083.00

Tipo	carico di pressione variabile su piastra
-------------	---

Id	Tipo	pressione	quota	pressione	quota
		daN/ m2	m	daN/ m2	m
4	spinta terreno a riposo LATO SUD-PL3:pi=-8.540e-02 qi=1200.00 pf=-0.92 qf=0.0	-854.00	12.00	-9218.00	0.0
15	spinta terreno a riposo LATO STRUTTURE-PL3:pi=- 8.660e-02 qi=718.00 pf=-0.63 qf=0.0	-866.00	7.18	-6278.00	0.0
18	spinta terreno a riposo + LATO STRUTTURE-PL3:pi= 8.660e-02 qi=718.00 pf=0.63 qf=0.0	866.00	7.18	6278.00	0.0

Tipo	carico variabile generale
-------------	----------------------------------

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	23

Id	Tipo	ascissa	valore	ascissa	valore
		m	daN/ m2	m	daN/ m2
1	G2_BANCHINA-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-5280.00		
2	Q_BANCHINA-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-500.00		
3	G2_ZONA BINARI-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-3800.00		
11	G1scale -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-340.00		
12	Q scale -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-500.00		
13	Q treno_ZONA SOVRAPPOSI-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-7680.00		
14	Q treno-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-3840.00		

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
	Fascicolo dei calcoli muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	24

SCHEMATIZZAZIONE DEI CASI DI CARICO

LEGENDA TABELLA 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.

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	25

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
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	26

CDC	Tipo	Sigla Id	Note
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

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
		Fascicolo dei calcoli muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00			PROGR 003

DEFINIZIONE DELLE COMBINAZIONI

LEGENDA TABELLA COMBINAZIONI DI CARICO

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

$$\gamma G_1 \cdot G_1 + \gamma G_2 \cdot G_2 + \gamma P \cdot P + \gamma Q_1 \cdot Q_{k1} + \gamma Q_2 \cdot \psi_{02} \cdot Q_{k2} + \gamma Q_3 \cdot \psi_{03} \cdot Q_{k3} + \dots$$

Combinazione caratteristica (rara) SLE

$$G_1 + G_2 + P + Q_{k1} + \psi_{02} \cdot Q_{k2} + \psi_{03} \cdot Q_{k3} + \dots$$

Combinazione frequente SLE

$$G_1 + G_2 + P + \psi_{11} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

Combinazione quasi permanente SLE

$$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

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

$$E + G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

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

$$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

Dove:

NTC 2008 Tabella 2.5.1

Destinazione d'uso/azione	ψ_0	ψ_1	ψ_2
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 $\leq 30kN$)	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

MANDATARIA HUB ENGINEERING <small>CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.</small>	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

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 2.6.1

		Coefficiente	EQU	A1	A2
		γ_f			
Carichi permanenti	Favorevoli	γ_{G1}	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli	γ_{G2}	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3
Carichi variabili	Favorevoli	γ_{Qi}	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	29

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	30

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	31

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	32

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	33

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	34

Cmb	Tipo	Sigla Id	effetto P-delta
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	
208	SLU	Comb. SLU A1 (SLV sism.) 208	
209	SLU	Comb. SLU A1 (SLV sism.) 209	
210	SLU	Comb. SLU A1 (SLV sism.) 210	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	35

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	36

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	37

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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	38

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	41

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...
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
	0.0	0.0	0.0	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	44

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	47

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...
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
	0.0	0.0	0.0	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	50

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	53

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	54

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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	56

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...
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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	57

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	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	59

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	60

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												
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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	62

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...
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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	63

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	0.0	-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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	65

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	66

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	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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	68

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...
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
	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	71

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...
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
	0.0	0.0	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

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	73

AZIONE SISMICA

VALUTAZIONE DELL' AZIONE SISMICA

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento V_r che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento V_r e la probabilità di superamento P_{ver} associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno T_r e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
III	75.0	1.5	112.5	C	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s \cdot S_t$ (3.2.5)

Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale

Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	15.050	41.942	
28328	15.036	41.925	2.349
28329	15.103	41.924	4.806
28107	15.104	41.974	5.593
28106	15.037	41.975	3.746

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA								
		Fascicolo dei calcoli muri architettonici		COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00	PROGR 003

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	67.7	0.064	2.495	0.326
SLD	63.0	113.2	0.081	2.547	0.334
SLV	10.0	1067.8	0.190	2.537	0.380
SLC	5.0	2193.3	0.245	2.516	0.386

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.064	1.500	2.495	0.855	0.165	0.496	1.858
SLD	0.081	1.500	2.547	0.977	0.168	0.504	1.923
SLV	0.190	1.411	2.537	1.491	0.183	0.549	2.358
SLC	0.245	1.330	2.516	1.682	0.185	0.555	2.580

RISULTATI ANALISI SISMICHE

LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

- 9. Esk** caso di carico sismico con analisi statica equivalente
- 10. Edk** caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

Angolo di ingresso	Angolo di ingresso dell'azione sismica orizzontale
---------------------------	--

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
LI0B		02	E	ZZ	CL	TR	06	00	003	B	75

Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore di struttura q	Fattore dipendente dalla tipologia strutturale
Fattore di sito S	Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	Valore dell' ordinata dello spettro in uso nel tratto costante
numero di modi considerati	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

- a) **analisi sismica statica equivalente:**
 - quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
 - azione sismica complessiva
- b) **analisi sismica dinamica con spettro di risposta:**
 - quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo) , indici di regolarità e/r secondo EC8 4.2.3.2
 - frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
 - massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione ϵ_T (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità $1000 \cdot \epsilon_T/h$ da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA								
		Fascicolo dei calcoli muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione ϵ_T , ϵ_P e ϵ_D degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità $1000 \cdot \epsilon_T/h$ da confrontare direttamente con il valore 2 o 4 per la verifica.

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo l' allegato 10.A dell'Ordinanza 3274 e smi. In particolare la tabella, per ogni combinazione SLU (SLC per il DM 14-01-2008) sismica riporta il codice di verifica e i valori utilizzati per la verifica: spostamento d_E , area ridotta e dimensione A_2 , azione verticale, deformazioni di taglio dell' elastomero e tensioni nell' acciaio.

Nodo	Nodo di appoggio dell' isolatore
Cmb	Combinazione oggetto della verifica
Verif.	Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata
dE	Spostamento relativo tra le due facce (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta A_r (per dispositivi circolari)
V	Azione verticale agente
Ar	Area ridotta efficace
Dim A2	Dimensione utile per il calcolo della deformazione per rotazione
Sig s	Tensione nell' inserto in acciaio
Gam c(a,s,t)	Deformazioni di taglio dell' elastomero
Vcr	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 1) $V > 0$
- 2) $\text{Sig } s < f_{yk}$
- 3) $\text{Gam } t < 5$
- 4) $\text{Gam } s < \text{Gam } * \text{ (caratteristica dell' elastomero)}$
- 5) $\text{Gam } s < 2$
- 6) $V < 0.5 V_{cr}$

CDC	Tipo	Sigla Id	Note
19	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto T_b-T_c) = 0.679 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.239 sec.
			fattore q: 1.000

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	77

CDC	Tipo	Sigla Id	Note
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	-0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	78

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
11.58	150.08	23.16	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	-0.18	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	-0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	-0.18	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	-0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	-0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	-0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.0	-0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	-0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	79

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	0.0	-0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	-0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.0	-0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	-0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	-0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	-1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	-1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	-0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	-0.11	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	-0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	-1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	-0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	-1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	-1.09	10.39	5.00	0.734	9.2516e-04	0.460

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	80

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.04	1.167e+04	-2.48	3.46	0.0	-0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	-0.13	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	-1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.0	-0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	-0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	-0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	-0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	-0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	-1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	-0.15	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	0.0	-1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	-0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	81

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
1.53	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	-0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.679	2.894e+04	1.2	52.42	2.11e-03	0.18	7.39e-06	0.0	0.0
2	2.457	0.407	0.679	105.26	4.24e-03	7.238e+04	2.9	1024.79	4.13e-02	0.0	0.0
3	3.166	0.316	0.679	3309.46	0.1	1.199e+06	48.3	8.513e+04	3.4	0.0	0.0
4	3.356	0.298	0.679	879.75	3.54e-02	4.331e+04	1.7	1.230e+05	5.0	0.0	0.0
5	4.179	0.239	0.679	1.149e+06	46.3	4573.84	0.2	4.500e+04	1.8	0.0	0.0
6	4.926	0.203	0.679	1.685e+05	6.8	9.370e+04	3.8	5.249e+05	21.1	0.0	0.0
7	5.920	0.169	0.647	1.368e+05	5.5	8.738e+05	35.2	1.979e+05	8.0	0.0	0.0
8	6.473	0.154	0.615	9.555e+05	38.5	5.439e+04	2.2	1634.80	6.59e-02	0.0	0.0
9	7.864	0.127	0.553	992.78	4.00e-02	4.233e+04	1.7	1.460e+06	58.8	0.0	0.0
Risulta				2.444e+06		2.384e+06		2.439e+06			
In percentuale				98.45		96.04		98.27			

CDC	Tipo	Sigla Id	Note

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	83

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	0.18	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	0.18	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.0	0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	84

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.88	220.80	16.80	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	0.0	0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.0	0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	0.11	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.601	1.048

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	85

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	1.09	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.0	0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	0.13	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.0	0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	0.15	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	86

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.54	1.250e+05	10.75	10.61	0.0	1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.679	3.031e+04	1.2	53.67	2.16e-03	0.20	7.88e-06	0.0	0.0
2	2.457	0.407	0.679	102.39	4.13e-03	7.291e+04	2.9	1026.37	4.14e-02	0.0	0.0
3	3.168	0.316	0.679	438.96	1.77e-02	1.207e+06	48.6	8.752e+04	3.5	0.0	0.0
4	3.357	0.298	0.679	170.60	6.87e-03	3.929e+04	1.6	1.208e+05	4.9	0.0	0.0
5	4.409	0.227	0.679	1.125e+06	45.3	98.78	3.98e-03	7.533e+04	3.0	0.0	0.0
6	4.875	0.205	0.679	3.465e+05	14.0	5.270e+04	2.1	4.399e+05	17.7	0.0	0.0
7	5.870	0.170	0.651	7.813e+04	3.1	9.248e+05	37.3	2.618e+05	10.5	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	88

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.25	0.0	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	89

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.41	1.673e+04	19.46	2.37	0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	1.34	0.0	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	90

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.66	9.082e+04	12.79	6.37	1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	1.34	0.0	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	1.34	0.0	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	91

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
3.57	6.872e+04	12.01	1.92	1.34	0.0	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.51	0.0	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	1.54	0.0	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.20	0.0	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	1.54	0.0	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.59	0.0	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.91	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.59	0.0	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.91	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
------	-----------	---------	----------------	------------------	---	------------------	---	------------------	---	---------	-------------

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	92

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.679	2.960e+04	1.2	80.80	3.26e-03	0.31	1.26e-05	0.0	0.0
2	2.466	0.406	0.679	75.73	3.05e-03	7.434e+04	3.0	1064.70	4.29e-02	0.0	0.0
3	3.119	0.321	0.679	3120.99	0.1	1.247e+06	50.3	8.777e+04	3.5	0.0	0.0
4	3.367	0.297	0.679	83.03	3.35e-03	1.230e+04	0.5	1.113e+05	4.5	0.0	0.0
5	4.284	0.233	0.679	1.073e+06	43.2	75.66	3.05e-03	7.986e+04	3.2	0.0	0.0
6	4.915	0.203	0.679	3.609e+05	14.5	6.989e+04	2.8	4.651e+05	18.7	0.0	0.0
7	6.008	0.166	0.642	8.960e+04	3.6	8.912e+05	35.9	2.314e+05	9.3	0.0	0.0
8	6.537	0.153	0.611	8.859e+05	35.7	4.449e+04	1.8	6715.94	0.3	0.0	0.0
9	7.788	0.128	0.556	6339.78	0.3	4.538e+04	1.8	1.450e+06	58.4	0.0	0.0
Risulta				2.448e+06		2.385e+06		2.433e+06			
In percentuale				98.64		96.10		98.02			

CDC	Tipo	Sigla Id	Note
22	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto Tb-Tc) = 0.679 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.312 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 9
			combinaz. modale: CQC

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	93

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	0.0	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.0	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	-0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	-0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	-0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	-0.25	0.0	21.95	2.22	0.993	0.053	0.002

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	94

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.26	404.97	19.35	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	-0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	-0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	-0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	-0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	-1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	-0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	-1.34	0.0	13.69	1.56	0.195	0.027	0.229

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	95

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.57	2067.34	8.34	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	-0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	-1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	-1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	-0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	-0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	-0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	-1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	-0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	-1.34	0.0	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	-1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	-0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	-0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	-1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	-0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	-0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	96

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.28	3116.11	15.28	21.11	-0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	-1.34	0.0	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	-0.51	0.0	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	-1.34	0.0	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	-0.51	0.0	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	-1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	-0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	-1.54	0.0	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	-0.20	0.0	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	-0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	-1.54	0.0	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	-0.59	0.0	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	-0.91	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	-0.59	0.0	-2.67	4.09	0.196	1.627	0.414

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	97

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.50	1.372e+04	15.21	19.80	-0.91	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	-1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.679	2.963e+04	1.2	32.02	1.29e-03	0.10	3.96e-06	0.0	0.0
2	2.450	0.408	0.679	132.53	5.34e-03	7.353e+04	3.0	985.03	3.97e-02	0.0	0.0
3	3.204	0.312	0.679	268.23	1.08e-02	1.181e+06	47.6	8.374e+04	3.4	0.0	0.0
4	3.361	0.298	0.679	765.44	3.08e-02	7.449e+04	3.0	1.349e+05	5.4	0.0	0.0
5	4.297	0.233	0.679	1.189e+06	47.9	2943.22	0.1	2.858e+04	1.2	0.0	0.0
6	4.904	0.204	0.679	1.078e+05	4.3	9.185e+04	3.7	5.281e+05	21.3	0.0	0.0
7	5.838	0.171	0.653	1.938e+05	7.8	8.331e+05	33.6	1.971e+05	7.9	0.0	0.0
8	6.423	0.156	0.618	9.220e+05	37.1	8.337e+04	3.4	1.580e+04	0.6	0.0	0.0
9	7.926	0.126	0.551	168.60	6.79e-03	4.127e+04	1.7	1.454e+06	58.6	0.0	0.0
Risulta				2.444e+06		2.381e+06		2.444e+06			
In percentuale				98.46		95.94		98.46			

CDC	Tipo	Sigla Id	Note
23	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.239 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	98

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	-0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	-0.18	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	-0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	-0.18	23.68	2.22	0.470	0.757	0.086

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	99

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.89	2831.73	22.37	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	-0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	-0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	-0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.0	-0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	-0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	0.0	-0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	-0.96	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	100

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.78	1.552e+04	15.22	2.36	0.0	-0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	-0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	-0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	-1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	-1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	-0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	-0.11	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	-0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	-1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	-0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	-1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	-1.09	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.0	-0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	-0.13	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	-1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	101

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.52	1.620e+04	6.75	2.38	0.0	-0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	-0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	-0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	-0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	-0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	-1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	-0.15	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	0.0	-1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	-0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	102

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	-0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.302	2.894e+04	1.2	52.42	2.11e-03	0.18	7.39e-06	0.0	0.0
2	2.457	0.407	0.308	105.26	4.24e-03	7.238e+04	2.9	1024.79	4.13e-02	0.0	0.0
3	3.166	0.316	0.308	3309.46	0.1	1.199e+06	48.3	8.513e+04	3.4	0.0	0.0
4	3.356	0.298	0.308	879.75	3.54e-02	4.331e+04	1.7	1.230e+05	5.0	0.0	0.0
5	4.179	0.239	0.308	1.149e+06	46.3	4573.84	0.2	4.500e+04	1.8	0.0	0.0
6	4.926	0.203	0.308	1.685e+05	6.8	9.370e+04	3.8	5.249e+05	21.1	0.0	0.0
7	5.920	0.169	0.308	1.368e+05	5.5	8.738e+05	35.2	1.979e+05	8.0	0.0	0.0
8	6.473	0.154	0.293	9.555e+05	38.5	5.439e+04	2.2	1634.80	6.59e-02	0.0	0.0
9	7.864	0.127	0.263	992.78	4.00e-02	4.233e+04	1.7	1.460e+06	58.8	0.0	0.0
Risulta				2.444e+06		2.384e+06		2.439e+06			
In percentuale				98.45		96.04		98.27			

CDC	Tipo	Sigla Id	Note
24	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	103

CDC	Tipo	Sigla Id	Note
			periodo proprio T1: 0.227 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	0.18	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.18	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.18	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.18	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	0.18	23.67	2.22	1.575	0.040	1.5962e-05

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	104

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
11.40	196.49	11.48	2.45	0.0	0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	0.18	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.0	0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	105

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.07	5.452e+04	12.57	2.31	0.0	0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.0	0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	0.11	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	1.09	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.0	0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	0.13	15.28	21.32	1.492	0.014	0.138

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	106

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.0	0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	0.15	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	0.0	1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	107

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.302	3.031e+04	1.2	53.67	2.16e-03	0.20	7.88e-06	0.0	0.0
2	2.457	0.407	0.308	102.39	4.13e-03	7.291e+04	2.9	1026.37	4.14e-02	0.0	0.0
3	3.168	0.316	0.308	438.96	1.77e-02	1.207e+06	48.6	8.752e+04	3.5	0.0	0.0
4	3.357	0.298	0.308	170.60	6.87e-03	3.929e+04	1.6	1.208e+05	4.9	0.0	0.0
5	4.409	0.227	0.308	1.125e+06	45.3	98.78	3.98e-03	7.533e+04	3.0	0.0	0.0
6	4.875	0.205	0.308	3.465e+05	14.0	5.270e+04	2.1	4.399e+05	17.7	0.0	0.0
7	5.870	0.170	0.308	7.813e+04	3.1	9.248e+05	37.3	2.618e+05	10.5	0.0	0.0
8	6.555	0.153	0.291	8.652e+05	34.9	4.098e+04	1.7	1413.85	5.70e-02	0.0	0.0
9	7.862	0.127	0.263	4420.02	0.2	4.505e+04	1.8	1.450e+06	58.4	0.0	0.0
Risulta				2.450e+06		2.382e+06		2.438e+06			
In percentuale				98.73		95.99		98.21			

CDC	Tipo	Sigla Id	Note
25	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: C

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	108

CDC	Tipo	Sigla Id	Note
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.321 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	0.0	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.0	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	109

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
12.00	1243.63	24.09	2.25	0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.25	0.0	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	110

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.43	1392.77	7.34	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	1.34	0.0	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	1.34	0.0	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	111

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.12	2471.89	23.49	7.75	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	1.34	0.0	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	1.34	0.0	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.51	0.0	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	1.54	0.0	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.20	0.0	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	1.54	0.0	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.59	0.0	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA

LOTTO

FASE

ENTE

TIPO DOC

OPERA 7 DISCIPLINA

PROGR

REV

FOGLIO

LI0B

02

E

ZZ

CL

TR

06

00

003

B

112

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
1.98	1.204e+04	16.34	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.59	0.0	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.91	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	1.54	0.0	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.59	0.0	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.91	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.302	2.960e+04	1.2	80.80	3.26e-03	0.31	1.26e-05	0.0	0.0
2	2.466	0.406	0.308	75.73	3.05e-03	7.434e+04	3.0	1064.70	4.29e-02	0.0	0.0
3	3.119	0.321	0.308	3120.99	0.1	1.247e+06	50.3	8.777e+04	3.5	0.0	0.0
4	3.367	0.297	0.308	83.03	3.35e-03	1.230e+04	0.5	1.113e+05	4.5	0.0	0.0
5	4.284	0.233	0.308	1.073e+06	43.2	75.66	3.05e-03	7.986e+04	3.2	0.0	0.0
6	4.915	0.203	0.308	3.609e+05	14.5	6.989e+04	2.8	4.651e+05	18.7	0.0	0.0
7	6.008	0.166	0.307	8.960e+04	3.6	8.912e+05	35.9	2.314e+05	9.3	0.0	0.0
8	6.537	0.153	0.292	8.859e+05	35.7	4.449e+04	1.8	6715.94	0.3	0.0	0.0
9	7.788	0.128	0.264	6339.78	0.3	4.538e+04	1.8	1.450e+06	58.4	0.0	0.0
Risulta				2.448e+06		2.385e+06		2.433e+06			
In percentuale				98.64		96.10		98.02			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	113

CDC	Tipo	Sigla Id	Note
26	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.312 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	0.0	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.0	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	114

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	-0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	-0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	-0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	-0.25	0.0	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	-0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	-0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	-0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	115

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.69	2.901e+04	20.18	2.22	-0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	-1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	-0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	-1.34	0.0	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	-0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	-1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	-1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	-0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	-0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	-0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	-1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	-0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	-1.34	0.0	12.28	4.41	0.737	0.003	0.271

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	116

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	-1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	-0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	-0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	-1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	-0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	-0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	-0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	-1.34	0.0	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	-0.51	0.0	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	-1.34	0.0	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	-0.51	0.0	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	-1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	-0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	-1.54	0.0	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	-0.20	0.0	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	-0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	-1.54	0.0	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	-0.59	0.0	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	117

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.48	1919.31	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	-0.59	0.0	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	-0.91	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	-1.54	0.0	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	-0.59	0.0	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	-0.91	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	-1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.302	2.963e+04	1.2	32.02	1.29e-03	0.10	3.96e-06	0.0	0.0
2	2.450	0.408	0.308	132.53	5.34e-03	7.353e+04	3.0	985.03	3.97e-02	0.0	0.0
3	3.204	0.312	0.308	268.23	1.08e-02	1.181e+06	47.6	8.374e+04	3.4	0.0	0.0
4	3.361	0.298	0.308	765.44	3.08e-02	7.449e+04	3.0	1.349e+05	5.4	0.0	0.0
5	4.297	0.233	0.308	1.189e+06	47.9	2943.22	0.1	2.858e+04	1.2	0.0	0.0
6	4.904	0.204	0.308	1.078e+05	4.3	9.185e+04	3.7	5.281e+05	21.3	0.0	0.0
7	5.838	0.171	0.308	1.938e+05	7.8	8.331e+05	33.6	1.971e+05	7.9	0.0	0.0
8	6.423	0.156	0.295	9.220e+05	37.1	8.337e+04	3.4	1.580e+04	0.6	0.0	0.0
9	7.926	0.126	0.262	168.60	6.79e-03	4.127e+04	1.7	1.454e+06	58.6	0.0	0.0
Risulta				2.444e+06		2.381e+06		2.444e+06			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	118

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
In percentuale				98.46		95.94		98.46			

CDC	Tipo	Sigla Id	Note
27	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.239 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	-0.18	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	-0.18	20.48	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	119

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	-0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	-0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	-0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	-0.18	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	-0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	-0.18	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	-0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	-0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	-0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	-0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.0	-0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	120

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	-0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	-0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	0.0	-0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	-0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.0	-0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	-0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	-0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	-1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	-1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	-0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	-0.11	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	-0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	-1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	121

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.05	1.082e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	-0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	-1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	-0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	-1.09	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.0	-0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	-0.13	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	-1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.0	-0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	-0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	-0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	-0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	-0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	-0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.597e+04	5.32	9.20	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	-1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	-0.15	-2.89	4.04	0.586	0.405	0.801

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	122

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	0.0	-1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	-0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	-0.15	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	-1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	-0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.233	2.894e+04	1.2	52.42	2.11e-03	0.18	7.39e-06	0.0	0.0
2	2.457	0.407	0.241	105.26	4.24e-03	7.238e+04	2.9	1024.79	4.13e-02	0.0	0.0
3	3.166	0.316	0.241	3309.46	0.1	1.199e+06	48.3	8.513e+04	3.4	0.0	0.0
4	3.356	0.298	0.241	879.75	3.54e-02	4.331e+04	1.7	1.230e+05	5.0	0.0	0.0
5	4.179	0.239	0.241	1.149e+06	46.3	4573.84	0.2	4.500e+04	1.8	0.0	0.0
6	4.926	0.203	0.241	1.685e+05	6.8	9.370e+04	3.8	5.249e+05	21.1	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	124

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
14.95	198.52	20.48	2.45	0.0	0.18	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.18	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.18	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.18	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.0	0.18	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.0	0.18	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.18	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.0	0.18	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.0	0.18	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.18	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.0	0.18	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.0	0.18	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	125

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.24	1.566e+04	21.64	2.22	0.0	0.18	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.18	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.0	0.18	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	0.0	0.18	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.0	0.18	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	0.0	0.18	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.0	0.15	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	0.0	1.09	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	0.0	1.09	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.0	0.15	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.0	0.11	3.27	19.80	0.087	0.839	0.649

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	126

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.45	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.0	0.18	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	0.0	1.09	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.0	0.11	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	0.0	1.09	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.0	0.15	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	0.0	1.09	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.0	0.15	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.0	0.13	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	0.0	1.09	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.0	0.18	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.0	0.13	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	0.0	0.18	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.0	0.15	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.70	2000.87	23.75	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.872e+04	12.01	1.92	0.0	0.18	11.62	1.34	0.176	0.014	0.425
3.53	1.145e+04	-2.56	3.44	0.0	0.15	-2.48	4.06	0.205	0.101	0.977
3.47	8457.81	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	127

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
3.12	6.597e+04	5.32	9.20	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	6.95	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	11.61	10.15	0.0	1.09	10.72	6.99	0.823	0.008	0.354
3.03	1.037e+04	-3.39	3.37	0.0	0.15	-2.89	4.04	0.586	0.405	0.801
2.97	8141.94	17.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	10.75	10.61	0.0	1.09	9.97	6.64	0.831	0.005	0.440
2.52	2.286e+04	-0.96	3.82	0.0	0.15	-2.67	4.09	0.196	1.754	0.391
2.48	1.261e+04	16.26	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
2.02	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
1.98	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.51	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
1.49	1.204e+04	16.34	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	7.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	10.79	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
1.01	2.186e+04	-1.07	3.81	0.0	0.15	-2.67	4.09	0.196	1.644	0.416
0.99	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	10.78	10.61	0.0	1.09	9.97	6.64	0.831	0.006	0.439
0.50	2.184e+04	-1.09	3.81	0.0	0.15	-2.67	4.09	0.196	1.627	0.414
0.50	1.372e+04	15.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.10e-04	5459.93	8.75	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.233	3.031e+04	1.2	53.67	2.16e-03	0.20	7.88e-06	0.0	0.0
2	2.457	0.407	0.241	102.39	4.13e-03	7.291e+04	2.9	1026.37	4.14e-02	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	128

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
3	3.168	0.316	0.241	438.96	1.77e-02	1.207e+06	48.6	8.752e+04	3.5	0.0	0.0
4	3.357	0.298	0.241	170.60	6.87e-03	3.929e+04	1.6	1.208e+05	4.9	0.0	0.0
5	4.409	0.227	0.241	1.125e+06	45.3	98.78	3.98e-03	7.533e+04	3.0	0.0	0.0
6	4.875	0.205	0.241	3.465e+05	14.0	5.270e+04	2.1	4.399e+05	17.7	0.0	0.0
7	5.870	0.170	0.241	7.813e+04	3.1	9.248e+05	37.3	2.618e+05	10.5	0.0	0.0
8	6.555	0.153	0.230	8.652e+05	34.9	4.098e+04	1.7	1413.85	5.70e-02	0.0	0.0
9	7.862	0.127	0.208	4420.02	0.2	4.505e+04	1.8	1.450e+06	58.4	0.0	0.0
Risulta				2.450e+06		2.382e+06		2.438e+06			
In percentuale				98.73		95.99		98.21			

CDC	Tipo	Sigla Id	Note
29	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.321 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	195.47	23.94	2.45	0.0	0.0	23.94	2.45	1.033	0.0	0.0
16.17	1122.30	-3.92	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.0	23.94	2.45	1.033	1.7656e-04	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	129

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	0.25	0.0	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	130

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.42	3.294e+04	8.61	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	1.34	0.0	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	12.46	9.45	1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.598	1.045

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	131

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.94	8750.56	17.52	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	1.34	0.0	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	1.34	0.0	11.62	1.34	0.176	0.011	0.420
4.04	1.164e+04	-2.50	3.46	0.51	0.0	-2.48	4.06	0.205	0.023	0.958
3.97	8239.74	17.27	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	8.78	21.37	1.54	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	134

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
16.12	1837.74	-2.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.02	2183.12	-0.12	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.94	946.16	23.94	2.45	0.0	0.0	23.94	2.45	1.033	1.7656e-04	0.0
15.87	1104.30	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.32	1343.39	2.78	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.17	2235.95	5.68	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.02	2178.24	8.58	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.95	198.52	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.87	2120.49	11.48	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.72	2062.74	14.38	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.59	1597.63	20.48	2.45	0.0	0.0	20.48	2.45	1.033	0.0	0.0
14.57	2002.27	17.28	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.37	1930.77	20.18	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.22	1083.82	23.08	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.65	192.02	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
13.42	1489.53	17.48	2.45	0.0	0.0	17.48	2.45	1.033	0.0	0.0
12.46	190.98	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.25	1480.30	14.48	2.45	0.0	0.0	14.48	2.45	1.033	0.0	0.0
12.00	1243.63	24.09	2.25	-0.02	0.0	24.19	2.22	0.707	0.132	0.021
11.81	412.15	23.59	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	23.16	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	23.76	2.22	-0.08	0.0	23.67	2.22	1.575	0.040	1.5962e-05
11.40	196.49	11.48	2.45	0.0	0.0	11.48	2.45	1.033	0.0	0.0
11.35	393.27	22.74	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	22.31	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.417e+04	22.29	2.37	-0.64	0.0	23.68	2.22	0.470	0.757	0.086
10.89	2831.73	22.37	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	21.47	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.380e+04	22.34	2.22	-0.25	0.0	21.95	2.22	0.993	0.053	0.002
10.26	404.97	19.35	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	195.98	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
10.03	295.88	18.92	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	135

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.91	1374.19	8.48	2.45	0.0	0.0	8.48	2.45	1.033	0.0	0.0
9.78	1.748e+04	21.61	2.22	-0.30	0.0	21.45	2.22	0.871	0.018	0.0
9.57	394.21	18.08	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.294e+04	8.61	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	19.46	2.37	-0.06	0.0	19.45	2.22	1.625	0.005	0.090
9.34	117.27	17.65	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	563.84	17.48	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	21.64	2.22	-0.34	0.0	21.72	2.22	0.790	0.008	7.3571e-06
9.11	426.76	17.23	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	195.47	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.92	1.204e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	7.32	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	16.80	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	0.08	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	681.71	5.48	2.45	0.0	0.0	5.48	2.45	1.033	0.0	0.0
8.69	2.901e+04	20.18	2.22	-0.46	0.0	19.87	2.22	0.617	0.022	1.2031e-06
8.58	482.77	15.11	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	16.35	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	7.34	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	14.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	0.16	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	345.29	14.48	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.452e+04	12.57	2.31	-1.54	0.0	5.71	2.34	0.201	0.209	0.016
7.93	1.043e+04	16.44	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	7.31	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.385e+04	9.16	10.19	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	15.22	2.36	-0.06	0.0	15.17	1.34	1.145	0.042	0.741
7.74	8511.80	-0.23	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	12.91	1.91	-1.34	0.0	13.69	1.56	0.195	0.027	0.229
7.57	2067.34	8.34	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	-1.38	3.64	-0.58	0.0	-2.48	4.06	0.182	1.310	0.663
7.44	8498.45	17.68	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	136

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.18	1.126e+05	12.46	9.45	-1.54	0.0	10.79	4.97	0.714	0.011	0.577
7.14	801.05	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.598	1.045
6.94	8750.56	17.52	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	12.79	6.37	-1.34	0.0	12.28	4.41	0.737	0.003	0.269
6.56	1.165e+04	-2.49	3.46	-0.51	0.0	-2.48	4.06	0.205	0.012	0.957
6.49	1.991e+04	0.76	20.00	-0.60	0.0	3.27	19.80	0.087	0.839	0.649
6.45	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	10.98	2.38	-0.06	0.0	10.97	2.22	1.625	0.004	0.092
6.15	8.582e+04	12.90	6.60	-1.34	0.0	12.38	4.41	0.740	0.003	0.298
6.11	784.38	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.601	1.048
5.95	9631.97	17.96	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	0.78	20.01	-0.60	0.0	3.27	19.80	0.087	0.832	0.674
5.63	9.093e+04	12.80	6.39	-1.34	0.0	12.28	4.41	0.737	0.003	0.271
5.60	848.81	3.93	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	-2.98	3.40	-0.47	0.0	-2.48	4.06	0.219	0.593	1.046
5.45	9311.06	17.86	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2471.89	23.49	7.75	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	10.25	8.67	-1.54	0.0	10.39	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	-2.48	3.46	-0.51	0.0	-2.48	4.06	0.205	0.002	0.955
5.03	1.594e+04	15.32	21.14	-0.07	0.0	15.28	21.32	1.492	0.014	0.138
4.96	6861.17	17.47	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.85	1471.16	23.74	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	12.74	5.36	-1.34	0.0	12.45	4.50	0.779	0.002	0.111
4.54	1.164e+04	-2.50	3.46	-0.51	0.0	-2.48	4.06	0.205	0.023	0.958
4.52	1.620e+04	6.75	2.38	-0.06	0.0	6.73	2.22	1.625	0.009	0.091
4.46	7066.17	17.64	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	6.80	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	15.28	21.11	-0.07	0.0	15.28	21.32	1.492	0.003	0.161
4.28	2003.44	23.75	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.916e+04	11.92	1.91	-1.34	0.0	11.62	1.34	0.176	0.011	0.420

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	138

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	1.946	0.514	0.233	2.963e+04	1.2	32.02	1.29e-03	0.10	3.96e-06	0.0	0.0
2	2.450	0.408	0.241	132.53	5.34e-03	7.353e+04	3.0	985.03	3.97e-02	0.0	0.0
3	3.204	0.312	0.241	268.23	1.08e-02	1.181e+06	47.6	8.374e+04	3.4	0.0	0.0
4	3.361	0.298	0.241	765.44	3.08e-02	7.449e+04	3.0	1.349e+05	5.4	0.0	0.0
5	4.297	0.233	0.241	1.189e+06	47.9	2943.22	0.1	2.858e+04	1.2	0.0	0.0
6	4.904	0.204	0.241	1.078e+05	4.3	9.185e+04	3.7	5.281e+05	21.3	0.0	0.0
7	5.838	0.171	0.241	1.938e+05	7.8	8.331e+05	33.6	1.971e+05	7.9	0.0	0.0
8	6.423	0.156	0.233	9.220e+05	37.1	8.337e+04	3.4	1.580e+04	0.6	0.0	0.0
9	7.926	0.126	0.207	168.60	6.79e-03	4.127e+04	1.7	1.454e+06	58.6	0.0	0.0
Risulta				2.444e+06		2.381e+06		2.444e+06			
In percentuale				98.46		95.94		98.46			

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
			cm	cm			cm	cm			cm	cm
219	51	3.74	2.04	545.0	53	3.96	2.10	530.0	55	4.00	2.06	515.0
	57	4.10	2.03	495.0	59	4.15	1.99	480.0	63	3.61	2.07	575.0
	115	6.33	0.35	55.0	129	3.68	2.06	560.0	131	4.00	2.64	660.0
	133	3.77	2.23	590.0	134	3.71	2.48	670.0				
220	51	4.09	2.23	545.0	53	3.89	2.06	530.0	55	3.97	2.04	515.0
	57	4.08	2.02	495.0	59	4.16	2.00	480.0	63	3.89	2.24	575.0
	115	7.24	0.40	55.0	129	4.00	2.24	560.0	131	4.55	3.01	660.0
	133	3.95	2.33	590.0	134	3.97	2.66	670.0				
221	51	3.84	2.09	545.0	53	3.76	2.00	530.0	55	3.85	1.98	515.0
	57	3.99	1.98	495.0	59	4.08	1.96	480.0	63	3.69	2.12	575.0
	115	7.01	0.39	55.0	129	3.75	2.10	560.0	131	4.24	2.80	660.0
	133	3.73	2.20	590.0	134	3.74	2.50	670.0				
222	51	3.68	2.00	545.0	53	4.04	2.14	530.0	55	4.09	2.11	515.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	139
	57	4.17	2.07	495.0	59	4.18	2.01	480.0	63	3.52	2.02	575.0			
	115	6.37	0.35	55.0	129	3.59	2.01	560.0	131	3.92	2.59	660.0			
	133	3.61	2.13	590.0	134	3.68	2.46	670.0							
223	51	3.75	2.04	545.0	53	3.96	2.10	530.0	55	4.01	2.06	515.0			
	57	4.10	2.03	495.0	59	4.15	1.99	480.0	63	3.61	2.08	575.0			
	115	6.34	0.35	55.0	129	3.68	2.06	560.0	131	4.02	2.65	660.0			
	133	3.78	2.23	590.0	134	3.72	2.49	670.0							
224	51	4.09	2.23	545.0	53	3.88	2.06	530.0	55	3.96	2.04	515.0			
	57	4.07	2.02	495.0	59	4.16	1.99	480.0	63	3.89	2.24	575.0			
	115	7.24	0.40	55.0	129	4.00	2.24	560.0	131	4.55	3.00	660.0			
	133	3.95	2.33	590.0	134	3.97	2.66	670.0							
225	51	3.84	2.09	545.0	53	3.76	2.00	530.0	55	3.85	1.98	515.0			
	57	3.99	1.98	495.0	59	4.08	1.96	480.0	63	3.69	2.12	575.0			
	115	7.01	0.39	55.0	129	3.76	2.10	560.0	131	4.25	2.80	660.0			
	133	3.74	2.20	590.0	134	3.74	2.51	670.0							
226	51	3.67	2.00	545.0	53	4.04	2.14	530.0	55	4.08	2.10	515.0			
	57	4.17	2.06	495.0	59	4.18	2.01	480.0	63	3.52	2.02	575.0			
	115	6.37	0.35	55.0	129	3.59	2.01	560.0	131	3.90	2.57	660.0			
	133	3.60	2.12	590.0	134	3.67	2.46	670.0							
227	51	3.76	2.05	545.0	53	3.99	2.12	530.0	55	4.03	2.08	515.0			
	57	4.12	2.04	495.0	59	4.16	2.00	480.0	63	3.63	2.08	575.0			
	115	6.37	0.35	55.0	129	3.69	2.07	560.0	131	4.07	2.69	660.0			
	133	3.77	2.22	590.0	134	3.76	2.52	670.0							
228	51	4.11	2.24	545.0	53	3.87	2.05	530.0	55	3.94	2.03	515.0			
	57	4.05	2.00	495.0	59	4.14	1.99	480.0	63	3.89	2.23	575.0			
	115	7.20	0.40	55.0	129	4.01	2.24	560.0	131	4.56	3.01	660.0			
	133	3.92	2.31	590.0	134	3.98	2.67	670.0							
229	51	3.84	2.10	545.0	53	3.75	1.99	530.0	55	3.84	1.98	515.0			
	57	3.98	1.97	495.0	59	4.06	1.95	480.0	63	3.68	2.11	575.0			
	115	6.96	0.38	55.0	129	3.75	2.10	560.0	131	4.25	2.80	660.0			
	133	3.70	2.18	590.0	134	3.74	2.50	670.0							
230	51	3.70	2.02	545.0	53	4.09	2.17	530.0	55	4.12	2.12	515.0			
	57	4.19	2.07	495.0	59	4.18	2.01	480.0	63	3.54	2.04	575.0			
	115	6.40	0.35	55.0	129	3.62	2.02	560.0	131	3.99	2.63	660.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	140
	133	3.63	2.14	590.0	134	3.74	2.51	670.0							
231	51	3.77	2.05	545.0	53	4.00	2.12	530.0	55	4.04	2.08	515.0			
	57	4.12	2.04	495.0	59	4.16	2.00	480.0	63	3.63	2.09	575.0			
	115	6.37	0.35	55.0	129	3.70	2.07	560.0	131	4.08	2.70	660.0			
	133	3.77	2.23	590.0	134	3.77	2.53	670.0							
232	51	4.11	2.24	545.0	53	3.86	2.05	530.0	55	3.93	2.02	515.0			
	57	4.04	2.00	495.0	59	4.14	1.99	480.0	63	3.88	2.23	575.0			
	115	7.19	0.40	55.0	129	4.00	2.24	560.0	131	4.56	3.01	660.0			
	133	3.91	2.31	590.0	134	3.98	2.66	670.0							
233	51	3.85	2.10	545.0	53	3.75	1.99	530.0	55	3.84	1.98	515.0			
	57	3.98	1.97	495.0	59	4.06	1.95	480.0	63	3.68	2.12	575.0			
	115	6.96	0.38	55.0	129	3.75	2.10	560.0	131	4.25	2.81	660.0			
	133	3.70	2.18	590.0	134	3.74	2.51	670.0							
234	51	3.69	2.01	545.0	53	4.08	2.16	530.0	55	4.12	2.12	515.0			
	57	4.19	2.07	495.0	59	4.18	2.01	480.0	63	3.54	2.03	575.0			
	115	6.40	0.35	55.0	129	3.61	2.02	560.0	131	3.97	2.62	660.0			
	133	3.62	2.13	590.0	134	3.73	2.50	670.0							
235	51	3.79	2.07	545.0	53	4.02	2.13	530.0	55	4.06	2.09	515.0			
	57	4.14	2.05	495.0	59	4.20	2.01	480.0	63	3.65	2.10	575.0			
	115	6.48	0.36	55.0	129	3.73	2.09	560.0	131	4.09	2.70	660.0			
	133	3.82	2.25	590.0	134	3.77	2.52	670.0							
236	51	4.16	2.27	545.0	53	3.93	2.08	530.0	55	4.01	2.07	515.0			
	57	4.14	2.05	495.0	59	4.22	2.02	480.0	63	3.96	2.28	575.0			
	115	7.38	0.41	55.0	129	4.07	2.28	560.0	131	4.57	3.02	660.0			
	133	4.00	2.36	590.0	134	4.05	2.71	670.0							
237	51	3.90	2.13	545.0	53	3.81	2.02	530.0	55	3.90	2.01	515.0			
	57	4.05	2.00	495.0	59	4.14	1.99	480.0	63	3.75	2.15	575.0			
	115	7.14	0.39	55.0	129	3.82	2.14	560.0	131	4.26	2.81	660.0			
	133	3.78	2.23	590.0	134	3.81	2.55	670.0							
238	51	3.71	2.02	545.0	53	4.10	2.18	530.0	55	4.14	2.13	515.0			
	57	4.21	2.08	495.0	59	4.22	2.03	480.0	63	3.57	2.05	575.0			
	115	6.51	0.36	55.0	129	3.64	2.04	560.0	131	4.01	2.65	660.0			
	133	3.67	2.16	590.0	134	3.74	2.50	670.0							
239	51	3.80	2.07	545.0	53	4.02	2.13	530.0	55	4.06	2.09	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	141
	57	4.15	2.05	495.0	59	4.20	2.02	480.0	63	3.66	2.10	575.0			
	115	6.48	0.36	55.0	129	3.73	2.09	560.0	131	4.11	2.71	660.0			
	133	3.83	2.26	590.0	134	3.78	2.53	670.0							
240	51	4.16	2.26	545.0	53	3.92	2.08	530.0	55	4.00	2.06	515.0			
	57	4.13	2.05	495.0	59	4.21	2.02	480.0	63	3.95	2.27	575.0			
	115	7.37	0.41	55.0	129	4.06	2.28	560.0	131	4.56	3.01	660.0			
	133	3.99	2.35	590.0	134	4.04	2.71	670.0							
241	51	3.90	2.13	545.0	53	3.81	2.02	530.0	55	3.90	2.01	515.0			
	57	4.05	2.00	495.0	59	4.14	1.99	480.0	63	3.75	2.16	575.0			
	115	7.15	0.39	55.0	129	3.82	2.14	560.0	131	4.27	2.82	660.0			
	133	3.78	2.23	590.0	134	3.81	2.55	670.0							
242	51	3.71	2.02	545.0	53	4.10	2.17	530.0	55	4.14	2.13	515.0			
	57	4.20	2.08	495.0	59	4.22	2.03	480.0	63	3.57	2.05	575.0			
	115	6.51	0.36	55.0	129	3.63	2.04	560.0	131	3.99	2.64	660.0			
	133	3.65	2.15	590.0	134	3.72	2.50	670.0							
243	51	3.81	2.08	545.0	53	4.05	2.15	530.0	55	4.09	2.10	515.0			
	57	4.16	2.06	495.0	59	4.21	2.02	480.0	63	3.67	2.11	575.0			
	115	6.51	0.36	55.0	129	3.74	2.10	560.0	131	4.15	2.74	660.0			
	133	3.82	2.25	590.0	134	3.82	2.56	670.0							
244	51	4.18	2.28	545.0	53	3.91	2.07	530.0	55	3.98	2.05	515.0			
	57	4.10	2.03	495.0	59	4.19	2.01	480.0	63	3.95	2.27	575.0			
	115	7.33	0.40	55.0	129	4.07	2.28	560.0	131	4.58	3.02	660.0			
	133	3.96	2.34	590.0	134	4.05	2.72	670.0							
245	51	3.91	2.13	545.0	53	3.80	2.02	530.0	55	3.89	2.00	515.0			
	57	4.03	2.00	495.0	59	4.12	1.98	480.0	63	3.74	2.15	575.0			
	115	7.09	0.39	55.0	129	3.81	2.14	560.0	131	4.27	2.82	660.0			
	133	3.74	2.21	590.0	134	3.81	2.55	670.0							
246	51	3.73	2.04	545.0	53	4.15	2.20	530.0	55	4.18	2.15	515.0			
	57	4.23	2.09	495.0	59	4.23	2.03	480.0	63	3.59	2.06	575.0			
	115	6.54	0.36	55.0	129	3.66	2.05	560.0	131	4.08	2.69	660.0			
	133	3.68	2.17	590.0	134	3.80	2.54	670.0							
247	51	3.81	2.08	545.0	53	4.06	2.15	530.0	55	4.09	2.11	515.0			
	57	4.17	2.06	495.0	59	4.21	2.02	480.0	63	3.67	2.11	575.0			
	115	6.51	0.36	55.0	129	3.74	2.10	560.0	131	4.16	2.74	660.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	142
	133	3.82	2.26	590.0	134	3.83	2.57	670.0							
248	51	4.17	2.27	545.0	53	3.90	2.07	530.0	55	3.98	2.05	515.0			
	57	4.10	2.03	495.0	59	4.19	2.01	480.0	63	3.95	2.27	575.0			
	115	7.32	0.40	55.0	129	4.07	2.28	560.0	131	4.57	3.02	660.0			
	133	3.95	2.33	590.0	134	4.05	2.71	670.0							
249	51	3.91	2.13	545.0	53	3.80	2.02	530.0	55	3.89	2.00	515.0			
	57	4.03	2.00	495.0	59	4.12	1.98	480.0	63	3.74	2.15	575.0			
	115	7.10	0.39	55.0	129	3.82	2.14	560.0	131	4.27	2.82	660.0			
	133	3.75	2.21	590.0	134	3.81	2.55	670.0							
250	51	3.73	2.03	545.0	53	4.15	2.20	530.0	55	4.17	2.15	515.0			
	57	4.22	2.09	495.0	59	4.22	2.03	480.0	63	3.59	2.06	575.0			
	115	6.54	0.36	55.0	129	3.65	2.05	560.0	131	4.06	2.68	660.0			
	133	3.67	2.16	590.0	134	3.79	2.54	670.0							
251	51	2.67	1.45	545.0	53	3.04	1.61	530.0	55	3.08	1.58	515.0			
	57	3.02	1.49	495.0	59	2.25	1.08	480.0	63	2.62	1.51	575.0			
	115	8.08	0.44	55.0	129	2.61	1.46	560.0	131	6.90	4.55	660.0			
	133	4.95	2.92	590.0	134	4.09	2.74	670.0							
252	51	3.44	1.88	545.0	53	3.33	1.76	530.0	55	3.45	1.78	515.0			
	57	3.48	1.72	495.0	59	2.74	1.31	480.0	63	3.26	1.87	575.0			
	115	9.06	0.50	55.0	129	3.36	1.88	560.0	131	7.51	4.96	660.0			
	133	5.35	3.16	590.0	134	4.60	3.08	670.0							
253	51	2.94	1.60	545.0	53	2.82	1.49	530.0	55	2.91	1.50	515.0			
	57	2.92	1.44	495.0	59	2.20	1.06	480.0	63	2.83	1.63	575.0			
	115	8.68	0.48	55.0	129	2.86	1.60	560.0	131	7.06	4.66	660.0			
	133	4.96	2.93	590.0	134	4.10	2.75	670.0							
254	51	2.98	1.62	545.0	53	3.39	1.79	530.0	55	3.44	1.77	515.0			
	57	3.39	1.68	495.0	59	2.55	1.22	480.0	63	2.87	1.65	575.0			
	115	8.44	0.46	55.0	129	2.93	1.64	560.0	131	7.29	4.81	660.0			
	133	5.25	3.10	590.0	134	4.49	3.01	670.0							
255	51	2.68	1.46	545.0	53	3.06	1.62	530.0	55	3.09	1.59	515.0			
	57	3.03	1.50	495.0	59	2.27	1.09	480.0	63	2.63	1.51	575.0			
	115	8.09	0.44	55.0	129	2.62	1.47	560.0	131	6.91	4.56	660.0			
	133	4.97	2.93	590.0	134	4.10	2.75	670.0							
256	51	3.43	1.87	545.0	53	3.31	1.76	530.0	55	3.43	1.77	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	143
	57	3.46	1.71	495.0	59	2.72	1.31	480.0	63	3.25	1.87	575.0			
	115	9.05	0.50	55.0	129	3.35	1.88	560.0	131	7.50	4.95	660.0			
	133	5.34	3.15	590.0	134	4.59	3.08	670.0							
257	51	2.95	1.61	545.0	53	2.83	1.50	530.0	55	2.93	1.51	515.0			
	57	2.93	1.45	495.0	59	2.22	1.06	480.0	63	2.85	1.64	575.0			
	115	8.69	0.48	55.0	129	2.87	1.61	560.0	131	7.07	4.66	660.0			
	133	4.97	2.93	590.0	134	4.11	2.75	670.0							
258	51	2.96	1.62	545.0	53	3.37	1.79	530.0	55	3.43	1.76	515.0			
	57	3.37	1.67	495.0	59	2.53	1.21	480.0	63	2.86	1.64	575.0			
	115	8.43	0.46	55.0	129	2.92	1.63	560.0	131	7.28	4.80	660.0			
	133	5.24	3.09	590.0	134	4.48	3.00	670.0							
259	51	2.66	1.45	545.0	53	3.06	1.62	530.0	55	3.09	1.59	515.0			
	57	3.01	1.49	495.0	59	2.25	1.08	480.0	63	2.61	1.50	575.0			
	115	8.09	0.44	55.0	129	2.61	1.46	560.0	131	6.92	4.56	660.0			
	133	4.96	2.93	590.0	134	4.08	2.73	670.0							
260	51	3.46	1.89	545.0	53	3.32	1.76	530.0	55	3.45	1.78	515.0			
	57	3.49	1.73	495.0	59	2.76	1.32	480.0	63	3.28	1.88	575.0			
	115	9.07	0.50	55.0	129	3.38	1.89	560.0	131	7.50	4.95	660.0			
	133	5.35	3.16	590.0	134	4.62	3.10	670.0							
261	51	2.96	1.61	545.0	53	2.82	1.49	530.0	55	2.92	1.50	515.0			
	57	2.94	1.45	495.0	59	2.22	1.07	480.0	63	2.86	1.64	575.0			
	115	8.69	0.48	55.0	129	2.88	1.61	560.0	131	7.04	4.65	660.0			
	133	4.96	2.93	590.0	134	4.12	2.76	670.0							
262	51	2.97	1.62	545.0	53	3.40	1.80	530.0	55	3.45	1.78	515.0			
	57	3.39	1.68	495.0	59	2.54	1.22	480.0	63	2.86	1.64	575.0			
	115	8.45	0.46	55.0	129	2.93	1.64	560.0	131	7.31	4.82	660.0			
	133	5.25	3.10	590.0	134	4.48	3.00	670.0							
263	51	2.67	1.46	545.0	53	3.07	1.63	530.0	55	3.10	1.60	515.0			
	57	3.03	1.50	495.0	59	2.26	1.09	480.0	63	2.62	1.51	575.0			
	115	8.10	0.45	55.0	129	2.62	1.47	560.0	131	6.93	4.57	660.0			
	133	4.97	2.93	590.0	134	4.09	2.74	670.0							
264	51	3.45	1.88	545.0	53	3.31	1.75	530.0	55	3.44	1.77	515.0			
	57	3.48	1.72	495.0	59	2.74	1.32	480.0	63	3.27	1.88	575.0			
	115	9.06	0.50	55.0	129	3.37	1.89	560.0	131	7.49	4.94	660.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	144
	133	5.34	3.15	590.0	134	4.61	3.09	670.0							
265	51	2.97	1.62	545.0	53	2.83	1.50	530.0	55	2.93	1.51	515.0			
	57	2.95	1.46	495.0	59	2.24	1.07	480.0	63	2.87	1.65	575.0			
	115	8.70	0.48	55.0	129	2.89	1.62	560.0	131	7.05	4.65	660.0			
	133	4.98	2.94	590.0	134	4.13	2.77	670.0							
266	51	2.96	1.61	545.0	53	3.39	1.80	530.0	55	3.44	1.77	515.0			
	57	3.37	1.67	495.0	59	2.53	1.21	480.0	63	2.85	1.64	575.0			
	115	8.43	0.46	55.0	129	2.91	1.63	560.0	131	7.30	4.82	660.0			
	133	5.24	3.09	590.0	134	4.47	2.99	670.0							
267	51	2.93	1.60	545.0	53	3.32	1.76	530.0	55	3.26	1.68	515.0			
	57	3.07	1.52	495.0	59	2.12	1.02	480.0	63	2.72	1.57	575.0			
	115	8.03	0.44	55.0	129	2.78	1.56	560.0	131	7.05	4.65	660.0			
	133	4.80	2.83	590.0	134	4.30	2.88	670.0							
268	51	3.67	2.00	545.0	53	3.56	1.89	530.0	55	3.59	1.85	515.0			
	57	3.49	1.73	495.0	59	2.54	1.22	480.0	63	3.32	1.91	575.0			
	115	8.95	0.49	55.0	129	3.49	1.96	560.0	131	7.65	5.05	660.0			
	133	5.17	3.05	590.0	134	4.78	3.20	670.0							
269	51	3.16	1.72	545.0	53	3.05	1.62	530.0	55	3.06	1.57	515.0			
	57	2.93	1.45	495.0	59	2.01	0.96	480.0	63	2.90	1.67	575.0			
	115	8.56	0.47	55.0	129	2.98	1.67	560.0	131	7.19	4.74	660.0			
	133	4.78	2.82	590.0	134	4.28	2.87	670.0							
270	51	3.26	1.77	545.0	53	3.67	1.95	530.0	55	3.63	1.87	515.0			
	57	3.45	1.71	495.0	59	2.38	1.14	480.0	63	2.98	1.71	575.0			
	115	8.38	0.46	55.0	129	3.11	1.74	560.0	131	7.44	4.91	660.0			
	133	5.09	3.00	590.0	134	4.70	3.15	670.0							
271	51	2.94	1.60	545.0	53	3.33	1.76	530.0	55	3.27	1.69	515.0			
	57	3.09	1.53	495.0	59	2.13	1.02	480.0	63	2.73	1.57	575.0			
	115	8.04	0.44	55.0	129	2.79	1.56	560.0	131	7.06	4.66	660.0			
	133	4.81	2.84	590.0	134	4.31	2.89	670.0							
272	51	3.66	1.99	545.0	53	3.55	1.88	530.0	55	3.58	1.84	515.0			
	57	3.47	1.72	495.0	59	2.52	1.21	480.0	63	3.31	1.90	575.0			
	115	8.94	0.49	55.0	129	3.48	1.95	560.0	131	7.64	5.04	660.0			
	133	5.16	3.04	590.0	134	4.77	3.20	670.0							
273	51	3.18	1.73	545.0	53	3.06	1.62	530.0	55	3.07	1.58	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	145
	57	2.94	1.46	495.0	59	2.02	0.97	480.0	63	2.91	1.67	575.0			
	115	8.57	0.47	55.0	129	3.00	1.68	560.0	131	7.20	4.75	660.0			
	133	4.79	2.83	590.0	134	4.29	2.87	670.0							
274	51	3.24	1.77	545.0	53	3.66	1.94	530.0	55	3.62	1.86	515.0			
	57	3.43	1.70	495.0	59	2.37	1.14	480.0	63	2.96	1.70	575.0			
	115	8.37	0.46	55.0	129	3.09	1.73	560.0	131	7.43	4.90	660.0			
	133	5.08	2.99	590.0	134	4.69	3.14	670.0							
275	51	2.92	1.59	545.0	53	3.33	1.77	530.0	55	3.27	1.68	515.0			
	57	3.07	1.52	495.0	59	2.12	1.02	480.0	63	2.72	1.56	575.0			
	115	8.03	0.44	55.0	129	2.77	1.55	560.0	131	7.07	4.66	660.0			
	133	4.80	2.83	590.0	134	4.29	2.87	670.0							
276	51	3.69	2.01	545.0	53	3.56	1.88	530.0	55	3.59	1.85	515.0			
	57	3.50	1.73	495.0	59	2.56	1.23	480.0	63	3.34	1.92	575.0			
	115	8.96	0.49	55.0	129	3.51	1.97	560.0	131	7.63	5.04	660.0			
	133	5.17	3.05	590.0	134	4.80	3.22	670.0							
277	51	3.18	1.73	545.0	53	3.04	1.61	530.0	55	3.06	1.57	515.0			
	57	2.95	1.46	495.0	59	2.03	0.97	480.0	63	2.92	1.68	575.0			
	115	8.57	0.47	55.0	129	3.00	1.68	560.0	131	7.17	4.73	660.0			
	133	4.78	2.82	590.0	134	4.30	2.88	670.0							
278	51	3.25	1.77	545.0	53	3.69	1.96	530.0	55	3.65	1.88	515.0			
	57	3.45	1.71	495.0	59	2.39	1.15	480.0	63	2.97	1.71	575.0			
	115	8.39	0.46	55.0	129	3.10	1.74	560.0	131	7.46	4.93	660.0			
	133	5.09	3.01	590.0	134	4.69	3.14	670.0							
279	51	2.93	1.60	545.0	53	3.35	1.77	530.0	55	3.28	1.69	515.0			
	57	3.08	1.53	495.0	59	2.13	1.02	480.0	63	2.73	1.57	575.0			
	115	8.04	0.44	55.0	129	2.78	1.56	560.0	131	7.08	4.67	660.0			
	133	4.81	2.84	590.0	134	4.30	2.88	670.0							
280	51	3.68	2.00	545.0	53	3.54	1.88	530.0	55	3.58	1.84	515.0			
	57	3.49	1.73	495.0	59	2.54	1.22	480.0	63	3.33	1.92	575.0			
	115	8.95	0.49	55.0	129	3.50	1.96	560.0	131	7.62	5.03	660.0			
	133	5.16	3.04	590.0	134	4.79	3.21	670.0							
281	51	3.20	1.74	545.0	53	3.06	1.62	530.0	55	3.07	1.58	515.0			
	57	2.96	1.47	495.0	59	2.04	0.98	480.0	63	2.93	1.68	575.0			
	115	8.59	0.47	55.0	129	3.01	1.69	560.0	131	7.19	4.74	660.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	146
	133	4.79	2.83	590.0	134	4.31	2.89	670.0							
282	51	3.24	1.76	545.0	53	3.68	1.95	530.0	55	3.63	1.87	515.0			
	57	3.43	1.70	495.0	59	2.37	1.14	480.0	63	2.96	1.70	575.0			
	115	8.38	0.46	55.0	129	3.09	1.73	560.0	131	7.45	4.92	660.0			
	133	5.08	3.00	590.0	134	4.68	3.14	670.0							
283	51	2.89	1.57	545.0	53	3.04	1.61	530.0	55	3.07	1.58	515.0			
	57	3.15	1.56	495.0	59	3.19	1.53	480.0	63	2.78	1.60	575.0			
	115	4.88	0.27	55.0	129	2.83	1.59	560.0	131	3.09	2.04	660.0			
	133	2.90	1.71	590.0	134	2.86	1.91	670.0							
284	51	3.19	1.74	545.0	53	2.99	1.58	530.0	55	3.05	1.57	515.0			
	57	3.14	1.55	495.0	59	3.20	1.54	480.0	63	3.02	1.74	575.0			
	115	5.62	0.31	55.0	129	3.11	1.74	560.0	131	3.55	2.35	660.0			
	133	3.07	1.81	590.0	134	3.09	2.07	670.0							
285	51	2.93	1.59	545.0	53	2.88	1.53	530.0	55	2.94	1.52	515.0			
	57	3.05	1.51	495.0	59	3.12	1.50	480.0	63	2.81	1.62	575.0			
	115	5.39	0.30	55.0	129	2.86	1.60	560.0	131	3.24	2.14	660.0			
	133	2.85	1.68	590.0	134	2.85	1.91	670.0							
286	51	2.81	1.53	545.0	53	3.13	1.66	530.0	55	3.16	1.63	515.0			
	57	3.22	1.60	495.0	59	3.23	1.55	480.0	63	2.70	1.55	575.0			
	115	4.91	0.27	55.0	129	2.75	1.54	560.0	131	3.01	1.99	660.0			
	133	2.76	1.63	590.0	134	2.83	1.89	670.0							
287	51	2.89	1.57	545.0	53	3.04	1.61	530.0	55	3.08	1.59	515.0			
	57	3.15	1.56	495.0	59	3.19	1.53	480.0	63	2.78	1.60	575.0			
	115	4.88	0.27	55.0	129	2.83	1.59	560.0	131	3.11	2.05	660.0			
	133	2.90	1.71	590.0	134	2.87	1.92	670.0							
288	51	3.18	1.73	545.0	53	2.98	1.58	530.0	55	3.04	1.57	515.0			
	57	3.13	1.55	495.0	59	3.20	1.54	480.0	63	3.02	1.73	575.0			
	115	5.62	0.31	55.0	129	3.11	1.74	560.0	131	3.55	2.34	660.0			
	133	3.07	1.81	590.0	134	3.09	2.07	670.0							
289	51	2.93	1.60	545.0	53	2.88	1.53	530.0	55	2.95	1.52	515.0			
	57	3.05	1.51	495.0	59	3.12	1.50	480.0	63	2.82	1.62	575.0			
	115	5.39	0.30	55.0	129	2.86	1.60	560.0	131	3.25	2.14	660.0			
	133	2.85	1.68	590.0	134	2.85	1.91	670.0							
290	51	2.80	1.53	545.0	53	3.12	1.65	530.0	55	3.16	1.62	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	147

	57	3.22	1.59	495.0	59	3.22	1.55	480.0	63	2.70	1.55	575.0
	115	4.91	0.27	55.0	129	2.74	1.54	560.0	131	2.99	1.97	660.0
	133	2.74	1.62	590.0	134	2.81	1.89	670.0				
291	51	2.90	1.58	545.0	53	3.07	1.62	530.0	55	3.10	1.59	515.0
	57	3.16	1.56	495.0	59	3.20	1.54	480.0	63	2.79	1.61	575.0
	115	4.90	0.27	55.0	129	2.85	1.59	560.0	131	3.13	2.07	660.0
	133	2.90	1.71	590.0	134	2.90	1.94	670.0				
292	51	3.20	1.74	545.0	53	2.98	1.58	530.0	55	3.03	1.56	515.0
	57	3.11	1.54	495.0	59	3.19	1.53	480.0	63	3.02	1.74	575.0
	115	5.59	0.31	55.0	129	3.12	1.75	560.0	131	3.56	2.35	660.0
	133	3.04	1.80	590.0	134	3.10	2.07	670.0				
293	51	2.93	1.60	545.0	53	2.87	1.52	530.0	55	2.94	1.51	515.0
	57	3.04	1.50	495.0	59	3.11	1.49	480.0	63	2.81	1.61	575.0
	115	5.35	0.29	55.0	129	2.86	1.60	560.0	131	3.25	2.14	660.0
	133	2.82	1.67	590.0	134	2.85	1.91	670.0				
294	51	2.82	1.54	545.0	53	3.16	1.68	530.0	55	3.19	1.64	515.0
	57	3.24	1.60	495.0	59	3.23	1.55	480.0	63	2.71	1.56	575.0
	115	4.94	0.27	55.0	129	2.76	1.55	560.0	131	3.06	2.02	660.0
	133	2.77	1.63	590.0	134	2.88	1.93	670.0				
295	51	2.90	1.58	545.0	53	3.07	1.63	530.0	55	3.10	1.60	515.0
	57	3.17	1.57	495.0	59	3.20	1.54	480.0	63	2.79	1.61	575.0
	115	4.91	0.27	55.0	129	2.85	1.59	560.0	131	3.14	2.07	660.0
	133	2.90	1.71	590.0	134	2.91	1.95	670.0				
296	51	3.19	1.74	545.0	53	2.97	1.57	530.0	55	3.02	1.56	515.0
	57	3.11	1.54	495.0	59	3.19	1.53	480.0	63	3.01	1.73	575.0
	115	5.58	0.31	55.0	129	3.11	1.74	560.0	131	3.56	2.35	660.0
	133	3.04	1.79	590.0	134	3.09	2.07	670.0				
297	51	2.93	1.60	545.0	53	2.87	1.52	530.0	55	2.94	1.51	515.0
	57	3.04	1.50	495.0	59	3.11	1.49	480.0	63	2.81	1.62	575.0
	115	5.35	0.29	55.0	129	2.86	1.60	560.0	131	3.25	2.15	660.0
	133	2.83	1.67	590.0	134	2.85	1.91	670.0				
298	51	2.82	1.54	545.0	53	3.16	1.67	530.0	55	3.18	1.64	515.0
	57	3.23	1.60	495.0	59	3.22	1.55	480.0	63	2.71	1.56	575.0
	115	4.94	0.27	55.0	129	2.76	1.54	560.0	131	3.04	2.01	660.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	148
	133	2.76	1.63	590.0	134	2.86	1.92	670.0							
299	51	2.93	1.59	545.0	53	3.08	1.63	530.0	55	3.12	1.61	515.0			
	57	3.18	1.58	495.0	59	3.23	1.55	480.0	63	2.82	1.62	575.0			
	115	4.99	0.27	55.0	129	2.87	1.61	560.0	131	3.16	2.09	660.0			
	133	2.94	1.73	590.0	134	2.90	1.94	670.0							
300	51	3.24	1.76	545.0	53	3.02	1.60	530.0	55	3.09	1.59	515.0			
	57	3.18	1.58	495.0	59	3.24	1.56	480.0	63	3.07	1.77	575.0			
	115	5.72	0.31	55.0	129	3.16	1.77	560.0	131	3.56	2.35	660.0			
	133	3.10	1.83	590.0	134	3.15	2.11	670.0							
301	51	2.97	1.62	545.0	53	2.92	1.55	530.0	55	2.98	1.54	515.0			
	57	3.09	1.53	495.0	59	3.17	1.52	480.0	63	2.86	1.65	575.0			
	115	5.49	0.30	55.0	129	2.91	1.63	560.0	131	3.26	2.15	660.0			
	133	2.88	1.70	590.0	134	2.90	1.95	670.0							
302	51	2.84	1.55	545.0	53	3.18	1.68	530.0	55	3.20	1.65	515.0			
	57	3.25	1.61	495.0	59	3.26	1.56	480.0	63	2.74	1.57	575.0			
	115	5.02	0.28	55.0	129	2.78	1.56	560.0	131	3.08	2.03	660.0			
	133	2.80	1.65	590.0	134	2.87	1.92	670.0							
303	51	2.93	1.60	545.0	53	3.09	1.64	530.0	55	3.12	1.61	515.0			
	57	3.19	1.58	495.0	59	3.23	1.55	480.0	63	2.82	1.62	575.0			
	115	4.99	0.27	55.0	129	2.87	1.61	560.0	131	3.17	2.09	660.0			
	133	2.94	1.74	590.0	134	2.91	1.95	670.0							
304	51	3.23	1.76	545.0	53	3.02	1.60	530.0	55	3.08	1.59	515.0			
	57	3.18	1.57	495.0	59	3.24	1.56	480.0	63	3.07	1.76	575.0			
	115	5.72	0.31	55.0	129	3.16	1.77	560.0	131	3.56	2.35	660.0			
	133	3.10	1.83	590.0	134	3.14	2.11	670.0							
305	51	2.98	1.62	545.0	53	2.92	1.55	530.0	55	2.98	1.54	515.0			
	57	3.09	1.53	495.0	59	3.17	1.52	480.0	63	2.86	1.65	575.0			
	115	5.49	0.30	55.0	129	2.91	1.63	560.0	131	3.26	2.15	660.0			
	133	2.89	1.70	590.0	134	2.91	1.95	670.0							
306	51	2.83	1.54	545.0	53	3.17	1.68	530.0	55	3.20	1.65	515.0			
	57	3.25	1.61	495.0	59	3.25	1.56	480.0	63	2.74	1.57	575.0			
	115	5.02	0.28	55.0	129	2.78	1.56	560.0	131	3.06	2.02	660.0			
	133	2.78	1.64	590.0	134	2.86	1.92	670.0							
307	51	2.94	1.60	545.0	53	3.11	1.65	530.0	55	3.14	1.62	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	149
	57	3.20	1.58	495.0	59	3.24	1.55	480.0	63	2.83	1.63	575.0			
	115	5.01	0.28	55.0	129	2.88	1.62	560.0	131	3.19	2.11	660.0			
	133	2.93	1.73	590.0	134	2.94	1.97	670.0							
308	51	3.25	1.77	545.0	53	3.01	1.59	530.0	55	3.07	1.58	515.0			
	57	3.16	1.56	495.0	59	3.23	1.55	480.0	63	3.07	1.76	575.0			
	115	5.69	0.31	55.0	129	3.17	1.77	560.0	131	3.57	2.36	660.0			
	133	3.08	1.82	590.0	134	3.15	2.11	670.0							
309	51	2.98	1.62	545.0	53	2.91	1.54	530.0	55	2.98	1.53	515.0			
	57	3.08	1.53	495.0	59	3.15	1.51	480.0	63	2.86	1.64	575.0			
	115	5.45	0.30	55.0	129	2.91	1.63	560.0	131	3.26	2.15	660.0			
	133	2.86	1.69	590.0	134	2.90	1.95	670.0							
310	51	2.85	1.56	545.0	53	3.21	1.70	530.0	55	3.23	1.66	515.0			
	57	3.27	1.62	495.0	59	3.26	1.56	480.0	63	2.75	1.58	575.0			
	115	5.05	0.28	55.0	129	2.80	1.57	560.0	131	3.14	2.07	660.0			
	133	2.81	1.66	590.0	134	2.92	1.96	670.0							
311	51	2.94	1.60	545.0	53	3.12	1.65	530.0	55	3.14	1.62	515.0			
	57	3.20	1.58	495.0	59	3.24	1.55	480.0	63	2.83	1.63	575.0			
	115	5.02	0.28	55.0	129	2.89	1.62	560.0	131	3.19	2.11	660.0			
	133	2.94	1.73	590.0	134	2.95	1.98	670.0							
312	51	3.25	1.77	545.0	53	3.00	1.59	530.0	55	3.06	1.58	515.0			
	57	3.15	1.56	495.0	59	3.23	1.55	480.0	63	3.07	1.76	575.0			
	115	5.68	0.31	55.0	129	3.16	1.77	560.0	131	3.57	2.35	660.0			
	133	3.07	1.81	590.0	134	3.15	2.11	670.0							
313	51	2.98	1.63	545.0	53	2.91	1.54	530.0	55	2.98	1.53	515.0			
	57	3.08	1.53	495.0	59	3.15	1.51	480.0	63	2.86	1.64	575.0			
	115	5.46	0.30	55.0	129	2.91	1.63	560.0	131	3.27	2.16	660.0			
	133	2.86	1.69	590.0	134	2.91	1.95	670.0							
314	51	2.85	1.55	545.0	53	3.21	1.70	530.0	55	3.23	1.66	515.0			
	57	3.26	1.61	495.0	59	3.25	1.56	480.0	63	2.75	1.58	575.0			
	115	5.04	0.28	55.0	129	2.79	1.56	560.0	131	3.12	2.06	660.0			
	133	2.80	1.65	590.0	134	2.91	1.95	670.0							
315	51	2.03	1.11	545.0	53	2.33	1.23	530.0	55	2.35	1.21	515.0			
	57	2.30	1.14	495.0	59	1.70	0.82	480.0	63	2.00	1.15	575.0			
	115	6.27	0.34	55.0	129	1.99	1.11	560.0	131	5.34	3.53	660.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	150
	133	3.83	2.26	590.0	134	3.14	2.11	670.0							
316	51	2.74	1.49	545.0	53	2.65	1.40	530.0	55	2.75	1.42	515.0			
	57	2.77	1.37	495.0	59	2.19	1.05	480.0	63	2.59	1.49	575.0			
	115	7.12	0.39	55.0	129	2.68	1.50	560.0	131	5.92	3.91	660.0			
	133	4.22	2.49	590.0	134	3.65	2.44	670.0							
317	51	2.24	1.22	545.0	53	2.14	1.14	530.0	55	2.21	1.14	515.0			
	57	2.21	1.10	495.0	59	1.65	0.79	480.0	63	2.16	1.24	575.0			
	115	6.73	0.37	55.0	129	2.17	1.22	560.0	131	5.46	3.60	660.0			
	133	3.83	2.26	590.0	134	3.14	2.11	670.0							
318	51	2.37	1.29	545.0	53	2.69	1.42	530.0	55	2.73	1.41	515.0			
	57	2.70	1.34	495.0	59	2.03	0.98	480.0	63	2.27	1.31	575.0			
	115	6.63	0.36	55.0	129	2.33	1.31	560.0	131	5.74	3.79	660.0			
	133	4.14	2.44	590.0	134	3.56	2.38	670.0							
319	51	2.05	1.12	545.0	53	2.34	1.24	530.0	55	2.36	1.22	515.0			
	57	2.31	1.15	495.0	59	1.72	0.82	480.0	63	2.02	1.16	575.0			
	115	6.28	0.35	55.0	129	2.00	1.12	560.0	131	5.35	3.53	660.0			
	133	3.84	2.27	590.0	134	3.15	2.11	670.0							
320	51	2.73	1.49	545.0	53	2.64	1.40	530.0	55	2.73	1.41	515.0			
	57	2.76	1.36	495.0	59	2.18	1.05	480.0	63	2.58	1.48	575.0			
	115	7.11	0.39	55.0	129	2.67	1.49	560.0	131	5.91	3.90	660.0			
	133	4.21	2.48	590.0	134	3.64	2.44	670.0							
321	51	2.25	1.23	545.0	53	2.16	1.14	530.0	55	2.23	1.15	515.0			
	57	2.23	1.10	495.0	59	1.67	0.80	480.0	63	2.17	1.25	575.0			
	115	6.75	0.37	55.0	129	2.18	1.22	560.0	131	5.47	3.61	660.0			
	133	3.84	2.27	590.0	134	3.15	2.11	670.0							
322	51	2.35	1.28	545.0	53	2.67	1.42	530.0	55	2.72	1.40	515.0			
	57	2.68	1.33	495.0	59	2.01	0.97	480.0	63	2.26	1.30	575.0			
	115	6.62	0.36	55.0	129	2.32	1.30	560.0	131	5.73	3.78	660.0			
	133	4.13	2.43	590.0	134	3.54	2.37	670.0							
323	51	2.03	1.11	545.0	53	2.34	1.24	530.0	55	2.36	1.21	515.0			
	57	2.30	1.14	495.0	59	1.70	0.82	480.0	63	2.00	1.15	575.0			
	115	6.28	0.35	55.0	129	1.99	1.11	560.0	131	5.36	3.54	660.0			
	133	3.84	2.26	590.0	134	3.13	2.10	670.0							
324	51	2.75	1.50	545.0	53	2.65	1.40	530.0	55	2.75	1.42	515.0			

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA												
		Fascicolo dei calcoli muri architettonici				COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR
				LI0B	02	E	ZZ	CL	TR	06	00	003	B	151

	57	2.78	1.38	495.0	59	2.21	1.06	480.0	63	2.60	1.50	575.0
	115	7.13	0.39	55.0	129	2.69	1.51	560.0	131	5.91	3.90	660.0
	133	4.22	2.49	590.0	134	3.66	2.46	670.0				
325	51	2.25	1.23	545.0	53	2.14	1.13	530.0	55	2.21	1.14	515.0
	57	2.23	1.10	495.0	59	1.67	0.80	480.0	63	2.18	1.25	575.0
	115	6.74	0.37	55.0	129	2.19	1.22	560.0	131	5.45	3.60	660.0
	133	3.83	2.26	590.0	134	3.16	2.12	670.0				
326	51	2.36	1.29	545.0	53	2.70	1.43	530.0	55	2.74	1.41	515.0
	57	2.69	1.33	495.0	59	2.03	0.97	480.0	63	2.27	1.30	575.0
	115	6.64	0.37	55.0	129	2.33	1.30	560.0	131	5.76	3.80	660.0
	133	4.14	2.44	590.0	134	3.55	2.38	670.0				
327	51	2.04	1.11	545.0	53	2.35	1.25	530.0	55	2.37	1.22	515.0
	57	2.31	1.14	495.0	59	1.72	0.82	480.0	63	2.01	1.16	575.0
	115	6.29	0.35	55.0	129	2.00	1.12	560.0	131	5.37	3.54	660.0
	133	3.85	2.27	590.0	134	3.14	2.11	670.0				
328	51	2.74	1.49	545.0	53	2.63	1.40	530.0	55	2.73	1.41	515.0
	57	2.77	1.37	495.0	59	2.19	1.05	480.0	63	2.59	1.49	575.0
	115	7.12	0.39	55.0	129	2.68	1.50	560.0	131	5.90	3.89	660.0
	133	4.21	2.48	590.0	134	3.65	2.45	670.0				
329	51	2.26	1.23	545.0	53	2.15	1.14	530.0	55	2.23	1.15	515.0
	57	2.24	1.11	495.0	59	1.68	0.81	480.0	63	2.19	1.26	575.0
	115	6.76	0.37	55.0	129	2.20	1.23	560.0	131	5.46	3.60	660.0
	133	3.85	2.27	590.0	134	3.17	2.12	670.0				
330	51	2.35	1.28	545.0	53	2.69	1.42	530.0	55	2.73	1.40	515.0
	57	2.68	1.33	495.0	59	2.01	0.96	480.0	63	2.25	1.30	575.0
	115	6.63	0.36	55.0	129	2.31	1.30	560.0	131	5.75	3.79	660.0
	133	4.13	2.44	590.0	134	3.53	2.37	670.0				
331	51	2.24	1.22	545.0	53	2.54	1.35	530.0	55	2.49	1.28	515.0
	57	2.34	1.16	495.0	59	1.60	0.77	480.0	63	2.08	1.20	575.0
	115	6.23	0.34	55.0	129	2.12	1.19	560.0	131	5.46	3.60	660.0
	133	3.71	2.19	590.0	134	3.31	2.22	670.0				
332	51	2.92	1.59	545.0	53	2.83	1.50	530.0	55	2.86	1.47	515.0
	57	2.78	1.38	495.0	59	2.03	0.98	480.0	63	2.64	1.52	575.0
	115	7.03	0.39	55.0	129	2.78	1.56	560.0	131	6.02	3.98	660.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	152
	133	4.08	2.41	590.0	134	3.79	2.54	670.0							
333	51	2.41	1.31	545.0	53	2.32	1.23	530.0	55	2.32	1.19	515.0			
	57	2.21	1.10	495.0	59	1.49	0.71	480.0	63	2.21	1.27	575.0			
	115	6.65	0.37	55.0	129	2.27	1.27	560.0	131	5.56	3.67	660.0			
	133	3.69	2.18	590.0	134	3.28	2.20	670.0							
334	51	2.58	1.41	545.0	53	2.91	1.54	530.0	55	2.88	1.48	515.0			
	57	2.74	1.36	495.0	59	1.90	0.91	480.0	63	2.35	1.35	575.0			
	115	6.59	0.36	55.0	129	2.47	1.38	560.0	131	5.86	3.87	660.0			
	133	4.01	2.36	590.0	134	3.72	2.49	670.0							
335	51	2.25	1.23	545.0	53	2.55	1.35	530.0	55	2.51	1.29	515.0			
	57	2.36	1.17	495.0	59	1.62	0.78	480.0	63	2.10	1.21	575.0			
	115	6.24	0.34	55.0	129	2.13	1.19	560.0	131	5.47	3.61	660.0			
	133	3.72	2.19	590.0	134	3.32	2.22	670.0							
336	51	2.91	1.58	545.0	53	2.82	1.50	530.0	55	2.85	1.47	515.0			
	57	2.77	1.37	495.0	59	2.02	0.97	480.0	63	2.63	1.51	575.0			
	115	7.02	0.39	55.0	129	2.77	1.55	560.0	131	6.01	3.97	660.0			
	133	4.07	2.40	590.0	134	3.78	2.53	670.0							
337	51	2.42	1.32	545.0	53	2.33	1.24	530.0	55	2.33	1.20	515.0			
	57	2.23	1.10	495.0	59	1.50	0.72	480.0	63	2.22	1.28	575.0			
	115	6.66	0.37	55.0	129	2.28	1.28	560.0	131	5.57	3.68	660.0			
	133	3.70	2.18	590.0	134	3.29	2.20	670.0							
338	51	2.57	1.40	545.0	53	2.89	1.53	530.0	55	2.87	1.48	515.0			
	57	2.72	1.35	495.0	59	1.88	0.90	480.0	63	2.34	1.35	575.0			
	115	6.58	0.36	55.0	129	2.45	1.37	560.0	131	5.85	3.86	660.0			
	133	4.00	2.36	590.0	134	3.71	2.49	670.0							
339	51	2.23	1.22	545.0	53	2.55	1.35	530.0	55	2.50	1.29	515.0			
	57	2.34	1.16	495.0	59	1.60	0.77	480.0	63	2.08	1.20	575.0			
	115	6.24	0.34	55.0	129	2.11	1.18	560.0	131	5.48	3.61	660.0			
	133	3.71	2.19	590.0	134	3.30	2.21	670.0							
340	51	2.93	1.60	545.0	53	2.83	1.50	530.0	55	2.86	1.47	515.0			
	57	2.79	1.38	495.0	59	2.05	0.98	480.0	63	2.65	1.53	575.0			
	115	7.04	0.39	55.0	129	2.79	1.56	560.0	131	6.01	3.97	660.0			
	133	4.08	2.41	590.0	134	3.81	2.55	670.0							
341	51	2.43	1.32	545.0	53	2.32	1.23	530.0	55	2.32	1.20	515.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	153

	57	2.23	1.11	495.0	59	1.52	0.73	480.0	63	2.23	1.28	575.0
	115	6.65	0.37	55.0	129	2.29	1.28	560.0	131	5.56	3.67	660.0
	133	3.69	2.18	590.0	134	3.30	2.21	670.0				
342	51	2.58	1.40	545.0	53	2.92	1.55	530.0	55	2.89	1.49	515.0
	57	2.73	1.35	495.0	59	1.89	0.91	480.0	63	2.35	1.35	575.0
	115	6.59	0.36	55.0	129	2.46	1.38	560.0	131	5.88	3.88	660.0
	133	4.01	2.37	590.0	134	3.71	2.49	670.0				
343	51	2.24	1.22	545.0	53	2.57	1.36	530.0	55	2.51	1.29	515.0
	57	2.35	1.17	495.0	59	1.62	0.78	480.0	63	2.09	1.20	575.0
	115	6.25	0.34	55.0	129	2.13	1.19	560.0	131	5.49	3.62	660.0
	133	3.72	2.20	590.0	134	3.31	2.22	670.0				
344	51	2.92	1.59	545.0	53	2.82	1.49	530.0	55	2.85	1.47	515.0
	57	2.78	1.38	495.0	59	2.03	0.98	480.0	63	2.64	1.52	575.0
	115	7.03	0.39	55.0	129	2.78	1.56	560.0	131	6.00	3.96	660.0
	133	4.07	2.40	590.0	134	3.80	2.54	670.0				
345	51	2.44	1.33	545.0	53	2.33	1.24	530.0	55	2.34	1.20	515.0
	57	2.25	1.11	495.0	59	1.53	0.73	480.0	63	2.24	1.29	575.0
	115	6.67	0.37	55.0	129	2.30	1.29	560.0	131	5.57	3.67	660.0
	133	3.70	2.19	590.0	134	3.31	2.22	670.0				
346	51	2.56	1.40	545.0	53	2.91	1.54	530.0	55	2.88	1.48	515.0
	57	2.72	1.35	495.0	59	1.88	0.90	480.0	63	2.34	1.34	575.0
	115	6.58	0.36	55.0	129	2.45	1.37	560.0	131	5.86	3.87	660.0
	133	4.00	2.36	590.0	134	3.70	2.48	670.0				

Cmb **1000 etaT/h**

9.07

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	154

VERIFICHE PER ELEMENTI IN ACCIAIO

LEGENDA TABELLA VERIFICHE PER ELEMENTI IN ACCIAIO

Il programma consente la verifica dei seguenti tipi di elementi:

1. **aste** 2. **travi** 3. **pilastr**

L'esito delle verifiche è espresso con un codice come di seguito indicato

Ok: verifica con esito positivo

NV: verifica con esito negativo

Nr: verifica non richiesta.

Per comodità gli elementi vengono raggruppati in tabelle in relazione al tipo.

Ai fini delle verifiche (come da D.M. 14 Gennaio 2008 e circ. 2 Febbraio 2009 n.617) i tipi elementi differiscono per i seguenti aspetti:

Verifica	Aste	Travi	Pilastr
4.2.3.1 Classificazione	X	X	X
4.2.4.1.2 Trazione, Compressione	X	X	X
Taglio, Torsione		X	X
Flessione, taglio e forza assiale		X	X
4.2.4.1.3.1 Aste compresse	X	X	X
4.2.4.1.3.2 Instabilità flesso-torsionale		X	X
4.2.4.1.3.3 Membrature inflesse e compresse		X	X

Ai fini delle verifiche per strutture dissipative (come da D.M. 14 Gennaio 2008 e circ. 2 Febbraio 2009 n.617 per strutture intelaiate e a controventi concentrici) si considerano le verifiche del capitolo 4 con azioni amplificate e le verifiche del capitolo 7:

Verifica	Travi	Pilastr
4.2.4.1.2 Trazione, Compressione	X	X
Taglio, Torsione		X
Flessione, taglio e forza assiale	X	X
4.2.4.1.3.1 Aste compresse	X	X
4.2.4.1.3.2 Instabilità flesso-torsionale		X
4.2.4.1.3.3 Membrature inflesse e compresse	X	X
7.5.3 Sfruttamento per momento	X	
7.5.4 Sfruttamento per sforzo normale	X	
7.5.5 Sfruttamento per taglio da capacità flessionale	X	
7.5.9 Sfruttamento per taglio amplificato		X

Viene inoltre riportata la verifica del par. 7.5.4.3 Gerarchia delle resistenze trave-colonna per ogni colonna, considerando piede e testa in entrambe le direzioni globali X e Y.

L'insieme delle verifiche sopra riportate è condotto sugli elementi purché dotati di sezione idonea come da tabella seguente:

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA												
	Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	155

Azione	SEZIONI GENERICHE	PROFILI SEMPLICI	PROFILI ACCOPPIATI
4.2.3.1 Classificazione automatica	L, doppio T, C, rettangolare cava, circolare cava	Tutti	Da profilo semplice
4.2.3.1 Classificazione di default 2	Circolare		
4.2.3.1 Classificazione di default 3	restanti		
4.2.4.1.2 Trazione	si	si	si
4.2.4.1.2 Compressione	si	si	si
4.2.4.1.2 Taglio, Torsione	si	si	si
4.2.4.1.2 Flessione, taglio e forza assiale	si	si	si
4.2.4.1.3.1 Aste compresse	si	si	per elementi ravvicinati e a croce o coppie calastrellate
4.2.4.1.3.2 Travi inflesse	doppio T simmetrica	doppio T	no

Le verifiche sono riportate in tabelle con il significato sotto indicato; le verifiche sono espresse dal rapporto tra l'azione di progetto e la capacità ultima, pertanto la verifica ha esito positivo per rapporti non superiori all' unità.

Asta	Trave	Pilastro	numero dell'elemento			
Stato			codice di verifica per resistenza, stabilità, svergolamento			
Note			sezione e materiali adottati per l'elemento			
V N			(ASTE) verifica come da par. 4.2.4.1.2 per punto (4.2.6) e (4.2.10)			
V V/T			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni taglio-torsione (4.2.17 e 4.2.29)			
V N/M			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni composte (4.2.34) con riduzione per taglio (4.2.41) ove richiesto			
N	M3	M2	V2	V3	T	sollecitazioni di interesse per la verifica
V stab			(ASTE) verifica come da par. 4.2.4.1.3 per punto (4.2.42)			
V stab			(TRAVI E PILASTRI) verifica come da par. 4.2.4.1.3 per punti (C4.2.32) o (C4.2.36) (membrature inflesse e compresse senza/con presenza di instabilità flesso-torsionale)			
BetaxL	B22xL	B33xL	lunghezze libere di inflessione (se indicato riferiti al piano di normale 22 o 33 rispettivamente)			
Snellezza			snellezza massima			
Classe			classe del profilo			
Chi mn			coefficiente di riduzione (della capacità) per la modalità di instabilità pertinente			
Rif. cmb			combinazioni in cui si sono rispettivamente attinti i valori di verifica più elevati			
V flst			(TRAVI E PILASTRI) verifica di stabilità come da par. 4.2.4.1.3.2 per punto (4.2.49)			
B1-1 x L			Beta1-1 x L: interasse tra i ritegni torsionali			
Chi LT			coefficiente di riduzione (della capacità) per la modalità di instabilità flesso-torsionale			
Snell adim			Valore della snellezza adimensionale, utilizzato per il controllo previsto al par. 7.5.5			
v.Omeg			Valore del rapporto capacità/domanda per l'azione di interesse (momento per travi e azione assiale per aste) utilizzato per l'amplificazione delle azioni			
f.Om. N			Fattore di amplificazione delle azioni assiali per travi e colonne (prodotto di 1.1 x Omega x gamma rd materiale); utilizzato come specificato al par. 7.5.5			
f.Om. T			Fattore di amplificazione delle azioni (assiali, flettenti e taglianti) per colonne (prodotto			

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

137 0.0 0.0 0.0 0.0 0.0 0.0

Trave	v.Omeg	V N/M	V stab	V.7.5.3	M Ed	V.7.5.4	N Ed	V.7.5.5	V Ed,G	V Ed,M
					0.0		0.0		0.0	0.0
				0.0	0.0	0.0	0.0	0.0	0.0	0.0

Pilas.	Stato	Note	V V/T	V N/M	V stab	Cl.	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb
51	ok	s=31,m=13	0.03	0.49		1	1.9	1.1	143.8	0.22	0.27	0.3	1.00	217,184,0,216
53	ok	s=31,m=13	0.04	0.50		1	1.8	1.1	139.9	0.23	0.28	0.3	1.00	213,184,0,212
55	ok	s=31,m=13	0.04	0.51		1	1.8	1.0	135.9	0.24	0.29	0.3	1.00	213,181,0,212
57	ok	s=31,m=13	0.04	0.53		1	1.7	1.0	130.6	0.26	0.28	0.3	1.00	214,186,0,211
59	ok	s=31,m=13	0.02	0.45		1	1.7	1.0	126.7	0.27	0.15	0.3	1.00	197,185,0,197
63	ok	s=31,m=13	0.03	0.44		1	2.0	1.2	151.7	0.20	0.27	0.3	1.00	214,182,0,214
115	ok	s=31,m=13	0.03	0.06		1	0.2	0.1	14.5	1.00	0.02	3.06e-02	1.00	202,184,0,200
129	ok	s=31,m=13	0.03	0.46		1	1.9	1.1	147.8	0.21	0.26	0.3	1.00	212,176,0,213
131	ok	s=31,m=13	0.07	0.74		1	2.3	1.3	174.2	0.16	0.65	0.3	1.00	208,210,0,207
133	ok	s=31,m=13	0.05	0.59		1	2.0	1.2	155.7	0.19	0.50	0.3	1.00	195,202,0,198
134	ok	s=31,m=13	0.04	0.46		1	2.3	1.3	176.8	0.15	0.40	0.3	1.00	218,218,0,215

Pilas.	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
							0.15			1.00
	0.07	0.74		2.31	1.35	176.82		0.65	0.34	

Pilas.	f.Om. N	f.Om. T	Stato	V V/T	V N/M	V stab	V flst	Rif. cmb	V.7.5.9	V Ed	sovr. Xi	sovr. Xf	sovr. Yi	sovr. Yf
										kN				
51	0.0	0.0	ok	0.0	0.0			0,0,0,0						
53	0.0	0.0	ok	0.0	0.0			0,0,0,0						
55	0.0	0.0	ok	0.0	0.0			0,0,0,0						
57	0.0	0.0	ok	0.0	0.0			0,0,0,0						
59	0.0	0.0	ok	0.0	0.0			0,0,0,0						
63	0.0	0.0	ok	0.0	0.0			0,0,0,0						
115	0.0	0.0	ok	0.0	0.0			0,0,0,0						

MANDATARIA  CONSORZIO STABILE SOCIETA' CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	158

129	0.0	0.0	ok	0.0	0.0		0,0,0,0
131	0.0	0.0	ok	0.0	0.0		0,0,0,0
133	0.0	0.0	ok	0.0	0.0		0,0,0,0
134	0.0	0.0	ok	0.0	0.0		0,0,0,0

Pilas.	V V/T	V N/M	V stab	V flst	V.7.5.9	V Ed	sovr. Xi	sovr. Xf	sovr. Yi	sovr. Yf
	0.0	0.0								

STATI LIMITE D' ESERCIZIO ACCIAIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO ACCIAIO

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, per gli elementi trave, i risultati relativi alle combinazioni considerate (rare o caratteristiche).

I valori di interesse sono i seguenti:

f*1000/L	massima deformazione normalizzata in combinazioni rare
-----------------	--

Si precisa che i valori di massima deformazione per travi sono riferiti ai due piani locali (1-2 con momenti flettenti 3-3 e 1-3 con momenti flettenti 2-2). Il valore riportato (massimo) è espresso in 1000/L per rendere agevole il confronto di più valori e in particolare di più range di valori (ad esempio 2 rappresenta L/500, 4 L/250 e così via).

MURO LATO DESTRO

CARATTERISTICHE MATERIALI UTILIZZATI

LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	159

tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

1	cemento armato	Resistenza Rc	resistenza a compressione cubica
		Resistenza fctm	resistenza media a trazione semplice
		Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	Tensione ft	Valore della tensione di rottura
		Tensione fy	Valore della tensione di snervamento
		Resistenza fd	Resistenza di calcolo per SL CNR-UNI 10011
		Resistenza fd (>40)	Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm
		Tensione ammissibile	Tensione ammissibile CNR-UNI 10011
		Tensione ammissibile (>40)	Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura		

Muratura consolidata	Muratura per la quale si prevedono interventi di rinforzo"
Incremento resistenza	Incremento conseguito in termini di resistenza
Incremento rigidezza	Incremento conseguito in termini di rigidezza
Resistenza f	Valore della resistenza a compressione
Resistenza fv0	Valore della resistenza a taglio in assenza di tensioni normali
Resistenza fh	Valore della resistenza a compressione orizzontale
Resistenza fb	Valore della resistenza a compressione dei blocchi
Resistenza fbh	Valore della resistenza a compressione dei blocchi in direzione orizzontale
Resistenza fv0h	Valore della resistenza a taglio in assenza di tensioni normali per le travi
Resistenza ft	Valore della resistenza a trazione per fessurazione diagonale
Resistenza fvlim	Valore della massima resistenza a taglio
Resistenza fbt	Valore della resistenza a trazione dei blocchi
Coefficiente mu	Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4)
Coefficiente fi	Coefficiente d'ingranamento utilizzato per la resistenza a taglio
Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block

4 legno

E0,05	Modulo di elasticità corrispondente ad un frattile del 5%
Resistenza fc0	Valore della resistenza a compressione parallela
Resistenza ft0	Valore della resistenza a trazione parallela
Resistenza fm	Valore della resistenza a flessione
Resistenza fv	Valore della resistenza a taglio
Resist. ft0k	Resistenza caratteristica (tensione amm. per REGLES) per trazione
Resist. fmk	Resistenza caratteristica (tensione amm. per REGLES) per flessione

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	161

Resist. fvk Modulo E0,05 Lamellare	Resistenza caratteristica (tensione amm. per REGLES) per taglio Modulo elastico parallelo caratteristico lamellare o massiccio
--	--

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamicatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/ m2	daN/ m2	daN/ m2		daN/ m2	daN/ m3		
5	Calcestruzzo Classe C32/40			3.364e+09	0.20	1.402e+09	2500.0	1.00e-05	
	Resistenza Rc	4.000e+06							
	Resistenza fctm		3.099e+05						
	Rapporto Rfessurata (assiale)								1.00
	Rapporto Rfessurata (flessione)								1.00
	Rapporto Rfessurata (taglio)								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
12	Acciaio Fe430 - S275-acciaio Fe430-S275			2.100e+10	0.30	8.077e+09	7850.0	1.20e-05	
	Tensione ft	4.300e+07							
	Resistenza fd	2.750e+07							
	Resistenza fd (>40)	2.500e+07							
	Tensione ammissibile	1.900e+07							
	Tensione ammissibile (>40)	1.700e+07							
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
13	Acciaio Fe510 - S355-acciaio Fe510-S355			2.100e+10	0.30	8.077e+09	9420.0	2.00e-05	
	Tensione ft	5.100e+07							
	Resistenza fd	3.550e+07							
	Resistenza fd (>40)	3.150e+07							
	Tensione ammissibile	2.400e+07							
	Tensione ammissibile (>40)	2.100e+07							

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	162

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
22	Danesi - Poroton P800 MA 40.19.25 (30.19.21 - 25.19.25) e malta di classe M10- muratura E = 5.860e+04			5.860e+08	0.0	2.344e+08	900.0	1.00e-05	
	Resistenza f	5.860e+05							
	Resistenza fh	2.930e+05							
	Resistenza fv0	3.000e+04							
	Resistenza fv0h	3.000e+04							
	Resistenza tau0	1.500e+04							
	Resistenza fvlim	7.800e+04							
	Resistenza fb	1.200e+06							
	Resistenza fbh	2.400e+05							
	Resistenza fbt	1.000e+05							
	Rapporto Rfessurata (assiale)								1.00
	Rapporto Rfessurata (flessione)								1.00
	Rapporto Rfessurata (taglio)								1.00
	Coefficiente ksb								0.85
	Coefficiente mu tilda								0.50
	Coefficiente fi								0.50
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

Aste acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Beta assegnato	0.80	0.80	0.80	0.80	0.80	0.80
	0.80					
Verifica come controvento	NO	NO	NO	NO	NO	NO
	NO					
Usa condizioni I e II	SI	SI	SI	SI	SI	SI
	SI					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	163

Aste acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25
	1.25					

Pilastrici acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
Metodo di calcolo 2-2	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato
	Assegnato					
2-2 Beta assegnato	2.00	2.00	2.00	2.00	2.00	2.00
	0.70					
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Metodo di calcolo 3-3	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato	Assegnato
	Assegnato					
3-3 Beta assegnato	2.00	2.00	2.00	2.00	2.00	2.00
	0.70					
3-3 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
1-1 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
	0.70					
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Generalità						
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	164

Pilastrici acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25
	1.25					
Effetti del 2 ordine	SI	SI	SI	SI	SI	SI
	SI					
Momenti equivalenti	SI	SI	SI	SI	SI	SI
	SI					
Usa condizioni I e II	SI	SI	SI	SI	SI	SI
	SI					

Travi acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Lunghezze libere						
3-3 Beta * L automatico	SI	SI	SI	SI	SI	NO
	NO					
3-3 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
3-3 Beta assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
2-2 Beta * L automatico	SI	SI	SI	SI	SI	NO
	NO					
2-2 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
1-1 Beta * L automatico	SI	SI	SI	SI	SI	NO
	NO					
1-1 Beta assegnato	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Generalità						

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	165

Travi acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Coefficiente gamma M0	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					
Coefficiente gamma M1	1.05	1.05	1.05	1.05	1.05	1.05
	1.05					
Coefficiente gamma M2	1.25	1.25	1.25	1.25	1.25	1.25
	1.25					
Luce di taglio per GR [cm]	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Usa condizioni I e II	SI	SI	SI	SI	SI	SI
	SI					
Momenti equivalenti	SI	SI	SI	SI	SI	SI
	SI					

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetto armatura	Singolo elemento	Singolo elemento FONDAZIONE	Singolo elemento NON DISSIPATIVO	Singolo elemento	Parete estesa debolmente armata	Singolo elemento NON DISSIPATIVO
	Singolo elemento NON DISSIPATIVO					
Armatura						
Inclinazione Av [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00					
Angolo Av-Ao [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00					
Minima tesa	0.20	0.20	0.20	2.000e-02	0.20	0.20
	0.20					
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
	4.00					
Maglia unica centrale	NO	NO	NO	NO	NO	NO
	NO					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	166

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Unico strato verticale	NO	NO	NO	NO	NO	NO
	NO					
Unico strato orizzontale	NO	NO	NO	NO	NO	NO
	NO					
Copriferro [cm]	2.00	2.00	2.00	2.00	2.00	2.00
	2.00					
Maglia V						
diametro	10	10	10	10	10	10
	10					
passo	25	25	25	25	25	25
	25					
diametro aggiuntivi	12	12	12	12	12	12
	12					
Maglia O						
diametro	10	10	10	10	10	10
	10					
passo	25	25	25	25	25	25
	25					
diametro aggiuntivi	12	12	12	12	12	12
	12					
Stati limite ultimi						
Tensione fy [daN/m ²]	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07
	4.500e+07					
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C					
Coefficiente gamma _s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15					
Coefficiente gamma _c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	167

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Verifiche con N costante	SI	SI	SI	SI	SI	SI
	SI					
Tensioni ammissibili						
Tensione amm. cls [daN/ m ²]	975000.00	975000.00	975000.00	975000.00	975000.00	975000.00
	975000.00					
Tensione amm. acciaio [daN/ m ²]	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07
	2.600e+07					
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00					
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Parete estesa debolmente armata						
Fattore amplificazione taglio V	0.0	1.50	1.50	0.0	0.0	1.50
	1.50					
Hcrit. par. 7.4.4.5.1 [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Hcrit. par. 7.4.6.1.4 [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Diagramma inviluppo taglio	NO	NO	NO	NO	NO	NO
	NO					
Vincolo lati	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato	nessun lato
	nessun lato					
Verifica come fascia	NO	NO	NO	NO	SI	NO
	NO					
Diametro di estremità	0	0	0	0	0	0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	168

Pareti c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
	0					
Zona confinata						
Minima tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Massima tesa	4.00	4.00	4.00	4.00	4.00	4.00
	4.00					
Distanza barre [cm]	2.00	2.00	2.00	2.00	2.00	2.00
	2.00					
Interferro	2	2	2	2	2	2
	2					
Armatura inclinata						
Area barre [cm2]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Angolo orizzontale [gradi]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Distanza di base [cm]	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
	NO					
3+ estradosso	NO	NO	NO	NO	NO	NO
	NO					
Tempo di esposizione R	15	15	15	15	15	15
	15					

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Armatura						
Inclinazione Ax [gradi]	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	169

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
	0.0					
Angolo Ax-Ay [gradi]	90.00	90.00	90.00	90.00	90.00	90.00
	90.00					
Minima tesa	0.31	0.10	0.13	2.000e-02	0.31	0.13
	0.13					
Massima tesa	0.78	4.00	4.00	4.00	0.78	4.00
	4.00					
Maglia unica centrale	NO	NO	NO	NO	NO	NO
	NO					
Copriferro [cm]	2.00	3.00	2.00	2.00	2.00	2.00
	2.00					
Maglia x						
diametro	10	12	10	10	10	10
	10					
passo	20	20	20	20	20	20
	20					
diametro aggiuntivi	12	12	12	12	12	12
	12					
Maglia y						
diametro	10	12	10	10	10	10
	10					
passo	20	20	20	20	20	20
	20					
diametro aggiuntivi	12	12	12	12	12	12
	12					
Stati limite ultimi						
Tensione fy [daN/ m2]	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07
	4.500e+07					
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C					
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	170

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50					
Verifiche con N costante	SI	SI	SI	SI	SI	SI
	SI					
Applica SLU da DIN	NO	NO	NO	NO	NO	NO
	NO					
Tensioni ammissibili						
Tensione amm. cls [daN/ m2]	975000.00	975000.00	975000.00	975000.00	975000.00	975000.00
	975000.00					
Tensione amm. acciaio [daN/ m2]	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07
	2.600e+07					
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00					
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Resistenza al fuoco						
3- intradosso	NO	NO	NO	NO	NO	NO
	NO					
3+ estradosso	NO	NO	NO	NO	NO	NO
	NO					
Tempo di esposizione R	15	15	15	15	15	15
	15					

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetta a filo	NO	NO	NO	NO	NO	NO
	NO					
Af inf: da q*L*L /	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Armatura						

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	171

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Minima tesa	0.31	0.20	0.13	2.000e-02	0.31	0.13
	0.13					
Minima compressa	0.31	0.20	0.13	2.000e-02	0.31	0.13
	0.13					
Massima tesa	0.78	4.00	4.00	4.00	0.78	4.00
	4.00					
Da sezione	SI	SI	SI	SI	SI	SI
	SI					
Usa armatura teorica	NO	NO	NO	NO	NO	NO
	NO					
Stati limite ultimi						
Tensione fy [daN/ m2]	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07
	4.500e+07					
Tensione fy staffe [daN/ m2]	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07
	4.500e+07					
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C					
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15					
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50					
Verifiche con N costante	SI	SI	SI	SI	SI	SI
	SI					
Fattore di redistribuzione	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Modello per il confinamento						
Relazione tensio-deformativa	Mander	Mander	Mander	Mander	Mander	Mander
	Mander					
Incrudimento acciaio	5.000e-03	5.000e-03	5.000e-03	5.000e-03	5.000e-03	5.000e-03
	5.000e-03					
Fattore lambda	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	172

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
epsilon max,s	4.000e-02	4.000e-02	4.000e-02	4.000e-02	4.000e-02	4.000e-02
	4.000e-02					
epsilon cu2	4.500e-03	4.500e-03	4.500e-03	4.500e-03	4.500e-03	4.500e-03
	4.500e-03					
epsilon c2	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
epsilon cy	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Tensioni ammissibili						
Tensione amm. cls [daN/ m2]	975000.00	975000.00	975000.00	975000.00	975000.00	975000.00
	975000.00					
Tensione amm. acciaio [daN/ m2]	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07
	2.600e+07					
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00					
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Staffe						
Diametro staffe	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Passo minimo [cm]	4.00	4.00	4.00	4.00	4.00	4.00
	4.00					
Passo massimo [cm]	30.00	30.00	30.00	30.00	30.00	30.00
	30.00					
Passo raffittito [cm]	15.00	15.00	15.00	15.00	15.00	15.00
	15.00					
Lunghezza zona raffittita [cm]	50.00	50.00	50.00	50.00	50.00	50.00
	50.00					
Ctg(Teta) Max	2.50	2.50	2.50	2.50	2.50	2.50
	2.50					
Percentuale sagomati	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	173

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Luce di taglio per GR [cm]	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Adotta scorrimento medio	NO	NO	NO	NO	NO	NO
	NO					
Torsione non essenziale inclusa	SI	SI	SI	SI	SI	SI
	SI					

Solai e pannelli	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Usa tensioni ammissibili	NO	NO	NO	NO	NO	NO
	NO					
Af inf: da traliccio	SI	SI	SI	SI	SI	SI
	SI					
Consenti armatura a taglio	NO	NO	NO	NO	NO	NO
	NO					
Incrementa armatura longitudinale per taglio	SI	SI	SI	SI	SI	SI
	SI					
Af inf: da $q \cdot L \cdot L /$	20.00	20.00	20.00	20.00	20.00	20.00
	20.00					
Incremento fascia piena [cm]	5.00	5.00	5.00	5.00	5.00	5.00
	5.00					
Armatura						
Minima tesa	0.15	0.15	0.15	0.15	0.15	0.15
	0.15					
Massima tesa	3.00	3.00	3.00	3.00	3.00	3.00
	3.00					
Minima compressa	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Af/h [cm]	7.000e-02	7.000e-02	7.000e-02	7.000e-02	7.000e-02	7.000e-02
	7.000e-02					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA

LOTTO

FASE

ENTE

TIPO DOC

OPERA 7 DISCIPLINA

PROGR

REV

FOGLIO

LI0B

02

E

ZZ

CL

TR

06

00

003

B

174

Solai e pannelli	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Stati limite ultimi						
Tensione fy [daN/ m2]	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07	4.500e+07
	4.500e+07					
Tipo acciaio	tipo C	tipo C	tipo C	tipo C	tipo C	tipo C
	tipo C					
Coefficiente gamma s	1.15	1.15	1.15	1.15	1.15	1.15
	1.15					
Coefficiente gamma c	1.50	1.50	1.50	1.50	1.50	1.50
	1.50					
Fattore di redistribuzione	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Tensioni ammissibili						
Tensione amm. cls [daN/ m2]	850000.00	850000.00	850000.00	850000.00	850000.00	850000.00
	850000.00					
Tensione amm. acciaio [daN/ m2]	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07	2.600e+07
	2.600e+07					
Rapporto omogeneizzazione N	15.00	15.00	15.00	15.00	15.00	15.00
	15.00					
Massimo rapporto area compressa/tesa	1.00	1.00	1.00	1.00	1.00	1.00
	1.00					
Verifica freccia						
Infinita	250.00	250.00	250.00	250.00	250.00	250.00
	250.00					
Istantanea	500.00	500.00	500.00	500.00	500.00	500.00
	500.00					
Fattore viscosità	3.00	3.00	3.00	3.00	3.00	3.00
	3.00					
Usa J non fessurato	NO	NO	NO	NO	NO	NO
	NO					
Elementi non strutturali						
Tamponatura antiespulsione	NO	NO	NO	NO	NO	NO
	NO					

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	175

Solai e pannelli	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Tamponatura con armatura	NO	NO	NO	NO	NO	NO
	NO					
Fattore di struttura/comportamento	2.00	2.00	2.00	2.00	2.00	2.00
	2.00					
Coefficiente gamma m	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Periodo Ta	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					
Altezza pannello	0.0	0.0	0.0	0.0	0.0	0.0
	0.0					

MANDATARIA HUB ENGINEERING <small>CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.</small>	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
		Fascicolo dei calcoli muri architettonici		COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L
60	3.4	62	4.1	116	4.0	118	3.9	119	3.8	123	3.7	124	3.6
136	4.3	137	0.4										

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

rettangolare	a T	a T rovescia	a T di colmo	a L	a L specchiata

Fascicolo dei calcoli muri architettonici

COMMESSA

LOTTO

FASE

ENTE

TIPO DOC

OPERA 7 DISCIPLINA

PROGR

REV

FOGLIO

LI0B

02

E

ZZ

CL

TR

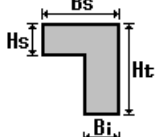
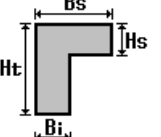
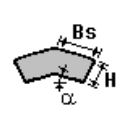
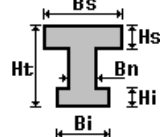
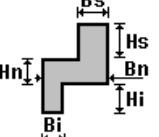
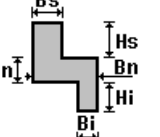
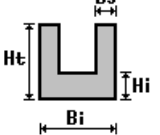
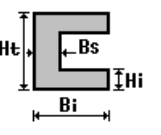
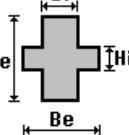
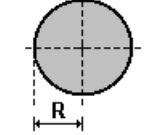
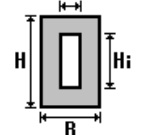
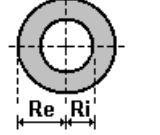
06

00

003

B

177

 <p>a L specchiata rovescia</p>	 <p>a L rovescia</p>	 <p>a L di colmo</p>	 <p>a doppio T</p>	 <p>a quattro specchiata</p>	 <p>a quattro</p>
 <p>a U</p>	 <p>a C</p>	 <p>a croce</p>	 <p>circolare</p>	 <p>rettangolare cava</p>	 <p>circolare cava</p>

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	178

Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):
 i valori dimensionali con prefisso B sono riferiti all'asse 2
 i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
1	HEB 500	238.60	0.0	0.0	538.40	1.262e+04	1.072e+05	841.60	4287.00	1291.60	4814.60
24	HEB 220	91.00	0.0	0.0	76.60	2843.00	8091.00	258.50	735.50	393.90	827.00
25	IPE 180	23.90	0.0	0.0	4.80	101.00	1317.00	22.20	146.30	34.60	166.40
26	Circolare: r=1	3.14	2.65	2.65	1.57	0.79	0.79	0.79	0.79	1.33	1.33
27	IPE 100	10.30	0.0	0.0	1.20	16.00	171.00	5.80	34.20	9.10	39.40
28	HEB 180	65.30	0.0	0.0	42.20	1363.00	3831.00	151.40	425.70	231.00	481.40
29	UNP 160	24.00	0.0	0.0	7.39	85.10	925.00	18.20	116.00	35.20	138.00
30	Rettangolare: b=220 h=20	4400.00	3666.67	3666.67	5.531e+05	1.775e+07	1.467e+05	1.613e+05	1.467e+04	2.420e+05	2.200e+04
31	HEB 300	149.10	0.0	0.0	185.00	8563.00	2.517e+04	570.90	1677.70	870.10	1868.70

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	179

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	180

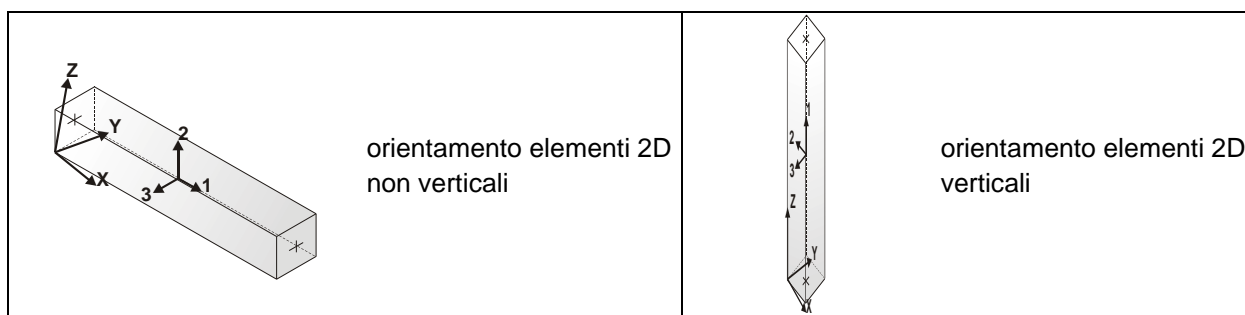
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.

Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	181

Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz.	Svincolo I	Svincolo J	Wink V	Wink O
90	Pilas.	1445	120	13	31	3	90.00				
92	Pilas.	1425	7251	13	31	3	90.00				
94	Pilas.	1405	88	13	31	3	90.00				
96	Pilas.	1381	119	13	31	3	90.00				
98	Pilas.	1358	68	13	31	3	90.00				
100	Pilas.	4288	7241	13	31	3	90.00				
102	Pilas.	280	107	13	31	3	90.00				
104	Pilas.	4168	7240	13	31	3	90.00				
106	Pilas.	4048	121	13	31	3	90.00				
108	Pilas.	7257	103	13	31	3	90.00				
110	Pilas.	39	7238	13	31	3	90.00				
112	Trave	7251	120	13	27	6	90.00	000011	000011		
127	Trave	88	7251	13	27	6	90.00	000011	000011		
128	Trave	119	88	13	27	6	90.00	000011	000011		
139	Trave	68	119	13	27	6	90.00	000011	000011		
140	Trave	7241	68	13	27	6	90.00	000011	000011		
151	Trave	107	7241	13	27	6	90.00	000011	000011		
152	Trave	7240	107	13	27	6	90.00	000011	000011		
163	Trave	121	7240	13	27	6	90.00	000011	000011		
164	Trave	103	121	13	27	6	90.00	000011	000011		
175	Trave	7238	103	13	27	6	90.00	000011	000011		

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	182

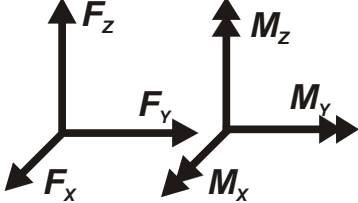
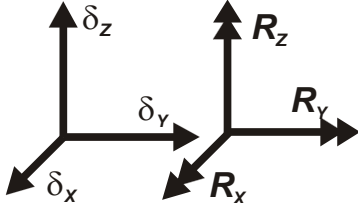
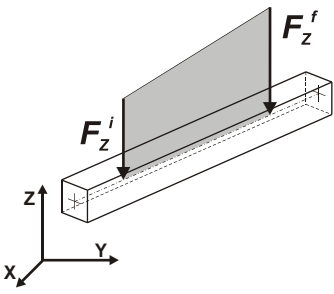
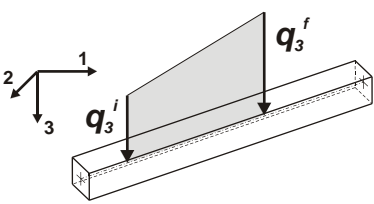
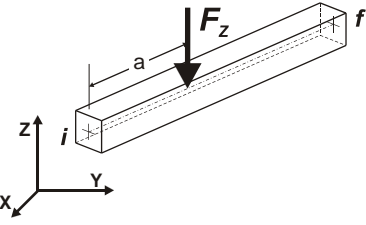
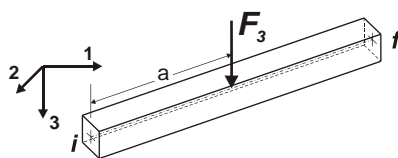
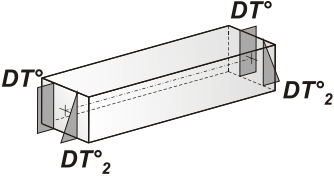
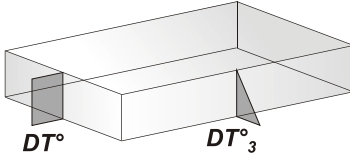
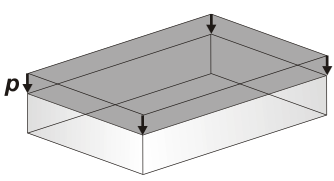
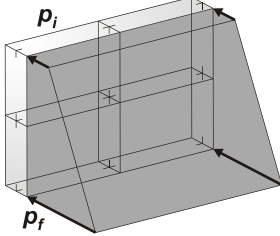
 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	183

MODELLAZIONE DELLE AZIONI

LEGENDA TABELLA DATI AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

1	carico concentrato nodale 6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz)
2	spostamento nodale impresso 6 dati (spostamento Tx, Ty, Tz, rotazione Rx, Ry, Rz)
3	carico distribuito globale su elemento tipo trave 7 dati (fx, fy, fz, mx, my, mz, ascissa di inizio carico) 7 dati (fx, fy, fz, mx, my, mz, ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f1, f2, f3, m1, m2, m3, ascissa di inizio carico) 7 dati (f1, f2, f3, m1, m2, m3, ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (Fx, Fy, Fz, Mx, My, Mz, ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell' impronta, interasse tra i carichi)

 <p>Carico concentrato nodale</p>	 <p>Spostamento impresso</p>
 <p>Carico distribuito globale</p>	 <p>Carico distribuito locale</p>
 <p>Carico concentrato globale</p>	 <p>Carico concentrato locale</p>
 <p>Carico termico 2D</p>	 <p>Carico termico 3D</p>
 <p>Carico pressione uniforme</p>	 <p>Carico pressione variabile</p>

Tipo carico distribuito globale su trave

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		m	daN/m	daN/m	daN/m	daN	daN	daN
9	Q scale-DG:Fzi=-6.50 Fzf=-6.50	0.0	0.0	0.0	-650.00	0.0	0.0	0.0

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
		0.0	0.0	0.0	-650.00	0.0	0.0	0.0
10	G1 scale-DG:Fzi=-4.40 Fzf=-4.40	0.0	0.0	0.0	-440.00	0.0	0.0	0.0
		0.0	0.0	0.0	-440.00	0.0	0.0	0.0

Tipo	carico di pressione uniforme su piastra
-------------	--

Id	Tipo	pressione
		daN/ m2
5	ETK PAN ++ sovraspinta sismica terreno (lato sud)-P3:p=0.73	7253.00
6	ETK PAN -- sovraspinta sismica terreno -P3:p=0.73	7253.00
7	QVK PAN ++ vento*0.4 (da personalizzare)-P3:p= 5.350e-03	53.50
8	QVK PAN -- vento*0.4 (da personalizzare)-P3:p= 5.350e-03	53.50
16	ETK PAN -- sovraspinta sismica terreno (LATO STRUTTURE)-P3:p=0.51	5083.00

Tipo	carico di pressione variabile su piastra
-------------	---

Id	Tipo	pressione	quota	pressione	quota
		daN/ m2	m	daN/ m2	m
4	spinta terreno a riposo LATO SUD-PL3:pi=-8.540e-02 qi=1200.00 pf=-0.92 qf=0.0	-854.00	12.00	-9218.00	0.0
15	spinta terreno a riposo LATO STRUTTURE-PL3:pi=-8.660e-02 qi=718.00 pf=-0.63 qf=0.0	-866.00	7.18	-6278.00	0.0

Tipo	carico variabile generale
-------------	----------------------------------

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

Id	Tipo	ascissa	valore	ascissa	valore
		m	daN/ m2	m	daN/ m2
1	G2_BANCHINA-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-5280.00		
2	Q_BANCHINA-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-500.00		
3	G2_ZONA BINARI-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-3800.00		
11	G1scale -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-340.00		
12	Q scale -QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-500.00		
13	Q treno_ZONA SOVRAPPOSI-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-7680.00		
14	Q treno-QV:unif - Qz - Area				
	Unif. Qz Area L2=0.0		-3840.00		

SCHEMATIZZAZIONE DEI CASI DI CARICO

LEGENDA TABELLA 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

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA								
	Fascicolo dei calcoli muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00	PROGR 003	REV B

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:

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

CDC	Tipo	Sigla Id	Note
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
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

DEFINIZIONE DELLE COMBINAZIONI

LEGENDA TABELLA COMBINAZIONI DI CARICO

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.

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	189

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

$$\gamma G_1 \cdot G_1 + \gamma G_2 \cdot G_2 + \gamma P \cdot P + \gamma Q_1 \cdot Q_{k1} + \gamma Q_2 \cdot \psi_{02} \cdot Q_{k2} + \gamma Q_3 \cdot \psi_{03} \cdot Q_{k3} + \dots$$

Combinazione caratteristica (rara) SLE

$$G_1 + G_2 + P + Q_{k1} + \psi_{02} \cdot Q_{k2} + \psi_{03} \cdot Q_{k3} + \dots$$

Combinazione frequente SLE

$$G_1 + G_2 + P + \psi_{11} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

Combinazione quasi permanente SLE

$$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

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

$$E + G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

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

$$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

Dove:

NTC 2008 Tabella 2.5.I

Destinazione d'uso/azione	ψ_0	ψ_1	ψ_2
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 $\leq 30kN$)	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	EQU	A1	A2
	γ_f			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	190

<i>Carichi permanenti</i>	<i>Favorevoli</i>	$\gamma G1$	<i>0,9</i>	<i>1,0</i>	<i>1,0</i>
	<i>Sfavorevoli</i>		<i>1,1</i>	<i>1,3</i>	<i>1,0</i>
<i>Carichi permanenti non strutturali (Non compiutamente definiti)</i>	<i>Favorevoli</i>	$\gamma G2$	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>
	<i>Sfavorevoli</i>		<i>1,5</i>	<i>1,5</i>	<i>1,3</i>
<i>Carichi variabili</i>	<i>Favorevoli</i>	γQi	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>
	<i>Sfavorevoli</i>		<i>1,5</i>	<i>1,5</i>	<i>1,3</i>

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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	191

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	192

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	193

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	194

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	195

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	196

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	197

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	198

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	199

Cmb	Tipo	Sigla Id	effetto P-delta
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	200

Cmb	Tipo	Sigla Id	effetto P-delta
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	
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	

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	203

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...
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
	0.0	0.0	0.0	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	206

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	209

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...
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
	0.0	0.0	0.0	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	212

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	215

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...
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
	0.0	0.0	0.0	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	216

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												
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	218

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	219

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	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	221

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	222

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	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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	224

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...
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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	225

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	0.0	-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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	227

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	228

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	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
	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	230

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...
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
	0.0	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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	231

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
	0.0	-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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	233

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...
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

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06 00	003	B	235

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HY pro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	236

AZIONE SISMICA

VALUTAZIONE DELL' AZIONE SISMICA

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento V_r che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento V_r e la probabilità di superamento P_{ver} associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno T_r e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
III	75.0	1.5	112.5	C	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s \cdot S_t$ (3.2.5)

Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale

Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	15.050	41.942	
28328	15.036	41.925	2.349
28329	15.103	41.924	4.806
28107	15.104	41.974	5.593
28106	15.037	41.975	3.746

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HY pro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	237

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	67.7	0.064	2.495	0.326
SLD	63.0	113.2	0.081	2.547	0.334
SLV	10.0	1067.8	0.190	2.537	0.380
SLC	5.0	2193.3	0.245	2.516	0.386

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.064	1.500	2.495	0.855	0.165	0.496	1.858
SLD	0.081	1.500	2.547	0.977	0.168	0.504	1.923
SLV	0.190	1.411	2.537	1.491	0.183	0.549	2.358
SLC	0.245	1.330	2.516	1.682	0.185	0.555	2.580

RISULTATI ANALISI SISMICHE

LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

- 9. Esk** caso di carico sismico con analisi statica equivalente
- 10. Edk** caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

Angolo di ingresso	Angolo di ingresso dell'azione sismica orizzontale
---------------------------	--

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
	Fascicolo dei calcoli muri architettonici	<small>COMMESSA</small> LI0B	<small>LOTTO</small> 02	<small>FASE</small> E	<small>ENTE</small> ZZ	<small>TIPO DOC</small> CL	<small>OPERA 7 DISCIPLINA</small> TR	06	00	<small>PROGR</small> 003	<small>REV</small> B

Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore di struttura q	Fattore dipendente dalla tipologia strutturale
Fattore di sito S	Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro Sd(T1)	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
Ordinata spettro Se(T1)	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
Ordinata spettro S (Tb-Tc)	Valore dell' ordinata dello spettro in uso nel tratto costante
numero di modi considerati	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

- c) **analisi sismica statica equivalente:**
- quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
 - azione sismica complessiva
- d) **analisi sismica dinamica con spettro di risposta:**
- quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/L_s (per strutture a nucleo) , indici di regolarità e/r secondo EC8 4.2.3.2
 - frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
 - massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione ϵ_{dT} (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità $1000 \cdot \epsilon_{dT}/h$ da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA								
		Fascicolo dei calcoli muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione ϵ_T , ϵ_P e ϵ_D degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità $1000 \cdot \epsilon_T/h$ da confrontare direttamente con il valore 2 o 4 per la verifica.

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo l' allegato 10.A dell'Ordinanza 3274 e smi. In particolare la tabella, per ogni combinazione SLU (SLC per il DM 14-01-2008) sismica riporta il codice di verifica e i valori utilizzati per la verifica: spostamento d_E , area ridotta e dimensione A_2 , azione verticale, deformazioni di taglio dell' elastomero e tensioni nell' acciaio.

Nodo	Nodo di appoggio dell' isolatore
Cmb	Combinazione oggetto della verifica
Verif.	Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata
dE	Spostamento relativo tra le due facce (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30%
Ang fi	Angolo utilizzato per il calcolo dell' area ridotta A_r (per dispositivi circolari)
V	Azione verticale agente
Ar	Area ridotta efficace
Dim A2	Dimensione utile per il calcolo della deformazione per rotazione
Sig s	Tensione nell' inserto in acciaio
Gam c(a,s,t)	Deformazioni di taglio dell' elastomero
Vcr	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 7) $V > 0$
- 8) $Sig s < f_{yk}$
- 9) $Gam t < 5$
- 10) $Gam s < Gam * (caratteristica dell' elastomero)$
- 11) $Gam s < 2$
- 12) $V < 0.5 V_{cr}$

CDC	Tipo	Sigla Id	Note
19	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto T_b-T_c) = 0.679 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.248 sec.
			fattore q: 1.000

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	240

CDC	Tipo	Sigla Id	Note
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	-0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	-0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	-0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	-0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	-0.18	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	241

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.03	295.88	36.45	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	-0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	-0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	-0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	-0.18	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	-0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	-0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	-0.18	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	-0.18	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	-0.15	57.85	4.06	0.182	1.310	0.663

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	242

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	-1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	-1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	-0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	-0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	-0.18	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	0.0	-1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	-0.11	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	0.0	-1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.0	-0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	-1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	-0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	-0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	-1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	-0.18	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.0	-0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	243

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.08	6.915e+04	43.45	1.91	0.0	-0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	-0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	-0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	0.0	-1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	-0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	-1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	-0.15	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.0	-0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	244

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.935	0.341	0.679	3.888e+04	1.6	4892.00	0.2	235.09	9.47e-03	0.0	0.0
2	3.166	0.316	0.679	4743.05	0.2	1.328e+06	53.5	1.117e+05	4.5	0.0	0.0
3	3.597	0.278	0.679	1009.06	4.07e-02	2.735e+04	1.1	1.576e+05	6.3	0.0	0.0
4	4.037	0.248	0.679	5.743e+05	23.1	2.490e+04	1.0	1.414e+04	0.6	0.0	0.0
5	4.308	0.232	0.679	4.201e+05	16.9	3065.69	0.1	2.421e+04	1.0	0.0	0.0
6	4.430	0.226	0.679	2.919e+04	1.2	3835.28	0.2	2180.90	8.79e-02	0.0	0.0
7	4.552	0.220	0.679	6723.56	0.3	1.826e+04	0.7	1.508e+04	0.6	0.0	0.0
8	4.826	0.207	0.679	4.141e+04	1.7	8.76	3.53e-04	8335.21	0.3	0.0	0.0
9	4.895	0.204	0.679	1.027e+05	4.1	3.635e+04	1.5	267.22	1.08e-02	0.0	0.0
10	5.014	0.199	0.679	2.468e+05	9.9	162.72	6.56e-03	1.136e+05	4.6	0.0	0.0
11	5.021	0.199	0.679	3.964e+04	1.6	4235.80	0.2	9.044e+04	3.6	0.0	0.0
12	5.130	0.195	0.679	4176.27	0.2	7.719e+04	3.1	1.341e+05	5.4	0.0	0.0
13	5.485	0.182	0.677	1.532e+04	0.6	59.29	2.39e-03	1.838e+04	0.7	0.0	0.0
14	5.873	0.170	0.650	2.666e+05	10.7	2505.10	0.1	1.424e+04	0.6	0.0	0.0
15	6.049	0.165	0.639	1.020e+04	0.4	4.920e+05	19.8	4.191e+05	16.9	0.0	0.0
16	6.127	0.163	0.634	1.561e+05	6.3	1.686e+05	6.8	9219.69	0.4	0.0	0.0
17	6.538	0.153	0.611	2.793e+04	1.1	3.744e+04	1.5	1.622e+04	0.7	0.0	0.0
18	6.647	0.150	0.606	23.81	9.59e-04	1.817e+04	0.7	1.390e+04	0.6	0.0	0.0
19	7.467	0.134	0.569	3.163e+05	12.7	3604.75	0.1	2.740e+05	11.0	0.0	0.0
20	7.820	0.128	0.555	1.503e+05	6.1	8.353e+04	3.4	6.932e+05	27.9	0.0	0.0
21	9.445	0.106	0.506	1.628e+04	0.7	2304.87	9.29e-02	3.047e+05	12.3	0.0	0.0
22	10.841	0.092	0.475	1.125e+04	0.5	6.121e+04	2.5	2599.21	0.1	0.0	0.0
23	12.031	0.083	0.454	371.91	1.50e-02	1.372e+04	0.6	7008.82	0.3	0.0	0.0
24	13.309	0.075	0.436	179.86	7.25e-03	4.746e+04	1.9	1.653e+04	0.7	0.0	0.0

MANDATARIA HUB ENGINEERING CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI HYpro	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	245

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
25	15.816	0.063	0.410	1199.86	4.83e-02	1278.80	5.15e-02	1485.47	5.99e-02	0.0	0.0
26	18.165	0.055	0.391	64.06	2.58e-03	2.092e+04	0.8	895.67	3.61e-02	0.0	0.0
27	23.953	0.042	0.361	1.71	6.88e-05	57.21	2.30e-03	1.721e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.481e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
20	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto Tb-Tc) = 0.679 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.208 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	246

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
13.65	230.42	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	0.18	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	247

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.74	703.79	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	0.18	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	0.18	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	0.18	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	0.15	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	0.18	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	0.0	1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	0.11	52.10	19.80	0.087	0.832	0.674

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	248

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.63	9.093e+04	42.57	6.39	0.0	1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.0	0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	0.18	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.0	0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	0.0	0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	0.0	1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	0.15	58.04	4.09	0.196	1.754	0.391

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	249

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.0	0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.679	4.450e+04	1.8	5476.32	0.2	265.57	1.07e-02	0.0	0.0
2	3.166	0.316	0.679	1092.81	4.40e-02	1.329e+06	53.6	1.120e+05	4.5	0.0	0.0
3	3.597	0.278	0.679	416.96	1.68e-02	2.674e+04	1.1	1.585e+05	6.4	0.0	0.0
4	4.107	0.243	0.679	1.880e+05	7.6	2.513e+04	1.0	6834.13	0.3	0.0	0.0
5	4.381	0.228	0.679	3.849e+05	15.5	1483.91	5.98e-02	4.129e+04	1.7	0.0	0.0
6	4.441	0.225	0.679	1.630e+05	6.6	3367.53	0.1	842.83	3.40e-02	0.0	0.0
7	4.551	0.220	0.679	2.509e+04	1.0	1.933e+04	0.8	1.403e+04	0.6	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	250

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
8	4.808	0.208	0.679	6.646e+05	26.8	1.840e+04	0.7	1.207e+04	0.5	0.0	0.0
9	4.907	0.204	0.679	8965.20	0.4	1.849e+04	0.7	2.508e+04	1.0	0.0	0.0
10	5.006	0.200	0.679	6.925e+04	2.8	25.29	1.02e-03	2.377e+04	1.0	0.0	0.0
11	5.039	0.198	0.679	3.311e+04	1.3	4318.33	0.2	1.483e+05	6.0	0.0	0.0
12	5.130	0.195	0.679	2378.05	9.58e-02	7.686e+04	3.1	1.247e+05	5.0	0.0	0.0
13	5.570	0.180	0.671	7.361e+04	3.0	52.26	2.11e-03	2.195e+04	0.9	0.0	0.0
14	5.800	0.172	0.655	2.205e+05	8.9	18.35	7.39e-04	2745.22	0.1	0.0	0.0
15	6.034	0.166	0.640	9122.59	0.4	3.455e+05	13.9	3.799e+05	15.3	0.0	0.0
16	6.122	0.163	0.635	9.603e+04	3.9	3.281e+05	13.2	5.805e+04	2.3	0.0	0.0
17	6.584	0.152	0.609	1.789e+04	0.7	3.708e+04	1.5	1.708e+04	0.7	0.0	0.0
18	6.670	0.150	0.605	81.89	3.30e-03	1.112e+04	0.4	2.067e+04	0.8	0.0	0.0
19	7.447	0.134	0.569	2.948e+05	11.9	6549.52	0.3	2.697e+05	10.9	0.0	0.0
20	7.843	0.127	0.554	1.566e+05	6.3	7.549e+04	3.0	7.029e+05	28.3	0.0	0.0
21	9.470	0.106	0.505	2.087e+04	0.8	2090.87	8.42e-02	2.946e+05	11.9	0.0	0.0
22	10.736	0.093	0.477	5944.41	0.2	5.923e+04	2.4	1598.67	6.44e-02	0.0	0.0
23	11.968	0.084	0.455	60.51	2.44e-03	1.619e+04	0.7	5728.11	0.2	0.0	0.0
24	13.179	0.076	0.438	63.97	2.58e-03	4.763e+04	1.9	1.816e+04	0.7	0.0	0.0
25	15.600	0.064	0.412	889.27	3.58e-02	168.41	6.79e-03	1531.22	6.17e-02	0.0	0.0
26	17.921	0.056	0.393	28.56	1.15e-03	2.336e+04	0.9	129.81	5.23e-03	0.0	0.0
27	23.541	0.042	0.363	5.65	2.28e-04	1.69	6.80e-05	1.803e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
21	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto Tb-Tc) = 0.679 g
			angolo di ingresso:90.00

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	251

CDC	Tipo	Sigla Id	Note
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.312 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. μ d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	252

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.33	1.385e+04	33.03	2.22	0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.30	0.0	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	253

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.62	5.026e+04	42.46	1.91	1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.60	0.0	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.07	0.0	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	254

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.43	3.464e+04	48.57	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	1.34	0.0	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	1.34	0.0	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.51	0.0	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	1.54	0.0	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.20	0.0	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	1.54	0.0	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.59	0.0	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	255

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.51	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.59	0.0	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.679	4.221e+04	1.7	2547.12	0.1	112.16	4.52e-03	0.0	0.0
2	3.202	0.312	0.679	489.07	1.97e-02	1.350e+06	54.4	1.199e+05	4.8	0.0	0.0
3	3.601	0.278	0.679	8947.74	0.4	2.549e+04	1.0	1.477e+05	6.0	0.0	0.0
4	3.980	0.251	0.679	1.007e+05	4.1	1.66	6.70e-05	2.855e+04	1.2	0.0	0.0
5	4.222	0.237	0.679	5.549e+05	22.4	1.284e+04	0.5	1.353e+04	0.5	0.0	0.0
6	4.316	0.232	0.679	1.081e+05	4.4	2404.23	9.69e-02	1138.33	4.59e-02	0.0	0.0
7	4.529	0.221	0.679	8180.06	0.3	4.184e+04	1.7	6.32	2.55e-04	0.0	0.0
8	4.559	0.219	0.679	1.100e+05	4.4	192.59	7.76e-03	2.153e+04	0.9	0.0	0.0
9	4.780	0.209	0.679	3.576e+05	14.4	6.200e+04	2.5	1.828e+04	0.7	0.0	0.0
10	4.918	0.203	0.679	6.840e+04	2.8	4001.95	0.2	1.221e+05	4.9	0.0	0.0
11	5.036	0.199	0.679	1.630e+05	6.6	748.09	3.01e-02	1780.55	7.17e-02	0.0	0.0
12	5.058	0.198	0.679	5375.54	0.2	8409.07	0.3	1.752e+04	0.7	0.0	0.0
13	5.266	0.190	0.679	2835.17	0.1	2.783e+04	1.1	1.867e+05	7.5	0.0	0.0
14	5.669	0.176	0.664	5.506e+04	2.2	8.266e+04	3.3	1.141e+05	4.6	0.0	0.0
15	5.863	0.171	0.651	3.548e+05	14.3	494.27	1.99e-02	1.648e+04	0.7	0.0	0.0
16	6.084	0.164	0.637	4292.78	0.2	5.679e+05	22.9	3.198e+05	12.9	0.0	0.0
17	6.536	0.153	0.611	913.83	3.68e-02	5.063e+04	2.0	3.995e+04	1.6	0.0	0.0
18	6.676	0.150	0.604	1.783e+04	0.7	1.967e+04	0.8	5.017e+04	2.0	0.0	0.0
19	7.363	0.136	0.573	4.100e+05	16.5	327.14	1.32e-02	1.761e+04	0.7	0.0	0.0
20	7.915	0.126	0.552	5.425e+04	2.2	7.556e+04	3.0	8.863e+05	35.7	0.0	0.0
21	8.981	0.111	0.518	3142.15	0.1	7596.37	0.3	3.812e+04	1.5	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	256

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
22	9.148	0.109	0.513	4.493e+04	1.8	50.75	2.04e-03	2.707e+05	10.9	0.0	0.0
23	11.187	0.089	0.469	4144.30	0.2	4.903e+04	2.0	4992.10	0.2	0.0	0.0
24	12.928	0.077	0.441	94.72	3.82e-03	6.121e+04	2.5	2.228e+04	0.9	0.0	0.0
25	14.274	0.070	0.425	1548.87	6.24e-02	4579.72	0.2	2570.51	0.1	0.0	0.0
26	17.840	0.056	0.394	127.48	5.14e-03	2.344e+04	0.9	2310.97	9.31e-02	0.0	0.0
27	24.238	0.041	0.360	3.31	1.33e-04	91.51	3.69e-03	1.623e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
22	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.411
			ordinata spettro (tratto Tb-Tc) = 0.679 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.322 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD:
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	257

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	-1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	-0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	-0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	-0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	-0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	-0.30	0.0	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	-0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	-0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	258

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.92	1366.74	48.05	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	-0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	-1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	-0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	-1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	-0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	-1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	-1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	-0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	-0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	-0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	-1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	259

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.05	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	-0.60	0.0	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	-1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	-0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	-1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	-0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	-0.07	0.0	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	-1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	-0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	-0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	-1.34	0.0	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	-1.34	0.0	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	-0.51	0.0	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	-1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	-0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	-1.54	0.0	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	-0.20	0.0	58.25	4.04	0.586	0.405	0.801

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	260

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.97	8141.94	38.16	19.80	-0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	-1.54	0.0	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	-0.59	0.0	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	-0.59	0.0	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	-1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.679	4.038e+04	1.6	1.221e+04	0.5	576.38	2.32e-02	0.0	0.0
2	3.110	0.322	0.679	5400.07	0.2	1.333e+06	53.7	9.029e+04	3.6	0.0	0.0
3	3.494	0.286	0.679	32.67	1.32e-03	3939.87	0.2	1.479e+05	6.0	0.0	0.0
4	4.114	0.243	0.679	2.122e+05	8.5	2.100e+04	0.8	2154.21	8.68e-02	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	261

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
5	4.223	0.237	0.679	5.039e+05	20.3	4856.92	0.2	2.036e+04	0.8	0.0	0.0
6	4.368	0.229	0.679	1.293e+05	5.2	2.049e+04	0.8	3.489e+04	1.4	0.0	0.0
7	4.519	0.221	0.679	1.570e+04	0.6	4.511e+04	1.8	5369.93	0.2	0.0	0.0
8	4.588	0.218	0.679	7581.71	0.3	1866.62	7.52e-02	6.022e+04	2.4	0.0	0.0
9	4.853	0.206	0.679	4.617e+05	18.6	4001.34	0.2	9.689e+04	3.9	0.0	0.0
10	4.988	0.200	0.679	620.47	2.50e-02	1.597e+04	0.6	1.121e+04	0.5	0.0	0.0
11	5.059	0.198	0.679	5.943e+04	2.4	2.646e+04	1.1	7.757e+04	3.1	0.0	0.0
12	5.084	0.197	0.679	1.355e+05	5.5	3.37	1.36e-04	6.902e+04	2.8	0.0	0.0
13	5.466	0.183	0.679	3085.37	0.1	93.72	3.78e-03	1.909e+04	0.8	0.0	0.0
14	5.611	0.178	0.668	3736.08	0.2	6.668e+04	2.7	1.223e+05	4.9	0.0	0.0
15	5.850	0.171	0.652	3.357e+05	13.5	1.967e+04	0.8	2.777e+04	1.1	0.0	0.0
16	6.174	0.162	0.632	4.108e+04	1.7	6.406e+05	25.8	2.809e+05	11.3	0.0	0.0
17	6.576	0.152	0.609	2534.40	0.1	1.378e+04	0.6	7.452e+04	3.0	0.0	0.0
18	6.763	0.148	0.600	9.522e+04	3.8	0.03	1.40e-06	7091.04	0.3	0.0	0.0
19	7.363	0.136	0.573	9.749e+04	3.9	2.022e+04	0.8	2.701e+05	10.9	0.0	0.0
20	7.623	0.131	0.562	2.102e+04	0.8	4781.42	0.2	5.261e+05	21.2	0.0	0.0
21	7.858	0.127	0.554	2.951e+05	11.9	7.284e+04	2.9	2.354e+05	9.5	0.0	0.0
22	10.021	0.100	0.492	5584.20	0.2	1648.62	6.64e-02	2.679e+05	10.8	0.0	0.0
23	10.756	0.093	0.477	8216.01	0.3	9.640e+04	3.9	3399.79	0.1	0.0	0.0
24	13.907	0.072	0.429	465.54	1.88e-02	3.473e+04	1.4	8703.26	0.4	0.0	0.0
25	16.342	0.061	0.405	765.92	3.09e-02	1051.20	4.24e-02	729.66	2.94e-02	0.0	0.0
26	18.260	0.055	0.391	2.88	1.16e-04	1.996e+04	0.8	503.58	2.03e-02	0.0	0.0
27	22.487	0.044	0.368	7.52	3.03e-04	249.37	1.00e-02	1.918e+04	0.8	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.93			

CDC	Tipo	Sigla Id	Note
23	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: C

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	262

CDC	Tipo	Sigla Id	Note
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.248 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	-0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	-0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	-0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	-0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	-0.18	33.41	2.22	0.993	0.052	0.002

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	263

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.26	404.97	36.02	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	-0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	-0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	-0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	-0.18	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	-0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	-0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	-0.18	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	-0.18	41.68	1.56	0.195	0.027	0.229

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	264

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	-0.15	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	-1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	-1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	-0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	-0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	-0.18	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	0.0	-1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	-0.11	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	0.0	-1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.0	-0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	-1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	-0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	-0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	-1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	-0.18	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	265

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.28	3116.11	40.09	21.11	0.0	-0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	0.0	-0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	-0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	-0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	0.0	-1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	-0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	-1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	-0.15	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	266

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.50	2.184e+04	56.46	3.81	0.0	-0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.935	0.341	0.308	3.888e+04	1.6	4892.00	0.2	235.09	9.47e-03	0.0	0.0
2	3.166	0.316	0.308	4743.05	0.2	1.328e+06	53.5	1.117e+05	4.5	0.0	0.0
3	3.597	0.278	0.308	1009.06	4.07e-02	2.735e+04	1.1	1.576e+05	6.3	0.0	0.0
4	4.037	0.248	0.308	5.743e+05	23.1	2.490e+04	1.0	1.414e+04	0.6	0.0	0.0
5	4.308	0.232	0.308	4.201e+05	16.9	3065.69	0.1	2.421e+04	1.0	0.0	0.0
6	4.430	0.226	0.308	2.919e+04	1.2	3835.28	0.2	2180.90	8.79e-02	0.0	0.0
7	4.552	0.220	0.308	6723.56	0.3	1.826e+04	0.7	1.508e+04	0.6	0.0	0.0
8	4.826	0.207	0.308	4.141e+04	1.7	8.76	3.53e-04	8335.21	0.3	0.0	0.0
9	4.895	0.204	0.308	1.027e+05	4.1	3.635e+04	1.5	267.22	1.08e-02	0.0	0.0
10	5.014	0.199	0.308	2.468e+05	9.9	162.72	6.56e-03	1.136e+05	4.6	0.0	0.0
11	5.021	0.199	0.308	3.964e+04	1.6	4235.80	0.2	9.044e+04	3.6	0.0	0.0
12	5.130	0.195	0.308	4176.27	0.2	7.719e+04	3.1	1.341e+05	5.4	0.0	0.0
13	5.485	0.182	0.308	1.532e+04	0.6	59.29	2.39e-03	1.838e+04	0.7	0.0	0.0
14	5.873	0.170	0.308	2.666e+05	10.7	2505.10	0.1	1.424e+04	0.6	0.0	0.0
15	6.049	0.165	0.305	1.020e+04	0.4	4.920e+05	19.8	4.191e+05	16.9	0.0	0.0
16	6.127	0.163	0.303	1.561e+05	6.3	1.686e+05	6.8	9219.69	0.4	0.0	0.0
17	6.538	0.153	0.292	2.793e+04	1.1	3.744e+04	1.5	1.622e+04	0.7	0.0	0.0
18	6.647	0.150	0.289	23.81	9.59e-04	1.817e+04	0.7	1.390e+04	0.6	0.0	0.0
19	7.467	0.134	0.270	3.163e+05	12.7	3604.75	0.1	2.740e+05	11.0	0.0	0.0
20	7.820	0.128	0.264	1.503e+05	6.1	8.353e+04	3.4	6.932e+05	27.9	0.0	0.0
21	9.445	0.106	0.239	1.628e+04	0.7	2304.87	9.29e-02	3.047e+05	12.3	0.0	0.0
22	10.841	0.092	0.224	1.125e+04	0.5	6.121e+04	2.5	2599.21	0.1	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	267

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
23	12.031	0.083	0.214	371.91	1.50e-02	1.372e+04	0.6	7008.82	0.3	0.0	0.0
24	13.309	0.075	0.205	179.86	7.25e-03	4.746e+04	1.9	1.653e+04	0.7	0.0	0.0
25	15.816	0.063	0.192	1199.86	4.83e-02	1278.80	5.15e-02	1485.47	5.99e-02	0.0	0.0
26	18.165	0.055	0.182	64.06	2.58e-03	2.092e+04	0.8	895.67	3.61e-02	0.0	0.0
27	23.953	0.042	0.168	1.71	6.88e-05	57.21	2.30e-03	1.721e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.481e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
24	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.208 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	268

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
12.46	229.18	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	0.18	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	0.18	35.49	2.22	0.617	0.022	1.2031e-06

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	269

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.58	482.77	40.26	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	0.18	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	0.18	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	0.15	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	0.18	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	0.0	1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	0.11	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	0.0	1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	270

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.55	1.083e+04	58.34	3.40	0.0	0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	0.18	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.0	0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	0.0	0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	0.0	1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	0.15	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	271

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.03	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.0	0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.308	4.450e+04	1.8	5476.32	0.2	265.57	1.07e-02	0.0	0.0
2	3.166	0.316	0.308	1092.81	4.40e-02	1.329e+06	53.6	1.120e+05	4.5	0.0	0.0
3	3.597	0.278	0.308	416.96	1.68e-02	2.674e+04	1.1	1.585e+05	6.4	0.0	0.0
4	4.107	0.243	0.308	1.880e+05	7.6	2.513e+04	1.0	6834.13	0.3	0.0	0.0
5	4.381	0.228	0.308	3.849e+05	15.5	1483.91	5.98e-02	4.129e+04	1.7	0.0	0.0
6	4.441	0.225	0.308	1.630e+05	6.6	3367.53	0.1	842.83	3.40e-02	0.0	0.0
7	4.551	0.220	0.308	2.509e+04	1.0	1.933e+04	0.8	1.403e+04	0.6	0.0	0.0
8	4.808	0.208	0.308	6.646e+05	26.8	1.840e+04	0.7	1.207e+04	0.5	0.0	0.0
9	4.907	0.204	0.308	8965.20	0.4	1.849e+04	0.7	2.508e+04	1.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	272

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
10	5.006	0.200	0.308	6.925e+04	2.8	25.29	1.02e-03	2.377e+04	1.0	0.0	0.0
11	5.039	0.198	0.308	3.311e+04	1.3	4318.33	0.2	1.483e+05	6.0	0.0	0.0
12	5.130	0.195	0.308	2378.05	9.58e-02	7.686e+04	3.1	1.247e+05	5.0	0.0	0.0
13	5.570	0.180	0.308	7.361e+04	3.0	52.26	2.11e-03	2.195e+04	0.9	0.0	0.0
14	5.800	0.172	0.308	2.205e+05	8.9	18.35	7.39e-04	2745.22	0.1	0.0	0.0
15	6.034	0.166	0.306	9122.59	0.4	3.455e+05	13.9	3.799e+05	15.3	0.0	0.0
16	6.122	0.163	0.303	9.603e+04	3.9	3.281e+05	13.2	5.805e+04	2.3	0.0	0.0
17	6.584	0.152	0.290	1.789e+04	0.7	3.708e+04	1.5	1.708e+04	0.7	0.0	0.0
18	6.670	0.150	0.288	81.89	3.30e-03	1.112e+04	0.4	2.067e+04	0.8	0.0	0.0
19	7.447	0.134	0.271	2.948e+05	11.9	6549.52	0.3	2.697e+05	10.9	0.0	0.0
20	7.843	0.127	0.263	1.566e+05	6.3	7.549e+04	3.0	7.029e+05	28.3	0.0	0.0
21	9.470	0.106	0.239	2.087e+04	0.8	2090.87	8.42e-02	2.946e+05	11.9	0.0	0.0
22	10.736	0.093	0.225	5944.41	0.2	5.923e+04	2.4	1598.67	6.44e-02	0.0	0.0
23	11.968	0.084	0.214	60.51	2.44e-03	1.619e+04	0.7	5728.11	0.2	0.0	0.0
24	13.179	0.076	0.206	63.97	2.58e-03	4.763e+04	1.9	1.816e+04	0.7	0.0	0.0
25	15.600	0.064	0.193	889.27	3.58e-02	168.41	6.79e-03	1531.22	6.17e-02	0.0	0.0
26	17.921	0.056	0.183	28.56	1.15e-03	2.336e+04	0.9	129.81	5.23e-03	0.0	0.0
27	23.541	0.042	0.168	5.65	2.28e-04	1.69	6.80e-05	1.803e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
25	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.312 sec.

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	273

CDC	Tipo	Sigla Id	Note
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.30	0.0	33.92	2.22	0.871	0.018	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	274

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.57	394.21	37.29	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	275

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.06	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.60	0.0	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.07	0.0	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	1.34	0.0	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	277

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.308	4.221e+04	1.7	2547.12	0.1	112.16	4.52e-03	0.0	0.0
2	3.202	0.312	0.308	489.07	1.97e-02	1.350e+06	54.4	1.199e+05	4.8	0.0	0.0
3	3.601	0.278	0.308	8947.74	0.4	2.549e+04	1.0	1.477e+05	6.0	0.0	0.0
4	3.980	0.251	0.308	1.007e+05	4.1	1.66	6.70e-05	2.855e+04	1.2	0.0	0.0
5	4.222	0.237	0.308	5.549e+05	22.4	1.284e+04	0.5	1.353e+04	0.5	0.0	0.0
6	4.316	0.232	0.308	1.081e+05	4.4	2404.23	9.69e-02	1138.33	4.59e-02	0.0	0.0
7	4.529	0.221	0.308	8180.06	0.3	4.184e+04	1.7	6.32	2.55e-04	0.0	0.0
8	4.559	0.219	0.308	1.100e+05	4.4	192.59	7.76e-03	2.153e+04	0.9	0.0	0.0
9	4.780	0.209	0.308	3.576e+05	14.4	6.200e+04	2.5	1.828e+04	0.7	0.0	0.0
10	4.918	0.203	0.308	6.840e+04	2.8	4001.95	0.2	1.221e+05	4.9	0.0	0.0
11	5.036	0.199	0.308	1.630e+05	6.6	748.09	3.01e-02	1780.55	7.17e-02	0.0	0.0
12	5.058	0.198	0.308	5375.54	0.2	8409.07	0.3	1.752e+04	0.7	0.0	0.0
13	5.266	0.190	0.308	2835.17	0.1	2.783e+04	1.1	1.867e+05	7.5	0.0	0.0
14	5.669	0.176	0.308	5.506e+04	2.2	8.266e+04	3.3	1.141e+05	4.6	0.0	0.0
15	5.863	0.171	0.308	3.548e+05	14.3	494.27	1.99e-02	1.648e+04	0.7	0.0	0.0
16	6.084	0.164	0.304	4292.78	0.2	5.679e+05	22.9	3.198e+05	12.9	0.0	0.0
17	6.536	0.153	0.292	913.83	3.68e-02	5.063e+04	2.0	3.995e+04	1.6	0.0	0.0
18	6.676	0.150	0.288	1.783e+04	0.7	1.967e+04	0.8	5.017e+04	2.0	0.0	0.0
19	7.363	0.136	0.272	4.100e+05	16.5	327.14	1.32e-02	1.761e+04	0.7	0.0	0.0
20	7.915	0.126	0.262	5.425e+04	2.2	7.556e+04	3.0	8.863e+05	35.7	0.0	0.0
21	8.981	0.111	0.245	3142.15	0.1	7596.37	0.3	3.812e+04	1.5	0.0	0.0
22	9.148	0.109	0.243	4.493e+04	1.8	50.75	2.04e-03	2.707e+05	10.9	0.0	0.0
23	11.187	0.089	0.221	4144.30	0.2	4.903e+04	2.0	4992.10	0.2	0.0	0.0
24	12.928	0.077	0.207	94.72	3.82e-03	6.121e+04	2.5	2.228e+04	0.9	0.0	0.0
25	14.274	0.070	0.199	1548.87	6.24e-02	4579.72	0.2	2570.51	0.1	0.0	0.0
26	17.840	0.056	0.184	127.48	5.14e-03	2.344e+04	0.9	2310.97	9.31e-02	0.0	0.0
27	24.238	0.041	0.167	3.31	1.33e-04	91.51	3.69e-03	1.623e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	278

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
26	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.308 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.322 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	-1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	-0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	-0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	279

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	-0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	-0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	-0.30	0.0	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	-0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	-0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	-0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	280

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.07	5.458e+04	42.80	2.31	-1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	-0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	-1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	-0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	-1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	-1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	-0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	-0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	-0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	-1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	-0.60	0.0	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	-1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	-0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	-1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	-0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	-0.07	0.0	40.08	21.32	1.492	0.014	0.138

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	281

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.96	6861.17	37.90	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	-1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	-0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	-0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	-1.34	0.0	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	-1.34	0.0	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	-0.51	0.0	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	-1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	-0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	-1.54	0.0	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	-0.20	0.0	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	-0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	-1.54	0.0	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	-0.59	0.0	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	282

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
1.49	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	-0.59	0.0	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	-1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.308	4.038e+04	1.6	1.221e+04	0.5	576.38	2.32e-02	0.0	0.0
2	3.110	0.322	0.308	5400.07	0.2	1.333e+06	53.7	9.029e+04	3.6	0.0	0.0
3	3.494	0.286	0.308	32.67	1.32e-03	3939.87	0.2	1.479e+05	6.0	0.0	0.0
4	4.114	0.243	0.308	2.122e+05	8.5	2.100e+04	0.8	2154.21	8.68e-02	0.0	0.0
5	4.223	0.237	0.308	5.039e+05	20.3	4856.92	0.2	2.036e+04	0.8	0.0	0.0
6	4.368	0.229	0.308	1.293e+05	5.2	2.049e+04	0.8	3.489e+04	1.4	0.0	0.0
7	4.519	0.221	0.308	1.570e+04	0.6	4.511e+04	1.8	5369.93	0.2	0.0	0.0
8	4.588	0.218	0.308	7581.71	0.3	1866.62	7.52e-02	6.022e+04	2.4	0.0	0.0
9	4.853	0.206	0.308	4.617e+05	18.6	4001.34	0.2	9.689e+04	3.9	0.0	0.0
10	4.988	0.200	0.308	620.47	2.50e-02	1.597e+04	0.6	1.121e+04	0.5	0.0	0.0
11	5.059	0.198	0.308	5.943e+04	2.4	2.646e+04	1.1	7.757e+04	3.1	0.0	0.0
12	5.084	0.197	0.308	1.355e+05	5.5	3.37	1.36e-04	6.902e+04	2.8	0.0	0.0
13	5.466	0.183	0.308	3085.37	0.1	93.72	3.78e-03	1.909e+04	0.8	0.0	0.0
14	5.611	0.178	0.308	3736.08	0.2	6.668e+04	2.7	1.223e+05	4.9	0.0	0.0
15	5.850	0.171	0.308	3.357e+05	13.5	1.967e+04	0.8	2.777e+04	1.1	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	283

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
16	6.174	0.162	0.302	4.108e+04	1.7	6.406e+05	25.8	2.809e+05	11.3	0.0	0.0
17	6.576	0.152	0.291	2534.40	0.1	1.378e+04	0.6	7.452e+04	3.0	0.0	0.0
18	6.763	0.148	0.286	9.522e+04	3.8	0.03	1.40e-06	7091.04	0.3	0.0	0.0
19	7.363	0.136	0.272	9.749e+04	3.9	2.022e+04	0.8	2.701e+05	10.9	0.0	0.0
20	7.623	0.131	0.267	2.102e+04	0.8	4781.42	0.2	5.261e+05	21.2	0.0	0.0
21	7.858	0.127	0.263	2.951e+05	11.9	7.284e+04	2.9	2.354e+05	9.5	0.0	0.0
22	10.021	0.100	0.232	5584.20	0.2	1648.62	6.64e-02	2.679e+05	10.8	0.0	0.0
23	10.756	0.093	0.225	8216.01	0.3	9.640e+04	3.9	3399.79	0.1	0.0	0.0
24	13.907	0.072	0.201	465.54	1.88e-02	3.473e+04	1.4	8703.26	0.4	0.0	0.0
25	16.342	0.061	0.189	765.92	3.09e-02	1051.20	4.24e-02	729.66	2.94e-02	0.0	0.0
26	18.260	0.055	0.182	2.88	1.16e-04	1.996e+04	0.8	503.58	2.03e-02	0.0	0.0
27	22.487	0.044	0.171	7.52	3.03e-04	249.37	1.00e-02	1.918e+04	0.8	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.93			

CDC	Tipo	Sigla Id	Note
27	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.248 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	284

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
16.24	234.57	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	-0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	-0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	-0.18	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	-0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	-0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	-0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	-0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	-0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	-0.18	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	-0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	-0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	-0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	-0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	285

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.04	234.57	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	-0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	-0.18	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	-0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	-0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	-0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	-0.18	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	-0.18	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	-0.15	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	-1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	-1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	-0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	-0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	-0.18	44.39	2.22	1.625	0.004	0.092

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	286

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
6.15	8.582e+04	42.47	6.60	0.0	-1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	-0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	-0.11	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	0.0	-1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.0	-0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	-1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	-0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	-0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	-1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	-0.18	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.0	-0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	0.0	-0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	-0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	-0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	-0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	-0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	-1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	-0.13	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	287

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
3.05	1.005e+05	43.76	10.15	0.0	-1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	-0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	-1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	-0.15	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	-0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	-1.09	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.0	-0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	-0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.935	0.341	0.241	3.888e+04	1.6	4892.00	0.2	235.09	9.47e-03	0.0	0.0
2	3.166	0.316	0.241	4743.05	0.2	1.328e+06	53.5	1.117e+05	4.5	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	288

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
3	3.597	0.278	0.241	1009.06	4.07e-02	2.735e+04	1.1	1.576e+05	6.3	0.0	0.0
4	4.037	0.248	0.241	5.743e+05	23.1	2.490e+04	1.0	1.414e+04	0.6	0.0	0.0
5	4.308	0.232	0.241	4.201e+05	16.9	3065.69	0.1	2.421e+04	1.0	0.0	0.0
6	4.430	0.226	0.241	2.919e+04	1.2	3835.28	0.2	2180.90	8.79e-02	0.0	0.0
7	4.552	0.220	0.241	6723.56	0.3	1.826e+04	0.7	1.508e+04	0.6	0.0	0.0
8	4.826	0.207	0.241	4.141e+04	1.7	8.76	3.53e-04	8335.21	0.3	0.0	0.0
9	4.895	0.204	0.241	1.027e+05	4.1	3.635e+04	1.5	267.22	1.08e-02	0.0	0.0
10	5.014	0.199	0.241	2.468e+05	9.9	162.72	6.56e-03	1.136e+05	4.6	0.0	0.0
11	5.021	0.199	0.241	3.964e+04	1.6	4235.80	0.2	9.044e+04	3.6	0.0	0.0
12	5.130	0.195	0.241	4176.27	0.2	7.719e+04	3.1	1.341e+05	5.4	0.0	0.0
13	5.485	0.182	0.241	1.532e+04	0.6	59.29	2.39e-03	1.838e+04	0.7	0.0	0.0
14	5.873	0.170	0.241	2.666e+05	10.7	2505.10	0.1	1.424e+04	0.6	0.0	0.0
15	6.049	0.165	0.241	1.020e+04	0.4	4.920e+05	19.8	4.191e+05	16.9	0.0	0.0
16	6.127	0.163	0.239	1.561e+05	6.3	1.686e+05	6.8	9219.69	0.4	0.0	0.0
17	6.538	0.153	0.230	2.793e+04	1.1	3.744e+04	1.5	1.622e+04	0.7	0.0	0.0
18	6.647	0.150	0.228	23.81	9.59e-04	1.817e+04	0.7	1.390e+04	0.6	0.0	0.0
19	7.467	0.134	0.214	3.163e+05	12.7	3604.75	0.1	2.740e+05	11.0	0.0	0.0
20	7.820	0.128	0.209	1.503e+05	6.1	8.353e+04	3.4	6.932e+05	27.9	0.0	0.0
21	9.445	0.106	0.189	1.628e+04	0.7	2304.87	9.29e-02	3.047e+05	12.3	0.0	0.0
22	10.841	0.092	0.177	1.125e+04	0.5	6.121e+04	2.5	2599.21	0.1	0.0	0.0
23	12.031	0.083	0.169	371.91	1.50e-02	1.372e+04	0.6	7008.82	0.3	0.0	0.0
24	13.309	0.075	0.162	179.86	7.25e-03	4.746e+04	1.9	1.653e+04	0.7	0.0	0.0
25	15.816	0.063	0.152	1199.86	4.83e-02	1278.80	5.15e-02	1485.47	5.99e-02	0.0	0.0
26	18.165	0.055	0.145	64.06	2.58e-03	2.092e+04	0.8	895.67	3.61e-02	0.0	0.0
27	23.953	0.042	0.133	1.71	6.88e-05	57.21	2.30e-03	1.721e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.481e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
-----	------	----------	------

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	289

CDC	Tipo	Sigla Id	Note
28	Edk	CDC=Ed (dinamico SLO) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.208 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.18	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.18	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.18	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	0.0	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.18	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.18	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.0	0.18	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.0	0.18	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.18	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.0	0.18	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	290

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
10.67	433.50	33.90	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.0	0.18	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.18	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.0	0.18	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.0	0.18	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.0	0.18	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.18	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.0	0.18	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.18	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	0.0	0.18	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	0.0	0.96	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.0	0.18	40.20	1.34	1.145	0.042	0.741

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	291

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.74	8511.80	55.60	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	0.0	0.18	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.0	0.15	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	0.0	1.09	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	0.0	1.09	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.0	0.15	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.0	0.11	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.0	0.18	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	0.0	1.09	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.0	0.15	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.0	0.11	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	0.0	1.09	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.0	0.15	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.0	0.78	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	0.0	1.09	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.0	0.15	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.0	0.13	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	0.0	1.09	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.0	0.18	48.63	2.22	1.625	0.009	0.091

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	292

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.46	7066.17	37.73	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	0.0	0.13	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.0	0.13	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	0.0	0.18	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.0	0.15	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	0.0	0.18	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.0	0.15	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	0.0	1.09	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.0	0.13	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	0.0	1.09	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.0	0.15	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	0.0	1.09	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.0	0.15	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.0	0.15	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	293

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
0.99	1679.15	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	0.0	1.09	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.0	0.15	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	0.0	0.78	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.241	4.450e+04	1.8	5476.32	0.2	265.57	1.07e-02	0.0	0.0
2	3.166	0.316	0.241	1092.81	4.40e-02	1.329e+06	53.6	1.120e+05	4.5	0.0	0.0
3	3.597	0.278	0.241	416.96	1.68e-02	2.674e+04	1.1	1.585e+05	6.4	0.0	0.0
4	4.107	0.243	0.241	1.880e+05	7.6	2.513e+04	1.0	6834.13	0.3	0.0	0.0
5	4.381	0.228	0.241	3.849e+05	15.5	1483.91	5.98e-02	4.129e+04	1.7	0.0	0.0
6	4.441	0.225	0.241	1.630e+05	6.6	3367.53	0.1	842.83	3.40e-02	0.0	0.0
7	4.551	0.220	0.241	2.509e+04	1.0	1.933e+04	0.8	1.403e+04	0.6	0.0	0.0
8	4.808	0.208	0.241	6.646e+05	26.8	1.840e+04	0.7	1.207e+04	0.5	0.0	0.0
9	4.907	0.204	0.241	8965.20	0.4	1.849e+04	0.7	2.508e+04	1.0	0.0	0.0
10	5.006	0.200	0.241	6.925e+04	2.8	25.29	1.02e-03	2.377e+04	1.0	0.0	0.0
11	5.039	0.198	0.241	3.311e+04	1.3	4318.33	0.2	1.483e+05	6.0	0.0	0.0
12	5.130	0.195	0.241	2378.05	9.58e-02	7.686e+04	3.1	1.247e+05	5.0	0.0	0.0
13	5.570	0.180	0.241	7.361e+04	3.0	52.26	2.11e-03	2.195e+04	0.9	0.0	0.0
14	5.800	0.172	0.241	2.205e+05	8.9	18.35	7.39e-04	2745.22	0.1	0.0	0.0
15	6.034	0.166	0.241	9122.59	0.4	3.455e+05	13.9	3.799e+05	15.3	0.0	0.0
16	6.122	0.163	0.240	9.603e+04	3.9	3.281e+05	13.2	5.805e+04	2.3	0.0	0.0
17	6.584	0.152	0.230	1.789e+04	0.7	3.708e+04	1.5	1.708e+04	0.7	0.0	0.0
18	6.670	0.150	0.228	81.89	3.30e-03	1.112e+04	0.4	2.067e+04	0.8	0.0	0.0
19	7.447	0.134	0.214	2.948e+05	11.9	6549.52	0.3	2.697e+05	10.9	0.0	0.0
20	7.843	0.127	0.208	1.566e+05	6.3	7.549e+04	3.0	7.029e+05	28.3	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	294

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
21	9.470	0.106	0.189	2.087e+04	0.8	2090.87	8.42e-02	2.946e+05	11.9	0.0	0.0
22	10.736	0.093	0.178	5944.41	0.2	5.923e+04	2.4	1598.67	6.44e-02	0.0	0.0
23	11.968	0.084	0.170	60.51	2.44e-03	1.619e+04	0.7	5728.11	0.2	0.0	0.0
24	13.179	0.076	0.163	63.97	2.58e-03	4.763e+04	1.9	1.816e+04	0.7	0.0	0.0
25	15.600	0.064	0.153	889.27	3.58e-02	168.41	6.79e-03	1531.22	6.17e-02	0.0	0.0
26	17.921	0.056	0.145	28.56	1.15e-03	2.336e+04	0.9	129.81	5.23e-03	0.0	0.0
27	23.541	0.042	0.134	5.65	2.28e-04	1.69	6.80e-05	1.803e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
29	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.312 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	295

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	0.30	0.0	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	296

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	0.62	0.0	0.0	0.0	0.0	0.0	0.0
7.18	1.126e+05	42.91	9.45	1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	0.60	0.0	52.10	19.80	0.087	0.832	0.674

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	297

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
5.63	9.093e+04	42.57	6.39	1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	0.07	0.0	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	1.34	0.0	43.75	1.34	0.176	0.011	0.420
4.04	1.164e+04	57.87	3.46	0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	1.34	0.0	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	0.51	0.0	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	1.54	0.0	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	0.20	0.0	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	1.54	0.0	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	0.59	0.0	58.04	4.09	0.196	1.754	0.391

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	298

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
2.48	1.261e+04	39.11	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	0.59	0.0	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	1.54	0.0	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	0.59	0.0	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	0.09	0.0	0.0	0.0	0.0	0.0	0.0
3.62e-04	5459.93	46.62	11.26	1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.241	4.221e+04	1.7	2547.12	0.1	112.16	4.52e-03	0.0	0.0
2	3.202	0.312	0.241	489.07	1.97e-02	1.350e+06	54.4	1.199e+05	4.8	0.0	0.0
3	3.601	0.278	0.241	8947.74	0.4	2.549e+04	1.0	1.477e+05	6.0	0.0	0.0
4	3.980	0.251	0.241	1.007e+05	4.1	1.66	6.70e-05	2.855e+04	1.2	0.0	0.0
5	4.222	0.237	0.241	5.549e+05	22.4	1.284e+04	0.5	1.353e+04	0.5	0.0	0.0
6	4.316	0.232	0.241	1.081e+05	4.4	2404.23	9.69e-02	1138.33	4.59e-02	0.0	0.0
7	4.529	0.221	0.241	8180.06	0.3	4.184e+04	1.7	6.32	2.55e-04	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	299

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
8	4.559	0.219	0.241	1.100e+05	4.4	192.59	7.76e-03	2.153e+04	0.9	0.0	0.0
9	4.780	0.209	0.241	3.576e+05	14.4	6.200e+04	2.5	1.828e+04	0.7	0.0	0.0
10	4.918	0.203	0.241	6.840e+04	2.8	4001.95	0.2	1.221e+05	4.9	0.0	0.0
11	5.036	0.199	0.241	1.630e+05	6.6	748.09	3.01e-02	1780.55	7.17e-02	0.0	0.0
12	5.058	0.198	0.241	5375.54	0.2	8409.07	0.3	1.752e+04	0.7	0.0	0.0
13	5.266	0.190	0.241	2835.17	0.1	2.783e+04	1.1	1.867e+05	7.5	0.0	0.0
14	5.669	0.176	0.241	5.506e+04	2.2	8.266e+04	3.3	1.141e+05	4.6	0.0	0.0
15	5.863	0.171	0.241	3.548e+05	14.3	494.27	1.99e-02	1.648e+04	0.7	0.0	0.0
16	6.084	0.164	0.240	4292.78	0.2	5.679e+05	22.9	3.198e+05	12.9	0.0	0.0
17	6.536	0.153	0.231	913.83	3.68e-02	5.063e+04	2.0	3.995e+04	1.6	0.0	0.0
18	6.676	0.150	0.228	1.783e+04	0.7	1.967e+04	0.8	5.017e+04	2.0	0.0	0.0
19	7.363	0.136	0.215	4.100e+05	16.5	327.14	1.32e-02	1.761e+04	0.7	0.0	0.0
20	7.915	0.126	0.207	5.425e+04	2.2	7.556e+04	3.0	8.863e+05	35.7	0.0	0.0
21	8.981	0.111	0.194	3142.15	0.1	7596.37	0.3	3.812e+04	1.5	0.0	0.0
22	9.148	0.109	0.192	4.493e+04	1.8	50.75	2.04e-03	2.707e+05	10.9	0.0	0.0
23	11.187	0.089	0.175	4144.30	0.2	4.903e+04	2.0	4992.10	0.2	0.0	0.0
24	12.928	0.077	0.164	94.72	3.82e-03	6.121e+04	2.5	2.228e+04	0.9	0.0	0.0
25	14.274	0.070	0.158	1548.87	6.24e-02	4579.72	0.2	2570.51	0.1	0.0	0.0
26	17.840	0.056	0.146	127.48	5.14e-03	2.344e+04	0.9	2310.97	9.31e-02	0.0	0.0
27	24.238	0.041	0.133	3.31	1.33e-04	91.51	3.69e-03	1.623e+04	0.7	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.94			

CDC	Tipo	Sigla Id	Note
30	Edk	CDC=Ed (dinamico SLO) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.241 g
			angolo di ingresso:90.00

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	300

CDC	Tipo	Sigla Id	Note
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.322 sec.
			numero di modi considerati: 27
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
m	daN	m	m	m	m	m	m			
16.24	234.57	31.42	2.45	0.0	0.0	31.42	2.45	1.033	0.0	0.0
15.94	1003.62	31.42	2.45	0.0	0.0	31.42	2.45	1.033	1.7656e-04	0.0
14.95	238.22	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
14.59	1671.12	34.88	2.45	0.0	0.0	34.88	2.45	1.033	0.0	0.0
13.92	1.844e+04	46.79	19.80	-1.45	0.0	46.79	19.80	1.095	1.2844e-05	0.0
13.65	230.42	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
13.42	1558.90	37.88	2.45	0.0	0.0	37.88	2.45	1.033	0.0	0.0
12.46	229.18	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.25	1547.83	40.88	2.45	0.0	0.0	40.88	2.45	1.033	0.0	0.0
12.00	1284.03	31.28	2.26	-0.02	0.0	31.18	2.22	0.707	0.139	0.025
11.81	412.15	31.78	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.58	150.08	32.21	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.44	3246.97	31.61	2.22	-0.08	0.0	31.70	2.22	1.575	0.040	1.5962e-05
11.40	235.78	43.88	2.45	0.0	0.0	43.88	2.45	1.033	0.0	0.0
11.35	393.27	32.63	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.12	276.97	33.05	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
11.08	1.423e+04	33.13	2.37	-0.64	0.0	31.69	2.22	0.470	0.782	0.086
10.89	2831.73	33.00	2.22	-0.04	0.0	0.0	0.0	0.0	0.0	0.0
10.67	433.50	33.90	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.33	1.385e+04	33.03	2.22	-0.25	0.0	33.41	2.22	0.993	0.052	0.002
10.26	404.97	36.02	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
10.22	235.17	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
10.03	295.88	36.45	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	301

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
9.91	1420.50	46.88	2.45	0.0	0.0	46.88	2.45	1.033	0.0	0.0
9.78	1.748e+04	33.76	2.22	-0.30	0.0	33.92	2.22	0.871	0.018	0.0
9.57	394.21	37.29	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.42	3.018e+04	46.77	19.80	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
9.41	1.673e+04	35.90	2.37	-0.06	0.0	35.91	2.22	1.625	0.005	0.090
9.34	117.27	37.72	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.25	606.57	37.88	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.24	1.566e+04	33.73	2.22	-0.34	0.0	33.65	2.22	0.790	0.008	7.3571e-06
9.11	426.76	38.14	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
9.04	234.57	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.92	1.204e+04	39.02	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.92	1366.74	48.05	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.88	220.80	38.56	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.86	1.065e+04	55.29	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.74	703.79	49.88	2.45	0.0	0.0	49.88	2.45	1.033	0.0	0.0
8.69	2.901e+04	35.19	2.22	-0.46	0.0	35.49	2.22	0.617	0.022	1.2031e-06
8.58	482.77	40.26	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1.219e+04	39.01	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
8.43	1392.77	48.03	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
8.35	259.48	40.68	2.22	-1.85e-05	0.0	0.0	0.0	0.0	0.0	0.0
8.30	1.069e+04	55.21	19.80	-0.63	0.0	0.0	0.0	0.0	0.0	0.0
8.24	386.37	40.88	2.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.07	5.458e+04	42.80	2.31	-1.54	0.0	49.66	2.34	0.201	0.209	0.016
7.93	1.043e+04	38.93	19.80	-0.77	0.0	0.0	0.0	0.0	0.0	0.0
7.93	852.68	48.06	19.80	-0.07	0.0	0.0	0.0	0.0	0.0	0.0
7.82	4.839e+04	46.82	10.64	-1.50	0.0	0.0	0.0	0.0	0.0	0.0
7.78	1.552e+04	40.15	2.36	-0.06	0.0	40.20	1.34	1.145	0.042	0.741
7.74	8511.80	55.60	19.80	-0.58	0.0	0.0	0.0	0.0	0.0	0.0
7.62	5.026e+04	42.46	1.91	-1.34	0.0	41.68	1.56	0.195	0.027	0.229
7.57	2067.34	47.03	19.80	-0.28	0.0	0.0	0.0	0.0	0.0	0.0
7.57	1.544e+04	56.75	3.64	-0.58	0.0	57.85	4.06	0.182	1.310	0.663
7.44	8498.45	37.69	19.80	-0.62	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	302

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
7.18	1.126e+05	42.91	9.45	-1.54	0.0	44.58	4.97	0.714	0.011	0.577
7.14	801.05	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.06	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.598	1.045
6.94	8750.56	37.85	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.66	9.082e+04	42.58	6.37	-1.34	0.0	43.09	4.41	0.737	0.003	0.269
6.56	1.165e+04	57.86	3.46	-0.51	0.0	57.85	4.06	0.205	0.012	0.957
6.49	1.991e+04	54.60	20.00	-0.60	0.0	52.10	19.80	0.087	0.839	0.649
6.45	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
6.15	1.642e+04	44.39	2.38	-0.06	0.0	44.39	2.22	1.625	0.004	0.092
6.15	8.582e+04	42.47	6.60	-1.34	0.0	42.99	4.41	0.740	0.003	0.298
6.11	784.38	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.05	1.082e+04	58.35	3.40	-0.47	0.0	57.85	4.06	0.219	0.601	1.048
5.95	9631.97	37.41	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.80	1.999e+04	54.59	20.01	-0.60	0.0	52.10	19.80	0.087	0.832	0.674
5.63	9.093e+04	42.57	6.39	-1.34	0.0	43.09	4.41	0.737	0.003	0.271
5.60	848.81	51.44	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.55	1.083e+04	58.34	3.40	-0.47	0.0	57.85	4.06	0.219	0.593	1.046
5.45	9311.06	37.51	19.80	-0.65	0.0	0.0	0.0	0.0	0.0	0.0
5.12	2899.37	31.84	7.23	-0.08	0.0	0.0	0.0	0.0	0.0	0.0
5.12	1.069e+05	45.12	8.67	-1.54	0.0	44.98	5.00	0.734	9.2516e-04	0.460
5.04	1.167e+04	57.85	3.46	-0.51	0.0	57.85	4.06	0.205	0.002	0.955
5.03	1.594e+04	40.05	21.14	-0.07	0.0	40.08	21.32	1.492	0.014	0.138
4.96	6861.17	37.90	19.80	-0.55	0.0	0.0	0.0	0.0	0.0	0.0
4.61	1775.62	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.60	7.767e+04	42.63	5.36	-1.34	0.0	42.92	4.50	0.779	0.002	0.111
4.54	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
4.52	1.620e+04	48.62	2.38	-0.06	0.0	48.63	2.22	1.625	0.009	0.091
4.46	7066.17	37.73	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
4.43	3.464e+04	48.57	21.04	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
4.28	3116.11	40.09	21.11	-0.07	0.0	40.08	21.32	1.492	0.003	0.161
4.10	1775.44	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
4.08	6.915e+04	43.45	1.91	-1.34	0.0	43.75	1.34	0.176	0.011	0.420

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	303

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
4.04	1.164e+04	57.87	3.46	-0.51	0.0	57.85	4.06	0.205	0.023	0.958
3.97	8239.74	38.10	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.74	4.527e+04	46.59	21.37	-1.54	0.0	0.0	0.0	0.0	0.0	0.0
3.59	1696.40	31.62	4.20	-0.06	0.0	0.0	0.0	0.0	0.0	0.0
3.57	6.871e+04	43.36	1.92	-1.34	0.0	43.75	1.34	0.176	0.014	0.425
3.53	1.145e+04	57.93	3.44	-0.51	0.0	57.85	4.06	0.205	0.101	0.977
3.47	8457.81	38.16	19.80	-0.57	0.0	0.0	0.0	0.0	0.0	0.0
3.12	6.578e+04	50.10	9.21	-1.34	0.0	0.0	0.0	0.0	0.0	0.0
3.12	8419.71	48.42	21.26	-0.10	0.0	0.0	0.0	0.0	0.0	0.0
3.05	1.005e+05	43.76	10.15	-1.54	0.0	44.65	6.99	0.823	0.008	0.354
3.03	1.037e+04	58.76	3.37	-0.20	0.0	58.25	4.04	0.586	0.405	0.801
2.97	8141.94	38.16	19.80	-0.52	0.0	0.0	0.0	0.0	0.0	0.0
2.54	1.250e+05	44.62	10.61	-1.54	0.0	45.40	6.64	0.831	0.005	0.440
2.52	2.286e+04	56.33	3.82	-0.59	0.0	58.04	4.09	0.196	1.754	0.391
2.48	1.261e+04	39.11	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
2.48	1919.31	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
2.03	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
2.02	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.98	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.98	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.53	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.51	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
1.49	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
1.49	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
1.02	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
1.01	2.186e+04	56.44	3.81	-0.59	0.0	58.04	4.09	0.196	1.644	0.416
0.99	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.99	1679.15	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0
0.51	1.237e+05	44.58	10.61	-1.54	0.0	45.40	6.64	0.831	0.006	0.439
0.50	2.184e+04	56.46	3.81	-0.59	0.0	58.04	4.09	0.196	1.627	0.414
0.50	1.204e+04	39.03	19.80	-0.80	0.0	0.0	0.0	0.0	0.0	0.0
0.50	1674.18	48.25	19.80	-0.09	0.0	0.0	0.0	0.0	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
LI0B	02	E	ZZ	CL	TR	06	00	003	B	304

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
3.62e-04	5459.93	46.62	11.26	-1.28	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	2.482e+06									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	2.934	0.341	0.241	4.038e+04	1.6	1.221e+04	0.5	576.38	2.32e-02	0.0	0.0
2	3.110	0.322	0.241	5400.07	0.2	1.333e+06	53.7	9.029e+04	3.6	0.0	0.0
3	3.494	0.286	0.241	32.67	1.32e-03	3939.87	0.2	1.479e+05	6.0	0.0	0.0
4	4.114	0.243	0.241	2.122e+05	8.5	2.100e+04	0.8	2154.21	8.68e-02	0.0	0.0
5	4.223	0.237	0.241	5.039e+05	20.3	4856.92	0.2	2.036e+04	0.8	0.0	0.0
6	4.368	0.229	0.241	1.293e+05	5.2	2.049e+04	0.8	3.489e+04	1.4	0.0	0.0
7	4.519	0.221	0.241	1.570e+04	0.6	4.511e+04	1.8	5369.93	0.2	0.0	0.0
8	4.588	0.218	0.241	7581.71	0.3	1866.62	7.52e-02	6.022e+04	2.4	0.0	0.0
9	4.853	0.206	0.241	4.617e+05	18.6	4001.34	0.2	9.689e+04	3.9	0.0	0.0
10	4.988	0.200	0.241	620.47	2.50e-02	1.597e+04	0.6	1.121e+04	0.5	0.0	0.0
11	5.059	0.198	0.241	5.943e+04	2.4	2.646e+04	1.1	7.757e+04	3.1	0.0	0.0
12	5.084	0.197	0.241	1.355e+05	5.5	3.37	1.36e-04	6.902e+04	2.8	0.0	0.0
13	5.466	0.183	0.241	3085.37	0.1	93.72	3.78e-03	1.909e+04	0.8	0.0	0.0
14	5.611	0.178	0.241	3736.08	0.2	6.668e+04	2.7	1.223e+05	4.9	0.0	0.0
15	5.850	0.171	0.241	3.357e+05	13.5	1.967e+04	0.8	2.777e+04	1.1	0.0	0.0
16	6.174	0.162	0.238	4.108e+04	1.7	6.406e+05	25.8	2.809e+05	11.3	0.0	0.0
17	6.576	0.152	0.230	2534.40	0.1	1.378e+04	0.6	7.452e+04	3.0	0.0	0.0
18	6.763	0.148	0.226	9.522e+04	3.8	0.03	1.40e-06	7091.04	0.3	0.0	0.0
19	7.363	0.136	0.215	9.749e+04	3.9	2.022e+04	0.8	2.701e+05	10.9	0.0	0.0
20	7.623	0.131	0.211	2.102e+04	0.8	4781.42	0.2	5.261e+05	21.2	0.0	0.0
21	7.858	0.127	0.208	2.951e+05	11.9	7.284e+04	2.9	2.354e+05	9.5	0.0	0.0
22	10.021	0.100	0.184	5584.20	0.2	1648.62	6.64e-02	2.679e+05	10.8	0.0	0.0
23	10.756	0.093	0.178	8216.01	0.3	9.640e+04	3.9	3399.79	0.1	0.0	0.0
24	13.907	0.072	0.160	465.54	1.88e-02	3.473e+04	1.4	8703.26	0.4	0.0	0.0
25	16.342	0.061	0.150	765.92	3.09e-02	1051.20	4.24e-02	729.66	2.94e-02	0.0	0.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici

COMMESSA

LOTTO

FASE

ENTE

TIPO DOC

OPERA 7 DISCIPLINA

PROGR

REV

FOGLIO

LI0B

02

E

ZZ

CL

TR

06

00

003

B

305

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
26	18.260	0.055	0.145	2.88	1.16e-04	1.996e+04	0.8	503.58	2.03e-02	0.0	0.0
27	22.487	0.044	0.136	7.52	3.03e-04	249.37	1.00e-02	1.918e+04	0.8	0.0	0.0
Risulta				2.482e+06		2.481e+06		2.480e+06			
In percentuale				100.00		99.98		99.93			

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
			cm	cm			cm	cm			cm	cm
219	90	3.47	1.56	450.0	92	5.02	2.26	450.0	94	4.42	1.99	450.0
	96	3.68	1.66	450.0	98	3.15	1.42	450.0	100	2.88	1.30	450.0
	102	3.08	1.38	450.0	104	2.62	1.18	450.0	106	2.90	1.30	450.0
	108	3.25	1.46	450.0	110	2.94	1.32	450.0				
220	90	2.43	1.10	450.0	92	3.19	1.43	450.0	94	2.87	1.29	450.0
	96	2.49	1.12	450.0	98	2.26	1.02	450.0	100	2.28	1.02	450.0
	102	2.25	1.01	450.0	104	3.63	1.63	450.0	106	3.92	1.77	450.0
	108	4.25	1.91	450.0	110	3.23	1.45	450.0				
221	90	2.78	1.25	450.0	92	3.63	1.64	450.0	94	3.23	1.45	450.0
	96	2.53	1.14	450.0	98	2.35	1.06	450.0	100	2.34	1.05	450.0
	102	2.39	1.08	450.0	104	3.29	1.48	450.0	106	3.54	1.59	450.0
	108	3.82	1.72	450.0	110	2.89	1.30	450.0				
222	90	3.94	1.77	450.0	92	5.52	2.48	450.0	94	4.84	2.18	450.0
	96	4.01	1.80	450.0	98	3.47	1.56	450.0	100	3.22	1.45	450.0
	102	3.45	1.55	450.0	104	2.77	1.25	450.0	106	2.97	1.33	450.0
	108	3.17	1.43	450.0	110	2.83	1.27	450.0				
223	90	3.48	1.57	450.0	92	5.03	2.26	450.0	94	4.43	1.99	450.0
	96	3.69	1.66	450.0	98	3.16	1.42	450.0	100	2.88	1.30	450.0
	102	3.08	1.39	450.0	104	2.61	1.17	450.0	106	2.86	1.29	450.0
	108	3.20	1.44	450.0	110	2.90	1.31	450.0				
224	90	2.44	1.10	450.0	92	3.19	1.44	450.0	94	2.88	1.30	450.0
	96	2.49	1.12	450.0	98	2.26	1.02	450.0	100	2.27	1.02	450.0
	102	2.25	1.01	450.0	104	3.62	1.63	450.0	106	3.91	1.76	450.0

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	306
	108	4.24	1.91	450.0	110	3.22	1.45	450.0							
225	90	2.78	1.25	450.0	92	3.63	1.63	450.0	94	3.22	1.45	450.0			
	96	2.51	1.13	450.0	98	2.36	1.06	450.0	100	2.34	1.05	450.0			
	102	2.39	1.08	450.0	104	3.30	1.49	450.0	106	3.55	1.60	450.0			
	108	3.83	1.72	450.0	110	2.90	1.30	450.0							
226	90	3.93	1.77	450.0	92	5.51	2.48	450.0	94	4.83	2.17	450.0			
	96	4.00	1.80	450.0	98	3.46	1.56	450.0	100	3.21	1.44	450.0			
	102	3.45	1.55	450.0	104	2.78	1.25	450.0	106	2.97	1.34	450.0			
	108	3.18	1.43	450.0	110	2.84	1.28	450.0							
227	90	3.30	1.49	450.0	92	4.66	2.10	450.0	94	4.23	1.90	450.0			
	96	3.63	1.63	450.0	98	3.17	1.43	450.0	100	2.96	1.33	450.0			
	102	3.25	1.46	450.0	104	2.69	1.21	450.0	106	2.77	1.25	450.0			
	108	2.93	1.32	450.0	110	2.78	1.25	450.0							
228	90	2.53	1.14	450.0	92	3.49	1.57	450.0	94	3.01	1.35	450.0			
	96	2.47	1.11	450.0	98	2.17	0.97	450.0	100	2.15	0.97	450.0			
	102	2.13	0.96	450.0	104	3.80	1.71	450.0	106	4.26	1.92	450.0			
	108	4.68	2.11	450.0	110	3.48	1.56	450.0							
229	90	2.94	1.32	450.0	92	3.97	1.78	450.0	94	3.40	1.53	450.0			
	96	2.58	1.16	450.0	98	2.21	1.00	450.0	100	2.22	1.00	450.0			
	102	2.25	1.01	450.0	104	3.43	1.55	450.0	106	3.83	1.72	450.0			
	108	4.21	1.89	450.0	110	3.08	1.39	450.0							
230	90	3.73	1.68	450.0	92	5.15	2.32	450.0	94	4.63	2.08	450.0			
	96	3.95	1.78	450.0	98	3.47	1.56	450.0	100	3.28	1.47	450.0			
	102	3.63	1.63	450.0	104	2.82	1.27	450.0	106	2.90	1.30	450.0			
	108	3.01	1.35	450.0	110	2.81	1.27	450.0							
231	90	3.31	1.49	450.0	92	4.67	2.10	450.0	94	4.24	1.91	450.0			
	96	3.64	1.64	450.0	98	3.17	1.43	450.0	100	2.96	1.33	450.0			
	102	3.25	1.46	450.0	104	2.69	1.21	450.0	106	2.75	1.24	450.0			
	108	2.90	1.31	450.0	110	2.76	1.24	450.0							
232	90	2.53	1.14	450.0	92	3.49	1.57	450.0	94	3.02	1.36	450.0			
	96	2.48	1.12	450.0	98	2.17	0.98	450.0	100	2.14	0.96	450.0			
	102	2.13	0.96	450.0	104	3.79	1.71	450.0	106	4.24	1.91	450.0			
	108	4.67	2.10	450.0	110	3.46	1.56	450.0							
233	90	2.94	1.32	450.0	92	3.96	1.78	450.0	94	3.39	1.52	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	307
	96	2.55	1.15	450.0	98	2.22	1.00	450.0	100	2.22	1.00	450.0			
	102	2.25	1.01	450.0	104	3.45	1.55	450.0	106	3.85	1.73	450.0			
	108	4.23	1.90	450.0	110	3.09	1.39	450.0							
234	90	3.72	1.68	450.0	92	5.14	2.31	450.0	94	4.62	2.08	450.0			
	96	3.94	1.77	450.0	98	3.46	1.56	450.0	100	3.27	1.47	450.0			
	102	3.62	1.63	450.0	104	2.82	1.27	450.0	106	2.90	1.31	450.0			
	108	3.01	1.36	450.0	110	2.82	1.27	450.0							
235	90	3.63	1.63	450.0	92	4.32	1.94	450.0	94	3.94	1.77	450.0			
	96	3.44	1.55	450.0	98	3.12	1.40	450.0	100	2.94	1.32	450.0			
	102	3.06	1.38	450.0	104	2.67	1.20	450.0	106	2.77	1.25	450.0			
	108	2.95	1.33	450.0	110	2.82	1.27	450.0							
236	90	2.57	1.16	450.0	92	2.70	1.21	450.0	94	2.58	1.16	450.0			
	96	2.42	1.09	450.0	98	2.35	1.06	450.0	100	2.39	1.07	450.0			
	102	2.35	1.06	450.0	104	3.49	1.57	450.0	106	3.69	1.66	450.0			
	108	3.90	1.76	450.0	110	3.15	1.42	450.0							
237	90	2.93	1.32	450.0	92	3.06	1.38	450.0	94	2.78	1.25	450.0			
	96	2.44	1.10	450.0	98	2.46	1.11	450.0	100	2.43	1.09	450.0			
	102	2.45	1.10	450.0	104	3.18	1.43	450.0	106	3.33	1.50	450.0			
	108	3.51	1.58	450.0	110	2.85	1.28	450.0							
238	90	4.10	1.85	450.0	92	4.80	2.16	450.0	94	4.33	1.95	450.0			
	96	3.74	1.69	450.0	98	3.42	1.54	450.0	100	3.27	1.47	450.0			
	102	3.42	1.54	450.0	104	2.80	1.26	450.0	106	2.91	1.31	450.0			
	108	3.01	1.36	450.0	110	2.85	1.28	450.0							
239	90	3.64	1.64	450.0	92	4.33	1.95	450.0	94	3.94	1.78	450.0			
	96	3.45	1.55	450.0	98	3.13	1.41	450.0	100	2.94	1.33	450.0			
	102	3.07	1.38	450.0	104	2.67	1.20	450.0	106	2.75	1.24	450.0			
	108	2.91	1.31	450.0	110	2.80	1.26	450.0							
240	90	2.58	1.16	450.0	92	2.70	1.22	450.0	94	2.59	1.16	450.0			
	96	2.42	1.09	450.0	98	2.35	1.06	450.0	100	2.37	1.07	450.0			
	102	2.34	1.05	450.0	104	3.48	1.57	450.0	106	3.67	1.65	450.0			
	108	3.89	1.75	450.0	110	3.14	1.41	450.0							
241	90	2.93	1.32	450.0	92	3.06	1.38	450.0	94	2.75	1.24	450.0			
	96	2.43	1.09	450.0	98	2.46	1.11	450.0	100	2.43	1.09	450.0			
	102	2.45	1.10	450.0	104	3.19	1.44	450.0	106	3.34	1.51	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	308
	108	3.52	1.58	450.0	110	2.86	1.28	450.0							
242	90	4.09	1.84	450.0	92	4.79	2.16	450.0	94	4.32	1.95	450.0			
	96	3.74	1.68	450.0	98	3.41	1.54	450.0	100	3.26	1.47	450.0			
	102	3.41	1.53	450.0	104	2.80	1.26	450.0	106	2.91	1.31	450.0			
	108	3.02	1.36	450.0	110	2.85	1.28	450.0							
243	90	3.46	1.56	450.0	92	4.02	1.81	450.0	94	3.78	1.70	450.0			
	96	3.42	1.54	450.0	98	3.15	1.42	450.0	100	3.02	1.36	450.0			
	102	3.23	1.45	450.0	104	2.80	1.26	450.0	106	2.78	1.25	450.0			
	108	2.81	1.27	450.0	110	2.78	1.25	450.0							
244	90	2.68	1.21	450.0	92	2.89	1.30	450.0	94	2.64	1.19	450.0			
	96	2.36	1.06	450.0	98	2.23	1.01	450.0	100	2.26	1.02	450.0			
	102	2.24	1.01	450.0	104	3.65	1.64	450.0	106	3.99	1.80	450.0			
	108	4.30	1.94	450.0	110	3.37	1.52	450.0							
245	90	3.10	1.40	450.0	92	3.31	1.49	450.0	94	2.97	1.34	450.0			
	96	2.39	1.08	450.0	98	2.35	1.06	450.0	100	2.31	1.04	450.0			
	102	2.32	1.04	450.0	104	3.30	1.49	450.0	106	3.60	1.62	450.0			
	108	3.86	1.74	450.0	110	3.01	1.35	450.0							
246	90	3.89	1.75	450.0	92	4.47	2.01	450.0	94	4.16	1.87	450.0			
	96	3.71	1.67	450.0	98	3.43	1.54	450.0	100	3.33	1.50	450.0			
	102	3.59	1.62	450.0	104	2.87	1.29	450.0	106	2.90	1.30	450.0			
	108	2.94	1.32	450.0	110	2.86	1.29	450.0							
247	90	3.46	1.56	450.0	92	4.03	1.81	450.0	94	3.79	1.71	450.0			
	96	3.42	1.54	450.0	98	3.15	1.42	450.0	100	3.02	1.36	450.0			
	102	3.24	1.46	450.0	104	2.81	1.26	450.0	106	2.78	1.25	450.0			
	108	2.80	1.26	450.0	110	2.77	1.25	450.0							
248	90	2.68	1.21	450.0	92	2.90	1.30	450.0	94	2.65	1.19	450.0			
	96	2.37	1.07	450.0	98	2.23	1.01	450.0	100	2.25	1.01	450.0			
	102	2.24	1.01	450.0	104	3.64	1.64	450.0	106	3.98	1.79	450.0			
	108	4.29	1.93	450.0	110	3.36	1.51	450.0							
249	90	3.09	1.39	450.0	92	3.31	1.49	450.0	94	2.96	1.33	450.0			
	96	2.37	1.07	450.0	98	2.36	1.06	450.0	100	2.32	1.04	450.0			
	102	2.32	1.04	450.0	104	3.32	1.49	450.0	106	3.61	1.62	450.0			
	108	3.87	1.74	450.0	110	3.02	1.36	450.0							
250	90	3.88	1.75	450.0	92	4.46	2.01	450.0	94	4.15	1.87	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	309
	96	3.70	1.66	450.0	98	3.42	1.54	450.0	100	3.32	1.50	450.0			
	102	3.58	1.61	450.0	104	2.88	1.29	450.0	106	2.90	1.31	450.0			
	108	2.94	1.32	450.0	110	2.87	1.29	450.0							
251	90	2.87	1.29	450.0	92	4.39	1.98	450.0	94	3.86	1.74	450.0			
	96	3.29	1.48	450.0	98	3.10	1.40	450.0	100	3.16	1.42	450.0			
	102	3.14	1.41	450.0	104	2.13	0.96	450.0	106	1.76	0.79	450.0			
	108	1.60	0.72	450.0	110	1.28	0.57	450.0							
252	90	2.01	0.90	450.0	92	2.62	1.18	450.0	94	2.36	1.06	450.0			
	96	2.20	0.99	450.0	98	2.54	1.14	450.0	100	3.03	1.36	450.0			
	102	2.75	1.24	450.0	104	3.35	1.51	450.0	106	3.18	1.43	450.0			
	108	3.22	1.45	450.0	110	1.96	0.88	450.0							
253	90	1.44	0.65	450.0	92	2.10	0.94	450.0	94	1.92	0.86	450.0			
	96	1.84	0.83	450.0	98	2.12	0.96	450.0	100	2.53	1.14	450.0			
	102	2.24	1.01	450.0	104	2.83	1.28	450.0	106	2.63	1.18	450.0			
	108	2.64	1.19	450.0	110	1.38	0.62	450.0							
254	90	3.43	1.55	450.0	92	4.93	2.22	450.0	94	4.32	1.94	450.0			
	96	3.66	1.65	450.0	98	3.52	1.58	450.0	100	3.67	1.65	450.0			
	102	3.65	1.64	450.0	104	2.61	1.17	450.0	106	2.23	1.01	450.0			
	108	2.07	0.93	450.0	110	1.60	0.72	450.0							
255	90	2.88	1.30	450.0	92	4.40	1.98	450.0	94	3.87	1.74	450.0			
	96	3.30	1.48	450.0	98	3.11	1.40	450.0	100	3.17	1.43	450.0			
	102	3.15	1.42	450.0	104	2.14	0.96	450.0	106	1.77	0.80	450.0			
	108	1.61	0.72	450.0	110	1.28	0.58	450.0							
256	90	2.00	0.90	450.0	92	2.61	1.17	450.0	94	2.35	1.06	450.0			
	96	2.19	0.99	450.0	98	2.53	1.14	450.0	100	3.02	1.36	450.0			
	102	2.73	1.23	450.0	104	3.34	1.50	450.0	106	3.16	1.42	450.0			
	108	3.20	1.44	450.0	110	1.94	0.87	450.0							
257	90	1.45	0.65	450.0	92	2.11	0.95	450.0	94	1.93	0.87	450.0			
	96	1.85	0.83	450.0	98	2.14	0.96	450.0	100	2.54	1.14	450.0			
	102	2.26	1.02	450.0	104	2.85	1.28	450.0	106	2.65	1.19	450.0			
	108	2.66	1.20	450.0	110	1.40	0.63	450.0							
258	90	3.42	1.54	450.0	92	4.92	2.21	450.0	94	4.31	1.94	450.0			
	96	3.65	1.64	450.0	98	3.51	1.58	450.0	100	3.66	1.65	450.0			
	102	3.64	1.64	450.0	104	2.60	1.17	450.0	106	2.22	1.00	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	310
	108	2.05	0.92	450.0	110	1.59	0.72	450.0							
259	90	2.92	1.31	450.0	92	4.14	1.86	450.0	94	3.67	1.65	450.0			
	96	3.17	1.43	450.0	98	3.06	1.38	450.0	100	3.16	1.42	450.0			
	102	3.10	1.40	450.0	104	2.20	0.99	450.0	106	1.86	0.84	450.0			
	108	1.72	0.77	450.0	110	1.32	0.59	450.0							
260	90	1.97	0.89	450.0	92	2.89	1.30	450.0	94	2.57	1.16	450.0			
	96	2.34	1.05	450.0	98	2.60	1.17	450.0	100	3.05	1.37	450.0			
	102	2.80	1.26	450.0	104	3.28	1.47	450.0	106	3.07	1.38	450.0			
	108	3.07	1.38	450.0	110	1.90	0.85	450.0							
261	90	1.41	0.63	450.0	92	2.37	1.07	450.0	94	2.13	0.96	450.0			
	96	1.98	0.89	450.0	98	2.19	0.98	450.0	100	2.55	1.15	450.0			
	102	2.30	1.03	450.0	104	2.76	1.24	450.0	106	2.52	1.14	450.0			
	108	2.50	1.13	450.0	110	1.32	0.60	450.0							
262	90	3.48	1.57	450.0	92	4.67	2.10	450.0	94	4.13	1.86	450.0			
	96	3.54	1.60	450.0	98	3.47	1.56	450.0	100	3.66	1.65	450.0			
	102	3.61	1.63	450.0	104	2.69	1.21	450.0	106	2.34	1.05	450.0			
	108	2.20	0.99	450.0	110	1.66	0.75	450.0							
263	90	2.93	1.32	450.0	92	4.15	1.87	450.0	94	3.68	1.66	450.0			
	96	3.18	1.43	450.0	98	3.07	1.38	450.0	100	3.17	1.43	450.0			
	102	3.12	1.40	450.0	104	2.22	1.00	450.0	106	1.87	0.84	450.0			
	108	1.73	0.78	450.0	110	1.32	0.60	450.0							
264	90	1.96	0.88	450.0	92	2.88	1.30	450.0	94	2.56	1.15	450.0			
	96	2.33	1.05	450.0	98	2.59	1.16	450.0	100	3.04	1.37	450.0			
	102	2.79	1.26	450.0	104	3.26	1.47	450.0	106	3.05	1.37	450.0			
	108	3.06	1.38	450.0	110	1.88	0.85	450.0							
265	90	1.42	0.64	450.0	92	2.38	1.07	450.0	94	2.14	0.96	450.0			
	96	1.99	0.90	450.0	98	2.20	0.99	450.0	100	2.56	1.15	450.0			
	102	2.31	1.04	450.0	104	2.77	1.25	450.0	106	2.54	1.14	450.0			
	108	2.52	1.13	450.0	110	1.34	0.60	450.0							
266	90	3.47	1.56	450.0	92	4.66	2.10	450.0	94	4.12	1.85	450.0			
	96	3.53	1.59	450.0	98	3.46	1.56	450.0	100	3.65	1.64	450.0			
	102	3.60	1.62	450.0	104	2.68	1.21	450.0	106	2.33	1.05	450.0			
	108	2.18	0.98	450.0	110	1.65	0.74	450.0							
267	90	2.03	0.91	450.0	92	3.02	1.36	450.0	94	3.02	1.36	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	311
	96	2.90	1.30	450.0	98	2.85	1.28	450.0	100	3.13	1.41	450.0			
	102	3.70	1.66	450.0	104	3.18	1.43	450.0	106	3.25	1.46	450.0			
	108	3.30	1.49	450.0	110	2.39	1.07	450.0							
268	90	0.67	0.30	450.0	92	0.98	0.44	450.0	94	1.26	0.57	450.0			
	96	1.57	0.70	450.0	98	2.04	0.92	450.0	100	2.80	1.26	450.0			
	102	3.19	1.43	450.0	104	4.36	1.96	450.0	106	4.74	2.13	450.0			
	108	5.08	2.28	450.0	110	3.37	1.52	450.0							
269	90	0.17	0.08	450.0	92	0.44	0.20	450.0	94	0.80	0.36	450.0			
	96	1.18	0.53	450.0	98	1.61	0.72	450.0	100	2.28	1.03	450.0			
	102	2.67	1.20	450.0	104	3.83	1.72	450.0	106	4.19	1.88	450.0			
	108	4.49	2.02	450.0	110	2.78	1.25	450.0							
270	90	2.48	1.11	450.0	92	3.52	1.58	450.0	94	3.45	1.55	450.0			
	96	3.25	1.46	450.0	98	3.24	1.46	450.0	100	3.62	1.63	450.0			
	102	4.20	1.89	450.0	104	3.68	1.65	450.0	106	3.78	1.70	450.0			
	108	3.85	1.73	450.0	110	2.89	1.30	450.0							
271	90	2.04	0.92	450.0	92	3.03	1.36	450.0	94	3.03	1.36	450.0			
	96	2.91	1.31	450.0	98	2.86	1.29	450.0	100	3.14	1.41	450.0			
	102	3.71	1.67	450.0	104	3.19	1.44	450.0	106	3.27	1.47	450.0			
	108	3.32	1.49	450.0	110	2.40	1.08	450.0							
272	90	0.66	0.30	450.0	92	0.97	0.43	450.0	94	1.25	0.56	450.0			
	96	1.55	0.70	450.0	98	2.02	0.91	450.0	100	2.79	1.26	450.0			
	102	3.17	1.43	450.0	104	4.34	1.95	450.0	106	4.73	2.13	450.0			
	108	5.06	2.28	450.0	110	3.35	1.51	450.0							
273	90	0.17	0.08	450.0	92	0.45	0.20	450.0	94	0.81	0.37	450.0			
	96	1.20	0.54	450.0	98	1.62	0.73	450.0	100	2.30	1.03	450.0			
	102	2.68	1.21	450.0	104	3.84	1.73	450.0	106	4.20	1.89	450.0			
	108	4.51	2.03	450.0	110	2.79	1.26	450.0							
274	90	2.47	1.11	450.0	92	3.51	1.58	450.0	94	3.44	1.55	450.0			
	96	3.24	1.46	450.0	98	3.23	1.45	450.0	100	3.61	1.62	450.0			
	102	4.19	1.89	450.0	104	3.66	1.65	450.0	106	3.76	1.69	450.0			
	108	3.84	1.73	450.0	110	2.88	1.30	450.0							
275	90	2.08	0.93	450.0	92	2.81	1.27	450.0	94	2.86	1.29	450.0			
	96	2.80	1.26	450.0	98	2.81	1.27	450.0	100	3.13	1.41	450.0			
	102	3.66	1.65	450.0	104	3.26	1.47	450.0	106	3.36	1.51	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	312
	108	3.44	1.55	450.0	110	2.45	1.10	450.0							
276	90	0.63	0.28	450.0	92	1.24	0.56	450.0	94	1.47	0.66	450.0			
	96	1.70	0.76	450.0	98	2.09	0.94	450.0	100	2.82	1.27	450.0			
	102	3.24	1.46	450.0	104	4.28	1.92	450.0	106	4.63	2.08	450.0			
	108	4.93	2.22	450.0	110	3.31	1.49	450.0							
277	90	0.13	0.06	450.0	92	0.70	0.31	450.0	94	1.00	0.45	450.0			
	96	1.32	0.59	450.0	98	1.67	0.75	450.0	100	2.30	1.03	450.0			
	102	2.72	1.22	450.0	104	3.75	1.69	450.0	106	4.08	1.83	450.0			
	108	4.35	1.96	450.0	110	2.71	1.22	450.0							
278	90	2.52	1.14	450.0	92	3.30	1.48	450.0	94	3.28	1.48	450.0			
	96	3.15	1.42	450.0	98	3.20	1.44	450.0	100	3.62	1.63	450.0			
	102	4.17	1.87	450.0	104	3.76	1.69	450.0	106	3.89	1.75	450.0			
	108	3.99	1.80	450.0	110	2.96	1.33	450.0							
279	90	2.08	0.94	450.0	92	2.82	1.27	450.0	94	2.87	1.29	450.0			
	96	2.81	1.26	450.0	98	2.82	1.27	450.0	100	3.14	1.41	450.0			
	102	3.68	1.65	450.0	104	3.27	1.47	450.0	106	3.37	1.52	450.0			
	108	3.46	1.56	450.0	110	2.46	1.11	450.0							
280	90	0.62	0.28	450.0	92	1.22	0.55	450.0	94	1.46	0.65	450.0			
	96	1.69	0.76	450.0	98	2.08	0.94	450.0	100	2.80	1.26	450.0			
	102	3.22	1.45	450.0	104	4.26	1.92	450.0	106	4.62	2.08	450.0			
	108	4.91	2.21	450.0	110	3.29	1.48	450.0							
281	90	0.13	0.06	450.0	92	0.71	0.32	450.0	94	1.02	0.46	450.0			
	96	1.33	0.60	450.0	98	1.68	0.76	450.0	100	2.31	1.04	450.0			
	102	2.73	1.23	450.0	104	3.77	1.69	450.0	106	4.09	1.84	450.0			
	108	4.37	1.96	450.0	110	2.73	1.23	450.0							
282	90	2.52	1.13	450.0	92	3.29	1.48	450.0	94	3.27	1.47	450.0			
	96	3.14	1.41	450.0	98	3.19	1.44	450.0	100	3.61	1.62	450.0			
	102	4.15	1.87	450.0	104	3.74	1.68	450.0	106	3.87	1.74	450.0			
	108	3.98	1.79	450.0	110	2.94	1.33	450.0							
283	90	2.67	1.20	450.0	92	3.87	1.74	450.0	94	3.41	1.53	450.0			
	96	2.84	1.28	450.0	98	2.43	1.09	450.0	100	2.22	1.00	450.0			
	102	2.36	1.06	450.0	104	2.03	0.91	450.0	106	2.23	1.00	450.0			
	108	2.50	1.12	450.0	110	2.27	1.02	450.0							
284	90	1.87	0.84	450.0	92	2.44	1.10	450.0	94	2.21	0.99	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	313
	96	1.92	0.86	450.0	98	1.76	0.79	450.0	100	1.76	0.79	450.0			
	102	1.75	0.79	450.0	104	2.88	1.29	450.0	106	3.11	1.40	450.0			
	108	3.37	1.52	450.0	110	2.57	1.16	450.0							
285	90	2.22	1.00	450.0	92	2.89	1.30	450.0	94	2.57	1.15	450.0			
	96	1.95	0.88	450.0	98	1.87	0.84	450.0	100	1.84	0.83	450.0			
	102	1.89	0.85	450.0	104	2.54	1.14	450.0	106	2.72	1.23	450.0			
	108	2.94	1.32	450.0	110	2.23	1.00	450.0							
286	90	3.14	1.41	450.0	92	4.37	1.97	450.0	94	3.83	1.72	450.0			
	96	3.17	1.43	450.0	98	2.75	1.24	450.0	100	2.55	1.15	450.0			
	102	2.74	1.23	450.0	104	2.16	0.97	450.0	106	2.30	1.03	450.0			
	108	2.45	1.10	450.0	110	2.20	0.99	450.0							
287	90	2.68	1.21	450.0	92	3.88	1.74	450.0	94	3.42	1.54	450.0			
	96	2.85	1.28	450.0	98	2.44	1.10	450.0	100	2.22	1.00	450.0			
	102	2.37	1.07	450.0	104	2.02	0.91	450.0	106	2.20	0.99	450.0			
	108	2.45	1.10	450.0	110	2.23	1.00	450.0							
288	90	1.88	0.84	450.0	92	2.45	1.10	450.0	94	2.21	1.00	450.0			
	96	1.92	0.87	450.0	98	1.76	0.79	450.0	100	1.75	0.79	450.0			
	102	1.75	0.79	450.0	104	2.86	1.29	450.0	106	3.10	1.39	450.0			
	108	3.36	1.51	450.0	110	2.56	1.15	450.0							
289	90	2.22	1.00	450.0	92	2.88	1.30	450.0	94	2.55	1.15	450.0			
	96	1.93	0.87	450.0	98	1.88	0.85	450.0	100	1.84	0.83	450.0			
	102	1.89	0.85	450.0	104	2.55	1.15	450.0	106	2.74	1.23	450.0			
	108	2.95	1.33	450.0	110	2.24	1.01	450.0							
290	90	3.13	1.41	450.0	92	4.36	1.96	450.0	94	3.82	1.72	450.0			
	96	3.16	1.42	450.0	98	2.74	1.23	450.0	100	2.55	1.15	450.0			
	102	2.73	1.23	450.0	104	2.16	0.97	450.0	106	2.31	1.04	450.0			
	108	2.46	1.11	450.0	110	2.20	0.99	450.0							
291	90	2.54	1.14	450.0	92	3.59	1.62	450.0	94	3.26	1.47	450.0			
	96	2.81	1.26	450.0	98	2.45	1.10	450.0	100	2.28	1.03	450.0			
	102	2.50	1.12	450.0	104	2.09	0.94	450.0	106	2.14	0.96	450.0			
	108	2.26	1.02	450.0	110	2.15	0.97	450.0							
292	90	1.94	0.87	450.0	92	2.67	1.20	450.0	94	2.31	1.04	450.0			
	96	1.91	0.86	450.0	98	1.68	0.75	450.0	100	1.66	0.75	450.0			
	102	1.66	0.74	450.0	104	3.02	1.36	450.0	106	3.38	1.52	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	314
	108	3.71	1.67	450.0	110	2.77	1.25	450.0							
293	90	2.36	1.06	450.0	92	3.15	1.42	450.0	94	2.70	1.21	450.0			
	96	1.98	0.89	450.0	98	1.75	0.79	450.0	100	1.75	0.79	450.0			
	102	1.78	0.80	450.0	104	2.65	1.19	450.0	106	2.95	1.33	450.0			
	108	3.24	1.46	450.0	110	2.37	1.07	450.0							
294	90	2.97	1.34	450.0	92	4.08	1.84	450.0	94	3.67	1.65	450.0			
	96	3.12	1.40	450.0	98	2.75	1.24	450.0	100	2.60	1.17	450.0			
	102	2.88	1.30	450.0	104	2.20	0.99	450.0	106	2.26	1.01	450.0			
	108	2.33	1.05	450.0	110	2.20	0.99	450.0							
295	90	2.55	1.15	450.0	92	3.60	1.62	450.0	94	3.27	1.47	450.0			
	96	2.81	1.27	450.0	98	2.45	1.10	450.0	100	2.28	1.03	450.0			
	102	2.50	1.13	450.0	104	2.10	0.94	450.0	106	2.13	0.96	450.0			
	108	2.24	1.01	450.0	110	2.13	0.96	450.0							
296	90	1.95	0.88	450.0	92	2.68	1.21	450.0	94	2.32	1.04	450.0			
	96	1.91	0.86	450.0	98	1.68	0.76	450.0	100	1.66	0.75	450.0			
	102	1.65	0.74	450.0	104	3.00	1.35	450.0	106	3.36	1.51	450.0			
	108	3.70	1.66	450.0	110	2.75	1.24	450.0							
297	90	2.35	1.06	450.0	92	3.14	1.41	450.0	94	2.69	1.21	450.0			
	96	1.95	0.88	450.0	98	1.76	0.79	450.0	100	1.75	0.79	450.0			
	102	1.78	0.80	450.0	104	2.66	1.20	450.0	106	2.96	1.33	450.0			
	108	3.26	1.47	450.0	110	2.38	1.07	450.0							
298	90	2.97	1.33	450.0	92	4.07	1.83	450.0	94	3.66	1.65	450.0			
	96	3.11	1.40	450.0	98	2.74	1.23	450.0	100	2.59	1.17	450.0			
	102	2.87	1.29	450.0	104	2.20	0.99	450.0	106	2.26	1.02	450.0			
	108	2.34	1.05	450.0	110	2.20	0.99	450.0							
299	90	2.80	1.26	450.0	92	3.33	1.50	450.0	94	3.03	1.37	450.0			
	96	2.66	1.20	450.0	98	2.41	1.08	450.0	100	2.27	1.02	450.0			
	102	2.36	1.06	450.0	104	2.08	0.93	450.0	106	2.14	0.96	450.0			
	108	2.27	1.02	450.0	110	2.18	0.98	450.0							
300	90	1.98	0.89	450.0	92	2.07	0.93	450.0	94	1.99	0.90	450.0			
	96	1.87	0.84	450.0	98	1.83	0.82	450.0	100	1.84	0.83	450.0			
	102	1.82	0.82	450.0	104	2.77	1.24	450.0	106	2.92	1.32	450.0			
	108	3.10	1.39	450.0	110	2.51	1.13	450.0							
301	90	2.34	1.05	450.0	92	2.44	1.10	450.0	94	2.16	0.97	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	315
	96	1.90	0.86	450.0	98	1.94	0.87	450.0	100	1.91	0.86	450.0			
	102	1.94	0.87	450.0	104	2.46	1.11	450.0	106	2.57	1.16	450.0			
	108	2.70	1.22	450.0	110	2.20	0.99	450.0							
302	90	3.27	1.47	450.0	92	3.80	1.71	450.0	94	3.43	1.54	450.0			
	96	2.96	1.33	450.0	98	2.71	1.22	450.0	100	2.59	1.17	450.0			
	102	2.71	1.22	450.0	104	2.19	0.98	450.0	106	2.26	1.02	450.0			
	108	2.34	1.05	450.0	110	2.22	1.00	450.0							
303	90	2.80	1.26	450.0	92	3.34	1.50	450.0	94	3.04	1.37	450.0			
	96	2.67	1.20	450.0	98	2.41	1.09	450.0	100	2.27	1.02	450.0			
	102	2.36	1.06	450.0	104	2.07	0.93	450.0	106	2.13	0.96	450.0			
	108	2.24	1.01	450.0	110	2.16	0.97	450.0							
304	90	1.99	0.89	450.0	92	2.08	0.93	450.0	94	1.99	0.90	450.0			
	96	1.88	0.84	450.0	98	1.83	0.82	450.0	100	1.83	0.82	450.0			
	102	1.82	0.82	450.0	104	2.76	1.24	450.0	106	2.91	1.31	450.0			
	108	3.08	1.39	450.0	110	2.49	1.12	450.0							
305	90	2.34	1.05	450.0	92	2.43	1.09	450.0	94	2.14	0.96	450.0			
	96	1.90	0.86	450.0	98	1.94	0.87	450.0	100	1.91	0.86	450.0			
	102	1.93	0.87	450.0	104	2.47	1.11	450.0	106	2.58	1.16	450.0			
	108	2.71	1.22	450.0	110	2.21	0.99	450.0							
306	90	3.26	1.47	450.0	92	3.79	1.71	450.0	94	3.42	1.54	450.0			
	96	2.95	1.33	450.0	98	2.70	1.21	450.0	100	2.58	1.16	450.0			
	102	2.71	1.22	450.0	104	2.19	0.99	450.0	106	2.27	1.02	450.0			
	108	2.34	1.06	450.0	110	2.22	1.00	450.0							
307	90	2.66	1.20	450.0	92	3.09	1.39	450.0	94	2.92	1.31	450.0			
	96	2.64	1.19	450.0	98	2.43	1.09	450.0	100	2.33	1.05	450.0			
	102	2.49	1.12	450.0	104	2.19	0.99	450.0	106	2.16	0.97	450.0			
	108	2.18	0.98	450.0	110	2.16	0.97	450.0							
308	90	2.06	0.93	450.0	92	2.22	1.00	450.0	94	2.03	0.91	450.0			
	96	1.83	0.82	450.0	98	1.74	0.78	450.0	100	1.74	0.78	450.0			
	102	1.74	0.79	450.0	104	2.89	1.30	450.0	106	3.17	1.43	450.0			
	108	3.41	1.54	450.0	110	2.69	1.21	450.0							
309	90	2.48	1.12	450.0	92	2.64	1.19	450.0	94	2.33	1.05	450.0			
	96	1.85	0.83	450.0	98	1.87	0.84	450.0	100	1.82	0.82	450.0			
	102	1.83	0.82	450.0	104	2.55	1.15	450.0	106	2.77	1.25	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	316
	108	2.97	1.34	450.0	110	2.32	1.04	450.0							
310	90	3.10	1.39	450.0	92	3.54	1.59	450.0	94	3.29	1.48	450.0			
	96	2.93	1.32	450.0	98	2.71	1.22	450.0	100	2.64	1.19	450.0			
	102	2.85	1.28	450.0	104	2.25	1.01	450.0	106	2.27	1.02	450.0			
	108	2.29	1.03	450.0	110	2.24	1.01	450.0							
311	90	2.67	1.20	450.0	92	3.10	1.40	450.0	94	2.92	1.32	450.0			
	96	2.65	1.19	450.0	98	2.44	1.10	450.0	100	2.33	1.05	450.0			
	102	2.49	1.12	450.0	104	2.20	0.99	450.0	106	2.16	0.97	450.0			
	108	2.17	0.98	450.0	110	2.15	0.97	450.0							
312	90	2.06	0.93	450.0	92	2.22	1.00	450.0	94	2.04	0.92	450.0			
	96	1.83	0.82	450.0	98	1.74	0.78	450.0	100	1.73	0.78	450.0			
	102	1.74	0.78	450.0	104	2.88	1.30	450.0	106	3.15	1.42	450.0			
	108	3.40	1.53	450.0	110	2.67	1.20	450.0							
313	90	2.47	1.11	450.0	92	2.63	1.18	450.0	94	2.29	1.03	450.0			
	96	1.84	0.83	450.0	98	1.87	0.84	450.0	100	1.82	0.82	450.0			
	102	1.83	0.82	450.0	104	2.56	1.15	450.0	106	2.78	1.25	450.0			
	108	2.99	1.34	450.0	110	2.33	1.05	450.0							
314	90	3.09	1.39	450.0	92	3.54	1.59	450.0	94	3.28	1.48	450.0			
	96	2.92	1.31	450.0	98	2.69	1.21	450.0	100	2.63	1.18	450.0			
	102	2.84	1.28	450.0	104	2.25	1.01	450.0	106	2.27	1.02	450.0			
	108	2.29	1.03	450.0	110	2.24	1.01	450.0							
315	90	2.18	0.98	450.0	92	3.37	1.52	450.0	94	2.96	1.33	450.0			
	96	2.52	1.13	450.0	98	2.37	1.07	450.0	100	2.41	1.08	450.0			
	102	2.39	1.08	450.0	104	1.60	0.72	450.0	106	1.31	0.59	450.0			
	108	1.18	0.53	450.0	110	0.94	0.42	450.0							
316	90	1.63	0.73	450.0	92	2.11	0.95	450.0	94	1.90	0.85	450.0			
	96	1.76	0.79	450.0	98	2.03	0.91	450.0	100	2.43	1.09	450.0			
	102	2.20	0.99	450.0	104	2.68	1.20	450.0	106	2.54	1.14	450.0			
	108	2.58	1.16	450.0	110	1.60	0.72	450.0							
317	90	1.06	0.48	450.0	92	1.58	0.71	450.0	94	1.45	0.65	450.0			
	96	1.40	0.63	450.0	98	1.62	0.73	450.0	100	1.92	0.86	450.0			
	102	1.70	0.76	450.0	104	2.16	0.97	450.0	106	2.00	0.90	450.0			
	108	2.00	0.90	450.0	110	1.02	0.46	450.0							
318	90	2.75	1.24	450.0	92	3.91	1.76	450.0	94	3.42	1.54	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	317
	96	2.90	1.31	450.0	98	2.80	1.26	450.0	100	2.92	1.32	450.0			
	102	2.91	1.31	450.0	104	2.09	0.94	450.0	106	1.80	0.81	450.0			
	108	1.67	0.75	450.0	110	1.30	0.58	450.0							
319	90	2.19	0.98	450.0	92	3.38	1.52	450.0	94	2.97	1.34	450.0			
	96	2.53	1.14	450.0	98	2.38	1.07	450.0	100	2.42	1.09	450.0			
	102	2.41	1.08	450.0	104	1.61	0.72	450.0	106	1.32	0.59	450.0			
	108	1.19	0.53	450.0	110	0.94	0.42	450.0							
320	90	1.62	0.73	450.0	92	2.10	0.94	450.0	94	1.89	0.85	450.0			
	96	1.75	0.79	450.0	98	2.02	0.91	450.0	100	2.41	1.09	450.0			
	102	2.19	0.99	450.0	104	2.66	1.20	450.0	106	2.53	1.14	450.0			
	108	2.56	1.15	450.0	110	1.58	0.71	450.0							
321	90	1.08	0.48	450.0	92	1.59	0.72	450.0	94	1.46	0.66	450.0			
	96	1.41	0.63	450.0	98	1.63	0.73	450.0	100	1.93	0.87	450.0			
	102	1.71	0.77	450.0	104	2.17	0.98	450.0	106	2.01	0.91	450.0			
	108	2.02	0.91	450.0	110	1.04	0.47	450.0							
322	90	2.74	1.23	450.0	92	3.90	1.75	450.0	94	3.41	1.54	450.0			
	96	2.89	1.30	450.0	98	2.79	1.25	450.0	100	2.91	1.31	450.0			
	102	2.90	1.30	450.0	104	2.08	0.94	450.0	106	1.79	0.80	450.0			
	108	1.66	0.75	450.0	110	1.29	0.58	450.0							
323	90	2.23	1.00	450.0	92	3.18	1.43	450.0	94	2.82	1.27	450.0			
	96	2.44	1.10	450.0	98	2.35	1.06	450.0	100	2.41	1.09	450.0			
	102	2.37	1.07	450.0	104	1.67	0.75	450.0	106	1.40	0.63	450.0			
	108	1.29	0.58	450.0	110	1.01	0.45	450.0							
324	90	1.60	0.72	450.0	92	2.32	1.04	450.0	94	2.06	0.93	450.0			
	96	1.87	0.84	450.0	98	2.08	0.94	450.0	100	2.44	1.10	450.0			
	102	2.25	1.01	450.0	104	2.62	1.18	450.0	106	2.46	1.11	450.0			
	108	2.46	1.11	450.0	110	1.55	0.70	450.0							
325	90	1.04	0.47	450.0	92	1.80	0.81	450.0	94	1.62	0.73	450.0			
	96	1.51	0.68	450.0	98	1.67	0.75	450.0	100	1.93	0.87	450.0			
	102	1.74	0.78	450.0	104	2.10	0.95	450.0	106	1.91	0.86	450.0			
	108	1.89	0.85	450.0	110	0.98	0.44	450.0							
326	90	2.79	1.25	450.0	92	3.71	1.67	450.0	94	3.28	1.47	450.0			
	96	2.81	1.27	450.0	98	2.76	1.24	450.0	100	2.92	1.31	450.0			
	102	2.88	1.30	450.0	104	2.16	0.97	450.0	106	1.88	0.85	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	318
	108	1.77	0.80	450.0	110	1.34	0.60	450.0							
327	90	2.24	1.01	450.0	92	3.19	1.44	450.0	94	2.83	1.27	450.0			
	96	2.45	1.10	450.0	98	2.36	1.06	450.0	100	2.42	1.09	450.0			
	102	2.38	1.07	450.0	104	1.68	0.76	450.0	106	1.41	0.64	450.0			
	108	1.30	0.59	450.0	110	1.01	0.45	450.0							
328	90	1.59	0.71	450.0	92	2.31	1.04	450.0	94	2.05	0.92	450.0			
	96	1.86	0.84	450.0	98	2.07	0.93	450.0	100	2.43	1.09	450.0			
	102	2.23	1.00	450.0	104	2.60	1.17	450.0	106	2.44	1.10	450.0			
	108	2.45	1.10	450.0	110	1.53	0.69	450.0							
329	90	1.05	0.47	450.0	92	1.81	0.81	450.0	94	1.63	0.73	450.0			
	96	1.52	0.68	450.0	98	1.68	0.76	450.0	100	1.95	0.88	450.0			
	102	1.76	0.79	450.0	104	2.12	0.95	450.0	106	1.93	0.87	450.0			
	108	1.91	0.86	450.0	110	0.99	0.45	450.0							
330	90	2.78	1.25	450.0	92	3.70	1.67	450.0	94	3.26	1.47	450.0			
	96	2.80	1.26	450.0	98	2.75	1.24	450.0	100	2.91	1.31	450.0			
	102	2.87	1.29	450.0	104	2.14	0.97	450.0	106	1.87	0.84	450.0			
	108	1.76	0.79	450.0	110	1.33	0.60	450.0							
331	90	1.54	0.69	450.0	92	2.31	1.04	450.0	94	2.31	1.04	450.0			
	96	2.23	1.00	450.0	98	2.18	0.98	450.0	100	2.39	1.08	450.0			
	102	2.84	1.28	450.0	104	2.43	1.09	450.0	106	2.49	1.12	450.0			
	108	2.52	1.14	450.0	110	1.81	0.82	450.0							
332	90	0.59	0.26	450.0	92	0.82	0.37	450.0	94	1.04	0.47	450.0			
	96	1.27	0.57	450.0	98	1.64	0.74	450.0	100	2.25	1.01	450.0			
	102	2.55	1.15	450.0	104	3.46	1.56	450.0	106	3.77	1.70	450.0			
	108	4.03	1.81	450.0	110	2.70	1.22	450.0							
333	90	0.12	0.05	450.0	92	0.29	0.13	450.0	94	0.58	0.26	450.0			
	96	0.88	0.40	450.0	98	1.21	0.55	450.0	100	1.73	0.78	450.0			
	102	2.03	0.91	450.0	104	2.94	1.32	450.0	106	3.21	1.45	450.0			
	108	3.45	1.55	450.0	110	2.11	0.95	450.0							
334	90	1.99	0.90	450.0	92	2.81	1.26	450.0	94	2.74	1.23	450.0			
	96	2.58	1.16	450.0	98	2.58	1.16	450.0	100	2.88	1.30	450.0			
	102	3.34	1.50	450.0	104	2.93	1.32	450.0	106	3.01	1.35	450.0			
	108	3.07	1.38	450.0	110	2.32	1.04	450.0							
335	90	1.55	0.70	450.0	92	2.32	1.04	450.0	94	2.32	1.04	450.0			

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici					COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
					LI0B	02	E	ZZ	CL	TR	06	00	003	B	319
	96	2.24	1.01	450.0	98	2.19	0.99	450.0	100	2.40	1.08	450.0			
	102	2.85	1.28	450.0	104	2.44	1.10	450.0	106	2.50	1.12	450.0			
	108	2.54	1.14	450.0	110	1.82	0.82	450.0							
336	90	0.58	0.26	450.0	92	0.81	0.37	450.0	94	1.03	0.46	450.0			
	96	1.25	0.56	450.0	98	1.63	0.73	450.0	100	2.24	1.01	450.0			
	102	2.53	1.14	450.0	104	3.45	1.55	450.0	106	3.75	1.69	450.0			
	108	4.02	1.81	450.0	110	2.69	1.21	450.0							
337	90	0.12	0.05	450.0	92	0.30	0.14	450.0	94	0.59	0.26	450.0			
	96	0.90	0.40	450.0	98	1.22	0.55	450.0	100	1.74	0.78	450.0			
	102	2.04	0.92	450.0	104	2.95	1.33	450.0	106	3.23	1.45	450.0			
	108	3.47	1.56	450.0	110	2.12	0.96	450.0							
338	90	1.98	0.89	450.0	92	2.80	1.26	450.0	94	2.73	1.23	450.0			
	96	2.57	1.16	450.0	98	2.57	1.16	450.0	100	2.87	1.29	450.0			
	102	3.33	1.50	450.0	104	2.92	1.31	450.0	106	3.00	1.35	450.0			
	108	3.06	1.38	450.0	110	2.30	1.04	450.0							
339	90	1.58	0.71	450.0	92	2.15	0.97	450.0	94	2.19	0.99	450.0			
	96	2.15	0.97	450.0	98	2.16	0.97	450.0	100	2.39	1.08	450.0			
	102	2.81	1.26	450.0	104	2.49	1.12	450.0	106	2.57	1.16	450.0			
	108	2.63	1.18	450.0	110	1.86	0.84	450.0							
340	90	0.55	0.25	450.0	92	1.03	0.46	450.0	94	1.20	0.54	450.0			
	96	1.37	0.62	450.0	98	1.68	0.76	450.0	100	2.26	1.02	450.0			
	102	2.59	1.16	450.0	104	3.40	1.53	450.0	106	3.68	1.66	450.0			
	108	3.92	1.76	450.0	110	2.65	1.19	450.0							
341	90	0.11	0.05	450.0	92	0.49	0.22	450.0	94	0.74	0.33	450.0			
	96	0.99	0.44	450.0	98	1.26	0.57	450.0	100	1.74	0.78	450.0			
	102	2.07	0.93	450.0	104	2.87	1.29	450.0	106	3.13	1.41	450.0			
	108	3.34	1.50	450.0	110	2.06	0.93	450.0							
342	90	2.03	0.91	450.0	92	2.63	1.18	450.0	94	2.61	1.18	450.0			
	96	2.50	1.13	450.0	98	2.55	1.15	450.0	100	2.88	1.30	450.0			
	102	3.31	1.49	450.0	104	2.99	1.35	450.0	106	3.10	1.39	450.0			
	108	3.18	1.43	450.0	110	2.37	1.07	450.0							
343	90	1.59	0.71	450.0	92	2.16	0.97	450.0	94	2.20	0.99	450.0			
	96	2.16	0.97	450.0	98	2.17	0.98	450.0	100	2.40	1.08	450.0			
	102	2.82	1.27	450.0	104	2.51	1.13	450.0	106	2.58	1.16	450.0			

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA									
	Fascicolo dei calcoli muri architettonici	COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003	REV B

VERIFICHE PER ELEMENTI IN ACCIAIO

LEGENDA TABELLA VERIFICHE PER ELEMENTI IN ACCIAIO

Il programma consente la verifica dei seguenti tipi di elementi:

1. **aste** 2. **travi** 3. **pilastr**

L'esito delle verifiche è espresso con un codice come di seguito indicato

Ok: verifica con esito positivo

NV: verifica con esito negativo

Nr: verifica non richiesta.

Per comodità gli elementi vengono raggruppati in tabelle in relazione al tipo.

Ai fini delle verifiche (come da D.M. 14 Gennaio 2008 e circ. 2 Febbraio 2009 n.617) i tipi elementi differiscono per i seguenti aspetti:

Verifica	Aste	Travi	Pilastr
4.2.3.1 Classificazione	X	X	X
4.2.4.1.2 Trazione, Compressione	X	X	X
Taglio, Torsione		X	X
Flessione, taglio e forza assiale		X	X
4.2.4.1.3.1 Aste compresse	X	X	X
4.2.4.1.3.2 Instabilità flesso-torsionale		X	X
4.2.4.1.3.3 Membrature inflesse e compresse		X	X

Ai fini delle verifiche per strutture dissipative (come da D.M. 14 Gennaio 2008 e circ. 2 Febbraio 2009 n.617 per strutture intelaiate e a controventi concentrici) si considerano le verifiche del capitolo 4 con azioni amplificate e le verifiche del capitolo 7:

Verifica	Travi	Pilastr
4.2.4.1.2 Trazione, Compressione	X	X
Taglio, Torsione		X
Flessione, taglio e forza assiale	X	X
4.2.4.1.3.1 Aste compresse	X	X
4.2.4.1.3.2 Instabilità flesso-torsionale		X
4.2.4.1.3.3 Membrature inflesse e compresse	X	X
7.5.3 Sfruttamento per momento	X	
7.5.4 Sfruttamento per sforzo normale	X	
7.5.5 Sfruttamento per taglio da capacità flessionale	X	
7.5.9 Sfruttamento per taglio amplificato		X

Viene inoltre riportata la verifica del par. 7.5.4.3 Gerarchia delle resistenze trave-colonna per ogni colonna, considerando piede e testa in entrambe le direzioni globali X e Y.

L'insieme delle verifiche sopra riportate è condotto sugli elementi purché dotati di sezione idonea come da tabella

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
	Fascicolo dei calcoli muri architettonici		COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
		LI0B	02	E	ZZ	CL	TR	06	00	003	B	322

seguito:

Azione	SEZIONI GENERICHE	PROFILI SEMPLICI	PROFILI ACCOPPIATI
4.2.3.1 Classificazione automatica	L, doppio T, C, rettangolare cava, circolare cava	Tutti	Da profilo semplice
4.2.3.1 Classificazione di default 2	Circolare		
4.2.3.1 Classificazione di default 3	restanti		
4.2.4.1.2 Trazione	si	si	si
4.2.4.1.2 Compressione	si	si	si
4.2.4.1.2 Taglio, Torsione	si	si	si
4.2.4.1.2 Flessione, taglio e forza assiale	si	si	si
4.2.4.1.3.1 Aste compresse	si	si	per elementi ravvicinati e a croce o coppie calastrellate
4.2.4.1.3.2 Travi inflesse	doppio T simmetrica	doppio T	no

Le verifiche sono riportate in tabelle con il significato sotto indicato; le verifiche sono espresse dal rapporto tra l'azione di progetto e la capacità ultima, pertanto la verifica ha esito positivo per rapporti non superiori all'unità.

Asta	Trave	Pilastro	numero dell'elemento			
Stato			codice di verifica per resistenza, stabilità, svergolamento			
Note			sezione e materiali adottati per l'elemento			
V N			(ASTE) verifica come da par. 4.2.4.1.2 per punto (4.2.6) e (4.2.10)			
V V/T			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni taglio-torsione (4.2.17 e 4.2.29)			
V N/M			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni composte (4.2.34) con riduzione per taglio (4.2.41) ove richiesto			
N	M3	M2	V2	V3	T	sollecitazioni di interesse per la verifica
V stab			(ASTE) verifica come da par. 4.2.4.1.3 per punto (4.2.42)			
V stab			(TRAVI E PILASTRI) verifica come da par. 4.2.4.1.3 per punti (C4.2.32) o (C4.2.36) (membrature inflesse e compresse senza/con presenza di instabilità flessione-torsionale)			
BetaxL	B22xL	B33xL	lunghezze libere di inflessione (se indicato riferiti al piano di normale 22 o 33 rispettivamente)			
Snellezza			snellezza massima			
Classe			classe del profilo			
Chi mn			coefficiente di riduzione (della capacità) per la modalità di instabilità pertinente			
Rif. cmb			combinazioni in cui si sono rispettivamente attinti i valori di verifica più elevati			
V flst			(TRAVI E PILASTRI) verifica di stabilità come da par. 4.2.4.1.3.2 per punto (4.2.49)			
B1-1 x L			Beta1-1 x L: interasse tra i ritegni torsionali			
Chi LT			coefficiente di riduzione (della capacità) per la modalità di instabilità flessione-torsionale			
Snell adim			Valore della snellezza adimensionale, utilizzato per il controllo previsto al par. 7.5.5			
v.Omeg			Valore del rapporto capacità/domanda per l'azione di interesse (momento per travi e azione assiale per aste) utilizzato per l'amplificazione delle azioni			
f.Om. N			Fattore di amplificazione delle azioni assiali per travi e colonne (prodotto di 1.1 x			

 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA												
	Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	323

	Omega x gamma rd materiale); utilizzato come specificato al par. 7.5.5
f.Om. T	Fattore di amplificazione delle azioni (assiali, flettenti e taglianti) per colonne (prodotto di 1.1 x Omega x gamma rd materiale); utilizzato come specificato al par. 7.5.4
V.7.5.3 M Ed	Verifica come prevista al punto 7.5.3 e valore dell' azione flettente
V.7.5.4 N Ed	Verifica come prevista al punto 7.5.4 e valore dell' azione assiale
V.7.5.5 V Ed,G V Ed,M	Verifica come prevista al punto 7.5.5 e valore dei tagli dovuti ai carichi e alla capacità
V.7.5.9 V Ed	Verifica come prevista al punto 7.5.9 e valore dell' azione di taglio
sovr. Xi (Xf, Yi, Yf)	Valore della sovreresistenza come prevista al par. 7.5.4.3 (i valori non sono normalizzati pertanto saranno maggiori uguali a gamma rd classe di duttilità)

Trave	Stato	Note	V V/T	V N/M	V stab	Cl.	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb
112	ok	s=27,m=13	0.08	0.47	0.43	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	59,9,1,9
127	ok	s=27,m=13	0.08	0.47	0.70	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	36,9,9,9
128	ok	s=27,m=13	0.08	0.47	0.72	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	35,9,10,9
139	ok	s=27,m=13	0.08	0.47	0.73	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	54,9,10,9
140	ok	s=27,m=13	0.08	0.47	0.74	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	54,53,10,9
151	ok	s=27,m=13	0.08	0.47	0.72	1	3.0	0.9	232.7	0.10	0.60	1.0	0.71	12,9,9,9
152	ok	s=27,m=13	0.08	0.47	0.73	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	12,9,9,9
163	ok	s=27,m=13	0.08	0.47	0.72	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	10,53,9,29
164	ok	s=27,m=13	0.08	0.47	0.70	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	33,9,9,9
175	ok	s=27,m=13	0.08	0.47	0.43	1	3.0	0.9	232.7	0.10	0.62	1.0	0.69	33,10,1,10

Trave	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
							0.10			0.69
	0.08	0.47	0.74	3.05	0.93	232.68		0.62	1.04	

Trave	v.Omeg	f.Om. N	Stato	V N/M	V stab	Rif. cmb	V.7.5.3	M Ed	V.7.5.4	N Ed	V.7.5.5	V Ed,G	V Ed,M
								kN m		kN		kN	kN
112							0.0	0.0	0.0	0.0	0.0	0.0	0.0
127							0.0	0.0	0.0	0.0	0.0	0.0	0.0
128							0.0	0.0	0.0	0.0	0.0	0.0	0.0
139							0.0	0.0	0.0	0.0	0.0	0.0	0.0
140							0.0	0.0	0.0	0.0	0.0	0.0	0.0
151							0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA										
		Fascicolo dei calcoli muri architettonici			COMMESSA LI0B	LOTTO 02	FASE E	ENTE ZZ	TIPO DOC CL	OPERA 7 DISCIPLINA TR 06 00		PROGR 003

152				0.0	0.0	0.0	0.0	0.0	0.0	0.0
163				0.0	0.0	0.0	0.0	0.0	0.0	0.0
164				0.0	0.0	0.0	0.0	0.0	0.0	0.0
175				0.0	0.0	0.0	0.0	0.0	0.0	0.0

Trave	v.Omeg	V N/M	V stab	V.7.5.3	M Ed	V.7.5.4	N Ed	V.7.5.5	V Ed,G	V Ed,M
					0.0		0.0		0.0	0.0
				0.0	0.0	0.0	0.0	0.0	0.0	0.0

Pilas.	Stato	Note	V V/T	V N/M	V stab	Cl.	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb
90	ok	s=31,m=13	0.05	0.61		1	1.6	0.9	118.8	0.30	0.35	0.2	1.00	171,176,0,177
92	ok	s=31,m=13	0.08	0.76		1	1.6	0.9	118.8	0.30	0.52	0.2	1.00	158,160,0,161
94	ok	s=31,m=13	0.06	0.71		1	1.6	0.9	118.8	0.30	0.43	0.2	1.00	155,160,0,161
96	ok	s=31,m=13	0.05	0.59		1	1.6	0.9	118.8	0.30	0.33	0.2	1.00	187,160,0,188
98	ok	s=31,m=13	0.04	0.46		1	1.6	0.9	118.8	0.30	0.30	0.2	1.00	188,172,0,188
100	ok	s=31,m=13	0.05	0.46		1	1.6	0.9	118.8	0.30	0.30	0.2	1.00	187,218,0,193
102	ok	s=31,m=13	0.05	0.52		1	1.6	0.9	118.8	0.30	0.34	0.2	1.00	205,218,0,210
104	ok	s=31,m=13	0.06	0.53		1	1.6	0.9	118.8	0.30	0.39	0.2	1.00	204,163,0,206
106	ok	s=31,m=13	0.07	0.60		1	1.6	0.9	118.8	0.30	0.44	0.2	1.00	204,163,0,207
108	ok	s=31,m=13	0.07	0.67		1	1.6	0.9	118.8	0.30	0.48	0.2	1.00	203,167,0,203
110	ok	s=31,m=13	0.05	0.51		1	1.6	0.9	118.8	0.30	0.33	0.2	1.00	205,167,0,203

Pilas.	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
							0.30			1.00
	0.08	0.76		1.55	0.91	118.76		0.52	0.24	

Pilas.	f.Om. N	f.Om. T	Stato	V V/T	V N/M	V stab	V flst	Rif. cmb	V.7.5.9	V Ed	sovr. Xi	sovr. Xf	sovr. Yi	sovr. Yf
										kN				
90	0.0	0.0	ok	0.0	0.0			0,0,0,0						
92	0.0	0.0	ok	0.0	0.0			0,0,0,0						
94	0.0	0.0	ok	0.0	0.0			0,0,0,0						
96	0.0	0.0	ok	0.0	0.0			0,0,0,0						

LINEA PESCARA – BARI

**RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA
LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA**

Fascicolo dei calcoli muri architettonici	COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA			PROGR	REV	FOGLIO
	LI0B	02	E	ZZ	CL	TR	06	00	003	B	325

98	0.0	0.0	ok	0.0	0.0						0,0,0,0
100	0.0	0.0	ok	0.0	0.0						0,0,0,0
102	0.0	0.0	ok	0.0	0.0						0,0,0,0
104	0.0	0.0	ok	0.0	0.0						0,0,0,0
106	0.0	0.0	ok	0.0	0.0						0,0,0,0
108	0.0	0.0	ok	0.0	0.0						0,0,0,0
110	0.0	0.0	ok	0.0	0.0						0,0,0,0

Pilas.

V V/T V N/M V stab V flst
0.0 0.0

V.7.5.9 V Ed sovr. Xi sovr. Xf sovr. Yi sovr. Yf

MANDATARIA  CONSORZIO STABILE SOCIETÀ CONSORTILE A.R.L.	MANDANTI 	LINEA PESCARA – BARI RADDOPPIO DELLA TRATTA FERROVIARIA TERMOLI-LESINA LOTTO 2 e 3 – RADDOPPIO TERMOLI - RIPALTA											
		Fascicolo dei calcoli muri architettonici			COMMESSA	LOTTO	FASE	ENTE	TIPO DOC	OPERA 7 DISCIPLINA		PROGR	REV
			LI0B	02	E	ZZ	CL	TR	06	00	003	B	326

STATI LIMITE D' ESERCIZIO ACCIAIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO ACCIAIO

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, per gli elementi trave, i risultati relativi alle combinazioni considerate (rare o caratteristiche).

I valori di interesse sono i seguenti:

f*1000/L	massima deformazione normalizzata in combinazioni rare
-----------------	--

Si precisa che i valori di massima deformazione per travi sono riferiti ai due piani locali (1-2 con momenti flettenti 3-3 e 1-3 con momenti flettenti 2-2). Il valore riportato (massimo) è espresso in 1000/L per rendere agevole il confronto di più valori e in particolare di più range di valori (ad esempio 2 rappresenta L/500, 4 L/250 e così via).

