

COMMITTENTE:



PROGETTAZIONE:



**INFRASTRUTTURE FERROVIARIE STRATEGICHE DEFINITE:
DALLA LEGGE OBIETTIVO N. 443/01**

**DIREZIONE TECNICA - CENTRO DI PRODUZIONE MILANO
PROGETTO DEFINITIVO PER APPALTO INTEGRATO**

**POTENZIAMENTO DELLA LINEA RHO-ARONA. TRATTA RHO-GALLARATE
QUADRUPLICAMENTO RHO-PARABIAGO E RACCORDO Y**

OPERE PRINCIPALI - SOTTOVIA E SOTTOPASSI

SL05 – prolungamento sottopasso S.P. 229 al km 3+918.49

Relazione di calcolo muri di sostegno

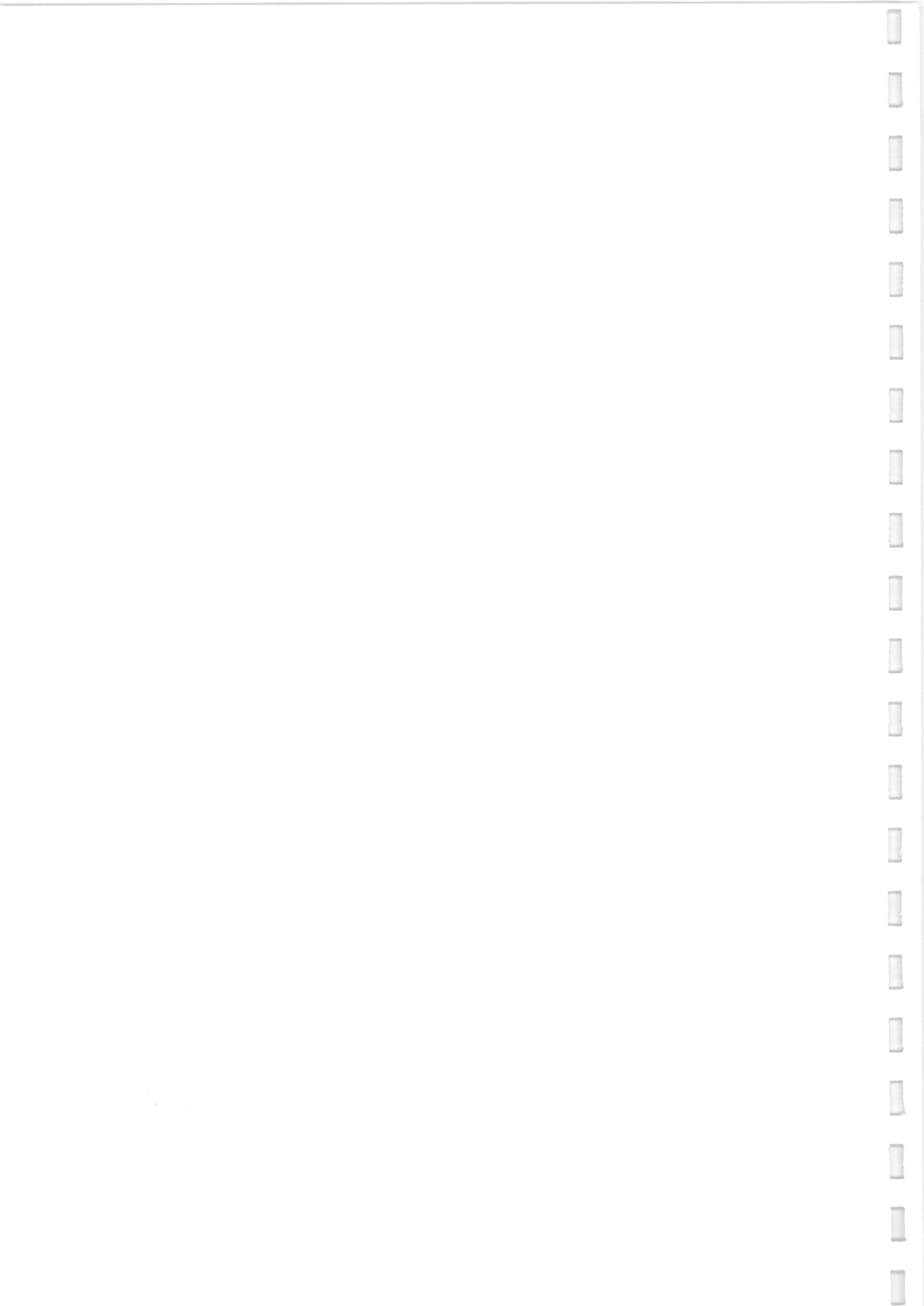
SCALA:

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COMMESSA LOTTO FASE ENTE TIPO DOC. OPERA/DISCIPLINA Progr. REV.

MDL1 12 D 26 CL SL0500 003 A

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
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1 SCOPO DEL DOCUMENTO

Lo scopo del presente documento è quello di analizzare i muri di contenimento della rampa di accesso lato Nord al sottopasso della S.P. 229 al km 3+918.49 per il potenziamento della linea ferroviaria Rho – Arona tratta Rho – Gallarate.

La rampa di accesso Nord è contenuta all'interno di muri ad "U" di lunghezza complessiva 37.20 m. I muri a U hanno larghezza interna 12.00 m e sono suddivisi in 4 conci di lunghezza 11.20-10.00-10.00-6.00 m; ciascun concio ha altezza costante, pari rispettivamente a 5.00-4.50-4.00-3.50 m. I piedritti hanno spessore 0.60 m mentre la suola di fondazione ha spessore 0.80 m.

Nel seguito si riportano le verifiche dei muri di altezza 5.00 m (concio 1) e 4.00 m (concio 3): i risultati ottenuti si potranno estendere rispettivamente ai muri di altezza 4.50 (concio 2) m e 3.50 m (concio 3).

Il calcolo è stato effettuato in conformità al D.M. 16/01/1996, adottando come metodo di verifica quello delle tensioni ammissibili e assumendo una zona sismica III.

2 DOCUMENTI DI RIFERIMENTO

2.1 Documenti Referenziati

La progettazione è conforme alle normative vigenti nonché alle istruzioni dell'Ente FF.SS.

- **Legge n° 1086 del 5 Novembre 1971**

"Norme per la disciplina delle Opere di conglomerato cementizio armato normale e precompresso e a struttura metallica";

- **D.M. 9 Gennaio 1996**

"Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle opere in cemento armato normale e precompresso e per le strutture metalliche";

- **D.M. 16 Gennaio 1996**

"Norme tecniche relative ai criteri per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi";

- **D.M. 16 Gennaio 1996**

"Norme tecniche per le costruzioni in zone sismiche";

- **D.M. 11 Marzo 1988:**

"Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione ed il collaudo delle opere di sostegno delle terre e delle opere di fondazione";

- **Min. LL.PP. Circolare 15/10/1996 n. 252/AA.GG./S.T.C.**

Istruzioni per l'applicazione delle "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato normale, precompresso e per le strutture metalliche" di cui al D.M. 9.1.1996;

- **Min. LL.PP. Circolare 04/07/1996 n.156 AA.GG./STC**

Istruzioni per l'applicazione delle "Norme tecniche relativi ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi" di cui al D.M. 16.1.1996;

- **Min. LL.PP. Circolare 10/04/1997 n. 65/AA.GG**

Istruzioni per l'applicazione delle "Norme tecniche relative alle costruzioni sismiche" di cui al D.M. 16.1.1996;

- **Min. LL.PP. Circolare 24/09/1988 n.30483:**

Istruzioni per l'applicazione delle "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione ed il collaudo delle opere di sostegno delle terre e delle opere di fondazione";

- **Norme CNR 10011/85:**

Costruzioni in acciaio: istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.

- **Istruzioni FS. del 2 Giugno 1995 I/SC/PS-OM/2298**

"Sovraccarichi per il calcolo dei ponti ferroviari. Istruzioni per la progettazione, l'esecuzione e il collaudo". Testo aggiornato della istruzione n° I/SC/PS-OM/2298 del 2 Giugno 1995 completo delle relative integrazioni - 13 Gennaio 1997;

- **Istruzione FF.SS. n° 44b del 14/04/1998**

"Istruzioni tecniche per manufatti sottobinario da costruire in zona sismica". Testo aggiornato dell'istruzione 44/b del 14/11/1996, approvato dal Consiglio Superiore dei Lavori Pubblici con voto dell'Assemblea Generale del 16/12/1997;

2.2 Documenti correlati

I documenti correlati sono documenti la cui lettura è consigliata per allargare la conoscenza dell'ambito nel quale il presente documento si inquadra. Non si riporta la revisione e la data in quanto si fa implicitamente riferimento all'ultima revisione del documento citato.

I documenti correlati sono:

1	Relazione tecnica descrittiva	-	MDL1 1 2 D 26 RG SL 0 5 0 0 001 A
2	Relazione di calcolo	-	MDL1 1 2 D 26 CL SL 0 5 0 0 001 A
3	Relazione di calcolo opere provvisionali	-	MDL1 1 2 D 26 CL SL 0 5 0 0 002 A
4	Relazione di calcolo muri	-	MDL1 1 2 D 26 CL SL 0 5 0 0 003 A
5	Planimetria generale dell'intervento	1:200	MDL1 1 2 D 26 P9 SL 0 5 0 0 001 A
6	Pianta e sezioni	1:100	MDL1 1 2 D 26 PA SL 0 5 0 0 001 A
7	Carpenteria - concio sud	1:50	MDL1 1 2 D 26 BB SL 0 5 0 0 001 A
8	Carpenteria - concio nord	1:50	MDL1 1 2 D 26 BB SL 0 5 0 0 002 A
9	Fasi realizzative e opere provvisionali	1:200	MDL1 1 2 D 26 B9 SL 0 5 0 0 001 A
10	Particolari, dettagli e finiture	1:20	MDL1 1 2 D 26 BC SL 0 5 0 0 001 A
11	Adeguamento viabilità esistente - planimetria idraulica	1:200	MDL1 1 2 D 26 P9 SL 0 5 0 0 002 A
12	Adeguamento viabilità esistente - profilo e sezioni trasversali	1:200	MDL1 1 2 D 26 B9 SL 0 5 0 0 002 A
13	Carpenteria muri di sostegno	1:50	MDL1 1 2 D 26 WB SL 0 5 0 0 001 A

2.3 Documenti superati

Non ci sono documenti superati

3 CARATTERISTICHE DEI MATERIALI

I materiali adottati in fase di calcolo sono:

Calcestruzzo

Per le strutture di elevazione e fondazione si adotterà un calcestruzzo con le seguenti caratteristiche:

- $R_{ck} \geq 35 \text{ N/mm}^2$ (C30/35)
- classe di esposizione ambientale (UNI EN 206): XC1
- rapporto a/c non superiore a 0.60
- classe di consistenza S3-S4
- tipo di cemento: CEM III, IV, V
- diametro massimo inerte $\Phi_{max} = 20 \text{ mm}$

Per il magrone di sottofondazione si adotterà un calcestruzzo con le seguenti caratteristiche:

- $R_{ck} \geq 15 \text{ N/mm}^2$ (C12/15)
- classe di esposizione ambientale (UNI EN 206): X0
- tipo di cemento: CEM I÷V

Acciaio per c.a

Per gli elementi in c.a. si adotterà acciaio in barre ad aderenza migliorata FeB44 K (B450 C) saldabile con $\emptyset \leq 26 \text{ mm}$ avente le seguenti caratteristiche:

- $f_{yk} \geq 430 \text{ N/mm}^2$
- $f_{tk} \geq 540 \text{ N/mm}^2$
- $(f_y/f_{yk}) \leq 1.35$
- $(f_t/f_y)_{medio} \geq 1.13$

dove:

f_y = tensione di snervamento;

f_t = tensione di rottura;

f_{yk} = tensione caratteristica di snervamento;

f_{tk} = tensione caratteristica di rottura.

Tensione normale di compressione e trazione ammissibile:

$$\sigma_{s,adm} = 255 \text{ N/mm}^2$$

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	7/75

Copriferro netto

Copriferro netto di progetto per strutture di elevazione $c \geq 40$ mm.

Copriferro netto di progetto per strutture di fondazione $c \geq 40$ mm.

Acciaio per micropali

Tipo: S275JR (ex Fe430B)

- tensione caratt. di rottura: $f_{tk} = 430$ mpa

- tensione caratt. di snervamento: $f_{yk} = 275$ mpa per $t < 40$ mm
 $f_{yk} = 255$ mpa per $t > 40$ mm

4 CARATTERISTICHE DEL TERRENO

La caratterizzazione stratigrafica della tratta in esame è stata individuata dalle informazioni ottenute dalla campagna d'indagine svolta nell'anno 2008.

Negli elaborati: profilo geologico-tecnico e profilo geotecnico della tratta, sono rappresentate le indagini eseguite durante la campagna geognostica del 2008: in particolare, nelle immediate vicinanze dell'opera in esame (prg. km 3+875) è stato eseguito il sondaggio S21, spinto fino alla profondità di 30.0 m dal p.c.

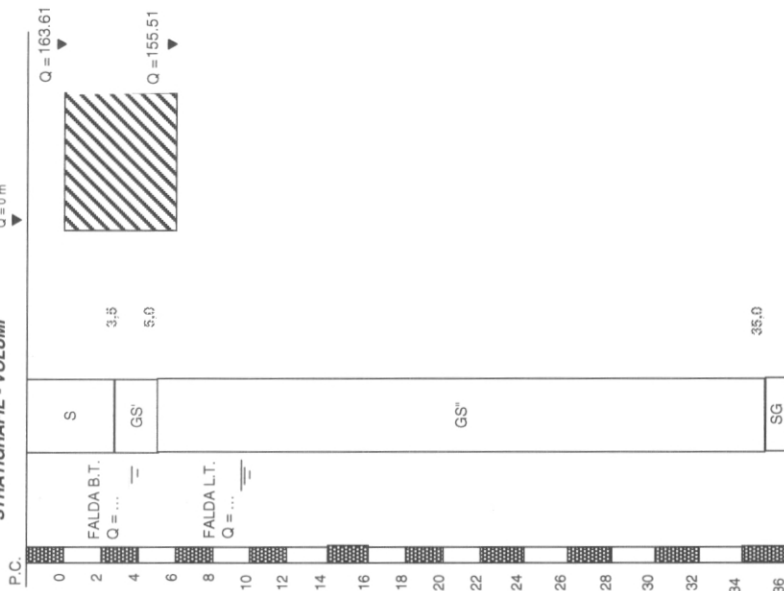
Sulla base di quanto sopra e dalla caratterizzazione stratigrafica e dei parametri geotecnica di progetto riportati nella relazione geotecnica generale, per l'opera in oggetto è stata individuata la caratterizzazione stratigrafico-geotecnica di progetto riportata nella seguente scheda geotecnica, caratterizzante il sito di ubicazione dell'opera.

PROGETTO: POTENZIAMENTO LINEA RHO-ARONA - TRATTA RHO-GALLARATE

OPERA: XXX

Pk rif. 3+912,89

STRATIGRAFIE - VOLUMI



LEGENDA

UNITA'	DESCRIZIONE
S	Terreno superficiale costituito da sabbia limosa di colore bruno, da sciolta a poco addensata
GS'	Ghiaia sabbiosa di colore marrone (livelli superficiali)
GS''	Ghiaia sabbiosa di colore marrone (livelli profondi)
SG	Sabbia ghiaiosa debolmente limosa, di colore marrone

PARAMETRI GEOTECNICI

UNITA'	γ (kN/m ³)	C_u (kN/m ²)	C' (kN/m ²)	ϕ' (°)	V (-)	V_s (m/s)	$G_0^{(1)}$ (MPa)	$E_0^{(2)}$ (MPa)	$E_{sp}^{(3)}$ (MPa)	$E_0^{(4)}$ (MPa)	$E_s^{(5)}$ (MPa)	$k_h^{(6)}$ (kN/m ³)	N_{SPR} (cp/30cm)	C_y (cm ² /s)	C_u (%)
S	18	..	..	30	?	..	..	..	25	..	..	..	..	..	..
GS'	19	..	..	35	?	200-350	70-250	..	35	..	..	..	4-35	..	..
GS''	19	..	..	35	?	250-400	100-350	..	40	..	..	..	25-60	..	..
SG	20	..	..	32-35	..	300-450	200-400	..	20-40	..	..	..	30-60	..	..

Note

- (1) modulo di taglio iniziale associato a piccole deformazioni
- (2) modulo di Young associato a piccole deformazioni
- (3) modulo di Young operativo associato al livello di deformazione raggiunto dal terreno
- (4) modulo di Young operativo in condizioni non drenate
- (5) modulo di reazione orizzontale
- (6) gradiente con la profondità del modulo di reazione orizzontale

I simboli rappresentati nella scheda geotecnica hanno il seguente significato:

γ = peso di volume naturale

c_u = coesione non drenata

c' = coesione efficace

φ' = angolo d'attrito

ν = coefficiente di Poisson

V_s = velocità delle onde di taglio

G_o = modulo di taglio iniziale associato a piccole deformazioni

E_o = modulo di Young operativo associato al livello di deformazione raggiunto dal terreno

E_{op} = modulo di Young operativo associato al livello di deformazione raggiunto dal terreno

E_u = modulo di Young operativo in condizioni non drenate

E_s = modulo di reazione orizzontale

K_h = gradiente con la profondità del modulo di reazione orizzontale

$NSPT$ = numero di colpi/30 cm di riferimento nel calcolo dei pali di fondazione

c_v = coefficiente di consolidazione primaria

c_α = coefficiente di consolidazione secondaria

Note: - il valore di φ' adottato per i terreni tipo GS" è stato considerato pari a quello dello strato GS' ($\varphi = 35^\circ$) a favore di sicurezza.

Per i dettagli circa le prove in sito ed in laboratorio si rimanda alla relazione geotecnica generale, elaborato [E_5].

Per quanto concerne la falda, nella zona in esame il livello di falda è posto 15 m dal p.c., come si evince dal profilo geotecnica di riferimento (si veda l'elaborato [E_11].

Si sottolinea che nel profilo geotecnica è presente terreno di riporto (R) da 0 a 0.6 m da p.c. circa la cui presenza non è stata esplicitata nella stratigrafia di progetto poiché i parametri geotecnica di tale strato sono gli stessi dello strato di terreno superficiale S.

4.1 Interazione terreno struttura

Di seguito sono trattati gli aspetti di natura geotecnica riguardanti l'interazione terreno-struttura relativamente all'opera in esame.

Per la determinazione della costante di sottofondo si può fare riferimento alle seguenti formulazioni assimilando il comportamento del terreno a quello di un mezzo elastico omogeneo:

$$B = 14.00 \text{ m}$$

$$L = 10.00 \text{ m}$$

$$s = B \cdot c_t \cdot (q - \sigma_{v0}) \cdot (1 - \nu^2) / E$$

dove:

s = cedimento elastico totale;

B = lato minore della fondazione;

c_t = coefficiente adimensionale di forma ottenuto dalla interpolazione dei valori dei coefficienti proposti dal Bowles, 1960 (L = lato maggiore della fondazione):

$$c_t = 0.853 + 0.534 \ln[14.00/11.00] = 1.03 \quad \text{rettangolare con } L / B \leq 10$$

$$c_t = 2 + 0.0089 (L / B) \quad \text{rettangolare con } L / B > 10$$

q = pressione media agente sul terreno;

σ_{v0} = tensione litostatica verticale alla quota di posa della fondazione;

ν = coefficiente di Poisson del terreno;

E = modulo elastico medio del terreno sottostante il tombino (media su una altezza pari a 2 B).

Il valore della costante di di sottofondo k_w è valutato attraverso il rapporto tra il carico applicato ed il corrispondente cedimento pertanto, si ottiene:

$$k_w = E / [(1 - \nu^2) \cdot B \cdot c_t]$$

Il valore di k_w da utilizzare nelle analisi per il dimensionamento dei manufatti può essere determinato considerando che i carichi applicati alla struttura sono di natura impulsiva e di breve durata (treno, sisma); la risposta del terreno di fondazione in condizioni dinamiche è notevolmente più rigida rispetto a quella usualmente considerata per carichi statici di lunga durata. Sulla base di indicazioni di letteratura, si possono pertanto indicare moduli operativi per la valutazione dei parametri d'interazione considerano moduli del terreno almeno 3÷5 volte superiori rispetto a quelli adottabili per problemi statici.

Per l'opera in esame, si può considerare un modulo elastico del terreno compreso nel seguente range:

$$E = 30000 \div 100000 \text{ kPa,}$$

dal quale risulta, secondo le formulazioni sopra riportate, un valore della costante di sottofondo compreso nel range:

$$k_w = 30000 \div 100000 / [(1 - 0.16) \cdot 14.00 \cdot 1.03] \approx 2500 \div 8200 \quad \text{kN / m}^3$$

Nelle calcolazioni è stato assunta una costante di sottofondo $k_w = 6000 \text{ kN/m}^3 = 0.06 \text{ kN/mm}^2/\text{cm}$.

5 MURO H=5.00 m

5.1 Modello di calcolo

Il calcolo delle sollecitazioni viene svolto con l'ausilio del codice di calcolo ad elementi finiti Sap2000 utilizzando elementi monodimensionali tipo 'frame'. Il modello schematizza un tratto di muro di lunghezza unitaria e comprende i due piedritti e la soletta di fondazione.

Il terreno di fondazione viene schematizzato con un modello alla Winkler, assumendo un modulo di sottofondo kw pari a 6000 kN/m³. La soletta inferiore viene divisa in 10 elementi ad interasse 1.26 m per poter schematizzare l'interazione terreno-struttura.

La rigidezza delle molle risulta pari a kw moltiplicata per l'interasse delle molle. Le rigidezze delle altre molle si ottengono, a partire da Kcentrale, aumentandola del 100% per quelle di bordo (tenendo conto correttamente del semispessore del piedritto) e del 50% per quelle intermedie.

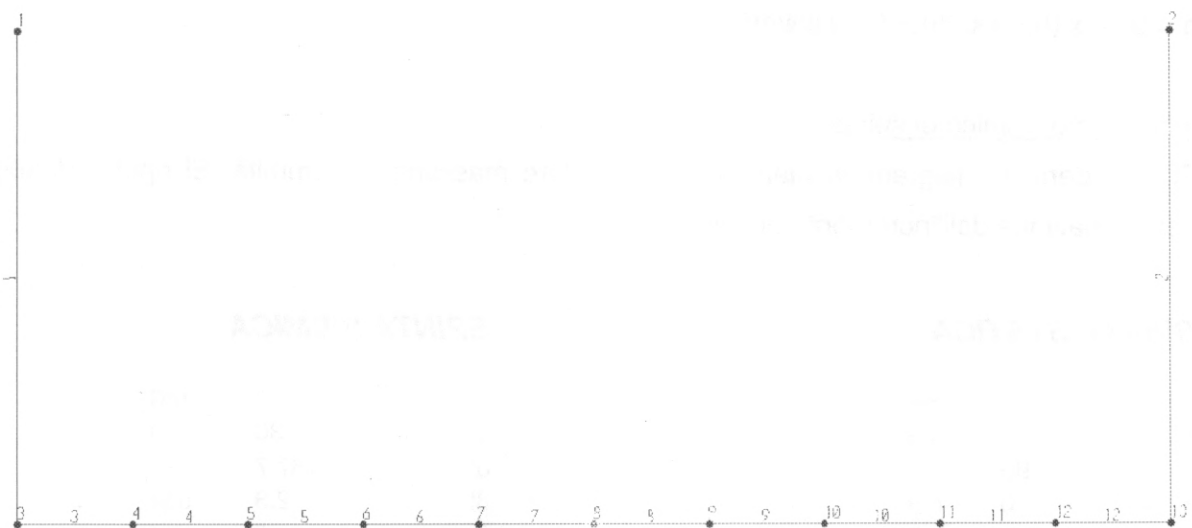
Si ha quindi:

Rigidezza molle centrali: $K = 6000 \times 1.26 = 7560 \text{ kN/m}$

Rigidezza molle intermedie: $K = 7560 \times 1.5 = 11340 \text{ kN/m}$

Rigidezza molle di bordo: $K = 2 \times (1.26/2 + 0.60/2) \times 6000 = 11160 \text{ kN/m}$

Si riporta di seguito una vista del modello di calcolo con la numerazione di nodi ed aste.



Modello di calcolo con indicazione dei nodi e delle aste

5.2 Analisi dei carichi

Spinta del terreno

Si considera la presenza di un rinterro a monte di altezza circa 1.20 m (corrispondente alla differenza di quota tra il p.c. e la testa muro $\approx 163.0 - 161.8$). La pressione del terreno ha quindi un andamento trapezio.

Il valore in sommità risulta pari a:

$$p_1 = \gamma \times K_a \times z = 19 \times 0.333 \times 1.20 = 7.6 \text{ kN/m}^2$$

Il valore al piede risulta pari a:

$$p = \gamma \times K_a \times z = 19 \times 0.333 \times (1.20 + 5.00 + 0.80/2) = 41.8 \text{ kN/m}^2$$

Spinta dovuta al sovraccarico a monte

La viabilità a monte è sufficiente lontana da far sì che i carichi mobili sulla strada non inducano spinte orizzontali sulle pareti dei muri. Si considera comunque un sovraccarico di 10 kN/m^3 per schematizzare la presenza di mezzi di cantiere.

Si considera quindi un carico uniforme pari a:

$$p = q \times K_a = 10 \times 0.333 = 3.33 \text{ kN/m}^2$$

Azione sismica

Si considera una zona sismica di 3° categoria. Si considera quindi sui piedritti una forza di inerzia pari a:

$$p = 0.04 \times (0.60 \times 25) = 0.60 \text{ kN/m}^2$$

Incremento sismico di spinta

Si considera un diagramma triangolare con valore massimo in sommità. Si riporta di seguito la determinazione dell'incremento di spinta.

SPINTA STATICA

	°	rad
ϕ	30	0.52
α	90	1.57
β	0	0.00
δ	0	0.00

Ka 0.333

SPINTA SISMICA

	°	rad
ϕ	30	0.52
α'	87.7	1.53
β'	2.3	0.04
δ	0	0.00
θ	2.3	0.04
A	0.999	

Ka 0.358

ϕ Angolo di attrito interno
 α Inclinazione del paramento di monte
 β Inclinazione del terreno sull'orizzontale
 δ Inclinazione della spinta

ϕ Angolo di attrito interno
 α Inclinazione del paramento di monte
 β Inclinazione del terreno sull'orizzontale
 δ Inclinazione della spinta

Risultante:

F **92.3 kN**

ΔF 6.6 kN
 $p(\text{sup})$ 2.45 kN/m

Risultante:

F_s **99.0 kN**

5.3 Condizioni e combinazioni di carico

Si considerano le seguenti condizioni di carico

PERM: Carichi permanenti (incluso il peso proprio, calcolato dal programma di calcolo)
 SPTSX Spinta del terreno sul piedritto di sinistra
 SPTDX Spinta del terreno sul piedritto di destra
 SPACCSX Spinta dovuta ai carichi accidentali sul piedritto di sinistra
 SPACCDX Spinta dovuta ai carichi accidentali sul piedritto di destra
 SISMAH Azione sismica
 SPSDX Incremento sismico di spinta

Si considerano le seguenti 4 combinazioni di carico:

	1	2	3	4
PERM	1	1	1	1
SPTSX	1	1	0.7	0.7
SPTDX	1	1	1	1
SPACCSX	0	1	0	0
SPACCDX	0	1	1	0.5
SISMAH	0	0	0	1
SPSDX	0	0	0	1

5.4 Sollecitazioni

Si riporta di seguito il diagramma involuppo del momento flettente e del taglio.

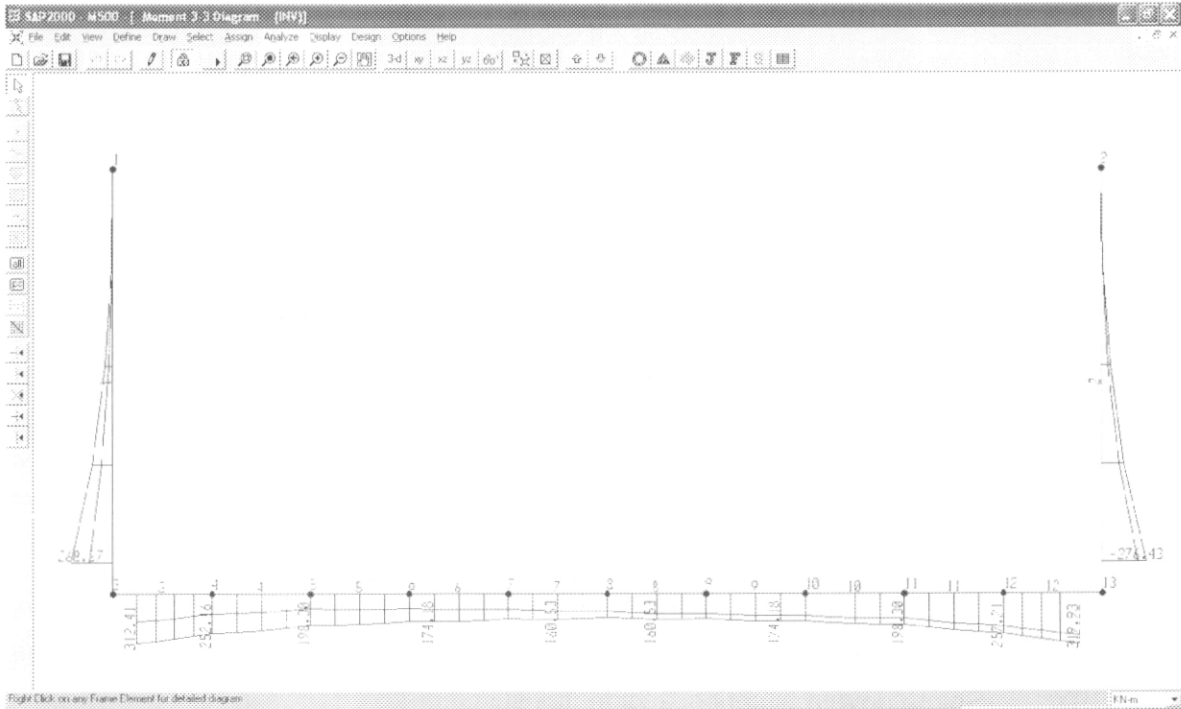


Diagramma del momento flettente

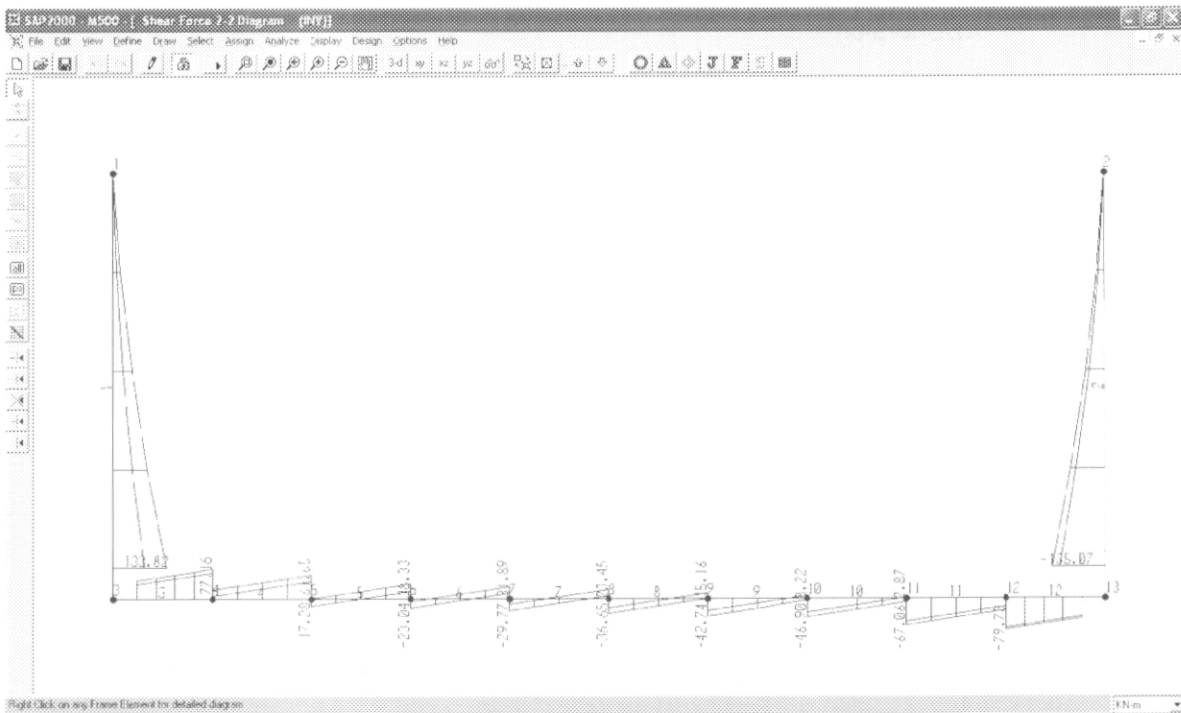


Diagramma del taglio

5.5 Verifiche di resistenza

Si riportano di seguito le verifiche di resistenza del piedritto e della soletta.

Piedritto

Sollecitazioni

Momento flettente	M	276	kN m
Sforzo normale	N	75	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	60	cm		
Larghezza sezione	B	100	cm		
Armatura compressa (1° strato)	AS_1'	5.65	cm ²	5 Ø 12	$C_{s1} = 5$ cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²	Ø	$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	15.71	cm ²	5 Ø 20	$C_{t2} = 10$ cm
Armatura tesa (1° strato)	AS_1	31.42	cm ²	10 Ø 20	$C_{t1} = 5$ cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	5.5	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	124.8	N/mm ²	<	σ_{samm}

Eccentricità	e	368.0	cm	>	H/6 Sez. parzializzata
	u	338.0	cm		
Posizione asse neutro	y	21.8	cm		
Area ideale (sez. int. reagente)	A_{id}	6739	cm ²		
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	2241786	cm ⁴		
Mom. di inerzia ideale (sez. parz. N=0)	J_{id*}	1076259	cm ⁴		

Verifica a taglio

Taglio	T	135	kN
Tensione tangenziale	τ	0.27	N/mm ²
	$\tau_{c,0}$	0.67	N/mm ²

Soletta

Sollecitazioni

Momento flettente	M	320	kN m
Sforzo normale	N	0	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{amm}	11.0	N/mm ²
Tensione ammissibile acciaio	σ_{amm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	80	cm			
Larghezza sezione	B	100	cm			
Armatura compressa (1° strato)	AS_1'	10.05	cm ²	5	$\emptyset 16$	$C_{s1} = 5$ cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²		\emptyset	$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	0.00	cm ²		\emptyset	$C_{t2} =$ cm
Armatura tesa (1° strato)	AS_1	31.42	cm ²	10	$\emptyset 20$	$C_{t1} = 5$ cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	4.0	N/mm ²	<	$\sigma_{c,amm}$
Trazione nell'acciaio (1° strato)	σ_s	149.6	N/mm ²	<	$\sigma_{s,amm}$

Eccentricità e ∞ cm > H/6 Sez. parzializzata

u ∞ cm

Posizione asse neutro y 21.4 cm

Area ideale (sez. int. reagente) A_{id} 8581 cm²

Mom. di inerzia ideale (sez. int. reag.) J_{id} 5028660 cm⁴

Mom. di inerzia ideale (sez. parz. N=0) J_{id*} 1721082 cm⁴

Verifica a taglio

Taglio	T	80	kN
Tensione tangenziale	τ	0.12	N/mm ²
	$\tau_{c,0}$	0.67	N/mm ²

5.6 Verifiche a fessurazione

Piedritto

Sollecitazioni

Momento flettente	M	276	kN m
Sforzo normale	N	75	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Res. media a trazione cls	f_{ctm}	2.9	N/mm ²
Res. caratteristica a trazione cls	f_{ctk}	2.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	60	cm		
Larghezza sezione	B	100	cm		
Armatura compressa (1° strato)	AS_1'	5.65	cm ²	5 Ø 12	$c_{s1} = 5$ cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²	Ø	$c_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	15.71	cm ²	5 Ø 20	$c_{i2} = 10$ cm
Armatura tesa (1° strato)	AS_1	31.42	cm ²	10 Ø 20	$c_{i1} = 5$ cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	5.5	N/mm ²	< σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	124.8	N/mm ²	< σ_{samm}

Eccentricità	e (M)	368.0	cm	> H/6 Sez. parzializzata
	u (M)	338.0	cm	
Posizione asse neutro	y (M)	21.8	cm	
Area ideale (sez. int. reagente)	A_{id}	6739	cm ²	
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	2241786	cm ⁴	
Mom. di inerzia ideale (sez. parz. N=0)	J_{id}^*	1076259	cm ⁴	

Verifica a fessurazione

Momento di fessurazione (f_{ctk})	M_{fess}^*	159	kN m	La sezione è fessurata
Momento di fessurazione (f_{ctm})	M_{fess}	224	kN m	
Eccentricità per $M=M_{fess}$	e (M_{fess})	298.9	cm	
	u (M_{fess})	268.9	cm	
Compressione max nel cls. per $M=M_{fess}$	σ_{cr}	4.5		
Traz. nell'acciaio (1° str.) per $M=M_{fess}$	σ_{sr}	100.0	N/mm ²	
Posizione asse neutro per $M=M_{fess}$	y (M_{fess})	22.1	cm	
	β_1	1		
	β_2	0.5		
Deform. unitaria media dell'arm.	ϵ_{sm}	0.0004		
Copriferro netto	c'	4.0	cm	
Altezza efficace	d_{eff}	24.0	cm	
Area efficace	AC_{eff}	2400	cm ²	
Armatura nell'area efficace	AS_{eff}	47.1	cm ²	
	ρ_r	0.01963		
Distanza tra le barre	s	10.0	cm	
	K_2	0.4		
	K_3	0.125		
Distanza media tra le fessure	s_{rm}	15.1	cm	
Valore medio dell'ap. delle fessure	w _m	0.06	mm	
Valore caratter. dell'ap. delle fessure	w _k	0.10	mm	

Soletta

Sollecitazioni

Momento flettente	M	320	kN m
Sforzo normale	N	0	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{amm}	11.0	N/mm ²
Res. media a trazione cls	f_{ctm}	2.9	N/mm ²
Res. caratteristica a trazione cls	f_{ctk}	2.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	80	cm			
Larghezza sezione	B	100	cm			
Armatura compressa (1° strato)	AS_1'	10.05	cm ²	5	\emptyset 16	$C_{s1} =$ 5 cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²		\emptyset	$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	0.00	cm ²		\emptyset	$C_{t2} =$ cm
Armatura tesa (1° strato)	AS_1	31.42	cm ²	10	\emptyset 20	$C_{t1} =$ 5 cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	4.0	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	149.6	N/mm ²	<	σ_{samm}

Eccentricità	e (M)	?	cm	>	H/6 Sez. parzializzata
	u (M)	?	cm		
Posizione asse neutro	y (M)	21.4	cm		
Area ideale (sez. int. reagente)	A_{id}	8581	cm ²		
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	5028660	cm ⁴		
Mom. di inerzia ideale (sez. parz. N=0)	J_{id*}	1721082	cm ⁴		

Verifica a fessurazione

Momento di fessurazione (f_{ctk})	M_{fess}^*	254	kN m	La sezione è fessurata
Momento di fessurazione (f_{ctm})	M_{fess}	363	kN m	
Eccentricità per $M=M_{fess}$	e (M_{fess})	?	cm	
	u (M_{fess})	?	cm	
Compressione max nel cls. per $M=M_{fess}$	σ_{cr}	4.5		
Traz. nell'acciaio (1° str.) per $M=M_{fess}$	σ_{sr}	169.8	N/mm ²	
Posizione asse neutro per $M=M_{fess}$	y (M_{fess})	21.4	cm	
	β_1	1		
	β_2	0.5		
Deform. unitaria media dell'arm.	ϵ_{sm}	0.00028		
Copri ferro netto	c'	4.0	cm	
Altezza efficace	d_{eff}	19.0	cm	
Area efficace	AC_{eff}	1900	cm ²	
Armatura nell'area efficace	AS_{eff}	31.4	cm ²	
	ρ_r	0.01653		
Distanza tra le barre	s	10.0	cm	
	K_2	0.4		
	K_3	0.125		
Distanza media tra le fessure	S_{rm}	16.0	cm	
Valore medio dell'ap. delle fessure	w _m	0.05	mm	
Valore caratter. dell'ap. delle fessure	w _k	0.08	mm	

6 MURO H=4.00 m

6.1 Modello di calcolo

Il calcolo delle sollecitazioni viene svolto con l'ausilio del codice di calcolo ad elementi finiti Sap2000 utilizzando elementi monodimensionali tipo 'frame'. Il modello schematizza un tratto di muro di lunghezza unitaria e comprende i due piedritti e la soletta di fondazione.

Il terreno di fondazione viene schematizzato con un modello alla Winkler, assumendo un modulo di sottofondo kw pari a 6000 kN/m³. La soletta inferiore viene divisa in 10 elementi ad interasse 1.26 m per poter schematizzare l'interazione terreno-struttura.

La rigidezza delle molle risulta pari a kw moltiplicata per l'interasse delle molle. Le rigidezze delle altre molle si ottengono, a partire da Kcentrale, aumentandola del 100% per quelle di bordo (tenendo conto correttamente del semispessore del piedritto) e del 50% per quelle intermedie.

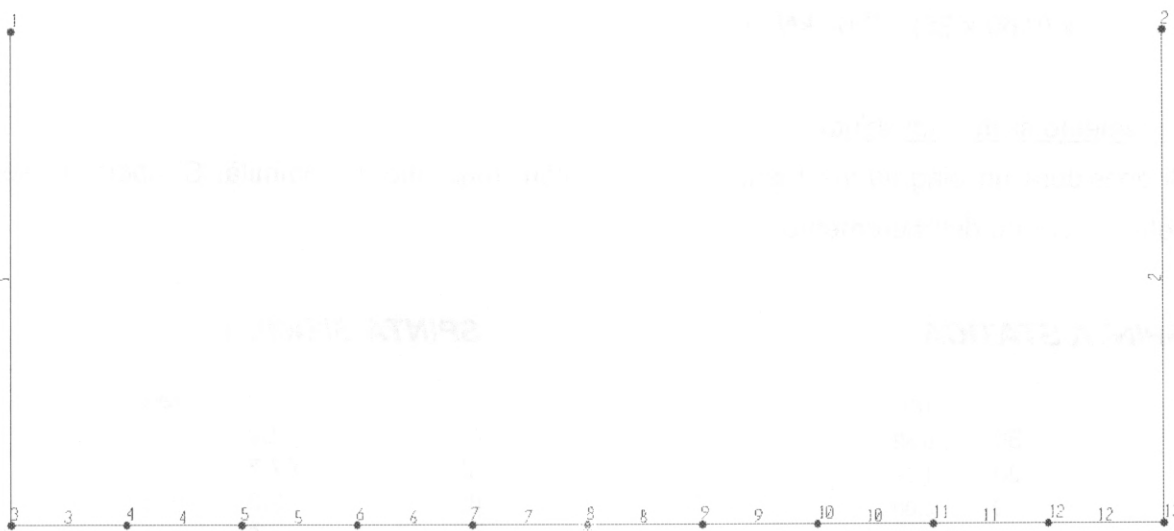
Si ha quindi:

Rigidezza molle centrali: $K = 6000 \times 1.26 = 7560 \text{ kN/m}$

Rigidezza molle intermedie: $K = 7560 \times 1.5 = 11340 \text{ kN/m}$

Rigidezza molle di bordo: $K = 2 \times (1.26/2 + 0.60/2) \times 6000 = 11160 \text{ kN/m}$

Si riporta di seguito una vista del modello di calcolo con la numerazione di nodi ed aste.



Modello di calcolo con indicazione dei nodi e delle aste

6.2 Analisi dei carichi

Spinta del terreno

Si considera la presenza di un rinterro a monte di altezza circa 1.20 m (corrispondente alla differenza di quota tra il p.c. e la testa muro $\approx 163.0 - 161.8$). La pressione del terreno ha quindi un andamento trapezio.

Il valore in sommità risulta pari a:

$$p_1 = \gamma \times K_a \times z = 19 \times 0.333 \times 1.20 = 7.6 \text{ kN/m}^2$$

Il valore al piede risulta pari a:

$$p = \gamma \times K_a \times z = 19 \times 0.333 \times (1.20 + 4.00 + 0.80/2) = 35.5 \text{ kN/m}^2$$

Spinta dovuta al sovraccarico a monte

La viabilità a monte è sufficiente lontana da far sì che i carichi mobili sulla strada non inducano spinte orizzontali sulle pareti dei muri. Si considera comunque un sovraccarico di 10 kN/m³ per schematizzare la presenza di mezzi di cantiere.

Si considera quindi un carico uniforme pari a:

$$p = q \times K_a = 10 \times 0.333 = 3.33 \text{ kN/m}^2$$

Azione sismica

Si considera una zona sismica di 3° categoria. Si considera quindi sui piedritti una forza di inerzia pari a:

$$p = 0.04 \times (0.60 \times 25) = 0.60 \text{ kN/m}^2$$

Incremento sismico di spinta

Si considera un diagramma triangolare con valore massimo in sommità. Si riporta di seguito la determinazione dell'incremento di spinta.

SPINTA STATICA

	°	rad
ϕ	30	0.52
α	90	1.57
β	0	0.00
δ	0	0.00

Ka 0.333

SPINTA SISMICA

	°	rad
ϕ	30	0.52
α'	87.7	1.53
β'	2.3	0.04
δ	0	0.00
θ	2.3	0.04
A	0.999	

Ka 0.358

ϕ Angolo di attrito interno
 α Inclinazione del paramento di monte
 β Inclinazione del terreno sull'orizzontale
 δ Inclinazione della spinta

ϕ Angolo di attrito interno
 α Inclinazione del paramento di monte
 β Inclinazione del terreno sull'orizzontale
 δ Inclinazione della spinta

Risultante:
F 61.3 kN

ΔF 4.4 kN
 $p(\text{sup})$ 2.00 kN/m

Risultante:
F_s 65.7 kN

6.3 Condizioni e combinazioni di carico

Si considerano le seguenti condizioni di carico

PERM: Carichi permanenti (incluso il peso proprio, calcolato dal programma di calcolo)
 SPTSX Spinta del terreno sul piedritto di sinistra
 SPTDX Spinta del terreno sul piedritto di destra
 SPACCSX Spinta dovuta ai carichi accidentali sul piedritto di sinistra
 SPACCDX Spinta dovuta ai carichi accidentali sul piedritto di destra
 SISMAH Azione sismica
 SPSDX Incremento sismico di spinta

Si considerano le seguenti 4 combinazioni di carico:

	1	2	3	4
PERM	1	1	1	1
SPTSX	1	1	0.7	0.7
SPTDX	1	1	1	1
SPACCSX	0	1	0	0
SPACCDX	0	1	1	0.5
SISMAH	0	0	0	1
SPSDX	0	0	0	1

6.4 Sollecitazioni

Si riporta di seguito il diagramma involuppo del momento flettente e del taglio.

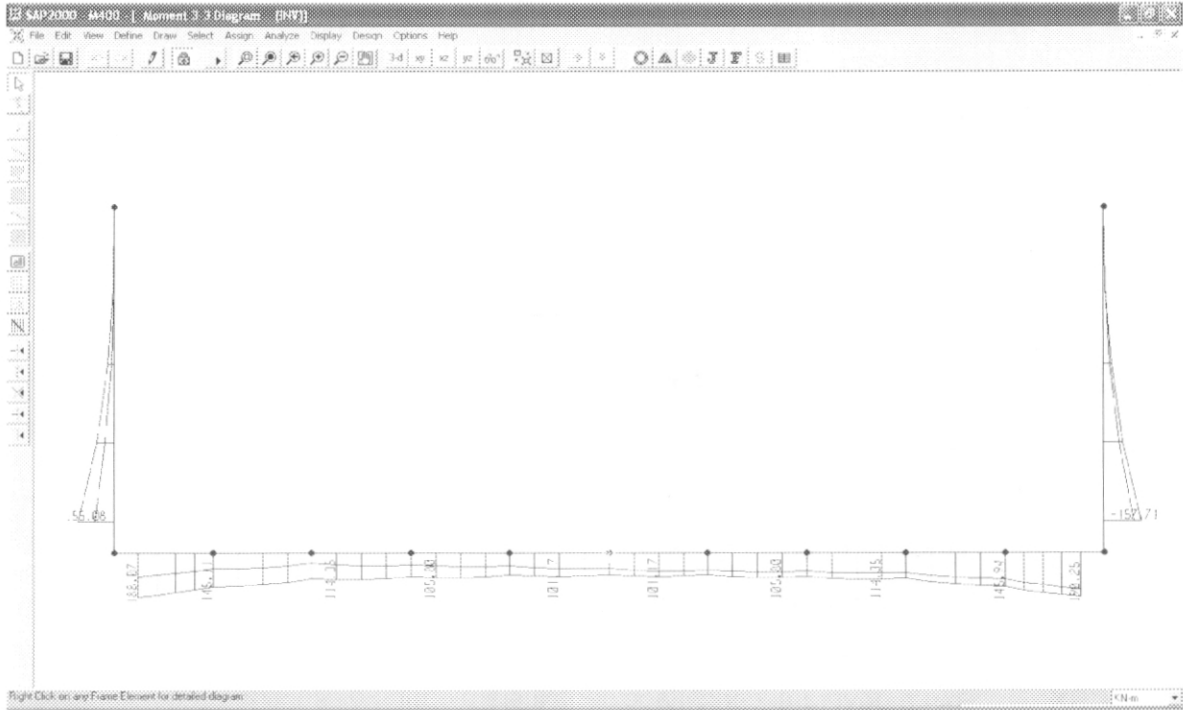


Diagramma del momento flettente

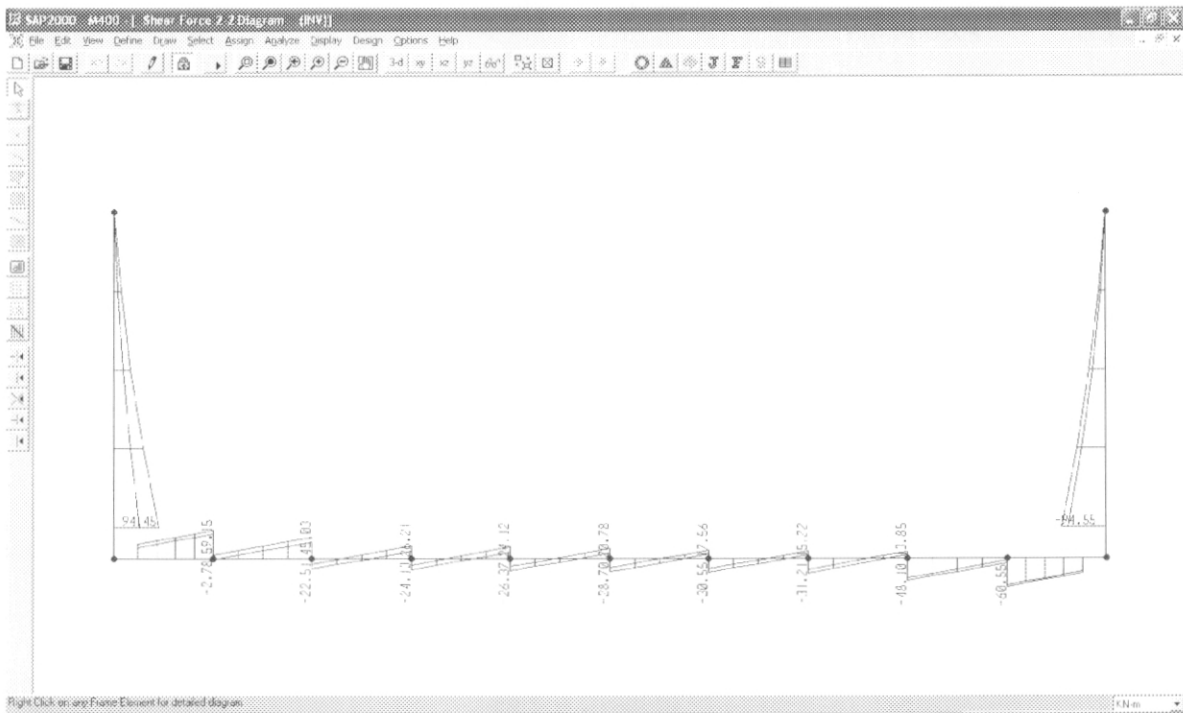


Diagramma del taglio

6.5 Verifiche di resistenza

Si riportano di seguito le verifiche di resistenza del piedritto e della soletta.

Piedritto

Sollecitazioni

Momento flettente	M	157	kN m
Sforzo normale	N	60	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	60	cm		
Larghezza sezione	B	100	cm		
Armatura compressa (1° strato)	AS_1'	5.65	cm ²	5 Ø 12	$C_{s1} = 5$ cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²	Ø	$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	0.00	cm ²	Ø	$C_{i2} =$ cm
Armatura tesa (1° strato)	AS_1	20.11	cm ²	10 Ø 16	$C_{i1} = 5$ cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	4.0	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	142.6	N/mm ²	<	σ_{samm}

Eccentricità	e	261.7	cm	>	H/6 Sez. parzializzata
	u	231.7	cm		
Posizione asse neutro	y	16.2	cm		
Area ideale (sez. int. reagente)	A_{id}	6361	cm ²		
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	2041510	cm ⁴		
Mom. di inerzia ideale (sez. parz. N=0)	J_{id*}	606571	cm ⁴		

Verifica a taglio

Taglio	T	95	kN
Tensione tangenziale	τ	0.19	N/mm ²
	$\tau_{c,0}$	0.67	N/mm ²

Soletta

Sollecitazioni

Momento flettente	M	190	kN m
Sforzo normale	N	0	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	80	cm			
Larghezza sezione	B	100	cm			
Armatura compressa (1° strato)	AS_1'	10.05	cm ²	5	\emptyset 16	$C_{s1} =$ 5 cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²	\emptyset		$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	0.00	cm ²	\emptyset		$C_{i2} =$ cm
Armatura tesa (1° strato)	AS_1	15.71	cm ²	5	\emptyset 20	$C_{i1} =$ 5 cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	3.1	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	173.3	N/mm ²	<	σ_{samm}

Eccentricità e ∞ cm > H/6 Sez. parzializzata

u ∞ cm

Posizione asse neutro y 15.7 cm

Area ideale (sez. int. reagente) A_{id} 8361 cm²

Mom. di inerzia ideale (sez. int. reag.) J_{id} 4740026 cm⁴

Mom. di inerzia ideale (sez. parz. N=0) J_{id*} 974814 cm⁴

Verifica a taglio

Taglio	T	61	kN
Tensione tangenziale	τ	0.09	N/mm ²
	$\tau_{c,0}$	0.67	N/mm ²

6.6 Verifiche a fessurazione

Piedritto

Sollecitazioni

Momento flettente	M	157	kN m
Sforzo normale	N	60	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Res. media a trazione cls	f_{ctm}	2.9	N/mm ²
Res. caratteristica a trazione cls	f_{ctk}	2.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	60	cm		
Larghezza sezione	B	100	cm		
Armatura compressa (1° strato)	A_{s1}'	5.65	cm ²	5 Ø 12	$C_{s1} = 5$ cm
Armatura compressa (2° strato)	A_{s2}'	0.00	cm ²	Ø	$C_{s2} =$ cm
Armatura tesa (2° strato)	A_{s2}	0.00	cm ²	Ø	$C_{i2} =$ cm
Armatura tesa (1° strato)	A_{s1}	20.11	cm ²	10 Ø 16	$C_{i1} = 5$ cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	4.0	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	142.6	N/mm ²	<	σ_{samm}

Eccentricità	e (M)	261.7	cm	>	H/6 Sez. parzializzata
	u (M)	231.7	cm		
Posizione asse neutro	y (M)	16.2	cm		
Area ideale (sez. int. reagente)	A_{id}	6361	cm ²		
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	2041510	cm ⁴		
Mom. di inerzia ideale (sez. parz. N=0)	J_{id}^*	606571	cm ⁴		

Verifica a fessurazione

Momento di fessurazione (f_{ctk})	M_{fess}^*	144	kN m	La sezione è fessurata
Momento di fessurazione (f_{ctm})	M_{fess}	203	kN m	
Eccentricità per $M=M_{fess}$	e (M_{fess})	338.4	cm	
	u (M_{fess})	308.4	cm	
Compressione max nel cls. per $M=M_{fess}$	σ_{cr}	5.1		
Traz. nell'acciaio (1° str.) per $M=M_{fess}$	σ_{sr}	188.3	N/mm ²	
Posizione asse neutro per $M=M_{fess}$	y (M_{fess})	15.9	cm	
	β_1	1		
	β_2	0.5		
Deform. unitaria media dell'arm.	ϵ_{sm}	0.00027		
Copriferro netto	c'	4.2	cm	
Altezza efficace	d_{eff}	16.2	cm	
Area efficace	A_{Ceff}	1620	cm ²	
Armatura nell'area efficace	$A_{S_{eff}}$	20.1	cm ²	
	pr	0.01241		
Distanza tra le barre	s	10.0	cm	
	K_2	0.4		
	K_3	0.125		
Distanza media tra le fessure	s_m	16.8	cm	
Valore medio dell'ap. delle fessure	wm	0.05	mm	
Valore caratter. dell'ap. delle fessure	wk	0.08	mm	

Soletta

Sollecitazioni

Momento flettente	M	190	kN m
Sforzo normale	N	0	kN

Materiali

Res. caratteristica cls	R_{ck}	35	N/mm ²
Tensione ammissibile cls	σ_{camm}	11.0	N/mm ²
Res. media a trazione cls	f_{ctm}	2.9	N/mm ²
Res. caratteristica a trazione cls	f_{ctk}	2.0	N/mm ²
Tensione ammissibile acciaio	σ_{samm}	260	N/mm ²
Coefficiente omog. acciaio-cls	n	15	

Caratteristiche geometriche

Altezza sezione	H	80	cm			
Larghezza sezione	B	100	cm			
Armatura compressa (1° strato)	AS_1'	10.05	cm ²	5	\emptyset 16	$C_{s1} =$ 5 cm
Armatura compressa (2° strato)	AS_2'	0.00	cm ²		\emptyset	$C_{s2} =$ cm
Armatura tesa (2° strato)	AS_2	0.00	cm ²		\emptyset	$C_{t2} =$ cm
Armatura tesa (1° strato)	AS_1	15.71	cm ²	5	\emptyset 20	$C_{t1} =$ 5 cm

Tensioni nei materiali

Compressione max nel cls.	σ_c	3.1	N/mm ²	<	σ_{camm}
Trazione nell'acciaio (1° strato)	σ_s	173.3	N/mm ²	<	σ_{samm}

Eccentricità	e (M)	∞	cm	>	H/6 Sez. parzializzata
	u (M)	∞	cm		
Posizione asse neutro	y (M)	15.7	cm		
Area ideale (sez. int. reagente)	A_{id}	8361	cm ²		
Mom. di inerzia ideale (sez. int. reag.)	J_{id}	4740026	cm ⁴		
Mom. di inerzia ideale (sez. parz. N=0)	J_{id*}	974814	cm ⁴		

Verifica a fessurazione

Momento di fessurazione (f_{ctk})	M_{fess}^*	240	kN m	La sezione non è fessurata
---------------------------------------	--------------	-----	------	----------------------------

7 Incidenze armatura

Muri H=5.00 e H=4.50

Piedritti: 100 kg/m³

Soletta fondazione: 70 kg/m³

Muri H=4.00 e H=3.50

Piedritti: 70 kg/m³

Soletta fondazione: 50 kg/m³

8 Allegati

8.1 Muro H=5.00 m

8.1.1 Input

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STATIC LOAD CASES

STATIC CASE	CASE TYPE	SELF WT FACTOR
PERM	DEAD	1.0000
SPTSX	DEAD	0.0000
SPTDX	DEAD	0.0000
SPACCSX	DEAD	0.0000
SPACCDX	DEAD	0.0000
SISMAH	DEAD	0.0000
SPSDX	DEAD	0.0000

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JOINT DATA

JOINT	GLOBAL-X	GLOBAL-Y	GLOBAL-Z	RESTRAINTS	ANGLE-A	ANGLE-B	ANGLE-C
1	0.00000	0.00000	5.40000	0 0 0 0 0	0.000	0.000	0.000
2	12.60000	0.00000	5.40000	0 0 0 0 0	0.000	0.000	0.000
3	0.00000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
4	1.26000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
5	2.52000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
6	3.78000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
7	5.04000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
8	6.30000	0.00000	0.00000	1 0 0 0 0	0.000	0.000	0.000
9	7.56000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
10	8.82000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
11	10.08000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
12	11.34000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
13	12.60000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000

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JOINT SPRING DATA

JOINT	K-U1	K-U2	K-U3	K-R1	K-R2	K-R3
3	0.000	0.000	11160.000	0.000	0.000	0.000
13	0.000	0.000	11160.000	0.000	0.000	0.000
6	0.000	0.000	7560.000	0.000	0.000	0.000
7	0.000	0.000	7560.000	0.000	0.000	0.000
8	0.000	0.000	7560.000	0.000	0.000	0.000
9	0.000	0.000	7560.000	0.000	0.000	0.000
10	0.000	0.000	7560.000	0.000	0.000	0.000
4	0.000	0.000	11340.000	0.000	0.000	0.000
5	0.000	0.000	11340.000	0.000	0.000	0.000
11	0.000	0.000	11340.000	0.000	0.000	0.000
12	0.000	0.000	11340.000	0.000	0.000	0.000

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Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	29/75

FRAME ELEMENT DATA

FRAME	JNT-1	JNT-2	SECTION	ANGLE	RELEASES	SEGMENTS	R1	R2	FACTOR	LENGTH
1	3	1	PIED	0.000	000000	4	0.400	0.000	0.500	5.400
2	13	2	PIED	0.000	000000	4	0.400	0.000	0.500	5.400
3	3	4	SOLI	0.000	000000	4	0.300	0.000	0.500	1.260
4	4	5	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
5	5	6	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
6	6	7	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
7	7	8	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
8	8	9	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
9	9	10	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
10	10	11	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
11	11	12	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
12	12	13	SOLI	0.000	000000	4	0.000	0.300	0.500	1.260

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MATERIAL PROPERTY DATA

MAT LABEL	MODULUS OF ELASTICITY	POISSON'S RATIO	THERMAL COEFF	WEIGHT PER UNIT VOL	MASS PER UNIT VOL
STEEL	199948000	0.300	1.170E-05	76.820	7.827
CONC	33700000.	0.200	1.000E-05	25.000	2.548
OTHER	24821130.0	0.200	9.900E-06	23.562	2.401

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MATERIAL DESIGN DATA

MAT LABEL	DESIGN CODE	STEEL FY	CONCRETE FC	REBAR FY	CONCRETE FCS	REBAR FYS
STEEL	S	248211.284				
CONC	C		27579.032	413685.473	27579.032	275790.316
OTHER	N					

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FRAME SECTION PROPERTY DATA

SECTION LABEL	MAT LABEL	SECTION TYPE	DEPTH	FLANGE WIDTH TOP	FLANGE THICK TOP	WEB THICK	FLANGE WIDTH BOTTOM	FLANGE THICK BOTTOM
PIED	CONC		0.600	1.000	0.000	0.000	0.000	0.000
SOLI	CONC		0.800	1.000	0.000	0.000	0.000	0.000

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FRAME SECTION PROPERTY DATA

SECTION LABEL	AREA	TORSIONAL INERTIA	MOMENTS OF INERTIA		SHEAR AREAS	
			I33	I22	A2	A3
PIED	0.600	4.508E-02	1.800E-02	5.000E-02	0.500	0.500
SOLI	0.800	8.759E-02	4.267E-02	6.667E-02	0.667	0.667

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Relazione di calcolo

 PROGETTO LOTTO CODIFICA DOCUMENTO REV. FOGLIO
 MDL1 12 D 26 CL SL0500002 A 30/75

FRAME SECTION PROPERTY DATA

SECTION LABEL	SECTION MODULII		PLASTIC MODULII		RADII OF GYRATION	
	S33	S22	Z33	Z22	R33	R22
PIED	6.000E-02	0.100	9.000E-02	0.150	0.173	0.289
SOLI	0.107	0.133	0.160	0.200	0.231	0.289

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FRAME SECTION PROPERTY DATA

SECTION LABEL	TOTAL WEIGHT	TOTAL MASS
PIED	162.000	16.514
SOLI	252.000	25.688

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SHELL SECTION PROPERTY DATA

SECTION LABEL	MAT LABEL	SHELL TYPE	MEMBRANE THICK	BENDING THICK	MATERIAL ANGLE
SSEC1	CONC	4	1.000	1.000	0.000

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SHELL SECTION PROPERTY DATA

SECTION LABEL	TOTAL WEIGHT	TOTAL MASS
SSEC1	0.000	0.000

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FRAME SPAN DISTRIBUTED LOADS Load Case PERM

FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
3	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
4	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
5	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
6	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
7	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
8	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
9	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
10	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
11	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
12	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000

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FRAME SPAN DISTRIBUTED LOADS Load Case SPTSX

FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	41.8000	1.0000	7.6000

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Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	31/75

FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPTDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	-41.8000	1.0000	-7.6000

SAP2000 v7.10 File: M500 KN-m Units PAGE 16
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FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPACCSX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	3.3300	1.0000	3.3300

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FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPACCDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	-3.3300	1.0000	-3.3300

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FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SISMAH
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	-0.6000	1.0000	-0.6000
2	FORCE	GLOBAL-X	0.0000	-0.6000	1.0000	-0.6000

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FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPSDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	0.0000	1.0000	-2.4500

8.1.2 Output

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LOAD COMBINATION MULTIPLIERS

COMBO	TYPE	CASE	FACTOR	TYPE	TITLE
COMB1	ADD	PERM	1.0000	STATIC (DEAD)	COMB1
		SPTSX	1.0000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
COMB2	ADD	PERM	1.0000	STATIC (DEAD)	COMB2
		SPTSX	1.0000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCSX	1.0000	STATIC (DEAD)	
		SPACCDX	1.0000	STATIC (DEAD)	
COMB3	ADD	PERM	1.0000	STATIC (DEAD)	COMB3
		SPTSX	0.7000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCDX	1.0000	STATIC (DEAD)	
COMB4	ADD	PERM	1.0000	STATIC (DEAD)	COMB4
		SPTSX	0.7000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCDX	0.5000	STATIC (DEAD)	
		SISMAH	1.0000	STATIC (DEAD)	
		SPSDX	1.0000	STATIC (DEAD)	
INV	ENVE	COMB1	1.0000	COMBO	COMB5
		COMB2	1.0000	COMBO	
		COMB3	1.0000	COMBO	
		COMB4	1.0000	COMBO	
INVES	ENVE	COMB1	1.0000	COMBO	COMB5
		COMB2	1.0000	COMBO	
		COMB3	1.0000	COMBO	

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JOINT DISPLACEMENTS

JOINT	LOAD	U1	U2	U3	R1	R2	R3
1	PERM	-1.184E-03	0.0000	-5.557E-03	0.0000	-2.192E-04	0.0000
1	SPTSX	7.152E-03	0.0000	1.887E-03	0.0000	1.467E-03	0.0000
1	SPTDX	4.241E-04	0.0000	-3.423E-04	0.0000	7.854E-05	0.0000
1	SPACCSX	1.321E-03	0.0000	3.307E-04	0.0000	2.785E-04	0.0000
1	SPACCDX	7.433E-05	0.0000	-5.999E-05	0.0000	1.376E-05	0.0000
1	SISMAH	-2.247E-04	0.0000	-7.040E-05	0.0000	-4.770E-05	0.0000
1	SPSDX	3.646E-05	0.0000	-2.943E-05	0.0000	6.752E-06	0.0000
1	COMB1	6.392E-03	0.0000	-4.013E-03	0.0000	1.326E-03	0.0000
1	COMB2	7.788E-03	0.0000	-3.742E-03	0.0000	1.618E-03	0.0000
1	COMB3	4.321E-03	0.0000	-4.639E-03	0.0000	8.997E-04	0.0000

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	33/ 75

1	COMB4	4.096E-03	0.0000	-4.708E-03	0.0000	8.519E-04	0.0000
1	INV MAX	7.788E-03	0.0000	-3.742E-03	0.0000	1.618E-03	0.0000
1	INV MIN	4.096E-03	0.0000	-4.708E-03	0.0000	8.519E-04	0.0000
1	INVES MAX	7.788E-03	0.0000	-3.742E-03	0.0000	1.618E-03	0.0000
1	INVES MIN	4.321E-03	0.0000	-4.639E-03	0.0000	8.997E-04	0.0000
2	PERM	1.184E-03	0.0000	-5.557E-03	0.0000	2.192E-04	0.0000
2	SPTSX	-4.241E-04	0.0000	-3.423E-04	0.0000	-7.854E-05	0.0000
2	SPTDX	-7.152E-03	0.0000	1.887E-03	0.0000	-1.467E-03	0.0000
2	SPACCSX	-7.433E-05	0.0000	-5.999E-05	0.0000	-1.376E-05	0.0000
2	SPACCDX	-1.321E-03	0.0000	3.307E-04	0.0000	-2.785E-04	0.0000
2	SISMAH	-2.247E-04	0.0000	7.040E-05	0.0000	-4.770E-05	0.0000
2	SPSDX	-6.760E-04	0.0000	1.622E-04	0.0000	-1.454E-04	0.0000
2	COMB1	-6.392E-03	0.0000	-4.013E-03	0.0000	-1.326E-03	0.0000
2	COMB2	-7.788E-03	0.0000	-3.742E-03	0.0000	-1.618E-03	0.0000
2	COMB3	-7.587E-03	0.0000	-3.579E-03	0.0000	-1.581E-03	0.0000
2	COMB4	-7.826E-03	0.0000	-3.512E-03	0.0000	-1.635E-03	0.0000
2	INV MAX	-6.392E-03	0.0000	-3.512E-03	0.0000	-1.326E-03	0.0000
2	INV MIN	-7.826E-03	0.0000	-4.013E-03	0.0000	-1.635E-03	0.0000
2	INVES MAX	-6.392E-03	0.0000	-3.579E-03	0.0000	-1.326E-03	0.0000
2	INVES MIN	-7.788E-03	0.0000	-4.013E-03	0.0000	-1.618E-03	0.0000
3	PERM	0.0000	0.0000	-5.546E-03	0.0000	-2.192E-04	0.0000
3	SPTSX	3.117E-05	0.0000	1.887E-03	0.0000	8.549E-04	0.0000
3	SPTDX	0.0000	0.0000	-3.423E-04	0.0000	7.854E-05	0.0000
3	SPACCSX	4.202E-06	0.0000	3.307E-04	0.0000	1.498E-04	0.0000
3	SPACCDX	0.0000	0.0000	-5.999E-05	0.0000	1.376E-05	0.0000
3	SISMAH	0.0000	0.0000	-7.040E-05	0.0000	-2.452E-05	0.0000
3	SPSDX	0.0000	0.0000	-2.943E-05	0.0000	6.752E-06	0.0000
3	COMB1	3.117E-05	0.0000	-4.002E-03	0.0000	7.143E-04	0.0000
3	COMB2	3.537E-05	0.0000	-3.731E-03	0.0000	8.779E-04	0.0000
3	COMB3	2.182E-05	0.0000	-4.628E-03	0.0000	4.716E-04	0.0000
3	COMB4	2.106E-05	0.0000	-4.698E-03	0.0000	4.469E-04	0.0000
3	INV MAX	3.537E-05	0.0000	-3.731E-03	0.0000	8.779E-04	0.0000
3	INV MIN	2.106E-05	0.0000	-4.698E-03	0.0000	4.469E-04	0.0000
3	INVES MAX	3.537E-05	0.0000	-3.731E-03	0.0000	8.779E-04	0.0000
3	INVES MIN	2.182E-05	0.0000	-4.628E-03	0.0000	4.716E-04	0.0000
4	PERM	0.0000	0.0000	-5.272E-03	0.0000	-2.019E-04	0.0000
4	SPTSX	2.493E-05	0.0000	9.263E-04	0.0000	6.526E-04	0.0000
4	SPTDX	0.0000	0.0000	-4.409E-04	0.0000	7.646E-05	0.0000
4	SPACCSX	3.362E-06	0.0000	1.623E-04	0.0000	1.144E-04	0.0000
4	SPACCDX	0.0000	0.0000	-7.726E-05	0.0000	1.340E-05	0.0000
4	SISMAH	0.0000	0.0000	-4.317E-05	0.0000	-1.819E-05	0.0000
4	SPSDX	0.0000	0.0000	-3.790E-05	0.0000	6.573E-06	0.0000
4	COMB1	2.493E-05	0.0000	-4.786E-03	0.0000	5.271E-04	0.0000
4	COMB2	2.830E-05	0.0000	-4.701E-03	0.0000	6.549E-04	0.0000
4	COMB3	1.745E-05	0.0000	-5.142E-03	0.0000	3.448E-04	0.0000
4	COMB4	1.685E-05	0.0000	-5.184E-03	0.0000	3.265E-04	0.0000
4	INV MAX	2.830E-05	0.0000	-4.701E-03	0.0000	6.549E-04	0.0000
4	INV MIN	1.685E-05	0.0000	-5.184E-03	0.0000	3.265E-04	0.0000
4	INVES MAX	2.830E-05	0.0000	-4.701E-03	0.0000	6.549E-04	0.0000
4	INVES MIN	1.745E-05	0.0000	-5.142E-03	0.0000	3.448E-04	0.0000
5	PERM	0.0000	0.0000	-5.043E-03	0.0000	-1.545E-04	0.0000
5	SPTSX	1.870E-05	0.0000	2.393E-04	0.0000	4.505E-04	0.0000
5	SPTDX	0.0000	0.0000	-5.337E-04	0.0000	6.737E-05	0.0000
5	SPACCSX	2.521E-06	0.0000	4.194E-05	0.0000	7.895E-05	0.0000
5	SPACCDX	0.0000	0.0000	-9.353E-05	0.0000	1.181E-05	0.0000
5	SISMAH	0.0000	0.0000	-2.441E-05	0.0000	-1.210E-05	0.0000
5	SPSDX	0.0000	0.0000	-4.588E-05	0.0000	5.792E-06	0.0000
5	COMB1	1.870E-05	0.0000	-5.338E-03	0.0000	3.633E-04	0.0000
5	COMB2	2.122E-05	0.0000	-5.389E-03	0.0000	4.541E-04	0.0000
5	COMB3	1.309E-05	0.0000	-5.503E-03	0.0000	2.400E-04	0.0000
5	COMB4	1.264E-05	0.0000	-5.527E-03	0.0000	2.278E-04	0.0000
5	INV MAX	2.122E-05	0.0000	-5.338E-03	0.0000	4.541E-04	0.0000
5	INV MIN	1.264E-05	0.0000	-5.527E-03	0.0000	2.278E-04	0.0000
5	INVES MAX	2.122E-05	0.0000	-5.338E-03	0.0000	4.541E-04	0.0000
5	INVES MIN	1.309E-05	0.0000	-5.503E-03	0.0000	2.400E-04	0.0000
6	PERM	0.0000	0.0000	-4.884E-03	0.0000	-1.002E-04	0.0000
6	SPTSX	1.247E-05	0.0000	-2.153E-04	0.0000	2.848E-04	0.0000

Relazione di calcolo

PROGETTO LOTTO CODIFICA DOCUMENTO REV. FOGLIO
MDL1 12 D 26 CL SL0500002 A 34/75

6	SPTDX	0.0000	0.0000	-6.083E-04	0.0000	4.521E-05	0.0000
6	SPACCSX	1.681E-06	0.0000	-3.773E-05	0.0000	4.991E-05	0.0000
6	SPACCDX	0.0000	0.0000	-1.066E-04	0.0000	7.923E-06	0.0000
6	SISMAH	0.0000	0.0000	-1.241E-05	0.0000	-7.565E-06	0.0000
6	SPSDX	0.0000	0.0000	-5.229E-05	0.0000	3.886E-06	0.0000
6	COMB1	1.247E-05	0.0000	-5.707E-03	0.0000	2.297E-04	0.0000
6	COMB2	1.415E-05	0.0000	-5.852E-03	0.0000	2.875E-04	0.0000
6	COMB3	8.727E-06	0.0000	-5.749E-03	0.0000	1.522E-04	0.0000
6	COMB4	8.424E-06	0.0000	-5.761E-03	0.0000	1.446E-04	0.0000
6	INV MAX	1.415E-05	0.0000	-5.707E-03	0.0000	2.875E-04	0.0000
6	INV MIN	8.424E-06	0.0000	-5.852E-03	0.0000	1.446E-04	0.0000
6	INVES MAX	1.415E-05	0.0000	-5.707E-03	0.0000	2.875E-04	0.0000
6	INVES MIN	8.727E-06	0.0000	-5.852E-03	0.0000	1.522E-04	0.0000
7	PERM	0.0000	0.0000	-4.790E-03	0.0000	-4.918E-05	0.0000
7	SPTSX	6.234E-06	0.0000	-4.848E-04	0.0000	1.560E-04	0.0000
7	SPTDX	0.0000	0.0000	-6.443E-04	0.0000	4.083E-06	0.0000
7	SPACCSX	0.0000	0.0000	-8.496E-05	0.0000	2.734E-05	0.0000
7	SPACCDX	0.0000	0.0000	-1.129E-04	0.0000	0.0000	0.0000
7	SISMAH	0.0000	0.0000	-5.036E-06	0.0000	-4.797E-06	0.0000
7	SPSDX	0.0000	0.0000	-5.538E-05	0.0000	0.0000	0.0000
7	COMB1	6.234E-06	0.0000	-5.919E-03	0.0000	1.109E-04	0.0000
7	COMB2	7.074E-06	0.0000	-6.117E-03	0.0000	1.389E-04	0.0000
7	COMB3	4.364E-06	0.0000	-5.887E-03	0.0000	6.480E-05	0.0000
7	COMB4	4.212E-06	0.0000	-5.891E-03	0.0000	6.000E-05	0.0000
7	INV MAX	7.074E-06	0.0000	-5.887E-03	0.0000	1.389E-04	0.0000
7	INV MIN	4.212E-06	0.0000	-6.117E-03	0.0000	6.000E-05	0.0000
7	INVES MAX	7.074E-06	0.0000	-5.887E-03	0.0000	1.389E-04	0.0000
7	INVES MIN	4.364E-06	0.0000	-6.117E-03	0.0000	6.480E-05	0.0000
8	PERM	0.0000	0.0000	-4.759E-03	0.0000	0.0000	0.0000
8	SPTSX	0.0000	0.0000	-6.144E-04	0.0000	6.123E-05	0.0000
8	SPTDX	0.0000	0.0000	-6.144E-04	0.0000	-6.123E-05	0.0000
8	SPACCSX	0.0000	0.0000	-1.077E-04	0.0000	1.073E-05	0.0000
8	SPACCDX	0.0000	0.0000	-1.077E-04	0.0000	-1.073E-05	0.0000
8	SISMAH	0.0000	0.0000	0.0000	0.0000	-3.867E-06	0.0000
8	SPSDX	0.0000	0.0000	-5.281E-05	0.0000	-5.263E-06	0.0000
8	COMB1	0.0000	0.0000	-5.988E-03	0.0000	0.0000	0.0000
8	COMB2	0.0000	0.0000	-6.203E-03	0.0000	0.0000	0.0000
8	COMB3	0.0000	0.0000	-5.912E-03	0.0000	-2.910E-05	0.0000
8	COMB4	0.0000	0.0000	-5.910E-03	0.0000	-3.286E-05	0.0000
8	INV MAX	0.0000	0.0000	-5.910E-03	0.0000	0.0000	0.0000
8	INV MIN	0.0000	0.0000	-6.203E-03	0.0000	-3.286E-05	0.0000
8	INVES MAX	0.0000	0.0000	-5.912E-03	0.0000	0.0000	0.0000
8	INVES MIN	0.0000	0.0000	-6.203E-03	0.0000	-2.910E-05	0.0000
9	PERM	0.0000	0.0000	-4.790E-03	0.0000	4.918E-05	0.0000
9	SPTSX	0.0000	0.0000	-6.443E-04	0.0000	-4.083E-06	0.0000
9	SPTDX	-6.234E-06	0.0000	-4.848E-04	0.0000	-1.560E-04	0.0000
9	SPACCSX	0.0000	0.0000	-1.129E-04	0.0000	0.0000	0.0000
9	SPACCDX	0.0000	0.0000	-8.496E-05	0.0000	-2.734E-05	0.0000
9	SISMAH	0.0000	0.0000	5.036E-06	0.0000	-4.797E-06	0.0000
9	SPSDX	0.0000	0.0000	-4.167E-05	0.0000	-1.341E-05	0.0000
9	COMB1	-6.234E-06	0.0000	-5.919E-03	0.0000	-1.109E-04	0.0000
9	COMB2	-7.074E-06	0.0000	-6.117E-03	0.0000	-1.389E-04	0.0000
9	COMB3	-7.074E-06	0.0000	-5.811E-03	0.0000	-1.370E-04	0.0000
9	COMB4	-7.114E-06	0.0000	-5.805E-03	0.0000	-1.415E-04	0.0000
9	INV MAX	-6.234E-06	0.0000	-5.805E-03	0.0000	-1.109E-04	0.0000
9	INV MIN	-7.114E-06	0.0000	-6.117E-03	0.0000	-1.415E-04	0.0000
9	INVES MAX	-6.234E-06	0.0000	-5.811E-03	0.0000	-1.109E-04	0.0000
9	INVES MIN	-7.074E-06	0.0000	-6.117E-03	0.0000	-1.389E-04	0.0000
10	PERM	0.0000	0.0000	-4.884E-03	0.0000	1.002E-04	0.0000
10	SPTSX	0.0000	0.0000	-6.083E-04	0.0000	-4.521E-05	0.0000
10	SPTDX	-1.247E-05	0.0000	-2.153E-04	0.0000	-2.848E-04	0.0000
10	SPACCSX	0.0000	0.0000	-1.066E-04	0.0000	-7.923E-06	0.0000
10	SPACCDX	-1.681E-06	0.0000	-3.773E-05	0.0000	-4.991E-05	0.0000
10	SISMAH	0.0000	0.0000	1.241E-05	0.0000	-7.565E-06	0.0000
10	SPSDX	0.0000	0.0000	-1.851E-05	0.0000	-2.448E-05	0.0000
10	COMB1	-1.247E-05	0.0000	-5.707E-03	0.0000	-2.297E-04	0.0000
10	COMB2	-1.415E-05	0.0000	-5.852E-03	0.0000	-2.875E-04	0.0000
10	COMB3	-1.415E-05	0.0000	-5.563E-03	0.0000	-2.661E-04	0.0000

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	35/ 75

10	COMB4	-1.423E-05	0.0000	-5.550E-03	0.0000	-2.732E-04	0.0000
10	INV MAX	-1.247E-05	0.0000	-5.550E-03	0.0000	-2.297E-04	0.0000
10	INV MIN	-1.423E-05	0.0000	-5.852E-03	0.0000	-2.875E-04	0.0000
10	INVES MAX	-1.247E-05	0.0000	-5.563E-03	0.0000	-2.297E-04	0.0000
10	INVES MIN	-1.415E-05	0.0000	-5.852E-03	0.0000	-2.875E-04	0.0000
11	PERM	0.0000	0.0000	-5.043E-03	0.0000	1.545E-04	0.0000
11	SPTSX	0.0000	0.0000	-5.337E-04	0.0000	-6.737E-05	0.0000
11	SPTDX	-1.870E-05	0.0000	2.393E-04	0.0000	-4.505E-04	0.0000
11	SPACCSX	0.0000	0.0000	-9.353E-05	0.0000	-1.181E-05	0.0000
11	SPACCDX	-2.521E-06	0.0000	4.194E-05	0.0000	-7.895E-05	0.0000
11	SISMAH	0.0000	0.0000	2.441E-05	0.0000	-1.210E-05	0.0000
11	SPSDX	0.0000	0.0000	2.057E-05	0.0000	-3.873E-05	0.0000
11	COMB1	-1.870E-05	0.0000	-5.338E-03	0.0000	-3.633E-04	0.0000
11	COMB2	-2.122E-05	0.0000	-5.389E-03	0.0000	-4.541E-04	0.0000
11	COMB3	-2.122E-05	0.0000	-5.136E-03	0.0000	-4.220E-04	0.0000
11	COMB4	-2.134E-05	0.0000	-5.112E-03	0.0000	-4.334E-04	0.0000
11	INV MAX	-1.870E-05	0.0000	-5.112E-03	0.0000	-3.633E-04	0.0000
11	INV MIN	-2.134E-05	0.0000	-5.389E-03	0.0000	-4.541E-04	0.0000
11	INVES MAX	-1.870E-05	0.0000	-5.136E-03	0.0000	-3.633E-04	0.0000
11	INVES MIN	-2.122E-05	0.0000	-5.389E-03	0.0000	-4.541E-04	0.0000
12	PERM	0.0000	0.0000	-5.272E-03	0.0000	2.019E-04	0.0000
12	SPTSX	0.0000	0.0000	-4.409E-04	0.0000	-7.646E-05	0.0000
12	SPTDX	-2.493E-05	0.0000	9.263E-04	0.0000	-6.526E-04	0.0000
12	SPACCSX	0.0000	0.0000	-7.726E-05	0.0000	-1.340E-05	0.0000
12	SPACCDX	-3.362E-06	0.0000	1.623E-04	0.0000	-1.144E-04	0.0000
12	SISMAH	0.0000	0.0000	4.317E-05	0.0000	-1.819E-05	0.0000
12	SPSDX	-1.237E-06	0.0000	7.963E-05	0.0000	-5.610E-05	0.0000
12	COMB1	-2.493E-05	0.0000	-4.786E-03	0.0000	-5.271E-04	0.0000
12	COMB2	-2.830E-05	0.0000	-4.701E-03	0.0000	-6.549E-04	0.0000
12	COMB3	-2.830E-05	0.0000	-4.492E-03	0.0000	-6.186E-04	0.0000
12	COMB4	-2.846E-05	0.0000	-4.450E-03	0.0000	-6.357E-04	0.0000
12	INV MAX	-2.493E-05	0.0000	-4.450E-03	0.0000	-5.271E-04	0.0000
12	INV MIN	-2.846E-05	0.0000	-4.786E-03	0.0000	-6.549E-04	0.0000
12	INVES MAX	-2.493E-05	0.0000	-4.492E-03	0.0000	-5.271E-04	0.0000
12	INVES MIN	-2.830E-05	0.0000	-4.786E-03	0.0000	-6.549E-04	0.0000
13	PERM	0.0000	0.0000	-5.546E-03	0.0000	2.192E-04	0.0000
13	SPTSX	0.0000	0.0000	-3.423E-04	0.0000	-7.854E-05	0.0000
13	SPTDX	-3.117E-05	0.0000	1.887E-03	0.0000	-8.549E-04	0.0000
13	SPACCSX	0.0000	0.0000	-5.999E-05	0.0000	-1.376E-05	0.0000
13	SPACCDX	-4.202E-06	0.0000	3.307E-04	0.0000	-1.498E-04	0.0000
13	SISMAH	0.0000	0.0000	7.040E-05	0.0000	-2.452E-05	0.0000
13	SPSDX	-1.546E-06	0.0000	1.622E-04	0.0000	-7.350E-05	0.0000
13	COMB1	-3.117E-05	0.0000	-4.002E-03	0.0000	-7.143E-04	0.0000
13	COMB2	-3.537E-05	0.0000	-3.731E-03	0.0000	-8.779E-04	0.0000
13	COMB3	-3.537E-05	0.0000	-3.568E-03	0.0000	-8.406E-04	0.0000
13	COMB4	-3.557E-05	0.0000	-3.501E-03	0.0000	-8.636E-04	0.0000
13	INV MAX	-3.117E-05	0.0000	-3.501E-03	0.0000	-7.143E-04	0.0000
13	INV MIN	-3.557E-05	0.0000	-4.002E-03	0.0000	-8.779E-04	0.0000
13	INVES MAX	-3.117E-05	0.0000	-3.568E-03	0.0000	-7.143E-04	0.0000
13	INVES MIN	-3.537E-05	0.0000	-4.002E-03	0.0000	-8.779E-04	0.0000

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FRAME ELEMENT FORCES

FRAME	LOAD	LOC	P	V2	V3	T	M2	M3
1	PERM							
		4.0E-01	-75.00	0.00	0.00	0.00	0.00	0.00
		1.65	-56.25	0.00	0.00	0.00	0.00	0.00
		2.90	-37.50	0.00	0.00	0.00	0.00	0.00
		4.15	-18.75	0.00	0.00	0.00	0.00	0.00
		5.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPTSX							

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	38/ 75

2	COMB4						
	4.0E-01	-75.00	-135.07	0.00	0.00	0.00	-276.43
	1.65	-56.25	-87.52	0.00	0.00	0.00	-138.27
	2.90	-37.50	-49.16	0.00	0.00	0.00	-53.80
	4.15	-18.75	-19.99	0.00	0.00	0.00	-11.54
	5.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INV MAX						
	4.0E-01	-75.00	-117.17	0.00	0.00	0.00	-226.94
	1.65	-56.25	-73.03	0.00	0.00	0.00	-109.10
	2.90	-37.50	-38.79	0.00	0.00	0.00	-40.24
	4.15	-18.75	-14.45	0.00	0.00	0.00	-8.00
	5.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INV MIN						
	4.0E-01	-75.00	-135.07	0.00	0.00	0.00	-276.43
	1.65	-56.25	-87.52	0.00	0.00	0.00	-138.27
	2.90	-37.50	-49.16	0.00	0.00	0.00	-53.80
	4.15	-18.75	-19.99	0.00	0.00	0.00	-11.54
	5.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INVES MAX						
	4.0E-01	-75.00	-117.17	0.00	0.00	0.00	-226.94
	1.65	-56.25	-73.03	0.00	0.00	0.00	-109.10
	2.90	-37.50	-38.79	0.00	0.00	0.00	-40.24
	4.15	-18.75	-14.45	0.00	0.00	0.00	-8.00
	5.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INVES MIN						
	4.0E-01	-75.00	-133.82	0.00	0.00	0.00	-268.57
	1.65	-56.25	-85.52	0.00	0.00	0.00	-132.52
	2.90	-37.50	-47.12	0.00	0.00	0.00	-50.65
	4.15	-18.75	-18.61	0.00	0.00	0.00	-10.60
	5.40	0.00	0.00	0.00	0.00	0.00	0.00
3	PERM						
	3.0E-01	0.00	28.10	0.00	0.00	0.00	-7.08
	5.4E-01	0.00	35.30	0.00	0.00	0.00	-14.69
	7.8E-01	0.00	42.50	0.00	0.00	0.00	-24.02
	1.02	0.00	49.70	0.00	0.00	0.00	-35.09
	1.26	0.00	56.90	0.00	0.00	0.00	-47.88
3	SPTSX						
	3.0E-01	-133.38	21.06	0.00	0.00	0.00	270.70
	5.4E-01	-133.38	21.06	0.00	0.00	0.00	265.65
	7.8E-01	-133.38	21.06	0.00	0.00	0.00	260.59
	1.02	-133.38	21.06	0.00	0.00	0.00	255.54
	1.26	-133.38	21.06	0.00	0.00	0.00	250.49
3	SPTDX						
	3.0E-01	0.00	-3.82	0.00	0.00	0.00	1.15
	5.4E-01	0.00	-3.82	0.00	0.00	0.00	2.06
	7.8E-01	0.00	-3.82	0.00	0.00	0.00	2.98
	1.02	0.00	-3.82	0.00	0.00	0.00	3.90
	1.26	0.00	-3.82	0.00	0.00	0.00	4.81
3	SPACCSX						
	3.0E-01	-17.98	3.69	0.00	0.00	0.00	47.44
	5.4E-01	-17.98	3.69	0.00	0.00	0.00	46.56
	7.8E-01	-17.98	3.69	0.00	0.00	0.00	45.67
	1.02	-17.98	3.69	0.00	0.00	0.00	44.79
	1.26	-17.98	3.69	0.00	0.00	0.00	43.90
3	SPACCDX						
	3.0E-01	0.00	-6.695E-01	0.00	0.00	0.00	2.009E-01
	5.4E-01	0.00	-6.695E-01	0.00	0.00	0.00	3.615E-01
	7.8E-01	0.00	-6.695E-01	0.00	0.00	0.00	5.222E-01
	1.02	0.00	-6.695E-01	0.00	0.00	0.00	6.829E-01
	1.26	0.00	-6.695E-01	0.00	0.00	0.00	8.436E-01
3	SISMAH						
	3.0E-01	3.24	-7.857E-01	0.00	0.00	0.00	-8.51
	5.4E-01	3.24	-7.857E-01	0.00	0.00	0.00	-8.32
	7.8E-01	3.24	-7.857E-01	0.00	0.00	0.00	-8.14
	1.02	3.24	-7.857E-01	0.00	0.00	0.00	-7.95
	1.26	3.24	-7.857E-01	0.00	0.00	0.00	-7.76
3	SPSDX						
	3.0E-01	0.00	-3.284E-01	0.00	0.00	0.00	9.852E-02
	5.4E-01	0.00	-3.284E-01	0.00	0.00	0.00	1.773E-01
	7.8E-01	0.00	-3.284E-01	0.00	0.00	0.00	2.561E-01
	1.02	0.00	-3.284E-01	0.00	0.00	0.00	3.350E-01

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	39/ 75

3	COMB1	1.26	0.00	-3.284E-01	0.00	0.00	0.00	4.138E-01
		3.0E-01	-133.38	45.34	0.00	0.00	0.00	264.77
		5.4E-01	-133.38	52.54	0.00	0.00	0.00	253.02
		7.8E-01	-133.38	59.74	0.00	0.00	0.00	239.55
		1.02	-133.38	66.94	0.00	0.00	0.00	224.35
		1.26	-133.38	74.14	0.00	0.00	0.00	207.42
3	COMB2							
		3.0E-01	-151.36	48.36	0.00	0.00	0.00	312.41
		5.4E-01	-151.36	55.56	0.00	0.00	0.00	299.94
		7.8E-01	-151.36	62.76	0.00	0.00	0.00	285.74
		1.02	-151.36	69.96	0.00	0.00	0.00	269.82
		1.26	-151.36	77.16	0.00	0.00	0.00	252.16
3	COMB3							
		3.0E-01	-93.37	38.35	0.00	0.00	0.00	183.76
		5.4E-01	-93.37	45.55	0.00	0.00	0.00	173.69
		7.8E-01	-93.37	52.75	0.00	0.00	0.00	161.89
		1.02	-93.37	59.95	0.00	0.00	0.00	148.37
		1.26	-93.37	67.15	0.00	0.00	0.00	133.11
3	COMB4							
		3.0E-01	-90.13	37.57	0.00	0.00	0.00	175.24
		5.4E-01	-90.13	44.77	0.00	0.00	0.00	165.36
		7.8E-01	-90.13	51.97	0.00	0.00	0.00	153.75
		1.02	-90.13	59.17	0.00	0.00	0.00	140.41
		1.26	-90.13	66.37	0.00	0.00	0.00	125.35
3	INV MAX							
		3.0E-01	-90.13	48.36	0.00	0.00	0.00	312.41
		5.4E-01	-90.13	55.56	0.00	0.00	0.00	299.94
		7.8E-01	-90.13	62.76	0.00	0.00	0.00	285.74
		1.02	-90.13	69.96	0.00	0.00	0.00	269.82
		1.26	-90.13	77.16	0.00	0.00	0.00	252.16
3	INV MIN							
		3.0E-01	-151.36	37.57	0.00	0.00	0.00	175.24
		5.4E-01	-151.36	44.77	0.00	0.00	0.00	165.36
		7.8E-01	-151.36	51.97	0.00	0.00	0.00	153.75
		1.02	-151.36	59.17	0.00	0.00	0.00	140.41
		1.26	-151.36	66.37	0.00	0.00	0.00	125.35
3	INVES MAX							
		3.0E-01	-93.37	48.36	0.00	0.00	0.00	312.41
		5.4E-01	-93.37	55.56	0.00	0.00	0.00	299.94
		7.8E-01	-93.37	62.76	0.00	0.00	0.00	285.74
		1.02	-93.37	69.96	0.00	0.00	0.00	269.82
		1.26	-93.37	77.16	0.00	0.00	0.00	252.16
3	INVES MIN							
		3.0E-01	-151.36	38.35	0.00	0.00	0.00	183.76
		5.4E-01	-151.36	45.55	0.00	0.00	0.00	173.69
		7.8E-01	-151.36	52.75	0.00	0.00	0.00	161.89
		1.02	-151.36	59.95	0.00	0.00	0.00	148.37
		1.26	-151.36	67.15	0.00	0.00	0.00	133.11
4	PERM							
		0.00	0.00	-2.88	0.00	0.00	0.00	-47.88
		3.2E-01	0.00	6.57	0.00	0.00	0.00	-48.46
		6.3E-01	0.00	16.02	0.00	0.00	0.00	-52.02
		9.5E-01	0.00	25.47	0.00	0.00	0.00	-58.55
		1.26	0.00	34.92	0.00	0.00	0.00	-68.06
4	SPTSX							
		0.00	-133.38	31.56	0.00	0.00	0.00	250.49
		3.2E-01	-133.38	31.56	0.00	0.00	0.00	240.54
		6.3E-01	-133.38	31.56	0.00	0.00	0.00	230.60
		9.5E-01	-133.38	31.56	0.00	0.00	0.00	220.66
		1.26	-133.38	31.56	0.00	0.00	0.00	210.71
4	SPTDX							
		0.00	0.00	-8.82	0.00	0.00	0.00	4.81
		3.2E-01	0.00	-8.82	0.00	0.00	0.00	7.59
		6.3E-01	0.00	-8.82	0.00	0.00	0.00	10.37
		9.5E-01	0.00	-8.82	0.00	0.00	0.00	13.15
		1.26	0.00	-8.82	0.00	0.00	0.00	15.93
4	SPACCSX							
		0.00	-17.98	5.53	0.00	0.00	0.00	43.90
		3.2E-01	-17.98	5.53	0.00	0.00	0.00	42.16
		6.3E-01	-17.98	5.53	0.00	0.00	0.00	40.42

Relazione di calcolo				PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
				MDL1	12 D 26	CL	SL0500002	A	40/ 75
	9.5E-01	-17.98	5.53	0.00	0.00	0.00	0.00	38.67	
	1.26	-17.98	5.53	0.00	0.00	0.00	0.00	36.93	
4	SPACCDX								
	0.00	0.00	-1.55	0.00	0.00	0.00	0.00	8.436E-01	
	3.2E-01	0.00	-1.55	0.00	0.00	0.00	0.00	1.33	
	6.3E-01	0.00	-1.55	0.00	0.00	0.00	0.00	1.82	
	9.5E-01	0.00	-1.55	0.00	0.00	0.00	0.00	2.30	
	1.26	0.00	-1.55	0.00	0.00	0.00	0.00	2.79	
4	SISMAH								
	0.00	3.24	-1.28	0.00	0.00	0.00	0.00	-7.76	
	3.2E-01	3.24	-1.28	0.00	0.00	0.00	0.00	-7.36	
	6.3E-01	3.24	-1.28	0.00	0.00	0.00	0.00	-6.95	
	9.5E-01	3.24	-1.28	0.00	0.00	0.00	0.00	-6.55	
	1.26	3.24	-1.28	0.00	0.00	0.00	0.00	-6.15	
4	SPSDX								
	0.00	0.00	-7.581E-01	0.00	0.00	0.00	0.00	4.138E-01	
	3.2E-01	0.00	-7.581E-01	0.00	0.00	0.00	0.00	6.526E-01	
	6.3E-01	0.00	-7.581E-01	0.00	0.00	0.00	0.00	8.914E-01	
	9.5E-01	0.00	-7.581E-01	0.00	0.00	0.00	0.00	1.13	
	1.26	0.00	-7.581E-01	0.00	0.00	0.00	0.00	1.37	
4	COMB1								
	0.00	-133.38	19.86	0.00	0.00	0.00	0.00	207.42	
	3.2E-01	-133.38	29.31	0.00	0.00	0.00	0.00	199.67	
	6.3E-01	-133.38	38.76	0.00	0.00	0.00	0.00	188.95	
	9.5E-01	-133.38	48.21	0.00	0.00	0.00	0.00	175.25	
	1.26	-133.38	57.66	0.00	0.00	0.00	0.00	158.58	
4	COMB2								
	0.00	-151.36	23.85	0.00	0.00	0.00	0.00	252.16	
	3.2E-01	-151.36	33.30	0.00	0.00	0.00	0.00	243.16	
	6.3E-01	-151.36	42.75	0.00	0.00	0.00	0.00	231.18	
	9.5E-01	-151.36	52.20	0.00	0.00	0.00	0.00	216.23	
	1.26	-151.36	61.65	0.00	0.00	0.00	0.00	198.30	
4	COMB3								
	0.00	-93.37	8.85	0.00	0.00	0.00	0.00	133.11	
	3.2E-01	-93.37	18.30	0.00	0.00	0.00	0.00	128.84	
	6.3E-01	-93.37	27.75	0.00	0.00	0.00	0.00	121.59	
	9.5E-01	-93.37	37.20	0.00	0.00	0.00	0.00	111.36	
	1.26	-93.37	46.65	0.00	0.00	0.00	0.00	98.15	
4	COMB4								
	0.00	-90.13	7.59	0.00	0.00	0.00	0.00	125.35	
	3.2E-01	-90.13	17.04	0.00	0.00	0.00	0.00	121.47	
	6.3E-01	-90.13	26.49	0.00	0.00	0.00	0.00	114.62	
	9.5E-01	-90.13	35.94	0.00	0.00	0.00	0.00	104.78	
	1.26	-90.13	45.39	0.00	0.00	0.00	0.00	91.98	
4	INV MAX								
	0.00	-90.13	23.85	0.00	0.00	0.00	0.00	252.16	
	3.2E-01	-90.13	33.30	0.00	0.00	0.00	0.00	243.16	
	6.3E-01	-90.13	42.75	0.00	0.00	0.00	0.00	231.18	
	9.5E-01	-90.13	52.20	0.00	0.00	0.00	0.00	216.23	
	1.26	-90.13	61.65	0.00	0.00	0.00	0.00	198.30	
4	INV MIN								
	0.00	-151.36	7.59	0.00	0.00	0.00	0.00	125.35	
	3.2E-01	-151.36	17.04	0.00	0.00	0.00	0.00	121.47	
	6.3E-01	-151.36	26.49	0.00	0.00	0.00	0.00	114.62	
	9.5E-01	-151.36	35.94	0.00	0.00	0.00	0.00	104.78	
	1.26	-151.36	45.39	0.00	0.00	0.00	0.00	91.98	
4	INVES MAX								
	0.00	-93.37	23.85	0.00	0.00	0.00	0.00	252.16	
	3.2E-01	-93.37	33.30	0.00	0.00	0.00	0.00	243.16	
	6.3E-01	-93.37	42.75	0.00	0.00	0.00	0.00	231.18	
	9.5E-01	-93.37	52.20	0.00	0.00	0.00	0.00	216.23	
	1.26	-93.37	61.65	0.00	0.00	0.00	0.00	198.30	
4	INVES MIN								
	0.00	-151.36	8.85	0.00	0.00	0.00	0.00	133.11	
	3.2E-01	-151.36	18.30	0.00	0.00	0.00	0.00	128.84	
	6.3E-01	-151.36	27.75	0.00	0.00	0.00	0.00	121.59	
	9.5E-01	-151.36	37.20	0.00	0.00	0.00	0.00	111.36	
	1.26	-151.36	46.65	0.00	0.00	0.00	0.00	98.15	
5	PERM								
	0.00	0.00	-22.27	0.00	0.00	0.00	0.00	-68.06	
	3.2E-01	0.00	-12.82	0.00	0.00	0.00	0.00	-62.54	

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	41/75

	6.3E-01	0.00	-3.37	0.00	0.00	0.00	-59.98
	9.5E-01	0.00	6.08	0.00	0.00	0.00	-60.41
	1.26	0.00	15.53	0.00	0.00	0.00	-63.81
5	SPTSX						
	0.00	-133.38	34.28	0.00	0.00	0.00	210.71
	3.2E-01	-133.38	34.28	0.00	0.00	0.00	199.92
	6.3E-01	-133.38	34.28	0.00	0.00	0.00	189.12
	9.5E-01	-133.38	34.28	0.00	0.00	0.00	178.32
	1.26	-133.38	34.28	0.00	0.00	0.00	167.52
5	SPTDX						
	0.00	0.00	-14.87	0.00	0.00	0.00	15.93
	3.2E-01	0.00	-14.87	0.00	0.00	0.00	20.61
	6.3E-01	0.00	-14.87	0.00	0.00	0.00	25.29
	9.5E-01	0.00	-14.87	0.00	0.00	0.00	29.98
	1.26	0.00	-14.87	0.00	0.00	0.00	34.66
5	SPACCSX						
	0.00	-17.98	6.01	0.00	0.00	0.00	36.93
	3.2E-01	-17.98	6.01	0.00	0.00	0.00	35.04
	6.3E-01	-17.98	6.01	0.00	0.00	0.00	33.15
	9.5E-01	-17.98	6.01	0.00	0.00	0.00	31.25
	1.26	-17.98	6.01	0.00	0.00	0.00	29.36
5	SPACCDX						
	0.00	0.00	-2.61	0.00	0.00	0.00	2.79
	3.2E-01	0.00	-2.61	0.00	0.00	0.00	3.61
	6.3E-01	0.00	-2.61	0.00	0.00	0.00	4.43
	9.5E-01	0.00	-2.61	0.00	0.00	0.00	5.25
	1.26	0.00	-2.61	0.00	0.00	0.00	6.08
5	SISMAH						
	0.00	3.24	-1.55	0.00	0.00	0.00	-6.15
	3.2E-01	3.24	-1.55	0.00	0.00	0.00	-5.66
	6.3E-01	3.24	-1.55	0.00	0.00	0.00	-5.17
	9.5E-01	3.24	-1.55	0.00	0.00	0.00	-4.68
	1.26	3.24	-1.55	0.00	0.00	0.00	-4.20
5	SPSDX						
	0.00	0.00	-1.28	0.00	0.00	0.00	1.37
	3.2E-01	0.00	-1.28	0.00	0.00	0.00	1.77
	6.3E-01	0.00	-1.28	0.00	0.00	0.00	2.17
	9.5E-01	0.00	-1.28	0.00	0.00	0.00	2.58
	1.26	0.00	-1.28	0.00	0.00	0.00	2.98
5	COMB1						
	0.00	-133.38	-2.87	0.00	0.00	0.00	158.58
	3.2E-01	-133.38	6.58	0.00	0.00	0.00	157.99
	6.3E-01	-133.38	16.03	0.00	0.00	0.00	154.43
	9.5E-01	-133.38	25.48	0.00	0.00	0.00	147.89
	1.26	-133.38	34.93	0.00	0.00	0.00	138.38
5	COMB2						
	0.00	-151.36	5.333E-01	0.00	0.00	0.00	198.30
	3.2E-01	-151.36	9.98	0.00	0.00	0.00	196.64
	6.3E-01	-151.36	19.43	0.00	0.00	0.00	192.01
	9.5E-01	-151.36	28.88	0.00	0.00	0.00	184.40
	1.26	-151.36	38.33	0.00	0.00	0.00	173.81
5	COMB3						
	0.00	-93.37	-15.76	0.00	0.00	0.00	98.15
	3.2E-01	-93.37	-6.31	0.00	0.00	0.00	101.63
	6.3E-01	-93.37	3.14	0.00	0.00	0.00	102.13
	9.5E-01	-93.37	12.59	0.00	0.00	0.00	99.65
	1.26	-93.37	22.04	0.00	0.00	0.00	94.19
5	COMB4						
	0.00	-90.13	-17.28	0.00	0.00	0.00	91.98
	3.2E-01	-90.13	-7.83	0.00	0.00	0.00	95.93
	6.3E-01	-90.13	1.62	0.00	0.00	0.00	96.91
	9.5E-01	-90.13	11.07	0.00	0.00	0.00	94.91
	1.26	-90.13	20.52	0.00	0.00	0.00	89.94
5	INV MAX						
	0.00	-90.13	5.333E-01	0.00	0.00	0.00	198.30
	3.2E-01	-90.13	9.98	0.00	0.00	0.00	196.64
	6.3E-01	-90.13	19.43	0.00	0.00	0.00	192.01
	9.5E-01	-90.13	28.88	0.00	0.00	0.00	184.40
	1.26	-90.13	38.33	0.00	0.00	0.00	173.81
5	INV MIN						
	0.00	-151.36	-17.28	0.00	0.00	0.00	91.98
	3.2E-01	-151.36	-7.83	0.00	0.00	0.00	95.93

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	42/ 75

	6.3E-01	-151.36	1.62	0.00	0.00	0.00	96.91
	9.5E-01	-151.36	11.07	0.00	0.00	0.00	94.91
	1.26	-151.36	20.52	0.00	0.00	0.00	89.94
5	INVES MAX						
	0.00	-93.37	5.333E-01	0.00	0.00	0.00	198.30
	3.2E-01	-93.37	9.98	0.00	0.00	0.00	196.64
	6.3E-01	-93.37	19.43	0.00	0.00	0.00	192.01
	9.5E-01	-93.37	28.88	0.00	0.00	0.00	184.40
	1.26	-93.37	38.33	0.00	0.00	0.00	173.81
5	INVES MIN						
	0.00	-151.36	-15.76	0.00	0.00	0.00	98.15
	3.2E-01	-151.36	-6.31	0.00	0.00	0.00	101.63
	6.3E-01	-151.36	3.14	0.00	0.00	0.00	102.13
	9.5E-01	-151.36	12.59	0.00	0.00	0.00	99.65
	1.26	-151.36	22.04	0.00	0.00	0.00	94.19
6	PERM						
	0.00	0.00	-21.40	0.00	0.00	0.00	-63.81
	3.2E-01	0.00	-11.95	0.00	0.00	0.00	-58.56
	6.3E-01	0.00	-2.50	0.00	0.00	0.00	-56.29
	9.5E-01	0.00	6.95	0.00	0.00	0.00	-56.99
	1.26	0.00	16.40	0.00	0.00	0.00	-60.67
6	SPTSX						
	0.00	-133.38	32.65	0.00	0.00	0.00	167.52
	3.2E-01	-133.38	32.65	0.00	0.00	0.00	157.24
	6.3E-01	-133.38	32.65	0.00	0.00	0.00	146.96
	9.5E-01	-133.38	32.65	0.00	0.00	0.00	136.67
	1.26	-133.38	32.65	0.00	0.00	0.00	126.39
6	SPTDX						
	0.00	0.00	-19.47	0.00	0.00	0.00	34.66
	3.2E-01	0.00	-19.47	0.00	0.00	0.00	40.80
	6.3E-01	0.00	-19.47	0.00	0.00	0.00	46.93
	9.5E-01	0.00	-19.47	0.00	0.00	0.00	53.06
	1.26	0.00	-19.47	0.00	0.00	0.00	59.20
6	SPACCSX						
	0.00	-17.98	5.72	0.00	0.00	0.00	29.36
	3.2E-01	-17.98	5.72	0.00	0.00	0.00	27.56
	6.3E-01	-17.98	5.72	0.00	0.00	0.00	25.76
	9.5E-01	-17.98	5.72	0.00	0.00	0.00	23.95
	1.26	-17.98	5.72	0.00	0.00	0.00	22.15
6	SPACCDX						
	0.00	0.00	-3.41	0.00	0.00	0.00	6.08
	3.2E-01	0.00	-3.41	0.00	0.00	0.00	7.15
	6.3E-01	0.00	-3.41	0.00	0.00	0.00	8.22
	9.5E-01	0.00	-3.41	0.00	0.00	0.00	9.30
	1.26	0.00	-3.41	0.00	0.00	0.00	10.37
6	SISMAH						
	0.00	3.24	-1.65	0.00	0.00	0.00	-4.20
	3.2E-01	3.24	-1.65	0.00	0.00	0.00	-3.68
	6.3E-01	3.24	-1.65	0.00	0.00	0.00	-3.16
	9.5E-01	3.24	-1.65	0.00	0.00	0.00	-2.64
	1.26	3.24	-1.65	0.00	0.00	0.00	-2.12
6	SPSDX						
	0.00	0.00	-1.67	0.00	0.00	0.00	2.98
	3.2E-01	0.00	-1.67	0.00	0.00	0.00	3.51
	6.3E-01	0.00	-1.67	0.00	0.00	0.00	4.03
	9.5E-01	0.00	-1.67	0.00	0.00	0.00	4.56
	1.26	0.00	-1.67	0.00	0.00	0.00	5.09
6	COMB1						
	0.00	-133.38	-8.22	0.00	0.00	0.00	138.38
	3.2E-01	-133.38	1.23	0.00	0.00	0.00	139.48
	6.3E-01	-133.38	10.68	0.00	0.00	0.00	137.60
	9.5E-01	-133.38	20.13	0.00	0.00	0.00	132.74
	1.26	-133.38	29.58	0.00	0.00	0.00	124.91
6	COMB2						
	0.00	-151.36	-5.91	0.00	0.00	0.00	173.81
	3.2E-01	-151.36	3.54	0.00	0.00	0.00	174.18
	6.3E-01	-151.36	12.99	0.00	0.00	0.00	171.58
	9.5E-01	-151.36	22.44	0.00	0.00	0.00	166.00
	1.26	-151.36	31.89	0.00	0.00	0.00	157.44
6	COMB3						
	0.00	-93.37	-21.42	0.00	0.00	0.00	94.19

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	43/75

	3.2E-01	-93.37	-11.97	0.00	0.00	0.00	99.45
	6.3E-01	-93.37	-2.52	0.00	0.00	0.00	101.74
	9.5E-01	-93.37	6.93	0.00	0.00	0.00	101.04
	1.26	-93.37	16.38	0.00	0.00	0.00	97.37
6	COMB4						
	0.00	-90.13	-23.04	0.00	0.00	0.00	89.94
	3.2E-01	-90.13	-13.59	0.00	0.00	0.00	95.71
	6.3E-01	-90.13	-4.14	0.00	0.00	0.00	98.50
	9.5E-01	-90.13	5.31	0.00	0.00	0.00	98.31
	1.26	-90.13	14.76	0.00	0.00	0.00	95.15
6	INV MAX						
	0.00	-90.13	-5.91	0.00	0.00	0.00	173.81
	3.2E-01	-90.13	3.54	0.00	0.00	0.00	174.18
	6.3E-01	-90.13	12.99	0.00	0.00	0.00	171.58
	9.5E-01	-90.13	22.44	0.00	0.00	0.00	166.00
	1.26	-90.13	31.89	0.00	0.00	0.00	157.44
6	INV MIN						
	0.00	-151.36	-23.04	0.00	0.00	0.00	89.94
	3.2E-01	-151.36	-13.59	0.00	0.00	0.00	95.71
	6.3E-01	-151.36	-4.14	0.00	0.00	0.00	98.50
	9.5E-01	-151.36	5.31	0.00	0.00	0.00	98.31
	1.26	-151.36	14.76	0.00	0.00	0.00	95.15
6	INVES MAX						
	0.00	-93.37	-5.91	0.00	0.00	0.00	173.81
	3.2E-01	-93.37	3.54	0.00	0.00	0.00	174.18
	6.3E-01	-93.37	12.99	0.00	0.00	0.00	171.58
	9.5E-01	-93.37	22.44	0.00	0.00	0.00	166.00
	1.26	-93.37	31.89	0.00	0.00	0.00	157.44
6	INVES MIN						
	0.00	-151.36	-21.42	0.00	0.00	0.00	94.19
	3.2E-01	-151.36	-11.97	0.00	0.00	0.00	99.45
	6.3E-01	-151.36	-2.52	0.00	0.00	0.00	101.74
	9.5E-01	-151.36	6.93	0.00	0.00	0.00	101.04
	1.26	-151.36	16.38	0.00	0.00	0.00	97.37
7	PERM						
	0.00	0.00	-19.81	0.00	0.00	0.00	-60.67
	3.2E-01	0.00	-10.36	0.00	0.00	0.00	-55.92
	6.3E-01	0.00	-9.093E-01	0.00	0.00	0.00	-54.14
	9.5E-01	0.00	8.54	0.00	0.00	0.00	-55.34
	1.26	0.00	17.99	0.00	0.00	0.00	-59.52
7	SPTSX						
	0.00	-133.38	28.99	0.00	0.00	0.00	126.39
	3.2E-01	-133.38	28.99	0.00	0.00	0.00	117.26
	6.3E-01	-133.38	28.99	0.00	0.00	0.00	108.13
	9.5E-01	-133.38	28.99	0.00	0.00	0.00	98.99
	1.26	-133.38	28.99	0.00	0.00	0.00	89.86
7	SPTDX						
	0.00	0.00	-24.34	0.00	0.00	0.00	59.20
	3.2E-01	0.00	-24.34	0.00	0.00	0.00	66.86
	6.3E-01	0.00	-24.34	0.00	0.00	0.00	74.53
	9.5E-01	0.00	-24.34	0.00	0.00	0.00	82.20
	1.26	0.00	-24.34	0.00	0.00	0.00	89.86
7	SPACCSX						
	0.00	-17.98	5.08	0.00	0.00	0.00	22.15
	3.2E-01	-17.98	5.08	0.00	0.00	0.00	20.55
	6.3E-01	-17.98	5.08	0.00	0.00	0.00	18.95
	9.5E-01	-17.98	5.08	0.00	0.00	0.00	17.35
	1.26	-17.98	5.08	0.00	0.00	0.00	15.75
7	SPACCDX						
	0.00	0.00	-4.27	0.00	0.00	0.00	10.37
	3.2E-01	0.00	-4.27	0.00	0.00	0.00	11.72
	6.3E-01	0.00	-4.27	0.00	0.00	0.00	13.06
	9.5E-01	0.00	-4.27	0.00	0.00	0.00	14.41
	1.26	0.00	-4.27	0.00	0.00	0.00	15.75
7	SISMAH						
	0.00	3.24	-1.68	0.00	0.00	0.00	-2.12
	3.2E-01	3.24	-1.68	0.00	0.00	0.00	-1.59
	6.3E-01	3.24	-1.68	0.00	0.00	0.00	-1.06
	9.5E-01	3.24	-1.68	0.00	0.00	0.00	-5.305E-01
	1.26	3.24	-1.68	0.00	0.00	0.00	0.00
7	SPSDX						

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	44/75

0.00	0.00	-2.09	0.00	0.00	0.00	5.09
3.2E-01	0.00	-2.09	0.00	0.00	0.00	5.75
6.3E-01	0.00	-2.09	0.00	0.00	0.00	6.41
9.5E-01	0.00	-2.09	0.00	0.00	0.00	7.07
1.26	0.00	-2.09	0.00	0.00	0.00	7.73
7 COMB1						
0.00	-133.38	-15.16	0.00	0.00	0.00	124.91
3.2E-01	-133.38	-5.71	0.00	0.00	0.00	128.20
6.3E-01	-133.38	3.74	0.00	0.00	0.00	128.51
9.5E-01	-133.38	13.19	0.00	0.00	0.00	125.85
1.26	-133.38	22.64	0.00	0.00	0.00	120.21
7 COMB2						
0.00	-151.36	-14.35	0.00	0.00	0.00	157.44
3.2E-01	-151.36	-4.90	0.00	0.00	0.00	160.47
6.3E-01	-151.36	4.55	0.00	0.00	0.00	160.53
9.5E-01	-151.36	14.00	0.00	0.00	0.00	157.61
1.26	-151.36	23.45	0.00	0.00	0.00	151.71
7 COMB3						
0.00	-93.37	-28.13	0.00	0.00	0.00	97.37
3.2E-01	-93.37	-18.68	0.00	0.00	0.00	104.74
6.3E-01	-93.37	-9.23	0.00	0.00	0.00	109.14
9.5E-01	-93.37	2.236E-01	0.00	0.00	0.00	110.56
1.26	-93.37	9.67	0.00	0.00	0.00	109.00
7 COMB4						
0.00	-90.13	-29.77	0.00	0.00	0.00	95.15
3.2E-01	-90.13	-20.32	0.00	0.00	0.00	103.04
6.3E-01	-90.13	-10.87	0.00	0.00	0.00	107.95
9.5E-01	-90.13	-1.42	0.00	0.00	0.00	109.89
1.26	-90.13	8.03	0.00	0.00	0.00	108.85
7 INV MAX						
0.00	-90.13	-14.35	0.00	0.00	0.00	157.44
3.2E-01	-90.13	-4.90	0.00	0.00	0.00	160.47
6.3E-01	-90.13	4.55	0.00	0.00	0.00	160.53
9.5E-01	-90.13	14.00	0.00	0.00	0.00	157.61
1.26	-90.13	23.45	0.00	0.00	0.00	151.71
7 INV MIN						
0.00	-151.36	-29.77	0.00	0.00	0.00	95.15
3.2E-01	-151.36	-20.32	0.00	0.00	0.00	103.04
6.3E-01	-151.36	-10.87	0.00	0.00	0.00	107.95
9.5E-01	-151.36	-1.42	0.00	0.00	0.00	109.89
1.26	-151.36	8.03	0.00	0.00	0.00	108.85
7 INVES MAX						
0.00	-93.37	-14.35	0.00	0.00	0.00	157.44
3.2E-01	-93.37	-4.90	0.00	0.00	0.00	160.47
6.3E-01	-93.37	4.55	0.00	0.00	0.00	160.53
9.5E-01	-93.37	14.00	0.00	0.00	0.00	157.61
1.26	-93.37	23.45	0.00	0.00	0.00	151.71
7 INVES MIN						
0.00	-151.36	-28.13	0.00	0.00	0.00	97.37
3.2E-01	-151.36	-18.68	0.00	0.00	0.00	104.74
6.3E-01	-151.36	-9.23	0.00	0.00	0.00	109.14
9.5E-01	-151.36	2.236E-01	0.00	0.00	0.00	110.56
1.26	-151.36	9.67	0.00	0.00	0.00	109.00
8 PERM						
0.00	0.00	-17.99	0.00	0.00	0.00	-59.52
3.2E-01	0.00	-8.54	0.00	0.00	0.00	-55.34
6.3E-01	0.00	9.093E-01	0.00	0.00	0.00	-54.14
9.5E-01	0.00	10.36	0.00	0.00	0.00	-55.92
1.26	0.00	19.81	0.00	0.00	0.00	-60.67
8 SPTSX						
0.00	0.00	24.34	0.00	0.00	0.00	89.86
3.2E-01	0.00	24.34	0.00	0.00	0.00	82.20
6.3E-01	0.00	24.34	0.00	0.00	0.00	74.53
9.5E-01	0.00	24.34	0.00	0.00	0.00	66.86
1.26	0.00	24.34	0.00	0.00	0.00	59.20
8 SPTDX						
0.00	-133.38	-28.99	0.00	0.00	0.00	89.86
3.2E-01	-133.38	-28.99	0.00	0.00	0.00	98.99
6.3E-01	-133.38	-28.99	0.00	0.00	0.00	108.13
9.5E-01	-133.38	-28.99	0.00	0.00	0.00	117.26
1.26	-133.38	-28.99	0.00	0.00	0.00	126.39

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MD1	12 D 26	CL	SL0500002	A	45/ 75

8	SPACCSX	0.00	0.00	4.27	0.00	0.00	0.00	15.75
		3.2E-01	0.00	4.27	0.00	0.00	0.00	14.41
		6.3E-01	0.00	4.27	0.00	0.00	0.00	13.06
		9.5E-01	0.00	4.27	0.00	0.00	0.00	11.72
		1.26	0.00	4.27	0.00	0.00	0.00	10.37
8	SPACCDX	0.00	-17.98	-5.08	0.00	0.00	0.00	15.75
		3.2E-01	-17.98	-5.08	0.00	0.00	0.00	17.35
		6.3E-01	-17.98	-5.08	0.00	0.00	0.00	18.95
		9.5E-01	-17.98	-5.08	0.00	0.00	0.00	20.55
		1.26	-17.98	-5.08	0.00	0.00	0.00	22.15
8	SISMAH	0.00	-3.24	-1.68	0.00	0.00	0.00	0.00
		3.2E-01	-3.24	-1.68	0.00	0.00	5.305E-01	
		6.3E-01	-3.24	-1.68	0.00	0.00	0.00	1.06
		9.5E-01	-3.24	-1.68	0.00	0.00	0.00	1.59
		1.26	-3.24	-1.68	0.00	0.00	0.00	2.12
8	SPSDX	0.00	-6.61	-2.49	0.00	0.00	0.00	7.73
		3.2E-01	-6.61	-2.49	0.00	0.00	0.00	8.51
		6.3E-01	-6.61	-2.49	0.00	0.00	0.00	9.29
		9.5E-01	-6.61	-2.49	0.00	0.00	0.00	10.08
		1.26	-6.61	-2.49	0.00	0.00	0.00	10.86
8	COMB1	0.00	-133.38	-22.64	0.00	0.00	0.00	120.21
		3.2E-01	-133.38	-13.19	0.00	0.00	0.00	125.85
		6.3E-01	-133.38	-3.74	0.00	0.00	0.00	128.51
		9.5E-01	-133.38	5.71	0.00	0.00	0.00	128.20
		1.26	-133.38	15.16	0.00	0.00	0.00	124.91
8	COMB2	0.00	-151.36	-23.45	0.00	0.00	0.00	151.71
		3.2E-01	-151.36	-14.00	0.00	0.00	0.00	157.61
		6.3E-01	-151.36	-4.55	0.00	0.00	0.00	160.53
		9.5E-01	-151.36	4.90	0.00	0.00	0.00	160.47
		1.26	-151.36	14.35	0.00	0.00	0.00	157.44
8	COMB3	0.00	-151.36	-35.02	0.00	0.00	0.00	109.00
		3.2E-01	-151.36	-25.57	0.00	0.00	0.00	118.54
		6.3E-01	-151.36	-16.12	0.00	0.00	0.00	125.11
		9.5E-01	-151.36	-6.67	0.00	0.00	0.00	128.69
		1.26	-151.36	2.78	0.00	0.00	0.00	129.31
8	COMB4	0.00	-152.23	-36.65	0.00	0.00	0.00	108.85
		3.2E-01	-152.23	-27.20	0.00	0.00	0.00	118.91
		6.3E-01	-152.23	-17.75	0.00	0.00	0.00	125.99
		9.5E-01	-152.23	-8.30	0.00	0.00	0.00	130.09
		1.26	-152.23	1.15	0.00	0.00	0.00	131.22
8	INV MAX	0.00	-133.38	-22.64	0.00	0.00	0.00	151.71
		3.2E-01	-133.38	-13.19	0.00	0.00	0.00	157.61
		6.3E-01	-133.38	-3.74	0.00	0.00	0.00	160.53
		9.5E-01	-133.38	5.71	0.00	0.00	0.00	160.47
		1.26	-133.38	15.16	0.00	0.00	0.00	157.44
8	INV MIN	0.00	-152.23	-36.65	0.00	0.00	0.00	108.85
		3.2E-01	-152.23	-27.20	0.00	0.00	0.00	118.54
		6.3E-01	-152.23	-17.75	0.00	0.00	0.00	125.11
		9.5E-01	-152.23	-8.30	0.00	0.00	0.00	128.20
		1.26	-152.23	1.15	0.00	0.00	0.00	124.91
8	INVES MAX	0.00	-133.38	-22.64	0.00	0.00	0.00	151.71
		3.2E-01	-133.38	-13.19	0.00	0.00	0.00	157.61
		6.3E-01	-133.38	-3.74	0.00	0.00	0.00	160.53
		9.5E-01	-133.38	5.71	0.00	0.00	0.00	160.47
		1.26	-133.38	15.16	0.00	0.00	0.00	157.44
8	INVES MIN	0.00	-151.36	-35.02	0.00	0.00	0.00	109.00
		3.2E-01	-151.36	-25.57	0.00	0.00	0.00	118.54
		6.3E-01	-151.36	-16.12	0.00	0.00	0.00	125.11
		9.5E-01	-151.36	-6.67	0.00	0.00	0.00	128.20
		1.26	-151.36	2.78	0.00	0.00	0.00	124.91

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	46/ 75

9	PERM	0.00	0.00	-16.40	0.00	0.00	0.00	-60.67
		3.2E-01	0.00	-6.95	0.00	0.00	0.00	-56.99
		6.3E-01	0.00	2.50	0.00	0.00	0.00	-56.29
		9.4E-01	0.00	11.95	0.00	0.00	0.00	-58.56
		1.26	0.00	21.40	0.00	0.00	0.00	-63.81
9	SPTSX	0.00	0.00	19.47	0.00	0.00	0.00	59.20
		3.2E-01	0.00	19.47	0.00	0.00	0.00	53.06
		6.3E-01	0.00	19.47	0.00	0.00	0.00	46.93
		9.4E-01	0.00	19.47	0.00	0.00	0.00	40.80
		1.26	0.00	19.47	0.00	0.00	0.00	34.66
9	SPTDX	0.00	-133.38	-32.65	0.00	0.00	0.00	126.39
		3.2E-01	-133.38	-32.65	0.00	0.00	0.00	136.67
		6.3E-01	-133.38	-32.65	0.00	0.00	0.00	146.96
		9.4E-01	-133.38	-32.65	0.00	0.00	0.00	157.24
		1.26	-133.38	-32.65	0.00	0.00	0.00	167.52
9	SPACCSX	0.00	0.00	3.41	0.00	0.00	0.00	10.37
		3.2E-01	0.00	3.41	0.00	0.00	0.00	9.30
		6.3E-01	0.00	3.41	0.00	0.00	0.00	8.22
		9.4E-01	0.00	3.41	0.00	0.00	0.00	7.15
		1.26	0.00	3.41	0.00	0.00	0.00	6.08
9	SPACCDX	0.00	-17.98	-5.72	0.00	0.00	0.00	22.15
		3.2E-01	-17.98	-5.72	0.00	0.00	0.00	23.95
		6.3E-01	-17.98	-5.72	0.00	0.00	0.00	25.76
		9.4E-01	-17.98	-5.72	0.00	0.00	0.00	27.56
		1.26	-17.98	-5.72	0.00	0.00	0.00	29.36
9	SISMAH	0.00	-3.24	-1.65	0.00	0.00	0.00	2.12
		3.2E-01	-3.24	-1.65	0.00	0.00	0.00	2.64
		6.3E-01	-3.24	-1.65	0.00	0.00	0.00	3.16
		9.4E-01	-3.24	-1.65	0.00	0.00	0.00	3.68
		1.26	-3.24	-1.65	0.00	0.00	0.00	4.20
9	SPSDX	0.00	-6.61	-2.81	0.00	0.00	0.00	10.86
		3.2E-01	-6.61	-2.81	0.00	0.00	0.00	11.75
		6.3E-01	-6.61	-2.81	0.00	0.00	0.00	12.63
		9.4E-01	-6.61	-2.81	0.00	0.00	0.00	13.52
		1.26	-6.61	-2.81	0.00	0.00	0.00	14.40
9	COMB1	0.00	-133.38	-29.58	0.00	0.00	0.00	124.91
		3.2E-01	-133.38	-20.13	0.00	0.00	0.00	132.74
		6.3E-01	-133.38	-10.68	0.00	0.00	0.00	137.60
		9.4E-01	-133.38	-1.23	0.00	0.00	0.00	139.48
		1.26	-133.38	8.22	0.00	0.00	0.00	138.38
9	COMB2	0.00	-151.36	-31.89	0.00	0.00	0.00	157.44
		3.2E-01	-151.36	-22.44	0.00	0.00	0.00	166.00
		6.3E-01	-151.36	-12.99	0.00	0.00	0.00	171.58
		9.4E-01	-151.36	-3.54	0.00	0.00	0.00	174.18
		1.26	-151.36	5.91	0.00	0.00	0.00	173.81
9	COMB3	0.00	-151.36	-41.15	0.00	0.00	0.00	129.31
		3.2E-01	-151.36	-31.70	0.00	0.00	0.00	140.78
		6.3E-01	-151.36	-22.25	0.00	0.00	0.00	149.28
		9.4E-01	-151.36	-12.80	0.00	0.00	0.00	154.80
		1.26	-151.36	-3.35	0.00	0.00	0.00	157.34
9	COMB4	0.00	-152.23	-42.74	0.00	0.00	0.00	131.22
		3.2E-01	-152.23	-33.29	0.00	0.00	0.00	143.19
		6.3E-01	-152.23	-23.84	0.00	0.00	0.00	152.19
		9.4E-01	-152.23	-14.39	0.00	0.00	0.00	158.21
		1.26	-152.23	-4.94	0.00	0.00	0.00	161.25
9	INV MAX	0.00	-133.38	-29.58	0.00	0.00	0.00	157.44
		3.2E-01	-133.38	-20.13	0.00	0.00	0.00	166.00
		6.3E-01	-133.38	-10.68	0.00	0.00	0.00	171.58
		9.4E-01	-133.38	-1.23	0.00	0.00	0.00	174.18

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	47/75

9	INV MIN	1.26	-133.38	8.22	0.00	0.00	0.00	173.81
		0.00	-152.23	-42.74	0.00	0.00	0.00	124.91
		3.2E-01	-152.23	-33.29	0.00	0.00	0.00	132.74
		6.3E-01	-152.23	-23.84	0.00	0.00	0.00	137.60
		9.4E-01	-152.23	-14.39	0.00	0.00	0.00	139.48
		1.26	-152.23	-4.94	0.00	0.00	0.00	138.38
9	INVES MAX	0.00	-133.38	-29.58	0.00	0.00	0.00	157.44
		3.2E-01	-133.38	-20.13	0.00	0.00	0.00	166.00
		6.3E-01	-133.38	-10.68	0.00	0.00	0.00	171.58
		9.4E-01	-133.38	-1.23	0.00	0.00	0.00	174.18
		1.26	-133.38	8.22	0.00	0.00	0.00	173.81
9	INVES MIN	0.00	-151.36	-41.15	0.00	0.00	0.00	124.91
		3.2E-01	-151.36	-31.70	0.00	0.00	0.00	132.74
		6.3E-01	-151.36	-22.25	0.00	0.00	0.00	137.60
		9.4E-01	-151.36	-12.80	0.00	0.00	0.00	139.48
		1.26	-151.36	-3.35	0.00	0.00	0.00	138.38
10	PERM	0.00	0.00	-15.53	0.00	0.00	0.00	-63.81
		3.2E-01	0.00	-6.08	0.00	0.00	0.00	-60.41
		6.3E-01	0.00	3.37	0.00	0.00	0.00	-59.98
		9.5E-01	0.00	12.82	0.00	0.00	0.00	-62.54
		1.26	0.00	22.27	0.00	0.00	0.00	-68.06
10	SPTSX	0.00	0.00	14.87	0.00	0.00	0.00	34.66
		3.2E-01	0.00	14.87	0.00	0.00	0.00	29.98
		6.3E-01	0.00	14.87	0.00	0.00	0.00	25.29
		9.5E-01	0.00	14.87	0.00	0.00	0.00	20.61
		1.26	0.00	14.87	0.00	0.00	0.00	15.93
10	SPTDX	0.00	-133.38	-34.28	0.00	0.00	0.00	167.52
		3.2E-01	-133.38	-34.28	0.00	0.00	0.00	178.32
		6.3E-01	-133.38	-34.28	0.00	0.00	0.00	189.12
		9.5E-01	-133.38	-34.28	0.00	0.00	0.00	199.92
		1.26	-133.38	-34.28	0.00	0.00	0.00	210.71
10	SPACCSX	0.00	0.00	2.61	0.00	0.00	0.00	6.08
		3.2E-01	0.00	2.61	0.00	0.00	0.00	5.25
		6.3E-01	0.00	2.61	0.00	0.00	0.00	4.43
		9.5E-01	0.00	2.61	0.00	0.00	0.00	3.61
		1.26	0.00	2.61	0.00	0.00	0.00	2.79
10	SPACCDX	0.00	-17.98	-6.01	0.00	0.00	0.00	29.36
		3.2E-01	-17.98	-6.01	0.00	0.00	0.00	31.25
		6.3E-01	-17.98	-6.01	0.00	0.00	0.00	33.15
		9.5E-01	-17.98	-6.01	0.00	0.00	0.00	35.04
		1.26	-17.98	-6.01	0.00	0.00	0.00	36.93
10	SISMAH	0.00	-3.24	-1.55	0.00	0.00	0.00	4.20
		3.2E-01	-3.24	-1.55	0.00	0.00	0.00	4.68
		6.3E-01	-3.24	-1.55	0.00	0.00	0.00	5.17
		9.5E-01	-3.24	-1.55	0.00	0.00	0.00	5.66
		1.26	-3.24	-1.55	0.00	0.00	0.00	6.15
10	SPSDX	0.00	-6.61	-2.95	0.00	0.00	0.00	14.40
		3.2E-01	-6.61	-2.95	0.00	0.00	0.00	15.33
		6.3E-01	-6.61	-2.95	0.00	0.00	0.00	16.26
		9.5E-01	-6.61	-2.95	0.00	0.00	0.00	17.19
		1.26	-6.61	-2.95	0.00	0.00	0.00	18.11
10	COMB1	0.00	-133.38	-34.93	0.00	0.00	0.00	138.38
		3.2E-01	-133.38	-25.48	0.00	0.00	0.00	147.89
		6.3E-01	-133.38	-16.03	0.00	0.00	0.00	154.43
		9.5E-01	-133.38	-6.58	0.00	0.00	0.00	157.99
		1.26	-133.38	2.87	0.00	0.00	0.00	158.58
10	COMB2	0.00	-151.36	-38.33	0.00	0.00	0.00	173.81
		3.2E-01	-151.36	-28.88	0.00	0.00	0.00	184.40
		6.3E-01	-151.36	-19.43	0.00	0.00	0.00	192.01

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	48/75

	9.5E-01	-151.36	-9.98	0.00	0.00	0.00	196.64
	1.26	-151.36	-5.333E-01	0.00	0.00	0.00	198.30
10	COMB3						
	0.00	-151.36	-45.40	0.00	0.00	0.00	157.34
	3.2E-01	-151.36	-35.95	0.00	0.00	0.00	170.15
	6.3E-01	-151.36	-26.50	0.00	0.00	0.00	179.99
	9.5E-01	-151.36	-17.05	0.00	0.00	0.00	186.85
	1.26	-151.36	-7.60	0.00	0.00	0.00	190.73
10	COMB4						
	0.00	-152.23	-46.90	0.00	0.00	0.00	161.25
	3.2E-01	-152.23	-37.45	0.00	0.00	0.00	174.54
	6.3E-01	-152.23	-28.00	0.00	0.00	0.00	184.85
	9.5E-01	-152.23	-18.55	0.00	0.00	0.00	192.18
	1.26	-152.23	-9.10	0.00	0.00	0.00	196.53
10	INV MAX						
	0.00	-133.38	-34.93	0.00	0.00	0.00	173.81
	3.2E-01	-133.38	-25.48	0.00	0.00	0.00	184.40
	6.3E-01	-133.38	-16.03	0.00	0.00	0.00	192.01
	9.5E-01	-133.38	-6.58	0.00	0.00	0.00	196.64
	1.26	-133.38	2.87	0.00	0.00	0.00	198.30
10	INV MIN						
	0.00	-152.23	-46.90	0.00	0.00	0.00	138.38
	3.2E-01	-152.23	-37.45	0.00	0.00	0.00	147.89
	6.3E-01	-152.23	-28.00	0.00	0.00	0.00	154.43
	9.5E-01	-152.23	-18.55	0.00	0.00	0.00	157.99
	1.26	-152.23	-9.10	0.00	0.00	0.00	158.58
10	INVES MAX						
	0.00	-133.38	-34.93	0.00	0.00	0.00	173.81
	3.2E-01	-133.38	-25.48	0.00	0.00	0.00	184.40
	6.3E-01	-133.38	-16.03	0.00	0.00	0.00	192.01
	9.5E-01	-133.38	-6.58	0.00	0.00	0.00	196.64
	1.26	-133.38	2.87	0.00	0.00	0.00	198.30
10	INVES MIN						
	0.00	-151.36	-45.40	0.00	0.00	0.00	138.38
	3.2E-01	-151.36	-35.95	0.00	0.00	0.00	147.89
	6.3E-01	-151.36	-26.50	0.00	0.00	0.00	154.43
	9.5E-01	-151.36	-17.05	0.00	0.00	0.00	157.99
	1.26	-151.36	-7.60	0.00	0.00	0.00	158.58
11	PERM						
	0.00	0.00	-34.92	0.00	0.00	0.00	-68.06
	3.2E-01	0.00	-25.47	0.00	0.00	0.00	-58.55
	6.3E-01	0.00	-16.02	0.00	0.00	0.00	-52.02
	9.5E-01	0.00	-6.57	0.00	0.00	0.00	-48.46
	1.26	0.00	2.88	0.00	0.00	0.00	-47.88
11	SPTSX						
	0.00	0.00	8.82	0.00	0.00	0.00	15.93
	3.2E-01	0.00	8.82	0.00	0.00	0.00	13.15
	6.3E-01	0.00	8.82	0.00	0.00	0.00	10.37
	9.5E-01	0.00	8.82	0.00	0.00	0.00	7.59
	1.26	0.00	8.82	0.00	0.00	0.00	4.81
11	SPTDX						
	0.00	-133.38	-31.56	0.00	0.00	0.00	210.71
	3.2E-01	-133.38	-31.56	0.00	0.00	0.00	220.66
	6.3E-01	-133.38	-31.56	0.00	0.00	0.00	230.60
	9.5E-01	-133.38	-31.56	0.00	0.00	0.00	240.54
	1.26	-133.38	-31.56	0.00	0.00	0.00	250.49
11	SPACCSX						
	0.00	0.00	1.55	0.00	0.00	0.00	2.79
	3.2E-01	0.00	1.55	0.00	0.00	0.00	2.30
	6.3E-01	0.00	1.55	0.00	0.00	0.00	1.82
	9.5E-01	0.00	1.55	0.00	0.00	0.00	1.33
	1.26	0.00	1.55	0.00	0.00	0.00	8.436E-01
11	SPACCDX						
	0.00	-17.98	-5.53	0.00	0.00	0.00	36.93
	3.2E-01	-17.98	-5.53	0.00	0.00	0.00	38.67
	6.3E-01	-17.98	-5.53	0.00	0.00	0.00	40.42
	9.5E-01	-17.98	-5.53	0.00	0.00	0.00	42.16
	1.26	-17.98	-5.53	0.00	0.00	0.00	43.90
11	SISMAH						
	0.00	-3.24	-1.28	0.00	0.00	0.00	6.15
	3.2E-01	-3.24	-1.28	0.00	0.00	0.00	6.55

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	49/75

	6.3E-01	-3.24	-1.28	0.00	0.00	0.00	6.95
	9.5E-01	-3.24	-1.28	0.00	0.00	0.00	7.36
	1.26	-3.24	-1.28	0.00	0.00	0.00	7.76
11	SPSDX						
	0.00	-6.61	-2.71	0.00	0.00	0.00	18.11
	3.2E-01	-6.61	-2.71	0.00	0.00	0.00	18.97
	6.3E-01	-6.61	-2.71	0.00	0.00	0.00	19.82
	9.5E-01	-6.61	-2.71	0.00	0.00	0.00	20.68
	1.26	-6.61	-2.71	0.00	0.00	0.00	21.53
11	COMB1						
	0.00	-133.38	-57.66	0.00	0.00	0.00	158.58
	3.2E-01	-133.38	-48.21	0.00	0.00	0.00	175.25
	6.3E-01	-133.38	-38.76	0.00	0.00	0.00	188.95
	9.5E-01	-133.38	-29.31	0.00	0.00	0.00	199.67
	1.26	-133.38	-19.86	0.00	0.00	0.00	207.42
11	COMB2						
	0.00	-151.36	-61.65	0.00	0.00	0.00	198.30
	3.2E-01	-151.36	-52.20	0.00	0.00	0.00	216.23
	6.3E-01	-151.36	-42.75	0.00	0.00	0.00	231.18
	9.5E-01	-151.36	-33.30	0.00	0.00	0.00	243.16
	1.26	-151.36	-23.85	0.00	0.00	0.00	252.16
11	COMB3						
	0.00	-151.36	-65.84	0.00	0.00	0.00	190.73
	3.2E-01	-151.36	-56.39	0.00	0.00	0.00	209.98
	6.3E-01	-151.36	-46.94	0.00	0.00	0.00	226.25
	9.5E-01	-151.36	-37.49	0.00	0.00	0.00	239.55
	1.26	-151.36	-28.04	0.00	0.00	0.00	249.87
11	COMB4						
	0.00	-152.23	-67.06	0.00	0.00	0.00	196.53
	3.2E-01	-152.23	-57.61	0.00	0.00	0.00	216.17
	6.3E-01	-152.23	-48.16	0.00	0.00	0.00	232.83
	9.5E-01	-152.23	-38.71	0.00	0.00	0.00	246.51
	1.26	-152.23	-29.26	0.00	0.00	0.00	257.21
11	INV MAX						
	0.00	-133.38	-57.66	0.00	0.00	0.00	198.30
	3.2E-01	-133.38	-48.21	0.00	0.00	0.00	216.23
	6.3E-01	-133.38	-38.76	0.00	0.00	0.00	232.83
	9.5E-01	-133.38	-29.31	0.00	0.00	0.00	246.51
	1.26	-133.38	-19.86	0.00	0.00	0.00	257.21
11	INV MIN						
	0.00	-152.23	-67.06	0.00	0.00	0.00	158.58
	3.2E-01	-152.23	-57.61	0.00	0.00	0.00	175.25
	6.3E-01	-152.23	-48.16	0.00	0.00	0.00	188.95
	9.5E-01	-152.23	-38.71	0.00	0.00	0.00	199.67
	1.26	-152.23	-29.26	0.00	0.00	0.00	207.42
11	INVES MAX						
	0.00	-133.38	-57.66	0.00	0.00	0.00	198.30
	3.2E-01	-133.38	-48.21	0.00	0.00	0.00	216.23
	6.3E-01	-133.38	-38.76	0.00	0.00	0.00	231.18
	9.5E-01	-133.38	-29.31	0.00	0.00	0.00	243.16
	1.26	-133.38	-19.86	0.00	0.00	0.00	252.16
11	INVES MIN						
	0.00	-151.36	-65.84	0.00	0.00	0.00	158.58
	3.2E-01	-151.36	-56.39	0.00	0.00	0.00	175.25
	6.3E-01	-151.36	-46.94	0.00	0.00	0.00	188.95
	9.5E-01	-151.36	-37.49	0.00	0.00	0.00	199.67
	1.26	-151.36	-28.04	0.00	0.00	0.00	207.42
12	PERM						
	0.00	0.00	-56.90	0.00	0.00	0.00	-47.88
	2.4E-01	0.00	-49.70	0.00	0.00	0.00	-35.09
	4.8E-01	0.00	-42.50	0.00	0.00	0.00	-24.02
	7.2E-01	0.00	-35.30	0.00	0.00	0.00	-14.69
	9.6E-01	0.00	-28.10	0.00	0.00	0.00	-7.08
12	SPTSX						
	0.00	0.00	3.82	0.00	0.00	0.00	4.81
	2.4E-01	0.00	3.82	0.00	0.00	0.00	3.90
	4.8E-01	0.00	3.82	0.00	0.00	0.00	2.98
	7.2E-01	0.00	3.82	0.00	0.00	0.00	2.06
	9.6E-01	0.00	3.82	0.00	0.00	0.00	1.15
12	SPTDX						
	0.00	-133.38	-21.06	0.00	0.00	0.00	250.49

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	50/75

	2.4E-01	-133.38	-21.06	0.00	0.00	0.00	255.54
	4.8E-01	-133.38	-21.06	0.00	0.00	0.00	260.59
	7.2E-01	-133.38	-21.06	0.00	0.00	0.00	265.65
	9.6E-01	-133.38	-21.06	0.00	0.00	0.00	270.70
12	SPACCSX						
	0.00	0.00	6.695E-01	0.00	0.00	0.00	8.436E-01
	2.4E-01	0.00	6.695E-01	0.00	0.00	0.00	6.829E-01
	4.8E-01	0.00	6.695E-01	0.00	0.00	0.00	5.222E-01
	7.2E-01	0.00	6.695E-01	0.00	0.00	0.00	3.615E-01
	9.6E-01	0.00	6.695E-01	0.00	0.00	0.00	2.009E-01
12	SPACCDX						
	0.00	-17.98	-3.69	0.00	0.00	0.00	43.90
	2.4E-01	-17.98	-3.69	0.00	0.00	0.00	44.79
	4.8E-01	-17.98	-3.69	0.00	0.00	0.00	45.67
	7.2E-01	-17.98	-3.69	0.00	0.00	0.00	46.56
	9.6E-01	-17.98	-3.69	0.00	0.00	0.00	47.44
12	SISMAH						
	0.00	-3.24	-7.857E-01	0.00	0.00	0.00	7.76
	2.4E-01	-3.24	-7.857E-01	0.00	0.00	0.00	7.95
	4.8E-01	-3.24	-7.857E-01	0.00	0.00	0.00	8.14
	7.2E-01	-3.24	-7.857E-01	0.00	0.00	0.00	8.32
	9.6E-01	-3.24	-7.857E-01	0.00	0.00	0.00	8.51
12	SPSDX						
	0.00	-6.61	-1.81	0.00	0.00	0.00	21.53
	2.4E-01	-6.61	-1.81	0.00	0.00	0.00	21.97
	4.8E-01	-6.61	-1.81	0.00	0.00	0.00	22.40
	7.2E-01	-6.61	-1.81	0.00	0.00	0.00	22.84
	9.6E-01	-6.61	-1.81	0.00	0.00	0.00	23.27
12	COMB1						
	0.00	-133.38	-74.14	0.00	0.00	0.00	207.42
	2.4E-01	-133.38	-66.94	0.00	0.00	0.00	224.35
	4.8E-01	-133.38	-59.74	0.00	0.00	0.00	239.55
	7.2E-01	-133.38	-52.54	0.00	0.00	0.00	253.02
	9.6E-01	-133.38	-45.34	0.00	0.00	0.00	264.77
12	COMB2						
	0.00	-151.36	-77.16	0.00	0.00	0.00	252.16
	2.4E-01	-151.36	-69.96	0.00	0.00	0.00	269.82
	4.8E-01	-151.36	-62.76	0.00	0.00	0.00	285.74
	7.2E-01	-151.36	-55.56	0.00	0.00	0.00	299.94
	9.6E-01	-151.36	-48.36	0.00	0.00	0.00	312.41
12	COMB3						
	0.00	-151.36	-78.98	0.00	0.00	0.00	249.87
	2.4E-01	-151.36	-71.78	0.00	0.00	0.00	267.96
	4.8E-01	-151.36	-64.58	0.00	0.00	0.00	284.33
	7.2E-01	-151.36	-57.38	0.00	0.00	0.00	298.96
	9.6E-01	-151.36	-50.18	0.00	0.00	0.00	311.87
12	COMB4						
	0.00	-152.23	-79.73	0.00	0.00	0.00	257.21
	2.4E-01	-152.23	-72.53	0.00	0.00	0.00	275.48
	4.8E-01	-152.23	-65.33	0.00	0.00	0.00	292.03
	7.2E-01	-152.23	-58.13	0.00	0.00	0.00	306.84
	9.6E-01	-152.23	-50.93	0.00	0.00	0.00	319.93
12	INV MAX						
	0.00	-133.38	-74.14	0.00	0.00	0.00	257.21
	2.4E-01	-133.38	-66.94	0.00	0.00	0.00	275.48
	4.8E-01	-133.38	-59.74	0.00	0.00	0.00	292.03
	7.2E-01	-133.38	-52.54	0.00	0.00	0.00	306.84
	9.6E-01	-133.38	-45.34	0.00	0.00	0.00	319.93
12	INV MIN						
	0.00	-152.23	-79.73	0.00	0.00	0.00	207.42
	2.4E-01	-152.23	-72.53	0.00	0.00	0.00	224.35
	4.8E-01	-152.23	-65.33	0.00	0.00	0.00	239.55
	7.2E-01	-152.23	-58.13	0.00	0.00	0.00	253.02
	9.6E-01	-152.23	-50.93	0.00	0.00	0.00	264.77
12	INVES MAX						
	0.00	-133.38	-74.14	0.00	0.00	0.00	252.16
	2.4E-01	-133.38	-66.94	0.00	0.00	0.00	269.82
	4.8E-01	-133.38	-59.74	0.00	0.00	0.00	285.74
	7.2E-01	-133.38	-52.54	0.00	0.00	0.00	299.94
	9.6E-01	-133.38	-45.34	0.00	0.00	0.00	312.41
12	INVES MIN						
	0.00	-151.36	-78.98	0.00	0.00	0.00	207.42

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	51/75

2.4E-01	-151.36	-71.78	0.00	0.00	0.00	224.35
4.8E-01	-151.36	-64.58	0.00	0.00	0.00	239.55
7.2E-01	-151.36	-57.38	0.00	0.00	0.00	253.02
9.6E-01	-151.36	-50.18	0.00	0.00	0.00	264.77

8.2 Muro H=4.00 m

8.2.1 Input

SAP2000 v7.10 File: M400 KN-m Units PAGE 1
11/18/10 16.23.57

STATIC LOAD CASES

STATIC CASE	CASE TYPE	SELF WT FACTOR
PERM	DEAD	1.0000
SPTSX	DEAD	0.0000
SPTDX	DEAD	0.0000
SPACCSX	DEAD	0.0000
SPACCDX	DEAD	0.0000
SISMAH	DEAD	0.0000
SPSDX	DEAD	0.0000

SAP2000 v7.10 File: M400 KN-m Units PAGE 2
11/18/10 16.23.57

JOINT DATA

JOINT	GLOBAL-X	GLOBAL-Y	GLOBAL-Z	RESTRAINTS	ANGLE-A	ANGLE-B	ANGLE-C
1	0.00000	0.00000	4.40000	0 0 0 0 0	0.000	0.000	0.000
2	12.60000	0.00000	4.40000	0 0 0 0 0	0.000	0.000	0.000
3	0.00000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
4	1.26000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
5	2.52000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
6	3.78000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
7	5.04000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
8	6.30000	0.00000	0.00000	1 0 0 0 0	0.000	0.000	0.000
9	7.56000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
10	8.82000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
11	10.08000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
12	11.34000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000
13	12.60000	0.00000	0.00000	0 0 0 0 0	0.000	0.000	0.000

SAP2000 v7.10 File: M400 KN-m Units PAGE 3
11/18/10 16.23.57

JOINT SPRING DATA

JOINT	K-U1	K-U2	K-U3	K-R1	K-R2	K-R3
3	0.000	0.000	11160.000	0.000	0.000	0.000
4	0.000	0.000	11340.000	0.000	0.000	0.000
5	0.000	0.000	11340.000	0.000	0.000	0.000
6	0.000	0.000	7560.000	0.000	0.000	0.000
7	0.000	0.000	7560.000	0.000	0.000	0.000
8	0.000	0.000	7560.000	0.000	0.000	0.000
9	0.000	0.000	7560.000	0.000	0.000	0.000
10	0.000	0.000	7560.000	0.000	0.000	0.000
11	0.000	0.000	11340.000	0.000	0.000	0.000
12	0.000	0.000	11340.000	0.000	0.000	0.000
13	0.000	0.000	11160.000	0.000	0.000	0.000

SAP2000 v7.10 File: M400 KN-m Units PAGE 4
11/18/10 16.23.57

FRAME ELEMENT DATA

Relazione di calcolo

PROGETTO LOTTO CODIFICA DOCUMENTO REV. FOGLIO
MDL1 12 D 26 CL SL0500002 A 53/ 75

FRAME	JNT-1	JNT-2	SECTION	ANGLE	RELEASES	SEGMENTS	R1	R2	FACTOR	LENGTH
1	3	1	PIED	0.000	000000	4	0.400	0.000	0.500	4.400
2	13	2	PIED	0.000	000000	4	0.400	0.000	0.500	4.400
3	3	4	SOLI	0.000	000000	4	0.300	0.000	0.500	1.260
4	4	5	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
5	5	6	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
6	6	7	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
7	7	8	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
8	8	9	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
9	9	10	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
10	10	11	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
11	11	12	SOLI	0.000	000000	4	0.000	0.000	0.500	1.260
12	12	13	SOLI	0.000	000000	4	0.000	0.300	0.500	1.260

SAP2000 v7.10 File: M400 KN-m Units PAGE 5
11/18/10 16.23.57

M A T E R I A L P R O P E R T Y D A T A

MAT LABEL	MODULUS OF ELASTICITY	POISSON'S RATIO	THERMAL COEFF	WEIGHT PER UNIT VOL	MASS PER UNIT VOL
STEEL	199948000	0.300	1.170E-05	76.820	7.827
CONC	33700000.	0.200	1.000E-05	25.000	2.548
OTHER	24821130.0	0.200	9.900E-06	23.562	2.401

SAP2000 v7.10 File: M400 KN-m Units PAGE 6
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M A T E R I A L D E S I G N D A T A

MAT LABEL	DESIGN CODE	STEEL FY	CONCRETE FC	REBAR FY	CONCRETE FCS	REBAR FYS
STEEL	S 248211.300					
CONC	C	27579.030	413685.500	27579.030	275790.300	
OTHER	N					

SAP2000 v7.10 File: M400 KN-m Units PAGE 7
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F R A M E S E C T I O N P R O P E R T Y D A T A

SECTION LABEL	MAT LABEL	SECTION TYPE	DEPTH	FLANGE WIDTH TOP	FLANGE THICK TOP	WEB THICK	FLANGE WIDTH BOTTOM	FLANGE THICK BOTTOM
PIED	CONC		0.600	1.000	0.000	0.000	0.000	0.000
SOLI	CONC		0.800	1.000	0.000	0.000	0.000	0.000

SAP2000 v7.10 File: M400 KN-m Units PAGE 8
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F R A M E S E C T I O N P R O P E R T Y D A T A

SECTION LABEL	AREA	TORSIONAL INERTIA	MOMENTS OF INERTIA I33	MOMENTS OF INERTIA I22	SHEAR AREAS A2	SHEAR AREAS A3
PIED	0.600	4.508E-02	1.800E-02	5.000E-02	0.500	0.500
SOLI	0.800	8.759E-02	4.267E-02	6.667E-02	0.667	0.667

SAP2000 v7.10 File: M400 KN-m Units PAGE 9
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F R A M E S E C T I O N P R O P E R T Y D A T A

SECTION LABEL	SECTION S33	MODULII S22	PLASTIC MODULII Z33	PLASTIC MODULII Z22	RADII OF GYRATION R33	RADII OF GYRATION R22
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POTENZIAMENTO DELLA LINEA RHO-ARONA. TRATTA RHO-GALLARATE

QUADRUPPLICAMENTO RHO-PARABIAGO E RACCORDO Y

Relazione di calcolo

PROGETTO LOTTO CODIFICA DOCUMENTO REV. FOGLIO
MDL1 12 D 26 CL SL0500002 A 54/75

PIED 6.000E-02 0.100 9.000E-02 0.150 0.173 0.289
SOLI 0.107 0.133 0.160 0.200 0.231 0.289

SAP2000 v7.10 File: M400 KN-m Units PAGE 10
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FRAME SECTION PROPERTY DATA

SECTION LABEL	TOTAL WEIGHT	TOTAL MASS
PIED	132.000	13.456
SOLI	252.000	25.688

SAP2000 v7.10 File: M400 KN-m Units PAGE 11
11/18/10 16.23.57

SHELL SECTION PROPERTY DATA

SECTION LABEL	MAT LABEL	SHELL TYPE	MEMBRANE THICK	BENDING THICK	MATERIAL ANGLE
SSEC1	CONC	4	1.000	1.000	0.000

SAP2000 v7.10 File: M400 KN-m Units PAGE 12
11/18/10 16.23.57

SHELL SECTION PROPERTY DATA

SECTION LABEL	TOTAL WEIGHT	TOTAL MASS
SSEC1	0.000	0.000

SAP2000 v7.10 File: M400 KN-m Units PAGE 13
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FRAME SPAN DISTRIBUTED LOADS Load Case PERM

FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
3	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
4	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
5	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
6	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
7	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
8	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
9	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
10	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
11	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000
12	FORCE	GLOBAL-Z	0.0000	-10.0000	1.0000	-10.0000

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FRAME SPAN DISTRIBUTED LOADS Load Case SPTSX

FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	35.5000	1.0000	7.6000

SAP2000 v7.10 File: M400 KN-m Units PAGE 15
11/18/10 16.23.57

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	55/ 75

FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPTDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	-35.5000	1.0000	-7.6000

SAP2000 v7.10 File: M400 KN-m Units PAGE 16
11/18/10 16.23.57

FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPACCSX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	3.3300	1.0000	3.3300

SAP2000 v7.10 File: M400 KN-m Units PAGE 17
11/18/10 16.23.57

FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPACCDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	-3.3300	1.0000	-3.3300

SAP2000 v7.10 File: M400 KN-m Units PAGE 18
11/18/10 16.23.57

FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SISMAH
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
1	FORCE	GLOBAL-X	0.0000	-0.6000	1.0000	-0.6000
2	FORCE	GLOBAL-X	0.0000	-0.6000	1.0000	-0.6000

SAP2000 v7.10 File: M400 KN-m Units PAGE 19
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FRAME	SPAN	DISTRI	BUTED	LOADS	Load Case	SPSDX
FRAME	TYPE	DIRECTION	DISTANCE-A	VALUE-A	DISTANCE-B	VALUE-B
2	FORCE	GLOBAL-X	0.0000	0.0000	1.0000	-2.0000

8.2.2 Output

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LOAD COMBINATION MULTIPLIERS

COMBO	TYPE	CASE	FACTOR	TYPE	TITLE
COMB1	ADD	PERM	1.0000	STATIC (DEAD)	COMB1
		SPTSX	1.0000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
COMB2	ADD	PERM	1.0000	STATIC (DEAD)	COMB2
		SPTSX	1.0000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCSX	1.0000	STATIC (DEAD)	
		SPACCDX	1.0000	STATIC (DEAD)	
COMB3	ADD	PERM	1.0000	STATIC (DEAD)	COMB3
		SPTSX	0.7000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCDX	1.0000	STATIC (DEAD)	
COMB4	ADD	PERM	1.0000	STATIC (DEAD)	COMB4
		SPTSX	0.7000	STATIC (DEAD)	
		SPTDX	1.0000	STATIC (DEAD)	
		SPACCDX	0.5000	STATIC (DEAD)	
		SISMAH	1.0000	STATIC (DEAD)	
		SPSDX	1.0000	STATIC (DEAD)	
INV	ENVE	COMB1	1.0000	COMBO	INV
		COMB2	1.0000	COMBO	
		COMB3	1.0000	COMBO	
		COMB4	1.0000	COMBO	
INVES	ENVE	COMB1	1.0000	COMBO	INVES
		COMB2	1.0000	COMBO	
		COMB3	1.0000	COMBO	

SAP2000 v7.10 File: M400 KN-m Units PAGE 2
 11/18/10 16.22.51

JOINT DISPLACEMENTS

JOINT	LOAD	U1	U2	U3	R1	R2	R3
1	PERM	-5.965E-04	0.0000	-5.100E-03	0.0000	-1.356E-04	0.0000
1	SPTSX	3.207E-03	0.0000	1.114E-03	0.0000	7.951E-04	0.0000
1	SPTDX	2.041E-04	0.0000	-2.021E-04	0.0000	4.638E-05	0.0000
1	SPACCSX	6.589E-04	0.0000	2.196E-04	0.0000	1.673E-04	0.0000
1	SPACCDX	4.021E-05	0.0000	-3.983E-05	0.0000	9.139E-06	0.0000
1	SISMAH	-1.115E-04	0.0000	-4.674E-05	0.0000	-2.849E-05	0.0000
1	SPSDX	1.610E-05	0.0000	-1.595E-05	0.0000	3.659E-06	0.0000
1	COMB1	2.815E-03	0.0000	-4.187E-03	0.0000	7.059E-04	0.0000
1	COMB2	3.514E-03	0.0000	-4.008E-03	0.0000	8.823E-04	0.0000
1	COMB3	1.893E-03	0.0000	-4.562E-03	0.0000	4.765E-04	0.0000

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	57/75

1	COMB4	1.777E-03	0.0000	-4.604E-03	0.0000	4.471E-04	0.0000
1	INV MAX	3.514E-03	0.0000	-4.008E-03	0.0000	8.823E-04	0.0000
1	INV MIN	1.777E-03	0.0000	-4.604E-03	0.0000	4.471E-04	0.0000
1	INVES MAX	3.514E-03	0.0000	-4.008E-03	0.0000	8.823E-04	0.0000
1	INVES MIN	1.893E-03	0.0000	-4.562E-03	0.0000	4.765E-04	0.0000
2	PERM	5.965E-04	0.0000	-5.100E-03	0.0000	1.356E-04	0.0000
2	SPTSX	-2.041E-04	0.0000	-2.021E-04	0.0000	-4.638E-05	0.0000
2	SPTDX	-3.207E-03	0.0000	1.114E-03	0.0000	-7.951E-04	0.0000
2	SPACCSX	-4.021E-05	0.0000	-3.983E-05	0.0000	-9.139E-06	0.0000
2	SPACCDX	-6.589E-04	0.0000	2.196E-04	0.0000	-1.673E-04	0.0000
2	SISMAH	-1.115E-04	0.0000	4.674E-05	0.0000	-2.849E-05	0.0000
2	SPSDX	-2.736E-04	0.0000	8.792E-05	0.0000	-7.083E-05	0.0000
2	COMB1	-2.815E-03	0.0000	-4.187E-03	0.0000	-7.059E-04	0.0000
2	COMB2	-3.514E-03	0.0000	-4.008E-03	0.0000	-8.823E-04	0.0000
2	COMB3	-3.412E-03	0.0000	-3.907E-03	0.0000	-8.593E-04	0.0000
2	COMB4	-3.468E-03	0.0000	-3.882E-03	0.0000	-8.750E-04	0.0000
2	INV MAX	-2.815E-03	0.0000	-3.882E-03	0.0000	-7.059E-04	0.0000
2	INV MIN	-3.514E-03	0.0000	-4.187E-03	0.0000	-8.823E-04	0.0000
2	INVES MAX	-2.815E-03	0.0000	-3.907E-03	0.0000	-7.059E-04	0.0000
2	INVES MIN	-3.514E-03	0.0000	-4.187E-03	0.0000	-8.823E-04	0.0000
3	PERM	0.0000	0.0000	-5.092E-03	0.0000	-1.356E-04	0.0000
3	SPTSX	2.216E-05	0.0000	1.114E-03	0.0000	5.049E-04	0.0000
3	SPTDX	0.0000	0.0000	-2.021E-04	0.0000	4.638E-05	0.0000
3	SPACCSX	3.424E-06	0.0000	2.196E-04	0.0000	9.948E-05	0.0000
3	SPACCDX	0.0000	0.0000	-3.983E-05	0.0000	9.139E-06	0.0000
3	SISMAH	0.0000	0.0000	-4.674E-05	0.0000	-1.628E-05	0.0000
3	SPSDX	0.0000	0.0000	-1.595E-05	0.0000	3.659E-06	0.0000
3	COMB1	2.216E-05	0.0000	-4.180E-03	0.0000	4.157E-04	0.0000
3	COMB2	2.558E-05	0.0000	-4.000E-03	0.0000	5.243E-04	0.0000
3	COMB3	1.551E-05	0.0000	-4.554E-03	0.0000	2.734E-04	0.0000
3	COMB4	1.489E-05	0.0000	-4.597E-03	0.0000	2.562E-04	0.0000
3	INV MAX	2.558E-05	0.0000	-4.000E-03	0.0000	5.243E-04	0.0000
3	INV MIN	1.489E-05	0.0000	-4.597E-03	0.0000	2.562E-04	0.0000
3	INVES MAX	2.558E-05	0.0000	-4.000E-03	0.0000	5.243E-04	0.0000
3	INVES MIN	1.551E-05	0.0000	-4.554E-03	0.0000	2.734E-04	0.0000
4	PERM	0.0000	0.0000	-4.922E-03	0.0000	-1.236E-04	0.0000
4	SPTSX	1.773E-05	0.0000	5.470E-04	0.0000	3.854E-04	0.0000
4	SPTDX	0.0000	0.0000	-2.603E-04	0.0000	4.515E-05	0.0000
4	SPACCSX	2.739E-06	0.0000	1.078E-04	0.0000	7.593E-05	0.0000
4	SPACCDX	0.0000	0.0000	-5.130E-05	0.0000	8.897E-06	0.0000
4	SISMAH	0.0000	0.0000	-2.866E-05	0.0000	-1.208E-05	0.0000
4	SPSDX	0.0000	0.0000	-2.054E-05	0.0000	3.562E-06	0.0000
4	COMB1	1.773E-05	0.0000	-4.636E-03	0.0000	3.069E-04	0.0000
4	COMB2	2.047E-05	0.0000	-4.579E-03	0.0000	3.917E-04	0.0000
4	COMB3	1.241E-05	0.0000	-4.851E-03	0.0000	2.002E-04	0.0000
4	COMB4	1.191E-05	0.0000	-4.875E-03	0.0000	1.872E-04	0.0000
4	INV MAX	2.047E-05	0.0000	-4.579E-03	0.0000	3.917E-04	0.0000
4	INV MIN	1.191E-05	0.0000	-4.875E-03	0.0000	1.872E-04	0.0000
4	INVES MAX	2.047E-05	0.0000	-4.579E-03	0.0000	3.917E-04	0.0000
4	INVES MIN	1.241E-05	0.0000	-4.851E-03	0.0000	2.002E-04	0.0000
5	PERM	0.0000	0.0000	-4.785E-03	0.0000	-9.057E-05	0.0000
5	SPTSX	1.329E-05	0.0000	1.413E-04	0.0000	2.660E-04	0.0000
5	SPTDX	0.0000	0.0000	-3.152E-04	0.0000	3.979E-05	0.0000
5	SPACCSX	2.054E-06	0.0000	2.785E-05	0.0000	5.242E-05	0.0000
5	SPACCDX	0.0000	0.0000	-6.210E-05	0.0000	7.840E-06	0.0000
5	SISMAH	0.0000	0.0000	-1.621E-05	0.0000	-8.032E-06	0.0000
5	SPSDX	0.0000	0.0000	-2.486E-05	0.0000	3.139E-06	0.0000
5	COMB1	1.329E-05	0.0000	-4.959E-03	0.0000	2.152E-04	0.0000
5	COMB2	1.535E-05	0.0000	-4.993E-03	0.0000	2.755E-04	0.0000
5	COMB3	9.306E-06	0.0000	-5.063E-03	0.0000	1.433E-04	0.0000
5	COMB4	8.936E-06	0.0000	-5.073E-03	0.0000	1.345E-04	0.0000
5	INV MAX	1.535E-05	0.0000	-4.959E-03	0.0000	2.755E-04	0.0000
5	INV MIN	8.936E-06	0.0000	-5.073E-03	0.0000	1.345E-04	0.0000
5	INVES MAX	1.535E-05	0.0000	-4.959E-03	0.0000	2.755E-04	0.0000
5	INVES MIN	9.306E-06	0.0000	-5.063E-03	0.0000	1.433E-04	0.0000
6	PERM	0.0000	0.0000	-4.694E-03	0.0000	-5.550E-05	0.0000
6	SPTSX	8.863E-06	0.0000	-1.271E-04	0.0000	1.682E-04	0.0000

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	58/75

6	SPTDX	0.0000	0.0000	-3.592E-04	0.0000	2.670E-05	0.0000
6	SPACCSX	1.370E-06	0.0000	-2.505E-05	0.0000	3.313E-05	0.0000
6	SPACCDX	0.0000	0.0000	-7.079E-05	0.0000	5.260E-06	0.0000
6	SISMAH	0.0000	0.0000	-8.240E-06	0.0000	-5.022E-06	0.0000
6	SPSDX	0.0000	0.0000	-2.834E-05	0.0000	2.106E-06	0.0000
6	COMB1	8.863E-06	0.0000	-5.181E-03	0.0000	1.394E-04	0.0000
6	COMB2	1.023E-05	0.0000	-5.277E-03	0.0000	1.778E-04	0.0000
6	COMB3	6.204E-06	0.0000	-5.213E-03	0.0000	9.417E-05	0.0000
6	COMB4	5.957E-06	0.0000	-5.215E-03	0.0000	8.862E-05	0.0000
6	INV MAX	1.023E-05	0.0000	-5.181E-03	0.0000	1.778E-04	0.0000
6	INV MIN	5.957E-06	0.0000	-5.277E-03	0.0000	8.862E-05	0.0000
6	INVES MAX	1.023E-05	0.0000	-5.181E-03	0.0000	1.778E-04	0.0000
6	INVES MIN	6.204E-06	0.0000	-5.277E-03	0.0000	9.417E-05	0.0000
7	PERM	0.0000	0.0000	-4.644E-03	0.0000	-2.623E-05	0.0000
7	SPTSX	4.431E-06	0.0000	-2.863E-04	0.0000	9.211E-05	0.0000
7	SPTDX	0.0000	0.0000	-3.805E-04	0.0000	2.411E-06	0.0000
7	SPACCSX	0.0000	0.0000	-5.641E-05	0.0000	1.815E-05	0.0000
7	SPACCDX	0.0000	0.0000	-7.497E-05	0.0000	0.0000	0.0000
7	SISMAH	0.0000	0.0000	-3.344E-06	0.0000	-3.185E-06	0.0000
7	SPSDX	0.0000	0.0000	-3.002E-05	0.0000	0.0000	0.0000
7	COMB1	4.431E-06	0.0000	-5.311E-03	0.0000	6.829E-05	0.0000
7	COMB2	5.116E-06	0.0000	-5.442E-03	0.0000	8.692E-05	0.0000
7	COMB3	3.102E-06	0.0000	-5.300E-03	0.0000	4.113E-05	0.0000
7	COMB4	2.979E-06	0.0000	-5.296E-03	0.0000	3.790E-05	0.0000
7	INV MAX	5.116E-06	0.0000	-5.296E-03	0.0000	8.692E-05	0.0000
7	INV MIN	2.979E-06	0.0000	-5.442E-03	0.0000	3.790E-05	0.0000
7	INVES MAX	5.116E-06	0.0000	-5.300E-03	0.0000	8.692E-05	0.0000
7	INVES MIN	3.102E-06	0.0000	-5.442E-03	0.0000	4.113E-05	0.0000
8	PERM	0.0000	0.0000	-4.628E-03	0.0000	0.0000	0.0000
8	SPTSX	0.0000	0.0000	-3.628E-04	0.0000	3.616E-05	0.0000
8	SPTDX	0.0000	0.0000	-3.628E-04	0.0000	-3.616E-05	0.0000
8	SPACCSX	0.0000	0.0000	-7.149E-05	0.0000	7.124E-06	0.0000
8	SPACCDX	0.0000	0.0000	-7.149E-05	0.0000	-7.124E-06	0.0000
8	SISMAH	0.0000	0.0000	0.0000	0.0000	-2.567E-06	0.0000
8	SPSDX	0.0000	0.0000	-2.862E-05	0.0000	-2.853E-06	0.0000
8	COMB1	0.0000	0.0000	-5.353E-03	0.0000	0.0000	0.0000
8	COMB2	0.0000	0.0000	-5.496E-03	0.0000	0.0000	0.0000
8	COMB3	0.0000	0.0000	-5.316E-03	0.0000	-1.797E-05	0.0000
8	COMB4	0.0000	0.0000	-5.309E-03	0.0000	-1.983E-05	0.0000
8	INV MAX	0.0000	0.0000	-5.309E-03	0.0000	0.0000	0.0000
8	INV MIN	0.0000	0.0000	-5.496E-03	0.0000	-1.983E-05	0.0000
8	INVES MAX	0.0000	0.0000	-5.316E-03	0.0000	0.0000	0.0000
8	INVES MIN	0.0000	0.0000	-5.496E-03	0.0000	-1.797E-05	0.0000
9	PERM	0.0000	0.0000	-4.644E-03	0.0000	2.623E-05	0.0000
9	SPTSX	0.0000	0.0000	-3.805E-04	0.0000	-2.411E-06	0.0000
9	SPTDX	-4.431E-06	0.0000	-2.863E-04	0.0000	-9.211E-05	0.0000
9	SPACCSX	0.0000	0.0000	-7.497E-05	0.0000	0.0000	0.0000
9	SPACCDX	0.0000	0.0000	-5.641E-05	0.0000	-1.815E-05	0.0000
9	SISMAH	0.0000	0.0000	3.344E-06	0.0000	-3.185E-06	0.0000
9	SPSDX	0.0000	0.0000	-2.259E-05	0.0000	-7.267E-06	0.0000
9	COMB1	-4.431E-06	0.0000	-5.311E-03	0.0000	-6.829E-05	0.0000
9	COMB2	-5.116E-06	0.0000	-5.442E-03	0.0000	-8.692E-05	0.0000
9	COMB3	-5.116E-06	0.0000	-5.253E-03	0.0000	-8.572E-05	0.0000
9	COMB4	-5.103E-06	0.0000	-5.244E-03	0.0000	-8.710E-05	0.0000
9	INV MAX	-4.431E-06	0.0000	-5.244E-03	0.0000	-6.829E-05	0.0000
9	INV MIN	-5.116E-06	0.0000	-5.442E-03	0.0000	-8.710E-05	0.0000
9	INVES MAX	-4.431E-06	0.0000	-5.253E-03	0.0000	-6.829E-05	0.0000
9	INVES MIN	-5.116E-06	0.0000	-5.442E-03	0.0000	-8.692E-05	0.0000
10	PERM	0.0000	0.0000	-4.694E-03	0.0000	5.550E-05	0.0000
10	SPTSX	0.0000	0.0000	-3.592E-04	0.0000	-2.670E-05	0.0000
10	SPTDX	-8.863E-06	0.0000	-1.271E-04	0.0000	-1.682E-04	0.0000
10	SPACCSX	0.0000	0.0000	-7.079E-05	0.0000	-5.260E-06	0.0000
10	SPACCDX	-1.370E-06	0.0000	-2.505E-05	0.0000	-3.313E-05	0.0000
10	SISMAH	0.0000	0.0000	8.240E-06	0.0000	-5.022E-06	0.0000
10	SPSDX	0.0000	0.0000	-1.003E-05	0.0000	-1.327E-05	0.0000
10	COMB1	-8.863E-06	0.0000	-5.181E-03	0.0000	-1.394E-04	0.0000
10	COMB2	-1.023E-05	0.0000	-5.277E-03	0.0000	-1.778E-04	0.0000
10	COMB3	-1.023E-05	0.0000	-5.098E-03	0.0000	-1.645E-04	0.0000

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	59/ 75

10	COMB4	-1.021E-05	0.0000	-5.087E-03	0.0000	-1.662E-04	0.0000
10	INV MAX	-8.863E-06	0.0000	-5.087E-03	0.0000	-1.394E-04	0.0000
10	INV MIN	-1.023E-05	0.0000	-5.277E-03	0.0000	-1.778E-04	0.0000
10	INVES MAX	-8.863E-06	0.0000	-5.098E-03	0.0000	-1.394E-04	0.0000
10	INVES MIN	-1.023E-05	0.0000	-5.277E-03	0.0000	-1.778E-04	0.0000
11	PERM	0.0000	0.0000	-4.785E-03	0.0000	9.057E-05	0.0000
11	SPTSX	0.0000	0.0000	-3.152E-04	0.0000	-3.979E-05	0.0000
11	SPTDX	-1.329E-05	0.0000	1.413E-04	0.0000	-2.660E-04	0.0000
11	SPACCSX	0.0000	0.0000	-6.210E-05	0.0000	-7.840E-06	0.0000
11	SPACCDX	-2.054E-06	0.0000	2.785E-05	0.0000	-5.242E-05	0.0000
11	SISMAH	0.0000	0.0000	1.621E-05	0.0000	-8.032E-06	0.0000
11	SPSDX	0.0000	0.0000	1.115E-05	0.0000	-2.099E-05	0.0000
11	COMB1	-1.329E-05	0.0000	-4.959E-03	0.0000	-2.152E-04	0.0000
11	COMB2	-1.535E-05	0.0000	-4.993E-03	0.0000	-2.755E-04	0.0000
11	COMB3	-1.535E-05	0.0000	-4.836E-03	0.0000	-2.557E-04	0.0000
11	COMB4	-1.531E-05	0.0000	-4.823E-03	0.0000	-2.585E-04	0.0000
11	INV MAX	-1.329E-05	0.0000	-4.823E-03	0.0000	-2.152E-04	0.0000
11	INV MIN	-1.535E-05	0.0000	-4.993E-03	0.0000	-2.755E-04	0.0000
11	INVES MAX	-1.329E-05	0.0000	-4.836E-03	0.0000	-2.152E-04	0.0000
11	INVES MIN	-1.535E-05	0.0000	-4.993E-03	0.0000	-2.755E-04	0.0000
12	PERM	0.0000	0.0000	-4.922E-03	0.0000	1.236E-04	0.0000
12	SPTSX	0.0000	0.0000	-2.603E-04	0.0000	-4.515E-05	0.0000
12	SPTDX	-1.773E-05	0.0000	5.470E-04	0.0000	-3.854E-04	0.0000
12	SPACCSX	0.0000	0.0000	-5.130E-05	0.0000	-8.897E-06	0.0000
12	SPACCDX	-2.739E-06	0.0000	1.078E-04	0.0000	-7.593E-05	0.0000
12	SISMAH	0.0000	0.0000	2.866E-05	0.0000	-1.208E-05	0.0000
12	SPSDX	0.0000	0.0000	4.316E-05	0.0000	-3.040E-05	0.0000
12	COMB1	-1.773E-05	0.0000	-4.636E-03	0.0000	-3.069E-04	0.0000
12	COMB2	-2.047E-05	0.0000	-4.579E-03	0.0000	-3.917E-04	0.0000
12	COMB3	-2.047E-05	0.0000	-4.450E-03	0.0000	-3.693E-04	0.0000
12	COMB4	-2.041E-05	0.0000	-4.432E-03	0.0000	-3.738E-04	0.0000
12	INV MAX	-1.773E-05	0.0000	-4.432E-03	0.0000	-3.069E-04	0.0000
12	INV MIN	-2.047E-05	0.0000	-4.636E-03	0.0000	-3.917E-04	0.0000
12	INVES MAX	-1.773E-05	0.0000	-4.450E-03	0.0000	-3.069E-04	0.0000
12	INVES MIN	-2.047E-05	0.0000	-4.636E-03	0.0000	-3.917E-04	0.0000
13	PERM	0.0000	0.0000	-5.092E-03	0.0000	1.356E-04	0.0000
13	SPTSX	0.0000	0.0000	-2.021E-04	0.0000	-4.638E-05	0.0000
13	SPTDX	-2.216E-05	0.0000	1.114E-03	0.0000	-5.049E-04	0.0000
13	SPACCSX	0.0000	0.0000	-3.983E-05	0.0000	-9.139E-06	0.0000
13	SPACCDX	-3.424E-06	0.0000	2.196E-04	0.0000	-9.948E-05	0.0000
13	SISMAH	0.0000	0.0000	4.674E-05	0.0000	-1.628E-05	0.0000
13	SPSDX	-1.028E-06	0.0000	8.792E-05	0.0000	-3.983E-05	0.0000
13	COMB1	-2.216E-05	0.0000	-4.180E-03	0.0000	-4.157E-04	0.0000
13	COMB2	-2.558E-05	0.0000	-4.000E-03	0.0000	-5.243E-04	0.0000
13	COMB3	-2.558E-05	0.0000	-3.900E-03	0.0000	-5.013E-04	0.0000
13	COMB4	-2.551E-05	0.0000	-3.875E-03	0.0000	-5.076E-04	0.0000
13	INV MAX	-2.216E-05	0.0000	-3.875E-03	0.0000	-4.157E-04	0.0000
13	INV MIN	-2.558E-05	0.0000	-4.180E-03	0.0000	-5.243E-04	0.0000
13	INVES MAX	-2.216E-05	0.0000	-3.900E-03	0.0000	-4.157E-04	0.0000
13	INVES MIN	-2.558E-05	0.0000	-4.180E-03	0.0000	-5.243E-04	0.0000

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FRAME ELEMENT FORCES

FRAME	LOAD	LOC	P	V2	V3	T	M2	M3
1	PERM							
		4.0E-01	-60.00	0.00	0.00	0.00	0.00	0.00
		1.40	-45.00	0.00	0.00	0.00	0.00	0.00
		2.40	-30.00	0.00	0.00	0.00	0.00	0.00
		3.40	-15.00	0.00	0.00	0.00	0.00	0.00
		4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPTSX							

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	60/ 75

	4.0E-01	0.00	81.13	0.00	0.00	0.00	128.44
	1.40	0.00	51.33	0.00	0.00	0.00	62.73
	2.40	0.00	27.88	0.00	0.00	0.00	23.65
	3.40	0.00	10.77	0.00	0.00	0.00	4.86
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPTDX						
	4.0E-01	0.00	0.00	0.00	0.00	0.00	0.00
	1.40	0.00	0.00	0.00	0.00	0.00	0.00
	2.40	0.00	0.00	0.00	0.00	0.00	0.00
	3.40	0.00	0.00	0.00	0.00	0.00	0.00
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPACCSX						
	4.0E-01	0.00	13.32	0.00	0.00	0.00	26.64
	1.40	0.00	9.99	0.00	0.00	0.00	14.98
	2.40	0.00	6.66	0.00	0.00	0.00	6.66
	3.40	0.00	3.33	0.00	0.00	0.00	1.66
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPACCDX						
	4.0E-01	0.00	0.00	0.00	0.00	0.00	0.00
	1.40	0.00	0.00	0.00	0.00	0.00	0.00
	2.40	0.00	0.00	0.00	0.00	0.00	0.00
	3.40	0.00	0.00	0.00	0.00	0.00	0.00
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SISMAH						
	4.0E-01	0.00	-2.40	0.00	0.00	0.00	-4.80
	1.40	0.00	-1.80	0.00	0.00	0.00	-2.70
	2.40	0.00	-1.20	0.00	0.00	0.00	-1.20
	3.40	0.00	-6.000E-01	0.00	0.00	0.00	-3.000E-01
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	SPSDX						
	4.0E-01	0.00	0.00	0.00	0.00	0.00	0.00
	1.40	0.00	0.00	0.00	0.00	0.00	0.00
	2.40	0.00	0.00	0.00	0.00	0.00	0.00
	3.40	0.00	0.00	0.00	0.00	0.00	0.00
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	COMB1						
	4.0E-01	-60.00	81.13	0.00	0.00	0.00	128.44
	1.40	-45.00	51.33	0.00	0.00	0.00	62.73
	2.40	-30.00	27.88	0.00	0.00	0.00	23.65
	3.40	-15.00	10.77	0.00	0.00	0.00	4.86
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	COMB2						
	4.0E-01	-60.00	94.45	0.00	0.00	0.00	155.08
	1.40	-45.00	61.32	0.00	0.00	0.00	77.72
	2.40	-30.00	34.54	0.00	0.00	0.00	30.31
	3.40	-15.00	14.10	0.00	0.00	0.00	6.52
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	COMB3						
	4.0E-01	-60.00	56.79	0.00	0.00	0.00	89.91
	1.40	-45.00	35.93	0.00	0.00	0.00	43.91
	2.40	-30.00	19.52	0.00	0.00	0.00	16.56
	3.40	-15.00	7.54	0.00	0.00	0.00	3.40
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	COMB4						
	4.0E-01	-60.00	54.39	0.00	0.00	0.00	85.11
	1.40	-45.00	34.13	0.00	0.00	0.00	41.21
	2.40	-30.00	18.32	0.00	0.00	0.00	15.36
	3.40	-15.00	6.94	0.00	0.00	0.00	3.10
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	INV MAX						
	4.0E-01	-60.00	94.45	0.00	0.00	0.00	155.08
	1.40	-45.00	61.32	0.00	0.00	0.00	77.72
	2.40	-30.00	34.54	0.00	0.00	0.00	30.31
	3.40	-15.00	14.10	0.00	0.00	0.00	6.52
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	INV MIN						
	4.0E-01	-60.00	54.39	0.00	0.00	0.00	85.11
	1.40	-45.00	34.13	0.00	0.00	0.00	41.21
	2.40	-30.00	18.32	0.00	0.00	0.00	15.36
	3.40	-15.00	6.94	0.00	0.00	0.00	3.10
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
1	INVES MAX						

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	61/75

4.0E-01	-60.00	94.45	0.00	0.00	0.00	155.08
1.40	-45.00	61.32	0.00	0.00	0.00	77.72
2.40	-30.00	34.54	0.00	0.00	0.00	30.31
3.40	-15.00	14.10	0.00	0.00	0.00	6.52
4.40	0.00	0.00	0.00	0.00	0.00	0.00
1 INVES MIN						
4.0E-01	-60.00	56.79	0.00	0.00	0.00	89.91
1.40	-45.00	35.93	0.00	0.00	0.00	43.91
2.40	-30.00	19.52	0.00	0.00	0.00	16.56
3.40	-15.00	7.54	0.00	0.00	0.00	3.40
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 PERM						
4.0E-01	-60.00	0.00	0.00	0.00	0.00	0.00
1.40	-45.00	0.00	0.00	0.00	0.00	0.00
2.40	-30.00	0.00	0.00	0.00	0.00	0.00
3.40	-15.00	0.00	0.00	0.00	0.00	0.00
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SPTSX						
4.0E-01	0.00	0.00	0.00	0.00	0.00	0.00
1.40	0.00	0.00	0.00	0.00	0.00	0.00
2.40	0.00	0.00	0.00	0.00	0.00	0.00
3.40	0.00	0.00	0.00	0.00	0.00	0.00
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SPTDX						
4.0E-01	0.00	-81.13	0.00	0.00	0.00	-128.44
1.40	0.00	-51.33	0.00	0.00	0.00	-62.73
2.40	0.00	-27.88	0.00	0.00	0.00	-23.65
3.40	0.00	-10.77	0.00	0.00	0.00	-4.86
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SPACCSX						
4.0E-01	0.00	0.00	0.00	0.00	0.00	0.00
1.40	0.00	0.00	0.00	0.00	0.00	0.00
2.40	0.00	0.00	0.00	0.00	0.00	0.00
3.40	0.00	0.00	0.00	0.00	0.00	0.00
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SPACCDX						
4.0E-01	0.00	-13.32	0.00	0.00	0.00	-26.64
1.40	0.00	-9.99	0.00	0.00	0.00	-14.98
2.40	0.00	-6.66	0.00	0.00	0.00	-6.66
3.40	0.00	-3.33	0.00	0.00	0.00	-1.66
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SISMAH						
4.0E-01	0.00	-2.40	0.00	0.00	0.00	-4.80
1.40	0.00	-1.80	0.00	0.00	0.00	-2.70
2.40	0.00	-1.20	0.00	0.00	0.00	-1.20
3.40	0.00	-6.000E-01	0.00	0.00	0.00	-3.000E-01
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 SPSDX						
4.0E-01	0.00	-4.36	0.00	0.00	0.00	-11.15
1.40	0.00	-3.95	0.00	0.00	0.00	-6.95
2.40	0.00	-3.09	0.00	0.00	0.00	-3.39
3.40	0.00	-1.77	0.00	0.00	0.00	-9.242E-01
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 COMB1						
4.0E-01	-60.00	-81.13	0.00	0.00	0.00	-128.44
1.40	-45.00	-51.33	0.00	0.00	0.00	-62.73
2.40	-30.00	-27.88	0.00	0.00	0.00	-23.65
3.40	-15.00	-10.77	0.00	0.00	0.00	-4.86
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 COMB2						
4.0E-01	-60.00	-94.45	0.00	0.00	0.00	-155.08
1.40	-45.00	-61.32	0.00	0.00	0.00	-77.72
2.40	-30.00	-34.54	0.00	0.00	0.00	-30.31
3.40	-15.00	-14.10	0.00	0.00	0.00	-6.52
4.40	0.00	0.00	0.00	0.00	0.00	0.00
2 COMB3						
4.0E-01	-60.00	-94.45	0.00	0.00	0.00	-155.08
1.40	-45.00	-61.32	0.00	0.00	0.00	-77.72
2.40	-30.00	-34.54	0.00	0.00	0.00	-30.31
3.40	-15.00	-14.10	0.00	0.00	0.00	-6.52
4.40	0.00	0.00	0.00	0.00	0.00	0.00

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	62/ 75

2	COMB4						
	4.0E-01	-60.00	-94.55	0.00	0.00	0.00	-157.71
	1.40	-45.00	-62.08	0.00	0.00	0.00	-79.88
	2.40	-30.00	-35.50	0.00	0.00	0.00	-31.58
	3.40	-15.00	-14.81	0.00	0.00	0.00	-6.91
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INV MAX						
	4.0E-01	-60.00	-81.13	0.00	0.00	0.00	-128.44
	1.40	-45.00	-51.33	0.00	0.00	0.00	-62.73
	2.40	-30.00	-27.88	0.00	0.00	0.00	-23.65
	3.40	-15.00	-10.77	0.00	0.00	0.00	-4.86
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INV MIN						
	4.0E-01	-60.00	-94.55	0.00	0.00	0.00	-157.71
	1.40	-45.00	-62.08	0.00	0.00	0.00	-79.88
	2.40	-30.00	-35.50	0.00	0.00	0.00	-31.58
	3.40	-15.00	-14.81	0.00	0.00	0.00	-6.91
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INVES MAX						
	4.0E-01	-60.00	-81.13	0.00	0.00	0.00	-128.44
	1.40	-45.00	-51.33	0.00	0.00	0.00	-62.73
	2.40	-30.00	-27.88	0.00	0.00	0.00	-23.65
	3.40	-15.00	-10.77	0.00	0.00	0.00	-4.86
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
2	INVES MIN						
	4.0E-01	-60.00	-94.45	0.00	0.00	0.00	-155.08
	1.40	-45.00	-61.32	0.00	0.00	0.00	-77.72
	2.40	-30.00	-34.54	0.00	0.00	0.00	-30.31
	3.40	-15.00	-14.10	0.00	0.00	0.00	-6.52
	4.40	0.00	0.00	0.00	0.00	0.00	0.00
3	PERM						
	3.0E-01	0.00	18.17	0.00	0.00	0.00	-4.10
	5.4E-01	0.00	25.37	0.00	0.00	0.00	-9.32
	7.8E-01	0.00	32.57	0.00	0.00	0.00	-16.28
	1.02	0.00	39.77	0.00	0.00	0.00	-24.96
	1.26	0.00	46.97	0.00	0.00	0.00	-35.37
3	SPTSX						
	3.0E-01	-94.82	12.44	0.00	0.00	0.00	159.86
	5.4E-01	-94.82	12.44	0.00	0.00	0.00	156.88
	7.8E-01	-94.82	12.44	0.00	0.00	0.00	153.89
	1.02	-94.82	12.44	0.00	0.00	0.00	150.91
	1.26	-94.82	12.44	0.00	0.00	0.00	147.92
3	SPTDX						
	3.0E-01	0.00	-2.26	0.00	0.00	0.00	6.768E-01
	5.4E-01	0.00	-2.26	0.00	0.00	0.00	1.22
	7.8E-01	0.00	-2.26	0.00	0.00	0.00	1.76
	1.02	0.00	-2.26	0.00	0.00	0.00	2.30
	1.26	0.00	-2.26	0.00	0.00	0.00	2.84
3	SPACCSX						
	3.0E-01	-14.65	2.45	0.00	0.00	0.00	31.50
	5.4E-01	-14.65	2.45	0.00	0.00	0.00	30.91
	7.8E-01	-14.65	2.45	0.00	0.00	0.00	30.32
	1.02	-14.65	2.45	0.00	0.00	0.00	29.73
	1.26	-14.65	2.45	0.00	0.00	0.00	29.15
3	SPACCDX						
	3.0E-01	0.00	-4.445E-01	0.00	0.00	0.00	1.333E-01
	5.4E-01	0.00	-4.445E-01	0.00	0.00	0.00	2.400E-01
	7.8E-01	0.00	-4.445E-01	0.00	0.00	0.00	3.467E-01
	1.02	0.00	-4.445E-01	0.00	0.00	0.00	4.534E-01
	1.26	0.00	-4.445E-01	0.00	0.00	0.00	5.601E-01
3	SISMAH						
	3.0E-01	2.64	-5.216E-01	0.00	0.00	0.00	-5.65
	5.4E-01	2.64	-5.216E-01	0.00	0.00	0.00	-5.53
	7.8E-01	2.64	-5.216E-01	0.00	0.00	0.00	-5.40
	1.02	2.64	-5.216E-01	0.00	0.00	0.00	-5.28
	1.26	2.64	-5.216E-01	0.00	0.00	0.00	-5.15
3	SPSDX						
	3.0E-01	0.00	-1.780E-01	0.00	0.00	0.00	5.339E-02
	5.4E-01	0.00	-1.780E-01	0.00	0.00	0.00	9.611E-02
	7.8E-01	0.00	-1.780E-01	0.00	0.00	0.00	1.388E-01
	1.02	0.00	-1.780E-01	0.00	0.00	0.00	1.815E-01

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	63/ 75

	1.26	0.00	-1.780E-01	0.00	0.00	0.00	2.243E-01
3	COMB1						
	3.0E-01	-94.82	28.35	0.00	0.00	0.00	156.44
	5.4E-01	-94.82	35.55	0.00	0.00	0.00	148.77
	7.8E-01	-94.82	42.75	0.00	0.00	0.00	139.37
	1.02	-94.82	49.95	0.00	0.00	0.00	128.25
	1.26	-94.82	57.15	0.00	0.00	0.00	115.40
3	COMB2						
	3.0E-01	-109.47	30.35	0.00	0.00	0.00	188.07
	5.4E-01	-109.47	37.55	0.00	0.00	0.00	179.92
	7.8E-01	-109.47	44.75	0.00	0.00	0.00	170.04
	1.02	-109.47	51.95	0.00	0.00	0.00	158.44
	1.26	-109.47	59.15	0.00	0.00	0.00	145.11
3	COMB3						
	3.0E-01	-66.37	24.17	0.00	0.00	0.00	108.61
	5.4E-01	-66.37	31.37	0.00	0.00	0.00	101.95
	7.8E-01	-66.37	38.57	0.00	0.00	0.00	93.55
	1.02	-66.37	45.77	0.00	0.00	0.00	83.43
	1.26	-66.37	52.97	0.00	0.00	0.00	71.58
3	COMB4						
	3.0E-01	-63.73	23.70	0.00	0.00	0.00	102.95
	5.4E-01	-63.73	30.90	0.00	0.00	0.00	96.40
	7.8E-01	-63.73	38.10	0.00	0.00	0.00	88.12
	1.02	-63.73	45.30	0.00	0.00	0.00	78.11
	1.26	-63.73	52.50	0.00	0.00	0.00	66.38
3	INV MAX						
	3.0E-01	-63.73	30.35	0.00	0.00	0.00	188.07
	5.4E-01	-63.73	37.55	0.00	0.00	0.00	179.92
	7.8E-01	-63.73	44.75	0.00	0.00	0.00	170.04
	1.02	-63.73	51.95	0.00	0.00	0.00	158.44
	1.26	-63.73	59.15	0.00	0.00	0.00	145.11
3	INV MIN						
	3.0E-01	-109.47	23.70	0.00	0.00	0.00	102.95
	5.4E-01	-109.47	30.90	0.00	0.00	0.00	96.40
	7.8E-01	-109.47	38.10	0.00	0.00	0.00	88.12
	1.02	-109.47	45.30	0.00	0.00	0.00	78.11
	1.26	-109.47	52.50	0.00	0.00	0.00	66.38
3	INVES MAX						
	3.0E-01	-66.37	30.35	0.00	0.00	0.00	188.07
	5.4E-01	-66.37	37.55	0.00	0.00	0.00	179.92
	7.8E-01	-66.37	44.75	0.00	0.00	0.00	170.04
	1.02	-66.37	51.95	0.00	0.00	0.00	158.44
	1.26	-66.37	59.15	0.00	0.00	0.00	145.11
3	INVES MIN						
	3.0E-01	-109.47	24.17	0.00	0.00	0.00	108.61
	5.4E-01	-109.47	31.37	0.00	0.00	0.00	101.95
	7.8E-01	-109.47	38.57	0.00	0.00	0.00	93.55
	1.02	-109.47	45.77	0.00	0.00	0.00	83.43
	1.26	-109.47	52.97	0.00	0.00	0.00	71.58
4	PERM						
	0.00	0.00	-8.85	0.00	0.00	0.00	-35.37
	3.2E-01	0.00	5.999E-01	0.00	0.00	0.00	-34.07
	6.3E-01	0.00	10.05	0.00	0.00	0.00	-35.74
	9.5E-01	0.00	19.50	0.00	0.00	0.00	-40.40
	1.26	0.00	28.95	0.00	0.00	0.00	-48.03
4	SPTSX						
	0.00	-94.82	18.64	0.00	0.00	0.00	147.92
	3.2E-01	-94.82	18.64	0.00	0.00	0.00	142.05
	6.3E-01	-94.82	18.64	0.00	0.00	0.00	136.18
	9.5E-01	-94.82	18.64	0.00	0.00	0.00	130.31
	1.26	-94.82	18.64	0.00	0.00	0.00	124.44
4	SPTDX						
	0.00	0.00	-5.21	0.00	0.00	0.00	2.84
	3.2E-01	0.00	-5.21	0.00	0.00	0.00	4.48
	6.3E-01	0.00	-5.21	0.00	0.00	0.00	6.12
	9.5E-01	0.00	-5.21	0.00	0.00	0.00	7.76
	1.26	0.00	-5.21	0.00	0.00	0.00	9.40
4	SPACCSX						
	0.00	-14.65	3.67	0.00	0.00	0.00	29.15
	3.2E-01	-14.65	3.67	0.00	0.00	0.00	27.99
	6.3E-01	-14.65	3.67	0.00	0.00	0.00	26.83

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	64/75

	9.5E-01	-14.65	3.67	0.00	0.00	0.00	25.68
	1.26	-14.65	3.67	0.00	0.00	0.00	24.52
4	SPACCDX						
	0.00	0.00	-1.03	0.00	0.00	0.00	5.601E-01
	3.2E-01	0.00	-1.03	0.00	0.00	0.00	8.833E-01
	6.3E-01	0.00	-1.03	0.00	0.00	0.00	1.21
	9.5E-01	0.00	-1.03	0.00	0.00	0.00	1.53
	1.26	0.00	-1.03	0.00	0.00	0.00	1.85
4	SISMAH						
	0.00	2.64	-8.467E-01	0.00	0.00	0.00	-5.15
	3.2E-01	2.64	-8.467E-01	0.00	0.00	0.00	-4.88
	6.3E-01	2.64	-8.467E-01	0.00	0.00	0.00	-4.62
	9.5E-01	2.64	-8.467E-01	0.00	0.00	0.00	-4.35
	1.26	2.64	-8.467E-01	0.00	0.00	0.00	-4.08
4	SPSDX						
	0.00	0.00	-4.109E-01	0.00	0.00	0.00	2.243E-01
	3.2E-01	0.00	-4.109E-01	0.00	0.00	0.00	3.537E-01
	6.3E-01	0.00	-4.109E-01	0.00	0.00	0.00	4.831E-01
	9.5E-01	0.00	-4.109E-01	0.00	0.00	0.00	6.125E-01
	1.26	0.00	-4.109E-01	0.00	0.00	0.00	7.420E-01
4	COMB1						
	0.00	-94.82	4.58	0.00	0.00	0.00	115.40
	3.2E-01	-94.82	14.03	0.00	0.00	0.00	112.47
	6.3E-01	-94.82	23.48	0.00	0.00	0.00	106.56
	9.5E-01	-94.82	32.93	0.00	0.00	0.00	97.67
	1.26	-94.82	42.38	0.00	0.00	0.00	85.81
4	COMB2						
	0.00	-109.47	7.23	0.00	0.00	0.00	145.11
	3.2E-01	-109.47	16.68	0.00	0.00	0.00	141.34
	6.3E-01	-109.47	26.13	0.00	0.00	0.00	134.60
	9.5E-01	-109.47	35.58	0.00	0.00	0.00	124.88
	1.26	-109.47	45.03	0.00	0.00	0.00	112.18
4	COMB3						
	0.00	-66.37	-2.04	0.00	0.00	0.00	71.58
	3.2E-01	-66.37	7.41	0.00	0.00	0.00	70.73
	6.3E-01	-66.37	16.86	0.00	0.00	0.00	66.91
	9.5E-01	-66.37	26.31	0.00	0.00	0.00	60.11
	1.26	-66.37	35.76	0.00	0.00	0.00	50.33
4	COMB4						
	0.00	-63.73	-2.78	0.00	0.00	0.00	66.38
	3.2E-01	-63.73	6.67	0.00	0.00	0.00	65.76
	6.3E-01	-63.73	16.12	0.00	0.00	0.00	62.17
	9.5E-01	-63.73	25.57	0.00	0.00	0.00	55.61
	1.26	-63.73	35.02	0.00	0.00	0.00	46.07
4	INV MAX						
	0.00	-63.73	7.23	0.00	0.00	0.00	145.11
	3.2E-01	-63.73	16.68	0.00	0.00	0.00	141.34
	6.3E-01	-63.73	26.13	0.00	0.00	0.00	134.60
	9.5E-01	-63.73	35.58	0.00	0.00	0.00	124.88
	1.26	-63.73	45.03	0.00	0.00	0.00	112.18
4	INV MIN						
	0.00	-109.47	-2.78	0.00	0.00	0.00	66.38
	3.2E-01	-109.47	6.67	0.00	0.00	0.00	65.76
	6.3E-01	-109.47	16.12	0.00	0.00	0.00	62.17
	9.5E-01	-109.47	25.57	0.00	0.00	0.00	55.61
	1.26	-109.47	35.02	0.00	0.00	0.00	46.07
4	INVES MAX						
	0.00	-66.37	7.23	0.00	0.00	0.00	145.11
	3.2E-01	-66.37	16.68	0.00	0.00	0.00	141.34
	6.3E-01	-66.37	26.13	0.00	0.00	0.00	134.60
	9.5E-01	-66.37	35.58	0.00	0.00	0.00	124.88
	1.26	-66.37	45.03	0.00	0.00	0.00	112.18
4	INVES MIN						
	0.00	-109.47	-2.04	0.00	0.00	0.00	71.58
	3.2E-01	-109.47	7.41	0.00	0.00	0.00	70.73
	6.3E-01	-109.47	16.86	0.00	0.00	0.00	66.91
	9.5E-01	-109.47	26.31	0.00	0.00	0.00	60.11
	1.26	-109.47	35.76	0.00	0.00	0.00	50.33
5	PERM						
	0.00	0.00	-25.31	0.00	0.00	0.00	-48.03
	3.2E-01	0.00	-15.86	0.00	0.00	0.00	-41.54

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	65/ 75

	6.3E-01	0.00	-6.41	0.00	0.00	0.00	-38.04
	9.5E-01	0.00	3.04	0.00	0.00	0.00	-37.51
	1.26	0.00	12.49	0.00	0.00	0.00	-39.95
5	SPTSX						
	0.00	-94.82	20.24	0.00	0.00	0.00	124.44
	3.2E-01	-94.82	20.24	0.00	0.00	0.00	118.06
	6.3E-01	-94.82	20.24	0.00	0.00	0.00	111.68
	9.5E-01	-94.82	20.24	0.00	0.00	0.00	105.31
	1.26	-94.82	20.24	0.00	0.00	0.00	98.93
5	SPTDX						
	0.00	0.00	-8.78	0.00	0.00	0.00	9.40
	3.2E-01	0.00	-8.78	0.00	0.00	0.00	12.17
	6.3E-01	0.00	-8.78	0.00	0.00	0.00	14.94
	9.5E-01	0.00	-8.78	0.00	0.00	0.00	17.70
	1.26	0.00	-8.78	0.00	0.00	0.00	20.47
5	SPACCSX						
	0.00	-14.65	3.99	0.00	0.00	0.00	24.52
	3.2E-01	-14.65	3.99	0.00	0.00	0.00	23.26
	6.3E-01	-14.65	3.99	0.00	0.00	0.00	22.01
	9.5E-01	-14.65	3.99	0.00	0.00	0.00	20.75
	1.26	-14.65	3.99	0.00	0.00	0.00	19.49
5	SPACCDX						
	0.00	0.00	-1.73	0.00	0.00	0.00	1.85
	3.2E-01	0.00	-1.73	0.00	0.00	0.00	2.40
	6.3E-01	0.00	-1.73	0.00	0.00	0.00	2.94
	9.5E-01	0.00	-1.73	0.00	0.00	0.00	3.49
	1.26	0.00	-1.73	0.00	0.00	0.00	4.03
5	SISMAH						
	0.00	2.64	-1.03	0.00	0.00	0.00	-4.08
	3.2E-01	2.64	-1.03	0.00	0.00	0.00	-3.76
	6.3E-01	2.64	-1.03	0.00	0.00	0.00	-3.43
	9.5E-01	2.64	-1.03	0.00	0.00	0.00	-3.11
	1.26	2.64	-1.03	0.00	0.00	0.00	-2.79
5	SPSDX						
	0.00	0.00	-6.929E-01	0.00	0.00	0.00	7.420E-01
	3.2E-01	0.00	-6.929E-01	0.00	0.00	0.00	9.602E-01
	6.3E-01	0.00	-6.929E-01	0.00	0.00	0.00	1.18
	9.5E-01	0.00	-6.929E-01	0.00	0.00	0.00	1.40
	1.26	0.00	-6.929E-01	0.00	0.00	0.00	1.61
5	COMB1						
	0.00	-94.82	-13.85	0.00	0.00	0.00	85.81
	3.2E-01	-94.82	-4.40	0.00	0.00	0.00	88.69
	6.3E-01	-94.82	5.05	0.00	0.00	0.00	88.58
	9.5E-01	-94.82	14.50	0.00	0.00	0.00	85.50
	1.26	-94.82	23.95	0.00	0.00	0.00	79.45
5	COMB2						
	0.00	-109.47	-11.59	0.00	0.00	0.00	112.18
	3.2E-01	-109.47	-2.14	0.00	0.00	0.00	114.35
	6.3E-01	-109.47	7.31	0.00	0.00	0.00	113.53
	9.5E-01	-109.47	16.76	0.00	0.00	0.00	109.74
	1.26	-109.47	26.21	0.00	0.00	0.00	102.97
5	COMB3						
	0.00	-66.37	-21.65	0.00	0.00	0.00	50.33
	3.2E-01	-66.37	-12.20	0.00	0.00	0.00	55.67
	6.3E-01	-66.37	-2.75	0.00	0.00	0.00	58.02
	9.5E-01	-66.37	6.70	0.00	0.00	0.00	57.40
	1.26	-66.37	16.15	0.00	0.00	0.00	53.80
5	COMB4						
	0.00	-63.73	-22.51	0.00	0.00	0.00	46.07
	3.2E-01	-63.73	-13.06	0.00	0.00	0.00	51.67
	6.3E-01	-63.73	-3.61	0.00	0.00	0.00	54.29
	9.5E-01	-63.73	5.84	0.00	0.00	0.00	53.94
	1.26	-63.73	15.29	0.00	0.00	0.00	50.61
5	INV MAX						
	0.00	-63.73	-11.59	0.00	0.00	0.00	112.18
	3.2E-01	-63.73	-2.14	0.00	0.00	0.00	114.35
	6.3E-01	-63.73	7.31	0.00	0.00	0.00	113.53
	9.5E-01	-63.73	16.76	0.00	0.00	0.00	109.74
	1.26	-63.73	26.21	0.00	0.00	0.00	102.97
5	INV MIN						
	0.00	-109.47	-22.51	0.00	0.00	0.00	46.07
	3.2E-01	-109.47	-13.06	0.00	0.00	0.00	51.67

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	66/ 75

	6.3E-01	-109.47	-3.61	0.00	0.00	0.00	54.29
	9.5E-01	-109.47	5.84	0.00	0.00	0.00	53.94
	1.26	-109.47	15.29	0.00	0.00	0.00	50.61
5	INVES MAX						
	0.00	-66.37	-11.59	0.00	0.00	0.00	112.18
	3.2E-01	-66.37	-2.14	0.00	0.00	0.00	114.35
	6.3E-01	-66.37	7.31	0.00	0.00	0.00	113.53
	9.5E-01	-66.37	16.76	0.00	0.00	0.00	109.74
	1.26	-66.37	26.21	0.00	0.00	0.00	102.97
5	INVES MIN						
	0.00	-109.47	-21.65	0.00	0.00	0.00	50.33
	3.2E-01	-109.47	-12.20	0.00	0.00	0.00	55.67
	6.3E-01	-109.47	-2.75	0.00	0.00	0.00	58.02
	9.5E-01	-109.47	6.70	0.00	0.00	0.00	57.40
	1.26	-109.47	16.15	0.00	0.00	0.00	53.80
6	PERM						
	0.00	0.00	-23.00	0.00	0.00	0.00	-39.95
	3.2E-01	0.00	-13.55	0.00	0.00	0.00	-34.20
	6.3E-01	0.00	-4.10	0.00	0.00	0.00	-31.42
	9.5E-01	0.00	5.35	0.00	0.00	0.00	-31.61
	1.26	0.00	14.80	0.00	0.00	0.00	-34.79
6	SPTSX						
	0.00	-94.82	19.28	0.00	0.00	0.00	98.93
	3.2E-01	-94.82	19.28	0.00	0.00	0.00	92.86
	6.3E-01	-94.82	19.28	0.00	0.00	0.00	86.78
	9.5E-01	-94.82	19.28	0.00	0.00	0.00	80.71
	1.26	-94.82	19.28	0.00	0.00	0.00	74.64
6	SPTDX						
	0.00	0.00	-11.50	0.00	0.00	0.00	20.47
	3.2E-01	0.00	-11.50	0.00	0.00	0.00	24.09
	6.3E-01	0.00	-11.50	0.00	0.00	0.00	27.71
	9.5E-01	0.00	-11.50	0.00	0.00	0.00	31.34
	1.26	0.00	-11.50	0.00	0.00	0.00	34.96
6	SPACCSX						
	0.00	-14.65	3.80	0.00	0.00	0.00	19.49
	3.2E-01	-14.65	3.80	0.00	0.00	0.00	18.30
	6.3E-01	-14.65	3.80	0.00	0.00	0.00	17.10
	9.5E-01	-14.65	3.80	0.00	0.00	0.00	15.90
	1.26	-14.65	3.80	0.00	0.00	0.00	14.71
6	SPACCDX						
	0.00	0.00	-2.27	0.00	0.00	0.00	4.03
	3.2E-01	0.00	-2.27	0.00	0.00	0.00	4.75
	6.3E-01	0.00	-2.27	0.00	0.00	0.00	5.46
	9.5E-01	0.00	-2.27	0.00	0.00	0.00	6.17
	1.26	0.00	-2.27	0.00	0.00	0.00	6.89
6	SISMAH						
	0.00	2.64	-1.09	0.00	0.00	0.00	-2.79
	3.2E-01	2.64	-1.09	0.00	0.00	0.00	-2.44
	6.3E-01	2.64	-1.09	0.00	0.00	0.00	-2.10
	9.5E-01	2.64	-1.09	0.00	0.00	0.00	-1.75
	1.26	2.64	-1.09	0.00	0.00	0.00	-1.41
6	SPSDX						
	0.00	0.00	-9.071E-01	0.00	0.00	0.00	1.61
	3.2E-01	0.00	-9.071E-01	0.00	0.00	0.00	1.90
	6.3E-01	0.00	-9.071E-01	0.00	0.00	0.00	2.19
	9.5E-01	0.00	-9.071E-01	0.00	0.00	0.00	2.47
	1.26	0.00	-9.071E-01	0.00	0.00	0.00	2.76
6	COMB1						
	0.00	-94.82	-15.22	0.00	0.00	0.00	79.45
	3.2E-01	-94.82	-5.77	0.00	0.00	0.00	82.75
	6.3E-01	-94.82	3.68	0.00	0.00	0.00	83.08
	9.5E-01	-94.82	13.13	0.00	0.00	0.00	80.43
	1.26	-94.82	22.58	0.00	0.00	0.00	74.81
6	COMB2						
	0.00	-109.47	-13.68	0.00	0.00	0.00	102.97
	3.2E-01	-109.47	-4.23	0.00	0.00	0.00	105.80
	6.3E-01	-109.47	5.22	0.00	0.00	0.00	105.64
	9.5E-01	-109.47	14.67	0.00	0.00	0.00	102.51
	1.26	-109.47	24.12	0.00	0.00	0.00	96.40
6	COMB3						
	0.00	-66.37	-23.27	0.00	0.00	0.00	53.80

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	67/ 75

	3.2E-01	-66.37	-13.82	0.00	0.00	0.00	59.64
	6.3E-01	-66.37	-4.37	0.00	0.00	0.00	62.51
	9.5E-01	-66.37	5.08	0.00	0.00	0.00	62.39
	1.26	-66.37	14.53	0.00	0.00	0.00	59.30
6	COMB4						
	0.00	-63.73	-24.13	0.00	0.00	0.00	50.61
	3.2E-01	-63.73	-14.68	0.00	0.00	0.00	56.73
	6.3E-01	-63.73	-5.23	0.00	0.00	0.00	59.86
	9.5E-01	-63.73	4.22	0.00	0.00	0.00	60.02
	1.26	-63.73	13.67	0.00	0.00	0.00	57.21
6	INV MAX						
	0.00	-63.73	-13.68	0.00	0.00	0.00	102.97
	3.2E-01	-63.73	-4.23	0.00	0.00	0.00	105.80
	6.3E-01	-63.73	5.22	0.00	0.00	0.00	105.64
	9.5E-01	-63.73	14.67	0.00	0.00	0.00	102.51
	1.26	-63.73	24.12	0.00	0.00	0.00	96.40
6	INV MIN						
	0.00	-109.47	-24.13	0.00	0.00	0.00	50.61
	3.2E-01	-109.47	-14.68	0.00	0.00	0.00	56.73
	6.3E-01	-109.47	-5.23	0.00	0.00	0.00	59.86
	9.5E-01	-109.47	4.22	0.00	0.00	0.00	60.02
	1.26	-109.47	13.67	0.00	0.00	0.00	57.21
6	INVES MAX						
	0.00	-66.37	-13.68	0.00	0.00	0.00	102.97
	3.2E-01	-66.37	-4.23	0.00	0.00	0.00	105.80
	6.3E-01	-66.37	5.22	0.00	0.00	0.00	105.64
	9.5E-01	-66.37	14.67	0.00	0.00	0.00	102.51
	1.26	-66.37	24.12	0.00	0.00	0.00	96.40
6	INVES MIN						
	0.00	-109.47	-23.27	0.00	0.00	0.00	53.80
	3.2E-01	-109.47	-13.82	0.00	0.00	0.00	59.64
	6.3E-01	-109.47	-4.37	0.00	0.00	0.00	62.51
	9.5E-01	-109.47	5.08	0.00	0.00	0.00	62.39
	1.26	-109.47	14.53	0.00	0.00	0.00	59.30
7	PERM						
	0.00	0.00	-20.31	0.00	0.00	0.00	-34.79
	3.2E-01	0.00	-10.86	0.00	0.00	0.00	-29.88
	6.3E-01	0.00	-1.41	0.00	0.00	0.00	-27.95
	9.5E-01	0.00	8.04	0.00	0.00	0.00	-28.99
	1.26	0.00	17.49	0.00	0.00	0.00	-33.01
7	SPTSX						
	0.00	-94.82	17.12	0.00	0.00	0.00	74.64
	3.2E-01	-94.82	17.12	0.00	0.00	0.00	69.24
	6.3E-01	-94.82	17.12	0.00	0.00	0.00	63.85
	9.5E-01	-94.82	17.12	0.00	0.00	0.00	58.46
	1.26	-94.82	17.12	0.00	0.00	0.00	53.07
7	SPTDX						
	0.00	0.00	-14.37	0.00	0.00	0.00	34.96
	3.2E-01	0.00	-14.37	0.00	0.00	0.00	39.49
	6.3E-01	0.00	-14.37	0.00	0.00	0.00	44.01
	9.5E-01	0.00	-14.37	0.00	0.00	0.00	48.54
	1.26	0.00	-14.37	0.00	0.00	0.00	53.07
7	SPACCSX						
	0.00	-14.65	3.37	0.00	0.00	0.00	14.71
	3.2E-01	-14.65	3.37	0.00	0.00	0.00	13.64
	6.3E-01	-14.65	3.37	0.00	0.00	0.00	12.58
	9.5E-01	-14.65	3.37	0.00	0.00	0.00	11.52
	1.26	-14.65	3.37	0.00	0.00	0.00	10.46
7	SPACCDX						
	0.00	0.00	-2.83	0.00	0.00	0.00	6.89
	3.2E-01	0.00	-2.83	0.00	0.00	0.00	7.78
	6.3E-01	0.00	-2.83	0.00	0.00	0.00	8.67
	9.5E-01	0.00	-2.83	0.00	0.00	0.00	9.56
	1.26	0.00	-2.83	0.00	0.00	0.00	10.46
7	SISMAH						
	0.00	2.64	-1.12	0.00	0.00	0.00	-1.41
	3.2E-01	2.64	-1.12	0.00	0.00	0.00	-1.06
	6.3E-01	2.64	-1.12	0.00	0.00	0.00	-7.044E-01
	9.5E-01	2.64	-1.12	0.00	0.00	0.00	-3.522E-01
	1.26	2.64	-1.12	0.00	0.00	0.00	0.00
7	SPSDX						

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	68/75

0.00	0.00	-1.13	0.00	0.00	0.00	2.76
3.2E-01	0.00	-1.13	0.00	0.00	0.00	3.12
6.3E-01	0.00	-1.13	0.00	0.00	0.00	3.47
9.5E-01	0.00	-1.13	0.00	0.00	0.00	3.83
1.26	0.00	-1.13	0.00	0.00	0.00	4.19
7 COMB1						
0.00	-94.82	-17.56	0.00	0.00	0.00	74.81
3.2E-01	-94.82	-8.11	0.00	0.00	0.00	78.85
6.3E-01	-94.82	1.34	0.00	0.00	0.00	79.92
9.5E-01	-94.82	10.79	0.00	0.00	0.00	78.01
1.26	-94.82	20.24	0.00	0.00	0.00	73.12
7 COMB2						
0.00	-109.47	-17.02	0.00	0.00	0.00	96.40
3.2E-01	-109.47	-7.57	0.00	0.00	0.00	100.27
6.3E-01	-109.47	1.88	0.00	0.00	0.00	101.17
9.5E-01	-109.47	11.33	0.00	0.00	0.00	99.09
1.26	-109.47	20.78	0.00	0.00	0.00	94.04
7 COMB3						
0.00	-66.37	-25.53	0.00	0.00	0.00	59.30
3.2E-01	-66.37	-16.08	0.00	0.00	0.00	65.86
6.3E-01	-66.37	-6.63	0.00	0.00	0.00	69.43
9.5E-01	-66.37	2.82	0.00	0.00	0.00	70.03
1.26	-66.37	12.27	0.00	0.00	0.00	67.66
7 COMB4						
0.00	-63.73	-26.37	0.00	0.00	0.00	57.21
3.2E-01	-63.73	-16.92	0.00	0.00	0.00	64.03
6.3E-01	-63.73	-7.47	0.00	0.00	0.00	67.87
9.5E-01	-63.73	1.98	0.00	0.00	0.00	68.73
1.26	-63.73	11.43	0.00	0.00	0.00	66.62
7 INV MAX						
0.00	-63.73	-17.02	0.00	0.00	0.00	96.40
3.2E-01	-63.73	-7.57	0.00	0.00	0.00	100.27
6.3E-01	-63.73	1.88	0.00	0.00	0.00	101.17
9.5E-01	-63.73	11.33	0.00	0.00	0.00	99.09
1.26	-63.73	20.78	0.00	0.00	0.00	94.04
7 INV MIN						
0.00	-109.47	-26.37	0.00	0.00	0.00	57.21
3.2E-01	-109.47	-16.92	0.00	0.00	0.00	64.03
6.3E-01	-109.47	-7.47	0.00	0.00	0.00	67.87
9.5E-01	-109.47	1.98	0.00	0.00	0.00	68.73
1.26	-109.47	11.43	0.00	0.00	0.00	66.62
7 INVES MAX						
0.00	-66.37	-17.02	0.00	0.00	0.00	96.40
3.2E-01	-66.37	-7.57	0.00	0.00	0.00	100.27
6.3E-01	-66.37	1.88	0.00	0.00	0.00	101.17
9.5E-01	-66.37	11.33	0.00	0.00	0.00	99.09
1.26	-66.37	20.78	0.00	0.00	0.00	94.04
7 INVES MIN						
0.00	-109.47	-25.53	0.00	0.00	0.00	59.30
3.2E-01	-109.47	-16.08	0.00	0.00	0.00	65.86
6.3E-01	-109.47	-6.63	0.00	0.00	0.00	69.43
9.5E-01	-109.47	2.82	0.00	0.00	0.00	70.03
1.26	-109.47	12.27	0.00	0.00	0.00	67.66
8 PERM						
0.00	0.00	-17.49	0.00	0.00	0.00	-33.01
3.2E-01	0.00	-8.04	0.00	0.00	0.00	-28.99
6.3E-01	0.00	1.41	0.00	0.00	0.00	-27.95
9.5E-01	0.00	10.86	0.00	0.00	0.00	-29.88
1.26	0.00	20.31	0.00	0.00	0.00	-34.79
8 SPTSX						
0.00	0.00	14.37	0.00	0.00	0.00	53.07
3.2E-01	0.00	14.37	0.00	0.00	0.00	48.54
6.3E-01	0.00	14.37	0.00	0.00	0.00	44.01
9.5E-01	0.00	14.37	0.00	0.00	0.00	39.49
1.26	0.00	14.37	0.00	0.00	0.00	34.96
8 SPTDX						
0.00	-94.82	-17.12	0.00	0.00	0.00	53.07
3.2E-01	-94.82	-17.12	0.00	0.00	0.00	58.46
6.3E-01	-94.82	-17.12	0.00	0.00	0.00	63.85
9.5E-01	-94.82	-17.12	0.00	0.00	0.00	69.24
1.26	-94.82	-17.12	0.00	0.00	0.00	74.64

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	69/ 75

8	SPACCSX	0.00	0.00	2.83	0.00	0.00	0.00	10.46
		3.2E-01	0.00	2.83	0.00	0.00	0.00	9.56
		6.3E-01	0.00	2.83	0.00	0.00	0.00	8.67
		9.5E-01	0.00	2.83	0.00	0.00	0.00	7.78
		1.26	0.00	2.83	0.00	0.00	0.00	6.89
8	SPACCDX	0.00	-14.65	-3.37	0.00	0.00	0.00	10.46
		3.2E-01	-14.65	-3.37	0.00	0.00	0.00	11.52
		6.3E-01	-14.65	-3.37	0.00	0.00	0.00	12.58
		9.5E-01	-14.65	-3.37	0.00	0.00	0.00	13.64
		1.26	-14.65	-3.37	0.00	0.00	0.00	14.71
8	SISMAH	0.00	-2.64	-1.12	0.00	0.00	0.00	0.00
		3.2E-01	-2.64	-1.12	0.00	0.00	0.00	3.522E-01
		6.3E-01	-2.64	-1.12	0.00	0.00	0.00	7.044E-01
		9.5E-01	-2.64	-1.12	0.00	0.00	0.00	1.06
		1.26	-2.64	-1.12	0.00	0.00	0.00	1.41
8	SPSDX	0.00	-4.40	-1.35	0.00	0.00	0.00	4.19
		3.2E-01	-4.40	-1.35	0.00	0.00	0.00	4.61
		6.3E-01	-4.40	-1.35	0.00	0.00	0.00	5.04
		9.5E-01	-4.40	-1.35	0.00	0.00	0.00	5.46
		1.26	-4.40	-1.35	0.00	0.00	0.00	5.89
8	COMB1	0.00	-94.82	-20.24	0.00	0.00	0.00	73.12
		3.2E-01	-94.82	-10.79	0.00	0.00	0.00	78.01
		6.3E-01	-94.82	-1.34	0.00	0.00	0.00	79.92
		9.5E-01	-94.82	8.11	0.00	0.00	0.00	78.85
		1.26	-94.82	17.56	0.00	0.00	0.00	74.81
8	COMB2	0.00	-109.47	-20.78	0.00	0.00	0.00	94.04
		3.2E-01	-109.47	-11.33	0.00	0.00	0.00	99.09
		6.3E-01	-109.47	-1.88	0.00	0.00	0.00	101.17
		9.5E-01	-109.47	7.57	0.00	0.00	0.00	100.27
		1.26	-109.47	17.02	0.00	0.00	0.00	96.40
8	COMB3	0.00	-109.47	-27.92	0.00	0.00	0.00	67.66
		3.2E-01	-109.47	-18.47	0.00	0.00	0.00	74.97
		6.3E-01	-109.47	-9.02	0.00	0.00	0.00	79.30
		9.5E-01	-109.47	4.294E-01	0.00	0.00	0.00	80.65
		1.26	-109.47	9.88	0.00	0.00	0.00	79.02
8	COMB4	0.00	-109.19	-28.70	0.00	0.00	0.00	66.62
		3.2E-01	-109.19	-19.25	0.00	0.00	0.00	74.17
		6.3E-01	-109.19	-9.80	0.00	0.00	0.00	78.75
		9.5E-01	-109.19	-3.527E-01	0.00	0.00	0.00	80.35
		1.26	-109.19	9.10	0.00	0.00	0.00	78.97
8	INV MAX	0.00	-94.82	-20.24	0.00	0.00	0.00	94.04
		3.2E-01	-94.82	-10.79	0.00	0.00	0.00	99.09
		6.3E-01	-94.82	-1.34	0.00	0.00	0.00	101.17
		9.5E-01	-94.82	8.11	0.00	0.00	0.00	100.27
		1.26	-94.82	17.56	0.00	0.00	0.00	96.40
8	INV MIN	0.00	-109.47	-28.70	0.00	0.00	0.00	66.62
		3.2E-01	-109.47	-19.25	0.00	0.00	0.00	74.17
		6.3E-01	-109.47	-9.80	0.00	0.00	0.00	78.75
		9.5E-01	-109.47	-3.527E-01	0.00	0.00	0.00	78.85
		1.26	-109.47	9.10	0.00	0.00	0.00	74.81
8	INVES MAX	0.00	-94.82	-20.24	0.00	0.00	0.00	94.04
		3.2E-01	-94.82	-10.79	0.00	0.00	0.00	99.09
		6.3E-01	-94.82	-1.34	0.00	0.00	0.00	101.17
		9.5E-01	-94.82	8.11	0.00	0.00	0.00	100.27
		1.26	-94.82	17.56	0.00	0.00	0.00	96.40
8	INVES MIN	0.00	-109.47	-27.92	0.00	0.00	0.00	67.66
		3.2E-01	-109.47	-18.47	0.00	0.00	0.00	74.97
		6.3E-01	-109.47	-9.02	0.00	0.00	0.00	79.30
		9.5E-01	-109.47	4.294E-01	0.00	0.00	0.00	78.85
		1.26	-109.47	9.88	0.00	0.00	0.00	74.81

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	70/ 75

9	PERM	0.00	0.00	-14.80	0.00	0.00	0.00	-34.79
		3.2E-01	0.00	-5.35	0.00	0.00	0.00	-31.61
		6.3E-01	0.00	4.10	0.00	0.00	0.00	-31.42
		9.5E-01	0.00	13.55	0.00	0.00	0.00	-34.20
		1.26	0.00	23.00	0.00	0.00	0.00	-39.95
9	SPTSX	0.00	0.00	11.50	0.00	0.00	0.00	34.96
		3.2E-01	0.00	11.50	0.00	0.00	0.00	31.34
		6.3E-01	0.00	11.50	0.00	0.00	0.00	27.71
		9.5E-01	0.00	11.50	0.00	0.00	0.00	24.09
		1.26	0.00	11.50	0.00	0.00	0.00	20.47
9	SPTDX	0.00	-94.82	-19.28	0.00	0.00	0.00	74.64
		3.2E-01	-94.82	-19.28	0.00	0.00	0.00	80.71
		6.3E-01	-94.82	-19.28	0.00	0.00	0.00	86.78
		9.5E-01	-94.82	-19.28	0.00	0.00	0.00	92.86
		1.26	-94.82	-19.28	0.00	0.00	0.00	98.93
9	SPACCSX	0.00	0.00	2.27	0.00	0.00	0.00	6.89
		3.2E-01	0.00	2.27	0.00	0.00	0.00	6.17
		6.3E-01	0.00	2.27	0.00	0.00	0.00	5.46
		9.5E-01	0.00	2.27	0.00	0.00	0.00	4.75
		1.26	0.00	2.27	0.00	0.00	0.00	4.03
9	SPACCDX	0.00	-14.65	-3.80	0.00	0.00	0.00	14.71
		3.2E-01	-14.65	-3.80	0.00	0.00	0.00	15.90
		6.3E-01	-14.65	-3.80	0.00	0.00	0.00	17.10
		9.5E-01	-14.65	-3.80	0.00	0.00	0.00	18.30
		1.26	-14.65	-3.80	0.00	0.00	0.00	19.49
9	SISMAH	0.00	-2.64	-1.09	0.00	0.00	0.00	1.41
		3.2E-01	-2.64	-1.09	0.00	0.00	0.00	1.75
		6.3E-01	-2.64	-1.09	0.00	0.00	0.00	2.10
		9.5E-01	-2.64	-1.09	0.00	0.00	0.00	2.44
		1.26	-2.64	-1.09	0.00	0.00	0.00	2.79
9	SPSDX	0.00	-4.40	-1.52	0.00	0.00	0.00	5.89
		3.2E-01	-4.40	-1.52	0.00	0.00	0.00	6.37
		6.3E-01	-4.40	-1.52	0.00	0.00	0.00	6.85
		9.5E-01	-4.40	-1.52	0.00	0.00	0.00	7.33
		1.26	-4.40	-1.52	0.00	0.00	0.00	7.81
9	COMB1	0.00	-94.82	-22.58	0.00	0.00	0.00	74.81
		3.2E-01	-94.82	-13.13	0.00	0.00	0.00	80.43
		6.3E-01	-94.82	-3.68	0.00	0.00	0.00	83.08
		9.5E-01	-94.82	5.77	0.00	0.00	0.00	82.75
		1.26	-94.82	15.22	0.00	0.00	0.00	79.45
9	COMB2	0.00	-109.47	-24.12	0.00	0.00	0.00	96.40
		3.2E-01	-109.47	-14.67	0.00	0.00	0.00	102.51
		6.3E-01	-109.47	-5.22	0.00	0.00	0.00	105.64
		9.5E-01	-109.47	4.23	0.00	0.00	0.00	105.80
		1.26	-109.47	13.68	0.00	0.00	0.00	102.97
9	COMB3	0.00	-109.47	-29.83	0.00	0.00	0.00	79.02
		3.2E-01	-109.47	-20.38	0.00	0.00	0.00	86.93
		6.3E-01	-109.47	-10.93	0.00	0.00	0.00	91.87
		9.5E-01	-109.47	-1.48	0.00	0.00	0.00	93.82
		1.26	-109.47	7.97	0.00	0.00	0.00	92.80
9	COMB4	0.00	-109.19	-30.55	0.00	0.00	0.00	78.97
		3.2E-01	-109.19	-21.10	0.00	0.00	0.00	87.10
		6.3E-01	-109.19	-11.65	0.00	0.00	0.00	92.26
		9.5E-01	-109.19	-2.20	0.00	0.00	0.00	94.44
		1.26	-109.19	7.25	0.00	0.00	0.00	93.64
9	INV MAX	0.00	-94.82	-22.58	0.00	0.00	0.00	96.40
		3.2E-01	-94.82	-13.13	0.00	0.00	0.00	102.51
		6.3E-01	-94.82	-3.68	0.00	0.00	0.00	105.64
		9.5E-01	-94.82	5.77	0.00	0.00	0.00	105.80

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	71/75

9	INV MIN	1.26	-94.82	15.22	0.00	0.00	0.00	102.97
		0.00	-109.47	-30.55	0.00	0.00	0.00	74.81
		3.2E-01	-109.47	-21.10	0.00	0.00	0.00	80.43
		6.3E-01	-109.47	-11.65	0.00	0.00	0.00	83.08
		9.5E-01	-109.47	-2.20	0.00	0.00	0.00	82.75
		1.26	-109.47	7.25	0.00	0.00	0.00	79.45
9	INVES MAX	0.00	-94.82	-22.58	0.00	0.00	0.00	96.40
		3.2E-01	-94.82	-13.13	0.00	0.00	0.00	102.51
		6.3E-01	-94.82	-3.68	0.00	0.00	0.00	105.64
		9.5E-01	-94.82	5.77	0.00	0.00	0.00	105.80
		1.26	-94.82	15.22	0.00	0.00	0.00	102.97
9	INVES MIN	0.00	-109.47	-29.83	0.00	0.00	0.00	74.81
		3.2E-01	-109.47	-20.38	0.00	0.00	0.00	80.43
		6.3E-01	-109.47	-10.93	0.00	0.00	0.00	83.08
		9.5E-01	-109.47	-1.48	0.00	0.00	0.00	82.75
		1.26	-109.47	7.97	0.00	0.00	0.00	79.45
10	PERM	0.00	0.00	-12.49	0.00	0.00	0.00	-39.95
		3.2E-01	0.00	-3.04	0.00	0.00	0.00	-37.51
		6.3E-01	0.00	6.41	0.00	0.00	0.00	-38.04
		9.5E-01	0.00	15.86	0.00	0.00	0.00	-41.54
		1.26	0.00	25.31	0.00	0.00	0.00	-48.03
10	SPTSX	0.00	0.00	8.78	0.00	0.00	0.00	20.47
		3.2E-01	0.00	8.78	0.00	0.00	0.00	17.70
		6.3E-01	0.00	8.78	0.00	0.00	0.00	14.94
		9.5E-01	0.00	8.78	0.00	0.00	0.00	12.17
		1.26	0.00	8.78	0.00	0.00	0.00	9.40
10	SPTDX	0.00	-94.82	-20.24	0.00	0.00	0.00	98.93
		3.2E-01	-94.82	-20.24	0.00	0.00	0.00	105.31
		6.3E-01	-94.82	-20.24	0.00	0.00	0.00	111.68
		9.5E-01	-94.82	-20.24	0.00	0.00	0.00	118.06
		1.26	-94.82	-20.24	0.00	0.00	0.00	124.44
10	SPACCSX	0.00	0.00	1.73	0.00	0.00	0.00	4.03
		3.2E-01	0.00	1.73	0.00	0.00	0.00	3.49
		6.3E-01	0.00	1.73	0.00	0.00	0.00	2.94
		9.5E-01	0.00	1.73	0.00	0.00	0.00	2.40
		1.26	0.00	1.73	0.00	0.00	0.00	1.85
10	SPACDX	0.00	-14.65	-3.99	0.00	0.00	0.00	19.49
		3.2E-01	-14.65	-3.99	0.00	0.00	0.00	20.75
		6.3E-01	-14.65	-3.99	0.00	0.00	0.00	22.01
		9.5E-01	-14.65	-3.99	0.00	0.00	0.00	23.26
		1.26	-14.65	-3.99	0.00	0.00	0.00	24.52
10	SISMAH	0.00	-2.64	-1.03	0.00	0.00	0.00	2.79
		3.2E-01	-2.64	-1.03	0.00	0.00	0.00	3.11
		6.3E-01	-2.64	-1.03	0.00	0.00	0.00	3.43
		9.5E-01	-2.64	-1.03	0.00	0.00	0.00	3.76
		1.26	-2.64	-1.03	0.00	0.00	0.00	4.08
10	SPSDX	0.00	-4.40	-1.60	0.00	0.00	0.00	7.81
		3.2E-01	-4.40	-1.60	0.00	0.00	0.00	8.31
		6.3E-01	-4.40	-1.60	0.00	0.00	0.00	8.81
		9.5E-01	-4.40	-1.60	0.00	0.00	0.00	9.31
		1.26	-4.40	-1.60	0.00	0.00	0.00	9.82
10	COMB1	0.00	-94.82	-23.95	0.00	0.00	0.00	79.45
		3.2E-01	-94.82	-14.50	0.00	0.00	0.00	85.50
		6.3E-01	-94.82	-5.05	0.00	0.00	0.00	88.58
		9.5E-01	-94.82	4.40	0.00	0.00	0.00	88.69
		1.26	-94.82	13.85	0.00	0.00	0.00	85.81
10	COMB2	0.00	-109.47	-26.21	0.00	0.00	0.00	102.97
		3.2E-01	-109.47	-16.76	0.00	0.00	0.00	109.74
		6.3E-01	-109.47	-7.31	0.00	0.00	0.00	113.53

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	72/75

	9.5E-01	-109.47	2.14	0.00	0.00	0.00	114.35
	1.26	-109.47	11.59	0.00	0.00	0.00	112.18
10	COMB3						
	0.00	-109.47	-30.57	0.00	0.00	0.00	92.80
	3.2E-01	-109.47	-21.12	0.00	0.00	0.00	100.94
	6.3E-01	-109.47	-11.67	0.00	0.00	0.00	106.11
	9.5E-01	-109.47	-2.22	0.00	0.00	0.00	108.30
	1.26	-109.47	7.23	0.00	0.00	0.00	107.51
10	COMB4						
	0.00	-109.19	-31.21	0.00	0.00	0.00	93.64
	3.2E-01	-109.19	-21.76	0.00	0.00	0.00	101.99
	6.3E-01	-109.19	-12.31	0.00	0.00	0.00	107.35
	9.5E-01	-109.19	-2.86	0.00	0.00	0.00	109.74
	1.26	-109.19	6.59	0.00	0.00	0.00	109.15
10	INV MAX						
	0.00	-94.82	-23.95	0.00	0.00	0.00	102.97
	3.2E-01	-94.82	-14.50	0.00	0.00	0.00	109.74
	6.3E-01	-94.82	-5.05	0.00	0.00	0.00	113.53
	9.5E-01	-94.82	4.40	0.00	0.00	0.00	114.35
	1.26	-94.82	13.85	0.00	0.00	0.00	112.18
10	INV MIN						
	0.00	-109.47	-31.21	0.00	0.00	0.00	79.45
	3.2E-01	-109.47	-21.76	0.00	0.00	0.00	85.50
	6.3E-01	-109.47	-12.31	0.00	0.00	0.00	88.58
	9.5E-01	-109.47	-2.86	0.00	0.00	0.00	88.69
	1.26	-109.47	6.59	0.00	0.00	0.00	85.81
10	INVES MAX						
	0.00	-94.82	-23.95	0.00	0.00	0.00	102.97
	3.2E-01	-94.82	-14.50	0.00	0.00	0.00	109.74
	6.3E-01	-94.82	-5.05	0.00	0.00	0.00	113.53
	9.5E-01	-94.82	4.40	0.00	0.00	0.00	114.35
	1.26	-94.82	13.85	0.00	0.00	0.00	112.18
10	INVES MIN						
	0.00	-109.47	-30.57	0.00	0.00	0.00	79.45
	3.2E-01	-109.47	-21.12	0.00	0.00	0.00	85.50
	6.3E-01	-109.47	-11.67	0.00	0.00	0.00	88.58
	9.5E-01	-109.47	-2.22	0.00	0.00	0.00	88.69
	1.26	-109.47	7.23	0.00	0.00	0.00	85.81
11	PERM						
	0.00	0.00	-28.95	0.00	0.00	0.00	-48.03
	3.2E-01	0.00	-19.50	0.00	0.00	0.00	-40.40
	6.3E-01	0.00	-10.05	0.00	0.00	0.00	-35.74
	9.5E-01	0.00	-5.999E-01	0.00	0.00	0.00	-34.07
	1.26	0.00	8.85	0.00	0.00	0.00	-35.37
11	SPTSX						
	0.00	0.00	5.21	0.00	0.00	0.00	9.40
	3.2E-01	0.00	5.21	0.00	0.00	0.00	7.76
	6.3E-01	0.00	5.21	0.00	0.00	0.00	6.12
	9.5E-01	0.00	5.21	0.00	0.00	0.00	4.48
	1.26	0.00	5.21	0.00	0.00	0.00	2.84
11	SPTDX						
	0.00	-94.82	-18.64	0.00	0.00	0.00	124.44
	3.2E-01	-94.82	-18.64	0.00	0.00	0.00	130.31
	6.3E-01	-94.82	-18.64	0.00	0.00	0.00	136.18
	9.5E-01	-94.82	-18.64	0.00	0.00	0.00	142.05
	1.26	-94.82	-18.64	0.00	0.00	0.00	147.92
11	SPACCSX						
	0.00	0.00	1.03	0.00	0.00	0.00	1.85
	3.2E-01	0.00	1.03	0.00	0.00	0.00	1.53
	6.3E-01	0.00	1.03	0.00	0.00	0.00	1.21
	9.5E-01	0.00	1.03	0.00	0.00	0.00	8.833E-01
	1.26	0.00	1.03	0.00	0.00	0.00	5.601E-01
11	SPACCDX						
	0.00	-14.65	-3.67	0.00	0.00	0.00	24.52
	3.2E-01	-14.65	-3.67	0.00	0.00	0.00	25.68
	6.3E-01	-14.65	-3.67	0.00	0.00	0.00	26.83
	9.5E-01	-14.65	-3.67	0.00	0.00	0.00	27.99
	1.26	-14.65	-3.67	0.00	0.00	0.00	29.15
11	SISMAH						
	0.00	-2.64	-8.467E-01	0.00	0.00	0.00	4.08
	3.2E-01	-2.64	-8.467E-01	0.00	0.00	0.00	4.35

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	73/ 75

	6.3E-01	-2.64	-8.467E-01	0.00	0.00	0.00	4.62
	9.5E-01	-2.64	-8.467E-01	0.00	0.00	0.00	4.88
	1.26	-2.64	-8.467E-01	0.00	0.00	0.00	5.15
11	SPSDX						
	0.00	-4.40	-1.47	0.00	0.00	0.00	9.82
	3.2E-01	-4.40	-1.47	0.00	0.00	0.00	10.28
	6.3E-01	-4.40	-1.47	0.00	0.00	0.00	10.74
	9.5E-01	-4.40	-1.47	0.00	0.00	0.00	11.21
	1.26	-4.40	-1.47	0.00	0.00	0.00	11.67
11	COMB1						
	0.00	-94.82	-42.38	0.00	0.00	0.00	85.81
	3.2E-01	-94.82	-32.93	0.00	0.00	0.00	97.67
	6.3E-01	-94.82	-23.48	0.00	0.00	0.00	106.56
	9.5E-01	-94.82	-14.03	0.00	0.00	0.00	112.47
	1.26	-94.82	-4.58	0.00	0.00	0.00	115.40
11	COMB2						
	0.00	-109.47	-45.03	0.00	0.00	0.00	112.18
	3.2E-01	-109.47	-35.58	0.00	0.00	0.00	124.88
	6.3E-01	-109.47	-26.13	0.00	0.00	0.00	134.60
	9.5E-01	-109.47	-16.68	0.00	0.00	0.00	141.34
	1.26	-109.47	-7.23	0.00	0.00	0.00	145.11
11	COMB3						
	0.00	-109.47	-47.62	0.00	0.00	0.00	107.51
	3.2E-01	-109.47	-38.17	0.00	0.00	0.00	121.02
	6.3E-01	-109.47	-28.72	0.00	0.00	0.00	131.55
	9.5E-01	-109.47	-19.27	0.00	0.00	0.00	139.11
	1.26	-109.47	-9.82	0.00	0.00	0.00	143.69
11	COMB4						
	0.00	-109.19	-48.10	0.00	0.00	0.00	109.15
	3.2E-01	-109.19	-38.65	0.00	0.00	0.00	122.81
	6.3E-01	-109.19	-29.20	0.00	0.00	0.00	133.50
	9.5E-01	-109.19	-19.75	0.00	0.00	0.00	141.21
	1.26	-109.19	-10.30	0.00	0.00	0.00	145.94
11	INV MAX						
	0.00	-94.82	-42.38	0.00	0.00	0.00	112.18
	3.2E-01	-94.82	-32.93	0.00	0.00	0.00	124.88
	6.3E-01	-94.82	-23.48	0.00	0.00	0.00	134.60
	9.5E-01	-94.82	-14.03	0.00	0.00	0.00	141.34
	1.26	-94.82	-4.58	0.00	0.00	0.00	145.94
11	INV MIN						
	0.00	-109.47	-48.10	0.00	0.00	0.00	85.81
	3.2E-01	-109.47	-38.65	0.00	0.00	0.00	97.67
	6.3E-01	-109.47	-29.20	0.00	0.00	0.00	106.56
	9.5E-01	-109.47	-19.75	0.00	0.00	0.00	112.47
	1.26	-109.47	-10.30	0.00	0.00	0.00	115.40
11	INVES MAX						
	0.00	-94.82	-42.38	0.00	0.00	0.00	112.18
	3.2E-01	-94.82	-32.93	0.00	0.00	0.00	124.88
	6.3E-01	-94.82	-23.48	0.00	0.00	0.00	134.60
	9.5E-01	-94.82	-14.03	0.00	0.00	0.00	141.34
	1.26	-94.82	-4.58	0.00	0.00	0.00	145.11
11	INVES MIN						
	0.00	-109.47	-47.62	0.00	0.00	0.00	85.81
	3.2E-01	-109.47	-38.17	0.00	0.00	0.00	97.67
	6.3E-01	-109.47	-28.72	0.00	0.00	0.00	106.56
	9.5E-01	-109.47	-19.27	0.00	0.00	0.00	112.47
	1.26	-109.47	-9.82	0.00	0.00	0.00	115.40
12	PERM						
	0.00	0.00	-46.97	0.00	0.00	0.00	-35.37
	2.4E-01	0.00	-39.77	0.00	0.00	0.00	-24.96
	4.8E-01	0.00	-32.57	0.00	0.00	0.00	-16.28
	7.2E-01	0.00	-25.37	0.00	0.00	0.00	-9.32
	9.6E-01	0.00	-18.17	0.00	0.00	0.00	-4.10
12	SPTSX						
	0.00	0.00	2.26	0.00	0.00	0.00	2.84
	2.4E-01	0.00	2.26	0.00	0.00	0.00	2.30
	4.8E-01	0.00	2.26	0.00	0.00	0.00	1.76
	7.2E-01	0.00	2.26	0.00	0.00	0.00	1.22
	9.6E-01	0.00	2.26	0.00	0.00	0.00	6.768E-01
12	SPTDX						
	0.00	-94.82	-12.44	0.00	0.00	0.00	147.92

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	74/ 75

2.4E-01	-94.82	-12.44	0.00	0.00	0.00	150.91
4.8E-01	-94.82	-12.44	0.00	0.00	0.00	153.89
7.2E-01	-94.82	-12.44	0.00	0.00	0.00	156.88
9.6E-01	-94.82	-12.44	0.00	0.00	0.00	159.86
12 SPACCSX						
0.00	0.00	4.445E-01	0.00	0.00	0.00	5.601E-01
2.4E-01	0.00	4.445E-01	0.00	0.00	0.00	4.534E-01
4.8E-01	0.00	4.445E-01	0.00	0.00	0.00	3.467E-01
7.2E-01	0.00	4.445E-01	0.00	0.00	0.00	2.400E-01
9.6E-01	0.00	4.445E-01	0.00	0.00	0.00	1.333E-01
12 SPACCDX						
0.00	-14.65	-2.45	0.00	0.00	0.00	29.15
2.4E-01	-14.65	-2.45	0.00	0.00	0.00	29.73
4.8E-01	-14.65	-2.45	0.00	0.00	0.00	30.32
7.2E-01	-14.65	-2.45	0.00	0.00	0.00	30.91
9.6E-01	-14.65	-2.45	0.00	0.00	0.00	31.50
12 SISMAH						
0.00	-2.64	-5.216E-01	0.00	0.00	0.00	5.15
2.4E-01	-2.64	-5.216E-01	0.00	0.00	0.00	5.28
4.8E-01	-2.64	-5.216E-01	0.00	0.00	0.00	5.40
7.2E-01	-2.64	-5.216E-01	0.00	0.00	0.00	5.53
9.6E-01	-2.64	-5.216E-01	0.00	0.00	0.00	5.65
12 SPSDX						
0.00	-4.40	-9.812E-01	0.00	0.00	0.00	11.67
2.4E-01	-4.40	-9.812E-01	0.00	0.00	0.00	11.91
4.8E-01	-4.40	-9.812E-01	0.00	0.00	0.00	12.14
7.2E-01	-4.40	-9.812E-01	0.00	0.00	0.00	12.38
9.6E-01	-4.40	-9.812E-01	0.00	0.00	0.00	12.61
12 COMB1						
0.00	-94.82	-57.15	0.00	0.00	0.00	115.40
2.4E-01	-94.82	-49.95	0.00	0.00	0.00	128.25
4.8E-01	-94.82	-42.75	0.00	0.00	0.00	139.37
7.2E-01	-94.82	-35.55	0.00	0.00	0.00	148.77
9.6E-01	-94.82	-28.35	0.00	0.00	0.00	156.44
12 COMB2						
0.00	-109.47	-59.15	0.00	0.00	0.00	145.11
2.4E-01	-109.47	-51.95	0.00	0.00	0.00	158.44
4.8E-01	-109.47	-44.75	0.00	0.00	0.00	170.04
7.2E-01	-109.47	-37.55	0.00	0.00	0.00	179.92
9.6E-01	-109.47	-30.35	0.00	0.00	0.00	188.07
12 COMB3						
0.00	-109.47	-60.28	0.00	0.00	0.00	143.69
2.4E-01	-109.47	-53.08	0.00	0.00	0.00	157.29
4.8E-01	-109.47	-45.88	0.00	0.00	0.00	169.17
7.2E-01	-109.47	-38.68	0.00	0.00	0.00	179.32
9.6E-01	-109.47	-31.48	0.00	0.00	0.00	187.73
12 COMB4						
0.00	-109.19	-60.55	0.00	0.00	0.00	145.94
2.4E-01	-109.19	-53.35	0.00	0.00	0.00	159.61
4.8E-01	-109.19	-46.15	0.00	0.00	0.00	171.55
7.2E-01	-109.19	-38.95	0.00	0.00	0.00	181.76
9.6E-01	-109.19	-31.75	0.00	0.00	0.00	190.25
12 INV MAX						
0.00	-94.82	-57.15	0.00	0.00	0.00	145.94
2.4E-01	-94.82	-49.95	0.00	0.00	0.00	159.61
4.8E-01	-94.82	-42.75	0.00	0.00	0.00	171.55
7.2E-01	-94.82	-35.55	0.00	0.00	0.00	181.76
9.6E-01	-94.82	-28.35	0.00	0.00	0.00	190.25
12 INV MIN						
0.00	-109.47	-60.55	0.00	0.00	0.00	115.40
2.4E-01	-109.47	-53.35	0.00	0.00	0.00	128.25
4.8E-01	-109.47	-46.15	0.00	0.00	0.00	139.37
7.2E-01	-109.47	-38.95	0.00	0.00	0.00	148.77
9.6E-01	-109.47	-31.75	0.00	0.00	0.00	156.44
12 INVES MAX						
0.00	-94.82	-57.15	0.00	0.00	0.00	145.11
2.4E-01	-94.82	-49.95	0.00	0.00	0.00	158.44
4.8E-01	-94.82	-42.75	0.00	0.00	0.00	170.04
7.2E-01	-94.82	-35.55	0.00	0.00	0.00	179.92
9.6E-01	-94.82	-28.35	0.00	0.00	0.00	188.07
12 INVES MIN						
0.00	-109.47	-60.28	0.00	0.00	0.00	115.40

Relazione di calcolo

PROGETTO	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
MDL1	12 D 26	CL	SL0500002	A	75/ 75

2.4E-01	-109.47	-53.08	0.00	0.00	0.00	128.25
4.8E-01	-109.47	-45.88	0.00	0.00	0.00	139.37
7.2E-01	-109.47	-38.68	0.00	0.00	0.00	148.77
9.6E-01	-109.47	-31.48	0.00	0.00	0.00	156.44