CONCEDENTE

CONCESSIONI AUTOSTRADALI LOMBARDE

CONCESSIONARIA

SOCIETÀ DI PROGETTO BREBEMI SPA

CUP E31B05000390007

COLLEGAMENTO AUTOSTRADALE DI CONNESSIONE TRA LE CITTA' DI BRESCIA E MILANO

PROCEDURA AUTORIZZATIVA D. LGS 163/2006
DELIBERA C.I.P.E. DI APPROVAZIONE DEL PROGETTO DEFINITIVO N° 19/2016

INTERCONNESSIONE A35-A4
PROGETTO ESECUTIVO

I - INTERCONNESSIONE

I1 – INTERCONNESSIONE A35-A4

BRAX1 – BARRIERA DI TRAVAGLIATO

PROGETTO STRUTTURALE

RELAZIONE DI CALCOLO EDIFICIO

PROGETTAZIONE:

interconnessione SCARL

IL PROGETTISTA RESPONSABILE INTEGRAZIONE PRESTAZIONI SPECIALISTICHE
IMPRESA PIZZAROTTI E C. S. P. A.
DOTT. ING. PIETRO MAZZOLI
ORDINE DEGLI INGEGNERI DI PARMA N. 821

IL DIRETTORE TECNICO
IMPRESA PIZZAROTTI E C. S.P.A.
DOTT. ING. SABINO DEL BALZO
ORDINE DEGLI INGEGNERI DI POTENZA N. 631

VERIFICA:

I.D.	IDENTIFICAZIONE ELABORATO												PROGR.	DATA:
	EMITT.	TIPO	FASE	M.A.	LOTTO	OPERA	PROG. OPERA	TRATTO	PARTE	PROGR.	PART.DOC.	STATO	REV.	LUG 2016
65855	04	RC	E	I	I1	BR	AX1	00	00	001	00	A	00	SCALA: -

ELABORAZIONE PROGETTUALE

IL PROGETTISTA
PIACENTINI INGEGNERI S.R.L.
DOTT. ING. LUCA PIACENTINI
ORDINE DEGLI INGEGNERI DI BOLOGNA N. 4152

REVISIONE

N.	REV.	DESCRIZIONE	DATA	REDATTO	DATA	CONTROLLATO	DATA	APPROVATO
A	00	EMISSIONE	29/07/2016	PIACENTINI	29/07/2016	MAZZOLI	29/07/2016	MAZZOLI

IL CONCEDENTE

CONCESSIONI AUTOSTRADALI LOMBARDE

IL CONCESSIONARIO

SOCIETÀ DI PROGETTO BREBEMI SPA

Società di Progetto
Brebemi SpA

Società di Progetto
Brebemi SpA

1. GENERALITÀ

La presente relazione riguarda le opere in conglomerato cementizio armato realizzato in opera dell'edificio tecnico della Barriera di Travagliato (BS), previsto nell'ambito dei lavori inerenti il collegamento autostradale di connessione tra le città di Brescia e Milano.

Per le verifiche sulle strutture dei tunnel di stazione e dei plinti sui quali gravano le colonne metalliche della copertura si rimanda alla relazione BSBE-BRAX1-OC-002.

Le azioni considerate nel calcolo sono quelle dettate dalla Normativa D. M. Min. II. TT. del 14 gennaio 2008 – Norme Tecniche per le Costruzioni.

L'opera ricade in zona sismica pertanto saranno applicate le azioni di rito previste dalla norma, così come riportato nei capitoli successivi.

2. NORMATIVA E RIFERIMENTI

I calcoli e le disposizioni esecutive sono conformi alle norme attualmente in vigore.

2.1 Opere in c.a. e strutture metalliche

- Legge 5 novembre 1971 n. 1086 - Norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso ed a struttura metallica
- Circ. Min. LL.PP.14 Febbraio 1974, n. 11951 – Applicazione della L. 5 novembre 1971, n. 1086
- Legge 2 febbario 1974 n. 64, recante provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche
- D. M. Min. II. TT. del 14 gennaio 2008 – Norme tecniche per le costruzioni
- CIRCOLARE 2 febbraio 2009, n.617 Istruzione per l'applicazione delle «Nuove norme tecniche per le costruzioni» di cui al decreto ministeriale 14 gennaio 2008
- UNI EN 1990 (Eurocodice 0) – Aprile 2006: "Criteri generali di progettazione strutturale"
- UNI EN 1991-2-4 (Eurocodice 1) – Agosto 2004 – Azioni in generale: "Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici"
- UNI EN 1991-1-1 (Eurocodice 1) – Agosto 2004 – Azioni in generale- Parte 1-1: "Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici"
- UNI EN 1992-1-1 (Eurocodice 2) – Novembre 2005: "Progettazione delle strutture di calcestruzzo – Parte 1-1: "Regole generali e regole per gli edifici"
- UNI EN 1997-1 (Eurocodice 7) – Febbraio 2005: "Progettazione geotecnica – Parte 1: Regole generali";
- UNI EN 1998-1 (Eurocodice 8) – Marzo 2005: "Progettazione delle strutture per la resistenza sismica – Parte 1: Regole generali – Azioni sismiche e regole per gli edifici"
- UNI EN 1998-5 (Eurocodice 8) – Gennaio 2005: "Progettazione delle strutture per la resistenza sismica – Parte 2: Fondazioni, strutture di contenimento ed aspetti geotecnici"
- Linee guida sul calcestruzzo strutturale - Presidenza del Consiglio Superiore dei Lavori Pubblici - Servizio Tecnico Centrale
- UNI EN 197-1 giugno 2001 – "Cemento: composizione, specificazioni e criteri di conformità per cementi comuni"
- UNI EN 11104 marzo 2004 – "Calcestruzzo: specificazione, prestazione, produzione e conformità", Istruzioni complementari per l'applicazione delle EN 206-1
- UNI EN 206-1 ottobre 2006 – "Calcestruzzo: specificazione, prestazione, produzione e conformità"

3. CARATTERISTICHE DEI MATERIALI

Per la realizzazione dell'opera è previsto l'impiego dei sottoelencati materiali.

3.1 Calcestruzzo per magrone

Per il magrone di sottofondazione si prevede l'utilizzo di calcestruzzo di classe C16/20

3.2 Calcestruzzo

Per la realizzazione delle fondazioni si prevede l'utilizzo di calcestruzzo in classe Rck ≥30 N/mm^2 che presenta le seguenti caratteristiche:

Resistenza a compressione (cilindrica) Rck ≥30	$f_{ck} = 0.83 \cdot R_{ck} = 24.90$ N/mm^2
Resistenza di calcolo a compressione Rck ≥30	$f_{cd} = \alpha_{cc} \cdot f_{ck}/\gamma_c = 0.85 \cdot f_{ck}/1.5 = 14.11$ N/mm^2
Resistenza a trazione media Rck ≥30	$f_{ctm} = 0.30 \cdot f_{ck}^{2/3} = 2.56$ N/mm^2
Resistenza a trazione Rck ≥30	$f_{ctk} = 0.7 \cdot f_{ctm} = 1.79$ N/mm^2
Resistenza a trazione di calcolo Rck ≥30	$f_{ctd} = f_{ctk} / \gamma_c = 1.19$ N/mm^2
Resistenza a compressione (comb. Rara) Rck ≥30	$\sigma_c = 0.60 \cdot f_{ck} = 14.94$ N/mm^2
Resistenza a compressione (comb. Quasi permanente) Rck ≥30	$\sigma_c = 0.45 \cdot f_{ck} = 11.21$ N/mm^2

Per le elevazioni si prevede l'utilizzo di calcestruzzo in classe Rck ≥35 N/mm^2 che presenta le seguenti caratteristiche:

Resistenza a compressione (cilindrica) Rck ≥35	$f_{ck} = 0.83 \cdot R_{ck} = 29.05$ N/mm^2
Resistenza di calcolo a compressione Rck ≥35	$f_{cd} = \alpha_{cc} \cdot f_{ck}/\gamma_c = 0.85 \cdot f_{ck}/1.5 = 16.46$ N/mm^2
Resistenza a trazione media Rck ≥35	$f_{ctm} = 0.30 \cdot f_{ck}^{2/3} = 2.83$ N/mm^2
Resistenza a trazione Rck ≥35	$f_{ctk} = 0.7 \cdot f_{ctm} = 1.98$ N/mm^2
Resistenza a trazione di calcolo Rck ≥35	$f_{ctd} = f_{ctk} / \gamma_c = 1.32$ N/mm^2
Resistenza a compressione (comb. Rara) Rck ≥35	$\sigma_c = 0.60 \cdot f_{ck} = 17.43$ N/mm^2
Resistenza a compressione (comb. Quasi permanente) Rck ≥35	$\sigma_c = 0.45 \cdot f_{ck} = 13.07$ N/mm^2

Società di Progetto
Brebemi SpA

3.3 Acciaio per cemento armato

Per le armature metalliche si adottano tondini in acciaio del tipo B450C controllato in stabilimento che presentano le seguenti caratteristiche:

Proprietà	Requisito
Limite di snervamento f_y	≥450 MPa
Limite di rottura f_t	≥540 MPa
Allungamento totale al carico massimo A_{gt}	≥7.5%
Rapporto f_t/f_y	$1,15 \leq R_m/R_e \leq 1,35$
Rapporto $f_{y\ misurato}/ f_{y\ nom}$	≤ 1,25

Tensione di snervamento caratteristica	$f_{yk} \geq 450$ N/mm^2
Tensione caratteristica a rottura	$f_{tk} \geq 540$ N/mm^2
Tensione in condizione di esercizio (comb. Rara)	$\sigma_s = 0.80 \cdot f_{yk} = 360.00$ N/mm^2
Fattore di sicurezza acciaio	$\gamma_s = 1.15$
Resistenza a trazione di calcolo	$f_{yd} = f_{yk}/\gamma_s = 391.30$ N/mm^2

Società di Progetto
Brebemi SpA

4. GEOMETRIA DELLA STRUTTURA

La struttura dell'edificio è mista in cemento armato e muratura: gli orizzontamenti sono realizzati in calcestruzzo pieno, mentre gli elementi verticali sono costituiti da setti in cemento armato e muratura in blocchi tipo vibrapac.

La porzione di edificio compresa fra i fili B ed E ha due piani in quanto prevede il collegamento verticale del fabbricato con il tunnel; è costituita da una platea in c.a. gettato in opera di 45cm di spessore con estradosso a quota -3.91 dalla quale spiccano pareti in c.a.con spessore di 30cm alla base. A quota -0.70 vi è il solaio in getto pieno dello spessore di 20cm più 4cm di fondello delle lastre tipo predalles usate come cassero a perdere. La copertura è realizzata con la tecnologia costruttiva del solaio sottostante con lo stesso spessore di 20cm+4cm.

La porzione di edificio fra i fili B e J e fra i fili H e Q invece è composta da un solo piano fuori terra. La sua fondazione è costituita da una platea dello spessore di 30cm con estradosso a quota -0.70 e dalla copertura in getto con lastre predalles.

La muratura portante laddove presente è costituita da blocchi di tipo vibrapac dello spessore di 25cm irrigiditi mediante opportune strutturazioni orizzontali e verticali. I setti in c.a. gettato in opera hanno spessore variabile di 20-25-30cm.

E' stata prevista una netta divisione dei ruoli: alla muratura sono stati affidati solamente i carichi statici verticali, mentre ai setti in cemento armato è stato attribuito anche l'onere di assorbire le forze sismiche.

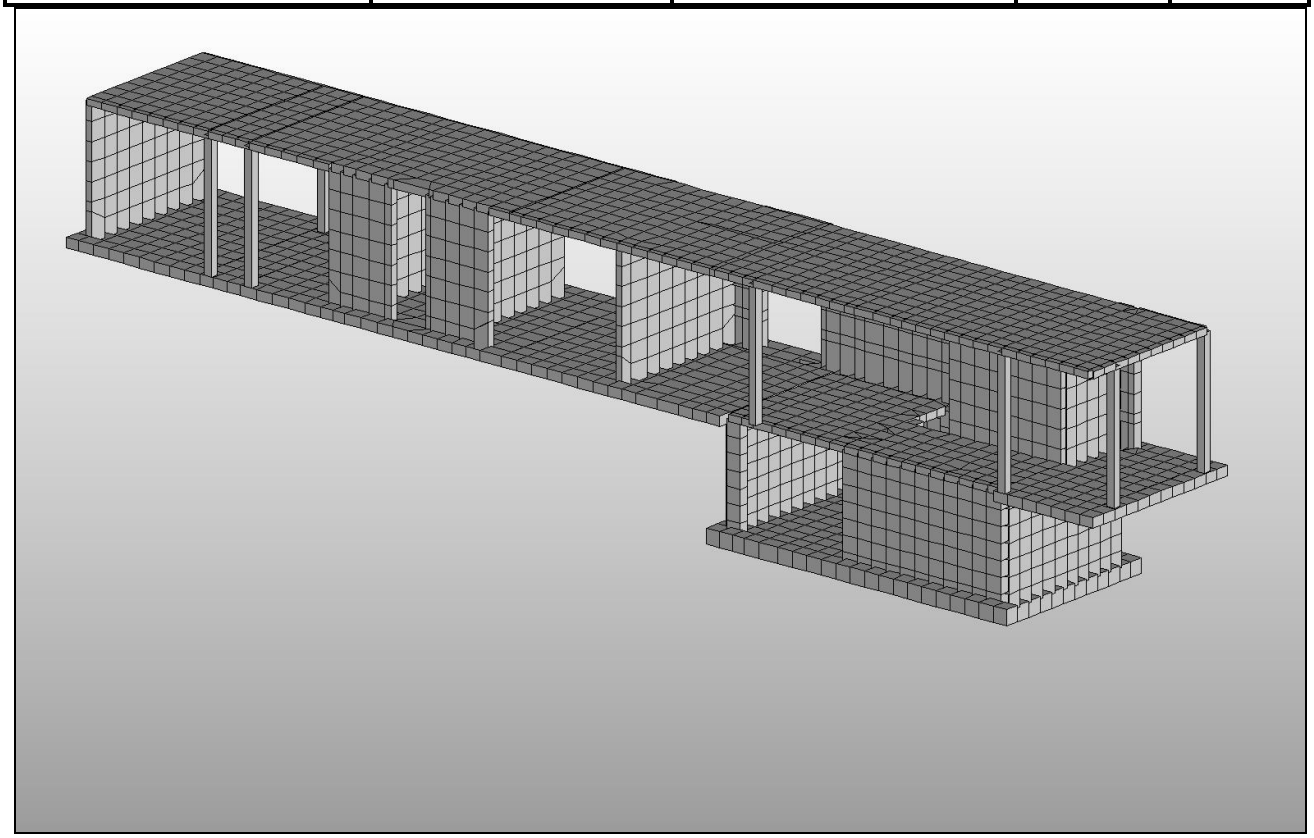
Per questo motivo, le sollecitazioni agenti sulle strutture di fondazione sono state dedotte da due modelli, entrambi realizzati con il programma ad elementi finiti Prosap prodotto dalla 2Si, che si differenziano fra loro per la diversa modalità di schematizzazione della muratura.

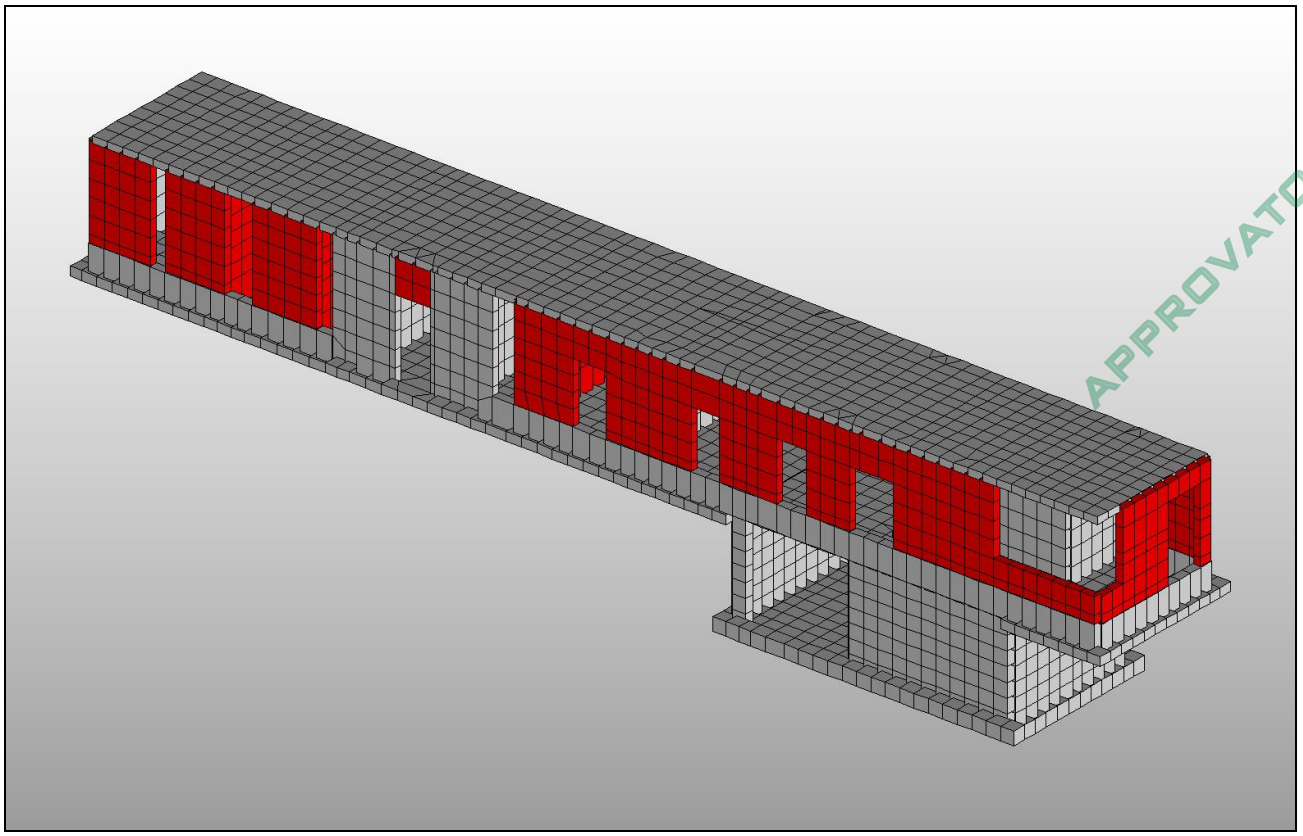
In particolare il primo modello, utilizzato per la determinazione delle sollecitazioni dovute alle azioni sismiche agenti sulla struttura, prevede la schematizzazione della muratura mediante delle bielle in grado di assorbire i carichi verticali del solaio senza influenzare il comportamento dell'edificio sotto l'effetto delle azioni orizzontali.

Il secondo modello simula invece il comportamento dell'intera struttura per effetto delle azioni statiche verticali. Sono state considerate tutte le combinazioni statiche sia SLU che SLE e per la schematizzazione della muratura si sono utilizzati degli elementi shell. In questo modo il carico verticale trasferito dalla muratura stessa alla platea risulta distribuito e non concentrato come nella fittizia schematizzazione a bielle.

Di seguito si allegano le immagini dei modelli considerati.

Società di Progetto
Brebemi SpA





Società di Progetto
Brebemi SpA

5. VERIFICHE

5.1 Verifiche di resistenza

La verifica di resistenza delle sezioni, viene condotta tenendo conto delle condizioni più gravose che si individuano dall'inviluppo delle sollecitazioni agenti nelle diverse combinazioni di carico.

Le verifiche si basano sul concetto dei coefficienti di sicurezza parziali e considerano due famiglie di combinazioni (indicate come A1-M1 e A2-M2) generate con le seguenti modalità:

- caso A1-M1: in questo tipo di combinazioni vengono incrementati le azioni permanenti e variabili con i coefficienti (γ_G, γ_Q) e vengono lasciate inalterate le caratteristiche di resistenza del terreno. Le combinazioni ottenute sono rilevanti per stabilire la capacità strutturale delle opere che interagiscono con il terreno.

M1	tanϕ'	→	$\gamma_{\phi'}$ =	1,00	c_u	→	γ_{cu} = 1,00
	c'	→	$\gamma_{c'}$ =	1,00	γ =	→	γ_γ = 1,00

- caso A2-M2: in questo tipo di combinazioni vengono incrementati i carichi variabili e vengono ridotte le caratteristiche di resistenza del terreno ($tg(\phi)$, c' o c_u) secondo i coefficienti parziali ($\gamma_{tan\phi}$, $\gamma_{c'}$, γ_{cu}, q_u) definiti da normativa. Le combinazioni ottenute sono rilevanti per il dimensionamento geotecnico.

M2	tanϕ'	→	$\gamma_{\phi'}$ =	1,25	c_u	→	γ_{cu} = 1,40
	c'	→	$\gamma_{c'}$ =	1,25	γ =	→	γ_γ = 1,00

La soluzione si ottiene dalla combinazione dei casi A1-M1 e A2-M2.

Le combinazioni e i coefficienti moltiplicativi delle singole azioni vengono definiti in base a quanto indicato ai paragrafi *5.2.3.1.3.* e *5.2.3.3.* del *D.M.14/01/08.*

Società di Progetto
Brebemi SpA

5.2 Verifiche agli stati limite di esercizio

Agli SLS per le strutture in cemento armato vanno fatte tre verifiche:

a) controllo della fessurazione

b) limitazione delle tensioni;

c) controllo dell'inflessione.

5.2.1 Fessurazione

5.2.1.1 Definizione degli stati limite di fessurazione

In ordine di severità crescente si distinguono i seguenti stati limite:

a) stato limite di decompressione nel quale, per la combinazione di azioni prescelta, la tensione normale è ovunque di compressione ed al più uguale a 0

b) stato limite di formazione delle fessure, nel quale, per la combinazione di azioni prescelta, la tensione normale di trazione nella fibra più sollecitata è:

$$\sigma_t \leq \frac{f_{ctk}}{\gamma_m}$$

c) stato limite di apertura delle fessure nel quale, per la combinazione di azioni prescelta, il valore limite di apertura della fessura calcolato al livello considerato è pari ad uno dei seguenti valori nominali:

w_1 = 0,2 mm

w_2 = 0,3 mm

w_3 = 0,4 mm

Lo stato limite di fessurazione deve essere fissato in funzione delle condizioni ambientali e della sensibilità delle armature alla corrosione.

5.2.1.2 Condizioni ambientali

Le condizioni ambientali, ai fini della valutazione della durabilità delle strutture in calcestruzzo, possono essere suddivise in ordinarie, aggressive e molto aggressive in relazione a quanto indicato nella tabella seguente:

CONDIZIONI AMBIENTALI	DESCRIZIONE
Ordinarie	Tutte le sollecitazioni ecluse le successive
Aggressive	Ambiente aggressivo per cause naturali, caratterizzato da elevata umidità, scarso o nullo soleggiamento.
Molto aggressive	Ambiente molto aggressivo per cause antropiche, caratterizzato da presenza di liquidi o di aeriformi particolarmente corrosivi, ambiente marino.

Nel caso in esame si considera l'opera sottoposta a condizioni ordinarie per quanto riguarda gli elementi in elevazione e a condzioni aggressive per quanto riguarda gli elementi di fondazione.

5.2.1.3 Sensibilità delle armature alla corrosione

Le armature si distinguono in due gruppi:

- armature sensibili
- armature poco sensibili

Appartengono al primo gruppo gli acciai da precompresso (con stato tensionale imposto). Appartengono al secondo gruppo gli acciai ordinari.

Le armature oggetto di questa relazione, appartengono al gruppo delle armature poco sensibili.

5.2.1.4 Scelta degli stati limite di fessurazione

Nella tabella sottostante sono indicati i criteri di scelta dello stato limite di fessurazione con riferimento alle esigenze sopra riportate.

Gruppi di esigenze	Condizioni ambientali	Combinazione di azioni	Armatura			
			Sensibile		Poco sensibile	
			Stato limite	w_d	Stato limite	w_d
a	Ordinarie	frequente	ap. fessure	$\leq w_2$	ap. fessure	$\leq w_3$
		quasi permanente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
b	Aggressive	frequente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$
c	Molto aggressive	frequente	formaz. fessure	-	ap. fessure	$\leq w_1$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$

Le armature, oggetto della presente relazione, appartengono al gruppo delle armature poco sensibili e si trovano in condizioni ambientali aggressive per quanto riguarda i le fondazioni e in condizioni ordinarie per quanto riguarda gli elementi in elevazione.

Per la verifica dello stato limite di fessurazione si fa quindi riferimento ai limiti di apertura delle fessure w_2 e w_1, rispettivamente pari a 0.3 e 0.2 mm per le azioni frequenti e quasi permanenti in condizioni aggressive e w_3 e w_2, rispettivamente pari a 0.4 e 0.3 mm per le azioni frequenti e quasi permanenti in condizioni ordinarie.

5.2.1.5 Verifiche a fessurazione

Stato limite di decompressione e di formazione delle fessure

Le tensioni sono calcolate in base alle caratteristiche geometriche e meccaniche della sezione omogeneizzata non fessurata.

Stato limite di apertura delle fessure

Il valore caratteristico di calcolo di apertura delle fessure (w_d) non deve superare i valori nominali w_1, w_2, w_3 secondo quanto riportato nella Tabella riportata in precedenza.

Il valore caratteristico di calcolo è dato da:

$$w_d = 1{,}7 \cdot w_m$$

dove w_m rappresenta l'ampiezza media delle fessure.

L'ampiezza media delle fessure (w_m) è calcolata come prodotto della deformazione media delle barre d'armatura ε_{sm} per la distanza media tra le fessure Δ_{sm} :

$$w_m = \varepsilon_{sm} \cdot \Delta_{sm}$$

Per il calcolo di ε_{sm} e Δ_{sm} vanno utilizzati criteri consolidati riportati nella letteratura tecnica. ε_{sm} può essere calcolato tenendo conto dell'effetto del "tension stiffening" nel rispetto della limitazione:

$$\varepsilon_{sm} \geq 0{,}6 \frac{\sigma_s}{E_s}$$

con σ_s tensione nell'acciaio dell'armatura tesa (per sezione fessurata) nelle condizioni di carico considerate ed E_s è il modulo elastico dell'acciaio.

Società di Progetto
Brebemi SpA

5.2.2 Verifiche delle tensioni in esercizio

Valutate le azioni interne nelle varie parti della struttura, dovute alle combinazioni rare e quasi permanenti delle azioni, si calcolano le massime tensioni sia nel conglomerato cementizio sia nelle armature; si deve verificare che tali tensioni siano inferiori ai massimi valori consentiti di seguito riportati.

Verifica della tensione massima di compressione del conglomerato cementizio nelle condizioni di esercizio

La massima tensione di compressione del conglomerato cementizio σ_c, deve rispettare la limitazione seguente:

$\sigma_c \leq 0.6 \cdot f_{ck}$ per la combinazione caratteristica (rara)

$\sigma_c \leq 0.45 f_{ck}$ per la combinazione quasi permanente

Verifica della tensione massima dell'acciaio in condizioni di esercizio

Per l'acciaio, la tensione massima, σ_s, per effetto delle azioni dovute alle combinazioni rare deve rispettare la limitazione seguente:

$$\sigma_s \leq 0.8 \cdot f_{yk}$$

dove f_{yk} è la tensione caratteristica di snervamento dell'acciaio.

5.2.3 Controllo dell'inflessione

Per quanto riguarda i limiti di deformabilità, essi devono essere congruenti con le prestazioni richieste alla struttura anche in relazione alla destinazione d'uso, con riferimento alle esigenze statiche, funzionali ed estetiche.

Per quanto riguarda la salvaguardia dell'aspetto e della funzionalità dell'opera, le frecce a lungo termine di travi e solai, calcolate sotto la condizione quasi permanente dei carichi, non dovrebbero superare il limite di 1/250 della luce.

Per quanto riguarda l'integrità delle pareti divisorie e di tamponamento portate, le frecce di travi e solai, calcolate sotto la condizione quasi permanente dei carichi, non dovrebbero superare il limite di 1/500 della luce. In tale verifica la freccia totale calcolata può essere depurata dalla parte presente prima dell'esecuzione delle pareti. Detto valore si riferisce al caso di pareti divisorie in muratura. Per altri tipi di pareti si dovranno valutare specificatamente i limiti di inflessione ammissibili.

5.3 Combinazioni di carico

Sono state analizzate le combinazioni di carico agli stati limite ultimi per lo stato limite di resistenza della struttura (STR), facente riferimento ai coefficienti parziali A1.

Agli stati limite di esercizio si sono considerate le verifiche per le combinazioni rara, frequente e quasi permanente.

SLU: 

SLE RARA: 

SLE FREQUENTE: 

SLE QUASI PERMANENTE: 

SISMICA: 

Si riportano di seguito le combinazioni di carico adottate nelle verifiche di resistenza e a fessurazione.

Combinazioni di carico per condizioni statiche:

Cmb	Tipo	Sigla Id
1	SLU	Comb. SLU A1 1
2	SLU	Comb. SLU A1 2
3	SLU	Comb. SLU A1 3
4	SLU	Comb. SLU A1 4
5	SLU	Comb. SLU A1 5
6	SLU	Comb. SLU A1 6
7	SLU	Comb. SLU A1 7
8	SLU	Comb. SLU A1 8
9	SLU	Comb. SLU A1 9
10	SLU	Comb. SLU A1 10
11	SLU	Comb. SLU A1 11
12	SLU	Comb. SLU A1 12
13	SLU (Terr. A2)	Comb. SLU A2 13
14	SLU (Terr. A2)	Comb. SLU A2 14
15	SLU (Terr. A2)	Comb. SLU A2 15
16	SLU (Terr. A2)	Comb. SLU A2 16
17	SLU (Terr. A2)	Comb. SLU A2 17
18	SLU (Terr. A2)	Comb. SLU A2 18
19	SLE(r)	Comb. SLE(rara) 19
20	SLE(r)	Comb. SLE(rara) 20
21	SLE(r)	Comb. SLE(rara) 21
22	SLE(r)	Comb. SLE(rara) 22
23	SLE(r)	Comb. SLE(rara) 23
24	SLE(r)	Comb. SLE(rara) 24
25	SLE(f)	Comb. SLE(freq.) 25
26	SLE(f)	Comb. SLE(freq.) 26
27	SLE(f)	Comb. SLE(freq.) 27
28	SLE(f)	Comb. SLE(freq.) 28
29	SLE(p)	Comb. SLE(perm.) 29

Combinazioni di carico per condizioni dinamiche:

Cmb	Tipo	Sigla Id
1	SLU	Comb. SLU A1 (SLV sism.) 1
2	SLU	Comb. SLU A1 (SLV sism.) 2
3	SLU	Comb. SLU A1 (SLV sism.) 3
4	SLU	Comb. SLU A1 (SLV sism.) 4
5	SLU	Comb. SLU A1 (SLV sism.) 5
6	SLU	Comb. SLU A1 (SLV sism.) 6
7	SLU	Comb. SLU A1 (SLV sism.) 7
8	SLU	Comb. SLU A1 (SLV sism.) 8
9	SLU	Comb. SLU A1 (SLV sism.) 9
10	SLU	Comb. SLU A1 (SLV sism.) 10
11	SLU	Comb. SLU A1 (SLV sism.) 11
12	SLU	Comb. SLU A1 (SLV sism.) 12
13	SLU	Comb. SLU A1 (SLV sism.) 13
14	SLU	Comb. SLU A1 (SLV sism.) 14
15	SLU	Comb. SLU A1 (SLV sism.) 15
16	SLU	Comb. SLU A1 (SLV sism.) 16
17	SLU	Comb. SLU A1 (SLV sism.) 17
18	SLU	Comb. SLU A1 (SLV sism.) 18
19	SLU	Comb. SLU A1 (SLV sism.) 19
20	SLU	Comb. SLU A1 (SLV sism.) 20
21	SLU	Comb. SLU A1 (SLV sism.) 21
22	SLU	Comb. SLU A1 (SLV sism.) 22
23	SLU	Comb. SLU A1 (SLV sism.) 23
24	SLU	Comb. SLU A1 (SLV sism.) 24
25	SLU	Comb. SLU A1 (SLV sism.) 25
26	SLU	Comb. SLU A1 (SLV sism.) 26
27	SLU	Comb. SLU A1 (SLV sism.) 27
28	SLU	Comb. SLU A1 (SLV sism.) 28
29	SLU	Comb. SLU A1 (SLV sism.) 29
30	SLU	Comb. SLU A1 (SLV sism.) 30
31	SLU	Comb. SLU A1 (SLV sism.) 31
32	SLU	Comb. SLU A1 (SLV sism.) 32
33	SLD(sis)	Comb. SLE (SLD Danno sism.) 33
34	SLD(sis)	Comb. SLE (SLD Danno sism.) 34
35	SLD(sis)	Comb. SLE (SLD Danno sism.) 35
36	SLD(sis)	Comb. SLE (SLD Danno sism.) 36
37	SLD(sis)	Comb. SLE (SLD Danno sism.) 37
38	SLD(sis)	Comb. SLE (SLD Danno sism.) 38

39	SLD(sis)	Comb. SLE (SLD Danno sism.) 39
40	SLD(sis)	Comb. SLE (SLD Danno sism.) 40
41	SLD(sis)	Comb. SLE (SLD Danno sism.) 41
42	SLD(sis)	Comb. SLE (SLD Danno sism.) 42
43	SLD(sis)	Comb. SLE (SLD Danno sism.) 43
44	SLD(sis)	Comb. SLE (SLD Danno sism.) 44
45	SLD(sis)	Comb. SLE (SLD Danno sism.) 45
46	SLD(sis)	Comb. SLE (SLD Danno sism.) 46
47	SLD(sis)	Comb. SLE (SLD Danno sism.) 47
48	SLD(sis)	Comb. SLE (SLD Danno sism.) 48
49	SLD(sis)	Comb. SLE (SLD Danno sism.) 49
50	SLD(sis)	Comb. SLE (SLD Danno sism.) 50
51	SLD(sis)	Comb. SLE (SLD Danno sism.) 51
52	SLD(sis)	Comb. SLE (SLD Danno sism.) 52
53	SLD(sis)	Comb. SLE (SLD Danno sism.) 53
54	SLD(sis)	Comb. SLE (SLD Danno sism.) 54
55	SLD(sis)	Comb. SLE (SLD Danno sism.) 55
56	SLD(sis)	Comb. SLE (SLD Danno sism.) 56
57	SLD(sis)	Comb. SLE (SLD Danno sism.) 57
58	SLD(sis)	Comb. SLE (SLD Danno sism.) 58
59	SLD(sis)	Comb. SLE (SLD Danno sism.) 59
60	SLD(sis)	Comb. SLE (SLD Danno sism.) 60
61	SLD(sis)	Comb. SLE (SLD Danno sism.) 61
62	SLD(sis)	Comb. SLE (SLD Danno sism.) 62
63	SLD(sis)	Comb. SLE (SLD Danno sism.) 63
64	SLD(sis)	Comb. SLE (SLD Danno sism.) 64
65	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 65
66	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 66
67	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 67
68	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 68
69	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 69
70	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 70
71	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 71
72	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 72
73	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 73
74	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 74
75	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 75
76	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 76
77	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 77
78	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 78
79	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 79
80	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 80
81	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 81
82	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 82
83	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 83
84	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 84
85	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 85
86	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 86
87	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 87
88	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 88
89	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 89
90	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 90
91	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 91
92	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 92
93	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 93
94	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 94
95	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 95
96	SLU (Terr. A2)	Comb. SLU A2 (SLV sism.) 96

Società di Progetto
Brebemi SpA

6. MODELLAZIONE STRUTTURALE

Le sollecitazioni agenti sulle strutture dell'edificio tecnico sono state dedotte da due modelli, entrambi realizzati con il programma ad elementi finiti Prosap prodotto dalla 2Si, che si differenziano fra loro per la diversa modalità di schematizzazione della muratura.

In particolare il primo modello, utilizzato per la determinazione delle sollecitazioni dovute alle azioni sismiche agenti sulla struttura, prevede la schematizzazione della muratura mediante delle bielle in grado di assorbire i carichi verticali del solaio senza influenzare il comportamento dell'edificio sotto l'effetto delle azioni orizzontali.

Il secondo modello simula invece il comportamento dell'intera struttura per effetto delle azioni statiche verticali.

In entrambi i casi i pilastri sono stati schematizzati con elementi beam ed i solai con elementi shell.

Le condizioni di carico adottatate, in accordo con le NTC e con quanto riportato nei precedenti capitoli, sono:

Condizioni di carico per azioni sismiche

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)
			partecipazione:1.00 per 10 CDC=G1k comp. def.
			partecipazione:1.00 per 11 CDC=G2k (permanente generico n.c.d.) .....
			partecipazione:0.30 per 13 CDC=Qk (variabile generico) .....
			partecipazione:1.00 per 14 CDC=G2k SISMA DA COPERTURA
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
10	Gk	CDC=G1k comp. def.	D2 : 9 Azione : TAMPONAMENTOD Fzi=-4.70 Fzf=-4.70
			D2 :da 12 a 76 Azione : TAMPONAMENTOD Fzi=-4.70 Fzf=-4.70
			D2 :da 89 a 167 Azione : TAMPONAMENTOD Fzi=-4.70 Fzf=-4.70
			D2 :da 179 a 241 Azione : TAMPONAMENTOD Fzi=-4.70 Fzf=-4.70
			D2 :da 273 a 276 Azione : TAMPONAMENTOD Fzi=-4.70 Fzf=-4.70
			D3 :da 1 a 13 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 15 a 47 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 61 a 184 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 187 a 305 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 326 a 380 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 383 a 404 Azione : PAVIMENTO QUOTA ZERO
			D3 : 406 Azione : PAVIMENTO QUOTA ZERO
			D3 : 407 Azione : G comp.def. 175
			D3 :da 408 a 410 Azione : PAVIMENTO QUOTA ZERO
			D3 : 411 Azione : G comp.def. 175
			D3 :da 412 a 414 Azione : PAVIMENTO QUOTA ZERO
			D3 : 415 Azione : G comp.def. 175
			D3 :da 416 a 418 Azione : PAVIMENTO QUOTA ZERO
			D3 : 419 Azione : G comp.def. 175
			D3 :da 420 a 422 Azione : PAVIMENTO QUOTA ZERO
			D3 : 423 Azione : G comp.def. 175
			D3 :da 424 a 426 Azione : PAVIMENTO QUOTA ZERO
			D3 : 427 Azione : G comp.def. 175
			D3 :da 428 a 430 Azione : PAVIMENTO QUOTA ZERO
			D3 : 431 Azione : G comp.def. 175
			D3 :da 432 a 434 Azione : PAVIMENTO QUOTA ZERO
			D3 : 435 Azione : G comp.def. 175
			D3 :da 436 a 438 Azione : PAVIMENTO QUOTA ZERO
			D3 : 439 Azione : G comp.def. 175

CDC	Tipo	Sigla Id	Note
			D3 :da 440 a 442 Azione : PAVIMENTO QUOTA ZERO
			D3 : 443 Azione : G comp.def. 175
			D3 : 462 Azione : G comp.def. 175
			D3 : 475 Azione : G comp.def. 175
			D3 :da 586 a 587 Azione : G comp.def. 175
			D3 :da 947 a 997 Azione : PAVIMENTO QUOTA ZERO
			D3 : 998 Azione : G comp.def. 175
			D3 :da 999 a 1003 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1004 Azione : G comp.def. 175
			D3 :da 1005 a 1009 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1010 Azione : G comp.def. 175
			D3 :da 1011 a 1015 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1016 Azione : G comp.def. 175
			D3 :da 1017 a 1021 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1022 Azione : G comp.def. 175
			D3 :da 1023 a 1027 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1028 Azione : G comp.def. 175
			D3 :da 1029 a 1033 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1034 Azione : G comp.def. 175
			D3 :da 1035 a 1039 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1040 Azione : G comp.def. 175
			D3 :da 1041 a 1045 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1046 Azione : G comp.def. 175
			D3 :da 1047 a 1050 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1051 Azione : G comp.def. 175
			D3 :da 1052 a 1301 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 1740 a 1791 Azione : PAVIMENTO QUOTA ZERO
			D3 : 1829 Azione : G comp.def. 175
			D3 : 1881 Azione : G comp.def. 175
			D3 : 1885 Azione : G comp.def. 175
			D3 :da 1887 a 2090 Azione : G comp.def. 175
			D3 :da 2092 a 2097 Azione : G comp.def. 175
			D3 :da 2100 a 2105 Azione : G comp.def. 175
			D3 :da 2107 a 2112 Azione : G comp.def. 175
			D3 :da 2114 a 2119 Azione : G comp.def. 175
			D3 :da 2121 a 2125 Azione : G comp.def. 175
			D3 :da 2127 a 2132 Azione : G comp.def. 175
			D3 :da 2134 a 2135 Azione : G comp.def. 175
			D3 :da 2137 a 2139 Azione : G comp.def. 175
			D3 :da 2141 a 2142 Azione : G comp.def. 175
			D3 :da 2144 a 2146 Azione : G comp.def. 175
			D3 :da 2148 a 2468 Azione : G comp.def. 175
			D3 :da 2568 a 2570 Azione : G comp.def. 175
			D3 :da 2583 a 2590 Azione : G comp.def. 175
			D3 :da 2593 a 2612 Azione : PAVIMENTO QUOTA ZERO
			D3 :da 2615 a 2652 Azione : G comp.def. 175
			D3 :da 2656 a 2685 Azione : PAVIMENTO QUOTA ZERO
11	Gk	CDC=G2k (permanente generico n.c.d.)	D3 : 407 Azione : G non comp. def.44
			D3 : 411 Azione : G non comp. def.44
			D3 : 415 Azione : G non comp. def.44
			D3 : 419 Azione : G non comp. def.44
			D3 : 423 Azione : G non comp. def.44
			D3 : 427 Azione : G non comp. def.44
			D3 : 431 Azione : G non comp. def.44
			D3 : 435 Azione : G non comp. def.44
			D3 : 439 Azione : G non comp. def.44
			D3 : 443 Azione : G non comp. def.44
			D3 : 462 Azione : G non comp. def.44
			D3 : 475 Azione : G non comp. def.44
			D3 :da 586 a 587 Azione : G non comp. def.44
			D3 : 998 Azione : G non comp. def.44
			D3 : 1004 Azione : G non comp. def.44
			D3 : 1010 Azione : G non comp. def.44
			D3 : 1016 Azione : G non comp. def.44
			D3 : 1022 Azione : G non comp. def.44
			D3 : 1028 Azione : G non comp. def.44
			D3 : 1034 Azione : G non comp. def.44
			D3 : 1040 Azione : G non comp. def.44
			D3 : 1046 Azione : G non comp. def.44
			D3 : 1051 Azione : G non comp. def.44
			D3 : 1829 Azione : G non comp. def.44
			D3 : 1881 Azione : G non comp. def.44
			D3 : 1885 Azione : G non comp. def.44
			D3 :da 1887 a 2090 Azione : G non comp. def.44

CDC	Tipo	Sigla Id	Note
			D3 :da 2092 a 2097 Azione : G non comp. def.44
			D3 :da 2100 a 2105 Azione : G non comp. def.44
			D3 :da 2107 a 2112 Azione : G non comp. def.44
			D3 :da 2114 a 2119 Azione : G non comp. def.44
			D3 :da 2121 a 2125 Azione : G non comp. def.44
			D3 :da 2127 a 2132 Azione : G non comp. def.44
			D3 :da 2134 a 2135 Azione : G non comp. def.44
			D3 :da 2137 a 2139 Azione : G non comp. def.44
			D3 :da 2141 a 2142 Azione : G non comp. def.44
			D3 :da 2144 a 2146 Azione : G non comp. def.44
			D3 :da 2148 a 2468 Azione : G non comp. def.44
			D3 :da 2568 a 2570 Azione : G non comp. def.44
			D3 :da 2583 a 2590 Azione : G non comp. def.44
			D3 :da 2615 a 2652 Azione : G non comp. def.44
12	Qk	CDC=Qk (variabile neve)	D3 : 407 Azione : QV:var z - Qz - Area neve
			D3 : 411 Azione : QV:var z - Qz - Area neve
			D3 : 415 Azione : QV:var z - Qz - Area neve
			D3 : 419 Azione : QV:var z - Qz - Area neve
			D3 : 423 Azione : QV:var z - Qz - Area neve
			D3 : 427 Azione : QV:var z - Qz - Area neve
			D3 : 431 Azione : QV:var z - Qz - Area neve
			D3 : 435 Azione : QV:var z - Qz - Area neve
			D3 : 439 Azione : QV:var z - Qz - Area neve
			D3 : 443 Azione : QV:var z - Qz - Area neve
			D3 : 462 Azione : QV:var z - Qz - Area neve
			D3 : 475 Azione : QV:var z - Qz - Area neve
			D3 :da 586 a 587 Azione : QV:var z - Qz - Area neve
			D3 : 998 Azione : QV:var z - Qz - Area neve
			D3 : 1004 Azione : QV:var z - Qz - Area neve
			D3 : 1010 Azione : QV:var z - Qz - Area neve
			D3 : 1016 Azione : QV:var z - Qz - Area neve
			D3 : 1022 Azione : QV:var z - Qz - Area neve
			D3 : 1028 Azione : QV:var z - Qz - Area neve
			D3 : 1034 Azione : QV:var z - Qz - Area neve
			D3 : 1040 Azione : QV:var z - Qz - Area neve
			D3 : 1046 Azione : QV:var z - Qz - Area neve
			D3 : 1051 Azione : QV:var z - Qz - Area neve
			D3 : 1829 Azione : QV:var z - Qz - Area neve
			D3 : 1881 Azione : QV:var z - Qz - Area neve
			D3 : 1885 Azione : QV:var z - Qz - Area neve
			D3 :da 1887 a 2090 Azione : QV:var z - Qz - Area neve
			D3 :da 2092 a 2097 Azione : QV:var z - Qz - Area neve
			D3 :da 2100 a 2105 Azione : QV:var z - Qz - Area neve
			D3 :da 2107 a 2112 Azione : QV:var z - Qz - Area neve
			D3 :da 2114 a 2119 Azione : QV:var z - Qz - Area neve
			D3 :da 2121 a 2125 Azione : QV:var z - Qz - Area neve
			D3 :da 2127 a 2132 Azione : QV:var z - Qz - Area neve
			D3 :da 2134 a 2135 Azione : QV:var z - Qz - Area neve
			D3 :da 2137 a 2139 Azione : QV:var z - Qz - Area neve
			D3 :da 2141 a 2142 Azione : QV:var z - Qz - Area neve
			D3 :da 2144 a 2146 Azione : QV:var z - Qz - Area neve
			D3 :da 2148 a 2468 Azione : QV:var z - Qz - Area neve
			D3 :da 2568 a 2570 Azione : QV:var z - Qz - Area neve
			D3 :da 2583 a 2590 Azione : QV:var z - Qz - Area neve
			D3 :da 2615 a 2652 Azione : QV:var z - Qz - Area neve
13	Qk	CDC=Qk (variabile generico)	D3 :da 1 a 13 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 15 a 47 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 61 a 184 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 187 a 305 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 326 a 380 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 383 a 404 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 : 406 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 408 a 410 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 412 a 414 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 416 a 418 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 420 a 422 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 424 a 426 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 428 a 430 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 432 a 434 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 436 a 438 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 440 a 442 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 947 a 997 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 999 a 1003 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1005 a 1009 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO

CDC	Tipo	Sigla Id	Note
			D3 :da 1011 a 1015 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1017 a 1021 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1023 a 1027 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1029 a 1033 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1035 a 1039 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1041 a 1045 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1047 a 1050 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1052 a 1301 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 1740 a 1791 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 2593 a 2612 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
			D3 :da 2656 a 2685 Azione : QV:var z - Qz - Area VARIABILE QUOTA ZERO
14	Gk	CDC=G2k SISMA DA COPERTURA	Nodo: 533 Azione : CN:Fz=-4625.00 T2
			Nodo: 568 Azione : CN:Fz=-5675.00 T3
			Nodo: 2565 Azione : CN:Fz=-5250.00 T6
			Nodo: 2582 Azione : CN:Fz=-2940.00 T1
			Nodo: 2599 Azione : CN:Fz=-5040.00 T4
			Nodo: 2625 Azione : CN:Fz=-8000.00 T5

Condizioni di carico per azioni statiche verticali:

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Gk	CDC=G1k comp. def.	D3 :da 1 a 13 Azione : PERMANENTE QUOTA ZERO
			D3 :da 15 a 47 Azione : PERMANENTE QUOTA ZERO
			D3 :da 61 a 120 Azione : PERMANENTE QUOTA ZERO
			D3 :da 155 a 184 Azione : PERMANENTE QUOTA ZERO
			D3 :da 187 a 292 Azione : PERMANENTE QUOTA ZERO
			D3 :da 295 a 305 Azione : PERMANENTE QUOTA ZERO
			D3 :da 326 a 366 Azione : PERMANENTE QUOTA ZERO
			D3 :da 368 a 370 Azione : PERMANENTE QUOTA ZERO
			D3 :da 372 a 379 Azione : PERMANENTE QUOTA ZERO
			D3 :da 404 a 405 Azione : PERMANENTE QUOTA ZERO
			D3 : 406 Azione : G comp.def. 175
			D3 :da 407 a 409 Azione : PERMANENTE QUOTA ZERO
			D3 : 410 Azione : G comp.def. 175
			D3 :da 411 a 413 Azione : PERMANENTE QUOTA ZERO
			D3 : 414 Azione : G comp.def. 175
			D3 :da 415 a 417 Azione : PERMANENTE QUOTA ZERO
			D3 : 418 Azione : G comp.def. 175
			D3 :da 419 a 421 Azione : PERMANENTE QUOTA ZERO
			D3 : 422 Azione : G comp.def. 175
			D3 :da 423 a 425 Azione : PERMANENTE QUOTA ZERO
			D3 : 426 Azione : G comp.def. 175
			D3 :da 427 a 429 Azione : PERMANENTE QUOTA ZERO
			D3 : 430 Azione : G comp.def. 175
			D3 :da 431 a 433 Azione : PERMANENTE QUOTA ZERO
			D3 : 434 Azione : G comp.def. 175
			D3 :da 435 a 437 Azione : PERMANENTE QUOTA ZERO
			D3 : 438 Azione : G comp.def. 175
			D3 :da 439 a 441 Azione : PERMANENTE QUOTA ZERO
			D3 : 442 Azione : G comp.def. 175
			D3 : 443 Azione : PERMANENTE QUOTA ZERO
			D3 : 461 Azione : G comp.def. 175
			D3 : 476 Azione : G comp.def. 175
			D3 :da 947 a 996 Azione : PERMANENTE QUOTA ZERO
			D3 :da 998 a 1002 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1004 a 1008 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1010 a 1014 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1016 a 1020 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1022 a 1026 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1028 a 1032 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1034 a 1038 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1040 a 1044 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1046 a 1051 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1053 a 1301 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1740 a 1749 Azione : PERMANENTE QUOTA ZERO
			D3 :da 1752 a 1791 Azione : PERMANENTE QUOTA ZERO
			D3 : 1885 Azione : G comp.def. 175
			D3 :da 1888 a 1890 Azione : G comp.def. 175

CDC	Tipo	Sigla Id	Note
			D3 :da 1892 a 1894 Azione : G comp.def. 175
			D3 :da 1896 a 1898 Azione : G comp.def. 175
			D3 :da 1900 a 1902 Azione : G comp.def. 175
			D3 :da 1904 a 1906 Azione : G comp.def. 175
			D3 :da 1908 a 1910 Azione : G comp.def. 175
			D3 :da 1912 a 1914 Azione : G comp.def. 175
			D3 :da 1916 a 1918 Azione : G comp.def. 175
			D3 :da 1920 a 1922 Azione : G comp.def. 175
			D3 :da 1924 a 2025 Azione : G comp.def. 175
			D3 :da 2027 a 2079 Azione : G comp.def. 175
			D3 :da 2081 a 2087 Azione : G comp.def. 175
			D3 :da 2089 a 2094 Azione : G comp.def. 175
			D3 :da 2096 a 2101 Azione : G comp.def. 175
			D3 :da 2103 a 2108 Azione : G comp.def. 175
			D3 :da 2110 a 2115 Azione : G comp.def. 175
			D3 :da 2117 a 2122 Azione : G comp.def. 175
			D3 :da 2124 a 2129 Azione : G comp.def. 175
			D3 :da 2131 a 2136 Azione : G comp.def. 175
			D3 :da 2138 a 2143 Azione : G comp.def. 175
			D3 :da 2145 a 2150 Azione : G comp.def. 175
			D3 :da 2153 a 2270 Azione : G comp.def. 175
			D3 :da 2272 a 2468 Azione : G comp.def. 175
			D3 : 2520 Azione : G comp.def. 175
			D3 : 2533 Azione : G comp.def. 175
			D3 : 2675 Azione : G comp.def. 175
			D3 : 2678 Azione : G comp.def. 175
			D3 :da 2709 a 2711 Azione : G comp.def. 175
			D3 :da 2946 a 2947 Azione : PERMANENTE QUOTA ZERO
			D3 :da 2954 a 2955 Azione : PERMANENTE QUOTA ZERO
			D3 :da 2962 a 2963 Azione : PERMANENTE QUOTA ZERO
			D3 :da 2970 a 2971 Azione : PERMANENTE QUOTA ZERO
			D3 :da 2998 a 2999 Azione : G comp.def. 175
			D3 :da 3285 a 3325 Azione : G comp.def. 175
			D3 :da 3329 a 3350 Azione : PERMANENTE QUOTA ZERO
			D3 :da 3367 a 3396 Azione : PERMANENTE QUOTA ZERO
3	Gk	CDC=G2k (permanente generico n.c.d.)	D3 : 406 Azione : G non comp. def.44
			D3 : 410 Azione : G non comp. def.44
			D3 : 414 Azione : G non comp. def.44
			D3 : 418 Azione : G non comp. def.44
			D3 : 422 Azione : G non comp. def.44
			D3 : 426 Azione : G non comp. def.44
			D3 : 430 Azione : G non comp. def.44
			D3 : 434 Azione : G non comp. def.44
			D3 : 438 Azione : G non comp. def.44
			D3 : 442 Azione : G non comp. def.44
			D3 : 461 Azione : G non comp. def.44
			D3 : 476 Azione : G non comp. def.44
			D3 : 1885 Azione : G non comp. def.44
			D3 :da 1888 a 1890 Azione : G non comp. def.44
			D3 :da 1892 a 1894 Azione : G non comp. def.44
			D3 :da 1896 a 1898 Azione : G non comp. def.44
			D3 :da 1900 a 1902 Azione : G non comp. def.44
			D3 :da 1904 a 1906 Azione : G non comp. def.44
			D3 :da 1908 a 1910 Azione : G non comp. def.44
			D3 :da 1912 a 1914 Azione : G non comp. def.44
			D3 :da 1916 a 1918 Azione : G non comp. def.44
			D3 :da 1920 a 1922 Azione : G non comp. def.44
			D3 :da 1924 a 2025 Azione : G non comp. def.44
			D3 :da 2027 a 2079 Azione : G non comp. def.44
			D3 :da 2081 a 2087 Azione : G non comp. def.44
			D3 :da 2089 a 2094 Azione : G non comp. def.44
			D3 :da 2096 a 2101 Azione : G non comp. def.44
			D3 :da 2103 a 2108 Azione : G non comp. def.44
			D3 :da 2110 a 2115 Azione : G non comp. def.44
			D3 :da 2117 a 2122 Azione : G non comp. def.44
			D3 :da 2124 a 2129 Azione : G non comp. def.44
			D3 :da 2131 a 2136 Azione : G non comp. def.44
			D3 :da 2138 a 2143 Azione : G non comp. def.44
			D3 :da 2145 a 2150 Azione : G non comp. def.44
			D3 :da 2153 a 2270 Azione : G non comp. def.44
			D3 :da 2272 a 2468 Azione : G non comp. def.44
			D3 : 2520 Azione : G non comp. def.44
			D3 : 2533 Azione : G non comp. def.44
			D3 : 2675 Azione : G non comp. def.44

CDC	Tipo	Sigla Id	Note
			D3 : 2678 Azione : G non comp. def.44
			D3 :da 2709 a 2711 Azione : G non comp. def.44
			D3 :da 2998 a 2999 Azione : G non comp. def.44
			D3 :da 3285 a 3325 Azione : G non comp. def.44
4	Qk	CDC=Qk (variabile neve)	D3 : 406 Azione : QV:var z - Qz - Area neve
			D3 : 410 Azione : QV:var z - Qz - Area neve
			D3 : 414 Azione : QV:var z - Qz - Area neve
			D3 : 418 Azione : QV:var z - Qz - Area neve
			D3 : 422 Azione : QV:var z - Qz - Area neve
			D3 : 426 Azione : QV:var z - Qz - Area neve
			D3 : 430 Azione : QV:var z - Qz - Area neve
			D3 : 434 Azione : QV:var z - Qz - Area neve
			D3 : 438 Azione : QV:var z - Qz - Area neve
			D3 : 442 Azione : QV:var z - Qz - Area neve
			D3 : 461 Azione : QV:var z - Qz - Area neve
			D3 : 476 Azione : QV:var z - Qz - Area neve
			D3 : 1885 Azione : QV:var z - Qz - Area neve
			D3 :da 1888 a 1890 Azione : QV:var z - Qz - Area neve
			D3 :da 1892 a 1894 Azione : QV:var z - Qz - Area neve
			D3 :da 1896 a 1898 Azione : QV:var z - Qz - Area neve
			D3 :da 1900 a 1902 Azione : QV:var z - Qz - Area neve
			D3 :da 1904 a 1906 Azione : QV:var z - Qz - Area neve
			D3 :da 1908 a 1910 Azione : QV:var z - Qz - Area neve
			D3 :da 1912 a 1914 Azione : QV:var z - Qz - Area neve
			D3 :da 1916 a 1918 Azione : QV:var z - Qz - Area neve
			D3 :da 1920 a 1922 Azione : QV:var z - Qz - Area neve
			D3 :da 1924 a 2025 Azione : QV:var z - Qz - Area neve
			D3 :da 2027 a 2079 Azione : QV:var z - Qz - Area neve
			D3 :da 2081 a 2087 Azione : QV:var z - Qz - Area neve
			D3 :da 2089 a 2094 Azione : QV:var z - Qz - Area neve
			D3 :da 2096 a 2101 Azione : QV:var z - Qz - Area neve
			D3 :da 2103 a 2108 Azione : QV:var z - Qz - Area neve
			D3 :da 2110 a 2115 Azione : QV:var z - Qz - Area neve
			D3 :da 2117 a 2122 Azione : QV:var z - Qz - Area neve
			D3 :da 2124 a 2129 Azione : QV:var z - Qz - Area neve
			D3 :da 2131 a 2136 Azione : QV:var z - Qz - Area neve
			D3 :da 2138 a 2143 Azione : QV:var z - Qz - Area neve
			D3 :da 2145 a 2150 Azione : QV:var z - Qz - Area neve
			D3 :da 2153 a 2270 Azione : QV:var z - Qz - Area neve
			D3 :da 2272 a 2468 Azione : QV:var z - Qz - Area neve
			D3 : 2520 Azione : QV:var z - Qz - Area neve
			D3 : 2533 Azione : QV:var z - Qz - Area neve
			D3 : 2675 Azione : QV:var z - Qz - Area neve
			D3 : 2678 Azione : QV:var z - Qz - Area neve
			D3 :da 2709 a 2711 Azione : QV:var z - Qz - Area neve
			D3 :da 2998 a 2999 Azione : QV:var z - Qz - Area neve
			D3 :da 3285 a 3325 Azione : QV:var z - Qz - Area neve
5	Qk	CDC=Qk (variabile generico)	D3 :da 1 a 13 Azione : VARIABILE QUOTA ZERO
			D3 :da 15 a 47 Azione : VARIABILE QUOTA ZERO
			D3 :da 61 a 120 Azione : VARIABILE QUOTA ZERO
			D3 :da 155 a 184 Azione : VARIABILE QUOTA ZERO
			D3 :da 187 a 292 Azione : VARIABILE QUOTA ZERO
			D3 :da 295 a 305 Azione : VARIABILE QUOTA ZERO
			D3 :da 326 a 366 Azione : VARIABILE QUOTA ZERO
			D3 :da 368 a 370 Azione : VARIABILE QUOTA ZERO
			D3 :da 372 a 379 Azione : VARIABILE QUOTA ZERO
			D3 :da 404 a 405 Azione : VARIABILE QUOTA ZERO
			D3 :da 407 a 409 Azione : VARIABILE QUOTA ZERO
			D3 :da 411 a 413 Azione : VARIABILE QUOTA ZERO
			D3 :da 415 a 417 Azione : VARIABILE QUOTA ZERO
			D3 :da 419 a 421 Azione : VARIABILE QUOTA ZERO
			D3 :da 423 a 425 Azione : VARIABILE QUOTA ZERO
			D3 :da 427 a 429 Azione : VARIABILE QUOTA ZERO
			D3 :da 431 a 433 Azione : VARIABILE QUOTA ZERO
			D3 :da 435 a 437 Azione : VARIABILE QUOTA ZERO
			D3 :da 439 a 441 Azione : VARIABILE QUOTA ZERO
			D3 : 443 Azione : VARIABILE QUOTA ZERO
			D3 :da 947 a 996 Azione : VARIABILE QUOTA ZERO
			D3 :da 998 a 1002 Azione : VARIABILE QUOTA ZERO
			D3 :da 1004 a 1008 Azione : VARIABILE QUOTA ZERO
			D3 :da 1010 a 1014 Azione : VARIABILE QUOTA ZERO
			D3 :da 1016 a 1020 Azione : VARIABILE QUOTA ZERO
			D3 :da 1022 a 1026 Azione : VARIABILE QUOTA ZERO
			D3 :da 1028 a 1032 Azione : VARIABILE QUOTA ZERO

CDC	Tipo	Sigla Id	Note
			D3 :da 1034 a 1038 Azione : VARIABILE QUOTA ZERO
			D3 :da 1040 a 1044 Azione : VARIABILE QUOTA ZERO
			D3 :da 1046 a 1051 Azione : VARIABILE QUOTA ZERO
			D3 :da 1053 a 1301 Azione : VARIABILE QUOTA ZERO
			D3 :da 1740 a 1749 Azione : VARIABILE QUOTA ZERO
			D3 :da 1752 a 1791 Azione : VARIABILE QUOTA ZERO
			D3 :da 2946 a 2947 Azione : VARIABILE QUOTA ZERO
			D3 :da 2954 a 2955 Azione : VARIABILE QUOTA ZERO
			D3 :da 2962 a 2963 Azione : VARIABILE QUOTA ZERO
			D3 :da 2970 a 2971 Azione : VARIABILE QUOTA ZERO
			D3 :da 3329 a 3350 Azione : VARIABILE QUOTA ZERO
			D3 :da 3367 a 3396 Azione : VARIABILE QUOTA ZERO
6	Gk	CARICO PERMANENTE DA COPERTURA	Nodo: 533 Azione : CN:Fz=-4625.00 T2 PERMANENTE
			Nodo: 568 Azione : CN:Fz=-5675.00 T3 PERMANENTE
			Nodo: 2680 Azione : CN:Fz=-2940.00 T1 PERMANENTE
			Nodo: 2696 Azione : CN:Fz=-5040.00 T4 PERMANENRE
			Nodo: 2720 Azione : CN:Fz=-8000.00 T5 PERMANENTE
			Nodo: 2743 Azione : CN:Fz=-5250.00 T6 PERMANENTE
7	Qk	CARICO VARIABILE DA COPERTURA	Nodo: 533 Azione : CN:Fz=-2220.00 T2 VARIABILE
			Nodo: 568 Azione : CN:Fz=-2724.00 T3 VARIABILE
			Nodo: 2680 Azione : CN:Fz=-1411.00 T1 VARIABILE
			Nodo: 2696 Azione : CN:Fz=-2419.00 T4 VARIABILE
			Nodo: 2720 Azione : CN:Fz=-3840.00 T5 VARIABILE
			Nodo: 2743 Azione : CN:Fz=-2520.00 T6 VARIABILE

6.1 Analisi dei carichi

Peso proprio

Solaio piano in cemento armato gettato in opera sp.=20+4

γ cls = 25 kN/m^3

Peso proprio = 600 daN/m^2 (CDC 1 cond. di carico per azioni sismiche e CDC 1 per azioni statiche)

Carichi permanenti

Peso muratura tipo Vibrapac con intonaco sp.25cm 303 daN/m² (CDC 10 cond. di carico per azioni sismiche e CDC 1 per azioni statiche)

Solaio di copertura	Massetto di pendenza sp. medio 7.5cm	165	daN//m²	(CDC 10 azioni sismiche
	Guaine	10	daN//m²	CDC 2 azioni statiche)
	Cartongesso	14	daN//m²	(CDC 11 azioni sismiche
	Impiantistica	30	daN//m²	CDC 3 azioni statiche)
		219	daN//m²	

Solaio I orizzontamento	Peso proprio igloo con cappa di cls sp.10cm	412	daN//m²	(CDC 10 azioni
	Sottofondo alleggerito	80	daN//m²	sismiche
	Pavimento	50	daN//m²	CDC 2 azioni statiche)
		542	daN//m²	

Acqua

La platea ha intradosso a quota relativa -4.36m (125.49m in quota assoluta), mentre la falda di progetto si trova a -8.50m (121.35m) pertanto l'acqua non spinge sulla struttura.

Carichi variabili

Solaio primo impalcato 200 daN//m² (CDC 13 cond. di carico per azioni sismiche e CDC 5 per azioni statiche)

Neve

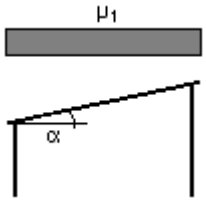
Neve 120 daN//m² (CDC 12 cond. di carico per azioni sismiche e CDC 4 per azioni statiche)

Località: Travagliato Provincia: BRESCIA Regione: LOMBARDIA
Coordinate GPS: Latitudine : 45°31'26.3"N Longitudine: 10°04'47" E
Altitudine s.l.m.: 129.0 m

Zona Neve = I Alpina
Ce (coeff. di esposizione al vento) = 1.00
Valore caratteristico del carico al suolo (qsk Ce) = 150 daN/mq

Copertura ad una falda:
Angolo di inclinazione della falda = 0.0°
$\mu 1$ = 0.80 => Q = 120 daN/mq

Schema di carico:



Sisma

L'analisi sismica della struttura è stata condotta mediante un'analisi dinamica lineare adottando un coefficiente di struttura q= 1.51. La struttura è stata progettata in classe di duttilità B.
Nel presente progetto è stata verificata la combinazione di carico sismica con riferimento sia agli stati limite di esercizio (SLD) sia agli stati limite ultimi (SLV). In particolare:

- **Stato Limite di Danno** (SLD): a seguito del terremoto la costruzione nel suo complesso, includendo gli elementi strutturali, quelli non strutturali, le apparecchiature rilevanti alla sua funzione, subisce danni tali da non mettere a rischio gli utenti e da non compromettere significativamente la capacità di resistenza e di rigidezza nei confronti delle azioni verticali ed orizzontali, mantenendosi immediatamente utilizzabile pur nell'interruzione d'uso di parte delle apparecchiature.

Società di Progetto
Brebemi SpA

- **Stato Limite di salvaguardia della Vita** (SLV): a seguito del terremoto la costruzione subisce rotture e crolli dei componenti non strutturali ed impiantistici e significativi danni dei componenti strutturali cui si associa una perdita significativa di rigidezza nei confronti delle azioni orizzontali; la costruzione conserva invece una parte della esistenza e rigidezza per azioni verticali e un margine di sicurezza nei confronti del collasso per azioni sismiche orizzontali.

Vita nominale

La vita nominale di un'opera strutturale è intesa come il numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve poter essere usata per lo scopo al quale è destinata. Nel caso in oggetto, l'opera ricade all'interno del tipo di **costruzione 3**: "grandi opere, ponti, opere infrastrutturali e dighe di grandi dimensioni o di importanza strategica" (paragrafo 2.4 delle 'Nuove Norme tecniche per le costruzioni – D.M. 14 gennaio 2008''). La vita nominale risulta pertanto $\mathbf{V_N \geq 100}$ **anni**.

Classi d'uso

In presenza di azioni sismiche, con riferimento alle conseguenze di una interruzione di operatività o di un'eventuale collasso, le costruzioni sono suddivise in classi d'uso. Nel caso in oggetto si fa riferimento alla **Classe IV**: "costruzioni con funzioni pubbliche o strategiche importante, anche con riferimento alla gestione della protezione civile in caso di calamità…Ponti e reti ferroviarie di importanza critica per il mantenimento delle vie di comunicazione, particolarmente dopo un evento sismico."

Periodo di riferimento per l'azione sismica

Le azioni sismiche su ciascuna costruzione vengono valutate in relazione ad un periodo di riferimento V_R che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale V_N per il coefficiente d'uso C_U. Tale coefficiente è funzione della classe d'uso e nel caso specifico assume valore unitario.

$\mathbf{V_R = V_N \times C_U = 100 \text{ anni} \times 2.0 = 200 \text{ anni}}$

Le probabilità di superamento P_{VR} nel periodo di riferimento V_R, cui riferirsi per individuare l'azione sismica agente, sono pari al 10% nel caso dello stato limite SLV ed al 63% nel caso dello stato limite SLD.

Azioni di progetto

Le azioni di progetto si ricavano, ai sensi delle NTC, dalle accelerazioni a_g e dalle relative forme spettrali.
Le forme spettrali previste dalle NTC sono definite, su sito di riferimento rigido orizzontale, in funzione dei tre parametri:

- a_g accelerazione orizzontale massima del terreno;
- F_0 valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
- T_C^* periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale.

Per ciascun nodo del reticolo di riferimento e per ciascuno dei periodi di ritorno T_R considerati dalla pericolosità sismica, i tre parametri si ricavano riferendosi ai valori corrispondenti al 50esimo percentile ed attribuendo ad:

- a_g il valore previsto dalla pericolosità sismica;
- F_0 e T_C^* i valori ottenuti imponendo che le forme spettrali in accelerazione, velocità e spostamento previste dalle NTC scartino al minimo dalle corrispondenti forme spettrali previste dalla pericolosità sismica.

Le forme spettrali previste dalle NTC sono caratterizzate da prescelte probabilità di superamento e vite di riferimento. A tal fine occorre fissare:

- la vita di riferimento V_R della costruzione;
- le probabilità di superamento nella vita di riferimento P_{VR} associate agli stati limite considerati, per individuare infine, a partire dai dati di pericolosità sismica disponibili, le corrispondenti azioni sismiche.

A tal fine è conveniente utilizzare, come parametro caratterizzante la pericolosità sismica, il periodo di ritorno dell'azione sismica T_R, espresso in anni. Fissata la vita di riferimento V_R, i due parametri T_R e P_{VR} sono immediatamente esprimibili, l'uno in funzione dell'altro, mediante l'espressione:

$$T_R = -\frac{V_R}{\ln(1-P_{VR})}$$

da cui:

- per lo stato limite SLD

$$T_R = -\frac{V_R}{\ln(1-P_{VR})} = -\frac{200}{\ln(1-0.63)} = 201 \text{ anni}$$

- per lo stato limite SLV

$$T_R = -\frac{V_R}{\ln(1-P_{VR})} = -\frac{200}{\ln(1-0.1)} = 1898 \text{ anni}$$

I valori dei parametri a_g , F_0 e T_C^* relativi alla pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento sono forniti nelle tabelle riportate nell'ALLEGATO B delle NTC.
I punti del reticolo di riferimento sono definiti in termini di Latitudine e Longitudine ed ordinati a Latitudine e Longitudine crescenti, facendo variare prima la Longitudine e poi la Latitudine. L'accelerazione al sito a_g è espressa in g/10; F_0 è adimensionale, T_C* è espresso in secondi.
L'opera è ubicata in corrispondenza delle seguenti coordinate:
Latitudine = 45.5122 e Longitudine = 9.9819.

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	120.0	0.078	2.400	0.260
SLD	63.0	201.0	0.098	2.420	0.260
SLV	10.0	1898.0	0.218	2.490	0.300
SLC	5.0	2475.0	0.238	2.490	0.300

Categoria di sottosuolo

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.078	1.200	2.400	0.907	0.125	0.374	1.913
SLD	0.098	1.200	2.420	1.023	0.125	0.374	1.992
SLV	0.218	1.183	2.490	1.570	0.140	0.420	2.472
SLC	0.238	1.163	2.490	1.639	0.140	0.420	2.551

Società di Progetto
Brebemi SpA

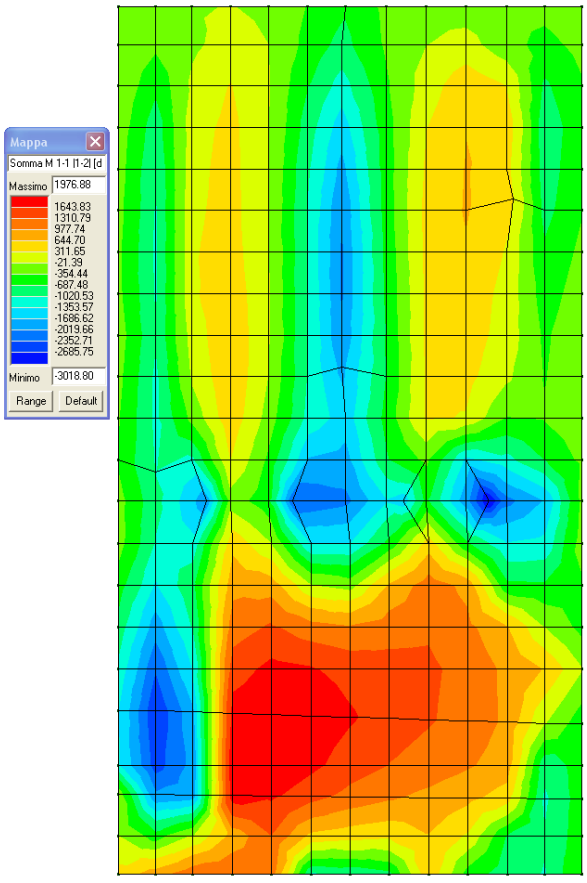
In base alla natura del terreno e ai parametri individuati, il suolo presente è classificabile in **Categoria B**: "*Rocce tenere e depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di Vs,30 compresi tra 360 m/s e 800 m/s (ovvero NSPT,30 > 50 nei terreni a grana grossa e cu,30 > 250 kPa nei terreni a grana fina)".

Società di Progetto
Brebemi SpA

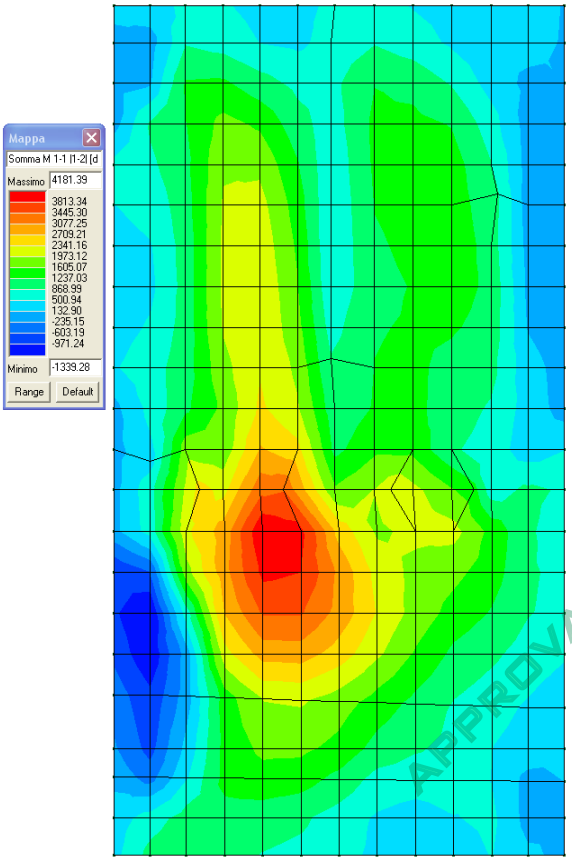
6.2 Risultati analisi

6.2.1 Platea con estradosso a quota -3.91m SLU

Di seguito si riportano i grafici relativi all'andamento dei momenti e delle tensioni tangenziali (per ottenere il taglio sollecitante bisogna moltiplicare il valore riportato per lo spessore della platea).

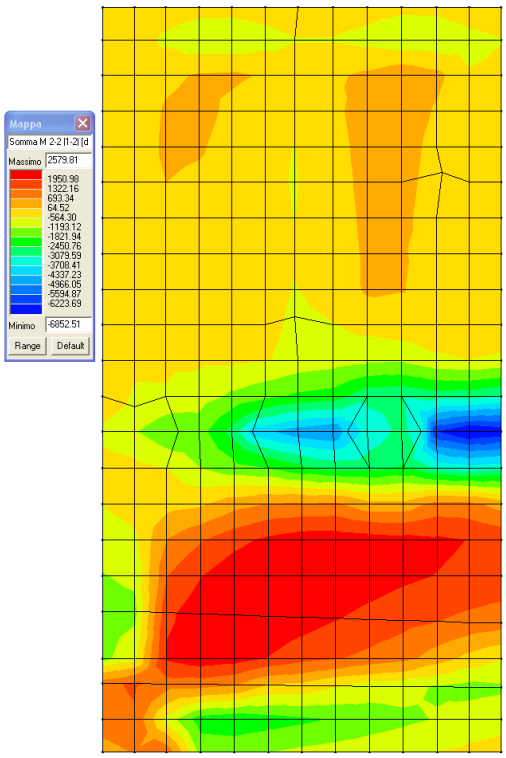


Momento M_x [daNm] positivo

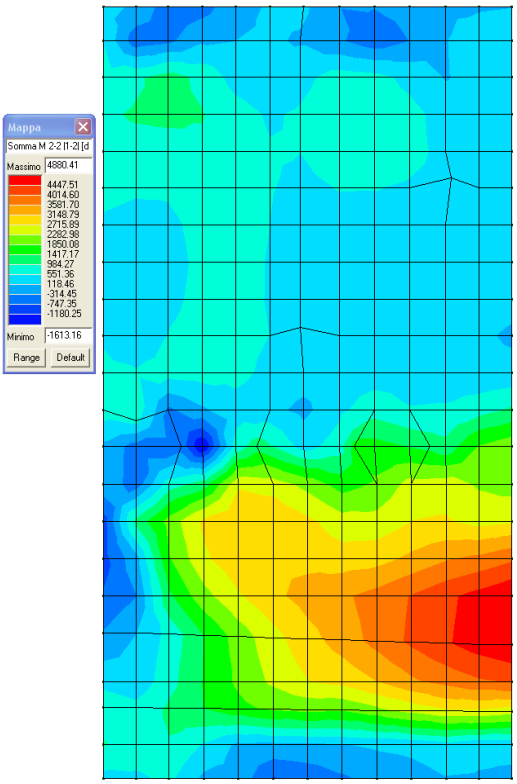


Momento M_x [daNm] negativo

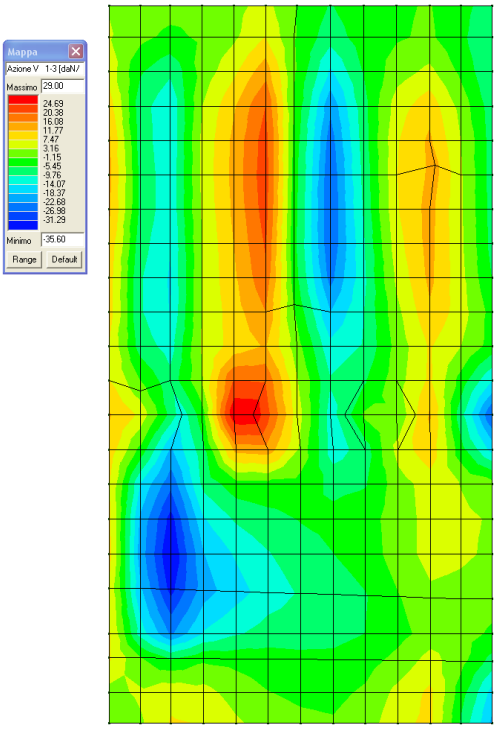
Società di Progetto
Brebemi SpA



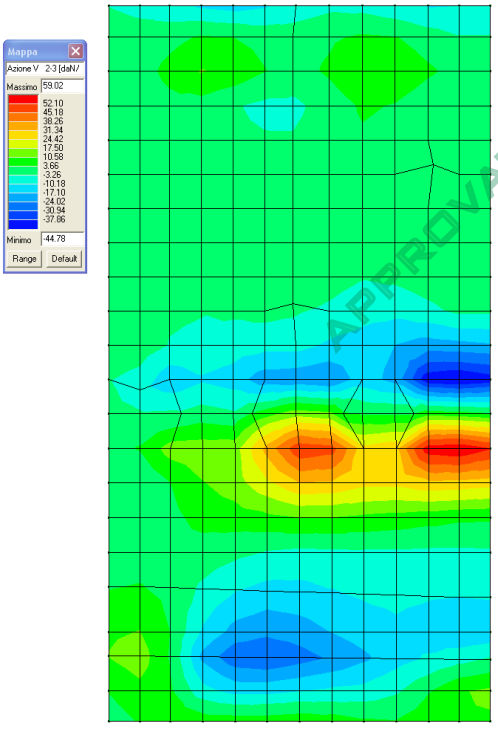
Momento My [daNm] positivo



Momento My [daNm] negativo



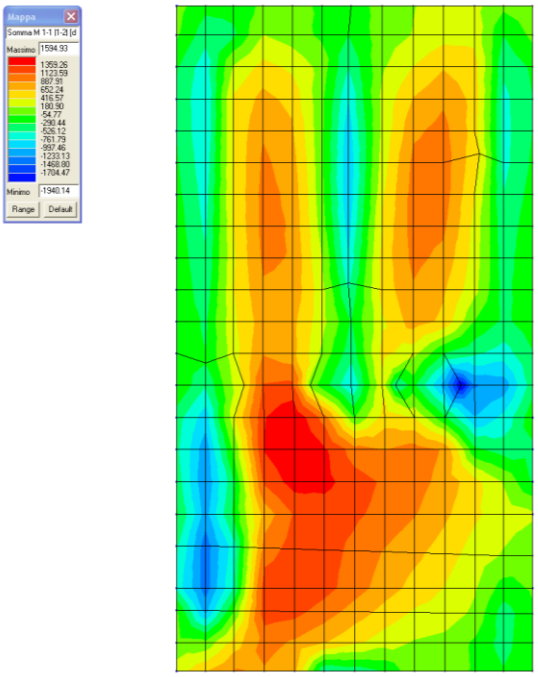
Taglio Vx [daN/m]



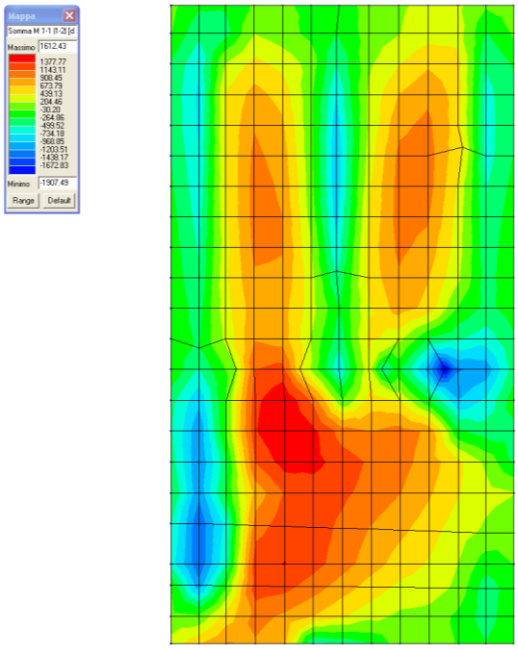
Taglio Vy [daN/m]

Società di Progetto
Brebemi SpA

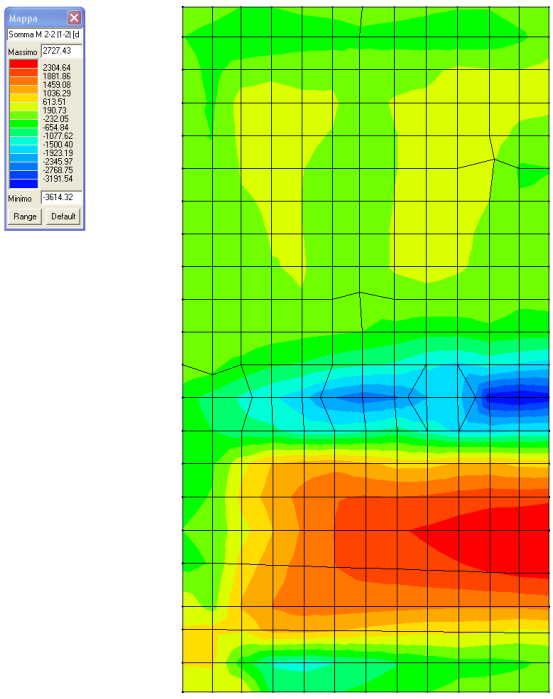
6.2.2 Platea con estradosso a quota -3.91m SLE



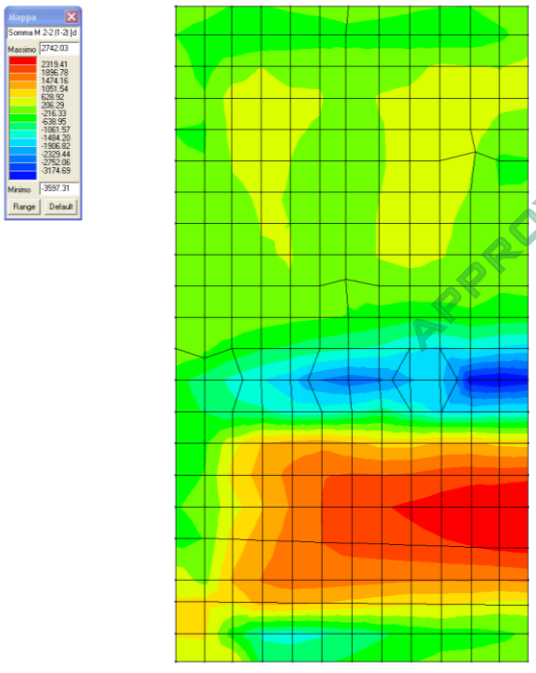
Momento M_x [daNm] positivo RARA



Momento M_x [daNm] negativo RARA

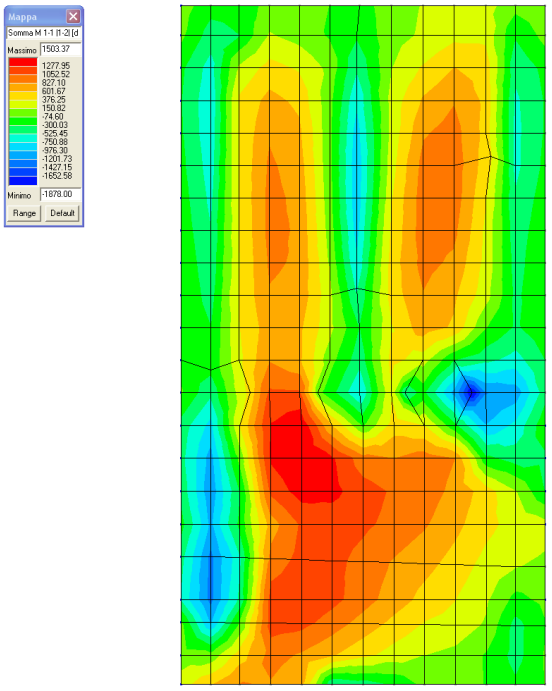


Momento M_y [daNm] positivo RARA

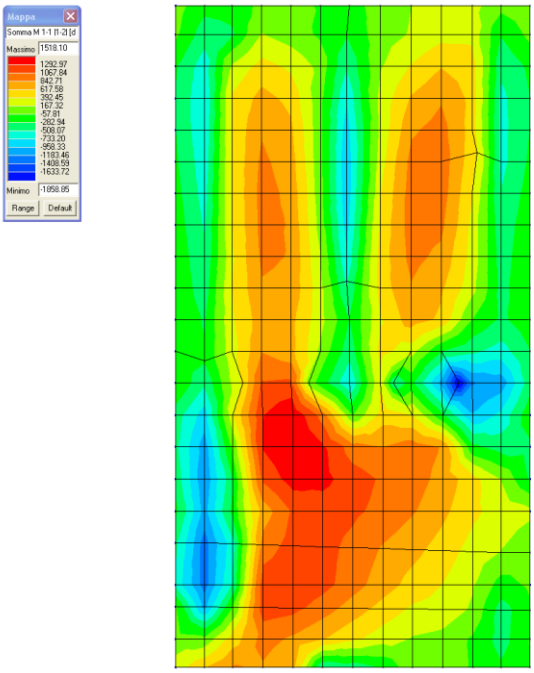


Momento M_y [daNm] negativo RARA

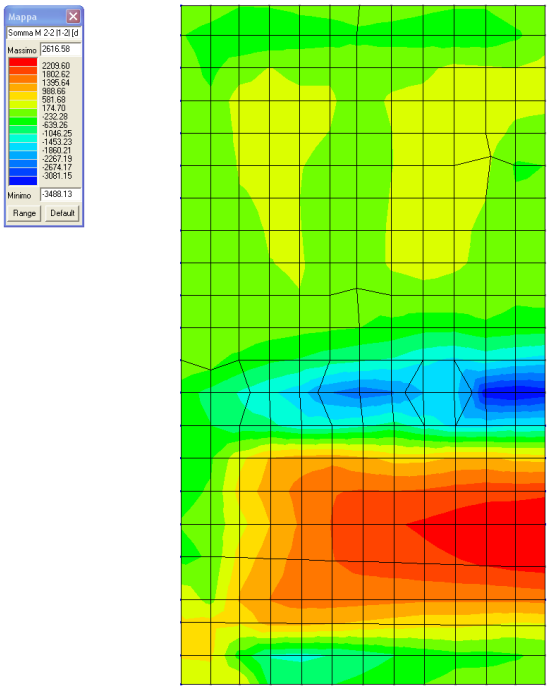
Società di Progetto
Brebemi SpA



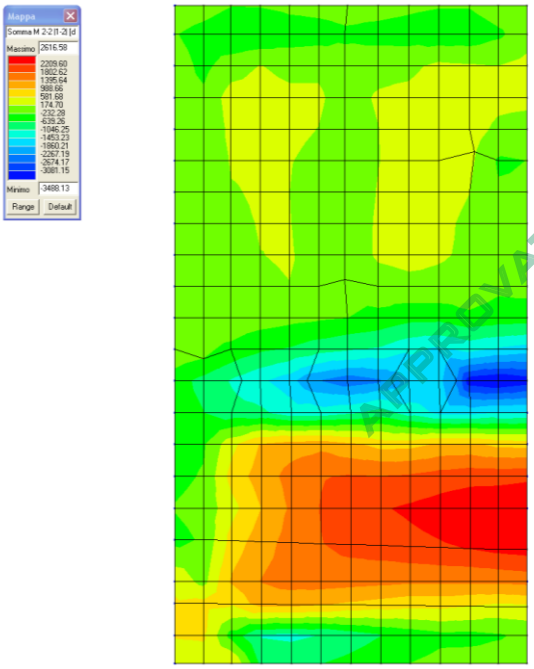
Momento M_x [daNm] positivo FREQUENTE



Momento M_x [daNm] negativo FREQUENTE

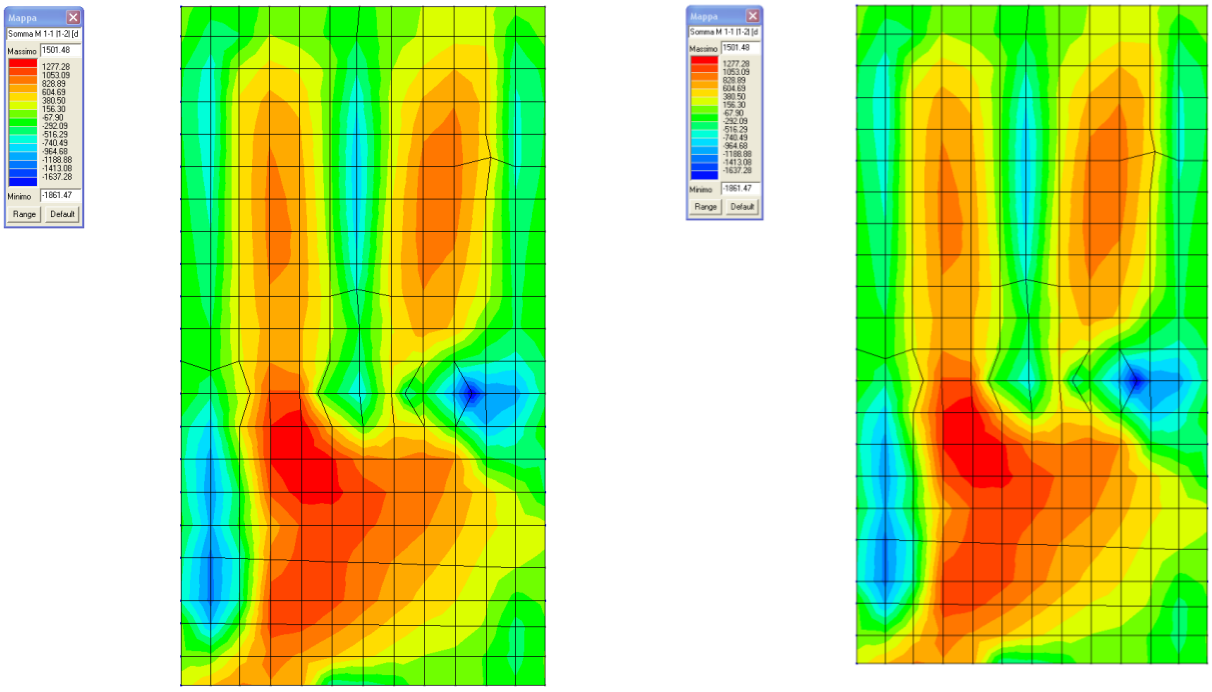


Momento M_Y [daNm] positivo FREQUENTE



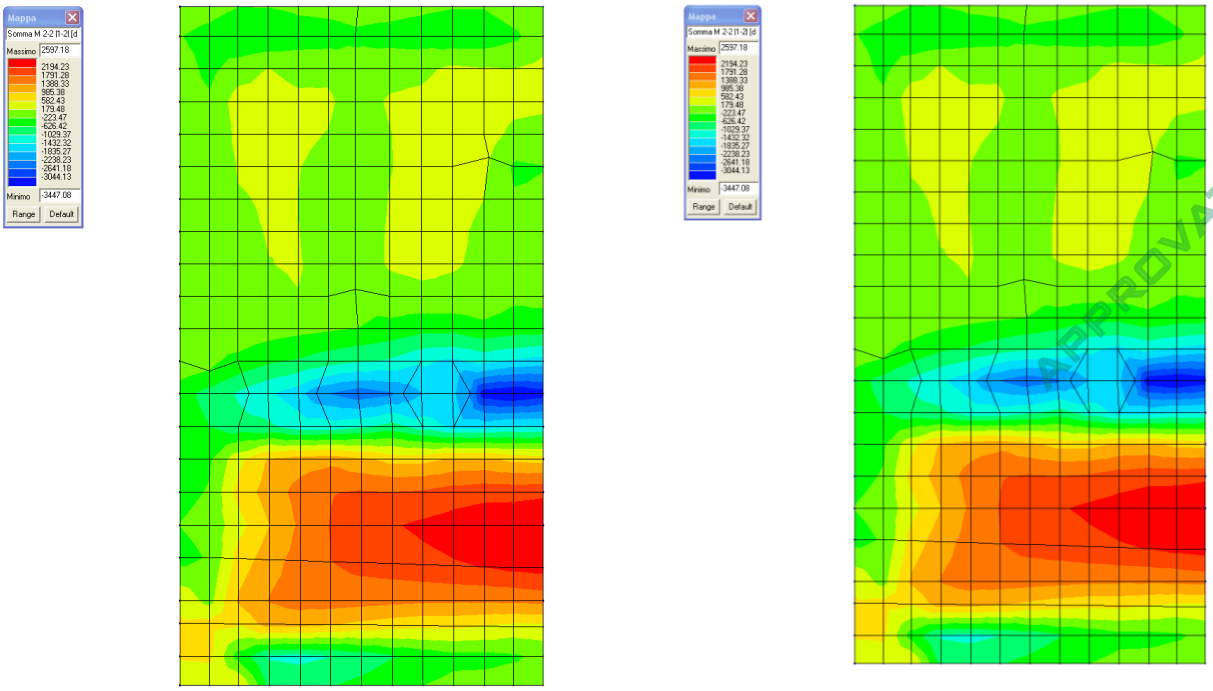
Momento M_Y [daNm] negativo FREQUENTE

Società di Progetto
Brebemi SpA



Momento M_x [daNm] positivo QP

Momento M_x [daNm] negativo QP



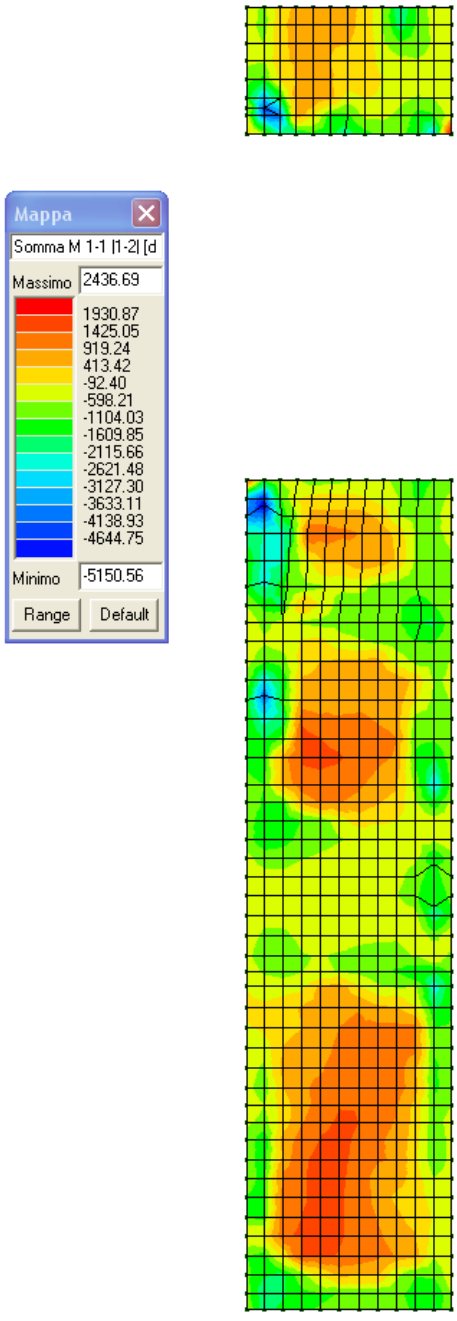
Momento M_y [daNm] positivo QP

Momento M_y [daNm] negativo QP

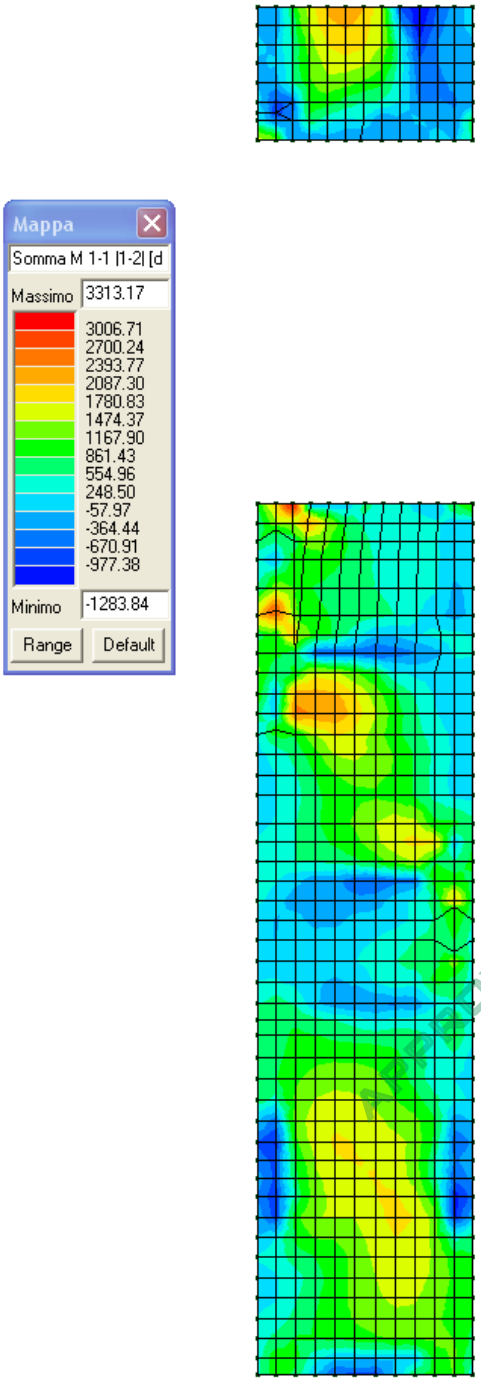
6.2.3 Platea con estradosso a quota -0.70m SLU

Società di Progetto
Brebemi SpA

Di seguito si riportano i grafici relativi all'andamento dei momenti e delle tensioni tangenziali (per ottenere il taglio sollecitante bisogna moltiplicare il valore riportato per lo spessore della platea).

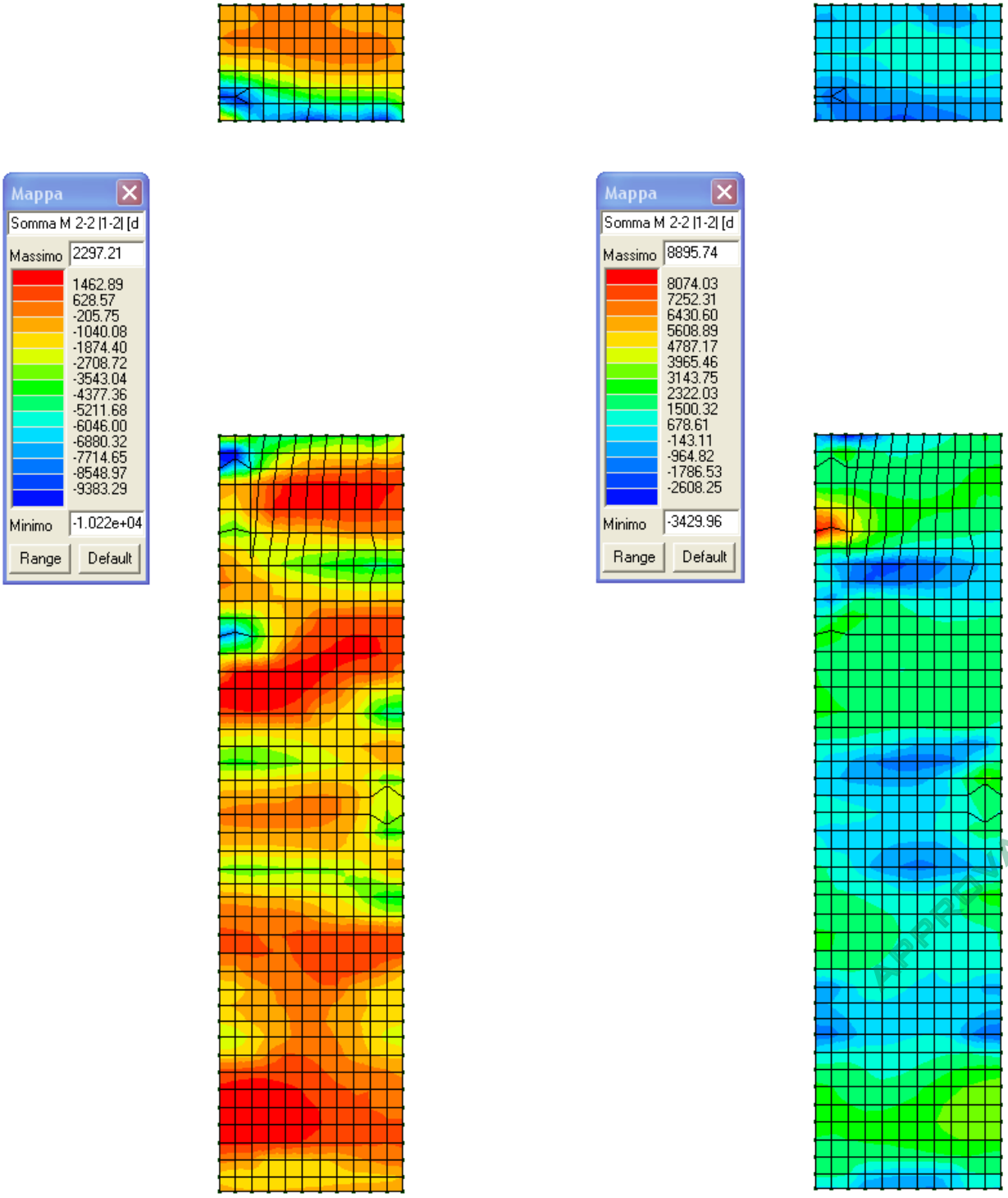


Momento M_x [daNm] positivo



Momento M_x [daNm] negativo

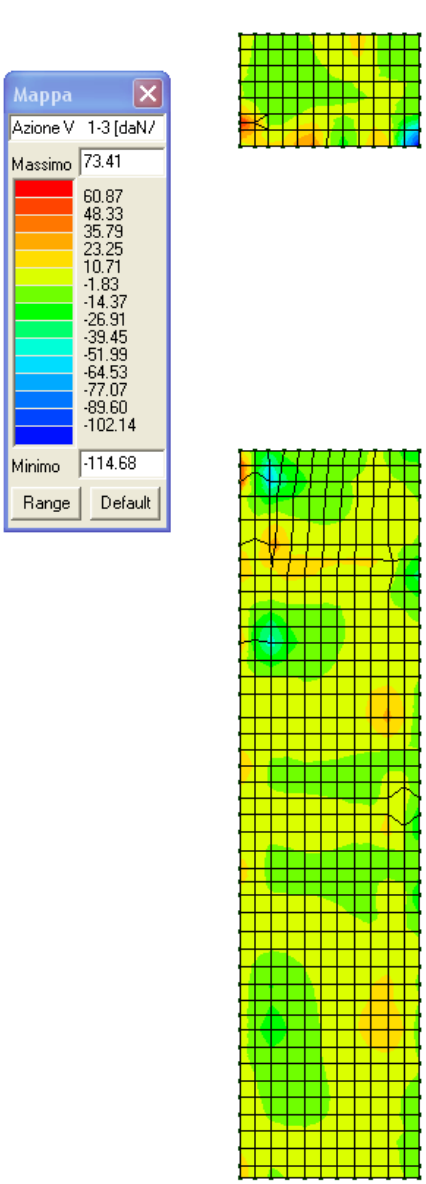
Società di Progetto
Brebemi SpA



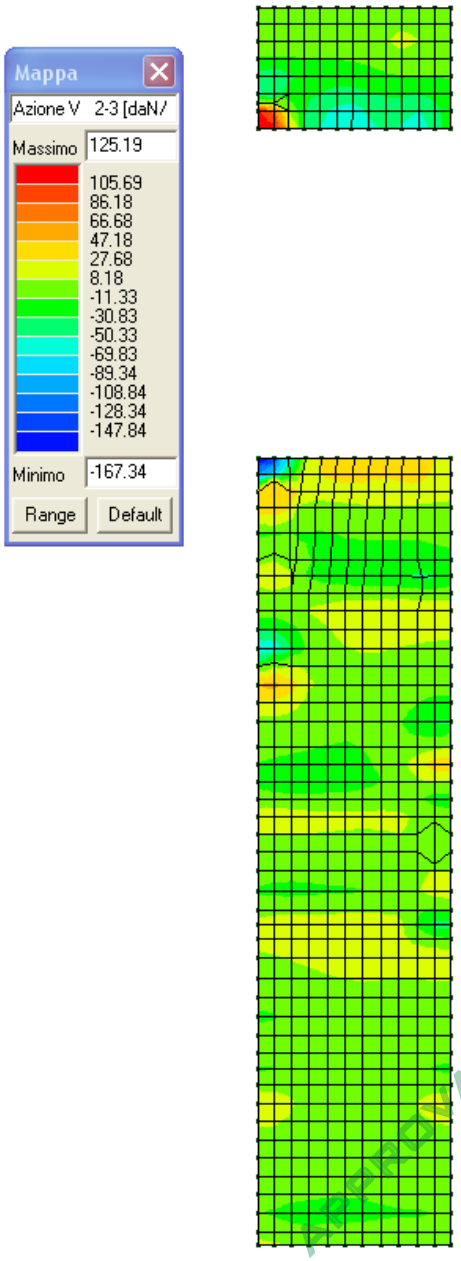
Momento My [daNm] positivo

Momento My [daNm] negativo

Società di Progetto
Brebemi SpA



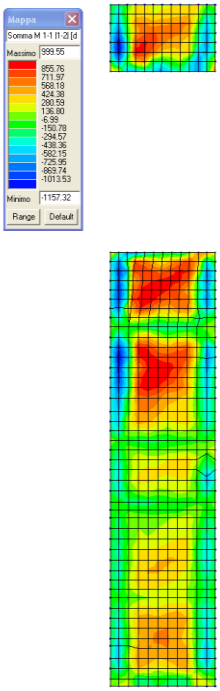
Taglio Vx [daN/m]



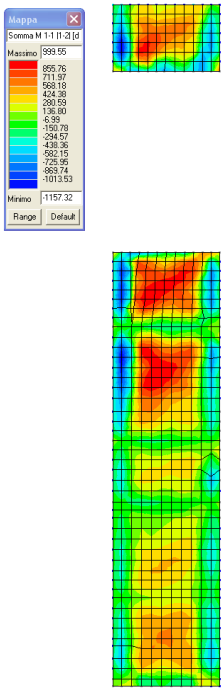
Taglio Vy [daN/m]

Società di Progetto
Brebemi SpA

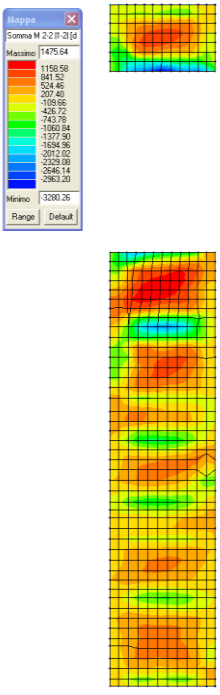
6.2.4 Platea con estradosso a quota -0.70m SLE



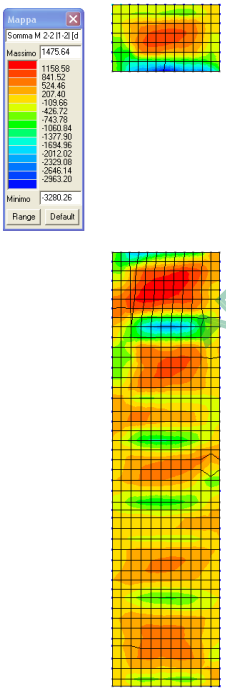
Momento M_x [daNm] positivo RARA



Momento M_x [daNm] negativo RARA

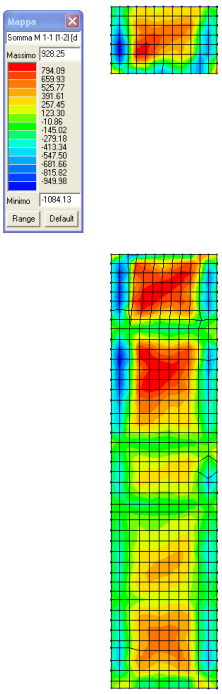


Momento M_y [daNm] positivo RARA

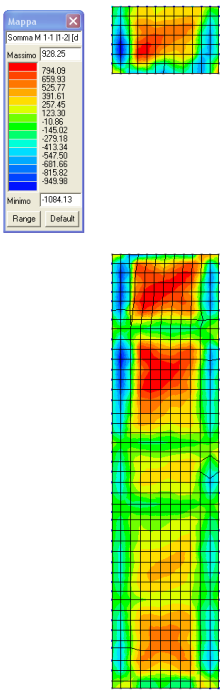


Momento M_y [daNm] negativo RARA

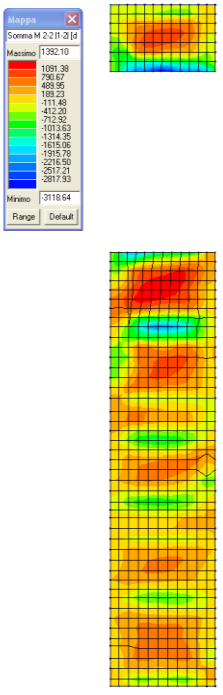
Società di Progetto
Brebemi SpA



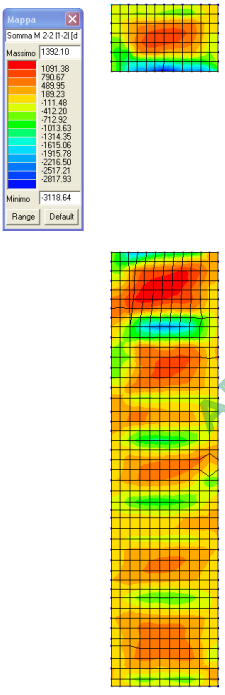
Momento M_x [daNm] positivo FREQUENTE



Momento M_x [daNm] negativo FREQUENTE

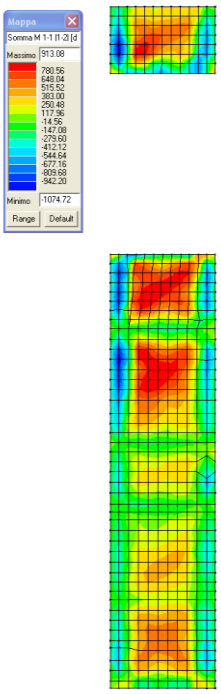


Momento M_Y [daNm] positivo FREQUENTE

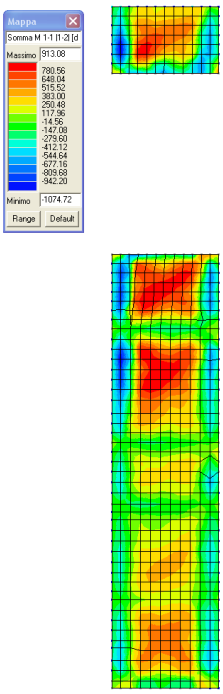


Momento M_Y [daNm] negativo FREQUENTE

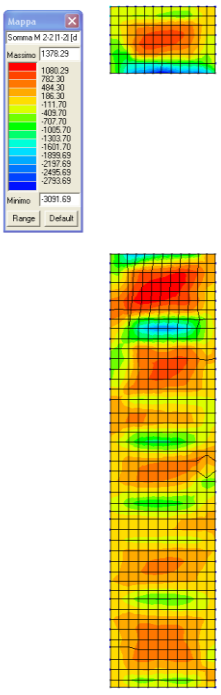
Società di Progetto
Brebemi SpA



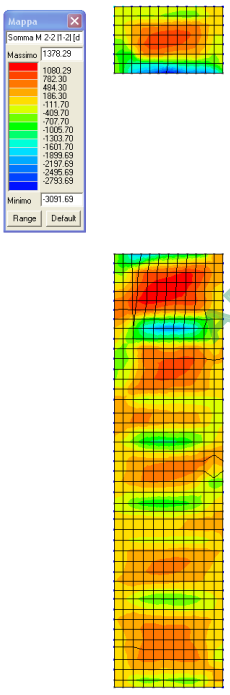
Momento M_x [daNm] positivo QP



Momento M_x [daNm] negativo QP



Momento M_y [daNm] positivo QP



Momento M_y [daNm] negativo QP

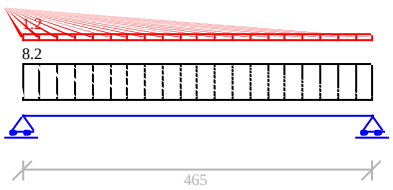
Società di Progetto
Brebemi SpA

7. VERIFICHE

7.1 Verifiche solai

7.1.1 Solaio con estradosso a quota +3.24m

```
TRAVE CONTINUA
Metodo di calcolo: DM 14-01-08. Valori in daN cm.

FATTORI DI SICUREZZA PARZIALI PER LE PROPRIETA' DEI MATERIALI
Gamma s (fattore di sicurezza parziale dell'acciaio) 1.15
Gamma c (fattore di sicurezza parziale del calcestruzzo) 1.50

FATTORI DI SICUREZZA PARZIALI PER LE AZIONI
Gamma G1 inf. (pesi struttura, effetto favorevole)  1.00
Gamma G1 sup. (pesi struttura, effetto sfavorevole) 1.30
Gamma G2 inf. (permanenti portati, effetto favorevole)  0.00
Gamma G2 sup. (permanenti portati, effetto sfavorevole) 1.50
Gamma Q inf. (azioni variabili, effetto favorevole)   0.00
Gamma Q sup. (azioni variabili, effetto sfavorevole)  1.50

COEFFICIENTI DI COMBINAZIONE DEI CARICHI VARIABILI (NEVE) PER STATI LIMITE DI ESERCIZIO
Combinazioni rare                1.00
Combinazioni frequenti           0.20
Combinazioni quasi permanenti    0.00

GEOMETRIA DELLE SEZIONI INIZIALI
n.  1   sezione rettangolare      H   24.0       B  100.0  Cs  3.0  Ci  5.0
GEOMETRIA DELLE CAMPATE
                                 luce   sezione  altezza finale  Y asse
campata n. 1                    465.0         1            24.0    0.00

CARATTERISTICHE DEGLI APPOGGI
appoggio n.   nome   ampiezza   coeff. elastico verticale
         1   1           25.0          0.0000E+00        diretto
         2   2           25.0          0.0000E+00        diretto

CARATTERISTICHE DEI MATERIALI
Resistenza caratteristica cubica del calcestruzzo  Rck= 350
Tensione di snervamento caratteristica dell'acciaio fyk= 4500
Valore finale del coefficiente di viscosità (EC2 Tab.3.3)= 3
Valore finale della deformazione di ritiro (EC2 Tab.3.4)= -.0004

Schema statico
```




```
AZIONI CARATTERISTICHE APPLICATE ALLA TRAVE

CAMPATA n. 1
carico uniforme  permanente struttura  permanente portato     variabile
                                 8.19                0.00          1.20
```


Società di Progetto
Brebemi SpA

Diagramma dei momenti (daN*cm)

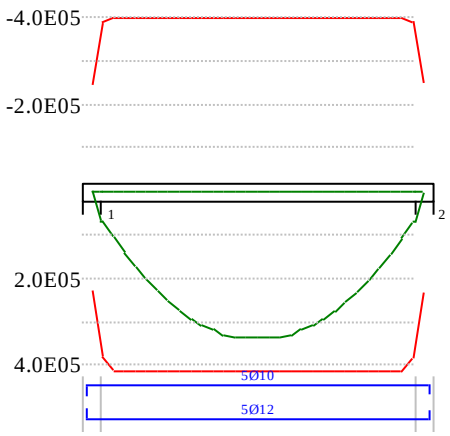
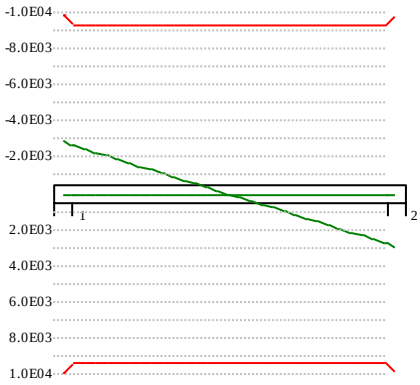


Diagramma dei tagli (daN)



OUTPUT CAMPATE (momenti in kN*cm, tagli in kN, apertura fessure in mm).

campata n. 1 tra gli appoggi 1-2
sezione n. 1
stati limite ultimi

x	Asup	cs	Ainf	ci	Mela	MEd	MRd	x/d	Ast	Afp+	Afp-	VRcd	VEd	VEd.rid	VRd	VRsd	teta
0	2.4	4.3	2.9	6.4	0	0	-2466	.080	.156	.000	.000	691	29		100	102	0.79
13	3.9	4.3	4.7	6.4	352	650	3553	.146	.156	.000	.000	652	27		94	97	0.79
155	3.9	4.3	5.7	6.4	2990	3063	4115	.159	.156	.000	.000	652	10		94	97	0.79
233	3.9	4.3	5.7	6.4	3364	3364	4115	.159	.156	.000	.000	652	0		94	97	0.79
310	3.9	4.3	5.7	6.4	2990	3063	4115	.159	.156	.000	.000	652	-10		94	-97	0.79
453	3.9	4.3	4.7	6.4	352	650	3553	.146	.156	.000	.000	652	-27		94	-97	0.79
465	2.4	4.3	2.9	6.4	0	0	-2466	.080	.156	.000	.000	691	-29		100	-102	0.79

stati limite di esercizio

x	Mese.R	sc.R	sf.R	Mese.QP	sc.QP	srmi	wkiR	wkiF	wkiQP	srms	wksR	wksF	wksQP	fg.R	ff.R	fg.QP	ff.QP	f.QP	creep
0	0	0	0	0	0									0.00	0.00	0.00	0.00	0.00	
13	266	3	41	232	2									0.01	0.01	0.01	0.01	0.04	
155	2256	23	344	1968	20									0.13	0.13	0.12	0.11	0.42	
233	2538	26	388	2214	23									0.15	0.15	0.13	0.13	0.49	
310	2256	23	344	1968	20									0.13	0.13	0.12	0.11	0.42	
453	266	3	41	232	2									0.01	0.01	0.01	0.01	0.04	
465	0	0	0	0	0									0.00	0.00	0.00	0.00	0.00	

7.1.2 Solaio con estradosso a quota -0.70m

TRAVE CONTINUA
Metodo di calcolo: DM 14-01-08. Valori in daN cm.

FATTORI DI SICUREZZA PARZIALI PER LE PROPRIETA' DEI MATERIALI
Gamma s (fattore di sicurezza parziale dell'acciaio) 1.15
Gamma c (fattore di sicurezza parziale del calcestruzzo) 1.50

FATTORI DI SICUREZZA PARZIALI PER LE AZIONI
Gamma G1 inf. (pesi struttura, effetto favorevole) 1.00
Gamma G1 sup. (pesi struttura, effetto sfavorevole) 1.30
Gamma G2 inf. (permanenti portati, effetto favorevole) 0.00
Gamma G2 sup. (permanenti portati, effetto sfavorevole) 1.50
Gamma Q inf. (azioni variabili, effetto favorevole) 0.00
Gamma Q sup. (azioni variabili, effetto sfavorevole) 1.50

COEFFICIENTI DI COMBINAZIONE DEI CARICHI VARIABILI PER STATI LIMITE DI ESERCIZIO
Combinazioni rare 1.00
Combinazioni frequenti 0.50
Combinazioni quasi permanenti 0.30

GEOMETRIA DELLE SEZIONI INIZIALI
n. 1 sezione rettangolare H 24.0 B 100.0 Cs 3.0 Ci 5.0

GEOMETRIA DELLE CAMPATE

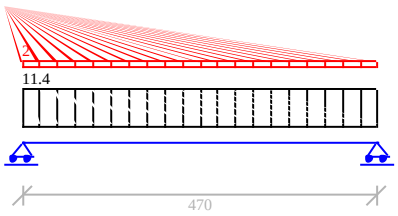
	luce	sezione	altezza finale	Y asse
campata n. 1	470.0	1	24.0	0.00

CARATTERISTICHE DEGLI APPOGGI

appoggio n.	nome	ampiezza	coeff. elastico verticale	
1	1	30.0	0.0000E+00	diretto
2	2	30.0	0.0000E+00	diretto

CARATTERISTICHE DEI MATERIALI
Resistenza caratteristica cubica del calcestruzzo Rck= 350
Tensione di snervamento caratteristica dell'acciaio fyk= 4500
Valore finale del coefficiente di viscosità (EC2 Tab.3.3)= 3
Valore finale della deformazione di ritiro (EC2 Tab.3.4)= -.0004

Schema statico

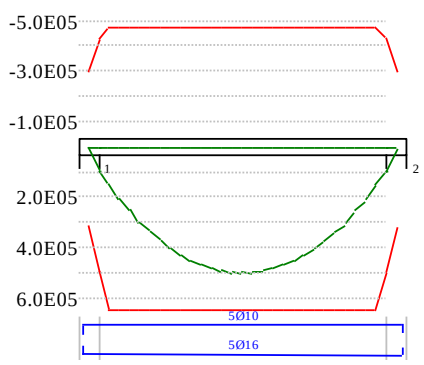


AZIONI CARATTERISTICHE APPLICATE ALLA TRAVE

CAMPATA n. 1

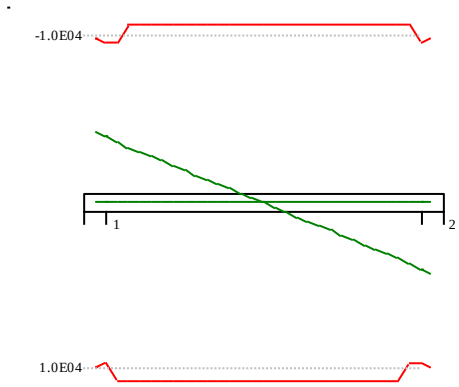
carico uniforme	permanente struttura	permanente portato	variabile
	11.42	0.00	2.00

Diagramma dei momenti (daN*cm)



Società di Progetto
Brebemi SpA

Diagramma dei tagli (daN)



OUTPUT CAMPATE (momenti in kN*cm, tagli in kN, apertura fessure in mm).

campata n. 1 tra gli appoggi 1-2
sezione n. 1

stati limite ultimi

x	Asup	cs	Ainf	ci	Mela	MEd	MRd	x/d	Ast	Afp+	Afp-	VRcd	VEd	VEd.rid	VRd	VRsd	teta
0	2.7	4.3	4.3	6.6	0	0	-2978	.106	.000	.000	.000	687	42		99	0	0.79
15	3.9	4.3	7.2	6.6	609	949	4894	.173	.000	.000	.000	644	39		95	0	0.79
157	3.9	4.3	10.1	6.6	4380	4485	6486	.200	.000	.000	.000	644	14		107	0	0.79
235	3.9	4.3	10.1	6.6	4928	4928	6486	.200	.000	.000	.000	644	0		107	0	0.79
313	3.9	4.3	10.1	6.6	4380	4485	6486	.200	.000	.000	.000	644	-14		107	0	0.79
455	3.9	4.3	7.2	6.6	609	949	4894	.173	.000	.000	.000	644	-39		95	0	0.79
470	2.7	4.3	4.3	6.6	0	0	-2978	.106	.000	.000	.000	687	-42		99	0	0.79

stati limite di esercizio

x	Mese.R	sc.R	sf.R	Mese.QP	sc.QP	srmi	wkiR	wkiF	wkiQP	srms	wksR	wksF	wksQP	fg.R	ff.R	fg.QP	ff.QP	f.QP	creep
0	0	0	0	0	0									0.00	0.00	0.00	0.00	0.00	
15	458	5	70	410	4									0.02	0.03	0.02	0.03	0.07	
157	3294	34	497	2950	30									0.20	0.29	0.18	0.26	0.63	
235	3706	79	2400	3319	71	36.2	0.30	0.27	0.25					0.23	0.35	0.20	0.31	0.73	
313	3294	34	497	2950	30									0.20	0.29	0.18	0.26	0.63	
455	458	5	70	410	4									0.02	0.03	0.02	0.03	0.07	
470	0	0	0	0	0									0.00	0.00	0.00	0.00	0.00	

7.2 Verifiche platee

7.2.1 Verifiche platea con estradosso a quota -3.91m

7.2.1.1 Verifiche di resistenza agli stati limite ultimi

Verifica a flessione

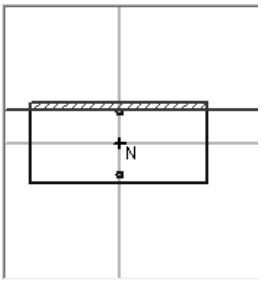
Titolo : Platea a q.ta -3,91 Mx positivo

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	10,05	4,8
2	10,05	40,2

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0	kN
M_{xEd}	30,18	0	kNm
M_{yEd}	0	0	

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Metodo di calcolo: (•) S.L.U.+ ( ) S.L.U.- ( ) Metodo n

Tipo flessione: (•) Retta ( ) Deviata

N° rett. 100

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

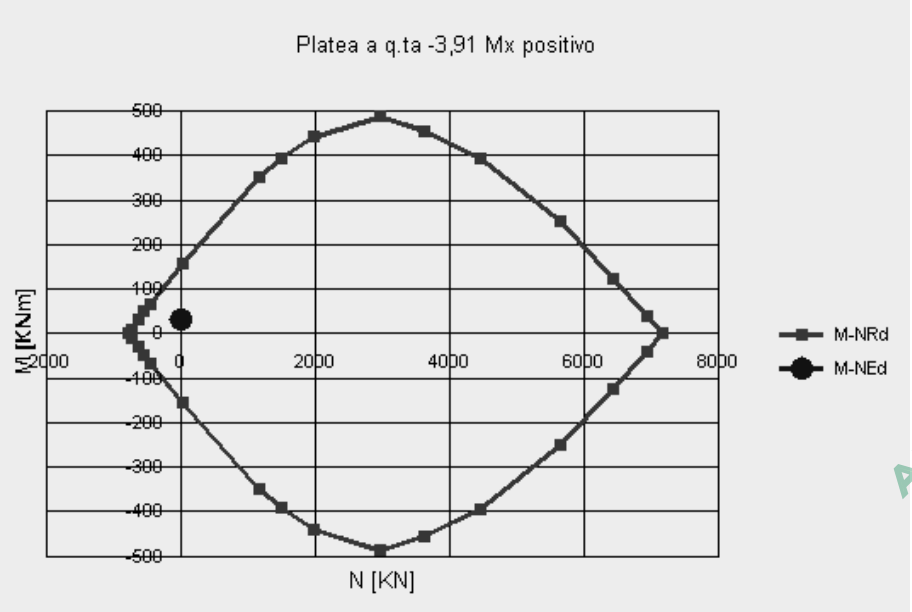
M_{xRd} 154 kN m

σ_c	-14,17	N/mm²	
σ_s	391,3	N/mm²	
ε_c	3,5	‰	
ε_s	29,71	‰	
d	40,2	cm	
x	4,236	x/d	0,1054
		δ	0,7

Calcola MRd — Dominio M-N

L_o 0 cm — Col. modello

☐ Precompresso



Società di Progetto
Brebemi SpA

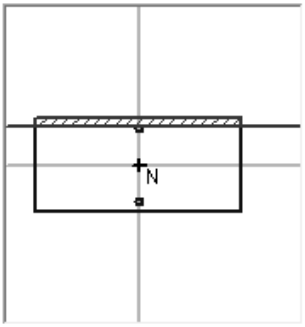
Titolo : Platea a q.ta -3,91 Mx negativo

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	10,05	4,8
2	10,05	40,2

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	41,82	0 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Metodo di calcolo: (•) S.L.U.+ ( ) S.L.U.- ( ) Metodo n

Tipo flessione: (•) Retta ( ) Deviata

N° rett. 100

Materiali

B450C			C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2	‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5	
E_s	200.000 N/mm²	f_{cd}	14,17	
E_s/E_c	15	f_{cc}/f_{cd}	0,8	?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75	
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6	
		τ_{c1}	1,829	

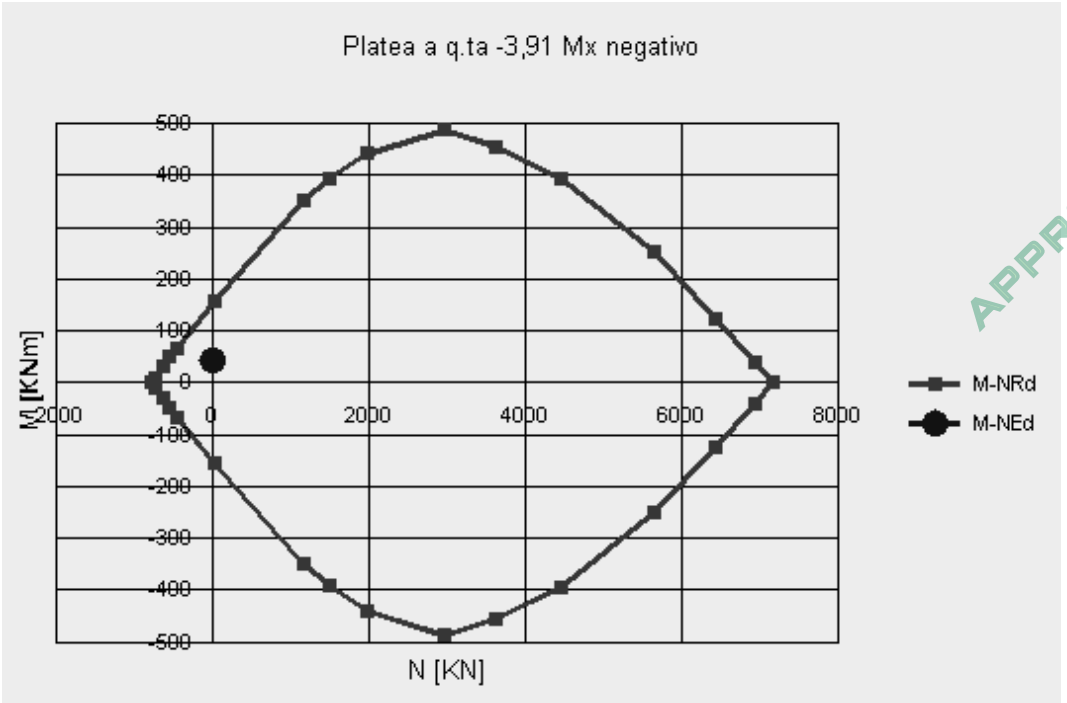
M_{xRd} 154 kN m

σ_c	-14,17	N/mm²
σ_s	391,3	N/mm²
ε_c	3,5	‰
ε_s	29,71	‰
d	40,2	cm
x	4,236	x/d 0,1054
		δ 0,7

Calcola MRd — Dominio M-N

L_o 0 cm — Col. modello

☐ Precompresso



Società di Progetto
Brebemi SpA

Titolo : Platea a q.ta -3,91 My positivo

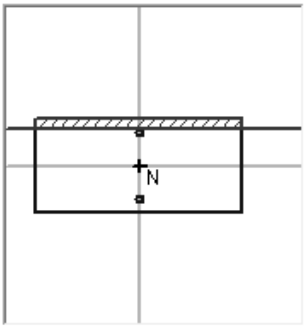
N° figure elementari 1 Zoom

N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	7,7	6,3
2	7,7	38,7

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0	kN
M_{xEd}	68,53	0	kNm
M_{yEd}	0	0	

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Materiali

B450C			C25/30	
ε_{su}	67,5	‰	ε_{c2}	2 ‰
f_{yd}	391,3	N/mm²	ε_{cu}	3,5
E_s	200.000	N/mm²	f_{cd}	14,17
E_s/E_c	15		f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957	‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255	N/mm²	τ_{co}	0,6
			τ_{c1}	1,829

M_{xRd} 120,5 kN m

σ_c	-14,17	N/mm²
σ_s	391,3	N/mm²
ε_c	3,5	‰
ε_s	26,61	‰
d	38,7	cm
x	4,499	x/d 0,1163
		δ 0,7

Metodo di calcolo: (•) S.L.U.+ ( ) S.L.U.- ( ) Metodo n

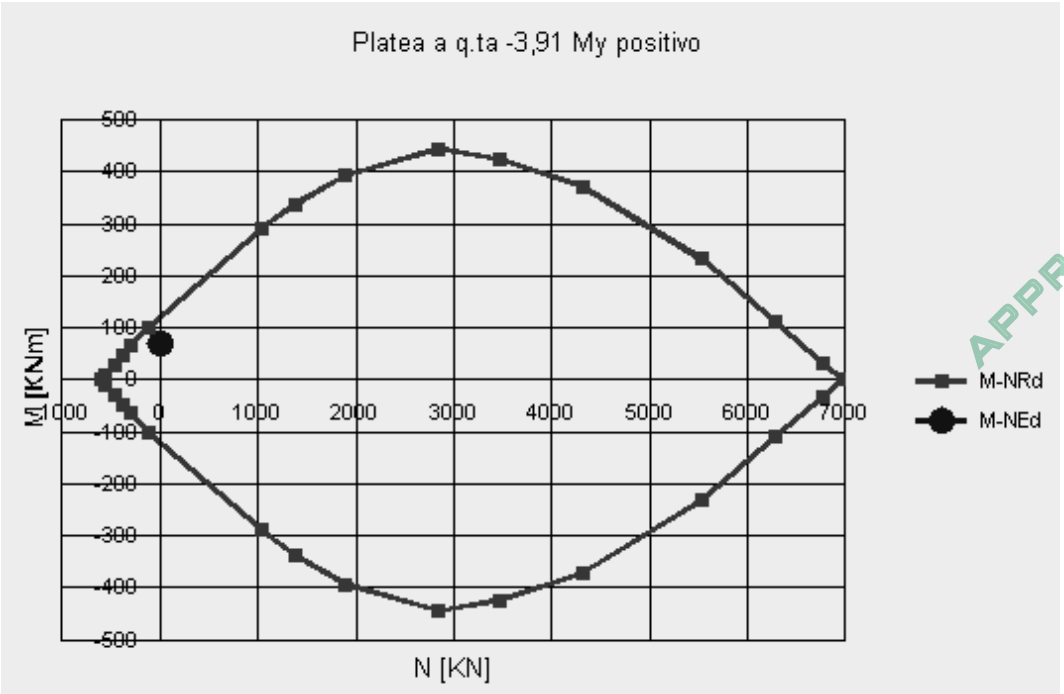
Tipo flessione: (•) Retta ( ) Deviata

N° rett. 100

Calcola MRd | Dominio M-N

L_o 0 cm | Col. modello

☐ Precompresso



APPROVATO SDP

Società di Progetto
Brebemi SpA

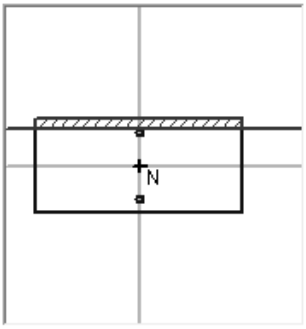
Titolo : Platea a q.ta -3,91 My negativo

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	7,7	6,3
2	7,7	38,7

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0	kN
M_{xEd}	48,81	0	kNm
M_{yEd}	0	0	

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Metodo di calcolo: (•) S.L.U.+ ( ) S.L.U.- ( ) Metodo n

Tipo flessione: (•) Retta ( ) Deviata

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

M_{xRd} 120,5 kN m

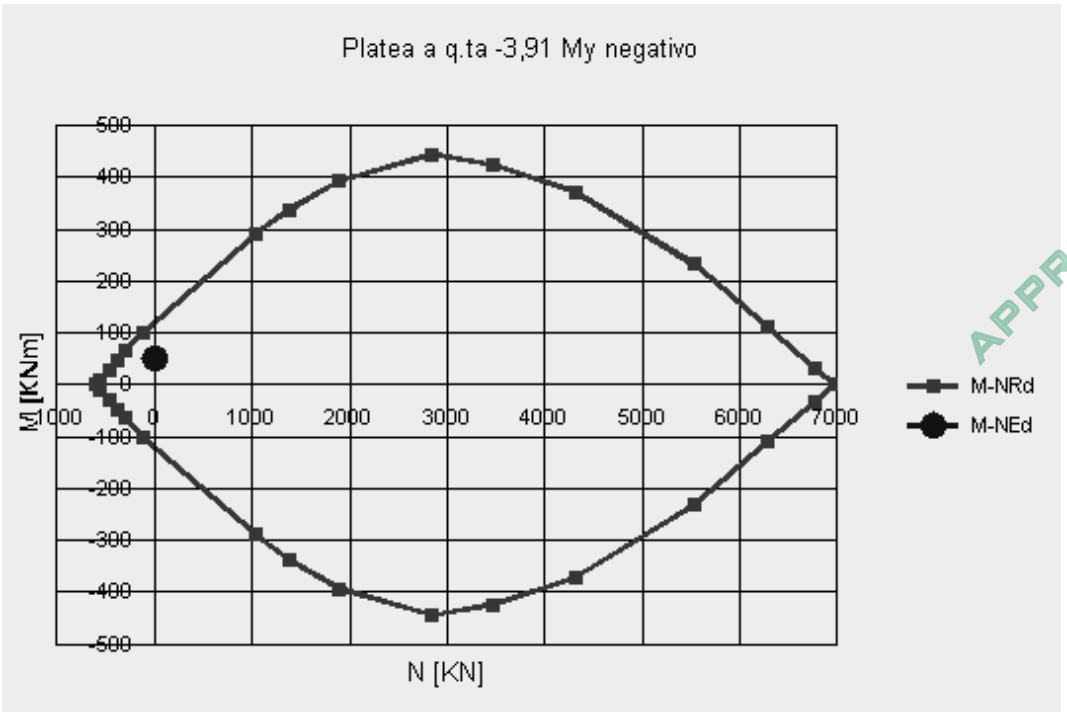
σ_c	-14,17 N/mm²		
σ_s	391,3 N/mm²		
ε_c	3,5 ‰		
ε_s	26,61 ‰		
d	38,7 cm		
x	4,499	x/d	0,1163
		δ	0,7

N° rett. 100

Calcola MRd | Dominio M-N

L_o 0 cm | Col. modello

☐ Precompresso



Verifica a taglio dir.x

Società di Progetto
Brebemi SpA

Verifica a taglio SLU
D.M. 14 gennaio 2008 - Norme tecniche per le costruzioni - 4.1.2.1.3

Classe Calcestruzzo :	C25/30	
Calcestruzzo Rck :	30	
Precompresso :	No	
Acciaio :	B450C	
Base :	100	cm
Altezza :	45	cm
copriferro netto $A_{s\ tesa}$:	4,8	cm

n° ferri	*ϕ ferri*
5	16
0	0

$A_{sl,tesa}$ = 1005 mm^2

SOLLECITAZIONE

N_{Ed} :	0	kN
V_{Ed} :	17	kN

N_{Ed} è la forza longitudinale nella sezione dovuta ai carichi o alla precompressione (compressione +)

Elementi in c.a. ordinario privi di armatura a taglio

V_{Rd} =	156	kN		
k =	1,71		≤ 2	
d =	402	mm		*altezza utile della sezione*
ρ_1 =	0,00250		≤ 0,02	*rapporto geometrico di armatura longitudinale*
b_w =	1000	mm		*larghezza minima della sezione*
f_{ck} =	24,9	N/mm^2		
γ_c =	1,5			
σ_{cp} =	0,00	N/mm^2	≤ 0,2 f_{cd}	*tensione media di compressione della sezione*
v_{min} =	0,39			
V_{Rd}	>	V_{Ed}		**non è necessaria armatura a taglio.**

Verifica a taglio dir.y

Società di Progetto
Brebemi SpA

Verifica a taglio SLU
D.M. 14 gennaio 2008 - Norme tecniche per le costruzioni - 4.1.2.1.3

Classe Calcestruzzo :	C25/30
Calcestruzzo Rck :	30
Precompresso :	No
Acciaio :	B450C

Base :	100	cm
Altezza :	45	cm
copriferro netto $A_{s\ tesa}$:	6,3	cm

n° ferri	*ϕ ferri*
5	14
0	0

$A_{sl,tesa}$ = 770 mm^2

SOLLECITAZIONE

N_{Ed} :	0	kN
V_{Ed} :	27	kN

N_{Ed} è la forza longitudinale nella sezione dovuta ai carichi o alla precompressione (compressione +)

Elementi in c.a. ordinario privi di armatura a taglio

V_{Rd} =	152	kN		
k =	1,72		≤ 2	
d =	387	mm		*altezza utile della sezione*
ρ_1 =	0,00199		≤ 0,02	*rapporto geometrico di armatura longitudinale*
b_w =	1000	mm		*larghezza minima della sezione*
f_{ck} =	24,9	N/mm^2		
γ_c =	1,5			
σ_{cp} =	0,00	N/mm^2	≤ 0,2 f_{cd}	*tensione media di compressione della sezione*
v_{min} =	0,39			

V_{Rd} > V_{Ed} **non è necessaria armatura a taglio.**

7.2.1.2 Verifiche di resistenza agli stati limite di servizio

Verifica a fessurazione

Combinazione Frequente Momento Mx positivo

M = 18,78 kNm

N = 0 kNm

Rck = 30 N/mm2

Società di Progetto
Brebemi SpA

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 4.8 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 40.2 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 847,562 cm4

Aid = 4,781 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 82.49 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 98.20 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento Mx positivo

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 4.8 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 40.2 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 847,562 cm4

Aid = 4,781 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 82.49 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 98.20 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento Mx negativo

M = 15,18 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 4.8 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 40.2 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 847,562 cm4

Aid = 4,781 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 82.49 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 98.20 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento Mx negativo

M = 15,01 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 4.8 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 40.2 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 847,562 cm4

Aid = 4,781 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 82.49 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 98.20 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento My positivo

M = 34,88 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 6.3 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 38.7 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 815,934 cm4

Aid = 4,716 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 79.41 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 94.53 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento My positivo

M = 34,47 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 6.3 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 38.7 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 815,934 cm4

Aid = 4,716 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 79.41 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 94.53 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento My negativo

M = 26,16 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 6.3 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 38.7 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 815,934 cm4

Aid = 4,716 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

M = 79.41 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 94.53 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento My negativo

M = 25,97kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 45 cm (altezza sezione)

y' = 6.3 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 38.7 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 815,934 cm4

Aid = 4,716 cm2

x(I) = 22.500 cm (asse neutro stato I, dal lembo compresso)

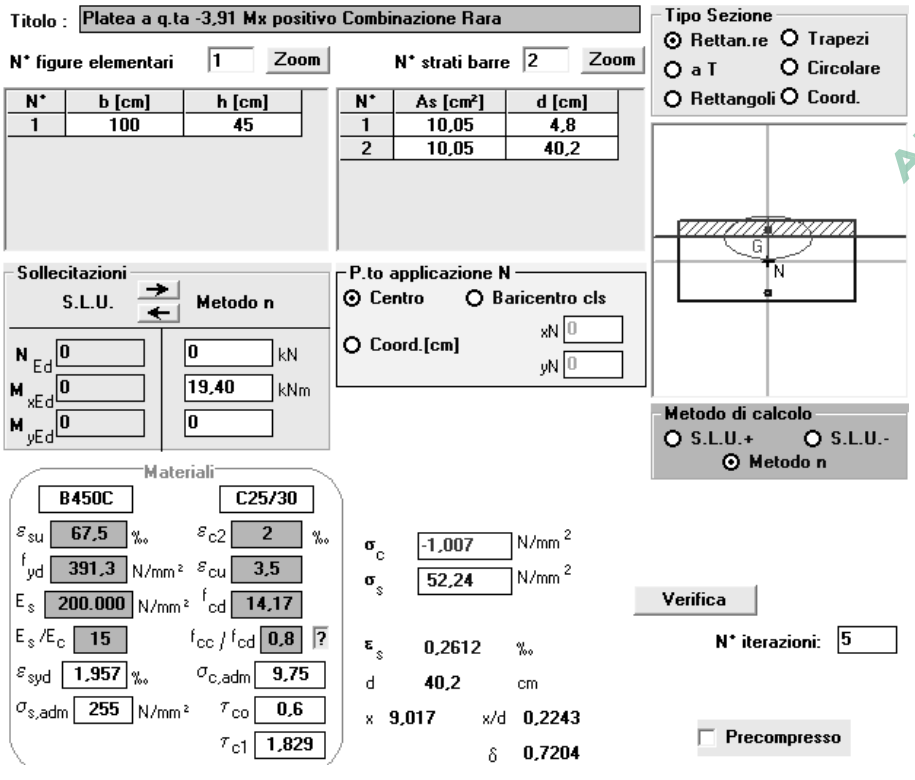
M = 79.41 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 94.53 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Verifica delle tensioni di esercizio

Combinazione Rara



Società di Progetto
Brebemi SpA

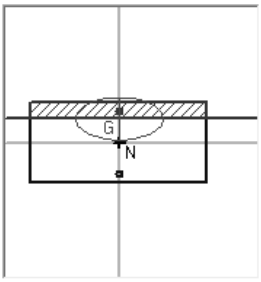
Titolo : Platea a q.ta -3,91 Mx negativo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	10,05	4,8
2	10,05	40,2

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. → ← Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	16,12 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-0,8368 N/mm²		
σ_s	43,41 N/mm²		
ε_s	0,217 ‰		
d	40,2 cm		
x	9,017	x/d	0,2243
		δ	0,7204

Verifica — N° iterazioni: 5

[ ] Precompresso

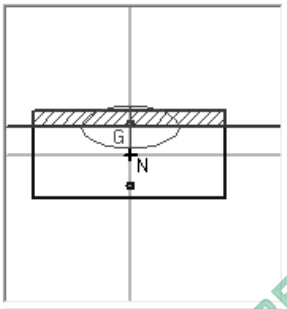
Titolo : Platea a q.ta -3,91 My positivo Combinazione rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	7,7	6,3
2	7,7	38,7

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. → ← Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	36,14 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-2,332 N/mm²		
σ_s	131,2 N/mm²		
ε_s	0,6561 ‰		
d	38,7 cm		
x	8,144	x/d	0,2104
		δ	0,703

Verifica — N° iterazioni: 5

[ ] Precompresso

Società di Progetto
Brebemi SpA

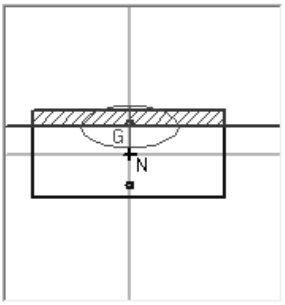
Titolo : Platea a q.ta -3,91 My negativo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	7,7	6,3
2	7,7	38,7



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	27,42 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -1,769 N/mm² — σ_s 99,56 N/mm²

Verifica — N° iterazioni: 5

ε_s 0,4978 ‰ — d 38,7 cm — x 8,144 — x/d 0,2104 — δ 0,703

Precompresso

Combinazione Quasi Permanente

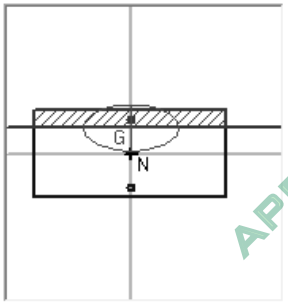
Titolo : Platea a q.ta -3,91 Mx positivo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	10,05	4,8
2	10,05	40,2



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	18,61 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -0,966 N/mm² — σ_s 50,11 N/mm²

Verifica — N° iterazioni: 5

ε_s 0,2506 ‰ — d 40,2 cm — x 9,017 — x/d 0,2243 — δ 0,7204

Precompresso

Società di Progetto
Brebemi SpA

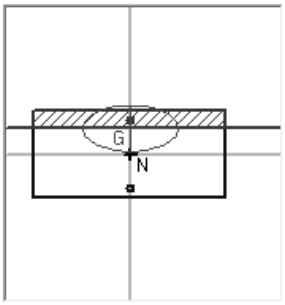
Titolo : Platea a q.ta -3,91 Mx negativo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	10,05	4,8
2	10,05	40,2



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	15,01 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-0,7792	N/mm²
σ_s	40,42	N/mm²
ε_s	0,2021	‰
d	40,2	cm
x	9,017	x/d 0,2243
		δ 0,7204

Verifica — N° iterazioni: 5 — Precompresso

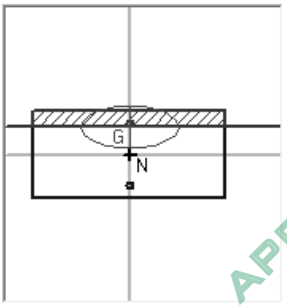
Titolo : Platea a q.ta -3,91 My positivo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	45

N°	As [cm²]	d [cm]
1	7,7	6,3
2	7,7	38,7



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	34,47 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

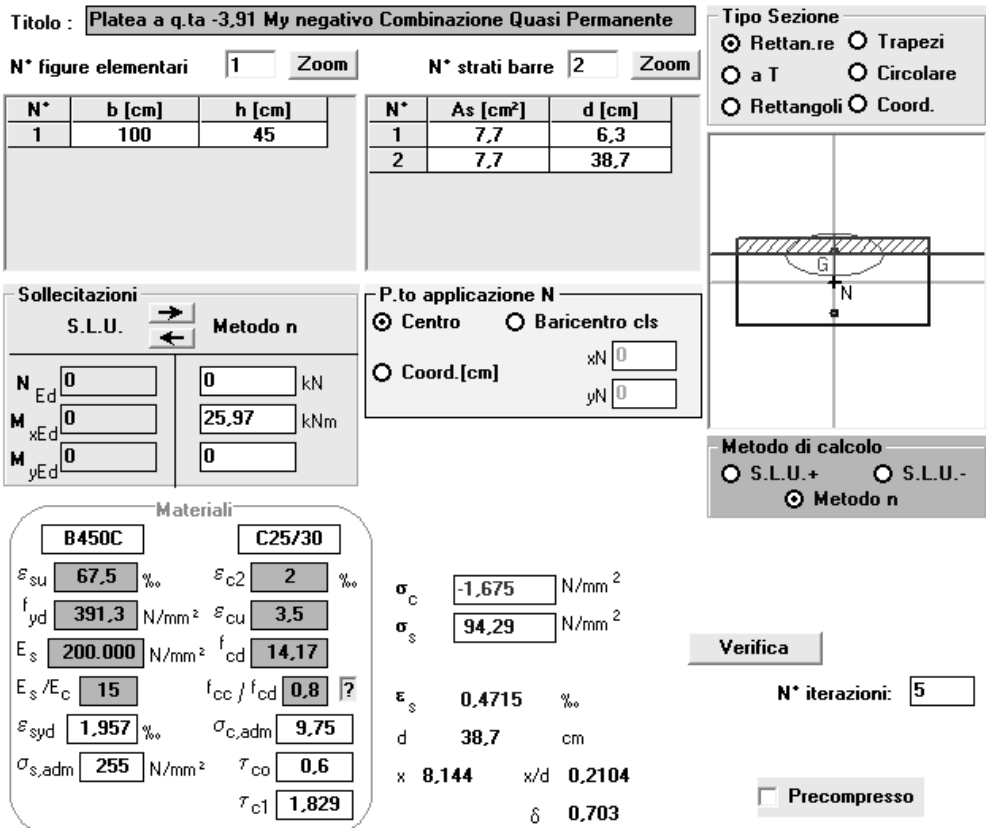
Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-2,224	N/mm²
σ_s	125,2	N/mm²
ε_s	0,6258	‰
d	38,7	cm
x	8,144	x/d 0,2104
		δ 0,703

Verifica — N° iterazioni: 5 — Precompresso

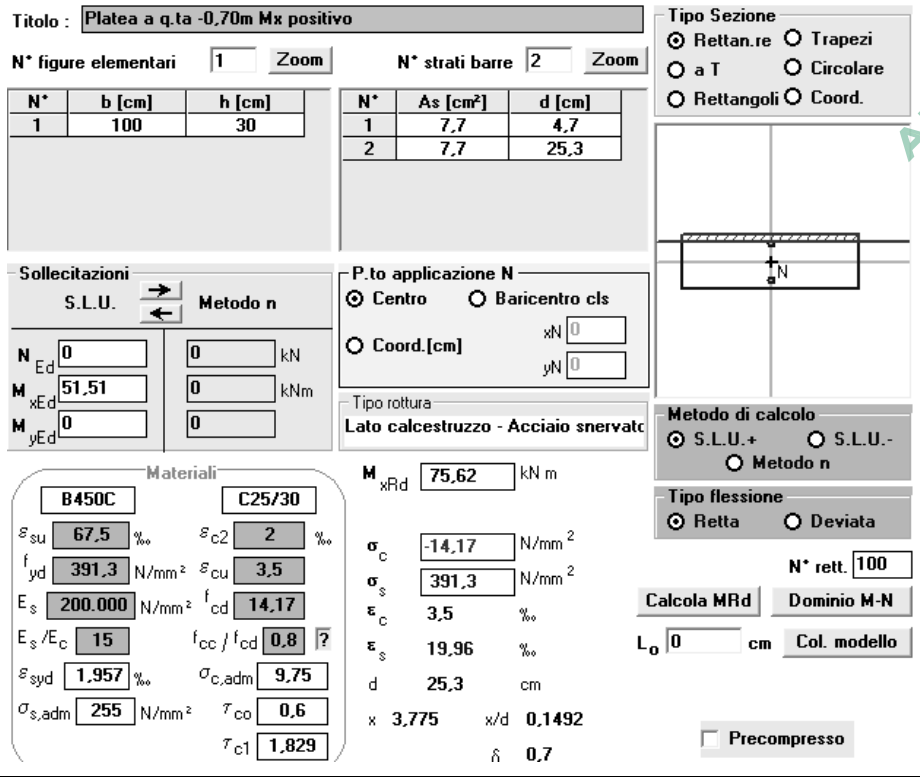
Società di Progetto
Brebemi SpA



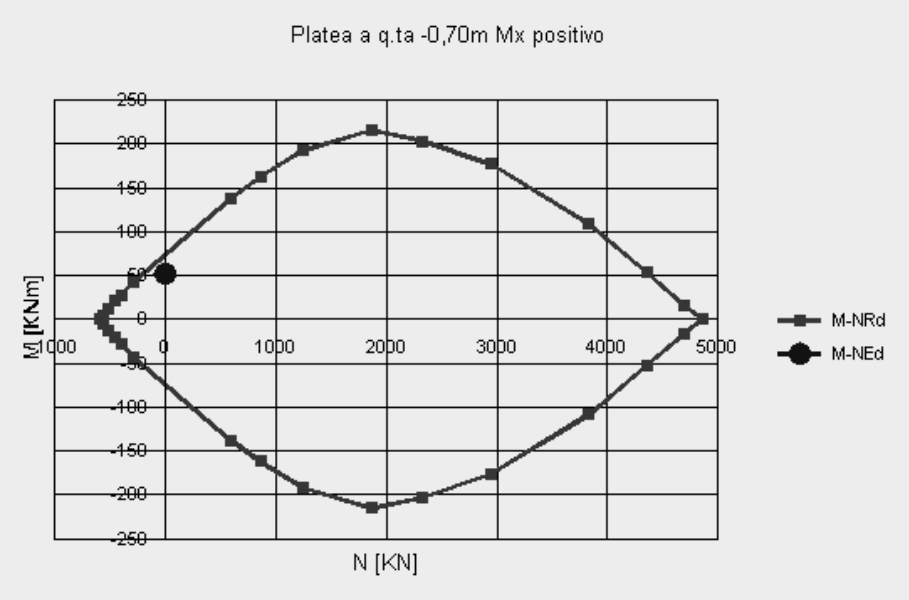
7.2.2 Verifiche platea con estradosso a quota -0.70m

7.2.2.1 Verifiche di resistenza agli stati limite ultimi

Verifica a flessione



Società di Progetto
Brebemi SpA



Titolo : Platea a q.ta -0,70m Mx negativo

N° figure elementari 1 Zoom

N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	7,7	4,7
2	7,7	25,3

Tipo Sezione: Rettan.re, Trapezi, a T, Circolare, Rettangoli, Coord.

Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	33,14	0 kNm
M_{yEd}	0	0

P.to applicazione N: Centro, Baricentro cls, Coord.[cm], xN 0, yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

M_{xRd} 75,62 kN m

σ_c	-14,17	N/mm²
σ_s	391,3	N/mm²
ε_c	3,5	‰
ε_s	19,96	‰
d	25,3	cm
x	3,775	x/d 0,1492
		δ 0,7

Metodo di calcolo: S.L.U.+, S.L.U.-, Metodo n

Tipo flessione: Retta, Deviata

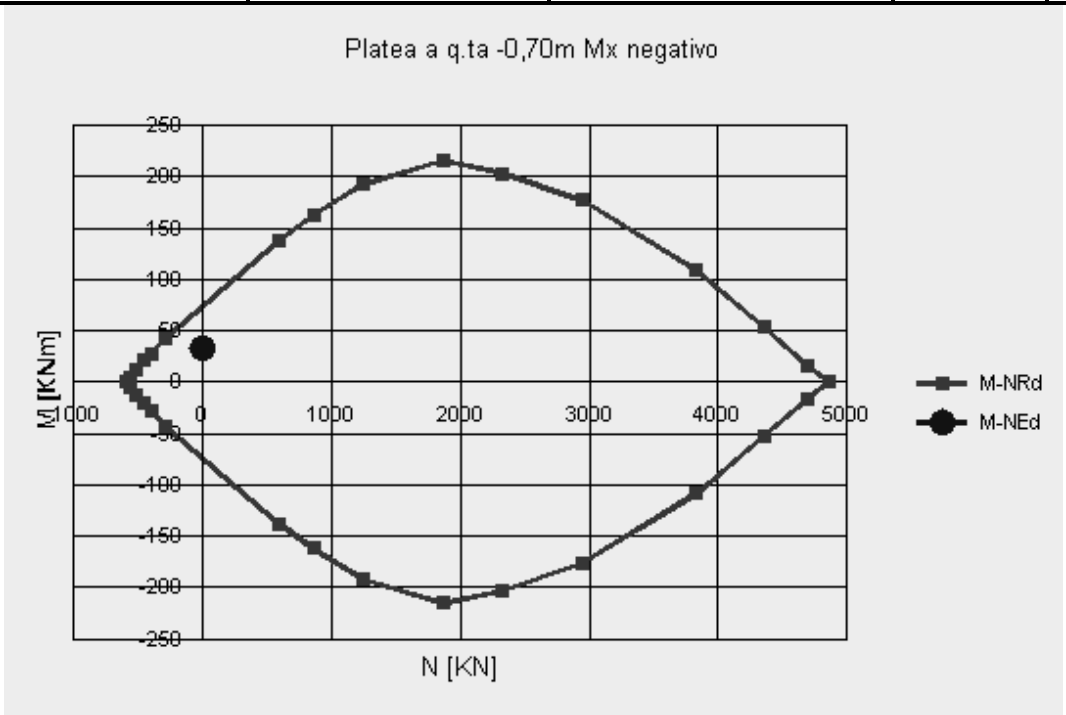
N° rett. 100

Calcola MRd | Dominio M-N

L_o 0 cm | Col. modello

Precompresso

Società di Progetto
Brebemi SpA



Titolo : Platea a q.ta -0,70m My positivo

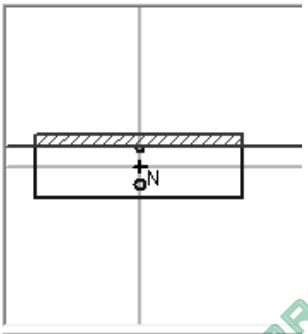
N° figure elementari 1 Zoom

N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	6,2
2	16,08	23,8

Tipo Sezione
- (•) Rettan.re ( ) Trapezi
- ( ) a T ( ) Circolare
- ( ) Rettangoli ( ) Coord.



Sollecitazioni
S.L.U. → ← Metodo n

N_{Ed}	0	0 kN
M_{xEd}	102,20	0 kNm
M_{yEd}	0	0

P.to applicazione N
- (•) Centro ( ) Baricentro cls
- ( ) Coord.[cm] xN 0 yN 0

Tipo rottura
Lato calcestruzzo - Acciaio snervato

Metodo di calcolo
- (•) S.L.U.+ ( ) S.L.U.-
- ( ) Metodo n

Tipo flessione
- (•) Retta ( ) Deviata

Materiali

	B450C		C25/30
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

M_{xRd} 136 kN m

σ_c	-14,17	N/mm²
σ_s	391,3	N/mm²
ε_c	3,5	‰
ε_s	10,74	‰
d	23,8	cm
x	5,85	x/d 0,2458
		δ 0,7472

N° rett. 100

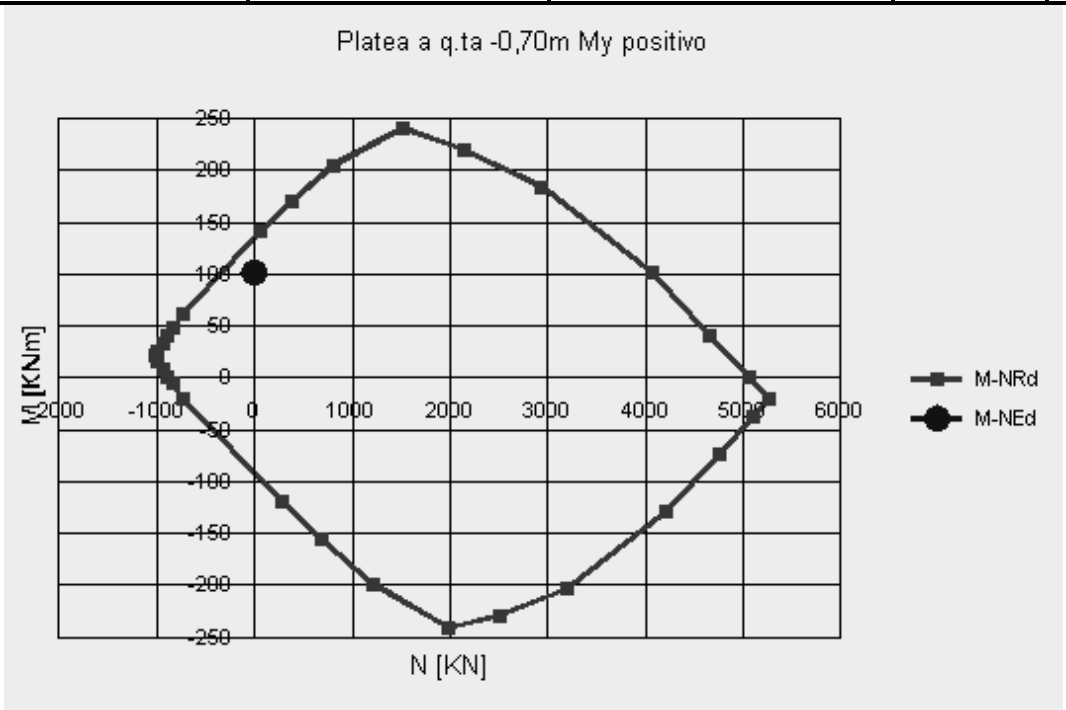
Calcola MRd | Dominio M-N

L_o 0 cm | Col. modello

☐ Precompresso

APPROVATO SDP

Società di Progetto
Brebemi SpA



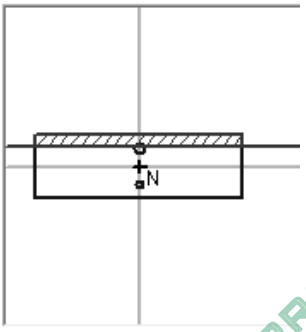
Titolo : Platea a q.ta -0,70m My negativo

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	23,8
2	16,08	6,2

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	88,96	0 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Tipo rottura: Lato calcestruzzo - Acciaio snervato

Metodo di calcolo: (•) S.L.U.+ ( ) S.L.U.- ( ) Metodo n

Tipo flessione: (•) Retta ( ) Deviata

Materiali

	B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2	‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5	
E_s	200.000 N/mm²	f_{cd}	14,17	
E_s/E_c	15	f_{cc}/f_{cd}	0,8	?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75	
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6	
		τ_{c1}	1,829	

M_{xRd} 93,37 kN m

σ_c	-14,17	N/mm²
σ_s	391,3	N/mm²
ε_c	3,5	‰
ε_s	12,41	‰
d	23,8	cm
x	5,235	x/d 0,2199
		δ 0,7149

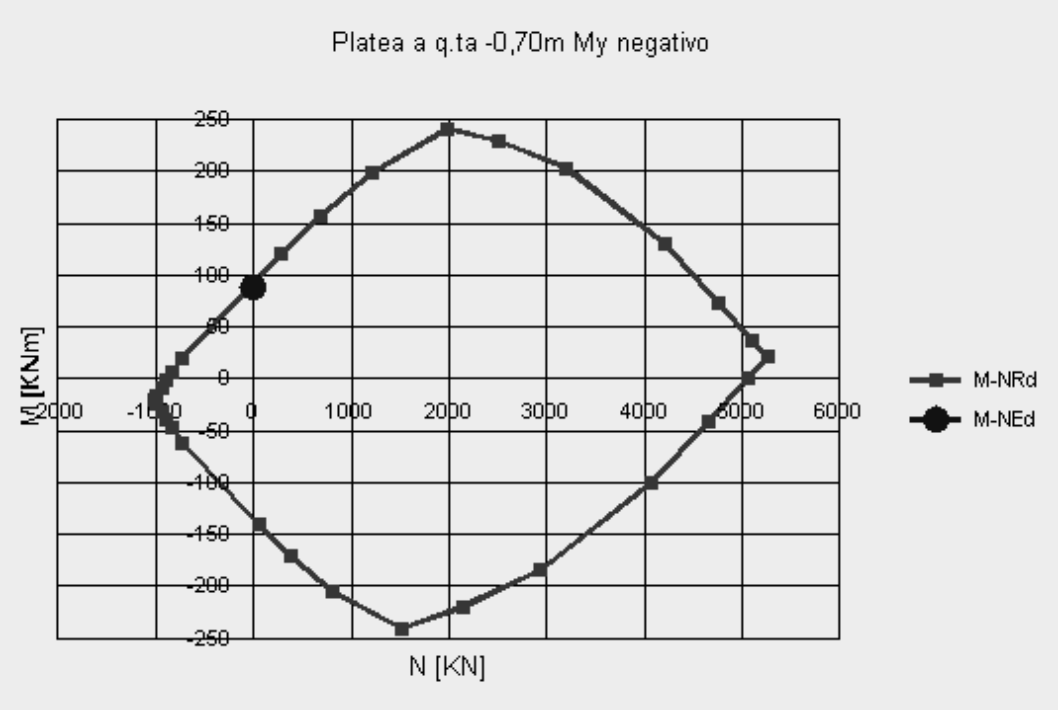
N° rett. 100

Calcola MRd | Dominio M-N

L_o 0 cm | Col. modello

☐ Precompresso

Società di Progetto
Brebemi SpA



Verifica a taglio dir.x

Società di Progetto
Brebemi SpA

Verifica a taglio SLU
D.M. 14 gennaio 2008 - Norme tecniche per le costruzioni - 4.1.2.1.3

Classe Calcestruzzo :	C25/30
Calcestruzzo Rck :	30
Precompresso :	No
Acciaio :	B450C

Base :	100	cm
Altezza :	30	cm
copriferro netto $A_{s\ tesa}$:	4,7	cm

n° ferri	*ϕ ferri*
5	14
0	0

$A_{sl,tesa}$ = 770 mm^2

SOLLECITAZIONE

N_{Ed} :	0	kN
V_{Ed} :	35	kN

N_{Ed} è la forza longitudinale nella sezione dovuta ai carichi o alla precompressione (compressione +)

Elementi in c.a. ordinario privi di armatura a taglio

V_{Rd} =	115	kN		
k =	1,89		≤ 2	
d =	253	mm		*altezza utile della sezione*
ρ_1 =	0,00304		≤ 0,02	*rapporto geometrico di armatura longitudinale*
b_w =	1000	mm		*larghezza minima della sezione*
f_{ck} =	24,9	N/mm^2		
γ_c =	1,5			
σ_{cp} =	0,00	N/mm^2	≤ 0,2 f_{cd}	*tensione media di compressione della sezione*
v_{min} =	0,45			

V_{Rd} > V_{Ed} **non è necessaria armatura a taglio.**

Verifica a taglio dir.y

Società di Progetto
Brebemi SpA

Verifica a taglio SLU
D.M. 14 gennaio 2008 - Norme tecniche per le costruzioni - 4.1.2.1.3

Classe Calcestruzzo :	C25/30
Calcestruzzo Rck :	30
Precompresso :	No
Acciaio :	B450C

Base :	100	cm
Altezza :	30	cm
copriferro netto $A_{s\ tesa}$:	6,2	cm

n° ferri	*ϕ ferri*
5	16
0	0

$A_{sl,tesa}$ = 1005 mm^2

SOLLECITAZIONE

N_{Ed} :	0	kN
V_{Ed} :	51	kN

N_{Ed} è la forza longitudinale nella sezione dovuta ai carichi o alla precompressione (compressione +)

Elementi in c.a. ordinario privi di armatura a taglio

V_{Rd} =	120	kN		
k =	1,92		≤ 2	
d =	238	mm		*altezza utile della sezione*
ρ_1 =	0,00422		≤ 0,02	*rapporto geometrico di armatura longitudinale*
b_w =	1000	mm		*larghezza minima della sezione*
f_{ck} =	24,9	N/mm^2		
γ_c =	1,5			
σ_{cp} =	0,00	N/mm^2	≤ 0,2 f_{cd}	*tensione media di compressione della sezione*
v_{min} =	0,46			

V_{Rd} > V_{Ed} **non è necessaria armatura a taglio.**

Società di Progetto
Brebemi SpA

7.2.2.2 Verifiche di resistenza agli stati limite di servizio

Verifica a fessurazione

Combinazione Frequente Momento Mx positivo

M = 10,84 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 4.7 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 25.3 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 247,864 cm4

Aid = 3,216 cm2

x(I) = 15.000 cm (asse neutro stato I, dal lembo compresso)

M = 36.18 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.08 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento Mx positivo

M = 10,74 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 4.7 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 25.3 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 247,864 cm4

Aid = 3,216 cm2

x(I) = 15.000 cm (asse neutro stato I, dal lembo compresso)

M = 36.18 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.08 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento Mx negativo

M = 9,28 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 4.7 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 25.3 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 247,864 cm4

Aid = 3,216 cm2

x(I) = 15.000 cm (asse neutro stato I, dal lembo compresso)

M = 36.18 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.08 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento Mx negativo

M = 9,13 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 4.7 cm (posizione di armatura)

A'a = 7.70 cm2 (n° 5 f 14 passo 20 cm)

y = 25.3 cm (posizione di armatura)

Aa = 7.70 cm2 (n° 5 f 14 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 247,864 cm4

Aid = 3,216 cm2

x(I) = 15.000 cm (asse neutro stato I, dal lembo compresso)

M = 36.18 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.08 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento My positivo

M = 31,18 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 6.2 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 23.8 cm (posizione di armatura)

Aa = 16.08 cm2 (n° 5 f 16 passo 20 cm + n° 3 f 16 concentrati)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 253,174 cm4

Aid = 3,366 cm2

x(I) = 15.221 cm (asse neutro stato I, dal lembo compresso)

M = 37.51 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 44.66 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento My positivo

M = 30,91 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 6.2 cm (posizione di armatura)

A'a = 10.05 cm2 (n° 5 f 16 passo 20 cm)

y = 23.8 cm (posizione di armatura)

Aa = 16.08 cm2 (n° 5 f 16 passo 20 cm + n° 3 f 16 concentrati)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 253,174 cm4

Aid = 3,366 cm2

x(I) = 15.221 cm (asse neutro stato I, dal lembo compresso)

M = 37.51 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 44.66 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Frequente Momento My negativo

M = 13,92 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 6.2 cm (posizione di armatura)

A'a = 16.08 cm2 (n° 5 f 16 passo 20 cm + n° 3 f 16 concentrati)

y = 23.8 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 253,174 cm4

Aid = 3,366 cm2

x(I) = 14.779 cm (asse neutro stato I, dal lembo compresso)

M = 36.42 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.36 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Combinazione Quasi Permanente Momento My negativo

M = 13.78 kNm

N = 0 kNm

Rck = 30 N/mm2

fctm = 2.61 N/mm2 (0,27xRck^2/3)

B = 100 cm (larghezza sezione)

H = 30 cm (altezza sezione)

y' = 6.2 cm (posizione di armatura)

A'a = 16.08 cm2 (n° 5 f 16 passo 20 cm + n° 3 f 16 concentrati)

y = 23.8 cm (posizione di armatura)

Aa = 10.05 cm2 (n° 5 f 16 passo 20 cm)

STADIO NON FESSURATO

n = 15 (coeff. omogeneizzazione)

Jid(I) = 253,174 cm4

Aid = 3,366 cm2

x(I) = 14.779 cm (asse neutro stato I, dal lembo compresso)

M = 36.42 kNm (Momento di formazione fessura fcfk = 0,7x1,2xfctm)

Mf = 43.36 kNm (Momento di fessurazione fctm)

Momento d'esercizio inferiore al momento di fessurazione quindi non serve calcolare l'ampiezza delle fessure

Verifica delle tensioni di esercizio

Combinazione Rara

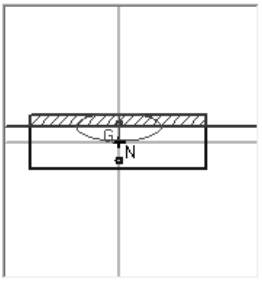
Titolo : Platea a q.ta -0,70m Mx positivo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	7,7	4,7
2	7,7	25,3



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	11,57 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-1,455	N/mm²
σ_s	65,42	N/mm²
ε_s	0,3271	‰
d	25,3	cm
x	6,329	x/d 0,2502
		δ 0,7527

Verifica — N° iterazioni: 4 — [ ] Precompresso

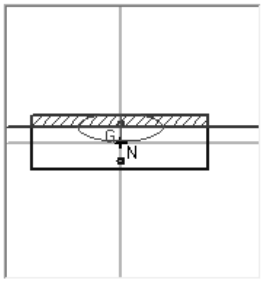
Titolo : Platea a q.ta -0,70m Mx negativo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	7,7	4,7
2	7,7	25,3



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	9,99 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-1,256	N/mm²
σ_s	56,49	N/mm²
ε_s	0,2824	‰
d	25,3	cm
x	6,329	x/d 0,2502
		δ 0,7527

Verifica — N° iterazioni: 4 — [ ] Precompresso

Società di Progetto
Brebemi SpA

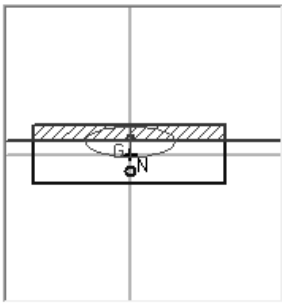
Titolo : Platea a q.ta -0,70m My positivo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	6,2
2	16,08	23,8



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	32,80 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-3,497	N/mm²
σ_s	98,3	N/mm²
ε_s	0,4915	‰
d	23,8	cm
x	8,282	x/d 0,348
		δ 0,875

Verifica — N° iterazioni: 4 — Precompresso

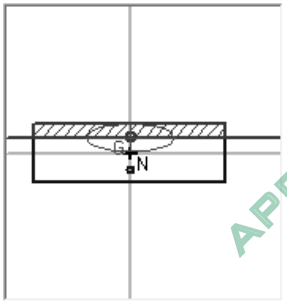
Titolo : Platea a q.ta -0,70m My negativo Combinazione Rara

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	23,8
2	16,08	6,2



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	14,75 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c	-1,88	N/mm²
σ_s	69,09	N/mm²
ε_s	0,3455	‰
d	23,8	cm
x	6,898	x/d 0,2899
		δ 0,8023

Verifica — N° iterazioni: 4 — Precompresso

Combinazione Quasi Permanente

Società di Progetto
Brebemi SpA

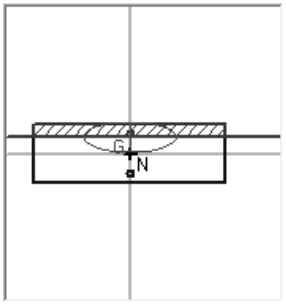
Titolo : Platea a q.ta -0,70m Mx positivo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	7,7	4,7
2	7,7	25,3



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	10,74 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

	B450C		C25/30
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -1,351 N/mm² — σ_s 60,73 N/mm²

Verifica — N° iterazioni: 4

ε_s 0,3036 ‰ — d 25,3 cm — x 6,329 — x/d 0,2502 — δ 0,7527

Precompresso

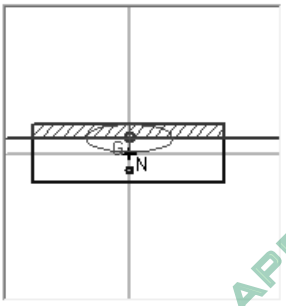
Titolo : Platea a q.ta -0,70m Mx negativo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	23,8
2	16,08	6,2



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	9,13 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

	B450C		C25/30
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -1,164 N/mm² — σ_s 42,77 N/mm²

Verifica — N° iterazioni: 4

ε_s 0,2138 ‰ — d 23,8 cm — x 6,898 — x/d 0,2899 — δ 0,8023

Precompresso

Società di Progetto
Brebemi SpA

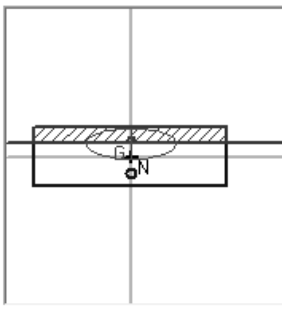
Titolo : Platea a q.ta -0,70m My positivo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	10,05	6,2
2	16,08	23,8



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	30,91 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -3,296 N/mm² — σ_s 92,63 N/mm²

Verifica — N° iterazioni: 4

ε_s 0,4632 ‰ — d 23,8 cm — x 8,282 — x/d 0,348 — δ 0,875

Precompresso

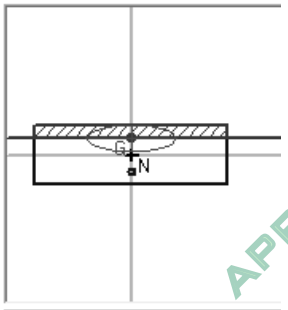
Titolo : Platea a q.ta -0,70m My negativo Combinazione Quasi Permanente

N° figure elementari 1 Zoom — N° strati barre 2 Zoom

Tipo Sezione: (•) Rettan.re ( ) Trapezi ( ) a T ( ) Circolare ( ) Rettangoli ( ) Coord.

N°	b [cm]	h [cm]
1	100	30

N°	As [cm²]	d [cm]
1	7,7	23,9
2	13,73	6,2



Sollecitazioni — S.L.U. — Metodo n

N_{Ed}	0	0 kN
M_{xEd}	0	13,78 kNm
M_{yEd}	0	0

P.to applicazione N: (•) Centro ( ) Baricentro cls ( ) Coord.[cm] xN 0 yN 0

Metodo di calcolo: ( ) S.L.U.+ ( ) S.L.U.- (•) Metodo n

Materiali

B450C		C25/30	
ε_{su}	67,5 ‰	ε_{c2}	2 ‰
f_{yd}	391,3 N/mm²	ε_{cu}	3,5
E_s	200.000 N/mm²	f_{cd}	14,17
E_s/E_c	15	f_{cc}/f_{cd}	0,8 ?
ε_{syd}	1,957 ‰	$\sigma_{c,adm}$	9,75
$\sigma_{s,adm}$	255 N/mm²	τ_{co}	0,6
		τ_{c1}	1,829

σ_c -1,977 N/mm² — σ_s 82,33 N/mm²

Verifica — N° iterazioni: 4

ε_s 0,4117 ‰ — d 23,9 cm — x 6,329 — x/d 0,2648 — δ 0,771

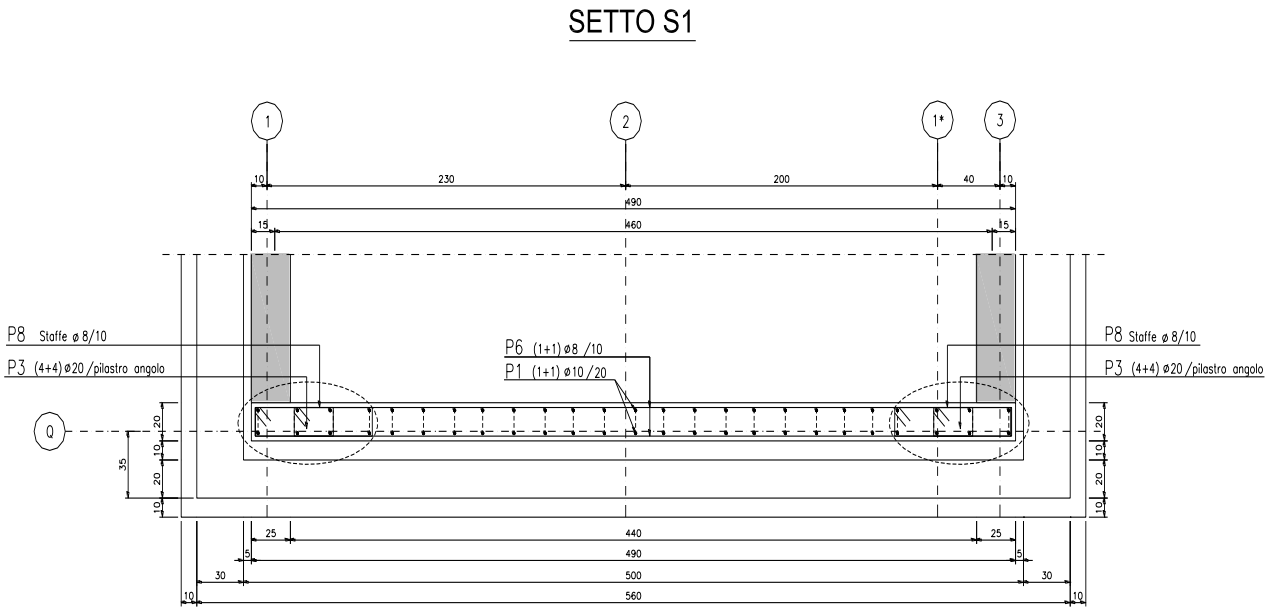
Precompresso

Società di Progetto
Brebemi SpA

8. VERIFICHE SETTI

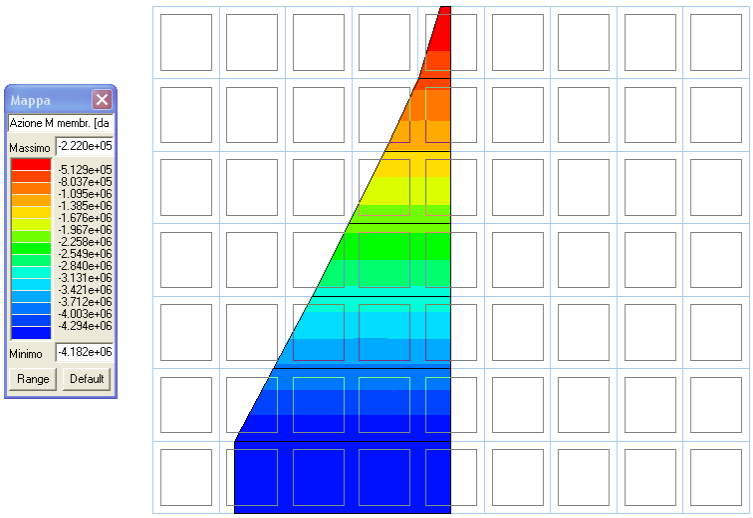
Si riporta nel seguito la verifica delle pareti strutturali dell'edificio chiamate: Setto S1, Setto S2, Setto S3, Setto S4 e Setto S5

8.1 Setto S1

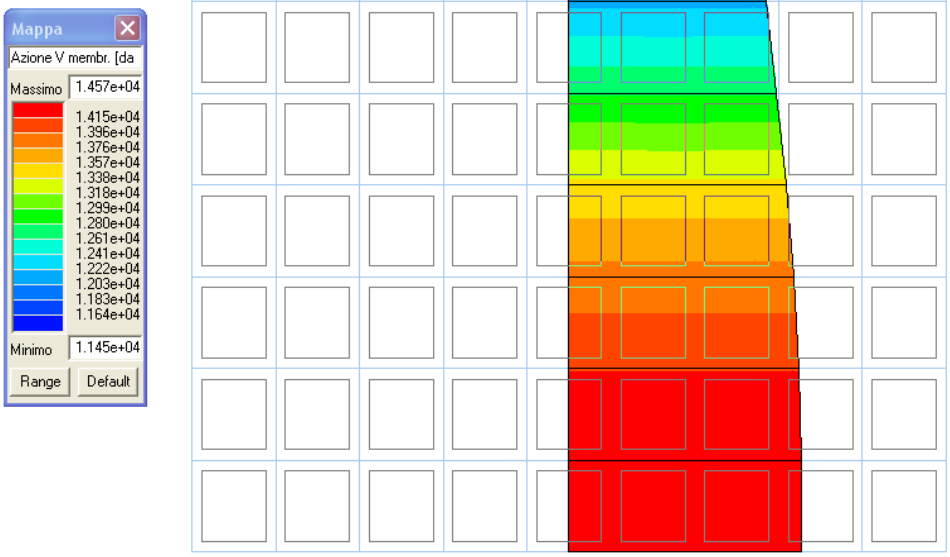


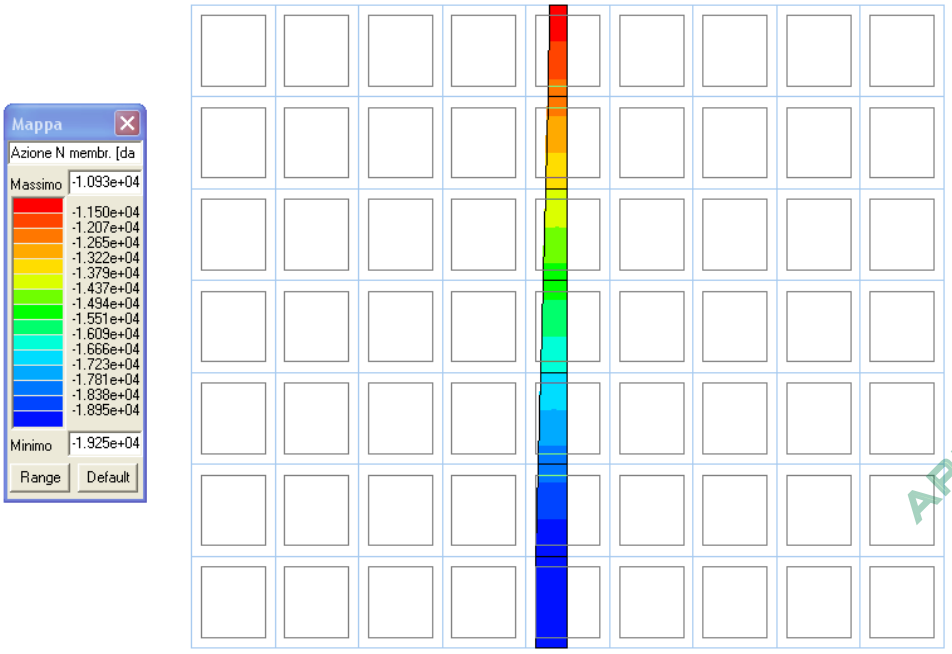
Armatura elemento estremità: (4+4)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

Armatura parete: (1+1)D10/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm



Società di Progetto
Brebemi SpA





Momento Mmax	4182000 daNcm
Taglio Vmax	14570 daN
Azione assiale	19250 daN

Società di Progetto
Brebemi SpA

8.1.1 Verifica a flessione

Dati generali

Unità di misura daN, cm

Materiali per i poligoni

n°	tipo	Nome
1	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	20.
2	490.	20.
3	490.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20	5.	5.
2	20	28.333333	5.
3	20	51.666667	5.
4	20	75.	5.
5	20	5.	15.
6	20	28.333333	15.
7	20	51.666667	15.
8	20	75.	15.
9	20	415.333333	5.
10	20	438.666667	5.
11	20	462.	5.
12	20	485.333333	5.
13	20	415.333333	15.
14	20	438.666667	15.
15	20	462.	15.
16	20	485.333333	15.

17	10.	95.	5.
18	10.	116.785714	5.
19	10.	138.571429	5.
20	10.	160.357143	5.
21	10.	182.142857	5.
22	10.	203.928571	5.
23	10.	225.714286	5.
24	10.	247.5	5.
25	10.	269.285714	5.
26	10.	291.071429	5.
27	10.	312.857143	5.
28	10.	334.642857	5.
29	10.	356.428571	5.
30	10.	378.214286	5.
31	10.	395.333333	5.
32	10.	95.	15.
33	10.	116.785714	15.
34	10.	138.571429	15.
35	10.	160.357143	15.
36	10.	182.142857	15.
37	10.	203.928571	15.
38	10.	225.714286	15.
39	10.	247.5	15.
40	10.	269.285714	15.
41	10.	291.071429	15.
42	10.	312.857143	15.
43	10.	334.642857	15.
44	10.	356.428571	15.
45	10.	378.214286	15.
46	10.	395.333333	15.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	4182000,0	-19250,0	0,0	112846225,9	-519438,0	**26,9837938**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	4182000,0	-19250,0	0,0	48756140,9	-19250,0	**11,6585703**

8.1.2 Verifica a taglio

V_{sdu} = 14.570 daN

$1{,}5V_{sdu}$ = 21.855 daN

N_{sd} = 19.250 daN (compressione)

Società di Progetto
Brebemi SpA

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot(100\rho_l\cdot f_{ck})^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d\,;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,2102<2

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}<0.2\cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3,14x8+0.785x2) cm^2 / (20 x 452) cm^2 = 0,0042

$$v_{min}=0.035\cdot k^{3/2}\cdot f_{ck}^{1/2}=0.035\cdot 1.2102^{3/2}\cdot 29{,}05^{1/2}=0.2512$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}=\frac{192500N}{4900mm\cdot 200mm}=0{,}20N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12\cdot 1.2102\cdot(100\cdot 0.0042\cdot 29.05)^{1/3}+0{,}15\cdot 0{,}20\right]\cdot 4525\cdot 200\,;\left[(0.2512+0{,}15\cdot 0{,}20)\cdot 4525\cdot 200\right]\right)=$$

=32.836 daN

$1{,}5V_{sdu}$ =21.855 daN <32.836 daN VERIFICATA

per cui non è necessario disporre armatura aggiuntiva a taglio

8.1.3 Verifica a scorrimento nelle zone critiche

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \le V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$V_{dd}=\min\left(1.3\cdot\sum A_{sj}\cdot\sqrt{f_{cd}\cdot f_{yd}}\,;0.25\cdot f_{yd}\sum A_{sj}\right)$ contributo effetto spinotto delle barre verticali

$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$ contributo armature inclinate presenti alla base

$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed} \right) \cdot \xi + \frac{M_{Ed}}{z} \right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0} \right)$ contributo resistenza per attrito

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250} \right)$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**7.693,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**802.659**	**N**
Vdd_2	**752.568**	**N**

Il contributo della resistenza per attrito vale:

Società di Progetto
Brebemi SpA

Asj	7.693,00	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	192.500	N
M_{Ed}	418.200	Nmm
z	3920	mm
ζ	0,4682	mm
l_w	4900	mm
b_w	200	mm
Vfd	899.829	N
Vfd	2.002.657	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**1.652.397**	N
V_{sd}	145.700	N
$1,5V_{sd}$	218.550	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =75.257 daN + 0 + 89.983 = 165.240 daN > 21.855 daN VERIFICATO

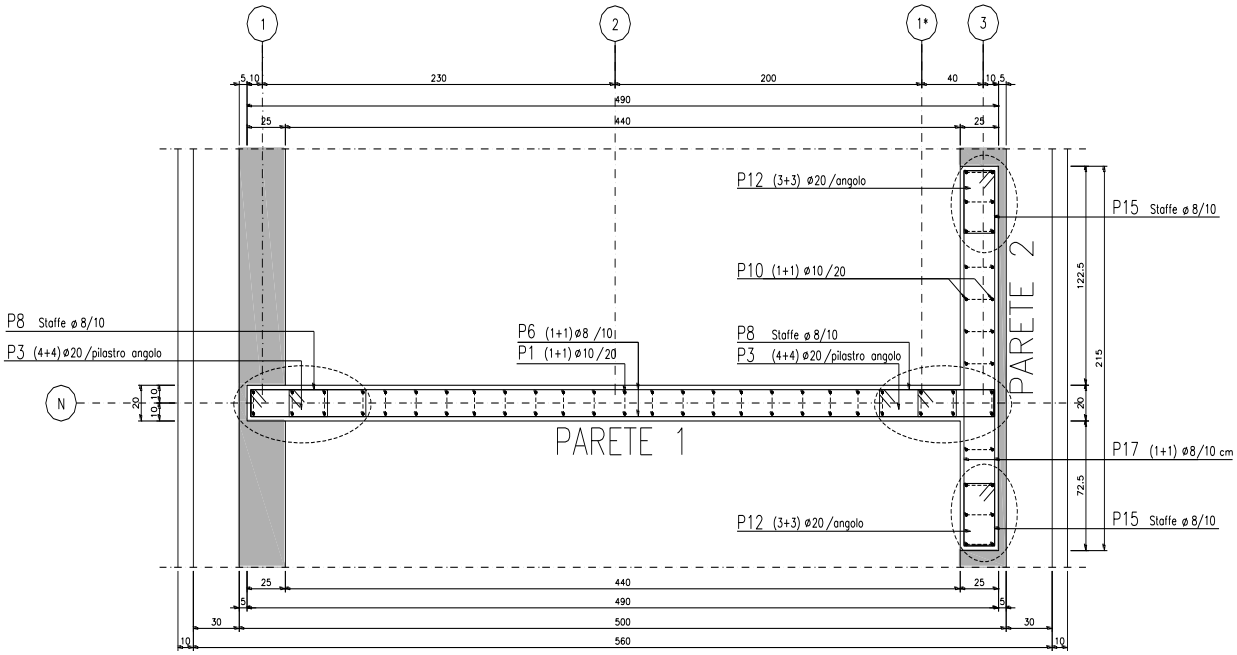
8.2 Setti S2 – S3

Il setto S3 ha la stessa carpenteria del setto S2 ed è armato in maniera analoga.

Di seguito si riportano le verifiche per le sollecitazioni peggiori.

Società di Progetto
Brebemi SpA

SETTO S2



PARETE 1:

Armatura elemento estremità: (4+4)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

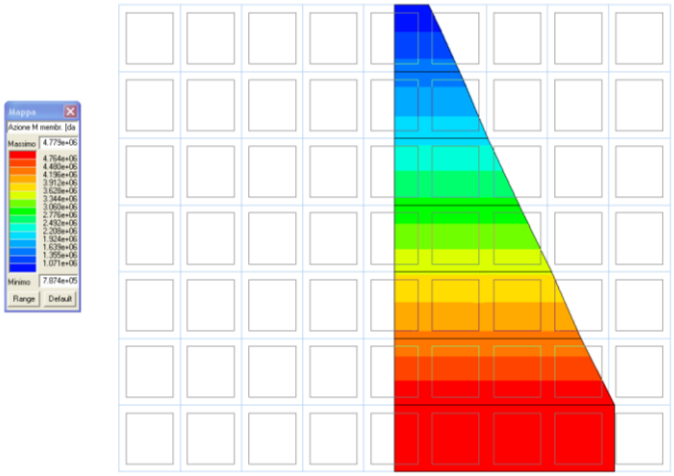
Armatura parete: (1+1)D10/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

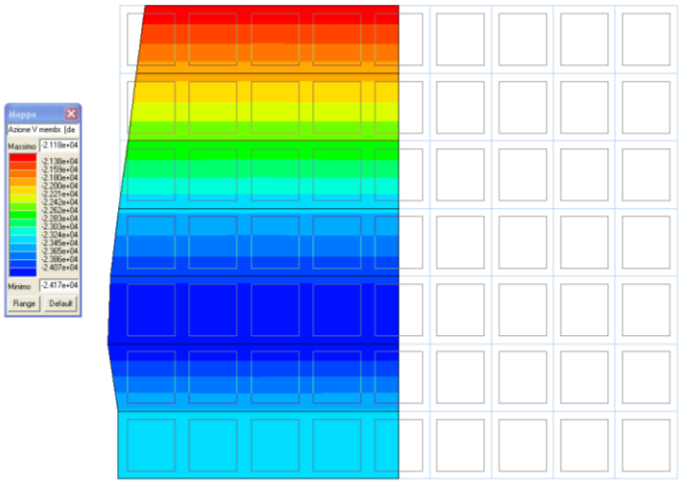
PARETE 2:

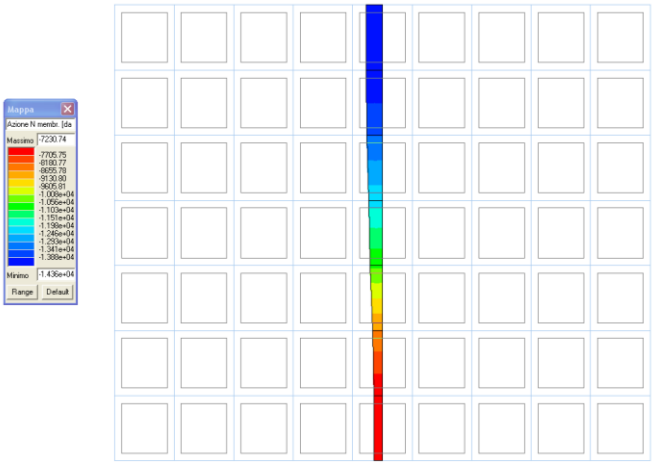
Armatura elemento estremità: (3+3)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

Armatura parete: (1+1)D10/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

SETTO S2 PARETE 1:



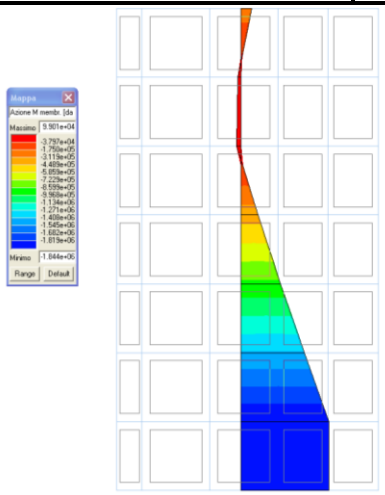


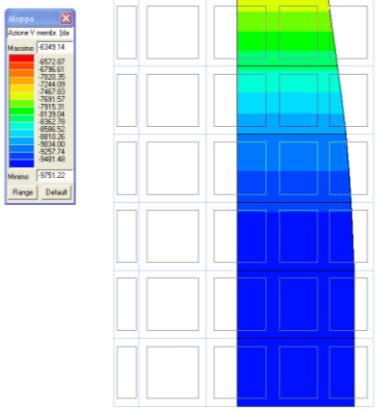


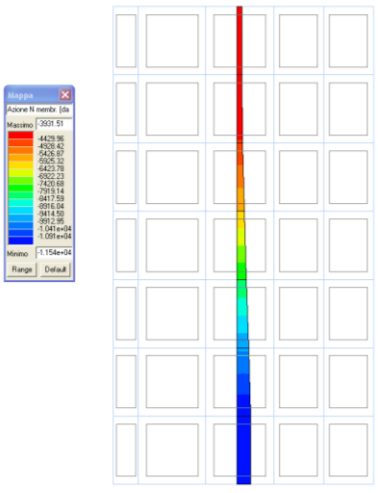
Momento Mmax	4779000 daNcm
Taglio Vmax	24170 daN
Azione assiale	14360 daN

SETTO S2 PARETE 2:

Società di Progetto
Brebemi SpA







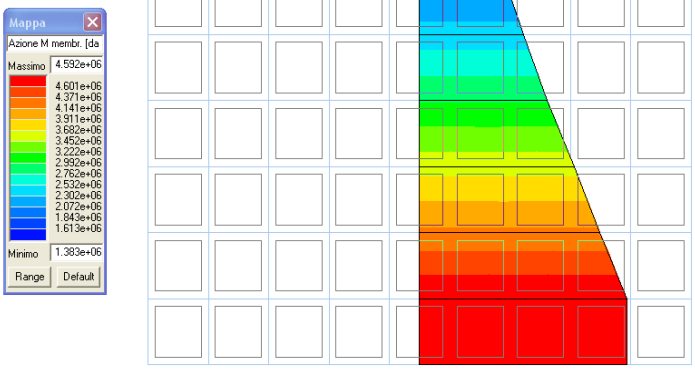
Momento Mmax 1844000 daNcm

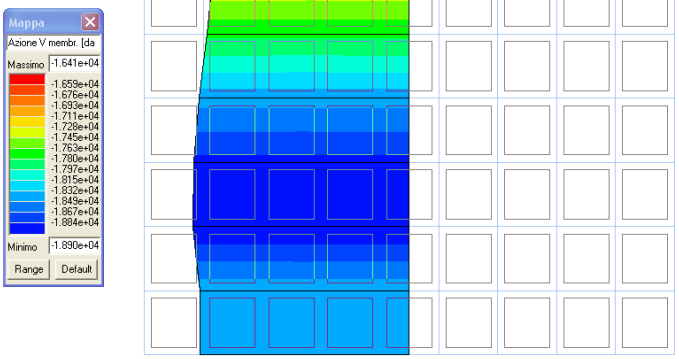
Taglio Vmax 9751 daN

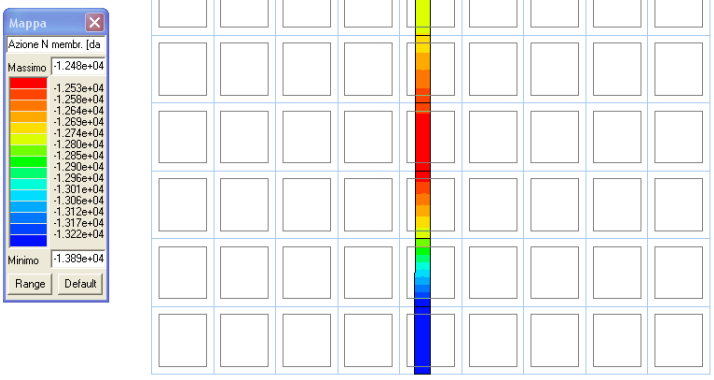
Azione assiale 11540 daN

SETTO S3 PARETE 1:

Società di Progetto
Brebemi SpA







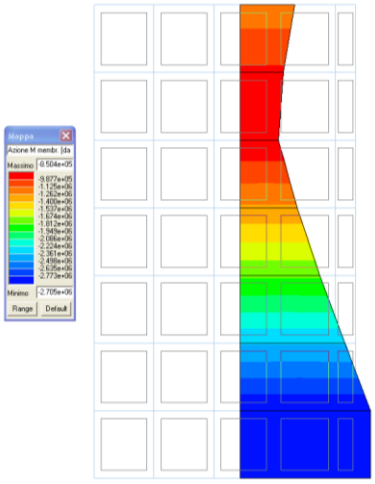
Momento Mmax 4592000 daNcm

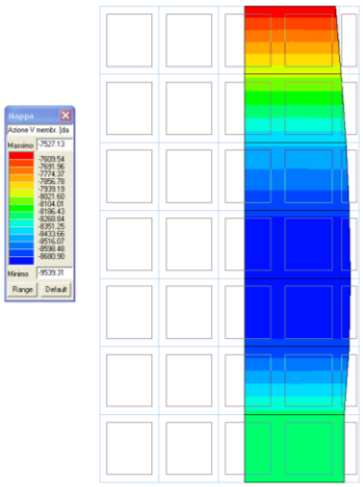
Taglio Vmax 18900 daN

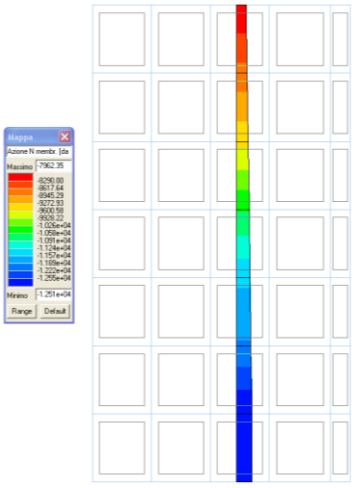
Azione assiale 13890 daN

SETTO S3 PARETE 2:

Società di Progetto
Brebemi SpA







Momento Mmax 2705000 daNcm

Taglio Vmax 9539 daN

Azione assiale 12510 daN

8.2.1 Verifica a flessione Setti S2 – S3 – Parete 1

Dati generali

Società di Progetto
Brebemi SpA

Unità di misura daN, cm

Materiali per i poligoni

n°	tipo	Nome
1	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	FeB 44 K (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	20.
2	490.	20.
3	490.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	28.333333	5.
3	20.	51.666667	5.
4	20.	75.	5.
5	20.	5.	15.
6	20.	28.333333	15.
7	20.	51.666667	15.
8	20.	75.	15.
9	20.	415.	5.
10	20.	438.666667	5.
11	20.	462.	5.
12	20.	485.	5.
13	20.	415.	15.
14	20.	438.666667	15.
15	20.	462.	15.
16	20.	485.	15.
17	10.	95.	5.
18	10.	116.785714	5.
19	10.	138.571429	5.
20	10.	160.357143	5.
21	10.	182.142857	5.

22	10.	203.928571	5.
23	10.	225.714286	5.
24	10.	247.5	5.
25	10.	269.285714	5.
26	10.	291.071429	5.
27	10.	312.857143	5.
28	10.	334.642857	5.
29	10.	356.428571	5.
30	10.	378.214286	5.
31	10.	395.333333	5.
32	10.	95.	15.
33	10.	116.785714	15.
34	10.	138.571429	15.
35	10.	160.357143	15.
36	10.	182.142857	15.
37	10.	203.928571	15.
38	10.	225.714286	15.
39	10.	247.5	15.
40	10.	269.285714	15.
41	10.	291.071429	15.
42	10.	312.857143	15.
43	10.	334.642857	15.
44	10.	356.428571	15.
45	10.	378.214286	15.
46	10.	395.333333	15.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	4779000,0	-14360,0	0,0	110447405,0	-331873,8	**23,1109866**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	4779000,0	-14360,0	0,0	61821782,4	-14360,0	**12,9361336**

8.2.2 Verifica a taglio Setti S2 – S3 – Parete 1

V_{sdu} = 24.170 daN

$1{,}5V_{sdu}$ = 36.255 daN

N_{sd} = 14.360 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot\left(100\rho_l\cdot f_{ck}\right)^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

Società di Progetto
Brebemi SpA

dove:

$$C_{Rd,c} = \frac{0.18}{\gamma_c} = 0.12$$

$k = 1 + \sqrt{\frac{200}{d}} \le 2$ con d espressa in millimetri allora k=1,2102<2

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} < 0.2 \cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3.14x8+0.785x20) cm^2 / (20 x 452) cm^2 = 0,0045

$$v_{min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = 0.035 \cdot 1.2102^{3/2} \cdot 29{,}05^{1/2} = 0.2512$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} = \frac{143600N}{4900mm \cdot 200mm} = 0{,}1465N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12 \cdot 1.2102 \cdot (100 \cdot 0.0045 \cdot 29.05)^{1/3} + 0{,}15 \cdot 0{,}1465\right] \cdot 4525 \cdot 200 ; \left[(0.2512 + 0{,}15 \cdot 0{,}1465) \cdot 4525 \cdot 200\right]\right) =$$

=32.975 daN

$1{,}5V_{sdu}$ =36.255 daN > 32.975 daN

per cui è necessario disporre armatura a taglio

La verifica di resistenza (SLU) si pone con:

$$\mathbf{V_{Rd} \geq V_{Ed}}$$

dove V_{Rd} = min(V_{Rsd}, V_{Rcd})

Con riferimento all'armatura trasversale, la resistenza di calcolo a taglio trazione si calcola come di seguito riportato.

Si dispongono armature orizzontali D8/20 cm su tutta l'altezza della parete.

Società di Progetto
Brebemi SpA

d	4.525	mm
ϕ	8	mm
A_{sw}	100,48	mm^2
s	200	mm
f_{yd}	391,30	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
sinα	1,00	
V_{Rsd}	**800.609**	**N**

Con riferimento al calcestruzzo d'anima, la resistenza di calcolo a taglio compressione si calcola come di seguito riportato.

d	4.525	mm
b_w	200	
α_c	1	mm
f'cd	8,23	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
$ctg^2\theta$	1,00	
V_{Rcd}	**3.352.007**	**N**

V_{Rd} = 80.061 daN > 36.255 daN VERIFICATO

8.2.3 Verifica a scorrimento nelle zone critiche Setti S2 – S3– Parete 1

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

Società di Progetto
Brebemi SpA

$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}}; 0.25 \cdot f_{yd} \sum A_{sj}\right)$ contributo effetto spinotto delle barre verticali

$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$ contributo armature inclinate presenti alla base

$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$ contributo resistenza per attrito

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**7693,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**802.659**	**N**
Vdd_2	**752.568**	**N**

Il contributo della resistenza per attrito vale:

Società di Progetto
Brebemi SpA

Asj	7693,00	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	143.600	N
M_{Ed}	477.900.000	Nmm
z	3920	mm
ζ	0,3849	mm
l_w	4900	mm
b_w	200	mm
Vfd	850.268	N
Vfd	1.646.353	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**1.602.836**	N
V_{sd}	241.700	N
$1,5V_{sd}$	362.550	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =75.257 daN + 0 + 85.027 = 160.284 daN > 36.255 daN VERIFICATO

8.2.4 Verifica a flessione Setti S2 – S3 – Parete 2

Dati generali

Unità di misura daN, cm

Materiali per i poligoni

Società di Progetto
Brebemi SpA

n°	tipo	Nome
1	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	25.
2	215.	25.
3	215.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	17.5	5.
3	20.	30.	5.
4	20.	5.	20.
5	20.	17.5	20.
6	20.	30.	20.
7	20.	185.	5.
8	20.	197.5	5.
9	20.	210.	5.
10	20.	185.	20.
11	20.	197.5	20.
12	20.	210.	20.
13	20.	77.5	5.
14	20.	92.5	5.
15	20.	92.5	20.
16	20.	77.5	20.
17	10.	54.	5.
18	10.	54.	20.
19	10.	107.	5.
20	10.	126.5	5.
21	10.	146.	5.
22	10.	165.5	5.

23	10.	107.	20.
24	10.	126.333333	20.
25	10.	145.666667	20.
26	10.	165.	20.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	2705000,0	-12510,0	0,0	27768217,6	-128421,6	**10,2655148**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	2705000,0	-12510,0	0,0	20320405,7	-12510,0	**7,5121648**

8.2.5 Verifica a taglio Setti S2 – S3 – Parete 2

V_{sdu} = 9.751 daN

$1{,}5V_{sdu}$ = 14.626 daN

N_{sd} = 11.540 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot\left(100\rho_l\cdot f_{ck}\right)^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,3203<2

Società di Progetto
Brebemi SpA

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} < 0.2 \cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3.14x10+0.785x4) cm^2 / (25 x 195) cm^2 = 0,0071

$$v_{min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = 0.035 \cdot 1.3203^{3/2} \cdot 29{,}05^{1/2} = 0.2862$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} = \frac{115400N}{2150mm \cdot 250mm} = 0{,}2147 N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12 \cdot 1.3203 \cdot (100 \cdot 0.0071 \cdot 29.05)^{1/3} + 0{,}15 \cdot 0{,}2147\right] \cdot 1950 \cdot 250 ; \left[(0.2862 + 0{,}15 \cdot 0{,}2147) \cdot 1950 \cdot 250\right]\right) =$$

= 22.736 daN

$1{,}5V_{sdu}$ =9.751 daN < 22.736 daN VERIFICATA

per cui non è necessario disporre armatura aggiuntiva a taglio

8.2.6 Verifica a scorrimento nelle zone critiche Setti S2 – S3 – Parete 2

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}} ; 0.25 \cdot f_{yd} \sum A_{sj}\right)$$ contributo effetto spinotto delle barre verticali

$$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$$ contributo armature inclinate presenti alla base

$$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right] ; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$$ contributo resistenza per attrito

$$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**5809,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**606.089**	**N**
Vdd_2	**568.265**	**N**

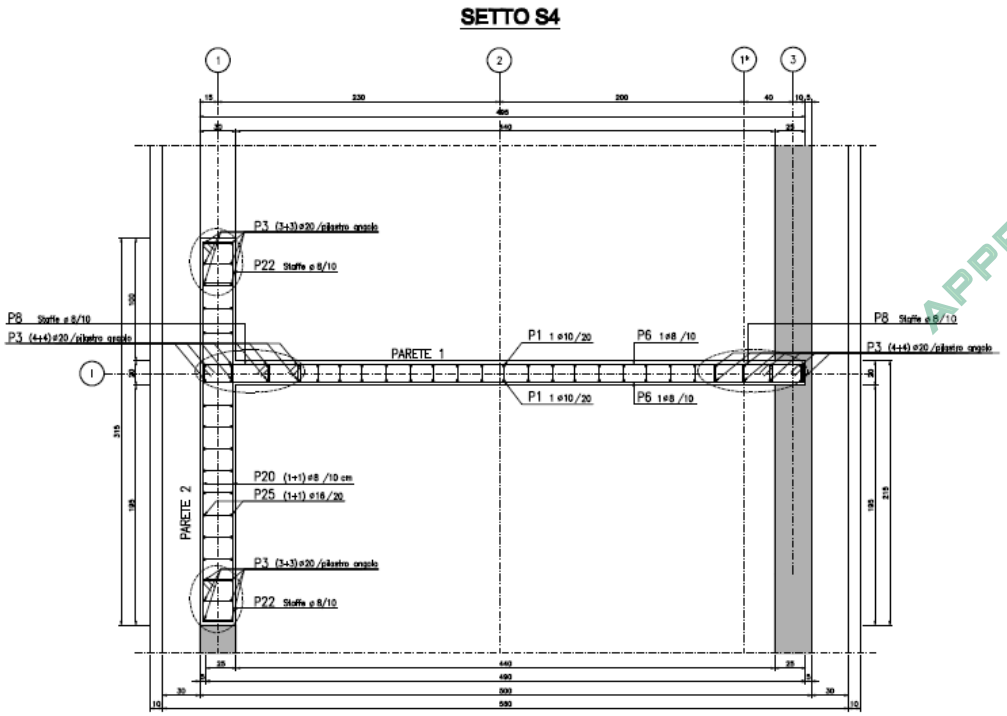
Il contributo della resistenza per attrito vale:

Asj	5809.00	mm^2
fcd	16.46	N/mm^2
fyd	391.30	N/mm^2
μ_f	0.6	
N_{Ed}	115,400	N
M_{Ed}	184,400,000	Nmm
z	1720	mm
ζ	0.3592	mm
l_w	2150	mm
b_w	250	mm
Vfd	621,971	N
Vfd	842,682	N
η	0.53028	
αj	0.6	
$V_{Rds}=V_{dd}$	**1,190,236**	**N**
V_{sd}	97,510	N
$1,5V_{sd}$	146,265	N

Società di Progetto
Brebemi SpA

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =56.827 daN + 0 + 62.197 = 119.024 daN > 14.626 daN VERIFICATO

8.3 Setto S4



PARETE 1:

Armatura elemento estremità: (4+4)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

Armatura parete: (1+1)D16/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

Società di Progetto
Brebemi SpA

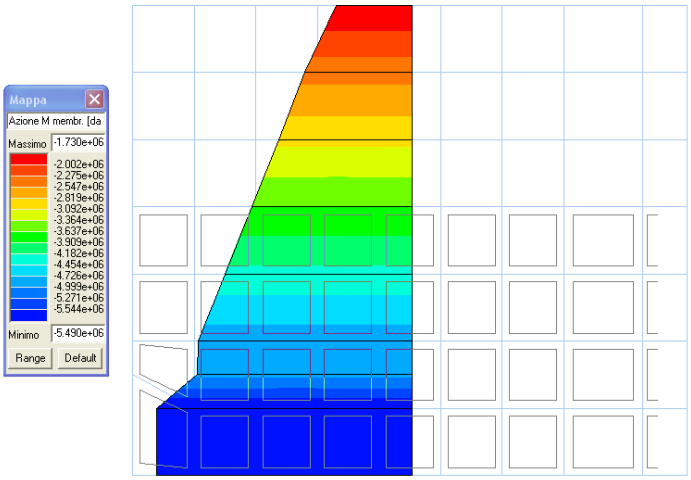
PARETE 2:

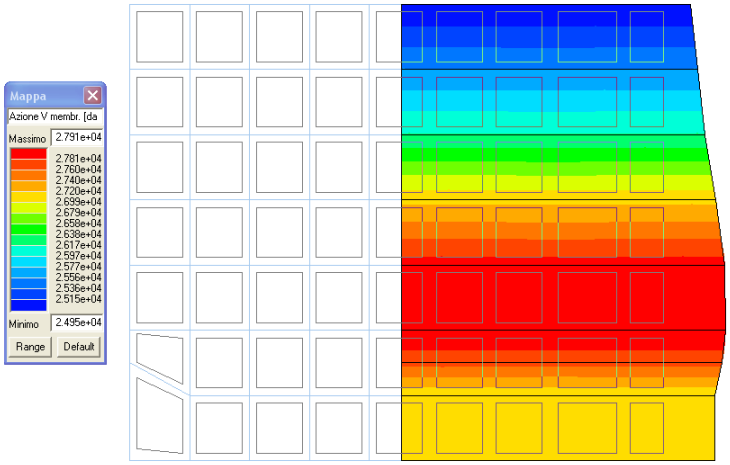
Armatura elemento estremità: (3+3)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

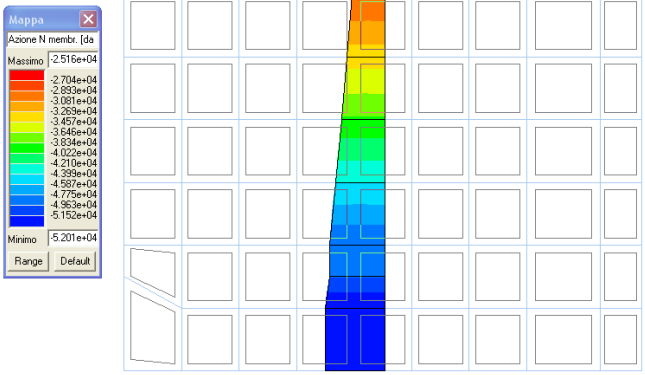
Armatura parete: (1+1)D10/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

Società di Progetto
Brebemi SpA

SETTO S4 PARETE 1:



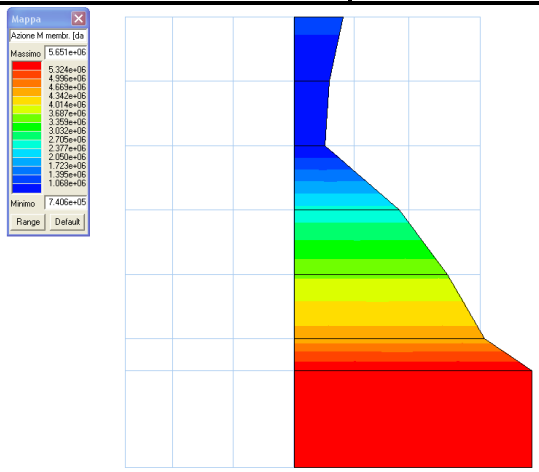


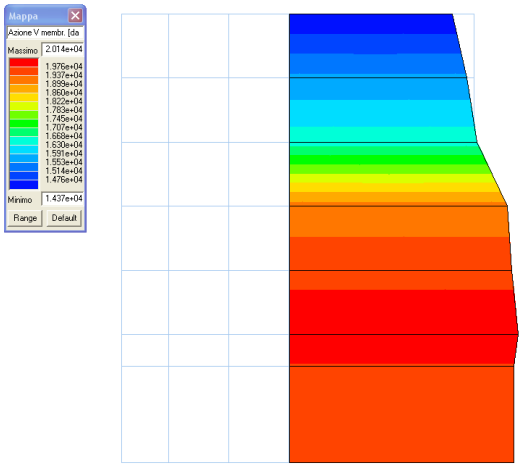


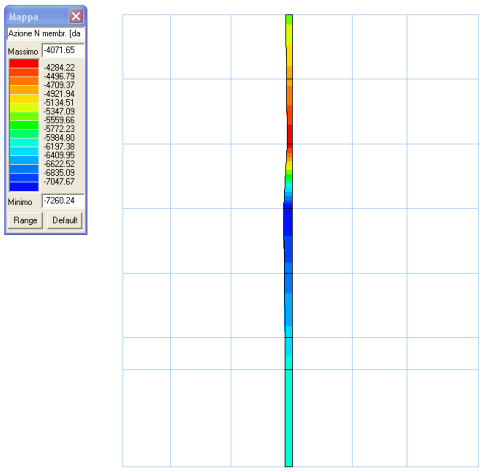
Momento Mmax	5490000 daNcm
Taglio Vmax	27910 daN
Azione assiale	52010 daN

SETTO S4 PARETE 2:

Società di Progetto
Brebemi SpA







Momento Mmax	5651000 daNcm
Taglio Vmax	20140 daN
Azione assiale	7260 daN

8.3.1 Verifica a flessione Setto S4 – Parete 1

Dati generali

Unità di misura daN, cm

Società di Progetto
Brebemi SpA

Materiali per i poligoni

n°	tipo	Nome
1	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	20.
2	495.	20.
3	495.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	28.333333	5.
3	20.	51.666667	5.
4	20.	75.	5.
5	20.	5.	15.
6	20.	28.333333	15.
7	20.	51.666667	15.
8	20.	75.	15.
9	10.	95.	15.
10	10.	400.	15.
11	10.	114.0625	5.
12	10.	133.125	5.
13	10.	152.1875	5.
14	10.	171.25	5.
15	10.	190.3125	5.
16	10.	209.375	5.
17	10.	228.4375	5.
18	10.	247.5	5.
19	10.	266.5625	5.
20	10.	285.625	5.
21	10.	304.6875	5.

22	10.	323.75	5.
23	10.	342.8125	5.
24	10.	361.875	5.
25	10.	380.9375	5.
26	10.	95.	15.
27	10.	114.0625	15.
28	10.	133.125	15.
29	10.	152.1875	15.
30	10.	171.25	15.
31	10.	190.3125	15.
32	10.	209.375	15.
33	10.	228.4375	15.
34	10.	247.5	15.
35	10.	266.5625	15.
36	10.	285.625	15.
37	10.	304.6875	15.
38	10.	323.75	15.
39	10.	342.8125	15.
40	10.	361.875	15.
41	10.	380.9375	15.
42	10.	400.	15.
43	10.	95.	5.
44	10.	400.	5.
45	20.	420.	15.
46	20.	443.333333	15.
47	20.	466.666667	15.
48	20.	490.	15.
49	20.	420.	5.
50	20.	443.333333	5.
51	20.	466.666667	5.
52	20.	490.	5.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5490000,0	-52010,0	0,0	114008118,5	-1080066,0	**20,7665061**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5490000,0	-52010,0	0,0	72921383,9	-52010,0	**13,2325836**

8.3.2 Verifica a taglio Setto S4 – Parete 1

V_{sdu} = 27.910 daN

$1{,}5V_{sdu}$ = 41.865 daN

N_{sd} = 52.010 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot(100\rho_l\cdot f_{ck})^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d\,;\,(v_{min}+k_1\cdot\sigma_{cp})\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,2091<2

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}<0.2\cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3,14x6 cm^2 / (20 x 457) cm^2 = 0,0021

$$v_{min}=0.035\cdot k^{3/2}\cdot f_{ck}^{1/2}=0.035\cdot 1.2091^{3/2}\cdot 29{,}05^{1/2}=0.2508$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}=\frac{520100N}{4950mm\cdot 200mm}=0{,}5253N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12\cdot 1.2091\cdot(100\cdot 0.0021\cdot 29.05)^{1/3}+0{,}15\cdot 0{,}5253\right]\cdot 4575\cdot 200\,;\,\left[(0.2508+0{,}15\cdot 0{,}5253)\cdot 4575\cdot 200\right]\right)=$$

= 31.309 daN

$1{,}5V_{sdu}$ =41.865 daN < 31.309 daN per cui è necessario disporre armatura a taglio.

La verifica di resistenza (SLU) si pone con:

$$\mathbf{V_{Rd} \geq V_{Ed}}$$

dove V_{Rd} = min(V_{Rsd}, V_{Rcd})

Con riferimento all'armatura trasversale, la resistenza di calcolo a taglio trazione si calcola come di seguito riportato.

Si dispongono armature orizzontali D8/20 cm su tutta l'altezza della parete.

Società di Progetto
Brebemi SpA

d	4.575	mm
ϕ	8	mm
A_{sw}	100,48	mm^2
s	200	mm
f_{yd}	391,30	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
sinα	1,00	
V_{Rsd}	809.456	N

Con riferimento al calcestruzzo d'anima, la resistenza di calcolo a taglio compressione si calcola come di seguito riportato.

d	4.575	mm
b_w	200	
α_c	1	mm
f'cd	8,23	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
$ctg^2\theta$	1,00	
V_{Rcd}	3.389.046	N

V_{Rd} = 80.945 daN > 41.865 daN VERIFICATO

8.3.3 Verifica a scorrimento nelle zone critiche Setto S4 – Parete 1

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}}; 0.25 \cdot f_{yd} \sum A_{sj}\right)$ contributo effetto spinotto delle barre verticali

Società di Progetto
Brebemi SpA

$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$ contributo armature inclinate presenti alla base

$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed} \right) \cdot \xi + \frac{M_{Ed}}{z} \right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0} \right)$ contributo resistenza per attrito

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250} \right)$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**7693,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**802.659**	**N**
Vdd_2	**752.568**	**N**

Il contributo della resistenza per attrito vale:

Società di Progetto
Brebemi SpA

Asj	7693,00	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	520.100	N
M_{Ed}	489.000.000	Nmm
z	3960	mm
ζ	0,7651	mm
l_w	4950	mm
b_w	200	mm
Vfd	1.744.137	N
Vfd	3.305.997	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**2.496.705**	N
V_{sd}	279.100	N
$1,5V_{sd}$	418.650	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =75.257 daN + 0 + 174.413 = 249.670 daN > 41.865 daN VERIFICATO

8.3.4 Verifica a flessione Setto S4 – Parete 2

Dati generali

Unità di misura daN, cm

Materiali per i poligoni

n°	tipo	Nome

3	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	30.
2	215.	30.
3	215.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	30.	5.
3	20.	5.	25.
4	20.	30.	25.
5	20.	185.	5.
6	20.	194.	5.
7	20.	210.	5.
8	20.	185.	25.
9	20.	194.	25.
10	20.	210.	25.
11	16.	50.	5.
12	16.	69.166667	5.
13	16.	88.333333	5.
14	16.	107.5	5.
15	16.	126.666667	5.
16	16.	145.833333	5.
17	16.	165.	5.
18	16.	50.	25.
19	16.	69.166667	25.
20	16.	88.333333	25.
21	16.	107.5	25.
22	16.	126.666667	25.
23	16.	145.833333	25.

24	16.	165.	25.
25	20.	13.	25.
26	20.	21.	25.
27	20.	13.	5.
28	20.	21.	5.
29	20.	202.	25.
30	20.	202.	5.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5651000,0	-7260,0	0,0	48660604,0	-62515,7	**8,6109722**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5651000,0	-7260,0	0,0	42666236,3	-7260,0	**7,5502099**

8.3.5 Verifica a taglio Setto S4 – Parete 2

V_{sdu} = 20.140 daN

$1{,}5V_{sdu}$ = 30.210 daN

N_{sd} = 7.260 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata la seguente espressione:

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot\left(100\rho_l\cdot f_{ck}\right)^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d\,;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,2626<2

Società di Progetto
Brebemi SpA

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} < 0.2 \cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3,14x16+2,01x10) cm^2 / (30 x 290) cm^2 = 0,0104

$$v_{min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = 0.035 \cdot 1.2626^{3/2} \cdot 29{,}05^{1/2} = 0.2676$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} = \frac{72600N}{3150mm \cdot 300mm} = 0{,}0768N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12 \cdot 1.2626 \cdot (100 \cdot 0.0104 \cdot 29.05)^{1/3} + 0{,}15 \cdot 0{,}0768\right] \cdot 2900 \cdot 300 ; \left[(0.2676 + 0{,}15 \cdot 0{,}0768) \cdot 2900 \cdot 300\right]\right) =$$

= 36.711 daN

$1{,}5V_{sdu}$ =30.210 daN < 36.711 daN

per cui non è necessario disporre armatura aggiuntiva a taglio

8.3.6 Verifica a scorrimento nelle zone critiche Setto S4 – Parete 2

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$\mathbf{V_{ED} \leq V_{Rd,S}}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}} ; 0.25 \cdot f_{yd} \sum A_{sj}\right)$$ contributo effetto spinotto delle barre verticali

$$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$$ contributo armature inclinate presenti alla base

$$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right] ; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$$ contributo resistenza per attrito

Società di Progetto
Brebemi SpA

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**8641,28**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**901.599**	**N**
Vdd_2	**845.333**	**N**

Il contributo della resistenza per attrito vale:

Società di Progetto
Brebemi SpA

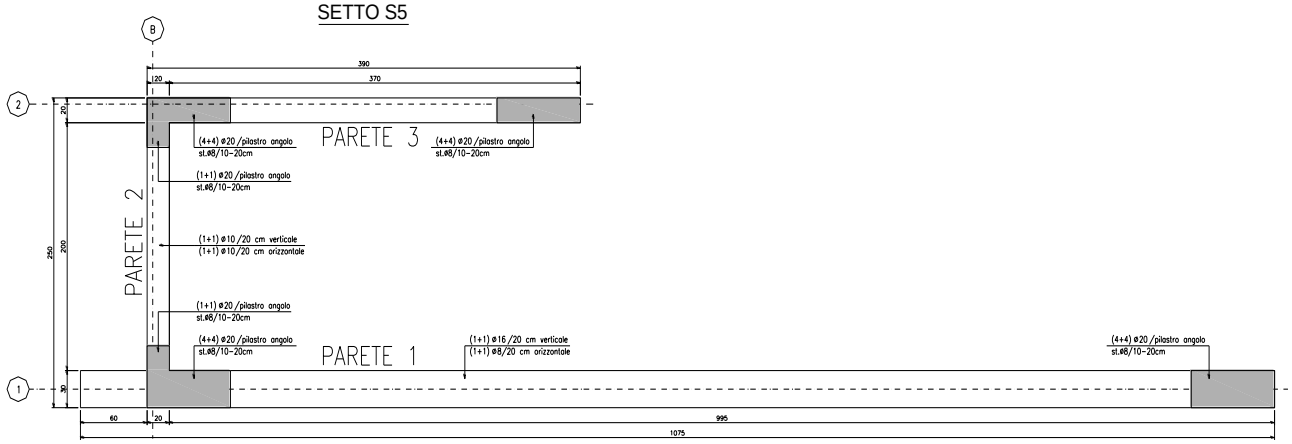
Asj	8641,28	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	72.600	N
M_{Ed}	565.100.000	Nmm
z	2520	mm
ζ	0,2811	mm
l_w	3150	mm
b_w	300	mm
Vfd	806.786	N
Vfd	1.159.422	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**1.652.120**	N
V_{sd}	201.400	N
$1,5V_{sd}$	302.100	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =84.533 daN + 0 + 80.679 = 165.212 daN > 30.210 daN VERIFICATO

8.4 Setto S5

Società di Progetto
Brebemi SpA

SETTO S5



PARETE 1:

Armatura elemento estremità: (4+4)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

Armatura parete: (1+1)D16/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

PARETE 2:

Armatura elemento estremità: (3+3)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

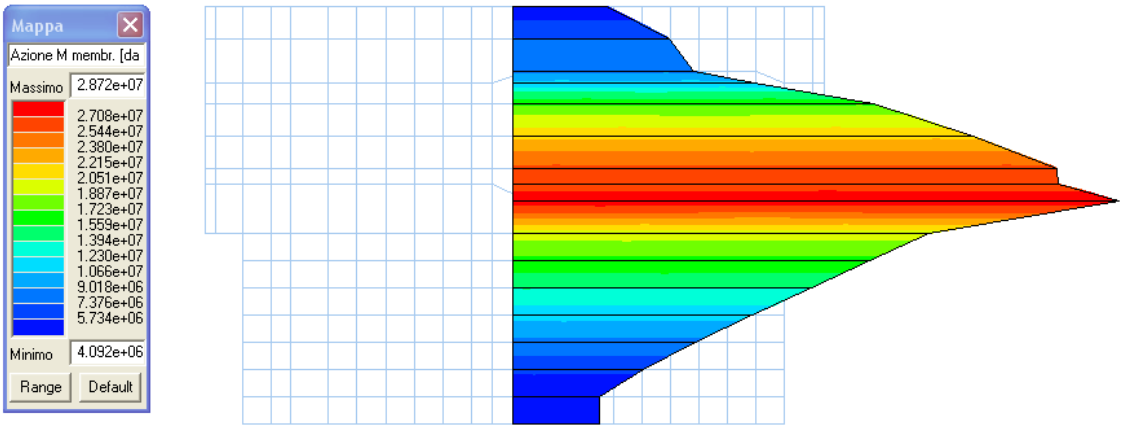
Armatura parete: (1+1)D10/20cm verticali – (1+1)D10 orizzontali /10cm – 20cm

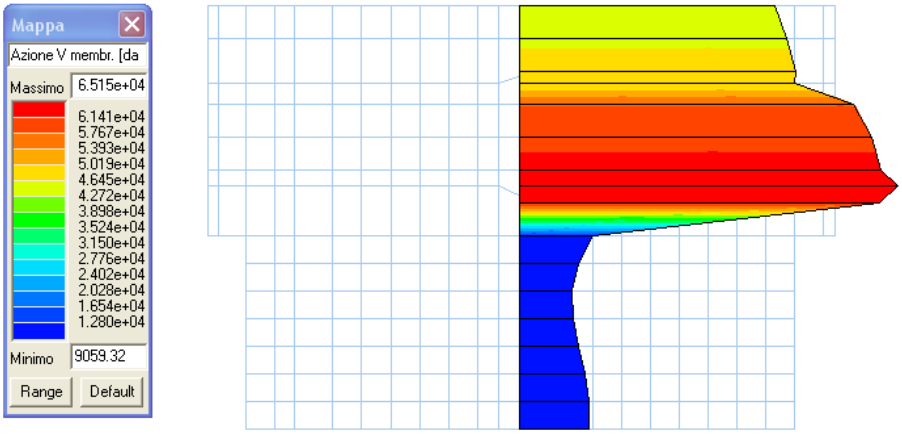
PARETE 3:

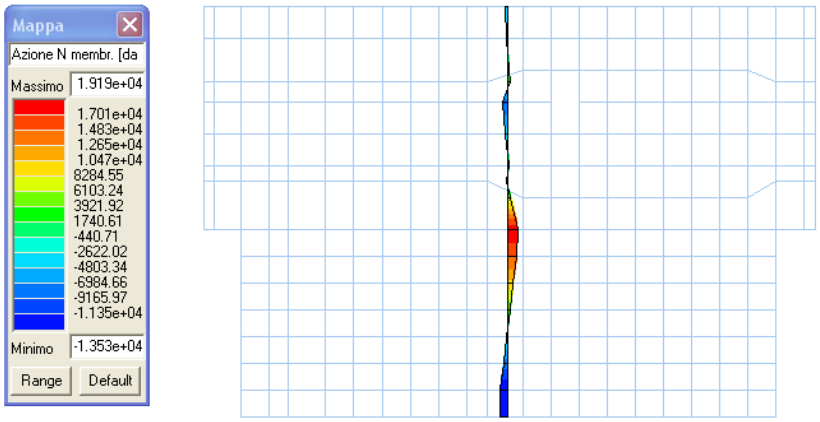
Armatura elemento estremità: (4+4)D20 verticali – staffe D8 a 4 braccia /10cm-20cm

Armatura parete: (1+1)D10/20cm verticali – (1+1)D8 orizzontali /10cm – 20cm

SETTO S5 PARETE 1:



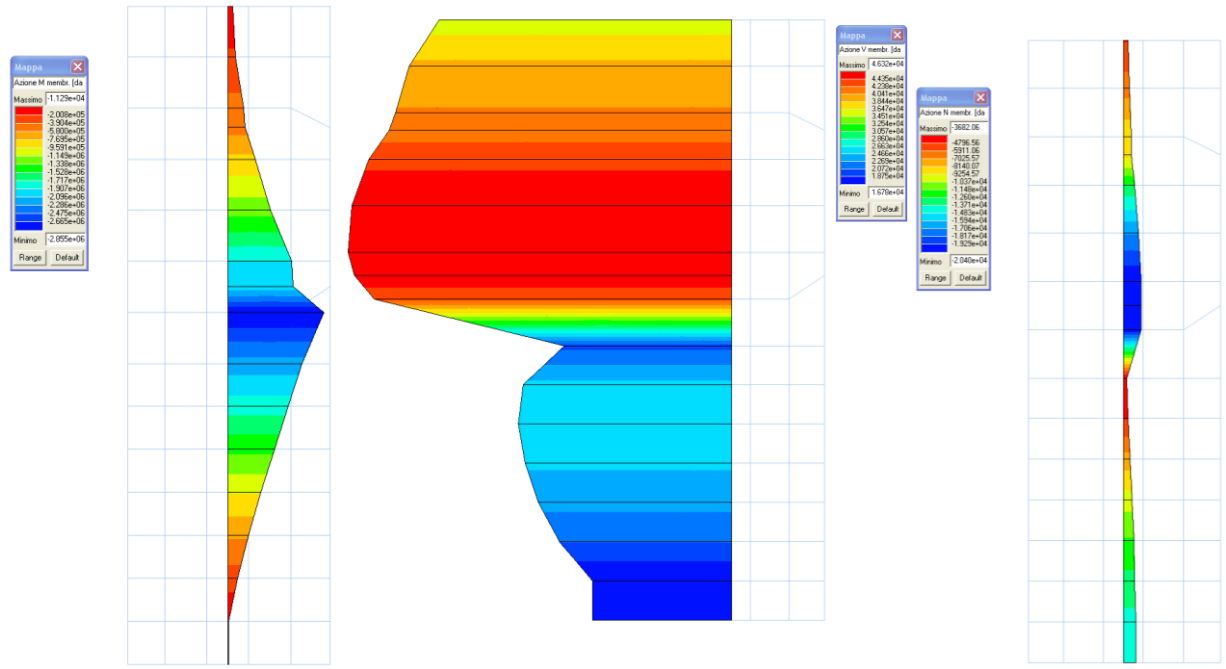




Momento Mmax	28720000 daNcm
Taglio Vmax	65150 daN
Azione assiale	19100 daN

SETTO S5 PARETE 2:

Società di Progetto
Brebemi SpA

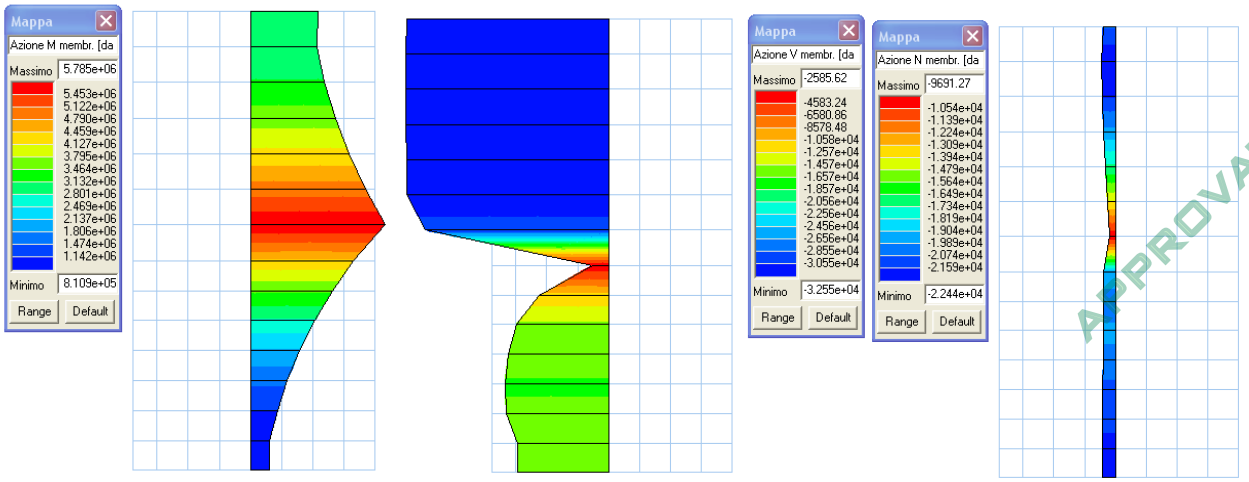


Momento Mmax 2855000 daNcm

Taglio Vmax 46320 daN

Azione assiale 20400 daN

SETTO S5 PARETE 3:



Momento Mmax 5785000 daNcm

Taglio Vmax 32550 daN

Azione assiale 22440 daN

8.4.1 Verifica del meccanismo puntone-tirante Setto S5 – Parete 1

Caratteristiche geometriche alla base L_y = 975 cm, L_x =30cm

Società di Progetto
Brebemi SpA

Azioni sollecitanti V_y= 65.150 daN N=19.190 daN

Date le caratteristiche geometriche, la parete in esame è tozza per cui si procede con la verifica ipotizzando un meccanismo resistente a puntoni e tiranti (strut-and-tie model). Escludendo in questo modo la possibilità che alla base della parete si possa sviluppare una cerniera plastica, si effettuano le verifiche semplicemente con il taglio ottenuto dall'analisi senza alcun incremento. Si suppone che a seguito del sisma nella lama si originino una serie di triangoli isostatici in grado di incassare sia il momento sia il taglio. Tali "archi a tre cerniere", distanziati di 20 cm l'uno dall'altro, sono composti dal ritto verticale in trazione, formato dall'armatura verticale diffusa e dal diagonale compresso rappresentato dal calcestruzzo.

Detta F la forza sismica totale agente sul setto e supposta una diffusione a 45°, la forza nel singolo tirante sarà pari a:

F = 65.150 daN/(9,75)/5 = 1.336 daN

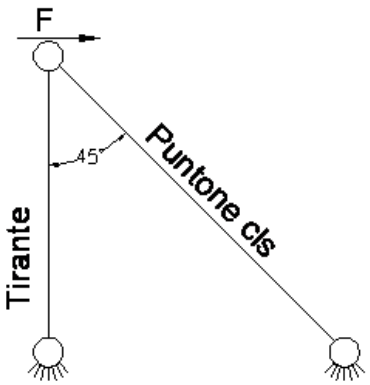
da cui nasce una tensione massima nelle barre di armatura verticali pari a:

σ_s=1.336/(2x0,785) = 851 daN /cm^2

Si procede dunque con il controllo dello spessore minimo del puntone di calcestruzzo supponendo che esso lavori al massimo, cioè ad un tasso pari a f_{cd}:

larghezza diagonale compressa = 1.336 daN x1,41/ (30 cm x164,6 daN /cm^2) = 0,38 cm

per cui il puntone di calcestruzzo si instaura senza avere problemi di resistenza.



Schema resistente a tiranti e puntoni

8.4.2 Verifica a scorrimento nelle zone critiche Setto S5 – Parete 1

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}}; 0.25 \cdot f_{yd} \sum A_{sj}\right)$$ contributo effetto spinotto delle barre verticali

$$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$$ contributo armature inclinate presenti alla base

$$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$$ contributo resistenza per attrito

$$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$$ con f_{ck} espresso in MPa

$\alpha_j = 0.60$

$\mu_f = 0.60$ coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**21.502,72**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**2.243.513**	**N**
Vdd_2	**2.103.504**	**N**

Il contributo della resistenza per attrito vale:

Società di Progetto
Brebemi SpA

Asj	21.502,72	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	191.900	N
M_{Ed}	2.872.000.000	Nmm
z	7800	mm
ζ	0,2788	mm
l_w	9750	mm
b_w	300	mm
Vfd	1.807.802	N
Vfd	3.559.325	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**3.911.306**	N
V_{sd}	651.500	N
$1,5V_{sd}$	977.250	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =210.350 daN + 0 + 180.780 = 391.130 daN > 65.150 daN VERIFICATO

8.4.3 Verifica a flessione Setto S5 – Parete 2

Dati generali

Unità di misura daN, cm

Materiali per i poligoni

n°	tipo	Nome

3	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	20.
2	250.	20.
3	250.	0.
4	0.	0.

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	20.	5.
3	20.	35.	5.
4	20.	5.	15.
5	20.	20.	15.
6	20.	35.	15.
7	20.	210.	5.
8	20.	227.5	5.
9	20.	245.	5.
10	20.	210.	15.
11	20.	227.5	15.
12	20.	245.	15.
13	16.	55.	5.
14	16.	74.285714	5.
15	16.	93.571429	5.
16	16.	112.857143	5.
17	16.	132.142857	5.
18	16.	151.428571	5.
19	16.	170.714286	5.
20	16.	190.	5.
21	16.	55.	15.
22	16.	74.285714	15.
23	16.	93.571429	15.

24	16.	112.857143	15.
25	16.	132.142857	15.
26	16.	151.428571	15.
27	16.	170.714286	15.
28	16.	190.	15.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	2855000,0	-20400,0	0,0	37486919,2	-267857,5	**13,1302694**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	2855000,0	-20400,0	0,0	22019700,5	-20400,0	**7,7126797**

8.4.4 Verifica a taglio Setto S5 – Parete 2

V_{sdu} = 46.320 daN

$1{,}5V_{sdu}$ = 69.480 daN

N_{sd} = 20.400 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot\left(100\rho_l\cdot f_{ck}\right)^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d\,;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,2949<2

Società di Progetto
Brebemi SpA

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} < 0.2 \cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3,14x6+0,785x4) cm^2 / (20 x 2300) cm^2 = 0,0048

$$v_{min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = 0.035 \cdot 1.2949^{3/2} \cdot 29{,}05^{1/2} = 0.2780$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp} = \frac{N_{Ed}}{A_c} = \frac{204000N}{2300mm \cdot 200mm} = 0{,}41 N/mm^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12 \cdot 1.2949 \cdot (100 \cdot 0.0048 \cdot 29.05)^{1/3} + 0{,}15 \cdot 0{,}41\right] \cdot 2300 \cdot 200 ; \left[(0.2780 + 0{,}15 \cdot 0{,}41) \cdot 2300 \cdot 200\right]\right)$$

=19.993 daN

$1{,}5V_{sdu}$ =69.480 daN > 19.993 daN

per cui è necessario disporre armatura a taglio

La verifica di resistenza (SLU) si pone con:

$$V_{Rd} \geq V_{Ed}$$

dove V_{Rd} = min(V_{Rsd}, V_{Rcd})

Con riferimento all'armatura trasversale, la resistenza di calcolo a taglio trazione si calcola come di seguito riportato.

Si dispongono armature orizzontali D10/15 cm su tutta l'altezza della parete.

d	2.300	mm
ϕ	10	mm
A_{sw}	157,00	mm^2
s	150	mm
f_{yd}	391,30	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
sinα	1,00	
V_{Rsd}	847.791	N

Con riferimento al calcestruzzo d'anima, la resistenza di calcolo a taglio compressione si calcola come di seguito riportato.

d	2.300	mm
b_w	200	mm
α_c	1	mm
f'cd	8,23	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
$ctg^2\theta$	1,00	
V_{Rcd}	1.703.783	N

V_{Rd} = 84.779 daN > 69.480 daN VERIFICATO

8.4.5 Verifica a scorrimento nelle zone critiche Setto S5 – Parete 2

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}}; 0.25 \cdot f_{yd} \sum A_{sj}\right)$ contributo effetto spinotto delle barre verticali

$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$ contributo armature inclinate presenti alla base

$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$ contributo resistenza per attrito

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$ con f_{ck} espresso in MPa

α_j = 0.60

μ_f = 0.60 coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	5.024,00	mm^2
fcd	16,46	N/mm^2
fyd	391,3	N/mm^2
Vdd_1	524.185	N
Vdd_2	491.473	N

Il contributo della resistenza per attrito vale:

Asj	5.024,00	mm^2
fcd	16,46	N/mm^2
fyd	391,30	N/mm^2
μ_f	0,6	
N_{Ed}	204.000	N
M_{Ed}	285.500.000	Nmm
z	2000	mm
ζ	0,4665	mm
l_w	2500	mm
b_w	200	mm
Vfd	750.103	N
Vfd	1.018.054	N
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**1.241.575**	N
V_{sd}	463.200	N
$1,5V_{sd}$	694.800	N

Società di Progetto
Brebemi SpA

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =49.147daN + 0 + 75.010 daN = 124.158 daN > 69.480 daN VERIFICATO

8.4.6 Verifica a flessione Setto S5 – Parete 3

Dati generali

Unità di misura daN, cm

Materiali per i poligoni

n°	tipo	Nome
1	Par.Rett.	Rck 350 SLU

Materiali per le armature

n°	tipo	Nome
1	Lin.Rett.	B450C (SLU)
2	Lineare	Lineare Es = 2100000

Conglomerati di cls

Ec 336430 daN/cmq

Materiale : Rck 350 SLU

deformazione iniziale impressa:

Tetha X = 0

Tetha Y = 0

Epsilon(0,0)= 0

n°	X(cm)	Y(cm)
1	0.	20.
2	390.	20.
3	390.	0.
4	0.	0.

Società di Progetto
Brebemi SpA

Armature

n°	Ø(mm)	X(cm)	Y(cm)
1	20.	5.	5.
2	20.	16.666667	5.
3	20.	28.333333	5.
4	20.	40.	5.
5	20.	5.	15.
6	20.	16.666667	15.
7	20.	28.333333	15.
8	20.	40.	15.
9	20.	350.	5.
10	20.	361.666667	5.
11	20.	373.333333	5.
12	20.	385.	5.
13	20.	350.	15.
14	20.	361.666667	15.
15	20.	373.333333	15.
16	20.	385.	15.
17	10.	60.	5.
18	10.	82.5	5.
19	10.	105.	5.
20	10.	127.5	5.
21	10.	150.	5.
22	10.	172.5	5.
23	10.	195.	5.
24	10.	217.5	5.
25	10.	240.	5.
26	10.	262.5	5.
27	10.	285.	5.
28	10.	307.5	5.
29	10.	330.	5.
30	10.	60.	15.
31	10.	82.5	15.
32	10.	105.	15.
33	10.	127.5	15.
34	10.	150.	15.
35	10.	172.5	15.
36	10.	195.	15.
37	10.	217.5	15.
38	10.	240.	15.
39	10.	262.5	15.
40	10.	285.	15.
41	10.	307.5	15.
42	10.	330.	15.

Verifiche di stato limite ultimo

Unità di misura daN, cm

Sollecitazioni riferite al baricentro

Coefficiente di sicurezza a rapporto Mx/My costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5785000,0	-22440,0	0,0	84075438,7	-326128,4	**14,5333516**

Coefficiente di sicurezza a sforzo normale costante

Mx(daN*cm)	My(daN*cm)	N(daN)	Mxu(daN*cm)	Myu(daN*cm)	Nu(daN)	c.s.
0,0	5785000,0	-22440,0	0,0	49127442,3	-22440,0	**8,4922113**

8.4.7 Verifica a taglio Setto S5 – Parete 3

V_{sdu} = 32.550 daN

$1{,}5V_{sdu}$ = 48.825 daN

N_{sd} = 22.440 daN (compressione)

L'elemento non richiede armatura a taglio se risulta verificata La seguente espressione

$$V_{Sdu} < \max\left(\left[C_{Rd,c}\cdot k\cdot\left(100\rho_l\cdot f_{ck}\right)^{1/3}+k_1\cdot\sigma_{cp}\right]\cdot b_w\cdot d\,;\left(v_{min}+k_1\cdot\sigma_{cp}\right)\cdot b_w\cdot d\right)$$

dove:

$$C_{Rd,c}=\frac{0.18}{\gamma_c}=0.12$$

$k=1+\sqrt{\frac{200}{d}}\le 2$ con d espressa in millimetri allora k=1,2382<2

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}<0.2\cdot f_{cd}$$

ρ_l = A_{sl} / (b_w x d) = (3,14x8+0.785x16) cm^2 / (20 x 352) cm^2 = 0,0053

$$v_{min}=0.035\cdot k^{3/2}\cdot f_{ck}^{1/2}=0.035\cdot 1.2382^{3/2}\cdot 29{,}05^{1/2}=0.2599$$

Il contributo dell'azione assiale, risulta:

$$\sigma_{cp}=\frac{N_{Ed}}{A_c}=\frac{224400\text{N}}{3900\text{mm}\cdot 200\text{mm}}=0{,}29\text{N}/\text{mm}^2$$

si ottiene:

$$V_{Sdu} < \max\left(\left[0.12\cdot 1.2382\cdot\left(100\cdot 0.0053\cdot 29.05\right)^{1/3}+0{,}15\cdot 0{,}29\right]\cdot 3525\cdot 200\,;\left[\left(0.2599+0{,}15\cdot 0{,}29\right)\cdot 3525\cdot 200\right]\right)$$

= 29.175 daN

$1{,}5V_{sdu}$ =48.825 daN > 29.175 daN

per cui è necessario disporre armatura a taglio

Società di Progetto
Brebemi SpA

La verifica di resistenza (SLU) si pone con:

$$V_{Rd} \geq V_{Ed}$$

dove V_{Rd} = min(V_{Rsd}, V_{Rcd})

Con riferimento all'armatura trasversale, la resistenza di calcolo a taglio trazione si calcola come di seguito riportato.

Si dispongono armature orizzontali D8/20 cm su tutta l'altezza della parete.

d	3.525	mm
ϕ	8	mm
A_{sw}	100,48	mm^2
s	200	mm
f_{yd}	391,30	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
sinα	1,00	
V_{Rsd}	**623.679**	**N**

Con riferimento al calcestruzzo d'anima, la resistenza di calcolo a taglio compressione si calcola come di seguito riportato.

d	3.525	mm
b_w	200	mm
α_c	1	mm
fcd	8,23	N/mm^2
α	1,57	rad
θ	0,79	rad
ctgα	0,00	
ctgθ	1,00	
$ctg^2\theta$	1,00	
V_{Rcd}	**2.611.232**	**N**

V_{Rd} = 62.368 daN > 48.825 daN VERIFICATO

Società di Progetto
Brebemi SpA

8.4.8 Verifica a scorrimento nelle zone critiche Setto S5 – Parete 3

Sui possibili piani di scorrimento, quali la ripresa di getto, deve risultare:

$$V_{ED} \leq V_{Rd,S}$$

dove:

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ è il valore di progetto della resistenza a taglio nei confronti dello scorrimento

$V_{dd} = \min\left(1.3 \cdot \sum A_{sj} \cdot \sqrt{f_{cd} \cdot f_{yd}}; 0.25 \cdot f_{yd} \sum A_{sj}\right)$ contributo effetto spinotto delle barre verticali

$V_{id} = f_{yd} \cdot \sum A_{sj} \cdot \cos\phi_i$ contributo armature inclinate presenti alla base

$V_{fd} = \min\left(\mu_f \cdot \left[\left(\sum A_{sj} \cdot f_{yd} + N_{Ed}\right) \cdot \xi + \frac{M_{Ed}}{z}\right]; 0.5 \cdot \eta \cdot f_{cd} \cdot \xi \cdot l_w \cdot b_{w0}\right)$ contributo resistenza per attrito

$\eta = \alpha_j \cdot \left(1 - \frac{f_{ck}}{250}\right)$ con f_{ck} espresso in MPa

$\alpha_j = 0.60$

$\mu_f = 0.60$ coefficiente di attrito del calcestruzzo per azioni cicliche

$\sum A_{sj}$ è la sommatoria delle aree delle barre verticali intersecanti il piano della superficie di scorrimento

ξ è l'altezza della parte compressa della sezione normalizzata all'altezza della sezione

Il contributo dell'effetto spinotto delle barre verticali vale:

Asj	**7.065,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,3**	**N/mm^2**
Vdd_1	**737.136**	**N**
Vdd_2	**691.134**	**N**

Società di Progetto
Brebemi SpA

Il contributo della resistenza per attrito vale:

Asj	**7.065,00**	**mm^2**
fcd	**16,46**	**N/mm^2**
fyd	**391,30**	**N/mm^2**
μ_f	0,6	
N_{Ed}	224.400	N
M_{Ed}	578.500.000	Nmm
z	3120	mm
ζ	0,4223	mm
l_w	3900	mm
b_w	200	mm
Vfd	**942.753**	**N**
Vfd	**1.437.688**	**N**
η	0,53028	
αj	0,6	
$V_{Rds}=V_{dd}+V_{fd}$	**1.633.887**	**N**
V_{sd}	325.500	N
$1,5V_{sd}$	488.250	N

$V_{Rd,S} = V_{dd} + V_{id} + V_{fd}$ =69.113 daN + 0 + 94.275 daN = 163.388 daN > 48.825 daN VERIFICATO

Società di Progetto
Brebemi SpA

9. VERIFICA SPOSTAMENTI SLO

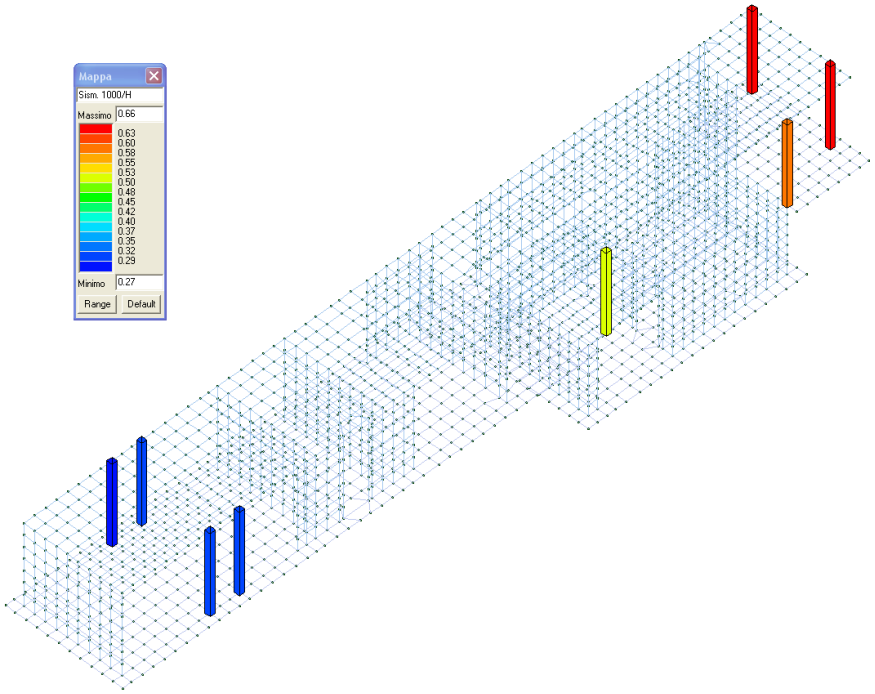
Al paragrafo 7.1 delle NTC per strutture in classe III o IV per elementi non strutturali ed impianti è richiesto il rispetto delle verifiche di sicurezza per elementi non strutturali ed impianti relative agli SLO. La struttura in esame ricade in classe IV quindi, pur mancando elementi non strutturali ed impianti particolarmente sensibili, di seguito si riporta comunque la verifica SLO.

Al paragrafo 7.3.7.2 si dice che tale verifica si può ritenere soddisfatta quando gli spostamenti di interpiano d_r ottenuti dall'analisi sismica di progetto relativa allo SLO siano tali per cui

$$d_r < 0.0033h.$$

Di seguito si riporta il grafico relativo a tale verifica in cui lo spostamento relativo di interpiano è è espresso in unità 1000*dr/h.

Tale valore deve quindi essere minore di 3.33



Società di Progetto
Brebemi SpA

10. VERIFICA MURATURA PORTANTE

Nell'edificio in esame, come precisato nel paragrafo 4, alla muratura portante sono stati affidati soltanto i carichi statici verticali per cui l'unica verifica agli stati limite ultimi alla quale va soggetta la muratura stessa, è quella a pressoflessione nel piano del muro.

Per questa verifica si determina l'eccentricità longitudinale e_l dei carichi verticali e si definisce un'altra riduzione convenzionale della resistenza a compressione applicando alla resistenza ridotta $f_{d,rid}$ un ulteriore coefficiente Φ_l valutato dalla tabella 4.5.III delle NTC, ponendo $\lambda = 0$ ed $m = 6e_l/l$ dove l è la lunghezza del muro.

La verifica di sicurezza viene formulata quindi come $N_d \leq \Phi\ \Phi_l\ f_d\ t\ l$

dove N_d è il carico verticale totale agente sulla sezione del muro oggetto di verifica, in particolare N_d=2900daN come si ricava dal paragrafo 7.1.1 relativo al solaio di copertura.

Per il calcolo dell'eccentricità si considerano due diverse componenti: $e_1 = |e_s| + e_a$;

dove

a) l'eccentricità totale dei carichi verticali è data da: $e_s = e_{s1} + e_{s2}$ dove

$$e_{s1} = \frac{N_1 d_1}{N_1 + \sum N_2}; \qquad e_{s2} = \frac{\sum N_2 d_2}{N_1 + \sum N_2}$$

con

e_{s1}: eccentricità della risultante dei carichi trasmessi dai muri dei piani superiori rispetto al piano medio del muro da verificare ;

e_{s2}: eccentricità delle reazioni di appoggio dei solai soprastanti la sezione di verifica;

N_1: carico trasmesso dal muro sovrastante supposto centrato rispetto al muro stesso;

N_2: reazione di appoggio dei solai sovrastanti il muro da verificare;

d_1: eccentricità di N1 rispetto al piano medio del muro da verificare;

d_2: eccentricità di N2 rispetto al piano medio del muro da verificare;

Nel caso in esame non essendo presenti muri al di sopra di quello in esame e_{s1}=0 mentre es=es $_2$=4.17cm

b) l'eccentricità dovuta a tolleranze di esecuzione, e_a è pari a: $e_a = h/200$ ed essendo h=310cm e_a=1.55cm

Si ricava pertanto e_1=5.72cm.

Nota l'eccentricità si calcola il coefficiente di eccentricità m definito dalla relazione m=6e/t =1.37 e la snellezza convenzionale λ□□ tale per cui□ λ=h_0/t=12.4.

Attraverso una doppia interpolazione lineare dei valori riportati in tabella 4.5.III si deduce quindi il coefficiente di riduzione della resistenza del materiale Φ=0.265 ed analogamente si determina il coefficiente dovuto all'eccentricità longitudinale $\Phi_{\square}$=0.82.

Si ricava dunque la resistenza unitaria di progetto f_d attraverso la relazione $f_d=f_k/\gamma_M$

dove f_k è la resistenza caratteristica a compressione della muratura dedotta dalla resistenza a compressione degli elementi e dalla classe di appartenenza della malta tramite la Tabella 11.10.V e γ_M è il coefficiente parziale di sicurezza sulla resistenza a compressione della muratura.

Si ottiene:

$N_{Rd} = \Phi\ \Phi_l\ f_d\ t\ l$ =0.265 x 0.82 x 14daN/cmq x 25cm x 100cm = 7605 < N_d=2900daN

e la verifica è soddisfatta.

Società di Progetto
Brebemi SpA

11. ALLEGATO A – TABULATI DI OUTPUT DEL PROGRAMMA PROSAP

LISTATO DI CALCOLO PER AZIONI SISMICHE

CDC	Tipo	Sigla Id	Note
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.183
			ordinata spettro (tratto Tb-Tc) = 0.425 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.191 sec.
			fattore di struttura q: 1.510
			fattore per spost. mu d: 2.120
			classe di duttilità CD: B
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	0.0	-172.88	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	0.0	-161.50	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	0.0	-158.00	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	-54.00	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	0.0	-161.50	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	0.0	-161.50	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	0.0	-161.50	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	0.0	-161.50	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	0.0	-158.00	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	0.0	-172.88	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.228	0.191	0.425	3.022e+05	69.7	418.97	9.67e-02	1386.39	0.3
2	5.964	0.168	0.425	308.93	7.13e-02	3355.30	0.8	1218.07	0.3
3	7.346	0.136	0.421	492.12	0.1	3.189e+05	73.6	546.29	0.1
4	10.186	0.098	0.375	1033.88	0.2	1400.89	0.3	2.511e+05	58.0
5	11.416	0.088	0.363	1449.13	0.3	1.260e+04	2.9	7194.46	1.7
6	11.903	0.084	0.358	3.41	7.86e-04	579.22	0.1	4.656e+04	10.7
7	13.301	0.075	0.348	2.769e+04	6.4	288.36	6.66e-02	4.434e+04	10.2
8	14.051	0.071	0.343	2807.14	0.6	2.631e+04	6.1	3.084e+04	7.1
9	14.745	0.068	0.339	281.81	6.50e-02	2.846e+04	6.6	2.134e+04	4.9
10	15.700	0.064	0.334	4.640e+04	10.7	10.44	2.41e-03	1757.54	0.4
11	16.089	0.062	0.332	1.610e+04	3.7	8223.49	1.9	9827.52	2.3
12	17.624	0.057	0.326	2208.72	0.5	1002.30	0.2	1046.21	0.2
13	18.488	0.054	0.323	1490.19	0.3	23.27	5.37e-03	401.84	9.28e-02
14	18.913	0.053	0.321	6917.18	1.6	8086.59	1.9	4945.15	1.1
15	19.350	0.052	0.320	4470.36	1.0	9200.11	2.1	804.85	0.2
16	19.713	0.051	0.319	1433.91	0.3	6050.10	1.4	85.26	1.97e-02
17	21.842	0.046	0.313	131.53	3.04e-02	4013.18	0.9	1024.24	0.2
18	22.600	0.044	0.311	216.57	5.00e-02	1117.28	0.3	10.10	2.33e-03
19	23.210	0.043	0.309	671.84	0.2	495.57	0.1	393.85	9.09e-02

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
20	24.215	0.041	0.307	348.72	8.05e-02	28.36	6.55e-03	10.81	2.49e-03
Risulta				4.166e+05		4.306e+05		4.248e+05	
In percentuale				96.16		99.39		98.06	

CDC	Tipo	Sigla Id	Note
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.183
			ordinata spettro (tratto Tb-Tc) = 0.425 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.208 sec.
			fattore di struttura q: 1.510
			fattore per spost. mu d: 2.032
			classe di duttilità CD: B
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	0.0	172.88	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	0.0	161.50	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	0.0	158.00	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	54.00	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	0.0	161.50	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	0.0	161.50	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	0.0	161.50	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	0.0	161.50	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	0.0	158.00	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	0.0	172.88	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.818	0.208	0.425	2.843e+05	65.6	34.91	8.06e-03	1664.27	0.4
2	6.648	0.150	0.425	2.409e+04	5.6	3.974e+04	9.2	168.98	3.90e-02
3	7.447	0.134	0.418	2643.97	0.6	2.851e+05	65.8	414.75	9.57e-02
4	10.181	0.098	0.375	994.19	0.2	1406.06	0.3	2.526e+05	58.3
5	11.649	0.086	0.361	2875.59	0.7	9393.38	2.2	9265.11	2.1
6	11.913	0.084	0.358	158.93	3.67e-02	1362.71	0.3	4.317e+04	10.0
7	13.088	0.076	0.349	3.169e+04	7.3	6.04	1.40e-03	3.880e+04	9.0
8	14.058	0.071	0.343	2247.75	0.5	2.614e+04	6.0	3.277e+04	7.6
9	14.745	0.068	0.339	1.08	2.50e-04	2.918e+04	6.7	2.391e+04	5.5
10	15.488	0.065	0.335	5.407e+04	12.5	59.15	1.37e-02	6041.82	1.4
11	16.050	0.062	0.332	1107.46	0.3	6321.05	1.5	7585.92	1.8
12	17.629	0.057	0.326	2181.72	0.5	390.88	9.02e-02	1195.88	0.3
13	18.374	0.054	0.323	185.32	4.28e-02	2613.46	0.6	2.92	6.73e-04
14	18.762	0.053	0.322	2106.02	0.5	1.592e+04	3.7	5305.66	1.2
15	19.647	0.051	0.319	906.97	0.2	7362.27	1.7	73.45	1.70e-02
16	19.774	0.051	0.318	5943.38	1.4	79.87	1.84e-02	305.42	7.05e-02
17	21.785	0.046	0.313	84.64	1.95e-02	3976.76	0.9	1035.90	0.2
18	23.078	0.043	0.310	1208.69	0.3	218.99	5.05e-02	316.04	7.30e-02
19	23.286	0.043	0.309	42.71	9.86e-03	1441.75	0.3	179.38	4.14e-02
20	24.056	0.042	0.308	517.62	0.1	17.46	4.03e-03	13.36	3.11e-03
Risulta				4.174e+05		4.308e+05		4.248e+05	
In percentuale				96.34		99.44		98.06	

CDC	Tipo	Sigla Id	Note
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.183
			ordinata spettro (tratto Tb-Tc) = 0.425 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.135 sec.
			fattore di struttura q: 1.510
			fattore per spost. mu d: 2.585
			classe di duttilità CD: B
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	23.25	0.0	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	23.25	0.0	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	23.25	0.0	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	23.25	0.0	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	23.25	0.0	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	23.25	0.0	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	23.25	0.0	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	23.25	0.0	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	23.25	0.0	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.061	0.198	0.425	2.882e+05	66.5	40.95	9.45e-03	1825.68	0.4
2	6.192	0.161	0.425	1.806e+04	4.2	1.792e+04	4.1	336.91	7.78e-02
3	7.402	0.135	0.419	815.60	0.2	3.050e+05	70.4	389.93	9.00e-02
4	10.182	0.098	0.375	1008.86	0.2	1310.72	0.3	2.517e+05	58.1
5	11.459	0.087	0.362	1956.14	0.5	1.110e+04	2.6	7449.60	1.7
6	11.897	0.084	0.358	21.13	4.88e-03	716.87	0.2	4.564e+04	10.5
7	13.191	0.076	0.349	2.938e+04	6.8	27.18	6.27e-03	4.134e+04	9.5
8	14.056	0.071	0.343	2055.73	0.5	2.595e+04	6.0	3.382e+04	7.8
9	14.761	0.068	0.339	51.31	1.18e-02	2.988e+04	6.9	2.094e+04	4.8
10	15.613	0.064	0.334	5.352e+04	12.4	10.20	2.35e-03	3749.79	0.9
11	16.065	0.062	0.332	6272.34	1.4	7269.04	1.7	8867.89	2.0
12	17.635	0.057	0.326	2066.54	0.5	579.08	0.1	960.76	0.2
13	18.424	0.054	0.323	523.73	0.1	1605.01	0.4	0.65	1.50e-04
14	18.729	0.053	0.322	2330.77	0.5	1.638e+04	3.8	6001.96	1.4
15	19.476	0.051	0.319	7302.73	1.7	889.72	0.2	143.77	3.32e-02
16	19.655	0.051	0.319	1177.75	0.3	6425.57	1.5	123.04	2.84e-02
17	21.810	0.046	0.313	71.52	1.65e-02	4156.51	1.0	1013.84	0.2
18	22.792	0.044	0.310	534.41	0.1	978.04	0.2	15.35	3.54e-03
19	23.222	0.043	0.309	484.79	0.1	719.40	0.2	439.83	0.1
20	24.145	0.041	0.307	353.07	8.15e-02	3.67	8.47e-04	18.58	4.29e-03
Risulta				4.162e+05		4.310e+05		4.247e+05	
In percentuale				96.07		99.48		98.04	

CDC	Tipo	Sigla Id	Note
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			zona sismica: 2
			categoria suolo: B

Società di Progetto
Brebemi SpA

CDC	Tipo	Sigla Id	Note
			fattore di sito S = 1.183
			ordinata spettro (tratto Tb-Tc) = 0.425 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.136 sec.
			fattore di struttura q: 1.510
			fattore per spost. mu d: 2.574
			classe di duttilità CD: B
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	-23.25	0.0	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	-23.25	0.0	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	-23.25	0.0	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	-23.25	0.0	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	-23.25	0.0	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	-23.25	0.0	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	-23.25	0.0	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	-23.25	0.0	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	-23.25	0.0	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.061	0.198	0.425	2.888e+05	66.7	122.57	2.83e-02	1805.93	0.4
2	6.238	0.160	0.425	1.756e+04	4.1	4475.81	1.0	318.20	7.34e-02
3	7.349	0.136	0.421	764.87	0.2	3.191e+05	73.7	555.05	0.1
4	10.183	0.098	0.375	1020.43	0.2	1285.22	0.3	2.515e+05	58.0
5	11.439	0.087	0.362	1945.90	0.4	1.283e+04	3.0	6061.31	1.4
6	11.912	0.084	0.358	10.13	2.34e-03	607.79	0.1	4.749e+04	11.0
7	13.189	0.076	0.349	2.886e+04	6.7	194.49	4.49e-02	4.235e+04	9.8
8	14.051	0.071	0.343	2894.43	0.7	2.667e+04	6.2	2.962e+04	6.8
9	14.730	0.068	0.339	151.29	3.49e-02	2.785e+04	6.4	2.407e+04	5.6
10	15.624	0.064	0.334	5.353e+04	12.4	3.46	7.98e-04	3772.46	0.9
11	16.050	0.062	0.332	5734.21	1.3	6755.58	1.6	8882.05	2.1
12	17.619	0.057	0.326	2189.92	0.5	664.31	0.2	1289.71	0.3
13	18.447	0.054	0.323	871.17	0.2	151.98	3.51e-02	219.24	5.06e-02
14	18.999	0.053	0.321	2819.44	0.7	1.490e+04	3.4	5431.88	1.3
15	19.507	0.051	0.319	6369.95	1.5	1156.14	0.3	18.38	4.24e-03
16	19.702	0.051	0.319	1382.90	0.3	8013.53	1.8	20.74	4.79e-03
17	21.815	0.046	0.313	129.57	2.99e-02	3889.15	0.9	1077.23	0.2
18	22.879	0.044	0.310	477.62	0.1	999.33	0.2	102.56	2.37e-02
19	23.224	0.043	0.309	476.62	0.1	667.68	0.2	344.42	7.95e-02
20	24.154	0.041	0.307	241.59	5.58e-02	43.26	9.99e-03	8.47	1.96e-03
Risulta				4.162e+05		4.304e+05		4.249e+05	
In percentuale				96.07		99.34		98.08	

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.200
			ordinata spettro (tratto Tb-Tc) = 0.285 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.191 sec.

Società di Progetto
Brebemi SpA

CDC	Tipo	Sigla Id	Note
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	0.0	-172.88	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	0.0	-161.50	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	0.0	-158.00	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	-54.00	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	0.0	-161.50	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	0.0	-161.50	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	0.0	-161.50	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	0.0	-161.50	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	0.0	-158.00	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	0.0	-172.88	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	0.0	-47.25	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.228	0.191	0.285	3.022e+05	69.7	418.97	9.67e-02	1386.39	0.3
2	5.964	0.168	0.285	308.93	7.13e-02	3355.30	0.8	1218.07	0.3
3	7.346	0.136	0.285	492.12	0.1	3.189e+05	73.6	546.29	0.1
4	10.186	0.098	0.249	1033.88	0.2	1400.89	0.3	2.511e+05	58.0
5	11.416	0.088	0.235	1449.13	0.3	1.260e+04	2.9	7194.46	1.7
6	11.903	0.084	0.230	3.41	7.86e-04	579.22	0.1	4.656e+04	10.7
7	13.301	0.075	0.218	2.769e+04	6.4	288.36	6.66e-02	4.434e+04	10.2
8	14.051	0.071	0.213	2807.14	0.6	2.631e+04	6.1	3.084e+04	7.1
9	14.745	0.068	0.208	281.81	6.50e-02	2.846e+04	6.6	2.134e+04	4.9
10	15.700	0.064	0.203	4.640e+04	10.7	10.44	2.41e-03	1757.54	0.4
11	16.089	0.062	0.201	1.610e+04	3.7	8223.49	1.9	9827.52	2.3
12	17.624	0.057	0.193	2208.72	0.5	1002.30	0.2	1046.21	0.2
13	18.488	0.054	0.190	1490.19	0.3	23.27	5.37e-03	401.84	9.28e-02
14	18.913	0.053	0.188	6917.18	1.6	8086.59	1.9	4945.15	1.1
15	19.350	0.052	0.187	4470.36	1.0	9200.11	2.1	804.85	0.2
16	19.713	0.051	0.185	1433.91	0.3	6050.10	1.4	85.26	1.97e-02
17	21.842	0.046	0.179	131.53	3.04e-02	4013.18	0.9	1024.24	0.2
18	22.600	0.044	0.177	216.57	5.00e-02	1117.28	0.3	10.10	2.33e-03
19	23.210	0.043	0.175	671.84	0.2	495.57	0.1	393.85	9.09e-02
20	24.215	0.041	0.173	348.72	8.05e-02	28.36	6.55e-03	10.81	2.49e-03
Risulta				4.166e+05		4.306e+05		4.248e+05	
In percentuale				96.16		99.39		98.06	

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.200
			ordinata spettro (tratto Tb-Tc) = 0.285 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.208 sec.
			numero di modi considerati: 20
			combinaz. modale: CQC

Società di Progetto
Brebemi SpA

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
394.00	1.669e+05	-1.159e+05	4927.00	0.0	172.88	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	0.0	161.50	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	0.0	158.00	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	54.00	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	0.0	161.50	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	0.0	161.50	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	0.0	161.50	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	0.0	161.50	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	0.0	158.00	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	0.0	172.88	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	0.0	47.25	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.818	0.208	0.285	2.843e+05	65.6	34.91	8.06e-03	1664.27	0.4
2	6.648	0.150	0.285	2.409e+04	5.6	3.974e+04	9.2	168.98	3.90e-02
3	7.447	0.134	0.285	2643.97	0.6	2.851e+05	65.8	414.75	9.57e-02
4	10.181	0.098	0.249	994.19	0.2	1406.06	0.3	2.526e+05	58.3
5	11.649	0.086	0.232	2875.59	0.7	9393.38	2.2	9265.11	2.1
6	11.913	0.084	0.230	158.93	3.67e-02	1362.71	0.3	4.317e+04	10.0
7	13.088	0.076	0.220	3.169e+04	7.3	6.04	1.40e-03	3.880e+04	9.0
8	14.058	0.071	0.213	2247.75	0.5	2.614e+04	6.0	3.277e+04	7.6
9	14.745	0.068	0.208	1.08	2.50e-04	2.918e+04	6.7	2.391e+04	5.5
10	15.488	0.065	0.204	5.407e+04	12.5	59.15	1.37e-02	6041.82	1.4
11	16.050	0.062	0.201	1107.46	0.3	6321.05	1.5	7585.92	1.8
12	17.629	0.057	0.193	2181.72	0.5	390.88	9.02e-02	1195.88	0.3
13	18.374	0.054	0.190	185.32	4.28e-02	2613.46	0.6	2.92	6.73e-04
14	18.762	0.053	0.189	2106.02	0.5	1.592e+04	3.7	5305.66	1.2
15	19.647	0.051	0.186	906.97	0.2	7362.27	1.7	73.45	1.70e-02
16	19.774	0.051	0.185	5943.38	1.4	79.87	1.84e-02	305.42	7.05e-02
17	21.785	0.046	0.179	84.64	1.95e-02	3976.76	0.9	1035.90	0.2
18	23.078	0.043	0.175	1208.69	0.3	218.99	5.05e-02	316.04	7.30e-02
19	23.286	0.043	0.175	42.71	9.86e-03	1441.75	0.3	179.38	4.14e-02
20	24.056	0.042	0.173	517.62	0.1	17.46	4.03e-03	13.46	3.11e-03
Risulta				4.174e+05		4.308e+05		4.248e+05	
In percentuale				96.34		99.44		98.06	

CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.200
			ordinata spettro (tratto Tb-Tc) = 0.285 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.135 sec.
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	23.25	0.0	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	23.25	0.0	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	23.25	0.0	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	23.25	0.0	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	23.25	0.0	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	23.25	0.0	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	23.25	0.0	-1.161e+05	5435.69	0.013	2.370	0.332

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
56.29	9733.48	-1.159e+05	4925.66	23.25	0.0	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	23.25	0.0	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.061	0.198	0.285	2.882e+05	66.5	40.95	9.45e-03	1825.68	0.4
2	6.192	0.161	0.285	1.806e+04	4.2	1.792e+04	4.1	336.91	7.78e-02
3	7.402	0.135	0.285	815.60	0.2	3.050e+05	70.4	389.93	9.00e-02
4	10.182	0.098	0.249	1008.86	0.2	1310.72	0.3	2.517e+05	58.1
5	11.459	0.087	0.234	1956.14	0.5	1.110e+04	2.6	7449.60	1.7
6	11.897	0.084	0.230	21.13	4.88e-03	716.87	0.2	4.564e+04	10.5
7	13.191	0.076	0.219	2.938e+04	6.8	27.18	6.27e-03	4.134e+04	9.5
8	14.056	0.071	0.213	2055.73	0.5	2.595e+04	6.0	3.382e+04	7.8
9	14.761	0.068	0.208	51.31	1.18e-02	2.988e+04	6.9	2.094e+04	4.8
10	15.613	0.064	0.203	5.352e+04	12.4	10.20	2.35e-03	3749.79	0.9
11	16.065	0.062	0.201	6272.34	1.4	7269.04	1.7	8867.89	2.0
12	17.635	0.057	0.193	2066.54	0.5	579.08	0.1	960.76	0.2
13	18.424	0.054	0.190	523.73	0.1	1605.01	0.4	0.65	1.50e-04
14	18.729	0.053	0.189	2330.77	0.5	1.638e+04	3.8	6001.96	1.4
15	19.476	0.051	0.186	7302.73	1.7	889.72	0.2	143.77	3.32e-02
16	19.655	0.051	0.186	1177.75	0.3	6425.57	1.5	123.04	2.84e-02
17	21.810	0.046	0.179	71.52	1.65e-02	4156.51	1.0	1013.84	0.2
18	22.792	0.044	0.176	534.41	0.1	978.04	0.2	15.35	3.54e-03
19	23.222	0.043	0.175	484.79	0.1	719.40	0.2	439.83	0.1
20	24.145	0.041	0.173	353.07	8.15e-02	3.67	8.47e-04	18.58	4.29e-03
Risulta				4.162e+05		4.310e+05		4.247e+05	
In percentuale				96.07		99.48		98.04	

CDC	Tipo	Sigla Id	Note
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			zona sismica: 2
			categoria suolo: B
			fattore di sito S = 1.200
			ordinata spettro (tratto Tb-Tc) = 0.285 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.136 sec.
			numero di modi considerati: 20
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
394.00	1.669e+05	-1.159e+05	4927.00	-23.25	0.0	-1.161e+05	4251.75	0.342	0.648	0.890
337.71	1.484e+04	-1.160e+05	5076.59	-23.25	0.0	-1.160e+05	4248.08	0.800	0.070	1.099
281.43	1.162e+04	-1.159e+05	4893.96	-23.25	0.0	-1.160e+05	4219.98	0.776	0.035	0.942
260.00	2707.27	-1.161e+05	5734.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225.14	4.534e+04	-1.161e+05	5475.50	-23.25	0.0	-1.160e+05	4247.80	0.800	0.045	1.630
168.86	1.432e+04	-1.160e+05	5052.90	-23.25	0.0	-1.160e+05	4248.08	0.800	0.076	1.068
112.57	1.315e+04	-1.159e+05	5028.87	-23.25	0.0	-1.160e+05	4248.08	0.800	0.088	1.036
85.00	4591.22	-1.161e+05	5322.63	-23.25	0.0	-1.161e+05	5435.69	0.013	2.370	0.332
56.29	9733.48	-1.159e+05	4925.66	-23.25	0.0	-1.160e+05	4276.87	0.751	0.119	0.936
0.0	8.036e+04	-1.159e+05	5435.04	-23.25	0.0	-1.160e+05	5603.87	0.213	0.804	0.275
-47.36	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-94.71	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-142.07	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-189.43	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-236.79	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534
-284.14	1.161e+04	-1.159e+05	5931.36	-23.25	0.0	-1.160e+05	5603.87	0.706	0.572	0.534

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	rapp. r/Ls	rapp. ex/rx	rapp. ey/ry
Risulta	4.332e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M eccitata X x g	%	M eccitata Y x g	%	M eccitata Z x g	%
	Hz	sec	g	daN		daN		daN	
1	5.061	0.198	0.285	2.888e+05	66.7	122.57	2.83e-02	1805.93	0.4
2	6.238	0.160	0.285	1.756e+04	4.1	4475.81	1.0	318.20	7.34e-02
3	7.349	0.136	0.285	764.87	0.2	3.191e+05	73.7	555.05	0.1
4	10.183	0.098	0.249	1020.43	0.2	1285.22	0.3	2.515e+05	58.0
5	11.439	0.087	0.234	1945.90	0.4	1.283e+04	3.0	6061.31	1.4
6	11.912	0.084	0.230	10.13	2.34e-03	607.79	0.1	4.749e+04	11.0
7	13.189	0.076	0.219	2.886e+04	6.7	194.49	4.49e-02	4.235e+04	9.8
8	14.051	0.071	0.213	2894.43	0.7	2.667e+04	6.2	2.962e+04	6.8
9	14.730	0.068	0.208	151.29	3.49e-02	2.785e+04	6.4	2.407e+04	5.6
10	15.624	0.064	0.203	5.353e+04	12.4	3.46	7.98e-04	3772.46	0.9
11	16.050	0.062	0.201	5734.21	1.3	6755.58	1.6	8882.05	2.1
12	17.619	0.057	0.193	2189.92	0.5	664.31	0.2	1289.71	0.3
13	18.447	0.054	0.190	871.17	0.2	151.98	3.51e-02	219.24	5.06e-02
14	18.999	0.053	0.188	2819.44	0.7	1.490e+04	3.4	5431.88	1.3
15	19.507	0.051	0.186	6369.95	1.5	1156.14	0.3	18.38	4.24e-03
16	19.702	0.051	0.185	1382.90	0.3	8013.53	1.8	20.74	4.79e-03
17	21.815	0.046	0.179	129.57	2.99e-02	3889.15	0.9	1077.23	0.2
18	22.879	0.044	0.176	477.62	0.1	999.33	0.2	102.56	2.37e-02
19	23.224	0.043	0.175	476.62	0.1	667.68	0.2	344.42	7.95e-02
20	24.154	0.041	0.173	241.59	5.58e-02	43.26	9.99e-03	8.47	1.96e-03
Risulta				4.162e+05		4.304e+05		4.249e+05	
In percentuale				96.07		99.34		98.08	

Cmb	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h	Pilas.	1000 etaT/h	etaT	inter. h
			cm	cm			cm	cm			cm	cm
33	1	0.61	0.24	394.0	2	0.61	0.24	394.0	3	0.60	0.24	394.0
	4	0.53	0.21	394.0	5	0.54	0.21	394.0	6	0.54	0.21	394.0
	7	0.52	0.21	394.0	8	0.63	0.25	394.0				
34	1	0.57	0.23	394.0	2	0.57	0.23	394.0	3	0.57	0.23	394.0
	4	0.65	0.26	394.0	5	0.65	0.26	394.0	6	0.65	0.26	394.0
	7	0.65	0.26	394.0	8	0.60	0.24	394.0				
35	1	0.21	0.08	394.0	2	0.21	0.08	394.0	3	0.26	0.10	394.0
	4	0.61	0.24	394.0	5	0.59	0.23	394.0	6	0.59	0.23	394.0
	7	0.61	0.24	394.0	8	0.40	0.16	394.0				
36	1	0.26	0.10	394.0	2	0.28	0.11	394.0	3	0.32	0.13	394.0
	4	0.50	0.20	394.0	5	0.50	0.20	394.0	6	0.50	0.20	394.0
	7	0.50	0.20	394.0	8	0.44	0.17	394.0				
37	1	0.55	0.22	394.0	2	0.55	0.22	394.0	3	0.60	0.24	394.0
	4	0.55	0.22	394.0	5	0.57	0.22	394.0	6	0.56	0.22	394.0
	7	0.55	0.22	394.0	8	0.63	0.25	394.0				
38	1	0.63	0.25	394.0	2	0.63	0.25	394.0	3	0.57	0.23	394.0
	4	0.62	0.25	394.0	5	0.63	0.25	394.0	6	0.63	0.25	394.0
	7	0.62	0.25	394.0	8	0.61	0.24	394.0				
39	1	0.27	0.11	394.0	2	0.27	0.11	394.0	3	0.26	0.10	394.0
	4	0.58	0.23	394.0	5	0.57	0.22	394.0	6	0.57	0.22	394.0
	7	0.58	0.23	394.0	8	0.40	0.16	394.0				
40	1	0.20	0.08	394.0	2	0.22	0.09	394.0	3	0.32	0.13	394.0
	4	0.52	0.21	394.0	5	0.52	0.20	394.0	6	0.52	0.21	394.0
	7	0.52	0.21	394.0	8	0.44	0.17	394.0				
41	1	0.82	0.33	394.0	2	0.82	0.32	394.0	3	0.76	0.30	394.0
	4	0.32	0.13	394.0	5	0.25	0.10	394.0	6	0.24	0.09	394.0
	7	0.32	0.12	394.0	8	0.67	0.26	394.0				
42	1	0.79	0.31	394.0	2	0.80	0.31	394.0	3	0.75	0.30	394.0
	4	0.19	0.07	394.0	5	0.39	0.15	394.0	6	0.42	0.17	394.0
	7	0.26	0.10	394.0	8	0.66	0.26	394.0				
43	1	0.44	0.17	394.0	2	0.43	0.17	394.0	3	0.43	0.17	394.0
	4	0.22	0.09	394.0	5	0.34	0.13	394.0	6	0.35	0.14	394.0
	7	0.24	0.09	394.0	8	0.45	0.18	394.0				
44	1	0.46	0.18	394.0	2	0.46	0.18	394.0	3	0.45	0.18	394.0
	4	0.37	0.15	394.0	5	0.23	0.09	394.0	6	0.19	0.07	394.0
	7	0.34	0.14	394.0	8	0.46	0.18	394.0				
45	1	0.76	0.30	394.0	2	0.76	0.30	394.0	3	0.76	0.30	394.0
	4	0.30	0.12	394.0	5	0.28	0.11	394.0	6	0.27	0.11	394.0
	7	0.29	0.11	394.0	8	0.67	0.26	394.0				
46	1	0.85	0.34	394.0	2	0.86	0.34	394.0	3	0.75	0.30	394.0

	4	0.21	0.08	394.0	5	0.35	0.14	394.0	6	0.40	0.16	394.0
	7	0.28	0.11	394.0	8	0.66	0.26	394.0				
47	1	0.50	0.20	394.0	2	0.49	0.19	394.0	3	0.43	0.17	394.0
	4	0.24	0.10	394.0	5	0.31	0.12	394.0	6	0.32	0.13	394.0
	7	0.26	0.10	394.0	8	0.45	0.18	394.0				
48	1	0.40	0.16	394.0	2	0.40	0.16	394.0	3	0.45	0.18	394.0
	4	0.35	0.14	394.0	5	0.26	0.10	394.0	6	0.22	0.09	394.0
	7	0.32	0.13	394.0	8	0.46	0.18	394.0				
49	1	0.39	0.15	394.0	2	0.40	0.16	394.0	3	0.37	0.15	394.0
	4	0.25	0.10	394.0	5	0.24	0.10	394.0	6	0.14	0.06	394.0
	7	0.14	0.06	394.0	8	0.34	0.14	394.0				
50	1	0.28	0.11	394.0	2	0.32	0.13	394.0	3	0.33	0.13	394.0
	4	0.48	0.19	394.0	5	0.46	0.18	394.0	6	0.43	0.17	394.0
	7	0.45	0.18	394.0	8	0.31	0.12	394.0				
51	1	0.17	0.07	394.0	2	0.19	0.07	394.0	3	0.16	0.06	394.0
	4	0.43	0.17	394.0	5	0.40	0.16	394.0	6	0.35	0.14	394.0
	7	0.38	0.15	394.0	8	0.15	0.06	394.0				
52	1	0.15	0.06	394.0	2	0.24	0.09	394.0	3	0.26	0.10	394.0
	4	0.29	0.11	394.0	5	0.28	0.11	394.0	6	0.23	0.09	394.0
	7	0.24	0.09	394.0	8	0.26	0.10	394.0				
53	1	0.45	0.18	394.0	2	0.45	0.18	394.0	3	0.40	0.16	394.0
	4	0.37	0.15	394.0	5	0.26	0.10	394.0	6	0.12	0.05	394.0
	7	0.29	0.11	394.0	8	0.34	0.13	394.0				
54	1	0.34	0.14	394.0	2	0.39	0.15	394.0	3	0.39	0.15	394.0
	4	0.30	0.12	394.0	5	0.41	0.16	394.0	6	0.40	0.16	394.0
	7	0.29	0.11	394.0	8	0.34	0.13	394.0				
55	1	0.16	0.06	394.0	2	0.17	0.07	394.0	3	0.17	0.07	394.0
	4	0.25	0.10	394.0	5	0.35	0.14	394.0	6	0.31	0.12	394.0
	7	0.19	0.08	394.0	8	0.18	0.07	394.0				
56	1	0.14	0.06	394.0	2	0.22	0.09	394.0	3	0.24	0.09	394.0
	4	0.42	0.17	394.0	5	0.30	0.12	394.0	6	0.22	0.09	394.0
	7	0.36	0.14	394.0	8	0.24	0.09	394.0				
57	1	0.21	0.08	394.0	2	0.24	0.09	394.0	3	0.37	0.15	394.0
	4	0.26	0.10	394.0	5	0.27	0.11	394.0	6	0.18	0.07	394.0
	7	0.16	0.06	394.0	8	0.35	0.14	394.0				
58	1	0.46	0.18	394.0	2	0.50	0.20	394.0	3	0.34	0.13	394.0
	4	0.42	0.16	394.0	5	0.41	0.16	394.0	6	0.37	0.15	394.0
	7	0.38	0.15	394.0	8	0.32	0.12	394.0				
59	1	0.13	0.05	394.0	2	0.15	0.06	394.0	3	0.17	0.07	394.0
	4	0.37	0.14	394.0	5	0.34	0.14	394.0	6	0.28	0.11	394.0
	7	0.31	0.12	394.0	8	0.16	0.06	394.0				
60	1	0.19	0.07	394.0	2	0.27	0.11	394.0	3	0.27	0.11	394.0
	4	0.29	0.11	394.0	5	0.29	0.11	394.0	6	0.24	0.10	394.0
	7	0.24	0.09	394.0	8	0.27	0.11	394.0				
61	1	0.25	0.10	394.0	2	0.27	0.11	394.0	3	0.40	0.16	394.0
	4	0.32	0.13	394.0	5	0.26	0.10	394.0	6	0.12	0.05	394.0
	7	0.22	0.09	394.0	8	0.34	0.13	394.0				
62	1	0.53	0.21	394.0	2	0.56	0.22	394.0	3	0.40	0.16	394.0
	4	0.27	0.11	394.0	5	0.36	0.14	394.0	6	0.35	0.14	394.0
	7	0.27	0.10	394.0	8	0.35	0.14	394.0				
63	1	0.21	0.08	394.0	2	0.23	0.09	394.0	3	0.18	0.07	394.0
	4	0.23	0.09	394.0	5	0.30	0.12	394.0	6	0.25	0.10	394.0
	7	0.17	0.07	394.0	8	0.19	0.08	394.0				
64	1	0.14	0.06	394.0	2	0.23	0.09	394.0	3	0.25	0.10	394.0
	4	0.37	0.15	394.0	5	0.29	0.11	394.0	6	0.20	0.08	394.0
	7	0.30	0.12	394.0	8	0.24	0.10	394.0				

Cmb	**1000 etaT/h**
	0.86

LEGENDA RISULTATI OPERE DI FONDAZIONE

Il controllo dei risultati delle analisi condotte, per quanto concerne le opere di fondazione, è possibile in relazione alle tabelle sottoriportate.

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...							
	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2
4	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47	-0.47	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.47	-0.46	-0.47	-0.47	-0.47	-0.45	-0.46	-0.45	-0.46
	-0.46	-0.46	-0.43	-0.43	-0.44	-0.43	-0.43				
6	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.49	-0.62	-0.63	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.45	-0.45	-0.44				
11	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.49	-0.49	-0.38
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.38	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.36	-0.37	-0.36	-0.36				
20	-0.49	-0.51	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.40	-0.38	-0.39	-0.38	-0.38	-0.38	-0.39
	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
64	-0.55	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.56	-0.56	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.44	-0.43	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.43	-0.41	-0.41	-0.42	-0.41	-0.41				
72	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.59	-0.46
	-0.46	-0.45	-0.46	-0.46	-0.47	-0.46	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
79	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49	-0.50	-0.63	-0.63	-0.49
	-0.49	-0.48	-0.49	-0.49	-0.49	-0.49	-0.49	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
80	-0.61	-0.63	-0.48	-0.49	-0.62	-0.63	-0.49	-0.49	-0.62	-0.63	-0.48
	-0.49	-0.48	-0.49	-0.48	-0.49	-0.48	-0.49	-0.47	-0.48	-0.48	-0.48
	-0.47	-0.48	-0.45	-0.46	-0.46	-0.46	-0.45				
81	-0.61	-0.63	-0.47	-0.49	-0.62	-0.63	-0.48	-0.49	-0.62	-0.63	-0.48
	-0.49	-0.47	-0.49	-0.48	-0.49	-0.48	-0.49	-0.47	-0.48	-0.47	-0.48
	-0.47	-0.48	-0.45	-0.45	-0.46	-0.45	-0.45				
82	-0.61	-0.62	-0.47	-0.49	-0.62	-0.63	-0.48	-0.49	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.49	-0.48	-0.48	-0.46	-0.47	-0.47	-0.48
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
83	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.48	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
84	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.47
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.47	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.46	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
85	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.61	-0.47
	-0.48	-0.47	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45	-0.44				
86	-0.60	-0.61	-0.46	-0.48	-0.61	-0.62	-0.47	-0.48	-0.61	-0.61	-0.47
	-0.48	-0.46	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.46	-0.47	-0.44	-0.44	-0.45	-0.44	-0.44				
87	-0.60	-0.61	-0.46	-0.48	-0.61	-0.61	-0.47	-0.48	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.47	-0.47	-0.48	-0.47	-0.47	-0.45	-0.46	-0.46	-0.47
	-0.46	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
88	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.60	-0.61	-0.47
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.47	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
89	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.47
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.47	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.46	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
90	-0.60	-0.61	-0.46	-0.48	-0.61	-0.62	-0.47	-0.48	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45	-0.44				
91	-0.60	-0.61	-0.46	-0.48	-0.61	-0.61	-0.47	-0.48	-0.60	-0.61	-0.47
	-0.47	-0.46	-0.47	-0.47	-0.48	-0.47	-0.47	-0.45	-0.46	-0.46	-0.47
	-0.46	-0.46	-0.44	-0.44	-0.45	-0.44	-0.44				
92	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.60	-0.61	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
93	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.60	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.45	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
94	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.46	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46

	-0.45	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
95	-0.59	-0.60	-0.45	-0.47	-0.60	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.47	-0.46	-0.47	-0.46	-0.46	-0.45	-0.46	-0.45	-0.46
	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44	-0.43				
96	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.46	-0.45	-0.46	-0.46	-0.47	-0.46	-0.46	-0.45	-0.45	-0.45	-0.46
	-0.45	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
97	-0.58	-0.60	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.59	-0.46
	-0.46	-0.45	-0.46	-0.46	-0.47	-0.46	-0.46	-0.44	-0.45	-0.45	-0.46
	-0.45	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
98	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.58	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
99	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.46	-0.47	-0.46	-0.46	-0.45	-0.46	-0.46	-0.46
	-0.45	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
100	-0.59	-0.60	-0.45	-0.47	-0.60	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.46	-0.45	-0.47	-0.46	-0.47	-0.46	-0.46	-0.45	-0.46	-0.45	-0.46
	-0.45	-0.45	-0.44	-0.44	-0.44	-0.44	-0.44				
101	-0.58	-0.60	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.47	-0.45	-0.46	-0.44	-0.45	-0.45	-0.46
	-0.45	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
102	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.58	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
103	-0.58	-0.59	-0.45	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
104	-0.57	-0.59	-0.44	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.58	-0.45
	-0.45	-0.45	-0.46	-0.45	-0.46	-0.45	-0.45	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
105	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.58	-0.45
	-0.45	-0.44	-0.46	-0.45	-0.46	-0.45	-0.45	-0.44	-0.45	-0.44	-0.45
	-0.44	-0.44	-0.43	-0.43	-0.43	-0.43	-0.43				
106	-0.57	-0.58	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.57	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.45	-0.46	-0.45	-0.45	-0.44	-0.44	-0.44	-0.45
	-0.44	-0.44	-0.42	-0.43	-0.43	-0.43	-0.42				
107	-0.57	-0.58	-0.44	-0.45	-0.58	-0.59	-0.45	-0.46	-0.57	-0.58	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.46	-0.44	-0.45	-0.43	-0.44	-0.44	-0.45
	-0.44	-0.44	-0.42	-0.42	-0.43	-0.42	-0.42				
108	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.46	-0.57	-0.58	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.44	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.43	-0.42	-0.42				
109	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.58	-0.45
	-0.46	-0.44	-0.46	-0.45	-0.46	-0.45	-0.45	-0.44	-0.45	-0.44	-0.45
	-0.44	-0.45	-0.42	-0.43	-0.43	-0.43	-0.42				
110	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.45	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.43	-0.45	-0.44	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
111	-0.57	-0.59	-0.44	-0.46	-0.59	-0.59	-0.45	-0.46	-0.58	-0.58	-0.45
	-0.45	-0.45	-0.46	-0.45	-0.46	-0.45	-0.45	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.44	-0.43	-0.43	-0.43	-0.43	-0.43				
112	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.57	-0.58	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.46	-0.44	-0.45	-0.44	-0.45	-0.44	-0.45
	-0.44	-0.44	-0.43	-0.43	-0.43	-0.43	-0.43				
113	-0.57	-0.58	-0.44	-0.45	-0.58	-0.59	-0.45	-0.46	-0.57	-0.58	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.46	-0.44	-0.45	-0.43	-0.44	-0.44	-0.45
	-0.44	-0.44	-0.42	-0.43	-0.43	-0.42	-0.42				
114	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.45	-0.57	-0.57	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.43	-0.42	-0.42				
115	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.45	-0.57	-0.57	-0.44
	-0.44	-0.44	-0.45	-0.45	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.43	-0.42	-0.42				
116	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.44	-0.45	-0.45	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
117	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.43	-0.45	-0.44	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
118	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.43	-0.45	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
119	-0.56	-0.57	-0.43	-0.44	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.43	-0.43	-0.43	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
120	-0.55	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.56	-0.56	-0.43

	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.42	-0.43	-0.43	-0.44
	-0.42	-0.43	-0.41	-0.41	-0.42	-0.41	-0.41				
121	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.42
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.42	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.42	-0.41	-0.41				
122	-0.55	-0.56	-0.42	-0.44	-0.56	-0.57	-0.43	-0.44	-0.55	-0.55	-0.42
	-0.43	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.42	-0.41	-0.41				
123	-0.55	-0.56	-0.42	-0.44	-0.56	-0.57	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.43	-0.42	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.42	-0.41	-0.41				
124	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
125	-0.54	-0.56	-0.42	-0.43	-0.56	-0.56	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.42	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43
	-0.41	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
126	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.42	-0.42	-0.43	-0.43	-0.44	-0.42	-0.42	-0.41	-0.42	-0.42	-0.43
	-0.41	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
127	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.42	-0.42	-0.43	-0.43	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.43
	-0.41	-0.42	-0.41	-0.41	-0.41	-0.40	-0.41				
128	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.54	-0.54	-0.41
	-0.42	-0.42	-0.43	-0.43	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.41	-0.40	-0.41	-0.41	-0.40	-0.40				
129	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.53	-0.54	-0.41
	-0.42	-0.42	-0.43	-0.43	-0.43	-0.41	-0.42	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.41	-0.40	-0.40	-0.41	-0.40	-0.40				
130	-0.54	-0.55	-0.41	-0.43	-0.55	-0.55	-0.42	-0.43	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.43	-0.42	-0.43	-0.41	-0.42	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.41	-0.40	-0.40	-0.41	-0.40	-0.40				
131	-0.53	-0.55	-0.41	-0.42	-0.54	-0.55	-0.42	-0.43	-0.53	-0.54	-0.41
	-0.41	-0.41	-0.42	-0.42	-0.43	-0.41	-0.42	-0.41	-0.42	-0.41	-0.42
	-0.40	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40				
132	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.52	-0.53	-0.40
	-0.41	-0.41	-0.42	-0.42	-0.42	-0.40	-0.41	-0.40	-0.41	-0.41	-0.41
	-0.40	-0.40	-0.39	-0.40	-0.40	-0.39	-0.39				
133	-0.70	-0.71	-0.54	-0.56	-0.71	-0.71	-0.55	-0.56	-0.72	-0.73	-0.57
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.57	-0.53	-0.54	-0.54	-0.54
	-0.55	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
134	-0.70	-0.71	-0.54	-0.56	-0.71	-0.72	-0.55	-0.56	-0.72	-0.73	-0.57
	-0.57	-0.54	-0.56	-0.55	-0.56	-0.56	-0.57	-0.53	-0.54	-0.54	-0.54
	-0.55	-0.55	-0.51	-0.51	-0.51	-0.52	-0.51				
135	-0.70	-0.72	-0.55	-0.56	-0.71	-0.72	-0.55	-0.56	-0.73	-0.73	-0.57
	-0.58	-0.54	-0.56	-0.55	-0.56	-0.56	-0.57	-0.53	-0.54	-0.54	-0.55
	-0.55	-0.56	-0.51	-0.51	-0.52	-0.52	-0.51				
136	-0.70	-0.72	-0.55	-0.56	-0.71	-0.72	-0.56	-0.56	-0.73	-0.73	-0.57
	-0.58	-0.55	-0.56	-0.55	-0.56	-0.57	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.56	-0.51	-0.52	-0.52	-0.52	-0.51				
137	-0.71	-0.72	-0.55	-0.56	-0.72	-0.72	-0.56	-0.57	-0.73	-0.74	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
138	-0.71	-0.72	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.58	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
139	-0.71	-0.73	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.58
	-0.58	-0.55	-0.56	-0.56	-0.57	-0.57	-0.58	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.52	-0.53	-0.52				
140	-0.71	-0.73	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.74	-0.74	-0.58
	-0.59	-0.55	-0.57	-0.56	-0.57	-0.57	-0.58	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.52	-0.53	-0.52				
141	-0.72	-0.73	-0.56	-0.57	-0.72	-0.73	-0.57	-0.57	-0.74	-0.75	-0.58
	-0.59	-0.56	-0.57	-0.56	-0.57	-0.58	-0.58	-0.55	-0.55	-0.55	-0.56
	-0.56	-0.57	-0.52	-0.52	-0.53	-0.53	-0.52				
142	-0.72	-0.73	-0.56	-0.57	-0.73	-0.73	-0.57	-0.57	-0.74	-0.75	-0.58
	-0.59	-0.56	-0.57	-0.56	-0.57	-0.58	-0.58	-0.55	-0.56	-0.55	-0.56
	-0.56	-0.57	-0.52	-0.53	-0.53	-0.53	-0.52				
143	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.57	-0.58	-0.74	-0.75	-0.58
	-0.59	-0.56	-0.57	-0.57	-0.57	-0.58	-0.58	-0.55	-0.56	-0.55	-0.56
	-0.56	-0.57	-0.53	-0.53	-0.53	-0.53	-0.53				
144	-0.72	-0.74	-0.56	-0.58	-0.73	-0.74	-0.57	-0.58	-0.74	-0.75	-0.58
	-0.59	-0.56	-0.57	-0.57	-0.57	-0.58	-0.59	-0.55	-0.56	-0.56	-0.56
	-0.57	-0.57	-0.53	-0.53	-0.53	-0.53	-0.53				
145	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.45	-0.57	-0.57	-0.44
	-0.44	-0.44	-0.45	-0.45	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.43	-0.43	-0.42	-0.42				

146	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.50	-0.51	-0.50	-0.51	-0.50	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.48	-0.47	-0.47				
147	-0.71	-0.72	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.57	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
148	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.67	-0.52
	-0.53	-0.51	-0.52	-0.51	-0.52	-0.52	-0.52	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.49	-0.49	-0.48				
149	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.68	-0.69	-0.53
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.53	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.52	-0.52	-0.49	-0.49	-0.50	-0.50	-0.49				
150	-0.68	-0.70	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55
	-0.55	-0.53	-0.54	-0.54	-0.54	-0.54	-0.55	-0.52	-0.53	-0.53	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.51	-0.50				
151	-0.70	-0.71	-0.54	-0.56	-0.71	-0.71	-0.55	-0.56	-0.72	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.56	-0.53	-0.54	-0.54	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.52	-0.51				
152	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.58	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
153	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.60	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.48	-0.46	-0.47	-0.45	-0.46	-0.46	-0.47
	-0.46	-0.46	-0.44	-0.44	-0.45	-0.44	-0.44				
154	-0.61	-0.62	-0.47	-0.49	-0.62	-0.63	-0.48	-0.49	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.49	-0.48	-0.48	-0.46	-0.47	-0.47	-0.48
	-0.47	-0.47	-0.45	-0.45	-0.46	-0.45	-0.45				
155	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.50	-0.49	-0.50	-0.49	-0.50	-0.48	-0.49	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.47	-0.46	-0.46				
156	-0.55	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.42
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.43	-0.41	-0.42	-0.42	-0.41	-0.41				
157	-0.72	-0.74	-0.56	-0.58	-0.73	-0.74	-0.57	-0.58	-0.75	-0.75	-0.59
	-0.59	-0.56	-0.57	-0.57	-0.58	-0.58	-0.59	-0.55	-0.56	-0.56	-0.56
	-0.57	-0.57	-0.53	-0.53	-0.53	-0.53	-0.53				
167	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.34	-0.34	-0.42	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.32	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
168	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.44	-0.34
	-0.34	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.33	-0.34	-0.32	-0.33	-0.33	-0.32	-0.32				
169	-0.45	-0.46	-0.34	-0.36	-0.46	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.35	-0.35	-0.36	-0.35	-0.36	-0.35	-0.35	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.35	-0.33	-0.33	-0.34	-0.33	-0.33				
170	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.40	-0.41	-0.31
	-0.31	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
171	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.31	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.31	-0.30	-0.31	-0.31	-0.30	-0.30				
172	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.33	-0.33	-0.32	-0.32	-0.31	-0.33	-0.32	-0.33
	-0.31	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
173	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.42	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.32	-0.31	-0.31				
174	-0.43	-0.44	-0.33	-0.34	-0.44	-0.44	-0.34	-0.34	-0.43	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.35	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
175	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.44	-0.33
	-0.34	-0.34	-0.35	-0.35	-0.35	-0.34	-0.34	-0.33	-0.34	-0.34	-0.34
	-0.33	-0.34	-0.33	-0.33	-0.33	-0.33	-0.33				
180	-0.64	-0.65	-0.49	-0.51	-0.65	-0.65	-0.50	-0.51	-0.66	-0.66	-0.51
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.52	-0.48	-0.49	-0.49	-0.50
	-0.50	-0.50	-0.46	-0.47	-0.47	-0.47	-0.46				
181	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.57	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.41	-0.42	-0.42	-0.42	-0.41				
182	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.49	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.45	-0.45	-0.44				
184	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39	-0.39	-0.49	-0.50	-0.38
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.38	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.37	-0.37	-0.36	-0.36				
227	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.69	-0.69	-0.54
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.53	-0.54	-0.51	-0.52	-0.51	-0.52

	-0.52	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49					
228	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.55	
	-0.55	-0.52	-0.53	-0.53	-0.54	-0.54	-0.55	-0.51	-0.52	-0.52	-0.52	
	-0.53	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49					
229	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.53	-0.53	-0.53	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52	
	-0.52	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49					
230	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.53	-0.53	-0.54	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52	
	-0.52	-0.53	-0.49	-0.49	-0.50	-0.50	-0.49					
231	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.54	-0.53	-0.54	-0.54	-0.55	-0.51	-0.52	-0.52	-0.53	
	-0.53	-0.53	-0.49	-0.50	-0.50	-0.50	-0.49					
232	-0.68	-0.69	-0.53	-0.54	-0.69	-0.69	-0.54	-0.54	-0.70	-0.70	-0.54	
	-0.55	-0.53	-0.54	-0.53	-0.54	-0.54	-0.55	-0.52	-0.53	-0.52	-0.53	
	-0.53	-0.53	-0.50	-0.50	-0.50	-0.50	-0.50					
233	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	-0.54	-0.70	-0.71	-0.55	
	-0.55	-0.53	-0.54	-0.54	-0.54	-0.54	-0.55	-0.52	-0.53	-0.52	-0.53	
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50					
234	-0.68	-0.70	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55	
	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.53	-0.53	
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50					
235	-0.69	-0.70	-0.53	-0.55	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55	
	-0.56	-0.53	-0.54	-0.54	-0.55	-0.55	-0.55	-0.52	-0.53	-0.53	-0.53	
	-0.53	-0.54	-0.50	-0.50	-0.51	-0.51	-0.50					
236	-0.69	-0.70	-0.53	-0.55	-0.70	-0.70	-0.54	-0.55	-0.71	-0.71	-0.55	
	-0.56	-0.53	-0.55	-0.54	-0.55	-0.55	-0.56	-0.52	-0.53	-0.53	-0.54	
	-0.54	-0.54	-0.50	-0.51	-0.51	-0.51	-0.50					
237	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.55	-0.71	-0.72	-0.56	
	-0.56	-0.54	-0.55	-0.54	-0.55	-0.55	-0.56	-0.53	-0.54	-0.53	-0.54	
	-0.54	-0.54	-0.51	-0.51	-0.51	-0.51	-0.51					
238	-0.65	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.67	-0.52	
	-0.53	-0.50	-0.52	-0.51	-0.52	-0.52	-0.52	-0.50	-0.51	-0.50	-0.51	
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48					
239	-0.65	-0.66	-0.50	-0.52	-0.66	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52	
	-0.53	-0.50	-0.51	-0.51	-0.52	-0.52	-0.52	-0.49	-0.50	-0.50	-0.50	
	-0.50	-0.51	-0.47	-0.48	-0.48	-0.48	-0.47					
240	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.52	
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51	
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48					
241	-0.66	-0.67	-0.51	-0.52	-0.67	-0.67	-0.52	-0.53	-0.67	-0.68	-0.53	
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51	
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48					
242	-0.66	-0.67	-0.51	-0.53	-0.67	-0.67	-0.52	-0.53	-0.67	-0.68	-0.53	
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51	
	-0.51	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48					
243	-0.66	-0.67	-0.51	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	
	-0.54	-0.51	-0.52	-0.52	-0.53	-0.53	-0.53	-0.50	-0.51	-0.51	-0.51	
	-0.51	-0.52	-0.48	-0.49	-0.49	-0.49	-0.48					
244	-0.66	-0.68	-0.52	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53	
	-0.54	-0.51	-0.53	-0.52	-0.53	-0.53	-0.53	-0.51	-0.52	-0.51	-0.52	
	-0.52	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49					
245	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.68	-0.69	-0.53	
	-0.54	-0.52	-0.53	-0.52	-0.53	-0.53	-0.54	-0.51	-0.52	-0.51	-0.52	
	-0.52	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49					
246	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53	-0.54	-0.69	-0.69	-0.54	
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.53	-0.54	-0.51	-0.52	-0.52	-0.52	
	-0.52	-0.53	-0.49	-0.49	-0.50	-0.50	-0.49					
247	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.53	-0.53	-0.54	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52	
	-0.52	-0.53	-0.49	-0.50	-0.50	-0.50	-0.49					
248	-0.68	-0.69	-0.52	-0.54	-0.69	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.54	-0.53	-0.54	-0.54	-0.54	-0.52	-0.52	-0.52	-0.53	
	-0.53	-0.53	-0.50	-0.50	-0.50	-0.50	-0.50					
249	-0.64	-0.65	-0.49	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	
	-0.51	-0.49	-0.50	-0.50	-0.51	-0.50	-0.51	-0.48	-0.49	-0.49	-0.50	
	-0.49	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47					
250	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50	-0.51	-0.64	-0.65	-0.50	
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.51	-0.48	-0.49	-0.49	-0.49	
	-0.49	-0.49	-0.46	-0.46	-0.47	-0.47	-0.46					
251	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.51	-0.51	-0.65	-0.66	-0.51	
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.51	-0.49	-0.50	-0.49	-0.50	
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47					
252	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.65	-0.66	-0.51	
	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.51	-0.49	-0.50	-0.49	-0.50	
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47					
253	-0.64	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51	-0.52	-0.66	-0.66	-0.51	

	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.48	-0.48	-0.47				
254	-0.65	-0.66	-0.50	-0.52	-0.66	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.52	-0.50	-0.51	-0.51	-0.52	-0.51	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.51	-0.47	-0.48	-0.48	-0.48	-0.47				
255	-0.65	-0.66	-0.50	-0.52	-0.66	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.52	-0.50	-0.51	-0.51	-0.52	-0.51	-0.52	-0.49	-0.50	-0.50	-0.51
	-0.50	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
256	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.67	-0.52
	-0.53	-0.51	-0.52	-0.51	-0.52	-0.52	-0.52	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
257	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.52
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.49	-0.48	-0.48				
258	-0.66	-0.67	-0.51	-0.52	-0.67	-0.67	-0.52	-0.53	-0.67	-0.68	-0.52
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.49	-0.49	-0.49	-0.48				
259	-0.66	-0.68	-0.51	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53
	-0.53	-0.51	-0.53	-0.52	-0.53	-0.53	-0.53	-0.50	-0.51	-0.51	-0.52
	-0.51	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49				
260	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
261	-0.67	-0.69	-0.53	-0.54	-0.68	-0.69	-0.53	-0.54	-0.70	-0.70	-0.55
	-0.56	-0.52	-0.54	-0.53	-0.54	-0.54	-0.55	-0.51	-0.52	-0.52	-0.52
	-0.53	-0.53	-0.49	-0.49	-0.49	-0.50	-0.49				
262	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.50	-0.48	-0.50	-0.49	-0.50	-0.49	-0.50	-0.48	-0.49	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
263	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50	-0.50	-0.64	-0.65	-0.50
	-0.50	-0.49	-0.50	-0.49	-0.50	-0.50	-0.50	-0.48	-0.49	-0.48	-0.49
	-0.49	-0.49	-0.46	-0.46	-0.47	-0.46	-0.46				
264	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50	-0.51	-0.64	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.50	-0.48	-0.49	-0.49	-0.49
	-0.49	-0.49	-0.46	-0.46	-0.47	-0.47	-0.46				
265	-0.63	-0.65	-0.49	-0.50	-0.64	-0.65	-0.50	-0.51	-0.64	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.51	-0.48	-0.49	-0.49	-0.49
	-0.49	-0.49	-0.47	-0.47	-0.47	-0.47	-0.47				
266	-0.63	-0.65	-0.49	-0.51	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.51	-0.50	-0.51	-0.48	-0.49	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
267	-0.64	-0.65	-0.49	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.49	-0.51	-0.50	-0.51	-0.50	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
268	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.65	-0.66	-0.51
	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.51	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.48	-0.48	-0.47				
269	-0.64	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51	-0.52	-0.66	-0.66	-0.51
	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48	-0.47				
270	-0.65	-0.66	-0.50	-0.52	-0.66	-0.66	-0.51	-0.52	-0.66	-0.67	-0.51
	-0.52	-0.50	-0.51	-0.51	-0.52	-0.51	-0.52	-0.49	-0.50	-0.50	-0.51
	-0.50	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
271	-0.51	-0.52	-0.39	-0.41	-0.52	-0.52	-0.40	-0.41	-0.51	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.41	-0.39	-0.40	-0.39	-0.40	-0.39	-0.40
	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38				
272	-0.52	-0.53	-0.40	-0.42	-0.53	-0.54	-0.41	-0.42	-0.52	-0.53	-0.41
	-0.41	-0.40	-0.42	-0.41	-0.42	-0.41	-0.41	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39				
273	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
274	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.56	-0.57	-0.44
	-0.44	-0.43	-0.44	-0.44	-0.44	-0.43	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.43	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
275	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.46	-0.58	-0.58	-0.45
	-0.46	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
276	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.47	-0.44	-0.45	-0.45	-0.46
	-0.45	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
277	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.47	-0.48	-0.48	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.44	-0.44	-0.44				
278	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.45	-0.46	-0.46	-0.45				

279	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.51	-0.51	-0.66	-0.66	-0.51
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.52	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
280	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.51	-0.48	-0.49	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.46	-0.46	-0.46	-0.45				
286	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.51	-0.48	-0.49	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.45	-0.46	-0.46	-0.45				
288	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.50	-0.51	-0.66	-0.66	-0.51
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.52	-0.49	-0.49	-0.49	-0.50
	-0.50	-0.50	-0.46	-0.47	-0.47	-0.47	-0.46				
289	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.39	-0.39	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
290	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.52	-0.52	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.41	-0.40	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.38	-0.38	-0.39	-0.38	-0.38				
291	-0.53	-0.54	-0.41	-0.42	-0.54	-0.55	-0.42	-0.43	-0.54	-0.54	-0.42
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.42	-0.42	-0.40	-0.41	-0.41	-0.42
	-0.41	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39				
292	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.43	-0.44	-0.43	-0.44	-0.42	-0.42	-0.42	-0.43
	-0.42	-0.43	-0.40	-0.40	-0.41	-0.40	-0.40				
293	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.57	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.44	-0.45	-0.44	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42	-0.41				
294	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.46	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
295	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.47	-0.48	-0.48	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.44	-0.44	-0.44				
296	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.46	-0.46	-0.46	-0.45				
297	-0.64	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.51	-0.47	-0.47	-0.47	-0.47	-0.47				
298	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.40	-0.38	-0.39	-0.38	-0.38	-0.38	-0.39
	-0.37	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
299	-0.50	-0.52	-0.39	-0.40	-0.52	-0.52	-0.40	-0.41	-0.51	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.41	-0.39	-0.40	-0.39	-0.39	-0.39	-0.40
	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38				
300	-0.64	-0.66	-0.50	-0.52	-0.65	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.53	-0.50	-0.51	-0.51	-0.51	-0.52	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.51	-0.47	-0.47	-0.47	-0.48	-0.47				
301	-0.52	-0.53	-0.40	-0.41	-0.53	-0.54	-0.41	-0.42	-0.52	-0.53	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.40	-0.41	-0.40	-0.40	-0.40	-0.41
	-0.40	-0.40	-0.38	-0.39	-0.39	-0.39	-0.38				
302	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.47	-0.44	-0.45	-0.45	-0.46
	-0.45	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
303	-0.53	-0.55	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.54	-0.42
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.42	-0.42	-0.41	-0.42	-0.41	-0.42
	-0.41	-0.41	-0.39	-0.40	-0.40	-0.40	-0.39				
304	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50
	-0.51	-0.48	-0.50	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.49
	-0.49	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
305	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.56	-0.56	-0.43
	-0.44	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.43	-0.40	-0.41	-0.41	-0.41	-0.40				
306	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.45	-0.45	-0.44				
307	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.46	-0.57	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
308	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.51	-0.39
	-0.39	-0.39	-0.40	-0.40	-0.40	-0.39	-0.39	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
309	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.52	-0.52	-0.40
	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.38	-0.38	-0.39	-0.38	-0.38				
310	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.42	-0.42	-0.41	-0.42	-0.40	-0.41	-0.41	-0.41

	-0.40	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39					
311	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.55	-0.55	-0.42	
	-0.43	-0.42	-0.43	-0.43	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42	
	-0.42	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40					
312	-0.56	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.56	-0.57	-0.44	
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.44	-0.44	-0.42	-0.43	-0.43	-0.43	
	-0.43	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41					
313	-0.57	-0.58	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45	
	-0.46	-0.44	-0.45	-0.45	-0.46	-0.45	-0.46	-0.44	-0.44	-0.44	-0.45	
	-0.44	-0.45	-0.42	-0.42	-0.43	-0.42	-0.42					
314	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.60	-0.61	-0.47	
	-0.48	-0.46	-0.47	-0.47	-0.47	-0.47	-0.47	-0.45	-0.46	-0.46	-0.46	
	-0.46	-0.46	-0.43	-0.43	-0.44	-0.44	-0.43					
315	-0.61	-0.62	-0.47	-0.49	-0.62	-0.62	-0.48	-0.49	-0.62	-0.63	-0.49	
	-0.49	-0.47	-0.48	-0.48	-0.49	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47	
	-0.47	-0.48	-0.45	-0.45	-0.45	-0.45	-0.45					
316	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50	-0.50	-0.64	-0.65	-0.50	
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.51	-0.48	-0.49	-0.48	-0.49	
	-0.49	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46					
317	-0.65	-0.66	-0.50	-0.52	-0.66	-0.67	-0.51	-0.52	-0.67	-0.67	-0.52	
	-0.53	-0.50	-0.52	-0.51	-0.52	-0.52	-0.53	-0.49	-0.50	-0.50	-0.51	
	-0.51	-0.51	-0.47	-0.48	-0.48	-0.48	-0.47					
318	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.51	-0.52	-0.40	
	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40	
	-0.39	-0.40	-0.38	-0.38	-0.39	-0.38	-0.38					
319	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.53	-0.41	
	-0.41	-0.41	-0.42	-0.42	-0.42	-0.41	-0.41	-0.40	-0.41	-0.41	-0.41	
	-0.40	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39					
320	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.54	-0.55	-0.42	
	-0.43	-0.42	-0.43	-0.43	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.42	
	-0.41	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40					
321	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.56	-0.56	-0.43	
	-0.44	-0.43	-0.44	-0.44	-0.44	-0.43	-0.44	-0.42	-0.43	-0.43	-0.43	
	-0.42	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41					
322	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.46	-0.57	-0.58	-0.45	
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.44	-0.45	-0.43	-0.44	-0.44	-0.44	
	-0.44	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42					
323	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46	
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.46	-0.44	-0.45	-0.45	-0.45	
	-0.45	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43					
324	-0.60	-0.61	-0.46	-0.48	-0.61	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48	
	-0.48	-0.46	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.46	-0.46	-0.47	
	-0.46	-0.47	-0.44	-0.44	-0.44	-0.44	-0.44					
325	-0.61	-0.63	-0.48	-0.49	-0.62	-0.63	-0.49	-0.49	-0.63	-0.64	-0.49	
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.49	-0.47	-0.48	-0.48	-0.48	
	-0.48	-0.48	-0.45	-0.45	-0.46	-0.45	-0.45					
326	-0.63	-0.65	-0.49	-0.51	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	
	-0.52	-0.49	-0.50	-0.50	-0.51	-0.51	-0.51	-0.48	-0.49	-0.49	-0.49	
	-0.49	-0.50	-0.46	-0.47	-0.47	-0.47	-0.46					
327	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.53	
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51	
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48					
328	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.53	-0.41	
	-0.41	-0.41	-0.42	-0.42	-0.42	-0.41	-0.41	-0.40	-0.41	-0.41	-0.41	
	-0.40	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39					
329	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.54	-0.55	-0.42	
	-0.42	-0.42	-0.43	-0.43	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.42	
	-0.41	-0.42	-0.40	-0.40	-0.41	-0.40	-0.40					
330	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.43	
	-0.44	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.43	
	-0.42	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41					
331	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.57	-0.57	-0.44	
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.44	-0.45	-0.43	-0.44	-0.44	-0.44	
	-0.43	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42					
332	-0.58	-0.59	-0.45	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.59	-0.45	
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45	
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43					
333	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.60	-0.61	-0.47	
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.47	-0.47	-0.45	-0.46	-0.46	-0.46	
	-0.46	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44					
334	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.62	-0.63	-0.48	
	-0.49	-0.47	-0.48	-0.48	-0.49	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47	
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45					
335	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50	
	-0.50	-0.48	-0.50	-0.49	-0.50	-0.50	-0.50	-0.48	-0.48	-0.48	-0.49	
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46					
336	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.66	-0.66	-0.51	

	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.52	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
337	-0.66	-0.67	-0.51	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.52	-0.53	-0.53	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				
338	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.53	-0.53	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.52	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49				
339	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.52	-0.53	-0.54	-0.54	-0.51	-0.52	-0.51	-0.52
	-0.52	-0.53	-0.48	-0.49	-0.49	-0.49	-0.48				
340	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
341	-0.47	-0.49	-0.37	-0.38	-0.48	-0.49	-0.38	-0.38	-0.47	-0.48	-0.36
	-0.37	-0.37	-0.38	-0.38	-0.38	-0.36	-0.37	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.36	-0.35	-0.35	-0.36	-0.35	-0.35				
343	-0.48	-0.49	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.48	-0.48	-0.37
	-0.37	-0.37	-0.38	-0.38	-0.39	-0.37	-0.37	-0.36	-0.37	-0.37	-0.38
	-0.36	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
344	-0.48	-0.49	-0.37	-0.38	-0.49	-0.49	-0.38	-0.39	-0.48	-0.48	-0.37
	-0.37	-0.37	-0.38	-0.38	-0.38	-0.37	-0.37	-0.36	-0.37	-0.37	-0.38
	-0.36	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
345	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.37	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.37	-0.36	-0.37	-0.37	-0.36	-0.36				
346	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.50	-0.38
	-0.39	-0.39	-0.40	-0.40	-0.40	-0.38	-0.39	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.38	-0.37	-0.38	-0.38	-0.37	-0.37				
347	-0.51	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.51	-0.52	-0.39
	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.39	-0.39	-0.39	-0.38	-0.39				
348	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.53
	-0.53	-0.50	-0.52	-0.51	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.51	-0.47	-0.48	-0.48	-0.48	-0.47				
349	-0.50	-0.52	-0.39	-0.40	-0.51	-0.52	-0.40	-0.41	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.38	-0.38	-0.37	-0.37				
350	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.52	-0.53	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.40	-0.41	-0.39	-0.40	-0.40	-0.41
	-0.40	-0.40	-0.38	-0.38	-0.39	-0.38	-0.38				
351	-0.53	-0.54	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.54	-0.42
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.42	-0.42	-0.41	-0.41	-0.41	-0.42
	-0.41	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39				
352	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.44	-0.43	-0.44	-0.43	-0.43	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.43	-0.40	-0.40	-0.41	-0.40	-0.40				
353	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.57	-0.58	-0.44
	-0.45	-0.43	-0.45	-0.44	-0.45	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.44	-0.41	-0.41	-0.42	-0.42	-0.41				
354	-0.58	-0.59	-0.45	-0.46	-0.59	-0.59	-0.46	-0.46	-0.59	-0.59	-0.46
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.46	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.45	-0.42	-0.42	-0.43	-0.43	-0.42				
355	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.47	-0.47	-0.47	-0.47	-0.48	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.43	-0.43	-0.44	-0.44	-0.43				
356	-0.61	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.49	-0.62	-0.63	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.48	-0.44	-0.44	-0.45	-0.45	-0.44				
357	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.51	-0.48	-0.49	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.46	-0.46	-0.46	-0.45				
358	-0.64	-0.65	-0.49	-0.51	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.52	-0.48	-0.49	-0.49	-0.50
	-0.50	-0.50	-0.46	-0.47	-0.47	-0.47	-0.46				
359	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.49	-0.49	-0.37
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.38	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.37	-0.37	-0.36	-0.36				
360	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.72	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.57	-0.53	-0.54	-0.53	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
361	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.55	-0.71	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.54	-0.55	-0.56	-0.56	-0.53	-0.54	-0.53	-0.54
	-0.54	-0.55	-0.50	-0.50	-0.51	-0.51	-0.50				
362	-0.69	-0.70	-0.53	-0.55	-0.70	-0.70	-0.54	-0.55	-0.71	-0.72	-0.56
	-0.57	-0.53	-0.55	-0.54	-0.55	-0.55	-0.56	-0.52	-0.53	-0.53	-0.53
	-0.54	-0.54	-0.50	-0.50	-0.50	-0.51	-0.50				

363	-0.68	-0.70	-0.53	-0.55	-0.69	-0.70	-0.54	-0.55	-0.71	-0.71	-0.56
	-0.56	-0.53	-0.54	-0.54	-0.55	-0.55	-0.56	-0.52	-0.53	-0.53	-0.53
	-0.54	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
364	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55
	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.52	-0.53
	-0.53	-0.54	-0.49	-0.50	-0.50	-0.50	-0.49				
365	-0.66	-0.67	-0.51	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53
	-0.54	-0.51	-0.52	-0.52	-0.53	-0.53	-0.54	-0.50	-0.51	-0.51	-0.51
	-0.52	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49				
367	-0.49	-0.51	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.50	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.40	-0.38	-0.39	-0.38	-0.39	-0.38	-0.39
	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
369	-0.72	-0.74	-0.56	-0.58	-0.73	-0.74	-0.57	-0.58	-0.75	-0.75	-0.59
	-0.59	-0.56	-0.57	-0.57	-0.57	-0.58	-0.59	-0.55	-0.56	-0.56	-0.56
	-0.57	-0.57	-0.53	-0.53	-0.53	-0.53	-0.53				
371	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55	-0.55	-0.71	-0.72	-0.55
	-0.56	-0.54	-0.55	-0.54	-0.55	-0.55	-0.56	-0.53	-0.54	-0.53	-0.54
	-0.54	-0.54	-0.51	-0.51	-0.51	-0.51	-0.51				
372	-0.71	-0.72	-0.55	-0.56	-0.72	-0.72	-0.56	-0.57	-0.73	-0.73	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
373	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	-0.54	-0.70	-0.71	-0.55
	-0.55	-0.53	-0.54	-0.54	-0.54	-0.54	-0.55	-0.52	-0.53	-0.52	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
374	-0.70	-0.71	-0.54	-0.56	-0.71	-0.72	-0.55	-0.56	-0.72	-0.73	-0.57
	-0.57	-0.54	-0.56	-0.55	-0.56	-0.56	-0.57	-0.53	-0.54	-0.54	-0.54
	-0.55	-0.55	-0.51	-0.51	-0.52	-0.52	-0.51				
375	-0.65	-0.66	-0.50	-0.52	-0.66	-0.66	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.53	-0.50	-0.51	-0.51	-0.52	-0.52	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
376	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.53	-0.53	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.53	-0.53	-0.49	-0.49	-0.50	-0.50	-0.49				
377	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.52	-0.49	-0.51	-0.50	-0.51	-0.51	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
378	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.52	-0.53	-0.49	-0.49	-0.50	-0.50	-0.49				
379	-0.66	-0.67	-0.51	-0.52	-0.67	-0.67	-0.52	-0.53	-0.67	-0.68	-0.53
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				
380	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
381	-0.61	-0.63	-0.48	-0.49	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49
	-0.50	-0.48	-0.49	-0.48	-0.49	-0.49	-0.49	-0.47	-0.48	-0.47	-0.48
	-0.48	-0.48	-0.45	-0.45	-0.45	-0.45	-0.45				
382	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.52
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.49	-0.49	-0.48				
383	-0.64	-0.65	-0.49	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.49	-0.51	-0.50	-0.51	-0.51	-0.51	-0.49	-0.49	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
384	-0.60	-0.61	-0.46	-0.48	-0.61	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.48	-0.46	-0.47	-0.47	-0.48	-0.47	-0.48	-0.46	-0.46	-0.46	-0.47
	-0.46	-0.47	-0.44	-0.44	-0.44	-0.44	-0.44				
385	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47	-0.47	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.47	-0.46	-0.47	-0.47	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.43	-0.44	-0.44	-0.44	-0.43				
386	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.49	-0.51	-0.50	-0.51	-0.51	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
387	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.49	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
388	-0.57	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.46
	-0.46	-0.45	-0.46	-0.45	-0.46	-0.45	-0.46	-0.44	-0.45	-0.44	-0.45
	-0.45	-0.45	-0.42	-0.43	-0.43	-0.43	-0.42				
389	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
390	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.50	-0.48	-0.48	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
391	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.47	-0.46	-0.47

	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45	-0.44				
392	-0.56	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.43	-0.44	-0.44	-0.44	-0.44	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.43	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
393	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.56	-0.56	-0.43
	-0.44	-0.42	-0.44	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
394	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.48	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
395	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.47	-0.45	-0.46	-0.45	-0.46
	-0.45	-0.46	-0.43	-0.43	-0.44	-0.43	-0.43				
396	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.42	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
397	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.42	-0.42	-0.41	-0.42	-0.40	-0.41	-0.41	-0.41
	-0.41	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39				
398	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.60	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
399	-0.57	-0.58	-0.44	-0.45	-0.58	-0.59	-0.45	-0.46	-0.58	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.45	-0.46	-0.45	-0.45	-0.44	-0.44	-0.44	-0.45
	-0.44	-0.44	-0.42	-0.43	-0.43	-0.42	-0.42				
400	-0.52	-0.53	-0.40	-0.42	-0.53	-0.54	-0.41	-0.42	-0.53	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.41	-0.41	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39				
401	-0.51	-0.52	-0.40	-0.41	-0.52	-0.53	-0.40	-0.41	-0.51	-0.52	-0.40
	-0.40	-0.40	-0.41	-0.40	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
402	-0.58	-0.59	-0.45	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.59	-0.45
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.45	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
403	-0.56	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.43	-0.43	-0.43	-0.44
	-0.43	-0.43	-0.41	-0.42	-0.42	-0.42	-0.41				
404	-0.51	-0.52	-0.39	-0.40	-0.52	-0.52	-0.40	-0.41	-0.51	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.41	-0.39	-0.40	-0.39	-0.40	-0.39	-0.40
	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38				
405	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.57	-0.58	-0.74	-0.75	-0.58
	-0.59	-0.56	-0.57	-0.57	-0.57	-0.58	-0.58	-0.55	-0.56	-0.55	-0.56
	-0.56	-0.57	-0.53	-0.53	-0.53	-0.53	-0.53				
406	-0.56	-0.58	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.44	-0.45	-0.44	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
407	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.55	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.42	-0.42	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
408	-0.49	-0.51	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.40	-0.38	-0.39	-0.38	-0.39	-0.38	-0.39
	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
409	-0.48	-0.49	-0.37	-0.38	-0.49	-0.49	-0.38	-0.38	-0.48	-0.48	-0.37
	-0.37	-0.37	-0.38	-0.38	-0.38	-0.37	-0.38	-0.37	-0.37	-0.37	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
410	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.55	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
411	-0.53	-0.54	-0.41	-0.42	-0.54	-0.55	-0.42	-0.43	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.41	-0.42	-0.41	-0.41	-0.41	-0.42
	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40				
412	-0.48	-0.49	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.48	-0.48	-0.37
	-0.37	-0.37	-0.38	-0.38	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
413	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.36	-0.37	-0.37	-0.37	-0.36	-0.36	-0.35	-0.36	-0.36	-0.36
	-0.35	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
433	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.54	-0.55	-0.42
	-0.42	-0.42	-0.43	-0.43	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42	-0.43
	-0.41	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
434	-0.70	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.72	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.56	-0.53	-0.54	-0.54	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
435	-0.53	-0.54	-0.41	-0.42	-0.54	-0.55	-0.42	-0.43	-0.53	-0.54	-0.41
	-0.41	-0.41	-0.42	-0.42	-0.43	-0.41	-0.41	-0.41	-0.42	-0.41	-0.42
	-0.40	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40				
436	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.51	-0.52	-0.40

	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40	-0.41
	-0.39	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39				
437	-0.47	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.36	-0.37	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36	-0.37
	-0.35	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
438	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35	-0.36	-0.44	-0.45	-0.34
	-0.35	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34				
439	-0.65	-0.66	-0.51	-0.52	-0.66	-0.67	-0.51	-0.52	-0.67	-0.68	-0.52
	-0.53	-0.51	-0.52	-0.51	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
440	-0.48	-0.50	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
441	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50	-0.50	-0.64	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.49	-0.50	-0.50	-0.51	-0.48	-0.49	-0.48	-0.49
	-0.49	-0.49	-0.46	-0.46	-0.47	-0.47	-0.46				
442	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.44	-0.45	-0.45	-0.45	-0.44				
443	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.46	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
444	-0.56	-0.57	-0.43	-0.45	-0.57	-0.57	-0.44	-0.45	-0.57	-0.58	-0.44
	-0.45	-0.43	-0.45	-0.44	-0.45	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42	-0.41				
445	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.55	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
446	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.53	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.41	-0.41	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39				
447	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.39	-0.40	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.39	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
448	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.53	-0.54	-0.54	-0.55	-0.51	-0.52	-0.52	-0.52
	-0.53	-0.53	-0.49	-0.50	-0.50	-0.50	-0.49				
449	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.36
	-0.36	-0.36	-0.37	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36	-0.36
	-0.35	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
450	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35	-0.36	-0.45	-0.45	-0.34
	-0.35	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.35	-0.34	-0.34	-0.34	-0.34	-0.34				
451	-0.43	-0.44	-0.33	-0.35	-0.44	-0.45	-0.34	-0.35	-0.43	-0.43	-0.33
	-0.33	-0.33	-0.35	-0.34	-0.35	-0.33	-0.34	-0.33	-0.34	-0.34	-0.34
	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33				
452	-0.73	-0.74	-0.56	-0.58	-0.73	-0.74	-0.57	-0.58	-0.75	-0.76	-0.59
	-0.59	-0.56	-0.57	-0.57	-0.58	-0.58	-0.59	-0.55	-0.56	-0.56	-0.56
	-0.57	-0.57	-0.53	-0.53	-0.53	-0.54	-0.53				
453	-0.68	-0.70	-0.53	-0.55	-0.69	-0.70	-0.54	-0.55	-0.71	-0.71	-0.55
	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.53	-0.53
	-0.54	-0.54	-0.50	-0.50	-0.50	-0.51	-0.50				
604	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.46	-0.46	-0.59	-0.60	-0.47
	-0.47	-0.45	-0.46	-0.45	-0.46	-0.46	-0.47	-0.44	-0.45	-0.44	-0.45
	-0.45	-0.46	-0.42	-0.42	-0.42	-0.42	-0.42				
619	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.43	-0.45	-0.44	-0.45	-0.45	-0.46	-0.43	-0.44	-0.43	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.41	-0.41				
627	-0.54	-0.56	-0.42	-0.44	-0.55	-0.56	-0.43	-0.44	-0.56	-0.56	-0.44
	-0.44	-0.42	-0.43	-0.43	-0.44	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.43	-0.40	-0.40	-0.40	-0.40	-0.40				
635	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.41	-0.42	-0.42	-0.42	-0.42	-0.43	-0.40	-0.41	-0.41	-0.41
	-0.41	-0.42	-0.39	-0.39	-0.39	-0.39	-0.39				
643	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.52	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.41	-0.41	-0.41	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
651	-0.50	-0.51	-0.39	-0.40	-0.51	-0.51	-0.39	-0.40	-0.51	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.39	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
659	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
667	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.38	-0.37	-0.38	-0.37	-0.37	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				

675	-0.46	-0.47	-0.35	-0.37	-0.47	-0.47	-0.36	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.35	-0.37	-0.36	-0.37	-0.36	-0.36	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
683	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.34	-0.33	-0.33	-0.33	-0.33	-0.33				
697	-0.46	-0.47	-0.36	-0.37	-0.47	-0.47	-0.36	-0.37	-0.47	-0.48	-0.36
	-0.37	-0.36	-0.37	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
705	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
713	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.35	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.33	-0.32	-0.32				
721	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.34	-0.34	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.34	-0.33	-0.34
	-0.33	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
729	-0.42	-0.43	-0.32	-0.34	-0.42	-0.43	-0.33	-0.34	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
737	-0.40	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
745	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.29	-0.30	-0.30	-0.29	-0.29				
753	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
761	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.30	-0.30	-0.29	-0.29	-0.29	-0.30	-0.29	-0.30
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
762	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.30	-0.29	-0.29				
765	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
779	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.29	-0.29	-0.29	-0.28	-0.29				
793	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.36	-0.37	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28				
801	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.28	-0.28	-0.28	-0.28	-0.27	-0.28				
815	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
823	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.32	-0.33	-0.42	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.32	-0.32	-0.30	-0.31	-0.31	-0.31	-0.30				
831	-0.40	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
839	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.40	-0.30
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.29	-0.30	-0.30	-0.29	-0.29				
847	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
855	-0.38	-0.39	-0.29	-0.31	-0.38	-0.39	-0.30	-0.31	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.29	-0.28	-0.28				
863	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
871	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.28	-0.29	-0.36	-0.37	-0.27
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.28	-0.28	-0.28	-0.29	-0.28	-0.29
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
873	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37
	-0.37	-0.37	-0.34	-0.35	-0.35	-0.35	-0.34				
875	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.34
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34

	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
883	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.27	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.27	-0.27	-0.27	-0.26	-0.27				
884	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.27
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.28	-0.28	-0.28	-0.29	-0.28	-0.29
	-0.27	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
887	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.27
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.28	-0.28	-0.28	-0.29	-0.28	-0.29
	-0.27	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
901	-0.36	-0.37	-0.27	-0.29	-0.37	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
915	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.27	-0.28	-0.27	-0.28
	-0.26	-0.27	-0.26	-0.27	-0.27	-0.26	-0.26				
923	-0.35	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
937	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
945	-0.37	-0.39	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
953	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.29	-0.37	-0.37	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
961	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
969	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
977	-0.35	-0.37	-0.27	-0.28	-0.36	-0.37	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.27	-0.27	-0.26	-0.26				
985	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.35	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.27	-0.28	-0.27	-0.28
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
993	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
995	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28				
996	-0.48	-0.49	-0.37	-0.39	-0.49	-0.49	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.37	-0.38	-0.38	-0.38	-0.38	-0.39	-0.36	-0.37	-0.37	-0.37
	-0.37	-0.38	-0.35	-0.35	-0.35	-0.35	-0.35				
997	-0.47	-0.48	-0.36	-0.38	-0.47	-0.48	-0.37	-0.38	-0.47	-0.48	-0.37
	-0.38	-0.36	-0.37	-0.37	-0.37	-0.37	-0.38	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.37	-0.34	-0.34	-0.35	-0.34	-0.34				
998	-0.45	-0.47	-0.35	-0.36	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.36	-0.35	-0.36	-0.36	-0.36	-0.36	-0.36	-0.34	-0.35	-0.35	-0.36
	-0.35	-0.35	-0.33	-0.34	-0.34	-0.34	-0.33				
999	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.45	-0.35
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.35	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.34	-0.32	-0.33	-0.33	-0.33	-0.32				
1000	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
1001	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1002	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.31
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.31	-0.31	-0.30	-0.30				
1003	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.31	-0.32	-0.40	-0.40	-0.31
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1004	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1005	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.30	-0.30	-0.29	-0.29				
1006	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31

	-0.31	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.32
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1007	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.31	-0.31	-0.30	-0.30				
1008	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1009	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.34
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1010	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.34	-0.36	-0.35	-0.36	-0.35	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1011	-0.46	-0.47	-0.35	-0.37	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.35	-0.37	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1012	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37
	-0.37	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1013	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39
	-0.40	-0.38	-0.39	-0.38	-0.39	-0.39	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
1014	-0.40	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1015	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1016	-0.41	-0.42	-0.32	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.31	-0.31	-0.30	-0.30				
1017	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1018	-0.43	-0.45	-0.33	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.44	-0.34
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1019	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.34	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1020	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.37	-0.36	-0.37	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1021	-0.48	-0.49	-0.37	-0.39	-0.49	-0.49	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.37	-0.38	-0.38	-0.38	-0.38	-0.39	-0.36	-0.37	-0.37	-0.37
	-0.37	-0.38	-0.35	-0.35	-0.35	-0.35	-0.35				
1022	-0.50	-0.51	-0.38	-0.40	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40
	-0.40	-0.39	-0.40	-0.39	-0.40	-0.40	-0.40	-0.38	-0.39	-0.38	-0.39
	-0.39	-0.39	-0.36	-0.36	-0.37	-0.37	-0.36				
1023	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.29	-0.29	-0.29	-0.28	-0.29				
1024	-0.39	-0.40	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1025	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.32	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1026	-0.41	-0.42	-0.32	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.31	-0.31	-0.30	-0.30				
1027	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1028	-0.43	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1029	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1030	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.36	-0.37	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28				
1031	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				

1032	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.30	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1033	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1034	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28				
1035	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28				
1036	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.31	-0.31	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1037	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.31	-0.31	-0.39	-0.39	-0.30
	-0.31	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1038	-0.40	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.29	-0.30	-0.30	-0.29	-0.29				
1039	-0.40	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.40	-0.31
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.29	-0.30	-0.30	-0.29	-0.29				
1040	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30				
1041	-0.40	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.42	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30				
1042	-0.42	-0.43	-0.32	-0.34	-0.42	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1043	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.33	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1044	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.34
	-0.34	-0.33	-0.34	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1045	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.33	-0.33	-0.31	-0.32	-0.32	-0.31	-0.31				
1046	-0.44	-0.45	-0.34	-0.35	-0.45	-0.45	-0.35	-0.35	-0.45	-0.45	-0.35
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.35	-0.35	-0.34	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.33	-0.33	-0.33	-0.32				
1047	-0.43	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1048	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39	-0.39	-0.49	-0.50	-0.38
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.38	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.37	-0.37	-0.36	-0.36				
1049	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
1050	-0.48	-0.49	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
1051	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.39	-0.38	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.36	-0.37	-0.36	-0.36				
1052	-0.46	-0.47	-0.35	-0.37	-0.47	-0.48	-0.36	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.36	-0.37	-0.36	-0.37	-0.36	-0.36	-0.35	-0.36	-0.36	-0.36
	-0.35	-0.35	-0.34	-0.34	-0.35	-0.34	-0.34				
1053	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.47	-0.47	-0.36
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.37
	-0.36	-0.36	-0.34	-0.35	-0.35	-0.35	-0.34				
1054	-0.45	-0.47	-0.35	-0.36	-0.46	-0.47	-0.36	-0.37	-0.45	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.35	-0.34	-0.34	-0.34	-0.34	-0.34				
1055	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.35	-0.36	-0.34	-0.35	-0.35	-0.34	-0.34				
1056	-0.45	-0.46	-0.35	-0.36	-0.46	-0.47	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.35	-0.35	-0.36	-0.36	-0.36	-0.35	-0.35	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.35	-0.33	-0.34	-0.34	-0.33	-0.33				
1057	-0.46	-0.47	-0.35	-0.37	-0.47	-0.47	-0.36	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.35	-0.37	-0.36	-0.37	-0.36	-0.36	-0.35	-0.36	-0.35	-0.36

	-0.35	-0.35	-0.34	-0.34	-0.34	-0.34	-0.34				
1058	-0.51	-0.52	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.52	-0.52	-0.40
	-0.41	-0.40	-0.41	-0.40	-0.41	-0.40	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
1059	-0.50	-0.51	-0.38	-0.40	-0.50	-0.51	-0.39	-0.40	-0.50	-0.51	-0.39
	-0.39	-0.38	-0.40	-0.39	-0.40	-0.39	-0.39	-0.38	-0.39	-0.38	-0.39
	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
1060	-0.47	-0.48	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.38	-0.37	-0.38	-0.37	-0.37	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1061	-0.47	-0.48	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.38	-0.37	-0.38	-0.37	-0.37	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1062	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.48	-0.37
	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1063	-0.52	-0.54	-0.41	-0.42	-0.53	-0.54	-0.42	-0.42	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.41	-0.42	-0.41	-0.42	-0.40	-0.41	-0.41	-0.41
	-0.40	-0.41	-0.39	-0.39	-0.39	-0.39	-0.39				
1064	-0.50	-0.52	-0.39	-0.40	-0.51	-0.52	-0.40	-0.41	-0.51	-0.52	-0.40
	-0.40	-0.39	-0.40	-0.40	-0.41	-0.40	-0.40	-0.38	-0.39	-0.39	-0.40
	-0.39	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
1065	-0.48	-0.49	-0.37	-0.38	-0.49	-0.49	-0.38	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.38	-0.38	-0.37	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.37	-0.37	-0.35	-0.35	-0.36	-0.35	-0.35				
1066	-0.48	-0.49	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.48	-0.49	-0.38
	-0.38	-0.37	-0.38	-0.38	-0.39	-0.38	-0.38	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36	-0.35				
1067	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
1068	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
1069	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.52	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.41	-0.41	-0.41	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
1070	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.39	-0.38	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
1071	-0.49	-0.51	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.50	-0.51	-0.39
	-0.39	-0.38	-0.39	-0.39	-0.39	-0.39	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.38	-0.36	-0.36	-0.37	-0.36	-0.36				
1072	-0.50	-0.51	-0.38	-0.40	-0.51	-0.51	-0.39	-0.40	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.39	-0.40	-0.39	-0.40	-0.38	-0.39	-0.38	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
1073	-0.55	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.56	-0.57	-0.44
	-0.45	-0.43	-0.44	-0.44	-0.44	-0.44	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.43	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
1074	-0.53	-0.54	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.41	-0.42	-0.42	-0.43	-0.42	-0.43	-0.40	-0.41	-0.41	-0.42
	-0.41	-0.42	-0.39	-0.39	-0.39	-0.39	-0.39				
1075	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.51	-0.52	-0.40
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.40	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
1076	-0.50	-0.52	-0.39	-0.41	-0.51	-0.52	-0.40	-0.41	-0.51	-0.52	-0.40
	-0.41	-0.39	-0.40	-0.40	-0.41	-0.40	-0.41	-0.38	-0.39	-0.39	-0.40
	-0.39	-0.40	-0.37	-0.37	-0.37	-0.37	-0.37				
1077	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.40	-0.41	-0.40	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
1078	-0.57	-0.58	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45
	-0.46	-0.44	-0.45	-0.45	-0.46	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.45	-0.42	-0.42	-0.42	-0.42	-0.42				
1079	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.56	-0.57	-0.44
	-0.44	-0.43	-0.44	-0.43	-0.44	-0.44	-0.44	-0.42	-0.43	-0.42	-0.43
	-0.43	-0.43	-0.40	-0.40	-0.41	-0.41	-0.40				
1080	-0.52	-0.53	-0.40	-0.42	-0.53	-0.53	-0.41	-0.42	-0.53	-0.54	-0.41
	-0.42	-0.40	-0.41	-0.41	-0.42	-0.41	-0.42	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.41	-0.38	-0.38	-0.38	-0.38	-0.38				
1081	-0.52	-0.54	-0.40	-0.42	-0.53	-0.54	-0.41	-0.42	-0.53	-0.54	-0.42
	-0.42	-0.40	-0.42	-0.41	-0.42	-0.41	-0.42	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.41	-0.38	-0.38	-0.39	-0.38	-0.38				
1082	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.54	-0.55	-0.42
	-0.43	-0.41	-0.42	-0.42	-0.42	-0.42	-0.43	-0.40	-0.41	-0.41	-0.41
	-0.41	-0.41	-0.39	-0.39	-0.39	-0.39	-0.39				
1083	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47	-0.47	-0.60	-0.61	-0.47

	-0.48	-0.46	-0.47	-0.46	-0.47	-0.47	-0.47	-0.45	-0.46	-0.45	-0.46
	-0.46	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
1084	-0.57	-0.58	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.46
	-0.46	-0.44	-0.45	-0.45	-0.46	-0.45	-0.46	-0.43	-0.44	-0.44	-0.45
	-0.44	-0.45	-0.42	-0.42	-0.42	-0.42	-0.42				
1085	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.43	-0.43	-0.43	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.42	-0.39	-0.39	-0.40	-0.40	-0.39				
1086	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.43	-0.43	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.42	-0.39	-0.40	-0.40	-0.40	-0.39				
1087	-0.54	-0.56	-0.42	-0.44	-0.55	-0.56	-0.43	-0.44	-0.56	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.43	-0.44	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.43	-0.40	-0.40	-0.40	-0.40	-0.40				
1088	-0.61	-0.62	-0.47	-0.49	-0.62	-0.62	-0.48	-0.49	-0.62	-0.63	-0.49
	-0.50	-0.47	-0.48	-0.48	-0.49	-0.49	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.48	-0.44	-0.45	-0.45	-0.45	-0.44				
1089	-0.59	-0.61	-0.46	-0.48	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.48	-0.46	-0.47	-0.47	-0.47	-0.48	-0.48	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.47	-0.43	-0.44	-0.44	-0.44	-0.43				
1090	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.44	-0.45	-0.44	-0.45	-0.45	-0.46	-0.43	-0.44	-0.43	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.41	-0.41				
1091	-0.56	-0.57	-0.44	-0.45	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.43	-0.45	-0.44	-0.45	-0.45	-0.45	-0.43	-0.44	-0.43	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.41	-0.41				
1092	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.44	-0.45	-0.44	-0.45	-0.45	-0.46	-0.43	-0.44	-0.43	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.41	-0.41				
1093	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.50	-0.50	-0.64	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.49	-0.50	-0.50	-0.51	-0.48	-0.49	-0.48	-0.49
	-0.49	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
1094	-0.64	-0.66	-0.50	-0.52	-0.65	-0.66	-0.51	-0.52	-0.67	-0.67	-0.52
	-0.53	-0.50	-0.51	-0.51	-0.51	-0.52	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.51	-0.47	-0.47	-0.47	-0.47	-0.47				
1095	-0.61	-0.62	-0.47	-0.49	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49
	-0.50	-0.47	-0.49	-0.48	-0.49	-0.49	-0.50	-0.46	-0.47	-0.47	-0.48
	-0.48	-0.48	-0.44	-0.45	-0.45	-0.45	-0.44				
1096	-0.63	-0.65	-0.49	-0.51	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.52	-0.49	-0.50	-0.50	-0.51	-0.51	-0.52	-0.48	-0.49	-0.49	-0.49
	-0.50	-0.50	-0.46	-0.46	-0.46	-0.47	-0.46				
1097	-0.57	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46
	-0.47	-0.44	-0.46	-0.45	-0.46	-0.46	-0.47	-0.44	-0.45	-0.44	-0.45
	-0.45	-0.45	-0.42	-0.42	-0.42	-0.42	-0.42				
1098	-0.60	-0.61	-0.46	-0.48	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.49	-0.46	-0.48	-0.47	-0.48	-0.48	-0.48	-0.45	-0.46	-0.46	-0.46
	-0.47	-0.47	-0.43	-0.44	-0.44	-0.44	-0.43				
1099	-0.57	-0.58	-0.44	-0.45	-0.58	-0.58	-0.45	-0.46	-0.58	-0.59	-0.46
	-0.46	-0.44	-0.45	-0.45	-0.45	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.45	-0.41	-0.42	-0.42	-0.42	-0.41				
1100	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47	-0.47	-0.61	-0.61	-0.48
	-0.48	-0.46	-0.47	-0.46	-0.47	-0.47	-0.48	-0.45	-0.46	-0.45	-0.46
	-0.46	-0.47	-0.43	-0.43	-0.43	-0.43	-0.43				
1101	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.58	-0.59	-0.45
	-0.46	-0.44	-0.45	-0.44	-0.45	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.42	-0.41				
1102	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47
	-0.48	-0.45	-0.46	-0.46	-0.47	-0.47	-0.47	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.46	-0.42	-0.43	-0.43	-0.43	-0.42				
1110	-0.34	-0.36	-0.26	-0.28	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1111	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1112	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.28	-0.29	-0.29	-0.28	-0.28				
1113	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.28	-0.29	-0.29	-0.28	-0.28				
1114	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.37	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1115	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.30	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				

1116	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
1117	-0.36	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
1118	-0.36	-0.37	-0.28	-0.29	-0.37	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1119	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1120	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.27	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.27	-0.27	-0.26	-0.26				
1121	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.34	-0.26
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1122	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.27	-0.28	-0.27	-0.28
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1123	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1124	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1125	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1126	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1127	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.25	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1128	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1129	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.27	-0.27	-0.26	-0.26				
1130	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1131	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1132	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1133	-0.36	-0.37	-0.28	-0.29	-0.37	-0.37	-0.28	-0.29	-0.36	-0.37	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1134	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.27	-0.26	-0.26				
1135	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1136	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1137	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.28	-0.27	-0.27				
1138	-0.36	-0.37	-0.27	-0.29	-0.37	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1139	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1140	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.36	-0.26
	-0.27	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1141	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29

	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1142	-0.36	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.36	-0.37	-0.28	
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29	
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27					
1143	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27	
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28	
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.26	-0.26					
1144	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.35	-0.35	-0.27	
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27	
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26					
1145	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.30	
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30	
	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28					
1146	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.29	
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29	
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1147	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.28	
	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29	
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27					
1148	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27	
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28	
	-0.27	-0.28	-0.26	-0.26	-0.27	-0.26	-0.26					
1149	-0.39	-0.40	-0.30	-0.32	-0.40	-0.40	-0.31	-0.32	-0.39	-0.40	-0.30	
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29					
1150	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.30	
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30	
	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28					
1151	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.29	
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29	
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1152	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.30	-0.37	-0.37	-0.28	
	-0.29	-0.28	-0.29	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29	
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27					
1153	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.32	-0.32	-0.40	-0.41	-0.31	
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31	
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30					
1154	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30	
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	
	-0.30	-0.31	-0.29	-0.29	-0.29	-0.29	-0.29					
1155	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.39	-0.30	
	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30	
	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28					
1156	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.38	-0.29	
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1157	-0.41	-0.42	-0.32	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32	
	-0.33	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32	
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30					
1158	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.40	-0.41	-0.31	
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32	
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30					
1159	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.40	-0.31	
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	
	-0.30	-0.31	-0.29	-0.29	-0.29	-0.29	-0.29					
1160	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	
	-0.31	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30	
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29					
1161	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.30	
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30	
	-0.29	-0.30	-0.28	-0.28	-0.28	-0.28	-0.28					
1162	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29	
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29	
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.27	-0.27					
1163	-0.36	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28	
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28	
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27					
1164	-0.37	-0.38	-0.29	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29	
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29	
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.27	-0.27					
1165	-0.37	-0.38	-0.29	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29	
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29	
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.28	-0.27					
1166	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.28	
	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27					
1167	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.28	-0.29	-0.36	-0.37	-0.28	

	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1168	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.27	-0.27	-0.26	-0.26				
1169	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.35	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1170	-0.34	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1171	-0.34	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1172	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.35	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.26	-0.27	-0.27	-0.27
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1173	-0.35	-0.37	-0.27	-0.28	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1174	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1175	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.35	-0.35	-0.27
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1176	-0.36	-0.37	-0.28	-0.29	-0.37	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1177	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1178	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1179	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.25	-0.26	-0.26	-0.26
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1180	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1181	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1182	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1183	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1184	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.35	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1185	-0.33	-0.34	-0.26	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1186	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.25	-0.24	-0.24				
1187	-0.33	-0.34	-0.25	-0.26	-0.34	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.25	-0.24	-0.24				
1188	-0.33	-0.34	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1189	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1190	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.25	-0.26	-0.26	-0.25	-0.25				
1191	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1192	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				

1193	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1194	-0.32	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.25	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.24	-0.24	-0.24				
1195	-0.32	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.25	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.24	-0.24	-0.24				
1196	-0.33	-0.34	-0.25	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1197	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1198	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1199	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1200	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1201	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1202	-0.32	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.25	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.24	-0.24	-0.24				
1203	-0.32	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.25	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.24	-0.24	-0.24	-0.24				
1204	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1205	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1206	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1207	-0.34	-0.36	-0.26	-0.28	-0.35	-0.35	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1208	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1209	-0.33	-0.34	-0.25	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25				
1210	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1211	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1212	-0.33	-0.34	-0.25	-0.26	-0.33	-0.34	-0.26	-0.26	-0.32	-0.33	-0.25
	-0.26	-0.25	-0.26	-0.26	-0.26	-0.25	-0.26	-0.25	-0.26	-0.25	-0.26
	-0.25	-0.25	-0.24	-0.25	-0.25	-0.24	-0.24				
1213	-0.33	-0.34	-0.25	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.25	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.25	-0.25	-0.25	-0.25	-0.24	-0.25				
1214	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1215	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1216	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1217	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1218	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26

	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1219	-0.33	-0.34	-0.25	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1220	-0.33	-0.34	-0.25	-0.27	-0.34	-0.34	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25				
1221	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1222	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1223	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1224	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1225	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1226	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1227	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1228	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1229	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1230	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1231	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1232	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1233	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1234	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.37	-0.37	-0.28
	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1235	-0.38	-0.39	-0.29	-0.31	-0.38	-0.39	-0.30	-0.31	-0.39	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1236	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.29	-0.27	-0.27	-0.28	-0.27	-0.27				
1237	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.26	-0.26				
1238	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.26	-0.26				
1239	-0.36	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.27	-0.26				
1240	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1241	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1242	-0.35	-0.36	-0.27	-0.28	-0.36	-0.36	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1243	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.25	-0.26	-0.26	-0.25	-0.25				
1244	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26

	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.25	-0.26	-0.26	-0.25	-0.25				
1245	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.25	-0.26	-0.26	-0.25	-0.25				
1246	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1247	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1248	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.34	-0.34	-0.26
	-0.27	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1249	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1250	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.27	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1251	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.26
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1252	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1253	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1254	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1255	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1256	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1257	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1258	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1259	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.25	-0.27	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1260	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1261	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1262	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.28	-0.27				
1263	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1264	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.29	-0.29	-0.36	-0.37	-0.28
	-0.29	-0.28	-0.29	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1265	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.28	-0.27				
1266	-0.36	-0.37	-0.28	-0.29	-0.37	-0.37	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1267	-0.37	-0.38	-0.28	-0.30	-0.38	-0.38	-0.29	-0.30	-0.37	-0.38	-0.29
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.27	-0.27				
1268	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.27	-0.26				
1269	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.27	-0.28	-0.28	-0.27	-0.27				

1270	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.28
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.26	-0.27	-0.27	-0.26	-0.26				
1271	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.33	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1272	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.33	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1273	-0.42	-0.43	-0.32	-0.34	-0.42	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1274	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30				
1275	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30				
1276	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.32	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1277	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1278	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1279	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1280	-0.45	-0.47	-0.35	-0.36	-0.46	-0.47	-0.36	-0.36	-0.46	-0.47	-0.36
	-0.36	-0.35	-0.36	-0.36	-0.36	-0.36	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1281	-0.45	-0.47	-0.35	-0.37	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.35	-0.36	-0.36	-0.36	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.36	-0.33	-0.34	-0.34	-0.34	-0.33				
1282	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.34	-0.36	-0.35	-0.36	-0.35	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.35	-0.32	-0.33	-0.33	-0.33	-0.32				
1283	-0.44	-0.45	-0.34	-0.35	-0.45	-0.45	-0.35	-0.35	-0.45	-0.45	-0.35
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.35	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.33	-0.33	-0.33	-0.32				
1284	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.34
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1285	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.34
	-0.34	-0.33	-0.34	-0.34	-0.35	-0.34	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
1286	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1287	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1288	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.31	-0.30	-0.30				
1289	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.31	-0.30	-0.30				
1290	-0.40	-0.41	-0.31	-0.32	-0.41	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1291	-0.40	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.31	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1292	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1293	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1294	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28				
1295	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30

	-0.29	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28				
1296	-0.37	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.30	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1297	-0.37	-0.39	-0.28	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1298	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.37	-0.38	-0.29
	-0.29	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1299	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.53	-0.53	-0.41
	-0.42	-0.40	-0.41	-0.40	-0.41	-0.41	-0.42	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.37	-0.38	-0.38	-0.38	-0.37				
1300	-0.49	-0.51	-0.38	-0.40	-0.50	-0.51	-0.39	-0.40	-0.50	-0.51	-0.39
	-0.40	-0.38	-0.39	-0.39	-0.39	-0.39	-0.40	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.39	-0.36	-0.36	-0.36	-0.36	-0.36				
1301	-0.47	-0.48	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.49	-0.37
	-0.38	-0.36	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.37	-0.34	-0.35	-0.35	-0.35	-0.34				
1302	-0.45	-0.46	-0.35	-0.36	-0.46	-0.47	-0.36	-0.36	-0.46	-0.47	-0.36
	-0.36	-0.35	-0.36	-0.36	-0.36	-0.36	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1303	-0.43	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1304	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.32	-0.31	-0.31				
1305	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.33	-0.41	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1306	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.41	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.31	-0.30	-0.30				
1307	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1308	-0.40	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1309	-0.52	-0.54	-0.41	-0.42	-0.53	-0.54	-0.42	-0.42	-0.54	-0.55	-0.42
	-0.43	-0.41	-0.42	-0.41	-0.42	-0.42	-0.43	-0.40	-0.41	-0.40	-0.41
	-0.41	-0.41	-0.38	-0.38	-0.39	-0.39	-0.38				
1310	-0.50	-0.52	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.51	-0.52	-0.40
	-0.41	-0.39	-0.40	-0.40	-0.40	-0.40	-0.41	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
1311	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.42	-0.43	-0.43	-0.44	-0.41	-0.42	-0.41	-0.42
	-0.42	-0.42	-0.39	-0.39	-0.39	-0.40	-0.39				
1312	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41
	-0.42	-0.40	-0.41	-0.40	-0.41	-0.41	-0.42	-0.39	-0.40	-0.39	-0.40
	-0.40	-0.40	-0.37	-0.37	-0.38	-0.38	-0.37				
1313	-0.55	-0.56	-0.43	-0.44	-0.56	-0.56	-0.43	-0.44	-0.57	-0.57	-0.44
	-0.45	-0.43	-0.44	-0.43	-0.44	-0.44	-0.45	-0.42	-0.43	-0.42	-0.43
	-0.43	-0.43	-0.40	-0.40	-0.40	-0.40	-0.40				
1314	-0.52	-0.54	-0.41	-0.42	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42
	-0.43	-0.41	-0.42	-0.41	-0.42	-0.42	-0.42	-0.40	-0.41	-0.40	-0.41
	-0.41	-0.41	-0.38	-0.38	-0.38	-0.38	-0.38				
1315	-0.56	-0.57	-0.43	-0.45	-0.57	-0.57	-0.44	-0.45	-0.58	-0.58	-0.45
	-0.46	-0.43	-0.45	-0.44	-0.45	-0.45	-0.46	-0.42	-0.43	-0.43	-0.44
	-0.44	-0.44	-0.41	-0.41	-0.41	-0.41	-0.41				
1316	-0.53	-0.55	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43
	-0.44	-0.41	-0.43	-0.42	-0.43	-0.43	-0.43	-0.41	-0.42	-0.41	-0.42
	-0.42	-0.42	-0.39	-0.39	-0.39	-0.39	-0.39				
1317	-0.57	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.58	-0.59	-0.46
	-0.46	-0.44	-0.45	-0.45	-0.45	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.45	-0.41	-0.41	-0.41	-0.42	-0.41				
1318	-0.54	-0.56	-0.42	-0.44	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44
	-0.44	-0.42	-0.43	-0.43	-0.44	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.43	-0.40	-0.40	-0.40	-0.40	-0.40				
1319	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46
	-0.47	-0.44	-0.46	-0.45	-0.46	-0.46	-0.47	-0.43	-0.44	-0.44	-0.45
	-0.45	-0.45	-0.42	-0.42	-0.42	-0.42	-0.42				
1320	-0.55	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.57	-0.58	-0.44
	-0.45	-0.43	-0.44	-0.44	-0.44	-0.44	-0.45	-0.42	-0.43	-0.43	-0.43
	-0.43	-0.44	-0.40	-0.40	-0.41	-0.41	-0.40				
1321	-0.48	-0.49	-0.37	-0.38	-0.48	-0.49	-0.38	-0.38	-0.49	-0.49	-0.38

	-0.39	-0.37	-0.38	-0.38	-0.38	-0.38	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.37	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1322	-0.48	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.39
	-0.39	-0.38	-0.39	-0.38	-0.39	-0.39	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.38	-0.38	-0.35	-0.36	-0.36	-0.36	-0.35				
1323	-0.49	-0.51	-0.38	-0.40	-0.50	-0.51	-0.39	-0.40	-0.51	-0.51	-0.39
	-0.40	-0.38	-0.39	-0.39	-0.40	-0.39	-0.40	-0.38	-0.38	-0.38	-0.39
	-0.38	-0.39	-0.36	-0.36	-0.36	-0.36	-0.36				
1324	-0.51	-0.52	-0.39	-0.41	-0.51	-0.52	-0.40	-0.41	-0.52	-0.53	-0.40
	-0.41	-0.39	-0.40	-0.40	-0.41	-0.40	-0.41	-0.38	-0.39	-0.39	-0.40
	-0.39	-0.40	-0.37	-0.37	-0.37	-0.37	-0.37				
1325	-0.52	-0.53	-0.40	-0.42	-0.53	-0.53	-0.41	-0.42	-0.53	-0.54	-0.42
	-0.42	-0.40	-0.42	-0.41	-0.42	-0.41	-0.42	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.41	-0.38	-0.38	-0.38	-0.38	-0.38				
1326	-0.53	-0.55	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43
	-0.43	-0.41	-0.43	-0.42	-0.43	-0.43	-0.43	-0.41	-0.42	-0.41	-0.42
	-0.42	-0.42	-0.39	-0.39	-0.39	-0.39	-0.39				
1327	-0.45	-0.47	-0.35	-0.37	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.35	-0.36	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.36	-0.33	-0.33	-0.34	-0.34	-0.33				
1328	-0.46	-0.47	-0.36	-0.37	-0.47	-0.47	-0.36	-0.37	-0.47	-0.47	-0.36
	-0.37	-0.36	-0.37	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1329	-0.47	-0.48	-0.36	-0.38	-0.48	-0.48	-0.37	-0.38	-0.48	-0.48	-0.37
	-0.38	-0.36	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.37	-0.34	-0.34	-0.35	-0.35	-0.34				
1330	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.37	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.38	-0.35	-0.35	-0.36	-0.35	-0.35				
1331	-0.50	-0.51	-0.39	-0.40	-0.51	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40
	-0.40	-0.39	-0.40	-0.39	-0.40	-0.40	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.36	-0.37	-0.37	-0.37	-0.36				
1332	-0.52	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.42	-0.53	-0.53	-0.41
	-0.42	-0.40	-0.41	-0.41	-0.41	-0.41	-0.42	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.41	-0.38	-0.38	-0.38	-0.38	-0.38				
1333	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.35	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1334	-0.44	-0.45	-0.34	-0.35	-0.45	-0.45	-0.35	-0.36	-0.45	-0.45	-0.35
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.35	-0.35	-0.33	-0.34	-0.34	-0.35
	-0.34	-0.34	-0.32	-0.32	-0.33	-0.32	-0.32				
1335	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.36	-0.36	-0.46	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1336	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1337	-0.48	-0.49	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.37	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.38	-0.35	-0.35	-0.36	-0.35	-0.35				
1338	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.51	-0.52	-0.40
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.40	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
1339	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.33	-0.33	-0.31	-0.31	-0.32	-0.31	-0.31				
1340	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.34	-0.34	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.33	-0.33	-0.31	-0.32	-0.32	-0.31	-0.31				
1341	-0.43	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1342	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1343	-0.47	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.38	-0.47	-0.48	-0.37
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.37	-0.37	-0.35	-0.36	-0.36	-0.37
	-0.36	-0.36	-0.34	-0.34	-0.35	-0.34	-0.34				
1344	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
1345	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.33	-0.42	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.33	-0.32	-0.32	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1346	-0.42	-0.43	-0.32	-0.34	-0.42	-0.43	-0.33	-0.34	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				

1347	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.34	-0.34	-0.43	-0.43	-0.33
	-0.34	-0.33	-0.34	-0.34	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33
	-0.33	-0.33	-0.31	-0.31	-0.32	-0.31	-0.31				
1348	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.35	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.35	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.33	-0.32	-0.32				
1349	-0.45	-0.47	-0.35	-0.36	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.35
	-0.36	-0.35	-0.36	-0.36	-0.37	-0.36	-0.36	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.35	-0.33	-0.34	-0.34	-0.34	-0.33				
1350	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.48	-0.37
	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
1351	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.31	-0.30	-0.30				
1352	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.33	-0.41	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1353	-0.42	-0.43	-0.32	-0.34	-0.43	-0.43	-0.33	-0.34	-0.42	-0.43	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1354	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34
	-0.33	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
1355	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.45	-0.35
	-0.35	-0.34	-0.36	-0.35	-0.36	-0.35	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1356	-0.46	-0.47	-0.35	-0.37	-0.47	-0.48	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.36	-0.37	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.36
	-0.35	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34				
1357	-0.40	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.31	-0.30	-0.30				
1358	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.31
	-0.32	-0.32	-0.33	-0.32	-0.33	-0.32	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.31	-0.31	-0.30	-0.30				
1359	-0.42	-0.43	-0.32	-0.33	-0.42	-0.43	-0.33	-0.34	-0.42	-0.42	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1360	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.56	-0.57	-0.44
	-0.44	-0.44	-0.45	-0.45	-0.45	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.43	-0.42	-0.42				
1363	-0.56	-0.58	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.44	-0.45	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
1374	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
1377	-0.56	-0.57	-0.43	-0.45	-0.57	-0.58	-0.44	-0.45	-0.56	-0.57	-0.43
	-0.44	-0.43	-0.45	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
1385	-0.56	-0.57	-0.43	-0.44	-0.57	-0.58	-0.44	-0.45	-0.56	-0.56	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44
	-0.43	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
1393	-0.56	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.56	-0.56	-0.43
	-0.44	-0.43	-0.44	-0.44	-0.45	-0.43	-0.44	-0.42	-0.43	-0.43	-0.44
	-0.42	-0.43	-0.42	-0.42	-0.42	-0.42	-0.42				
1401	-0.55	-0.57	-0.43	-0.44	-0.57	-0.57	-0.44	-0.45	-0.55	-0.56	-0.43
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.44
	-0.42	-0.43	-0.41	-0.42	-0.42	-0.41	-0.41				
1409	-0.55	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.43
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.43	-0.41	-0.41	-0.42	-0.41	-0.41				
1417	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.42
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.42	-0.41	-0.41				
1425	-0.55	-0.56	-0.42	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.55	-0.42
	-0.43	-0.42	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
1433	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.55	-0.55	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
1441	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.54	-0.56	-0.42
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.42	-0.43	-0.42	-0.42	-0.43	-0.43
	-0.41	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
1449	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.43	-0.54	-0.54	-0.41
	-0.42	-0.42	-0.43	-0.43	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.42

	-0.41	-0.41	-0.40	-0.40	-0.41	-0.40	-0.40				
1456	-0.64	-0.65	-0.49	-0.51	-0.65	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.49	-0.51	-0.50	-0.51	-0.50	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.48	-0.47	-0.47				
1459	-0.63	-0.65	-0.49	-0.51	-0.64	-0.65	-0.50	-0.51	-0.65	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.51	-0.50	-0.51	-0.48	-0.49	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
1470	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51
	-0.51	-0.50	-0.51	-0.50	-0.51	-0.50	-0.51	-0.49	-0.50	-0.49	-0.50
	-0.49	-0.50	-0.47	-0.47	-0.48	-0.47	-0.47				
1473	-0.63	-0.65	-0.49	-0.50	-0.64	-0.65	-0.50	-0.51	-0.64	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.50	-0.48	-0.49	-0.49	-0.49
	-0.49	-0.49	-0.47	-0.47	-0.47	-0.47	-0.47				
1481	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50	-0.50	-0.64	-0.65	-0.50
	-0.50	-0.49	-0.50	-0.50	-0.50	-0.50	-0.50	-0.48	-0.49	-0.49	-0.49
	-0.49	-0.49	-0.46	-0.47	-0.47	-0.47	-0.46				
1489	-0.63	-0.64	-0.48	-0.50	-0.64	-0.64	-0.49	-0.50	-0.64	-0.64	-0.49
	-0.50	-0.48	-0.50	-0.49	-0.50	-0.49	-0.50	-0.48	-0.49	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.47	-0.46	-0.46				
1497	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.50	-0.47	-0.48	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
1505	-0.62	-0.63	-0.48	-0.49	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
1513	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49	-0.50	-0.63	-0.63	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.49	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
1521	-0.61	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49	-0.49	-0.62	-0.63	-0.49
	-0.49	-0.48	-0.49	-0.49	-0.49	-0.49	-0.49	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.48	-0.45	-0.46	-0.46	-0.46	-0.45				
1529	-0.61	-0.62	-0.47	-0.49	-0.62	-0.63	-0.48	-0.49	-0.62	-0.63	-0.48
	-0.49	-0.47	-0.49	-0.48	-0.49	-0.48	-0.49	-0.47	-0.47	-0.47	-0.48
	-0.47	-0.48	-0.45	-0.45	-0.45	-0.45	-0.45				
1537	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.49	-0.48	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
1545	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.48	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.44	-0.45	-0.45	-0.45	-0.44				
1552	-0.71	-0.72	-0.55	-0.56	-0.72	-0.72	-0.56	-0.57	-0.73	-0.74	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.57	-0.54	-0.55	-0.55	-0.55
	-0.55	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
1555	-0.71	-0.72	-0.55	-0.56	-0.71	-0.72	-0.56	-0.56	-0.73	-0.73	-0.57
	-0.58	-0.55	-0.56	-0.55	-0.56	-0.57	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
1566	-0.71	-0.72	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.73	-0.74	-0.57
	-0.58	-0.55	-0.56	-0.56	-0.56	-0.57	-0.57	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
1569	-0.70	-0.72	-0.55	-0.56	-0.71	-0.72	-0.56	-0.56	-0.72	-0.73	-0.57
	-0.57	-0.55	-0.56	-0.55	-0.56	-0.56	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.55	-0.51	-0.52	-0.52	-0.52	-0.51				
1577	-0.70	-0.71	-0.54	-0.56	-0.71	-0.72	-0.55	-0.56	-0.72	-0.73	-0.57
	-0.57	-0.54	-0.56	-0.55	-0.56	-0.56	-0.57	-0.53	-0.54	-0.54	-0.54
	-0.55	-0.55	-0.51	-0.51	-0.52	-0.52	-0.51				
1585	-0.70	-0.71	-0.54	-0.56	-0.71	-0.71	-0.55	-0.56	-0.72	-0.73	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.56	-0.56	-0.57	-0.53	-0.54	-0.54	-0.54
	-0.55	-0.55	-0.51	-0.51	-0.51	-0.52	-0.51				
1593	-0.70	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.72	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.56	-0.53	-0.54	-0.54	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
1601	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.71	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.56	-0.53	-0.54	-0.53	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
1609	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55	-0.55	-0.71	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.54	-0.55	-0.55	-0.56	-0.53	-0.54	-0.53	-0.54
	-0.54	-0.55	-0.50	-0.51	-0.51	-0.51	-0.50				
1617	-0.69	-0.70	-0.54	-0.55	-0.70	-0.70	-0.54	-0.55	-0.71	-0.72	-0.56
	-0.56	-0.53	-0.55	-0.54	-0.55	-0.55	-0.56	-0.52	-0.53	-0.53	-0.54
	-0.54	-0.54	-0.50	-0.50	-0.51	-0.51	-0.50				
1625	-0.69	-0.70	-0.53	-0.55	-0.69	-0.70	-0.54	-0.55	-0.71	-0.71	-0.55
	-0.56	-0.53	-0.54	-0.54	-0.55	-0.55	-0.56	-0.52	-0.53	-0.53	-0.53
	-0.54	-0.54	-0.50	-0.50	-0.50	-0.51	-0.50				
1633	-0.68	-0.70	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55
	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.53	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
1641	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55

	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.52	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
1649	-0.65	-0.66	-0.50	-0.52	-0.66	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52
	-0.52	-0.50	-0.52	-0.51	-0.52	-0.52	-0.52	-0.50	-0.51	-0.50	-0.51
	-0.50	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
1655	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.66	-0.67	-0.52
	-0.53	-0.51	-0.52	-0.51	-0.52	-0.52	-0.52	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.51	-0.48	-0.48	-0.48	-0.48	-0.48				
1657	-0.67	-0.68	-0.52	-0.53	-0.67	-0.68	-0.53	-0.53	-0.68	-0.69	-0.53
	-0.54	-0.52	-0.53	-0.52	-0.53	-0.53	-0.53	-0.51	-0.52	-0.51	-0.52
	-0.52	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49				
1663	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.68	-0.69	-0.53
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.53	-0.54	-0.51	-0.52	-0.51	-0.52
	-0.52	-0.52	-0.49	-0.49	-0.49	-0.49	-0.49				
1665	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	-0.54	-0.70	-0.70	-0.54
	-0.55	-0.53	-0.54	-0.54	-0.54	-0.54	-0.55	-0.52	-0.53	-0.52	-0.53
	-0.53	-0.53	-0.50	-0.50	-0.50	-0.50	-0.50				
1671	-0.68	-0.70	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.70	-0.55
	-0.55	-0.53	-0.54	-0.54	-0.54	-0.54	-0.55	-0.52	-0.53	-0.53	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
1673	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.71	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.55	-0.56	-0.53	-0.54	-0.54	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
1679	-0.70	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.56	-0.71	-0.72	-0.56
	-0.57	-0.54	-0.55	-0.55	-0.55	-0.56	-0.56	-0.53	-0.54	-0.54	-0.54
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51				
1681	-0.58	-0.59	-0.44	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.58	-0.45
	-0.45	-0.45	-0.46	-0.45	-0.46	-0.45	-0.45	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
1687	-0.58	-0.59	-0.45	-0.46	-0.59	-0.59	-0.46	-0.46	-0.58	-0.59	-0.45
	-0.45	-0.45	-0.46	-0.46	-0.46	-0.45	-0.45	-0.44	-0.45	-0.45	-0.45
	-0.44	-0.45	-0.43	-0.43	-0.44	-0.43	-0.43				
1689	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.45	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
1695	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.60	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.47	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.45	-0.46	-0.44	-0.44	-0.44	-0.44	-0.44				
1697	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.47	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
1703	-0.61	-0.62	-0.47	-0.48	-0.62	-0.62	-0.48	-0.49	-0.61	-0.62	-0.48
	-0.48	-0.47	-0.48	-0.48	-0.48	-0.47	-0.48	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
1705	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.49	-0.47	-0.48	-0.48	-0.49
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
1711	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.49	-0.47	-0.48	-0.48	-0.49
	-0.48	-0.48	-0.46	-0.46	-0.46	-0.46	-0.46				
1719	-0.66	-0.67	-0.51	-0.53	-0.67	-0.67	-0.52	-0.53	-0.68	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.52	-0.52	-0.53	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				
1727	-0.62	-0.64	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.50
	-0.50	-0.48	-0.49	-0.49	-0.50	-0.49	-0.50	-0.47	-0.48	-0.48	-0.49
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
1735	-0.59	-0.60	-0.46	-0.47	-0.60	-0.60	-0.47	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.46	-0.47	-0.46	-0.47	-0.46	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44	-0.43				
1743	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	-0.44	-0.55	-0.56	-0.43
	-0.43	-0.43	-0.44	-0.44	-0.44	-0.43	-0.43	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41				
1744	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.51	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48				
1758	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.51	-0.52	-0.52	-0.53	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48				
1759	-0.66	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.53	-0.68	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.52	-0.52	-0.53	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48				
1767	-0.66	-0.67	-0.51	-0.53	-0.67	-0.67	-0.52	-0.53	-0.68	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.52	-0.52	-0.53	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.48	-0.48	-0.48				
1775	-0.66	-0.68	-0.51	-0.53	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.54
	-0.54	-0.51	-0.53	-0.52	-0.53	-0.53	-0.54	-0.50	-0.51	-0.51	-0.51
	-0.52	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				

1783	-0.67	-0.68	-0.52	-0.53	-0.67	-0.68	-0.53	-0.53	-0.69	-0.69	-0.54
	-0.55	-0.52	-0.53	-0.52	-0.53	-0.53	-0.54	-0.51	-0.52	-0.51	-0.52
	-0.52	-0.53	-0.48	-0.49	-0.49	-0.49	-0.48				
1791	-0.67	-0.68	-0.52	-0.53	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.53	-0.53	-0.54	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.52	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49				
1799	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54
	-0.55	-0.52	-0.53	-0.53	-0.54	-0.54	-0.55	-0.51	-0.52	-0.52	-0.52
	-0.53	-0.53	-0.49	-0.49	-0.49	-0.50	-0.49				
1807	-0.68	-0.69	-0.53	-0.54	-0.69	-0.69	-0.54	-0.54	-0.70	-0.70	-0.55
	-0.55	-0.53	-0.54	-0.53	-0.54	-0.54	-0.55	-0.52	-0.53	-0.52	-0.53
	-0.53	-0.53	-0.49	-0.50	-0.50	-0.50	-0.49				
1808	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.51	-0.39
	-0.39	-0.39	-0.40	-0.40	-0.40	-0.39	-0.39	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.37	-0.38	-0.37	-0.37				
1811	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.51	-0.52	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
1822	-0.50	-0.51	-0.38	-0.40	-0.51	-0.51	-0.39	-0.40	-0.50	-0.50	-0.38
	-0.39	-0.39	-0.40	-0.39	-0.40	-0.39	-0.39	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37	-0.37				
1823	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.51	-0.52	-0.40
	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40
	-0.39	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
1825	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.43	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.42	-0.42	-0.41	-0.42	-0.40	-0.41	-0.41	-0.41
	-0.40	-0.41	-0.39	-0.39	-0.39	-0.39	-0.39				
1831	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.54	-0.41
	-0.42	-0.41	-0.42	-0.42	-0.42	-0.41	-0.42	-0.40	-0.41	-0.41	-0.41
	-0.40	-0.41	-0.39	-0.39	-0.39	-0.39	-0.39				
1833	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.55	-0.56	-0.43
	-0.43	-0.42	-0.43	-0.43	-0.44	-0.43	-0.43	-0.41	-0.42	-0.42	-0.43
	-0.42	-0.42	-0.40	-0.40	-0.41	-0.40	-0.40				
1839	-0.54	-0.55	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.55	-0.55	-0.43
	-0.43	-0.42	-0.43	-0.43	-0.43	-0.42	-0.43	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
1841	-0.56	-0.57	-0.43	-0.45	-0.57	-0.57	-0.44	-0.45	-0.57	-0.57	-0.44
	-0.45	-0.43	-0.44	-0.44	-0.45	-0.44	-0.45	-0.43	-0.43	-0.43	-0.44
	-0.43	-0.44	-0.41	-0.41	-0.42	-0.41	-0.41				
1847	-0.56	-0.57	-0.43	-0.45	-0.57	-0.57	-0.44	-0.45	-0.56	-0.57	-0.44
	-0.45	-0.43	-0.44	-0.44	-0.45	-0.44	-0.44	-0.42	-0.43	-0.43	-0.44
	-0.43	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
1849	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45
	-0.46	-0.44	-0.46	-0.45	-0.46	-0.45	-0.46	-0.44	-0.45	-0.44	-0.45
	-0.44	-0.45	-0.42	-0.42	-0.43	-0.42	-0.42				
1855	-0.57	-0.59	-0.44	-0.46	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.45
	-0.46	-0.44	-0.46	-0.45	-0.46	-0.45	-0.46	-0.44	-0.45	-0.44	-0.45
	-0.44	-0.45	-0.42	-0.42	-0.42	-0.42	-0.42				
1857	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	-0.47	-0.60	-0.61	-0.47
	-0.48	-0.46	-0.47	-0.47	-0.47	-0.47	-0.47	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.46	-0.43	-0.43	-0.44	-0.44	-0.43				
1860	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.56	-0.56	-0.43
	-0.44	-0.42	-0.44	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.43	-0.40	-0.41	-0.41	-0.41	-0.40				
1861	-0.64	-0.65	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.66	-0.66	-0.52
	-0.52	-0.50	-0.51	-0.50	-0.51	-0.51	-0.52	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.50	-0.47	-0.47	-0.47	-0.47	-0.47				
1862	-0.50	-0.52	-0.39	-0.40	-0.51	-0.52	-0.40	-0.41	-0.50	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.38	-0.39	-0.37	-0.38	-0.38	-0.37	-0.37				
1863	-0.62	-0.63	-0.48	-0.49	-0.63	-0.64	-0.49	-0.50	-0.64	-0.64	-0.50
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.45	-0.45	-0.46	-0.46	-0.45				
1864	-0.53	-0.55	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.54	-0.42
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.42	-0.42	-0.41	-0.41	-0.41	-0.42
	-0.41	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39				
1865	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48	-0.48	-0.61	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.47	-0.48	-0.48	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.47	-0.47	-0.44	-0.44	-0.44	-0.44	-0.44				
1866	-0.47	-0.49	-0.37	-0.38	-0.48	-0.49	-0.38	-0.38	-0.47	-0.48	-0.36
	-0.37	-0.37	-0.38	-0.38	-0.38	-0.37	-0.37	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.37	-0.35	-0.36	-0.36	-0.35	-0.35				
1867	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
1868	-0.52	-0.53	-0.40	-0.41	-0.53	-0.53	-0.41	-0.42	-0.52	-0.53	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.40	-0.41	-0.39	-0.40	-0.40	-0.41

	-0.40	-0.40	-0.38	-0.38	-0.39	-0.38	-0.38				
1889	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.39	-0.40	-0.30
	-0.31	-0.31	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30				
1890	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.40	-0.41	-0.30
	-0.31	-0.31	-0.32	-0.32	-0.32	-0.31	-0.31	-0.31	-0.32	-0.31	-0.32
	-0.30	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1891	-0.41	-0.42	-0.31	-0.33	-0.41	-0.42	-0.32	-0.33	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.33	-0.32	-0.33	-0.31	-0.32	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.31	-0.31	-0.31	-0.31	-0.30	-0.31				
1892	-0.41	-0.43	-0.32	-0.33	-0.42	-0.43	-0.32	-0.33	-0.41	-0.42	-0.31
	-0.32	-0.32	-0.33	-0.33	-0.33	-0.32	-0.32	-0.31	-0.33	-0.32	-0.33
	-0.31	-0.32	-0.31	-0.31	-0.31	-0.31	-0.31				
1893	-0.42	-0.44	-0.32	-0.34	-0.43	-0.44	-0.33	-0.34	-0.42	-0.42	-0.32
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.32	-0.33	-0.32	-0.33	-0.33	-0.33
	-0.32	-0.32	-0.31	-0.32	-0.32	-0.31	-0.31				
1894	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.34	-0.34	-0.42	-0.43	-0.32
	-0.33	-0.33	-0.34	-0.34	-0.34	-0.33	-0.33	-0.32	-0.34	-0.33	-0.34
	-0.32	-0.33	-0.32	-0.32	-0.32	-0.32	-0.32				
1895	-0.43	-0.45	-0.33	-0.35	-0.44	-0.45	-0.34	-0.35	-0.43	-0.44	-0.33
	-0.34	-0.33	-0.35	-0.34	-0.35	-0.33	-0.34	-0.33	-0.34	-0.34	-0.34
	-0.33	-0.33	-0.32	-0.33	-0.33	-0.32	-0.32				
1896	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.36	-0.37	-0.27
	-0.28	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.28	-0.28	-0.28	-0.27	-0.28				
1897	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.29	-0.29	-0.29	-0.29	-0.29	-0.29				
1898	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.31	-0.30	-0.31	-0.29	-0.29	-0.29	-0.30	-0.29	-0.30
	-0.28	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28				
1899	-0.37	-0.39	-0.28	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.37	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1900	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.29	-0.29	-0.27	-0.28	-0.27	-0.29	-0.28	-0.29
	-0.27	-0.28	-0.27	-0.27	-0.28	-0.27	-0.27				
1901	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27				
1902	-0.35	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1903	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27				
1904	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.35	-0.36	-0.27
	-0.27	-0.28	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27				
1905	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.49	-0.49	-0.37
	-0.38	-0.38	-0.39	-0.39	-0.39	-0.38	-0.38	-0.37	-0.38	-0.38	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.37	-0.36	-0.36				
1906	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.34	-0.25
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1907	-0.34	-0.35	-0.26	-0.27	-0.35	-0.35	-0.27	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.28	-0.27	-0.28	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1908	-0.48	-0.49	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.48	-0.48	-0.37
	-0.37	-0.37	-0.38	-0.38	-0.39	-0.37	-0.38	-0.36	-0.37	-0.37	-0.38
	-0.36	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
1909	-0.47	-0.48	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.36
	-0.37	-0.36	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.36	-0.35	-0.35	-0.36	-0.35	-0.35				
1910	-0.45	-0.47	-0.35	-0.36	-0.46	-0.47	-0.36	-0.36	-0.45	-0.46	-0.34
	-0.35	-0.35	-0.36	-0.36	-0.36	-0.35	-0.35	-0.34	-0.35	-0.35	-0.35
	-0.34	-0.35	-0.34	-0.34	-0.34	-0.34	-0.34				
1911	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.34	-0.33	-0.33	-0.34	-0.33	-0.33				
1912	-0.44	-0.45	-0.34	-0.35	-0.45	-0.46	-0.35	-0.35	-0.44	-0.44	-0.34
	-0.34	-0.34	-0.35	-0.35	-0.35	-0.34	-0.34	-0.33	-0.35	-0.34	-0.35
	-0.33	-0.34	-0.33	-0.33	-0.33	-0.33	-0.33				
1913	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1914	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25

	-0.26	-0.26	-0.27	-0.27	-0.27	-0.25	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1915	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1916	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1917	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25				
1918	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1919	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1920	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25				
1921	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1922	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.26	-0.26	-0.25	-0.25				
1923	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.25	-0.26	-0.25	-0.25	-0.26	-0.25	-0.25				
1924	-0.33	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.26	-0.27	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1925	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1926	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1927	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1928	-0.33	-0.35	-0.25	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.33	-0.25
	-0.26	-0.26	-0.27	-0.26	-0.27	-0.25	-0.26	-0.25	-0.26	-0.26	-0.26
	-0.25	-0.26	-0.25	-0.25	-0.25	-0.25	-0.25				
1929	-0.39	-0.41	-0.30	-0.31	-0.40	-0.41	-0.31	-0.31	-0.39	-0.39	-0.29
	-0.30	-0.30	-0.32	-0.31	-0.32	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.30	-0.30	-0.29	-0.29				
1930	-0.35	-0.37	-0.27	-0.28	-0.36	-0.37	-0.28	-0.28	-0.35	-0.35	-0.26
	-0.27	-0.27	-0.29	-0.28	-0.29	-0.27	-0.27	-0.27	-0.28	-0.27	-0.28
	-0.26	-0.27	-0.27	-0.27	-0.27	-0.26	-0.27				
1931	-0.38	-0.39	-0.29	-0.31	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.29	-0.28	-0.28				
1932	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.29	-0.30	-0.38	-0.38	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1933	-0.37	-0.39	-0.28	-0.30	-0.38	-0.39	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.29	-0.30	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1934	-0.37	-0.38	-0.28	-0.30	-0.37	-0.38	-0.29	-0.30	-0.37	-0.38	-0.28
	-0.29	-0.28	-0.30	-0.29	-0.30	-0.28	-0.29	-0.28	-0.29	-0.29	-0.29
	-0.28	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1935	-0.36	-0.38	-0.28	-0.29	-0.37	-0.38	-0.28	-0.29	-0.36	-0.37	-0.28
	-0.28	-0.28	-0.30	-0.29	-0.29	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29
	-0.28	-0.28	-0.27	-0.28	-0.28	-0.27	-0.27				
1936	-0.36	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.29	-0.36	-0.36	-0.27
	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28
	-0.27	-0.28	-0.27	-0.27	-0.27	-0.27	-0.27				
1937	-0.35	-0.37	-0.27	-0.29	-0.36	-0.37	-0.28	-0.28	-0.35	-0.36	-0.27
	-0.28	-0.27	-0.29	-0.28	-0.29	-0.27	-0.28	-0.27	-0.28	-0.27	-0.28
	-0.27	-0.27	-0.27	-0.27	-0.27	-0.26	-0.27				
1938	-0.35	-0.36	-0.27	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.27	-0.28	-0.27	-0.28	-0.27	-0.27	-0.27	-0.28	-0.27	-0.27
	-0.26	-0.27	-0.26	-0.26	-0.26	-0.26	-0.26				
1939	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.38	-0.39	-0.29
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.28	-0.29	-0.29	-0.29	-0.28				

1940	-0.34	-0.36	-0.26	-0.28	-0.35	-0.36	-0.27	-0.28	-0.34	-0.35	-0.26
	-0.27	-0.26	-0.28	-0.27	-0.28	-0.26	-0.27	-0.26	-0.27	-0.27	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26				
1941	-0.34	-0.35	-0.26	-0.27	-0.34	-0.35	-0.26	-0.27	-0.33	-0.34	-0.25
	-0.26	-0.26	-0.27	-0.27	-0.27	-0.26	-0.26	-0.26	-0.27	-0.26	-0.27
	-0.26	-0.26	-0.26	-0.26	-0.26	-0.25	-0.26				
1942	-0.59	-0.61	-0.46	-0.47	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.49	-0.46	-0.47	-0.47	-0.47	-0.48	-0.48	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.47	-0.43	-0.43	-0.43	-0.43	-0.43				
1943	-0.48	-0.49	-0.37	-0.39	-0.49	-0.49	-0.38	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.37	-0.39	-0.38	-0.39	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.38	-0.35	-0.35	-0.35	-0.35	-0.35				
1944	-0.43	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34	-0.35	-0.44	-0.45	-0.34
	-0.35	-0.34	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.34	-0.34
	-0.34	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32				
1945	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30
	-0.29	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1946	-0.49	-0.50	-0.38	-0.39	-0.50	-0.50	-0.39	-0.39	-0.50	-0.51	-0.39
	-0.40	-0.38	-0.39	-0.39	-0.39	-0.39	-0.40	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.39	-0.36	-0.36	-0.36	-0.36	-0.36				
1947	-0.50	-0.51	-0.39	-0.40	-0.51	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40
	-0.41	-0.39	-0.40	-0.39	-0.40	-0.40	-0.41	-0.38	-0.39	-0.38	-0.39
	-0.39	-0.39	-0.36	-0.37	-0.37	-0.37	-0.36				
1948	-0.51	-0.52	-0.40	-0.41	-0.52	-0.52	-0.40	-0.41	-0.52	-0.53	-0.41
	-0.42	-0.40	-0.41	-0.40	-0.41	-0.41	-0.41	-0.39	-0.40	-0.39	-0.40
	-0.40	-0.40	-0.37	-0.37	-0.38	-0.38	-0.37				
1949	-0.46	-0.47	-0.35	-0.37	-0.46	-0.47	-0.36	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.35	-0.37	-0.36	-0.37	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.36	-0.33	-0.34	-0.34	-0.34	-0.33				
1950	-0.45	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35	-0.36	-0.46	-0.46	-0.35
	-0.36	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.35	-0.35
	-0.35	-0.35	-0.33	-0.33	-0.33	-0.33	-0.33				
1951	-0.44	-0.46	-0.34	-0.36	-0.45	-0.46	-0.35	-0.36	-0.45	-0.46	-0.35
	-0.36	-0.34	-0.36	-0.35	-0.36	-0.35	-0.36	-0.34	-0.35	-0.34	-0.35
	-0.34	-0.35	-0.32	-0.33	-0.33	-0.33	-0.32				
1952	-0.66	-0.68	-0.52	-0.53	-0.67	-0.68	-0.52	-0.53	-0.69	-0.69	-0.54
	-0.55	-0.51	-0.53	-0.52	-0.53	-0.53	-0.54	-0.50	-0.51	-0.51	-0.52
	-0.52	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				
1953	-0.65	-0.67	-0.51	-0.52	-0.66	-0.67	-0.52	-0.52	-0.67	-0.68	-0.53
	-0.54	-0.51	-0.52	-0.51	-0.52	-0.53	-0.53	-0.50	-0.51	-0.50	-0.51
	-0.51	-0.52	-0.47	-0.48	-0.48	-0.48	-0.47				
1954	-0.61	-0.63	-0.48	-0.49	-0.62	-0.63	-0.49	-0.49	-0.63	-0.64	-0.50
	-0.51	-0.48	-0.49	-0.48	-0.49	-0.49	-0.50	-0.47	-0.48	-0.47	-0.48
	-0.48	-0.49	-0.45	-0.45	-0.45	-0.45	-0.45				
1955	-0.60	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.49	-0.62	-0.63	-0.49
	-0.50	-0.47	-0.48	-0.48	-0.48	-0.49	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.48	-0.44	-0.44	-0.44	-0.44	-0.44				
1956	-0.60	-0.61	-0.46	-0.48	-0.60	-0.61	-0.47	-0.48	-0.62	-0.62	-0.48
	-0.49	-0.46	-0.48	-0.47	-0.48	-0.48	-0.49	-0.45	-0.46	-0.46	-0.46
	-0.47	-0.47	-0.43	-0.44	-0.44	-0.44	-0.43				
1957	-0.42	-0.43	-0.32	-0.34	-0.42	-0.43	-0.33	-0.34	-0.42	-0.43	-0.33
	-0.33	-0.32	-0.34	-0.33	-0.34	-0.33	-0.33	-0.32	-0.33	-0.32	-0.33
	-0.32	-0.33	-0.31	-0.31	-0.31	-0.31	-0.31				
1958	-0.41	-0.42	-0.31	-0.33	-0.42	-0.42	-0.32	-0.33	-0.41	-0.42	-0.32
	-0.33	-0.32	-0.33	-0.32	-0.33	-0.32	-0.33	-0.31	-0.32	-0.32	-0.32
	-0.31	-0.32	-0.30	-0.30	-0.30	-0.30	-0.30				
1959	-0.40	-0.42	-0.31	-0.32	-0.41	-0.42	-0.32	-0.32	-0.41	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.32	-0.32	-0.32	-0.32	-0.31	-0.32	-0.31	-0.32
	-0.31	-0.31	-0.30	-0.30	-0.30	-0.30	-0.30				
1960	-0.39	-0.41	-0.30	-0.32	-0.40	-0.41	-0.31	-0.32	-0.40	-0.41	-0.31
	-0.32	-0.31	-0.32	-0.31	-0.32	-0.31	-0.32	-0.30	-0.31	-0.31	-0.31
	-0.30	-0.31	-0.29	-0.29	-0.29	-0.29	-0.29				
1961	-0.39	-0.40	-0.30	-0.31	-0.40	-0.40	-0.31	-0.31	-0.39	-0.40	-0.30
	-0.31	-0.30	-0.31	-0.31	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29				
1962	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1963	-0.38	-0.39	-0.29	-0.31	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28				
1964	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.30
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.28	-0.30
	-0.29	-0.30	-0.28	-0.28	-0.28	-0.28	-0.28				
1965	-0.38	-0.40	-0.29	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.39	-0.30
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30

	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28					
1966	-0.38	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	
	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30	
	-0.30	-0.30	-0.28	-0.29	-0.29	-0.29	-0.28					
1967	-0.38	-0.40	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.29	
	-0.30	-0.30	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.30	-0.30	
	-0.29	-0.30	-0.28	-0.29	-0.29	-0.28	-0.28					
1968	-0.38	-0.39	-0.29	-0.31	-0.39	-0.39	-0.30	-0.31	-0.38	-0.39	-0.29	
	-0.30	-0.29	-0.31	-0.30	-0.31	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	
	-0.29	-0.30	-0.28	-0.28	-0.29	-0.28	-0.28					
1969	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29	
	-0.30	-0.29	-0.31	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1970	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29	
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1971	-0.38	-0.39	-0.29	-0.30	-0.38	-0.39	-0.30	-0.30	-0.38	-0.39	-0.29	
	-0.30	-0.29	-0.30	-0.30	-0.30	-0.29	-0.30	-0.29	-0.30	-0.29	-0.30	
	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28					
1972	-0.43	-0.44	-0.33	-0.35	-0.44	-0.44	-0.34	-0.35	-0.44	-0.44	-0.34	
	-0.35	-0.33	-0.35	-0.34	-0.35	-0.34	-0.35	-0.33	-0.34	-0.33	-0.34	
	-0.33	-0.34	-0.32	-0.32	-0.32	-0.32	-0.32					
1973	-0.42	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	-0.34	-0.43	-0.44	-0.33	
	-0.34	-0.33	-0.34	-0.33	-0.34	-0.33	-0.34	-0.32	-0.33	-0.33	-0.33	
	-0.33	-0.33	-0.31	-0.31	-0.32	-0.31	-0.31					
1974	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.48	-0.49	-0.38	
	-0.38	-0.37	-0.38	-0.37	-0.38	-0.37	-0.38	-0.36	-0.37	-0.36	-0.37	
	-0.37	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35					
1975	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.47	-0.48	-0.37	
	-0.38	-0.36	-0.37	-0.37	-0.37	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36	
	-0.36	-0.36	-0.34	-0.34	-0.34	-0.34	-0.34					
1976	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.43	-0.54	-0.55	-0.43	
	-0.43	-0.41	-0.42	-0.42	-0.42	-0.42	-0.43	-0.40	-0.41	-0.41	-0.41	
	-0.41	-0.42	-0.38	-0.39	-0.39	-0.39	-0.38					
1977	-0.54	-0.56	-0.42	-0.44	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.44	
	-0.45	-0.42	-0.43	-0.43	-0.43	-0.44	-0.44	-0.41	-0.42	-0.42	-0.42	
	-0.42	-0.43	-0.39	-0.40	-0.40	-0.40	-0.39					
1978	-0.56	-0.57	-0.43	-0.45	-0.56	-0.57	-0.44	-0.45	-0.57	-0.58	-0.45	
	-0.46	-0.43	-0.44	-0.44	-0.45	-0.45	-0.45	-0.42	-0.43	-0.43	-0.43	
	-0.44	-0.44	-0.40	-0.41	-0.41	-0.41	-0.40					
1979	-0.57	-0.58	-0.44	-0.46	-0.58	-0.58	-0.45	-0.46	-0.59	-0.59	-0.46	
	-0.47	-0.44	-0.45	-0.45	-0.45	-0.46	-0.46	-0.43	-0.44	-0.44	-0.44	
	-0.45	-0.45	-0.41	-0.41	-0.42	-0.42	-0.41					
1980	-0.58	-0.59	-0.45	-0.46	-0.58	-0.59	-0.46	-0.46	-0.60	-0.60	-0.47	
	-0.48	-0.45	-0.46	-0.45	-0.46	-0.46	-0.47	-0.44	-0.45	-0.44	-0.45	
	-0.45	-0.46	-0.42	-0.42	-0.42	-0.42	-0.42					
1981	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47	
	-0.48	-0.45	-0.46	-0.46	-0.47	-0.47	-0.48	-0.44	-0.45	-0.45	-0.45	
	-0.46	-0.46	-0.42	-0.42	-0.43	-0.43	-0.42					
1982	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46	-0.47	-0.61	-0.61	-0.48	
	-0.48	-0.46	-0.47	-0.46	-0.47	-0.47	-0.48	-0.45	-0.46	-0.45	-0.46	
	-0.46	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43					
1983	-0.67	-0.69	-0.52	-0.54	-0.68	-0.69	-0.53	-0.54	-0.69	-0.70	-0.54	
	-0.55	-0.52	-0.53	-0.53	-0.53	-0.54	-0.55	-0.51	-0.52	-0.52	-0.52	
	-0.53	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49					
1984	-0.39	-0.40	-0.30	-0.31	-0.39	-0.40	-0.30	-0.31	-0.39	-0.39	-0.30	
	-0.31	-0.30	-0.31	-0.30	-0.31	-0.30	-0.31	-0.29	-0.30	-0.30	-0.30	
	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29	-0.29					
2985	-0.51	-0.52	-0.39	-0.41	-0.52	-0.52	-0.40	-0.41	-0.51	-0.52	-0.39	
	-0.40	-0.39	-0.41	-0.40	-0.41	-0.39	-0.40	-0.39	-0.40	-0.40	-0.40	
	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38					
2986	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.51	-0.52	-0.40	
	-0.40	-0.40	-0.41	-0.41	-0.41	-0.40	-0.40	-0.39	-0.40	-0.40	-0.40	
	-0.39	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39					
2993	-0.50	-0.51	-0.38	-0.40	-0.51	-0.51	-0.39	-0.40	-0.50	-0.50	-0.38	
	-0.39	-0.39	-0.40	-0.39	-0.40	-0.38	-0.39	-0.38	-0.39	-0.39	-0.39	
	-0.38	-0.38	-0.37	-0.37	-0.38	-0.37	-0.37					
2994	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.50	-0.50	-0.38	
	-0.39	-0.39	-0.40	-0.40	-0.40	-0.38	-0.39	-0.38	-0.39	-0.39	-0.39	
	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38					
3001	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.48	-0.49	-0.37	
	-0.38	-0.37	-0.38	-0.38	-0.39	-0.37	-0.38	-0.37	-0.38	-0.38	-0.38	
	-0.37	-0.37	-0.36	-0.37	-0.37	-0.36	-0.36					
3334	-0.69	-0.71	-0.54	-0.55	-0.70	-0.71	-0.55	-0.55	-0.71	-0.72	-0.56	
	-0.56	-0.54	-0.55	-0.54	-0.55	-0.55	-0.56	-0.53	-0.54	-0.53	-0.54	
	-0.54	-0.55	-0.51	-0.51	-0.51	-0.51	-0.51					
3335	-0.71	-0.73	-0.55	-0.57	-0.72	-0.73	-0.56	-0.57	-0.74	-0.74	-0.58	

	-0.58	-0.55	-0.57	-0.56	-0.57	-0.57	-0.58	-0.54	-0.55	-0.55	-0.55
	-0.56	-0.56	-0.52	-0.52	-0.53	-0.53	-0.52				
3336	-0.68	-0.70	-0.53	-0.54	-0.69	-0.70	-0.54	-0.55	-0.70	-0.71	-0.55
	-0.56	-0.53	-0.54	-0.54	-0.54	-0.55	-0.55	-0.52	-0.53	-0.53	-0.53
	-0.53	-0.54	-0.50	-0.50	-0.50	-0.50	-0.50				
3337	-0.70	-0.72	-0.55	-0.56	-0.71	-0.72	-0.56	-0.56	-0.73	-0.73	-0.57
	-0.58	-0.55	-0.56	-0.55	-0.56	-0.57	-0.57	-0.54	-0.55	-0.54	-0.55
	-0.55	-0.56	-0.52	-0.52	-0.52	-0.52	-0.52				
3338	-0.67	-0.68	-0.52	-0.53	-0.68	-0.68	-0.53	-0.53	-0.69	-0.69	-0.54
	-0.54	-0.52	-0.53	-0.53	-0.53	-0.53	-0.54	-0.51	-0.52	-0.52	-0.52
	-0.52	-0.53	-0.49	-0.49	-0.49	-0.49	-0.49				
3339	-0.66	-0.67	-0.51	-0.52	-0.67	-0.67	-0.52	-0.53	-0.67	-0.68	-0.53
	-0.53	-0.51	-0.52	-0.52	-0.52	-0.52	-0.53	-0.50	-0.51	-0.51	-0.51
	-0.51	-0.52	-0.48	-0.48	-0.49	-0.49	-0.48				
3340	-0.64	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.66	-0.66	-0.51
	-0.52	-0.50	-0.51	-0.51	-0.51	-0.51	-0.52	-0.49	-0.50	-0.50	-0.50
	-0.50	-0.51	-0.47	-0.47	-0.48	-0.48	-0.47				
3341	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50	-0.50	-0.65	-0.65	-0.50
	-0.51	-0.49	-0.50	-0.50	-0.50	-0.50	-0.51	-0.48	-0.49	-0.49	-0.49
	-0.49	-0.50	-0.46	-0.47	-0.47	-0.47	-0.46				
3342	-0.62	-0.63	-0.48	-0.49	-0.63	-0.63	-0.49	-0.50	-0.63	-0.64	-0.49
	-0.50	-0.48	-0.49	-0.49	-0.49	-0.49	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.48	-0.49	-0.46	-0.46	-0.46	-0.46	-0.46				
3343	-0.61	-0.62	-0.47	-0.48	-0.61	-0.62	-0.48	-0.49	-0.62	-0.62	-0.48
	-0.49	-0.47	-0.48	-0.48	-0.48	-0.48	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.47	-0.45	-0.45	-0.45	-0.45	-0.45				
3344	-0.60	-0.61	-0.46	-0.48	-0.61	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.48	-0.46	-0.48	-0.47	-0.48	-0.47	-0.48	-0.46	-0.47	-0.46	-0.47
	-0.46	-0.47	-0.44	-0.44	-0.45	-0.44	-0.44				
3345	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.47	-0.45	-0.46	-0.46	-0.47	-0.46	-0.47	-0.45	-0.45	-0.45	-0.46
	-0.45	-0.46	-0.43	-0.43	-0.43	-0.43	-0.43				
3346	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.46
	-0.46	-0.45	-0.46	-0.46	-0.46	-0.46	-0.46	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.45	-0.43	-0.43	-0.43	-0.43	-0.43				
3347	-0.57	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.57	-0.58	-0.45
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
3348	-0.56	-0.58	-0.44	-0.45	-0.57	-0.58	-0.45	-0.45	-0.57	-0.58	-0.44
	-0.45	-0.44	-0.45	-0.45	-0.45	-0.44	-0.45	-0.43	-0.44	-0.44	-0.44
	-0.43	-0.44	-0.42	-0.42	-0.42	-0.42	-0.42				
3349	-0.55	-0.56	-0.42	-0.44	-0.56	-0.56	-0.43	-0.44	-0.55	-0.56	-0.43
	-0.44	-0.42	-0.44	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.42	-0.43
	-0.42	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
3350	-0.55	-0.56	-0.43	-0.44	-0.56	-0.57	-0.43	-0.44	-0.55	-0.56	-0.43
	-0.44	-0.43	-0.44	-0.43	-0.44	-0.43	-0.44	-0.42	-0.43	-0.43	-0.43
	-0.42	-0.43	-0.41	-0.41	-0.41	-0.41	-0.41				
3351	-0.53	-0.55	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.54	-0.42
	-0.42	-0.41	-0.42	-0.42	-0.43	-0.42	-0.42	-0.41	-0.42	-0.41	-0.42
	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40				
3352	-0.54	-0.55	-0.42	-0.43	-0.55	-0.55	-0.43	-0.43	-0.54	-0.55	-0.42
	-0.42	-0.42	-0.43	-0.42	-0.43	-0.42	-0.42	-0.41	-0.42	-0.42	-0.42
	-0.41	-0.42	-0.40	-0.40	-0.40	-0.40	-0.40				
3353	-0.52	-0.53	-0.40	-0.41	-0.53	-0.54	-0.41	-0.42	-0.52	-0.53	-0.40
	-0.41	-0.40	-0.41	-0.41	-0.42	-0.41	-0.41	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.40	-0.39	-0.39	-0.39	-0.39	-0.39				
3354	-0.53	-0.54	-0.41	-0.42	-0.54	-0.54	-0.42	-0.42	-0.53	-0.53	-0.41
	-0.41	-0.41	-0.42	-0.42	-0.42	-0.41	-0.41	-0.40	-0.41	-0.41	-0.41
	-0.40	-0.41	-0.39	-0.39	-0.40	-0.39	-0.39				
3371	-0.63	-0.64	-0.49	-0.50	-0.63	-0.64	-0.50	-0.50	-0.65	-0.66	-0.51
	-0.52	-0.49	-0.50	-0.49	-0.50	-0.50	-0.51	-0.48	-0.49	-0.48	-0.49
	-0.49	-0.50	-0.46	-0.46	-0.46	-0.46	-0.46				
3372	-0.61	-0.62	-0.47	-0.49	-0.62	-0.62	-0.48	-0.49	-0.63	-0.63	-0.49
	-0.50	-0.47	-0.48	-0.48	-0.49	-0.49	-0.49	-0.46	-0.47	-0.47	-0.47
	-0.47	-0.48	-0.44	-0.44	-0.45	-0.45	-0.44				
3373	-0.64	-0.66	-0.50	-0.51	-0.65	-0.66	-0.51	-0.51	-0.66	-0.67	-0.52
	-0.53	-0.50	-0.51	-0.50	-0.51	-0.52	-0.52	-0.49	-0.50	-0.49	-0.50
	-0.50	-0.51	-0.47	-0.47	-0.47	-0.47	-0.47				
3374	-0.62	-0.63	-0.48	-0.50	-0.63	-0.64	-0.49	-0.50	-0.64	-0.65	-0.50
	-0.51	-0.48	-0.49	-0.49	-0.50	-0.50	-0.50	-0.47	-0.48	-0.48	-0.48
	-0.49	-0.49	-0.45	-0.45	-0.46	-0.46	-0.45				
3375	-0.58	-0.60	-0.45	-0.47	-0.59	-0.60	-0.46	-0.47	-0.60	-0.61	-0.47
	-0.48	-0.45	-0.46	-0.46	-0.47	-0.47	-0.47	-0.44	-0.45	-0.46	-0.45
	-0.45	-0.46	-0.42	-0.43	-0.43	-0.43	-0.42				
3376	-0.60	-0.61	-0.46	-0.48	-0.60	-0.61	-0.47	-0.48	-0.61	-0.62	-0.48
	-0.49	-0.46	-0.47	-0.47	-0.48	-0.48	-0.48	-0.45	-0.46	-0.46	-0.46
	-0.46	-0.47	-0.43	-0.44	-0.44	-0.44	-0.43				

3377	-0.57	-0.58	-0.44	-0.46	-0.58	-0.58	-0.45	-0.46	-0.58	-0.59	-0.46
	-0.46	-0.44	-0.45	-0.45	-0.45	-0.45	-0.46	-0.43	-0.44	-0.44	-0.44
	-0.44	-0.45	-0.41	-0.42	-0.42	-0.42	-0.41				
3378	-0.58	-0.59	-0.45	-0.46	-0.59	-0.60	-0.46	-0.47	-0.59	-0.60	-0.47
	-0.47	-0.45	-0.46	-0.46	-0.46	-0.46	-0.47	-0.44	-0.45	-0.45	-0.45
	-0.45	-0.46	-0.42	-0.42	-0.43	-0.43	-0.42				
3379	-0.54	-0.56	-0.42	-0.43	-0.55	-0.56	-0.43	-0.44	-0.56	-0.56	-0.43
	-0.44	-0.42	-0.43	-0.43	-0.43	-0.43	-0.44	-0.41	-0.42	-0.42	-0.42
	-0.42	-0.43	-0.40	-0.40	-0.40	-0.40	-0.40				
3380	-0.55	-0.57	-0.43	-0.44	-0.56	-0.57	-0.44	-0.45	-0.57	-0.57	-0.44
	-0.45	-0.43	-0.44	-0.44	-0.44	-0.44	-0.45	-0.42	-0.43	-0.43	-0.43
	-0.43	-0.44	-0.40	-0.41	-0.41	-0.41	-0.40				
3381	-0.52	-0.53	-0.40	-0.42	-0.53	-0.54	-0.41	-0.42	-0.53	-0.54	-0.42
	-0.42	-0.40	-0.42	-0.41	-0.42	-0.41	-0.42	-0.40	-0.41	-0.40	-0.41
	-0.40	-0.41	-0.38	-0.38	-0.39	-0.38	-0.38				
3382	-0.53	-0.54	-0.41	-0.43	-0.54	-0.55	-0.42	-0.43	-0.54	-0.55	-0.42
	-0.43	-0.41	-0.42	-0.42	-0.43	-0.42	-0.43	-0.40	-0.41	-0.41	-0.42
	-0.41	-0.42	-0.39	-0.39	-0.39	-0.39	-0.39				
3383	-0.50	-0.52	-0.39	-0.40	-0.51	-0.52	-0.40	-0.41	-0.51	-0.52	-0.40
	-0.41	-0.39	-0.40	-0.40	-0.40	-0.40	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
3384	-0.51	-0.53	-0.40	-0.41	-0.52	-0.53	-0.41	-0.41	-0.52	-0.53	-0.41
	-0.41	-0.40	-0.41	-0.41	-0.41	-0.41	-0.41	-0.39	-0.40	-0.40	-0.40
	-0.40	-0.40	-0.38	-0.38	-0.38	-0.38	-0.38				
3385	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39	-0.40	-0.50	-0.50	-0.39
	-0.39	-0.38	-0.39	-0.39	-0.39	-0.39	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.38	-0.36	-0.36	-0.36	-0.36	-0.36				
3386	-0.50	-0.51	-0.39	-0.40	-0.51	-0.52	-0.40	-0.40	-0.51	-0.51	-0.39
	-0.40	-0.39	-0.40	-0.40	-0.40	-0.39	-0.40	-0.38	-0.39	-0.39	-0.39
	-0.39	-0.39	-0.37	-0.37	-0.37	-0.37	-0.37				
3387	-0.48	-0.49	-0.37	-0.38	-0.49	-0.50	-0.38	-0.39	-0.49	-0.49	-0.38
	-0.38	-0.37	-0.38	-0.38	-0.39	-0.38	-0.38	-0.37	-0.37	-0.37	-0.38
	-0.37	-0.37	-0.35	-0.36	-0.36	-0.36	-0.35				
3388	-0.49	-0.50	-0.38	-0.39	-0.50	-0.51	-0.39	-0.39	-0.49	-0.50	-0.38
	-0.39	-0.38	-0.39	-0.39	-0.39	-0.38	-0.39	-0.37	-0.38	-0.38	-0.38
	-0.38	-0.38	-0.36	-0.36	-0.37	-0.36	-0.36				
3389	-0.48	-0.50	-0.37	-0.39	-0.49	-0.50	-0.38	-0.39	-0.49	-0.49	-0.38
	-0.38	-0.37	-0.39	-0.38	-0.39	-0.38	-0.38	-0.37	-0.38	-0.37	-0.38
	-0.37	-0.37	-0.36	-0.36	-0.36	-0.36	-0.36				
3390	-0.47	-0.49	-0.37	-0.38	-0.48	-0.49	-0.38	-0.38	-0.48	-0.48	-0.37
	-0.38	-0.37	-0.38	-0.38	-0.38	-0.37	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.37	-0.35	-0.35	-0.35	-0.35	-0.35				
3391	-0.48	-0.49	-0.37	-0.38	-0.49	-0.49	-0.38	-0.39	-0.48	-0.49	-0.37
	-0.38	-0.37	-0.38	-0.38	-0.38	-0.37	-0.38	-0.36	-0.37	-0.37	-0.37
	-0.37	-0.37	-0.35	-0.36	-0.36	-0.35	-0.35				
3392	-0.47	-0.48	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.36
	-0.37	-0.36	-0.38	-0.37	-0.38	-0.37	-0.37	-0.36	-0.37	-0.36	-0.37
	-0.36	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
3393	-0.47	-0.49	-0.36	-0.38	-0.48	-0.49	-0.37	-0.38	-0.47	-0.48	-0.36
	-0.37	-0.37	-0.38	-0.37	-0.38	-0.37	-0.37	-0.36	-0.37	-0.37	-0.37
	-0.36	-0.36	-0.35	-0.35	-0.36	-0.35	-0.35				
3394	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.36
	-0.37	-0.36	-0.37	-0.37	-0.37	-0.36	-0.37	-0.35	-0.36	-0.36	-0.37
	-0.35	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
3395	-0.46	-0.48	-0.36	-0.37	-0.47	-0.48	-0.37	-0.37	-0.46	-0.47	-0.36
	-0.36	-0.36	-0.37	-0.37	-0.37	-0.36	-0.36	-0.35	-0.36	-0.36	-0.36
	-0.35	-0.36	-0.35	-0.35	-0.35	-0.35	-0.35				
3396	-0.46	-0.47	-0.35	-0.37	-0.47	-0.47	-0.36	-0.37	-0.45	-0.46	-0.35
	-0.36	-0.35	-0.37	-0.36	-0.37	-0.35	-0.36	-0.35	-0.36	-0.35	-0.36
	-0.35	-0.35	-0.34	-0.34	-0.35	-0.34	-0.34				

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...
	-0.76			
	-0.24			

Società di Progetto
Brebemi SpA