COMMITTENTE:

RFI RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

ALTA SORVEGLIANZA:

ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

GENERAL CONTRACTOR:

Consorzio Collegamenti Integrati Veloci

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

TRATTA A.V. /A.C. TERZO VALICO DEI GIOVI
PROGETTO ESECUTIVO

Sottovia Scatolare Pk 29+345

Relazione di calcolo

GENERAL CONTRACTOR	DIRETTORE DEI LAVORI	
Consorzio **Cociv** Ing.P.P.Marcheselli		

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC.	OPERA/DISCIPLINA	PROGR.	REV.
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Progettazione :

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INDICE

1. PREMESSA

Con la presente relazione si intende fornire i calcoli statici e le verifiche di sicurezza del sottovia ferroviario posto alla progressiva 29+345 (rilevato ferroviario RI12).

Il sottovia in oggetto è previsto per l'adeguamento della viabilità di accesso al cantiere operativo COP5 nel Comune di Arquata Scrivia, predisposto alla realizzazione di una tratta del terzo valico ferroviario dei Giovi, il progetto prevede l'allargamento della strada esistente la quale, staccandosi dalla S.S. N°35 dei Giovi, corre parallela alla S.P. N°161 e raggiunge alcune cascine presenti sul versante Sud della valle.

Le dimensioni nette interne sono pari a 10.40x6.00 m, ed il ricoprimento è di 140 cm, la struttura scatolare a sezione rettangolare è realizzata in calcestruzzo armato gettato in opera.

L'opera ricade in zona sismica di III categoria (S=6).

In adiacenza agli imbocchi sono previsti 4 muri di sostegno per raccordare il rilevato ferroviario e le scarpate della trincea all'interno della quale è prevista la viabilità in progetto.

Le verifiche di sicurezza vengono effettuate con il metodo delle Tensioni Ammissibili.

2. CARATTERISTICHE DEI MATERIALI

2.1. Calcestruzzo

Per il magrone di sottofondazione si prevede l'utilizzo di calcestruzzo di classe Rck 15.

Per la realizzazione dello scatolare di linea e delle elevazioni dei muri di sostegno di imbocco si prevede l'utilizzo di calcestruzzo avente classe di resistenza C32/40 (Rck≥40 N/mm^2) che presenta le seguenti caratteristiche:

Resistenza caratteristica a compressione (cilindrica)	f_{ck} = 0.83× Rck = 33.20 N/mm^2
Resistenza media a compressione	$f_{cm} = f_{ck} + 8$ = 41.20 N/mm^2
Modulo elastico	$E_{cm}=22000 \cdot (f_{cm}/10)^{0.3}$= 33643 N/mm^2
Resistenza di calcolo a compressione	$f_{cd} = \alpha_{cc} \cdot f_{ck}/\gamma_c = 0.85 \cdot f_{ck}/1.5$= 18.81 N/mm^2
Resistenza a trazione media	$f_{ctm} = 0.30 \cdot f_{ck}^{2/3}$ = 3.10 N/mm^2
Resistenza a trazione	$f_{ctk} = 0.7 \cdot f_{ctm}$ = 2.17 N/mm^2
Resistenza a trazione di calcolo	$f_{ctd} = f_{ctk} / \gamma_c$= 1.45 N/mm^2
Tensioni ammissibili	σ_c = 12.20 N/mm^2
	τ_{c0} = 0.70 N/mm^2
	τ_{c1} = 2.11 N/mm^2

Per la realizzazione delle fondazioni dei muri di sostegno di imbocco si prevede l'utilizzo di calcestruzzo avente classe di resistenza C25/30 (Rck≥30 N/mm^2) che presenta le seguenti caratteristiche:

Resistenza caratteristica a compressione (cilindrica)	f_{ck} = 0.83× Rck = 24.90 N/mm^2
Resistenza media a compressione	$f_{cm} = f_{ck} + 8$ = 32.90 N/mm^2
Modulo elastico	$E_{cm}=22000 \cdot (f_{cm}/10)^{0.3}$= 31447 N/mm^2
Resistenza di calcolo a compressione	$f_{cd} = \alpha_{cc} \cdot f_{ck}/\gamma_c = 0.85 \cdot f_{ck}/1.5$= 14.11 N/mm^2
Resistenza a trazione media	$f_{ctm} = 0.30 \cdot f_{ck}^{2/3}$ = 2.56 N/mm^2
Resistenza a trazione	$f_{ctk} = 0.7 \cdot f_{ctm}$ = 1.79 N/mm^2
Resistenza a trazione di calcolo	$f_{ctd} = f_{ctk} / \gamma_c$= 1.19 N/mm^2
Tensioni ammissibili	σ_c = 9.75 N/mm^2
	τ_{c0} = 0.60 N/mm^2
	τ_{c1} = 1.73 N/mm^2

2.2. Acciaio per cemento armato

Per le armature metalliche si adottano tondini in acciaio del tipo B450C saldabile, controllato in stabilimento e 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 $f_{y\ misurato}/ f_{ynom}$	≤ 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 ammissibile	$\sigma_s = 260.00$ N/mm^2

2.3. Durabilità e prescrizioni sui materiali

Per garantire la durabilità delle strutture in calcestruzzo armato ordinario, esposte all'azione dell'ambiente, si devono adottare i provvedimenti atti a limitare gli effetti di degrado indotti dall'attacco chimico, fisico e derivante dalla corrosione delle armature e dai cicli di gelo e disgelo.

Al fine di ottenere la prestazione richiesta in funzione delle condizioni ambientali, nonché per la definizione della relativa classe, si fa riferimento alle indicazioni contenute nelle Linee Guida sul calcestruzzo strutturale edite dal Servizio Tecnico Centrale del Consiglio Superiore dei Lavori Pubblici ovvero alle norme UNI EN 206-1:2006 ed UNI 11104:2004.

Per le opere della presente relazione si adotta quanto segue:

manufatto scatolare

Fondazione	CLASSE DI ESPOSIZIONE XC2
Elevazione	CLASSE DI ESPOSIZIONE XC2

muri di sostegno di imbocco

Fondazione	CLASSE DI ESPOSIZIONE XC2
Elevazione	CLASSE DI ESPOSIZIONE XF1

Nel caso in esame la struttura si trova a permanente contatto con il terreno pertanto deve essere condotta la verifica a fessurazione per la combinazione TA5. Per questa verifica si considerano, in accordo con l'Istruzione n. I/SC/PS-OM/2298 "Sovraccarichi per il calcolo dei ponti ferroviari. Istruzioni per la progettazione, l'esecuzione ed il collaudo", i seguenti limiti di apertura delle fessure:

- superfici in contatto permanente con il terreno (superfici esterne) wk = 0.10 mm;
- superfici non in contatto permanente con il terreno (superfici interne) wk = 0.20 mm.

Il copriferro minimo assunto è pari a 4 cm.

L'apertura a fessure minima di 0.10 mm per le superfici esterne è portata a 0.15 mm essendo il copriferro dell'armatura trasversale (interna a quella longitudinale) pari a circa 6 cm (c/cmin≤1.5, con c_{min}=4cm).

3. NORMATIVA DI RIFERIMENTO

Il dimensionamento e la verifica degli elementi strutturali sono stati condotti nel rispetto delle vigenti normative di seguito riportate:

- D.M. 09/01/1996: "Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche";
- D.M. 16/01/1996: "Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e dei sovraccarichi";
- Circ. Min. 04/07/1996 n. 156 STC: "Istruzioni per l'applicazione delle Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e dei sovraccarichi";
- L. 05/11/1971 n. 1086: "Norme per la disciplina delle opere in conglomerato cementizio armato normale e precompresso ed a struttura metallica";
- D.M. 14/02/1992: "Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche" (valido per il metodo alle tensioni ammissibili);
- Circ. Min. 24/06/1993 n. 37406: "Istruzioni relative alle Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche" (valido per il metodo alle tensioni ammissibili);
- Circ. Min. 15/10/1996 n. 252: "Istruzioni relative alle Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche";
- L. 02/02/1974 n. 64: "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche";
- D.M. 16/01/1996: "Norme tecniche per le costruzioni in zona sismica";
- Ordinanza n. 3274: “Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica”;
- Circ. Min. 10/04/1997 n. 65: "Istruzioni per l'applicazione delle Norme tecniche per le costruzioni in zona sismica di cui al D.M: 16/01/1996";
- Asa Servizi di Ingegneria (Ferrovie dello Stato), Istruzione n. I/SC/PS-OM/2298 del 02/06/1995, Testo completo delle relative integrazioni: 13/01/1997: "Sovraccarichi per il calcolo dei ponti ferroviari. Istruzioni per la progettazione, l'esecuzione ed il collaudo";
- Ferrovie dello Stato - Istruzione F.S. 44/b (Testo aggiornato secondo il D.M. 16/01/1999): "Istruzioni tecniche per i manufatti sotto binario da costruire in zona sismica".

4. GEOMETRIA

Il sottovia è realizzato in cemento armato gettato in opera, ha sezione scatolare cava di dimensioni interne nette in retto bxh=10.40x6.00 m, che in obliquo, nella direzione degli assi dei binari, diventano 13.34x6.00 m. Le pareti laterali hanno spessore 110 cm (circa 140 cm in obliquo), la soletta superiore ha spessore 110 cm e quella inferiore 130 cm. Al di sotto del ballast è previsto uno strato di supercompattato di 10 cm di spessore. L'estradosso della soletta superiore è posto a circa 1.40 m dal piano del ferro. Si riporta nel seguito una sezione trasversale dell'opera.

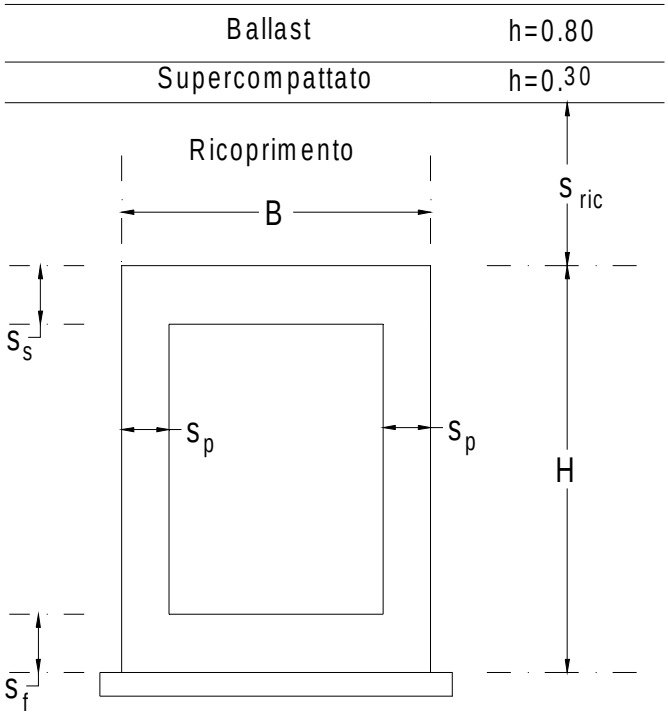


Figura 1 – Sezione trasversale dell'opera

B	= 13.34 m	larghezza scatolare
H	= 6.00 m	altezza totale
s_f	= 1.30 m	spessore soletta di fondazione
s_p	= 1.40 m	spessore pareti
s_s	= 1.10 m	spessore soletta superiore
s_{ric}	= 0.30 m	spessore del ricoprimento

L'opera interferisce con la falda in corrispondenza della soletta di fondazione, non la si considera però nei calcoli.

5. DEFINIZIONE DEL COEFFICIENTE DI SOTTOFONDO KS

Ai fini del calcolo strutturale dei tombini che attraversano la linea ferroviaria, la costante di sottofondo KS è stata definita come rapporto tra la pressione p esercitata dalla fondazione ed il corrispondente cedimento s:

$$K_S = p / s \qquad [kN/m^3]$$

K_S dipende in maniera significativa da:

- Profilo di rigidezza del sottosuolo nell'area di influenza della fondazione;
- Dimensioni della fondazione;
- Quota d'imposta della fondazione da p.c.;
- Pressione esercitata dalla fondazione sul terreno.

Alla luce del numero significativo di tombini per i quali è necessario definire il coefficiente K_S, si è deciso di sviluppare degli abachi attraverso i quali, una volta noti i valori di B (lato minore fondazione), z (quota d'imposta fondazione) e p (pressione esercitata dalla fondazione sul terreno) sia possibile definire il valore di K_S da utilizzare per l'opera in oggetto, avendo assunto un profilo di rigidezza del terreno cautelativo per rappresentare in modo adeguato le caratteristiche di deformabilità dell'intera tratta.

I calcoli parametrici del cedimento sono stati eseguiti secondo il metodo del cedimento monodimensionale in cui sono stati fatti variare i valori di B, z e p e quindi calcolati i corrispondenti valori di KS sulla base della definizione $K_S = p / s$.

Il calcolo è stato basato sulle seguenti ipotesi:

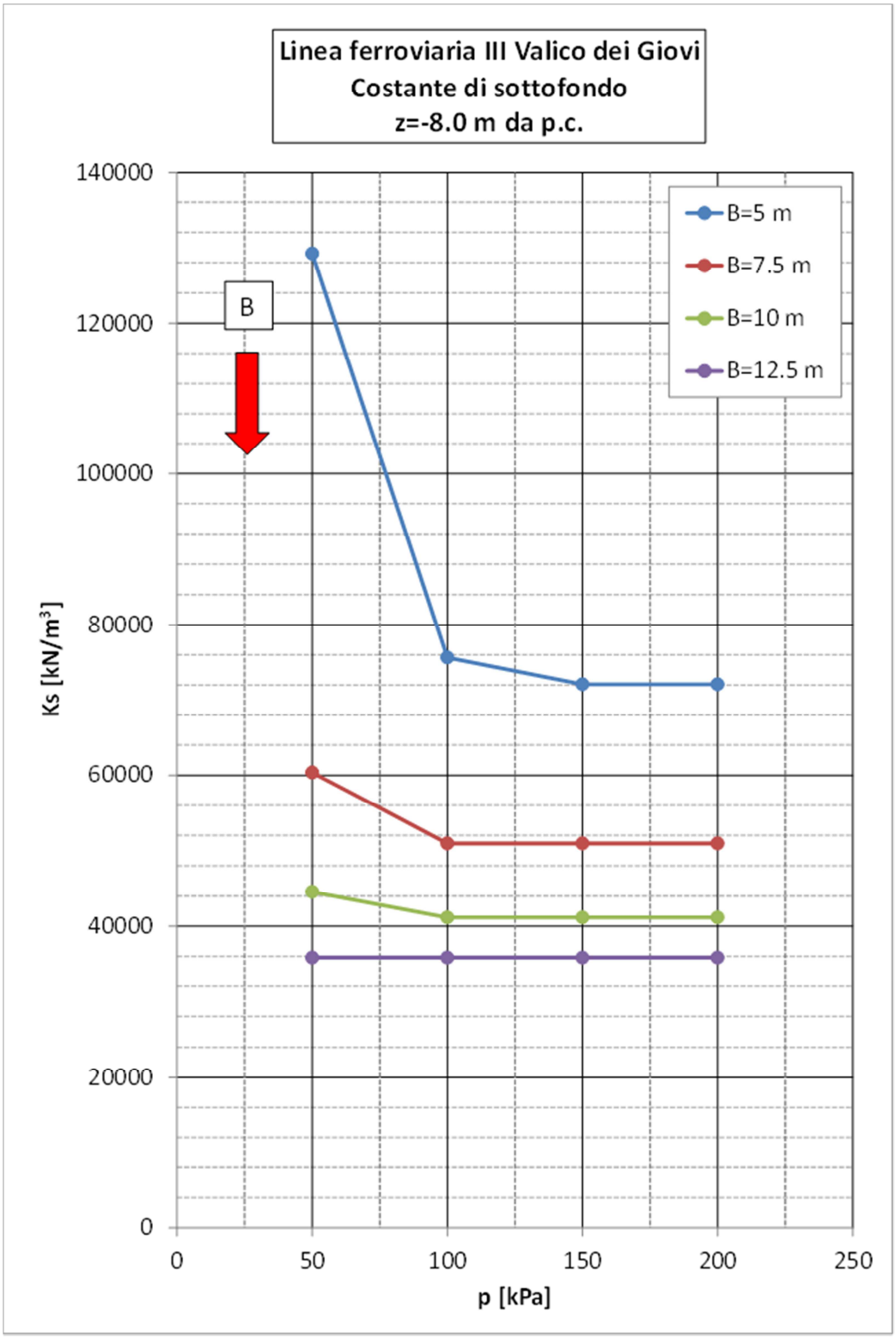
- comportamento rigido della fondazione;
- estensione dell'area di influenza lungo la quale è calcolato il cedimento fino alla quota in cui il carico trasmesso dalla fondazione comporta un incremento del 10% dello stato di sforzo iniziale presente nel terreno.

Sono stati considerati i seguenti valori dei parametri di progetto:

- Lato minore della fondazione B = 5.0, 7.5, 10.0 e 12.5 m;
- Quota d'imposta z = -8.0 m
- Pressione trasmessa dalla fondazione al terreno p = 50, 100, 150, 200 kPa;

Nell'abaco, per ogni quota d'imposta z considerata è definito il valore di K_S in funzione della larghezza della fondazione B e del carico totale p agente su di essa.

La costante di sottofondo adottata per la modellazione, funzione del tipo di terreno presente in situ, è pari a Ks = 30000 kN/m^3.


Linea ferroviaria III Valico dei Giovi
Costante di sottofondo
z=-8.0 m da p.c.
B=5 m
B=7.5 m
B=10 m
B=12.5 m
B
Ks [kN/m³]
p [kPa]
0
20000
40000
60000
80000
100000
120000
140000
0
50
100
150
200
250

6. ANALISI DEI CARICHI

Nel seguente paragrafo si descrivono i carichi elementari che agiscono sulla struttura in oggetto. Tali azioni sono definite secondo le vigenti normative e sono utilizzate per la generazione delle combinazioni di carico nell'ambito delle verifiche alle tensioni ammissibili eseguite. Tutti i carichi elementari si riferiscono a un concio longitudinale di larghezza unitaria, pertanto sono tutti definiti rispetto all'unità di lunghezza. Per i materiali si assumono i seguenti pesi specifici:

calcestruzzo armato:	$\gamma_{c.a.}$	= 25 kN/m³
rilevato:	γ_{ril}	= 20 kN/m³
sovrastruttura ferroviaria:	γ_{ric}	= 22 kN/m³
massicciata + armamento:	$\gamma_{ballast}$	= 18 kN/m³
acqua:	γ_{W}	= 10 kN/m³

6.1. Peso proprio strutture

Il peso proprio delle strutture è assegnato automaticamente dal programma di calcolo.

6.2. Carichi permanenti portati

Si assumono i seguenti carichi permanenti:

Ricoprimento soletta superiore	$s_{ric} \cdot \gamma_{ril}$
Supercompattato	$h_s \cdot \gamma_{ric}$
Ballast	$h_b \cdot \gamma_{ballast}$

I permanenti portati hanno l'andamento riportato in figura seguente:

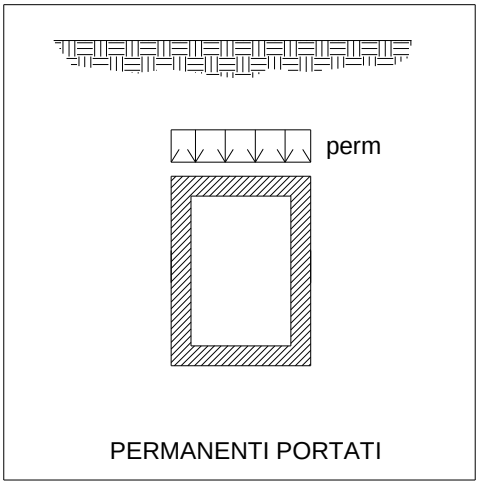


Figura 2 – Schema carichi permanenti

6.3. Spinta del terreno

Le azioni del terreno (spinta sulle pareti, peso del ricoprimento) vengono valutate per i seguenti parametri:

γ = 20 kN/m3

ϕ = 35°

c = 0

La pressione orizzontale efficace del terreno, σ'_h, sul manufatto viene posta pari ad una frazione della tensione verticale efficace litostatica:

$\sigma'_h = K \quad \sigma'_v$

con: σ'_v = tensione efficace verticale

K = coefficiente di spinta

La tensione verticale litostatica ha la seguente espressione:

$\sigma_v(z) = h_b \cdot \gamma_b + h_s \cdot \gamma_s + (s_{ric} + z) \cdot \gamma_t$ sopra la quota di falda

$\sigma_v(z) = h_b \cdot \gamma_b + h_s \cdot \gamma_s + (s_{ric} + z) \cdot \gamma_t + (z - z_f) \cdot (\gamma_t - \gamma_w)$ sotto la quota di falda

dove: s_{ric}= ricoprimento del manufatto

z = distanza dall'estradosso del manufatto

z_f = quota della falda

h_b = spessore del ballast

h_s = spessore del supercompattato

γ_t = peso specifico del terreno

γ_b = peso specifico del ballast

γ_w = peso specifico dell'acqua

γ_s = peso proprio del supercompattato

La pressione orizzontale ha l'andamento riportato in figura seguente:

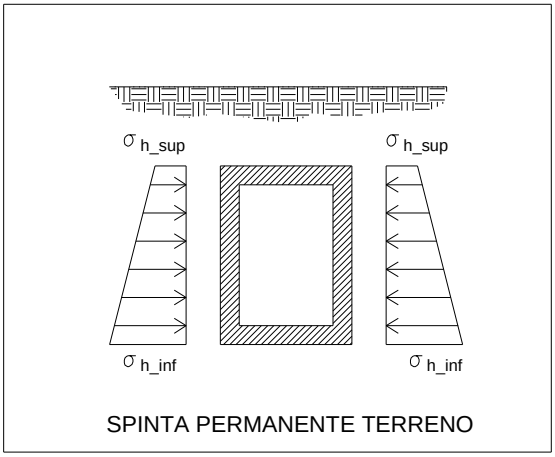


Figura 3 – Schema carichi spinta terreno

La spinta permanente del terreno viene analizzata in tre diverse condizioni:

- $K = K_0 = 1\text{-}\sin\phi$ per entrambi i montanti
- $K = K_0 = 1\text{-}\sin\phi$ per il montante sinistro
  $K = 0.6\ K_0 = 0.6\ (1\text{-}\sin\phi)$ per il montante destro
- $K = 0.6\ K_a = 0.6\ (1\text{-}\sin\phi)/(1+\sin\phi)$ per entrambi i montanti

6.4. Spinte e sottospinte idrauliche

Per la posizione della falda rispetto all'opera in oggetto si hanno azioni idrostatiche sulla parte inferiore dei piedritti e sulla soletta di fondazione. Esse risultano pari a:

- Spinta orizzontale sui piedritti: $\sigma_h (z) = (z - z_f) \cdot \gamma_w$
- Sottospinta sulla soletta inferiore: $\sigma_v (z) = (z_s - z_f) \cdot \gamma_w$

  dove z_s = quota della soletta inferiore.

6.5. Sovraccarico accidentale LM71

Il sovraccarico accidentale LM71 è assunto come in figura.

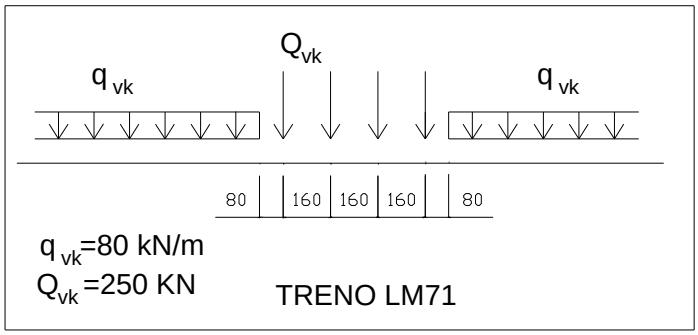


Figura 4 – Schema di carico treno LM71

dove:

Qvk = 4 assi da 250 kN disposti ad interasse di 1.60 m

qk = carico distribuito di 80 kN/m in entrambe le direzioni, a partire da 0.80 m dagli assi di estremità e per una lunghezza illimitata

Lo scatolare viene assimilato ad un ponte di categoria A, pertanto tutti i carichi sopra descritti vengono moltiplicati per un coefficiente di adattamento α = 1.1.

6.6. Sovraccarico accidentale SW2

Il sovraccarico accidentale SW/2 è assunto come in figura.

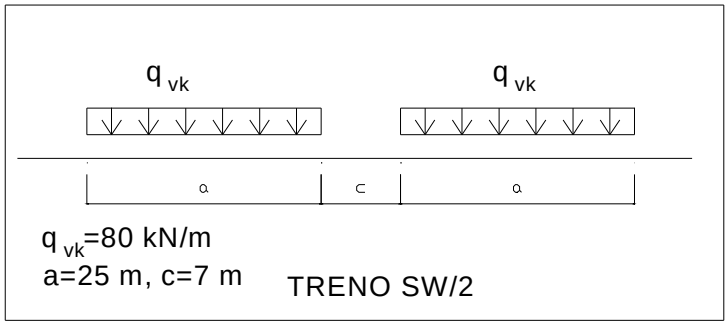


Figura 5 – Schema di carico treno SW2

dove:

qk = carico distribuito di 150 kN/m su due stese per una lunghezza ciascuna pari a 25 m e intervallato da 7 m

Lo scatolare viene assimilato ad un ponte di categoria A, pertanto tutti i carichi sopra descritti vengono moltiplicati per un coefficiente di adattamento α = 1.0.

6.7. Incremento dinamico

Tutti i carichi accidentali ferroviari vengono amplificati per un coefficiente dinamico determinato in relazione ad una linea con ridotto standard manutentivo.

Per scatolari di luce netta inferiore a 8.00 m e altezza netta inferiore a 5.00 m esso vale $\phi_3 = 1.35$.

Per gli scatolari che non rispettano tali dimensioni vale $\phi_3 = 0.73 + 2.16 / (\sqrt{L_\phi} - 0.2)$

con $L_\phi = k \cdot L_m$

$k = 1.3$ essendo il numero di binari n=3

$L_m = 1/n \cdot (L_1 + L_2 + ... + L_n)$ assumendo come lunghezze le lunghezze dei piedritti e della soletta

Per ricoprimenti maggiori di 1.0 m il coefficiente dinamico può essere ridotto secondo l'espressione:

$\phi_{3,rid} = \phi_3 - (h - 1.00) / 10$

essendo h la distanza tra estradosso soletta superiore e faccia superiore delle traversine e dovendo comunque risultare $\phi_{3,rid}>1$.

Per h maggiore di 2.50 m il coefficiente dinamico può essere assunto unitario.

6.8. Spinta del terreno per sovraccarico LM71 e SW2

La pressione orizzontale efficace del terreno, σ'_{hq}, sul manufatto dovuta al transito del treno LM71 o SW/2 viene posta pari ad una frazione della tensione verticale efficace accidentale:

$\sigma'_{hq} = K \cdot \sigma'_{vq}$

con: σ'_{vq} = tensione efficace verticale dovuta al treno LM71 o SW/2

$K = K_0 = 1 - \sin\phi$

avendo assunto un coefficiente di spinta pari a quello a riposo per l'elevata rigidezza dello scatolare.

La pressione orizzontale accidentale viene applicata sul solo montante sinistro, secondo l'andamento riportato in figura

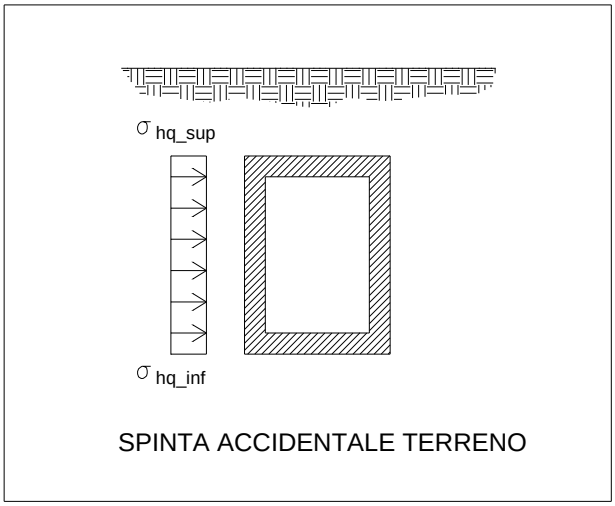


Figura 6 – Schema di carico spinta del terreno per sovraccarico ferroviario

6.9. Avviamento LM71

La forza di avviamento del treno LM71 viene assunta pari a:

$Q=33 \cdot L$ kN

con L la lunghezza di binario interessata dallo scatolare, assunta uguale alla larghezza dello scatolare stesso. Tale risultante non dovrà superare 1000 KN.

La risultante di avviamento viene ripartita sulla soletta superiore con andamento riportato in figura:

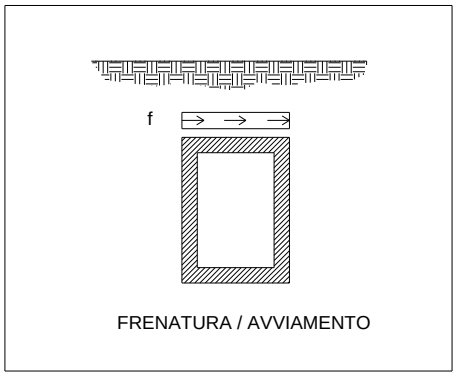


Figura 7 – Schema di carico avviamento LM71

6.10. Frenatura SW/2

La forza di frenatura del treno SW/2 viene assunta pari a:

$Q=35 \cdot L$ KN

La risultante di frenatura viene ripartita sulla soletta superiore con andamento riportato in figura precedente.

6.11. Temperatura

Si assume una variazione termica uniforme di $\Delta T=15°C$ sulla soletta superiore. Poiché gli effetti della variazione termica possono essere valutati in corrispondenza di un modulo di deformabilità 3 volte inferiore, gli effetti termici equivalgono a quelli prodotti da una variazione termica pari a $\Delta T=15/3=5°C$ e modulo di deformabilità intero.

6.12. Carichi sismici

Le azioni sismiche sono state valutate considerando l'opera in zona a bassa sismicità (S=6). Come prescritto dalle norme ferroviarie, la verifica in condizione sismica è condotta solo nei casi in cui il ricoprimento è inferiore alla metà dell'altezza totale dello scatolare, $s_{ric}<H/2$.

Come riportato nell'istruzione FS 44/b gli effetti sismici possono essere valutati mediante l'analisi statica della struttura soggetta a:

- un sistema di forze orizzontali parallele alla direzione ipotizzata per il sisma, la risultante di tali forze viene valutata con l'espressione:

  $F_h = C \cdot R \cdot I \cdot \varepsilon \cdot \beta \cdot W$

  essendo:

  $C = (S - 2) / 100$ coefficiente di intensità sismica

  $S = 6$ grado di sismicità

  $R = 1.0$ coefficiente di risposta

  $I = 1.0$ coefficiente di protezione sismica

  $\varepsilon = 1.3$ coefficiente di fondazione

  $\beta = 1.0$ coefficiente di struttura

  $W =$ $P + Q$ il peso delle masse strutturali, ove:

  P = pesi propri + sovraccarichi permanenti

  $Q = s \cdot Q_t$ peso convenzionale dei treni sismici

- un sistema di forze verticali distribuite sulla struttura la cui risultante sarà:

  $F_v = m \cdot C \cdot I \cdot \varepsilon \cdot \beta \cdot W$, con $m = 2$

6.12.1. *Sovraccarico ferroviario in fase sismica*

In osservanza alle prescrizioni contenute nell'istruzione FS 44/b, la verifica in condizioni sismiche va condotta considerando un particolare sovraccarico detto "treno sismico", avente le seguenti caratteristiche:

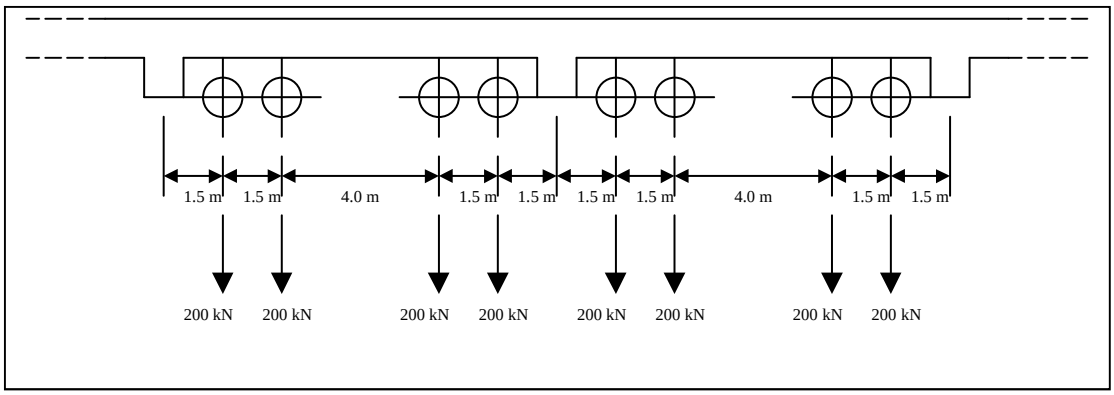


Figura 8 – Schema di carico treno sismico

La risultante del sovraccarico da considerarsi viene valutata secondo la seguente espressione:

$Q_s = s \cdot Q_t = \Sigma i\ Ai$

dove:

Q_t rappresenta il peso degli assi da 200 kN del treno teorico, disposti ad interasse come in figura, ove la sommatoria è estesa a tutti gli assi che insistono sul manufatto (n).

$s = 1 + 0.5 \cdot (n - 1)$ rappresenta il coefficiente di contemporaneità di transito di più treni ed n il numero di binari previsti.

In relazione alla larghezza B e alla larghezza di distribuzione trasversale b_d dello scatolare, si avrà un numero N di assi di carico che interessano lo scatolare per cui la risultante del treno sismico vale:

$Q_s = s \cdot Q_t / b_d \cdot n$ kN

6.12.2. *Forze di inerzia*

La forza d'inerzia dovuta al peso dello scatolare è data da una azione ripartita in direzione orizzontale pari al peso dell'elemento considerato, moltiplicato coefficiente di intensità sismica:

$f_{is} = C \cdot R \cdot I \cdot \varepsilon \cdot \beta \cdot s_i \cdot \gamma_{cls}$

La forza d'inerzia dovuto al peso del ricoprimento, del ballast, del supercompattato e del sovraccarico ferroviario sismico viene ottenuta moltiplicando il rispettivi pesi per il coefficiente di intensità sismica:

$f_{is} = C \cdot R \cdot I \cdot \varepsilon \cdot \beta \cdot (Qs / (L_{tot} \cdot b_d) + p_{perm})$

con:

L_{tot} = larghezza dello scatolare;

b_d = larghezza di ripartizione trasversale dei carichi

p_{perm} = peso del ballast, del supercompattato e del ricoprimento a metro quadro di superficie

Q_s = risultante del treno sismico sullo scatolare.

6.12.1. Spinta sismica del terreno

Le strutture scatolari appartengono a una categoria di opera soggetta a vincoli che ne limitano gli spostamenti orizzontali e le rotazioni. Valgono allora le seguenti considerazioni:

- in tale categoria di opera non sempre vengono raggiunte nel terreno condizioni corrispondenti allo stato limite di equilibrio attivo;
- nel momento in cui risulta plausibile che le condizioni di spinta a tergo dell'opera non raggiungono quelle corrispondenti all'equilibrio limite attivo, dal punto di vista concettuale l'applicazione della teoria di Mononobe-Okabe risulterebbe non più giustificabile.

Al fine di superare tale problema nelle analisi sismiche si adotterà un coefficiente sismico k_h pari all'accelerazione sismica e quindi $k_h = C \cdot R \cdot I \cdot \varepsilon \cdot \beta$.

La risultante della spinta sismica si ottiene integrando le pressioni sull'altezza dello scatolare.

L'incremento di spinta sismica, pari alla differenza tra la risultante di spinta in fase sismica e statica, viene applicata, come condizione più sfavorevole su entrambi i piedritti, con uguale intensità e verso opposto, con una distribuzione di pressioni triangolare con vertice all'intradosso della soletta di fondazione, come riportato in figura seguente.

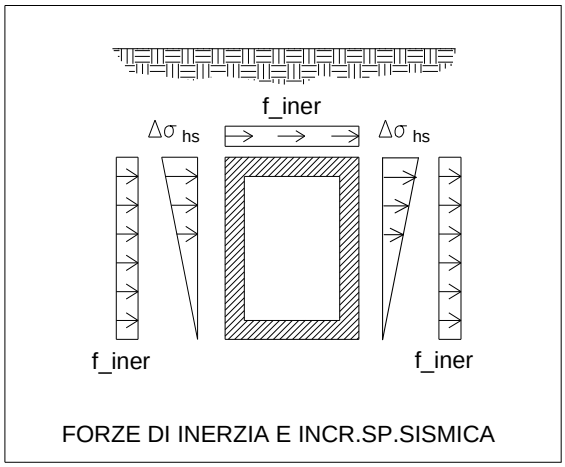


Figura 9 – Schema carichi forze di inerzia e incremento di spinta sismico

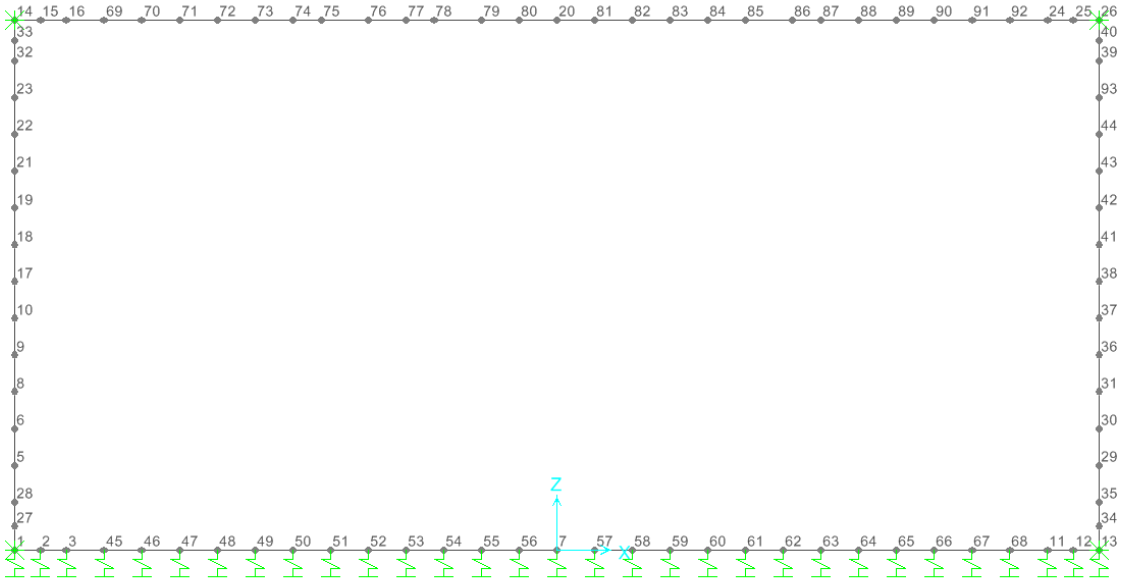
7. CALCOLO DELLE SOLLECITAZIONI

La verifica dello scatolare viene condotto con programma di calcolo automatico che determina, tenendo conto delle azioni descritte, le sollecitazioni massime nei singoli elementi strutturali; nei nodi significativi sono poi effettuate le verifiche di sicurezza con il metodo delle tensioni ammissibili.

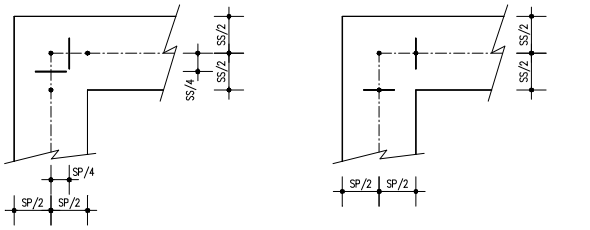
7.1. Modello di calcolo

Il modello di calcolo è costituito da un telaio piano che rappresenta una striscia di scatolare di larghezza unitaria. Le solette, di copertura e fondazione, ed i montanti sono modellati da elementi trave, posti in corrispondenza della rispettiva linea media. L'elemento trave che rappresenta la soletta di fondazione è considerato poggiante su di un letto di molle con assegnata costante di Winkler.

Il modello di calcolo, insieme alla numerazione dei nodi, è riportato in figura successiva.



Le verifiche strutturali sono eseguite in corrispondenza delle sezioni più sollecitate. Con riferimento alle sezioni di incastro, i valori di sollecitazione flettente e tagliante – utilizzati per le verifiche – sono stati valutati come illustrato nel seguente schema:



VERIFICHE A FLESSIONE VERIFICHE A FESSURAZIONE E TAGLIO

Nello specifico le azioni per le verifiche flessionali sono ricavate dal modello numerico in corrispondenza della sezione posta a un quarto dello spessore dall'asse dell'elemento finito, l'azione tagliante e le azioni per le verifiche a fessurazione vengono invece valutata in corrispondenza della sezione posta a un mezzo dello spessore dall'asse dell'elemento finito.

7.2. Geometria delle aste

Gli spessori delle aste nel modello rispettano la geometria dello scatolare. In particolare:

- Soletta inferiore: Sezione 100x130 cm
- Soletta superiore: Sezione 100x110 cm
- Pareti laterali: Sezione 100x140 cm

7.3. Condizioni di carico

Si analizzano le seguenti condizioni di carico elementari

1. Pesi propri
2. Permanenti portati, spinta e sottospinta idraulica
3. Spinta del terreno simmetrica per $K=K_0$
4. Spinta del terreno per $K=K_0$ (montante sinistro) e $K=0.6K_0$ (montante destro)
5. Spinta del terreno simmetrica per $K=0.6K_a$
6. Accidentale LM71 in mezzeria
7. Accidentale LM71 in appoggio
8. Spinta del terreno a riposo per LM71 montante sinistro
9. Avviamento LM71
10. Accidentale SW/2 in mezzeria
11. Spinta del terreno a riposo per SW/2 montante sinistro
12. Frenatura SW/2
13. Temperatura
14. Treno sismico, spinta della terra, spinta idraulica e forze inerziali in fase sismica

7.4. Analisi dei carichi sulle aste e ai nodi del modello

In relazione alle dimensioni dello scatolare in oggetto ed all'effettivo ricoprimento, si riportano le azioni sulle aste del modello di calcolo, per le diverse condizioni di carico elementari riportate in precedenza.

CONDIZIONE DI CARICO N°1: Peso proprio

Applicato automaticamente dal programma di calcolo ad ogni asta.

CONDIZIONE DI CARICO N°2: Permanenti portati

Soletta superiore:

Elemento	Spess.	γ	Peso
Ballast	0.80 m	18 kN/m^3	14.40 kN/m
Supercompattato	0.30 m	22 kN/m^3	6.60 kN/m
Ricoprimento	0.30 m	20 kN/m^3	6.00 kN/m
Totale			**27.00 kN/m**

CONDIZIONE DI CARICO N°2: Spinta idraulica e sottopressione in esercizio

L'interferenza della falda con l'opera in oggetto è trascurabile.

CONDIZIONE DI CARICO N°3: Spinta a riposo simmetrica

$K = K_0 = 1\text{-}\sin\phi = 0.426$

$\sigma_{h1} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.1/2] \cdot c = 16.20 \cdot c$ kN/m

$\sigma_{h2} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 1.3/2)] \cdot c = 77.61 \cdot c$ kN/m

$F1 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.0/4] \cdot 1.1/2 \cdot c = 7.62 \cdot c$ kN

$F2 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 3 \cdot 1.3/4)] \cdot 1.3/2 \cdot c = 52.25 \cdot c$ kN

c = coefficienti moltiplicativi: parete sx =1.0, parete dx=1.0

Parete sinistra	Parete destra
σ_{h1} = 16.20 kN/m	**σ_{h1} = 16.20 kN/m**
σ_{h2} = 77.61 kN/m	**σ_{h2} = 77.61 kN/m**
F1 = 7.62 kN	**F1 = 7.62 kN**
F2 = 52.25 kN	**F2 = 52.25 kN**

CONDIZIONE DI CARICO N°4: Spinta a riposo sulla parete sinistra

$K = K_0 = 1-\sin\phi = 0.426$

$\sigma_{h1} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.1/2] \cdot c = 16.20 \cdot c$ kN/m

$\sigma_{h2} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 1.3/2)] \cdot c = 77.61 \cdot c$ kN/m

$F1 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.0/4] \cdot 1.1/2 \cdot c = 7.62 \cdot c$ kN

$F2 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 3 \cdot 1.3/4)] \cdot 1.3/2 \cdot c = 52.25 \cdot c$ kN

c = coefficienti moltiplicativi: parete sx =1.0, parete dx=0.6

Parete sinistra	Parete destra
σ_{h1} = 16.20 kN/m	**σ_{h1} = 9.72 kN/m**
σ_{h2} = 77.61 kN/m	**σ_{h2} = 46.57 kN/m**
F1 = 7.62 kN	**F1 = 4.57 kN**
F2 = 52.25 kN	**F2 = 31.35 kN**

CONDIZIONE DI CARICO N°5: Spinta attiva simmetrica

$K = K_a = (1-\sin\phi)/(1+\sin\phi) = 0.271$

$\sigma_{h1} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.1/2] \cdot c = 16.20 \cdot c$ kN/m

$\sigma_{h2} = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 1.3/2)] \cdot c = 77.61 \cdot c$ kN/m

$F1 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot 1.0/4] \cdot 1.1/2 \cdot c = 7.62 \cdot c$ kN

$F2 = 0.426 \cdot [18 \cdot 0.8 + 22 \cdot 0.3 + 20 \cdot 0.3 + 20 \cdot (1.1 + 6.0 + 3 \cdot 1.3/4)] \cdot 1.3/2 \cdot c = 52.25 \cdot c$ kN

C = coefficienti moltiplicativi: parete sx =0.6, parete dx=0.6

Parete sinistra	Parete destra
σ_{h1} = 6.18 kN/m	**σ_{h1} = 6.18 kN/m**
σ_{h2} = 29.59 kN/m	**σ_{h2} = 29.59 kN/m**
F1 = 2.91 kN	**F1 = 2.91 kN**
F2 = 19.92 kN	**F2 = 19.92 kN**

Coefficiente dinamico

$L_m = 1/3 \cdot (7.15 + 14.74 + 7.15) = 9.68$ m (le lunghezze sono valutate lungo la linea media)

$L_\phi = 1.3 \cdot 9.68 = 12.58$ m

$\phi_3 = 1.375$

Il ricoprimento dello scatolare è pari a 1.40 m, nei calcoli non si considera la riduzione.

Ripartizione trasversale del carico:

Diffondendo il carico nel ricoprimento, supponendo una diffusione di 1:4 all'interno del ballast, di ϕ nel terreno di ricoprimento e all'interno del supercompattato e 1:1 all'interno della soletta, l'impronta di carico in senso trasversale all'estradosso soletta superiore vale:

$\mathbf{b_d} = 2.60 + 2\,(0.8/4 + 0.60 \tan 35° + 1.1/2) =$ **4.94 m**

Si ha sovrapposizione dei carichi dei tre binari che sono posti a interasse di 4.5 m, si assume quindi:

$\mathbf{b_d} =$ **4.50 m**

CONDIZIONE DI CARICO N°6: Treno LM71 in mezzeria

Il treno LM71 viene schematizzato con un carico ripartito di

$q1 = (4 \cdot 250) / (4 \cdot 1.6) = 156$ kN/m

su una lunghezza di $Lq = 4 \cdot 1.6 = 6.4$ m e con un carico ripartito di

$q2 = 80$ kN/m

all'esterno di Lq.

Il coefficiente di adattamento α vale 1.1.

Per la ripartizione del carico in senso trasversale, il carico verticale dovuto al transito del treno vale pertanto:

$\mathbf{q_{sf1}} = \phi_3\, \alpha\, q_1 / b_d = 1.375 \cdot 1.1 \cdot 156 / 4.50 =$ **52.48 kN/m** sulla parte centrale della soletta per uno sviluppo di 6.4 m

$\mathbf{q_{sf2}} = \phi_3\, \alpha\, q_2 / b_d = 1.375 \cdot 1.1 \cdot 80 / 4.50 =$ **26.87 kN/m** sulla parte di estremità della soletta all'esterno del carico q_{sf1}

$\mathbf{P_{sf2}} = q_{sf2} \cdot sp / 2 = 26.87 \cdot 1.4 / 2 =$ **18.81 kN**

CONDIZIONE DI CARICO N°7: Treno LM71 in appoggio

Il carico verticale dovuto al transito del treno vale:

$\mathbf{q_{sf1}} = \phi_3\, \alpha\, q_1 / b_d = 1.375 \cdot 1.1 \cdot 156 / 4.50 =$ **52.48 kN/m** sulla soletta per uno sviluppo di 6.4 m a partire dalla parete sinistra dello scatolare

$\mathbf{P_{sf1}} = q_{sf1} \cdot sp / 2 = 52.48 \cdot 1.4 / 2 =$ **36.74 kN**

q_{sf2} = $\phi_3 \alpha q_2 / b_d$ = 1.375 · 1.1 · 80 / 4.14 = **26.87 kN/m** sulla parte della soletta all'esterno del carico q_{sf1}

P_{sf2} = q_{sf2} · sp / 2 = 26.87 · 1.4 / 2 = **18.81 kN**

CONDIZIONE DI CARICO N°8: Spinta a riposo treno LM71 sulla parete sinistra

Coefficiente di spinta: K = 0.426.

In corrispondenza degli estremi delle aste che rappresentano le pareti, la pressione della terra dovuta al transito del LM71 vale:

σ_h = K α q_1 / b_d = **16.29 kN/m**

Le risultanti orizzontali della pressione del terreno in corrispondenza della soletta superiore ed inferiore sono:

F1 = σ_h · ss/2 = **8.96 kN**

F2 = σ_h · ss/2 = **10.59 kN**

CONDIZIONE DI CARICO N°9: Avviamento treno LM71

La forza di avviamento a metro lineare viene valutata come:

p = max(1000, 33 x L_{tot})/L_{calc}/b_d = max (1000, 33 · 16.14) / 14.74 / 4.50 = **8.03 kN/m**

con f = 33 kN/m: forza di avviamento LM71 per binario

100 kN: massima forza di avviamento

L_{tot} = larghezza totale del tombino = 16.14 m

L_{calc} = larghezza di calcolo del tombino = 14.74 m

b_d = larghezza trasversale collaborante = 4.50 m

CONDIZIONE DI CARICO N°10: Treno SW/2 in mezzeria

Il treno SW/2 viene schematizzato con un carico ripartito di

q_1 = 150 kN/m

su una lunghezza di L = 15.0 m

Il coefficiente di adattamento α vale 1.00.

Per la diffusione del carico in senso trasversale, il carico verticale dovuto al transito del treno vale pertanto:

q_{sf} = $\phi_3 \alpha q_1 / b_d$ = **45.80 kN/m**

P_{sf1} = q_{sf} · sp / 2 = **32.06 kN**

CONDIZIONE DI CARICO N°11: Spinta a riposo treno SW/2 sulla parete sinistra

Coefficiente di spinta: K = 0.426

In corrispondenza degli estremi delle aste che rappresentano le pareti, la pressione della terra dovuta al transito del SW/2 vale:

$\sigma_h = K \alpha q_1 / b_d =$ **14.21 kN/m**

Le risultanti orizzontali della pressione del terreno in corrispondenza della soletta superiore ed inferiore sono:

F1 = $\sigma_h \cdot ss/2 =$ **7.82 kN**

F2 = $\sigma_h \cdot ss/2 =$ **9.24 kN**

CONDIZIONE DI CARICO N°12: Frenatura treno SW/2

La forza di frenatura viene valutata come

$\mathbf{p} = 35 \cdot L_{tot}/L_{calc} / b_d =$ **8.52 kN/m**

con f = 35 kN/m: forza di frenatura SW/2 per binario

L_{tot} = larghezza totale del tombino = 16.14 m

L_{calc} = larghezza di calcolo del tombino = 14.74 m

b_d = larghezza trasversale collaborante = 4.50 m

CONDIZIONE DI CARICO N°13: Variazioni termiche

Una variazione termica uniforme della soletta superiore pari a

$\Delta T = 15°C$

ed un modulo di deformabilità ridotto ad 1/3 equivalgono ad assumere una variazione termica di

ΔT=15/3=**5°C**

CONDIZIONE DI CARICO N°15: Azioni sismiche

Spinta sismica del terreno sul montante sinistro:

$\Delta F_{s\text{-}ter} = 0.052 \cdot ((16.20 + 77.61) /2 \cdot 7.2) = +17.56$ kN

Per il calcolo della spinta dovuta al sovraccarico ferroviario (treno sismico), si è utilizzato l'equivalente tagliante $P_{2s} = 100.0$ kN/m.

$\Delta F_{s\text{-}treno} = 0.426 (1+0.052) \cdot 100 = 44.86$ kN

$\Delta F_s = \Delta F_{s\text{-}ter} + \Delta F_{s\text{-}treno} = 62.42$ kN

$\Delta\sigma_{hs1} = \Delta F_s \cdot 2 / 7.20 =$ **17.34 kN/m**

$\Delta\sigma_{hs2} = 0$

Sovraccarico ferroviario in fase sismica:

Date le dimensioni dello scatolare, i binari non risultano interagenti, da cui: s = 1 e quindi la risultante del treno sismico è: $Q_s = 200 \cdot 8 = 1600$ kN

Dalla tabella B.17.1 dell'Istruzione 44b, si ricavano gli equivalenti flettenti e taglianti del carico sismico per la larghezza dello scatolare, L = 16.14 m:

P_{1s} = 83.50 kN/m (equivalente flettente)

P_{2s} = 100.00 kN/m (equivalente tagliante)

Dividendo per la larghezza di ripartizione, si ottiene:

P_{1s} = 83.50 / 4.50 = **18.56 kN/m**

P_{2s} = 100.0 / 4.50 = **22.22 kN/m**

In corrispondenza dei piedritti:

$F_{11s} = F_{12s}$ = 18.56 · 1.40 / 2 = **12.99 kN**

$F_{21s} = F_{22s}$ = 22.22 · 1.40 / 2 = **15.56 kN**

Forze di inerzia orizzontali:

$f_{iw} = 0.052 \cdot s_i \cdot \gamma_{cls}$ applicato automaticamente dal programma di calcolo ad ogni asta

f_{is} = 0.052 (1600 / 16.14 / 4.50 + 27.00) = **2.55 kN/m**

Forze di inerzia verticali:

$f_{iw} = \pm 0.104 \cdot s_i \cdot \gamma_{cls}$ applicato automaticamente dal programma di calcolo ad ogni asta

f_{is} = ±0.104 (1600 / 16.14 / 4.50 + 27.00) = **±5.10 kN/m**

7.5. Combinazioni di carico

In relazione alle condizioni elementari di carico riportate ai paragrafi precedenti, le verifiche di sicurezza vengono condotte per le seguenti combinazioni di carico:

Comb. TA1	num.comb 54	da comb 1	a comb 54
Comb. TA2	num.comb 54	da comb 55	a comb 108
Comb. TA3	num.comb 6	da comb 109	a comb 114

Comb. TA5 num.comb 18 da comb 115 a comb 132

Sisma num.comb 2 da comb 133 a comb 134

All'interno delle 54 combinazioni TA1 e TA2 le prime 18 combinazioni si riferiscono rispettivamente al gruppo di verifica 1, le seconde 18 al gruppo 3_a e le terze 18 al gruppo di verifica 3_b, così definiti:

	Accidentale verticale (LM71 o SW/2)	Frenatura o avviamento
Gruppo 1	1.00	0.00
Gruppo 3_a	1.00	1.00
Gruppo 3_b	0.70	1.00

All'interno di ognuna delle 18 combinazioni, le prime, le seconde e le terze 6 combinazioni si riferiscono rispettivamente alle tre condizioni di spinta statica del terreno (K_0 sui due montanti, K_0 sul montante sinistro e $0.6K_0$ sul montante destro, $0.6K_a$ sui due montanti). All'interno di ognuna delle sei combinazioni, le prime tre e le seconde tre si riferiscono rispettivamente alle condizioni con + e – ΔT, mentre ognuna delle tre combinazioni si riferisce alle condizioni LM71 in mezzeria, LM71 in appoggio e SW/2 in mezzeria.

All'interno delle 6 combinazioni TA3, non essendo presente il sovraccarico accidentale e la relativa frenatura/avviamento, le prime, le seconde e le terze 2 combinazioni si riferiscono rispettivamente alle tre condizioni di spinta statica del terreno (K_0 sui due montanti, K_0 sul montante sinistro e $0.6K_0$ sul montante destro, $0.6K_a$ sui due montanti). All'interno di ognuna delle 2 combinazioni, la prima e la seconda si riferiscono rispettivamente alle condizioni con + e – ΔT.

All'interno delle 18 combinazioni TA5, essendoci un solo gruppo di verifica, così definito:

	Accidentale verticale (LM71 o SW/2)	Frenatura o avviamento
Gruppo 6	0.80	0.80

le prime, le seconde e le terze 6 combinazioni si riferiscono rispettivamente alle tre condizioni di spinta statica del terreno (K_0 sui due montanti, K_0 sul montante sinistro e $0.6K_0$ sul montante destro, $0.6K_a$ sui due montanti). All'interno di ognuna delle sei combinazioni, le prime tre e le seconde tre si riferiscono rispettivamente alle condizioni con + e – ΔT, mentre ognuna delle tre combinazioni si riferisce alle condizioni LM71 in mezzeria, LM71 in appoggio e SW/2 in mezzeria.

Le due combinazioni sismiche, se presenti, si riferiscono a sisma + e sisma -, con le componenti sismiche sommate come da normativa ($\alpha = (\alpha_h^2 + \alpha_v^2)^{1/2}$).

Gli effettivi coefficienti moltiplicativi adottati nelle 134 combinazioni di carico, in relazione alle 15 condizioni elementari di carico, sono riportati nelle tabelle che seguono.

Le verifiche di sicurezza in termini tensionali vengono condotte per le sole combinazioni TA1, TA2, TA3 e Fase sismica, rispettivamente rappresentate dalle combinazioni da 1 a 114 e da 133 a 134, essendo le altre sicuramente verificate. Le verifiche a fessurazione vengono condotte per le combinazioni da 115 a 132.

Le combinazioni di carico studiate sono le seguenti:

Combinazione T.A.1													
n°	**Nome**	**Condizioni di carico**											
		1+2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1	TA1G1A1	1	1	-	-	1	-	1	-	-	-	-	0.6
2	TA1G1B1	1	1	-	-	-	1	1	-	-	-	-	0.6
3	TA1G1C1	1	1	-	-	-	-	-	-	1	1	-	0.6
4	TA1G1D1	1	1	-	-	1	-	1	-	-	-	-	-0.6
5	TA1G1E1	1	1	-	-	-	1	1	-	-	-	-	-0.6
6	TA1G1F1	1	1	-	-	-	-	-	-	1	1	-	-0.6
7	TA1G1A2	1	-	1	-	1	-	1	-	-	-	-	0.6
8	TA1G1B2	1	-	1	-	-	1	1	-	-	-	-	0.6
9	TA1G1C2	1	-	1	-	-	-	-	-	1	1	-	0.6
10	TA1G1D2	1	-	1	-	1	-	1	-	-	-	-	-0.6
11	TA1G1E2	1	-	1	-	-	1	1	-	-	-	-	-0.6
12	TA1G1F2	1	-	1	-	-	-	-	-	1	1	-	-0.6
13	TA1G1A3	1	-	-	1	1	-	1	-	-	-	-	0.6
14	TA1G1B3	1	-	-	1	-	1	1	-	-	-	-	0.6
15	TA1G1C3	1	-	-	1	-	-	-	-	1	1	-	0.6
16	TA1G1D3	1	-	-	1	1	-	1	-	-	-	-	-0.6
17	TA1G1E3	1	-	-	1	-	1	1	-	-	-	-	-0.6
18	TA1G1F3	1	-	-	1	-	-	-	-	1	1	-	-0.6
19	TA1G31A1	1	1	-	-	1	-	1	1	-	-	-	0.6
20	TA1G31B1	1	1	-	-	-	1	1	1	-	-	-	0.6
21	TA1G31C1	1	1	-	-	-	-	-	-	1	1	1	0.6
22	TA1G31D1	1	1	-	-	1	-	1	1	-	-	-	-0.6
23	TA1G31E1	1	1	-	-	-	1	1	1	-	-	-	-0.6
24	TA1G31F1	1	1	-	-	-	-	-	-	1	1	1	-0.6
25	TA1G31A2	1	-	1	-	1	-	1	1	-	-	-	0.6
26	TA1G31B2	1	-	1	-	-	1	1	1	-	-	-	0.6
27	TA1G31C2	1	-	1	-	-	-	-	-	1	1	1	0.6
28	TA1G31D2	1	-	1	-	1	-	1	1	-	-	-	-0.6
29	TA1G31E2	1	-	1	-	-	1	1	1	-	-	-	-0.6
30	TA1G31F2	1	-	1	-	-	-	-	-	1	1	1	-0.6
31	TA1G31A3	1	-	-	1	1	-	1	1	-	-	-	0.6
32	TA1G31B3	1	-	-	1	-	1	1	1	-	-	-	0.6
33	TA1G31C3	1	-	-	1	-	-	-	-	1	1	1	0.6
34	TA1G31D3	1	-	-	1	1	-	1	1	-	-	-	-0.6

Combinazione T.A.1													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
35	TA1G31E3	1	-	-	1	-	1	1	1	-	-	-	-0.6
36	TA1G31F3	1	-	-	1	-	-	-	-	1	1	1	-0.6
37	TA1G32A1	1	1	-	-	0.7	-	0.7	1	-	-	-	0.6
38	TA1G32B1	1	1	-	-	-	0.7	0.7	1	-	-	-	0.6
39	TA1G32C1	1	1	-	-	-	-	-	-	0.7	0.7	1	0.6
40	TA1G32D1	1	1	-	-	0.7	-	0.7	1	-	-	-	-0.6
41	TA1G32E1	1	1	-	-	-	0.7	0.7	1	-	-	-	-0.6
42	TA1G32F1	1	1	-	-	-	-	-	-	0.7	0.7	1	-0.6
43	TA1G32A2	1	-	1	-	0.7	-	0.7	1	-	-	-	0.6
44	TA1G32B2	1	-	1	-	-	0.7	0.7	1	-	-	-	0.6
45	TA1G32C2	1	-	1	-	-	-	-	-	0.7	0.7	1	0.6
46	TA1G32D2	1	-	1	-	0.7	-	0.7	1	-	-	-	-0.6
47	TA1G32E2	1	-	1	-	-	0.7	0.7	1	-	-	-	-0.6
48	TA1G32F2	1	-	1	-	-	-	-	-	0.7	0.7	1	-0.6
49	TA1G32A3	1	-	-	1	0.7	-	0.7	1	-	-	-	0.6
50	TA1G32B3	1	-	-	1	-	0.7	0.7	1	-	-	-	0.6
51	TA1G32C3	1	-	-	1	-	-	-	-	0.7	0.7	1	0.6
52	TA1G32D3	1	-	-	1	0.7	-	0.7	1	-	-	-	-0.6
53	TA1G32E3	1	-	-	1	-	0.7	0.7	1	-	-	-	-0.6
54	TA1G32F3	1	-	-	1	-	-	-	-	0.7	0.7	1	-0.6

Combinazione T.A.2													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
55	TA2G1A1	1	1	-	-	0.8	-	0.8	-	-	-	-	1
56	TA2G1B1	1	1	-	-	-	0.8	0.8	-	-	-	-	1
57	TA2G1C1	1	1	-	-	-	-	-	-	0.8	0.8	-	1
58	TA2G1D1	1	1	-	-	0.8	-	0.8	-	-	-	-	-1
59	TA2G1E1	1	1	-	-	-	0.8	0.8	-	-	-	-	-1
60	TA2G1F1	1	1	-	-	-	-	-	-	0.8	0.8	-	-1
61	TA2G1A2	1	-	1	-	0.8	-	0.8	-	-	-	-	1
62	TA2G1B2	1	-	1	-	-	0.8	0.8	-	-	-	-	1
63	TA2G1C2	1	-	1	-	-	-	-	-	0.8	0.8	-	1
64	TA2G1D2	1	-	1	-	0.8	-	0.8	-	-	-	-	-1
65	TA2G1E2	1	-	1	-	-	0.8	0.8	-	-	-	-	-1
66	TA2G1F2	1	-	1	-	-	-	-	-	0.8	0.8	-	-1
67	TA2G1A3	1	-	-	1	0.8	-	0.8	-	-	-	-	1
68	TA2G1B3	1	-	-	1	-	0.8	0.8	-	-	-	-	1
69	TA2G1C3	1	-	-	1	-	-	-	-	0.8	0.8	-	1
70	TA2G1D3	1	-	-	1	0.8	-	0.8	-	-	-	-	-1
71	TA2G1E3	1	-	-	1	-	0.8	0.8	-	-	-	-	-1
72	TA2G1F3	1	-	-	1	-	-	-	-	0.8	0.8	-	-1
73	TA2G31A1	1	1	-	-	0.8	-	0.8	0.8	-	-	-	1
74	TA2G31B1	1	1	-	-	-	0.8	0.8	0.8	-	-	-	1
75	TA2G31C1	1	1	-	-	-	-	-	-	0.8	0.8	0.8	1
76	TA2G31D1	1	1	-	-	0.8	-	0.8	0.8	-	-	-	-1
77	TA2G31E1	1	1	-	-	-	0.8	0.8	0.8	-	-	-	-1
78	TA2G31F1	1	1	-	-	-	-	-	-	0.8	0.8	0.8	-1
79	TA2G31A2	1	-	1	-	0.8	-	0.8	0.8	-	-	-	1
80	TA2G31B2	1	-	1	-	-	0.8	0.8	0.8	-	-	-	1

Combinazione T.A.2													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
81	TA2G31C2	1	-	1	-	-	-	-	-	0.8	0.8	0.8	1
82	TA2G31D2	1	-	1	-	0.8	-	0.8	0.8	-	-	-	-1
83	TA2G31E2	1	-	1	-	-	0.8	0.8	0.8	-	-	-	-1
84	TA2G31F2	1	-	1	-	-	-	-	-	0.8	0.8	0.8	-1
85	TA2G31A3	1	-	-	1	0.8	-	0.8	0.8	-	-	-	1
86	TA2G31B3	1	-	-	1	-	0.8	0.8	0.8	-	-	-	1
87	TA2G31C3	1	-	-	1	-	-	-	-	0.8	0.8	0.8	1
88	TA2G31D3	1	-	-	1	0.8	-	0.8	0.8	-	-	-	-1
89	TA2G31E3	1	-	-	1	-	0.8	0.8	0.8	-	-	-	-1
90	TA2G31F3	1	-	-	1	-	-	-	-	0.8	0.8	0.8	-1
91	TA2G32A1	1	1	-	-	0.56	-	0.56	0.8	-	-	-	1
92	TA2G32B1	1	1	-	-	-	0.56	0.56	0.8	-	-	-	1
93	TA2G32C1	1	1	-	-	-	-	-	-	0.56	0.56	0.8	1
94	TA2G32D1	1	1	-	-	0.56	-	0.56	0.8	-	-	-	-1
95	TA2G32E1	1	1	-	-	-	0.56	0.56	0.8	-	-	-	-1
96	TA2G32F1	1	1	-	-	-	-	-	-	0.56	0.56	0.8	-1
97	TA2G32A2	1	-	1	-	0.56	-	0.56	0.8	-	-	-	1
98	TA2G32B2	1	-	1	-	-	0.56	0.56	0.8	-	-	-	1
99	TA2G32C2	1	-	1	-	-	-	-	-	0.56	0.56	0.8	1
100	TA2G32D2	1	-	1	-	0.56	-	0.56	0.8	-	-	-	-1
101	TA2G32E2	1	-	1	-	-	0.56	0.56	0.8	-	-	-	-1
102	TA2G32F2	1	-	1	-	-	-	-	-	0.56	0.56	0.8	-1
103	TA2G32A3	1	-	-	1	0.56	-	0.56	0.8	-	-	-	1
104	TA2G32B3	1	-	-	1	-	0.56	0.56	0.8	-	-	-	1
105	TA2G32C3	1	-	-	1	-	-	-	-	0.56	0.56	0.8	1
106	TA2G32D3	1	-	-	1	0.56	-	0.56	0.8	-	-	-	-1
107	TA2G32E3	1	-	-	1	-	0.56	0.56	0.8	-	-	-	-1
108	TA2G32F3	1	-	-	1	-	-	-	-	0.56	0.56	0.8	-1

Combinazione T.A.3													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
109	TA3SCAR1	1	1	-	-	-	-	-	-	-	-	-	0.6
110	TA3SCAR2	1	1	-	-	-	-	-	-	-	-	-	-0.6
111	TA3SCAR3	1	-	1	-	-	-	-	-	-	-	-	0.6
112	TA3SCAR4	1	-	1	-	-	-	-	-	-	-	-	-0.6
113	TA3SCAR5	1	-	-	1	-	-	-	-	-	-	-	0.6
114	TA3SCAR6	1	-	-	1	-	-	-	-	-	-	-	-0.6

Combinazione T.A.5													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
115	TA5G61A1	1	1	-	-	0.8	-	0.8	0.8	-	-	-	0.6
116	TA5G61B1	1	1	-	-	-	0.8	0.8	0.8	-	-	-	0.6
117	TA5G61C1	1	1	-	-	-	-	-	-	0.8	0.8	0.8	0.6
118	TA5G61D1	1	1	-	-	0.8	-	0.8	0.8	-	-	-	-0.6
119	TA5G61E1	1	1	-	-	-	0.8	0.8	0.8	-	-	-	-0.6
120	TA5G61F1	1	1	-	-	-	-	-	-	0.8	0.8	0.8	-0.6
121	TA5G61A2	1	-	1	-	0.8	-	0.8	0.8	-	-	-	0.6

Combinazione T.A.5													
n°	Nome	Condizioni di carico											
		1+2	3	4	5	6	7	8	9	10	11	12	13
122	TA5G61B2	1	-	1	-	-	0.8	0.8	0.8	-	-	-	0.6
123	TA5G61C2	1	-	1	-	-	-	-	-	0.8	0.8	0.8	0.6
124	TA5G61D2	1	-	1	-	0.8	-	0.8	0.8	-	-	-	-0.6
125	TA5G61E2	1	-	1	-	-	0.8	0.8	0.8	-	-	-	-0.6
126	TA5G61F2	1	-	1	-	-	-	-	-	0.8	0.8	0.8	-0.6
127	TA5G61A3	1	-	-	1	0.8	-	0.8	0.8	-	-	-	0.6
128	TA5G61B3	1	-	-	1	-	0.8	0.8	0.8	-	-	-	0.6
129	TA5G61C3	1	-	-	1	-	-	-	-	0.8	0.8	0.8	0.6
130	TA5G61D3	1	-	-	1	0.8	-	0.8	0.8	-	-	-	-0.6
131	TA5G61E3	1	-	-	1	-	0.8	0.8	0.8	-	-	-	-0.6
132	TA5G61F3	1	-	-	1	-	-	-	-	0.8	0.8	0.8	-0.6

Sisma							
n°	Nome	Condizioni di carico					
		1+2	3	14			
				Spinta sismica	Inerzia pos.*	Inerzia neg.*	Treno sismico
133	TASISMAP	1	1	1	1	-	1
134	TASISMAN	1	1	1	-	1	1

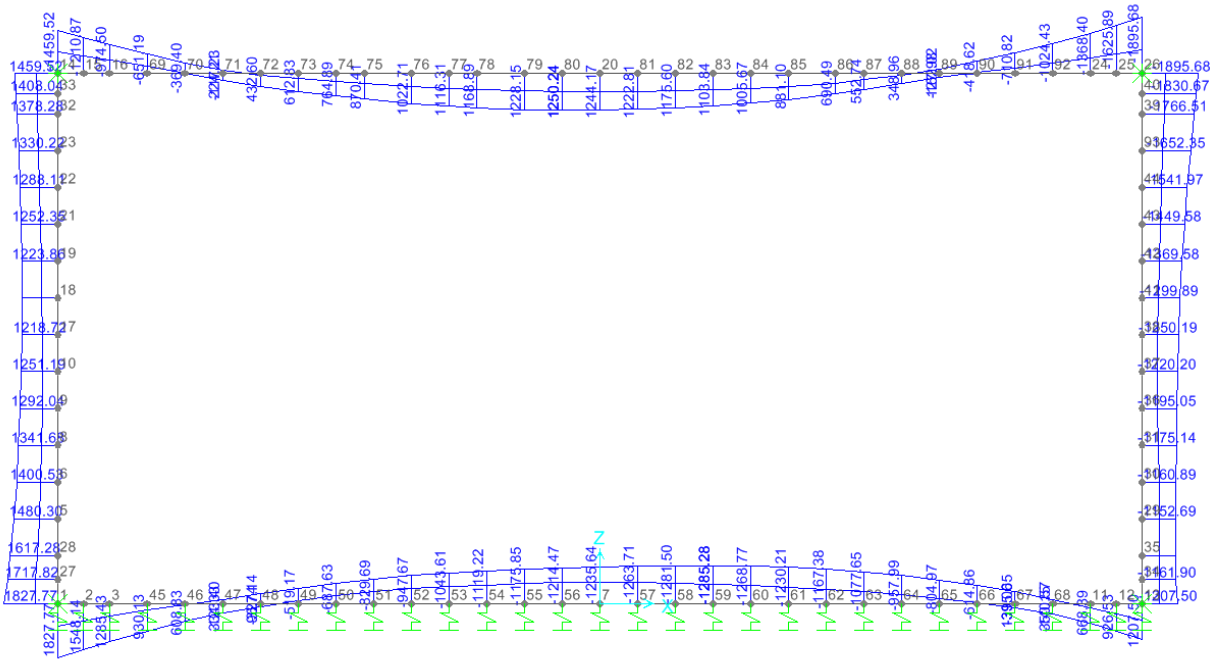
* Inerzia pos e inerzia neg sono date dalla radice della somma dei quadrati delle componenti di inerzia orizzontale e verticale ($\alpha = (\alpha_h^2 + \alpha_v^2)^{1/2}$), con la componente verticale rivolta rispettivamente verso l'alto e verso il basso.

Nelle colonne 'Nome' è indicato il nome con cui sono stati chiamati i gruppi e le condizioni di carico nel modello di calcolo in modo da poterli distinguere nei tabulati.

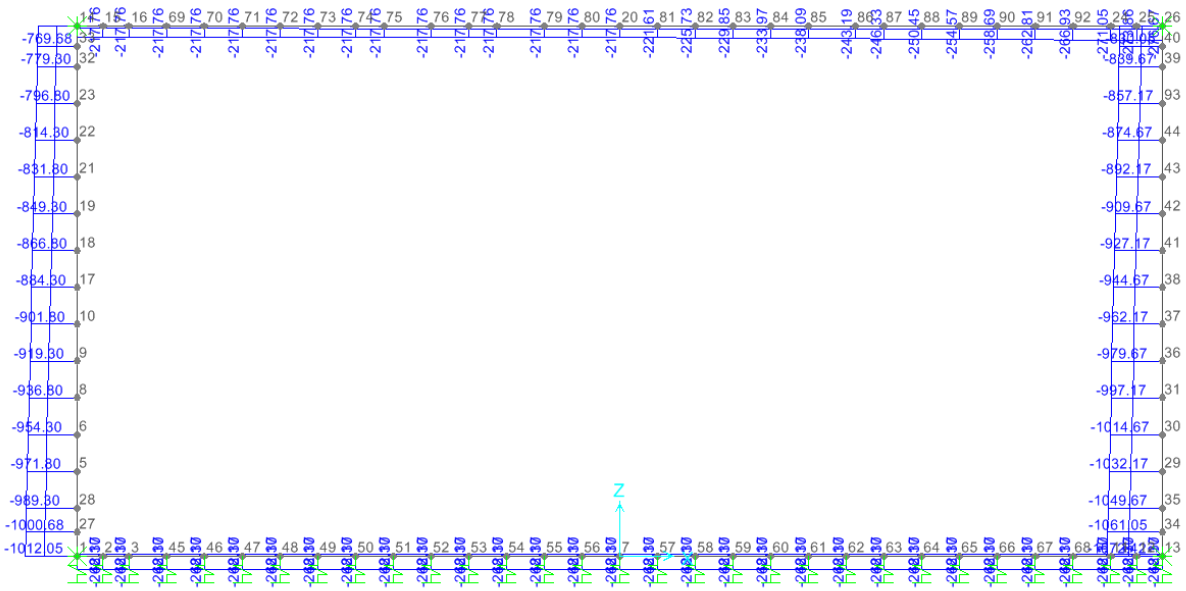
7.6. Diagrammi di inviluppo

Di seguito si riportano i diagrammi delle sollecitazioni flettenti, taglianti e flessionali agenti sulla struttura nella condizione di inviluppo delle combinazioni TA:

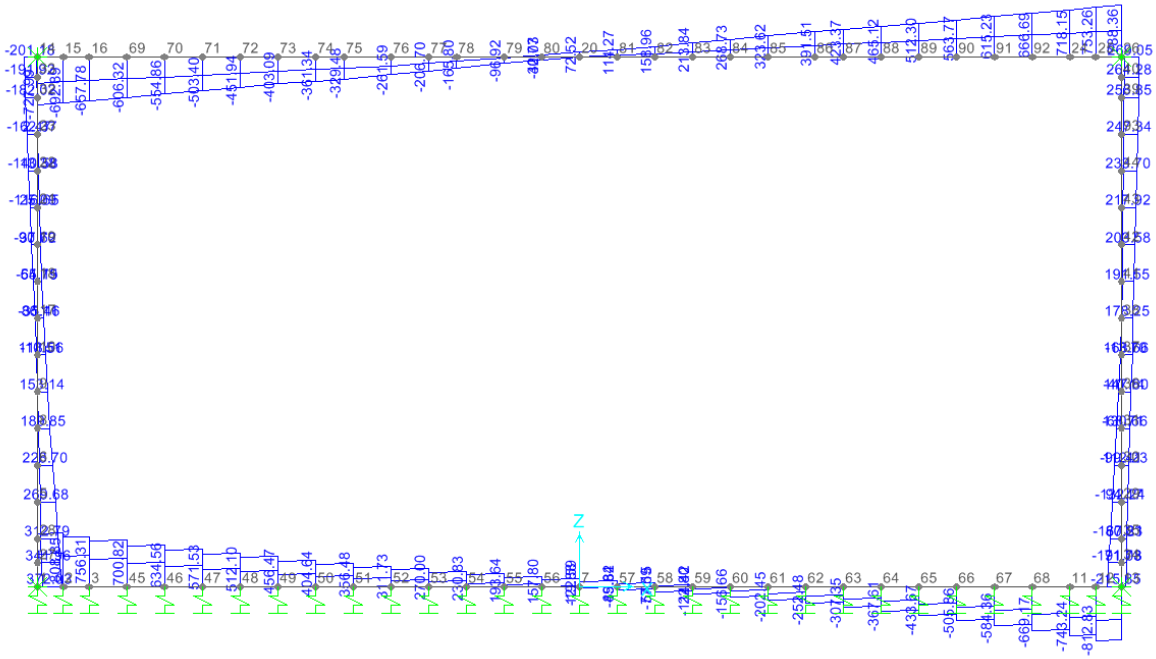
Momento flettente:



Azione assiale:

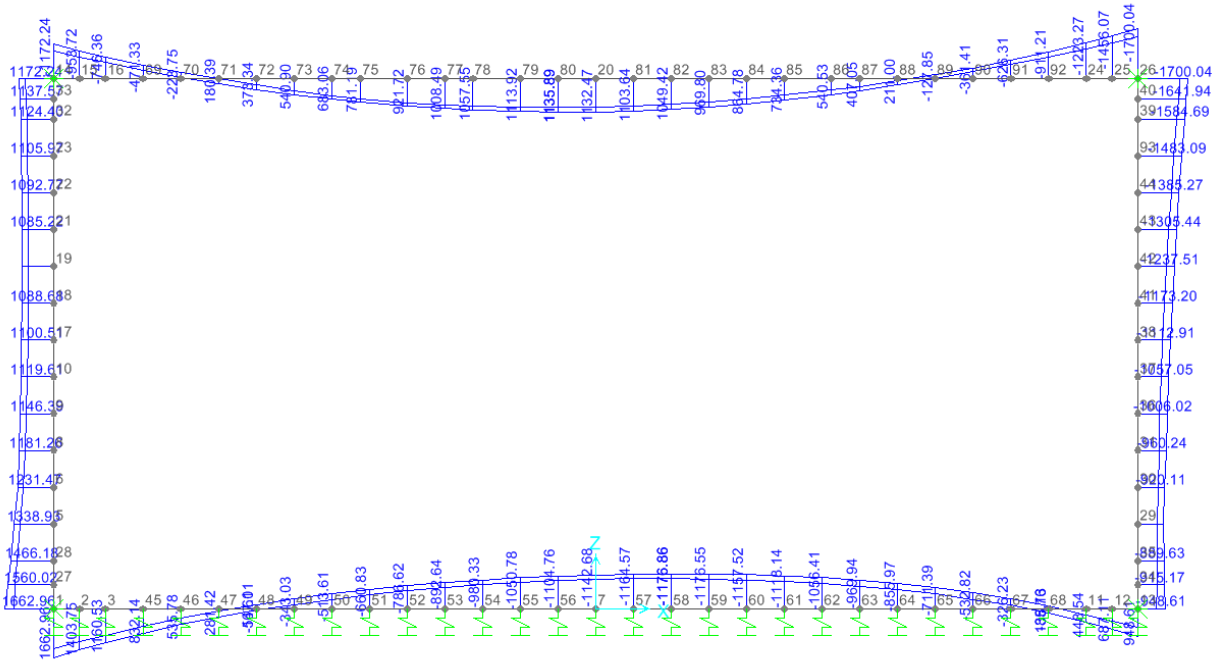


Azione tagliante:

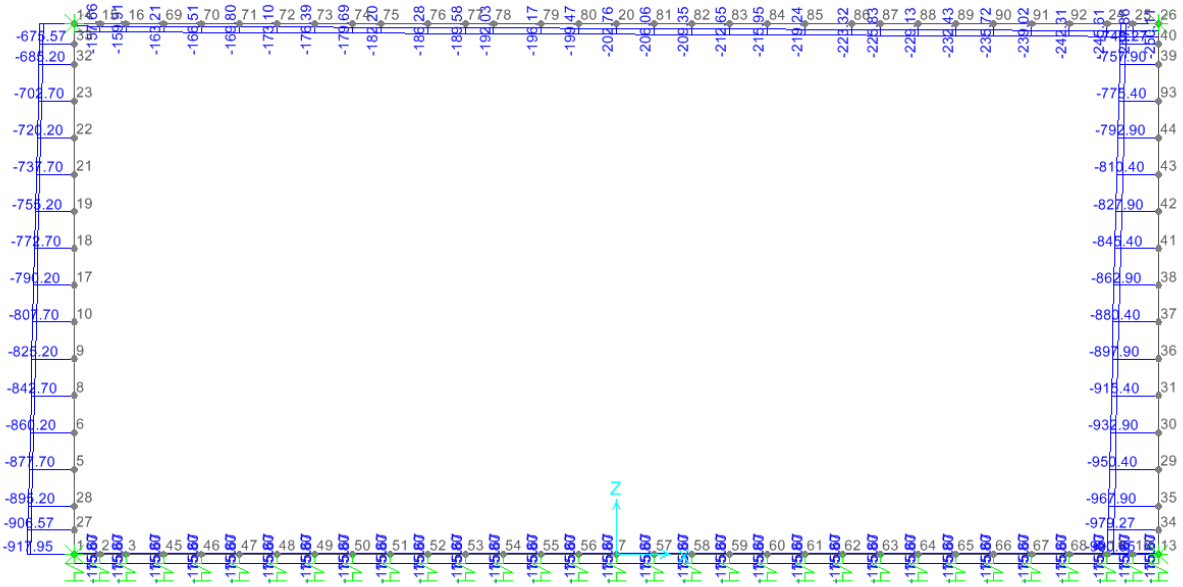


Di seguito si riportano i diagrammi delle sollecitazioni flettenti e flessionali agenti sulla struttura nella condizione di inviluppo delle combinazioni TA5:

Momento flettente:



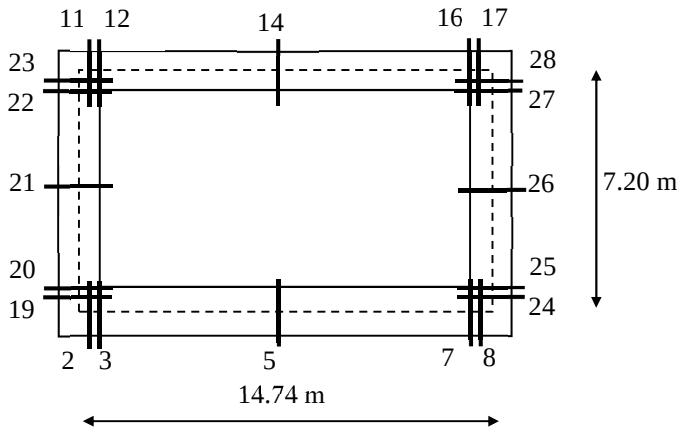
Azione assiale:



8. VERIFICHE

Si forniscono nel seguito le verifiche alle tensioni ammissibili ed alla fessurazione nelle sezioni principali di ciascun elemento strutturale (platea, montanti e soletta).

Il momento flettente si verifica, oltre che nelle sezioni di mezzeria, anche nelle sezioni a metà tra asse piedritto e sezione d'attacco piedritto – soletta, nel caso delle verifiche della soletta, e in quelle a metà tra asse soletta e sezione d'attacco soletta – piedritto, per le verifiche del piedritto. Il taglio si verifica nelle sezioni d'attacco degli elementi.



Nelle solette superiore e inferiore, il copriferro netto delle armature trasversali è di 62 mm (allo spessore minimo del copriferro di 40 mm si è sommato il diametro dell'armatura longitudinale costituita da ϕ22), nei piedritti, il copriferro netto delle armature verticali è di 76 mm (allo spessore minimo del copriferro di 40 mm si è sommato il diametro dell'armatura longitudinale costituita da ϕ22 e il diametro dello spillo costituito da ϕ14).

Per la disposizione delle armature si rimanda agli elaborati specifici, nelle tabelle di verifica sono riportate le armature compresse e tese per ciascun nodo in cui è stata condotta la verifica.

La soletta di copertura è così armata:

- all'incastro con il piedritto con un'armatura al lembo superiore (lembo teso) costituita da ϕ26/10 I strato e da ϕ26/10 II strato e al lembo inferiore (lembo compresso) costituita da ϕ26/10;
- in mezzeria con un'armatura al lembo inferiore (lembo teso) costituita da ϕ26/10 I strato e da ϕ26/20 II strato e al lembo superiore (lembo compresso) costituita da ϕ26/20.

La soletta di fondazione è così armata:

- all'incastro con il piedritto con un'armatura al lembo inferiore (lembo teso) costituita da ϕ26/10 I strato e da ϕ26/40 II strato e al lembo superiore (lembo compresso) costituita da ϕ26/20;
- in mezzeria con un'armatura al lembo superiore (lembo teso) costituita da ϕ26/10 I strato e da ϕ26/40 II strato e al lembo inferiore (lembo compresso) costituita da ϕ26/20.

I piedritti sono armati al lembo esterno con ϕ26/10 e ϕ26/40 e al lembo interno con ϕ22/20.

8.1. Verifiche alle tensioni ammissibili

	Sez.	M (kNm)	N (kN)	A_s (mm^2)	A'_s (mm^2)	X (mm)	σ_c (N/mm^2)	σ_s (N/mm^2)
Soletta inferiore sp. 130 cm	2	1548.14	-268.14	ϕ26/10 (I) ϕ26/40 (II)	ϕ26/20	410.0	-6.56	195.6
	5	-1285.28	-268.14	ϕ26/10 (I) ϕ26/40 (II)	ϕ26/20	416.6	-5.48	159.4
Soletta superiore sp. 110 cm	14	1250.24	-217.76	ϕ26/10 (I) ϕ26/20 (II)	ϕ26/20	387.9	-6.68	164.6
	17	-1625.89	-217.76	ϕ26/10 (I) ϕ26/10 (II)	ϕ26/10	406.0	-7.23	158.4
Piedritto sinistro sp. 140 cm	19	1717.82	-989.30	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	530.5	-6.98	156.9
	21	1218.72	-884.30	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	566.7	-5.03	100.9
	23	1408.04	-779.30	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	525.2	-5.71	130.4
Piedritto destro sp. 140 cm	24	1161.90	-1049.67	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	611.8	-4.86	85.0
	26	1250.19	-944.67	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	574.2	-5.17	101.4
	28	1830.67	-893.67	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	503.1	-7.34	179.9

A_s : armatura tesa

A'_s : armatura compressa

X : posizione asse neutro da lembo compresso

	Sezione	T (kN)	b (mm)	d (mm)	τ (N/mm^2)	
Soletta inferiore	3	756.31	1000	1114	0.68	$< \tau_{co} = 0.70$ N/mm^2
	7	743.24	1000	1114	0.67	$< \tau_{co} = 0.70$ N/mm^2
Soletta superiore	12	657.78	1000	844	0.70	$= \tau_{co} = 0.70$ N/mm^2
	16	718.15	1000	844	0.77	$> \tau_{co} = 0.70$ N/mm^2
Piedritto sinistro	20	312.79	1000	1324	0.33	$< \tau_{co} = 0.70$ N/mm^2
	22	182.02	1000	1324	0.10	$< \tau_{co} = 0.70$ N/mm^2
Piedritto destro	25	167.32	1000	1324	0.19	$< \tau_{co} = 0.70$ N/mm^2
	27	258.85	1000	1324	0.17	$< \tau_{co} = 0.70$ N/mm^2

Nella soletta superiore la tensione tangenziale supera la τ_{co} (rimanendo inferiore alla τ_{c1}), per cui è necessario disporre un'armatura a taglio costituita da ϕ14 disposti a maglia 20x20 cm (Ast = 3850 mm^2) in corrispondenza del tratto di 1.0 m in corrispondenza dell'attacco della soletta con i piedritti.

$Ast = T_{max} \cdot 100 / (0.9 \cdot h \cdot \sigma_f) = 3034$ mm^2

Nei piedritti e nella soletta di fondazione la tensione tangenziale è sempre inferiore alla τ_{co}, non è necessario disporre un'apposita armatura a taglio, si dispongono spilli ϕ14 disposti a maglia 40x40 cm.

8.2. Verifiche a fessurazione

Le verifiche a fessurazione vengono condotte per la condizione di carico TA5. Dovrà risultare:

- a contatto con il terreno $w_k \leq 0.15$ mm;
- non a contatto con il terreno $w_k \leq 0.2$ mm.

Il prospetto seguente riassume i risultati delle verifiche.

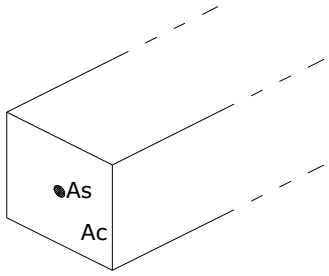
	Sez.	M (kNm)	N (kN)	A_s (mm^2)	A'_s (mm^2)	w (mm)	w_k (mm)
Soletta inferiore	3	1160.53	-175.67	ϕ26/10 (I) ϕ26/40 (II)	ϕ26/20	-	0.15
	5	-1176.86	-175.67	ϕ26/10 (I) ϕ26/40 (II)	ϕ26/20	-	0.20
Soletta superiore	14	1135.89	-176.39	ϕ26/10 (I) ϕ26/20 (II)	ϕ26/20	0.153	0.20
	16	-1223.27	-176.39	ϕ26/10 (I) ϕ26/10 (II)	ϕ26/10	0.114	0.15
Piedritti	20	1466.18	-895.20	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	-	0.15
	27	-1584.69	-757.90	ϕ26/10 (I) ϕ26/40 (II)	ϕ22/20	0.134	0.15

9. VERIFICA EFFETTI LONGITUDINALI DA RITIRO

Vengono discussi brevemente gli effetti dovuti al ritiro nel calcestruzzo che provocano stati interni di coazione con l'armatura. Scopo della trattazione è quello di verificare l'armatura minima longitudinale dello scatolare.

9.1. Coazioni interne dovute ai fenomeni di ritiro

Per il calcolo delle coazioni interne dovute ai fenomeni di ritiro si consideri una sezione di area unitaria Ac con un'unica barra di armatura di area As come rappresentato nell'immagine sottostante:



Si assumono le seguenti ipotesi:

perfetta aderenza tra calcestruzzo ed acciaio;

deformata piana della sezione in calcestruzzo;

comportamento del calcestruzzo e dell'acciaio elastico e lineare,

Le equazioni di equilibrio, congruenza e legame dell'insieme calcestruzzo + acciaio che governano il fenomeno sono:

$N_c + N_s = 0$ (equazione di equilibrio)

$\varepsilon_r = \varepsilon_s - \varepsilon_c$ (equazione di congruenza)

$N_c = A_c \sigma_c = A_c E_c \varepsilon_c$ (equazione legame costitutivo del calcestruzzo)

$N_s = A_s \sigma_s = A_s E_s \varepsilon_s$ (equazione legame costitutivo dell'acciaio)

Sostituendo le equazioni di legame in quella di equilibrio ed esprimendo la deformazione del calcestruzzo in funzione di quella dell'acciaio si ha:

$N_s = - N_c = A_s E_s A_c E_c \varepsilon_r / (A_s E_s + A_c E_c)$

Il comportamento viscoso del calcestruzzo viene considerato attraverso l'abbattimento del modulo elastico, pertanto è necessario sostituire il valore di E_c con E^*_c . La tensione sull'acciaio e sul calcestruzzo risultano quindi pari a:

$\sigma_s = A_c E^*_c E_s \varepsilon_r / (A_s E_s + A_c E^*_c)$

$\sigma_c = -A_s E^*_c E_s \varepsilon_r / (A_s E_s + A_c E^*_c)$

9.2. Calcolo delle sollecitazioni longitudinali dovute ai fenomeni di ritiro

L'analisi delle sollecitazioni viene svolta per una striscia di larghezza unitaria, assumendo la dimensione convenzionale h_0 pari a 2 × A/u = 2 × H, ed un calcestruzzo C32/40.

Fondazione:

Caratteristiche della sezione:

B = 100 cm

H = 130 cm

$A_{s,long}$ = 1+1ø22/20 = 3800 mm^2

E_s = 200000 N/mm^2

E_c = 33643 N/mm^2

Deformazione da ritiro:

U.R. = 75%

$\varepsilon_r = \varepsilon_{ca} + \varepsilon_{cd}$ = 0.35 ‰

A favore di sicurezza, si assume una deformazione ε_r = 0.35 ‰.

Effetto viscosità:

Il modulo viscoso a tempo infinito, in considerazione del valore di h_0, della resistenza del calcestruzzo e della U.R., può cautelativamente essere assunto pari a ϕ (t = ∞) = 1.6. Il modulo elastico ridotto del calcestruzzo risulta quindi pari a:

$E^*_c = E_c / (1+ \phi)$ = 12940 N/mm^2

Tensioni nei materiali:

σ_s = -(1000×1300)×12940×200000×0.00035 / (3800 × 200000 + 1000 × 1300 × 12940) = -66.97 N/mm^2

σ_c = 3800 × 12940 × 200000× 0.00035 / (3800 × 200000 + 1000 × 1300 × 12940) = 0.20 N/mm^2

La sollecitazione sul calcestruzzo risulta molto inferiore rispetto alla resistenza a trazione e quindi non porta a fessurazione il calcestruzzo; la sollecitazione sull'acciaio risulta modesta ed accettabile per le normali condizioni di esercizio della struttura.

Soletta copertura:

Caratteristiche della sezione:

B = 100 cm

H = 110 cm

$A_{s,long}$ = 1+1ø22/20 = 3800 mm^2

E_s = 200000 N/mm^2

E_c = 33643 N/mm^2

Deformazione da ritiro:

U.R. = 75%

$\varepsilon_r = \varepsilon_{ca} + \varepsilon_{cd}$ = 0.35 ‰

A favore di sicurezza, si assume una deformazione ε_r = 0.35 ‰.

Effetto viscosità:

Il modulo viscoso a tempo infinito, in considerazione del valore di h_0, della resistenza del calcestruzzo e della U.R., può cautelativamente essere assunto pari a ϕ (t = ∞) = 1.6. Il modulo elastico ridotto del calcestruzzo risulta quindi pari a:

$E^*_c = E_c / (1+ \phi)$ = 12940 N/mm^2

Tensioni nei materiali:

σ_s = -(1000×1000)×12940×200000×0.00035 / (3800 × 200000 + 1000 × 1000 × 12940) = -66.12 N/mm^2

σ_c = 3800 × 12940 × 200000× 0.00035 / (3800 × 200000 + 1000 × 1000 × 12940) = 0.25 N/mm^2

La sollecitazione sul calcestruzzo risulta molto inferiore rispetto alla resistenza a trazione e quindi non porta a fessurazione il calcestruzzo; la sollecitazione sull'acciaio risulta modesta ed accettabile per le normali condizioni di esercizio della struttura.

10. VERFICA CORDOLO DI FONDAZIONE BARRIERA ANTIRUMORE

Il sottovia presenta due cordoli di fondazione delle barriere antirumore di altezza rispettvamente 5.0 m lato binario pari e 4.0 m lato binario dispari.

Il cordolo ha uno spessore in testa di 40 cm, per un'altezza massima di circa 1.20 m e alla base uno spessore di 55 cm, per un altezza di 90 cm.

Le barriere antirumore hanno i montanti disposti a passo 3.0 m che trasmettono alla base le seguenti azioni (le azioni sono riferite alla barriera di altezza massima pari a 6.0 m):

M = 135 kNm

T = 45 kN

Considerando la ripartizione a 45° delle azioni nell'altezza del cordolo, ma considerando però la limitazione dell'interasse di 3.0 m delle barriere si ha che le azioni nel cordolo sono di seguito riportate.

A 1.20 m da testa cordolo, spessore 40 cm, si ha:

M = 135 / 3.0 + 45 / 3.0 · 1.2 = 63 kNm/m

T = 45 / 3.0 = 15 kN/m

A 2.10 m da testa cordolo, spessore 55 cm, si ha:

M = 135 / 3.0 + 45 / 3.0 · 2.1 = 76.5 kNm/m

T = 45 / 3.0 = 15 kN/m

Il cordolo è armato con staffe ϕ16/20, di seguito si riportano le verifiche per le due sezioni.

Momento massimo	M =	63.00	kNm
Taglio massimo	T =	15.00	kN
Verifiche di resistenza			
Asse neutro (da lembo compresso)	x =	8.37	cm
Momento di inerzia sezione parzializzata	J =	112888	cm^4
tensione cls	σ_c =	4.67	MPa
tensione acciaio layer 1	σ_{s1} =	-207.8	MPa
tensione acciaio layer 2	σ_{s2} =		MPa
Verifica a fessurazione			
tensione cls per fessurazione	σ_c =	4.67	MPa
tensione acciaio per fessurazione	σ_{s1} =	207.8	MPa
momento di prima fessurazione	M_{fcfk} =	78.60	kNm
momento di apertura fessure	M_{fctm} =	93.58	kNm
tensione acciaio per Mfctm	σ_{sr} =	308.7	MPa
		Mcr > M	mm
Verifica a taglio			
massimo sforzo di taglio	τ_{max} =	0.05	MPa

Momento massimo	M =	76.50	kNm
Taglio massimo	T =	15.00	kN
Verifiche di resistenza			
Asse neutro (da lembo compresso)	x =	10.21	cm
Momento di inerzia sezione parzializzata	J =	254867	cm^4
tensione cls	σ_c =	3.07	MPa
tensione acciaio layer 1	σ_{s1} =	-171.0	MPa
tensione acciaio layer 2	σ_{s2} =		MPa
Verifica a fessurazione			
tensione cls per fessurazione	σ_c =	3.07	MPa
tensione acciaio per fessurazione	σ_{s1} =	171.0	MPa
momento di prima fessurazione	M_{fcfk} =	147.21	kNm
momento di apertura fessure	M_{fctm} =	175.24	kNm
tensione acciaio per Mfctm	σ_{sr} =	391.8	MPa
		Mcr > M	mm
Verifica a taglio			
massimo sforzo di taglio	τ_{max} =	0.03	MPa

11. DIMENSIONAMENTO DEI MURI DI IMBOCCO

A lato degli imbocchi dello scatolare sono previsti dei muri di sostegno del rilevato ferroviario.

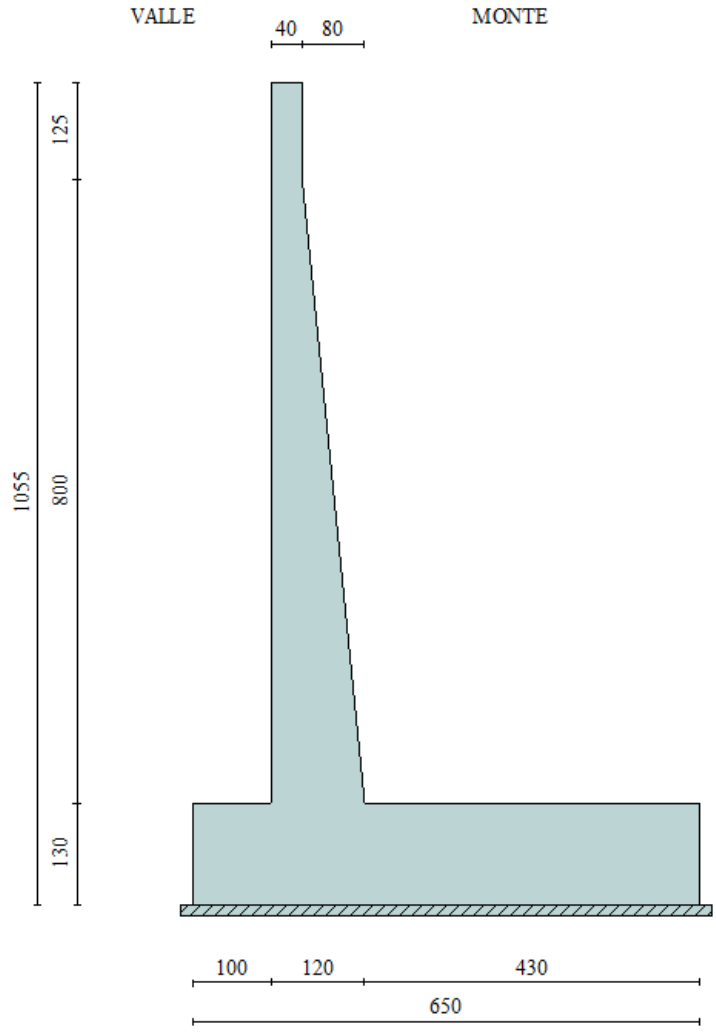
Presso l'imbocco sud ovest sono previsti:

- un concio lato sinistro, di estensione 8.10 m e altezza 8.99÷9.03 m (concio n. 1);
- due conci lato destro, di estensione 10.00+10.00 m e altezza 9.17÷9.29 m (conci n. 2 e 3).

Presso l'imbocco nord est sono previsti:

- un concio lato sinistro, di estensione 8.10 m e altezza 9.12÷9.17 m (concio n. 4);
- due conci lato destro, di estensione 8.10+8.10 m e altezza 8.88÷8.93 m (conci n. 5 e 6).

Si eseguono le verifiche per un'altezza di 9.25 m e se ne estende la validità per tutti i 6 conci.



11.1. Analisi dei carichi

Peso proprio..... γ_{cls} = 25 kN/m^3

Carichi permanenti

Si considerano le spinte delle terre del rilevato stradale valutate con i parametri geotecnici

γ = 20 kN/m^3

c' = 0 kPa

ϕ = 35°

Sisma

Si considera un'azione sismica di terza categoria, con K_h = 0.04.

Carichi variabili sul rilevato

sovraccarico ferroviario in esercizio..... q = 40.00 kN/m^2

sovraccarico di manutenzione sul rilevato..... q = 5.00 kN/m^2

sovraccarico sismico ..... q = 0.00 kN/m^2

Carichi variabili sul muro

Si considerano le azioni trasmesse dai montanti della barriera antirumore.

Nel dimensionamento si considera una barriera di altezza 6 m ed un carico da vento pari a 2.5 kN/m^2. L'interasse dei montanti è pari a 3 m.

A base montante si ha:

F_h = 2.5 x 3 x 6 = 45 kN

M = 2.5 x 3 x 6^2/2 = 135 kNm

Per le verifiche globali in corrispondenza dell'attacco della barriera vale quanto calcolato per il cordolo della barriera antirumore.

Per le verifiche globali, si considera il carico diffuso su una larghezza pari all'interasse dei montanti.

Si applicano quindi in testa muro le seguenti azioni distribuite:

H = 45 / 3 = 15 kN/m

W = 135 / 3 = 45 kNm/m

11.2. Calcolo e verifica del muro

Per il calcolo si utilizza il programma Max 10.0 “Analisi e calcolo dei muri di sostegno” della Aztec Informatica.

Il programma calcola le sollecitazioni nel muro e nella fondazione, gli sforzi sul terreno, verifica lo scorrimento e il ribaltamento nonché la stabilità globale dell’opera.

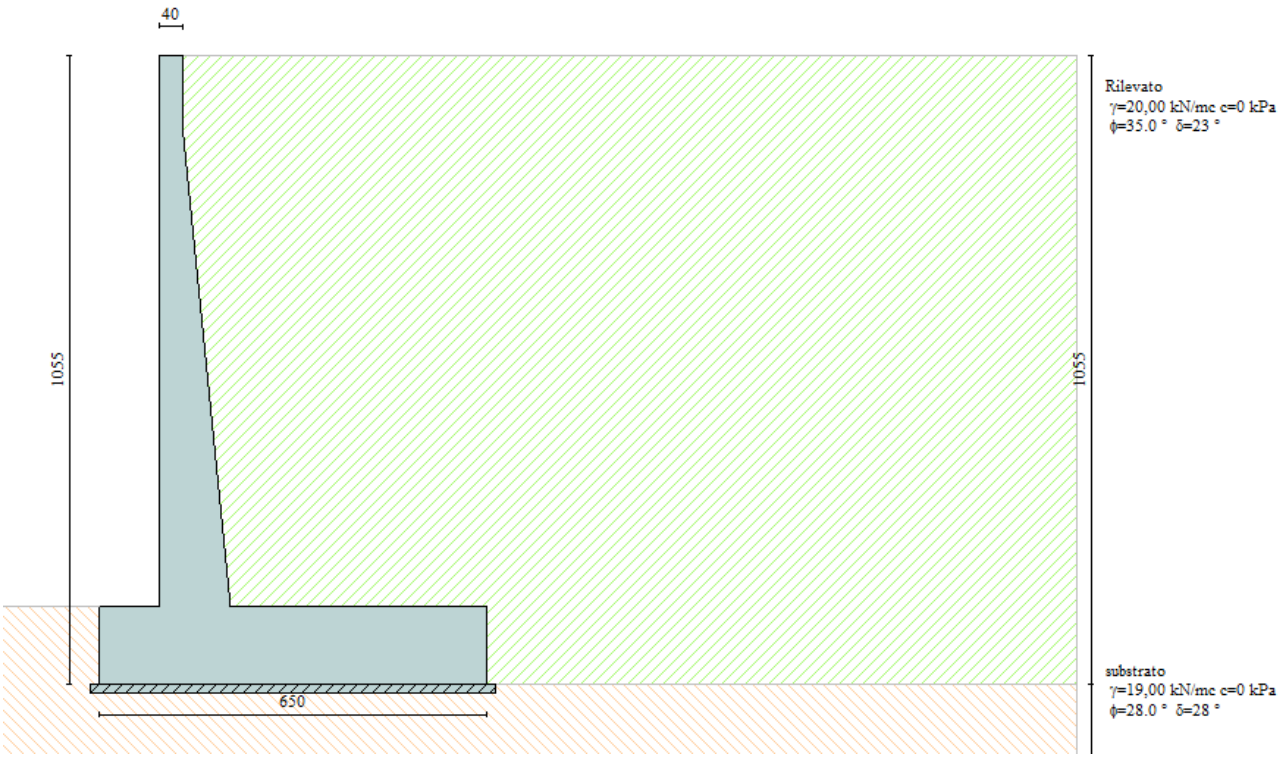
Il programma Max 10.0, una volta inserita la geometria del muro, i parametri del terreno, i carichi esterni e il coefficiente di intensità sismica svolge autonomamente il calcolo del muro per le varie verifiche di resistenza e stabilità.

Si prendono in esame due condizioni di carico

1. **condizione di esercizio** : permanenti + carico ferroviario + vento x 0.6
2. **condizione di esercizio** : permanenti + carico ferroviario x 0.8 + vento
3. **condizione sismica** : permanenti + sisma

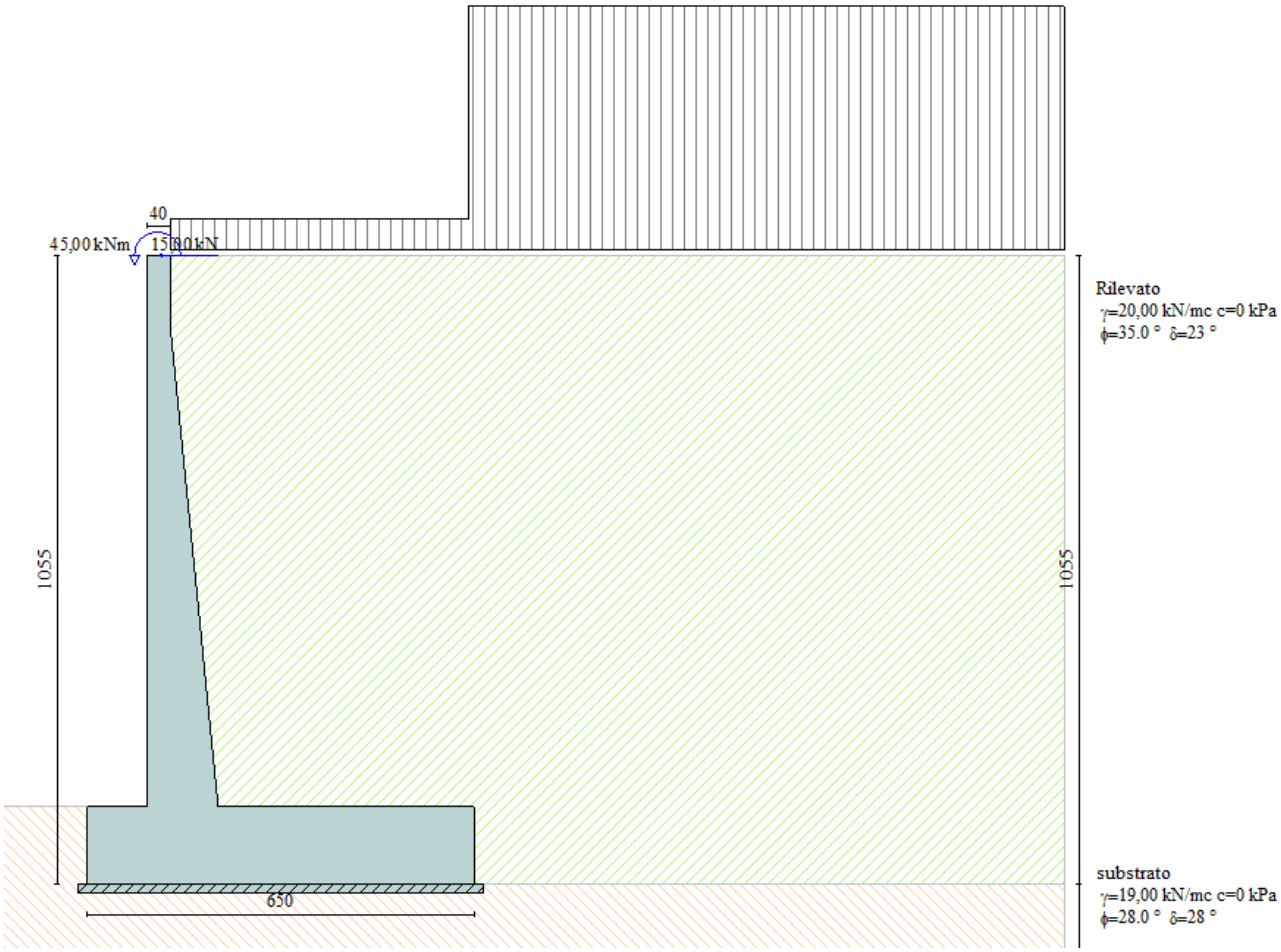
Di seguito si riporteranno i risultati delle sole condizioni di esercizio e sismica. Lo schema di calcolo, i dati relativi sia al muro che al terreno nonché i risultati ottenuti in termini di sollecitazioni sono riportati nelle seguenti figure e tabelle.

11.2.1. Stratigrafia



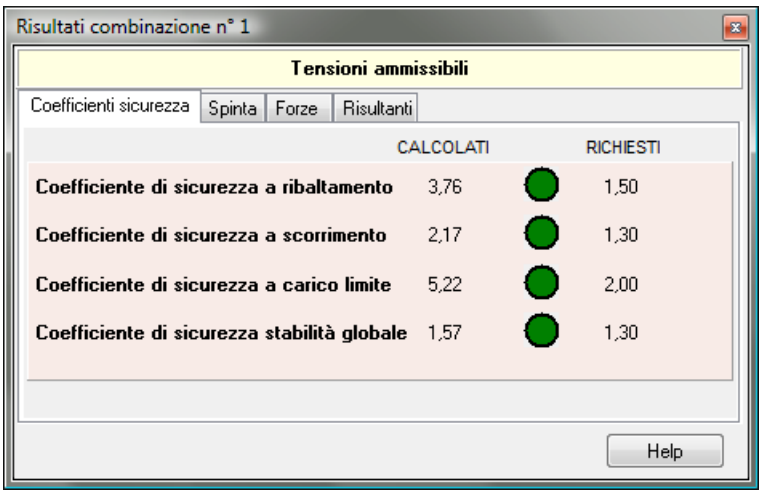
11.2.2. Carichi applicati

Carichi variabili

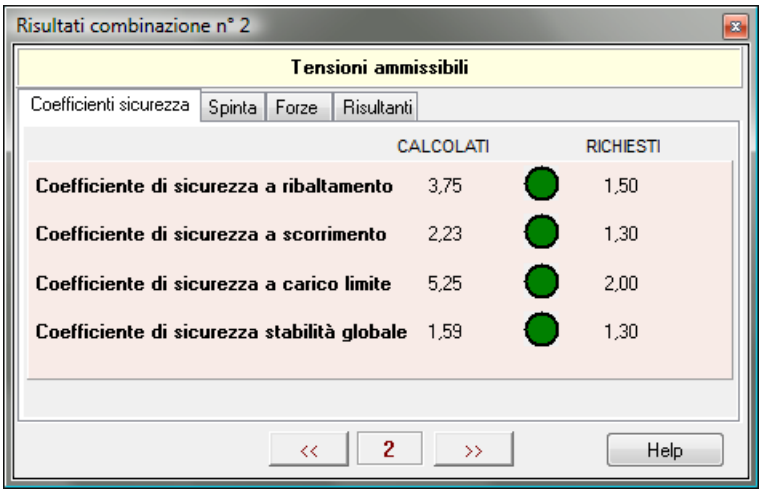


11.2.3. Risultati dell'analisi e verifiche di stabilità

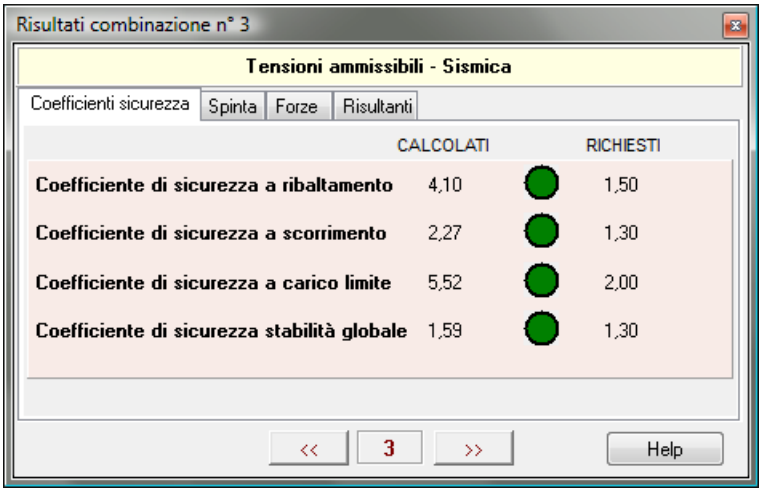
Combinazione statica n. 1



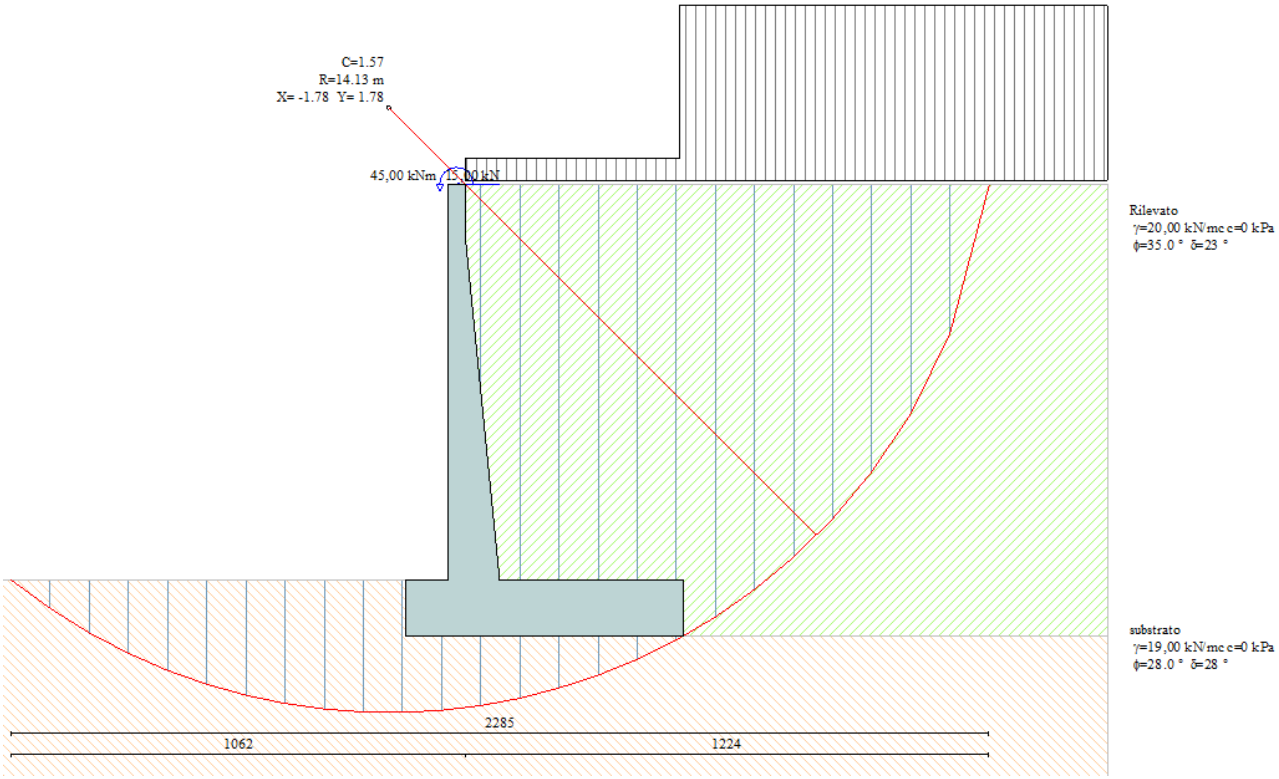
Combinazione statica n. 2



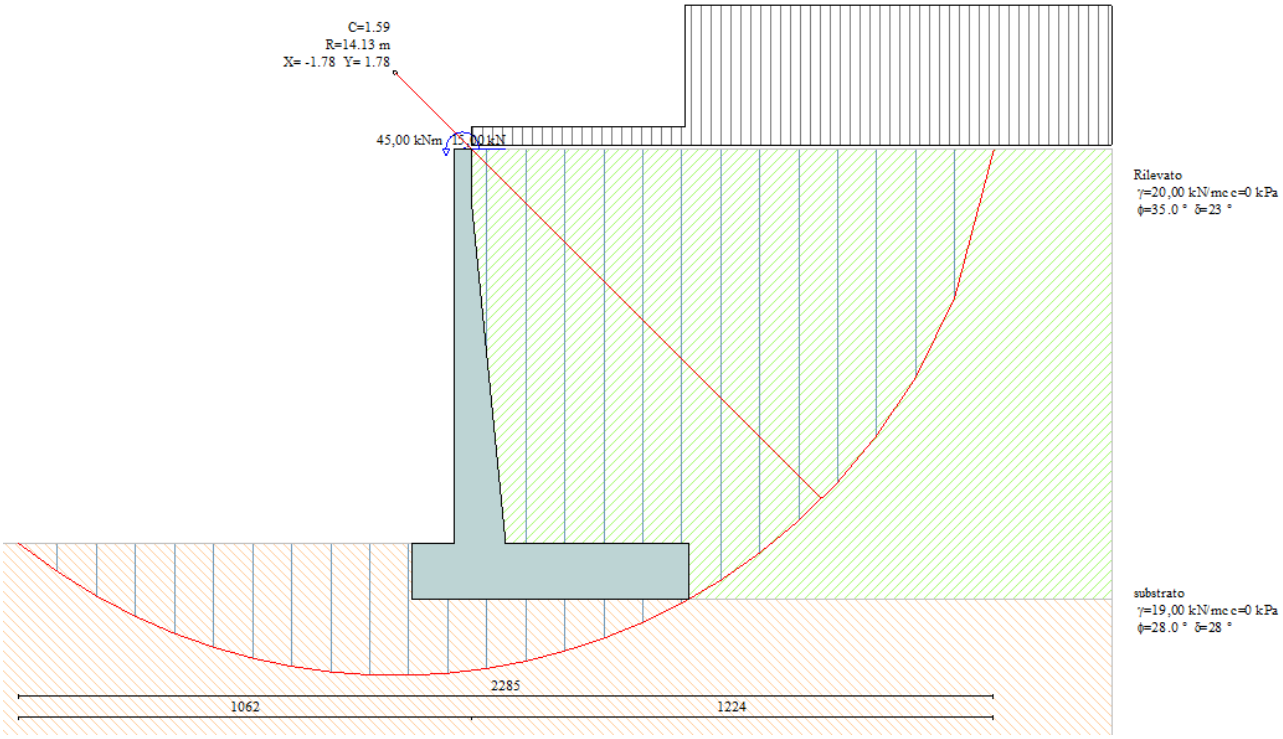
Combinazione sismica



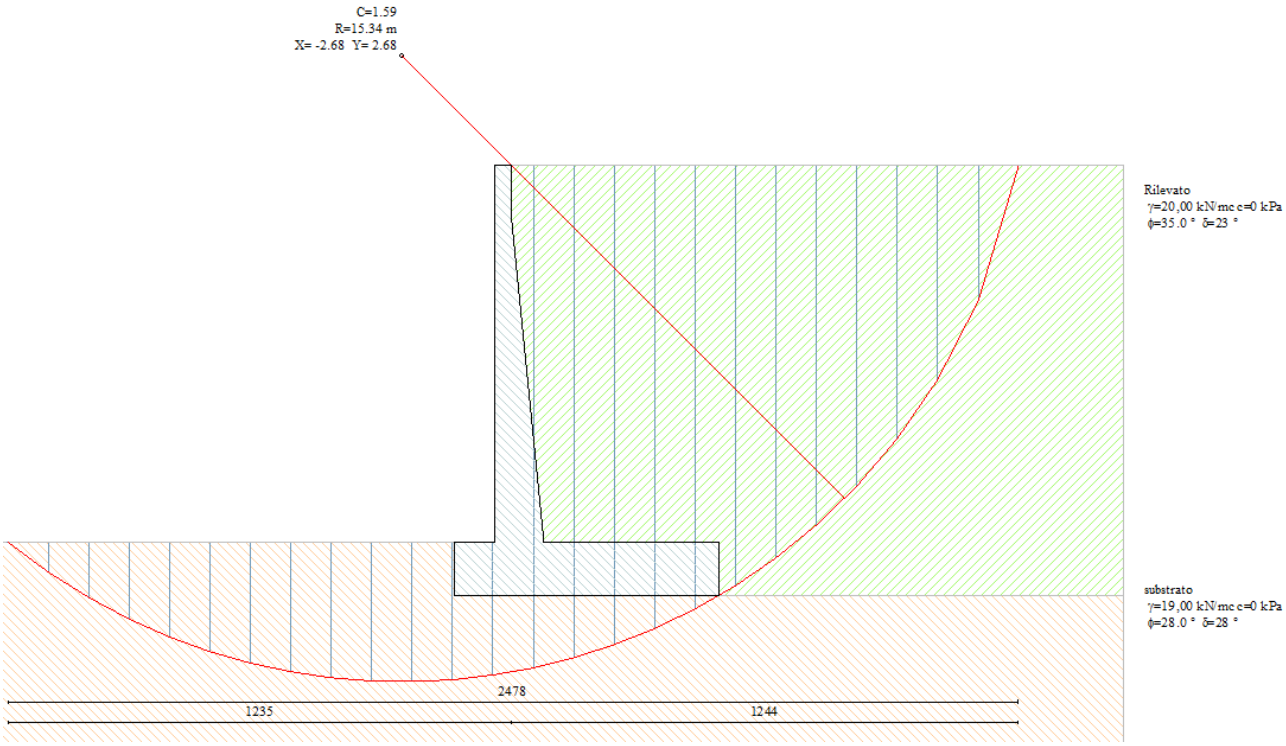
Combinazione 1 – statica



Combinazione 2 – statica

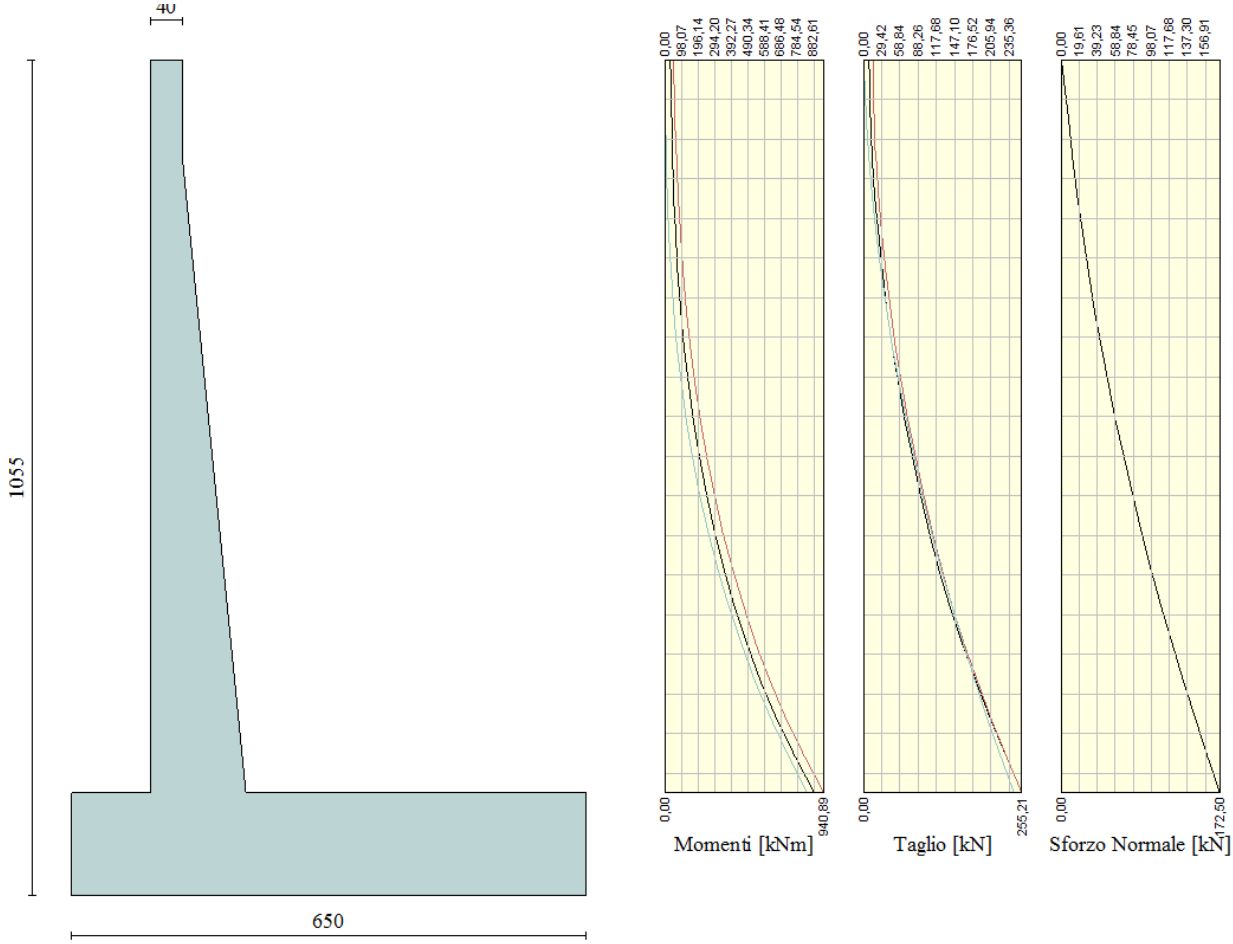


Combinazione 3 – sismica



11.2.4. Verifiche strutturali

Elevazione sezione corrente



M = 940.89 kNm/m

N = 172.50 kN/m

T = 255.21 kN/m

Altezza sezione:	120 cm
Armatura tesa:	ϕ24/15 + ϕ24/30 accoppiate
Armatura compressa:	ϕ20/15
Copriferro:	6 cm

NB: la quantità d'armatura è conforme al minimo di regolamento

Verifiche di resistenza			
Asse neutro (da lembo compresso)	x =	33,42	cm
Momento di inerzia sezione parzializzata	J =	5594825	cm^4
eccentricità	e =	545,44	cm
tensione cls	σ c =	5,35	Mpa
tensione acciaio layer 1	σ s1 =	-187,6	Mpa
tensione acciaio layer 2	σ s2 =	-187,6	Mpa

Verifica a fessurazione			
Asse neutro (da lembo compresso)	x =	33,42	cm
eccentricità	e =	545,44	cm
tensione cls per fessurazione	σ c =	5,35	Mpa
tensione acciaio per fessurazione	σ s1 =	187,6	Mpa
momento di fessurazione	Mcr =	961,60	kNm
azione assiale per apertura fessure	Ncr =	176,30	kN
tensione cls prima fessurazione	σ cr =	5,46	Mpa
tensione acciaio prima fessurazione	σ sr =	191,7	Mpa
		Mcr > M	

Verifica a taglio			
massimo sforzo di taglio	τ max =	0,25	Mpa

La sezione non si fessura nemmeno sotto i massimi carichi di esercizio, pertanto anche la verifica a fessurazione è automaticamente soddisfatta.

Elevazione sezione in corrispondenza del foro

In corrispondenza del foro per il passaggio del tombino circolare Φ1500, viene a mancare la sezione strutturale a base muro per una larghezza di 2.41 m.

Si prevede un ringrosso della sezione in c.a. ai lati del foro in modo da ripristinare l'inerzia della sezione geometrica, e si dispongono armature tali da assorbire il momento flettente allo spiccato dell'elevazione della zona in corrispondenza del tombino circolare.

Larghezza ringrossi:	B = 2 x 0.7m
Spessore ringrossi:	H = 1.20 + 0.50 m
Inerzia sezione originale:	$B \times H^3/12 = (2x0.7+2.41) \times 1.20^3/12 = 0.549\ m^4$
Inerzia sezione forata rinforzata	$B \times H^3/12 = (2x0.7) \times (1.20+0.5)^3/12 = 0.573\ m^4$

M = 940.89 x (2x0.7 + 2.41) = 3585 kNm

N = 172.50 x (2x0.7 + 2.41) = 657 kN

T = 255.21 x (2x0.7 + 2.41) = 972 kN

Base sezione:	140 cm
Altezza sezione:	170 cm
Armatura tesa:	I strato 2x10ϕ24 + II strato 2x6ϕ24
Armatura compressa:	2x7ϕ20
Copriferro:	6 cm

NB: la quantità d'armatura è conforme al minimo di regolamento

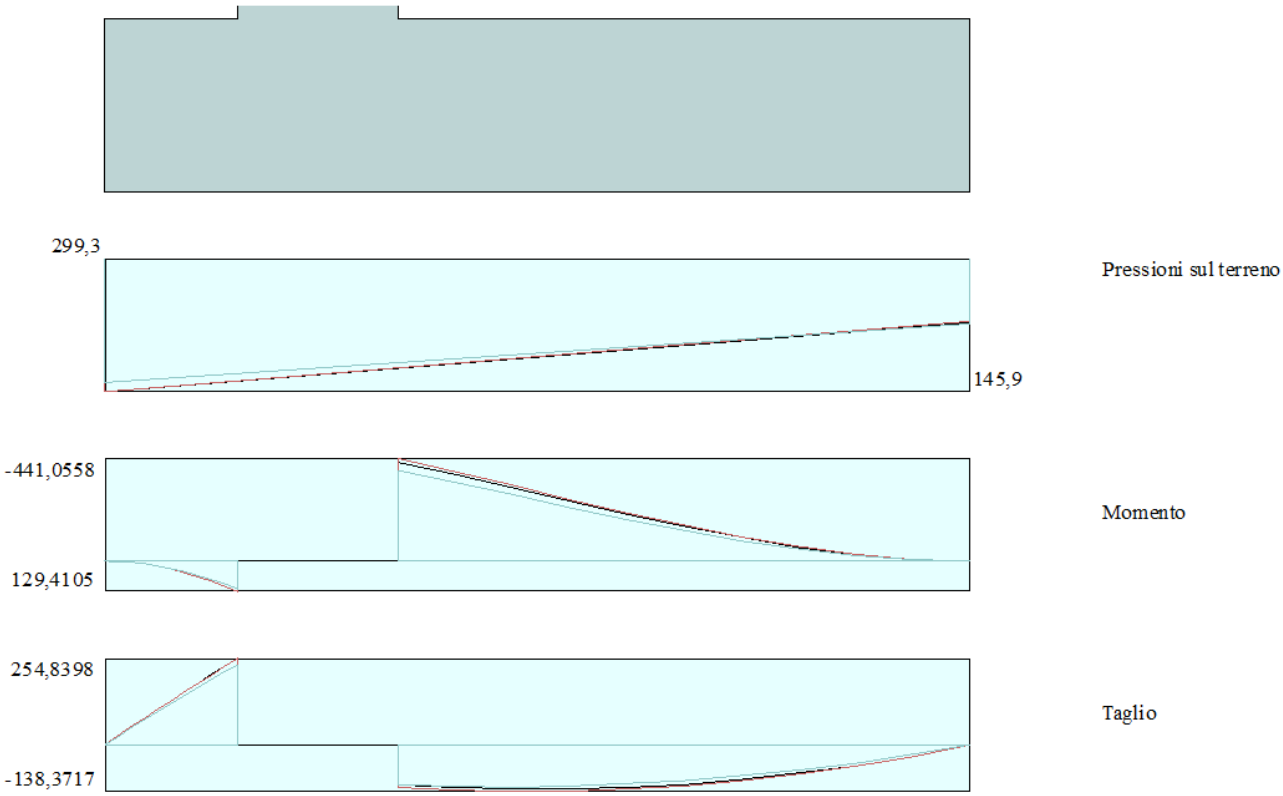
Verifiche di resistenza			
Asse neutro (da lembo compresso)	x =	59,73	cm
Momento di inerzia sezione parzializzata	J =	33786082	cm^4
eccentricità	e =	545,66	cm
tensione cls	σ c =	6,04	Mpa
tensione acciaio layer 1	σ s1 =	-154,6	Mpa
tensione acciaio layer 2	σ s2 =	-150,4	Mpa

Verifica a fessurazione			
Asse neutro (da lembo compresso)	x =	59,73	cm
eccentricità	e =	545,66	cm
tensione cls per fessurazione	σ c =	6,04	Mpa
tensione acciaio per fessurazione	σ s1 =	154,6	Mpa
momento di fessurazione	Mcr =	3060,52	kNm
azione assiale per apertura fessure	Ncr =	560,88	kN
tensione cls prima fessurazione	σ cr =	5,16	Mpa
tensione acciaio prima fessurazione	σ sr =	132,0	Mpa
apertura fessure	wk =	0,149	mm

Verifica a taglio			
massimo sforzo di taglio	τ max =	0,47	Mpa

L'apertura di fessura è inferiore ai limiti richiesti sotto i massimi carichi di esercizio, pertanto anche la verifica a fessurazione è soddisfatta.

Fondazione



M = 441.06 kNm/m

T = 254.84 kN/m

Altezza sezione:	80 cm
Armatura superiore:	ϕ24/15 + ϕ24/30 accoppiate
Armatura inferiore:	ϕ24/15
Copriferro:	4 cm

NB: la quantità d'armatura è conforme al minimo di regolamento

Verifiche di resistenza			
Asse neutro (da lembo compresso)	x =	31,86	cm
Momento di inerzia sezione parzializzata	J =	7082355	cm^4
tensione cls	σ_c =	1,98	MPa
tensione acciaio layer 1	σ_{s1} =	-85,7	MPa
tensione acciaio layer 2	σ_{s2} =	-85,7	MPa
Verifica a fessurazione			
tensione cls per fessurazione	σ_c =	1,98	MPa
tensione acciaio per fessurazione	σ_{s1} =	85,7	MPa
momento di prima fessurazione	M_{fcfk} =	762,64	kNm
momento di apertura fessure	M_{fctm} =	907,90	kNm
tensione acciaio per M_{fctm}	σ_{sr} =	176,4	MPa
		Mcr > M	mm
Verifica a taglio			
massimo sforzo di taglio	τ_{max} =	0,23	MPa

La sezione non si fessura nemmeno sotto i massimi carichi di esercizio, pertanto anche la verifica a fessurazione è automaticamente soddisfatta.

12. TABULATI DI CALCOLO MANUFATTO SCATOLARE

12.1. Dati di input

```
File D:\13_15_COCIV\01_Calcoli\IN13_new\SAP\IN13-new-INPUT.txt was saved on 9/21/13 at 13.55.11

TABLE:  "PROGRAM CONTROL"
   ProgramName=SAP2000   Version=11.0.8   ProgLevel=Advanced   LicenseOS=Yes   LicenseSC=Yes   LicenseBR=Yes
LicenseHT=No   CurrUnits="KN, m, C"   SteelCode=AISC-ASD89   ConcCode="ACI 318-99"   AlumCode="AA-ASD 2000"
ColdCode=AISI-ASD96   RegenHinge=No

TABLE:  "ACTIVE DEGREES OF FREEDOM"
   UX=Yes   UY=Yes   UZ=Yes   RX=Yes   RY=Yes   RZ=Yes

TABLE:  "ANALYSIS OPTIONS"
   Solver=Advanced   Force32Bit=No   StiffCase=None   GeomMod=No

TABLE:  "COORDINATE SYSTEMS"
   Name=GLOBAL   Type=Cartesian   X=0   Y=0   Z=0   AboutZ=0   AboutY=0   AboutX=0

TABLE:  "GRID LINES"
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=-2.25   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
AllVisible=No   BubbleSize=0
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=-2.125   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=-2   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=-1   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=0   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=1   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=2   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=2.125   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=X   XRYZCoord=2.25   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Y   XRYZCoord=0   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=0   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=0.125   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=0.25   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=2.75   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=2.875   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End
   CoordSys=GLOBAL   AxisDir=Z   XRYZCoord=3   LineType=Primary   LineColor=Gray4   Visible=Yes   BubbleLoc=End

TABLE:  "MATERIAL PROPERTIES 01 - GENERAL"
   Material=A615Gr60   Type=Rebar   SymType=Uniaxial   TempDepend=No   Color=Green   Notes="ASTM A615 Grade 60 added
04/07/2013 15.45.09"
   Material=CONC   Type=Concrete   SymType=Isotropic   TempDepend=No   Color=Black   Notes="Normalweight f'c = 4 ksi
added 04/07/2013 15.45.09"
   Material=OTHER   Type=Other   SymType=Isotropic   TempDepend=No   Color=Black   Notes="Material added 04/07/2013
15.45.09"
   Material=REBAR   Type=Rebar   SymType=Uniaxial   TempDepend=No   Color=Green   Notes="ASTM A615 Grade 60 added
04/07/2013 15.45.09"
   Material=STEEL   Type=Steel   SymType=Isotropic   TempDepend=No   Color=Black   Notes="ASTM A36 added 04/07/2013
15.45.09"

TABLE:  "MATERIAL PROPERTIES 02 - BASIC MECHANICAL PROPERTIES"
   Material=A615Gr60   UnitWeight=76.9728639422648   UnitMass=7.84904737995992   E1=199947978.795958   A1=0.0000117
   Material=CONC   UnitWeight=25   UnitMass=2.40070009231567   E1=33643000   G12=14627391.2285339
U12=0.150000005960464   A1=1.20000004244503E-05
   Material=OTHER   UnitWeight=23.5616092681885   UnitMass=2.40068006515503   E1=24821130   G12=10342137.474315
U12=0.200000002980232   A1=9.89999989542412E-06
   Material=REBAR   UnitWeight=76.9728639422648   UnitMass=7.84904737995992   E1=199947978.795958   A1=0.0000117
   Material=STEEL   UnitWeight=76.8195571899414   UnitMass=7.82710123062134   E1=199948000   G12=76903076.2178799
U12=0.300000011920929   A1=1.16999999590917E-05

TABLE:  "MATERIAL PROPERTIES 03A - STEEL DATA"
   Material=STEEL   Fy=248211.296875   Fu=310264.12109375   EffFy=372316.9453125   EffFu=341290.533203125
SSCurveOpt="User Defined"   SSHysType=Kinematic

TABLE:  "MATERIAL PROPERTIES 03B - CONCRETE DATA"
   Material=CONC   Fc=19920   LtWtConc=No   SSCurveOpt="User Defined"   SSHysType=Kinematic   FAngle=0   DAngle=0

TABLE:  "MATERIAL PROPERTIES 03E - REBAR DATA"
   Material=A615Gr60   Fy=413685.473370947   Fu=620528.21005642   EffFy=455054.020708041   EffFu=682581.031062062
SSCurveOpt=Simple   SSHysType=Kinematic   SHard=0.01   SCap=0.09   UseCTDef=No
   Material=REBAR   Fy=275790   Fu=413685   EffFy=303369   EffFu=455053.5   SSCurveOpt=Simple   SSHysType=Kinematic
SHard=0.01   SCap=0.09   UseCTDef=No

TABLE:  "MATERIAL PROPERTIES 03G - OTHER DATA"
   Material=OTHER   SSHysType=Elastic   FAngle=0   DAngle=0

TABLE:  "MATERIAL PROPERTIES 04 - USER STRESS-STRAIN CURVES"
   Material=CONC   Point=1   Strain=-61.1370970666087   Stress=0   PointID=-E
   Material=CONC   Point=2   Strain=-42.7959679466261   Stress=-7.50000858209048   PointID=-D
```

```
   Material=CONC    Point=3    Strain=-24.4548388266435    Stress=-15.000017164181    PointID=-C
   Material=CONC    Point=4    Strain=-2.52981091310105    Stress=-15.000017164181    PointID=-B
   Material=CONC    Point=5    Strain=0    Stress=0    PointID=A
   Material=CONC    Point=6    Strain=2.52981091310105    Stress=15.000017164181    PointID=B
   Material=CONC    Point=7    Strain=24.4548388266435    Stress=15.000017164181
   Material=CONC    Point=8    Strain=61.1370970666087    Stress=18.7500214552262    PointID=C
   Material=CONC    Point=9    Strain=97.8193553065738    Stress=18.7500214552262    PointID=D
   Material=CONC    Point=10    Strain=122.274194133217    Stress=15.000017164181    PointID=E
   Material=OTHER    Point=1    Strain=-1    Stress=-1
   Material=OTHER    Point=2    Strain=0    Stress=0    PointID=A
   Material=OTHER    Point=3    Strain=1    Stress=1
   Material=STEEL    Point=1    Strain=-40.2777799635555    Stress=0    PointID=-E
   Material=STEEL    Point=2    Strain=-28.1944459744888    Stress=-0.499999974109897    PointID=-D
   Material=STEEL    Point=3    Strain=-16.1111119854222    Stress=-0.999999948219794    PointID=-C
   Material=STEEL    Point=4    Strain=-1.00000005426758    Stress=-0.999999948219794    PointID=-B
   Material=STEEL    Point=5    Strain=0    Stress=0    PointID=A
   Material=STEEL    Point=6    Strain=1.00000005426758    Stress=0.999999948219794    PointID=B
   Material=STEEL    Point=7    Strain=16.1111119854222    Stress=0.999999948219794
   Material=STEEL    Point=8    Strain=40.2777799635555    Stress=1.61111102768745    PointID=C
   Material=STEEL    Point=9    Strain=64.4444479416888    Stress=1.61111102768745    PointID=D
   Material=STEEL    Point=10    Strain=80.555559927111    Stress=0.999999948219794    PointID=E

TABLE:  "MATERIAL PROPERTIES 06 - DAMPING PARAMETERS"
   Material=A615Gr60    ModalRatio=0    VisMass=0    VisStiff=0    HysMass=0    HysStiff=0
   Material=CONC    ModalRatio=0    VisMass=0    VisStiff=0    HysMass=0    HysStiff=0
   Material=OTHER    ModalRatio=0    VisMass=0    VisStiff=0    HysMass=0    HysStiff=0
   Material=REBAR    ModalRatio=0    VisMass=0    VisStiff=0    HysMass=0    HysStiff=0
   Material=STEEL    ModalRatio=0    VisMass=0    VisStiff=0    HysMass=0    HysStiff=0

TABLE:  "FRAME SECTION PROPERTIES 01 - GENERAL"
   SectionName=100X110    Material=CONC    Shape=Rectangular    t3=1.1    t2=1    Area=1.1    TorsConst=0.168619402135555
I33=0.110916666666667    I22=9.16666666666667E-02    AS2=0.916666666666667    AS3=0.916666666666667
S33=0.201666666666667 _
       S22=0.183333333333333    Z33=0.3025    Z22=0.275    R33=0.317542648054294    R22=0.288675134594813    ConcCol=No
ConcBeam=Yes    Color=Black    TotalWt=405.35    TotalMass=38.9249512968063    FromFile=No    AMod=1    A2Mod=1    A3Mod=1
_
       JMod=1    I2Mod=1    I3Mod=1    MMod=1    WMod=1
   SectionName=100X130    Material=CONC    Shape=Rectangular    t3=1.3    t2=1    Area=1.3    TorsConst=0.229460569774634
I33=0.183083333333333    I22=0.108333333333333    AS2=1.08333333333333    AS3=1.08333333333333    S33=0.281666666666667
_
       S22=0.216666666666667    Z33=0.4225    Z22=0.325    R33=0.375277674973257    R22=0.288675134594813    ConcCol=No
ConcBeam=Yes    Color=Black    TotalWt=479.05    TotalMass=46.0022151689529    FromFile=No    AMod=1    A2Mod=1    A3Mod=1
_
       JMod=1    I2Mod=1    I3Mod=1    MMod=1    WMod=1
   SectionName=100X140    Material=CONC    Shape=Rectangular    t3=1.4    t2=1    Area=1.4    TorsConst=0.261222060252672
I33=0.228666666666667    I22=0.116666666666667    AS2=1.16666666666667    AS3=1.16666666666667    S33=0.326666666666667
_
       S22=0.233333333333333    Z33=0.49    Z22=0.35    R33=0.404145188432738    R22=0.288675134594813    ConcCol=No
ConcBeam=Yes    Color=Black    TotalWt=504    TotalMass=48.398113861084    FromFile=No    AMod=1    A2Mod=1    A3Mod=1
JMod=1 _
       I2Mod=1    I3Mod=1    MMod=1    WMod=1

TABLE:  "FRAME SECTION PROPERTIES 03 - CONCRETE BEAM"
   SectionName=100X110    RebarMatL=A615Gr60    RebarMatC=REBAR    TopCover=0    BotCover=0    TopLeftArea=0
TopRghtArea=0    BotLeftArea=0    BotRghtArea=0
   SectionName=100X130    RebarMatL=A615Gr60    RebarMatC=REBAR    TopCover=0    BotCover=0    TopLeftArea=0
TopRghtArea=0    BotLeftArea=0    BotRghtArea=0
   SectionName=100X140    RebarMatL=A615Gr60    RebarMatC=REBAR    TopCover=3.99999991059303E-02
BotCover=3.99999991059303E-02    TopLeftArea=0    TopRghtArea=0    BotLeftArea=0    BotRghtArea=0

TABLE:  "LOAD CASE DEFINITIONS"
   LoadCase=1PESOPR    DesignType=OTHER    SelfWtMult=1
   LoadCase=2PERMAN    DesignType=OTHER    SelfWtMult=0
   LoadCase=3TERRSIM    DesignType=OTHER    SelfWtMult=0
   LoadCase=4TERRASI    DesignType=OTHER    SelfWtMult=0
   LoadCase=5TERRATT    DesignType=OTHER    SelfWtMult=0
   LoadCase=6LM71CEN    DesignType=OTHER    SelfWtMult=0
   LoadCase=7LM71DIS    DesignType=OTHER    SelfWtMult=0
   LoadCase=8SPLM71    DesignType=OTHER    SelfWtMult=0
   LoadCase=9AVVLM71    DesignType=OTHER    SelfWtMult=0
   LoadCase=10SW2CEN    DesignType=OTHER    SelfWtMult=0
   LoadCase=11SPSW2    DesignType=OTHER    SelfWtMult=0
   LoadCase=12FRESW2    DesignType=OTHER    SelfWtMult=0
   LoadCase=13TEMPER    DesignType=OTHER    SelfWtMult=0
   LoadCase=SPSISMIC    DesignType=OTHER    SelfWtMult=0
   LoadCase=SOVRSISM    DesignType=OTHER    SelfWtMult=0
   LoadCase=SOVRSISV    DesignType=OTHER    SelfWtMult=0
   LoadCase=INERZIAH    DesignType=OTHER    SelfWtMult=0
   LoadCase=INERZIAV    DesignType=OTHER    SelfWtMult=0

TABLE:  "AUTO WAVE 3 - WAVE CHARACTERISTICS - GENERAL"
```

```
   WaveChar=Default   WaveType="From Theory"   KinFactor=1   SWaterDepth=1800   WaveHeight=720   WavePeriod=12
WaveTheory=Linear

TABLE:  "COMBINATION DEFINITIONS"
   ComboName=TA1G1A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1B1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1D1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1E1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1F1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G1F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1A2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1A2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1C2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1C2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1C2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1C2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1D2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1E2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1E2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1F2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G1F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1B3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1B3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1B3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1C3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1C3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G1D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1D3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G1D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1E3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G1E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G1E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G1F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G1F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G1F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G1F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G1F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G1F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G31A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G31B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G31C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G31D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G31E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31E1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G31F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G31F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31F1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G31A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31A2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31A2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G31B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G31C2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G31D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31D2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G31E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G31E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G31F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31F2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G31A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
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   ComboName=TA1G31B3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G31C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31C3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G31D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G31D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=1
   ComboName=TA1G31D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31D3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G31E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G31E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=1
   ComboName=TA1G31E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=1
   ComboName=TA1G31E3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G31E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G31F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=1
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=1
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G31F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G32A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G32B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32B1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G32C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G32C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32C1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA1G32D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA1G32D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G32D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32D1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G32E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G32F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G32A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32A2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
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   ComboName=TA1G32A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32A2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32C2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G32E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32E2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G32F2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G32A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32C3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA1G32D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=1
   ComboName=TA1G32D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA1G32E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32E3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.699999988079071
   ComboName=TA1G32E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.699999988079071
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   ComboName=TA1G32E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA1G32F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.699999988079071
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.699999988079071
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=1
   ComboName=TA1G32F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA2G1A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1B1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1D1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1E1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1F1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G1F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1A2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1A2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA2G1C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1C2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1D2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA2G1E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1F2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1F2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G1F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1B3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1B3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1C3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1C3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G1D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA2G1D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1E3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G1E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G1F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G1F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G1F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G1F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G1F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
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   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31C2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31F2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
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   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31C3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G31D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G31E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G31F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G31F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.5600000002384186
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.5600000002384186
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G32A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.5600000002384186
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.5600000002384186
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G32B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.5600000002384186
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.5600000002384186
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G32C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.5600000002384186
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.5600000002384186
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G32D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.5600000002384186
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.5600000002384186
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA2G32E1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32F1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.5600000002384186
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.5600000002384186
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA2G32F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
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   ComboName=TA2G32A2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32A2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32B2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.560000002384186
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32B2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32C2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.560000002384186
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.800000011920929
   ComboName=TA2G32C2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32D2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32D2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32E2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.560000002384186
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32E2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32F2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.560000002384186
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.800000011920929
   ComboName=TA2G32F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.560000002384186
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32C3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.560000002384186
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.800000011920929
   ComboName=TA2G32C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=1
   ComboName=TA2G32D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA2G32E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.560000002384186
   ComboName=TA2G32E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.560000002384186
   ComboName=TA2G32E3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA2G32E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
   ComboName=TA2G32F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.560000002384186
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.560000002384186
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.800000011920929
   ComboName=TA2G32F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-1
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA3SCAR1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA3SCAR1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA3SCAR2   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA3SCAR2   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA3SCAR2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA3SCAR3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA3SCAR3   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA3SCAR3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA3SCAR4   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA3SCAR4   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA3SCAR4   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
   ComboName=TA3SCAR4   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA3SCAR5   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA3SCAR5   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA3SCAR5   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA3SCAR5   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA3SCAR6   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA3SCAR6   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA3SCAR6   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA3SCAR6   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA5G61A1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.800000011920929
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61A1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA5G61B1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61B1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA5G61B1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.800000011920929
   ComboName=TA5G61B1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61B1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61B1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA5G61C1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.800000011920929
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.800000011920929
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.800000011920929
   ComboName=TA5G61C1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.600000023841858
   ComboName=TA5G61D1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61D1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA5G61D1   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.800000011920929
   ComboName=TA5G61D1   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61D1   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.800000011920929
   ComboName=TA5G61D1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.600000023841858
   ComboName=TA5G61E1   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61E1   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TA5G61E1   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.800000011920929
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61F1   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F1   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F1   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F1   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
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   ComboName=TA5G61A2   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61A2   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61B2   CaseType="Linear Static"   CaseName=4TERRASI   ScaleFactor=1
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ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61F2   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F2   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA5G61A3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61A3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA5G61A3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA5G61A3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61A3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61A3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
   ComboName=TA5G61B3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
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   ComboName=TA5G61B3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61B3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
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   ComboName=TA5G61C3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA5G61C3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61C3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61C3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=0.6000000023841858
```

```
   ComboName=TA5G61D3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=6LM71CEN   ScaleFactor=0.8000000011920929
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61D3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA5G61E3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=7LM71DIS   ScaleFactor=0.8000000011920929
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=8SPLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=9AVVLM71   ScaleFactor=0.8000000011920929
   ComboName=TA5G61E3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=TA5G61F3   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=5TERRATT   ScaleFactor=1
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=10SW2CEN   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=11SPSW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=12FRESW2   ScaleFactor=0.8000000011920929
   ComboName=TA5G61F3   CaseType="Linear Static"   CaseName=13TEMPER   ScaleFactor=-0.6000000023841858
   ComboName=ENVTA11   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA1G1A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1B1   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1C1   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1D1   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1E1   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1F1   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1A2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1B2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1C2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1D2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1E2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1F2   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1A3   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1B3   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1C3   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1D3   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1E3   ScaleFactor=1
   ComboName=ENVTA11   CaseType="Response Combo"   CaseName=TA1G1F3   ScaleFactor=1
   ComboName=ENVTA131   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA1G31A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31B1   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31C1   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31D1   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31E1   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31F1   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31A2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31B2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31C2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31D2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31E2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31F2   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31A3   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31B3   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31C3   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31D3   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31E3   ScaleFactor=1
   ComboName=ENVTA131   CaseType="Response Combo"   CaseName=TA1G31F3   ScaleFactor=1
   ComboName=ENVTA132   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA1G32A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32B1   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32C1   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32D1   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32E1   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32F1   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32A2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32B2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32C2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32D2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32E2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32F2   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32A3   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32B3   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32C3   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32D3   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32E3   ScaleFactor=1
   ComboName=ENVTA132   CaseType="Response Combo"   CaseName=TA1G32F3   ScaleFactor=1
```

```
   ComboName=ENVTA21   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA2G1A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1B1   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1C1   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1D1   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1E1   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1F1   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1A2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1B2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1C2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1D2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1E2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1F2   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1A3   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1B3   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1C3   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1D3   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1E3   ScaleFactor=1
   ComboName=ENVTA21   CaseType="Response Combo"   CaseName=TA2G1F3   ScaleFactor=1
   ComboName=ENVTA231   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA2G31A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31B1   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31C1   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31D1   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31E1   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31F1   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31A2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31B2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31C2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31D2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31E2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31F2   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31A3   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31B3   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31C3   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31D3   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31E3   ScaleFactor=1
   ComboName=ENVTA231   CaseType="Response Combo"   CaseName=TA2G31F3   ScaleFactor=1
   ComboName=ENVTA232   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA2G32A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32B1   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32C1   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32D1   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32E1   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32F1   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32A2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32B2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32C2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32D2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32E2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32F2   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32A3   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32B3   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32C3   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32D3   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32E3   ScaleFactor=1
   ComboName=ENVTA232   CaseType="Response Combo"   CaseName=TA2G32F3   ScaleFactor=1
   ComboName=ENVETA3   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA3SCAR1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVETA3   CaseType="Response Combo"   CaseName=TA3SCAR2   ScaleFactor=1
   ComboName=ENVETA3   CaseType="Response Combo"   CaseName=TA3SCAR3   ScaleFactor=1
   ComboName=ENVETA3   CaseType="Response Combo"   CaseName=TA3SCAR4   ScaleFactor=1
   ComboName=ENVETA3   CaseType="Response Combo"   CaseName=TA3SCAR5   ScaleFactor=1
   ComboName=ENVETA3   CaseType="Response Combo"   CaseName=TA3SCAR6   ScaleFactor=1
   ComboName=ENVETA5   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TA5G61A1
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61B1   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61C1   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61D1   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61E1   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61F1   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61A2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61B2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61C2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61D2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61E2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61F2   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61A3   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61B3   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61C3   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61D3   ScaleFactor=1
   ComboName=ENVETA5   CaseType="Response Combo"   CaseName=TA5G61E3   ScaleFactor=1
```

```
   ComboName=ENVETA1   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=ENVTA11
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVETA1   CaseType="Response Combo"   CaseName=ENVTA131   ScaleFactor=1
   ComboName=ENVETA1   CaseType="Response Combo"   CaseName=ENVTA132   ScaleFactor=1
   ComboName=ENVETA2   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=ENVTA21
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVETA2   CaseType="Response Combo"   CaseName=ENVTA231   ScaleFactor=1
   ComboName=ENVETA2   CaseType="Response Combo"   CaseName=ENVTA232   ScaleFactor=1
   ComboName=SOVRSIS   ComboType=Envelope   AutoDesign=No   CaseType="Linear Static"   CaseName=SOVRSISM
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=SOVRSIS   CaseType="Linear Static"   CaseName=SOVRSISV   ScaleFactor=1
   ComboName=INERZIAP   ComboType=SRSS   AutoDesign=No   CaseType="Linear Static"   CaseName=INERZIAH
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=INERZIAP   CaseType="Linear Static"   CaseName=INERZIAV   ScaleFactor=1
   ComboName=INERZIAN   ComboType=SRSS   AutoDesign=No   CaseType="Linear Static"   CaseName=INERZIAH
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=INERZIAN   CaseType="Linear Static"   CaseName=INERZIAV   ScaleFactor=-1
   ComboName=15SISMAP   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=SPSISMIC
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=15SISMAP   CaseType="Response Combo"   CaseName=SOVRSIS   ScaleFactor=1
   ComboName=15SISMAP   CaseType="Response Combo"   CaseName=INERZIAP   ScaleFactor=1
   ComboName=15SISMAN   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=SPSISMIC
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=15SISMAN   CaseType="Response Combo"   CaseName=SOVRSIS   ScaleFactor=1
   ComboName=15SISMAN   CaseType="Response Combo"   CaseName=INERZIAN   ScaleFactor=1
   ComboName=TASISMAP   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TASISMAP   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TASISMAP   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TASISMAP   CaseType="Response Combo"   CaseName=15SISMAP   ScaleFactor=1
   ComboName=TASISMAN   ComboType="Linear Add"   AutoDesign=No   CaseType="Linear Static"   CaseName=1PESOPR
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=TASISMAN   CaseType="Linear Static"   CaseName=2PERMAN   ScaleFactor=1
   ComboName=TASISMAN   CaseType="Linear Static"   CaseName=3TERRSIM   ScaleFactor=1
   ComboName=TASISMAN   CaseType="Response Combo"   CaseName=15SISMAN   ScaleFactor=1
   ComboName=ENVSISMA   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=TASISMAP
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVSISMA   CaseType="Response Combo"   CaseName=TASISMAN   ScaleFactor=1
   ComboName=ENVETA   ComboType=Envelope   AutoDesign=No   CaseType="Response Combo"   CaseName=ENVETA3
ScaleFactor=1   SteelDesign=No   ConcDesign=No   AlumDesign=No   ColdDesign=No
   ComboName=ENVETA   CaseType="Response Combo"   CaseName=ENVETA1   ScaleFactor=1
   ComboName=ENVETA   CaseType="Response Combo"   CaseName=ENVETA2   ScaleFactor=1
   ComboName=ENVETA   CaseType="Response Combo"   CaseName=ENVSISMA   ScaleFactor=1

TABLE:  "GROUPS 1 - DEFINITIONS"
   GroupName=ALL   Selection=Yes   SectionCut=Yes   Steel=Yes   Concrete=Yes   Aluminum=Yes   ColdFormed=Yes
Stage=Yes   Bridge=Yes   AutoSeismic=No   AutoWind=No   SelDesSteel=No   SelDesAlum=No   SelDesCold=No
MassWeight=Yes   Color=Yellow

TABLE:  "GROUPS 3 - MASSES AND WEIGHTS"
   GroupName=ALL   SelfMass=133.325280326843   SelfWeight=1388.4   TotalMassX=133.325280326843
TotalMassY=133.325280326843   TotalMassZ=133.325280326843

TABLE:  "JOINT PATTERN DEFINITIONS"
   Pattern=DEFAULT
   Pattern=FALDA

TABLE:  "MASSES 1 - MASS SOURCE"
   MassFrom=Elements

TABLE:  "FUNCTION - PLOT FUNCTIONS"
   PlotFunc="Input Energy"   Type=Energy   Component=Input   Mode=All

TABLE:  "ANALYSIS CASE DEFINITIONS"
   Case=1PESOPR   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=2PERMAN   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=3TERRSIM   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=4TERRASI   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=5TERRATT   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=6LM71CEN   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=7LM71DIS   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=8SPLM71   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=9AVVLM71   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=10SW2CEN   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=11SPSW2   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=12FRESW2   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=13TEMPER   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=SPSISMIC   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=SOVRSISM   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=SOVRSISV   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=INERZIAH   Type=LinStatic   InitialCond=Zero   RunCase=Yes
   Case=INERZIAV   Type=LinStatic   InitialCond=Zero   RunCase=Yes
```

```
TABLE:  "CASE - STATIC 1 - LOAD ASSIGNMENTS"
   Case=1PESOPR   LoadType="Load case"   LoadName=1PESOPR   LoadSF=1
   Case=2PERMAN   LoadType="Load case"   LoadName=2PERMAN   LoadSF=1
   Case=3TERRSIM   LoadType="Load case"   LoadName=3TERRSIM   LoadSF=1
   Case=4TERRASI   LoadType="Load case"   LoadName=4TERRASI   LoadSF=1
   Case=5TERRATT   LoadType="Load case"   LoadName=5TERRATT   LoadSF=1
   Case=6LM71CEN   LoadType="Load case"   LoadName=6LM71CEN   LoadSF=1
   Case=7LM71DIS   LoadType="Load case"   LoadName=7LM71DIS   LoadSF=1
   Case=8SPLM71   LoadType="Load case"   LoadName=8SPLM71   LoadSF=1
   Case=9AVVLM71   LoadType="Load case"   LoadName=9AVVLM71   LoadSF=1
   Case=10SW2CEN   LoadType="Load case"   LoadName=10SW2CEN   LoadSF=1
   Case=11SPSW2   LoadType="Load case"   LoadName=11SPSW2   LoadSF=1
   Case=12FRESW2   LoadType="Load case"   LoadName=12FRESW2   LoadSF=1
   Case=13TEMPER   LoadType="Load case"   LoadName=13TEMPER   LoadSF=1
   Case=SPSISMIC   LoadType="Load case"   LoadName=SPSISMIC   LoadSF=1
   Case=SOVRSISM   LoadType="Load case"   LoadName=SOVRSISM   LoadSF=1
   Case=SOVRSISV   LoadType="Load case"   LoadName=SOVRSISV   LoadSF=1
   Case=INERZIAH   LoadType="Load case"   LoadName=INERZIAH   LoadSF=1
   Case=INERZIAV   LoadType="Load case"   LoadName=INERZIAV   LoadSF=1

TABLE:  "JOINT COORDINATES"
   Joint=1   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=0   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=0
   Joint=2   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.02   Y=0   Z=0   SpecialJt=No   GlobalX=-7.02
GlobalY=0   GlobalZ=0
   Joint=3   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-6.67   Y=0   Z=0   SpecialJt=No   GlobalX=-6.67
GlobalY=0   GlobalZ=0
   Joint=5   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=1.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=1.15
   Joint=6   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=1.65   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=1.65
   Joint=7   CoordSys=GLOBAL   CoordType=Cartesian   XorR=0   Y=0   Z=0   SpecialJt=No   GlobalX=0   GlobalY=0
GlobalZ=0
   Joint=8   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=2.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=2.15
   Joint=9   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=2.65   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=2.65
   Joint=10   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=3.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=3.15
   Joint=11   CoordSys=GLOBAL   CoordType=Cartesian   XorR=6.67   Y=0   Z=0   SpecialJt=No   GlobalX=6.67
GlobalY=0   GlobalZ=0
   Joint=12   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.02   Y=0   Z=0   SpecialJt=No   GlobalX=7.02
GlobalY=0   GlobalZ=0
   Joint=13   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=0   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=0
   Joint=14   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=7.2   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=7.2
   Joint=15   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.02   Y=0   Z=7.2   SpecialJt=No   GlobalX=-7.02
GlobalY=0   GlobalZ=7.2
   Joint=16   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-6.67   Y=0   Z=7.2   SpecialJt=No   GlobalX=-6.67
GlobalY=0   GlobalZ=7.2
   Joint=17   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=3.65   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=3.65
   Joint=18   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=4.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=4.15
   Joint=19   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=4.65   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=4.65
   Joint=20   CoordSys=GLOBAL   CoordType=Cartesian   XorR=0   Y=0   Z=7.2   SpecialJt=No   GlobalX=0   GlobalY=0
GlobalZ=7.2
   Joint=21   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=5.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=5.15
   Joint=22   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=5.65   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=5.65
   Joint=23   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=6.15   SpecialJt=No   GlobalX=-7.37
GlobalY=0   GlobalZ=6.15
   Joint=24   CoordSys=GLOBAL   CoordType=Cartesian   XorR=6.67   Y=0   Z=7.2   SpecialJt=No   GlobalX=6.67
GlobalY=0   GlobalZ=7.2
   Joint=25   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.02   Y=0   Z=7.2   SpecialJt=No   GlobalX=7.02
GlobalY=0   GlobalZ=7.2
   Joint=26   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=7.2   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=7.2
   Joint=27   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=0.325   SpecialJt=Yes   GlobalX=-7.37
GlobalY=0   GlobalZ=0.325
   Joint=28   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=0.65   SpecialJt=Yes   GlobalX=-7.37
GlobalY=0   GlobalZ=0.65
   Joint=29   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=1.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=1.15
   Joint=30   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=1.65   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=1.65
   Joint=31   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=2.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=2.15
```

```
   Joint=32   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=6.65   SpecialJt=Yes   GlobalX=-7.37
GlobalY=0   GlobalZ=6.65
   Joint=33   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-7.37   Y=0   Z=6.925   SpecialJt=Yes   GlobalX=-7.37
GlobalY=0   GlobalZ=6.925
   Joint=34   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=0.325   SpecialJt=Yes   GlobalX=7.37
GlobalY=0   GlobalZ=0.325
   Joint=35   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=0.65   SpecialJt=Yes   GlobalX=7.37
GlobalY=0   GlobalZ=0.65
   Joint=36   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=2.65   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=2.65
   Joint=37   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=3.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=3.15
   Joint=38   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=3.65   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=3.65
   Joint=39   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=6.65   SpecialJt=Yes   GlobalX=7.37
GlobalY=0   GlobalZ=6.65
   Joint=40   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=6.925   SpecialJt=Yes   GlobalX=7.37
GlobalY=0   GlobalZ=6.925
   Joint=41   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=4.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=4.15
   Joint=42   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=4.65   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=4.65
   Joint=43   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=5.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=5.15
   Joint=44   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=5.65   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=5.65
   Joint=45   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-6.15692307692308   Y=0   Z=0   SpecialJt=No   GlobalX=-
6.15692307692308   GlobalY=0   GlobalZ=0
   Joint=46   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-5.64384615384615   Y=0   Z=0   SpecialJt=No   GlobalX=-
5.64384615384615   GlobalY=0   GlobalZ=0
   Joint=47   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-5.13076923076923   Y=0   Z=0   SpecialJt=No   GlobalX=-
5.13076923076923   GlobalY=0   GlobalZ=0
   Joint=48   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-4.61769230769231   Y=0   Z=0   SpecialJt=No   GlobalX=-
4.61769230769231   GlobalY=0   GlobalZ=0
   Joint=49   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-4.10461538461538   Y=0   Z=0   SpecialJt=No   GlobalX=-
4.10461538461538   GlobalY=0   GlobalZ=0
   Joint=50   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-3.59153846153846   Y=0   Z=0   SpecialJt=No   GlobalX=-
3.59153846153846   GlobalY=0   GlobalZ=0
   Joint=51   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-3.07846153846154   Y=0   Z=0   SpecialJt=No   GlobalX=-
3.07846153846154   GlobalY=0   GlobalZ=0
   Joint=52   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-2.56538461538462   Y=0   Z=0   SpecialJt=No   GlobalX=-
2.56538461538462   GlobalY=0   GlobalZ=0
   Joint=53   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-2.05230769230769   Y=0   Z=0   SpecialJt=No   GlobalX=-
2.05230769230769   GlobalY=0   GlobalZ=0
   Joint=54   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-1.53923076923077   Y=0   Z=0   SpecialJt=No   GlobalX=-
1.53923076923077   GlobalY=0   GlobalZ=0
   Joint=55   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-1.02615384615385   Y=0   Z=0   SpecialJt=No   GlobalX=-
1.02615384615385   GlobalY=0   GlobalZ=0
   Joint=56   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-0.513076923076924   Y=0   Z=0   SpecialJt=No   GlobalX=-
0.513076923076924   GlobalY=0   GlobalZ=0
   Joint=57   CoordSys=GLOBAL   CoordType=Cartesian   XorR=0.513076923076923   Y=0   Z=0   SpecialJt=No
GlobalX=0.513076923076923   GlobalY=0   GlobalZ=0
   Joint=58   CoordSys=GLOBAL   CoordType=Cartesian   XorR=1.02615384615385   Y=0   Z=0   SpecialJt=No
GlobalX=1.02615384615385   GlobalY=0   GlobalZ=0
   Joint=59   CoordSys=GLOBAL   CoordType=Cartesian   XorR=1.53923076923077   Y=0   Z=0   SpecialJt=No
GlobalX=1.53923076923077   GlobalY=0   GlobalZ=0
   Joint=60   CoordSys=GLOBAL   CoordType=Cartesian   XorR=2.05230769230769   Y=0   Z=0   SpecialJt=No
GlobalX=2.05230769230769   GlobalY=0   GlobalZ=0
   Joint=61   CoordSys=GLOBAL   CoordType=Cartesian   XorR=2.56538461538462   Y=0   Z=0   SpecialJt=No
GlobalX=2.56538461538462   GlobalY=0   GlobalZ=0
   Joint=62   CoordSys=GLOBAL   CoordType=Cartesian   XorR=3.07846153846154   Y=0   Z=0   SpecialJt=No
GlobalX=3.07846153846154   GlobalY=0   GlobalZ=0
   Joint=63   CoordSys=GLOBAL   CoordType=Cartesian   XorR=3.59153846153846   Y=0   Z=0   SpecialJt=No
GlobalX=3.59153846153846   GlobalY=0   GlobalZ=0
   Joint=64   CoordSys=GLOBAL   CoordType=Cartesian   XorR=4.10461538461538   Y=0   Z=0   SpecialJt=No
GlobalX=4.10461538461538   GlobalY=0   GlobalZ=0
   Joint=65   CoordSys=GLOBAL   CoordType=Cartesian   XorR=4.61769230769231   Y=0   Z=0   SpecialJt=No
GlobalX=4.61769230769231   GlobalY=0   GlobalZ=0
   Joint=66   CoordSys=GLOBAL   CoordType=Cartesian   XorR=5.13076923076923   Y=0   Z=0   SpecialJt=No
GlobalX=5.13076923076923   GlobalY=0   GlobalZ=0
   Joint=67   CoordSys=GLOBAL   CoordType=Cartesian   XorR=5.64384615384615   Y=0   Z=0   SpecialJt=No
GlobalX=5.64384615384615   GlobalY=0   GlobalZ=0
   Joint=68   CoordSys=GLOBAL   CoordType=Cartesian   XorR=6.15692307692308   Y=0   Z=0   SpecialJt=No
GlobalX=6.15692307692308   GlobalY=0   GlobalZ=0
   Joint=69   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-6.15692307692308   Y=0   Z=7.2   SpecialJt=No
GlobalX=-6.15692307692308   GlobalY=0   GlobalZ=7.2
   Joint=70   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-5.64384615384615   Y=0   Z=7.2   SpecialJt=No
GlobalX=-5.64384615384615   GlobalY=0   GlobalZ=7.2
   Joint=71   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-5.13076923076923   Y=0   Z=7.2   SpecialJt=No
GlobalX=-5.13076923076923   GlobalY=0   GlobalZ=7.2
   Joint=72   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-4.61769230769231   Y=0   Z=7.2   SpecialJt=No
GlobalX=-4.61769230769231   GlobalY=0   GlobalZ=7.2
```

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   Joint=73   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-4.10461538461538   Y=0   Z=7.2   SpecialJt=No
GlobalX=-4.10461538461538   GlobalY=0   GlobalZ=7.2
   Joint=74   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-3.59153846153846   Y=0   Z=7.2   SpecialJt=No
GlobalX=-3.59153846153846   GlobalY=0   GlobalZ=7.2
   Joint=75   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-3.2   Y=0   Z=7.2   SpecialJt=No   GlobalX=-3.2
GlobalY=0   GlobalZ=7.2
   Joint=76   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-2.56538461538462   Y=0   Z=7.2   SpecialJt=No
GlobalX=-2.56538461538462   GlobalY=0   GlobalZ=7.2
   Joint=77   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-2.05230769230769   Y=0   Z=7.2   SpecialJt=No
GlobalX=-2.05230769230769   GlobalY=0   GlobalZ=7.2
   Joint=78   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-1.67   Y=0   Z=7.2   SpecialJt=No   GlobalX=-1.67
GlobalY=0   GlobalZ=7.2
   Joint=79   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-1.02615384615385   Y=0   Z=7.2   SpecialJt=No
GlobalX=-1.02615384615385   GlobalY=0   GlobalZ=7.2
   Joint=80   CoordSys=GLOBAL   CoordType=Cartesian   XorR=-0.513076923076924   Y=0   Z=7.2   SpecialJt=No
GlobalX=-0.513076923076924   GlobalY=0   GlobalZ=7.2
   Joint=81   CoordSys=GLOBAL   CoordType=Cartesian   XorR=0.513076923076923   Y=0   Z=7.2   SpecialJt=No
GlobalX=0.513076923076923   GlobalY=0   GlobalZ=7.2
   Joint=82   CoordSys=GLOBAL   CoordType=Cartesian   XorR=1.02615384615385   Y=0   Z=7.2   SpecialJt=No
GlobalX=1.02615384615385   GlobalY=0   GlobalZ=7.2
   Joint=83   CoordSys=GLOBAL   CoordType=Cartesian   XorR=1.53923076923077   Y=0   Z=7.2   SpecialJt=No
GlobalX=1.53923076923077   GlobalY=0   GlobalZ=7.2
   Joint=84   CoordSys=GLOBAL   CoordType=Cartesian   XorR=2.05230769230769   Y=0   Z=7.2   SpecialJt=No
GlobalX=2.05230769230769   GlobalY=0   GlobalZ=7.2
   Joint=85   CoordSys=GLOBAL   CoordType=Cartesian   XorR=2.56538461538462   Y=0   Z=7.2   SpecialJt=No
GlobalX=2.56538461538462   GlobalY=0   GlobalZ=7.2
   Joint=86   CoordSys=GLOBAL   CoordType=Cartesian   XorR=3.2   Y=0   Z=7.2   SpecialJt=No   GlobalX=3.2
GlobalY=0   GlobalZ=7.2
   Joint=87   CoordSys=GLOBAL   CoordType=Cartesian   XorR=3.59153846153846   Y=0   Z=7.2   SpecialJt=No
GlobalX=3.59153846153846   GlobalY=0   GlobalZ=7.2
   Joint=88   CoordSys=GLOBAL   CoordType=Cartesian   XorR=4.10461538461538   Y=0   Z=7.2   SpecialJt=No
GlobalX=4.10461538461538   GlobalY=0   GlobalZ=7.2
   Joint=89   CoordSys=GLOBAL   CoordType=Cartesian   XorR=4.61769230769231   Y=0   Z=7.2   SpecialJt=No
GlobalX=4.61769230769231   GlobalY=0   GlobalZ=7.2
   Joint=90   CoordSys=GLOBAL   CoordType=Cartesian   XorR=5.13076923076923   Y=0   Z=7.2   SpecialJt=No
GlobalX=5.13076923076923   GlobalY=0   GlobalZ=7.2
   Joint=91   CoordSys=GLOBAL   CoordType=Cartesian   XorR=5.64384615384615   Y=0   Z=7.2   SpecialJt=No
GlobalX=5.64384615384615   GlobalY=0   GlobalZ=7.2
   Joint=92   CoordSys=GLOBAL   CoordType=Cartesian   XorR=6.15692307692308   Y=0   Z=7.2   SpecialJt=No
GlobalX=6.15692307692308   GlobalY=0   GlobalZ=7.2
   Joint=93   CoordSys=GLOBAL   CoordType=Cartesian   XorR=7.37   Y=0   Z=6.15   SpecialJt=No   GlobalX=7.37
GlobalY=0   GlobalZ=6.15

TABLE:  "CONNECTIVITY - FRAME"
   Frame=1   JointI=1   JointJ=2   IsCurved=No   Length=0.350000000000001   CentroidX=-7.195   CentroidY=0
CentroidZ=0
   Frame=2   JointI=2   JointJ=3   IsCurved=No   Length=0.35   CentroidX=-6.845   CentroidY=0   CentroidZ=0
   Frame=3   JointI=1   JointJ=27   IsCurved=No   Length=0.325   CentroidX=-7.37   CentroidY=0   CentroidZ=0.1625
   Frame=4   JointI=27   JointJ=28   IsCurved=No   Length=0.325   CentroidX=-7.37   CentroidY=0   CentroidZ=0.4875
   Frame=6   JointI=32   JointJ=33   IsCurved=No   Length=0.274999999999999   CentroidX=-7.37   CentroidY=0
CentroidZ=6.7875
   Frame=7   JointI=33   JointJ=14   IsCurved=No   Length=0.275   CentroidX=-7.37   CentroidY=0   CentroidZ=7.0625
   Frame=8   JointI=13   JointJ=34   IsCurved=No   Length=0.325   CentroidX=7.37   CentroidY=0   CentroidZ=0.1625
   Frame=9   JointI=34   JointJ=35   IsCurved=No   Length=0.325   CentroidX=7.37   CentroidY=0   CentroidZ=0.4875
   Frame=11   JointI=11   JointJ=12   IsCurved=No   Length=0.35   CentroidX=6.845   CentroidY=0   CentroidZ=0
   Frame=12   JointI=12   JointJ=13   IsCurved=No   Length=0.350000000000001   CentroidX=7.195   CentroidY=0
CentroidZ=0
   Frame=13   JointI=14   JointJ=15   IsCurved=No   Length=0.350000000000001   CentroidX=-7.195   CentroidY=0
CentroidZ=7.2
   Frame=14   JointI=15   JointJ=16   IsCurved=No   Length=0.35   CentroidX=-6.845   CentroidY=0   CentroidZ=7.2
   Frame=15   JointI=39   JointJ=40   IsCurved=No   Length=0.274999999999999   CentroidX=7.37   CentroidY=0
CentroidZ=6.7875
   Frame=16   JointI=40   JointJ=26   IsCurved=No   Length=0.275   CentroidX=7.37   CentroidY=0   CentroidZ=7.0625
   Frame=17   JointI=28   JointJ=5   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=0.9
   Frame=18   JointI=5   JointJ=6   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=1.4
   Frame=19   JointI=6   JointJ=8   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=1.9
   Frame=20   JointI=8   JointJ=9   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=2.4
   Frame=21   JointI=9   JointJ=10   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=2.9
   Frame=22   JointI=10   JointJ=17   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=3.4
   Frame=23   JointI=24   JointJ=25   IsCurved=No   Length=0.35   CentroidX=6.845   CentroidY=0   CentroidZ=7.2
   Frame=24   JointI=25   JointJ=26   IsCurved=No   Length=0.350000000000001   CentroidX=7.195   CentroidY=0
CentroidZ=7.2
   Frame=25   JointI=17   JointJ=18   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=3.9
   Frame=26   JointI=18   JointJ=19   IsCurved=No   Length=0.500000000000001   CentroidX=-7.37   CentroidY=0
CentroidZ=4.4
   Frame=27   JointI=19   JointJ=21   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=4.9
   Frame=28   JointI=21   JointJ=22   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=5.4
   Frame=29   JointI=22   JointJ=23   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=5.9
   Frame=30   JointI=23   JointJ=32   IsCurved=No   Length=0.5   CentroidX=-7.37   CentroidY=0   CentroidZ=6.4
   Frame=31   JointI=35   JointJ=29   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=0.9
   Frame=32   JointI=29   JointJ=30   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=1.4
   Frame=33   JointI=30   JointJ=31   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=1.9
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```
   Frame=34   JointI=31   JointJ=36   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=2.4
   Frame=35   JointI=36   JointJ=37   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=2.9
   Frame=36   JointI=37   JointJ=38   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=3.4
   Frame=37   JointI=38   JointJ=41   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=3.9
   Frame=38   JointI=41   JointJ=42   IsCurved=No   Length=0.500000000000001   CentroidX=7.37   CentroidY=0
CentroidZ=4.4
   Frame=39   JointI=42   JointJ=43   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=4.9
   Frame=40   JointI=43   JointJ=44   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=5.4
   Frame=41   JointI=44   JointJ=93   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=5.9
   Frame=42   JointI=93   JointJ=39   IsCurved=No   Length=0.5   CentroidX=7.37   CentroidY=0   CentroidZ=6.4
   Frame=46   JointI=3   JointJ=45   IsCurved=No   Length=0.513076923076923   CentroidX=-6.41346153846154
CentroidY=0   CentroidZ=0
   Frame=47   JointI=45   JointJ=46   IsCurved=No   Length=0.513076923076923   CentroidX=-5.90038461538462
CentroidY=0   CentroidZ=0
   Frame=48   JointI=46   JointJ=47   IsCurved=No   Length=0.513076923076923   CentroidX=-5.38730769230769
CentroidY=0   CentroidZ=0
   Frame=49   JointI=47   JointJ=48   IsCurved=No   Length=0.513076923076923   CentroidX=-4.87423076923077
CentroidY=0   CentroidZ=0
   Frame=50   JointI=48   JointJ=49   IsCurved=No   Length=0.513076923076922   CentroidX=-4.36115384615385
CentroidY=0   CentroidZ=0
   Frame=51   JointI=49   JointJ=50   IsCurved=No   Length=0.513076923076924   CentroidX=-3.84807692307692
CentroidY=0   CentroidZ=0
   Frame=52   JointI=50   JointJ=51   IsCurved=No   Length=0.513076923076923   CentroidX=-3.335   CentroidY=0
CentroidZ=0
   Frame=53   JointI=51   JointJ=52   IsCurved=No   Length=0.513076923076923   CentroidX=-2.82192307692308
CentroidY=0   CentroidZ=0
   Frame=54   JointI=52   JointJ=53   IsCurved=No   Length=0.513076923076923   CentroidX=-2.30884615384615
CentroidY=0   CentroidZ=0
   Frame=55   JointI=53   JointJ=54   IsCurved=No   Length=0.513076923076923   CentroidX=-1.79576923076923
CentroidY=0   CentroidZ=0
   Frame=56   JointI=54   JointJ=55   IsCurved=No   Length=0.513076923076923   CentroidX=-1.28269230769231
CentroidY=0   CentroidZ=0
   Frame=57   JointI=55   JointJ=56   IsCurved=No   Length=0.513076923076923   CentroidX=-0.769615384615385
CentroidY=0   CentroidZ=0
   Frame=58   JointI=56   JointJ=7   IsCurved=No   Length=0.513076923076924   CentroidX=-0.256538461538462
CentroidY=0   CentroidZ=0
   Frame=59   JointI=7   JointJ=57   IsCurved=No   Length=0.513076923076923   CentroidX=0.256538461538462
CentroidY=0   CentroidZ=0
   Frame=60   JointI=57   JointJ=58   IsCurved=No   Length=0.513076923076923   CentroidX=0.769615384615385
CentroidY=0   CentroidZ=0
   Frame=61   JointI=58   JointJ=59   IsCurved=No   Length=0.513076923076923   CentroidX=1.28269230769231
CentroidY=0   CentroidZ=0
   Frame=62   JointI=59   JointJ=60   IsCurved=No   Length=0.513076923076923   CentroidX=1.79576923076923
CentroidY=0   CentroidZ=0
   Frame=63   JointI=60   JointJ=61   IsCurved=No   Length=0.513076923076923   CentroidX=2.30884615384615
CentroidY=0   CentroidZ=0
   Frame=64   JointI=61   JointJ=62   IsCurved=No   Length=0.513076923076923   CentroidX=2.82192307692308
CentroidY=0   CentroidZ=0
   Frame=65   JointI=62   JointJ=63   IsCurved=No   Length=0.513076923076923   CentroidX=3.335   CentroidY=0
CentroidZ=0
   Frame=66   JointI=63   JointJ=64   IsCurved=No   Length=0.513076923076923   CentroidX=3.84807692307692
CentroidY=0   CentroidZ=0
   Frame=67   JointI=64   JointJ=65   IsCurved=No   Length=0.513076923076922   CentroidX=4.36115384615385
CentroidY=0   CentroidZ=0
   Frame=68   JointI=65   JointJ=66   IsCurved=No   Length=0.513076923076923   CentroidX=4.87423076923077
CentroidY=0   CentroidZ=0
   Frame=69   JointI=66   JointJ=67   IsCurved=No   Length=0.513076923076922   CentroidX=5.38730769230769
CentroidY=0   CentroidZ=0
   Frame=70   JointI=67   JointJ=68   IsCurved=No   Length=0.513076923076923   CentroidX=5.90038461538461
CentroidY=0   CentroidZ=0
   Frame=71   JointI=68   JointJ=11   IsCurved=No   Length=0.513076923076924   CentroidX=6.41346153846154
CentroidY=0   CentroidZ=0
   Frame=72   JointI=16   JointJ=69   IsCurved=No   Length=0.513076923076923   CentroidX=-6.41346153846154
CentroidY=0   CentroidZ=7.2
   Frame=73   JointI=69   JointJ=70   IsCurved=No   Length=0.513076923076923   CentroidX=-5.90038461538462
CentroidY=0   CentroidZ=7.2
   Frame=74   JointI=70   JointJ=71   IsCurved=No   Length=0.513076923076923   CentroidX=-5.38730769230769
CentroidY=0   CentroidZ=7.2
   Frame=75   JointI=71   JointJ=72   IsCurved=No   Length=0.513076923076923   CentroidX=-4.87423076923077
CentroidY=0   CentroidZ=7.2
   Frame=76   JointI=72   JointJ=73   IsCurved=No   Length=0.513076923076922   CentroidX=-4.36115384615385
CentroidY=0   CentroidZ=7.2
   Frame=77   JointI=73   JointJ=74   IsCurved=No   Length=0.513076923076924   CentroidX=-3.84807692307692
CentroidY=0   CentroidZ=7.2
   Frame=78   JointI=74   JointJ=75   IsCurved=No   Length=0.391538461538461   CentroidX=-3.39576923076923
CentroidY=0   CentroidZ=7.2
   Frame=79   JointI=75   JointJ=76   IsCurved=No   Length=0.634615384615385   CentroidX=-2.88269230769231
CentroidY=0   CentroidZ=7.2
   Frame=80   JointI=76   JointJ=77   IsCurved=No   Length=0.513076923076923   CentroidX=-2.30884615384615
CentroidY=0   CentroidZ=7.2
   Frame=81   JointI=77   JointJ=78   IsCurved=No   Length=0.382307692307692   CentroidX=-1.86115384615385
CentroidY=0   CentroidZ=7.2
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   Frame=82   JointI=78   JointJ=79   IsCurved=No   Length=0.643846153846153   CentroidX=-1.34807692307692
CentroidY=0   CentroidZ=7.2
   Frame=83   JointI=79   JointJ=80   IsCurved=No   Length=0.513076923076923   CentroidX=-0.769615384615385
CentroidY=0   CentroidZ=7.2
   Frame=84   JointI=80   JointJ=20   IsCurved=No   Length=0.513076923076924   CentroidX=-0.256538461538462
CentroidY=0   CentroidZ=7.2
   Frame=85   JointI=20   JointJ=81   IsCurved=No   Length=0.513076923076923   CentroidX=0.256538461538462
CentroidY=0   CentroidZ=7.2
   Frame=86   JointI=81   JointJ=82   IsCurved=No   Length=0.513076923076923   CentroidX=0.769615384615385
CentroidY=0   CentroidZ=7.2
   Frame=87   JointI=82   JointJ=83   IsCurved=No   Length=0.513076923076923   CentroidX=1.28269230769231
CentroidY=0   CentroidZ=7.2
   Frame=88   JointI=83   JointJ=84   IsCurved=No   Length=0.513076923076923   CentroidX=1.79576923076923
CentroidY=0   CentroidZ=7.2
   Frame=89   JointI=84   JointJ=85   IsCurved=No   Length=0.513076923076923   CentroidX=2.30884615384615
CentroidY=0   CentroidZ=7.2
   Frame=90   JointI=85   JointJ=86   IsCurved=No   Length=0.634615384615385   CentroidX=2.88269230769231
CentroidY=0   CentroidZ=7.2
   Frame=91   JointI=86   JointJ=87   IsCurved=No   Length=0.391538461538462   CentroidX=3.39576923076923
CentroidY=0   CentroidZ=7.2
   Frame=92   JointI=87   JointJ=88   IsCurved=No   Length=0.513076923076923   CentroidX=3.84807692307692
CentroidY=0   CentroidZ=7.2
   Frame=93   JointI=88   JointJ=89   IsCurved=No   Length=0.513076923076922   CentroidX=4.36115384615385
CentroidY=0   CentroidZ=7.2
   Frame=94   JointI=89   JointJ=90   IsCurved=No   Length=0.513076923076923   CentroidX=4.87423076923077
CentroidY=0   CentroidZ=7.2
   Frame=95   JointI=90   JointJ=91   IsCurved=No   Length=0.513076923076922   CentroidX=5.38730769230769
CentroidY=0   CentroidZ=7.2
   Frame=96   JointI=91   JointJ=92   IsCurved=No   Length=0.513076923076923   CentroidX=5.90038461538461
CentroidY=0   CentroidZ=7.2
   Frame=97   JointI=92   JointJ=24   IsCurved=No   Length=0.513076923076924   CentroidX=6.41346153846154
CentroidY=0   CentroidZ=7.2

TABLE:  "JOINT RESTRAINT ASSIGNMENTS"
   Joint=1   U1=Yes   U2=Yes   U3=No   R1=Yes   R2=No   R3=Yes
   Joint=13   U1=No   U2=Yes   U3=No   R1=Yes   R2=No   R3=Yes
   Joint=14   U1=No   U2=Yes   U3=No   R1=Yes   R2=No   R3=Yes
   Joint=26   U1=No   U2=Yes   U3=No   R1=Yes   R2=No   R3=Yes

TABLE:  "JOINT SPRING ASSIGNMENTS 1 - UNCOUPLED"
   Joint=1   CoordSys=GLOBAL   U1=0   U2=0   U3=31500   R1=0   R2=0   R3=0
   Joint=2   CoordSys=GLOBAL   U1=0   U2=0   U3=10500   R1=0   R2=0   R3=0
   Joint=3   CoordSys=GLOBAL   U1=0   U2=0   U3=12900   R1=0   R2=0   R3=0
   Joint=7   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=11   CoordSys=GLOBAL   U1=0   U2=0   U3=12900   R1=0   R2=0   R3=0
   Joint=12   CoordSys=GLOBAL   U1=0   U2=0   U3=10500   R1=0   R2=0   R3=0
   Joint=13   CoordSys=GLOBAL   U1=0   U2=0   U3=31500   R1=0   R2=0   R3=0
   Joint=45   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=46   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=47   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=48   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=49   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=50   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=51   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=52   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=53   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=54   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=55   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=56   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=57   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=58   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=59   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=60   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=61   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=62   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=63   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=64   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=65   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=66   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=67   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0
   Joint=68   CoordSys=GLOBAL   U1=0   U2=0   U3=15300   R1=0   R2=0   R3=0

TABLE:  "JOINT PATTERN ASSIGNMENTS"
   Joint=1   Pattern=FALDA   Value=46.5
   Joint=27   Pattern=FALDA   Value=43.25
   Joint=28   Pattern=FALDA   Value=40
   Joint=32   Pattern=FALDA   Value=4.65
   Joint=33   Pattern=FALDA   Value=1.77604166666667
   Joint=5   Pattern=FALDA   Value=37.0541666666667
   Joint=6   Pattern=FALDA   Value=34.1083333333333
   Joint=8   Pattern=FALDA   Value=31.1625
   Joint=9   Pattern=FALDA   Value=28.2166666666667
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   Joint=10   Pattern=FALDA   Value=25.2708333333333
   Joint=17   Pattern=FALDA   Value=22.325
   Joint=18   Pattern=FALDA   Value=19.3791666666667
   Joint=19   Pattern=FALDA   Value=16.4333333333333
   Joint=21   Pattern=FALDA   Value=13.4875
   Joint=22   Pattern=FALDA   Value=10.5416666666667
   Joint=23   Pattern=FALDA   Value=7.59583333333333

TABLE:  "JOINT LOADS - FORCE"
   Joint=1   LoadCase=3TERRSIM   CoordSys=GLOBAL   F1=52.25   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=1   LoadCase=4TERRASI   CoordSys=GLOBAL   F1=52.25   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=1   LoadCase=5TERRATT   CoordSys=GLOBAL   F1=19.92   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=1   LoadCase=8SPLM71   CoordSys=GLOBAL   F1=10.59   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=1   LoadCase=11SPSW2   CoordSys=GLOBAL   F1=9.24   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=13   LoadCase=3TERRSIM   CoordSys=GLOBAL   F1=-52.25   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=13   LoadCase=4TERRASI   CoordSys=GLOBAL   F1=-31.35   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=13   LoadCase=5TERRATT   CoordSys=GLOBAL   F1=-19.92   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=3TERRSIM   CoordSys=GLOBAL   F1=7.62   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=4TERRASI   CoordSys=GLOBAL   F1=7.62   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=5TERRATT   CoordSys=GLOBAL   F1=2.91   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=6LM71CEN   CoordSys=GLOBAL   F1=0   F2=0   F3=-18.81   M1=0   M2=0   M3=0
   Joint=14   LoadCase=7LM71DIS   CoordSys=GLOBAL   F1=0   F2=0   F3=-36.74   M1=0   M2=0   M3=0
   Joint=14   LoadCase=8SPLM71   CoordSys=GLOBAL   F1=8.96   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=10SW2CEN   CoordSys=GLOBAL   F1=0   F2=0   F3=-32.06   M1=0   M2=0   M3=0
   Joint=14   LoadCase=11SPSW2   CoordSys=GLOBAL   F1=7.82   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   LoadCase=SOVRSISM   CoordSys=GLOBAL   F1=0   F2=0   F3=-12.99   M1=0   M2=0   M3=0
   Joint=14   LoadCase=SOVRSISV   CoordSys=GLOBAL   F1=0   F2=0   F3=-15.56   M1=0   M2=0   M3=0
   Joint=26   LoadCase=3TERRSIM   CoordSys=GLOBAL   F1=-7.62   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   LoadCase=4TERRASI   CoordSys=GLOBAL   F1=-4.57   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   LoadCase=5TERRATT   CoordSys=GLOBAL   F1=-2.91   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   LoadCase=6LM71CEN   CoordSys=GLOBAL   F1=0   F2=0   F3=-18.81   M1=0   M2=0   M3=0
   Joint=26   LoadCase=7LM71DIS   CoordSys=GLOBAL   F1=0   F2=0   F3=-18.81   M1=0   M2=0   M3=0
   Joint=26   LoadCase=10SW2CEN   CoordSys=GLOBAL   F1=0   F2=0   F3=-32.06   M1=0   M2=0   M3=0
   Joint=26   LoadCase=SOVRSISM   CoordSys=GLOBAL   F1=0   F2=0   F3=-12.99   M1=0   M2=0   M3=0
   Joint=26   LoadCase=SOVRSISV   CoordSys=GLOBAL   F1=0   F2=0   F3=-15.56   M1=0   M2=0   M3=0

TABLE:  "FRAME SECTION ASSIGNMENTS"
   Frame=1   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=2   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=3   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=4   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=6   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=7   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=8   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=9   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=11   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=12   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=13   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=14   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=15   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=16   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=17   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=18   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=19   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=20   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=21   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=22   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=23   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=24   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=25   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=26   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=27   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=28   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=29   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=30   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=31   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=32   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=33   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=34   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=35   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=36   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=37   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=38   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=39   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=40   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=41   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=42   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X140   DesignSect=100X140   MatProp=Default
   Frame=46   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=47   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=48   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=49   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=50   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
```

```
   Frame=51   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=52   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=53   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=54   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=55   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=56   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=57   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=58   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=59   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=60   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=61   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=62   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=63   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=64   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=65   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=66   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=67   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=68   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=69   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=70   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=71   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X130   DesignSect=100X130   MatProp=Default
   Frame=72   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=73   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=74   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=75   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=76   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=77   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=78   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=79   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=80   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=81   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=82   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=83   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=84   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=85   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=86   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=87   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=88   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=89   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=90   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=91   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=92   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=93   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=94   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=95   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=96   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default
   Frame=97   SectionType=Rectangular   AutoSelect=N.A.   AnalSect=100X110   DesignSect=100X110   MatProp=Default

TABLE:  "FRAME OUTPUT STATION ASSIGNMENTS"
   Frame=1   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=2   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=3   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=4   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=6   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=7   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=8   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=9   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=11   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=12   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=13   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=14   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=15   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=16   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=17   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=18   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=19   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=20   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=21   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=22   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=23   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=24   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=25   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=26   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=27   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=28   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=29   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=30   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=31   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=32   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=33   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=34   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=35   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
```

```
   Frame=36   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=37   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=38   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=39   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=40   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=41   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=42   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=46   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=47   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=48   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=49   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=50   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=51   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=52   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=53   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=54   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=55   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=56   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=57   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=58   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=59   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=60   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=61   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=62   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=63   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=64   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=65   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=66   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=67   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=68   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=69   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=70   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=71   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=72   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=73   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=74   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=75   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=76   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=77   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=78   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=79   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=80   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=81   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=82   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=83   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=84   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=85   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=86   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=87   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=88   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=89   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=90   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=91   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=92   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=93   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=94   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=95   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=96   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes
   Frame=97   StationType=MinNumSta   MinNumSta=2   AddAtElmInt=Yes   AddAtPtLoad=Yes

TABLE:  "FRAME LOADS - GRAVITY"
   Frame=1   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=1   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=2   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=2   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=11   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=11   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=12   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=12   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=13   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=13   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=14   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=14   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=23   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=23   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=24   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=24   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=46   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=46   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=47   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
   Frame=47   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
   Frame=48   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
```

```
Frame=48   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=49   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=49   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=50   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=50   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=51   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=51   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=52   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=52   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=53   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=53   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=54   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=54   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=55   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=55   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=56   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=56   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=57   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=57   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=58   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=58   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=59   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=59   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=60   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=60   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=61   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=61   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=62   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=62   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=63   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=63   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=64   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=64   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=65   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=65   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=66   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=66   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=67   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=67   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=68   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=68   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=69   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=69   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=70   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=70   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=71   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=71   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=72   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=72   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=73   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=73   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=74   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=74   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=75   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=75   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=76   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=76   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=77   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=77   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=78   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=78   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=79   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=79   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=80   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=80   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=81   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=81   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=82   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=82   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=83   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=83   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=84   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=84   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=85   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=85   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=86   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=86   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=87   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=87   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=88   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=88   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=89   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
```

```
Frame=89   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=90   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=90   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=91   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=91   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=92   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=92   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=93   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=93   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=94   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=94   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=95   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=95   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=96   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=96   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=97   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=97   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=3   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=3   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=4   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=4   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=6   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=6   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=7   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=7   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=8   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=8   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=9   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=9   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=15   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=15   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=16   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=16   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=17   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=17   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=18   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=18   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=19   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=19   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=20   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=20   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=21   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=21   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=22   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=22   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=25   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=25   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=26   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=26   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=27   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=27   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=28   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=28   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=29   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=29   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=30   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=30   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=31   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=31   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=32   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=32   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=33   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=33   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=34   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=34   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=35   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=35   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=36   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=36   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=37   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=37   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=38   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=38   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=39   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=39   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=40   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=40   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=41   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=41   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
Frame=42   LoadCase=INERZIAH   CoordSys=GLOBAL   MultiplierX=0.052   MultiplierY=0   MultiplierZ=0
Frame=42   LoadCase=INERZIAV   CoordSys=GLOBAL   MultiplierX=0   MultiplierY=0   MultiplierZ=0.104
```

```
TABLE:  "FRAME LOADS - DISTRIBUTED"
   Frame=13   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=27   FOverLB=27
   Frame=13   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-26.87   FOverLB=-26.87
   Frame=13   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-52.48   FOverLB=-52.48
   Frame=13   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=8.03   FOverLB=8.03
   Frame=13   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-45.8   FOverLB=-45.8
   Frame=13   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=8.52   FOverLB=8.52
   Frame=13   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-18.56   FOverLB=-18.56
   Frame=13   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-22.22   FOverLB=-22.22
   Frame=13   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=2.55   FOverLB=2.55
   Frame=13   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=5.1   FOverLB=5.1
   Frame=14   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.35   FOverLA=27   FOverLB=27
   Frame=14   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-26.87   FOverLB=-26.87
   Frame=14   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-52.48   FOverLB=-52.48
   Frame=14   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=8.03   FOverLB=8.03
   Frame=14   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-45.8   FOverLB=-45.8
   Frame=14   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=8.52   FOverLB=8.52
   Frame=14   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-18.56   FOverLB=-18.56
   Frame=14   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-22.22   FOverLB=-22.22
   Frame=14   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=2.55   FOverLB=2.55
   Frame=14   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=5.1   FOverLB=5.1
   Frame=23   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.35   FOverLA=27   FOverLB=27
   Frame=23   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-26.87   FOverLB=-26.87
   Frame=23   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-26.87   FOverLB=-26.87
   Frame=23   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=8.03   FOverLB=8.03
   Frame=23   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-45.8   FOverLB=-45.8
   Frame=23   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=8.52   FOverLB=8.52
   Frame=23   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-18.56   FOverLB=-18.56
   Frame=23   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=-22.22   FOverLB=-22.22
   Frame=23   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=2.55   FOverLB=2.55
   Frame=23   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.35   FOverLA=5.1   FOverLB=5.1
   Frame=24   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=27   FOverLB=27
   Frame=24   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-26.87   FOverLB=-26.87
   Frame=24   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-26.87   FOverLB=-26.87
   Frame=24   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=8.03   FOverLB=8.03
   Frame=24   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-45.8   FOverLB=-45.8
   Frame=24   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=8.52   FOverLB=8.52
   Frame=24   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-18.56   FOverLB=-18.56
   Frame=24   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=-22.22   FOverLB=-22.22
   Frame=24   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=2.55   FOverLB=2.55
   Frame=24   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.350000000000001   FOverLA=5.1   FOverLB=5.1
```

```
   Frame=72   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=72   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=72   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=72   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=72   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=72   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=72   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=72   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=72   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=72   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=73   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=73   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=73   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=73   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=73   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=73   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=73   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=73   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=73   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=73   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=74   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=74   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=74   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=74   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=74   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=74   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=74   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=74   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=74   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=74   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=75   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=75   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=75   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=75   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=75   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=75   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=75   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=75   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=75   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=75   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=76   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=27   FOverLB=27
```

```
   Frame=76   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-26.87   FOverLB=-26.87
   Frame=76   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-52.48   FOverLB=-52.48
   Frame=76   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.03   FOverLB=8.03
   Frame=76   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-45.8   FOverLB=-45.8
   Frame=76   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.52   FOverLB=8.52
   Frame=76   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-18.56   FOverLB=-18.56
   Frame=76   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-22.22   FOverLB=-22.22
   Frame=76   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=2.55   FOverLB=2.55
   Frame=76   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=5.1   FOverLB=5.1
   Frame=77   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=27   FOverLB=27
   Frame=77   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-26.87   FOverLB=-26.87
   Frame=77   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-52.48   FOverLB=-52.48
   Frame=77   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.03   FOverLB=8.03
   Frame=77   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-45.8   FOverLB=-45.8
   Frame=77   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.52   FOverLB=8.52
   Frame=77   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-18.56   FOverLB=-18.56
   Frame=77   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-22.22   FOverLB=-22.22
   Frame=77   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=2.55   FOverLB=2.55
   Frame=77   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=5.1   FOverLB=5.1
   Frame=78   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=27   FOverLB=27
   Frame=78   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=-26.87   FOverLB=-26.87
   Frame=78   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=-52.48   FOverLB=-52.48
   Frame=78   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=8.03   FOverLB=8.03
   Frame=78   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=-45.8   FOverLB=-45.8
   Frame=78   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=8.52   FOverLB=8.52
   Frame=78   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=-18.56   FOverLB=-18.56
   Frame=78   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=-22.22   FOverLB=-22.22
   Frame=78   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=2.55   FOverLB=2.55
   Frame=78   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538461   FOverLA=5.1   FOverLB=5.1
   Frame=79   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=27   FOverLB=27
   Frame=79   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-52.48   FOverLB=-52.48
   Frame=79   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-52.48   FOverLB=-52.48
   Frame=79   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=8.03   FOverLB=8.03
   Frame=79   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-45.8   FOverLB=-45.8
   Frame=79   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=8.52   FOverLB=8.52
   Frame=79   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-18.56   FOverLB=-18.56
   Frame=79   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-22.22   FOverLB=-22.22
   Frame=79   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=2.55   FOverLB=2.55
   Frame=79   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=5.1   FOverLB=5.1
   Frame=80   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=80   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
```

```
   Frame=80   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=80   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=80   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=80   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=80   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=80   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=80   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=80   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=81   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=27   FOverLB=27
   Frame=81   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=-52.48   FOverLB=-52.48
   Frame=81   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=-52.48   FOverLB=-52.48
   Frame=81   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=8.03   FOverLB=8.03
   Frame=81   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=-45.8   FOverLB=-45.8
   Frame=81   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=8.52   FOverLB=8.52
   Frame=81   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=-18.56   FOverLB=-18.56
   Frame=81   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=-22.22   FOverLB=-22.22
   Frame=81   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=2.55   FOverLB=2.55
   Frame=81   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.382307692307692   FOverLA=5.1   FOverLB=5.1
   Frame=82   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=27   FOverLB=27
   Frame=82   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=-52.48   FOverLB=-52.48
   Frame=82   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=-26.87   FOverLB=-26.87
   Frame=82   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=8.03   FOverLB=8.03
   Frame=82   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=-45.8   FOverLB=-45.8
   Frame=82   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=8.52   FOverLB=8.52
   Frame=82   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=-18.56   FOverLB=-18.56
   Frame=82   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=-22.22   FOverLB=-22.22
   Frame=82   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=2.55   FOverLB=2.55
   Frame=82   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.643846153846153   FOverLA=5.1   FOverLB=5.1
   Frame=83   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=83   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=83   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=83   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=83   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=83   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=83   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=83   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=83   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=83   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=84   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=27   FOverLB=27
   Frame=84   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-52.48   FOverLB=-52.48
   Frame=84   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-26.87   FOverLB=-26.87
```

```
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AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.03   FOverLB=8.03
   Frame=84   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-45.8   FOverLB=-45.8
   Frame=84   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.52   FOverLB=8.52
   Frame=84   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-18.56   FOverLB=-18.56
   Frame=84   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-22.22   FOverLB=-22.22
   Frame=84   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=2.55   FOverLB=2.55
   Frame=84   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=5.1   FOverLB=5.1
   Frame=85   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=85   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=85   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=85   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=85   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=85   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=85   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=85   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=85   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=85   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=86   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=86   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=86   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=86   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=86   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=86   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=86   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=86   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=86   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=86   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=87   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=87   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=87   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=87   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=87   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=87   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=87   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=87   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=87   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=87   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=88   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=88   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=88   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=88   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
```

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   Frame=88   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=88   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=88   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=88   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=88   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=88   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=89   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=89   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-52.48   FOverLB=-52.48
   Frame=89   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=89   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=89   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=89   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=89   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=89   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=89   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=89   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=90   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=27   FOverLB=27
   Frame=90   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-52.48   FOverLB=-52.48
   Frame=90   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-26.87   FOverLB=-26.87
   Frame=90   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=8.03   FOverLB=8.03
   Frame=90   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-45.8   FOverLB=-45.8
   Frame=90   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=8.52   FOverLB=8.52
   Frame=90   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-18.56   FOverLB=-18.56
   Frame=90   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=-22.22   FOverLB=-22.22
   Frame=90   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=2.55   FOverLB=2.55
   Frame=90   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.634615384615385   FOverLA=5.1   FOverLB=5.1
   Frame=91   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=27   FOverLB=27
   Frame=91   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=-26.87   FOverLB=-26.87
   Frame=91   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=-26.87   FOverLB=-26.87
   Frame=91   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=8.03   FOverLB=8.03
   Frame=91   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=-45.8   FOverLB=-45.8
   Frame=91   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=8.52   FOverLB=8.52
   Frame=91   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=-18.56   FOverLB=-18.56
   Frame=91   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=-22.22   FOverLB=-22.22
   Frame=91   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=2.55   FOverLB=2.55
   Frame=91   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.391538461538462   FOverLA=5.1   FOverLB=5.1
   Frame=92   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=92   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=92   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=92   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=92   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
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   Frame=92   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=92   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=92   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=92   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=92   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=93   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=27   FOverLB=27
   Frame=93   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-26.87   FOverLB=-26.87
   Frame=93   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-26.87   FOverLB=-26.87
   Frame=93   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.03   FOverLB=8.03
   Frame=93   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-45.8   FOverLB=-45.8
   Frame=93   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.52   FOverLB=8.52
   Frame=93   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-18.56   FOverLB=-18.56
   Frame=93   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-22.22   FOverLB=-22.22
   Frame=93   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=2.55   FOverLB=2.55
   Frame=93   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=5.1   FOverLB=5.1
   Frame=94   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=94   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=94   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=94   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=94   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=94   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
   Frame=94   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=94   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=94   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=94   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=95   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=27   FOverLB=27
   Frame=95   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-26.87   FOverLB=-26.87
   Frame=95   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-26.87   FOverLB=-26.87
   Frame=95   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.03   FOverLB=8.03
   Frame=95   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-45.8   FOverLB=-45.8
   Frame=95   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=8.52   FOverLB=8.52
   Frame=95   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-18.56   FOverLB=-18.56
   Frame=95   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=-22.22   FOverLB=-22.22
   Frame=95   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=2.55   FOverLB=2.55
   Frame=95   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076922   FOverLA=5.1   FOverLB=5.1
   Frame=96   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=27   FOverLB=27
   Frame=96   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=96   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-26.87   FOverLB=-26.87
   Frame=96   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.03   FOverLB=8.03
   Frame=96   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-45.8   FOverLB=-45.8
   Frame=96   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=8.52   FOverLB=8.52
```

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   Frame=96   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-18.56   FOverLB=-18.56
   Frame=96   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=-22.22   FOverLB=-22.22
   Frame=96   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=2.55   FOverLB=2.55
   Frame=96   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076923   FOverLA=5.1   FOverLB=5.1
   Frame=97   LoadCase=2PERMAN   CoordSys=GLOBAL   Type=Force   Dir=Gravity   DistType=RelDist   RelDistA=0
RelDistB=1   AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=27   FOverLB=27
   Frame=97   LoadCase=6LM71CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-26.87   FOverLB=-26.87
   Frame=97   LoadCase=7LM71DIS   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-26.87   FOverLB=-26.87
   Frame=97   LoadCase=9AVVLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.03   FOverLB=8.03
   Frame=97   LoadCase=10SW2CEN   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-45.8   FOverLB=-45.8
   Frame=97   LoadCase=12FRESW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=8.52   FOverLB=8.52
   Frame=97   LoadCase=SOVRSISM   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-18.56   FOverLB=-18.56
   Frame=97   LoadCase=SOVRSISV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=-22.22   FOverLB=-22.22
   Frame=97   LoadCase=INERZIAH   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=2.55   FOverLB=2.55
   Frame=97   LoadCase=INERZIAV   CoordSys=GLOBAL   Type=Force   Dir=Z   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.513076923076924   FOverLA=5.1   FOverLB=5.1
   Frame=3   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=77.61   FOverLB=74.8380208333333
   Frame=3   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=77.61   FOverLB=74.8380208333333
   Frame=3   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=29.59   FOverLB=28.5332986111111
   Frame=3   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=16.29   FOverLB=16.29
   Frame=3   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=14.21   FOverLB=14.21
   Frame=3   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=0   FOverLB=0.782708333333333
   Frame=4   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=74.8380208333333   FOverLB=72.0660416666667
   Frame=4   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=74.8380208333333   FOverLB=72.0660416666667
   Frame=4   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=28.5332986111111   FOverLB=27.4765972222222
   Frame=4   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=16.29   FOverLB=16.29
   Frame=4   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=14.21   FOverLB=14.21
   Frame=4   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=0.782708333333333   FOverLB=1.56541666666667
   Frame=6   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=20.8910416666667   FOverLB=18.5455208333333
   Frame=6   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=20.8910416666667   FOverLB=18.5455208333333
   Frame=6   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=7.96826388888889   FOverLB=7.07413194444445
   Frame=6   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=16.29   FOverLB=16.29
   Frame=6   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=14.21   FOverLB=14.21
   Frame=6   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=16.0154166666667   FOverLB=16.6777083333333
   Frame=7   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=18.5455208333333   FOverLB=16.2
   Frame=7   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=18.5455208333333   FOverLB=16.2
   Frame=7   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=7.07413194444445   FOverLB=6.18
   Frame=7   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=16.29   FOverLB=16.29
   Frame=7   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=14.21   FOverLB=14.21
   Frame=7   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=16.6777083333333   FOverLB=17.34
   Frame=8   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-77.61   FOverLB=-74.8380208333333
   Frame=8   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-46.57   FOverLB=-44.9066319444444
   Frame=8   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-29.59   FOverLB=-28.5332986111111
```

```
   Frame=8   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=0   FOverLB=0.782708333333333
   Frame=9   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-74.8380208333333   FOverLB=-72.0660416666667
   Frame=9   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-44.9066319444444   FOverLB=-43.2432638888889
   Frame=9   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=-28.5332986111111   FOverLB=-27.4765972222222
   Frame=9   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.325   FOverLA=0.782708333333333   FOverLB=1.56541666666667
   Frame=15   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=-20.8910416666667   FOverLB=-18.5455208333333
   Frame=15   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=-12.5349305555556   FOverLB=-11.1274652777778
   Frame=15   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=-7.96826388888889   FOverLB=-7.07413194444445
   Frame=15   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.274999999999999   FOverLA=16.0154166666667   FOverLB=16.6777083333333
   Frame=16   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=-18.5455208333333   FOverLB=-16.2
   Frame=16   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=-11.1274652777778   FOverLB=-9.72
   Frame=16   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=-7.07413194444445   FOverLB=-6.18
   Frame=16   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.275   FOverLA=16.6777083333333   FOverLB=17.34
   Frame=17   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=72.0660416666667   FOverLB=67.8014583333333
   Frame=17   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=72.0660416666667   FOverLB=67.8014583333333
   Frame=17   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=27.4765972222222   FOverLB=25.8509027777778
   Frame=17   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=17   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=17   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=1.56541666666667   FOverLB=2.76958333333333
   Frame=18   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=67.8014583333333   FOverLB=63.536875
   Frame=18   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=67.8014583333333   FOverLB=63.536875
   Frame=18   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=25.8509027777778   FOverLB=24.2252083333333
   Frame=18   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=18   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=18   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=2.76958333333333   FOverLB=3.97375
   Frame=19   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=63.536875   FOverLB=59.2722916666667
   Frame=19   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=63.536875   FOverLB=59.2722916666667
   Frame=19   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=24.2252083333333   FOverLB=22.5995138888889
   Frame=19   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=19   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=19   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=3.97375   FOverLB=5.17791666666667
   Frame=20   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=59.2722916666667   FOverLB=55.0077083333333
   Frame=20   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=59.2722916666667   FOverLB=55.0077083333333
   Frame=20   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=22.5995138888889   FOverLB=20.9738194444444
   Frame=20   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=20   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=20   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=5.17791666666667   FOverLB=6.38208333333333
   Frame=21   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=55.0077083333333   FOverLB=50.743125
   Frame=21   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=55.0077083333333   FOverLB=50.743125
   Frame=21   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=20.9738194444444   FOverLB=19.348125
   Frame=21   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
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   Frame=21   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=21   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=6.38208333333333   FOverLB=7.58625
   Frame=22   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=50.743125   FOverLB=46.4785416666667
   Frame=22   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=50.743125   FOverLB=46.4785416666667
   Frame=22   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=19.348125   FOverLB=17.7224305555556
   Frame=22   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=22   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=22   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=7.58625   FOverLB=8.79041666666667
   Frame=25   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=46.4785416666667   FOverLB=42.2139583333333
   Frame=25   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=46.4785416666667   FOverLB=42.2139583333333
   Frame=25   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=17.7224305555556   FOverLB=16.0967361111111
   Frame=25   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=25   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=25   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=8.79041666666667   FOverLB=9.99458333333333
   Frame=26   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=42.2139583333333   FOverLB=37.949375
   Frame=26   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=42.2139583333333   FOverLB=37.949375
   Frame=26   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=16.0967361111111   FOverLB=14.4710416666667
   Frame=26   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=16.29   FOverLB=16.29
   Frame=26   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=14.21   FOverLB=14.21
   Frame=26   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=9.99458333333333   FOverLB=11.19875
   Frame=27   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=37.949375   FOverLB=33.6847916666667
   Frame=27   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=37.949375   FOverLB=33.6847916666667
   Frame=27   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.4710416666667   FOverLB=12.8453472222222
   Frame=27   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=27   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=27   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=11.19875   FOverLB=12.4029166666667
   Frame=28   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=33.6847916666667   FOverLB=29.4202083333333
   Frame=28   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=33.6847916666667   FOverLB=29.4202083333333
   Frame=28   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=12.8453472222222   FOverLB=11.2196527777778
   Frame=28   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=28   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=28   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=12.4029166666667   FOverLB=13.6070833333333
   Frame=29   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=29.4202083333333   FOverLB=25.155625
   Frame=29   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=29.4202083333333   FOverLB=25.155625
   Frame=29   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=11.2196527777778   FOverLB=9.59395833333333
   Frame=29   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=29   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=29   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=13.6070833333333   FOverLB=14.81125
   Frame=30   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=25.155625   FOverLB=20.8910416666667
   Frame=30   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=25.155625   FOverLB=20.8910416666667
   Frame=30   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=9.59395833333333   FOverLB=7.96826388888889
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   Frame=30   LoadCase=8SPLM71   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=16.29   FOverLB=16.29
   Frame=30   LoadCase=11SPSW2   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.21   FOverLB=14.21
   Frame=30   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.81125   FOverLB=16.0154166666667
   Frame=31   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-72.0660416666667   FOverLB=-67.8014583333333
   Frame=31   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-43.2432638888889   FOverLB=-40.6842361111111
   Frame=31   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-27.4765972222222   FOverLB=-25.8509027777778
   Frame=31   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=1.56541666666667   FOverLB=2.76958333333333
   Frame=32   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-67.8014583333333   FOverLB=-63.536875
   Frame=32   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-40.6842361111111   FOverLB=-38.1252083333333
   Frame=32   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-25.8509027777778   FOverLB=-24.2252083333333
   Frame=32   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=2.76958333333333   FOverLB=3.97375
   Frame=33   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-63.536875   FOverLB=-59.2722916666667
   Frame=33   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-38.1252083333333   FOverLB=-35.5661805555556
   Frame=33   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-24.2252083333333   FOverLB=-22.5995138888889
   Frame=33   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=3.97375   FOverLB=5.17791666666667
   Frame=34   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-59.2722916666667   FOverLB=-55.0077083333333
   Frame=34   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-35.5661805555556   FOverLB=-33.0071527777778
   Frame=34   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-22.5995138888889   FOverLB=-20.9738194444444
   Frame=34   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=5.17791666666667   FOverLB=6.38208333333333
   Frame=35   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-55.0077083333333   FOverLB=-50.743125
   Frame=35   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-33.0071527777778   FOverLB=-30.448125
   Frame=35   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-20.9738194444444   FOverLB=-19.348125
   Frame=35   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=6.38208333333333   FOverLB=7.58625
   Frame=36   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-50.743125   FOverLB=-46.4785416666667
   Frame=36   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-30.448125   FOverLB=-27.8890972222222
   Frame=36   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-19.348125   FOverLB=-17.7224305555556
   Frame=36   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=7.58625   FOverLB=8.79041666666667
   Frame=37   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-46.4785416666667   FOverLB=-42.2139583333333
   Frame=37   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-27.8890972222222   FOverLB=-25.3300694444444
   Frame=37   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-17.7224305555556   FOverLB=-16.0967361111111
   Frame=37   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=8.79041666666667   FOverLB=9.99458333333333
   Frame=38   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=-42.2139583333333   FOverLB=-37.949375
   Frame=38   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=-25.3300694444444   FOverLB=-22.7710416666667
   Frame=38   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=-16.0967361111111   FOverLB=-14.4710416666667
   Frame=38   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.500000000000001   FOverLA=9.99458333333333   FOverLB=11.19875
   Frame=39   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-37.949375   FOverLB=-33.6847916666667
   Frame=39   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-22.7710416666667   FOverLB=-20.2120138888889
   Frame=39   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-14.4710416666667   FOverLB=-12.8453472222222
   Frame=39   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=11.19875   FOverLB=12.4029166666667
   Frame=40   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-33.6847916666667   FOverLB=-29.4202083333333
   Frame=40   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-20.2120138888889   FOverLB=-17.6529861111111
```

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   Frame=40   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-12.8453472222222   FOverLB=-11.2196527777778
   Frame=40   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=12.4029166666667   FOverLB=13.6070833333333
   Frame=41   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-29.4202083333333   FOverLB=-25.155625
   Frame=41   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-17.6529861111111   FOverLB=-15.0939583333333
   Frame=41   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-11.2196527777778   FOverLB=-9.59395833333333
   Frame=41   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=13.6070833333333   FOverLB=14.81125
   Frame=42   LoadCase=3TERRSIM   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-25.155625   FOverLB=-20.8910416666667
   Frame=42   LoadCase=4TERRASI   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-15.0939583333333   FOverLB=-12.5349305555556
   Frame=42   LoadCase=5TERRATT   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=-9.59395833333333   FOverLB=-7.96826388888889
   Frame=42   LoadCase=SPSISMIC   CoordSys=GLOBAL   Type=Force   Dir=X   DistType=RelDist   RelDistA=0   RelDistB=1
AbsDistA=0   AbsDistB=0.5   FOverLA=14.81125   FOverLB=16.0154166666667

TABLE:  "FRAME LOADS - TEMPERATURE"
   Frame=13   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=14   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=23   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=24   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=72   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=73   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=74   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=75   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=76   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=77   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=78   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=79   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=80   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=81   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=82   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
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   Frame=89   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
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   Frame=95   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=96   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None
   Frame=97   LoadCase=13TEMPER   Type=Temperature   Temp=5   JtPattern=None

TABLE:  "FRAME DESIGN PROCEDURES"
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   Frame=14   DesignProc="From Material"
   Frame=15   DesignProc="From Material"
   Frame=16   DesignProc="From Material"
   Frame=17   DesignProc="From Material"
   Frame=18   DesignProc="From Material"
   Frame=19   DesignProc="From Material"
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   Frame=21   DesignProc="From Material"
   Frame=22   DesignProc="From Material"
   Frame=23   DesignProc="From Material"
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   Frame=27   DesignProc="From Material"
   Frame=28   DesignProc="From Material"
   Frame=29   DesignProc="From Material"
   Frame=30   DesignProc="From Material"
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   Frame=31   DesignProc="From Material"
   Frame=32   DesignProc="From Material"
   Frame=33   DesignProc="From Material"
   Frame=34   DesignProc="From Material"
   Frame=35   DesignProc="From Material"
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   Frame=69   DesignProc="From Material"
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   Frame=71   DesignProc="From Material"
   Frame=72   DesignProc="From Material"
   Frame=73   DesignProc="From Material"
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   Frame=75   DesignProc="From Material"
   Frame=76   DesignProc="From Material"
   Frame=77   DesignProc="From Material"
   Frame=78   DesignProc="From Material"
   Frame=79   DesignProc="From Material"
   Frame=80   DesignProc="From Material"
   Frame=81   DesignProc="From Material"
   Frame=82   DesignProc="From Material"
   Frame=83   DesignProc="From Material"
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   Frame=87   DesignProc="From Material"
   Frame=88   DesignProc="From Material"
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   Frame=91   DesignProc="From Material"
   Frame=92   DesignProc="From Material"
   Frame=93   DesignProc="From Material"
   Frame=94   DesignProc="From Material"
   Frame=95   DesignProc="From Material"
   Frame=96   DesignProc="From Material"
   Frame=97   DesignProc="From Material"

TABLE:  "OVERWRITES - CONCRETE DESIGN - ACI 318-99"
   Frame=1   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=2   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=11   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=12   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=13   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=14   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=23   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=24   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=46   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=47   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=48   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
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   Frame=16   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=17   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=18   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=19   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=20   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=21   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=22   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=25   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=26   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=27   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=28   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=29   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=30   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=31   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=32   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=33   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=34   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=35   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=36   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=37   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=38   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=39   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=40   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=41   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0
   Frame=42   DesignSect="Program Determined"   FrameType="Program Determined"   RLLF=0   XLMajor=0   XLMinor=0

TABLE:  "PREFERENCES - DIMENSIONAL"
   MergeTol=2.54000001586974E-03   FineGrid=0.25   Nudge=0.25   SelectTol=3   SnapTol=12   SLineThick=1
PLineThick=4   MaxFont=12   MinFont=8   AutoZoom=10   ShrinkFact=70   TextFileLen=240

TABLE:  "PREFERENCES - STEEL DESIGN - AISC-ASD89"
```

```
   THDesign=Envelopes   FrameType="Moment Frame"   PatLLF=0.75   SRatioLimit=1   MaxIter=1
LatFactor=1.33333333333333   CheckDefl=No   DLRat=120   SDLAndLLRat=120   LLRat=360   TotalRat=240   NetRat=240

TABLE:  "PREFERENCES - CONCRETE DESIGN - ACI 318-99"
   THDesign=Envelopes   NumCurves=24   NumPoints=11   MinEccen=Yes   PatLLF=0.75   UFLimit=1
PhiB=0.899999976158142   PhiCTied=0.699999988079071   PhiCSpiral=0.75   PhiV=0.850000023841858

TABLE:  "PREFERENCES - ALUMINUM DESIGN - AA-ASD 2000"
   THDesign=Envelopes   FrameType="Moment Frame"   SRatioLimit=1   MaxIter=1   LatFact=1.33333333333333
UseLatFact=No   Bridge=No

TABLE:  "PREFERENCES - COLD FORMED DESIGN - AISI-ASD96"
   THDesign=Envelopes   FrameType="Braced Frame"   SRatioLimit=1   MaxIter=1   OmegaBS=1.67   OmegaBUS=1.67
OmegaBLTB=1.67   OmegaVS=1.67   OmegaVNS=1.5   OmegaT=1.67   OmegaC=1.8

END TABLE DATA
```

12.2. Dati di output

```
File D:\13_15_COCIV\01_Calcoli\IN13_new\SAP\IN13-new_OUTPUT.txt was saved on 9/21/13 at 13.58.30

TABLE:  "PROGRAM CONTROL"
   ProgramName=SAP2000   Version=11.0.8   ProgLevel=Advanced   LicenseOS=Yes   LicenseSC=Yes   LicenseBR=Yes
LicenseHT=No   CurrUnits="KN, m, C"   SteelCode=AISC-ASD89   ConcCode="ACI 318-99"   AlumCode="AA-ASD 2000"
ColdCode=AISI-ASD96   RegenHinge=No

TABLE:  "JOINT DISPLACEMENTS"
   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=0   U2=0   U3=-5.13797446005046E-03
R1=0   R2=-5.72145439450422E-05   R3=0
   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=0   U2=0   U3=-6.07732400448026E-03
R1=0   R2=-3.082857298919 59E-04   R3=0
   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=0   U2=0   U3=-4.51397162515525E-03   R1=0
R2=-8.83306993808726E-06   R3=0
   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=0   U2=0   U3=-7.05291371032333E-03   R1=0
R2=-5.03868599827321E-04   R3=0
   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.26452136210441E-07   U2=0   U3=-
5.08755198225914E-03   R1=0   R2=-1.40864195690207E-04   R3=0
   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.40585129757643E-06   U2=0   U3=-
5.94035125635377E-03   R1=0   R2=-3.80843604224346E-04   R3=0
   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.39050795293518E-07   U2=0   U3=-
4.43155621806721E-03   R1=0   R2=-9.25047501054626E-05   R3=0
   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.14552409251717E-06   U2=0   U3=-
6.84699445727 56E-03   R1=0   R2=-5.71557323602262E-04   R3=0
   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.52904272420882E-07   U2=0   U3=-
5.01115164086127E-03   R1=0   R2=-2.11105341233502E-04   R3=0
   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.81170259515286E-06   U2=0   U3=-
5.78156480216996E-03   R1=0   R2=-4.3954117482619E-04   R3=0
   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=6.78101590587036E-07   U2=0   U3=-
4.33343910976603E-03   R1=0   R2=-1.63230388811889E-04   R3=0
   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.29104818503433E-06   U2=0   U3=-
6.62137137617113E-03   R1=0   R2=-6.24300662107038E-04   R3=0
   Joint=5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=8.0067654951563E-05   U2=0   U3=-
5.1582703948782E-03   R1=0   R2=1.5531888234798E-04   R3=0
   Joint=5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.29155527087588E-04   U2=0   U3=-
6.09900637251966E-03   R1=0   R2=-1.12122512782474E-04   R3=0
   Joint=5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.35645209445126E-04   U2=0   U3=-
4.52919858327588E-03   R1=0   R2=2.05394136568323E-04   R3=0
   Joint=5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.64785220439039E-04   U2=0   U3=-
7.07679475136667E-03   R1=0   R2=-3.26535317193401E-04   R3=0
   Joint=6   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.84007927092811E-04   U2=0   U3=-
5.1667881870077E-03   R1=0   R2=2.34212490171197E-04   R3=0
   Joint=6   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.62115637637464E-04   U2=0   U3=-
6.10812696169772E-03   R1=0   R2=-3.41067434118182E-05   R3=0
   Joint=6   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.63201669141287E-04   U2=0   U3=-
4.53551247248924E-03   R1=0   R2=2.92045507580195E-04   R3=0
   Joint=6   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.0875350190695E-04   U2=0   U3=-
7.08687128532905E-03   R1=0   R2=-2.57308169534094E-04   R3=0
   Joint=7   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.66272069677415E-06   U2=0   U3=-
3.00240307755778E-03   R1=0   R2=5.89036540276234E-05   R3=0
   Joint=7   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.96032116089667E-05   U2=0   U3=-
3.24953888863538E-03   R1=0   R2=-6.88120565776152E-06   R3=0
   Joint=7   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=7.13944103232353E-06   U2=0   U3=-
2.48096085795367E-03   R1=0   R2=6.99143683401917E-05   R3=0
   Joint=7   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.5178607319576E-05   U2=0   U3=-
3.41223732136359E-03   R1=0   R2=-4.48924121650949E-05   R3=0
   Joint=8   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.24640449004199E-04   U2=0   U3=-
5.17512020497913E-03   R1=0   R2=3.06782055440405E-04   R3=0
   Joint=8   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.57516064114393E-04   U2=0   U3=-
6.1170617767177E-03   R1=0   R2=4.04003346390808E-05   R3=0
```

Joint=8 OutputCase=ENVETA CaseType=Combination StepType=Max U1=4.31051449944921E-04 U2=0 U3=-4.54164058754454E-03 R1=0 R2=3.71821035777884E-04 R3=0
Joint=8 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-7.19131129233993E-04 U2=0 U3=-7.09676204513336E-03 R1=0 R2=-1.89888589500163E-04 R3=0
Joint=9 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=4.99170931260838E-04 U2=0 U3=-5.18326644879249E-03 R1=0 R2=3.7423705864842E-04 R3=0
Joint=9 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-2.16938194481094E-04 U2=0 U3=-6.12581081757962E-03 R1=0 R2=1.11990886431852E-04 R3=0
Joint=9 OutputCase=ENVETA CaseType=Combination StepType=Max U1=6.40223790928992E-04 U2=0 U3=-4.54758292844176E-03 R1=0 R2=4.45983139161868E-04 R3=0
Joint=9 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-7.96648928535698E-04 U2=0 U3=-7.1064670307796E-03 R1=0 R2=-1.24631108383617E-04 R3=0
Joint=10 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=7.05392501447119E-04 U2=0 U3=-5.19122691844778E-03 R1=0 R2=4.37717687339524E-04 R3=0
Joint=10 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-1.41673937930771E-04 U2=0 U3=-6.13437408428346E-03 R1=0 R2=1.8123066198293E-04 R3=0
Joint=10 OutputCase=ENVETA CaseType=Combination StepType=Max U1=8.84279354432833E-04 U2=0 U3=-4.55333949518092E-03 R1=0 R2=5.15724942784087E-04 R3=0
Joint=10 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-8.41748247158078E-04 U2=0 U3=-7.11598624226776E-03 R1=0 R2=-8.03936586064396E-05 R3=0
Joint=11 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=5.07253712112744E-06 U2=0 U3=-6.30027221727647E-03 R1=0 R2=9.51908024509946E-04 R3=0
Joint=11 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-5.63947206227805E-05 U2=0 U3=-7.39123635016774E-03 R1=0 R2=6.87761877716224E-04 R3=0
Joint=11 OutputCase=ENVETA CaseType=Combination StepType=Max U1=1.360078047406E-05 U2=0 U3=-4.59077232373634E-03 R1=0 R2=1.06332821482892E-03 R3=0
Joint=11 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-8.60661664541176E-05 U2=0 U3=-8.00109494093606E-03 R1=0 R2=3.53684166041348E-04 R3=0
Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=5.19898925733789E-06 U2=0 U3=-6.54975977854101E-03 R1=0 R2=9.31325561659474E-04 R3=0
Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-5.78005719203569E-05 U2=0 U3=-7.73603888534664E-03 R1=0 R2=6.5864935297848E-04 R3=0
Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Max U1=1.39398312693536E-05 U2=0 U3=-4.71892279774193E-03 R1=0 R2=1.043628951847 69E-03 R3=0
Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-8.82116905466347E-05 U2=0 U3=-8.38625462240171E-03 R1=0 R2=3.17866929057302E-04 R3=0
Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=5.32544139354833E-06 U2=0 U3=-6.78813013238664E-03 R1=0 R2=8.966799138348 88E-04 R3=0
Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-5.92064232179333E-05 U2=0 U3=-8.07275988143156E-03 R1=0 R2=6.16800467525465E-04 R3=0
Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Max U1=1.42788820646471E-05 U2=0 U3=-4.83370407424596E-03 R1=0 R2=1.0087408969252E-03 R3=0
Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-9.03572146391518E-05 U2=0 U3=-8.7635996584068E-03 R1=0 R2=2.72344236554112E-04 R3=0
Joint=14 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=3.44332585511134E-03 U2=0 U3=-5.24886001605997E-03 R1=0 R2=9.45554775581033E-04 R3=0
Joint=14 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=1.66365824794096E-03 U2=0 U3=-6.19688983798893E-03 R1=0 R2=6.73105010775339E-04 R3=0
Joint=14 OutputCase=ENVETA CaseType=Combination StepType=Max U1=4.02612086898596E-03 U2=0 U3=-4.59312097917239E-03 R1=0 R2=1.07003778085509E-03 R3=0
Joint=14 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-2.79432960859635E-04 U2=0 U3=-7.18624514872627E-03 R1=0 R2=2.64997287479336E-04 R3=0
Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=3.42963744539781E-03 U2=0 U3=-5.60245566679929E-03 R1=0 R2=1.03435161362821E-03 R3=0
Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=1.67490860348794E-03 U2=0 U3=-6.47971598970735E-03 R1=0 R2=7.63935171948427E-04 R3=0
Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Max U1=4.01240243255656E-03 U2=0 U3=-4.77109808038281E-03 R1=0 R2=1.16536847689772E-03 R3=0
Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-2.68193351600436E-04 U2=0 U3=-0.007430914116576 R1=0 R2=3.38476246498195E-04 R3=0
Joint=16 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=3.41592777123073E-03 U2=0 U3=-5.98227954731929E-03 R1=0 R2=1.10350073262229E-03 R3=0
Joint=16 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=1.68613769458138E-03 U2=0 U3=-6.78930776947177E-03 R1=0 R2=8.3529826550534E-04 R3=0
Joint=16 OutputCase=ENVETA CaseType=Combination StepType=Max U1=3.99865741556063E-03 U2=0 U3=-4.96834939380616E-03 R1=0 R2=1.23919824040536E-03 R3=0
Joint=16 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-2.56953742341236E-04 U2=0 U3=-7.74436645419444E-03 R1=0 R2=3.99395536979026E-04 R3=0
Joint=17 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=9.41651057682434E-04 U2=0 U3=-5.19900161394501E-03 R1=0 R2=4.98294836109459E-04 R3=0
Joint=17 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=-3.27389324097063E-05 U2=0 U3=-6.14275157682923E-03 R1=0 R2=2.44710015147481E-04 R3=0
Joint=17 OutputCase=ENVETA CaseType=Combination StepType=Max U1=1.16135431033033E-03 U2=0 U3=-0.004558910287762 R1=0 R2=5.82170278747945E-04 R3=0
Joint=17 OutputCase=ENVETA CaseType=Combination StepType=Min U1=-8.54594161200228E-04 U2=0 U3=-7.12531967959786E-03 R1=0 R2=-3.9895059753685E-05 R3=0
Joint=18 OutputCase=ENVETA5 CaseType=Combination StepType=Max U1=1.20681062214691E-03 U2=0 U3=-5.20659053528416E-03 R1=0 R2=5.59794419170962E-04 R3=0
Joint=18 OutputCase=ENVETA5 CaseType=Combination StepType=Min U1=1.09114247860139E-04 U2=0 U3=-6.15094329521694E-03 R1=0 R2=3.0116029297079E-04 R3=0
Joint=18 OutputCase=ENVETA CaseType=Combination StepType=Max U1=1.47012942130993E-03 U2=0 U3=-4.56429530618502E-03 R1=0 R2=6.49904076862615E-04 R3=0

```
   Joint=18   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-8.35088683036917E-04   U2=0   U3=-
7.13446734276989E-03   R1=0   R2=-4.61571482648813E-06   R3=0
   Joint=19   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.50021869460716E-03   U2=0   U3=-
5.21399368246524E-03   R1=0   R2=6.21351496956246E-04   R3=0
   Joint=19   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=2.83382884858533E-04   U2=0   U3=-
6.15894923944657E-03   R1=0   R2=3.57538628130738E-04   R3=0
   Joint=19   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.80979539640038E-03   U2=0   U3=-
4.56949455044996E-03   R1=0   R2=7.17665023034834E-04   R3=0
   Joint=19   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.82883968841189E-04   U2=0   U3=-
7.14342923178385E-03   R1=0   R2=3.21897588066121E-05   R3=0
   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.15301628082911E-03   U2=0   U3=-
1.10316937766146E-02   R1=0   R2=7.19897137654174E-05   R3=0
   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.89364840784327E-03   U2=0   U3=-
1.21630589933665E-02   R1=0   R2=-4.23439546331117E-05   R3=0
   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.73405639800436E-03   U2=0   U3=-
7.90686718656243E-03   R1=0   R2=8.41300216643936E-05   R3=0
   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.51786073236652E-05   U2=0   U3=-
1.33199677022156E-02   R1=0   R2=-8.76782094058559E-05   R3=0
   Joint=21   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.82167160594197E-03   U2=0   U3=-
5.22121105548825E-03   R1=0   R2=6.82593899468855E-04   R3=0
   Joint=21   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=4.89800909244375E-04   U2=0   U3=-
6.16676940951814E-03   R1=0   R2=4.14708036377455E-04   R3=0
   Joint=21   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.180018244496 47E-03   U2=0   U3=-
4.57450802055684E-03   R1=0   R2=7.84825088362168E-04   R3=0
   Joint=21   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.97395526106955E-04   U2=0   U3=-
7.15220534663974E-03   R1=0   R2=7.1172626849327E-05   R3=0
   Joint=22   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.17137987166808E-03   U2=0   U3=-
5.22824265435319E-03   R1=0   R2=7.4428831205817E-04   R3=0
   Joint=22   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=7.28325692833098E-04   U2=0   U3=-
6.17440380543163E-03   R1=0   R2=4.73462240512536E-04   R3=0
   Joint=22   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.58090462788473E-03   U2=0   U3=-
4.57933571650564E-03   R1=0   R2=8.52197136339108E-04   R3=0
   Joint=22   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.16496371846975E-04   U2=0   U3=-
7.16079568733756E-03   R1=0   R2=1.12914862056831E-04   R3=0
   Joint=23   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.54993354546588E-03   U2=0   U3=-
5.23508847906007E-03   R1=0   R2=8.07132127125036E-04   R3=0
   Joint=23   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=9.99124841074077E-04   U2=0   U3=-
6.18185242718706E-03   R1=0   R2=5.34525670389038E-04   R3=0
   Joint=23   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.0129672157692E-03   U2=0   U3=-
4.58397763829638E-03   R1=0   R2=9.20524737511608E-04   R3=0
   Joint=23   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-5.30791528554243E-04   U2=0   U3=-
7.16920025387732E-03   R1=0   R2=1.57929144235762E-04   R3=0
   Joint=24   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.35761436886585E-03   U2=0   U3=-
7.20774073185184E-03   R1=0   R2=-3.68978264081556E-04   R3=0
   Joint=24   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.61820411985242E-03   U2=0   U3=-
8.43313036131808E-03   R1=0   R2=-5.47800802312269E-04   R3=0
   Joint=24   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.93503428117849E-03   U2=0   U3=-
5.21737886413574E-03   R1=0   R2=-2.90302642795974E-04   R3=0
   Joint=24   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.08635762151646E-04   U2=0   U3=-
9.14243197059292E-03   R1=0   R2=-7.97455008769351E-04   R3=0
   Joint=25   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.36813714838069E-03   U2=0   U3=-
7.03538938808551E-03   R1=0   R2=-2.51564006019255E-04   R3=0
   Joint=25   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.60353726944078E-03   U2=0   U3=-
8.29553370497026E-03   R1=0   R2=-4.36426841051168E-04   R3=0
   Joint=25   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.94531378190208E-03   U2=0   U3=-
5.0549635715724E-03   R1=0   R2=-1.82970896438614E-04   R3=0
   Joint=25   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.22460350485948E-04   U2=0   U3=-
8.99910730187297E-03   R1=0   R2=-6.86111939785621E-04   R3=0
   Joint=26   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.37863866344199E-03   U2=0   U3=-
6.90296880372665E-03   R1=0   R2=-1.06256259195027E-04   R3=0
   Joint=26   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.58884915457559E-03   U2=0   U3=-
8.20493479438167E-03   R1=0   R2=-3.12765963113577E-04   R3=0
   Joint=26   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.95556670205914E-03   U2=0   U3=-
4.91436589733782E-03   R1=0   R2=-4.84285220570959E-05   R3=0
   Joint=26   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.36284938820249E-04   U2=0   U3=-
8.90827472562144E-03   R1=0   R2=-5.51286253367618E-04   R3=0
   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=-1.84526988867573E-06   U2=0   U3=-
5.14380988911144E-03   R1=0   R2=7.88708280205759E-06   R3=0
   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-8.75088233367151E-05   U2=0   U3=-
6.08355125162279E-03   R1=0   R2=-2.50176210699764E-04   R3=0
   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.39784841769942E-05   U2=0   U3=-
4.51837451732074E-03   R1=0   R2=5.60554660924876E-05   R3=0
   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.522157055949E-04   U2=0   U3=-
7.05976232157567E-03   R1=0   R2=-4.48707243912551E-04   R3=0
   Joint=28   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.62359854888827E-05   U2=0   U3=-
5.14956682859062E-03   R1=0   R2=6.88224585293995E-05   R3=0
   Joint=28   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.56751658209933E-04   U2=0   U3=-
6.08970000918354E-03   R1=0   R2=-1.94265553579705E-04   R3=0
   Joint=28   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=4.78084839870663E-05   U2=0   U3=-
4.52269891990444E-03   R1=0   R2=1.16679076283781E-04   R3=0
   Joint=28   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.87066725942797E-04   U2=0   U3=-
7.06653244324622E-03   R1=0   R2=-3.98188612584905E-04   R3=0
```

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   Joint=29   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=9.62093283852668E-04   U2=0   U3=-
6.80905746757966E-03   R1=0   R2=7.83827818415817E-04   R3=0
   Joint=29   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=5.74687858549151E-04   U2=0   U3=-
8.09645619965952E-03   R1=0   R2=4.97385888297719E-04   R3=0
   Joint=29   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.0990255101952E-03   U2=0   U3=-
4.84917260728823E-03   R1=0   R2=8.91521959621273E-04   R3=0
   Joint=29   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=1.41108931802887E-04   U2=0   U3=-
8.78929252905201E-03   R1=0   R2=1.5544776898558E-04   R3=0
   Joint=30   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.34320786087365E-03   U2=0   U3=-
6.81784978160711E-03   R1=0   R2=7.32030114343161E-04   R3=0
   Joint=30   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=8.10429413853683E-04   U2=0   U3=-
8.10645241935433E-03   R1=0   R2=4.48426996832001E-04   R3=0
   Joint=30   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.5339457937381E-03   U2=0   U3=-
4.85559152907623E-03   R1=0   R2=8.36478647182728E-04   R3=0
   Joint=30   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.04560887736978E-04   U2=0   U3=-
8.80015681501519E-03   R1=0   R2=1.12539762857053E-04   R3=0
   Joint=31   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.69835977090369E-03   U2=0   U3=-
6.82645632147649E-03   R1=0   R2=6.77639825243804E-04   R3=0
   Joint=31   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.02272346958894E-03   U2=0   U3=-
8.11626286489108E-03   R1=0   R2=3.99700663054539E-04   R3=0
   Joint=31   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.9410765180072E-03   U2=0   U3=-
4.86182467670616E-03   R1=0   R2=7.78026397317828E-04   R3=0
   Joint=31   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.48341704070549E-04   U2=0   U3=-
8.81083532682031E-03   R1=0   R2=7.28679836173959E-05   R3=0
   Joint=32   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.95826757270516E-03   U2=0   U3=-
5.241748529608887E-03   R1=0   R2=8.71753444121758E-04   R3=0
   Joint=32   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.30256298552803E-03   U2=0   U3=-
6.18911527478441E-03   R1=0   R2=5.98553462911479E-04   R3=0
   Joint=32   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.47709003779714E-03   U2=0   U3=-
4.58843378592904E-03   R1=0   R2=9.90482169477088E-04   R3=0
   Joint=32   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.20084758339986E-04   U2=0   U3=-
0.007177419046259   R1=0   R2=2.06658860244219E-04   R3=0
   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.19598466847049E-03   U2=0   U3=-
5.245332371175837E-03   R1=0   R2=9.08258115640362E-04   R3=0
   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.48355793720574E-03   U2=0   U3=-
6.193030654728082E-03   R1=0   R2=6.35247391356365E-04   R3=0
   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.74645283353258E-03   U2=0   U3=-
4.590805480892137E-03   R1=0   R2=1.02987549032562E-03   R3=0
   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.48226166480163E-04   U2=0   U3=-
7.18186019583404E-03   R1=0   R2=2.35182271009724E-04   R3=0
   Joint=34   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.7947772872807E-04   U2=0   U3=-
6.79414400068128E-03   R1=0   R2=8.65347032365021E-04   R3=0
   Joint=34   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.33370161618815E-04   U2=0   U3=-
8.07955628840999E-03   R1=0   R2=5.8154465517692E-04   R3=0
   Joint=34   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.24722219236566E-04   U2=0   U3=-
4.83817523758495E-03   R1=0   R2=9.7661167694045E-04   R3=0
   Joint=34   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.16696453566995E-05   U2=0   U3=-
8.77096030845967E-03   R1=0   R2=2.36189346848255E-04   R3=0
   Joint=35   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=5.56191487050544E-04   U2=0   U3=-
6.80007937939413E-03   R1=0   R2=8.33673203854911E-04   R3=0
   Joint=35   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=3.15181130711402E-04   U2=0   U3=-
8.08627420580663E-03   R1=0   R2=5.4764436084663E-04   R3=0
   Joint=35   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=6.37899290788126E-04   U2=0   U3=-
4.84256791134216E-03   R1=0   R2=9.43796601026602E-04   R3=0
   Joint=35   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=5.6166328704019E-05   U2=0   U3=-
8.77824246893075E-03   R1=0   R2=2.02659025397912E-04   R3=0
   Joint=36   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.02606382860704E-03   U2=0   U3=-
6.8348770871878E-03   R1=0   R2=6.20058265007195E-04   R3=0
   Joint=36   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.21137151025855E-03   U2=0   U3=-
8.12588753626976E-03   R1=0   R2=3.50209156518936E-04   R3=0
   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.31852432146692E-03   U2=0   U3=-
4.86787205017802E-03   R1=0   R2=7.15566523916022E-04   R3=0
   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.73754699907521E-04   U2=0   U3=-
8.82132806446736E-03   R1=0   R2=3.54347008202106E-05   R3=0
   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.32454590066333E-03   U2=0   U3=-
6.84311207874104E-03   R1=0   R2=5.58728327805369E-04   R3=0
   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.37569347838005E-03   U2=0   U3=-
8.13532643349037E-03   R1=0   R2=2.99024039727331E-04   R3=0
   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.66410689459708E-03   U2=0   U3=-
4.87373364949181E-03   R1=0   R2=6.48541921149343E-04   R3=0
   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.81621652365749E-04   U2=0   U3=-
8.83163502795634E-03   R1=0   R2=-6.88523032363328E-07   R3=0
   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.59176369590887E-03   U2=0   U3=-
6.85116129613622E-03   R1=0   R2=4.96689774223817E-04   R3=0
   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.5145624209592E-03   U2=0   U3=-
8.14457955655291E-03   R1=0   R2=2.41337187014315E-04   R3=0
   Joint=38   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.97537377003414E-03   U2=0   U3=-
4.87940947464753E-03   R1=0   R2=5.8088117106978E-04   R3=0
   Joint=38   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.72317443051295E-04   U2=0   U3=-
8.84175621728725E-03   R1=0   R2=-4.03098136057357E-05   R3=0
   Joint=39   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.39819335394784E-03   U2=0   U3=-
6.8955553431878E-03   R1=0   R2=8.47904084810046E-06   R3=0
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   Joint=39   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.70257524939638E-03   U2=0   U3=-
8.19619703760087E-03   R1=0   R2=-2.13639830661261E-04   R3=0
   Joint=39   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.95980764780792E-03   U2=0   U3=-
4.90956316826237E-03   R1=0   R2=6.37082675252867E-05   R3=0
   Joint=39   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.70686763092951E-04   U2=0   U3=-
8.89858209595326E-03   R1=0   R2=-4.42395903685256E-04   R3=0
   Joint=40   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.3962790601551E-03   U2=0   U3=-
6.89929017179863E-03   R1=0   R2=-4.7829199513036E-05   R3=0
   Joint=40   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.65249078617002E-03   U2=0   U3=-
8.20059401433659E-03   R1=0   R2=-2.62542026725748E-04   R3=0
   Joint=40   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.96643210377553E-03   U2=0   U3=-
4.9119926311415E-03   R1=0   R2=8.72086110298199E-06   R3=0
   Joint=40   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.49674899916614E-04   U2=0   U3=-
8.90345650912876E-03   R1=0   R2=-4.95803518448585E-04   R3=0
   Joint=41   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.8254275554779E-03   U2=0   U3=-
6.85902473937332E-03   R1=0   R2=4.29915214884783E-04   R3=0
   Joint=41   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.62643913596423E-03   U2=0   U3=-
8.15364690545738E-03   R1=0   R2=1.74577173898352E-04   R3=0
   Joint=41   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.24962711271253E-03   U2=0   U3=-
4.88489952564518E-03   R1=0   R2=5.07668523337024E-04   R3=0
   Joint=41   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.45804704532693E-04   U2=0   U3=-
8.85169163246009E-03   R1=0   R2=-8.60005953814419E-05   R3=0
   Joint=42   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.02302124294394E-03   U2=0   U3=-
6.86670240845236E-03   R1=0   R2=3.57782563037227E-04   R3=0
   Joint=42   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.7094068188001E-03   U2=0   U3=-
8.16252848020379E-03   R1=0   R2=1.04494069524207E-04   R3=0
   Joint=42   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.48394251000593E-03   U2=0   U3=-
4.89020380248476E-03   R1=0   R2=4.2823446076086E-04   R3=0
   Joint=42   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=2.01668466815216E-04   U2=0   U3=-
8.86144127347487E-03   R1=0   R2=-1.3339249504757E-04   R3=0
   Joint=43   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.18182273446103E-03   U2=0   U3=-
6.87419430337332E-03   R1=0   R2=2.79901033983524E-04   R3=0
   Joint=43   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.76120570878279E-03   U2=0   U3=-
8.17122428079212E-03   R1=0   R2=3.0839534102632E-05   R3=0
   Joint=43   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.67518976186856E-03   U2=0   U3=-
4.89532230516626E-03   R1=0   R2=3.42188198643665E-04   R3=0
   Joint=43   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=1.3915080381515E-04   U2=0   U3=-
8.87100514033157E-03   R1=0   R2=-2.03933841320161E-04   R3=0
   Joint=44   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.29892500890505E-03   U2=0   U3=-
6.88150042413622E-03   R1=0   R2=1.95921423308639E-04   R3=0
   Joint=44   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.77926773561356E-03   U2=0   U3=-
8.17973430722238E-03   R1=0   R2=-4.66083571104279E-05   R3=0
   Joint=44   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.82005367097646E-03   U2=0   U3=-
4.9002550336897E-03   R1=0   R2=2.49180532570401E-04   R3=0
   Joint=44   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=5.71854798340571E-05   U2=0   U3=-
8.8803832330302E-03   R1=0   R2=-2.76581451307204E-04   R3=0
   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.38274766601902E-07   U2=0   U3=-
4.8615497853162E-03   R1=0   R2=-2.91708167675657E-04   R3=0
   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-4.87258790390776E-06   U2=0   U3=-
5.51892872859973E-03   R1=0   R2=-5.02778596739703E-04   R3=0
   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.17512770148984E-06   U2=0   U3=-
4.16795312038302E-03   R1=0   R2=-2.44894150448773E-04   R3=0
   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.43624504153752E-06   U2=0   U3=-
6.26524566132005E-03   R1=0   R2=-6.77250950152855E-04   R3=0
   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=6.23645260782923E-07   U2=0   U3=-
4.67885653705962E-03   R1=0   R2=-3.47791614194467E-04   R3=0
   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-6.93347321266266E-06   U2=0   U3=-
5.2324909677537E-03   R1=0   R2=-5.41356774524623E-04   R3=0
   Joint=46   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.67215381239265E-06   U2=0   U3=-
3.98497659143437E-03   R1=0   R2=-2.98850070074653E-04   R3=0
   Joint=46   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.05814418980407E-05   U2=0   U3=-
5.89135156289474E-03   R1=0   R2=-7.04120644567737E-04   R3=0
   Joint=47   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=8.09015754963942E-07   U2=0   U3=-
4.47493923231499E-03   R1=0   R2=-3.81762259593613E-04   R3=0
   Joint=47   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-8.99435852141756E-06   U2=0   U3=-
4.93403474828038E-03   R1=0   R2=-5.58078229202335E-04   R3=0
   Joint=47   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.16917992329545E-06   U2=0   U3=-
3.79283071843575E-03   R1=0   R2=-3.32396432792106E-04   R3=0
   Joint=47   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.37266387545439E-05   U2=0   U3=-
0.005512037941227   R1=0   R2=-7.08171690784562E-04   R3=0
   Joint=48   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=9.94386249144963E-07   U2=0   U3=-
0.004254085556899   R1=0   R2=-3.95900279911096E-04   R3=0
   Joint=48   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.10552438301725E-05   U2=0   U3=-
4.64490290985565E-03   R1=0   R2=-5.55554250033564E-04   R3=0
   Joint=48   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=2.66620603419826E-06   U2=0   U3=-
3.59249514242051E-03   R1=0   R2=-3.47616238344298E-04   R3=0
   Joint=48   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.68718356110471E-05   U2=0   U3=-
5.14899511854496E-03   R1=0   R2=-6.92419772104431E-04   R3=0
   Joint=49   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.17975674332598E-06   U2=0   U3=-
0.004024542177566   R1=0   R2=-3.92349053263318E-04   R3=0
   Joint=49   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.31161291389274E-05   U2=0   U3=-
4.37637311048952E-03   R1=0   R2=-5.36200432018013E-04   R3=0
```

```
   Joint=49   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.16323214510106E-06   U2=0   U3=-
3.38914117815551E-03   R1=0   R2=-3.45592289756016E-04   R3=0
   Joint=49   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.00170324675503E-05   U2=0   U3=-
4.81557391284074E-03   R1=0   R2=-6.5963427586518E-04   R3=0
   Joint=50   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.365127237507E-06   U2=0   U3=-
3.80445063764025E-03   R1=0   R2=-3.73111358459517E-04   R3=0
   Joint=50   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.51770144476823E-05   U2=0   U3=-
4.12044442738069E-03   R1=0   R2=-5.02238584277241E-04   R3=0
   Joint=50   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.66025825600387E-06   U2=0   U3=-
3.19805947438026E-03   R1=0   R2=-3.22894980851754E-04   R3=0
   Joint=50   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.31622293240535E-05   U2=0   U3=-
4.50896543802836E-03   R1=0   R2=-6.12344795308069E-04   R3=0
   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.55049773168802E-06   U2=0   U3=-
3.60112858833058E-03   R1=0   R2=-3.40051446607936E-04   R3=0
   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.72378997564372E-05   U2=0   U3=-
3.89372037048617E-03   R1=0   R2=-4.55704199722039E-04   R3=0
   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=4.15728436690668E-06   U2=0   U3=-
3.02393120563207E-03   R1=0   R2=-2.91340602892534E-04   R3=0
   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.63074261805567E-05   U2=0   U3=-
4.22989677891358E-03   R1=0   R2=-5.52853240864502E-04   R3=0
   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.73586822586905E-06   U2=0   U3=-
3.42099030257084E-03   R1=0   R2=-2.94902314687479E-04   R3=0
   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-1.92987850651921E-05   U2=0   U3=-
3.69333977114231E-03   R1=0   R2=-3.9845874386522E-04   R3=0
   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=4.65431047780948E-06   U2=0   U3=-
2.87073769456988E-03   R1=0   R2=-2.52275177218671E-04   R3=0
   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.94526230370599E-05   U2=0   U3=-
3.98453596547544E-03   R1=0   R2=-4.83250717501307E-04   R3=0
   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=1.92123872005007E-06   U2=0   U3=-
3.26961770889382E-03   R1=0   R2=-2.39277558821043E-04   R3=0
   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.1359670373947E-05   U2=0   U3=-
3.5247852371521E-03   R1=0   R2=-3.32206085268059E-04   R3=0
   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=5.15133658871229E-06   U2=0   U3=-
2.74182058206161E-03   R1=0   R2=-2.06943678879786E-04   R3=0
   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.25978198935631E-05   U2=0   U3=-
3.77801235521388E-03   R1=0   R2=-4.05438403245672E-04   R3=0
   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.10660921423109E-06   U2=0   U3=-
3.14285755973931E-03   R1=0   R2=-1.74687231035434E-04   R3=0
   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.34205556827019E-05   U2=0   U3=-
3.39267989289969E-03   R1=0   R2=-2.5851245031534E-04   R3=0
   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=5.6483626996151E-06   U2=0   U3=-
2.63096897092155E-03   R1=0   R2=-1.55559164993704E-04   R3=0
   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.57430167500663E-05   U2=0   U3=-
3.61450120643849E-03   R1=0   R2=-3.21151736494974E-04   R3=0
   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.29197970841211E-06   U2=0   U3=-
3.05242073566955E-03   R1=0   R2=-1.02557165111417E-04   R3=0
   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.54814409914568E-05   U2=0   U3=-
3.30084596149044E-03   R1=0   R2=-1.78829339436928E-04   R3=0
   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=6.14538881051791E-06   U2=0   U3=-
2.54801029198687E-03   R1=0   R2=-9.0404840500987E-05   R3=0
   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-3.88882136065695E-05   U2=0   U3=-
3.49729480229264E-03   R1=0   R2=-2.31987284891697E-04   R3=0
   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.47735020259313E-06   U2=0   U3=-
3.00485781421917E-03   R1=0   R2=-2.42512733912815E-05   R3=0
   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-2.75423263002117E-05   U2=0   U3=-
3.25235076613581E-03   R1=0   R2=-9.45188893744885E-05   R3=0
   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=6.64241492142072E-06   U2=0   U3=-
2.49777970789809E-03   R1=0   R2=-1.55977446011051E-05   R3=0
   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.20334104630727E-05   U2=0   U3=-
3.42885875596145E-03   R1=0   R2=-1.39431725328181E-04   R3=0
   Joint=57   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=2.84809119095518E-06   U2=0   U3=-
3.03161573991673E-03   R1=0   R2=1.53883654787256E-04   R3=0
   Joint=57   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-3.16640969177216E-05   U2=0   U3=-
3.29404946999481E-03   R1=0   R2=7.80559879430577E-05   R3=0
   Joint=57   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=7.63646714322634E-06   U2=0   U3=-
2.49777970789771E-03   R1=0   R2=1.72831947973496E-04   R3=0
   Joint=57   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.83238041760792E-05   U2=0   U3=-
3.46396846134911E-03   R1=0   R2=4.55101599312689E-05   R3=0
   Joint=58   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.0334616851362E-06   U2=0   U3=-
3.09719301855517E-03   R1=0   R2=2.51138025508676E-04   R3=0
   Joint=58   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-3.37249822264765E-05   U2=0   U3=-
3.38758631044916E-03   R1=0   R2=1.63713135111688E-04   R3=0
   Joint=58   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=8.13349325412915E-06   U2=0   U3=-
2.5480102919861E-03   R1=0   R2=2.78573898276292E-04   R3=0
   Joint=58   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-5.14690010325824E-05   U2=0   U3=-
3.56903770530388E-03   R1=0   R2=1.17770251170203E-04   R3=0
   Joint=59   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.21883217931722E-06   U2=0   U3=-
3.21012462081376E-03   R1=0   R2=3.49096849338213E-04   R3=0
   Joint=59   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-3.57858675352314E-05   U2=0   U3=-
3.53807196681618E-03   R1=0   R2=2.48724016221244E-04   R3=0
   Joint=59   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=8.63051936503197E-06   U2=0   U3=-
2.63096897092038E-03   R1=0   R2=3.8541942844167E-04   R3=0
```

```
   Joint=59   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-5.46141978890856E-05   U2=0   U3=-
3.73560789959148E-03   R1=0   R2=1.7415560073064E-04   R3=0
   Joint=60   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.40420267349824E-06   U2=0   U3=-
3.36986969392686E-03   R1=0   R2=4.46250233666369E-04   R3=0
   Joint=60   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-3.78467528439864E-05   U2=0   U3=-
3.73837173393186E-03   R1=0   R2=3.31667201515988E-04   R3=0
   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=9.12754547593477E-06   U2=0   U3=-
0.002745497278938   R1=0   R2=4.91734735516771E-04   R3=0
   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-5.77593947455888E-05   U2=0   U3=-
3.95672575178286E-03   R1=0   R2=2.27484539585418E-04   R3=0
   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.58957316767926E-06   U2=0   U3=-
3.57519660796756E-03   R1=0   R2=5.40970809162149E-04   R3=0
   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-3.99076381527413E-05   U2=0   U3=-
3.98768302325436E-03   R1=0   R2=4.11036905099014E-04   R3=0
   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=9.62457158683758E-06   U2=0   U3=-
2.88993358188315E-03   R1=0   R2=5.95756474472142E-04   R3=0
   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.0904591602092E-05   U2=0   U3=-
4.23170589258821E-03   R1=0   R2=2.76644776724901E-04   R3=0
   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.77494366186028E-06   U2=0   U3=-
3.82412881976224E-03   R1=0   R2=6.3148041942007E-04   R3=0
   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-4.19685234614962E-05   U2=0   U3=-
4.2843362069998E-03   R1=0   R2=4.85214495564353E-04   R3=0
   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.01215976977404E-05   U2=0   U3=-
3.06207392247061E-03   R1=0   R2=6.95555314246377E-04   R3=0
   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.40497884585952E-05   U2=0   U3=-
4.55892478699418E-03   R1=0   R2=3.20445867559274E-04   R3=0
   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.9603141560413E-06   U2=0   U3=-
4.11387511663075E-03   R1=0   R2=7.15817560553391E-04   R3=0
   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-4.40294087702511E-05   U2=0   U3=-
4.62571023990875E-03   R1=0   R2=5.52441155947729E-04   R3=0
   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.06186238086432E-05   U2=0   U3=-
3.25912259301704E-03   R1=0   R2=7.89000190341946E-04   R3=0
   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.71949853150984E-05   U2=0   U3=-
4.93572776433108E-03   R1=0   R2=3.576021973866l2E-04   R3=0
   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.14568465022233E-06   U2=0   U3=-
0.004440744872431   R1=0   R2=7.9180615299959E-04   R3=0
   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-4.6090294079006E-05   U2=0   U3=-
5.00813197958413E-03   R1=0   R2=6.107922240352l2E-04   R3=0
   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.1115649919546E-05   U2=0   U3=-
3.47763315335052E-03   R1=0   R2=8.73723885557006E-04   R3=0
   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.03401821716017E-05   U2=0   U3=-
5.35831806897076E-03   R1=0   R2=3.86717721041805E-04   R3=0
   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.33105514440335E-06   U2=0   U3=-
4.80004921512335E-03   R1=0   R2=8.57026289903059E-04   R3=0
   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-4.81511793877609E-05   U2=0   U3=-
5.42676004052107E-03   R1=0   R2=6.58153791840006E-04   R3=0
   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.16126760304488E-05   U2=0   U3=-
3.71344080594334E-03   R1=0   R2=9.47090638703881E-04   R3=0
   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.34853790281048E-05   U2=0   U3=-
5.82162877354403E-03   R1=0   R2=4.06272883346378E-04   R3=0
   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.51642563858437E-06   U2=0   U3=-
5.16905102471153E-03   R1=0   R2=9.08787679299241E-04   R3=0
   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-5.02120646965158E-05   U2=0   U3=-
5.88529781989122E-03   R1=0   R2=6.92202199691918E-04   R3=0
   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.21097021413516E-05   U2=0   U3=-
3.94464897891465E-03   R1=0   R2=1.00616656128552E-03   R3=0
   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.66305758846081E-05   U2=0   U3=-
6.32902222896471E-03   R1=0   R2=4.1461418298734E-04   R3=0
   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.70179613276538E-06   U2=0   U3=-
5.5426327648437E-03   R1=0   R2=9.44106580312856E-04   R3=0
   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-5.22729500052707E-05   U2=0   U3=-
6.37505092078841E-03   R1=0   R2=7.10387125148514E-04   R3=0
   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.26067282522544E-05   U2=0   U3=-
4.16733896043651E-03   R1=0   R2=1.04769373343278E-03   R3=0
   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.97757727411112E-05   U2=0   U3=-
6.87133234667122E-03   R1=0   R2=4.09946885052784E-04   R3=0
   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=4.88716662694641E-06   U2=0   U3=-
5.92308989108805E-03   R1=0   R2=9.596871258332E-04   R3=0
   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=-5.43338353140256E-05   U2=0   U3=-
6.88062766544944E-03   R1=0   R2=7.09919038888913E-04   R3=0
   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=1.31037543631572E-05   U2=0   U3=-
4.38541006392303E-03   R1=0   R2=1.06806895204434E-03   R3=0
   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-8.29209695976144E-05   U2=0   U3=-
7.4325485133669E-03   R1=0   R2=3.90331433774892E-04   R3=0
   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.39579185843432E-03   U2=0   U3=-
6.57349443745714E-03   R1=0   R2=1.17154323067108E-03   R3=0
   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.70256036734269E-03   U2=0   U3=-
7.33619781623585E-03   R1=0   R2=9.07041038959765E-04   R3=0
   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.97846008390764E-03   U2=0   U3=-
5.28368414824882E-03   R1=0   R2=1.31097243932269E-03   R3=0
   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.40477216240388E-04   U2=0   U3=-
8.26613065734248E-03   R1=0   R2=4.67305845085103E-04   R3=0
```

```
   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.37561024912071E-03   U2=0   U3=-
7.189173939333385E-03   R1=0   R2=1.20291273395899E-03   R3=0
   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.71893734358681E-03   U2=0   U3=-
7.912520830374 58E-03   R1=0   R2=9.42824409759447E-04   R3=0
   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=0.003958205631609   U2=0   U3=-
5.619223298097 41E-03   R1=0   R2=1.34264887964712E-03   R3=0
   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.2400069013954E-04   U2=0   U3=-
8.830399094852 9E-03   R1=0   R2=5.11544223178404E-04   R3=0
   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.3553829432899E-03   U2=0   U3=-
7.786905154218 79E-03   R1=0   R2=1.20090811055068E-03   R3=0
   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.73526862331372E-03   U2=0   U3=-
8.499948907731 37E-03   R1=0   R2=9.46140675320537E-04   R3=0
   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.93789405866471E-03   U2=0   U3=-
5.938380340762 41E-03   R1=0   R2=1.33785798122618E-03   R3=0
   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.07524164038692E-04   U2=0   U3=-
9.441462052910 06E-03   R1=0   R2=5.34083332093 33E-04   R3=0
   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.33510994094189E-03   U2=0   U3=-
8.377391752115 92E-03   R1=0   R2=1.16882822851082E-03   R3=0
   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.75155420652343E-03   U2=0   U3=-
9.081846717225 9E-03   R1=0   R2=9.20482133059187E-04   R3=0
   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.91752536507476E-03   U2=0   U3=-
6.257286137306 92E-03   R1=0   R2=1.30023016390 74E-03   R3=0
   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.91047637937844E-04   U2=0   U3=-
1.005376726544 18E-02   R1=0   R2=5.36895832664278E-04   R3=0
   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.31479124207667E-03   U2=0   U3=-
8.947802215334 1E-03   R1=0   R2=1.10997195590407E-03   R3=0
   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.76779409321594E-03   U2=0   U3=-
9.643271500854 09E-03   R1=0   R2=8.69341080391544E-04   R3=0
   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.89709955083916E-03   U2=0   U3=-
6.568137156016 94E-03   R1=0   R2=1.23339584753831E-03   R3=0
   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.74571111836996E-04   U2=0   U3=-
1.064857167054 89E-02   R1=0   R2=5.21954385725644E-04   R3=0
   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.29442684669425E-03   U2=0   U3=-
9.485262808975 85E-03   R1=0   R2=1.02763816079509E-03   R3=0
   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.78398828339125E-03   U2=0   U3=-
1.017097307368 81E-02   R1=0   R2=7.96209814733756E-04   R3=0
   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.87661661595791E-03   U2=0   U3=-
6.862688442890 15E-03   R1=0   R2=1.14098545196642E-03   R3=0
   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.58094585736148E-04   U2=0   U3=-
1.121044844001 68E-02   R1=0   R2=4.91231652111826E-04   R3=0
   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.27885565943733E-03   U2=0   U3=-
9.843014907813 58E-03   R1=0   R2=9.51057620557377E-04   R3=0
   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.79631562694225E-03   U2=0   U3=-
1.054376174860 46E-02   R1=0   R2=7.27772309907288E-04   R3=0
   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.86094728362273E-03   U2=0   U3=-
7.071981871644 5E-03   R1=0   R2=1.05550893579307E-03   R3=0
   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.45521044828604E-04   U2=0   U3=-
1.160860252971 63E-02   R1=0   R2=4.58392247467226E-04   R3=0
   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.25356096637781E-03   U2=0   U3=-
1.029079125432 17E-02   R1=0   R2=8.05733475329101E-04   R3=0
   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.81623957419025E-03   U2=0   U3=-
1.108066871264 37E-02   R1=0   R2=5.97945834112377E-04   R3=0
   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.83547938425846E-03   U2=0   U3=-
7.366457642699 72E-03   R1=0   R2=8.93958102604382E-04   R3=0
   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.25141533534451E-04   U2=0   U3=-
1.218302518239 99E-02   R1=0   R2=3.90332968196247E-04   R3=0
   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.23305948144378E-03   U2=0   U3=-
1.057298938415 52E-02   R1=0   R2=6.73215105598186E-04   R3=0
   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.83229667481395E-03   U2=0   U3=-
1.144462527429 09E-02   R1=0   R2=4.79797713981086E-04   R3=0
   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.81482508744025E-03   U2=0   U3=-
7.554932317983 37E-03   R1=0   R2=7.47170469121775E-04   R3=0
   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.08665007433603E-04   U2=0   U3=-
0.012572184922 11   R1=0   R2=3.24102339563283E-04   R3=0
   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.21775355197704E-03   U2=0   U3=-
1.074139252407 68E-02   R1=0   R2=5.67924115606709E-04   R3=0
   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.84423155047792E-03   U2=0   U3=-
0.011670732271 198   R1=0   R2=3.86354366245476E-04   R3=0
   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.79939786600709E-03   U2=0   U3=-
7.671422819773 07E-03   R1=0   R2=6.30806434647364E-04   R3=0
   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-9.6387895781247E-05   U2=0   U3=-
1.281311020877 49E-02   R1=0   R2=2.6951284853534E-04   R3=0
   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.19191942202413E-03   U2=0   U3=-
1.094028245387 32E-02   R1=0   R2=3.80741565428 99E-04   R3=0
   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.86427378650974E-03   U2=0   U3=-
1.195835641881 01E-02   R1=0   R2=2.22686468850038E-04   R3=0
   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.77334513186688E-03   U2=0   U3=-
7.816859215915 54E-03   R1=0   R2=4.24200525012351E-04   R3=0
   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-7.57119552319068E-05   U2=0   U3=-
1.311636669039 02E-02   R1=0   R2=1.69941813118992E-04   R3=0
   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.17128084753849E-03   U2=0   U3=-
1.102078818399 07E-02   R1=0   R2=2.26654279825927E-04   R3=0
```

```
   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.88019379758183E-03   U2=0   U3=-
1.21002489356652E-02   R1=0   R2=8.97794019995739E-05   R3=0
   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.75251947311172E-03   U2=0   U3=-
7.88423867805693E-03   R1=0   R2=2.54366739976549E-04   R3=0
   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-5.92354291310586E-05   U2=0   U3=-
1.32610245936243E-02   R1=0   R2=5.49612068821068E-05   R3=0
   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.16902877439669E-03   U2=0   U3=-
1.09741070012885E-02   R1=0   R2=-7.47928427491133E-05   R3=0
   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.87273456479334E-03   U2=0   U3=-
1.21525159345188E-02   R1=0   R2=-1.78923490407251E-04   R3=0
   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.74985895904551E-03   U2=0   U3=-
7.88423867805644E-03   R1=0   R2=-6.10413126311409E-05   R3=0
   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-6.5444542310433E-05   U2=0   U3=-
1.33045670209629E-02   R1=0   R2=-2.35754439315688E-04   R3=0
   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.18499557144707E-03   U2=0   U3=-
1.08505469593894E-02   R1=0   R2=-2.15168084888777E-04   R3=0
   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.85177502522621E-03   U2=0   U3=-
1.20694403417547E-02   R1=0   R2=-3.09217872535994E-04   R3=0
   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.76560439944101E-03   U2=0   U3=-
7.81685921591455E-03   R1=0   R2=-1.47322805463891E-04   R3=0
   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-8.57104772972008E-05   U2=0   U3=-
1.32021821082397E-02   R1=0   R2=-3.78331634855179E-04   R3=0
   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.20091667198024E-03   U2=0   U3=-
1.06649440841272E-02   R1=0   R2=-3.4564371523744E-04   R3=0
   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.83076978914188E-03   U2=0   U3=-
1.19123845706723E-02   R1=0   R2=-4.30476379305518E-04   R3=0
   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.78129271919086E-03   U2=0   U3=-
7.70624699026355E-03   R1=0   R2=-2.26719807984617E-04   R3=0
   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.05976412283969E-04   U2=0   U3=-
1.30170278487675E-02   R1=0   R2=-5.12464559105145E-04   R3=0
   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.21679207599621E-03   U2=0   U3=-
1.04226401405453E-02   R1=0   R2=-4.62727436378954E-04   R3=0
   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.80971885654034E-03   U2=0   U3=-
1.16870748635654E-02   R1=0   R2=-5.39948289002011E-04   R3=0
   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.79692391829506E-03   U2=0   U3=-
7.55493231798139E-03   R1=0   R2=-2.99500836401535E-04   R3=0
   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.26242347270736E-04   U2=0   U3=-
1.27551818119126E-02   R1=0   R2=-6.35207975146413E-04   R3=0
   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.23262178349498E-03   U2=0   U3=-
1.01303882255198E-02   R1=0   R2=-5.62926950897165E-04   R3=0
   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.7886222274216E-03   U2=0   U3=-
1.14009300358039E-02   R1=0   R2=-6.34882879911659E-04   R3=0
   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.8124979967536E-03   U2=0   U3=-
7.36645764269722E-03   R1=0   R2=-3.63693229880243E-04   R3=0
   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.46508282257504E-04   U2=0   U3=-
1.24245842516863E-02   R1=0   R2=-7.4425691184071E-04   R3=0
   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.25213804119606E-03   U2=0   U3=-
9.71212132625273E-03   R1=0   R2=-6.48126473357518E-04   R3=0
   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.76246498031092E-03   U2=0   U3=-
0.010976594131369   R1=0   R2=-7.38254863146005E-04   R3=0
   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=0.003831682267712   U2=0   U3=-
7.08881810016798E-03   R1=0   R2=-4.2826586690987E-04   R3=0
   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.71574843522997E-04   U2=0   U3=-
1.19353614508936E-02   R1=0   R2=-8.78466900024184E-04   R3=0
   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.26414410894091E-03   U2=0   U3=-
9.43010952780967E-03   R1=0   R2=-6.81392757576271E-04   R3=0
   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.74629187963252E-03   U2=0   U3=-
1.06842731451785E-02   R1=0   R2=-7.87503557605344E-04   R3=0
   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.84347479173373E-03   U2=0   U3=-
6.89725869139545E-03   R1=0   R2=-4.58421468685438E-04   R3=0
   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-1.8704015223104E-04   U2=0   U3=-
1.15982090003884E-02   R1=0   R2=-9.43825152404547E-04   R3=0
   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.27983672688808E-03   U2=0   U3=-
9.04264559804358E-03   R1=0   R2=-7.04088240813308E-04   R3=0
   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.72505816096218E-03   U2=0   U3=-
1.02770615784359E-02   R1=0   R2=-8.28841967997338E-04   R3=0
   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.85887750825532E-03   U2=0   U3=-
6.62867993639209E-03   R1=0   R2=-4.85011992343129E-04   R3=0
   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.07306087217808E-04   U2=0   U3=-
1.11276252405634E-02   R1=0   R2=-1.00611814322236E-03   R3=0
   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.29548364831804E-03   U2=0   U3=-
8.6463594026711E-03   R1=0   R2=-7.00545526807631E-04   R3=0
   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.70377874577463E-03   U2=0   U3=-
9.85561588328131E-03   R1=0   R2=-8.41332459498077E-04   R3=0
   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.87422310413126E-03   U2=0   U3=-
6.34723222041522E-03   R1=0   R2=-4.95123237725022E-04   R3=0
   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.27572022204575E-04   U2=0   U3=-
1.06686743532225E-02   R1=0   R2=-1.03857648793406E-03   R3=0
   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.31108487323079E-03   U2=0   U3=-
8.25506069773441E-03   R1=0   R2=-6.68013893845428E-04   R3=0
   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.68245363406988E-03   U2=0   U3=-
9.43581774046592E-03   R1=0   R2=-8.22224310393751E-04   R3=0
```

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   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.88951157936155E-03   U2=0   U3=-
6.06151862084992E-03   R1=0   R2=-4.86782543996718E-04   R3=0
   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.47837957191343E-04   U2=0   U3=-
1.02157970678941E-02   R1=0   R2=-1.03756976669213E-03   R3=0
   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.32664040162635E-03   U2=0   U3=-
7.88251702206953E-03   R1=0   R2=-6.0374262021289E-04   R3=0
   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.66108282584793E-03   U2=0   U3=-
9.03669495285661E-03   R1=0   R2=-7.6876679897055E-04   R3=0
   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.90474293394618E-03   U2=0   U3=-
5.77970079279317E-03   R1=0   R2=-4.58017250323821E-04   R3=0
   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.68103892178111E-04   U2=0   U3=-
9.78694650873858E-03   R1=0   R2=-9.99467559649058E-04   R3=0
   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=3.3421502335047E-03   U2=0   U3=-
7.51896072681685E-03   R1=0   R2=-5.04980984196204E-04   R3=0
   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.63966632110877E-03   U2=0   U3=-
8.70391441592525E-03   R1=0   R2=-6.7820920351466E-04   R3=0
   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.91991716788516E-03   U2=0   U3=-
5.48600599856429E-03   R1=0   R2=-4.06854695871933E-04   R3=0
   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-2.88369827164878E-04   U2=0   U3=-
9.42985991423186E-03   R1=0   R2=-9.20639446957306E-04   R3=0
   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   U1=0.003371256838015   U2=0   U3=-
6.88862077074104E-03   R1=0   R2=1.05536106880119E-04   R3=0
   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   U1=1.76075116585322E-03   U2=0   U3=-
8.18805855949458E-03   R1=0   R2=-1.28045113813836E-04   R3=0
   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Max   U1=3.91505483286883E-03   U2=0   U3=-
4.90500198805507E-03   R1=0   R2=1.58253248716084E-04   R3=0
   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Min   U1=-4.55674039669519E-05   U2=0   U3=-
8.88957555157077E-03   R1=0   R2=-3.55892941856986E-04   R3=0

TABLE:  "JOINT REACTIONS"
   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-195.96544292045   F2=0
F3=191.435706141128   M1=0   M2=0   M3=0
   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-363.182163042724   F2=0
F3=161.84619549159   M1=0   M2=0   M3=0
   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=3.11729311534806E-11   F2=0
F3=222.166781875185   M1=0   M2=0   M3=0
   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-414.222200000594   F2=0
F3=142.19010619239   M1=0   M2=0   M3=0
   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=62.3736881917146   M1=0
M2=0   M3=0
   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=53.419295813721   M1=0
M2=0   M3=0
   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=71.8934418013938   M1=0
M2=0   M3=0
   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=46.5313402897057   M1=0
M2=0   M3=0
   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=74.5821859479925   M1=0
M2=0   M3=0
   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=64.6438561671104   M1=0
M2=0   M3=0
   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=85.4156907526077   M1=0
M2=0   M3=0
   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=55.9013645159819   M1=0
M2=0   M3=0
   Joint=7   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=49.7179449961214   M1=0
M2=0   M3=0
   Joint=7   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=45.936767086634   M1=0
M2=0   M3=0
   Joint=7   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=52.2072310168629   M1=0
M2=0   M3=0
   Joint=7   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=37.9587011266911   M1=0
M2=0   M3=0
   Joint=11   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=95.3469489171638   M1=0
M2=0   M3=0
   Joint=11   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=81.2735116028665   M1=0
M2=0   M3=0
   Joint=11   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=103.214124738075   M1=0
M2=0   M3=0
   Joint=11   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=59.2209629761988   M1=0
M2=0   M3=0
   Joint=12   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=81.2284082961397   M1=0
M2=0   M3=0
   Joint=12   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=68.7724776746806   M1=0
M2=0   M3=0
   Joint=12   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=88.055673535218   M1=0
M2=0   M3=0
   Joint=12   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=49.5486893762903   M1=0
M2=0   M3=0
   Joint=13   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=254.291936265094   M1=0
M2=0   M3=0
   Joint=13   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=213.826099170179   M1=0
M2=0   M3=0
```

```
   Joint=13   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=276.053389239814   M1=0
M2=0   M3=0
   Joint=13   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=152.261678338748   M1=0
M2=0   M3=0
   Joint=14   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=14   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=26   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=0   M1=0   M2=0   M3=0
   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=84.4396095475759   M1=0
M2=0   M3=0
   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=74.3817117153379   M1=0
M2=0   M3=0
   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=95.8582586181967   M1=0
M2=0   M3=0
   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=63.7696827418603   M1=0
M2=0   M3=0
   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=80.0571118066316   M1=0
M2=0   M3=0
   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=71.5865050170123   M1=0
M2=0   M3=0
   Joint=46   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=90.1376789122895   M1=0
M2=0   M3=0
   Joint=46   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=60.9701418489459   M1=0
M2=0   M3=0
   Joint=47   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=75.4907316486898   M1=0
M2=0   M3=0
   Joint=47   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=68.4665702544194   M1=0
M2=0   M3=0
   Joint=47   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=84.3341805007731   M1=0
M2=0   M3=0
   Joint=47   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=58.030309992067   M1=0
M2=0   M3=0
   Joint=48   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=71.0670145207915   M1=0
M2=0   M3=0
   Joint=48   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=65.0875090205547   M1=0
M2=0   M3=0
   Joint=48   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=78.7796253137379   M1=0
M2=0   M3=0
   Joint=48   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=54.9651756790338   M1=0
M2=0   M3=0
   Joint=49   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=66.9585085904896   M1=0
M2=0   M3=0
   Joint=49   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=61.5754953167597   M1=0
M2=0   M3=0
   Joint=49   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=73.6782808664633   M1=0
M2=0   M3=0
   Joint=49   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=51.8538600257793   M1=0
M2=0   M3=0
   Joint=50   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=63.0427997389246   M1=0
M2=0   M3=0
   Joint=50   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=58.2080947558958   M1=0
M2=0   M3=0
   Joint=50   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=68.9871712018339   M1=0
M2=0   M3=0
   Joint=50   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=48.930309958018   M1=0
M2=0   M3=0
   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=59.5739216684384   M1=0
M2=0   M3=0
   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=55.0972674014579   M1=0
M2=0   M3=0
   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=64.7174207173777   M1=0
M2=0   M3=0
   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=46.2661474461707   M1=0
M2=0   M3=0
   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=56.5080984984774   M1=0
M2=0   M3=0
   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=52.3411516293339   M1=0
M2=0   M3=0
   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=60.9634002717742   M1=0
M2=0   M3=0
   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=43.9222867269192   M1=0
M2=0   M3=0
   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=53.9292141284271   M1=0
M2=0   M3=0
   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=50.0251509460754   M1=0
M2=0   M3=0
   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=57.8035890347723   M1=0
M2=0   M3=0
```

```
   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=41.9498549055426   M1=0
M2=0   M3=0
   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=51.9080023613653   M1=0
M2=0   M3=0
   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=48.0857206640114   M1=0
M2=0   M3=0
   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=55.3018684585089   M1=0
M2=0   M3=0
   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=40.2538252550997   M1=0
M2=0   M3=0
   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=50.5029432108037   M1=0
M2=0   M3=0
   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=46.702037255744   M1=0
M2=0   M3=0
   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=53.5086104750774   M1=0
M2=0   M3=0
   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=38.9845574673991   M1=0
M2=0   M3=0
   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=49.7609667218779   M1=0
M2=0   M3=0
   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=45.9743245575532   M1=0
M2=0   M3=0
   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=52.4615389662102   M1=0
M2=0   M3=0
   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=38.2160295308408   M1=0
M2=0   M3=0
   Joint=57   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=50.3989568909207   M1=0
M2=0   M3=0
   Joint=57   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=46.3837208207259   M1=0
M2=0   M3=0
   Joint=57   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=52.9987174586414   M1=0
M2=0   M3=0
   Joint=57   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=38.216029530835   M1=0
M2=0   M3=0
   Joint=58   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=51.8300705498722   M1=0
M2=0   M3=0
   Joint=58   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=47.3870531838941   M1=0
M2=0   M3=0
   Joint=58   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=54.6062768911494   M1=0
M2=0   M3=0
   Joint=58   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=38.9845574673873   M1=0
M2=0   M3=0
   Joint=59   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=54.1325010922876   M1=0
M2=0   M3=0
   Joint=59   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=49.1149066984505   M1=0
M2=0   M3=0
   Joint=59   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=57.1548008637497   M1=0
M2=0   M3=0
   Joint=59   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=40.2538252550818   M1=0
M2=0   M3=0
   Joint=60   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=57.1970875291575   M1=0
M2=0   M3=0
   Joint=60   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=51.559006317081   M1=0
M2=0   M3=0
   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=60.5379040022777   M1=0
M2=0   M3=0
   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=42.0061083677514   M1=0
M2=0   M3=0
   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=61.0115502557917   M1=0
M2=0   M3=0
   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=54.7005081019037   M1=0
M2=0   M3=0
   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=64.7451001565996   M1=0
M2=0   M3=0
   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=44.2159838028122   M1=0
M2=0   M3=0
   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=65.5503439670969   M1=0
M2=0   M3=0
   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=58.5091709423623   M1=0
M2=0   M3=0
   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=69.7515492410109   M1=0
M2=0   M3=0
   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=46.8497310138003   M1=0
M2=0   M3=0
   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=70.7733666706039   M1=0
M2=0   M3=0
   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=62.9422892844505   M1=0
M2=0   M3=0
   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=75.5166347942655   M1=0
M2=0   M3=0
   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=49.8645756731607   M1=0
M2=0   M3=0
```

```
   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=76.6244192876372   M1=0
M2=0   M3=0
   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=67.9433965481943   M1=0
M2=0   M3=0
   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=81.9822664552527   M1=0
M2=0   M3=0
   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=53.207787246263   M1=0
M2=0   M3=0
   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=83.0294286199724   M1=0
M2=0   M3=0
   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=73.4407529913872   M1=0
M2=0   M3=0
   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=89.0709202352236   M1=0
M2=0   M3=0
   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=56.8156443309332   M1=0
M2=0   M3=0
   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=90.0450566443357   M1=0
M2=0   M3=0
   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=79.0864806780864   M1=0
M2=0   M3=0
   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=96.8340401031601   M1=0
M2=0   M3=0
   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=60.3531293773942   M1=0
M2=0   M3=0
   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=97.5382790880627   M1=0
M2=0   M3=0
   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=84.8022813021087   M1=0
M2=0   M3=0
   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=105.13138490407   M1=0
M2=0   M3=0
   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=63.7602860946785   M1=0
M2=0   M3=0
   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=105.273603281376   M1=0
M2=0   M3=0
   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=90.6232753336472   M1=0
M2=0   M3=0
   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=0   F2=0   F3=113.717992254514   M1=0
M2=0   M3=0
   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=0   F2=0   F3=67.0967739780223   M1=0
M2=0   M3=0

TABLE:  "ASSEMBLED JOINT MASSES"
   Joint=1   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=2   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=3   U1=1.34679275178909   U2=1.34679275178909   U3=1.34679275178909   R1=0   R2=0   R3=0
   Joint=5   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=6   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=7   U1=1.60126696157456   U2=1.60126696157456   U3=1.60126696157456   R1=0   R2=0   R3=0
   Joint=8   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=9   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=10   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=11   U1=1.34679275178909   U2=1.34679275178909   U3=1.34679275178909   R1=0   R2=0   R3=0
   Joint=12   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=13   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=14   U1=0.924269535541536   U2=0.924269535541536   U3=0.924269535541536   R1=0   R2=0   R3=0
   Joint=15   U1=0.924269535541535   U2=0.924269535541535   U3=0.924269535541535   R1=0   R2=0   R3=0
   Joint=16   U1=1.13959386689846   U2=1.13959386689846   U3=1.13959386689846   R1=0   R2=0   R3=0
   Joint=17   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=18   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=19   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=20   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=21   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=22   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=23   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=24   U1=1.13959386689846   U2=1.13959386689846   U3=1.13959386689846   R1=0   R2=0   R3=0
   Joint=25   U1=0.924269535541535   U2=0.924269535541535   U3=0.924269535541535   R1=0   R2=0   R3=0
   Joint=26   U1=0.924269535541536   U2=0.924269535541536   U3=0.924269535541536   R1=0   R2=0   R3=0
   Joint=27   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=28   U1=1.3864043033123   U2=1.3864043033123   U3=1.3864043033123   R1=0   R2=0   R3=0
   Joint=29   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=30   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=31   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=32   U1=1.30237980008125   U2=1.30237980008125   U3=1.30237980008125   R1=0   R2=0   R3=0
   Joint=33   U1=0.924269535541534   U2=0.924269535541534   U3=0.924269535541534   R1=0   R2=0   R3=0
   Joint=34   U1=1.09231854200363   U2=1.09231854200363   U3=1.09231854200363   R1=0   R2=0   R3=0
   Joint=35   U1=1.3864043033123   U2=1.3864043033123   U3=1.3864043033123   R1=0   R2=0   R3=0
   Joint=36   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=37   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=38   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=39   U1=1.30237980008125   U2=1.30237980008125   U3=1.30237980008125   R1=0   R2=0   R3=0
   Joint=40   U1=0.924269535541534   U2=0.924269535541534   U3=0.924269535541534   R1=0   R2=0   R3=0
   Joint=41   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
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   Joint=42   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=43   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=44   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0
   Joint=45   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=46   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=47   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=48   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=49   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=50   U1=1.60126696157456   U2=1.60126696157456   U3=1.60126696157456   R1=0   R2=0   R3=0
   Joint=51   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=52   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=53   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=54   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=55   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=56   U1=1.60126696157456   U2=1.60126696157456   U3=1.60126696157456   R1=0   R2=0   R3=0
   Joint=57   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=58   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=59   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=60   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=61   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=62   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=63   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=64   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=65   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=66   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=67   U1=1.60126696157455   U2=1.60126696157455   U3=1.60126696157455   R1=0   R2=0   R3=0
   Joint=68   U1=1.60126696157456   U2=1.60126696157456   U3=1.60126696157456   R1=0   R2=0   R3=0
   Joint=69   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=70   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=71   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=72   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=73   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=74   U1=1.19444063054598   U2=1.19444063054598   U3=1.19444063054598   R1=0   R2=0   R3=0
   Joint=75   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=76   U1=1.5153957659648   U2=1.5153957659648   U3=1.5153957659648   R1=0   R2=0   R3=0
   Joint=77   U1=1.18225246084653   U2=1.18225246084653   U3=1.18225246084653   R1=0   R2=0   R3=0
   Joint=78   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=79   U1=1.52758393566425   U2=1.52758393566425   U3=1.52758393566425   R1=0   R2=0   R3=0
   Joint=80   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=81   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=82   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=83   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=84   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=85   U1=1.5153957659648   U2=1.5153957659648   U3=1.5153957659648   R1=0   R2=0   R3=0
   Joint=86   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=87   U1=1.19444063054598   U2=1.19444063054598   U3=1.19444063054598   R1=0   R2=0   R3=0
   Joint=88   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=89   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=90   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=91   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=92   U1=1.35491819825539   U2=1.35491819825539   U3=1.35491819825539   R1=0   R2=0   R3=0
   Joint=93   U1=1.68049006462097   U2=1.68049006462097   U3=1.68049006462097   R1=0   R2=0   R3=0

TABLE:  "ELEMENT FORCES - FRAMES"
   Frame=1   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=734.904544773004   V3=0   T=0   M2=0   M3=1662.95572240104   FrameElem=1   ElemStation=0
   Frame=1   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=746.279544773004   V3=0   T=0   M2=0   M3=1403.74850673049   FrameElem=1
ElemStation=0.350000000000001
   Frame=1   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351
V2=683.383140572126   V3=0   T=0   M2=0   M3=1363.52833666874   FrameElem=1   ElemStation=0
   Frame=1   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473351   V2=694.758140572126   V3=0   T=0   M2=0   M3=1122.35361246849   FrameElem=1
ElemStation=0.350000000000001
   Frame=1   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082221
V2=797.474390022057   V3=0   T=0   M2=0   M3=1827.7674838995   FrameElem=1   ElemStation=0
   Frame=1   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082221   V2=808.849390022057   V3=0   T=0   M2=0   M3=1548.14444061786   FrameElem=1
ElemStation=0.350000000000001
   Frame=1   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594061
V2=495.430693610148   V3=0   T=0   M2=0   M3=773.797288345936   FrameElem=1   ElemStation=0
   Frame=1   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594061   V2=506.805693610148   V3=0   T=0   M2=0   M3=598.405920582383   FrameElem=1
ElemStation=0.350000000000001
   Frame=2   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=689.233935305244   V3=0   T=0   M2=0   M3=1403.74850673049   FrameElem=2   ElemStation=0
   Frame=2   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=700.608935305244   V3=0   T=0   M2=0   M3=1160.52600437366   FrameElem=2   ElemStation=0.35
   Frame=2   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351
V2=636.676265350087   V3=0   T=0   M2=0   M3=1122.3536124685   FrameElem=2   ElemStation=0
   Frame=2   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351
V2=648.051265350087   V3=0   T=0   M2=0   M3=897.526294595971   FrameElem=2   ElemStation=0.35
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   Frame=2   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=744.936304238285   V3=0   T=0   M2=0   M3=1548.14444061786   FrameElem=2   ElemStation=0
   Frame=2   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=756.311304238285   V3=0   T=0   M2=0   M3=1285.42610913446   FrameElem=2   ElemStation=0.35
   Frame=2   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=455.61177391212   V3=0   T=0   M2=0   M3=598.40592058239   FrameElem=2   ElemStation=0
   Frame=2   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=466.98677391212   V3=0   T=0   M2=0   M3=436.951174713148   FrameElem=2   ElemStation=0.35
   Frame=3   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-851.379425715707
V2=346.21132261951   V3=0   T=0   M2=0   M3=1662.95572240105   FrameElem=3   ElemStation=0
   Frame=3   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-840.004425715707
V2=317.203119170981   V3=0   T=0   M2=0   M3=1560.01733192965   FrameElem=3   ElemStation=0.325
   Frame=3   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-917.945825611841
V2=158.633480366714   V3=0   T=0   M2=0   M3=1363.52833666875   FrameElem=3   ElemStation=0
   Frame=3   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-906.570825611841
V2=145.493844287355   V3=0   T=0   M2=0   M3=1313.77151817263   FrameElem=3   ElemStation=0.325
   Frame=3   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-643.770889454533
V2=372.026036145059   V3=0   T=0   M2=0   M3=1827.76748389952   FrameElem=3   ElemStation=0
   Frame=3   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-632.395889454533
V2=341.958982759643   V3=0   T=0   M2=0   M3=1717.82188883884   FrameElem=3   ElemStation=0.325
   Frame=3   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1012.05441190763
V2=70.543655891852   V3=0   T=0   M2=0   M3=773.797288345952   FrameElem=3   ElemStation=0
   Frame=3   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1000.67941190763
V2=61.0986198675464   V3=0   T=0   M2=0   M3=752.414719708733   FrameElem=3   ElemStation=0.325
   Frame=4   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-840.004425715833
V2=317.203119170981   V3=0   T=0   M2=0   M3=1560.01733192965   FrameElem=4   ElemStation=0
   Frame=4   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-828.629425715833
V2=289.095808951618   V3=0   T=0   M2=0   M3=1466.18445242665   FrameElem=4   ElemStation=0.325
   Frame=4   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-906.570825611902
V2=145.493844287356   V3=0   T=0   M2=0   M3=1313.77151817263   FrameElem=4   ElemStation=0
   Frame=4   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-895.195825611902
V2=132.697636159385   V3=0   T=0   M2=0   M3=1241.66977067842   FrameElem=4   ElemStation=0.325
   Frame=4   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-632.395889454647
V2=341.958982759642   V3=0   T=0   M2=0   M3=1717.82188883885   FrameElem=4   ElemStation=0
   Frame=4   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-621.020889454647
V2=312.792822603392   V3=0   T=0   M2=0   M3=1617.28199097869   FrameElem=4   ElemStation=0.325
   Frame=4   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1000.67941190769
V2=61.0986198675477   V3=0   T=0   M2=0   M3=752.414719708734   FrameElem=4   ElemStation=0
   Frame=4   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-989.304411907692
V2=51.997011794631   V3=0   T=0   M2=0   M3=707.31071705291   FrameElem=4   ElemStation=0.325
   Frame=6   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-618.629425717224   V2=-
23.3822240577235   V3=0   T=0   M2=0   M3=1124.40311606885   FrameElem=6   ElemStation=0
   Frame=6   Station=0.274999999999999   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
609.004425717224   V2=-29.0343535382096   V3=0   T=0   M2=0   M3=1137.57004351623   FrameElem=6
ElemStation=0.274999999999999
   Frame=6   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-685.19582561342   V2=-
123.260890003051   V3=0   T=0   M2=0   M3=916.771709078712   FrameElem=6   ElemStation=0
   Frame=6   Station=0.274999999999999   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
675.57082561342   V2=-132.267217400203   V3=0   T=0   M2=0   M3=936.71590737231   FrameElem=6
ElemStation=0.274999999999999
   Frame=6   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-411.020889455812   V2=-
7.62144210894395   V3=0   T=0   M2=0   M3=1378.27566022645   FrameElem=6   ElemStation=0
   Frame=6   Station=0.274999999999999   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
401.395889455812   V2=-12.8255964826245   V3=0   T=0   M2=0   M3=1408.03783420589   FrameElem=6
ElemStation=0.274999999999999
   Frame=6   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-779.304411909456   V2=-
182.021783546712   V3=0   T=0   M2=0   M3=686.086519494356   FrameElem=6   ElemStation=0
   Frame=6   Station=0.274999999999999   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
769.679411909456   V2=-191.924060890462   V3=0   T=0   M2=0   M3=710.101861919253   FrameElem=6
ElemStation=0.274999999999999
   Frame=7   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-609.004425716888   V2=-
29.0343535382055   V3=0   T=0   M2=0   M3=1137.57004351622   FrameElem=7   ElemStation=0
   Frame=7   Station=0.275   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-599.379425716888   V2=-
34.4405967339694   V3=0   T=0   M2=0   M3=1172.24283635942   FrameElem=7   ElemStation=0.275
   Frame=7   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-675.570825613102   V2=-
132.267217400212   V3=0   T=0   M2=0   M3=936.715907372309   FrameElem=7   ElemStation=0
   Frame=7   Station=0.275   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-665.945825613102   V2=-
140.628526568198   V3=0   T=0   M2=0   M3=959.048155693615   FrameElem=7   ElemStation=0.275
   Frame=7   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-401.395889455569   V2=-
12.8255964826249   V3=0   T=0   M2=0   M3=1408.03783420588   FrameElem=7   ElemStation=0
   Frame=7   Station=0.275   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-391.770889455569   V2=-
17.7838645715833   V3=0   T=0   M2=0   M3=1459.52079981831   FrameElem=7   ElemStation=0.275
   Frame=7   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-769.67941190911   V2=-
191.924060890458   V3=0   T=0   M2=0   M3=710.101861919252   FrameElem=7   ElemStation=0
   Frame=7   Station=0.275   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-760.05441190911   V2=-
201.181320005041   V3=0   T=0   M2=0   M3=735.519709357173   FrameElem=7   ElemStation=0.275
   Frame=8   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-877.239498310995
V2=35.7214228116732   V3=0   T=0   M2=0   M3=-643.863805130469   FrameElem=8   ElemStation=0
   Frame=8   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-865.864498310995
V2=45.1664588359788   V3=0   T=0   M2=0   M3=-646.930392410947   FrameElem=8   ElemStation=0.325
   Frame=8   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-990.647893739254   V2=-
123.42477647335   V3=0   T=0   M2=0   M3=-948.611431319743   FrameElem=8   ElemStation=0
```

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   Frame=8   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-979.272893739254   V2=-
98.6519730879338   V3=0   T=0   M2=0   M3=-915.166011802455   FrameElem=8   ElemStation=0.325
   Frame=8   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-653.664999997856
V2=62.2876905082199   V3=0   T=0   M2=0   M3=-577.114033857856   FrameElem=8   ElemStation=0
   Frame=8   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-642.289999997856
V2=71.7327265325254   V3=0   T=0   M2=0   M3=-577.319429896456   FrameElem=8   ElemStation=0.325
   Frame=8   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1072.4200834461   V2=-
215.854077594058   V3=0   T=0   M2=0   M3=-1207.50044839941   FrameElem=8   ElemStation=0
   Frame=8   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1061.0450834461   V2=-
191.081274208641   V3=0   T=0   M2=0   M3=-1161.90485005084   FrameElem=8   ElemStation=0.325
   Frame=9   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-865.864498311432
V2=45.1664588359801   V3=0   T=0   M2=0   M3=-646.930392410948   FrameElem=9   ElemStation=0
   Frame=9   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-854.489498311432
V2=54.2680669088967   V3=0   T=0   M2=0   M3=-654.740242690558   FrameElem=9   ElemStation=0.325
   Frame=9   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-979.272893739651   V2=-
98.651973087934   V3=0   T=0   M2=0   M3=-915.166011802453   FrameElem=9   ElemStation=0
   Frame=9   Station=0.325   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-967.897893739651   V2=-
74.780062931684   V3=0   T=0   M2=0   M3=-889.625358235685   FrameElem=9   ElemStation=0.325
   Frame=9   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-642.289999998176
V2=71.7327265325267   V3=0   T=0   M2=0   M3=-577.319429896456   FrameElem=9   ElemStation=0
   Frame=9   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-630.914999998176
V2=80.8343346054434   V3=0   T=0   M2=0   M3=-582.268088934189   FrameElem=9   ElemStation=0.325
   Frame=9   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1061.04508344651   V2=-
191.081274208642   V3=0   T=0   M2=0   M3=-1161.90485005084   FrameElem=9   ElemStation=0
   Frame=9   Station=0.325   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1049.67008344651   V2=-
167.209364052392   V3=0   T=0   M2=0   M3=-1150.94928133719   FrameElem=9   ElemStation=0.325
   Frame=11   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116767   V2=-
607.929936539003   V3=0   T=0   M2=0   M3=448.536744117901   FrameElem=11   ElemStation=0
   Frame=11   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116767   V2=-
596.554936539003   V3=0   T=0   M2=0   M3=687.114606054551   FrameElem=11   ElemStation=0.35
   Frame=11   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473345   V2=-
687.338534104714   V3=0   T=0   M2=0   M3=197.811375310326   FrameElem=11   ElemStation=0
   Frame=11   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473345   V2=-
675.963534104714   V3=0   T=0   M2=0   M3=411.46010558059   FrameElem=11   ElemStation=0.35
   Frame=11   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082239   V2=-
465.143647355729   V3=0   T=0   M2=0   M3=668.387958341968   FrameElem=11   ElemStation=0
   Frame=11   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082239   V2=-
453.768647355729   V3=0   T=0   M2=0   M3=926.531931791423   FrameElem=11   ElemStation=0.35
   Frame=11   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594055   V2=-
743.241709855586   V3=0   T=0   M2=0   M3=146.853482054247   FrameElem=11   ElemStation=0
   Frame=11   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594055   V2=-
731.866709855586   V3=0   T=0   M2=0   M3=353.628180619668   FrameElem=11   ElemStation=0.35
   Frame=12   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116741   V2=-
668.815771091275   V3=0   T=0   M2=0   M3=687.114606054528   FrameElem=12   ElemStation=0
   Frame=12   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116741   V2=-657.440771091275   V3=0   T=0   M2=0   M3=948.611431319755   FrameElem=12
ElemStation=0.350000000000001
   Frame=12   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352   V2=-
752.821286472077   V3=0   T=0   M2=0   M3=411.460105580567   FrameElem=12   ElemStation=0
   Frame=12   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=-741.446286472077   V3=0   T=0   M2=0   M3=643.863805130482   FrameElem=12
ElemStation=0.350000000000001
   Frame=12   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082211   V2=-
506.805693609595   V3=0   T=0   M2=0   M3=926.531931791405   FrameElem=12   ElemStation=0
   Frame=12   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082211   V2=-495.430693609595   V3=0   T=0   M2=0   M3=1207.50044839942   FrameElem=12
ElemStation=0.350000000000001
   Frame=12   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594061   V2=-
812.832023204173   V3=0   T=0   M2=0   M3=353.628180619646   FrameElem=12   ElemStation=0
   Frame=12   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594061   V2=-801.457023204173   V3=0   T=0   M2=0   M3=577.114033857867   FrameElem=12
ElemStation=0.350000000000001
   Frame=13   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-44.5185968408059   V2=-
584.331425492853   V3=0   T=0   M2=0   M3=-959.048155693627   FrameElem=13   ElemStation=0
   Frame=13   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
46.7669968743097   V2=-557.732825380743   V3=0   T=0   M2=0   M3=-749.050837492303   FrameElem=13
ElemStation=0.350000000000001
   Frame=13   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-155.416526675024   V2=-
640.297825231148   V3=0   T=0   M2=0   M3=-1172.24283635942   FrameElem=13   ElemStation=0
   Frame=13   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
157.664926708528   V2=-608.398825040056   V3=0   T=0   M2=0   M3=-953.720922561963   FrameElem=13
ElemStation=0.350000000000001
   Frame=13   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-26.1420744476433   V2=-
391.770889455741   V3=0   T=0   M2=0   M3=-735.519709357181   FrameElem=13   ElemStation=0
   Frame=13   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
28.3904744811471   V2=-372.695889455741   V3=0   T=0   M2=0   M3=-601.738023047672   FrameElem=13
ElemStation=0.350000000000001
   Frame=13   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005061   V2=-
727.994411909368   V3=0   T=0   M2=0   M3=-1459.52079981832   FrameElem=13   ElemStation=0
   Frame=13   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005061   V2=-692.889411909368   V3=0   T=0   M2=0   M3=-1210.86613065005   FrameElem=13
ElemStation=0.350000000000001
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   Frame=14   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-46.7669968743297   V2=-
557.732825380742   V3=0   T=0   M2=0   M3=-749.050837492321   FrameElem=14   ElemStation=0
   Frame=14   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-49.0153969078335   V2=-
531.134225268631   V3=0   T=0   M2=0   M3=-550.872809367634   FrameElem=14   ElemStation=0.35
   Frame=14   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-157.664926708538   V2=-
608.398825040054   V3=0   T=0   M2=0   M3=-953.720922561981   FrameElem=14   ElemStation=0
   Frame=14   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-159.913326742042   V2=-
576.499824848962   V3=0   T=0   M2=0   M3=-746.363658831403   FrameElem=14   ElemStation=0.35
   Frame=14   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-28.39047448117   V2=-
372.695889455742   V3=0   T=0   M2=0   M3=-601.738023047685   FrameElem=14   ElemStation=0
   Frame=14   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-30.6388745146738   V2=-
353.620889455742   V3=0   T=0   M2=0   M3=-473.493783935846   FrameElem=14   ElemStation=0.35
   Frame=14   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005055   V2=-
692.889411909366   V3=0   T=0   M2=0   M3=-1210.86613065007   FrameElem=14   ElemStation=0
   Frame=14   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005055   V2=-
657.784411909366   V3=0   T=0   M2=0   M3=-974.498211481787   FrameElem=14   ElemStation=0.35
   Frame=15   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-644.489498313216
V2=232.286251627952   V3=0   T=0   M2=0   M3=-1330.47520134083   FrameElem=15   ElemStation=0
   Frame=15   Station=0.274999999999999   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
634.864498313216   V2=237.708778971702   V3=0   T=0   M2=0   M3=-1386.42097296376   FrameElem=15
ElemStation=0.274999999999999
   Frame=15   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-757.897893741674
V2=132.407585682573   V3=0   T=0   M2=0   M3=-1584.68805350945   FrameElem=15   ElemStation=0
   Frame=15   Station=0.274999999999999   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
748.272893741674   V2=134.475915109657   V3=0   T=0   M2=0   M3=-1641.9417837552   FrameElem=15
ElemStation=0.274999999999999
   Frame=15   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-420.91499999943
V2=258.852519324496   V3=0   T=0   M2=0   M3=-752.12205333458   FrameElem=15   ElemStation=0
   Frame=15   Station=0.274999999999999   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
411.28999999943   V2=264.275046668246   V3=0   T=0   M2=0   M3=-782.649767149318   FrameElem=15
ElemStation=0.274999999999999
   Frame=15   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-839.670083448716
V2=39.9782845618716   V3=0   T=0   M2=0   M3=-1766.50993511255   FrameElem=15   ElemStation=0
   Frame=15   Station=0.274999999999999   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
830.045083448716   V2=42.046613988955   V3=0   T=0   M2=0   M3=-1830.67191360416   FrameElem=15
ElemStation=0.274999999999999
   Frame=16   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-634.864498313373
V2=237.708778971698   V3=0   T=0   M2=0   M3=-1386.42097296376   FrameElem=16   ElemStation=0
   Frame=16   Station=0.275   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-625.239498313373
V2=242.486288086281   V3=0   T=0   M2=0   M3=-1423.65807044502   FrameElem=16   ElemStation=0.275
   Frame=16   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-748.272893741935
V2=134.475915109653   V3=0   T=0   M2=0   M3=-1641.9417837552   FrameElem=16   ElemStation=0
   Frame=16   Station=0.275   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-738.647893741935
V2=136.298358252014   V3=0   T=0   M2=0   M3=-1700.03702856258   FrameElem=16   ElemStation=0.275
   Frame=16   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-411.289999999576
V2=264.275046668241   V3=0   T=0   M2=0   M3=-782.649767149319   FrameElem=16   ElemStation=0
   Frame=16   Station=0.275   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-401.664999999576
V2=269.052555782824   V3=0   T=0   M2=0   M3=-794.468806822382   FrameElem=16   ElemStation=0.275
   Frame=16   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-830.045083449005
V2=42.0466139889566   V3=0   T=0   M2=0   M3=-1830.67191360415   FrameElem=16   ElemStation=0
   Frame=16   Station=0.275   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-820.420083449005
V2=43.8690571313178   V3=0   T=0   M2=0   M3=-1895.6754066574   FrameElem=16   ElemStation=0.275
   Frame=17   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-828.629425715983
V2=289.095808951619   V3=0   T=0   M2=0   M3=1466.18445242665   FrameElem=17   ElemStation=0
   Frame=17   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-811.129425715983
V2=247.612933854523   V3=0   T=0   M2=0   M3=1338.93183086043   FrameElem=17   ElemStation=0.5
   Frame=17   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-895.195825612134
V2=132.697636159385   V3=0   T=0   M2=0   M3=1241.66977067842   FrameElem=17   ElemStation=0
   Frame=17   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-877.695825612134
V2=113.10142078411   V3=0   T=0   M2=0   M3=1135.22815435773   FrameElem=17   ElemStation=0.5
   Frame=17   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-621.020889454804
V2=312.792822603393   V3=0   T=0   M2=0   M3=1617.28199097869   FrameElem=17   ElemStation=0
   Frame=17   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-603.520889454804
V2=269.680947603393   V3=0   T=0   M2=0   M3=1480.29704209728   FrameElem=17   ElemStation=0.5
   Frame=17   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-989.304411907956
V2=51.9970117946286   V3=0   T=0   M2=0   M3=707.310717052909   FrameElem=17   ElemStation=0
   Frame=17   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-971.804411907956
V2=38.6651367946286   V3=0   T=0   M2=0   M3=639.716242751242   FrameElem=17   ElemStation=0.5
   Frame=18   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-811.12942571593
V2=247.612933854522   V3=0   T=0   M2=0   M3=1338.93183086043   FrameElem=18   ElemStation=0
   Frame=18   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-793.62942571593
V2=208.262350424093   V3=0   T=0   M2=0   M3=1231.47157391989   FrameElem=18   ElemStation=0.5
   Frame=18   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-877.695825612057
V2=113.101420784108   V3=0   T=0   M2=0   M3=1135.22815435773   FrameElem=18   ElemStation=0
   Frame=18   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-860.195825612057
V2=94.0663929092344   V3=0   T=0   M2=0   M3=1048.99490266893   FrameElem=18   ElemStation=0.5
   Frame=18   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-603.520889454744
V2=269.680947603392   V3=0   T=0   M2=0   M3=1480.29704209728   FrameElem=18   ElemStation=0
   Frame=18   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-586.020889454744
V2=228.701364270058   V3=0   T=0   M2=0   M3=1400.53181186297   FrameElem=18   ElemStation=0.5
   Frame=18   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-971.804411907874
V2=38.6651367946333   V3=0   T=0   M2=0   M3=639.716242751241   FrameElem=18   ElemStation=0
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   Frame=18   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-954.304411907874
V2=26.1461090168555   V3=0   T=0   M2=0   M3=589.072133032904   FrameElem=18   ElemStation=0.5
   Frame=19   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-793.62942571613
V2=208.262350424096   V3=0   T=0   M2=0   M3=1231.47157391989   FrameElem=19   ElemStation=0
   Frame=19   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-776.12942571613
V2=171.044058660333   V3=0   T=0   M2=0   M3=1181.26099155253   FrameElem=19   ElemStation=0.5
   Frame=19   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-860.195825612238
V2=94.0663929092369   V3=0   T=0   M2=0   M3=1048.99490266893   FrameElem=19   ElemStation=0
   Frame=19   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-842.695825612238
V2=75.8442122565854   V3=0   T=0   M2=0   M3=981.903869778678   FrameElem=19   ElemStation=0.5
   Frame=19   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-586.020889454892
V2=228.701364270061   V3=0   T=0   M2=0   M3=1400.53181186297   FrameElem=19   ElemStation=0
   Frame=19   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-568.520889454892
V2=189.854072603394   V3=0   T=0   M2=0   M3=1341.68288816289   FrameElem=19   ElemStation=0.5
   Frame=19   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-954.304411908094
V2=26.1461090168548   V3=0   T=0   M2=0   M3=589.072133032904   FrameElem=19   ElemStation=0
   Frame=19   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-936.804411908094
V2=14.4399284612992   V3=0   T=0   M2=0   M3=554.312242064567   FrameElem=19   ElemStation=0.5
   Frame=20   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-776.129425716193
V2=171.04405866033   V3=0   T=0   M2=0   M3=1181.26099155253   FrameElem=20   ElemStation=0
   Frame=20   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-758.629425716193
V2=135.958058563234   V3=0   T=0   M2=0   M3=1146.39491725531   FrameElem=20   ElemStation=0.5
   Frame=20   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-842.695825612327
V2=75.8442122565861   V3=0   T=0   M2=0   M3=981.903869778678   FrameElem=20   ElemStation=0
   Frame=20   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-825.195825612327
V2=58.4348788261568   V3=0   T=0   M2=0   M3=932.88890985364   FrameElem=20   ElemStation=0.5
   Frame=20   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-568.520889454967
V2=189.854072603391   V3=0   T=0   M2=0   M3=1341.68288816289   FrameElem=20   ElemStation=0
   Frame=20   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-551.020889454967
V2=153.139072603391   V3=0   T=0   M2=0   M3=1292.03634293504   FrameElem=20   ElemStation=0.5
   Frame=20   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-936.804411908199
V2=14.4399284613018   V3=0   T=0   M2=0   M3=554.312242064568   FrameElem=20   ElemStation=0
   Frame=20   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-919.304411908199
V2=3.54659512796844   V3=0   T=0   M2=0   M3=534.370424012898   FrameElem=20   ElemStation=0.5
   Frame=21   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-758.629425716341
V2=135.958058563235   V3=0   T=0   M2=0   M3=1146.39491725531   FrameElem=21   ElemStation=0
   Frame=21   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-741.129425716341
V2=103.004350132806   V3=0   T=0   M2=0   M3=1119.61429786156   FrameElem=21   ElemStation=0.5
   Frame=21   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-825.195825612511
V2=58.4348788261612   V3=0   T=0   M2=0   M3=932.888909853638   FrameElem=21   ElemStation=0
   Frame=21   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-807.695825612511
V2=41.8383926179541   V3=0   T=0   M2=0   M3=896.772935583022   FrameElem=21   ElemStation=0.5
   Frame=21   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-551.020889455098
V2=153.139072603393   V3=0   T=0   M2=0   M3=1292.03634293504   FrameElem=21   ElemStation=0
   Frame=21   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-533.520889455098
V2=118.55636427006   V3=0   T=0   M2=0   M3=1251.18575256829   FrameElem=21   ElemStation=0.5
   Frame=21   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-919.30441190841
V2=3.54659512796734   V3=0   T=0   M2=0   M3=534.370424012898   FrameElem=21   ElemStation=0
   Frame=21   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-901.80441190841   V2=-
10.5088079856463   V3=0   T=0   M2=0   M3=528.180533044561   FrameElem=21   ElemStation=0.5
   Frame=22   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-741.129425716599
V2=103.004350132803   V3=0   T=0   M2=0   M3=1119.61429786156   FrameElem=22   ElemStation=0
   Frame=22   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-723.629425716599
V2=72.1829333690402   V3=0   T=0   M2=0   M3=1100.51270976016   FrameElem=22   ElemStation=0.5
   Frame=22   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-807.695825612785
V2=41.8383926179452   V3=0   T=0   M2=0   M3=896.772935583023   FrameElem=22   ElemStation=0
   Frame=22   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-790.195825612785
V2=16.8894855795553   V3=0   T=0   M2=0   M3=873.793795297024   FrameElem=22   ElemStation=0.5
   Frame=22   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-533.520889455327
V2=118.556364270055   V3=0   T=0   M2=0   M3=1251.18575256829   FrameElem=22   ElemStation=0
   Frame=22   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-516.020889455327
V2=86.1059476033884   V3=0   T=0   M2=0   M3=1218.72469345155   FrameElem=22   ElemStation=0.5
   Frame=22   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-901.804411908721   V2=-
10.5088079856519   V3=0   T=0   M2=0   M3=528.180533044562   FrameElem=22   ElemStation=0
   Frame=22   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-884.304411908721   V2=-
35.4577150240418   V3=0   T=0   M2=0   M3=534.676423326224   FrameElem=22   ElemStation=0.5
   Frame=23   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-134.711558185008
V2=649.201892977903   V3=0   T=0   M2=0   M3=-1015.14304186089   FrameElem=23   ElemStation=0
   Frame=23   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-136.959958218512
V2=681.100893168996   V3=0   T=0   M2=0   M3=-1214.74580113334   FrameElem=23   ElemStation=0.35
   Frame=23   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-245.609488019273
V2=556.994297865242   V3=0   T=0   M2=0   M3=-1223.26640334432   FrameElem=23   ElemStation=0
   Frame=23   Station=0.35   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-247.857888052777
V2=583.592897977353   V3=0   T=0   M2=0   M3=-1456.06939092003   FrameElem=23   ElemStation=0.35
   Frame=23   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313188
V2=718.150083449369   V3=0   T=0   M2=0   M3=-526.655806822546   FrameElem=23   ElemStation=0
   Frame=23   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313188
V2=753.255083449369   V3=0   T=0   M2=0   M3=-657.224181822476   FrameElem=23   ElemStation=0.35
   Frame=23   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-271.051555782823
V2=363.514999999798   V3=0   T=0   M2=0   M3=-1368.39684824288   FrameElem=23   ElemStation=0
   Frame=23   Station=0.35   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-273.862055782823
V2=382.589999999798   V3=0   T=0   M2=0   M3=-1625.89275245016   FrameElem=23   ElemStation=0.35
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   Frame=24   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-136.959958218508
V2=681.100893168923   V3=0   T=0   M2=0   M3=-1214.74580113334   FrameElem=24   ElemStation=0
   Frame=24   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
139.208358252012   V2=712.999893360016   V3=0   T=0   M2=0   M3=-1423.65807044501   FrameElem=24
ElemStation=0.350000000000001
   Frame=24   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-247.8578880528
V2=583.592897977289   V3=0   T=0   M2=0   M3=-1456.06939092002   FrameElem=24   ElemStation=0
   Frame=24   Station=0.350000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
250.106288086304   V2=610.191498089399   V3=0   T=0   M2=0   M3=-1700.03702856258   FrameElem=24
ElemStation=0.350000000000001
   Frame=24   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313096
V2=753.255083449293   V3=0   T=0   M2=0   M3=-657.224181822467   FrameElem=24   ElemStation=0
   Frame=24   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313096   V2=788.360083449293   V3=0   T=0   M2=0   M3=-794.468806822378   FrameElem=24
ElemStation=0.350000000000001
   Frame=24   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-273.862055782851
V2=382.589999999746   V3=0   T=0   M2=0   M3=-1625.89275245014   FrameElem=24   ElemStation=0
   Frame=24   Station=0.350000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
276.672555782851   V2=401.664999999746   V3=0   T=0   M2=0   M3=-1895.6754066574   FrameElem=24
ElemStation=0.350000000000001
   Frame=25   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-723.629425716633
V2=72.1829333690333   V3=0   T=0   M2=0   M3=1100.51270976016   FrameElem=25   ElemStation=0
   Frame=25   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-706.129425716633
V2=43.4938082719373   V3=0   T=0   M2=0   M3=1088.68372933999   FrameElem=25   ElemStation=0.5
   Frame=25   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-790.195825612861
V2=16.8894855795571   V3=0   T=0   M2=0   M3=873.793795297023   FrameElem=25   ElemStation=0
   Frame=25   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-772.695825612861   V2=-
11.7996395175388   V3=0   T=0   M2=0   M3=865.692290476238   FrameElem=25   ElemStation=0.5
   Frame=25   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-516.020889455349
V2=86.1059476033806   V3=0   T=0   M2=0   M3=1218.72469345155   FrameElem=25   ElemStation=0
   Frame=25   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-498.520889455349
V2=55.7878226033807   V3=0   T=0   M2=0   M3=1209.21984902304   FrameElem=25   ElemStation=0.5
   Frame=25   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-884.304411908838   V2=-
35.4577150240338   V3=0   T=0   M2=0   M3=534.676423326224   FrameElem=25   ElemStation=0
   Frame=25   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-866.804411908838   V2=-
64.1468401211297   V3=0   T=0   M2=0   M3=552.79194902455   FrameElem=25   ElemStation=0.5
   Frame=26   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-706.129425716736
V2=43.4938082719363   V3=0   T=0   M2=0   M3=1088.68372933999   FrameElem=26   ElemStation=0
   Frame=26   Station=0.500000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
688.629425716736   V2=25.1210818862546   V3=0   T=0   M2=0   M3=1083.72093298995   FrameElem=26
ElemStation=0.500000000000001
   Frame=26   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-772.69582561295   V2=-
11.7996395175402   V3=0   T=0   M2=0   M3=865.692290476234   FrameElem=26   ElemStation=0
   Frame=26   Station=0.500000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
755.19582561295   V2=-38.3564729479695   V3=0   T=0   M2=0   M3=859.563507906661   FrameElem=26
ElemStation=0.500000000000001
   Frame=26   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-498.520889455451
V2=55.7878226033774   V3=0   T=0   M2=0   M3=1209.21984902305   FrameElem=26   ElemStation=0
   Frame=26   Station=0.500000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
481.020889455451   V2=37.6238630582691   V3=0   T=0   M2=0   M3=1223.85794739967   FrameElem=26
ElemStation=0.500000000000001
   Frame=26   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-866.804411908924   V2=-
64.1468401211213   V3=0   T=0   M2=0   M3=552.79194902455   FrameElem=26   ElemStation=0
   Frame=26   Station=0.500000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
849.304411908924   V2=-90.7036735515506   V3=0   T=0   M2=0   M3=569.622196925535   FrameElem=26
ElemStation=0.500000000000001
   Frame=27   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-688.629425716849
V2=25.1210818862665   V3=0   T=0   M2=0   M3=1083.72093298995   FrameElem=27   ElemStation=0
   Frame=27   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-671.129425716849
V2=11.7759845669483   V3=0   T=0   M2=0   M3=1085.21789709893   FrameElem=27   ElemStation=0.5
   Frame=27   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-755.195825613051   V2=-
38.3564729479576   V3=0   T=0   M2=0   M3=859.563507906666   FrameElem=27   ElemStation=0
   Frame=27   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-737.695825613051   V2=-
62.7810147117202   V3=0   T=0   M2=0   M3=857.781624101852   FrameElem=27   ElemStation=0.5
   Frame=27   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-481.020889455547
V2=37.6238630582835   V3=0   T=0   M2=0   M3=1223.85794739967   FrameElem=27   ElemStation=0
   Frame=27   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-463.520889455547
V2=25.0932659331573   V3=0   T=0   M2=0   M3=1252.35432699247   FrameElem=27   ElemStation=0.5
   Frame=27   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-849.304411909041   V2=-
90.7036735515503   V3=0   T=0   M2=0   M3=569.622196925539   FrameElem=27   ElemStation=0
   Frame=27   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-831.804411909041   V2=-
116.654908546694   V3=0   T=0   M2=0   M3=587.541343542743   FrameElem=27   ElemStation=0.5
   Frame=28   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-671.129425717175
V2=11.7759845669358   V3=0   T=0   M2=0   M3=1085.21789709893   FrameElem=28   ElemStation=0
   Frame=28   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-653.629425717175   V2=-
0.756265530160128   V3=0   T=0   M2=0   M3=1092.76819805581   FrameElem=28   ElemStation=0.5
   Frame=28   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-737.695825613438   V2=-
62.7810147117317   V3=0   T=0   M2=0   M3=857.781624101852   FrameElem=28   ElemStation=0
   Frame=28   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-720.195825613438   V2=-
85.0732648088276   V3=0   T=0   M2=0   M3=867.187315573369   FrameElem=28   ElemStation=0.5
   Frame=28   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-463.520889455849
V2=25.0932659331438   V3=0   T=0   M2=0   M3=1252.35432699247   FrameElem=28   ElemStation=0
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Frame=28 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Max P=-446.020889455849 V2=13.3755160302398 V3=0 T=0 M2=0 M3=1288.10616607972 FrameElem=28 ElemStation=0.5
Frame=28 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-831.80441190947 V2=-116.6549085467 V3=0 T=0 M2=0 M3=587.541343542743 FrameElem=28 ElemStation=0
Frame=28 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Min P=-814.30441190947 V2=-140.5761585467 V3=0 T=0 M2=0 M3=613.390065387726 FrameElem=28 ElemStation=0.5
Frame=29 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-653.629425717284 V2=-0.756265530162215 V3=0 T=0 M2=0 M3=1092.76819805581 FrameElem=29 ElemStation=0
Frame=29 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-636.129425717284 V2=-12.475668405036 V3=0 T=0 M2=0 M3=1105.96541224949 FrameElem=29 ElemStation=0.5
Frame=29 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-720.195825613533 V2=-85.0732648088337 V3=0 T=0 M2=0 M3=867.18731557337 FrameElem=29 ElemStation=0
Frame=29 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-702.695825613533 V2=-105.233223239263 V3=0 T=0 M2=0 M3=887.206059176763 FrameElem=29 ElemStation=0.5
Frame=29 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-446.0208894559 V2=13.3755160302359 V3=0 T=0 M2=0 M3=1288.10616607972 FrameElem=29 ElemStation=0
Frame=29 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Max P=-428.5208894559 V2=2.4706133495541 V3=0 T=0 M2=0 M3=1330.21541836141 FrameElem=29 ElemStation=0.5
Frame=29 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-814.304411909606 V2=-140.576158546701 V3=0 T=0 M2=0 M3=613.390065387727 FrameElem=29 ElemStation=0
Frame=29 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Min P=-796.804411909606 V2=-162.365116880034 V3=0 T=0 M2=0 M3=646.593839316037 FrameElem=29 ElemStation=0.5
Frame=30 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-636.129425717171 V2=-12.4756684050447 V3=0 T=0 M2=0 M3=1105.96541224949 FrameElem=30 ElemStation=0
Frame=30 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-618.629425717171 V2=-23.3822240576962 V3=0 T=0 M2=0 M3=1124.40311606885 FrameElem=30 ElemStation=0.5
Frame=30 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-702.695825613515 V2=-105.233223239271 V3=0 T=0 M2=0 M3=887.20605917676 FrameElem=30 ElemStation=0
Frame=30 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-685.195825613515 V2=-123.260890003034 V3=0 T=0 M2=0 M3=916.771709078716 FrameElem=30 ElemStation=0.5
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Frame=31 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-836.989498311473 V2=67.5999419088942 V3=0 T=0 M2=0 M3=-675.612743538062 FrameElem=31 ElemStation=0.5
Frame=31 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-967.897893739746 V2=-74.7800629316857 V3=0 T=0 M2=0 M3=-889.625358235687 FrameElem=31 ElemStation=0
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Frame=31 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Min P=-1032.17008344663 V2=-132.242489052394 V3=0 T=0 M2=0 M3=-1152.6871956861 FrameElem=31 ElemStation=0.5
Frame=32 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-836.989498311398 V2=67.599941908894 V3=0 T=0 M2=0 M3=-675.612743538063 FrameElem=32 ElemStation=0
Frame=32 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-819.489498311398 V2=85.6674517315534 V3=0 T=0 M2=0 M3=-705.27877543549 FrameElem=32 ElemStation=0.5
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Frame=32 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-932.897893739632 V2=-6.97860459835138 V3=0 T=0 M2=0 M3=-920.114858327727 FrameElem=32 ElemStation=0.5
Frame=32 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-613.414999998119 V2=94.1662096054409 V3=0 T=0 M2=0 M3=-598.738757101881 FrameElem=32 ElemStation=0
Frame=32 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Max P=-595.914999998119 V2=112.2337194281 V3=0 T=0 M2=0 M3=-589.072133032774 FrameElem=32 ElemStation=0.5
Frame=32 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-1032.1700834465 V2=-132.242489052392 V3=0 T=0 M2=0 M3=-1152.6871956861 FrameElem=32 ElemStation=0
Frame=32 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Min P=-1014.6700834465 V2=-99.4079057190586 V3=0 T=0 M2=0 M3=-1160.88783572946 FrameElem=32 ElemStation=0.5
Frame=33 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-819.489498311634 V2=85.667451731546 V3=0 T=0 M2=0 M3=-705.278775435491 FrameElem=33 ElemStation=0
Frame=33 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-801.989498311634 V2=104.090298953768 V3=0 T=0 M2=0 M3=-716.733535027493 FrameElem=33 ElemStation=0.5
Frame=33 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-932.897893739894 V2=-6.97860459835616 V3=0 T=0 M2=0 M3=-920.114858327727 FrameElem=33 ElemStation=0
Frame=33 Station=0.5 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-915.397893739894 V2=23.7236870683105 V3=0 T=0 M2=0 M3=-960.244026760167 FrameElem=33 ElemStation=0.5
Frame=33 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-595.914999998308 V2=112.233719428092 V3=0 T=0 M2=0 M3=-589.072133032774 FrameElem=33 ElemStation=0
Frame=33 Station=0.5 OutputCase=ENVETA CaseType=Combination StepType=Max P=-578.414999998308 V2=130.656566650314 V3=0 T=0 M2=0 M3=-554.312242064423 FrameElem=33 ElemStation=0.5

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   Frame=33   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-1014.67008344678   V2=-
99.4079057190623   V3=0   T=0   M2=0   M3=-1160.88783572946   FrameElem=33   ElemStation=0
   Frame=33   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-997.170083446782   V2=-
68.7056140523956   V3=0   T=0   M2=0   M3=-1175.14477785614   FrameElem=33   ElemStation=0.5
   Frame=34   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-801.989498311801
V2=104.090298953774   V3=0   T=0   M2=0   M3=-716.733535027494   FrameElem=34   ElemStation=0
   Frame=34   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-784.489498311801
V2=121.233632287108   V3=0   T=0   M2=0   M3=-743.006367536164   FrameElem=34   ElemStation=0.5
   Frame=34   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-915.39789374008
V2=23.723687068315   V3=0   T=0   M2=0   M3=-960.244026760167   FrameElem=34   ElemStation=0
   Frame=34   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-897.89789374008
V2=52.293687068315   V3=0   T=0   M2=0   M3=-1006.02307366483   FrameElem=34   ElemStation=0.5
   Frame=34   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-578.414999998411
V2=130.656566650321   V3=0   T=0   M2=0   M3=-554.312242064423   FrameElem=34   ElemStation=0
   Frame=34   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-560.914999998411
V2=147.799899983654   V3=0   T=0   M2=0   M3=-534.37042401274   FrameElem=34   ElemStation=0.5
   Frame=34   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-997.170083446987   V2=-
68.7056140523919   V3=0   T=0   M2=0   M3=-1175.14477785614   FrameElem=34   ElemStation=0
   Frame=34   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-979.670083446987   V2=-
40.1356140523919   V3=0   T=0   M2=0   M3=-1195.05159845506   FrameElem=34   ElemStation=0.5
   Frame=35   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-784.489498311994
V2=121.233632287113   V3=0   T=0   M2=0   M3=-743.006367536164   FrameElem=35   ElemStation=0
   Frame=35   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-766.989498311994
V2=137.097451731557   V3=0   T=0   M2=0   M3=-783.03112712817   FrameElem=35   ElemStation=0.5
   Frame=35   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-897.89789374036
V2=52.29368706832   V3=0   T=0   M2=0   M3=-1006.02307366483   FrameElem=35   ElemStation=0
   Frame=35   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-880.39789374036
V2=78.7313954016533   V3=0   T=0   M2=0   M3=-1057.04557543061   FrameElem=35   ElemStation=0.5
   Frame=35   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-560.914999998569
V2=147.79989998366   V3=0   T=0   M2=0   M3=-534.37042401274   FrameElem=35   ElemStation=0
   Frame=35   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-543.414999998569
V2=163.663719428104   V3=0   T=0   M2=0   M3=-528.180533044393   FrameElem=35   ElemStation=0.5
   Frame=35   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-979.670083447296   V2=-
40.1356140523876   V3=0   T=0   M2=0   M3=-1195.05159845506   FrameElem=35   ElemStation=0
   Frame=35   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-962.170083447296   V2=-
13.6979057190543   V3=0   T=0   M2=0   M3=-1220.20187391508   FrameElem=35   ElemStation=0.5
   Frame=36   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-766.989498312398
V2=137.097451731542   V3=0   T=0   M2=0   M3=-783.031127128168   FrameElem=36   ElemStation=0
   Frame=36   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-749.489498312398
V2=151.681757287098   V3=0   T=0   M2=0   M3=-835.741667970168   FrameElem=36   ElemStation=0.5
   Frame=36   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-880.397893740751
V2=78.7313954016429   V3=0   T=0   M2=0   M3=-1057.0455754306   FrameElem=36   ElemStation=0
   Frame=36   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-862.897893740751
V2=93.871544015905   V3=0   T=0   M2=0   M3=-1112.90510844637   FrameElem=36   ElemStation=0.5
   Frame=36   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-543.414999998863
V2=163.663719428087   V3=0   T=0   M2=0   M3=-528.180533044391   FrameElem=36   ElemStation=0
   Frame=36   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-525.914999998863
V2=178.248024983642   V3=0   T=0   M2=0   M3=-534.67642332604   FrameElem=36   ElemStation=0.5
   Frame=36   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-962.17008344771   V2=-
13.6979057190596   V3=0   T=0   M2=0   M3=-1220.20187391508   FrameElem=36   ElemStation=0
   Frame=36   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-944.67008344771
V2=1.44224289520251   V3=0   T=0   M2=0   M3=-1250.1891806251   FrameElem=36   ElemStation=0.5
   Frame=37   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-749.489498312398
V2=151.681757287085   V3=0   T=0   M2=0   M3=-835.741667970166   FrameElem=37   ElemStation=0
   Frame=37   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-731.989498312398
V2=164.986548953751   V3=0   T=0   M2=0   M3=-900.07184422883   FrameElem=37   ElemStation=0.5
   Frame=37   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-862.897893740778
V2=93.8715440158989   V3=0   T=0   M2=0   M3=-1112.90510844637   FrameElem=37   ElemStation=0
   Frame=37   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-845.397893740778
V2=102.326335682566   V3=0   T=0   M2=0   M3=-1173.19524910102   FrameElem=37   ElemStation=0.5
   Frame=37   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-525.914999998863
V2=178.248024983629   V3=0   T=0   M2=0   M3=-534.676423326041   FrameElem=37   ElemStation=0
   Frame=37   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-508.414999998863
V2=191.552816650295   V3=0   T=0   M2=0   M3=-552.791949024354   FrameElem=37   ElemStation=0.5
   Frame=37   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-944.670083447743
V2=1.44224289519862   V3=0   T=0   M2=0   M3=-1250.1891806251   FrameElem=37   ElemStation=0
   Frame=37   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-927.170083447743
V2=9.89703456186528   V3=0   T=0   M2=0   M3=-1299.8861401009   FrameElem=37   ElemStation=0.5
   Frame=38   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-731.989498312635
V2=164.986548953775   V3=0   T=0   M2=0   M3=-900.071844228828   FrameElem=38   ElemStation=0
   Frame=38   Station=0.500000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
714.489498312635   V2=177.011826731553   V3=0   T=0   M2=0   M3=-974.955510070834   FrameElem=38
ElemStation=0.500000000000001
   Frame=38   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-845.39789374106
V2=102.326335682584   V3=0   T=0   M2=0   M3=-1173.19524910103   FrameElem=38   ElemStation=0
   Frame=38   Station=0.500000000000001   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
827.89789374106   V2=109.968280127028   V3=0   T=0   M2=0   M3=-1237.50957378346   FrameElem=38
ElemStation=0.500000000000001
   Frame=38   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-508.414999999036
V2=191.552816650322   V3=0   T=0   M2=0   M3=-552.791949024356   FrameElem=38   ElemStation=0
```

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   Frame=38   Station=0.500000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
490.914999999036   V2=203.5780944281   V3=0   T=0   M2=0   M3=-581.460964306006   FrameElem=38
ElemStation=0.500000000000001
   Frame=38   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-927.170083448051
V2=9.8970345618719   V3=0   T=0   M2=0   M3=-1299.88614010091   FrameElem=38   ElemStation=0
   Frame=38   Station=0.500000000000001   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
909.670083448051   V2=17.5389790063164   V3=0   T=0   M2=0   M3=-1369.58127265105   FrameElem=38
ElemStation=0.500000000000001
   Frame=39   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-714.489498312748
V2=177.011826731569   V3=0   T=0   M2=0   M3=-974.95551007083   FrameElem=39   ElemStation=0
   Frame=39   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-696.989498312748
V2=191.354376627976   V3=0   T=0   M2=0   M3=-1052.63849886335   FrameElem=39   ElemStation=0.5
   Frame=39   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-827.897893741188
V2=109.968280127031   V3=0   T=0   M2=0   M3=-1237.50957378346   FrameElem=39   ElemStation=0
   Frame=39   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-810.397893741188
V2=116.797377349253   V3=0   T=0   M2=0   M3=-1305.44165888258   FrameElem=39   ElemStation=0.5
   Frame=39   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-490.914999999096
V2=203.578094428118   V3=0   T=0   M2=0   M3=-581.460964306003   FrameElem=39   ElemStation=0
   Frame=39   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-473.414999999096
V2=217.920644324524   V3=0   T=0   M2=0   M3=-612.929302538166   FrameElem=39   ElemStation=0.5
   Frame=39   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-909.670083448196
V2=17.5389790063188   V3=0   T=0   M2=0   M3=-1369.58127265105   FrameElem=39   ElemStation=0
   Frame=39   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-892.170083448196
V2=24.368076228541   V3=0   T=0   M2=0   M3=-1449.58218641736   FrameElem=39   ElemStation=0.5
   Frame=40   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-696.989498313023
V2=191.354376627968   V3=0   T=0   M2=0   M3=-1052.63849886335   FrameElem=40   ElemStation=0
   Frame=40   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-679.489498313023
V2=207.130626627968   V3=0   T=0   M2=0   M3=-1138.25106288361   FrameElem=40   ElemStation=0.5
   Frame=40   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-810.3978937415
V2=116.797377349246   V3=0   T=0   M2=0   M3=-1305.44165888257   FrameElem=40   ElemStation=0
   Frame=40   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-792.8978937415
V2=122.813627349246   V3=0   T=0   M2=0   M3=-1385.27218946078   FrameElem=40   ElemStation=0.5
   Frame=40   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-473.414999999312
V2=217.920644324516   V3=0   T=0   M2=0   M3=-612.929302538165   FrameElem=40   ElemStation=0
   Frame=40   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-455.914999999312
V2=233.696894324516   V3=0   T=0   M2=0   M3=-652.32721599808   FrameElem=40   ElemStation=0.5
   Frame=40   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-892.170083448529
V2=24.3680762285373   V3=0   T=0   M2=0   M3=-1449.58218641735   FrameElem=40   ElemStation=0
   Frame=40   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-874.670083448529
V2=30.3843262285373   V3=0   T=0   M2=0   M3=-1541.97316835167   FrameElem=40   ElemStation=0.5
   Frame=41   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-679.489498313135
V2=207.13062662797   V3=0   T=0   M2=0   M3=-1138.25106288362   FrameElem=41   ElemStation=0
   Frame=41   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-661.989498313135
V2=220.774584961303   V3=0   T=0   M2=0   M3=-1231.21867898723   FrameElem=41   ElemStation=0.5
   Frame=41   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-792.897893741636
V2=122.813627349247   V3=0   T=0   M2=0   M3=-1385.27218946078   FrameElem=41   ElemStation=0
   Frame=41   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-775.397893741636
V2=128.017030127025   V3=0   T=0   M2=0   M3=-1483.09337669345   FrameElem=41   ElemStation=0.5
   Frame=41   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-455.914999999372
V2=233.696894324517   V3=0   T=0   M2=0   M3=-652.327215998081   FrameElem=41   ElemStation=0
   Frame=41   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-438.414999999372
V2=247.340852657851   V3=0   T=0   M2=0   M3=-699.080181541329   FrameElem=41   ElemStation=0.5
   Frame=41   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-874.670083448683
V2=30.3843262285383   V3=0   T=0   M2=0   M3=-1541.97316835167   FrameElem=41   ElemStation=0
   Frame=41   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-857.170083448683
V2=35.5877290063161   V3=0   T=0   M2=0   M3=-1652.35480694044   FrameElem=41   ElemStation=0.5
   Frame=42   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-661.989498313269
V2=220.774584961306   V3=0   T=0   M2=0   M3=-1231.21867898722   FrameElem=42   ElemStation=0
   Frame=42   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-644.489498313269
V2=232.286251627973   V3=0   T=0   M2=0   M3=-1330.47520134083   FrameElem=42   ElemStation=0.5
   Frame=42   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-775.397893741787
V2=128.017030127036   V3=0   T=0   M2=0   M3=-1483.09337669345   FrameElem=42   ElemStation=0
   Frame=42   Station=0.5   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-757.897893741787
V2=132.407585682591   V3=0   T=0   M2=0   M3=-1584.68805350944   FrameElem=42   ElemStation=0.5
   Frame=42   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-438.414999999488
V2=247.340852657855   V3=0   T=0   M2=0   M3=-699.080181541328   FrameElem=42   ElemStation=0
   Frame=42   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-420.914999999488
V2=258.852519324522   V3=0   T=0   M2=0   M3=-752.122053334578   FrameElem=42   ElemStation=0.5
   Frame=42   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-857.170083448842
V2=35.5877290063193   V3=0   T=0   M2=0   M3=-1652.35480694044   FrameElem=42   ElemStation=0
   Frame=42   Station=0.5   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-839.670083448842
V2=39.9782845618749   V3=0   T=0   M2=0   M3=-1766.50993511254   FrameElem=42   ElemStation=0.5
   Frame=46   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=631.695508408429   V3=0   T=0   M2=0   M3=1160.52600437367   FrameElem=46   ElemStation=0
   Frame=46   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=648.370508408429   V3=0   T=0   M2=0   M3=832.139837751802   FrameElem=46
ElemStation=0.513076923076923
   Frame=46   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=578.461575876525   V3=0   T=0   M2=0   M3=897.526294595975   FrameElem=46   ElemStation=0
   Frame=46   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=595.136575876525   V3=0   T=0   M2=0   M3=596.453230280866   FrameElem=46
ElemStation=0.513076923076923
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   Frame=46   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=684.14486198863   V3=0   T=0   M2=0   M3=1285.42610913447   FrameElem=46   ElemStation=0
   Frame=46   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082222   V2=700.81986198863   V3=0   T=0   M2=0   M3=930.129389560305   FrameElem=46
ElemStation=0.513076923076923
   Frame=46   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=406.139576089694   V3=0   T=0   M2=0   M3=436.95117471315   FrameElem=46   ElemStation=0
   Frame=46   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=422.814576089694   V3=0   T=0   M2=0   M3=224.29255182713   FrameElem=46
ElemStation=0.513076923076923
   Frame=47   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=569.265947964727   V3=0   T=0   M2=0   M3=832.139837751805   FrameElem=47   ElemStation=0
   Frame=47   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=585.940947964727   V3=0   T=0   M2=0   M3=535.784837911441   FrameElem=47
ElemStation=0.513076923076923
   Frame=47   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=516.12431207743   V3=0   T=0   M2=0   M3=596.45323028087   FrameElem=47   ElemStation=0
   Frame=47   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=532.79931207743   V3=0   T=0   M2=0   M3=323.09225031035   FrameElem=47
ElemStation=0.513076923076923
   Frame=47   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=617.881582405099   V3=0   T=0   M2=0   M3=930.129389560307   FrameElem=47   ElemStation=0
   Frame=47   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082222   V2=634.556582405099   V3=0   T=0   M2=0   M3=608.830829587844   FrameElem=47
ElemStation=0.513076923076923
   Frame=47   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=354.414341264079   V3=0   T=0   M2=0   M3=224.292551827134   FrameElem=47   ElemStation=0
   Frame=47   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=371.089341264079   V3=0   T=0   M2=0   M3=38.1729532708722   FrameElem=47
ElemStation=0.513076923076923
   Frame=48   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=509.983525077837   V3=0   T=0   M2=0   M3=535.784837911461   FrameElem=48   ElemStation=0
   Frame=48   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=526.658525077837   V3=0   T=0   M2=0   M3=281.4152935361   FrameElem=48
ElemStation=0.513076923076923
   Frame=48   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351
V2=457.674485895891   V3=0   T=0   M2=0   M3=323.092250310369   FrameElem=48   ElemStation=0
   Frame=48   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473351   V2=474.349485895891   V3=0   T=0   M2=0   M3=76.6949692907714   FrameElem=48
ElemStation=0.513076923076923
   Frame=48   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=554.852339537895   V3=0   T=0   M2=0   M3=608.830829587864   FrameElem=48   ElemStation=0
   Frame=48   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082222   V2=571.527339537895   V3=0   T=0   M2=0   M3=334.332384816151   FrameElem=48
ElemStation=0.513076923076923
   Frame=48   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=306.580878250605   V3=0   T=0   M2=0   M3=38.1729532708925   FrameElem=48   ElemStation=0
   Frame=48   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=323.255878250605   V3=0   T=0   M2=0   M3=-123.404399262302   FrameElem=48
ElemStation=0.513076923076923
   Frame=49   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=454.17300402964   V3=0   T=0   M2=0   M3=281.415293536102   FrameElem=49   ElemStation=0
   Frame=49   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=470.84800402964   V3=0   T=0   M2=0   M3=56.6117729452473   FrameElem=49
ElemStation=0.513076923076923
   Frame=49   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=403.300940634473   V3=0   T=0   M2=0   M3=76.6949692907701   FrameElem=49   ElemStation=0
   Frame=49   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=419.975940634473   V3=0   T=0   M2=0   M3=-147.007160957578   FrameElem=49
ElemStation=0.513076923076923
   Frame=49   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=495.42801599491   V3=0   T=0   M2=0   M3=334.332384816153   FrameElem=49   ElemStation=0
   Frame=49   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082222   V2=512.10301599491   V3=0   T=0   M2=0   M3=96.73688195891   FrameElem=49
ElemStation=0.513076923076923
   Frame=49   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=262.643593251544   V3=0   T=0   M2=0   M3=-123.404399262301   FrameElem=49   ElemStation=0
   Frame=49   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=279.318593251544   V3=0   T=0   M2=0   M3=-327.135503675915   FrameElem=49
ElemStation=0.513076923076923
   Frame=50   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=401.986777064688   V3=0   T=0   M2=0   M3=56.6117729452473   FrameElem=50   ElemStation=0
   Frame=50   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=418.661777064688   V3=0   T=0   M2=0   M3=-143.302431240634   FrameElem=50
ElemStation=0.513076923076922
   Frame=50   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=353.037962961945   V3=0   T=0   M2=0   M3=-147.007160957579   FrameElem=50   ElemStation=0
   Frame=50   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=369.712962961945   V3=0   T=0   M2=0   M3=-343.034284923824   FrameElem=50
ElemStation=0.513076923076922
   Frame=50   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082223
V2=439.79212721878   V3=0   T=0   M2=0   M3=96.7368819589104   FrameElem=50   ElemStation=0
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   Frame=50   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082223   V2=456.46712721878   V3=0   T=0   M2=0   M3=-99.8922291621471   FrameElem=50
ElemStation=0.513076923076922
   Frame=50   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=222.502948920531   V3=0   T=0   M2=0   M3=-327.135503675917   FrameElem=50   ElemStation=0
   Frame=50   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=239.177948920531   V3=0   T=0   M2=0   M3=-519.167075930429   FrameElem=50
ElemStation=0.513076923076922
   Frame=51   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=353.423655914109   V3=0   T=0   M2=0   M3=-143.302431240631   FrameElem=51   ElemStation=0
   Frame=51   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=370.098655914109   V3=0   T=0   M2=0   M3=-320.019356581782   FrameElem=51
ElemStation=0.513076923076924
   Frame=51   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351
V2=306.783540424647   V3=0   T=0   M2=0   M3=-343.03428492382   FrameElem=51   ElemStation=0
   Frame=51   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473351   V2=323.458540424647   V3=0   T=0   M2=0   M3=-513.609994165709   FrameElem=51
ElemStation=0.513076923076924
   Frame=51   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082222
V2=387.960839127152   V3=0   T=0   M2=0   M3=-99.8922291621449   FrameElem=51   ElemStation=0
   Frame=51   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082222   V2=404.635839127152   V3=0   T=0   M2=0   M3=-270.635918792921   FrameElem=51
ElemStation=0.513076923076924
   Frame=51   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062
V2=185.970161674218   V3=0   T=0   M2=0   M3=-519.167075930425   FrameElem=51   ElemStation=0
   Frame=51   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=202.645161674218   V3=0   T=0   M2=0   M3=-687.62888744364   FrameElem=51
ElemStation=0.513076923076924
   Frame=52   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=308.346379866169   V3=0   T=0   M2=0   M3=-320.019356581787   FrameElem=52   ElemStation=0
   Frame=52   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=325.021379866169   V3=0   T=0   M2=0   M3=-475.173007044785   FrameElem=52
ElemStation=0.513076923076923
   Frame=52   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=263.08182047771   V3=0   T=0   M2=0   M3=-513.609994165717   FrameElem=52   ElemStation=0
   Frame=52   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=279.75682047771   V3=0   T=0   M2=0   M3=-660.831845548709   FrameElem=52
ElemStation=0.513076923076923
   Frame=52   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082223
V2=339.80164117894   V3=0   T=0   M2=0   M3=-270.635918792927   FrameElem=52   ElemStation=0
   Frame=52   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082223   V2=356.47664117894   V3=0   T=0   M2=0   M3=-414.434246684529   FrameElem=52
ElemStation=0.513076923076923
   Frame=52   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594063
V2=152.780586001039   V3=0   T=0   M2=0   M3=-687.628887443648   FrameElem=52   ElemStation=0
   Frame=52   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594063   V2=169.45558600104   V3=0   T=0   M2=0   M3=-829.686921278153   FrameElem=52
ElemStation=0.513076923076923
   Frame=53   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=266.49784847738   V3=0   T=0   M2=0   M3=-475.17300704479   FrameElem=53   ElemStation=0
   Frame=53   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=283.17284847738   V3=0   T=0   M2=0   M3=-610.280782184688   FrameElem=53
ElemStation=0.513076923076923
   Frame=53   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=221.47827202643   V3=0   T=0   M2=0   M3=-660.831845548718   FrameElem=53   ElemStation=0
   Frame=53   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=238.15327202643   V3=0   T=0   M2=0   M3=-786.615054537313   FrameElem=53
ElemStation=0.513076923076923
   Frame=53   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082224
V2=295.050677650148   V3=0   T=0   M2=0   M3=-414.434246684535   FrameElem=53   ElemStation=0
   Frame=53   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082224   V2=311.725677650148   V3=0   T=0   M2=0   M3=-510.898429214568   FrameElem=53
ElemStation=0.513076923076923
   Frame=53   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594063
V2=122.60585498719   V3=0   T=0   M2=0   M3=-829.686921278161   FrameElem=53   ElemStation=0
   Frame=53   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594063   V2=139.28085498719   V3=0   T=0   M2=0   M3=-947.667302052389   FrameElem=53
ElemStation=0.513076923076923
   Frame=54   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=227.516132109118   V3=0   T=0   M2=0   M3=-610.280782184687   FrameElem=54   ElemStation=0
   Frame=54   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=244.191132109118   V3=0   T=0   M2=0   M3=-726.692089608912   FrameElem=54
ElemStation=0.513076923076923
   Frame=54   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352
V2=183.347619119518   V3=0   T=0   M2=0   M3=-786.615054537309   FrameElem=54   ElemStation=0
   Frame=54   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=200.022619119518   V3=0   T=0   M2=0   M3=-892.643943623087   FrameElem=54
ElemStation=0.513076923076923
   Frame=54   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082224
V2=253.328789193254   V3=0   T=0   M2=0   M3=-510.898429214564   FrameElem=54   ElemStation=0
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   Frame=54   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082224   V2=270.003789193254   V3=0   T=0   M2=0   M3=-578.933966433972   FrameElem=54
ElemStation=0.513076923076923
   Frame=54   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594063
V2=95.0648711843476   V3=0   T=0   M2=0   M3=-947.667302052385   FrameElem=54   ElemStation=0
   Frame=54   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594063   V2=111.739871184348   V3=0   T=0   M2=0   M3=-1043.60745039857   FrameElem=54
ElemStation=0.513076923076923
   Frame=55   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=190.948353143763   V3=0   T=0   M2=0   M3=-726.692089608905   FrameElem=55   ElemStation=0
   Frame=55   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=207.623353143763   V3=0   T=0   M2=0   M3=-825.543609048433   FrameElem=55
ElemStation=0.513076923076923
   Frame=55   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353
V2=148.185171387543   V3=0   T=0   M2=0   M3=-892.643943623079   FrameElem=55   ElemStation=0
   Frame=55   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=164.860171387543   V3=0   T=0   M2=0   M3=-980.330481993372   FrameElem=55
ElemStation=0.513076923076923
   Frame=55   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082225
V2=214.156360253736   V3=0   T=0   M2=0   M3=-578.933966433962   FrameElem=55   ElemStation=0
   Frame=55   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082225   V2=230.831360253736   V3=0   T=0   M2=0   M3=-633.552963714085   FrameElem=55
ElemStation=0.513076923076923
   Frame=55   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064
V2=69.733762816568   V3=0   T=0   M2=0   M3=-1043.60745039856   FrameElem=55   ElemStation=0
   Frame=55   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=86.408762816568   V3=0   T=0   M2=0   M3=-1119.21739567347   FrameElem=55
ElemStation=0.513076923076923
   Frame=56   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116751
V2=156.263565409325   V3=0   T=0   M2=0   M3=-825.543609048426   FrameElem=56   ElemStation=0
   Frame=56   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116751   V2=172.938565409325   V3=0   T=0   M2=0   M3=-907.720735647158   FrameElem=56
ElemStation=0.513076923076923
   Frame=56   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473354
V2=115.423232123474   V3=0   T=0   M2=0   M3=-980.330481993363   FrameElem=56   ElemStation=0
   Frame=56   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473354   V2=132.098232123474   V3=0   T=0   M2=0   M3=-1050.77933312617   FrameElem=56
ElemStation=0.513076923076923
   Frame=56   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082226
V2=176.967106077868   V3=0   T=0   M2=0   M3=-633.552963714077   FrameElem=56   ElemStation=0
   Frame=56   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082226   V2=193.642106077868   V3=0   T=0   M2=0   M3=-675.515932951667   FrameElem=56
ElemStation=0.513076923076923
   Frame=56   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064
V2=46.1549375614573   V3=0   T=0   M2=0   M3=-1119.21739567346   FrameElem=56   ElemStation=0
   Frame=56   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=62.8299375614573   V3=0   T=0   M2=0   M3=-1175.84833933642   FrameElem=56
ElemStation=0.513076923076923
   Frame=57   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116751
V2=122.864789414045   V3=0   T=0   M2=0   M3=-907.720735647155   FrameElem=57   ElemStation=0
   Frame=57   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116751   V2=139.539789414045   V3=0   T=0   M2=0   M3=-973.824804166354   FrameElem=57
ElemStation=0.513076923076923
   Frame=57   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473354
V2=84.4426458747842   V3=0   T=0   M2=0   M3=-1050.77933312616   FrameElem=57   ElemStation=0
   Frame=57   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473354   V2=101.117645874784   V3=0   T=0   M2=0   M3=-1104.75892123202   FrameElem=57
ElemStation=0.513076923076923
   Frame=57   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082227
V2=141.120966282816   V3=0   T=0   M2=0   M3=-675.515932951664   FrameElem=57   ElemStation=0
   Frame=57   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082227   V2=157.795966282816   V3=0   T=0   M2=0   M3=-705.365504893431   FrameElem=57
ElemStation=0.513076923076923
   Frame=57   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594065
V2=23.845380094062   V3=0   T=0   M2=0   M3=-1175.84833933642   FrameElem=57   ElemStation=0
   Frame=57   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594065   V2=40.520380094062   V3=0   T=0   M2=0   M3=-1214.46788146068   FrameElem=57
ElemStation=0.513076923076923
   Frame=58   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.801422811675
V2=90.1003868134957   V3=0   T=0   M2=0   M3=-973.824804166354   FrameElem=58   ElemStation=0
   Frame=58   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.801422811675   V2=106.775386813496   V3=0   T=0   M2=0   M3=-1012.02030137879   FrameElem=58
ElemStation=0.513076923076924
   Frame=58   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473354
V2=54.5835180450035   V3=0   T=0   M2=0   M3=-1104.75892123202   FrameElem=58   ElemStation=0
   Frame=58   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473354   V2=71.2585180450035   V3=0   T=0   M2=0   M3=-1142.67813321034   FrameElem=58
ElemStation=0.513076923076924
   Frame=58   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082226
V2=105.916300644922   V3=0   T=0   M2=0   M3=-705.365504893433   FrameElem=58   ElemStation=0
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   Frame=58   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082226   V2=122.591300644922   V3=0   T=0   M2=0   M3=-716.541337888873   FrameElem=58
ElemStation=0.513076923076924
   Frame=58   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594065
V2=2.3043505632107   V3=0   T=0   M2=0   M3=-1214.46788146069   FrameElem=58   ElemStation=0
   Frame=58   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594065   V2=18.9793505632107   V3=0   T=0   M2=0   M3=-1235.64144615975   FrameElem=58
ElemStation=0.513076923076924
   Frame=59   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749
V2=59.4166741579462   V3=0   T=0   M2=0   M3=-1012.02030137879   FrameElem=59   ElemStation=0
   Frame=59   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=76.0916741579462   V3=0   T=0   M2=0   M3=-1028.74238615136   FrameElem=59
ElemStation=0.513076923076923
   Frame=59   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353
V2=24.2542694217906   V3=0   T=0   M2=0   M3=-1142.67813321034   FrameElem=59   ElemStation=0
   Frame=59   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=40.9292694217906   V3=0   T=0   M2=0   M3=-1164.56838807355   FrameElem=59
ElemStation=0.513076923076923
   Frame=59   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082225
V2=73.147817352498   V3=0   T=0   M2=0   M3=-716.541337888873   FrameElem=59   ElemStation=0
   Frame=59   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082225   V2=89.822817352498   V3=0   T=0   M2=0   M3=-710.618942229495   FrameElem=59
ElemStation=0.513076923076923
   Frame=59   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
19.8804000857443   V3=0   T=0   M2=0   M3=-1235.64144615975   FrameElem=59   ElemStation=0
   Frame=59   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-3.20540008574434   V3=0   T=0   M2=0   M3=-1263.70966426298   FrameElem=59
ElemStation=0.513076923076923
   Frame=60   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116751
V2=28.8395616386458   V3=0   T=0   M2=0   M3=-1028.74238615136   FrameElem=60   ElemStation=0
   Frame=60   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116751   V2=45.5145616386458   V3=0   T=0   M2=0   M3=-1029.3063419815   FrameElem=60
ElemStation=0.513076923076923
   Frame=60   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
7.23833571336105   V3=0   T=0   M2=0   M3=-1164.56838807355   FrameElem=60   ElemStation=0
   Frame=60   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=9.43666428663895   V3=0   T=0   M2=0   M3=-1176.85757880444   FrameElem=60
ElemStation=0.513076923076923
   Frame=60   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082226
V2=40.4712067034294   V3=0   T=0   M2=0   M3=-710.618942229495   FrameElem=60   ElemStation=0
   Frame=60   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082226   V2=57.1462067034294   V3=0   T=0   M2=0   M3=-692.729071543357   FrameElem=60
ElemStation=0.513076923076923
   Frame=60   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594065   V2=-
45.8411980462536   V3=0   T=0   M2=0   M3=-1263.70966426298   FrameElem=60   ElemStation=0
   Frame=60   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594065   V2=-28.9088513318597   V3=0   T=0   M2=0   M3=-1281.50256303314   FrameElem=60
ElemStation=0.513076923076923
   Frame=61   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116755   V2=-
3.24262628903821   V3=0   T=0   M2=0   M3=-1029.30634198149   FrameElem=61   ElemStation=0
   Frame=61   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116755   V2=13.4323737109618   V3=0   T=0   M2=0   M3=-1013.22557807302   FrameElem=61
ElemStation=0.513076923076923
   Frame=61   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
39.679318712169   V3=0   T=0   M2=0   M3=-1176.85757880443   FrameElem=61   ElemStation=0
   Frame=61   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=-23.004318712169   V3=0   T=0   M2=0   M3=-1176.55364455617   FrameElem=61
ElemStation=0.513076923076923
   Frame=61   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082229
V2=6.12984683353276   V3=0   T=0   M2=0   M3=-692.729071543348   FrameElem=61   ElemStation=0
   Frame=61   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082229   V2=22.8048468335328   V3=0   T=0   M2=0   M3=-662.505607766984   FrameElem=61
ElemStation=0.513076923076923
   Frame=61   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594063   V2=-
77.5872078991135   V3=0   T=0   M2=0   M3=-1281.50256303313   FrameElem=61   ElemStation=0
   Frame=61   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594063   V2=-60.9122078991134   V3=0   T=0   M2=0   M3=-1285.27792941674   FrameElem=61
ElemStation=0.513076923076923
   Frame=62   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116747   V2=-
37.5700492776606   V3=0   T=0   M2=0   M3=-1013.22557807301   FrameElem=62   ElemStation=0
   Frame=62   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116747   V2=-20.8950492776606   V3=0   T=0   M2=0   M3=-979.661093445937   FrameElem=62
ElemStation=0.513076923076923
   Frame=62   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
73.7555360047946   V3=0   T=0   M2=0   M3=-1176.55364455617   FrameElem=62   ElemStation=0
   Frame=62   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=-57.0805360047945   V3=0   T=0   M2=0   M3=-1157.51902622818   FrameElem=62
ElemStation=0.513076923076923
   Frame=62   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082221   V2=-
27.8400257691591   V3=0   T=0   M2=0   M3=-662.505607766979   FrameElem=62   ElemStation=0
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   Frame=62   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082221   V2=-11.1650257691591   V3=0   T=0   M2=0   M3=-619.344839674109   FrameElem=62
ElemStation=0.513076923076923
   Frame=62   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
114.422503879207   V3=0   T=0   M2=0   M3=-1285.27792941673   FrameElem=62   ElemStation=0
   Frame=62   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-97.7475038792067   V3=0   T=0   M2=0   M3=-1268.77193945326   FrameElem=62
ElemStation=0.513076923076923
   Frame=63   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749   V2=-
74.8855630350071   V3=0   T=0   M2=0   M3=-979.661093445937   FrameElem=63   ElemStation=0
   Frame=63   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=-58.2105630350071   V3=0   T=0   M2=0   M3=-927.426503351947   FrameElem=63
ElemStation=0.513076923076923
   Frame=63   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
112.944371416462   V3=0   T=0   M2=0   M3=-1157.51902622818   FrameElem=63   ElemStation=0
   Frame=63   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=-96.2693714164619   V3=0   T=0   M2=0   M3=-1118.14205506724   FrameElem=63
ElemStation=0.513076923076923
   Frame=63   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082223   V2=-
64.1455314899416   V3=0   T=0   M2=0   M3=-619.344839674109   FrameElem=63   ElemStation=0
   Frame=63   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082223   V2=-47.4705314899416   V3=0   T=0   M2=0   M3=-562.415337600634   FrameElem=63
ElemStation=0.513076923076923
   Frame=63   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
156.657606837257   V3=0   T=0   M2=0   M3=-1268.77193945326   FrameElem=63   ElemStation=0
   Frame=63   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-139.982606837257   V3=0   T=0   M2=0   M3=-1230.20950082023   FrameElem=63
ElemStation=0.513076923076923
   Frame=64   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116749   V2=-
115.923528862354   V3=0   T=0   M2=0   M3=-927.426503351941   FrameElem=64   ElemStation=0
   Frame=64   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116749   V2=-99.2485288623542   V3=0   T=0   M2=0   M3=-854.99877885117   FrameElem=64
ElemStation=0.513076923076923
   Frame=64   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
156.75098145969   V3=0   T=0   M2=0   M3=-1118.14205506723   FrameElem=64   ElemStation=0
   Frame=64   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=-140.07598145969   V3=0   T=0   M2=0   M3=-1056.4140115009   FrameElem=64
ElemStation=0.513076923076923
   Frame=64   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082223   V2=-
104.12599914534   V3=0   T=0   M2=0   M3=-562.415337600627   FrameElem=64   ElemStation=0
   Frame=64   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082223   V2=-87.4509991453398   V3=0   T=0   M2=0   M3=-490.672068587672   FrameElem=64
ElemStation=0.513076923076923
   Frame=64   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
202.451779521543   V3=0   T=0   M2=0   M3=-1230.20950082022   FrameElem=64   ElemStation=0
   Frame=64   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-185.776779521543   V3=0   T=0   M2=0   M3=-1167.38039148654   FrameElem=64
ElemStation=0.513076923076923
   Frame=65   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116753   V2=-
161.397616947614   V3=0   T=0   M2=0   M3=-854.998778851178   FrameElem=65   ElemStation=0
   Frame=65   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116753   V2=-144.722616947614   V3=0   T=0   M2=0   M3=-760.535102305255   FrameElem=65
ElemStation=0.513076923076923
   Frame=65   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473353   V2=-
204.844996050815   V3=0   T=0   M2=0   M3=-1056.4140115009   FrameElem=65   ElemStation=0
   Frame=65   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473353   V2=-188.169996050815   V3=0   T=0   M2=0   M3=-969.941453424698   FrameElem=65
ElemStation=0.513076923076923
   Frame=65   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082228   V2=-
147.147655788909   V3=0   T=0   M2=0   M3=-490.672068587678   FrameElem=65   ElemStation=0
   Frame=65   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082228   V2=-130.472655788909   V3=0   T=0   M2=0   M3=-402.875037092918   FrameElem=65
ElemStation=0.513076923076923
   Frame=65   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
252.480103341562   V3=0   T=0   M2=0   M3=-1167.38039148655   FrameElem=65   ElemStation=0
   Frame=65   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-235.805103341562   V3=0   T=0   M2=0   M3=-1077.65122616785   FrameElem=65
ElemStation=0.513076923076923
   Frame=66   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116751   V2=-
211.987351675519   V3=0   T=0   M2=0   M3=-760.535102305258   FrameElem=66   ElemStation=0
   Frame=66   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116751   V2=-195.312351675519   V3=0   T=0   M2=0   M3=-641.896357173163   FrameElem=66
ElemStation=0.513076923076923
   Frame=66   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473354   V2=-
257.858181178397   V3=0   T=0   M2=0   M3=-969.941453424709   FrameElem=66   ElemStation=0
   Frame=66   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473354   V2=-241.183181178397   V3=0   T=0   M2=0   M3=-855.965874248609   FrameElem=66
ElemStation=0.513076923076923
   Frame=66   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082226   V2=-
186.116890868691   V3=0   T=0   M2=0   M3=-402.875037092923   FrameElem=66   ElemStation=0
```

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   Frame=66   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082226   V2=-169.441890868691   V3=0   T=0   M2=0   M3=-297.612810072556   FrameElem=66
ElemStation=0.513076923076923
   Frame=66   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594064   V2=-
307.354394726338   V3=0   T=0   M2=0   M3=-1077.65122616786   FrameElem=66   ElemStation=0
   Frame=66   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594064   V2=-290.679394726338   V3=0   T=0   M2=0   M3=-957.985378335041   FrameElem=66
ElemStation=0.513076923076923
   Frame=67   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116752   V2=-
265.130111534912   V3=0   T=0   M2=0   M3=-641.896357173159   FrameElem=67   ElemStation=0
   Frame=67   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116752   V2=-248.455111534912   V3=0   T=0   M2=0   M3=-496.677880702612   FrameElem=67
ElemStation=0.513076923076922
   Frame=67   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351   V2=-
316.358535966757   V3=0   T=0   M2=0   M3=-855.965874248607   FrameElem=67   ElemStation=0
   Frame=67   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473351   V2=-299.683535966757   V3=0   T=0   M2=0   M3=-711.391502347144   FrameElem=67
ElemStation=0.513076923076922
   Frame=67   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082225   V2=-
224.323327502478   V3=0   T=0   M2=0   M3=-297.612810072553   FrameElem=67   ElemStation=0
   Frame=67   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082225   V2=-207.648327502478   V3=0   T=0   M2=0   M3=-173.331352794031   FrameElem=67
ElemStation=0.513076923076922
   Frame=67   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062   V2=-
367.606689387686   V3=0   T=0   M2=0   M3=-957.985378335038   FrameElem=67   ElemStation=0
   Frame=67   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=-350.931689387686   V3=0   T=0   M2=0   M3=-804.971750037782   FrameElem=67
ElemStation=0.513076923076922
   Frame=68   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116745   V2=-
323.846277540715   V3=0   T=0   M2=0   M3=-496.677880702594   FrameElem=68   ElemStation=0
   Frame=68   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116745   V2=-307.171277540715   V3=0   T=0   M2=0   M3=-322.248210709921   FrameElem=68
ElemStation=0.513076923076923
   Frame=68   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473352   V2=-
380.832756255612   V3=0   T=0   M2=0   M3=-711.391502347127   FrameElem=68   ElemStation=0
   Frame=68   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473352   V2=-364.157756255612   V3=0   T=0   M2=0   M3=-532.822179615069   FrameElem=68
ElemStation=0.513076923076923
   Frame=68   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082218   V2=-
266.414384847825   V3=0   T=0   M2=0   M3=-173.331352794017   FrameElem=68   ElemStation=0
   Frame=68   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082218   V2=-249.739384847825   V3=0   T=0   M2=0   M3=-28.3686615906961   FrameElem=68
ElemStation=0.513076923076923
   Frame=68   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594062   V2=-
433.671065689782   V3=0   T=0   M2=0   M3=-804.971750037765   FrameElem=68   ElemStation=0
   Frame=68   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594062   V2=-416.996065689782   V3=0   T=0   M2=0   M3=-614.863420981165   FrameElem=68
ElemStation=0.513076923076923
   Frame=69   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116743   V2=-
388.793749627133   V3=0   T=0   M2=0   M3=-322.248210709912   FrameElem=69   ElemStation=0
   Frame=69   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116743   V2=-372.118749627133   V3=0   T=0   M2=0   M3=-115.796650246271   FrameElem=69
ElemStation=0.513076923076922
   Frame=69   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.67477647335   V2=-
451.666821491536   V3=0   T=0   M2=0   M3=-532.82217961506   FrameElem=69   ElemStation=0
   Frame=69   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.67477647335   V2=-434.991821491536   V3=0   T=0   M2=0   M3=-326.225178013828   FrameElem=69
ElemStation=0.513076923076922
   Frame=69   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082214   V2=-
312.628505633556   V3=0   T=0   M2=0   M3=-28.3686615906859   FrameElem=69   ElemStation=0
   Frame=69   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082214   V2=-295.953505633556   V3=0   T=0   M2=0   M3=139.004269839327   FrameElem=69
ElemStation=0.513076923076922
   Frame=69   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.10407759406   V2=-
505.863620637145   V3=0   T=0   M2=0   M3=-614.863420981156   FrameElem=69   ElemStation=0
   Frame=69   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.10407759406   V2=-489.188620637145   V3=0   T=0   M2=0   M3=-395.648343142349   FrameElem=69
ElemStation=0.513076923076922
   Frame=70   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116751   V2=-
460.326598395694   V3=0   T=0   M2=0   M3=-115.79665024626   FrameElem=70   ElemStation=0
   Frame=70   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116751   V2=-443.651598395694   V3=0   T=0   M2=0   M3=138.132201203472   FrameElem=70
ElemStation=0.513076923076923
   Frame=70   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.674776473351   V2=-
529.124533113187   V3=0   T=0   M2=0   M3=-326.225178013815   FrameElem=70   ElemStation=0
   Frame=70   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.674776473351   V2=-512.449533113187   V3=0   T=0   M2=0   M3=-85.760081591223   FrameElem=70
ElemStation=0.513076923076923
   Frame=70   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082221   V2=-
363.119359194685   V3=0   T=0   M2=0   M3=139.004269839335   FrameElem=70   ElemStation=0
```

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   Frame=70   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082221   V2=-346.444359194685   V3=0   T=0   M2=0   M3=350.150308098889   FrameElem=70
ElemStation=0.513076923076923
   Frame=70   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.10407759406   V2=-
584.360444047802   V3=0   T=0   M2=0   M3=-395.648343142335   FrameElem=70   ElemStation=0
   Frame=70   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.10407759406   V2=-567.685444047802   V3=0   T=0   M2=0   M3=-140.574569872306   FrameElem=70
ElemStation=0.513076923076923
   Frame=71   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=15.8014228116762   V2=-
538.674144623514   V3=0   T=0   M2=0   M3=138.132201203474   FrameElem=71   ElemStation=0
   Frame=71   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max
P=15.8014228116762   V2=-521.999144623514   V3=0   T=0   M2=0   M3=448.536744117898   FrameElem=71
ElemStation=0.513076923076924
   Frame=71   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-175.67477647335   V2=-
613.323865500374   V3=0   T=0   M2=0   M3=-85.7600815912211   FrameElem=71   ElemStation=0
   Frame=71   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
175.67477647335   V2=-596.648865500374   V3=0   T=0   M2=0   M3=197.81137531032   FrameElem=71
ElemStation=0.513076923076924
   Frame=71   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=42.3676905082233   V2=-
417.940404066885   V3=0   T=0   M2=0   M3=350.150308098891   FrameElem=71   ElemStation=0
   Frame=71   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max
P=42.3676905082233   V2=-401.265404066885   V3=0   T=0   M2=0   M3=668.387958341967   FrameElem=71
ElemStation=0.513076923076924
   Frame=71   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-268.104077594059   V2=-
669.173475179415   V3=0   T=0   M2=0   M3=-140.574569872304   FrameElem=71   ElemStation=0
   Frame=71   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
268.104077594059   V2=-652.498475179415   V3=0   T=0   M2=0   M3=146.85348205424   FrameElem=71
ElemStation=0.513076923076924
   Frame=72   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-49.0153969077757   V2=-
531.134225268647   V3=0   T=0   M2=0   M3=-550.872809367627   FrameElem=72   ElemStation=0
   Frame=72   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
52.3114031107362   V2=-492.142431258146   V3=0   T=0   M2=0   M3=-281.719643472118   FrameElem=72
ElemStation=0.513076923076923
   Frame=72   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-159.913326742   V2=-
576.499824849002   V3=0   T=0   M2=0   M3=-746.363658831397   FrameElem=72   ElemStation=0
   Frame=72   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
163.20933294496   V2=-529.737993799643   V3=0   T=0   M2=0   M3=-471.333085964676   FrameElem=72
ElemStation=0.513076923076923
   Frame=72   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-30.6388745146139   V2=-
353.620889455773   V3=0   T=0   M2=0   M3=-473.49378393584   FrameElem=72   ElemStation=0
   Frame=72   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
33.9348807175744   V2=-325.65819714808   V3=0   T=0   M2=0   M3=-235.036859047675   FrameElem=72
ElemStation=0.513076923076923
   Frame=72   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005036   V2=-
657.784411909413   V3=0   T=0   M2=0   M3=-974.498211481779   FrameElem=72   ElemStation=0
   Frame=72   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005036   V2=-606.322796524798   V3=0   T=0   M2=0   M3=-651.188872289774   FrameElem=72
ElemStation=0.513076923076923
   Frame=73   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-52.3114031107725   V2=-
492.142431258143   V3=0   T=0   M2=0   M3=-281.719643472113   FrameElem=73   ElemStation=0
   Frame=73   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
55.607409313733   V2=-450.330809055361   V3=0   T=0   M2=0   M3=-37.965690922369   FrameElem=73
ElemStation=0.513076923076923
   Frame=73   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-163.209332945001   V2=-
529.737993799602   V3=0   T=0   M2=0   M3=-471.333085964667   FrameElem=73   ElemStation=0
   Frame=73   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
166.505339147961   V2=-482.976162750242   V3=0   T=0   M2=0   M3=-223.752616672684   FrameElem=73
ElemStation=0.513076923076923
   Frame=73   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-33.9348807176058   V2=-
325.658197148058   V3=0   T=0   M2=0   M3=-235.036859047669   FrameElem=73   ElemStation=0
   Frame=73   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
37.2308869205663   V2=-297.695504840366   V3=0   T=0   M2=0   M3=-5.8304260346456   FrameElem=73
ElemStation=0.513076923076923
   Frame=73   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005052   V2=-
606.322796524755   V3=0   T=0   M2=0   M3=-651.188872289764   FrameElem=73   ElemStation=0
   Frame=73   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005052   V2=-554.86118114014   V3=0   T=0   M2=0   M3=-369.402453998316   FrameElem=73
ElemStation=0.513076923076923
   Frame=74   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-55.6074093136808   V2=-
450.330809055426   V3=0   T=0   M2=0   M3=-37.9656909223605   FrameElem=74   ElemStation=0
   Frame=74   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
58.9034155166413   V2=-400.827094888286   V3=0   T=0   M2=0   M3=180.389048281661   FrameElem=74
ElemStation=0.513076923076923
   Frame=74   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-166.505339147905   V2=-
482.976162750302   V3=0   T=0   M2=0   M3=-223.752616672679   FrameElem=74   ElemStation=0
   Frame=74   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
169.801345350865   V2=-436.214331700942   V3=0   T=0   M2=0   M3=3.82206292317403   FrameElem=74
ElemStation=0.513076923076923
   Frame=74   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-37.2308869205191   V2=-
297.695504840405   V3=0   T=0   M2=0   M3=-5.83042603463693   FrameElem=74   ElemStation=0
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   Frame=74   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
40.5268931234795   V2=-269.732812532712   V3=0   T=0   M2=0   M3=224.208803994972   FrameElem=74
ElemStation=0.513076923076923
   Frame=74   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005036   V2=-
554.861181140203   V3=0   T=0   M2=0   M3=-369.402453998314   FrameElem=74   ElemStation=0
   Frame=74   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005036   V2=-503.399565755588   V3=0   T=0   M2=0   M3=-117.23053340208   FrameElem=74
ElemStation=0.513076923076923
   Frame=75   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-58.9034155167032   V2=-
400.827094888211   V3=0   T=0   M2=0   M3=180.389048281651   FrameElem=75   ElemStation=0
   Frame=75   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
62.1994217196636   V2=-351.323380721071   V3=0   T=0   M2=0   M3=373.344574139879   FrameElem=75
ElemStation=0.513076923076923
   Frame=75   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-169.801345350928   V2=-
436.214331700912   V3=0   T=0   M2=0   M3=3.82206292316823   FrameElem=75   ElemStation=0
   Frame=75   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
173.097351553888   V2=-389.452500651552   V3=0   T=0   M2=0   M3=211.390952822853   FrameElem=75
ElemStation=0.513076923076923
   Frame=75   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-40.5268931235379   V2=-
269.732812532676   V3=0   T=0   M2=0   M3=224.208803994961   FrameElem=75   ElemStation=0
   Frame=75   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
43.8228993264984   V2=-241.770120224984   V3=0   T=0   M2=0   M3=432.598166307319   FrameElem=75
ElemStation=0.513076923076923
   Frame=75   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005051   V2=-
503.399565755559   V3=0   T=0   M2=0   M3=-117.230533402087   FrameElem=75   ElemStation=0
   Frame=75   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005051   V2=-451.937950370944   V3=0   T=0   M2=0   M3=46.4976206513575   FrameElem=75
ElemStation=0.513076923076923
   Frame=76   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-62.1994217196854   V2=-
351.323380721218   V3=0   T=0   M2=0   M3=373.344574139892   FrameElem=76   ElemStation=0
   Frame=76   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
65.4954279226459   V2=-301.819666554078   V3=0   T=0   M2=0   M3=540.900886652439   FrameElem=76
ElemStation=0.513076923076922
   Frame=76   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-173.097351553908   V2=-
389.452500651671   V3=0   T=0   M2=0   M3=211.390952822849   FrameElem=76   ElemStation=0
   Frame=76   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
176.393357756868   V2=-346.069365760334   V3=0   T=0   M2=0   M3=398.954053026421   FrameElem=76
ElemStation=0.513076923076922
   Frame=76   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-43.822899326521   V2=-
241.770120225071   V3=0   T=0   M2=0   M3=432.598166307335   FrameElem=76   ElemStation=0
   Frame=76   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313253   V2=-213.807427917379   V3=0   T=0   M2=0   M3=612.825265175989   FrameElem=76
ElemStation=0.513076923076922
   Frame=76   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005073   V2=-
451.937950371071   V3=0   T=0   M2=0   M3=46.497620651362   FrameElem=76   ElemStation=0
   Frame=76   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005073   V2=-403.08716890515   V3=0   T=0   M2=0   M3=168.44722375783   FrameElem=76
ElemStation=0.513076923076922
   Frame=77   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-65.4954279227085   V2=-
301.819666554003   V3=0   T=0   M2=0   M3=540.900886652436   FrameElem=77   ElemStation=0
   Frame=77   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
68.791434125669   V2=-252.315952386863   V3=0   T=0   M2=0   M3=683.057985819189   FrameElem=77
ElemStation=0.513076923076924
   Frame=77   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-176.39335775694   V2=-
346.069365760291   V3=0   T=0   M2=0   M3=398.954053026425   FrameElem=77   ElemStation=0
   Frame=77   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
179.689363959901   V2=-307.07757174979   V3=0   T=0   M2=0   M3=566.511363533819   FrameElem=77
ElemStation=0.513076923076924
   Frame=77   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313259   V2=-
213.807427917343   V3=0   T=0   M2=0   M3=612.825265175984   FrameElem=77   ElemStation=0
   Frame=77   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313259   V2=-185.84473560965   V3=0   T=0   M2=0   M3=764.890100600809   FrameElem=77
ElemStation=0.513076923076924
   Frame=77   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.7613200051   V2=-
403.087168905103   V3=0   T=0   M2=0   M3=168.447223757834   FrameElem=77   ElemStation=0
   Frame=77   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.7613200051   V2=-361.338099674334   V3=0   T=0   M2=0   M3=276.049814734107   FrameElem=77
ElemStation=0.513076923076924
   Frame=78   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-68.7914341256331   V2=-
252.315952386821   V3=0   T=0   M2=0   M3=683.057985819202   FrameElem=78   ElemStation=0
   Frame=78   Station=0.391538461538461   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
71.3066772400362   V2=-214.538755218793   V3=0   T=0   M2=0   M3=781.192679857711   FrameElem=78
ElemStation=0.391538461538461
   Frame=78   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-179.689363959857   V2=-
307.077571749741   V3=0   T=0   M2=0   M3=566.511363533821   FrameElem=78   ElemStation=0
   Frame=78   Station=0.391538461538461   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
182.20460707426   V2=-277.322214701248   V3=0   T=0   M2=0   M3=680.918860189034   FrameElem=78
ElemStation=0.391538461538461
   Frame=78   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313271   V2=-
185.844735609625   V3=0   T=0   M2=0   M3=764.890100600824   FrameElem=78   ElemStation=0
```

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   Frame=78   Station=0.391538461538461   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313271   V2=-164.505889455779   V3=0   T=0   M2=0   M3=870.411499506464   FrameElem=78
ElemStation=0.391538461538461
   Frame=78   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.76132000507   V2=-
361.338099674278   V3=0   T=0   M2=0   M3=276.049814734109   FrameElem=78   ElemStation=0
   Frame=78   Station=0.391538461538461   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.76132000507   V2=-329.478615058893   V3=0   T=0   M2=0   M3=348.511611923402   FrameElem=78
ElemStation=0.391538461538461
   Frame=79   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-71.3066772400664   V2=-
214.538755218765   V3=0   T=0   M2=0   M3=781.192679857691   FrameElem=79   ElemStation=0
   Frame=79   Station=0.634615384615385   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
75.3834465315842   V2=-153.308524052512   V3=0   T=0   M2=0   M3=921.715874901635   FrameElem=79
ElemStation=0.634615384615385
   Frame=79   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-182.204607074294   V2=-
277.322214701212   V3=0   T=0   M2=0   M3=680.918860189031   FrameElem=79   ElemStation=0
   Frame=79   Station=0.634615384615385   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
186.281376365812   V2=-216.09198353496   V3=0   T=0   M2=0   M3=821.647736133725   FrameElem=79
ElemStation=0.634615384615385
   Frame=79   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313281   V2=-
164.505889455745   V3=0   T=0   M2=0   M3=870.411499506441   FrameElem=79   ElemStation=0
   Frame=79   Station=0.634615384615385   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313281   V2=-129.919350994206   V3=0   T=0   M2=0   M3=1022.70964403299   FrameElem=79
ElemStation=0.634615384615385
   Frame=79   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005091   V2=-
329.478615058857   V3=0   T=0   M2=0   M3=348.511611923396   FrameElem=79   ElemStation=0
   Frame=79   Station=0.634615384615385   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005091   V2=-261.587461212703   V3=0   T=0   M2=0   M3=448.213960296066   FrameElem=79
ElemStation=0.634615384615385
   Frame=80   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-75.3834465315848   V2=-
153.308524052558   V3=0   T=0   M2=0   M3=921.715874901658   FrameElem=80   ElemStation=0
   Frame=80   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
78.6794527345453   V2=-103.804809885418   V3=0   T=0   M2=0   M3=1008.49265206091   FrameElem=80
ElemStation=0.513076923076923
   Frame=80   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-186.281376365808   V2=-
216.091983534969   V3=0   T=0   M2=0   M3=821.647736133731   FrameElem=80   ElemStation=0
   Frame=80   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
189.577382568769   V2=-166.588269367829   V3=0   T=0   M2=0   M3=892.683635057743   FrameElem=80
ElemStation=0.513076923076923
   Frame=80   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313271   V2=-
129.919350994222   V3=0   T=0   M2=0   M3=1022.70964403302   FrameElem=80   ElemStation=0
   Frame=80   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313271   V2=-95.6460360390872   V3=0   T=0   M2=0   M3=1116.30933627594   FrameElem=80
ElemStation=0.513076923076923
   Frame=80   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.76132000507   V2=-
261.58746121271   V3=0   T=0   M2=0   M3=448.213960296079   FrameElem=80   ElemStation=0
   Frame=80   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.76132000507   V2=-206.698491981941   V3=0   T=0   M2=0   M3=512.775514881796   FrameElem=80
ElemStation=0.513076923076923
   Frame=81   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-78.6794527345193   V2=-
103.804809885445   V3=0   T=0   M2=0   M3=1008.49265206089   FrameElem=81   ElemStation=0
   Frame=81   Station=0.382307692307692   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
81.1353973865003   V2=-66.9182342616539   V3=0   T=0   M2=0   M3=1057.55323220651   FrameElem=81
ElemStation=0.382307692307692
   Frame=81   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-189.577382568739   V2=-
166.588269367914   V3=0   T=0   M2=0   M3=892.683635057735   FrameElem=81   ElemStation=0
   Frame=81   Station=0.382307692307692   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
192.03332722072   V2=-129.701693744123   V3=0   T=0   M2=0   M3=929.10059614309   FrameElem=81
ElemStation=0.382307692307692
   Frame=81   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313265   V2=-
95.6460360391167   V3=0   T=0   M2=0   M3=1116.30933627592   FrameElem=81   ElemStation=0
   Frame=81   Station=0.382307692307692   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313265   V2=-60.7658116629077   V3=0   T=0   M2=0   M3=1168.88606682801   FrameElem=81
ElemStation=0.382307692307692
   Frame=81   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005086   V2=-
206.698491982037   V3=0   T=0   M2=0   M3=512.775514881789   FrameElem=81   ElemStation=0
   Frame=81   Station=0.382307692307692   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005086   V2=-165.79921505896   V3=0   T=0   M2=0   M3=551.554086923166   FrameElem=81
ElemStation=0.382307692307692
   Frame=82   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-81.1353973865315   V2=-
66.9182342617359   V3=0   T=0   M2=0   M3=1057.55323220652   FrameElem=82   ElemStation=0
   Frame=82   Station=0.643846153846153   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
85.2714651404714   V2=-17.9885017478098   V3=0   T=0   M2=0   M3=1113.91705702194   FrameElem=82
ElemStation=0.643846153846153
   Frame=82   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-192.033327220757   V2=-
129.701693744194   V3=0   T=0   M2=0   M3=929.100596143095   FrameElem=82   ElemStation=0
   Frame=82   Station=0.643846153846153   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
196.169394974697   V2=-67.5808410337051   V3=0   T=0   M2=0   M3=962.804318870318   FrameElem=82
ElemStation=0.643846153846153
   Frame=82   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.779057131326   V2=-
60.7658116629853   V3=0   T=0   M2=0   M3=1168.88606682802   FrameElem=82   ElemStation=0
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   Frame=82   Station=0.643846153846153   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.779057131326   V2=-10.9778091892898   V3=0   T=0   M2=0   M3=1228.15313928714   FrameElem=82
ElemStation=0.643846153846153
   Frame=82   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005093   V2=-
165.799215059038   V3=0   T=0   M2=0   M3=551.55408692317   FrameElem=82   ElemStation=0
   Frame=82   Station=0.643846153846153   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005093   V2=-96.9205535205765   V3=0   T=0   M2=0   M3=598.857587662772   FrameElem=82
ElemStation=0.643846153846153
   Frame=83   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-85.271465140483   V2=-
17.9885017479263   V3=0   T=0   M2=0   M3=1113.91705702195   FrameElem=83   ElemStation=0
   Frame=83   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
88.5674713434435   V2=21.003292262574   V3=0   T=0   M2=0   M3=1135.89162032562   FrameElem=83
ElemStation=0.513076923076923
   Frame=83   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-196.169394974713   V2=-
67.5808410337602   V3=0   T=0   M2=0   M3=962.804318870326   FrameElem=83   ElemStation=0
   Frame=83   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
199.465401177674   V2=-18.0771268666202   V3=0   T=0   M2=0   M3=967.107348944374   FrameElem=83
ElemStation=0.513076923076923
   Frame=83   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313269   V2=-
10.9778091894196   V3=0   T=0   M2=0   M3=1228.15313928715   FrameElem=83   ElemStation=0
   Frame=83   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313269   V2=30.7712600413496   V3=0   T=0   M2=0   M3=1250.24121385947   FrameElem=83
ElemStation=0.513076923076923
   Frame=83   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005085   V2=-
96.920553520631   V3=0   T=0   M2=0   M3=598.85758766278   FrameElem=83   ElemStation=0
   Frame=83   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005085   V2=-42.0315842898618   V3=0   T=0   M2=0   M3=620.378105858042   FrameElem=83
ElemStation=0.513076923076923
   Frame=84   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-88.5674713434589
V2=21.0032922626078   V3=0   T=0   M2=0   M3=1135.89162032564   FrameElem=84   ElemStation=0
   Frame=84   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
91.8634775464194   V2=59.9950862731082   V3=0   T=0   M2=0   M3=1132.46697028357   FrameElem=84
ElemStation=0.513076923076924
   Frame=84   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-199.465401177688   V2=-
18.0771268666497   V3=0   T=0   M2=0   M3=967.107348944373   FrameElem=84   ElemStation=0
   Frame=84   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
202.761407380648   V2=31.4039787924677   V3=0   T=0   M2=0   M3=951.404589322248   FrameElem=84
ElemStation=0.513076923076924
   Frame=84   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313269
V2=30.771260041389   V3=0   T=0   M2=0   M3=1250.24121385948   FrameElem=84   ElemStation=0
   Frame=84   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313269   V2=72.5203292721583   V3=0   T=0   M2=0   M3=1244.16702498804   FrameElem=84
ElemStation=0.513076923076924
   Frame=84   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005098   V2=-
42.0315842899015   V3=0   T=0   M2=0   M3=620.378105858055   FrameElem=84   ElemStation=0
   Frame=84   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
217.761320005098   V2=1.916440335418555E-11   V3=0   T=0   M2=0   M3=627.551611923134   FrameElem=84
ElemStation=0.513076923076924
   Frame=85   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-91.8634775464001
V2=59.9950862731087   V3=0   T=0   M2=0   M3=1132.46697028358   FrameElem=85   ElemStation=0
   Frame=85   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
95.1594837493606   V2=98.9868802836089   V3=0   T=0   M2=0   M3=1103.64310689577   FrameElem=85
ElemStation=0.513076923076923
   Frame=85   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-202.761407380629
V2=31.4039787924624   V3=0   T=0   M2=0   M3=951.404589322268   FrameElem=85   ElemStation=0
   Frame=85   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
206.057413583589   V2=78.1658098418221   V3=0   T=0   M2=0   M3=915.696040003985   FrameElem=85
ElemStation=0.513076923076923
   Frame=85   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313272
V2=72.5203292721642   V3=0   T=0   M2=0   M3=1244.16702498805   FrameElem=85   ElemStation=0
   Frame=85   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313272   V2=114.269398502933   V3=0   T=0   M2=0   M3=1222.81015140698   FrameElem=85
ElemStation=0.513076923076923
   Frame=85   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-217.761320005098   V2=-
1.3642421068695E-12   V3=0   T=0   M2=0   M3=627.551611923152   FrameElem=85   ElemStation=0
   Frame=85   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
221.611463474935   V2=27.9626923076909   V3=0   T=0   M2=0   M3=620.378105858064   FrameElem=85
ElemStation=0.513076923076923
   Frame=86   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-95.1594837493992
V2=98.9868802835209   V3=0   T=0   M2=0   M3=1103.64310689576   FrameElem=86   ElemStation=0
   Frame=86   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
98.4554899523597   V2=140.328126178819   V3=0   T=0   M2=0   M3=1049.4200301622   FrameElem=86
ElemStation=0.513076923076923
   Frame=86   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-206.057413583628
V2=78.1658098417485   V3=0   T=0   M2=0   M3=915.696040003987   FrameElem=86   ElemStation=0
   Frame=86   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
209.353419786589   V2=124.927640891108   V3=0   T=0   M2=0   M3=857.848871307547   FrameElem=86
ElemStation=0.513076923076923
   Frame=86   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313272
V2=114.269398502828   V3=0   T=0   M2=0   M3=1222.81015140698   FrameElem=86   ElemStation=0
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Frame=86 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313272 V2=158.955282545833 V3=0 T=0 M2=0 M3=1175.603107642 FrameElem=86 ElemStation=0.513076923076923
Frame=86 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-221.611463474983 V2=27.9626923076716 V3=0 T=0 M2=0 M3=620.378105858064 FrameElem=86 ElemStation=0
Frame=86 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Min P=-225.731471167291 V2=55.9253846153639 V3=0 T=0 M2=0 M3=596.724757980761 FrameElem=86 ElemStation=0.513076923076923
Frame=87 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-98.4554899523516 V2=140.328126178698 V3=0 T=0 M2=0 M3=1049.42003016223 FrameElem=87 ElemStation=0
Frame=87 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-101.751496155312 V2=189.831840345838 V3=0 T=0 M2=0 M3=969.797740082972 FrameElem=87 ElemStation=0.513076923076923
Frame=87 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-209.353419786592 V2=124.927640890997 V3=0 T=0 M2=0 M3=857.848871307557 FrameElem=87 ElemStation=0
Frame=87 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-212.649425989552 V2=167.076357760375 V3=0 T=0 M2=0 M3=777.052302802506 FrameElem=87 ElemStation=0.513076923076923
Frame=87 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.779057131327 V2=158.955282545704 V3=0 T=0 M2=0 M3=1175.60310764201 FrameElem=87 ElemStation=0
Frame=87 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.779057131327 V2=213.844251776473 V3=0 T=0 M2=0 M3=1103.83871694202 FrameElem=87 ElemStation=0.513076923076923
Frame=87 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-225.731471167295 V2=55.9253846152721 V3=0 T=0 M2=0 M3=596.72475798078 FrameElem=87 ElemStation=0
Frame=87 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Min P=-229.851478859603 V2=83.8880769229644 V3=0 T=0 M2=0 M3=555.780787860857 FrameElem=87 ElemStation=0.513076923076923
Frame=88 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-101.751496155333 V2=189.831840345911 V3=0 T=0 M2=0 M3=969.797740082983 FrameElem=88 ElemStation=0
Frame=88 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-105.047502358293 V2=239.335554513051 V3=0 T=0 M2=0 M3=864.776236657932 FrameElem=88 ElemStation=0.513076923076923
Frame=88 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-212.649425989568 V2=167.07635776043 V3=0 T=0 M2=0 M3=777.052302802509 FrameElem=88 ElemStation=0
Frame=88 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-215.945432192528 V2=206.06815177093 V3=0 T=0 M2=0 M3=676.249944601273 FrameElem=88 ElemStation=0.513076923076923
Frame=88 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313265 V2=213.844251776548 V3=0 T=0 M2=0 M3=1103.83871694202 FrameElem=88 ElemStation=0
Frame=88 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313265 V2=268.733221007317 V3=0 T=0 M2=0 M3=1005.67055896389 FrameElem=88 ElemStation=0.513076923076923
Frame=88 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-229.851478859622 V2=83.8880769230315 V3=0 T=0 M2=0 M3=555.780787860861 FrameElem=88 ElemStation=0
Frame=88 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Min P=-233.971486551929 V2=111.850769230724 V3=0 T=0 M2=0 M3=500.489805610726 FrameElem=88 ElemStation=0.513076923076923
Frame=89 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-105.047502358297 V2=239.335554513003 V3=0 T=0 M2=0 M3=864.77623665795 FrameElem=89 ElemStation=0
Frame=89 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-108.343508561257 V2=288.839268680143 V3=0 T=0 M2=0 M3=734.355519887168 FrameElem=89 ElemStation=0.513076923076923
Frame=89 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-215.945432192531 V2=206.068151770909 V3=0 T=0 M2=0 M3=676.249944601288 FrameElem=89 ElemStation=0
Frame=89 Station=0.513076923076923 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-219.241438395492 V2=245.059945781409 V3=0 T=0 M2=0 M3=555.441796703906 FrameElem=89 ElemStation=0.513076923076923
Frame=89 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313265 V2=268.733221007267 V3=0 T=0 M2=0 M3=1005.67055896391 FrameElem=89 ElemStation=0
Frame=89 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313265 V2=323.622190238037 V3=0 T=0 M2=0 M3=881.098633707691 FrameElem=89 ElemStation=0.513076923076923
Frame=89 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Min P=-233.971486551934 V2=111.850769230681 V3=0 T=0 M2=0 M3=500.489805610744 FrameElem=89 ElemStation=0
Frame=89 Station=0.513076923076923 OutputCase=ENVETA CaseType=Combination StepType=Min P=-238.091494244241 V2=139.813461538373 V3=0 T=0 M2=0 M3=430.851811230453 FrameElem=89 ElemStation=0.513076923076923
Frame=90 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-108.343508561237 V2=288.839268680129 V3=0 T=0 M2=0 M3=734.35551988719 FrameElem=90 ElemStation=0
Frame=90 Station=0.634615384615385 OutputCase=ENVETA5 CaseType=Combination StepType=Max P=-112.420277852755 V2=350.069499846382 V3=0 T=0 M2=0 M3=540.52601193791 FrameElem=90 ElemStation=0.634615384615385
Frame=90 Station=0 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-219.241438395474 V2=245.059945781377 V3=0 T=0 M2=0 M3=555.441796703922 FrameElem=90 ElemStation=0
Frame=90 Station=0.634615384615385 OutputCase=ENVETA5 CaseType=Combination StepType=Min P=-223.318207686992 V2=293.288176753885 V3=0 T=0 M2=0 M3=378.340841515725 FrameElem=90 ElemStation=0.634615384615385
Frame=90 Station=0 OutputCase=ENVETA CaseType=Combination StepType=Max P=-46.7790571313253 V2=323.622190238024 V3=0 T=0 M2=0 M3=881.098633707699 FrameElem=90 ElemStation=0

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   Frame=90   Station=0.634615384615385   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313253   V2=391.513344084178   V3=0   T=0   M2=0   M3=690.491505319102   FrameElem=90
ElemStation=0.634615384615385
   Frame=90   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-238.091494244218
V2=139.813461538354   V3=0   T=0   M2=0   M3=430.851811230465   FrameElem=90   ElemStation=0
   Frame=90   Station=0.634615384615385   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
243.18745578268   V2=174.399999999893   V3=0   T=0   M2=0   M3=324.870508089398   FrameElem=90
ElemStation=0.634615384615385
   Frame=91   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-112.420277852784
V2=350.069499846308   V3=0   T=0   M2=0   M3=540.526011937921   FrameElem=91   ElemStation=0
   Frame=91   Station=0.391538461538462   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
114.935520967187   V2=379.824856894801   V3=0   T=0   M2=0   M3=407.052747580738   FrameElem=91
ElemStation=0.391538461538462
   Frame=91   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-223.318207687029
V2=293.288176753835   V3=0   T=0   M2=0   M3=378.340841515729   FrameElem=91   ElemStation=0
   Frame=91   Station=0.391538461538462   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
225.833450801432   V2=323.043533802327   V3=0   T=0   M2=0   M3=253.808131820747   FrameElem=91
ElemStation=0.391538461538462
   Frame=91   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313243
V2=391.513344084097   V3=0   T=0   M2=0   M3=690.491505319116   FrameElem=91   ElemStation=0
   Frame=91   Station=0.391538461538462   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313243   V2=423.372828699481   V3=0   T=0   M2=0   M3=552.743481360985   FrameElem=91
ElemStation=0.391538461538462
   Frame=91   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-243.187455782726
V2=174.39999999985   V3=0   T=0   M2=0   M3=324.8705080894   FrameElem=91   ElemStation=0
   Frame=91   Station=0.391538461538462   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
246.33150962888   V2=195.738846153697   V3=0   T=0   M2=0   M3=217.56927971152   FrameElem=91
ElemStation=0.391538461538462
   Frame=92   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-114.935520967151
V2=379.824856894841   V3=0   T=0   M2=0   M3=407.052747580728   FrameElem=92   ElemStation=0
   Frame=92   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
118.231527170112   V2=418.816650905342   V3=0   T=0   M2=0   M3=210.996967827729   FrameElem=92
ElemStation=0.513076923076923
   Frame=92   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-225.833450801377
V2=323.043533802365   V3=0   T=0   M2=0   M3=253.80813182073   FrameElem=92   ElemStation=0
   Frame=92   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
229.129457004337   V2=362.035327812865   V3=0   T=0   M2=0   M3=72.982614834901   FrameElem=92
ElemStation=0.513076923076923
   Frame=92   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313289
V2=423.37282869952   V3=0   T=0   M2=0   M3=552.743481360977   FrameElem=92   ElemStation=0
   Frame=92   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313289   V2=465.12189793029   V3=0   T=0   M2=0   M3=348.960254270437   FrameElem=92
ElemStation=0.513076923076923
   Frame=92   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-246.331509628812
V2=195.738846153742   V3=0   T=0   M2=0   M3=217.569279711502   FrameElem=92   ElemStation=0
   Frame=92   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
250.45151732112   V2=223.701538461434   V3=0   T=0   M2=0   M3=48.5050487585354   FrameElem=92
ElemStation=0.513076923076923
   Frame=93   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-118.231527170124
V2=418.816650905228   V3=0   T=0   M2=0   M3=210.996967827753   FrameElem=93   ElemStation=0
   Frame=93   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
121.527533373085   V2=462.154568780463   V3=0   T=0   M2=0   M3=-9.05122831741017   FrameElem=93
ElemStation=0.513076923076922
   Frame=93   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-229.129457004365
V2=362.035327812765   V3=0   T=0   M2=0   M3=72.9826148349169   FrameElem=93   ElemStation=0
   Frame=93   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
232.425463207325   V2=401.027121823265   V3=0   T=0   M2=0   M3=-127.848691847016   FrameElem=93
ElemStation=0.513076923076922
   Frame=93   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313263
V2=465.121897930173   V3=0   T=0   M2=0   M3=348.960254270462   FrameElem=93   ElemStation=0
   Frame=93   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313263   V2=512.303621910908   V3=0   T=0   M2=0   M3=127.982671975719   FrameElem=93
ElemStation=0.513076923076922
   Frame=93   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-250.451517321154
V2=223.701538461336   V3=0   T=0   M2=0   M3=48.5050487585513   FrameElem=93   ElemStation=0
   Frame=93   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
254.571525013462   V2=251.664230769028   V3=0   T=0   M2=0   M3=-162.018290364845   FrameElem=93
ElemStation=0.513076923076922
   Frame=94   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-121.527533373146
V2=462.154568780486   V3=0   T=0   M2=0   M3=-9.05122831740816   FrameElem=94   ElemStation=0
   Frame=94   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
124.823539576106   V2=508.916399829846   V3=0   T=0   M2=0   M3=-247.826333933422   FrameElem=94
ElemStation=0.513076923076923
   Frame=94   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-232.425463207405
V2=401.027121823284   V3=0   T=0   M2=0   M3=-127.848691847012   FrameElem=94   ElemStation=0
   Frame=94   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
235.721469410365   V2=440.018915833784   V3=0   T=0   M2=0   M3=-361.407419413928   FrameElem=94
ElemStation=0.513076923076923
   Frame=94   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313195
V2=512.303621910928   V3=0   T=0   M2=0   M3=127.982671975721   FrameElem=94   ElemStation=0
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   Frame=94   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313195   V2=563.765237295543   V3=0   T=0   M2=0   M3=-31.6838883318085   FrameElem=94
ElemStation=0.513076923076923
   Frame=94   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-254.571525013559
V2=251.664230769059   V3=0   T=0   M2=0   M3=-162.018290364841   FrameElem=94   ElemStation=0
   Frame=94   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
258.691532705867   V2=279.626923076752   V3=0   T=0   M2=0   M3=-418.62343434861   FrameElem=94
ElemStation=0.513076923076923
   Frame=95   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-124.823539576106
V2=508.916399829758   V3=0   T=0   M2=0   M3=-247.826333933412   FrameElem=95   ElemStation=0
   Frame=95   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
128.119545779067   V2=555.678230879118   V3=0   T=0   M2=0   M3=-483.592780213093   FrameElem=95
ElemStation=0.513076923076922
   Frame=95   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-235.721469410367
V2=440.01891583371   V3=0   T=0   M2=0   M3=-361.407419413917   FrameElem=95   ElemStation=0
   Frame=95   Station=0.513076923076922   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
239.017475613327   V2=479.01070984421   V3=0   T=0   M2=0   M3=-626.307052234119   FrameElem=95
ElemStation=0.513076923076922
   Frame=95   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.7790571313217
V2=563.76523729545   V3=0   T=0   M2=0   M3=-31.6838883318014   FrameElem=95   ElemStation=0
   Frame=95   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.7790571313217   V2=615.226852680065   V3=0   T=0   M2=0   M3=-182.327515698544   FrameElem=95
ElemStation=0.513076923076922
   Frame=95   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-258.69153270587
V2=279.626923076688   V3=0   T=0   M2=0   M3=-418.623434348598   FrameElem=95   ElemStation=0
   Frame=95   Station=0.513076923076922   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
262.811540398177   V2=307.58961538438   V3=0   T=0   M2=0   M3=-710.817956549903   FrameElem=95
ElemStation=0.513076923076922
   Frame=96   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-128.119545779091
V2=555.678230879125   V3=0   T=0   M2=0   M3=-483.592780213079   FrameElem=96   ElemStation=0
   Frame=96   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
131.415551982052   V2=602.440061928485   V3=0   T=0   M2=0   M3=-739.365016188921   FrameElem=96
ElemStation=0.513076923076923
   Frame=96   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-239.017475613354
V2=479.010709844217   V3=0   T=0   M2=0   M3=-626.307052234115   FrameElem=96   ElemStation=0
   Frame=96   Station=0.513076923076923   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
242.313481816315   V2=518.002503854717   V3=0   T=0   M2=0   M3=-911.212474750474   FrameElem=96
ElemStation=0.513076923076923
   Frame=96   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.779057131319
V2=615.226852680071   V3=0   T=0   M2=0   M3=-182.327515698536   FrameElem=96   ElemStation=0
   Frame=96   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.779057131319   V2=666.688468064686   V3=0   T=0   M2=0   M3=-347.318155195466   FrameElem=96
ElemStation=0.513076923076923
   Frame=96   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-262.811540398211
V2=307.589615384397   V3=0   T=0   M2=0   M3=-710.8179565499   FrameElem=96   ElemStation=0
   Frame=96   Station=0.513076923076923   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
266.931548090519   V2=335.552307692089   V3=0   T=0   M2=0   M3=-1024.43296273345   FrameElem=96
ElemStation=0.513076923076923
   Frame=97   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-131.415551982032
V2=602.440061928487   V3=0   T=0   M2=0   M3=-739.365016188915   FrameElem=97   ElemStation=0
   Frame=97   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   P=-
134.711558184993   V2=649.201892977847   V3=0   T=0   M2=0   M3=-1015.14304186091   FrameElem=97
ElemStation=0.513076923076924
   Frame=97   Station=0   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-242.313481816296
V2=518.002503854707   V3=0   T=0   M2=0   M3=-911.212474750472   FrameElem=97   ElemStation=0
   Frame=97   Station=0.513076923076924   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   P=-
245.609488019257   V2=556.994297865208   V3=0   T=0   M2=0   M3=-1223.26640334433   FrameElem=97
ElemStation=0.513076923076924
   Frame=97   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-46.779057131319
V2=666.688468064692   V3=0   T=0   M2=0   M3=-347.318155195457   FrameElem=97   ElemStation=0
   Frame=97   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Max   P=-
46.779057131319   V2=718.150083449307   V3=0   T=0   M2=0   M3=-526.655806822558   FrameElem=97
ElemStation=0.513076923076924
   Frame=97   Station=0   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-266.931548090496
V2=335.552307692076   V3=0   T=0   M2=0   M3=-1024.43296273345   FrameElem=97   ElemStation=0
   Frame=97   Station=0.513076923076924   OutputCase=ENVETA   CaseType=Combination   StepType=Min   P=-
271.051555782803   V2=363.514999999768   V3=0   T=0   M2=0   M3=-1368.39684824289   FrameElem=97
ElemStation=0.513076923076924

TABLE:  "ELEMENT JOINT FORCES - FRAMES"
   Frame=1   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473351   F2=0   F3=-
683.383140572121   M1=0   M2=1662.95572240104   M3=0   FrameElem=1
   Frame=1   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116749   F2=0
F3=746.279544773002   M1=0   M2=-1122.3536124685   M3=0   FrameElem=1
   Frame=1   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116749   F2=0   F3=-
734.904544773002   M1=0   M2=1363.52833666874   M3=0   FrameElem=1
   Frame=1   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473351   F2=0
F3=694.758140572121   M1=0   M2=-1403.7485067305   M3=0   FrameElem=1
   Frame=1   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594061   F2=0   F3=-
495.430693610145   M1=0   M2=1827.7674838995   M3=0   FrameElem=1
   Frame=1   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082221   F2=0
F3=808.849390022054   M1=0   M2=-598.405920582395   M3=0   FrameElem=1
```

```
   Frame=1   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082221   F2=0   F3=-
797.474390022054   M1=0   M2=773.797288345937   M3=0   FrameElem=1
   Frame=1   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594061   F2=0
F3=506.805693610145   M1=0   M2=-1548.14444061787   M3=0   FrameElem=1
   Frame=2   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0   F3=-
636.676265350088   M1=0   M2=1403.74850673049   M3=0   FrameElem=2
   Frame=2   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116749   F2=0
F3=700.608935305242   M1=0   M2=-897.526294595972   M3=0   FrameElem=2
   Frame=2   Joint=2   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116749   F2=0   F3=-
689.233935305242   M1=0   M2=1122.3536124685   M3=0   FrameElem=2
   Frame=2   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=648.051265350088   M1=0   M2=-1160.52600437366   M3=0   FrameElem=2
   Frame=2   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594062   F2=0   F3=-
455.611773912123   M1=0   M2=1548.14444061786   M3=0   FrameElem=2
   Frame=2   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082222   F2=0
F3=756.311304238282   M1=0   M2=-436.95117471315   M3=0   FrameElem=2
   Frame=2   Joint=2   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082222   F2=0   F3=-
744.936304238282   M1=0   M2=598.40592058239   M3=0   FrameElem=2
   Frame=2   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594062   F2=0
F3=466.986773912123   M1=0   M2=-1285.42610913447   M3=0   FrameElem=2
   Frame=3   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-158.633480366714   F2=0
F3=917.945825611841   M1=0   M2=-1363.52833666875   M3=0   FrameElem=61
   Frame=3   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=317.203119170981   F2=0   F3=-
840.004425715707   M1=0   M2=1560.01733192964   M3=0   FrameElem=61
   Frame=3   Joint=1   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-346.21132261951   F2=0
F3=851.379425715707   M1=0   M2=-1662.95572240105   M3=0   FrameElem=61
   Frame=3   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=145.493844287355   F2=0   F3=-
906.570825611841   M1=0   M2=1313.77151817263   M3=0   FrameElem=61
   Frame=3   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-70.5436558918519   F2=0
F3=1012.05441190763   M1=0   M2=-773.797288345952   M3=0   FrameElem=61
   Frame=3   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=341.958982759643   F2=0   F3=-
632.395889454533   M1=0   M2=1717.82188883884   M3=0   FrameElem=61
   Frame=3   Joint=1   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-372.026036145059   F2=0
F3=643.770889454533   M1=0   M2=-1827.76748389952   M3=0   FrameElem=61
   Frame=3   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=61.0986198675463   F2=0   F3=-
1000.67941190763   M1=0   M2=752.414719708733   M3=0   FrameElem=61
   Frame=4   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-145.493844287356   F2=0
F3=906.570825611902   M1=0   M2=-1313.77151817263   M3=0   FrameElem=62
   Frame=4   Joint=28   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=289.095808951619   F2=0   F3=-
828.629425715833   M1=0   M2=1466.18445242665   M3=0   FrameElem=62
   Frame=4   Joint=27   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-317.203119170981   F2=0
F3=840.004425715833   M1=0   M2=-1560.01733192965   M3=0   FrameElem=62
   Frame=4   Joint=28   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=132.697636159385   F2=0   F3=-
895.195825611902   M1=0   M2=1241.66977067842   M3=0   FrameElem=62
   Frame=4   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-61.0986198675479   F2=0
F3=1000.67941190769   M1=0   M2=-752.414719708734   M3=0   FrameElem=62
   Frame=4   Joint=28   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=312.792822603393   F2=0   F3=-
621.020889454647   M1=0   M2=1617.28199097869   M3=0   FrameElem=62
   Frame=4   Joint=27   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-341.958982759643   F2=0
F3=632.395889454647   M1=0   M2=-1717.82188883884   M3=0   FrameElem=62
   Frame=4   Joint=28   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=51.9970117946313   F2=0   F3=-
989.304411907692   M1=0   M2=707.310717052912   M3=0   FrameElem=62
   Frame=6   Joint=32   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=123.260890003047   F2=0
F3=685.19582561342   M1=0   M2=-916.771709078711   M3=0   FrameElem=63
   Frame=6   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-29.0343535382063   F2=0
F3=-609.004425717224   M1=0   M2=1137.57004351623   M3=0   FrameElem=63
   Frame=6   Joint=32   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=23.3822240577202   F2=0
F3=618.629425717224   M1=0   M2=-1124.40311606885   M3=0   FrameElem=63
   Frame=6   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-132.2672174002   F2=0   F3=-
675.57082561342   M1=0   M2=936.715907372309   M3=0   FrameElem=63
   Frame=6   Joint=32   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=182.02178354671   F2=0
F3=779.304411909456   M1=0   M2=-686.086519494356   M3=0   FrameElem=63
   Frame=6   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-12.8255964826207   F2=0   F3=-
401.395889455812   M1=0   M2=1408.03783420589   M3=0   FrameElem=63
   Frame=6   Joint=32   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=7.6214421089402   F2=0
F3=411.020889455812   M1=0   M2=-1378.27566022645   M3=0   FrameElem=63
   Frame=6   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-191.92406089046   F2=0   F3=-
769.679411909456   M1=0   M2=710.101861919254   M3=0   FrameElem=63
   Frame=7   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=132.267217400204   F2=0
F3=675.570825613102   M1=0   M2=-936.715907372312   M3=0   FrameElem=64
   Frame=7   Joint=14   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-34.4405967339648   F2=0
F3=-599.379425716888   M1=0   M2=1172.24283635942   M3=0   FrameElem=64
   Frame=7   Joint=33   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=29.0343535382009   F2=0
F3=609.004425716888   M1=0   M2=-1137.57004351623   M3=0   FrameElem=64
   Frame=7   Joint=14   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-140.62852656819   F2=0   F3=-
665.945825613102   M1=0   M2=959.048155693623   M3=0   FrameElem=64
   Frame=7   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=191.924060890453   F2=0
F3=769.67941190911   M1=0   M2=-710.101861919254   M3=0   FrameElem=64
   Frame=7   Joint=14   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-17.783864571578   F2=0   F3=-
391.770889455569   M1=0   M2=1459.52079981832   M3=0   FrameElem=64
   Frame=7   Joint=33   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=12.8255964826197   F2=0
F3=401.395889455569   M1=0   M2=-1408.03783420588   M3=0   FrameElem=64
```

Frame=7 Joint=14 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-201.181320005036 F2=0 F3=-760.05441190911 M1=0 M2=735.519709357177 M3=0 FrameElem=64
Frame=8 Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=123.42477647335 F2=0 F3=990.647893739254 M1=0 M2=948.611431319743 M3=0 FrameElem=65
Frame=8 Joint=34 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=45.1664588359791 F2=0 F3=-865.864498310995 M1=0 M2=-646.930392410951 M3=0 FrameElem=65
Frame=8 Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-35.7214228116735 F2=0 F3=877.239498310995 M1=0 M2=643.863805130469 M3=0 FrameElem=65
Frame=8 Joint=34 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-98.6519730879335 F2=0 F3=-979.272893739254 M1=0 M2=-915.166011802457 M3=0 FrameElem=65
Frame=8 Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Max F1=215.854077594058 F2=0 F3=1072.4200834461 M1=0 M2=1207.50044839941 M3=0 FrameElem=65
Frame=8 Joint=34 OutputCase=ENVETA CaseType=Combination StepType=Max F1=71.7327265325258 F2=0 F3=-642.289999997856 M1=0 M2=-577.319429896459 M3=0 FrameElem=65
Frame=8 Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-62.2876905082202 F2=0 F3=653.664999997856 M1=0 M2=577.114033857855 M3=0 FrameElem=65
Frame=8 Joint=34 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-191.081274208641 F2=0 F3=-1061.0450834461 M1=0 M2=-1161.90485005084 M3=0 FrameElem=65
Frame=9 Joint=34 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=98.6519730879342 F2=0 F3=979.272893739651 M1=0 M2=915.166011802453 M3=0 FrameElem=66
Frame=9 Joint=35 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=54.2680669088968 F2=0 F3=-854.489498311432 M1=0 M2=-654.74024269056 M3=0 FrameElem=66
Frame=9 Joint=34 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-45.1664588359801 F2=0 F3=865.864498311432 M1=0 M2=646.930392410948 M3=0 FrameElem=66
Frame=9 Joint=35 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-74.7800629316842 F2=0 F3=-967.897893739651 M1=0 M2=-889.625358235688 M3=0 FrameElem=66
Frame=9 Joint=34 OutputCase=ENVETA CaseType=Combination StepType=Max F1=191.081274208642 F2=0 F3=1061.04508344651 M1=0 M2=1161.90485005084 M3=0 FrameElem=66
Frame=9 Joint=35 OutputCase=ENVETA CaseType=Combination StepType=Max F1=80.8343346054435 F2=0 F3=-630.914999998176 M1=0 M2=-582.26808893419 M3=0 FrameElem=66
Frame=9 Joint=34 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-71.7327265325269 F2=0 F3=642.289999998176 M1=0 M2=577.319429896456 M3=0 FrameElem=66
Frame=9 Joint=35 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-167.209364052392 F2=0 F3=-1049.67008344651 M1=0 M2=-1150.94928133719 M3=0 FrameElem=66
Frame=11 Joint=11 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473348 F2=0 F3=687.338534104716 M1=0 M2=448.5367441179 M3=0 FrameElem=3
Frame=11 Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116757 F2=0 F3=-596.554936539009 M1=0 M2=-411.460105580595 M3=0 FrameElem=3
Frame=11 Joint=11 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116757 F2=0 F3=607.929936539009 M1=0 M2=197.811375310328 M3=0 FrameElem=3
Frame=11 Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473348 F2=0 F3=-675.963534104716 M1=0 M2=-687.114606054554 M3=0 FrameElem=3
Frame=11 Joint=11 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594057 F2=0 F3=743.241709855588 M1=0 M2=668.387958341968 M3=0 FrameElem=3
Frame=11 Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082227 F2=0 F3=-453.768647355732 M1=0 M2=-353.628180619674 M3=0 FrameElem=3
Frame=11 Joint=11 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082227 F2=0 F3=465.143647355732 M1=0 M2=146.853482054248 M3=0 FrameElem=3
Frame=11 Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594057 F2=0 F3=-731.866709855588 M1=0 M2=-926.531931791429 M3=0 FrameElem=3
Frame=12 Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473352 F2=0 F3=752.821286472065 M1=0 M2=687.114606054529 M3=0 FrameElem=4
Frame=12 Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116741 F2=0 F3=-657.440771091263 M1=0 M2=-643.863805130474 M3=0 FrameElem=4
Frame=12 Joint=12 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116741 F2=0 F3=668.815771091263 M1=0 M2=411.460105580566 M3=0 FrameElem=4
Frame=12 Joint=13 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473352 F2=0 F3=-741.446286472065 M1=0 M2=-948.611431319751 M3=0 FrameElem=4
Frame=12 Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594061 F2=0 F3=812.832023204161 M1=0 M2=926.531931791407 M3=0 FrameElem=4
Frame=12 Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082211 F2=0 F3=-495.430693609586 M1=0 M2=-577.114033857859 M3=0 FrameElem=4
Frame=12 Joint=12 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082211 F2=0 F3=506.805693609586 M1=0 M2=353.628180619645 M3=0 FrameElem=4
Frame=12 Joint=13 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594061 F2=0 F3=-801.457023204161 M1=0 M2=-1207.50044839942 M3=0 FrameElem=4
Frame=13 Joint=14 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=155.416526675032 F2=0 F3=640.297825231156 M1=0 M2=-959.048155693629 M3=0 FrameElem=5
Frame=13 Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-46.7669968743185 F2=0 F3=-557.732825380751 M1=0 M2=953.720922561965 M3=0 FrameElem=5
Frame=13 Joint=14 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=44.5185968408148 F2=0 F3=584.331425492861 M1=0 M2=-1172.24283635943 M3=0 FrameElem=5
Frame=13 Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-157.664926708536 F2=0 F3=-608.398825040063 M1=0 M2=749.050837492306 M3=0 FrameElem=5
Frame=13 Joint=14 OutputCase=ENVETA CaseType=Combination StepType=Max F1=217.761320005061 F2=0 F3=727.994411909375 M1=0 M2=-735.519709357184 M3=0 FrameElem=5
Frame=13 Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-28.3904744811561 F2=0 F3=-372.69588945575 M1=0 M2=1210.86613065005 M3=0 FrameElem=5
Frame=13 Joint=14 OutputCase=ENVETA CaseType=Combination StepType=Min F1=26.1420744476523 F2=0 F3=391.77088945575 M1=0 M2=-1459.52079981833 M3=0 FrameElem=5
Frame=13 Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-217.761320005061 F2=0 F3=-692.889411909375 M1=0 M2=601.738023047672 M3=0 FrameElem=5

Frame=14 Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=157.664926708546 F2=0 F3=608.398825040063 M1=0 M2=-749.050837492322 M3=0 FrameElem=6
Frame=14 Joint=16 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-49.0153969078422 F2=0 F3=-531.134225268635 M1=0 M2=746.363658831389 M3=0 FrameElem=6
Frame=14 Joint=15 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=46.7669968743384 F2=0 F3=557.732825380746 M1=0 M2=-953.720922561983 M3=0 FrameElem=6
Frame=14 Joint=16 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-159.91332674205 F2=0 F3=-576.49982484897 M1=0 M2=550.872809367613 M3=0 FrameElem=6
Frame=14 Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Max F1=217.761320005054 F2=0 F3=692.889411909377 M1=0 M2=-601.738023047688 M3=0 FrameElem=6
Frame=14 Joint=16 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-30.6388745146827 F2=0 F3=-353.620889455746 M1=0 M2=974.498211481772 M3=0 FrameElem=6
Frame=14 Joint=15 OutputCase=ENVETA CaseType=Combination StepType=Min F1=28.3904744811789 F2=0 F3=372.695889455746 M1=0 M2=-1210.86613065007 M3=0 FrameElem=6
Frame=14 Joint=16 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-217.761320005054 F2=0 F3=-657.784411909377 M1=0 M2=473.493783935828 M3=0 FrameElem=6
Frame=15 Joint=39 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-132.407585682577 F2=0 F3=757.897893741674 M1=0 M2=1584.68805350945 M3=0 FrameElem=67
Frame=15 Joint=40 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=237.708778971707 F2=0 F3=-634.864498313216 M1=0 M2=-1386.42097296376 M3=0 FrameElem=67
Frame=15 Joint=39 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-232.286251627957 F2=0 F3=644.489498313216 M1=0 M2=1330.47520134083 M3=0 FrameElem=67
Frame=15 Joint=40 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=134.475915109661 F2=0 F3=-748.272893741674 M1=0 M2=-1641.9417837552 M3=0 FrameElem=67
Frame=15 Joint=39 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-39.9782845618713 F2=0 F3=839.670083448716 M1=0 M2=1766.50993511255 M3=0 FrameElem=67
Frame=15 Joint=40 OutputCase=ENVETA CaseType=Combination StepType=Max F1=264.275046668252 F2=0 F3=-411.28999999943 M1=0 M2=-782.649767149318 M3=0 FrameElem=67
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Frame=15 Joint=40 OutputCase=ENVETA CaseType=Combination StepType=Min F1=42.0466139889546 F2=0 F3=-830.045083448716 M1=0 M2=-1830.67191360415 M3=0 FrameElem=67
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Frame=16 Joint=40 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-237.708778971698 F2=0 F3=634.864498313373 M1=0 M2=1386.42097296376 M3=0 FrameElem=68
Frame=16 Joint=26 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=136.298358252013 F2=0 F3=-738.647893741935 M1=0 M2=-1700.03702856259 M3=0 FrameElem=68
Frame=16 Joint=40 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-42.046613988957 F2=0 F3=830.045083449005 M1=0 M2=1830.67191360415 M3=0 FrameElem=68
Frame=16 Joint=26 OutputCase=ENVETA CaseType=Combination StepType=Max F1=269.052555782824 F2=0 F3=-401.664999999576 M1=0 M2=-794.468806822382 M3=0 FrameElem=68
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Frame=17 Joint=5 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=247.612933854523 F2=0 F3=-811.129425715983 M1=0 M2=1338.93183086043 M3=0 FrameElem=69
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Frame=17 Joint=5 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=113.10142078411 F2=0 F3=-877.695825612134 M1=0 M2=1135.22815435773 M3=0 FrameElem=69
Frame=17 Joint=28 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-51.997011794629 F2=0 F3=989.304411907956 M1=0 M2=-707.310717052909 M3=0 FrameElem=69
Frame=17 Joint=5 OutputCase=ENVETA CaseType=Combination StepType=Max F1=269.680947603393 F2=0 F3=-603.520889454804 M1=0 M2=1480.29704209728 M3=0 FrameElem=69
Frame=17 Joint=28 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-312.792822603393 F2=0 F3=621.020889454804 M1=0 M2=-1617.28199097869 M3=0 FrameElem=69
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Frame=18 Joint=5 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-113.101420784108 F2=0 F3=877.695825612057 M1=0 M2=-1135.22815435773 M3=0 FrameElem=70
Frame=18 Joint=6 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=208.262350424093 F2=0 F3=-793.62942571593 M1=0 M2=1231.47157391989 M3=0 FrameElem=70
Frame=18 Joint=5 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-247.612933854522 F2=0 F3=811.12942571593 M1=0 M2=-1338.93183086043 M3=0 FrameElem=70
Frame=18 Joint=6 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=94.0663929092345 F2=0 F3=-860.195825612057 M1=0 M2=1048.99490266893 M3=0 FrameElem=70
Frame=18 Joint=5 OutputCase=ENVETA CaseType=Combination StepType=Max F1=-38.6651367946337 F2=0 F3=971.804411907874 M1=0 M2=-639.71624275124 M3=0 FrameElem=70
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Frame=18 Joint=5 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-269.680947603392 F2=0 F3=603.520889454744 M1=0 M2=-1480.29704209728 M3=0 FrameElem=70
Frame=18 Joint=6 OutputCase=ENVETA CaseType=Combination StepType=Min F1=26.146109016856 F2=0 F3=-954.304411907874 M1=0 M2=589.072133032903 M3=0 FrameElem=70
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   Frame=19   Joint=6   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-208.262350424094   F2=0
F3=793.62942571613   M1=0   M2=-1231.47157391989   M3=0   FrameElem=71
   Frame=19   Joint=8   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=75.8442122565852   F2=0   F3=-
842.695825612238   M1=0   M2=981.903869778677   M3=0   FrameElem=71
   Frame=19   Joint=6   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-26.1461090168539   F2=0
F3=954.304411908094   M1=0   M2=-589.072133032904   M3=0   FrameElem=71
   Frame=19   Joint=8   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=189.854072603393   F2=0   F3=-
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   Frame=19   Joint=6   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-228.70136427006   F2=0
F3=586.020889454892   M1=0   M2=-1400.53181186297   M3=0   FrameElem=71
   Frame=19   Joint=8   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=14.4399284612984   F2=0   F3=-
936.804411908094   M1=0   M2=554.312242064568   M3=0   FrameElem=71
   Frame=20   Joint=8   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-75.8442122565842   F2=0
F3=842.695825612327   M1=0   M2=-981.903869778678   M3=0   FrameElem=72
   Frame=20   Joint=9   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=135.958058563233   F2=0   F3=-
758.629425716193   M1=0   M2=1146.39491725532   M3=0   FrameElem=72
   Frame=20   Joint=8   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-171.044058660328   F2=0
F3=776.129425716193   M1=0   M2=-1181.26099155253   M3=0   FrameElem=72
   Frame=20   Joint=9   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=58.434878826155   F2=0   F3=-
825.195825612327   M1=0   M2=932.888909853639   M3=0   FrameElem=72
   Frame=20   Joint=8   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-14.4399284613013   F2=0
F3=936.804411908199   M1=0   M2=-554.312242064568   M3=0   FrameElem=72
   Frame=20   Joint=9   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=153.13907260339   F2=0   F3=-
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F3=568.520889454967   M1=0   M2=-1341.68288816289   M3=0   FrameElem=72
   Frame=20   Joint=9   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=3.546595127968   F2=0   F3=-
919.304411908199   M1=0   M2=534.370424012899   M3=0   FrameElem=72
   Frame=21   Joint=9   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-58.4348788261602   F2=0
F3=825.195825612511   M1=0   M2=-932.888909853639   M3=0   FrameElem=73
   Frame=21   Joint=10   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=103.004350132805   F2=0
F3=-741.129425716341   M1=0   M2=1119.61429786156   M3=0   FrameElem=73
   Frame=21   Joint=9   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-135.958058563235   F2=0
F3=758.629425716341   M1=0   M2=-1146.39491725531   M3=0   FrameElem=73
   Frame=21   Joint=10   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=41.8383926179531   F2=0
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   Frame=21   Joint=9   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-3.5465951279679   F2=0
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   Frame=21   Joint=10   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=118.556364270059   F2=0   F3=-
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   Frame=21   Joint=10   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-10.5088079856469   F2=0
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   Frame=22   Joint=10   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-41.8383926179475   F2=0
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   Frame=22   Joint=17   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=72.1829333690402   F2=0
F3=-723.629425716599   M1=0   M2=1100.51270976016   M3=0   FrameElem=74
   Frame=22   Joint=10   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-103.004350132803   F2=0
F3=741.129425716599   M1=0   M2=-1119.61429786156   M3=0   FrameElem=74
   Frame=22   Joint=17   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=16.8894855795575   F2=0
F3=-790.195825612785   M1=0   M2=873.793795297023   M3=0   FrameElem=74
   Frame=22   Joint=10   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=10.5088079856497   F2=0
F3=901.804411908721   M1=0   M2=-528.180533044562   M3=0   FrameElem=74
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   Frame=22   Joint=10   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-118.556364270055   F2=0
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   Frame=23   Joint=24   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=134.711558185017   F2=0
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   Frame=23   Joint=25   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-247.857888052785   F2=0
F3=583.592897977346   M1=0   M2=1214.74580113334   M3=0   FrameElem=7
   Frame=23   Joint=24   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=271.051555782834   F2=0   F3=-
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   Frame=23   Joint=25   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313191   F2=0
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   Frame=24   Joint=25   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=247.857888052808   F2=0
F3=-583.592897977285   M1=0   M2=-1214.74580113334   M3=0   FrameElem=8
   Frame=24   Joint=26   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-139.208358252021   F2=0
F3=712.999893360011   M1=0   M2=1700.03702856258   M3=0   FrameElem=8
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Frame=25 Joint=17 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-16.889485579557 F2=0 F3=790.195825612861 M1=0 M2=-873.793795297023 M3=0 FrameElem=75
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Frame=25 Joint=18 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-11.7996395175389 F2=0 F3=-772.695825612861 M1=0 M2=865.692290476237 M3=0 FrameElem=75
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Frame=25 Joint=17 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-86.1059476033803 F2=0 F3=516.020889455349 M1=0 M2=-1218.72469345155 M3=0 FrameElem=75
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Frame=26 Joint=18 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=11.7996395175415 F2=0 F3=772.69582561295 M1=0 M2=-865.692290476235 M3=0 FrameElem=76
Frame=26 Joint=19 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=25.1210818862527 F2=0 F3=-688.629425716736 M1=0 M2=1083.72093298995 M3=0 FrameElem=76
Frame=26 Joint=18 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-43.493808271932 F2=0 F3=706.129425716736 M1=0 M2=-1088.68372933999 M3=0 FrameElem=76
Frame=26 Joint=19 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-38.3564729479709 F2=0 F3=-755.19582561295 M1=0 M2=859.563507906668 M3=0 FrameElem=76
Frame=26 Joint=18 OutputCase=ENVETA CaseType=Combination StepType=Max F1=64.1468401211207 F2=0 F3=866.804411908924 M1=0 M2=-552.79194902455 M3=0 FrameElem=76
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Frame=27 Joint=19 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=38.356472947956 F2=0 F3=755.195825613051 M1=0 M2=-859.563507906666 M3=0 FrameElem=77
Frame=27 Joint=21 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=11.7759845669506 F2=0 F3=-671.129425716849 M1=0 M2=1085.21789709893 M3=0 FrameElem=77
Frame=27 Joint=19 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-25.1210818862688 F2=0 F3=688.629425716849 M1=0 M2=-1083.72093298995 M3=0 FrameElem=77
Frame=27 Joint=21 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-62.7810147117187 F2=0 F3=-737.695825613051 M1=0 M2=857.781624101852 M3=0 FrameElem=77
Frame=27 Joint=19 OutputCase=ENVETA CaseType=Combination StepType=Max F1=90.7036735515499 F2=0 F3=849.304411909041 M1=0 M2=-569.622196925539 M3=0 FrameElem=77
Frame=27 Joint=21 OutputCase=ENVETA CaseType=Combination StepType=Max F1=25.0932659331597 F2=0 F3=-463.520889455547 M1=0 M2=1252.35432699247 M3=0 FrameElem=77
Frame=27 Joint=19 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-37.6238630582859 F2=0 F3=481.020889455547 M1=0 M2=-1223.85794739967 M3=0 FrameElem=77
Frame=27 Joint=21 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-116.654908546693 F2=0 F3=-831.804411909041 M1=0 M2=587.541343542744 M3=0 FrameElem=77
Frame=28 Joint=21 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=62.7810147117303 F2=0 F3=737.695825613438 M1=0 M2=-857.781624101853 M3=0 FrameElem=78
Frame=28 Joint=22 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-0.756265530157856 F2=0 F3=-653.629425717175 M1=0 M2=1092.76819805581 M3=0 FrameElem=78
Frame=28 Joint=21 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-11.7759845669381 F2=0 F3=671.129425717175 M1=0 M2=-1085.21789709893 M3=0 FrameElem=78
Frame=28 Joint=22 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-85.0732648088263 F2=0 F3=-720.195825613438 M1=0 M2=867.187315573367 M3=0 FrameElem=78
Frame=28 Joint=21 OutputCase=ENVETA CaseType=Combination StepType=Max F1=116.6549085467 F2=0 F3=831.80441190947 M1=0 M2=-587.541343542743 M3=0 FrameElem=78
Frame=28 Joint=22 OutputCase=ENVETA CaseType=Combination StepType=Max F1=13.3755160302423 F2=0 F3=-446.020889455849 M1=0 M2=1288.10616607972 M3=0 FrameElem=78
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Frame=28 Joint=22 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-140.5761585467 F2=0 F3=-814.30441190947 M1=0 M2=613.390065387724 M3=0 FrameElem=78
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Frame=29 Joint=23 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-12.4756684050366 F2=0 F3=-636.129425717284 M1=0 M2=1105.96541224949 M3=0 FrameElem=79
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Frame=29 Joint=23 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-105.233223239265 F2=0 F3=-702.695825613533 M1=0 M2=887.206059176763 M3=0 FrameElem=79
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Frame=29 Joint=23 OutputCase=ENVETA CaseType=Combination StepType=Max F1=2.47061334955279 F2=0 F3=-428.5208894559 M1=0 M2=1330.21541836141 M3=0 FrameElem=79
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Frame=33 Joint=31 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=104.090298953768 F2=0 F3=-801.989498311634 M1=0 M2=-716.733535027493 M3=0 FrameElem=83
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Frame=33 Joint=31 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=23.7236870683114 F2=0 F3=-915.397893739894 M1=0 M2=-960.244026760167 M3=0 FrameElem=83
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Frame=34 Joint=31 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=-23.7236870683141 F2=0 F3=915.39789374008 M1=0 M2=960.244026760167 M3=0 FrameElem=84
Frame=34 Joint=36 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=121.233632287106 F2=0 F3=-784.489498311801 M1=0 M2=-743.006367536163 M3=0 FrameElem=84
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Frame=34 Joint=36 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=52.2936870683141 F2=0 F3=-897.89789374008 M1=0 M2=-1006.02307366483 M3=0 FrameElem=84

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F3=997.170083446987   M1=0   M2=1175.14477785614   M3=0   FrameElem=84
   Frame=34   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=147.799899983652   F2=0   F3=-
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F3=578.414999998411   M1=0   M2=554.312242064423   M3=0   FrameElem=84
   Frame=34   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-40.1356140523921   F2=0
F3=-979.670083446987   M1=0   M2=-1195.05159845506   M3=0   FrameElem=84
   Frame=35   Joint=36   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-52.2936870683201   F2=0
F3=897.89789374036   M1=0   M2=1006.02307366483   M3=0   FrameElem=85
   Frame=35   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=137.097451731557   F2=0
F3=-766.989498311994   M1=0   M2=-783.031127128167   M3=0   FrameElem=85
   Frame=35   Joint=36   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-121.233632287112   F2=0
F3=784.489498311994   M1=0   M2=743.006367536164   M3=0   FrameElem=85
   Frame=35   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=78.7313954016534   F2=0
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   Frame=35   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=40.1356140523878   F2=0
F3=979.670083447296   M1=0   M2=1195.05159845506   M3=0   FrameElem=85
   Frame=35   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=163.663719428104   F2=0   F3=-
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   Frame=35   Joint=36   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-147.799899983659   F2=0
F3=560.914999998569   M1=0   M2=534.370424012741   M3=0   FrameElem=85
   Frame=35   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-13.6979057190544   F2=0
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   Frame=36   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-78.731395401641   F2=0
F3=880.397893740751   M1=0   M2=1057.0455754306   M3=0   FrameElem=86
   Frame=36   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=151.681757287098   F2=0
F3=-749.489498312398   M1=0   M2=-835.741667970169   M3=0   FrameElem=86
   Frame=36   Joint=37   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-137.097451731542   F2=0
F3=766.989498312398   M1=0   M2=783.031127128168   M3=0   FrameElem=86
   Frame=36   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=93.8715440159049   F2=0
F3=-862.897893740751   M1=0   M2=-1112.90510844637   M3=0   FrameElem=86
   Frame=36   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=13.6979057190603   F2=0
F3=962.17008344771   M1=0   M2=1220.20187391508   M3=0   FrameElem=86
   Frame=36   Joint=38   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=178.248024983643   F2=0   F3=-
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   Frame=36   Joint=37   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-163.663719428087   F2=0
F3=543.414999998863   M1=0   M2=528.180533044391   M3=0   FrameElem=86
   Frame=36   Joint=38   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=1.44224289520356   F2=0   F3=-
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   Frame=37   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-93.8715440158996   F2=0
F3=862.897893740778   M1=0   M2=1112.90510844637   M3=0   FrameElem=87
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F3=-731.989498312398   M1=0   M2=-900.071844228828   M3=0   FrameElem=87
   Frame=37   Joint=38   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-151.681757287084   F2=0
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   Frame=37   Joint=41   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=9.89703456186571   F2=0   F3=-
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   Frame=38   Joint=42   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=177.011826731549   F2=0
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   Frame=38   Joint=42   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=109.968280127028   F2=0
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   Frame=39   Joint=43   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=191.354376627977   F2=0
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   Frame=39   Joint=42   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-177.011826731571   F2=0
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   Frame=39   Joint=43   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=116.797377349255   F2=0
F3=-810.397893741188   M1=0   M2=-1305.44165888258   M3=0   FrameElem=89
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```

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   Frame=40   Joint=43   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.920644324519   F2=0
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   Frame=41   Joint=44   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-122.813627349248   F2=0
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   Frame=41   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=220.774584961304   F2=0
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   Frame=41   Joint=44   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-207.130626627971   F2=0
F3=679.489498313135   M1=0   M2=1138.25106288362   M3=0   FrameElem=91
   Frame=41   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=128.017030127026   F2=0
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   Frame=41   Joint=44   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-30.3843262285379   F2=0
F3=874.670083448683   M1=0   M2=1541.97316835167   M3=0   FrameElem=91
   Frame=41   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=247.340852657852   F2=0   F3=-
438.414999999372   M1=0   M2=-699.08018154133   M3=0   FrameElem=91
   Frame=41   Joint=44   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-233.696894324518   F2=0
F3=455.914999999372   M1=0   M2=652.327215998081   M3=0   FrameElem=91
   Frame=41   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=35.5877290063157   F2=0   F3=-
857.170083448683   M1=0   M2=-1652.35480694044   M3=0   FrameElem=91
   Frame=42   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-128.017030127036   F2=0
F3=775.397893741787   M1=0   M2=1483.09337669345   M3=0   FrameElem=92
   Frame=42   Joint=39   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=232.286251627973   F2=0
F3=-644.489498313269   M1=0   M2=-1330.47520134083   M3=0   FrameElem=92
   Frame=42   Joint=93   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-220.774584961306   F2=0
F3=661.989498313269   M1=0   M2=1231.21867898722   M3=0   FrameElem=92
   Frame=42   Joint=39   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=132.407585682591   F2=0
F3=-757.897893741787   M1=0   M2=-1584.68805350944   M3=0   FrameElem=92
   Frame=42   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-35.5877290063198   F2=0
F3=857.170083448842   M1=0   M2=1652.35480694044   M3=0   FrameElem=92
   Frame=42   Joint=39   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=258.852519324522   F2=0   F3=-
420.914999999488   M1=0   M2=-752.122053334578   M3=0   FrameElem=92
   Frame=42   Joint=93   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-247.340852657855   F2=0
F3=438.414999999488   M1=0   M2=699.080181541328   M3=0   FrameElem=92
   Frame=42   Joint=39   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=39.9782845618754   F2=0   F3=-
839.670083448842   M1=0   M2=-1766.50993511254   M3=0   FrameElem=92
   Frame=46   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0   F3=-
578.461575876521   M1=0   M2=1160.52600437366   M3=0   FrameElem=9
   Frame=46   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116749   F2=0
F3=648.370508408426   M1=0   M2=-596.453230280866   M3=0   FrameElem=9
   Frame=46   Joint=3   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116749   F2=0
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   Frame=46   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=595.136575876521   M1=0   M2=-832.1398377518   M3=0   FrameElem=9
   Frame=46   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594062   F2=0   F3=-
406.139576089691   M1=0   M2=1285.42610913447   M3=0   FrameElem=9
   Frame=46   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082222   F2=0
F3=700.819861988627   M1=0   M2=-224.292551827131   M3=0   FrameElem=9
   Frame=46   Joint=3   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082222   F2=0   F3=-
684.144861988627   M1=0   M2=436.95117471315   M3=0   FrameElem=9
   Frame=46   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594062   F2=0
F3=422.814576089691   M1=0   M2=-930.129389560302   M3=0   FrameElem=9
   Frame=47   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0
F3=-516.124312077417   M1=0   M2=832.139837751801   M3=0   FrameElem=10
   Frame=47   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.801422811675   F2=0
F3=585.940947964716   M1=0   M2=-323.092250310357   M3=0   FrameElem=10
   Frame=47   Joint=45   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.801422811675   F2=0
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   Frame=47   Joint=46   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=532.799312077417   M1=0   M2=-535.784837911452   M3=0   FrameElem=10
   Frame=47   Joint=45   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594062   F2=0   F3=-
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   Frame=47   Joint=46   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082222   F2=0
F3=634.556582405089   M1=0   M2=-38.1729532708825   M3=0   FrameElem=10
```

Frame=47 Joint=45 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082222 F2=0 F3=-617.881582405089 M1=0 M2=224.292551827132 M3=0 FrameElem=10
Frame=47 Joint=46 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594062 F2=0 F3=371.089341264068 M1=0 M2=-608.830829587855 M3=0 FrameElem=10
Frame=48 Joint=46 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473351 F2=0 F3=-457.674485895891 M1=0 M2=535.784837911458 M3=0 FrameElem=11
Frame=48 Joint=47 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.801422811675 F2=0 F3=526.658525077838 M1=0 M2=-76.6949692907675 M3=0 FrameElem=11
Frame=48 Joint=46 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.801422811675 F2=0 F3=-509.983525077838 M1=0 M2=323.092250310367 M3=0 FrameElem=11
Frame=48 Joint=47 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473351 F2=0 F3=474.349485895891 M1=0 M2=-281.4152935361 M3=0 FrameElem=11
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Frame=48 Joint=47 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082222 F2=0 F3=571.527339537897 M1=0 M2=123.404399262304 M3=0 FrameElem=11
Frame=48 Joint=46 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082222 F2=0 F3=-554.852339537897 M1=0 M2=38.1729532708896 M3=0 FrameElem=11
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Frame=49 Joint=48 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.801422811675 F2=0 F3=470.848004029626 M1=0 M2=147.007160957572 M3=0 FrameElem=12
Frame=49 Joint=47 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.801422811675 F2=0 F3=-454.173004029626 M1=0 M2=76.6949692907698 M3=0 FrameElem=12
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Frame=49 Joint=47 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594062 F2=0 F3=-262.643593251533 M1=0 M2=334.332384816153 M3=0 FrameElem=12
Frame=49 Joint=48 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082222 F2=0 F3=512.103015994895 M1=0 M2=327.135503675909 M3=0 FrameElem=12
Frame=49 Joint=47 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082222 F2=0 F3=-495.428015994895 M1=0 M2=-123.404399262301 M3=0 FrameElem=12
Frame=49 Joint=48 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594062 F2=0 F3=279.318593251533 M1=0 M2=-96.7368819589133 M3=0 FrameElem=12
Frame=50 Joint=48 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473352 F2=0 F3=-353.037962961939 M1=0 M2=56.611772945244 M3=0 FrameElem=13
Frame=50 Joint=49 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.801422811675 F2=0 F3=418.661777064683 M1=0 M2=343.034284923828 M3=0 FrameElem=13
Frame=50 Joint=48 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.801422811675 F2=0 F3=-401.986777064683 M1=0 M2=-147.007160957583 M3=0 FrameElem=13
Frame=50 Joint=49 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473352 F2=0 F3=369.712962961939 M1=0 M2=143.302431240639 M3=0 FrameElem=13
Frame=50 Joint=48 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594062 F2=0 F3=-222.502948920527 M1=0 M2=96.7368819589071 M3=0 FrameElem=13
Frame=50 Joint=49 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082223 F2=0 F3=456.467127218775 M1=0 M2=519.167075930434 M3=0 FrameElem=13
Frame=50 Joint=48 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082223 F2=0 F3=-439.792127218775 M1=0 M2=-327.13550367592 M3=0 FrameElem=13
Frame=50 Joint=49 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594062 F2=0 F3=239.177948920527 M1=0 M2=99.8922291621525 M3=0 FrameElem=13
Frame=51 Joint=49 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473351 F2=0 F3=-306.783540424637 M1=0 M2=-143.302431240633 M3=0 FrameElem=14
Frame=51 Joint=50 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116749 F2=0 F3=370.098655914099 M1=0 M2=513.609994165715 M3=0 FrameElem=14
Frame=51 Joint=49 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116749 F2=0 F3=-353.423655914099 M1=0 M2=-343.034284923822 M3=0 FrameElem=14
Frame=51 Joint=50 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473351 F2=0 F3=323.458540424637 M1=0 M2=320.019356581786 M3=0 FrameElem=14
Frame=51 Joint=49 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594062 F2=0 F3=-185.970161674209 M1=0 M2=-99.8922291621464 M3=0 FrameElem=14
Frame=51 Joint=50 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082222 F2=0 F3=404.635839127141 M1=0 M2=687.628887443646 M3=0 FrameElem=14
Frame=51 Joint=49 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082222 F2=0 F3=-387.960839127141 M1=0 M2=-519.167075930427 M3=0 FrameElem=14
Frame=51 Joint=50 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594062 F2=0 F3=202.645161674209 M1=0 M2=270.635918792926 M3=0 FrameElem=14
Frame=52 Joint=50 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473352 F2=0 F3=-263.081820477707 M1=0 M2=-320.019356581786 M3=0 FrameElem=15
Frame=52 Joint=51 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.801422811675 F2=0 F3=325.021379866167 M1=0 M2=660.831845548716 M3=0 FrameElem=15
Frame=52 Joint=50 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.801422811675 F2=0 F3=-308.346379866167 M1=0 M2=-513.609994165716 M3=0 FrameElem=15
Frame=52 Joint=51 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473352 F2=0 F3=279.756820477707 M1=0 M2=475.173007044788 M3=0 FrameElem=15
Frame=52 Joint=50 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594063 F2=0 F3=-152.780586001035 M1=0 M2=-270.635918792926 M3=0 FrameElem=15
Frame=52 Joint=51 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082223 F2=0 F3=356.476641178939 M1=0 M2=829.68692127816 M3=0 FrameElem=15
Frame=52 Joint=50 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082223 F2=0 F3=-339.801641178939 M1=0 M2=-687.628887443647 M3=0 FrameElem=15

```
   Frame=52   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594063   F2=0
F3=169.455586001035   M1=0   M2=414.434246684533   M3=0   FrameElem=15
   Frame=53   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0
F3=-221.478272026419   M1=0   M2=-475.17300704479   M3=0   FrameElem=16
   Frame=53   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.801422811675   F2=0
F3=283.172848477367   M1=0   M2=786.615054537298   M3=0   FrameElem=16
   Frame=53   Joint=51   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.801422811675   F2=0
F3=-266.497848477367   M1=0   M2=-660.831845548718   M3=0   FrameElem=16
   Frame=53   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=238.153272026419   M1=0   M2=610.280782184674   M3=0   FrameElem=16
   Frame=53   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594063   F2=0   F3=-
122.605854987177   M1=0   M2=-414.434246684535   M3=0   FrameElem=16
   Frame=53   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082224   F2=0
F3=311.725677650134   M1=0   M2=947.667302052374   M3=0   FrameElem=16
   Frame=53   Joint=51   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082224   F2=0
F3=-295.050677650134   M1=0   M2=-829.686921278161   M3=0   FrameElem=16
   Frame=53   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594063   F2=0
F3=139.280854987177   M1=0   M2=510.898429214554   M3=0   FrameElem=16
   Frame=54   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0
F3=-183.347619119509   M1=0   M2=-610.280782184688   M3=0   FrameElem=17
   Frame=54   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.801422811675   F2=0
F3=244.191132109111   M1=0   M2=892.643943623081   M3=0   FrameElem=17
   Frame=54   Joint=52   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.801422811675   F2=0
F3=-227.516132109111   M1=0   M2=-786.615054537309   M3=0   FrameElem=17
   Frame=54   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=200.022619119509   M1=0   M2=726.692089608908   M3=0   FrameElem=17
   Frame=54   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594063   F2=0   F3=-
95.0648711843396   M1=0   M2=-510.898429214565   M3=0   FrameElem=17
   Frame=54   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082224   F2=0
F3=270.003789193247   M1=0   M2=1043.60745039857   M3=0   FrameElem=17
   Frame=54   Joint=52   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082224   F2=0
F3=-253.328789193247   M1=0   M2=-947.667302052385   M3=0   FrameElem=17
   Frame=54   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594063   F2=0
F3=111.73987118434   M1=0   M2=578.933966433966   M3=0   FrameElem=17
   Frame=55   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473353   F2=0
F3=-148.185171387539   M1=0   M2=-726.692089608905   M3=0   FrameElem=18
   Frame=55   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.801422811675   F2=0
F3=207.623353143758   M1=0   M2=980.330481993368   M3=0   FrameElem=18
   Frame=55   Joint=53   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.801422811675   F2=0
F3=-190.948353143758   M1=0   M2=-892.643943623079   M3=0   FrameElem=18
   Frame=55   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473353   F2=0
F3=164.860171387539   M1=0   M2=825.543609048432   M3=0   FrameElem=18
   Frame=55   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0   F3=-
69.7337628165652   M1=0   M2=-578.933966433963   M3=0   FrameElem=18
   Frame=55   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082225   F2=0
F3=230.831360253731   M1=0   M2=1119.21739567347   M3=0   FrameElem=18
   Frame=55   Joint=53   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082225   F2=0
F3=-214.156360253731   M1=0   M2=-1043.60745039856   M3=0   FrameElem=18
   Frame=55   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=86.4087628165652   M1=0   M2=633.552963714081   M3=0   FrameElem=18
   Frame=56   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473354   F2=0
F3=-115.423232123474   M1=0   M2=-825.543609048426   M3=0   FrameElem=19
   Frame=56   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116751   F2=0
F3=172.938565409326   M1=0   M2=1050.77933312616   M3=0   FrameElem=19
   Frame=56   Joint=54   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116751   F2=0
F3=-156.263565409326   M1=0   M2=-980.330481993362   M3=0   FrameElem=19
   Frame=56   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473354   F2=0
F3=132.098232123474   M1=0   M2=907.720735647156   M3=0   FrameElem=19
   Frame=56   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0   F3=-
46.1549375614576   M1=0   M2=-633.552963714077   M3=0   FrameElem=19
   Frame=56   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082226   F2=0
F3=193.642106077869   M1=0   M2=1175.84833933642   M3=0   FrameElem=19
   Frame=56   Joint=54   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082226   F2=0
F3=-176.967106077869   M1=0   M2=-1119.21739567346   M3=0   FrameElem=19
   Frame=56   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=62.8299375614575   M1=0   M2=675.515932951666   M3=0   FrameElem=19
   Frame=57   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473354   F2=0
F3=-84.4426458747904   M1=0   M2=-907.720735647154   M3=0   FrameElem=20
   Frame=57   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116751   F2=0
F3=139.53978941405   M1=0   M2=1104.75892123202   M3=0   FrameElem=20
   Frame=57   Joint=55   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116751   F2=0
F3=-122.86478941405   M1=0   M2=-1050.77933312616   M3=0   FrameElem=20
   Frame=57   Joint=56   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473354   F2=0
F3=101.11764587479   M1=0   M2=973.824804166352   M3=0   FrameElem=20
   Frame=57   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594065   F2=0   F3=-
23.8453800940676   M1=0   M2=-675.515932951663   M3=0   FrameElem=20
   Frame=57   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082227   F2=0
F3=157.795966282821   M1=0   M2=1214.46788146068   M3=0   FrameElem=20
   Frame=57   Joint=55   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082227   F2=0
F3=-141.120966282821   M1=0   M2=-1175.84833933642   M3=0   FrameElem=20
   Frame=57   Joint=56   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594065   F2=0
F3=40.5203800940676   M1=0   M2=705.365504893431   M3=0   FrameElem=20
```

Frame=58 Joint=56 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473354 F2=0 F3=-54.5835180450027 M1=0 M2=-973.824804166354 M3=0 FrameElem=21
Frame=58 Joint=7 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.801422811675 F2=0 F3=106.775386813495 M1=0 M2=1142.67813321035 M3=0 FrameElem=21
Frame=58 Joint=56 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.801422811675 F2=0 F3=-90.1003868134952 M1=0 M2=-1104.75892123202 M3=0 FrameElem=21
Frame=58 Joint=7 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473354 F2=0 F3=71.2585180450027 M1=0 M2=1012.02030137879 M3=0 FrameElem=21
Frame=58 Joint=56 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594065 F2=0 F3=-2.30435056320949 M1=0 M2=-705.365504893433 M3=0 FrameElem=21
Frame=58 Joint=7 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082226 F2=0 F3=122.591300644922 M1=0 M2=1235.64144615976 M3=0 FrameElem=21
Frame=58 Joint=56 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082226 F2=0 F3=-105.916300644922 M1=0 M2=-1214.46788146069 M3=0 FrameElem=21
Frame=58 Joint=7 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594065 F2=0 F3=18.9793505632095 M1=0 M2=716.541337888877 M3=0 FrameElem=21
Frame=59 Joint=7 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473353 F2=0 F3=-24.2542694217908 M1=0 M2=-1012.02030137879 M3=0 FrameElem=22
Frame=59 Joint=57 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116749 F2=0 F3=76.0916741579474 M1=0 M2=1164.56838807355 M3=0 FrameElem=22
Frame=59 Joint=7 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116749 F2=0 F3=-59.4166741579474 M1=0 M2=-1142.67813321034 M3=0 FrameElem=22
Frame=59 Joint=57 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473353 F2=0 F3=40.9292694217908 M1=0 M2=1028.74238615136 M3=0 FrameElem=22
Frame=59 Joint=7 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594064 F2=0 F3=19.8804000857431 M1=0 M2=-716.541337888873 M3=0 FrameElem=22
Frame=59 Joint=57 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082225 F2=0 F3=89.8228173524991 M1=0 M2=1263.70966426298 M3=0 FrameElem=22
Frame=59 Joint=7 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082225 F2=0 F3=-73.1478173524991 M1=0 M2=-1235.64144615975 M3=0 FrameElem=22
Frame=59 Joint=57 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594064 F2=0 F3=-3.20540008574309 M1=0 M2=710.618942229495 M3=0 FrameElem=22
Frame=60 Joint=57 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473353 F2=0 F3=7.23833571335936 M1=0 M2=-1028.74238615135 M3=0 FrameElem=23
Frame=60 Joint=58 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116751 F2=0 F3=45.5145616386474 M1=0 M2=1176.85757880443 M3=0 FrameElem=23
Frame=60 Joint=57 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116751 F2=0 F3=-28.8395616386474 M1=0 M2=-1164.56838807355 M3=0 FrameElem=23
Frame=60 Joint=58 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473353 F2=0 F3=9.43666428664065 M1=0 M2=1029.3063419815 M3=0 FrameElem=23
Frame=60 Joint=57 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594065 F2=0 F3=45.8411980462533 M1=0 M2=-710.618942229493 M3=0 FrameElem=23
Frame=60 Joint=58 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082226 F2=0 F3=57.146206703431 M1=0 M2=1281.50256303313 M3=0 FrameElem=23
Frame=60 Joint=57 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082226 F2=0 F3=-40.471206703431 M1=0 M2=-1263.70966426298 M3=0 FrameElem=23
Frame=60 Joint=58 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594065 F2=0 F3=-28.9088513318594 M1=0 M2=692.729071543353 M3=0 FrameElem=23
Frame=61 Joint=58 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473353 F2=0 F3=39.6793187121634 M1=0 M2=-1029.30634198149 M3=0 FrameElem=24
Frame=61 Joint=59 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116755 F2=0 F3=13.4323737109655 M1=0 M2=1176.55364455618 M3=0 FrameElem=24
Frame=61 Joint=58 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116755 F2=0 F3=3.24262628903446 M1=0 M2=-1176.85757880443 M3=0 FrameElem=24
Frame=61 Joint=59 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473353 F2=0 F3=-23.0043187121634 M1=0 M2=1013.22557807302 M3=0 FrameElem=24
Frame=61 Joint=58 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594063 F2=0 F3=77.5872078991075 M1=0 M2=-692.729071543349 M3=0 FrameElem=24
Frame=61 Joint=59 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082229 F2=0 F3=22.8048468335363 M1=0 M2=1285.27792941674 M3=0 FrameElem=24
Frame=61 Joint=58 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082229 F2=0 F3=-6.12984683353631 M1=0 M2=-1281.50256303313 M3=0 FrameElem=24
Frame=61 Joint=59 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594063 F2=0 F3=-60.9122078991075 M1=0 M2=662.505607766986 M3=0 FrameElem=24
Frame=62 Joint=59 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473353 F2=0 F3=73.7555360047909 M1=0 M2=-1013.22557807301 M3=0 FrameElem=25
Frame=62 Joint=60 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=15.8014228116747 F2=0 F3=-20.8950492776593 M1=0 M2=1157.51902622818 M3=0 FrameElem=25
Frame=62 Joint=59 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-15.8014228116747 F2=0 F3=37.5700492776593 M1=0 M2=-1176.55364455617 M3=0 FrameElem=25
Frame=62 Joint=60 OutputCase=ENVETA5 CaseType=Combination StepType=Min F1=-175.674776473353 F2=0 F3=-57.0805360047909 M1=0 M2=979.661093445942 M3=0 FrameElem=25
Frame=62 Joint=59 OutputCase=ENVETA CaseType=Combination StepType=Max F1=268.104077594064 F2=0 F3=114.422503879206 M1=0 M2=-662.505607766979 M3=0 FrameElem=25
Frame=62 Joint=60 OutputCase=ENVETA CaseType=Combination StepType=Max F1=42.3676905082221 F2=0 F3=-11.1650257691577 M1=0 M2=1268.77193945326 M3=0 FrameElem=25
Frame=62 Joint=59 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-42.3676905082221 F2=0 F3=27.8400257691577 M1=0 M2=-1285.27792941673 M3=0 FrameElem=25
Frame=62 Joint=60 OutputCase=ENVETA CaseType=Combination StepType=Min F1=-268.104077594064 F2=0 F3=-97.7475038792058 M1=0 M2=619.344839674113 M3=0 FrameElem=25
Frame=63 Joint=60 OutputCase=ENVETA5 CaseType=Combination StepType=Max F1=175.674776473353 F2=0 F3=112.944371416468 M1=0 M2=-979.661093445937 M3=0 FrameElem=26

```
   Frame=63   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116749   F2=0
F3=-58.2105630350137   M1=0   M2=1118.14205506723   M3=0   FrameElem=26
   Frame=63   Joint=60   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116749   F2=0
F3=74.8855630350137   M1=0   M2=-1157.51902622818   M3=0   FrameElem=26
   Frame=63   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473353   F2=0
F3=-96.2693714164682   M1=0   M2=927.426503351941   M3=0   FrameElem=26
   Frame=63   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0
F3=156.657606837263   M1=0   M2=-619.344839674108   M3=0   FrameElem=26
   Frame=63   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082223   F2=0   F3=-
47.4705314899484   M1=0   M2=1230.20950082023   M3=0   FrameElem=26
   Frame=63   Joint=60   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082223   F2=0
F3=64.1455314899484   M1=0   M2=-1268.77193945325   M3=0   FrameElem=26
   Frame=63   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=-139.982606837263   M1=0   M2=562.415337600628   M3=0   FrameElem=26
   Frame=64   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473353   F2=0
F3=156.7509814597   M1=0   M2=-927.426503351944   M3=0   FrameElem=27
   Frame=64   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116749   F2=0
F3=-99.2485288623638   M1=0   M2=1056.41401150089   M3=0   FrameElem=27
   Frame=64   Joint=61   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116749   F2=0
F3=115.923528862364   M1=0   M2=-1118.14205506724   M3=0   FrameElem=27
   Frame=64   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473353   F2=0
F3=-140.0759814597   M1=0   M2=854.998778851168   M3=0   FrameElem=27
   Frame=64   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0
F3=202.451779521554   M1=0   M2=-562.41533760063   M3=0   FrameElem=27
   Frame=64   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082223   F2=0   F3=-
87.4509991453494   M1=0   M2=1167.38039148654   M3=0   FrameElem=27
   Frame=64   Joint=61   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082223   F2=0
F3=104.125999145349   M1=0   M2=-1230.20950082023   M3=0   FrameElem=27
   Frame=64   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=-185.776779521554   M1=0   M2=490.672068587669   M3=0   FrameElem=27
   Frame=65   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473353   F2=0
F3=204.844996050818   M1=0   M2=-854.998778851178   M3=0   FrameElem=28
   Frame=65   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116753   F2=0
F3=-144.722616947616   M1=0   M2=969.941453424702   M3=0   FrameElem=28
   Frame=65   Joint=62   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116753   F2=0
F3=161.397616947616   M1=0   M2=-1056.4140115009   M3=0   FrameElem=28
   Frame=65   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473353   F2=0
F3=-188.169996050818   M1=0   M2=760.535102305253   M3=0   FrameElem=28
   Frame=65   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0
F3=252.480103341565   M1=0   M2=-490.672068587678   M3=0   FrameElem=28
   Frame=65   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082228   F2=0   F3=-
130.472655788912   M1=0   M2=1077.65122616785   M3=0   FrameElem=28
   Frame=65   Joint=62   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082228   F2=0
F3=147.147655788912   M1=0   M2=-1167.38039148655   M3=0   FrameElem=28
   Frame=65   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=-235.805103341565   M1=0   M2=402.875037092917   M3=0   FrameElem=28
   Frame=66   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473354   F2=0
F3=257.858181178402   M1=0   M2=-760.535102305258   M3=0   FrameElem=29
   Frame=66   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116751   F2=0
F3=-195.312351675524   M1=0   M2=855.965874248613   M3=0   FrameElem=29
   Frame=66   Joint=63   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116751   F2=0
F3=211.987351675524   M1=0   M2=-969.941453424708   M3=0   FrameElem=29
   Frame=66   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473354   F2=0
F3=-241.183181178402   M1=0   M2=641.896357173165   M3=0   FrameElem=29
   Frame=66   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594064   F2=0
F3=307.354394726342   M1=0   M2=-402.875037092923   M3=0   FrameElem=29
   Frame=66   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082226   F2=0   F3=-
169.441890868697   M1=0   M2=957.985378335045   M3=0   FrameElem=29
   Frame=66   Joint=63   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082226   F2=0
F3=186.116890868697   M1=0   M2=-1077.65122616786   M3=0   FrameElem=29
   Frame=66   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594064   F2=0
F3=-290.679394726342   M1=0   M2=297.612810072556   M3=0   FrameElem=29
   Frame=67   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473351   F2=0
F3=316.35853596676   M1=0   M2=-641.896357173162   M3=0   FrameElem=30
   Frame=67   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116752   F2=0
F3=-248.455111534915   M1=0   M2=711.391502347137   M3=0   FrameElem=30
   Frame=67   Joint=64   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116752   F2=0
F3=265.130111534915   M1=0   M2=-855.96587424861   M3=0   FrameElem=30
   Frame=67   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473351   F2=0
F3=-299.68353596676   M1=0   M2=496.677880702604   M3=0   FrameElem=30
   Frame=67   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594062   F2=0
F3=367.60668938769   M1=0   M2=-297.612810072556   M3=0   FrameElem=30
   Frame=67   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082225   F2=0   F3=-
207.648327502481   M1=0   M2=804.971750037776   M3=0   FrameElem=30
   Frame=67   Joint=64   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082225   F2=0
F3=224.323327502481   M1=0   M2=-957.985378335043   M3=0   FrameElem=30
   Frame=67   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594062   F2=0
F3=-350.93168938769   M1=0   M2=173.331352794024   M3=0   FrameElem=30
   Frame=68   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473352   F2=0
F3=380.832756255623   M1=0   M2=-496.677880702596   M3=0   FrameElem=31
   Frame=68   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116745   F2=0
F3=-307.171277540727   M1=0   M2=532.822179615066   M3=0   FrameElem=31
```

```
   Frame=68   Joint=65   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116745   F2=0
F3=323.846277540727   M1=0   M2=-711.391502347128   M3=0   FrameElem=31
   Frame=68   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473352   F2=0
F3=-364.157756255623   M1=0   M2=322.248210709918   M3=0   FrameElem=31
   Frame=68   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594062   F2=0
F3=433.671065689791   M1=0   M2=-173.331352794018   M3=0   FrameElem=31
   Frame=68   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082218   F2=0   F3=-
249.739384847837   M1=0   M2=614.863420981162   M3=0   FrameElem=31
   Frame=68   Joint=65   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082218   F2=0
F3=266.414384847837   M1=0   M2=-804.971750037765   M3=0   FrameElem=31
   Frame=68   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594062   F2=0
F3=-416.996065689791   M1=0   M2=28.3686615906921   M3=0   FrameElem=31
   Frame=69   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.67477647335   F2=0
F3=451.66682149155   M1=0   M2=-322.248210709914   M3=0   FrameElem=32
   Frame=69   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116743   F2=0
F3=-372.118749627146   M1=0   M2=326.225178013822   M3=0   FrameElem=32
   Frame=69   Joint=66   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116743   F2=0
F3=388.793749627146   M1=0   M2=-532.822179615062   M3=0   FrameElem=32
   Frame=69   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.67477647335   F2=0
F3=-434.99182149155   M1=0   M2=115.796650246265   M3=0   FrameElem=32
   Frame=69   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.10407759406   F2=0
F3=505.863620637159   M1=0   M2=-28.3686615906881   M3=0   FrameElem=32
   Frame=69   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082214   F2=0   F3=-
295.953505633568   M1=0   M2=395.648343142342   M3=0   FrameElem=32
   Frame=69   Joint=66   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082214   F2=0
F3=312.628505633568   M1=0   M2=-614.863420981159   M3=0   FrameElem=32
   Frame=69   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.10407759406   F2=0   F3=-
489.188620637159   M1=0   M2=-139.004269839332   M3=0   FrameElem=32
   Frame=70   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.674776473351   F2=0
F3=529.12453311319   M1=0   M2=-115.796650246262   M3=0   FrameElem=33
   Frame=70   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116751   F2=0
F3=-443.651598395698   M1=0   M2=85.7600815912132   M3=0   FrameElem=33
   Frame=70   Joint=67   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116751   F2=0
F3=460.326598395698   M1=0   M2=-326.225178013817   M3=0   FrameElem=33
   Frame=70   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.674776473351   F2=0
F3=-512.44953311319   M1=0   M2=-138.132201203481   M3=0   FrameElem=33
   Frame=70   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.10407759406   F2=0
F3=584.360444047804   M1=0   M2=139.004269839333   M3=0   FrameElem=33
   Frame=70   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082221   F2=0   F3=-
346.44435919469   M1=0   M2=140.574569872295   M3=0   FrameElem=33
   Frame=70   Joint=67   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082221   F2=0
F3=363.11935919469   M1=0   M2=-395.648343142336   M3=0   FrameElem=33
   Frame=70   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.10407759406   F2=0   F3=-
567.685444047804   M1=0   M2=-350.150308098897   M3=0   FrameElem=33
   Frame=71   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=175.67477647335   F2=0
F3=613.32386550038   M1=0   M2=138.132201203472   M3=0   FrameElem=34
   Frame=71   Joint=11   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=15.8014228116762   F2=0
F3=-521.999144623518   M1=0   M2=-197.811375310325   M3=0   FrameElem=34
   Frame=71   Joint=68   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-15.8014228116762   F2=0
F3=538.674144623518   M1=0   M2=-85.760081591223   M3=0   FrameElem=34
   Frame=71   Joint=11   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-175.67477647335   F2=0
F3=-596.64886550038   M1=0   M2=-448.536744117896   M3=0   FrameElem=34
   Frame=71   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=268.104077594059   F2=0
F3=669.173475179421   M1=0   M2=350.150308098888   M3=0   FrameElem=34
   Frame=71   Joint=11   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=42.3676905082233   F2=0   F3=-
401.265404066891   M1=0   M2=-146.853482054245   M3=0   FrameElem=34
   Frame=71   Joint=68   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-42.3676905082233   F2=0
F3=417.940404066891   M1=0   M2=-140.574569872306   M3=0   FrameElem=34
   Frame=71   Joint=11   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-268.104077594059   F2=0
F3=-652.498475179421   M1=0   M2=-668.387958341963   M3=0   FrameElem=34
   Frame=72   Joint=16   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=159.913326742002   F2=0
F3=576.499824849006   M1=0   M2=-550.872809367622   M3=0   FrameElem=35
   Frame=72   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-52.3114031107383   F2=0
F3=-492.142431258153   M1=0   M2=471.333085964669   M3=0   FrameElem=35
   Frame=72   Joint=16   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=49.0153969077778   F2=0
F3=531.134225268653   M1=0   M2=-746.363658831397   M3=0   FrameElem=35
   Frame=72   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-163.209332944962   F2=0
F3=-529.737993799647   M1=0   M2=281.719643472106   M3=0   FrameElem=35
   Frame=72   Joint=16   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005036   F2=0
F3=657.784411909416   M1=0   M2=-473.493783935836   M3=0   FrameElem=35
   Frame=72   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-33.9348807175767   F2=0
F3=-325.658197148084   M1=0   M2=651.188872289767   M3=0   FrameElem=35
   Frame=72   Joint=16   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=30.6388745146163   F2=0
F3=353.620889455776   M1=0   M2=-974.498211481779   M3=0   FrameElem=35
   Frame=72   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005036   F2=0
F3=-606.322796524801   M1=0   M2=235.036859047663   M3=0   FrameElem=35
   Frame=73   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=163.209332945003   F2=0
F3=529.737993799608   M1=0   M2=-281.719643472108   M3=0   FrameElem=36
   Frame=73   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-55.6074093137351   F2=0
F3=-450.330809055364   M1=0   M2=223.752616672686   M3=0   FrameElem=36
   Frame=73   Joint=69   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=52.3114031107747   F2=0
F3=492.142431258144   M1=0   M2=-471.333085964664   M3=0   FrameElem=36
```

```
   Frame=73   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-166.505339147963   F2=0
F3=-482.976162750249   M1=0   M2=37.9656909223625   M3=0   FrameElem=36
   Frame=73   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005052   F2=0
F3=606.322796524762   M1=0   M2=-235.036859047665   M3=0   FrameElem=36
   Frame=73   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-37.2308869205686   F2=0
F3=-297.695504840369   M1=0   M2=369.402453998319   M3=0   FrameElem=36
   Frame=73   Joint=69   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=33.9348807176081   F2=0
F3=325.658197148062   M1=0   M2=-651.188872289761   M3=0   FrameElem=36
   Frame=73   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005052   F2=0
F3=-554.861181140146   M1=0   M2=5.83042603463973   M3=0   FrameElem=36
   Frame=74   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=166.505339147907   F2=0
F3=482.976162750309   M1=0   M2=-37.9656909223581   M3=0   FrameElem=37
   Frame=74   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-58.9034155166434   F2=0
F3=-400.827094888299   M1=0   M2=-3.82206292317284   M3=0   FrameElem=37
   Frame=74   Joint=70   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=55.607409313683   F2=0
F3=450.330809055439   M1=0   M2=-223.752616672678   M3=0   FrameElem=37
   Frame=74   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-169.801345350867   F2=0
F3=-436.214331700949   M1=0   M2=-180.389048281657   M3=0   FrameElem=37
   Frame=74   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005036   F2=0
F3=554.861181140211   M1=0   M2=-5.83042603463479   M3=0   FrameElem=37
   Frame=74   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-40.5268931234819   F2=0
F3=-269.732812532719   M1=0   M2=117.230533402082   M3=0   FrameElem=37
   Frame=74   Joint=70   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=37.2308869205214   F2=0
F3=297.695504840411   M1=0   M2=-369.402453998312   M3=0   FrameElem=37
   Frame=74   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005036   F2=0
F3=-503.399565755595   M1=0   M2=-224.208803994967   M3=0   FrameElem=37
   Frame=75   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=169.801345350929   F2=0
F3=436.214331700918   M1=0   M2=180.389048281653   M3=0   FrameElem=38
   Frame=75   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-62.1994217196658   F2=0
F3=-351.323380721085   M1=0   M2=-211.390952822848   M3=0   FrameElem=38
   Frame=75   Joint=71   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=58.9034155167053   F2=0
F3=400.827094888225   M1=0   M2=3.82206292316792   M3=0   FrameElem=38
   Frame=75   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-173.09735155389   F2=0
F3=-389.452500651558   M1=0   M2=-373.344574139896   M3=0   FrameElem=38
   Frame=75   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.76132000505   F2=0
F3=503.399565755564   M1=0   M2=224.208803994963   M3=0   FrameElem=38
   Frame=75   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-43.8228993265007   F2=0
F3=-241.770120224996   M1=0   M2=-46.4976206513647   M3=0   FrameElem=38
   Frame=75   Joint=71   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=40.5268931235402   F2=0
F3=269.732812532688   M1=0   M2=-117.230533402087   M3=0   FrameElem=38
   Frame=75   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.76132000505   F2=0   F3=-
451.937950370949   M1=0   M2=-432.598166307339   M3=0   FrameElem=38
   Frame=76   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=173.09735155391   F2=0
F3=389.452500651664   M1=0   M2=373.344574139894   M3=0   FrameElem=39
   Frame=76   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-65.4954279226477   F2=0
F3=-301.81966655408   M1=0   M2=-398.95405302643   M3=0   FrameElem=39
   Frame=76   Joint=72   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=62.1994217196873   F2=0
F3=351.32338072122   M1=0   M2=211.390952822848   M3=0   FrameElem=39
   Frame=76   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-176.39335775687   F2=0
F3=-346.069365760332   M1=0   M2=-540.90088665245   M3=0   FrameElem=39
   Frame=76   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005073   F2=0
F3=451.937950371063   M1=0   M2=432.598166307338   M3=0   FrameElem=39
   Frame=76   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313253   F2=0
F3=-213.807427917381   M1=0   M2=-168.447223757841   M3=0   FrameElem=39
   Frame=76   Joint=72   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=43.8228993265229   F2=0
F3=241.770120225073   M1=0   M2=46.4976206513626   M3=0   FrameElem=39
   Frame=76   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005073   F2=0
F3=-403.087168905147   M1=0   M2=-612.825265176   M3=0   FrameElem=39
   Frame=77   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=176.393357756942   F2=0
F3=346.069365760298   M1=0   M2=540.90088665244   M3=0   FrameElem=40
   Frame=77   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-68.7914341256708   F2=0
F3=-252.315952386885   M1=0   M2=-566.511363533825   M3=0   FrameElem=40
   Frame=77   Joint=73   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=65.4954279227104   F2=0
F3=301.819666554025   M1=0   M2=398.954053026427   M3=0   FrameElem=40
   Frame=77   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-179.689363959902   F2=0
F3=-307.077571749798   M1=0   M2=-683.057985819208   M3=0   FrameElem=40
   Frame=77   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.7613200051   F2=0
F3=403.087168905109   M1=0   M2=612.825265175989   M3=0   FrameElem=40
   Frame=77   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313259   F2=0
F3=-185.844735609666   M1=0   M2=-276.049814734114   M3=0   FrameElem=40
   Frame=77   Joint=73   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313259   F2=0
F3=213.807427917358   M1=0   M2=168.447223757836   M3=0   FrameElem=40
   Frame=77   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.7613200051   F2=0   F3=-
361.338099674339   M1=0   M2=-764.89010060083   M3=0   FrameElem=40
   Frame=78   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=179.689363959848   F2=0
F3=307.077571749718   M1=0   M2=683.057985819203   M3=0   FrameElem=41
   Frame=78   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-71.3066772400275   F2=0
F3=-214.538755218768   M1=0   M2=-680.918860189028   M3=0   FrameElem=41
   Frame=78   Joint=74   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=68.7914341256244   F2=0
F3=252.315952386795   M1=0   M2=566.511363533819   M3=0   FrameElem=41
   Frame=78   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-182.204607074251   F2=0
F3=-277.322214701225   M1=0   M2=-781.192679857696   M3=0   FrameElem=41
```

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   Frame=78   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.76132000507   F2=0
F3=361.338099674256   M1=0   M2=764.890100600826   M3=0   FrameElem=41
   Frame=78   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313271   F2=0
F3=-164.505889455755   M1=0   M2=-348.511611923398   M3=0   FrameElem=41
   Frame=78   Joint=74   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313271   F2=0
F3=185.844735609601   M1=0   M2=276.049814734109   M3=0   FrameElem=41
   Frame=78   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.76132000507   F2=0   F3=-
329.478615058871   M1=0   M2=-870.411499506448   M3=0   FrameElem=41
   Frame=79   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=182.204607074295   F2=0
F3=277.322214701209   M1=0   M2=781.19267985769   M3=0   FrameElem=42
   Frame=79   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-75.383446531585   F2=0
F3=-153.308524052512   M1=0   M2=-821.647736133719   M3=0   FrameElem=42
   Frame=79   Joint=75   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=71.3066772400672   F2=0
F3=214.538755218765   M1=0   M2=680.918860189027   M3=0   FrameElem=42
   Frame=79   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-186.281376365813   F2=0
F3=-216.091983534956   M1=0   M2=-921.715874901632   M3=0   FrameElem=42
   Frame=79   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005091   F2=0
F3=329.478615058854   M1=0   M2=870.41149950644   M3=0   FrameElem=42
   Frame=79   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313281   F2=0
F3=-129.9193509942   M1=0   M2=-448.213960296062   M3=0   FrameElem=42
   Frame=79   Joint=75   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313281   F2=0
F3=164.505889455739   M1=0   M2=348.511611923394   M3=0   FrameElem=42
   Frame=79   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005091   F2=0
F3=-261.5874612127   M1=0   M2=-1022.70964403299   M3=0   FrameElem=42
   Frame=80   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=186.28137636581   F2=0
F3=216.091983534983   M1=0   M2=921.715874901654   M3=0   FrameElem=43
   Frame=80   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-78.6794527345474   F2=0
F3=-103.804809885434   M1=0   M2=-892.683635057738   M3=0   FrameElem=43
   Frame=80   Joint=76   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=75.3834465315869   F2=0
F3=153.308524052574   M1=0   M2=821.64773613373   M3=0   FrameElem=43
   Frame=80   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-189.577382568771   F2=0
F3=-166.588269367843   M1=0   M2=-1008.49265206091   M3=0   FrameElem=43
   Frame=80   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.76132000507   F2=0
F3=261.587461212724   M1=0   M2=1022.70964403301   M3=0   FrameElem=43
   Frame=80   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313274   F2=0
F3=-95.6460360391042   M1=0   M2=-512.775514881796   M3=0   FrameElem=43
   Frame=80   Joint=76   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313274   F2=0
F3=129.919350994241   M1=0   M2=448.213960296076   M3=0   FrameElem=43
   Frame=80   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.76132000507   F2=0   F3=-
206.698491981955   M1=0   M2=-1116.30933627594   M3=0   FrameElem=43
   Frame=81   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=189.577382568732   F2=0
F3=166.588269367899   M1=0   M2=1008.49265206089   M3=0   FrameElem=44
   Frame=81   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-81.1353973864928   F2=0
F3=-66.9182342616418   M1=0   M2=-929.100596143081   M3=0   FrameElem=44
   Frame=81   Joint=77   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=78.6794527345118   F2=0
F3=103.804809885433   M1=0   M2=892.683635057735   M3=0   FrameElem=44
   Frame=81   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-192.033327220713   F2=0
F3=-129.701693744108   M1=0   M2=-1057.55323220651   M3=0   FrameElem=44
   Frame=81   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005086   F2=0
F3=206.69849198202   M1=0   M2=1116.30933627592   M3=0   FrameElem=44
   Frame=81   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313265   F2=0
F3=-60.7658116628966   M1=0   M2=-551.554086923161   M3=0   FrameElem=44
   Frame=81   Joint=77   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313265   F2=0
F3=95.6460360391055   M1=0   M2=512.775514881789   M3=0   FrameElem=44
   Frame=81   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005086   F2=0
F3=-165.799215058943   M1=0   M2=-1168.88606682801   M3=0   FrameElem=44
   Frame=82   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=192.033327220757   F2=0
F3=129.701693744211   M1=0   M2=1057.55323220652   M3=0   FrameElem=45
   Frame=82   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-85.271465140471   F2=0
F3=-17.9885017478202   M1=0   M2=-962.804318870331   M3=0   FrameElem=45
   Frame=82   Joint=78   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=81.1353973865311   F2=0
F3=66.9182342617462   M1=0   M2=929.100596143098   M3=0   FrameElem=45
   Frame=82   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-196.169394974697   F2=0
F3=-67.5808410337219   M1=0   M2=-1113.91705702196   M3=0   FrameElem=45
   Frame=82   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005093   F2=0
F3=165.799215059057   M1=0   M2=1168.88606682802   M3=0   FrameElem=45
   Frame=82   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.779057131326   F2=0   F3=-
10.9778091893003   M1=0   M2=-598.857587662787   M3=0   FrameElem=45
   Frame=82   Joint=78   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.779057131326   F2=0
F3=60.7658116629955   M1=0   M2=551.554086923172   M3=0   FrameElem=45
   Frame=82   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005093   F2=0
F3=-96.9205535205951   M1=0   M2=-1228.15313928716   M3=0   FrameElem=45
   Frame=83   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=196.169394974715   F2=0
F3=67.5808410337658   M1=0   M2=1113.91705702195   M3=0   FrameElem=46
   Frame=83   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-88.5674713434454   F2=0
F3=21.0032922625772   M1=0   M2=-967.107348944371   M3=0   FrameElem=46
   Frame=83   Joint=79   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=85.2714651404849   F2=0
F3=17.9885017479231   M1=0   M2=962.804318870323   M3=0   FrameElem=46
   Frame=83   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-199.465401177675   F2=0
F3=-18.0771268666257   M1=0   M2=-1135.89162032563   M3=0   FrameElem=46
   Frame=83   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005085   F2=0
F3=96.9205535206361   M1=0   M2=1228.15313928715   M3=0   FrameElem=46
```

```
   Frame=83   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313269   F2=0
F3=30.7712600413553   M1=0   M2=-620.378105858051   M3=0   FrameElem=46
   Frame=83   Joint=79   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313269   F2=0
F3=10.9778091894139   M1=0   M2=598.857587662778   M3=0   FrameElem=46
   Frame=83   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005085   F2=0
F3=-42.0315842898669   M1=0   M2=-1250.24121385947   M3=0   FrameElem=46
   Frame=84   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=199.46540117769   F2=0
F3=18.0771268666535   M1=0   M2=1135.89162032563   M3=0   FrameElem=47
   Frame=84   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-91.8634775464213   F2=0
F3=59.9950862731134   M1=0   M2=-951.404589322254   M3=0   FrameElem=47
   Frame=84   Joint=80   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=88.5674713434608   F2=0
F3=-21.0032922626131   M1=0   M2=967.107348944367   M3=0   FrameElem=47
   Frame=84   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-202.76140738065   F2=0
F3=31.4039787924652   M1=0   M2=-1132.46697028358   M3=0   FrameElem=47
   Frame=84   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005098   F2=0
F3=42.0315842899058   M1=0   M2=1250.24121385948   M3=0   FrameElem=47
   Frame=84   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.779057131327   F2=0
F3=72.5203292721655   M1=0   M2=-627.551611923142   M3=0   FrameElem=47
   Frame=84   Joint=80   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.779057131327   F2=0   F3=-
30.7712600413962   M1=0   M2=620.37810585805   M3=0   FrameElem=47
   Frame=84   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-217.761320005098   F2=0
F3=1.7481300595121E-11   M1=0   M2=-1244.16702498804   M3=0   FrameElem=47
   Frame=85   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=202.761407380631   F2=0
F3=-31.403978792446   M1=0   M2=1132.46697028358   M3=0   FrameElem=48
   Frame=85   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-95.1594837493625   F2=0
F3=98.9868802835915   M1=0   M2=-915.696040003984   M3=0   FrameElem=48
   Frame=85   Joint=20   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=91.863477546402   F2=0   F3=-
59.9950862730913   M1=0   M2=951.404589322264   M3=0   FrameElem=48
   Frame=85   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-206.057413583591   F2=0
F3=78.1658098418058   M1=0   M2=-1103.64310689576   M3=0   FrameElem=48
   Frame=85   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=217.761320005098   F2=0
F3=1.94514627132838E-11   M1=0   M2=1244.16702498804   M3=0   FrameElem=48
   Frame=85   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313272   F2=0
F3=114.269398502916   M1=0   M2=-620.378105858059   M3=0   FrameElem=48
   Frame=85   Joint=20   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313272   F2=0   F3=-
72.520329272147   M1=0   M2=627.551611923148   M3=0   FrameElem=48
   Frame=85   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-221.611463474937   F2=0
F3=27.9626923076729   M1=0   M2=-1222.81015140698   M3=0   FrameElem=48
   Frame=86   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=206.05741358363   F2=0   F3=-
78.1658098417343   M1=0   M2=1103.64310689576   M3=0   FrameElem=49
   Frame=86   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-98.4554899523616   F2=0
F3=140.328126178802   M1=0   M2=-857.848871307561   M3=0   FrameElem=49
   Frame=86   Joint=81   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=95.1594837494011   F2=0
F3=-98.986880283519   M1=0   M2=915.696040003982   M3=0   FrameElem=49
   Frame=86   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-209.353419786591   F2=0
F3=124.927640891094   M1=0   M2=-1049.42003016223   M3=0   FrameElem=49
   Frame=86   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=221.611463474986   F2=0   F3=-
27.9626923076596   M1=0   M2=1222.81015140698   M3=0   FrameElem=49
   Frame=86   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313272   F2=0
F3=158.955282545814   M1=0   M2=-596.724757980785   M3=0   FrameElem=49
   Frame=86   Joint=81   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313272   F2=0   F3=-
114.269398502829   M1=0   M2=620.378105858059   M3=0   FrameElem=49
   Frame=86   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-225.731471167293   F2=0
F3=55.9253846153519   M1=0   M2=-1175.60310764201   M3=0   FrameElem=49
   Frame=87   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=209.353419786594   F2=0
F3=-124.927640890993   M1=0   M2=1049.42003016223   M3=0   FrameElem=50
   Frame=87   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-101.751496155314   F2=0
F3=189.831840345822   M1=0   M2=-777.052302802508   M3=0   FrameElem=50
   Frame=87   Joint=82   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=98.4554899523532   F2=0
F3=-140.328126178682   M1=0   M2=857.848871307555   M3=0   FrameElem=50
   Frame=87   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-212.649425989554   F2=0
F3=167.076357760374   M1=0   M2=-969.797740082986   M3=0   FrameElem=50
   Frame=87   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=225.731471167297   F2=0   F3=-
55.9253846152617   M1=0   M2=1175.60310764201   M3=0   FrameElem=50
   Frame=87   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313268   F2=0
F3=213.844251776456   M1=0   M2=-555.780787860862   M3=0   FrameElem=50
   Frame=87   Joint=82   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313268   F2=0   F3=-
158.955282545687   M1=0   M2=596.724757980778   M3=0   FrameElem=50
   Frame=87   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-229.851478859605   F2=0
F3=83.888076922954   M1=0   M2=-1103.83871694202   M3=0   FrameElem=50
   Frame=88   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=212.649425989569   F2=0
F3=-167.076357760423   M1=0   M2=969.797740082986   M3=0   FrameElem=51
   Frame=88   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-105.047502358295   F2=0
F3=239.335554513032   M1=0   M2=-676.249944601293   M3=0   FrameElem=51
   Frame=88   Joint=83   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=101.751496155335   F2=0
F3=-189.831840345892   M1=0   M2=777.052302802511   M3=0   FrameElem=51
   Frame=88   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-215.94543219253   F2=0
F3=206.068151770924   M1=0   M2=-864.776236657954   M3=0   FrameElem=51
   Frame=88   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=229.851478859624   F2=0   F3=-
83.8880769230197   M1=0   M2=1103.83871694203   M3=0   FrameElem=51
   Frame=88   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313265   F2=0
F3=268.733221007296   M1=0   M2=-500.489805610747   M3=0   FrameElem=51
```

```
   Frame=88   Joint=83   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313265   F2=0   F3=-
213.844251776527   M1=0   M2=555.780787860864   M3=0   FrameElem=51
   Frame=88   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-233.971486551932   F2=0
F3=111.850769230712   M1=0   M2=-1005.67055896391   M3=0   FrameElem=51
   Frame=89   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=215.945432192533   F2=0
F3=-206.068151770906   M1=0   M2=864.77623665795   M3=0   FrameElem=52
   Frame=89   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-108.34350856126   F2=0
F3=288.839268680128   M1=0   M2=-555.44179670392   M3=0   FrameElem=52
   Frame=89   Joint=84   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=105.047502358299   F2=0
F3=-239.335554512988   M1=0   M2=676.249944601288   M3=0   FrameElem=52
   Frame=89   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-219.241438395493   F2=0
F3=245.059945781406   M1=0   M2=-734.355519887187   M3=0   FrameElem=52
   Frame=89   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=233.971486551936   F2=0   F3=-
111.850769230673   M1=0   M2=1005.67055896391   M3=0   FrameElem=52
   Frame=89   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313268   F2=0
F3=323.62219023802   M1=0   M2=-430.851811230464   M3=0   FrameElem=52
   Frame=89   Joint=84   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313268   F2=0   F3=-
268.73322100725   M1=0   M2=500.489805610744   M3=0   FrameElem=52
   Frame=89   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-238.091494244243   F2=0
F3=139.813461538365   M1=0   M2=-881.098633707695   M3=0   FrameElem=52
   Frame=90   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=219.241438395475   F2=0
F3=-245.059945781393   M1=0   M2=734.35551988719   M3=0   FrameElem=53
   Frame=90   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-112.420277852755   F2=0
F3=350.069499846393   M1=0   M2=-378.340841515704   M3=0   FrameElem=53
   Frame=90   Joint=85   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=108.343508561238   F2=0
F3=-288.83926868014   M1=0   M2=555.441796703922   M3=0   FrameElem=53
   Frame=90   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-223.318207686992   F2=0
F3=293.288176753901   M1=0   M2=-540.526011937893   M3=0   FrameElem=53
   Frame=90   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=238.091494244219   F2=0   F3=-
139.813461538366   M1=0   M2=881.098633707701   M3=0   FrameElem=53
   Frame=90   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313253   F2=0
F3=391.51334408419   M1=0   M2=-324.870508089382   M3=0   FrameElem=53
   Frame=90   Joint=85   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313253   F2=0   F3=-
323.622190238036   M1=0   M2=430.851811230466   M3=0   FrameElem=53
   Frame=90   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-243.187455782681   F2=0
F3=174.399999999905   M1=0   M2=-690.491505319085   M3=0   FrameElem=53
   Frame=91   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=223.31820768702   F2=0   F3=-
293.288176753844   M1=0   M2=540.526011937917   M3=0   FrameElem=54
   Frame=91   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-114.935520967179   F2=0
F3=379.824856894817   M1=0   M2=-253.808131820744   M3=0   FrameElem=54
   Frame=91   Joint=86   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=112.420277852776   F2=0
F3=-350.069499846324   M1=0   M2=378.340841515729   M3=0   FrameElem=54
   Frame=91   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-225.833450801423   F2=0
F3=323.043533802336   M1=0   M2=-407.052747580738   M3=0   FrameElem=54
   Frame=91   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=243.187455782715   F2=0   F3=-
174.399999999862   M1=0   M2=690.491505319112   M3=0   FrameElem=54
   Frame=91   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313246   F2=0
F3=423.372828699499   M1=0   M2=-217.569279711515   M3=0   FrameElem=54
   Frame=91   Joint=86   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313246   F2=0   F3=-
391.513344084114   M1=0   M2=324.870508089399   M3=0   FrameElem=54
   Frame=91   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-246.331509628869   F2=0
F3=195.738846153708   M1=0   M2=-552.743481360986   M3=0   FrameElem=54
   Frame=92   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=225.83345080138   F2=0   F3=-
323.043533802358   M1=0   M2=407.052747580731   M3=0   FrameElem=55
   Frame=92   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-118.231527170113   F2=0
F3=418.816650905343   M1=0   M2=-72.9826148349147   M3=0   FrameElem=55
   Frame=92   Joint=87   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=114.935520967152   F2=0
F3=-379.824856894842   M1=0   M2=253.808131820732   M3=0   FrameElem=55
   Frame=92   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-229.12945700434   F2=0
F3=362.035327812859   M1=0   M2=-210.996967827749   M3=0   FrameElem=55
   Frame=92   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=246.331509628815   F2=0   F3=-
195.738846153735   M1=0   M2=552.74348136098   M3=0   FrameElem=55
   Frame=92   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313281   F2=0
F3=465.121897930292   M1=0   M2=-48.5050487585495   M3=0   FrameElem=55
   Frame=92   Joint=87   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313281   F2=0   F3=-
423.372828699523   M1=0   M2=217.569279711504   M3=0   FrameElem=55
   Frame=92   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-250.451517321123   F2=0
F3=223.701538461428   M1=0   M2=-348.960254270457   M3=0   FrameElem=55
   Frame=93   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=229.129457004367   F2=0
F3=-362.035327812754   M1=0   M2=210.996967827754   M3=0   FrameElem=56
   Frame=93   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-121.527533373087   F2=0
F3=462.154568780452   M1=0   M2=127.848691847008   M3=0   FrameElem=56
   Frame=93   Joint=88   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=118.231527170126   F2=0
F3=-418.816650905229   M1=0   M2=72.9826148349171   M3=0   FrameElem=56
   Frame=93   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-232.425463207327   F2=0
F3=401.027121823254   M1=0   M2=9.05122831740236   M3=0   FrameElem=56
   Frame=93   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=250.451517321156   F2=0   F3=-
223.701538461328   M1=0   M2=348.960254270464   M3=0   FrameElem=56
   Frame=93   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313263   F2=0
F3=512.303621910896   M1=0   M2=162.018290364836   M3=0   FrameElem=56
   Frame=93   Joint=88   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313263   F2=0   F3=-
465.121897930175   M1=0   M2=48.5050487585514   M3=0   FrameElem=56
```

```
   Frame=93   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-254.571525013464   F2=0
F3=251.66423076902   M1=0   M2=-127.982671975727   M3=0   FrameElem=56
   Frame=94   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=232.425463207406   F2=0
F3=-401.027121823269   M1=0   M2=-9.05122831740746   M3=0   FrameElem=57
   Frame=94   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-124.823539576109   F2=0
F3=508.916399829838   M1=0   M2=361.407419413932   M3=0   FrameElem=57
   Frame=94   Joint=89   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=121.527533373148   F2=0
F3=-462.154568780478   M1=0   M2=-127.848691847012   M3=0   FrameElem=57
   Frame=94   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-235.721469410367   F2=0
F3=440.018915833769   M1=0   M2=247.82633393342   M3=0   FrameElem=57
   Frame=94   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=254.571525013561   F2=0   F3=-
251.664230769046   M1=0   M2=127.982671975722   M3=0   FrameElem=57
   Frame=94   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313198   F2=0
F3=563.765237295537   M1=0   M2=418.623434348616   M3=0   FrameElem=57
   Frame=94   Joint=89   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313198   F2=0   F3=-
512.303621910921   M1=0   M2=-162.018290364841   M3=0   FrameElem=57
   Frame=94   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-258.691532705869   F2=0
F3=279.626923076739   M1=0   M2=31.6838883318076   M3=0   FrameElem=57
   Frame=95   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=235.721469410368   F2=0
F3=-440.018915833698   M1=0   M2=-247.82633393341   M3=0   FrameElem=58
   Frame=95   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-128.119545779069   F2=0
F3=555.678230879111   M1=0   M2=626.307052234116   M3=0   FrameElem=58
   Frame=95   Joint=90   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=124.823539576108   F2=0
F3=-508.916399829751   M1=0   M2=-361.407419413916   M3=0   FrameElem=58
   Frame=95   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-239.017475613329   F2=0
F3=479.010709844198   M1=0   M2=483.592780213084   M3=0   FrameElem=58
   Frame=95   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=258.691532705872   F2=0   F3=-
279.626923076675   M1=0   M2=-31.6838883318   M3=0   FrameElem=58
   Frame=95   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313217   F2=0
F3=615.22685268006   M1=0   M2=710.817956549901   M3=0   FrameElem=58
   Frame=95   Joint=90   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313217   F2=0   F3=-
563.765237295445   M1=0   M2=-418.623434348597   M3=0   FrameElem=58
   Frame=95   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-262.81154039818   F2=0
F3=307.589615384367   M1=0   M2=182.327515698538   M3=0   FrameElem=58
   Frame=96   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=239.017475613356   F2=0
F3=-479.010709844206   M1=0   M2=-483.592780213078   M3=0   FrameElem=59
   Frame=96   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-131.415551982054   F2=0
F3=602.440061928483   M1=0   M2=911.212474750475   M3=0   FrameElem=59
   Frame=96   Joint=91   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=128.119545779093   F2=0
F3=-555.678230879123   M1=0   M2=-626.307052234114   M3=0   FrameElem=59
   Frame=96   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-242.313481816316   F2=0
F3=518.002503854706   M1=0   M2=739.365016188922   M3=0   FrameElem=59
   Frame=96   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=262.811540398213   F2=0   F3=-
307.589615384388   M1=0   M2=-182.327515698535   M3=0   FrameElem=59
   Frame=96   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.7790571313193   F2=0
F3=666.688468064686   M1=0   M2=1024.43296273345   M3=0   FrameElem=59
   Frame=96   Joint=91   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.7790571313193   F2=0   F3=-
615.22685268007   M1=0   M2=-710.817956549898   M3=0   FrameElem=59
   Frame=96   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-266.931548090521   F2=0
F3=335.55230769208   M1=0   M2=347.318155195467   M3=0   FrameElem=59
   Frame=97   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=242.313481816298   F2=0
F3=-518.002503854701   M1=0   M2=-739.365016188916   M3=0   FrameElem=60
   Frame=97   Joint=24   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   F1=-134.711558184995   F2=0
F3=649.201892977837   M1=0   M2=1223.26640334434   M3=0   FrameElem=60
   Frame=97   Joint=92   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=131.415551982034   F2=0
F3=-602.440061928477   M1=0   M2=-911.212474750473   M3=0   FrameElem=60
   Frame=97   Joint=24   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   F1=-245.609488019259   F2=0
F3=556.994297865201   M1=0   M2=1015.14304186091   M3=0   FrameElem=60
   Frame=97   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=266.931548090498   F2=0   F3=-
335.552307692069   M1=0   M2=-347.318155195458   M3=0   FrameElem=60
   Frame=97   Joint=24   OutputCase=ENVETA   CaseType=Combination   StepType=Max   F1=-46.779057131319   F2=0
F3=718.150083449297   M1=0   M2=1368.3968482429   M3=0   FrameElem=60
   Frame=97   Joint=92   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=46.779057131319   F2=0   F3=-
666.688468064682   M1=0   M2=-1024.43296273345   M3=0   FrameElem=60
   Frame=97   Joint=24   OutputCase=ENVETA   CaseType=Combination   StepType=Min   F1=-271.051555782806   F2=0
F3=363.514999999761   M1=0   M2=526.655806822559   M3=0   FrameElem=60

TABLE:  "OBJECTS AND ELEMENTS - JOINTS"
   JointElem=1   JointObject=1   GlobalX=-7.37   GlobalY=0   GlobalZ=0
   JointElem=2   JointObject=2   GlobalX=-7.02   GlobalY=0   GlobalZ=0
   JointElem=3   JointObject=3   GlobalX=-6.67   GlobalY=0   GlobalZ=0
   JointElem=7   JointObject=7   GlobalX=0   GlobalY=0   GlobalZ=0
   JointElem=11   JointObject=11   GlobalX=6.67   GlobalY=0   GlobalZ=0
   JointElem=12   JointObject=12   GlobalX=7.02   GlobalY=0   GlobalZ=0
   JointElem=13   JointObject=13   GlobalX=7.37   GlobalY=0   GlobalZ=0
   JointElem=14   JointObject=14   GlobalX=-7.37   GlobalY=0   GlobalZ=7.2
   JointElem=15   JointObject=15   GlobalX=-7.02   GlobalY=0   GlobalZ=7.2
   JointElem=16   JointObject=16   GlobalX=-6.67   GlobalY=0   GlobalZ=7.2
   JointElem=20   JointObject=20   GlobalX=0   GlobalY=0   GlobalZ=7.2
   JointElem=24   JointObject=24   GlobalX=6.67   GlobalY=0   GlobalZ=7.2
   JointElem=25   JointObject=25   GlobalX=7.02   GlobalY=0   GlobalZ=7.2
   JointElem=26   JointObject=26   GlobalX=7.37   GlobalY=0   GlobalZ=7.2
```

```
   JointElem=27   JointObject=27   GlobalX=-7.37   GlobalY=0   GlobalZ=0.325
   JointElem=28   JointObject=28   GlobalX=-7.37   GlobalY=0   GlobalZ=0.65
   JointElem=32   JointObject=32   GlobalX=-7.37   GlobalY=0   GlobalZ=6.65
   JointElem=33   JointObject=33   GlobalX=-7.37   GlobalY=0   GlobalZ=6.925
   JointElem=34   JointObject=34   GlobalX=7.37   GlobalY=0   GlobalZ=0.325
   JointElem=35   JointObject=35   GlobalX=7.37   GlobalY=0   GlobalZ=0.65
   JointElem=39   JointObject=39   GlobalX=7.37   GlobalY=0   GlobalZ=6.65
   JointElem=40   JointObject=40   GlobalX=7.37   GlobalY=0   GlobalZ=6.925
   JointElem=45   JointObject=45   GlobalX=-6.15692307692308   GlobalY=0   GlobalZ=0
   JointElem=46   JointObject=46   GlobalX=-5.64384615384615   GlobalY=0   GlobalZ=0
   JointElem=47   JointObject=47   GlobalX=-5.13076923076923   GlobalY=0   GlobalZ=0
   JointElem=48   JointObject=48   GlobalX=-4.61769230769231   GlobalY=0   GlobalZ=0
   JointElem=49   JointObject=49   GlobalX=-4.10461538461538   GlobalY=0   GlobalZ=0
   JointElem=50   JointObject=50   GlobalX=-3.59153846153846   GlobalY=0   GlobalZ=0
   JointElem=51   JointObject=51   GlobalX=-3.07846153846154   GlobalY=0   GlobalZ=0
   JointElem=52   JointObject=52   GlobalX=-2.56538461538462   GlobalY=0   GlobalZ=0
   JointElem=53   JointObject=53   GlobalX=-2.05230769230769   GlobalY=0   GlobalZ=0
   JointElem=54   JointObject=54   GlobalX=-1.53923076923077   GlobalY=0   GlobalZ=0
   JointElem=55   JointObject=55   GlobalX=-1.02615384615385   GlobalY=0   GlobalZ=0
   JointElem=56   JointObject=56   GlobalX=-0.513076923076924   GlobalY=0   GlobalZ=0
   JointElem=57   JointObject=57   GlobalX=0.513076923076923   GlobalY=0   GlobalZ=0
   JointElem=58   JointObject=58   GlobalX=1.02615384615385   GlobalY=0   GlobalZ=0
   JointElem=59   JointObject=59   GlobalX=1.53923076923077   GlobalY=0   GlobalZ=0
   JointElem=60   JointObject=60   GlobalX=2.05230769230769   GlobalY=0   GlobalZ=0
   JointElem=61   JointObject=61   GlobalX=2.56538461538462   GlobalY=0   GlobalZ=0
   JointElem=62   JointObject=62   GlobalX=3.07846153846154   GlobalY=0   GlobalZ=0
   JointElem=63   JointObject=63   GlobalX=3.59153846153846   GlobalY=0   GlobalZ=0
   JointElem=64   JointObject=64   GlobalX=4.10461538461538   GlobalY=0   GlobalZ=0
   JointElem=65   JointObject=65   GlobalX=4.61769230769231   GlobalY=0   GlobalZ=0
   JointElem=66   JointObject=66   GlobalX=5.13076923076923   GlobalY=0   GlobalZ=0
   JointElem=67   JointObject=67   GlobalX=5.64384615384615   GlobalY=0   GlobalZ=0
   JointElem=68   JointObject=68   GlobalX=6.15692307692308   GlobalY=0   GlobalZ=0
   JointElem=69   JointObject=69   GlobalX=-6.15692307692308   GlobalY=0   GlobalZ=7.2
   JointElem=70   JointObject=70   GlobalX=-5.64384615384615   GlobalY=0   GlobalZ=7.2
   JointElem=71   JointObject=71   GlobalX=-5.13076923076923   GlobalY=0   GlobalZ=7.2
   JointElem=72   JointObject=72   GlobalX=-4.61769230769231   GlobalY=0   GlobalZ=7.2
   JointElem=73   JointObject=73   GlobalX=-4.10461538461538   GlobalY=0   GlobalZ=7.2
   JointElem=74   JointObject=74   GlobalX=-3.59153846153846   GlobalY=0   GlobalZ=7.2
   JointElem=75   JointObject=75   GlobalX=-3.2   GlobalY=0   GlobalZ=7.2
   JointElem=76   JointObject=76   GlobalX=-2.56538461538462   GlobalY=0   GlobalZ=7.2
   JointElem=77   JointObject=77   GlobalX=-2.05230769230769   GlobalY=0   GlobalZ=7.2
   JointElem=78   JointObject=78   GlobalX=-1.67   GlobalY=0   GlobalZ=7.2
   JointElem=79   JointObject=79   GlobalX=-1.02615384615385   GlobalY=0   GlobalZ=7.2
   JointElem=80   JointObject=80   GlobalX=-0.513076923076924   GlobalY=0   GlobalZ=7.2
   JointElem=81   JointObject=81   GlobalX=0.513076923076923   GlobalY=0   GlobalZ=7.2
   JointElem=82   JointObject=82   GlobalX=1.02615384615385   GlobalY=0   GlobalZ=7.2
   JointElem=83   JointObject=83   GlobalX=1.53923076923077   GlobalY=0   GlobalZ=7.2
   JointElem=84   JointObject=84   GlobalX=2.05230769230769   GlobalY=0   GlobalZ=7.2
   JointElem=85   JointObject=85   GlobalX=2.56538461538462   GlobalY=0   GlobalZ=7.2
   JointElem=86   JointObject=86   GlobalX=3.2   GlobalY=0   GlobalZ=7.2
   JointElem=87   JointObject=87   GlobalX=3.59153846153846   GlobalY=0   GlobalZ=7.2
   JointElem=88   JointObject=88   GlobalX=4.10461538461538   GlobalY=0   GlobalZ=7.2
   JointElem=89   JointObject=89   GlobalX=4.61769230769231   GlobalY=0   GlobalZ=7.2
   JointElem=90   JointObject=90   GlobalX=5.13076923076923   GlobalY=0   GlobalZ=7.2
   JointElem=91   JointObject=91   GlobalX=5.64384615384615   GlobalY=0   GlobalZ=7.2
   JointElem=92   JointObject=92   GlobalX=6.15692307692308   GlobalY=0   GlobalZ=7.2
   JointElem=5   JointObject=5   GlobalX=-7.37   GlobalY=0   GlobalZ=1.15
   JointElem=6   JointObject=6   GlobalX=-7.37   GlobalY=0   GlobalZ=1.65
   JointElem=8   JointObject=8   GlobalX=-7.37   GlobalY=0   GlobalZ=2.15
   JointElem=9   JointObject=9   GlobalX=-7.37   GlobalY=0   GlobalZ=2.65
   JointElem=10   JointObject=10   GlobalX=-7.37   GlobalY=0   GlobalZ=3.15
   JointElem=17   JointObject=17   GlobalX=-7.37   GlobalY=0   GlobalZ=3.65
   JointElem=18   JointObject=18   GlobalX=-7.37   GlobalY=0   GlobalZ=4.15
   JointElem=19   JointObject=19   GlobalX=-7.37   GlobalY=0   GlobalZ=4.65
   JointElem=21   JointObject=21   GlobalX=-7.37   GlobalY=0   GlobalZ=5.15
   JointElem=22   JointObject=22   GlobalX=-7.37   GlobalY=0   GlobalZ=5.65
   JointElem=23   JointObject=23   GlobalX=-7.37   GlobalY=0   GlobalZ=6.15
   JointElem=29   JointObject=29   GlobalX=7.37   GlobalY=0   GlobalZ=1.15
   JointElem=30   JointObject=30   GlobalX=7.37   GlobalY=0   GlobalZ=1.65
   JointElem=31   JointObject=31   GlobalX=7.37   GlobalY=0   GlobalZ=2.15
   JointElem=36   JointObject=36   GlobalX=7.37   GlobalY=0   GlobalZ=2.65
   JointElem=37   JointObject=37   GlobalX=7.37   GlobalY=0   GlobalZ=3.15
   JointElem=38   JointObject=38   GlobalX=7.37   GlobalY=0   GlobalZ=3.65
   JointElem=41   JointObject=41   GlobalX=7.37   GlobalY=0   GlobalZ=4.15
   JointElem=42   JointObject=42   GlobalX=7.37   GlobalY=0   GlobalZ=4.65
   JointElem=43   JointObject=43   GlobalX=7.37   GlobalY=0   GlobalZ=5.15
   JointElem=44   JointObject=44   GlobalX=7.37   GlobalY=0   GlobalZ=5.65
   JointElem=93   JointObject=93   GlobalX=7.37   GlobalY=0   GlobalZ=6.15

TABLE:  "OBJECTS AND ELEMENTS - FRAMES"
   FrameElem=1   FrameObject=1   ElemJtI=1   ElemJtJ=2
   FrameElem=2   FrameObject=2   ElemJtI=2   ElemJtJ=3
```

```
FrameElem=11   FrameObject=11   ElemJtI=11   ElemJtJ=12
FrameElem=12   FrameObject=12   ElemJtI=12   ElemJtJ=13
FrameElem=13   FrameObject=13   ElemJtI=14   ElemJtJ=15
FrameElem=14   FrameObject=14   ElemJtI=15   ElemJtJ=16
FrameElem=23   FrameObject=23   ElemJtI=24   ElemJtJ=25
FrameElem=24   FrameObject=24   ElemJtI=25   ElemJtJ=26
FrameElem=46   FrameObject=46   ElemJtI=3   ElemJtJ=45
FrameElem=47   FrameObject=47   ElemJtI=45   ElemJtJ=46
FrameElem=48   FrameObject=48   ElemJtI=46   ElemJtJ=47
FrameElem=49   FrameObject=49   ElemJtI=47   ElemJtJ=48
FrameElem=50   FrameObject=50   ElemJtI=48   ElemJtJ=49
FrameElem=51   FrameObject=51   ElemJtI=49   ElemJtJ=50
FrameElem=52   FrameObject=52   ElemJtI=50   ElemJtJ=51
FrameElem=53   FrameObject=53   ElemJtI=51   ElemJtJ=52
FrameElem=54   FrameObject=54   ElemJtI=52   ElemJtJ=53
FrameElem=55   FrameObject=55   ElemJtI=53   ElemJtJ=54
FrameElem=56   FrameObject=56   ElemJtI=54   ElemJtJ=55
FrameElem=57   FrameObject=57   ElemJtI=55   ElemJtJ=56
FrameElem=58   FrameObject=58   ElemJtI=56   ElemJtJ=7
FrameElem=59   FrameObject=59   ElemJtI=7   ElemJtJ=57
FrameElem=60   FrameObject=60   ElemJtI=57   ElemJtJ=58
FrameElem=61   FrameObject=61   ElemJtI=58   ElemJtJ=59
FrameElem=62   FrameObject=62   ElemJtI=59   ElemJtJ=60
FrameElem=63   FrameObject=63   ElemJtI=60   ElemJtJ=61
FrameElem=64   FrameObject=64   ElemJtI=61   ElemJtJ=62
FrameElem=65   FrameObject=65   ElemJtI=62   ElemJtJ=63
FrameElem=66   FrameObject=66   ElemJtI=63   ElemJtJ=64
FrameElem=67   FrameObject=67   ElemJtI=64   ElemJtJ=65
FrameElem=68   FrameObject=68   ElemJtI=65   ElemJtJ=66
FrameElem=69   FrameObject=69   ElemJtI=66   ElemJtJ=67
FrameElem=70   FrameObject=70   ElemJtI=67   ElemJtJ=68
FrameElem=71   FrameObject=71   ElemJtI=68   ElemJtJ=11
FrameElem=72   FrameObject=72   ElemJtI=16   ElemJtJ=69
FrameElem=73   FrameObject=73   ElemJtI=69   ElemJtJ=70
FrameElem=74   FrameObject=74   ElemJtI=70   ElemJtJ=71
FrameElem=75   FrameObject=75   ElemJtI=71   ElemJtJ=72
FrameElem=76   FrameObject=76   ElemJtI=72   ElemJtJ=73
FrameElem=77   FrameObject=77   ElemJtI=73   ElemJtJ=74
FrameElem=78   FrameObject=78   ElemJtI=74   ElemJtJ=75
FrameElem=79   FrameObject=79   ElemJtI=75   ElemJtJ=76
FrameElem=80   FrameObject=80   ElemJtI=76   ElemJtJ=77
FrameElem=81   FrameObject=81   ElemJtI=77   ElemJtJ=78
FrameElem=82   FrameObject=82   ElemJtI=78   ElemJtJ=79
FrameElem=83   FrameObject=83   ElemJtI=79   ElemJtJ=80
FrameElem=84   FrameObject=84   ElemJtI=80   ElemJtJ=20
FrameElem=85   FrameObject=85   ElemJtI=20   ElemJtJ=81
FrameElem=86   FrameObject=86   ElemJtI=81   ElemJtJ=82
FrameElem=87   FrameObject=87   ElemJtI=82   ElemJtJ=83
FrameElem=88   FrameObject=88   ElemJtI=83   ElemJtJ=84
FrameElem=89   FrameObject=89   ElemJtI=84   ElemJtJ=85
FrameElem=90   FrameObject=90   ElemJtI=85   ElemJtJ=86
FrameElem=91   FrameObject=91   ElemJtI=86   ElemJtJ=87
FrameElem=92   FrameObject=92   ElemJtI=87   ElemJtJ=88
FrameElem=93   FrameObject=93   ElemJtI=88   ElemJtJ=89
FrameElem=94   FrameObject=94   ElemJtI=89   ElemJtJ=90
FrameElem=95   FrameObject=95   ElemJtI=90   ElemJtJ=91
FrameElem=96   FrameObject=96   ElemJtI=91   ElemJtJ=92
FrameElem=97   FrameObject=97   ElemJtI=92   ElemJtJ=24
FrameElem=3   FrameObject=3   ElemJtI=1   ElemJtJ=27
FrameElem=4   FrameObject=4   ElemJtI=27   ElemJtJ=28
FrameElem=6   FrameObject=6   ElemJtI=32   ElemJtJ=33
FrameElem=7   FrameObject=7   ElemJtI=33   ElemJtJ=14
FrameElem=8   FrameObject=8   ElemJtI=13   ElemJtJ=34
FrameElem=9   FrameObject=9   ElemJtI=34   ElemJtJ=35
FrameElem=15   FrameObject=15   ElemJtI=39   ElemJtJ=40
FrameElem=16   FrameObject=16   ElemJtI=40   ElemJtJ=26
FrameElem=17   FrameObject=17   ElemJtI=28   ElemJtJ=5
FrameElem=18   FrameObject=18   ElemJtI=5   ElemJtJ=6
FrameElem=19   FrameObject=19   ElemJtI=6   ElemJtJ=8
FrameElem=20   FrameObject=20   ElemJtI=8   ElemJtJ=9
FrameElem=21   FrameObject=21   ElemJtI=9   ElemJtJ=10
FrameElem=22   FrameObject=22   ElemJtI=10   ElemJtJ=17
FrameElem=25   FrameObject=25   ElemJtI=17   ElemJtJ=18
FrameElem=26   FrameObject=26   ElemJtI=18   ElemJtJ=19
FrameElem=27   FrameObject=27   ElemJtI=19   ElemJtJ=21
FrameElem=28   FrameObject=28   ElemJtI=21   ElemJtJ=22
FrameElem=29   FrameObject=29   ElemJtI=22   ElemJtJ=23
FrameElem=30   FrameObject=30   ElemJtI=23   ElemJtJ=32
FrameElem=31   FrameObject=31   ElemJtI=35   ElemJtJ=29
FrameElem=32   FrameObject=32   ElemJtI=29   ElemJtJ=30
FrameElem=33   FrameObject=33   ElemJtI=30   ElemJtJ=31
FrameElem=34   FrameObject=34   ElemJtI=31   ElemJtJ=36
```

```
   FrameElem=35   FrameObject=35   ElemJtI=36   ElemJtJ=37
   FrameElem=36   FrameObject=36   ElemJtI=37   ElemJtJ=38
   FrameElem=37   FrameObject=37   ElemJtI=38   ElemJtJ=41
   FrameElem=38   FrameObject=38   ElemJtI=41   ElemJtJ=42
   FrameElem=39   FrameObject=39   ElemJtI=42   ElemJtJ=43
   FrameElem=40   FrameObject=40   ElemJtI=43   ElemJtJ=44
   FrameElem=41   FrameObject=41   ElemJtI=44   ElemJtJ=93
   FrameElem=42   FrameObject=42   ElemJtI=93   ElemJtJ=39

TABLE:  "BASE REACTIONS"
   OutputCase=ENVETA5   CaseType=Combination   StepType=Max   GlobalFX=-195.965442920525   GlobalFY=0
GlobalFZ=2377.74960880766   GlobalMX=0   GlobalMY=-437.597206515167   GlobalMZ=0   GlobalX=0   GlobalY=0   GlobalZ=0
_
       XCentroidFX=-30.4746661420744   YCentroidFX=0   ZCentroidFX=12.7830883409278   XCentroidFY=0   YCentroidFY=0
ZCentroidFY=0   XCentroidFZ=-20866038005174.9   YCentroidFZ=0   ZCentroidFZ=-2.04283016590243
   OutputCase=ENVETA5   CaseType=Combination   StepType=Min   GlobalFX=-363.182163042695   GlobalFY=0
GlobalFZ=2264.45024711939   GlobalMX=0   GlobalMY=-1473.28532795384   GlobalMZ=0   GlobalX=0   GlobalY=0   GlobalZ=0
_
       XCentroidFX=-60.4849484535605   YCentroidFX=0   ZCentroidFX=-7.99955683880417   XCentroidFY=0
YCentroidFY=0   ZCentroidFY=0   XCentroidFZ=-41412092336933.7   YCentroidFZ=0   ZCentroidFZ=-11.4353741142407
   OutputCase=ENVETA   CaseType=Combination   StepType=Max   GlobalFX=2.86135562062285E-11   GlobalFY=0
GlobalFZ=2525.59199999534   GlobalMX=0   GlobalMY=305.211340005009   GlobalMZ=0   GlobalX=0   GlobalY=0   GlobalZ=0
_
       XCentroidFX=-14.729468628544   YCentroidFX=0   ZCentroidFX=18.8390879799587   XCentroidFY=0   YCentroidFY=0
ZCentroidFY=0   XCentroidFZ=10942258085340.7   YCentroidFZ=0   ZCentroidFZ=5.40332090781187
   OutputCase=ENVETA   CaseType=Combination   StepType=Min   GlobalFX=-414.222200000562   GlobalFY=0
GlobalFZ=1786.3799999967   GlobalMX=0   GlobalMY=-1741.07663999162   GlobalMZ=0   GlobalX=0   GlobalY=0   GlobalZ=0
_
       XCentroidFX=-64.4818344990314   YCentroidFX=0   ZCentroidFX=-14.1973618762046   XCentroidFY=0
YCentroidFY=0   ZCentroidFY=0   XCentroidFZ=-51765114649806.4   YCentroidFZ=0   ZCentroidFZ=-14.0005045049805

END TABLE DATA
```

13. TABULATI DI CALCOLO MURI DI SOSTEGNO

Progetto: Muro di sostegno
Ditta:
Comune:
Progettista:
Direttore dei Lavori:
Impresa:

Normative di riferimento

- Legge nr. 1086 del 05/11/1971.
Norme per la disciplina delle opere in conglomerato cementizio, normale e precompresso ed a struttura metallica.
- Legge nr. 64 del 02/02/1974.
Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- D.M. LL.PP. del 11/03/1988.
Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilitàdei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione.
- D.M. LL.PP. del 14/02/1992.
Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 9 Gennaio 1996
Norme Tecniche per il calcolo, l' esecuzione ed il collaudo delle strutture in cemento armato normale e precompresso e per le strutture metalliche
- D.M. 16 Gennaio 1996
Norme Tecniche relative ai 'Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi'
- D.M. 16 Gennaio 1996
Norme Tecniche per le costruzioni in zone sismiche
- Circolare Ministero LL.PP. 15 Ottobre 1996 N. 252 AA.GG./S.T.C.
Istruzioni per l'applicazione delle Norme Tecniche di cui al D.M. 9 Gennaio 1996
- Circolare Ministero LL.PP. 10 Aprile 1997 N. 65/AA.GG.
Istruzioni per l'applicazione delle Norme Tecniche per le costruzioni in zone sismiche di cui al D.M. 16 Gennaio 1996

Il calcolo dei muri di sostegno viene eseguito secondo le seguenti fasi:
- Calcolo della spinta del terreno
- Verifica a ribaltamento
- Verifica a scorrimento del muro sul piano di posa
- Verifica della stabilità complesso fondazione terreno (carico limite)
- Verifica della stabilità globale
Calcolo delle sollecitazioni sia del muro che della fondazione, progetto delle armature e relative verifiche dei materiali

Calcolo della spinta sul muro

Metodo di Culmann

Il metodo di Culmann adotta le stesse ipotesi di base del metodo di Coulomb. La differenza sostanziale è che mentre Coulomb considera un terrapieno con superficie a pendenza costante e carico uniformemente distribuito (il che permette di ottenere una espressione in forma chiusa per il coefficiente di spinta) il metodo di Culmann consente di analizzare situazioni con profilo di forma generica e carichi sia concentrati che distribuiti comunque disposti. Inoltre, rispetto al metodo di Coulomb, risulta più immediato e lineare tener conto della coesione del masso spingente. Il metodo di Culmann, nato come metodo essenzialmente grafico, si è evoluto per essere trattato mediante analisi numerica (noto in questa forma come metodo del cuneo di tentativo). Come il metodo di Coulomb anche questo metodo considera una superficie di rottura rettilinea.
I passi del procedimento risolutivo sono i seguenti:
- si impone una superficie di rottura (angolo di inclinazione □ rispetto all'orizzontale) e si considera il cuneo di spinta delimitato dalla superficie di rottura stessa, dalla parete su cui si calcola la spinta e dal profilo del terreno;
- si valutano tutte le forze agenti sul cuneo di spinta e cioè peso proprio *(W)*, carichi sul terrapieno, resistenza per attrito e per coesione lungo la superficie di rottura *(R e C)* e resistenza per coesione lungo la parete *(A)*;
- dalle equazioni di equilibrio si ricava il valore della spinta S sulla parete.

Questo processo viene iterato fino a trovare l'angolo di rottura per cui la spinta risulta massima.
La convergenza non si raggiunge se il terrapieno risulta inclinato di un angolo maggiore dell'angolo d'attrito del terreno.
Nei casi in cui è applicabile il metodo di Coulomb (profilo a monte rettilineo e carico uniformemente distribuito) i risultati ottenuti col metodo di Culmann coincidono con quelli del metodo di Coulomb.
Le pressioni sulla parete di spinta si ricavano derivando l'espressione della spinta S rispetto all'ordinata *z*. Noto il diagramma delle pressioni è possibile ricavare il punto di applicazione della spinta.

Spinta in presenza di sisma

Per tener conto dell'incremento di spinta dovuta al sisma si fa riferimento al metodo di Mononobe-Okabe (cui fa riferimento la Normativa Italiana).
La Normativa Italiana suggerisce di tener conto di un incremento di spinta dovuto al sisma nel modo seguente.
Detta □ l'inclinazione del terrapieno rispetto all'orizzontale e □ l'inclinazione della parete rispetto alla verticale, si calcola la spinta *S'* considerando un'inclinazione del terrapieno e della parte pari a

□' = □....□

□' = □....□

dove □ = *arctg(C)* essendo *C* il coefficiente di intensità sismica.
Detta *S* la spinta calcolata in condizioni statiche l'incremento di spinta da applicare è espresso da

□S = AS' - S

dove il coefficiente *A* vale

$$A = \frac{\cos^2(\square...\square)}{\cos^2\square\cos\square}$$

Adottando il metodo di Mononobe-Okabe per il calcolo della spinta, il coefficiente *A* viene posto pari a 1.
Tale incremento di spinta deve essere applicato ad una distanza dalla base pari a 2/3 dell'altezza del muro stesso.
Oltre a questo incremento bisogna tener conto delle forze d'inerzia orizzontali che si destano per effetto del sisma. Tale forza viene valutata come

$$F_i = CW$$

dove *W* è il peso del muro, del terreno soprastante la mensola di monte ed i relativi sovraccarichi e va applicata nel baricentro dei pesi.
Il metodo di Culmann tiene conto automaticamente dell'incremento di spinta. Basta inserire nell'equazione risolutiva la forza d'inerzia del cuneo di spinta. La superficie di rottura nel caso di sisma risulta meno inclinata della corrispondente superficie in assenza di sisma.

Verifica a ribaltamento

La verifica a ribaltamento consiste nel determinare il momento risultante di tutte le forze che tendono a fare ribaltare il muro (momento ribaltante M_r) ed il momento risultante di tutte le forze che tendono a stabilizzare il muro (momento stabilizzante M_s) rispetto allo spigolo a valle della fondazione e verificare che il rapporto M_s/M_r sia maggiore di un determinato coefficiente di sicurezza $\square_r$.
La Normativa Italiana (D.M. 1988) impone che sia $\square_r >= 1.5$.

Deve quindi essere verificata la seguente diseguaglianza

$$\frac{M_s}{M_r} >= \square_r$$

Il momento ribaltante M_r è dato dalla componente orizzontale della spinta *S*, dalle forze di inerzia del muro e del terreno gravante sulla fondazione di monte (caso di presenza di sisma) per i rispettivi bracci. Nel momento stabilizzante interviene il peso del muro (applicato nel baricentro) ed il peso del terreno gravante sulla fondazione di monte. Per quanto riguarda invece la componente verticale della spinta essa sarà stabilizzante se l'angolo d'attrito terra-muro $\square$ è positivo, ribaltante se $\square$ è negativo. $\square$ è positivo quando è il terrapieno che scorre rispetto al muro, negativo quando è il muro che tende a scorrere rispetto al terrapieno (questo può essere il caso di una spalla da ponte gravata da carichi notevoli). Se sono presenti dei tiranti essi contribuiscono al momento stabilizzante.
Questa verifica ha significato solo per fondazione superficiale e non per fondazione su pali.

Verifica a scorrimento

Per la verifica a scorrimento del muro lungo il piano di fondazione deve risultare che la somma di tutte le forze parallele al piano di posa che tendono a fare scorrere il muro deve essere minore di tutte le forze, parallele al piano di scorrimento, che si oppongono allo scivolamento, secondo un certo coefficiente di sicurezza. La verifica a scorrimento sisulta soddisfatta se il rapporto fra la risultante delle forze resistenti allo scivolamento F_r e la risultante delle forze che tendono a fare scorrere il muro F_s risulta maggiore di un determinato coefficiente di sicurezza $\square_s$
La Normativa Italiana (D.M. 1988) impone che $\square_s>=1.3$

$$\frac{F_r}{F_s} >= \square_s$$

Le forze che intervengono nella F_s sono: la componente della spinta parallela al piano di fondazione e la componente delle forze d'inerzia parallela al piano di fondazione.
La forza resistente è data dalla resistenza d'attrito e dalla resistenza per adesione lungo la base della fondazione. Detta *N* la componente normale al piano di fondazione del carico totale gravante in fondazione e indicando con $\square_f$ l'angolo d'attrito terreno-fondazione, con c_a l'adesione terreno-fondazione e con B_r la larghezza della fondazione reagente, la forza resistente può esprimersi come

$$F_r = N \text{ tg } \square_f + c_a B_r$$

La Normativa consente di computare, nelle forze resistenti, una aliquota dell'eventuale spinta dovuta al terreno posto a valle del muro. In tal caso, però, il coefficiente di sicurezza deve essere aumentato opportunamente. L'aliquota di spinta passiva che si può considerare ai fini della verifica a scorrimento non può comunque superare il 50 percento.
Per quanto riguarda l'angolo d'attrito terra-fondazione, $\square_f$, diversi autori suggeriscono di assumere un valore di $\square_f$ pari all'angolo d'attrito del terreno di fondazione.

Verifica al carico limite

Il rapporto fra il carico limite in fondazione e la componente normale della risultante dei carichi trasmessi dal muro sul terreno di fondazione deve essere superiore a $\square_q$. Cioè, detto Q_u, il carico limite ed *R* la risultante verticale dei carichi in fondazione, deve essere:

$$\frac{Q_u}{R} >= \square_q$$

La Normativa Italiana (D.M. 1988) impone che $\square_q>=2.0$
Terzaghi ha proposto la seguente espressione per il calcolo della capacità portante di una fondazione superficiale.

$$q_u = cN_cS_c + qN_q + 0.5B\square N_\square S_\square$$

La simbologia adottata è la seguente:

c coesione del terreno in fondazione;

□ angolo di attrito del terreno in fondazione;
□ peso di volume del terreno in fondazione;
B larghezza della fondazione;
D profondità del piano di posa;
q pressione geostatica alla quota del piano di posa.

I fattori di capacità portante sono espressi dalle seguenti relazioni:

$$N_q = \frac{e^{2(0.75\pi-\phi/2)tg(\phi)}}{2\cos^2(45+\phi/2)}$$

$$N_c = (N_q - 1)ctg\phi$$

$$N_\gamma = \frac{tg\phi}{2}\left(\frac{K_p}{\cos^2\phi} - 1\right)$$

I fattori di forma s_c e s_γ che compaiono nella espressione di q_u dipendono dalla forma della fondazione. In particolare valgono 1 per fondazioni nastriformi o rettangolari allungate e valgono rispettivamente 1.3 e 0.8 per fondazioni quadrate.

termine $K_{p\gamma}$ che compare nell'espressione di N_γ non ha un'espressione analitica. Pertanto si assume per N_γ l'espressione proposta da Meyerof

$$N_\gamma = (N_q - 1)tg(1.4*\phi)$$

Verifica alla stabilità globale

La verifica alla stabilità globale del complesso muro+terreno deve fornire un coefficiente di sicurezza non inferiore a γ_g

La Normativa Italiana (D.M. 1988) impone che γ_g>=1.3
Viene usata la tecnica della suddivisione a strisce della superficie di scorrimento da analizzare. La superficie di scorrimento viene supposta circolare e determinata in modo tale da non avere intersezione con il profilo del muro o con i pali di fondazione. Si determina il minimo coefficiente di sicurezza su una maglia di centri di dimensioni 10x10 posta in prossimità della sommità del muro. Il numero di strisce è pari a 50.

Si adotta per la verifica di stabilità globale il metodo di Bishop.

Il coefficiente di sicurezza nel metodo di Bishop si esprime secondo la seguente formula:

$$\phi = \frac{\sum_i \left(c_i b_i + (W_i - u_i b_i)tg\phi_i\right)\frac{1}{m}}{\sum_i W_i \sin\phi_i}$$

dove il termine *m* è espresso da

$$m = \left(1 + \frac{tg\phi_i tg\phi_i}{\phi}\right)\cos\phi_i$$

In questa espressione *n* è il numero delle strisce considerate, b_i e ϕ_i sono la larghezza e l'inclinazione della base della striscia i_{esima} rispetto all'orizzontale, W_i è il peso della striscia i_{esima} , c_i e ϕ_i sono le caratteristiche del terreno (coesione ed angolo di attrito) lungo la base della striscia ed u_i è la pressione neutra lungo la base della striscia.
L'espressione del coefficiente di sicurezza di Bishop contiene al secondo membro il termine *m* che è funzione di □. Quindi essa viene risolta per successive approsimazioni assumendo un valore iniziale per □ da inserire nell'espressione di *m* ed iterare finquando il valore calcolato coincide con il valore assunto.

Impostazioni di analisi

Metodo verifica sezioni **Tensioni ammissibili**

Impostazioni avanzate

Diagramma correttivo per eccentricità negativa con aliquota di parzializzazione pari a 0.00

Quadro riassuntivo coeff. di sicurezza calcolati

Simbologia adottata

C	Identificativo della combinazione
Tipo	Tipo combinazione
Sisma	Combinazione sismica
CS_{sco}	Coeff. di sicurezza allo scorrimento
CS_{RIB}	Coeff. di sicurezza al ribaltamento
CS_{QLIM}	Coeff. di sicurezza a carico limite
CS_{STAB}	Coeff. di sicurezza a stabilità globale

C	Tipo	Sisma	CS_{sco}	CS_{rib}	CS_{qlim}	CS_{stab}
1	TAMM - [2]	--	1,66	5,09	5,74	1,63
2	TAMM - [3]	Orizzontale	1,43	4,14	5,84	1,60

Normativa

Spinte e verifiche secondo :
- D.M. 11/03/1988
- D.M. 16/01/1996

Geometria muro e fondazione

Descrizione **Muro a gradoni in c.a.**

Descrizione dei gradoni

Simbologia adottata
Nr. numero d'ordine del gradone (a partire dall'alto)
Bs base superiore del gradone espressa in [m]
Bi base inferiore del gradone espressa in [m]
Hg altezza del gradone espressa in [m]
α_e inclinazione esterna del gradone espressa in [%]
α_i inclinazione interna del gradone espressa in [%]

Nr.	Bs	Bi	Hg	α_e	α_i
1	0,40	0,40	1,25	0,00	0,00
2	0,40	1,20	8,00	0,00	10,00

Altezza del paramento 9,25 [m]

Fondazione

Lunghezza mensola fondazione di valle	1,00 [m]
Lunghezza mensola fondazione di monte	4,30 [m]
Lunghezza totale fondazione	6,50 [m]
Inclinazione piano di posa della fondazione	0,00 [%]
Spessore fondazione	1,30 [m]
Spessore magrone	0,15 [m]

Materiali utilizzati per la struttura

Calcestruzzo

Peso specifico	25,000 [kN/mc]
Resistenza caratteristica a compressione R_{bk}	24517 [kPa]
Tensione ammissibile a compressione σ_c	8336 [kPa]
Tensione tangenziale ammissibile τ_{c0}	523 [kPa]
Tensione tangenziale ammissibile τ_{c1}	1653 [kPa]

Acciaio

Tipo	FeB44K
Tensione ammissibile σ_{fa}	254977 [kPa]

Geometria profilo terreno a monte del muro

Simbologia adottata e sistema di riferimento
(Sistema di riferimento con origine in testa al muro, ascissa X positiva verso monte, ordinata Y positiva verso l'alto)

N numero ordine del punto
X ascissa del punto espressa in [m]
Y ordinata del punto espressa in [m]
A inclinazione del tratto espressa in [°]

N	X	Y	A
1	15,00	0,00	0,00

Terreno a valle del muro

Inclinazione terreno a valle del muro rispetto all'orizzontale	0,00	[%]
Altezza del rinterro rispetto all'attacco fondaz.valle-paramento	0,00	[m]

Descrizione terreni

Simbologia adottata
Nr. Indice del terreno
Descrizione Descrizione terreno
γ Peso di volume del terreno espresso in [kN/mc]
γ_s Peso di volume saturo del terreno espresso in [kN/mc]
ϕ Angolo d'attrito interno espresso in [°]
δ Angolo d'attrito terra-muro espresso in [°]
c Coesione espressa in [kPa]
c_a Adesione terra-muro espressa in [kPa]

Descrizione	γ	γ_s	ϕ	δ	c	c_a

Rilevato	20,00	20,00	35.00	23.33	0,0	0,0
substrato	19,00	19,00	28.00	28.00	0,0	0,0

Stratigrafia

Simbologia adottata

N	Indice dello strato
H	Spessore dello strato espresso in [m]
a	Inclinazione espressa in [%]
Kw	Costante di Winkler orizzontale espressa in Kg/cm^2/cm
Ks	Coefficiente di spinta
Terreno	Terreno dello strato

Nr.	H	a	Kw	Ks	Terreno
1	10,55	0,00	0,00	0,00	Rilevato
2	4,00	0,00	4,15	0,00	substrato

Condizioni di carico

Simbologia e convenzioni di segno adottate

Carichi verticali positivi verso il basso.
Carichi orizzontali positivi verso sinistra.
Momento positivo senso antiorario.

X	Ascissa del punto di applicazione del carico concentrato espressa in [m]
F_x	Componente orizzontale del carico concentrato espressa in [kN]
F_y	Componente verticale del carico concentrato espressa in [kN]
M	Momento espresso in [kNm]
X_i	Ascissa del punto iniziale del carico ripartito espressa in [m]
X_f	Ascissa del punto finale del carico ripartito espressa in [m]
Q_i	Intensità del carico per x=X_i espressa in [kN/m]
Q_f	Intensità del carico per x=X_f espressa in [kN/m]
D / C	Tipo carico : D=distribuito C=concentrato

Condizione n° 1 (carichi ferroviari)

D	Profilo	X_i=0,00	X_f=5,00	Q_i=5,0000	Q_f=5,0000	
D	Profilo	X_i=5,00	X_f=15,00	Q_i=40,0000	Q_f=40,0000	

Condizione n° 2 (Vento)

C	Paramento	X=-0,20	Y=0,00	F_x=15,0000	F_y=0,0000	M=45,0000

Descrizione combinazioni di carico

Simbologia adottata

C	Coefficiente totale di partecipazione della condizione

Combinazione n° 1 Tensioni ammissibili

	C
Peso proprio	1.00
Spinta terreno	1.00
carichi ferroviari	1.00
Vento	0.60

Combinazione n° 2 Tensioni ammissibili

	C
Peso proprio	1.00
Spinta terreno	1.00
carichi ferroviari	0.80
Vento	1.00

Combinazione n° 3 Tensioni ammissibili - Sismica

	C
Peso proprio	1.00
Spinta terreno	1.00

Impostazioni di analisi

Metodo verifica sezioni **Tensioni ammissibili**

Impostazioni avanzate

Influenza del terreno sulla fondazione di valle nelle verifiche e nel calcolo delle sollecitazioni
Diagramma correttivo per eccentricità negativa con aliquota di parzializzazione pari a 0.00

Quadro riassuntivo coeff. di sicurezza calcolati

Simbologia adottata

C	Identificativo della combinazione
Tipo	Tipo combinazione
Sisma	Combinazione sismica
CS_{sco}	Coeff. di sicurezza allo scorrimento

CS_{RIB} Coeff. di sicurezza al ribaltamento
CS_{QLIM} Coeff. di sicurezza a carico limite
CS_{STAB} Coeff. di sicurezza a stabilità globale

C	Tipo	Sisma	cs_{sco}	cs_{rib}	cs_{qlim}	cs_{stab}
1	TAMM - [2]	--	2,17	3,76	5,22	1,57
2	TAMM - [3]	--	2,23	3,75	5,25	1,59
3	TAMM - [3]	Orizzontale	2,27	4,10	5,52	1,59

Analisi della spinta e verifiche

Sistema di riferimento adottato per le coordinate :
Origine in testa al muro (spigolo di monte)
Ascisse X (espresse in [m]) positive verso monte
Ordinate Y (espresse in [m]) positive verso l'alto
Le forze orizzontali sono considerate positive se agenti da monte verso valle
Le forze verticali sono considerate positive se agenti dall'alto verso il basso

Calcolo riferito ad 1 metro di muro

Tipo di analisi

Calcolo della spinta	metodo di Culmann
Calcolo del carico limite	metodo di Terzaghi
Calcolo della stabilità globale	metodo di Bishop
Calcolo della spinta in condizioni di	Spinta attiva

Sisma

Coefficiente di intensità sismica (percento)	4.00
Forma diagramma incremento sismico	Triangolare con vertice in basso
Partecipazione spinta passiva (percento)	0,0
Lunghezza del muro	10,00 [m]
Peso muro	383,7500 [kN]
Baricentro del muro	X=1,03 Y=-7,94

Superficie di spinta

Punto inferiore superficie di spinta	X = 5,10 Y = -10,55
Punto superiore superficie di spinta	X = 5,10 Y = 0,00
Altezza della superficie di spinta	10,55 [m]
Inclinazione superficie di spinta(rispetto alla verticale)	0,00 [%]

COMBINAZIONE n° 1

Valore della spinta statica	374,9475	[kN]		
Componente orizzontale della spinta statica	344,2915	[kN]		
Componente verticale della spinta statica	148,4891	[kN]		
Punto d'applicazione della spinta	X = 5,10	[m]	Y = -6,55	[m]
Inclinaz. della spinta rispetto alla normale alla superficie	43,13	[%]		
Inclinazione linea di rottura in condizioni statiche	166,05	[%]		
Peso terrapieno gravante sulla fondazione a monte	908,5000	[kN]		
Baricentro terrapieno gravante sulla fondazione a monte	X = 2,72	[m]	Y = -4,48	[m]

Risultanti carichi esterni

Componente dir. X	9,00	[kN]

Risultanti

Risultante dei carichi applicati in dir. orizzontale	353,2915	[kN]
Risultante dei carichi applicati in dir. verticale	1440,7391	[kN]
Momento ribaltante rispetto allo spigolo a valle	1499,8506	[kNm]
Momento stabilizzante rispetto allo spigolo a valle	5635,6017	[kNm]
Sforzo normale sul piano di posa della fondazione	1440,7391	[kN]
Sforzo tangenziale sul piano di posa della fondazione	353,2915	[kN]
Eccentricità rispetto al baricentro della fondazione	0,38	[m]
Risultante in fondazione	1483,4231	[kN]
Inclinazione della risultante (rispetto alla normale)	24,52	[%]
Momento rispetto al baricentro della fondazione	546,6509	[kNm]
Carico ultimo della fondazione	7518,1067	[kN]

Tensioni sul terreno

Lunghezza fondazione reagente	6,50	[m]
Tensione terreno allo spigolo di valle	299,28	[kPa]
Tensione terreno allo spigolo di monte	144,02	[kPa]

Fattori per il calcolo della capacità portante

N_c = 31.61	N'_c = 31.61
N_q = 17.81	N'_q = 17.81
N_γ = 13.71	N'_γ = 13.71

COEFFICIENTI DI SICUREZZA

Coefficiente di sicurezza a ribaltamento	3.76
Coefficiente di sicurezza a scorrimento	2.17
Coefficiente di sicurezza a carico ultimo	5.22
Coefficiente di sicurezza a stabilità globale	1.57

Stabilità globale muro + terreno

Combinazione n° 1
Le ascisse X sono considerate positive verso monte
Le ordinate Y sono considerate positive verso l'alto
Origine in testa al muro (spigolo contro terra)
W peso della striscia espresso in [kN]
α angolo fra la base della striscia e l'orizzontale espresso in [°] (positivo antiorario)
ϕ angolo d'attrito del terreno lungo la base della striscia
c coesione del terreno lungo la base della striscia espressa in [kPa]
b larghezza della striscia espressa in [m]
u pressione neutra lungo la base della striscia espressa in [kPa]

Metodo di Bishop
Numero di cerchi analizzati 36
Numero di strisce 25

Cerchio critico
Coordinate del centro X[m]= -1,78 Y[m]= 1,78
Raggio del cerchio R[m]= 14,13
Ascissa a valle del cerchio Xi[m]= -10,62
Ascissa a monte del cerchio Xs[m]= 12,24
Larghezza della striscia dx[m]= 0,91
Coefficiente di sicurezza C= 1.57
Le strisce sono numerate da monte verso valle

Caratteristiche delle strisce

Striscia	W	α(°)	Wsinα	b/cosα	ϕ	c	u
1	6975.13	75.30	6746.71	3.60	35.00	0.000	0.000
2	11960.11	63.89	10739.38	2.08	35.00	0.000	0.000
3	14977.09	56.33	12464.12	1.65	35.00	0.000	0.000
4	17274.52	50.09	13250.62	1.42	35.00	0.000	0.000
5	19133.21	44.60	13433.46	1.28	35.00	0.000	0.000
6	20677.73	39.59	13176.46	1.19	35.00	0.000	0.000
7	21976.95	34.92	12579.70	1.11	35.00	0.000	0.000
8	22917.39	30.50	11633.04	1.06	33.74	0.000	0.000
9	21313.51	26.28	9438.24	1.02	28.00	0.000	0.000
10	22048.09	22.21	8335.56	0.99	28.00	0.000	0.000
11	22648.95	18.26	7096.02	0.96	28.00	0.000	0.000
12	23126.15	14.39	5748.06	0.94	28.00	0.000	0.000
13	24008.59	10.59	4412.89	0.93	28.00	0.000	0.000
14	23525.72	6.84	2800.95	0.92	28.00	0.000	0.000
15	6165.93	3.11	334.91	0.92	28.00	0.000	0.000
16	5581.22	-0.60	-58.20	0.91	28.00	0.000	0.000
17	5511.77	-4.31	-414.32	0.92	28.00	0.000	0.000
18	5336.38	-8.04	-746.64	0.92	28.00	0.000	0.000
19	5052.78	-11.81	-1034.11	0.93	28.00	0.000	0.000
20	4657.12	-15.63	-1254.67	0.95	28.00	0.000	0.000
21	4143.72	-19.52	-1384.68	0.97	28.00	0.000	0.000
22	3504.64	-23.51	-1398.09	1.00	28.00	0.000	0.000
23	2728.49	-27.63	-1265.18	1.03	28.98	0.000	0.000
24	1768.73	-31.90	-934.74	1.08	35.00	0.000	0.000
25	610.44	-36.39	-362.16	1.14	35.00	0.000	0.000

ΣW_i= 3114,8805 [kN]
$\Sigma W_i \sin\alpha_i$= 1209,5454 [kN]
$\Sigma W_i \tan\phi_i$= 1878,0419 [kN]
$\Sigma \tan\alpha_i \tan\phi_i$= 7.08

Sollecitazioni paramento

Combinazione n° 1
L'ordinata Y(espressa in m) è considerata positiva verso il basso con origine in testa al muro
Momento positivo se tende le fibre contro terra (a monte), espresso in kNm
Sforzo normale positivo di compressione, espresso in kN
Taglio positivo se diretto da monte verso valle, espresso in kN

Nr.	Y	N	M	T
1	0,00	0,0000	27,0000	9,0000
2	0,42	4,1667	30,9013	9,8563
3	0,83	8,3333	35,3219	11,4925
4	1,25	12,5000	40,5867	13,9085
5	1,25	12,5000	40,6630	14,2955
6	1,72	17,4827	48,6682	18,4253
7	2,19	23,0190	59,0095	23,6921
8	2,66	29,1090	72,2306	30,0831
9	3,13	35,7526	88,8734	37,5979
10	3,60	42,9498	109,4800	46,2366
11	4,07	50,7007	134,5920	55,9991
12	4,54	59,0052	164,7515	66,8853
13	5,01	67,8633	200,5003	78,8954
14	5,49	77,2751	242,3802	92,0292
15	5,96	87,2405	290,9331	106,2867
16	6,43	97,7595	346,7012	121,6814
17	6,90	108,8322	410,3375	138,8558
18	7,37	120,4585	483,0008	158,9718
19	7,84	132,6384	565,9704	181,2141
20	8,31	145,3720	659,9921	204,6829
21	8,78	158,6592	765,6465	229,3503
22	9,25	172,5000	883,5082	255,2066

Sollecitazioni fondazione di valle

Combinazione n° 1
L'ascissa X(espressa in m) è considerata positiva verso monte con origine in corrispondenza dell'estremo libero della fondazione di valle
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,10	1,3299	26,5589
3	0,20	5,3038	52,8789
4	0,30	11,8977	78,9600
5	0,40	21,0879	104,8023
6	0,50	32,8502	130,4057
7	0,60	47,1610	155,7703
8	0,70	63,9963	180,8960
9	0,80	83,3323	205,7828
10	0,90	105,1449	230,4308
11	1,00	129,4105	254,8398

Sollecitazioni fondazione di monte

Combinazione n° 1
L'ascissa X(espressa in m) è considerata positiva verso valle con origine in corrispondenza dell'estremo libero della fondazione di monte
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,43	-8,2688	-35,0376
3	0,86	-29,3242	-62,1585
4	1,29	-61,0921	-84,8629
5	1,72	-101,6733	-103,1506
6	2,15	-149,1686	-117,0218
7	2,58	-201,6789	-126,4763
8	3,01	-257,3051	-131,5142
9	3,44	-314,1481	-132,1356
10	3,87	-370,3087	-128,3403
11	4,30	-423,8878	-120,1285

COMBINAZIONE n° 2

Valore della spinta statica	354,3213	[kN]		
Componente orizzontale della spinta statica	325,3517	[kN]		
Componente verticale della spinta statica	140,3206	[kN]		
Punto d'applicazione della spinta	X = 5,10	[m]	Y = -6,62	[m]
Inclinaz. della spinta rispetto alla normale alla superficie	43,13	[%]		
Inclinazione linea di rottura in condizioni statiche	166,05	[%]		
Peso terrapieno gravante sulla fondazione a monte	902,7000	[kN]		
Baricentro terrapieno gravante sulla fondazione a monte	X = 2,72	[m]	Y = -4,48	[m]

Risultanti carichi esterni

Componente dir. X	15,00	[kN]

Risultanti

Risultante dei carichi applicati in dir. orizzontale	340,3517	[kN]
Risultante dei carichi applicati in dir. verticale	1426,7706	[kN]
Momento ribaltante rispetto allo spigolo a valle	1481,2521	[kNm]
Momento stabilizzante rispetto allo spigolo a valle	5558,6326	[kNm]
Sforzo normale sul piano di posa della fondazione	1426,7706	[kN]
Sforzo tangenziale sul piano di posa della fondazione	340,3517	[kN]
Eccentricità rispetto al baricentro della fondazione	0,39	[m]
Risultante in fondazione	1466,8038	[kN]
Inclinazione della risultante (rispetto alla normale)	23,85	[%]
Momento rispetto al baricentro della fondazione	559,6238	[kNm]
Carico ultimo della fondazione	7484,5644	[kN]

Tensioni sul terreno

Lunghezza fondazione reagente	6,50	[m]
Tensione terreno allo spigolo di valle	298,98	[kPa]
Tensione terreno allo spigolo di monte	140,03	[kPa]

Fattori per il calcolo della capacità portante

N_c = 31.61	N'_c = 31.61
N_q = 17.81	N'_q = 17.81
N_γ = 13.71	N'_γ = 13.71

COEFFICIENTI DI SICUREZZA

Coefficiente di sicurezza a ribaltamento	3.75
Coefficiente di sicurezza a scorrimento	2.23
Coefficiente di sicurezza a carico ultimo	5.25
Coefficiente di sicurezza a stabilità globale	1.59

Stabilità globale muro + terreno

Combinazione n° 2

Le ascisse X sono considerate positive verso monte
Le ordinate Y sono considerate positive verso l'alto
Origine in testa al muro (spigolo contro terra)
W peso della striscia espresso in [kN]
α angolo fra la base della striscia e l'orizzontale espresso in [°] (positivo antiorario)
ϕ angolo d'attrito del terreno lungo la base della striscia
c coesione del terreno lungo la base della striscia espressa in [kPa]
b larghezza della striscia espressa in [m]
u pressione neutra lungo la base della striscia espressa in [kPa]

Metodo di Bishop
Numero di cerchi analizzati 36
Numero di strisce 25

Cerchio critico
Coordinate del centro X[m]= -1,78 Y[m]= 1,78
Raggio del cerchio R[m]= 14,13
Ascissa a valle del cerchio Xi[m]= -10,62
Ascissa a monte del cerchio Xs[m]= 12,24
Larghezza della striscia dx[m]= 0,91
Coefficiente di sicurezza C= 1.59
Le strisce sono numerate da monte verso valle

Caratteristiche delle strisce

Striscia	W	α(°)	Wsinα	b/cosα	ϕ	c	u
1	6229.46	75.30	6025.47	3.60	35.00	0.000	0.000
2	11214.45	63.89	10069.82	2.08	35.00	0.000	0.000
3	14231.43	56.33	11843.57	1.65	35.00	0.000	0.000
4	16528.86	50.09	12678.65	1.42	35.00	0.000	0.000
5	18387.55	44.60	12909.93	1.28	35.00	0.000	0.000
6	19932.07	39.59	12701.30	1.19	35.00	0.000	0.000
7	21231.29	34.92	12152.88	1.11	35.00	0.000	0.000
8	22226.19	30.50	11282.19	1.06	33.74	0.000	0.000
9	21220.30	26.28	9396.97	1.02	28.00	0.000	0.000
10	21954.89	22.21	8300.32	0.99	28.00	0.000	0.000
11	22555.74	18.26	7066.82	0.96	28.00	0.000	0.000
12	23032.94	14.39	5724.90	0.94	28.00	0.000	0.000
13	23915.39	10.59	4395.76	0.93	28.00	0.000	0.000
14	23489.69	6.84	2796.66	0.92	28.00	0.000	0.000
15	6165.93	3.11	334.91	0.92	28.00	0.000	0.000
16	5581.22	-0.60	-58.20	0.91	28.00	0.000	0.000
17	5511.77	-4.31	-414.32	0.92	28.00	0.000	0.000
18	5336.38	-8.04	-746.64	0.92	28.00	0.000	0.000
19	5052.78	-11.81	-1034.11	0.93	28.00	0.000	0.000
20	4657.12	-15.63	-1254.67	0.95	28.00	0.000	0.000
21	4143.72	-19.52	-1384.68	0.97	28.00	0.000	0.000
22	3504.64	-23.51	-1398.09	1.00	28.00	0.000	0.000
23	2728.49	-27.63	-1265.18	1.03	28.98	0.000	0.000
24	1768.73	-31.90	-934.74	1.08	35.00	0.000	0.000
25	610.44	-36.39	-362.16	1.14	35.00	0.000	0.000

ΣW_i= 3051,9903 [kN]
$\Sigma W_i \sin\alpha_i$= 1165,3167 [kN]
$\Sigma W_i \tan\phi_i$= 1835,0538 [kN]
$\Sigma \tan\alpha_i \tan\phi_i$= 7.08

Sollecitazioni paramento

Combinazione n° 2

L'ordinata Y(espressa in m) è considerata positiva verso il basso con origine in testa al muro
Momento positivo se tende le fibre contro terra (a monte), espresso in kNm
Sforzo normale positivo di compressione, espresso in kN
Taglio positivo se diretto da monte verso valle, espresso in kN

Nr.	Y	N	M	T
1	0,00	0,0000	45,0000	15,0000
2	0,42	4,1667	51,3819	15,7630
3	0,83	8,3333	58,2441	17,3057
4	1,25	12,5000	65,9116	19,6281
5	1,25	12,5000	66,0096	20,0262
6	1,72	17,4827	76,6836	24,0371
7	2,19	23,0190	89,6377	29,1848
8	2,66	29,1090	105,4155	35,4564
9	3,13	35,7526	124,5589	42,8520
10	3,60	42,9498	147,6099	51,3713
11	4,07	50,7007	175,1102	61,0144
12	4,54	59,0052	207,6017	71,7813
13	5,01	67,8633	245,6264	83,6720
14	5,49	77,2751	289,7260	96,6864
15	5,96	87,2405	340,4424	110,8245
16	6,43	97,7595	398,3175	126,0864
17	6,90	108,8322	463,9026	142,6210
18	7,37	120,4585	538,1030	161,7628
19	7,84	132,6384	622,2012	183,2239
20	8,31	145,3720	716,9842	205,9052

21	8,78	158,6592	823,0246	229,7653
22	9,25	172,5000	940,8882	254,7968

Sollecitazioni fondazione di valle

Combinazione n° 2
L'ascissa X(espressa in m) è considerata positiva verso monte con origine in corrispondenza dell'estremo libero della fondazione di valle
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,10	1,3283	26,5254
3	0,20	5,2969	52,8062
4	0,30	11,8814	78,8425
5	0,40	21,0573	104,6343
6	0,50	32,8001	130,1815
7	0,60	47,0854	155,4842
8	0,70	63,8888	180,5424
9	0,80	83,1858	205,3560
10	0,90	104,9519	229,9251
11	1,00	129,1626	254,2497

Sollecitazioni fondazione di monte

Combinazione n° 2
L'ascissa X(espressa in m) è considerata positiva verso valle con origine in corrispondenza dell'estremo libero della fondazione di monte
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,43	-8,2719	-35,5714
3	0,86	-29,8033	-63,8214
4	1,29	-62,5102	-87,5500
5	1,72	-104,4483	-106,7572
6	2,15	-153,6733	-121,4429
7	2,58	-208,2411	-131,6072
8	3,01	-266,2075	-137,2502
9	3,44	-325,6282	-138,3717
10	3,87	-384,5590	-134,9718
11	4,30	-441,0558	-127,0505

COMBINAZIONE n° 3

Valore della spinta statica	271,8164	[kN]		
Componente orizzontale della spinta statica	249,5925	[kN]		
Componente verticale della spinta statica	107,6465	[kN]		
Punto d'applicazione della spinta	X = 5,10	[m]	Y = -7,03	[m]
Inclinaz. della spinta rispetto alla normale alla superficie	43,13	[%]		
Inclinazione linea di rottura in condizioni statiche	166,05	[%]		
Incremento sismico della spinta	25,6010	[kN]		
Punto d'applicazione dell'incremento sismico di spinta	X = 5,10	[m]	Y = -3,52	[m]
Inclinazione linea di rottura in condizioni sismiche	154,02	[%]		
Peso terrapieno gravante sulla fondazione a monte	879,5000	[kN]		
Baricentro terrapieno gravante sulla fondazione a monte	X = 2,72	[m]	Y = -4,48	[m]
Inerzia del muro	15,3500	[kN]		
Inerzia del terrapieno fondazione di monte	35,1800	[kN]		

Risultanti

Risultante dei carichi applicati in dir. orizzontale	323,6303	[kN]
Risultante dei carichi applicati in dir. verticale	1381,0351	[kN]
Momento ribaltante rispetto allo spigolo a valle	1297,3095	[kNm]
Momento stabilizzante rispetto allo spigolo a valle	5316,6574	[kNm]
Sforzo normale sul piano di posa della fondazione	1381,0351	[kN]
Sforzo tangenziale sul piano di posa della fondazione	323,6303	[kN]
Eccentricità rispetto al baricentro della fondazione	0,34	[m]
Risultante in fondazione	1418,4479	[kN]
Inclinazione della risultante (rispetto alla normale)	23,43	[%]
Momento rispetto al baricentro della fondazione	469,0162	[kNm]
Carico ultimo della fondazione	7622,3748	[kN]

Tensioni sul terreno

Lunghezza fondazione reagente	6,50	[m]
Tensione terreno allo spigolo di valle	279,07	[kPa]
Tensione terreno allo spigolo di monte	145,86	[kPa]

Fattori per il calcolo della capacità portante

N_c = 31.61	N'_c = 31.61
N_q = 17.81	N'_q = 17.81
N_γ = 13.71	N'_γ = 13.71

COEFFICIENTI DI SICUREZZA

Coefficiente di sicurezza a ribaltamento	4.10
Coefficiente di sicurezza a scorrimento	2.27

Coefficiente di sicurezza a carico ultimo 5.52
Coefficiente di sicurezza a stabilità globale 1.59

Stabilità globale muro + terreno

Combinazione n° 3
Le ascisse X sono considerate positive verso monte
Le ordinate Y sono considerate positive verso l'alto
Origine in testa al muro (spigolo contro terra)
W peso della striscia espresso in [kN]
α angolo fra la base della striscia e l'orizzontale espresso in [°] (positivo antiorario)
ϕ angolo d'attrito del terreno lungo la base della striscia
c coesione del terreno lungo la base della striscia espressa in [kPa]
b larghezza della striscia espressa in [m]
u pressione neutra lungo la base della striscia espressa in [kPa]

Metodo di Bishop
Numero di cerchi analizzati 36
Numero di strisce 25

Cerchio critico
Coordinate del centro X[m]= -2,68 Y[m]= 2,68
Raggio del cerchio R[m]= 15,34
Ascissa a valle del cerchio Xi[m]= -12,35
Ascissa a monte del cerchio Xs[m]= 12,44
Larghezza della striscia dx[m]= 0,99
Coefficiente di sicurezza C= 1.59
Le strisce sono numerate da monte verso valle

Caratteristiche delle strisce

Striscia	W	α(°)	Wsinα	b/cosα	ϕ	c	u
1	3358.00	73.38	3217.79	3.47	35.00	0.000	0.000
2	8675.57	62.92	7724.25	2.18	35.00	0.000	0.000
3	12097.10	55.57	9978.20	1.75	35.00	0.000	0.000
4	14730.18	49.45	11192.39	1.52	35.00	0.000	0.000
5	16869.86	44.03	11724.29	1.38	35.00	0.000	0.000
6	18651.78	39.07	11754.76	1.28	35.00	0.000	0.000
7	20152.22	34.44	11396.16	1.20	35.00	0.000	0.000
8	21803.54	30.05	10919.49	1.15	30.95	0.000	0.000
9	23090.54	25.86	10070.68	1.10	28.00	0.000	0.000
10	23937.52	21.81	8892.22	1.07	28.00	0.000	0.000
11	24628.88	17.87	7556.68	1.04	28.00	0.000	0.000
12	25351.44	14.01	6139.44	1.02	28.00	0.000	0.000
13	28094.55	10.23	4987.58	1.01	28.00	0.000	0.000
14	7196.05	6.48	812.34	1.00	28.00	0.000	0.000
15	6644.12	2.77	320.55	0.99	28.00	0.000	0.000
16	6674.49	-0.94	-109.42	0.99	28.00	0.000	0.000
17	6581.49	-4.65	-533.33	0.99	28.00	0.000	0.000
18	6363.92	-8.38	-927.07	1.00	28.00	0.000	0.000
19	6018.96	-12.14	-1265.90	1.01	28.00	0.000	0.000
20	5541.92	-15.96	-1523.84	1.03	28.00	0.000	0.000
21	4925.94	-19.85	-1672.94	1.05	28.00	0.000	0.000
22	4161.45	-23.85	-1682.37	1.08	28.00	0.000	0.000
23	3235.26	-27.97	-1517.15	1.12	28.00	0.000	0.000
24	2102.69	-32.25	-1122.05	1.17	34.41	0.000	0.000
25	722.38	-36.75	-432.22	1.24	35.00	0.000	0.000

ΣW_i= 2957,8295 [kN]
$\Sigma W_i \sin\alpha_i$= 1038,5458 [kN]
$\Sigma W_i \tan\phi_i$= 1747,8230 [kN]
$\Sigma \tan\alpha_i \tan\phi_i$= 6.52

Sollecitazioni paramento

Combinazione n° 3
L'ordinata Y(espressa in m) è considerata positiva verso il basso con origine in testa al muro
Momento positivo se tende le fibre contro terra (a monte), espresso in kNm
Sforzo normale positivo di compressione, espresso in kN
Taglio positivo se diretto da monte verso valle, espresso in kN

Nr.	Y	N	M	T
1	0,00	0,0000	0,0000	0,0000
2	0,42	4,1667	0,4468	2,2615
3	0,83	8,3333	1,9819	5,2236
4	1,25	12,5000	4,8971	8,8865
5	1,25	12,5000	4,9672	9,1446
6	1,72	17,4827	10,8325	14,4695
7	2,19	23,0190	19,5787	20,8561
8	2,66	29,1090	31,7141	28,2922
9	3,13	35,7526	47,7455	36,7778
10	3,60	42,9498	68,1799	46,3128
11	4,07	50,7007	93,5241	56,8973
12	4,54	59,0052	124,2851	68,5313
13	5,01	67,8633	160,9698	81,2147
14	5,49	77,2751	204,0850	94,9476
15	5,96	87,2405	254,1377	109,7300
16	6,43	97,7595	311,6347	125,5619
17	6,90	108,8322	377,0830	142,4432

18	7,37	120,4585	450,9894	160,3740
19	7,84	132,6384	533,8609	179,3543
20	8,31	145,3720	626,2043	199,3841
21	8,78	158,6592	728,5265	220,4633
22	9,25	172,5000	841,3345	242,5921

Sollecitazioni fondazione di valle

Combinazione n° 3
L'ascissa X(espressa in m) è considerata positiva verso monte con origine in corrispondenza dell'estremo libero della fondazione di valle
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,10	1,2294	24,5548
3	0,20	4,9041	48,9047
4	0,30	11,0036	73,0496
5	0,40	19,5072	96,9896
6	0,50	30,3946	120,7246
7	0,60	43,6453	144,2547
8	0,70	59,2388	167,5799
9	0,80	77,1545	190,7001
10	0,90	97,3719	213,6154
11	1,00	119,8707	236,3257

Sollecitazioni fondazione di monte

Combinazione n° 3
L'ascissa X(espressa in m) è considerata positiva verso valle con origine in corrispondenza dell'estremo libero della fondazione di monte
Momento positivo se tende le fibre inferiori, espresso in kNm
Taglio positivo se diretto verso l'alto, espresso in kN

Nr.	X	M	T
1	0,00	0,0000	0,0000
2	0,43	-6,3514	-28,9101
3	0,86	-24,3195	-54,0307
4	1,29	-52,2747	-75,3621
5	1,72	-88,5877	-92,9040
6	2,15	-131,6291	-106,6567
7	2,58	-179,7693	-116,6199
8	3,01	-231,3791	-122,7938
9	3,44	-284,8289	-125,1783
10	3,87	-338,4893	-123,7735
11	4,30	-390,7309	-118,5793