



KAUFHAUS BOZEN

DAS INFRASTRUKTURPROJEKT IL PROGETTO INFRASTRUTTURALE

Relazione di predimensionamento delle strutture Bericht zur Vordimensionierung der Tragwerke

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Bauherr/Committente:



KHB Kaufhaus Bozen GmbH

Eine Gesellschaft der SIGNA Gruppe.

General Contractor - Projektmanagement:



ICM Italia General Contractor Srl

Planungsteam/Team di Progettazione:



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1 PREMESSA

Nella presente relazione si affronta il calcolo strutturale di pre-dimensionamento relativo alle opere da realizzarsi nell'ambito del Progetto Preliminare per la realizzazione della viabilità d'accesso al nuovo centro commerciale ed alla nuova stazione delle corriere a Bolzano.

Nello specifico viene di seguito riportato il calcolo delle strutture relative alla galleria artificiale e relative alla passerella ciclopedinale posta a scavalco della viabilità di nuova realizzazione in prossimità di via del Macello.

La costruzione della galleria artificiale è prevista per mezzo dell'utilizzo della tecnologia "top down".

Tale tecnologia, tipicamente utilizzata nell'ambito della realizzazione di strutture interrate in contesti densamente urbanizzati, consiste nella realizzazione, preliminarmente alle fasi di scavo, di paratie costituite da diaframmi in c.a., dalla successiva realizzazione del solaio di copertura e quindi all'approfondimento dello scavo fino alla quota d'imposta delle fondazioni.

La realizzazione del solaio di copertura garantisce un vincolo posto in testa alla paratia e quindi la possibilità dell'approfondimento dello scavo senza la necessità della realizzazione di tiranti.

Una volta raggiunta la quota di fondo scavo si procede quindi alla realizzazione di fondazioni ed elevazioni fino a riportarsi al solaio di copertura già realizzato.

La struttura della passerella, avente luce pari a 23 m, è costituita da tre travi metalliche di altezza totale esterna pari a 1.0 m, collegate da traversi realizzati con travi in acciaio ad anima piena.

Il piano dell'impalcato viene realizzato con la posa di lastre predalle prefabbricate in calcestruzzo, ordite tra una trave e l'altra, e da successivo getto collaborante di calcestruzzo.

La soletta ha uno spessore totale pari a 25 cm

La collaborazione tra soletta in c.a. e travi metalliche viene garantita tramite opportuna piolatura.

La passerella è classificata come un ponte di 3^a categoria ed è pertanto soggetta ai carichi variabili individuati nello Schema di carico n.5 così come definito in N.T.C. 14.01.2008.

1 PRÄMISSE

Im gegenständlichen Bericht wird die statische Berechnung der Vorbemessungen bezüglich der Arbeiten des Vorprojektes zur Realisierung des Verkehrsnetzes der Zufahrten zum neuen Kaufhaus und des neuen Busbahnhofes in Bozen wiedergegeben.

Spezifisch werden in Folge die Berechnungen der Strukturen bezüglich der Gallerie und bezüglich des Geh-Radweges, welcher anhand einer Brücke die Mayer-Nusser Straße überqueren soll und somit das Geh-Radwegnetz in das Ortszentrum führt, angeführt.

Für die Realisierung der Gallerie wird die Technik „top down“ angewandt.

Diese Technologie, welche typisch für die Realisierung von unterirdischen Strukturen im städtebaulichen Bereich ist, setzt sich aus den Aushubarbeiten, der Realisierung beidseitiger Schlitzwände in Stahlbeton und der Realisierung der darauffolgenden Stahlbetondecke über den beidseitigen Schlitzwänden zusammen. In Folge dieser Arbeiten findet der Aushub im Inneren der bereits realisierten Strukturen bis zur Kote der Fundamente statt.

Die Realisierung der Stahlbetondecke garantiert dabei eine Belastung, welche sich auf die Oberkante der Schlitzwände auswirkt und dadurch auch die Möglichkeit eines vertieften Aushubes ohne Bedarf zusätzlicher Verankerungen.

Nach Beendigung des Aushubes bis zur geplanten Kote können somit die Fundamente und Auffüllungen in Abhängigkeit von der bereits realisierten Decke realisiert bzw. durchgeführt werden.

Die Struktur der Brücke, welche sich über eine Länge von 23m erstreckt, besteht aus 3 Stahlträgern in Längsrichtung mit einer Gesamthöhe von 1,0m, welche mit Vollprofilen als Querträger verbunden werden. Die Decke wird mit vorgefertigten Fertigteilen realisiert. Diese soll auf den Trägern aufliegen und anschließend mit Beton ausgegossen werden. Die fertige Decke erhält eine Stärke von 25cm.

Um die Zusammenwirkung zwischen Betondecke und Stahlträgern zu garantieren werden geeignete Kopfbolzen vorgesehen.

Die Geh-Radwegüberquerung wird als Brücke der 3. Kategorie eingestuft und ist somit den variablen Lasten, erkennbar aus dem Belastungsschema Nr. 5 wie im N.T.C. 14.01.2008 definiert, unterworfen.

2 NORME E RIFERIMENTI DI PROGETTAZIONE

- **NTC 2008** D.M. 14 gennaio 2008: "Norme Tecniche per le Costruzioni";
- **Circolare Esplicativa** Norme Tecniche per le Costruzioni n. 617 del 2 febbraio 2009;

Riferimenti di progettazione

Quando non in contrasto con la normativa adottata, si assumono come riferimenti di progettazione le seguenti norme:

- **UNI EN 1992-1 e ss:** Eurocodice 2: Progettazione delle strutture di calcestruzzo;
- **UNI EN 1993-1 e ss:** Eurocodice 3: Progettazione delle strutture in acciaio;
- **UNI EN 1997-1 e ss:** Eurocodice 7: Progettazione Geotecnica;
- **UNI EN 1998-1 e ss:** Eurocodice 8: Indicazioni progettuali per la resistenza sismica delle strutture;
- **CNR UNI 10011 - Costruzioni in acciaio: Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione**

2 GESETZE UND NORMEN

- **NTC 2008** D.M. 14 gennaio 2008: "Norme Tecniche per le Costruzioni";
- **Circolare Esplicativa** Norme Tecniche per le Costruzioni n. 617 del 2 febbraio 2009;

Eurocode

- **UNI EN 1992-1 e ss:** Eurocodice 2: Progettazione delle strutture di calcestruzzo;
- **UNI EN 1993-1 e ss:** Eurocodice 3: Progettazione delle strutture in acciaio;
- **UNI EN 1997-1 e ss:** Eurocodice 7: Progettazione Geotecnica;
- **UNI EN 1998-1 e ss:** Eurocodice 8: Indicazioni progettuali per la resistenza sismica delle strutture;
- **CNR UNI 10011 - Costruzioni in acciaio: Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione**

3 MATERIALI UTILIZZATI

3.1 Strutture in acciaio

3.1.1 Acciaio da carpenteria metallica S 355 J2

Acciaio con caratteristiche meccaniche rispondenti alla EN 10025 come indicato dal D.M. 14-01-2008.

| | |
|------------|--|
| f_{tk} = | 510.0 MPa tensione caratteristica di rottura |
| f_{yk} = | 355 MPa tensione caratteristica di snervamento |
| f_{yd} = | $f_{yt} / \gamma_{M0} = 338$; $\gamma_{M0} = 1.05$ per le verifiche a resistenza |
| f_{yd} = | $f_{yt} / \gamma_{M1} = 322$; $\gamma_{M1} = 1.10$ per le verifiche di stabilità delle membrature ponti |

3.1.2 Bullonature

Secondo UNI EN 20898

Giunzioni ad attrito $i = 0.45$

Viti classe 10.9 (UNI 5712); Dadi classe 10 (UNI 5713)

Rosette in acciaio C50 UNI EN 10083-2 (HRC 32-40) (UNI 5714)

3.1.3 Saldature

Secondo D.M. Infrastrutture e Trasporti 14-01-2008

Saldature con i procedimenti codificati secondo ISO 4063 e prescrizioni della EN 1011 e EN 29692. Controlli secondo la EN 12062.

3 MATERIALIEN

3.1 Stahlstrukturen

3.1.1 Formstahl S 355 J2

Stahl mit mechanischen Eigenschaften nach EN 10025 wie von DM angegeben 14-01-2008.

f_{tk} = 510.0 MPa charakteristische Zugfestigkeit

f_{yk} = 355 MPa charakteristische Streckgrenze

f_{yd} = $f_{yt} / \gamma_{M0} = 338$; $\gamma_{M0} = 1.05$ für die Nachweis der Trägfähigkeit ULS

f_{yd} = $f_{yt} / \gamma_{M1} = 322$; $\gamma_{M1} = 1.10$ für die Nachweis der Knicksicherheit ULS

3.1.2 Schrauben

nach UNI EN 20898

Schraubenverbindung mit Reibung $i = 0.45$

Festigkeitsklasse Schraube **10.9** (UNI 5712); Festigkeitsklasse Mutter 10 (UNI 5713)

Unterlegscheiben C50 UNI EN 10083-2 (HRC 32-40) (UNI 5714)

3.1.3 Schweißnähte

nach MD "Infrastruktueren und Transporte" 14-01-2008

Schweißnähte mit Verfahren gemäß den Anforderungen der ISO 4063 und EN-1011 nach bedarf der EN 29692. Prüfung nach EN 12062.

3.2 Strutture in c.a.

3.2.1 Calcestruzzo per fondazioni, elevazioni e solette $R_{ck}>45 \text{ MPa}$ (C 35/45)

$R_{ck} >$ 45.0 MPa resistenza caratteristica cubica a 28 giorni
 $f_{ck} >$ 37.0 MPa resistenza caratteristica cilindrica a 28 giorni

3.2.2 Calcestruzzo per diaframmi $R_{ck}>30 \text{ MPa}$ (C 25/30)

$R_{ck} >$ 30.0 MPa resistenza caratteristica cubica a 28 giorni
 $f_{ck} >$ 24.9 MPa resistenza caratteristica cilindrica a 28 giorni

3.2 Stahlbetonstrukturen

3.2.1 Beton für Fundamente, Wände, und Platten $R_{ck}>45 \text{ MPa}$ (C 35/45)

$R_{ck} >$ 45.0 MPa charakteristische Würfeldruckfestigkeit des Betons im Alter vom 28d

$f_{ck} >$ 37.0 MPa charakteristische Zylinderdruckfestigkeit des Betons im Alter vom 28d

3.2.2 Beton für Schlitzwände $R_{ck}>30 \text{ MPa}$ (C 25/30)

$R_{ck} >$ 30.0 MPa charakteristische Würfeldruckfestigkeit des Betons im Alter vom 28d

$f_{ck} >$ 24.9 MPa charakteristische Zylinderdruckfestigkeit des Betons im Alter vom 28d

3.2.3 Acciaio in barre ad aderenza migliorata B 450 C

B 450 C (controllato in stabilimento)

f_{yk} = 450.0 MPa tensione caratteristica di snervamento

f_{yd} = $f_{yk} / 1.15 = 391$ MPa resistenza caratteristica cilindrica a 28 giorni

E_s = 210 000 MPa modulo elastico

Stato limite di esercizio SLE:

$$\sigma_s = 0.80 \times f_{yk} = 360 \text{ MPa}$$

3.2.4 Reti eletrosaldate

B 450 A

B 450 A (controllato in stabilimento)

f_{yk} = 450.0 MPa tensione caratteristica di snervamento

f_{yd} = $f_{yk} / 1.15 = 391$ MPa tensione di calcolo

E_s = 210 000 MPa modulo elastico

Stato limite di esercizio SLE:

$$\sigma_s = 0.80 \times f_{yk} = 360 \text{ MPa}$$

3.2.3 Gerippter Stahl

B 450 C

$f_{yk} = 450.0 \text{ MPa}$ charakteristische Streckgrenze

$f_{yd} = f_{yk} / 1.15 = 391 \text{ MPa}$ Bemessungswert der Streckgrenze

$E_s = 210\,000 \text{ MPa}$ Elastizitätsmodul

Grenzzustand der Gebrauchstauglichkeit ULS:

$$\sigma_s = 0.80 \times f_{yk} = 360 \text{ MPa}$$

3.2.4 Betonstahlmatten

B 450 A

B 450 A (controllato in stabilimento)

$f_{yk} = 450.0 \text{ MPa}$ charakteristische Streckgrenze

$f_{yd} = f_{yk} / 1.15 = 391 \text{ MPa}$ Bemessungswert der Streckgrenze

$E_s = 210\,000 \text{ MPa}$ Elastizitätsmodul

Grenzzustand der Gebrauchstauglichkeit ULS:

$$\sigma_s = 0.80 \times f_{yk} = 360 \text{ MPa}$$

3.2.5 Stato limite di apertura delle fessure

In relazione all'aggressività dell'ambiente ed alla sensibilità dell'acciaio, l'apertura limite delle fessure è riportata nel prospetto seguente:

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

I valori limite sono pari a:

$$w_1 = 0.2 \text{ mm}$$

$$w_2 = 0.3 \text{ mm}$$

$$w_3 = 0.4 \text{ mm}$$

3.2.5 Grenzzustand der Rissöffnung ULS

In Bezug auf die Aggression der Umwelt und der Empfindlichkeit des Stahls ist die begrenzende Rissöffnung in der folgenden Tabelle dargestellt:

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

Die Grenzwerte sind gleich:

$$w_1 = 0.2 \text{ mm}$$

$$w_2 = 0.3 \text{ mm}$$

$$w_3 = 0.4 \text{ mm}$$

4 PARAMETRI GEOTECNICI

I parametri geotecnici sono stati ricavati dal presente documento:

“Relazione geologica preliminare“

Redatta dalla Società: Geologia e Ambiente

Data: ottobre 2013

Nella relazione si precisa che le informazioni sono state ricavate da indagini e studi pregressi, realizzati in siti limitrofi nel recente passato.

Livello A da p.c. fino a 4-5 m

SABBIE LIMOSE E LIMI SABBIOSI

| | | | |
|-----------------------|------------------|------|-------------------|
| Angolo di attrito | $\phi =$ | 28.0 | ° |
| Coesione | $c =$ | 0.0 | MPa |
| Peso di volume | $\gamma =$ | 18.5 | kN/m ³ |
| Peso di volume saturo | $\gamma_{SAT} =$ | 20.0 | kN/m ³ |

Livello B da da 4-5 m a 20 m da p.c.

GHIAIE E SABBIE

| | | | |
|-----------------------|------------------|------|-------------------|
| Angolo di attrito | $\phi =$ | 34.0 | ° |
| Coesione | $c =$ | 0.0 | MPa |
| Peso di volume | $\gamma =$ | 19.0 | kN/m ³ |
| Peso di volume saturo | $\gamma_{SAT} =$ | 20.0 | kN/m ³ |

Falda idrica individuata a – 13.0 ÷ - 15.0 m da p.c..

Per il terreno di riporto si è assunto:

Terreno di riporto dei rilevati

RIPORTO

| | | | |
|-----------------------|------------------|------|-------------------|
| Angolo di attrito | $\phi =$ | 35.0 | ° |
| Coesione | $c =$ | 0.0 | MPa |
| Peso di volume | $\gamma =$ | 20.0 | kN/m ³ |
| Peso di volume saturo | $\gamma_{SAT} =$ | 20.0 | kN/m ³ |

4 GEOTECHNISCHE PARAMETER

Die geotechnischen Parameter wurden aus diesem Dokument abgeleitet:

„Geotechnischer Bericht Vorprojekt.“

Herausgegeben vor:

Geologia e Ambiente

Datum:

Oktober 2013

Die Informationen, welche in diesem Bericht wiedergegeben werden, wurden aus Untersuchungen und früheren Untersuchungen von angrenzenden Grundstücken entnommen.

Niveau A vom bestehendes Gelände bis 4-5 m SCHLUFFIGER SAND UND SANDIGER SCHLUFF

| | | | |
|------------------|------------------|------|-------|
| Reibungswinkel | $\varphi =$ | 28.0 | ° |
| Kohäsion | $c =$ | 0.0 | MPa |
| Feuchtwichte | $\gamma =$ | 18.5 | kN/m³ |
| Sättigungswichte | $\gamma_{SAT} =$ | 20.0 | kN/m³ |

Niveau B vom 4-5 m bis 20 m vom bestehendes Gelände. SAND UND KIES

| | | | |
|------------------|------------------|------|-------|
| Reibungswinkel | $\varphi =$ | 34.0 | ° |
| Kohäsion | $c =$ | 0.0 | MPa |
| Feuchtwichte | $\gamma =$ | 19.0 | kN/m³ |
| Sättigungswichte | $\gamma_{SAT} =$ | 20.0 | kN/m³ |

Grundwasserspiegel – 13.0 ÷ - 15.0 m vom bestehendes Gelände

Terreno di riporto dei rilevati

FÜLLMATERIAL

| | | | |
|------------------|------------------|------|-------|
| Reibungswinkel | $\varphi =$ | 35.0 | ° |
| Kohäsion | $c =$ | 0.0 | MPa |
| Feuchtwichte | $\gamma =$ | 20.0 | kN/m³ |
| Sättigungswichte | $\gamma_{SAT} =$ | 20.0 | kN/m³ |

5 PARAMETRI SISMICI

Parametri del sito

| | | |
|---------------|--|-----|
| Città | Bolzano - Bozen | ... |
| Longitudine | 11,3345 | |
| Latitudine | 46,4934 | |
| Vita nominale | Grandi opere VN >= 100 anni | ▼ |
| Classi d'uso | IV - Edifici e infrastrutture strategici | ▼ |
| Stati Limite | SLV - Salvaguardia della vita | ▼ |

Accelerazione base al suolo per opere ordinarie allo SLV:

Periodo di ritorno

| | |
|--------|-----|
| TR [s] | 475 |
|--------|-----|

Parametri di pericolosità sismica

| | | | | | |
|----|-------|--------|------|---------|------|
| ag | 0,518 | Fo [-] | 2,60 | T*c [s] | 0,35 |
|----|-------|--------|------|---------|------|

Da cui si ricava, che sulla base della classificazione sismica in zone, come introdotta in Ordinanza 3274 come modificato da OPCM 3431 del 03/05/2005, la zone di costruzione ricade in zona 4:

ag / g = 0.518 / 9.81 = 0.053 con valore di ag per zona 4 pari a: 0.05g

Date le caratteristiche di importanza strategica delle strutture allo studio si adottano poi i seguenti parametri:

| | | |
|---------------|--|---|
| Vita nominale | Grandi opere VN >= 100 anni | ▼ |
| Classi d'uso | IV - Edifici e infrastrutture strategici | ▼ |
| Stati Limite | SLV - Salvaguardia della vita | ▼ |

Periodo di ritorno

| | |
|--------|------|
| TR [s] | 1898 |
|--------|------|

Parametri di pericolosità sismica

| | | | | | |
|----|-------|--------|------|---------|------|
| ag | 0,739 | Fo [-] | 2,78 | T*c [s] | 0,41 |
|----|-------|--------|------|---------|------|

Coefficiente di amplificazione topografica: T1

Categoria del sottosuolo: C

5 SEISMISCHE PARAMETER

Parametri del sito

| | | |
|---------------|--|-----|
| Città | Bolzano - Bozen | ... |
| Longitudine | 11,3345 | |
| Latitudine | 46,4934 | |
| Vita nominale | Grandi opere VN >= 100 anni | ▼ |
| Classi d'uso | IV - Edifici e infrastrutture strategici | ▼ |
| Stati Limite | SLV - Salvaguardia della vita | ▼ |

Grundbeschleunigung SLV:

Periodo di ritorno

| | |
|--------|-----|
| TR [s] | 475 |
|--------|-----|

Parametri di pericolosità sismica

| | | | | | |
|----|-------|--------|------|---------|------|
| ag | 0,518 | Fo [-] | 2,60 | T*c [s] | 0,35 |
|----|-------|--------|------|---------|------|

Für Gebäude in der "Zone 4" laut „Ordinanza 3274 geändert durch OPCM 3431 vom 03/05/2005“
ag=0,05g:

$$ag / g = 0.518 / 9.81 = 0.053$$

zusätzliche Parameter

| | | |
|---------------|--|---|
| Vita nominale | Grandi opere VN >= 100 anni | ▼ |
| Classi d'uso | IV - Edifici e infrastrutture strategici | ▼ |
| Stati Limite | SLV - Salvaguardia della vita | ▼ |

Periodo di ritorno

| | |
|--------|------|
| TR [s] | 1898 |
|--------|------|

Parametri di pericolosità sismica

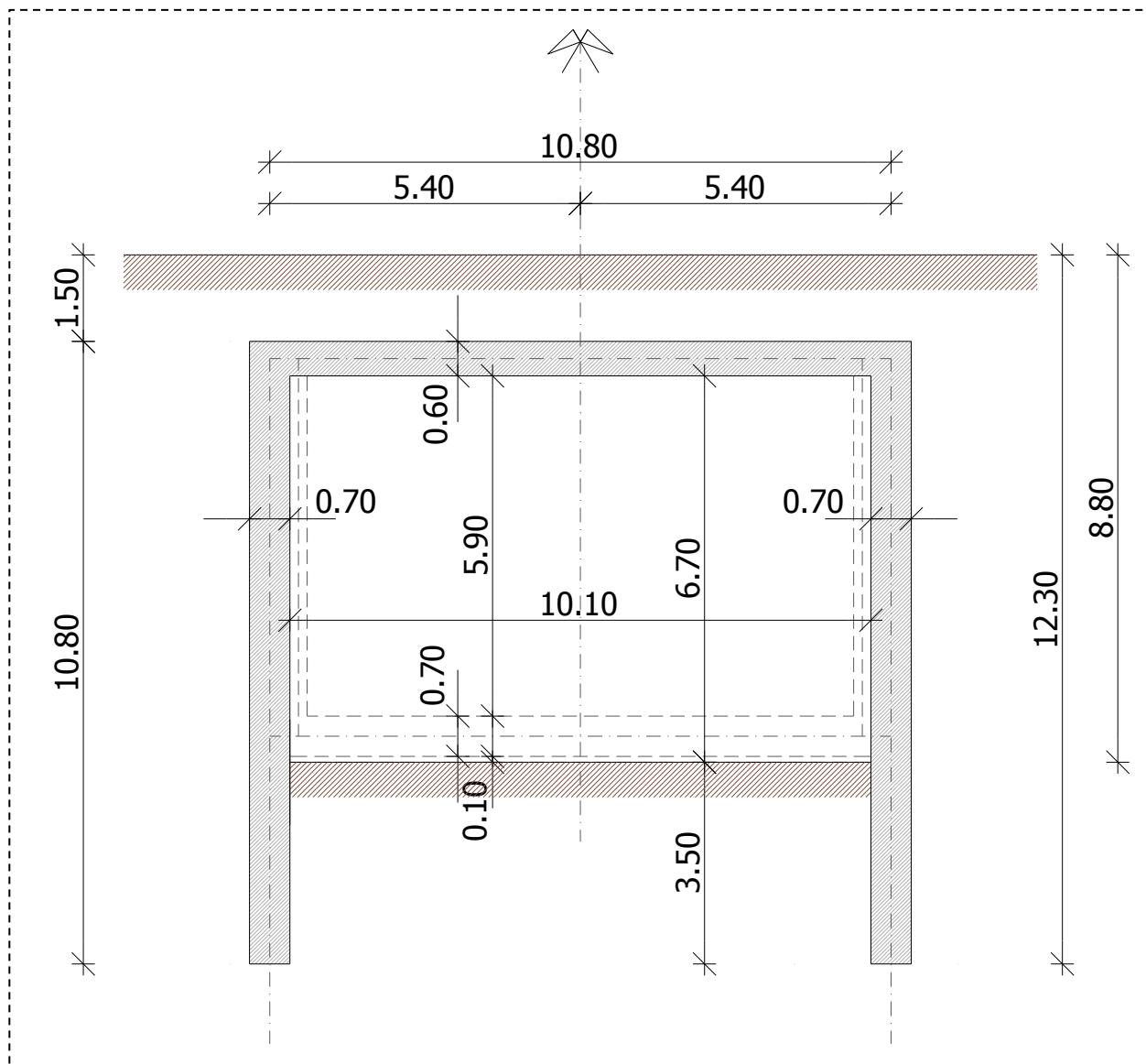
| | | | | | |
|----|-------|--------|------|---------|------|
| ag | 0,739 | Fo [-] | 2,78 | T*c [s] | 0,41 |
|----|-------|--------|------|---------|------|

Kategorie Topographie: T1

Kategorie des Grundungsuntergrunds: C

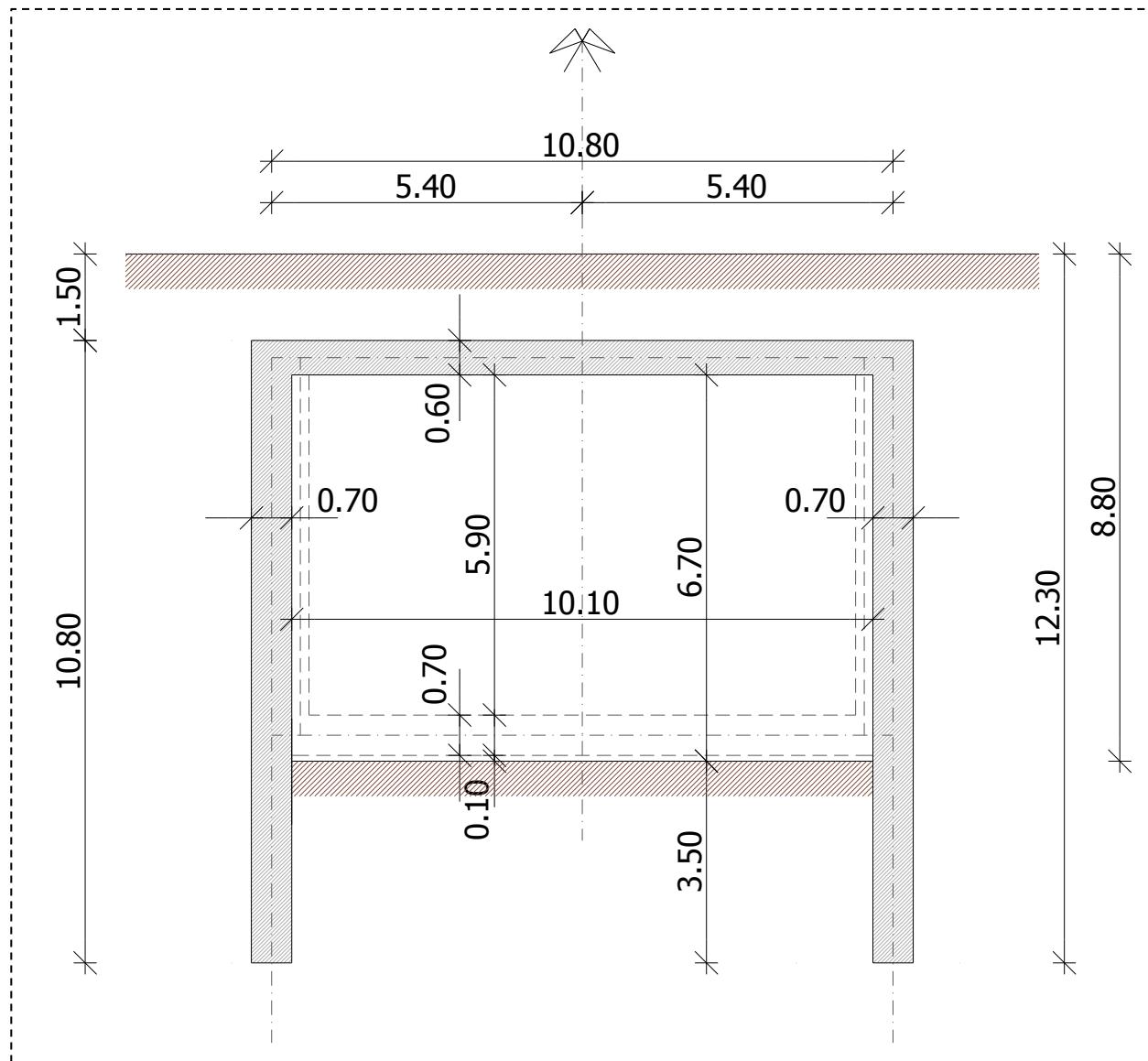
6 GALLERIA ARTIFICIALE CON REALIZZAZIONE "TOP DOWN"

6.1 Schema di calcolo ed analisi dei carichi



6 REALISIERUNG EINES TUNNEL IM "TOP DOWN" VERFAHREN

6.1 Berechnungsschema und Einwirkungen



6.1.1 *Pesi propri strutturali G1*

Carichi determinati con riferimento ad una fascia di 1 m di struttura.

SOLETTA

Sp. 60 cm

$$25 * 0.6 * 1.0 * 10.8 = \quad 162.0 \text{ kN}$$

DIAFRAMMI

Sp. 70 cm

$$25 * 0.7 * 1.0 * 10.5 * 2 = 189 * 2 = \quad 367.5 \text{ kN}$$

$$\text{G1_PP} = \quad 529.5 \text{ kN}$$

6.1.2 *Permanenti portati G2*

Carichi determinati con riferimento ad una fascia di 1 m di struttura.

Terreno di ricoprimento:

$h = 1.50 \text{ m}$

$\gamma = 20.0 \text{ kN / m}^3$

$$\text{G2_PER POR} = 20 * 1.5 * 10.8 = \quad 324.0 \text{ kN}$$

6.1.1 Eigengewicht G1

Plattendecke

Dicke 60 cm

$$25 * 0.6 * 1.0 * 10.8 = \quad 162.0 \text{ kN}$$

Wände

Dicke 70 cm

$$25 * 0.7 * 1.0 * 10.5 * 2 = 189 * 2 = \quad 367.5 \text{ kN}$$

$$\text{G1_PP} = \quad 529.5 \text{ kN}$$

6.1.2 Permanenti portati G2

Füllungen:

 $h = 1.50 \text{ m}$ $\gamma = 20.0 \text{ kN / m}^3$

$$\text{G2_PER POR} = 20 * 1.5 * 10.8 = \quad 324.0 \text{ kN}$$

6.1.3 Spinta delle terre (g3)

In funzione dei parametri caratteristici dei terreni, desunti dalla relazione geotecnica, si sono ricavati le azioni dovute alla spinta delle terre da utilizzarsi nelle verifiche delle strutture a contatto con il terreno.

| BOLZANO CENTRO COMMERCIALE | | | | |
|--|------------|--------|-----------------------------------|-----|
| GALLERIA ARTIFICIALE | | | | |
| SPINTA ORIZZONTALE TERRENO SU PIEDRITTI | | | | |
| ϕ | = | 35 ° | 0,61087 | rad |
| Coefficiente di spinta a riposo | | | | |
| $k_0 =$ | 1 - sen fi | = | 0,42642 | |
| γ | = | 20 | kN/m3 | |
| Quota | | | | |
| da livello ricoprimento terreno a scendere | | | | |
| z | p_{OR} | | Valore medio su elemento frame | |
| [m] | [kN/m2] | | [kN/m2] | |
| 0 | 0,00 | | | |
| 1,8 | 15,35 | | 16,204 | |
| 2 | 17,06 | 21,321 | | |
| 3 | 25,59 | | 29,850 | |
| 4 | 34,11 | 38,378 | | |
| 5 | 42,64 | | 46,907 | |
| 6 | 51,17 | 55,435 | | |
| 7 | 59,70 | | 63,964 | |
| 8 | 68,23 | 69,720 | | |
| 8,35 | 71,21 | | 73,132 | |
| 8,8 | 75,05 | 77,183 | | |
| 9,3 | 79,31 | | 83,579 | |
| 10,3 | 87,84 | 92,107 | | |
| 11,3 | 96,37 | | | |
| 12,3 | 104,90 | | 100,636 | |

6.1.3 Erddruck (g3)

Für die Berechnung des Erddruckes wurden die charakteristischen Bodenmerkmale aus dem geotechnischen Bericht angewandt.

| BOLZANO CENTRO COMMERCIALE | | | | |
|--|------------|-----------|-----------------------------------|---------|
| GALLERIA ARTIFICIALE | | | | |
| SPINTA ORIZZONTALE TERRENO SU PIEDRITTI | | | | |
| ϕ | = | 35 ° | 0,61087 | rad |
| Coefficiente di spinta a riposo | | | | |
| $k_0 =$ | 1 - sen fi | | = | 0,42642 |
| γ | = | 20 | kN/m3 | |
| Quota | | | | |
| da livello ricoprimento terreno a scendere | | | | |
| z | | p_{OR} | Valore medio su elemento frame | |
| [m] | | [kN/m2] | [kN/m2] | |
| 0 | | 0,00 | | |
| 1,8 | | 15,35 | | 16,204 |
| 2 | | 17,06 | 21,321 | 29,850 |
| 3 | | 25,59 | | |
| 4 | | 34,11 | 38,378 | |
| 5 | | 42,64 | | 46,907 |
| 6 | | 51,17 | 55,435 | |
| 7 | | 59,70 | | 63,964 |
| 8 | | 68,23 | 69,720 | |
| 8,35 | | 71,21 | | 73,132 |
| 8,8 | | 75,05 | 77,183 | |
| 9,3 | | 79,31 | | 83,579 |
| 10,3 | | 87,84 | 92,107 | |
| 11,3 | | 96,37 | | |
| 12,3 | | 104,90 | | 100,636 |

6.1.4 Carichi mobili dovuti al traffico (q1)

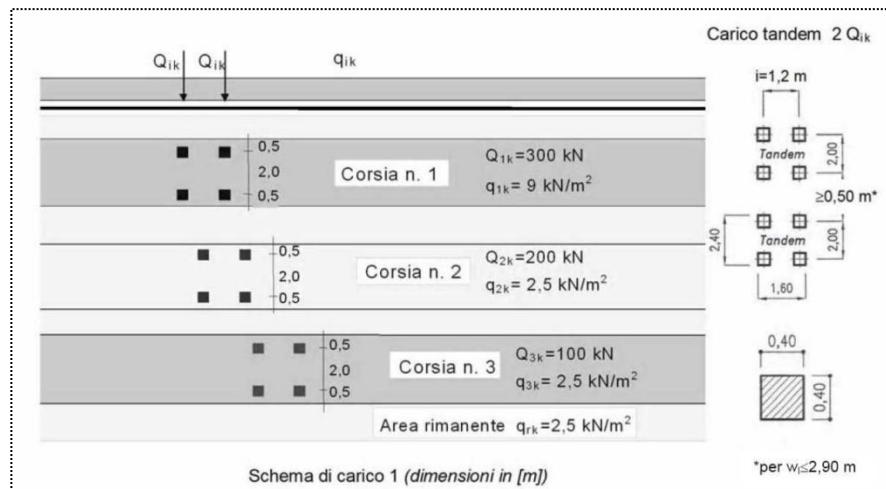
Si sono adottati i carichi mobili con riferimento ai ponti di I categoria.

Per le verifiche globali si fa riferimento allo schema di Schema di carico n.1 e n.5.

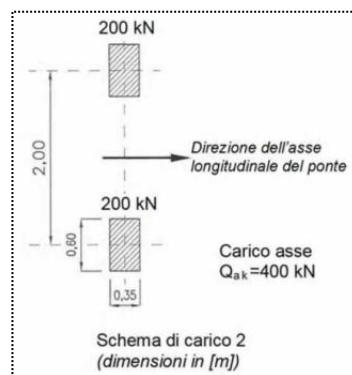
Per quanto riguarda lo Schema di carico n.1 si considerano le seguenti colonne di carico:

| Posizione | Carico asse Q_{ik} [kN] | q_{ik} [kN/m ²] |
|-----------------|---------------------------|-------------------------------|
| Corsia Numero 1 | 300 | 9,00 |
| Corsia Numero 2 | 200 | 2,50 |
| Corsia Numero 3 | 100 | 2,50 |
| Altre corsie | 0,00 | 2,50 |

La distribuzione, l'interasse tra le forze concentrate e gli ingombri delle colonne di carico sono rappresentati nella figura che segue:



Per le verifiche locali, qualora più gravoso, si può fare riferimento allo schema di carico n. 2:



6.1.4 Verkehrslasten (q1)

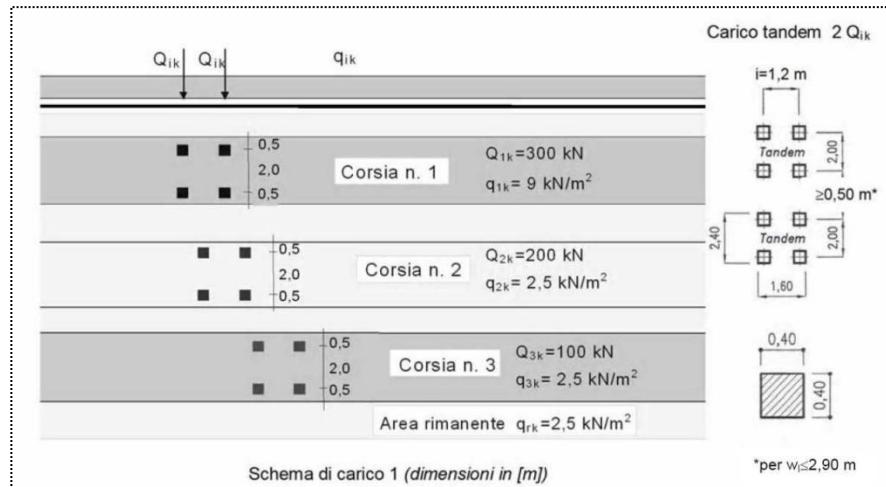
Es wurden die Verkehrslasten für Brücken der 1. Kategorie angewandt.

Für die globalen Überprüfungen bezieht man sich auf das Belastungsschema Nr. 1 und Nr. 5.

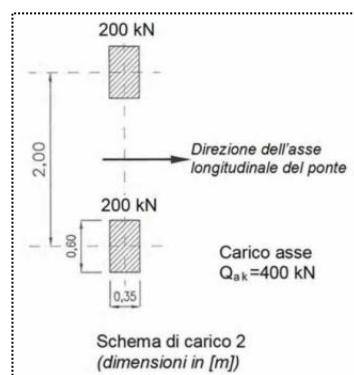
Laut Beslastungsschema Nr. 1 werden folgende Belastungen angewandt:

| Posizione | Carico asse Q_{ik} [kN] | q_{ik} [kN/m ²] |
|-----------------|---------------------------|-------------------------------|
| Corsia Numero 1 | 300 | 9,00 |
| Corsia Numero 2 | 200 | 2,50 |
| Corsia Numero 3 | 100 | 2,50 |
| Altre corsie | 0,00 | 2,50 |

Die Lastverteilung, die Achsabstände zwischen den punktuellen Belastungen und die Breite der Fahrspuren werden in der folgenden Grafik dargestellt:



Für die lokalen Überprüfungen kann Bezug auf das Belastungsschema Nr. 2 genommen werden, welches ungünstiger ausfällt:



Nell'ambito delle verifiche di tipo globale, i carichi derivanti dallo Schema di carico n.1 sono i seguenti:

| | CONCENTRATO | DISTRIBUITO | | |
|----------|-----------------------------------|-------------------------------|-----------------|------------|
| CORSIA 1 | $Q_{ik} = 2 \cdot 300 \text{ kN}$ | $q_{ik} = 9.0 \text{ kN/m}^2$ | $9.0 \cdot 3 =$ | 27.00 kN/m |
| CORSIA 2 | $Q_{ik} = 2 \cdot 200 \text{ kN}$ | $q_{ik} = 2.5 \text{ kN/m}^2$ | $2.5 \cdot 3 =$ | 7.50 kN/m |
| CORSIA 3 | $Q_{ik} = 2 \cdot 100 \text{ kN}$ | $q_{ik} = 2.5 \text{ kN/m}^2$ | $2.5 \cdot 3 =$ | 7.50 kN/m |

Nella ricerca delle sollecitazioni massime di flessione nella soletta si è considerato lo schema riportato di seguito:

DIFFUSIONE IMPRONTA DI CARICO

Schema di carico 1

Impronta 40*40 cm

Diffusione nello strato di ricoprimento

2:1 – angolo 26.56°

$H_{ric} = H_{max} = 150 \text{ cm}$

$d_1 = 150 \cdot \tan(26.56) = 75 \text{ cm}$

Diffusione nella soletta:

45 °

$H = 60 \text{ cm}$

$d_2 = 0.60/2 \cdot \tan(45) = 30 \text{ cm}$

$b_{diff} = 40 + 2 \cdot d_1 + 2 \cdot d_2 = 40 + 2 \cdot 75 + 2 \cdot 30 = 250 \text{ cm}$

Laut Belastungsschema Nr. 1 werden folgende Belastungen angewandt:

| | EINZELLAST | FLÄCHENLAST | | |
|------------|-----------------------------------|-------------------------------|-----------------|------------|
| Fahrbahn 1 | $Q_{ik} = 2 \cdot 300 \text{ kN}$ | $q_{ik} = 9.0 \text{ kN/m}^2$ | $9.0 \cdot 3 =$ | 27.00 kN/m |
| Fahrbahn 2 | $Q_{ik} = 2 \cdot 200 \text{ kN}$ | $q_{ik} = 2.5 \text{ kN/m}^2$ | $2.5 \cdot 3 =$ | 7.50 kN/m |
| Fahrbahn 3 | $Q_{ik} = 2 \cdot 100 \text{ kN}$ | $q_{ik} = 2.5 \text{ kN/m}^2$ | $2.5 \cdot 3 =$ | 7.50 kN/m |

Für die Ermittlung der Biegemomente der Decke, wurden folgende Parameter berücksichtigt:

AUSBREITUNG DER BELASTUNG:

Belastungsschema 1

Belastungsfläche 40*40 cm

Ausbreitung innerhalb des Bodenaufbaus:

2:1 – angolo 26.56°

$H_{ric} = H_{max} = 150 \text{ cm}$

$$d_1 = 150 \cdot \tan(26.56) = 75 \text{ cm}$$

Ausbreitung in der Decke:

45 °

$H = 60 \text{ cm}$

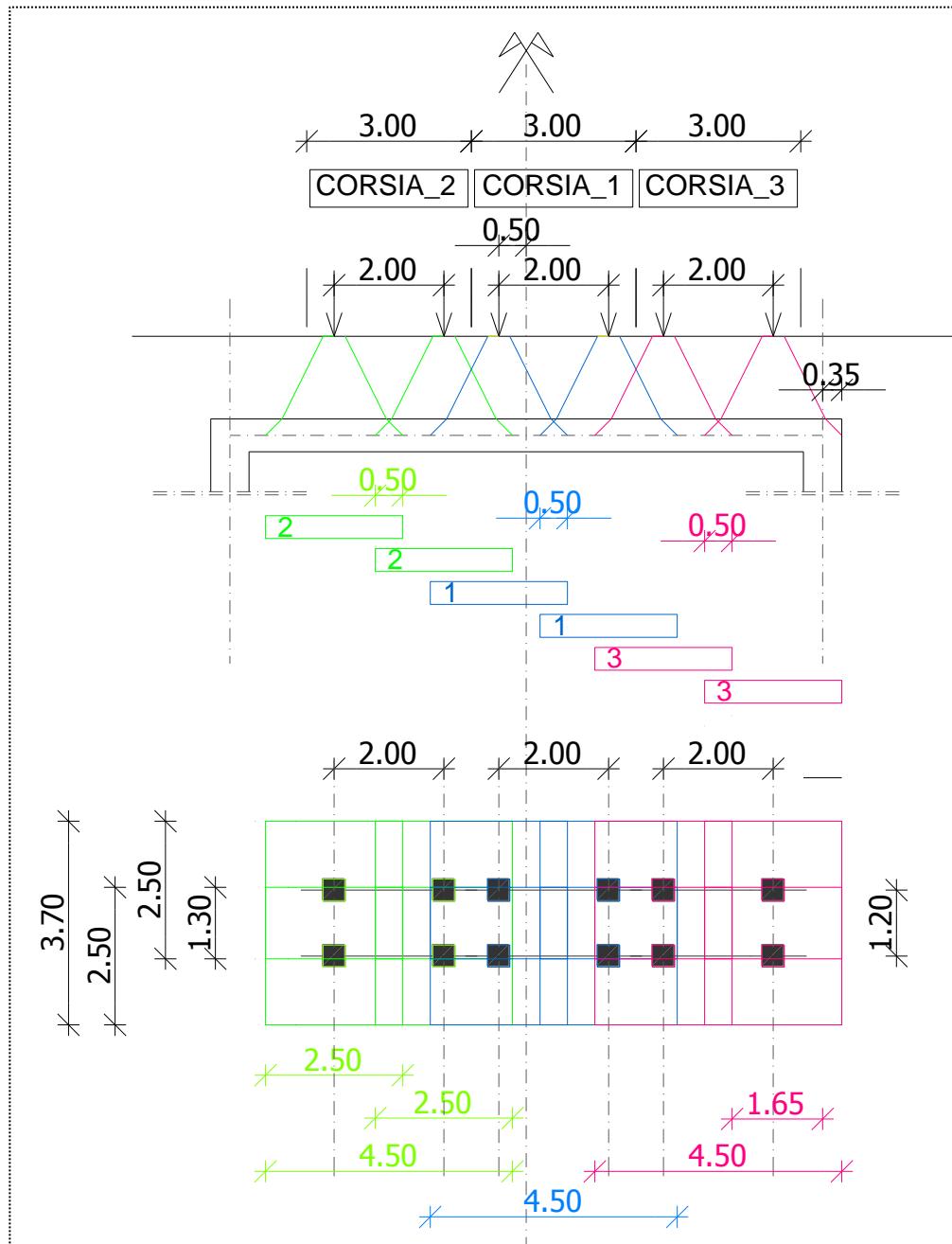
$$d_2 = 0.60/2 \cdot \tan(45) = 30 \text{ cm}$$

$$b_{diff} = 40 + 2 \cdot d_1 + 2 \cdot d_2 = 40 + 2 \cdot 75 + 2 \cdot 30 = 250 \text{ cm}$$

$$q \text{ conc } 1 = 2 * (150 / (2.5 * 2.5)) = 48 \text{ kN/m} / 1.3 \text{ m}$$

$$q \text{ conc } 2 = 2 * (100 / (2.5 * 2.5)) = 32 \text{ kN/m} / 1.3 \text{ m}$$

$$q \text{ conc } 3 = 2 * (50 / (2.5 * 2.5)) = 16 \text{ kN/m} / 1.3 \text{ m}$$



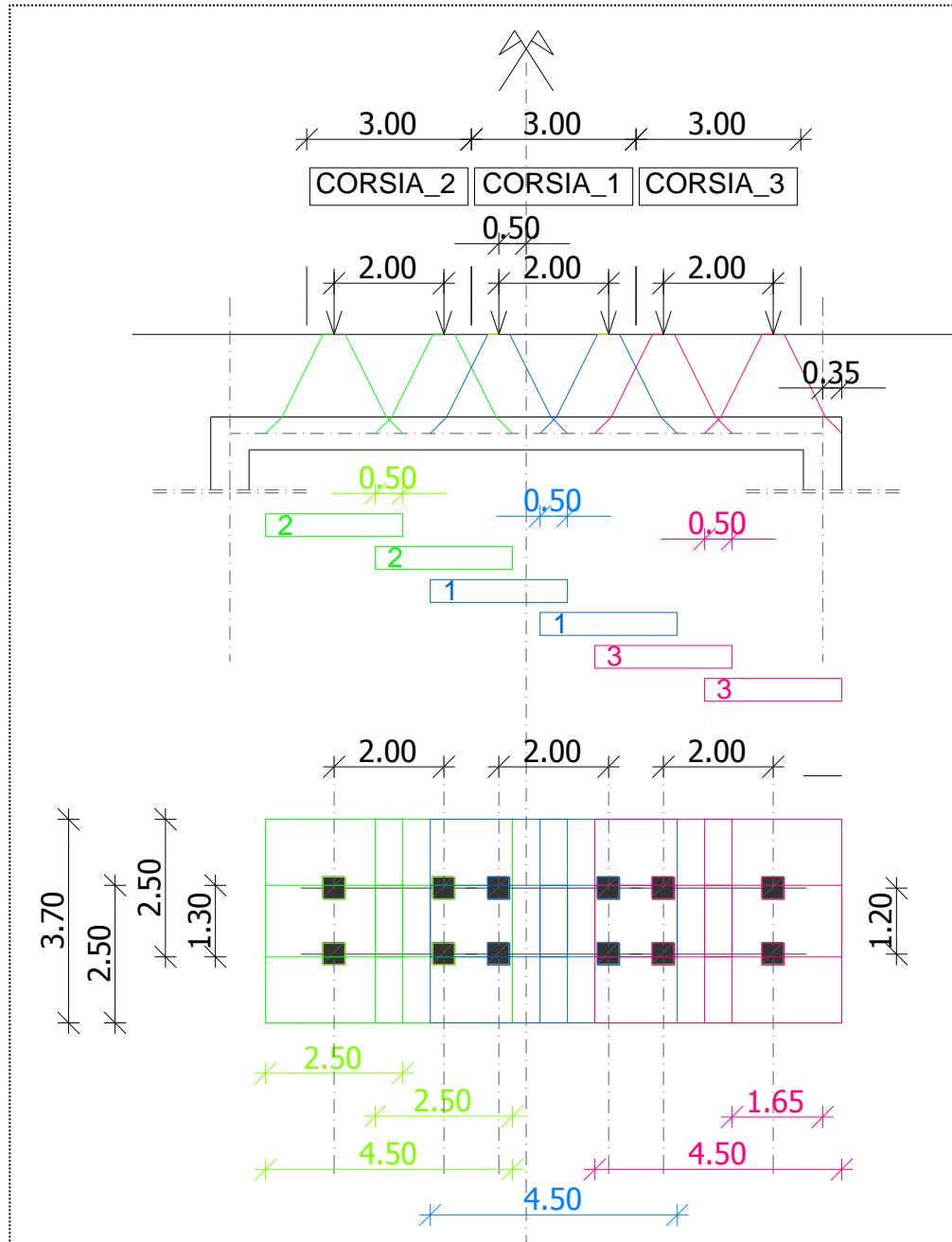
Il carico concentrato della corsia 3 interessa la struttura per la seguente aliquota, come evidenziato da disegno:

$$Q3 = 50*2 + 50*2 * ((2.5-0.35)/2.5) = 100 + 100*0.86 = 186 \text{ kN} \quad 93\% Q3 = 200 \text{ kN}$$

$$q \text{ conc } 1 = 2 * (150 / (2.5 * 2.5)) = 48 \text{ kN/m} / 1.3 \text{ m}$$

$$q \text{ conc } 2 = 2 * (100 / (2.5 * 2.5)) = 32 \text{ kN/m} / 1.3 \text{ m}$$

$$q \text{ conc } 3 = 2 * (50 / (2.5 * 2.5)) = 16 \text{ kN/m} / 1.3 \text{ m}$$



Die punktuelle Belastung der Fahrspur Nr.3 wirkt sich auf die Struktur mit folgenden Parametern aus:

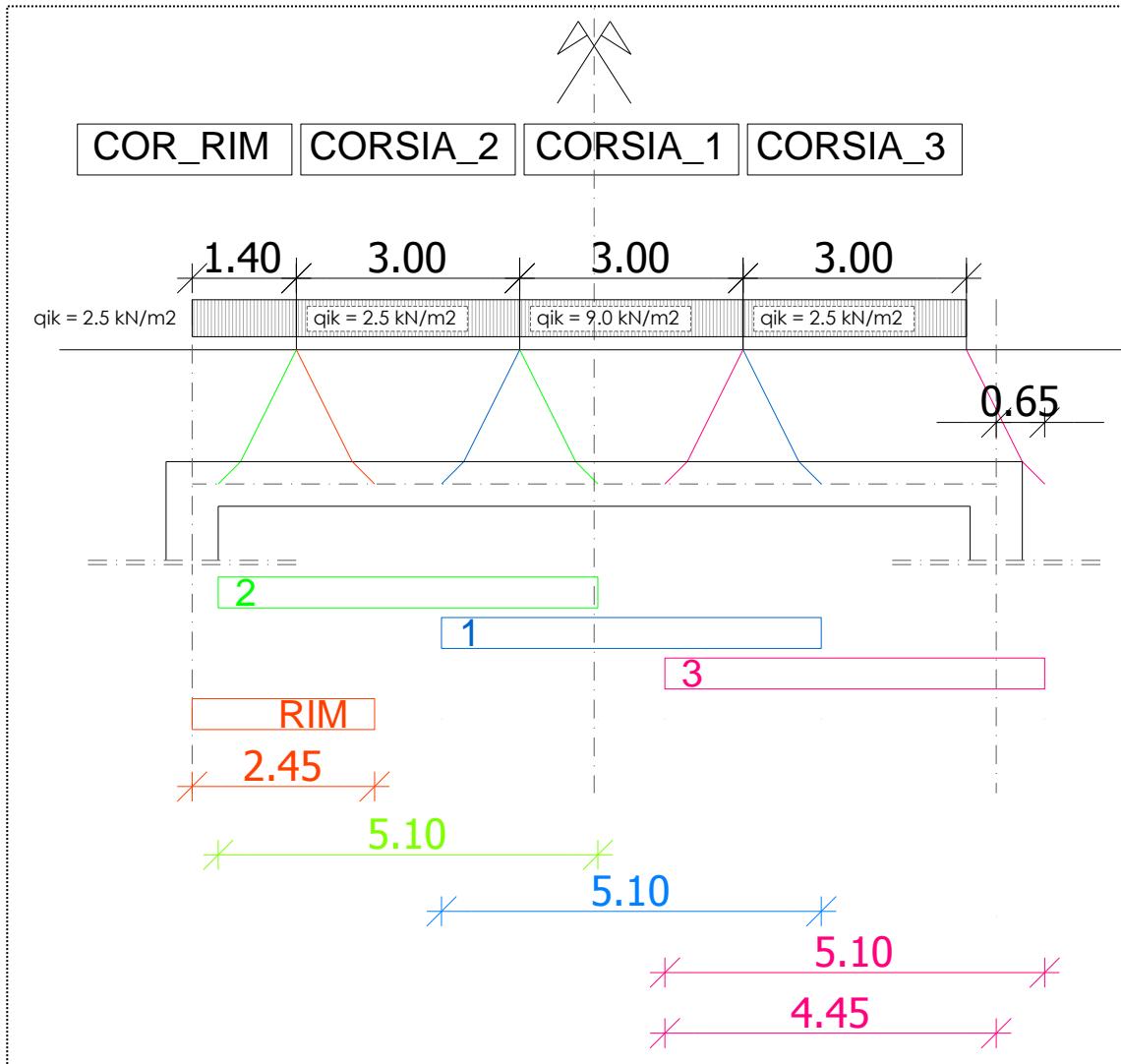
$$Q3 = 50 * 2 + 50 * 2 * ((2.5 - 0.35) / 2.5) = 100 + 100 * 0.86 = 186 \text{ kN} \quad 93\% Q3 = 200 \text{ kN}$$

$$L_{\text{diff}} = 3.0 + 2 \cdot 0.75 + 2 \cdot 0.3 = 5.10 \text{ m}$$

$$q_{\text{dis} 1} = 9 \cdot 3 \cdot 1/5.1 = 5.294 \text{ kN/m} \quad / 1.0 \text{ m}$$

$$q_{\text{dis} 2} = 2.5 \cdot 3 \cdot 1/5.1 = 1.471 \text{ kN/m} \quad / 1.0 \text{ m}$$

$$q_{\text{dis} 3} = 2.5 \cdot 3 \cdot 1/5.1 = 1.471 \text{ kN/m} \quad / 1.0 \text{ m}$$



Il carico distribuito della corsia 3 interessa la struttura per la seguente aliquota, come evidenziato da disegno:

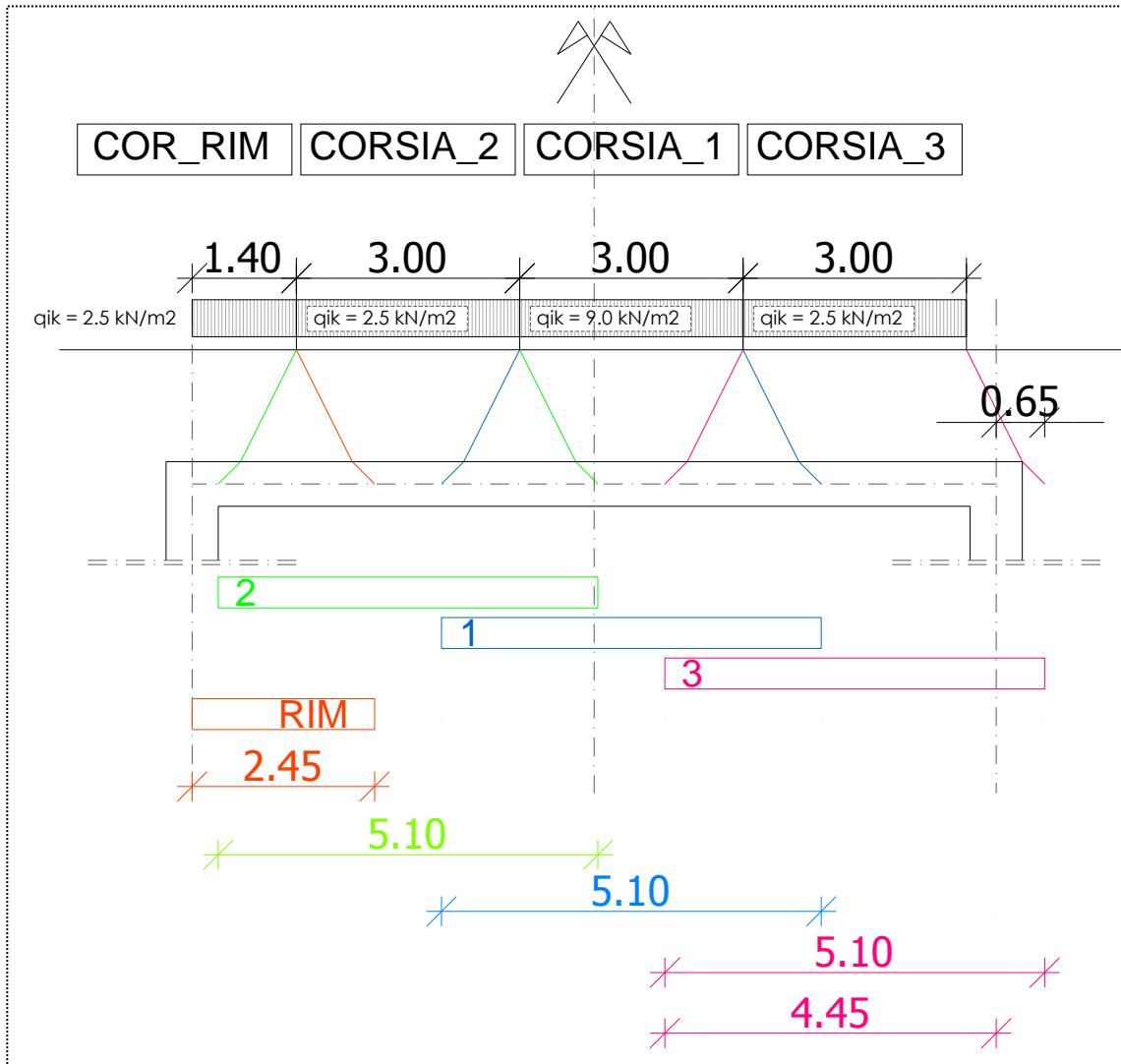
$$q_{3'} = q_{\text{dis} 3} * (5.10 - 0.65) = 6.54 \text{ kN/m} \quad 87\% q_3 = 7.5 \text{ kN/m}$$

$$L_{\text{diff}} = 3.0 + 2 \cdot 0.75 + 2 \cdot 0.3 = 5.10 \text{ m}$$

$$q_{\text{dis} 1} = 9 \cdot 3 \cdot 1/5.1 = 5.294 \text{ kN/m} \quad / 1.0 \text{ m}$$

$$q_{\text{dis} 2} = 2.5 \cdot 3 \cdot 1/5.1 = 1.471 \text{ kN/m} \quad / 1.0 \text{ m}$$

$$q_{\text{dis} 3} = 2.5 \cdot 3 \cdot 1/5.1 = 1.471 \text{ kN/m} \quad / 1.0 \text{ m}$$



Die punktuelle Belastung der Fahrspur Nr.3 wirkt sich auf die Struktur mit folgenden Parametern aus:

$$q_{3'} = q_{\text{dis} 3} * (5.10 - 0.65) = 6.54 \text{ kN/m} \quad 87\% q_3 = 7.5 \text{ kN/m}$$

Determinazione dei carichi applicati alla struttura:

concio di larghezza 1.0 m

CONCENTRATI

| | | |
|----------|---------------------------------|----------|
| CORSIA 1 | $48*(4.5-0.5)+2*48*0.5 =$ | 240.0 kN |
| CORSIA 2 | $32*(4.5-0.5)+2*32*0.5 =$ | 160.0 kN |
| CORSIA 3 | $16*(4.5-0.5)+2*16*0.5 =$ | 74.4 kN |
| | | 474.4 kN |

DISTRIBUITI

| | | |
|------------|---------------------------------|---------|
| CORSIA 1 | $(9*3 / 5.10) * 5.10 =$ | 27.0 kN |
| CORSIA 2 | $(2.5*3 / 5.10) * 5.10 =$ | 7.5 kN |
| CORSIA 3 | $(2.5*3 / 5.10)*(5.10-0.65) =$ | 6.5 Kn |
| CORSIA RIM | $(2.5*1.4 / 2.45)*2.45 =$ | 3.5 Kn |
| | | 44.5 kN |

518.9 kN

Ermittlung der einwirkenden Lasten:

breite von 1.0 m

EINZELLAST

| | | |
|------------|---------------------------------|----------|
| Fahrbahn 1 | $48*(4.5-0.5)+2*48*0.5 =$ | 240.0 kN |
| Fahrbahn 2 | $32*(4.5-0.5)+2*32*0.5 =$ | 160.0 kN |
| Fahrbahn 3 | $16*(4.5-0.5)+2*16*0.5 =$ | 74.4 kN |
| | | 474.4 kN |

FLÄCHENLAST

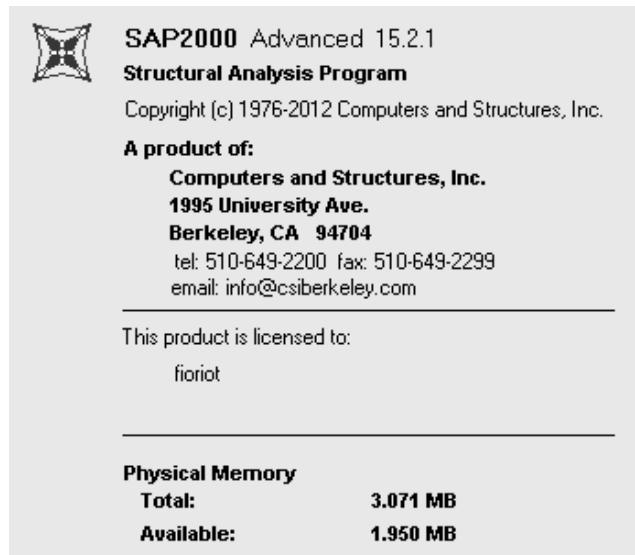
| | | |
|--------------|---------------------------------|---------|
| Fahrbahn 1 | $(9*3 / 5.10) * 5.10 =$ | 27.0 kN |
| Fahrbahn 2 | $(2.5*3 / 5.10) * 5.10 =$ | 7.5 kN |
| Fahrbahn 3 | $(2.5*3 / 5.10)*(5.10-0.65) =$ | 6.5 Kn |
| Fahrbahn RIM | $(2.5*1.4 / 2.45)*2.45 =$ | 3.5 Kn |
| | | 44.5 kN |

518.9 kN

6.2 Modellazione della struttura

Codice di calcolo Sap 2000 v 15.2.1

Modellazione a shell



Materiali:

| | |
|--|--------------------------------------|
| General Data | |
| Material Name and Display Color | C_32/40 |
| Material Type | Concrete |
| Material Notes | Modify/Show Notes... |
| Weight and Mass | |
| Weight per Unit Volume | 25, |
| Mass per Unit Volume | 2,5493 |
| Units | |
| KN, m, C | |
| Isotropic Property Data | |
| Modulus of Elasticity, E | 33640000 |
| Poisson's Ratio, U | 0,3 |
| Coefficient of Thermal Expansion, A | 1,170E-05 |
| Shear Modulus, G | 12938462 |
| Other Properties for Concrete Materials | |
| Specified Concrete Compressive Strength, f'c | 20684,274 |
| <input type="checkbox"/> Lightweight Concrete | |
| Shear Strength Reduction Factor | |

Definizione delle sezioni:

DIAFRAMMA sp. 70 cm

| Shape Properties - Solid | |
|--------------------------|-------------------|
| Name | SH1 |
| Material | C_32/40 |
| Color | |
| X Center | 0, |
| Y Center | 0, |
| Height | 0,7 |
| Width | 1, |
| Rotation | 0, |
| Reinforcing | No |
| Conc. Model | Mander-Unconfined |

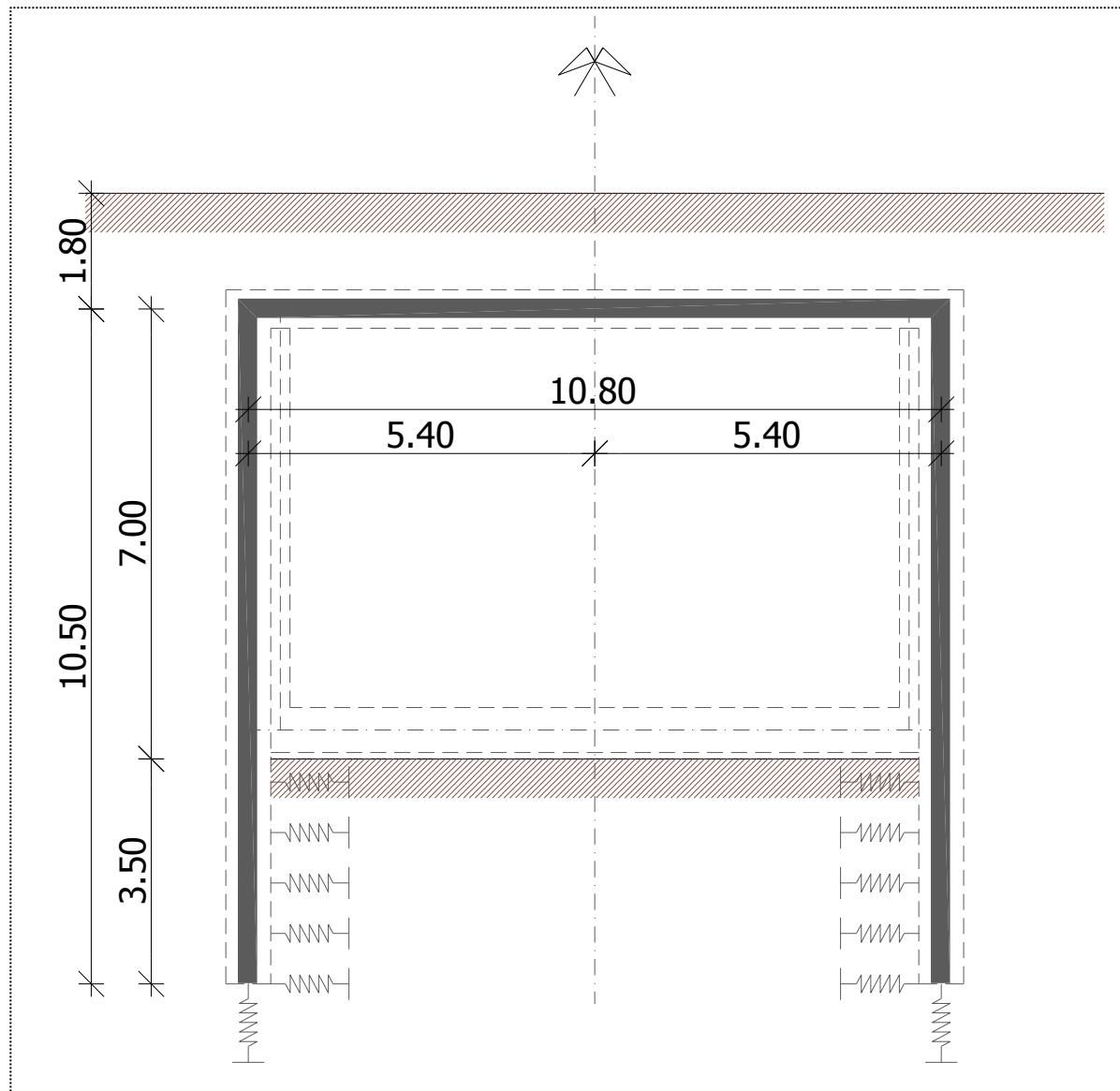
| Section Name | DIAF | | |
|--------------------------------|--------|---------------------------------|--------|
| Properties | | | |
| Cross-section (axial) area | 0,7 | Section modulus about 3 axis | 0,0817 |
| Moment of Inertia about 3 axis | 0,0286 | Section modulus about 2 axis | 0,1167 |
| Moment of Inertia about 2 axis | 0,0583 | Plastic modulus about 3 axis | 0,1225 |
| Product of Inertia about 2-3 | 0, | Plastic modulus about 2 axis | 0,175 |
| Shear area in 2 direction | 0,5833 | Radius of Gyration about 3 axis | 0,2021 |
| Shear area in 3 direction | 0,5833 | Radius of Gyration about 2 axis | 0,2887 |
| Torsional constant | 0,0651 | Shear Center Eccentricity (x3) | 0, |

SOLETTA sp. 60 cm

| Shape Properties - Solid | |
|--------------------------|-------------------|
| Name | SH1 |
| Material | C_32/40 |
| Color | |
| X Center | 0, |
| Y Center | 0, |
| Height | 0,6 |
| Width | 1, |
| Rotation | 0, |
| Reinforcing | No |
| Conc. Model | Mander-Unconfined |

| Section Name | SOLETTA | | |
|--------------------------------|---------|---------------------------------|--------|
| Properties | | | |
| Cross-section (axial) area | 0,6 | Section modulus about 3 axis | 0,06 |
| Moment of Inertia about 3 axis | 0,018 | Section modulus about 2 axis | 0,1 |
| Moment of Inertia about 2 axis | 0,05 | Plastic modulus about 3 axis | 0,09 |
| Product of Inertia about 2-3 | 0, | Plastic modulus about 2 axis | 0,15 |
| Shear area in 2 direction | 0,5 | Radius of Gyration about 3 axis | 0,1732 |
| Shear area in 3 direction | 0,5 | Radius of Gyration about 2 axis | 0,2887 |
| Torsional constant | 0,0451 | Shear Center Eccentricity (x3) | 0, |

Schema di calcolo assunto nella modellazione:



Resistenza del terreno schematizzata con molle alla Winkler:

Molle verticali base diaframmi:

$$k = 5.0 \text{ daN / cm}^3 \quad 50\,000 \text{ kN/m}^3$$

$$kv = 50\,000 * 1.0 * 0.7 = \quad 35\,000 \text{ kN/m}$$

Coefficiente di spinta orizzontale:

secondo " Elementi di tecnica delle fondazioni " Riccieri, pp 103

$$kh = nh * x / D$$

$$D = \text{diametro del palo} = 1,00 \text{ m}$$

$x = \text{profondità di calcolo di } kh$

$$n h = \text{sabbie asciutte/umide medie} \quad 0,67 \text{ daN / cm}^3$$

| x [m] | kh [kN/m³] | kh | | kh [kN/m²] |
|------------|-----------------|------------|------------|-----------------|
| | | b [m] | h [m] | |
| 0,500 | 3 350 | * | 1,00 | 1,00 |
| 1,500 | 10 050 | * | 1,00 | 1,00 |
| 2,500 | 16 750 | * | 1,00 | 1,00 |
| 3,500 | 23 450 | * | 1,00 | 0,50 |

CARICHI APPLICATI

G1

PP ELEMENTI STRUTTURALI

TABLE: Joint Reactions

| Joint | OutputCase | CaseType | F1 | F2 | F3 |
|-------|------------|-----------|-----------|----|--------|
| Text | Text | Text | KN | KN | KN |
| 86 | G1_PP | LinStatic | -1,654 | 0 | 0 |
| 87 | G1_PP | LinStatic | 1,654 | 0 | 0 |
| 88 | G1_PP | LinStatic | -3,701 | 0 | 0 |
| 89 | G1_PP | LinStatic | 3,701 | 0 | 0 |
| 90 | G1_PP | LinStatic | -3,917 | 0 | 0 |
| 91 | G1_PP | LinStatic | 3,917 | 0 | 0 |
| 92 | G1_PP | LinStatic | 6,011E-12 | 0 | 0 |
| 93 | G1_PP | LinStatic | -2,272 | 0 | 264,75 |
| 94 | G1_PP | LinStatic | 2,272 | 0 | 264,75 |
| | | | | | 529,5 |

G2

PERMANENTE COPERTURA

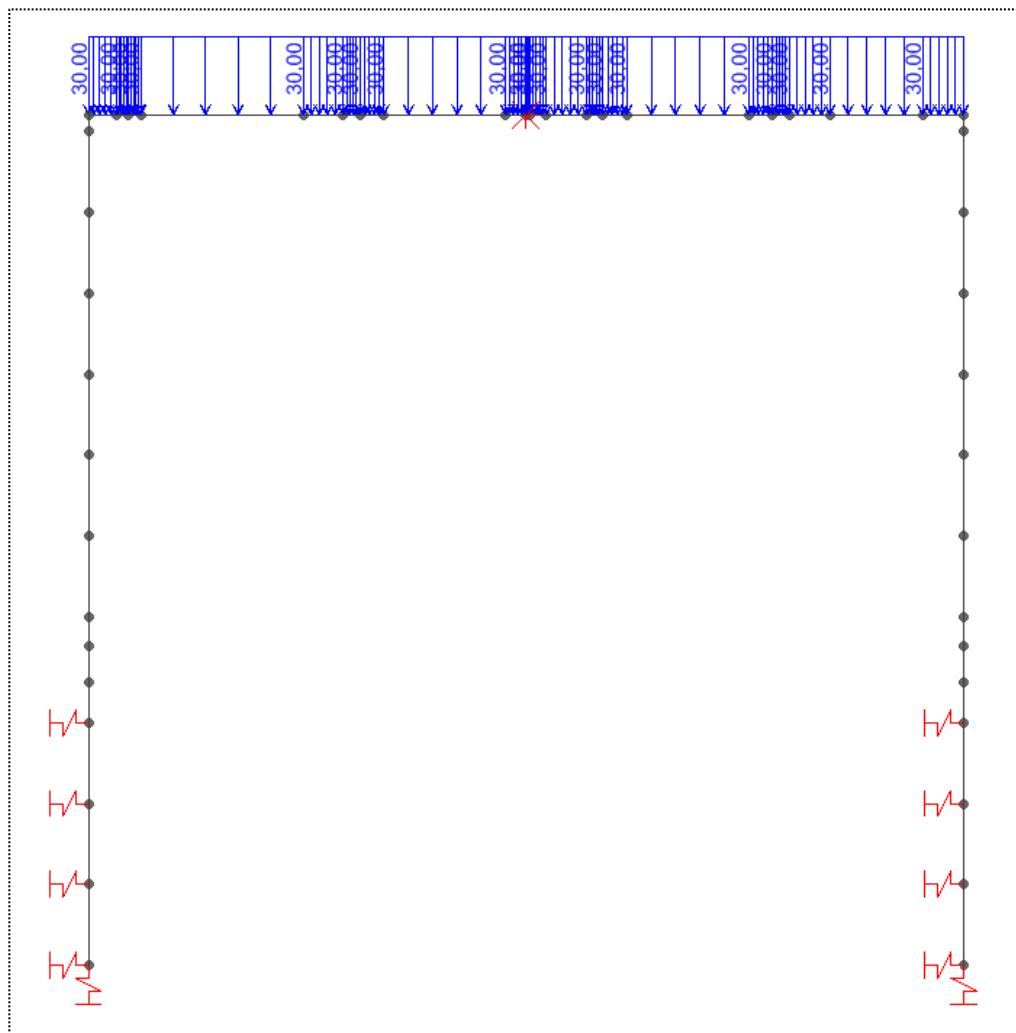


TABLE: Joint Reactions

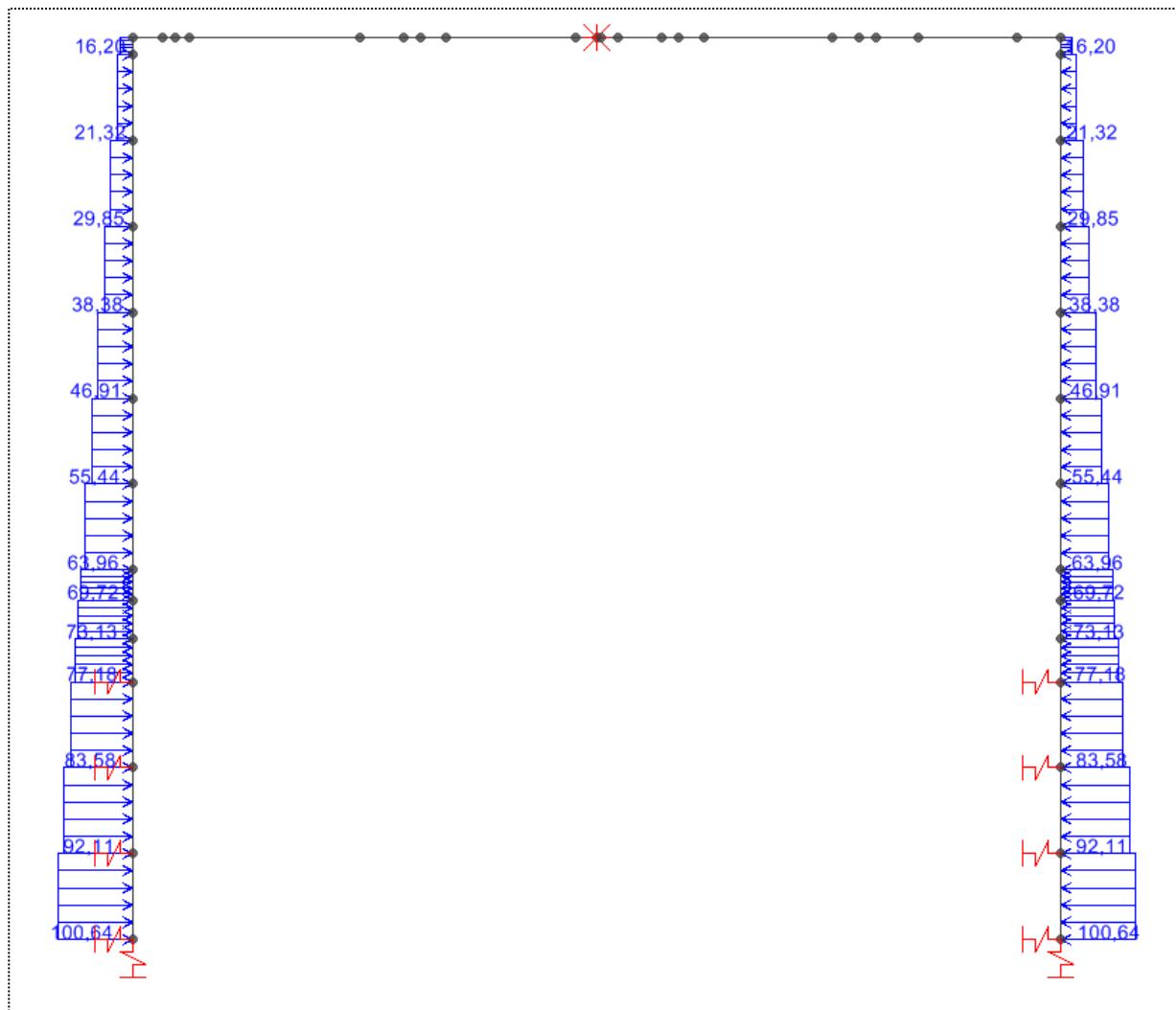
| Joint | OutputCase | CaseType | F1 | F2 | F3 |
|-------|------------|-----------|-----------|----|-----|
| Text | Text | Text | KN | KN | KN |
| 86 | G2_PER POR | LinStatic | -3,308 | 0 | 0 |
| 87 | G2_PER POR | LinStatic | 3,308 | 0 | 0 |
| 88 | G2_PER POR | LinStatic | -7,402 | 0 | 0 |
| 89 | G2_PER POR | LinStatic | 7,402 | 0 | 0 |
| 90 | G2_PER POR | LinStatic | -7,834 | 0 | 0 |
| 91 | G2_PER POR | LinStatic | 7,834 | 0 | 0 |
| 92 | G2_PER POR | LinStatic | 3,894E-12 | 0 | 0 |
| 93 | G2_PER POR | LinStatic | -4,544 | 0 | 162 |
| 94 | G2_PER POR | LinStatic | 4,544 | 0 | 162 |
| | | | | | 324 |

$$20 \times 1.5 \times 10.8 = 30 \times 1.5 \times 10.8 =$$

$$324 \text{ kN}$$

G3

SPINTA TERRE



Q1_var traffico

TABLE: Joint Reactions

| Joint | OutputCase | CaseType | F1 | F2 | F3 |
|-------|--------------|-------------|---------|----|---------|
| Text | Text | Text | KN | KN | KN |
| 86 | q1_VAR TRAFF | Combination | -6,435 | 0 | 0 |
| 87 | q1_VAR TRAFF | Combination | 6,453 | 0 | 0 |
| 88 | q1_VAR TRAFF | Combination | -14,399 | 0 | 0 |
| 89 | q1_VAR TRAFF | Combination | 14,439 | 0 | 0 |
| 90 | q1_VAR TRAFF | Combination | -15,238 | 0 | 0 |
| 91 | q1_VAR TRAFF | Combination | 15,281 | 0 | 0 |
| 92 | q1_VAR TRAFF | Combination | -0,126 | 0 | 0 |
| 93 | q1_VAR TRAFF | Combination | -8,838 | 0 | 256,561 |
| 94 | q1_VAR TRAFF | Combination | 8,863 | 0 | 262,387 |
| | | | | | 518,948 |

Load Combination Name (User-Generated)

Notes

Load Combination Type

Options

Define Combination of Load Case Results

| Load Case Name | Load Case Type | Scale Factor |
|----------------|----------------|--------------|
| G1_PP | Linear Static | 1,35 |
| G1_PP | Linear Static | 1,35 |
| G2_PER POR | Linear Static | 1,5 |
| G3_TERR | Linear Static | 1, |
| q1_VAR TRAFF | Combination | 1,35 |

Load Combination Name (User-Generated)

Notes

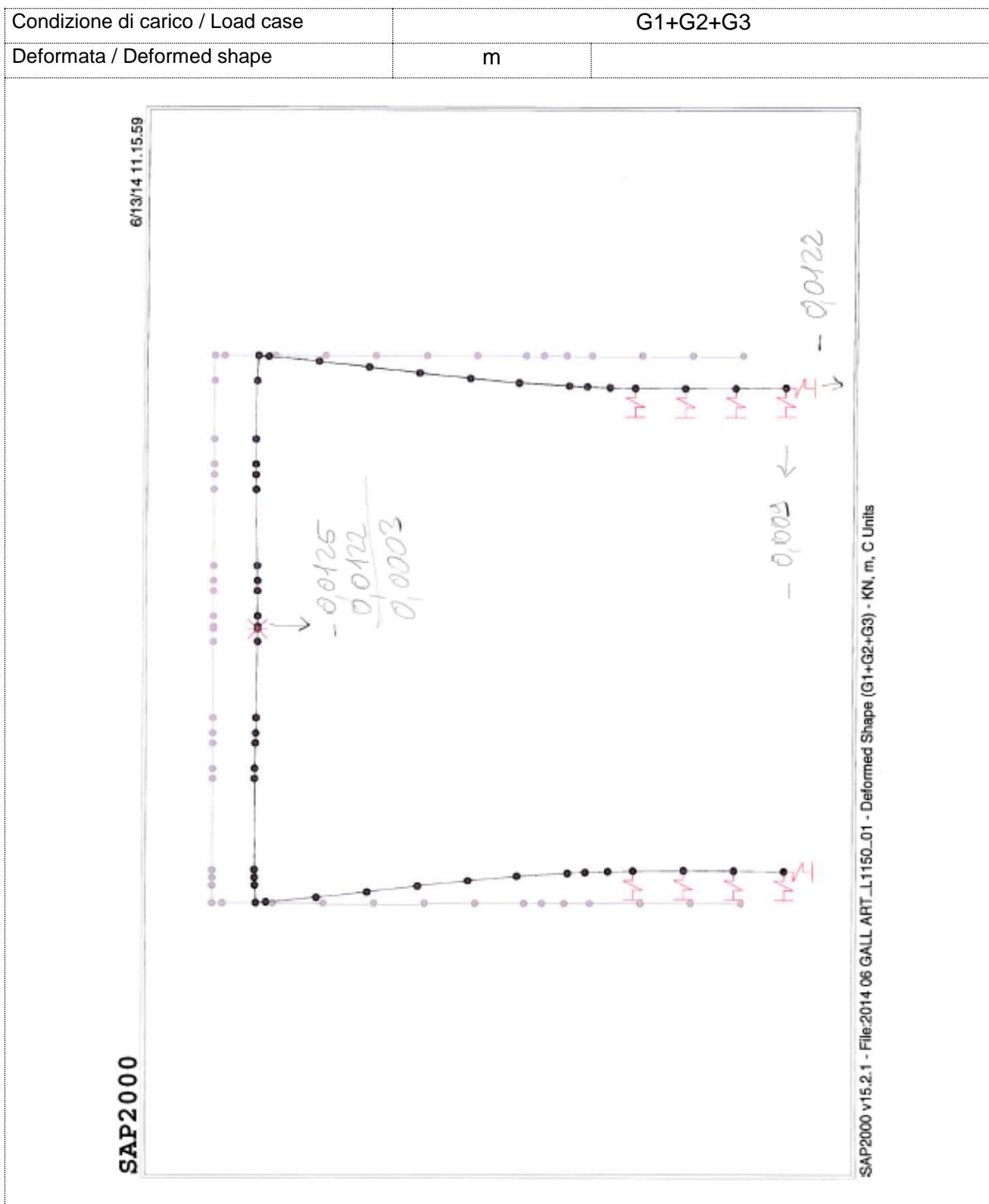
Load Combination Type

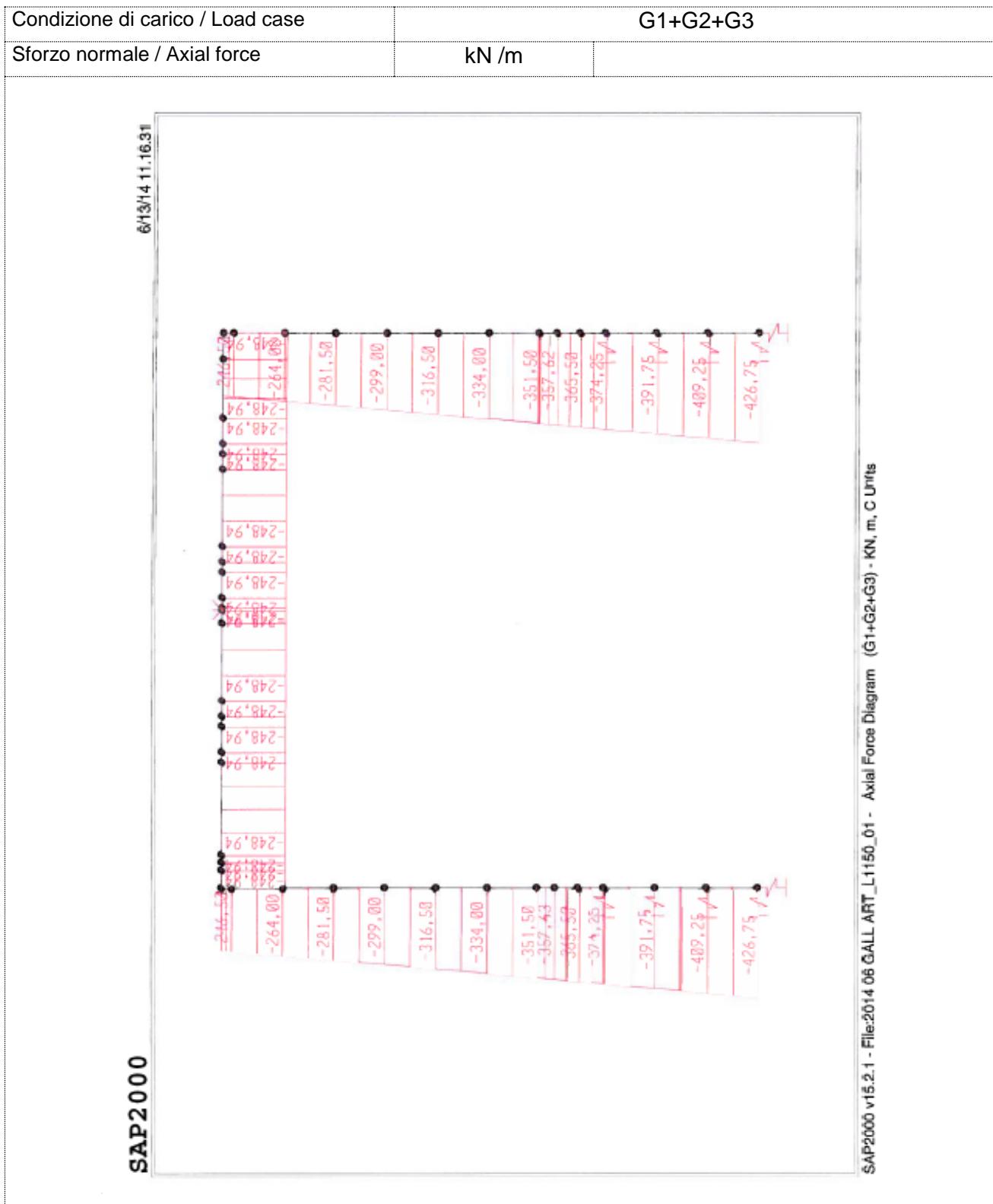
Options

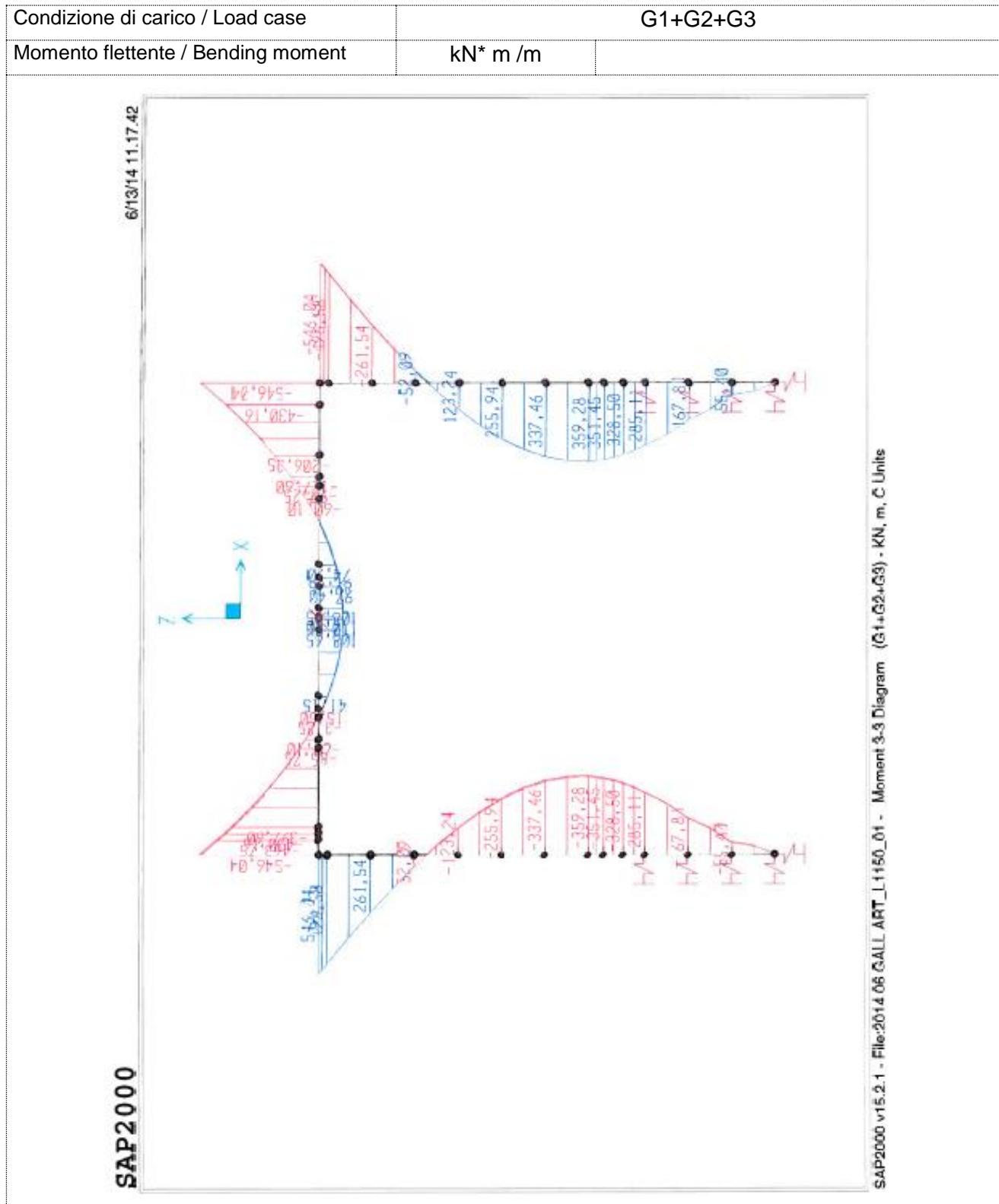
Define Combination of Load Case Results

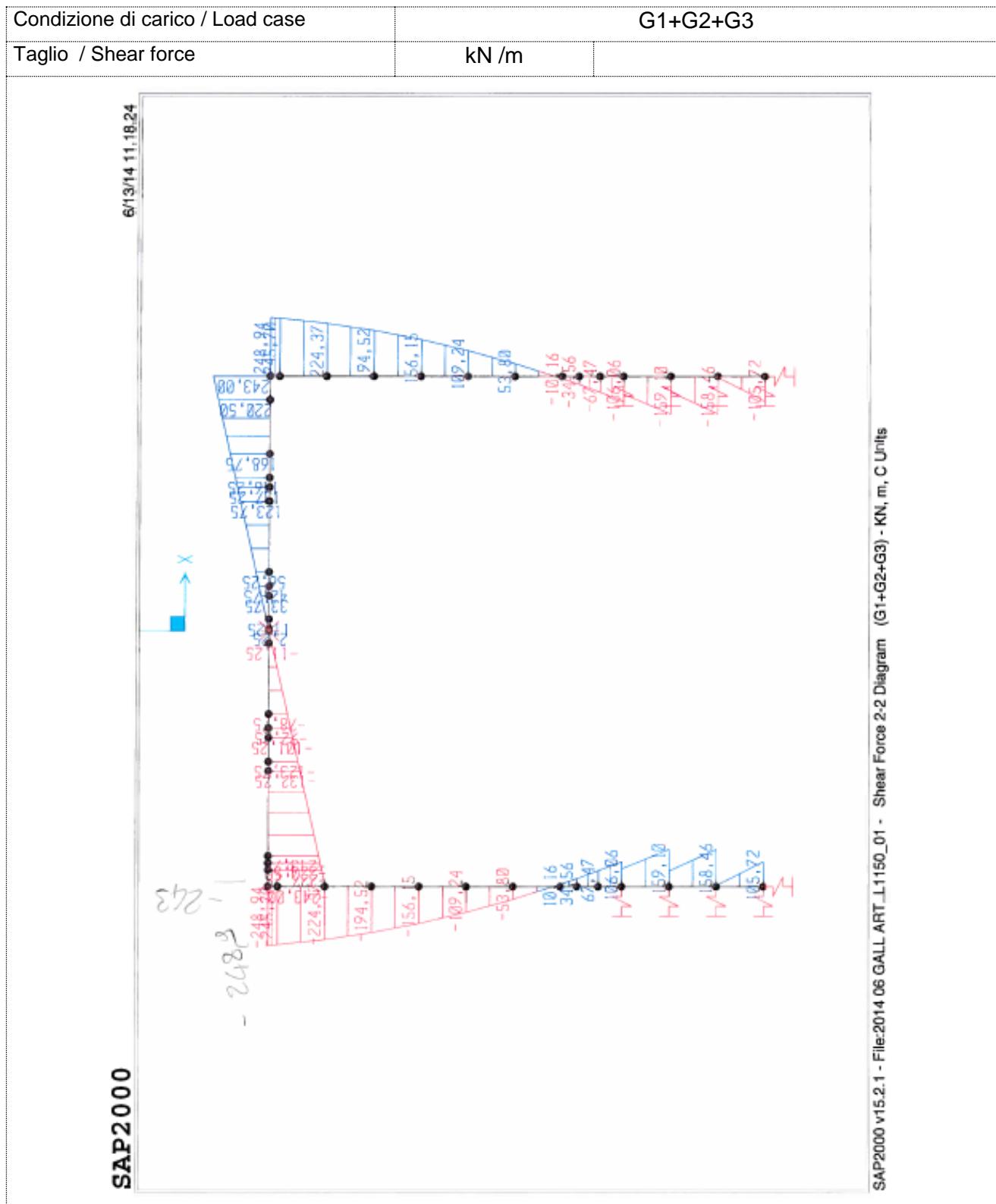
| Load Case Name | Load Case Type | Scale Factor |
|----------------|----------------|--------------|
| G3_TERR | Linear Static | 1,5 |
| G1_PP | Linear Static | 1 |
| G2_PER POR | Linear Static | 1 |
| G3_TERR | Linear Static | 1,5 |

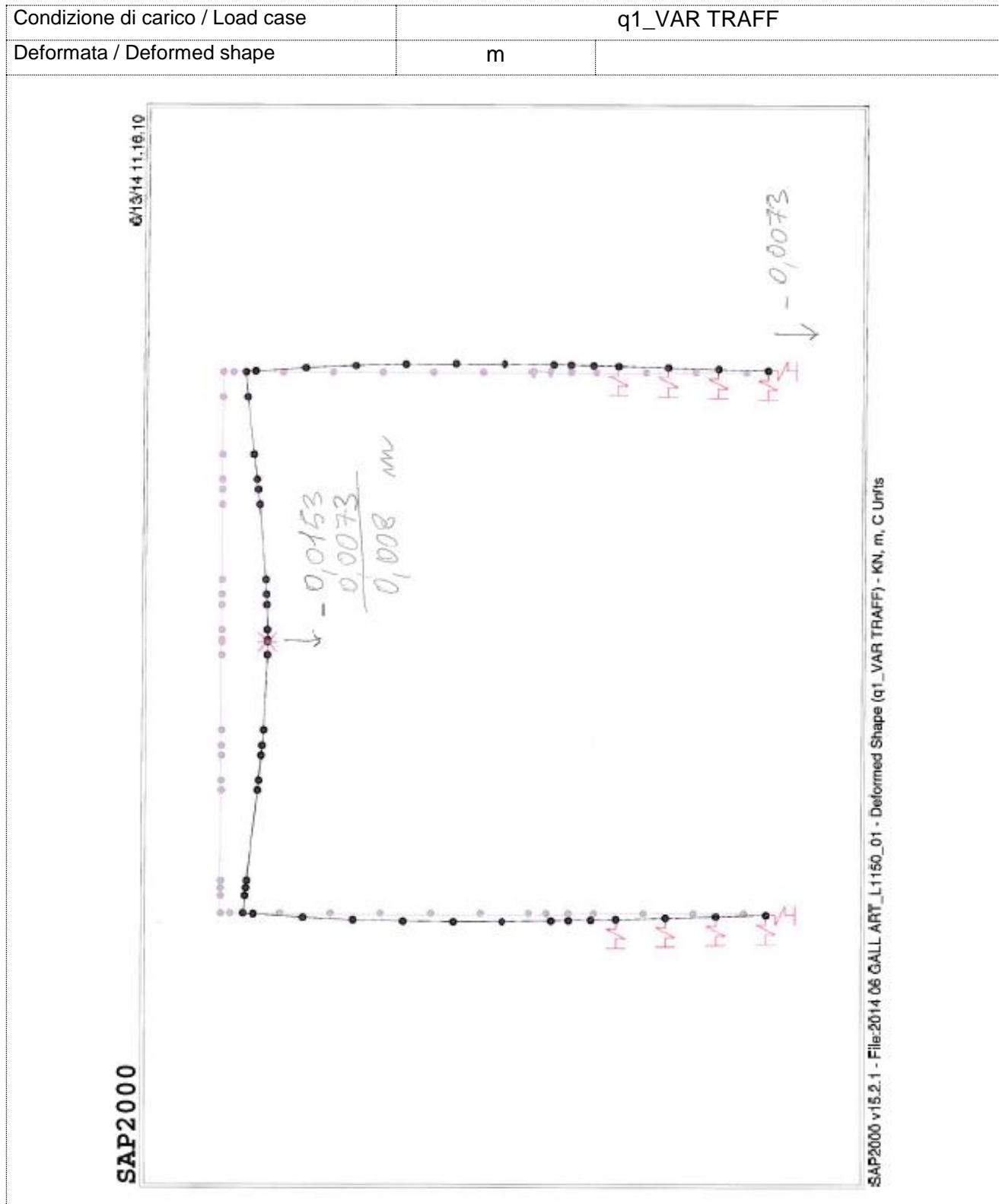
6.3 Risultati dell'analisi e rappresentazione delle sollecitazioni

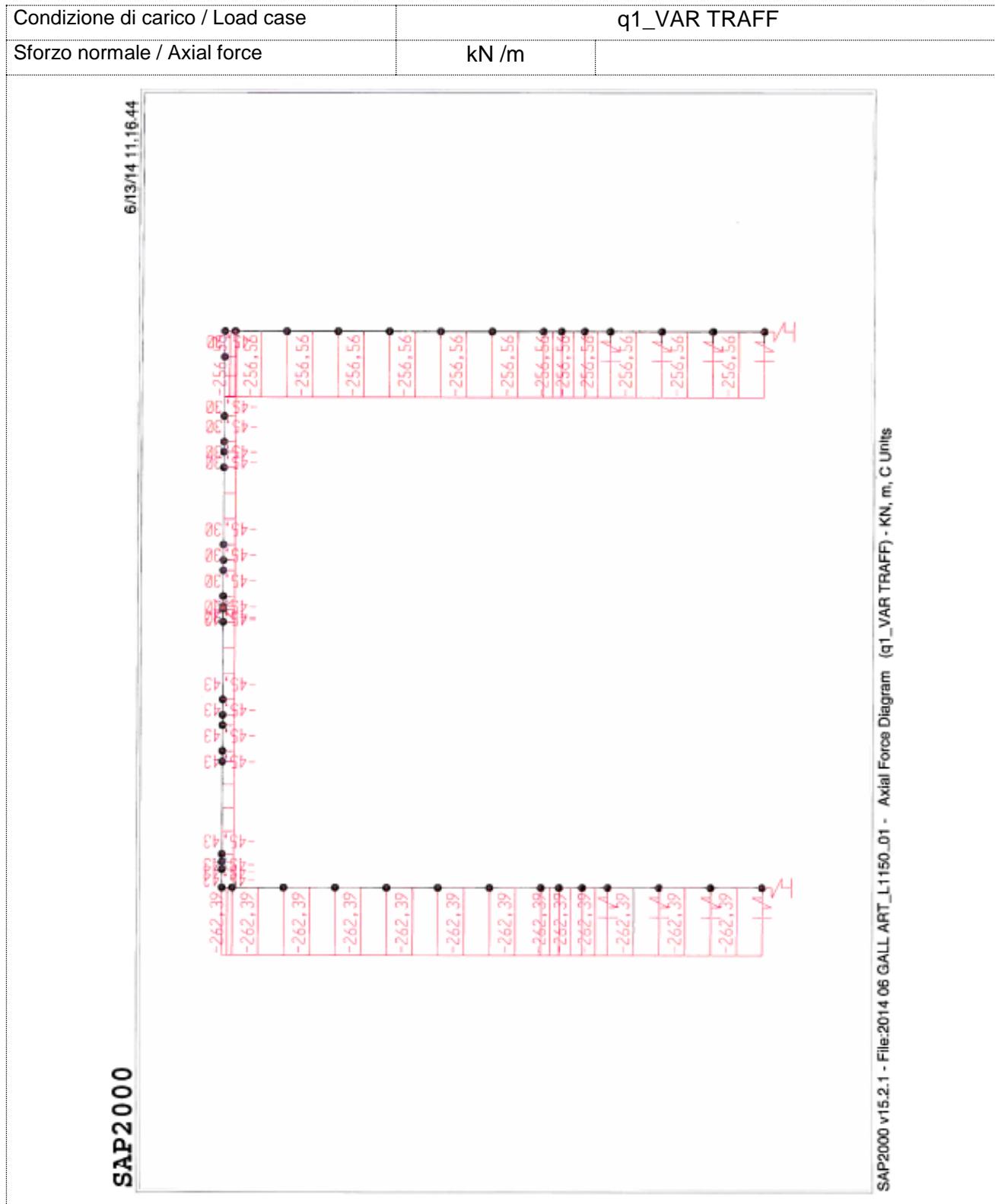


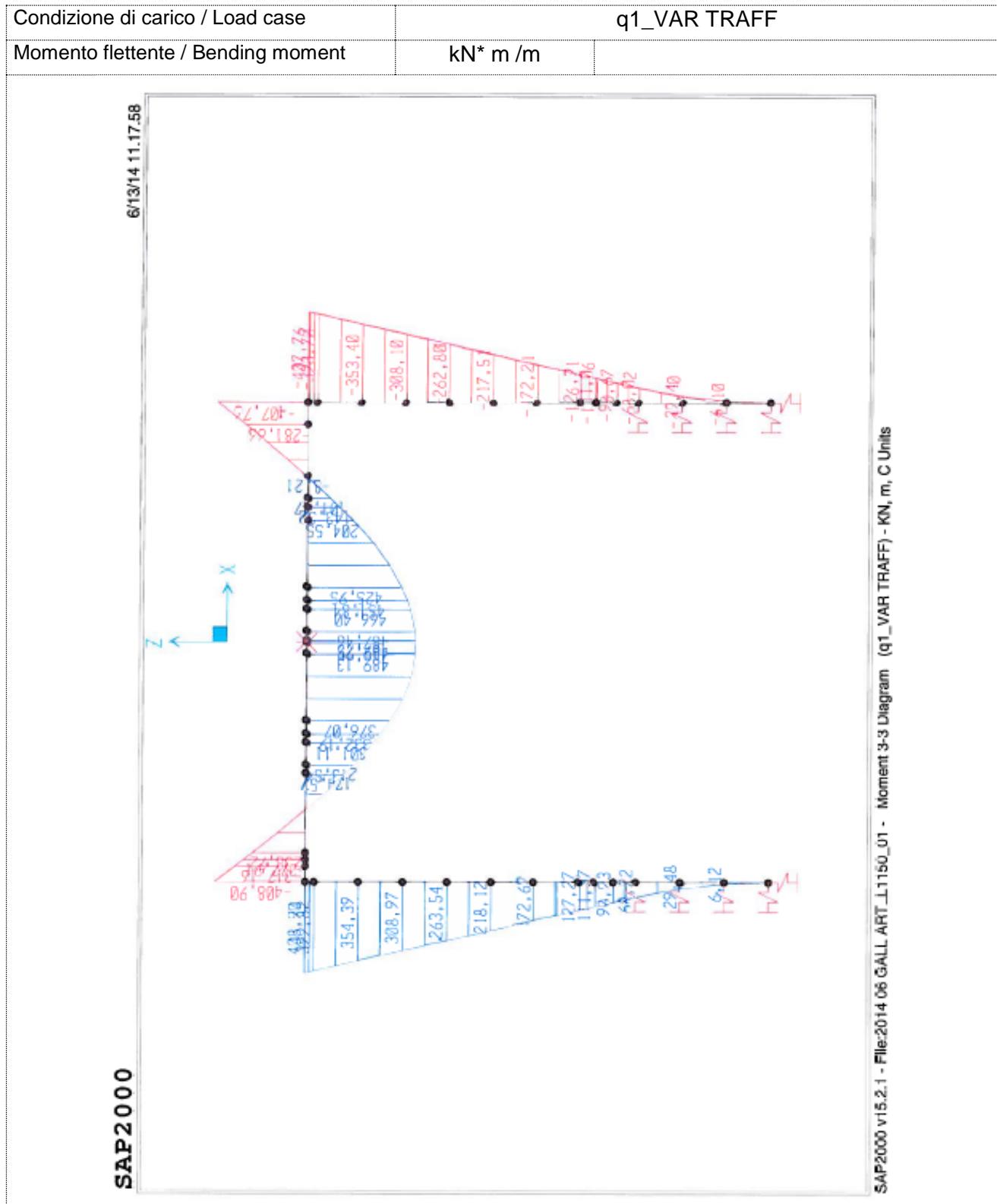


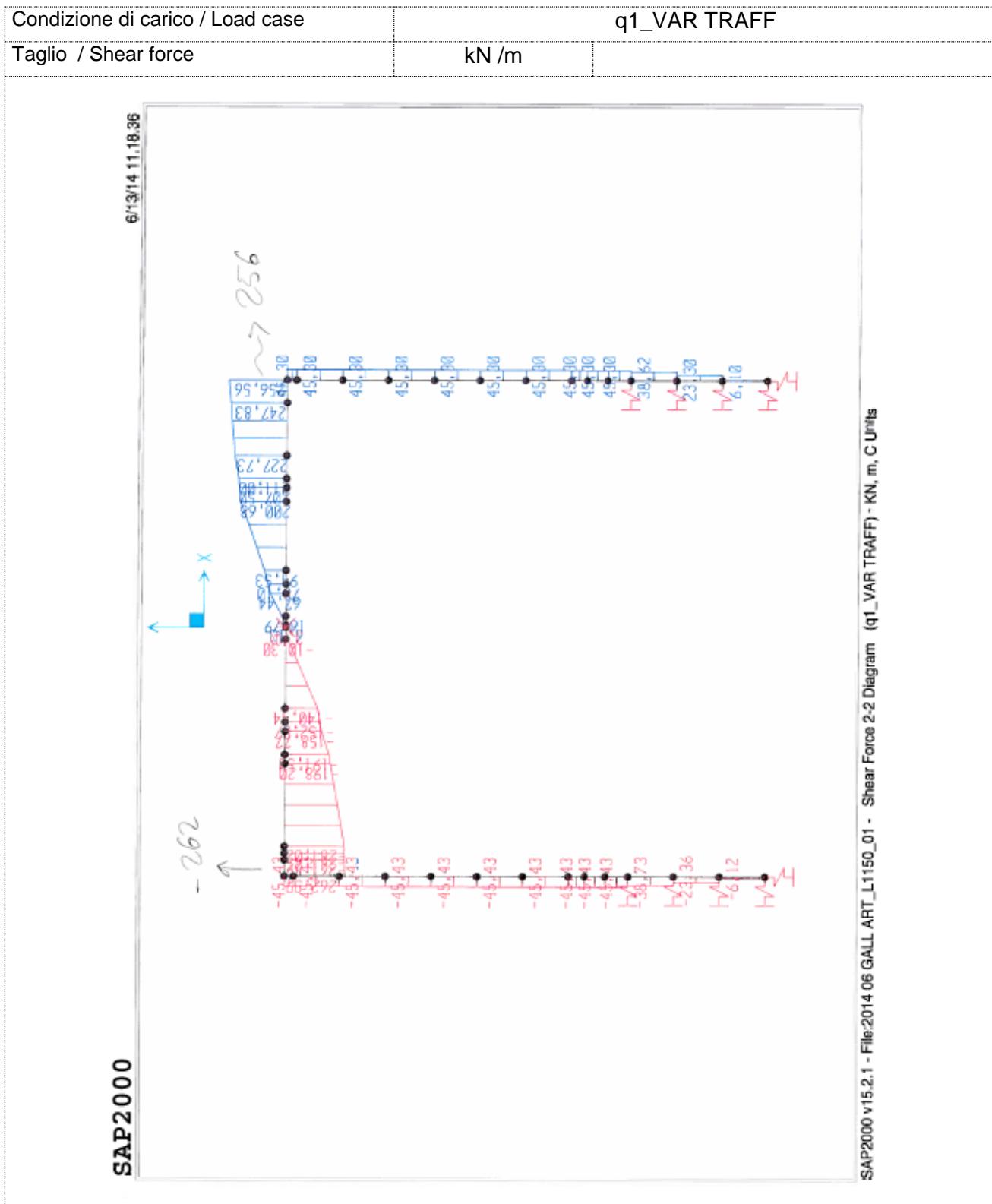


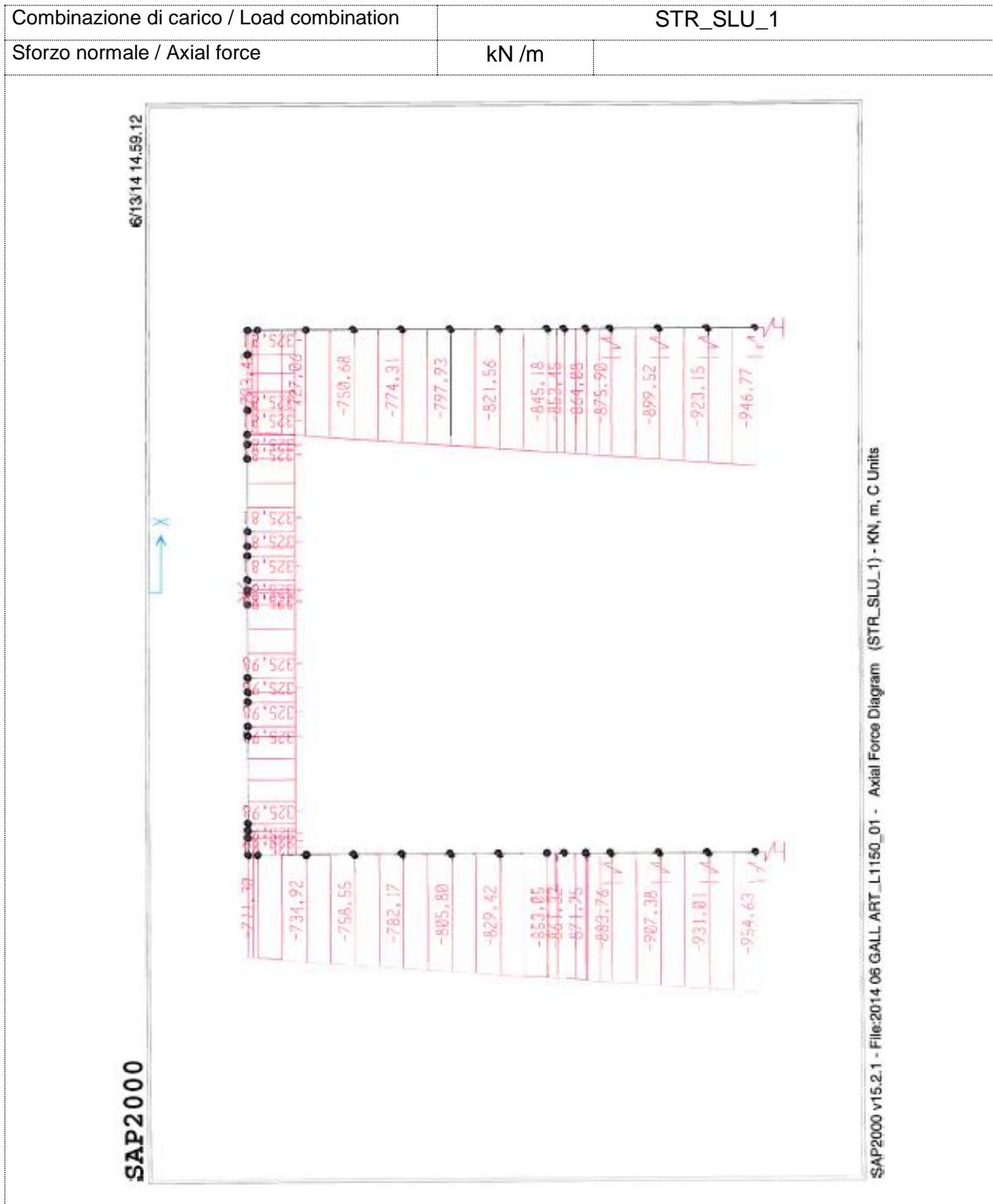


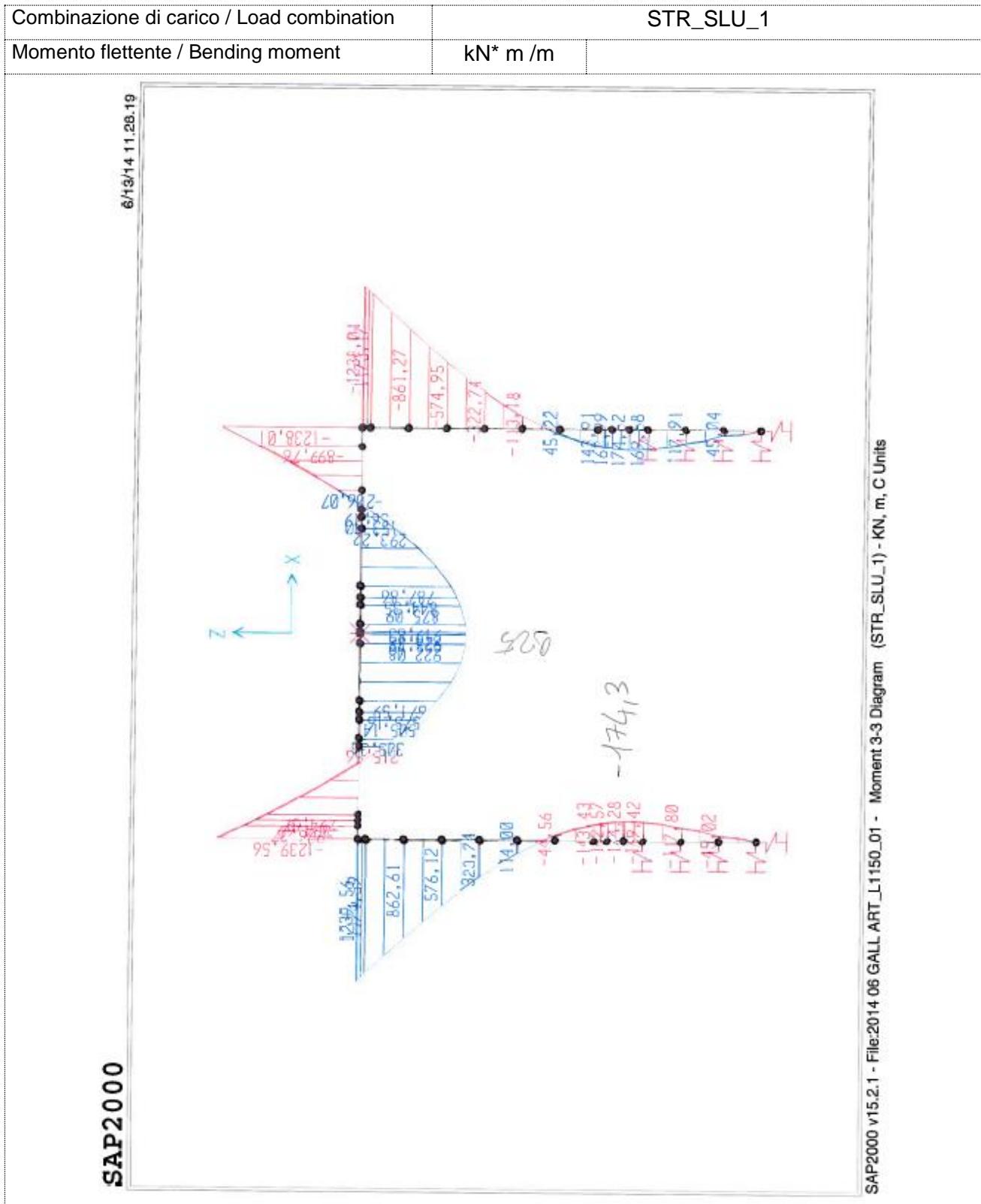


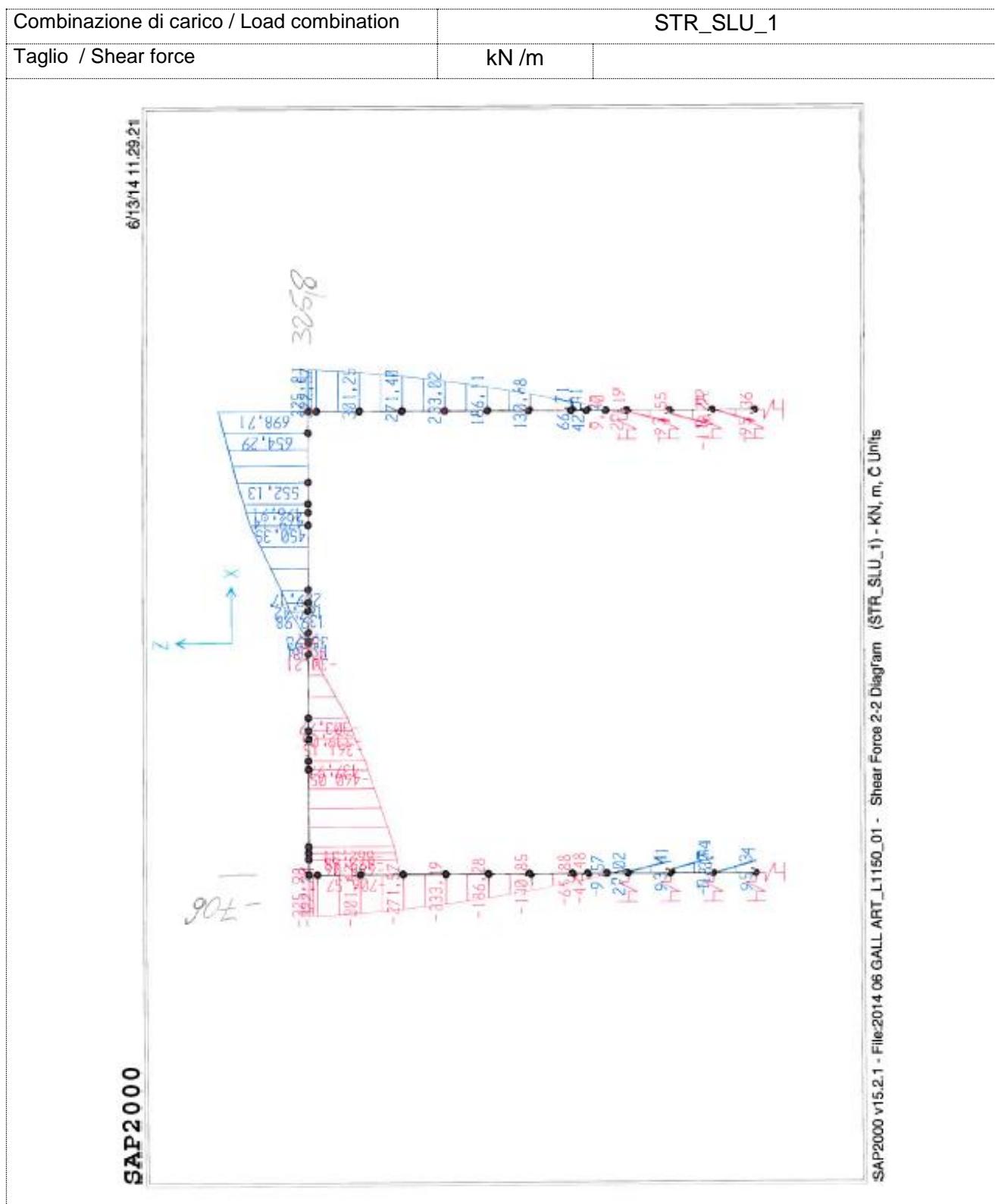


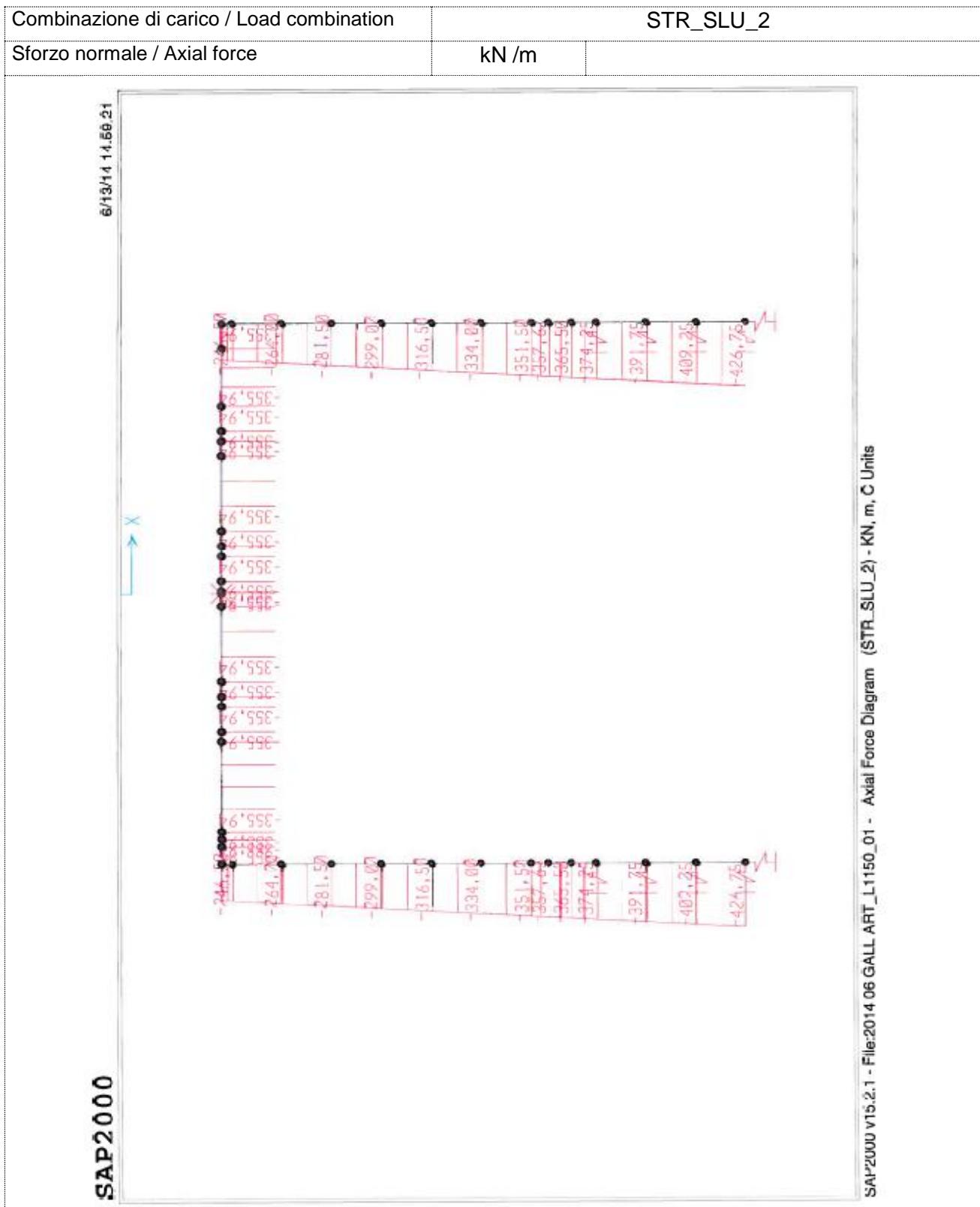


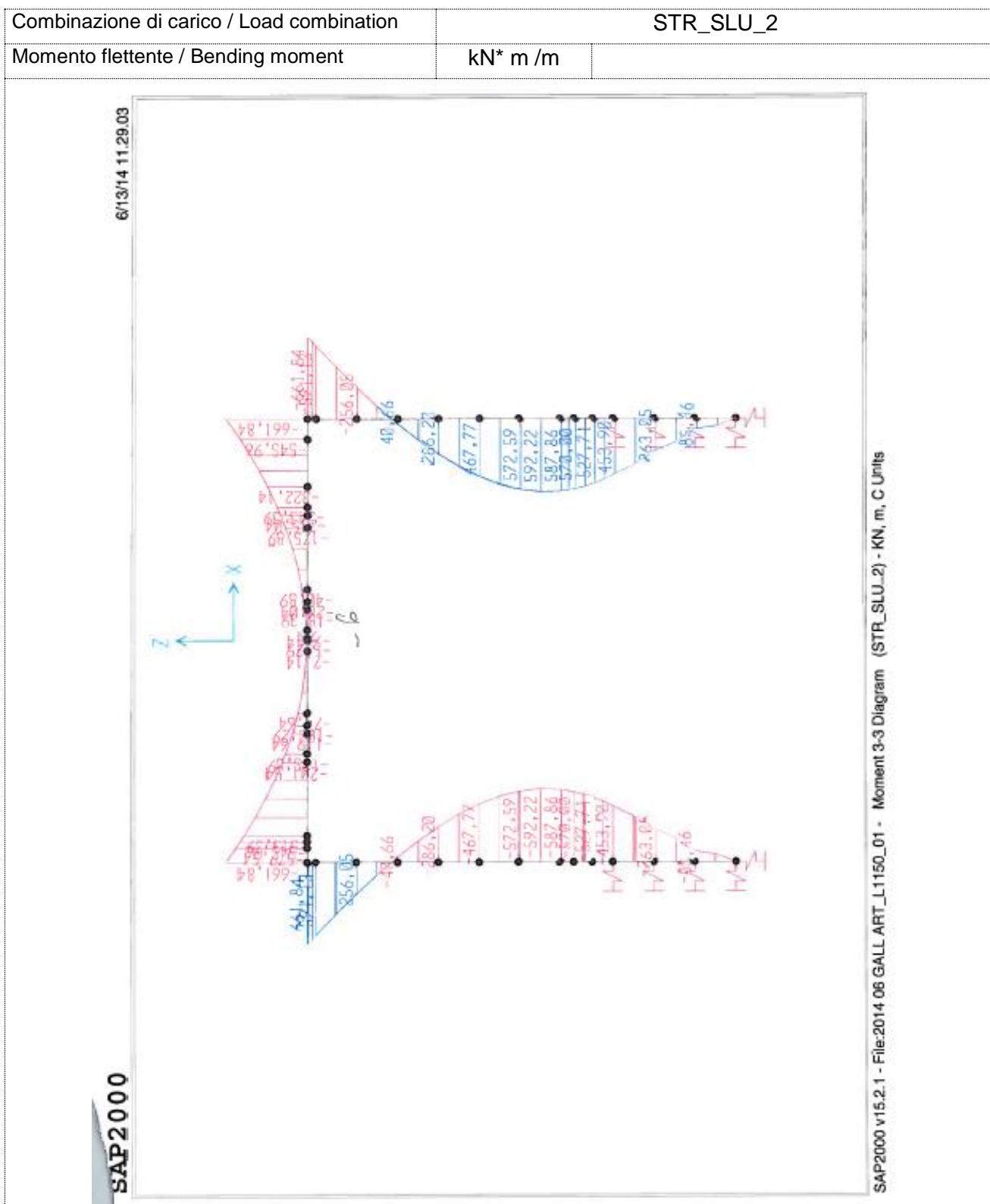


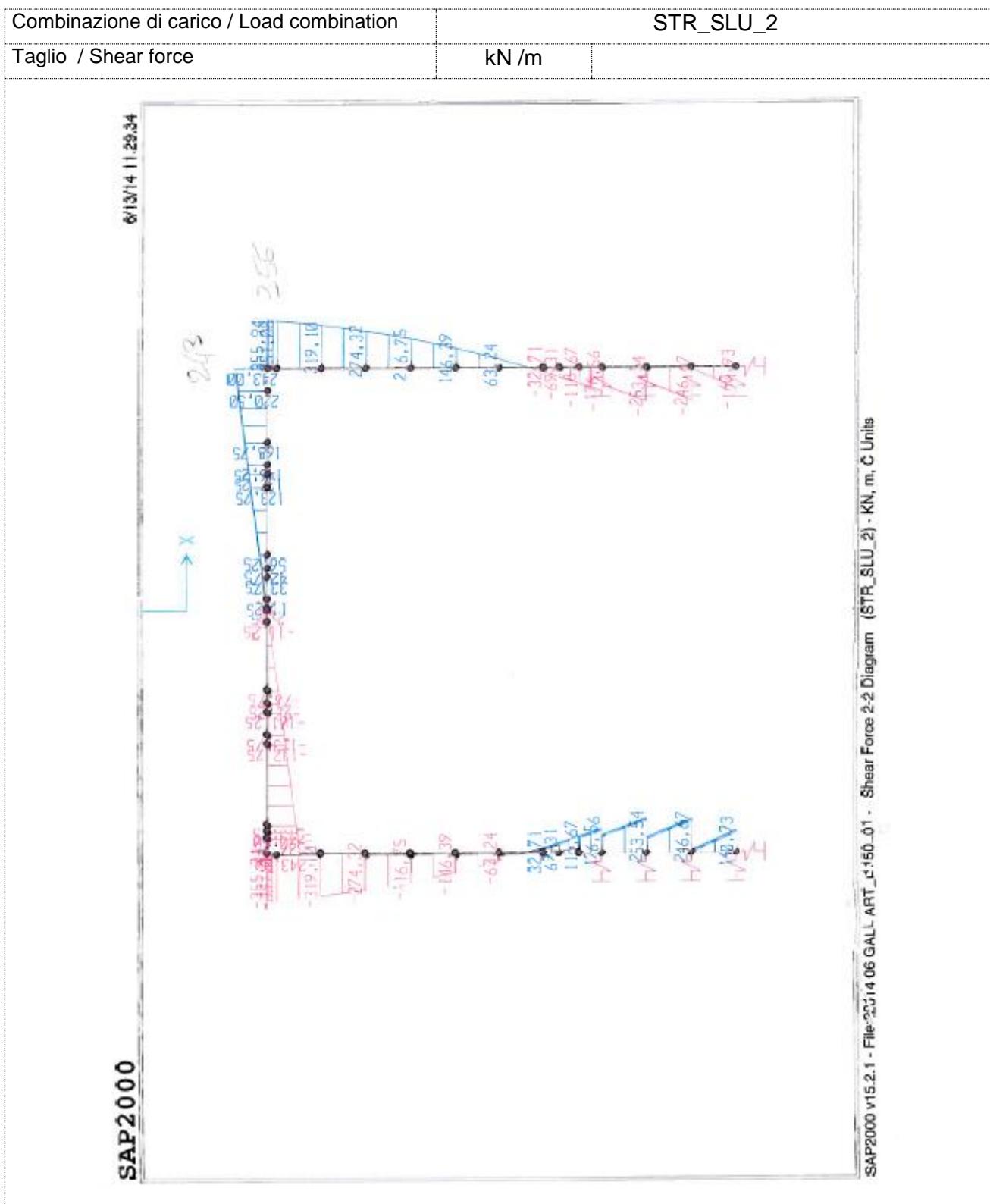






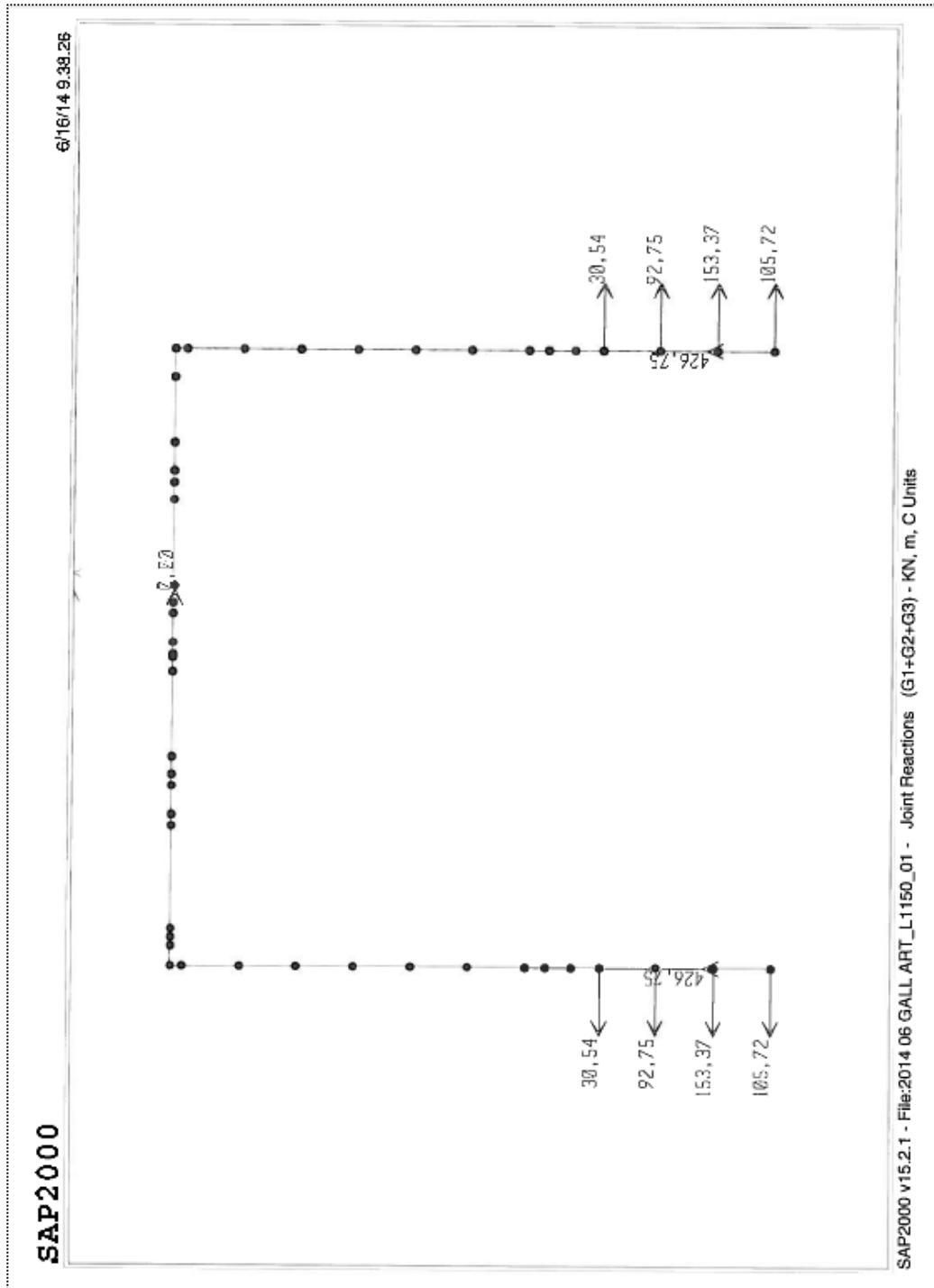




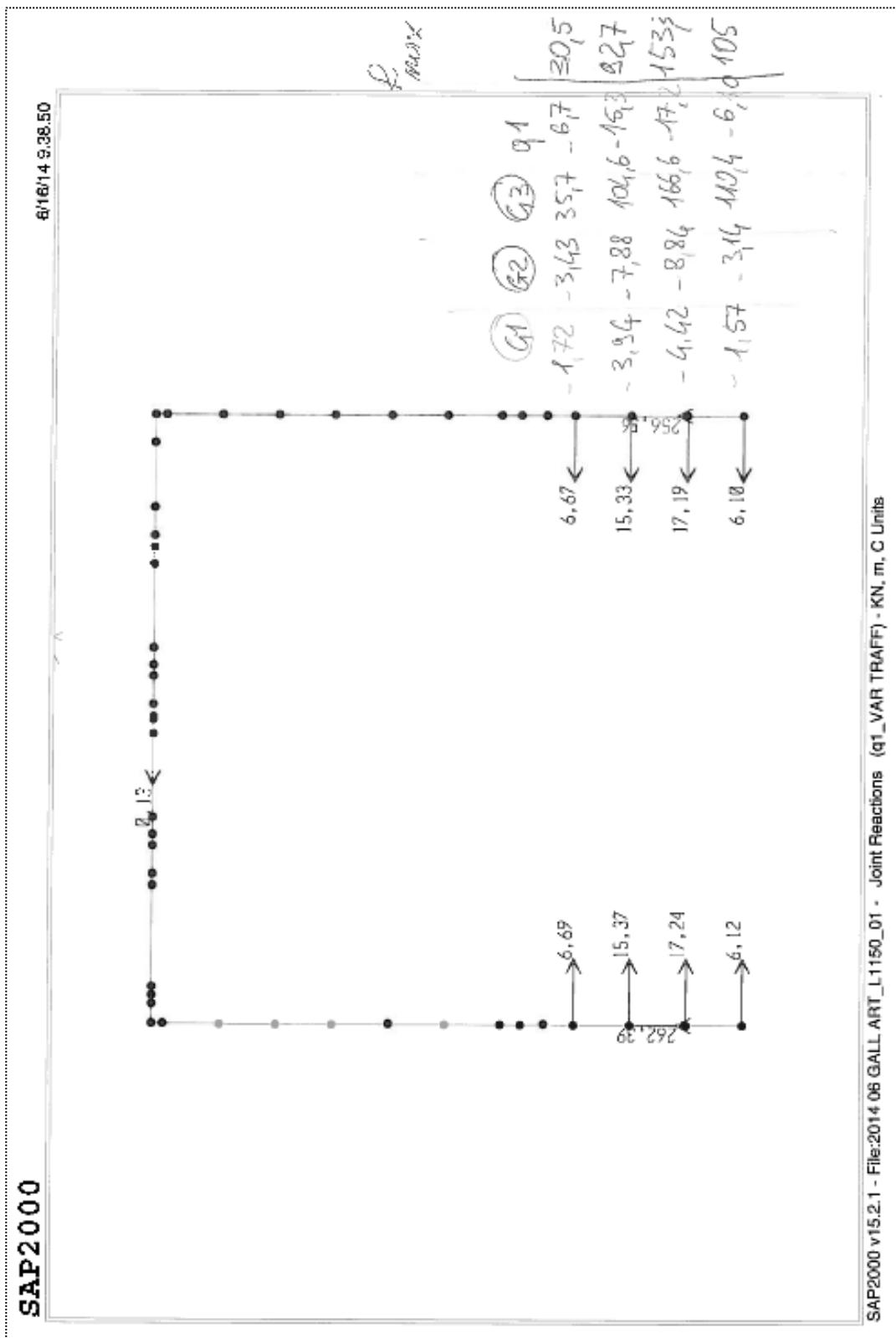


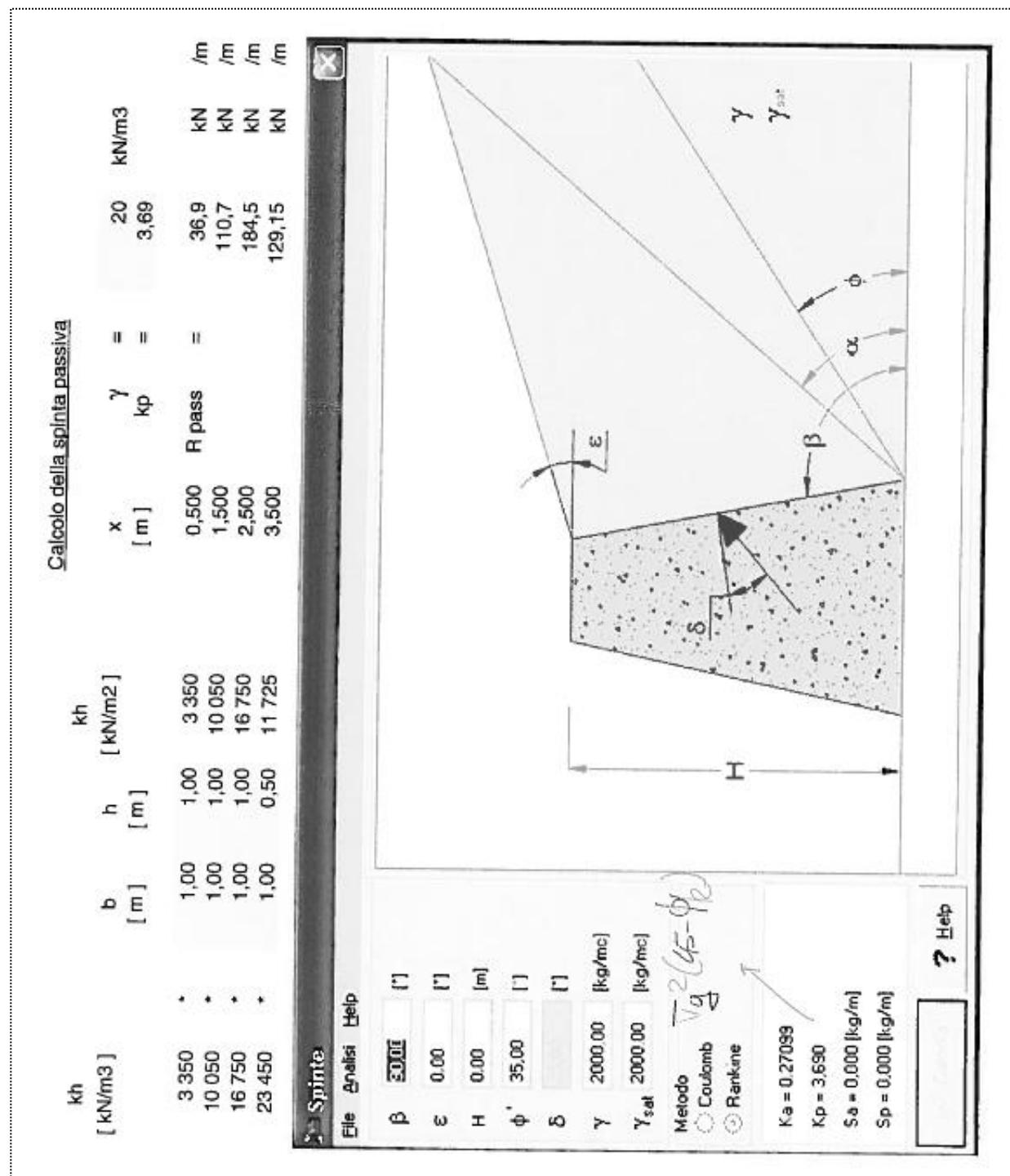
6.4 Verifica delle massime reazioni ottenute sulle molle rotizzontali / check of maximum reactions on horizontal springs

Load case G1+G2+G3



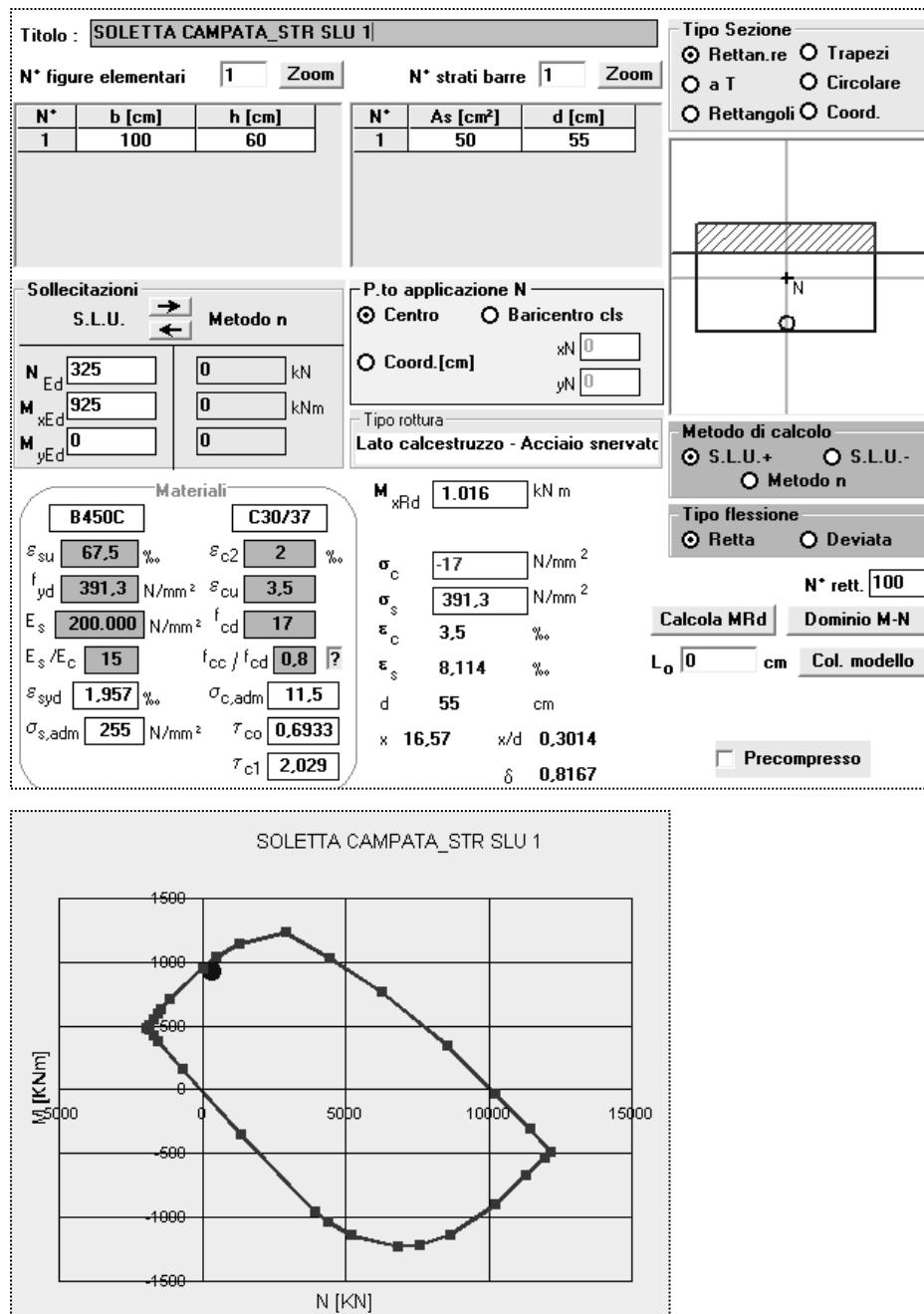
Load case: q1_VAR TRAFF





6.5 Verifica a flessione delle sezioni principali

6.5.1 Verifica di resistenza STR per combinazione fondamentale allo SLU – Sezione soletta campata



6.5.2 Verifica di resistenza STR per combinazione fondamentale allo SLU – Sezione soletta incastro

Titolo : SOLETTA INCASTRO_STR SLU 1

| | | | | | |
|----------------------|--------|--------|-----------------|-----------------------|--------|
| N° figure elementari | 1 | Zoom | N° strati barre | 1 | Zoom |
| N° | b [cm] | h [cm] | N° | As [cm ²] | d [cm] |
| 1 | 100 | 60 | 1 | 75 | 5 |

Sollecitazioni

| | | |
|------------------|-------|----------|
| S.L.U. | → | Metodo n |
| N _{Ed} | 325 | 0 kN |
| M _{xEd} | -1238 | 0 kNm |
| M _{yEd} | 0 | 0 |

Punto applicazione N

- Centro
- Baricentro cls
- Coord.[cm]

xN []
yN []

Tipo rottura
Lato calcestruzzo - Acciaio snervato

Materiali

| | | | |
|--------------------------------|---------------------------|--------------------|--------|
| B450C | C30/37 | | |
| ε_{su} | 67,5 % | ε_{c2} | 2 % |
| f_{yd} | 391,3 N/mm ² | ε_{cu} | 3,5 |
| E _s | 200.000 N/mm ² | f_{cd} | 17 |
| E _s /E _c | 15 | f_{cc}/f_{cd} | 0,8 |
| ε_{syd} | 1,957 % | $\sigma_{c,adm}$ | 11,5 |
| $\sigma_{s,adm}$ | 255 N/mm ² | τ_{co} | 0,6933 |
| | | τ_{cl} | 2,029 |

Metodo di calcolo

- S.L.U.+
- S.L.U.-
- Metodo n

Tipo flessione

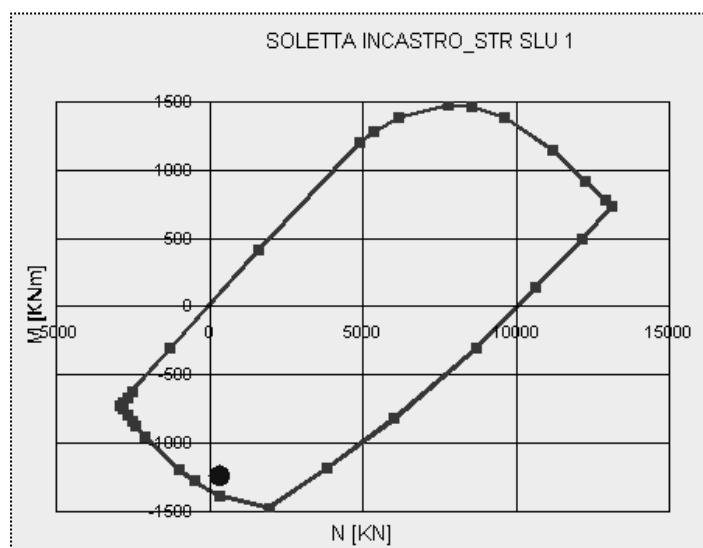
- Retta
- Deviata

N° rett. 100

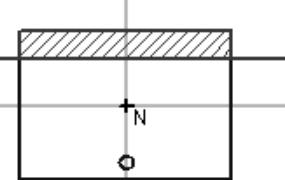
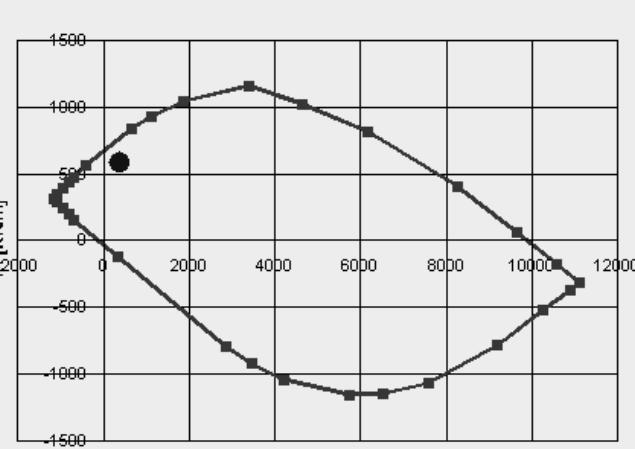
Calcola MRd **Dominio M-N**

L₀ 0 cm **Col. modello**

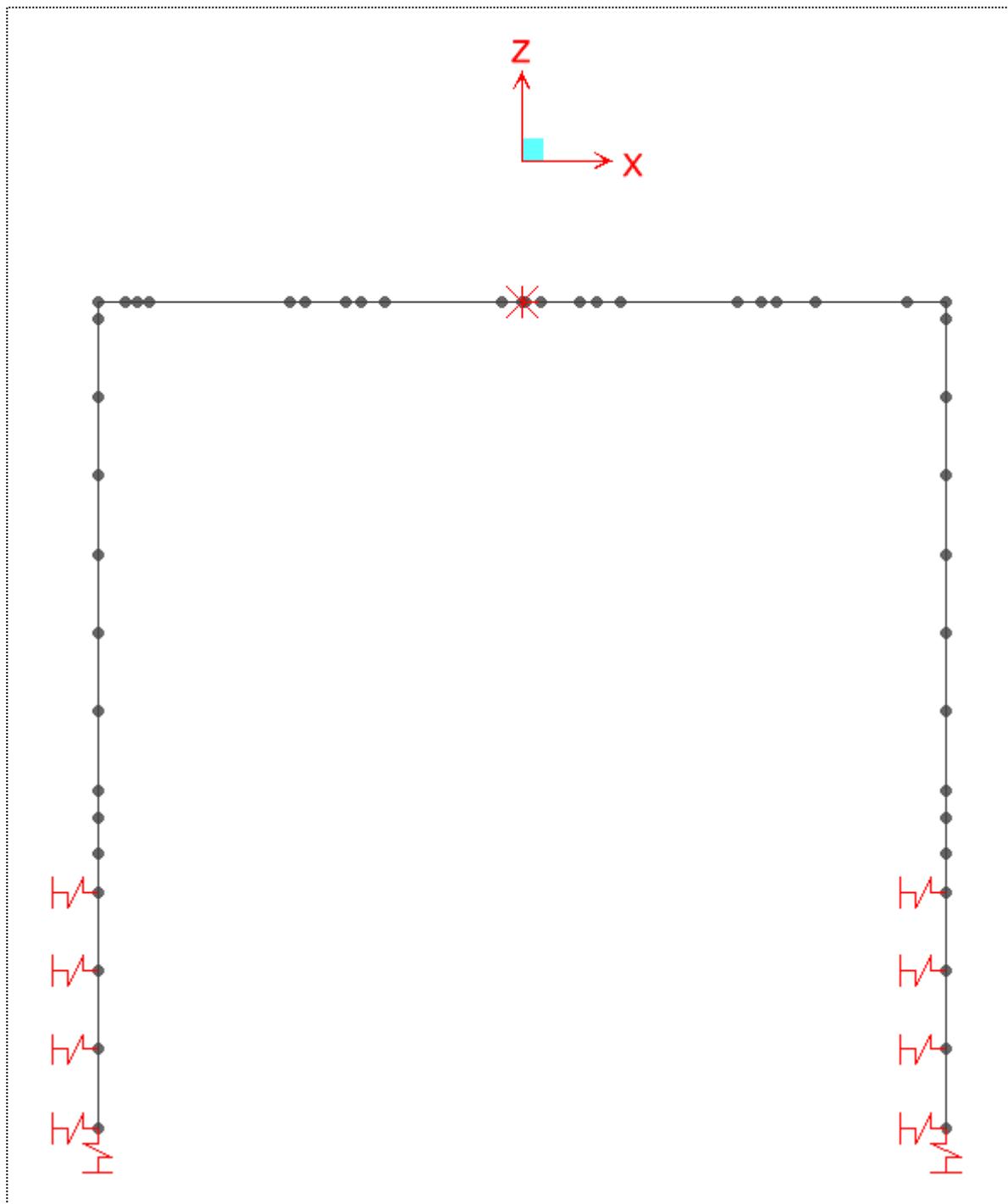
Precompresso



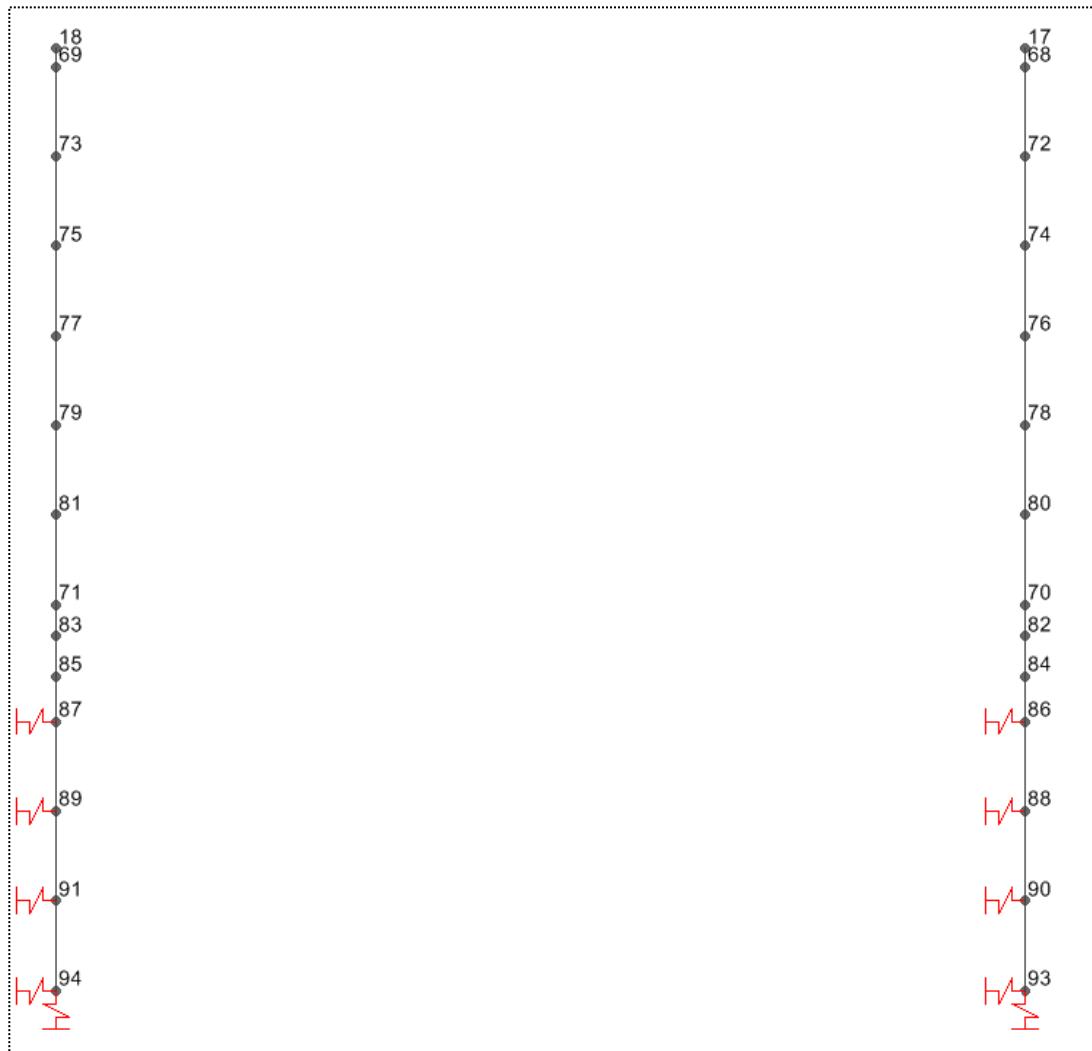
6.5.3 Verifica di resistenza STR per combinazione fondamentale allo SLU – Sezione diaframma campata

| Titolo : DIAFRAMMA CAMPATA_STR SLU 2 | | | | | | | | | | | | | | | | | | |
|--|--------------------------------------|---------------------|--------|---------------------------|------------------------|---|---|--|-----------------------|-----------------------------------|--------------------------------------|-----------------------------|-----------------------|---|-----------------|--|-------------------|---|
| N° figure elementari | 1 | Zoom | | | | | | | | | | | | | | | | |
| N° strati barre | 1 | Zoom | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <th>N°</th> <th>b [cm]</th> <th>h [cm]</th> </tr> <tr> <td>1</td> <td>100</td> <td>70</td> </tr> </table> | N° | b [cm] | h [cm] | 1 | 100 | 70 | <table border="1"> <tr> <th>N°</th> <th>As [cm²]</th> <th>d [cm]</th> </tr> <tr> <td>1</td> <td>30</td> <td>62</td> </tr> </table> | N° | As [cm ²] | d [cm] | 1 | 30 | 62 | <p>Tipo Sezione</p> <input checked="" type="radio"/> Rettang.re <input type="radio"/> Trapezi <input type="radio"/> a T <input type="radio"/> Circolare <input type="radio"/> Rettangoli <input type="radio"/> Coord.  | | | | |
| N° | b [cm] | h [cm] | | | | | | | | | | | | | | | | |
| 1 | 100 | 70 | | | | | | | | | | | | | | | | |
| N° | As [cm ²] | d [cm] | | | | | | | | | | | | | | | | |
| 1 | 30 | 62 | | | | | | | | | | | | | | | | |
| Sollecitazioni S.L.U. → Metodo n <table border="1"> <tr> <td>N_{Ed} 350</td> <td>0 kN</td> </tr> <tr> <td>M_{xEd} 588</td> <td>0 kNm</td> </tr> <tr> <td>M_{yEd} 0</td> <td>0</td> </tr> </table> | | N _{Ed} 350 | 0 kN | M _{xEd} 588 | 0 kNm | M _{yEd} 0 | 0 | P.ti applicazione N <input checked="" type="radio"/> Centro <input type="radio"/> Baricentro cls <input type="radio"/> Coord.[cm] xN 0 yN 0 Tipo rottura Lato calcestruzzo - Acciaio snervato | | | | | | | | | | |
| N _{Ed} 350 | 0 kN | | | | | | | | | | | | | | | | | |
| M _{xEd} 588 | 0 kNm | | | | | | | | | | | | | | | | | |
| M _{yEd} 0 | 0 | | | | | | | | | | | | | | | | | |
| Materiali <table border="1"> <tr> <td>B450C</td> <td>C25/30</td> </tr> <tr> <td>ε_{su} 67.5 %</td> <td>ε_{c2} 2 %</td> </tr> <tr> <td>f_{yd} 391.3 N/mm²</td> <td>ε_{cu} 3.5</td> </tr> <tr> <td>E_s 200.000 N/mm²</td> <td>f_{cd} 14.17</td> </tr> <tr> <td>E_s/E_c 15</td> <td>f_{cc}/f_{cd} 0.8</td> </tr> <tr> <td>ε_{syd} 1.957 %</td> <td>$\sigma_{c,adm}$ 9.75</td> </tr> <tr> <td>$\sigma_{s,adm}$ 255 N/mm²</td> <td>τ_{co} 0.6</td> </tr> <tr> <td></td> <td>τ_{c1} 1.829</td> </tr> </table> | | B450C | C25/30 | ε_{su} 67.5 % | ε_{c2} 2 % | f _{yd} 391.3 N/mm ² | ε_{cu} 3.5 | E _s 200.000 N/mm ² | f _{cd} 14.17 | E _s /E _c 15 | f _{cc} /f _{cd} 0.8 | ε_{syd} 1.957 % | $\sigma_{c,adm}$ 9.75 | $\sigma_{s,adm}$ 255 N/mm ² | τ_{co} 0.6 | | τ_{c1} 1.829 | Calcolo <input checked="" type="radio"/> S.L.U.+ <input type="radio"/> S.L.U.- <input type="radio"/> Metodo n Tipo flessione <input checked="" type="radio"/> Retta <input type="radio"/> Deviata N° rett. 100 Calcola MRd Dominio M-N L ₀ 0 cm Col. modello <input type="checkbox"/> Precompresso |
| B450C | C25/30 | | | | | | | | | | | | | | | | | |
| ε_{su} 67.5 % | ε_{c2} 2 % | | | | | | | | | | | | | | | | | |
| f _{yd} 391.3 N/mm ² | ε_{cu} 3.5 | | | | | | | | | | | | | | | | | |
| E _s 200.000 N/mm ² | f _{cd} 14.17 | | | | | | | | | | | | | | | | | |
| E _s /E _c 15 | f _{cc} /f _{cd} 0.8 | | | | | | | | | | | | | | | | | |
| ε_{syd} 1.957 % | $\sigma_{c,adm}$ 9.75 | | | | | | | | | | | | | | | | | |
| $\sigma_{s,adm}$ 255 N/mm ² | τ_{co} 0.6 | | | | | | | | | | | | | | | | | |
| | τ_{c1} 1.829 | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | |

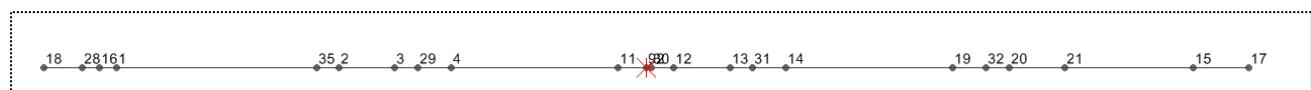
6.6 Files di input ed output del modello di calcolo



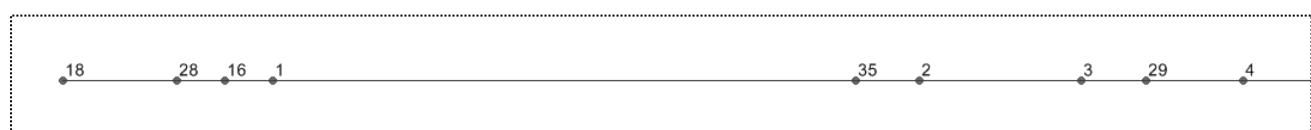
Numerazione nodi piedritto / Wall joint numbering



Numerazione nodi soletta / Slab joint numbering



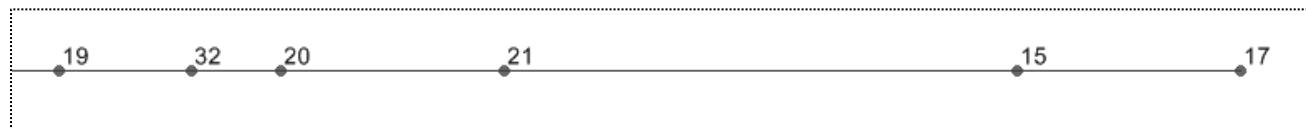
Zoom 1 / 3



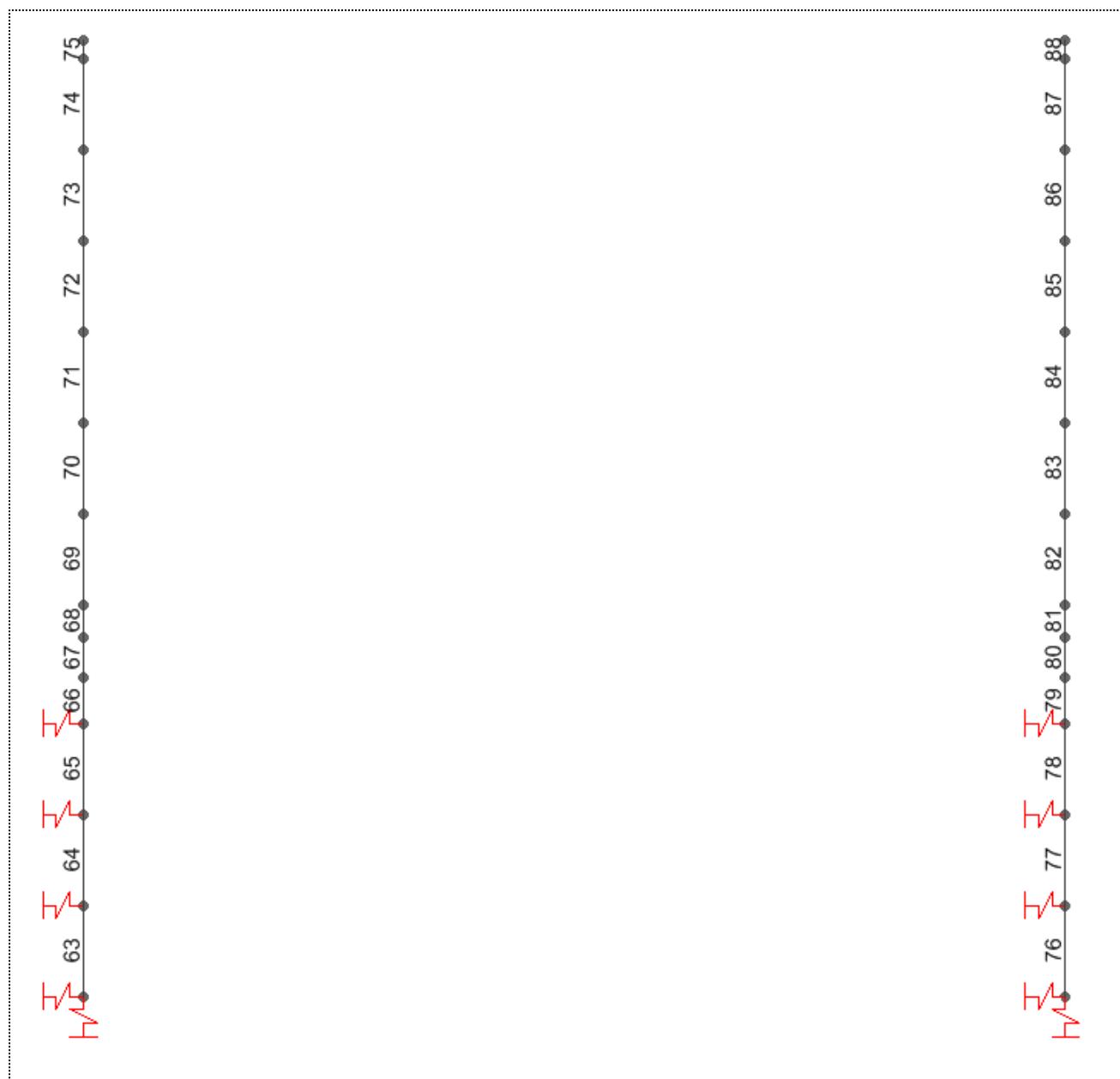
Zoom 2 / 3

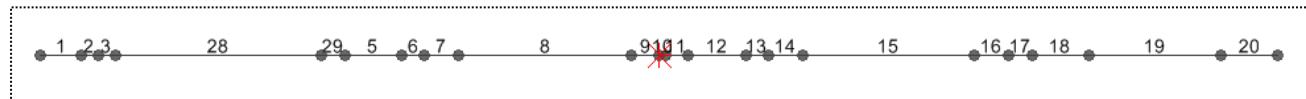


Zoom 3 / 3

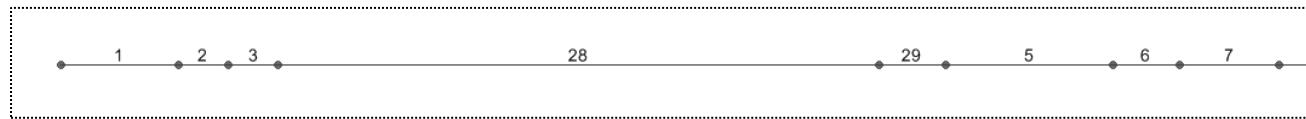


Numerazione frame piedritto / Wall frame numbering

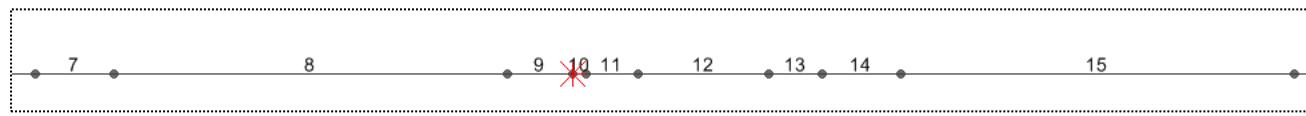


Numerazione frame soletta / Slab frame numbering

Zoom 1 / 3



Zoom 2 / 3



Zoom 3 / 3



6.6.1 Input file

Table: Connectivity - Frame, Part 1 of 2

Table: Connectivity - Frame, Part 1 of 2

| Frame | JointI | JointJ | IsCurved | Length m | CentroidX m | CentroidY m | CentroidZ m |
|-------|--------|--------|----------|-------------|----------------|----------------|----------------|
| 1 | 18 | 28 | No | 0,35000 | -5,22500 | 0,00000 | -1,80000 |
| 2 | 28 | 16 | No | 0,15000 | -4,97500 | 0,00000 | -1,80000 |
| 3 | 16 | 1 | No | 0,15000 | -4,82500 | 0,00000 | -1,80000 |
| 5 | 2 | 3 | No | 0,50000 | -2,50000 | 0,00000 | -1,80000 |
| 6 | 3 | 29 | No | 0,20000 | -2,15000 | 0,00000 | -1,80000 |
| 7 | 29 | 4 | No | 0,30000 | -1,90000 | 0,00000 | -1,80000 |
| 8 | 4 | 11 | No | 1,50000 | -1,00000 | 0,00000 | -1,80000 |
| 9 | 11 | 92 | No | 0,25000 | -0,12500 | 0,00000 | -1,80000 |
| 10 | 92 | 30 | No | 0,05000 | 0,02500 | 0,00000 | -1,80000 |
| 11 | 30 | 12 | No | 0,20000 | 0,15000 | 0,00000 | -1,80000 |
| 12 | 12 | 13 | No | 0,50000 | 0,50000 | 0,00000 | -1,80000 |
| 13 | 13 | 31 | No | 0,20000 | 0,85000 | 0,00000 | -1,80000 |
| 14 | 31 | 14 | No | 0,30000 | 1,10000 | 0,00000 | -1,80000 |
| 15 | 14 | 19 | No | 1,50000 | 2,00000 | 0,00000 | -1,80000 |
| 16 | 19 | 32 | No | 0,30000 | 2,90000 | 0,00000 | -1,80000 |
| 17 | 32 | 20 | No | 0,20000 | 3,15000 | 0,00000 | -1,80000 |
| 18 | 20 | 21 | No | 0,50000 | 3,50000 | 0,00000 | -1,80000 |
| 19 | 21 | 15 | No | 1,15000 | 4,32500 | 0,00000 | -1,80000 |
| 20 | 15 | 17 | No | 0,50000 | 5,15000 | 0,00000 | -1,80000 |
| 28 | 1 | 35 | No | 1,80000 | -3,85000 | 0,00000 | -1,80000 |
| 29 | 35 | 2 | No | 0,20000 | -2,85000 | 0,00000 | -1,80000 |
| 63 | 94 | 91 | No | 1,00000 | -5,40000 | 0,00000 | -11,80000 |
| 64 | 91 | 89 | No | 1,00000 | -5,40000 | 0,00000 | -10,80000 |
| 65 | 89 | 87 | No | 1,00000 | -5,40000 | 0,00000 | -9,80000 |
| 66 | 87 | 85 | No | 0,50000 | -5,40000 | 0,00000 | -9,05000 |
| 67 | 85 | 83 | No | 0,45000 | -5,40000 | 0,00000 | -8,57500 |

Table: Connectivity - Frame, Part 1 of 2

| Frame | JointI | JointJ | IsCurved | Length m | CentroidX m | CentroidY m | CentroidZ m |
|-------|--------|--------|----------|-------------|----------------|----------------|----------------|
| 68 | 83 | 71 | No | 0,35000 | -5,40000 | 0,00000 | -8,17500 |
| 69 | 71 | 81 | No | 1,00000 | -5,40000 | 0,00000 | -7,50000 |
| 70 | 81 | 79 | No | 1,00000 | -5,40000 | 0,00000 | -6,50000 |
| 71 | 79 | 77 | No | 1,00000 | -5,40000 | 0,00000 | -5,50000 |
| 72 | 77 | 75 | No | 1,00000 | -5,40000 | 0,00000 | -4,50000 |
| 73 | 75 | 73 | No | 1,00000 | -5,40000 | 0,00000 | -3,50000 |
| 74 | 73 | 69 | No | 1,00000 | -5,40000 | 0,00000 | -2,50000 |
| 75 | 69 | 18 | No | 0,20000 | -5,40000 | 0,00000 | -1,90000 |
| 76 | 93 | 90 | No | 1,00000 | 5,40000 | 0,00000 | -11,80000 |
| 77 | 90 | 88 | No | 1,00000 | 5,40000 | 0,00000 | -10,80000 |
| 78 | 88 | 86 | No | 1,00000 | 5,40000 | 0,00000 | -9,80000 |
| 79 | 86 | 84 | No | 0,50000 | 5,40000 | 0,00000 | -9,05000 |
| 80 | 84 | 82 | No | 0,45000 | 5,40000 | 0,00000 | -8,57500 |
| 81 | 82 | 70 | No | 0,35000 | 5,40000 | 0,00000 | -8,17500 |
| 82 | 70 | 80 | No | 1,00000 | 5,40000 | 0,00000 | -7,50000 |
| 83 | 80 | 78 | No | 1,00000 | 5,40000 | 0,00000 | -6,50000 |
| 84 | 78 | 76 | No | 1,00000 | 5,40000 | 0,00000 | -5,50000 |
| 85 | 76 | 74 | No | 1,00000 | 5,40000 | 0,00000 | -4,50000 |
| 86 | 74 | 72 | No | 1,00000 | 5,40000 | 0,00000 | -3,50000 |
| 87 | 72 | 68 | No | 1,00000 | 5,40000 | 0,00000 | -2,50000 |
| 88 | 68 | 17 | No | 0,20000 | 5,40000 | 0,00000 | -1,90000 |

Table: Connectivity - Frame, Part 2 of 2

Table: Connectivity - Frame, Part 2 of 2

| Frame | GUID |
|-------|------|
| 1 | |
| 2 | |
| 3 | |
| 5 | |
| 6 | |



Table: Connectivity - Frame, Part 2 of 2

| Frame | GUID |
|-------|------|
|-------|------|

7
8
9
10
11
12
13
14
15
16
17
18
19
20
28
29
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78



Table: Connectivity - Frame, Part 2 of 2

| Frame | GUID |
|-------|------|
| 79 | |
| 80 | |
| 81 | |
| 82 | |
| 83 | |
| 84 | |
| 85 | |
| 86 | |
| 87 | |
| 88 | |

Table: Frame Loads - Distributed, Part 1 of 3

Table: Frame Loads - Distributed, Part 1 of 3

| Frame | LoadPat | CoordSys | Type | Dir | DistType | RelDistA |
|-------|------------|----------|-------|-----|----------|----------|
| 1 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 1 | Q_RIM_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 2 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 2 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 2 | Q_RIM_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 3 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 3 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 3 | Q_RIM_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 5 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 5 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 5 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 6 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 6 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 6 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 7 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 7 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |



Table: Frame Loads - Distributed, Part 1 of 3

| Frame | LoadPat | CoordSys | Type | Dir | DistType | RelDistA |
|-------|------------|----------|-------|-----|----------|----------|
| 7 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 7 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 8 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 8 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 8 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 8 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 8 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 9 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 9 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 9 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 9 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 10 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 10 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 10 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 10 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 11 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 11 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 11 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 12 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 12 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 12 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 13 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 13 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 13 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 14 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 14 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 14 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 14 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 15 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 15 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 15 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 15 | Q_C1_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |

Table: Frame Loads - Distributed, Part 1 of 3

| Frame | LoadPat | CoordSys | Type | Dir | DistType | RelDistA |
|-------|------------|----------|-------|-----|----------|----------|
| 15 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 16 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 16 | Q_C1_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 16 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 16 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 17 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 17 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 17 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 18 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 18 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 18 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 19 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 19 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 19 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 20 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 20 | Q_C3_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 20 | Q_C3_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 63 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 64 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 65 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 66 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 67 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 68 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 69 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 70 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 71 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 72 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 73 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 74 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 75 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 76 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 77 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |

Table: Frame Loads - Distributed, Part 1 of 3

| Frame | LoadPat | CoordSys | Type | Dir | DistType | RelDistA |
|-------|------------|----------|-------|-----|----------|----------|
| 78 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 79 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 80 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 81 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 82 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 83 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 84 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 85 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 86 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 87 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 88 | G3_TERR | GLOBAL | Force | X | RelDist | 0,0000 |
| 28 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 28 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 28 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 28 | Q_RIM_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |
| 29 | G2_PER POR | GLOBAL | Force | Z | RelDist | 0,0000 |
| 29 | Q_C2_CONC | GLOBAL | Force | Z | RelDist | 0,0000 |
| 29 | Q_C2_DIS | GLOBAL | Force | Z | RelDist | 0,0000 |

Table: Frame Loads - Distributed, Part 2 of 3

Table: Frame Loads - Distributed, Part 2 of 3

| Frame | LoadPat | RelDistB | AbsDistA | AbsDistB | FOverLA | FOverLB |
|-------|------------|----------|----------|----------|---------|---------|
| | | | m | m | KN/m | KN/m |
| 1 | G2_PER POR | 1,0000 | 0,00000 | 0,35000 | -30,00 | -30,00 |
| 1 | Q_RIM_DIS | 1,0000 | 0,00000 | 0,35000 | -1,43 | -1,43 |
| 2 | G2_PER POR | 1,0000 | 0,00000 | 0,15000 | -30,00 | -30,00 |
| 2 | Q_C2_DIS | 1,0000 | 0,00000 | 0,15000 | -1,47 | -1,47 |
| 2 | Q_RIM_DIS | 1,0000 | 0,00000 | 0,15000 | -1,43 | -1,43 |
| 3 | G2_PER POR | 1,0000 | 0,00000 | 0,15000 | -30,00 | -30,00 |
| 3 | Q_C2_DIS | 1,0000 | 0,00000 | 0,15000 | -1,47 | -1,47 |
| 3 | Q_RIM_DIS | 1,0000 | 0,00000 | 0,15000 | -1,43 | -1,43 |



Table: Frame Loads - Distributed, Part 2 of 3

| Frame | LoadPat | RelDistB | AbsDistA | AbsDistB | FOverLA | FOverLB |
|-------|------------|----------|----------|----------|---------|---------|
| | | | m | m | KN/m | KN/m |
| 5 | G2_PER POR | 1,0000 | 0,00000 | 0,50000 | -30,00 | -30,00 |
| 5 | Q_C2_DIS | 1,0000 | 0,00000 | 0,50000 | -1,47 | -1,47 |
| 5 | Q_C2_CONC | 1,0000 | 0,00000 | 0,50000 | -64,00 | -64,00 |
| 6 | G2_PER POR | 1,0000 | 0,00000 | 0,20000 | -30,00 | -30,00 |
| 6 | Q_C2_DIS | 1,0000 | 0,00000 | 0,20000 | -1,47 | -1,47 |
| 6 | Q_C2_CONC | 1,0000 | 0,00000 | 0,20000 | -32,00 | -32,00 |
| 7 | G2_PER POR | 1,0000 | 0,00000 | 0,30000 | -30,00 | -30,00 |
| 7 | Q_C1_DIS | 1,0000 | 0,00000 | 0,30000 | -5,29 | -5,29 |
| 7 | Q_C2_DIS | 1,0000 | 0,00000 | 0,30000 | -1,47 | -1,47 |
| 7 | Q_C2_CONC | 1,0000 | 0,00000 | 0,30000 | -32,00 | -32,00 |
| 8 | G2_PER POR | 1,0000 | 0,00000 | 1,50000 | -30,00 | -30,00 |
| 8 | Q_C1_DIS | 1,0000 | 0,00000 | 1,50000 | -5,29 | -5,29 |
| 8 | Q_C2_DIS | 1,0000 | 0,00000 | 1,50000 | -1,47 | -1,47 |
| 8 | Q_C2_CONC | 1,0000 | 0,00000 | 1,50000 | -32,00 | -32,00 |
| 8 | Q_C1_CONC | 1,0000 | 0,00000 | 1,50000 | -48,00 | -48,00 |
| 9 | G2_PER POR | 1,0000 | 0,00000 | 0,25000 | -30,00 | -30,00 |
| 9 | Q_C1_DIS | 1,0000 | 0,00000 | 0,25000 | -5,29 | -5,29 |
| 9 | Q_C2_DIS | 1,0000 | 0,00000 | 0,25000 | -1,47 | -1,47 |
| 9 | Q_C1_CONC | 1,0000 | 0,00000 | 0,25000 | -48,00 | -48,00 |
| 10 | G2_PER POR | 1,0000 | 0,00000 | 0,05000 | -30,00 | -30,00 |
| 10 | Q_C1_DIS | 1,0000 | 0,00000 | 0,05000 | -5,29 | -5,29 |
| 10 | Q_C2_DIS | 1,0000 | 0,00000 | 0,05000 | -1,47 | -1,47 |
| 10 | Q_C1_CONC | 1,0000 | 0,00000 | 0,05000 | -48,00 | -48,00 |
| 11 | G2_PER POR | 1,0000 | 0,00000 | 0,20000 | -30,00 | -30,00 |
| 11 | Q_C1_DIS | 1,0000 | 0,00000 | 0,20000 | -5,29 | -5,29 |
| 11 | Q_C1_CONC | 1,0000 | 0,00000 | 0,20000 | -48,00 | -48,00 |
| 12 | G2_PER POR | 1,0000 | 0,00000 | 0,50000 | -30,00 | -30,00 |
| 12 | Q_C1_DIS | 1,0000 | 0,00000 | 0,50000 | -5,29 | -5,29 |
| 12 | Q_C1_CONC | 1,0000 | 0,00000 | 0,50000 | -96,00 | -96,00 |
| 13 | G2_PER POR | 1,0000 | 0,00000 | 0,20000 | -30,00 | -30,00 |
| 13 | Q_C1_DIS | 1,0000 | 0,00000 | 0,20000 | -5,29 | -5,29 |
| 13 | Q_C1_CONC | 1,0000 | 0,00000 | 0,20000 | -48,00 | -48,00 |

Table: Frame Loads - Distributed, Part 2 of 3

| Frame | LoadPat | RelDistB | AbsDistA | AbsDistB | FOverLA | FOverLB |
|-------|------------|----------|----------|----------|---------|---------|
| | | | m | m | KN/m | KN/m |
| 14 | G2_PER POR | 1,0000 | 0,00000 | 0,30000 | -30,00 | -30,00 |
| 14 | Q_C1_DIS | 1,0000 | 0,00000 | 0,30000 | -5,29 | -5,29 |
| 14 | Q_C3_DIS | 1,0000 | 0,00000 | 0,30000 | -1,47 | -1,47 |
| 14 | Q_C1_CONC | 1,0000 | 0,00000 | 0,30000 | -48,00 | -48,00 |
| 15 | G2_PER POR | 1,0000 | 0,00000 | 1,50000 | -30,00 | -30,00 |
| 15 | Q_C1_DIS | 1,0000 | 0,00000 | 1,50000 | -5,29 | -5,29 |
| 15 | Q_C3_DIS | 1,0000 | 0,00000 | 1,50000 | -1,47 | -1,47 |
| 15 | Q_C1_CONC | 1,0000 | 0,00000 | 1,50000 | -48,00 | -48,00 |
| 15 | Q_C3_CONC | 1,0000 | 0,00000 | 1,50000 | -16,00 | -16,00 |
| 16 | G2_PER POR | 1,0000 | 0,00000 | 0,30000 | -30,00 | -30,00 |
| 16 | Q_C1_DIS | 1,0000 | 0,00000 | 0,30000 | -5,29 | -5,29 |
| 16 | Q_C3_DIS | 1,0000 | 0,00000 | 0,30000 | -1,47 | -1,47 |
| 16 | Q_C3_CONC | 1,0000 | 0,00000 | 0,30000 | -16,00 | -16,00 |
| 17 | G2_PER POR | 1,0000 | 0,00000 | 0,20000 | -30,00 | -30,00 |
| 17 | Q_C3_DIS | 1,0000 | 0,00000 | 0,20000 | -1,47 | -1,47 |
| 17 | Q_C3_CONC | 1,0000 | 0,00000 | 0,20000 | -16,00 | -16,00 |
| 18 | G2_PER POR | 1,0000 | 0,00000 | 0,50000 | -30,00 | -30,00 |
| 18 | Q_C3_DIS | 1,0000 | 0,00000 | 0,50000 | -1,47 | -1,47 |
| 18 | Q_C3_CONC | 1,0000 | 0,00000 | 0,50000 | -32,00 | -32,00 |
| 19 | G2_PER POR | 1,0000 | 0,00000 | 1,15000 | -30,00 | -30,00 |
| 19 | Q_C3_DIS | 1,0000 | 0,00000 | 1,15000 | -1,47 | -1,47 |
| 19 | Q_C3_CONC | 1,0000 | 0,00000 | 1,15000 | -16,00 | -16,00 |
| 20 | G2_PER POR | 1,0000 | 0,00000 | 0,50000 | -30,00 | -30,00 |
| 20 | Q_C3_DIS | 1,0000 | 0,00000 | 0,50000 | -1,47 | -1,47 |
| 20 | Q_C3_CONC | 1,0000 | 0,00000 | 0,50000 | -16,00 | -16,00 |
| 63 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 100,64 | 100,64 |
| 64 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 92,11 | 92,11 |
| 65 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 83,58 | 83,58 |
| 66 | G3_TERR | 1,0000 | 0,00000 | 0,50000 | 77,18 | 77,18 |
| 67 | G3_TERR | 1,0000 | 0,00000 | 0,45000 | 73,13 | 73,13 |
| 68 | G3_TERR | 1,0000 | 0,00000 | 0,35000 | 69,72 | 69,72 |
| 69 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 63,96 | 63,96 |

Table: Frame Loads - Distributed, Part 2 of 3

| Frame | LoadPat | RelDistB | AbsDistA | AbsDistB | FOverLA | FOverLB |
|-------|------------|----------|----------|----------|---------|---------|
| | | | m | m | KN/m | KN/m |
| 70 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 55,44 | 55,44 |
| 71 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 46,91 | 46,91 |
| 72 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 38,38 | 38,38 |
| 73 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 29,85 | 29,85 |
| 74 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | 21,32 | 21,32 |
| 75 | G3_TERR | 1,0000 | 0,00000 | 0,20000 | 16,20 | 16,20 |
| 76 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -100,64 | -100,64 |
| 77 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -92,11 | -92,11 |
| 78 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -83,58 | -83,58 |
| 79 | G3_TERR | 1,0000 | 0,00000 | 0,50000 | -77,18 | -77,18 |
| 80 | G3_TERR | 1,0000 | 0,00000 | 0,45000 | -73,13 | -73,13 |
| 81 | G3_TERR | 1,0000 | 0,00000 | 0,35000 | -69,72 | -69,72 |
| 82 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -63,96 | -63,96 |
| 83 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -55,44 | -55,44 |
| 84 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -46,91 | -46,91 |
| 85 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -38,38 | -38,38 |
| 86 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -29,85 | -29,85 |
| 87 | G3_TERR | 1,0000 | 0,00000 | 1,00000 | -21,32 | -21,32 |
| 88 | G3_TERR | 1,0000 | 0,00000 | 0,20000 | -16,20 | -16,20 |
| 28 | G2_PER POR | 1,0000 | 0,00000 | 1,80000 | -30,00 | -30,00 |
| 28 | Q_C2_CONC | 1,0000 | 0,00000 | 1,80000 | -32,00 | -32,00 |
| 28 | Q_C2_DIS | 1,0000 | 0,00000 | 1,80000 | -1,47 | -1,47 |
| 28 | Q_RIM_DIS | 1,0000 | 0,00000 | 1,80000 | -1,43 | -1,43 |
| 29 | G2_PER POR | 1,0000 | 0,00000 | 0,20000 | -30,00 | -30,00 |
| 29 | Q_C2_CONC | 1,0000 | 0,00000 | 0,20000 | -32,00 | -32,00 |
| 29 | Q_C2_DIS | 1,0000 | 0,00000 | 0,20000 | -1,47 | -1,47 |

Table: Frame Loads - Distributed, Part 3 of 3

Table: Frame Loads - Distributed, Part 3 of 3

| Frame | LoadPat | GUID |
|-------|------------|------|
| 1 | G2_PER POR | |
| 1 | Q_RIM_DIS | |
| 2 | G2_PER POR | |
| 2 | Q_C2_DIS | |
| 2 | Q_RIM_DIS | |
| 3 | G2_PER POR | |
| 3 | Q_C2_DIS | |
| 3 | Q_RIM_DIS | |
| 5 | G2_PER POR | |
| 5 | Q_C2_DIS | |
| 5 | Q_C2_CONC | |
| 6 | G2_PER POR | |
| 6 | Q_C2_DIS | |
| 6 | Q_C2_CONC | |
| 7 | G2_PER POR | |
| 7 | Q_C1_DIS | |
| 7 | Q_C2_DIS | |
| 7 | Q_C2_CONC | |
| 8 | G2_PER POR | |
| 8 | Q_C1_DIS | |
| 8 | Q_C2_DIS | |
| 8 | Q_C2_CONC | |
| 8 | Q_C1_CONC | |
| 9 | G2_PER POR | |
| 9 | Q_C1_DIS | |
| 9 | Q_C2_DIS | |
| 9 | Q_C1_CONC | |
| 10 | G2_PER POR | |
| 10 | Q_C1_DIS | |
| 10 | Q_C2_DIS | |
| 10 | Q_C1_CONC | |

Table: Frame Loads - Distributed, Part 3 of 3

| Frame | LoadPat | GUID |
|-------|------------|------|
| 11 | G2_PER POR | |
| 11 | Q_C1_DIS | |
| 11 | Q_C1_CONC | |
| 12 | G2_PER POR | |
| 12 | Q_C1_DIS | |
| 12 | Q_C1_CONC | |
| 13 | G2_PER POR | |
| 13 | Q_C1_DIS | |
| 13 | Q_C1_CONC | |
| 14 | G2_PER POR | |
| 14 | Q_C1_DIS | |
| 14 | Q_C3_DIS | |
| 14 | Q_C1_CONC | |
| 15 | G2_PER POR | |
| 15 | Q_C1_DIS | |
| 15 | Q_C3_DIS | |
| 15 | Q_C1_CONC | |
| 15 | Q_C3_CONC | |
| 16 | G2_PER POR | |
| 16 | Q_C1_DIS | |
| 16 | Q_C3_DIS | |
| 16 | Q_C3_CONC | |
| 17 | G2_PER POR | |
| 17 | Q_C3_DIS | |
| 17 | Q_C3_CONC | |
| 18 | G2_PER POR | |
| 18 | Q_C3_DIS | |
| 18 | Q_C3_CONC | |
| 19 | G2_PER POR | |
| 19 | Q_C3_DIS | |
| 19 | Q_C3_CONC | |
| 20 | G2_PER POR | |

Table: Frame Loads - Distributed, Part 3 of 3

| Frame | LoadPat | GUID |
|-------|------------|------|
| 20 | Q_C3_DIS | |
| 20 | Q_C3_CONC | |
| 63 | G3_TERR | |
| 64 | G3_TERR | |
| 65 | G3_TERR | |
| 66 | G3_TERR | |
| 67 | G3_TERR | |
| 68 | G3_TERR | |
| 69 | G3_TERR | |
| 70 | G3_TERR | |
| 71 | G3_TERR | |
| 72 | G3_TERR | |
| 73 | G3_TERR | |
| 74 | G3_TERR | |
| 75 | G3_TERR | |
| 76 | G3_TERR | |
| 77 | G3_TERR | |
| 78 | G3_TERR | |
| 79 | G3_TERR | |
| 80 | G3_TERR | |
| 81 | G3_TERR | |
| 82 | G3_TERR | |
| 83 | G3_TERR | |
| 84 | G3_TERR | |
| 85 | G3_TERR | |
| 86 | G3_TERR | |
| 87 | G3_TERR | |
| 88 | G3_TERR | |
| 28 | G2_PER POR | |
| 28 | Q_C2_CONC | |
| 28 | Q_C2_DIS | |
| 28 | Q_RIM_DIS | |

Table: Frame Loads - Distributed, Part 3 of 3

| Frame | LoadPat | GUID |
|-------|------------|------|
| 29 | G2_PER POR | |
| 29 | Q_C2_CONC | |
| 29 | Q_C2_DIS | |

Table: Frame Loads - Gravity

Table: Frame Loads - Gravity

| Frame | LoadPat | CoordSys | MultiplierX | MultiplierY | MultiplierZ |
|-------|---------|----------|-------------|-------------|-------------|
| 1 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 2 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 3 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 5 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 6 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 7 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 8 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 9 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 10 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 11 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 12 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 13 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 14 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 15 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 16 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 17 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 18 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 19 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 20 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 63 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 64 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 65 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 66 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |



Table: Frame Loads - Gravity

| Frame | LoadPat | CoordSys | MultiplierX | MultiplierY | MultiplierZ |
|-------|---------|----------|-------------|-------------|-------------|
| 67 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 68 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 69 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 70 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 71 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 72 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 73 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 74 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 75 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 76 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 77 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 78 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 79 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 80 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 81 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 82 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 83 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 84 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 85 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 86 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 87 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 88 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 28 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |
| 29 | G1_PP | GLOBAL | 0,000000 | 0,000000 | -1,000000 |

Table: Frame Section Properties 01 - General, Part 1 of 5

Table: Frame Section Properties 01 - General, Part 1 of 5

| SectionName | Material | Shape | Area m ² | TorsConst m ⁴ | I33 m ⁴ | I22 m ⁴ |
|-------------|----------|------------|------------------------|-----------------------------|-----------------------|-----------------------|
| DIAF | C_32/40 | SD Section | 0,700000 | 0,065143 | 0,028583 | 0,058333 |
| SOLETTA | C_32/40 | SD Section | 0,600000 | 0,045148 | 0,018000 | 0,050000 |



Table: Frame Section Properties 01 - General, Part 2 of 5

Table: Frame Section Properties 01 - General, Part 2 of 5

| SectionName | I23 m4 | AS2 m2 | AS3 m2 | S33 m3 | S22 m3 | Z33 m3 | Z22 m3 |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DIAF | 0,000000 | 0,583336 | 0,583336 | 0,081667 | 0,116667 | 0,122500 | 0,175000 |
| SOLETTA | 0,000000 | 0,500002 | 0,500002 | 0,060000 | 0,100000 | 0,090000 | 0,150000 |

Table: Frame Section Properties 01 - General, Part 3 of 5

Table: Frame Section Properties 01 - General, Part 3 of 5

| SectionName | R33 m | R22 m | EccV2 m | ConcCol | ConcBeam | Color | TotalWt KN |
|-------------|----------|----------|------------|---------|----------|-------|---------------|
| DIAF | 0,202073 | 0,288675 | 0,000000 | No | No | Green | 367,500 |
| SOLETTA | 0,173205 | 0,288675 | 0,000000 | No | No | White | 162,000 |

Table: Frame Section Properties 01 - General, Part 4 of 5

Table: Frame Section Properties 01 - General, Part 4 of 5

| SectionName | TotalMass KN-s ² /m | FromFile | AMod | A2Mod | A3Mod | JMod | I2Mod |
|-------------|-----------------------------------|----------|----------|----------|----------|----------|----------|
| DIAF | 37,47 | No | 1,000000 | 1,000000 | 1,000000 | 1,000000 | 1,000000 |
| SOLETTA | 16,52 | No | 1,000000 | 1,000000 | 1,000000 | 1,000000 | 1,000000 |

Table: Frame Section Properties 01 - General, Part 5 of 5

Table: Frame Section Properties 01 - General, Part 5 of 5

| SectionName | I3Mod | MMod | WMod | GUID | Notes |
|-------------|----------|----------|----------|------|---------------------------|
| DIAF | 1,000000 | 1,000000 | 1,000000 | | Added 03/06/2014 14.00.47 |
| SOLETTA | 1,000000 | 1,000000 | 1,000000 | | Added 03/06/2014 13.59.45 |

Table: Joint Coordinates, Part 1 of 2

Table: Joint Coordinates, Part 1 of 2

| Joint | CoordSys | CoordType | XorR m | Y m | Z m | SpecialJt | GlobalX m |
|-------|----------|-----------|-----------|---------|----------|-----------|--------------|
| 1 | GLOBAL | Cartesian | -4,75000 | 0,00000 | -1,80000 | Yes | -4,75000 |
| 2 | GLOBAL | Cartesian | -2,75000 | 0,00000 | -1,80000 | Yes | -2,75000 |
| 3 | GLOBAL | Cartesian | -2,25000 | 0,00000 | -1,80000 | Yes | -2,25000 |
| 4 | GLOBAL | Cartesian | -1,75000 | 0,00000 | -1,80000 | Yes | -1,75000 |
| 11 | GLOBAL | Cartesian | -0,25000 | 0,00000 | -1,80000 | Yes | -0,25000 |
| 12 | GLOBAL | Cartesian | 0,25000 | 0,00000 | -1,80000 | Yes | 0,25000 |
| 13 | GLOBAL | Cartesian | 0,75000 | 0,00000 | -1,80000 | Yes | 0,75000 |
| 14 | GLOBAL | Cartesian | 1,25000 | 0,00000 | -1,80000 | Yes | 1,25000 |
| 15 | GLOBAL | Cartesian | 4,90000 | 0,00000 | -1,80000 | Yes | 4,90000 |
| 16 | GLOBAL | Cartesian | -4,90000 | 0,00000 | -1,80000 | Yes | -4,90000 |
| 17 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -1,80000 | Yes | 5,40000 |
| 18 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -1,80000 | Yes | -5,40000 |
| 19 | GLOBAL | Cartesian | 2,75000 | 0,00000 | -1,80000 | Yes | 2,75000 |
| 20 | GLOBAL | Cartesian | 3,25000 | 0,00000 | -1,80000 | Yes | 3,25000 |
| 21 | GLOBAL | Cartesian | 3,75000 | 0,00000 | -1,80000 | Yes | 3,75000 |
| 28 | GLOBAL | Cartesian | -5,05000 | 0,00000 | -1,80000 | Yes | -5,05000 |
| 29 | GLOBAL | Cartesian | -2,05000 | 0,00000 | -1,80000 | Yes | -2,05000 |
| 30 | GLOBAL | Cartesian | 0,05000 | 0,00000 | -1,80000 | Yes | 0,05000 |
| 31 | GLOBAL | Cartesian | 0,95000 | 0,00000 | -1,80000 | Yes | 0,95000 |
| 32 | GLOBAL | Cartesian | 3,05000 | 0,00000 | -1,80000 | Yes | 3,05000 |
| 35 | GLOBAL | Cartesian | -2,95000 | 0,00000 | -1,80000 | Yes | -2,95000 |
| 68 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -2,00000 | Yes | 5,40000 |
| 69 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -2,00000 | Yes | -5,40000 |
| 70 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -8,00000 | Yes | 5,40000 |
| 71 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -8,00000 | Yes | -5,40000 |
| 72 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -3,00000 | Yes | 5,40000 |
| 73 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -3,00000 | Yes | -5,40000 |
| 74 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -4,00000 | Yes | 5,40000 |
| 75 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -4,00000 | Yes | -5,40000 |
| 76 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -5,00000 | Yes | 5,40000 |
| 77 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -5,00000 | Yes | -5,40000 |



Table: Joint Coordinates, Part 1 of 2

| Joint | CoordSys | CoordType | XorR m | Y m | Z m | SpecialJt | GlobalX m |
|-------|----------|-----------|-----------|---------|-----------|-----------|--------------|
| 78 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -6,00000 | Yes | 5,40000 |
| 79 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -6,00000 | Yes | -5,40000 |
| 80 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -7,00000 | Yes | 5,40000 |
| 81 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -7,00000 | Yes | -5,40000 |
| 82 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -8,35000 | Yes | 5,40000 |
| 83 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -8,35000 | Yes | -5,40000 |
| 84 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -8,80000 | Yes | 5,40000 |
| 85 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -8,80000 | Yes | -5,40000 |
| 86 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -9,30000 | Yes | 5,40000 |
| 87 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -9,30000 | Yes | -5,40000 |
| 88 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -10,30000 | Yes | 5,40000 |
| 89 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -10,30000 | Yes | -5,40000 |
| 90 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -11,30000 | Yes | 5,40000 |
| 91 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -11,30000 | Yes | -5,40000 |
| 92 | GLOBAL | Cartesian | 0,00000 | 0,00000 | -1,80000 | Yes | 0,00000 |
| 93 | GLOBAL | Cartesian | 5,40000 | 0,00000 | -12,30000 | Yes | 5,40000 |
| 94 | GLOBAL | Cartesian | -5,40000 | 0,00000 | -12,30000 | Yes | -5,40000 |

Table: Joint Coordinates, Part 2 of 2

Table: Joint Coordinates, Part 2 of 2

| Joint | GlobalY m | GlobalZ m | GUID |
|-------|--------------|--------------|------|
| 1 | 0,00000 | -1,80000 | |
| 2 | 0,00000 | -1,80000 | |
| 3 | 0,00000 | -1,80000 | |
| 4 | 0,00000 | -1,80000 | |
| 11 | 0,00000 | -1,80000 | |
| 12 | 0,00000 | -1,80000 | |
| 13 | 0,00000 | -1,80000 | |
| 14 | 0,00000 | -1,80000 | |
| 15 | 0,00000 | -1,80000 | |



Table: Joint Coordinates, Part 2 of 2

| Joint | GlobalY m | GlobalZ m | GUID |
|-------|--------------|--------------|------|
| 16 | 0,00000 | -1,80000 | |
| 17 | 0,00000 | -1,80000 | |
| 18 | 0,00000 | -1,80000 | |
| 19 | 0,00000 | -1,80000 | |
| 20 | 0,00000 | -1,80000 | |
| 21 | 0,00000 | -1,80000 | |
| 28 | 0,00000 | -1,80000 | |
| 29 | 0,00000 | -1,80000 | |
| 30 | 0,00000 | -1,80000 | |
| 31 | 0,00000 | -1,80000 | |
| 32 | 0,00000 | -1,80000 | |
| 35 | 0,00000 | -1,80000 | |
| 68 | 0,00000 | -2,00000 | |
| 69 | 0,00000 | -2,00000 | |
| 70 | 0,00000 | -8,00000 | |
| 71 | 0,00000 | -8,00000 | |
| 72 | 0,00000 | -3,00000 | |
| 73 | 0,00000 | -3,00000 | |
| 74 | 0,00000 | -4,00000 | |
| 75 | 0,00000 | -4,00000 | |
| 76 | 0,00000 | -5,00000 | |
| 77 | 0,00000 | -5,00000 | |
| 78 | 0,00000 | -6,00000 | |
| 79 | 0,00000 | -6,00000 | |
| 80 | 0,00000 | -7,00000 | |
| 81 | 0,00000 | -7,00000 | |
| 82 | 0,00000 | -8,35000 | |
| 83 | 0,00000 | -8,35000 | |
| 84 | 0,00000 | -8,80000 | |
| 85 | 0,00000 | -8,80000 | |
| 86 | 0,00000 | -9,30000 | |
| 87 | 0,00000 | -9,30000 | |

Table: Joint Coordinates, Part 2 of 2

| Joint | GlobalY m | GlobalZ m | GUID |
|-------|--------------|--------------|------|
| 88 | 0,00000 | -10,30000 | |
| 89 | 0,00000 | -10,30000 | |
| 90 | 0,00000 | -11,30000 | |
| 91 | 0,00000 | -11,30000 | |
| 92 | 0,00000 | -1,80000 | |
| 93 | 0,00000 | -12,30000 | |
| 94 | 0,00000 | -12,30000 | |

Table: Joint Restraint Assignments

Table: Joint Restraint Assignments

| Joint | U1 | U2 | U3 | R1 | R2 | R3 |
|-------|-----|-----|----|----|----|----|
| 92 | Yes | Yes | No | No | No | No |

Table: Joint Spring Assignments 1 - Uncoupled

Table: Joint Spring Assignments 1 - Uncoupled

| Joint | CoordSys | U1 | U2 | U3 | R1 | R2 | R3 |
|-------|----------|----------|------|----------|----------|----------|----------|
| | | KN/m | KN/m | KN/m | KN-m/rad | KN-m/rad | KN-m/rad |
| 86 | GLOBAL | 3350,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 87 | GLOBAL | 3350,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 88 | GLOBAL | 10050,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 89 | GLOBAL | 10050,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 90 | GLOBAL | 16750,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 91 | GLOBAL | 16750,00 | 0,00 | 0,00 | 0,0000 | 0,0000 | 0,0000 |
| 93 | GLOBAL | 11725,00 | 0,00 | 35000,00 | 0,0000 | 0,0000 | 0,0000 |
| 94 | GLOBAL | 11725,00 | 0,00 | 35000,00 | 0,0000 | 0,0000 | 0,0000 |

Table: Load Case Definitions, Part 1 of 3

Table: Load Case Definitions, Part 1 of 3

| Case | Type | InitialCond | ModalCase | BaseCase | DesTypeOpt | DesignType | DesActOpt |
|---------------|-----------|-------------|-----------|----------|------------|------------|-----------|
| G1_PP | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| G2_PER POR | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| G3_TERR | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C1_CON C | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C2_CON C | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C3_CON C | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C1_DIS | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C2_DIS | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_C3_DIS | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |
| Q_RIM_DIS | LinStatic | Zero | | | Prog Det | DEAD | Prog Det |

Table: Load Case Definitions, Part 2 of 3

Table: Load Case Definitions, Part 2 of 3

| Case | DesignAct | AutoType | RunCase | CaseStatus | GUID |
|---------------|---------------|----------|---------|------------|------|
| G1_PP | Non-Composite | None | Yes | Finished | |
| G2_PER POR | Non-Composite | None | Yes | Finished | |
| G3_TERR | Non-Composite | None | Yes | Finished | |
| Q_C1_CON C | Non-Composite | None | Yes | Finished | |
| Q_C2_CON C | Non-Composite | None | Yes | Finished | |
| Q_C3_CON C | Non-Composite | None | Yes | Finished | |



Table: Load Case Definitions, Part 2 of 3

| Case | DesignAct | AutoType | RunCase | CaseStatus | GUID |
|-----------|---------------|----------|---------|------------|------|
| Q_C1_DIS | Non-Composite | None | Yes | Finished | |
| Q_C2_DIS | Non-Composite | None | Yes | Finished | |
| Q_C3_DIS | Non-Composite | None | Yes | Finished | |
| Q_RIM_DIS | Non-Composite | None | Yes | Finished | |

Table: Load Case Definitions, Part 3 of 3

Table: Load Case Definitions, Part 3 of 3

| Case | Notes |
|-----------|-------|
| G1_PP | |
| G2_PER | |
| POR | |
| G3_TERR | |
| Q_C1_CON | C |
| Q_C2_CON | C |
| Q_C3_CON | C |
| Q_C1_DIS | |
| Q_C2_DIS | |
| Q_C3_DIS | |
| Q_RIM_DIS | |

Table: Material Properties 01 - General, Part 1 of 2

Table: Material Properties 01 - General, Part 1 of 2

| Material | Type | SymType | TempDepen d | Color | GUID |
|----------|----------|-----------|----------------|-------|------|
| A615Gr60 | Rebar | Uniaxial | No | White | |
| C_25/30 | Concrete | Isotropic | No | Blue | |
| C_32/40 | Concrete | Isotropic | No | Blue | |

Table: Material Properties 01 - General, Part 2 of 2

Table: Material Properties 01 - General, Part 2 of 2

| Material | Notes |
|----------|---|
| A615Gr60 | ASTM A615 Grade 60 13/02/2014 16.47.21 |
| C_25/30 | ASTM A36 added 17/11/2009 10.36.37 |
| C_32/40 | ASTM A36 added 17/11/2009 10.36.37 |

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Table: Material Properties 03b - Concrete Data, Part 1 of 2

| Material | Fc KN/m ² | LtWtConc | SSCurveOpt | SSHysType | SFc | SCap | FinalSlope | FAngle Degrees |
|----------|-------------------------|----------|------------|-----------|----------|----------|------------|-------------------|
| C_25/30 | 20684,27 | No | Mander | Takeda | 0,002000 | 0,005000 | -0,100000 | 0,000 |
| C_32/40 | 20684,27 | No | Mander | Takeda | 0,002000 | 0,005000 | -0,100000 | 0,000 |

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Table: Material Properties
03b - Concrete Data, Part 2
of 2

| Material | DAngle |
|----------|---------|
| | Degrees |
| C_25/30 | 0,000 |
| C_32/40 | 0,000 |



6.6.2 Output file

Table: Base Reactions, Part 1 of 3

Table: Base Reactions, Part 1 of 3

| OutputCase | CaseType | GlobalFX KN | GlobalFY KN | GlobalFZ KN | GlobalMX KN-m | GlobalMY KN-m | GlobalMZ KN-m | GlobalX m |
|-----------------|-------------|----------------|----------------|----------------|------------------|------------------|------------------|--------------|
| q1_VAR TRAFF | Combination | 3,949E-12 | 0,000 | 518,948 | 0,0000 | 30,3090 | 0,0000 | 0,00000 |
| G1+G2+G3 | Combination | 4,476E-12 | 0,000 | 853,500 | 0,0000 | 4,512E-10 | 0,0000 | 0,00000 |
| STR_SLU_1 | Combination | 1,160E-11 | 0,000 | 1901,405 | 0,0000 | 40,9172 | 0,0000 | 0,00000 |
| STR_SLU_2 | Combination | 4,625E-12 | 0,000 | 853,500 | 0,0000 | 4,305E-10 | 0,0000 | 0,00000 |

Table: Base Reactions, Part 2 of 3

Table: Base Reactions, Part 2 of 3

| OutputCase | GlobalY m | GlobalZ m | XCentroidF X m | YCentroidF X m | ZCentroidF X m | XCentroidF Y m | YCentroidF Y m | ZCentroidF Y m |
|-----------------|--------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| q1_VAR TRAFF | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 |
| G1+G2+G3 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 |
| STR_SLU_1 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 |
| STR_SLU_2 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 | 0,00000 |

Table: Base Reactions, Part 3 of 3

Table: Base Reactions, Part 3 of 3

| OutputCase | XCentroidF Z m | YCentroidF Z m | ZCentroidFZ m |
|-----------------|----------------------|----------------------|------------------|
| q1_VAR TRAFF | -0,06062 | 0,00000 | -12,30000 |
| G1+G2+G3 | -5,118E-13 | 0,00000 | -12,30000 |
| STR_SLU_1 | -0,02233 | 0,00000 | -12,30000 |



Table: Base Reactions, Part 3 of 3

| OutputCase | XCentroidF Z m | YCentroidF Z m | ZCentroidFZ m |
|------------|----------------------|----------------------|------------------|
| STR_SLU_2 | -5,144E-13 | 0,00000 | -12,30000 |

Table: Element Forces - Frames, Part 1 of 3

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 1 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -262,387 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,35000 | q1_VAR TRAFF | Combination | -45,425 | -261,887 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -243,000 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,35000 | G1+G2+G3 | Combination | -248,936 | -227,250 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -706,572 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,35000 | STR_SLU_1 | Combination | -325,979 | -683,060 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -243,000 | 0,000 | 0,0000 | 0,0000 |
| 1 | 0,35000 | STR_SLU_2 | Combination | -355,938 | -227,250 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -261,887 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,15000 | q1_VAR TRAFF | Combination | -45,425 | -261,452 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -227,250 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,15000 | G1+G2+G3 | Combination | -248,936 | -220,500 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -683,060 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,15000 | STR_SLU_1 | Combination | -325,979 | -672,685 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -227,250 | 0,000 | 0,0000 | 0,0000 |
| 2 | 0,15000 | STR_SLU_2 | Combination | -355,938 | -220,500 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -261,452 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,15000 | q1_VAR TRAFF | Combination | -45,425 | -261,017 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -220,500 | 0,000 | 0,0000 | 0,0000 |



Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 3 | 0,15000 | G1+G2+G3 | Combination | -248,936 | -213,750 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -672,685 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,15000 | STR_SLU_1 | Combination | -325,979 | -662,310 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -220,500 | 0,000 | 0,0000 | 0,0000 |
| 3 | 0,15000 | STR_SLU_2 | Combination | -355,938 | -213,750 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -191,503 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,50000 | q1_VAR TRAFF | Combination | -45,425 | -158,767 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -123,750 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,50000 | G1+G2+G3 | Combination | -248,936 | -101,250 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -437,966 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,50000 | STR_SLU_1 | Combination | -325,979 | -361,148 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -123,750 | 0,000 | 0,0000 | 0,0000 |
| 5 | 0,50000 | STR_SLU_2 | Combination | -355,938 | -101,250 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -158,767 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,20000 | q1_VAR TRAFF | Combination | -45,425 | -152,073 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -101,250 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,20000 | G1+G2+G3 | Combination | -248,936 | -92,250 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -361,148 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,20000 | STR_SLU_1 | Combination | -325,979 | -339,061 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -101,250 | 0,000 | 0,0000 | 0,0000 |
| 6 | 0,20000 | STR_SLU_2 | Combination | -355,938 | -92,250 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -152,073 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,30000 | q1_VAR TRAFF | Combination | -45,425 | -140,443 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -92,250 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,30000 | G1+G2+G3 | Combination | -248,936 | -78,750 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -339,061 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,30000 | STR_SLU_1 | Combination | -325,979 | -303,786 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|------------|----------|-----------|------------|
| 7 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -92,250 | 0,000 | 0,0000 | 0,0000 |
| 7 | 0,30000 | STR_SLU_2 | Combination | -355,938 | -78,750 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -140,443 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,50000 | q1_VAR TRAFF | Combination | -45,425 | -97,061 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,00000 | q1_VAR TRAFF | Combination | -45,425 | -53,678 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,50000 | q1_VAR TRAFF | Combination | -45,425 | -10,296 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -78,750 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,50000 | G1+G2+G3 | Combination | -248,936 | -56,250 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,00000 | G1+G2+G3 | Combination | -248,936 | -33,750 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,50000 | G1+G2+G3 | Combination | -248,936 | -11,250 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -303,786 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,50000 | STR_SLU_1 | Combination | -325,979 | -212,595 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,00000 | STR_SLU_1 | Combination | -325,979 | -121,403 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,50000 | STR_SLU_1 | Combination | -325,979 | -30,212 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -78,750 | 0,000 | 0,0000 | 0,0000 |
| 8 | 0,50000 | STR_SLU_2 | Combination | -355,938 | -56,250 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,00000 | STR_SLU_2 | Combination | -355,938 | -33,750 | 0,000 | 0,0000 | 0,0000 |
| 8 | 1,50000 | STR_SLU_2 | Combination | -355,938 | -11,250 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -10,296 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,25000 | q1_VAR TRAFF | Combination | -45,425 | 3,395 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -11,250 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,25000 | G1+G2+G3 | Combination | -248,936 | -1,455E-10 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -30,212 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,25000 | STR_SLU_1 | Combination | -325,979 | 4,584 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -11,250 | 0,000 | 0,0000 | 0,0000 |
| 9 | 0,25000 | STR_SLU_2 | Combination | -355,938 | -1,455E-10 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 10 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 3,395 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,05000 | q1_VAR TRAFF | Combination | -45,298 | 6,134 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 0,000 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,05000 | G1+G2+G3 | Combination | -248,936 | 2,250 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 4,584 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,05000 | STR_SLU_1 | Combination | -325,807 | 11,543 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 0,000 | 0,000 | 0,0000 | 0,0000 |
| 10 | 0,05000 | STR_SLU_2 | Combination | -355,938 | 2,250 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 6,134 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,20000 | q1_VAR TRAFF | Combination | -45,298 | 16,792 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 2,250 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,20000 | G1+G2+G3 | Combination | -248,936 | 11,250 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 11,543 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,20000 | STR_SLU_1 | Combination | -325,807 | 38,982 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 2,250 | 0,000 | 0,0000 | 0,0000 |
| 11 | 0,20000 | STR_SLU_2 | Combination | -355,938 | 11,250 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 16,792 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,50000 | q1_VAR TRAFF | Combination | -45,298 | 67,439 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 11,250 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,50000 | G1+G2+G3 | Combination | -248,936 | 33,750 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 38,982 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,50000 | STR_SLU_1 | Combination | -325,807 | 139,981 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 11,250 | 0,000 | 0,0000 | 0,0000 |
| 12 | 0,50000 | STR_SLU_2 | Combination | -355,938 | 33,750 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 67,439 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 13 | 0,20000 | q1_VAR TRAFF | Combination | -45,298 | 78,098 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 33,750 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,20000 | G1+G2+G3 | Combination | -248,936 | 42,750 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 139,981 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,20000 | STR_SLU_1 | Combination | -325,807 | 167,420 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 33,750 | 0,000 | 0,0000 | 0,0000 |
| 13 | 0,20000 | STR_SLU_2 | Combination | -355,938 | 42,750 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 78,098 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,30000 | q1_VAR TRAFF | Combination | -45,298 | 94,528 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 42,750 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,30000 | G1+G2+G3 | Combination | -248,936 | 56,250 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 167,420 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,30000 | STR_SLU_1 | Combination | -325,807 | 209,175 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 42,750 | 0,000 | 0,0000 | 0,0000 |
| 14 | 0,30000 | STR_SLU_2 | Combination | -355,938 | 56,250 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 94,528 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,50000 | q1_VAR TRAFF | Combination | -45,298 | 129,910 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,00000 | q1_VAR TRAFF | Combination | -45,298 | 165,293 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,50000 | q1_VAR TRAFF | Combination | -45,298 | 200,675 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 56,250 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,50000 | G1+G2+G3 | Combination | -248,936 | 78,750 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,00000 | G1+G2+G3 | Combination | -248,936 | 101,250 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,50000 | G1+G2+G3 | Combination | -248,936 | 123,750 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 209,175 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,50000 | STR_SLU_1 | Combination | -325,807 | 289,566 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,00000 | STR_SLU_1 | Combination | -325,807 | 369,958 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 15 | 1,50000 | STR_SLU_1 | Combination | -325,807 | 450,349 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 56,250 | 0,000 | 0,0000 | 0,0000 |
| 15 | 0,50000 | STR_SLU_2 | Combination | -355,938 | 78,750 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,00000 | STR_SLU_2 | Combination | -355,938 | 101,250 | 0,000 | 0,0000 | 0,0000 |
| 15 | 1,50000 | STR_SLU_2 | Combination | -355,938 | 123,750 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 200,675 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,30000 | q1_VAR TRAFF | Combination | -45,298 | 207,505 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 123,750 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,30000 | G1+G2+G3 | Combination | -248,936 | 137,250 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 450,349 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,30000 | STR_SLU_1 | Combination | -325,807 | 479,144 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 123,750 | 0,000 | 0,0000 | 0,0000 |
| 16 | 0,30000 | STR_SLU_2 | Combination | -355,938 | 137,250 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 207,505 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,20000 | q1_VAR TRAFF | Combination | -45,298 | 210,999 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 137,250 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,20000 | G1+G2+G3 | Combination | -248,936 | 146,250 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 479,144 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,20000 | STR_SLU_1 | Combination | -325,807 | 496,911 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 137,250 | 0,000 | 0,0000 | 0,0000 |
| 17 | 0,20000 | STR_SLU_2 | Combination | -355,938 | 146,250 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 210,999 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,50000 | q1_VAR TRAFF | Combination | -45,298 | 227,734 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 146,250 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,50000 | G1+G2+G3 | Combination | -248,936 | 168,750 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 496,911 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,50000 | STR_SLU_1 | Combination | -325,807 | 552,129 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 18 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 146,250 | 0,000 | 0,0000 | 0,0000 |
| 18 | 0,50000 | STR_SLU_2 | Combination | -355,938 | 168,750 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 227,734 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,38333 | q1_VAR TRAFF | Combination | -45,298 | 234,432 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,76667 | q1_VAR TRAFF | Combination | -45,298 | 241,129 | 0,000 | 0,0000 | 0,0000 |
| 19 | 1,15000 | q1_VAR TRAFF | Combination | -45,298 | 247,826 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 168,750 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,38333 | G1+G2+G3 | Combination | -248,936 | 186,000 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,76667 | G1+G2+G3 | Combination | -248,936 | 203,250 | 0,000 | 0,0000 | 0,0000 |
| 19 | 1,15000 | G1+G2+G3 | Combination | -248,936 | 220,500 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 552,129 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,38333 | STR_SLU_1 | Combination | -325,807 | 586,183 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,76667 | STR_SLU_1 | Combination | -325,807 | 620,237 | 0,000 | 0,0000 | 0,0000 |
| 19 | 1,15000 | STR_SLU_1 | Combination | -325,807 | 654,290 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 168,750 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,38333 | STR_SLU_2 | Combination | -355,938 | 186,000 | 0,000 | 0,0000 | 0,0000 |
| 19 | 0,76667 | STR_SLU_2 | Combination | -355,938 | 203,250 | 0,000 | 0,0000 | 0,0000 |
| 19 | 1,15000 | STR_SLU_2 | Combination | -355,938 | 220,500 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,00000 | q1_VAR TRAFF | Combination | -45,298 | 247,826 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,50000 | q1_VAR TRAFF | Combination | -45,298 | 256,562 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,00000 | G1+G2+G3 | Combination | -248,936 | 220,500 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,50000 | G1+G2+G3 | Combination | -248,936 | 243,000 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,00000 | STR_SLU_1 | Combination | -325,807 | 654,290 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,50000 | STR_SLU_1 | Combination | -325,807 | 698,708 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,00000 | STR_SLU_2 | Combination | -355,938 | 220,500 | 0,000 | 0,0000 | 0,0000 |
| 20 | 0,50000 | STR_SLU_2 | Combination | -355,938 | 243,000 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 28 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -261,017 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,45000 | q1_VAR TRAFF | Combination | -45,425 | -245,312 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,90000 | q1_VAR TRAFF | Combination | -45,425 | -229,607 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,35000 | q1_VAR TRAFF | Combination | -45,425 | -213,902 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,80000 | q1_VAR TRAFF | Combination | -45,425 | -198,197 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -213,750 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,45000 | G1+G2+G3 | Combination | -248,936 | -193,500 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,90000 | G1+G2+G3 | Combination | -248,936 | -173,250 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,35000 | G1+G2+G3 | Combination | -248,936 | -153,000 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,80000 | G1+G2+G3 | Combination | -248,936 | -132,750 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -662,310 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,45000 | STR_SLU_1 | Combination | -325,979 | -611,746 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,90000 | STR_SLU_1 | Combination | -325,979 | -561,182 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,35000 | STR_SLU_1 | Combination | -325,979 | -510,617 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,80000 | STR_SLU_1 | Combination | -325,979 | -460,053 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -213,750 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,45000 | STR_SLU_2 | Combination | -355,938 | -193,500 | 0,000 | 0,0000 | 0,0000 |
| 28 | 0,90000 | STR_SLU_2 | Combination | -355,938 | -173,250 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,35000 | STR_SLU_2 | Combination | -355,938 | -153,000 | 0,000 | 0,0000 | 0,0000 |
| 28 | 1,80000 | STR_SLU_2 | Combination | -355,938 | -132,750 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,00000 | q1_VAR TRAFF | Combination | -45,425 | -198,197 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,20000 | q1_VAR TRAFF | Combination | -45,425 | -191,503 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,00000 | G1+G2+G3 | Combination | -248,936 | -132,750 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,20000 | G1+G2+G3 | Combination | -248,936 | -123,750 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,00000 | STR_SLU_1 | Combination | -325,979 | -460,053 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,20000 | STR_SLU_1 | Combination | -325,979 | -437,966 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 29 | 0,00000 | STR_SLU_2 | Combination | -355,938 | -132,750 | 0,000 | 0,0000 | 0,0000 |
| 29 | 0,20000 | STR_SLU_2 | Combination | -355,938 | -123,750 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -6,122 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -6,122 | 0,000 | 0,0000 | 0,0000 |
| 63 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -6,122 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,00000 | G1+G2+G3 | Combination | -426,750 | 105,720 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,50000 | G1+G2+G3 | Combination | -418,000 | 55,402 | 0,000 | 0,0000 | 0,0000 |
| 63 | 1,00000 | G1+G2+G3 | Combination | -409,250 | 5,084 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,00000 | STR_SLU_1 | Combination | -954,635 | 95,337 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,50000 | STR_SLU_1 | Combination | -942,822 | 45,019 | 0,000 | 0,0000 | 0,0000 |
| 63 | 1,00000 | STR_SLU_1 | Combination | -931,010 | -5,299 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,00000 | STR_SLU_2 | Combination | -426,750 | 160,934 | 0,000 | 0,0000 | 0,0000 |
| 63 | 0,50000 | STR_SLU_2 | Combination | -418,000 | 85,457 | 0,000 | 0,0000 | 0,0000 |
| 63 | 1,00000 | STR_SLU_2 | Combination | -409,250 | 9,980 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -23,362 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -23,362 | 0,000 | 0,0000 | 0,0000 |
| 64 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -23,362 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,00000 | G1+G2+G3 | Combination | -409,250 | 158,458 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,50000 | G1+G2+G3 | Combination | -400,500 | 112,405 | 0,000 | 0,0000 | 0,0000 |
| 64 | 1,00000 | G1+G2+G3 | Combination | -391,750 | 66,351 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,00000 | STR_SLU_1 | Combination | -931,010 | 118,835 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,50000 | STR_SLU_1 | Combination | -919,197 | 72,782 | 0,000 | 0,0000 | 0,0000 |
| 64 | 1,00000 | STR_SLU_1 | Combination | -907,385 | 26,728 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,00000 | STR_SLU_2 | Combination | -409,250 | 246,670 | 0,000 | 0,0000 | 0,0000 |
| 64 | 0,50000 | STR_SLU_2 | Combination | -400,500 | 177,590 | 0,000 | 0,0000 | 0,0000 |
| 64 | 1,00000 | STR_SLU_2 | Combination | -391,750 | 108,510 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 65 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -38,732 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -38,732 | 0,000 | 0,0000 | 0,0000 |
| 65 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -38,732 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,00000 | G1+G2+G3 | Combination | -391,750 | 159,097 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,50000 | G1+G2+G3 | Combination | -383,000 | 117,307 | 0,000 | 0,0000 | 0,0000 |
| 65 | 1,00000 | G1+G2+G3 | Combination | -374,250 | 75,518 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,00000 | STR_SLU_1 | Combination | -907,385 | 93,406 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,50000 | STR_SLU_1 | Combination | -895,572 | 51,617 | 0,000 | 0,0000 | 0,0000 |
| 65 | 1,00000 | STR_SLU_1 | Combination | -883,760 | 9,827 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,00000 | STR_SLU_2 | Combination | -391,750 | 253,537 | 0,000 | 0,0000 | 0,0000 |
| 65 | 0,50000 | STR_SLU_2 | Combination | -383,000 | 190,853 | 0,000 | 0,0000 | 0,0000 |
| 65 | 1,00000 | STR_SLU_2 | Combination | -374,250 | 128,169 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,25000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,00000 | G1+G2+G3 | Combination | -374,250 | 106,062 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,25000 | G1+G2+G3 | Combination | -369,875 | 86,767 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,50000 | G1+G2+G3 | Combination | -365,500 | 67,471 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,00000 | STR_SLU_1 | Combination | -883,760 | 29,019 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,25000 | STR_SLU_1 | Combination | -877,854 | 9,723 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,50000 | STR_SLU_1 | Combination | -871,947 | -9,572 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,00000 | STR_SLU_2 | Combination | -374,250 | 176,560 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,25000 | STR_SLU_2 | Combination | -369,875 | 147,616 | 0,000 | 0,0000 | 0,0000 |
| 66 | 0,50000 | STR_SLU_2 | Combination | -365,500 | 118,672 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 67 | 0,22500 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,45000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,00000 | G1+G2+G3 | Combination | -365,500 | 67,471 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,22500 | G1+G2+G3 | Combination | -361,563 | 51,016 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,45000 | G1+G2+G3 | Combination | -357,625 | 34,562 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,00000 | STR_SLU_1 | Combination | -871,947 | -9,572 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,22500 | STR_SLU_1 | Combination | -866,632 | -26,027 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,45000 | STR_SLU_1 | Combination | -861,316 | -42,482 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,00000 | STR_SLU_2 | Combination | -365,500 | 118,672 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,22500 | STR_SLU_2 | Combination | -361,563 | 93,990 | 0,000 | 0,0000 | 0,0000 |
| 67 | 0,45000 | STR_SLU_2 | Combination | -357,625 | 69,308 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,17500 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,35000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,00000 | G1+G2+G3 | Combination | -357,625 | 34,562 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,17500 | G1+G2+G3 | Combination | -354,563 | 22,361 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,35000 | G1+G2+G3 | Combination | -351,500 | 10,160 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,00000 | STR_SLU_1 | Combination | -861,316 | -42,482 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,17500 | STR_SLU_1 | Combination | -857,182 | -54,683 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,35000 | STR_SLU_1 | Combination | -853,047 | -66,884 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,00000 | STR_SLU_2 | Combination | -357,625 | 69,308 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,17500 | STR_SLU_2 | Combination | -354,563 | 51,007 | 0,000 | 0,0000 | 0,0000 |
| 68 | 0,35000 | STR_SLU_2 | Combination | -351,500 | 32,705 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 69 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,00000 | G1+G2+G3 | Combination | -351,500 | 10,160 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,50000 | G1+G2+G3 | Combination | -342,750 | -21,822 | 0,000 | 0,0000 | 0,0000 |
| 69 | 1,00000 | G1+G2+G3 | Combination | -334,000 | -53,804 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,00000 | STR_SLU_1 | Combination | -853,047 | -66,884 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,50000 | STR_SLU_1 | Combination | -841,235 | -98,866 | 0,000 | 0,0000 | 0,0000 |
| 69 | 1,00000 | STR_SLU_1 | Combination | -829,422 | -130,848 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,00000 | STR_SLU_2 | Combination | -351,500 | 32,705 | 0,000 | 0,0000 | 0,0000 |
| 69 | 0,50000 | STR_SLU_2 | Combination | -342,750 | -15,268 | 0,000 | 0,0000 | 0,0000 |
| 69 | 1,00000 | STR_SLU_2 | Combination | -334,000 | -63,241 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 70 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,00000 | G1+G2+G3 | Combination | -334,000 | -53,804 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,50000 | G1+G2+G3 | Combination | -325,250 | -81,522 | 0,000 | 0,0000 | 0,0000 |
| 70 | 1,00000 | G1+G2+G3 | Combination | -316,500 | -109,239 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,00000 | STR_SLU_1 | Combination | -829,422 | -130,848 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,50000 | STR_SLU_1 | Combination | -817,610 | -158,565 | 0,000 | 0,0000 | 0,0000 |
| 70 | 1,00000 | STR_SLU_1 | Combination | -805,797 | -186,283 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,00000 | STR_SLU_2 | Combination | -334,000 | -63,241 | 0,000 | 0,0000 | 0,0000 |
| 70 | 0,50000 | STR_SLU_2 | Combination | -325,250 | -104,817 | 0,000 | 0,0000 | 0,0000 |
| 70 | 1,00000 | STR_SLU_2 | Combination | -316,500 | -146,393 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 71 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,00000 | G1+G2+G3 | Combination | -316,500 | -109,239 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 71 | 0,50000 | G1+G2+G3 | Combination | -307,750 | -132,693 | 0,000 | 0,0000 | 0,0000 |
| 71 | 1,00000 | G1+G2+G3 | Combination | -299,000 | -156,146 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,00000 | STR_SLU_1 | Combination | -805,797 | -186,283 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,50000 | STR_SLU_1 | Combination | -793,985 | -209,736 | 0,000 | 0,0000 | 0,0000 |
| 71 | 1,00000 | STR_SLU_1 | Combination | -782,172 | -233,190 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,00000 | STR_SLU_2 | Combination | -316,500 | -146,393 | 0,000 | 0,0000 | 0,0000 |
| 71 | 0,50000 | STR_SLU_2 | Combination | -307,750 | -181,574 | 0,000 | 0,0000 | 0,0000 |
| 71 | 1,00000 | STR_SLU_2 | Combination | -299,000 | -216,754 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 72 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,00000 | G1+G2+G3 | Combination | -299,000 | -156,146 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,50000 | G1+G2+G3 | Combination | -290,250 | -175,335 | 0,000 | 0,0000 | 0,0000 |
| 72 | 1,00000 | G1+G2+G3 | Combination | -281,500 | -194,524 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,00000 | STR_SLU_1 | Combination | -782,172 | -233,190 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,50000 | STR_SLU_1 | Combination | -770,360 | -252,379 | 0,000 | 0,0000 | 0,0000 |
| 72 | 1,00000 | STR_SLU_1 | Combination | -758,547 | -271,568 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,00000 | STR_SLU_2 | Combination | -299,000 | -216,754 | 0,000 | 0,0000 | 0,0000 |
| 72 | 0,50000 | STR_SLU_2 | Combination | -290,250 | -245,537 | 0,000 | 0,0000 | 0,0000 |
| 72 | 1,00000 | STR_SLU_2 | Combination | -281,500 | -274,321 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,50000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 73 | 1,00000 | q1_VAR TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,00000 | G1+G2+G3 | Combination | -281,500 | -194,524 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,50000 | G1+G2+G3 | Combination | -272,750 | -209,449 | 0,000 | 0,0000 | 0,0000 |
| 73 | 1,00000 | G1+G2+G3 | Combination | -264,000 | -224,374 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,00000 | STR_SLU_1 | Combination | -758,547 | -271,568 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|--------------|-------------|----------|----------|----------|-----------|------------|
| 73 | 0,50000 | STR_SLU_1 | Combination | -746,735 | -286,493 | 0,000 | 0,0000 | 0,0000 |
| 73 | 1,00000 | STR_SLU_1 | Combination | -734,922 | -301,418 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,00000 | STR_SLU_2 | Combination | -281,500 | -274,321 | 0,000 | 0,0000 | 0,0000 |
| 73 | 0,50000 | STR_SLU_2 | Combination | -272,750 | -296,708 | 0,000 | 0,0000 | 0,0000 |
| 73 | 1,00000 | STR_SLU_2 | Combination | -264,000 | -319,096 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,00000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,50000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 74 | 1,00000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,00000 | G1+G2+G3 | Combination | -264,000 | -224,374 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,50000 | G1+G2+G3 | Combination | -255,250 | -235,035 | 0,000 | 0,0000 | 0,0000 |
| 74 | 1,00000 | G1+G2+G3 | Combination | -246,500 | -245,695 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,00000 | STR_SLU_1 | Combination | -734,922 | -301,418 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,50000 | STR_SLU_1 | Combination | -723,110 | -312,078 | 0,000 | 0,0000 | 0,0000 |
| 74 | 1,00000 | STR_SLU_1 | Combination | -711,297 | -322,739 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,00000 | STR_SLU_2 | Combination | -264,000 | -319,096 | 0,000 | 0,0000 | 0,0000 |
| 74 | 0,50000 | STR_SLU_2 | Combination | -255,250 | -335,087 | 0,000 | 0,0000 | 0,0000 |
| 74 | 1,00000 | STR_SLU_2 | Combination | -246,500 | -351,077 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,00000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,10000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,20000 | q1_VAR_TRAFF | Combination | -262,387 | -45,425 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,00000 | G1+G2+G3 | Combination | -246,500 | -245,695 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,10000 | G1+G2+G3 | Combination | -244,750 | -247,316 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,20000 | G1+G2+G3 | Combination | -243,000 | -248,936 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,00000 | STR_SLU_1 | Combination | -711,297 | -322,739 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,10000 | STR_SLU_1 | Combination | -708,935 | -324,359 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,20000 | STR_SLU_1 | Combination | -706,572 | -325,979 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,00000 | STR_SLU_2 | Combination | -246,500 | -351,077 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 75 | 0,10000 | STR_SLU_2 | Combination | -244,750 | -353,508 | 0,000 | 0,0000 | 0,0000 |
| 75 | 0,20000 | STR_SLU_2 | Combination | -243,000 | -355,938 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 6,105 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 6,105 | 0,000 | 0,0000 | 0,0000 |
| 76 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 6,105 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,00000 | G1+G2+G3 | Combination | -426,750 | -105,720 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,50000 | G1+G2+G3 | Combination | -418,000 | -55,402 | 0,000 | 0,0000 | 0,0000 |
| 76 | 1,00000 | G1+G2+G3 | Combination | -409,250 | -5,084 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,00000 | STR_SLU_1 | Combination | -946,771 | -95,360 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,50000 | STR_SLU_1 | Combination | -934,958 | -45,042 | 0,000 | 0,0000 | 0,0000 |
| 76 | 1,00000 | STR_SLU_1 | Combination | -923,146 | 5,276 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,00000 | STR_SLU_2 | Combination | -426,750 | -160,934 | 0,000 | 0,0000 | 0,0000 |
| 76 | 0,50000 | STR_SLU_2 | Combination | -418,000 | -85,457 | 0,000 | 0,0000 | 0,0000 |
| 76 | 1,00000 | STR_SLU_2 | Combination | -409,250 | -9,980 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 23,296 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 23,296 | 0,000 | 0,0000 | 0,0000 |
| 77 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 23,296 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,00000 | G1+G2+G3 | Combination | -409,250 | -158,458 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,50000 | G1+G2+G3 | Combination | -400,500 | -112,405 | 0,000 | 0,0000 | 0,0000 |
| 77 | 1,00000 | G1+G2+G3 | Combination | -391,750 | -66,351 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,00000 | STR_SLU_1 | Combination | -923,146 | -118,924 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,50000 | STR_SLU_1 | Combination | -911,333 | -72,870 | 0,000 | 0,0000 | 0,0000 |
| 77 | 1,00000 | STR_SLU_1 | Combination | -899,521 | -26,817 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,00000 | STR_SLU_2 | Combination | -409,250 | -246,670 | 0,000 | 0,0000 | 0,0000 |
| 77 | 0,50000 | STR_SLU_2 | Combination | -400,500 | -177,590 | 0,000 | 0,0000 | 0,0000 |
| 77 | 1,00000 | STR_SLU_2 | Combination | -391,750 | -108,510 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 78 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 38,623 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 38,623 | 0,000 | 0,0000 | 0,0000 |
| 78 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 38,623 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,00000 | G1+G2+G3 | Combination | -391,750 | -159,097 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,50000 | G1+G2+G3 | Combination | -383,000 | -117,307 | 0,000 | 0,0000 | 0,0000 |
| 78 | 1,00000 | G1+G2+G3 | Combination | -374,250 | -75,518 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,00000 | STR_SLU_1 | Combination | -899,521 | -93,553 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,50000 | STR_SLU_1 | Combination | -887,708 | -51,763 | 0,000 | 0,0000 | 0,0000 |
| 78 | 1,00000 | STR_SLU_1 | Combination | -875,896 | -9,974 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,00000 | STR_SLU_2 | Combination | -391,750 | -253,537 | 0,000 | 0,0000 | 0,0000 |
| 78 | 0,50000 | STR_SLU_2 | Combination | -383,000 | -190,853 | 0,000 | 0,0000 | 0,0000 |
| 78 | 1,00000 | STR_SLU_2 | Combination | -374,250 | -128,169 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,25000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,00000 | G1+G2+G3 | Combination | -374,250 | -106,062 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,25000 | G1+G2+G3 | Combination | -369,875 | -86,767 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,50000 | G1+G2+G3 | Combination | -365,500 | -67,471 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,00000 | STR_SLU_1 | Combination | -875,896 | -29,191 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,25000 | STR_SLU_1 | Combination | -869,989 | -9,896 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,50000 | STR_SLU_1 | Combination | -864,083 | 9,400 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,00000 | STR_SLU_2 | Combination | -374,250 | -176,560 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,25000 | STR_SLU_2 | Combination | -369,875 | -147,616 | 0,000 | 0,0000 | 0,0000 |
| 79 | 0,50000 | STR_SLU_2 | Combination | -365,500 | -118,672 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 80 | 0,22500 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,45000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,00000 | G1+G2+G3 | Combination | -365,500 | -67,471 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,22500 | G1+G2+G3 | Combination | -361,563 | -51,016 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,45000 | G1+G2+G3 | Combination | -357,625 | -34,562 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,00000 | STR_SLU_1 | Combination | -864,083 | 9,400 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,22500 | STR_SLU_1 | Combination | -858,768 | 25,855 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,45000 | STR_SLU_1 | Combination | -853,452 | 42,310 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,00000 | STR_SLU_2 | Combination | -365,500 | -118,672 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,22500 | STR_SLU_2 | Combination | -361,563 | -93,990 | 0,000 | 0,0000 | 0,0000 |
| 80 | 0,45000 | STR_SLU_2 | Combination | -357,625 | -69,308 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,17500 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,35000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,00000 | G1+G2+G3 | Combination | -357,625 | -34,562 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,17500 | G1+G2+G3 | Combination | -354,563 | -22,361 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,35000 | G1+G2+G3 | Combination | -351,500 | -10,160 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,00000 | STR_SLU_1 | Combination | -853,452 | 42,310 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,17500 | STR_SLU_1 | Combination | -849,318 | 54,511 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,35000 | STR_SLU_1 | Combination | -845,183 | 66,712 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,00000 | STR_SLU_2 | Combination | -357,625 | -69,308 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,17500 | STR_SLU_2 | Combination | -354,563 | -51,007 | 0,000 | 0,0000 | 0,0000 |
| 81 | 0,35000 | STR_SLU_2 | Combination | -351,500 | -32,705 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 82 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,00000 | G1+G2+G3 | Combination | -351,500 | -10,160 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,50000 | G1+G2+G3 | Combination | -342,750 | 21,822 | 0,000 | 0,0000 | 0,0000 |
| 82 | 1,00000 | G1+G2+G3 | Combination | -334,000 | 53,804 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,00000 | STR_SLU_1 | Combination | -845,183 | 66,712 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,50000 | STR_SLU_1 | Combination | -833,371 | 98,694 | 0,000 | 0,0000 | 0,0000 |
| 82 | 1,00000 | STR_SLU_1 | Combination | -821,558 | 130,676 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,00000 | STR_SLU_2 | Combination | -351,500 | -32,705 | 0,000 | 0,0000 | 0,0000 |
| 82 | 0,50000 | STR_SLU_2 | Combination | -342,750 | 15,268 | 0,000 | 0,0000 | 0,0000 |
| 82 | 1,00000 | STR_SLU_2 | Combination | -334,000 | 63,241 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 83 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,00000 | G1+G2+G3 | Combination | -334,000 | 53,804 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,50000 | G1+G2+G3 | Combination | -325,250 | 81,522 | 0,000 | 0,0000 | 0,0000 |
| 83 | 1,00000 | G1+G2+G3 | Combination | -316,500 | 109,239 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,00000 | STR_SLU_1 | Combination | -821,558 | 130,676 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,50000 | STR_SLU_1 | Combination | -809,746 | 158,393 | 0,000 | 0,0000 | 0,0000 |
| 83 | 1,00000 | STR_SLU_1 | Combination | -797,933 | 186,111 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,00000 | STR_SLU_2 | Combination | -334,000 | 63,241 | 0,000 | 0,0000 | 0,0000 |
| 83 | 0,50000 | STR_SLU_2 | Combination | -325,250 | 104,817 | 0,000 | 0,0000 | 0,0000 |
| 83 | 1,00000 | STR_SLU_2 | Combination | -316,500 | 146,393 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 84 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,00000 | G1+G2+G3 | Combination | -316,500 | 109,239 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 84 | 0,50000 | G1+G2+G3 | Combination | -307,750 | 132,693 | 0,000 | 0,0000 | 0,0000 |
| 84 | 1,00000 | G1+G2+G3 | Combination | -299,000 | 156,146 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,00000 | STR_SLU_1 | Combination | -797,933 | 186,111 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,50000 | STR_SLU_1 | Combination | -786,121 | 209,564 | 0,000 | 0,0000 | 0,0000 |
| 84 | 1,00000 | STR_SLU_1 | Combination | -774,308 | 233,018 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,00000 | STR_SLU_2 | Combination | -316,500 | 146,393 | 0,000 | 0,0000 | 0,0000 |
| 84 | 0,50000 | STR_SLU_2 | Combination | -307,750 | 181,574 | 0,000 | 0,0000 | 0,0000 |
| 84 | 1,00000 | STR_SLU_2 | Combination | -299,000 | 216,754 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 85 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,00000 | G1+G2+G3 | Combination | -299,000 | 156,146 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,50000 | G1+G2+G3 | Combination | -290,250 | 175,335 | 0,000 | 0,0000 | 0,0000 |
| 85 | 1,00000 | G1+G2+G3 | Combination | -281,500 | 194,524 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,00000 | STR_SLU_1 | Combination | -774,308 | 233,018 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,50000 | STR_SLU_1 | Combination | -762,496 | 252,207 | 0,000 | 0,0000 | 0,0000 |
| 85 | 1,00000 | STR_SLU_1 | Combination | -750,683 | 271,396 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,00000 | STR_SLU_2 | Combination | -299,000 | 216,754 | 0,000 | 0,0000 | 0,0000 |
| 85 | 0,50000 | STR_SLU_2 | Combination | -290,250 | 245,537 | 0,000 | 0,0000 | 0,0000 |
| 85 | 1,00000 | STR_SLU_2 | Combination | -281,500 | 274,321 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 86 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,00000 | G1+G2+G3 | Combination | -281,500 | 194,524 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,50000 | G1+G2+G3 | Combination | -272,750 | 209,449 | 0,000 | 0,0000 | 0,0000 |
| 86 | 1,00000 | G1+G2+G3 | Combination | -264,000 | 224,374 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,00000 | STR_SLU_1 | Combination | -750,683 | 271,396 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|-----------------|-------------|----------|----------|----------|-----------|------------|
| 86 | 0,50000 | STR_SLU_1 | Combination | -738,871 | 286,321 | 0,000 | 0,0000 | 0,0000 |
| 86 | 1,00000 | STR_SLU_1 | Combination | -727,058 | 301,246 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,00000 | STR_SLU_2 | Combination | -281,500 | 274,321 | 0,000 | 0,0000 | 0,0000 |
| 86 | 0,50000 | STR_SLU_2 | Combination | -272,750 | 296,708 | 0,000 | 0,0000 | 0,0000 |
| 86 | 1,00000 | STR_SLU_2 | Combination | -264,000 | 319,096 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,50000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 87 | 1,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,00000 | G1+G2+G3 | Combination | -264,000 | 224,374 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,50000 | G1+G2+G3 | Combination | -255,250 | 235,035 | 0,000 | 0,0000 | 0,0000 |
| 87 | 1,00000 | G1+G2+G3 | Combination | -246,500 | 245,695 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,00000 | STR_SLU_1 | Combination | -727,058 | 301,246 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,50000 | STR_SLU_1 | Combination | -715,246 | 311,906 | 0,000 | 0,0000 | 0,0000 |
| 87 | 1,00000 | STR_SLU_1 | Combination | -703,433 | 322,567 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,00000 | STR_SLU_2 | Combination | -264,000 | 319,096 | 0,000 | 0,0000 | 0,0000 |
| 87 | 0,50000 | STR_SLU_2 | Combination | -255,250 | 335,087 | 0,000 | 0,0000 | 0,0000 |
| 87 | 1,00000 | STR_SLU_2 | Combination | -246,500 | 351,077 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,00000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,10000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,20000 | q1_VAR TRAFF | Combination | -256,562 | 45,298 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,00000 | G1+G2+G3 | Combination | -246,500 | 245,695 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,10000 | G1+G2+G3 | Combination | -244,750 | 247,316 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,20000 | G1+G2+G3 | Combination | -243,000 | 248,936 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,00000 | STR_SLU_1 | Combination | -703,433 | 322,567 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,10000 | STR_SLU_1 | Combination | -701,071 | 324,187 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,20000 | STR_SLU_1 | Combination | -698,708 | 325,807 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,00000 | STR_SLU_2 | Combination | -246,500 | 351,077 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 1 of 3

| Frame | Station m | OutputCase | CaseType | P KN | V2 KN | V3 KN | T KN-m | M2 KN-m |
|-------|--------------|------------|-------------|----------|----------|----------|-----------|------------|
| 88 | 0,10000 | STR_SLU_2 | Combination | -244,750 | 353,508 | 0,000 | 0,0000 | 0,0000 |
| 88 | 0,20000 | STR_SLU_2 | Combination | -243,000 | 355,938 | 0,000 | 0,0000 | 0,0000 |

Table: Element Forces - Frames, Part 2 of 3

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m ² | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m ² |
|-------|--------------|-----------------|------------|-----------------------------|----------|---------------|---------------|-----------------------------|
| 1 | 0,00000 | q1_VAR TRAFF | -408,9036 | 6739,35 | 3 | 0,300000 | -0,500000 | -6890,77 |
| 1 | 0,35000 | q1_VAR TRAFF | -317,1557 | 5210,22 | 3 | 0,300000 | -0,500000 | -5361,64 |
| 1 | 0,00000 | G1+G2+G3 | -546,0395 | 8685,76 | 3 | 0,300000 | -0,500000 | -9515,55 |
| 1 | 0,35000 | G1+G2+G3 | -463,7458 | 7314,20 | 3 | 0,300000 | -0,500000 | -8143,99 |
| 1 | 0,00000 | STR_SLU_1 | -1239,5603 | 20116,04 | 3 | 0,300000 | -0,500000 | -21202,64 |
| 1 | 0,35000 | STR_SLU_1 | -996,3747 | 16062,95 | 3 | 0,300000 | -0,500000 | -17149,54 |
| 1 | 0,00000 | STR_SLU_2 | -661,8361 | 10437,37 | 3 | 0,300000 | -0,500000 | -11623,83 |
| 1 | 0,35000 | STR_SLU_2 | -579,5424 | 9065,81 | 3 | 0,300000 | -0,500000 | -10252,27 |
| 2 | 0,00000 | q1_VAR TRAFF | -317,1557 | 5210,22 | 3 | 0,300000 | -0,500000 | -5361,64 |
| 2 | 0,15000 | q1_VAR TRAFF | -277,9053 | 4556,05 | 3 | 0,300000 | -0,500000 | -4707,46 |
| 2 | 0,00000 | G1+G2+G3 | -463,7458 | 7314,20 | 3 | 0,300000 | -0,500000 | -8143,99 |
| 2 | 0,15000 | G1+G2+G3 | -430,1645 | 6754,51 | 3 | 0,300000 | -0,500000 | -7584,30 |
| 2 | 0,00000 | STR_SLU_1 | -996,3747 | 16062,95 | 3 | 0,300000 | -0,500000 | -17149,54 |
| 2 | 0,15000 | STR_SLU_1 | -894,6938 | 14368,26 | 3 | 0,300000 | -0,500000 | -15454,86 |
| 2 | 0,00000 | STR_SLU_2 | -579,5424 | 9065,81 | 3 | 0,300000 | -0,500000 | -10252,27 |
| 2 | 0,15000 | STR_SLU_2 | -545,9611 | 8506,12 | 3 | 0,300000 | -0,500000 | -9692,58 |
| 3 | 0,00000 | q1_VAR TRAFF | -277,9053 | 4556,05 | 3 | 0,300000 | -0,500000 | -4707,46 |
| 3 | 0,15000 | q1_VAR TRAFF | -238,7202 | 3902,96 | 3 | 0,300000 | -0,500000 | -4054,38 |
| 3 | 0,00000 | G1+G2+G3 | -430,1645 | 6754,51 | 3 | 0,300000 | -0,500000 | -7584,30 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 3 | 0,15000 | G1+G2+G3 | -397,5958 | 6211,70 | 3 | 0,300000 | -0,500000 | -7041,49 |
| 3 | 0,00000 | STR_SLU_1 | -894,6938 | 14368,26 | 3 | 0,300000 | -0,500000 | -15454,86 |
| 3 | 0,15000 | STR_SLU_1 | -794,5692 | 12699,52 | 3 | 0,300000 | -0,500000 | -13786,12 |
| 3 | 0,00000 | STR_SLU_2 | -545,9611 | 8506,12 | 3 | 0,300000 | -0,500000 | -9692,58 |
| 3 | 0,15000 | STR_SLU_2 | -513,3924 | 7963,31 | 3 | 0,300000 | -0,500000 | -9149,77 |
| 5 | 0,00000 | q1_VAR TRAFF | 213,5418 | 3483,32 | 1 | -0,300000 | -0,500000 | -3634,74 |
| 5 | 0,50000 | q1_VAR TRAFF | 301,1092 | 4942,78 | 1 | -0,300000 | -0,500000 | -5094,20 |
| 5 | 0,00000 | G1+G2+G3 | -60,0958 | 586,70 | 3 | 0,300000 | -0,500000 | -1416,49 |
| 5 | 0,50000 | G1+G2+G3 | -3,8458 | -350,80 | 3 | 0,300000 | -0,500000 | -478,99 |
| 5 | 0,00000 | STR_SLU_1 | 305,3595 | 4546,03 | 1 | -0,300000 | -0,500000 | -5632,62 |
| 5 | 0,50000 | STR_SLU_1 | 505,1380 | 7875,67 | 1 | -0,300000 | -0,500000 | -8962,27 |
| 5 | 0,00000 | STR_SLU_2 | -175,8924 | 2338,31 | 3 | 0,300000 | -0,500000 | -3524,77 |
| 5 | 0,50000 | STR_SLU_2 | -119,6424 | 1400,81 | 3 | 0,300000 | -0,500000 | -2587,27 |
| 6 | 0,00000 | q1_VAR TRAFF | 301,1092 | 4942,78 | 1 | -0,300000 | -0,500000 | -5094,20 |
| 6 | 0,20000 | q1_VAR TRAFF | 332,1932 | 5460,85 | 1 | -0,300000 | -0,500000 | -5612,26 |
| 6 | 0,00000 | G1+G2+G3 | -3,8458 | -350,80 | 3 | 0,300000 | -0,500000 | -478,99 |
| 6 | 0,20000 | G1+G2+G3 | 15,5042 | -156,49 | 1 | -0,300000 | -0,500000 | -673,30 |
| 6 | 0,00000 | STR_SLU_1 | 505,1380 | 7875,67 | 1 | -0,300000 | -0,500000 | -8962,27 |
| 6 | 0,20000 | STR_SLU_1 | 575,1589 | 9042,68 | 1 | -0,300000 | -0,500000 | -10129,28 |
| 6 | 0,00000 | STR_SLU_2 | -119,6424 | 1400,81 | 3 | 0,300000 | -0,500000 | -2587,27 |
| 6 | 0,20000 | STR_SLU_2 | -100,2924 | 1078,31 | 3 | 0,300000 | -0,500000 | -2264,77 |
| 7 | 0,00000 | q1_VAR TRAFF | 332,1932 | 5460,85 | 1 | -0,300000 | -0,500000 | -5612,26 |
| 7 | 0,30000 | q1_VAR TRAFF | 376,0707 | 6192,14 | 1 | -0,300000 | -0,500000 | -6343,55 |
| 7 | 0,00000 | G1+G2+G3 | 15,5042 | -156,49 | 1 | -0,300000 | -0,500000 | -673,30 |
| 7 | 0,30000 | G1+G2+G3 | 41,1542 | 271,01 | 1 | -0,300000 | -0,500000 | -1100,80 |
| 7 | 0,00000 | STR_SLU_1 | 575,1589 | 9042,68 | 1 | -0,300000 | -0,500000 | -10129,28 |
| 7 | 0,30000 | STR_SLU_1 | 671,5859 | 10649,80 | 1 | -0,300000 | -0,500000 | -11736,40 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 7 | 0,00000 | STR_SLU_2 | -100,2924 | 1078,31 | 3 | 0,300000 | -0,500000 | -2264,77 |
| 7 | 0,30000 | STR_SLU_2 | -74,6424 | 650,81 | 3 | 0,300000 | -0,500000 | -1837,27 |
| 8 | 0,00000 | q1_VAR TRAFF | 376,0707 | 6192,14 | 1 | -0,300000 | -0,500000 | -6343,55 |
| 8 | 0,50000 | q1_VAR TRAFF | 435,4467 | 7181,74 | 1 | -0,300000 | -0,500000 | -7333,15 |
| 8 | 1,00000 | q1_VAR TRAFF | 473,1315 | 7809,82 | 1 | -0,300000 | -0,500000 | -7961,23 |
| 8 | 1,50000 | q1_VAR TRAFF | 489,1250 | 8076,38 | 1 | -0,300000 | -0,500000 | -8227,79 |
| 8 | 0,00000 | G1+G2+G3 | 41,1542 | 271,01 | 1 | -0,300000 | -0,500000 | -1100,80 |
| 8 | 0,50000 | G1+G2+G3 | 74,9042 | 833,51 | 1 | -0,300000 | -0,500000 | -1663,30 |
| 8 | 1,00000 | G1+G2+G3 | 97,4042 | 1208,51 | 1 | -0,300000 | -0,500000 | -2038,30 |
| 8 | 1,50000 | G1+G2+G3 | 108,6542 | 1396,01 | 1 | -0,300000 | -0,500000 | -2225,80 |
| 8 | 0,00000 | STR_SLU_1 | 671,5859 | 10649,80 | 1 | -0,300000 | -0,500000 | -11736,40 |
| 8 | 0,50000 | STR_SLU_1 | 800,6811 | 12801,39 | 1 | -0,300000 | -0,500000 | -13887,98 |
| 8 | 1,00000 | STR_SLU_1 | 884,1806 | 14193,04 | 1 | -0,300000 | -0,500000 | -15279,64 |
| 8 | 1,50000 | STR_SLU_1 | 922,0844 | 14824,77 | 1 | -0,300000 | -0,500000 | -15911,37 |
| 8 | 0,00000 | STR_SLU_2 | -74,6424 | 650,81 | 3 | 0,300000 | -0,500000 | -1837,27 |
| 8 | 0,50000 | STR_SLU_2 | -40,8924 | 88,31 | 3 | 0,300000 | -0,500000 | -1274,77 |
| 8 | 1,00000 | STR_SLU_2 | -18,3924 | -286,69 | 3 | 0,300000 | -0,500000 | -899,77 |
| 8 | 1,50000 | STR_SLU_2 | -7,1424 | -474,19 | 3 | 0,300000 | -0,500000 | -712,27 |
| 9 | 0,00000 | q1_VAR TRAFF | 489,1250 | 8076,38 | 1 | -0,300000 | -0,500000 | -8227,79 |
| 9 | 0,25000 | q1_VAR TRAFF | 489,9876 | 8090,75 | 1 | -0,300000 | -0,500000 | -8242,17 |
| 9 | 0,00000 | G1+G2+G3 | 108,6542 | 1396,01 | 1 | -0,300000 | -0,500000 | -2225,80 |
| 9 | 0,25000 | G1+G2+G3 | 110,0605 | 1419,45 | 1 | -0,300000 | -0,500000 | -2249,24 |
| 9 | 0,00000 | STR_SLU_1 | 922,0844 | 14824,77 | 1 | -0,300000 | -0,500000 | -15911,37 |
| 9 | 0,25000 | STR_SLU_1 | 925,2879 | 14878,17 | 1 | -0,300000 | -0,500000 | -15964,76 |
| 9 | 0,00000 | STR_SLU_2 | -7,1424 | -474,19 | 3 | 0,300000 | -0,500000 | -712,27 |
| 9 | 0,25000 | STR_SLU_2 | -5,7361 | -497,63 | 3 | 0,300000 | -0,500000 | -688,83 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|----------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 10 | 0,00000 | q1_VAR TRAFF | 489,9876 | 8090,96 | 1 | -0,300000 | -0,500000 | -8241,96 |
| 10 | 0,05000 | q1_VAR TRAFF | 489,7494 | 8086,99 | 1 | -0,300000 | -0,500000 | -8237,99 |
| 10 | 0,00000 | G1+G2+G3 | 110,0605 | 1419,45 | 1 | -0,300000 | -0,500000 | -2249,24 |
| 10 | 0,05000 | G1+G2+G3 | 110,0042 | 1418,51 | 1 | -0,300000 | -0,500000 | -2248,30 |
| 10 | 0,00000 | STR_SLU_1 | 925,2879 | 14878,45 | 1 | -0,300000 | -0,500000 | -15964,48 |
| 10 | 0,05000 | STR_SLU_1 | 924,8847 | 14871,73 | 1 | -0,300000 | -0,500000 | -15957,76 |
| 10 | 0,00000 | STR_SLU_2 | -5,7361 | -497,63 | 3 | 0,300000 | -0,500000 | -688,83 |
| 10 | 0,05000 | STR_SLU_2 | -5,7924 | -496,69 | 3 | 0,300000 | -0,500000 | -689,77 |
| 11 | 0,00000 | q1_VAR TRAFF | 489,7494 | 8086,99 | 1 | -0,300000 | -0,500000 | -8237,99 |
| 11 | 0,20000 | q1_VAR TRAFF | 487,4567 | 8048,78 | 1 | -0,300000 | -0,500000 | -8199,78 |
| 11 | 0,00000 | G1+G2+G3 | 110,0042 | 1418,51 | 1 | -0,300000 | -0,500000 | -2248,30 |
| 11 | 0,20000 | G1+G2+G3 | 108,6542 | 1396,01 | 1 | -0,300000 | -0,500000 | -2225,80 |
| 11 | 0,00000 | STR_SLU_1 | 924,8847 | 14871,73 | 1 | -0,300000 | -0,500000 | -15957,76 |
| 11 | 0,20000 | STR_SLU_1 | 919,8322 | 14787,52 | 1 | -0,300000 | -0,500000 | -15873,55 |
| 11 | 0,00000 | STR_SLU_2 | -5,7924 | -496,69 | 3 | 0,300000 | -0,500000 | -689,77 |
| 11 | 0,20000 | STR_SLU_2 | -7,1424 | -474,19 | 3 | 0,300000 | -0,500000 | -712,27 |
| 12 | 0,00000 | q1_VAR TRAFF | 487,4567 | 8048,78 | 1 | -0,300000 | -0,500000 | -8199,78 |
| 12 | 0,50000 | q1_VAR TRAFF | 466,3988 | 7697,82 | 1 | -0,300000 | -0,500000 | -7848,81 |
| 12 | 0,00000 | G1+G2+G3 | 108,6542 | 1396,01 | 1 | -0,300000 | -0,500000 | -2225,80 |
| 12 | 0,50000 | G1+G2+G3 | 97,4042 | 1208,51 | 1 | -0,300000 | -0,500000 | -2038,30 |
| 12 | 0,00000 | STR_SLU_1 | 919,8322 | 14787,52 | 1 | -0,300000 | -0,500000 | -15873,55 |
| 12 | 0,50000 | STR_SLU_1 | 875,0914 | 14041,84 | 1 | -0,300000 | -0,500000 | -15127,87 |
| 12 | 0,00000 | STR_SLU_2 | -7,1424 | -474,19 | 3 | 0,300000 | -0,500000 | -712,27 |
| 12 | 0,50000 | STR_SLU_2 | -18,3924 | -286,69 | 3 | 0,300000 | -0,500000 | -899,77 |
| 13 | 0,00000 | q1_VAR TRAFF | 466,3988 | 7697,82 | 1 | -0,300000 | -0,500000 | -7848,81 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 13 | 0,20000 | q1_VAR TRAFF | 451,8450 | 7455,25 | 1 | -0,300000 | -0,500000 | -7606,25 |
| 13 | 0,00000 | G1+G2+G3 | 97,4042 | 1208,51 | 1 | -0,300000 | -0,500000 | -2038,30 |
| 13 | 0,20000 | G1+G2+G3 | 89,7542 | 1081,01 | 1 | -0,300000 | -0,500000 | -1910,80 |
| 13 | 0,00000 | STR_SLU_1 | 875,0914 | 14041,84 | 1 | -0,300000 | -0,500000 | -15127,87 |
| 13 | 0,20000 | STR_SLU_1 | 844,3513 | 13529,51 | 1 | -0,300000 | -0,500000 | -14615,53 |
| 13 | 0,00000 | STR_SLU_2 | -18,3924 | -286,69 | 3 | 0,300000 | -0,500000 | -899,77 |
| 13 | 0,20000 | STR_SLU_2 | -26,0424 | -159,19 | 3 | 0,300000 | -0,500000 | -1027,27 |
| 14 | 0,00000 | q1_VAR TRAFF | 451,8450 | 7455,25 | 1 | -0,300000 | -0,500000 | -7606,25 |
| 14 | 0,30000 | q1_VAR TRAFF | 425,9511 | 7023,69 | 1 | -0,300000 | -0,500000 | -7174,68 |
| 14 | 0,00000 | G1+G2+G3 | 89,7542 | 1081,01 | 1 | -0,300000 | -0,500000 | -1910,80 |
| 14 | 0,30000 | G1+G2+G3 | 74,9042 | 833,51 | 1 | -0,300000 | -0,500000 | -1663,30 |
| 14 | 0,00000 | STR_SLU_1 | 844,3513 | 13529,51 | 1 | -0,300000 | -0,500000 | -14615,53 |
| 14 | 0,30000 | STR_SLU_1 | 787,8620 | 12588,02 | 1 | -0,300000 | -0,500000 | -13674,05 |
| 14 | 0,00000 | STR_SLU_2 | -26,0424 | -159,19 | 3 | 0,300000 | -0,500000 | -1027,27 |
| 14 | 0,30000 | STR_SLU_2 | -40,8924 | 88,31 | 3 | 0,300000 | -0,500000 | -1274,77 |
| 15 | 0,00000 | q1_VAR TRAFF | 425,9511 | 7023,69 | 1 | -0,300000 | -0,500000 | -7174,68 |
| 15 | 0,50000 | q1_VAR TRAFF | 369,8416 | 6088,53 | 1 | -0,300000 | -0,500000 | -6239,52 |
| 15 | 1,00000 | q1_VAR TRAFF | 296,0408 | 4858,52 | 1 | -0,300000 | -0,500000 | -5009,51 |
| 15 | 1,50000 | q1_VAR TRAFF | 204,5488 | 3333,65 | 1 | -0,300000 | -0,500000 | -3484,64 |
| 15 | 0,00000 | G1+G2+G3 | 74,9042 | 833,51 | 1 | -0,300000 | -0,500000 | -1663,30 |
| 15 | 0,50000 | G1+G2+G3 | 41,1542 | 271,01 | 1 | -0,300000 | -0,500000 | -1100,80 |
| 15 | 1,00000 | G1+G2+G3 | -3,8458 | -350,80 | 3 | 0,300000 | -0,500000 | -478,99 |
| 15 | 1,50000 | G1+G2+G3 | -60,0958 | 586,70 | 3 | 0,300000 | -0,500000 | -1416,49 |
| 15 | 0,00000 | STR_SLU_1 | 787,8620 | 12588,02 | 1 | -0,300000 | -0,500000 | -13674,05 |
| 15 | 0,50000 | STR_SLU_1 | 663,1767 | 10509,93 | 1 | -0,300000 | -0,500000 | -11595,96 |
| 15 | 1,00000 | STR_SLU_1 | 498,2957 | 7761,92 | 1 | -0,300000 | -0,500000 | -8847,94 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|-----------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 15 | 1,50000 | STR_SLU_1 | 293,2190 | 4343,97 | 1 | -0,300000 | -0,500000 | -5430,00 |
| 15 | 0,00000 | STR_SLU_2 | -40,8924 | 88,31 | 3 | 0,300000 | -0,500000 | -1274,77 |
| 15 | 0,50000 | STR_SLU_2 | -74,6424 | 650,81 | 3 | 0,300000 | -0,500000 | -1837,27 |
| 15 | 1,00000 | STR_SLU_2 | -119,6424 | 1400,81 | 3 | 0,300000 | -0,500000 | -2587,27 |
| 15 | 1,50000 | STR_SLU_2 | -175,8924 | 2338,31 | 3 | 0,300000 | -0,500000 | -3524,77 |
| 16 | 0,00000 | q1_VAR TRAFF | 204,5488 | 3333,65 | 1 | -0,300000 | -0,500000 | -3484,64 |
| 16 | 0,30000 | q1_VAR TRAFF | 143,3218 | 2313,20 | 1 | -0,300000 | -0,500000 | -2464,19 |
| 16 | 0,00000 | G1+G2+G3 | -60,0958 | 586,70 | 3 | 0,300000 | -0,500000 | -1416,49 |
| 16 | 0,30000 | G1+G2+G3 | -99,2458 | 1239,20 | 3 | 0,300000 | -0,500000 | -2068,99 |
| 16 | 0,00000 | STR_SLU_1 | 293,2190 | 4343,97 | 1 | -0,300000 | -0,500000 | -5430,00 |
| 16 | 0,30000 | STR_SLU_1 | 153,7950 | 2020,24 | 1 | -0,300000 | -0,500000 | -3106,26 |
| 16 | 0,00000 | STR_SLU_2 | -175,8924 | 2338,31 | 3 | 0,300000 | -0,500000 | -3524,77 |
| 16 | 0,30000 | STR_SLU_2 | -215,0424 | 2990,81 | 3 | 0,300000 | -0,500000 | -4177,27 |
| 17 | 0,00000 | q1_VAR TRAFF | 143,3218 | 2313,20 | 1 | -0,300000 | -0,500000 | -2464,19 |
| 17 | 0,20000 | q1_VAR TRAFF | 101,4714 | 1615,69 | 1 | -0,300000 | -0,500000 | -1766,69 |
| 17 | 0,00000 | G1+G2+G3 | -99,2458 | 1239,20 | 3 | 0,300000 | -0,500000 | -2068,99 |
| 17 | 0,20000 | G1+G2+G3 | -127,5958 | 1711,70 | 3 | 0,300000 | -0,500000 | -2541,49 |
| 17 | 0,00000 | STR_SLU_1 | 153,7950 | 2020,24 | 1 | -0,300000 | -0,500000 | -3106,26 |
| 17 | 0,20000 | STR_SLU_1 | 56,1895 | 393,48 | 1 | -0,300000 | -0,500000 | -1479,50 |
| 17 | 0,00000 | STR_SLU_2 | -215,0424 | 2990,81 | 3 | 0,300000 | -0,500000 | -4177,27 |
| 17 | 0,20000 | STR_SLU_2 | -243,3924 | 3463,31 | 3 | 0,300000 | -0,500000 | -4649,77 |
| 18 | 0,00000 | q1_VAR TRAFF | 101,4714 | 1615,69 | 1 | -0,300000 | -0,500000 | -1766,69 |
| 18 | 0,50000 | q1_VAR TRAFF | -8,2119 | 61,37 | 3 | 0,300000 | -0,500000 | -212,36 |
| 18 | 0,00000 | G1+G2+G3 | -127,5958 | 1711,70 | 3 | 0,300000 | -0,500000 | -2541,49 |
| 18 | 0,50000 | G1+G2+G3 | -206,3458 | 3024,20 | 3 | 0,300000 | -0,500000 | -3853,99 |
| 18 | 0,00000 | STR_SLU_1 | 56,1895 | 393,48 | 1 | -0,300000 | -0,500000 | -1479,50 |
| 18 | 0,50000 | STR_SLU_1 | -206,0705 | 2891,50 | 3 | 0,300000 | -0,500000 | -3977,52 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 18 | 0,00000 | STR_SLU_2 | -243,3924 | 3463,31 | 3 | 0,300000 | -0,500000 | -4649,77 |
| 18 | 0,50000 | STR_SLU_2 | -322,1424 | 4775,81 | 3 | 0,300000 | -0,500000 | -5962,27 |
| 19 | 0,00000 | q1_VAR TRAFF | -8,2119 | 61,37 | 3 | 0,300000 | -0,500000 | -212,36 |
| 19 | 0,38333 | q1_VAR TRAFF | -96,7938 | 1537,73 | 3 | 0,300000 | -0,500000 | -1688,73 |
| 19 | 0,76667 | q1_VAR TRAFF | -187,9429 | 3056,88 | 3 | 0,300000 | -0,500000 | -3207,88 |
| 19 | 1,15000 | q1_VAR TRAFF | -281,6592 | 4618,82 | 3 | 0,300000 | -0,500000 | -4769,82 |
| 19 | 0,00000 | G1+G2+G3 | -206,3458 | 3024,20 | 3 | 0,300000 | -0,500000 | -3853,99 |
| 19 | 0,38333 | G1+G2+G3 | -274,3395 | 4157,43 | 3 | 0,300000 | -0,500000 | -4987,22 |
| 19 | 0,76667 | G1+G2+G3 | -348,9458 | 5400,87 | 3 | 0,300000 | -0,500000 | -6230,66 |
| 19 | 1,15000 | G1+G2+G3 | -430,1645 | 6754,51 | 3 | 0,300000 | -0,500000 | -7584,30 |
| 19 | 0,00000 | STR_SLU_1 | -206,0705 | 2891,50 | 3 | 0,300000 | -0,500000 | -3977,52 |
| 19 | 0,38333 | STR_SLU_1 | -424,2469 | 6527,77 | 3 | 0,300000 | -0,500000 | -7613,79 |
| 19 | 0,76667 | STR_SLU_1 | -655,4773 | 10381,61 | 3 | 0,300000 | -0,500000 | -11467,63 |
| 19 | 1,15000 | STR_SLU_1 | -899,7616 | 14453,01 | 3 | 0,300000 | -0,500000 | -15539,04 |
| 19 | 0,00000 | STR_SLU_2 | -322,1424 | 4775,81 | 3 | 0,300000 | -0,500000 | -5962,27 |
| 19 | 0,38333 | STR_SLU_2 | -390,1361 | 5909,04 | 3 | 0,300000 | -0,500000 | -7095,50 |
| 19 | 0,76667 | STR_SLU_2 | -464,7424 | 7152,48 | 3 | 0,300000 | -0,500000 | -8338,94 |
| 19 | 1,15000 | STR_SLU_2 | -545,9611 | 8506,12 | 3 | 0,300000 | -0,500000 | -9692,58 |
| 20 | 0,00000 | q1_VAR TRAFF | -281,6592 | 4618,82 | 3 | 0,300000 | -0,500000 | -4769,82 |
| 20 | 0,50000 | q1_VAR TRAFF | -407,7562 | 6720,44 | 3 | 0,300000 | -0,500000 | -6871,43 |
| 20 | 0,00000 | G1+G2+G3 | -430,1645 | 6754,51 | 3 | 0,300000 | -0,500000 | -7584,30 |
| 20 | 0,50000 | G1+G2+G3 | -546,0395 | 8685,76 | 3 | 0,300000 | -0,500000 | -9515,55 |
| 20 | 0,00000 | STR_SLU_1 | -899,7616 | 14453,01 | 3 | 0,300000 | -0,500000 | -15539,04 |
| 20 | 0,50000 | STR_SLU_1 | -1238,0112 | 20090,51 | 3 | 0,300000 | -0,500000 | -21176,53 |
| 20 | 0,00000 | STR_SLU_2 | -545,9611 | 8506,12 | 3 | 0,300000 | -0,500000 | -9692,58 |
| 20 | 0,50000 | STR_SLU_2 | -661,8361 | 10437,37 | 3 | 0,300000 | -0,500000 | -11623,83 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 28 | 0,00000 | q1_VAR TRAFF | -238,7202 | 3902,96 | 3 | 0,300000 | -0,500000 | -4054,38 |
| 28 | 0,45000 | q1_VAR TRAFF | -124,7963 | 2004,23 | 3 | 0,300000 | -0,500000 | -2155,65 |
| 28 | 0,90000 | q1_VAR TRAFF | -17,9396 | 223,29 | 3 | 0,300000 | -0,500000 | -374,70 |
| 28 | 1,35000 | q1_VAR TRAFF | 81,8498 | 1288,45 | 1 | -0,300000 | -0,500000 | -1439,87 |
| 28 | 1,80000 | q1_VAR TRAFF | 174,5719 | 2833,82 | 1 | -0,300000 | -0,500000 | -2985,24 |
| 28 | 0,00000 | G1+G2+G3 | -397,5958 | 6211,70 | 3 | 0,300000 | -0,500000 | -7041,49 |
| 28 | 0,45000 | G1+G2+G3 | -305,9645 | 4684,51 | 3 | 0,300000 | -0,500000 | -5514,30 |
| 28 | 0,90000 | G1+G2+G3 | -223,4458 | 3309,20 | 3 | 0,300000 | -0,500000 | -4138,99 |
| 28 | 1,35000 | G1+G2+G3 | -150,0395 | 2085,76 | 3 | 0,300000 | -0,500000 | -2915,55 |
| 28 | 1,80000 | G1+G2+G3 | -85,7458 | 1014,20 | 3 | 0,300000 | -0,500000 | -1843,99 |
| 28 | 0,00000 | STR_SLU_1 | -794,5692 | 12699,52 | 3 | 0,300000 | -0,500000 | -13786,12 |
| 28 | 0,45000 | STR_SLU_1 | -507,9066 | 7921,81 | 3 | 0,300000 | -0,500000 | -9008,41 |
| 28 | 0,90000 | STR_SLU_1 | -243,9980 | 3523,33 | 3 | 0,300000 | -0,500000 | -4609,93 |
| 28 | 1,35000 | STR_SLU_1 | -2,8432 | -495,91 | 3 | 0,300000 | -0,500000 | -590,69 |
| 28 | 1,80000 | STR_SLU_1 | 215,5576 | 3049,33 | 1 | -0,300000 | -0,500000 | -4135,93 |
| 28 | 0,00000 | STR_SLU_2 | -513,3924 | 7963,31 | 3 | 0,300000 | -0,500000 | -9149,77 |
| 28 | 0,45000 | STR_SLU_2 | -421,7611 | 6436,12 | 3 | 0,300000 | -0,500000 | -7622,58 |
| 28 | 0,90000 | STR_SLU_2 | -339,2424 | 5060,81 | 3 | 0,300000 | -0,500000 | -6247,27 |
| 28 | 1,35000 | STR_SLU_2 | -265,8361 | 3837,37 | 3 | 0,300000 | -0,500000 | -5023,83 |
| 28 | 1,80000 | STR_SLU_2 | -201,5424 | 2765,81 | 3 | 0,300000 | -0,500000 | -3952,27 |
| 29 | 0,00000 | q1_VAR TRAFF | 174,5719 | 2833,82 | 1 | -0,300000 | -0,500000 | -2985,24 |
| 29 | 0,20000 | q1_VAR TRAFF | 213,5418 | 3483,32 | 1 | -0,300000 | -0,500000 | -3634,74 |
| 29 | 0,00000 | G1+G2+G3 | -85,7458 | 1014,20 | 3 | 0,300000 | -0,500000 | -1843,99 |
| 29 | 0,20000 | G1+G2+G3 | -60,0958 | 586,70 | 3 | 0,300000 | -0,500000 | -1416,49 |
| 29 | 0,00000 | STR_SLU_1 | 215,5576 | 3049,33 | 1 | -0,300000 | -0,500000 | -4135,93 |
| 29 | 0,20000 | STR_SLU_1 | 305,3595 | 4546,03 | 1 | -0,300000 | -0,500000 | -5632,62 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 29 | 0,00000 | STR_SLU_2 | -201,5424 | 2765,81 | 3 | 0,300000 | -0,500000 | -3952,27 |
| 29 | 0,20000 | STR_SLU_2 | -175,8924 | 2338,31 | 3 | 0,300000 | -0,500000 | -3524,77 |
| 63 | 0,00000 | q1_VAR TRAFF | -3,126E-13 | -374,84 | 3 | 0,350000 | -0,500000 | -374,84 |
| 63 | 0,50000 | q1_VAR TRAFF | 3,0609 | -337,36 | 1 | -0,350000 | -0,500000 | -412,32 |
| 63 | 1,00000 | q1_VAR TRAFF | 6,1219 | -299,88 | 1 | -0,350000 | -0,500000 | -449,80 |
| 63 | 0,00000 | G1+G2+G3 | 3,638E-12 | -609,64 | 1 | -0,350000 | -0,500000 | -609,64 |
| 63 | 0,50000 | G1+G2+G3 | -40,2805 | -103,91 | 3 | 0,350000 | -0,500000 | -1090,37 |
| 63 | 1,00000 | G1+G2+G3 | -55,4021 | 93,75 | 3 | 0,350000 | -0,500000 | -1263,04 |
| 63 | 0,00000 | STR_SLU_1 | 3,216E-12 | -1363,76 | 1 | -0,350000 | -0,500000 | -1363,76 |
| 63 | 0,50000 | STR_SLU_1 | -35,0890 | -917,23 | 3 | 0,350000 | -0,500000 | -1776,55 |
| 63 | 1,00000 | STR_SLU_1 | -45,0191 | -778,76 | 3 | 0,350000 | -0,500000 | -1881,27 |
| 63 | 0,00000 | STR_SLU_2 | 5,457E-12 | -609,64 | 1 | -0,350000 | -0,500000 | -609,64 |
| 63 | 0,50000 | STR_SLU_2 | -61,5977 | 157,12 | 3 | 0,350000 | -0,500000 | -1351,40 |
| 63 | 1,00000 | STR_SLU_2 | -85,4570 | 461,77 | 3 | 0,350000 | -0,500000 | -1631,05 |
| 64 | 0,00000 | q1_VAR TRAFF | 6,1219 | -299,88 | 1 | -0,350000 | -0,500000 | -449,80 |
| 64 | 0,50000 | q1_VAR TRAFF | 17,8028 | -156,84 | 1 | -0,350000 | -0,500000 | -592,83 |
| 64 | 1,00000 | q1_VAR TRAFF | 29,4838 | -13,81 | 1 | -0,350000 | -0,500000 | -735,86 |
| 64 | 0,00000 | G1+G2+G3 | -55,4021 | 93,75 | 3 | 0,350000 | -0,500000 | -1263,04 |
| 64 | 0,50000 | G1+G2+G3 | -123,1178 | 935,42 | 3 | 0,350000 | -0,500000 | -2079,71 |
| 64 | 1,00000 | G1+G2+G3 | -167,8069 | 1495,14 | 3 | 0,350000 | -0,500000 | -2614,42 |
| 64 | 0,00000 | STR_SLU_1 | -45,0191 | -778,76 | 3 | 0,350000 | -0,500000 | -1881,27 |
| 64 | 0,50000 | STR_SLU_1 | -92,9234 | -175,30 | 3 | 0,350000 | -0,500000 | -2450,98 |
| 64 | 1,00000 | STR_SLU_1 | -117,8009 | 146,20 | 3 | 0,350000 | -0,500000 | -2738,72 |
| 64 | 0,00000 | STR_SLU_2 | -85,4570 | 461,77 | 3 | 0,350000 | -0,500000 | -1631,05 |
| 64 | 0,50000 | STR_SLU_2 | -191,5219 | 1773,02 | 3 | 0,350000 | -0,500000 | -2917,31 |
| 64 | 1,00000 | STR_SLU_2 | -263,0468 | 2661,34 | 3 | 0,350000 | -0,500000 | -3780,62 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|-----------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 65 | 0,00000 | q1_VAR TRAFF | 29,4838 | -13,81 | 1 | -0,350000 | -0,500000 | -735,86 |
| 65 | 0,50000 | q1_VAR TRAFF | 48,8495 | 223,32 | 1 | -0,350000 | -0,500000 | -973,00 |
| 65 | 1,00000 | q1_VAR TRAFF | 68,2153 | 460,45 | 1 | -0,350000 | -0,500000 | -1210,13 |
| 65 | 0,00000 | G1+G2+G3 | -167,8069 | 1495,14 | 3 | 0,350000 | -0,500000 | -2614,42 |
| 65 | 0,50000 | G1+G2+G3 | -236,9079 | 2353,77 | 3 | 0,350000 | -0,500000 | -3448,06 |
| 65 | 1,00000 | G1+G2+G3 | -285,1141 | 2956,55 | 3 | 0,350000 | -0,500000 | -4025,84 |
| 65 | 0,00000 | STR_SLU_1 | -117,8009 | 146,20 | 3 | 0,350000 | -0,500000 | -2738,72 |
| 65 | 0,50000 | STR_SLU_1 | -154,0566 | 607,02 | 3 | 0,350000 | -0,500000 | -3165,80 |
| 65 | 1,00000 | STR_SLU_1 | -169,4176 | 811,99 | 3 | 0,350000 | -0,500000 | -3337,02 |
| 65 | 0,00000 | STR_SLU_2 | -263,0468 | 2661,34 | 3 | 0,350000 | -0,500000 | -3780,62 |
| 65 | 0,50000 | STR_SLU_2 | -374,1444 | 4034,22 | 3 | 0,350000 | -0,500000 | -5128,50 |
| 65 | 1,00000 | STR_SLU_2 | -453,9000 | 5023,32 | 3 | 0,350000 | -0,500000 | -6092,60 |
| 66 | 0,00000 | q1_VAR TRAFF | 68,2153 | 460,45 | 1 | -0,350000 | -0,500000 | -1210,13 |
| 66 | 0,25000 | q1_VAR TRAFF | 79,5716 | 599,51 | 1 | -0,350000 | -0,500000 | -1349,18 |
| 66 | 0,50000 | q1_VAR TRAFF | 90,9279 | 738,56 | 1 | -0,350000 | -0,500000 | -1488,24 |
| 66 | 0,00000 | G1+G2+G3 | -285,1141 | 2956,55 | 3 | 0,350000 | -0,500000 | -4025,84 |
| 66 | 0,25000 | G1+G2+G3 | -309,2178 | 3257,95 | 3 | 0,350000 | -0,500000 | -4314,73 |
| 66 | 0,50000 | G1+G2+G3 | -328,4975 | 3500,28 | 3 | 0,350000 | -0,500000 | -4544,56 |
| 66 | 0,00000 | STR_SLU_1 | -169,4176 | 811,99 | 3 | 0,350000 | -0,500000 | -3337,02 |
| 66 | 0,25000 | STR_SLU_1 | -174,2604 | 879,72 | 3 | 0,350000 | -0,500000 | -3387,88 |
| 66 | 0,50000 | STR_SLU_1 | -174,2793 | 888,39 | 3 | 0,350000 | -0,500000 | -3379,67 |
| 66 | 0,00000 | STR_SLU_2 | -453,9000 | 5023,32 | 3 | 0,350000 | -0,500000 | -6092,60 |
| 66 | 0,25000 | STR_SLU_2 | -494,4219 | 5525,75 | 3 | 0,350000 | -0,500000 | -6582,54 |
| 66 | 0,50000 | STR_SLU_2 | -527,7079 | 5939,59 | 3 | 0,350000 | -0,500000 | -6983,87 |
| 67 | 0,00000 | q1_VAR TRAFF | 90,9279 | 738,56 | 1 | -0,350000 | -0,500000 | -1488,24 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 67 | 0,22500 | q1_VAR TRAFF | 101,1485 | 863,71 | 1 | -0,350000 | -0,500000 | -1613,39 |
| 67 | 0,45000 | q1_VAR TRAFF | 111,3692 | 988,87 | 1 | -0,350000 | -0,500000 | -1738,54 |
| 67 | 0,00000 | G1+G2+G3 | -328,4975 | 3500,28 | 3 | 0,350000 | -0,500000 | -4544,56 |
| 67 | 0,22500 | G1+G2+G3 | -341,8273 | 3669,12 | 3 | 0,350000 | -0,500000 | -4702,16 |
| 67 | 0,45000 | G1+G2+G3 | -351,4548 | 3792,64 | 3 | 0,350000 | -0,500000 | -4814,42 |
| 67 | 0,00000 | STR_SLU_1 | -174,2793 | 888,39 | 3 | 0,350000 | -0,500000 | -3379,67 |
| 67 | 0,22500 | STR_SLU_1 | -170,2744 | 846,95 | 3 | 0,350000 | -0,500000 | -3323,04 |
| 67 | 0,45000 | STR_SLU_1 | -162,5672 | 760,17 | 3 | 0,350000 | -0,500000 | -3221,07 |
| 67 | 0,00000 | STR_SLU_2 | -527,7079 | 5939,59 | 3 | 0,350000 | -0,500000 | -6983,87 |
| 67 | 0,22500 | STR_SLU_2 | -551,6325 | 6238,17 | 3 | 0,350000 | -0,500000 | -7271,20 |
| 67 | 0,45000 | STR_SLU_2 | -570,0035 | 6468,74 | 3 | 0,350000 | -0,500000 | -7490,53 |
| 68 | 0,00000 | q1_VAR TRAFF | 111,3692 | 988,87 | 1 | -0,350000 | -0,500000 | -1738,54 |
| 68 | 0,17500 | q1_VAR TRAFF | 119,3186 | 1086,21 | 1 | -0,350000 | -0,500000 | -1835,88 |
| 68 | 0,35000 | q1_VAR TRAFF | 127,2679 | 1183,54 | 1 | -0,350000 | -0,500000 | -1933,22 |
| 68 | 0,00000 | G1+G2+G3 | -351,4548 | 3792,64 | 3 | 0,350000 | -0,500000 | -4814,42 |
| 68 | 0,17500 | G1+G2+G3 | -356,4355 | 3858,00 | 3 | 0,350000 | -0,500000 | -4871,03 |
| 68 | 0,35000 | G1+G2+G3 | -359,2810 | 3897,22 | 3 | 0,350000 | -0,500000 | -4901,50 |
| 68 | 0,00000 | STR_SLU_1 | -162,5672 | 760,17 | 3 | 0,350000 | -0,500000 | -3221,07 |
| 68 | 0,17500 | STR_SLU_1 | -154,0653 | 661,97 | 3 | 0,350000 | -0,500000 | -3111,06 |
| 68 | 0,35000 | STR_SLU_1 | -143,4282 | 537,63 | 3 | 0,350000 | -0,500000 | -2974,90 |
| 68 | 0,00000 | STR_SLU_2 | -570,0035 | 6468,74 | 3 | 0,350000 | -0,500000 | -7490,53 |
| 68 | 0,17500 | STR_SLU_2 | -580,5311 | 6602,03 | 3 | 0,350000 | -0,500000 | -7615,06 |
| 68 | 0,35000 | STR_SLU_2 | -587,8559 | 6696,09 | 3 | 0,350000 | -0,500000 | -7700,38 |
| 69 | 0,00000 | q1_VAR TRAFF | 127,2679 | 1183,54 | 1 | -0,350000 | -0,500000 | -1933,22 |
| 69 | 0,50000 | q1_VAR TRAFF | 149,9805 | 1461,66 | 1 | -0,350000 | -0,500000 | -2211,33 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|-----------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 69 | 1,00000 | q1_VAR TRAFF | 172,6931 | 1739,77 | 1 | -0,350000 | -0,500000 | -2489,45 |
| 69 | 0,00000 | G1+G2+G3 | -359,2810 | 3897,22 | 3 | 0,350000 | -0,500000 | -4901,50 |
| 69 | 0,50000 | G1+G2+G3 | -356,3652 | 3874,01 | 3 | 0,350000 | -0,500000 | -4853,30 |
| 69 | 1,00000 | G1+G2+G3 | -337,4585 | 3655,00 | 3 | 0,350000 | -0,500000 | -4609,29 |
| 69 | 0,00000 | STR_SLU_1 | -143,4282 | 537,63 | 3 | 0,350000 | -0,500000 | -2974,90 |
| 69 | 0,50000 | STR_SLU_1 | -101,9909 | 47,10 | 3 | 0,350000 | -0,500000 | -2450,63 |
| 69 | 1,00000 | STR_SLU_1 | -44,5625 | -639,23 | 3 | 0,350000 | -0,500000 | -1730,55 |
| 69 | 0,00000 | STR_SLU_2 | -587,8559 | 6696,09 | 3 | 0,350000 | -0,500000 | -7700,38 |
| 69 | 0,50000 | STR_SLU_2 | -592,2153 | 6761,97 | 3 | 0,350000 | -0,500000 | -7741,26 |
| 69 | 1,00000 | STR_SLU_2 | -572,5881 | 6534,14 | 3 | 0,350000 | -0,500000 | -7488,43 |
| 70 | 0,00000 | q1_VAR TRAFF | 172,6931 | 1739,77 | 1 | -0,350000 | -0,500000 | -2489,45 |
| 70 | 0,50000 | q1_VAR TRAFF | 195,4056 | 2017,88 | 1 | -0,350000 | -0,500000 | -2767,56 |
| 70 | 1,00000 | q1_VAR TRAFF | 218,1182 | 2296,00 | 1 | -0,350000 | -0,500000 | -3045,67 |
| 70 | 0,00000 | G1+G2+G3 | -337,4585 | 3655,00 | 3 | 0,350000 | -0,500000 | -4609,29 |
| 70 | 0,50000 | G1+G2+G3 | -303,6269 | 3253,24 | 3 | 0,350000 | -0,500000 | -4182,52 |
| 70 | 1,00000 | G1+G2+G3 | -255,9365 | 2681,77 | 3 | 0,350000 | -0,500000 | -3586,06 |
| 70 | 0,00000 | STR_SLU_1 | -44,5625 | -639,23 | 3 | 0,350000 | -0,500000 | -1730,55 |
| 70 | 0,50000 | STR_SLU_1 | 27,7907 | -827,72 | 1 | -0,350000 | -0,500000 | -1508,31 |
| 70 | 1,00000 | STR_SLU_1 | 114,0026 | 244,81 | 1 | -0,350000 | -0,500000 | -2547,09 |
| 70 | 0,00000 | STR_SLU_2 | -572,5881 | 6534,14 | 3 | 0,350000 | -0,500000 | -7488,43 |
| 70 | 0,50000 | STR_SLU_2 | -530,5737 | 6032,18 | 3 | 0,350000 | -0,500000 | -6961,46 |
| 70 | 1,00000 | STR_SLU_2 | -467,7711 | 5275,67 | 3 | 0,350000 | -0,500000 | -6179,95 |
| 71 | 0,00000 | q1_VAR TRAFF | 218,1182 | 2296,00 | 1 | -0,350000 | -0,500000 | -3045,67 |
| 71 | 0,50000 | q1_VAR TRAFF | 240,8307 | 2574,11 | 1 | -0,350000 | -0,500000 | -3323,79 |
| 71 | 1,00000 | q1_VAR TRAFF | 263,5433 | 2852,22 | 1 | -0,350000 | -0,500000 | -3601,90 |
| 71 | 0,00000 | G1+G2+G3 | -255,9365 | 2681,77 | 3 | 0,350000 | -0,500000 | -3586,06 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 71 | 0,50000 | G1+G2+G3 | -195,4534 | 1953,66 | 3 | 0,350000 | -0,500000 | -2832,95 |
| 71 | 1,00000 | G1+G2+G3 | -123,2436 | 1081,96 | 3 | 0,350000 | -0,500000 | -1936,25 |
| 71 | 0,00000 | STR_SLU_1 | 114,0026 | 244,81 | 1 | -0,350000 | -0,500000 | -2547,09 |
| 71 | 0,50000 | STR_SLU_1 | 213,0074 | 1473,99 | 1 | -0,350000 | -0,500000 | -3742,52 |
| 71 | 1,00000 | STR_SLU_1 | 323,7388 | 2846,76 | 1 | -0,350000 | -0,500000 | -5081,54 |
| 71 | 0,00000 | STR_SLU_2 | -467,7711 | 5275,67 | 3 | 0,350000 | -0,500000 | -6179,95 |
| 71 | 0,50000 | STR_SLU_2 | -385,7794 | 4284,19 | 3 | 0,350000 | -0,500000 | -5163,47 |
| 71 | 1,00000 | STR_SLU_2 | -286,1976 | 3077,32 | 3 | 0,350000 | -0,500000 | -3931,60 |
| 72 | 0,00000 | q1_VAR TRAFF | 263,5433 | 2852,22 | 1 | -0,350000 | -0,500000 | -3601,90 |
| 72 | 0,50000 | q1_VAR TRAFF | 286,2558 | 3130,33 | 1 | -0,350000 | -0,500000 | -3880,01 |
| 72 | 1,00000 | q1_VAR TRAFF | 308,9684 | 3408,45 | 1 | -0,350000 | -0,500000 | -4158,12 |
| 72 | 0,00000 | G1+G2+G3 | -123,2436 | 1081,96 | 3 | 0,350000 | -0,500000 | -1936,25 |
| 72 | 0,50000 | G1+G2+G3 | -40,3731 | 79,72 | 3 | 0,350000 | -0,500000 | -909,01 |
| 72 | 1,00000 | G1+G2+G3 | 52,0919 | 235,72 | 1 | -0,350000 | -0,500000 | -1040,00 |
| 72 | 0,00000 | STR_SLU_1 | 323,7388 | 2846,76 | 1 | -0,350000 | -0,500000 | -5081,54 |
| 72 | 0,50000 | STR_SLU_1 | 445,1309 | 4350,07 | 1 | -0,350000 | -0,500000 | -6551,10 |
| 72 | 1,00000 | STR_SLU_1 | 576,1175 | 5970,86 | 1 | -0,350000 | -0,500000 | -8138,14 |
| 72 | 0,00000 | STR_SLU_2 | -286,1976 | 3077,32 | 3 | 0,350000 | -0,500000 | -3931,60 |
| 72 | 0,50000 | STR_SLU_2 | -170,6248 | 1674,64 | 3 | 0,350000 | -0,500000 | -2503,93 |
| 72 | 1,00000 | STR_SLU_2 | -40,6603 | 95,74 | 3 | 0,350000 | -0,500000 | -900,02 |
| 73 | 0,00000 | q1_VAR TRAFF | 308,9684 | 3408,45 | 1 | -0,350000 | -0,500000 | -4158,12 |
| 73 | 0,50000 | q1_VAR TRAFF | 331,6809 | 3686,56 | 1 | -0,350000 | -0,500000 | -4436,24 |
| 73 | 1,00000 | q1_VAR TRAFF | 354,3935 | 3964,67 | 1 | -0,350000 | -0,500000 | -4714,35 |
| 73 | 0,00000 | G1+G2+G3 | 52,0919 | 235,72 | 1 | -0,350000 | -0,500000 | -1040,00 |
| 73 | 0,50000 | G1+G2+G3 | 153,0854 | 1484,87 | 1 | -0,350000 | -0,500000 | -2264,16 |
| 73 | 1,00000 | G1+G2+G3 | 261,5414 | 2825,40 | 1 | -0,350000 | -0,500000 | -3579,69 |
| 73 | 0,00000 | STR_SLU_1 | 576,1175 | 5970,86 | 1 | -0,350000 | -0,500000 | -8138,14 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 73 | 0,50000 | STR_SLU_1 | 715,6326 | 7696,08 | 1 | -0,350000 | -0,500000 | -9829,61 |
| 73 | 1,00000 | STR_SLU_1 | 862,6102 | 9512,69 | 1 | -0,350000 | -0,500000 | -11612,46 |
| 73 | 0,00000 | STR_SLU_2 | -40,6603 | 95,74 | 3 | 0,350000 | -0,500000 | -900,02 |
| 73 | 0,50000 | STR_SLU_2 | 102,0970 | 860,52 | 1 | -0,350000 | -0,500000 | -1639,81 |
| 73 | 1,00000 | STR_SLU_2 | 256,0480 | 2758,14 | 1 | -0,350000 | -0,500000 | -3512,42 |
| 74 | 0,00000 | q1_VAR TRAFF | 354,3935 | 3964,67 | 1 | -0,350000 | -0,500000 | -4714,35 |
| 74 | 0,50000 | q1_VAR TRAFF | 377,1060 | 4242,79 | 1 | -0,350000 | -0,500000 | -4992,46 |
| 74 | 1,00000 | q1_VAR TRAFF | 399,8186 | 4520,90 | 1 | -0,350000 | -0,500000 | -5270,58 |
| 74 | 0,00000 | G1+G2+G3 | 261,5414 | 2825,40 | 1 | -0,350000 | -0,500000 | -3579,69 |
| 74 | 0,50000 | G1+G2+G3 | 376,3937 | 4244,26 | 1 | -0,350000 | -0,500000 | -4973,55 |
| 74 | 1,00000 | G1+G2+G3 | 496,5764 | 5728,38 | 1 | -0,350000 | -0,500000 | -6432,67 |
| 74 | 0,00000 | STR_SLU_1 | 862,6102 | 9512,69 | 1 | -0,350000 | -0,500000 | -11612,46 |
| 74 | 0,50000 | STR_SLU_1 | 1015,9842 | 11407,61 | 1 | -0,350000 | -0,500000 | -13473,64 |
| 74 | 1,00000 | STR_SLU_1 | 1174,6884 | 13367,80 | 1 | -0,350000 | -0,500000 | -15400,08 |
| 74 | 0,00000 | STR_SLU_2 | 256,0480 | 2758,14 | 1 | -0,350000 | -0,500000 | -3512,42 |
| 74 | 0,50000 | STR_SLU_2 | 419,5936 | 4773,24 | 1 | -0,350000 | -0,500000 | -5502,52 |
| 74 | 1,00000 | STR_SLU_2 | 591,1345 | 6886,24 | 1 | -0,350000 | -0,500000 | -7590,53 |
| 75 | 0,00000 | q1_VAR TRAFF | 399,8186 | 4520,90 | 1 | -0,350000 | -0,500000 | -5270,58 |
| 75 | 0,10000 | q1_VAR TRAFF | 404,3611 | 4576,52 | 1 | -0,350000 | -0,500000 | -5326,20 |
| 75 | 0,20000 | q1_VAR TRAFF | 408,9036 | 4632,14 | 1 | -0,350000 | -0,500000 | -5381,82 |
| 75 | 0,00000 | G1+G2+G3 | 496,5764 | 5728,38 | 1 | -0,350000 | -0,500000 | -6432,67 |
| 75 | 0,10000 | G1+G2+G3 | 521,2269 | 6032,73 | 1 | -0,350000 | -0,500000 | -6732,01 |
| 75 | 0,20000 | G1+G2+G3 | 546,0395 | 6339,06 | 1 | -0,350000 | -0,500000 | -7033,34 |
| 75 | 0,00000 | STR_SLU_1 | 1174,6884 | 13367,80 | 1 | -0,350000 | -0,500000 | -15400,08 |
| 75 | 0,10000 | STR_SLU_1 | 1207,0433 | 13767,36 | 1 | -0,350000 | -0,500000 | -15792,89 |
| 75 | 0,20000 | STR_SLU_1 | 1239,5603 | 14168,90 | 1 | -0,350000 | -0,500000 | -16187,68 |
| 75 | 0,00000 | STR_SLU_2 | 591,1345 | 6886,24 | 1 | -0,350000 | -0,500000 | -7590,53 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|------------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 75 | 0,10000 | STR_SLU_2 | 626,3638 | 7320,12 | 1 | -0,350000 | -0,500000 | -8019,40 |
| 75 | 0,20000 | STR_SLU_2 | 661,8361 | 7756,97 | 1 | -0,350000 | -0,500000 | -8451,26 |
| 76 | 0,00000 | q1_VAR TRAFF | 1,101E-13 | -366,52 | 1 | -0,350000 | -0,500000 | -366,52 |
| 76 | 0,50000 | q1_VAR TRAFF | -3,0524 | -329,14 | 3 | 0,350000 | -0,500000 | -403,89 |
| 76 | 1,00000 | q1_VAR TRAFF | -6,1047 | -291,77 | 3 | 0,350000 | -0,500000 | -441,27 |
| 76 | 0,00000 | G1+G2+G3 | -2,274E-13 | -609,64 | 3 | 0,350000 | -0,500000 | -609,64 |
| 76 | 0,50000 | G1+G2+G3 | 40,2805 | -103,91 | 1 | -0,350000 | -0,500000 | -1090,37 |
| 76 | 1,00000 | G1+G2+G3 | 55,4021 | 93,75 | 1 | -0,350000 | -0,500000 | -1263,04 |
| 76 | 0,00000 | STR_SLU_1 | -1,924E-13 | -1352,53 | 3 | 0,350000 | -0,500000 | -1352,53 |
| 76 | 0,50000 | STR_SLU_1 | 35,1006 | -905,85 | 1 | -0,350000 | -0,500000 | -1765,46 |
| 76 | 1,00000 | STR_SLU_1 | 45,0422 | -767,24 | 1 | -0,350000 | -0,500000 | -1870,32 |
| 76 | 0,00000 | STR_SLU_2 | -2,274E-13 | -609,64 | 3 | 0,350000 | -0,500000 | -609,64 |
| 76 | 0,50000 | STR_SLU_2 | 61,5977 | 157,12 | 1 | -0,350000 | -0,500000 | -1351,40 |
| 76 | 1,00000 | STR_SLU_2 | 85,4570 | 461,77 | 1 | -0,350000 | -0,500000 | -1631,05 |
| 77 | 0,00000 | q1_VAR TRAFF | -6,1047 | -291,77 | 3 | 0,350000 | -0,500000 | -441,27 |
| 77 | 0,50000 | q1_VAR TRAFF | -17,7529 | -149,13 | 3 | 0,350000 | -0,500000 | -583,90 |
| 77 | 1,00000 | q1_VAR TRAFF | -29,4010 | -6,50 | 3 | 0,350000 | -0,500000 | -726,53 |
| 77 | 0,00000 | G1+G2+G3 | 55,4021 | 93,75 | 1 | -0,350000 | -0,500000 | -1263,04 |
| 77 | 0,50000 | G1+G2+G3 | 123,1178 | 935,42 | 1 | -0,350000 | -0,500000 | -2079,71 |
| 77 | 1,00000 | G1+G2+G3 | 167,8069 | 1495,14 | 1 | -0,350000 | -0,500000 | -2614,42 |
| 77 | 0,00000 | STR_SLU_1 | 45,0422 | -767,24 | 1 | -0,350000 | -0,500000 | -1870,32 |
| 77 | 0,50000 | STR_SLU_1 | 92,9908 | -163,24 | 1 | -0,350000 | -0,500000 | -2440,57 |
| 77 | 1,00000 | STR_SLU_1 | 117,9126 | 158,80 | 1 | -0,350000 | -0,500000 | -2728,86 |
| 77 | 0,00000 | STR_SLU_2 | 85,4570 | 461,77 | 1 | -0,350000 | -0,500000 | -1631,05 |
| 77 | 0,50000 | STR_SLU_2 | 191,5219 | 1773,02 | 1 | -0,350000 | -0,500000 | -2917,31 |
| 77 | 1,00000 | STR_SLU_2 | 263,0468 | 2661,34 | 1 | -0,350000 | -0,500000 | -3780,62 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 78 | 0,00000 | q1_VAR TRAFF | -29,4010 | -6,50 | 3 | 0,350000 | -0,500000 | -726,53 |
| 78 | 0,50000 | q1_VAR TRAFF | -48,7125 | 229,96 | 3 | 0,350000 | -0,500000 | -963,00 |
| 78 | 1,00000 | q1_VAR TRAFF | -68,0239 | 466,43 | 3 | 0,350000 | -0,500000 | -1199,46 |
| 78 | 0,00000 | G1+G2+G3 | 167,8069 | 1495,14 | 1 | -0,350000 | -0,500000 | -2614,42 |
| 78 | 0,50000 | G1+G2+G3 | 236,9079 | 2353,77 | 1 | -0,350000 | -0,500000 | -3448,06 |
| 78 | 1,00000 | G1+G2+G3 | 285,1141 | 2956,55 | 1 | -0,350000 | -0,500000 | -4025,84 |
| 78 | 0,00000 | STR_SLU_1 | 117,9126 | 158,80 | 1 | -0,350000 | -0,500000 | -2728,86 |
| 78 | 0,50000 | STR_SLU_1 | 154,2417 | 620,52 | 1 | -0,350000 | -0,500000 | -3156,83 |
| 78 | 1,00000 | STR_SLU_1 | 169,6760 | 826,39 | 1 | -0,350000 | -0,500000 | -3328,95 |
| 78 | 0,00000 | STR_SLU_2 | 263,0468 | 2661,34 | 1 | -0,350000 | -0,500000 | -3780,62 |
| 78 | 0,50000 | STR_SLU_2 | 374,1444 | 4034,22 | 1 | -0,350000 | -0,500000 | -5128,50 |
| 78 | 1,00000 | STR_SLU_2 | 453,9000 | 5023,32 | 1 | -0,350000 | -0,500000 | -6092,60 |
| 79 | 0,00000 | q1_VAR TRAFF | -68,0239 | 466,43 | 3 | 0,350000 | -0,500000 | -1199,46 |
| 79 | 0,25000 | q1_VAR TRAFF | -79,3483 | 605,10 | 3 | 0,350000 | -0,500000 | -1338,13 |
| 79 | 0,50000 | q1_VAR TRAFF | -90,6727 | 743,76 | 3 | 0,350000 | -0,500000 | -1476,79 |
| 79 | 0,00000 | G1+G2+G3 | 285,1141 | 2956,55 | 1 | -0,350000 | -0,500000 | -4025,84 |
| 79 | 0,25000 | G1+G2+G3 | 309,2178 | 3257,95 | 1 | -0,350000 | -0,500000 | -4314,73 |
| 79 | 0,50000 | G1+G2+G3 | 328,4975 | 3500,28 | 1 | -0,350000 | -0,500000 | -4544,56 |
| 79 | 0,00000 | STR_SLU_1 | 169,6760 | 826,39 | 1 | -0,350000 | -0,500000 | -3328,95 |
| 79 | 0,25000 | STR_SLU_1 | 174,5619 | 894,65 | 1 | -0,350000 | -0,500000 | -3380,33 |
| 79 | 0,50000 | STR_SLU_1 | 174,6238 | 903,85 | 1 | -0,350000 | -0,500000 | -3372,66 |
| 79 | 0,00000 | STR_SLU_2 | 453,9000 | 5023,32 | 1 | -0,350000 | -0,500000 | -6092,60 |
| 79 | 0,25000 | STR_SLU_2 | 494,4219 | 5525,75 | 1 | -0,350000 | -0,500000 | -6582,54 |
| 79 | 0,50000 | STR_SLU_2 | 527,7079 | 5939,59 | 1 | -0,350000 | -0,500000 | -6983,87 |
| 80 | 0,00000 | q1_VAR TRAFF | -90,6727 | 743,76 | 3 | 0,350000 | -0,500000 | -1476,79 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 80 | 0,22500 | q1_VAR TRAFF | -100,8647 | 868,56 | 3 | 0,350000 | -0,500000 | -1601,59 |
| 80 | 0,45000 | q1_VAR TRAFF | -111,0566 | 993,36 | 3 | 0,350000 | -0,500000 | -1726,39 |
| 80 | 0,00000 | G1+G2+G3 | 328,4975 | 3500,28 | 1 | -0,350000 | -0,500000 | -4544,56 |
| 80 | 0,22500 | G1+G2+G3 | 341,8273 | 3669,12 | 1 | -0,350000 | -0,500000 | -4702,16 |
| 80 | 0,45000 | G1+G2+G3 | 351,4548 | 3792,64 | 1 | -0,350000 | -0,500000 | -4814,42 |
| 80 | 0,00000 | STR_SLU_1 | 174,6238 | 903,85 | 1 | -0,350000 | -0,500000 | -3372,66 |
| 80 | 0,22500 | STR_SLU_1 | 170,6576 | 862,87 | 1 | -0,350000 | -0,500000 | -3316,50 |
| 80 | 0,45000 | STR_SLU_1 | 162,9891 | 776,57 | 1 | -0,350000 | -0,500000 | -3215,00 |
| 80 | 0,00000 | STR_SLU_2 | 527,7079 | 5939,59 | 1 | -0,350000 | -0,500000 | -6983,87 |
| 80 | 0,22500 | STR_SLU_2 | 551,6325 | 6238,17 | 1 | -0,350000 | -0,500000 | -7271,20 |
| 80 | 0,45000 | STR_SLU_2 | 570,0035 | 6468,74 | 1 | -0,350000 | -0,500000 | -7490,53 |
| 81 | 0,00000 | q1_VAR TRAFF | -111,0566 | 993,36 | 3 | 0,350000 | -0,500000 | -1726,39 |
| 81 | 0,17500 | q1_VAR TRAFF | -118,9837 | 1090,43 | 3 | 0,350000 | -0,500000 | -1823,46 |
| 81 | 0,35000 | q1_VAR TRAFF | -126,9108 | 1187,49 | 3 | 0,350000 | -0,500000 | -1920,53 |
| 81 | 0,00000 | G1+G2+G3 | 351,4548 | 3792,64 | 1 | -0,350000 | -0,500000 | -4814,42 |
| 81 | 0,17500 | G1+G2+G3 | 356,4355 | 3858,00 | 1 | -0,350000 | -0,500000 | -4871,03 |
| 81 | 0,35000 | G1+G2+G3 | 359,2810 | 3897,22 | 1 | -0,350000 | -0,500000 | -4901,50 |
| 81 | 0,00000 | STR_SLU_1 | 162,9891 | 776,57 | 1 | -0,350000 | -0,500000 | -3215,00 |
| 81 | 0,17500 | STR_SLU_1 | 154,5173 | 678,74 | 1 | -0,350000 | -0,500000 | -3105,36 |
| 81 | 0,35000 | STR_SLU_1 | 143,9104 | 554,76 | 1 | -0,350000 | -0,500000 | -2969,57 |
| 81 | 0,00000 | STR_SLU_2 | 570,0035 | 6468,74 | 1 | -0,350000 | -0,500000 | -7490,53 |
| 81 | 0,17500 | STR_SLU_2 | 580,5311 | 6602,03 | 1 | -0,350000 | -0,500000 | -7615,06 |
| 81 | 0,35000 | STR_SLU_2 | 587,8559 | 6696,09 | 1 | -0,350000 | -0,500000 | -7700,38 |
| 82 | 0,00000 | q1_VAR TRAFF | -126,9108 | 1187,49 | 3 | 0,350000 | -0,500000 | -1920,53 |
| 82 | 0,50000 | q1_VAR TRAFF | -149,5596 | 1464,83 | 3 | 0,350000 | -0,500000 | -2197,86 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 82 | 1,00000 | q1_VAR TRAFF | -172,2085 | 1742,16 | 3 | 0,350000 | -0,500000 | -2475,19 |
| 82 | 0,00000 | G1+G2+G3 | 359,2810 | 3897,22 | 1 | -0,350000 | -0,500000 | -4901,50 |
| 82 | 0,50000 | G1+G2+G3 | 356,3652 | 3874,01 | 1 | -0,350000 | -0,500000 | -4853,30 |
| 82 | 1,00000 | G1+G2+G3 | 337,4585 | 3655,00 | 1 | -0,350000 | -0,500000 | -4609,29 |
| 82 | 0,00000 | STR_SLU_1 | 143,9104 | 554,76 | 1 | -0,350000 | -0,500000 | -2969,57 |
| 82 | 0,50000 | STR_SLU_1 | 102,5591 | 65,30 | 1 | -0,350000 | -0,500000 | -2446,35 |
| 82 | 1,00000 | STR_SLU_1 | 45,2168 | -619,98 | 1 | -0,350000 | -0,500000 | -1727,33 |
| 82 | 0,00000 | STR_SLU_2 | 587,8559 | 6696,09 | 1 | -0,350000 | -0,500000 | -7700,38 |
| 82 | 0,50000 | STR_SLU_2 | 592,2153 | 6761,97 | 1 | -0,350000 | -0,500000 | -7741,26 |
| 82 | 1,00000 | STR_SLU_2 | 572,5881 | 6534,14 | 1 | -0,350000 | -0,500000 | -7488,43 |
| 83 | 0,00000 | q1_VAR TRAFF | -172,2085 | 1742,16 | 3 | 0,350000 | -0,500000 | -2475,19 |
| 83 | 0,50000 | q1_VAR TRAFF | -194,8573 | 2019,49 | 3 | 0,350000 | -0,500000 | -2752,52 |
| 83 | 1,00000 | q1_VAR TRAFF | -217,5061 | 2296,82 | 3 | 0,350000 | -0,500000 | -3029,86 |
| 83 | 0,00000 | G1+G2+G3 | 337,4585 | 3655,00 | 1 | -0,350000 | -0,500000 | -4609,29 |
| 83 | 0,50000 | G1+G2+G3 | 303,6269 | 3253,24 | 1 | -0,350000 | -0,500000 | -4182,52 |
| 83 | 1,00000 | G1+G2+G3 | 255,9365 | 2681,77 | 1 | -0,350000 | -0,500000 | -3586,06 |
| 83 | 0,00000 | STR_SLU_1 | 45,2168 | -619,98 | 1 | -0,350000 | -0,500000 | -1727,33 |
| 83 | 0,50000 | STR_SLU_1 | -27,0504 | -825,55 | 3 | 0,350000 | -0,500000 | -1488,01 |
| 83 | 1,00000 | STR_SLU_1 | -113,1764 | 245,93 | 3 | 0,350000 | -0,500000 | -2525,74 |
| 83 | 0,00000 | STR_SLU_2 | 572,5881 | 6534,14 | 1 | -0,350000 | -0,500000 | -7488,43 |
| 83 | 0,50000 | STR_SLU_2 | 530,5737 | 6032,18 | 1 | -0,350000 | -0,500000 | -6961,46 |
| 83 | 1,00000 | STR_SLU_2 | 467,7711 | 5275,67 | 1 | -0,350000 | -0,500000 | -6179,95 |
| 84 | 0,00000 | q1_VAR TRAFF | -217,5061 | 2296,82 | 3 | 0,350000 | -0,500000 | -3029,86 |
| 84 | 0,50000 | q1_VAR TRAFF | -240,1549 | 2574,16 | 3 | 0,350000 | -0,500000 | -3307,19 |
| 84 | 1,00000 | q1_VAR TRAFF | -262,8037 | 2851,49 | 3 | 0,350000 | -0,500000 | -3584,52 |
| 84 | 0,00000 | G1+G2+G3 | 255,9365 | 2681,77 | 1 | -0,350000 | -0,500000 | -3586,06 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 | S11Max | PtS11Max | x2S11Max | x3S11Max | S11Min |
|-------|--------------|-----------------|-----------|-------------------|----------|-----------|-----------|-------------------|
| | | | KN-m | KN/m ² | | m | m | KN/m ² |
| 84 | 0,50000 | G1+G2+G3 | 195,4534 | 1953,66 | 1 | -0,350000 | -0,500000 | -2832,95 |
| 84 | 1,00000 | G1+G2+G3 | 123,2436 | 1081,96 | 1 | -0,350000 | -0,500000 | -1936,25 |
| 84 | 0,00000 | STR_SLU_1 | -113,1764 | 245,93 | 3 | 0,350000 | -0,500000 | -2525,74 |
| 84 | 0,50000 | STR_SLU_1 | -212,0950 | 1474,05 | 3 | 0,350000 | -0,500000 | -3720,11 |
| 84 | 1,00000 | STR_SLU_1 | -322,7405 | 2845,77 | 3 | 0,350000 | -0,500000 | -5058,08 |
| 84 | 0,00000 | STR_SLU_2 | 467,7711 | 5275,67 | 1 | -0,350000 | -0,500000 | -6179,95 |
| 84 | 0,50000 | STR_SLU_2 | 385,7794 | 4284,19 | 1 | -0,350000 | -0,500000 | -5163,47 |
| 84 | 1,00000 | STR_SLU_2 | 286,1976 | 3077,32 | 1 | -0,350000 | -0,500000 | -3931,60 |
| 85 | 0,00000 | q1_VAR TRAFF | -262,8037 | 2851,49 | 3 | 0,350000 | -0,500000 | -3584,52 |
| 85 | 0,50000 | q1_VAR TRAFF | -285,4525 | 3128,82 | 3 | 0,350000 | -0,500000 | -3861,85 |
| 85 | 1,00000 | q1_VAR TRAFF | -308,1014 | 3406,15 | 3 | 0,350000 | -0,500000 | -4139,19 |
| 85 | 0,00000 | G1+G2+G3 | 123,2436 | 1081,96 | 1 | -0,350000 | -0,500000 | -1936,25 |
| 85 | 0,50000 | G1+G2+G3 | 40,3731 | 79,72 | 1 | -0,350000 | -0,500000 | -909,01 |
| 85 | 1,00000 | G1+G2+G3 | -52,0919 | 235,72 | 3 | 0,350000 | -0,500000 | -1040,00 |
| 85 | 0,00000 | STR_SLU_1 | -322,7405 | 2845,77 | 3 | 0,350000 | -0,500000 | -5058,08 |
| 85 | 0,50000 | STR_SLU_1 | -444,0465 | 4348,02 | 3 | 0,350000 | -0,500000 | -6526,58 |
| 85 | 1,00000 | STR_SLU_1 | -574,9471 | 5967,76 | 3 | 0,350000 | -0,500000 | -8112,57 |
| 85 | 0,00000 | STR_SLU_2 | 286,1976 | 3077,32 | 1 | -0,350000 | -0,500000 | -3931,60 |
| 85 | 0,50000 | STR_SLU_2 | 170,6248 | 1674,64 | 1 | -0,350000 | -0,500000 | -2503,93 |
| 85 | 1,00000 | STR_SLU_2 | 40,6603 | 95,74 | 1 | -0,350000 | -0,500000 | -900,02 |
| 86 | 0,00000 | q1_VAR TRAFF | -308,1014 | 3406,15 | 3 | 0,350000 | -0,500000 | -4139,19 |
| 86 | 0,50000 | q1_VAR TRAFF | -330,7502 | 3683,49 | 3 | 0,350000 | -0,500000 | -4416,52 |
| 86 | 1,00000 | q1_VAR TRAFF | -353,3990 | 3960,82 | 3 | 0,350000 | -0,500000 | -4693,85 |
| 86 | 0,00000 | G1+G2+G3 | -52,0919 | 235,72 | 3 | 0,350000 | -0,500000 | -1040,00 |
| 86 | 0,50000 | G1+G2+G3 | -153,0854 | 1484,87 | 3 | 0,350000 | -0,500000 | -2264,16 |
| 86 | 1,00000 | G1+G2+G3 | -261,5414 | 2825,40 | 3 | 0,350000 | -0,500000 | -3579,69 |
| 86 | 0,00000 | STR_SLU_1 | -574,9471 | 5967,76 | 3 | 0,350000 | -0,500000 | -8112,57 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|-----------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 86 | 0,50000 | STR_SLU_1 | -714,3761 | 7691,93 | 3 | 0,350000 | -0,500000 | -9802,99 |
| 86 | 1,00000 | STR_SLU_1 | -861,2677 | 9507,48 | 3 | 0,350000 | -0,500000 | -11584,79 |
| 86 | 0,00000 | STR_SLU_2 | 40,6603 | 95,74 | 1 | -0,350000 | -0,500000 | -900,02 |
| 86 | 0,50000 | STR_SLU_2 | -102,0970 | 860,52 | 3 | 0,350000 | -0,500000 | -1639,81 |
| 86 | 1,00000 | STR_SLU_2 | -256,0480 | 2758,14 | 3 | 0,350000 | -0,500000 | -3512,42 |
| 87 | 0,00000 | q1_VAR TRAFF | -353,3990 | 3960,82 | 3 | 0,350000 | -0,500000 | -4693,85 |
| 87 | 0,50000 | q1_VAR TRAFF | -376,0478 | 4238,15 | 3 | 0,350000 | -0,500000 | -4971,18 |
| 87 | 1,00000 | q1_VAR TRAFF | -398,6966 | 4515,48 | 3 | 0,350000 | -0,500000 | -5248,52 |
| 87 | 0,00000 | G1+G2+G3 | -261,5414 | 2825,40 | 3 | 0,350000 | -0,500000 | -3579,69 |
| 87 | 0,50000 | G1+G2+G3 | -376,3937 | 4244,26 | 3 | 0,350000 | -0,500000 | -4973,55 |
| 87 | 1,00000 | G1+G2+G3 | -496,5764 | 5728,38 | 3 | 0,350000 | -0,500000 | -6432,67 |
| 87 | 0,00000 | STR_SLU_1 | -861,2677 | 9507,48 | 3 | 0,350000 | -0,500000 | -11584,79 |
| 87 | 0,50000 | STR_SLU_1 | -1014,5556 | 11401,35 | 3 | 0,350000 | -0,500000 | -13444,91 |
| 87 | 1,00000 | STR_SLU_1 | -1173,1738 | 13360,49 | 3 | 0,350000 | -0,500000 | -15370,30 |
| 87 | 0,00000 | STR_SLU_2 | -256,0480 | 2758,14 | 3 | 0,350000 | -0,500000 | -3512,42 |
| 87 | 0,50000 | STR_SLU_2 | -419,5936 | 4773,24 | 3 | 0,350000 | -0,500000 | -5502,52 |
| 87 | 1,00000 | STR_SLU_2 | -591,1345 | 6886,24 | 3 | 0,350000 | -0,500000 | -7590,53 |
| 88 | 0,00000 | q1_VAR TRAFF | -398,6966 | 4515,48 | 3 | 0,350000 | -0,500000 | -5248,52 |
| 88 | 0,10000 | q1_VAR TRAFF | -403,2264 | 4570,95 | 3 | 0,350000 | -0,500000 | -5303,98 |
| 88 | 0,20000 | q1_VAR TRAFF | -407,7562 | 4626,42 | 3 | 0,350000 | -0,500000 | -5359,45 |
| 88 | 0,00000 | G1+G2+G3 | -496,5764 | 5728,38 | 3 | 0,350000 | -0,500000 | -6432,67 |
| 88 | 0,10000 | G1+G2+G3 | -521,2269 | 6032,73 | 3 | 0,350000 | -0,500000 | -6732,01 |
| 88 | 0,20000 | G1+G2+G3 | -546,0395 | 6339,06 | 3 | 0,350000 | -0,500000 | -7033,34 |
| 88 | 0,00000 | STR_SLU_1 | -1173,1738 | 13360,49 | 3 | 0,350000 | -0,500000 | -15370,30 |
| 88 | 0,10000 | STR_SLU_1 | -1205,5115 | 13759,84 | 3 | 0,350000 | -0,500000 | -15762,89 |
| 88 | 0,20000 | STR_SLU_1 | -1238,0112 | 14161,17 | 3 | 0,350000 | -0,500000 | -16157,48 |
| 88 | 0,00000 | STR_SLU_2 | -591,1345 | 6886,24 | 3 | 0,350000 | -0,500000 | -7590,53 |

Table: Element Forces - Frames, Part 2 of 3

| Frame | Station m | OutputCase | M3 KN-m | S11Max KN/m2 | PtS11Max | x2S11Max m | x3S11Max m | S11Min KN/m2 |
|-------|--------------|------------|------------|-----------------|----------|---------------|---------------|-----------------|
| 88 | 0,10000 | STR_SLU_2 | -626,3638 | 7320,12 | 3 | 0,350000 | -0,500000 | -8019,40 |
| 88 | 0,20000 | STR_SLU_2 | -661,8361 | 7756,97 | 3 | 0,350000 | -0,500000 | -8451,26 |

Table: Element Forces - Frames, Part 3 of 3

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 1 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 1-1 | 0,00000 |
| 1 | 0,35000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 1-1 | 0,35000 |
| 1 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 1-1 | 0,00000 |
| 1 | 0,35000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 1-1 | 0,35000 |
| 1 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 1-1 | 0,00000 |
| 1 | 0,35000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 1-1 | 0,35000 |
| 1 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 1-1 | 0,00000 |
| 1 | 0,35000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 1-1 | 0,35000 |
| 2 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 2-1 | 0,00000 |
| 2 | 0,15000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 2-1 | 0,15000 |
| 2 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 2-1 | 0,00000 |
| 2 | 0,15000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 2-1 | 0,15000 |
| 2 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 2-1 | 0,00000 |
| 2 | 0,15000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 2-1 | 0,15000 |
| 2 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 2-1 | 0,00000 |
| 2 | 0,15000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 2-1 | 0,15000 |
| 3 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 3-1 | 0,00000 |
| 3 | 0,15000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 3-1 | 0,15000 |
| 3 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 3-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 3 | 0,15000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 3-1 | 0,15000 |
| 3 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 3-1 | 0,00000 |
| 3 | 0,15000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 3-1 | 0,15000 |
| 3 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 3-1 | 0,00000 |
| 3 | 0,15000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 3-1 | 0,15000 |
| 5 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 5-1 | 0,00000 |
| 5 | 0,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 5-1 | 0,50000 |
| 5 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 5-1 | 0,00000 |
| 5 | 0,50000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 5-1 | 0,50000 |
| 5 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 5-1 | 0,00000 |
| 5 | 0,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 5-1 | 0,50000 |
| 5 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 5-1 | 0,00000 |
| 5 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 5-1 | 0,50000 |
| 6 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 6-1 | 0,00000 |
| 6 | 0,20000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 6-1 | 0,20000 |
| 6 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 6-1 | 0,00000 |
| 6 | 0,20000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 6-1 | 0,20000 |
| 6 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 6-1 | 0,00000 |
| 6 | 0,20000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 6-1 | 0,20000 |
| 6 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 6-1 | 0,00000 |
| 6 | 0,20000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 6-1 | 0,20000 |
| 7 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 7-1 | 0,00000 |
| 7 | 0,30000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 7-1 | 0,30000 |
| 7 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 7-1 | 0,00000 |
| 7 | 0,30000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 7-1 | 0,30000 |
| 7 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 7-1 | 0,00000 |
| 7 | 0,30000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 7-1 | 0,30000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 7 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 7-1 | 0,00000 |
| 7 | 0,30000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 7-1 | 0,30000 |
| 8 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 8-1 | 0,00000 |
| 8 | 0,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 8-1 | 0,50000 |
| 8 | 1,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 8-1 | 1,00000 |
| 8 | 1,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 8-1 | 1,50000 |
| 8 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 8-1 | 0,00000 |
| 8 | 0,50000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 8-1 | 0,50000 |
| 8 | 1,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 8-1 | 1,00000 |
| 8 | 1,50000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 8-1 | 1,50000 |
| 8 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 8-1 | 0,00000 |
| 8 | 0,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 8-1 | 0,50000 |
| 8 | 1,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 8-1 | 1,00000 |
| 8 | 1,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 8-1 | 1,50000 |
| 8 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 8-1 | 0,00000 |
| 8 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 8-1 | 0,50000 |
| 8 | 1,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 8-1 | 1,00000 |
| 8 | 1,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 8-1 | 1,50000 |
| 9 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 9-1 | 0,00000 |
| 9 | 0,25000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 9-1 | 0,25000 |
| 9 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 9-1 | 0,00000 |
| 9 | 0,25000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 9-1 | 0,25000 |
| 9 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 9-1 | 0,00000 |
| 9 | 0,25000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 9-1 | 0,25000 |
| 9 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 9-1 | 0,00000 |
| 9 | 0,25000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 9-1 | 0,25000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 10 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 10-1 | 0,00000 |
| 10 | 0,05000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 10-1 | 0,05000 |
| 10 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 10-1 | 0,00000 |
| 10 | 0,05000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 10-1 | 0,05000 |
| 10 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 10-1 | 0,00000 |
| 10 | 0,05000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 10-1 | 0,05000 |
| 10 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 10-1 | 0,00000 |
| 10 | 0,05000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 10-1 | 0,05000 |
| 11 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 11-1 | 0,00000 |
| 11 | 0,20000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 11-1 | 0,20000 |
| 11 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 11-1 | 0,00000 |
| 11 | 0,20000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 11-1 | 0,20000 |
| 11 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 11-1 | 0,00000 |
| 11 | 0,20000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 11-1 | 0,20000 |
| 11 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 11-1 | 0,00000 |
| 11 | 0,20000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 11-1 | 0,20000 |
| 12 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 12-1 | 0,00000 |
| 12 | 0,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 12-1 | 0,50000 |
| 12 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 12-1 | 0,00000 |
| 12 | 0,50000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 12-1 | 0,50000 |
| 12 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 12-1 | 0,00000 |
| 12 | 0,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 12-1 | 0,50000 |
| 12 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 12-1 | 0,00000 |
| 12 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 12-1 | 0,50000 |
| 13 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 13-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 13 | 0,20000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 13-1 | 0,20000 |
| 13 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 13-1 | 0,00000 |
| 13 | 0,20000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 13-1 | 0,20000 |
| 13 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 13-1 | 0,00000 |
| 13 | 0,20000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 13-1 | 0,20000 |
| 13 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 13-1 | 0,00000 |
| 13 | 0,20000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 13-1 | 0,20000 |
| 14 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 14-1 | 0,00000 |
| 14 | 0,30000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 14-1 | 0,30000 |
| 14 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 14-1 | 0,00000 |
| 14 | 0,30000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 14-1 | 0,30000 |
| 14 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 14-1 | 0,00000 |
| 14 | 0,30000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 14-1 | 0,30000 |
| 14 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 14-1 | 0,00000 |
| 14 | 0,30000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 14-1 | 0,30000 |
| 15 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 15-1 | 0,00000 |
| 15 | 0,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 15-1 | 0,50000 |
| 15 | 1,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 15-1 | 1,00000 |
| 15 | 1,50000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 15-1 | 1,50000 |
| 15 | 0,00000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 15-1 | 0,00000 |
| 15 | 0,50000 | G1+G2+G3 | 3 | 0,300000 | -0,500000 | 15-1 | 0,50000 |
| 15 | 1,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 15-1 | 1,00000 |
| 15 | 1,50000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 15-1 | 1,50000 |
| 15 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 15-1 | 0,00000 |
| 15 | 0,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 15-1 | 0,50000 |
| 15 | 1,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 15-1 | 1,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 15 | 1,50000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 15-1 | 1,50000 |
| 15 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 15-1 | 0,00000 |
| 15 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 15-1 | 0,50000 |
| 15 | 1,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 15-1 | 1,00000 |
| 15 | 1,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 15-1 | 1,50000 |
| 16 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 16-1 | 0,00000 |
| 16 | 0,30000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 16-1 | 0,30000 |
| 16 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 16-1 | 0,00000 |
| 16 | 0,30000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 16-1 | 0,30000 |
| 16 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 16-1 | 0,00000 |
| 16 | 0,30000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 16-1 | 0,30000 |
| 16 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 16-1 | 0,00000 |
| 16 | 0,30000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 16-1 | 0,30000 |
| 17 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 17-1 | 0,00000 |
| 17 | 0,20000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 17-1 | 0,20000 |
| 17 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 17-1 | 0,00000 |
| 17 | 0,20000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 17-1 | 0,20000 |
| 17 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 17-1 | 0,00000 |
| 17 | 0,20000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 17-1 | 0,20000 |
| 17 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 17-1 | 0,00000 |
| 17 | 0,20000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 17-1 | 0,20000 |
| 18 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 18-1 | 0,00000 |
| 18 | 0,50000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 18-1 | 0,50000 |
| 18 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 18-1 | 0,00000 |
| 18 | 0,50000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 18-1 | 0,50000 |
| 18 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 18-1 | 0,00000 |
| 18 | 0,50000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 18-1 | 0,50000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 18 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 18-1 | 0,00000 |
| 18 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 18-1 | 0,50000 |
| 19 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 19-1 | 0,00000 |
| 19 | 0,38333 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 19-1 | 0,38333 |
| 19 | 0,76667 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 19-1 | 0,76667 |
| 19 | 1,15000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 19-1 | 1,15000 |
| 19 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 19-1 | 0,00000 |
| 19 | 0,38333 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 19-1 | 0,38333 |
| 19 | 0,76667 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 19-1 | 0,76667 |
| 19 | 1,15000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 19-1 | 1,15000 |
| 19 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 19-1 | 0,00000 |
| 19 | 0,38333 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 19-1 | 0,38333 |
| 19 | 0,76667 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 19-1 | 0,76667 |
| 19 | 1,15000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 19-1 | 1,15000 |
| 19 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 19-1 | 0,00000 |
| 19 | 0,38333 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 19-1 | 0,38333 |
| 19 | 0,76667 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 19-1 | 0,76667 |
| 19 | 1,15000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 19-1 | 1,15000 |
| 20 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 20-1 | 0,00000 |
| 20 | 0,50000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 20-1 | 0,50000 |
| 20 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 20-1 | 0,00000 |
| 20 | 0,50000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 20-1 | 0,50000 |
| 20 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 20-1 | 0,00000 |
| 20 | 0,50000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 20-1 | 0,50000 |
| 20 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 20-1 | 0,00000 |
| 20 | 0,50000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 20-1 | 0,50000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 28 | 0,00000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 28-1 | 0,00000 |
| 28 | 0,45000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 28-1 | 0,45000 |
| 28 | 0,90000 | q1_VAR TRAFF | 1 | -0,300000 | -0,500000 | 28-1 | 0,90000 |
| 28 | 1,35000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 28-1 | 1,35000 |
| 28 | 1,80000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 28-1 | 1,80000 |
| 28 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 28-1 | 0,00000 |
| 28 | 0,45000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 28-1 | 0,45000 |
| 28 | 0,90000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 28-1 | 0,90000 |
| 28 | 1,35000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 28-1 | 1,35000 |
| 28 | 1,80000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 28-1 | 1,80000 |
| 28 | 0,00000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 28-1 | 0,00000 |
| 28 | 0,45000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 28-1 | 0,45000 |
| 28 | 0,90000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 28-1 | 0,90000 |
| 28 | 1,35000 | STR_SLU_1 | 1 | -0,300000 | -0,500000 | 28-1 | 1,35000 |
| 28 | 1,80000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 28-1 | 1,80000 |
| 28 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 28-1 | 0,00000 |
| 28 | 0,45000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 28-1 | 0,45000 |
| 28 | 0,90000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 28-1 | 0,90000 |
| 28 | 1,35000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 28-1 | 1,35000 |
| 28 | 1,80000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 28-1 | 1,80000 |
| 29 | 0,00000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 29-1 | 0,00000 |
| 29 | 0,20000 | q1_VAR TRAFF | 3 | 0,300000 | -0,500000 | 29-1 | 0,20000 |
| 29 | 0,00000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 29-1 | 0,00000 |
| 29 | 0,20000 | G1+G2+G3 | 1 | -0,300000 | -0,500000 | 29-1 | 0,20000 |
| 29 | 0,00000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 29-1 | 0,00000 |
| 29 | 0,20000 | STR_SLU_1 | 3 | 0,300000 | -0,500000 | 29-1 | 0,20000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 29 | 0,00000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 29-1 | 0,00000 |
| 29 | 0,20000 | STR_SLU_2 | 1 | -0,300000 | -0,500000 | 29-1 | 0,20000 |
| 63 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 63-1 | 0,00000 |
| 63 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 63-1 | 0,50000 |
| 63 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 63-1 | 1,00000 |
| 63 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 63-1 | 0,00000 |
| 63 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 63-1 | 0,50000 |
| 63 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 63-1 | 1,00000 |
| 63 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 63-1 | 0,00000 |
| 63 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 63-1 | 0,50000 |
| 63 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 63-1 | 1,00000 |
| 63 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 63-1 | 0,00000 |
| 63 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 63-1 | 0,50000 |
| 63 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 63-1 | 1,00000 |
| 64 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 64-1 | 0,00000 |
| 64 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 64-1 | 0,50000 |
| 64 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 64-1 | 1,00000 |
| 64 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 64-1 | 0,00000 |
| 64 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 64-1 | 0,50000 |
| 64 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 64-1 | 1,00000 |
| 64 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 64-1 | 0,00000 |
| 64 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 64-1 | 0,50000 |
| 64 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 64-1 | 1,00000 |
| 64 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 64-1 | 0,00000 |
| 64 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 64-1 | 0,50000 |
| 64 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 64-1 | 1,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 65 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 65-1 | 0,00000 |
| 65 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 65-1 | 0,50000 |
| 65 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 65-1 | 1,00000 |
| 65 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 65-1 | 0,00000 |
| 65 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 65-1 | 0,50000 |
| 65 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 65-1 | 1,00000 |
| 65 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 65-1 | 0,00000 |
| 65 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 65-1 | 0,50000 |
| 65 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 65-1 | 1,00000 |
| 65 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 65-1 | 0,00000 |
| 65 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 65-1 | 0,50000 |
| 65 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 65-1 | 1,00000 |
| 66 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 66-1 | 0,00000 |
| 66 | 0,25000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 66-1 | 0,25000 |
| 66 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 66-1 | 0,50000 |
| 66 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 66-1 | 0,00000 |
| 66 | 0,25000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 66-1 | 0,25000 |
| 66 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 66-1 | 0,50000 |
| 66 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 66-1 | 0,00000 |
| 66 | 0,25000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 66-1 | 0,25000 |
| 66 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 66-1 | 0,50000 |
| 66 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 66-1 | 0,00000 |
| 66 | 0,25000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 66-1 | 0,25000 |
| 66 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 66-1 | 0,50000 |
| 67 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 67-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 67 | 0,22500 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 67-1 | 0,22500 |
| 67 | 0,45000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 67-1 | 0,45000 |
| 67 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 67-1 | 0,00000 |
| 67 | 0,22500 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 67-1 | 0,22500 |
| 67 | 0,45000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 67-1 | 0,45000 |
| 67 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 67-1 | 0,00000 |
| 67 | 0,22500 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 67-1 | 0,22500 |
| 67 | 0,45000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 67-1 | 0,45000 |
| 67 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 67-1 | 0,00000 |
| 67 | 0,22500 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 67-1 | 0,22500 |
| 67 | 0,45000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 67-1 | 0,45000 |
| 68 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 68-1 | 0,00000 |
| 68 | 0,17500 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 68-1 | 0,17500 |
| 68 | 0,35000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 68-1 | 0,35000 |
| 68 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 68-1 | 0,00000 |
| 68 | 0,17500 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 68-1 | 0,17500 |
| 68 | 0,35000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 68-1 | 0,35000 |
| 68 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 68-1 | 0,00000 |
| 68 | 0,17500 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 68-1 | 0,17500 |
| 68 | 0,35000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 68-1 | 0,35000 |
| 68 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 68-1 | 0,00000 |
| 68 | 0,17500 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 68-1 | 0,17500 |
| 68 | 0,35000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 68-1 | 0,35000 |
| 69 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 69-1 | 0,00000 |
| 69 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 69-1 | 0,50000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 69 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 69-1 | 1,00000 |
| 69 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 69-1 | 0,00000 |
| 69 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 69-1 | 0,50000 |
| 69 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 69-1 | 1,00000 |
| 69 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 69-1 | 0,00000 |
| 69 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 69-1 | 0,50000 |
| 69 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 69-1 | 1,00000 |
| 69 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 69-1 | 0,00000 |
| 69 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 69-1 | 0,50000 |
| 69 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 69-1 | 1,00000 |
| 70 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 70-1 | 0,00000 |
| 70 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 70-1 | 0,50000 |
| 70 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 70-1 | 1,00000 |
| 70 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 70-1 | 0,00000 |
| 70 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 70-1 | 0,50000 |
| 70 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 70-1 | 1,00000 |
| 70 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 70-1 | 0,00000 |
| 70 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 70-1 | 0,50000 |
| 70 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 70-1 | 1,00000 |
| 70 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 70-1 | 0,00000 |
| 70 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 70-1 | 0,50000 |
| 70 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 70-1 | 1,00000 |
| 71 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 71-1 | 0,00000 |
| 71 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 71-1 | 0,50000 |
| 71 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 71-1 | 1,00000 |
| 71 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 71-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 71 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 71-1 | 0,50000 |
| 71 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 71-1 | 1,00000 |
| 71 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 71-1 | 0,00000 |
| 71 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 71-1 | 0,50000 |
| 71 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 71-1 | 1,00000 |
| 71 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 71-1 | 0,00000 |
| 71 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 71-1 | 0,50000 |
| 71 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 71-1 | 1,00000 |
| 72 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 72-1 | 0,00000 |
| 72 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 72-1 | 0,50000 |
| 72 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 72-1 | 1,00000 |
| 72 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 72-1 | 0,00000 |
| 72 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 72-1 | 0,50000 |
| 72 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 72-1 | 1,00000 |
| 72 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 72-1 | 0,00000 |
| 72 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 72-1 | 0,50000 |
| 72 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 72-1 | 1,00000 |
| 72 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 72-1 | 0,00000 |
| 72 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 72-1 | 0,50000 |
| 72 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 72-1 | 1,00000 |
| 73 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 73-1 | 0,00000 |
| 73 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 73-1 | 0,50000 |
| 73 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 73-1 | 1,00000 |
| 73 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 73-1 | 0,00000 |
| 73 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 73-1 | 0,50000 |
| 73 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 73-1 | 1,00000 |
| 73 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 73-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 73 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 73-1 | 0,50000 |
| 73 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 73-1 | 1,00000 |
| 73 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 73-1 | 0,00000 |
| 73 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 73-1 | 0,50000 |
| 73 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 73-1 | 1,00000 |
| 74 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 74-1 | 0,00000 |
| 74 | 0,50000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 74-1 | 0,50000 |
| 74 | 1,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 74-1 | 1,00000 |
| 74 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 74-1 | 0,00000 |
| 74 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 74-1 | 0,50000 |
| 74 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 74-1 | 1,00000 |
| 74 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 74-1 | 0,00000 |
| 74 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 74-1 | 0,50000 |
| 74 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 74-1 | 1,00000 |
| 74 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 74-1 | 0,00000 |
| 74 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 74-1 | 0,50000 |
| 74 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 74-1 | 1,00000 |
| 75 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 75-1 | 0,00000 |
| 75 | 0,10000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 75-1 | 0,10000 |
| 75 | 0,20000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 75-1 | 0,20000 |
| 75 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 75-1 | 0,00000 |
| 75 | 0,10000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 75-1 | 0,10000 |
| 75 | 0,20000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 75-1 | 0,20000 |
| 75 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 75-1 | 0,00000 |
| 75 | 0,10000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 75-1 | 0,10000 |
| 75 | 0,20000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 75-1 | 0,20000 |
| 75 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 75-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 75 | 0,10000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 75-1 | 0,10000 |
| 75 | 0,20000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 75-1 | 0,20000 |
| 76 | 0,00000 | q1_VAR TRAFF | 3 | 0,350000 | -0,500000 | 76-1 | 0,00000 |
| 76 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 76-1 | 0,50000 |
| 76 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 76-1 | 1,00000 |
| 76 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 76-1 | 0,00000 |
| 76 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 76-1 | 0,50000 |
| 76 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 76-1 | 1,00000 |
| 76 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 76-1 | 0,00000 |
| 76 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 76-1 | 0,50000 |
| 76 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 76-1 | 1,00000 |
| 76 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 76-1 | 0,00000 |
| 76 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 76-1 | 0,50000 |
| 76 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 76-1 | 1,00000 |
| 77 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 77-1 | 0,00000 |
| 77 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 77-1 | 0,50000 |
| 77 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 77-1 | 1,00000 |
| 77 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 77-1 | 0,00000 |
| 77 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 77-1 | 0,50000 |
| 77 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 77-1 | 1,00000 |
| 77 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 77-1 | 0,00000 |
| 77 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 77-1 | 0,50000 |
| 77 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 77-1 | 1,00000 |
| 77 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 77-1 | 0,00000 |
| 77 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 77-1 | 0,50000 |
| 77 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 77-1 | 1,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 78 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 78-1 | 0,00000 |
| 78 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 78-1 | 0,50000 |
| 78 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 78-1 | 1,00000 |
| 78 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 78-1 | 0,00000 |
| 78 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 78-1 | 0,50000 |
| 78 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 78-1 | 1,00000 |
| 78 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 78-1 | 0,00000 |
| 78 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 78-1 | 0,50000 |
| 78 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 78-1 | 1,00000 |
| 78 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 78-1 | 0,00000 |
| 78 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 78-1 | 0,50000 |
| 78 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 78-1 | 1,00000 |
| 79 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 79-1 | 0,00000 |
| 79 | 0,25000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 79-1 | 0,25000 |
| 79 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 79-1 | 0,50000 |
| 79 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 79-1 | 0,00000 |
| 79 | 0,25000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 79-1 | 0,25000 |
| 79 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 79-1 | 0,50000 |
| 79 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 79-1 | 0,00000 |
| 79 | 0,25000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 79-1 | 0,25000 |
| 79 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 79-1 | 0,50000 |
| 79 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 79-1 | 0,00000 |
| 79 | 0,25000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 79-1 | 0,25000 |
| 79 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 79-1 | 0,50000 |
| 80 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 80-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 80 | 0,22500 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 80-1 | 0,22500 |
| 80 | 0,45000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 80-1 | 0,45000 |
| 80 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 80-1 | 0,00000 |
| 80 | 0,22500 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 80-1 | 0,22500 |
| 80 | 0,45000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 80-1 | 0,45000 |
| 80 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 80-1 | 0,00000 |
| 80 | 0,22500 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 80-1 | 0,22500 |
| 80 | 0,45000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 80-1 | 0,45000 |
| 80 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 80-1 | 0,00000 |
| 80 | 0,22500 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 80-1 | 0,22500 |
| 80 | 0,45000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 80-1 | 0,45000 |
| 81 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 81-1 | 0,00000 |
| 81 | 0,17500 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 81-1 | 0,17500 |
| 81 | 0,35000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 81-1 | 0,35000 |
| 81 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 81-1 | 0,00000 |
| 81 | 0,17500 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 81-1 | 0,17500 |
| 81 | 0,35000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 81-1 | 0,35000 |
| 81 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 81-1 | 0,00000 |
| 81 | 0,17500 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 81-1 | 0,17500 |
| 81 | 0,35000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 81-1 | 0,35000 |
| 81 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 81-1 | 0,00000 |
| 81 | 0,17500 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 81-1 | 0,17500 |
| 81 | 0,35000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 81-1 | 0,35000 |
| 82 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 82-1 | 0,00000 |
| 82 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 82-1 | 0,50000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 82 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 82-1 | 1,00000 |
| 82 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 82-1 | 0,00000 |
| 82 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 82-1 | 0,50000 |
| 82 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 82-1 | 1,00000 |
| 82 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 82-1 | 0,00000 |
| 82 | 0,50000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 82-1 | 0,50000 |
| 82 | 1,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 82-1 | 1,00000 |
| 82 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 82-1 | 0,00000 |
| 82 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 82-1 | 0,50000 |
| 82 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 82-1 | 1,00000 |
| 83 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 83-1 | 0,00000 |
| 83 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 83-1 | 0,50000 |
| 83 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 83-1 | 1,00000 |
| 83 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 83-1 | 0,00000 |
| 83 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 83-1 | 0,50000 |
| 83 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 83-1 | 1,00000 |
| 83 | 0,00000 | STR_SLU_1 | 3 | 0,350000 | -0,500000 | 83-1 | 0,00000 |
| 83 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 83-1 | 0,50000 |
| 83 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 83-1 | 1,00000 |
| 83 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 83-1 | 0,00000 |
| 83 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 83-1 | 0,50000 |
| 83 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 83-1 | 1,00000 |
| 84 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 84-1 | 0,00000 |
| 84 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 84-1 | 0,50000 |
| 84 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 84-1 | 1,00000 |
| 84 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 84-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 84 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 84-1 | 0,50000 |
| 84 | 1,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 84-1 | 1,00000 |
| 84 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 84-1 | 0,00000 |
| 84 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 84-1 | 0,50000 |
| 84 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 84-1 | 1,00000 |
| 84 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 84-1 | 0,00000 |
| 84 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 84-1 | 0,50000 |
| 84 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 84-1 | 1,00000 |
| 85 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 85-1 | 0,00000 |
| 85 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 85-1 | 0,50000 |
| 85 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 85-1 | 1,00000 |
| 85 | 0,00000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 85-1 | 0,00000 |
| 85 | 0,50000 | G1+G2+G3 | 3 | 0,350000 | -0,500000 | 85-1 | 0,50000 |
| 85 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 85-1 | 1,00000 |
| 85 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 85-1 | 0,00000 |
| 85 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 85-1 | 0,50000 |
| 85 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 85-1 | 1,00000 |
| 85 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 85-1 | 0,00000 |
| 85 | 0,50000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 85-1 | 0,50000 |
| 85 | 1,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 85-1 | 1,00000 |
| 86 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 86-1 | 0,00000 |
| 86 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 86-1 | 0,50000 |
| 86 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 86-1 | 1,00000 |
| 86 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 86-1 | 0,00000 |
| 86 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 86-1 | 0,50000 |
| 86 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 86-1 | 1,00000 |
| 86 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 86-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|-----------------|----------|---------------|---------------|-----------|------------------|
| 86 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 86-1 | 0,50000 |
| 86 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 86-1 | 1,00000 |
| 86 | 0,00000 | STR_SLU_2 | 3 | 0,350000 | -0,500000 | 86-1 | 0,00000 |
| 86 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 86-1 | 0,50000 |
| 86 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 86-1 | 1,00000 |
| 87 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 87-1 | 0,00000 |
| 87 | 0,50000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 87-1 | 0,50000 |
| 87 | 1,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 87-1 | 1,00000 |
| 87 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 87-1 | 0,00000 |
| 87 | 0,50000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 87-1 | 0,50000 |
| 87 | 1,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 87-1 | 1,00000 |
| 87 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 87-1 | 0,00000 |
| 87 | 0,50000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 87-1 | 0,50000 |
| 87 | 1,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 87-1 | 1,00000 |
| 87 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 87-1 | 0,00000 |
| 87 | 0,50000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 87-1 | 0,50000 |
| 87 | 1,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 87-1 | 1,00000 |
| 88 | 0,00000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 88-1 | 0,00000 |
| 88 | 0,10000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 88-1 | 0,10000 |
| 88 | 0,20000 | q1_VAR TRAFF | 1 | -0,350000 | -0,500000 | 88-1 | 0,20000 |
| 88 | 0,00000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 88-1 | 0,00000 |
| 88 | 0,10000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 88-1 | 0,10000 |
| 88 | 0,20000 | G1+G2+G3 | 1 | -0,350000 | -0,500000 | 88-1 | 0,20000 |
| 88 | 0,00000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 88-1 | 0,00000 |
| 88 | 0,10000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 88-1 | 0,10000 |
| 88 | 0,20000 | STR_SLU_1 | 1 | -0,350000 | -0,500000 | 88-1 | 0,20000 |
| 88 | 0,00000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 88-1 | 0,00000 |

Table: Element Forces - Frames, Part 3 of 3

| Frame | Station m | OutputCase | PtS11Min | x2S11Min m | x3S11Min m | FrameElem | ElemStation m |
|-------|--------------|------------|----------|---------------|---------------|-----------|------------------|
| 88 | 0,10000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 88-1 | 0,10000 |
| 88 | 0,20000 | STR_SLU_2 | 1 | -0,350000 | -0,500000 | 88-1 | 0,20000 |

Table: Joint Reactions

Table: Joint Reactions

| Joint | OutputCase | CaseType | F1 KN | F2 KN | F3 KN | M1 KN-m | M2 KN-m | M3 KN-m |
|-------|-----------------|-------------|----------|----------|----------|------------|------------|------------|
| 86 | q1_VAR TRAFF | Combination | -6,675 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 86 | G1+G2+G3 | Combination | 30,545 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 86 | STR_SLU_1 | Combination | 19,217 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 86 | STR_SLU_2 | Combination | 48,391 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 87 | q1_VAR TRAFF | Combination | 6,694 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 87 | G1+G2+G3 | Combination | -30,545 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 87 | STR_SLU_1 | Combination | -19,192 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 87 | STR_SLU_2 | Combination | -48,391 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 88 | q1_VAR TRAFF | Combination | -15,326 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 88 | G1+G2+G3 | Combination | 92,745 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 88 | STR_SLU_1 | Combination | 66,736 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 88 | STR_SLU_2 | Combination | 145,028 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 89 | q1_VAR TRAFF | Combination | 15,370 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 89 | G1+G2+G3 | Combination | -92,745 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 89 | STR_SLU_1 | Combination | -66,678 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 89 | STR_SLU_2 | Combination | -145,028 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 90 | q1_VAR TRAFF | Combination | -17,192 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 90 | G1+G2+G3 | Combination | 153,374 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 90 | STR_SLU_1 | Combination | 124,200 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 90 | STR_SLU_2 | Combination | 236,690 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |

Table: Joint Reactions

| Joint | OutputCase | CaseType | F1 | F2 | F3 | M1 | M2 | M3 |
|-------|-----------------|-------------|-----------|-------|---------|--------|--------|--------|
| | | | KN | KN | KN | KN-m | KN-m | KN-m |
| 91 | q1_VAR TRAFF | Combination | 17,240 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 91 | G1+G2+G3 | Combination | -153,374 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 91 | STR_SLU_1 | Combination | -124,134 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 91 | STR_SLU_2 | Combination | -236,690 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 92 | q1_VAR TRAFF | Combination | -0,127 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 92 | G1+G2+G3 | Combination | 7,319E-12 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 92 | STR_SLU_1 | Combination | -0,172 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 92 | STR_SLU_2 | Combination | 5,130E-12 | 0,000 | 0,000 | 0,0000 | 0,0000 | 0,0000 |
| 93 | q1_VAR TRAFF | Combination | -6,105 | 0,000 | 256,562 | 0,0000 | 0,0000 | 0,0000 |
| 93 | G1+G2+G3 | Combination | 105,720 | 0,000 | 426,750 | 0,0000 | 0,0000 | 0,0000 |
| 93 | STR_SLU_1 | Combination | 95,360 | 0,000 | 946,771 | 0,0000 | 0,0000 | 0,0000 |
| 93 | STR_SLU_2 | Combination | 160,934 | 0,000 | 426,750 | 0,0000 | 0,0000 | 0,0000 |
| 94 | q1_VAR TRAFF | Combination | 6,122 | 0,000 | 262,387 | 0,0000 | 0,0000 | 0,0000 |
| 94 | G1+G2+G3 | Combination | -105,720 | 0,000 | 426,750 | 0,0000 | 0,0000 | 0,0000 |
| 94 | STR_SLU_1 | Combination | -95,337 | 0,000 | 954,635 | 0,0000 | 0,0000 | 0,0000 |
| 94 | STR_SLU_2 | Combination | -160,934 | 0,000 | 426,750 | 0,0000 | 0,0000 | 0,0000 |

7 PASSERELLA CILOPEDONALE $L = 23.0\text{ m}$

Si affronta di seguito il predimensionamento della passerella ciclo-pedonale di lunghezza 23.0 m posta a scavalco della viabilità di nuova realizzazione in prossimità di Via del Macello.

La passerella viene realizzata con struttura mista acciaio-calcestruzzo.

La struttura della passerella è costituita da tre travi metalliche di altezza totale esterna pari a 1.0 m, collegate da traversi realizzati con travi in acciaio ad anima piena.

Il piano dell'impalcato viene realizzato con la posa di lastre predalle prefabbricate in calcestruzzo, ordite tra una trave e l'altra, e da successivo getto collaborante di calcestruzzo.

La soletta ha uno spessore totale pari a 25 cm

La collaborazione tra soletta in c.a. e travi metalliche viene garantita tramite opportuna piolatura.

La passerella è classificata come un ponte di 3^a categoria ed è pertanto soggetta ai carichi variabili individuati nello Schema di carico n.5 così come definito in N.T.C. 14.01.2008.

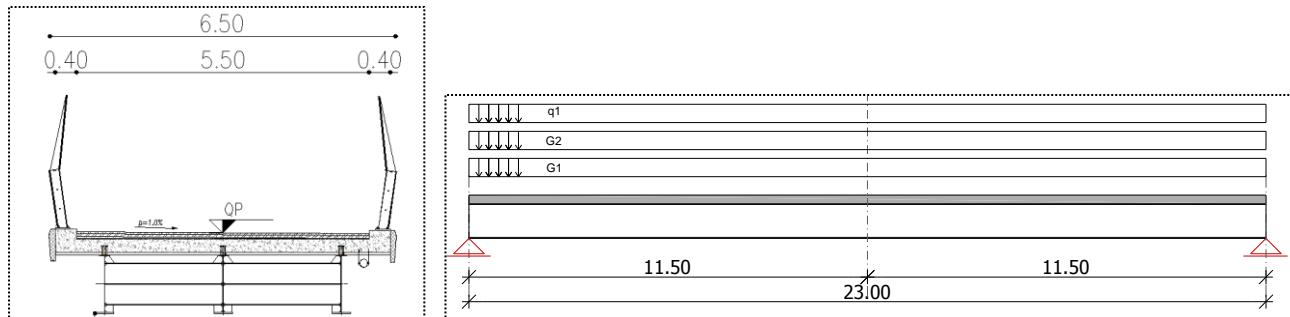
I materiali utilizzati sono:

Classe calcestruzzo soletta = C 32 / 40

Acciaio carpenteria metallica = S 355

7.1 Schema di calcolo ed analisi dei carichi

Per la passerella allo studio si considera uno schema statico di trave in semplice appoggio di luce pari a 23.0 m



Carichi permanenti strutturali:

P.p. strutture metalliche 2.00 kN/m²

G1_PP_ACC = 2.0*6.5*1.0 = 13.0 kN/m

Getto soletta impalcato 25.0*0.25 = 6.25 kN/m²

G1_PP_SOLETTA = 6.25*6.5*1.0 = 40.6 kN/m

G1 = 53.6 kN/m

Carichi permanenti portati:

Finiture impalcato 24*0.125 = 3.0 kN/m²

G2_PAV = 3.0*5.5*1.0 = 16.5 kN/m

Cordoli, barriere e velette

cordoli = 25*2*(0.50*0.171) = 4.25

Barriere e velette 2*(2.5*0.3+0.875) = 3.25

G2_FIN = 7.50 kN/m

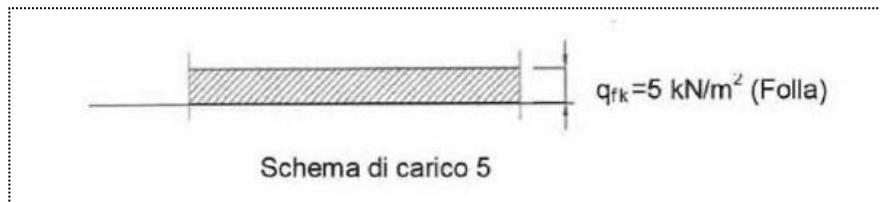
G2 = 24.00 kN/m

Carichi variabili dovuti alla folla compatta

Si sono adottati i carichi variabili con riferimento allo schema di carico n.5. come definito nel D.M. 14/01/2008:

Schema di carico variabile 1 (q_1) da adottarsi per verifiche globali:

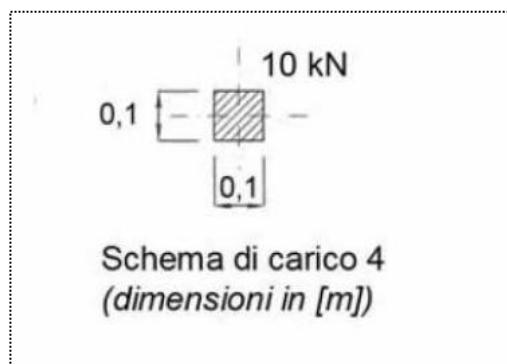
Si sono adottati i carichi variabili con riferimento allo schema di carico n.5. come definito nel D.M. 14/01/2008:



$$q_1 = 5 * 5.5 = 27.5 \text{ kN /m}$$

Schema di carico variabile 2 (q_2) da adottarsi per verifiche locali:

Per le verifiche locali si fa riferimento allo Schema di carico n.4.



7.2 Determinazione delle sollecitazioni di verifica

7.2.1 Fase 1 - pesi propri strutturali g1

Con il carico distribuito g1 si considera il contributo dovuto a:

$$\text{PP_ACC} = 13.0 \quad \text{kN / m}$$

$$\text{PP_soletta} = 40.6 \quad \text{kN / m}$$

$$g1 = 53.6 \quad \text{kN / m}$$

Massimo momento flettente positivo in mezzeria:

$$M_{g1\ max\ +} = 53.6 * 23^2 * 1/8 = 3\ 544.3 \quad \text{kNm}$$

sulla singola trave:

$$M_{g1_trave\ max\ +} = M_{g1\ max\ +} / 3 = 1\ 181.4 \quad \text{kNm}$$

$$M_{g1_trave\ max\ SLU\ +} = \gamma_F * M_{g1_trave\ max\ +} = 1.35 * 1\ 002 = 1\ 595.0 \quad \text{kNm}$$

Massima azione di taglio:

$$V_{g1\ max\ +} = 53.6 * 23 * 1/2 = 616.4 \quad \text{kN}$$

sulla singola trave:

$$V_{g1_trave\ max\ +} = V_{g1\ max\ +} / 3 = 205.5 \quad \text{kN}$$

$$V_{g1_trave\ max\ SLU\ +} = \gamma_F * V_{g1_trave\ max\ +} = 1.35 * 174.3 = 277.3 \quad \text{kN}$$

7.2.2 Fase 2 - carichi permanenti portati g2

Con il carico distribuito g2 si considera il contributo dovuto a:

$$G_2_PAV = 16.5 \text{ kN / m}$$

$$G_2_FIN = 7.50 \text{ kN / m}$$

$$g_2 = 24.00 \text{ kN / m}$$

Massimo momento flettente positivo in mezzeria:

$$M_{g2\ max\ +} = 24 * 23^2 * 1/8 = 1\ 587.0 \text{ kNm}$$

sulla singola trave:

$$M_{g2_trave\ max\ +} = M_{g2\ max} / 3 = 529.0 \text{ kNm}$$

Amplificazione della sollecitazione per stato limite ultimo SLU:

$$M_{g2_trave\ max\ SLU\ +} = \gamma_F * M_{g2_trave\ max\ +} = 1.35 * 529 = 714.2 \text{ kNm}$$

Massima azione di taglio:

$$V_{g2\ max\ +} = 24.0 * 23 * 1/2 = 276.0 \text{ kN}$$

sulla singola trave:

$$V_{g2_trave\ max\ +} = V_{g2\ max} / 3 = 276.0 = 92.0 \text{ kN}$$

$$V_{g2_trave\ max\ SLU\ +} = \gamma_F * V_{g2_trave\ max\ +} = 1.35 * 92 = 124.2 \text{ kNm}$$

7.2.3 Fase 3 - carichi variabili q_1

Con il carico distribuito q_1 si considera il contributo dovuto a:

$$q_1 = 27.5 \text{ kN / m}$$

Massimo momento flettente positivo in mezzeria:

$$M_{q1\ max\ +} = 27.5 * 23^2 * 1/8 = 1\ 818.0 \text{ kNm}$$

sulla singola trave:

$$M_{q1_trave\ max\ +} = M_{q1\ max} / 3 = 606.0 \text{ kNm}$$

$$M_{q1_trave\ max\ SLU\ +} = \gamma_F * M_{q1_trave\ max\ +} = 1.5 * 606 = 909.0 \text{ kNm}$$

Massima azione di taglio:

$$V_{q1\ max\ +} = 27.5 * 23 * 1/2 = 316.3 \text{ kN}$$

sulla singola trave:

$$V_{q1_trave\ max\ +} = V_{q1\ max} / 2 = 105.4 \text{ kN}$$

$$V_{q1_trave\ max\ SLU\ +} = \gamma_F * V_{q1_trave\ max\ +} = 1.5 * 105.4 = 158.1 \text{ kNm}$$

7.3 Verifica di resistenza di tipo STR della trave a sezione composta acciaio-calcestruzzo

Sezione di verifica:

[mm]

PB SUP = 400 * 20

PB INF = 600 * 30

H TOT = 1 000

SP. ANIMA = 10

Larghezza collaborante della soletta in c.a. sp. 25 cm:

b coll = 2 100 mm

| <u>Caratteristiche di sezione mista acciaio calcestruzzo</u> | | | | | |
|--|--------------------|----------------------|--|-------------|---------------------------|
| Caratteristiche geometriche | | | Caratteristiche della sezione in acciaio | | |
| | h altezza cm | b larghezza cm | Aa area cm ² | Htot = | 100,0 cm |
| 1 armatura superiore soletta | | | 83,0 | Atot = | 355,0 cm ² |
| 2 soletta superiore in cls | 25,0 | 210,0 | | Xg= | 36,6 cm |
| 3 armatura superiore soletta | | | 83,0 | J= | 623 227,0 cm ⁴ |
| 4 piattabanda superiore | 2,0 | 40,0 | | Wa sup - | 9 827,7 cm ³ |
| 5 piatto aggiuntivo superiore | 1,0 | 1,0 | | Wanim sup - | 10 315,7 cm ³ |
| 6 anima | 93,0 | 1,0 | | Wanim inf | 19 126,5 cm ³ |
| 7 piatto aggiuntivo inferiore | 1,0 | 1,0 | | Wa inf | 17 035,3 cm ³ |
| 8 piattabanda inferire | 3,0 | 60,0 | | Sanim sup | 5 054,2 cm ³ |
| | | | | Sg | 6 912,3 cm ³ |
| | | | | Sanim inf | 6 348,3 cm ³ |

| Caratteristiche della sezione mista a t= 0 | | | Caratteristiche della sezione mista a t= infinito | | |
|--|-------------|-----------------|---|-------------|-----------------|
| n coeff.omogeneizz. | 6,0 | | n coeff.omogeneizz. | 18,0 | |
| Htot = | 125,0 | cm | Htot = | 125,0 | cm |
| Atot = | 1 396,0 | cm ² | Atot = | 812,7 | cm ² |
| Xg= | 93,2 | cm | Xg= | 79,3 | cm |
| J= | 2 209 432,2 | cm ⁴ | J= | 1 805 596,8 | cm ⁴ |
| Wcls sup - | 416 806,4 | cm ³ | Wcls sup - | 711 761,1 | cm ³ |
| Wcls inf - | 1 948 021,5 | cm ³ | Wcls inf - | 1 572 939,1 | cm ³ |
| Wa sup - | 324 670,2 | cm ³ | Wa sup - | 87 385,5 | cm ³ |
| Wanim sup - | 580 641,4 | cm ³ | Wanim sup - | 102 228,1 | cm ³ |
| Wanim inf | 24 770,9 | cm ³ | Wanim inf | 23 966,8 | cm ³ |
| Wa inf | 23 707,7 | cm ³ | Wa inf | 22 758,4 | cm ³ |
| Sa sup | 20 096,7 | cm ³ | Sa sup | 15 177,3 | cm ³ |
| Sanim sup | 20 565,4 | cm ³ | Sanim sup | 16 768,5 | cm ³ |
| Sg | 20 662,3 | cm ³ | Sg | 17 000,3 | cm ³ |
| Sanim inf | 16 594,8 | cm ³ | Sanim inf | 14 086,6 | cm ³ |

7.3.1 Verifica a flessione per stato limite ultimo SLU

| Verifiche di sezione mista acciaio calcestruzzo | | | |
|---|----------------------|----------------------------|-----------------------------|
| Sollecitazioni nella sezione | | SEZ. CAMPATA STR_SLU | |
| | 1a fase solo acciaio | 2a fase carichi permanenti | 3a fase carichi accidentali |
| N (kN) = | 0,0 | 0,0 | 0,0 |
| M _{3,y} (kNm) = | 1 595,0 | 714,0 | 909,0 |
| V _{2,y} (kN) = | 0,0 | 0,0 | 0,0 |

| Tensioni | 1a fase solo acciaio | 2a fase permanenti t= 0 | 2a fase permanenti t= infinito | ritiro cls t= infinito | totale 1a + 2a fase t= 0 | totale 1a + 2a fase t= infinito | -DT variazione termica | 3a fase carichi accidentali | totale min | totale max |
|-------------------------|----------------------|-------------------------|--------------------------------|------------------------|--------------------------|---------------------------------|------------------------|-----------------------------|------------|------------------------------|
| s da sforzo N | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 |
| Soletta in calcestruzzo | | | | | | | | | | |
| s c sup | 0,0 | -17,1 | -10,0 | - | -17,1 | -10,0 | - | -21,8 | -38,9 | -31,8 daN/cm ² |
| s c inf | 0,0 | -3,7 | -4,5 | - | -3,7 | -4,5 | - | -4,7 | -9,2 | -8,3 daN/cm ² |
| Trave in acciaio | | | | | | | | | | |
| sa sup | -1 623,0 | -22,0 | -81,7 | - | -1 645,0 | -1 704,7 | - | -28,0 | -1 732,7 | -1 673,0 daN/cm ² |
| sanim sup | -1 546,2 | -12,3 | -69,8 | - | -1 558,5 | -1 616,0 | - | -15,7 | -1 631,7 | -1 574,1 daN/cm ² |
| sanim inf | 833,9 | 288,2 | 297,9 | - | 1 122,2 | 1 131,8 | - | 367,0 | 1 489,1 | 1 498,8 daN/cm ² |
| sa inf | 936,3 | 301,2 | 313,7 | - | 1 237,5 | 1 250,0 | - | 383,4 | 1 620,9 | 1 633,4 daN/cm ² |
| t a sup | 0,0 | 0,0 | 0,0 | | 0,0 | 0,0 | | 0,0 | 0,0 | 0,0 daN/cm ² |
| t anim sup | 0,0 | 0,0 | 0,0 | | 0,0 | 0,0 | | 0,0 | 0,0 | 0,0 daN/cm ² |
| t g | 0,0 | 0,0 | 0,0 | | 0,0 | 0,0 | | 0,0 | 0,0 | 0,0 daN/cm ² |
| t anim inf | 0,0 | 0,0 | 0,0 | | 0,0 | 0,0 | | 0,0 | 0,0 | 0,0 daN/cm ² |

Tensione soletta calcestruzzo:

$$\sigma_{C, Ed} = -3,2 \text{ MPa}$$

$$<< f_{cd} = 18.8 \text{ MPa} \quad \underline{\text{Verificato}}$$

Tensione piattabanda superiore:

$$\sigma_{a, Ed} = -167,0 \text{ MPa}$$

$$<< f_{yk} / \gamma_{M0} = 355/1.10 = 322,0 \text{ MPa} \quad \underline{\text{Verificato}}$$

Tensione piattabanda inferiore:

$$\sigma_{a, Ed} = 163,4 \text{ MPa}$$

$$<< f_{yk} / \gamma_{M0} = 355/1.06 = 338,0 \text{ MPa} \quad \underline{\text{Verificato}}$$

7.3.2 Verifica a taglio per stato limite ultimo SLU

| Verifiche di sezione mista acciaio calcestruzzo | | | |
|---|----------------------|----------------------------|-----------------------------|
| Sollecitazioni nella sezione | | SEZ. CAMPATA | x = 11,5 m |
| | | STR_SLU | |
| | 1a fase solo acciaio | 2a fase carichi permanenti | 3a fase carichi accidentali |
| N (kN) = | 0,0 | 0,0 | 0,0 |
| M _{3,y} (kNm) = | 0,0 | 0,0 | 0,0 |
| V _{2,y} (kN) = | 277,3 | 124,2 | 158,1 |

| Tensioni | 1a fase solo acciaio | 2a fase permanenti t= 0 | 2a fase permanenti t= infinito | ritiro cls t= infinito | totale 1a + 2a fase t= 0 | totale 1a + 2a fase t= infinito | -DT variazione termica | 3a fase carichi accidentali | totale min | totale max |
|-------------------------|----------------------|-------------------------|--------------------------------|------------------------|--------------------------|---------------------------------|------------------------|-----------------------------|------------|---------------------------|
| s da sforzo N | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 |
| Soletta in calcestruzzo | | | | | | | | | | |
| s c sup | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| s c inf | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| Trave in acciaio | | | | | | | | | | |
| sa sup | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| sanim sup | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| sanim inf | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| sa inf | 0,0 | 0,0 | 0,0 | - | 0,0 | 0,0 | - | 0,0 | 0,0 | 0,0 daN/cm ² |
| t a sup | 0,0 | 2,8 | 2,6 | | 2,8 | 2,6 | | 3,6 | 6,2 | 6,4 daN/cm ² |
| t anim sup | 224,9 | 115,6 | 115,3 | | 340,5 | 340,2 | | 147,2 | 487,4 | 487,6 daN/cm ² |
| t g | 307,6 | 116,2 | 116,9 | | 423,7 | 424,5 | | 147,9 | 571,6 | 572,3 daN/cm ² |
| t anim inf | 282,5 | 93,3 | 96,9 | | 375,7 | 379,4 | | 118,7 | 494,5 | 498,1 daN/cm ² |

Tensione di taglio nell'anima:

$$\tau_{Ed} = 57,2 \text{ MPa} << \text{fyd} = 355 / ((3^{0,5} * 1,05) = 195 \text{ MPa} \quad \text{Verificato}$$

7.4 Controllo della deformabilità

Freccia dovuta al carico variabile:

$$q_1 \text{ singola trave} = q_1 / 3 = (5.0 * 5.5) / 3 = 9.17 \text{ kN / m}$$

$$J \text{ singola trave } t = 0$$

$$J = 2\ 209\ 432 \text{ cm}^4$$

$$F = 5/384 * q_1 * L^4 * 1/E * J =$$

$$= 5/384 * 9.17 * 23\ 000^4 * 1 / (210\ 000 * 2\ 209\ 432 * 10^4) = 7.20 \text{ mm} \quad \text{accettabile}$$