

PROYECTO DE TABLERO DE VIGAS  
\*\*\*\*\*

Listado generado el día 24-05-2018 a las 15:45:53.

Nombre del proyecto : tablero

Normativa utilizada (España): Instrucción IAP-2011/IAPF, EHE-2008

MEMORIA DEL PROYECTO  
\*\*\*\*\*

Definición en planta  
=====

Contorno izquierdo del tablero  
-----

| Punto | x      | y      |
|-------|--------|--------|
| 1     | -0.000 | 13.000 |
| 2     | 61.500 | 13.000 |

Contorno derecho del tablero  
-----

| Punto | x      | y     |
|-------|--------|-------|
| 1     | 0.000  | 0.000 |
| 2     | 61.500 | 0.000 |

Ejes de apoyos  
-----

|        |        |        |  |
|--------|--------|--------|--|
| Vano 1 |        |        |  |
| -----  |        |        |  |
| Eje 1  |        |        |  |
| Punto  | x      | y      |  |
| 1      | 10.000 | 0.000  |  |
| 2      | 10.000 | 13.000 |  |
| Eje 2  |        |        |  |
| Punto  | x      | y      |  |
| 1      | 51.500 | 0.000  |  |
| 2      | 51.500 | 13.000 |  |

Ejes de las vigas  
-----

|         |        |  |  |
|---------|--------|--|--|
| Vano 1  |        |  |  |
| -----   |        |  |  |
| Viga 1  |        |  |  |
| -----   |        |  |  |
| Apoyo 1 |        |  |  |
| x1 =    | 10.000 |  |  |
| y1 =    | 11.000 |  |  |
| Apoyo 2 |        |  |  |
| x2 =    | 51.500 |  |  |
| y2 =    | 11.000 |  |  |
| Viga 2  |        |  |  |
| -----   |        |  |  |
| Apoyo 1 |        |  |  |
| x1 =    | 10.000 |  |  |
| y1 =    | 6.500  |  |  |
| Apoyo 2 |        |  |  |
| x2 =    | 51.500 |  |  |
| y2 =    | 6.500  |  |  |

Viga 3  
-----  
Apoyo 1  
x1 = 10.000  
y1 = 2.000  
Apoyo 2  
x2 = 51.500  
y2 = 2.000

Descripción de los apoyos  
-----

Vano 1  
-----  
Viga 1  
-----  
Longitud de culata : 0.600 m  
Número de apoyos por extremo : 1  
Viga 2  
-----  
Longitud de culata : 0.600 m  
Número de apoyos por extremo : 1  
Viga 3  
-----  
Longitud de culata : 0.600 m  
Número de apoyos por extremo : 1

Sección de las vigas  
=====

Forma de la sección  
-----

Vano 1  
-----  
Viga 1  
-----  
Forma : Artesa Tipo 1  
Tipo : AR-PRE-210-364  
Viga 2  
-----  
Forma : Artesa Tipo 1  
Tipo : AR-PRE-210-364  
Viga 3  
-----  
Forma : Artesa Tipo 1  
Tipo : AR-PRE-210-364

Tipos de sección  
-----

Sección tipo artesa  
Tipo : AR-PRE-210-364  
Parámetros :  
A : 118.000 cm  
B : 172.000 cm  
C : 264.000 cm  
D : 50.000 cm  
E : 210.000 cm  
F : 22.500 cm  
G : 15.000 cm  
H : 10.000 cm  
I : 12.500 cm  
J : 0.000 cm  
K : 38.000 cm  
L : 2.000 cm  
M : 0.000 cm  
N : 0.000 cm  
O : 5.000 cm

Materiales
 =====

Hormigón de las vigas :
 -----

Nombre : HP-55

Tipo : Hormigón.

Módulo de Young E (T/m2) : 3451220.00
 Resistencia característica fck(T/m2) : 5612.00
 Coefic. de minoración para situación persistente : 1.500
 Coefic. de minoración para situación accidental : 1.300
 Deformación máxima de compresión : 0.00350
 Deformación de cambio de tramo en la ley parábola-rectángulo : 0.00200

Hormigón de la losa :
 -----

Nombre : HA-30

Tipo : Hormigón.

Módulo de Young E (T/m2) : 2916000.00
 Resistencia característica fck(T/m2) : 3061.20
 Coefic. de minoración para situación persistente : 1.500
 Coefic. de minoración para situación accidental : 1.300
 Deformación máxima de compresión : 0.00350
 Deformación de cambio de tramo en la ley parábola-rectángulo : 0.00200

Acero de la armadura pasiva de la viga :
 -----

Nombre : B500S

Tipo : Acero de dureza natural.

Módulo de Young E (T/m2) : 20408160.00
 Resistencia característica fyk(T/m2) : 51020.00
 Coefic. de minoración para situación persistente : 1.150
 Coefic. de minoración para situación accidental : 1.000
 Deformación máxima de compresión : 0.01000
 Deformación máxima de tracción : -0.01000

Acero de la armadura pasiva de la losa :
 -----

Nombre : B500S

Tipo : Acero de dureza natural.

Módulo de Young E (T/m2) : 20408160.00
 Resistencia característica fyk(T/m2) : 51020.00
 Coefic. de minoración para situación persistente : 1.150
 Coefic. de minoración para situación accidental : 1.000
 Deformación máxima de compresión : 0.01000
 Deformación máxima de tracción : -0.01000

Acero de la armadura activa de la viga :
 -----

Nombre : Y1860S7

Tipo : Acero para pretensar.

Módulo de Young E (T/m2) : 19387760.00
 Resistencia característica fyk(T/m2) : 173660.00

Coefic. de minoración para situación persistente : 1.150  
Coefic. de minoración para situación accidental : 1.000  
Deformación máxima de compresión : 0.03500  
Deformación máxima adicional a la inicial : -0.01000  
Deformación máxima de tracción : -0.03500

Espesor de la losa  
=====

Espesor constante de 0.250 m  
Se ha optado por no incluir la prelosa en la sección resistente final viga + losa.  
Espesor de la losa considerado para el cálculo de esfuerzos locales: 0.250 m

Definición del pretensado  
=====

Vano 1  
-----  
Viga 1  
-----  
Fila 1  
-----  
Distancia cdg-fibra inferior : 0.070 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 29  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 0.000 m  
Tensión de tesado : 16451.531 Kp/cm2  
  
Fila 2  
-----  
Distancia cdg-fibra inferior : 0.110 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 29  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 2.500 m  
Tensión de tesado : 16451.531 Kp/cm2  
  
Fila 3  
-----  
Distancia cdg-fibra inferior : 0.150 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 18  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 10.000 m  
Tensión de tesado : 16451.531 Kp/cm2  
  
Fila 4  
-----  
Distancia cdg-fibra inferior : 0.150 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 7  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 0.000 m  
Tensión de tesado : 16451.531 Kp/cm2  
  
Fila 5  
-----  
Distancia cdg-fibra inferior : 2.025 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 4  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 0.000 m  
Tensión de tesado : 16451.531 Kp/cm2

Viga 2  
-----  
Fila 1  
-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.070     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 29        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 0.000     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 2

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.110     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 29        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 2.500     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 3

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.150     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 18        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 10.000    | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 4

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.150     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 7         |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 0.000     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 5

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 2.025     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 4         |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 0.000     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Viga 3

-----

Fila 1

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.070     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 29        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 0.000     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 2

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.110     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 29        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |
| Longitud de entubamiento :     | 2.500     | m      |
| Tensión de tesado :            | 16451.531 | Kp/cm2 |

Fila 3

-----

|                                |           |        |
|--------------------------------|-----------|--------|
| Distancia cdg-fibra inferior : | 0.150     | m      |
| Area de acero de cada cordón : | 1.500     | cm2    |
| Numero de cordones :           | 18        |        |
| Resistencia última del acero : | 19000.000 | Kp/cm2 |

Longitud de entubamiento : 10.000 m  
Tensión de tesado : 16451.531 Kp/cm2

Fila 4  
-----  
Distancia cdg-fibra inferior : 0.150 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 7  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 0.000 m  
Tensión de tesado : 16451.531 Kp/cm2

Fila 5  
-----  
Distancia cdg-fibra inferior : 2.025 m  
Area de acero de cada cordón : 1.500 cm2  
Numero de cordones : 4  
Resistencia última del acero : 19000.000 Kp/cm2  
Longitud de entubamiento : 0.000 m  
Tensión de tesado : 16451.531 Kp/cm2

Definición de la armadura pasiva de las vigas  
=====

Vano 1  
-----  
Viga 1  
-----  
Fila 1  
-----  
Distancia cdg-fibra inferior : 3.300 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 2  
-----  
Distancia cdg-fibra inferior : 18.700 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 3  
-----  
Distancia cdg-fibra inferior : 206.700 cm  
Diámetro de las barras : 10 mm  
Número de barras : 8  
Longitud de recorte : 0.000 m

Viga 2  
-----  
Fila 1  
-----  
Distancia cdg-fibra inferior : 3.300 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 2  
-----  
Distancia cdg-fibra inferior : 18.700 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 3  
-----  
Distancia cdg-fibra inferior : 206.700 cm  
Diámetro de las barras : 10 mm

Número de barras : 8  
Longitud de recorte : 0.000 m

Viga 3

-----

Fila 1

-----

Distancia cdg-fibra inferior : 3.300 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 2

-----

Distancia cdg-fibra inferior : 18.700 cm  
Diámetro de las barras : 16 mm  
Número de barras : 10  
Longitud de recorte : 0.000 m

Fila 3

-----

Distancia cdg-fibra inferior : 206.700 cm  
Diámetro de las barras : 10 mm  
Número de barras : 8  
Longitud de recorte : 0.000 m

Definición de la armadura pasiva de la losa

=====

Vano 1

-----

Armadura longitudinal superior : Fi 12 a 0.150 m  
Armadura longitudinal inferior : Fi 12 a 0.150 m  
Armadura transversal superior : Fi 16 a 0.150 m  
Armadura transversal inferior : Fi 16 a 0.150 m

Recubrimiento mecánico superior : 0.035 m  
Recubrimiento mecánico inferior : 0.020 m

Calendario

=====

Día en que se hormigona la viga : 0  
Día en que se transfiere el pretensado :21  
Día en que se hormigona la losa :60  
Número de días entre hormigonado y fraguado de la losa :28  
Día en que se aplica la carga permanente sobre la losa :90

Acciones sobre el puente

=====

Peso Propio

-----

Densidad del hormigón (T/m3): 2,50

Superestructura

-----

Peso del pavimento con el espesor de proyecto (T/m2): 0,320  
El programa incluye en el cálculo el aumento en un 50% del valor del peso de pavimento de proyecto, tal como se establece en la norma IAP.

Acera izquierda :

peso (T/m) :2,750  
anchura (m) :3,000  
distancia del centro de gravedad al borde del tablero (m) :0,150

Acera derecha :

peso (T/m) :2,750  
anchura (m) :3,000  
distancia del centro de gravedad al borde del tablero (m) :0,150

Tráfico en plataforma  
-----

    Anchura de los carriles virtuales:

| Anchura de la<br>plataforma    (m) | Anchura del carril<br>virtual    (m) |
|------------------------------------|--------------------------------------|
| 0.000                              | 0.000                                |
| 3.000                              | 3.000                                |
| 5.399                              | 3.000                                |
| 5.400                              | 2.700                                |
| 6.000                              | 3.000                                |
| 1000.000                           | 3.000                                |

    Nota: Para valores intermedios de la anchura de plataforma se interpola linealmente.

Cargas de tráfico en plataforma:

| Situación         | Carga por rueda del<br>vehículo pesado (t) | Sobrecarga uniforme<br>(t/m2) |
|-------------------|--------------------------------------------|-------------------------------|
| Carril 1          | 15.291                                     | 0.917                         |
| Carril 2          | 10.194                                     | 0.255                         |
| Carril 3          | 5.097                                      | 0.255                         |
| Resto de carriles | 0.000                                      | 0.255                         |
| Área remanente    | 0.000                                      | 0.255                         |

Posición de las ruedas de los vehículos pesados:

|       |    |                                      |         |
|-------|----|--------------------------------------|---------|
| Carga | 1: | Distancia longitudinal de la carga : | 0.000m  |
|       |    | Distancia transversal de la carga :  | -1.000m |
| Carga | 2: | Distancia longitudinal de la carga : | 0.000m  |
|       |    | Distancia transversal de la carga :  | 1.000m  |
| Carga | 3: | Distancia longitudinal de la carga : | 1.200m  |
|       |    | Distancia transversal de la carga :  | -1.000m |
| Carga | 4: | Distancia longitudinal de la carga : | 1.200m  |
|       |    | Distancia transversal de la carga :  | 1.000m  |

Distancia de avance de los vehículos pesados :    1.000m

Gradiente térmico  
-----

Coeficiente de dilatación térmica (E-5) (1/°C): 1,00  
Diferencia de temp. positiva entre cara sup. e inf.(°C)    : 15,000  
Diferencia de temp. positiva entre cara inf. y sup.(°C)    : -15,000

Humedad  
-----

    Humedad relativa (%): 50,00

Coeficientes de seguridad  
=====

Coeficientes parciales de seguridad  
-----

| Est. Límite Servicio                           | Estado Límite Ultimo                 |
|------------------------------------------------|--------------------------------------|
| Combinaciones caract.<br>frecuente y casi-perm | Situac. Persistente<br>y transitoria |

| Acción | Coef.Fav. | Coef.Desf. | Coef.Fav. | Coef.Desf. |
|--------|-----------|------------|-----------|------------|
| PP     | 1.00      | 1.00       | 1.00      | 1.35       |
| PL     | 1.00      | 1.00       | 1.00      | 1.35       |
| SE     | 1.00      | 1.00       | 1.00      | 1.35       |
| TF     | 0.00      | 1.00       | 0.00      | 1.35       |
| TA     | 0.00      | 1.00       | 0.00      | 1.35       |
| GT     | 0.00      | 1.00       | 0.00      | 1.50       |
| DA     | 0.00      | 1.00       | 0.00      | 1.20       |
| TI     | 0.95      | 1.05       | 1.00      | 1.00       |
| TP     | 1.00      | 1.00       | 1.00      | 1.35       |
| RT     | 0.00      | 1.00       | 0.00      | 1.35       |
| FL     | 0.00      | 1.00       | 0.00      | 1.35       |

PP : Peso propio de la viga.  
PL : Peso propio de la losa.  
SE : Superestructura.  
TF : Tráfico en plataforma.  
TA : Tráfico en aceras.  
GT : Gradiente térmico.  
DA : Descenso de apoyos.  
TI : Acción instantánea del pretensado.  
TP : Pérdidas diferidas del pretensado.  
RT : Retracción de los hormigones de viga y losa.  
FL : Fluencia de los hormigones de viga y losa.

Coeficientes de combinación

| Acción              | Psi0  | Psi1  | Psi2  |
|---------------------|-------|-------|-------|
| Vehículos pesados   | 0.750 | 0.750 | 0.000 |
| Sobrecarga uniforme | 0.400 | 0.400 | 0.000 |
| Carga en aceras     | 0.400 | 0.400 | 0.000 |
| Acción térmica      | 0.600 | 0.600 | 0.500 |

Coeficientes de retracción y fluencia a tiempo infinito:

Resistencia característica del hormigón de la viga (Kg/cm2): 561,20  
Resistencia característica del hormigón de la losa (Kg/cm2): 306,12  
Humedad relativa (%): 50,0  
Día en que se produce el tesado de las vigas: 21,0

Vano 1.Viga 1  
Espesor ficticio de la sección transversal de la viga (mm): 187,4  
Espesor ficticio de la sección transversal de la losa (mm): 283,3  
Coef. de retracción de la viga entre el fraguado de la losa y tiempo infinito: 0,00018426  
Coef. de retracción de la losa a tiempo infinito: 0,00041966  
Coef. de fluencia de la viga entre el fraguado de la losa y tiempo infinito:  
- Por acción del tesado de la viga: 0,738  
- Por peso propio de la losa: 0,744  
- Por superestructura: 1,161  
Coef. de fluencia de la losa a tiempo infinito:  
- Por superestructura: 2,221

Vano 1.Viga 2  
Espesor ficticio de la sección transversal de la viga (mm): 187,4  
Espesor ficticio de la sección transversal de la losa (mm): 281,3  
Coef. de retracción de la viga entre el fraguado de la losa y tiempo infinito: 0,00018426  
Coef. de retracción de la losa a tiempo infinito: 0,00042066  
Coef. de fluencia de la viga entre el fraguado de la losa y tiempo infinito:  
- Por acción del tesado de la viga: 0,738  
- Por peso propio de la losa: 0,744  
- Por superestructura: 1,161  
Coef. de fluencia de lalosa a tiempo infinito:  
- Por superestructura: 2,224

Vano 1.Viga 3  
Espesor ficticio de la sección transversal de la viga (mm): 187,4  
Espesor ficticio de la sección transversal de la losa (mm): 283,3  
Coef. de retracción de la viga entre el fraguado de la losa y tiempo infinito: 0,00018426  
Coef. de retracción de la losa a tiempo infinito: 0,00041966  
Coef. de fluencia de la viga entre el fraguado de la losa y tiempo infinito:  
- Por acción del tesado de la viga: 0,738  
- Por peso propio de la losa: 0,744  
- Por superestructura: 1,161  
Coef. de fluencia de la losa a tiempo infinito:  
- Por superestructura: 2,221

LISTADO DE CARACTERISTICAS GEOMETRICAS  
=====

Sección bruta : No incluye la armadura activa ni la pasiva.  
Sección neta : Se añade a la sección bruta la armadura pasiva, que se homogeneiza respecto del hormigón. No incluye la armadura activa.  
Se incluyen, sin embargo, los agujeros de las vainas de pretensado.  
Sección homogeneizada : Se añade a la sección neta la armadura activa, que se homogeneiza respecto del hormigón.  
A : área de la sección.  
Ix : momento de inercia respecto del eje horizontal que pasa por el centro de gravedad.  
Iy : momento de inercia respecto del eje vertical que pasa por el centro de gravedad.  
Vs : Distancia del centro de gravedad a la fibra superior de la sección.  
Vi : Distancia del centro de gravedad a la fibra inferior de la sección.

Secciones completas  
=====

Las secciones siguientes NO incluyen la reducción del ancho de losa asociada al coeficiente de ancho eficaz.

Vano 1 Viga 1  
-----

Sección completa bruta de la viga  
-----

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 0.000         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 1.890         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 1.931         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 4.150         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 8.300         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 9.390         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 9.431         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 12.450        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 16.600        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 20.750        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 24.900        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 29.050        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 32.069        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 32.110        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 33.200        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 37.350        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 39.569        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 39.610        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 41.500        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 42.100        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |

Sección completa bruta de la viga + losa  
-----

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 0.000         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.890         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.931         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 4.150         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 8.300         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.390         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.431         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 12.450        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 16.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 20.750        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 24.900        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 29.050        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.069        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.110        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 33.200        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 37.350        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.569        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.610        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 41.500        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 42.100        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |

Sección completa neta de la viga

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 0.000         | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 1.890         | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 1.931         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 4.150         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 8.300         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 9.390         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 9.431         | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 12.450        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 16.600        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 20.750        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 24.900        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 29.050        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 32.069        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 32.110        | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 33.200        | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 37.350        | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 39.569        | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 39.610        | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 41.500        | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 42.100        | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |

Sección completa neta de la viga + losa

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 0.000         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.890         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.931         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 4.150         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 8.300         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.390         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.431         | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 12.450        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 16.600        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 20.750        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 24.900        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 29.050        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 32.069 | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.110 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 33.200 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 37.350 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.569 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.610 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 41.500 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 42.100 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |

Sección completa homogeneizada de la viga

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 0.000        | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.890        | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.931        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 4.150        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 8.300        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.390        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.431        | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 12.450       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 16.600       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 20.750       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 24.900       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 29.050       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.069       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.110       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 33.200       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 37.350       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.569       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.610       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 41.500       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 42.100       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |

Sección completa homogeneizada de la viga + losa

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 0.000        | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 1.890        | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 1.931        | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 4.150        | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 8.300        | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 9.390        | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 9.431        | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 12.450       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 16.600       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 20.750       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 24.900       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 29.050       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 32.069       | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 32.110       | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 33.200       | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 37.350       | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 39.569       | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 39.610       | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 41.500       | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 42.100       | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |

Vano 1 Viga 2

Sección completa bruta de la viga

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 0.000         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 1.890         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 1.931         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 4.150         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 8.300         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 9.390         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 9.431         | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 12.450        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 16.600        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 20.750        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 24.900        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 29.050        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 32.069        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 32.110        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 33.200        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 37.350        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 39.569        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 39.610        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 41.500        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |
| 42.100        | 1.14858 | 0.62636 | 1.24014 | 1.263  | -0.837 |

Sección completa bruta de la viga + losa

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 0.000         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 1.890         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 1.931         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 4.150         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 8.300         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 9.390         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 9.431         | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 12.450        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 16.600        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 20.750        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 24.900        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 29.050        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 32.069        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 32.110        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 33.200        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 37.350        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 39.569        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 39.610        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 41.500        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |
| 42.100        | 1.92591 | 1.55170 | 2.56507 | 0.944  | -1.406 |

Sección completa neta de la viga

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 0.000         | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 1.890         | 1.16543 | 0.63764 | 1.25132 | 1.270  | -0.830 |
| 1.931         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 4.150         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 8.300         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 9.390         | 1.16108 | 0.63537 | 1.24999 | 1.267  | -0.833 |
| 9.431         | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 12.450        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 16.600        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 20.750        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 24.900        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |
| 29.050        | 1.15838 | 0.63411 | 1.24912 | 1.265  | -0.835 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 32.069 | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 32.110 | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 33.200 | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 37.350 | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 39.569 | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 39.610 | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 41.500 | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 42.100 | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |

Sección completa neta de la viga + losa  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |
| 0.000        | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |
| 1.890        | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |
| 1.931        | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 4.150        | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 8.300        | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 9.390        | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 9.431        | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 12.450       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 16.600       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 20.750       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 24.900       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 29.050       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 32.069       | 1.96895 | 1.58837 | 2.63152 | 0.934 | -1.416 |
| 32.110       | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 33.200       | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 37.350       | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 39.569       | 1.97165 | 1.59270 | 2.63239 | 0.936 | -1.414 |
| 39.610       | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |
| 41.500       | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |
| 42.100       | 1.97600 | 1.60008 | 2.63372 | 0.938 | -1.412 |

Sección completa homogeneizada de la viga  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 0.000        | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.890        | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.931        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 4.150        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 8.300        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.390        | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.431        | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 12.450       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 16.600       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 20.750       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 24.900       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 29.050       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.069       | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.110       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 33.200       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 37.350       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.569       | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.610       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 41.500       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 42.100       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |

Sección completa homogeneizada de la viga + losa  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 0.000  | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 1.890  | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 1.931  | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 4.150  | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 8.300  | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 9.390  | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 9.431  | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 12.450 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 16.600 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 20.750 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 24.900 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 29.050 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 32.069 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 32.110 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 33.200 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 37.350 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 39.569 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 39.610 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 41.500 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 42.100 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |

Vano     1 Viga     3  
-----

Sección completa bruta de la viga  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 0.000        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 1.890        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 1.931        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 4.150        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 8.300        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 9.390        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 9.431        | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 12.450       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 16.600       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 20.750       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 24.900       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 29.050       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 32.069       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 32.110       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 33.200       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 37.350       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 39.569       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 39.610       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 41.500       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |
| 42.100       | 1.14858 | 0.62636 | 1.24014 | 1.263 | -0.837 |

Sección completa bruta de la viga + losa  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 0.000        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 1.890        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 1.931        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 4.150        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 8.300        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 9.390        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 9.431        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 12.450       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 16.600       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 20.750       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 24.900       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 29.050       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 32.069 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 32.110 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 33.200 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 37.350 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.569 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.610 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 41.500 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 42.100 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |

Sección completa neta de la viga

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 0.000        | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 1.890        | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 1.931        | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 4.150        | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 8.300        | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 9.390        | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 9.431        | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 12.450       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 16.600       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 20.750       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 24.900       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 29.050       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 32.069       | 1.15838 | 0.63411 | 1.24912 | 1.265 | -0.835 |
| 32.110       | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 33.200       | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 37.350       | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 39.569       | 1.16108 | 0.63537 | 1.24999 | 1.267 | -0.833 |
| 39.610       | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 41.500       | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |
| 42.100       | 1.16543 | 0.63764 | 1.25132 | 1.270 | -0.830 |

Sección completa neta de la viga + losa

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 0.000        | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 1.890        | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 1.931        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 4.150        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 8.300        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 9.390        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 9.431        | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 12.450       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 16.600       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 20.750       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 24.900       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 29.050       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.069       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.110       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 33.200       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 37.350       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.569       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.610       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 41.500       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 42.100       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |

Sección completa homogeneizada de la viga

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 0.000  | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.890  | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 1.931  | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 4.150  | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 8.300  | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.390  | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 9.431  | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 12.450 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 16.600 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 20.750 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 24.900 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 29.050 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.069 | 1.23169 | 0.67410 | 1.27930 | 1.303 | -0.797 |
| 32.110 | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 33.200 | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 37.350 | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.569 | 1.21922 | 0.66884 | 1.27526 | 1.297 | -0.803 |
| 39.610 | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 41.500 | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |
| 42.100 | 1.19913 | 0.65902 | 1.26914 | 1.285 | -0.815 |

Sección completa homogeneizada de la viga + losa  
-----

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -----         | -----   | -----   | -----   | -----  | -----  |
| -0.600        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 0.000         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.890         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.931         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 4.150         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 8.300         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.390         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.431         | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 12.450        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 16.600        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 20.750        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 24.900        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 29.050        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.069        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.110        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 33.200        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 37.350        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.569        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.610        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 41.500        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 42.100        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |

Secciones eficaces  
=====

Las secciones siguientes SI incluyen la reducción del ancho de losa asociada al coeficiente de ancho eficaz.

Vano    1 Viga    1  
-----

Sección eficaz bruta viga+losa para estado límite de servicio  
-----

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -----         | -----   | -----   | -----   | -----  | -----  |
| -0.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 0.000         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.890         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.931         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 4.150         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 8.300         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.390         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 9.431  | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 12.450 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 16.600 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 20.750 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 24.900 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 29.050 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 32.069 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 32.110 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 33.200 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 37.350 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.569 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.610 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 41.500 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 42.100 | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |

Sección eficaz bruta viga+losa para estado límite último

-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 0.000        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 1.890        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 1.931        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 4.150        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 8.300        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 9.390        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 9.431        | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 12.450       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 16.600       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 20.750       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 24.900       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 29.050       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 32.069       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 32.110       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 33.200       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 37.350       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.569       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 39.610       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 41.500       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |
| 42.100       | 1.88366 | 1.52079 | 2.36286 | 0.963 | -1.387 |

Sección eficaz neta viga+losa para estado límite de servicio

-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 0.000        | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 1.890        | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 1.931        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 4.150        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 8.300        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 9.390        | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 9.431        | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 12.450       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 16.600       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 20.750       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 24.900       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 29.050       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.069       | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.110       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 33.200       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 37.350       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.569       | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.610       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 41.500       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 42.100       | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |

Sección eficaz neta viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 0.000         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.890         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.931         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 4.150         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 8.300         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.390         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.431         | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 12.450        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 16.600        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 20.750        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 24.900        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 29.050        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 32.069        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 32.110        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 33.200        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 37.350        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 39.569        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 39.610        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 41.500        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 42.100        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |

Sección eficaz homogeneizada viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 0.000         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.890         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.931         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 4.150         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 8.300         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.390         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.431         | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 12.450        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 16.600        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 20.750        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 24.900        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 29.050        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.069        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.110        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 33.200        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 37.350        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.569        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.610        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 41.500        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 42.100        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |

Sección eficaz homogeneizada viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 0.000         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.890         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.931         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 4.150         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 8.300         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.390         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.431         | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 12.450        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 16.600        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 20.750 | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 24.900 | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 29.050 | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 32.069 | 1.99887 | 1.67117 | 2.45151 | 0.997 | -1.353 |
| 32.110 | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 33.200 | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 37.350 | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 39.569 | 1.98640 | 1.65300 | 2.44746 | 0.989 | -1.361 |
| 39.610 | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 41.500 | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |
| 42.100 | 1.96631 | 1.62125 | 2.44135 | 0.976 | -1.374 |

Vano     1 Viga     2  
-----

Sección eficaz bruta viga+losa para estado límite de servicio  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 0.000        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 1.890        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 1.931        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 4.150        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 8.300        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 9.390        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 9.431        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 12.450       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 16.600       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 20.750       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 24.900       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 29.050       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 32.069       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 32.110       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 33.200       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 37.350       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 39.569       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 39.610       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 41.500       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 42.100       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |

Sección eficaz bruta viga+losa para estado límite último  
-----

| Distancia(m) | A(m2)   | Ix(m4)  | Iy(m4)  | Vs(m) | Vi(m)  |
|--------------|---------|---------|---------|-------|--------|
| -0.600       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 0.000        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 1.890        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 1.931        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 4.150        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 8.300        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 9.390        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 9.431        | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 12.450       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 16.600       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 20.750       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 24.900       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 29.050       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 32.069       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 32.110       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 33.200       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 37.350       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 39.569       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 39.610       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 41.500       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |
| 42.100       | 1.92591 | 1.55170 | 2.56507 | 0.944 | -1.406 |

Sección eficaz neta viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 0.000         | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 1.890         | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 1.931         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 4.150         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 8.300         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 9.390         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 9.431         | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 12.450        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 16.600        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 20.750        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 24.900        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 29.050        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 32.069        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 32.110        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 33.200        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 37.350        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 39.569        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 39.610        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 41.500        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 42.100        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |

Sección eficaz neta viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 0.000         | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 1.890         | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 1.931         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 4.150         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 8.300         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 9.390         | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 9.431         | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 12.450        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 16.600        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 20.750        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 24.900        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 29.050        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 32.069        | 1.96895 | 1.58837 | 2.63152 | 0.934  | -1.416 |
| 32.110        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 33.200        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 37.350        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 39.569        | 1.97165 | 1.59270 | 2.63239 | 0.936  | -1.414 |
| 39.610        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 41.500        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |
| 42.100        | 1.97600 | 1.60008 | 2.63372 | 0.938  | -1.412 |

Sección eficaz homogeneizada viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 0.000         | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 1.890         | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 1.931         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 4.150         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 8.300         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 9.390         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 9.431         | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 12.450        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 16.600        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 20.750 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 24.900 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 29.050 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 32.069 | 2.04226 | 1.70545 | 2.66170 | 0.978 | -1.372 |
| 32.110 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 33.200 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 37.350 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 39.569 | 2.02979 | 1.68671 | 2.65766 | 0.970 | -1.380 |
| 39.610 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 41.500 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |
| 42.100 | 2.00970 | 1.65399 | 2.65154 | 0.957 | -1.393 |

Sección eficaz homogeneizada viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 0.000         | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 1.890         | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 1.931         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 4.150         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 8.300         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 9.390         | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 9.431         | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 12.450        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 16.600        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 20.750        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 24.900        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 29.050        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 32.069        | 2.04226 | 1.70545 | 2.66170 | 0.978  | -1.372 |
| 32.110        | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 33.200        | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 37.350        | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 39.569        | 2.02979 | 1.68671 | 2.65766 | 0.970  | -1.380 |
| 39.610        | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 41.500        | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |
| 42.100        | 2.00970 | 1.65399 | 2.65154 | 0.957  | -1.393 |

Vano    1 Viga    3

Sección eficaz bruta viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 0.000         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.890         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.931         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 4.150         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 8.300         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.390         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.431         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 12.450        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 16.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 20.750        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 24.900        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 29.050        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.069        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.110        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 33.200        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 37.350        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.569        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.610        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 41.500        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 42.100        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |

Sección eficaz bruta viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 0.000         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.890         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 1.931         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 4.150         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 8.300         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.390         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 9.431         | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 12.450        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 16.600        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 20.750        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 24.900        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 29.050        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.069        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 32.110        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 33.200        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 37.350        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.569        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 39.610        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 41.500        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |
| 42.100        | 1.88366 | 1.52079 | 2.36286 | 0.963  | -1.387 |

Sección eficaz neta viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 0.000         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.890         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.931         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 4.150         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 8.300         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.390         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.431         | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 12.450        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 16.600        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 20.750        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 24.900        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 29.050        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 32.069        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 32.110        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 33.200        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 37.350        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 39.569        | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 39.610        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 41.500        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 42.100        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |

Sección eficaz neta viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 0.000         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.890         | 1.93261 | 1.56876 | 2.42352 | 0.957  | -1.393 |
| 1.931         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 4.150         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 8.300         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.390         | 1.92826 | 1.56158 | 2.42220 | 0.954  | -1.396 |
| 9.431         | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 12.450        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |
| 16.600        | 1.92556 | 1.55739 | 2.42132 | 0.953  | -1.397 |

|        |         |         |         |       |        |
|--------|---------|---------|---------|-------|--------|
| 20.750 | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 24.900 | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 29.050 | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.069 | 1.92556 | 1.55739 | 2.42132 | 0.953 | -1.397 |
| 32.110 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 33.200 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 37.350 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.569 | 1.92826 | 1.56158 | 2.42220 | 0.954 | -1.396 |
| 39.610 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 41.500 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |
| 42.100 | 1.93261 | 1.56876 | 2.42352 | 0.957 | -1.393 |

Sección eficaz homogeneizada viga+losa para estado límite de servicio

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 0.000         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.890         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.931         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 4.150         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 8.300         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.390         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.431         | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 12.450        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 16.600        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 20.750        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 24.900        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 29.050        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.069        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.110        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 33.200        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 37.350        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.569        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.610        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 41.500        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 42.100        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |

Sección eficaz homogeneizada viga+losa para estado límite último

| Distancia (m) | A (m2)  | Ix (m4) | Iy (m4) | Vs (m) | Vi (m) |
|---------------|---------|---------|---------|--------|--------|
| -0.600        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 0.000         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.890         | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 1.931         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 4.150         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 8.300         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.390         | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 9.431         | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 12.450        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 16.600        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 20.750        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 24.900        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 29.050        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.069        | 1.99887 | 1.67117 | 2.45151 | 0.997  | -1.353 |
| 32.110        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 33.200        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 37.350        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.569        | 1.98640 | 1.65300 | 2.44746 | 0.989  | -1.361 |
| 39.610        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 41.500        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |
| 42.100        | 1.96631 | 1.62125 | 2.44135 | 0.976  | -1.374 |

Vano 1 Viga 1  
-----

Esfuerzos por pretensado instantáneo.  
-----

| s (m)  | M+        | M-        | Q+    | Q-    | N+       | N-       |
|--------|-----------|-----------|-------|-------|----------|----------|
| -0.600 | 0.000     | 0.000     | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | -417.004  | -417.004  | 0.000 | 0.000 | 748.529  | 748.529  |
| 1.890  | -499.803  | -499.803  | 0.000 | 0.000 | 897.154  | 897.154  |
| 1.931  | -521.723  | -521.723  | 0.000 | 0.000 | 927.873  | 927.873  |
| 4.150  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 8.300  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.390  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.431  | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 12.450 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 16.600 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 20.750 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 24.900 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 29.050 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 32.069 | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 32.110 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 33.200 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 37.350 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 39.569 | -521.723  | -521.723  | 0.000 | 0.000 | 927.873  | 927.873  |
| 39.610 | -499.803  | -499.803  | 0.000 | 0.000 | 897.154  | 897.154  |
| 41.500 | -417.001  | -417.001  | 0.000 | 0.000 | 748.524  | 748.524  |
| 42.100 | -0.001    | -0.001    | 0.000 | 0.000 | 0.002    | 0.002    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas de pretensado en fase 1.  
-----

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 27.140  | 27.140  | 0.000 | 0.000 | -41.838  | -41.838  |
| 1.890  | 40.460  | 40.460  | 0.000 | 0.000 | -68.120  | -68.120  |
| 1.931  | 59.759  | 59.759  | 0.000 | 0.000 | -96.750  | -96.750  |
| 4.150  | 97.709  | 97.709  | 0.000 | 0.000 | -150.588 | -150.588 |
| 8.300  | 89.508  | 89.508  | 0.000 | 0.000 | -141.862 | -141.862 |
| 9.390  | 87.828  | 87.828  | 0.000 | 0.000 | -140.074 | -140.074 |
| 9.431  | 99.857  | 99.857  | 0.000 | 0.000 | -159.598 | -159.598 |
| 12.450 | 127.214 | 127.214 | 0.000 | 0.000 | -200.610 | -200.610 |
| 16.600 | 123.076 | 123.076 | 0.000 | 0.000 | -195.877 | -195.877 |
| 20.750 | 121.697 | 121.697 | 0.000 | 0.000 | -194.300 | -194.300 |
| 24.900 | 123.076 | 123.076 | 0.000 | 0.000 | -195.877 | -195.877 |
| 29.050 | 127.214 | 127.214 | 0.000 | 0.000 | -200.610 | -200.610 |
| 32.069 | 99.857  | 99.857  | 0.000 | 0.000 | -159.598 | -159.598 |
| 32.110 | 87.828  | 87.828  | 0.000 | 0.000 | -140.074 | -140.074 |
| 33.200 | 89.508  | 89.508  | 0.000 | 0.000 | -141.862 | -141.862 |
| 37.350 | 97.709  | 97.709  | 0.000 | 0.000 | -150.588 | -150.588 |
| 39.569 | 59.759  | 59.759  | 0.000 | 0.000 | -96.750  | -96.750  |
| 39.610 | 40.460  | 40.460  | 0.000 | 0.000 | -68.120  | -68.120  |
| 41.500 | 27.139  | 27.139  | 0.000 | 0.000 | -41.838  | -41.838  |
| 42.100 | 0.001   | 0.001   | 0.000 | 0.000 | -0.002   | -0.002   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas depretensado en fase 2.  
-----

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 53.971  | 53.971  | 0.000 | 0.000 | -48.659  | -48.659  |
| 1.890  | 96.867  | 96.867  | 0.000 | 0.000 | -88.306  | -88.306  |
| 1.931  | 99.710  | 99.710  | 0.000 | 0.000 | -91.416  | -91.416  |
| 4.150  | 203.977 | 203.977 | 0.000 | 0.000 | -174.165 | -174.165 |
| 8.300  | 185.191 | 185.191 | 0.000 | 0.000 | -160.361 | -160.361 |
| 9.390  | 181.271 | 181.271 | 0.000 | 0.000 | -157.482 | -157.482 |
| 9.431  | 183.177 | 183.177 | 0.000 | 0.000 | -159.849 | -159.849 |
| 12.450 | 251.771 | 251.771 | 0.000 | 0.000 | -215.947 | -215.947 |
| 16.600 | 242.561 | 242.561 | 0.000 | 0.000 | -208.997 | -208.997 |
| 20.750 | 239.267 | 239.267 | 0.000 | 0.000 | -206.514 | -206.514 |
| 24.900 | 242.561 | 242.561 | 0.000 | 0.000 | -208.997 | -208.997 |
| 29.050 | 251.771 | 251.771 | 0.000 | 0.000 | -215.947 | -215.947 |
| 32.069 | 183.176 | 183.176 | 0.000 | 0.000 | -159.849 | -159.849 |
| 32.110 | 181.271 | 181.271 | 0.000 | 0.000 | -157.482 | -157.482 |
| 33.200 | 185.191 | 185.191 | 0.000 | 0.000 | -160.361 | -160.361 |
| 37.350 | 203.977 | 203.977 | 0.000 | 0.000 | -174.165 | -174.165 |
| 39.569 | 99.710  | 99.710  | 0.000 | 0.000 | -91.416  | -91.416  |
| 39.610 | 96.867  | 96.867  | 0.000 | 0.000 | -88.306  | -88.306  |
| 41.500 | 53.971  | 53.971  | 0.000 | 0.000 | -48.658  | -48.658  |
| 42.100 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT).  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T).  
N+,N- : Axil máximo positivo y mínimo negativo(T).

Esfuerzos por peso propio de la viga.

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | -0.000  | -0.000  | -0.000  | -0.000  |
| 0.000  | -0.517  | -0.517  | 59.583  | 59.583  |
| 1.890  | 106.966 | 106.966 | 54.156  | 54.156  |
| 1.931  | 109.203 | 109.203 | 54.037  | 54.037  |
| 4.150  | 222.024 | 222.024 | 47.666  | 47.666  |
| 8.300  | 395.112 | 395.112 | 35.750  | 35.750  |
| 9.390  | 432.373 | 432.373 | 32.620  | 32.620  |
| 9.431  | 433.719 | 433.719 | 32.501  | 32.501  |
| 12.450 | 518.746 | 518.746 | 23.833  | 23.833  |
| 16.600 | 592.926 | 592.926 | 11.917  | 11.917  |
| 20.750 | 617.653 | 617.653 | 0.000   | 0.000   |
| 24.900 | 592.926 | 592.926 | -11.917 | -11.917 |
| 29.050 | 518.746 | 518.746 | -23.833 | -23.833 |
| 32.069 | 433.720 | 433.720 | -32.501 | -32.501 |
| 32.110 | 432.373 | 432.373 | -32.620 | -32.620 |
| 33.200 | 395.112 | 395.112 | -35.750 | -35.750 |
| 37.350 | 222.024 | 222.024 | -47.666 | -47.666 |
| 39.569 | 109.203 | 109.203 | -54.037 | -54.037 |
| 39.610 | 106.966 | 106.966 | -54.156 | -54.156 |
| 41.500 | -0.517  | -0.517  | -59.583 | -59.583 |
| 42.100 | -0.000  | -0.000  | -0.000  | -0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT).  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T).

Esfuerzos por peso propio de la losa.

| s (m)  | M+     | M-     | Q+     | Q-     |
|--------|--------|--------|--------|--------|
| -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
| 0.000  | -0.478 | -0.478 | 55.117 | 55.117 |
| 1.890  | 98.949 | 98.949 | 50.097 | 50.097 |

|        |         |         |         |         |
|--------|---------|---------|---------|---------|
| 1.931  | 101.018 | 101.018 | 49.987  | 49.987  |
| 4.150  | 205.385 | 205.385 | 44.094  | 44.094  |
| 8.300  | 365.500 | 365.500 | 33.070  | 33.070  |
| 9.390  | 399.969 | 399.969 | 30.175  | 30.175  |
| 9.431  | 401.214 | 401.214 | 30.065  | 30.065  |
| 12.450 | 479.868 | 479.868 | 22.047  | 22.047  |
| 16.600 | 548.489 | 548.489 | 11.023  | 11.023  |
| 20.750 | 571.363 | 571.363 | 0.000   | 0.000   |
| 24.900 | 548.489 | 548.489 | -11.023 | -11.023 |
| 29.050 | 479.868 | 479.868 | -22.047 | -22.047 |
| 32.069 | 401.214 | 401.214 | -30.065 | -30.065 |
| 32.110 | 399.969 | 399.969 | -30.175 | -30.175 |
| 33.200 | 365.500 | 365.500 | -33.070 | -33.070 |
| 37.350 | 205.385 | 205.385 | -44.094 | -44.094 |
| 39.569 | 101.019 | 101.019 | -49.987 | -49.987 |
| 39.610 | 98.950  | 98.950  | -50.097 | -50.097 |
| 41.500 | -0.478  | -0.478  | -55.117 | -55.117 |
| 42.100 | 0.000   | 0.000   | 0.000   | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por superestructura.  
-----

| s (m)  | M+      | M-       | Q+      | Q-       |
|--------|---------|----------|---------|----------|
| -0.600 | 0.000   | 0.000    | 0.000   | 0.000    |
| 0.000  | 92.394  | -133.964 | 109.222 | 37.345   |
| 1.890  | 190.296 | 14.916   | 98.926  | 29.849   |
| 1.931  | 192.438 | 18.174   | 98.700  | 29.685   |
| 4.150  | 307.365 | 192.943  | 86.614  | 20.885   |
| 8.300  | 453.453 | 391.506  | 64.420  | 3.527    |
| 9.390  | 485.793 | 432.423  | 58.627  | -1.110   |
| 9.431  | 487.020 | 433.975  | 58.408  | -1.286   |
| 12.450 | 565.682 | 484.868  | 42.640  | -5.743   |
| 16.600 | 640.132 | 530.928  | 21.226  | -5.245   |
| 20.750 | 668.409 | 549.209  | 0.601   | -0.601   |
| 24.900 | 640.132 | 530.929  | 5.245   | -21.226  |
| 29.050 | 565.683 | 484.868  | 5.743   | -42.639  |
| 32.069 | 487.021 | 433.977  | 1.287   | -58.407  |
| 32.110 | 485.794 | 432.425  | 1.111   | -58.627  |
| 33.200 | 453.455 | 391.508  | -3.527  | -64.420  |
| 37.350 | 307.367 | 192.946  | -20.885 | -86.613  |
| 39.569 | 192.441 | 18.177   | -29.685 | -98.700  |
| 39.610 | 190.299 | 14.920   | -29.849 | -98.925  |
| 41.500 | 92.397  | -133.961 | -37.345 | -109.222 |
| 42.100 | 0.000   | 0.000    | 0.000   | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por tráfico sobre la plataforma  
-----

| s (m)  | M+      | M-       | Q+     | Q-      |
|--------|---------|----------|--------|---------|
| -0.600 | 0.000   | 0.000    | 0.000  | 0.000   |
| 0.000  | 122.298 | -103.943 | 83.696 | -4.821  |
| 1.890  | 167.676 | -70.523  | 82.814 | -4.864  |
| 1.931  | 168.669 | -69.792  | 82.795 | -4.905  |
| 4.150  | 238.031 | -30.561  | 81.760 | -7.133  |
| 8.300  | 435.119 | -9.862   | 75.377 | -13.883 |
| 9.390  | 484.830 | -9.038   | 73.311 | -15.882 |
| 9.431  | 486.715 | -9.007   | 73.233 | -15.958 |
| 12.450 | 583.905 | -7.784   | 65.078 | -21.407 |
| 16.600 | 674.146 | -6.924   | 52.322 | -29.486 |

|        |         |          |        |         |
|--------|---------|----------|--------|---------|
| 20.750 | 710.186 | -6.541   | 39.498 | -39.497 |
| 24.900 | 674.146 | -6.924   | 29.486 | -52.322 |
| 29.050 | 583.907 | -7.784   | 21.407 | -65.078 |
| 32.069 | 486.717 | -9.007   | 15.958 | -73.233 |
| 32.110 | 484.832 | -9.038   | 15.882 | -73.311 |
| 33.200 | 435.121 | -9.862   | 13.883 | -75.377 |
| 37.350 | 238.034 | -30.560  | 7.133  | -81.760 |
| 39.569 | 168.670 | -69.791  | 4.905  | -82.795 |
| 39.610 | 167.677 | -70.522  | 4.864  | -82.814 |
| 41.500 | 122.299 | -103.942 | 4.821  | -83.696 |
| 42.100 | 0.000   | 0.000    | 0.000  | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por gradiente térmico  
-----

| s (m)  | M+    | M-     | Q+    | Q-     |
|--------|-------|--------|-------|--------|
| -0.600 | 0.000 | 0.000  | 0.000 | 0.000  |
| 0.000  | 1.640 | -1.640 | 0.288 | -0.288 |
| 1.890  | 1.321 | -1.321 | 0.293 | -0.293 |
| 1.931  | 1.314 | -1.314 | 0.293 | -0.293 |
| 4.150  | 0.939 | -0.939 | 0.299 | -0.299 |
| 8.300  | 0.590 | -0.590 | 0.274 | -0.274 |
| 9.390  | 0.529 | -0.529 | 0.265 | -0.265 |
| 9.431  | 0.527 | -0.527 | 0.265 | -0.265 |
| 12.450 | 0.381 | -0.381 | 0.206 | -0.206 |
| 16.600 | 0.227 | -0.227 | 0.116 | -0.116 |
| 20.750 | 0.173 | -0.173 | 0.063 | -0.063 |
| 24.900 | 0.227 | -0.227 | 0.116 | -0.116 |
| 29.050 | 0.381 | -0.381 | 0.206 | -0.206 |
| 32.069 | 0.527 | -0.527 | 0.265 | -0.265 |
| 32.110 | 0.529 | -0.529 | 0.265 | -0.265 |
| 33.200 | 0.590 | -0.590 | 0.274 | -0.274 |
| 37.350 | 0.939 | -0.939 | 0.299 | -0.299 |
| 39.569 | 1.314 | -1.314 | 0.293 | -0.293 |
| 39.610 | 1.321 | -1.321 | 0.293 | -0.293 |
| 41.500 | 1.640 | -1.640 | 0.288 | -0.288 |
| 42.100 | 0.000 | 0.000  | 0.000 | 0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por retracción conjunta en la viga y la losa.  
-----

| s (m)  | Nv     | Mv      | Nl      | Ml    |
|--------|--------|---------|---------|-------|
| -0.600 | 87.634 | 121.654 | -87.634 | 0.932 |
| 0.000  | 88.462 | 123.418 | -88.462 | 0.926 |
| 1.890  | 88.462 | 123.418 | -88.462 | 0.926 |
| 1.931  | 88.595 | 124.486 | -88.595 | 0.923 |
| 4.150  | 88.595 | 124.486 | -88.595 | 0.923 |
| 8.300  | 88.595 | 124.486 | -88.595 | 0.923 |
| 9.390  | 88.595 | 124.486 | -88.595 | 0.923 |
| 9.431  | 88.656 | 125.075 | -88.656 | 0.921 |
| 12.450 | 88.656 | 125.075 | -88.656 | 0.921 |
| 16.600 | 88.656 | 125.075 | -88.656 | 0.921 |
| 20.750 | 88.656 | 125.075 | -88.656 | 0.921 |
| 24.900 | 88.656 | 125.075 | -88.656 | 0.921 |
| 29.050 | 88.656 | 125.075 | -88.656 | 0.921 |
| 32.069 | 88.656 | 125.075 | -88.656 | 0.921 |
| 32.110 | 88.595 | 124.486 | -88.595 | 0.923 |
| 33.200 | 88.595 | 124.486 | -88.595 | 0.923 |
| 37.350 | 88.595 | 124.486 | -88.595 | 0.923 |

|        |        |         |         |       |
|--------|--------|---------|---------|-------|
| 39.569 | 88.595 | 124.486 | -88.595 | 0.923 |
| 39.610 | 88.462 | 123.418 | -88.462 | 0.926 |
| 41.500 | 88.462 | 123.418 | -88.462 | 0.926 |
| 42.100 | 87.634 | 121.654 | -87.634 | 0.932 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

Esfuerzos por fluencia conjunta en la viga y la losa.  
-----

| s (m)  | Nv      | Mv      | Nl      | Ml     |
|--------|---------|---------|---------|--------|
| -0.600 | 5.454   | 7.665   | -5.454  | -0.037 |
| 0.000  | 17.842  | 25.975  | -17.842 | -0.896 |
| 1.890  | -1.876  | -1.640  | 1.876   | -0.997 |
| 1.931  | -0.739  | -0.006  | 0.739   | -1.040 |
| 4.150  | 5.334   | 9.378   | -5.334  | -1.828 |
| 8.300  | -34.612 | -47.322 | 34.612  | -1.671 |
| 9.390  | -42.551 | -58.590 | 42.551  | -1.642 |
| 9.431  | -41.720 | -57.621 | 41.720  | -1.671 |
| 12.450 | -45.536 | -62.614 | 45.536  | -2.101 |
| 16.600 | -63.149 | -87.722 | 63.149  | -2.024 |
| 20.750 | -68.836 | -95.827 | 68.836  | -2.002 |
| 24.900 | -63.149 | -87.722 | 63.149  | -2.024 |
| 29.050 | -45.536 | -62.614 | 45.536  | -2.101 |
| 32.069 | -41.720 | -57.621 | 41.720  | -1.671 |
| 32.110 | -42.551 | -58.590 | 42.551  | -1.642 |
| 33.200 | -34.612 | -47.322 | 34.612  | -1.671 |
| 37.350 | 5.334   | 9.378   | -5.334  | -1.828 |
| 39.569 | -0.739  | -0.006  | 0.739   | -1.040 |
| 39.610 | -1.876  | -1.640  | 1.876   | -0.997 |
| 41.500 | 17.842  | 25.975  | -17.842 | -0.896 |
| 42.100 | 5.454   | 7.665   | -5.454  | -0.037 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

Vano 1 Viga 2  
-----

Esfuerzos por pretensado instantáneo.  
-----

| s (m)  | M+        | M-        | Q+    | Q-    | N+       | N-       |
|--------|-----------|-----------|-------|-------|----------|----------|
| -0.600 | 0.000     | 0.000     | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | -417.004  | -417.004  | 0.000 | 0.000 | 748.529  | 748.529  |
| 1.890  | -499.803  | -499.803  | 0.000 | 0.000 | 897.154  | 897.154  |
| 1.931  | -521.723  | -521.723  | 0.000 | 0.000 | 927.873  | 927.873  |
| 4.150  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 8.300  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.390  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.431  | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 12.450 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 16.600 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 20.750 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 24.900 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 29.050 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 32.069 | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 32.110 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 33.200 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 37.350 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |

|        |          |          |       |       |         |         |
|--------|----------|----------|-------|-------|---------|---------|
| 39.569 | -521.723 | -521.723 | 0.000 | 0.000 | 927.873 | 927.873 |
| 39.610 | -499.803 | -499.803 | 0.000 | 0.000 | 897.154 | 897.154 |
| 41.500 | -417.001 | -417.001 | 0.000 | 0.000 | 748.524 | 748.524 |
| 42.100 | -0.001   | -0.001   | 0.000 | 0.000 | 0.002   | 0.002   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas de pretensado en fase 1.

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 27.140  | 27.140  | 0.000 | 0.000 | -41.839  | -41.839  |
| 1.890  | 40.391  | 40.391  | 0.000 | 0.000 | -68.061  | -68.061  |
| 1.931  | 59.652  | 59.652  | 0.000 | 0.000 | -96.636  | -96.636  |
| 4.150  | 97.478  | 97.478  | 0.000 | 0.000 | -150.342 | -150.342 |
| 8.300  | 89.097  | 89.097  | 0.000 | 0.000 | -141.425 | -141.425 |
| 9.390  | 87.383  | 87.383  | 0.000 | 0.000 | -139.601 | -139.601 |
| 9.431  | 99.419  | 99.419  | 0.000 | 0.000 | -159.131 | -159.131 |
| 12.450 | 126.579 | 126.579 | 0.000 | 0.000 | -199.884 | -199.884 |
| 16.600 | 122.350 | 122.350 | 0.000 | 0.000 | -195.047 | -195.047 |
| 20.750 | 120.941 | 120.941 | 0.000 | 0.000 | -193.435 | -193.435 |
| 24.900 | 122.350 | 122.350 | 0.000 | 0.000 | -195.047 | -195.047 |
| 29.050 | 126.579 | 126.579 | 0.000 | 0.000 | -199.884 | -199.884 |
| 32.069 | 99.419  | 99.419  | 0.000 | 0.000 | -159.131 | -159.131 |
| 32.110 | 87.383  | 87.383  | 0.000 | 0.000 | -139.601 | -139.601 |
| 33.200 | 89.097  | 89.097  | 0.000 | 0.000 | -141.425 | -141.425 |
| 37.350 | 97.478  | 97.478  | 0.000 | 0.000 | -150.342 | -150.342 |
| 39.569 | 59.652  | 59.652  | 0.000 | 0.000 | -96.636  | -96.636  |
| 39.610 | 40.391  | 40.391  | 0.000 | 0.000 | -68.061  | -68.061  |
| 41.500 | 27.140  | 27.140  | 0.000 | 0.000 | -41.838  | -41.838  |
| 42.100 | 0.001   | 0.001   | 0.000 | 0.000 | -0.002   | -0.002   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas de pretensado en fase 2.

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 53.201  | 53.201  | 0.000 | 0.000 | -47.567  | -47.567  |
| 1.890  | 99.227  | 99.227  | 0.000 | 0.000 | -88.760  | -88.760  |
| 1.931  | 102.239 | 102.239 | 0.000 | 0.000 | -91.946  | -91.946  |
| 4.150  | 213.186 | 213.186 | 0.000 | 0.000 | -178.325 | -178.325 |
| 8.300  | 194.965 | 194.965 | 0.000 | 0.000 | -165.075 | -165.075 |
| 9.390  | 190.527 | 190.527 | 0.000 | 0.000 | -161.860 | -161.860 |
| 9.431  | 192.354 | 192.354 | 0.000 | 0.000 | -164.146 | -164.146 |
| 12.450 | 261.512 | 261.512 | 0.000 | 0.000 | -219.958 | -219.958 |
| 16.600 | 249.683 | 249.683 | 0.000 | 0.000 | -211.172 | -211.172 |
| 20.750 | 245.199 | 245.199 | 0.000 | 0.000 | -207.847 | -207.847 |
| 24.900 | 249.683 | 249.683 | 0.000 | 0.000 | -211.172 | -211.172 |
| 29.050 | 261.512 | 261.512 | 0.000 | 0.000 | -219.958 | -219.958 |
| 32.069 | 192.354 | 192.354 | 0.000 | 0.000 | -164.146 | -164.146 |
| 32.110 | 190.527 | 190.527 | 0.000 | 0.000 | -161.860 | -161.860 |
| 33.200 | 194.965 | 194.965 | 0.000 | 0.000 | -165.075 | -165.075 |
| 37.350 | 213.186 | 213.186 | 0.000 | 0.000 | -178.325 | -178.325 |
| 39.569 | 102.239 | 102.239 | 0.000 | 0.000 | -91.946  | -91.946  |
| 39.610 | 99.227  | 99.227  | 0.000 | 0.000 | -88.760  | -88.760  |
| 41.500 | 53.200  | 53.200  | 0.000 | 0.000 | -47.567  | -47.567  |
| 42.100 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por peso propio de la viga.

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | -0.000  | -0.000  | -0.000  | -0.000  |
| 0.000  | -0.517  | -0.517  | 59.583  | 59.583  |
| 1.890  | 106.966 | 106.966 | 54.156  | 54.156  |
| 1.931  | 109.203 | 109.203 | 54.037  | 54.037  |
| 4.150  | 222.024 | 222.024 | 47.666  | 47.666  |
| 8.300  | 395.112 | 395.112 | 35.750  | 35.750  |
| 9.390  | 432.373 | 432.373 | 32.620  | 32.620  |
| 9.431  | 433.719 | 433.719 | 32.501  | 32.501  |
| 12.450 | 518.746 | 518.746 | 23.833  | 23.833  |
| 16.600 | 592.926 | 592.926 | 11.917  | 11.917  |
| 20.750 | 617.653 | 617.653 | 0.000   | 0.000   |
| 24.900 | 592.926 | 592.926 | -11.917 | -11.917 |
| 29.050 | 518.746 | 518.746 | -23.833 | -23.833 |
| 32.069 | 433.720 | 433.720 | -32.501 | -32.501 |
| 32.110 | 432.373 | 432.373 | -32.620 | -32.620 |
| 33.200 | 395.112 | 395.112 | -35.750 | -35.750 |
| 37.350 | 222.024 | 222.024 | -47.666 | -47.666 |
| 39.569 | 109.203 | 109.203 | -54.037 | -54.037 |
| 39.610 | 106.966 | 106.966 | -54.156 | -54.156 |
| 41.500 | -0.517  | -0.517  | -59.583 | -59.583 |
| 42.100 | -0.000  | -0.000  | -0.000  | -0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por peso propio de la losa.

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | 0.000   | 0.000   | 0.000   | 0.000   |
| 0.000  | -0.506  | -0.506  | 58.359  | 58.359  |
| 1.890  | 104.770 | 104.770 | 53.044  | 53.044  |
| 1.931  | 106.961 | 106.961 | 52.927  | 52.927  |
| 4.150  | 217.466 | 217.466 | 46.688  | 46.688  |
| 8.300  | 387.000 | 387.000 | 35.016  | 35.016  |
| 9.390  | 423.496 | 423.496 | 31.950  | 31.950  |
| 9.431  | 424.815 | 424.815 | 31.834  | 31.834  |
| 12.450 | 508.096 | 508.096 | 23.344  | 23.344  |
| 16.600 | 580.753 | 580.753 | 11.672  | 11.672  |
| 20.750 | 604.972 | 604.972 | 0.000   | 0.000   |
| 24.900 | 580.753 | 580.753 | -11.672 | -11.672 |
| 29.050 | 508.096 | 508.096 | -23.344 | -23.344 |
| 32.069 | 424.815 | 424.815 | -31.834 | -31.834 |
| 32.110 | 423.497 | 423.497 | -31.950 | -31.950 |
| 33.200 | 387.000 | 387.000 | -35.016 | -35.016 |
| 37.350 | 217.466 | 217.466 | -46.688 | -46.688 |
| 39.569 | 106.961 | 106.961 | -52.927 | -52.927 |
| 39.610 | 104.770 | 104.770 | -53.044 | -53.044 |
| 41.500 | -0.506  | -0.506  | -58.359 | -58.359 |
| 42.100 | 0.000   | 0.000   | 0.000   | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por superestructura.

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | 0.000   | 0.000   | 0.000   | 0.000   |
| 0.000  | 40.872  | 36.115  | 27.487  | 14.859  |
| 1.890  | 87.189  | 65.912  | 28.828  | 18.003  |
| 1.931  | 88.203  | 66.564  | 28.858  | 18.072  |
| 4.150  | 142.574 | 101.542 | 30.433  | 21.763  |
| 8.300  | 303.603 | 239.698 | 34.089  | 29.081  |
| 9.390  | 351.092 | 282.352 | 35.112  | 31.039  |
| 9.431  | 352.894 | 283.970 | 35.151  | 31.113  |
| 12.450 | 456.910 | 379.321 | 30.249  | 27.825  |
| 16.600 | 562.219 | 477.217 | 17.394  | 16.142  |
| 20.750 | 606.026 | 518.254 | 0.690   | -0.690  |
| 24.900 | 562.219 | 477.217 | -16.142 | -17.393 |
| 29.050 | 456.912 | 379.322 | -27.825 | -30.249 |
| 32.069 | 352.896 | 283.972 | -31.113 | -35.151 |
| 32.110 | 351.094 | 282.354 | -31.039 | -35.112 |
| 33.200 | 303.606 | 239.699 | -29.081 | -34.089 |
| 37.350 | 142.575 | 101.543 | -21.763 | -30.433 |
| 39.569 | 88.204  | 66.565  | -18.072 | -28.858 |
| 39.610 | 87.191  | 65.913  | -18.003 | -28.828 |
| 41.500 | 40.873  | 36.116  | -14.859 | -27.487 |
| 42.100 | 0.000   | 0.000   | 0.000   | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por tráfico sobre la plataforma

| s (m)  | M+      | M-       | Q+      | Q-       |
|--------|---------|----------|---------|----------|
| -0.600 | 0.000   | 0.000    | 0.000   | 0.000    |
| 0.000  | 160.576 | -201.627 | 123.695 | -6.298   |
| 1.890  | 276.808 | -129.417 | 117.604 | -11.683  |
| 1.931  | 279.351 | -127.837 | 117.471 | -11.801  |
| 4.150  | 415.794 | -43.070  | 110.321 | -18.122  |
| 8.300  | 580.058 | -2.965   | 91.219  | -30.676  |
| 9.390  | 615.239 | -2.802   | 85.700  | -34.037  |
| 9.431  | 616.573 | -2.796   | 85.490  | -34.165  |
| 12.450 | 679.979 | -2.940   | 73.964  | -38.852  |
| 16.600 | 735.836 | -3.364   | 61.201  | -43.342  |
| 20.750 | 761.581 | -3.353   | 50.639  | -50.639  |
| 24.900 | 735.837 | -3.364   | 43.342  | -61.201  |
| 29.050 | 679.979 | -2.940   | 38.852  | -73.964  |
| 32.069 | 616.575 | -2.796   | 34.165  | -85.490  |
| 32.110 | 615.240 | -2.802   | 34.038  | -85.699  |
| 33.200 | 580.060 | -2.965   | 30.676  | -91.218  |
| 37.350 | 415.797 | -43.068  | 18.122  | -110.321 |
| 39.569 | 279.354 | -127.835 | 11.801  | -117.471 |
| 39.610 | 276.811 | -129.415 | 11.683  | -117.604 |
| 41.500 | 160.579 | -201.625 | 6.298   | -123.695 |
| 42.100 | 0.000   | 0.000    | 0.000   | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por gradiente térmico

| s (m)  | M+    | M-     | Q+    | Q-     |
|--------|-------|--------|-------|--------|
| -0.600 | 0.000 | 0.000  | 0.000 | 0.000  |
| 0.000  | 2.171 | -2.171 | 0.348 | -0.348 |
| 1.890  | 1.813 | -1.813 | 0.351 | -0.351 |
| 1.931  | 1.805 | -1.805 | 0.351 | -0.351 |

|        |       |        |       |        |
|--------|-------|--------|-------|--------|
| 4.150  | 1.385 | -1.385 | 0.354 | -0.354 |
| 8.300  | 0.814 | -0.814 | 0.321 | -0.321 |
| 9.390  | 0.683 | -0.683 | 0.308 | -0.308 |
| 9.431  | 0.678 | -0.678 | 0.308 | -0.308 |
| 12.450 | 0.419 | -0.419 | 0.239 | -0.239 |
| 16.600 | 0.195 | -0.195 | 0.137 | -0.137 |
| 20.750 | 0.170 | -0.170 | 0.074 | -0.074 |
| 24.900 | 0.195 | -0.195 | 0.137 | -0.137 |
| 29.050 | 0.419 | -0.419 | 0.239 | -0.239 |
| 32.069 | 0.678 | -0.678 | 0.308 | -0.308 |
| 32.110 | 0.683 | -0.683 | 0.308 | -0.308 |
| 33.200 | 0.814 | -0.814 | 0.321 | -0.321 |
| 37.350 | 1.385 | -1.385 | 0.354 | -0.354 |
| 39.569 | 1.805 | -1.805 | 0.351 | -0.351 |
| 39.610 | 1.813 | -1.813 | 0.351 | -0.351 |
| 41.500 | 2.170 | -2.170 | 0.348 | -0.348 |
| 42.100 | 0.000 | 0.000  | 0.000 | 0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT).  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T).

Esfuerzos por retracción conjunta en la viga y la losa.

| s (m)  | Nv     | Mv      | Nl      | Ml    |
|--------|--------|---------|---------|-------|
| -0.600 | 88.751 | 123.152 | -88.751 | 0.998 |
| 0.000  | 89.599 | 124.951 | -89.599 | 0.992 |
| 1.890  | 89.599 | 124.951 | -89.599 | 0.992 |
| 1.931  | 89.736 | 126.036 | -89.736 | 0.988 |
| 4.150  | 89.736 | 126.036 | -89.736 | 0.988 |
| 8.300  | 89.736 | 126.036 | -89.736 | 0.988 |
| 9.390  | 89.736 | 126.036 | -89.736 | 0.988 |
| 9.431  | 89.798 | 126.634 | -89.798 | 0.986 |
| 12.450 | 89.798 | 126.634 | -89.798 | 0.986 |
| 16.600 | 89.798 | 126.634 | -89.798 | 0.986 |
| 20.750 | 89.798 | 126.634 | -89.798 | 0.986 |
| 24.900 | 89.798 | 126.634 | -89.798 | 0.986 |
| 29.050 | 89.798 | 126.634 | -89.798 | 0.986 |
| 32.069 | 89.798 | 126.634 | -89.798 | 0.986 |
| 32.110 | 89.736 | 126.036 | -89.736 | 0.988 |
| 33.200 | 89.736 | 126.036 | -89.736 | 0.988 |
| 37.350 | 89.736 | 126.036 | -89.736 | 0.988 |
| 39.569 | 89.736 | 126.036 | -89.736 | 0.988 |
| 39.610 | 89.599 | 124.951 | -89.599 | 0.992 |
| 41.500 | 89.599 | 124.951 | -89.599 | 0.992 |
| 42.100 | 88.751 | 123.152 | -88.751 | 0.998 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

Esfuerzos por fluencia conjunta en la viga y la losa.

| s (m)  | Nv      | Mv      | Nl      | Ml     |
|--------|---------|---------|---------|--------|
| -0.600 | 5.497   | 7.728   | -5.497  | -0.038 |
| 0.000  | 20.626  | 29.987  | -20.626 | -0.995 |
| 1.890  | -4.263  | -4.973  | 4.263   | -1.019 |
| 1.931  | -3.220  | -3.495  | 3.220   | -1.063 |
| 4.150  | -2.976  | -2.417  | 2.976   | -1.796 |
| 8.300  | -45.977 | -63.474 | 45.977  | -1.608 |
| 9.390  | -53.906 | -74.721 | 53.906  | -1.584 |
| 9.431  | -53.050 | -73.778 | 53.050  | -1.617 |
| 12.450 | -56.316 | -77.943 | 56.316  | -2.093 |

|        |         |          |         |        |
|--------|---------|----------|---------|--------|
| 16.600 | -72.928 | -101.598 | 72.928  | -2.047 |
| 20.750 | -78.040 | -108.870 | 78.040  | -2.040 |
| 24.900 | -72.928 | -101.598 | 72.928  | -2.047 |
| 29.050 | -56.316 | -77.943  | 56.316  | -2.093 |
| 32.069 | -53.050 | -73.778  | 53.050  | -1.617 |
| 32.110 | -53.906 | -74.721  | 53.906  | -1.584 |
| 33.200 | -45.977 | -63.474  | 45.977  | -1.608 |
| 37.350 | -2.976  | -2.417   | 2.976   | -1.796 |
| 39.569 | -3.220  | -3.495   | 3.220   | -1.063 |
| 39.610 | -4.263  | -4.973   | 4.263   | -1.019 |
| 41.500 | 20.626  | 29.987   | -20.626 | -0.995 |
| 42.100 | 5.497   | 7.728    | -5.497  | -0.038 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

Vano 1 Viga 3  
-----

Esfuerzos por pretensado instantáneo.  
-----

| s (m)  | M+        | M-        | Q+    | Q-    | N+       | N-       |
|--------|-----------|-----------|-------|-------|----------|----------|
| -0.600 | 0.000     | 0.000     | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | -417.004  | -417.004  | 0.000 | 0.000 | 748.529  | 748.529  |
| 1.890  | -499.803  | -499.803  | 0.000 | 0.000 | 897.154  | 897.154  |
| 1.931  | -521.723  | -521.723  | 0.000 | 0.000 | 927.873  | 927.873  |
| 4.150  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 8.300  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.390  | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 9.431  | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 12.450 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 16.600 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 20.750 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 24.900 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 29.050 | -1254.756 | -1254.756 | 0.000 | 0.000 | 1959.358 | 1959.358 |
| 32.069 | -988.504  | -988.504  | 0.000 | 0.000 | 1571.574 | 1571.574 |
| 32.110 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 33.200 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 37.350 | -974.971  | -974.971  | 0.000 | 0.000 | 1551.668 | 1551.668 |
| 39.569 | -521.723  | -521.723  | 0.000 | 0.000 | 927.873  | 927.873  |
| 39.610 | -499.803  | -499.803  | 0.000 | 0.000 | 897.154  | 897.154  |
| 41.500 | -417.001  | -417.001  | 0.000 | 0.000 | 748.524  | 748.524  |
| 42.100 | -0.001    | -0.001    | 0.000 | 0.000 | 0.002    | 0.002    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas de pretensado en fase 1.  
-----

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 27.140  | 27.140  | 0.000 | 0.000 | -41.838  | -41.838  |
| 1.890  | 40.460  | 40.460  | 0.000 | 0.000 | -68.120  | -68.120  |
| 1.931  | 59.759  | 59.759  | 0.000 | 0.000 | -96.750  | -96.750  |
| 4.150  | 97.709  | 97.709  | 0.000 | 0.000 | -150.588 | -150.588 |
| 8.300  | 89.508  | 89.508  | 0.000 | 0.000 | -141.862 | -141.862 |
| 9.390  | 87.828  | 87.828  | 0.000 | 0.000 | -140.074 | -140.074 |
| 9.431  | 99.857  | 99.857  | 0.000 | 0.000 | -159.598 | -159.598 |
| 12.450 | 127.214 | 127.214 | 0.000 | 0.000 | -200.610 | -200.610 |
| 16.600 | 123.076 | 123.076 | 0.000 | 0.000 | -195.877 | -195.877 |

|        |         |         |       |       |          |          |
|--------|---------|---------|-------|-------|----------|----------|
| 20.750 | 121.697 | 121.697 | 0.000 | 0.000 | -194.300 | -194.300 |
| 24.900 | 123.076 | 123.076 | 0.000 | 0.000 | -195.877 | -195.877 |
| 29.050 | 127.214 | 127.214 | 0.000 | 0.000 | -200.610 | -200.610 |
| 32.069 | 99.857  | 99.857  | 0.000 | 0.000 | -159.598 | -159.598 |
| 32.110 | 87.828  | 87.828  | 0.000 | 0.000 | -140.074 | -140.074 |
| 33.200 | 89.508  | 89.508  | 0.000 | 0.000 | -141.862 | -141.862 |
| 37.350 | 97.709  | 97.709  | 0.000 | 0.000 | -150.588 | -150.588 |
| 39.569 | 59.759  | 59.759  | 0.000 | 0.000 | -96.750  | -96.750  |
| 39.610 | 40.460  | 40.460  | 0.000 | 0.000 | -68.120  | -68.120  |
| 41.500 | 27.139  | 27.139  | 0.000 | 0.000 | -41.838  | -41.838  |
| 42.100 | 0.001   | 0.001   | 0.000 | 0.000 | -0.002   | -0.002   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por pérdidas de pretensado en fase 2.

| s (m)  | M+      | M-      | Q+    | Q-    | N+       | N-       |
|--------|---------|---------|-------|-------|----------|----------|
| -0.600 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |
| 0.000  | 53.973  | 53.973  | 0.000 | 0.000 | -48.660  | -48.660  |
| 1.890  | 96.867  | 96.867  | 0.000 | 0.000 | -88.306  | -88.306  |
| 1.931  | 99.711  | 99.711  | 0.000 | 0.000 | -91.416  | -91.416  |
| 4.150  | 203.977 | 203.977 | 0.000 | 0.000 | -174.165 | -174.165 |
| 8.300  | 185.188 | 185.188 | 0.000 | 0.000 | -160.359 | -160.359 |
| 9.390  | 181.267 | 181.267 | 0.000 | 0.000 | -157.480 | -157.480 |
| 9.431  | 183.173 | 183.173 | 0.000 | 0.000 | -159.846 | -159.846 |
| 12.450 | 251.765 | 251.765 | 0.000 | 0.000 | -215.942 | -215.942 |
| 16.600 | 242.553 | 242.553 | 0.000 | 0.000 | -208.991 | -208.991 |
| 20.750 | 239.258 | 239.258 | 0.000 | 0.000 | -206.508 | -206.508 |
| 24.900 | 242.553 | 242.553 | 0.000 | 0.000 | -208.991 | -208.991 |
| 29.050 | 251.765 | 251.765 | 0.000 | 0.000 | -215.942 | -215.942 |
| 32.069 | 183.173 | 183.173 | 0.000 | 0.000 | -159.846 | -159.846 |
| 32.110 | 181.267 | 181.267 | 0.000 | 0.000 | -157.480 | -157.480 |
| 33.200 | 185.188 | 185.188 | 0.000 | 0.000 | -160.359 | -160.359 |
| 37.350 | 203.977 | 203.977 | 0.000 | 0.000 | -174.165 | -174.165 |
| 39.569 | 99.711  | 99.711  | 0.000 | 0.000 | -91.416  | -91.416  |
| 39.610 | 96.867  | 96.867  | 0.000 | 0.000 | -88.306  | -88.306  |
| 41.500 | 53.972  | 53.972  | 0.000 | 0.000 | -48.659  | -48.659  |
| 42.100 | 0.000   | 0.000   | 0.000 | 0.000 | 0.000    | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .  
N+,N- : Axil máximo positivo y mínimo negativo(T) .

Esfuerzos por peso propio de la viga.

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | -0.000  | -0.000  | -0.000  | -0.000  |
| 0.000  | -0.517  | -0.517  | 59.583  | 59.583  |
| 1.890  | 106.966 | 106.966 | 54.156  | 54.156  |
| 1.931  | 109.203 | 109.203 | 54.037  | 54.037  |
| 4.150  | 222.024 | 222.024 | 47.666  | 47.666  |
| 8.300  | 395.112 | 395.112 | 35.750  | 35.750  |
| 9.390  | 432.373 | 432.373 | 32.620  | 32.620  |
| 9.431  | 433.719 | 433.719 | 32.501  | 32.501  |
| 12.450 | 518.746 | 518.746 | 23.833  | 23.833  |
| 16.600 | 592.926 | 592.926 | 11.917  | 11.917  |
| 20.750 | 617.653 | 617.653 | 0.000   | 0.000   |
| 24.900 | 592.926 | 592.926 | -11.917 | -11.917 |
| 29.050 | 518.746 | 518.746 | -23.833 | -23.833 |
| 32.069 | 433.720 | 433.720 | -32.501 | -32.501 |
| 32.110 | 432.373 | 432.373 | -32.620 | -32.620 |

|        |         |         |         |         |
|--------|---------|---------|---------|---------|
| 33.200 | 395.112 | 395.112 | -35.750 | -35.750 |
| 37.350 | 222.024 | 222.024 | -47.666 | -47.666 |
| 39.569 | 109.203 | 109.203 | -54.037 | -54.037 |
| 39.610 | 106.966 | 106.966 | -54.156 | -54.156 |
| 41.500 | -0.517  | -0.517  | -59.583 | -59.583 |
| 42.100 | -0.000  | -0.000  | -0.000  | -0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por peso propio de la losa.  
-----

| s (m)  | M+      | M-      | Q+      | Q-      |
|--------|---------|---------|---------|---------|
| -0.600 | 0.000   | 0.000   | 0.000   | 0.000   |
| 0.000  | -0.478  | -0.478  | 55.117  | 55.117  |
| 1.890  | 98.949  | 98.949  | 50.097  | 50.097  |
| 1.931  | 101.018 | 101.018 | 49.987  | 49.987  |
| 4.150  | 205.385 | 205.385 | 44.094  | 44.094  |
| 8.300  | 365.500 | 365.500 | 33.070  | 33.070  |
| 9.390  | 399.969 | 399.969 | 30.175  | 30.175  |
| 9.431  | 401.214 | 401.214 | 30.065  | 30.065  |
| 12.450 | 479.868 | 479.868 | 22.047  | 22.047  |
| 16.600 | 548.489 | 548.489 | 11.023  | 11.023  |
| 20.750 | 571.363 | 571.363 | 0.000   | 0.000   |
| 24.900 | 548.489 | 548.489 | -11.023 | -11.023 |
| 29.050 | 479.868 | 479.868 | -22.047 | -22.047 |
| 32.069 | 401.214 | 401.214 | -30.065 | -30.065 |
| 32.110 | 399.969 | 399.969 | -30.175 | -30.175 |
| 33.200 | 365.500 | 365.500 | -33.070 | -33.070 |
| 37.350 | 205.385 | 205.385 | -44.094 | -44.094 |
| 39.569 | 101.019 | 101.019 | -49.987 | -49.987 |
| 39.610 | 98.950  | 98.950  | -50.097 | -50.097 |
| 41.500 | -0.478  | -0.478  | -55.117 | -55.117 |
| 42.100 | 0.000   | 0.000   | 0.000   | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por superestructura.  
-----

| s (m)  | M+      | M-       | Q+      | Q-       |
|--------|---------|----------|---------|----------|
| -0.600 | 0.000   | 0.000    | 0.000   | 0.000    |
| 0.000  | 92.986  | -134.586 | 109.192 | 37.381   |
| 1.890  | 191.102 | 14.148   | 98.897  | 29.885   |
| 1.931  | 193.248 | 17.402   | 98.671  | 29.721   |
| 4.150  | 308.425 | 191.999  | 86.586  | 20.921   |
| 8.300  | 455.067 | 390.161  | 64.397  | 3.561    |
| 9.390  | 487.560 | 430.965  | 58.605  | -1.078   |
| 9.431  | 488.792 | 432.513  | 58.385  | -1.254   |
| 12.450 | 563.804 | 486.705  | 42.623  | -5.717   |
| 16.600 | 638.020 | 533.007  | 21.217  | -5.231   |
| 20.750 | 666.204 | 551.383  | 0.601   | -0.601   |
| 24.900 | 638.021 | 533.007  | 5.231   | -21.217  |
| 29.050 | 563.806 | 486.706  | 5.717   | -42.622  |
| 32.069 | 488.794 | 432.515  | 1.254   | -58.385  |
| 32.110 | 487.561 | 430.967  | 1.078   | -58.605  |
| 33.200 | 455.069 | 390.163  | -3.561  | -64.396  |
| 37.350 | 308.427 | 192.003  | -20.921 | -86.585  |
| 39.569 | 193.251 | 17.406   | -29.721 | -98.671  |
| 39.610 | 191.104 | 14.152   | -29.885 | -98.896  |
| 41.500 | 92.988  | -134.582 | -37.380 | -109.192 |
| 42.100 | 0.000   | 0.000    | 0.000   | 0.000    |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por tráfico sobre la plataforma  
-----

| s (m)  | M+      | M-       | Q+     | Q-      |
|--------|---------|----------|--------|---------|
| -0.600 | 0.000   | 0.000    | 0.000  | 0.000   |
| 0.000  | 121.760 | -103.501 | 83.736 | -4.826  |
| 1.890  | 167.013 | -70.241  | 82.857 | -4.862  |
| 1.931  | 168.004 | -69.514  | 82.838 | -4.904  |
| 4.150  | 238.775 | -30.471  | 81.806 | -7.131  |
| 8.300  | 436.527 | -9.846   | 75.427 | -13.885 |
| 9.390  | 486.408 | -9.017   | 73.362 | -15.885 |
| 9.431  | 488.300 | -8.986   | 73.284 | -15.961 |
| 12.450 | 585.835 | -7.761   | 65.125 | -21.414 |
| 16.600 | 676.405 | -6.905   | 52.361 | -29.502 |
| 20.750 | 712.583 | -6.522   | 39.525 | -39.525 |
| 24.900 | 676.406 | -6.905   | 29.503 | -52.360 |
| 29.050 | 585.836 | -7.761   | 21.414 | -65.125 |
| 32.069 | 488.302 | -8.986   | 15.961 | -73.284 |
| 32.110 | 486.410 | -9.017   | 15.885 | -73.362 |
| 33.200 | 436.529 | -9.846   | 13.885 | -75.427 |
| 37.350 | 238.777 | -30.470  | 7.131  | -81.806 |
| 39.569 | 168.005 | -69.513  | 4.904  | -82.838 |
| 39.610 | 167.015 | -70.240  | 4.862  | -82.857 |
| 41.500 | 121.761 | -103.500 | 4.826  | -83.736 |
| 42.100 | 0.000   | 0.000    | 0.000  | 0.000   |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por gradiente térmico  
-----

| s (m)  | M+    | M-     | Q+    | Q-     |
|--------|-------|--------|-------|--------|
| -0.600 | 0.000 | 0.000  | 0.000 | 0.000  |
| 0.000  | 1.643 | -1.643 | 0.288 | -0.288 |
| 1.890  | 1.323 | -1.323 | 0.293 | -0.293 |
| 1.931  | 1.316 | -1.316 | 0.293 | -0.293 |
| 4.150  | 0.941 | -0.941 | 0.299 | -0.299 |
| 8.300  | 0.591 | -0.591 | 0.275 | -0.275 |
| 9.390  | 0.529 | -0.529 | 0.265 | -0.265 |
| 9.431  | 0.527 | -0.527 | 0.265 | -0.265 |
| 12.450 | 0.381 | -0.381 | 0.206 | -0.206 |
| 16.600 | 0.227 | -0.227 | 0.116 | -0.116 |
| 20.750 | 0.173 | -0.173 | 0.063 | -0.063 |
| 24.900 | 0.227 | -0.227 | 0.116 | -0.116 |
| 29.050 | 0.381 | -0.381 | 0.206 | -0.206 |
| 32.069 | 0.527 | -0.527 | 0.265 | -0.265 |
| 32.110 | 0.529 | -0.529 | 0.265 | -0.265 |
| 33.200 | 0.591 | -0.591 | 0.275 | -0.275 |
| 37.350 | 0.941 | -0.941 | 0.299 | -0.299 |
| 39.569 | 1.316 | -1.316 | 0.293 | -0.293 |
| 39.610 | 1.323 | -1.323 | 0.293 | -0.293 |
| 41.500 | 1.643 | -1.643 | 0.288 | -0.288 |
| 42.100 | 0.000 | 0.000  | 0.000 | 0.000  |

s(m) : distancia al inicio de la viga.  
M+,M- : Momento flector máximo positivo y mínimo negativo(mT) .  
Q+,Q- : Cortante máximo positivo y mínimo negativo(T) .

Esfuerzos por retracción conjunta en la viga y la losa.  
-----

| s (m)  | Nv     | Mv      | Nl      | Ml    |
|--------|--------|---------|---------|-------|
| -0.600 | 87.634 | 121.654 | -87.634 | 0.932 |
| 0.000  | 88.462 | 123.418 | -88.462 | 0.926 |
| 1.890  | 88.462 | 123.418 | -88.462 | 0.926 |
| 1.931  | 88.595 | 124.486 | -88.595 | 0.923 |
| 4.150  | 88.595 | 124.486 | -88.595 | 0.923 |
| 8.300  | 88.595 | 124.486 | -88.595 | 0.923 |
| 9.390  | 88.595 | 124.486 | -88.595 | 0.923 |
| 9.431  | 88.656 | 125.075 | -88.656 | 0.921 |
| 12.450 | 88.656 | 125.075 | -88.656 | 0.921 |
| 16.600 | 88.656 | 125.075 | -88.656 | 0.921 |
| 20.750 | 88.656 | 125.075 | -88.656 | 0.921 |
| 24.900 | 88.656 | 125.075 | -88.656 | 0.921 |
| 29.050 | 88.656 | 125.075 | -88.656 | 0.921 |
| 32.069 | 88.656 | 125.075 | -88.656 | 0.921 |
| 32.110 | 88.595 | 124.486 | -88.595 | 0.923 |
| 33.200 | 88.595 | 124.486 | -88.595 | 0.923 |
| 37.350 | 88.595 | 124.486 | -88.595 | 0.923 |
| 39.569 | 88.595 | 124.486 | -88.595 | 0.923 |
| 39.610 | 88.462 | 123.418 | -88.462 | 0.926 |
| 41.500 | 88.462 | 123.418 | -88.462 | 0.926 |
| 42.100 | 87.634 | 121.654 | -87.634 | 0.932 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

Esfuerzos por fluencia conjunta en la viga y la losa.

| s (m)  | Nv      | Mv      | Nl      | Ml     |
|--------|---------|---------|---------|--------|
| -0.600 | 5.454   | 7.665   | -5.454  | -0.037 |
| 0.000  | 17.839  | 25.972  | -17.839 | -0.896 |
| 1.890  | -1.877  | -1.641  | 1.877   | -0.997 |
| 1.931  | -0.740  | -0.007  | 0.740   | -1.040 |
| 4.150  | 5.335   | 9.379   | -5.335  | -1.828 |
| 8.300  | -34.609 | -47.318 | 34.609  | -1.671 |
| 9.390  | -42.547 | -58.584 | 42.547  | -1.642 |
| 9.431  | -41.717 | -57.616 | 41.717  | -1.671 |
| 12.450 | -45.531 | -62.606 | 45.531  | -2.101 |
| 16.600 | -63.143 | -87.713 | 63.143  | -2.025 |
| 20.750 | -68.830 | -95.817 | 68.830  | -2.002 |
| 24.900 | -63.143 | -87.713 | 63.143  | -2.025 |
| 29.050 | -45.531 | -62.606 | 45.531  | -2.101 |
| 32.069 | -41.717 | -57.616 | 41.717  | -1.671 |
| 32.110 | -42.547 | -58.584 | 42.547  | -1.642 |
| 33.200 | -34.609 | -47.318 | 34.609  | -1.671 |
| 37.350 | 5.335   | 9.379   | -5.335  | -1.828 |
| 39.569 | -0.740  | -0.007  | 0.740   | -1.040 |
| 39.610 | -1.877  | -1.641  | 1.877   | -0.997 |
| 41.500 | 17.839  | 25.972  | -17.839 | -0.896 |
| 42.100 | 5.454   | 7.665   | -5.454  | -0.037 |

s (m) : distancia al inicio de la viga.  
Nv (T) : Axil actuante sobre la sección de la viga.  
Mv (mT) : momento flector actuante sobre la sección de la viga.  
Nl (T) : Axil actuante sobre la sección de la losa.  
Ml (mT) : momento flector actuante sobre la sección de la losa.

CALCULO DE TENSIONES  
=====

Cálculo de tensiones en las viga  
=====

Vano 1 Viga 1  
-----

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| Instante | Día | Situación | s (m)  | Tsup +  | Tsup -  | Tinf +  | Tinf -  |
|----------|-----|-----------|--------|---------|---------|---------|---------|
| T1       | 21  | -         | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -18.096 | -19.990 | 126.975 | 114.888 |
|          |     |           | 1.890  | -0.710  | -2.981  | 138.883 | 124.396 |
|          |     |           | 1.931  | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 4.150  | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 8.300  | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 9.390  | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 9.431  | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 12.450 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 16.600 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 20.750 | 41.039  | 32.789  | 282.093 | 248.275 |
|          |     |           | 24.900 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 29.050 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 32.069 | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 32.110 | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 33.200 | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 37.350 | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 39.569 | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 39.610 | -0.710  | -2.980  | 138.882 | 124.396 |
|          |     |           | 41.500 | -18.096 | -19.990 | 126.974 | 114.887 |
|          |     |           | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
| T2       | 60  | -         | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -16.386 | -20.084 | 127.034 | 108.102 |
|          |     |           | 1.890  | 20.794  | 16.314  | 126.647 | 101.476 |
|          |     |           | 1.931  | 21.179  | 15.083  | 132.743 | 102.584 |
|          |     |           | 4.150  | 30.970  | 18.222  | 227.249 | 176.630 |
|          |     |           | 8.300  | 94.695  | 82.821  | 187.229 | 138.312 |
|          |     |           | 9.390  | 108.422 | 96.727  | 178.614 | 130.045 |
|          |     |           | 9.431  | 108.342 | 95.737  | 183.623 | 131.978 |
|          |     |           | 12.450 | 123.002 | 106.443 | 237.069 | 171.928 |
|          |     |           | 16.600 | 150.195 | 134.052 | 220.192 | 155.924 |
|          |     |           | 20.750 | 159.259 | 143.255 | 214.566 | 150.590 |
|          |     |           | 24.900 | 150.195 | 134.052 | 220.192 | 155.924 |
|          |     |           | 29.050 | 123.002 | 106.443 | 237.069 | 171.928 |
|          |     |           | 32.069 | 108.342 | 95.737  | 183.623 | 131.978 |
|          |     |           | 32.110 | 108.422 | 96.727  | 178.614 | 130.045 |
|          |     |           | 33.200 | 94.695  | 82.821  | 187.229 | 138.312 |
|          |     |           | 37.350 | 30.970  | 18.222  | 227.249 | 176.630 |

|    |    |                 |        |         |         |         |         |
|----|----|-----------------|--------|---------|---------|---------|---------|
| T3 | 90 | -               | 39.569 | 21.179  | 15.083  | 132.743 | 102.584 |
|    |    |                 | 39.610 | 20.794  | 16.315  | 126.647 | 101.476 |
|    |    |                 | 41.500 | -16.386 | -20.083 | 127.033 | 108.101 |
|    |    |                 | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
|    |    |                 | -0.600 | 1.543   | -5.705  | 11.648  | -10.425 |
|    |    |                 | 0.000  | -14.843 | -25.788 | 138.681 | 97.677  |
|    |    |                 | 1.890  | 26.752  | 16.975  | 125.376 | 82.785  |
|    |    |                 | 1.931  | 27.243  | 15.882  | 131.233 | 84.200  |
|    |    |                 | 4.150  | 42.206  | 26.481  | 210.997 | 148.819 |
|    |    |                 | 8.300  | 112.805 | 98.533  | 153.737 | 98.684  |
|    |    |                 | 9.390  | 128.427 | 113.673 | 141.498 | 87.823  |
|    |    |                 | 9.431  | 128.411 | 112.730 | 146.964 | 90.328  |
|    |    |                 | 12.450 | 146.547 | 126.158 | 195.854 | 124.390 |
|    |    |                 | 16.600 | 176.794 | 156.544 | 175.966 | 102.085 |
|    |    |                 | 20.750 | 187.057 | 166.920 | 169.217 | 94.395  |
|    |    |                 | 24.900 | 176.794 | 156.544 | 175.966 | 102.085 |
|    |    |                 | 29.050 | 146.547 | 126.158 | 195.854 | 124.390 |
|    |    |                 | 32.069 | 128.411 | 112.730 | 146.964 | 90.327  |
|    |    |                 | 32.110 | 128.427 | 113.673 | 141.498 | 87.823  |
|    |    |                 | 33.200 | 112.805 | 98.533  | 153.737 | 98.684  |
|    |    |                 | 37.350 | 42.207  | 26.482  | 210.996 | 148.819 |
|    |    |                 | 39.569 | 27.243  | 15.882  | 131.233 | 84.200  |
|    |    |                 | 39.610 | 26.752  | 16.976  | 125.375 | 82.785  |
|    |    |                 | 41.500 | -14.843 | -25.788 | 138.680 | 97.676  |
|    |    |                 | 42.100 | 1.543   | -5.705  | 11.648  | -10.425 |
| T4 | -  | Característica  | -0.600 | 2.336   | -6.057  | 13.161  | -12.023 |
|    |    |                 | 0.000  | -14.050 | -26.141 | 140.195 | 96.079  |
|    |    |                 | 1.890  | 32.466  | 16.665  | 126.562 | 73.123  |
|    |    |                 | 1.931  | 33.050  | 15.571  | 132.383 | 74.647  |
|    |    |                 | 4.150  | 53.775  | 26.220  | 211.772 | 130.077 |
|    |    |                 | 8.300  | 132.843 | 98.812  | 154.354 | 63.530  |
|    |    |                 | 9.390  | 150.153 | 113.443 | 141.385 | 48.427  |
|    |    |                 | 9.431  | 150.187 | 112.499 | 146.900 | 51.423  |
|    |    |                 | 12.450 | 172.066 | 125.917 | 196.621 | 78.426  |
|    |    |                 | 16.600 | 206.100 | 156.312 | 176.622 | 50.527  |
|    |    |                 | 20.750 | 217.805 | 166.773 | 169.904 | 40.364  |
|    |    |                 | 24.900 | 206.100 | 156.312 | 176.622 | 50.527  |
|    |    |                 | 29.050 | 172.066 | 125.918 | 196.621 | 78.426  |
|    |    |                 | 32.069 | 150.187 | 112.499 | 146.900 | 51.423  |
|    |    |                 | 32.110 | 150.154 | 113.443 | 141.385 | 48.426  |
|    |    |                 | 33.200 | 132.844 | 98.812  | 154.353 | 63.530  |
|    |    |                 | 37.350 | 53.776  | 26.220  | 211.771 | 130.076 |
|    |    |                 | 39.569 | 33.050  | 15.571  | 132.383 | 74.647  |
|    |    |                 | 39.610 | 32.467  | 16.665  | 126.562 | 73.122  |
|    |    |                 | 41.500 | -14.049 | -26.141 | 140.193 | 96.078  |
|    |    |                 | 42.100 | 2.337   | -6.057  | 13.161  | -12.023 |
|    | -  | Frecuente       | -0.600 | 2.128   | -5.965  | 12.754  | -11.598 |
|    |    |                 | 0.000  | -14.258 | -26.048 | 139.788 | 96.504  |
|    |    |                 | 1.890  | 30.308  | 16.747  | 126.242 | 76.769  |
|    |    |                 | 1.931  | 30.855  | 15.654  | 132.073 | 78.256  |
|    |    |                 | 4.150  | 49.297  | 26.290  | 211.560 | 137.356 |
|    |    |                 | 8.300  | 124.847 | 98.878  | 154.181 | 77.479  |
|    |    |                 | 9.390  | 141.298 | 113.504 | 141.115 | 64.111  |
|    |    |                 | 9.431  | 141.307 | 112.561 | 146.635 | 66.913  |
|    |    |                 | 12.450 | 161.566 | 125.983 | 196.409 | 97.309  |
|    |    |                 | 16.600 | 194.149 | 156.376 | 176.444 | 72.610  |
|    |    |                 | 20.750 | 205.317 | 166.822 | 169.727 | 63.754  |
|    |    |                 | 24.900 | 194.149 | 156.376 | 176.444 | 72.610  |
|    |    |                 | 29.050 | 161.566 | 125.983 | 196.409 | 97.308  |
|    |    |                 | 32.069 | 141.307 | 112.561 | 146.635 | 66.913  |
|    |    |                 | 32.110 | 141.298 | 113.504 | 141.115 | 64.110  |
|    |    |                 | 33.200 | 124.847 | 98.878  | 154.181 | 77.479  |
|    |    |                 | 37.350 | 49.298  | 26.290  | 211.560 | 137.355 |
|    |    |                 | 39.569 | 30.855  | 15.654  | 132.072 | 78.255  |
|    |    |                 | 39.610 | 30.309  | 16.747  | 126.241 | 76.769  |
|    |    |                 | 41.500 | -14.257 | -26.048 | 139.787 | 96.503  |
|    |    |                 | 42.100 | 2.129   | -5.964  | 12.754  | -11.598 |
|    | -  | Casi-permanente | -0.600 | 1.637   | -5.727  | 11.662  | -10.437 |
|    |    |                 | 0.000  | -14.749 | -25.811 | 138.696 | 97.665  |

T5

-

Característica

-0.600

35.979

-6.057

13.161

-20.726

-

Frecuente

-0.600

35.771

-5.965

12.754

-20.300

-

Casi-permanente

-0.600

35.279

-5.727

11.662

-19.139

1.890

26.842

16.947

125.383

82.790

1.931

27.331

15.854

131.240

84.206

4.150

42.290

26.446

210.994

148.843

8.300

112.858

98.452

153.713

98.688

9.390

128.486

113.592

141.468

87.817

9.431

128.470

112.650

146.934

90.321

12.450

146.613

126.078

195.866

124.434

16.600

176.865

156.553

175.990

102.143

20.750

187.130

167.000

169.308

94.460

24.900

176.865

156.554

175.990

102.143

29.050

146.613

126.078

195.866

124.434

32.069

128.470

112.650

146.933

90.321

32.110

128.486

113.592

141.468

87.817

33.200

112.858

98.453

153.713

98.688

37.350

42.290

26.446

210.994

148.843

39.569

27.332

15.854

131.239

84.205

39.610

26.842

16.947

125.382

82.789

41.500

-14.749

-25.811

138.695

97.664

42.100

1.637

-5.727

11.662

-10.437

0.000

24.055

-26.197

140.195

79.268

1.890

63.895

16.035

126.562

52.413

1.931

64.482

15.365

132.383

53.920

4.150

87.971

26.220

211.772

95.957

8.300

164.626

86.939

154.354

32.355

9.390

181.906

98.689

141.385

17.719

9.431

181.948

98.069

146.900

20.815

12.450

204.085

110.463

196.621

39.457

16.600

238.055

134.470

176.622

12.652

20.750

249.738

142.867

169.904

2.879

24.900

238.055

134.470

176.622

12.652

29.050

204.085

110.463

196.621

39.457

32.069

181.948

98.069

146.900

20.815

32.110

181.906

98.689

141.385

17.719

33.200

164.627

86.939

154.353

32.354

37.350

87.972

26.220

211.771

95.956

39.569

64.482

15.366

132.383

53.919

39.610

63.896

16.036

126.562

52.412

41.500

24.055

-26.197

140.193

79.267

42.100

35.979

-6.057

13.161

-20.726

0.000

23.847

-26.105

139.788

79.693

1.890

61.737

16.118

126.242

56.059

1.931

62.287

15.448

132.073

57.528

4.150

83.493

26.290

211.560

103.236

8.300

156.630

87.005

154.181

46.304

9.390

173.051

98.750

141.115

33.403

9.431

173.068

98.130

146.635

36.305

12.450

193.585

110.528

196.409

58.340

16.600

226.105

134.534

176.444

34.734

20.750

237.250

142.916

169.727

26.270

24.900

226.105

134.534

176.444

34.734

29.050

193.585

110.528

196.409

58.340

32.069

173.068

98.131

146.635

36.305

32.110

173.051

98.750

141.115

33.403

33.200

156.630

87.005

154.181

46.303

37.350

83.494

26.290

211.560

103.236

39.569

62.287

15.448

132.072

57.528

39.610

61.738

16.118

126.241

56.059

41.500

23.847

-26.104

139.787

79.693

42.100

35.771

-5.964

12.754

-20.300

|     |   |                 |        |         |         |         |         |
|-----|---|-----------------|--------|---------|---------|---------|---------|
| Env | - | Característica  | 12.450 | 178.633 | 110.623 | 195.866 | 85.465  |
|     |   |                 | 16.600 | 208.821 | 134.712 | 175.990 | 64.268  |
|     |   |                 | 20.750 | 219.062 | 143.095 | 169.308 | 56.976  |
|     |   |                 | 24.900 | 208.821 | 134.712 | 175.990 | 64.268  |
|     |   |                 | 29.050 | 178.633 | 110.623 | 195.866 | 85.465  |
|     |   |                 | 32.069 | 160.231 | 98.220  | 146.933 | 59.714  |
|     |   |                 | 32.110 | 160.238 | 98.838  | 141.468 | 57.109  |
|     |   |                 | 33.200 | 144.641 | 86.580  | 153.713 | 67.512  |
|     |   |                 | 37.350 | 76.486  | 26.446  | 210.994 | 114.723 |
|     |   |                 | 39.569 | 58.763  | 15.648  | 131.239 | 63.478  |
|     |   |                 | 39.610 | 58.271  | 16.318  | 125.382 | 62.079  |
|     |   |                 | 41.500 | 23.356  | -25.867 | 138.695 | 80.853  |
|     |   |                 | 42.100 | 35.279  | -5.727  | 11.662  | -19.140 |
|     |   |                 | -0.600 | 35.979  | -6.057  | 13.161  | -20.726 |
|     |   |                 | 0.000  | 24.055  | -26.197 | 140.195 | 79.268  |
|     |   |                 | 1.890  | 63.895  | -2.981  | 138.883 | 52.413  |
|     |   |                 | 1.931  | 64.482  | -4.501  | 144.876 | 53.920  |
|     |   |                 | 4.150  | 87.971  | -21.597 | 251.916 | 95.957  |
|     |   |                 | 8.300  | 164.626 | 11.960  | 231.128 | 32.355  |
|     |   |                 | 9.390  | 181.906 | 19.184  | 226.652 | 17.719  |
|     |   |                 | 9.431  | 181.948 | 18.167  | 231.041 | 20.815  |
|     |   |                 | 12.450 | 204.085 | 13.666  | 293.782 | 39.457  |
|     |   |                 | 16.600 | 238.055 | 28.008  | 285.015 | 12.652  |
|     |   |                 | 20.750 | 249.738 | 32.789  | 282.093 | 2.879   |
|     |   |                 | 24.900 | 238.055 | 28.008  | 285.015 | 12.652  |
|     |   |                 | 29.050 | 204.085 | 13.666  | 293.782 | 39.457  |
|     |   |                 | 32.069 | 181.948 | 18.167  | 231.041 | 20.815  |
|     |   |                 | 32.110 | 181.906 | 19.184  | 226.652 | 17.719  |
|     |   |                 | 33.200 | 164.627 | 11.960  | 231.128 | 32.354  |
|     |   |                 | 37.350 | 87.972  | -21.597 | 251.916 | 95.956  |
|     |   |                 | 39.569 | 64.482  | -4.501  | 144.876 | 53.919  |
|     |   |                 | 39.610 | 63.896  | -2.980  | 138.882 | 52.412  |
|     |   |                 | 41.500 | 24.055  | -26.197 | 140.193 | 79.267  |
|     |   |                 | 42.100 | 35.979  | -6.057  | 13.161  | -20.726 |
|     | - | Frecuente       | -0.600 | 35.771  | -5.965  | 12.754  | -20.300 |
|     |   |                 | 0.000  | 23.847  | -26.105 | 139.788 | 79.693  |
|     |   |                 | 1.890  | 61.737  | -2.981  | 138.883 | 56.059  |
|     |   |                 | 1.931  | 62.287  | -4.501  | 144.876 | 57.528  |
|     |   |                 | 4.150  | 83.493  | -21.597 | 251.916 | 103.236 |
|     |   |                 | 8.300  | 156.630 | 11.960  | 231.128 | 46.304  |
|     |   |                 | 9.390  | 173.051 | 19.184  | 226.652 | 33.403  |
|     |   |                 | 9.431  | 173.068 | 18.167  | 231.041 | 36.305  |
|     |   |                 | 12.450 | 193.585 | 13.666  | 293.782 | 58.340  |
|     |   |                 | 16.600 | 226.105 | 28.008  | 285.015 | 34.734  |
|     |   |                 | 20.750 | 237.250 | 32.789  | 282.093 | 26.270  |
|     |   |                 | 24.900 | 226.105 | 28.008  | 285.015 | 34.734  |
|     |   |                 | 29.050 | 193.585 | 13.666  | 293.782 | 58.340  |
|     |   |                 | 32.069 | 173.068 | 18.167  | 231.041 | 36.305  |
|     |   |                 | 32.110 | 173.051 | 19.184  | 226.652 | 33.403  |
|     |   |                 | 33.200 | 156.630 | 11.960  | 231.128 | 46.303  |
|     |   |                 | 37.350 | 83.494  | -21.597 | 251.916 | 103.236 |
|     |   |                 | 39.569 | 62.287  | -4.501  | 144.876 | 57.528  |
|     |   |                 | 39.610 | 61.738  | -2.980  | 138.882 | 56.059  |
|     |   |                 | 41.500 | 23.847  | -26.104 | 139.787 | 79.693  |
|     |   |                 | 42.100 | 35.771  | -5.964  | 12.754  | -20.300 |
|     | - | Casi-permanente | -0.600 | 35.279  | -5.727  | 11.662  | -19.139 |
|     |   |                 | 0.000  | 23.356  | -25.867 | 138.696 | 80.854  |
|     |   |                 | 1.890  | 58.270  | -2.981  | 138.883 | 62.080  |
|     |   |                 | 1.931  | 58.763  | -4.501  | 144.876 | 63.478  |
|     |   |                 | 4.150  | 76.486  | -21.597 | 251.916 | 114.723 |
|     |   |                 | 8.300  | 144.641 | 11.960  | 231.128 | 67.513  |
|     |   |                 | 9.390  | 160.238 | 19.184  | 226.652 | 57.109  |
|     |   |                 | 9.431  | 160.231 | 18.167  | 231.041 | 59.714  |
|     |   |                 | 12.450 | 178.633 | 13.666  | 293.782 | 85.465  |
|     |   |                 | 16.600 | 208.821 | 28.008  | 285.015 | 64.268  |
|     |   |                 | 20.750 | 219.062 | 32.789  | 282.093 | 56.976  |
|     |   |                 | 24.900 | 208.821 | 28.008  | 285.015 | 64.268  |
|     |   |                 | 29.050 | 178.633 | 13.666  | 293.782 | 85.465  |
|     |   |                 | 32.069 | 160.231 | 18.167  | 231.041 | 59.714  |

|  |        |         |         |         |         |
|--|--------|---------|---------|---------|---------|
|  | 32.110 | 160.238 | 19.184  | 226.652 | 57.109  |
|  | 33.200 | 144.641 | 11.960  | 231.128 | 67.512  |
|  | 37.350 | 76.486  | -21.597 | 251.916 | 114.723 |
|  | 39.569 | 58.763  | -4.501  | 144.876 | 63.478  |
|  | 39.610 | 58.271  | -2.980  | 138.882 | 62.079  |
|  | 41.500 | 23.356  | -25.867 | 138.695 | 80.853  |
|  | 42.100 | 35.279  | -5.727  | 11.662  | -19.140 |

Vano    1    2  
-----

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K6 = 1.000000

| Instante | Día | Situación | s (m)  | Tsup +  | Tsup -  | Tinf +  | Tinf -  |
|----------|-----|-----------|--------|---------|---------|---------|---------|
| T1       | 21  | -         | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -18.096 | -19.990 | 126.975 | 114.888 |
|          |     |           | 1.890  | -0.710  | -2.981  | 138.883 | 124.396 |
|          |     |           | 1.931  | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 4.150  | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 8.300  | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 9.390  | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 9.431  | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 12.450 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 16.600 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 20.750 | 41.039  | 32.789  | 282.093 | 248.275 |
|          |     |           | 24.900 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 29.050 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 32.069 | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 32.110 | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 33.200 | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 37.350 | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 39.569 | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 39.610 | -0.710  | -2.980  | 138.882 | 124.396 |
|          |     |           | 41.500 | -18.096 | -19.990 | 126.974 | 114.887 |
|          |     |           | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
| T2       | 60  | -         | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -16.392 | -20.089 | 127.037 | 108.105 |
|          |     |           | 1.890  | 21.920  | 17.449  | 125.927 | 100.770 |
|          |     |           | 1.931  | 22.319  | 16.235  | 132.030 | 101.892 |
|          |     |           | 4.150  | 33.288  | 20.564  | 225.798 | 175.227 |
|          |     |           | 8.300  | 98.819  | 86.989  | 184.647 | 135.815 |
|          |     |           | 9.390  | 112.936 | 101.288 | 175.788 | 127.311 |
|          |     |           | 9.431  | 112.858 | 100.300 | 180.834 | 129.278 |
|          |     |           | 12.450 | 128.395 | 111.901 | 233.733 | 168.726 |
|          |     |           | 16.600 | 156.360 | 140.290 | 216.379 | 152.265 |
|          |     |           | 20.750 | 165.682 | 149.754 | 210.594 | 146.777 |

|    |    |                |        |         |         |         |         |
|----|----|----------------|--------|---------|---------|---------|---------|
| T3 | 90 | -              | 24.900 | 156.360 | 140.290 | 216.379 | 152.265 |
|    |    |                | 29.050 | 128.395 | 111.901 | 233.733 | 168.726 |
|    |    |                | 32.069 | 112.858 | 100.300 | 180.834 | 129.278 |
|    |    |                | 32.110 | 112.936 | 101.289 | 175.788 | 127.311 |
|    |    |                | 33.200 | 98.819  | 86.989  | 184.647 | 135.815 |
|    |    |                | 37.350 | 33.288  | 20.564  | 225.798 | 175.227 |
|    |    |                | 39.569 | 22.319  | 16.235  | 132.030 | 101.892 |
|    |    |                | 39.610 | 21.920  | 17.450  | 125.927 | 100.770 |
|    |    |                | 41.500 | -16.391 | -20.089 | 127.036 | 108.105 |
|    |    |                | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
|    |    |                | -0.600 | 3.999   | 3.551   | -1.034  | -1.190  |
|    |    |                | 0.000  | -12.393 | -16.538 | 126.003 | 106.915 |
|    |    |                | 1.890  | 28.151  | 22.737  | 122.846 | 95.931  |
|    |    |                | 1.931  | 28.568  | 21.531  | 129.038 | 97.159  |
|    |    |                | 4.150  | 42.149  | 27.890  | 220.481 | 166.338 |
|    |    |                | 8.300  | 115.141 | 100.942 | 168.757 | 114.337 |
|    |    |                | 9.390  | 131.443 | 117.230 | 156.577 | 102.106 |
|    |    |                | 9.431  | 131.416 | 116.286 | 161.853 | 104.383 |
|    |    |                | 12.450 | 151.333 | 131.872 | 206.996 | 135.403 |
|    |    |                | 16.600 | 183.441 | 164.028 | 181.355 | 110.117 |
|    |    |                | 20.750 | 194.387 | 174.962 | 171.987 | 100.860 |
|    |    |                | 24.900 | 183.441 | 164.029 | 181.355 | 110.117 |
|    |    |                | 29.050 | 151.333 | 131.872 | 206.996 | 135.403 |
|    |    |                | 32.069 | 131.416 | 116.286 | 161.852 | 104.383 |
|    |    |                | 32.110 | 131.443 | 117.231 | 156.576 | 102.106 |
|    |    |                | 33.200 | 115.141 | 100.942 | 168.757 | 114.337 |
|    |    |                | 37.350 | 42.150  | 27.890  | 220.481 | 166.338 |
|    |    |                | 39.569 | 28.568  | 21.531  | 129.038 | 97.159  |
|    |    |                | 39.610 | 28.152  | 22.737  | 122.846 | 95.931  |
|    |    |                | 41.500 | -12.393 | -16.538 | 126.002 | 106.914 |
|    |    |                | 42.100 | 3.999   | 3.551   | -1.034  | -1.191  |
| T4 | -  | Característica | -0.600 | 8.081   | -4.580  | 16.599  | -17.661 |
|    |    |                | 0.000  | -8.310  | -24.669 | 143.637 | 90.444  |
|    |    |                | 1.890  | 37.450  | 17.423  | 134.103 | 69.947  |
|    |    |                | 1.931  | 37.984  | 16.286  | 139.845 | 71.661  |
|    |    |                | 4.150  | 57.676  | 25.948  | 224.008 | 129.993 |
|    |    |                | 8.300  | 137.492 | 100.520 | 168.766 | 64.408  |
|    |    |                | 9.390  | 155.183 | 116.799 | 156.545 | 49.197  |
|    |    |                | 9.431  | 155.207 | 115.856 | 161.817 | 52.202  |
|    |    |                | 12.450 | 177.744 | 131.495 | 207.012 | 78.054  |
|    |    |                | 16.600 | 212.260 | 163.767 | 181.521 | 48.315  |
|    |    |                | 20.750 | 224.342 | 174.794 | 172.245 | 37.026  |
|    |    |                | 24.900 | 212.260 | 163.767 | 181.521 | 48.315  |
|    |    |                | 29.050 | 177.744 | 131.495 | 207.012 | 78.053  |
|    |    |                | 32.069 | 155.207 | 115.856 | 161.817 | 52.202  |
|    |    |                | 32.110 | 155.184 | 116.799 | 156.545 | 49.196  |
|    |    |                | 33.200 | 137.493 | 100.520 | 168.766 | 64.408  |
|    |    |                | 37.350 | 57.676  | 25.948  | 224.008 | 129.993 |
|    |    |                | 39.569 | 37.985  | 16.286  | 139.845 | 71.661  |
|    |    |                | 39.610 | 37.450  | 17.423  | 134.102 | 69.946  |
|    |    |                | 41.500 | -8.310  | -24.669 | 143.636 | 90.443  |
|    |    |                | 42.100 | 8.082   | -4.580  | 16.600  | -17.661 |
|    |    | Frecuente      | -0.600 | 6.258   | -1.042  | 8.817   | -10.370 |
|    |    |                | 0.000  | -10.133 | -21.131 | 135.854 | 97.735  |
|    |    |                | 1.890  | 33.577  | 19.721  | 129.133 | 80.840  |
|    |    |                | 1.931  | 34.065  | 18.554  | 135.073 | 82.342  |
|    |    |                | 4.150  | 51.356  | 26.763  | 222.447 | 144.781 |
|    |    |                | 8.300  | 128.442 | 100.636 | 168.740 | 84.421  |
|    |    |                | 9.390  | 145.569 | 116.908 | 156.532 | 70.366  |
|    |    |                | 9.431  | 145.573 | 115.965 | 161.805 | 73.078  |
|    |    |                | 12.450 | 167.173 | 131.588 | 207.038 | 100.847 |
|    |    |                | 16.600 | 200.895 | 163.841 | 181.475 | 72.696  |
|    |    |                | 20.750 | 212.500 | 174.858 | 172.190 | 62.162  |
|    |    |                | 24.900 | 200.895 | 163.841 | 181.475 | 72.696  |
|    |    |                | 29.050 | 167.173 | 131.588 | 207.038 | 100.847 |
|    |    |                | 32.069 | 145.573 | 115.965 | 161.805 | 73.078  |
|    |    |                | 32.110 | 145.570 | 116.908 | 156.531 | 70.366  |
|    |    |                | 33.200 | 128.442 | 100.636 | 168.740 | 84.420  |
|    |    |                | 37.350 | 51.356  | 26.763  | 222.447 | 144.780 |

|    |   |                 |        |         |         |         |         |
|----|---|-----------------|--------|---------|---------|---------|---------|
| T5 | - | Casi-permanente | 39.569 | 34.065  | 18.555  | 135.073 | 82.342  |
|    |   |                 | 39.610 | 33.578  | 19.721  | 129.133 | 80.839  |
|    |   |                 | 41.500 | -10.133 | -21.130 | 135.853 | 97.734  |
|    |   |                 | 42.100 | 6.258   | -1.042  | 8.817   | -10.370 |
|    |   |                 | -0.600 | 4.111   | 3.439   | -1.009  | -1.216  |
|    |   |                 | 0.000  | -12.281 | -16.650 | 126.028 | 106.889 |
|    |   |                 | 1.890  | 28.265  | 22.624  | 122.847 | 95.930  |
|    |   |                 | 1.931  | 28.680  | 21.419  | 129.038 | 97.160  |
|    |   |                 | 4.150  | 42.264  | 27.776  | 220.453 | 166.366 |
|    |   |                 | 8.300  | 115.270 | 100.813 | 168.763 | 114.350 |
|    |   |                 | 9.390  | 131.577 | 117.096 | 156.587 | 102.116 |
|    |   |                 | 9.431  | 131.550 | 116.152 | 161.864 | 104.391 |
|    |   |                 | 12.450 | 151.420 | 131.785 | 207.014 | 135.408 |
|    |   |                 | 16.600 | 183.419 | 164.050 | 181.388 | 110.083 |
|    |   |                 | 20.750 | 194.241 | 175.109 | 172.144 | 100.703 |
|    |   |                 | 24.900 | 183.419 | 164.050 | 181.388 | 110.083 |
|    |   |                 | 29.050 | 151.420 | 131.785 | 207.014 | 135.408 |
|    |   |                 | 32.069 | 131.550 | 116.152 | 161.864 | 104.391 |
|    |   |                 | 32.110 | 131.577 | 117.096 | 156.587 | 102.116 |
|    |   |                 | 33.200 | 115.271 | 100.813 | 168.763 | 114.349 |
|    | - | Característica  | 37.350 | 42.264  | 27.776  | 220.453 | 166.366 |
|    |   |                 | 39.569 | 28.681  | 21.419  | 129.037 | 97.159  |
|    |   |                 | 39.610 | 28.265  | 22.624  | 122.847 | 95.929  |
|    |   |                 | 41.500 | -12.280 | -16.650 | 126.028 | 106.888 |
|    |   |                 | 42.100 | 4.111   | 3.439   | -1.008  | -1.216  |
|    |   |                 | -0.600 | 42.133  | -4.580  | 16.599  | -26.465 |
|    |   |                 | 0.000  | 31.174  | -24.760 | 143.637 | 73.470  |
|    |   |                 | 1.890  | 69.253  | 15.919  | 134.103 | 49.067  |
|    |   |                 | 1.931  | 69.791  | 15.174  | 139.845 | 50.816  |
|    |   |                 | 4.150  | 89.964  | 25.548  | 224.008 | 95.817  |
|    |   |                 | 8.300  | 169.655 | 84.545  | 168.766 | 32.375  |
|    |   |                 | 9.390  | 187.315 | 97.946  | 156.545 | 17.685  |
|    |   |                 | 9.431  | 187.346 | 97.339  | 161.817 | 20.815  |
|    |   |                 | 12.450 | 210.101 | 112.119 | 207.012 | 38.369  |
|    |   |                 | 16.600 | 244.543 | 138.357 | 181.521 | 10.012  |
|    |   |                 | 20.750 | 256.597 | 147.524 | 172.245 | -0.753  |
|    |   |                 | 24.900 | 244.543 | 138.357 | 181.521 | 10.012  |
|    |   |                 | 29.050 | 210.101 | 112.119 | 207.012 | 38.369  |
|    |   |                 | 32.069 | 187.347 | 97.339  | 161.817 | 20.815  |
|    |   |                 | 32.110 | 187.315 | 97.946  | 156.545 | 17.685  |
|    | - | Frecuente       | 33.200 | 169.655 | 84.545  | 168.766 | 32.375  |
|    |   |                 | 37.350 | 89.964  | 25.548  | 224.008 | 95.816  |
|    |   |                 | 39.569 | 69.791  | 15.174  | 139.845 | 50.816  |
|    |   |                 | 39.610 | 69.253  | 15.920  | 134.102 | 49.067  |
|    |   |                 | 41.500 | 31.174  | -24.760 | 143.636 | 73.469  |
|    |   |                 | 42.100 | 42.133  | -4.580  | 16.600  | -26.466 |
|    |   |                 | -0.600 | 40.309  | -1.042  | 8.817   | -19.175 |
|    |   |                 | 0.000  | 29.351  | -21.222 | 135.854 | 80.761  |
|    |   |                 | 1.890  | 65.380  | 18.218  | 129.133 | 59.960  |
|    |   |                 | 1.931  | 65.872  | 17.443  | 135.073 | 61.498  |
|    |   |                 | 4.150  | 83.644  | 26.362  | 222.447 | 110.604 |
|    |   |                 | 8.300  | 160.604 | 84.661  | 168.740 | 52.387  |
|    |   |                 | 9.390  | 177.701 | 98.056  | 156.532 | 38.855  |
|    |   |                 | 9.431  | 177.712 | 97.448  | 161.805 | 41.691  |
|    |   |                 | 12.450 | 199.530 | 112.212 | 207.038 | 61.163  |
|    |   |                 | 16.600 | 233.178 | 138.432 | 181.475 | 34.393  |
|    |   |                 | 20.750 | 244.754 | 147.588 | 172.190 | 24.383  |
|    |   |                 | 24.900 | 233.178 | 138.432 | 181.475 | 34.393  |
|    |   |                 | 29.050 | 199.530 | 112.212 | 207.038 | 61.162  |
|    |   |                 | 32.069 | 177.713 | 97.448  | 161.805 | 41.691  |
|    | - | Casi-permanente | 32.110 | 177.701 | 98.056  | 156.531 | 38.854  |
|    |   |                 | 33.200 | 160.605 | 84.661  | 168.740 | 52.387  |
|    |   |                 | 37.350 | 83.644  | 26.362  | 222.447 | 110.604 |
|    |   |                 | 39.569 | 65.872  | 17.443  | 135.073 | 61.497  |
|    |   |                 | 39.610 | 65.381  | 18.218  | 129.133 | 59.960  |
|    |   |                 | 41.500 | 29.351  | -21.222 | 135.853 | 80.760  |
|    |   |                 | 42.100 | 40.310  | -1.042  | 8.817   | -19.175 |
|    |   |                 | -0.600 | 38.162  | 3.439   | -1.009  | -10.020 |
|    |   |                 | 0.000  | 27.204  | -16.741 | 126.028 | 89.915  |

|        |         |                |         |         |         |         |         |
|--------|---------|----------------|---------|---------|---------|---------|---------|
| Env    | -       | Característica | 1.890   | 60.068  | 21.120  | 122.847 | 75.050  |
|        |         |                | 1.931   | 60.487  | 20.307  | 129.038 | 76.315  |
|        |         |                | 4.150   | 74.552  | 27.375  | 220.453 | 132.190 |
|        |         |                | 8.300   | 147.433 | 84.838  | 168.763 | 82.316  |
|        |         |                | 9.390   | 163.709 | 98.244  | 156.587 | 70.604  |
|        |         |                | 9.431   | 163.689 | 97.636  | 161.864 | 73.004  |
|        |         |                | 12.450  | 183.777 | 112.409 | 207.014 | 95.723  |
|        |         |                | 16.600  | 215.702 | 138.641 | 181.388 | 71.781  |
|        |         |                | 20.750  | 226.495 | 147.839 | 172.144 | 62.924  |
|        |         |                | 24.900  | 215.702 | 138.641 | 181.388 | 71.781  |
|        |         |                | 29.050  | 183.777 | 112.410 | 207.014 | 95.723  |
|        |         |                | 32.069  | 163.689 | 97.636  | 161.864 | 73.004  |
|        |         |                | 32.110  | 163.709 | 98.244  | 156.587 | 70.604  |
|        |         |                | 33.200  | 147.433 | 84.839  | 168.763 | 82.316  |
|        |         |                | 37.350  | 74.552  | 27.375  | 220.453 | 132.190 |
|        |         |                | 39.569  | 60.487  | 20.307  | 129.037 | 76.315  |
|        |         |                | 39.610  | 60.068  | 21.120  | 122.847 | 75.050  |
|        |         |                | 41.500  | 27.204  | -16.741 | 126.028 | 89.914  |
|        |         |                | 42.100  | 38.162  | 3.439   | -1.008  | -10.021 |
|        |         |                | -0.600  | 42.133  | -4.580  | 16.599  | -26.465 |
|        |         |                | 0.000   | 31.174  | -24.760 | 143.637 | 73.470  |
|        |         |                | 1.890   | 69.253  | -2.981  | 138.883 | 49.067  |
|        |         |                | 1.931   | 69.791  | -4.501  | 144.876 | 50.816  |
|        |         |                | 4.150   | 89.964  | -21.597 | 251.916 | 95.817  |
|        |         |                | 8.300   | 169.655 | 11.960  | 231.128 | 32.375  |
|        |         |                | 9.390   | 187.315 | 19.184  | 226.652 | 17.685  |
|        |         |                | 9.431   | 187.346 | 18.167  | 231.041 | 20.815  |
|        |         |                | 12.450  | 210.101 | 13.666  | 293.782 | 38.369  |
|        |         |                | 16.600  | 244.543 | 28.008  | 285.015 | 10.012  |
|        |         |                | 20.750  | 256.597 | 32.789  | 282.093 | -0.753  |
|        |         |                | 24.900  | 244.543 | 28.008  | 285.015 | 10.012  |
|        |         |                | 29.050  | 210.101 | 13.666  | 293.782 | 38.369  |
|        |         |                | 32.069  | 187.347 | 18.167  | 231.041 | 20.815  |
|        |         |                | 32.110  | 187.315 | 19.184  | 226.652 | 17.685  |
|        |         |                | 33.200  | 169.655 | 11.960  | 231.128 | 32.375  |
|        |         |                | 37.350  | 89.964  | -21.597 | 251.916 | 95.816  |
|        |         |                | 39.569  | 69.791  | -4.501  | 144.876 | 50.816  |
|        |         |                | 39.610  | 69.253  | -2.980  | 138.882 | 49.067  |
|        |         |                | 41.500  | 31.174  | -24.760 | 143.636 | 73.469  |
|        |         |                | 42.100  | 42.133  | -4.580  | 16.600  | -26.466 |
|        |         |                | -0.600  | 40.309  | -1.042  | 8.817   | -19.175 |
|        |         |                | 0.000   | 29.351  | -21.222 | 135.854 | 80.761  |
|        |         |                | 1.890   | 65.380  | -2.981  | 138.883 | 59.960  |
|        |         |                | 1.931   | 65.872  | -4.501  | 144.876 | 61.498  |
|        |         |                | 4.150   | 83.644  | -21.597 | 251.916 | 110.604 |
|        |         |                | 8.300   | 160.604 | 11.960  | 231.128 | 52.387  |
|        |         |                | 9.390   | 177.701 | 19.184  | 226.652 | 38.855  |
|        |         |                | 9.431   | 177.712 | 18.167  | 231.041 | 41.691  |
|        |         |                | 12.450  | 199.530 | 13.666  | 293.782 | 61.163  |
|        |         |                | 16.600  | 233.178 | 28.008  | 285.015 | 34.393  |
| 20.750 | 244.754 | 32.789         | 282.093 | 24.383  |         |         |         |
| 24.900 | 233.178 | 28.008         | 285.015 | 34.393  |         |         |         |
| 29.050 | 199.530 | 13.666         | 293.782 | 61.162  |         |         |         |
| 32.069 | 177.713 | 18.167         | 231.041 | 41.691  |         |         |         |
| 32.110 | 177.701 | 19.184         | 226.652 | 38.854  |         |         |         |
| 33.200 | 160.605 | 11.960         | 231.128 | 52.387  |         |         |         |
| 37.350 | 83.644  | -21.597        | 251.916 | 110.604 |         |         |         |
| 39.569 | 65.872  | -4.501         | 144.876 | 61.497  |         |         |         |
| 39.610 | 65.381  | -2.980         | 138.882 | 59.960  |         |         |         |
| 41.500 | 29.351  | -21.222        | 135.853 | 80.760  |         |         |         |
| 42.100 | 40.310  | -1.042         | 8.817   | -19.175 |         |         |         |
| -0.600 | 38.162  | -0.000         | 0.000   | -10.020 |         |         |         |
| 0.000  | 27.204  | -20.089        | 127.037 | 89.915  |         |         |         |
| 1.890  | 60.068  | -2.981         | 138.883 | 75.050  |         |         |         |
| 1.931  | 60.487  | -4.501         | 144.876 | 76.315  |         |         |         |
| 4.150  | 74.552  | -21.597        | 251.916 | 132.190 |         |         |         |
| 8.300  | 147.433 | 11.960         | 231.128 | 82.316  |         |         |         |
| 9.390  | 163.709 | 19.184         | 226.652 | 70.604  |         |         |         |
| 9.431  | 163.689 | 18.167         | 231.041 | 73.004  |         |         |         |

|  |        |         |         |         |         |
|--|--------|---------|---------|---------|---------|
|  | 12.450 | 183.777 | 13.666  | 293.782 | 95.723  |
|  | 16.600 | 215.702 | 28.008  | 285.015 | 71.781  |
|  | 20.750 | 226.495 | 32.789  | 282.093 | 62.924  |
|  | 24.900 | 215.702 | 28.008  | 285.015 | 71.781  |
|  | 29.050 | 183.777 | 13.666  | 293.782 | 95.723  |
|  | 32.069 | 163.689 | 18.167  | 231.041 | 73.004  |
|  | 32.110 | 163.709 | 19.184  | 226.652 | 70.604  |
|  | 33.200 | 147.433 | 11.960  | 231.128 | 82.316  |
|  | 37.350 | 74.552  | -21.597 | 251.916 | 132.190 |
|  | 39.569 | 60.487  | -4.501  | 144.876 | 76.315  |
|  | 39.610 | 60.068  | -2.980  | 138.882 | 75.050  |
|  | 41.500 | 27.204  | -20.089 | 127.036 | 89.914  |
|  | 42.100 | 38.162  | -0.000  | 0.000   | -10.021 |

Vano    1 Viga    3  
-----

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K6 = 1.000000

| Instante | Día | Situación | s (m)  | Tsup +  | Tsup -  | Tinf +  | Tinf -  |
|----------|-----|-----------|--------|---------|---------|---------|---------|
| -----    |     |           |        |         |         |         |         |
| T1       | 21  | -         | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -18.096 | -19.990 | 126.975 | 114.888 |
|          |     |           | 1.890  | -0.710  | -2.981  | 138.883 | 124.396 |
|          |     |           | 1.931  | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 4.150  | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 8.300  | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 9.390  | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 9.431  | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 12.450 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 16.600 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 20.750 | 41.039  | 32.789  | 282.093 | 248.275 |
|          |     |           | 24.900 | 36.258  | 28.008  | 285.015 | 251.197 |
|          |     |           | 29.050 | 21.916  | 13.666  | 293.782 | 259.964 |
|          |     |           | 32.069 | 24.423  | 18.167  | 231.041 | 204.155 |
|          |     |           | 32.110 | 25.340  | 19.184  | 226.652 | 200.121 |
|          |     |           | 33.200 | 18.116  | 11.960  | 231.128 | 204.596 |
|          |     |           | 37.350 | -15.441 | -21.597 | 251.916 | 225.385 |
|          |     |           | 39.569 | -2.056  | -4.501  | 144.876 | 129.829 |
|          |     |           | 39.610 | -0.710  | -2.980  | 138.882 | 124.396 |
|          |     |           | 41.500 | -18.096 | -19.990 | 126.974 | 114.887 |
| T2       | 60  | -         | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | -0.600 | -0.000  | -0.000  | 0.000   | 0.000   |
|          |     |           | 0.000  | -16.386 | -20.084 | 127.034 | 108.102 |
|          |     |           | 1.890  | 20.794  | 16.314  | 126.647 | 101.476 |
|          |     |           | 1.931  | 21.179  | 15.083  | 132.743 | 102.584 |
|          |     |           | 4.150  | 30.970  | 18.222  | 227.249 | 176.630 |

|    |    |                |        |         |         |         |         |
|----|----|----------------|--------|---------|---------|---------|---------|
| T3 | 90 | -              | 8.300  | 94.695  | 82.821  | 187.229 | 138.312 |
|    |    |                | 9.390  | 108.422 | 96.727  | 178.614 | 130.045 |
|    |    |                | 9.431  | 108.342 | 95.737  | 183.623 | 131.978 |
|    |    |                | 12.450 | 123.002 | 106.443 | 237.069 | 171.928 |
|    |    |                | 16.600 | 150.195 | 134.052 | 220.192 | 155.924 |
|    |    |                | 20.750 | 159.259 | 143.255 | 214.566 | 150.590 |
|    |    |                | 24.900 | 150.195 | 134.052 | 220.192 | 155.924 |
|    |    |                | 29.050 | 123.002 | 106.443 | 237.069 | 171.928 |
|    |    |                | 32.069 | 108.342 | 95.737  | 183.623 | 131.978 |
|    |    |                | 32.110 | 108.422 | 96.727  | 178.614 | 130.045 |
|    |    |                | 33.200 | 94.695  | 82.821  | 187.229 | 138.312 |
|    |    |                | 37.350 | 30.970  | 18.222  | 227.249 | 176.630 |
|    |    |                | 39.569 | 21.179  | 15.083  | 132.743 | 102.584 |
|    |    |                | 39.610 | 20.794  | 16.315  | 126.647 | 101.476 |
|    |    |                | 41.500 | -16.386 | -20.083 | 127.033 | 108.101 |
|    |    |                | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |
|    |    |                | -0.600 | 1.564   | -5.729  | 11.703  | -10.480 |
|    |    |                | 0.000  | -14.822 | -25.813 | 138.737 | 97.622  |
|    |    |                | 1.890  | 26.783  | 16.944  | 125.444 | 82.713  |
|    |    |                | 1.931  | 27.274  | 15.851  | 131.300 | 84.129  |
|    |    |                | 4.150  | 42.250  | 26.442  | 211.077 | 148.728 |
|    |    |                | 8.300  | 112.744 | 98.595  | 153.851 | 98.548  |
|    |    |                | 9.390  | 128.357 | 113.740 | 141.621 | 87.676  |
|    |    |                | 9.431  | 128.341 | 112.798 | 147.085 | 90.182  |
|    |    |                | 12.450 | 146.465 | 126.238 | 195.703 | 124.544 |
|    |    |                | 16.600 | 176.703 | 156.634 | 175.796 | 102.258 |
|    |    |                | 20.750 | 186.961 | 167.015 | 169.039 | 94.576  |
|    |    |                | 24.900 | 176.703 | 156.634 | 175.796 | 102.258 |
|    |    |                | 29.050 | 146.466 | 126.238 | 195.703 | 124.544 |
|    |    |                | 32.069 | 128.341 | 112.798 | 147.085 | 90.182  |
|    |    |                | 32.110 | 128.357 | 113.741 | 141.621 | 87.675  |
|    |    |                | 33.200 | 112.744 | 98.595  | 153.850 | 98.548  |
|    |    |                | 37.350 | 42.250  | 26.442  | 211.077 | 148.728 |
|    |    |                | 39.569 | 27.274  | 15.851  | 131.300 | 84.129  |
|    |    |                | 39.610 | 26.784  | 16.944  | 125.443 | 82.712  |
|    |    |                | 41.500 | -14.821 | -25.813 | 138.736 | 97.621  |
| T4 | -  | Característica | 42.100 | 1.565   | -5.729  | 11.703  | -10.480 |
|    |    |                | -0.600 | 2.359   | -6.083  | 13.218  | -12.080 |
|    |    |                | 0.000  | -14.027 | -26.166 | 140.252 | 96.022  |
|    |    |                | 1.890  | 32.514  | 16.632  | 126.632 | 73.021  |
|    |    |                | 1.931  | 33.098  | 15.539  | 132.451 | 74.547  |
|    |    |                | 4.150  | 53.853  | 26.180  | 211.854 | 129.925 |
|    |    |                | 8.300  | 132.979 | 98.754  | 154.468 | 63.281  |
|    |    |                | 9.390  | 150.304 | 114.224 | 142.245 | 48.152  |
|    |    |                | 9.431  | 150.337 | 113.288 | 147.700 | 51.152  |
|    |    |                | 12.450 | 172.246 | 125.999 | 196.468 | 78.103  |
|    |    |                | 16.600 | 206.307 | 156.404 | 176.450 | 50.155  |
|    |    |                | 20.750 | 218.024 | 166.869 | 169.725 | 39.970  |
|    |    |                | 24.900 | 206.307 | 156.404 | 176.450 | 50.155  |
|    |    |                | 29.050 | 172.247 | 125.999 | 196.468 | 78.103  |
|    |    |                | 32.069 | 150.338 | 113.289 | 147.699 | 51.152  |
|    |    |                | 32.110 | 150.304 | 114.224 | 142.245 | 48.152  |
|    |    |                | 33.200 | 132.979 | 98.754  | 154.468 | 63.281  |
|    |    |                | 37.350 | 53.853  | 26.180  | 211.853 | 129.924 |
|    |    |                | 39.569 | 33.098  | 15.539  | 132.451 | 74.546  |
|    |    |                | 39.610 | 32.514  | 16.633  | 126.631 | 73.020  |
|    |    |                | 41.500 | -14.027 | -26.166 | 140.251 | 96.021  |
|    |    |                | 42.100 | 2.359   | -6.083  | 13.218  | -12.080 |
|    |    |                | -0.600 | 2.151   | -5.990  | 12.811  | -11.654 |
|    |    |                | 0.000  | -14.235 | -26.073 | 139.845 | 96.448  |
|    |    |                | 1.890  | 30.350  | 16.715  | 126.311 | 76.679  |
|    |    |                | 1.931  | 30.896  | 15.621  | 132.140 | 78.168  |
|    |    |                | 4.150  | 49.361  | 26.250  | 211.642 | 137.229 |
|    |    |                | 8.300  | 124.955 | 98.820  | 154.296 | 77.277  |
|    |    |                | 9.390  | 141.418 | 114.291 | 142.070 | 63.889  |
|    |    |                | 9.431  | 141.427 | 113.355 | 147.527 | 66.694  |
|    |    |                | 12.450 | 161.709 | 126.064 | 196.257 | 97.049  |
|    |    |                | 16.600 | 194.314 | 156.467 | 176.272 | 72.312  |
|    |    |                | 20.750 | 205.490 | 166.917 | 169.548 | 63.440  |
|    | -  | Frecuente      | 8.300  | 94.695  | 82.821  | 187.229 | 138.312 |
|    |    |                | 9.390  | 108.422 | 96.727  | 178.614 | 130.045 |
|    |    |                | 9.431  | 108.342 | 95.737  | 183.623 | 131.978 |
|    |    |                | 12.450 | 123.002 | 106.443 | 237.069 | 171.928 |
|    |    |                | 16.600 | 150.195 | 134.052 | 220.192 | 155.924 |
|    |    |                | 20.750 | 159.259 | 143.255 | 214.566 | 150.590 |
|    |    |                | 24.900 | 150.195 | 134.052 | 220.192 | 155.924 |
|    |    |                | 29.050 | 123.002 | 106.443 | 237.069 | 171.928 |
|    |    |                | 32.069 | 108.342 | 95.737  | 183.623 | 131.978 |
|    |    |                | 32.110 | 108.422 | 96.727  | 178.614 | 130.045 |
|    |    |                | 33.200 | 94.695  | 82.821  | 187.229 | 138.312 |
|    |    |                | 37.350 | 30.970  | 18.222  | 227.249 | 176.630 |
|    |    |                | 39.569 | 21.179  | 15.083  | 132.743 | 102.584 |
|    |    |                | 39.610 | 20.794  | 16.315  | 126.647 | 101.476 |
|    |    |                | 41.500 | -16.386 | -20.083 | 127.033 | 108.101 |
|    |    |                | 42.100 | -0.000  | -0.000  | 0.000   | 0.000   |

|    |   |                 |        |         |         |         |         |
|----|---|-----------------|--------|---------|---------|---------|---------|
| T5 | - | Casi-permanente | 24.900 | 194.314 | 156.467 | 176.272 | 72.312  |
|    |   |                 | 29.050 | 161.709 | 126.064 | 196.257 | 97.049  |
|    |   |                 | 32.069 | 141.427 | 113.355 | 147.527 | 66.694  |
|    |   |                 | 32.110 | 141.418 | 114.291 | 142.069 | 63.889  |
|    |   |                 | 33.200 | 124.955 | 98.820  | 154.295 | 77.277  |
|    |   |                 | 37.350 | 49.361  | 26.250  | 211.641 | 137.229 |
|    |   |                 | 39.569 | 30.897  | 15.622  | 132.140 | 78.167  |
|    |   |                 | 39.610 | 30.350  | 16.715  | 126.311 | 76.679  |
|    |   |                 | 41.500 | -14.235 | -26.073 | 139.844 | 96.447  |
|    |   |                 | 42.100 | 2.151   | -5.990  | 12.811  | -11.654 |
|    |   |                 | -0.600 | 1.659   | -5.752  | 11.718  | -10.492 |
|    |   |                 | 0.000  | -14.727 | -25.835 | 138.752 | 97.610  |
|    |   |                 | 1.890  | 26.873  | 16.916  | 125.451 | 82.717  |
|    |   |                 | 1.931  | 27.363  | 15.822  | 131.306 | 84.134  |
|    |   |                 | 4.150  | 42.334  | 26.407  | 211.075 | 148.752 |
|    |   |                 | 8.300  | 112.795 | 98.514  | 153.826 | 98.552  |
|    |   |                 | 9.390  | 128.416 | 113.660 | 141.591 | 87.669  |
|    |   |                 | 9.431  | 128.399 | 112.718 | 147.055 | 90.176  |
|    |   |                 | 12.450 | 146.532 | 126.157 | 195.715 | 124.588 |
|    |   |                 | 16.600 | 176.773 | 156.644 | 175.820 | 102.317 |
|    |   |                 | 20.750 | 187.033 | 167.096 | 169.130 | 94.641  |
|    |   |                 | 24.900 | 176.773 | 156.644 | 175.820 | 102.317 |
|    |   |                 | 29.050 | 146.532 | 126.158 | 195.715 | 124.588 |
|    |   |                 | 32.069 | 128.400 | 112.718 | 147.055 | 90.176  |
|    |   |                 | 32.110 | 128.416 | 113.660 | 141.591 | 87.669  |
|    |   |                 | 33.200 | 112.795 | 98.514  | 153.826 | 98.552  |
|    |   |                 | 37.350 | 42.334  | 26.407  | 211.074 | 148.752 |
|    |   |                 | 39.569 | 27.364  | 15.823  | 131.306 | 84.134  |
|    |   |                 | 39.610 | 26.874  | 16.916  | 125.450 | 82.717  |
|    |   |                 | 41.500 | -14.727 | -25.835 | 138.751 | 97.609  |
|    |   |                 | 42.100 | 1.659   | -5.752  | 11.718  | -10.492 |
|    |   |                 | -0.600 | 36.001  | -6.083  | 13.218  | -20.782 |
|    |   |                 | 0.000  | 24.077  | -26.223 | 140.252 | 79.211  |
|    |   |                 | 1.890  | 63.943  | 16.003  | 126.632 | 52.310  |
|    |   |                 | 1.931  | 64.530  | 15.333  | 132.451 | 53.819  |
|    |   |                 | 4.150  | 88.049  | 26.180  | 211.854 | 95.805  |
|    |   |                 | 8.300  | 164.762 | 86.882  | 154.468 | 32.106  |
|    |   |                 | 9.390  | 182.057 | 99.471  | 142.245 | 17.445  |
|    |   |                 | 9.431  | 182.099 | 98.860  | 147.700 | 20.545  |
| T5 | - | Característica  | 12.450 | 204.266 | 110.546 | 196.468 | 39.135  |
|    |   |                 | 16.600 | 238.263 | 134.564 | 176.450 | 12.280  |
|    |   |                 | 20.750 | 249.957 | 142.965 | 169.725 | 2.487   |
|    |   |                 | 24.900 | 238.263 | 134.564 | 176.450 | 12.280  |
|    |   |                 | 29.050 | 204.266 | 110.546 | 196.468 | 39.135  |
|    |   |                 | 32.069 | 182.099 | 98.860  | 147.699 | 20.545  |
|    |   |                 | 32.110 | 182.057 | 99.472  | 142.245 | 17.445  |
|    |   |                 | 33.200 | 164.762 | 86.883  | 154.468 | 32.106  |
|    |   |                 | 37.350 | 88.049  | 26.180  | 211.853 | 95.804  |
|    |   |                 | 39.569 | 64.530  | 15.333  | 132.451 | 53.819  |
|    |   |                 | 39.610 | 63.943  | 16.003  | 126.631 | 52.310  |
|    |   |                 | 41.500 | 24.077  | -26.223 | 140.251 | 79.210  |
|    |   |                 | 42.100 | 36.001  | -6.083  | 13.218  | -20.783 |
|    |   |                 | -0.600 | 35.793  | -5.990  | 12.811  | -20.356 |
|    |   |                 | 0.000  | 23.868  | -26.130 | 139.845 | 79.637  |
|    |   |                 | 1.890  | 61.778  | 16.085  | 126.311 | 55.969  |
|    |   |                 | 1.931  | 62.328  | 15.415  | 132.140 | 57.440  |
|    |   |                 | 4.150  | 83.557  | 26.250  | 211.642 | 103.109 |
|    |   |                 | 8.300  | 156.738 | 86.948  | 154.296 | 46.102  |
|    |   |                 | 9.390  | 173.171 | 99.538  | 142.070 | 33.182  |
|    |   |                 | 9.431  | 173.188 | 98.926  | 147.527 | 36.087  |
|    |   |                 | 12.450 | 193.729 | 110.611 | 196.257 | 58.081  |
|    |   |                 | 16.600 | 226.269 | 134.628 | 176.272 | 34.437  |
|    |   |                 | 20.750 | 237.423 | 143.014 | 169.548 | 25.957  |
|    |   |                 | 24.900 | 226.269 | 134.628 | 176.272 | 34.437  |
|    |   |                 | 29.050 | 193.729 | 110.611 | 196.257 | 58.081  |
|    |   |                 | 32.069 | 173.188 | 98.926  | 147.527 | 36.087  |
|    |   |                 | 32.110 | 173.171 | 99.538  | 142.069 | 33.181  |
|    |   |                 | 33.200 | 156.738 | 86.949  | 154.295 | 46.102  |
|    |   |                 | 37.350 | 83.557  | 26.250  | 211.641 | 103.109 |
| T5 | - | Frecuente       | 24.900 | 194.314 | 156.467 | 176.272 | 72.312  |
|    |   |                 | 29.050 | 161.709 | 126.064 | 196.257 | 97.049  |
|    |   |                 | 32.069 | 141.427 | 113.355 | 147.527 | 66.694  |
|    |   |                 | 32.110 | 141.418 | 114.291 | 142.069 | 63.889  |
|    |   |                 | 33.200 | 124.955 | 98.820  | 154.295 | 77.277  |
|    |   |                 | 37.350 | 49.361  | 26.250  | 211.641 | 137.229 |
|    |   |                 | 39.569 | 30.897  | 15.622  | 132.140 | 78.167  |
|    |   |                 | 39.610 | 30.350  | 16.715  | 126.311 | 76.679  |
|    |   |                 | 41.500 | -14.235 | -26.073 | 139.844 | 96.447  |
|    |   |                 | 42.100 | 2.151   | -5.990  | 12.811  | -11.654 |
|    |   |                 | -0.600 | 1.659   | -5.752  | 11.718  | -10.492 |
|    |   |                 | 0.000  | -14.727 | -25.835 | 138.752 | 97.610  |
|    |   |                 | 1.890  | 26.873  | 16.916  | 125.451 | 82.717  |
|    |   |                 | 1.931  | 27.363  | 15.822  | 131.306 | 84.134  |
|    |   |                 | 4.150  | 42.334  | 26.407  | 211.075 | 148.752 |
|    |   |                 | 8.300  | 112.795 | 98.514  | 153.826 | 98.552  |
|    |   |                 | 9.390  | 128.416 | 113.660 | 141.591 | 87.669  |
|    |   |                 | 9.431  | 128.399 | 112.718 | 147.055 | 90.176  |
|    |   |                 | 12.450 | 146.532 | 126.157 | 195.715 | 124.588 |
|    |   |                 | 16.600 | 176.773 | 156.644 | 175.820 | 102.317 |
|    |   |                 | 20.750 | 187.033 | 167.096 | 169.130 | 94.641  |
|    |   |                 | 24.900 | 176.773 | 156.644 | 175.820 | 102.317 |
|    |   |                 | 29.050 | 146.532 | 126.158 | 195.715 | 124.588 |
|    |   |                 | 32.069 | 128.400 | 112.718 | 147.055 | 90.176  |
|    |   |                 | 32.110 | 128.416 | 113.660 | 141.591 | 87.669  |
|    |   |                 | 33.200 | 112.795 | 98.514  | 153.826 | 98.552  |
|    |   |                 | 37.350 | 42.334  | 26.407  | 211.074 | 148.752 |
|    |   |                 | 39.569 | 27.364  | 15.823  | 131.306 | 84.134  |
|    |   |                 | 39.610 | 26.874  | 16.916  | 125.450 | 82.717  |
|    |   |                 | 41.500 | -14.727 | -25.835 | 138.751 | 97.609  |
|    |   |                 | 42.100 | 1.659   | -5.752  | 11.718  | -10.492 |
|    |   |                 | -0.600 | 36.001  | -6.083  | 13.218  | -20.782 |
|    |   |                 | 0.000  | 24.077  | -26.223 | 140.252 | 79.211  |
|    |   |                 | 1.890  | 63.943  | 16.003  | 126.632 | 52.310  |
|    |   |                 | 1.931  | 64.530  | 15.333  | 132.451 | 53.819  |
|    |   |                 | 4.150  | 88.049  | 26.180  | 211.854 | 95.805  |
|    |   |                 | 8.300  | 164.762 | 86.882  | 154.468 | 32.106  |
|    |   |                 | 9.390  | 182.057 | 99.471  | 142.245 | 17.445  |
|    |   |                 | 9.431  | 182.099 | 98.860  | 147.700 | 20.545  |
|    |   |                 | 12.450 | 204.266 | 110.546 | 196.468 | 39.135  |
|    |   |                 | 16.600 | 238.263 | 134.564 | 176.450 | 12.280  |
|    |   |                 | 20.750 | 249.957 | 142.965 | 169.725 | 2.487   |
|    |   |                 | 24.900 | 238.263 | 134.564 | 176.450 | 12.280  |
|    |   |                 | 29.050 | 204.266 | 110.546 | 196.468 | 39.135  |
|    |   |                 | 32.069 | 182.099 | 98.860  | 147.699 | 20.545  |
|    |   |                 | 32.110 | 182.057 | 99.472  | 142.245 | 17.445  |
|    |   |                 | 33.200 | 164.762 | 86.883  | 154.468 | 32.106  |
|    |   |                 | 37.350 | 88.049  | 26.180  | 211.853 | 95.804  |
|    |   |                 | 39.569 | 64.530  | 15.333  | 132.451 | 53.819  |
|    |   |                 | 39.610 | 63.943  | 16.003  | 126.631 | 52.310  |
|    |   |                 | 41.500 | 24.077  | -26.223 | 140.251 | 79.210  |
|    |   |                 | 42.100 | 36.001  | -6.083  | 13.218  | -20.783 |
|    |   |                 | -0.600 | 35.793  | -5.990  | 12.811  | -20.356 |
|    |   |                 | 0.000  | 23.868  | -26.130 | 139.845 | 79.637  |
|    |   |                 | 1.890  | 61.778  | 16.085  | 126.311 | 55.969  |
|    |   |                 | 1.931  | 62.328  | 15.415  | 132.140 | 57.440  |
|    |   |                 | 4.150  | 83.557  | 26.250  | 211.642 | 103.109 |
|    |   |                 | 8.300  | 156.738 | 86.948  | 154.296 | 46.102  |
|    |   |                 | 9.390  | 173.171 | 99.538  | 142.070 | 33.182  |
|    |   |                 | 9.431  | 173.188 | 98.926  | 147.527 | 36.087  |
|    |   |                 | 12.450 | 193.729 | 110.611 | 196.257 | 58.081  |
|    |   |                 | 16.600 | 226.269 | 134.628 | 176.272 | 34.437  |
|    |   |                 | 20.750 | 237.423 | 143.014 | 169.548 | 25.957  |
|    |   |                 | 24.900 | 226.269 | 134.628 | 176.272 | 34.437  |
|    |   |                 | 29.050 | 193.729 | 110.611 | 196.257 | 58.081  |
|    |   |                 | 32.069 | 173.188 | 98.926  | 147.527 | 36.087  |
|    |   |                 | 32.110 | 173.171 | 99.538  | 142.069 | 33.181  |
|    |   |                 | 33.200 | 156.738 | 86.949  | 154.295 | 46.102  |
|    |   |                 | 37.350 | 83.557  | 26.250  | 211.641 | 103.109 |

|     |   |                 |        |         |         |         |         |
|-----|---|-----------------|--------|---------|---------|---------|---------|
| Env | - | Casi-permanente | 39.569 | 62.328  | 15.416  | 132.140 | 57.440  |
|     |   |                 | 39.610 | 61.779  | 16.086  | 126.311 | 55.969  |
|     |   |                 | 41.500 | 23.869  | -26.130 | 139.844 | 79.636  |
|     |   |                 | 42.100 | 35.793  | -5.990  | 12.811  | -20.357 |
|     |   |                 | -0.600 | 35.301  | -5.752  | 11.718  | -19.195 |
|     |   |                 | 0.000  | 23.376  | -25.892 | 138.752 | 80.799  |
|     |   |                 | 1.890  | 58.302  | 16.286  | 125.451 | 62.007  |
|     |   |                 | 1.931  | 58.795  | 15.616  | 131.306 | 63.407  |
|     |   |                 | 4.150  | 76.530  | 26.407  | 211.075 | 114.632 |
|     |   |                 | 8.300  | 144.578 | 86.643  | 153.826 | 67.378  |
|     |   |                 | 9.390  | 160.168 | 98.907  | 141.591 | 56.962  |
|     |   |                 | 9.431  | 160.161 | 98.289  | 147.055 | 59.569  |
|     |   |                 | 12.450 | 178.551 | 110.705 | 195.715 | 85.620  |
|     |   |                 | 16.600 | 208.729 | 134.805 | 175.820 | 64.442  |
|     |   |                 | 20.750 | 218.966 | 143.192 | 169.130 | 57.158  |
|     |   |                 | 24.900 | 208.729 | 134.805 | 175.820 | 64.442  |
|     |   |                 | 29.050 | 178.551 | 110.705 | 195.715 | 85.620  |
|     |   |                 | 32.069 | 160.161 | 98.289  | 147.055 | 59.569  |
|     |   |                 | 32.110 | 160.169 | 98.907  | 141.591 | 56.962  |
|     |   |                 | 33.200 | 144.578 | 86.643  | 153.826 | 67.377  |
|     |   |                 | 37.350 | 76.530  | 26.407  | 211.074 | 114.632 |
|     | - | Característica  | 39.569 | 58.795  | 15.616  | 131.306 | 63.407  |
|     |   |                 | 39.610 | 58.302  | 16.286  | 125.450 | 62.006  |
|     |   |                 | 41.500 | 23.377  | -25.892 | 138.751 | 80.798  |
|     |   |                 | 42.100 | 35.301  | -5.752  | 11.718  | -19.195 |
|     |   |                 | -0.600 | 36.001  | -6.083  | 13.218  | -20.782 |
|     |   |                 | 0.000  | 24.077  | -26.223 | 140.252 | 79.211  |
|     |   |                 | 1.890  | 63.943  | -2.981  | 138.883 | 52.310  |
|     |   |                 | 1.931  | 64.530  | -4.501  | 144.876 | 53.819  |
|     |   |                 | 4.150  | 88.049  | -21.597 | 251.916 | 95.805  |
|     |   |                 | 8.300  | 164.762 | 11.960  | 231.128 | 32.106  |
|     |   |                 | 9.390  | 182.057 | 19.184  | 226.652 | 17.445  |
|     |   |                 | 9.431  | 182.099 | 18.167  | 231.041 | 20.545  |
|     |   |                 | 12.450 | 204.266 | 13.666  | 293.782 | 39.135  |
|     |   |                 | 16.600 | 238.263 | 28.008  | 285.015 | 12.280  |
|     |   |                 | 20.750 | 249.957 | 32.789  | 282.093 | 2.487   |
|     |   |                 | 24.900 | 238.263 | 28.008  | 285.015 | 12.280  |
|     |   |                 | 29.050 | 204.266 | 13.666  | 293.782 | 39.135  |
|     |   |                 | 32.069 | 182.099 | 18.167  | 231.041 | 20.545  |
|     |   |                 | 32.110 | 182.057 | 19.184  | 226.652 | 17.445  |
|     |   |                 | 33.200 | 164.762 | 11.960  | 231.128 | 32.106  |
|     |   |                 | 37.350 | 88.049  | -21.597 | 251.916 | 95.804  |
|     | - | Frecuente       | 39.569 | 64.530  | -4.501  | 144.876 | 53.819  |
|     |   |                 | 39.610 | 63.943  | -2.980  | 138.882 | 52.310  |
|     |   |                 | 41.500 | 24.077  | -26.223 | 140.251 | 79.210  |
|     |   |                 | 42.100 | 36.001  | -6.083  | 13.218  | -20.783 |
|     |   |                 | -0.600 | 35.793  | -5.990  | 12.811  | -20.356 |
|     |   |                 | 0.000  | 23.868  | -26.130 | 139.845 | 79.637  |
|     |   |                 | 1.890  | 61.778  | -2.981  | 138.883 | 55.969  |
|     |   |                 | 1.931  | 62.328  | -4.501  | 144.876 | 57.440  |
|     |   |                 | 4.150  | 83.557  | -21.597 | 251.916 | 103.109 |
|     |   |                 | 8.300  | 156.738 | 11.960  | 231.128 | 46.102  |
|     |   |                 | 9.390  | 173.171 | 19.184  | 226.652 | 33.182  |
|     |   |                 | 9.431  | 173.188 | 18.167  | 231.041 | 36.087  |
|     |   |                 | 12.450 | 193.729 | 13.666  | 293.782 | 58.081  |
|     |   |                 | 16.600 | 226.269 | 28.008  | 285.015 | 34.437  |
|     |   |                 | 20.750 | 237.423 | 32.789  | 282.093 | 25.957  |
|     |   |                 | 24.900 | 226.269 | 28.008  | 285.015 | 34.437  |
|     |   |                 | 29.050 | 193.729 | 13.666  | 293.782 | 58.081  |
|     |   |                 | 32.069 | 173.188 | 18.167  | 231.041 | 36.087  |
|     |   |                 | 32.110 | 173.171 | 19.184  | 226.652 | 33.181  |
|     |   |                 | 33.200 | 156.738 | 11.960  | 231.128 | 46.102  |
|     |   |                 | 37.350 | 83.557  | -21.597 | 251.916 | 103.109 |
|     | - | Casi-permanente | 39.569 | 62.328  | -4.501  | 144.876 | 57.440  |
|     |   |                 | 39.610 | 61.779  | -2.980  | 138.882 | 55.969  |
|     |   |                 | 41.500 | 23.869  | -26.130 | 139.844 | 79.636  |
|     |   |                 | 42.100 | 35.793  | -5.990  | 12.811  | -20.357 |
|     |   |                 | -0.600 | 35.301  | -5.752  | 11.718  | -19.195 |
|     |   |                 | 0.000  | 23.376  | -25.892 | 138.752 | 80.799  |
|     |   |                 |        |         |         |         |         |



|    |    |                |        |        |        |        |        |
|----|----|----------------|--------|--------|--------|--------|--------|
| T1 | 21 | -              | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T2 | 60 | -              | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|    |    |                | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T3 | 90 | -              | -0.600 | 2.507  | -6.565 | 1.304  | -4.820 |
|    |    |                | 0.000  | 2.507  | -6.565 | 1.304  | -4.820 |
|    |    |                | 1.890  | 7.514  | 0.753  | 5.034  | 0.559  |
|    |    |                | 1.931  | 7.583  | 0.907  | 5.124  | 0.675  |
|    |    |                | 4.150  | 13.422 | 9.444  | 9.494  | 6.979  |
|    |    |                | 8.300  | 20.986 | 18.493 | 15.302 | 13.276 |
|    |    |                | 9.390  | 23.008 | 19.863 | 16.902 | 14.318 |
|    |    |                | 9.431  | 23.018 | 19.855 | 16.957 | 14.358 |
|    |    |                | 12.450 | 27.044 | 22.786 | 19.894 | 16.657 |
|    |    |                | 16.600 | 30.565 | 25.714 | 22.474 | 19.003 |
|    |    |                | 20.750 | 31.936 | 26.936 | 23.487 | 19.995 |
|    |    |                | 24.900 | 30.565 | 25.714 | 22.474 | 19.003 |
|    |    |                | 29.050 | 27.044 | 22.786 | 19.894 | 16.657 |
|    |    |                | 32.069 | 23.018 | 19.855 | 16.957 | 14.358 |
|    |    |                | 32.110 | 23.008 | 19.863 | 16.903 | 14.318 |
|    |    |                | 33.200 | 20.986 | 18.493 | 15.302 | 13.276 |
|    |    |                | 37.350 | 13.422 | 9.445  | 9.494  | 6.979  |
|    |    |                | 39.569 | 7.583  | 0.907  | 5.124  | 0.675  |
|    |    |                | 39.610 | 7.514  | 0.753  | 5.034  | 0.559  |
|    |    |                | 41.500 | 2.508  | -6.565 | 1.304  | -4.820 |
|    |    |                | 42.100 | 2.508  | -6.565 | 1.304  | -4.820 |
| T4 | -  | Característica | -0.600 | 3.418  | -7.051 | 1.974  | -5.118 |
|    |    |                | 0.000  | 3.418  | -7.051 | 1.974  | -5.118 |
|    |    |                | 1.890  | 13.889 | 0.340  | 9.863  | 0.296  |
|    |    |                | 1.931  | 14.035 | 0.498  | 10.030 | 0.412  |
|    |    |                | 4.150  | 26.245 | 9.120  | 19.269 | 6.758  |
|    |    |                | 8.300  | 43.592 | 18.426 | 32.233 | 13.511 |

|        |                 |           |        |         |        |        |        |
|--------|-----------------|-----------|--------|---------|--------|--------|--------|
| T5     | -               | Frecuente | 9.390  | 47.667  | 19.549 | 35.260 | 14.123 |
|        |                 |           | 9.431  | 47.667  | 19.542 | 35.355 | 14.162 |
|        |                 |           | 12.450 | 55.795  | 22.481 | 41.455 | 16.454 |
|        |                 |           | 16.600 | 63.459  | 25.429 | 47.235 | 18.808 |
|        |                 |           | 20.750 | 66.443  | 26.728 | 49.467 | 19.870 |
|        |                 |           | 24.900 | 63.459  | 25.429 | 47.235 | 18.808 |
|        |                 |           | 29.050 | 55.796  | 22.481 | 41.455 | 16.454 |
|        |                 |           | 32.069 | 47.667  | 19.542 | 35.355 | 14.162 |
|        |                 |           | 32.110 | 47.667  | 19.549 | 35.260 | 14.123 |
|        |                 |           | 33.200 | 43.592  | 18.427 | 32.233 | 13.511 |
|        |                 |           | 37.350 | 26.246  | 9.120  | 19.269 | 6.758  |
|        |                 |           | 39.569 | 14.035  | 0.498  | 10.031 | 0.412  |
|        |                 |           | 39.610 | 13.889  | 0.340  | 9.863  | 0.296  |
|        |                 |           | 41.500 | 3.419   | -7.051 | 1.974  | -5.118 |
|        |                 |           | 42.100 | 3.419   | -7.051 | 1.974  | -5.118 |
|        |                 |           | -0.600 | 3.179   | -6.922 | 1.798  | -5.040 |
|        |                 |           | 0.000  | 3.179   | -6.922 | 1.798  | -5.040 |
|        |                 |           | 1.890  | 11.482  | 0.450  | 8.039  | 0.365  |
|        |                 |           | 1.931  | 11.596  | 0.607  | 8.176  | 0.482  |
|        |                 |           | 4.150  | 21.279  | 9.207  | 15.485 | 6.817  |
|        |                 |           | 8.300  | 34.628  | 18.506 | 25.476 | 13.567 |
|        |                 |           | 9.390  | 37.717  | 19.634 | 27.778 | 14.175 |
|        |                 |           | 9.431  | 37.713  | 19.627 | 27.852 | 14.214 |
|        |                 |           | 12.450 | 43.968  | 22.565 | 32.584 | 16.509 |
|        |                 |           | 16.600 | 49.939  | 25.507 | 37.138 | 18.861 |
|        |                 |           | 20.750 | 52.282  | 26.792 | 38.915 | 19.911 |
|        |                 |           | 24.900 | 49.939  | 25.507 | 37.138 | 18.861 |
|        |                 |           | 29.050 | 43.968  | 22.565 | 32.584 | 16.509 |
|        |                 |           | 32.069 | 37.713  | 19.627 | 27.853 | 14.214 |
|        |                 |           | 32.110 | 37.717  | 19.634 | 27.778 | 14.175 |
|        |                 |           | 33.200 | 34.628  | 18.506 | 25.476 | 13.567 |
|        |                 |           | 37.350 | 21.280  | 9.207  | 15.485 | 6.817  |
|        |                 |           | 39.569 | 11.596  | 0.607  | 8.176  | 0.482  |
|        |                 |           | 39.610 | 11.482  | 0.450  | 8.039  | 0.366  |
|        |                 |           | 41.500 | 3.179   | -6.922 | 1.798  | -5.039 |
|        |                 |           | 42.100 | 3.179   | -6.922 | 1.798  | -5.039 |
|        |                 |           | -0.600 | 2.598   | -6.588 | 1.383  | -4.839 |
|        |                 |           | 0.000  | 2.598   | -6.588 | 1.383  | -4.839 |
|        |                 |           | 1.890  | 7.598   | 0.725  | 5.110  | 0.534  |
|        |                 |           | 1.931  | 7.666   | 0.880  | 5.199  | 0.651  |
|        |                 |           | 4.150  | 13.498  | 9.411  | 9.565  | 6.949  |
|        |                 |           | 8.300  | 21.025  | 18.422 | 15.347 | 13.208 |
|        |                 |           | 9.390  | 23.060  | 19.793 | 16.952 | 14.249 |
|        |                 |           | 9.431  | 23.071  | 19.785 | 17.006 | 14.290 |
|        |                 |           | 12.450 | 27.102  | 22.717 | 19.950 | 16.589 |
|        |                 |           | 16.600 | 30.627  | 25.721 | 22.534 | 19.012 |
|        |                 |           | 20.750 | 31.997  | 27.003 | 23.548 | 20.063 |
|        |                 |           | 24.900 | 30.627  | 25.721 | 22.534 | 19.012 |
|        |                 |           | 29.050 | 27.102  | 22.717 | 19.950 | 16.590 |
|        |                 |           | 32.069 | 23.071  | 19.785 | 17.006 | 14.290 |
| 32.110 | 23.060          | 19.793    | 16.952 | 14.249  |        |        |        |
| 33.200 | 21.025          | 18.422    | 15.347 | 13.208  |        |        |        |
| 37.350 | 13.498          | 9.412     | 9.565  | 6.949   |        |        |        |
| 39.569 | 7.666           | 0.880     | 5.199  | 0.651   |        |        |        |
| 39.610 | 7.598           | 0.725     | 5.110  | 0.535   |        |        |        |
| 41.500 | 2.598           | -6.588    | 1.383  | -4.839  |        |        |        |
| 42.100 | 2.598           | -6.588    | 1.383  | -4.839  |        |        |        |
| -0.600 | 3.418           | -13.564   | 1.974  | -15.521 |        |        |        |
| 0.000  | 4.074           | -15.979   | 2.265  | -15.217 |        |        |        |
| 1.890  | 15.023          | -6.537    | 12.082 | -9.883  |        |        |        |
| 1.931  | 15.187          | -6.576    | 12.247 | -9.764  |        |        |        |
| 4.150  | 29.150          | 1.542     | 23.075 | -2.999  |        |        |        |
| 8.300  | 46.134          | 14.450    | 39.199 | 3.631   |        |        |        |
| 9.390  | 50.445          | 15.970    | 42.857 | 4.218   |        |        |        |
| 9.431  | 50.314          | 15.960    | 42.950 | 4.264   |        |        |        |
| 12.450 | 59.354          | 19.575    | 50.552 | 6.774   |        |        |        |
| 16.600 | 68.202          | 22.762    | 57.710 | 9.074   |        |        |        |
| 20.750 | 71.688          | 24.000    | 60.390 | 10.117  |        |        |        |
| 24.900 | 68.202          | 22.762    | 57.710 | 9.074   |        |        |        |
| -      | Casi-permanente |           |        |         |        |        |        |
| -      | Característica  |           |        |         |        |        |        |

|     |   |                |        |        |         |        |         |
|-----|---|----------------|--------|--------|---------|--------|---------|
| Env | - | Frecuente      | 29.050 | 59.355 | 19.575  | 50.552 | 6.774   |
|     |   |                | 32.069 | 50.314 | 15.960  | 42.950 | 4.264   |
|     |   |                | 32.110 | 50.445 | 15.970  | 42.857 | 4.218   |
|     |   |                | 33.200 | 46.134 | 14.451  | 39.199 | 3.632   |
|     |   |                | 37.350 | 29.150 | 1.542   | 23.075 | -2.999  |
|     |   |                | 39.569 | 15.188 | -6.576  | 12.247 | -9.764  |
|     |   |                | 39.610 | 15.023 | -6.536  | 12.082 | -9.883  |
|     |   |                | 41.500 | 4.074  | -15.979 | 2.265  | -15.217 |
|     |   |                | 42.100 | 3.419  | -13.563 | 1.974  | -15.521 |
|     |   |                | -0.600 | 3.179  | -13.435 | 1.798  | -15.443 |
|     |   |                | 0.000  | 3.834  | -15.850 | 2.089  | -15.139 |
|     |   |                | 1.890  | 12.616 | -6.427  | 10.259 | -9.814  |
|     |   |                | 1.931  | 12.749 | -6.467  | 10.392 | -9.695  |
|     |   |                | 4.150  | 24.184 | 1.629   | 19.291 | -2.940  |
|     |   |                | 8.300  | 37.170 | 14.530  | 32.443 | 3.687   |
|     |   |                | 9.390  | 40.495 | 16.054  | 35.375 | 4.269   |
|     |   |                | 9.431  | 40.360 | 16.045  | 35.447 | 4.316   |
|     |   |                | 12.450 | 47.527 | 19.659  | 41.681 | 6.829   |
|     |   |                | 16.600 | 54.682 | 22.840  | 47.613 | 9.128   |
|     |   |                | 20.750 | 57.528 | 24.064  | 49.839 | 10.158  |
|     |   |                | 24.900 | 54.682 | 22.840  | 47.613 | 9.128   |
|     |   |                | 29.050 | 47.527 | 19.659  | 41.681 | 6.829   |
|     |   |                | 32.069 | 40.360 | 16.045  | 35.447 | 4.316   |
|     |   |                | 32.110 | 40.495 | 16.055  | 35.375 | 4.269   |
|     |   |                | 33.200 | 37.170 | 14.530  | 32.443 | 3.687   |
|     |   |                | 37.350 | 24.184 | 1.630   | 19.291 | -2.940  |
|     |   |                | 39.569 | 12.749 | -6.467  | 10.392 | -9.695  |
|     |   |                | 39.610 | 12.616 | -6.426  | 10.259 | -9.813  |
|     |   |                | 41.500 | 3.835  | -15.850 | 2.089  | -15.139 |
|     |   |                | 42.100 | 3.179  | -13.435 | 1.798  | -15.443 |
|     |   |                | -0.600 | 2.598  | -13.101 | 1.383  | -15.243 |
|     |   |                | 0.000  | 3.253  | -15.516 | 1.674  | -14.938 |
|     |   |                | 1.890  | 8.732  | -6.151  | 7.330  | -9.645  |
|     |   |                | 1.931  | 8.819  | -6.194  | 7.415  | -9.526  |
|     |   |                | 4.150  | 16.403 | 1.834   | 13.371 | -2.808  |
|     |   |                | 8.300  | 23.567 | 14.446  | 22.313 | 3.328   |
|     |   |                | 9.390  | 25.838 | 16.213  | 24.550 | 4.344   |
|     |   |                | 9.431  | 25.718 | 16.204  | 24.601 | 4.391   |
|     |   |                | 12.450 | 30.661 | 19.812  | 29.047 | 6.909   |
|     |   |                | 16.600 | 35.369 | 23.054  | 33.010 | 9.278   |
|     |   |                | 20.750 | 37.243 | 24.275  | 34.472 | 10.309  |
|     |   |                | 24.900 | 35.369 | 23.054  | 33.010 | 9.278   |
|     |   |                | 29.050 | 30.661 | 19.812  | 29.047 | 6.910   |
|     |   |                | 32.069 | 25.718 | 16.204  | 24.601 | 4.392   |
|     |   |                | 32.110 | 25.839 | 16.213  | 24.550 | 4.344   |
|     |   |                | 33.200 | 23.567 | 14.446  | 22.313 | 3.328   |
|     |   |                | 37.350 | 16.403 | 1.834   | 13.371 | -2.808  |
|     |   |                | 39.569 | 8.819  | -6.194  | 7.415  | -9.525  |
|     |   |                | 39.610 | 8.733  | -6.151  | 7.330  | -9.644  |
|     |   |                | 41.500 | 3.253  | -15.516 | 1.674  | -14.938 |
| Env | - | Característica | 42.100 | 2.598  | -13.101 | 1.383  | -15.242 |
|     |   |                | -0.600 | 3.418  | -13.564 | 1.974  | -15.521 |
|     |   |                | 0.000  | 4.074  | -15.979 | 2.265  | -15.217 |
|     |   |                | 1.890  | 15.023 | -6.537  | 12.082 | -9.883  |
|     |   |                | 1.931  | 15.187 | -6.576  | 12.247 | -9.764  |
|     |   |                | 4.150  | 29.150 | 0.000   | 23.075 | -2.999  |
|     |   |                | 8.300  | 46.134 | 0.000   | 39.199 | 0.000   |
|     |   |                | 9.390  | 50.445 | 0.000   | 42.857 | 0.000   |
|     |   |                | 9.431  | 50.314 | 0.000   | 42.950 | 0.000   |
|     |   |                | 12.450 | 59.354 | 0.000   | 50.552 | 0.000   |
|     |   |                | 16.600 | 68.202 | 0.000   | 57.710 | 0.000   |
|     |   |                | 20.750 | 71.688 | 0.000   | 60.390 | 0.000   |
|     |   |                | 24.900 | 68.202 | 0.000   | 57.710 | 0.000   |
|     |   |                | 29.050 | 59.355 | 0.000   | 50.552 | 0.000   |
|     |   |                | 32.069 | 50.314 | 0.000   | 42.950 | 0.000   |
|     |   |                | 32.110 | 50.445 | 0.000   | 42.857 | 0.000   |
|     |   |                | 33.200 | 46.134 | 0.000   | 39.199 | 0.000   |
|     |   |                | 37.350 | 29.150 | 0.000   | 23.075 | -2.999  |
|     |   |                | 39.569 | 15.188 | -6.576  | 12.247 | -9.764  |

|   |                 |        |        |         |        |         |
|---|-----------------|--------|--------|---------|--------|---------|
| - | Frecuente       | 39.610 | 15.023 | -6.536  | 12.082 | -9.883  |
|   |                 | 41.500 | 4.074  | -15.979 | 2.265  | -15.217 |
|   |                 | 42.100 | 3.419  | -13.563 | 1.974  | -15.521 |
|   |                 | -0.600 | 3.179  | -13.435 | 1.798  | -15.443 |
|   |                 | 0.000  | 3.834  | -15.850 | 2.089  | -15.139 |
|   |                 | 1.890  | 12.616 | -6.427  | 10.259 | -9.814  |
|   |                 | 1.931  | 12.749 | -6.467  | 10.392 | -9.695  |
|   |                 | 4.150  | 24.184 | 0.000   | 19.291 | -2.940  |
|   |                 | 8.300  | 37.170 | 0.000   | 32.443 | 0.000   |
|   |                 | 9.390  | 40.495 | 0.000   | 35.375 | 0.000   |
|   |                 | 9.431  | 40.360 | 0.000   | 35.447 | 0.000   |
|   |                 | 12.450 | 47.527 | 0.000   | 41.681 | 0.000   |
|   |                 | 16.600 | 54.682 | 0.000   | 47.613 | 0.000   |
|   |                 | 20.750 | 57.528 | 0.000   | 49.839 | 0.000   |
|   |                 | 24.900 | 54.682 | 0.000   | 47.613 | 0.000   |
|   |                 | 29.050 | 47.527 | 0.000   | 41.681 | 0.000   |
|   |                 | 32.069 | 40.360 | 0.000   | 35.447 | 0.000   |
|   |                 | 32.110 | 40.495 | 0.000   | 35.375 | 0.000   |
|   |                 | 33.200 | 37.170 | 0.000   | 32.443 | 0.000   |
|   |                 | 37.350 | 24.184 | 0.000   | 19.291 | -2.940  |
| - | Casi-permanente | 39.569 | 12.749 | -6.467  | 10.392 | -9.695  |
|   |                 | 39.610 | 12.616 | -6.426  | 10.259 | -9.813  |
|   |                 | 41.500 | 3.835  | -15.850 | 2.089  | -15.139 |
|   |                 | 42.100 | 3.179  | -13.435 | 1.798  | -15.443 |
|   |                 | -0.600 | 2.598  | -13.101 | 1.383  | -15.243 |
|   |                 | 0.000  | 3.253  | -15.516 | 1.674  | -14.938 |
|   |                 | 1.890  | 8.732  | -6.151  | 7.330  | -9.645  |
|   |                 | 1.931  | 8.819  | -6.194  | 7.415  | -9.526  |
|   |                 | 4.150  | 16.403 | 0.000   | 13.371 | -2.808  |
|   |                 | 8.300  | 23.567 | 0.000   | 22.313 | 0.000   |
|   |                 | 9.390  | 25.838 | 0.000   | 24.550 | 0.000   |
|   |                 | 9.431  | 25.718 | 0.000   | 24.601 | 0.000   |
|   |                 | 12.450 | 30.661 | 0.000   | 29.047 | 0.000   |
|   |                 | 16.600 | 35.369 | 0.000   | 33.010 | 0.000   |
|   |                 | 20.750 | 37.243 | 0.000   | 34.472 | 0.000   |
|   |                 | 24.900 | 35.369 | 0.000   | 33.010 | 0.000   |
|   |                 | 29.050 | 30.661 | 0.000   | 29.047 | 0.000   |
|   |                 | 32.069 | 25.718 | 0.000   | 24.601 | 0.000   |
|   |                 | 32.110 | 25.839 | 0.000   | 24.550 | 0.000   |
|   |                 | 33.200 | 23.567 | 0.000   | 22.313 | 0.000   |
|   |                 | 37.350 | 16.403 | 0.000   | 13.371 | -2.808  |
|   |                 | 39.569 | 8.819  | -6.194  | 7.415  | -9.525  |
|   |                 | 39.610 | 8.733  | -6.151  | 7.330  | -9.644  |
|   |                 | 41.500 | 3.253  | -15.516 | 1.674  | -14.938 |
|   |                 | 42.100 | 2.598  | -13.101 | 1.383  | -15.242 |

Vano    1    2  
-----

Coefficientes de anchura eficaz empleados

Coefficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K3 = 1.000000

Coefficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K5 = 1.000000

- Coeficiente a emplear para la parte intermedia de la losa  
que se encuentre sobre la viga : K6 = 1.000000

| Instante | Día | Situación | s (m)  | Tsup + | Tsup - | Tinf + | Tinf - |
|----------|-----|-----------|--------|--------|--------|--------|--------|
| T1       | 21  | -         | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T2       | 60  | -         | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T3       | 90  | -         | -0.600 | 3.901  | 3.462  | 3.379  | 3.000  |
|          |     |           | 0.000  | 3.901  | 3.462  | 3.379  | 3.000  |
|          |     |           | 1.890  | 6.378  | 5.309  | 5.265  | 4.468  |
|          |     |           | 1.931  | 6.384  | 5.308  | 5.279  | 4.475  |
|          |     |           | 4.150  | 9.273  | 7.462  | 7.488  | 6.190  |
|          |     |           | 8.300  | 17.593 | 14.791 | 13.791 | 11.790 |
|          |     |           | 9.390  | 20.033 | 17.006 | 15.637 | 13.470 |
|          |     |           | 9.431  | 20.051 | 17.023 | 15.680 | 13.506 |
|          |     |           | 12.450 | 25.040 | 21.572 | 19.381 | 16.874 |
|          |     |           | 16.600 | 29.844 | 25.967 | 22.881 | 20.057 |
|          |     |           | 20.750 | 31.760 | 27.718 | 24.254 | 21.299 |
|          |     |           | 24.900 | 29.844 | 25.967 | 22.881 | 20.057 |
|          |     |           | 29.050 | 25.040 | 21.572 | 19.381 | 16.874 |
|          |     |           | 32.069 | 20.051 | 17.024 | 15.680 | 13.506 |
|          |     |           | 32.110 | 20.033 | 17.006 | 15.637 | 13.470 |
|          |     |           | 33.200 | 17.593 | 14.791 | 13.791 | 11.790 |
|          |     |           | 37.350 | 9.273  | 7.462  | 7.488  | 6.190  |
|          |     |           | 39.569 | 6.384  | 5.308  | 5.280  | 4.475  |
|          |     |           | 39.610 | 6.378  | 5.309  | 5.265  | 4.468  |
|          |     |           | 41.500 | 3.901  | 3.462  | 3.379  | 3.001  |
|          |     |           | 42.100 | 3.901  | 3.462  | 3.379  | 3.001  |

|    |   |                 |        |        |         |        |         |
|----|---|-----------------|--------|--------|---------|--------|---------|
| T4 | - | Característica  | -0.600 | 9.417  | -6.000  | 6.828  | -3.870  |
|    |   |                 | 0.000  | 9.417  | -6.000  | 6.828  | -3.870  |
|    |   |                 | 1.890  | 17.784 | -0.847  | 13.121 | -0.022  |
|    |   |                 | 1.931  | 17.852 | -0.738  | 13.236 | 0.043   |
|    |   |                 | 4.150  | 27.609 | 5.271   | 20.606 | 4.549   |
|    |   |                 | 8.300  | 43.748 | 14.391  | 32.676 | 11.432  |
|    |   |                 | 9.390  | 47.802 | 16.601  | 35.696 | 13.105  |
|    |   |                 | 9.431  | 47.794 | 16.620  | 35.781 | 13.143  |
|    |   |                 | 12.450 | 55.780 | 21.214  | 41.696 | 16.556  |
|    |   |                 | 16.600 | 63.310 | 25.703  | 47.231 | 19.835  |
|    |   |                 | 20.750 | 66.503 | 27.534  | 49.564 | 21.157  |
|    |   |                 | 24.900 | 63.310 | 25.703  | 47.231 | 19.835  |
|    |   |                 | 29.050 | 55.780 | 21.214  | 41.696 | 16.556  |
|    |   |                 | 32.069 | 47.794 | 16.620  | 35.782 | 13.143  |
|    |   |                 | 32.110 | 47.802 | 16.601  | 35.696 | 13.105  |
|    |   |                 | 33.200 | 43.748 | 14.391  | 32.676 | 11.432  |
|    |   |                 | 37.350 | 27.609 | 5.271   | 20.606 | 4.549   |
|    |   |                 | 39.569 | 17.852 | -0.738  | 13.236 | 0.043   |
|    |   |                 | 39.610 | 17.784 | -0.847  | 13.122 | -0.022  |
|    |   |                 | 41.500 | 9.418  | -6.000  | 6.828  | -3.869  |
|    |   |                 | 42.100 | 9.418  | -6.000  | 6.828  | -3.869  |
|    | - | Frecuente       | -0.600 | 6.960  | -1.872  | 5.288  | -0.880  |
|    |   |                 | 0.000  | 6.960  | -1.872  | 5.288  | -0.880  |
|    |   |                 | 1.890  | 13.027 | 1.826   | 9.849  | 1.919   |
|    |   |                 | 1.931  | 13.072 | 1.887   | 9.924  | 1.959   |
|    |   |                 | 4.150  | 20.146 | 6.198   | 15.267 | 5.237   |
|    |   |                 | 8.300  | 33.178 | 14.503  | 25.029 | 11.530  |
|    |   |                 | 9.390  | 36.583 | 16.706  | 27.573 | 13.198  |
|    |   |                 | 9.431  | 36.585 | 16.725  | 27.642 | 13.235  |
|    |   |                 | 12.450 | 43.492 | 21.304  | 32.764 | 16.634  |
|    |   |                 | 16.600 | 50.112 | 25.778  | 37.629 | 19.898  |
|    |   |                 | 20.750 | 52.778 | 27.599  | 39.558 | 21.211  |
|    |   |                 | 24.900 | 50.112 | 25.778  | 37.629 | 19.898  |
|    |   |                 | 29.050 | 43.492 | 21.304  | 32.764 | 16.634  |
|    |   |                 | 32.069 | 36.585 | 16.725  | 27.642 | 13.235  |
|    |   |                 | 32.110 | 36.583 | 16.706  | 27.573 | 13.198  |
|    |   |                 | 33.200 | 33.178 | 14.503  | 25.029 | 11.531  |
|    |   |                 | 37.350 | 20.147 | 6.198   | 15.267 | 5.237   |
|    |   |                 | 39.569 | 13.072 | 1.887   | 9.924  | 1.959   |
|    |   |                 | 39.610 | 13.027 | 1.826   | 9.849  | 1.920   |
|    |   |                 | 41.500 | 6.960  | -1.872  | 5.288  | -0.880  |
|    |   |                 | 42.100 | 6.960  | -1.872  | 5.288  | -0.880  |
| T5 | - | Casi-permanente | -0.600 | 4.009  | 3.353   | 3.473  | 2.906   |
|    |   |                 | 0.000  | 4.009  | 3.353   | 3.473  | 2.906   |
|    |   |                 | 1.890  | 6.486  | 5.202   | 5.361  | 4.372   |
|    |   |                 | 1.931  | 6.491  | 5.202   | 5.375  | 4.379   |
|    |   |                 | 4.150  | 9.378  | 7.357   | 7.584  | 6.094   |
|    |   |                 | 8.300  | 17.707 | 14.677  | 13.900 | 11.680  |
|    |   |                 | 9.390  | 20.151 | 16.888  | 15.750 | 13.356  |
|    |   |                 | 9.431  | 20.168 | 16.906  | 15.793 | 13.393  |
|    |   |                 | 12.450 | 25.116 | 21.496  | 19.454 | 16.801  |
|    |   |                 | 16.600 | 29.828 | 25.984  | 22.863 | 20.075  |
|    |   |                 | 20.750 | 31.637 | 27.841  | 24.130 | 21.423  |
|    |   |                 | 24.900 | 29.828 | 25.984  | 22.863 | 20.075  |
|    |   |                 | 29.050 | 25.116 | 21.496  | 19.454 | 16.801  |
|    |   |                 | 32.069 | 20.168 | 16.907  | 15.793 | 13.394  |
|    |   |                 | 32.110 | 20.151 | 16.888  | 15.750 | 13.356  |
|    |   |                 | 33.200 | 17.707 | 14.677  | 13.900 | 11.681  |
|    |   |                 | 37.350 | 9.378  | 7.357   | 7.584  | 6.094   |
|    |   |                 | 39.569 | 6.491  | 5.202   | 5.375  | 4.379   |
|    |   |                 | 39.610 | 6.486  | 5.202   | 5.361  | 4.372   |
|    |   |                 | 41.500 | 4.009  | 3.353   | 3.474  | 2.906   |
|    |   |                 | 42.100 | 4.009  | 3.353   | 3.474  | 2.906   |
| T5 | - | Característica  | -0.600 | 9.417  | -12.122 | 6.828  | -13.936 |
|    |   |                 | 0.000  | 10.020 | -14.858 | 7.035  | -13.681 |
|    |   |                 | 1.890  | 18.905 | -7.101  | 15.445 | -9.902  |
|    |   |                 | 1.931  | 18.993 | -7.172  | 15.567 | -9.834  |
|    |   |                 | 4.150  | 30.546 | -0.886  | 24.836 | -4.921  |
|    |   |                 | 8.300  | 47.010 | 11.316  | 40.100 | 1.857   |
|    |   |                 |        |        |         |        |         |

|     |   |                 |        |        |         |        |         |
|-----|---|-----------------|--------|--------|---------|--------|---------|
|     | - | Frecuente       | 9.390  | 51.710 | 13.444  | 43.725 | 3.503   |
|     |   |                 | 9.431  | 51.566 | 13.458  | 43.812 | 3.547   |
|     |   |                 | 12.450 | 59.899 | 19.093  | 51.174 | 7.144   |
|     |   |                 | 16.600 | 68.739 | 23.372  | 57.977 | 10.361  |
|     |   |                 | 20.750 | 72.306 | 25.123  | 60.709 | 11.659  |
|     |   |                 | 24.900 | 68.739 | 23.372  | 57.977 | 10.361  |
|     |   |                 | 29.050 | 59.899 | 19.093  | 51.174 | 7.144   |
|     |   |                 | 32.069 | 51.566 | 13.458  | 43.813 | 3.547   |
|     |   |                 | 32.110 | 51.711 | 13.444  | 43.725 | 3.503   |
|     |   |                 | 33.200 | 47.010 | 11.316  | 40.100 | 1.857   |
|     |   |                 | 37.350 | 30.546 | -0.886  | 24.836 | -4.921  |
|     |   |                 | 39.569 | 18.994 | -7.171  | 15.567 | -9.834  |
|     |   |                 | 39.610 | 18.906 | -7.101  | 15.445 | -9.902  |
|     |   |                 | 41.500 | 10.020 | -14.858 | 7.035  | -13.681 |
|     |   |                 | 42.100 | 9.418  | -12.122 | 6.828  | -13.936 |
|     |   |                 | -0.600 | 6.960  | -7.994  | 5.288  | -10.947 |
|     |   |                 | 0.000  | 7.562  | -10.730 | 5.494  | -10.691 |
|     |   |                 | 1.890  | 14.148 | -4.428  | 12.173 | -7.960  |
|     |   |                 | 1.931  | 14.213 | -4.547  | 12.255 | -7.917  |
|     |   |                 | 4.150  | 23.084 | 0.041   | 19.497 | -4.233  |
|     |   |                 | 8.300  | 36.439 | 11.428  | 32.453 | 1.955   |
|     |   |                 | 9.390  | 40.491 | 13.549  | 35.602 | 3.595   |
|     |   |                 | 9.431  | 40.357 | 13.562  | 35.673 | 3.639   |
|     |   |                 | 12.450 | 47.611 | 19.182  | 42.242 | 7.223   |
|     |   |                 | 16.600 | 55.540 | 23.447  | 48.375 | 10.424  |
|     |   |                 | 20.750 | 58.580 | 25.189  | 50.703 | 11.713  |
|     |   |                 | 24.900 | 55.540 | 23.447  | 48.375 | 10.424  |
|     |   |                 | 29.050 | 47.611 | 19.182  | 42.242 | 7.223   |
|     |   |                 | 32.069 | 40.357 | 13.563  | 35.673 | 3.640   |
|     |   |                 | 32.110 | 40.491 | 13.549  | 35.602 | 3.596   |
|     |   |                 | 33.200 | 36.439 | 11.428  | 32.453 | 1.955   |
|     |   |                 | 37.350 | 23.084 | 0.041   | 19.497 | -4.233  |
|     |   |                 | 39.569 | 14.213 | -4.547  | 12.255 | -7.917  |
|     |   |                 | 39.610 | 14.148 | -4.428  | 12.173 | -7.960  |
|     |   |                 | 41.500 | 7.563  | -10.730 | 5.494  | -10.691 |
|     |   |                 | 42.100 | 6.960  | -7.994  | 5.288  | -10.947 |
| Env | - | Casi-permanente | -0.600 | 4.009  | -2.769  | 3.473  | -7.161  |
|     |   |                 | 0.000  | 4.612  | -5.505  | 3.680  | -6.905  |
|     |   |                 | 1.890  | 7.607  | -1.052  | 7.684  | -5.508  |
|     |   |                 | 1.931  | 7.632  | -1.232  | 7.706  | -5.497  |
|     |   |                 | 4.150  | 12.316 | 1.200   | 11.814 | -3.376  |
|     |   |                 | 8.300  | 20.969 | 11.602  | 21.324 | 2.105   |
|     |   |                 | 9.390  | 24.059 | 13.731  | 23.779 | 3.754   |
|     |   |                 | 9.431  | 23.940 | 13.744  | 23.824 | 3.798   |
|     |   |                 | 12.450 | 29.235 | 19.375  | 28.933 | 7.389   |
|     |   |                 | 16.600 | 35.256 | 23.653  | 33.609 | 10.600  |
|     |   |                 | 20.750 | 37.439 | 25.430  | 35.276 | 11.925  |
|     |   |                 | 24.900 | 35.256 | 23.653  | 33.609 | 10.600  |
|     |   |                 | 29.050 | 29.235 | 19.375  | 28.933 | 7.389   |
|     |   |                 | 32.069 | 23.940 | 13.744  | 23.824 | 3.798   |
|     |   |                 | 32.110 | 24.059 | 13.731  | 23.779 | 3.754   |
|     |   |                 | 33.200 | 20.969 | 11.602  | 21.324 | 2.105   |
|     |   |                 | 37.350 | 12.316 | 1.200   | 11.814 | -3.376  |
|     |   |                 | 39.569 | 7.632  | -1.232  | 7.706  | -5.497  |
|     |   |                 | 39.610 | 7.607  | -1.052  | 7.684  | -5.508  |
|     |   |                 | 41.500 | 4.612  | -5.505  | 3.680  | -6.905  |
|     |   |                 | 42.100 | 4.009  | -2.769  | 3.474  | -7.161  |
|     |   |                 | -0.600 | 9.417  | -12.122 | 6.828  | -13.936 |
|     |   |                 | 0.000  | 10.020 | -14.858 | 7.035  | -13.681 |
|     |   |                 | 1.890  | 18.905 | -7.101  | 15.445 | -9.902  |
|     |   |                 | 1.931  | 18.993 | -7.172  | 15.567 | -9.834  |
|     |   |                 | 4.150  | 30.546 | -0.886  | 24.836 | -4.921  |
|     |   |                 | 8.300  | 47.010 | 0.000   | 40.100 | 0.000   |
|     |   |                 | 9.390  | 51.710 | 0.000   | 43.725 | 0.000   |
|     |   |                 | 9.431  | 51.566 | 0.000   | 43.812 | 0.000   |
|     |   |                 | 12.450 | 59.899 | 0.000   | 51.174 | 0.000   |
|     |   |                 | 16.600 | 68.739 | 0.000   | 57.977 | 0.000   |
|     |   |                 | 20.750 | 72.306 | 0.000   | 60.709 | 0.000   |
|     |   |                 | 24.900 | 68.739 | 0.000   | 57.977 | 0.000   |
| Env | - | Característica  | 9.390  | 51.710 | 13.444  | 43.725 | 3.503   |
|     |   |                 | 9.431  | 51.566 | 13.458  | 43.812 | 3.547   |
|     |   |                 | 12.450 | 59.899 | 19.093  | 51.174 | 7.144   |
|     |   |                 | 16.600 | 68.739 | 23.372  | 57.977 | 10.361  |
|     |   |                 | 20.750 | 72.306 | 25.123  | 60.709 | 11.659  |
|     |   |                 | 24.900 | 68.739 | 23.372  | 57.977 | 10.361  |
|     |   |                 | 29.050 | 59.899 | 19.093  | 51.174 | 7.144   |
|     |   |                 | 32.069 | 51.566 | 13.458  | 43.813 | 3.547   |
|     |   |                 | 32.110 | 51.711 | 13.444  | 43.725 | 3.503   |
|     |   |                 | 33.200 | 47.010 | 11.316  | 40.100 | 1.857   |
|     |   |                 | 37.350 | 30.546 | -0.886  | 24.836 | -4.921  |
|     |   |                 | 39.569 | 18.994 | -7.171  | 15.567 | -9.834  |
|     |   |                 | 39.610 | 18.906 | -7.101  | 15.445 | -9.902  |
|     |   |                 | 41.500 | 10.020 | -14.858 | 7.035  | -13.681 |
|     |   |                 | 42.100 | 9.418  | -12.122 | 6.828  | -13.936 |
|     |   |                 | -0.600 | 6.960  | -7.994  | 5.288  | -10.947 |
|     |   |                 | 0.000  | 7.562  | -10.730 | 5.494  | -10.691 |
|     |   |                 | 1.890  | 14.148 | -4.428  | 12.173 | -7.960  |

|   |                 |        |        |         |        |         |
|---|-----------------|--------|--------|---------|--------|---------|
| - | Frecuente       | 29.050 | 59.899 | 0.000   | 51.174 | 0.000   |
|   |                 | 32.069 | 51.566 | 0.000   | 43.813 | 0.000   |
|   |                 | 32.110 | 51.711 | 0.000   | 43.725 | 0.000   |
|   |                 | 33.200 | 47.010 | 0.000   | 40.100 | 0.000   |
|   |                 | 37.350 | 30.546 | -0.886  | 24.836 | -4.921  |
|   |                 | 39.569 | 18.994 | -7.171  | 15.567 | -9.834  |
|   |                 | 39.610 | 18.906 | -7.101  | 15.445 | -9.902  |
|   |                 | 41.500 | 10.020 | -14.858 | 7.035  | -13.681 |
|   |                 | 42.100 | 9.418  | -12.122 | 6.828  | -13.936 |
|   |                 | -0.600 | 6.960  | -7.994  | 5.288  | -10.947 |
|   |                 | 0.000  | 7.562  | -10.730 | 5.494  | -10.691 |
|   |                 | 1.890  | 14.148 | -4.428  | 12.173 | -7.960  |
|   |                 | 1.931  | 14.213 | -4.547  | 12.255 | -7.917  |
|   |                 | 4.150  | 23.084 | 0.000   | 19.497 | -4.233  |
|   |                 | 8.300  | 36.439 | 0.000   | 32.453 | 0.000   |
|   |                 | 9.390  | 40.491 | 0.000   | 35.602 | 0.000   |
|   |                 | 9.431  | 40.357 | 0.000   | 35.673 | 0.000   |
|   |                 | 12.450 | 47.611 | 0.000   | 42.242 | 0.000   |
|   |                 | 16.600 | 55.540 | 0.000   | 48.375 | 0.000   |
|   |                 | 20.750 | 58.580 | 0.000   | 50.703 | 0.000   |
| - | Casi-permanente | 24.900 | 55.540 | 0.000   | 48.375 | 0.000   |
|   |                 | 29.050 | 47.611 | 0.000   | 42.242 | 0.000   |
|   |                 | 32.069 | 40.357 | 0.000   | 35.673 | 0.000   |
|   |                 | 32.110 | 40.491 | 0.000   | 35.602 | 0.000   |
|   |                 | 33.200 | 36.439 | 0.000   | 32.453 | 0.000   |
|   |                 | 37.350 | 23.084 | 0.000   | 19.497 | -4.233  |
|   |                 | 39.569 | 14.213 | -4.547  | 12.255 | -7.917  |
|   |                 | 39.610 | 14.148 | -4.428  | 12.173 | -7.960  |
|   |                 | 41.500 | 7.563  | -10.730 | 5.494  | -10.691 |
|   |                 | 42.100 | 6.960  | -7.994  | 5.288  | -10.947 |
|   |                 | -0.600 | 4.009  | -2.769  | 3.473  | -7.161  |
|   |                 | 0.000  | 4.612  | -5.505  | 3.680  | -6.905  |
|   |                 | 1.890  | 7.607  | -1.052  | 7.684  | -5.508  |
|   |                 | 1.931  | 7.632  | -1.232  | 7.706  | -5.497  |
|   |                 | 4.150  | 12.316 | 0.000   | 11.814 | -3.376  |
|   |                 | 8.300  | 20.969 | 0.000   | 21.324 | 0.000   |
|   |                 | 9.390  | 24.059 | 0.000   | 23.779 | 0.000   |
|   |                 | 9.431  | 23.940 | 0.000   | 23.824 | 0.000   |
|   |                 | 12.450 | 29.235 | 0.000   | 28.933 | 0.000   |
|   |                 | 16.600 | 35.256 | 0.000   | 33.609 | 0.000   |
|   |                 | 20.750 | 37.439 | 0.000   | 35.276 | 0.000   |
|   |                 | 24.900 | 35.256 | 0.000   | 33.609 | 0.000   |
|   |                 | 29.050 | 29.235 | 0.000   | 28.933 | 0.000   |
|   |                 | 32.069 | 23.940 | 0.000   | 23.824 | 0.000   |
|   |                 | 32.110 | 24.059 | 0.000   | 23.779 | 0.000   |
|   |                 | 33.200 | 20.969 | 0.000   | 21.324 | 0.000   |
|   |                 | 37.350 | 12.316 | 0.000   | 11.814 | -3.376  |
|   |                 | 39.569 | 7.632  | -1.232  | 7.706  | -5.497  |
|   |                 | 39.610 | 7.607  | -1.052  | 7.684  | -5.508  |
|   |                 | 41.500 | 4.612  | -5.505  | 3.680  | -6.905  |
|   |                 | 42.100 | 4.009  | -2.769  | 3.474  | -7.161  |

Vano    1 Viga    3  
-----

Coefficientes de anchura eficaz empleados

Coefficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K3 = 1.000000

Coefficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| Instante | Día | Situación | s (m)  | Tsup + | Tsup - | Tinf + | Tinf - |
|----------|-----|-----------|--------|--------|--------|--------|--------|
| T1       | 21  | -         | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T2       | 60  | -         | -0.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.890  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 1.931  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 4.150  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 8.300  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.390  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 9.431  | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 12.450 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 16.600 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 20.750 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 24.900 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 29.050 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.069 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 32.110 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 33.200 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 37.350 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.569 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 39.610 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 41.500 | 0.000  | 0.000  | 0.000  | 0.000  |
|          |     |           | 42.100 | 0.000  | 0.000  | 0.000  | 0.000  |
| T3       | 90  | -         | -0.600 | 2.533  | -6.594 | 1.322  | -4.841 |
|          |     |           | 0.000  | 2.533  | -6.594 | 1.322  | -4.841 |
|          |     |           | 1.890  | 7.551  | 0.716  | 5.061  | 0.532  |
|          |     |           | 1.931  | 7.620  | 0.871  | 5.150  | 0.648  |
|          |     |           | 4.150  | 13.472 | 9.399  | 9.531  | 6.946  |
|          |     |           | 8.300  | 21.065 | 18.564 | 15.250 | 13.328 |
|          |     |           | 9.390  | 22.928 | 19.941 | 16.844 | 14.375 |
|          |     |           | 9.431  | 22.939 | 19.933 | 16.898 | 14.415 |
|          |     |           | 12.450 | 26.951 | 22.876 | 19.825 | 16.725 |
|          |     |           | 16.600 | 30.461 | 25.817 | 22.397 | 19.080 |
|          |     |           | 20.750 | 31.827 | 27.044 | 23.406 | 20.075 |
|          |     |           | 24.900 | 30.461 | 25.817 | 22.397 | 19.080 |
|          |     |           | 29.050 | 26.951 | 22.876 | 19.825 | 16.725 |
|          |     |           | 32.069 | 22.939 | 19.933 | 16.898 | 14.415 |
|          |     |           | 32.110 | 22.928 | 19.941 | 16.844 | 14.375 |

|    |   |                 |        |        |        |        |        |
|----|---|-----------------|--------|--------|--------|--------|--------|
| T4 | - | Característica  | 33.200 | 21.065 | 18.564 | 15.250 | 13.328 |
|    |   |                 | 37.350 | 13.472 | 9.399  | 9.531  | 6.946  |
|    |   |                 | 39.569 | 7.620  | 0.871  | 5.150  | 0.649  |
|    |   |                 | 39.610 | 7.551  | 0.717  | 5.061  | 0.532  |
|    |   |                 | 41.500 | 2.533  | -6.594 | 1.322  | -4.841 |
|    |   |                 | 42.100 | 2.533  | -6.594 | 1.322  | -4.841 |
|    |   |                 | -0.600 | 3.446  | -7.081 | 1.993  | -5.140 |
|    |   |                 | 0.000  | 3.446  | -7.081 | 1.993  | -5.140 |
|    |   |                 | 1.890  | 13.944 | 0.302  | 9.903  | 0.269  |
|    |   |                 | 1.931  | 14.090 | 0.460  | 10.071 | 0.385  |
|    |   |                 | 4.150  | 26.334 | 9.073  | 19.334 | 6.724  |
|    |   |                 | 8.300  | 43.745 | 18.360 | 32.347 | 13.462 |
|    |   |                 | 9.390  | 47.837 | 20.202 | 35.387 | 14.784 |
|    |   |                 | 9.431  | 47.837 | 20.208 | 35.483 | 14.829 |
|    |   |                 | 12.450 | 55.999 | 22.573 | 41.608 | 16.523 |
|    |   |                 | 16.600 | 63.694 | 25.533 | 47.410 | 18.885 |
|    |   |                 | 20.750 | 66.689 | 26.837 | 49.651 | 19.951 |
|    |   |                 | 24.900 | 63.694 | 25.533 | 47.410 | 18.885 |
|    |   |                 | 29.050 | 55.999 | 22.573 | 41.608 | 16.523 |
|    |   |                 | 32.069 | 47.837 | 20.208 | 35.483 | 14.829 |
|    |   |                 | 32.110 | 47.837 | 20.202 | 35.387 | 14.784 |
|    |   |                 | 33.200 | 43.745 | 18.360 | 32.347 | 13.462 |
|    |   |                 | 37.350 | 26.334 | 9.074  | 19.334 | 6.724  |
|    |   |                 | 39.569 | 14.090 | 0.460  | 10.071 | 0.385  |
|    |   |                 | 39.610 | 13.944 | 0.302  | 9.903  | 0.269  |
|    |   |                 | 41.500 | 3.446  | -7.081 | 1.993  | -5.139 |
|    |   |                 | 42.100 | 3.446  | -7.081 | 1.993  | -5.139 |
|    | - | Frecuente       | -0.600 | 3.206  | -6.952 | 1.817  | -5.061 |
|    |   |                 | 0.000  | 3.206  | -6.952 | 1.817  | -5.061 |
|    |   |                 | 1.890  | 11.529 | 0.412  | 8.074  | 0.338  |
|    |   |                 | 1.931  | 11.644 | 0.570  | 8.211  | 0.455  |
|    |   |                 | 4.150  | 21.352 | 9.161  | 15.539 | 6.784  |
|    |   |                 | 8.300  | 34.750 | 18.440 | 25.567 | 13.518 |
|    |   |                 | 9.390  | 37.852 | 20.282 | 27.879 | 14.840 |
|    |   |                 | 9.431  | 37.849 | 20.289 | 27.954 | 14.886 |
|    |   |                 | 12.450 | 44.130 | 22.656 | 32.705 | 16.578 |
|    |   |                 | 16.600 | 50.125 | 25.611 | 37.277 | 18.939 |
|    |   |                 | 20.750 | 52.478 | 26.901 | 39.061 | 19.992 |
|    |   |                 | 24.900 | 50.125 | 25.611 | 37.277 | 18.939 |
|    |   |                 | 29.050 | 44.130 | 22.656 | 32.705 | 16.578 |
|    |   |                 | 32.069 | 37.849 | 20.289 | 27.954 | 14.886 |
|    |   |                 | 32.110 | 37.853 | 20.283 | 27.879 | 14.840 |
|    |   |                 | 33.200 | 34.750 | 18.440 | 25.567 | 13.518 |
|    |   |                 | 37.350 | 21.352 | 9.161  | 15.539 | 6.784  |
|    |   |                 | 39.569 | 11.644 | 0.570  | 8.211  | 0.455  |
|    |   |                 | 39.610 | 11.530 | 0.413  | 8.074  | 0.339  |
|    |   |                 | 41.500 | 3.206  | -6.952 | 1.817  | -5.061 |
|    |   |                 | 42.100 | 3.206  | -6.952 | 1.817  | -5.061 |
|    | - | Casi-permanente | -0.600 | 2.624  | -6.617 | 1.402  | -4.860 |
|    |   |                 | 0.000  | 2.624  | -6.617 | 1.402  | -4.860 |
|    |   |                 | 1.890  | 7.635  | 0.689  | 5.137  | 0.508  |
|    |   |                 | 1.931  | 7.703  | 0.843  | 5.226  | 0.625  |
|    |   |                 | 4.150  | 13.549 | 9.366  | 9.602  | 6.916  |
|    |   |                 | 8.300  | 21.104 | 18.492 | 15.293 | 13.260 |
|    |   |                 | 9.390  | 22.981 | 19.870 | 16.893 | 14.307 |
|    |   |                 | 9.431  | 22.991 | 19.863 | 16.947 | 14.347 |
|    |   |                 | 12.450 | 27.010 | 22.808 | 19.881 | 16.657 |
|    |   |                 | 16.600 | 30.522 | 25.824 | 22.457 | 19.088 |
|    |   |                 | 20.750 | 31.888 | 27.111 | 23.467 | 20.143 |
|    |   |                 | 24.900 | 30.522 | 25.824 | 22.457 | 19.088 |
|    |   |                 | 29.050 | 27.010 | 22.808 | 19.881 | 16.657 |
|    |   |                 | 32.069 | 22.991 | 19.863 | 16.947 | 14.347 |
|    |   |                 | 32.110 | 22.981 | 19.870 | 16.893 | 14.307 |
|    |   |                 | 33.200 | 21.104 | 18.492 | 15.293 | 13.260 |
|    |   |                 | 37.350 | 13.549 | 9.367  | 9.602  | 6.916  |
|    |   |                 | 39.569 | 7.704  | 0.844  | 5.226  | 0.625  |
|    |   |                 | 39.610 | 7.635  | 0.689  | 5.137  | 0.508  |
|    |   |                 | 41.500 | 2.624  | -6.617 | 1.402  | -4.860 |
|    |   |                 | 42.100 | 2.624  | -6.617 | 1.402  | -4.860 |

|     |   |                 |        |        |         |        |         |
|-----|---|-----------------|--------|--------|---------|--------|---------|
| T5  | - | Característica  | -0.600 | 3.446  | -13.594 | 1.993  | -15.543 |
|     |   |                 | 0.000  | 4.101  | -16.008 | 2.284  | -15.239 |
|     |   |                 | 1.890  | 15.078 | -6.574  | 12.122 | -9.910  |
|     |   |                 | 1.931  | 15.243 | -6.614  | 12.287 | -9.792  |
|     |   |                 | 4.150  | 29.239 | 1.496   | 23.140 | -3.033  |
|     |   |                 | 8.300  | 46.287 | 14.384  | 39.313 | 3.582   |
|     |   |                 | 9.390  | 50.614 | 16.622  | 42.984 | 4.878   |
|     |   |                 | 9.431  | 50.483 | 16.626  | 43.077 | 4.931   |
|     |   |                 | 12.450 | 59.558 | 19.667  | 50.705 | 6.843   |
|     |   |                 | 16.600 | 68.435 | 22.866  | 57.885 | 9.151   |
|     |   |                 | 20.750 | 71.934 | 24.109  | 60.575 | 10.198  |
|     |   |                 | 24.900 | 68.435 | 22.866  | 57.885 | 9.151   |
|     |   |                 | 29.050 | 59.558 | 19.667  | 50.705 | 6.843   |
|     |   |                 | 32.069 | 50.484 | 16.626  | 43.077 | 4.931   |
|     |   |                 | 32.110 | 50.615 | 16.622  | 42.984 | 4.878   |
|     |   |                 | 33.200 | 46.287 | 14.384  | 39.313 | 3.583   |
|     |   |                 | 37.350 | 29.239 | 1.496   | 23.140 | -3.033  |
|     |   |                 | 39.569 | 15.243 | -6.613  | 12.288 | -9.792  |
|     |   |                 | 39.610 | 15.079 | -6.574  | 12.123 | -9.910  |
|     |   |                 | 41.500 | 4.101  | -16.008 | 2.284  | -15.239 |
|     |   |                 | 42.100 | 3.446  | -13.593 | 1.993  | -15.543 |
|     | - | Frecuente       | -0.600 | 3.206  | -13.465 | 1.817  | -15.464 |
|     |   |                 | 0.000  | 3.861  | -15.879 | 2.108  | -15.160 |
|     |   |                 | 1.890  | 12.664 | -6.464  | 10.294 | -9.841  |
|     |   |                 | 1.931  | 12.797 | -6.504  | 10.427 | -9.722  |
|     |   |                 | 4.150  | 24.257 | 1.583   | 19.345 | -2.974  |
|     |   |                 | 8.300  | 37.292 | 14.463  | 32.534 | 3.638   |
|     |   |                 | 9.390  | 40.630 | 16.703  | 35.476 | 4.935   |
|     |   |                 | 9.431  | 40.495 | 16.707  | 35.548 | 4.987   |
|     |   |                 | 12.450 | 47.689 | 19.750  | 41.802 | 6.898   |
|     |   |                 | 16.600 | 54.867 | 22.944  | 47.752 | 9.205   |
|     |   |                 | 20.750 | 57.722 | 24.173  | 49.985 | 10.239  |
|     |   |                 | 24.900 | 54.867 | 22.944  | 47.752 | 9.205   |
|     |   |                 | 29.050 | 47.689 | 19.750  | 41.802 | 6.898   |
|     |   |                 | 32.069 | 40.495 | 16.707  | 35.549 | 4.987   |
|     |   |                 | 32.110 | 40.630 | 16.703  | 35.476 | 4.935   |
|     |   |                 | 33.200 | 37.292 | 14.464  | 32.534 | 3.638   |
|     |   |                 | 37.350 | 24.257 | 1.584   | 19.345 | -2.973  |
|     |   |                 | 39.569 | 12.797 | -6.504  | 10.427 | -9.722  |
|     |   |                 | 39.610 | 12.664 | -6.464  | 10.294 | -9.840  |
|     |   |                 | 41.500 | 3.861  | -15.879 | 2.108  | -15.160 |
|     |   |                 | 42.100 | 3.206  | -13.465 | 1.817  | -15.464 |
|     | - | Casi-permanente | -0.600 | 2.624  | -13.130 | 1.402  | -15.263 |
|     |   |                 | 0.000  | 3.279  | -15.545 | 1.692  | -14.959 |
|     |   |                 | 1.890  | 8.770  | -6.187  | 7.356  | -9.671  |
|     |   |                 | 1.931  | 8.856  | -6.230  | 7.442  | -9.552  |
|     |   |                 | 4.150  | 16.454 | 1.789   | 13.408 | -2.841  |
|     |   |                 | 8.300  | 23.646 | 14.516  | 22.259 | 3.380   |
|     |   |                 | 9.390  | 25.758 | 16.291  | 24.490 | 4.401   |
|     |   |                 | 9.431  | 25.638 | 16.281  | 24.541 | 4.449   |
|     |   |                 | 12.450 | 30.568 | 19.901  | 28.978 | 6.977   |
|     |   |                 | 16.600 | 35.264 | 23.157  | 32.931 | 9.354   |
|     |   |                 | 20.750 | 37.133 | 24.383  | 34.390 | 10.390  |
|     |   |                 | 24.900 | 35.264 | 23.157  | 32.931 | 9.354   |
|     |   |                 | 29.050 | 30.568 | 19.901  | 28.978 | 6.977   |
|     |   |                 | 32.069 | 25.638 | 16.281  | 24.541 | 4.449   |
|     |   |                 | 32.110 | 25.758 | 16.291  | 24.490 | 4.401   |
|     |   |                 | 33.200 | 23.646 | 14.516  | 22.259 | 3.380   |
|     |   |                 | 37.350 | 16.454 | 1.789   | 13.408 | -2.841  |
|     |   |                 | 39.569 | 8.857  | -6.230  | 7.442  | -9.552  |
|     |   |                 | 39.610 | 8.770  | -6.187  | 7.357  | -9.671  |
|     |   |                 | 41.500 | 3.279  | -15.544 | 1.692  | -14.959 |
|     |   |                 | 42.100 | 2.624  | -13.130 | 1.402  | -15.263 |
| Env | - | Característica  | -0.600 | 3.446  | -13.594 | 1.993  | -15.543 |
|     |   |                 | 0.000  | 4.101  | -16.008 | 2.284  | -15.239 |
|     |   |                 | 1.890  | 15.078 | -6.574  | 12.122 | -9.910  |
|     |   |                 | 1.931  | 15.243 | -6.614  | 12.287 | -9.792  |
|     |   |                 | 4.150  | 29.239 | 0.000   | 23.140 | -3.033  |
|     |   |                 | 8.300  | 46.287 | 0.000   | 39.313 | 0.000   |

|   |                 |        |        |         |        |         |
|---|-----------------|--------|--------|---------|--------|---------|
|   |                 | 9.390  | 50.614 | 0.000   | 42.984 | 0.000   |
|   |                 | 9.431  | 50.483 | 0.000   | 43.077 | 0.000   |
|   |                 | 12.450 | 59.558 | 0.000   | 50.705 | 0.000   |
|   |                 | 16.600 | 68.435 | 0.000   | 57.885 | 0.000   |
|   |                 | 20.750 | 71.934 | 0.000   | 60.575 | 0.000   |
|   |                 | 24.900 | 68.435 | 0.000   | 57.885 | 0.000   |
|   |                 | 29.050 | 59.558 | 0.000   | 50.705 | 0.000   |
|   |                 | 32.069 | 50.484 | 0.000   | 43.077 | 0.000   |
|   |                 | 32.110 | 50.615 | 0.000   | 42.984 | 0.000   |
|   |                 | 33.200 | 46.287 | 0.000   | 39.313 | 0.000   |
|   |                 | 37.350 | 29.239 | 0.000   | 23.140 | -3.033  |
|   |                 | 39.569 | 15.243 | -6.613  | 12.288 | -9.792  |
|   |                 | 39.610 | 15.079 | -6.574  | 12.123 | -9.910  |
|   |                 | 41.500 | 4.101  | -16.008 | 2.284  | -15.239 |
|   |                 | 42.100 | 3.446  | -13.593 | 1.993  | -15.543 |
| - | Frecuente       | -0.600 | 3.206  | -13.465 | 1.817  | -15.464 |
|   |                 | 0.000  | 3.861  | -15.879 | 2.108  | -15.160 |
|   |                 | 1.890  | 12.664 | -6.464  | 10.294 | -9.841  |
|   |                 | 1.931  | 12.797 | -6.504  | 10.427 | -9.722  |
|   |                 | 4.150  | 24.257 | 0.000   | 19.345 | -2.974  |
|   |                 | 8.300  | 37.292 | 0.000   | 32.534 | 0.000   |
|   |                 | 9.390  | 40.630 | 0.000   | 35.476 | 0.000   |
|   |                 | 9.431  | 40.495 | 0.000   | 35.548 | 0.000   |
|   |                 | 12.450 | 47.689 | 0.000   | 41.802 | 0.000   |
|   |                 | 16.600 | 54.867 | 0.000   | 47.752 | 0.000   |
|   |                 | 20.750 | 57.722 | 0.000   | 49.985 | 0.000   |
|   |                 | 24.900 | 54.867 | 0.000   | 47.752 | 0.000   |
|   |                 | 29.050 | 47.689 | 0.000   | 41.802 | 0.000   |
|   |                 | 32.069 | 40.495 | 0.000   | 35.549 | 0.000   |
|   |                 | 32.110 | 40.630 | 0.000   | 35.476 | 0.000   |
|   |                 | 33.200 | 37.292 | 0.000   | 32.534 | 0.000   |
|   |                 | 37.350 | 24.257 | 0.000   | 19.345 | -2.973  |
|   |                 | 39.569 | 12.797 | -6.504  | 10.427 | -9.722  |
|   |                 | 39.610 | 12.664 | -6.464  | 10.294 | -9.840  |
|   |                 | 41.500 | 3.861  | -15.879 | 2.108  | -15.160 |
|   |                 | 42.100 | 3.206  | -13.465 | 1.817  | -15.464 |
| - | Casi-permanente | -0.600 | 2.624  | -13.130 | 1.402  | -15.263 |
|   |                 | 0.000  | 3.279  | -15.545 | 1.692  | -14.959 |
|   |                 | 1.890  | 8.770  | -6.187  | 7.356  | -9.671  |
|   |                 | 1.931  | 8.856  | -6.230  | 7.442  | -9.552  |
|   |                 | 4.150  | 16.454 | 0.000   | 13.408 | -2.841  |
|   |                 | 8.300  | 23.646 | 0.000   | 22.259 | 0.000   |
|   |                 | 9.390  | 25.758 | 0.000   | 24.490 | 0.000   |
|   |                 | 9.431  | 25.638 | 0.000   | 24.541 | 0.000   |
|   |                 | 12.450 | 30.568 | 0.000   | 28.978 | 0.000   |
|   |                 | 16.600 | 35.264 | 0.000   | 32.931 | 0.000   |
|   |                 | 20.750 | 37.133 | 0.000   | 34.390 | 0.000   |
|   |                 | 24.900 | 35.264 | 0.000   | 32.931 | 0.000   |
|   |                 | 29.050 | 30.568 | 0.000   | 28.978 | 0.000   |
|   |                 | 32.069 | 25.638 | 0.000   | 24.541 | 0.000   |
|   |                 | 32.110 | 25.758 | 0.000   | 24.490 | 0.000   |
|   |                 | 33.200 | 23.646 | 0.000   | 22.259 | 0.000   |
|   |                 | 37.350 | 16.454 | 0.000   | 13.408 | -2.841  |
|   |                 | 39.569 | 8.857  | -6.230  | 7.442  | -9.552  |
|   |                 | 39.610 | 8.770  | -6.187  | 7.357  | -9.671  |
|   |                 | 41.500 | 3.279  | -15.544 | 1.692  | -14.959 |
|   |                 | 42.100 | 2.624  | -13.130 | 1.402  | -15.263 |

T1 : Al transferir el pretensado.  
T2 : Al hormigonar la losa.  
T3 : Al disponer la superestructura.  
T4 : Al abrir al tráfico.  
T5 : A tiempo infinito.  
Env : Envolverte de tensiones.

Día : número de días transcurridos entre el hormigonado de la viga y el  
instante considerado.  
s(m) : distancia al inicio de la viga.  
Tsup + (kg/cm2): máximatensión positiva en la fibra superior de la losa.

Tsup - (kg/cm2): máxima tensión negativa en la fibra superior de la losa.  
Tinf + (kg/cm2): máxima tensión positiva en la fibra inferior de la losa.  
Tinf - (kg/cm2): máxima tensión negativa en la fibra inferior de la losa.  
Tsup- y Tinf+ corresponden a la situación de transferencia de pretensado.

CALCULO A ROTURA POR FLEXION  
=====

Cálculo a rotura por flexión en la viga aislada.  
=====

Esfuerzos decalados (apartado 44.2.3.4.2 de la EHE).

Vano    1 Viga    1  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga :    K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga :    K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga :    K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K     | esup  | einf   |
|--------|----------|----------|-------|-------|--------|
| -0.600 | 0.000    | 0.000    | -     |       |        |
| 0.000  | 0.000    | 0.000    | -     |       |        |
| 1.890  | 1736.484 | 488.995  | 3.551 | 3.500 | -5.321 |
| 1.980  | 2306.390 | 502.701  | 4.588 | 3.500 | -1.294 |
| 4.150  | 2306.390 | 772.066  | 2.987 | 3.500 | -1.294 |
| 8.300  | 2306.390 | 1176.079 | 1.961 | 3.500 | -1.294 |
| 9.390  | 2306.390 | 1255.868 | 1.836 | 3.500 | -1.294 |
| 9.480  | 2464.023 | 1261.891 | 1.953 | 3.500 | -0.311 |
| 12.450 | 2464.023 | 1431.388 | 1.721 | 3.500 | -0.311 |
| 16.600 | 2464.023 | 1568.664 | 1.571 | 3.500 | -0.311 |
| 20.750 | 2464.023 | 1605.171 | 1.535 | 3.500 | -0.311 |
| 24.900 | 2464.023 | 1568.664 | 1.571 | 3.500 | -0.311 |
| 29.050 | 2464.023 | 1431.388 | 1.721 | 3.500 | -0.311 |
| 32.020 | 2464.018 | 1261.891 | 1.953 | 3.500 | -0.311 |
| 32.110 | 2306.390 | 1255.869 | 1.836 | 3.500 | -1.294 |
| 33.200 | 2306.390 | 1176.079 | 1.961 | 3.500 | -1.294 |
| 37.350 | 2306.390 | 772.066  | 2.987 | 3.500 | -1.294 |
| 39.520 | 2306.379 | 502.701  | 4.588 | 3.500 | -1.294 |
| 39.610 | 1736.484 | 488.996  | 3.551 | 3.500 | -5.321 |
| 41.500 | 0.000    | 0.000    | -     |       |        |
| 42.100 | 0.000    | 0.000    | -     |       |        |

Vano 1 Viga 2  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K     | esup  | einf   |
|--------|----------|----------|-------|-------|--------|
| -0.600 | 0.000    | 0.000    | -     |       |        |
| 0.000  | 0.000    | 0.000    | -     |       |        |
| 1.890  | 1736.484 | 500.231  | 3.471 | 3.500 | -5.321 |
| 1.980  | 2306.390 | 514.268  | 4.485 | 3.500 | -1.294 |
| 4.150  | 2306.390 | 793.890  | 2.905 | 3.500 | -1.294 |
| 8.300  | 2306.390 | 1209.323 | 1.907 | 3.500 | -1.294 |
| 9.390  | 2306.390 | 1291.367 | 1.786 | 3.500 | -1.294 |
| 9.480  | 2464.023 | 1297.562 | 1.899 | 3.500 | -0.311 |
| 12.450 | 2464.023 | 1471.849 | 1.674 | 3.500 | -0.311 |
| 16.600 | 2464.023 | 1613.005 | 1.528 | 3.500 | -0.311 |
| 20.750 | 2464.023 | 1650.544 | 1.493 | 3.500 | -0.311 |
| 24.900 | 2464.023 | 1613.005 | 1.528 | 3.500 | -0.311 |
| 29.050 | 2464.023 | 1471.849 | 1.674 | 3.500 | -0.311 |
| 32.020 | 2464.023 | 1297.562 | 1.899 | 3.500 | -0.311 |
| 32.110 | 2306.390 | 1291.368 | 1.786 | 3.500 | -1.294 |
| 33.200 | 2306.390 | 1209.323 | 1.907 | 3.500 | -1.294 |
| 37.350 | 2306.390 | 793.890  | 2.905 | 3.500 | -1.294 |
| 39.520 | 2306.386 | 514.268  | 4.485 | 3.500 | -1.294 |
| 39.610 | 1736.484 | 500.232  | 3.471 | 3.500 | -5.321 |
| 41.500 | 0.000    | 0.000    | -     |       |        |
| 42.100 | 0.000    | 0.000    | -     |       |        |

Vano 1 Viga 3  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa

- que se encuentre sobre la viga : K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa  
que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa  
que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa  
que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa  
que se encuentre sobre la viga : K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K     | esup  | einf   |
|--------|----------|----------|-------|-------|--------|
| -0.600 | 0.000    | 0.000    | -     |       |        |
| 0.000  | 0.000    | 0.000    | -     |       |        |
| 1.890  | 1736.484 | 488.995  | 3.551 | 3.500 | -5.321 |
| 1.980  | 2306.389 | 502.701  | 4.588 | 3.500 | -1.294 |
| 4.150  | 2306.390 | 772.066  | 2.987 | 3.500 | -1.294 |
| 8.300  | 2306.390 | 1176.079 | 1.961 | 3.500 | -1.294 |
| 9.390  | 2306.390 | 1255.868 | 1.836 | 3.500 | -1.294 |
| 9.480  | 2464.023 | 1261.891 | 1.953 | 3.500 | -0.311 |
| 12.450 | 2464.023 | 1431.388 | 1.721 | 3.500 | -0.311 |
| 16.600 | 2464.023 | 1568.664 | 1.571 | 3.500 | -0.311 |
| 20.750 | 2464.023 | 1605.171 | 1.535 | 3.500 | -0.311 |
| 24.900 | 2464.023 | 1568.664 | 1.571 | 3.500 | -0.311 |
| 29.050 | 2464.023 | 1431.388 | 1.721 | 3.500 | -0.311 |
| 32.020 | 2464.019 | 1261.891 | 1.953 | 3.500 | -0.311 |
| 32.110 | 2306.390 | 1255.869 | 1.836 | 3.500 | -1.294 |
| 33.200 | 2306.390 | 1176.079 | 1.961 | 3.500 | -1.294 |
| 37.350 | 2306.390 | 772.066  | 2.987 | 3.500 | -1.294 |
| 39.520 | 2306.381 | 502.701  | 4.588 | 3.500 | -1.294 |
| 39.610 | 1736.484 | 488.996  | 3.551 | 3.500 | -5.321 |
| 41.500 | 0.000    | 0.000    | -     |       |        |
| 42.100 | 0.000    | 0.000    | -     |       |        |

- s (m) : distancia al inicio de la viga.
- Mu (mT) : momento flector último de signo positivo en la sección de la viga.
- Md (mT) : momento flector de cálculo de signo positivo en la sección de la viga.
- K : coeficiente de seguridad a rotura (Mu/Md).
- esup (o/oo) : deformación en la fibra superior de la viga.
- einf (o/oo) : deformación en la fibra inferior de la viga.

Cálculo a rotura por flexión en la viga + losa.  
=====

Esfuerzos decalados (apartado 44.2.3.4.2 de la EHE).

Vano 1 Viga 1  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa  
que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa  
que se encuentre sobre la viga : K2 = 1.000000

- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K        | esup  | einf    |
|--------|----------|----------|----------|-------|---------|
| -0.600 | 398.105  | 82.774   | 4.80954  | 0.502 | -10.150 |
| 0.000  | 2181.080 | 149.290  | 14.60971 | 1.356 | -10.161 |
| 1.890  | 2179.675 | 1078.504 | 2.02102  | 1.340 | -10.163 |
| 1.980  | 3538.985 | 1102.542 | 3.20984  | 2.013 | -10.173 |
| 4.150  | 3534.566 | 1669.953 | 2.11657  | 1.958 | -10.174 |
| 8.300  | 3525.184 | 2529.998 | 1.39335  | 1.871 | -10.176 |
| 9.390  | 3523.244 | 2702.105 | 1.30389  | 1.853 | -10.177 |
| 9.480  | 4324.136 | 2713.761 | 1.59341  | 2.416 | -10.185 |
| 12.450 | 4322.216 | 3090.942 | 1.39835  | 2.358 | -10.186 |
| 16.600 | 4316.802 | 3344.081 | 1.29088  | 2.307 | -10.186 |
| 20.750 | 4316.667 | 3418.345 | 1.26279  | 2.294 | -10.186 |
| 24.900 | 4316.802 | 3344.082 | 1.29088  | 2.307 | -10.186 |
| 29.050 | 4322.216 | 3090.945 | 1.39835  | 2.358 | -10.186 |
| 32.020 | 4324.127 | 2713.765 | 1.59341  | 2.416 | -10.185 |
| 32.110 | 3523.244 | 2702.109 | 1.30389  | 1.853 | -10.177 |
| 33.200 | 3525.184 | 2530.003 | 1.39335  | 1.871 | -10.176 |
| 37.350 | 3534.566 | 1669.957 | 2.11656  | 1.958 | -10.174 |
| 39.520 | 3538.966 | 1102.548 | 3.20981  | 2.013 | -10.173 |
| 39.610 | 2179.675 | 1078.511 | 2.02100  | 1.340 | -10.163 |
| 41.500 | 2181.080 | 149.296  | 14.60910 | 1.356 | -10.161 |
| 42.100 | 398.105  | 82.778   | 4.80933  | 0.502 | -10.150 |

Vano 1 Viga 2  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K       | esup  | einf    |
|--------|----------|----------|---------|-------|---------|
| -0.600 | 398.751  | 204.347  | 1.95135 | 0.490 | -10.149 |
| 0.000  | 2184.143 | 273.392  | 7.98906 | 1.300 | -10.161 |
| 1.890  | 2181.054 | 1137.337 | 1.91769 | 1.285 | -10.163 |
| 1.980  | 3548.019 | 1159.201 | 3.06075 | 1.914 | -10.172 |
| 4.150  | 3543.664 | 1682.225 | 2.10653 | 1.863 | -10.173 |
| 8.300  | 3530.985 | 2546.258 | 1.38673 | 1.779 | -10.175 |
| 9.390  | 3528.519 | 2722.253 | 1.29618 | 1.762 | -10.176 |
| 9.480  | 4338.138 | 2734.113 | 1.58667 | 2.249 | -10.183 |
| 12.450 | 4332.751 | 3130.122 | 1.38421 | 2.196 | -10.183 |
| 16.600 | 4329.162 | 3414.768 | 1.26778 | 2.155 | -10.184 |
| 20.750 | 4328.526 | 3496.967 | 1.23779 | 2.142 | -10.185 |
| 24.900 | 4329.162 | 3414.770 | 1.26778 | 2.155 | -10.184 |
| 29.050 | 4332.751 | 3130.125 | 1.38421 | 2.196 | -10.183 |
| 32.020 | 4338.138 | 2734.117 | 1.58667 | 2.249 | -10.183 |
| 32.110 | 3528.519 | 2722.257 | 1.29617 | 1.762 | -10.176 |
| 33.200 | 3530.985 | 2546.263 | 1.38673 | 1.779 | -10.175 |
| 37.350 | 3543.664 | 1682.229 | 2.10653 | 1.863 | -10.173 |
| 39.520 | 3548.013 | 1159.207 | 3.06073 | 1.914 | -10.172 |
| 39.610 | 2181.054 | 1137.344 | 1.91767 | 1.285 | -10.163 |
| 41.500 | 2184.143 | 273.397  | 7.98892 | 1.300 | -10.161 |
| 42.100 | 398.751  | 204.352  | 1.95129 | 0.490 | -10.149 |

Vano 1 Viga 3  
-----

Cálculo realizado para flector positivo.

Coeficientes de anchura eficaz empleados

Coeficientes de anchura eficaz en centro de vano

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K1 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K2 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K3 = 1.000000

Coeficientes de anchura eficaz en los extremos de la viga

- Coeficiente a emplear para la parte izquierda de la losa que se encuentre sobre la viga : K4 = 1.000000
- Coeficiente a emplear para la parte derecha de la losa que se encuentre sobre la viga : K5 = 1.000000
- Coeficiente a emplear para la parte intermedia de la losa que se encuentre sobre la viga : K6 = 1.000000

| s (m)  | Mu (mT)  | Md (mT)  | K        | esup  | einf    |
|--------|----------|----------|----------|-------|---------|
| -0.600 | 398.105  | 83.481   | 4.76879  | 0.502 | -10.150 |
| 0.000  | 2181.080 | 150.117  | 14.52916 | 1.356 | -10.161 |
| 1.890  | 2179.675 | 1080.567 | 2.01716  | 1.340 | -10.163 |
| 1.980  | 3538.985 | 1104.638 | 3.20375  | 2.013 | -10.173 |
| 4.150  | 3534.566 | 1672.923 | 2.11281  | 1.958 | -10.174 |
| 8.300  | 3525.184 | 2534.661 | 1.39079  | 1.871 | -10.176 |
| 9.390  | 3523.244 | 2707.125 | 1.30147  | 1.853 | -10.177 |
| 9.480  | 4324.136 | 2718.801 | 1.59046  | 2.416 | -10.185 |
| 12.450 | 4322.216 | 3096.832 | 1.39569  | 2.358 | -10.186 |
| 16.600 | 4316.802 | 3350.483 | 1.28841  | 2.307 | -10.186 |

|        |          |          |          |       |         |
|--------|----------|----------|----------|-------|---------|
| 20.750 | 4316.667 | 3424.922 | 1.26037  | 2.294 | -10.186 |
| 24.900 | 4316.802 | 3350.484 | 1.28841  | 2.307 | -10.186 |
| 29.050 | 4322.216 | 3096.834 | 1.39569  | 2.358 | -10.186 |
| 32.020 | 4324.129 | 2718.805 | 1.59045  | 2.416 | -10.185 |
| 32.110 | 3523.244 | 2707.129 | 1.30147  | 1.853 | -10.177 |
| 33.200 | 3525.184 | 2534.666 | 1.39079  | 1.871 | -10.176 |
| 37.350 | 3534.566 | 1672.928 | 2.11280  | 1.958 | -10.174 |
| 39.520 | 3538.969 | 1104.644 | 3.20372  | 2.013 | -10.173 |
| 39.610 | 2179.675 | 1080.574 | 2.01714  | 1.340 | -10.163 |
| 41.500 | 2181.080 | 150.124  | 14.52855 | 1.356 | -10.161 |
| 42.100 | 398.105  | 83.485   | 4.76858  | 0.502 | -10.150 |

s (m) : distancia al inicio de la viga + losa.  
Mu (mT) : momento flector último de signo positivo en la sección de la viga + losa.  
Md (mT) : momento flector de cálculo de signo positivo en la sección de la viga + losa.  
K : coeficiente de seguridad a rotura (Mu/Md).  
esup (o/oo) : deformación en la fibra superior de la losa.  
einf (o/oo) : deformación en la fibra inferior de la viga.

CALCULO A CORTANTE  
=====

Listado de cortantes de las acciones exteriores permanentes  
=====

Valores obtenidos con coeficientes de seguridad unitarios.

|               |        |         |         |
|---------------|--------|---------|---------|
| Vano 1 Viga 1 |        |         |         |
| -----         |        |         |         |
| Punto         | s (m)  | Vpp     | Vpl     |
| -----         |        |         |         |
| 1             | -0.600 | -0.000  | 0.000   |
| 2             | 0.000  | -1.723  | -1.594  |
| 3             | 0.000  | 59.583  | 55.117  |
| 4             | 10.375 | 29.791  | 27.559  |
| 5             | 20.750 | 0.000   | 0.000   |
| 6             | 31.125 | -29.791 | -27.559 |
| 7             | 41.500 | -59.583 | -55.117 |
| 8             | 41.500 | 1.723   | 1.594   |
| 9             | 42.100 | -0.000  | 0.000   |

|               |        |         |         |
|---------------|--------|---------|---------|
| Vano 1 Viga 2 |        |         |         |
| -----         |        |         |         |
| Punto         | s (m)  | Vpp     | Vpl     |
| -----         |        |         |         |
| 1             | -0.600 | -0.000  | 0.000   |
| 2             | 0.000  | -1.723  | -1.688  |
| 3             | 0.000  | 59.583  | 58.359  |
| 4             | 10.375 | 29.791  | 29.180  |
| 5             | 20.750 | 0.000   | 0.000   |
| 6             | 31.125 | -29.791 | -29.180 |
| 7             | 41.500 | -59.583 | -58.359 |
| 8             | 41.500 | 1.723   | 1.687   |
| 9             | 42.100 | -0.000  | 0.000   |

|               |        |         |         |
|---------------|--------|---------|---------|
| Vano 1 Viga 3 |        |         |         |
| -----         |        |         |         |
| Punto         | s (m)  | Vpp     | Vpl     |
| -----         |        |         |         |
| 1             | -0.600 | -0.000  | 0.000   |
| 2             | 0.000  | -1.723  | -1.594  |
| 3             | 0.000  | 59.583  | 55.117  |
| 4             | 10.375 | 29.791  | 27.559  |
| 5             | 20.750 | 0.000   | 0.000   |
| 6             | 31.125 | -29.791 | -27.559 |
| 7             | 41.500 | -59.583 | -55.117 |
| 8             | 41.500 | 1.723   | 1.594   |
| 9             | 42.100 | -0.000  | 0.000   |

s(m): Distancia del punto al primer eje de apoyos.  
Vpp(T): cortante máximo por peso propio de la viga.  
Vpl(T): cortante máximo por peso de la losa.

| Vano 1 Viga 1 |        |          |       |       |
|---------------|--------|----------|-------|-------|
| Punto         | s(m)   | Vse      | Vda   | Vdp   |
| 1             | -0.600 | 0.000    | 0.000 | 0.000 |
| 2             | 0.000  | 109.222  | 0.000 | 0.000 |
| 3             | 10.375 | 53.393   | 0.000 | 0.000 |
| 4             | 20.750 | -0.601   | 0.000 | 0.000 |
| 5             | 31.125 | -53.392  | 0.000 | 0.000 |
| 6             | 41.500 | -109.222 | 0.000 | 0.000 |
| 7             | 42.100 | 0.000    | 0.000 | 0.000 |

| Vano 1 Viga 2 |        |         |       |       |
|---------------|--------|---------|-------|-------|
| Punto         | s(m)   | Vse     | Vda   | Vdp   |
| 1             | -0.600 | 0.000   | 0.000 | 0.000 |
| 2             | 0.000  | 27.487  | 0.000 | 0.000 |
| 3             | 10.375 | 36.036  | 0.000 | 0.000 |
| 4             | 20.750 | 0.690   | 0.000 | 0.000 |
| 5             | 31.125 | -36.036 | 0.000 | 0.000 |
| 6             | 41.500 | -27.487 | 0.000 | 0.000 |
| 7             | 42.100 | 0.000   | 0.000 | 0.000 |

| Vano 1 Viga 3 |        |          |       |       |
|---------------|--------|----------|-------|-------|
| Punto         | s(m)   | Vse      | Vda   | Vdp   |
| 1             | -0.600 | 0.000    | 0.000 | 0.000 |
| 2             | 0.000  | 109.192  | 0.000 | 0.000 |
| 3             | 10.375 | 53.372   | 0.000 | 0.000 |
| 4             | 20.750 | -0.601   | 0.000 | 0.000 |
| 5             | 31.125 | -53.371  | 0.000 | 0.000 |
| 6             | 41.500 | -109.192 | 0.000 | 0.000 |
| 7             | 42.100 | 0.000    | 0.000 | 0.000 |

s(m): Distancia del punto al primer eje de apoyos.  
Vse(T): cortante máximo por superestructura.  
Vda(T): cortante máximo por descenso de apoyo instantáneo.  
Vdp(T): cortante máximo por descenso de apoyo a tiempo infinito.

Listado de cortantes de las acciones exteriores variables  
=====

Valores obtenidos con coeficientes de seguridad unitarios.

| Vano 1 Viga 1 |        |       |       |        |         |       |        |
|---------------|--------|-------|-------|--------|---------|-------|--------|
| Punto         | s(m)   | Vtra+ | Vtra- | Vtrp+  | Vtrp-   | Vgt+  | Vgt-   |
| 1             | -0.600 | 0.000 | 0.000 | 0.000  | 0.000   | 0.000 | 0.000  |
| 2             | 0.000  | 0.000 | 0.000 | 83.696 | -4.821  | 0.288 | -0.288 |
| 3             | 10.375 | 0.000 | 0.000 | 71.444 | -17.689 | 0.256 | -0.256 |
| 4             | 20.750 | 0.000 | 0.000 | 39.498 | -39.497 | 0.063 | -0.063 |
| 5             | 31.125 | 0.000 | 0.000 | 17.689 | -71.444 | 0.256 | -0.256 |
| 6             | 41.500 | 0.000 | 0.000 | 4.821  | -83.696 | 0.288 | -0.288 |
| 7             | 42.100 | 0.000 | 0.000 | 0.000  | 0.000   | 0.000 | 0.000  |

| Vano 1 Viga 2 |        |       |       |         |         |       |        |
|---------------|--------|-------|-------|---------|---------|-------|--------|
| Punto         | s(m)   | Vtra+ | Vtra- | Vtrp+   | Vtrp-   | Vgt+  | Vgt-   |
| 1             | -0.600 | 0.000 | 0.000 | 0.000   | 0.000   | 0.000 | 0.000  |
| 2             | 0.000  | 0.000 | 0.000 | 123.695 | -6.298  | 0.348 | -0.348 |
| 3             | 10.375 | 0.000 | 0.000 | 80.712  | -37.075 | 0.297 | -0.297 |

|   |        |       |       |        |          |       |        |
|---|--------|-------|-------|--------|----------|-------|--------|
| 4 | 20.750 | 0.000 | 0.000 | 50.639 | -50.639  | 0.074 | -0.074 |
| 5 | 31.125 | 0.000 | 0.000 | 37.075 | -80.712  | 0.297 | -0.297 |
| 6 | 41.500 | 0.000 | 0.000 | 6.298  | -123.695 | 0.348 | -0.348 |
| 7 | 42.100 | 0.000 | 0.000 | 0.000  | 0.000    | 0.000 | 0.000  |

Vano 1 Viga 3  
-----

| Punto | s(m)   | Vtra+ | Vtra- | Vtrp+  | Vtrp-   | Vgt+  | Vgt-   |
|-------|--------|-------|-------|--------|---------|-------|--------|
| 1     | -0.600 | 0.000 | 0.000 | 0.000  | 0.000   | 0.000 | 0.000  |
| 2     | 0.000  | 0.000 | 0.000 | 83.736 | -4.826  | 0.288 | -0.288 |
| 3     | 10.375 | 0.000 | 0.000 | 71.496 | -17.692 | 0.256 | -0.256 |
| 4     | 20.750 | 0.000 | 0.000 | 39.525 | -39.525 | 0.063 | -0.063 |
| 5     | 31.125 | 0.000 | 0.000 | 17.692 | -71.496 | 0.256 | -0.256 |
| 6     | 41.500 | 0.000 | 0.000 | 4.826  | -83.736 | 0.288 | -0.288 |
| 7     | 42.100 | 0.000 | 0.000 | 0.000  | 0.000   | 0.000 | 0.000  |

s(m): Distancia del punto al primer eje de apoyos.

Vtra+(T): cortante máximo positivo por tráfico en aceras.

Vtra-(T): cortante máximo negativo por tráfico en aceras.

Vtrp+(T): cortante máximo positivo por tráfico en plataforma.

Vtrp-(T): cortante máximo negativo por tráfico en plataforma.

Vgt+(T): cortante máximo positivo por gradiente térmico.

Vgt-(T): cortante máximo negativo por gradiente térmico.

Listado de cortantes efectivos de cálculo  
=====

Valores obtenidos con coeficientes de seguridad correspondientes  
al estado límite último.

s(m): Distancia del punto al primer eje de apoyos.

Vrd1+(T): cortante efectivo máximo positivo tras transferir el pretensado.

Vrd2+(T): cortante efectivo máximo positivo tras hormigonar la losa.

Vrd3+(T): cortante efectivo máximo positivo tras disponer la superestructura.

Vrd4+(T): cortante efectivo máximo positivo tras abrir al tráfico.

Vrd5+(T): cortante efectivo máximo positivo a tiempo infinito.

Vrd1-(T): cortante efectivo máximo negativo tras transferir el pretensado.

Vrd2-(T): cortante efectivo máximo negativo tras hormigonar la losa.

Vrd3-(T): cortante efectivo máximo negativo tras disponer la superestructura.

Vrd4-(T): cortante efectivo máximo negativo tras abrir al tráfico.

Vrd5-(T): cortante efectivo máximo negativo a tiempo infinito.

Vrd+ (T): cortante efectivo máximo positivo total.

Vrd- (T): cortante efectivo máximo negativo total.

Vano 1 Viga 1  
-----

| Punto | s(m)   | Vrd1+   | Vrd2+    | Vrd3+    | Vrd4+    | Vrd5+    | Vrd+    |
|-------|--------|---------|----------|----------|----------|----------|---------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |
| 2     | 0.000  | -1.723  | -3.317   | -3.317   | -3.317   | -3.317   | -1.723  |
| 3     | 0.000  | 80.437  | 154.845  | 302.294  | 331.741  | 331.741  | 331.741 |
| 4     | 10.375 | 40.218  | 77.422   | 149.502  | 177.481  | 177.481  | 177.481 |
| 5     | 20.750 | 0.000   | 0.000    | 1.653    | 55.031   | 55.031   | 55.031  |
| 6     | 31.125 | -29.791 | -57.350  | -50.193  | -26.082  | -26.082  | -26.082 |
| 7     | 41.500 | -59.583 | -114.700 | -152.045 | -147.780 | -147.780 | -59.583 |
| 8     | 41.500 | 2.326   | 4.477    | 4.477    | 4.477    | 4.477    | 4.477   |
| 9     | 42.100 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |

| Punto | s(m)   | Vrd1-   | Vrd2-    | Vrd3-    | Vrd4-    | Vrd5-    | Vrd-     |
|-------|--------|---------|----------|----------|----------|----------|----------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000   |
| 2     | 0.000  | -1.723  | -3.317   | -3.317   | -3.317   | -3.317   | -3.317   |
| 3     | 0.000  | 59.583  | 114.700  | 152.045  | 147.781  | 147.781  | 59.583   |
| 4     | 10.375 | 29.791  | 57.350   | 50.193   | 26.082   | 26.082   | 26.082   |
| 5     | 20.750 | 0.000   | 0.000    | -1.653   | -55.031  | -55.031  | -55.031  |
| 6     | 31.125 | -40.218 | -77.422  | -149.502 | -177.480 | -177.480 | -177.480 |
| 7     | 41.500 | -80.437 | -154.845 | -302.294 | -331.740 | -331.740 | -331.740 |
| 8     | 41.500 | 1.723   | 3.317    | 3.317    | 3.317    | 3.317    | 1.723    |

9 42.100 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000

Vano 1 Viga 2  
-----

| Punto | s(m)   | Vrd1+   | Vrd2+    | Vrd3+    | Vrd4+    | Vrd5+    | Vrd+    |
|-------|--------|---------|----------|----------|----------|----------|---------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |
| 2     | 0.000  | -1.723  | -3.410   | -3.410   | -3.410   | -3.410   | -1.723  |
| 3     | 0.000  | 80.437  | 159.222  | 196.329  | 363.630  | 363.630  | 363.630 |
| 4     | 10.375 | 40.218  | 79.611   | 128.259  | 237.489  | 237.489  | 237.489 |
| 5     | 20.750 | 0.000   | 0.000    | 1.959    | 70.388   | 70.388   | 70.388  |
| 6     | 31.125 | -29.791 | -58.971  | -91.780  | -41.461  | -41.461  | -29.791 |
| 7     | 41.500 | -59.583 | -117.942 | -132.801 | -123.985 | -123.985 | -59.583 |
| 8     | 41.500 | 2.326   | 4.604    | 4.604    | 4.604    | 4.604    | 4.604   |
| 9     | 42.100 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |

| Punto | s(m)   | Vrd1-   | Vrd2-    | Vrd3-    | Vrd4-    | Vrd5-    | Vrd-     |
|-------|--------|---------|----------|----------|----------|----------|----------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000   |
| 2     | 0.000  | -1.723  | -3.410   | -3.410   | -3.410   | -3.410   | -3.410   |
| 3     | 0.000  | 59.583  | 117.942  | 132.801  | 123.985  | 123.985  | 59.583   |
| 4     | 10.375 | 29.791  | 58.971   | 91.780   | 41.461   | 41.461   | 29.791   |
| 5     | 20.750 | 0.000   | 0.000    | -1.959   | -70.388  | -70.388  | -70.388  |
| 6     | 31.125 | -40.218 | -79.611  | -128.259 | -237.488 | -237.488 | -237.488 |
| 7     | 41.500 | -80.437 | -159.222 | -196.329 | -363.630 | -363.630 | -363.630 |
| 8     | 41.500 | 1.723   | 3.410    | 3.410    | 3.410    | 3.410    | 1.723    |
| 9     | 42.100 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000   |

Vano 1 Viga 3  
-----

| Punto | s(m)   | Vrd1+   | Vrd2+    | Vrd3+    | Vrd4+    | Vrd5+    | Vrd+    |
|-------|--------|---------|----------|----------|----------|----------|---------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |
| 2     | 0.000  | -1.723  | -3.317   | -3.317   | -3.317   | -3.317   | -1.723  |
| 3     | 0.000  | 80.437  | 154.845  | 302.254  | 331.851  | 331.851  | 331.851 |
| 4     | 10.375 | 40.218  | 77.422   | 149.474  | 177.602  | 177.602  | 177.602 |
| 5     | 20.750 | 0.000   | 0.000    | 1.652    | 55.067   | 55.067   | 55.067  |
| 6     | 31.125 | -29.791 | -57.350  | -50.235  | -26.120  | -26.120  | -26.120 |
| 7     | 41.500 | -59.583 | -114.700 | -152.080 | -147.819 | -147.819 | -59.583 |
| 8     | 41.500 | 2.326   | 4.477    | 4.477    | 4.477    | 4.477    | 4.477   |
| 9     | 42.100 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000  |

| Punto | s(m)   | Vrd1-   | Vrd2-    | Vrd3-    | Vrd4-    | Vrd5-    | Vrd-     |
|-------|--------|---------|----------|----------|----------|----------|----------|
| 1     | -0.600 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000   |
| 2     | 0.000  | -1.723  | -3.317   | -3.317   | -3.317   | -3.317   | -3.317   |
| 3     | 0.000  | 59.583  | 114.700  | 152.080  | 147.819  | 147.819  | 59.583   |
| 4     | 10.375 | 29.791  | 57.350   | 50.235   | 26.120   | 26.120   | 26.120   |
| 5     | 20.750 | 0.000   | 0.000    | -1.652   | -55.067  | -55.067  | -55.067  |
| 6     | 31.125 | -40.218 | -77.422  | -149.474 | -177.601 | -177.601 | -177.601 |
| 7     | 41.500 | -80.437 | -154.845 | -302.254 | -331.850 | -331.850 | -331.850 |
| 8     | 41.500 | 1.723   | 3.317    | 3.317    | 3.317    | 3.317    | 1.723    |
| 9     | 42.100 | -0.000  | -0.000   | -0.000   | -0.000   | -0.000   | -0.000   |

Comprobación de rotura por cortante por compresión  
=====

Vano 1 Viga 1  
-----

| Punto | s(m)   | Vrd     | Vu1     | Vrd/Vu1 |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 0.000   | 782.709 | 0.000   |
| 2     | 0.000  | 3.317   | 816.775 | 0.004   |
| 3     | 0.000  | 331.741 | 816.775 | 0.406   |
| 4     | 10.375 | 177.481 | 926.676 | 0.192   |

|   |        |         |         |       |
|---|--------|---------|---------|-------|
| 5 | 20.750 | 55.031  | 950.482 | 0.058 |
| 6 | 31.125 | 177.480 | 926.676 | 0.192 |
| 7 | 41.500 | 331.740 | 816.775 | 0.406 |
| 8 | 41.500 | 4.477   | 816.775 | 0.005 |
| 9 | 42.100 | 0.000   | 782.709 | 0.000 |

Vano 1 Viga 2  
-----

| Punto | s (m)  | Vrd     | Vu1     | Vrd/Vu1 |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 0.000   | 782.709 | 0.000   |
| 2     | 0.000  | 3.410   | 816.146 | 0.004   |
| 3     | 0.000  | 363.630 | 816.146 | 0.446   |
| 4     | 10.375 | 237.489 | 923.027 | 0.257   |
| 5     | 20.750 | 70.388  | 946.656 | 0.074   |
| 6     | 31.125 | 237.488 | 923.027 | 0.257   |
| 7     | 41.500 | 363.630 | 816.146 | 0.446   |
| 8     | 41.500 | 4.604   | 816.146 | 0.006   |
| 9     | 42.100 | 0.000   | 782.709 | 0.000   |

Vano 1 Viga 3  
-----

| Punto | s (m)  | Vrd     | Vu1     | Vrd/Vu1 |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 0.000   | 782.709 | 0.000   |
| 2     | 0.000  | 3.317   | 816.775 | 0.004   |
| 3     | 0.000  | 331.851 | 816.775 | 0.406   |
| 4     | 10.375 | 177.602 | 926.676 | 0.192   |
| 5     | 20.750 | 55.067  | 950.483 | 0.058   |
| 6     | 31.125 | 177.601 | 926.676 | 0.192   |
| 7     | 41.500 | 331.850 | 816.775 | 0.406   |
| 8     | 41.500 | 4.477   | 816.775 | 0.005   |
| 9     | 42.100 | 0.000   | 782.709 | 0.000   |

s(m): Distancia del punto al primer eje de apoyos.  
Vrd(T): cortante efectivo máximo total.  
Vu1(T): cortante de agotamiento por compresión oblicua del alma.

Comprobación de rotura por cortante por tracción  
=====

Vano 1 Viga 1  
-----

| Punto | s (m)  | Vrd     | Vcu     | Vsu     | As     |
|-------|--------|---------|---------|---------|--------|
| 1     | -0.600 | 0.000   | 38.994  | 0.000   | 0.000  |
| 2     | 0.000  | 3.317   | 56.027  | 0.000   | 0.000  |
| 3     | 0.000  | 331.741 | 56.027  | 275.714 | 33.299 |
| 4     | 10.375 | 177.481 | 112.977 | 64.503  | 7.834  |
| 5     | 20.750 | 55.031  | 124.881 | 0.000   | 0.000  |
| 6     | 31.125 | 177.480 | 112.977 | 64.503  | 7.834  |
| 7     | 41.500 | 331.740 | 56.027  | 275.713 | 33.299 |
| 8     | 41.500 | 4.477   | 56.027  | 0.000   | 0.000  |
| 9     | 42.100 | 0.000   | 38.994  | 0.000   | 0.000  |

Vano 1 Viga 2  
-----

| Punto | s (m)  | Vrd     | Vcu     | Vsu     | As     |
|-------|--------|---------|---------|---------|--------|
| 1     | -0.600 | 0.000   | 38.994  | 0.000   | 0.000  |
| 2     | 0.000  | 3.410   | 55.713  | 0.000   | 0.000  |
| 3     | 0.000  | 363.630 | 55.713  | 307.917 | 37.188 |
| 4     | 10.375 | 237.489 | 111.153 | 126.336 | 15.343 |
| 5     | 20.750 | 70.388  | 122.968 | 0.000   | 0.000  |
| 6     | 31.125 | 237.488 | 111.153 | 126.335 | 15.343 |

|   |        |         |        |         |        |
|---|--------|---------|--------|---------|--------|
| 7 | 41.500 | 363.630 | 55.713 | 307.917 | 37.188 |
| 8 | 41.500 | 4.604   | 55.713 | 0.000   | 0.000  |
| 9 | 42.100 | 0.000   | 38.994 | 0.000   | 0.000  |

Vano 1 Viga 3  
-----

| Punto | s(m)   | Vrd     | Vcu     | Vsu     | As     |
|-------|--------|---------|---------|---------|--------|
| 1     | -0.600 | 0.000   | 38.994  | 0.000   | 0.000  |
| 2     | 0.000  | 3.317   | 56.027  | 0.000   | 0.000  |
| 3     | 0.000  | 331.851 | 56.027  | 275.824 | 33.312 |
| 4     | 10.375 | 177.602 | 112.978 | 64.624  | 7.848  |
| 5     | 20.750 | 55.067  | 124.881 | 0.000   | 0.000  |
| 6     | 31.125 | 177.601 | 112.978 | 64.624  | 7.848  |
| 7     | 41.500 | 331.850 | 56.027  | 275.823 | 33.312 |
| 8     | 41.500 | 4.477   | 56.027  | 0.000   | 0.000  |
| 9     | 42.100 | 0.000   | 38.994  | 0.000   | 0.000  |

s(m): Distancia del punto al primer eje de apoyos.  
Vrd(T): cortante efectivo máximo total.  
Vcu(T): contribución del hormigón a la resistencia a esfuerzo cortante.  
Vsu(T): contribución de la armadura transversal del alma a la resistencia a cortante.  
As(cm2/m): área de la armadura transversal de cálculo por viga (no incluye la arm. mínima).

LISTADO DE FUERZAS DE PRETENSADO  
=====

Coeficientes de seguridad empleados : unitarios.

Fuerza de pretensado a lo largo de cada cable en cada instante  
=====

Vano 1 Viga 1  
-----

| Punto | s (m)  | Cable | P1 (T)  | P2 (T)  | P3 (T)  |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | 0.000   | 0.000   |
| 2     | 0.000  | 1     | 542.683 | 510.302 | 475.009 |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 130.993 | 123.365 | 114.848 |
|       |        | 5     | 74.853  | 73.023  | 68.175  |
| 3     | 1.890  | 1     | 650.437 | 599.383 | 535.816 |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.002 | 144.832 | 129.447 |
|       |        | 5     | 89.715  | 84.820  | 75.466  |
| 4     | 1.931  | 1     | 652.150 | 599.882 | 534.904 |
|       |        | 2     | 28.356  | 1.261   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 144.962 | 129.242 |
|       |        | 5     | 89.952  | 85.018  | 75.562  |
| 5     | 4.150  | 1     | 652.150 | 586.787 | 513.481 |
|       |        | 2     | 652.150 | 587.387 | 514.111 |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 141.928 | 124.248 |
|       |        | 5     | 89.952  | 84.978  | 75.075  |
| 6     | 8.300  | 1     | 652.150 | 591.299 | 524.549 |
|       |        | 2     | 652.150 | 591.654 | 524.717 |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 142.899 | 126.696 |
|       |        | 5     | 89.952  | 83.954  | 73.482  |
| 7     | 9.390  | 1     | 652.150 | 592.223 | 526.842 |

|    |        |   |         |         |         |
|----|--------|---|---------|---------|---------|
| 8  | 9.431  | 2 | 652.150 | 592.529 | 526.914 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 143.098 | 127.203 |
|    |        | 5 | 89.952  | 83.744  | 73.152  |
|    |        | 1 | 653.119 | 592.332 | 525.913 |
| 9  | 12.450 | 2 | 653.119 | 592.653 | 526.013 |
|    |        | 3 | 17.600  | 0.000   | 0.000   |
|    |        | 4 | 157.649 | 143.131 | 126.992 |
|    |        | 5 | 90.085  | 83.860  | 73.209  |
|    |        | 1 | 653.119 | 584.837 | 513.350 |
| 10 | 16.600 | 2 | 653.119 | 585.284 | 513.641 |
|    |        | 3 | 405.384 | 363.558 | 318.992 |
|    |        | 4 | 157.649 | 141.384 | 124.052 |
|    |        | 5 | 90.085  | 83.685  | 72.766  |
|    |        | 1 | 653.119 | 586.742 | 517.843 |
| 11 | 20.750 | 2 | 653.119 | 587.086 | 517.944 |
|    |        | 3 | 405.384 | 364.612 | 321.545 |
|    |        | 4 | 157.649 | 141.793 | 125.045 |
|    |        | 5 | 90.085  | 83.247  | 72.106  |
|    |        | 1 | 653.119 | 587.378 | 519.404 |
| 12 | 24.900 | 2 | 653.119 | 587.687 | 519.439 |
|    |        | 3 | 405.384 | 364.963 | 322.432 |
|    |        | 4 | 157.649 | 141.930 | 125.390 |
|    |        | 5 | 90.085  | 83.101  | 71.878  |
|    |        | 1 | 653.119 | 586.742 | 517.843 |
| 13 | 29.050 | 2 | 653.119 | 587.086 | 517.944 |
|    |        | 3 | 405.384 | 364.612 | 321.545 |
|    |        | 4 | 157.649 | 141.793 | 125.045 |
|    |        | 5 | 90.085  | 83.247  | 72.106  |
|    |        | 1 | 653.119 | 584.837 | 513.350 |
| 14 | 32.069 | 2 | 653.119 | 585.284 | 513.641 |
|    |        | 3 | 405.384 | 363.558 | 318.992 |
|    |        | 4 | 157.649 | 141.384 | 124.052 |
|    |        | 5 | 90.085  | 83.685  | 72.766  |
|    |        | 1 | 653.119 | 592.332 | 525.913 |
| 15 | 32.110 | 2 | 653.119 | 592.653 | 526.013 |
|    |        | 3 | 17.600  | 0.000   | 0.000   |
|    |        | 4 | 157.649 | 143.131 | 126.992 |
|    |        | 5 | 90.085  | 83.860  | 73.209  |
|    |        | 1 | 652.150 | 592.223 | 526.842 |
| 16 | 33.200 | 2 | 652.150 | 592.529 | 526.914 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 143.098 | 127.203 |
|    |        | 5 | 89.952  | 83.744  | 73.152  |
|    |        | 1 | 652.150 | 591.299 | 524.549 |
| 17 | 37.350 | 2 | 652.150 | 591.654 | 524.717 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 142.899 | 126.696 |
|    |        | 5 | 89.952  | 83.954  | 73.482  |
|    |        | 1 | 652.150 | 586.787 | 513.481 |
| 18 | 39.569 | 2 | 652.150 | 587.387 | 514.111 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 141.928 | 124.248 |
|    |        | 5 | 89.952  | 84.978  | 75.075  |
|    |        | 1 | 652.150 | 599.882 | 534.904 |
| 19 | 39.610 | 2 | 28.356  | 1.261   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 144.962 | 129.242 |
|    |        | 5 | 89.952  | 85.018  | 75.562  |
|    |        | 1 | 650.437 | 599.383 | 535.816 |
| 20 | 41.500 | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.002 | 144.832 | 129.447 |
|    |        | 5 | 89.715  | 84.820  | 75.466  |
|    |        | 1 | 542.680 | 510.299 | 475.006 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 130.992 | 123.364 | 114.847 |
|    |        | 5 | 74.852  | 73.023  | 68.175  |

|    |        |   |       |       |       |
|----|--------|---|-------|-------|-------|
| 21 | 42.100 | 1 | 0.001 | 0.000 | 0.000 |
|    |        | 2 | 0.000 | 0.000 | 0.000 |
|    |        | 3 | 0.000 | 0.000 | 0.000 |
|    |        | 4 | 0.000 | 0.000 | 0.000 |
|    |        | 5 | 0.000 | 0.000 | 0.000 |

P1 : fuerza de pretensado después de tesar.  
P2 : fuerza de pretensado después de hormigonar la losa.  
P3 : fuerza de pretensado a tiempo infinito.

Vano    1 Viga    2  
-----

| Punto | s (m)  | Cable | P1 (T)  | P2 (T)  | P3 (T)  |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | 0.000   | 0.000   |
| 2     | 0.000  | 1     | 542.683 | 510.301 | 476.012 |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 130.993 | 123.365 | 115.070 |
|       |        | 5     | 74.853  | 73.023  | 68.040  |
| 3     | 1.890  | 1     | 650.437 | 599.442 | 535.479 |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.002 | 144.845 | 129.370 |
|       |        | 5     | 89.715  | 84.806  | 75.485  |
| 4     | 1.931  | 1     | 652.150 | 599.941 | 534.547 |
|       |        | 2     | 28.356  | 1.317   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 144.975 | 129.161 |
|       |        | 5     | 89.952  | 85.005  | 75.583  |
| 5     | 4.150  | 1     | 652.150 | 586.914 | 511.602 |
|       |        | 2     | 652.150 | 587.507 | 512.300 |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 141.955 | 123.827 |
|       |        | 5     | 89.952  | 84.949  | 75.271  |
| 6     | 8.300  | 1     | 652.150 | 591.525 | 522.488 |
|       |        | 2     | 652.150 | 591.868 | 522.732 |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 142.947 | 126.236 |
|       |        | 5     | 89.952  | 83.902  | 73.712  |
| 7     | 9.390  | 1     | 652.150 | 592.468 | 524.958 |
|       |        | 2     | 652.150 | 592.760 | 525.100 |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 157.416 | 143.150 | 126.783 |
|       |        | 5     | 89.952  | 83.688  | 73.366  |
| 8     | 9.431  | 1     | 653.119 | 592.574 | 524.063 |
|       |        | 2     | 653.119 | 592.881 | 524.232 |
|       |        | 3     | 17.600  | 0.000   | 0.000   |
|       |        | 4     | 157.649 | 143.183 | 126.579 |
|       |        | 5     | 90.085  | 83.804  | 73.422  |
| 9     | 12.450 | 1     | 653.119 | 585.129 | 512.106 |
|       |        | 2     | 653.119 | 585.561 | 512.444 |
|       |        | 3     | 405.384 | 363.720 | 318.278 |
|       |        | 4     | 157.649 | 141.447 | 123.775 |
|       |        | 5     | 90.085  | 83.618  | 72.914  |
| 10    | 16.600 | 1     | 653.119 | 587.077 | 517.329 |
|       |        | 2     | 653.119 | 587.402 | 517.451 |
|       |        | 3     | 405.384 | 364.796 | 321.252 |
|       |        | 4     | 157.649 | 141.865 | 124.931 |
|       |        | 5     | 90.085  | 83.171  | 72.177  |
| 11    | 20.750 | 1     | 653.119 | 587.726 | 519.220 |
|       |        | 2     | 653.119 | 588.016 | 519.264 |
|       |        | 3     | 405.384 | 365.155 | 322.329 |
|       |        | 4     | 157.649 | 142.005 | 125.350 |

|    |        |   |         |         |         |
|----|--------|---|---------|---------|---------|
| 12 | 24.900 | 5 | 90.085  | 83.021  | 71.914  |
|    |        | 1 | 653.119 | 587.077 | 517.329 |
|    |        | 2 | 653.119 | 587.402 | 517.451 |
|    |        | 3 | 405.384 | 364.796 | 321.252 |
|    |        | 4 | 157.649 | 141.865 | 124.931 |
| 13 | 29.050 | 5 | 90.085  | 83.171  | 72.177  |
|    |        | 1 | 653.119 | 585.129 | 512.106 |
|    |        | 2 | 653.119 | 585.561 | 512.444 |
|    |        | 3 | 405.384 | 363.720 | 318.278 |
|    |        | 4 | 157.649 | 141.447 | 123.775 |
| 14 | 32.069 | 5 | 90.085  | 83.618  | 72.914  |
|    |        | 1 | 653.119 | 592.574 | 524.063 |
|    |        | 2 | 653.119 | 592.881 | 524.232 |
|    |        | 3 | 17.600  | 0.000   | 0.000   |
|    |        | 4 | 157.649 | 143.183 | 126.579 |
| 15 | 32.110 | 5 | 90.085  | 83.804  | 73.422  |
|    |        | 1 | 652.150 | 592.468 | 524.958 |
|    |        | 2 | 652.150 | 592.760 | 525.100 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 143.150 | 126.783 |
| 16 | 33.200 | 5 | 89.952  | 83.688  | 73.366  |
|    |        | 1 | 652.150 | 591.525 | 522.488 |
|    |        | 2 | 652.150 | 591.868 | 522.732 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 142.947 | 126.236 |
| 17 | 37.350 | 5 | 89.952  | 83.902  | 73.712  |
|    |        | 1 | 652.150 | 586.914 | 511.602 |
|    |        | 2 | 652.150 | 587.507 | 512.300 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 141.955 | 123.827 |
| 18 | 39.569 | 5 | 89.952  | 84.949  | 75.271  |
|    |        | 1 | 652.150 | 599.941 | 534.547 |
|    |        | 2 | 28.356  | 1.317   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 144.975 | 129.161 |
| 19 | 39.610 | 5 | 89.952  | 85.005  | 75.583  |
|    |        | 1 | 650.437 | 599.442 | 535.479 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.002 | 144.845 | 129.370 |
| 20 | 41.500 | 5 | 89.715  | 84.806  | 75.485  |
|    |        | 1 | 542.680 | 510.298 | 476.010 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 130.992 | 123.364 | 115.070 |
| 21 | 42.100 | 5 | 74.852  | 73.023  | 68.040  |
|    |        | 1 | 0.001   | 0.000   | 0.000   |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 0.000   | 0.000   | 0.000   |
|    |        | 5 | 0.000   | 0.000   | 0.000   |

P1 : fuerza de pretensado después de tesar.  
P2 : fuerza de pretensado después de hormigonar la losa.  
P3 : fuerza de pretensado a tiempo infinito.

Vano    1 Viga    3  
-----

| Punto | s (m)  | Cable | P1 (T)  | P2 (T)  | P3 (T)  |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | 0.000   | 0.000   |
| 2     | 0.000  | 1     | 542.683 | 510.302 | 475.008 |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |

|    |        |   |         |         |         |
|----|--------|---|---------|---------|---------|
| 3  | 1.890  | 4 | 130.993 | 123.365 | 114.847 |
|    |        | 5 | 74.853  | 73.023  | 68.175  |
|    |        | 1 | 650.437 | 599.383 | 535.816 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 4  | 1.931  | 4 | 157.002 | 144.832 | 129.447 |
|    |        | 5 | 89.715  | 84.820  | 75.466  |
|    |        | 1 | 652.150 | 599.882 | 534.904 |
|    |        | 2 | 28.356  | 1.261   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 5  | 4.150  | 4 | 157.416 | 144.962 | 129.242 |
|    |        | 5 | 89.952  | 85.018  | 75.562  |
|    |        | 1 | 652.150 | 586.787 | 513.481 |
|    |        | 2 | 652.150 | 587.387 | 514.111 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 6  | 8.300  | 4 | 157.416 | 141.928 | 124.248 |
|    |        | 5 | 89.952  | 84.978  | 75.075  |
|    |        | 1 | 652.150 | 591.299 | 524.550 |
|    |        | 2 | 652.150 | 591.654 | 524.718 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 7  | 9.390  | 4 | 157.416 | 142.899 | 126.697 |
|    |        | 5 | 89.952  | 83.954  | 73.482  |
|    |        | 1 | 652.150 | 592.223 | 526.843 |
|    |        | 2 | 652.150 | 592.529 | 526.915 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 8  | 9.431  | 4 | 157.416 | 143.098 | 127.204 |
|    |        | 5 | 89.952  | 83.744  | 73.152  |
|    |        | 1 | 653.119 | 592.332 | 525.914 |
|    |        | 2 | 653.119 | 592.653 | 526.014 |
|    |        | 3 | 17.600  | 0.000   | 0.000   |
| 9  | 12.450 | 4 | 157.649 | 143.131 | 126.993 |
|    |        | 5 | 90.085  | 83.860  | 73.209  |
|    |        | 1 | 653.119 | 584.837 | 513.352 |
|    |        | 2 | 653.119 | 585.284 | 513.642 |
|    |        | 3 | 405.384 | 363.558 | 318.993 |
| 10 | 16.600 | 4 | 157.649 | 141.384 | 124.053 |
|    |        | 5 | 90.085  | 83.685  | 72.766  |
|    |        | 1 | 653.119 | 586.742 | 517.846 |
|    |        | 2 | 653.119 | 587.086 | 517.946 |
|    |        | 3 | 405.384 | 364.612 | 321.546 |
| 11 | 20.750 | 4 | 157.649 | 141.793 | 125.046 |
|    |        | 5 | 90.085  | 83.247  | 72.105  |
|    |        | 1 | 653.119 | 587.378 | 519.407 |
|    |        | 2 | 653.119 | 587.687 | 519.442 |
|    |        | 3 | 405.384 | 364.963 | 322.434 |
| 12 | 24.900 | 4 | 157.649 | 141.930 | 125.391 |
|    |        | 5 | 90.085  | 83.101  | 71.878  |
|    |        | 1 | 653.119 | 586.742 | 517.846 |
|    |        | 2 | 653.119 | 587.086 | 517.946 |
|    |        | 3 | 405.384 | 364.612 | 321.546 |
| 13 | 29.050 | 4 | 157.649 | 141.793 | 125.046 |
|    |        | 5 | 90.085  | 83.247  | 72.105  |
|    |        | 1 | 653.119 | 584.837 | 513.352 |
|    |        | 2 | 653.119 | 585.284 | 513.642 |
|    |        | 3 | 405.384 | 363.558 | 318.993 |
| 14 | 32.069 | 4 | 157.649 | 141.384 | 124.053 |
|    |        | 5 | 90.085  | 83.685  | 72.766  |
|    |        | 1 | 653.119 | 592.332 | 525.914 |
|    |        | 2 | 653.119 | 592.653 | 526.014 |
|    |        | 3 | 17.600  | 0.000   | 0.000   |
| 15 | 32.110 | 4 | 157.649 | 143.131 | 126.993 |
|    |        | 5 | 90.085  | 83.860  | 73.209  |
|    |        | 1 | 652.150 | 592.223 | 526.843 |
|    |        | 2 | 652.150 | 592.529 | 526.915 |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
| 16 | 33.200 | 4 | 157.416 | 143.098 | 127.204 |
|    |        | 5 | 89.952  | 83.744  | 73.152  |
|    |        | 1 | 652.150 | 591.299 | 524.550 |
|    |        | 2 | 652.150 | 591.654 | 524.718 |

|    |        |   |         |         |         |
|----|--------|---|---------|---------|---------|
| 17 | 37.350 | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 142.899 | 126.697 |
|    |        | 5 | 89.952  | 83.954  | 73.482  |
|    |        | 1 | 652.150 | 586.787 | 513.481 |
|    |        | 2 | 652.150 | 587.387 | 514.111 |
| 18 | 39.569 | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 141.928 | 124.248 |
|    |        | 5 | 89.952  | 84.978  | 75.075  |
|    |        | 1 | 652.150 | 599.882 | 534.904 |
|    |        | 2 | 28.356  | 1.261   | 0.000   |
| 19 | 39.610 | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.416 | 144.962 | 129.242 |
|    |        | 5 | 89.952  | 85.018  | 75.562  |
|    |        | 1 | 650.437 | 599.383 | 535.816 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
| 20 | 41.500 | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 157.002 | 144.832 | 129.447 |
|    |        | 5 | 89.715  | 84.820  | 75.466  |
|    |        | 1 | 542.680 | 510.299 | 475.005 |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
| 21 | 42.100 | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 130.992 | 123.364 | 114.847 |
|    |        | 5 | 74.852  | 73.023  | 68.175  |
|    |        | 1 | 0.001   | 0.000   | 0.000   |
|    |        | 2 | 0.000   | 0.000   | 0.000   |
|    |        | 3 | 0.000   | 0.000   | 0.000   |
|    |        | 4 | 0.000   | 0.000   | 0.000   |
|    |        | 5 | 0.000   | 0.000   | 0.000   |

P1 : fuerza de pretensado después de tesar.  
P2 : fuerza de pretensado después de hormigonar la losa.  
P3 : fuerza de pretensado a tiempo infinito.

Pérdidas de pretensado entre tesado y hormigonado de losa  
=====

Vano    1 Viga    1  
-----

| Punto | s (m)  | Cable | Prt (T) | Pfl (T) | Pr1 (T) |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | -0.000  | 0.000   |
| 2     | 0.000  | 1     | 9.014   | 17.051  | 6.317   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 3.927   | 1.525   |
|       |        | 5     | 1.243   | -0.285  | 0.871   |
| 3     | 1.890  | 1     | 9.014   | 17.619  | 24.421  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 4.099   | 5.895   |
|       |        | 5     | 1.243   | 0.284   | 3.368   |
| 4     | 1.931  | 1     | 9.014   | 18.418  | 24.836  |
|       |        | 2     | 9.014   | 18.081  | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 4.283   | 5.995   |
|       |        | 5     | 1.243   | 0.265   | 3.426   |
| 5     | 4.150  | 1     | 9.014   | 31.513  | 24.836  |
|       |        | 2     | 9.014   | 30.913  | 24.836  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 7.317   | 5.995   |
|       |        | 5     | 1.243   | 0.305   | 3.426   |
| 6     | 8.300  | 1     | 9.014   | 27.002  | 24.836  |
|       |        | 2     | 9.014   | 26.646  | 24.836  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |

|    |        |   |       |        |        |
|----|--------|---|-------|--------|--------|
| 7  | 9.390  | 4 | 2.176 | 6.346  | 5.995  |
|    |        | 5 | 1.243 | 1.329  | 3.426  |
|    |        | 1 | 9.014 | 26.077 | 24.836 |
|    |        | 2 | 9.014 | 25.772 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 8  | 9.431  | 4 | 2.176 | 6.147  | 5.995  |
|    |        | 5 | 1.243 | 1.539  | 3.426  |
|    |        | 1 | 9.014 | 26.702 | 25.072 |
|    |        | 2 | 9.014 | 26.381 | 25.072 |
|    |        | 3 | 4.523 | 13.077 | 0.000  |
| 9  | 12.450 | 4 | 2.176 | 6.291  | 6.052  |
|    |        | 5 | 1.243 | 1.524  | 3.458  |
|    |        | 1 | 9.014 | 34.197 | 25.072 |
|    |        | 2 | 9.014 | 33.750 | 25.072 |
|    |        | 3 | 5.595 | 20.670 | 15.562 |
| 10 | 16.600 | 4 | 2.176 | 8.038  | 6.052  |
|    |        | 5 | 1.243 | 1.699  | 3.458  |
|    |        | 1 | 9.014 | 32.292 | 25.072 |
|    |        | 2 | 9.014 | 31.948 | 25.072 |
|    |        | 3 | 5.595 | 19.616 | 15.562 |
| 11 | 20.750 | 4 | 2.176 | 7.629  | 6.052  |
|    |        | 5 | 1.243 | 2.137  | 3.458  |
|    |        | 1 | 9.014 | 31.657 | 25.072 |
|    |        | 2 | 9.014 | 31.347 | 25.072 |
|    |        | 3 | 5.595 | 19.265 | 15.562 |
| 12 | 24.900 | 4 | 2.176 | 7.492  | 6.052  |
|    |        | 5 | 1.243 | 2.283  | 3.458  |
|    |        | 1 | 9.014 | 32.292 | 25.072 |
|    |        | 2 | 9.014 | 31.948 | 25.072 |
|    |        | 3 | 5.595 | 19.616 | 15.562 |
| 13 | 29.050 | 4 | 2.176 | 7.629  | 6.052  |
|    |        | 5 | 1.243 | 2.137  | 3.458  |
|    |        | 1 | 9.014 | 34.197 | 25.072 |
|    |        | 2 | 9.014 | 33.750 | 25.072 |
|    |        | 3 | 5.595 | 20.670 | 15.562 |
| 14 | 32.069 | 4 | 2.176 | 8.038  | 6.052  |
|    |        | 5 | 1.243 | 1.699  | 3.458  |
|    |        | 1 | 9.014 | 26.702 | 25.072 |
|    |        | 2 | 9.014 | 26.381 | 25.072 |
|    |        | 3 | 4.523 | 13.077 | 0.000  |
| 15 | 32.110 | 4 | 2.176 | 6.291  | 6.052  |
|    |        | 5 | 1.243 | 1.524  | 3.458  |
|    |        | 1 | 9.014 | 26.077 | 24.836 |
|    |        | 2 | 9.014 | 25.772 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 16 | 33.200 | 4 | 2.176 | 6.147  | 5.995  |
|    |        | 5 | 1.243 | 1.539  | 3.426  |
|    |        | 1 | 9.014 | 27.002 | 24.836 |
|    |        | 2 | 9.014 | 26.646 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 17 | 37.350 | 4 | 2.176 | 6.346  | 5.995  |
|    |        | 5 | 1.243 | 1.329  | 3.426  |
|    |        | 1 | 9.014 | 31.513 | 24.836 |
|    |        | 2 | 9.014 | 30.913 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 18 | 39.569 | 4 | 2.176 | 7.317  | 5.995  |
|    |        | 5 | 1.243 | 0.305  | 3.426  |
|    |        | 1 | 9.014 | 18.418 | 24.836 |
|    |        | 2 | 9.014 | 18.081 | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 19 | 39.610 | 4 | 2.176 | 4.283  | 5.995  |
|    |        | 5 | 1.243 | 0.265  | 3.426  |
|    |        | 1 | 9.014 | 17.619 | 24.421 |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
| 20 | 41.500 | 4 | 2.176 | 4.099  | 5.895  |
|    |        | 5 | 1.243 | 0.284  | 3.368  |
|    |        | 1 | 9.014 | 17.050 | 6.317  |
|    |        | 2 | 0.000 | 0.000  | 0.000  |

|    |        |   |       |        |       |
|----|--------|---|-------|--------|-------|
| 21 | 42.100 | 3 | 0.000 | 0.000  | 0.000 |
|    |        | 4 | 2.176 | 3.927  | 1.525 |
|    |        | 5 | 1.243 | -0.285 | 0.871 |
|    |        | 1 | 0.001 | 0.000  | 0.000 |
|    |        | 2 | 0.000 | 0.000  | 0.000 |
|    |        | 3 | 0.000 | 0.000  | 0.000 |
|    |        | 4 | 0.000 | 0.000  | 0.000 |
|    |        | 5 | 0.000 | -0.000 | 0.000 |

Prt : pérdida de pretensado por retracción del hormigón.  
Pfl : pérdida de pretensado por fluencia del hormigón.  
Pr1 : pérdida de pretensado por relajación del acero de la armadura activa.

Vano    1 Viga    2  
-----

| Punto | s (m)  | Cable | Prt (T) | Pfl (T) | Pr1 (T) |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | -0.000  | 0.000   |
| 2     | 0.000  | 1     | 9.014   | 17.051  | 6.317   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 3.927   | 1.525   |
|       |        | 5     | 1.243   | -0.285  | 0.871   |
| 3     | 1.890  | 1     | 9.014   | 17.560  | 24.421  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 4.086   | 5.895   |
|       |        | 5     | 1.243   | 0.297   | 3.368   |
| 4     | 1.931  | 1     | 9.014   | 18.359  | 24.836  |
|       |        | 2     | 9.014   | 18.025  | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 4.270   | 5.995   |
|       |        | 5     | 1.243   | 0.278   | 3.426   |
| 5     | 4.150  | 1     | 9.014   | 31.386  | 24.836  |
|       |        | 2     | 9.014   | 30.793  | 24.836  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 7.290   | 5.995   |
|       |        | 5     | 1.243   | 0.334   | 3.426   |
| 6     | 8.300  | 1     | 9.014   | 26.776  | 24.836  |
|       |        | 2     | 9.014   | 26.433  | 24.836  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 6.297   | 5.995   |
|       |        | 5     | 1.243   | 1.380   | 3.426   |
| 7     | 9.390  | 1     | 9.014   | 25.832  | 24.836  |
|       |        | 2     | 9.014   | 25.540  | 24.836  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.176   | 6.094   | 5.995   |
|       |        | 5     | 1.243   | 1.595   | 3.426   |
| 8     | 9.431  | 1     | 9.014   | 26.460  | 25.072  |
|       |        | 2     | 9.014   | 26.153  | 25.072  |
|       |        | 3     | 4.551   | 13.049  | 0.000   |
|       |        | 4     | 2.176   | 6.239   | 6.052   |
|       |        | 5     | 1.243   | 1.580   | 3.458   |
| 9     | 12.450 | 1     | 9.014   | 33.905  | 25.072  |
|       |        | 2     | 9.014   | 33.473  | 25.072  |
|       |        | 3     | 5.595   | 20.508  | 15.562  |
|       |        | 4     | 2.176   | 7.976   | 6.052   |
|       |        | 5     | 1.243   | 1.766   | 3.458   |
| 10    | 16.600 | 1     | 9.014   | 31.957  | 25.072  |
|       |        | 2     | 9.014   | 31.632  | 25.072  |
|       |        | 3     | 5.595   | 19.432  | 15.562  |
|       |        | 4     | 2.176   | 7.557   | 6.052   |
|       |        | 5     | 1.243   | 2.213   | 3.458   |
| 11    | 20.750 | 1     | 9.014   | 31.308  | 25.072  |

|    |        |   |       |        |        |
|----|--------|---|-------|--------|--------|
| 12 | 24.900 | 2 | 9.014 | 31.018 | 25.072 |
|    |        | 3 | 5.595 | 19.073 | 15.562 |
|    |        | 4 | 2.176 | 7.417  | 6.052  |
|    |        | 5 | 1.243 | 2.363  | 3.458  |
|    |        | 1 | 9.014 | 31.957 | 25.072 |
| 13 | 29.050 | 2 | 9.014 | 31.632 | 25.072 |
|    |        | 3 | 5.595 | 19.432 | 15.562 |
|    |        | 4 | 2.176 | 7.557  | 6.052  |
|    |        | 5 | 1.243 | 2.213  | 3.458  |
|    |        | 1 | 9.014 | 33.905 | 25.072 |
| 14 | 32.069 | 2 | 9.014 | 33.473 | 25.072 |
|    |        | 3 | 5.595 | 20.508 | 15.562 |
|    |        | 4 | 2.176 | 7.976  | 6.052  |
|    |        | 5 | 1.243 | 1.766  | 3.458  |
|    |        | 1 | 9.014 | 26.460 | 25.072 |
| 15 | 32.110 | 2 | 9.014 | 26.153 | 25.072 |
|    |        | 3 | 4.551 | 13.049 | 0.000  |
|    |        | 4 | 2.176 | 6.239  | 6.052  |
|    |        | 5 | 1.243 | 1.580  | 3.458  |
|    |        | 1 | 9.014 | 25.832 | 24.836 |
| 16 | 33.200 | 2 | 9.014 | 25.540 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.094  | 5.995  |
|    |        | 5 | 1.243 | 1.595  | 3.426  |
|    |        | 1 | 9.014 | 26.776 | 24.836 |
| 17 | 37.350 | 2 | 9.014 | 26.433 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.297  | 5.995  |
|    |        | 5 | 1.243 | 1.380  | 3.426  |
|    |        | 1 | 9.014 | 31.386 | 24.836 |
| 18 | 39.569 | 2 | 9.014 | 30.793 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 7.290  | 5.995  |
|    |        | 5 | 1.243 | 0.334  | 3.426  |
|    |        | 1 | 9.014 | 18.359 | 24.836 |
| 19 | 39.610 | 2 | 9.014 | 18.025 | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.270  | 5.995  |
|    |        | 5 | 1.243 | 0.278  | 3.426  |
|    |        | 1 | 9.014 | 17.560 | 24.421 |
| 20 | 41.500 | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.086  | 5.895  |
|    |        | 5 | 1.243 | 0.297  | 3.368  |
|    |        | 1 | 9.014 | 17.051 | 6.317  |
| 21 | 42.100 | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 3.927  | 1.525  |
|    |        | 5 | 1.243 | -0.285 | 0.871  |
|    |        | 1 | 0.001 | 0.000  | 0.000  |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 0.000 | 0.000  | 0.000  |
|    |        | 5 | 0.000 | -0.000 | 0.000  |

Prt : pérdida de pretensado por retracción del hormigón.  
 Pfl : pérdida de pretensado por fluencia del hormigón.  
 Prl : pérdida de pretensado por relajación del acero de la armadura activa.

|               |        |       |         |         |         |
|---------------|--------|-------|---------|---------|---------|
| Vano 1 Viga 3 |        |       |         |         |         |
| -----         |        |       |         |         |         |
| Punto         | s (m)  | Cable | Prt (T) | Pfl (T) | Prl (T) |
| -----         |        |       |         |         |         |
| 1             | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|               |        | 2     | 0.000   | 0.000   | 0.000   |
|               |        | 3     | 0.000   | 0.000   | 0.000   |
|               |        | 4     | 0.000   | 0.000   | 0.000   |
|               |        | 5     | 0.000   | -0.000  | 0.000   |

|    |        |   |       |        |        |
|----|--------|---|-------|--------|--------|
| 2  | 0.000  | 1 | 9.014 | 17.051 | 6.317  |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 3.927  | 1.525  |
|    |        | 5 | 1.243 | -0.285 | 0.871  |
| 3  | 1.890  | 1 | 9.014 | 17.619 | 24.421 |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.099  | 5.895  |
|    |        | 5 | 1.243 | 0.284  | 3.368  |
| 4  | 1.931  | 1 | 9.014 | 18.418 | 24.836 |
|    |        | 2 | 9.014 | 18.081 | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.283  | 5.995  |
|    |        | 5 | 1.243 | 0.265  | 3.426  |
| 5  | 4.150  | 1 | 9.014 | 31.513 | 24.836 |
|    |        | 2 | 9.014 | 30.913 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 7.317  | 5.995  |
|    |        | 5 | 1.243 | 0.305  | 3.426  |
| 6  | 8.300  | 1 | 9.014 | 27.002 | 24.836 |
|    |        | 2 | 9.014 | 26.646 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.346  | 5.995  |
|    |        | 5 | 1.243 | 1.329  | 3.426  |
| 7  | 9.390  | 1 | 9.014 | 26.077 | 24.836 |
|    |        | 2 | 9.014 | 25.772 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.147  | 5.995  |
|    |        | 5 | 1.243 | 1.539  | 3.426  |
| 8  | 9.431  | 1 | 9.014 | 26.702 | 25.072 |
|    |        | 2 | 9.014 | 26.381 | 25.072 |
|    |        | 3 | 4.523 | 13.077 | 0.000  |
|    |        | 4 | 2.176 | 6.291  | 6.052  |
|    |        | 5 | 1.243 | 1.524  | 3.458  |
| 9  | 12.450 | 1 | 9.014 | 34.197 | 25.072 |
|    |        | 2 | 9.014 | 33.750 | 25.072 |
|    |        | 3 | 5.595 | 20.670 | 15.562 |
|    |        | 4 | 2.176 | 8.038  | 6.052  |
|    |        | 5 | 1.243 | 1.699  | 3.458  |
| 10 | 16.600 | 1 | 9.014 | 32.292 | 25.072 |
|    |        | 2 | 9.014 | 31.948 | 25.072 |
|    |        | 3 | 5.595 | 19.616 | 15.562 |
|    |        | 4 | 2.176 | 7.629  | 6.052  |
|    |        | 5 | 1.243 | 2.137  | 3.458  |
| 11 | 20.750 | 1 | 9.014 | 31.657 | 25.072 |
|    |        | 2 | 9.014 | 31.347 | 25.072 |
|    |        | 3 | 5.595 | 19.265 | 15.562 |
|    |        | 4 | 2.176 | 7.492  | 6.052  |
|    |        | 5 | 1.243 | 2.283  | 3.458  |
| 12 | 24.900 | 1 | 9.014 | 32.292 | 25.072 |
|    |        | 2 | 9.014 | 31.948 | 25.072 |
|    |        | 3 | 5.595 | 19.616 | 15.562 |
|    |        | 4 | 2.176 | 7.629  | 6.052  |
|    |        | 5 | 1.243 | 2.137  | 3.458  |
| 13 | 29.050 | 1 | 9.014 | 34.197 | 25.072 |
|    |        | 2 | 9.014 | 33.750 | 25.072 |
|    |        | 3 | 5.595 | 20.670 | 15.562 |
|    |        | 4 | 2.176 | 8.038  | 6.052  |
|    |        | 5 | 1.243 | 1.699  | 3.458  |
| 14 | 32.069 | 1 | 9.014 | 26.702 | 25.072 |
|    |        | 2 | 9.014 | 26.381 | 25.072 |
|    |        | 3 | 4.523 | 13.077 | 0.000  |
|    |        | 4 | 2.176 | 6.291  | 6.052  |
|    |        | 5 | 1.243 | 1.524  | 3.458  |
| 15 | 32.110 | 1 | 9.014 | 26.077 | 24.836 |
|    |        | 2 | 9.014 | 25.772 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.147  | 5.995  |

|    |        |   |       |        |        |
|----|--------|---|-------|--------|--------|
| 16 | 33.200 | 5 | 1.243 | 1.539  | 3.426  |
|    |        | 1 | 9.014 | 27.002 | 24.836 |
|    |        | 2 | 9.014 | 26.646 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 6.346  | 5.995  |
| 17 | 37.350 | 5 | 1.243 | 1.329  | 3.426  |
|    |        | 1 | 9.014 | 31.513 | 24.836 |
|    |        | 2 | 9.014 | 30.913 | 24.836 |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 7.317  | 5.995  |
| 18 | 39.569 | 5 | 1.243 | 0.305  | 3.426  |
|    |        | 1 | 9.014 | 18.418 | 24.836 |
|    |        | 2 | 9.014 | 18.081 | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.283  | 5.995  |
| 19 | 39.610 | 5 | 1.243 | 0.265  | 3.426  |
|    |        | 1 | 9.014 | 17.619 | 24.421 |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 4.099  | 5.895  |
| 20 | 41.500 | 5 | 1.243 | 0.284  | 3.368  |
|    |        | 1 | 9.014 | 17.050 | 6.317  |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 2.176 | 3.927  | 1.525  |
| 21 | 42.100 | 5 | 1.243 | -0.285 | 0.871  |
|    |        | 1 | 0.001 | 0.000  | 0.000  |
|    |        | 2 | 0.000 | 0.000  | 0.000  |
|    |        | 3 | 0.000 | 0.000  | 0.000  |
|    |        | 4 | 0.000 | 0.000  | 0.000  |
|    |        | 5 | 0.000 | -0.000 | 0.000  |

Prt : pérdida de pretensado por retracción del hormigón.  
Pfl : pérdida de pretensado por fluencia del hormigón.  
Prl : pérdida de pretensado por relajación del acero de la armadura activa.

Pérdidas de pretensado entre hormigonado de losa y tiempo infinito  
=====

Vano    1 Viga    1  
-----

| Punto | s (m)  | Cable | Prt (T) | Pfl (T) | Prl (T) |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | -0.000  | 0.000   |
| 2     | 0.000  | 1     | 10.345  | 14.620  | 10.329  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.635   | 3.389   | 2.493   |
|       |        | 5     | 3.358   | 0.066   | 1.425   |
| 3     | 1.890  | 1     | 10.345  | 13.106  | 40.116  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.635   | 3.067   | 9.683   |
|       |        | 5     | 3.358   | 0.462   | 5.533   |
| 4     | 1.931  | 1     | 10.402  | 13.776  | 40.799  |
|       |        | 2     | 0.556   | 0.706   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.649   | 3.223   | 9.848   |
|       |        | 5     | 3.358   | 0.471   | 5.628   |
| 5     | 4.150  | 1     | 10.402  | 22.105  | 40.799  |
|       |        | 2     | 10.687  | 21.789  | 40.799  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.649   | 5.183   | 9.848   |
|       |        | 5     | 3.358   | 0.918   | 5.628   |

|    |        |   |        |        |        |
|----|--------|---|--------|--------|--------|
| 6  | 8.300  | 1 | 10.402 | 15.548 | 40.799 |
|    |        | 2 | 10.687 | 15.450 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.706  | 9.848  |
|    |        | 5 | 3.358  | 1.486  | 5.628  |
| 7  | 9.390  | 1 | 10.402 | 14.180 | 40.799 |
|    |        | 2 | 10.687 | 14.128 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.398  | 9.848  |
|    |        | 5 | 3.358  | 1.606  | 5.628  |
| 8  | 9.431  | 1 | 10.431 | 14.801 | 41.187 |
|    |        | 2 | 10.716 | 14.737 | 41.187 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.655  | 3.542  | 9.942  |
|    |        | 5 | 3.358  | 1.611  | 5.681  |
| 9  | 12.450 | 1 | 10.431 | 19.868 | 41.187 |
|    |        | 2 | 10.716 | 19.741 | 41.187 |
|    |        | 3 | 6.828  | 12.174 | 25.565 |
|    |        | 4 | 2.655  | 4.734  | 9.942  |
|    |        | 5 | 3.358  | 1.880  | 5.681  |
| 10 | 16.600 | 1 | 10.431 | 17.280 | 41.187 |
|    |        | 2 | 10.716 | 17.239 | 41.187 |
|    |        | 3 | 6.828  | 10.674 | 25.565 |
|    |        | 4 | 2.655  | 4.151  | 9.942  |
|    |        | 5 | 3.358  | 2.103  | 5.681  |
| 11 | 20.750 | 1 | 10.431 | 16.355 | 41.187 |
|    |        | 2 | 10.716 | 16.344 | 41.187 |
|    |        | 3 | 6.828  | 10.138 | 25.565 |
|    |        | 4 | 2.655  | 3.943  | 9.942  |
|    |        | 5 | 3.358  | 2.184  | 5.681  |
| 12 | 24.900 | 1 | 10.431 | 17.280 | 41.187 |
|    |        | 2 | 10.716 | 17.239 | 41.187 |
|    |        | 3 | 6.828  | 10.674 | 25.565 |
|    |        | 4 | 2.655  | 4.151  | 9.942  |
|    |        | 5 | 3.358  | 2.103  | 5.681  |
| 13 | 29.050 | 1 | 10.431 | 19.868 | 41.187 |
|    |        | 2 | 10.716 | 19.741 | 41.187 |
|    |        | 3 | 6.828  | 12.174 | 25.565 |
|    |        | 4 | 2.655  | 4.734  | 9.942  |
|    |        | 5 | 3.358  | 1.880  | 5.681  |
| 14 | 32.069 | 1 | 10.431 | 14.801 | 41.187 |
|    |        | 2 | 10.716 | 14.737 | 41.187 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.655  | 3.542  | 9.942  |
|    |        | 5 | 3.358  | 1.611  | 5.681  |
| 15 | 32.110 | 1 | 10.402 | 14.180 | 40.799 |
|    |        | 2 | 10.687 | 14.128 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.398  | 9.848  |
|    |        | 5 | 3.358  | 1.606  | 5.628  |
| 16 | 33.200 | 1 | 10.402 | 15.548 | 40.799 |
|    |        | 2 | 10.687 | 15.450 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.706  | 9.848  |
|    |        | 5 | 3.358  | 1.486  | 5.628  |
| 17 | 37.350 | 1 | 10.402 | 22.105 | 40.799 |
|    |        | 2 | 10.687 | 21.789 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 5.183  | 9.848  |
|    |        | 5 | 3.358  | 0.918  | 5.628  |
| 18 | 39.569 | 1 | 10.402 | 13.776 | 40.799 |
|    |        | 2 | 0.556  | 0.706  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.223  | 9.848  |
|    |        | 5 | 3.358  | 0.471  | 5.628  |
| 19 | 39.610 | 1 | 10.345 | 13.106 | 40.116 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.067  | 9.683  |

|    |        |   |        |        |        |
|----|--------|---|--------|--------|--------|
| 20 | 41.500 | 5 | 3.358  | 0.462  | 5.533  |
|    |        | 1 | 10.345 | 14.620 | 10.328 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.389  | 2.493  |
| 21 | 42.100 | 5 | 3.358  | 0.066  | 1.425  |
|    |        | 1 | -0.000 | -0.000 | -0.000 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | -0.000 | -0.000 | -0.000 |
|    |        | 5 | 0.000  | -0.000 | 0.000  |

Prt : pérdida de pretensado por retracción del hormigón.  
Pfl : pérdida de pretensado por fluencia del hormigón.  
Prl : pérdida de pretensado por relajación del acero de la armadura activa.

Vano 1 Viga 2  
-----

| Punto | s (m)  | Cable | Prt (T) | Pfl (T) | Prl (T) |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 0.000   | 0.000   | 0.000   |
|       |        | 5     | 0.000   | -0.000  | 0.000   |
| 2     | 0.000  | 1     | 10.306  | 13.654  | 10.330  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.628   | 3.173   | 2.493   |
|       |        | 5     | 3.384   | 0.175   | 1.425   |
| 3     | 1.890  | 1     | 10.306  | 13.536  | 40.120  |
|       |        | 2     | 0.000   | 0.000   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.628   | 3.163   | 9.684   |
|       |        | 5     | 3.384   | 0.404   | 5.534   |
| 4     | 1.931  | 1     | 10.364  | 14.226  | 40.804  |
|       |        | 2     | 0.569   | 0.748   | 0.000   |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.642   | 3.323   | 9.849   |
|       |        | 5     | 3.384   | 0.409   | 5.628   |
| 5     | 4.150  | 1     | 10.364  | 24.144  | 40.804  |
|       |        | 2     | 10.654  | 23.749  | 40.804  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.642   | 5.637   | 9.849   |
|       |        | 5     | 3.384   | 0.666   | 5.628   |
| 6     | 8.300  | 1     | 10.364  | 17.869  | 40.804  |
|       |        | 2     | 10.654  | 17.678  | 40.804  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.642   | 4.221   | 9.849   |
|       |        | 5     | 3.384   | 1.178   | 5.628   |
| 7     | 9.390  | 1     | 10.364  | 16.342  | 40.804  |
|       |        | 2     | 10.654  | 16.202  | 40.804  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.642   | 3.877   | 9.849   |
|       |        | 5     | 3.384   | 1.310   | 5.628   |
| 8     | 9.431  | 1     | 10.393  | 16.926  | 41.192  |
|       |        | 2     | 10.683  | 16.775  | 41.192  |
|       |        | 3     | 0.000   | 0.000   | 0.000   |
|       |        | 4     | 2.648   | 4.013   | 9.943   |
|       |        | 5     | 3.384   | 1.316   | 5.682   |
| 9     | 12.450 | 1     | 10.393  | 21.438  | 41.192  |
|       |        | 2     | 10.683  | 21.243  | 41.192  |
|       |        | 3     | 6.810   | 13.064  | 25.567  |
|       |        | 4     | 2.648   | 5.080   | 9.943   |
|       |        | 5     | 3.384   | 1.638   | 5.682   |
| 10    | 16.600 | 1     | 10.393  | 18.163  | 41.192  |
|       |        | 2     | 10.683  | 18.077  | 41.192  |
|       |        | 3     | 6.810   | 11.167  | 25.567  |

|    |        |   |        |        |        |
|----|--------|---|--------|--------|--------|
| 11 | 20.750 | 4 | 2.648  | 4.343  | 9.943  |
|    |        | 5 | 3.384  | 1.928  | 5.682  |
|    |        | 1 | 10.393 | 16.921 | 41.192 |
|    |        | 2 | 10.683 | 16.878 | 41.192 |
|    |        | 3 | 6.810  | 10.449 | 25.567 |
| 12 | 24.900 | 4 | 2.648  | 4.063  | 9.943  |
|    |        | 5 | 3.384  | 2.041  | 5.682  |
|    |        | 1 | 10.393 | 18.163 | 41.192 |
|    |        | 2 | 10.683 | 18.077 | 41.192 |
|    |        | 3 | 6.810  | 11.167 | 25.567 |
| 13 | 29.050 | 4 | 2.648  | 4.343  | 9.943  |
|    |        | 5 | 3.384  | 1.928  | 5.682  |
|    |        | 1 | 10.393 | 21.438 | 41.192 |
|    |        | 2 | 10.683 | 21.243 | 41.192 |
|    |        | 3 | 6.810  | 13.064 | 25.567 |
| 14 | 32.069 | 4 | 2.648  | 5.080  | 9.943  |
|    |        | 5 | 3.384  | 1.638  | 5.682  |
|    |        | 1 | 10.393 | 16.926 | 41.192 |
|    |        | 2 | 10.683 | 16.775 | 41.192 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 15 | 32.110 | 4 | 2.648  | 4.013  | 9.943  |
|    |        | 5 | 3.384  | 1.316  | 5.682  |
|    |        | 1 | 10.364 | 16.342 | 40.804 |
|    |        | 2 | 10.654 | 16.202 | 40.804 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 16 | 33.200 | 4 | 2.642  | 3.877  | 9.849  |
|    |        | 5 | 3.384  | 1.310  | 5.628  |
|    |        | 1 | 10.364 | 17.869 | 40.804 |
|    |        | 2 | 10.654 | 17.678 | 40.804 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 17 | 37.350 | 4 | 2.642  | 4.221  | 9.849  |
|    |        | 5 | 3.384  | 1.178  | 5.628  |
|    |        | 1 | 10.364 | 24.144 | 40.804 |
|    |        | 2 | 10.654 | 23.749 | 40.804 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 18 | 39.569 | 4 | 2.642  | 5.637  | 9.849  |
|    |        | 5 | 3.384  | 0.666  | 5.628  |
|    |        | 1 | 10.364 | 14.226 | 40.804 |
|    |        | 2 | 0.569  | 0.748  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 19 | 39.610 | 4 | 2.642  | 3.323  | 9.849  |
|    |        | 5 | 3.384  | 0.409  | 5.628  |
|    |        | 1 | 10.306 | 13.536 | 40.120 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 20 | 41.500 | 4 | 2.628  | 3.163  | 9.684  |
|    |        | 5 | 3.384  | 0.404  | 5.534  |
|    |        | 1 | 10.306 | 13.654 | 10.329 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
| 21 | 42.100 | 4 | 2.628  | 3.173  | 2.493  |
|    |        | 5 | 3.384  | 0.175  | 1.425  |
|    |        | 1 | -0.000 | -0.000 | -0.000 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | -0.000 | -0.000 | -0.000 |
|    |        | 5 | 0.000  | -0.000 | 0.000  |

Prt : pérdida de pretensado por retracción del hormigón.  
Pfl : pérdida de pretensado por fluencia del hormigón.  
Prl : pérdida de pretensado por relajación del acero de la armadura activa.

Vano    1 Viga    3  
-----

| Punto | s (m)  | Cable | Prt (T) | Pfl (T) | Prl (T) |
|-------|--------|-------|---------|---------|---------|
| 1     | -0.600 | 1     | 0.000   | 0.000   | 0.000   |
|       |        | 2     | 0.000   | 0.000   | 0.000   |

|    |        |   |        |        |        |
|----|--------|---|--------|--------|--------|
| 2  | 0.000  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 0.000  | 0.000  | 0.000  |
|    |        | 5 | 0.000  | -0.000 | 0.000  |
|    |        | 1 | 10.345 | 14.621 | 10.329 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
| 3  | 1.890  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.389  | 2.493  |
|    |        | 5 | 3.358  | 0.065  | 1.425  |
|    |        | 1 | 10.345 | 13.106 | 40.116 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
| 4  | 1.931  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.067  | 9.683  |
|    |        | 5 | 3.358  | 0.462  | 5.533  |
|    |        | 1 | 10.402 | 13.777 | 40.799 |
|    |        | 2 | 0.556  | 0.706  | 0.000  |
| 5  | 4.150  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.223  | 9.848  |
|    |        | 5 | 3.358  | 0.471  | 5.628  |
|    |        | 1 | 10.402 | 22.105 | 40.799 |
|    |        | 2 | 10.687 | 21.789 | 40.799 |
| 6  | 8.300  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 5.183  | 9.848  |
|    |        | 5 | 3.358  | 0.918  | 5.628  |
|    |        | 1 | 10.402 | 15.547 | 40.799 |
|    |        | 2 | 10.687 | 15.449 | 40.799 |
| 7  | 9.390  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.706  | 9.848  |
|    |        | 5 | 3.358  | 1.487  | 5.628  |
|    |        | 1 | 10.402 | 14.179 | 40.799 |
|    |        | 2 | 10.687 | 14.127 | 40.799 |
| 8  | 9.431  | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.397  | 9.848  |
|    |        | 5 | 3.358  | 1.607  | 5.628  |
|    |        | 1 | 10.431 | 14.800 | 41.187 |
|    |        | 2 | 10.716 | 14.736 | 41.187 |
| 9  | 12.450 | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.655  | 3.542  | 9.942  |
|    |        | 5 | 3.358  | 1.611  | 5.681  |
|    |        | 1 | 10.431 | 19.867 | 41.187 |
|    |        | 2 | 10.716 | 19.739 | 41.187 |
| 10 | 16.600 | 3 | 6.828  | 12.173 | 25.565 |
|    |        | 4 | 2.655  | 4.734  | 9.942  |
|    |        | 5 | 3.358  | 1.880  | 5.681  |
|    |        | 1 | 10.431 | 17.278 | 41.187 |
|    |        | 2 | 10.716 | 17.237 | 41.187 |
| 11 | 20.750 | 3 | 6.828  | 10.673 | 25.565 |
|    |        | 4 | 2.655  | 4.151  | 9.942  |
|    |        | 5 | 3.358  | 2.103  | 5.681  |
|    |        | 1 | 10.431 | 16.353 | 41.187 |
|    |        | 2 | 10.716 | 16.342 | 41.187 |
| 12 | 24.900 | 3 | 6.828  | 10.137 | 25.565 |
|    |        | 4 | 2.655  | 3.942  | 9.942  |
|    |        | 5 | 3.358  | 2.184  | 5.681  |
|    |        | 1 | 10.431 | 17.278 | 41.187 |
|    |        | 2 | 10.716 | 17.237 | 41.187 |
| 13 | 29.050 | 3 | 6.828  | 10.673 | 25.565 |
|    |        | 4 | 2.655  | 4.151  | 9.942  |
|    |        | 5 | 3.358  | 2.103  | 5.681  |
|    |        | 1 | 10.431 | 19.867 | 41.187 |
|    |        | 2 | 10.716 | 19.739 | 41.187 |
| 14 | 32.069 | 3 | 6.828  | 12.173 | 25.565 |
|    |        | 4 | 2.655  | 4.734  | 9.942  |
|    |        | 5 | 3.358  | 1.880  | 5.681  |
|    |        | 1 | 10.431 | 14.800 | 41.187 |
|    |        | 2 | 10.716 | 14.736 | 41.187 |
| 15 | 32.110 | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.655  | 3.542  | 9.942  |
|    |        | 5 | 3.358  | 1.611  | 5.681  |
|    |        | 1 | 10.402 | 14.179 | 40.799 |

|    |        |   |        |        |        |
|----|--------|---|--------|--------|--------|
| 16 | 33.200 | 2 | 10.687 | 14.127 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.397  | 9.848  |
|    |        | 5 | 3.358  | 1.607  | 5.628  |
|    |        | 1 | 10.402 | 15.547 | 40.799 |
| 17 | 37.350 | 2 | 10.687 | 15.449 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.706  | 9.848  |
|    |        | 5 | 3.358  | 1.487  | 5.628  |
|    |        | 1 | 10.402 | 22.105 | 40.799 |
| 18 | 39.569 | 2 | 10.687 | 21.789 | 40.799 |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 5.183  | 9.848  |
|    |        | 5 | 3.358  | 0.918  | 5.628  |
|    |        | 1 | 10.402 | 13.777 | 40.799 |
| 19 | 39.610 | 2 | 0.556  | 0.706  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.649  | 3.223  | 9.848  |
|    |        | 5 | 3.358  | 0.471  | 5.628  |
|    |        | 1 | 10.345 | 13.106 | 40.116 |
| 20 | 41.500 | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.067  | 9.683  |
|    |        | 5 | 3.358  | 0.462  | 5.533  |
|    |        | 1 | 10.345 | 14.621 | 10.328 |
| 21 | 42.100 | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | 2.635  | 3.389  | 2.493  |
|    |        | 5 | 3.358  | 0.065  | 1.425  |
|    |        | 1 | -0.000 | -0.000 | -0.000 |
|    |        | 2 | 0.000  | 0.000  | 0.000  |
|    |        | 3 | 0.000  | 0.000  | 0.000  |
|    |        | 4 | -0.000 | -0.000 | -0.000 |
|    |        | 5 | 0.000  | -0.000 | 0.000  |
|    |        |   |        |        |        |

Prt : pérdida de pretensado por retracción del hormigón.  
Pfl : pérdida de pretensado por fluencia del hormigón.  
Pr1 : pérdida de pretensado por relajación del acero de la armadura activa.

Pérdidas de pretensado totales (T)  
=====

Vano    1 Viga    1  
-----

| Punto | s (m)  | P0 (T)   | DP1a (T) | DP1b (T) | DP1 (T)  | DP2 (T) | DP3 (T)  |
|-------|--------|----------|----------|----------|----------|---------|----------|
| 1     | -0.600 | 2153.250 | 6.325    | 2146.925 | 2153.250 | 0.000   | 2153.250 |
| 2     | 0.000  | 2153.250 | 6.325    | 1398.396 | 1404.721 | 90.497  | 1495.219 |
| 3     | 1.890  | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.425 | 1412.521 |
| 4     | 1.931  | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.165 | 1413.542 |
| 5     | 4.150  | 2153.250 | 6.325    | 595.257  | 601.582  | 324.753 | 926.335  |
| 6     | 8.300  | 2153.250 | 6.325    | 595.257  | 601.582  | 302.224 | 903.806  |
| 7     | 9.390  | 2153.250 | 6.325    | 595.257  | 601.582  | 297.556 | 899.139  |
| 8     | 9.431  | 2153.250 | 6.325    | 575.351  | 581.676  | 319.447 | 901.123  |
| 9     | 12.450 | 2153.250 | 6.325    | 187.567  | 193.892  | 416.557 | 610.449  |
| 10    | 16.600 | 2153.250 | 6.325    | 187.567  | 193.892  | 404.874 | 598.766  |
| 11    | 20.750 | 2153.250 | 6.325    | 187.567  | 193.892  | 400.813 | 594.705  |
| 12    | 24.900 | 2153.250 | 6.325    | 187.567  | 193.892  | 404.874 | 598.766  |
| 13    | 29.050 | 2153.250 | 6.325    | 187.567  | 193.892  | 416.557 | 610.449  |
| 14    | 32.069 | 2153.250 | 6.325    | 575.351  | 581.676  | 319.447 | 901.123  |
| 15    | 32.110 | 2153.250 | 6.325    | 595.257  | 601.582  | 297.556 | 899.139  |
| 16    | 33.200 | 2153.250 | 6.325    | 595.257  | 601.582  | 302.224 | 903.806  |
| 17    | 37.350 | 2153.250 | 6.325    | 595.257  | 601.582  | 324.753 | 926.335  |
| 18    | 39.569 | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.165 | 1413.542 |
| 19    | 39.610 | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.425 | 1412.521 |
| 20    | 41.500 | 2153.250 | 6.325    | 1398.401 | 1404.726 | 90.496  | 1495.222 |
| 21    | 42.100 | 2153.250 | 6.325    | 2146.923 | 2153.248 | 0.002   | 2153.250 |

Vano 1 Viga 2

| Punto | s (m)  | P0 (T)   | DP1a (T) | DP1b (T) | DP1 (T)  | DP2 (T) | DP3 (T)  |
|-------|--------|----------|----------|----------|----------|---------|----------|
| 1     | -0.600 | 2153.250 | 6.325    | 2146.925 | 2153.250 | 0.000   | 2153.250 |
| 2     | 0.000  | 2153.250 | 6.325    | 1398.396 | 1404.721 | 89.406  | 1494.128 |
| 3     | 1.890  | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.821 | 1412.917 |
| 4     | 1.931  | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.582 | 1413.958 |
| 5     | 4.150  | 2153.250 | 6.325    | 595.257  | 601.582  | 328.667 | 930.249  |
| 6     | 8.300  | 2153.250 | 6.325    | 595.257  | 601.582  | 306.500 | 908.083  |
| 7     | 9.390  | 2153.250 | 6.325    | 595.257  | 601.582  | 301.461 | 903.043  |
| 8     | 9.431  | 2153.250 | 6.325    | 575.351  | 581.676  | 323.278 | 904.954  |
| 9     | 12.450 | 2153.250 | 6.325    | 187.567  | 193.892  | 419.842 | 613.734  |
| 10    | 16.600 | 2153.250 | 6.325    | 187.567  | 193.892  | 406.219 | 600.111  |
| 11    | 20.750 | 2153.250 | 6.325    | 187.567  | 193.892  | 401.281 | 595.173  |
| 12    | 24.900 | 2153.250 | 6.325    | 187.567  | 193.892  | 406.219 | 600.111  |
| 13    | 29.050 | 2153.250 | 6.325    | 187.567  | 193.892  | 419.842 | 613.734  |
| 14    | 32.069 | 2153.250 | 6.325    | 575.351  | 581.676  | 323.278 | 904.954  |
| 15    | 32.110 | 2153.250 | 6.325    | 595.257  | 601.582  | 301.461 | 903.043  |
| 16    | 33.200 | 2153.250 | 6.325    | 595.257  | 601.582  | 306.500 | 908.083  |
| 17    | 37.350 | 2153.250 | 6.325    | 595.257  | 601.582  | 328.667 | 930.249  |
| 18    | 39.569 | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.582 | 1413.958 |
| 19    | 39.610 | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.821 | 1412.917 |
| 20    | 41.500 | 2153.250 | 6.325    | 1398.401 | 1404.726 | 89.405  | 1494.131 |
| 21    | 42.100 | 2153.250 | 6.325    | 2146.923 | 2153.248 | 0.002   | 2153.250 |

Vano 1 Viga 3

| Punto | s (m)  | P0 (T)   | DP1a (T) | DP1b (T) | DP1 (T)  | DP2 (T) | DP3 (T)  |
|-------|--------|----------|----------|----------|----------|---------|----------|
| 1     | -0.600 | 2153.250 | 6.325    | 2146.925 | 2153.250 | 0.000   | 2153.250 |
| 2     | 0.000  | 2153.250 | 6.325    | 1398.396 | 1404.721 | 90.498  | 1495.219 |
| 3     | 1.890  | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.426 | 1412.522 |
| 4     | 1.931  | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.166 | 1413.542 |
| 5     | 4.150  | 2153.250 | 6.325    | 595.257  | 601.582  | 324.753 | 926.335  |
| 6     | 8.300  | 2153.250 | 6.325    | 595.257  | 601.582  | 302.221 | 903.804  |
| 7     | 9.390  | 2153.250 | 6.325    | 595.257  | 601.582  | 297.554 | 899.136  |
| 8     | 9.431  | 2153.250 | 6.325    | 575.351  | 581.676  | 319.444 | 901.120  |
| 9     | 12.450 | 2153.250 | 6.325    | 187.567  | 193.892  | 416.552 | 610.444  |
| 10    | 16.600 | 2153.250 | 6.325    | 187.567  | 193.892  | 404.868 | 598.760  |
| 11    | 20.750 | 2153.250 | 6.325    | 187.567  | 193.892  | 400.807 | 594.699  |
| 12    | 24.900 | 2153.250 | 6.325    | 187.567  | 193.892  | 404.868 | 598.760  |
| 13    | 29.050 | 2153.250 | 6.325    | 187.567  | 193.892  | 416.552 | 610.444  |
| 14    | 32.069 | 2153.250 | 6.325    | 575.351  | 581.676  | 319.444 | 901.120  |
| 15    | 32.110 | 2153.250 | 6.325    | 595.257  | 601.582  | 297.554 | 899.136  |
| 16    | 33.200 | 2153.250 | 6.325    | 595.257  | 601.582  | 302.221 | 903.804  |
| 17    | 37.350 | 2153.250 | 6.325    | 595.257  | 601.582  | 324.753 | 926.335  |
| 18    | 39.569 | 2153.250 | 6.325    | 1219.051 | 1225.377 | 188.166 | 1413.542 |
| 19    | 39.610 | 2153.250 | 6.325    | 1249.771 | 1256.096 | 156.426 | 1412.522 |
| 20    | 41.500 | 2153.250 | 6.325    | 1398.401 | 1404.726 | 90.497  | 1495.223 |
| 21    | 42.100 | 2153.250 | 6.325    | 2146.923 | 2153.248 | 0.002   | 2153.250 |

Pérdidas de pretensado totales (%)

Vano 1 Viga 1

| Punto | s (m)  | DP1 (%) | DP2 (%) | DP3 (%) |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 100.000 | 0.000   | 100.000 |
| 2     | 0.000  | 65.237  | 4.203   | 69.440  |
| 3     | 1.890  | 58.335  | 7.265   | 65.600  |
| 4     | 1.931  | 56.908  | 8.739   | 65.647  |
| 5     | 4.150  | 27.938  | 15.082  | 43.020  |
| 6     | 8.300  | 27.938  | 14.036  | 41.974  |
| 7     | 9.390  | 27.938  | 13.819  | 41.757  |

|    |        |         |        |         |
|----|--------|---------|--------|---------|
| 8  | 9.431  | 27.014  | 14.836 | 41.849  |
| 9  | 12.450 | 9.005   | 19.345 | 28.350  |
| 10 | 16.600 | 9.005   | 18.803 | 27.808  |
| 11 | 20.750 | 9.005   | 18.614 | 27.619  |
| 12 | 24.900 | 9.005   | 18.803 | 27.808  |
| 13 | 29.050 | 9.005   | 19.345 | 28.350  |
| 14 | 32.069 | 27.014  | 14.836 | 41.849  |
| 15 | 32.110 | 27.938  | 13.819 | 41.757  |
| 16 | 33.200 | 27.938  | 14.036 | 41.974  |
| 17 | 37.350 | 27.938  | 15.082 | 43.020  |
| 18 | 39.569 | 56.908  | 8.739  | 65.647  |
| 19 | 39.610 | 58.335  | 7.265  | 65.600  |
| 20 | 41.500 | 65.237  | 4.203  | 69.440  |
| 21 | 42.100 | 100.000 | 0.000  | 100.000 |

P0: Fuerza de tesado  
DP1a: Pérdidas de pretensado por penetración de cuñas.  
DP1b: Pérdidas de pretensado por acortamiento elástico.  
DP1: Pérdidas totales instantáneas de pretensado.  
DP2: Pérdidas totales diferidas de pretensado.  
DP3: Pérdidas totales de pretensado.

Vano 1 Viga 2  
-----

| Punto | s (m)  | DP1 (%) | DP2 (%) | DP3 (%) |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 100.000 | 0.000   | 100.000 |
| 2     | 0.000  | 65.237  | 4.152   | 69.389  |
| 3     | 1.890  | 58.335  | 7.283   | 65.618  |
| 4     | 1.931  | 56.908  | 8.758   | 65.666  |
| 5     | 4.150  | 27.938  | 15.264  | 43.202  |
| 6     | 8.300  | 27.938  | 14.234  | 42.173  |
| 7     | 9.390  | 27.938  | 14.000  | 41.939  |
| 8     | 9.431  | 27.014  | 15.013  | 42.027  |
| 9     | 12.450 | 9.005   | 19.498  | 28.503  |
| 10    | 16.600 | 9.005   | 18.865  | 27.870  |
| 11    | 20.750 | 9.005   | 18.636  | 27.641  |
| 12    | 24.900 | 9.005   | 18.865  | 27.870  |
| 13    | 29.050 | 9.005   | 19.498  | 28.503  |
| 14    | 32.069 | 27.014  | 15.013  | 42.027  |
| 15    | 32.110 | 27.938  | 14.000  | 41.939  |
| 16    | 33.200 | 27.938  | 14.234  | 42.173  |
| 17    | 37.350 | 27.938  | 15.264  | 43.202  |
| 18    | 39.569 | 56.908  | 8.758   | 65.666  |
| 19    | 39.610 | 58.335  | 7.283   | 65.618  |
| 20    | 41.500 | 65.237  | 4.152   | 69.390  |
| 21    | 42.100 | 100.000 | 0.000   | 100.000 |

P0: Fuerza de tesado  
DP1a: Pérdidas de pretensado por penetración de cuñas.  
DP1b: Pérdidas de pretensado por acortamiento elástico.  
DP1: Pérdidas totales instantáneas de pretensado.  
DP2: Pérdidas totales diferidas de pretensado.  
DP3: Pérdidas totales de pretensado.

Vano 1 Viga 3  
-----

| Punto | s (m)  | DP1 (%) | DP2 (%) | DP3 (%) |
|-------|--------|---------|---------|---------|
| 1     | -0.600 | 100.000 | 0.000   | 100.000 |
| 2     | 0.000  | 65.237  | 4.203   | 69.440  |
| 3     | 1.890  | 58.335  | 7.265   | 65.600  |
| 4     | 1.931  | 56.908  | 8.739   | 65.647  |
| 5     | 4.150  | 27.938  | 15.082  | 43.020  |
| 6     | 8.300  | 27.938  | 14.036  | 41.974  |
| 7     | 9.390  | 27.938  | 13.819  | 41.757  |
| 8     | 9.431  | 27.014  | 14.835  | 41.849  |

|    |        |         |        |         |
|----|--------|---------|--------|---------|
| 9  | 12.450 | 9.005   | 19.345 | 28.350  |
| 10 | 16.600 | 9.005   | 18.803 | 27.807  |
| 11 | 20.750 | 9.005   | 18.614 | 27.619  |
| 12 | 24.900 | 9.005   | 18.803 | 27.807  |
| 13 | 29.050 | 9.005   | 19.345 | 28.350  |
| 14 | 32.069 | 27.014  | 14.835 | 41.849  |
| 15 | 32.110 | 27.938  | 13.819 | 41.757  |
| 16 | 33.200 | 27.938  | 14.036 | 41.974  |
| 17 | 37.350 | 27.938  | 15.082 | 43.020  |
| 18 | 39.569 | 56.908  | 8.739  | 65.647  |
| 19 | 39.610 | 58.335  | 7.265  | 65.600  |
| 20 | 41.500 | 65.237  | 4.203  | 69.440  |
| 21 | 42.100 | 100.000 | 0.000  | 100.000 |

P0: Fuerza de tesado  
DP1a: Pérdidas de pretensado por penetración de cuñas.  
DP1b: Pérdidas de pretensado por acortamiento elástico.  
DP1: Pérdidas totales instantáneas de pretensado.  
DP2: Pérdidas totales diferidas de pretensado.  
DP3: Pérdidas totales de pretensado.

LISTADO DE REACCIONES  
=====

Vano 1

Las reacciones correspondientes a las acciones han sido obtenidas con coeficientes de seguridad unitarios.  
Las reacciones correspondientes a las combinaciones características, frecuentes y casi permanentes han sido obtenidas con los coeficientes de seguridad del estado límite de servicio.  
Las reacciones correspondientes a las combinaciones persistentes han sido obtenidas con los coeficientes de seguridad del estado límite último.  
Unidades utilizadas : t

Viga 1  
-----

Apoyo inicial :

PP : Peso propio de la viga.  
Rz+ = 61.306 Rz- = 61.306

PL : Peso de la losa.  
Rz+ = 56.711 Rz- = 56.711

SE : Superestructura.  
Rz+ = 97.935 Rz- = 94.765

TRA : Tráfico en aceras.  
Rz+ = 0.000 Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 45.125 Rz- = -9.827

GT : Gradiente térmico.  
Rz+ = 0.061 Rz- = -0.061

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000 Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000 Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.306 Rz- = 61.306

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 118.016 Rz- = 118.016

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 215.951 Rz- = 212.782

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 261.113 Rz- = 202.918

C5 : Combinación característica a tiempo infinito.  
Rz+ = 261.113 Rz- = 202.918

C6 : Combinación característica. Envolvente global.  
Rz+ = 261.113 Rz- = 61.306

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 242.403 Rz- = 207.038

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 242.403 Rz- = 207.038

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 242.403 Rz- = 61.306

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 215.982 Rz- = 212.751

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 215.982 Rz- = 212.751

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 215.982 Rz- = 61.306

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762 Rz- = 61.306

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 159.322 Rz- = 118.016

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 291.534 Rz- = 212.782

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 352.509 Rz- = 199.461

D5 : Combinación persistente a tiempo infinito.  
Rz+ = 352.509 Rz- = 199.461

D6 : Combinación persistente. Envolvente global.  
Rz+ = 352.509 Rz- = 61.306

Apoyo final :

PP : Peso propio de la viga.  
Rz+ = 61.305 Rz- = 61.305

PL : Peso de la losa.  
Rz+ = 56.711 Rz- = 56.711

SE : Superestructura.  
Rz+ = 97.935 Rz- = 94.765

TRA : Tráfico en aceras.  
Rz+ = 0.000 Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 45.125 Rz- = -9.827

GT : Gradiente térmico.  
Rz+ = 0.061 Rz- = -0.061

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000 Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000 Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.305 Rz- = 61.305

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 118.016 Rz- = 118.016

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 215.951 Rz- = 212.782

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 261.113 Rz- = 202.918

C5 : Combinación característica a tiempo infinito.  
Rz+ = 261.113 Rz- = 202.918

C6 : Combinación característica. Envolvente global.  
Rz+ = 261.113 Rz- = 61.305

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 242.403 Rz- = 207.038

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 242.403 Rz- = 207.038

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 242.403 Rz- = 61.305

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 215.982 Rz- = 212.751

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 215.982 Rz- = 212.751

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 215.982 Rz- = 61.305

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762 Rz- = 61.305

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 159.322 Rz- = 118.016

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 291.534 Rz- = 212.782

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 352.509 Rz- = 199.461

D5 : Combinación persistente a tiempo infinito.  
Rz+ = 352.509 Rz- = 199.461

D6 : Combinación persistente. Envolvente global.  
Rz+ = 352.509 Rz- = 61.305

Viga 2  
-----

Apoyo inicial :

PP : Peso propio de la viga.  
Rz+ = 61.306 Rz- = 61.306

PL : Peso de la losa.

Rz+ = 60.047   Rz- = 60.047

SE : Superestructura.  
Rz+ = -12.025   Rz- = -28.925

TRA : Tráfico en aceras.  
Rz+ = 0.000   Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 140.383   Rz- = 0.000

GT : Gradiente térmico.  
Rz+ = 0.122   Rz- = -0.122

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000   Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000   Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.306   Rz- = 61.306

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 121.352   Rz- = 121.352

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 109.327   Rz- = 92.427

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 249.783   Rz- = 92.305

C5 : Combinación característica a tiempo infinito.  
Rz+ = 249.783   Rz- = 92.305

C6 : Combinación característica. Envolvente global.  
Rz+ = 249.783   Rz- = 61.306

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 193.394   Rz- = 92.354

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 193.394   Rz- = 92.354

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 193.394   Rz- = 61.306

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 109.388   Rz- = 92.366

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 109.388   Rz- = 92.366

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 121.352   Rz- = 61.306

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762   Rz- = 61.306

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 163.826   Rz- = 121.352

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 151.801   Rz- = 82.303

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 341.427   Rz- = 82.120

D5 : Combinación persistente a tiempo infinito.

Rz+ = 341.427   Rz- = 82.120

D6 : Combinación persistente. Envolvente global.  
Rz+ = 341.427   Rz- = 61.306

Apoyo final :

PP : Peso propio de la viga.  
Rz+ = 61.305   Rz- = 61.305

PL : Peso de la losa.  
Rz+ = 60.047   Rz- = 60.047

SE : Superestructura.  
Rz+ = -12.025   Rz- = -28.925

TRA : Tráfico en aceras.  
Rz+ = 0.000   Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 140.383   Rz- = 0.000

GT : Gradiente térmico.  
Rz+ = 0.122   Rz- = -0.122

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000   Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000   Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.305   Rz- = 61.305

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 121.352   Rz- = 121.352

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 109.327   Rz- = 92.427

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 249.783   Rz- = 92.305

C5 : Combinación característica a tiempo infinito.  
Rz+ = 249.783   Rz- = 92.305

C6 : Combinación característica. Envolvente global.  
Rz+ = 249.783   Rz- = 61.305

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 193.394   Rz- = 92.354

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 193.394   Rz- = 92.354

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 193.394   Rz- = 61.305

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 109.388   Rz- = 92.366

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 109.388   Rz- = 92.366

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 121.352   Rz- = 61.305

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762   Rz- = 61.305

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 163.826 Rz- = 121.352

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 151.801 Rz- = 82.303

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 341.427 Rz- = 82.120

D5 : Combinación persistente a tiempo infinito.  
Rz+ = 341.427 Rz- = 82.120

D6 : Combinación persistente. Envolvente global.  
Rz+ = 341.427 Rz- = 61.305

Viga 3  
-----

Apoyo inicial :

PP : Peso propio de la viga.  
Rz+ = 61.306 Rz- = 61.306

PL : Peso de la losa.  
Rz+ = 56.711 Rz- = 56.711

SE : Superestructura.  
Rz+ = 97.935 Rz- = 94.765

TRA : Tráfico en aceras.  
Rz+ = 0.000 Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 45.127 Rz- = -9.828

GT : Gradiente térmico.  
Rz+ = 0.061 Rz- = -0.061

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000 Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000 Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.306 Rz- = 61.306

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 118.016 Rz- = 118.016

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 215.951 Rz- = 212.782

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 261.115 Rz- = 202.917

C5 : Combinación característica a tiempo infinito.  
Rz+ = 261.115 Rz- = 202.917

C6 : Combinación característica. Envolvente global.  
Rz+ = 261.115 Rz- = 61.306

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 242.404 Rz- = 207.037

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 242.404 Rz- = 207.037

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 242.404   Rz- = 61.306

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 215.982   Rz- = 212.751

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 215.982   Rz- = 212.751

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 215.982   Rz- = 61.306

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762   Rz- = 61.306

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 159.322   Rz- = 118.016

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 291.534   Rz- = 212.782

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 352.511   Rz- = 199.459

D5 : Combinación persistente a tiempo infinito.  
Rz+ = 352.511   Rz- = 199.459

D6 : Combinación persistente. Envolvente global.  
Rz+ = 352.511   Rz- = 61.306

Apoyo final :

PP : Peso propio de la viga.  
Rz+ = 61.305   Rz- = 61.305

PL : Peso de la losa.  
Rz+ = 56.711   Rz- = 56.711

SE : Superestructura.  
Rz+ = 97.935   Rz- = 94.765

TRA : Tráfico en aceras.  
Rz+ = 0.000   Rz- = 0.000

TRP : Tráfico en plataforma.  
Rz+ = 45.127   Rz- = -9.828

GT : Gradiente térmico.  
Rz+ = 0.061   Rz- = -0.061

DA : Descenso de apoyo instantáneo.  
Rz+ = 0.000   Rz- = 0.000

DP : Incremento de descenso de apoyo.  
Rz+ = 0.000   Rz- = 0.000

C1 : Combinación característica tras transferir el pretensado.  
Rz+ = 61.305   Rz- = 61.305

C2 : Combinación característica tras hormigonar la losa.  
Rz+ = 118.016   Rz- = 118.016

C3 : Combinación característica tras disponer la superestructura.  
Rz+ = 215.951   Rz- = 212.782

C4 : Combinación característica tras abrir al tráfico.  
Rz+ = 261.115   Rz- = 202.917

C5 : Combinación característica a tiempo infinito.

Rz+ = 261.115   Rz- = 202.917

C6 : Combinación característica. Envolvente global.  
Rz+ = 261.115   Rz- = 61.305

F4 : Combinación frecuente tras abrir al tráfico.  
Rz+ = 242.404   Rz- = 207.037

F5 : Combinación frecuente a tiempo infinito.  
Rz+ = 242.404   Rz- = 207.037

F6 : Combinación frecuente. Envolvente global.  
Rz+ = 242.404   Rz- = 61.305

P4 : Combinación casi permanente tras abrir al tráfico.  
Rz+ = 215.982   Rz- = 212.751

P5 : Combinación casi permanente a tiempo infinito.  
Rz+ = 215.982   Rz- = 212.751

P6 : Combinación casi permanente. Envolvente global.  
Rz+ = 215.982   Rz- = 61.305

D1 : Combinación persistente tras transferir el pretensado.  
Rz+ = 82.762   Rz- = 61.305

D2 : Combinación persistente tras hormigonar la losa.  
Rz+ = 159.322   Rz- = 118.016

D3 : Combinación persistente tras disponer la superestructura.  
Rz+ = 291.534   Rz- = 212.782

D4 : Combinación persistente tras abrir al tráfico.  
Rz+ = 352.511   Rz- = 199.459

D5 : Combinación persistente a tiempo infinito.  
Rz+ = 352.511   Rz- = 199.459

D6 : Combinación persistente. Envolvente global.  
Rz+ = 352.511   Rz- = 61.305

CALCULO DE LA LOSA  
=====

Listado de esfuerzos locales. Vano 1  
=====

El presente listado define la envolvente de momentos flectores en la losa, pero no incluye el valor de la envolvente de los esfuerzos de cortante.

El presente cálculo NO incluye los esfuerzos obtenidos por paseo de las cargas puntuales del carro, sobrecarga de tráfico o acción de la superestructura en el voladizo de la losa existente junto a las vigas extremas del tablero.

Los esfuerzos siguientes se refieren al cálculo de una banda de losa entre 2 vigas consecutivas sometida a la acción de las cargas puntuales del carro.

| Barra | Nodo | Mu+   | Mu-    | Mk+   | Mk-    | Md+   | Md-    |
|-------|------|-------|--------|-------|--------|-------|--------|
| 1     | 22   | 0.042 | -1.182 | 0.042 | -1.182 | 0.057 | -1.596 |
|       | 23   | 0.382 | -0.024 | 0.382 | -0.024 | 0.516 | -0.033 |
| 2     | 23   | 0.014 | -0.162 | 0.014 | -0.162 | 0.018 | -0.218 |
|       | 24   | 0.061 | -0.018 | 0.061 | -0.018 | 0.082 | -0.024 |
| 3     | 24   | 0.015 | -0.016 | 0.015 | -0.016 | 0.020 | -0.022 |
|       | 25   | 0.019 | -0.019 | 0.019 | -0.019 | 0.026 | -0.025 |
| 4     | 25   | 0.017 | -0.017 | 0.017 | -0.017 | 0.023 | -0.023 |
|       | 26   | 0.020 | -0.018 | 0.020 | -0.018 | 0.027 | -0.024 |
| 5     | 26   | 0.019 | -0.016 | 0.019 | -0.016 | 0.025 | -0.022 |

|    |    |       |        |       |        |       |        |
|----|----|-------|--------|-------|--------|-------|--------|
| 6  | 27 | 0.020 | -0.018 | 0.020 | -0.018 | 0.027 | -0.024 |
|    | 27 | 0.019 | -0.015 | 0.019 | -0.015 | 0.025 | -0.021 |
|    | 28 | 0.020 | -0.017 | 0.020 | -0.017 | 0.027 | -0.023 |
| 7  | 28 | 0.019 | -0.015 | 0.019 | -0.015 | 0.025 | -0.020 |
|    | 29 | 0.020 | -0.016 | 0.020 | -0.016 | 0.027 | -0.022 |
| 8  | 29 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
|    | 30 | 0.019 | -0.016 | 0.019 | -0.016 | 0.026 | -0.022 |
| 9  | 30 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
|    | 31 | 0.019 | -0.015 | 0.019 | -0.015 | 0.026 | -0.021 |
| 10 | 31 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
|    | 32 | 0.019 | -0.015 | 0.019 | -0.015 | 0.026 | -0.020 |
| 11 | 32 | 0.019 | -0.015 | 0.019 | -0.015 | 0.026 | -0.020 |
|    | 33 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
| 12 | 33 | 0.019 | -0.015 | 0.019 | -0.015 | 0.026 | -0.021 |
|    | 34 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
| 13 | 34 | 0.019 | -0.016 | 0.019 | -0.016 | 0.026 | -0.022 |
|    | 35 | 0.019 | -0.014 | 0.019 | -0.014 | 0.025 | -0.019 |
| 14 | 35 | 0.020 | -0.016 | 0.020 | -0.016 | 0.027 | -0.022 |
|    | 36 | 0.019 | -0.015 | 0.019 | -0.015 | 0.025 | -0.020 |
| 15 | 36 | 0.020 | -0.017 | 0.020 | -0.017 | 0.027 | -0.023 |
|    | 37 | 0.019 | -0.015 | 0.019 | -0.015 | 0.025 | -0.021 |
| 16 | 37 | 0.020 | -0.018 | 0.020 | -0.018 | 0.027 | -0.024 |
|    | 38 | 0.019 | -0.016 | 0.019 | -0.016 | 0.025 | -0.022 |
| 17 | 38 | 0.020 | -0.018 | 0.020 | -0.018 | 0.027 | -0.024 |
|    | 39 | 0.017 | -0.017 | 0.017 | -0.017 | 0.023 | -0.023 |
| 18 | 39 | 0.019 | -0.019 | 0.019 | -0.019 | 0.026 | -0.025 |
|    | 40 | 0.015 | -0.016 | 0.015 | -0.016 | 0.020 | -0.022 |
| 19 | 40 | 0.061 | -0.018 | 0.061 | -0.018 | 0.082 | -0.024 |
|    | 41 | 0.014 | -0.162 | 0.014 | -0.162 | 0.018 | -0.218 |
| 20 | 41 | 0.382 | -0.024 | 0.382 | -0.024 | 0.516 | -0.033 |
|    | 42 | 0.042 | -1.182 | 0.042 | -1.182 | 0.057 | -1.596 |
| 21 | 43 | 0.018 | -1.183 | 0.018 | -1.183 | 0.025 | -1.597 |
|    | 44 | 0.166 | -1.566 | 0.166 | -1.566 | 0.224 | -2.114 |
| 22 | 44 | 0.081 | -0.396 | 0.081 | -0.396 | 0.109 | -0.534 |
|    | 45 | 0.155 | -0.051 | 0.155 | -0.051 | 0.209 | -0.069 |
| 23 | 45 | 0.100 | -0.153 | 0.100 | -0.153 | 0.135 | -0.207 |
|    | 46 | 0.169 | -0.074 | 0.169 | -0.074 | 0.228 | -0.100 |
| 24 | 46 | 0.121 | -0.157 | 0.121 | -0.157 | 0.164 | -0.212 |
|    | 47 | 0.176 | -0.078 | 0.176 | -0.078 | 0.238 | -0.106 |
| 25 | 47 | 0.135 | -0.152 | 0.135 | -0.152 | 0.183 | -0.205 |
|    | 48 | 0.173 | -0.093 | 0.173 | -0.093 | 0.233 | -0.126 |
| 26 | 48 | 0.139 | -0.147 | 0.139 | -0.147 | 0.187 | -0.198 |
|    | 49 | 0.170 | -0.098 | 0.170 | -0.098 | 0.229 | -0.133 |
| 27 | 49 | 0.142 | -0.141 | 0.142 | -0.141 | 0.192 | -0.191 |
|    | 50 | 0.166 | -0.104 | 0.166 | -0.104 | 0.224 | -0.140 |
| 28 | 50 | 0.146 | -0.136 | 0.146 | -0.136 | 0.197 | -0.183 |
|    | 51 | 0.163 | -0.109 | 0.163 | -0.109 | 0.220 | -0.147 |
| 29 | 51 | 0.149 | -0.130 | 0.149 | -0.130 | 0.201 | -0.176 |
|    | 52 | 0.159 | -0.114 | 0.159 | -0.114 | 0.215 | -0.154 |
| 30 | 52 | 0.152 | -0.125 | 0.152 | -0.125 | 0.206 | -0.169 |
|    | 53 | 0.156 | -0.120 | 0.156 | -0.120 | 0.210 | -0.162 |
| 31 | 53 | 0.156 | -0.120 | 0.156 | -0.120 | 0.210 | -0.162 |
|    | 54 | 0.152 | -0.125 | 0.152 | -0.125 | 0.206 | -0.169 |
| 32 | 54 | 0.159 | -0.114 | 0.159 | -0.114 | 0.215 | -0.154 |
|    | 55 | 0.149 | -0.130 | 0.149 | -0.130 | 0.201 | -0.176 |
| 33 | 55 | 0.163 | -0.109 | 0.163 | -0.109 | 0.220 | -0.147 |
|    | 56 | 0.146 | -0.136 | 0.146 | -0.136 | 0.197 | -0.183 |
| 34 | 56 | 0.166 | -0.104 | 0.166 | -0.104 | 0.224 | -0.140 |
|    | 57 | 0.142 | -0.141 | 0.142 | -0.141 | 0.192 | -0.191 |
| 35 | 57 | 0.170 | -0.098 | 0.170 | -0.098 | 0.229 | -0.133 |
|    | 58 | 0.139 | -0.147 | 0.139 | -0.147 | 0.187 | -0.198 |
| 36 | 58 | 0.173 | -0.093 | 0.173 | -0.093 | 0.233 | -0.126 |
|    | 59 | 0.135 | -0.152 | 0.135 | -0.152 | 0.183 | -0.205 |
| 37 | 59 | 0.176 | -0.078 | 0.176 | -0.078 | 0.238 | -0.106 |
|    | 60 | 0.121 | -0.157 | 0.121 | -0.157 | 0.164 | -0.212 |
| 38 | 60 | 0.169 | -0.074 | 0.169 | -0.074 | 0.228 | -0.100 |
|    | 61 | 0.100 | -0.153 | 0.100 | -0.153 | 0.135 | -0.207 |
| 39 | 61 | 0.155 | -0.051 | 0.155 | -0.051 | 0.209 | -0.069 |
|    | 62 | 0.081 | -0.396 | 0.081 | -0.396 | 0.109 | -0.534 |

|    |    |       |        |       |        |       |        |
|----|----|-------|--------|-------|--------|-------|--------|
| 40 | 62 | 0.166 | -1.566 | 0.166 | -1.566 | 0.224 | -2.114 |
|    | 63 | 0.018 | -1.182 | 0.018 | -1.182 | 0.025 | -1.596 |
| 41 | 64 | 0.327 | -0.225 | 0.327 | -0.225 | 0.441 | -0.303 |
|    | 65 | 0.325 | -3.230 | 0.325 | -3.230 | 0.439 | -4.360 |
| 42 | 65 | 0.149 | -0.533 | 0.149 | -0.533 | 0.201 | -0.719 |
|    | 66 | 0.308 | -0.079 | 0.308 | -0.079 | 0.416 | -0.107 |
| 43 | 66 | 0.188 | -0.310 | 0.188 | -0.310 | 0.254 | -0.418 |
|    | 67 | 0.334 | -0.157 | 0.334 | -0.157 | 0.451 | -0.212 |
| 44 | 67 | 0.231 | -0.318 | 0.231 | -0.318 | 0.311 | -0.429 |
|    | 68 | 0.347 | -0.162 | 0.347 | -0.162 | 0.468 | -0.219 |
| 45 | 68 | 0.258 | -0.307 | 0.258 | -0.307 | 0.348 | -0.414 |
|    | 69 | 0.339 | -0.191 | 0.339 | -0.191 | 0.458 | -0.258 |
| 46 | 69 | 0.265 | -0.296 | 0.265 | -0.296 | 0.358 | -0.400 |
|    | 70 | 0.332 | -0.201 | 0.332 | -0.201 | 0.448 | -0.272 |
| 47 | 70 | 0.273 | -0.286 | 0.273 | -0.286 | 0.368 | -0.386 |
|    | 71 | 0.325 | -0.212 | 0.325 | -0.212 | 0.438 | -0.286 |
| 48 | 71 | 0.280 | -0.275 | 0.280 | -0.275 | 0.378 | -0.372 |
|    | 72 | 0.317 | -0.223 | 0.317 | -0.223 | 0.428 | -0.301 |
| 49 | 72 | 0.288 | -0.265 | 0.288 | -0.265 | 0.388 | -0.357 |
|    | 73 | 0.310 | -0.233 | 0.310 | -0.233 | 0.418 | -0.315 |
| 50 | 73 | 0.295 | -0.254 | 0.295 | -0.254 | 0.398 | -0.343 |
|    | 74 | 0.302 | -0.244 | 0.302 | -0.244 | 0.408 | -0.329 |
| 51 | 74 | 0.302 | -0.244 | 0.302 | -0.244 | 0.408 | -0.329 |
|    | 75 | 0.295 | -0.254 | 0.295 | -0.254 | 0.398 | -0.343 |
| 52 | 75 | 0.310 | -0.233 | 0.310 | -0.233 | 0.418 | -0.315 |
|    | 76 | 0.288 | -0.265 | 0.288 | -0.265 | 0.388 | -0.357 |
| 53 | 76 | 0.317 | -0.223 | 0.317 | -0.223 | 0.428 | -0.301 |
|    | 77 | 0.280 | -0.275 | 0.280 | -0.275 | 0.378 | -0.372 |
| 54 | 77 | 0.325 | -0.212 | 0.325 | -0.212 | 0.438 | -0.286 |
|    | 78 | 0.273 | -0.286 | 0.273 | -0.286 | 0.368 | -0.386 |
| 55 | 78 | 0.332 | -0.201 | 0.332 | -0.201 | 0.448 | -0.272 |
|    | 79 | 0.265 | -0.296 | 0.265 | -0.296 | 0.358 | -0.400 |
| 56 | 79 | 0.339 | -0.191 | 0.339 | -0.191 | 0.458 | -0.258 |
|    | 80 | 0.258 | -0.307 | 0.258 | -0.307 | 0.348 | -0.414 |
| 57 | 80 | 0.347 | -0.162 | 0.347 | -0.162 | 0.468 | -0.219 |
|    | 81 | 0.231 | -0.318 | 0.231 | -0.318 | 0.311 | -0.429 |
| 58 | 81 | 0.334 | -0.157 | 0.334 | -0.157 | 0.451 | -0.212 |
|    | 82 | 0.188 | -0.310 | 0.188 | -0.310 | 0.254 | -0.418 |
| 59 | 82 | 0.308 | -0.079 | 0.308 | -0.079 | 0.416 | -0.107 |
|    | 83 | 0.149 | -0.533 | 0.149 | -0.533 | 0.201 | -0.719 |
| 60 | 83 | 0.325 | -3.230 | 0.325 | -3.230 | 0.439 | -4.360 |
|    | 84 | 0.327 | -0.225 | 0.327 | -0.225 | 0.442 | -0.303 |
| 61 | 85 | 0.358 | -0.244 | 0.358 | -0.244 | 0.484 | -0.330 |
|    | 86 | 0.397 | -3.749 | 0.397 | -3.749 | 0.535 | -5.062 |
| 62 | 86 | 0.183 | -0.567 | 0.183 | -0.567 | 0.248 | -0.765 |
|    | 87 | 0.389 | -0.100 | 0.389 | -0.100 | 0.526 | -0.135 |
| 63 | 87 | 0.233 | -0.392 | 0.233 | -0.392 | 0.315 | -0.529 |
|    | 88 | 0.422 | -0.200 | 0.422 | -0.200 | 0.570 | -0.270 |
| 64 | 88 | 0.286 | -0.402 | 0.286 | -0.402 | 0.386 | -0.542 |
|    | 89 | 0.438 | -0.205 | 0.438 | -0.205 | 0.591 | -0.277 |
| 65 | 89 | 0.321 | -0.388 | 0.321 | -0.388 | 0.433 | -0.524 |
|    | 90 | 0.428 | -0.242 | 0.428 | -0.242 | 0.578 | -0.326 |
| 66 | 90 | 0.331 | -0.375 | 0.331 | -0.375 | 0.446 | -0.506 |
|    | 91 | 0.418 | -0.255 | 0.418 | -0.255 | 0.565 | -0.344 |
| 67 | 91 | 0.340 | -0.362 | 0.340 | -0.362 | 0.460 | -0.488 |
|    | 92 | 0.408 | -0.268 | 0.408 | -0.268 | 0.551 | -0.362 |
| 68 | 92 | 0.350 | -0.348 | 0.350 | -0.348 | 0.473 | -0.470 |
|    | 93 | 0.399 | -0.282 | 0.399 | -0.282 | 0.538 | -0.380 |
| 69 | 93 | 0.360 | -0.335 | 0.360 | -0.335 | 0.486 | -0.452 |
|    | 94 | 0.389 | -0.295 | 0.389 | -0.295 | 0.525 | -0.398 |
| 70 | 94 | 0.370 | -0.322 | 0.370 | -0.322 | 0.499 | -0.434 |
|    | 95 | 0.379 | -0.308 | 0.379 | -0.308 | 0.512 | -0.416 |
| 71 | 95 | 0.379 | -0.308 | 0.379 | -0.308 | 0.512 | -0.416 |
|    | 96 | 0.370 | -0.322 | 0.370 | -0.322 | 0.499 | -0.434 |
| 72 | 96 | 0.389 | -0.295 | 0.389 | -0.295 | 0.525 | -0.398 |
|    | 97 | 0.360 | -0.335 | 0.360 | -0.335 | 0.486 | -0.452 |
| 73 | 97 | 0.399 | -0.282 | 0.399 | -0.282 | 0.538 | -0.380 |
|    | 98 | 0.350 | -0.348 | 0.350 | -0.348 | 0.473 | -0.470 |
| 74 | 98 | 0.408 | -0.268 | 0.408 | -0.268 | 0.551 | -0.362 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
|     | 99  | 0.340 | -0.362 | 0.340 | -0.362 | 0.460 | -0.488 |
| 75  | 99  | 0.418 | -0.255 | 0.418 | -0.255 | 0.565 | -0.344 |
|     | 100 | 0.331 | -0.375 | 0.331 | -0.375 | 0.446 | -0.506 |
| 76  | 100 | 0.428 | -0.242 | 0.428 | -0.242 | 0.578 | -0.326 |
|     | 101 | 0.321 | -0.388 | 0.321 | -0.388 | 0.433 | -0.524 |
| 77  | 101 | 0.438 | -0.205 | 0.438 | -0.205 | 0.591 | -0.277 |
|     | 102 | 0.286 | -0.402 | 0.286 | -0.402 | 0.386 | -0.542 |
| 78  | 102 | 0.422 | -0.200 | 0.422 | -0.200 | 0.570 | -0.270 |
|     | 103 | 0.233 | -0.392 | 0.233 | -0.392 | 0.315 | -0.529 |
| 79  | 103 | 0.389 | -0.100 | 0.389 | -0.100 | 0.526 | -0.135 |
|     | 104 | 0.183 | -0.567 | 0.183 | -0.567 | 0.248 | -0.765 |
| 80  | 104 | 0.397 | -3.749 | 0.397 | -3.749 | 0.535 | -5.062 |
|     | 105 | 0.359 | -0.244 | 0.359 | -0.244 | 0.484 | -0.329 |
| 81  | 106 | 0.327 | -0.225 | 0.327 | -0.225 | 0.441 | -0.303 |
|     | 107 | 0.325 | -3.230 | 0.325 | -3.230 | 0.439 | -4.360 |
| 82  | 107 | 0.149 | -0.533 | 0.149 | -0.533 | 0.201 | -0.719 |
|     | 108 | 0.308 | -0.079 | 0.308 | -0.079 | 0.416 | -0.107 |
| 83  | 108 | 0.188 | -0.310 | 0.188 | -0.310 | 0.254 | -0.418 |
|     | 109 | 0.334 | -0.157 | 0.334 | -0.157 | 0.451 | -0.212 |
| 84  | 109 | 0.231 | -0.318 | 0.231 | -0.318 | 0.311 | -0.429 |
|     | 110 | 0.347 | -0.162 | 0.347 | -0.162 | 0.468 | -0.219 |
| 85  | 110 | 0.258 | -0.307 | 0.258 | -0.307 | 0.348 | -0.414 |
|     | 111 | 0.339 | -0.191 | 0.339 | -0.191 | 0.458 | -0.258 |
| 86  | 111 | 0.265 | -0.296 | 0.265 | -0.296 | 0.358 | -0.400 |
|     | 112 | 0.332 | -0.201 | 0.332 | -0.201 | 0.448 | -0.272 |
| 87  | 112 | 0.273 | -0.286 | 0.273 | -0.286 | 0.368 | -0.386 |
|     | 113 | 0.325 | -0.212 | 0.325 | -0.212 | 0.438 | -0.286 |
| 88  | 113 | 0.280 | -0.275 | 0.280 | -0.275 | 0.378 | -0.372 |
|     | 114 | 0.317 | -0.223 | 0.317 | -0.223 | 0.428 | -0.301 |
| 89  | 114 | 0.288 | -0.265 | 0.288 | -0.265 | 0.388 | -0.357 |
|     | 115 | 0.310 | -0.233 | 0.310 | -0.233 | 0.418 | -0.315 |
| 90  | 115 | 0.295 | -0.254 | 0.295 | -0.254 | 0.398 | -0.343 |
|     | 116 | 0.302 | -0.244 | 0.302 | -0.244 | 0.408 | -0.329 |
| 91  | 116 | 0.302 | -0.244 | 0.302 | -0.244 | 0.408 | -0.329 |
|     | 117 | 0.295 | -0.254 | 0.295 | -0.254 | 0.398 | -0.343 |
| 92  | 117 | 0.310 | -0.233 | 0.310 | -0.233 | 0.418 | -0.315 |
|     | 118 | 0.288 | -0.265 | 0.288 | -0.265 | 0.388 | -0.357 |
| 93  | 118 | 0.317 | -0.223 | 0.317 | -0.223 | 0.428 | -0.301 |
|     | 119 | 0.280 | -0.275 | 0.280 | -0.275 | 0.378 | -0.372 |
| 94  | 119 | 0.325 | -0.212 | 0.325 | -0.212 | 0.438 | -0.286 |
|     | 120 | 0.273 | -0.286 | 0.273 | -0.286 | 0.368 | -0.386 |
| 95  | 120 | 0.332 | -0.201 | 0.332 | -0.201 | 0.448 | -0.272 |
|     | 121 | 0.265 | -0.296 | 0.265 | -0.296 | 0.358 | -0.400 |
| 96  | 121 | 0.339 | -0.191 | 0.339 | -0.191 | 0.458 | -0.258 |
|     | 122 | 0.258 | -0.307 | 0.258 | -0.307 | 0.348 | -0.414 |
| 97  | 122 | 0.347 | -0.162 | 0.347 | -0.162 | 0.468 | -0.219 |
|     | 123 | 0.231 | -0.318 | 0.231 | -0.318 | 0.311 | -0.429 |
| 98  | 123 | 0.334 | -0.157 | 0.334 | -0.157 | 0.451 | -0.212 |
|     | 124 | 0.188 | -0.310 | 0.188 | -0.310 | 0.254 | -0.418 |
| 99  | 124 | 0.308 | -0.079 | 0.308 | -0.079 | 0.416 | -0.107 |
|     | 125 | 0.149 | -0.533 | 0.149 | -0.533 | 0.201 | -0.719 |
| 100 | 125 | 0.325 | -3.230 | 0.325 | -3.230 | 0.439 | -4.360 |
|     | 126 | 0.327 | -0.225 | 0.327 | -0.225 | 0.442 | -0.303 |
| 101 | 127 | 0.018 | -1.196 | 0.018 | -1.196 | 0.025 | -1.615 |
|     | 128 | 0.166 | -1.566 | 0.166 | -1.566 | 0.224 | -2.114 |
| 102 | 128 | 0.081 | -0.396 | 0.081 | -0.396 | 0.109 | -0.534 |
|     | 129 | 0.155 | -0.051 | 0.155 | -0.051 | 0.209 | -0.069 |
| 103 | 129 | 0.100 | -0.153 | 0.100 | -0.153 | 0.135 | -0.207 |
|     | 130 | 0.169 | -0.074 | 0.169 | -0.074 | 0.228 | -0.100 |
| 104 | 130 | 0.121 | -0.157 | 0.121 | -0.157 | 0.164 | -0.212 |
|     | 131 | 0.176 | -0.078 | 0.176 | -0.078 | 0.238 | -0.106 |
| 105 | 131 | 0.135 | -0.152 | 0.135 | -0.152 | 0.183 | -0.205 |
|     | 132 | 0.173 | -0.093 | 0.173 | -0.093 | 0.233 | -0.126 |
| 106 | 132 | 0.139 | -0.147 | 0.139 | -0.147 | 0.187 | -0.198 |
|     | 133 | 0.170 | -0.098 | 0.170 | -0.098 | 0.229 | -0.133 |
| 107 | 133 | 0.142 | -0.141 | 0.142 | -0.141 | 0.192 | -0.191 |
|     | 134 | 0.166 | -0.104 | 0.166 | -0.104 | 0.224 | -0.140 |
| 108 | 134 | 0.146 | -0.136 | 0.146 | -0.136 | 0.197 | -0.183 |
|     | 135 | 0.163 | -0.109 | 0.163 | -0.109 | 0.220 | -0.147 |

|     |     |       |         |       |         |       |         |
|-----|-----|-------|---------|-------|---------|-------|---------|
| 109 | 135 | 0.149 | -0.130  | 0.149 | -0.130  | 0.201 | -0.176  |
|     | 136 | 0.159 | -0.114  | 0.159 | -0.114  | 0.215 | -0.154  |
| 110 | 136 | 0.152 | -0.125  | 0.152 | -0.125  | 0.206 | -0.169  |
|     | 137 | 0.156 | -0.120  | 0.156 | -0.120  | 0.210 | -0.162  |
| 111 | 137 | 0.156 | -0.120  | 0.156 | -0.120  | 0.210 | -0.162  |
|     | 138 | 0.152 | -0.125  | 0.152 | -0.125  | 0.206 | -0.169  |
| 112 | 138 | 0.159 | -0.114  | 0.159 | -0.114  | 0.215 | -0.154  |
|     | 139 | 0.149 | -0.130  | 0.149 | -0.130  | 0.201 | -0.176  |
| 113 | 139 | 0.163 | -0.109  | 0.163 | -0.109  | 0.220 | -0.147  |
|     | 140 | 0.146 | -0.136  | 0.146 | -0.136  | 0.197 | -0.183  |
| 114 | 140 | 0.166 | -0.104  | 0.166 | -0.104  | 0.224 | -0.140  |
|     | 141 | 0.142 | -0.141  | 0.142 | -0.141  | 0.192 | -0.191  |
| 115 | 141 | 0.170 | -0.098  | 0.170 | -0.098  | 0.229 | -0.133  |
|     | 142 | 0.139 | -0.147  | 0.139 | -0.147  | 0.187 | -0.198  |
| 116 | 142 | 0.173 | -0.093  | 0.173 | -0.093  | 0.233 | -0.126  |
|     | 143 | 0.135 | -0.152  | 0.135 | -0.152  | 0.183 | -0.205  |
| 117 | 143 | 0.176 | -0.078  | 0.176 | -0.078  | 0.238 | -0.106  |
|     | 144 | 0.121 | -0.157  | 0.121 | -0.157  | 0.164 | -0.212  |
| 118 | 144 | 0.169 | -0.074  | 0.169 | -0.074  | 0.228 | -0.100  |
|     | 145 | 0.100 | -0.153  | 0.100 | -0.153  | 0.135 | -0.207  |
| 119 | 145 | 0.155 | -0.051  | 0.155 | -0.051  | 0.209 | -0.069  |
|     | 146 | 0.081 | -0.396  | 0.081 | -0.396  | 0.109 | -0.534  |
| 120 | 146 | 0.166 | -1.566  | 0.166 | -1.566  | 0.224 | -2.114  |
|     | 147 | 0.018 | -1.196  | 0.018 | -1.196  | 0.025 | -1.614  |
| 121 | 148 | 0.042 | -1.182  | 0.042 | -1.182  | 0.057 | -1.596  |
|     | 149 | 0.382 | -0.024  | 0.382 | -0.024  | 0.516 | -0.033  |
| 122 | 149 | 0.014 | -0.162  | 0.014 | -0.162  | 0.018 | -0.218  |
|     | 150 | 0.061 | -0.018  | 0.061 | -0.018  | 0.082 | -0.024  |
| 123 | 150 | 0.015 | -0.016  | 0.015 | -0.016  | 0.020 | -0.022  |
|     | 151 | 0.019 | -0.019  | 0.019 | -0.019  | 0.026 | -0.025  |
| 124 | 151 | 0.017 | -0.017  | 0.017 | -0.017  | 0.023 | -0.023  |
|     | 152 | 0.020 | -0.018  | 0.020 | -0.018  | 0.027 | -0.024  |
| 125 | 152 | 0.019 | -0.016  | 0.019 | -0.016  | 0.025 | -0.022  |
|     | 153 | 0.020 | -0.018  | 0.020 | -0.018  | 0.027 | -0.024  |
| 126 | 153 | 0.019 | -0.015  | 0.019 | -0.015  | 0.025 | -0.021  |
|     | 154 | 0.020 | -0.017  | 0.020 | -0.017  | 0.027 | -0.023  |
| 127 | 154 | 0.019 | -0.015  | 0.019 | -0.015  | 0.025 | -0.020  |
|     | 155 | 0.020 | -0.016  | 0.020 | -0.016  | 0.027 | -0.022  |
| 128 | 155 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
|     | 156 | 0.019 | -0.016  | 0.019 | -0.016  | 0.026 | -0.022  |
| 129 | 156 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
|     | 157 | 0.019 | -0.015  | 0.019 | -0.015  | 0.026 | -0.021  |
| 130 | 157 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
|     | 158 | 0.019 | -0.015  | 0.019 | -0.015  | 0.026 | -0.020  |
| 131 | 158 | 0.019 | -0.015  | 0.019 | -0.015  | 0.026 | -0.020  |
|     | 159 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
| 132 | 159 | 0.019 | -0.015  | 0.019 | -0.015  | 0.026 | -0.021  |
|     | 160 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
| 133 | 160 | 0.019 | -0.016  | 0.019 | -0.016  | 0.026 | -0.022  |
|     | 161 | 0.019 | -0.014  | 0.019 | -0.014  | 0.025 | -0.019  |
| 134 | 161 | 0.020 | -0.016  | 0.020 | -0.016  | 0.027 | -0.022  |
|     | 162 | 0.019 | -0.015  | 0.019 | -0.015  | 0.025 | -0.020  |
| 135 | 162 | 0.020 | -0.017  | 0.020 | -0.017  | 0.027 | -0.023  |
|     | 163 | 0.019 | -0.015  | 0.019 | -0.015  | 0.025 | -0.021  |
| 136 | 163 | 0.020 | -0.018  | 0.020 | -0.018  | 0.027 | -0.024  |
|     | 164 | 0.019 | -0.016  | 0.019 | -0.016  | 0.025 | -0.022  |
| 137 | 164 | 0.020 | -0.018  | 0.020 | -0.018  | 0.027 | -0.024  |
|     | 165 | 0.017 | -0.017  | 0.017 | -0.017  | 0.023 | -0.023  |
| 138 | 165 | 0.019 | -0.019  | 0.019 | -0.019  | 0.026 | -0.025  |
|     | 166 | 0.015 | -0.016  | 0.015 | -0.016  | 0.020 | -0.022  |
| 139 | 166 | 0.061 | -0.018  | 0.061 | -0.018  | 0.082 | -0.024  |
|     | 167 | 0.014 | -0.162  | 0.014 | -0.162  | 0.018 | -0.218  |
| 140 | 167 | 0.382 | -0.024  | 0.382 | -0.024  | 0.516 | -0.033  |
|     | 168 | 0.042 | -1.182  | 0.042 | -1.182  | 0.057 | -1.596  |
| 141 | 1   | 0.082 | -22.799 | 0.082 | -22.799 | 0.111 | -30.779 |
|     | 22  | 0.120 | -11.922 | 0.120 | -11.922 | 0.162 | -16.095 |
| 142 | 2   | 0.006 | -2.736  | 0.006 | -2.736  | 0.008 | -3.694  |
|     | 23  | 0.023 | -1.967  | 0.023 | -1.967  | 0.032 | -2.656  |
| 143 | 3   | 0.005 | -2.637  | 0.005 | -2.637  | 0.007 | -3.560  |

|     |    |        |         |        |         |        |         |
|-----|----|--------|---------|--------|---------|--------|---------|
| 144 | 24 | 0.025  | -1.730  | 0.025  | -1.730  | 0.034  | -2.335  |
|     | 4  | 0.002  | -2.804  | 0.002  | -2.804  | 0.003  | -3.786  |
|     | 25 | 0.027  | -1.838  | 0.027  | -1.838  | 0.036  | -2.481  |
| 145 | 5  | 0.003  | -2.901  | 0.003  | -2.901  | 0.004  | -3.916  |
|     | 26 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 146 | 6  | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 27 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 147 | 7  | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 28 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 148 | 8  | 0.002  | -2.901  | 0.002  | -2.901  | 0.002  | -3.916  |
|     | 29 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 149 | 9  | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 30 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 150 | 10 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 31 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 151 | 11 | 0.001  | -2.901  | 0.001  | -2.901  | 0.001  | -3.916  |
|     | 32 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 152 | 12 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 33 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 153 | 13 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 34 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 154 | 14 | 0.002  | -2.901  | 0.002  | -2.901  | 0.002  | -3.916  |
|     | 35 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 155 | 15 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 36 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 156 | 16 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 37 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 157 | 17 | 0.003  | -2.901  | 0.003  | -2.901  | 0.004  | -3.916  |
|     | 38 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 158 | 18 | 0.002  | -2.804  | 0.002  | -2.804  | 0.003  | -3.786  |
|     | 39 | 0.027  | -1.838  | 0.027  | -1.838  | 0.036  | -2.481  |
| 159 | 19 | 0.005  | -2.637  | 0.005  | -2.637  | 0.007  | -3.560  |
|     | 40 | 0.025  | -1.730  | 0.025  | -1.730  | 0.034  | -2.335  |
| 160 | 20 | 0.006  | -2.736  | 0.006  | -2.736  | 0.008  | -3.694  |
|     | 41 | 0.023  | -1.967  | 0.023  | -1.967  | 0.032  | -2.656  |
| 161 | 21 | 0.082  | -22.799 | 0.082  | -22.799 | 0.111  | -30.779 |
|     | 42 | 0.120  | -11.922 | 0.120  | -11.922 | 0.162  | -16.095 |
| 162 | 22 | 0.061  | -15.031 | 0.061  | -15.031 | 0.082  | -20.292 |
|     | 43 | 13.119 | -1.001  | 13.119 | -1.001  | 17.710 | -1.352  |
| 163 | 23 | 0.022  | -1.783  | 0.022  | -1.783  | 0.030  | -2.407  |
|     | 44 | 1.007  | -0.492  | 1.007  | -0.492  | 1.359  | -0.664  |
| 164 | 24 | 0.024  | -1.754  | 0.024  | -1.754  | 0.032  | -2.367  |
|     | 45 | 1.082  | -0.335  | 1.082  | -0.335  | 1.460  | -0.452  |
| 165 | 25 | 0.025  | -1.865  | 0.025  | -1.865  | 0.034  | -2.517  |
|     | 46 | 1.153  | -0.355  | 1.153  | -0.355  | 1.557  | -0.479  |
| 166 | 26 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 47 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 167 | 27 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 48 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 168 | 28 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 49 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 169 | 29 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 50 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 170 | 30 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 51 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 171 | 31 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 52 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 172 | 32 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 53 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 173 | 33 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 54 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 174 | 34 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 55 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 175 | 35 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 56 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 176 | 36 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 57 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 177 | 37 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 58 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |

|     |    |        |         |        |         |        |         |
|-----|----|--------|---------|--------|---------|--------|---------|
| 178 | 38 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 59 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 179 | 39 | 0.025  | -1.864  | 0.025  | -1.864  | 0.034  | -2.517  |
|     | 60 | 1.153  | -0.355  | 1.153  | -0.355  | 1.557  | -0.479  |
| 180 | 40 | 0.024  | -1.754  | 0.024  | -1.754  | 0.032  | -2.367  |
|     | 61 | 1.082  | -0.335  | 1.082  | -0.335  | 1.460  | -0.452  |
| 181 | 41 | 0.022  | -1.783  | 0.022  | -1.783  | 0.030  | -2.407  |
|     | 62 | 1.007  | -0.492  | 1.007  | -0.492  | 1.359  | -0.664  |
| 182 | 42 | 0.061  | -15.031 | 0.061  | -15.031 | 0.082  | -20.292 |
|     | 63 | 13.118 | -1.001  | 13.118 | -1.001  | 17.710 | -1.352  |
| 183 | 43 | 10.472 | -4.770  | 10.472 | -4.770  | 14.137 | -6.440  |
|     | 64 | 15.073 | -0.046  | 15.073 | -0.046  | 20.348 | -0.062  |
| 184 | 44 | 0.987  | -0.340  | 0.987  | -0.340  | 1.333  | -0.460  |
|     | 65 | 1.615  | -0.003  | 1.615  | -0.003  | 2.180  | -0.004  |
| 185 | 45 | 1.059  | -0.368  | 1.059  | -0.368  | 1.430  | -0.497  |
|     | 66 | 1.720  | -0.011  | 1.720  | -0.011  | 2.321  | -0.015  |
| 186 | 46 | 1.128  | -0.393  | 1.128  | -0.393  | 1.523  | -0.530  |
|     | 67 | 1.830  | -0.002  | 1.830  | -0.002  | 2.470  | -0.002  |
| 187 | 47 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 68 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
| 188 | 48 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 69 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
| 189 | 49 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 70 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 190 | 50 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 71 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 191 | 51 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 72 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 192 | 52 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 73 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 193 | 53 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 74 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 194 | 54 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 75 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 195 | 55 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 76 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 196 | 56 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 77 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 197 | 57 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 78 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
| 198 | 58 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 79 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
| 199 | 59 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
|     | 80 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
| 200 | 60 | 1.128  | -0.393  | 1.128  | -0.393  | 1.523  | -0.530  |
|     | 81 | 1.830  | -0.002  | 1.830  | -0.002  | 2.470  | -0.002  |
| 201 | 61 | 1.059  | -0.368  | 1.059  | -0.368  | 1.430  | -0.497  |
|     | 82 | 1.720  | -0.011  | 1.720  | -0.011  | 2.321  | -0.015  |
| 202 | 62 | 0.987  | -0.340  | 0.987  | -0.340  | 1.333  | -0.460  |
|     | 83 | 1.615  | -0.003  | 1.615  | -0.003  | 2.180  | -0.004  |
| 203 | 63 | 10.472 | -4.770  | 10.472 | -4.770  | 14.137 | -6.439  |
|     | 84 | 15.073 | -0.046  | 15.073 | -0.046  | 20.348 | -0.062  |
| 204 | 64 | 12.181 | -0.746  | 12.181 | -0.746  | 16.444 | -1.007  |
|     | 85 | 18.014 | -0.035  | 18.014 | -0.035  | 24.318 | -0.047  |
| 205 | 65 | 1.795  | -0.002  | 1.795  | -0.002  | 2.423  | -0.002  |
|     | 86 | 2.290  | -0.003  | 2.290  | -0.003  | 3.091  | -0.004  |
| 206 | 66 | 1.695  | -0.001  | 1.695  | -0.001  | 2.289  | -0.002  |
|     | 87 | 2.240  | -0.002  | 2.240  | -0.002  | 3.024  | -0.003  |
| 207 | 67 | 1.802  | -0.000  | 1.802  | -0.000  | 2.433  | -0.000  |
|     | 88 | 2.382  | -0.001  | 2.382  | -0.001  | 3.215  | -0.001  |
| 208 | 68 | 1.864  | -0.001  | 1.864  | -0.001  | 2.516  | -0.001  |
|     | 89 | 2.463  | -0.001  | 2.463  | -0.001  | 3.326  | -0.002  |
| 209 | 69 | 1.864  | -0.001  | 1.864  | -0.001  | 2.516  | -0.001  |
|     | 90 | 2.463  | -0.001  | 2.463  | -0.001  | 3.326  | -0.002  |
| 210 | 70 | 1.864  | -0.001  | 1.864  | -0.001  | 2.516  | -0.001  |
|     | 91 | 2.463  | -0.001  | 2.463  | -0.001  | 3.326  | -0.001  |
| 211 | 71 | 1.864  | -0.000  | 1.864  | -0.000  | 2.516  | -0.001  |
|     | 92 | 2.463  | -0.001  | 2.463  | -0.001  | 3.326  | -0.001  |
| 212 | 72 | 1.864  | -0.000  | 1.864  | -0.000  | 2.516  | -0.001  |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
| 213 | 93  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 73  | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
|     | 94  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 214 | 74  | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.000 |
|     | 95  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 215 | 75  | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
|     | 96  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 216 | 76  | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
|     | 97  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 217 | 77  | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
|     | 98  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 218 | 78  | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
|     | 99  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
| 219 | 79  | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
|     | 100 | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
| 220 | 80  | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
|     | 101 | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
| 221 | 81  | 1.802  | -0.000 | 1.802  | -0.000 | 2.433  | -0.000 |
|     | 102 | 2.382  | -0.001 | 2.382  | -0.001 | 3.215  | -0.001 |
| 222 | 82  | 1.695  | -0.001 | 1.695  | -0.001 | 2.289  | -0.002 |
|     | 103 | 2.240  | -0.002 | 2.240  | -0.002 | 3.024  | -0.003 |
| 223 | 83  | 1.795  | -0.002 | 1.795  | -0.002 | 2.423  | -0.002 |
|     | 104 | 2.290  | -0.003 | 2.290  | -0.003 | 3.091  | -0.004 |
| 224 | 84  | 12.180 | -0.746 | 12.180 | -0.746 | 16.443 | -1.007 |
|     | 105 | 18.013 | -0.035 | 18.013 | -0.035 | 24.318 | -0.047 |
| 225 | 85  | 18.014 | -0.035 | 18.014 | -0.035 | 24.318 | -0.047 |
|     | 106 | 12.180 | -0.741 | 12.180 | -0.741 | 16.443 | -1.001 |
| 226 | 86  | 2.290  | -0.003 | 2.290  | -0.003 | 3.091  | -0.004 |
|     | 107 | 1.795  | -0.002 | 1.795  | -0.002 | 2.423  | -0.002 |
| 227 | 87  | 2.240  | -0.002 | 2.240  | -0.002 | 3.024  | -0.003 |
|     | 108 | 1.695  | -0.001 | 1.695  | -0.001 | 2.289  | -0.002 |
| 228 | 88  | 2.382  | -0.001 | 2.382  | -0.001 | 3.215  | -0.001 |
|     | 109 | 1.802  | -0.000 | 1.802  | -0.000 | 2.433  | -0.000 |
| 229 | 89  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
|     | 110 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 230 | 90  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
|     | 111 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 231 | 91  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 112 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 232 | 92  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 113 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 233 | 93  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 114 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 234 | 94  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 115 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 235 | 95  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 116 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.000 |
| 236 | 96  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 117 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 237 | 97  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 118 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 238 | 98  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 119 | 1.864  | -0.000 | 1.864  | -0.000 | 2.516  | -0.001 |
| 239 | 99  | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.001 |
|     | 120 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 240 | 100 | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
|     | 121 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 241 | 101 | 2.463  | -0.001 | 2.463  | -0.001 | 3.326  | -0.002 |
|     | 122 | 1.864  | -0.001 | 1.864  | -0.001 | 2.516  | -0.001 |
| 242 | 102 | 2.382  | -0.001 | 2.382  | -0.001 | 3.215  | -0.001 |
|     | 123 | 1.802  | -0.000 | 1.802  | -0.000 | 2.433  | -0.000 |
| 243 | 103 | 2.240  | -0.002 | 2.240  | -0.002 | 3.024  | -0.003 |
|     | 124 | 1.695  | -0.001 | 1.695  | -0.001 | 2.289  | -0.002 |
| 244 | 104 | 2.290  | -0.003 | 2.290  | -0.003 | 3.091  | -0.004 |
|     | 125 | 1.795  | -0.002 | 1.795  | -0.002 | 2.423  | -0.002 |
| 245 | 105 | 18.013 | -0.035 | 18.013 | -0.035 | 24.318 | -0.047 |
|     | 126 | 12.180 | -0.741 | 12.180 | -0.741 | 16.443 | -1.001 |
| 246 | 106 | 15.073 | -0.046 | 15.073 | -0.046 | 20.348 | -0.062 |
|     | 127 | 10.599 | -4.770 | 10.599 | -4.770 | 14.308 | -6.440 |

|     |     |        |         |        |         |        |         |
|-----|-----|--------|---------|--------|---------|--------|---------|
| 247 | 107 | 1.615  | -0.003  | 1.615  | -0.003  | 2.180  | -0.004  |
|     | 128 | 0.987  | -0.340  | 0.987  | -0.340  | 1.333  | -0.460  |
| 248 | 108 | 1.720  | -0.011  | 1.720  | -0.011  | 2.321  | -0.015  |
|     | 129 | 1.059  | -0.368  | 1.059  | -0.368  | 1.430  | -0.497  |
| 249 | 109 | 1.830  | -0.002  | 1.830  | -0.002  | 2.470  | -0.002  |
|     | 130 | 1.128  | -0.393  | 1.128  | -0.393  | 1.523  | -0.530  |
| 250 | 110 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
|     | 131 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 251 | 111 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
|     | 132 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 252 | 112 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 133 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 253 | 113 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 134 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 254 | 114 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 135 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 255 | 115 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 136 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 256 | 116 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 137 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 257 | 117 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 138 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 258 | 118 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 139 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 259 | 119 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 140 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 260 | 120 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.001  |
|     | 141 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 261 | 121 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
|     | 142 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 262 | 122 | 1.893  | -0.001  | 1.893  | -0.001  | 2.556  | -0.002  |
|     | 143 | 1.168  | -0.407  | 1.168  | -0.407  | 1.576  | -0.549  |
| 263 | 123 | 1.830  | -0.002  | 1.830  | -0.002  | 2.470  | -0.002  |
|     | 144 | 1.128  | -0.393  | 1.128  | -0.393  | 1.523  | -0.530  |
| 264 | 124 | 1.720  | -0.011  | 1.720  | -0.011  | 2.321  | -0.015  |
|     | 145 | 1.059  | -0.368  | 1.059  | -0.368  | 1.430  | -0.497  |
| 265 | 125 | 1.615  | -0.003  | 1.615  | -0.003  | 2.180  | -0.004  |
|     | 146 | 0.987  | -0.340  | 0.987  | -0.340  | 1.333  | -0.460  |
| 266 | 126 | 15.073 | -0.046  | 15.073 | -0.046  | 20.348 | -0.062  |
|     | 147 | 10.599 | -4.770  | 10.599 | -4.770  | 14.308 | -6.440  |
| 267 | 127 | 13.291 | -1.001  | 13.291 | -1.001  | 17.942 | -1.352  |
|     | 148 | 0.061  | -15.031 | 0.061  | -15.031 | 0.082  | -20.292 |
| 268 | 128 | 1.007  | -0.492  | 1.007  | -0.492  | 1.359  | -0.664  |
|     | 149 | 0.022  | -1.783  | 0.022  | -1.783  | 0.030  | -2.407  |
| 269 | 129 | 1.082  | -0.335  | 1.082  | -0.335  | 1.460  | -0.452  |
|     | 150 | 0.024  | -1.754  | 0.024  | -1.754  | 0.032  | -2.367  |
| 270 | 130 | 1.153  | -0.355  | 1.153  | -0.355  | 1.557  | -0.479  |
|     | 151 | 0.025  | -1.865  | 0.025  | -1.865  | 0.034  | -2.517  |
| 271 | 131 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 152 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 272 | 132 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 153 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 273 | 133 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 154 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 274 | 134 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 155 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 275 | 135 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 156 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 276 | 136 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 157 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 277 | 137 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 158 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 278 | 138 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 159 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 279 | 139 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 160 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 280 | 140 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
|     | 161 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
| 281 | 141 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |

|     |     |        |         |        |         |        |         |
|-----|-----|--------|---------|--------|---------|--------|---------|
| 282 | 162 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 142 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 283 | 163 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 143 | 1.195  | -0.367  | 1.195  | -0.367  | 1.613  | -0.495  |
| 284 | 164 | 0.026  | -1.928  | 0.026  | -1.928  | 0.035  | -2.603  |
|     | 144 | 1.153  | -0.355  | 1.153  | -0.355  | 1.557  | -0.479  |
| 285 | 165 | 0.025  | -1.865  | 0.025  | -1.865  | 0.034  | -2.517  |
|     | 145 | 1.082  | -0.335  | 1.082  | -0.335  | 1.460  | -0.452  |
| 286 | 166 | 0.024  | -1.754  | 0.024  | -1.754  | 0.032  | -2.367  |
|     | 146 | 1.007  | -0.492  | 1.007  | -0.492  | 1.359  | -0.664  |
| 287 | 167 | 0.022  | -1.783  | 0.022  | -1.783  | 0.030  | -2.407  |
|     | 147 | 13.290 | -1.001  | 13.290 | -1.001  | 17.942 | -1.352  |
| 288 | 168 | 0.061  | -15.031 | 0.061  | -15.031 | 0.082  | -20.292 |
|     | 148 | 0.120  | -11.922 | 0.120  | -11.922 | 0.162  | -16.095 |
| 289 | 169 | 0.082  | -22.799 | 0.082  | -22.799 | 0.111  | -30.779 |
|     | 149 | 0.023  | -1.967  | 0.023  | -1.967  | 0.032  | -2.656  |
| 290 | 170 | 0.006  | -2.736  | 0.006  | -2.736  | 0.008  | -3.694  |
|     | 150 | 0.025  | -1.730  | 0.025  | -1.730  | 0.034  | -2.335  |
| 291 | 171 | 0.005  | -2.637  | 0.005  | -2.637  | 0.007  | -3.560  |
|     | 151 | 0.027  | -1.838  | 0.027  | -1.838  | 0.036  | -2.481  |
| 292 | 172 | 0.002  | -2.804  | 0.002  | -2.804  | 0.003  | -3.786  |
|     | 152 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 293 | 173 | 0.003  | -2.901  | 0.003  | -2.901  | 0.004  | -3.916  |
|     | 153 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 294 | 174 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 154 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 295 | 175 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 155 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 296 | 176 | 0.002  | -2.901  | 0.002  | -2.901  | 0.002  | -3.916  |
|     | 156 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 297 | 177 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 157 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 298 | 178 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 158 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 299 | 179 | 0.001  | -2.901  | 0.001  | -2.901  | 0.001  | -3.916  |
|     | 159 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 300 | 180 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 160 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 301 | 181 | 0.001  | -2.901  | 0.001  | -2.901  | 0.002  | -3.916  |
|     | 161 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 302 | 182 | 0.002  | -2.901  | 0.002  | -2.901  | 0.002  | -3.916  |
|     | 162 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 303 | 183 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 163 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 304 | 184 | 0.002  | -2.901  | 0.002  | -2.901  | 0.003  | -3.916  |
|     | 164 | 0.028  | -1.900  | 0.028  | -1.900  | 0.038  | -2.565  |
| 305 | 185 | 0.003  | -2.901  | 0.003  | -2.901  | 0.004  | -3.916  |
|     | 165 | 0.027  | -1.838  | 0.027  | -1.838  | 0.036  | -2.481  |
| 306 | 186 | 0.002  | -2.804  | 0.002  | -2.804  | 0.003  | -3.786  |
|     | 166 | 0.025  | -1.730  | 0.025  | -1.730  | 0.034  | -2.335  |
| 307 | 187 | 0.005  | -2.637  | 0.005  | -2.637  | 0.007  | -3.560  |
|     | 167 | 0.023  | -1.967  | 0.023  | -1.967  | 0.032  | -2.656  |
| 308 | 188 | 0.006  | -2.736  | 0.006  | -2.736  | 0.008  | -3.694  |
|     | 168 | 0.120  | -11.922 | 0.120  | -11.922 | 0.162  | -16.095 |
|     | 189 | 0.082  | -22.799 | 0.082  | -22.799 | 0.111  | -30.779 |

Los esfuerzos siguientes se refieren al cálculo de una banda de losa entre 2 vigas consecutivas sometida a la acción de las cargas debidas a la superestructura.

| Barra | Nodo | Mu+    | Mu-    | Mk+    | Mk-    | Md+    | Md-    |
|-------|------|--------|--------|--------|--------|--------|--------|
| 1     | 22   | -0.018 | -0.026 | -0.018 | -0.026 | -0.018 | -0.036 |
|       | 23   | -0.055 | -0.082 | -0.055 | -0.082 | -0.055 | -0.111 |
| 2     | 23   | -0.120 | -0.180 | -0.120 | -0.180 | -0.120 | -0.243 |
|       | 24   | -0.128 | -0.191 | -0.128 | -0.191 | -0.128 | -0.258 |
| 3     | 24   | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.255 |
|       | 25   | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 4     | 25   | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|       | 26   | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |

|    |    |        |        |        |        |        |        |
|----|----|--------|--------|--------|--------|--------|--------|
| 5  | 26 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 27 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 6  | 27 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 28 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 7  | 28 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 29 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 8  | 29 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 30 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 9  | 30 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 31 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 10 | 31 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 32 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 11 | 32 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 33 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 12 | 33 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 34 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 13 | 34 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 35 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 14 | 35 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 36 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 15 | 36 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 37 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 16 | 37 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 38 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 17 | 38 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 39 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 18 | 39 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 40 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.255 |
| 19 | 40 | -0.128 | -0.191 | -0.128 | -0.191 | -0.128 | -0.258 |
|    | 41 | -0.120 | -0.180 | -0.120 | -0.180 | -0.120 | -0.243 |
| 20 | 41 | -0.055 | -0.082 | -0.055 | -0.082 | -0.055 | -0.111 |
|    | 42 | -0.018 | -0.026 | -0.018 | -0.026 | -0.018 | -0.036 |
| 21 | 43 | -0.002 | -0.003 | -0.002 | -0.003 | -0.002 | -0.004 |
|    | 44 | -0.081 | -0.122 | -0.081 | -0.122 | -0.081 | -0.165 |
| 22 | 44 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
|    | 45 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
| 23 | 45 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.256 |
|    | 46 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
| 24 | 46 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 47 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 25 | 47 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 48 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 26 | 48 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 49 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 27 | 49 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 50 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 28 | 50 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 51 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 29 | 51 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 52 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 30 | 52 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 53 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 31 | 53 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 54 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 32 | 54 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 55 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 33 | 55 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 56 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 34 | 56 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 57 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 35 | 57 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 58 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 36 | 58 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 59 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 37 | 59 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 60 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 38 | 60 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
|    | 61 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.256 |
| 39 | 61 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |

|    |    |        |        |        |        |        |        |
|----|----|--------|--------|--------|--------|--------|--------|
|    | 62 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
| 40 | 62 | -0.081 | -0.122 | -0.081 | -0.122 | -0.081 | -0.165 |
|    | 63 | -0.002 | -0.003 | -0.002 | -0.003 | -0.002 | -0.004 |
| 41 | 64 | 0.008  | 0.005  | 0.008  | 0.005  | 0.011  | 0.005  |
|    | 65 | -0.098 | -0.147 | -0.098 | -0.147 | -0.098 | -0.198 |
| 42 | 65 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
|    | 66 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
| 43 | 66 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
|    | 67 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
| 44 | 67 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 68 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 45 | 68 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 69 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 46 | 69 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 70 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 47 | 70 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 71 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 48 | 71 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 72 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 49 | 72 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 73 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 50 | 73 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 74 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 51 | 74 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 75 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 52 | 75 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 76 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 53 | 76 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 77 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 54 | 77 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 78 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 55 | 78 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 79 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 56 | 79 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 80 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 57 | 80 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 81 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 58 | 81 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
|    | 82 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
| 59 | 82 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
|    | 83 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
| 60 | 83 | -0.098 | -0.147 | -0.098 | -0.147 | -0.098 | -0.198 |
|    | 84 | 0.008  | 0.005  | 0.008  | 0.005  | 0.011  | 0.005  |
| 61 | 85 | 0.011  | 0.007  | 0.011  | 0.007  | 0.015  | 0.007  |
|    | 86 | -0.103 | -0.155 | -0.103 | -0.155 | -0.103 | -0.209 |
| 62 | 86 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.232 |
|    | 87 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
| 63 | 87 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
|    | 88 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
| 64 | 88 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 89 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 65 | 89 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 90 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 66 | 90 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 91 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 67 | 91 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 92 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 68 | 92 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 93 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 69 | 93 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 94 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 70 | 94 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 95 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 71 | 95 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 96 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 72 | 96 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 97 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 73 | 97 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|    | 98 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
| 74  | 98  | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 99  | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 75  | 99  | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 100 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 76  | 100 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 101 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 77  | 101 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 102 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 78  | 102 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
|     | 103 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
| 79  | 103 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
|     | 104 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.232 |
| 80  | 104 | -0.103 | -0.155 | -0.103 | -0.155 | -0.103 | -0.209 |
|     | 105 | 0.011  | 0.007  | 0.011  | 0.007  | 0.015  | 0.007  |
| 81  | 106 | 0.008  | 0.005  | 0.008  | 0.005  | 0.011  | 0.005  |
|     | 107 | -0.098 | -0.147 | -0.098 | -0.147 | -0.098 | -0.198 |
| 82  | 107 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
|     | 108 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
| 83  | 108 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
|     | 109 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
| 84  | 109 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 110 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 85  | 110 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 111 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 86  | 111 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 112 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 87  | 112 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 113 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 88  | 113 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 114 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 89  | 114 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 115 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 90  | 115 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 116 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 91  | 116 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 117 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 92  | 117 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 118 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 93  | 118 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 119 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 94  | 119 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 120 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 95  | 120 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 121 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 96  | 121 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 122 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 97  | 122 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 123 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 98  | 123 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
|     | 124 | -0.126 | -0.190 | -0.126 | -0.190 | -0.126 | -0.256 |
| 99  | 124 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
|     | 125 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
| 100 | 125 | -0.098 | -0.147 | -0.098 | -0.147 | -0.098 | -0.198 |
|     | 126 | 0.008  | 0.005  | 0.008  | 0.005  | 0.011  | 0.005  |
| 101 | 127 | -0.002 | -0.003 | -0.002 | -0.003 | -0.002 | -0.004 |
|     | 128 | -0.081 | -0.122 | -0.081 | -0.122 | -0.081 | -0.165 |
| 102 | 128 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
|     | 129 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
| 103 | 129 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.256 |
|     | 130 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
| 104 | 130 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 131 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 105 | 131 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 132 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 106 | 132 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 133 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 107 | 133 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 134 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 108 | 134 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     | 135 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 109 | 135 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 136 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 110 | 136 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 137 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 111 | 137 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 138 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 112 | 138 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 139 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 113 | 139 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 140 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 114 | 140 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 141 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 115 | 141 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 142 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 116 | 142 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 143 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 117 | 143 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 144 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 118 | 144 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.253 |
|     | 145 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.256 |
| 119 | 145 | -0.129 | -0.193 | -0.129 | -0.193 | -0.129 | -0.261 |
|     | 146 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
| 120 | 146 | -0.081 | -0.122 | -0.081 | -0.122 | -0.081 | -0.165 |
|     | 147 | -0.002 | -0.003 | -0.002 | -0.003 | -0.002 | -0.004 |
| 121 | 148 | -0.018 | -0.026 | -0.018 | -0.026 | -0.018 | -0.036 |
|     | 149 | -0.055 | -0.082 | -0.055 | -0.082 | -0.055 | -0.111 |
| 122 | 149 | -0.120 | -0.180 | -0.120 | -0.180 | -0.120 | -0.243 |
|     | 150 | -0.128 | -0.191 | -0.128 | -0.191 | -0.128 | -0.258 |
| 123 | 150 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.255 |
|     | 151 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 124 | 151 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 152 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 125 | 152 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 153 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 126 | 153 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 154 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 127 | 154 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 155 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 128 | 155 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 156 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 129 | 156 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 157 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 130 | 157 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 158 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 131 | 158 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 159 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 132 | 159 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 160 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 133 | 160 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 161 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 134 | 161 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 162 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 135 | 162 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 163 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 136 | 163 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 164 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 137 | 164 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 165 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
| 138 | 165 | -0.125 | -0.188 | -0.125 | -0.188 | -0.125 | -0.254 |
|     | 166 | -0.126 | -0.189 | -0.126 | -0.189 | -0.126 | -0.255 |
| 139 | 166 | -0.128 | -0.191 | -0.128 | -0.191 | -0.128 | -0.258 |
|     | 167 | -0.120 | -0.180 | -0.120 | -0.180 | -0.120 | -0.243 |
| 140 | 167 | -0.055 | -0.082 | -0.055 | -0.082 | -0.055 | -0.111 |
|     | 168 | -0.018 | -0.026 | -0.018 | -0.026 | -0.018 | -0.036 |
| 141 | 1   | -0.224 | -0.336 | -0.224 | -0.336 | -0.224 | -0.454 |
|     | 22  | -0.105 | -0.157 | -0.105 | -0.157 | -0.105 | -0.212 |
| 142 | 2   | -0.103 | -0.154 | -0.103 | -0.154 | -0.103 | -0.208 |
|     | 23  | -0.061 | -0.091 | -0.061 | -0.091 | -0.061 | -0.123 |

|     |    |        |        |        |        |        |        |
|-----|----|--------|--------|--------|--------|--------|--------|
| 143 | 3  | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
|     | 24 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
| 144 | 4  | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
|     | 25 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 145 | 5  | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 26 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 146 | 6  | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 27 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 147 | 7  | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 28 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 148 | 8  | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 29 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 149 | 9  | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 30 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 150 | 10 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 31 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 151 | 11 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 32 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 152 | 12 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 33 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 153 | 13 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 34 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 154 | 14 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 35 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 155 | 15 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 36 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 156 | 16 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 37 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 157 | 17 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
|     | 38 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 158 | 18 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
|     | 39 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 159 | 19 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
|     | 40 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
| 160 | 20 | -0.103 | -0.154 | -0.103 | -0.154 | -0.103 | -0.208 |
|     | 41 | -0.061 | -0.091 | -0.061 | -0.091 | -0.061 | -0.123 |
| 161 | 21 | -0.224 | -0.336 | -0.224 | -0.336 | -0.224 | -0.454 |
|     | 42 | -0.105 | -0.157 | -0.105 | -0.157 | -0.105 | -0.212 |
| 162 | 22 | -0.122 | -0.183 | -0.122 | -0.183 | -0.122 | -0.247 |
|     | 43 | 0.043  | 0.028  | 0.043  | 0.028  | 0.058  | 0.028  |
| 163 | 23 | -0.060 | -0.089 | -0.060 | -0.089 | -0.060 | -0.121 |
|     | 44 | 0.002  | 0.002  | 0.002  | 0.002  | 0.003  | 0.002  |
| 164 | 24 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
|     | 45 | 0.005  | 0.004  | 0.005  | 0.004  | 0.007  | 0.004  |
| 165 | 25 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 46 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 166 | 26 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 47 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 167 | 27 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 48 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 168 | 28 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 49 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 169 | 29 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 50 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 170 | 30 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 51 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 171 | 31 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 52 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 172 | 32 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 53 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 173 | 33 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 54 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 174 | 34 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 55 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 175 | 35 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 56 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 176 | 36 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 57 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 177 | 37 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |

|     |    |        |        |        |        |        |        |
|-----|----|--------|--------|--------|--------|--------|--------|
|     | 58 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 178 | 38 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 59 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 179 | 39 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 60 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 180 | 40 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
|     | 61 | 0.005  | 0.004  | 0.005  | 0.004  | 0.007  | 0.004  |
| 181 | 41 | -0.060 | -0.089 | -0.060 | -0.089 | -0.060 | -0.121 |
|     | 62 | 0.002  | 0.002  | 0.002  | 0.002  | 0.003  | 0.002  |
| 182 | 42 | -0.122 | -0.183 | -0.122 | -0.183 | -0.122 | -0.247 |
|     | 63 | 0.043  | 0.028  | 0.043  | 0.028  | 0.058  | 0.028  |
| 183 | 43 | 0.006  | 0.004  | 0.006  | 0.004  | 0.008  | 0.004  |
|     | 64 | 0.129  | 0.086  | 0.129  | 0.086  | 0.174  | 0.086  |
| 184 | 44 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 65 | 0.061  | 0.041  | 0.061  | 0.041  | 0.082  | 0.041  |
| 185 | 45 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 66 | 0.069  | 0.046  | 0.069  | 0.046  | 0.093  | 0.046  |
| 186 | 46 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 67 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 187 | 47 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 68 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 188 | 48 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 69 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 189 | 49 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 70 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 190 | 50 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 71 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 191 | 51 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 72 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 192 | 52 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 73 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 193 | 53 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 74 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 194 | 54 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 75 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 195 | 55 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 76 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 196 | 56 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 77 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 197 | 57 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 78 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 198 | 58 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 79 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 199 | 59 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 80 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 200 | 60 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 81 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
| 201 | 61 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 82 | 0.069  | 0.046  | 0.069  | 0.046  | 0.093  | 0.046  |
| 202 | 62 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 83 | 0.061  | 0.041  | 0.061  | 0.041  | 0.082  | 0.041  |
| 203 | 63 | 0.006  | 0.004  | 0.006  | 0.004  | 0.008  | 0.004  |
|     | 84 | 0.129  | 0.086  | 0.129  | 0.086  | 0.174  | 0.086  |
| 204 | 64 | 0.106  | 0.071  | 0.106  | 0.071  | 0.144  | 0.071  |
|     | 85 | 0.146  | 0.097  | 0.146  | 0.097  | 0.197  | 0.097  |
| 205 | 65 | 0.063  | 0.042  | 0.063  | 0.042  | 0.084  | 0.042  |
|     | 86 | 0.081  | 0.054  | 0.081  | 0.054  | 0.110  | 0.054  |
| 206 | 66 | 0.068  | 0.046  | 0.068  | 0.046  | 0.092  | 0.046  |
|     | 87 | 0.090  | 0.060  | 0.090  | 0.060  | 0.121  | 0.060  |
| 207 | 67 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 88 | 0.089  | 0.059  | 0.089  | 0.059  | 0.120  | 0.059  |
| 208 | 68 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 89 | 0.089  | 0.059  | 0.089  | 0.059  | 0.120  | 0.059  |
| 209 | 69 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 90 | 0.089  | 0.059  | 0.089  | 0.059  | 0.120  | 0.059  |
| 210 | 70 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 91 | 0.089  | 0.059  | 0.089  | 0.059  | 0.120  | 0.059  |
| 211 | 71 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 92 | 0.089  | 0.059  | 0.089  | 0.059  | 0.120  | 0.059  |

|     |     |       |       |       |       |       |       |
|-----|-----|-------|-------|-------|-------|-------|-------|
| 212 | 72  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 93  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 213 | 73  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 94  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 214 | 74  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 95  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 215 | 75  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 96  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 216 | 76  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 97  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 217 | 77  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 98  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 218 | 78  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 99  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 219 | 79  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 100 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 220 | 80  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 101 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 221 | 81  | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
|     | 102 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
| 222 | 82  | 0.068 | 0.046 | 0.068 | 0.046 | 0.092 | 0.046 |
|     | 103 | 0.090 | 0.060 | 0.090 | 0.060 | 0.121 | 0.060 |
| 223 | 83  | 0.063 | 0.042 | 0.063 | 0.042 | 0.084 | 0.042 |
|     | 104 | 0.081 | 0.054 | 0.081 | 0.054 | 0.110 | 0.054 |
| 224 | 84  | 0.106 | 0.071 | 0.106 | 0.071 | 0.144 | 0.071 |
|     | 105 | 0.146 | 0.097 | 0.146 | 0.097 | 0.197 | 0.097 |
| 225 | 85  | 0.146 | 0.097 | 0.146 | 0.097 | 0.197 | 0.097 |
|     | 106 | 0.106 | 0.071 | 0.106 | 0.071 | 0.144 | 0.071 |
| 226 | 86  | 0.081 | 0.054 | 0.081 | 0.054 | 0.110 | 0.054 |
|     | 107 | 0.063 | 0.042 | 0.063 | 0.042 | 0.084 | 0.042 |
| 227 | 87  | 0.090 | 0.060 | 0.090 | 0.060 | 0.121 | 0.060 |
|     | 108 | 0.068 | 0.046 | 0.068 | 0.046 | 0.092 | 0.046 |
| 228 | 88  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 109 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 229 | 89  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 110 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 230 | 90  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 111 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 231 | 91  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 112 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 232 | 92  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 113 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 233 | 93  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 114 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 234 | 94  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 115 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 235 | 95  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 116 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 236 | 96  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 117 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 237 | 97  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 118 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 238 | 98  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 119 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 239 | 99  | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 120 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 240 | 100 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 121 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 241 | 101 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 122 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 242 | 102 | 0.089 | 0.059 | 0.089 | 0.059 | 0.120 | 0.059 |
|     | 123 | 0.068 | 0.045 | 0.068 | 0.045 | 0.092 | 0.045 |
| 243 | 103 | 0.090 | 0.060 | 0.090 | 0.060 | 0.121 | 0.060 |
|     | 124 | 0.068 | 0.046 | 0.068 | 0.046 | 0.092 | 0.046 |
| 244 | 104 | 0.081 | 0.054 | 0.081 | 0.054 | 0.110 | 0.054 |
|     | 125 | 0.063 | 0.042 | 0.063 | 0.042 | 0.084 | 0.042 |
| 245 | 105 | 0.146 | 0.097 | 0.146 | 0.097 | 0.197 | 0.097 |
|     | 126 | 0.106 | 0.071 | 0.106 | 0.071 | 0.144 | 0.071 |
| 246 | 106 | 0.129 | 0.086 | 0.129 | 0.086 | 0.174 | 0.086 |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
|     | 127 | 0.006  | 0.004  | 0.006  | 0.004  | 0.008  | 0.004  |
| 247 | 107 | 0.061  | 0.041  | 0.061  | 0.041  | 0.082  | 0.041  |
|     | 128 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 248 | 108 | 0.069  | 0.046  | 0.069  | 0.046  | 0.093  | 0.046  |
|     | 129 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 249 | 109 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 130 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 250 | 110 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 131 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 251 | 111 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 132 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 252 | 112 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 133 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 253 | 113 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 134 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 254 | 114 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 135 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 255 | 115 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 136 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 256 | 116 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 137 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 257 | 117 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 138 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 258 | 118 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 139 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 259 | 119 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 140 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 260 | 120 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 141 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 261 | 121 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 142 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 262 | 122 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 143 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 263 | 123 | 0.068  | 0.045  | 0.068  | 0.045  | 0.092  | 0.045  |
|     | 144 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 264 | 124 | 0.069  | 0.046  | 0.069  | 0.046  | 0.093  | 0.046  |
|     | 145 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 265 | 125 | 0.061  | 0.041  | 0.061  | 0.041  | 0.082  | 0.041  |
|     | 146 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
| 266 | 126 | 0.129  | 0.086  | 0.129  | 0.086  | 0.174  | 0.086  |
|     | 147 | 0.006  | 0.004  | 0.006  | 0.004  | 0.008  | 0.004  |
| 267 | 127 | 0.043  | 0.028  | 0.043  | 0.028  | 0.058  | 0.028  |
|     | 148 | -0.122 | -0.183 | -0.122 | -0.183 | -0.122 | -0.247 |
| 268 | 128 | 0.002  | 0.002  | 0.002  | 0.002  | 0.003  | 0.002  |
|     | 149 | -0.060 | -0.089 | -0.060 | -0.089 | -0.060 | -0.121 |
| 269 | 129 | 0.005  | 0.004  | 0.005  | 0.004  | 0.007  | 0.004  |
|     | 150 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
| 270 | 130 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 151 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 271 | 131 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 152 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 272 | 132 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 153 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 273 | 133 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 154 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 274 | 134 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 155 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 275 | 135 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 156 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 276 | 136 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 157 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 277 | 137 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 158 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 278 | 138 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 159 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 279 | 139 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 160 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 280 | 140 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 161 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
| 281 | 141 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 162 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 282 | 142 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 163 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 283 | 143 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 164 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 284 | 144 | 0.005  | 0.003  | 0.005  | 0.003  | 0.007  | 0.003  |
|     | 165 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
| 285 | 145 | 0.005  | 0.004  | 0.005  | 0.004  | 0.007  | 0.004  |
|     | 166 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
| 286 | 146 | 0.002  | 0.002  | 0.002  | 0.002  | 0.003  | 0.002  |
|     | 167 | -0.060 | -0.089 | -0.060 | -0.089 | -0.060 | -0.121 |
| 287 | 147 | 0.043  | 0.028  | 0.043  | 0.028  | 0.058  | 0.028  |
|     | 168 | -0.122 | -0.183 | -0.122 | -0.183 | -0.122 | -0.247 |
| 288 | 148 | -0.105 | -0.157 | -0.105 | -0.157 | -0.105 | -0.212 |
|     | 169 | -0.224 | -0.336 | -0.224 | -0.336 | -0.224 | -0.454 |
| 289 | 149 | -0.061 | -0.091 | -0.061 | -0.091 | -0.061 | -0.123 |
|     | 170 | -0.103 | -0.154 | -0.103 | -0.154 | -0.103 | -0.208 |
| 290 | 150 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
|     | 171 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
| 291 | 151 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 172 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
| 292 | 152 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 173 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 293 | 153 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 174 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 294 | 154 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 175 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 295 | 155 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 176 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 296 | 156 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 177 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 297 | 157 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 178 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 298 | 158 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 179 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 299 | 159 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 180 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 300 | 160 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 181 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 301 | 161 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 182 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 302 | 162 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 183 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 303 | 163 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 184 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 304 | 164 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 185 | -0.115 | -0.173 | -0.115 | -0.173 | -0.115 | -0.233 |
| 305 | 165 | -0.066 | -0.099 | -0.066 | -0.099 | -0.066 | -0.134 |
|     | 186 | -0.115 | -0.172 | -0.115 | -0.172 | -0.115 | -0.233 |
| 306 | 166 | -0.067 | -0.100 | -0.067 | -0.100 | -0.067 | -0.135 |
|     | 187 | -0.116 | -0.174 | -0.116 | -0.174 | -0.116 | -0.235 |
| 307 | 167 | -0.061 | -0.091 | -0.061 | -0.091 | -0.061 | -0.123 |
|     | 188 | -0.103 | -0.154 | -0.103 | -0.154 | -0.103 | -0.208 |
| 308 | 168 | -0.105 | -0.157 | -0.105 | -0.157 | -0.105 | -0.212 |
|     | 189 | -0.224 | -0.336 | -0.224 | -0.336 | -0.224 | -0.454 |

Los esfuerzos siguientes se refieren al cálculo de una banda de losa entre 2 vigas consecutivas sometida a la acción de las cargas debidas a la sobrecarga de tráfico.

| Barra | Nodo | Mu+   | Mu-    | Mk+   | Mk-    | Md+   | Md-    |
|-------|------|-------|--------|-------|--------|-------|--------|
| 1     | 22   | 0.024 | -0.074 | 0.024 | -0.074 | 0.032 | -0.100 |
|       | 23   | 0.014 | -0.172 | 0.014 | -0.172 | 0.019 | -0.232 |
| 2     | 23   | 0.026 | -0.371 | 0.026 | -0.371 | 0.036 | -0.501 |
|       | 24   | 0.022 | -0.388 | 0.022 | -0.388 | 0.030 | -0.524 |
| 3     | 24   | 0.028 | -0.389 | 0.028 | -0.389 | 0.038 | -0.525 |
|       | 25   | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.524 |
| 4     | 25   | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |

|    |    |       |        |       |        |       |        |
|----|----|-------|--------|-------|--------|-------|--------|
|    | 26 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 5  | 26 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 27 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 6  | 27 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 28 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 7  | 28 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 29 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 8  | 29 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 30 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 9  | 30 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 31 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 10 | 31 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 32 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 11 | 32 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 33 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 12 | 33 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 34 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 13 | 34 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 35 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 14 | 35 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 36 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 15 | 36 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 37 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 16 | 37 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 38 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 17 | 38 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|    | 39 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 18 | 39 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.524 |
|    | 40 | 0.028 | -0.389 | 0.028 | -0.389 | 0.038 | -0.525 |
| 19 | 40 | 0.022 | -0.388 | 0.022 | -0.388 | 0.030 | -0.524 |
|    | 41 | 0.026 | -0.371 | 0.026 | -0.371 | 0.036 | -0.501 |
| 20 | 41 | 0.014 | -0.172 | 0.014 | -0.172 | 0.019 | -0.232 |
|    | 42 | 0.024 | -0.074 | 0.024 | -0.074 | 0.032 | -0.100 |
| 21 | 43 | 0.042 | -0.047 | 0.042 | -0.047 | 0.057 | -0.064 |
|    | 44 | 0.008 | -0.241 | 0.008 | -0.241 | 0.011 | -0.325 |
| 22 | 44 | 0.052 | -0.385 | 0.052 | -0.385 | 0.071 | -0.520 |
|    | 45 | 0.047 | -0.417 | 0.047 | -0.417 | 0.064 | -0.563 |
| 23 | 45 | 0.057 | -0.418 | 0.057 | -0.418 | 0.077 | -0.565 |
|    | 46 | 0.060 | -0.418 | 0.060 | -0.418 | 0.080 | -0.564 |
| 24 | 46 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.565 |
|    | 47 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 25 | 47 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 48 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 26 | 48 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 49 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 27 | 49 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 50 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 28 | 50 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 51 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 29 | 51 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 52 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 30 | 52 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 53 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 31 | 53 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 54 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 32 | 54 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 55 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 33 | 55 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 56 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 34 | 56 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 57 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 35 | 57 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 58 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 36 | 58 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 59 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 37 | 59 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|    | 60 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.565 |
| 38 | 60 | 0.060 | -0.418 | 0.060 | -0.418 | 0.080 | -0.564 |
|    | 61 | 0.057 | -0.418 | 0.057 | -0.418 | 0.077 | -0.565 |

|    |    |       |        |       |        |       |        |
|----|----|-------|--------|-------|--------|-------|--------|
| 39 | 61 | 0.047 | -0.417 | 0.047 | -0.417 | 0.064 | -0.563 |
|    | 62 | 0.052 | -0.385 | 0.052 | -0.385 | 0.071 | -0.520 |
| 40 | 62 | 0.008 | -0.241 | 0.008 | -0.241 | 0.011 | -0.325 |
|    | 63 | 0.042 | -0.047 | 0.042 | -0.047 | 0.057 | -0.064 |
| 41 | 64 | 0.062 | -0.047 | 0.062 | -0.047 | 0.084 | -0.063 |
|    | 65 | 0.008 | -0.289 | 0.008 | -0.289 | 0.011 | -0.390 |
| 42 | 65 | 0.063 | -0.392 | 0.063 | -0.392 | 0.084 | -0.529 |
|    | 66 | 0.059 | -0.429 | 0.059 | -0.429 | 0.080 | -0.579 |
| 43 | 66 | 0.068 | -0.430 | 0.068 | -0.430 | 0.092 | -0.581 |
|    | 67 | 0.072 | -0.430 | 0.072 | -0.430 | 0.097 | -0.581 |
| 44 | 67 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.582 |
|    | 68 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.583 |
| 45 | 68 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 69 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 46 | 69 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 70 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 47 | 70 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 71 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 48 | 71 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 72 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 49 | 72 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 73 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 50 | 73 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 74 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 51 | 74 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 75 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 52 | 75 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 76 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 53 | 76 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 77 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 54 | 77 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 78 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 55 | 78 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 79 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 56 | 79 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|    | 80 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 57 | 80 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.583 |
|    | 81 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.582 |
| 58 | 81 | 0.072 | -0.430 | 0.072 | -0.430 | 0.097 | -0.581 |
|    | 82 | 0.068 | -0.430 | 0.068 | -0.430 | 0.092 | -0.581 |
| 59 | 82 | 0.059 | -0.429 | 0.059 | -0.429 | 0.080 | -0.579 |
|    | 83 | 0.063 | -0.392 | 0.063 | -0.392 | 0.084 | -0.529 |
| 60 | 83 | 0.008 | -0.289 | 0.008 | -0.289 | 0.011 | -0.390 |
|    | 84 | 0.062 | -0.047 | 0.062 | -0.047 | 0.084 | -0.063 |
| 61 | 85 | 0.069 | -0.048 | 0.069 | -0.048 | 0.094 | -0.065 |
|    | 86 | 0.009 | -0.304 | 0.009 | -0.304 | 0.012 | -0.411 |
| 62 | 86 | 0.065 | -0.394 | 0.065 | -0.394 | 0.088 | -0.532 |
|    | 87 | 0.063 | -0.432 | 0.063 | -0.432 | 0.085 | -0.583 |
| 63 | 87 | 0.071 | -0.433 | 0.071 | -0.433 | 0.096 | -0.585 |
|    | 88 | 0.075 | -0.433 | 0.075 | -0.433 | 0.101 | -0.585 |
| 64 | 88 | 0.075 | -0.434 | 0.075 | -0.434 | 0.102 | -0.586 |
|    | 89 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 65 | 89 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 90 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 66 | 90 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 91 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 67 | 91 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 92 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 68 | 92 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 93 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 69 | 93 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 94 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 70 | 94 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 95 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 71 | 95 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 96 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 72 | 96 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|    | 97 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 73 | 97 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
|     | 98  | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 74  | 98  | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|     | 99  | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 75  | 99  | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|     | 100 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 76  | 100 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|     | 101 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
| 77  | 101 | 0.075 | -0.435 | 0.075 | -0.435 | 0.102 | -0.587 |
|     | 102 | 0.075 | -0.434 | 0.075 | -0.434 | 0.102 | -0.586 |
| 78  | 102 | 0.075 | -0.433 | 0.075 | -0.433 | 0.101 | -0.585 |
|     | 103 | 0.071 | -0.433 | 0.071 | -0.433 | 0.096 | -0.585 |
| 79  | 103 | 0.063 | -0.432 | 0.063 | -0.432 | 0.085 | -0.583 |
|     | 104 | 0.065 | -0.394 | 0.065 | -0.394 | 0.088 | -0.532 |
| 80  | 104 | 0.009 | -0.304 | 0.009 | -0.304 | 0.012 | -0.411 |
|     | 105 | 0.069 | -0.048 | 0.069 | -0.048 | 0.094 | -0.065 |
| 81  | 106 | 0.062 | -0.047 | 0.062 | -0.047 | 0.084 | -0.063 |
|     | 107 | 0.008 | -0.289 | 0.008 | -0.289 | 0.011 | -0.390 |
| 82  | 107 | 0.063 | -0.392 | 0.063 | -0.392 | 0.084 | -0.529 |
|     | 108 | 0.059 | -0.429 | 0.059 | -0.429 | 0.080 | -0.579 |
| 83  | 108 | 0.068 | -0.430 | 0.068 | -0.430 | 0.092 | -0.581 |
|     | 109 | 0.072 | -0.430 | 0.072 | -0.430 | 0.097 | -0.581 |
| 84  | 109 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.582 |
|     | 110 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.583 |
| 85  | 110 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 111 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 86  | 111 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 112 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 87  | 112 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 113 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 88  | 113 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 114 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 89  | 114 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 115 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 90  | 115 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 116 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 91  | 116 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 117 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 92  | 117 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 118 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 93  | 118 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 119 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 94  | 119 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 120 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 95  | 120 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 121 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 96  | 121 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
|     | 122 | 0.072 | -0.432 | 0.072 | -0.432 | 0.097 | -0.583 |
| 97  | 122 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.583 |
|     | 123 | 0.072 | -0.431 | 0.072 | -0.431 | 0.097 | -0.582 |
| 98  | 123 | 0.072 | -0.430 | 0.072 | -0.430 | 0.097 | -0.581 |
|     | 124 | 0.068 | -0.430 | 0.068 | -0.430 | 0.092 | -0.581 |
| 99  | 124 | 0.059 | -0.429 | 0.059 | -0.429 | 0.080 | -0.579 |
|     | 125 | 0.063 | -0.392 | 0.063 | -0.392 | 0.084 | -0.529 |
| 100 | 125 | 0.008 | -0.289 | 0.008 | -0.289 | 0.011 | -0.390 |
|     | 126 | 0.062 | -0.047 | 0.062 | -0.047 | 0.084 | -0.063 |
| 101 | 127 | 0.042 | -0.047 | 0.042 | -0.047 | 0.057 | -0.064 |
|     | 128 | 0.008 | -0.241 | 0.008 | -0.241 | 0.011 | -0.325 |
| 102 | 128 | 0.052 | -0.385 | 0.052 | -0.385 | 0.071 | -0.520 |
|     | 129 | 0.047 | -0.417 | 0.047 | -0.417 | 0.064 | -0.563 |
| 103 | 129 | 0.057 | -0.418 | 0.057 | -0.418 | 0.077 | -0.565 |
|     | 130 | 0.060 | -0.418 | 0.060 | -0.418 | 0.080 | -0.564 |
| 104 | 130 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.565 |
|     | 131 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 105 | 131 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 132 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 106 | 132 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 133 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 107 | 133 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 134 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
| 108 | 134 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 135 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 109 | 135 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 136 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 110 | 136 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 137 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 111 | 137 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 138 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 112 | 138 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 139 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 113 | 139 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 140 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 114 | 140 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 141 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 115 | 141 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 142 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 116 | 142 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 143 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
| 117 | 143 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.566 |
|     | 144 | 0.060 | -0.419 | 0.060 | -0.419 | 0.081 | -0.565 |
| 118 | 144 | 0.060 | -0.418 | 0.060 | -0.418 | 0.080 | -0.564 |
|     | 145 | 0.057 | -0.418 | 0.057 | -0.418 | 0.077 | -0.565 |
| 119 | 145 | 0.047 | -0.417 | 0.047 | -0.417 | 0.064 | -0.563 |
|     | 146 | 0.052 | -0.385 | 0.052 | -0.385 | 0.071 | -0.520 |
| 120 | 146 | 0.008 | -0.241 | 0.008 | -0.241 | 0.011 | -0.325 |
|     | 147 | 0.042 | -0.047 | 0.042 | -0.047 | 0.057 | -0.064 |
| 121 | 148 | 0.024 | -0.074 | 0.024 | -0.074 | 0.032 | -0.100 |
|     | 149 | 0.014 | -0.172 | 0.014 | -0.172 | 0.019 | -0.232 |
| 122 | 149 | 0.026 | -0.371 | 0.026 | -0.371 | 0.036 | -0.501 |
|     | 150 | 0.022 | -0.388 | 0.022 | -0.388 | 0.030 | -0.524 |
| 123 | 150 | 0.028 | -0.389 | 0.028 | -0.389 | 0.038 | -0.525 |
|     | 151 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.524 |
| 124 | 151 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 152 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 125 | 152 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 153 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 126 | 153 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 154 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 127 | 154 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 155 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 128 | 155 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 156 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 129 | 156 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 157 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 130 | 157 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 158 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 131 | 158 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 159 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 132 | 159 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 160 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 133 | 160 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 161 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 134 | 161 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 162 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 135 | 162 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 163 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 136 | 163 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 164 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 137 | 164 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
|     | 165 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.525 |
| 138 | 165 | 0.030 | -0.389 | 0.030 | -0.389 | 0.040 | -0.524 |
|     | 166 | 0.028 | -0.389 | 0.028 | -0.389 | 0.038 | -0.525 |
| 139 | 166 | 0.022 | -0.388 | 0.022 | -0.388 | 0.030 | -0.524 |
|     | 167 | 0.026 | -0.371 | 0.026 | -0.371 | 0.036 | -0.501 |
| 140 | 167 | 0.014 | -0.172 | 0.014 | -0.172 | 0.019 | -0.232 |
|     | 168 | 0.024 | -0.074 | 0.024 | -0.074 | 0.032 | -0.100 |
| 141 | 1   | 0.101 | -0.744 | 0.101 | -0.744 | 0.136 | -1.004 |
|     | 22  | 0.055 | -0.355 | 0.055 | -0.355 | 0.075 | -0.479 |
| 142 | 2   | 0.006 | -0.301 | 0.006 | -0.301 | 0.008 | -0.406 |

|     |    |       |        |       |        |       |        |
|-----|----|-------|--------|-------|--------|-------|--------|
|     | 23 | 0.006 | -0.180 | 0.006 | -0.180 | 0.008 | -0.243 |
| 143 | 3  | 0.009 | -0.341 | 0.009 | -0.341 | 0.012 | -0.460 |
|     | 24 | 0.008 | -0.200 | 0.008 | -0.200 | 0.011 | -0.269 |
| 144 | 4  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.461 |
|     | 25 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 145 | 5  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 26 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 146 | 6  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 27 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 147 | 7  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 28 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 148 | 8  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 29 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 149 | 9  | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 30 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 150 | 10 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 31 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 151 | 11 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 32 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 152 | 12 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 33 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 153 | 13 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 34 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 154 | 14 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 35 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 155 | 15 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 36 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 156 | 16 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 37 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 157 | 17 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 38 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 158 | 18 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.461 |
|     | 39 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 159 | 19 | 0.009 | -0.341 | 0.009 | -0.341 | 0.012 | -0.460 |
|     | 40 | 0.008 | -0.200 | 0.008 | -0.200 | 0.011 | -0.269 |
| 160 | 20 | 0.006 | -0.301 | 0.006 | -0.301 | 0.008 | -0.406 |
|     | 41 | 0.006 | -0.180 | 0.006 | -0.180 | 0.008 | -0.243 |
| 161 | 21 | 0.101 | -0.744 | 0.101 | -0.744 | 0.136 | -1.004 |
|     | 42 | 0.055 | -0.355 | 0.055 | -0.355 | 0.075 | -0.479 |
| 162 | 22 | 0.090 | -0.439 | 0.090 | -0.439 | 0.121 | -0.593 |
|     | 43 | 0.151 | -0.069 | 0.151 | -0.069 | 0.203 | -0.093 |
| 163 | 23 | 0.007 | -0.178 | 0.007 | -0.178 | 0.010 | -0.240 |
|     | 44 | 0.032 | -0.027 | 0.032 | -0.027 | 0.043 | -0.037 |
| 164 | 24 | 0.010 | -0.202 | 0.010 | -0.202 | 0.014 | -0.272 |
|     | 45 | 0.040 | -0.029 | 0.040 | -0.029 | 0.053 | -0.039 |
| 165 | 25 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 46 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 166 | 26 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 47 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 167 | 27 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 48 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 168 | 28 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 49 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 169 | 29 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 50 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 170 | 30 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 51 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 171 | 31 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 52 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 172 | 32 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 53 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 173 | 33 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 54 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 174 | 34 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 55 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 175 | 35 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 56 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 176 | 36 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 57 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |

|     |    |       |        |       |        |       |        |
|-----|----|-------|--------|-------|--------|-------|--------|
| 177 | 37 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 58 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 178 | 38 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 59 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 179 | 39 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 60 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 180 | 40 | 0.010 | -0.202 | 0.010 | -0.202 | 0.014 | -0.272 |
|     | 61 | 0.040 | -0.029 | 0.040 | -0.029 | 0.053 | -0.039 |
| 181 | 41 | 0.007 | -0.178 | 0.007 | -0.178 | 0.010 | -0.240 |
|     | 62 | 0.032 | -0.027 | 0.032 | -0.027 | 0.043 | -0.037 |
| 182 | 42 | 0.090 | -0.439 | 0.090 | -0.439 | 0.121 | -0.593 |
|     | 63 | 0.151 | -0.069 | 0.151 | -0.069 | 0.203 | -0.093 |
| 183 | 43 | 0.119 | -0.108 | 0.119 | -0.108 | 0.161 | -0.146 |
|     | 64 | 0.299 | -0.052 | 0.299 | -0.052 | 0.404 | -0.071 |
| 184 | 44 | 0.034 | -0.024 | 0.034 | -0.024 | 0.046 | -0.032 |
|     | 65 | 0.119 | -0.003 | 0.119 | -0.003 | 0.161 | -0.004 |
| 185 | 45 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 66 | 0.135 | -0.004 | 0.135 | -0.004 | 0.183 | -0.006 |
| 186 | 46 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 67 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 187 | 47 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 68 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 188 | 48 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 69 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 189 | 49 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 70 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 190 | 50 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 71 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 191 | 51 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 72 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 192 | 52 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 73 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 193 | 53 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 74 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 194 | 54 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 75 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 195 | 55 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 76 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 196 | 56 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 77 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 197 | 57 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 78 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 198 | 58 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 79 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 199 | 59 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 80 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 200 | 60 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 81 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
| 201 | 61 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
|     | 82 | 0.135 | -0.004 | 0.135 | -0.004 | 0.183 | -0.006 |
| 202 | 62 | 0.034 | -0.024 | 0.034 | -0.024 | 0.046 | -0.032 |
|     | 83 | 0.119 | -0.003 | 0.119 | -0.003 | 0.161 | -0.004 |
| 203 | 63 | 0.119 | -0.108 | 0.119 | -0.108 | 0.161 | -0.146 |
|     | 84 | 0.299 | -0.052 | 0.299 | -0.052 | 0.404 | -0.071 |
| 204 | 64 | 0.225 | -0.022 | 0.225 | -0.022 | 0.304 | -0.029 |
|     | 85 | 0.311 | -0.033 | 0.311 | -0.033 | 0.420 | -0.044 |
| 205 | 65 | 0.121 | -0.002 | 0.121 | -0.002 | 0.164 | -0.002 |
|     | 86 | 0.158 | -0.003 | 0.158 | -0.003 | 0.214 | -0.004 |
| 206 | 66 | 0.133 | -0.002 | 0.133 | -0.002 | 0.179 | -0.003 |
|     | 87 | 0.175 | -0.004 | 0.175 | -0.004 | 0.236 | -0.005 |
| 207 | 67 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 88 | 0.175 | -0.006 | 0.175 | -0.006 | 0.237 | -0.008 |
| 208 | 68 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 89 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 209 | 69 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 90 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 210 | 70 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 91 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 211 | 71 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
|     | 92  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 212 | 72  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 93  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 213 | 73  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 94  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 214 | 74  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 95  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 215 | 75  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 96  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 216 | 76  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 97  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 217 | 77  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 98  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 218 | 78  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 99  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 219 | 79  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 100 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 220 | 80  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 101 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
| 221 | 81  | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
|     | 102 | 0.175 | -0.006 | 0.175 | -0.006 | 0.237 | -0.008 |
| 222 | 82  | 0.133 | -0.002 | 0.133 | -0.002 | 0.179 | -0.003 |
|     | 103 | 0.175 | -0.004 | 0.175 | -0.004 | 0.236 | -0.005 |
| 223 | 83  | 0.121 | -0.002 | 0.121 | -0.002 | 0.164 | -0.002 |
|     | 104 | 0.158 | -0.003 | 0.158 | -0.003 | 0.214 | -0.004 |
| 224 | 84  | 0.225 | -0.022 | 0.225 | -0.022 | 0.304 | -0.029 |
|     | 105 | 0.311 | -0.033 | 0.311 | -0.033 | 0.420 | -0.044 |
| 225 | 85  | 0.311 | -0.033 | 0.311 | -0.033 | 0.420 | -0.044 |
|     | 106 | 0.225 | -0.022 | 0.225 | -0.022 | 0.304 | -0.029 |
| 226 | 86  | 0.158 | -0.003 | 0.158 | -0.003 | 0.214 | -0.004 |
|     | 107 | 0.121 | -0.002 | 0.121 | -0.002 | 0.164 | -0.002 |
| 227 | 87  | 0.175 | -0.004 | 0.175 | -0.004 | 0.236 | -0.005 |
|     | 108 | 0.133 | -0.002 | 0.133 | -0.002 | 0.179 | -0.003 |
| 228 | 88  | 0.175 | -0.006 | 0.175 | -0.006 | 0.237 | -0.008 |
|     | 109 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 229 | 89  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 110 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 230 | 90  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 111 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 231 | 91  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 112 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 232 | 92  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 113 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 233 | 93  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 114 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 234 | 94  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 115 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 235 | 95  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 116 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 236 | 96  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 117 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 237 | 97  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 118 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 238 | 98  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 119 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 239 | 99  | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 120 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 240 | 100 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 121 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 241 | 101 | 0.176 | -0.006 | 0.176 | -0.006 | 0.237 | -0.008 |
|     | 122 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 242 | 102 | 0.175 | -0.006 | 0.175 | -0.006 | 0.237 | -0.008 |
|     | 123 | 0.133 | -0.003 | 0.133 | -0.003 | 0.180 | -0.005 |
| 243 | 103 | 0.175 | -0.004 | 0.175 | -0.004 | 0.236 | -0.005 |
|     | 124 | 0.133 | -0.002 | 0.133 | -0.002 | 0.179 | -0.003 |
| 244 | 104 | 0.158 | -0.003 | 0.158 | -0.003 | 0.214 | -0.004 |
|     | 125 | 0.121 | -0.002 | 0.121 | -0.002 | 0.164 | -0.002 |
| 245 | 105 | 0.311 | -0.033 | 0.311 | -0.033 | 0.420 | -0.044 |
|     | 126 | 0.225 | -0.022 | 0.225 | -0.022 | 0.304 | -0.029 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
| 246 | 106 | 0.299 | -0.052 | 0.299 | -0.052 | 0.404 | -0.071 |
|     | 127 | 0.119 | -0.108 | 0.119 | -0.108 | 0.161 | -0.146 |
| 247 | 107 | 0.119 | -0.003 | 0.119 | -0.003 | 0.161 | -0.004 |
|     | 128 | 0.034 | -0.024 | 0.034 | -0.024 | 0.046 | -0.032 |
| 248 | 108 | 0.135 | -0.004 | 0.135 | -0.004 | 0.183 | -0.006 |
|     | 129 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 249 | 109 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 130 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 250 | 110 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 131 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 251 | 111 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 132 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 252 | 112 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 133 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 253 | 113 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 134 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 254 | 114 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 135 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 255 | 115 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 136 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 256 | 116 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 137 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 257 | 117 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 138 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 258 | 118 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 139 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 259 | 119 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 140 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 260 | 120 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 141 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 261 | 121 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 142 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 262 | 122 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 143 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 263 | 123 | 0.136 | -0.006 | 0.136 | -0.006 | 0.183 | -0.008 |
|     | 144 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 264 | 124 | 0.135 | -0.004 | 0.135 | -0.004 | 0.183 | -0.006 |
|     | 145 | 0.039 | -0.029 | 0.039 | -0.029 | 0.053 | -0.039 |
| 265 | 125 | 0.119 | -0.003 | 0.119 | -0.003 | 0.161 | -0.004 |
|     | 146 | 0.034 | -0.024 | 0.034 | -0.024 | 0.046 | -0.032 |
| 266 | 126 | 0.299 | -0.052 | 0.299 | -0.052 | 0.404 | -0.071 |
|     | 147 | 0.119 | -0.108 | 0.119 | -0.108 | 0.161 | -0.146 |
| 267 | 127 | 0.151 | -0.069 | 0.151 | -0.069 | 0.203 | -0.093 |
|     | 148 | 0.090 | -0.439 | 0.090 | -0.439 | 0.121 | -0.593 |
| 268 | 128 | 0.032 | -0.027 | 0.032 | -0.027 | 0.043 | -0.037 |
|     | 149 | 0.007 | -0.178 | 0.007 | -0.178 | 0.010 | -0.240 |
| 269 | 129 | 0.040 | -0.029 | 0.040 | -0.029 | 0.053 | -0.039 |
|     | 150 | 0.010 | -0.202 | 0.010 | -0.202 | 0.014 | -0.272 |
| 270 | 130 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 151 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 271 | 131 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 152 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 272 | 132 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 153 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 273 | 133 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 154 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 274 | 134 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 155 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 275 | 135 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 156 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 276 | 136 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 157 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 277 | 137 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 158 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 278 | 138 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 159 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 279 | 139 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
|     | 160 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
| 280 | 140 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
| 281 | 161 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 141 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 282 | 162 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 142 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 283 | 163 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 143 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 284 | 164 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 144 | 0.040 | -0.030 | 0.040 | -0.030 | 0.053 | -0.040 |
| 285 | 165 | 0.012 | -0.202 | 0.012 | -0.202 | 0.017 | -0.273 |
|     | 145 | 0.040 | -0.029 | 0.040 | -0.029 | 0.053 | -0.039 |
| 286 | 166 | 0.010 | -0.202 | 0.010 | -0.202 | 0.014 | -0.272 |
|     | 146 | 0.032 | -0.027 | 0.032 | -0.027 | 0.043 | -0.037 |
| 287 | 167 | 0.007 | -0.178 | 0.007 | -0.178 | 0.010 | -0.240 |
|     | 147 | 0.151 | -0.069 | 0.151 | -0.069 | 0.203 | -0.093 |
| 288 | 168 | 0.090 | -0.439 | 0.090 | -0.439 | 0.121 | -0.593 |
|     | 148 | 0.055 | -0.355 | 0.055 | -0.355 | 0.075 | -0.479 |
| 289 | 169 | 0.101 | -0.744 | 0.101 | -0.744 | 0.136 | -1.004 |
|     | 149 | 0.006 | -0.180 | 0.006 | -0.180 | 0.008 | -0.243 |
| 290 | 170 | 0.006 | -0.301 | 0.006 | -0.301 | 0.008 | -0.406 |
|     | 150 | 0.008 | -0.200 | 0.008 | -0.200 | 0.011 | -0.269 |
| 291 | 171 | 0.009 | -0.341 | 0.009 | -0.341 | 0.012 | -0.460 |
|     | 151 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 292 | 172 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.461 |
|     | 152 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 293 | 173 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 153 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 294 | 174 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 154 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 295 | 175 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 155 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 296 | 176 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 156 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 297 | 177 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 157 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 298 | 178 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 158 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 299 | 179 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 159 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 300 | 180 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 160 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 301 | 181 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 161 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 302 | 182 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 162 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 303 | 183 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 163 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 304 | 184 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 164 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 305 | 185 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.462 |
|     | 165 | 0.010 | -0.200 | 0.010 | -0.200 | 0.014 | -0.270 |
| 306 | 186 | 0.012 | -0.342 | 0.012 | -0.342 | 0.016 | -0.461 |
|     | 166 | 0.008 | -0.200 | 0.008 | -0.200 | 0.011 | -0.269 |
| 307 | 187 | 0.009 | -0.341 | 0.009 | -0.341 | 0.012 | -0.460 |
|     | 167 | 0.006 | -0.180 | 0.006 | -0.180 | 0.008 | -0.243 |
| 308 | 188 | 0.006 | -0.301 | 0.006 | -0.301 | 0.008 | -0.406 |
|     | 168 | 0.055 | -0.355 | 0.055 | -0.355 | 0.075 | -0.479 |
|     | 189 | 0.101 | -0.744 | 0.101 | -0.744 | 0.136 | -1.004 |

Los esfuerzos siguientes se refieren al cálculo de una banda de losa entre 2 vigas consecutivas sometida a la acción de las cargas debidas al carro, superestructura y sobrecarga.

| Barra | Nodo | Mu+    | Mu-    | Mk+    | Mk-    | Md+    | Md-    |
|-------|------|--------|--------|--------|--------|--------|--------|
| ----- |      |        |        |        |        |        |        |
| 1     | 22   | 0.048  | -1.283 | 0.048  | -1.283 | 0.071  | -1.732 |
|       | 23   | 0.341  | -0.278 | 0.341  | -0.278 | 0.480  | -0.376 |
| 2     | 23   | -0.080 | -0.713 | -0.080 | -0.713 | -0.066 | -0.963 |
|       | 24   | -0.045 | -0.597 | -0.045 | -0.597 | -0.015 | -0.807 |
| 3     | 24   | -0.082 | -0.593 | -0.082 | -0.593 | -0.067 | -0.801 |
|       | 25   | -0.076 | -0.595 | -0.076 | -0.595 | -0.059 | -0.803 |

|    |    |        |        |        |        |        |        |
|----|----|--------|--------|--------|--------|--------|--------|
| 4  | 25 | -0.078 | -0.594 | -0.078 | -0.594 | -0.062 | -0.801 |
|    | 26 | -0.075 | -0.595 | -0.075 | -0.595 | -0.058 | -0.803 |
| 5  | 26 | -0.077 | -0.593 | -0.077 | -0.593 | -0.060 | -0.801 |
|    | 27 | -0.076 | -0.595 | -0.076 | -0.595 | -0.058 | -0.803 |
| 6  | 27 | -0.077 | -0.593 | -0.077 | -0.593 | -0.060 | -0.800 |
|    | 28 | -0.076 | -0.594 | -0.076 | -0.594 | -0.058 | -0.802 |
| 7  | 28 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
|    | 29 | -0.076 | -0.594 | -0.076 | -0.594 | -0.059 | -0.801 |
| 8  | 29 | -0.077 | -0.591 | -0.077 | -0.591 | -0.060 | -0.798 |
|    | 30 | -0.076 | -0.593 | -0.076 | -0.593 | -0.059 | -0.801 |
| 9  | 30 | -0.077 | -0.591 | -0.077 | -0.591 | -0.060 | -0.798 |
|    | 31 | -0.076 | -0.593 | -0.076 | -0.593 | -0.059 | -0.800 |
| 10 | 31 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
|    | 32 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
| 11 | 32 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
|    | 33 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
| 12 | 33 | -0.076 | -0.593 | -0.076 | -0.593 | -0.059 | -0.800 |
|    | 34 | -0.077 | -0.591 | -0.077 | -0.591 | -0.060 | -0.798 |
| 13 | 34 | -0.076 | -0.593 | -0.076 | -0.593 | -0.059 | -0.801 |
|    | 35 | -0.077 | -0.591 | -0.077 | -0.591 | -0.060 | -0.798 |
| 14 | 35 | -0.076 | -0.594 | -0.076 | -0.594 | -0.059 | -0.801 |
|    | 36 | -0.077 | -0.592 | -0.077 | -0.592 | -0.060 | -0.799 |
| 15 | 36 | -0.076 | -0.594 | -0.076 | -0.594 | -0.058 | -0.802 |
|    | 37 | -0.077 | -0.593 | -0.077 | -0.593 | -0.060 | -0.800 |
| 16 | 37 | -0.076 | -0.595 | -0.076 | -0.595 | -0.058 | -0.803 |
|    | 38 | -0.077 | -0.593 | -0.077 | -0.593 | -0.060 | -0.801 |
| 17 | 38 | -0.075 | -0.595 | -0.075 | -0.595 | -0.058 | -0.803 |
|    | 39 | -0.078 | -0.594 | -0.078 | -0.594 | -0.062 | -0.801 |
| 18 | 39 | -0.076 | -0.595 | -0.076 | -0.595 | -0.059 | -0.803 |
|    | 40 | -0.082 | -0.593 | -0.082 | -0.593 | -0.067 | -0.801 |
| 19 | 40 | -0.045 | -0.597 | -0.045 | -0.597 | -0.016 | -0.807 |
|    | 41 | -0.080 | -0.713 | -0.080 | -0.713 | -0.066 | -0.963 |
| 20 | 41 | 0.341  | -0.278 | 0.341  | -0.278 | 0.480  | -0.376 |
|    | 42 | 0.048  | -1.283 | 0.048  | -1.283 | 0.071  | -1.732 |
| 21 | 43 | 0.058  | -1.233 | 0.058  | -1.233 | 0.080  | -1.665 |
|    | 44 | 0.092  | -1.929 | 0.092  | -1.929 | 0.153  | -2.604 |
| 22 | 44 | 0.017  | -0.955 | 0.017  | -0.955 | 0.064  | -1.289 |
|    | 45 | 0.074  | -0.661 | 0.074  | -0.661 | 0.144  | -0.892 |
| 23 | 45 | 0.031  | -0.761 | 0.031  | -0.761 | 0.085  | -1.027 |
|    | 46 | 0.104  | -0.680 | 0.104  | -0.680 | 0.184  | -0.917 |
| 24 | 46 | 0.056  | -0.764 | 0.056  | -0.764 | 0.119  | -1.031 |
|    | 47 | 0.111  | -0.685 | 0.111  | -0.685 | 0.193  | -0.925 |
| 25 | 47 | 0.070  | -0.759 | 0.070  | -0.759 | 0.138  | -1.025 |
|    | 48 | 0.107  | -0.700 | 0.107  | -0.700 | 0.189  | -0.945 |
| 26 | 48 | 0.073  | -0.754 | 0.073  | -0.754 | 0.143  | -1.018 |
|    | 49 | 0.104  | -0.706 | 0.104  | -0.706 | 0.184  | -0.953 |
| 27 | 49 | 0.077  | -0.748 | 0.077  | -0.748 | 0.147  | -1.010 |
|    | 50 | 0.101  | -0.711 | 0.101  | -0.711 | 0.180  | -0.960 |
| 28 | 50 | 0.080  | -0.743 | 0.080  | -0.743 | 0.152  | -1.003 |
|    | 51 | 0.097  | -0.716 | 0.097  | -0.716 | 0.175  | -0.967 |
| 29 | 51 | 0.084  | -0.738 | 0.084  | -0.738 | 0.157  | -0.996 |
|    | 52 | 0.094  | -0.722 | 0.094  | -0.722 | 0.170  | -0.974 |
| 30 | 52 | 0.087  | -0.732 | 0.087  | -0.732 | 0.161  | -0.989 |
|    | 53 | 0.090  | -0.727 | 0.090  | -0.727 | 0.166  | -0.981 |
| 31 | 53 | 0.090  | -0.727 | 0.090  | -0.727 | 0.166  | -0.981 |
|    | 54 | 0.087  | -0.732 | 0.087  | -0.732 | 0.161  | -0.989 |
| 32 | 54 | 0.094  | -0.722 | 0.094  | -0.722 | 0.170  | -0.974 |
|    | 55 | 0.084  | -0.738 | 0.084  | -0.738 | 0.157  | -0.996 |
| 33 | 55 | 0.097  | -0.716 | 0.097  | -0.716 | 0.175  | -0.967 |
|    | 56 | 0.080  | -0.743 | 0.080  | -0.743 | 0.152  | -1.003 |
| 34 | 56 | 0.101  | -0.711 | 0.101  | -0.711 | 0.180  | -0.960 |
|    | 57 | 0.077  | -0.748 | 0.077  | -0.748 | 0.147  | -1.010 |
| 35 | 57 | 0.104  | -0.706 | 0.104  | -0.706 | 0.184  | -0.953 |
|    | 58 | 0.073  | -0.754 | 0.073  | -0.754 | 0.143  | -1.018 |
| 36 | 58 | 0.107  | -0.700 | 0.107  | -0.700 | 0.189  | -0.945 |
|    | 59 | 0.070  | -0.759 | 0.070  | -0.759 | 0.138  | -1.025 |
| 37 | 59 | 0.111  | -0.685 | 0.111  | -0.685 | 0.193  | -0.925 |
|    | 60 | 0.056  | -0.764 | 0.056  | -0.764 | 0.119  | -1.031 |
| 38 | 60 | 0.104  | -0.680 | 0.104  | -0.680 | 0.184  | -0.917 |

|    |    |       |        |       |        |       |        |
|----|----|-------|--------|-------|--------|-------|--------|
|    | 61 | 0.031 | -0.761 | 0.031 | -0.761 | 0.085 | -1.027 |
| 39 | 61 | 0.074 | -0.661 | 0.074 | -0.661 | 0.144 | -0.892 |
|    | 62 | 0.017 | -0.955 | 0.017 | -0.955 | 0.064 | -1.289 |
| 40 | 62 | 0.092 | -1.929 | 0.092 | -1.929 | 0.153 | -2.604 |
|    | 63 | 0.058 | -1.233 | 0.058 | -1.233 | 0.080 | -1.664 |
| 41 | 64 | 0.397 | -0.266 | 0.397 | -0.266 | 0.536 | -0.361 |
|    | 65 | 0.236 | -3.665 | 0.236 | -3.665 | 0.353 | -4.948 |
| 42 | 65 | 0.096 | -1.097 | 0.096 | -1.097 | 0.170 | -1.481 |
|    | 66 | 0.238 | -0.701 | 0.238 | -0.701 | 0.367 | -0.946 |
| 43 | 66 | 0.130 | -0.930 | 0.130 | -0.930 | 0.220 | -1.255 |
|    | 67 | 0.281 | -0.775 | 0.281 | -0.775 | 0.423 | -1.046 |
| 44 | 67 | 0.177 | -0.937 | 0.177 | -0.937 | 0.283 | -1.264 |
|    | 68 | 0.293 | -0.782 | 0.293 | -0.782 | 0.440 | -1.055 |
| 45 | 68 | 0.205 | -0.927 | 0.205 | -0.927 | 0.320 | -1.251 |
|    | 69 | 0.286 | -0.811 | 0.286 | -0.811 | 0.430 | -1.094 |
| 46 | 69 | 0.212 | -0.916 | 0.212 | -0.916 | 0.330 | -1.237 |
|    | 70 | 0.279 | -0.821 | 0.279 | -0.821 | 0.420 | -1.108 |
| 47 | 70 | 0.220 | -0.905 | 0.220 | -0.905 | 0.340 | -1.222 |
|    | 71 | 0.271 | -0.832 | 0.271 | -0.832 | 0.410 | -1.123 |
| 48 | 71 | 0.227 | -0.895 | 0.227 | -0.895 | 0.350 | -1.208 |
|    | 72 | 0.264 | -0.842 | 0.264 | -0.842 | 0.400 | -1.137 |
| 49 | 72 | 0.234 | -0.884 | 0.234 | -0.884 | 0.360 | -1.194 |
|    | 73 | 0.257 | -0.853 | 0.257 | -0.853 | 0.390 | -1.151 |
| 50 | 73 | 0.242 | -0.874 | 0.242 | -0.874 | 0.370 | -1.180 |
|    | 74 | 0.249 | -0.863 | 0.249 | -0.863 | 0.380 | -1.165 |
| 51 | 74 | 0.249 | -0.863 | 0.249 | -0.863 | 0.380 | -1.165 |
|    | 75 | 0.242 | -0.874 | 0.242 | -0.874 | 0.370 | -1.180 |
| 52 | 75 | 0.257 | -0.853 | 0.257 | -0.853 | 0.390 | -1.151 |
|    | 76 | 0.234 | -0.884 | 0.234 | -0.884 | 0.360 | -1.194 |
| 53 | 76 | 0.264 | -0.842 | 0.264 | -0.842 | 0.400 | -1.137 |
|    | 77 | 0.227 | -0.895 | 0.227 | -0.895 | 0.350 | -1.208 |
| 54 | 77 | 0.271 | -0.832 | 0.271 | -0.832 | 0.410 | -1.123 |
|    | 78 | 0.220 | -0.905 | 0.220 | -0.905 | 0.340 | -1.222 |
| 55 | 78 | 0.279 | -0.821 | 0.279 | -0.821 | 0.420 | -1.108 |
|    | 79 | 0.212 | -0.916 | 0.212 | -0.916 | 0.330 | -1.237 |
| 56 | 79 | 0.286 | -0.811 | 0.286 | -0.811 | 0.430 | -1.094 |
|    | 80 | 0.205 | -0.927 | 0.205 | -0.927 | 0.320 | -1.251 |
| 57 | 80 | 0.293 | -0.782 | 0.293 | -0.782 | 0.440 | -1.055 |
|    | 81 | 0.177 | -0.937 | 0.177 | -0.937 | 0.283 | -1.264 |
| 58 | 81 | 0.281 | -0.775 | 0.281 | -0.775 | 0.423 | -1.046 |
|    | 82 | 0.130 | -0.930 | 0.130 | -0.930 | 0.220 | -1.255 |
| 59 | 82 | 0.238 | -0.701 | 0.238 | -0.701 | 0.367 | -0.946 |
|    | 83 | 0.096 | -1.097 | 0.096 | -1.097 | 0.170 | -1.481 |
| 60 | 83 | 0.236 | -3.665 | 0.236 | -3.665 | 0.353 | -4.948 |
|    | 84 | 0.397 | -0.266 | 0.397 | -0.266 | 0.536 | -0.361 |
| 61 | 85 | 0.439 | -0.285 | 0.439 | -0.285 | 0.593 | -0.387 |
|    | 86 | 0.302 | -4.209 | 0.302 | -4.209 | 0.444 | -5.681 |
| 62 | 86 | 0.134 | -1.133 | 0.134 | -1.133 | 0.221 | -1.529 |
|    | 87 | 0.323 | -0.725 | 0.323 | -0.725 | 0.482 | -0.978 |
| 63 | 87 | 0.178 | -1.015 | 0.178 | -1.015 | 0.284 | -1.371 |
|    | 88 | 0.372 | -0.821 | 0.372 | -0.821 | 0.546 | -1.108 |
| 64 | 88 | 0.236 | -1.024 | 0.236 | -1.024 | 0.362 | -1.382 |
|    | 89 | 0.387 | -0.828 | 0.387 | -0.828 | 0.567 | -1.118 |
| 65 | 89 | 0.271 | -1.011 | 0.271 | -1.011 | 0.410 | -1.365 |
|    | 90 | 0.378 | -0.864 | 0.378 | -0.864 | 0.554 | -1.167 |
| 66 | 90 | 0.281 | -0.998 | 0.281 | -0.998 | 0.423 | -1.347 |
|    | 91 | 0.368 | -0.878 | 0.368 | -0.878 | 0.541 | -1.185 |
| 67 | 91 | 0.290 | -0.985 | 0.290 | -0.985 | 0.436 | -1.329 |
|    | 92 | 0.358 | -0.891 | 0.358 | -0.891 | 0.528 | -1.203 |
| 68 | 92 | 0.300 | -0.971 | 0.300 | -0.971 | 0.449 | -1.311 |
|    | 93 | 0.349 | -0.904 | 0.349 | -0.904 | 0.515 | -1.221 |
| 69 | 93 | 0.310 | -0.958 | 0.310 | -0.958 | 0.462 | -1.293 |
|    | 94 | 0.339 | -0.918 | 0.339 | -0.918 | 0.502 | -1.239 |
| 70 | 94 | 0.320 | -0.944 | 0.320 | -0.944 | 0.475 | -1.275 |
|    | 95 | 0.329 | -0.931 | 0.329 | -0.931 | 0.488 | -1.257 |
| 71 | 95 | 0.329 | -0.931 | 0.329 | -0.931 | 0.488 | -1.257 |
|    | 96 | 0.320 | -0.944 | 0.320 | -0.944 | 0.475 | -1.275 |
| 72 | 96 | 0.339 | -0.918 | 0.339 | -0.918 | 0.502 | -1.239 |
|    | 97 | 0.310 | -0.958 | 0.310 | -0.958 | 0.462 | -1.293 |

|     |     |       |        |       |        |       |        |
|-----|-----|-------|--------|-------|--------|-------|--------|
| 73  | 97  | 0.349 | -0.904 | 0.349 | -0.904 | 0.515 | -1.221 |
|     | 98  | 0.300 | -0.971 | 0.300 | -0.971 | 0.449 | -1.311 |
| 74  | 98  | 0.358 | -0.891 | 0.358 | -0.891 | 0.528 | -1.203 |
|     | 99  | 0.290 | -0.985 | 0.290 | -0.985 | 0.436 | -1.329 |
| 75  | 99  | 0.368 | -0.878 | 0.368 | -0.878 | 0.541 | -1.185 |
|     | 100 | 0.281 | -0.998 | 0.281 | -0.998 | 0.423 | -1.347 |
| 76  | 100 | 0.378 | -0.864 | 0.378 | -0.864 | 0.554 | -1.167 |
|     | 101 | 0.271 | -1.011 | 0.271 | -1.011 | 0.410 | -1.365 |
| 77  | 101 | 0.387 | -0.828 | 0.387 | -0.828 | 0.567 | -1.118 |
|     | 102 | 0.236 | -1.024 | 0.236 | -1.024 | 0.362 | -1.382 |
| 78  | 102 | 0.372 | -0.821 | 0.372 | -0.821 | 0.546 | -1.108 |
|     | 103 | 0.178 | -1.015 | 0.178 | -1.015 | 0.284 | -1.371 |
| 79  | 103 | 0.323 | -0.725 | 0.323 | -0.725 | 0.482 | -0.978 |
|     | 104 | 0.134 | -1.133 | 0.134 | -1.133 | 0.221 | -1.529 |
| 80  | 104 | 0.302 | -4.209 | 0.302 | -4.209 | 0.444 | -5.682 |
|     | 105 | 0.439 | -0.285 | 0.439 | -0.285 | 0.593 | -0.387 |
| 81  | 106 | 0.397 | -0.266 | 0.397 | -0.266 | 0.536 | -0.361 |
|     | 107 | 0.236 | -3.665 | 0.236 | -3.665 | 0.353 | -4.948 |
| 82  | 107 | 0.096 | -1.097 | 0.096 | -1.097 | 0.170 | -1.481 |
|     | 108 | 0.238 | -0.701 | 0.238 | -0.701 | 0.367 | -0.946 |
| 83  | 108 | 0.130 | -0.930 | 0.130 | -0.930 | 0.220 | -1.255 |
|     | 109 | 0.281 | -0.775 | 0.281 | -0.775 | 0.423 | -1.046 |
| 84  | 109 | 0.177 | -0.937 | 0.177 | -0.937 | 0.283 | -1.264 |
|     | 110 | 0.293 | -0.782 | 0.293 | -0.782 | 0.440 | -1.055 |
| 85  | 110 | 0.205 | -0.927 | 0.205 | -0.927 | 0.320 | -1.251 |
|     | 111 | 0.286 | -0.811 | 0.286 | -0.811 | 0.430 | -1.094 |
| 86  | 111 | 0.212 | -0.916 | 0.212 | -0.916 | 0.330 | -1.237 |
|     | 112 | 0.279 | -0.821 | 0.279 | -0.821 | 0.420 | -1.108 |
| 87  | 112 | 0.220 | -0.905 | 0.220 | -0.905 | 0.340 | -1.222 |
|     | 113 | 0.271 | -0.832 | 0.271 | -0.832 | 0.410 | -1.123 |
| 88  | 113 | 0.227 | -0.895 | 0.227 | -0.895 | 0.350 | -1.208 |
|     | 114 | 0.264 | -0.842 | 0.264 | -0.842 | 0.400 | -1.137 |
| 89  | 114 | 0.234 | -0.884 | 0.234 | -0.884 | 0.360 | -1.194 |
|     | 115 | 0.257 | -0.853 | 0.257 | -0.853 | 0.390 | -1.151 |
| 90  | 115 | 0.242 | -0.874 | 0.242 | -0.874 | 0.370 | -1.180 |
|     | 116 | 0.249 | -0.863 | 0.249 | -0.863 | 0.380 | -1.165 |
| 91  | 116 | 0.249 | -0.863 | 0.249 | -0.863 | 0.380 | -1.165 |
|     | 117 | 0.242 | -0.874 | 0.242 | -0.874 | 0.370 | -1.180 |
| 92  | 117 | 0.257 | -0.853 | 0.257 | -0.853 | 0.390 | -1.151 |
|     | 118 | 0.234 | -0.884 | 0.234 | -0.884 | 0.360 | -1.194 |
| 93  | 118 | 0.264 | -0.842 | 0.264 | -0.842 | 0.400 | -1.137 |
|     | 119 | 0.227 | -0.895 | 0.227 | -0.895 | 0.350 | -1.208 |
| 94  | 119 | 0.271 | -0.832 | 0.271 | -0.832 | 0.410 | -1.123 |
|     | 120 | 0.220 | -0.905 | 0.220 | -0.905 | 0.340 | -1.222 |
| 95  | 120 | 0.279 | -0.821 | 0.279 | -0.821 | 0.420 | -1.108 |
|     | 121 | 0.212 | -0.916 | 0.212 | -0.916 | 0.330 | -1.237 |
| 96  | 121 | 0.286 | -0.811 | 0.286 | -0.811 | 0.430 | -1.094 |
|     | 122 | 0.205 | -0.927 | 0.205 | -0.927 | 0.320 | -1.251 |
| 97  | 122 | 0.293 | -0.782 | 0.293 | -0.782 | 0.440 | -1.055 |
|     | 123 | 0.177 | -0.937 | 0.177 | -0.937 | 0.283 | -1.264 |
| 98  | 123 | 0.281 | -0.775 | 0.281 | -0.775 | 0.423 | -1.046 |
|     | 124 | 0.130 | -0.930 | 0.130 | -0.930 | 0.220 | -1.255 |
| 99  | 124 | 0.238 | -0.701 | 0.238 | -0.701 | 0.367 | -0.946 |
|     | 125 | 0.096 | -1.097 | 0.096 | -1.097 | 0.170 | -1.481 |
| 100 | 125 | 0.236 | -3.665 | 0.236 | -3.665 | 0.353 | -4.948 |
|     | 126 | 0.397 | -0.266 | 0.397 | -0.266 | 0.536 | -0.361 |
| 101 | 127 | 0.058 | -1.246 | 0.058 | -1.246 | 0.080 | -1.682 |
|     | 128 | 0.092 | -1.929 | 0.092 | -1.929 | 0.153 | -2.604 |
| 102 | 128 | 0.017 | -0.955 | 0.017 | -0.955 | 0.064 | -1.289 |
|     | 129 | 0.074 | -0.661 | 0.074 | -0.661 | 0.144 | -0.892 |
| 103 | 129 | 0.031 | -0.761 | 0.031 | -0.761 | 0.085 | -1.027 |
|     | 130 | 0.104 | -0.680 | 0.104 | -0.680 | 0.184 | -0.917 |
| 104 | 130 | 0.056 | -0.764 | 0.056 | -0.764 | 0.119 | -1.031 |
|     | 131 | 0.111 | -0.685 | 0.111 | -0.685 | 0.193 | -0.925 |
| 105 | 131 | 0.070 | -0.759 | 0.070 | -0.759 | 0.138 | -1.025 |
|     | 132 | 0.107 | -0.700 | 0.107 | -0.700 | 0.189 | -0.945 |
| 106 | 132 | 0.073 | -0.754 | 0.073 | -0.754 | 0.143 | -1.018 |
|     | 133 | 0.104 | -0.706 | 0.104 | -0.706 | 0.184 | -0.953 |
| 107 | 133 | 0.077 | -0.748 | 0.077 | -0.748 | 0.147 | -1.010 |

|     |     |        |         |        |         |        |         |
|-----|-----|--------|---------|--------|---------|--------|---------|
|     | 134 | 0.101  | -0.711  | 0.101  | -0.711  | 0.180  | -0.960  |
| 108 | 134 | 0.080  | -0.743  | 0.080  | -0.743  | 0.152  | -1.003  |
|     | 135 | 0.097  | -0.716  | 0.097  | -0.716  | 0.175  | -0.967  |
| 109 | 135 | 0.084  | -0.738  | 0.084  | -0.738  | 0.157  | -0.996  |
|     | 136 | 0.094  | -0.722  | 0.094  | -0.722  | 0.170  | -0.974  |
| 110 | 136 | 0.087  | -0.732  | 0.087  | -0.732  | 0.161  | -0.989  |
|     | 137 | 0.090  | -0.727  | 0.090  | -0.727  | 0.166  | -0.981  |
| 111 | 137 | 0.090  | -0.727  | 0.090  | -0.727  | 0.166  | -0.981  |
|     | 138 | 0.087  | -0.732  | 0.087  | -0.732  | 0.161  | -0.989  |
| 112 | 138 | 0.094  | -0.722  | 0.094  | -0.722  | 0.170  | -0.974  |
|     | 139 | 0.084  | -0.738  | 0.084  | -0.738  | 0.157  | -0.996  |
| 113 | 139 | 0.097  | -0.716  | 0.097  | -0.716  | 0.175  | -0.967  |
|     | 140 | 0.080  | -0.743  | 0.080  | -0.743  | 0.152  | -1.003  |
| 114 | 140 | 0.101  | -0.711  | 0.101  | -0.711  | 0.180  | -0.960  |
|     | 141 | 0.077  | -0.748  | 0.077  | -0.748  | 0.147  | -1.010  |
| 115 | 141 | 0.104  | -0.706  | 0.104  | -0.706  | 0.184  | -0.953  |
|     | 142 | 0.073  | -0.754  | 0.073  | -0.754  | 0.143  | -1.018  |
| 116 | 142 | 0.107  | -0.700  | 0.107  | -0.700  | 0.189  | -0.945  |
|     | 143 | 0.070  | -0.759  | 0.070  | -0.759  | 0.138  | -1.025  |
| 117 | 143 | 0.111  | -0.685  | 0.111  | -0.685  | 0.193  | -0.925  |
|     | 144 | 0.056  | -0.764  | 0.056  | -0.764  | 0.119  | -1.031  |
| 118 | 144 | 0.104  | -0.680  | 0.104  | -0.680  | 0.184  | -0.917  |
|     | 145 | 0.031  | -0.761  | 0.031  | -0.761  | 0.085  | -1.027  |
| 119 | 145 | 0.074  | -0.661  | 0.074  | -0.661  | 0.144  | -0.892  |
|     | 146 | 0.017  | -0.955  | 0.017  | -0.955  | 0.064  | -1.289  |
| 120 | 146 | 0.092  | -1.929  | 0.092  | -1.929  | 0.153  | -2.604  |
|     | 147 | 0.058  | -1.246  | 0.058  | -1.246  | 0.080  | -1.682  |
| 121 | 148 | 0.048  | -1.283  | 0.048  | -1.283  | 0.071  | -1.732  |
|     | 149 | 0.341  | -0.278  | 0.341  | -0.278  | 0.480  | -0.376  |
| 122 | 149 | -0.080 | -0.713  | -0.080 | -0.713  | -0.066 | -0.963  |
|     | 150 | -0.045 | -0.597  | -0.045 | -0.597  | -0.016 | -0.807  |
| 123 | 150 | -0.082 | -0.593  | -0.082 | -0.593  | -0.067 | -0.801  |
|     | 151 | -0.076 | -0.595  | -0.076 | -0.595  | -0.059 | -0.803  |
| 124 | 151 | -0.078 | -0.594  | -0.078 | -0.594  | -0.062 | -0.801  |
|     | 152 | -0.075 | -0.595  | -0.075 | -0.595  | -0.058 | -0.803  |
| 125 | 152 | -0.077 | -0.593  | -0.077 | -0.593  | -0.060 | -0.801  |
|     | 153 | -0.076 | -0.595  | -0.076 | -0.595  | -0.058 | -0.803  |
| 126 | 153 | -0.077 | -0.593  | -0.077 | -0.593  | -0.060 | -0.800  |
|     | 154 | -0.076 | -0.594  | -0.076 | -0.594  | -0.058 | -0.802  |
| 127 | 154 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
|     | 155 | -0.076 | -0.594  | -0.076 | -0.594  | -0.059 | -0.801  |
| 128 | 155 | -0.077 | -0.591  | -0.077 | -0.591  | -0.060 | -0.798  |
|     | 156 | -0.076 | -0.593  | -0.076 | -0.593  | -0.059 | -0.801  |
| 129 | 156 | -0.077 | -0.591  | -0.077 | -0.591  | -0.060 | -0.798  |
|     | 157 | -0.076 | -0.593  | -0.076 | -0.593  | -0.059 | -0.800  |
| 130 | 157 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
|     | 158 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
| 131 | 158 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
|     | 159 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
| 132 | 159 | -0.076 | -0.593  | -0.076 | -0.593  | -0.059 | -0.800  |
|     | 160 | -0.077 | -0.591  | -0.077 | -0.591  | -0.060 | -0.798  |
| 133 | 160 | -0.076 | -0.593  | -0.076 | -0.593  | -0.059 | -0.801  |
|     | 161 | -0.077 | -0.591  | -0.077 | -0.591  | -0.060 | -0.798  |
| 134 | 161 | -0.076 | -0.594  | -0.076 | -0.594  | -0.059 | -0.801  |
|     | 162 | -0.077 | -0.592  | -0.077 | -0.592  | -0.060 | -0.799  |
| 135 | 162 | -0.076 | -0.594  | -0.076 | -0.594  | -0.058 | -0.802  |
|     | 163 | -0.077 | -0.593  | -0.077 | -0.593  | -0.060 | -0.800  |
| 136 | 163 | -0.076 | -0.595  | -0.076 | -0.595  | -0.058 | -0.803  |
|     | 164 | -0.077 | -0.593  | -0.077 | -0.593  | -0.060 | -0.801  |
| 137 | 164 | -0.075 | -0.595  | -0.075 | -0.595  | -0.058 | -0.803  |
|     | 165 | -0.078 | -0.594  | -0.078 | -0.594  | -0.062 | -0.801  |
| 138 | 165 | -0.076 | -0.595  | -0.076 | -0.595  | -0.059 | -0.803  |
|     | 166 | -0.082 | -0.593  | -0.082 | -0.593  | -0.067 | -0.801  |
| 139 | 166 | -0.045 | -0.597  | -0.045 | -0.597  | -0.016 | -0.807  |
|     | 167 | -0.080 | -0.713  | -0.080 | -0.713  | -0.066 | -0.963  |
| 140 | 167 | 0.341  | -0.278  | 0.341  | -0.278  | 0.480  | -0.376  |
|     | 168 | 0.048  | -1.283  | 0.048  | -1.283  | 0.071  | -1.732  |
| 141 | 1   | -0.041 | -23.879 | -0.041 | -23.879 | 0.023  | -32.237 |
|     | 22  | 0.071  | -12.434 | 0.071  | -12.434 | 0.132  | -16.786 |

|     |    |        |         |        |         |        |         |
|-----|----|--------|---------|--------|---------|--------|---------|
| 142 | 2  | -0.091 | -3.191  | -0.091 | -3.191  | -0.087 | -4.307  |
|     | 23 | -0.032 | -2.239  | -0.032 | -2.239  | -0.021 | -3.022  |
| 143 | 3  | -0.102 | -3.152  | -0.102 | -3.152  | -0.097 | -4.255  |
|     | 24 | -0.033 | -2.030  | -0.033 | -2.030  | -0.022 | -2.740  |
| 144 | 4  | -0.101 | -3.318  | -0.101 | -3.318  | -0.096 | -4.480  |
|     | 25 | -0.029 | -2.137  | -0.029 | -2.137  | -0.016 | -2.885  |
| 145 | 5  | -0.100 | -3.415  | -0.100 | -3.415  | -0.095 | -4.610  |
|     | 26 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 146 | 6  | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 27 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 147 | 7  | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 28 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 148 | 8  | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 29 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 149 | 9  | -0.101 | -3.415  | -0.101 | -3.415  | -0.097 | -4.610  |
|     | 30 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 150 | 10 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
|     | 31 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 151 | 11 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
|     | 32 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 152 | 12 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
|     | 33 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 153 | 13 | -0.101 | -3.415  | -0.101 | -3.415  | -0.097 | -4.610  |
|     | 34 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 154 | 14 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 35 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 155 | 15 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 36 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 156 | 16 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
|     | 37 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 157 | 17 | -0.100 | -3.415  | -0.100 | -3.415  | -0.095 | -4.610  |
|     | 38 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
| 158 | 18 | -0.101 | -3.318  | -0.101 | -3.318  | -0.096 | -4.480  |
|     | 39 | -0.029 | -2.137  | -0.029 | -2.137  | -0.016 | -2.885  |
| 159 | 19 | -0.102 | -3.152  | -0.102 | -3.152  | -0.097 | -4.255  |
|     | 40 | -0.033 | -2.030  | -0.033 | -2.030  | -0.022 | -2.740  |
| 160 | 20 | -0.091 | -3.191  | -0.091 | -3.191  | -0.087 | -4.307  |
|     | 41 | -0.032 | -2.239  | -0.032 | -2.239  | -0.021 | -3.022  |
| 161 | 21 | -0.041 | -23.879 | -0.041 | -23.879 | 0.023  | -32.237 |
|     | 42 | 0.071  | -12.434 | 0.071  | -12.434 | 0.132  | -16.786 |
| 162 | 22 | 0.029  | -15.653 | 0.029  | -15.653 | 0.081  | -21.132 |
|     | 43 | 13.312 | -1.042  | 13.312 | -1.042  | 17.971 | -1.417  |
| 163 | 23 | -0.030 | -2.051  | -0.030 | -2.051  | -0.020 | -2.768  |
|     | 44 | 1.041  | -0.517  | 1.041  | -0.517  | 1.405  | -0.699  |
| 164 | 24 | -0.033 | -2.056  | -0.033 | -2.056  | -0.021 | -2.775  |
|     | 45 | 1.127  | -0.361  | 1.127  | -0.361  | 1.521  | -0.488  |
| 165 | 25 | -0.029 | -2.166  | -0.029 | -2.166  | -0.015 | -2.924  |
|     | 46 | 1.198  | -0.381  | 1.198  | -0.381  | 1.618  | -0.516  |
| 166 | 26 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 47 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 167 | 27 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 48 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 168 | 28 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 49 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 169 | 29 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 50 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 170 | 30 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 51 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 171 | 31 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 52 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 172 | 32 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 53 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 173 | 33 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 54 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 174 | 34 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 55 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 175 | 35 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
|     | 56 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
| 176 | 36 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |

|     |    |        |         |        |         |        |         |
|-----|----|--------|---------|--------|---------|--------|---------|
| 177 | 57 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 37 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 178 | 58 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 38 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 179 | 59 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 39 | -0.029 | -2.166  | -0.029 | -2.166  | -0.015 | -2.924  |
| 180 | 60 | 1.198  | -0.381  | 1.198  | -0.381  | 1.618  | -0.516  |
|     | 40 | -0.033 | -2.056  | -0.033 | -2.056  | -0.021 | -2.775  |
| 181 | 61 | 1.127  | -0.361  | 1.127  | -0.361  | 1.521  | -0.488  |
|     | 41 | -0.030 | -2.051  | -0.030 | -2.051  | -0.020 | -2.768  |
| 182 | 62 | 1.041  | -0.517  | 1.041  | -0.517  | 1.405  | -0.699  |
|     | 42 | 0.029  | -15.653 | 0.029  | -15.653 | 0.081  | -21.131 |
| 183 | 63 | 13.312 | -1.042  | 13.312 | -1.042  | 17.971 | -1.417  |
|     | 43 | 10.597 | -4.875  | 10.597 | -4.875  | 14.305 | -6.582  |
| 184 | 64 | 15.501 | -0.012  | 15.501 | -0.012  | 20.926 | -0.047  |
|     | 44 | 1.026  | -0.361  | 1.026  | -0.361  | 1.385  | -0.489  |
| 185 | 65 | 1.795  | 0.035   | 1.795  | 0.035   | 2.423  | 0.033   |
|     | 45 | 1.103  | -0.394  | 1.103  | -0.394  | 1.490  | -0.533  |
| 186 | 66 | 1.924  | 0.030   | 1.924  | 0.030   | 2.597  | 0.025   |
|     | 46 | 1.172  | -0.418  | 1.172  | -0.418  | 1.583  | -0.566  |
| 187 | 67 | 2.033  | 0.038   | 2.033  | 0.038   | 2.745  | 0.035   |
|     | 47 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 188 | 68 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.035   |
|     | 48 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 189 | 69 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 49 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 190 | 70 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 50 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 191 | 71 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 51 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 192 | 72 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 52 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 193 | 73 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 53 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 194 | 74 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.037   |
|     | 54 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 195 | 75 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 55 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 196 | 76 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 56 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 197 | 77 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 57 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 198 | 78 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 58 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 199 | 79 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 59 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 200 | 80 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.035   |
|     | 60 | 1.172  | -0.418  | 1.172  | -0.418  | 1.583  | -0.566  |
| 201 | 81 | 2.033  | 0.038   | 2.033  | 0.038   | 2.745  | 0.035   |
|     | 61 | 1.103  | -0.394  | 1.103  | -0.394  | 1.490  | -0.533  |
| 202 | 82 | 1.924  | 0.030   | 1.924  | 0.030   | 2.597  | 0.025   |
|     | 62 | 1.026  | -0.361  | 1.026  | -0.361  | 1.385  | -0.489  |
| 203 | 83 | 1.795  | 0.035   | 1.795  | 0.035   | 2.423  | 0.033   |
|     | 63 | 10.596 | -4.875  | 10.596 | -4.875  | 14.305 | -6.582  |
| 204 | 84 | 15.501 | -0.012  | 15.501 | -0.012  | 20.926 | -0.047  |
|     | 64 | 12.512 | -0.697  | 12.512 | -0.697  | 16.891 | -0.966  |
| 205 | 85 | 18.470 | 0.030   | 18.470 | 0.030   | 24.935 | 0.006   |
|     | 65 | 1.978  | 0.038   | 1.978  | 0.038   | 2.671  | 0.037   |
| 206 | 86 | 2.529  | 0.048   | 2.529  | 0.048   | 3.414  | 0.046   |
|     | 66 | 1.897  | 0.042   | 1.897  | 0.042   | 2.560  | 0.041   |
| 207 | 87 | 2.505  | 0.054   | 2.505  | 0.054   | 3.382  | 0.051   |
|     | 67 | 2.003  | 0.042   | 2.003  | 0.042   | 2.704  | 0.041   |
| 208 | 88 | 2.646  | 0.053   | 2.646  | 0.053   | 3.572  | 0.051   |
|     | 68 | 2.065  | 0.041   | 2.065  | 0.041   | 2.788  | 0.040   |
| 209 | 89 | 2.728  | 0.052   | 2.728  | 0.052   | 3.683  | 0.050   |
|     | 69 | 2.065  | 0.041   | 2.065  | 0.041   | 2.788  | 0.040   |
| 210 | 90 | 2.728  | 0.052   | 2.728  | 0.052   | 3.683  | 0.050   |
|     | 70 | 2.065  | 0.041   | 2.065  | 0.041   | 2.788  | 0.040   |
|     | 91 | 2.728  | 0.053   | 2.728  | 0.053   | 3.683  | 0.050   |

|     |     |        |        |        |        |        |        |
|-----|-----|--------|--------|--------|--------|--------|--------|
| 211 | 71  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 92  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
| 212 | 72  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 93  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
| 213 | 73  | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
|     | 94  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
| 214 | 74  | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
|     | 95  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
| 215 | 75  | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
|     | 96  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
| 216 | 76  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 97  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
| 217 | 77  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 98  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
| 218 | 78  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 99  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
| 219 | 79  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 100 | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
| 220 | 80  | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
|     | 101 | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
| 221 | 81  | 2.003  | 0.042  | 2.003  | 0.042  | 2.704  | 0.041  |
|     | 102 | 2.646  | 0.053  | 2.646  | 0.053  | 3.572  | 0.051  |
| 222 | 82  | 1.897  | 0.042  | 1.897  | 0.042  | 2.560  | 0.041  |
|     | 103 | 2.505  | 0.054  | 2.505  | 0.054  | 3.382  | 0.051  |
| 223 | 83  | 1.978  | 0.038  | 1.978  | 0.038  | 2.671  | 0.037  |
|     | 104 | 2.529  | 0.048  | 2.529  | 0.048  | 3.414  | 0.046  |
| 224 | 84  | 12.512 | -0.697 | 12.512 | -0.697 | 16.891 | -0.965 |
|     | 105 | 18.470 | 0.030  | 18.470 | 0.030  | 24.935 | 0.006  |
| 225 | 85  | 18.470 | 0.030  | 18.470 | 0.030  | 24.935 | 0.006  |
|     | 106 | 12.512 | -0.692 | 12.512 | -0.692 | 16.891 | -0.959 |
| 226 | 86  | 2.529  | 0.048  | 2.529  | 0.048  | 3.414  | 0.046  |
|     | 107 | 1.978  | 0.038  | 1.978  | 0.038  | 2.671  | 0.037  |
| 227 | 87  | 2.505  | 0.054  | 2.505  | 0.054  | 3.382  | 0.051  |
|     | 108 | 1.897  | 0.042  | 1.897  | 0.042  | 2.560  | 0.041  |
| 228 | 88  | 2.646  | 0.053  | 2.646  | 0.053  | 3.572  | 0.051  |
|     | 109 | 2.003  | 0.042  | 2.003  | 0.042  | 2.704  | 0.041  |
| 229 | 89  | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
|     | 110 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 230 | 90  | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
|     | 111 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 231 | 91  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 112 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 232 | 92  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 113 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 233 | 93  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 114 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 234 | 94  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
|     | 115 | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
| 235 | 95  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
|     | 116 | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
| 236 | 96  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.051  |
|     | 117 | 2.065  | 0.042  | 2.065  | 0.042  | 2.788  | 0.040  |
| 237 | 97  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 118 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 238 | 98  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 119 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 239 | 99  | 2.728  | 0.053  | 2.728  | 0.053  | 3.683  | 0.050  |
|     | 120 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 240 | 100 | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
|     | 121 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 241 | 101 | 2.728  | 0.052  | 2.728  | 0.052  | 3.683  | 0.050  |
|     | 122 | 2.065  | 0.041  | 2.065  | 0.041  | 2.788  | 0.040  |
| 242 | 102 | 2.646  | 0.053  | 2.646  | 0.053  | 3.572  | 0.051  |
|     | 123 | 2.003  | 0.042  | 2.003  | 0.042  | 2.704  | 0.041  |
| 243 | 103 | 2.505  | 0.054  | 2.505  | 0.054  | 3.382  | 0.051  |
|     | 124 | 1.897  | 0.042  | 1.897  | 0.042  | 2.560  | 0.041  |
| 244 | 104 | 2.529  | 0.048  | 2.529  | 0.048  | 3.414  | 0.046  |
|     | 125 | 1.978  | 0.038  | 1.978  | 0.038  | 2.671  | 0.037  |
| 245 | 105 | 18.470 | 0.030  | 18.470 | 0.030  | 24.935 | 0.006  |

|     |     |        |         |        |         |        |         |
|-----|-----|--------|---------|--------|---------|--------|---------|
|     | 126 | 12.511 | -0.692  | 12.511 | -0.692  | 16.890 | -0.959  |
| 246 | 106 | 15.501 | -0.012  | 15.501 | -0.012  | 20.926 | -0.047  |
|     | 127 | 10.724 | -4.875  | 10.724 | -4.875  | 14.477 | -6.582  |
| 247 | 107 | 1.795  | 0.035   | 1.795  | 0.035   | 2.423  | 0.033   |
|     | 128 | 1.026  | -0.361  | 1.026  | -0.361  | 1.385  | -0.489  |
| 248 | 108 | 1.924  | 0.030   | 1.924  | 0.030   | 2.597  | 0.025   |
|     | 129 | 1.103  | -0.394  | 1.103  | -0.394  | 1.490  | -0.533  |
| 249 | 109 | 2.033  | 0.038   | 2.033  | 0.038   | 2.745  | 0.035   |
|     | 130 | 1.172  | -0.418  | 1.172  | -0.418  | 1.583  | -0.566  |
| 250 | 110 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.035   |
|     | 131 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 251 | 111 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 132 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 252 | 112 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 133 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 253 | 113 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 134 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 254 | 114 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 135 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 255 | 115 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 136 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 256 | 116 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.037   |
|     | 137 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 257 | 117 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 138 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 258 | 118 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 139 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 259 | 119 | 2.097  | 0.039   | 2.097  | 0.039   | 2.831  | 0.036   |
|     | 140 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 260 | 120 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 141 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 261 | 121 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.036   |
|     | 142 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 262 | 122 | 2.097  | 0.038   | 2.097  | 0.038   | 2.831  | 0.035   |
|     | 143 | 1.212  | -0.432  | 1.212  | -0.432  | 1.636  | -0.585  |
| 263 | 123 | 2.033  | 0.038   | 2.033  | 0.038   | 2.745  | 0.035   |
|     | 144 | 1.172  | -0.418  | 1.172  | -0.418  | 1.583  | -0.566  |
| 264 | 124 | 1.924  | 0.030   | 1.924  | 0.030   | 2.597  | 0.025   |
|     | 145 | 1.103  | -0.394  | 1.103  | -0.394  | 1.490  | -0.533  |
| 265 | 125 | 1.795  | 0.035   | 1.795  | 0.035   | 2.423  | 0.033   |
|     | 146 | 1.026  | -0.361  | 1.026  | -0.361  | 1.385  | -0.489  |
| 266 | 126 | 15.501 | -0.012  | 15.501 | -0.012  | 20.926 | -0.047  |
|     | 147 | 10.723 | -4.875  | 10.723 | -4.875  | 14.477 | -6.582  |
| 267 | 127 | 13.484 | -1.042  | 13.484 | -1.042  | 18.203 | -1.417  |
|     | 148 | 0.029  | -15.653 | 0.029  | -15.653 | 0.081  | -21.132 |
| 268 | 128 | 1.041  | -0.517  | 1.041  | -0.517  | 1.405  | -0.699  |
|     | 149 | -0.030 | -2.051  | -0.030 | -2.051  | -0.020 | -2.768  |
| 269 | 129 | 1.127  | -0.361  | 1.127  | -0.361  | 1.521  | -0.488  |
|     | 150 | -0.033 | -2.056  | -0.033 | -2.056  | -0.021 | -2.775  |
| 270 | 130 | 1.198  | -0.381  | 1.198  | -0.381  | 1.618  | -0.516  |
|     | 151 | -0.029 | -2.166  | -0.029 | -2.166  | -0.016 | -2.924  |
| 271 | 131 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 152 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 272 | 132 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 153 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 273 | 133 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 154 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 274 | 134 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 155 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 275 | 135 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 156 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 276 | 136 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 157 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 277 | 137 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 158 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 278 | 138 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 159 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 279 | 139 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 160 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |

|     |     |        |         |        |         |        |         |
|-----|-----|--------|---------|--------|---------|--------|---------|
| 280 | 140 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 161 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 281 | 141 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 162 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 282 | 142 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 163 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 283 | 143 | 1.240  | -0.393  | 1.240  | -0.393  | 1.673  | -0.532  |
|     | 164 | -0.028 | -2.230  | -0.028 | -2.230  | -0.014 | -3.011  |
| 284 | 144 | 1.198  | -0.381  | 1.198  | -0.381  | 1.618  | -0.516  |
|     | 165 | -0.029 | -2.166  | -0.029 | -2.166  | -0.016 | -2.924  |
| 285 | 145 | 1.127  | -0.361  | 1.127  | -0.361  | 1.521  | -0.488  |
|     | 166 | -0.033 | -2.056  | -0.033 | -2.056  | -0.021 | -2.775  |
| 286 | 146 | 1.041  | -0.517  | 1.041  | -0.517  | 1.405  | -0.699  |
|     | 167 | -0.030 | -2.051  | -0.030 | -2.051  | -0.020 | -2.768  |
| 287 | 147 | 13.484 | -1.042  | 13.484 | -1.042  | 18.203 | -1.417  |
|     | 168 | 0.029  | -15.653 | 0.029  | -15.653 | 0.081  | -21.131 |
| 288 | 148 | 0.071  | -12.434 | 0.071  | -12.434 | 0.132  | -16.786 |
|     | 169 | -0.041 | -23.879 | -0.041 | -23.879 | 0.023  | -32.237 |
| 289 | 149 | -0.032 | -2.239  | -0.032 | -2.239  | -0.021 | -3.022  |
|     | 170 | -0.091 | -3.191  | -0.091 | -3.191  | -0.087 | -4.307  |
| 290 | 150 | -0.033 | -2.030  | -0.033 | -2.030  | -0.022 | -2.740  |
|     | 171 | -0.102 | -3.152  | -0.102 | -3.152  | -0.097 | -4.255  |
| 291 | 151 | -0.029 | -2.137  | -0.029 | -2.137  | -0.016 | -2.885  |
|     | 172 | -0.101 | -3.318  | -0.101 | -3.318  | -0.096 | -4.480  |
| 292 | 152 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 173 | -0.100 | -3.415  | -0.100 | -3.415  | -0.095 | -4.610  |
| 293 | 153 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 174 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 294 | 154 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 175 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 295 | 155 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 176 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 296 | 156 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 177 | -0.101 | -3.415  | -0.101 | -3.415  | -0.097 | -4.610  |
| 297 | 157 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 178 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
| 298 | 158 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 179 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
| 299 | 159 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 180 | -0.102 | -3.415  | -0.102 | -3.415  | -0.097 | -4.610  |
| 300 | 160 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 181 | -0.101 | -3.415  | -0.101 | -3.415  | -0.097 | -4.610  |
| 301 | 161 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 182 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 302 | 162 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 183 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 303 | 163 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 184 | -0.101 | -3.415  | -0.101 | -3.415  | -0.096 | -4.610  |
| 304 | 164 | -0.028 | -2.199  | -0.028 | -2.199  | -0.015 | -2.969  |
|     | 185 | -0.100 | -3.415  | -0.100 | -3.415  | -0.095 | -4.610  |
| 305 | 165 | -0.029 | -2.137  | -0.029 | -2.137  | -0.016 | -2.885  |
|     | 186 | -0.101 | -3.318  | -0.101 | -3.318  | -0.096 | -4.480  |
| 306 | 166 | -0.033 | -2.030  | -0.033 | -2.030  | -0.022 | -2.740  |
|     | 187 | -0.102 | -3.152  | -0.102 | -3.152  | -0.097 | -4.255  |
| 307 | 167 | -0.032 | -2.239  | -0.032 | -2.239  | -0.021 | -3.022  |
|     | 188 | -0.091 | -3.191  | -0.091 | -3.191  | -0.087 | -4.307  |
| 308 | 168 | 0.071  | -12.434 | 0.071  | -12.434 | 0.132  | -16.786 |
|     | 189 | -0.041 | -23.879 | -0.041 | -23.879 | 0.023  | -32.237 |

Mu+/-, Mk+/-, Md+/-: flectores unitarios y de estados límite de servicio y último (mT/m)

CALCULO A FLEXION DE LA LOSA  
=====

El presente listado desarrolla el cálculo a rotura por flexión de la losa,  
pero no realiza la comprobación a rotura por cortante de la misma.

La armadura de la losa se dispondrá en dos direcciones ortogonales.

Armadura longitudinal (superior e inferior): armadura paralela o casi paralela a los ejes de las vigas.  
Armadura transversal (superior e inferior): armadura perpendicular a la armadura longitudinal.

Armadura transversal: cuantías calculadas a partir de la suma de esfuerzos locales y globales.  
Armadura longitudinal: cuantías calculadas a partir de un 25% de las cuantías de la armadura transversal.

Esfuerzos globales considerados: superestructura, sobrecarga, carro, descensos de apoyos y gradiente térmico.  
Esfuerzos locales considerados: superestructura, sobrecarga y carro.

Angulo que forman las barras de armado longitudinal con el eje X (g): 0,0

El eje X es el eje de abcisas del sistema global de coordenadas (X,Y) que se emplea para definir las coordenadas de ubicación en planta de los ejes de las vigas y los contornos de la losa.

En el primer y último tramo debe disponerse una armadura de zuncho.

Cálculo de las cuantías correspondientes a la armadura transversal en la losa.  
=====

| Vano | Punto | Viga1 | Viga2 | Mdsup   | Assup  | Mdinf  | Asinf  |
|------|-------|-------|-------|---------|--------|--------|--------|
| 1    | 1     | 1     | 2     | -50.366 | 67.448 | 42.392 | 65.218 |
| 1    | 1     | 2     | 3     | -50.363 | 67.444 | 42.386 | 65.211 |
| 1    | 2     | 1     | 2     | -10.865 | 12.289 | 8.334  | 11.352 |
| 1    | 2     | 2     | 3     | -10.864 | 12.288 | 8.333  | 11.349 |
| 1    | 3     | 1     | 2     | -9.304  | 10.397 | 6.488  | 8.657  |
| 1    | 3     | 2     | 3     | -9.306  | 10.399 | 6.491  | 8.661  |
| 1    | 4     | 1     | 2     | -9.273  | 10.360 | 6.484  | 8.652  |
| 1    | 4     | 2     | 3     | -9.277  | 10.365 | 6.489  | 8.658  |
| 1    | 5     | 1     | 2     | -9.260  | 10.345 | 6.459  | 8.615  |
| 1    | 5     | 2     | 3     | -9.264  | 10.350 | 6.463  | 8.622  |
| 1    | 6     | 1     | 2     | -9.273  | 10.360 | 6.484  | 8.652  |
| 1    | 6     | 2     | 3     | -9.277  | 10.365 | 6.489  | 8.658  |
| 1    | 7     | 1     | 2     | -9.304  | 10.397 | 6.488  | 8.657  |
| 1    | 7     | 2     | 3     | -9.306  | 10.399 | 6.491  | 8.661  |
| 1    | 8     | 1     | 2     | -10.865 | 12.289 | 8.334  | 11.352 |
| 1    | 8     | 2     | 3     | -10.864 | 12.288 | 8.333  | 11.349 |
| 1    | 9     | 1     | 2     | -50.365 | 67.447 | 42.391 | 65.217 |
| 1    | 9     | 2     | 3     | -50.362 | 67.443 | 42.386 | 65.210 |

Punto: Punto donde estudiar la losa. Puntos equiespaciados entre ejes de apoyos.  
Viga1,Viga2 : vigas que definen el tramo donde estudiar la losa.  
Mdsup (mT/ml): flector de cálculo para la armadura superior transversal de la losa.  
Mdinf (mT/ml): flector de cálculo para la armadura inferior transversal de la losa.  
Assup (cm2/ml): cuantía de armadura superior transversal a disponer en la losa.  
Asinf (cm2/ml): cuantía de armadura inferior transversal a disponer en la losa.  
Se suele disponer en los puntos extremos de la losa una armadura de zuncho, dado que allí habitualmente se obtienen elevados valores de cuantía de cálculo.

Amadura superior a disponer en la losa.  
=====

| Vano | Punto | C.Mec.(T/m) | n_t | Fi_t | n_l | Fi_l | Peso (Kg/m2) |
|------|-------|-------------|-----|------|-----|------|--------------|
| 1    | 1     | 299.234     | 6   | 1000 | 6   | 20   | 37007.051    |
| 1    | 2     | 54.518      | 6   | 20   | 6   | 10   | 18.496       |
| 1    | 3     | 46.137      | 6   | 16   | 6   | 8    | 11.838       |
| 1    | 4     | 45.983      | 6   | 16   | 6   | 8    | 11.838       |
| 1    | 5     | 45.916      | 6   | 16   | 6   | 8    | 11.838       |
| 1    | 6     | 45.983      | 6   | 16   | 6   | 8    | 11.838       |
| 1    | 7     | 46.137      | 6   | 16   | 6   | 8    | 11.838       |
| 1    | 8     | 54.518      | 6   | 20   | 6   | 10   | 18.496       |
| 1    | 9     | 299.230     | 6   | 1000 | 6   | 20   | 37007.051    |

Amadura inferior a disponer en la losa.  
=====

| Vano | Punto | C.Mec.(T/m) | n_t | Fi_t | n_l | Fi_l | Peso (Kg/m2) |
|------|-------|-------------|-----|------|-----|------|--------------|
|------|-------|-------------|-----|------|-----|------|--------------|

|   |   |         |   |      |   |    |           |
|---|---|---------|---|------|---|----|-----------|
| 1 | 1 | 289.341 | 6 | 1000 | 6 | 20 | 37007.051 |
| 1 | 2 | 50.364  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 3 | 38.426  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 4 | 38.411  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 5 | 38.250  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 6 | 38.411  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 7 | 38.426  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 8 | 50.364  | 6 | 16   | 6 | 8  | 11.838    |
| 1 | 9 | 289.336 | 6 | 1000 | 6 | 20 | 37007.051 |

C.Mec.: capacidad mecánica (T/m) de la armadura transversal  
n\_t: número de posiciones por metro lineal correspondientes a la amadura transversal.  
Fi\_t: diámetro de las posiciones correspondientes a la amadura transversal.  
n\_l: número de posiciones por metro lineal correspondientes a la amadura longitudinal.  
Fi\_l: diámetro de las posiciones correspondientes a la amadura longitudinal.

LISTADO DE CALCULO EN TRANSPORTE  
=====

Cálculo de la armadura de refuerzo  
=====

| Vano | Viga | lvuelo | Md       | Mu       | As     |
|------|------|--------|----------|----------|--------|
| 1    | 1    | 0.000  | -0.000   | -61.394  | 0.000  |
| 1    | 1    | 1.423  | -7.853   | -226.914 | 0.000  |
| 1    | 1    | 2.847  | -31.413  | -205.760 | 0.000  |
| 1    | 1    | 4.270  | -70.679  | -205.760 | 0.000  |
| 1    | 1    | 5.693  | -125.652 | -205.760 | 0.000  |
| 1    | 1    | 7.117  | -196.331 | -205.760 | 0.000  |
| 1    | 1    | 8.540  | -282.717 | -205.760 | 9.190  |
| 1    | 1    | 9.963  | -384.809 | -205.760 | 21.387 |
| 1    | 1    | 11.387 | -502.607 | -195.198 | 37.643 |
| 1    | 1    | 12.810 | -636.112 | -195.198 | 53.992 |
| 1    | 2    | 0.000  | -0.000   | -61.394  | 0.000  |
| 1    | 2    | 1.423  | -7.853   | -226.914 | 0.000  |
| 1    | 2    | 2.847  | -31.413  | -205.760 | 0.000  |
| 1    | 2    | 4.270  | -70.679  | -205.760 | 0.000  |
| 1    | 2    | 5.693  | -125.652 | -205.760 | 0.000  |
| 1    | 2    | 7.117  | -196.331 | -205.760 | 0.000  |
| 1    | 2    | 8.540  | -282.717 | -205.760 | 9.190  |
| 1    | 2    | 9.963  | -384.809 | -205.760 | 21.387 |
| 1    | 2    | 11.387 | -502.607 | -195.198 | 37.643 |
| 1    | 2    | 12.810 | -636.112 | -195.198 | 53.992 |
| 1    | 3    | 0.000  | -0.000   | -61.394  | 0.000  |
| 1    | 3    | 1.423  | -7.853   | -226.914 | 0.000  |
| 1    | 3    | 2.847  | -31.413  | -205.760 | 0.000  |
| 1    | 3    | 4.270  | -70.679  | -205.760 | 0.000  |
| 1    | 3    | 5.693  | -125.652 | -205.760 | 0.000  |
| 1    | 3    | 7.117  | -196.331 | -205.760 | 0.000  |
| 1    | 3    | 8.540  | -282.717 | -205.760 | 9.190  |
| 1    | 3    | 9.963  | -384.809 | -205.760 | 21.387 |
| 1    | 3    | 11.387 | -502.607 | -195.198 | 37.643 |
| 1    | 3    | 12.810 | -636.112 | -195.198 | 53.992 |

Mu: Momento último correspondiente a la sección sin armadura de refuerzo (mT).  
lvuelo (m): longitud de vuelo  
As (cm2): Cuantía de refuerzo en fibra superior (Rec. mec. 5 cm)  
Md: Momento de cálculo (mT)

CALCULO A FISURACION DE LAS VIGAS  
=====

Máxima abertura de fisura (mm): 0,0000  
Recubrimiento geométrico de hormigón c(m): 0,0300  
Coeficiente de impacto :2,0000

Punto : Ordinal del punto de la directriz de la viga.  
s(m) : Distancia del punto al inicio de la directriz de la viga.  
N°Barras: Número de barras de la armadura pasiva dispuestas en una fila.  
Fi(mm) : Diámetro de las barras de la armadura pasiva.  
Sep.(m) : Separación entre las barras de la armadura pasiva.  
Y(m) : Distancia del centro de las barras de la armadura pasiva a la fibra inferior de la sección de la viga.  
Nk(T) : Axil para la combinación frecuente de acciones.  
Mk(mT) : Flector para la combinación frecuente de acciones.  
Mfis(mT) : Flector para el que la fibra más traccionada de hormigón alcanza el valor fctm con el axil Nk.  
Ts(Kg/cm2) : Tensión de la armadura pasiva para la combinación frecuente de acciones.  
Tsr(Kg/cm2): Tensión de la armadura pasiva en el instante en que se fisura el hormigón.  
wk (mm) : Abertura característica de fisura.

El cálculo a fisuración se resuelve en cada fila de la tabla para el supuesto de que el voladizo en transporte sea desde el inicio de la viga hasta el punto de ordinal "Punto".

Vano 1 Viga 1  
-----

Armadura pasiva en la cara superior  
-----

| Punto | s(m)   | N°Barras | Fi(mm) | Sep.(m) | Y(m)  |
|-------|--------|----------|--------|---------|-------|
| 1     | 0.000  | 7        | 10.000 | 0.150   | 2.065 |
| 2     | 0.600  | 7        | 10.000 | 0.150   | 2.065 |
| 3     | 1.786  | 7        | 10.000 | 0.150   | 2.065 |
| 4     | 2.971  | 7        | 10.000 | 0.150   | 2.065 |
| 5     | 4.157  | 7        | 10.000 | 0.150   | 2.065 |
| 6     | 5.343  | 7        | 10.000 | 0.150   | 2.065 |
| 7     | 6.529  | 7        | 10.000 | 0.150   | 2.065 |
| 8     | 7.714  | 7        | 10.000 | 0.150   | 2.065 |
| 9     | 8.900  | 7        | 10.000 | 0.150   | 2.065 |
| 10    | 10.086 | 7        | 10.000 | 0.150   | 2.065 |
| 11    | 11.271 | 7        | 10.000 | 0.150   | 2.065 |
| 12    | 12.457 | 7        | 10.000 | 0.150   | 2.065 |

Abertura característica de fisura en fibra superior  
-----

| Punto | s(m)   | Cumple | Nk(T)   | Mk(mT)   | Mfis(mT)                    | Ts(Kg/cm2)              | Tsr(Kg/cm2) | wk(mm)  |
|-------|--------|--------|---------|----------|-----------------------------|-------------------------|-------------|---------|
| 1     | 0.000  | Sí     | 0.00    | 0.00     | -224.97                     | La sección no se fisura |             |         |
| 2     | 0.600  | Sí     | 785.96  | -438.93  | -561.09                     | La sección no se fisura |             |         |
| 3     | 1.786  | Sí     | 883.86  | -501.96  | -602.96                     | La sección no se fisura |             |         |
| 4     | 2.971  | Sí     | 1104.19 | -669.12  | -693.41                     | La sección no se fisura |             |         |
| 5     | 4.157  | No     | 1454.23 | -949.22  | -841.50                     | 1525.35                 | 532.15      | 0.21793 |
| 6     | 5.343  | No     | 1629.25 | -1110.73 | -915.54                     | 2489.58                 | 495.45      | 0.37124 |
| 7     | 6.529  | No     | 1629.25 | -1153.63 | -915.54                     | 3451.39                 | 495.45      | 0.51965 |
| 8     | 7.714  | No     | 1629.25 | -1205.11 | -915.54                     | 5255.25                 | 495.45      | 0.79592 |
| 9     | 8.900  | No     | 1629.25 | -1265.16 | -915.54                     | 9331.03                 | 495.45      | 1.41752 |
| 10    | 10.086 | No     | 1657.49 | -1356.19 | -922.93                     | 16162.10                | 493.50      | 2.45758 |
| 11    | 11.271 | -      | 1817.42 | -1543.97 | El cálculo no ha convergido |                         |             |         |
| 12    | 12.457 | -      | 1977.36 | -1740.42 | El cálculo no ha convergido |                         |             |         |

Vano 1 Viga 2  
-----

Armadura pasiva en la cara superior  
-----

| Punto | s(m)  | N°Barras | Fi(mm) | Sep.(m) | Y(m)  |
|-------|-------|----------|--------|---------|-------|
| 1     | 0.000 | 7        | 10.000 | 0.150   | 2.065 |
| 2     | 0.600 | 7        | 10.000 | 0.150   | 2.065 |
| 3     | 1.786 | 7        | 10.000 | 0.150   | 2.065 |

|    |        |   |        |       |       |
|----|--------|---|--------|-------|-------|
| 4  | 2.971  | 7 | 10.000 | 0.150 | 2.065 |
| 5  | 4.157  | 7 | 10.000 | 0.150 | 2.065 |
| 6  | 5.343  | 7 | 10.000 | 0.150 | 2.065 |
| 7  | 6.529  | 7 | 10.000 | 0.150 | 2.065 |
| 8  | 7.714  | 7 | 10.000 | 0.150 | 2.065 |
| 9  | 8.900  | 7 | 10.000 | 0.150 | 2.065 |
| 10 | 10.086 | 7 | 10.000 | 0.150 | 2.065 |
| 11 | 11.271 | 7 | 10.000 | 0.150 | 2.065 |
| 12 | 12.457 | 7 | 10.000 | 0.150 | 2.065 |

Abertura característica de fisura en fibra superior  
-----

| Punto | s(m)   | Cumple | Nk(T)   | Mk(mT)   | Mfis(mT)                    | Ts(Kg/cm2)              | Tsr(Kg/cm2) | wk(mm)  |
|-------|--------|--------|---------|----------|-----------------------------|-------------------------|-------------|---------|
| 1     | 0.000  | Sí     | 0.00    | 0.00     | -224.97                     | La sección no se fisura |             |         |
| 2     | 0.600  | Sí     | 785.96  | -438.93  | -561.09                     | La sección no se fisura |             |         |
| 3     | 1.786  | Sí     | 883.86  | -501.96  | -602.96                     | La sección no se fisura |             |         |
| 4     | 2.971  | Sí     | 1104.19 | -669.12  | -693.41                     | La sección no se fisura |             |         |
| 5     | 4.157  | No     | 1454.23 | -949.22  | -841.50                     | 1525.35                 | 532.15      | 0.21793 |
| 6     | 5.343  | No     | 1629.25 | -1110.73 | -915.54                     | 2489.58                 | 495.45      | 0.37124 |
| 7     | 6.529  | No     | 1629.25 | -1153.63 | -915.54                     | 3451.39                 | 495.45      | 0.51965 |
| 8     | 7.714  | No     | 1629.25 | -1205.11 | -915.54                     | 5255.25                 | 495.45      | 0.79592 |
| 9     | 8.900  | No     | 1629.25 | -1265.16 | -915.54                     | 9331.03                 | 495.45      | 1.41752 |
| 10    | 10.086 | No     | 1657.49 | -1356.19 | -922.93                     | 16162.10                | 493.50      | 2.45758 |
| 11    | 11.271 | -      | 1817.42 | -1543.97 | El cálculo no ha convergido |                         |             |         |
| 12    | 12.457 | -      | 1977.36 | -1740.42 | El cálculo no ha convergido |                         |             |         |

Vano 1 Viga 3  
-----

Armadura pasiva en la cara superior  
-----

| Punto | s(m)   | NºBarras | Fi(mm) | Sep.(m) | Y(m)  |
|-------|--------|----------|--------|---------|-------|
| 1     | 0.000  | 7        | 10.000 | 0.150   | 2.065 |
| 2     | 0.600  | 7        | 10.000 | 0.150   | 2.065 |
| 3     | 1.786  | 7        | 10.000 | 0.150   | 2.065 |
| 4     | 2.971  | 7        | 10.000 | 0.150   | 2.065 |
| 5     | 4.157  | 7        | 10.000 | 0.150   | 2.065 |
| 6     | 5.343  | 7        | 10.000 | 0.150   | 2.065 |
| 7     | 6.529  | 7        | 10.000 | 0.150   | 2.065 |
| 8     | 7.714  | 7        | 10.000 | 0.150   | 2.065 |
| 9     | 8.900  | 7        | 10.000 | 0.150   | 2.065 |
| 10    | 10.086 | 7        | 10.000 | 0.150   | 2.065 |
| 11    | 11.271 | 7        | 10.000 | 0.150   | 2.065 |
| 12    | 12.457 | 7        | 10.000 | 0.150   | 2.065 |

Abertura característica de fisura en fibra superior  
-----

| Punto | s(m)   | Cumple | Nk(T)   | Mk(mT)   | Mfis(mT)                    | Ts(Kg/cm2)              | Tsr(Kg/cm2) | wk(mm)  |
|-------|--------|--------|---------|----------|-----------------------------|-------------------------|-------------|---------|
| 1     | 0.000  | Sí     | 0.00    | 0.00     | -224.97                     | La sección no se fisura |             |         |
| 2     | 0.600  | Sí     | 785.96  | -438.93  | -561.09                     | La sección no se fisura |             |         |
| 3     | 1.786  | Sí     | 883.86  | -501.96  | -602.96                     | La sección no se fisura |             |         |
| 4     | 2.971  | Sí     | 1104.19 | -669.12  | -693.41                     | La sección no se fisura |             |         |
| 5     | 4.157  | No     | 1454.23 | -949.22  | -841.50                     | 1525.35                 | 532.15      | 0.21793 |
| 6     | 5.343  | No     | 1629.25 | -1110.73 | -915.54                     | 2489.58                 | 495.45      | 0.37124 |
| 7     | 6.529  | No     | 1629.25 | -1153.63 | -915.54                     | 3451.39                 | 495.45      | 0.51965 |
| 8     | 7.714  | No     | 1629.25 | -1205.11 | -915.54                     | 5255.25                 | 495.45      | 0.79592 |
| 9     | 8.900  | No     | 1629.25 | -1265.16 | -915.54                     | 9331.03                 | 495.45      | 1.41752 |
| 10    | 10.086 | No     | 1657.49 | -1356.19 | -922.93                     | 16162.10                | 493.50      | 2.45758 |
| 11    | 11.271 | -      | 1817.42 | -1543.97 | El cálculo no ha convergido |                         |             |         |
| 12    | 12.457 | -      | 1977.36 | -1740.42 | El cálculo no ha convergido |                         |             |         |





















