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Maître d'ouvrage:
 Mme Almakahasi Nadia

Adresse chantier:
 Rue des Faïnes 132, Bruxelles

ARCHITECTE

KIPIK architecture
 M.onssels Hervé

Notes:

- Toutes les dimensions sont exprimées en cm sauf si spécifié autrement sur le plan
- Les connexions entre les éléments en bois sont à dimensionner par le fabricant
- Les dimensions sont à vérifier par l'entrepreneur sur site

Spécificités :

- Béton: C25/30
- Acier armatures: B500
- Acier structure : S235
- Enrobage: Béton enterré : 40mm
 Béton intérieur : 30mm
- Recouvrement : 40Ø

Documents à consulter:

21-106-Faines_Coffrage

Faines

ÉTUDES D'EXÉCUTION
 GÉNIE CIVIL

Extention arrière d'une maison unifamiliale
 Plan de ferrailage

Fondations / Dalles / Colonnes / Poutres

Code GED : 21-106-02

Nom du fichier : 21-106-02_Faines_Ferrailage.dwg

| | | | | | | |
|----------|-------|------------|------------------|------------------|--------|-------------------------|
| COC | EXE | DE | DW | 21-106-02 | 01 | 01 |
| Emetteur | Phase | Discipline | Type de document | Numéro du projet | Indice | Indice Interne Emetteur |

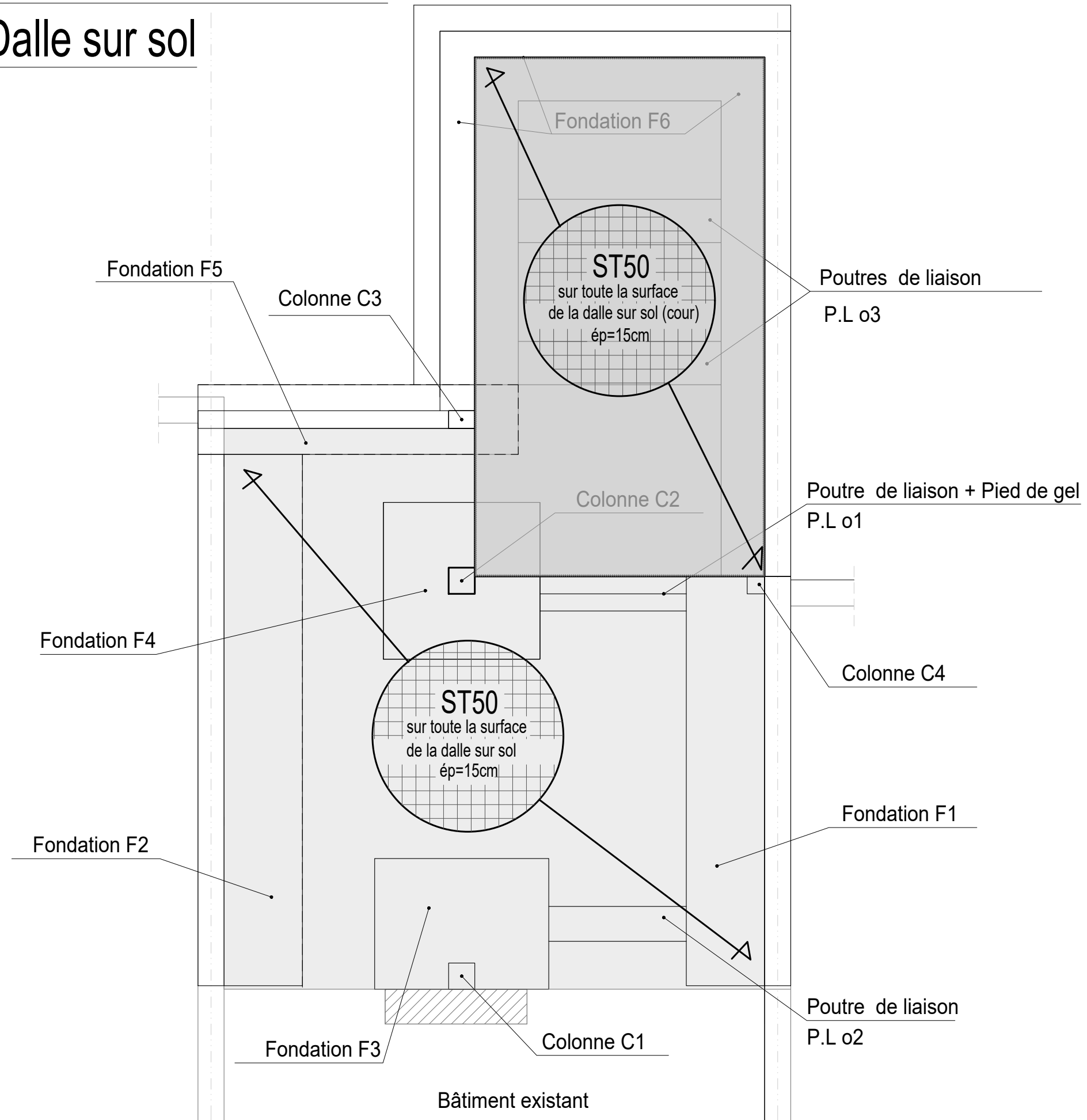
Echelle : VOIR FOLIOS Format: A3

| MODIFICATIONS | Indice | Date | Libellé | Etabli | Vérifié | Validé / Approuvé |
|---------------|--------|------------|-------------------|--------|---------|-------------------|
| | 01 | 12/12/2022 | Première émission | VYA | RJA | DAT |
| | | | | | | |
| | | | | | | |

Plan de repérage : Fondations & Colonnes

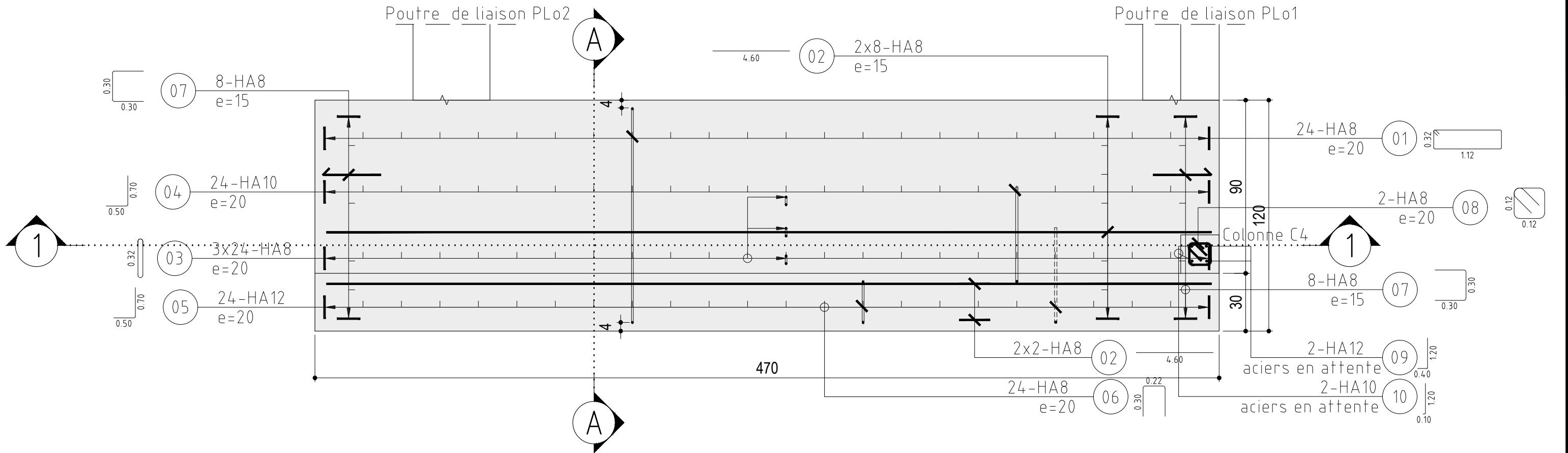
Vue en plan: Dalle sur sol

Ech. 1/50



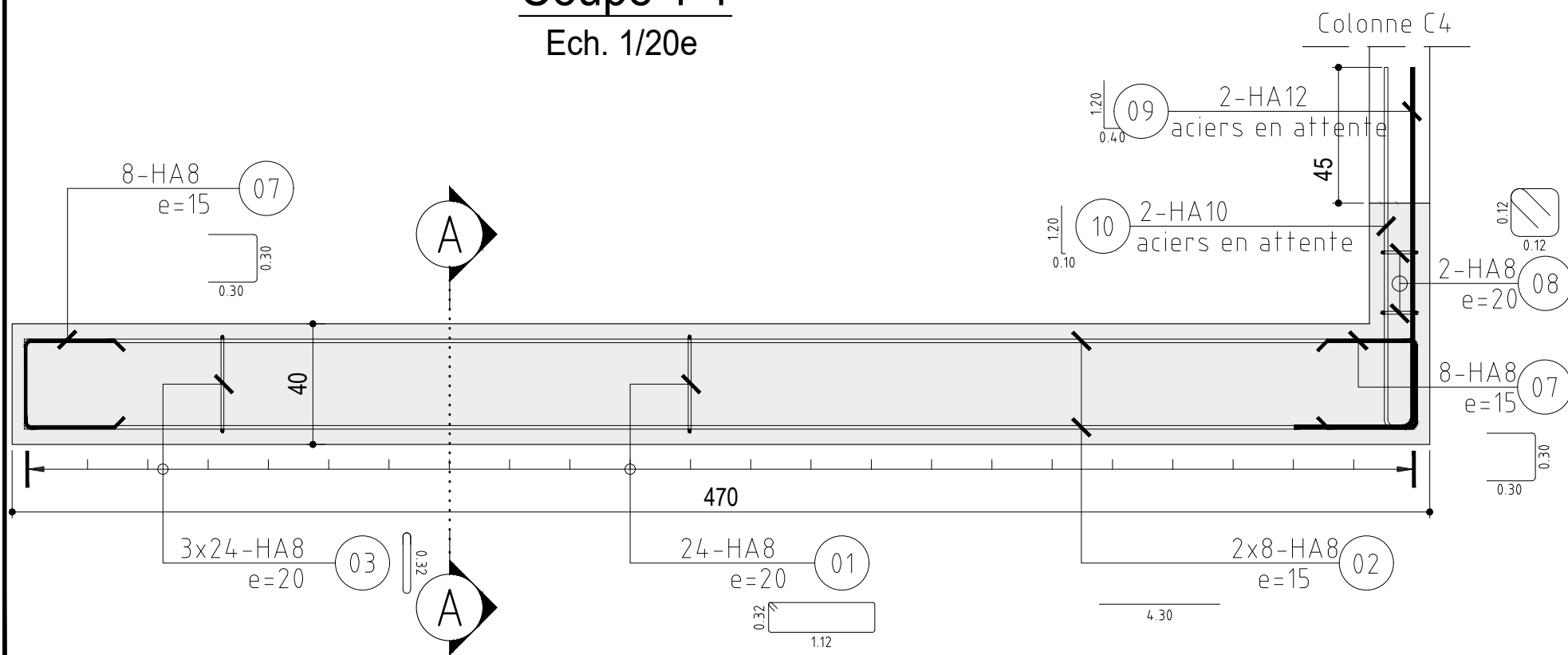
Vue en plan : Fondation F1

Ech. 1/20e



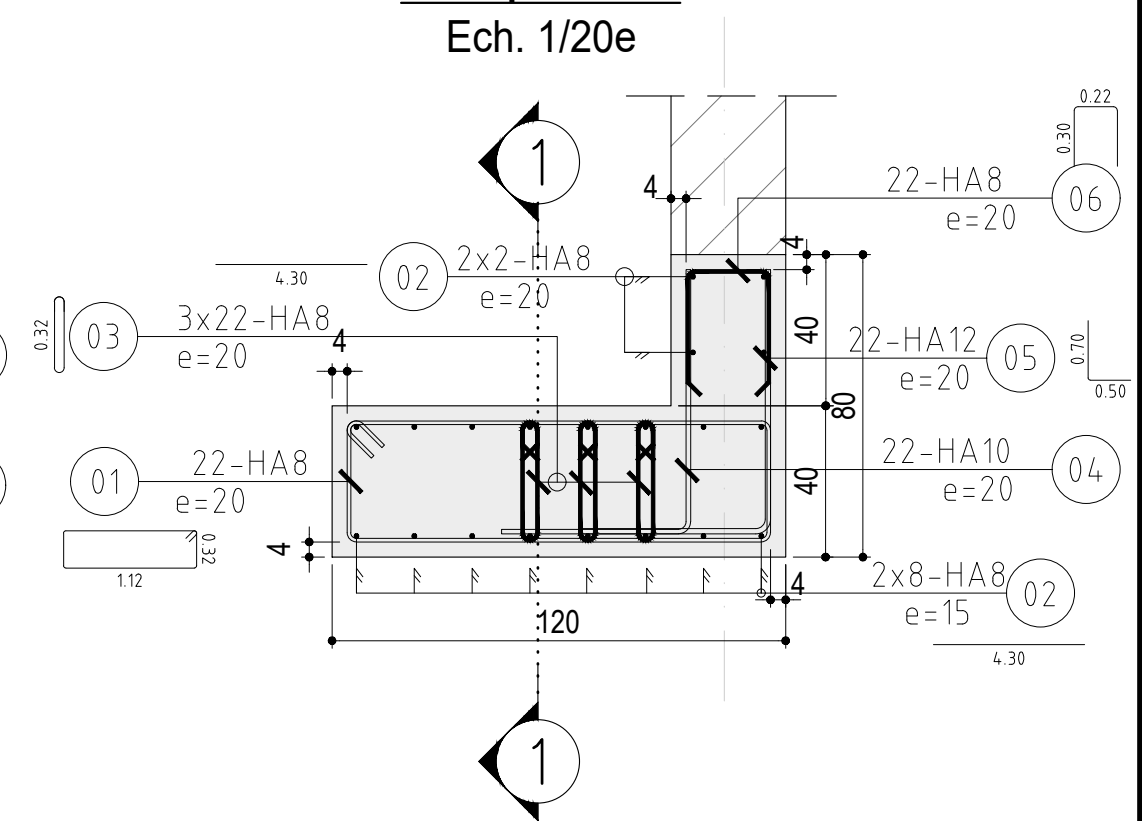
Coupe 1-1

Ech. 1/20e



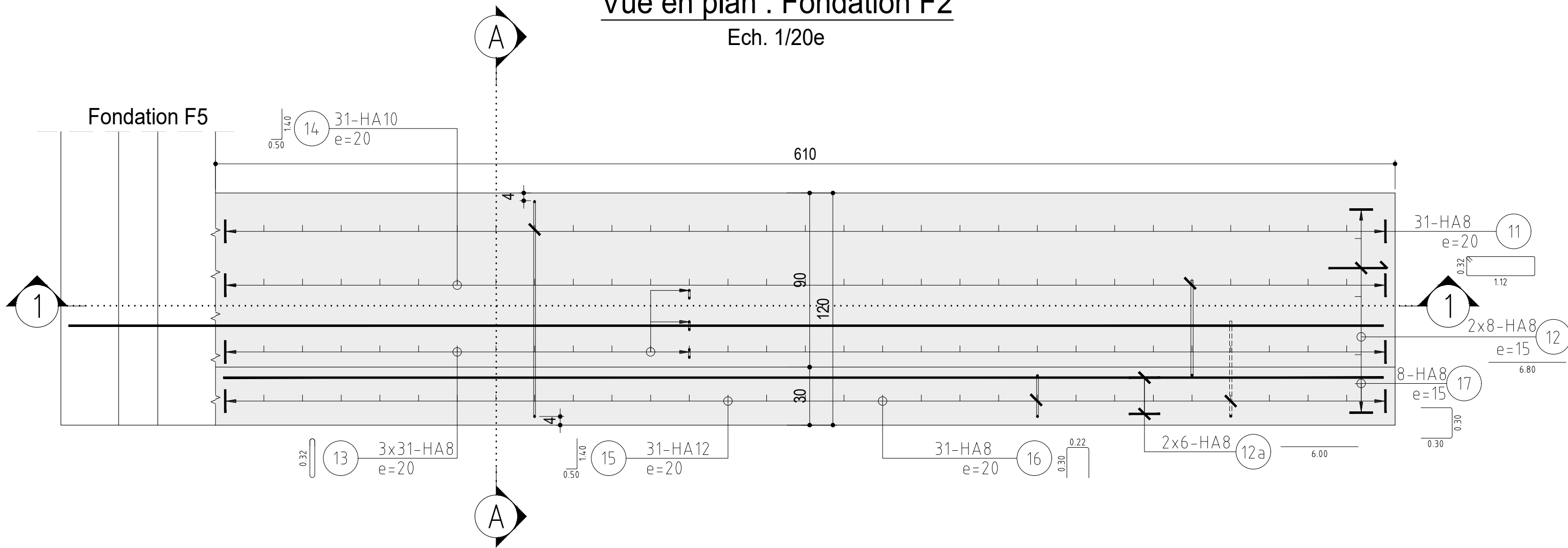
Coupe A-A

Ech. 1/20e



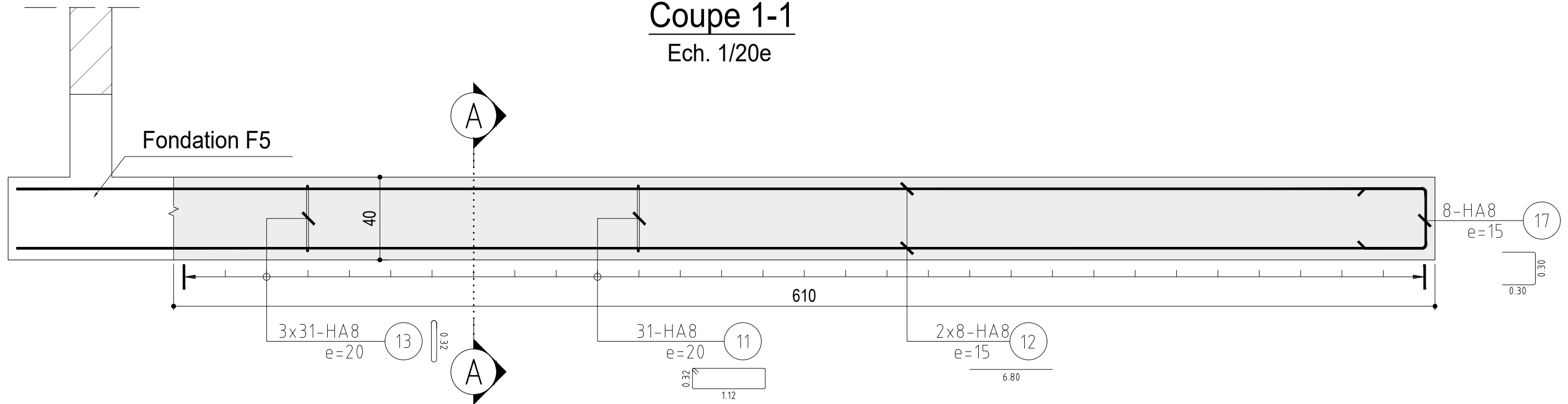
Vue en plan : Fondation F2

Ech. 1/20e



Coupe 1-1

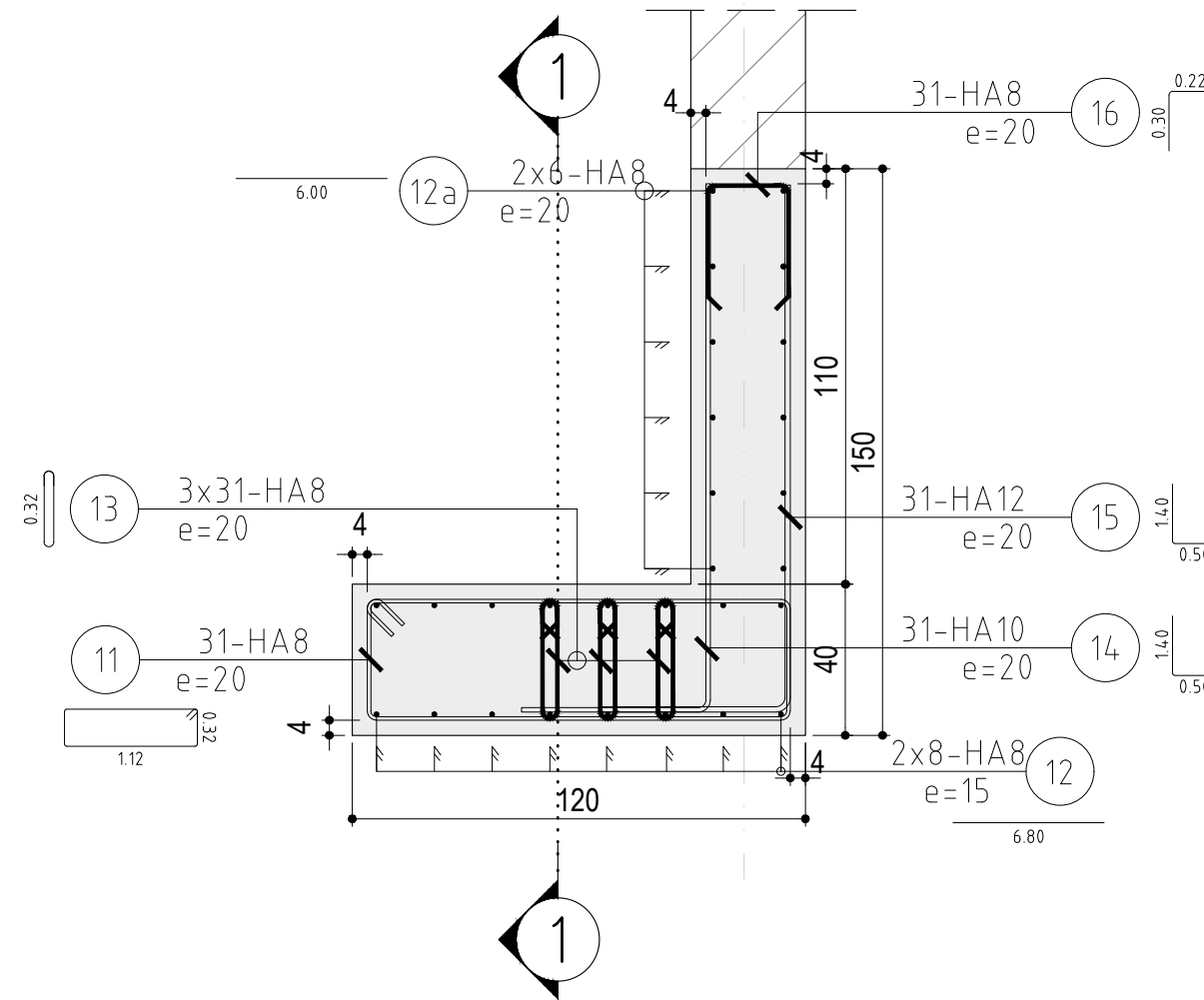
Ech. 1/20e



Fondation F2

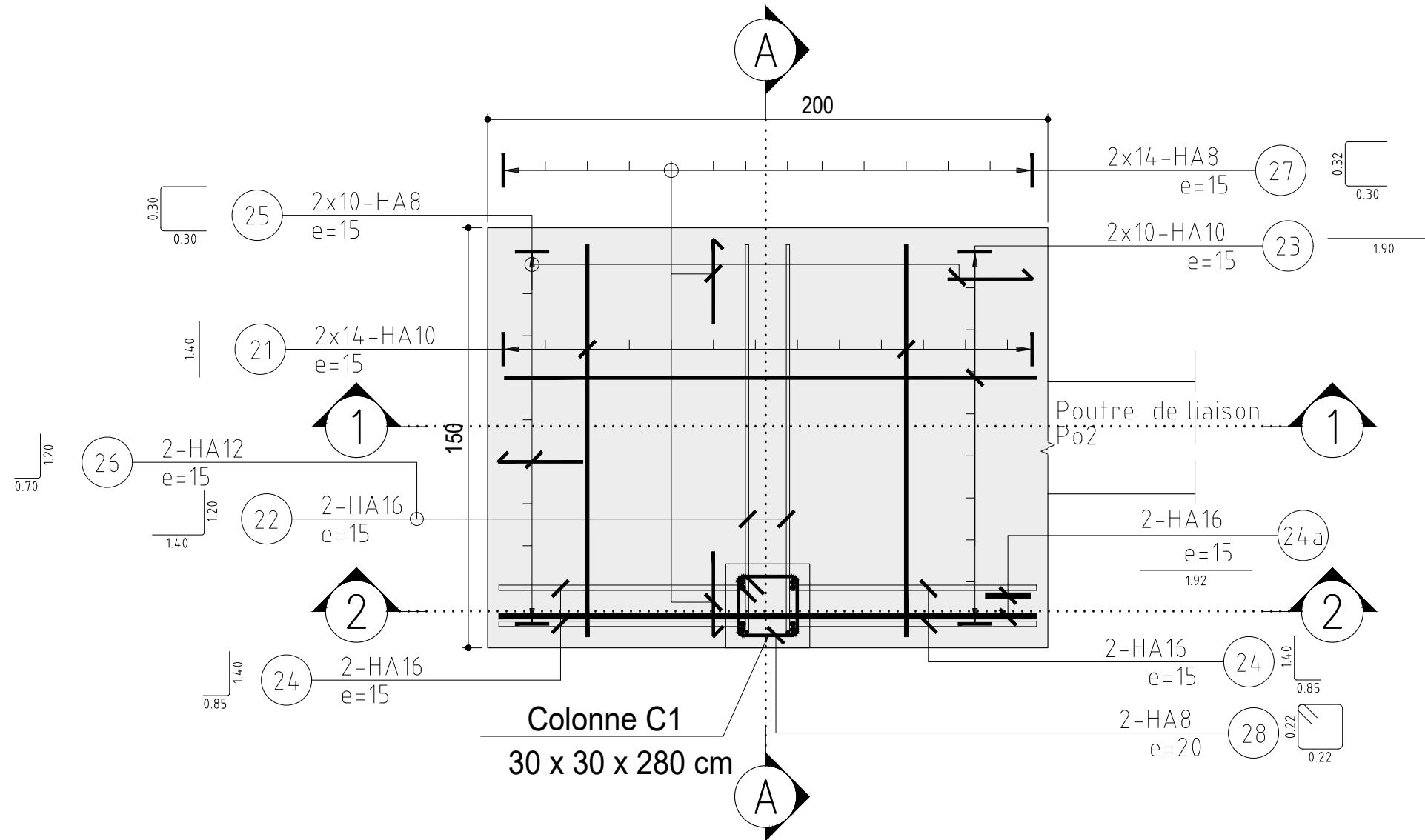
Coupe A-A

Ech. 1/20e



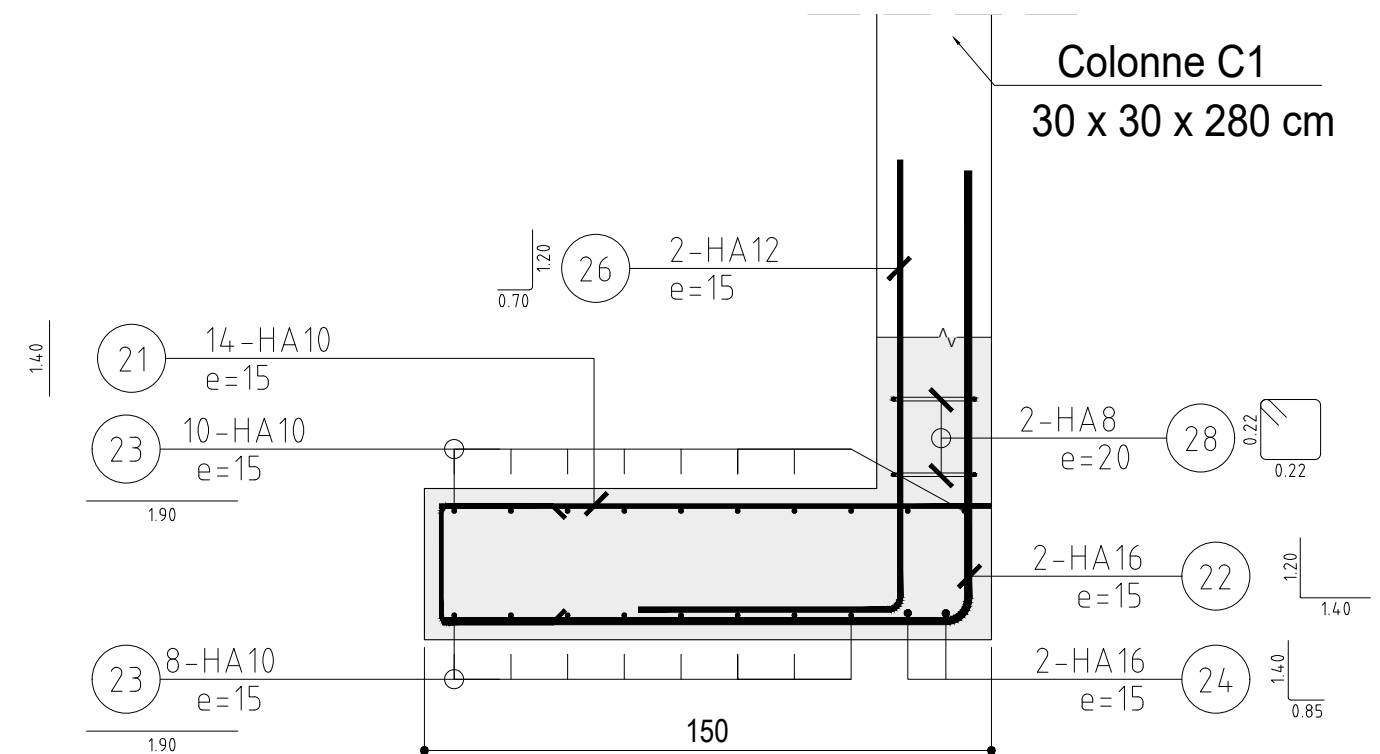
Vue en plan : Fondation F3

Ech. 1/20e



Coupe A-A

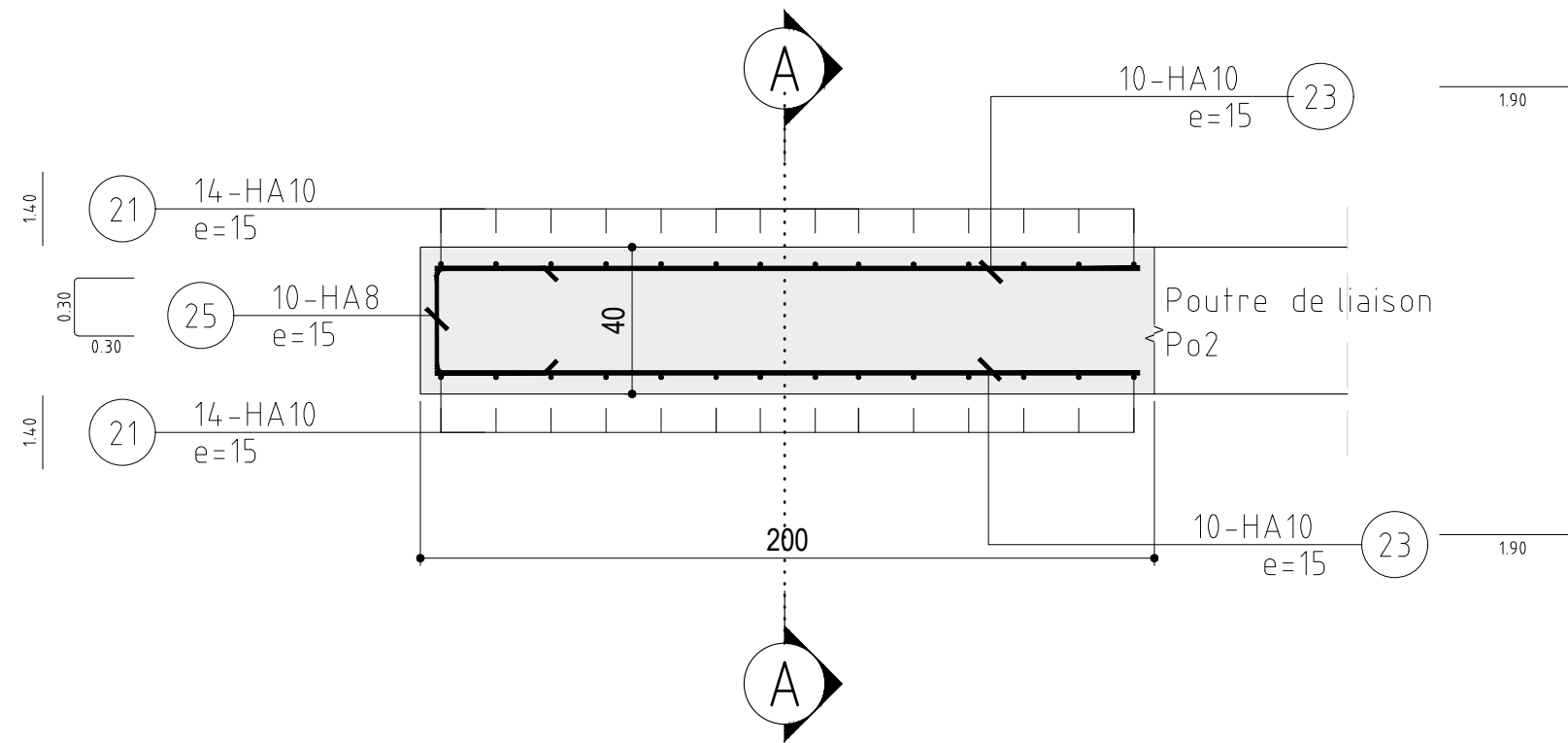
Ech. 1/20e



Fondation F3

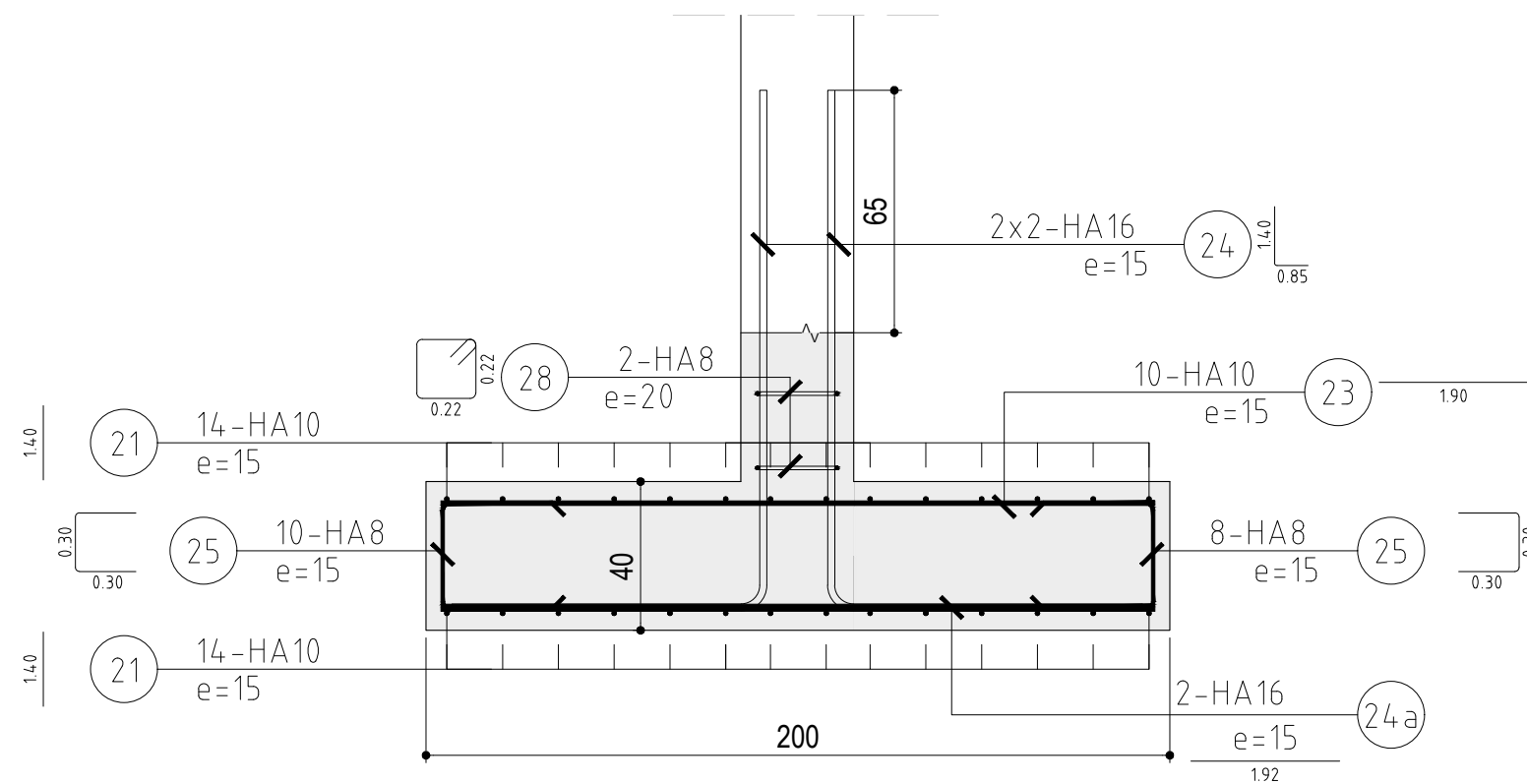
Coupe 1-1

Ech. 1/20e



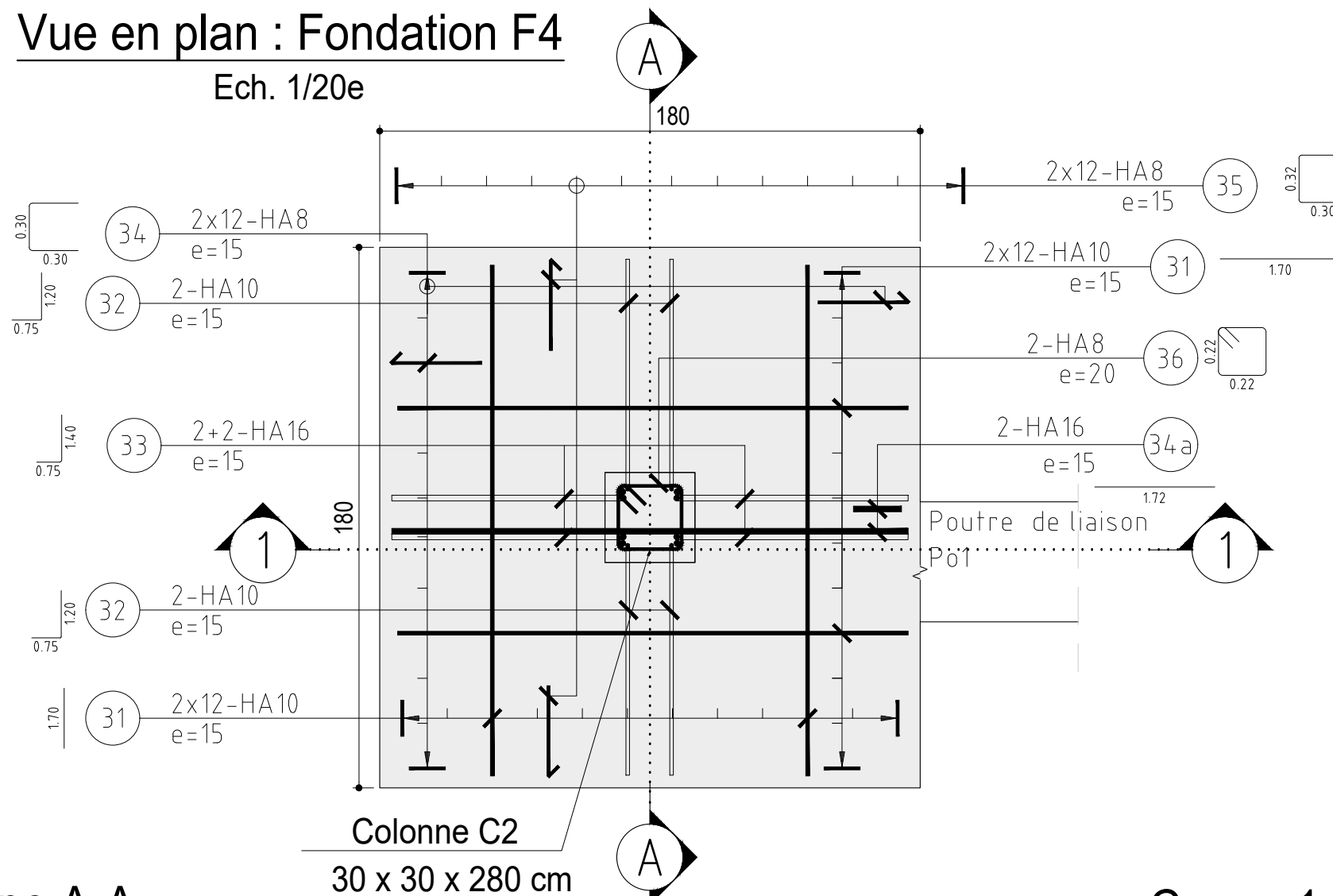
Coupe 2-2

Ech. 1/20e



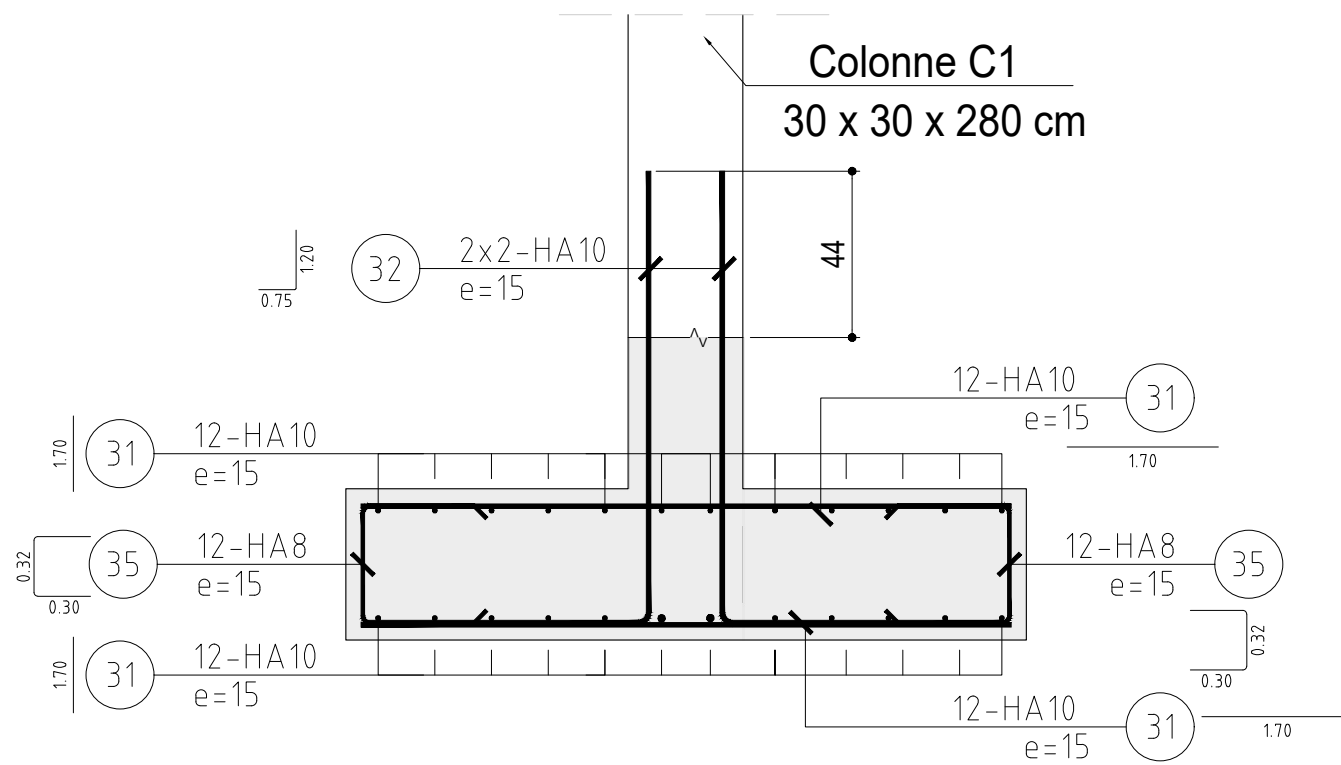
Vue en plan : Fondation F4

Ech. 1/20e



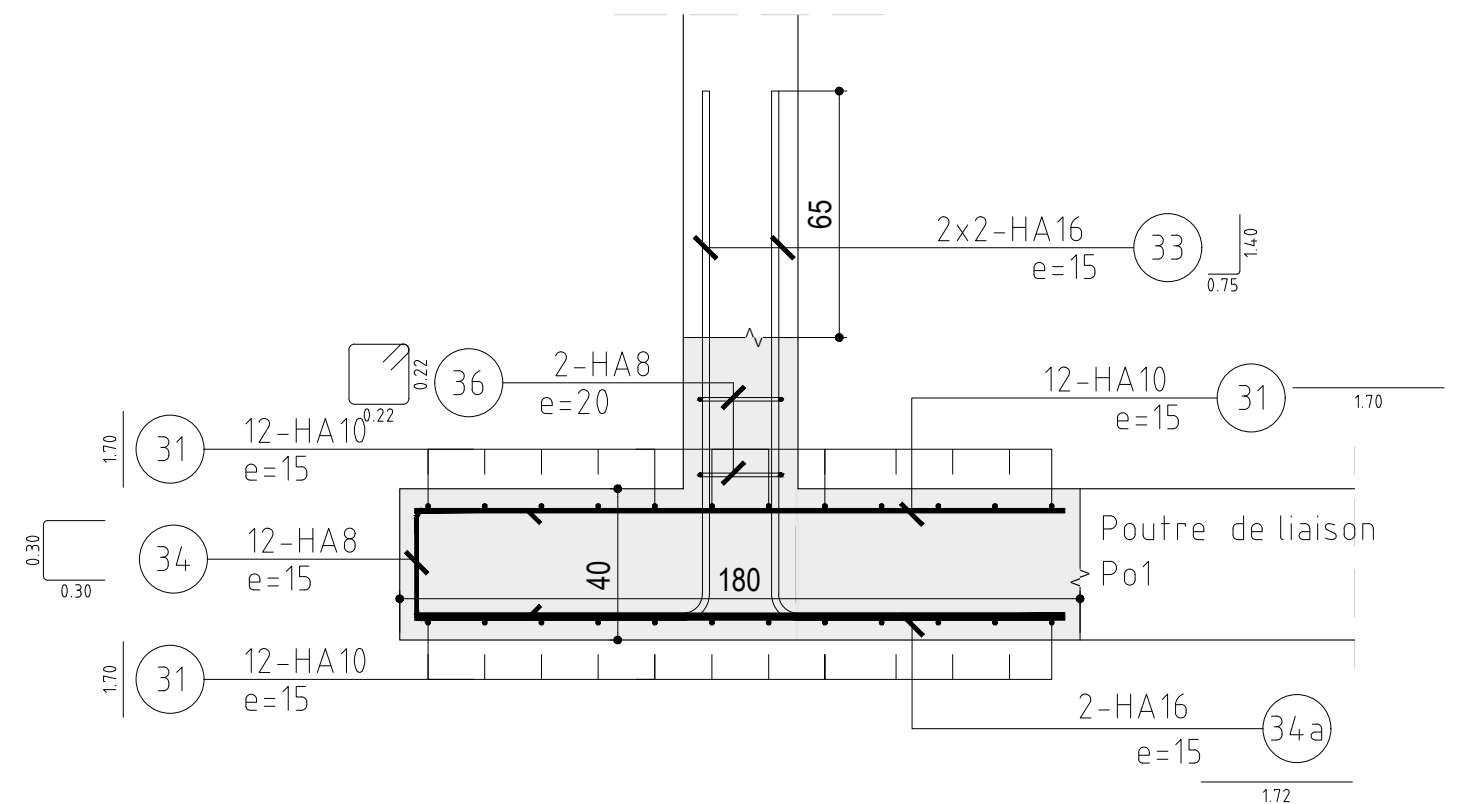
Coupe A-A

Ech. 1/20e



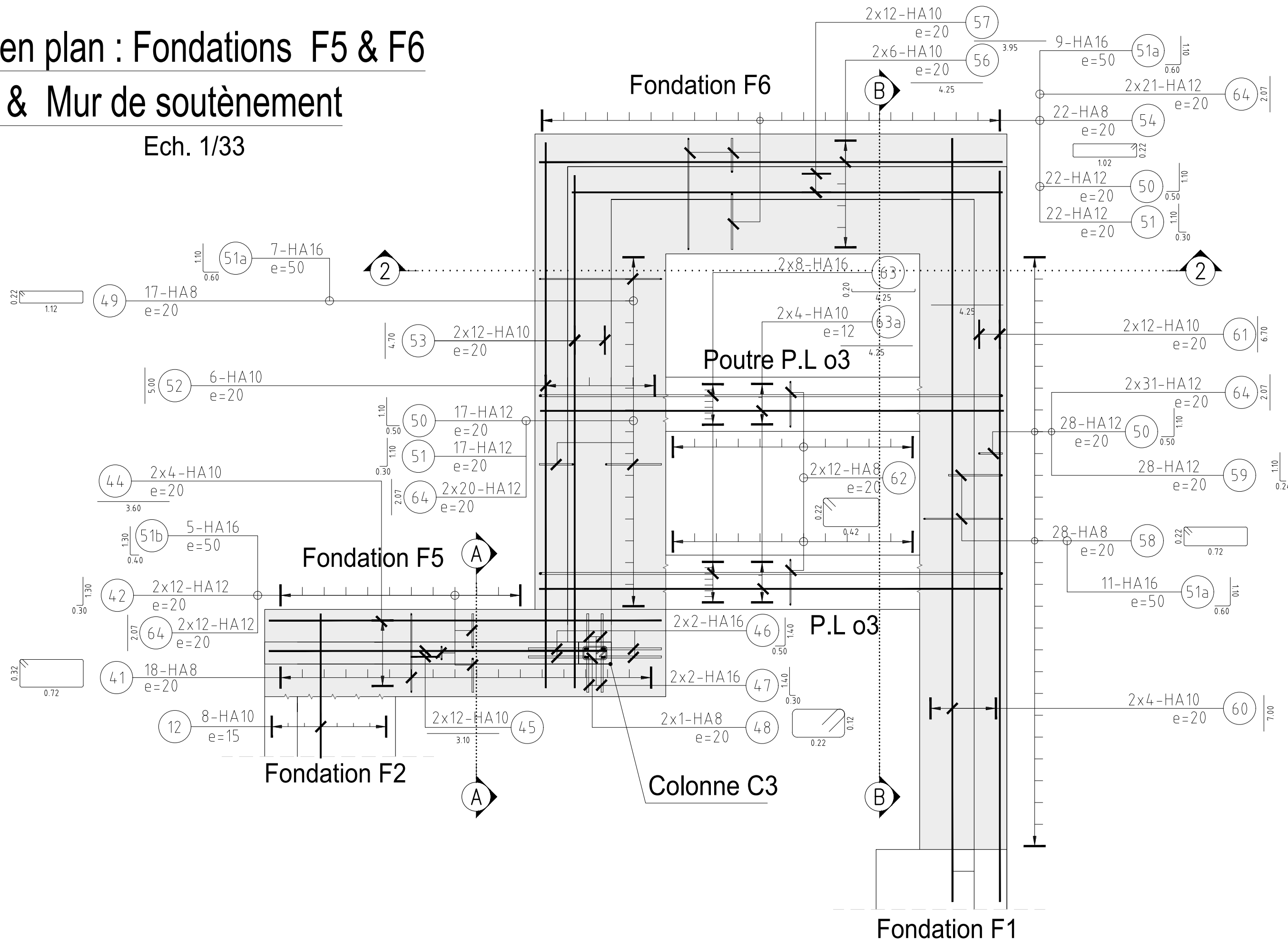
Coupe 1-1

Ech. 1/20e



Vue en plan : Fondations F5 & F6 & Mur de soutènement

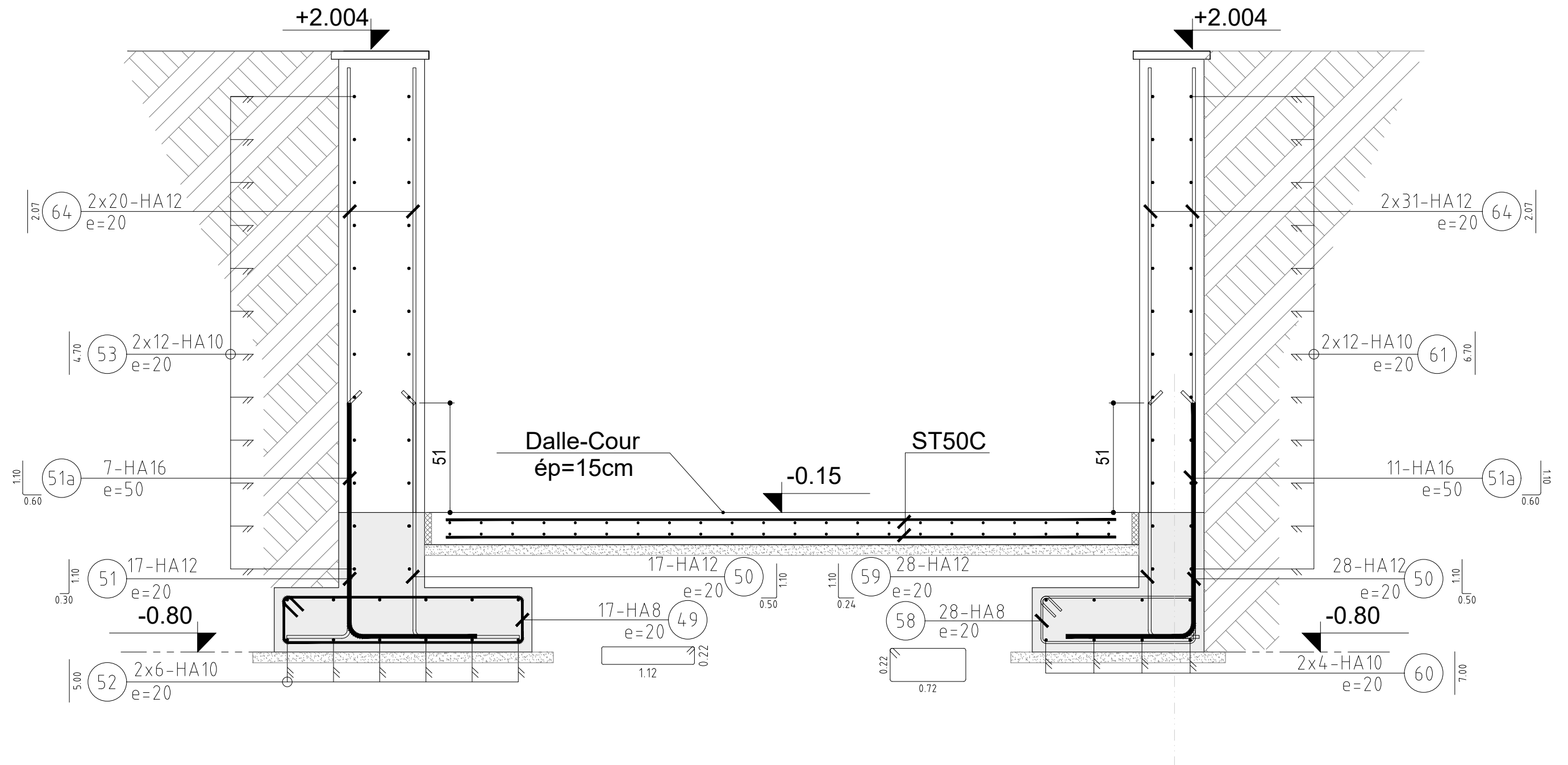
Ech. 1/33



Fondations F5 & F6

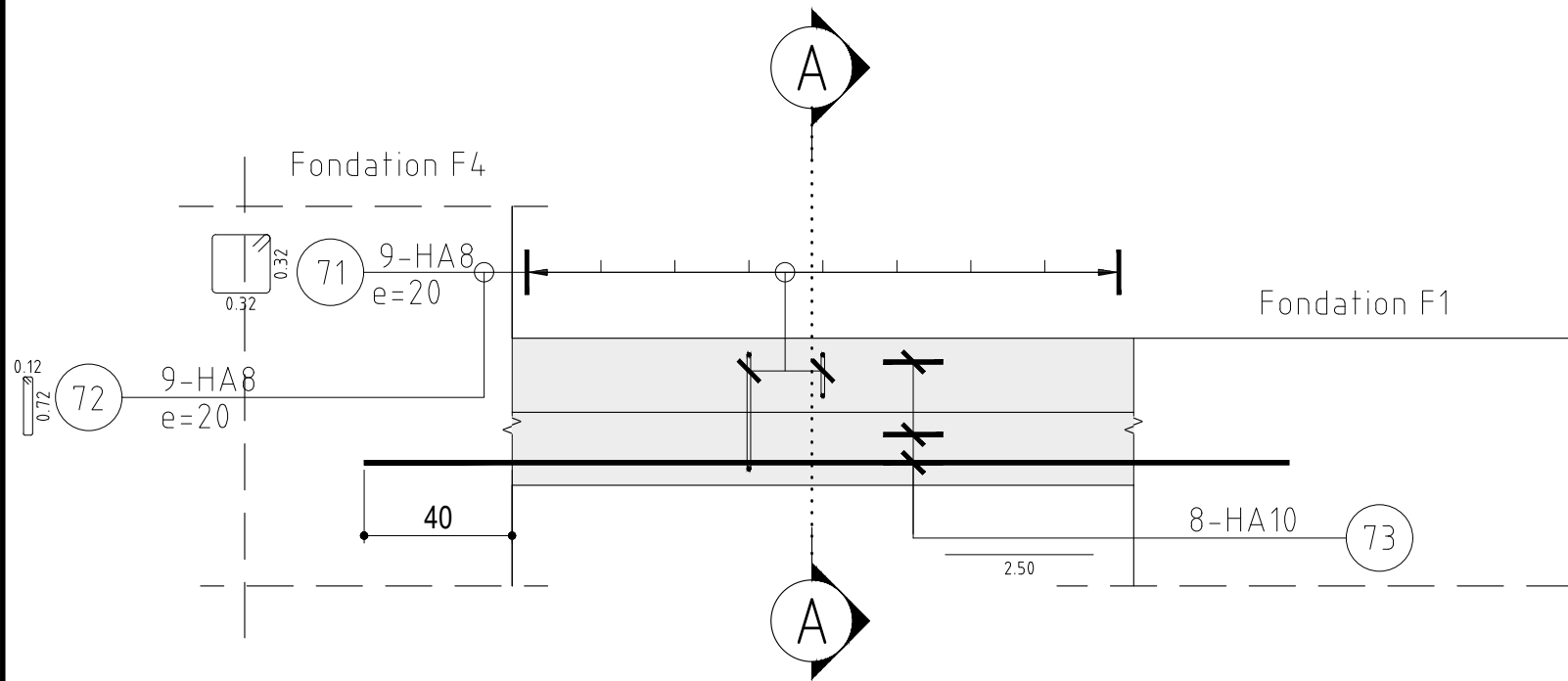
Coupe 2-2 - Dalle sur sol & fondations & murs de soutènement (Cour)

Ech. 1/20



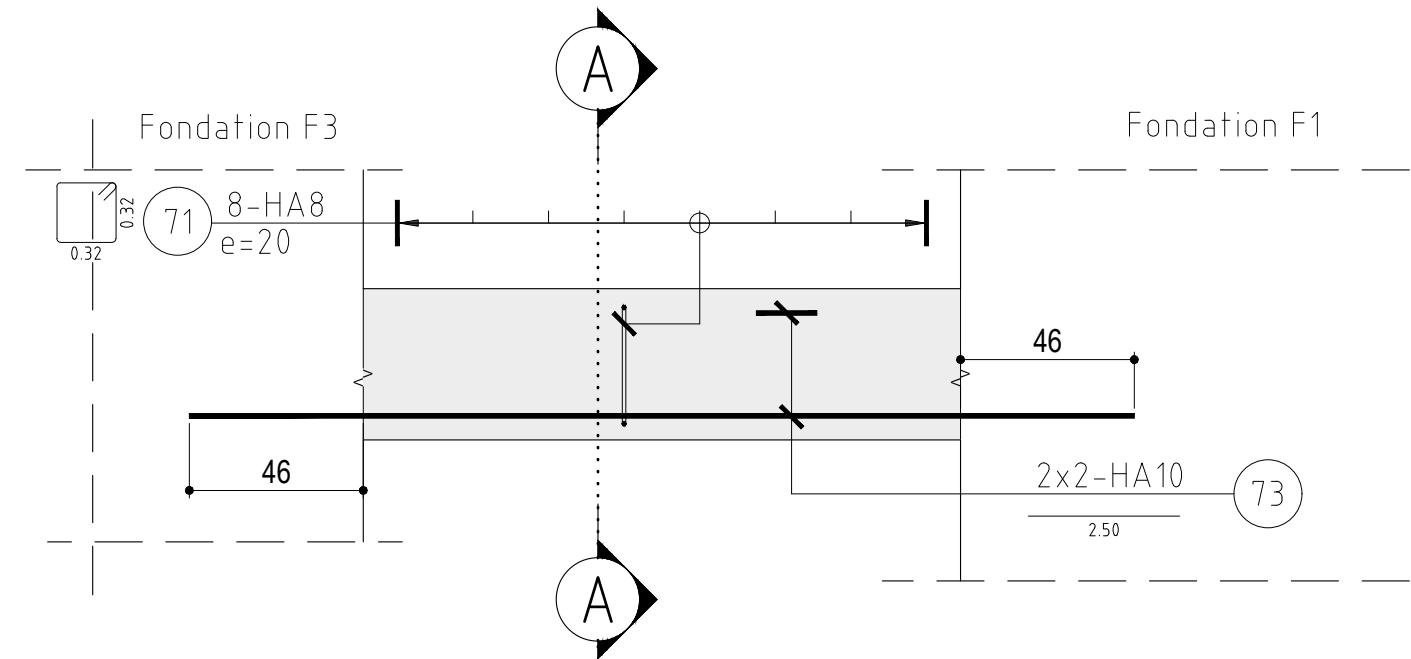
Vue en plan : Poutre de liaison P.L o1

Ech. 1/20e



Vue en plan : Poutre de liaison P.L o2

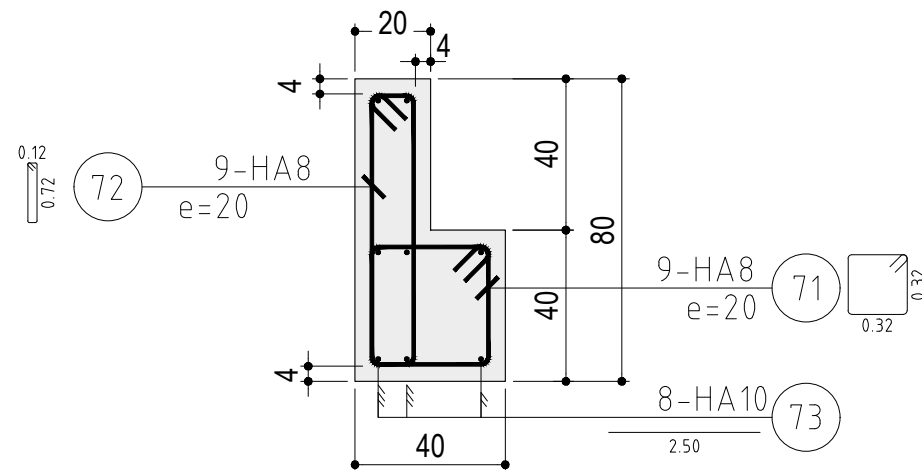
Ech. 1/20e



Poutre de liaison P.L o1

Coupe A-A

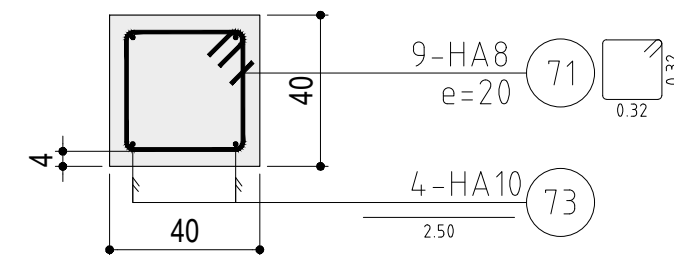
Ech. 1/20e



Poutre de liaison P.L o2

Coupe A-A

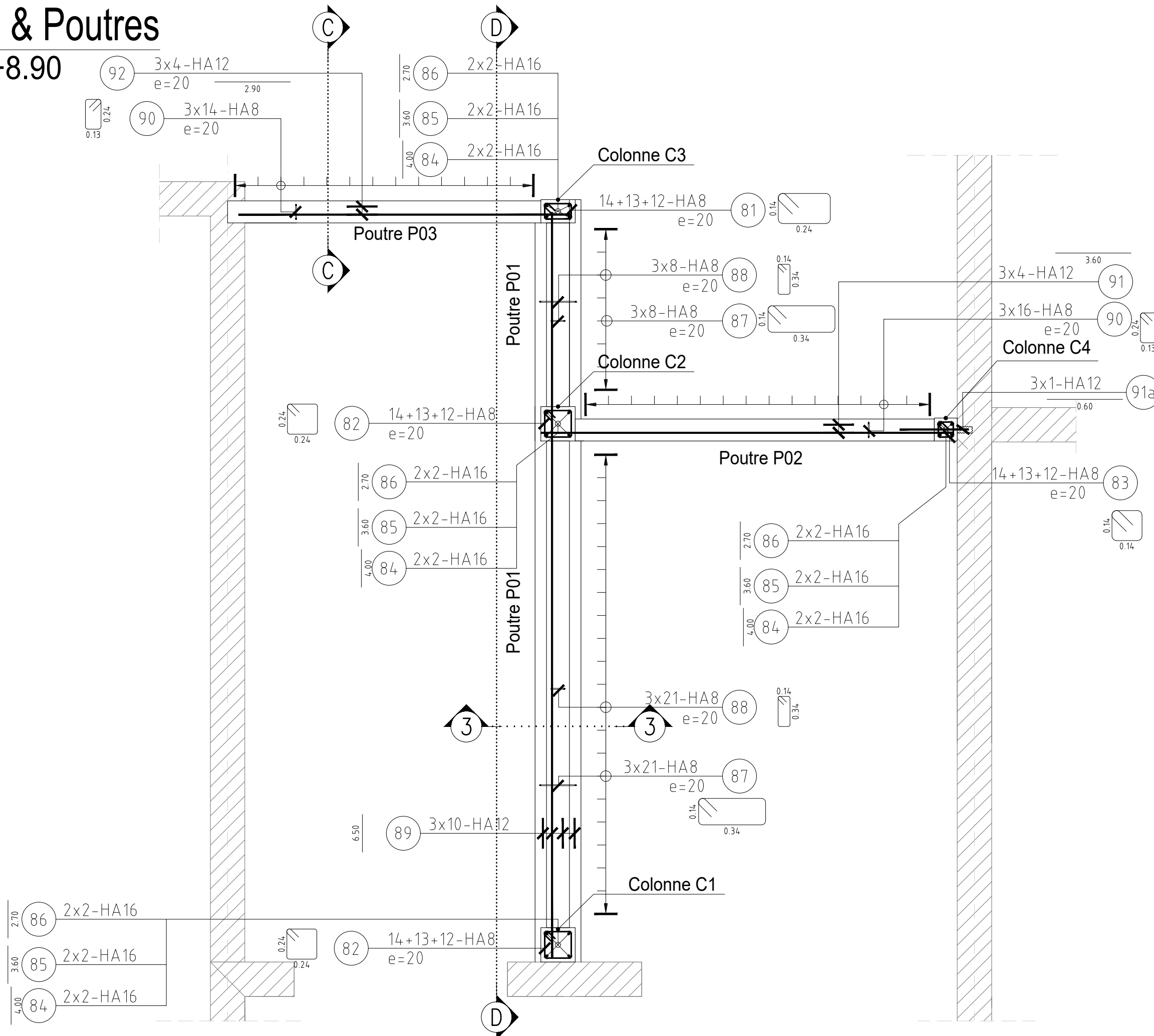
Ech. 1/20e



Vue en plan : Colonnes & Poutres

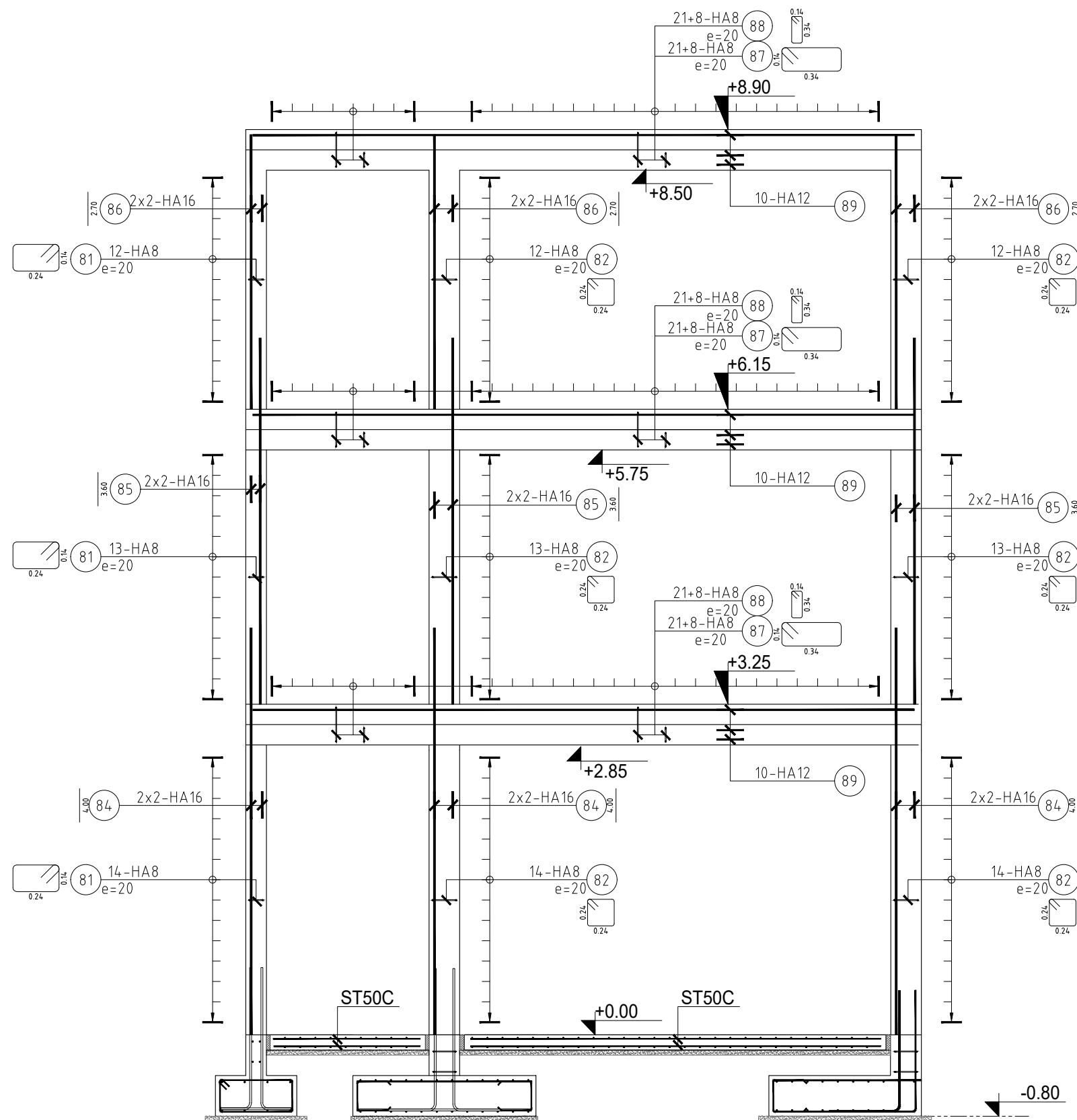
de niv +0.00 jusqu'au niv +8.90

Ech. 1/33



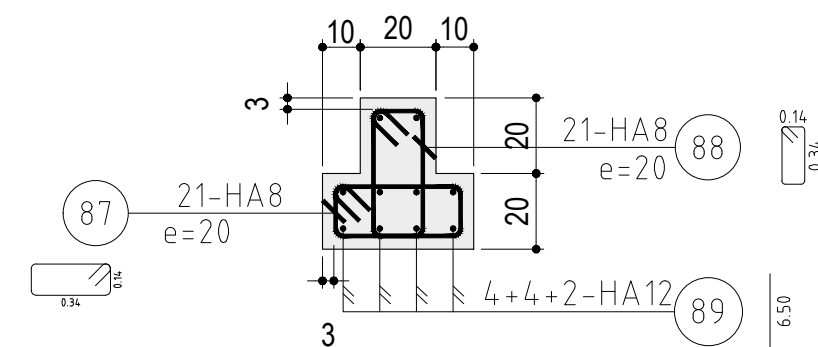
Coupe D-D

Ech. 1/50



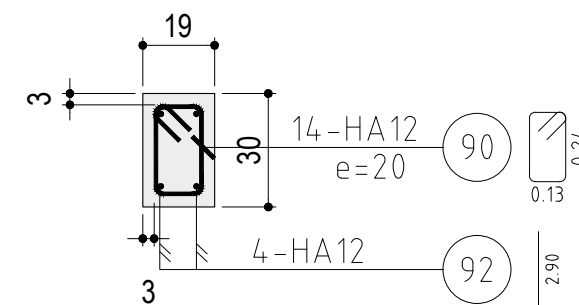
Coupe 3-3

Ech. 1/20e



Coupe C-C

Ech. 1/20e

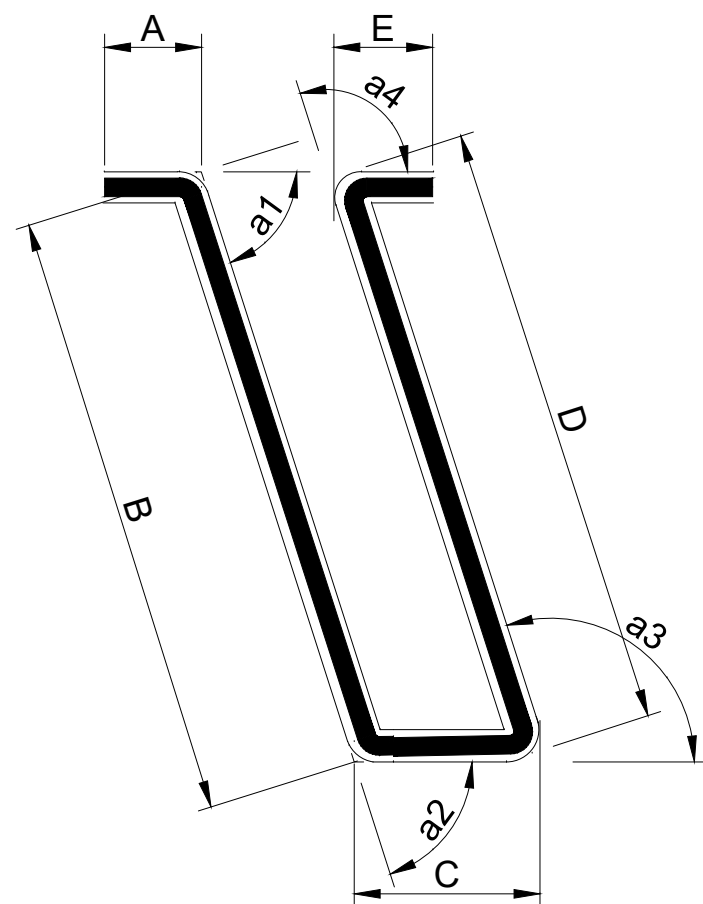


MANDRINS DE CINTRAGE

| | | Diamètres | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 32 | 40 |
|----|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| HA | Crosses (Type 1) | 70 | 70 | 100 | 100 | 150 | 150 | 200 | 250 | 300 | 400 | |
| | Cadres (Type 2) | 30 | 30 | 40 | 50 | 70 | 100 | 150 | 200 | 300 | 400 | |
| DX | Crosses (Type 1) | 30 | 40 | 50 | 70 | 70 | 100 | 100 | 150 | 200 | 200 | |
| | Cadres (Type 2) | 20 | 30 | 30 | 40 | 50 | 50 | 100 | 150 | 200 | 200 | |

COTATION DES ACIERS

- LES COTES DONNEES SONT DES DIMENSIONS EXTERIEURES EXPRIMEES EN MM.
- LES ANGLES DONNES SONT DES ANGLES DE CINTRAGE EXPRIMES EN DEGRES.



LONGUEURS DES CROSSES NORMALISEES (mm)

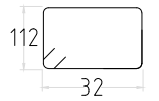

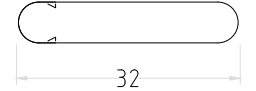

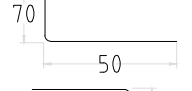
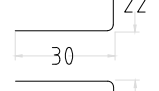
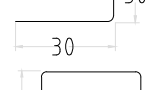
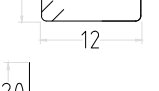
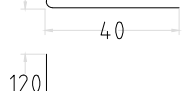
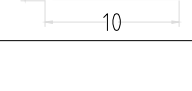
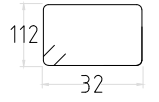


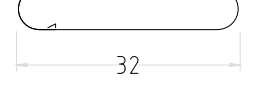
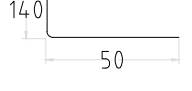
| Diamètres | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 32 | 40 |
|-----------|---|---|----|----|----|----|----|----|----|----|
|-----------|---|---|----|----|----|----|----|----|----|----|

| | | | | | | | | | | | | |
|--|----|-------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | HA | Ancrages (Type 1) | 90 | 120 | 150 | 180 | 210 | 240 | 300 | 375 | 480 | 600 |
| | | Cadres (Type 2) | 90 | 120 | 150 | 180 | 210 | 240 | 300 | 375 | 480 | 600 |
| | DX | Ancrages (Type 1) | 90 | 120 | 150 | 180 | 210 | 160 | 300 | 375 | 480 | 600 |
| | | Cadres (Type 2) | 90 | 120 | 150 | 180 | 210 | 240 | 300 | 375 | 480 | 600 |

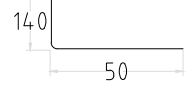
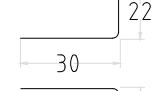
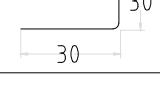

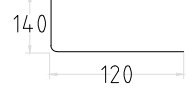

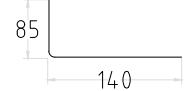

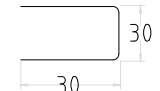
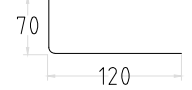
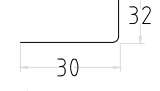
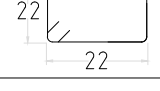

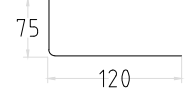
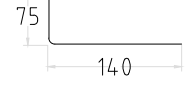
| | | | | | | | | | | | | |
|--|----|-------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| | HA | Ancrages (Type 1) | 60 | 80 | 100 | 120 | 140 | 160 | 200 | 250 | 320 | 400 |
| | | Cadres (Type 2) | 60 | 80 | 100 | 120 | 140 | 160 | 200 | 250 | 320 | 400 |
| | DX | Ancrages (Type 1) | 60 | 80 | 100 | 120 | 140 | 160 | 200 | 250 | 320 | 400 |
| | | Cadres (Type 2) | 60 | 80 | 100 | 120 | 140 | 160 | 200 | 250 | 320 | 400 |

| | | | | | | | | | | | | |
|--|----|-------------------|----|----|----|----|----|----|-----|-----|-----|-----|
| | HA | Ancrages (Type 1) | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 125 | 160 | 200 |
| | | Cadres (Type 2) | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 125 | 160 | 200 |
| | DX | Ancrages (Type 1) | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 125 | 160 | 200 |
| | | Cadres (Type 2) | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 125 | 160 | 200 |

21-106 __ Faines

| Rep. Barre | Dia. | Nb. d' elem. | Nb de barres | Nb. total | Long. | Poids unit. | Code Forme | φ mandr. | Angle | Schéma | Rev. |
|--------------|------|--------------|--------------|-----------|-------|-------------|------------|----------|-------|---|------|
| | mm | | | | m | kg | | cm | α | cm | |
| Fondation F1 | | | | | | | | | | | |
| 01 | HA8 | 1 | 24 | 24 | 3.03 | 1.20 | 5.20 | 3.0 | |  | |
| 02 | HA8 | 1 | 20 | 20 | 4.60 | 1.82 | 0.00 | | |  | |
| 03 | HA8 | 1 | 72 | 72 | 0.81 | 0.32 | 3.00 | 3.0 | |  | |
| 04 | HA10 | 1 | 24 | 24 | 1.18 | 0.73 | 1.04 | 4.0 | |  | |
| 05 | HA12 | 1 | 24 | 24 | 1.17 | 1.04 | 1.04 | 5.0 | |  | |
| 06 | HA8 | 1 | 24 | 24 | 0.79 | 0.31 | 2.04 | 3.0 | |  | |
| 07 | HA8 | 1 | 16 | 16 | 0.86 | 0.34 | 2.04 | 3.0 | |  | |
| 08 | HA8 | 1 | 2 | 2 | 0.63 | 0.25 | 5.20 | 3.0 | |  | |
| 09 | HA12 | 1 | 2 | 2 | 1.57 | 1.39 | 1.04 | 5.0 | |  | |
| 10 | HA10 | 1 | 2 | 2 | 1.28 | 0.79 | 1.04 | 4.0 | |  | |
| Fondation F2 | | | | | | | | | | | |
| 11 | HA8 | 1 | 31 | 31 | 3.03 | 1.20 | 5.20 | 3.0 | |  | |
| 12 | HA8 | 1 | 16 | 16 | 6.80 | 2.69 | 0.00 | | |  | |
| 12a | HA8 | 1 | 12 | 12 | 6.00 | 2.37 | 0.00 | | |  | |
| 13 | HA8 | 1 | 93 | 93 | 0.81 | 0.32 | 3.00 | 3.0 | |  | |
| 14 | HA10 | 1 | 31 | 31 | 1.88 | 1.16 | 1.04 | 4.0 | |  | |

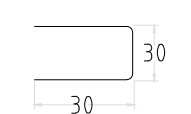

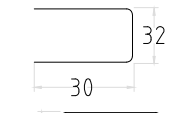
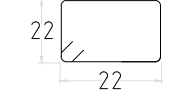
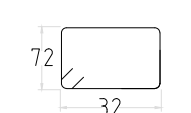
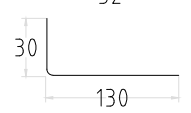

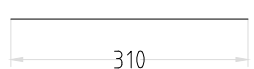
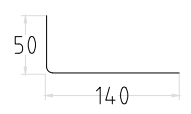

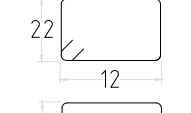
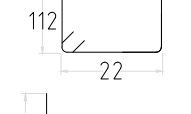
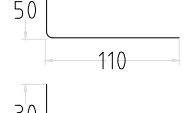
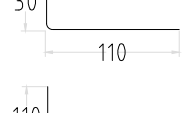
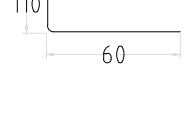
21-106 __ Faines

| Rep. Barre | Dia. | Nb. d' elem. | Nb de barres | Nb. total | Long. | Poids unit. | Code Forme | φ mandr. | Angle | Schéma | Rev. |
|--------------|------|--------------|--------------|-----------|-------|-------------|------------|----------|-------|---|------|
| | mm | | | | m | kg | | cm | α | cm | |
| 15 | HA12 | 1 | 31 | 31 | 1.87 | 1.66 | 1.04 | 5.0 | |  | |
| 16 | HA8 | 1 | 31 | 31 | 0.79 | 0.31 | 2.04 | 3.0 | |  | |
| 17 | HA8 | 1 | 8 | 8 | 0.86 | 0.34 | 2.04 | 3.0 | |  | |
| Fondation F3 | | | | | | | | | | | |
| 21 | HA10 | 1 | 28 | 28 | 1.40 | 0.86 | 0.00 | | |  | |
| 22 | HA16 | 1 | 2 | 2 | 2.56 | 4.04 | 1.04 | 10.0 | |  | |
| 23 | HA10 | 1 | 20 | 20 | 1.90 | 1.17 | 0.00 | | |  | |
| 24 | HA16 | 1 | 4 | 4 | 2.20 | 3.47 | 1.04 | 10.0 | |  | |
| 24a | HA16 | 1 | 2 | 2 | 1.92 | 3.03 | 0.00 | | |  | |
| 25 | HA8 | 1 | 20 | 20 | 0.86 | 0.34 | 2.04 | 3.0 | |  | |
| 26 | HA12 | 1 | 2 | 2 | 1.87 | 1.66 | 1.04 | 5.0 | |  | |
| 27 | HA8 | 1 | 28 | 28 | 0.89 | 0.35 | 2.04 | 3.0 | |  | |
| 28 | HA8 | 1 | 2 | 2 | 1.03 | 0.41 | 5.20 | 3.0 | |  | |
| Fondation F4 | | | | | | | | | | | |
| 31 | HA10 | 1 | 48 | 48 | 1.70 | 1.05 | 0.00 | | |  | |
| 32 | HA10 | 1 | 4 | 4 | 1.93 | 1.19 | 1.04 | 4.0 | |  | |
| 33 | HA16 | 1 | 4 | 4 | 2.10 | 3.31 | 1.04 | 10.0 | |  | |

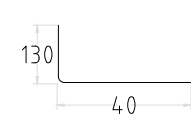


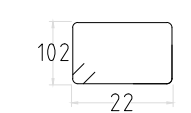


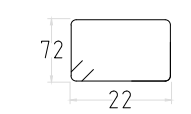
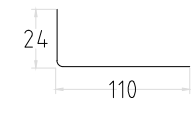

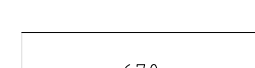
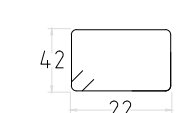
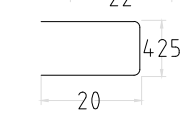
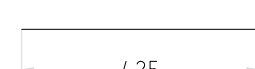
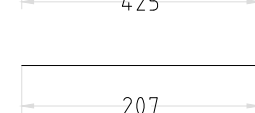
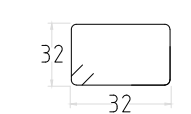
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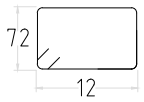
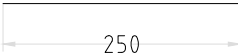
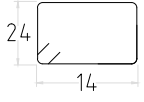
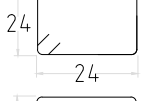
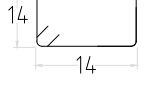

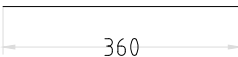

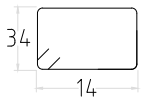
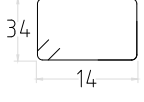

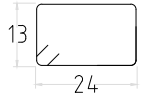


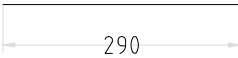
| Rep. Barre | Dia. | Nb. d' élem. | Nb de barres | Nb. total | Long. | Poids unit. | Code Forme | φ mandr. | Angle | Schéma | Rev. |
|---|------|--------------|--------------|-----------|-------|-------------|------------|----------|-------|---|------|
| | mm | | | | m | kg | | cm | α | cm | |
| 34 | HA8 | 1 | 24 | 24 | 0.86 | 0.34 | 2.04 | 3.0 | |  | |
| 34a | HA16 | 1 | 2 | 2 | 1.72 | 2.71 | 0.00 | | |  | |
| 35 | HA8 | 1 | 24 | 24 | 0.89 | 0.35 | 2.04 | 3.0 | |  | |
| 36 | HA8 | 1 | 2 | 2 | 1.03 | 0.41 | 5.20 | 3.0 | |  | |
| Fondations F5 & F6 & Mur de soutènement | | | | | | | | | | | |
| 41 | HA8 | 1 | 18 | 18 | 2.23 | 0.88 | 5.20 | 3.0 | |  | |
| 42 | HA12 | 1 | 24 | 24 | 1.57 | 1.39 | 1.04 | 5.0 | |  | |
| 44 | HA10 | 1 | 8 | 8 | 3.60 | 2.22 | 0.00 | | |  | |
| 45 | HA10 | 1 | 24 | 24 | 3.10 | 1.91 | 0.00 | | |  | |
| 46 | HA16 | 1 | 4 | 4 | 1.85 | 2.92 | 1.04 | 10.0 | |  | |
| 47 | HA16 | 1 | 4 | 4 | 1.65 | 2.60 | 1.04 | 10.0 | |  | |
| 48 | HA8 | 1 | 2 | 2 | 0.84 | 0.33 | 5.20 | 3.0 | |  | |
| 49 | HA8 | 1 | 17 | 17 | 2.83 | 1.12 | 5.20 | 3.0 | |  | |
| 50 | HA12 | 1 | 67 | 67 | 1.56 | 1.39 | 1.04 | 5.0 | |  | |
| 51 | HA12 | 1 | 39 | 39 | 1.36 | 1.21 | 1.04 | 5.0 | |  | |
| 51a | HA16 | 1 | 27 | 27 | 1.65 | 2.60 | 1.04 | 10.0 | |  | |

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| Rep. Barre | Dia. | Nb. d' élem. | Nb de barres | Nb. total | Long. | Poids unit. | Code Forme | φ mandr. | Angle | Schéma | Rev. |
|------------------------------------|------|--------------|--------------|-----------|-------|-------------|------------|----------|-------|---|------|
| | mm | | | | m | kg | | cm | α | cm | |
| 51b | HA16 | 1 | 5 | 5 | 1.65 | 2.60 | 1.04 | 10.0 | |  | |
| 52 | HA10 | 1 | 6 | 6 | 5.00 | 3.09 | 0.00 | | |  | |
| 53 | HA10 | 1 | 24 | 24 | 4.70 | 2.90 | 0.00 | | |  | |
| 54 | HA8 | 1 | 22 | 22 | 2.63 | 1.04 | 5.20 | 3.0 | |  | |
| 56 | HA10 | 1 | 12 | 12 | 4.25 | 2.62 | 0.00 | | |  | |
| 57 | HA10 | 1 | 24 | 24 | 3.95 | 2.44 | 0.00 | | |  | |
| 58 | HA8 | 1 | 28 | 28 | 2.03 | 0.80 | 5.20 | 3.0 | |  | |
| 59 | HA12 | 1 | 28 | 28 | 1.31 | 1.16 | 1.04 | 5.0 | |  | |
| 60 | HA10 | 1 | 8 | 8 | 7.00 | 4.32 | 0.00 | | |  | |
| 61 | HA10 | 1 | 24 | 24 | 6.70 | 4.13 | 0.00 | | |  | |
| 62 | HA8 | 1 | 24 | 24 | 1.43 | 0.56 | 5.20 | 3.0 | |  | |
| 63 | HA16 | 1 | 16 | 16 | 4.56 | 7.20 | 2.04 | 10.0 | |  | |
| 63a | HA10 | 1 | 8 | 8 | 4.25 | 2.62 | 0.00 | | |  | |
| 64 | HA12 | 1 | 168 | 168 | 2.07 | 1.84 | 0.00 | | |  | |
| Poutres de liaison P.L o1 & P.L o2 | | | | | | | | | | | |
| 71 | HA8 | 1 | 17 | 17 | 1.43 | 0.56 | 5.20 | 3.0 | |  | |

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| Rep. Barre | Dia. | Nb. d' elem. | Nb de barres | Nb. total | Long. | Poids unit. | Code Forme | φ mandr. | Angle | Schéma | Rev. |
|-------------------------------|------|--------------|--------------|-----------|-------|-------------|------------|----------|-------|---|------|
| | mm | | | | m | kg | | cm | α | cm | |
| 72 | HA8 | 1 | 9 | 9 | 1.83 | 0.72 | 5.20 | 3.0 | |  | |
| 73 | HA10 | 1 | 12 | 12 | 2.50 | 1.54 | 0.00 | | |  | |
| Colonnes & Poutres | | | | | | | | | | | |
| 81 | HA8 | 1 | 39 | 39 | 0.92 | 0.36 | 5.20 | 3.0 | |  | |
| 82 | HA8 | 1 | 78 | 78 | 1.11 | 0.44 | 5.20 | 3.0 | |  | |
| 83 | HA8 | 1 | 39 | 39 | 0.71 | 0.28 | 5.20 | 3.0 | |  | |
| 84 | HA16 | 1 | 16 | 16 | 4.00 | 6.31 | 0.00 | | |  | |
| 85 | HA16 | 1 | 16 | 16 | 3.60 | 5.68 | 0.00 | | |  | |
| 86 | HA16 | 1 | 16 | 16 | 2.70 | 4.26 | 0.00 | | |  | |
| 87 | HA8 | 1 | 87 | 87 | 1.11 | 0.44 | 5.20 | 3.0 | |  | |
| 88 | HA8 | 1 | 87 | 87 | 1.11 | 0.44 | 5.20 | 3.0 | |  | |
| 89 | HA12 | 1 | 30 | 30 | 6.50 | 5.77 | 0.00 | | |  | |
| 90 | HA8 | 1 | 90 | 90 | 0.89 | 0.35 | 5.20 | 3.0 | |  | |
| 91 | HA12 | 1 | 12 | 12 | 3.60 | 3.20 | 0.00 | | |  | |
| 91a | HA12 | 1 | 3 | 3 | 0.60 | 0.53 | 0.00 | | |  | |
| 92 | HA12 | 1 | 12 | 12 | 2.90 | 2.58 | 0.00 | | |  | |

POIDS D'ACIER

Nombre d'éléments: 1

| Diamètre | Acier HA | | | Longueur totale (m) | Poids unitaire (kg/m) | Poids total (kg) |
|----------|---------------------|-----------------------|------------------|---------------------|-----------------------|------------------|
| | Longueur totale (m) | Poids unitaire (kg/m) | Poids total (kg) | | | |
| 6 | 0.0 | 0.222 | 0.00 | | | |
| 8 | 1429.8 | 0.395 | 564.77 | | | |
| 10 | 928.3 | 0.617 | 572.75 | | | |
| 12 | 947.4 | 0.888 | 841.30 | | | |
| 14 | 0.0 | 1.208 | 0.00 | | | |
| 16 | 334.2 | 1.578 | 527.30 | | | |
| 20 | 0.0 | 2.466 | 0.00 | | | |
| 25 | 0.0 | 3.853 | 0.00 | | | |
| 32 | 0.0 | 6.313 | 0.00 | | | |
| 40 | 0.0 | 9.864 | 0.00 | | | |

| | |
|-------------------------|------|
| Diamètre moyen (mm) | 10.6 |
| Longueur façonnée | 1741 |
| Longueur droite coupée | 1899 |
| Longueur droite fournie | 0 |
| Longueur totale (m) | 3640 |
| Poids façonné | 1061 |
| Poids droit coupé | 1445 |
| Poids droit fourni | 0 |
| Poids total (kg) | 2506 |

| | |
|------------------------------------|------|
| Total général par élément (kg) | 2506 |
| Total général pour 1 éléments (kg) | 2506 |