Fàbrica de cartró

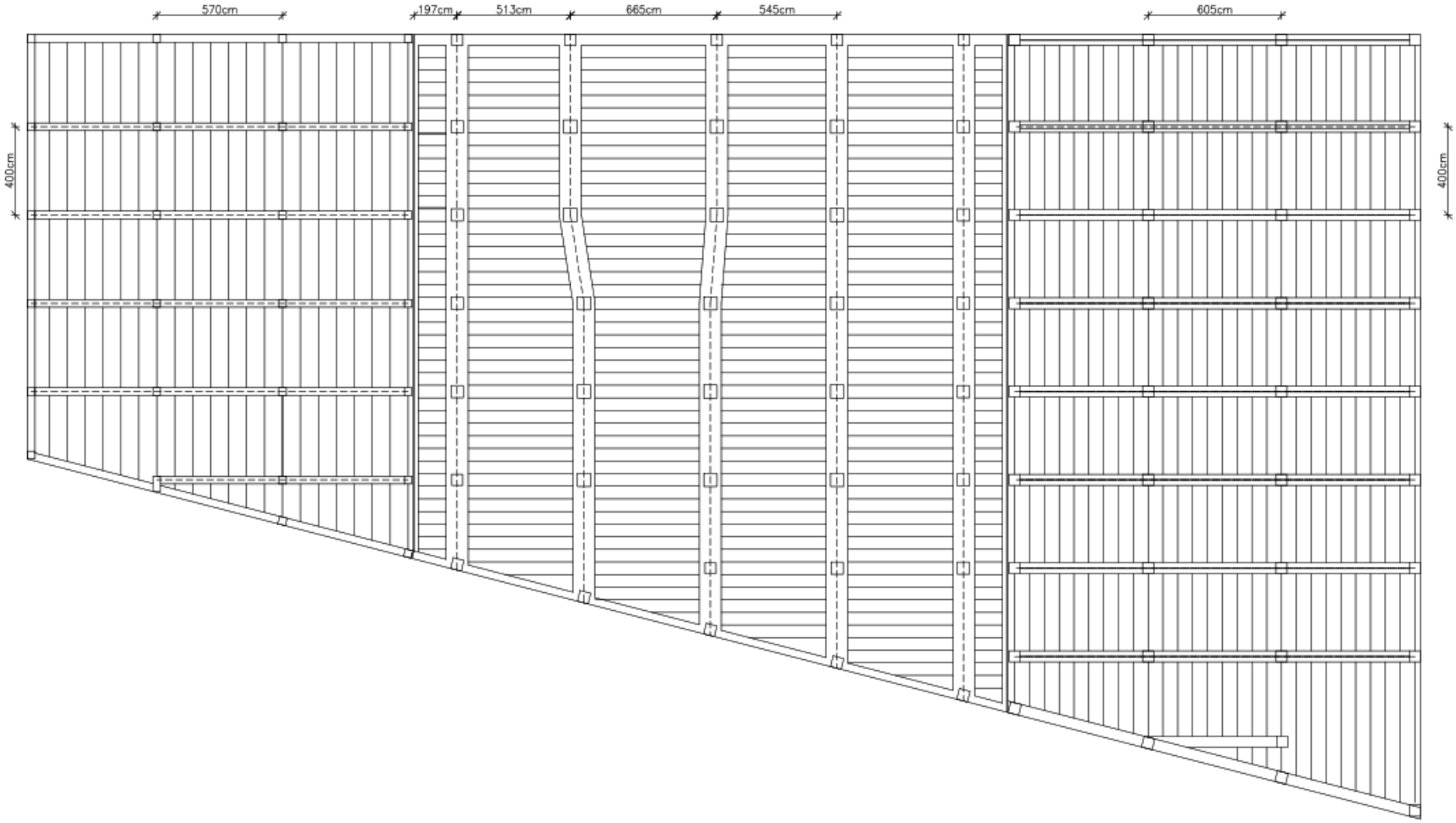
REFORMAR+REHABILITAR+ACTUAR

L'ESTRUCTURA DE LA FÀBRICA DE CARTRÓ

BUIDAR
ESTRATÈGIES PROJECTUALS

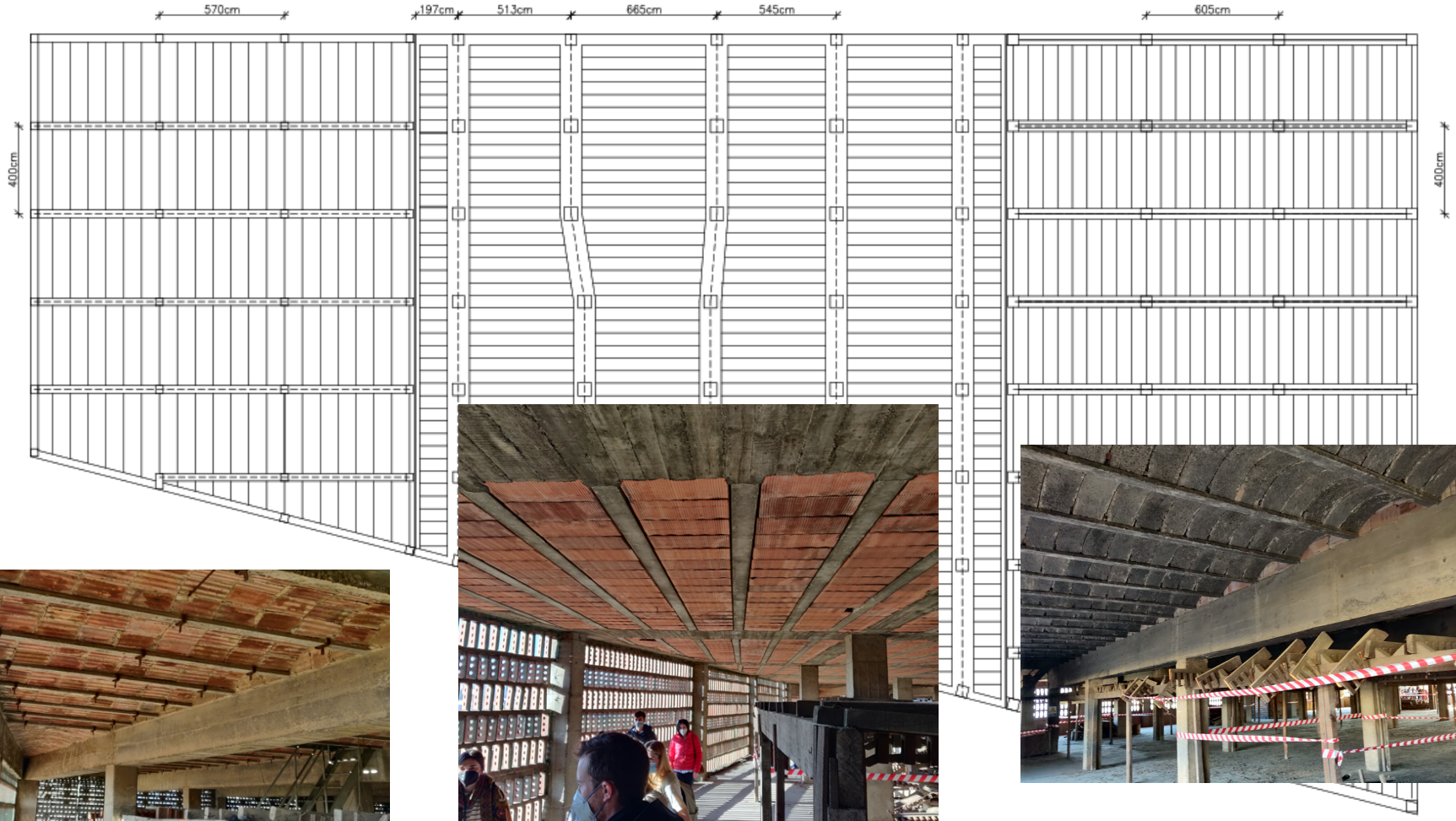
(1)

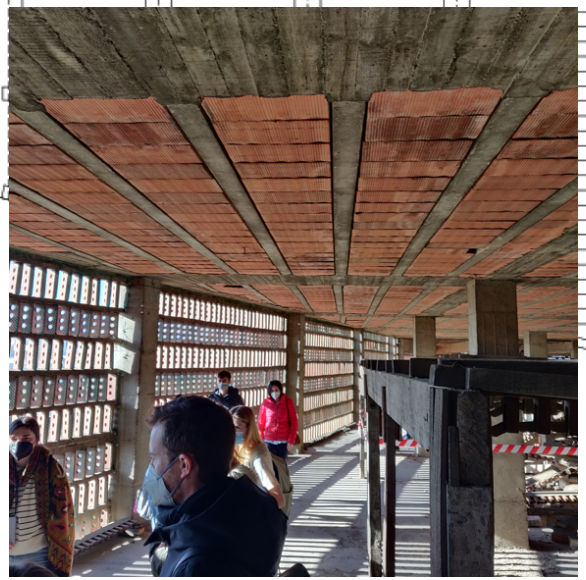
LA FÀBRICA ESTAT ACTUAL



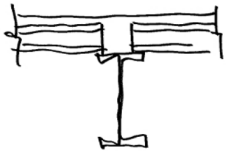
LES JUNTES

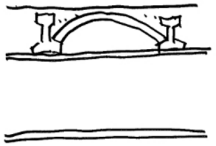
LA FÀBRICA ESTAT ACTUAL

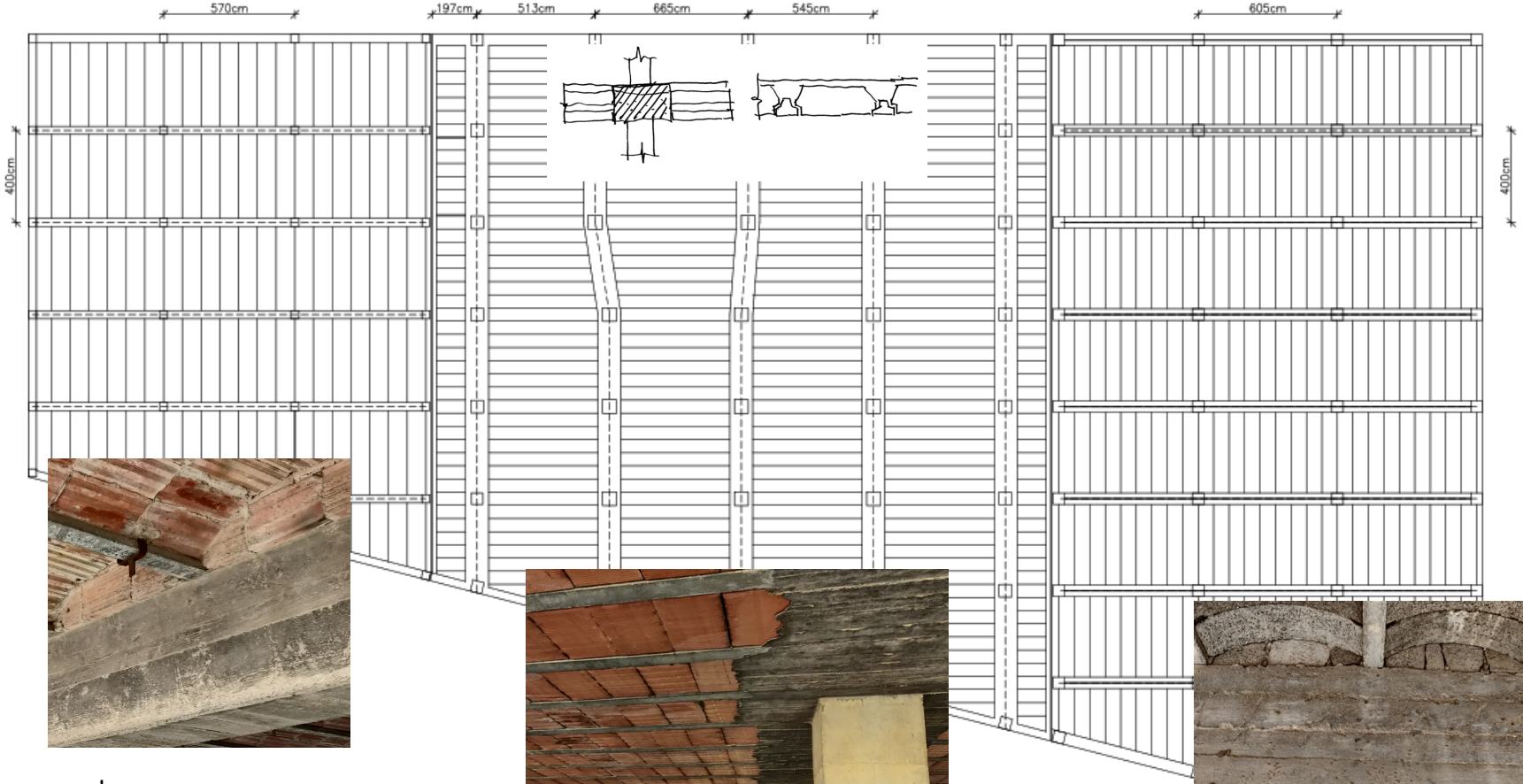


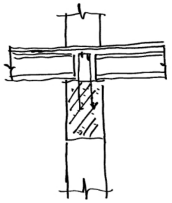


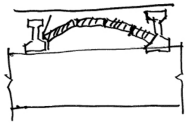
LA FÀBRICA ESTAT ACTUAL







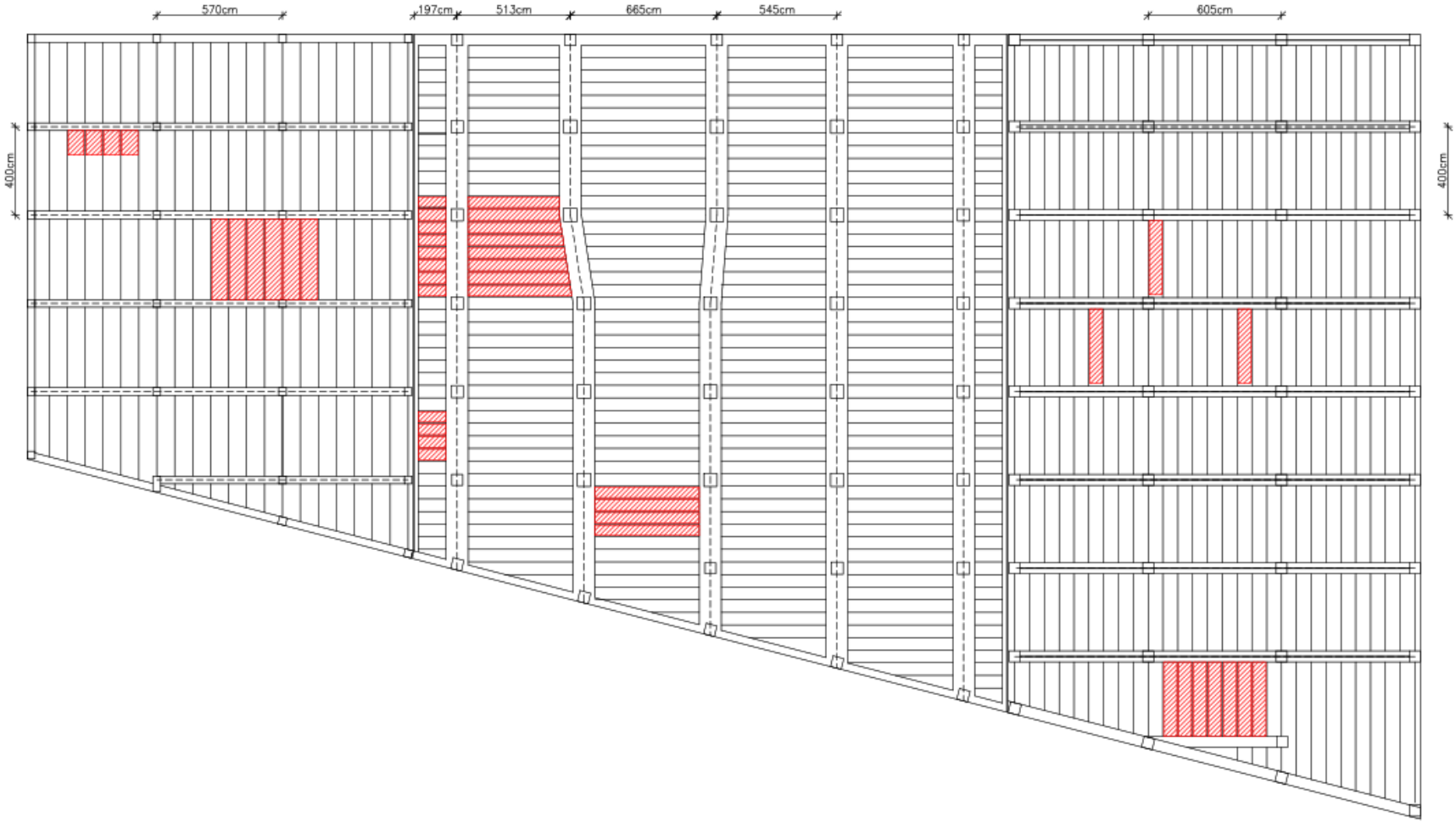




BUIDAR
ESTRATÈGIES PROJECTUALS

(1)

LA FÀBRICA ESTAT ACTUAL



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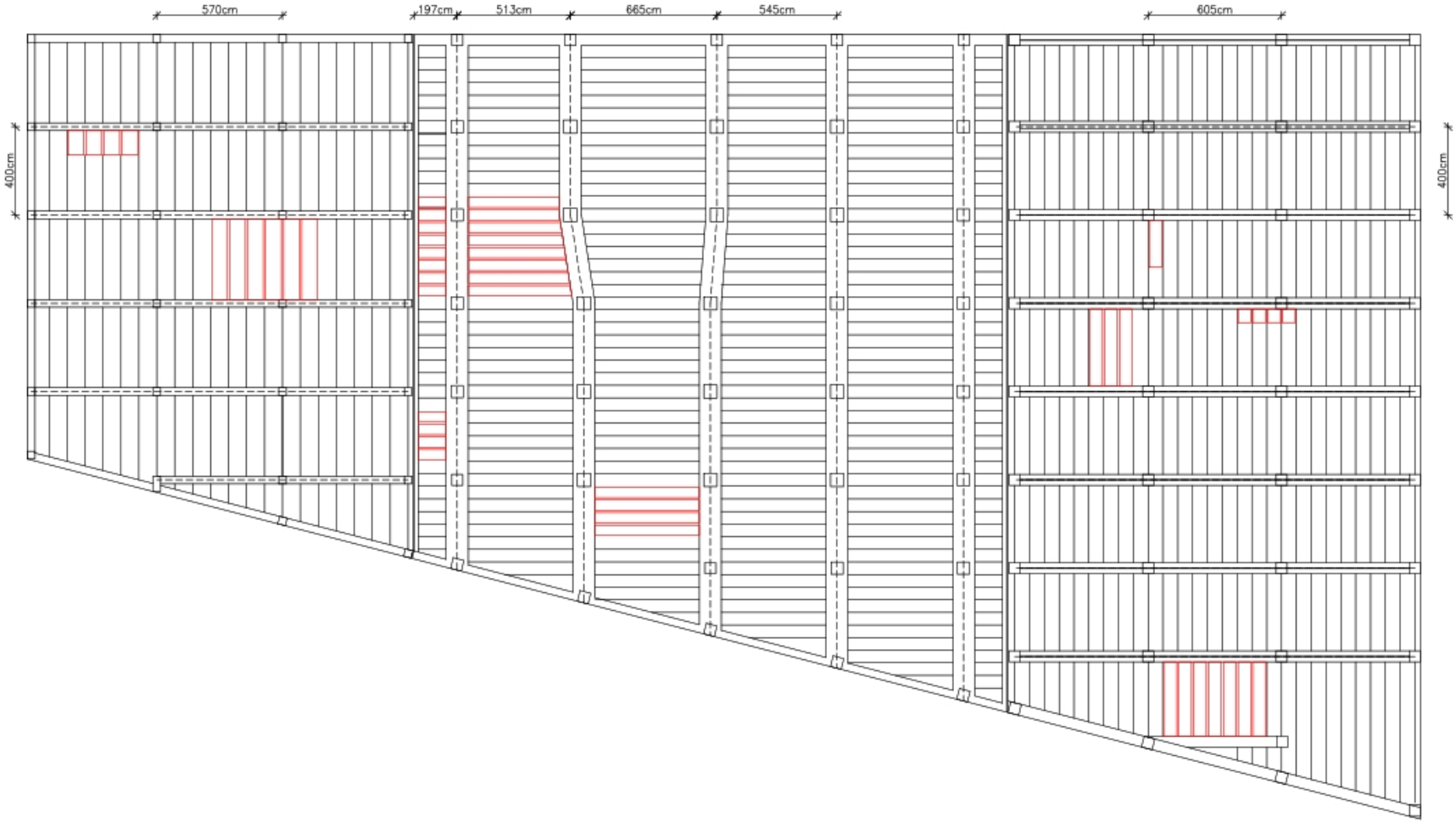
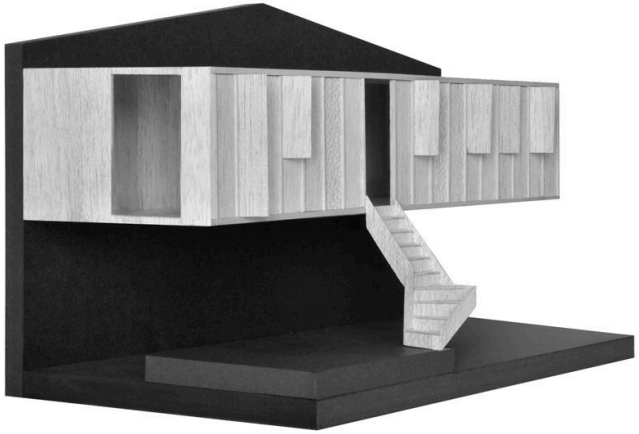
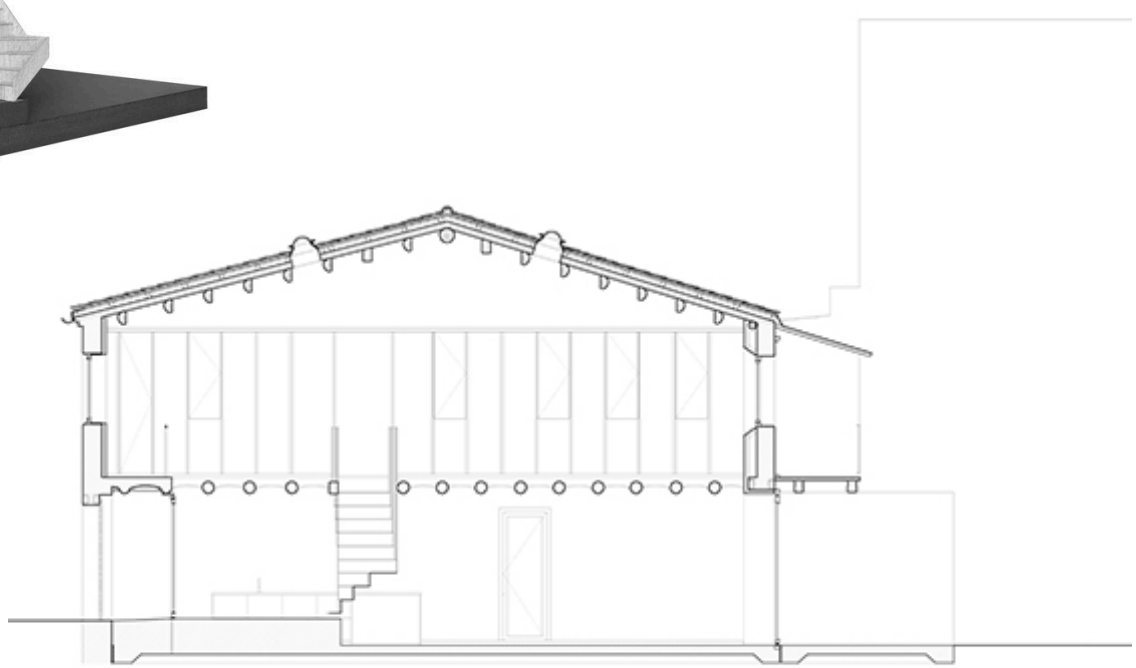
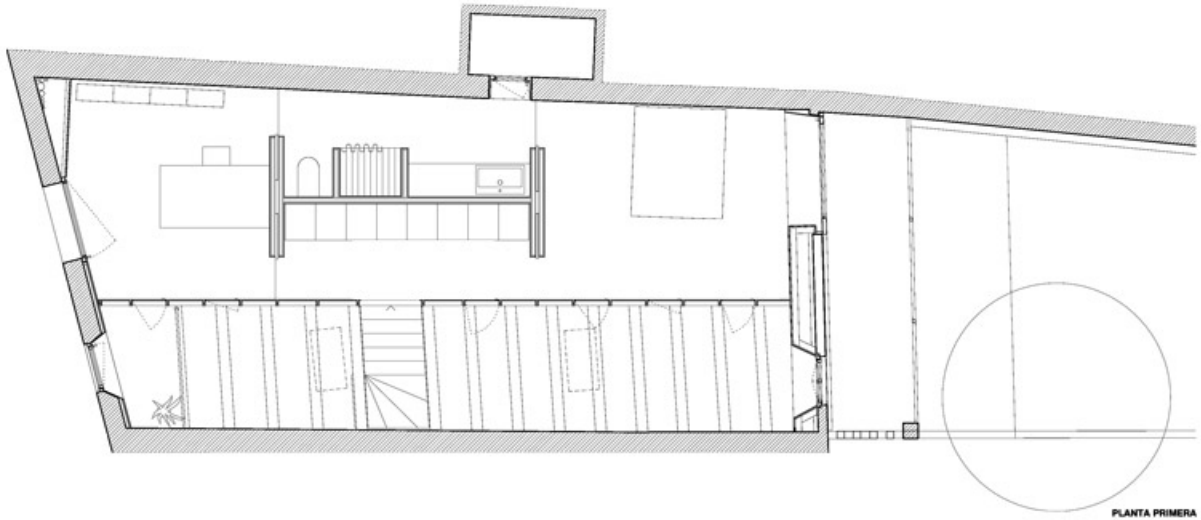


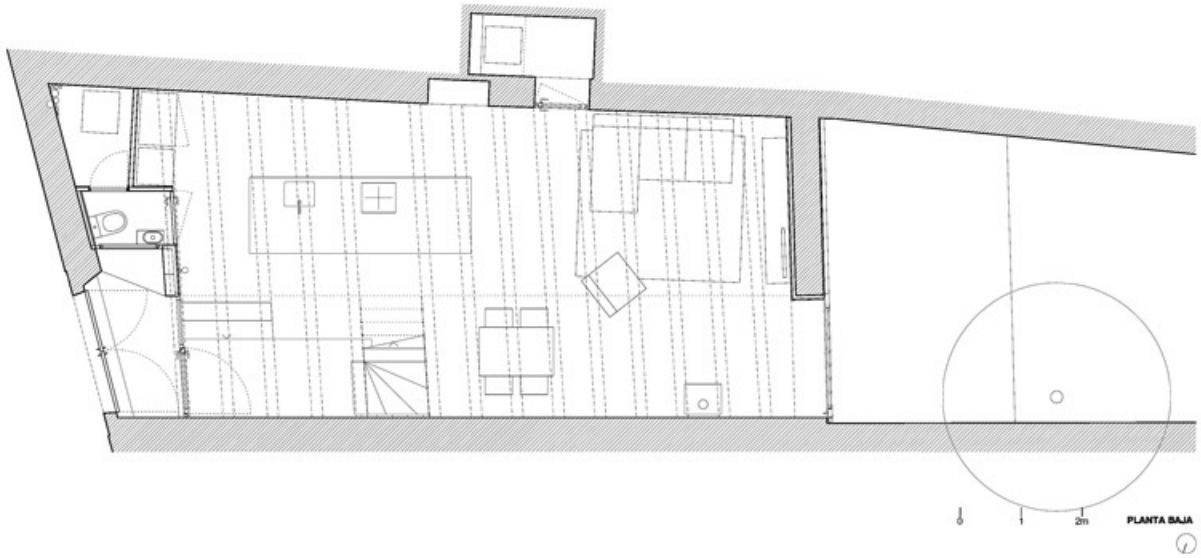
2016 REFORMA DE UNA CASA ENTREMEDIANERAS, SANT FELIU – DATAAE



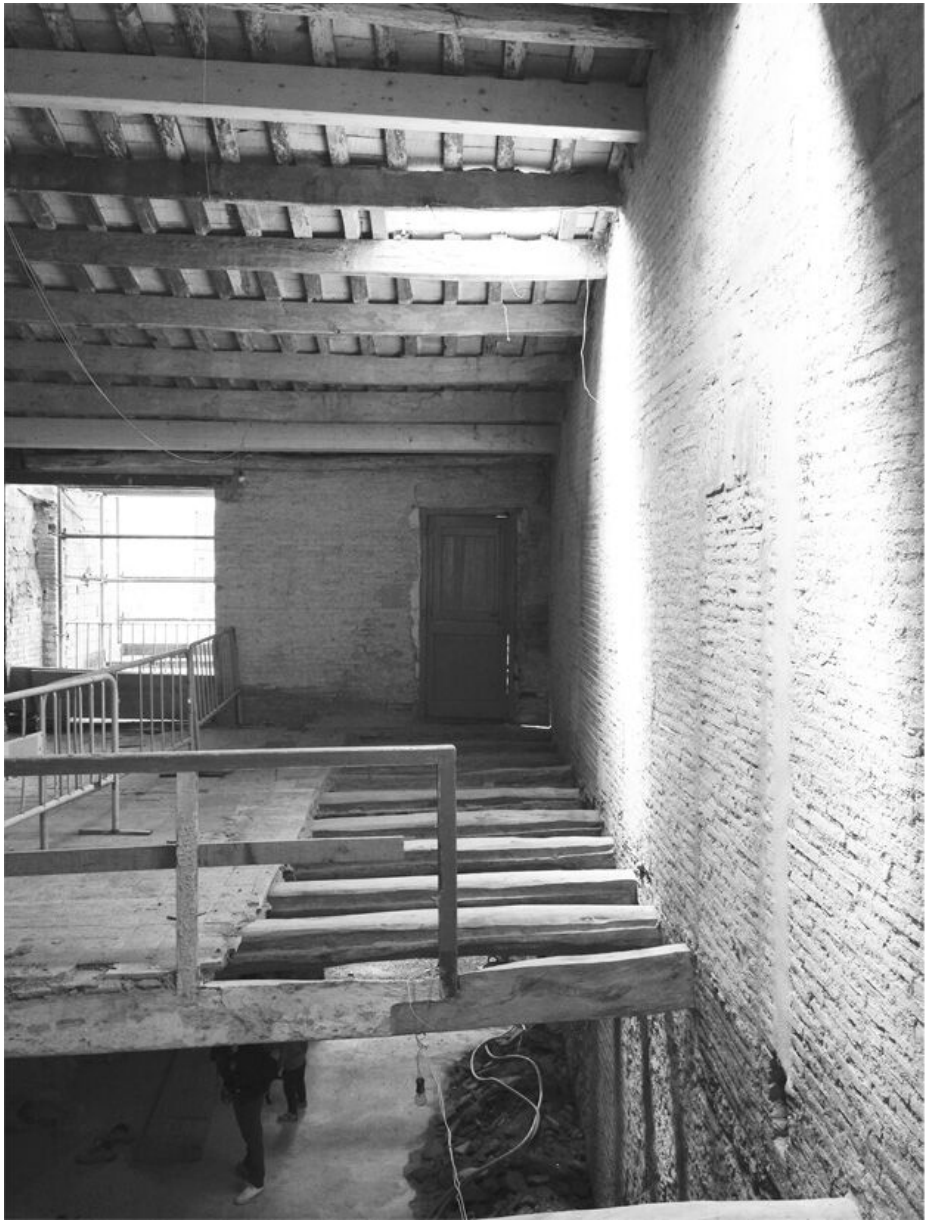


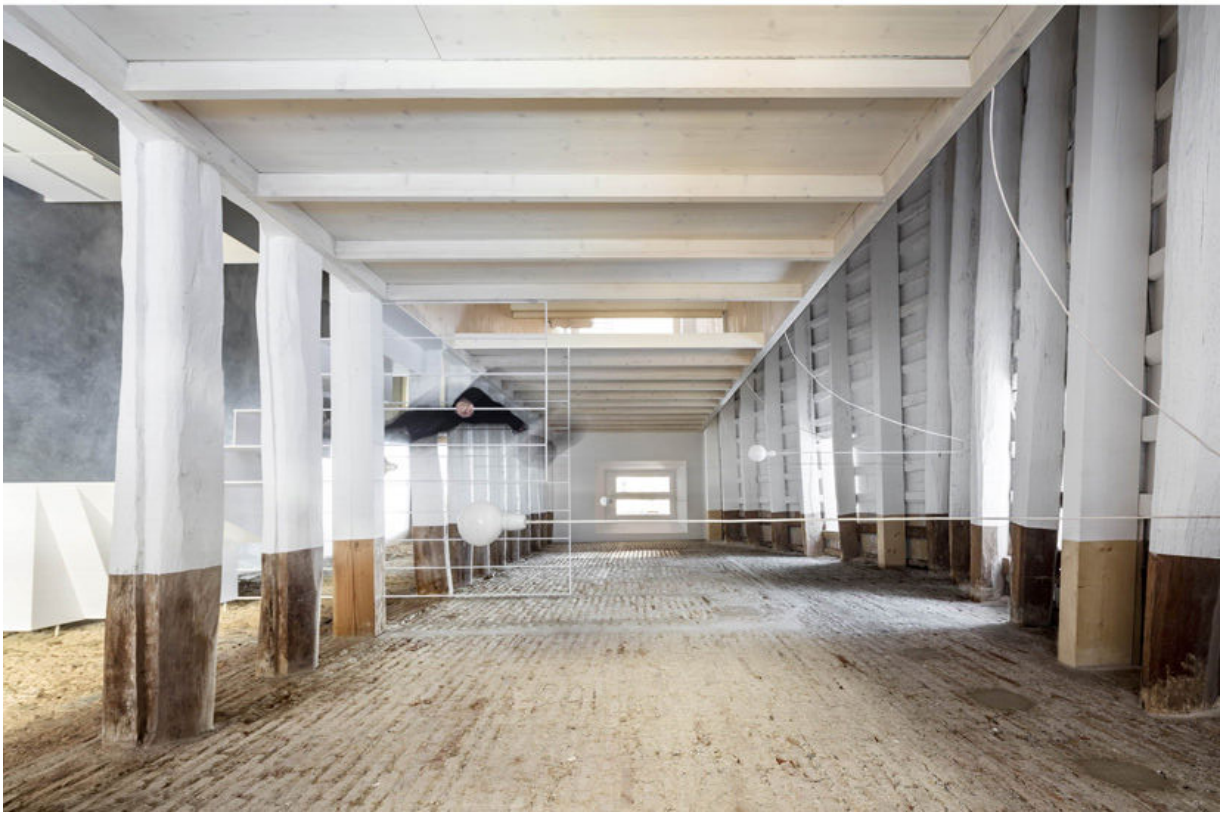


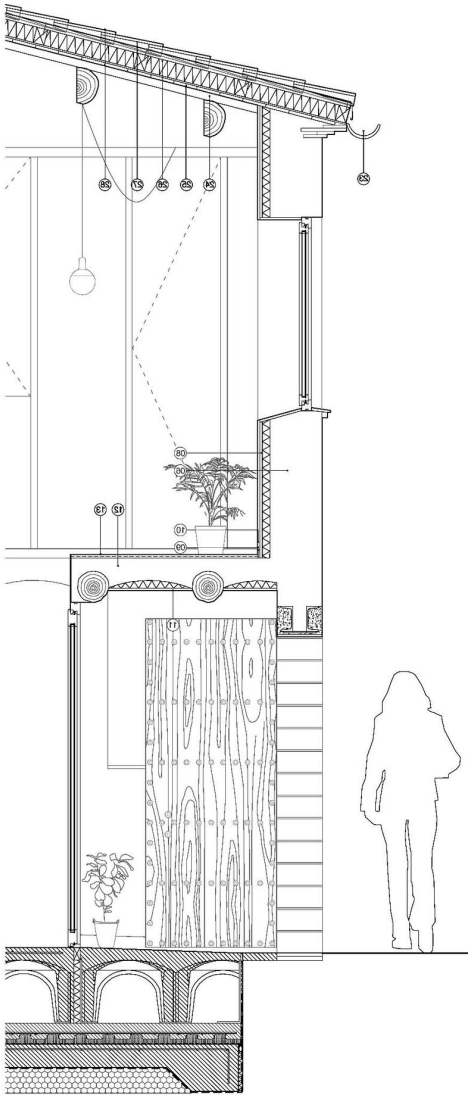
PLANTA PRIMERA

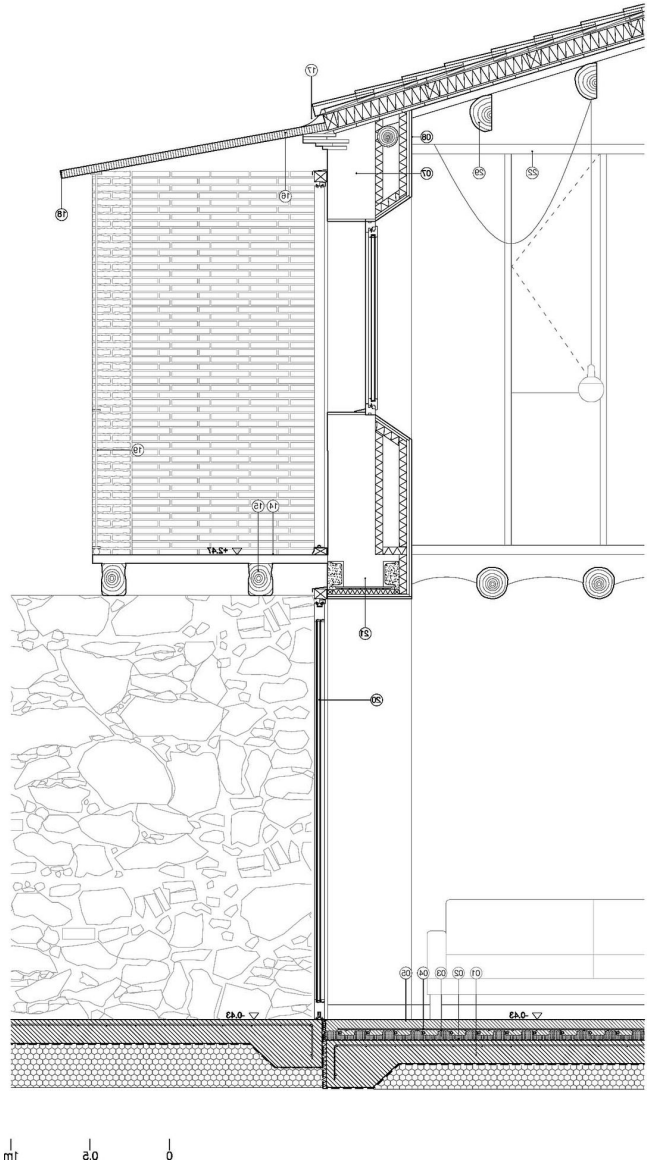


PLANTA BAJA







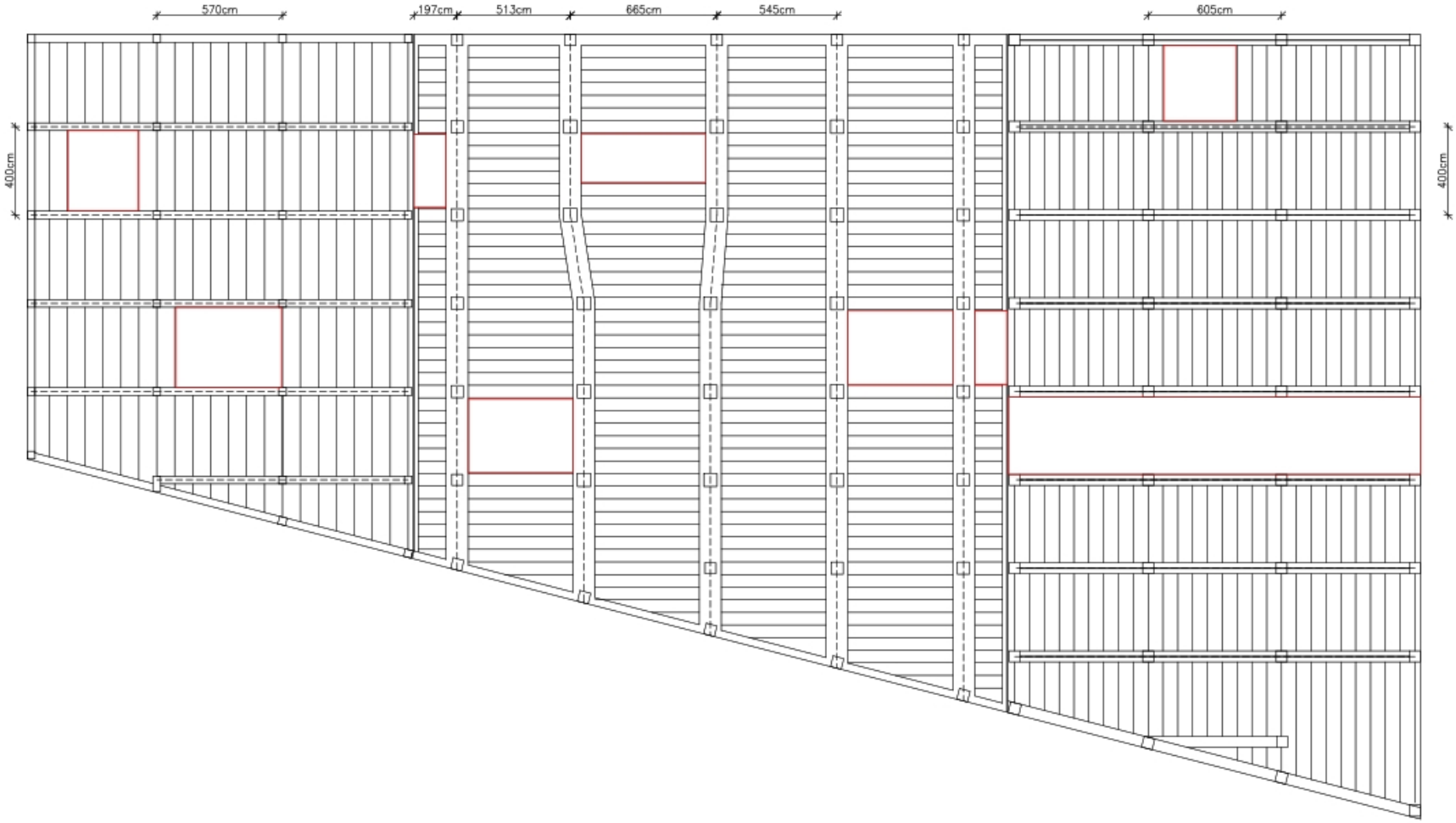

17
16
06
07
25
22
16
16
15
+2.47
21
20
01
02
03
04
05
-0.43
-0.43
0
0.5
1m

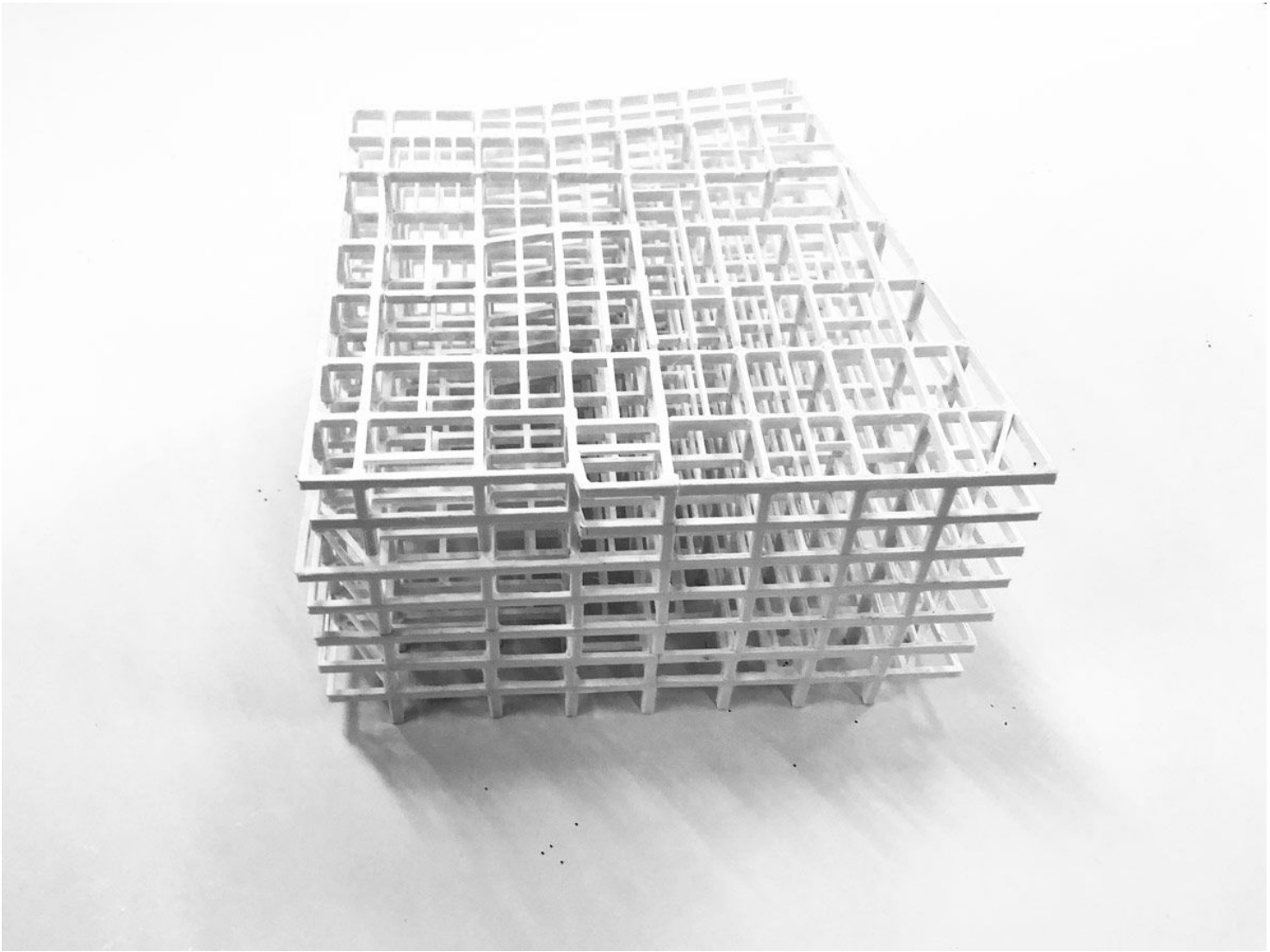
BUIDAR
ESTRATÈGIES PROJECTUALS

(2)

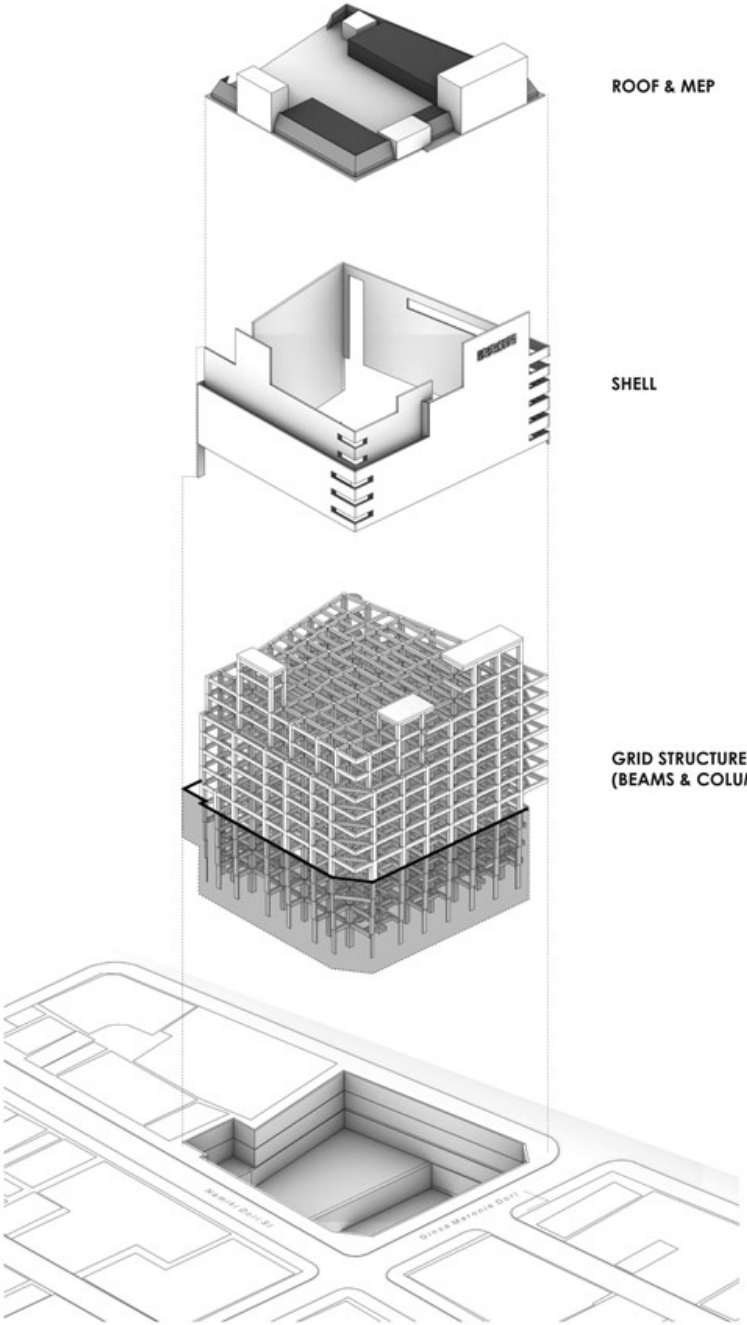
BUIDAT AMB ELIMINACIÓ DE SOSTRE (BIGUETES)

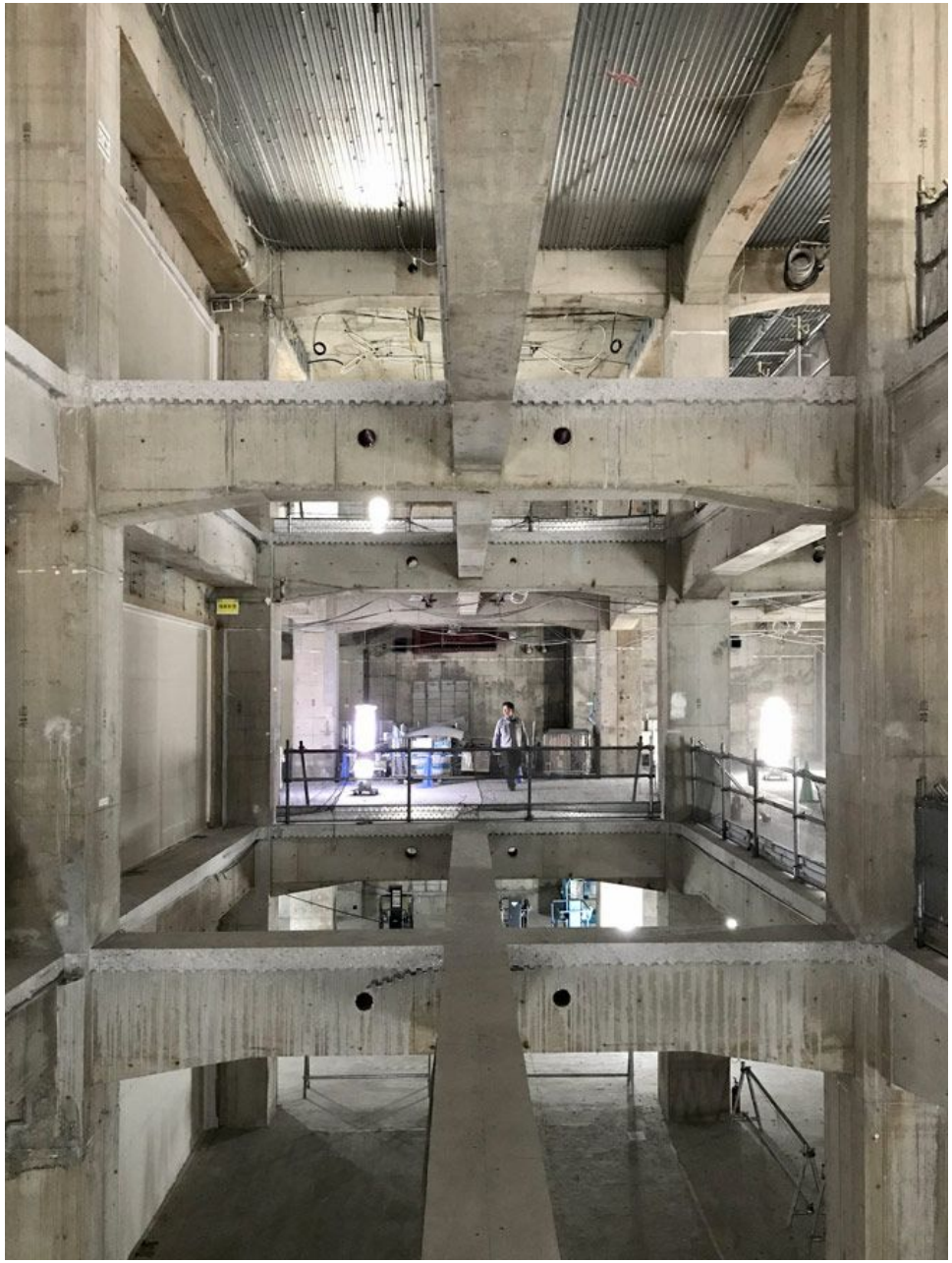
BUIDAT AMB ELIMINACIÓ DE SOSTRE (BIGUETES)





2020 UNIQLO , TOKIO - HERZOG & DE MEURON


ROOF & MEP
SHELL
GRID STRUCTURE
(BEAMS & COLUMNS)



Sustainable
Re/Make

3H
2I
2J

WELCOME TO UNIQLO TOKYO
UT

UNI
QLO

UNI
QLO
UNI
QLO

MUJI
無印良品
MUJI HOTEL
GINZA
MUJI Diner
UNI
QLO
ユニ
クロ

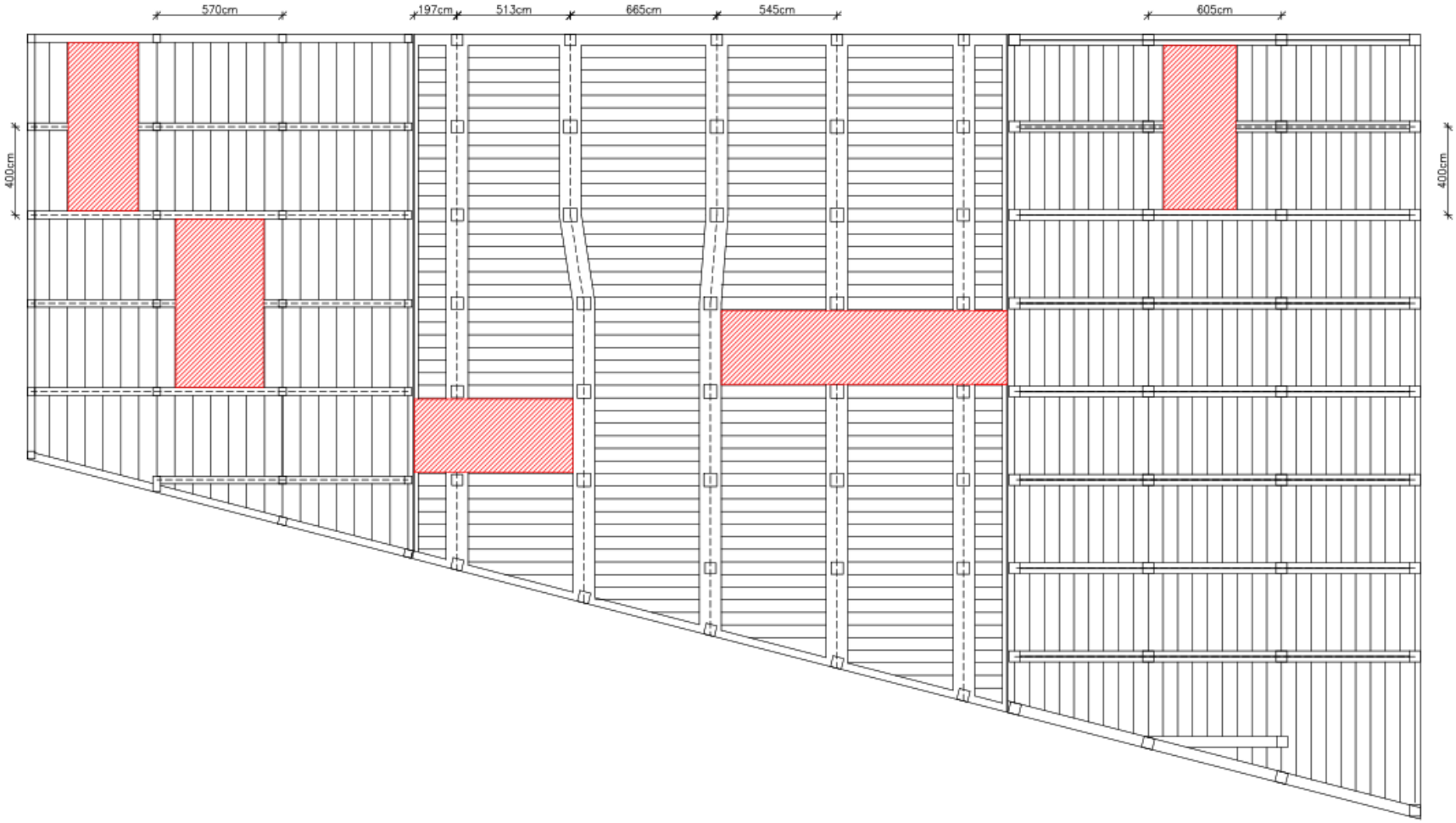
2020 REFORMA EDIFICIO INDUSTRIAL 3D3N, MADRID- ZZA

2012 FACULTAD DE BIOLOGÍA, ALCALÁ DE HENARES - HECTOR ELORZA

BUIDAR
ESTRATÈGIES PROJECTUALS

(3)

BUIDAT AMB ELIMINACIÓ DE SOSTRE I JÀSSERES



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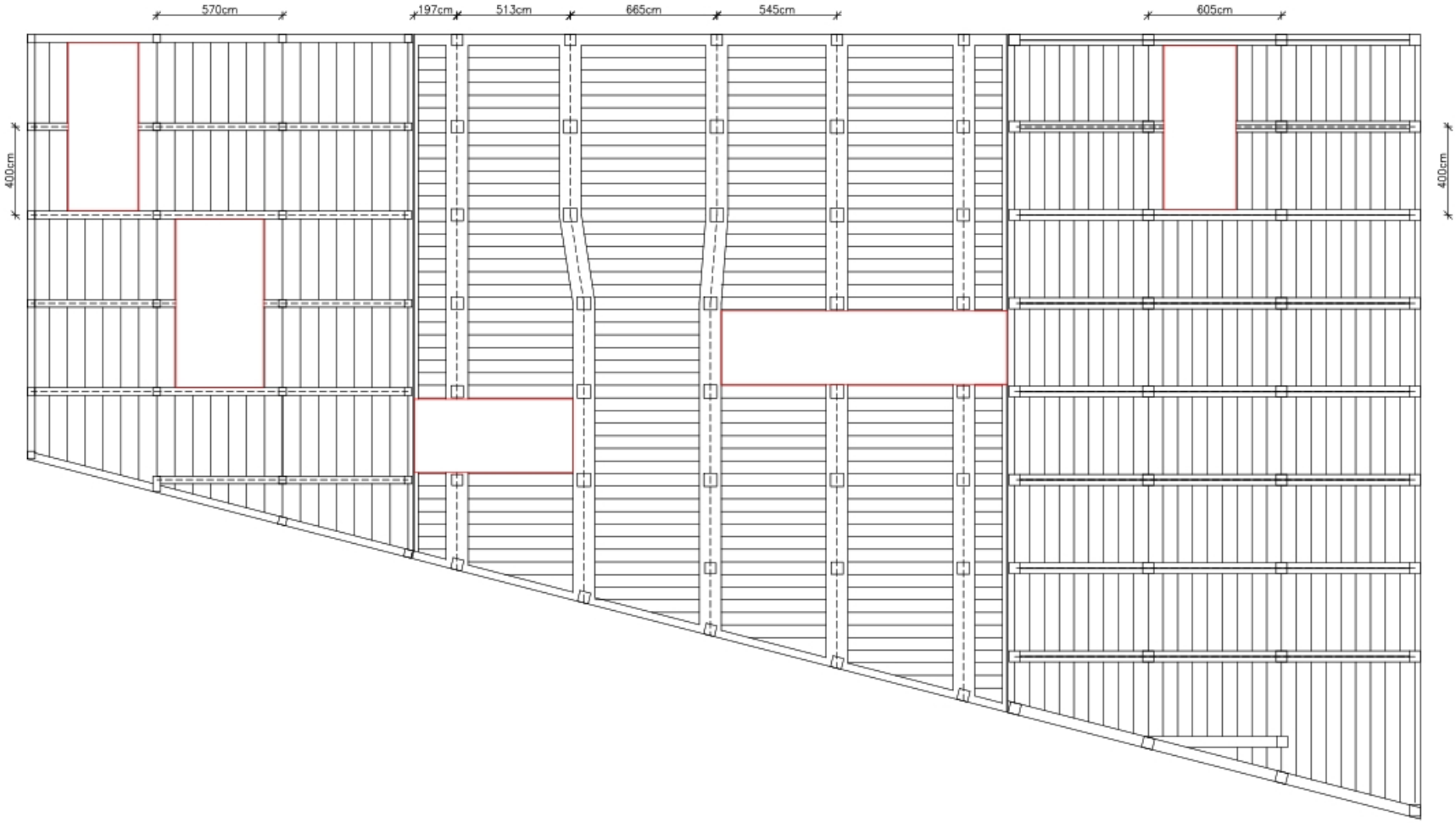
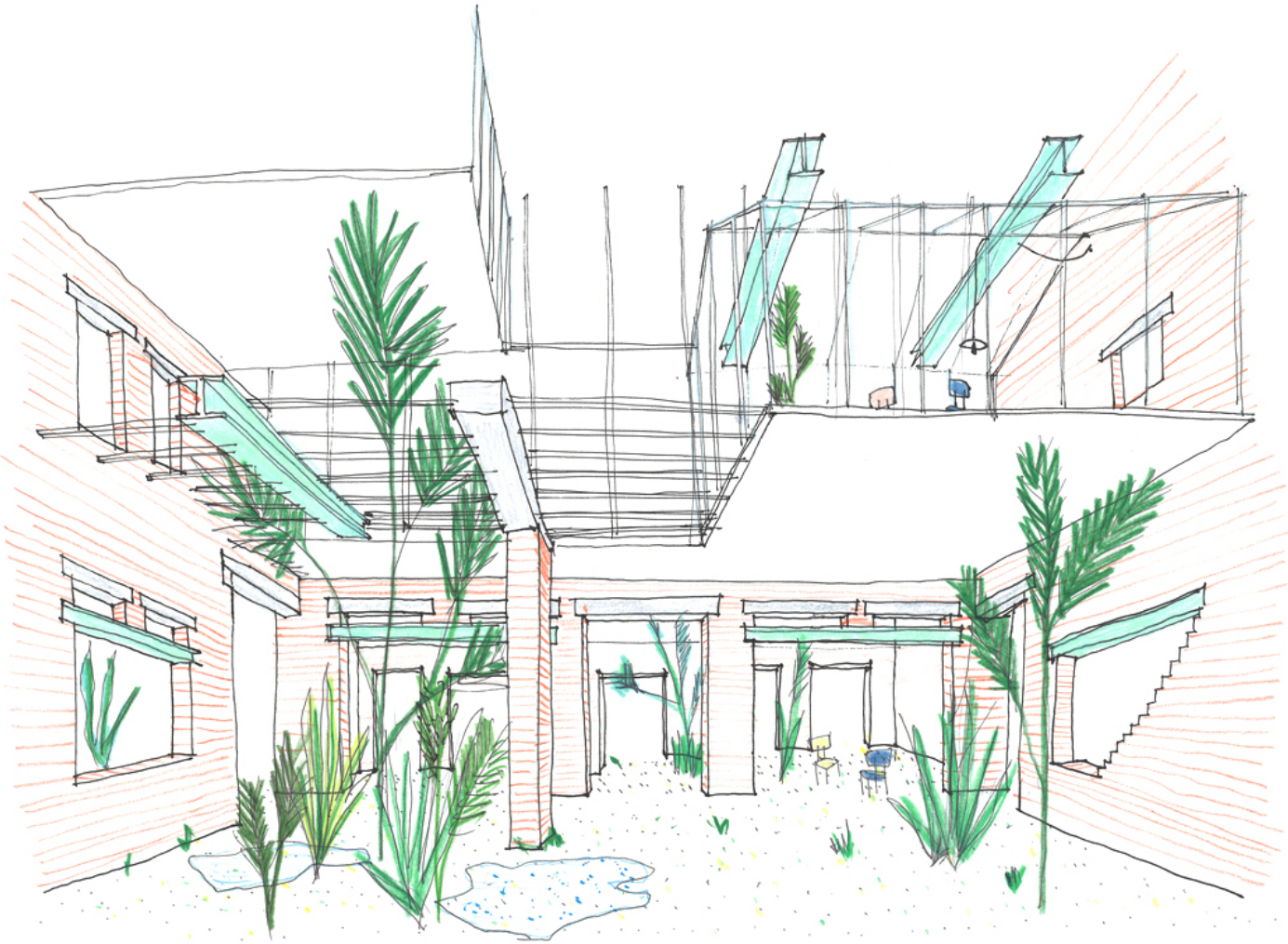
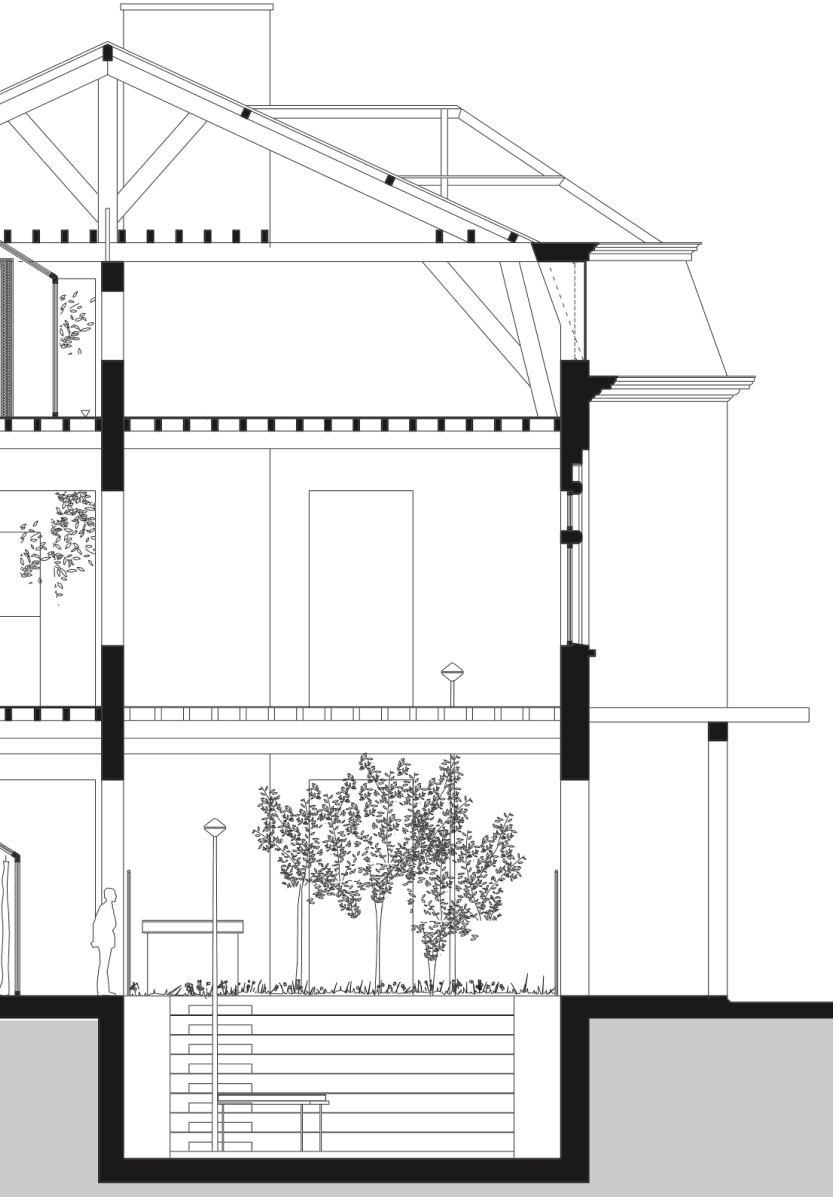
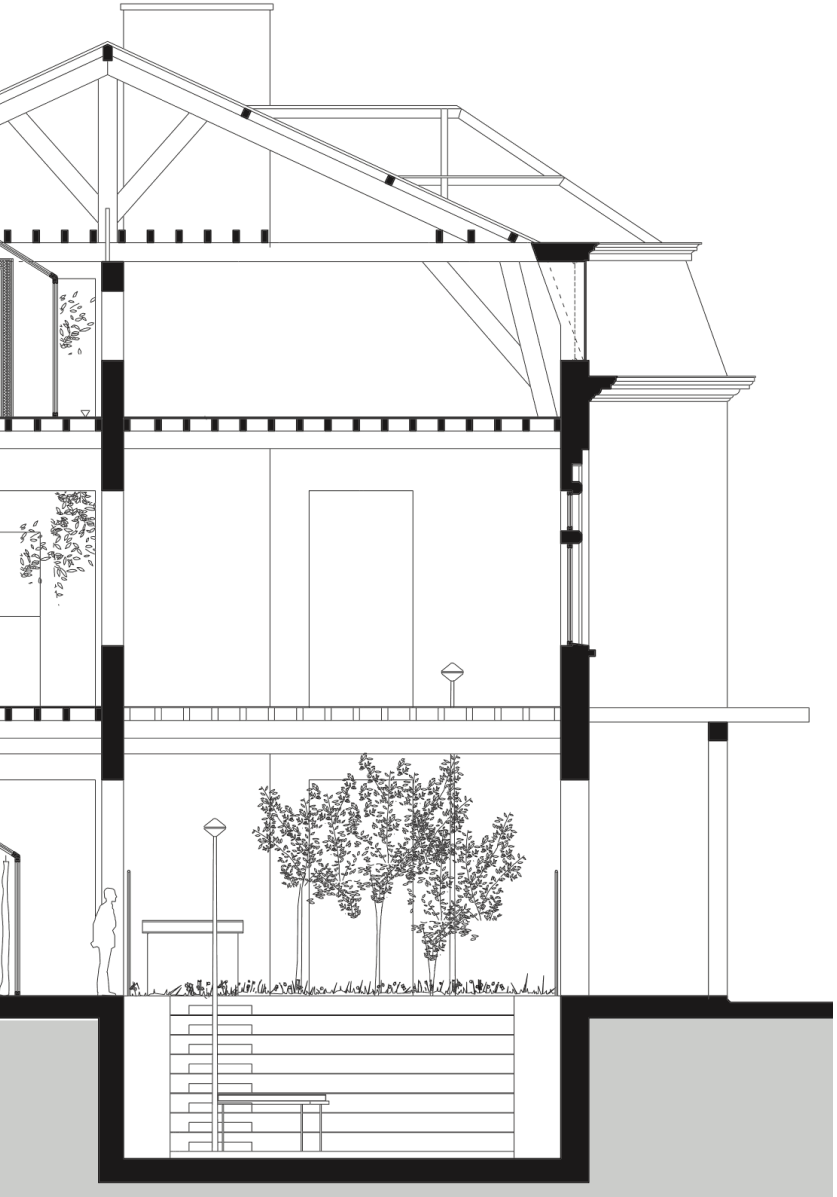
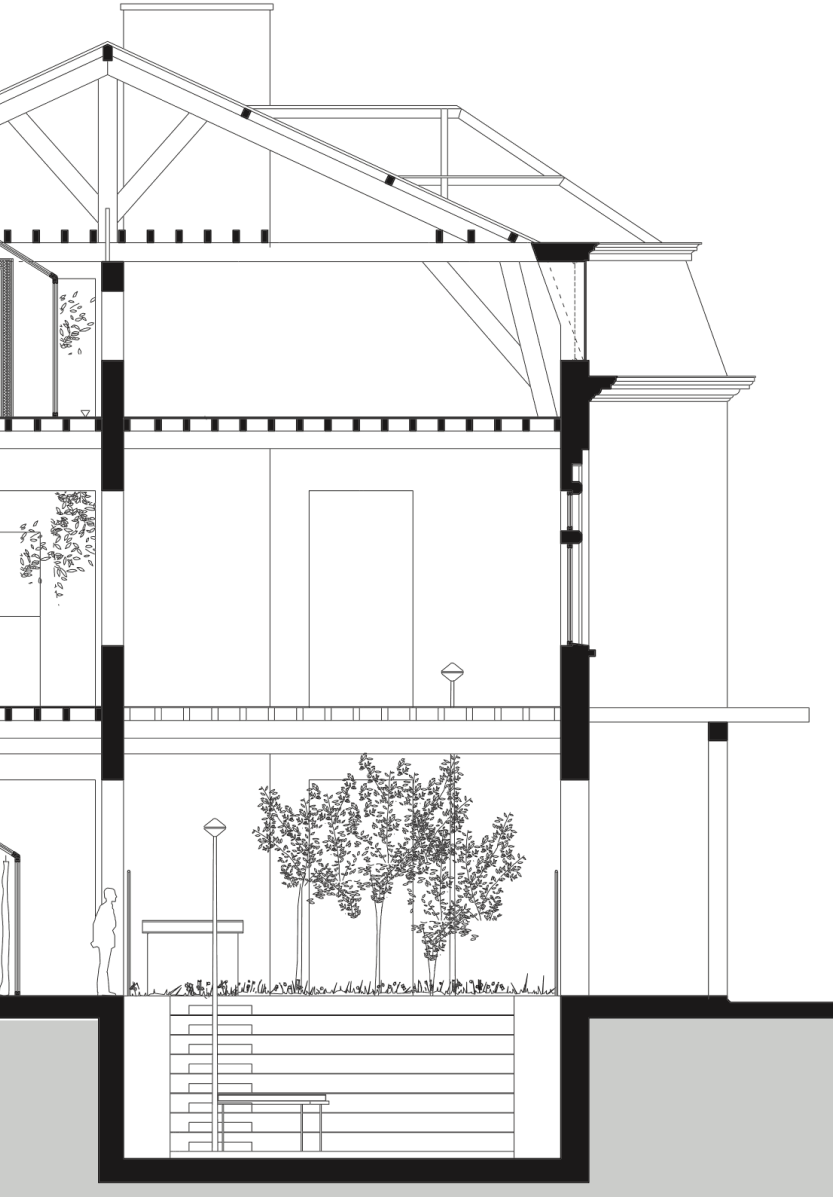


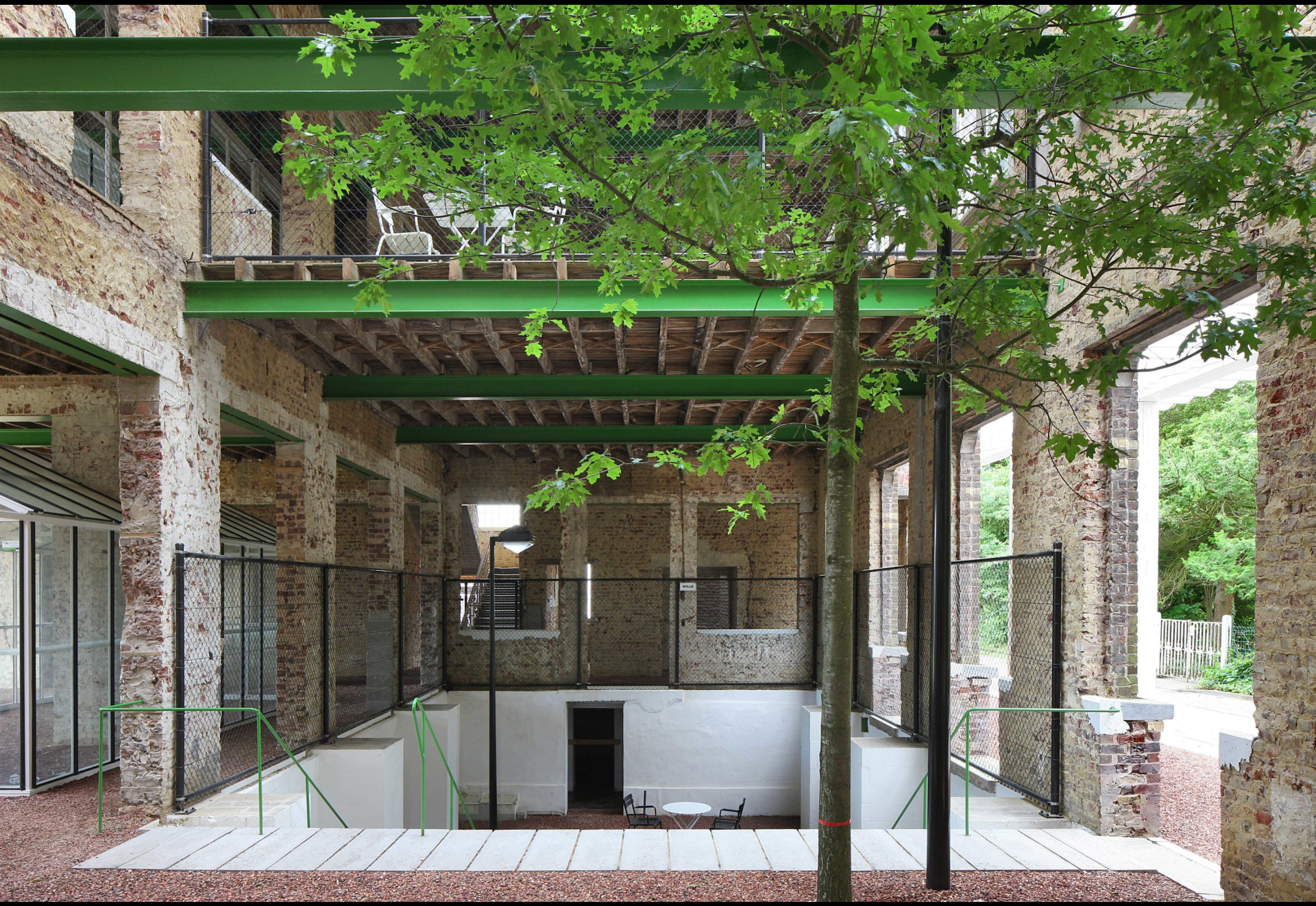
2017 ESPACIOS COMUNES CENTRO PSIQUIÁTRICO PC CARITAS , BELGIUM - DE VYLDER VINCK TAILLIEU DWVT

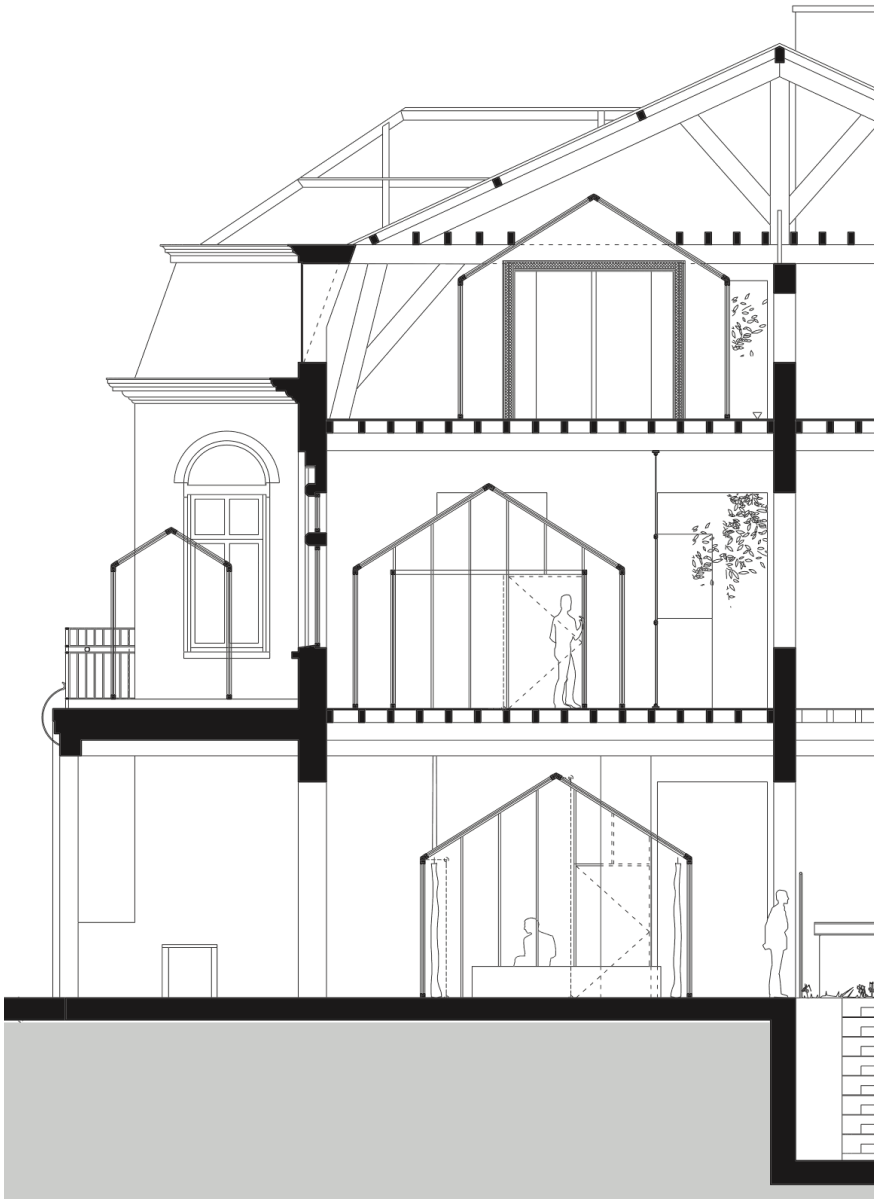


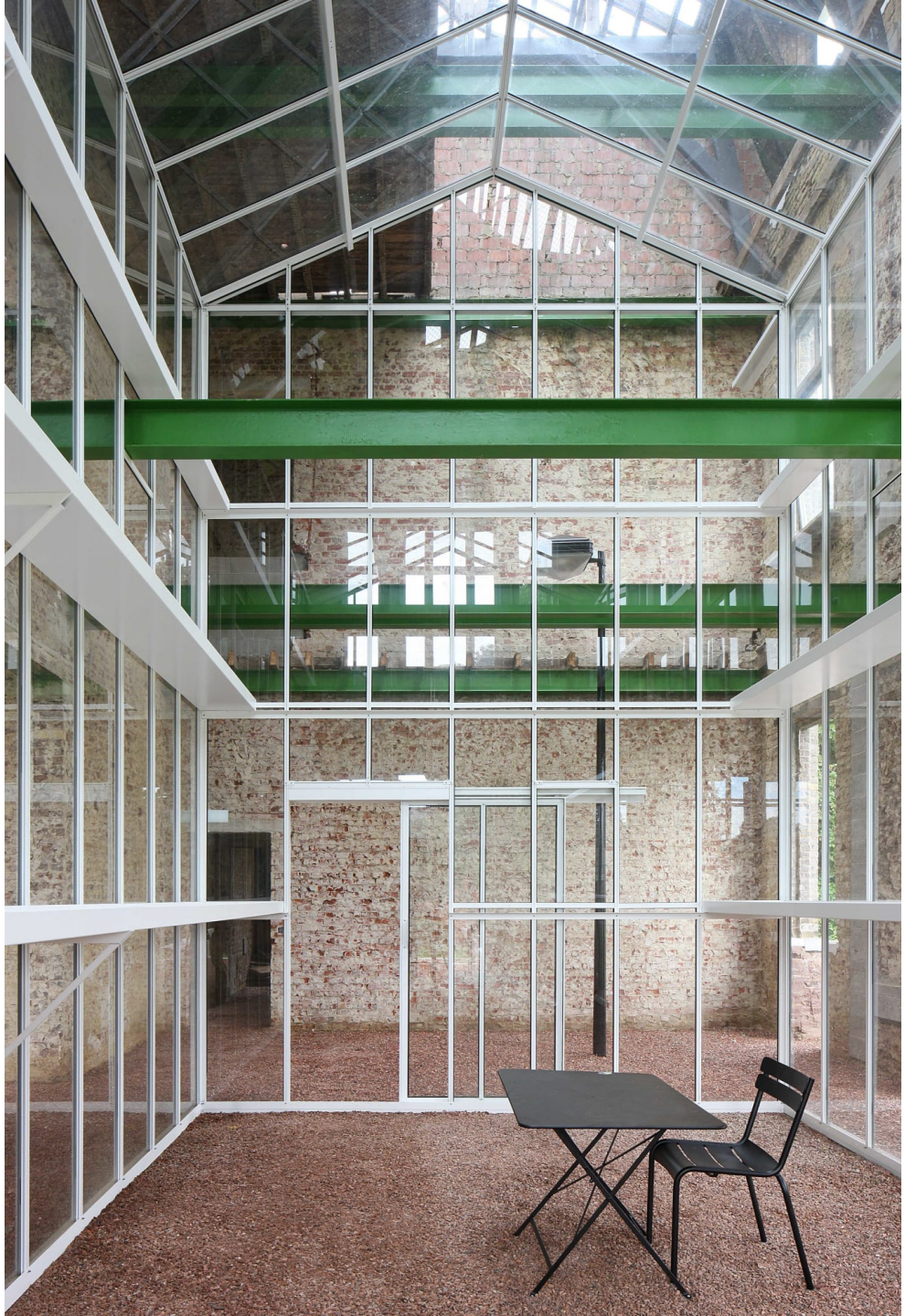


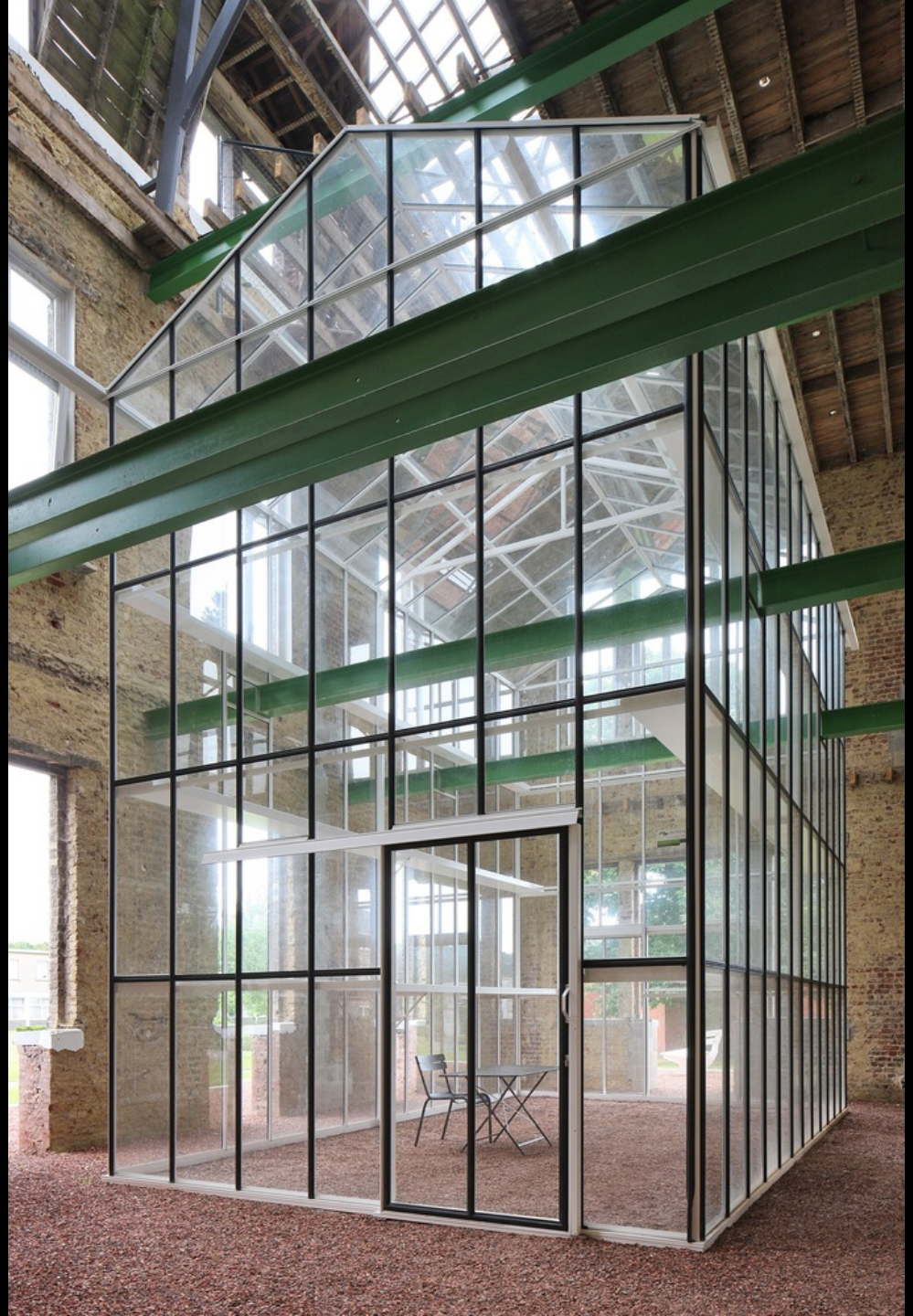




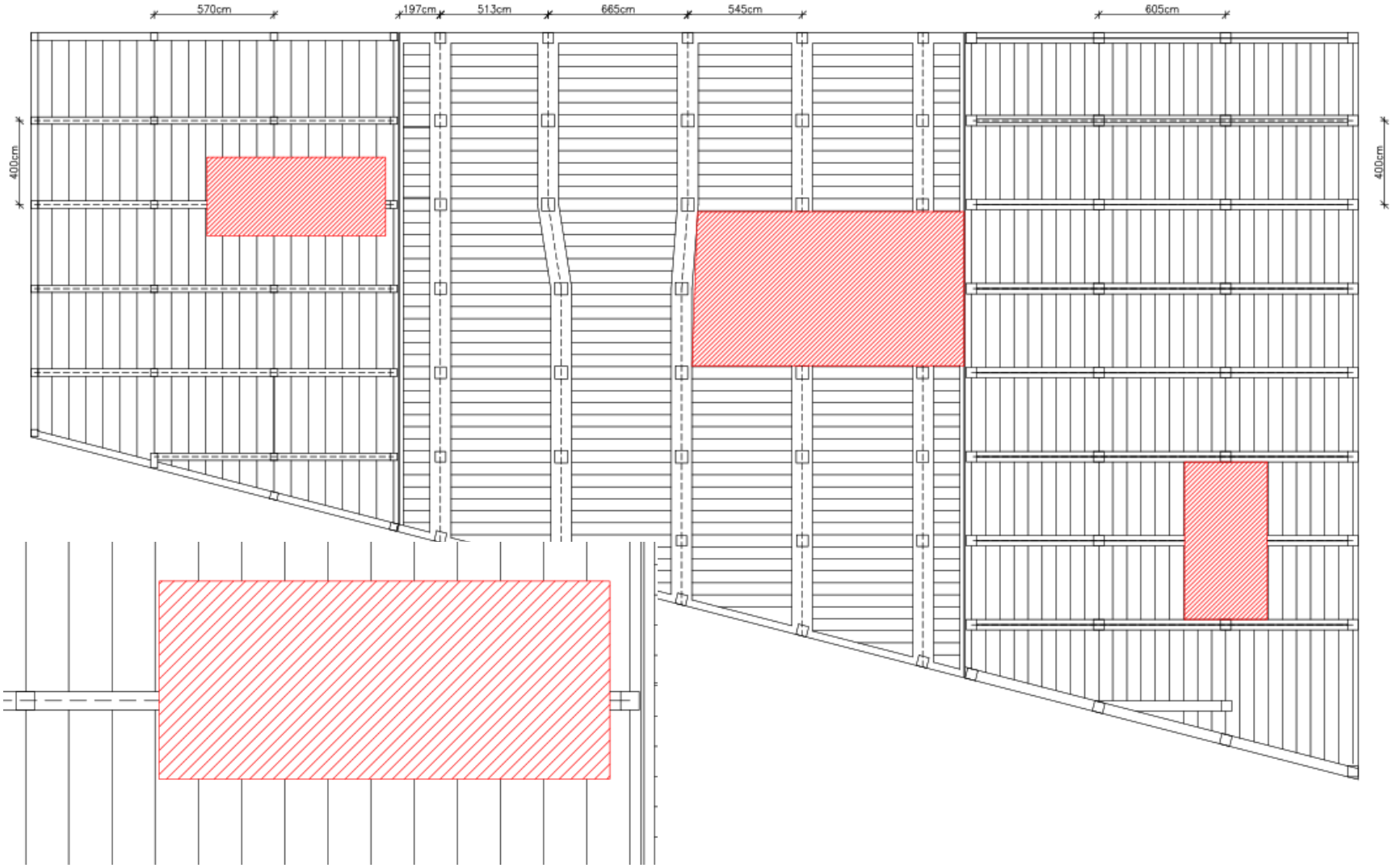




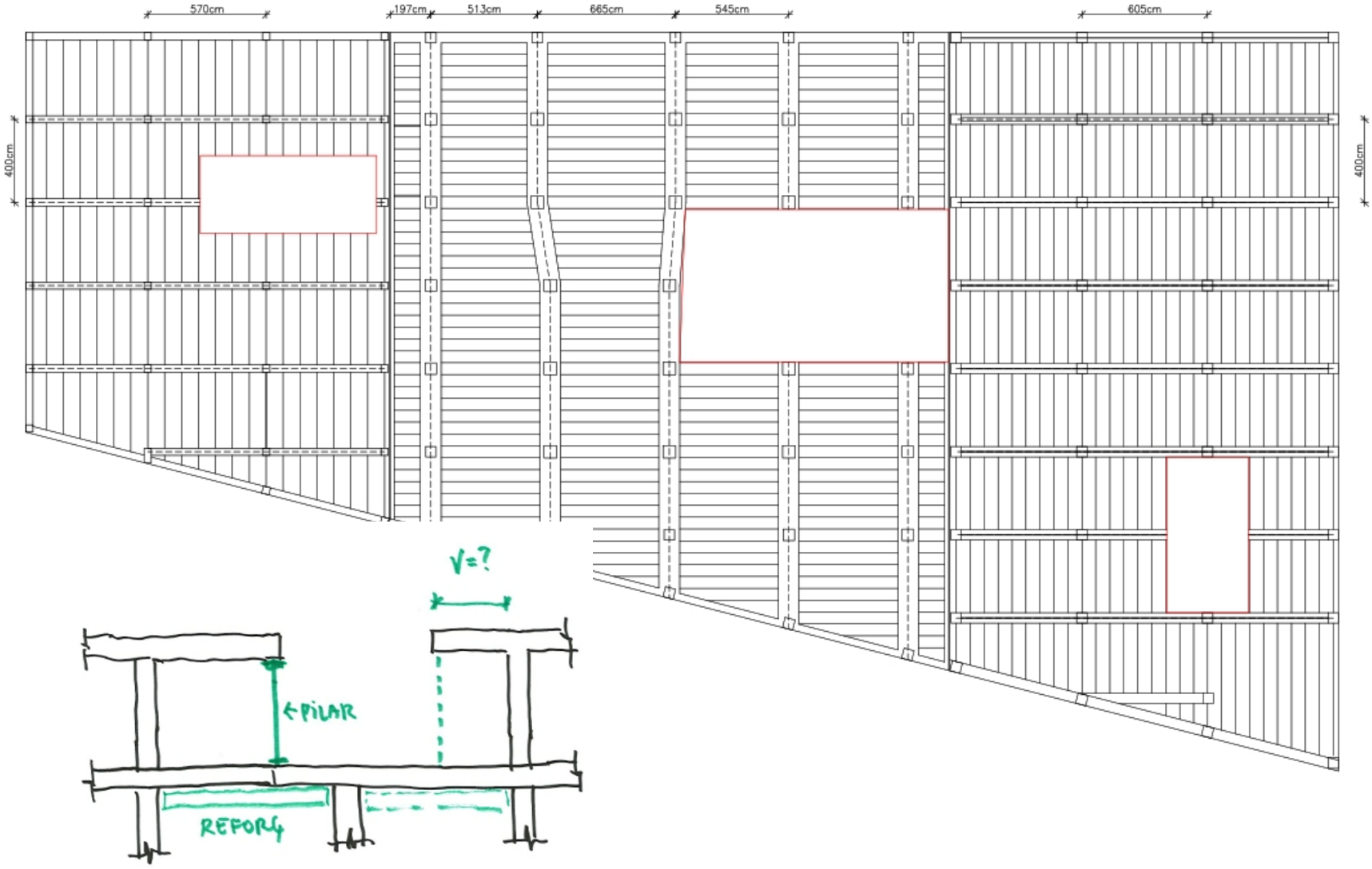




LA FÀBRICA BUIDAT AMB ELIMINACIÓ DE PILARS



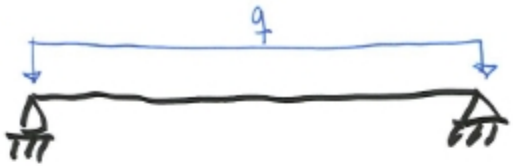
REFORÇ


570cm
197cm
513cm
665cm
545cm
605cm
400cm
400cm
V=?
PILAR
REFORÇ

BUIDAR
ESTRATÈGIES PROJECTUALS

(CONEIXEMENT)

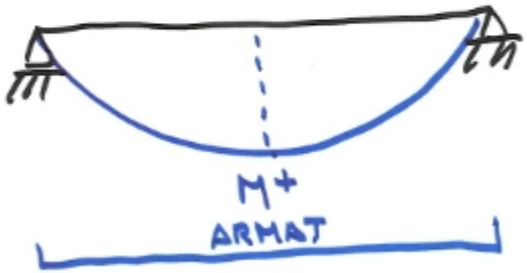
BIGA SIMPLE

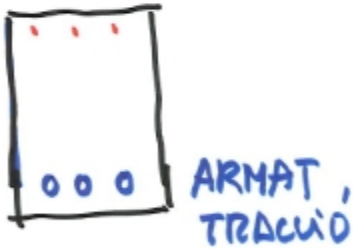


DEFORMACIONS

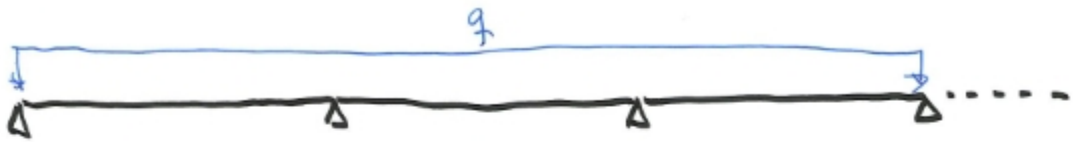
$$\frac{5}{384}\,\frac{q \cdot l^4}{EI}$$

ESFORÇ de FLEXIÓ





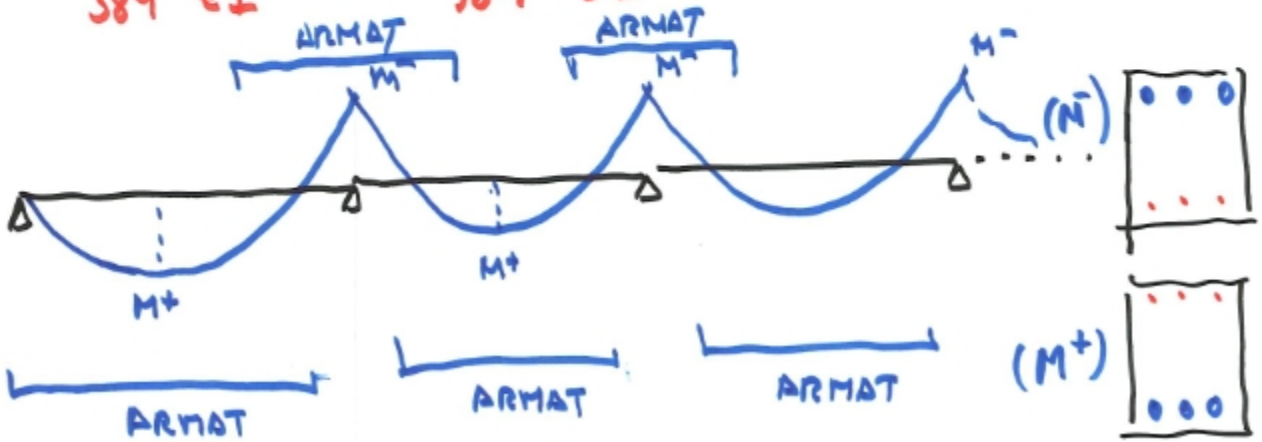
BIGA CONTINUA



DEFORMACIONS

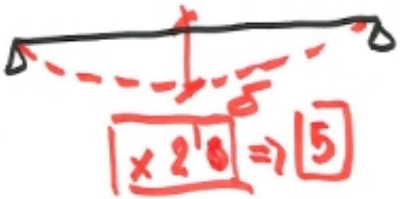
$$\delta_1 = \frac{25}{384}\,\frac{q\,\ell^4}{EI} \qquad \delta_2 = \frac{1}{384}\,\frac{q\,\ell^4}{EI}$$

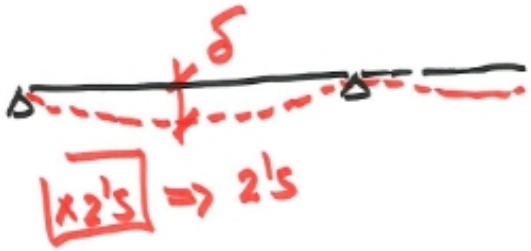
ESFORÇ de FLEXIÓ



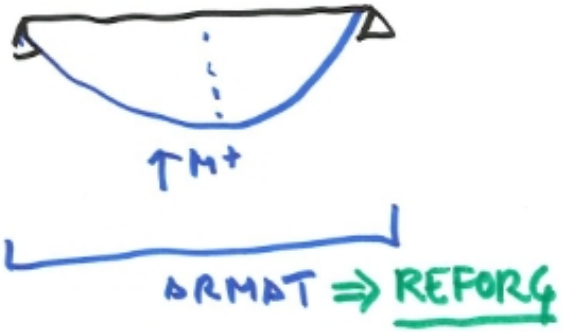
PÈRDUA DE CONTINUÏTAT

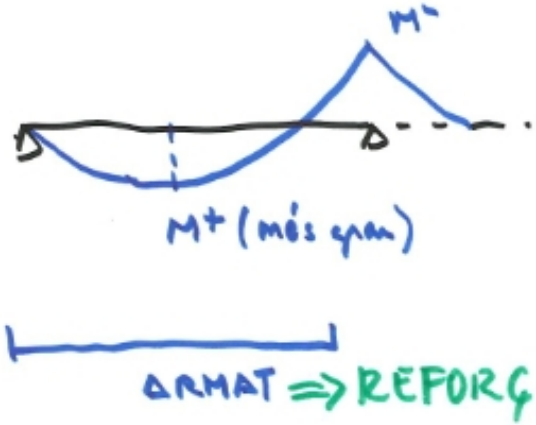
DEF.

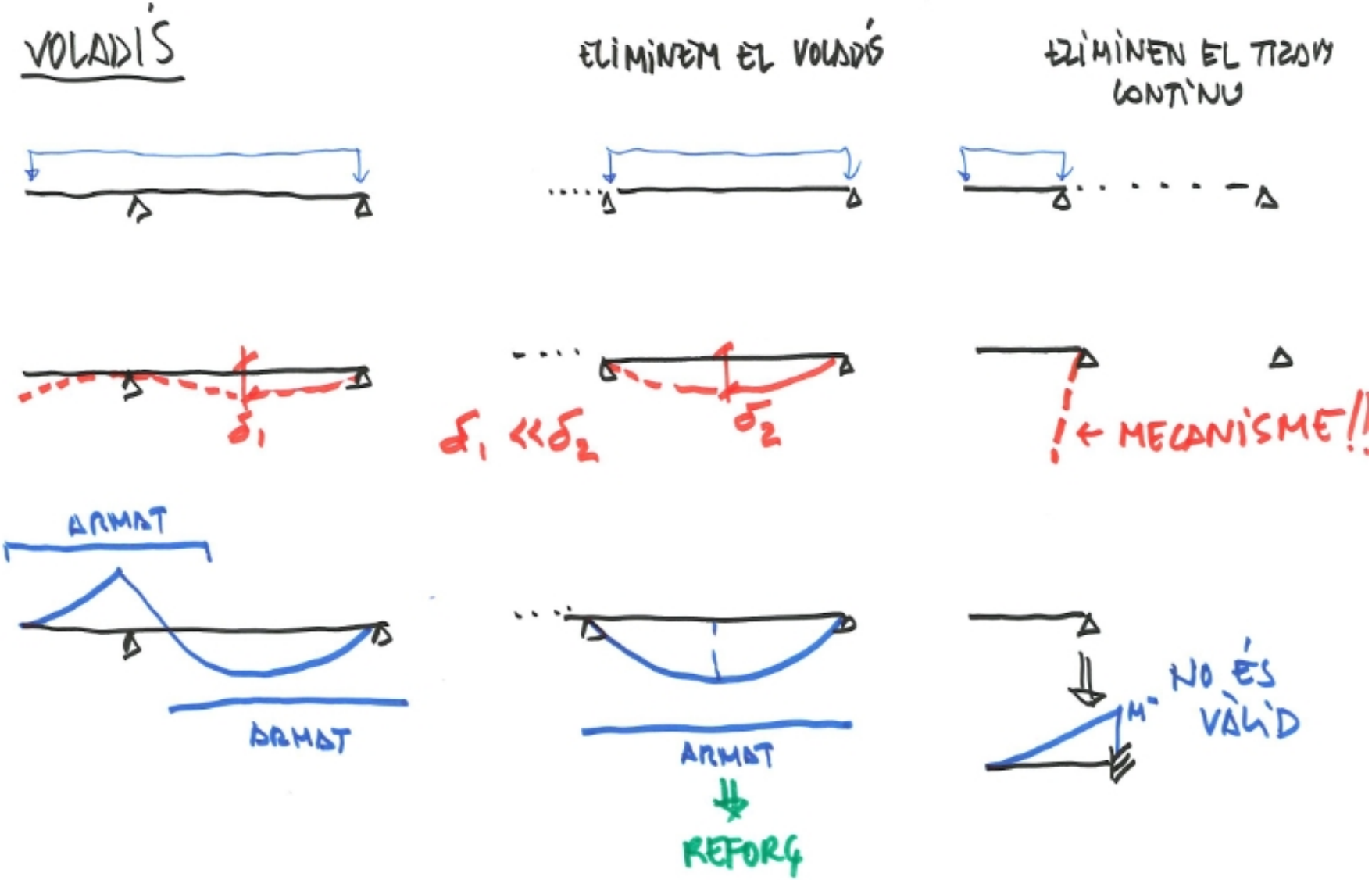




ESFORÇ

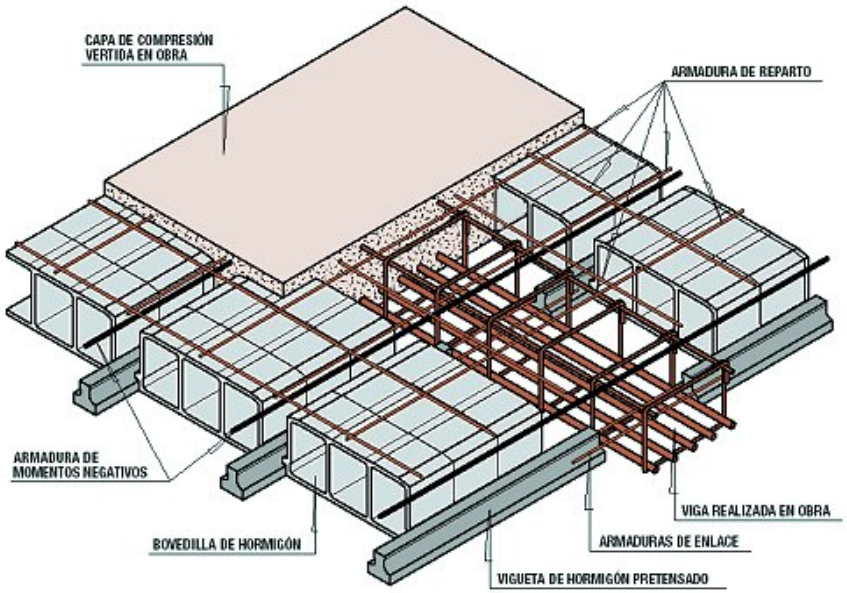


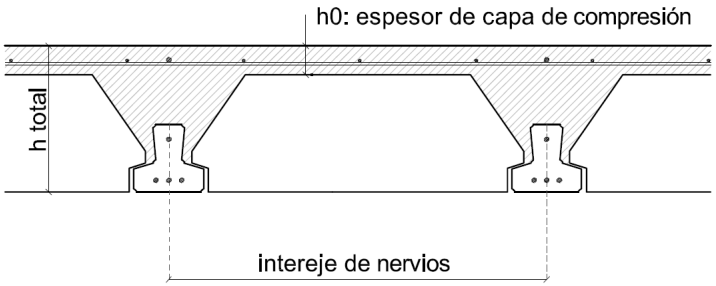


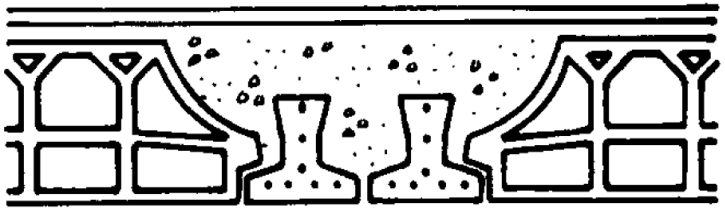

VOLADÍS
ELIMINEM EL VOLADÍS
ELIMINEM EL TIRANT CONTÍNU
δ1
δ1 << δ2
δ2
! ← MECANISME!!
ARMAT
ARMAT
ARMAT
REFORÇ
M-
NO ÉS VÀLID

TIPOLOGIA ESTRUCTURAL

UNIDIRECCIONAL / BIDIRECCIONAL



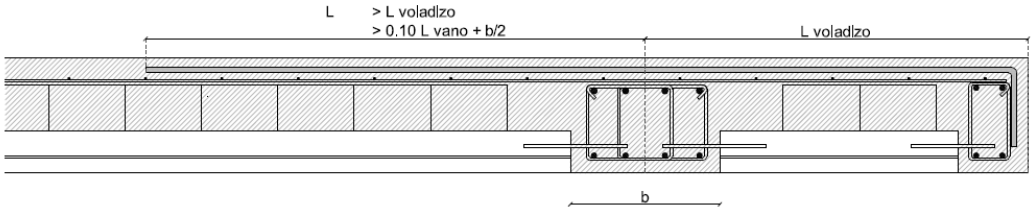




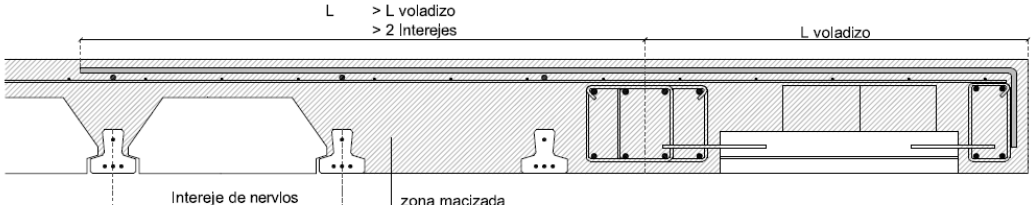
TIPOLOGIA ESTRUCTURAL

UNIDIRECCIONAL / BIDIRECCIONAL

VOLADIZO EN PROLONGACIÓN DE LOS NERVIOS



VOLADIZO PERPENDICULAR A LOS NERVIOS



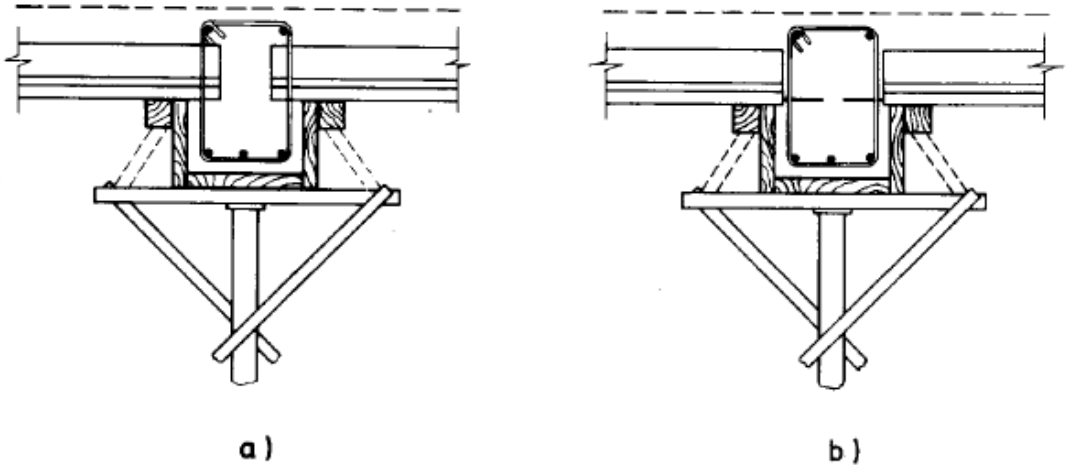
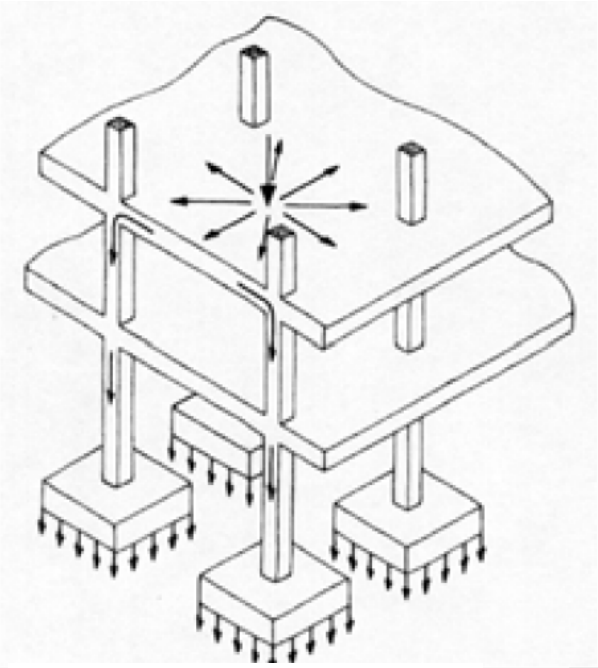


Figura 40: Apoyo en vigas.

TIPOLOGIA ESTRUCTURAL

UNIDIRECCIONAL / **BIDIRECCIONAL**

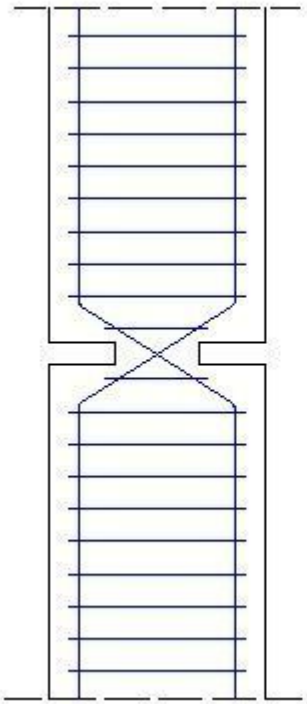


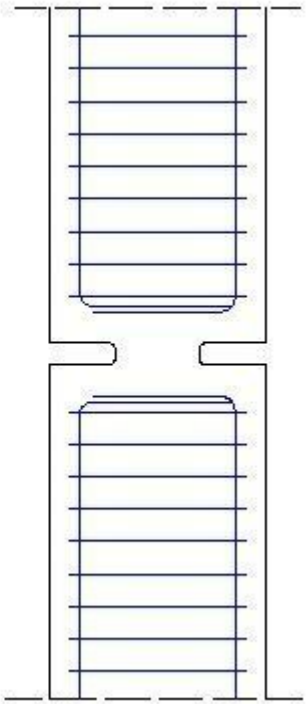
TIPOLOGIA ESTRUCTURAL

ISOSTATISME / HIPERESTATISME

TIPOLOGIA ESTRUCTURAL

ARTICULACIONS / NUSOS RÍGIDS

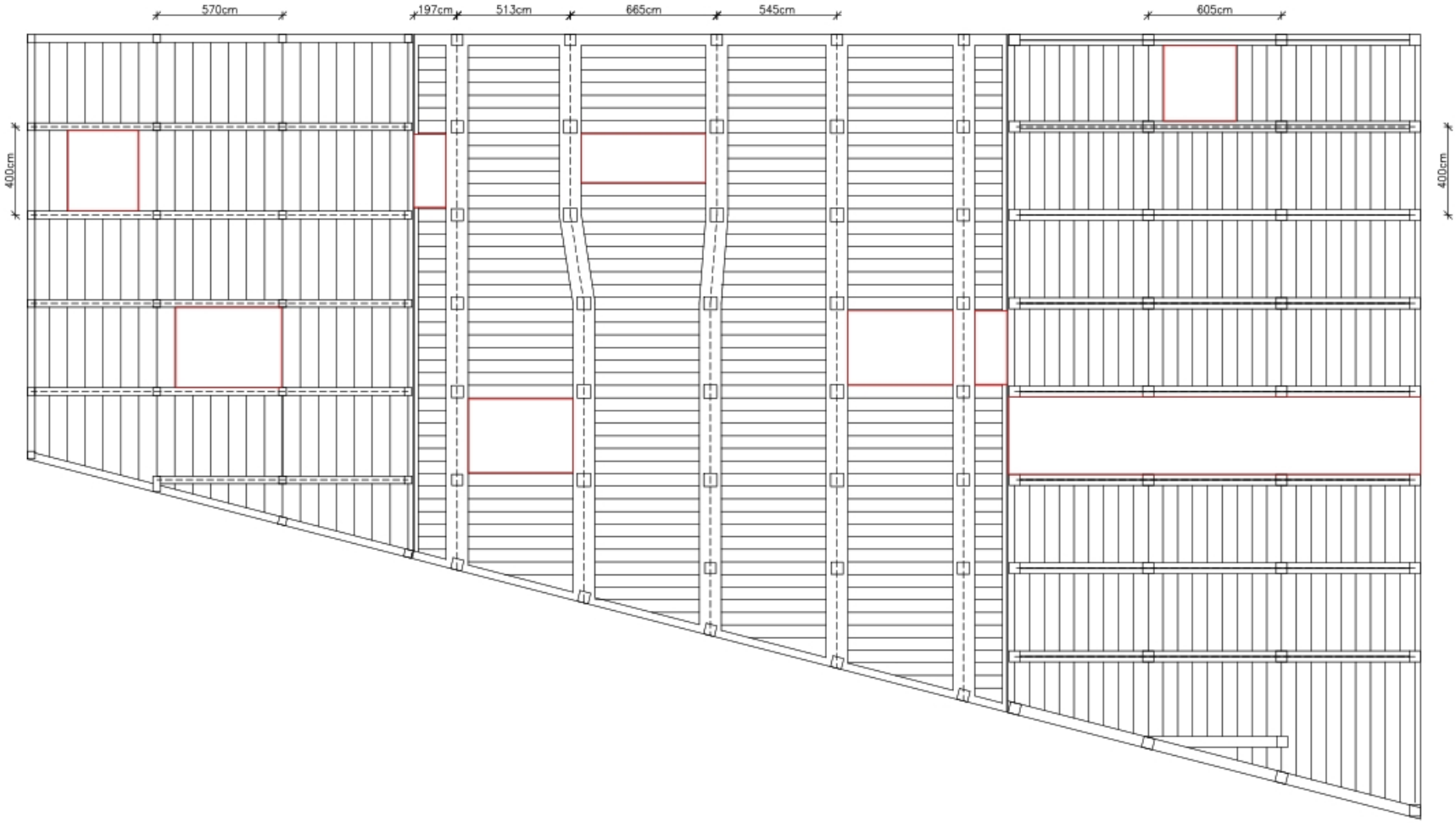




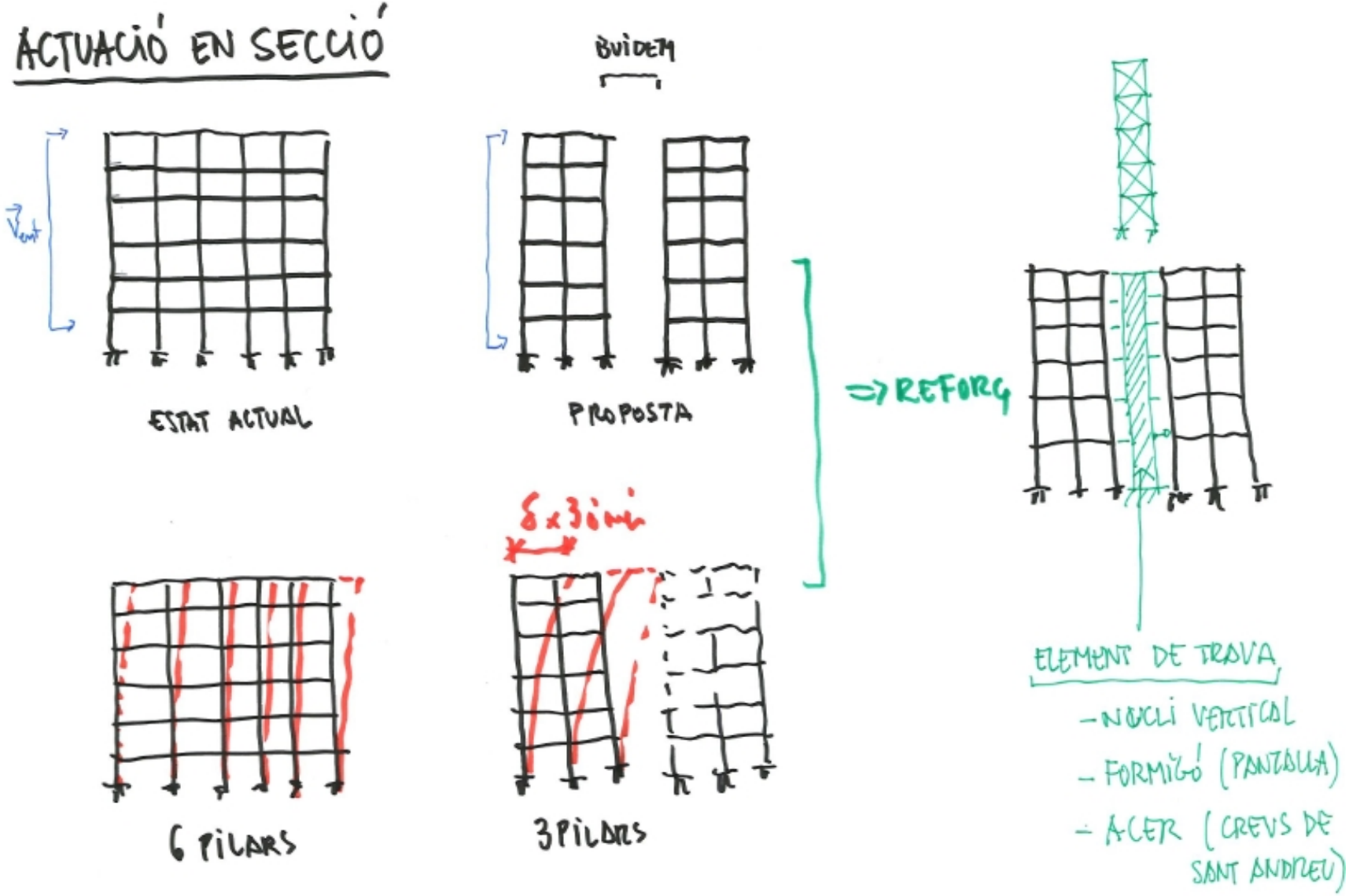
TIPOLOGIA ESTRUCTURAL

ARTICULACIONS / NUSOS RÍGIDS

EL BUIDAT I L'ACCIÓ DEL VENT



EL BUIDAT I L'ACCIÓ DEL VENT



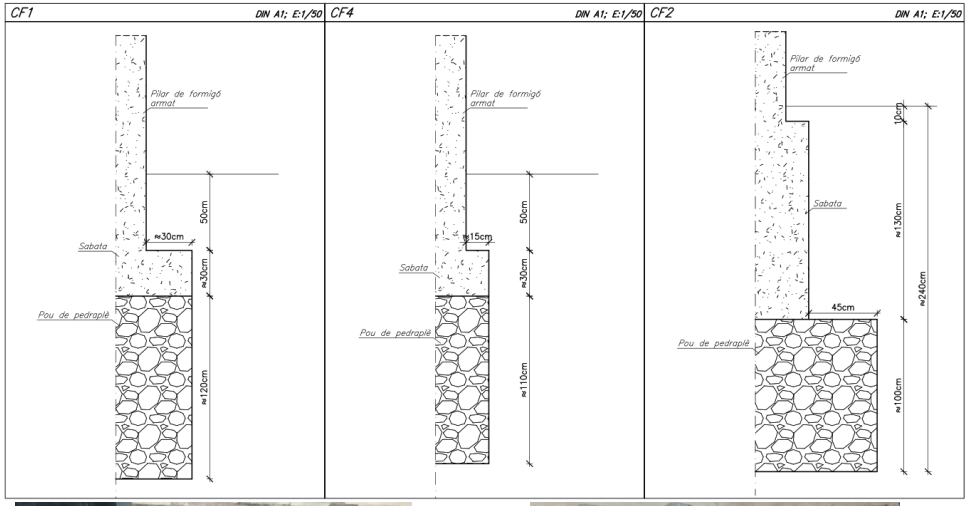
PREEXISTÈNCIES
(radiografia de l’edifici)

ENTENDRE I CONEIXER EL FUNCIONAMENT DE L’EDIFICI

COM AFECTA LA NOSTRA PROPOSTA

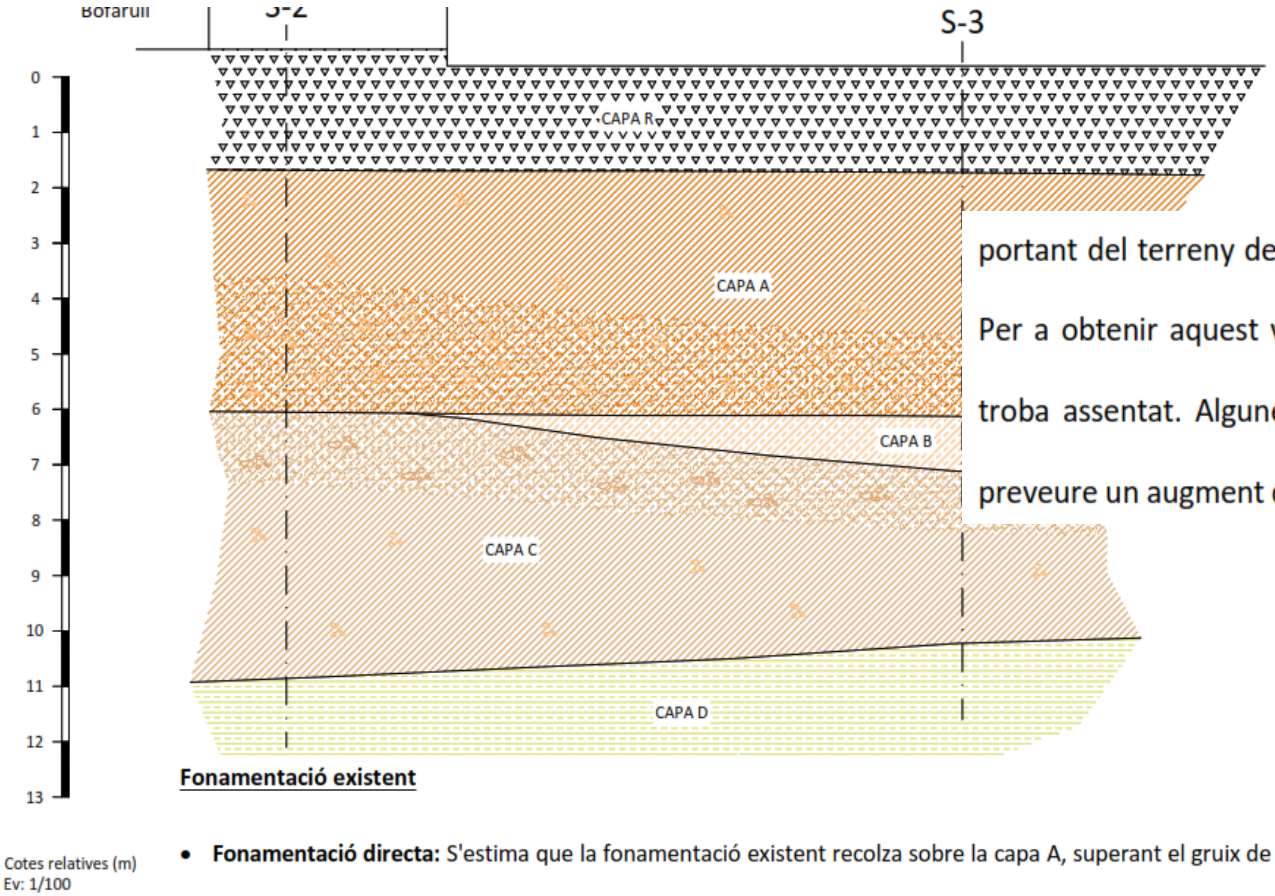
FISURA
FRACTURA

- ENS APORTARÀ LLIBERTAT D’ACTUACIÓ SOBRE L’ESTRUCTURA DE L’EDIFICI.
- SABREM QUE PODEM FER SENSE AFECTAR A L’EDIFICI.
- SABREM COM PODER ACTUAR PER REFORÇAR COHERENTEMENT L’EDIFICI SI FOS NECESSARI.


CF1
DIN A1; E:1/50
Pilar de formigó armat
50cm
≈30cm
Sabata
≈30cm
Pou de pedraplè
≈120cm
CF4
DIN A1; E:1/50
Pilar de formigó armat
50cm
≈15cm
Sabata
≈30cm
Pou de pedraplè
≈110cm
CF2
DIN A1; E:1/50
Pilar de formigó armat
10cm
Sabata
≈130cm
≈240cm
45cm
Pou de pedraplè
≈100cm

FONAMENTS.

FONAMENTS.



portant del terreny de fins a 4,8 kg/cm² per a sabates aïllades, i

Per a obtenir aquest valor s'ha aplicat un coeficient de segure

troba assentat. Algunes OCTs podrien permetre l'ús d'un coef

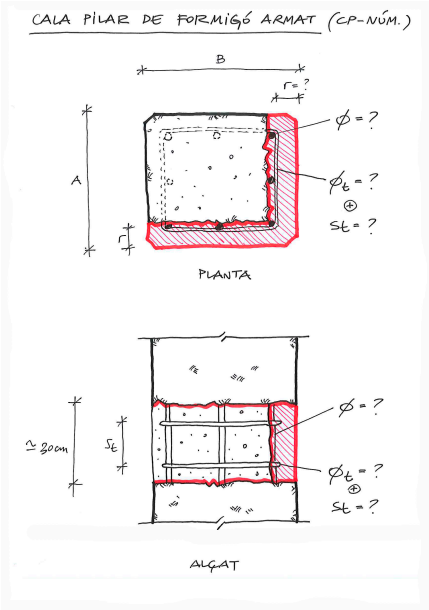
preveure un augment de les càrregues de treball existents.

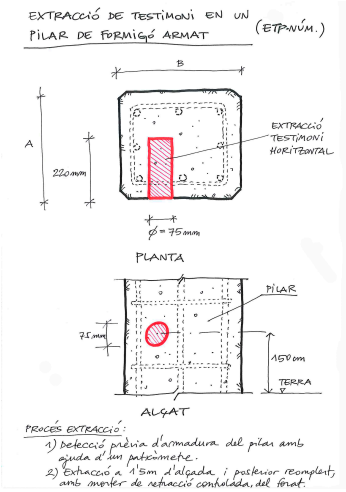
Fonamentació existent

- **Fonamentació directa:** S'estima que la fonamentació existent recolza sobre la capa A, superant el gruix de rebliments de la capa R. A partir de la informació dels pressiòmetres realitzats, es considera una capacitat portant del terreny de fins a 4,8 kg/cm² per a sabates aïllades, i de 4,1 kg/cm² per a sabates corregudes. Per a obtenir aquest valor s'ha aplicat un coeficient de seguretat de 2,5, considerant que l'edifici ja es troba assentat. Algunes OCTs podrien permetre l'ús d'un coeficient de seguretat de 2,0 en cas de no preveure un augment de les càrregues de treball existents.

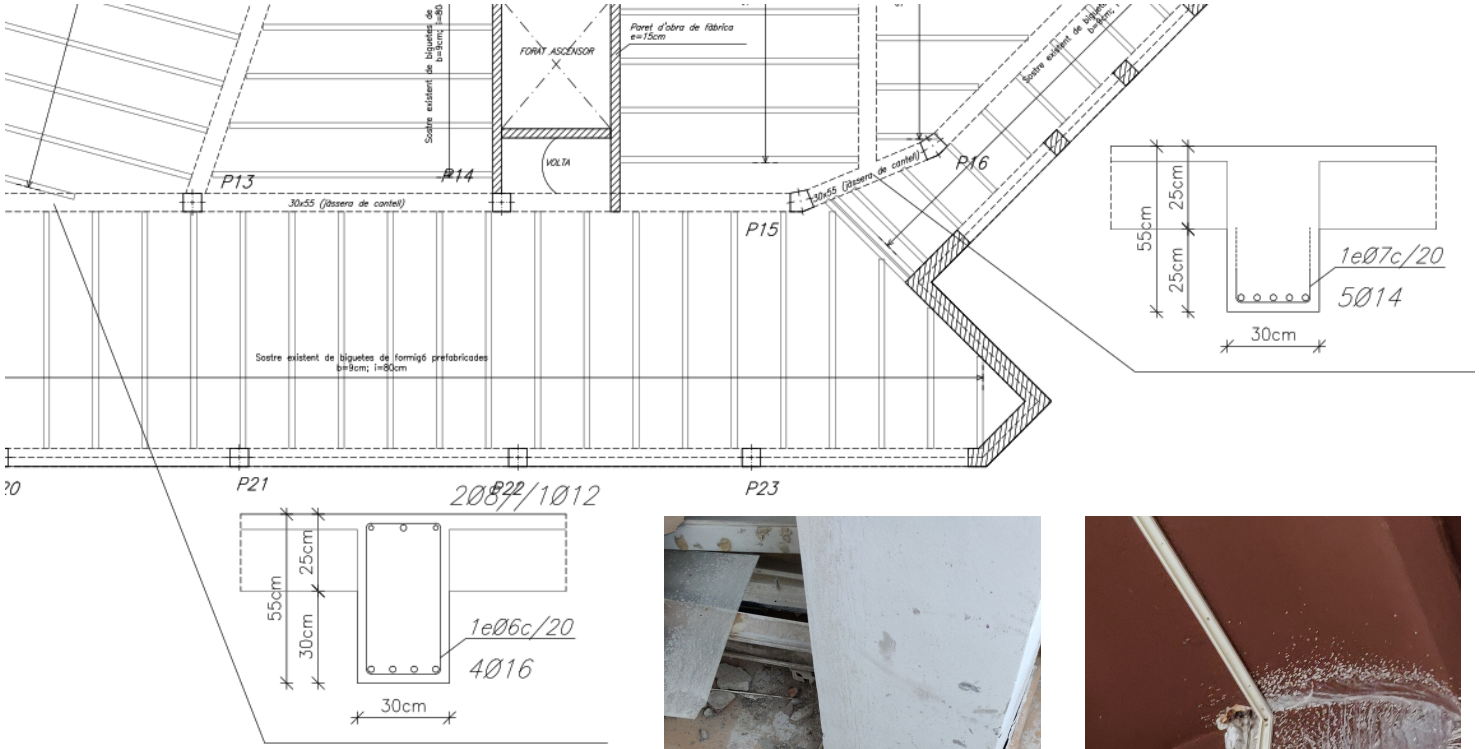
GEOTÈCNIA – EL SUBSÒL

ATASCO

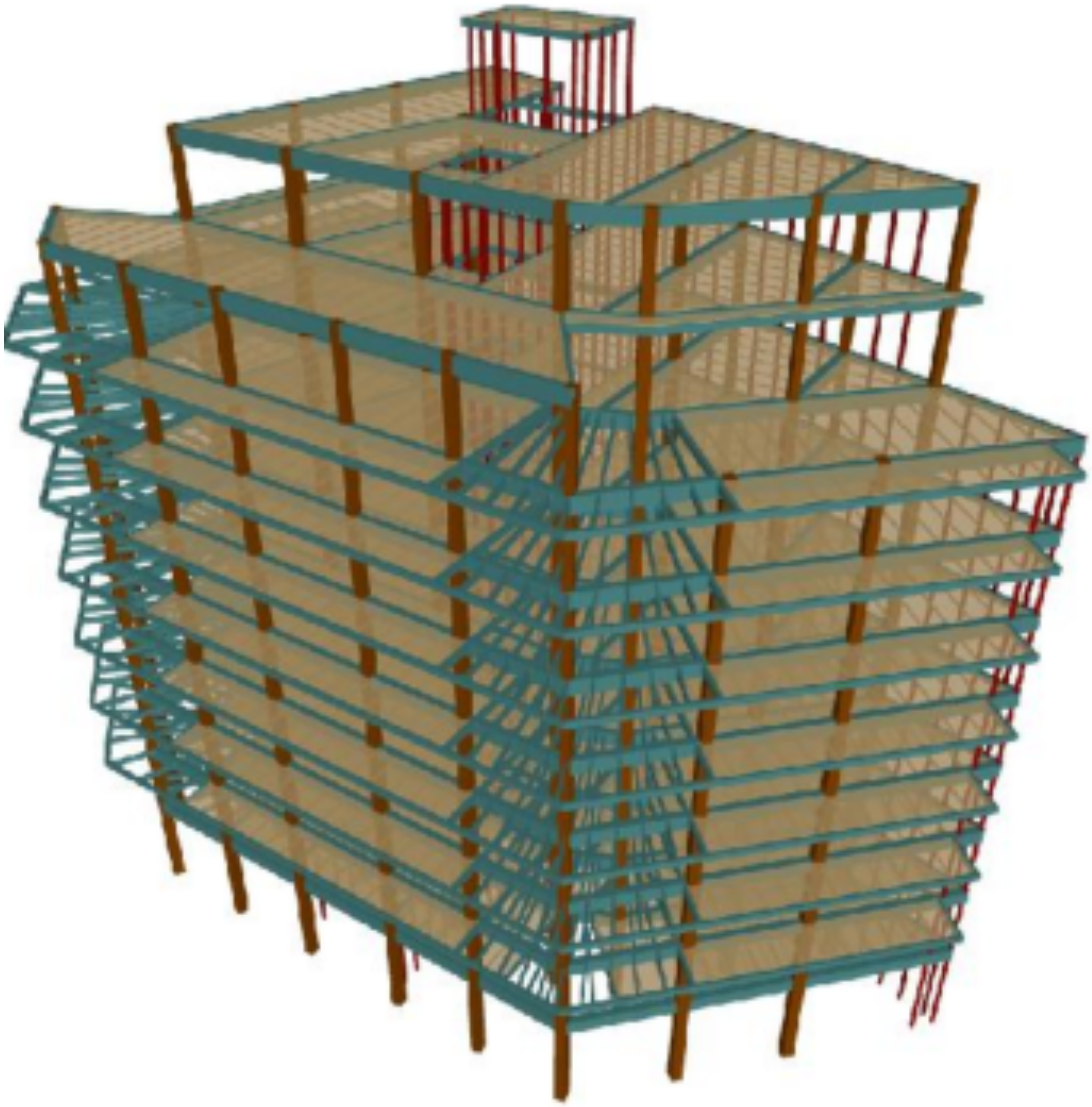

CALA PILAR DE FORMIGÓ ARMAT (CP-NÚM.)
B
r = ?
A
r
ϕ = ?
ϕt = ?
⊕
St = ?
PLANTA
≃ 30cm
St
ϕ = ?
ϕt = ?
⊕
St = ?
ALÇAT


EXTRACCIÓ DE TESTIMONI EN UN PILAR DE FORMIGÓ ARMAT (ETP-NÚM.)
B
A
220mm
EXTRACCIÓ TESTIMONI HORITZONTAL
ϕ = 75mm
PLANTA
PILAR
75mm
150cm
TERRA
ALÇAT
PROCÉS EXTRACCIÓ:
1) detecció prèvia d'armadura del pilar amb ajuda d'un pacímetre.
2) Extracció a 1'5m d'alçada i posterior reomplert, amb morter de retracció controlada, del forat.

PILARS.


FORAT ASCENSOR
Paret d'obra de fàbrica e=15cm
VOLTA
P13
P14
P15
P16
P21
P22
P23
30x55 (jàssera de cantell)
Sostre existent de biguetes de formigó prefabricades b=9cm; l=80cm
55cm
25cm
25cm
30cm
1eØ7c/20
5Ø14
55cm
25cm
30cm
1eØ6c/20
4Ø16
2Ø8/1Ø12

JÀSSERES



MODEL