THE FORMATION OF THE ENCLAVE

Final Presentation P5
Urban Architecture
Alma Bouwens
4841816

TO ENTER IN CONVERSATION

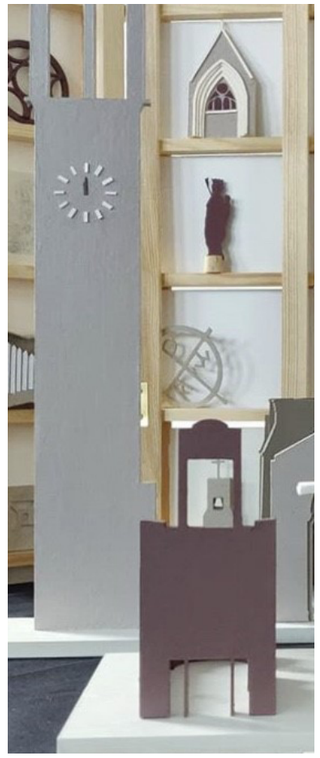
How does time does influence the interrlations between buildings

Research | Change of perspective









anthropmorphism noun
[uncountable]
the attribution of human characteristics or behaviour to a god, animal, or object.

Definitions from Oxford Languages

Research | Concepts of interest

reciprocity noun
[uncountable] (formal)
a situation in which two people, countries, etc. provide the same help or advantages to each other
Origin ; In the middle of 18th century from French réciprocité, from réciproque, from Latin reciprocus 'moving backwards and forwards' (re - ci - pro - cus)

According to Mauss reciprocal relations are about multiple intertwined subjects; "All these phenomena are at the same time juridical, economic, religious, and even aesthetic and morphological, etc. ...

Mauss M. (1954). The Gift: The form and reason for exchange in archaic societies (Cohen and West, Trans.) Taylor & Francis e-Library, 2002 (p. 101)

kinship noun
[uncountable] the fact of being related in a family
[uncountable, singular] a feeling of being close to somebody because you have similar origins or attitudes
We tend to feel kinship with those who share the same values.

According to Levi-Strauss the concept of kinship has to do with "the internal coherence on the one hand, meaning and purpose on the other ; thus, over four hundred years ago already been understood, were the two requirements that any kinship system however fantastic and improbable, would have to meet in order to be recognised as such".

Levi-Strauss, C. (1965). The Future of Kinship Studies. Proceedings of the Royal Anthropological Institute of Great Britain and Ireland, (1965), (p. 13)

Scene 1 | *Thinking in relationships* what can we learn from trends related to time in architecture?
How to deal with irregularities, exceptions and unexpected entities?



Sound ; Norbert Rodenkirchen / Tibia ex tempore - medieval flute
Camera ; Steven Driehuis

M. Mauss, C. Levi-Strauss

Tangible
Intangible

Balance, expectation

Meaning, internal coherence

Inclusion
Exclusion

Reciprocity

Kinship

Shared Understanding

Relation of People

Anthropomorphism

ENTER IN CONVERSATION

Anthropomorphism

Relation of Buildings

Shared Land

Reciprocity

Kinship

Kevin Lynch

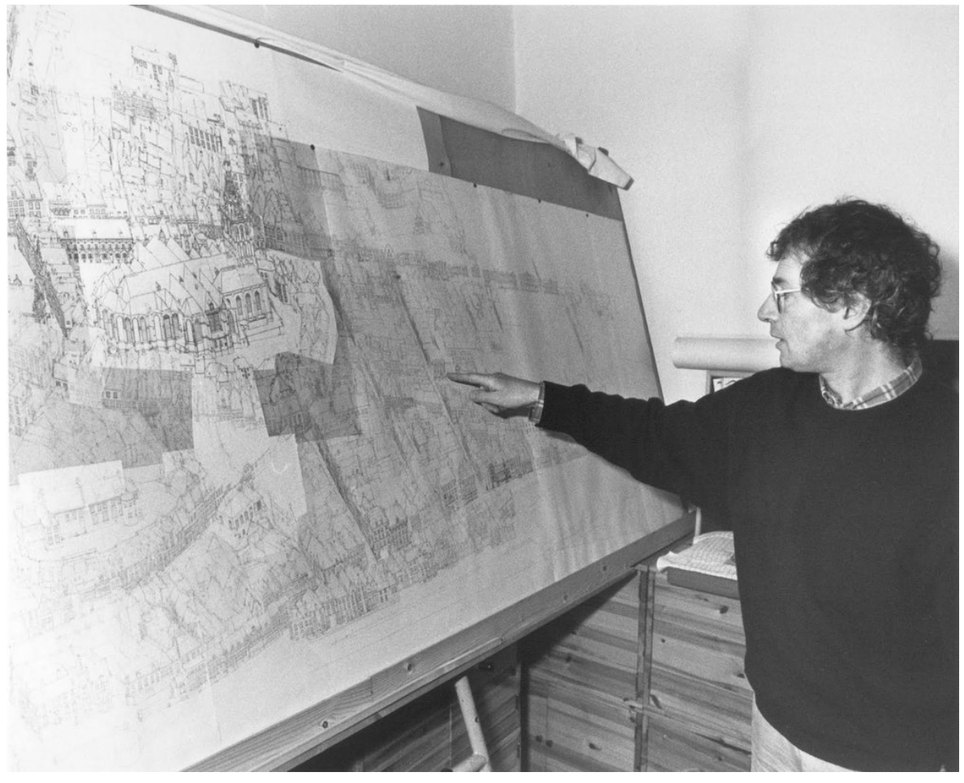
TIME

BRICOLAGE

Ben Luderer

Robinson (I. Scalbert)

Alma





Bricolage "a pieced-together, close-knit set of practices that provide solutions to a problem in a concrete situation."

Goat, L. N., Wang, D. Architectural research methods, Published by John Wiley & Sons, Inc., Hoboken, New Jersey, 2013 (p. 219-220)

RESEARCH

Reading of the site

Research question

Understanding / empathizing

PROPOSAL FOR THE CITY

Project definition and relevance

The kinship on a social level

The kinship on a physcial level

Project requirements, program

ARCHITECTURAL TASK

Definition anthropomorphism

Personal conception

Used methods

DESIGN RESULT

The results from big to small

Dimensioning and material

Two buildings together

Typical sections of the old and the new

Performance of the facades and 1:20 sections

Details and building elements

Impressions of the intended

Climate and comfort

People among buildings

Buildings among buildings

Fellow student designs

ARCHITECTURAL TASK WITHIN THE CITY

Urban section elevation

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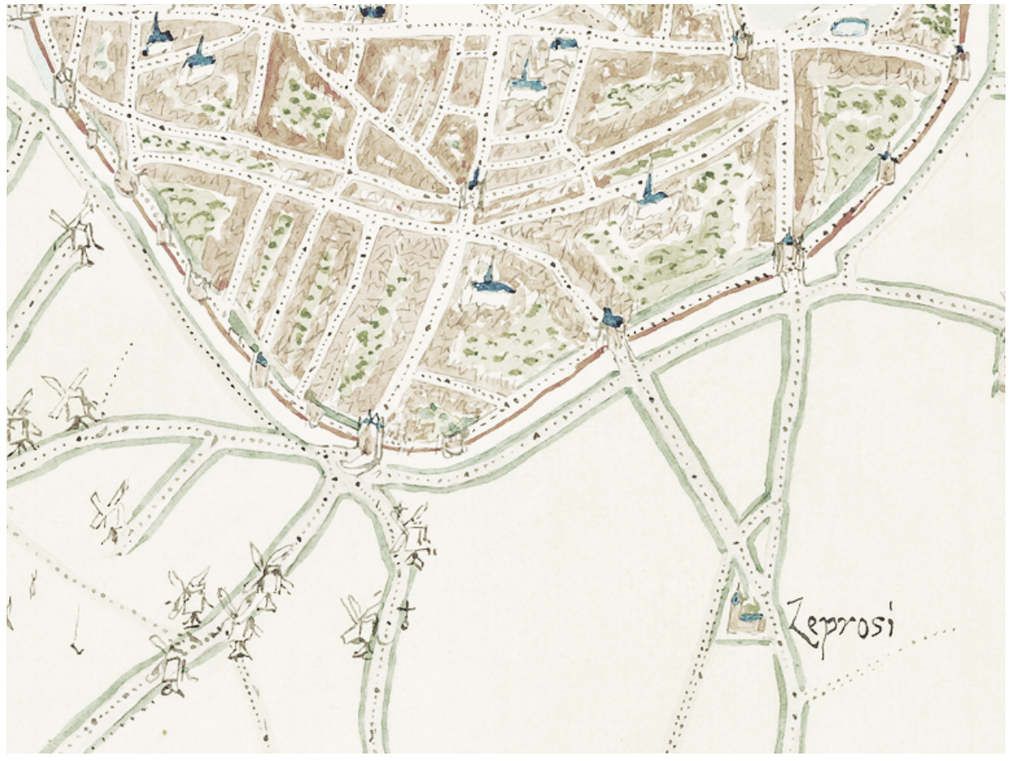
People among buildings

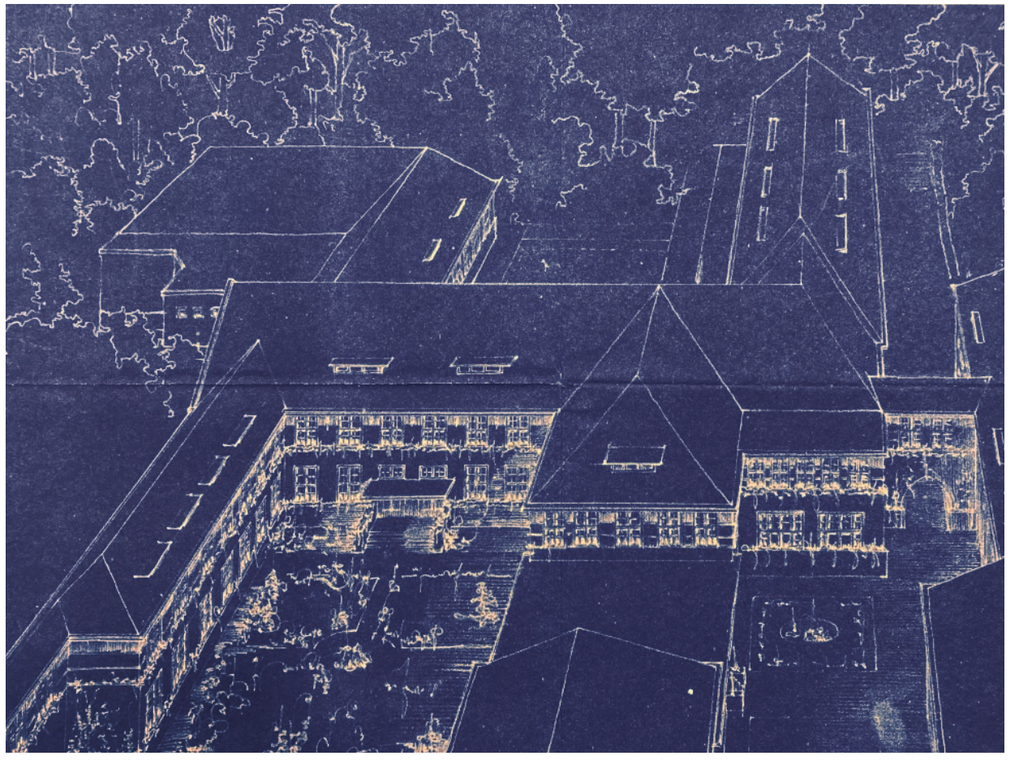
Buildings among buildings

Fellow student designs

ARCHITECTURAL TASK WITHIN THE CITY

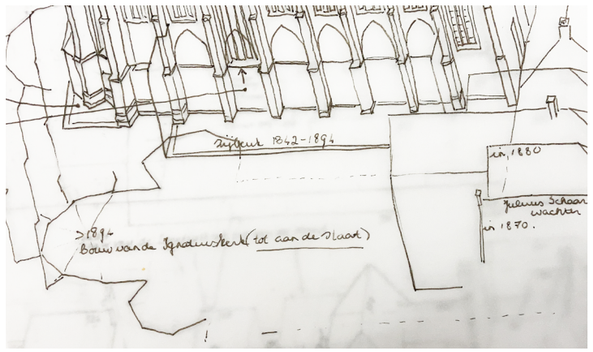
Urban section elevation



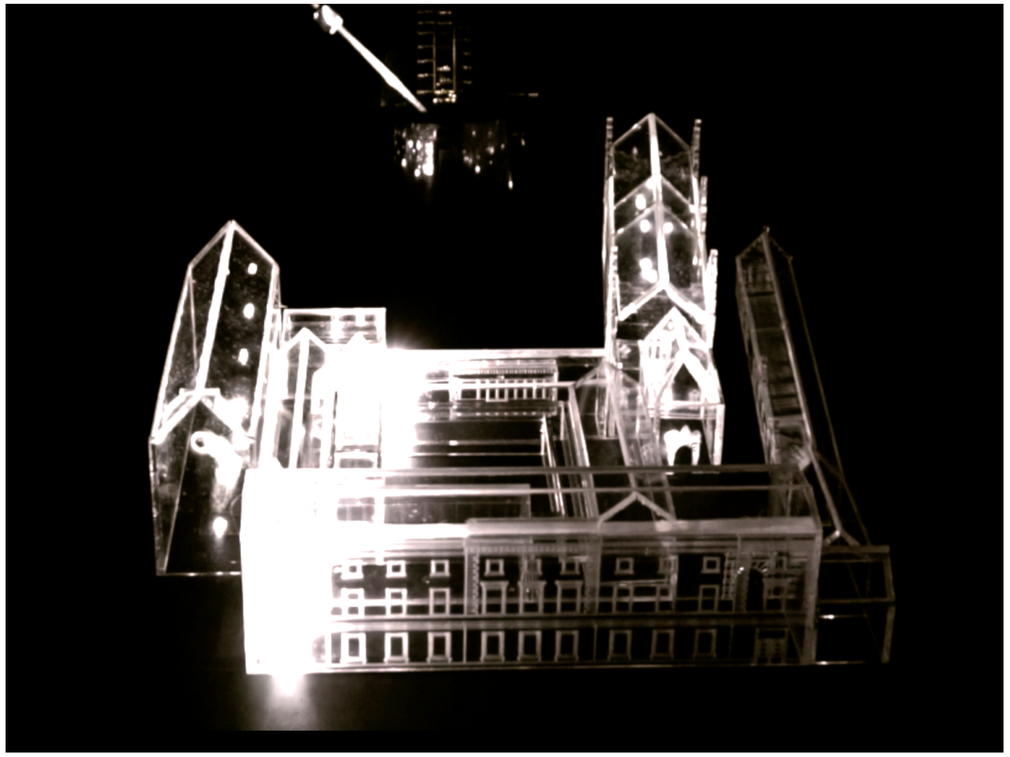


Map by Jacob van Deventer, 1554
Drawing RAN, Oud Burgeren Gasthuis, (folder 1675), doc. 521



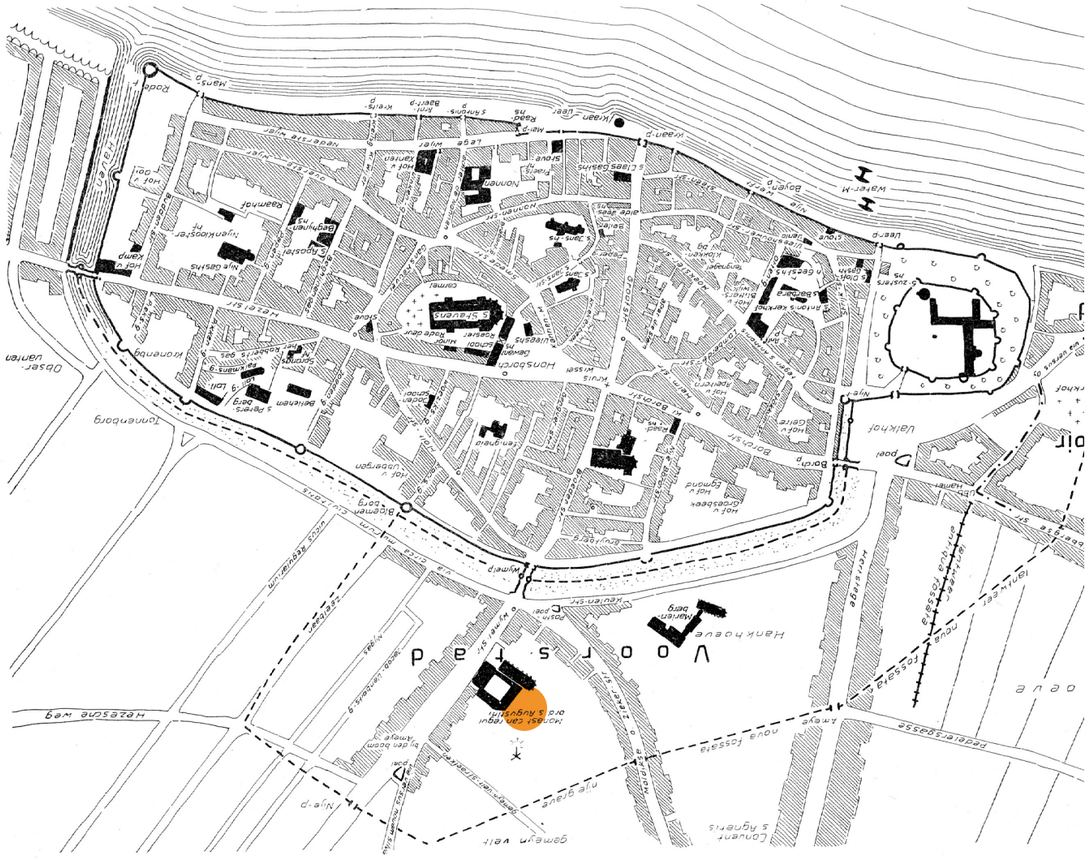






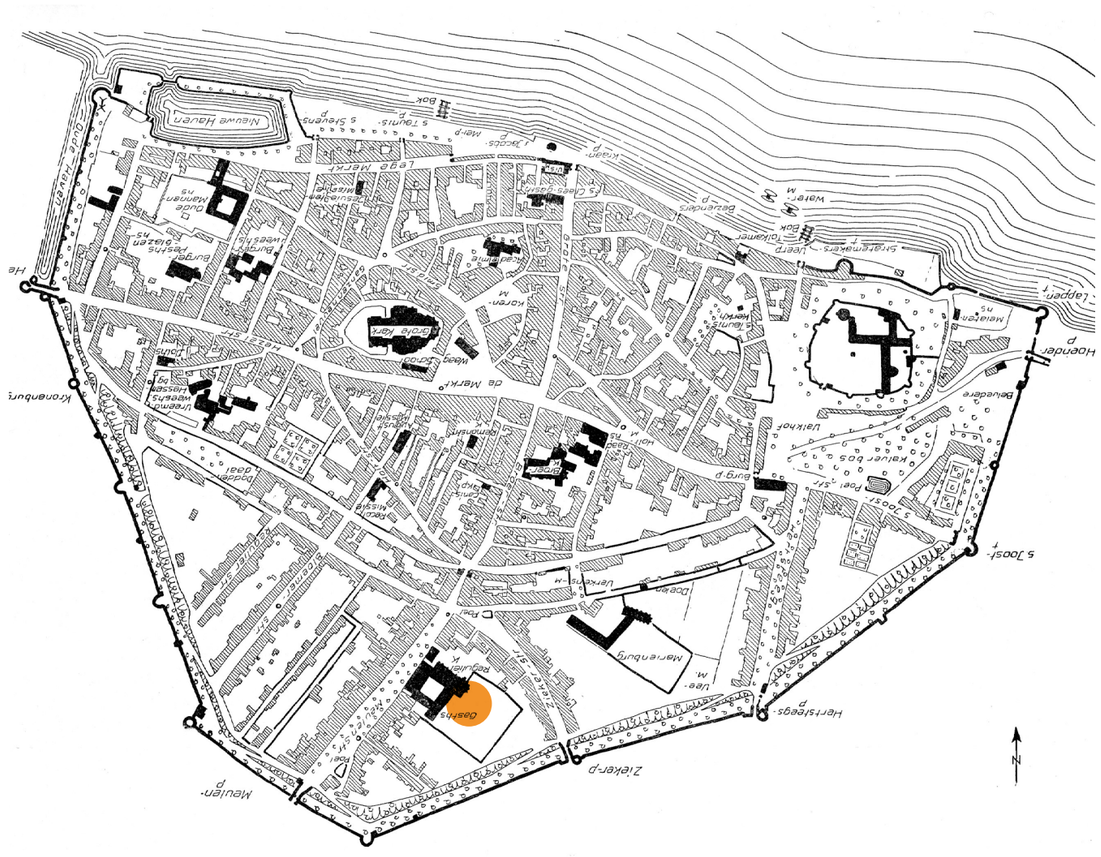
Studies of the drawings by Alma
Model made by Andrew and Alma

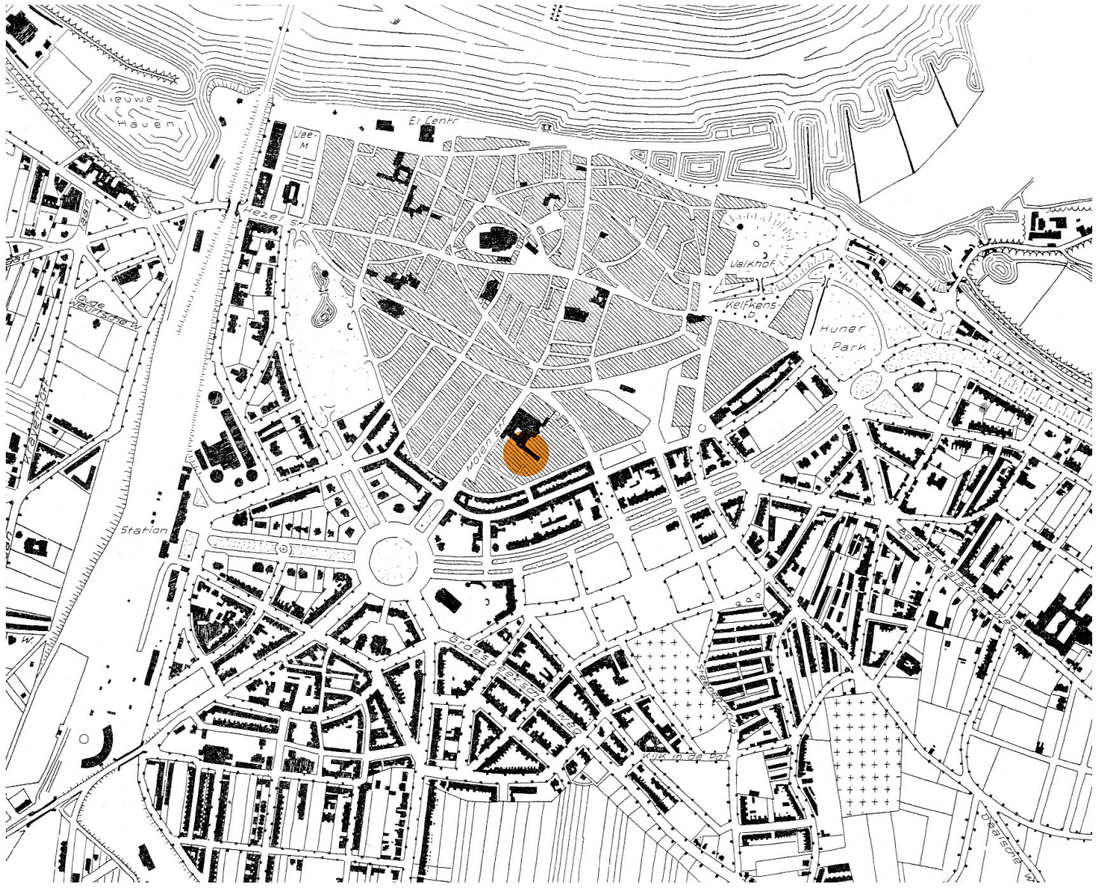
Reading of the site | The plot and the city



15th cent.

De Stad. From Stede-Atlas van Nijmegen (p. 79, 86, 91), by Gorissen,F, Sliepenbeek, P., Arnhem Gouda Quint, 1956

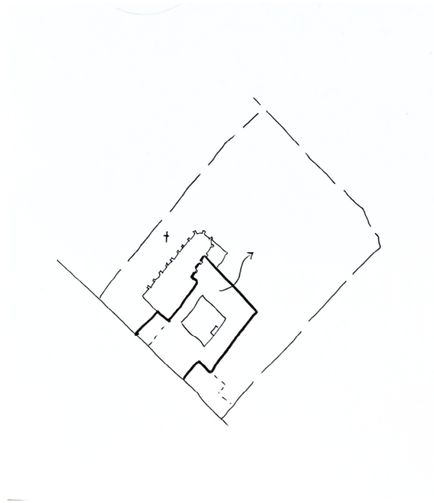

Nieuwe Haven
Hoender p
Ziekerp
Meuler p
Herfsteegs
Gasthuis
Marienburg
Kronenburg
Belvedere
Waterm
Weerd
Strategmakers
Lappen
Burgerweeshuis
Duivenmarkt
Groote Markt
Weeshuis
Gasthuis
Vleeshouwers
Oude Vismarkt
Burgerweeshuis
Vismarkt
Kerkstraat
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Kerkplein
Kerkhof



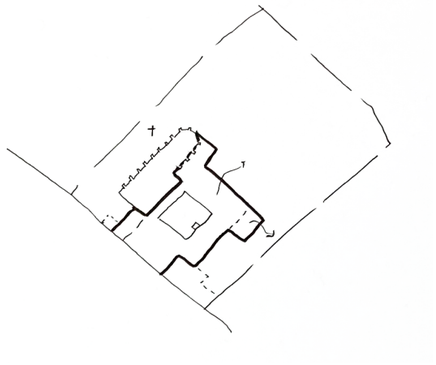
20th cent.

De Stad. From Stede-Atlas van Nijmegen (p. 79, 86, 91), by Gorissen,F, Sliepenbeek, P., Arnhem Gouda Quint, 1956

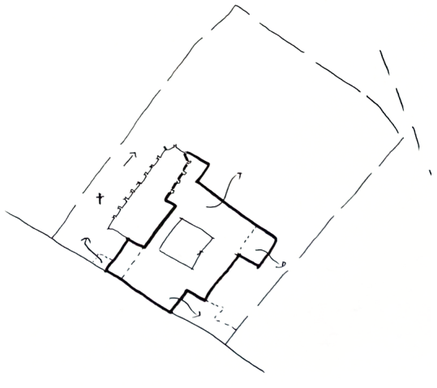
Reading of the site | How does time influence the interrelation between buildings?



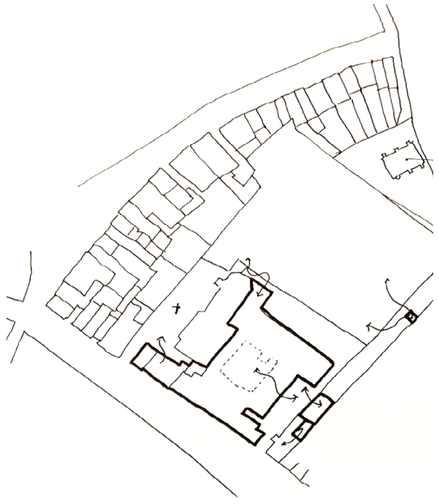
1450



1550



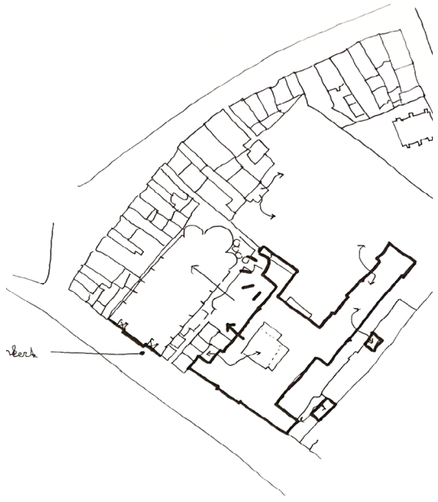
1700



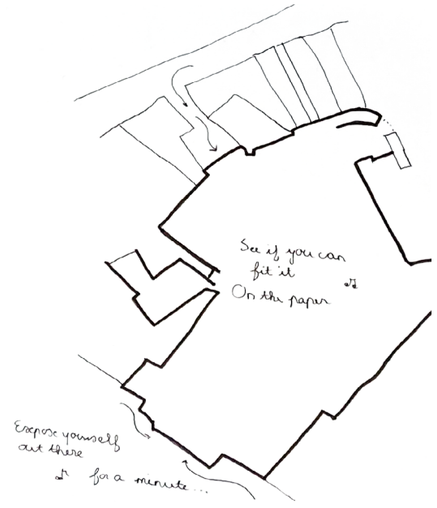
1830



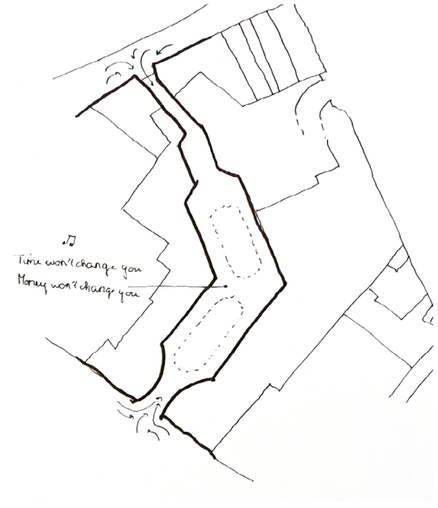
1897



1908



1972

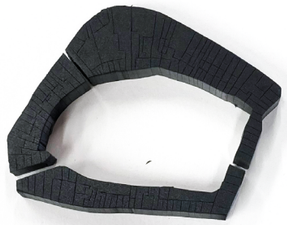


NOW

Paper and Time, Tlaking Heads, Produced by: Talking Heads and Brian Eno, Album; Fear of Music, 1979

Reading of the site | What do two plots have in common?





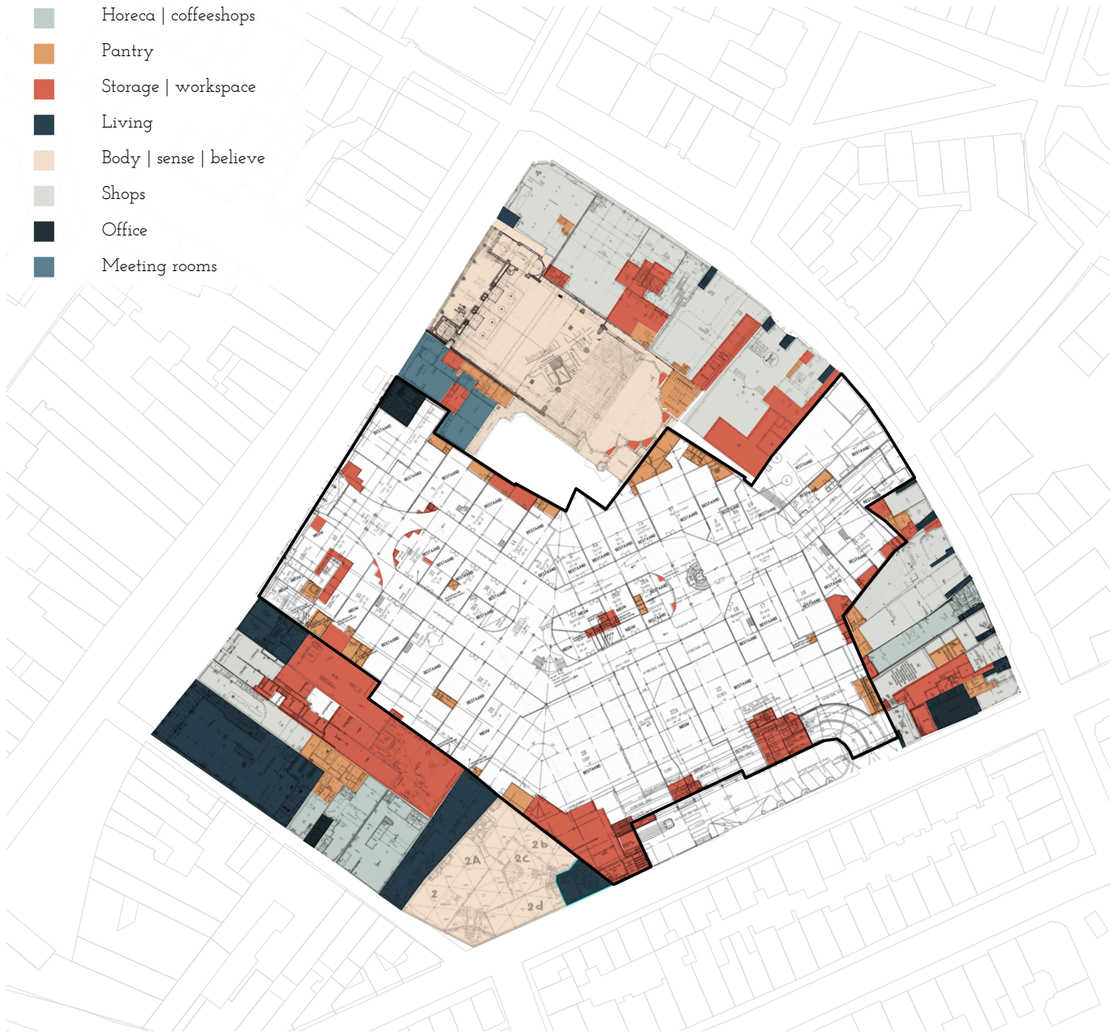






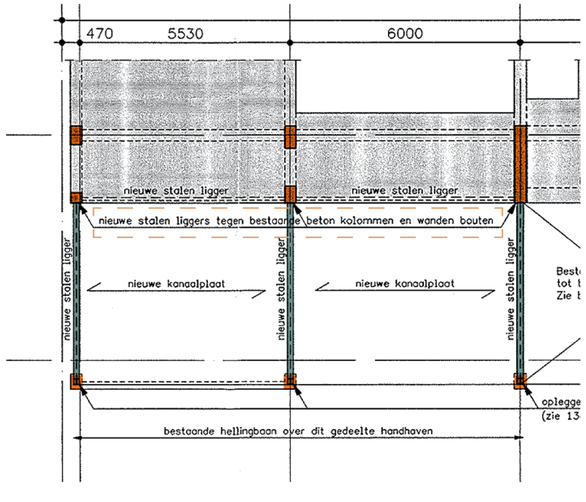
Made by Alma
Drawings next page from "Verborgen Verleden"

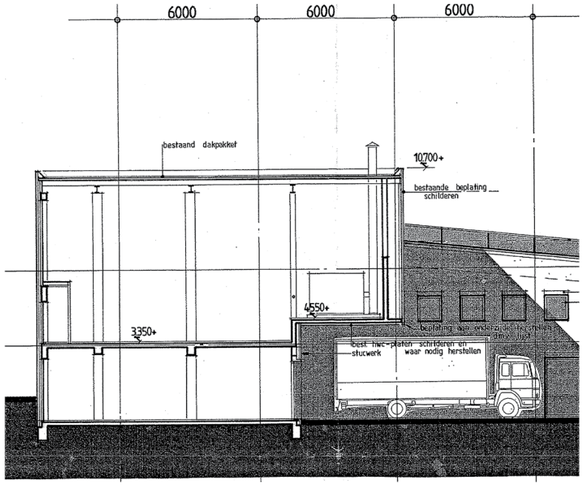
Reading of the site | Non-representable sites of the Molenpoort

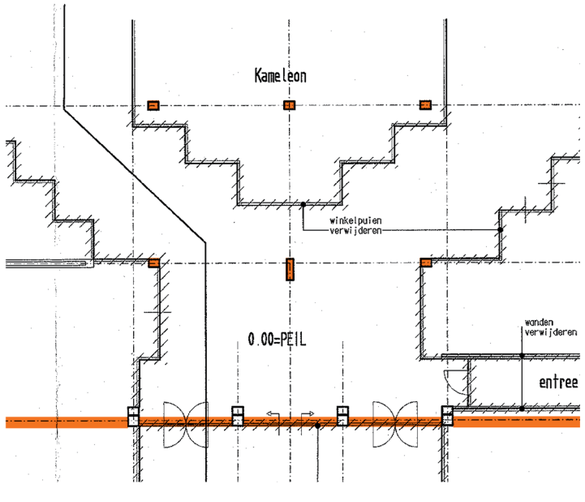


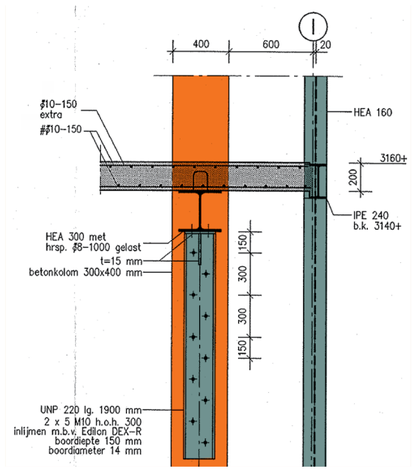


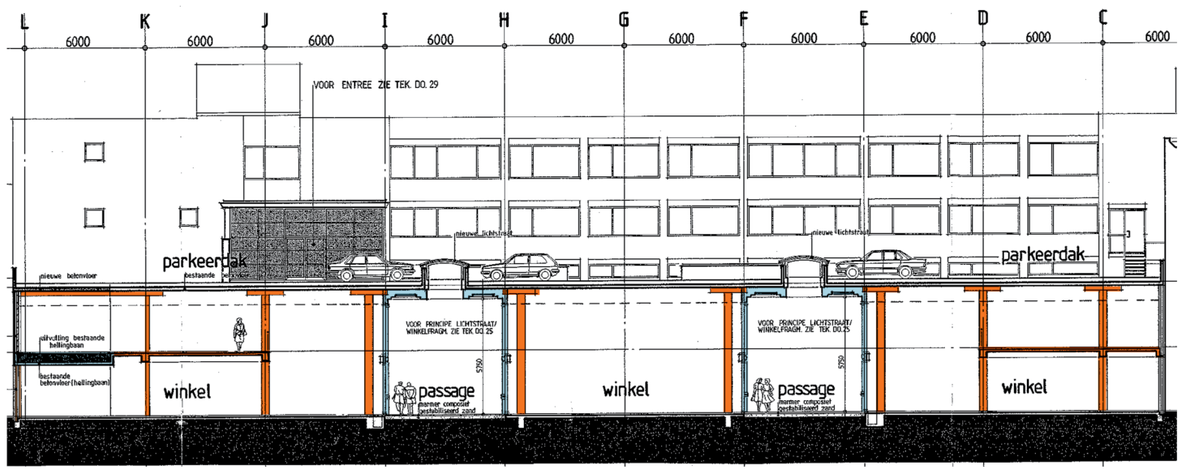
Reading of the site | The irregularities in the structure











Reading of the site | The result for the residents and shoppers













Reading of the site | Four very different atmospheres around the site









- Housing
- Sport and culture
- Meeting rooms
- Horeca and coffeeshops
- Commercial
- Pantry



RESEARCH

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Buildings among buildings

Fellow student designs

ARCHITECTURAL TASK WITHIN THE CITY

Research question

The research question ; What does the immortalized form of the former shared land in the now physical form of the shopping mall bring me when designing from the themes ‘anthropomorphism’, ‘reciprocity’ and ‘kinship’?

RESEARCH

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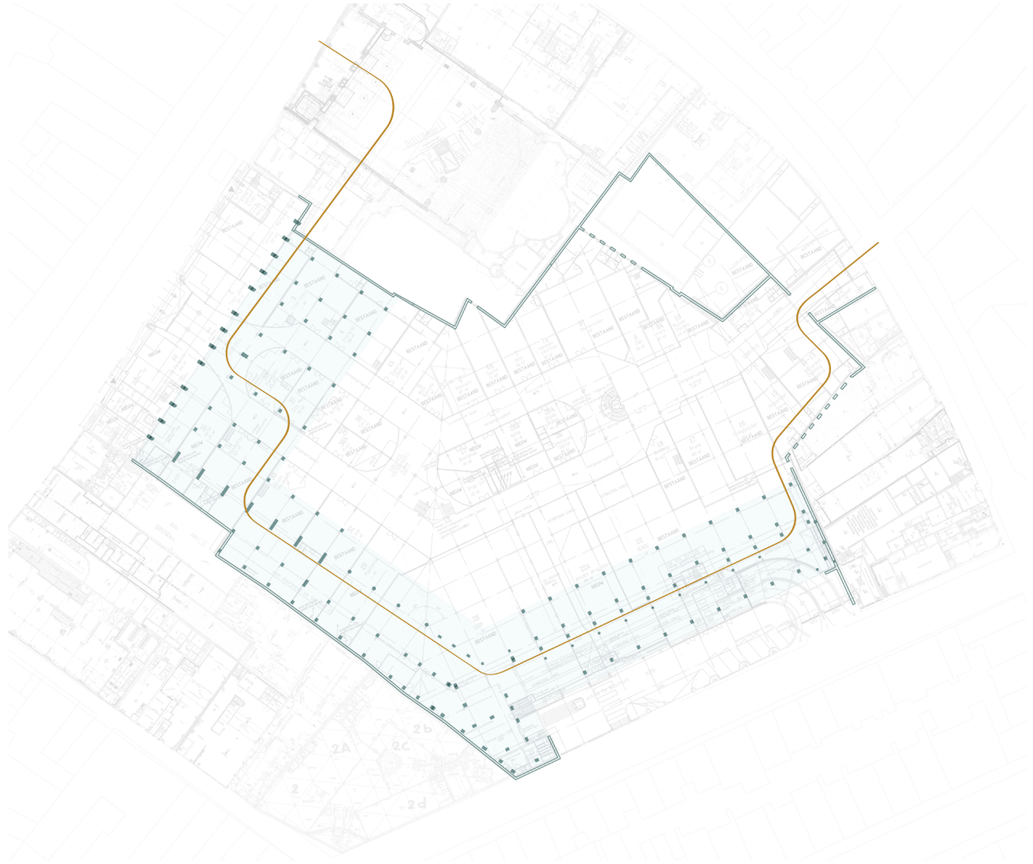
ARCHITECTURAL TASK WITHIN THE CITY

Relevance of the proposal | Reinstate the former Shared Land

Demolition plan



Continuous presence of the structure



Scale 1 : 1000

Scene 4 | "Are you sure you are leaving this place?"
What would happen if a public space will be carved out in the middle of the city?



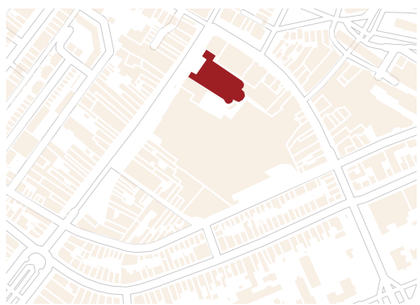
Sound ; Norbert Rodenkirchen / Tibia ex tempore - medieval flute and Two Note Swivel / Talking Heads *Speaking in Tongues,* 1982
Camera ; Steven Driehuis

Relevance of the proposal | Personal project defintion

A creative enclave will be created which is located in the area
dominated by commercial functions in the city centre of Nijmegen.

It is a place for artists and residents of the neighborhood who can benefit from each other through a shared program in order to improve the social cohesion of the neighborhood

1. To empathize
Art and culture ensure that people can ***empathize*** with the feelings and thoughts of others, which results in a better understanding among people
2. To reconnect
Art and culture connect and ensures that people who are not active in a social network are more able ***to reconnect*** in our society





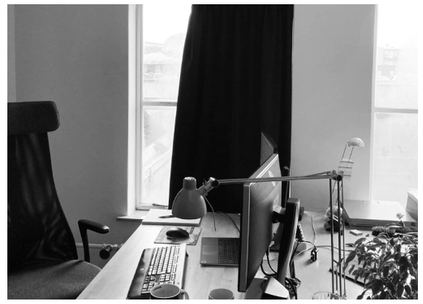
Religion
Group cohesion and rituals





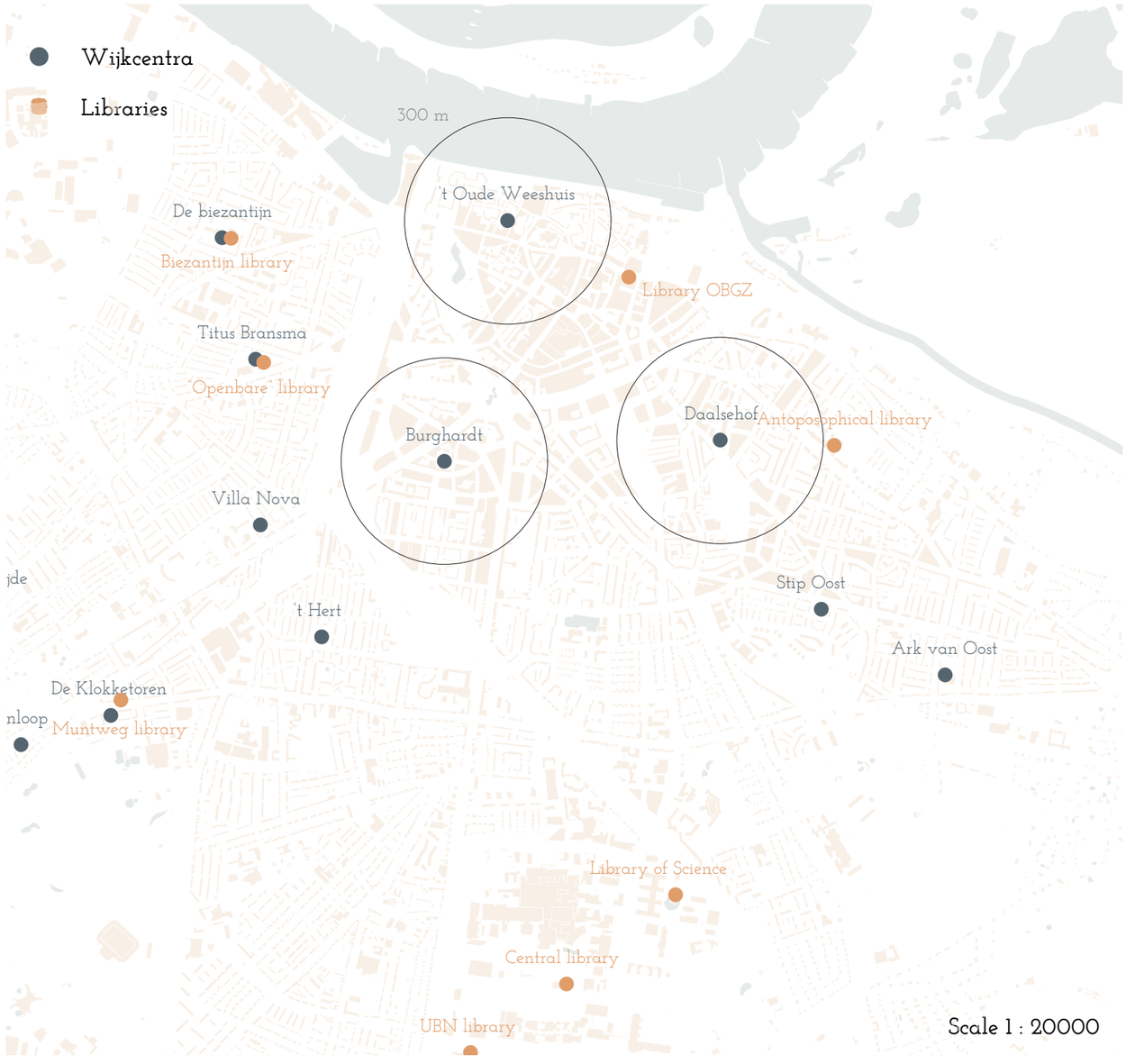
Hospitality
Iriszorg stories





Inhabitants
Room with the view stories

Relevance of the proposal | Lack of social cohesion, not integrated community centre



Social cohesion

23% From enquetes appear that the city centre of Nijmegen really lacks a social cohesion. 23% of the inhabitants doesnt feel responsible for this.

Feeling connected

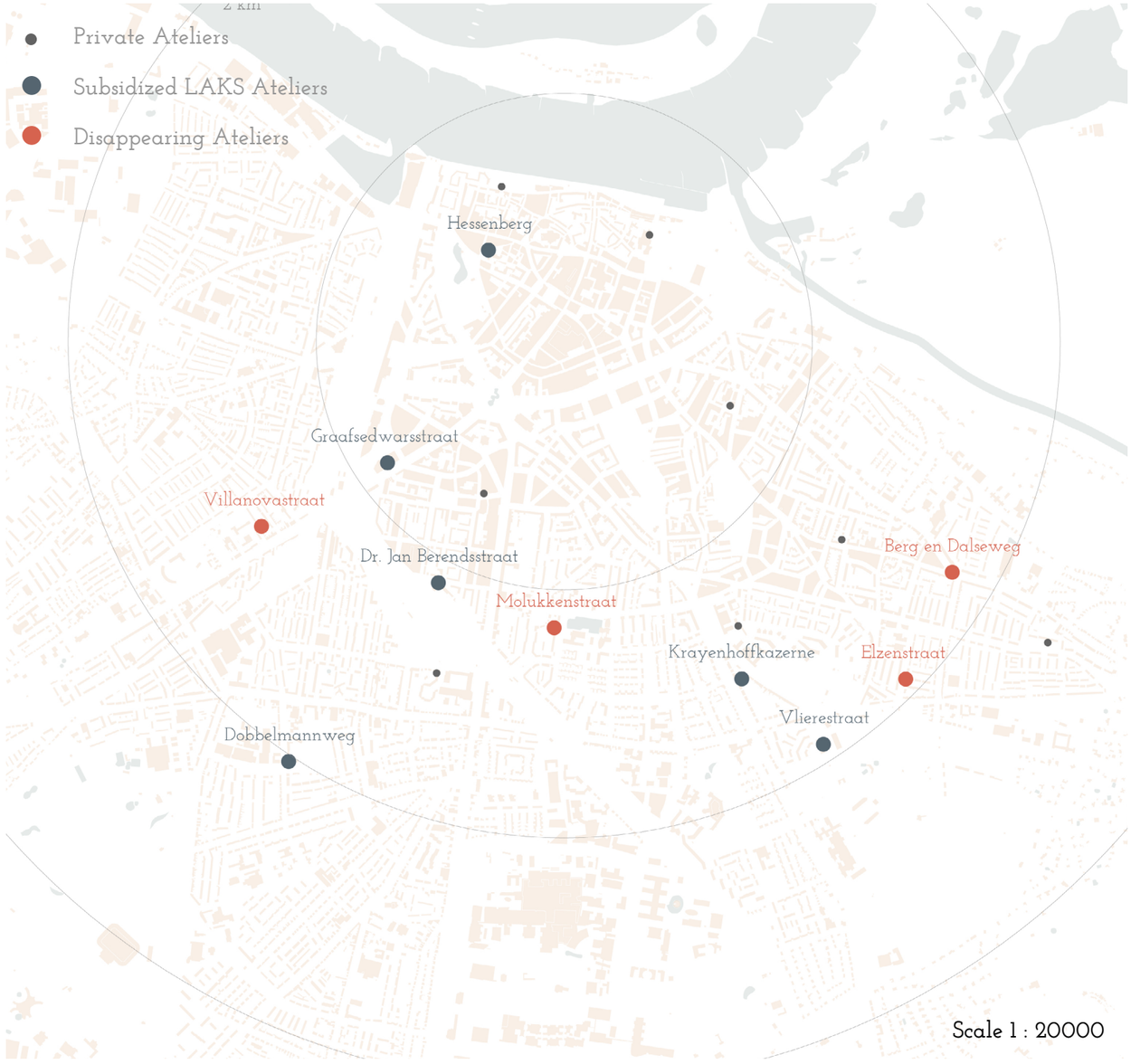
5.0 / 10.0 is the rate inhabitants give for feeling connected with the neighbourhood

Unknown community centre

66% of the inhabitants in the city centre do not know about the community centre located at the centre
which is the lowest rate of the city

Source;
https://swm.nijmegen.nl/p40890/lees-meer

Relevance of the proposal | No space for artists



Protest

150 Artists will be on the street in Nijmegen in about five months

Letter sent to politicians

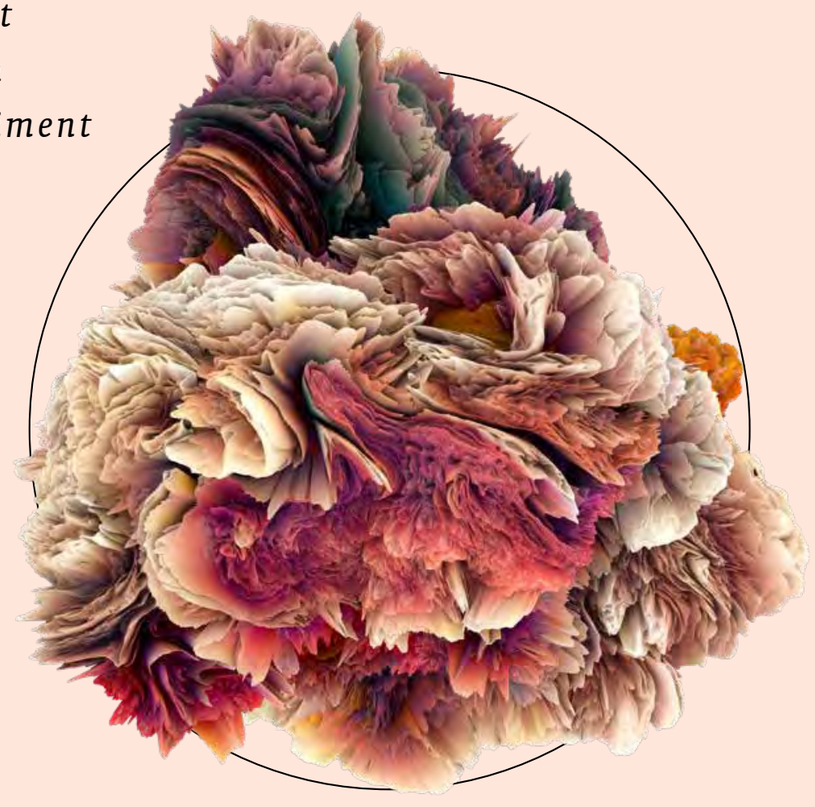
Provide sufficient and permanent workspaces for artists. We increasingly have to deal with temporary space in vacant buildings (C. Heerdt)

https://www.gelderlander.nl/nijmegen/150-kunstenaars-op-straat-betaalbare-werkruimte-is-in-nijmegen-niet-te-vinden~a07e097e/

Relevance of the proposal | Arnhem and Nijmegen project definition

“Volgens mij verdient Nijmegen meer lef en hoeven we het experiment niet te schuwen.”

Noël Vergunst,
Wethouder Cultuur



Proeftuinen 025 Arnhem Nijmegen

Complementary cultural offer

Arnhem Theater, dance, classical music, talent development, crafts and product design.

Nijmegen Nijmegen; Festivals, pop, film and literature, hidden smaller cultural initiatives of crafters and bands.

Collaboration with other domains

The Proefuinen 025 profile contains proposals for collaboration from 2021-2024 in the form of testing grounds. It offers starting points for the themes of cultural education, cultural participation, … , renewal of cultural genres and methods, talent development and the living environment.

Challenge

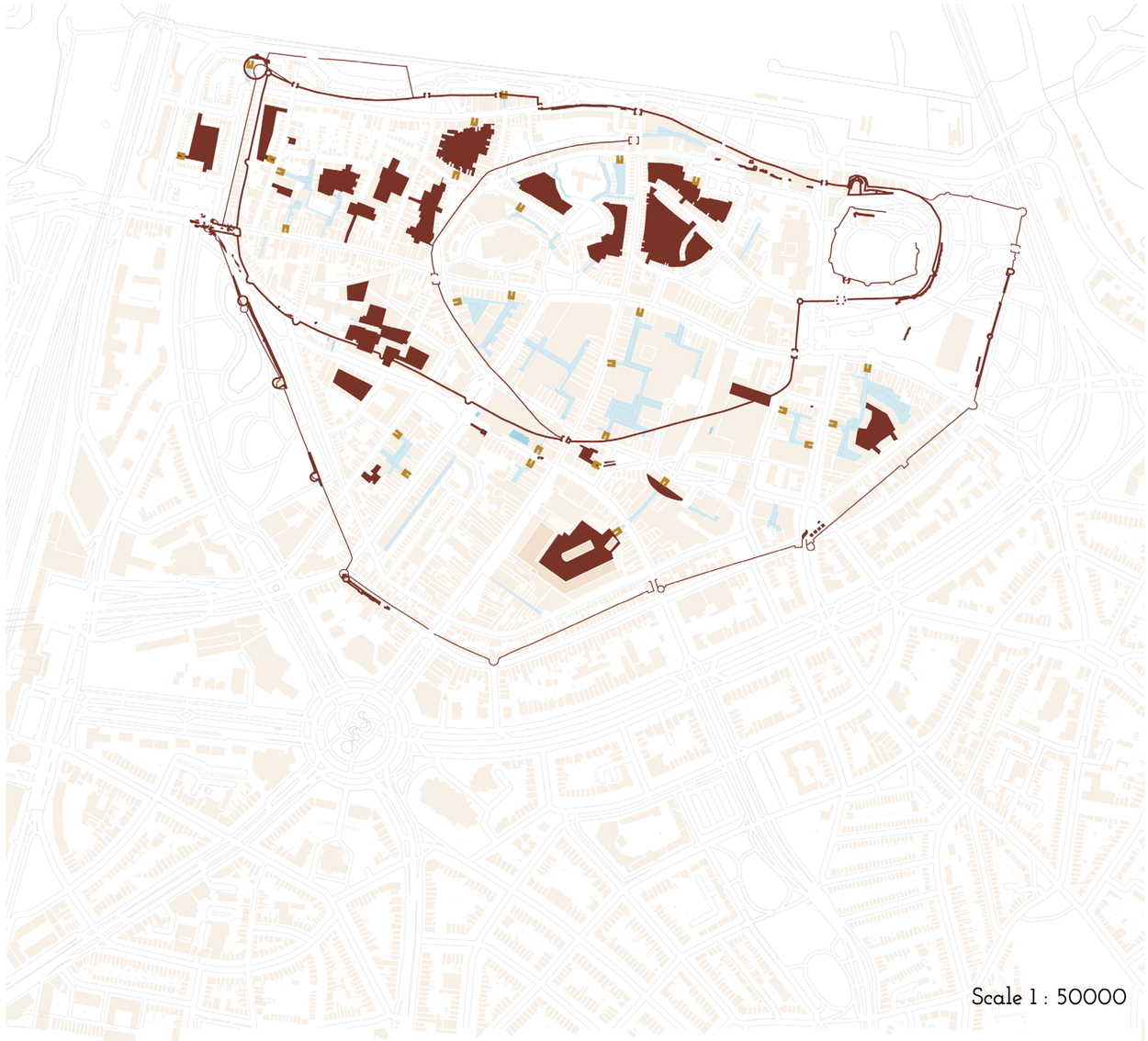
First, it requires an experimental combination of creating, presenting, learning of different cultural domains.

Secondly, a new audience must be welcomed that feels at home in an experimental environment.

Thirdly it is important to provide a kind of “vrijplaats” for experimentation. The environment must be open to new ideas and yet also be enclosed and feel safe for those who make use of it.

Groei. Cultuurvisie Nijmegen 2020, Gemeente Nijmegegen (Page 8-9)
https://www.cultuurenschoolnijmegen.nl/content/PDF/Groei_-_Cultuurvisie_Nijmegen_2020.pdf

The exceptional big plot tries to find connection to the urban morphology; gates, courtyard, alleys



Scale 1 : 50000







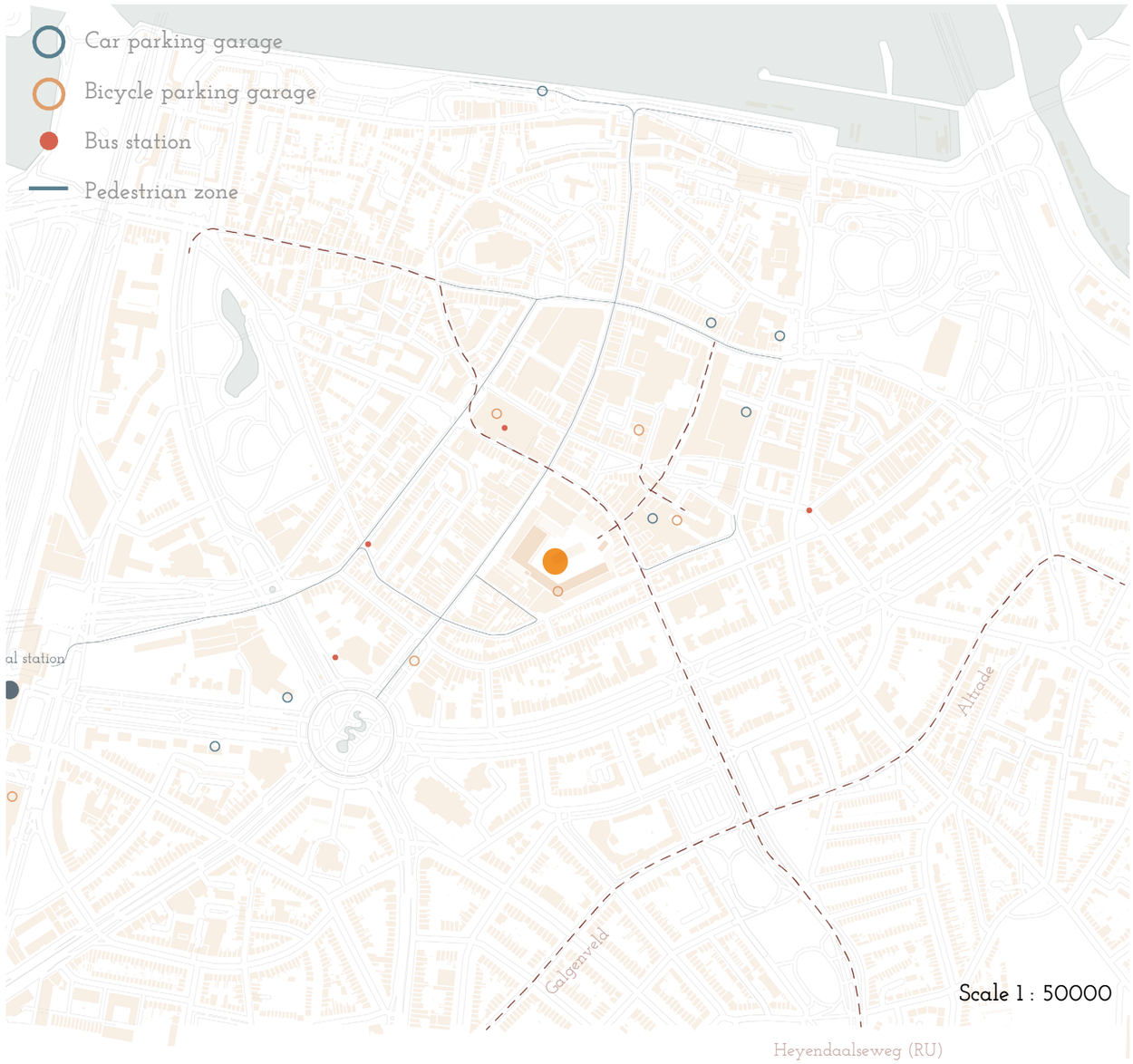






Photographed by Andrew Kelso

Connecting the enclave



Walking

Highlighted is mainly the approachability people of the neighborhood walking, people surrounding neighorhoods cycling, day trippers walking from station

Cycling

Bicycle parking garages
Marienburg < 50 meter
450 bikes
Plein 44 < 200 meter
875 bikes
Stadhuisplein = 200 meter
250 bikes
Cultural enclave < 20 meter
200 bikes
Estimation required; Bike storage for staff and for visitors.
Does not have to withstand peak loads.

Bus

Bus stations
Plein 44 < 200 meter
Each 6 minutes
Hertogplein < 300 meter
Each 7 minutes
Nassausingel < 500 meter
Each 15 minutes

Connecting the enclave





Urban Contrast

Make use of spatial contrast - using the urban threshold of the Mariënburg; Narrowing down - opening up again ; A great urban effect; feeling safe and enclosed

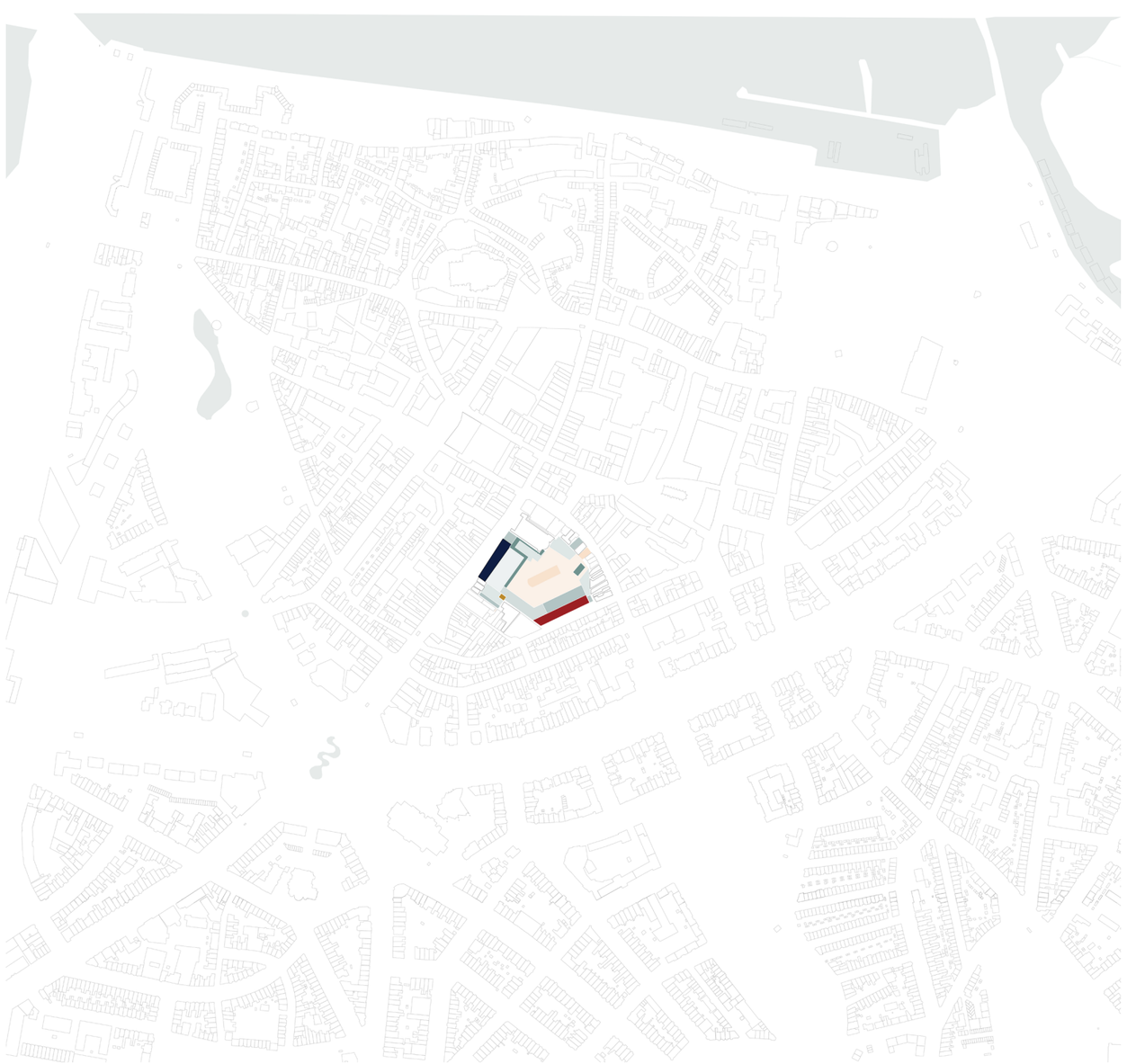
Crossing Over

Connecting neighborhoods Galgenveld, Altrade and the important direction of the Heyendaalseweg to the proposal; different audiences

Commercial Threshold

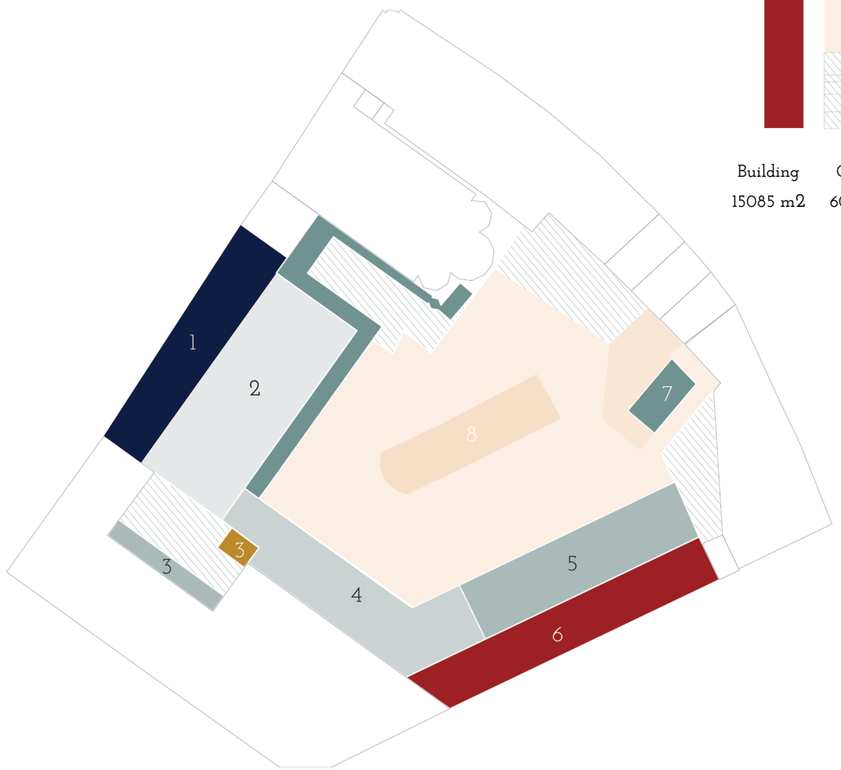
For now the commercialised Molenstraat is not directly connected to the "culturele vrijplaats" and can be reached when walking just round the corner onto the Ziekerstraat

Form of the proposal | The program



1. Commercial and Housing	4020 m2
2. Arts and Crafts workshop	1520 m2
3. Second home	750 m2
4. Private ateliers	2570 m2
5. Wijkhuis	740 m2
6. Housing	3665 m2
7. Performance house	1020 m2
8. Central pavilion	1020 m2
9. Gallery path	870 m2
Total built area	14285 m2

Building	Garden
15085 m2	6085 m2





Private and shared workspaces

Artists and crafters

The presence of artists and crafters form the foundation of the kinship. They bring a creative and inspriring atmosphere.

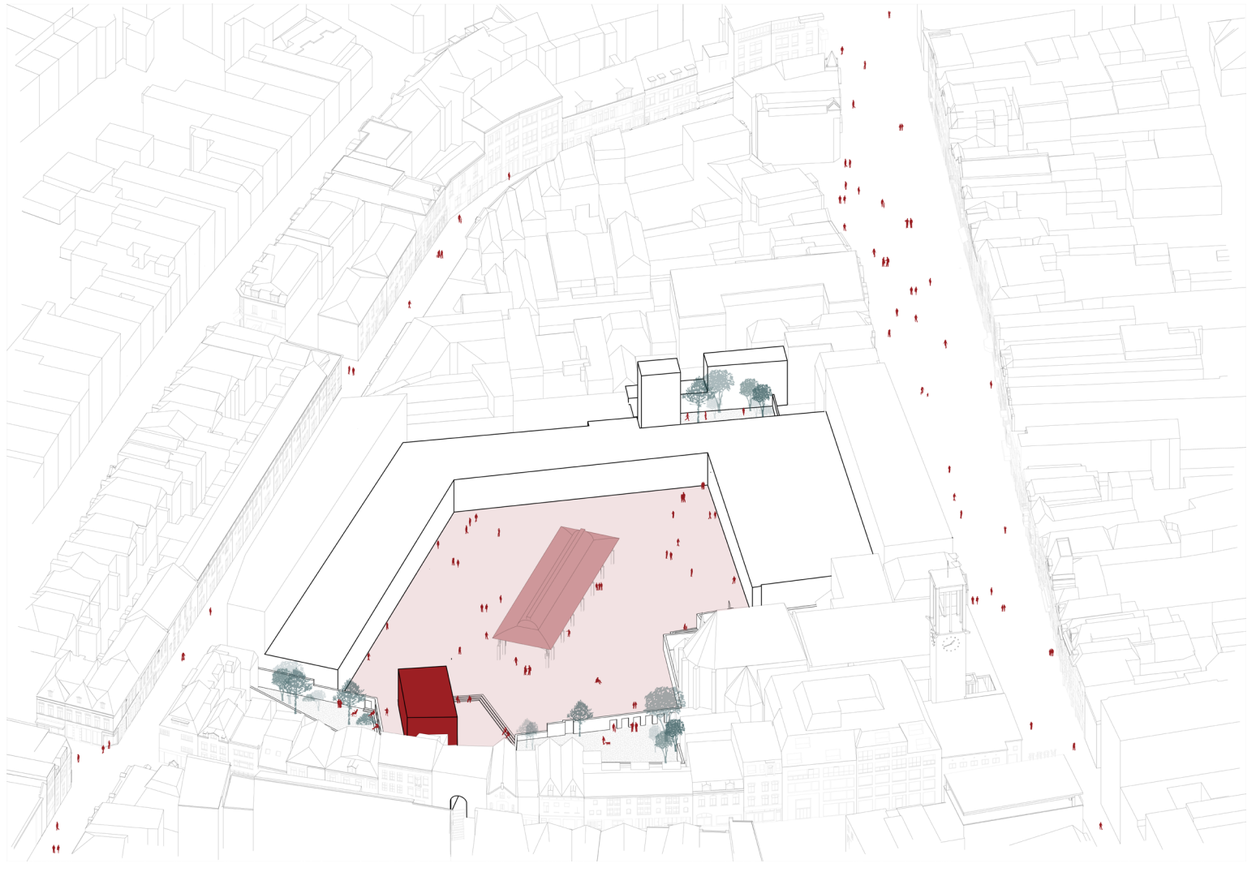
They share knowledge and stories by talking and creation of tangible objetcs.



UMUT

Woodworker
Preparing exposition

Social relationships within proposal | The users



Separate and more alternative place to teach and rehearse

Artists and crafters

Performers

They add another layer of creativity

They talk by the means of music and are able to celebrate and to provide comfort



TARIK & TES

Band member
Rehearsing intro expositon



The place where programmed and unprogrammed initiatives can take place

Artists and crafters

Performers

People from the neighbourhood

By means of a community centre events can be organized for those people in the neighborhood who need it.

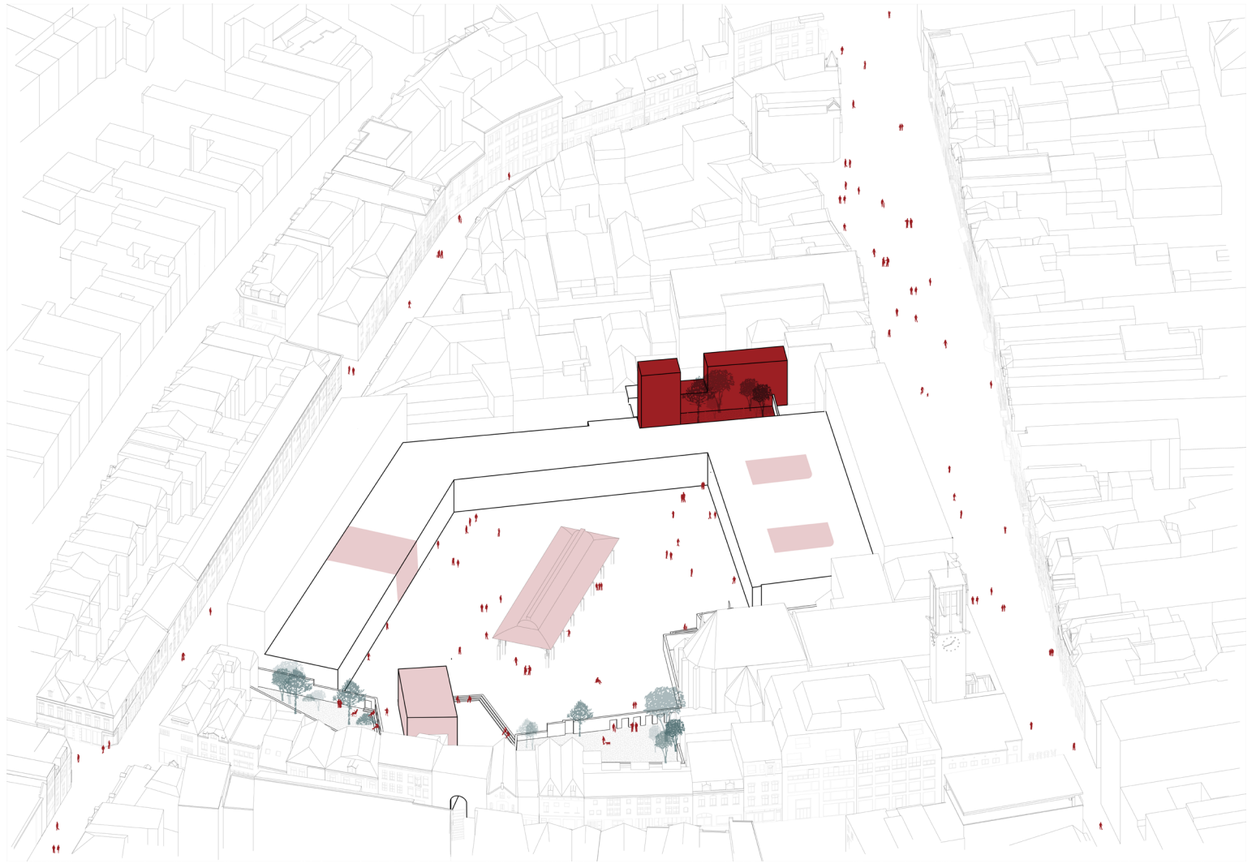
The people of the neighborhood can experience; feel, see, hear the things which are created programmed or unprogrammed.



RITA

Neighbour
Recreational painting class

Social relationships within proposal | The users



Positioned independendent from the Cul-de-Sac - provided with their own courtyard.
They can choose to be seen or not to be seen

Artists and crafters

Performers

People from the neighbourhood

Reintroduced homeless people

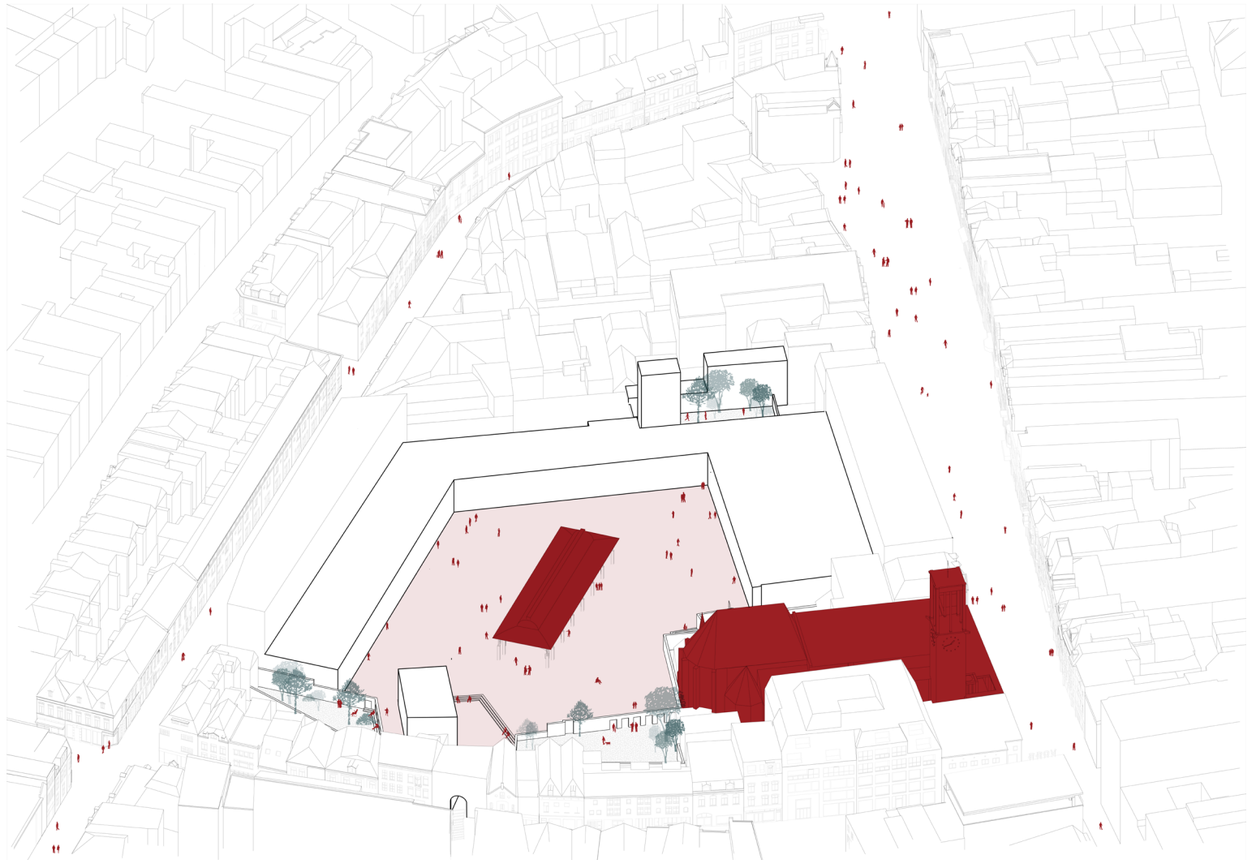
The reintroduced homeless people from Iriszorg have a facilitating role by supporting little tasks of the program. They lived before in a homeless shelter of Iriszorg 100 meter away and are now ready for the next step; getting reintroduced in society.
They turn from a problem into a source.



JELMER

Reintroduced person
Supporting exposition

Social relationships within proposal | The users



Who want to take some breath, escape the atmosphere of the city for a moment

Artists and crafters

Performers

People from the neighbourhood

Reintroduced homeless people

Day trippers and those who visit the church

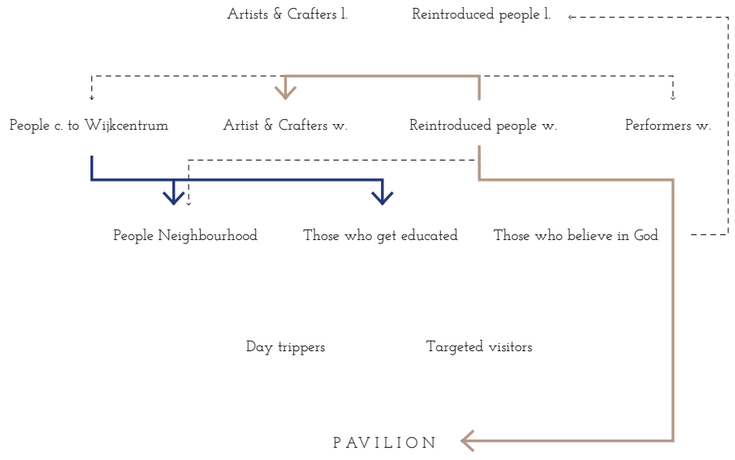


MO & NOUR

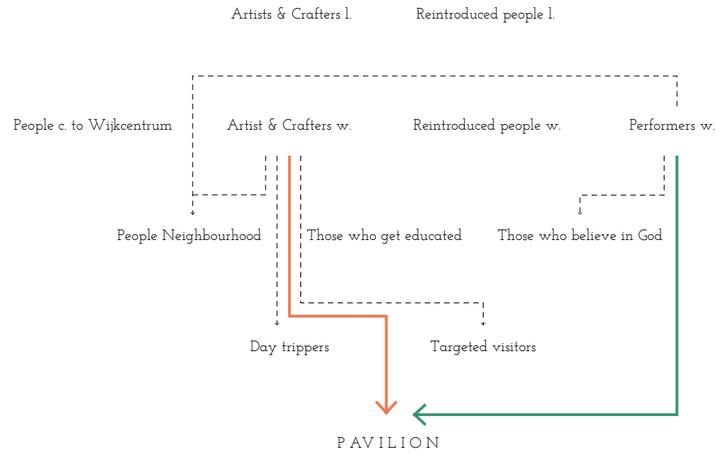
Neighbours
Looking around

The relationship of users create a kinship

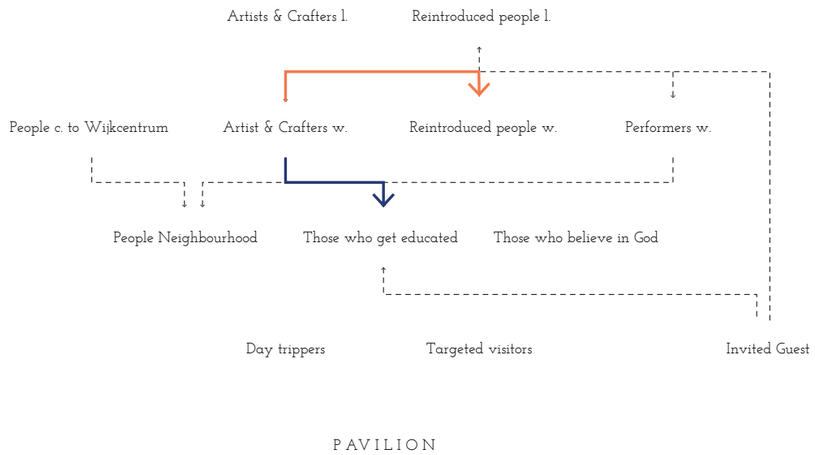
Support



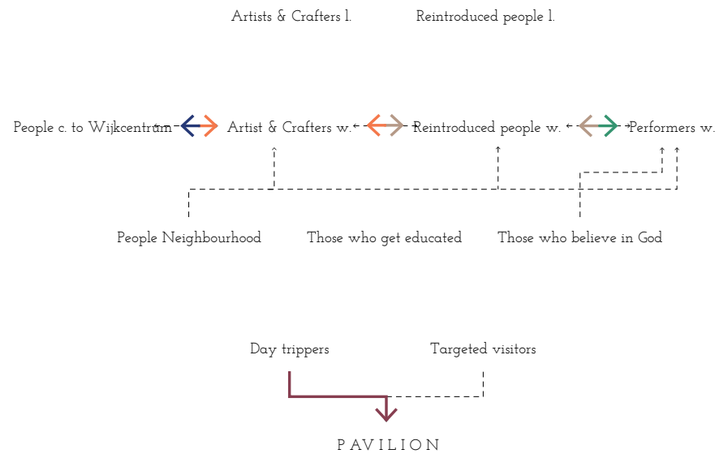
Make



Learn



Experience



RESEARCH

Reading of the site

Research question

Understanding / empathizing

PROPOSAL FOR THE CITY

Project definition and relevance

The kinship on a social level

The kinship on a physcial level

Project requirements, program

ARCHITECTURAL TASK

Definition anthropomorphism

Personal conception

Used methods

DESIGN RESULT

The results from big to small

Dimensioning and material

Two buildings together

Typical sections of the old and the new

Performance of the facades and 1:20 sections

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Impressions of the intended

Climate and comfort

People among buildings

Buildings among buildings

Fellow student designs

ARCHITECTURAL TASK WITHIN THE CITY

Architectural task | Definition of Anthropomorphism

Definition of 'anthropomorphism'
the attribution of human characters or behaviour to a built entity

Architectural task | Personal concpetion of Anthropomorphism

Personal concpetion of Anthropomorphism;

I. Buildings can relate to other buildings by ***body language***
They expose themselves with mass, a rigid or playful structure,
turn their back, bend towards each other

Composition of buildings
Expression of body weight
Size and form

II. buildings have a face and ***express emotions***
They look proud, are curious, look embassed, are reserved, confused, grateful

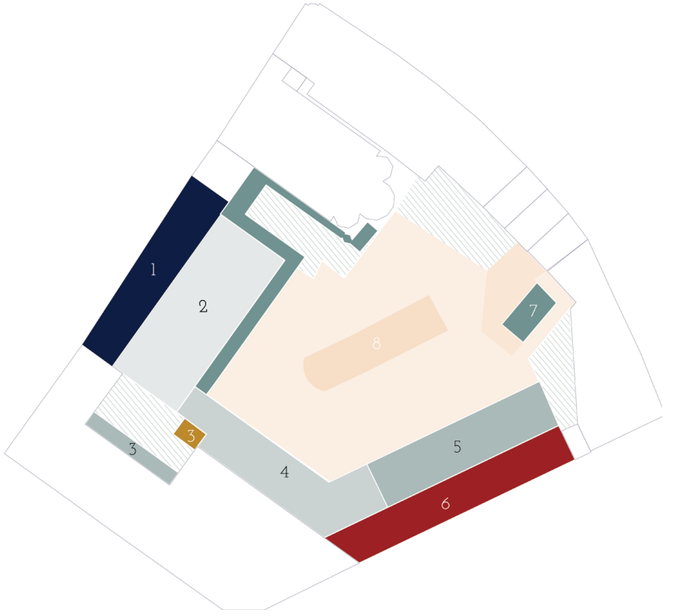
Material and colour
Composition of facade
Way of detailing

Architectural task | Composition of characters up to now

A kinship formed by a Cul - de - Sac



Digging out the middle of the structure



Confrontation of "non-representative" building parts

Architectural task | Composition of characters up to now

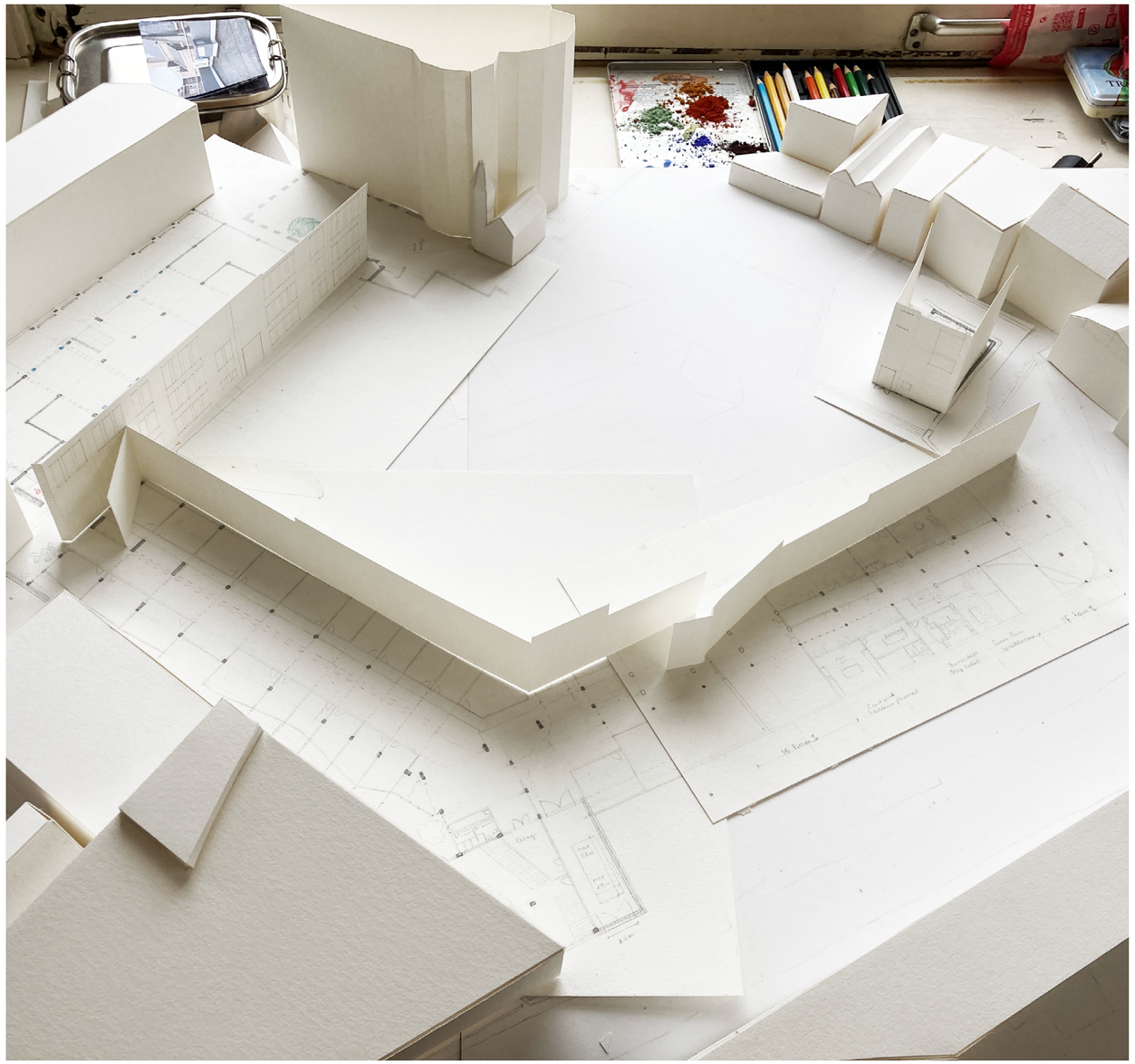


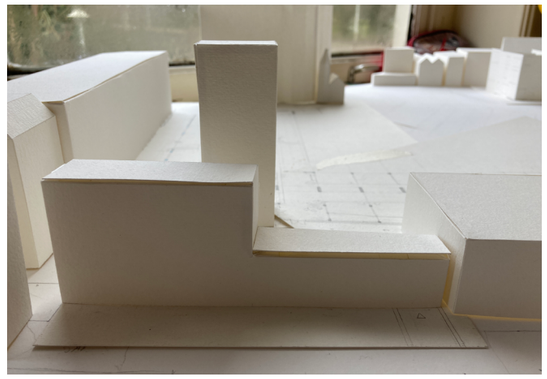
The building parts are characterized by

1. the use of characteristics of the existing structure
2. The introduction and addition of building elements

They together form a kinship

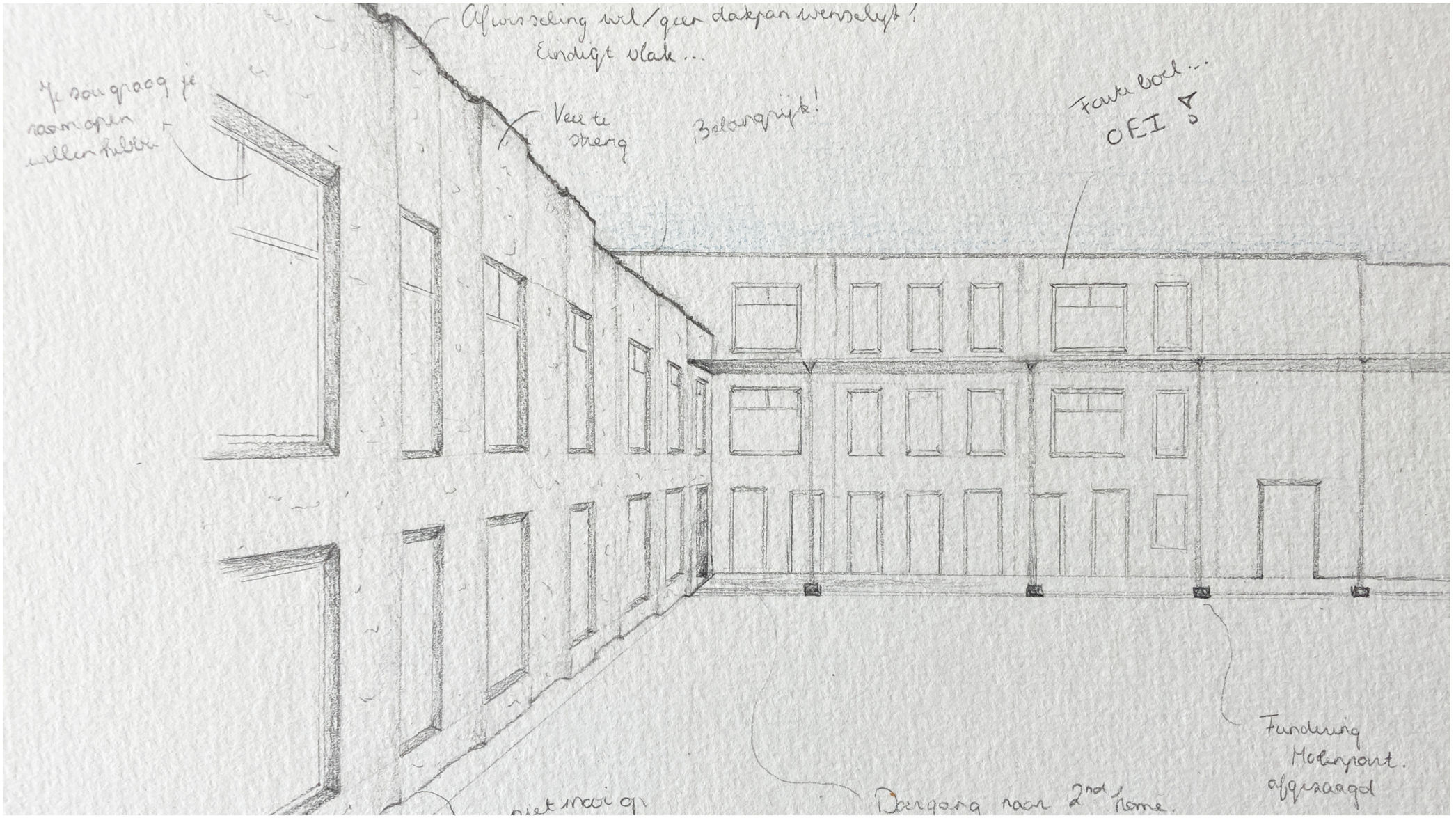
Architectural task | Method to characterize the buildings



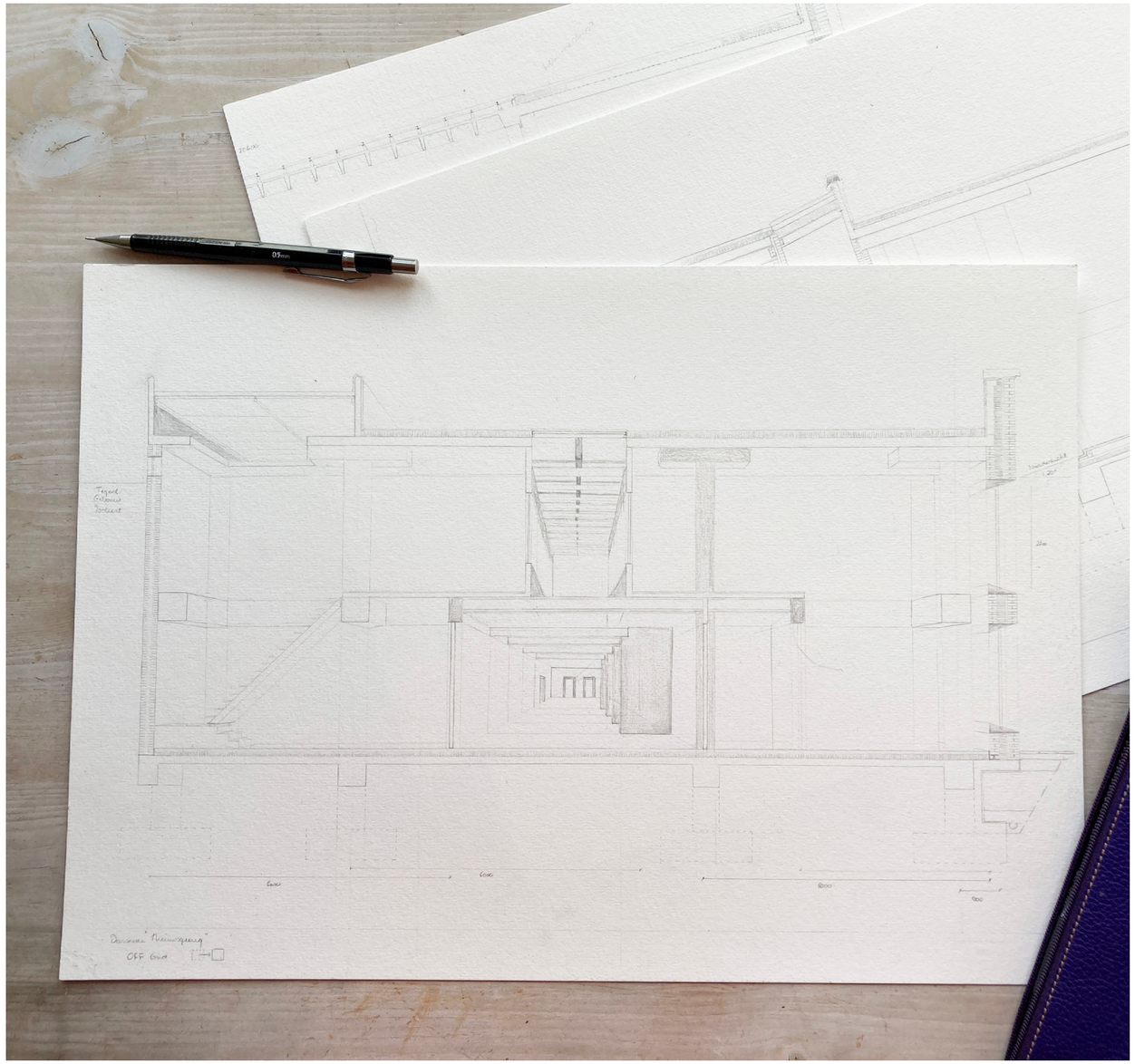


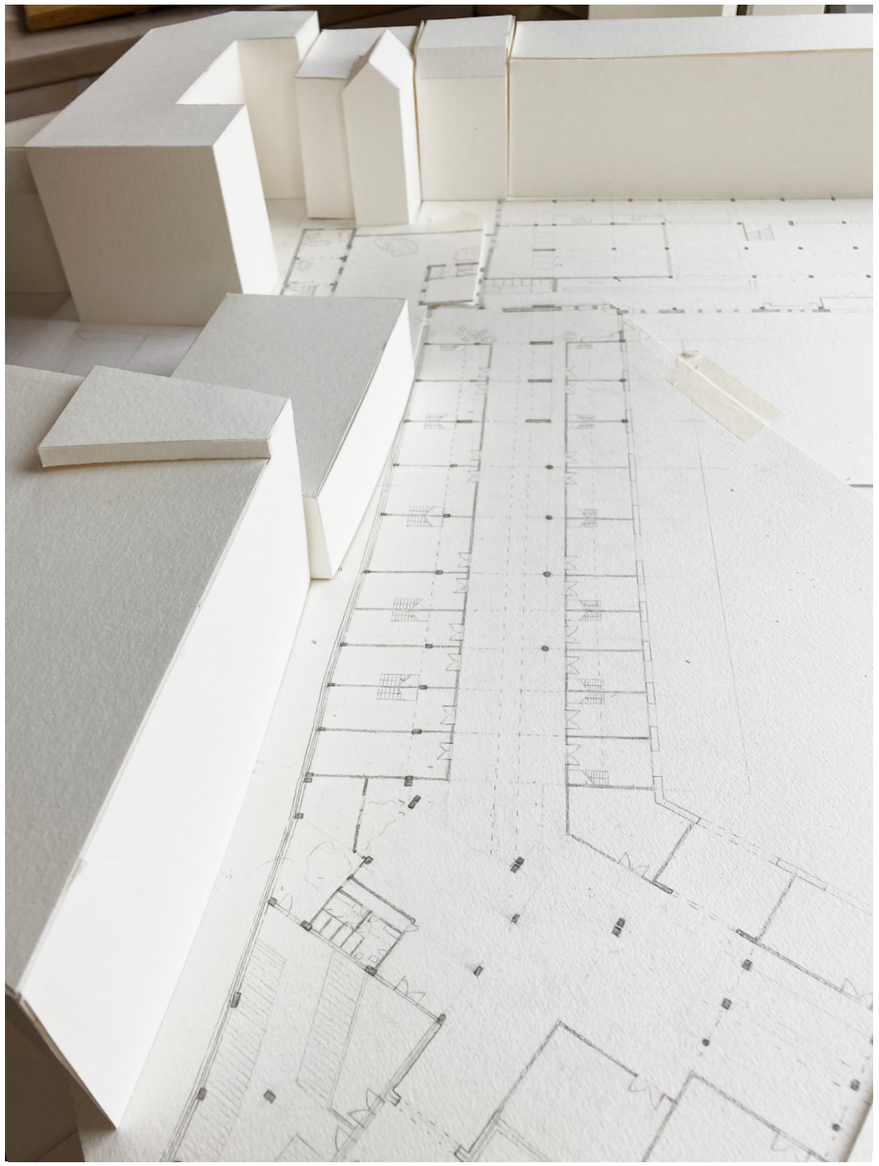





Afwisseling wnd/geen dakpan wenselijk!
Eindigt vlak...
Ik zou graag je
naam open
willen tikken
Veel te
steng
Belangrijk!
Fake boel...
OF I
Fundering
Molenpoint.
afgezaagd

Architectural task | Method to characterize the buildings

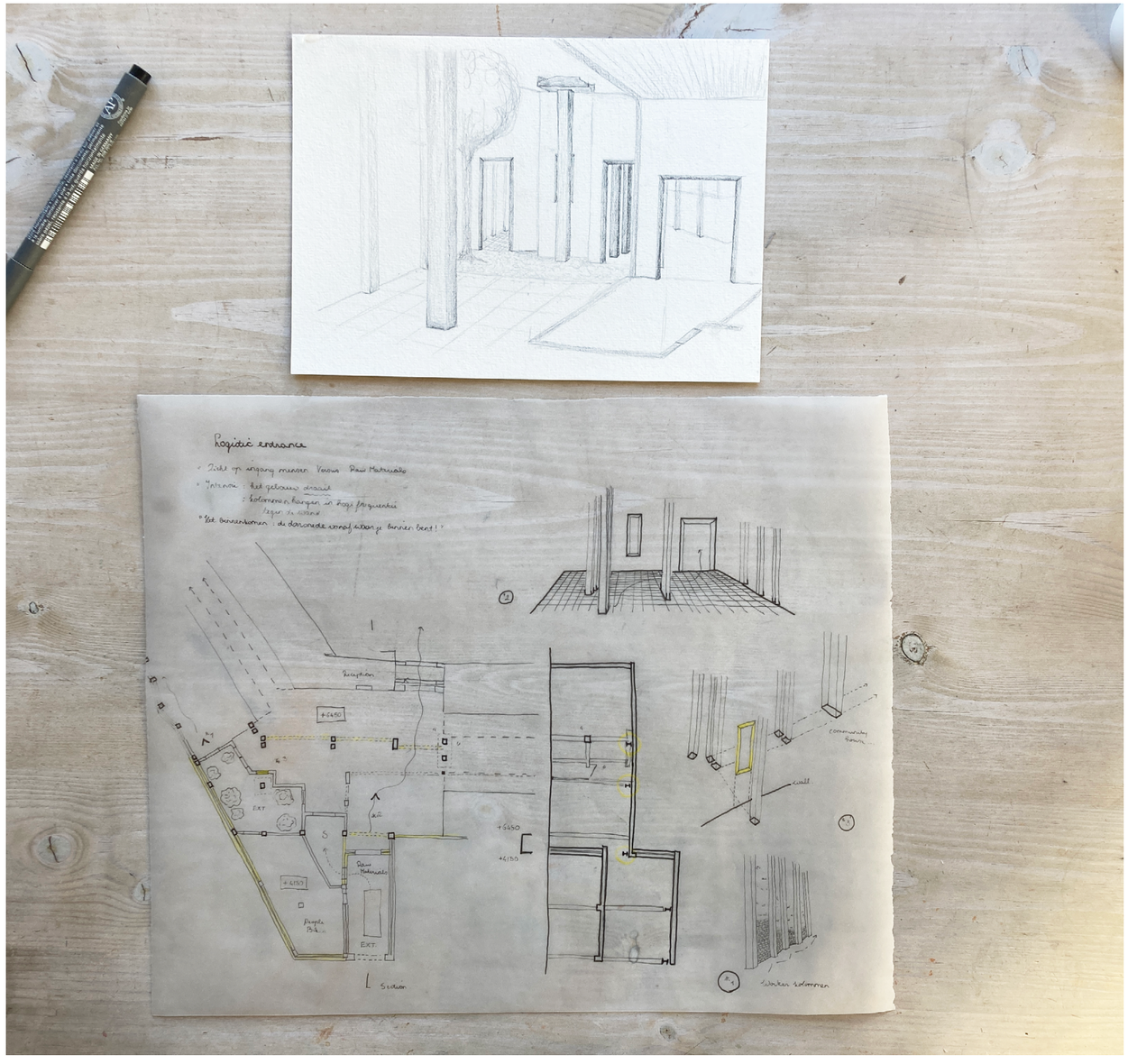




Architectural task | Method to characterize the buildings



Architectural task | Method to characterize the buildings



Reaction on the Call - dead material - static building comes to motion

3-1

Setting: Focus on the walls of the Molenpoort on different locations. The walls are pulled up, cut through. However, it seems that behind every interrupted wall, a new layer of material is waiting behind

Camera: Focus on the details

Audio: Sound of cracking and folding materials

3-2

Setting: A droste effect of flat thin layers which are opening up is the result.

Camera: Focus on details, moving further into matter - transition to interior

Audio: Sound of cracking and folding materials supported by an upwards rhythm

3-3

Setting:Thereby round and quadratic columns are swiveling around, they approach each other and take distance from each other again. This scene evolves in a real dance and by doing so they try to find the answer how they - slender but forceful members as they are - do relate to each other.

Camera: Moving camera until transition to interior **(drawing IV/VII)**

Audio: Provocative music is slightly introduced on background on the rhythm

3-4

Setting: Church observing the scene

Camera: Zoom out. Camera focussed from Church looking to the Molenpoort

Audio: Light and amandable music playing

3-5

Setting: Church begins to grind (grinding cat Alice in Wonderland), while observing the scene

Camera: Zooming out on the whole - moving camera - stops

Audio: Light and amandable music playing - sound is getting muffled

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ARCHITECTURAL TASK WITHIN THE CITY

Urban section elevation

Scene 8 | How to threat old elements? Are we too disapproving?
When can be stated that elements are redundant?

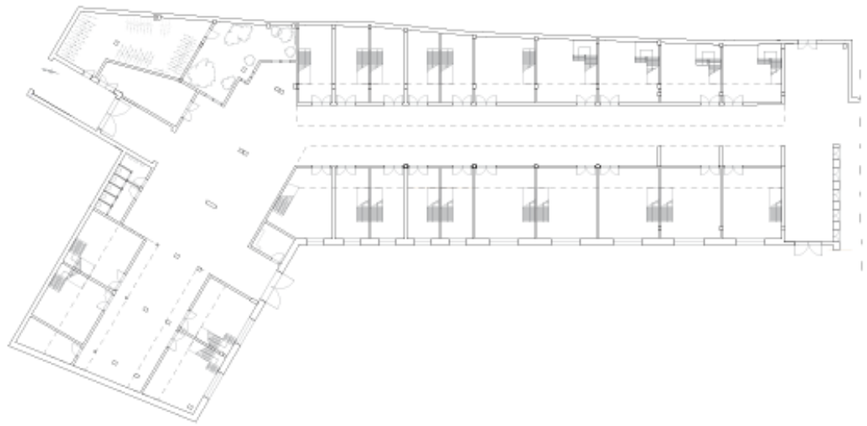


Sound ; Norbert Rodenkirchen / Tibia ex tempore - medieval flute and Two Note Swivel / Talking Heads *Speaking in Tongues,* 1982
Camera ; Steven Driehuis

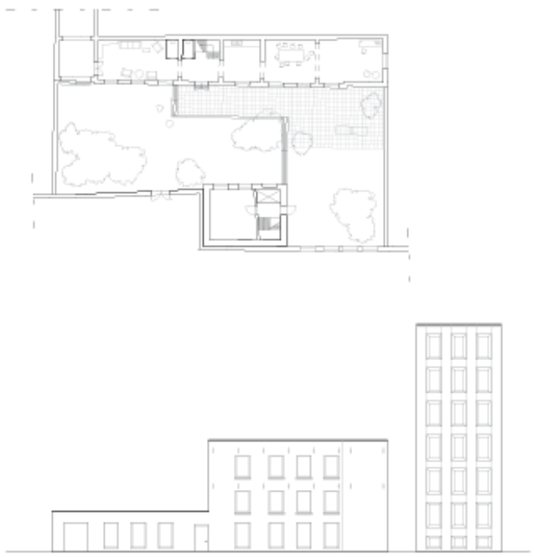
Design result | Five different characters



Shared Workshop



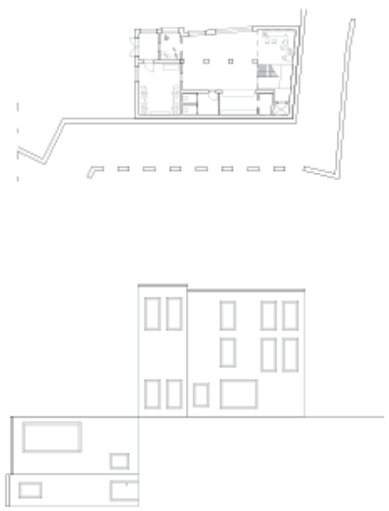
Private Ateliers



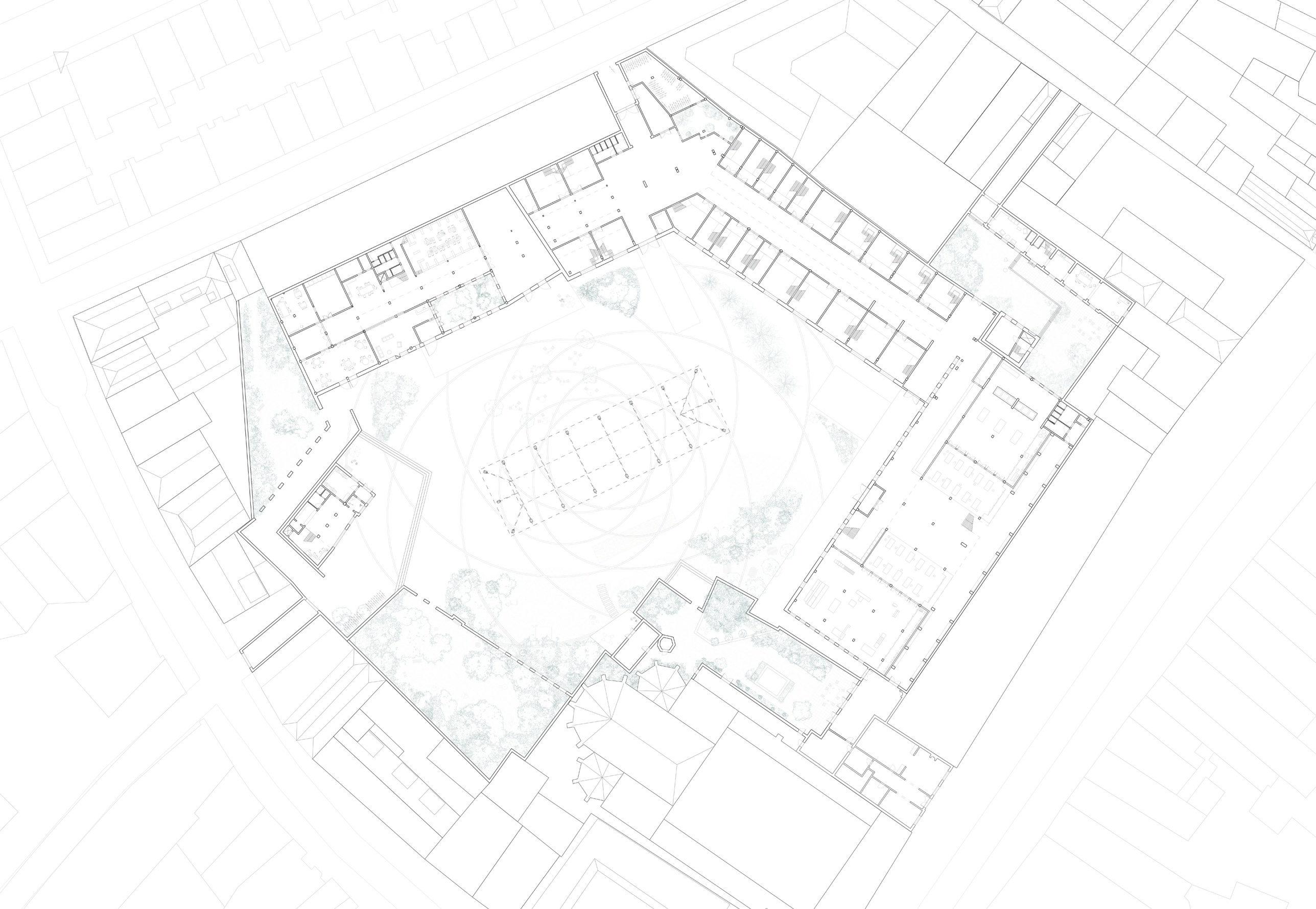
Second Home

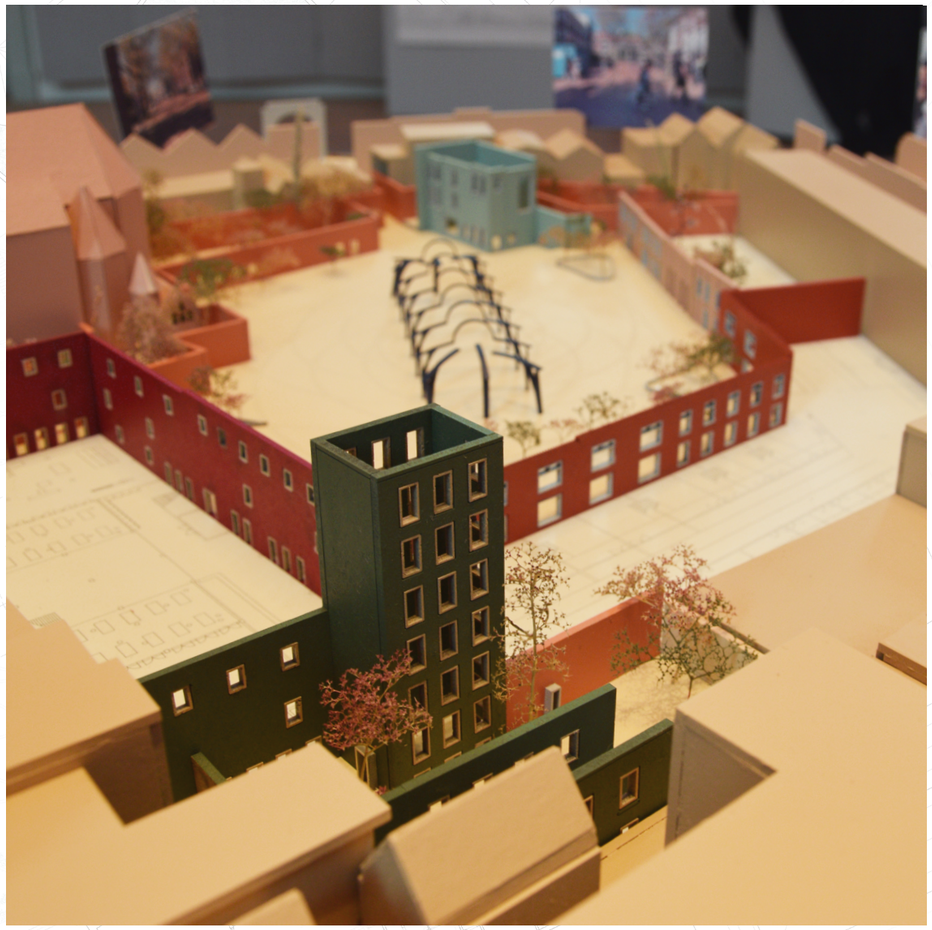


Community House

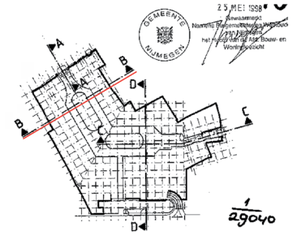


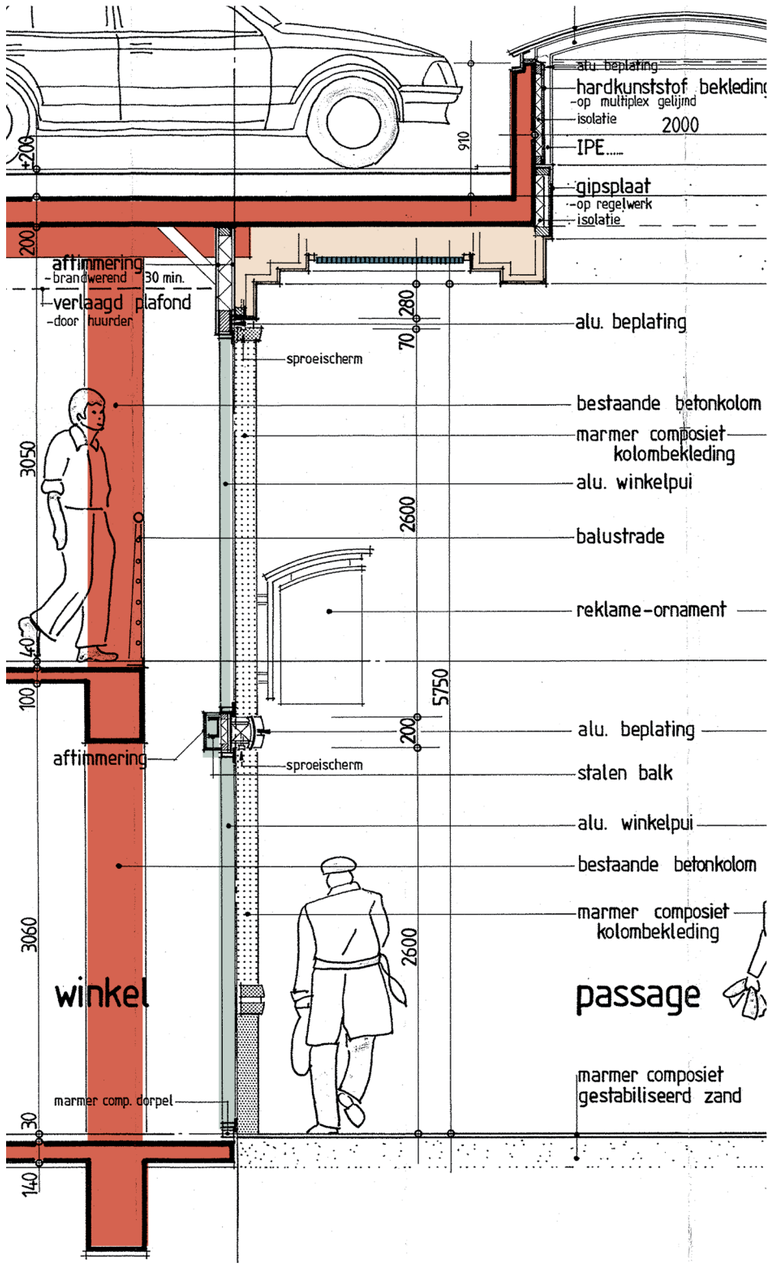
Performance House

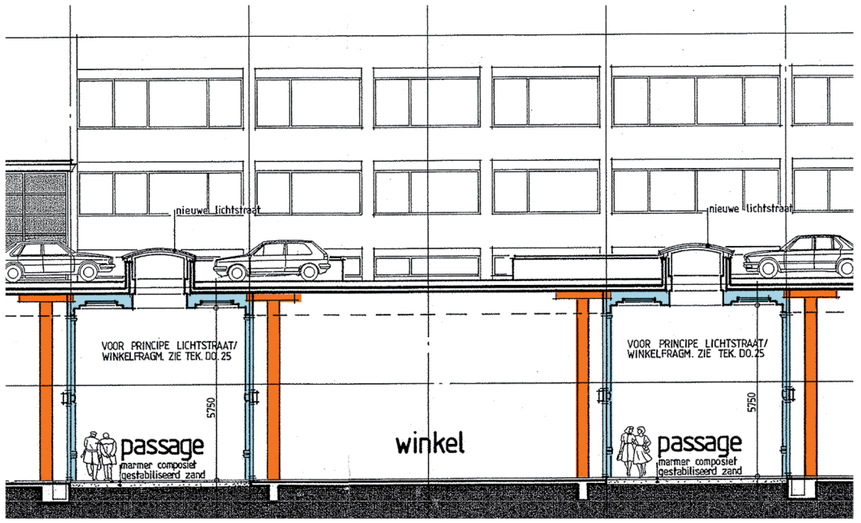


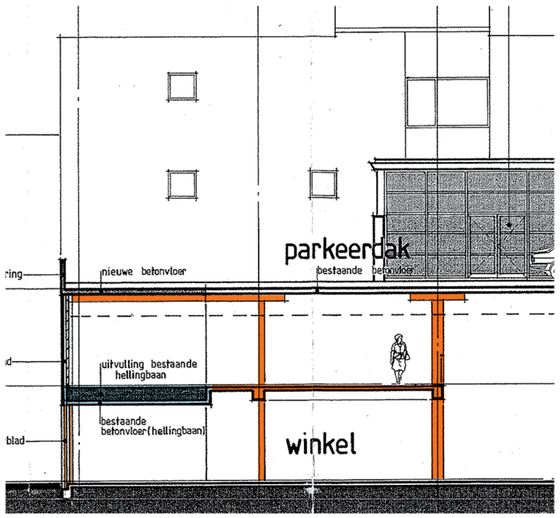


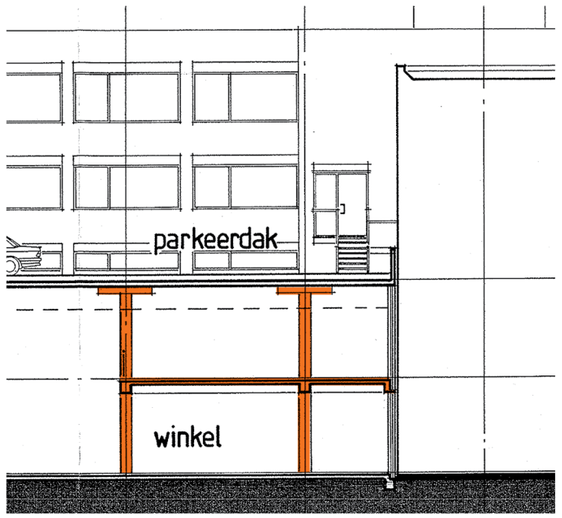
Shared Workshop | Usage of characteristics of existing structure



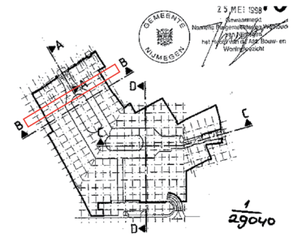


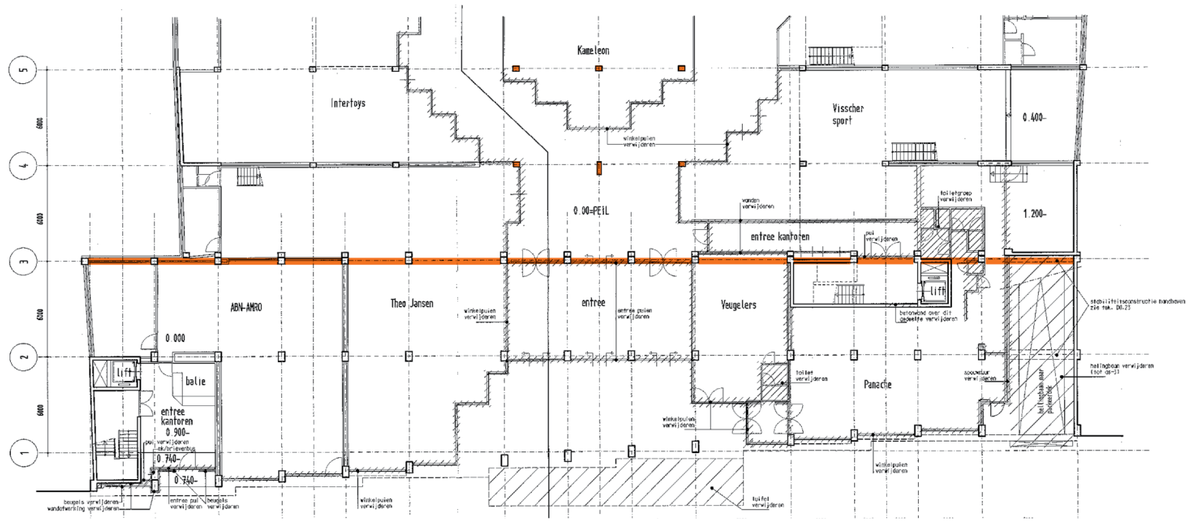


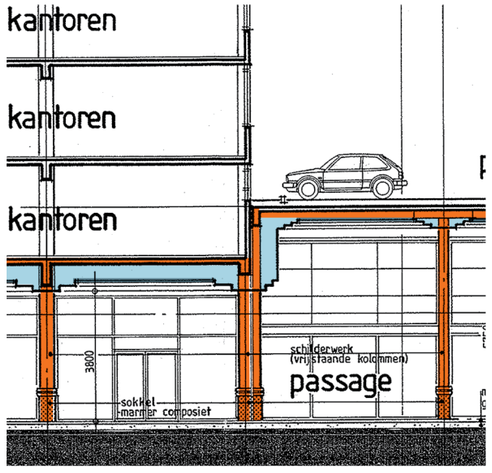


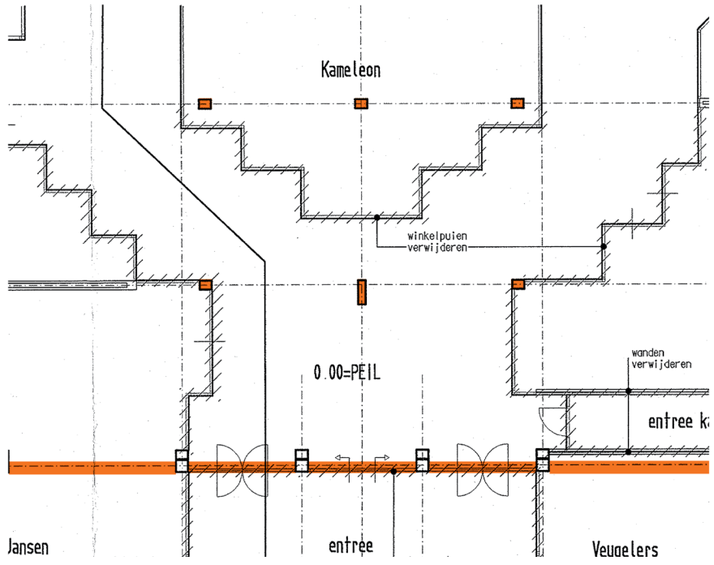


Shared Workshop | Usage of characteristics of existing structure











Shared Workshops | Design result

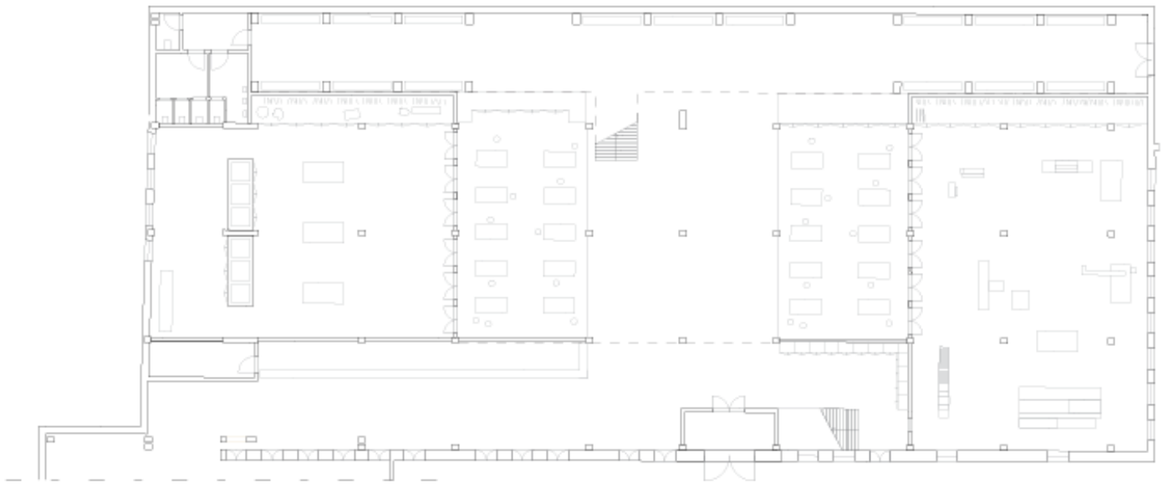


Shared Workshop

Brick
Size; 210 x 100 x 50 mm
Colour; Reddish purple
Type; Extruded brick (strengpers)
Bond type; Monk bond
Produced; *De Nijverheid*, Azewijn

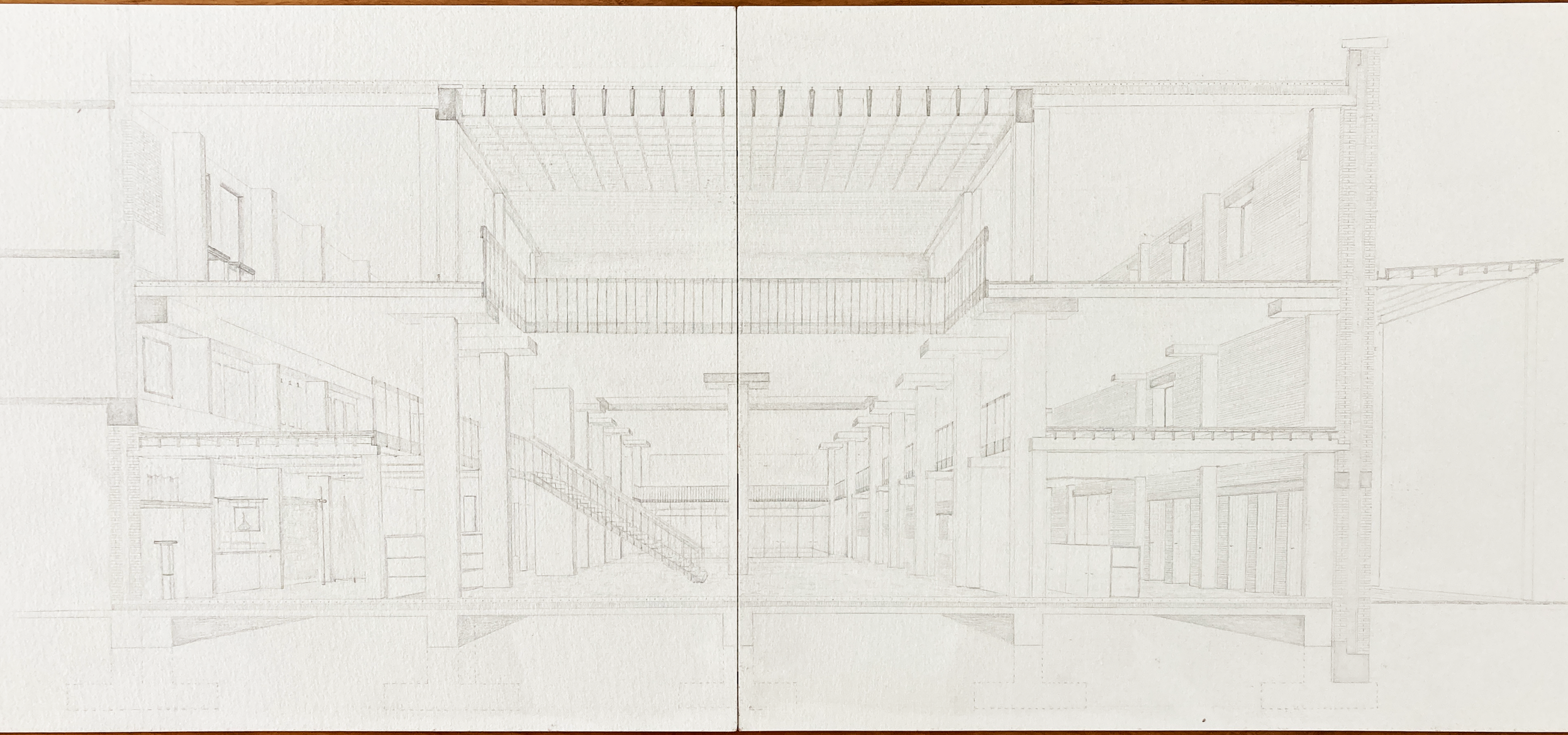
Joint
Size; 10 mm
Colour; 2010 Duin Nuances
Type; Concave



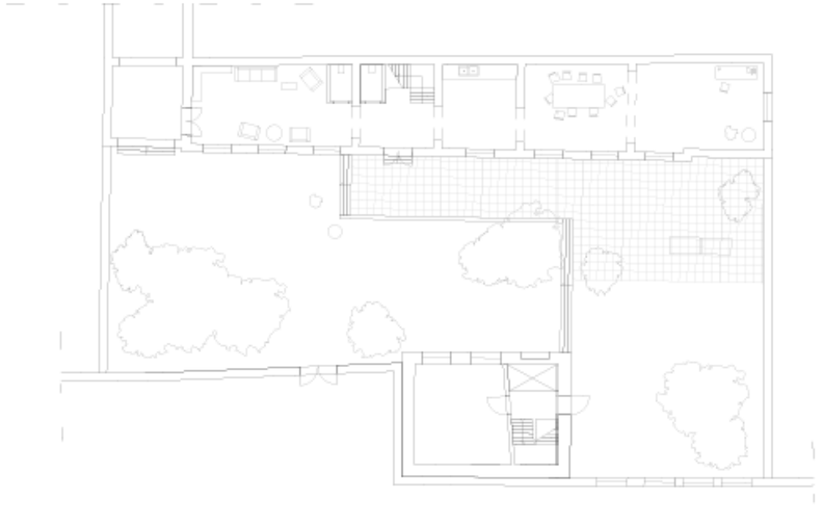




Shared Workshop | Design result



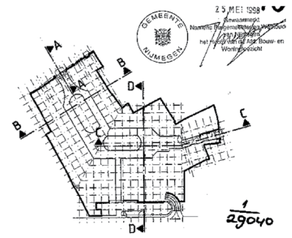


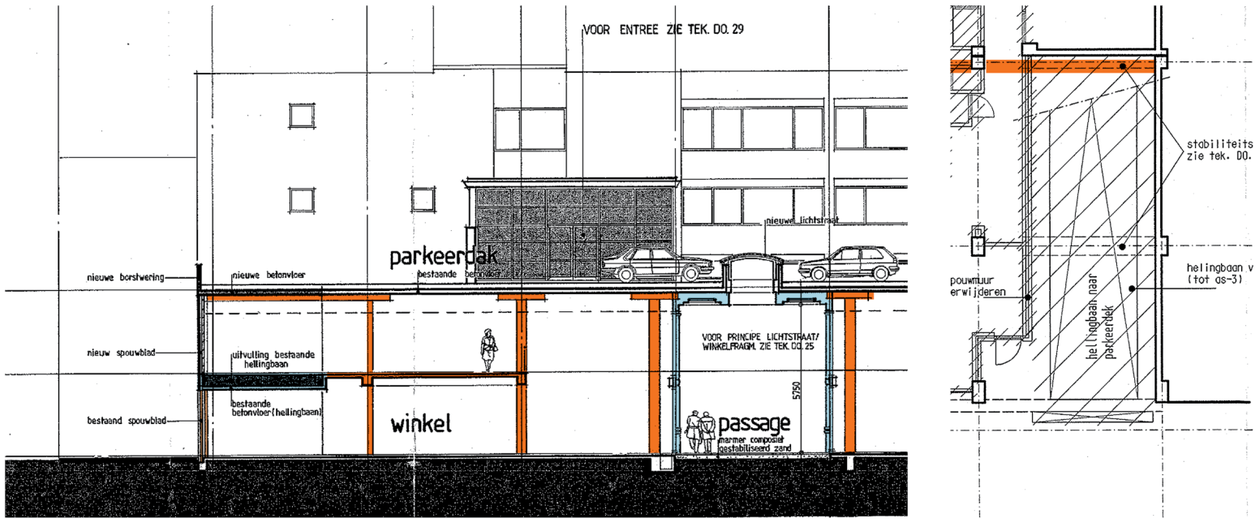


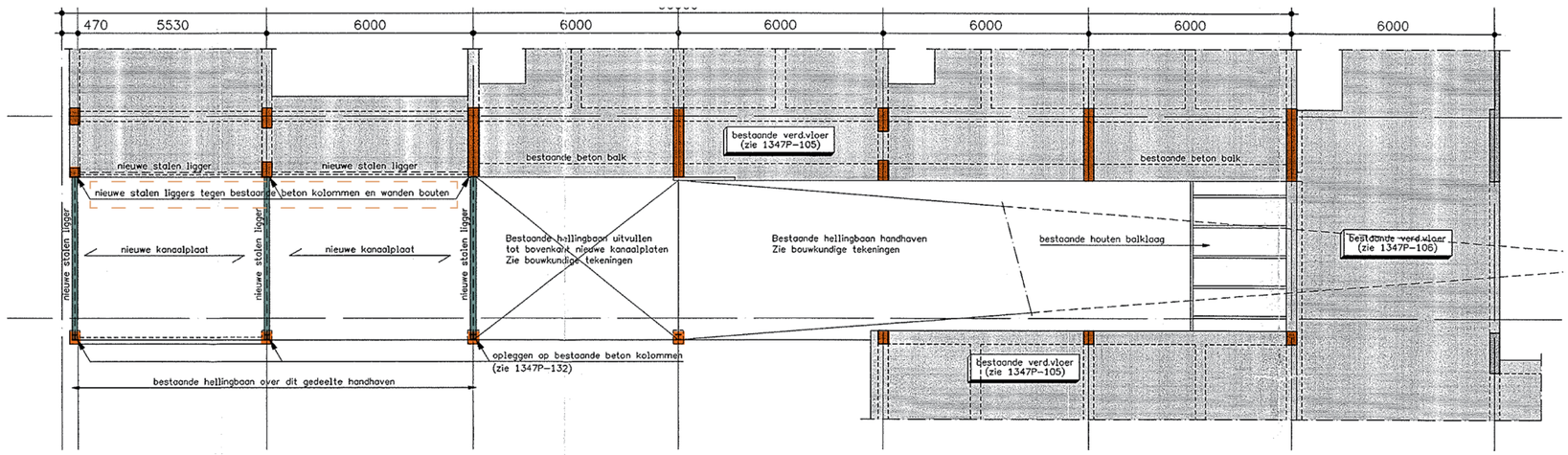




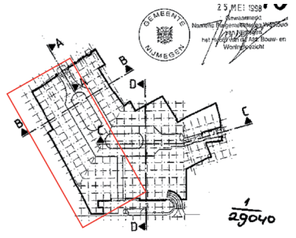
Private Ateliers | Usage of characteristics of existing structure

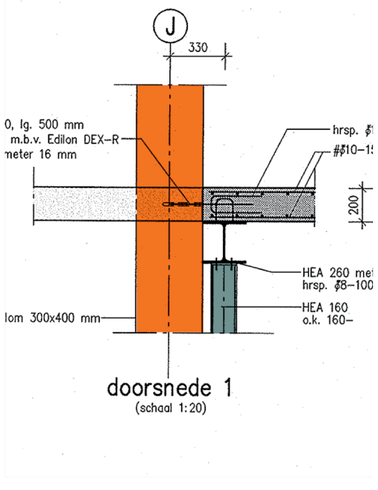




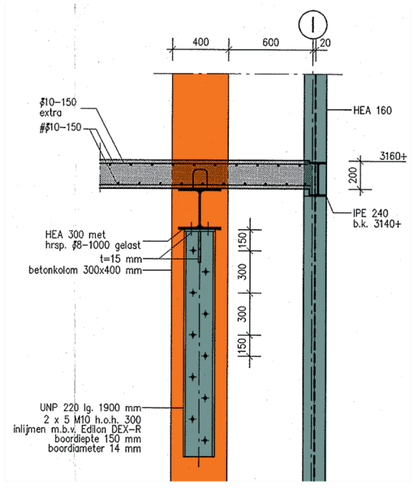


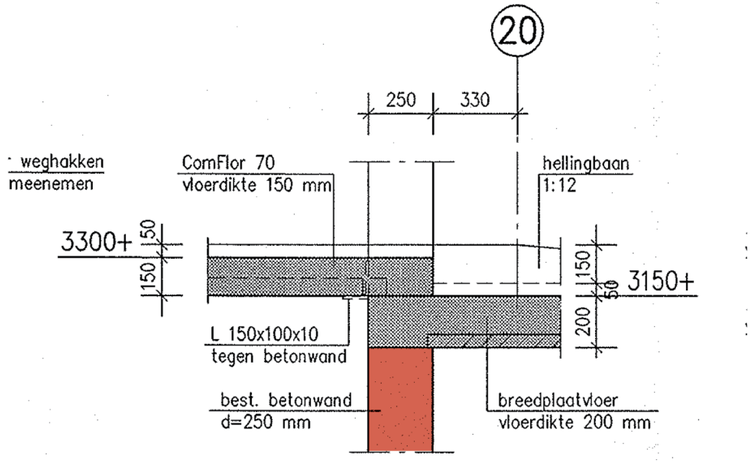
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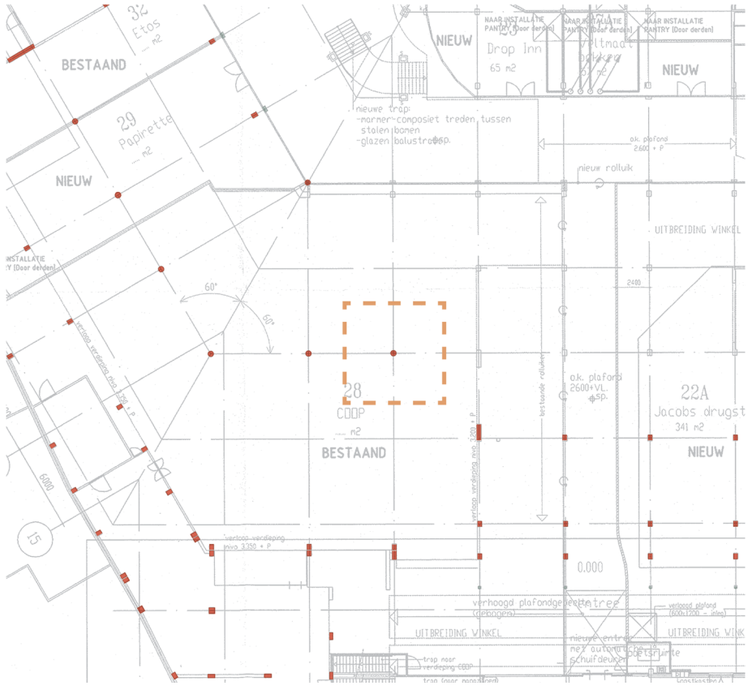


doorsnede 1
(schaal 1:20)









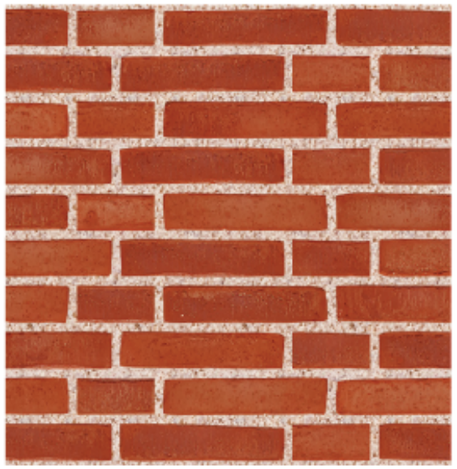
Private Ateliers | Design result



Private Ateliers

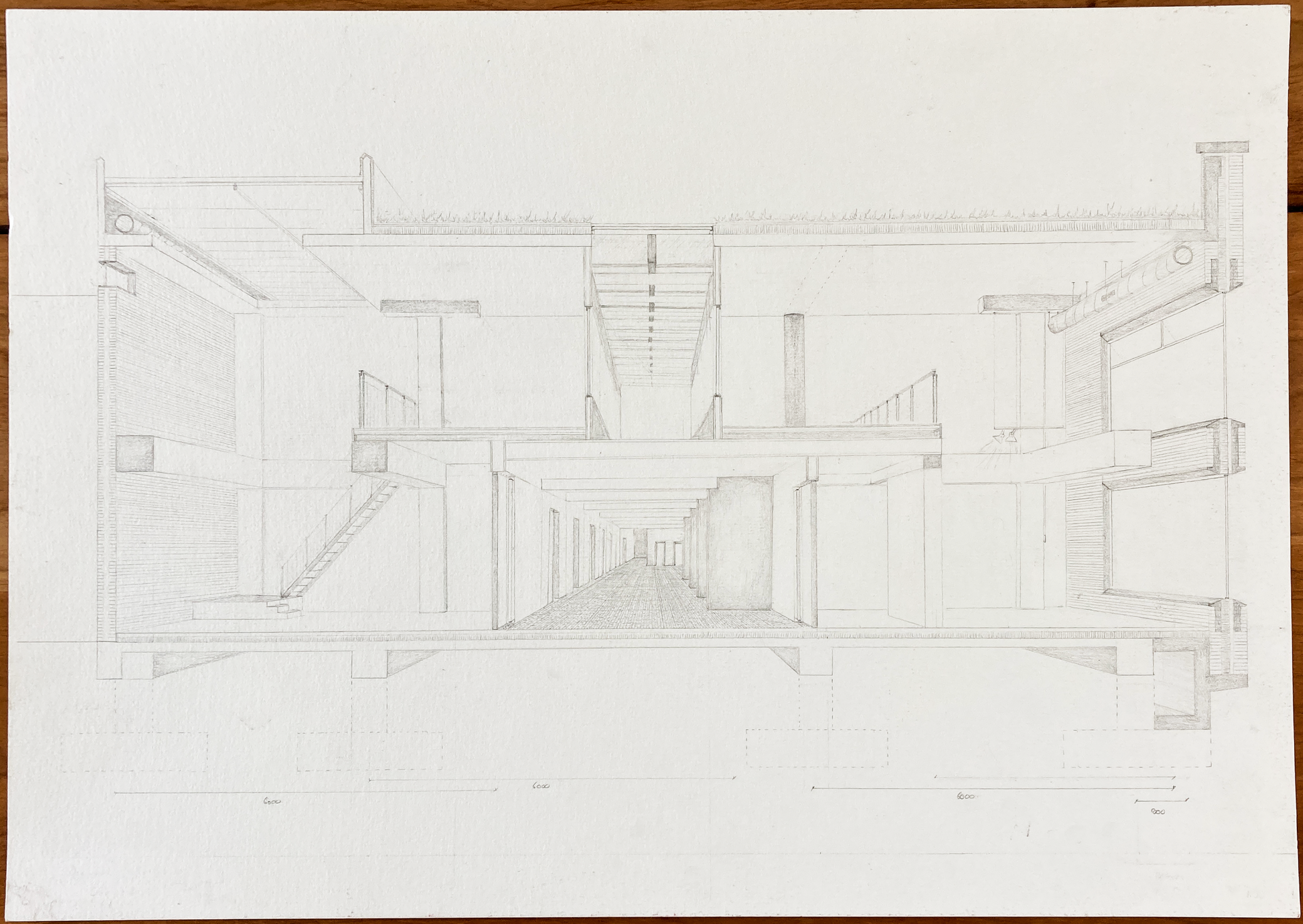
Brick
Size; 210 x 100 x 50 mm
Colour; Bright red
Type; Stock, Wasserstrich method
Bond type; Monk bond
Produced; *Terca*, Beerse

Joint
Size; 10 mm
Colour; 2010 Duin Nuances
Type; Concave





Private Ateliers | Design result











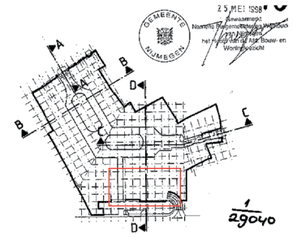


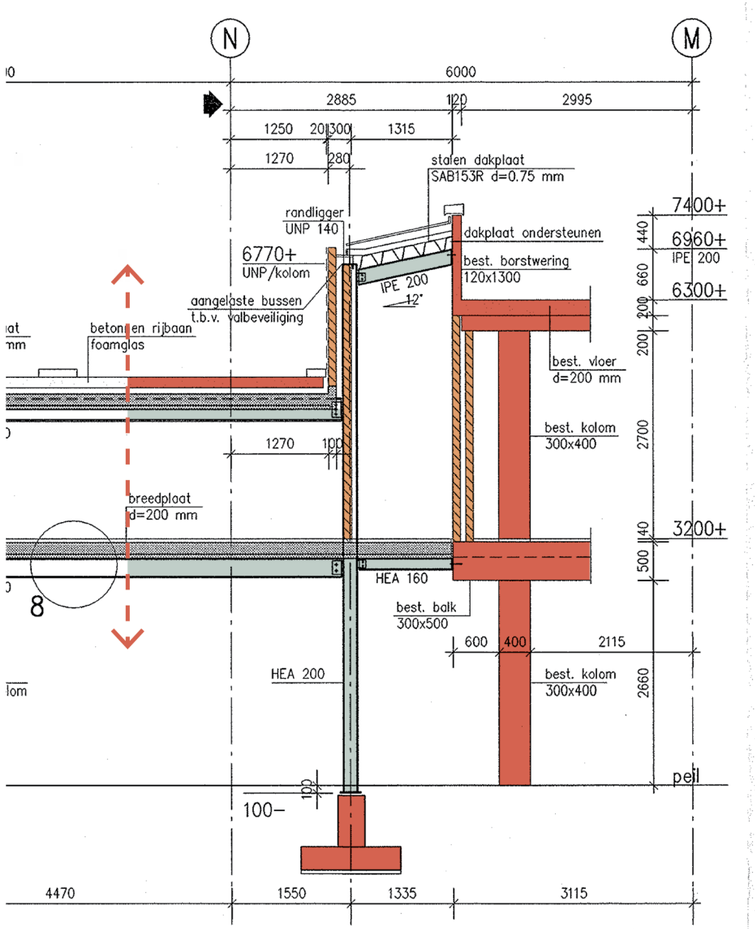


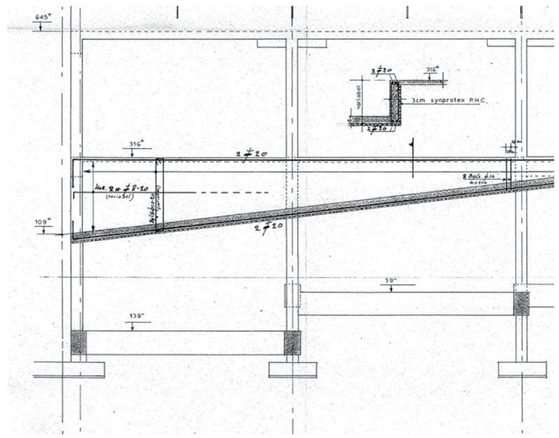


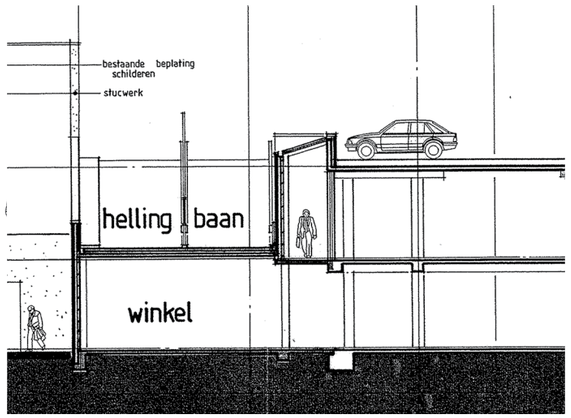


Community House Private Ateliers | Usage of characteristics of existing structure









Community House | Design result

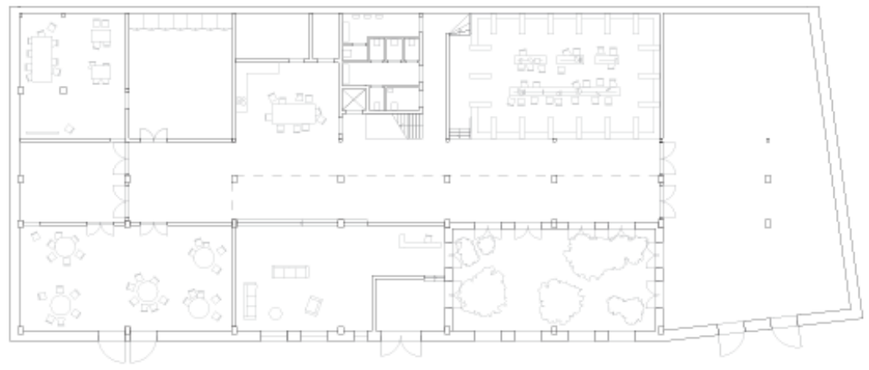


Community House

Brick
Size; 210 x 100 x 50 mm
Colour; Nuanced bronze red
Type; Stock, Sandfaced
Bond type; Flemish bond
Produced; Bemmel

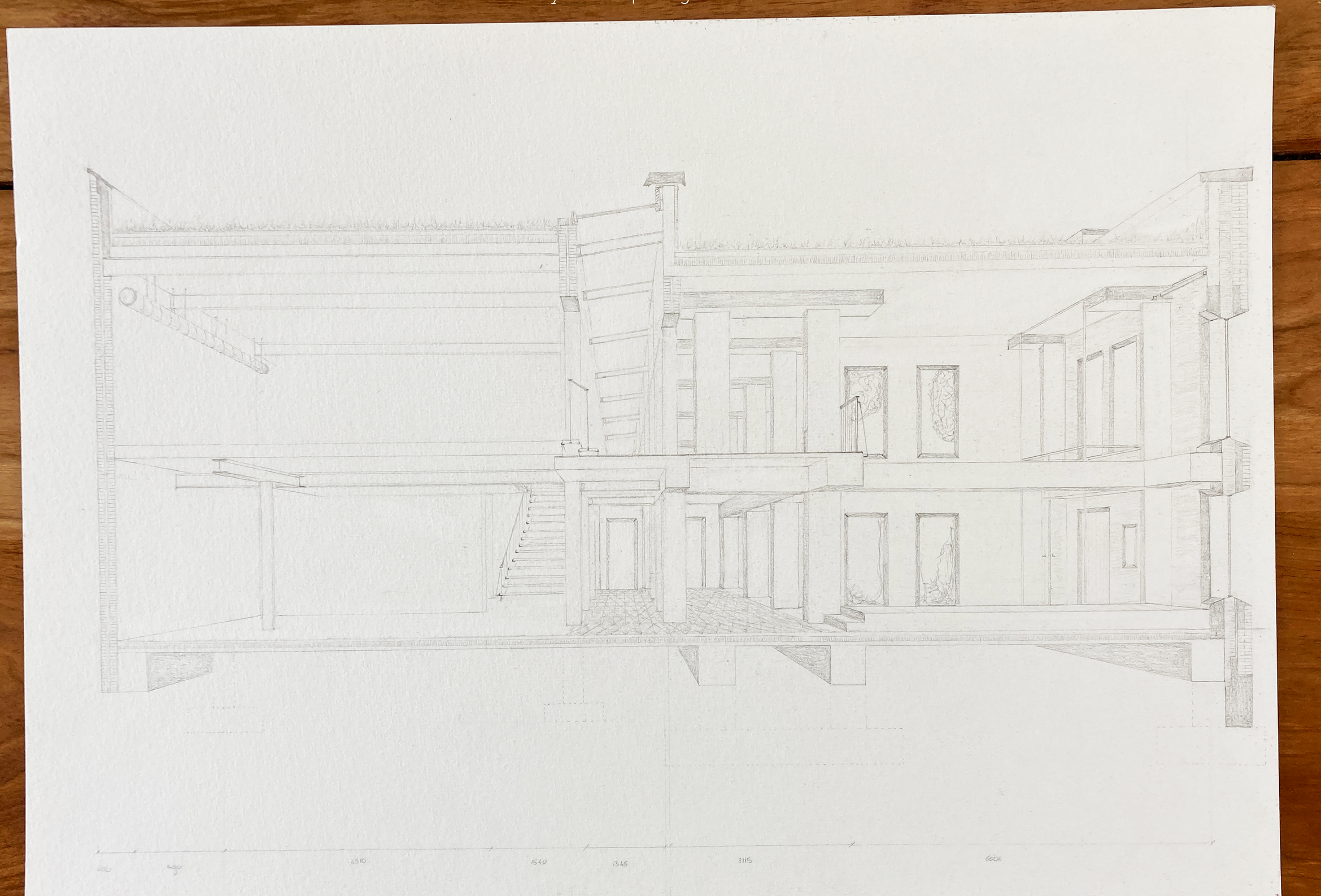
Joint
Size; 10 mm
Colour; 2010 Duin Nuances
Type; Concave





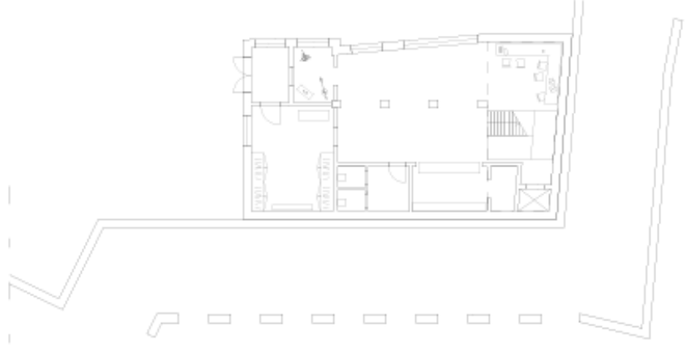


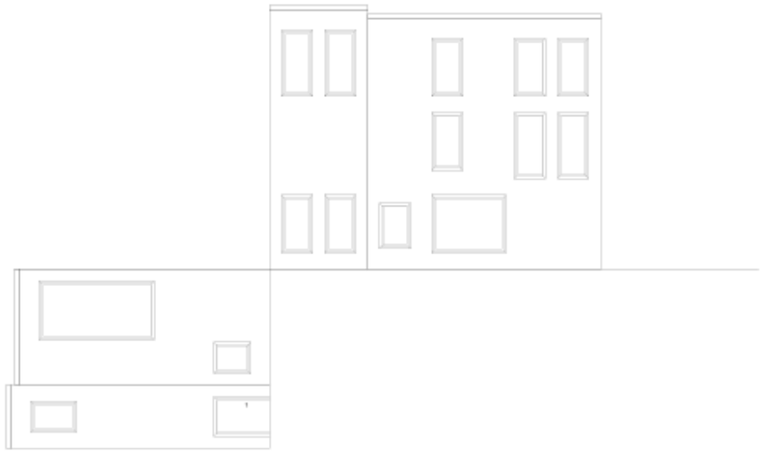
Community House | Design result







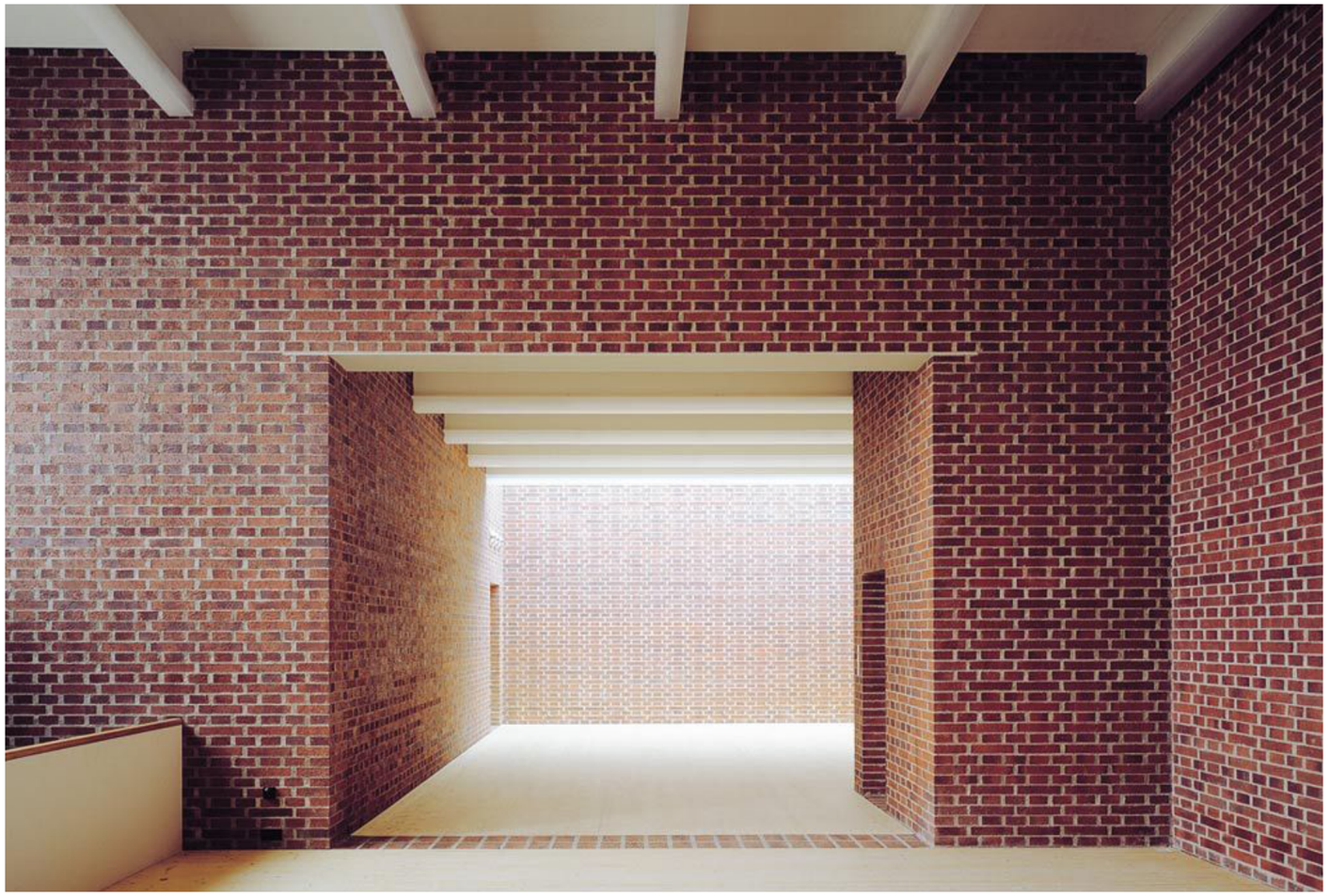




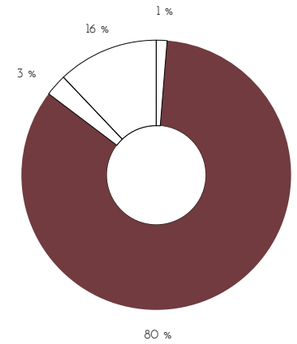




Dimensioning of material | What Time Is the self-supporting outer leaf



Künstlerhaus Marktoberdorf, Bearth & Deplazes Archiktekten, 2001 photo by Ralph Feiner



1 % Waste and/or landfill disposal
0 % Energy recovery of fossil materials
0 % Energy recovery of renewed resources
16 % Downcycling
3 % Recycling
80 % Reuse

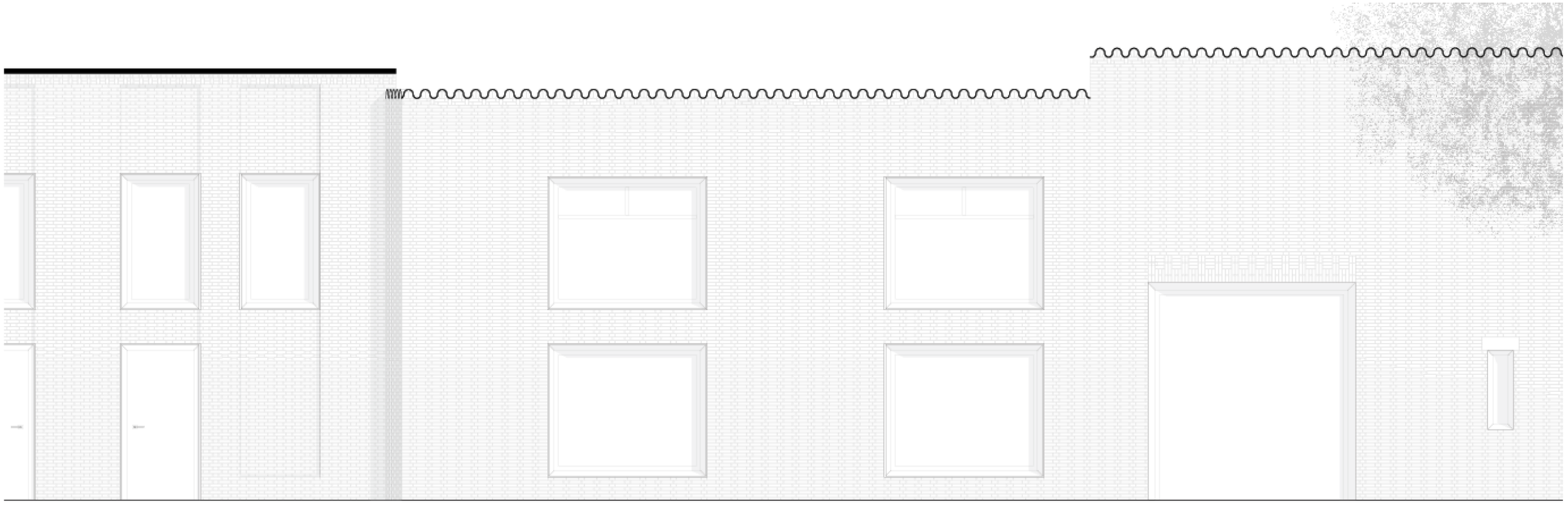
Advantages of a self-supporting outer leaf

1. Durability; Long service life
2. Excellent environmental performance;
Can be delivered almost energy neutral because it prevents linear cold bridges; reduction in the number of interruptions in the insulation package
3. Very low maintenance costs; Almost no replacement costs
4. Very simple design; Little chance of error during creation
5. Horizontal delitations are no longer necessary
6. Usage gives architect more design opportunities

Disadvantages of a self-supporting outer cavity wall;

1. Increase in construction costs 5%
2. Loss of GFA / GO of 2.2%

The self-supporting outer leaf is rediscovered and studied in ***2017*** by Office Winhov, DGMR, Heijmans, Koninklijke Nederlandse Bouwkeramiek in a dossier that is published for the public.
At the right; Material Loop Potential of masonry built from lime cement; A., Riegler-Floors, P., Rosen, A., Seggewies, J., Manual of Recycling; Buildings as sources of materials, Aug 8, 2019



Vlaams verband KSO-3

2,5K + 1,5nK - V (n = 3) = 7
0,5K + 1,5 nK + V (n = 8) = 12,5

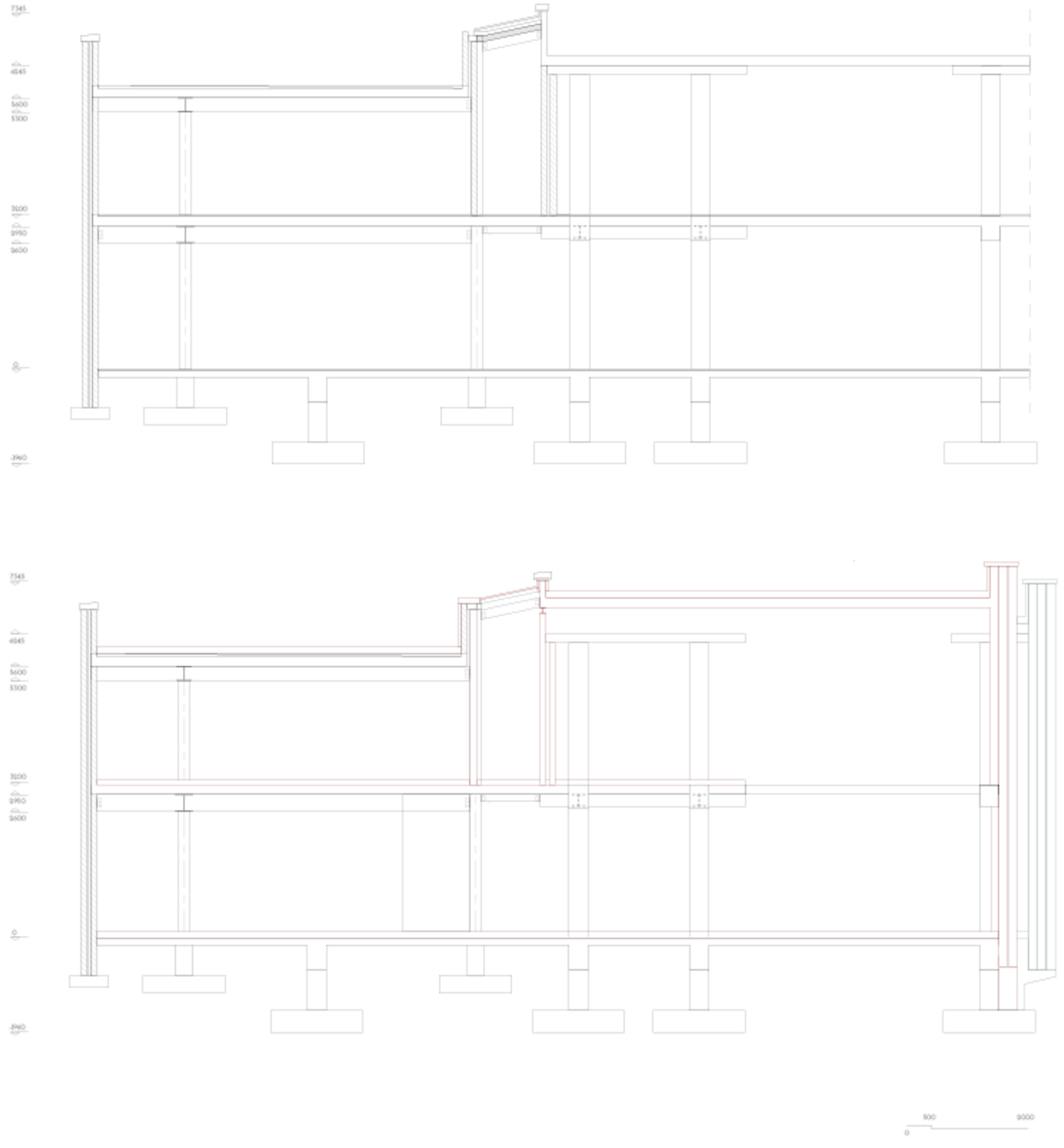
Calculation measure in which a correct "penant" can be made in this context, so that the relationship with its pattern line continues in the adjoining wall surface without disturbance.

Noors kettingverband met klezoorbeeindiging KSSO-5

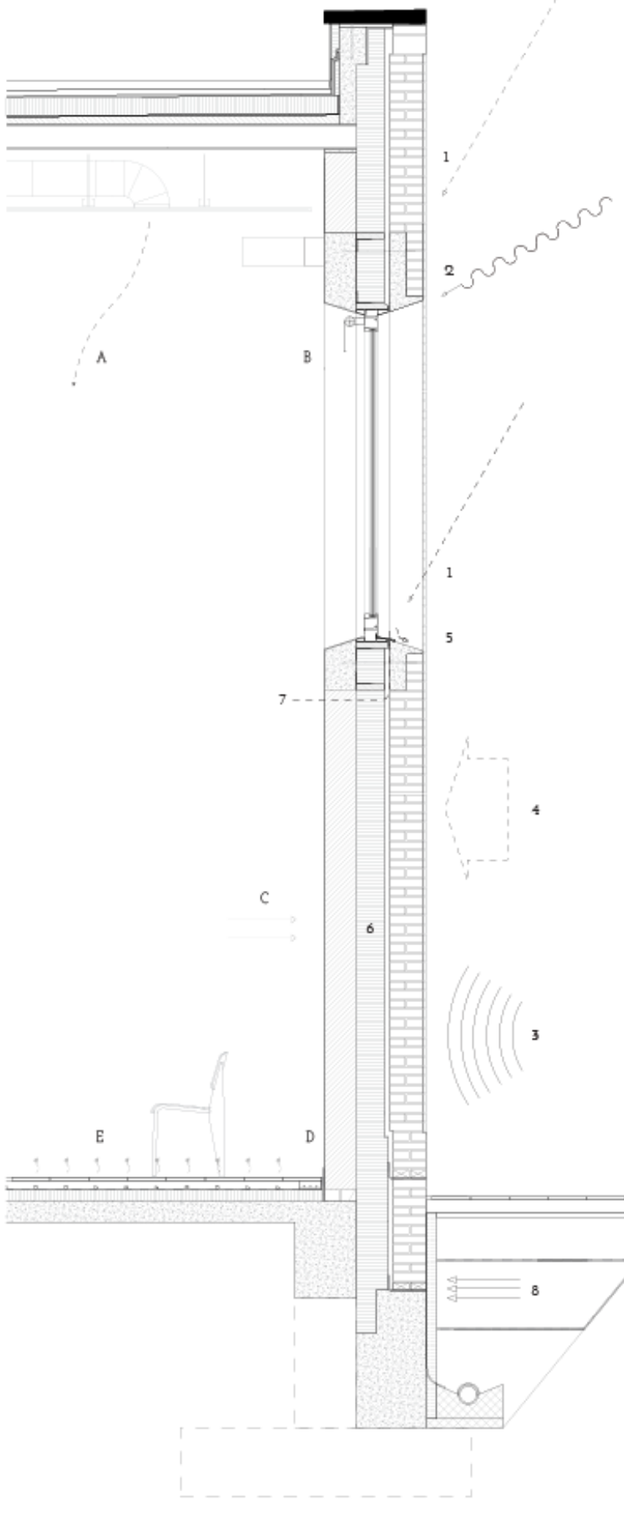
4K + 2,5nK - V (n = 6) = 29
1K + 2,5nK + V (n = 6) = 26

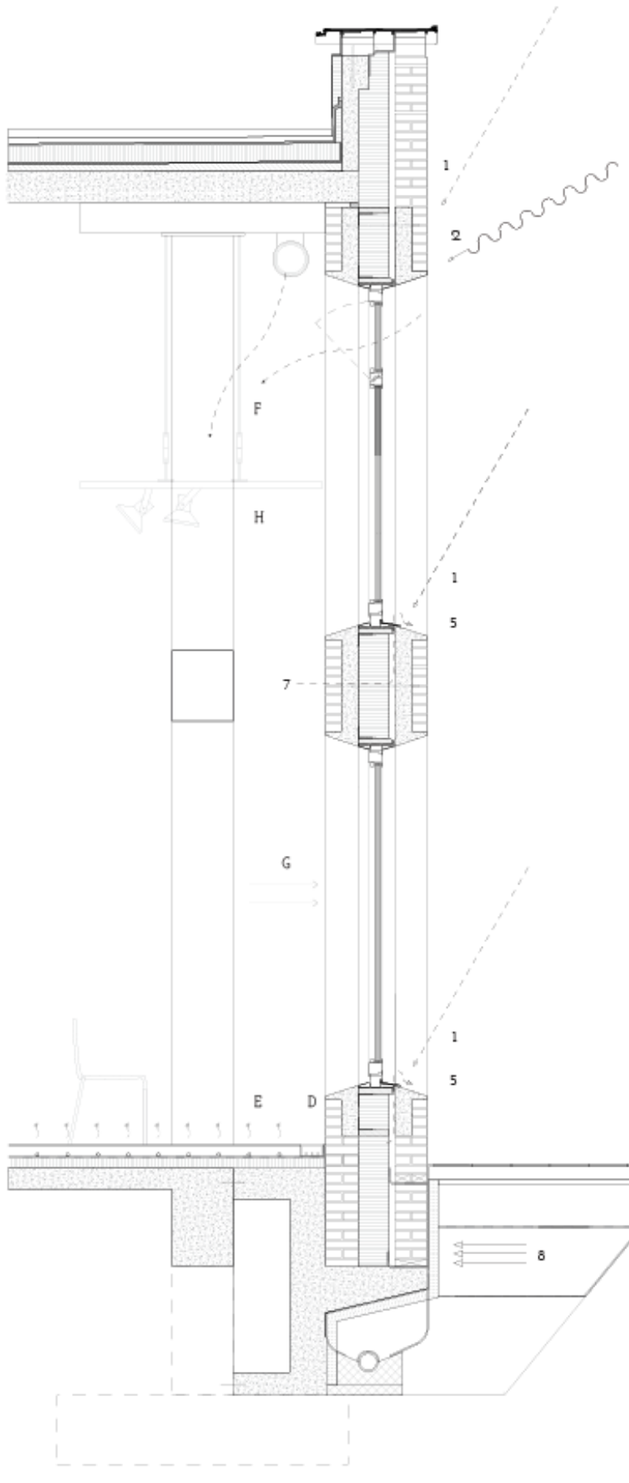
Calculation measure whereby in this context a correct symmetrical penant can be made in such a way that the secondary relationship pattern - in this case diagonal cross lines - can run from the adjoining wall plane through the penant without disturbance.

Typical section through existing structure



Performance of both facades





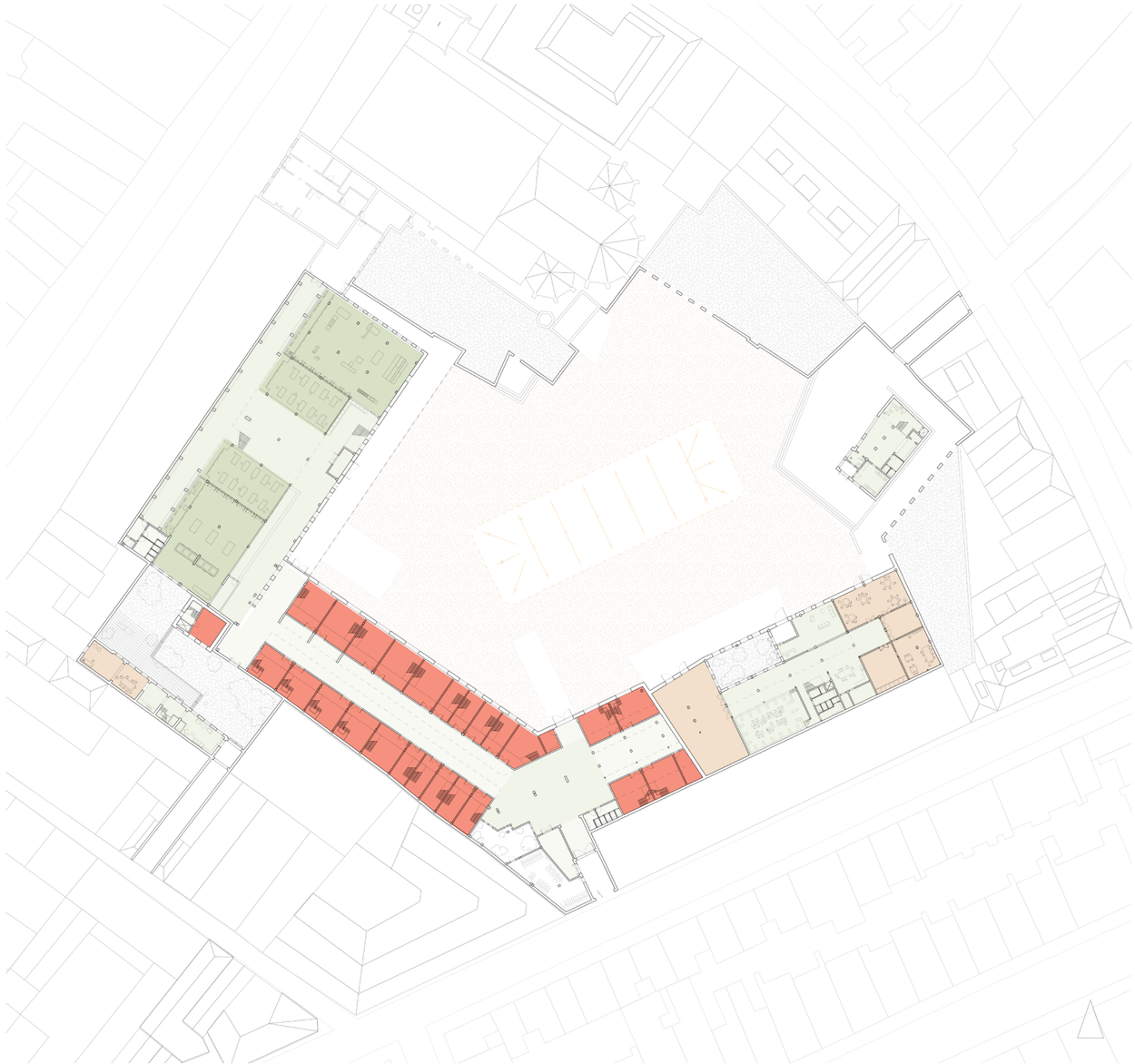
OUTSIDE

1 Double masonry leaf exposed to rain means risk of erosion and risk of damage caused by frost
2 There is almost no direct sunlight entering the multifunctional space and the ateliers which suits the function.
3 The mass of the walls will exclude noise within the building
4 The double self supporting masonry walls can handle wind loads easliy coming from two direction.
5 Rain in conjunction with upward air currents can force water into horizontal joints, therefore raindrips are really important regarding the designed lintels and window sills.
6 Thermal insulation of 200 mm will guarantee a comfortable inner climate and will diminish heat loss
7 Vapour difusion between inside and outside is regulated by a cavity wall avoiding saturation of the construction together with a vapour barrier
8 The risk of damage of the foundation caused by frost yields until 800 mm.

INSIDE

A The mechanical ventilation system guarantees comfortable air intake and outlet within the Multifunctional room
B The multifunctional room can be darkened
C Clay plaster will keep the relative moisture percentage on the same level and will absorb sound.
D Integrated electrictiy shafts in the ground which is openable guaranteed an easy usage of electrical equipment which is welcome in an atelier and multifunctional room.
E Floor heating guarantees a comfrotable inner temperature
F In the private ateliers mechanical or natural ventilation are both possible depending on season and its user.
G Masonry bricks as inner leaf causes industrial sound reverberations through the building. The walls have a rough surface to touch and to observe.
H. Extra light can be mounted on a pulley system which can move in a vertical direction.

How to accomplish comfort | Activities



- Craft and working spaces
- Individual space for sitting and working
- Meeting space where peak loads are possible
- Common spacs where people gather
- Transition space to walk from one side to the other

Carft and working spaces
- A space which is used by several people and a lot of hot machines. Around people crafting and working cooling and discharging air are important. Crafting and working happens including the awareness of the seasons. The noise of machines and people working is welcome on ground floor.

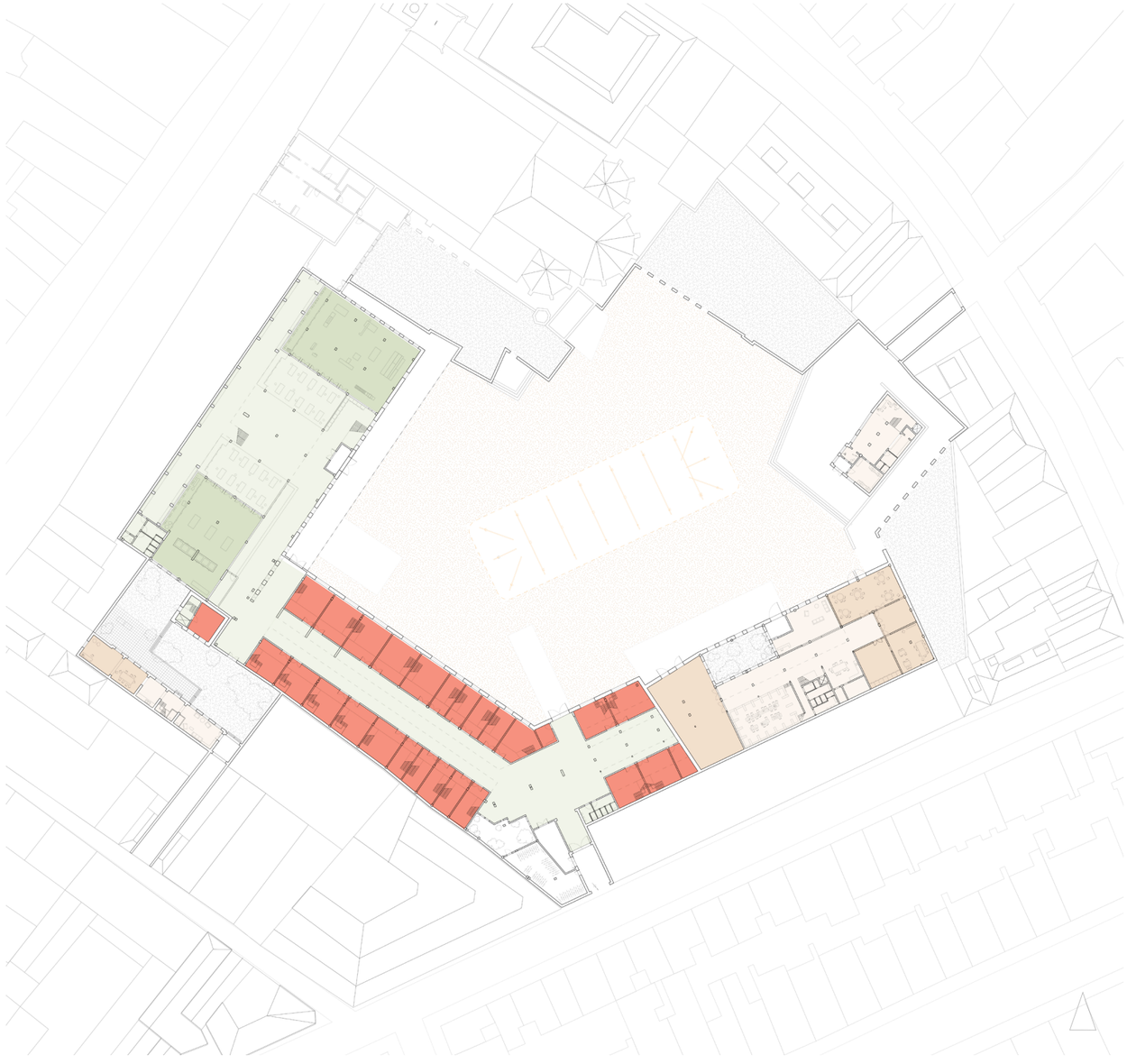
Individual space sitting / working
- A place which is used by one single person up until five persons. They can adjust their own comfort. Those can be private ateliers, discussion rooms, staff rooms.

Meeting space (peak loads possible)
- A place where sometimes a lot of people can gather together. It is a place that has to adjust itself very fast and need some extra equipment in order to gain comfort quicly. It can be a preseantion room, multifunctional room, a workshop space, a bar/café when there is a little performance going on.

Common space
- Commons spaces are places wihtin the buildings where people gather together without the risk of a real peak load. The latter applies because of the different proportion between surface area, program and expected people from those of the meeting spaces. Common spaces include central spaces in the buildings often related to a pure transition space where people walk from one side to the oter and the really programmed spaces.

Transition spaces
- Transition spaces to walk from one side to the other are actually very functional spaces for people and especially raw materials. The spaces can be opened up to the exterior, the central square, the Tweede Walstraat or to adjacent building parts.

How to accomplish comfort | Zoning



Base Climate Activity
Base Climate Activity +++
Base Climate Common
Base Climate Common +++
Base Climate Individual

Base Climate Acitivity
- PURPOSE a base temperature between 17 - 24 degrees. One is remembered to the season within the indoor climate. Therefore, there is an acceptance for small temperature fluctuations. It is important that windows and doors can be opened.
- MEDIUM - Underfloor heating in comination with natural ventilation supported by mechanical ventilation. Possible usage of heat of machines.

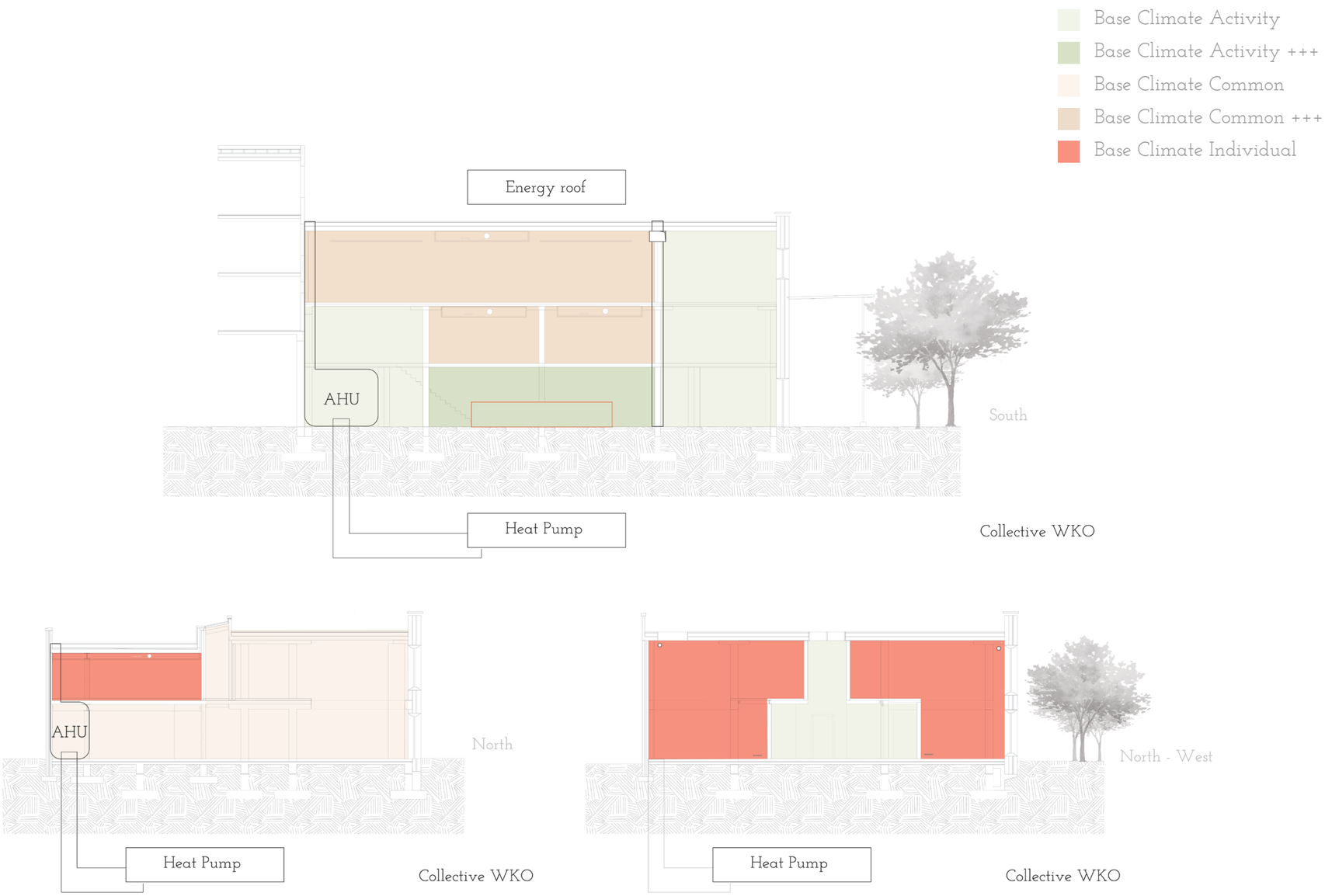
Base climate activity +++ (group of machines)
- PURPOSE In addition to Base Climate Activity, it is important that these areas can quickly adapt to the number of users and the resulating peak loads of machines. This means extra cooling and extra ventilation is necessary to install. The extraction of air regarding flying dust particles is very important
- MEDIUM - Extra ventilation and extraction of air and dust

Base climate common
- PURPOSE - A base temperature of 19 - 21 degrees is realized. It must be possible to open a window without disturbing the comfort of others. Proper ventilation is important.
- MEDIUM - Underfloor heating and natural ventilation supported with mechanical ventilation.

Base climate common +++ (group of people)
PURPOSE - In addition to Base Climate Common, it is important that these areas can quickly adapt to the number of users and the resulting peak load. This means extra cooling and extra ventilation has to be installed. .
MEDIUM - Additional ventilation and cooling facilities

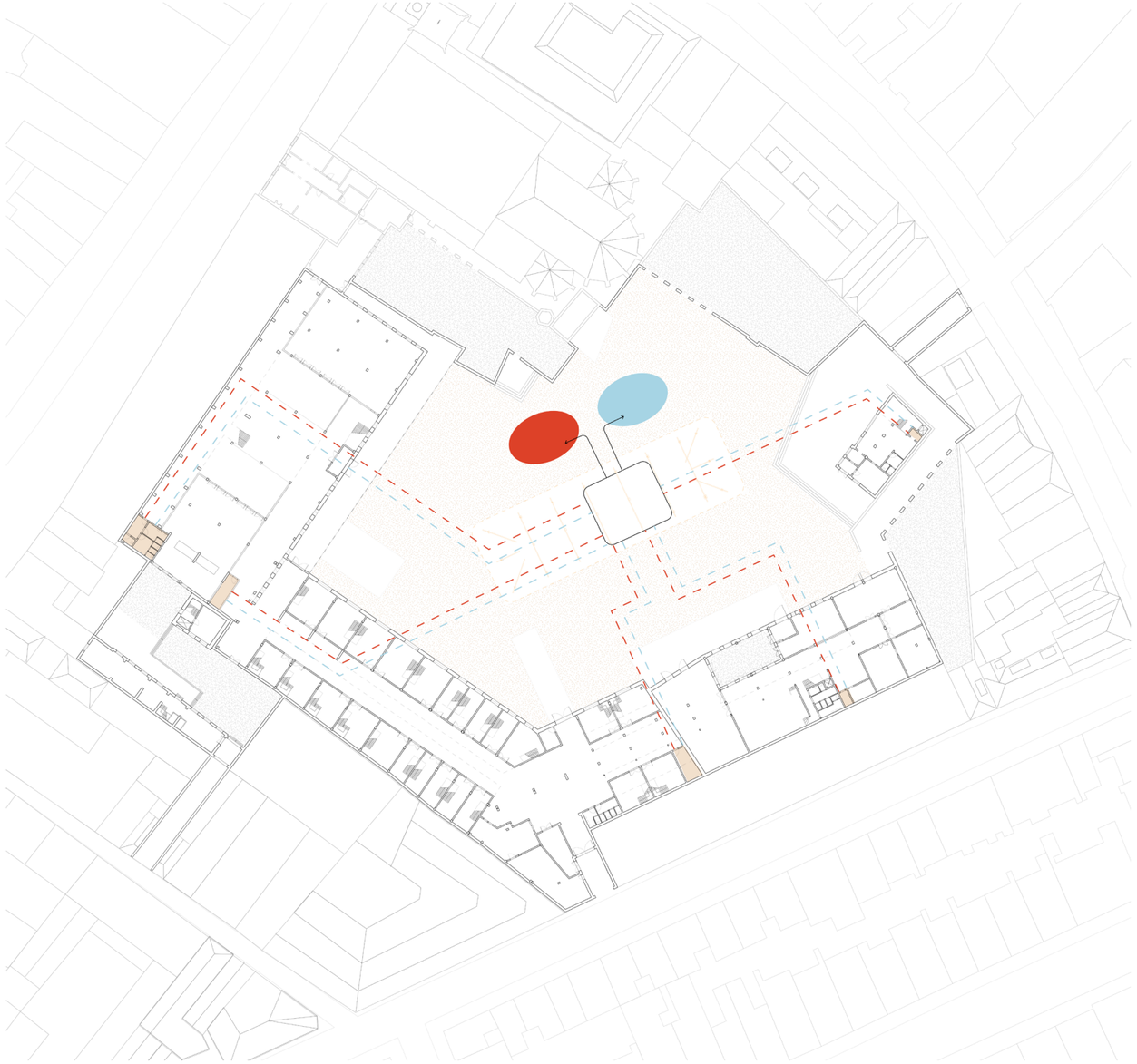
Base climate individual
PURPOSE - In addition to Base Climate Common, it is important that the user has control over his or her comfort. A window can be opened. Individual user can influence the base temperature + - 3 degrees.
MEDIUM - Additional heating and cooling facilities (by ventilation convector)

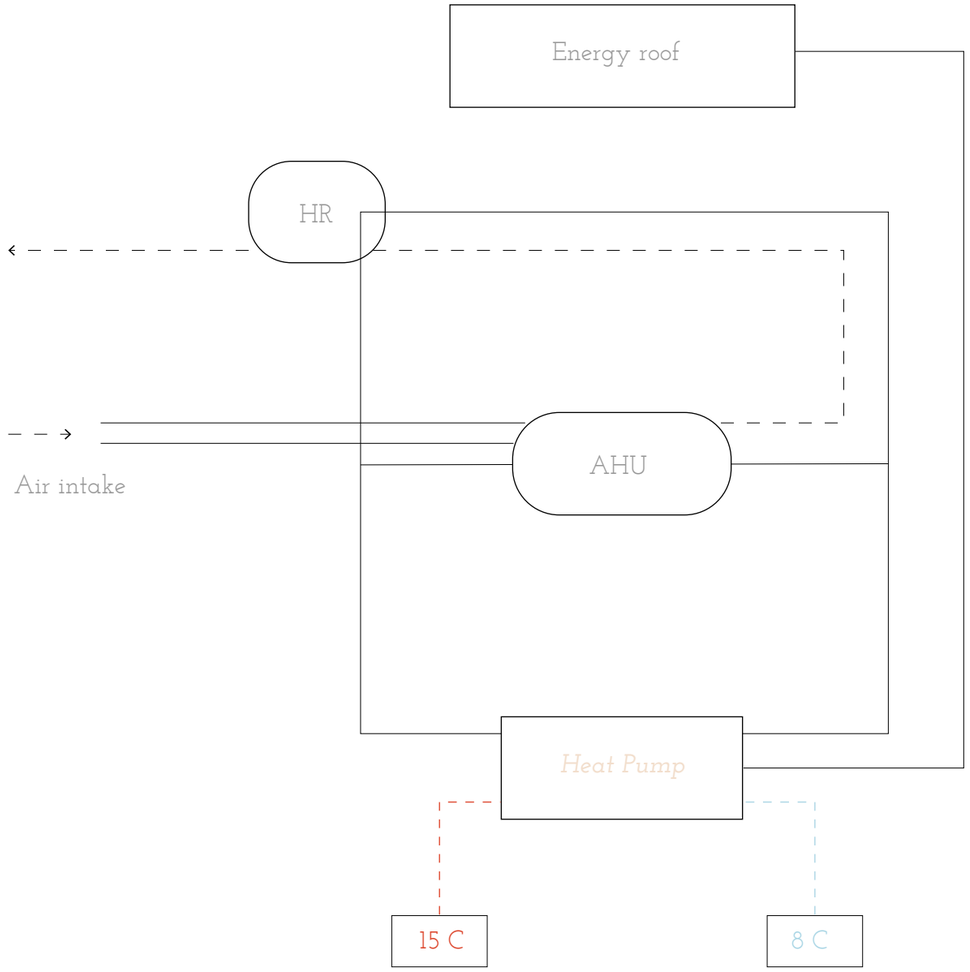
How to accomplish comfort | Zoning



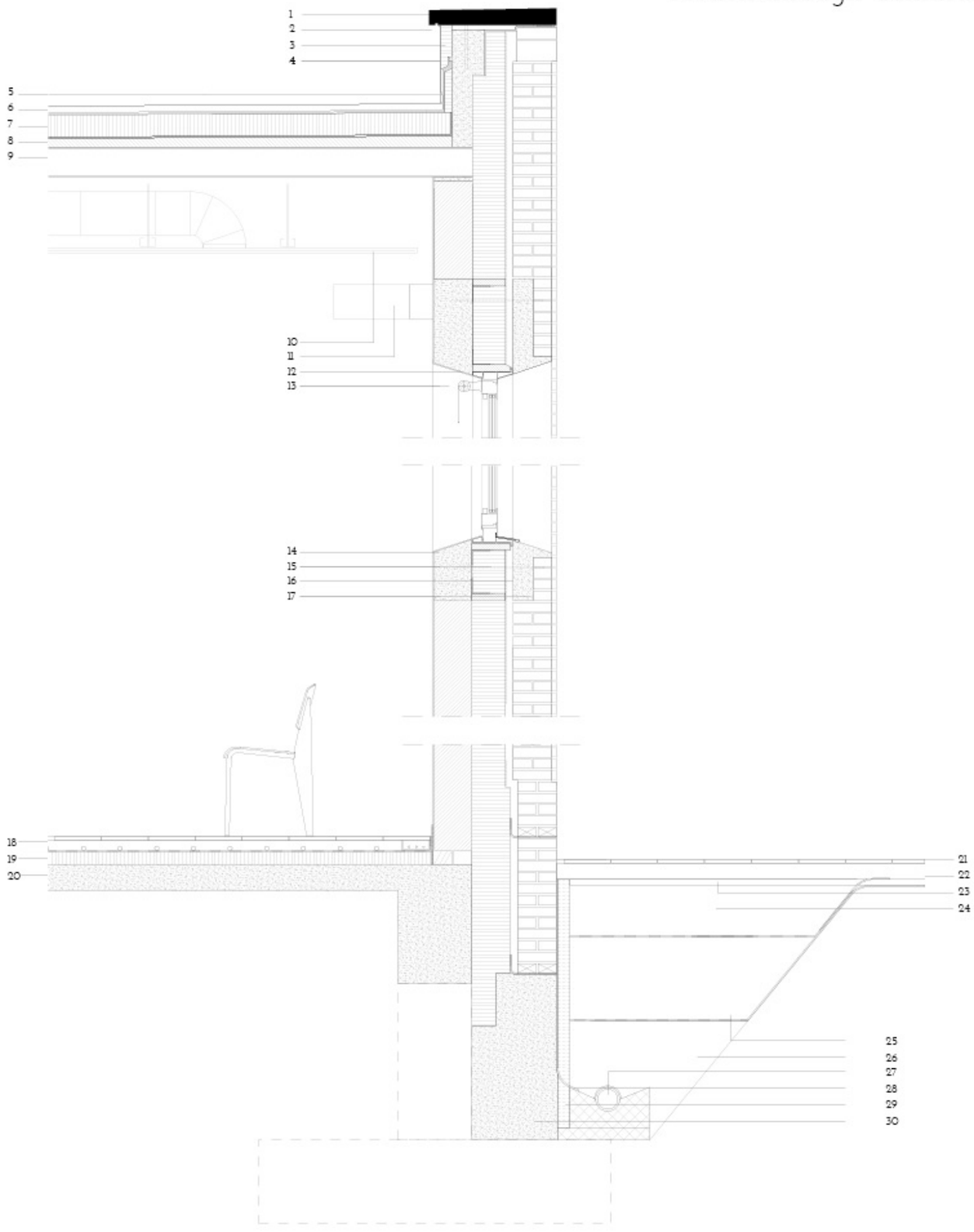
How to accomplish comfort | Collective WKO

Collective heat and cold storage





Section through Community House



LEGEND

1. Damp proof coarse
2. Prefabricated concrete element
3. Thermal insulation, 40 mm
4. Copper sheet

5. Sedum roof 60 mm
6. Drainage mat 35 mm, polymeric foils underneath
7. Thermal insulation 120 mm, vapour barrier underneath
8. A screed laid in an angle of 2 degrees 60 mm
9. Steel primary beam HEA 200 mm

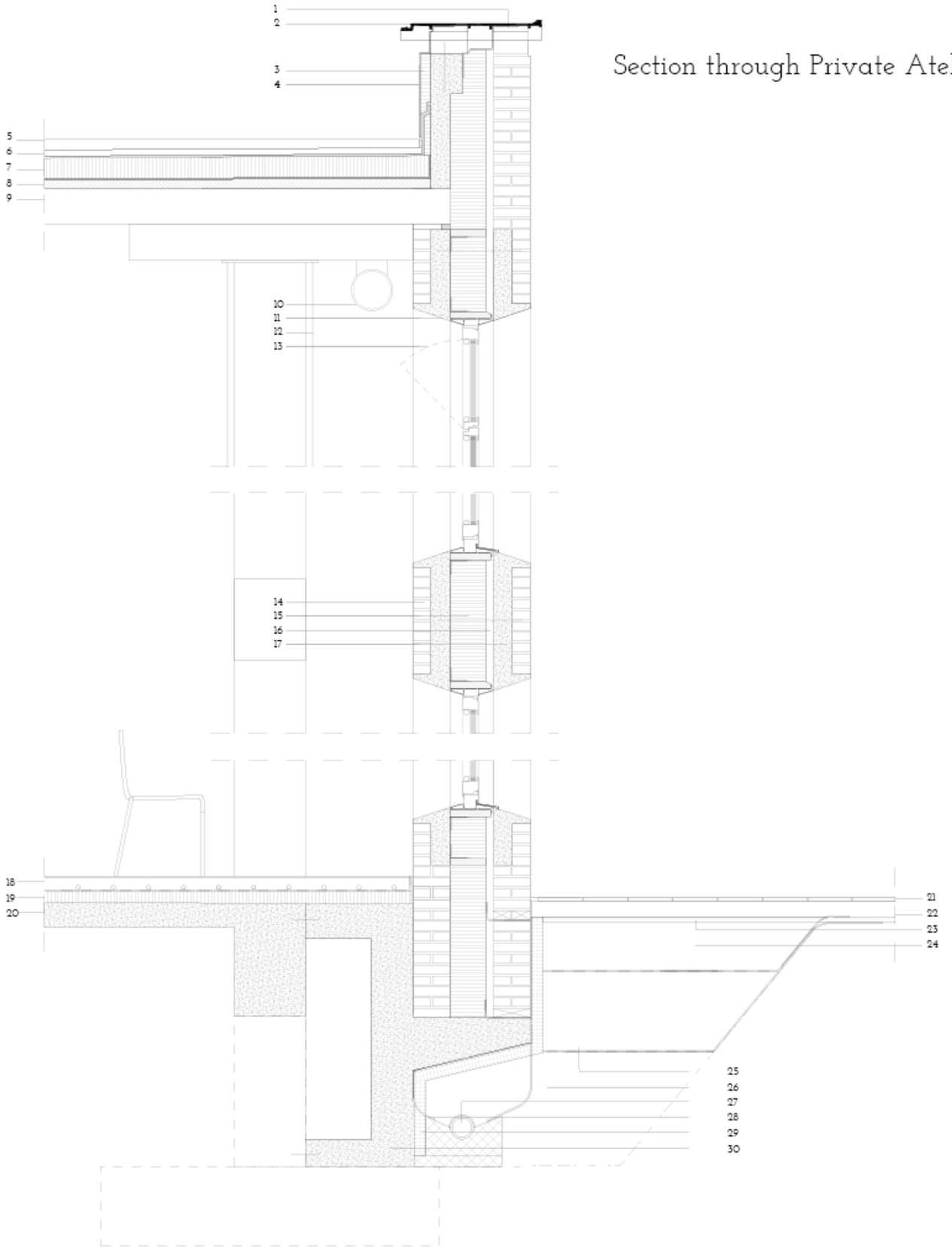
10. Suspended ceiling
11. Top of the mushroom column, *existing* "vanishing" into new built wall - cantilevered
12. Prefabricated lintel acting like a modern "kruiskozijn"
13. Internal shading curtain

14. Pigmented clay plastered 10 mm onto structural wall 200 mm
15. Insulation 200 mm including a vapour barrier
16. Air cavity with waterproof layer 40 mm
17. Clay masonry 100 x 210 x 50 mm, with setback variance of 25 mm

18. Tiles 250 x 250 x 20 mm, underneath screed with underfloor heating 55 mm
19. Separation layer with thermal insulation 65 mm
20. Concrete floor 140 mm, *existing*

21. Paving ; stone tiles 250 x 250 x 20 mm
22. Layer of fine sand 90 mm
23. Layer of fine gravel 30 mm
24. Layer of coarse gravel hold together by a textile mat
25. Backfilled sand hold by textile mat 440 mm

26. Coarse gravel 600 mm
27. Drainage pipe diameter 100 mm
28. Waterproof layer around foundation beam
29. Boards which allow water coming through 60 mm
30. Foundation beam spanning between "poeren" taking into account the damaging frost layer



Section through Private Ateliers

LEGEND

1. Damp proof coarse
2. Roof tile element
3. Thermal insulation, 40 mm
4. Copper sheet

5. Sedum roof 60 mm
6. Drainage mat 35 mm, polymeric foils underneath
7. Thermal insulation 120 mm, vapour barrier underneath
8. A screed laid in an angle of 2 degrees 60 mm
9. Concrete slab 200 mm, existing

10. Mechanical ventilation shaft diameter 230 mm
11. Prefabricated lintel acting like a modern "kruiskozijn"
12. Pully system to mount on flexible lighting systems
13. Openable window

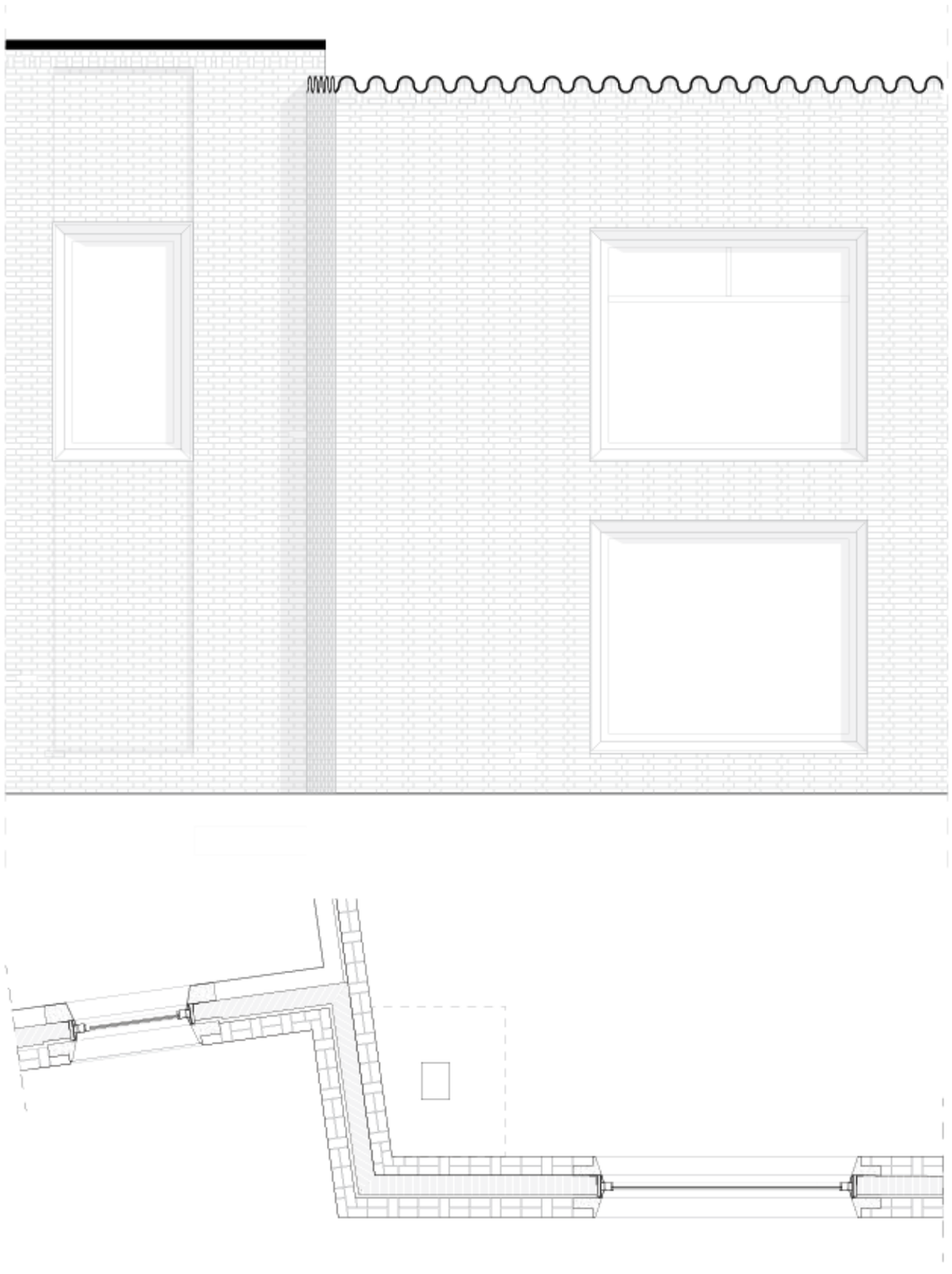
14. Clay masonry 100 x 210 x 50 mm
15. Insulation 200 mm including a vapour barrier
16. Air cavity with waterproof layer 40 mm
17. Clay masonry 100 x 210 x 50 mm

18. Screed and toplayer with underfloor heating 75 mm
19. Separation layer with thermal insulation 65 mm
20. Concrete floor 140 mm, *existing*

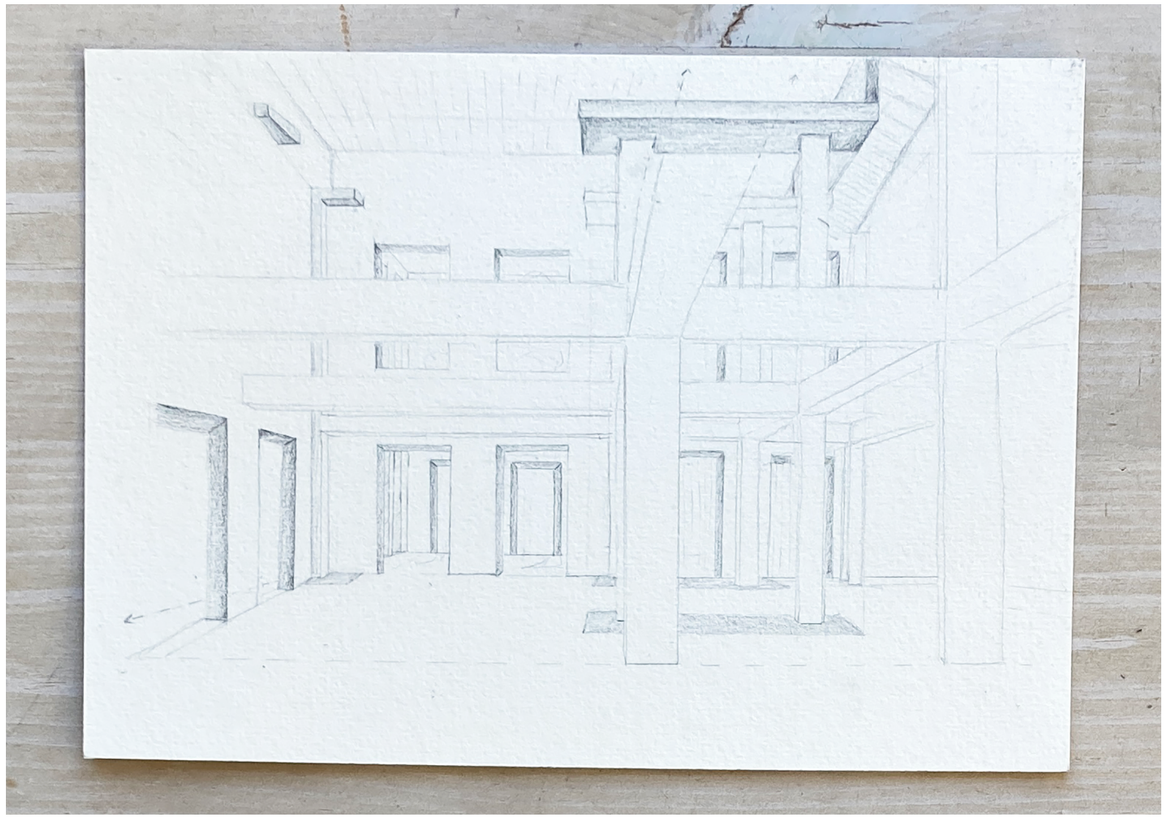
21. Paving ; stone tiles 250 x 250 x 20 mm
22. Layer of fine sand 90 mm
23. Layer of fine gravel 30 mm
24. Layer of coarse gravel hold together by a textile mat
25. Backfilled sand hold by textile mat 440 mm

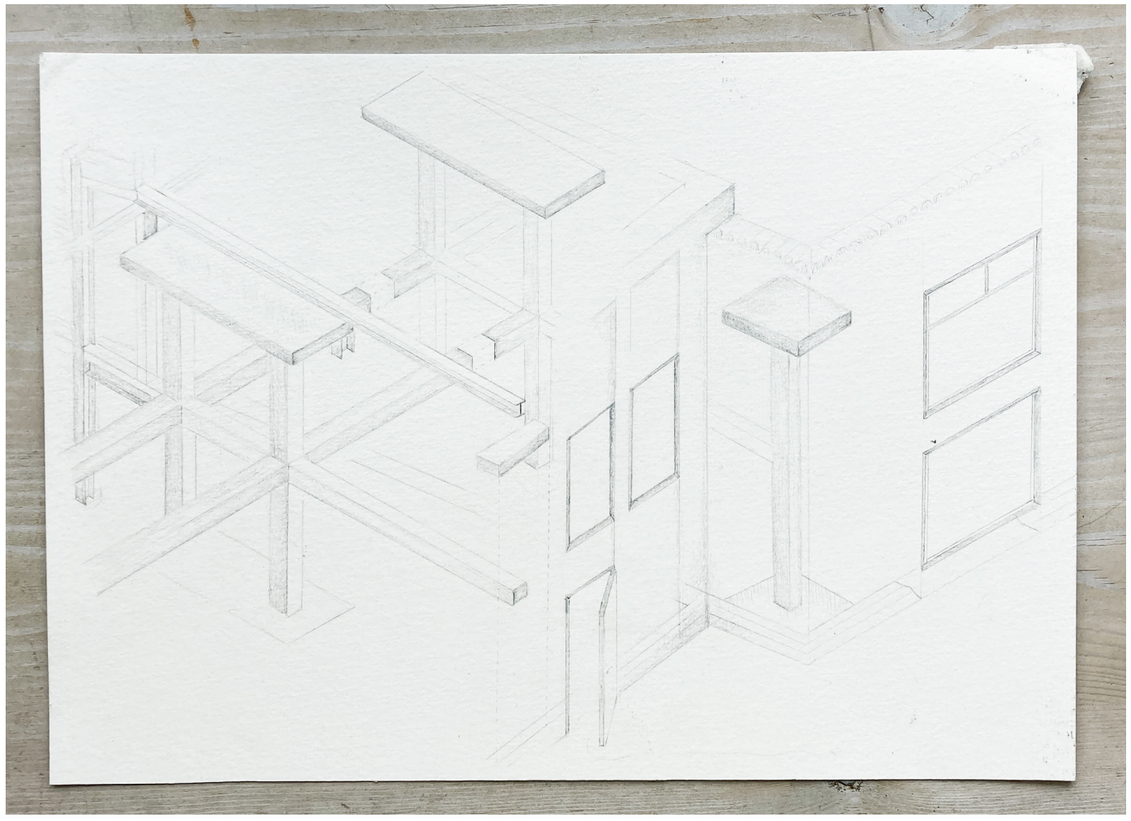
26. Coarse gravel 600 mm
27. Drainage pipe diameter 100 mm
28. Waterproof layer around foundation beam
29. Boards which allow water coming through 60 mm
30. Foundation beam spanning between "poeren" taking into account the damaging frost layer

How walls meet up



How built entities meet up

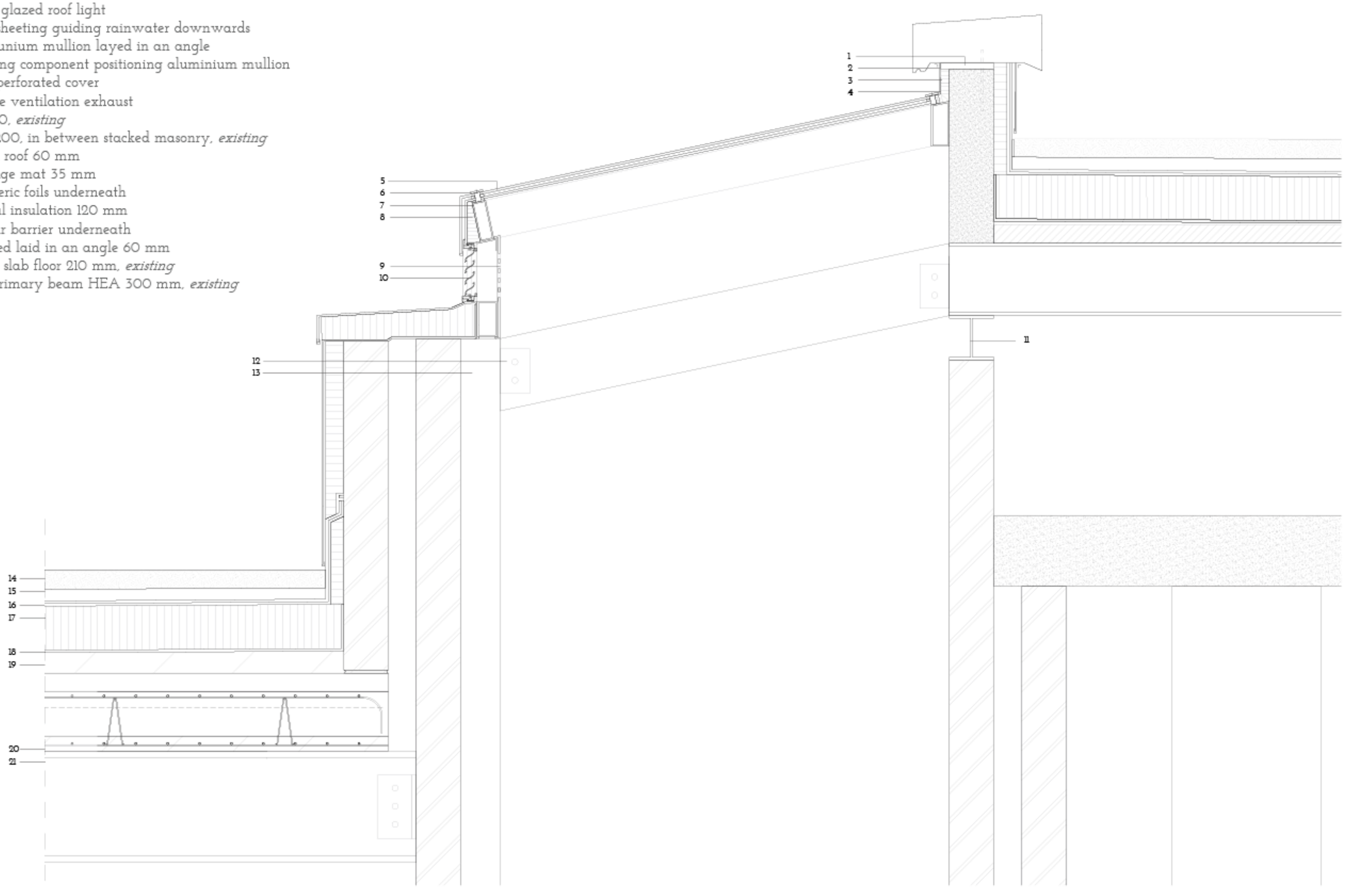




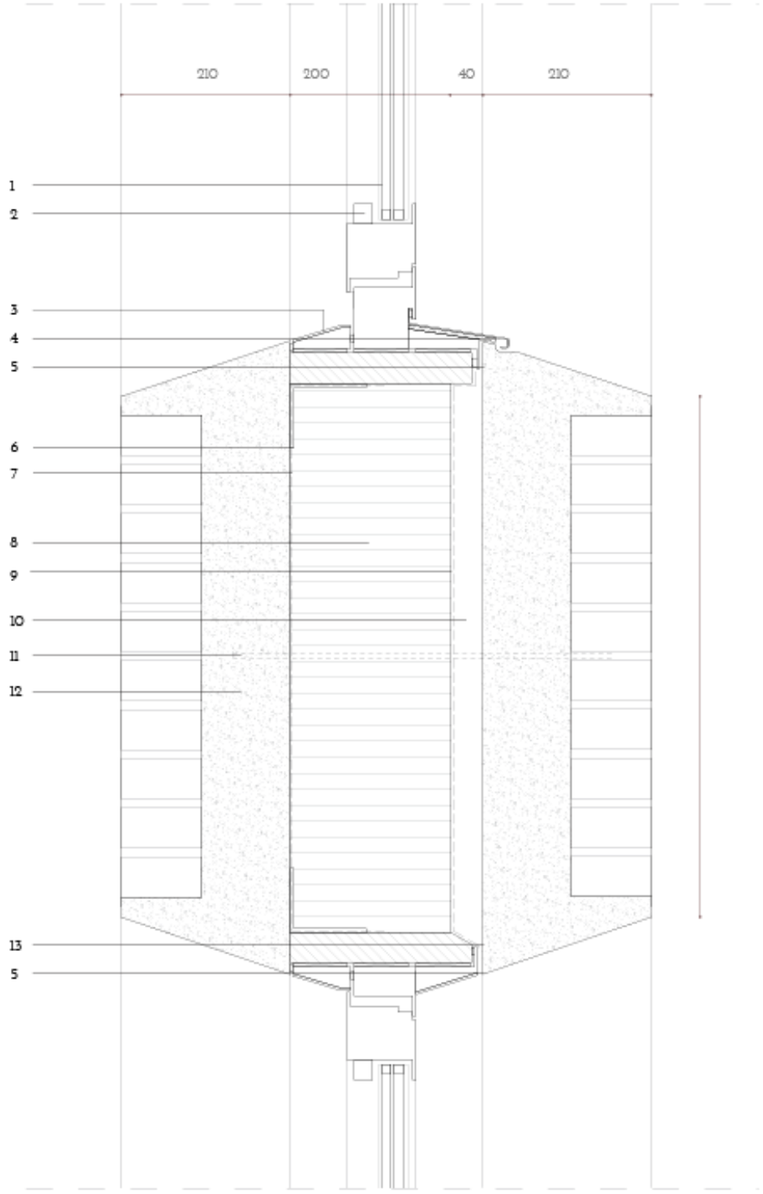
LEGEND

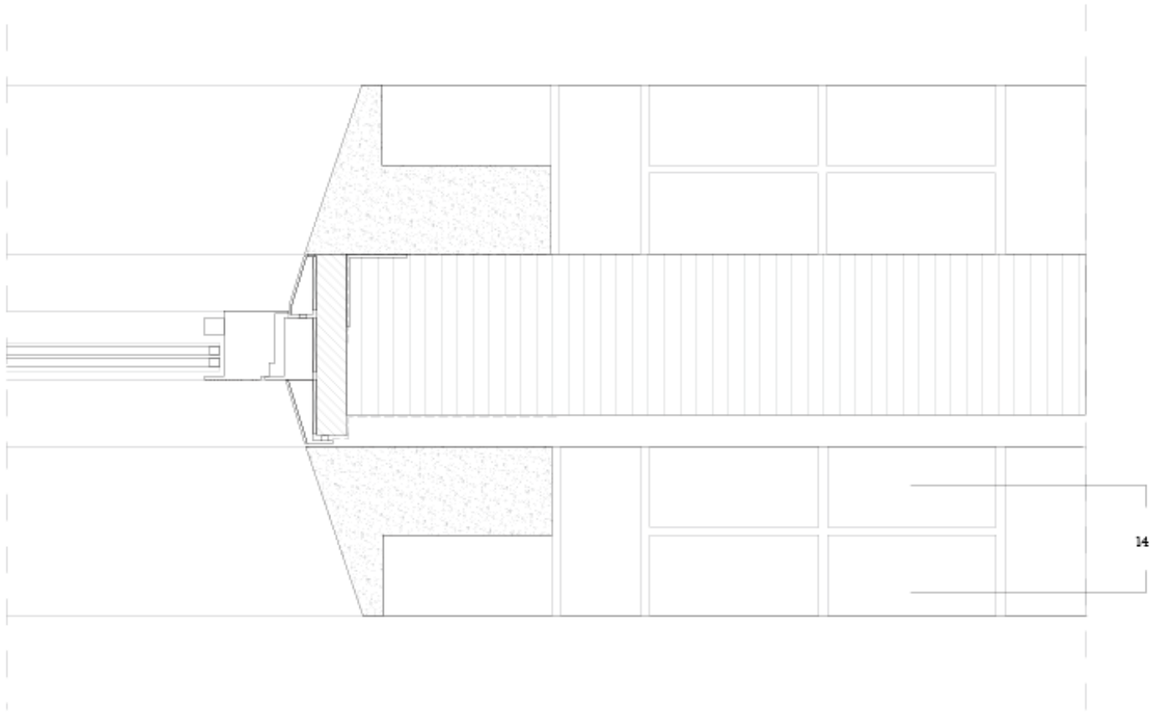
1. Reused concrete element laid on concrete bed
2. Thermal insulation 25 mm
3. Metal sheeting
4. Alluminium mullion, primary mullion mountend on concrete
5. Double glazed roof light
6. Metal sheeting guiding rainwater downwards
7. Allumiunium mullion layed in an angle
8. Insulating component positioning aluminium mullion
9. Metal perforated cover
10. Topline ventilation exhaust
12. IPE 200, *existing*
13. HEA 200, in between stacked masonry, *existing*
14. Sedum roof 60 mm
15. Drainage mat 35 mm
16. polymeric foils underneath
17.Thermal insulation 120 mm
18. Vapour barrier underneath
19. A screed laid in an angle 60 mm
20. Wide slab floor 210 mm, *existing*
21. Steel primary beam HEA 300 mm, *existing*

Detail of new introduced roof light



Detail of window design

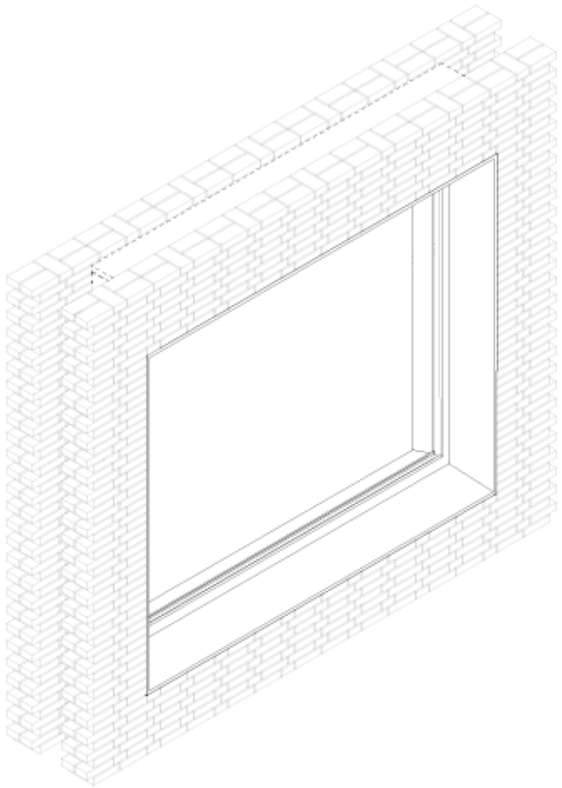




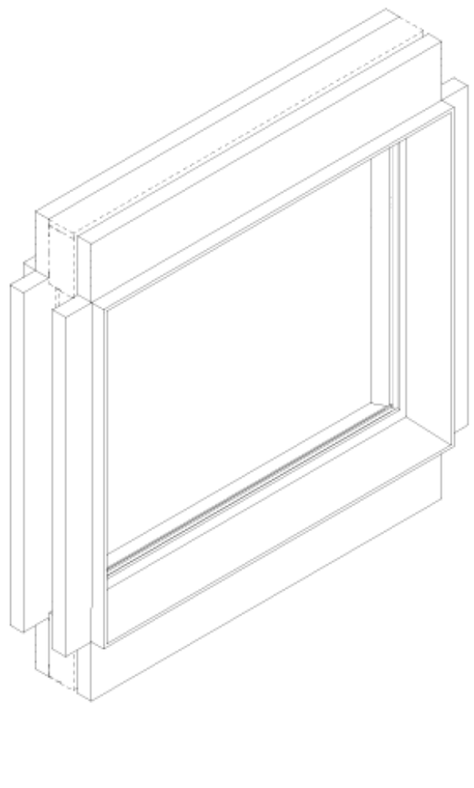
1. Insulating glazing; two panes bonded together via a hermetic edge seal
2. Sash frame with glazing bead (from inside)
3. Demountable element finished with plaster
4. Weather bar to prevent window from damage
5. Distance between sill and frame member with the ensurance of airtightness
6. L-shaped steel angle element
7. Vapour retarder
8. Insulating material 200 mm
9. Waterproof layer
10. Air cavity 40 mm
11. Prefabricated element encnchored with circa four anchors of 6 mm diameter per meter.
12. Prefbricated lintel element
13 Strip element directioning water outwords
14. Set up of the double self supporting masonry wall prevents linear cold bridges. It reduces the number of interruptions in the insulation package drastically. There are no horizontal delitations necessary. There are almost no replacement costs and thereby no maintenance costs ...

Applied Detail of Brick-BENG model described by Office Winhov 2016- 2017 retrieved from;
BENG met Zelfdragende Buitenspouwbladen in steenmetselwerk,
Veniging Koninklijke Nederlandse Bouwkeramiek, Amersfoort, 2017

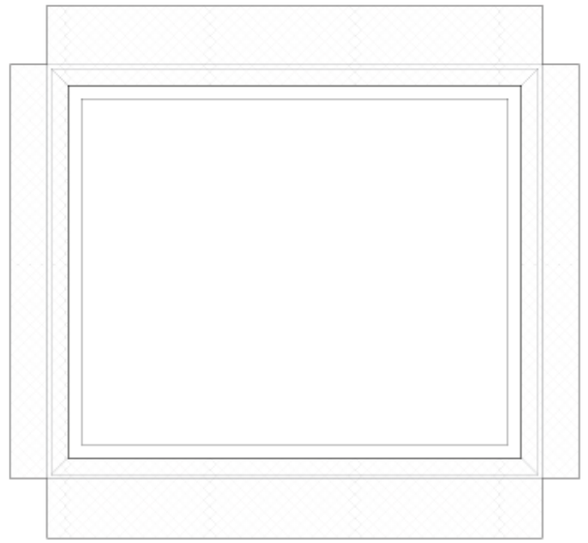
Prefabricated lintel element



The appearance of the lintel element is present in the shadow of the window seen from an oblique angle. However, normally a lintel is very present from its frontal elevation.
The consequence of making such a tapered smooth lintel element is that looking through an opening of the masonry wall means a change of material. The visual continuity inside - outside is guided by the change of rough masonry to smooth concrete. At the same time the visual contiunuity inside - outside is stressed by the change of material - a threshold.

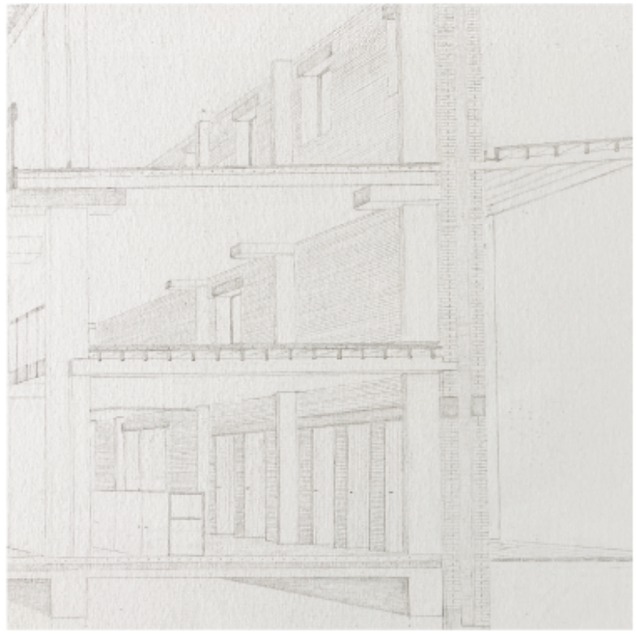


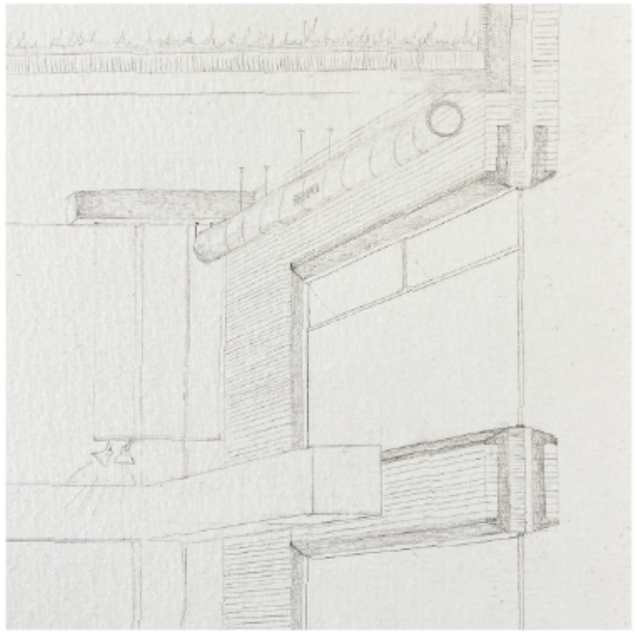
A double frame system can be seen on this image. One can clearly see now that the depth op the self-supporting masonry wall is articulated even more by the tapering form of the lintel element.



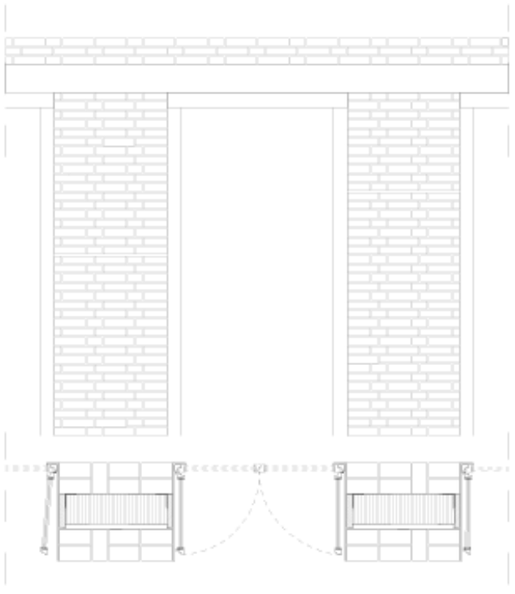
One can see that the frontal elevation does include 1/3 of the whole element. 2/3 of the prefabricated lintel element is hidden behind the masonry. One can also see that the lintel element forms a kind of a rigid squared frame what someone reminds of the characteristic principle of a "kruiskozijn"

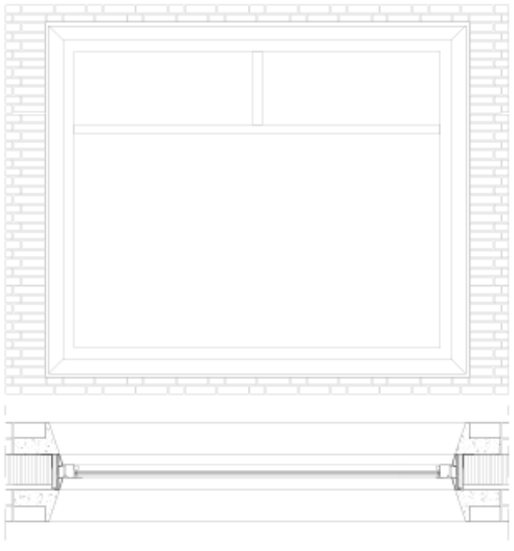
Irenee Scalbert (28-10-20) - "How do you make a selection of elements - how to fill a warderobe? What does it have to do with bricolage? ***How do we know that things belong to each other?***"

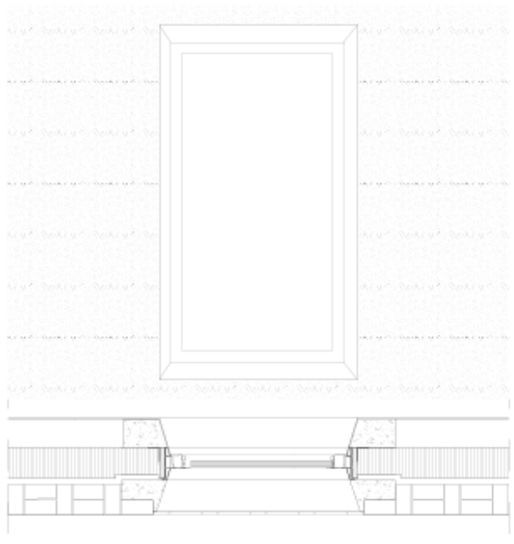




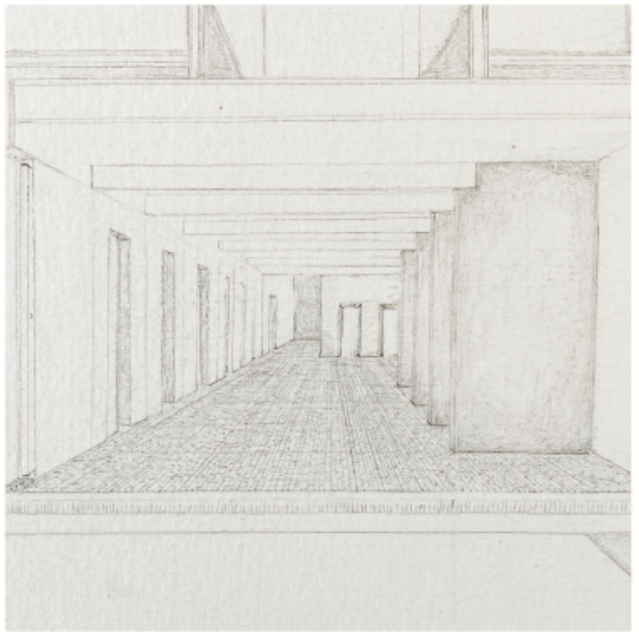






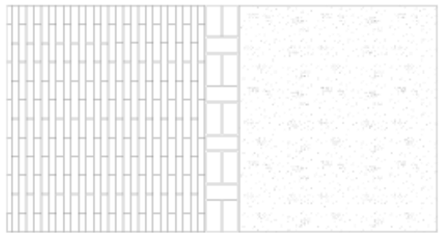


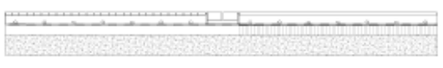


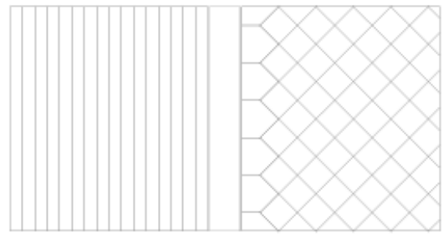




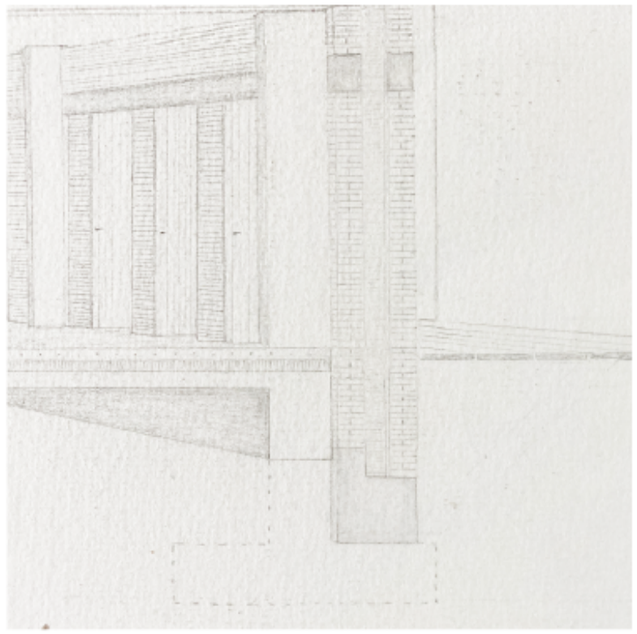


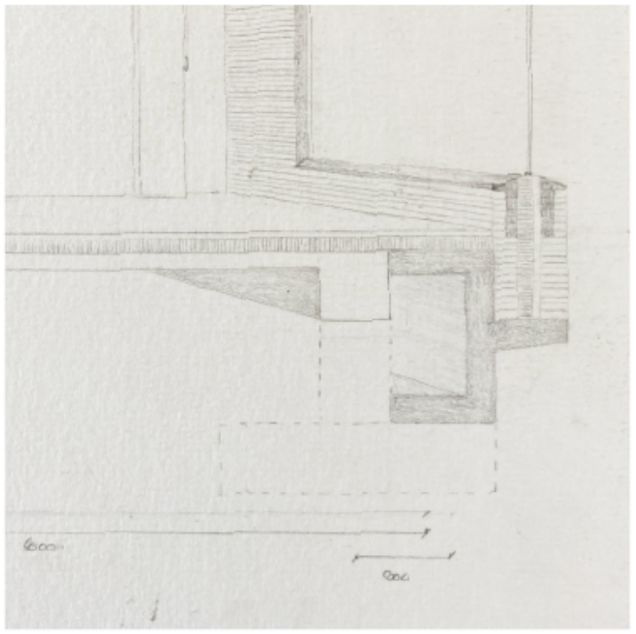




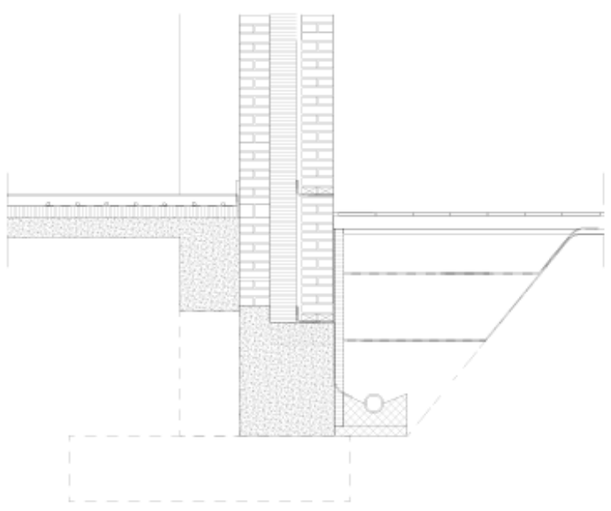


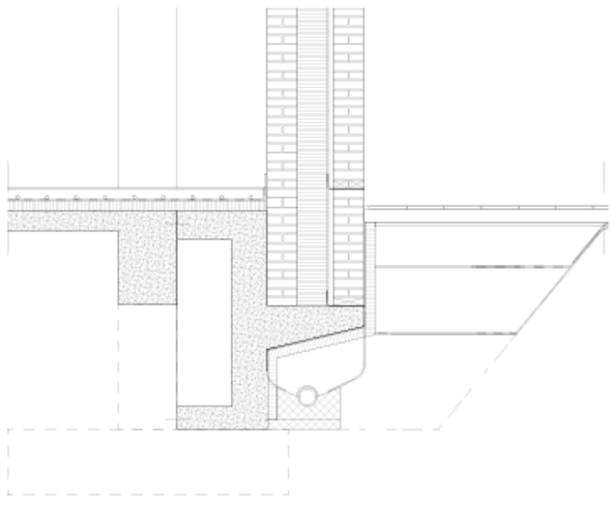


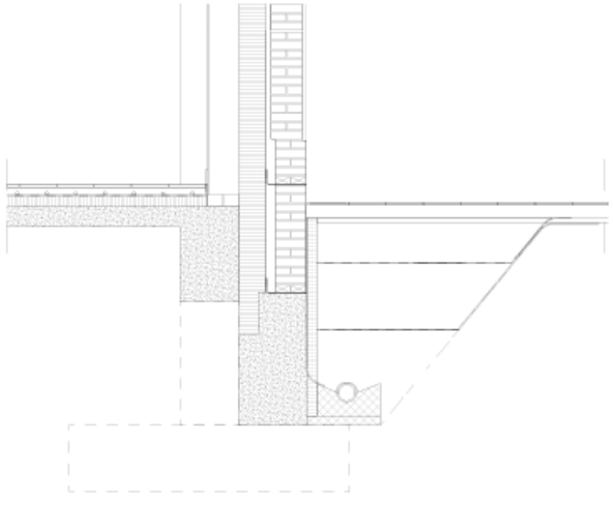




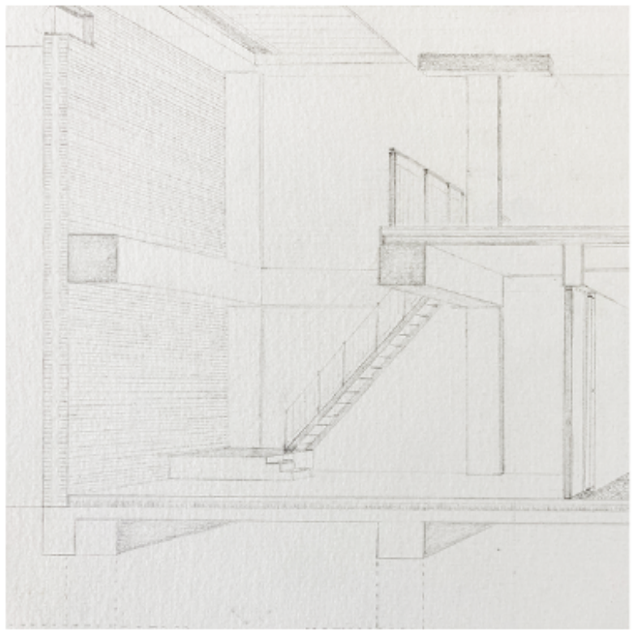




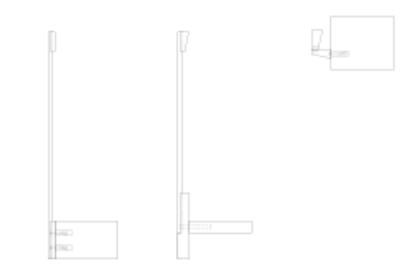




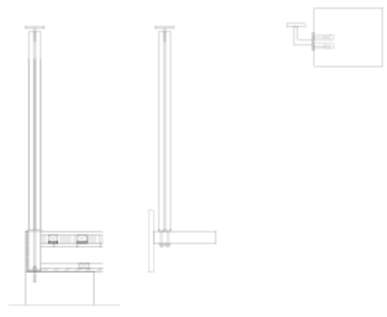




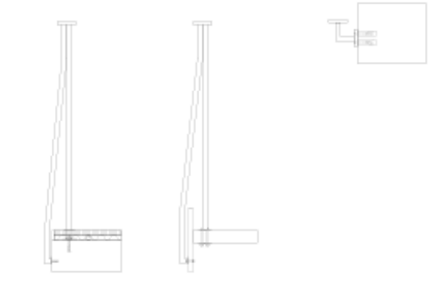




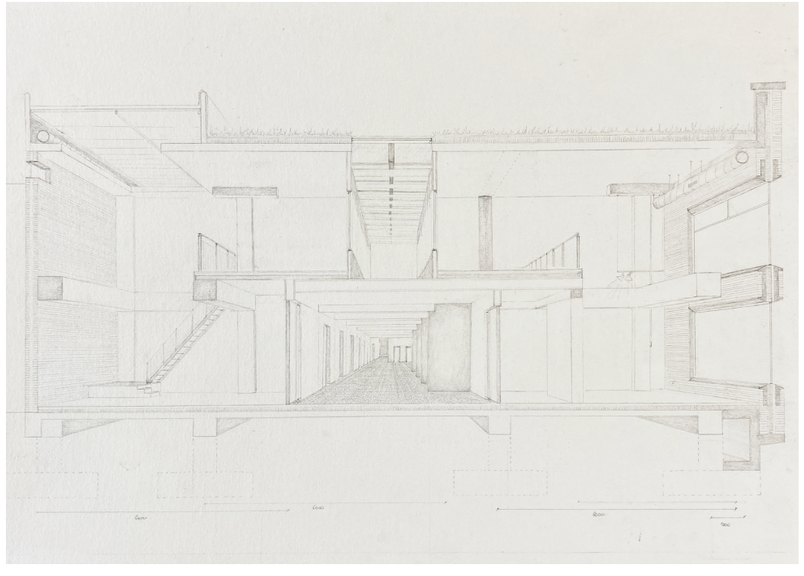




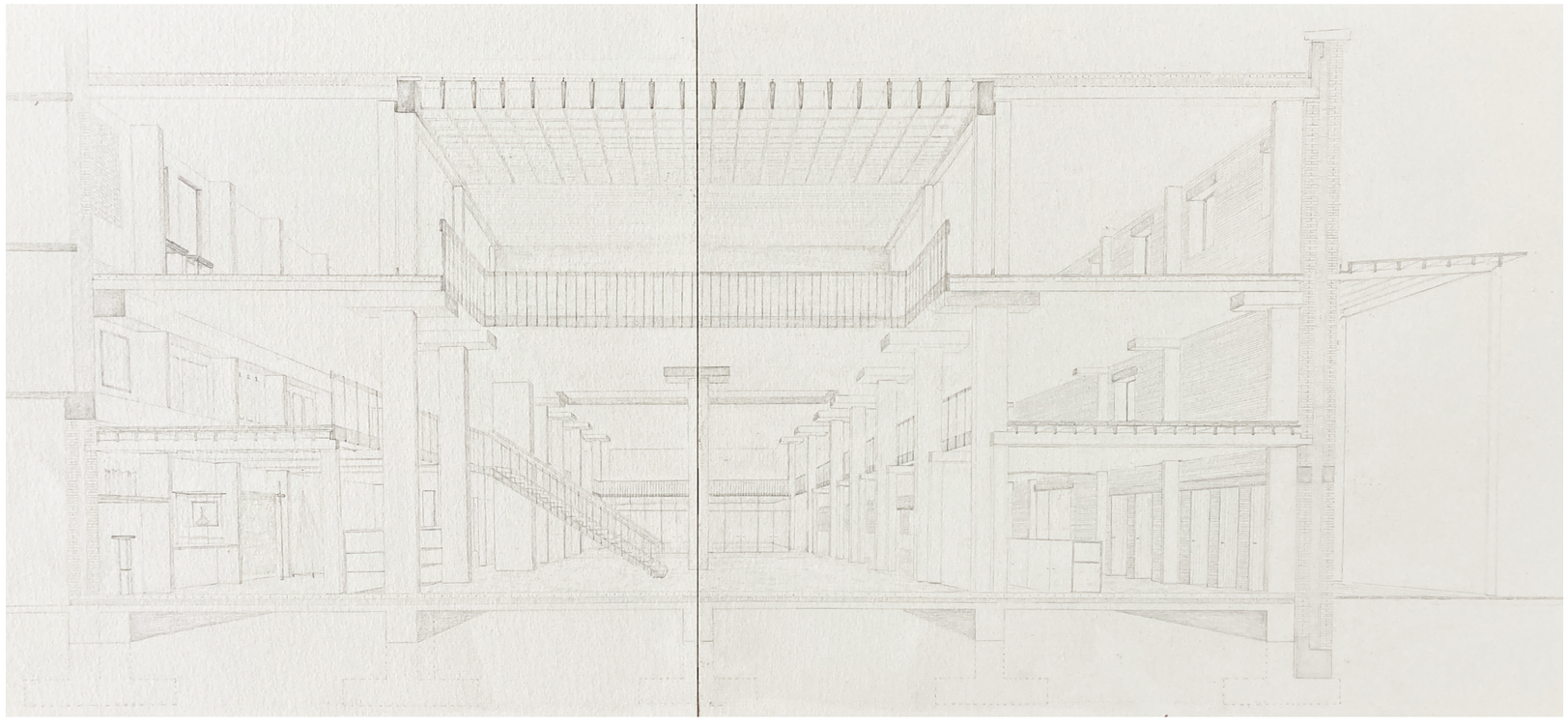




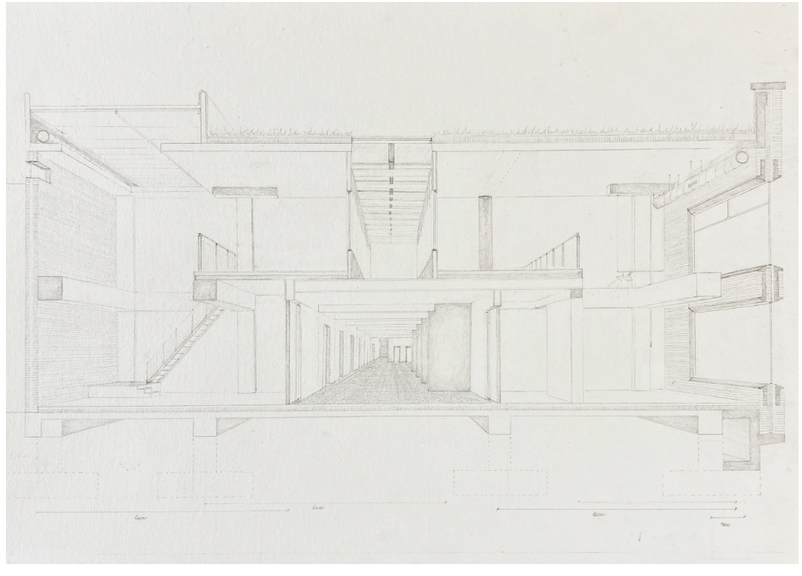




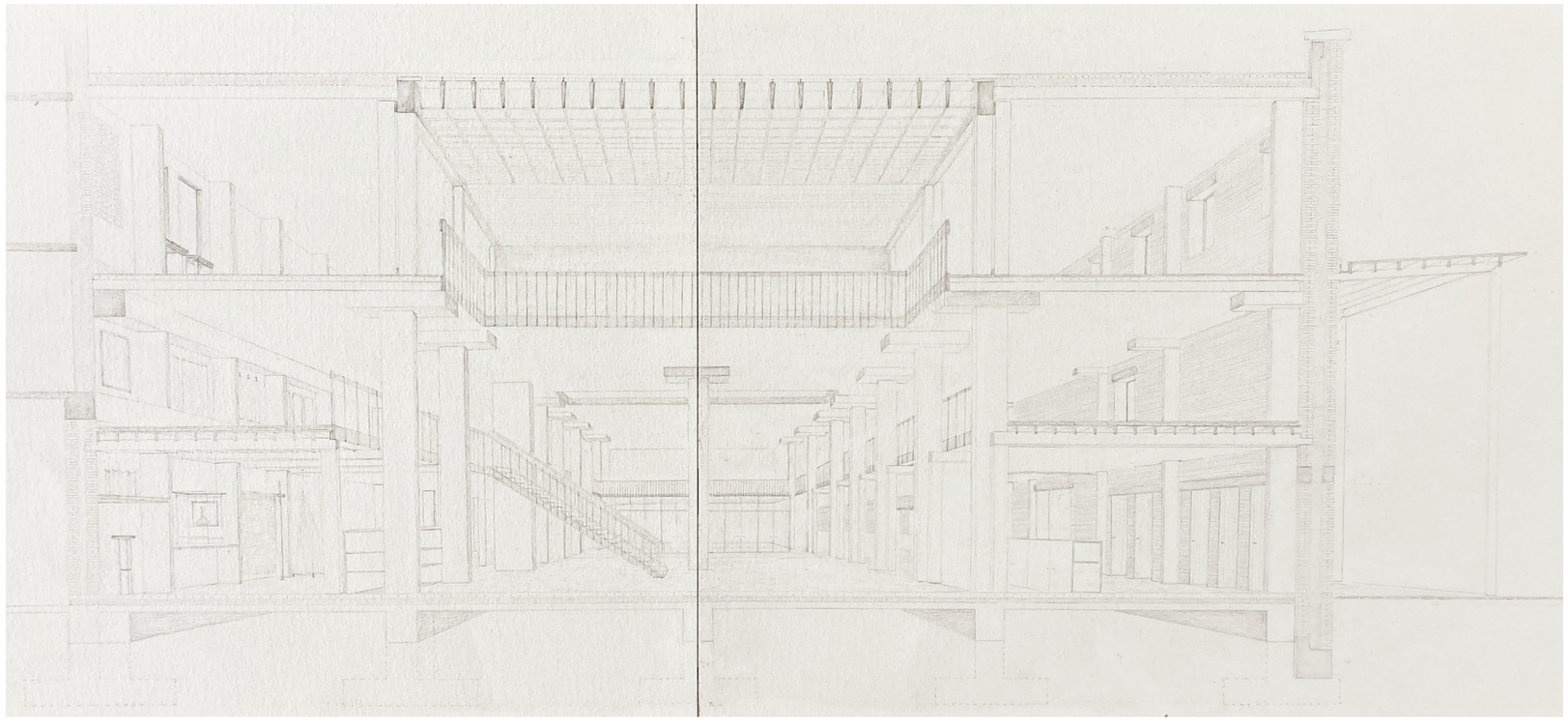




Architectural differences and similarities | position within the city ?







RESEARCH

Reading of the site

Research question

Understanding / empathizing

PROPOSAL FOR THE CITY

Project definition and relevance

The kinship on a social level

The kinship on a physcial level

Project requirements, program

ARCHITECTURAL TASK

Definition anthropomorphism

Personal conception

Used methods

DESIGN RESULT

The results from big to small

Dimensioning and material

Two buildings together

Typical sections of the old and the new

Performance of the facades and 1:20 sections

Details and building elements

Impressions of the intended

Climate and comfort

People among buildings

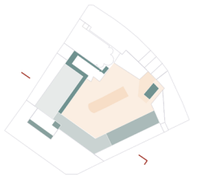
Buildings among buildings

Fellow student designs

ARCHITECTURAL TASK WITHIN THE CITY

Urban section elevation

Architectural differences and similarities | position within the city



Scene 11 | Playing with the carving; what happens with the inside - outside?
Who is "looking over the field" and what distance is the most adventageous?



Sound ; Norbert Rodenkirchen / Tibia ex tempore - medieval flute and This must be the Place (Naïve Melody) David Byrne, 2005 remastered
Camera ; Steven Driehuis

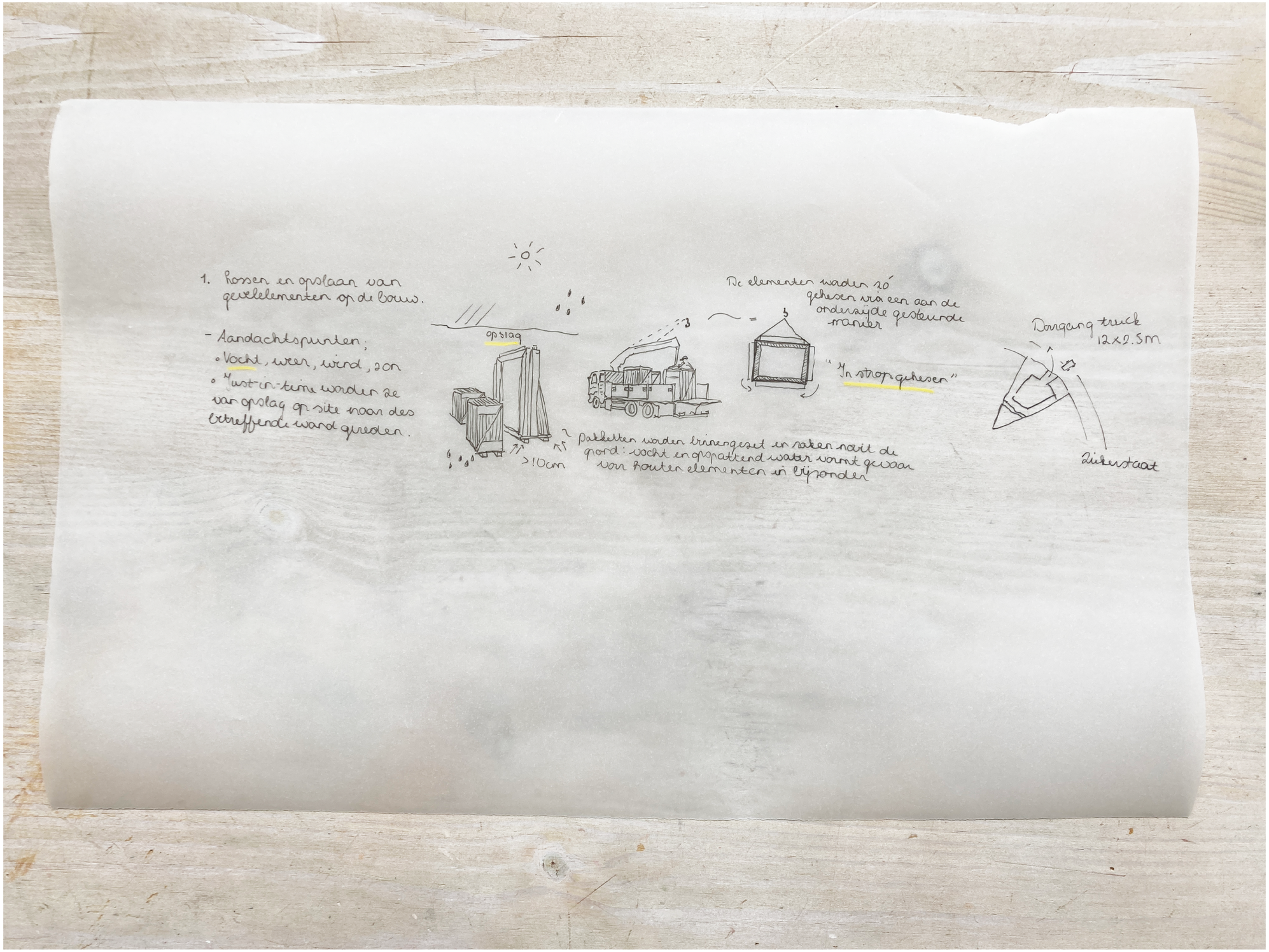








A. Building sequence; "Deliverance and storage of building elements on site"



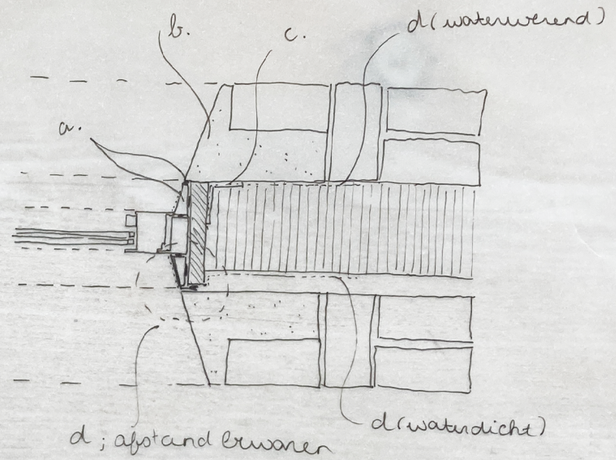
B. Building sequence; "Principles of constructing that take extra attention"

2. Stellen; algemene principes; kierdicht, dorpmetselen, stijfheid en sterkte, vocht

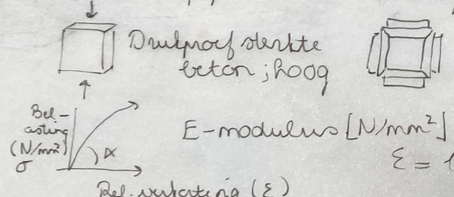
a. kierdicht; Door speciale compriesstrips aan het uiteinde van stijlkorsjes en de "demountable elements" zullen de naden zijn dichtgewerkt en rekening houden met krimping en zwelling van hout tov beton & steen.

b. Dorpmetselen is één vd grootste aandachtspunten van metselen. Echter door het gebruik van een betonframe element is dit probleem verholpen

(Beton) (Hout)



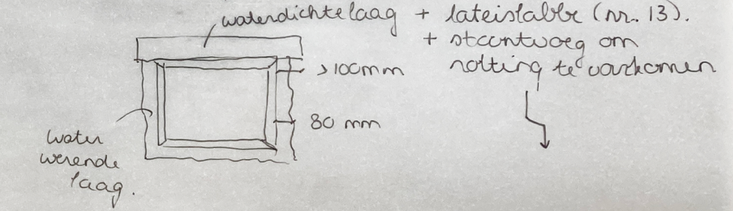
c. Een hoekbeugel (nr. 6) houdt het kozijn aan het metselwerk + betonelement. Stijfheid en sterkte zijn van belang. Ook dit is al verholpen bij gebruik van beton frame element



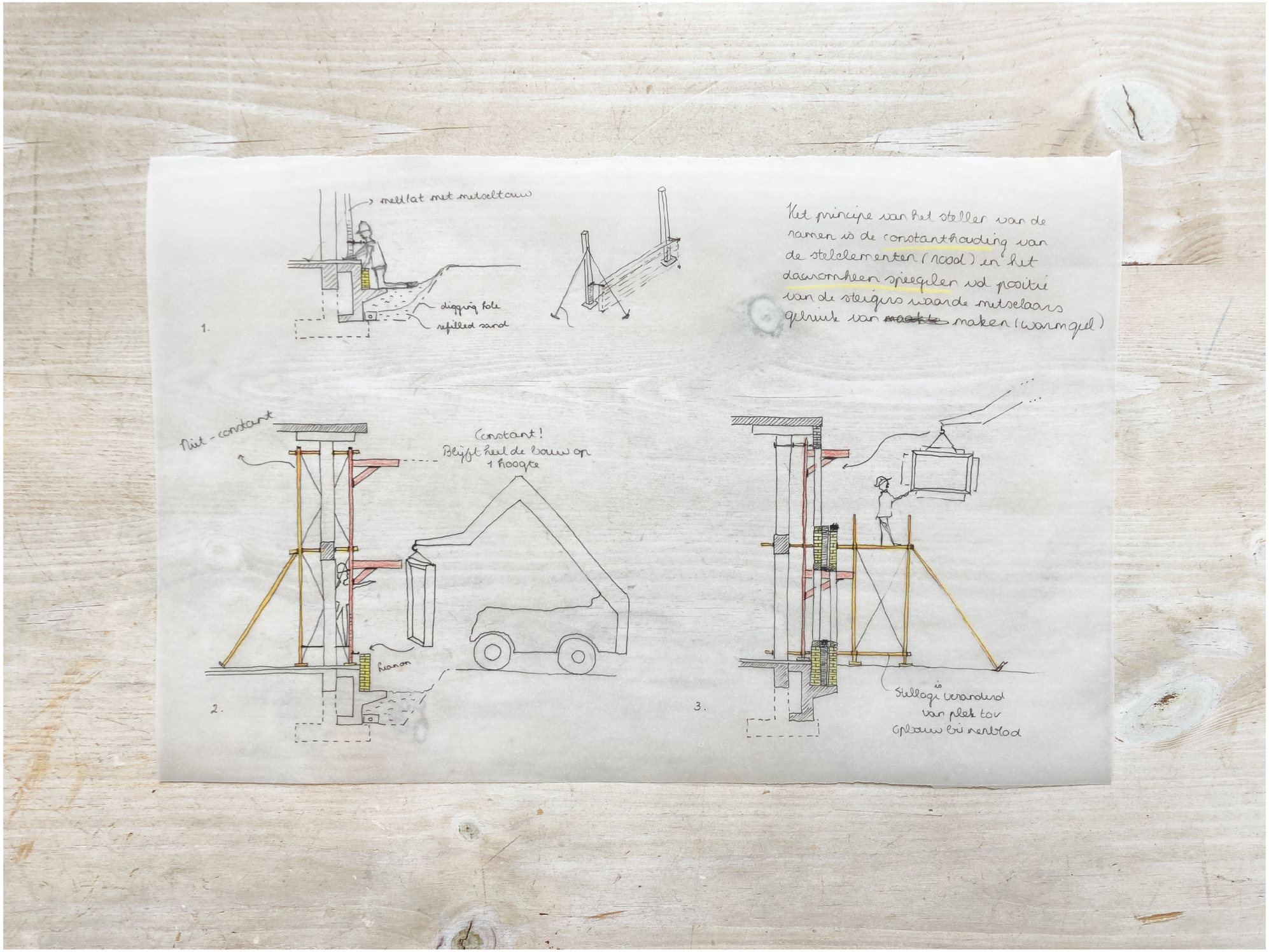
Hogesterktebeton E = 30 GPa = 30 · 10^4 N/mm²
Hout E = 9-16 GPa

d. Vochtwering:

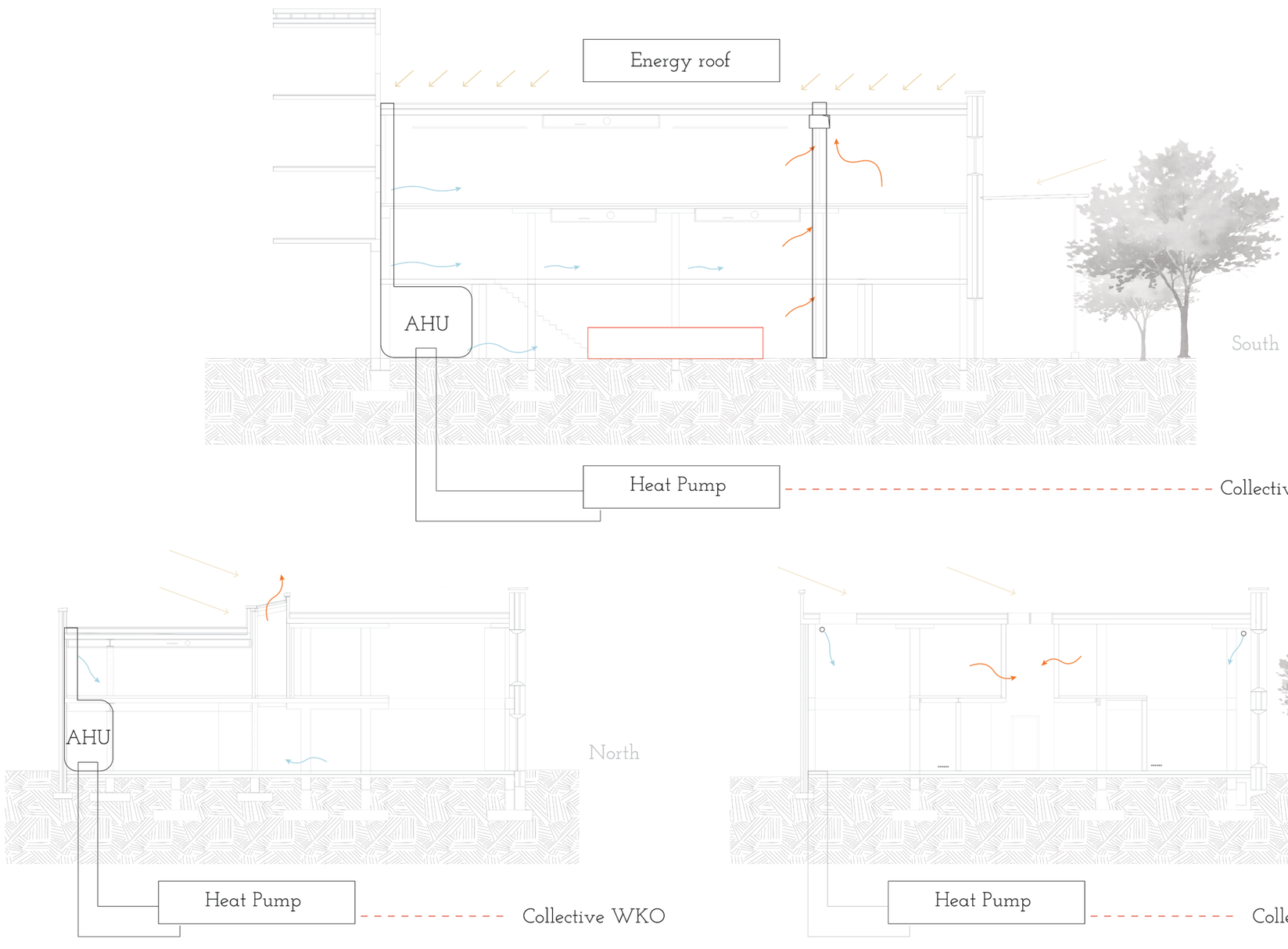
- Voorkomen van capillaire werking; afstand buitenmuren buitenblad vs + isolatie en waterwerende laag.
- Langs stijlen en boven- en onder frame vochtwering aanbrengen!



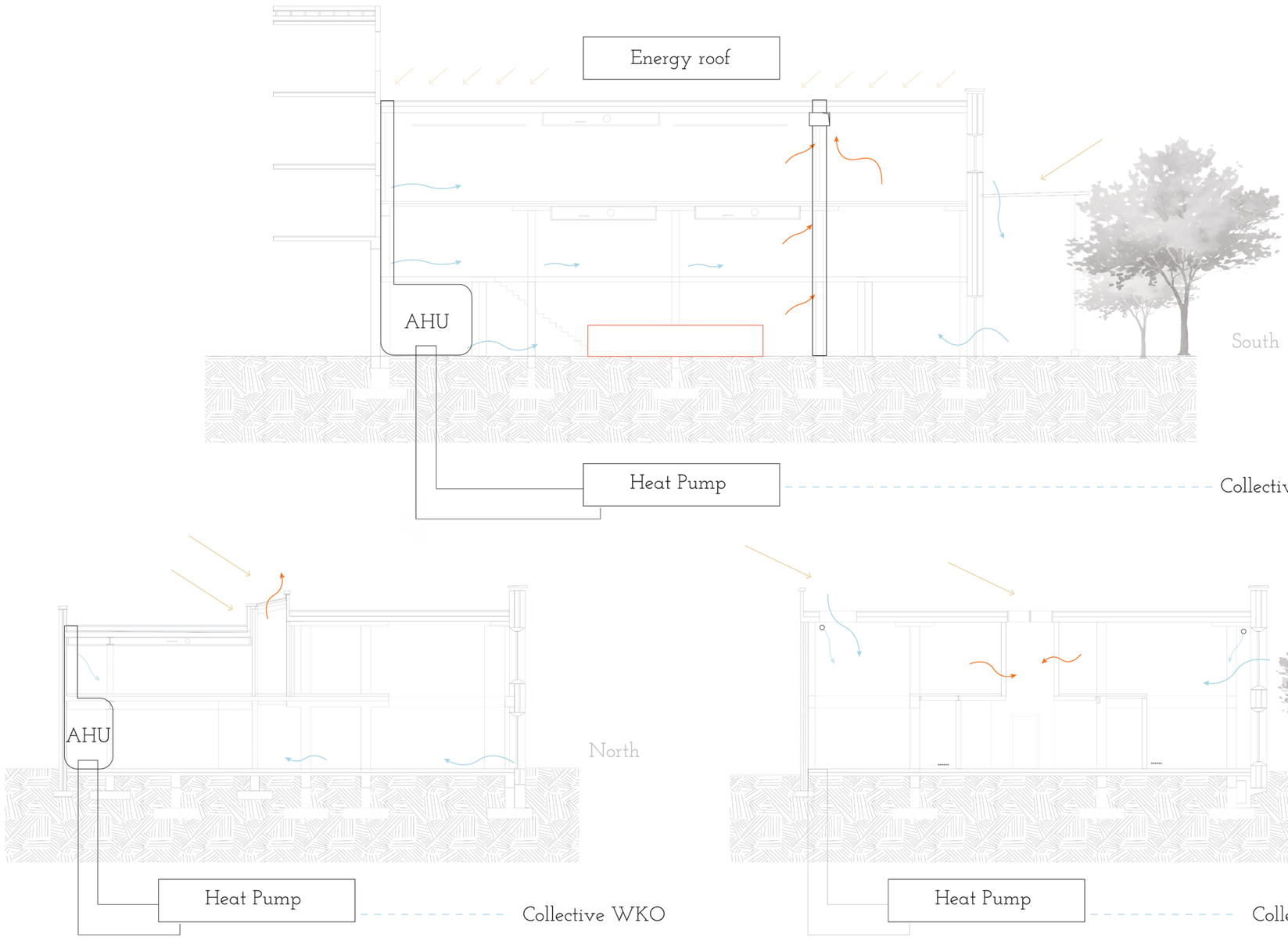
C. Building sequence; Leveling and balancing the lintel frame elements



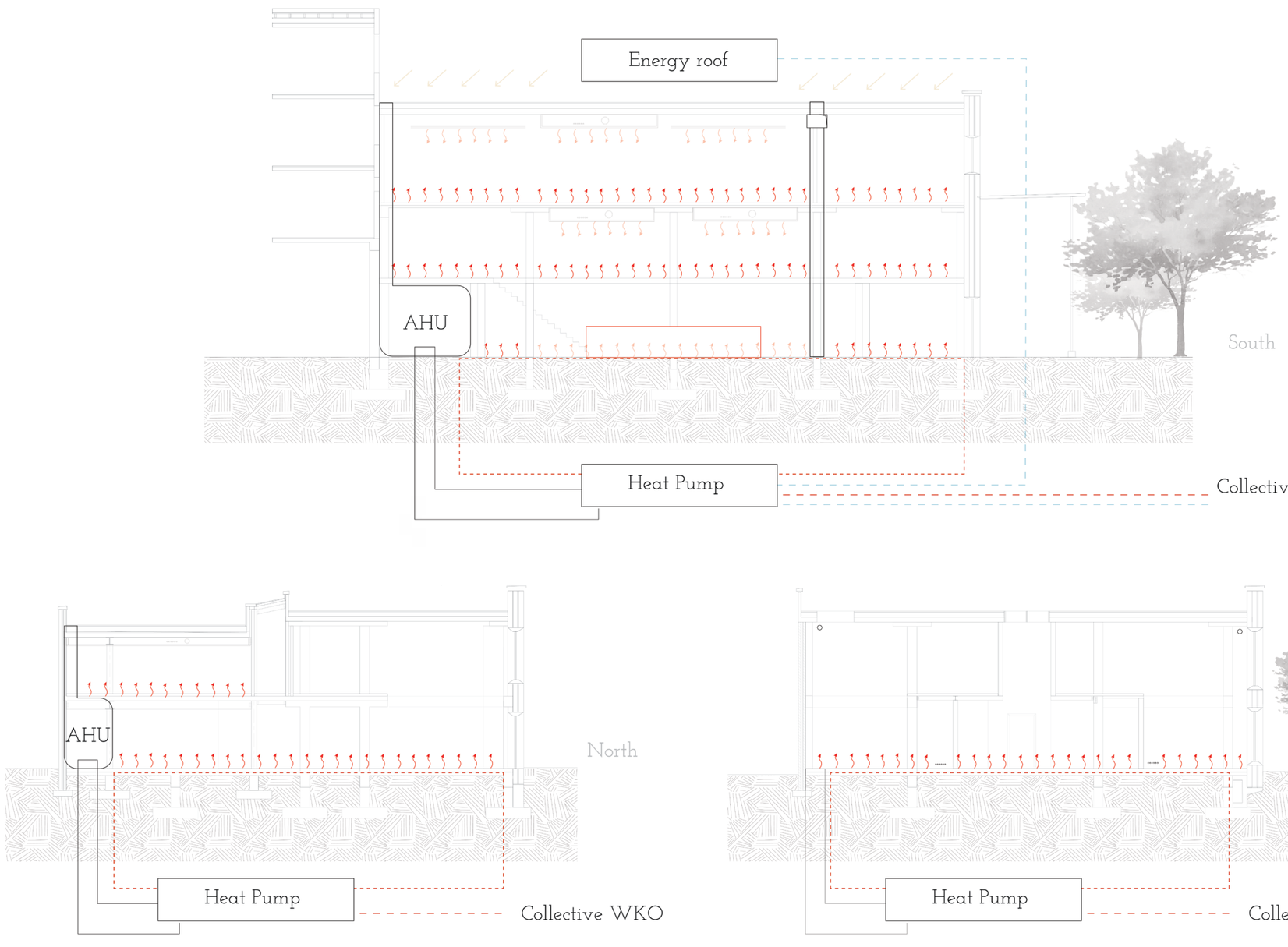
How to accomplish comfort | Ventilation in winter



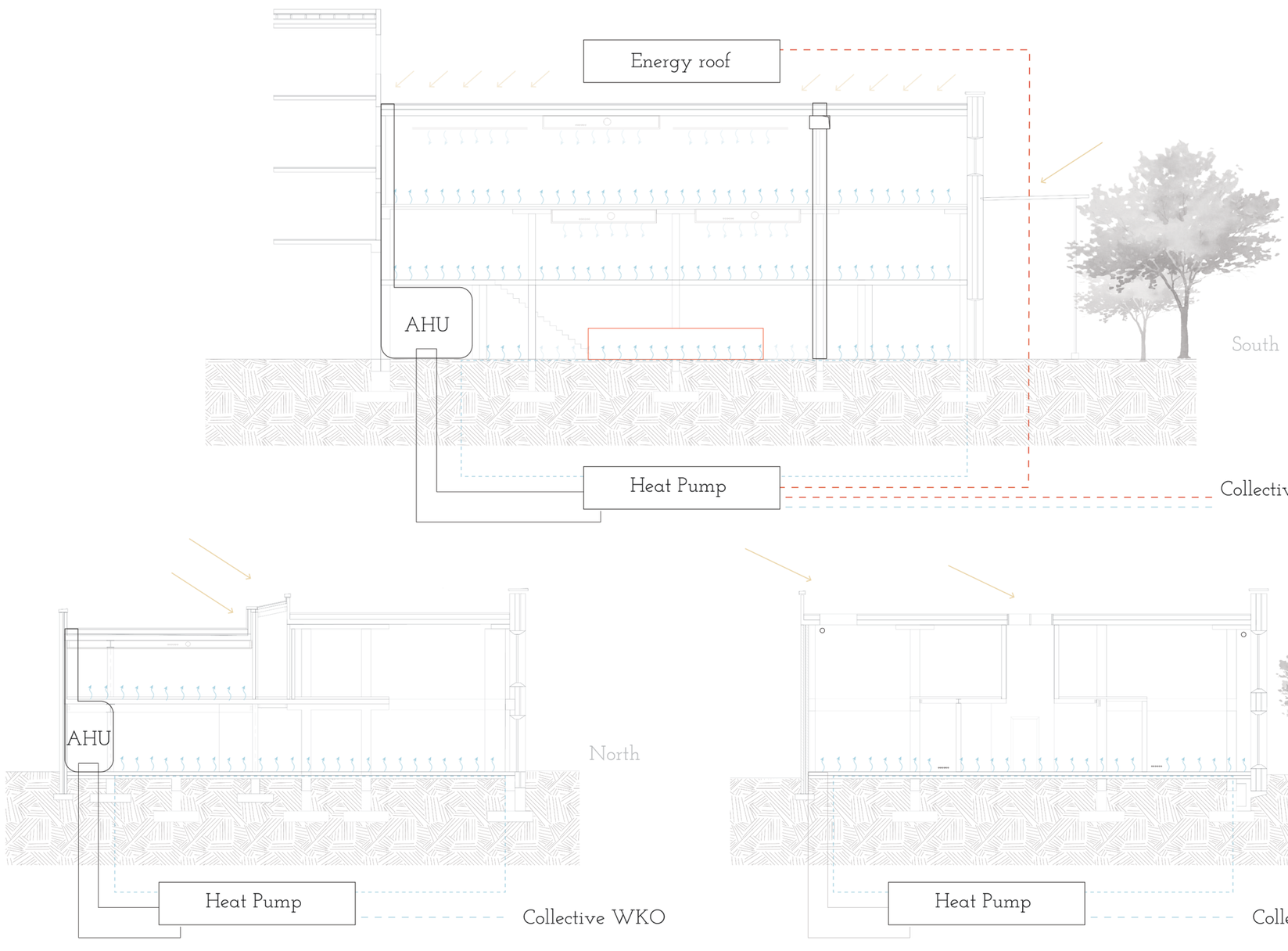
How to accomplish comfort | Ventilation in summer



How to accomplish comfort | Heating in winter



How to accomplish comfort | Cooling in summer



Program of the Cul - de - Sac | Project requirements

BUILDING	FUNCTION	AREA	FLOORS	TOTAL AREA	SUM AREA
Commercial	1. Entrance	50 m2	1	50 m2	*4020 m2*
Housing	2. Housing	805 m2	4	3220 m2	
	3. Commercial	600 m2	1	600 m2	
	4. Storage	150 m2	1	150 m2	
Arts & Crafts Workshop	1. Entrance, foyer	100 m2	1	100 m2	*1520 m2*
	2. Maker space	250 m2	1	250 m2	
	3. Workshops	300 m2	1	300 m2	
	4. Cantine	430 m2	1	430 m2	
	5. Meeting rooms	200 m2	1	200 m2	
	6. Administration	120 m2	1	120 m2	
	7. Storage	120 m2	1	120 m2	
Reintroduced home	1. Entrance, share r.	150 m2	2	300 m2	*750 m2*
	2. Bedrooms	60 m2	5	300 m2	
	3. Administration	75 m2	1	75 m2	
	4. Consult. rooms	75 m2	1	75 m2	
Private Ateliers	1. Entrance, logistics	150 m2	1	150 m2	2570 m2
	2. Administration	120 m2	1	120 m2	
	3. Private ateliers	1000 m2	2	2000 m2	
	4. Storage	200 m2	1	200 m2	
	5. Bike parking	100 m2	1	100 m2	
Wijkhuis	1. Entrance	25 m2	1	25 m2	*740 m2*
	2. Living room	225 m2	1	225 m2	
	3. Multif. room	200 m2	1	200 m2	
	4. Multif. room	130 m2	1	130 m2	
	4. Consult. rooms	75 m2	1	75 m2	
	5. Storage	85 m2	1	85 m2	

Program of the Cul - de - Sac | Project requirements

BUILDING	FUNCTION	AREA	FLOORS	TOTAL AREA	SUM AREA
Housing	1. Entrances (3)	150 m2	1	150 m2	*3665 m2*
	2. Housing	810 m2	4	3240 m2	
	3. Storage	275 m2	1	275 m2	
Performance house	1. Entrance, foyer	140 m2	1	140 m2	*1020 m2*
	2, Indiv. studios	140 m2	2	280 m2	
	3. Practice hall	140 m2	2	280 m2	
	4. Storage	60 m2	4	240 m2	
	5. Bike parking	80 m2	1	80 m2	
Central pavilion	1. Foyer, bar area	200 m2	1	200 m2	*1670 m2*
	2. Multif. room 1	260 m2	1	260 m2	
	3. Multif. room 2	260m2	1	260m2	
	2. Exposition space	300 m2	1	300 m2	
	3. Audit., theater	300 m2	1	300 m2	
	4. Backstage	150 m2		150 m2	
	5. Storage	200 m2	1	200 m2	
Gallery path	1. Entering way	870	1	870 m2	*870 m2*
Gardens	1. Public courtyard	4170	1	4170	*6085 m2*
	2. Entrance area	495	1	495	
	3. Inner garden I	445	1	445	
	4. Inner garden II	420	1	420	
	5. Inner garden III	175	1	175	
	6. Inner garden IV	300	1	300	
	7. Atelier courtyard	80	1	80	

