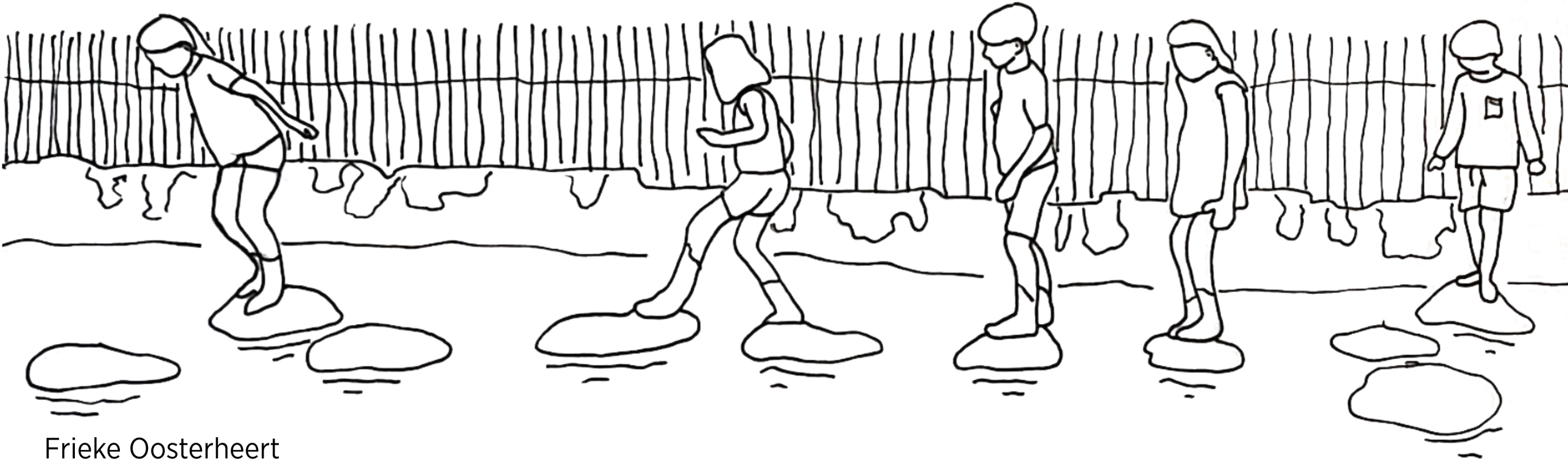
NATURE'S CLASSROOM

CULTIVATING CURIOSITY



Frieke Oosterheert
Urban Architecture - Last green in town

INDEX

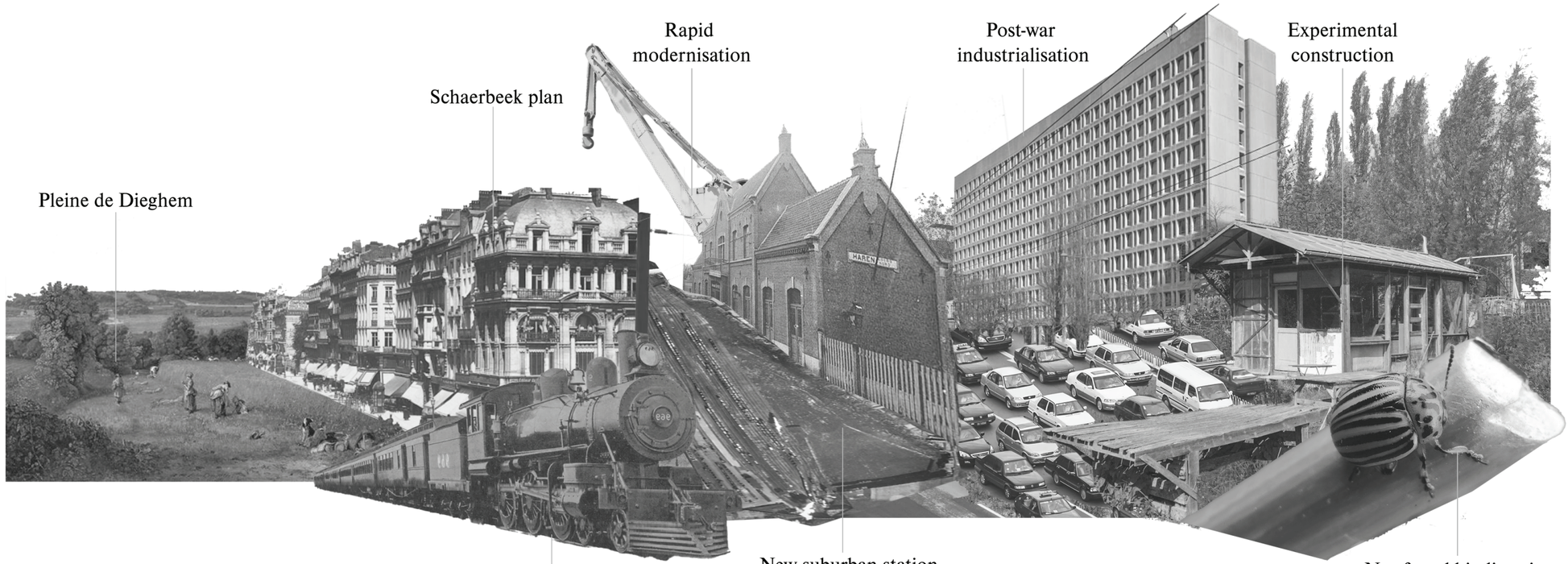
DISCOVERY

LAST GREEN IN TOWN - JOSAPHAT FRICHE

LAST GREEN IN TOWN - JOSAPHAT FRICHE

EXPLORATION

JOSAPHAT FRICHE EVOLUTION



1650 — The field of Dieghem is used for agriculture on the edge of the town of Schaerbeek

1830 — Notable bird observations are made on the field

1898 — Van Den Putte proposes a plan for the extension of the city, including the site of the railway tracks

1904 — Line 26 is built, crossing the field connecting to Haren

1930 — The field is increasingly industrialised with new infrastructure, tracks, warehouses

1976 — The Evere station is replaced

1994 — The marshalling yard closes

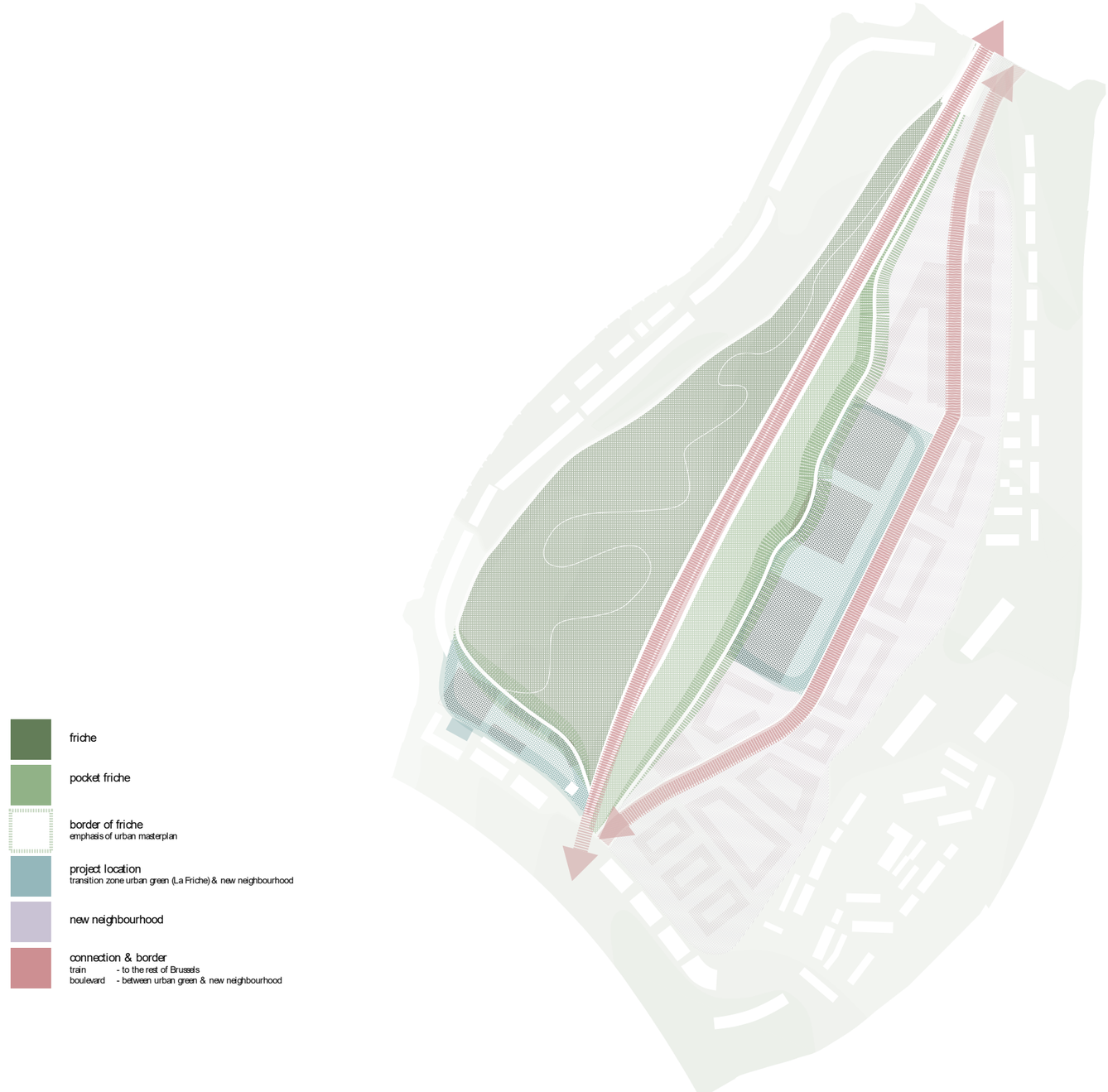
2012 — The marshalling yard, now a friche, is covered in new soil

FLORA AND FAUNA ON THE FRICHE

PLANNED VS UNPLANNED

IMAGINATION

VISION FOR THE FRICHE



friche

pocket friche

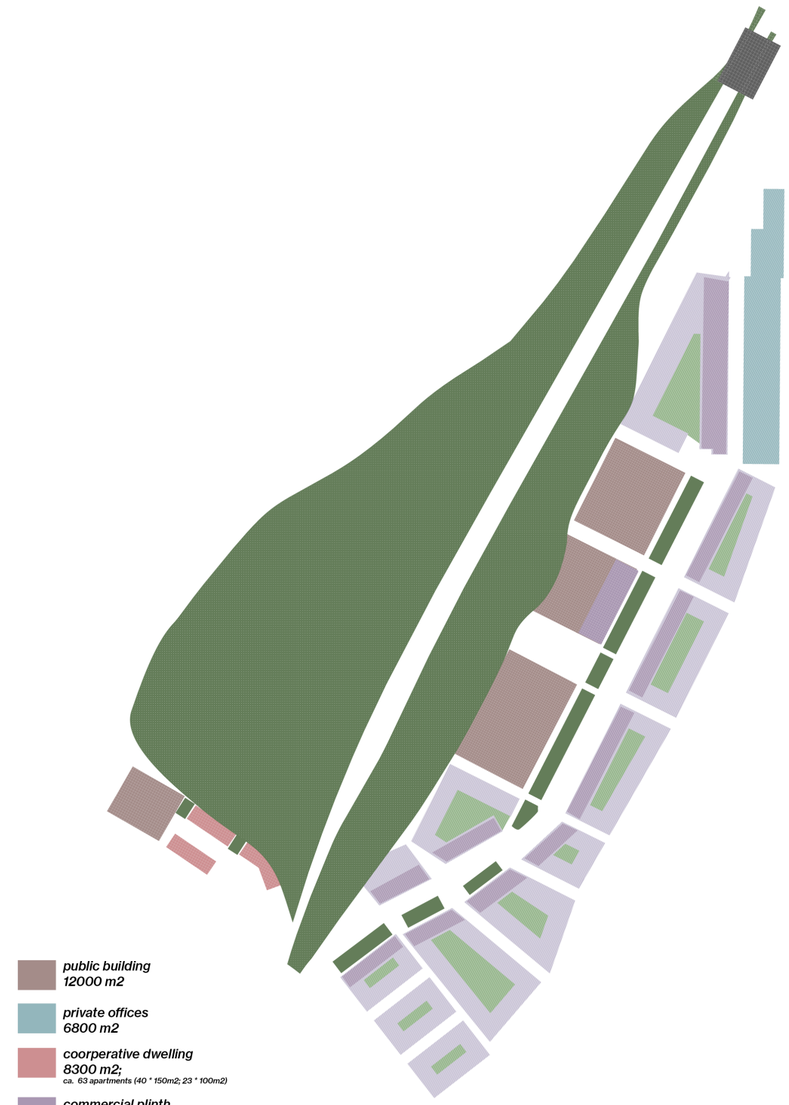
border of friche
emphasis of urban masterplan

project location
transition zone urban green (La Friche) & new neighbourhood

new neighbourhood

connection & border
train - to the rest of Brussels
boulevard - between urban green & new neighbourhood

PROGRAM



public building
12000 m2

private offices
6800 m2

coorperative dwelling
8300 m2;
*ca. 63 apartments (40 * 150m2; 23 * 100m2)*

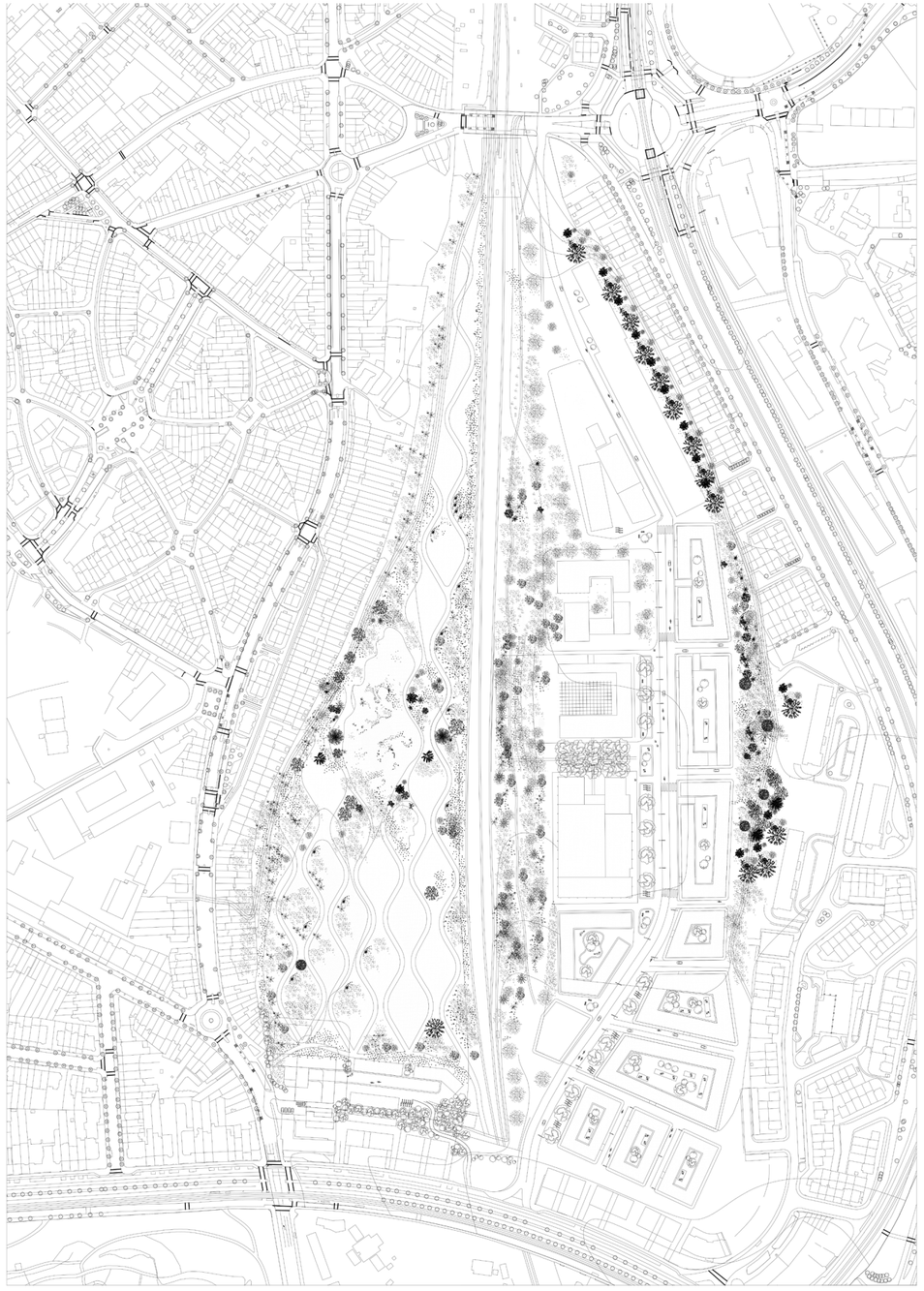
commercial plinth
9500 m2

private dwelling
151000 m2;
*ca. 1160 apartments (700 * 150m2; 460 * 100m2)*

private green
12000 m2

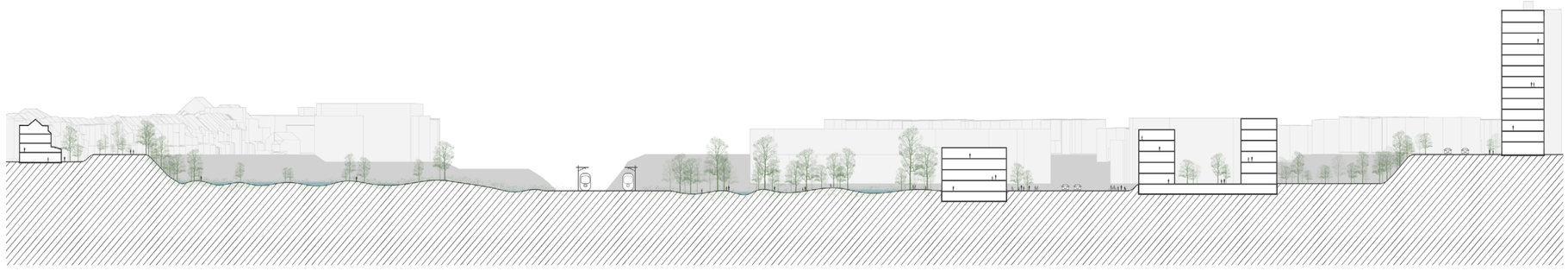
public green
115500 m2

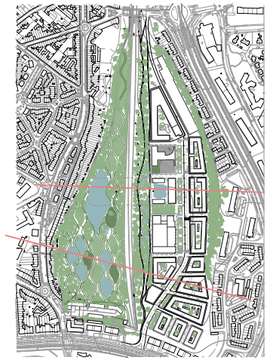
FINAL MASTERPLAN

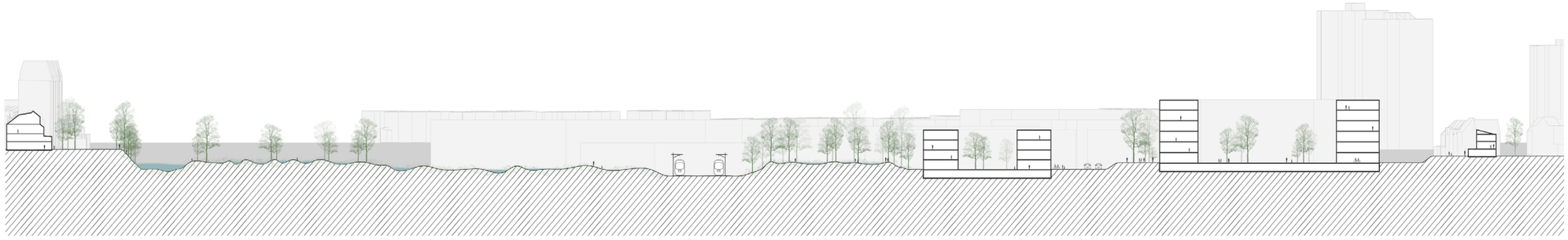


1:1000

MASTERPLAN SECTIONS







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Investigate what the role of architecture is in connecting people with nature

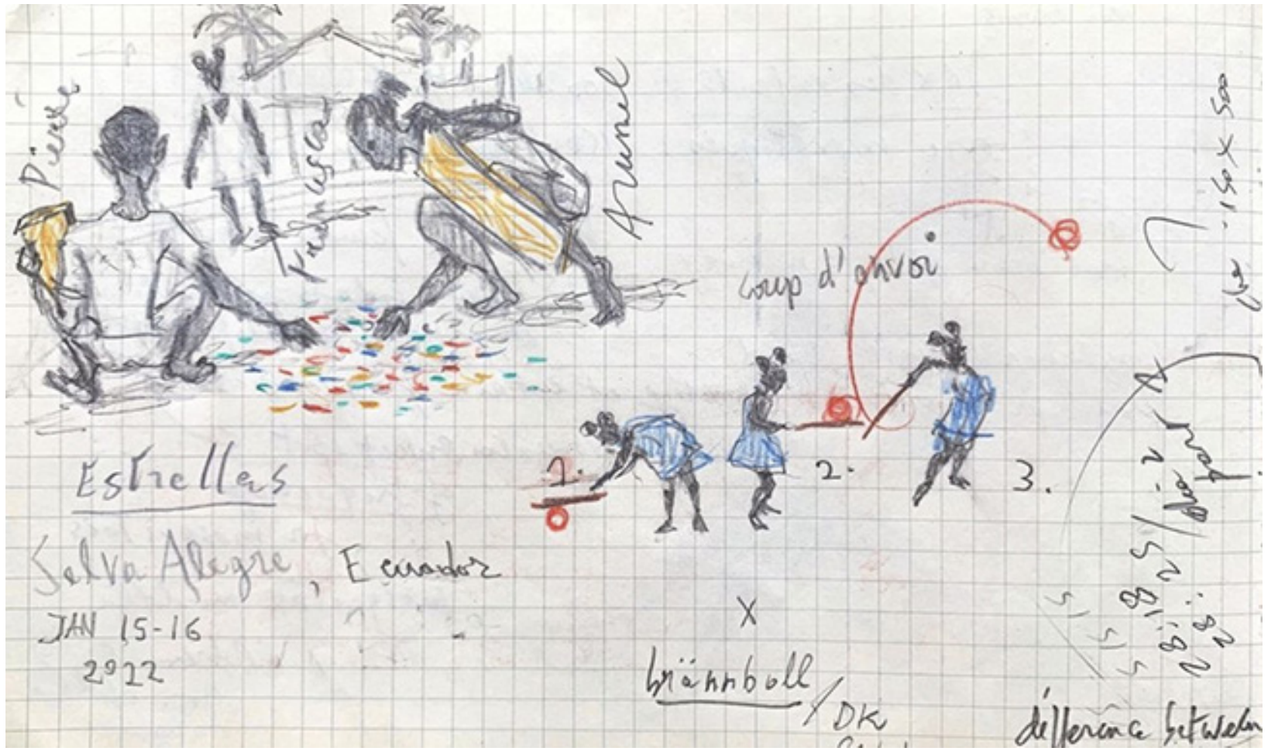
EDUCATION

PLAY

CONNECTION

OBSERVATION

PLAY VALUES


Pierre
Rubén
Manuel
coup d'envoi
1.
2.
3.
Estrellas
Salva Alegre, Ecuador
JAN 15-16
2022
X
Brännboll / DK

PLAY VALUES

MOTOR

Jumping
Climbing
Coordination
Orientation

“Where can I climb up?”

COGNITIVE

Thinking
Perceiving
Creativity
Safety

“Can I discover something new?”

SOCIAL

Helping others
Group relations
Behaving
Trusting

“Are there others to play with?”

“Observation maximises the inquirer’s ability to grasp motives, beliefs, concerns, interests, unconscious behaviours. To see the world as his subject sees it. To live their time frames. To capture the phenomenon in and on its own terms, to grasp the culture in its natural ongoing environment.” (Guba, Lincoln, 1918 p. 193)

OBSERVING PLAY OUTDOORS

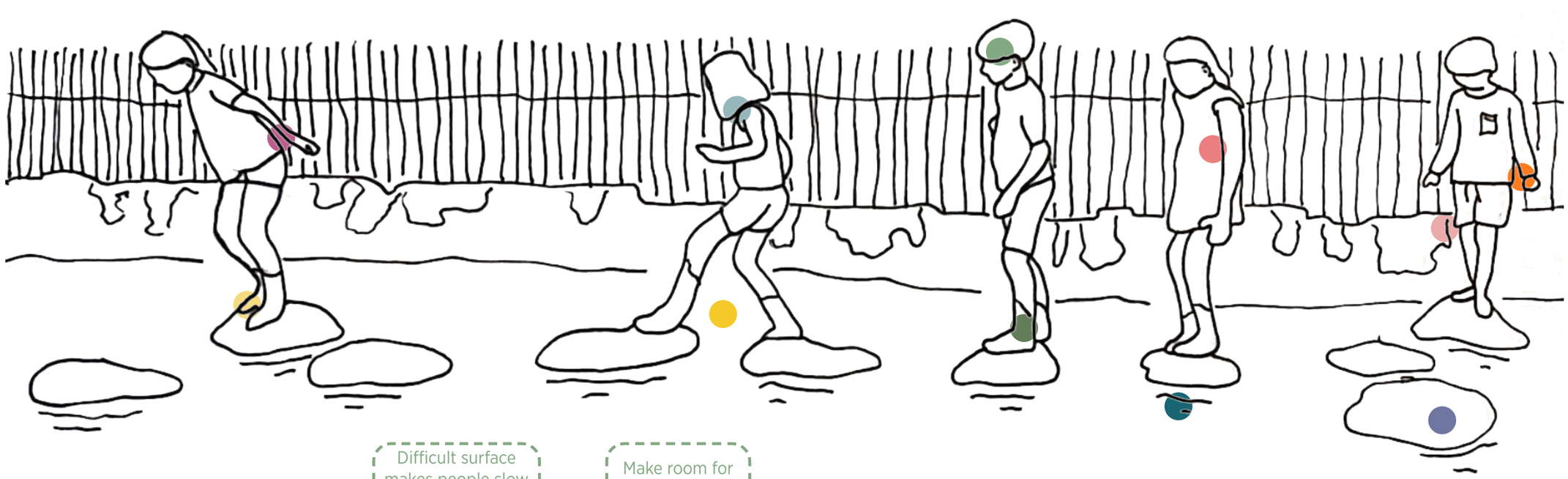
JEUGDLAND
ZANDRAKET, AMSTERDAM

These stepping stones are part of the barefoot path at Jeugdland in Amsterdam. It is an entire trail that children, as well as parents, can walk and clamber over. They can go on adventures while feeling the ground under their feet very well. The wet grass that comes through the toes, the cold mud that the children trudge in up to their knees and eventually over the water over these stones. It does take some balance and concentration not to fall into the water. The different surfaces are observed with full attention and interest. Children and adults can thus discover in a special way the change of climate and thus the ground.

MOTOR
- Assessing how big of a step to take
- Learning to stay balanced
- Careful jumping

COGNITIVE
- Watching reflection in the water
- Taking concentrated steps
- Getting the feet dirty
- Recognising risks
- Adapting to different surfaces

SOCIAL
- Learn to wait on others
- Experiencing new things together
- Imitating others



PARK ‘N’ PLAY

JAJA ARCHITECTS, COPENHAGEN

This playground is on the rooftop of a parking house in the harbour of Copenhagen. With the design of the parking house, the architects wanted to introduce a new scale where the architecture invites people onto the rooftop. A large staircase in the facade invites people to take a trip to the rooftop, play and ejoy the view on the harbour. From street level, the railing literally takes the visitors by the hand, while it transforms to becoming swings, ball cages, jungle gyms and more. The variety of playelements and seating areas creates a connection between the different users. Playing together in a safe bordered space, or being the observer and watching others.

MOTOR

- Variety of routes, running around
- Climbing different objects
- Swinging, rocking, turning

COGNITIVE

- Railing as recognizable element
- Being on a rooftop, experiencing weather differently
- Choosing different paths
- View over the harbour
- Bordered off space, feeling safe

SOCIAL

- Observing others
- Playing together
- Helping others climb up
- Hang, chill spaces for interaction
- Safe, letting children play alone

One structure as landmark

Create chill spots

WOODEN BRIDGE
DE TEMPEL, ROTTERDAM

On the estate 'De Tempel' in Rotterdam, there is a bridge made of wooden slats that lets the walker stroll just above the ground. The bridge appears self-assembled and therefore sometimes makes it difficult to walk on. The walker therefore has to pay just a little more attention to walking, creating a pace at which nature can be observed.

MOTOR
- Slowing down by uneven wooden slats
- Keeping balance without railing

COGNITIVE
- Observing nature from above
- Touching the tree bark
- Creative play with chopped wood
- Seeing reflection in the water

SOCIAL
- Respecting the peace in the estate
- Crossing others on the bridge
- Holding hands to stay balanced

Integrate self-exploring nature

Create platforms

SCHOOLGARDEN
ESSENBURGSINGEL, ROTTERDAM

Along the Essenburgsingel in Rotterdam, a specific area is created where children can work in the garden and participate in outdoor classes. Garden workers organize a programme where school chi.ldren are welcome to learn more about healthy food produce. The children first learn theory indoors, whereafter they translate this new knowledge in practical experience. Being outdoors, hearing the bees, seeing worms in the soil, getting the hands dirty. The outdoor classes try to cultivate children's love for learning where they are in direct contact with nature and where they can experience their own influence on the natural environment.

MOTOR
- Bending down
- Harvesting vegetables
- Sowing seeds
- Digging, raking, shoveling
- Walking carefully along plants

COGNITIVE
- Construct own values on natural environment
- Learning about importance of soil
- Creating a sense of responsability
- Watching insects
- Natural processes

SOCIAL
- Helping others
- Getting the hands dirty together
- Connecting with nature
- Food produce

Hands in the soil!

Create gardens for groups

RESULTS, WHAT HAVE I GAINED?

Make room for playing together

Create gardens for groups

Create chill spots

Create platforms

Hands in the soil!

Difficult surface makes people slow down and focus

Integrate self-exploring nature

One structure as landmark

CHOOSING THE LOCATION

Intersection between nature and the city

REUSE

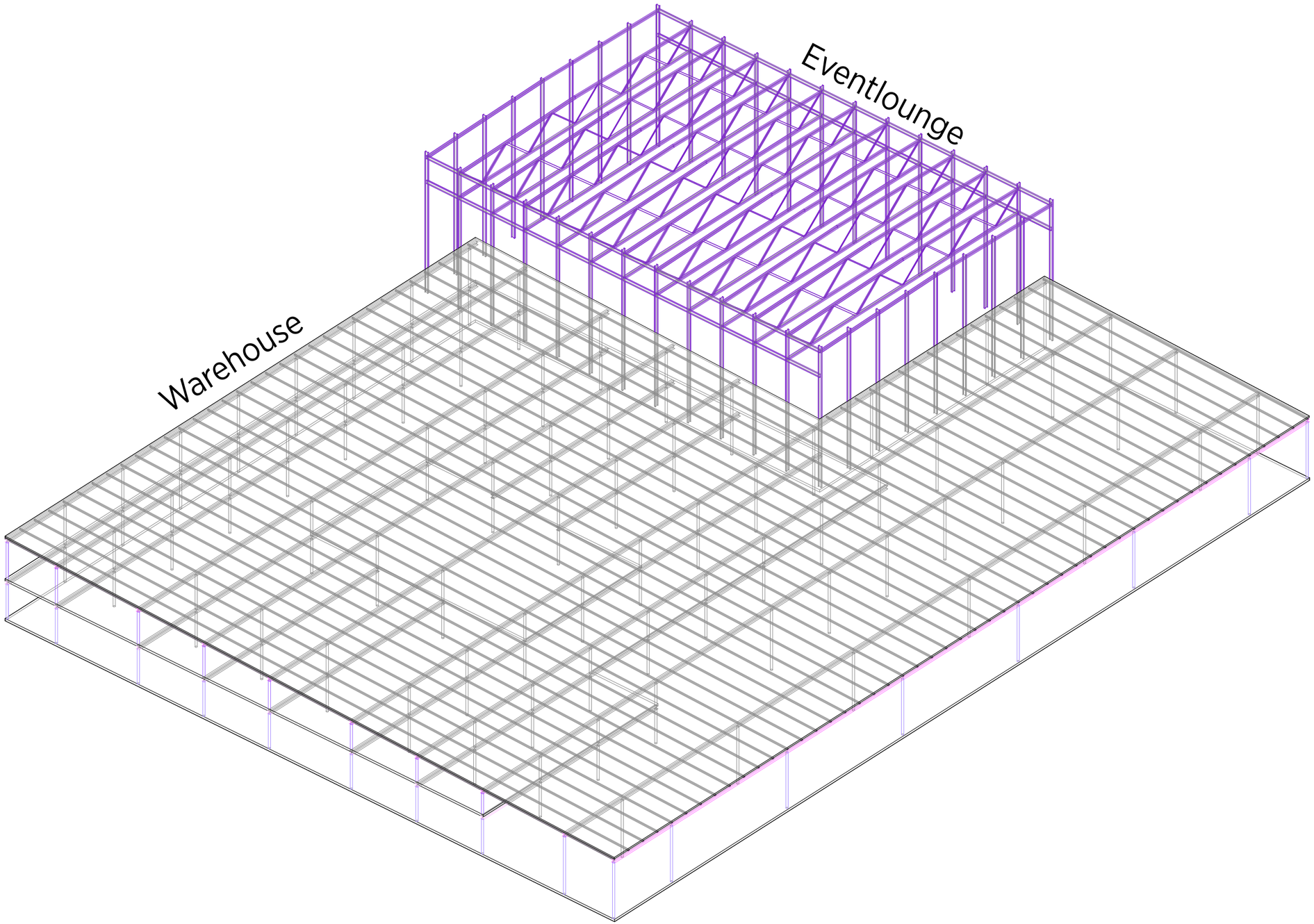
Generaal Wahislaan 16F

REUSE STRATEGY

PROPERTIES EXISTING BUILDING

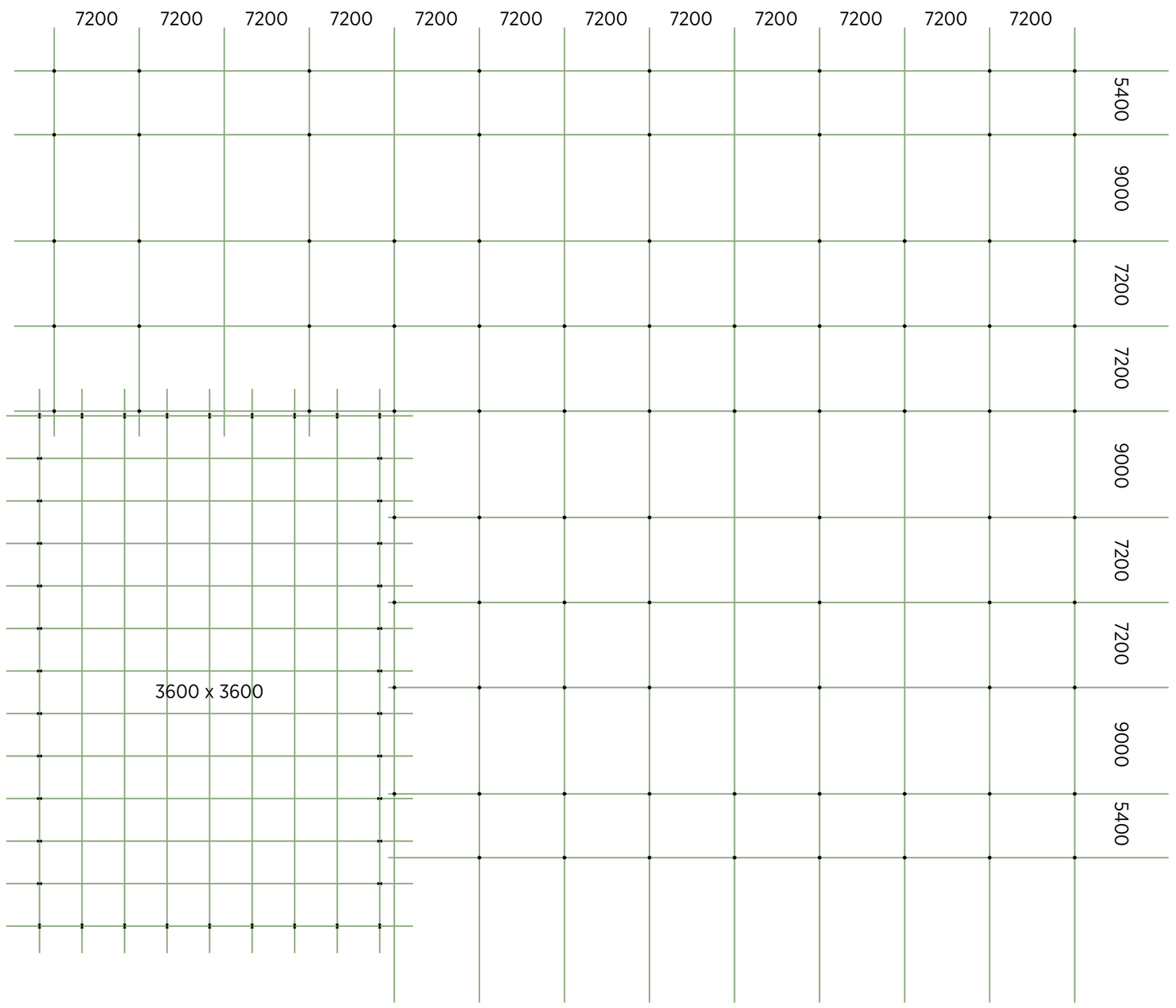
Site visit

PROPERTIES EXISTING BUILDING



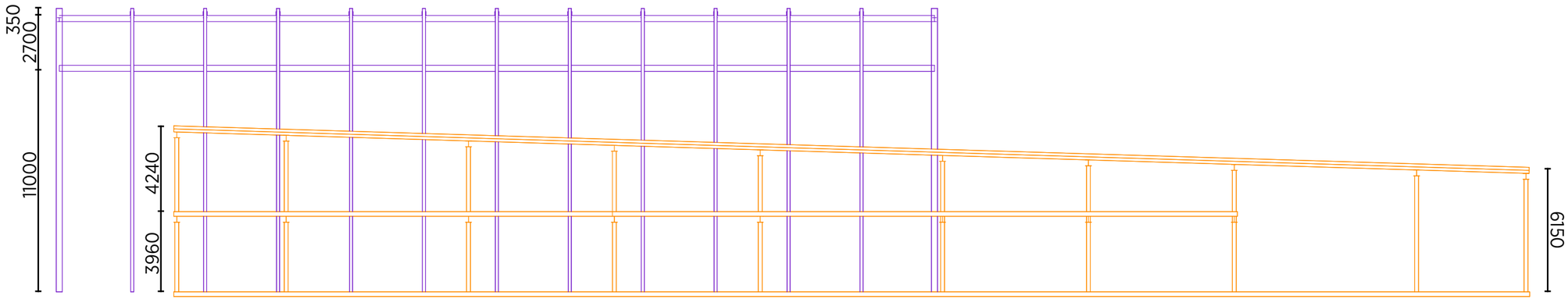
Axo structure to keep

PROPERTIES EXISTING BUILDING



Floorplan structure

PROPERTIES EXISTING BUILDING



Section structure

VALUE OF REUSE EXISTING BUILDING

Temporality within permanence

Anchor in the neighborhood

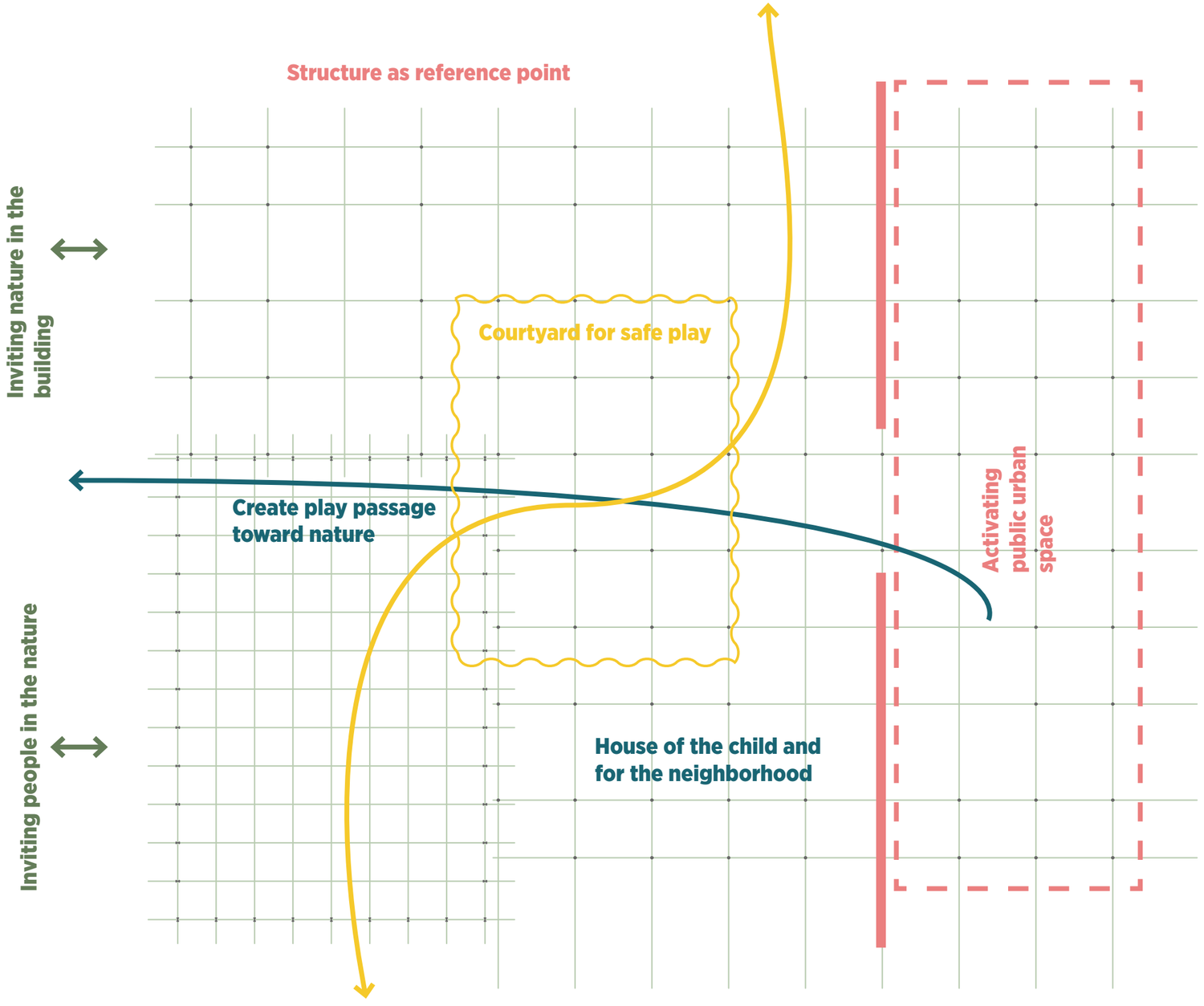
Using structure as symbol

Sustaianble material reuse

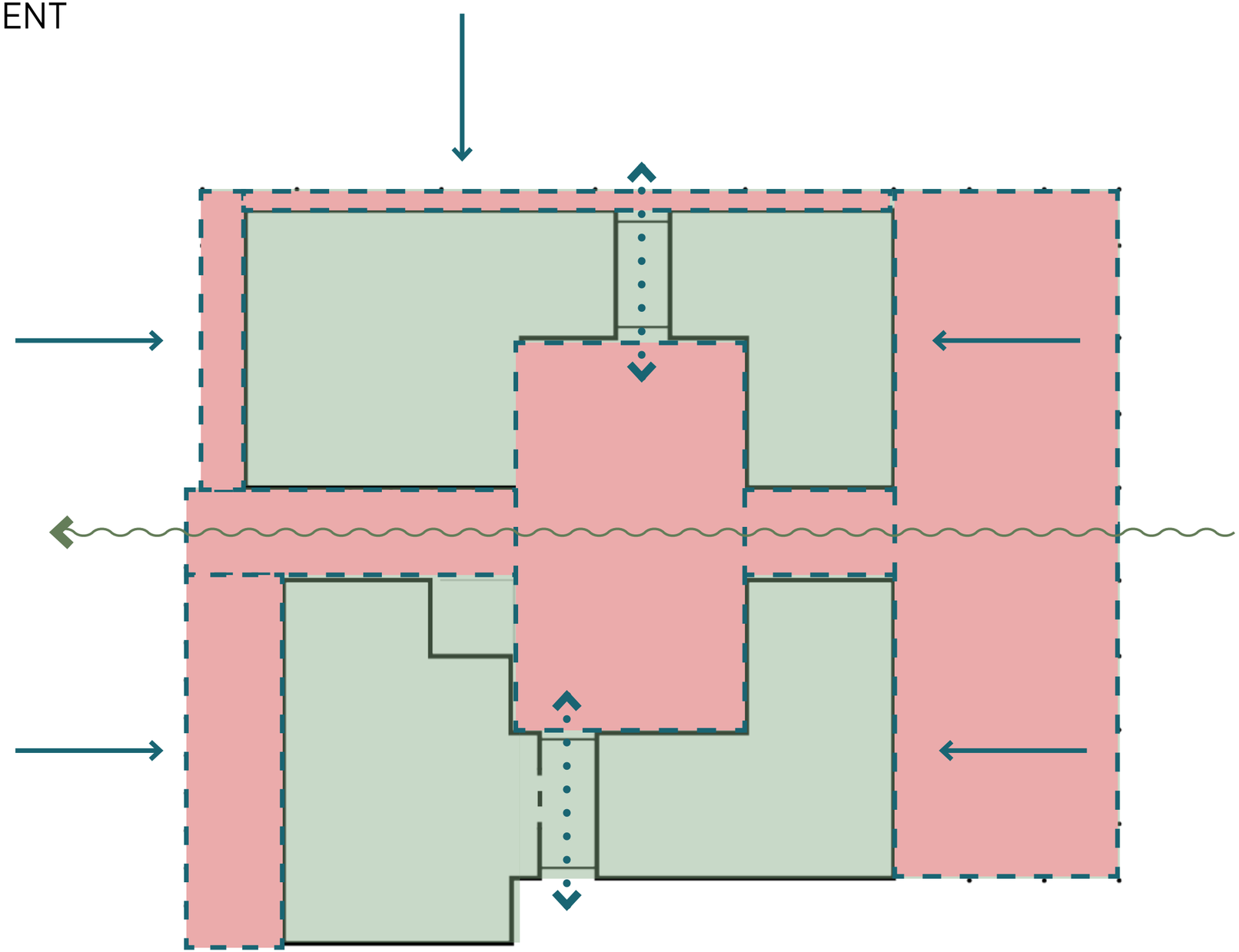
Using structure as symbol

DESIGN

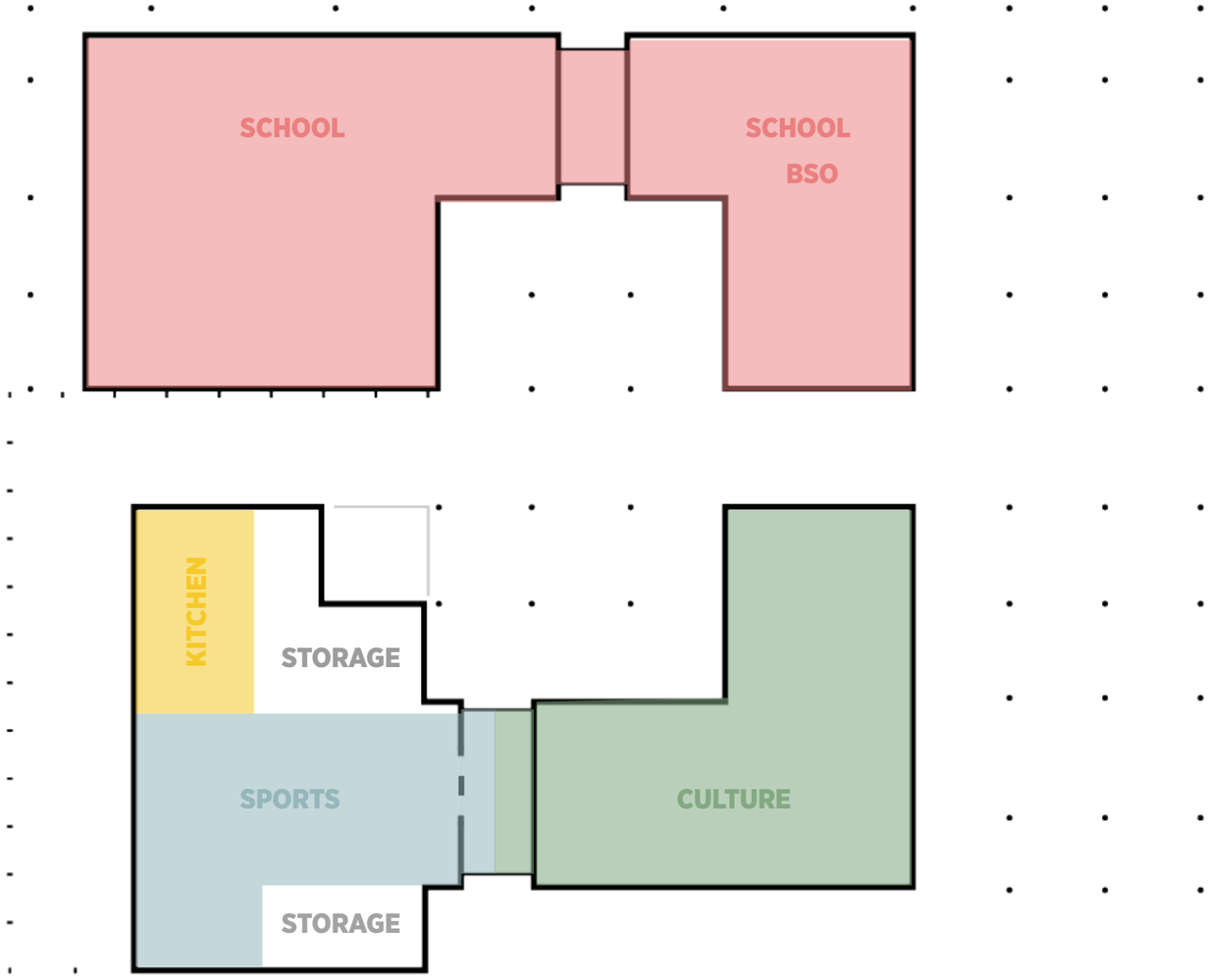
DESIGN VISION



SHAPE DEVELOPMENT



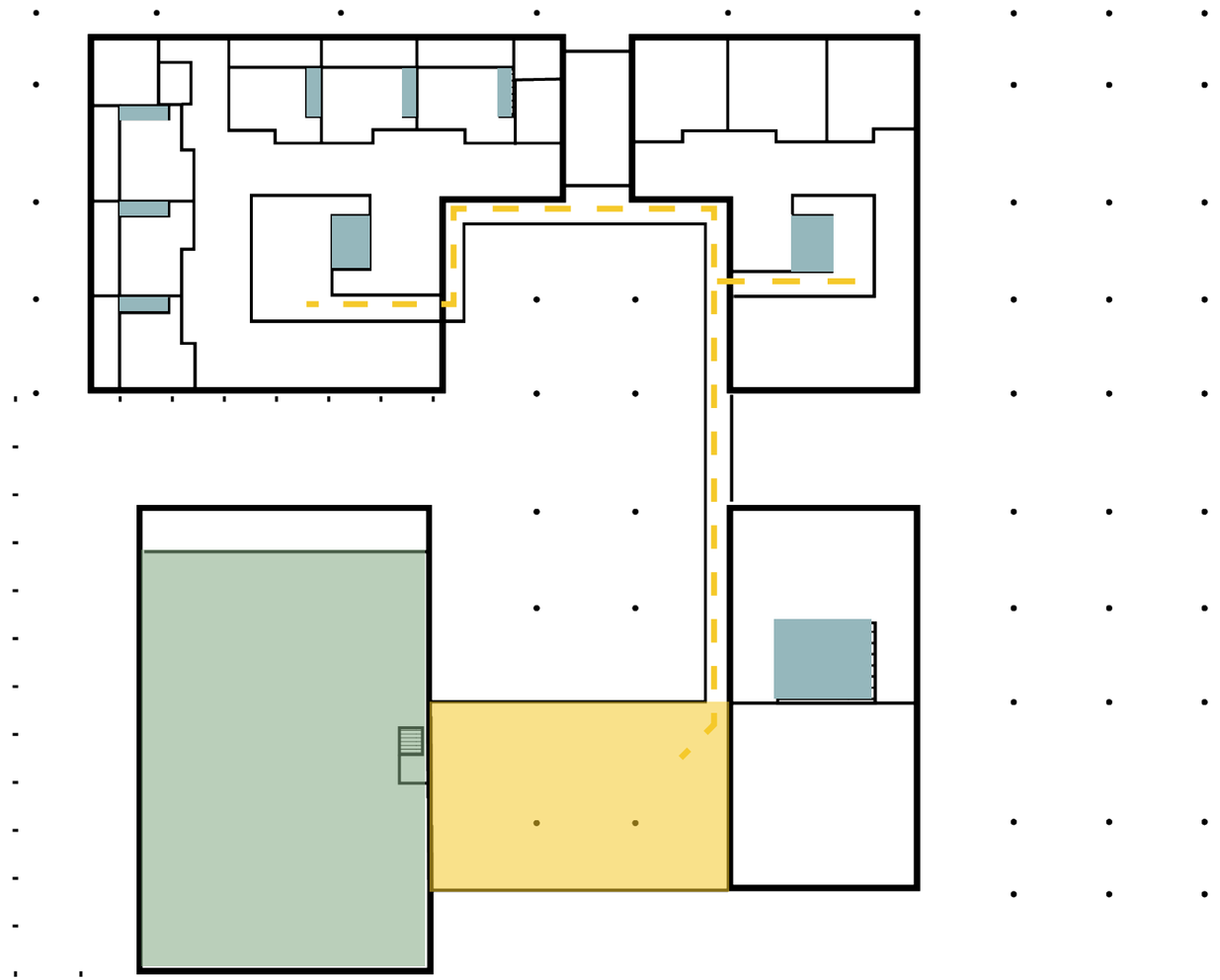
PROGRAM LAYOUT



LAYOUT CONCEPT FLOORPLAN

Ground floor scheme

LAYOUT CONCEPT FLOORPLAN

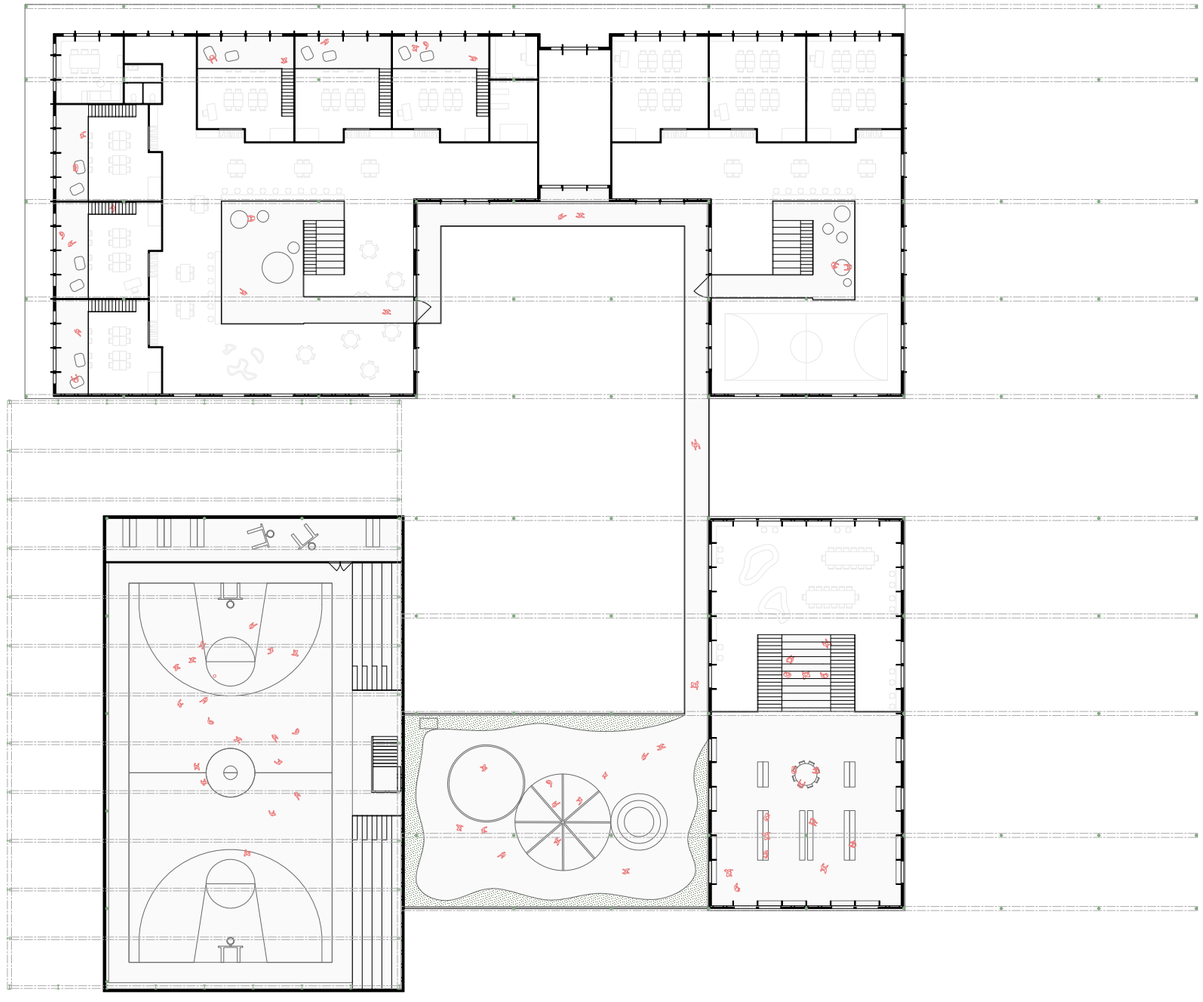


1st Floor scheme

GROUND FLOOR FLOORPLAN

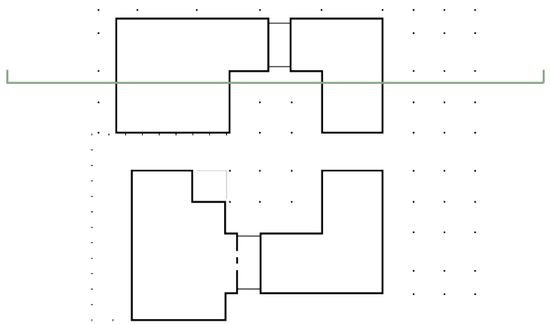
+1000 section 1:200

1ST FLOOR FLOORPLAN



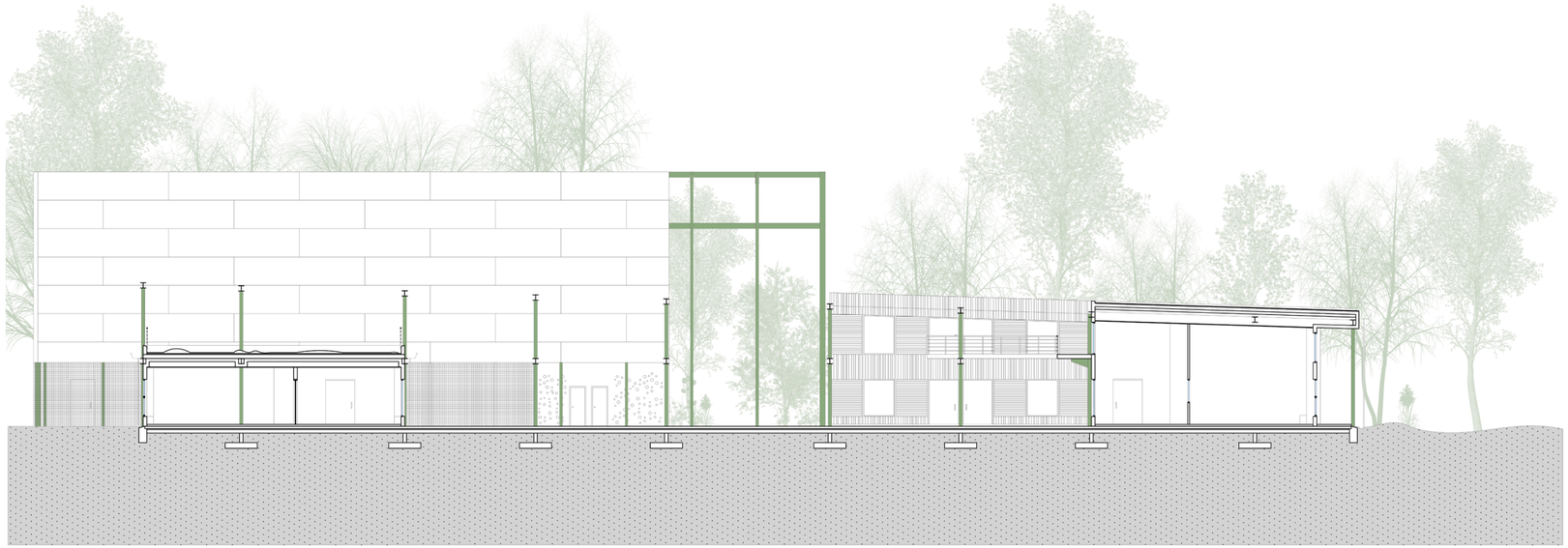
+4000 section 1:200

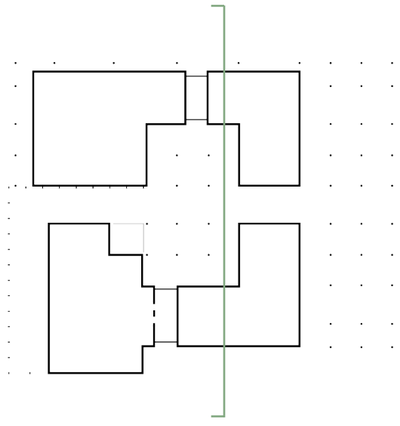
SECTION SCHOOL



1:200

SECTION CULTURE + SCHOOL





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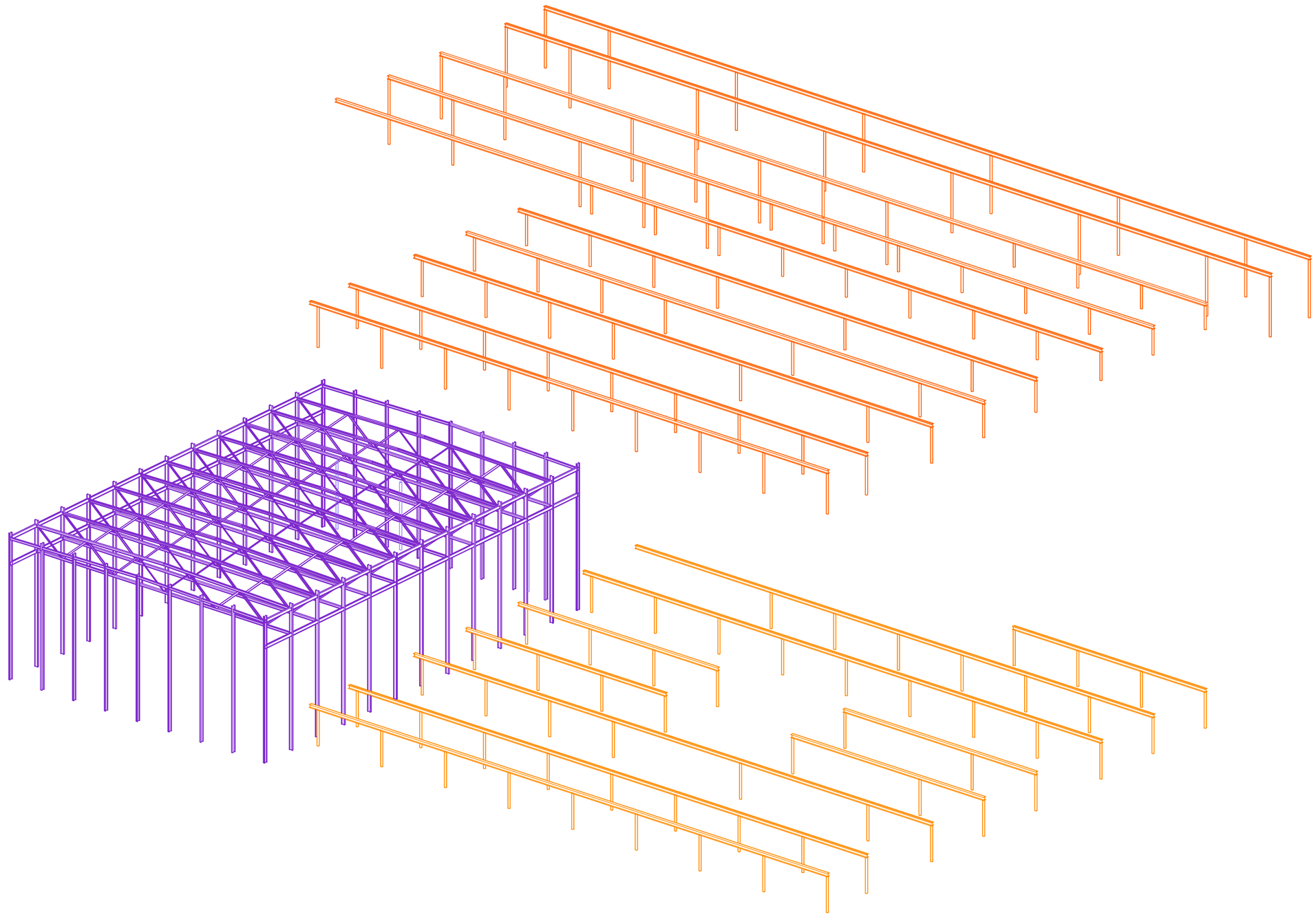
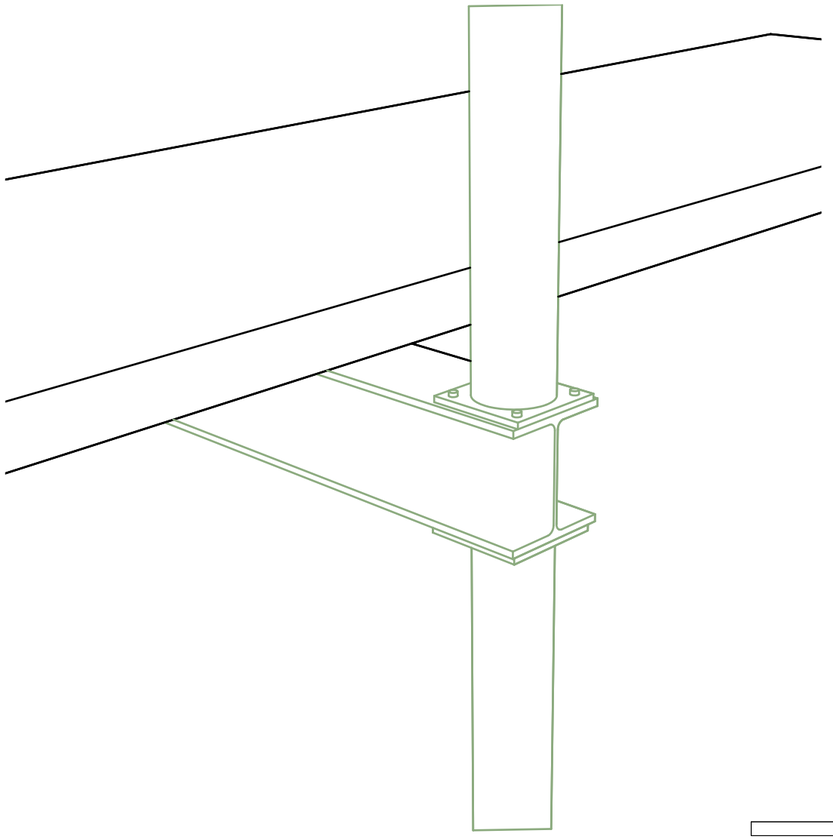
ADAPTATION

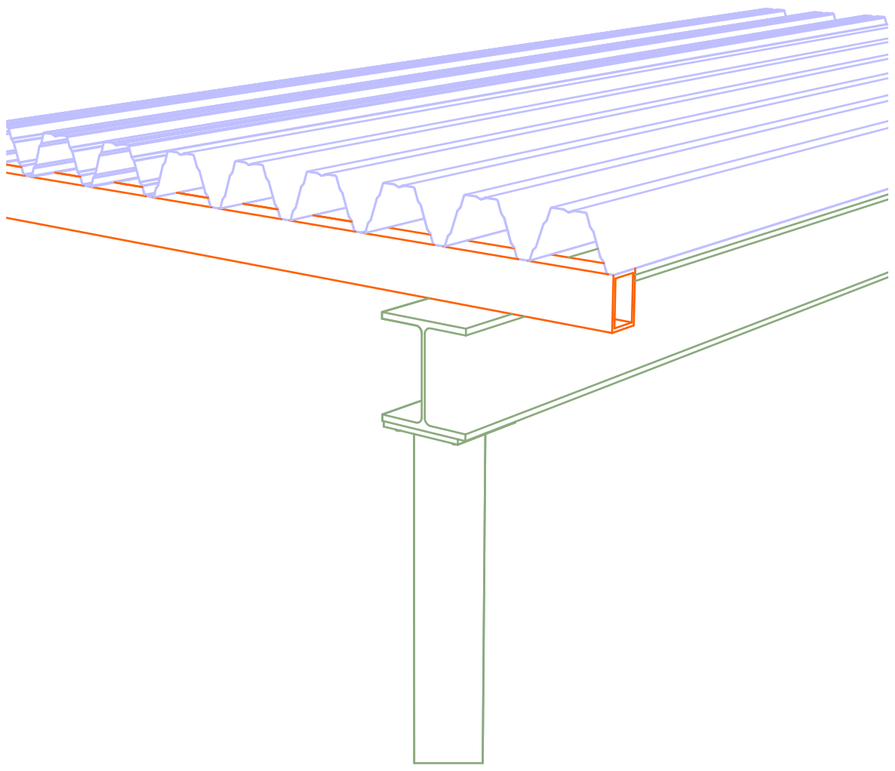
LOADBEARING STRUCTURE

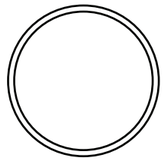


Existing steel structures

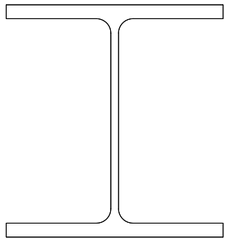
PROPERTIES EXISTING BUILDING



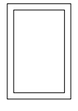




Steel pipe column
d = 190 mm



HE290A profile



Steel tube roof beam
150 x100 mm

Metal roof plate
d: 150 mm

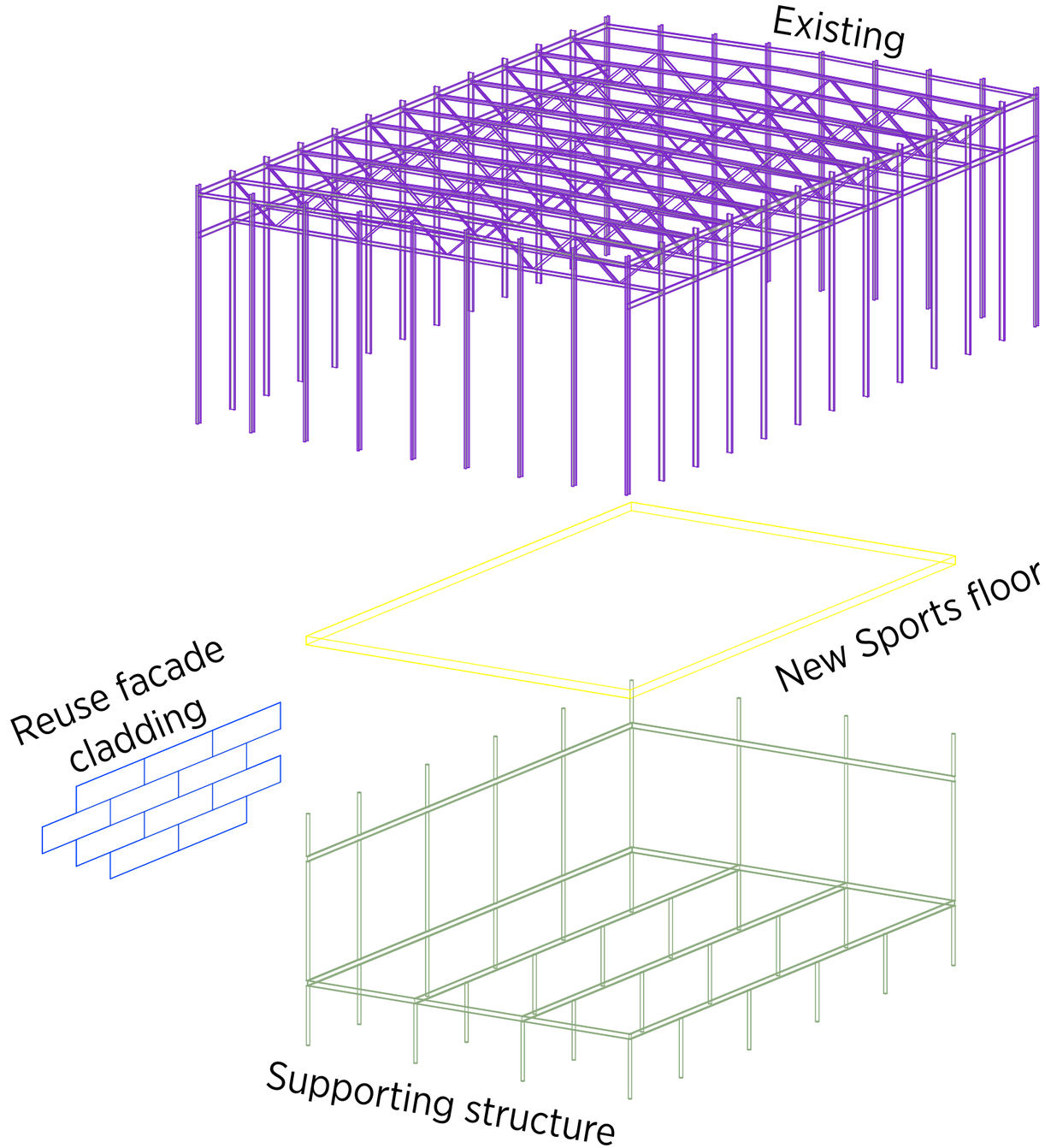
Concrete floor slabs
d: 230 mm

Dimensions structure

LOADBEARING STRUCTURE

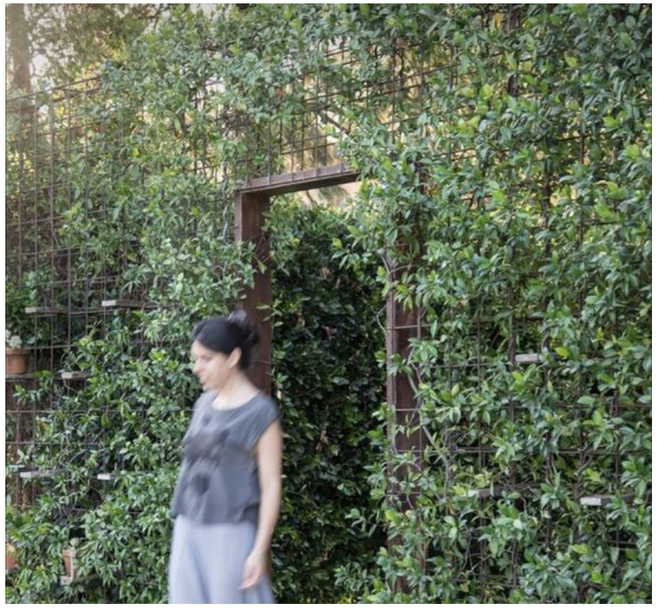
Visible connections

LOADBEARING STRUCTURE SPORTSHALL

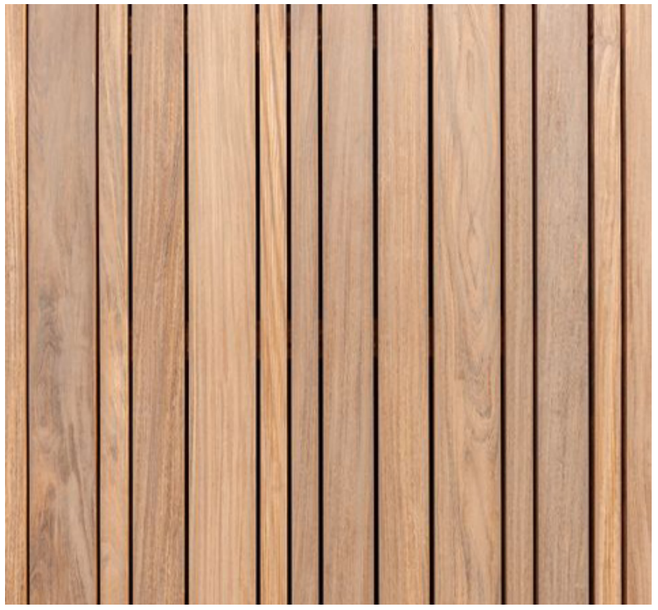


Structure concept

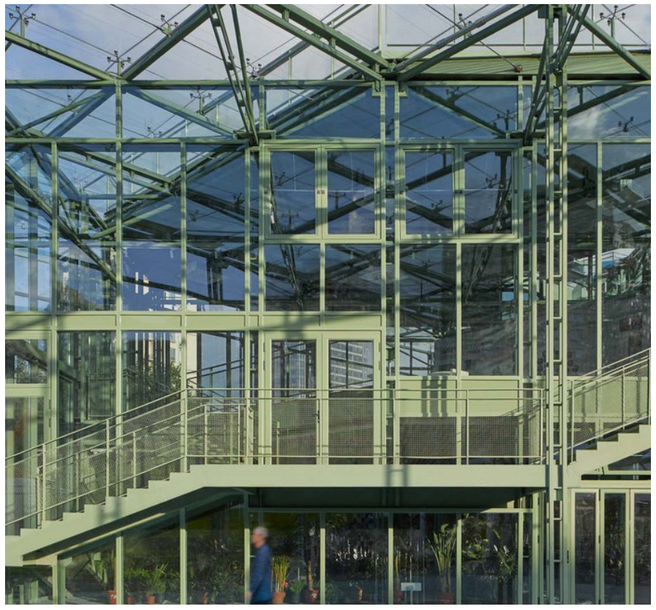
FACADE MATERIALS



Wire mesh with climbing plants



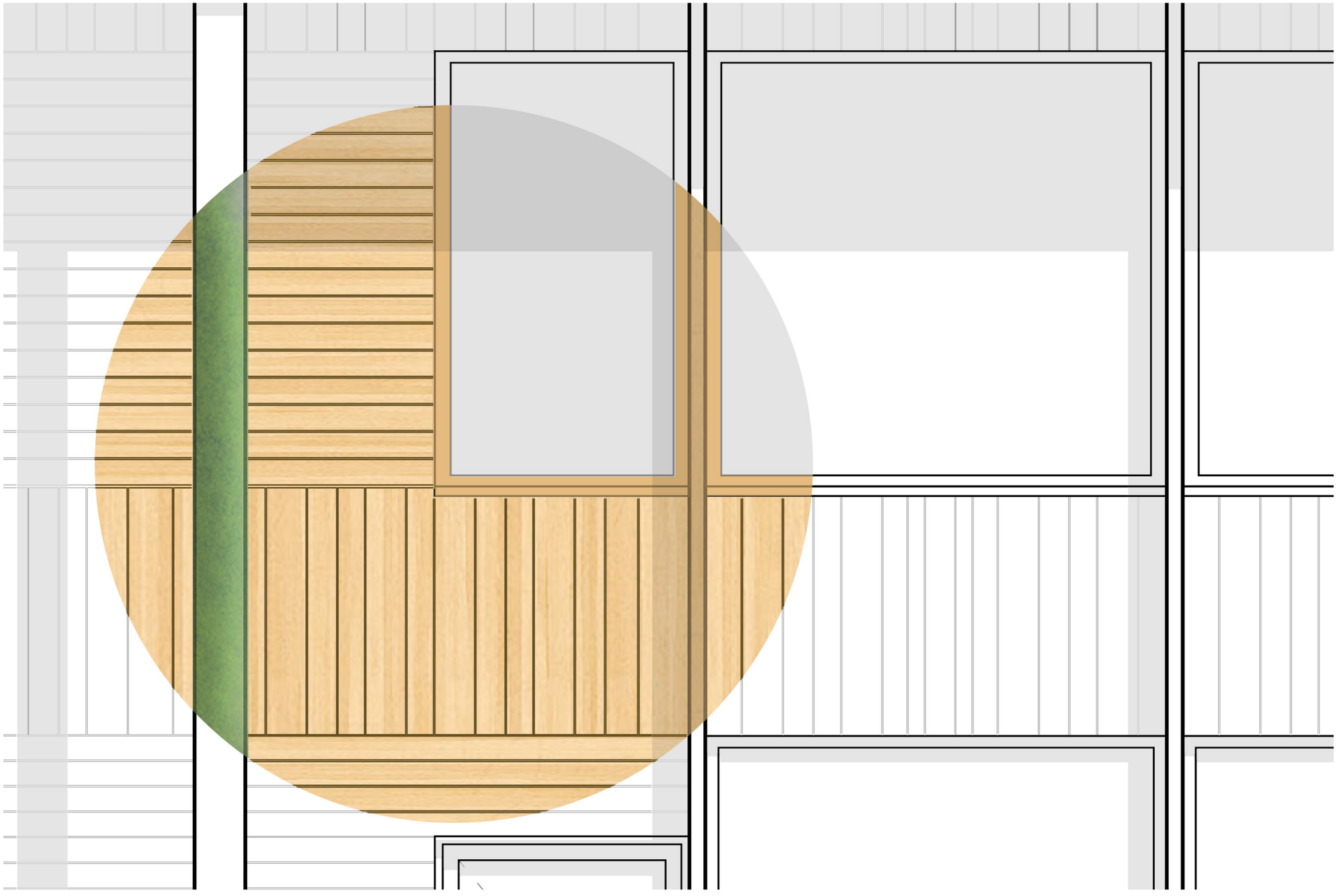
Wooden slats



Green steel structure

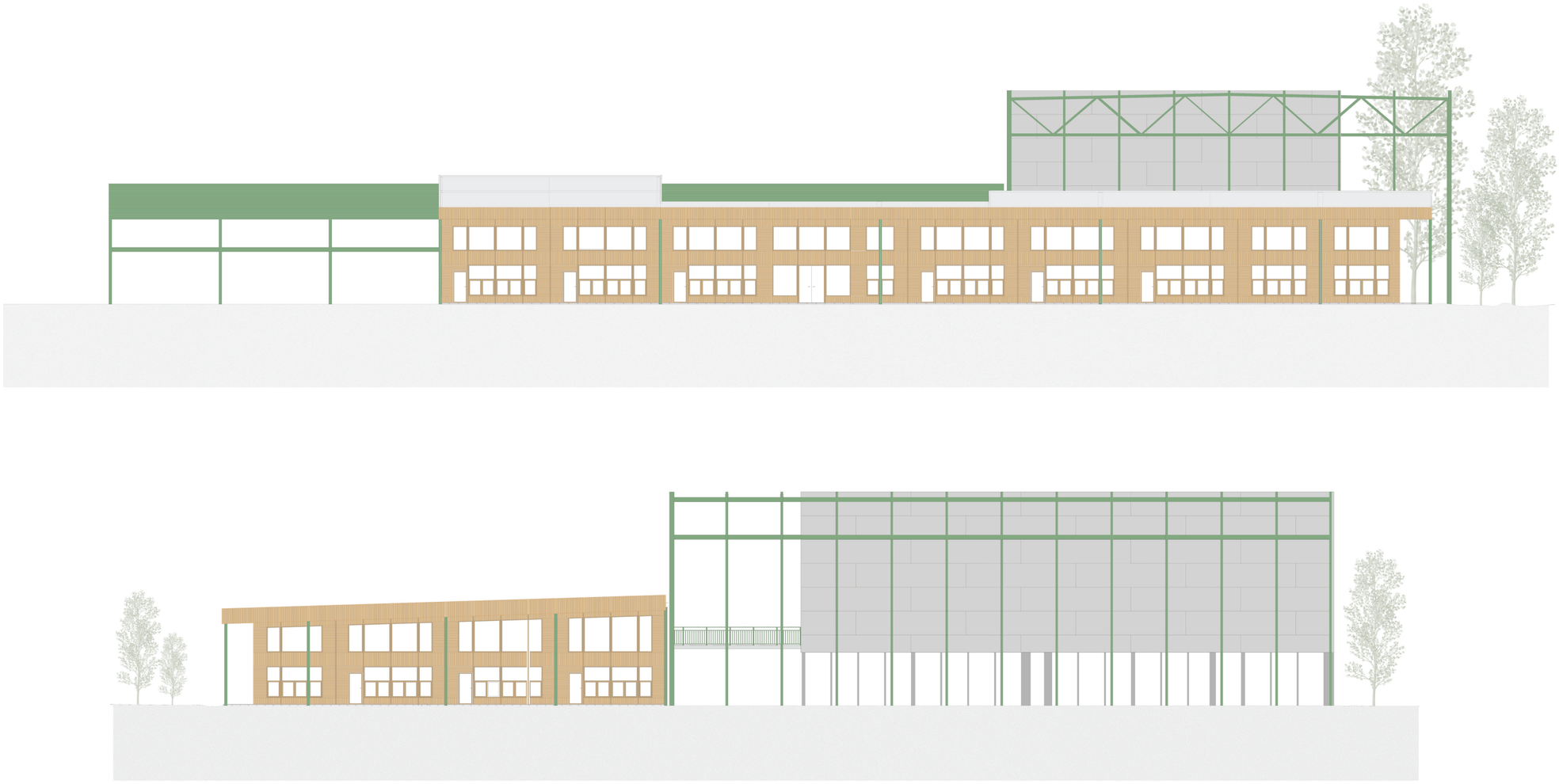
Reuse Eventlounge cladding

FACADE ZOOM IN



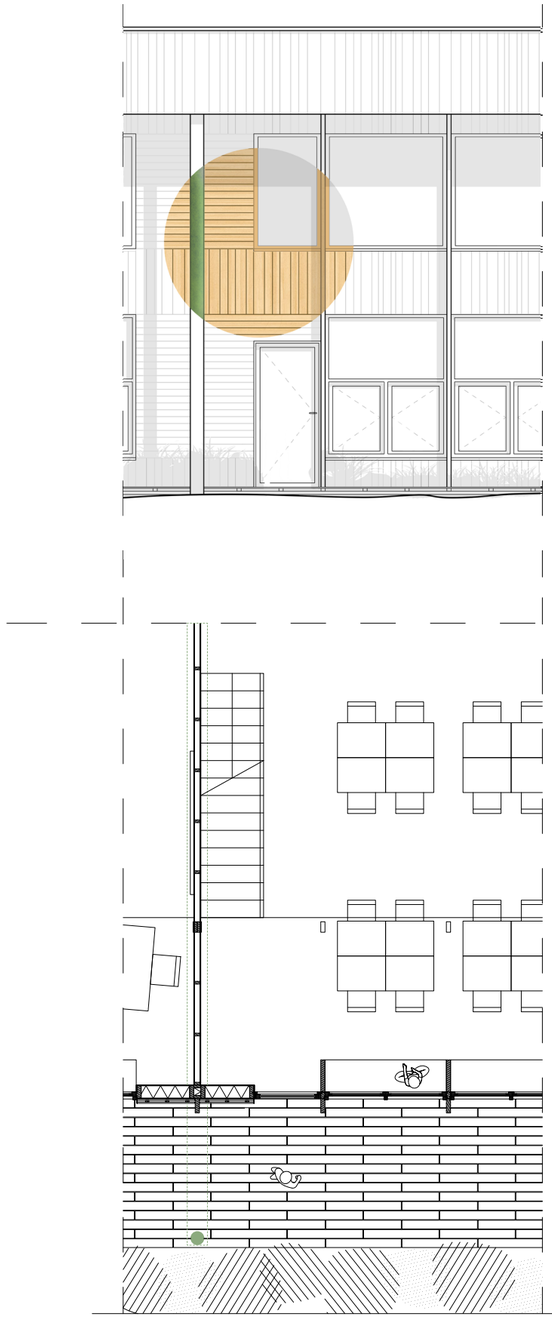
Materialisation

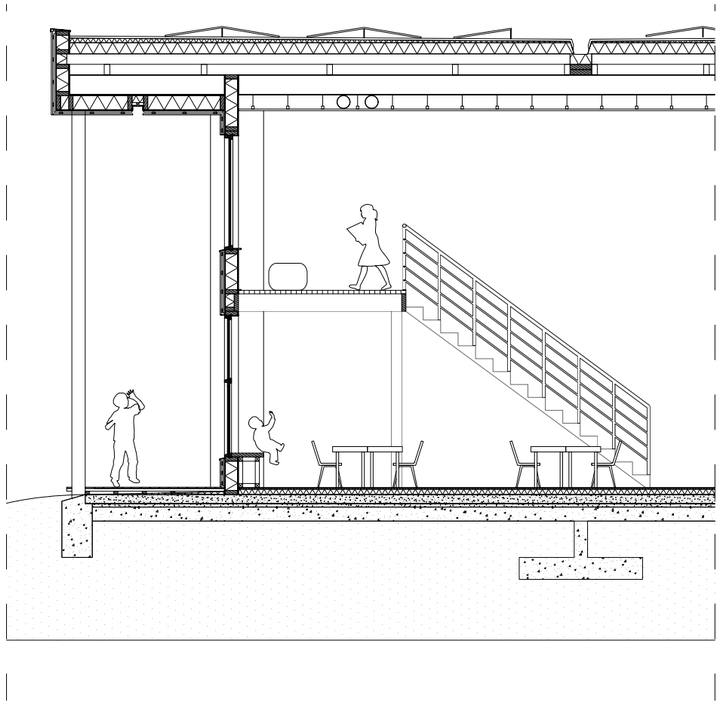
FACADE



1:200

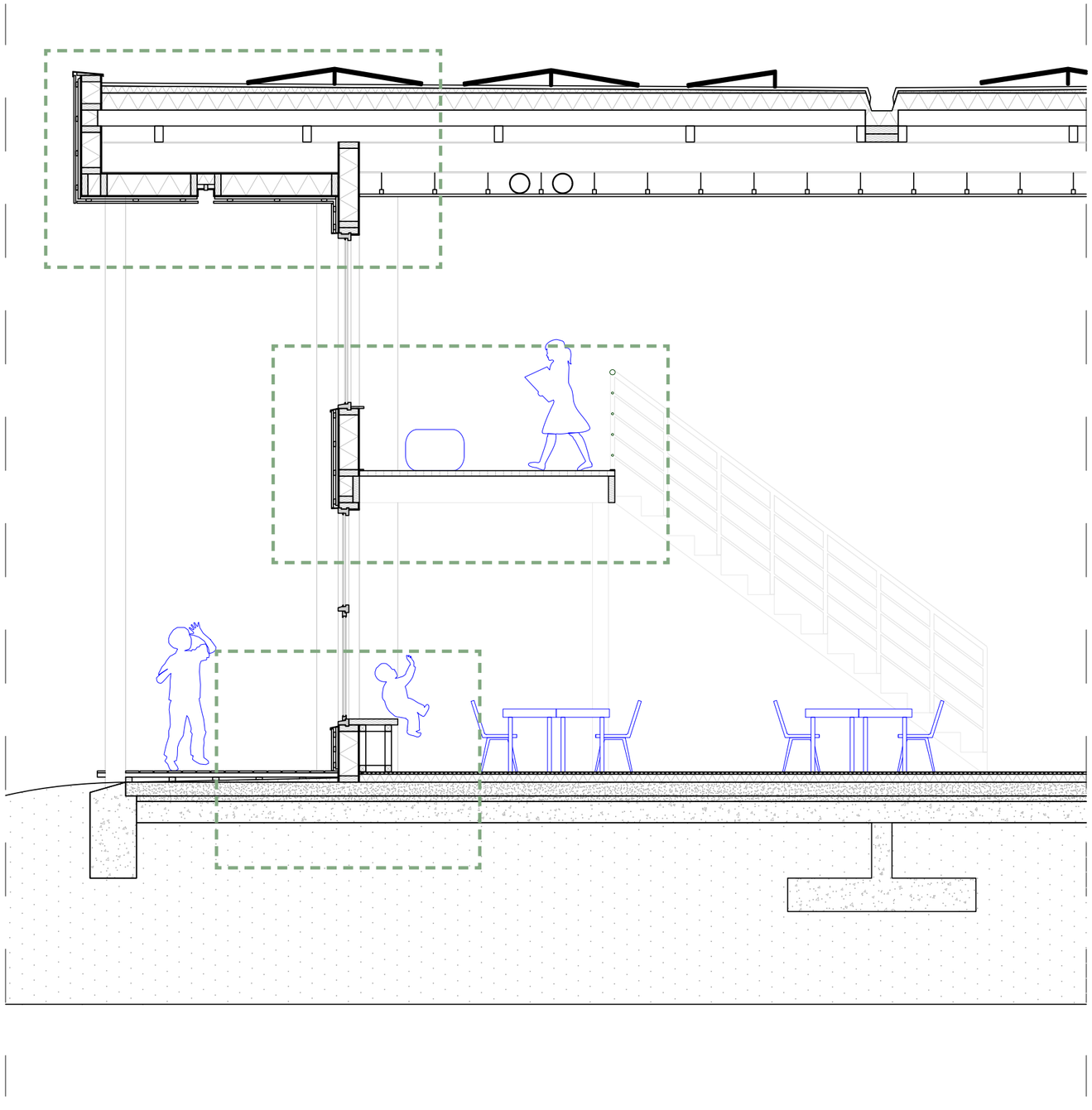
FACADE FRAGMENT





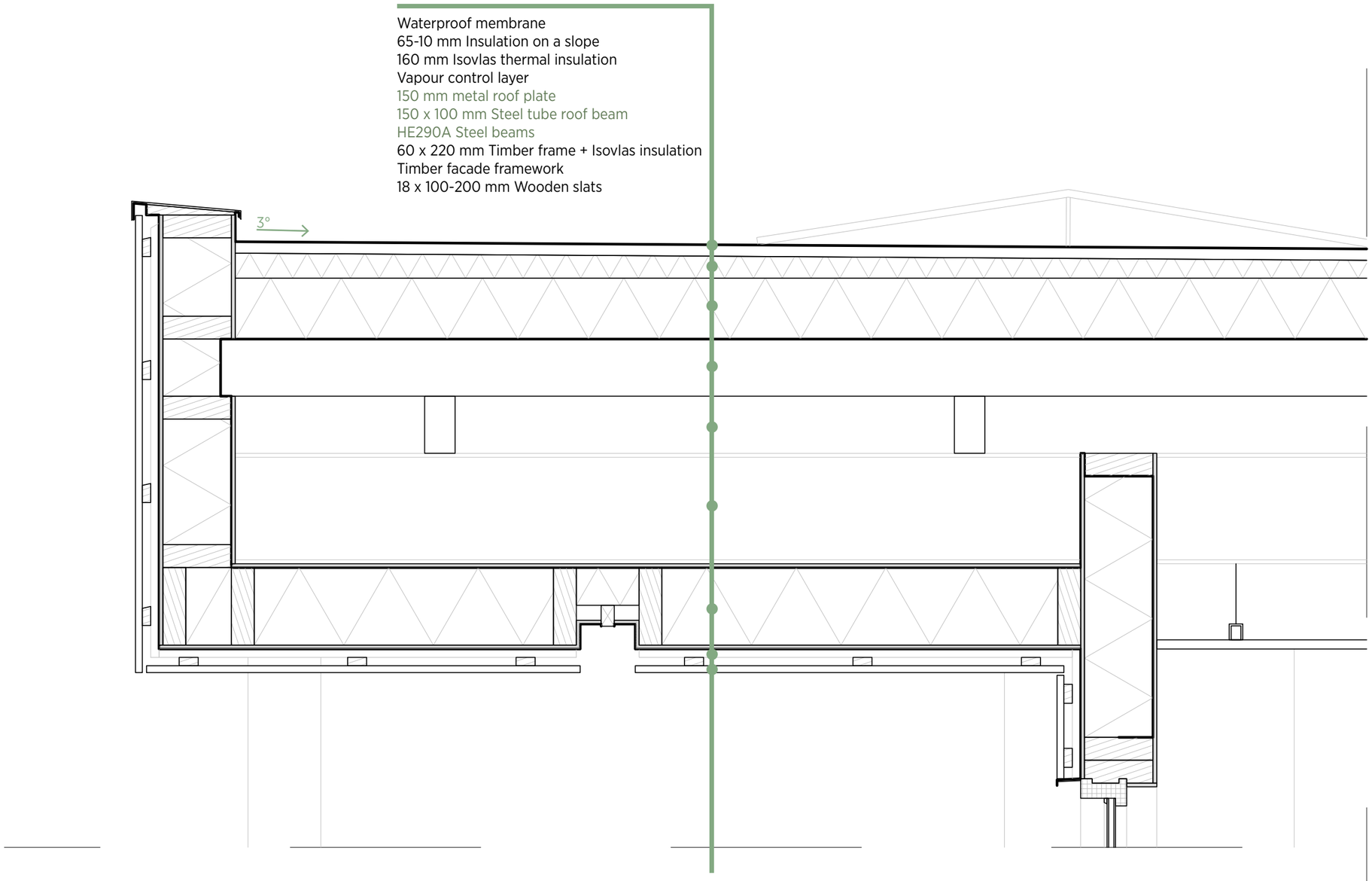
South west facade, classroom 1:20

FACADE FRAGMENT



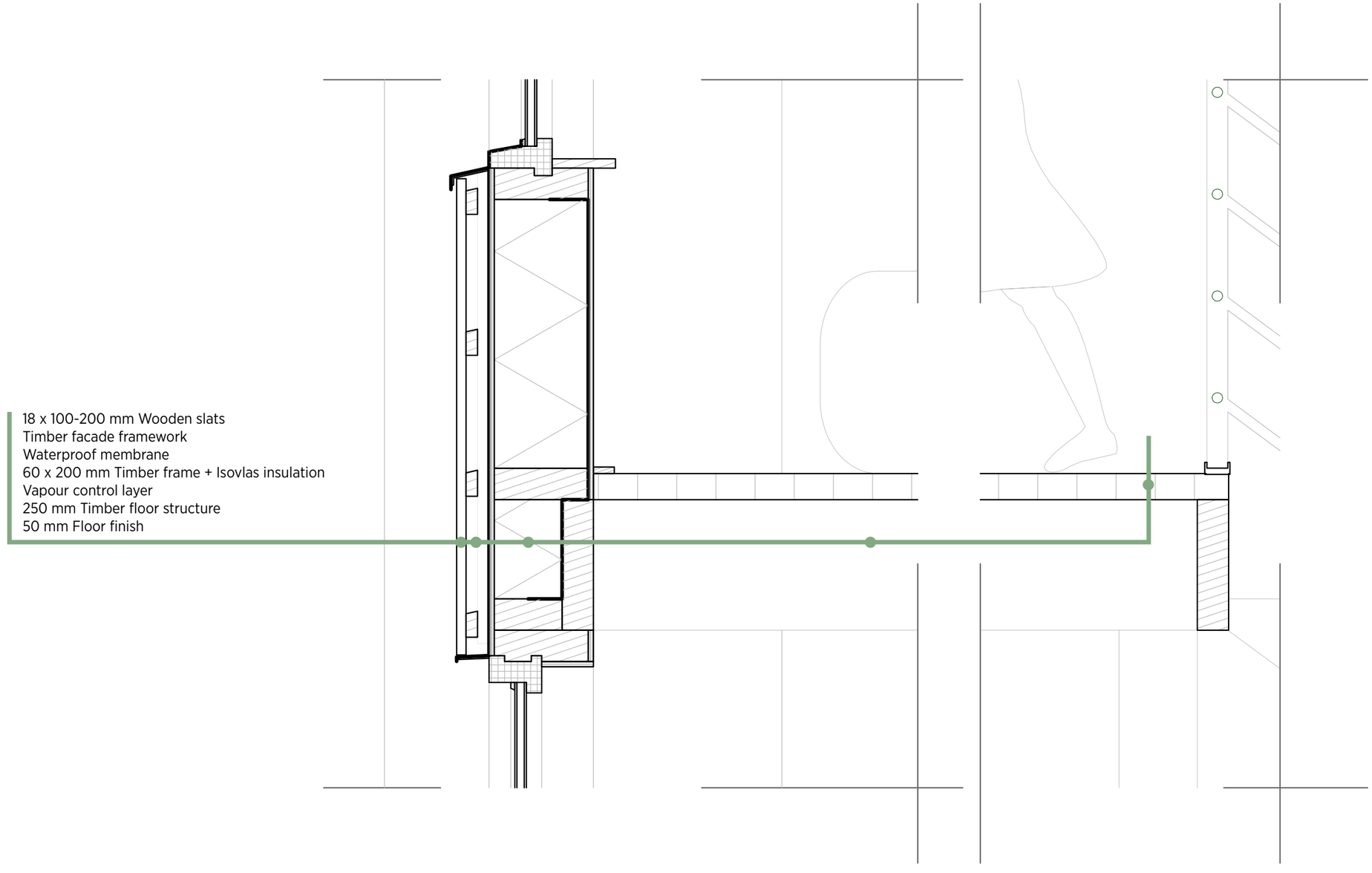
Vertical section, classroom 1:20

ROOF DETAIL



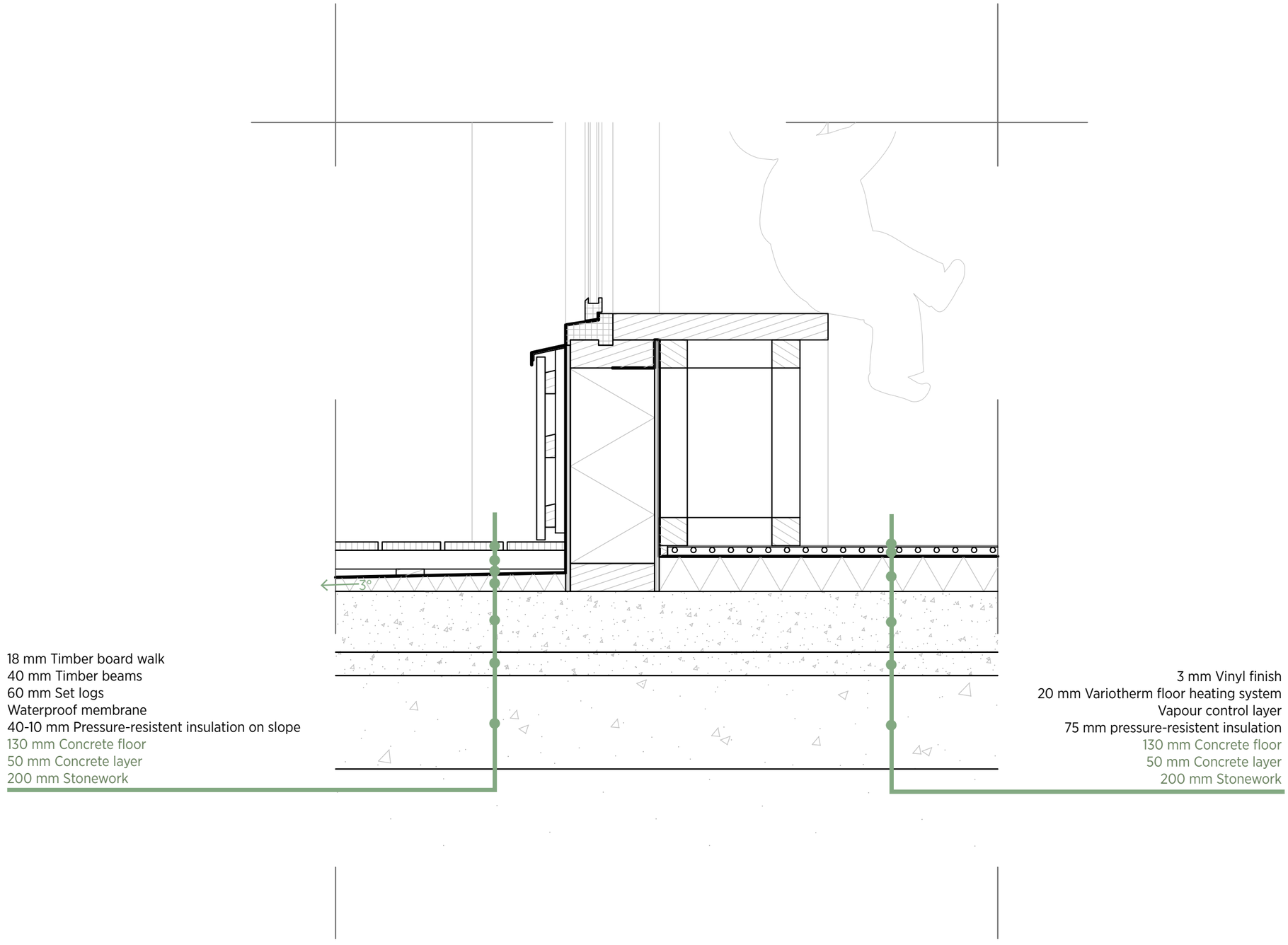
Classroom 1:5

ENTRESOL DETAIL



Classroom 1:5

FACADE BENCH DETAIL

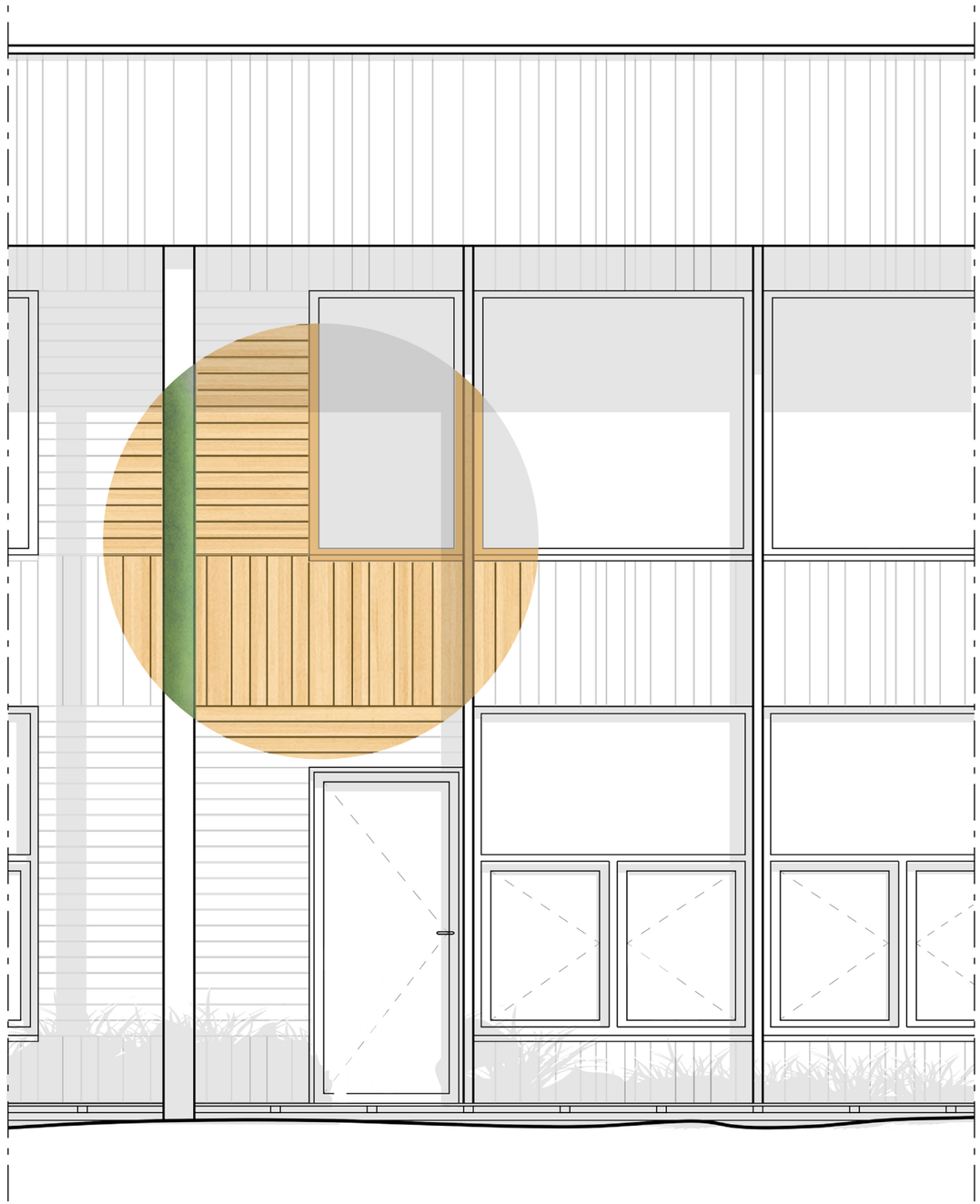


18 mm Timber board walk
40 mm Timber beams
60 mm Set logs
Waterproof membrane
40-10 mm Pressure-resistent insulation on slope
130 mm Concrete floor
50 mm Concrete layer
200 mm Stonework

3 mm Vinyl finish
20 mm Variotherm floor heating system
Vapour control layer
75 mm pressure-resistent insulation
130 mm Concrete floor
50 mm Concrete layer
200 mm Stonework

Classroom 1:5

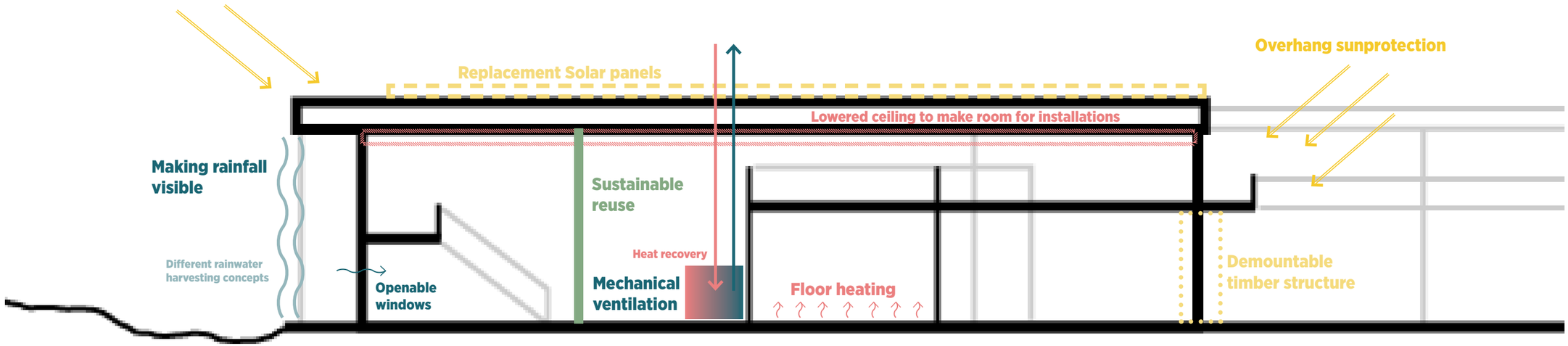
FACADE FRAGMENT



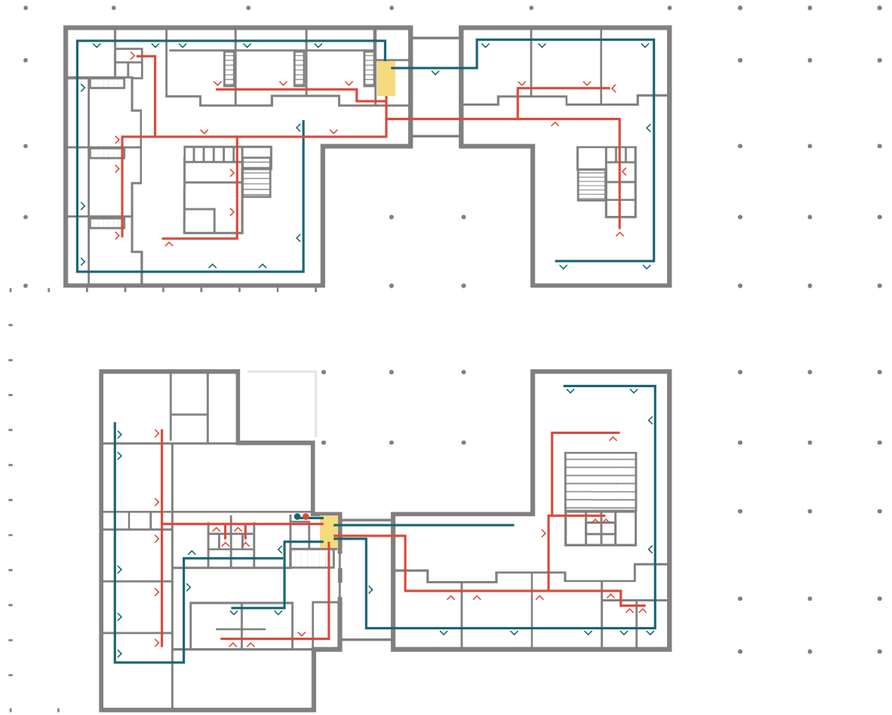
Materialised facade

CLIMATE

CLIMATE CONCEPT



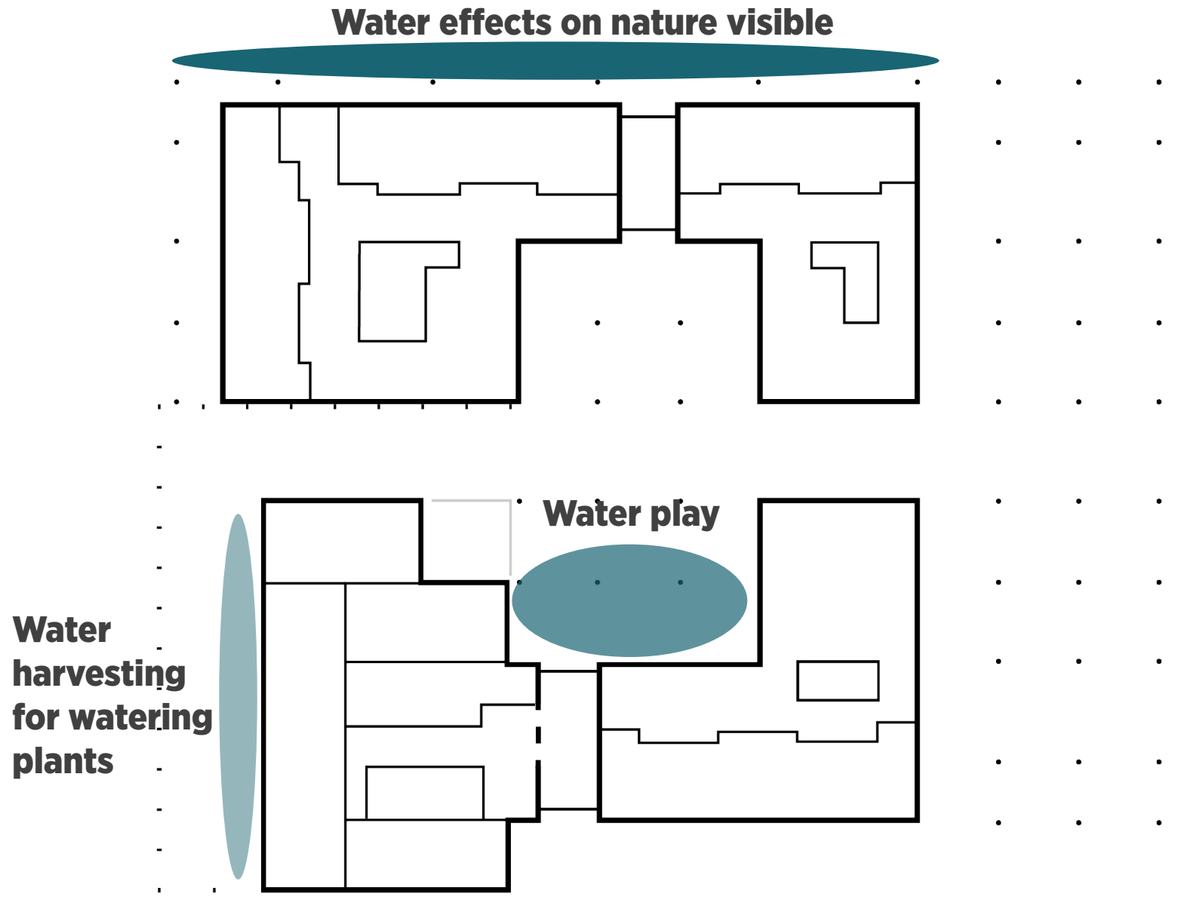
VENTILATION SCHEME



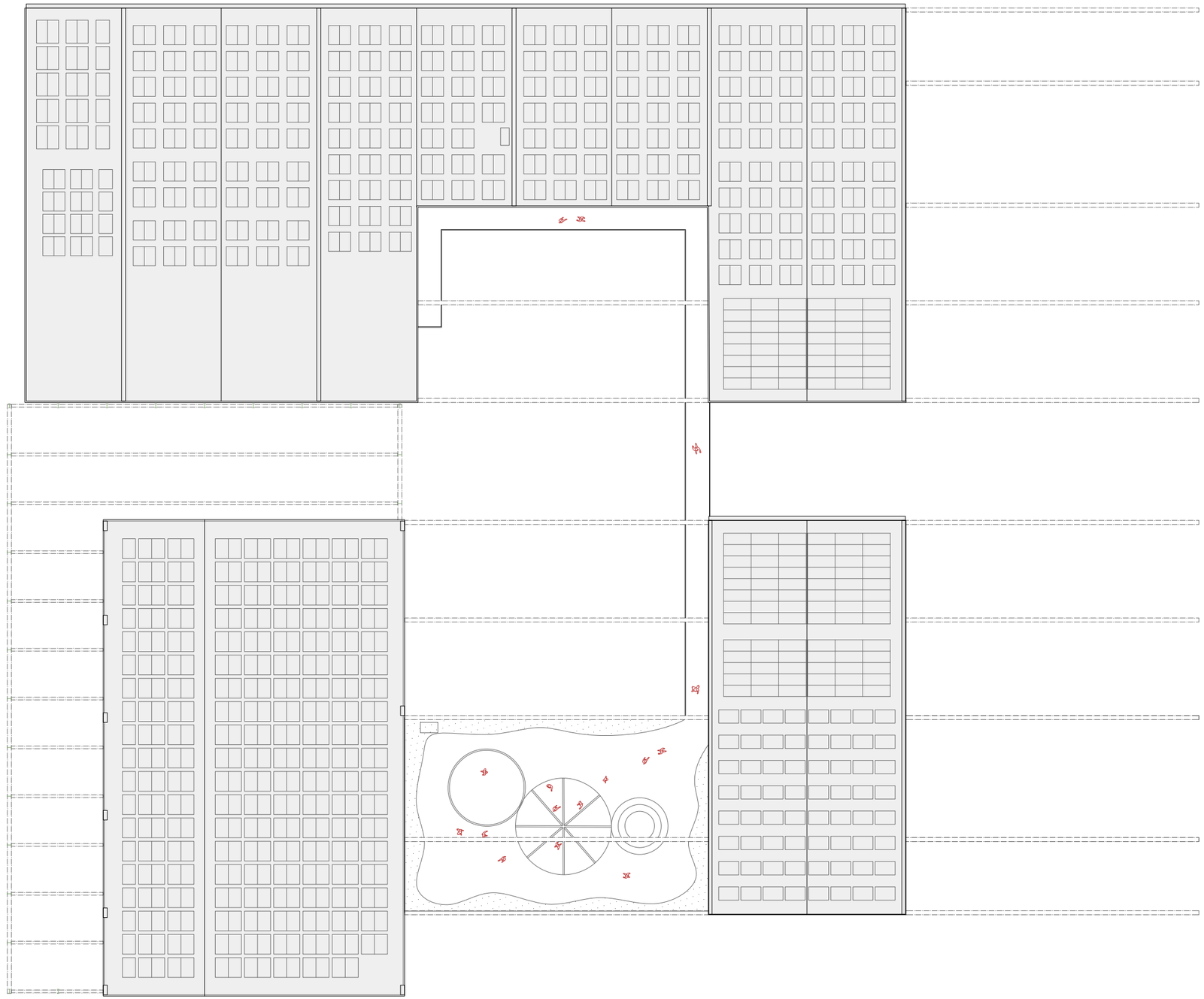
GROUND FLOOR

1ST FLOOR

CLIMATE CONCEPT

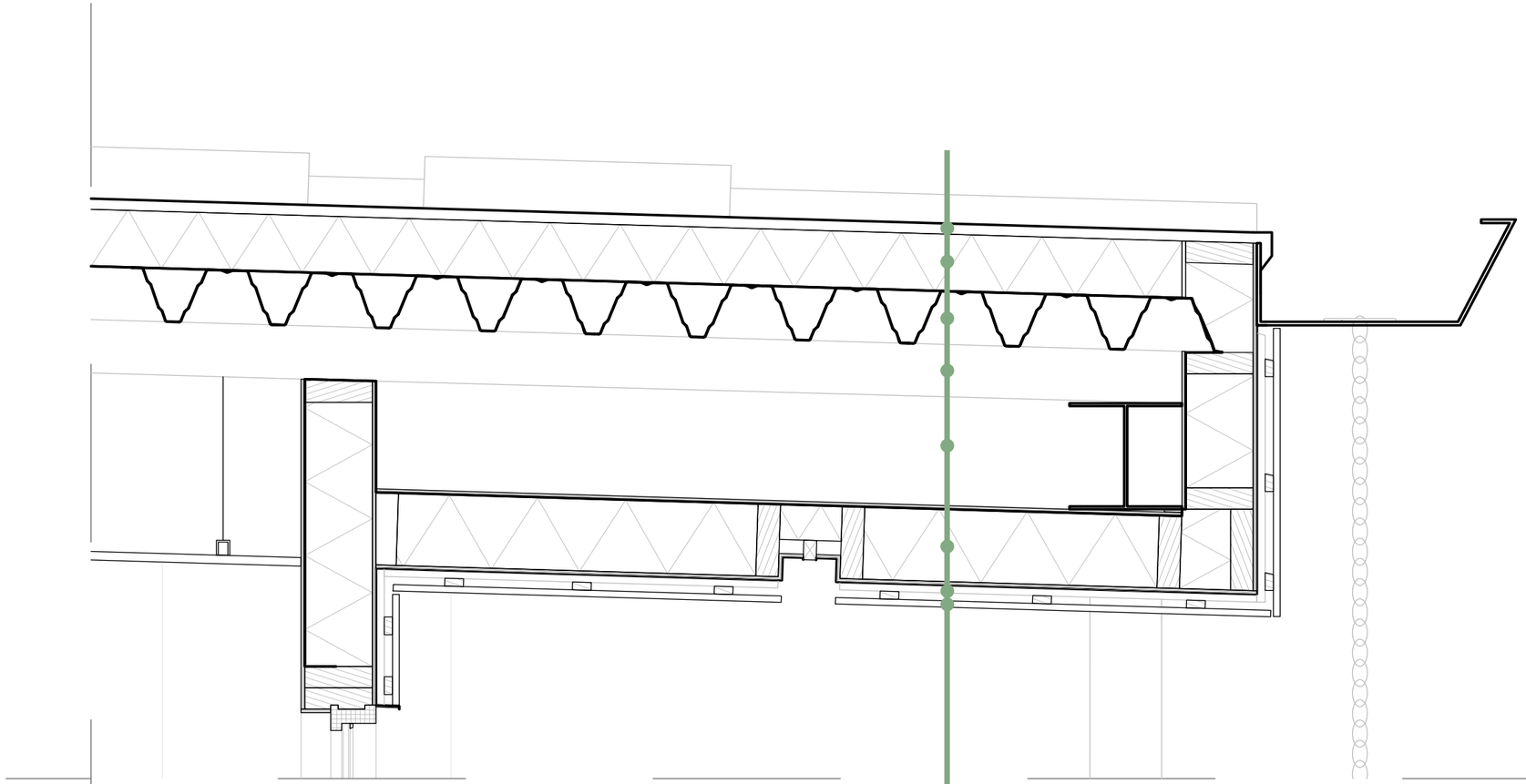


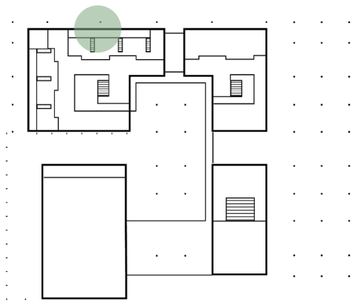
ROOF FLOORPLAN



1:200

DETAIL RAIN FALL

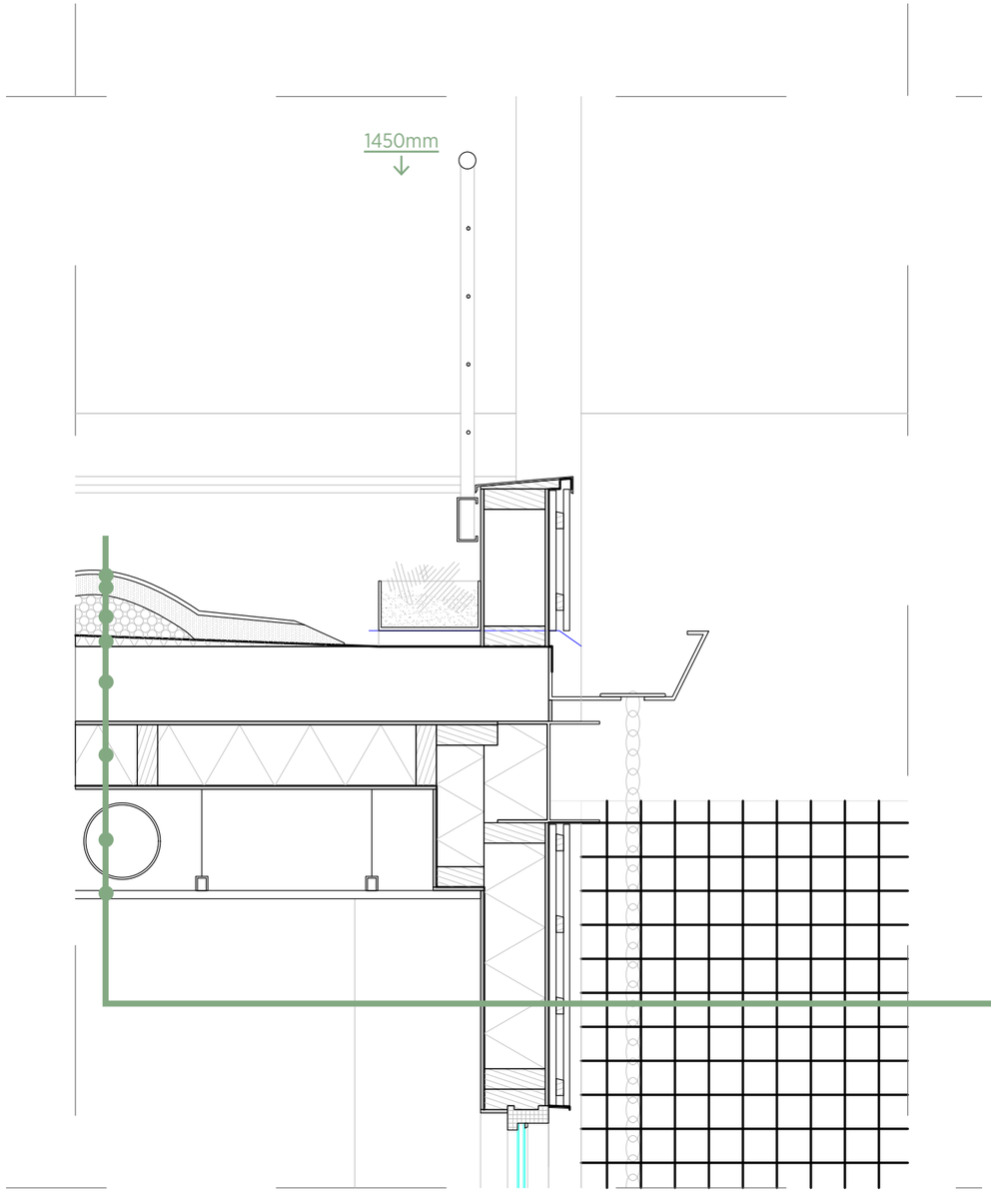


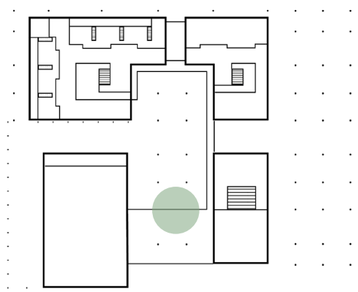


Waterproof membrane
160 mm Isovlas thermal insulation
Vapour control layer
150 mm metal roof plate
150 x 100 mm Steel tube roof beam
HE290A Steel beams
60 x 220 mm Timber frame + Isovlas insulation
Timber facade framework
18 x 100-200 mm Wooden slats

North facade 1:5

DETAIL PLAYROOF



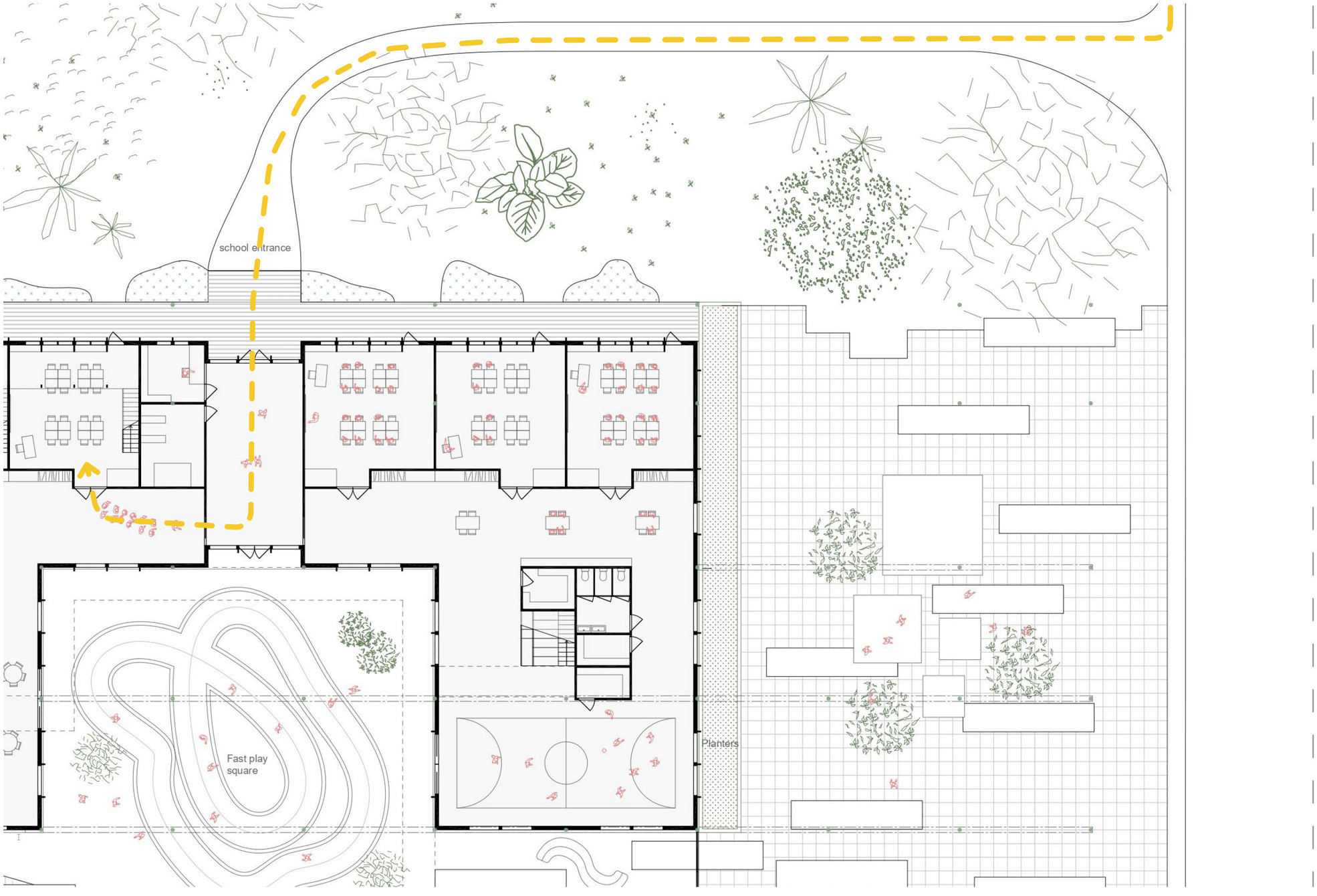


12 mm Rubber granulate covering
60-90 mm Loose rubber granules
10 - 400 mm Gravel
Waterproof membrane
10 - 65 mm insulation on slope
230 mm Concrete flooring
60 x 200 mm Timber frame + Isovlas insulation
300 mm Space for installations
24 mm Ceiling

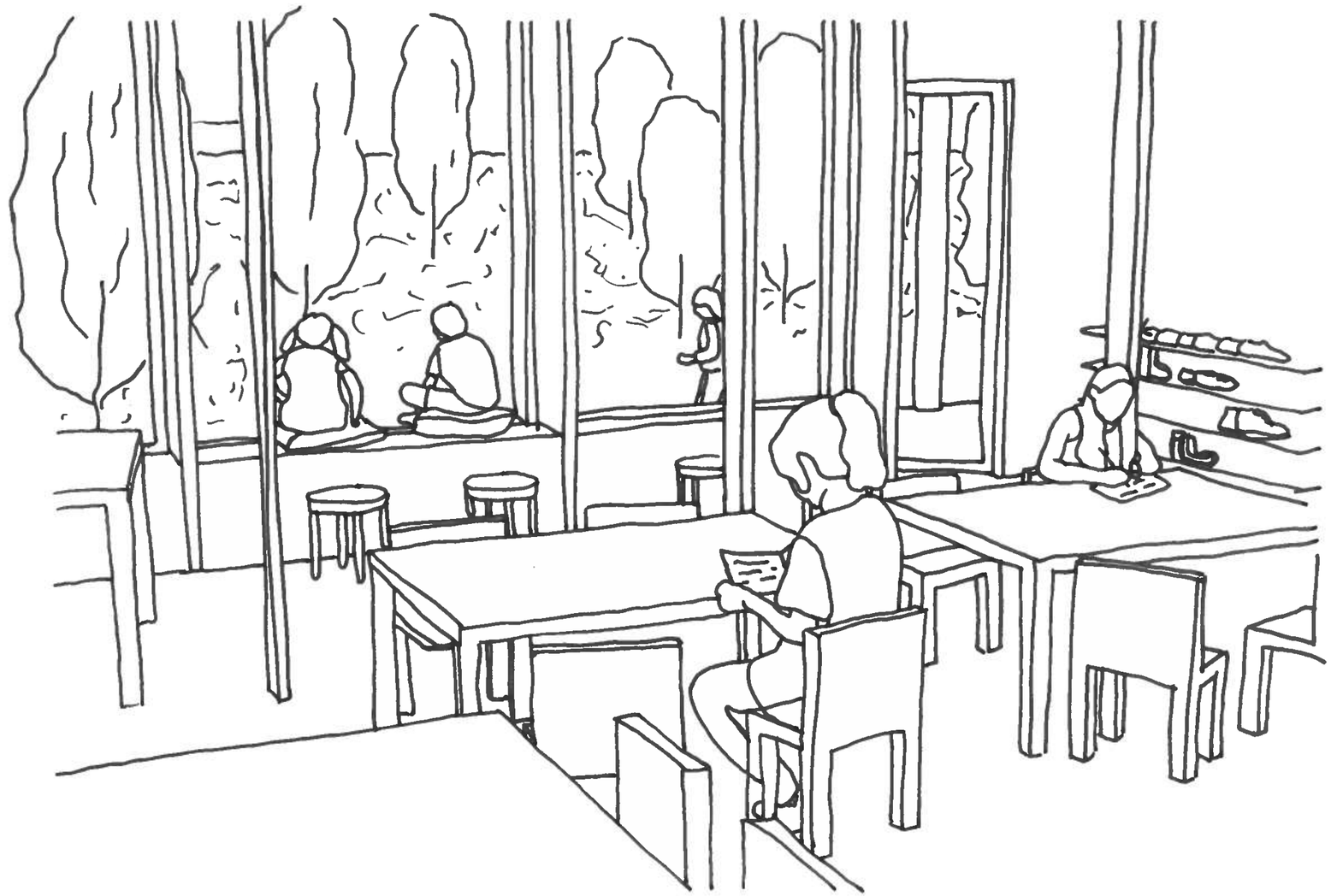
Playroof 1:5

ENGAGEMENT

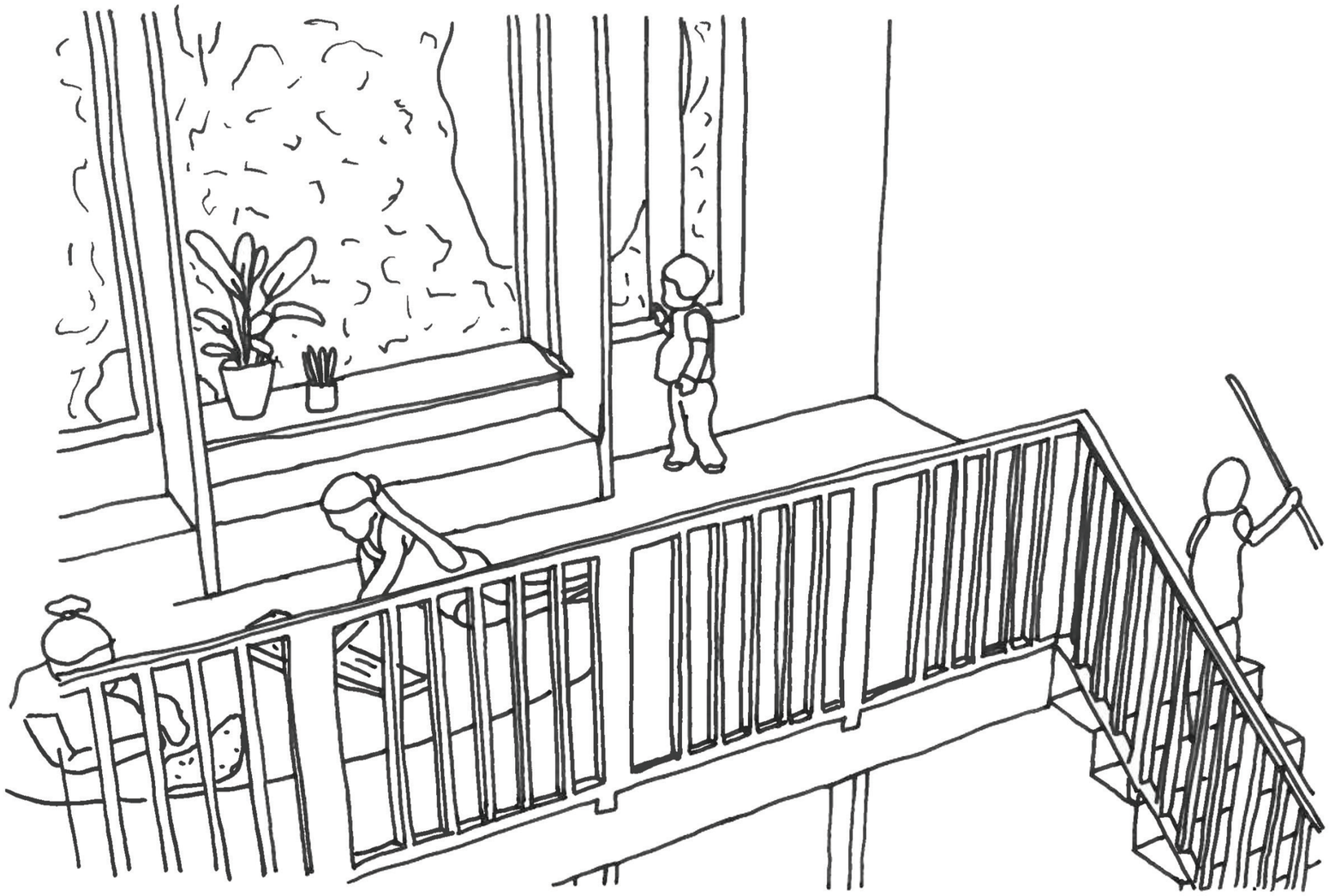
HOUSE OF THE CHILD, FOR THE CITY

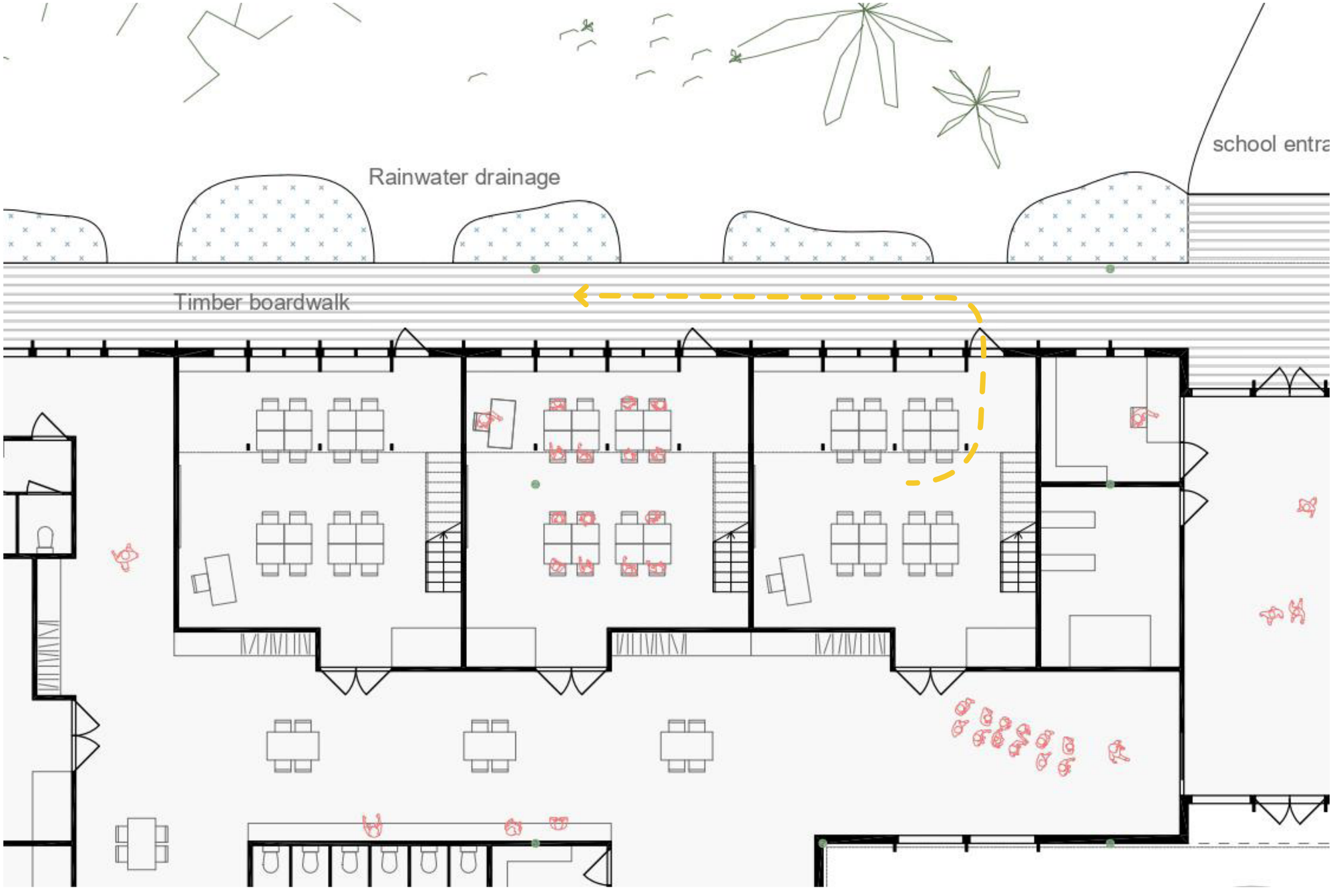

school entrance
Fast play square
Planters

DIFFERENT ATMOSPHERES IN THE CLASSROOM

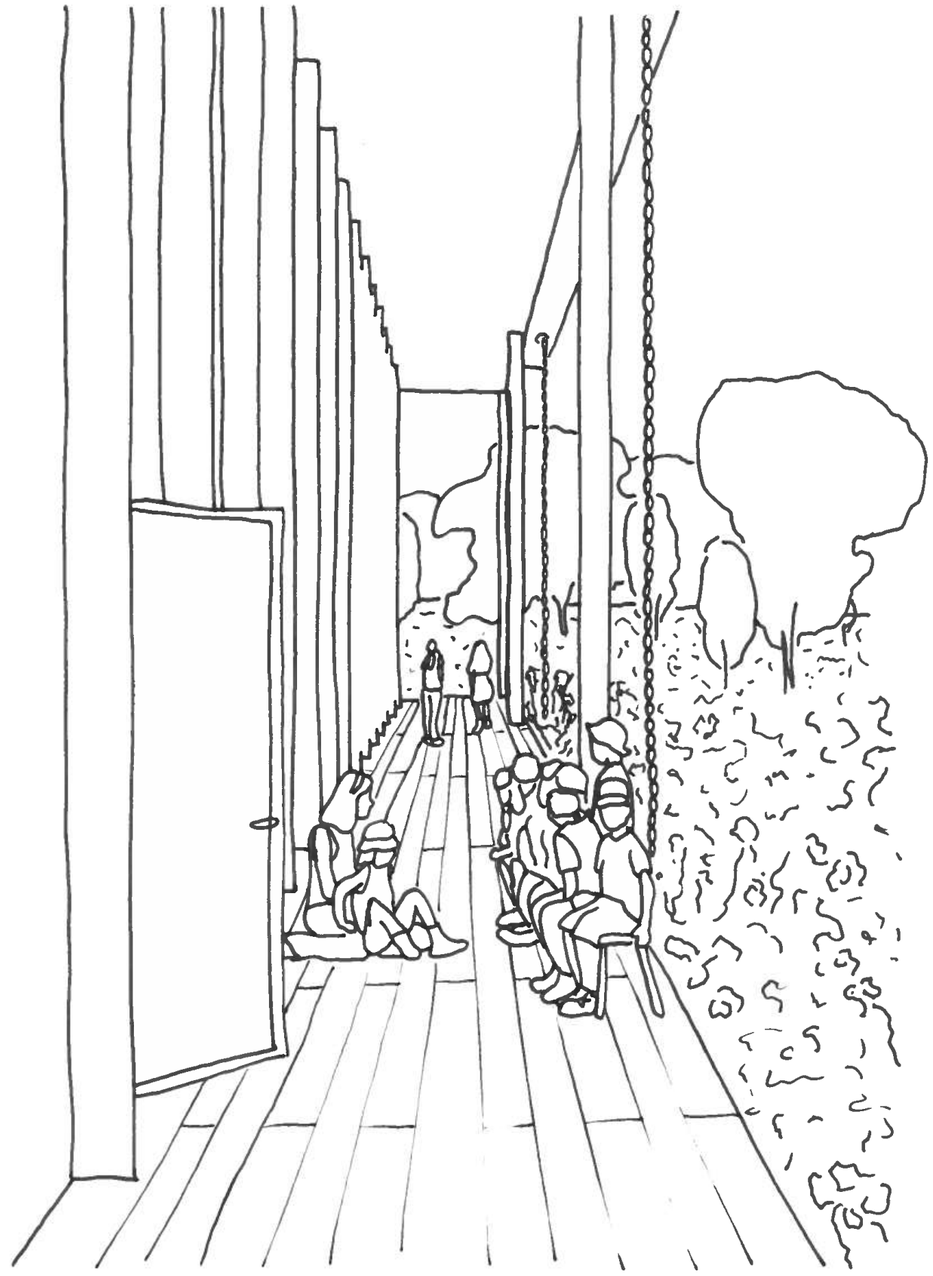


USING THE HIGHT TO CONNECT WITH THE VIEW



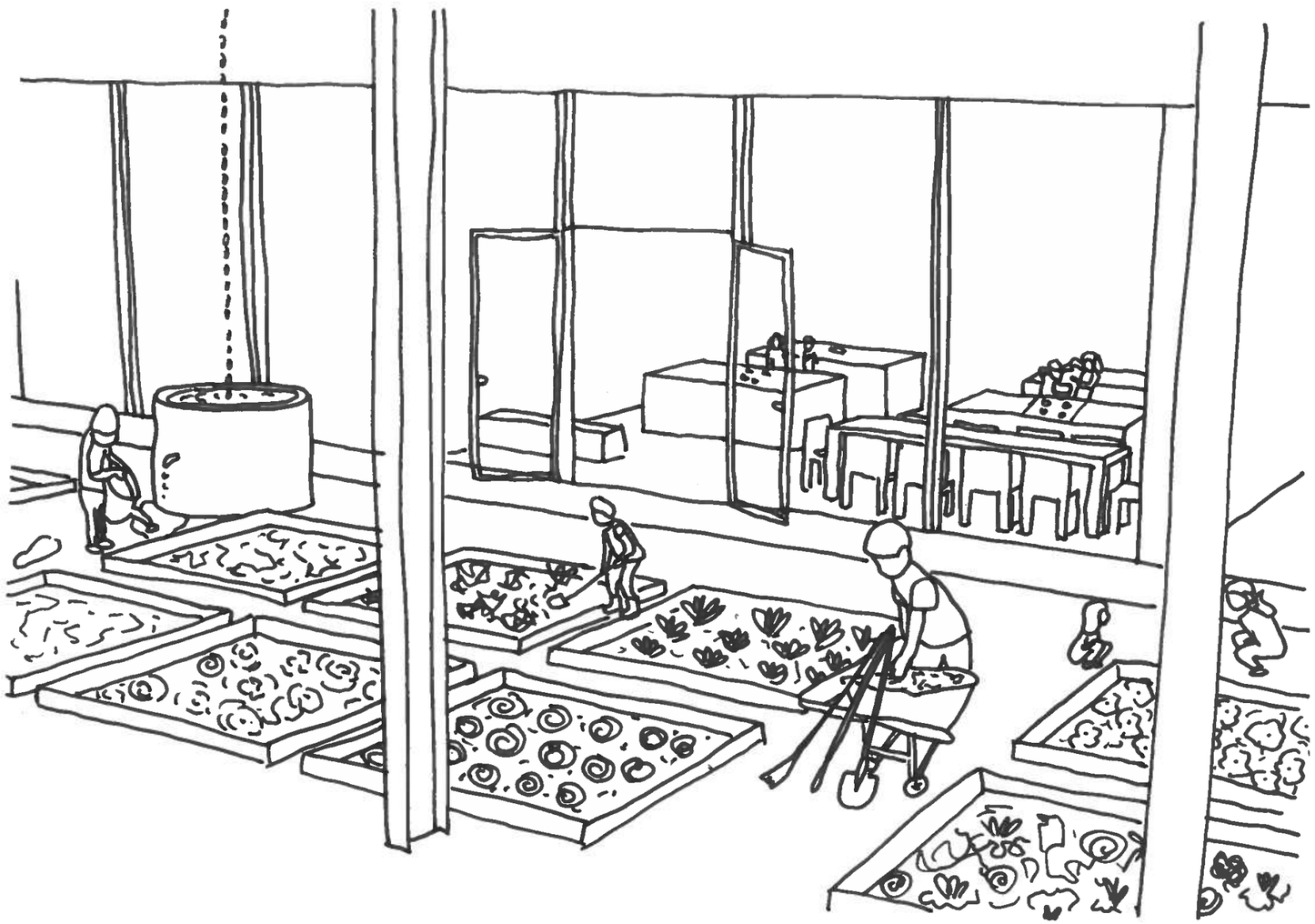

Rainwater drainage
school entra
Timber boardwalk

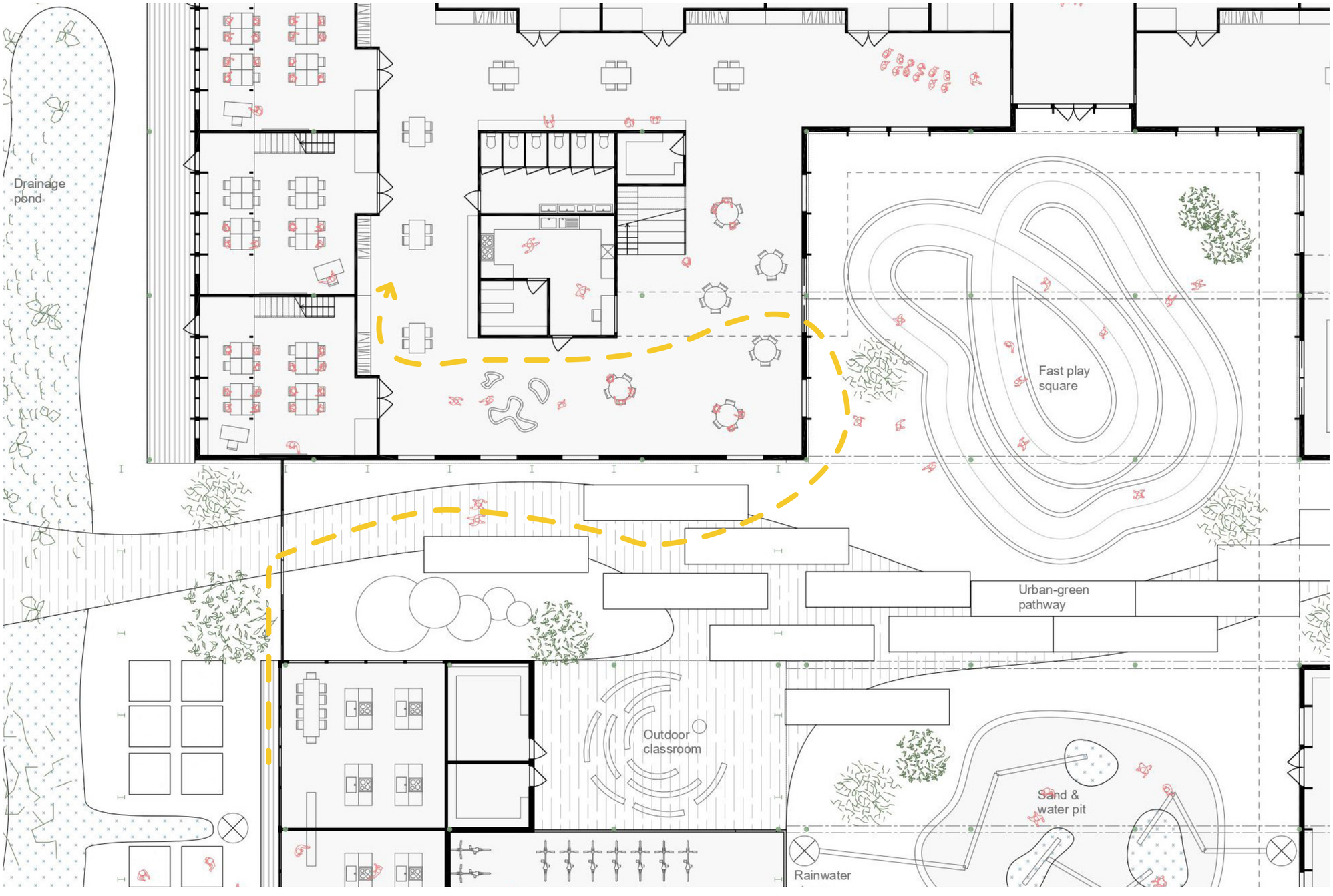
TIMBER BOARDWALK AS TRANSITION ZONE



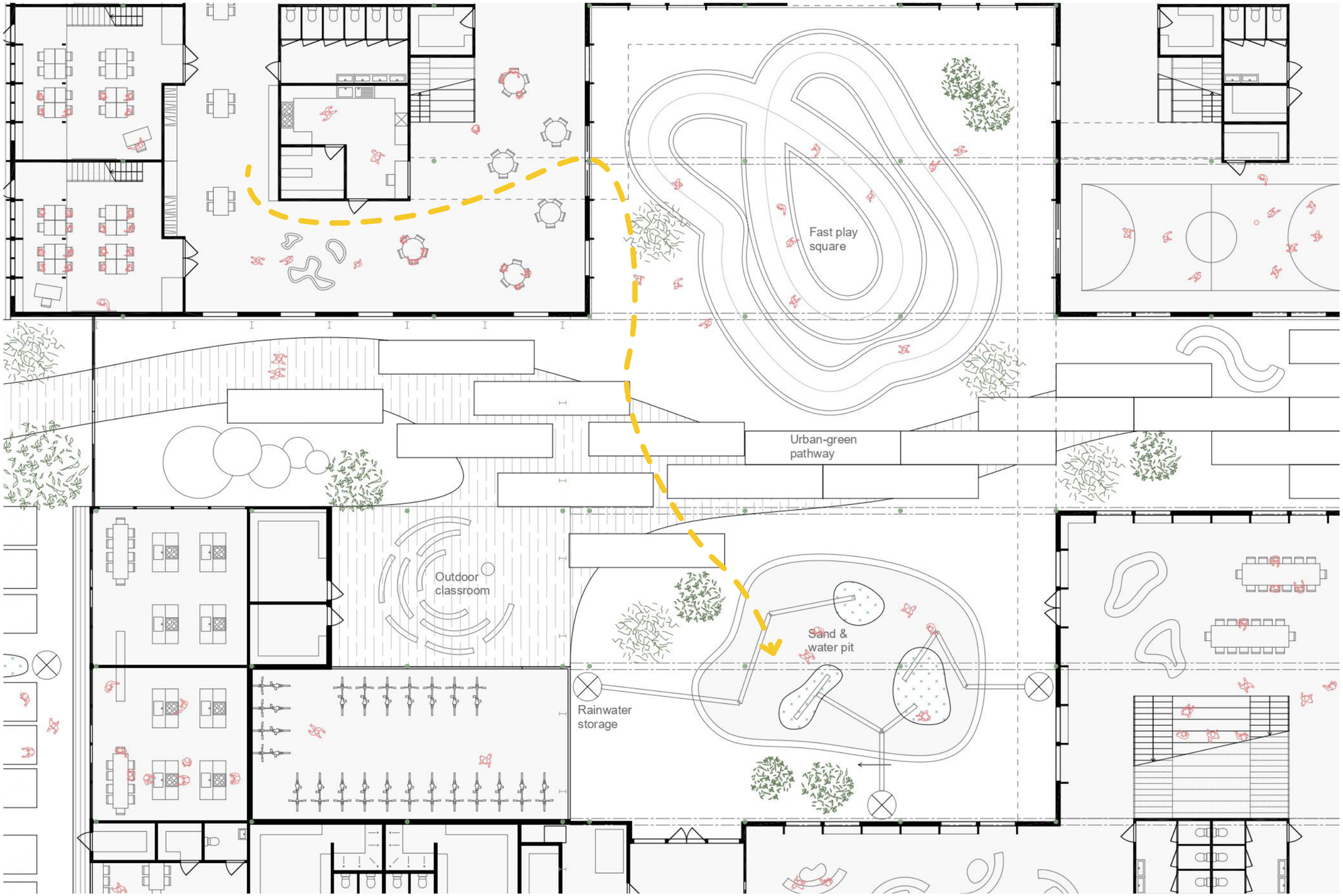
SCHOOLGARDENS

A PLACE TO DEPEND ON AND PARTICIPATE IN

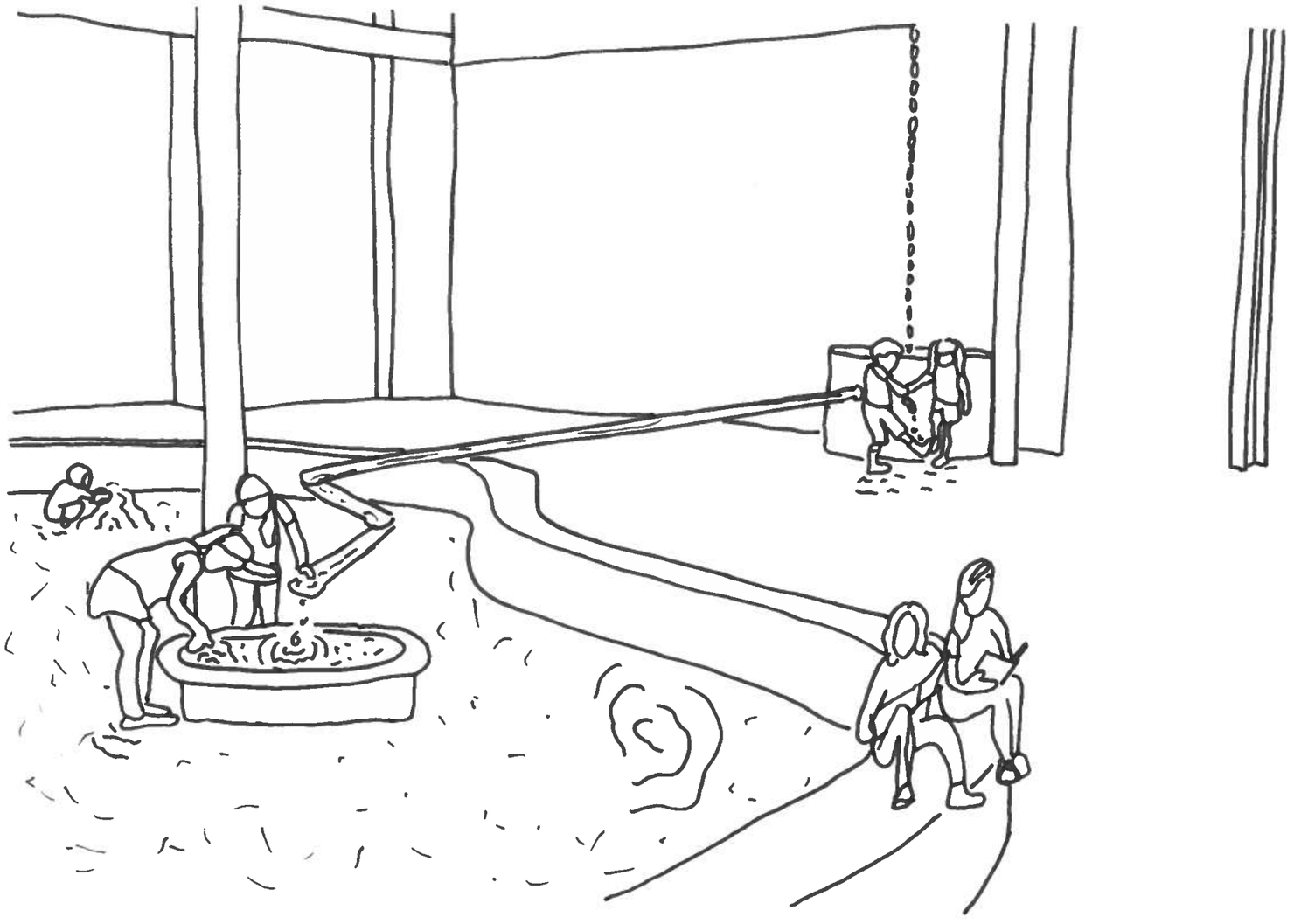


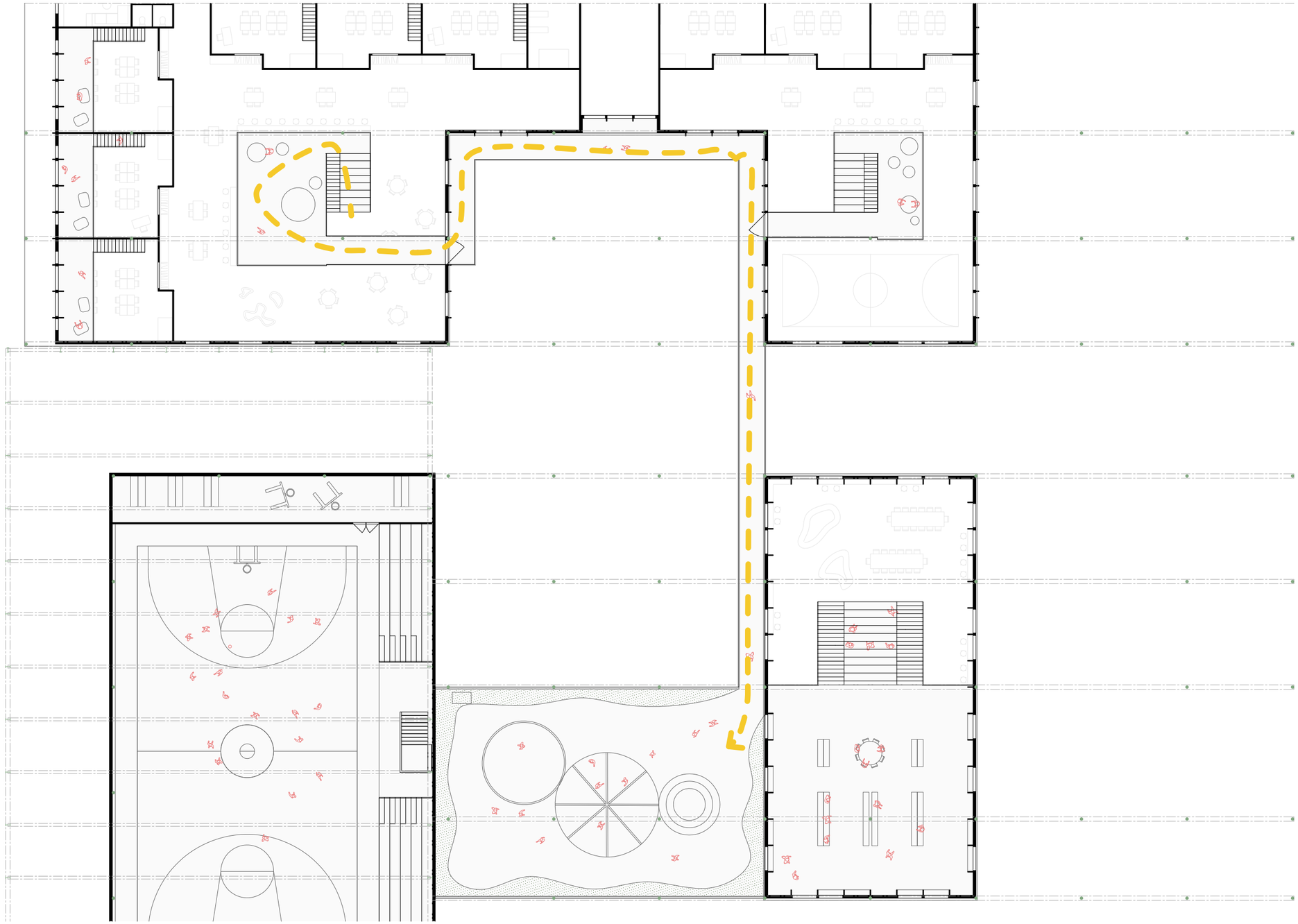

Drainage pond
Fast play square
Urban-green pathway
Outdoor classroom
Sand & water pit
Rainwater

IMPRESSION LEARNING SQUARE

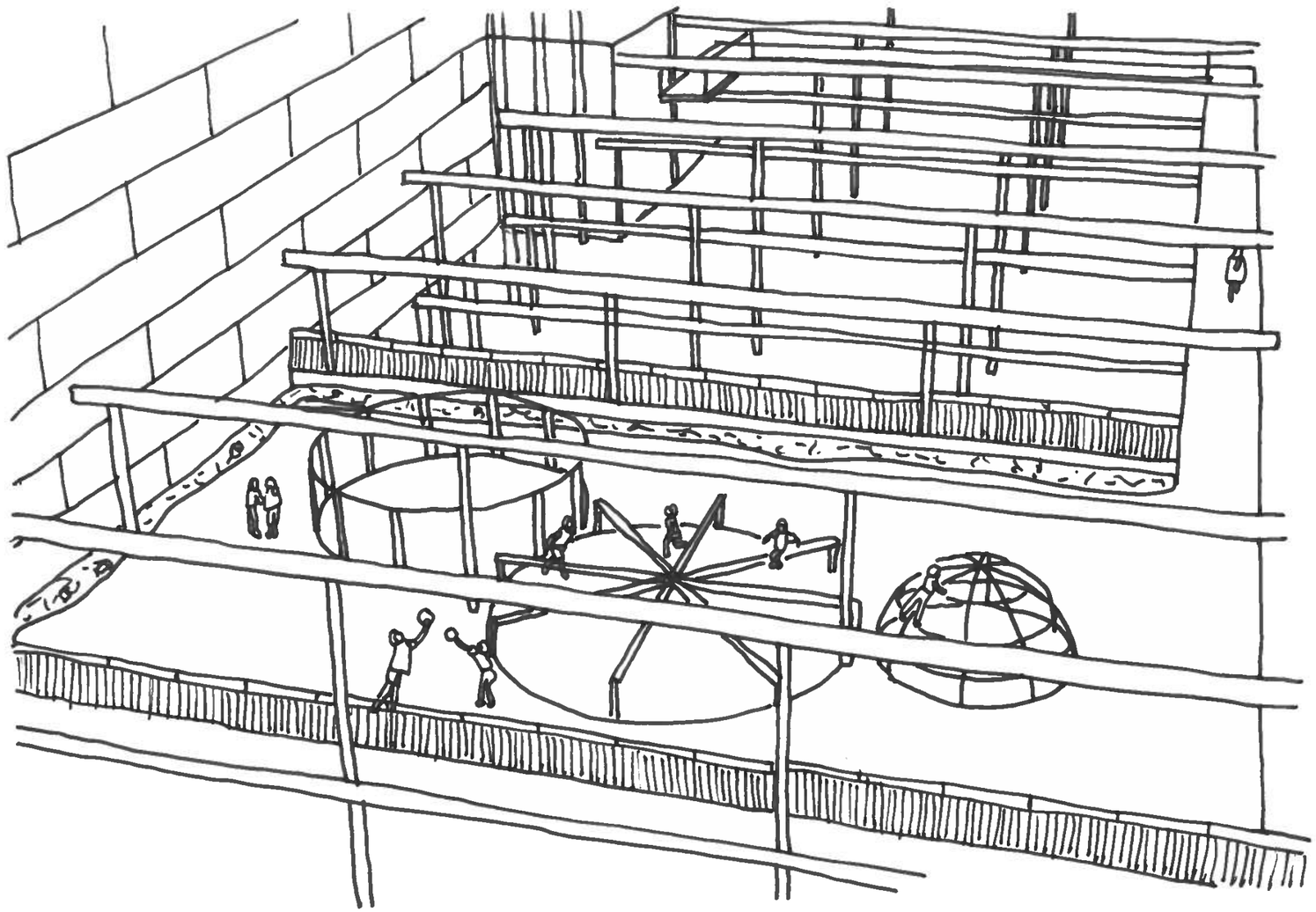

Fast play
square
Urban-green
pathway
Outdoor
classroom
Sand &
water pit
Rainwater
storage

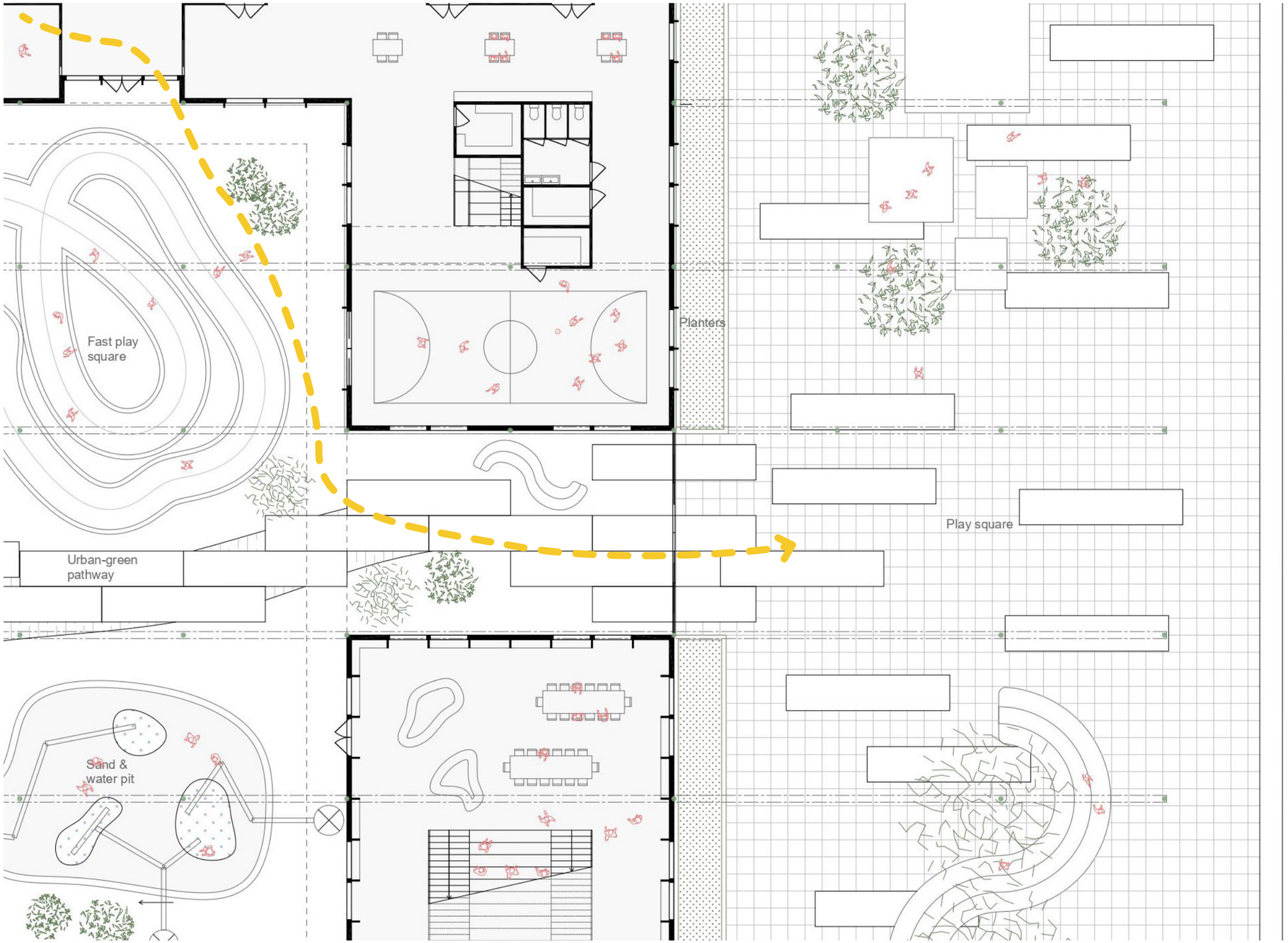
PLAYING WITH CLIMATE CONDITIONS





PRIVATE PLAYING ON A ROOFTOP




Fast play
square
Planters
Play square
Urban-green
pathway
Sand &
water pit

IMPRESSION FROM BOULEVARD

NATURE'S CLASSROOM