

# PLAY-CYCLE

Hotel New York



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**05/07/2020**

complex projects | p5 presentation

# Feijenoord territory

Map of Rotterdam



Feijenoord Neighbourhoods

- 1. Bloemhof
- 2. Hillesluis
- 3. Vreewijk
- 4. Afrikaanderwijk
- 5. Kop van Zuid - Entrepot
- 6. Feijenoord
- 7. Oud IJsselmonde
- 8. Groot IJsselmonde





Problem statement

## Missing dimensions - Scale



**CITY**

**NEIGHBOUHOOD**

**STREET**



# Missing dimensions - Age group



**KIDS**  
0-11 yr



**YOUNGSTERS**  
12-22 yr



**ELDERLY**  
55+ yr





**FOR YOUNGSTERS,**

**FOR FEIJENPOORT**



# **PLAY** FOR YOUNGSTERS, **PLAY** FOR FEIJENPOORT

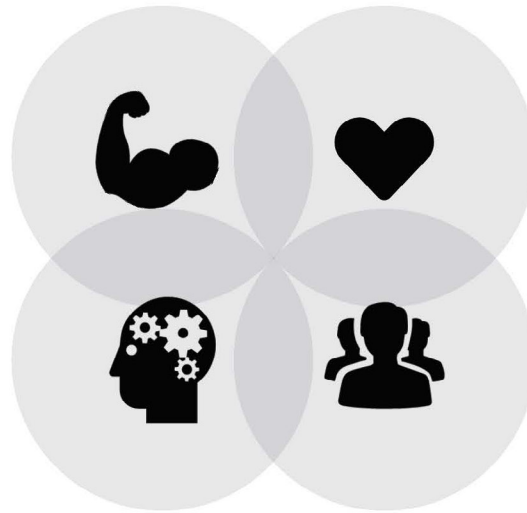




## Research question

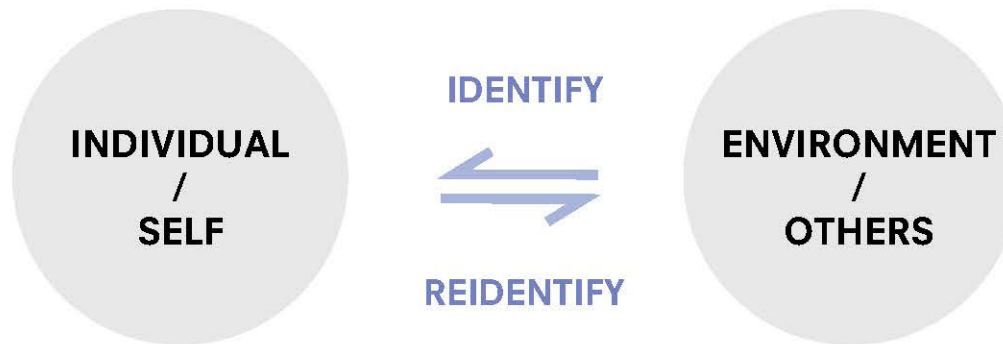
**Why & How**  
can migrated **PLAY SPACES**  
help individual development of **YOUNG KIDS'** and  
positive social participation of **NEIGHBOURHOODS**  
in Feijenpoort?

## Play for individual development

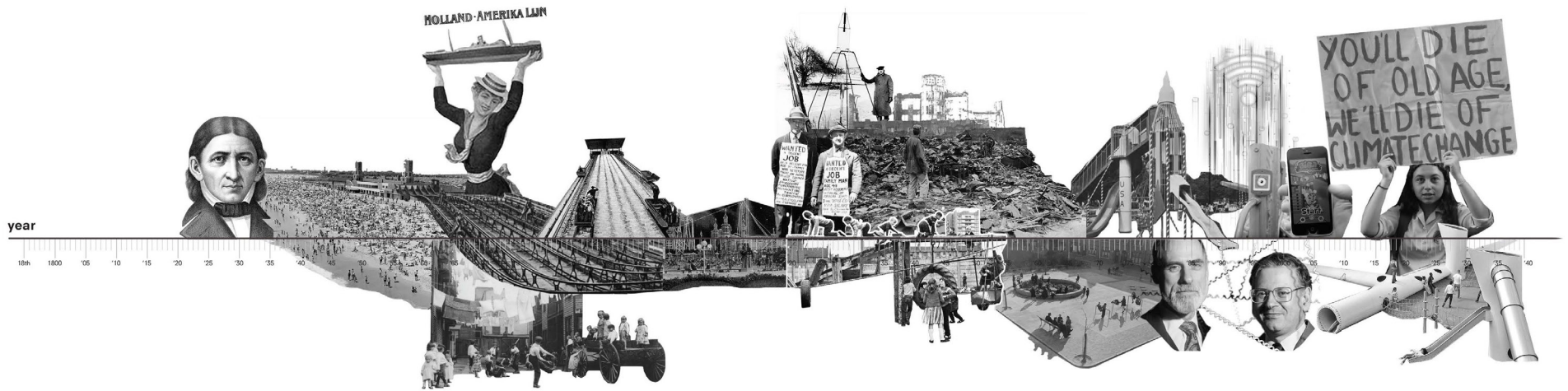


**PLAY** FOR THE WELL-ROUNDED DEVELOPMENT OF INDIVIDUALS

## Play for individual development



Play timeline  
**Play in socio-historical context**



Play timeline  
**Play and stability**



Play timeline

## Play and economy

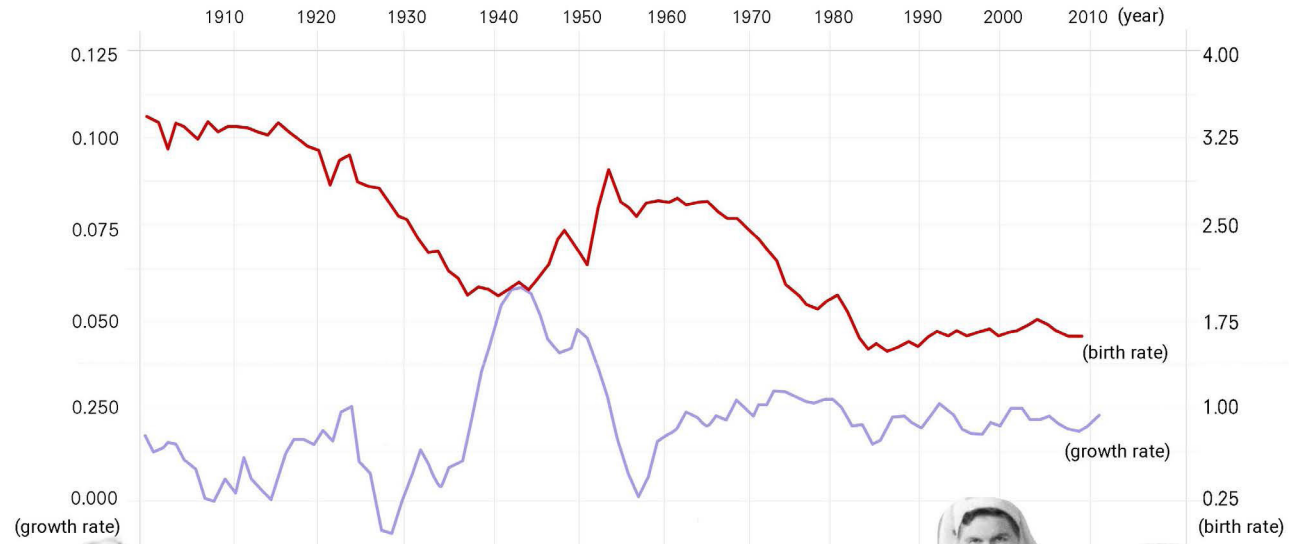


Play timeline

## Play and innovation



# Play and sustainability





Play timeline

## Play and sustainability



Play timeline

## Play and sustainability



Play timeline

## Play and sustainability

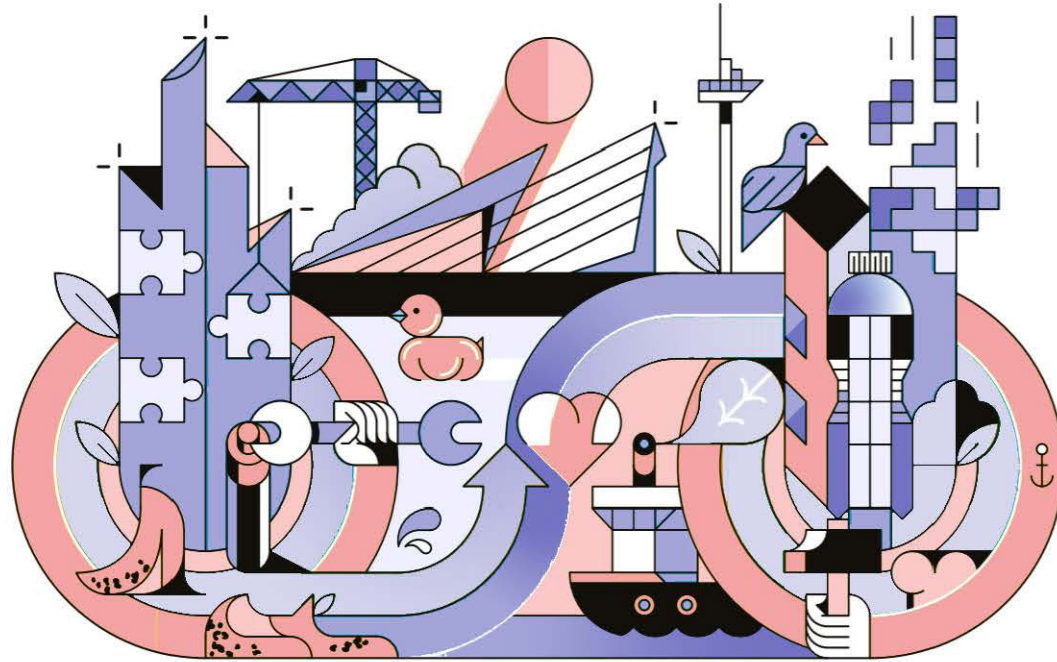


Play timeline  
**Play and sustainability**



Play timeline

## Play and sustainability



**MAKER'S ROTTERDAM**  
**CREATIVE ROTTERDAM**  
**CIRCULAR ROTTERDAM**

Project demand  
**Play as a social solution**



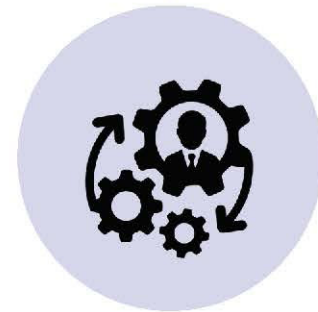
Inclusive



Profitable



Educative



Self-maintenance





Initial ambition

# PLAY-CYCLE

Verb.

**1. To play**

*interactively and innovatively with recyclable waste.*

Noun.

**2. A social program**

*in which local young people can create play facilities with up-cycled waste in a playful way.*

**3. A play station with satellite sites**

*which accommodates the actions of up-cycling local waste, designing and constructing play facilities, playing in those facilities.*



Project demand  
**Play as a social solution**



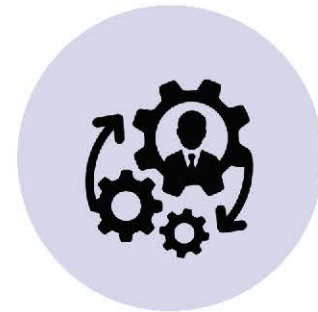
Inclusive



Profitable



Educative



Self-maintenance

Project demand

## A new typology: Play + ?



Project demand

# A new typology: Play + ?

**Play +  
City exploration**



**Play +  
Junk recycle**



**Play +  
Collective design**



**Play +  
Flexible display**



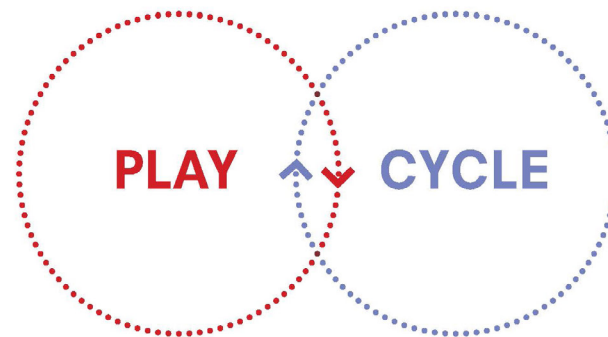
**Play +  
DIY sales**





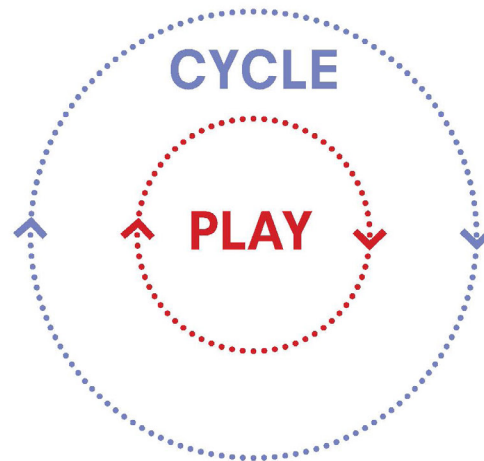
Initial ambition

# PLAY - (re) CYCLE

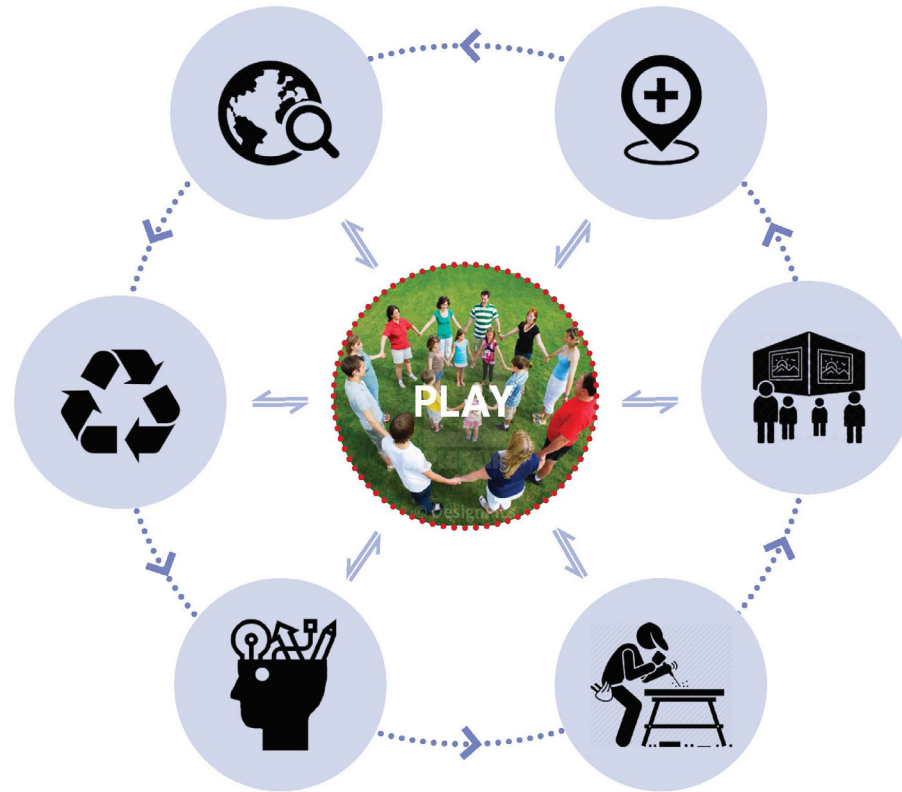


Initial ambition

# PLAY - (life) CYCLE









Project ambition  
**School-community collaboration**



+



+



**School education**  
**Normal curriculum**

At school

**Community education**  
**Creative curriculum**

At play-cycle sites or mother  
station during school time

**Community education**  
**Play-cycle**

After school  
& on holidays

Project ambition  
**School-community collaboration**



User ambition

# YOUNG KIDS



+



+



+

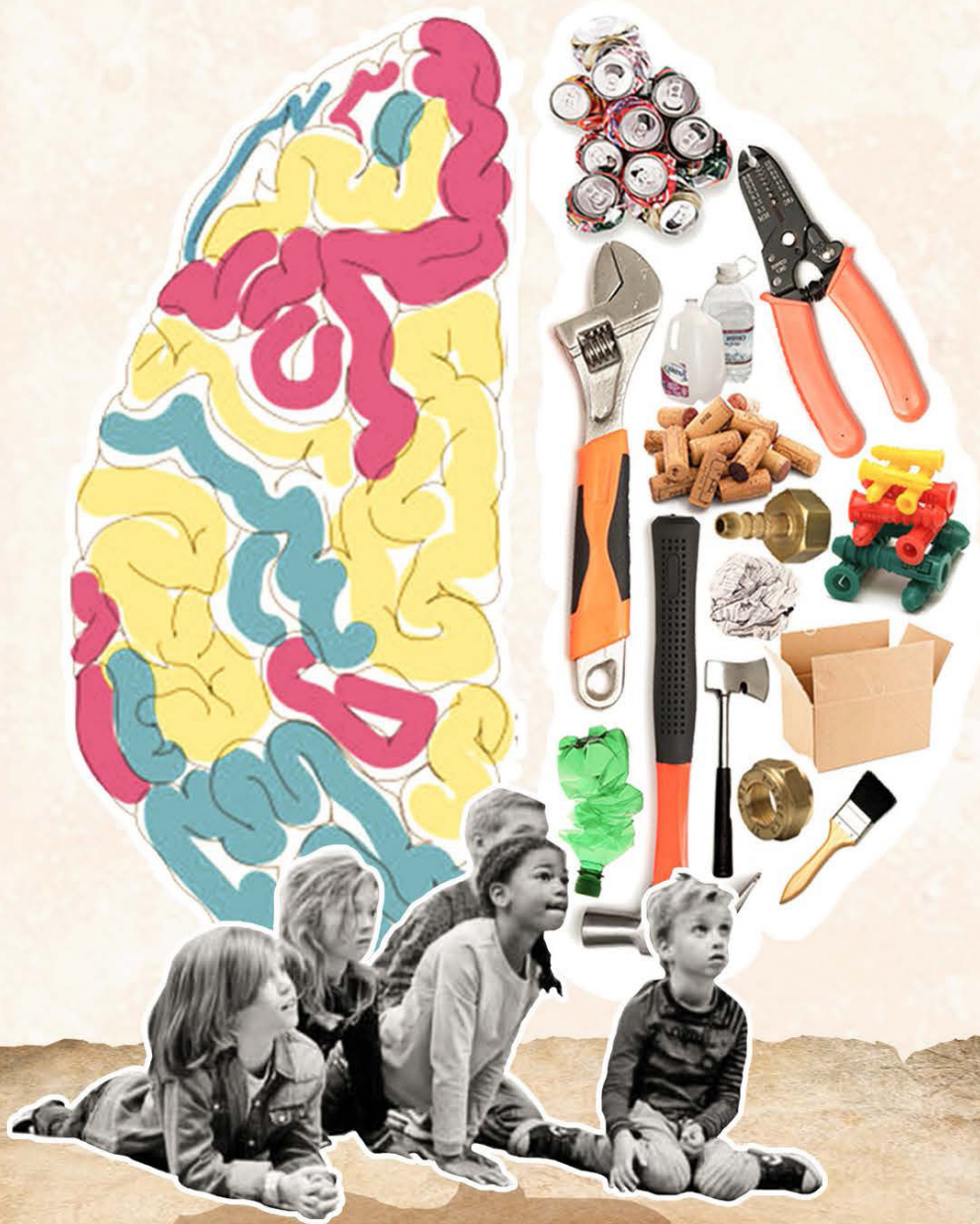


Creative thinking

Handcraft

Communication

Cooperation



Operation ambition

# PLAY-CYCLE TIMETABLE

School time	Kids who dropout from school School kids (mainly elementary)	All play-cycle activities Creative curriculum
After-school	Big kids (12-22yr) Small kids (4-12yr)	All play-cycle activities Play and DIY workshops
Weekends	All kids	Special play-cycle projects



Operation ambition

# PARTNERSHIP



**BLOEMHOF**

**AFRIKAANDERWIJK HILLESLUIS  
VREEWIJK TARWEWIJK ZUIDPLEIN**



**ZERO  
WASTE  
LAB**



**Play  
the  
City**

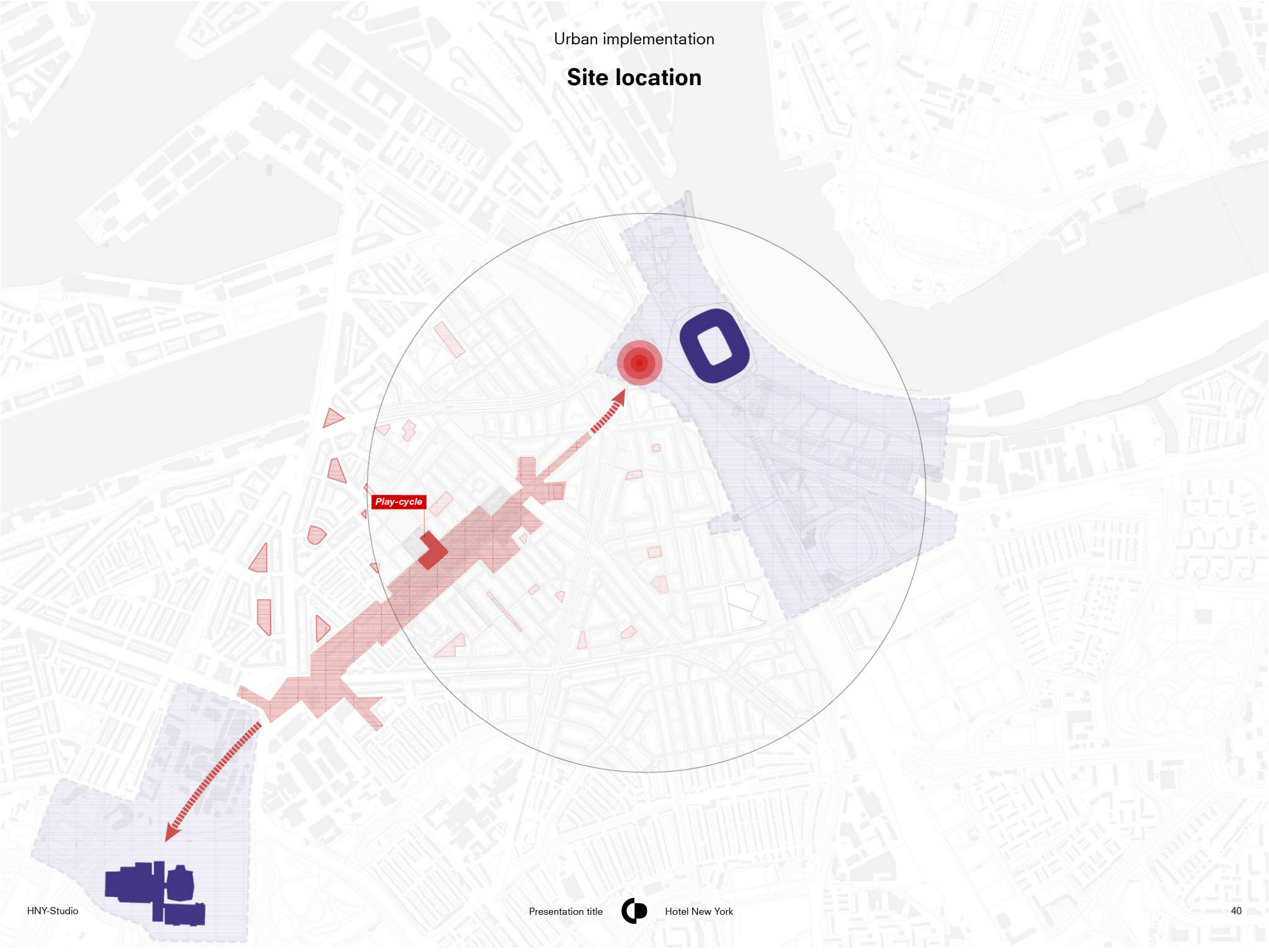


**BLUE  
CITY**

*Erasmus*  
ERASMUS UNIVERSITEIT ROTTERDAM  
**SUPERUSE**

Urban implementation

## Site location



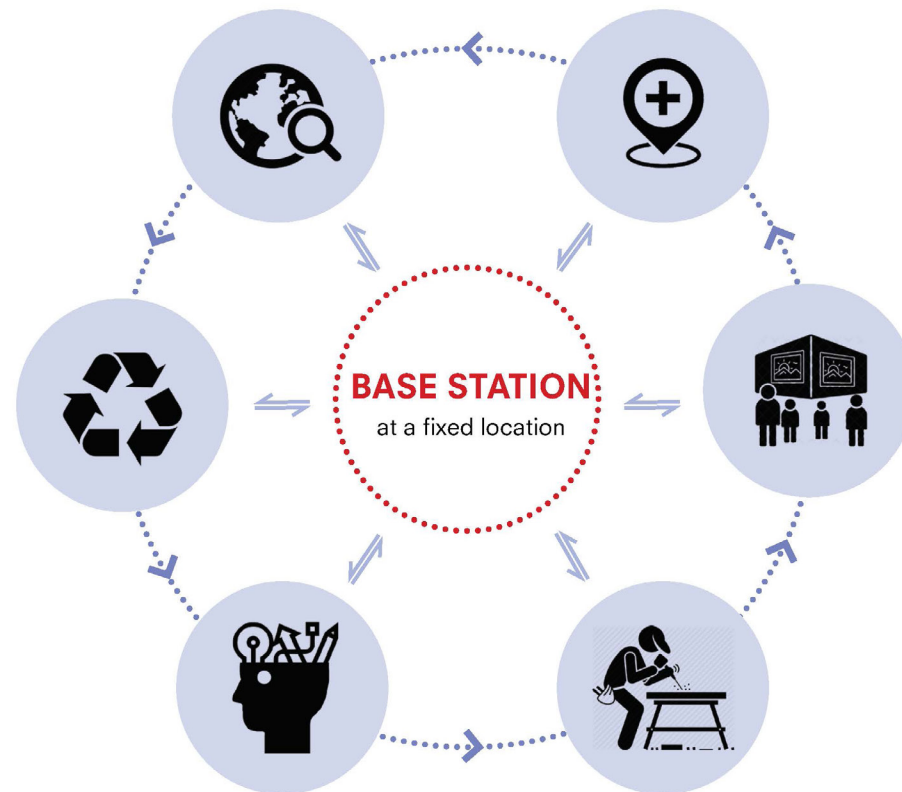
Play-cycle





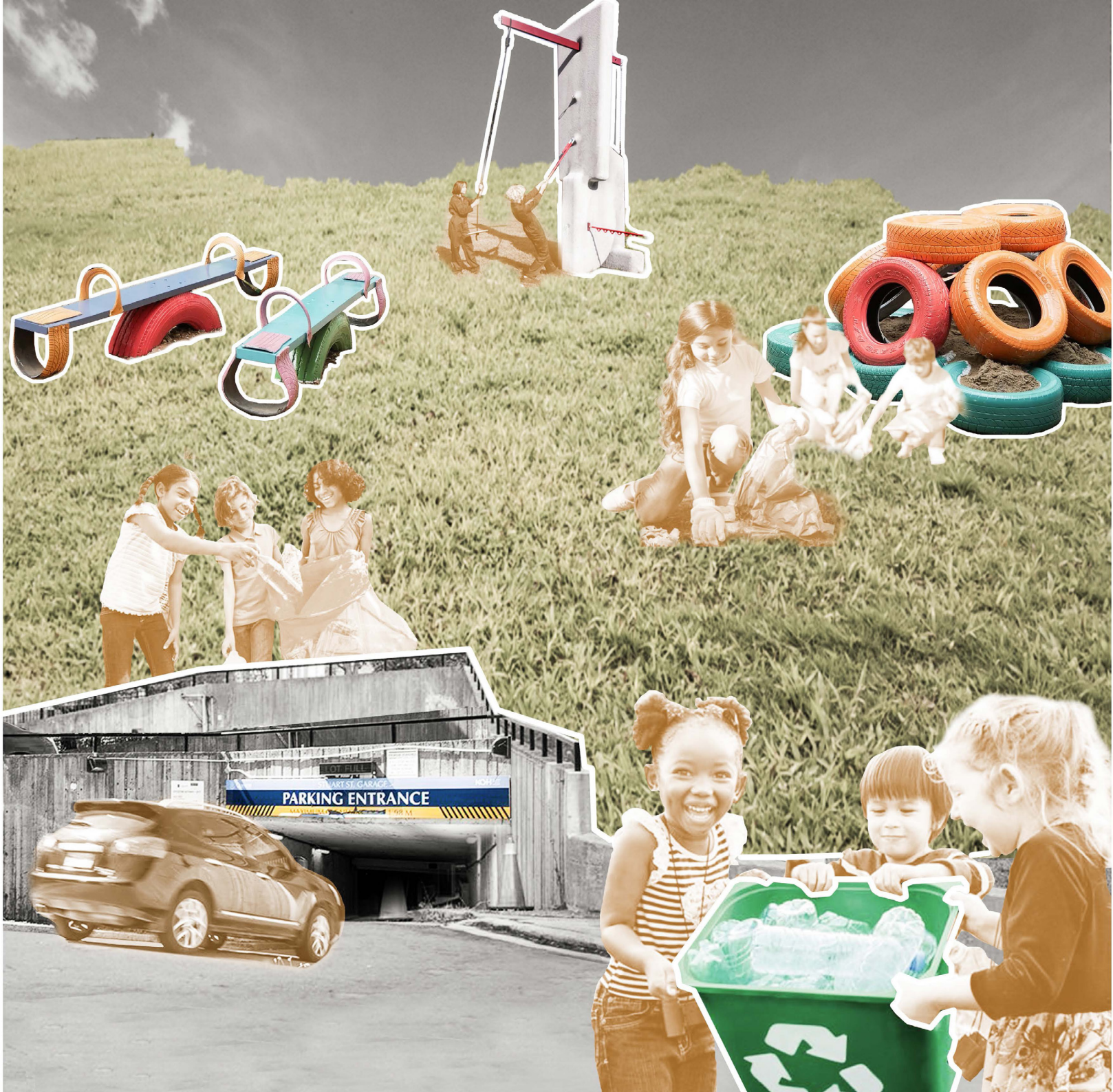
## Site location





**STATELLITES**

spread throughout  
the neighbourhood



Urban ambition

# SATELLITES



Parking lot

+



Playground

+



Waste collection

Urban ambition

# SATELLITES



Not only do we collect **WASTE**,  
but **IDEAS** as well !



Urban ambition

# SCHOOL PLAYGROUND



School playground



Rooftop playground







Urban ambition

# CANAL-SIDE



Playful bridge

+



Play-cycle facilities

+

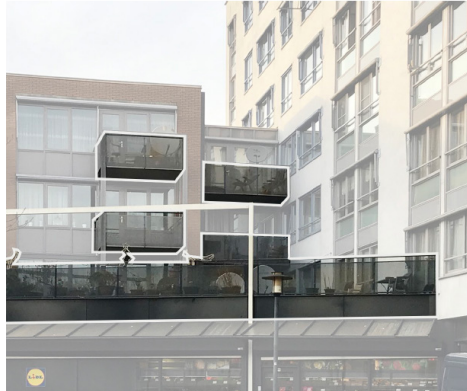


Playful landscape

# Site quality



## Site downside



Urban implementation

## Site strategy

**RESHAPE**

instead of

~~RESTORE~~

**UPGRADE**

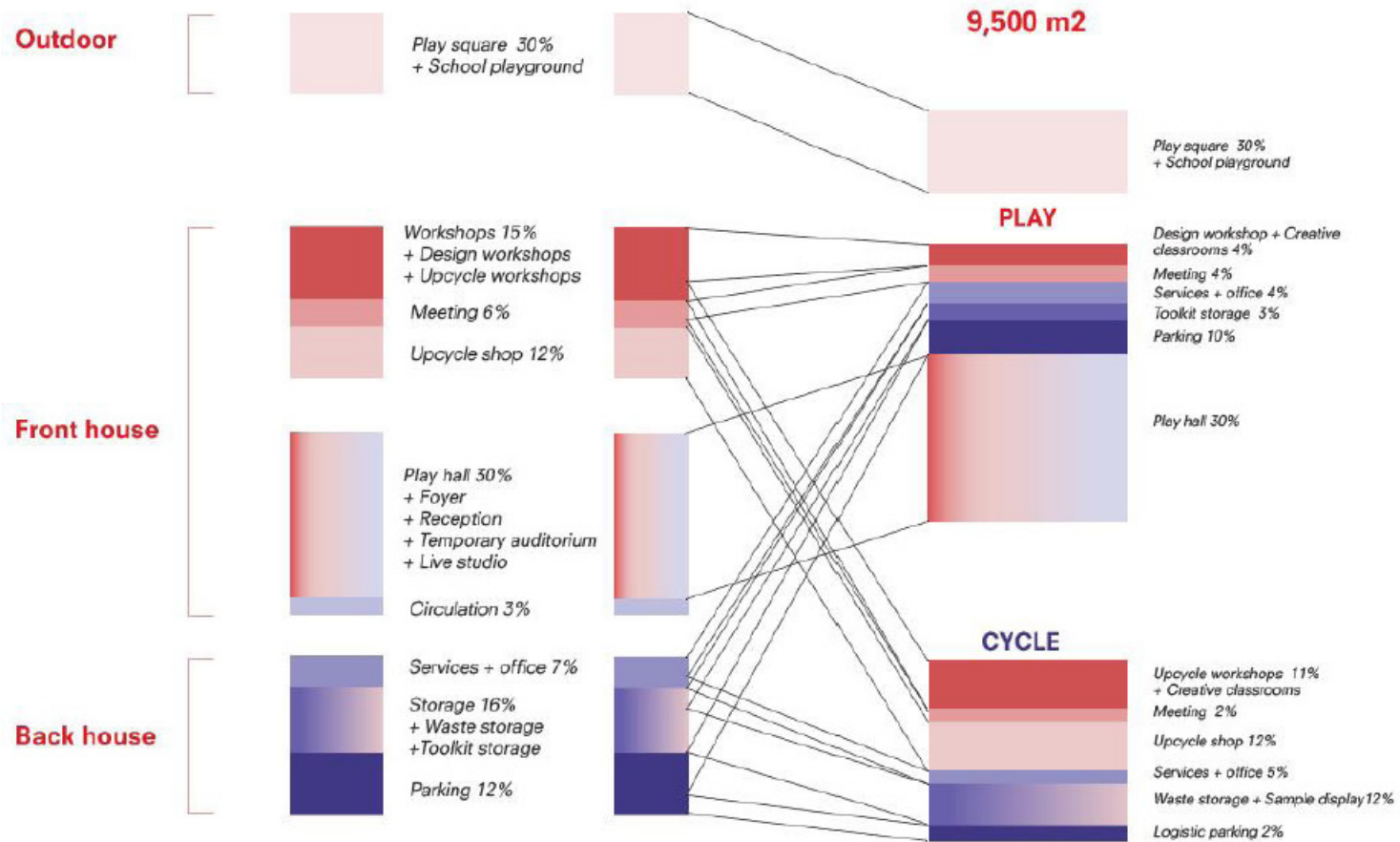
instead of

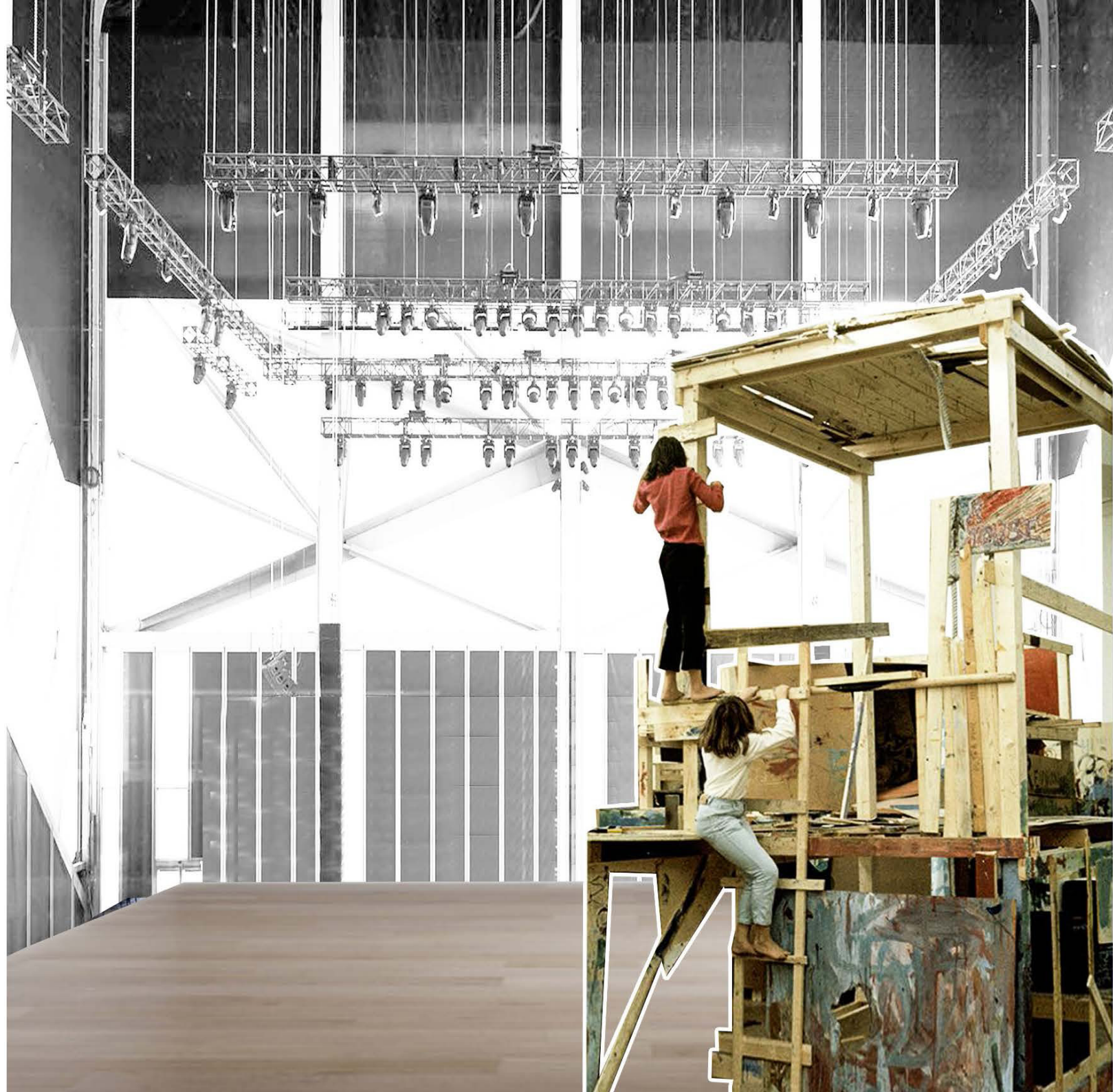
~~RESEMBLE~~





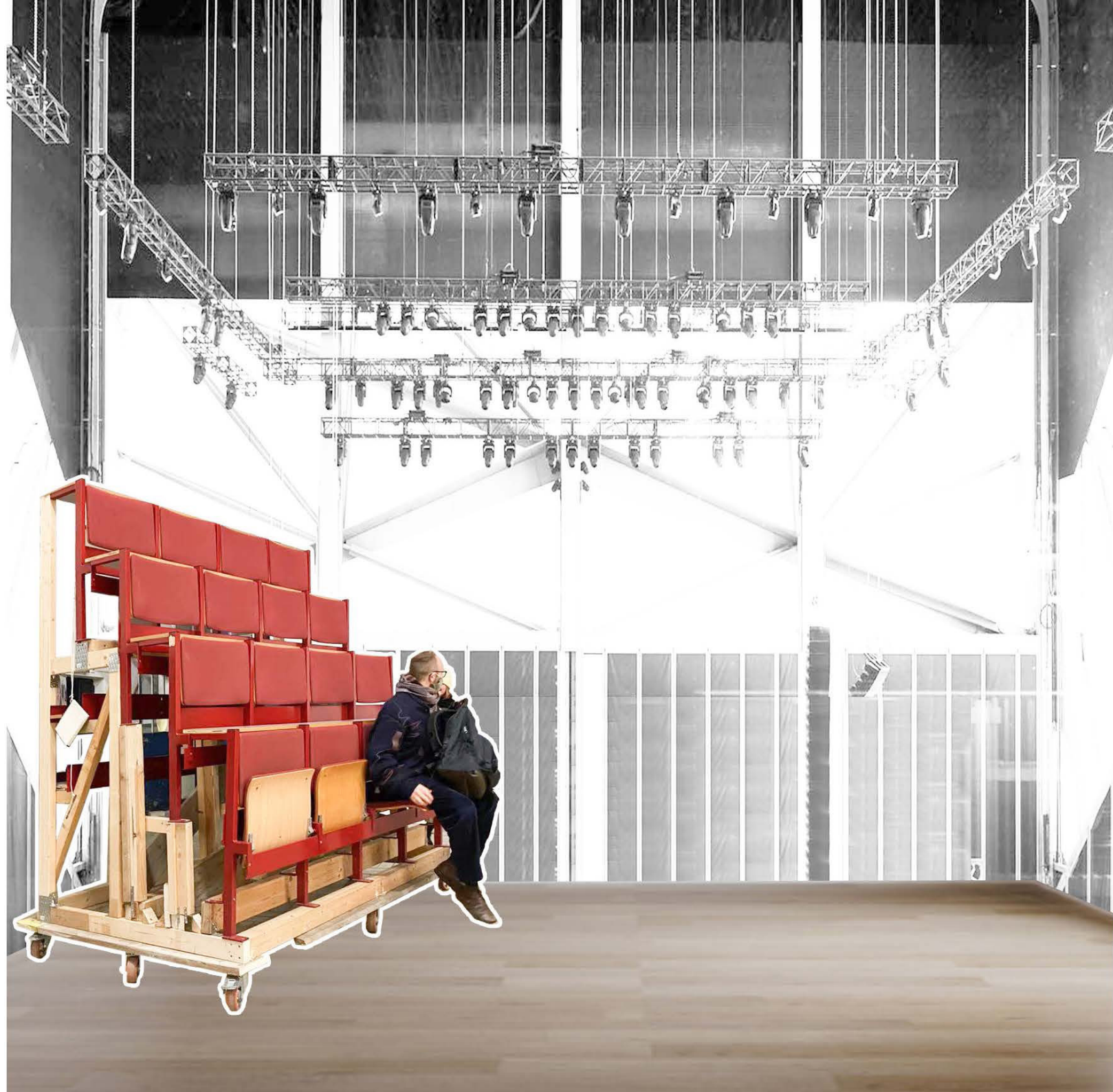
# Benchmark













Program ambition

# PLAY HALL



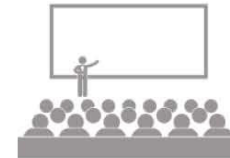
Constrctive play

+



Recreational play

+



Educative play





Program ambition

# PARTICIPATORY UP-CYCLE



Upcycle workshop

+



Handcraft DIY

+



Sample showcase

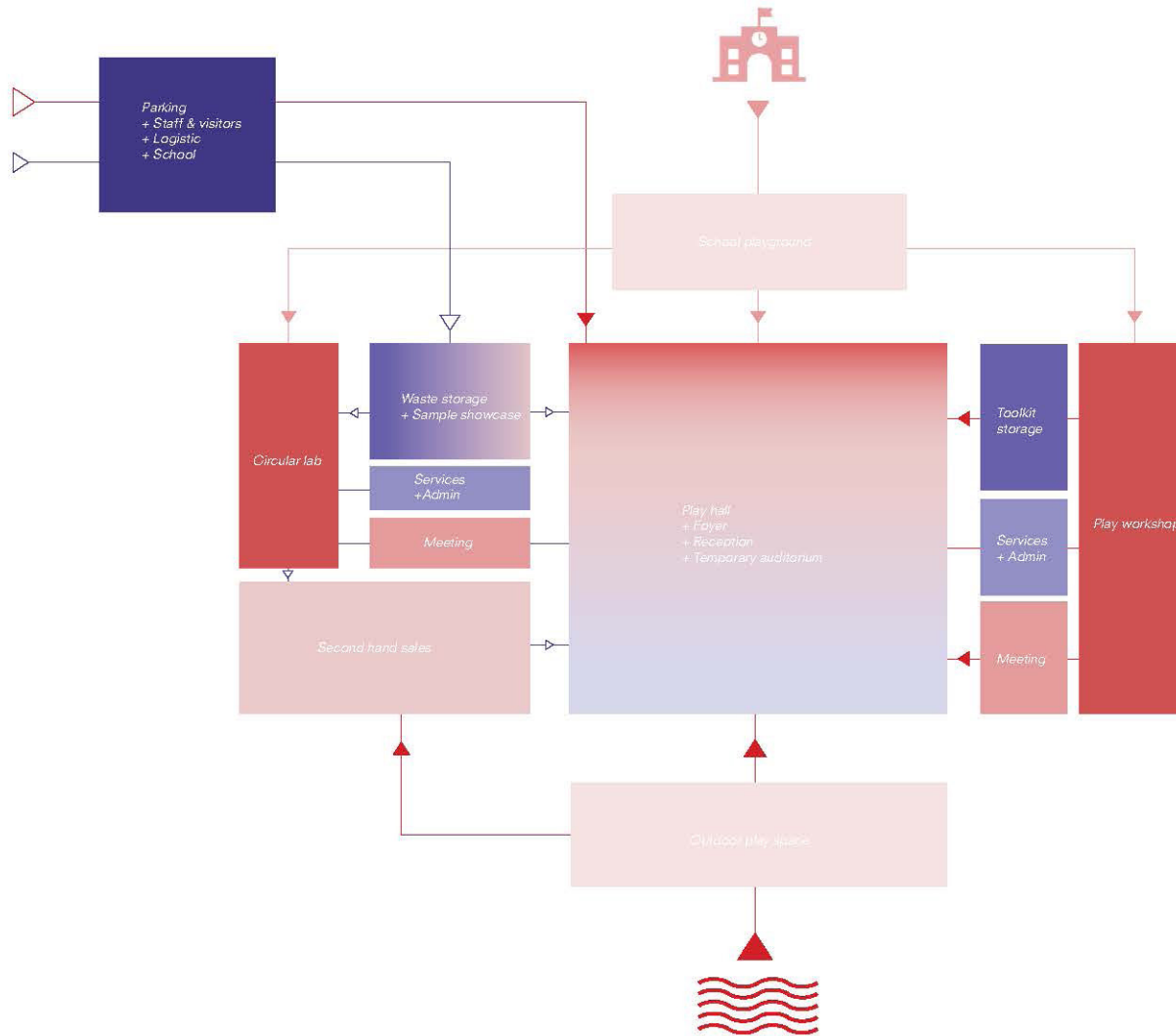
+



Upcycle shop

# Project program

## Spatial layout







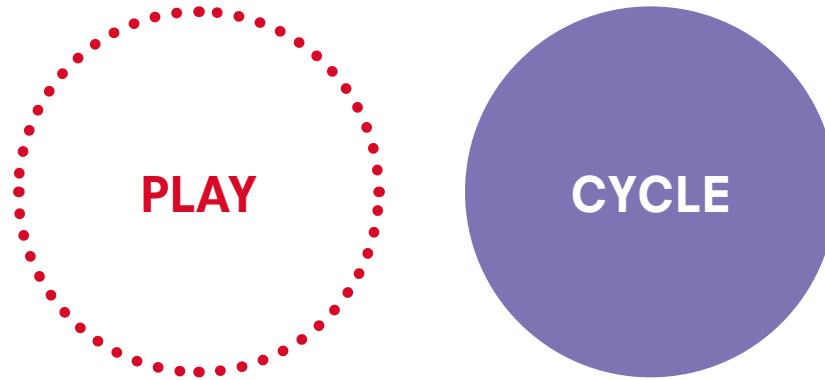
Design concept

## Preconceived impression



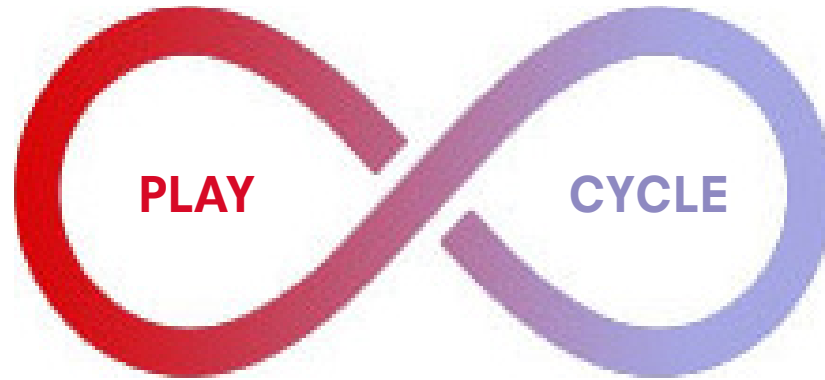
Design concept

## Static duality



Design concept

## Dynamic duality



Concept reference

## Light in heavy



Clover House, Okazaki  
MAD Architects

Concept reference

## Heavy in light



Kindergarten Nová Ruda, Czech Republic  
Petr Stolín Architekt

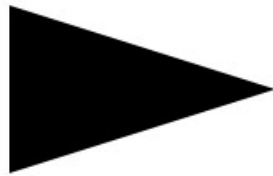
Concept reference

## Intersecting solid and crystal



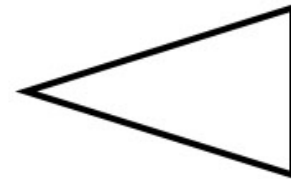
Concept reference

## Intersecting solid and crystal



### **Solid part**

Private, limited access  
or back of house

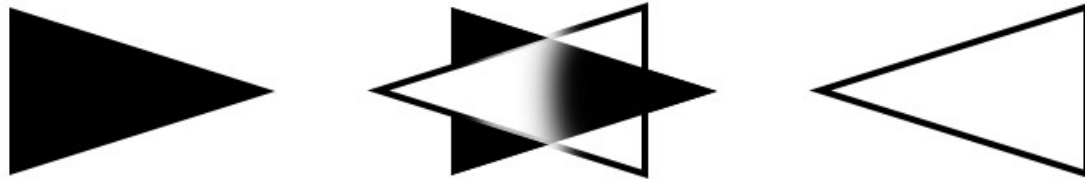


### **Crystal part**

Public, open access  
or front of house

Concept reference

## Intersecting solid and crystal



### **Solid part**

Private, limited access  
or back of house

### **Crystal part**

Public, open access  
or front of house



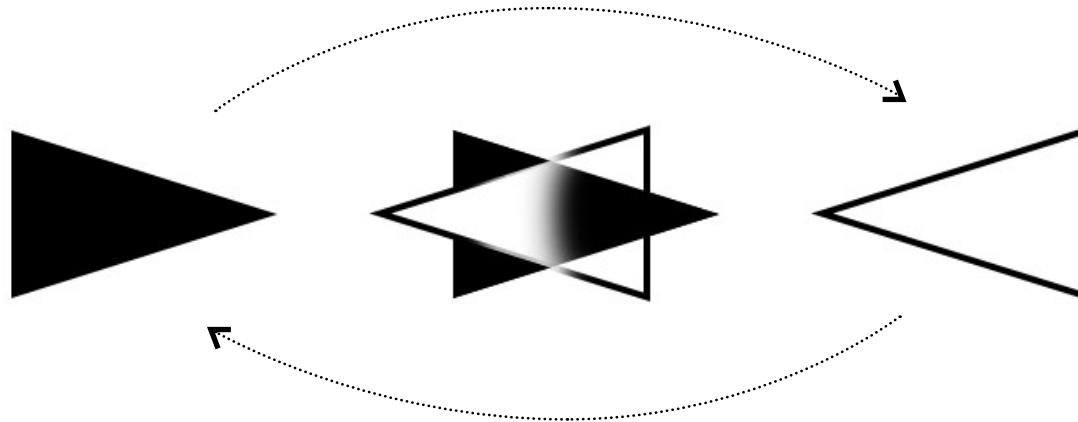
Concept reference

## Intersecting solid and crystal

**SOLID VOLUME**

provides material and ideas to

CRYSTAL VOLUME



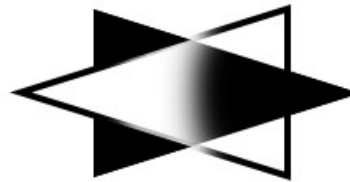
CRYSTAL VOLUME

observes without interfering

**SOLID VOLUME**

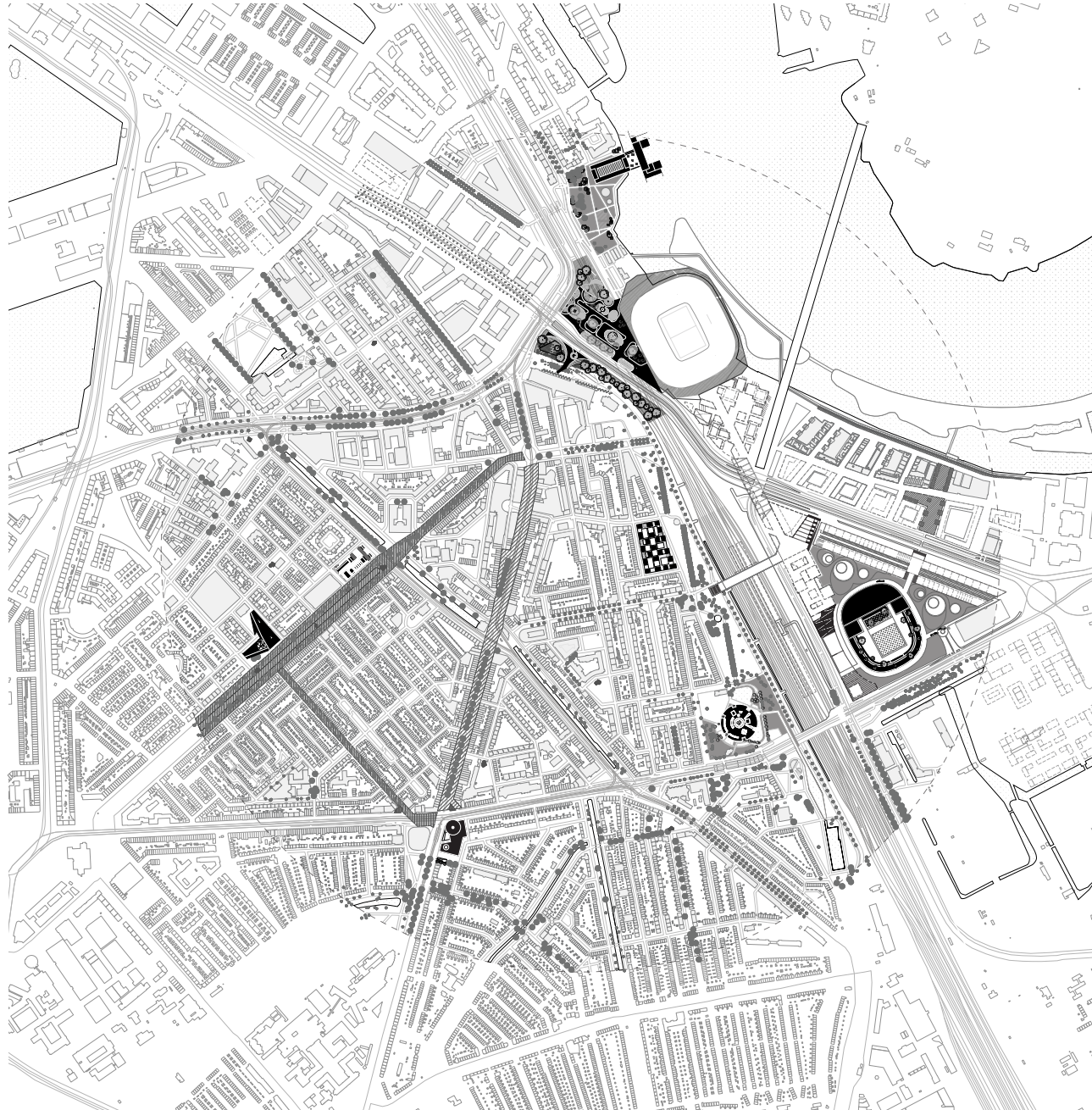
Concept reference

## Intersecting solid and crystal

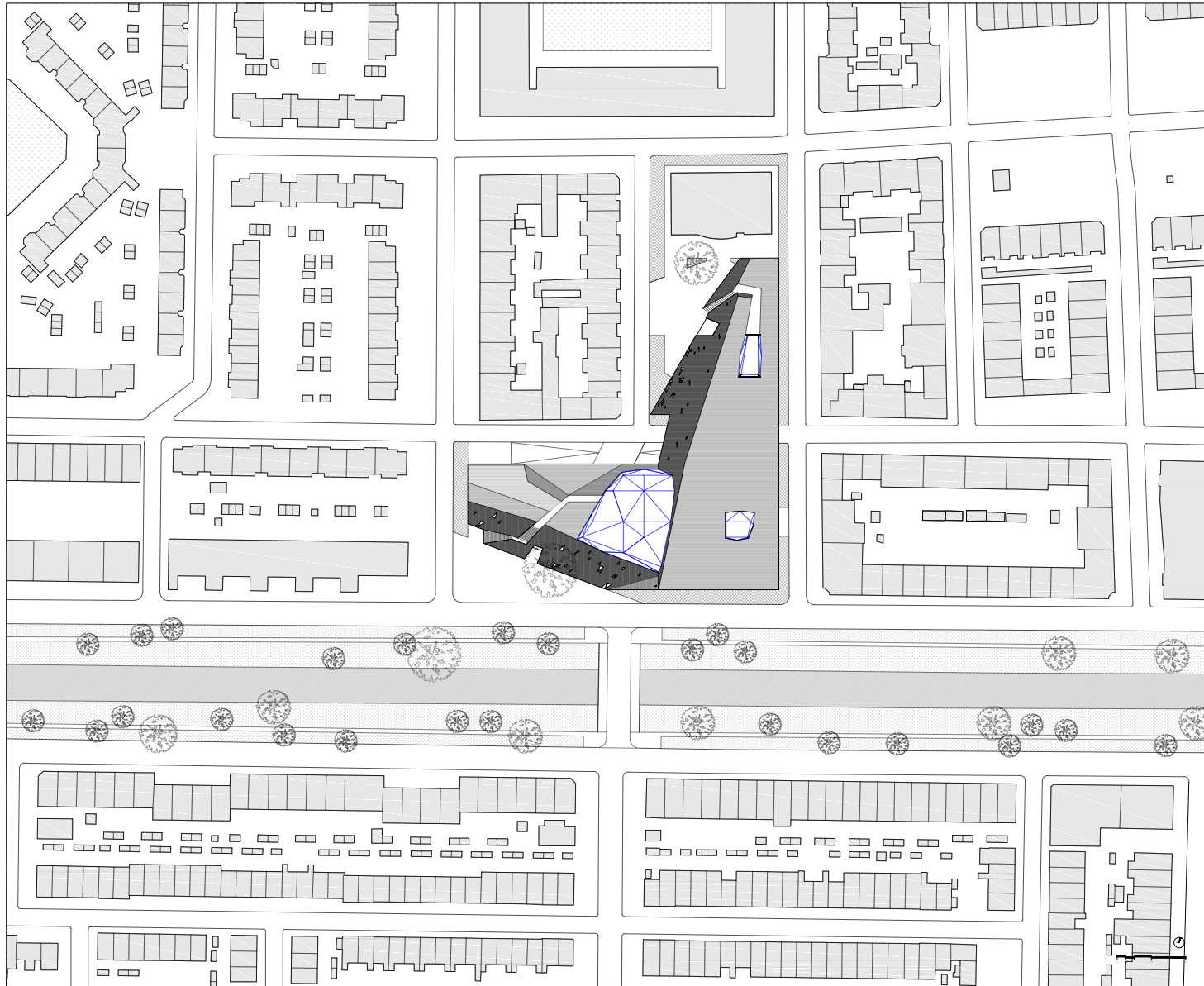


**Hybrid + Playful**  
**Open + Transparent**  
**Flexible**  
**Collaborative**

# Feijenpoort master plan



# Site plan

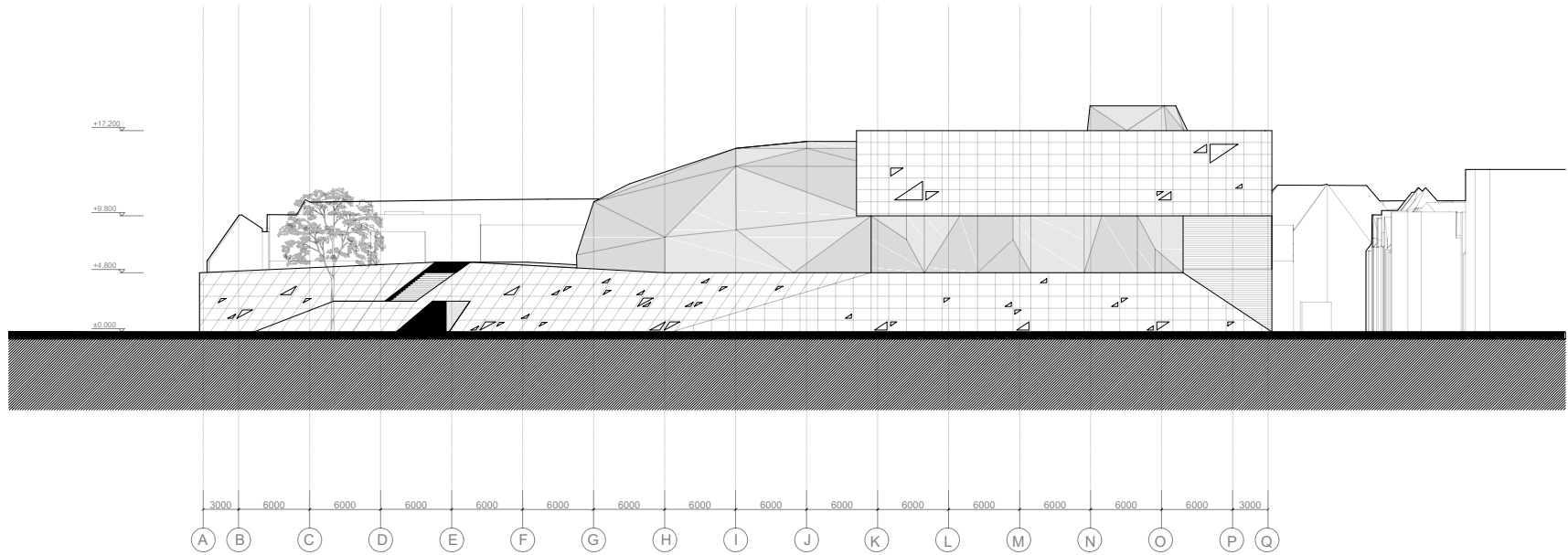


# Site plan

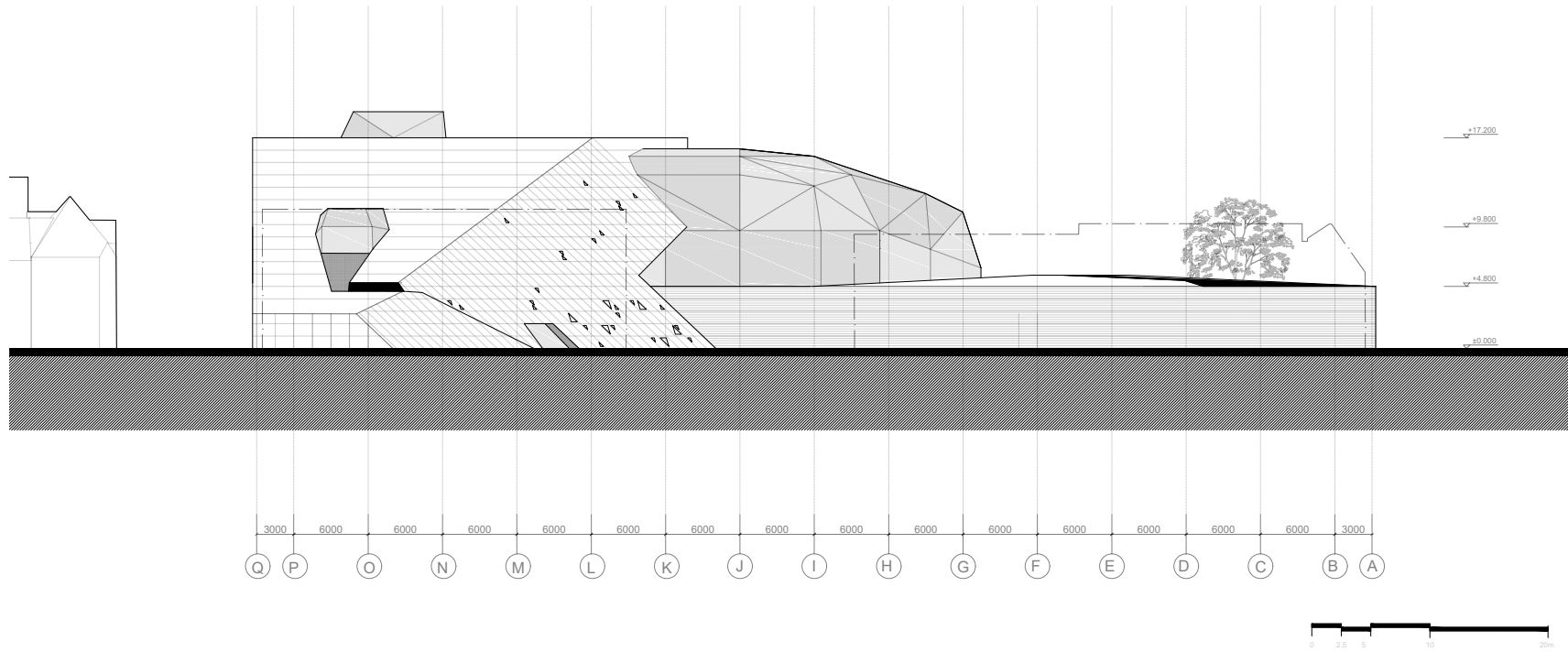




Facade  
**Southern facade**

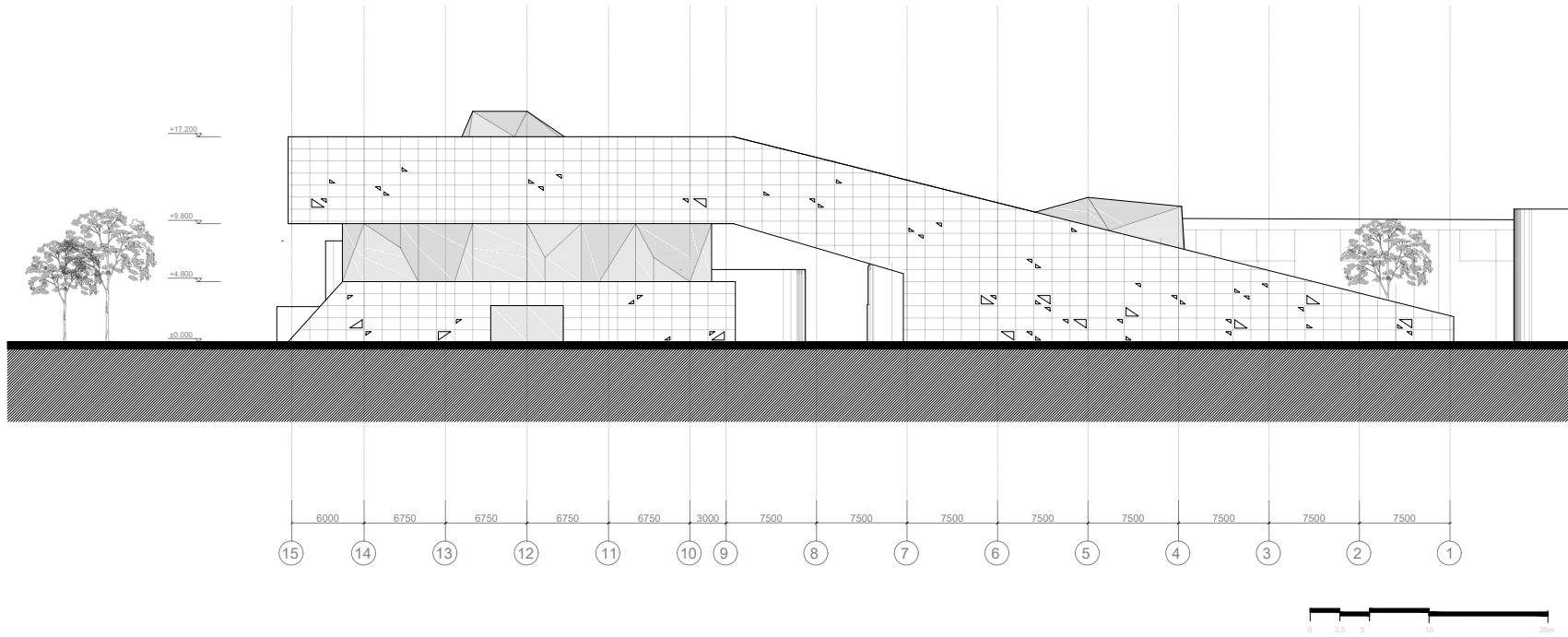


Facade  
**Northern facade**



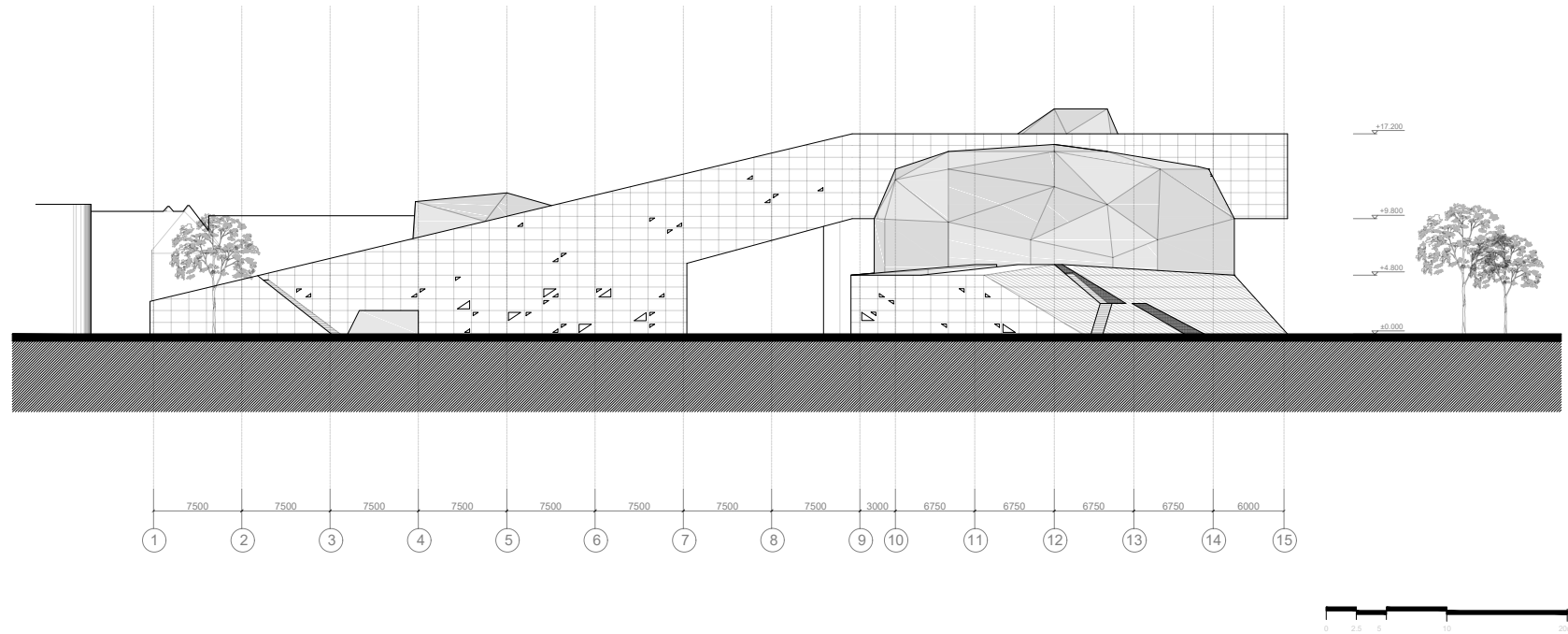


Facade  
**East facade**



Facade

# West facade



## Concept: Duality



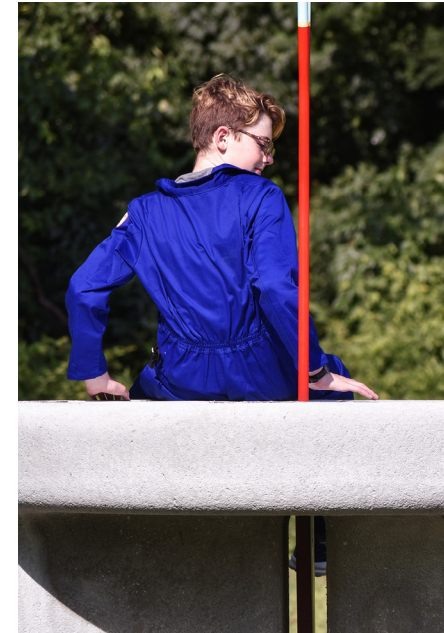
**The artificial light**

To play with,  
to manoeuvre,  
to operate



**Dual properties**

Related with human body  
and interactive behaviour



**The natural heavy**

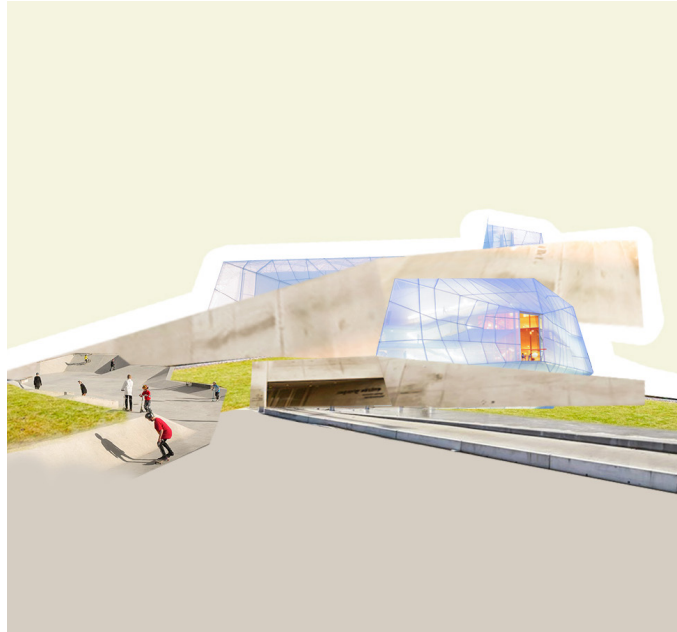
To play on,  
to feel,  
to cuddle

## Concept: Heavy & light



### The artificial light

To play with,  
to manoeuvre,  
to operate



### Two properties

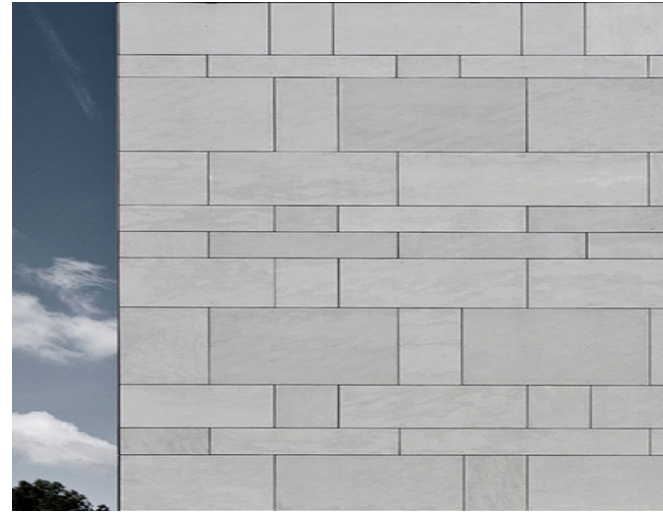
Related with human body  
and interactive behaviour



### The natural heavy

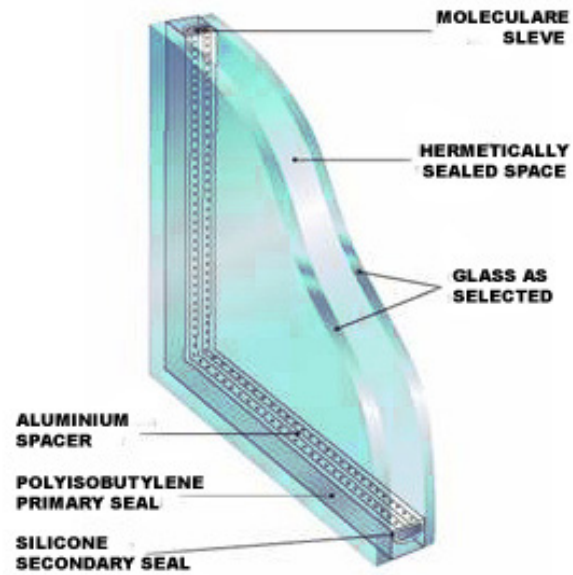
To play on,  
to feel,  
to cuddle

## Exterior claddings



**Prefabricated claddings - Recycled fiber cement**

# “Crystal”



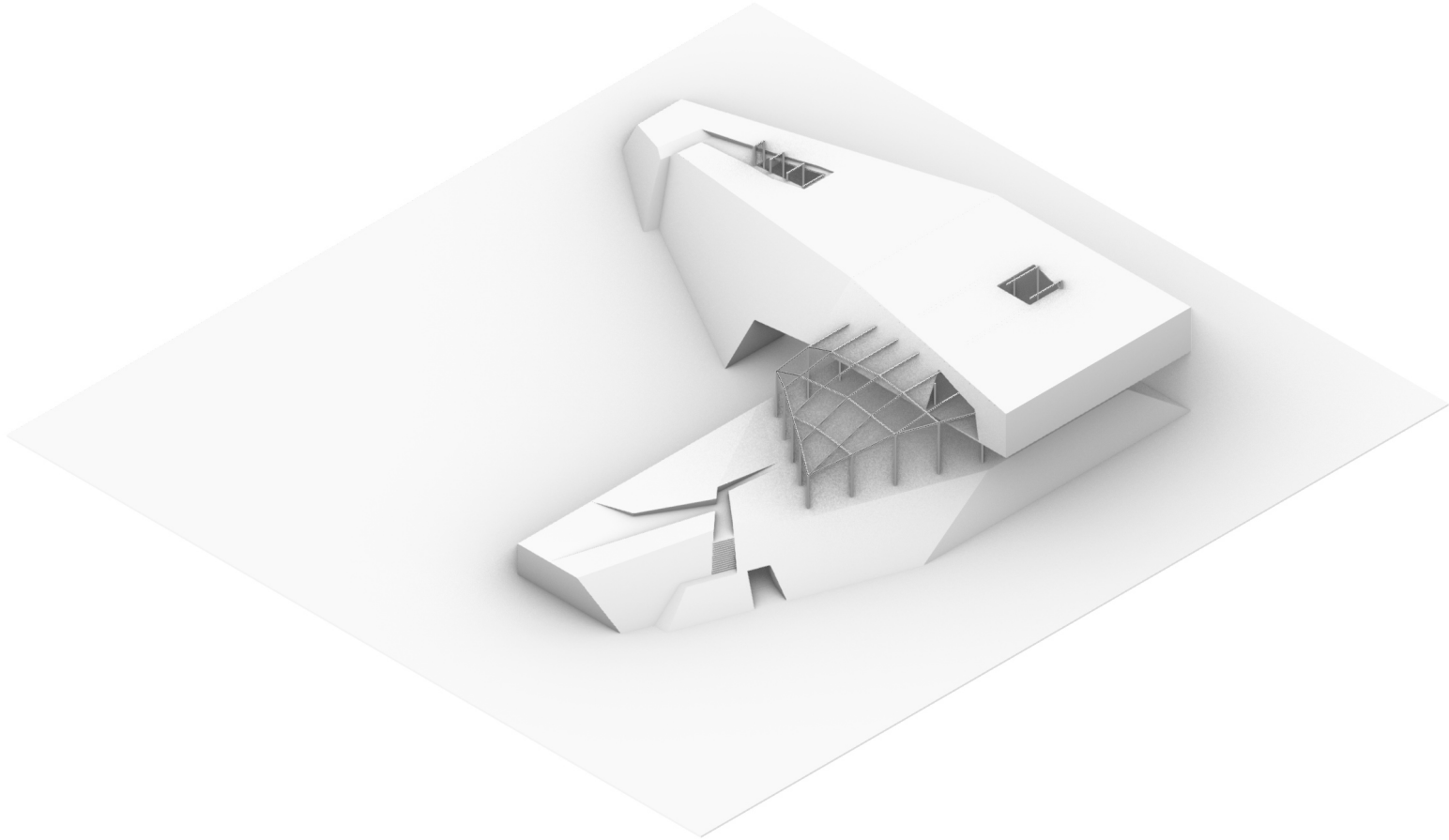
**Insulated double glazed glass**



**Photochromic tinted film**

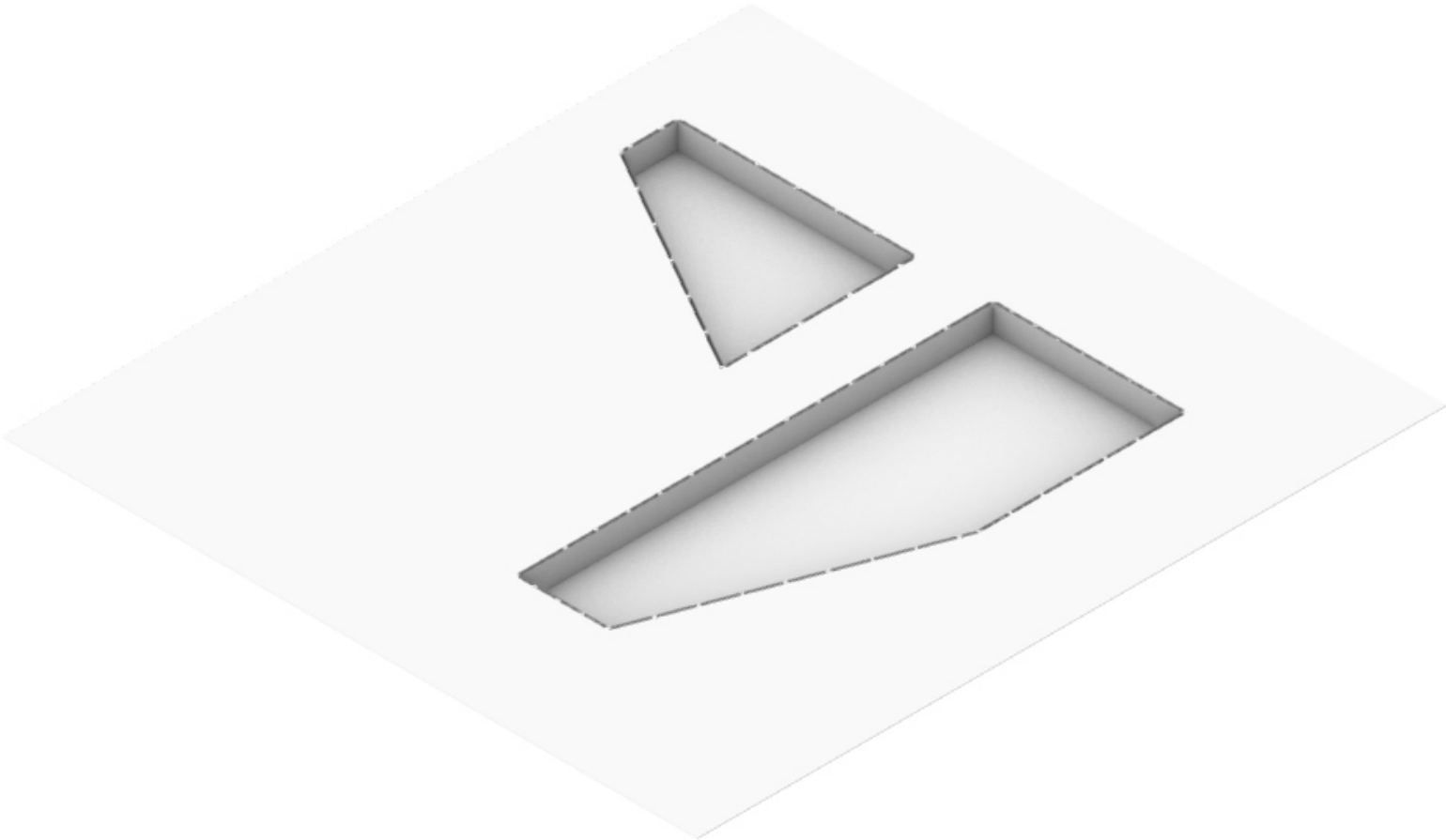
Materialisation

## Structure



Heavy structure

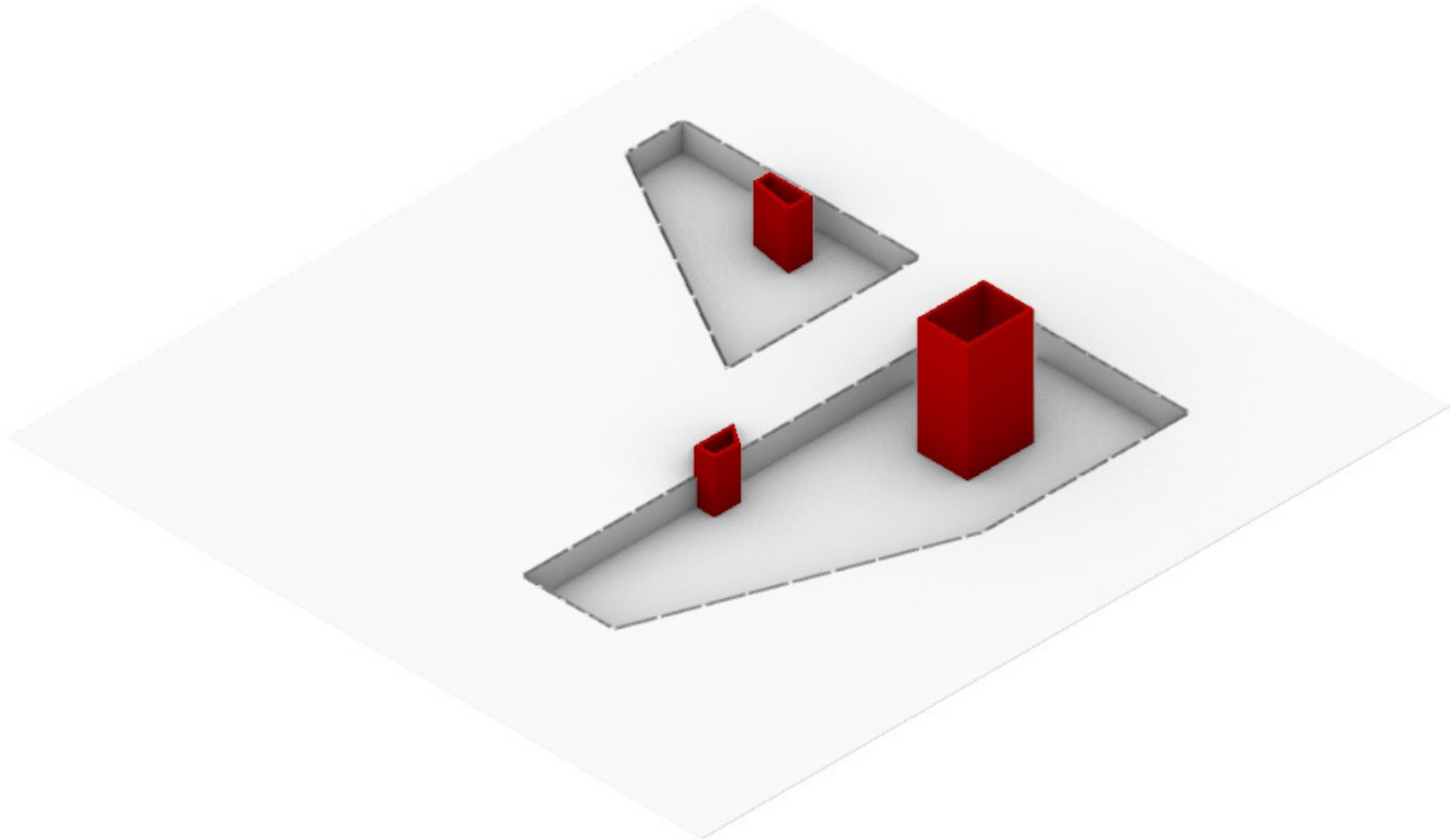
# Basement





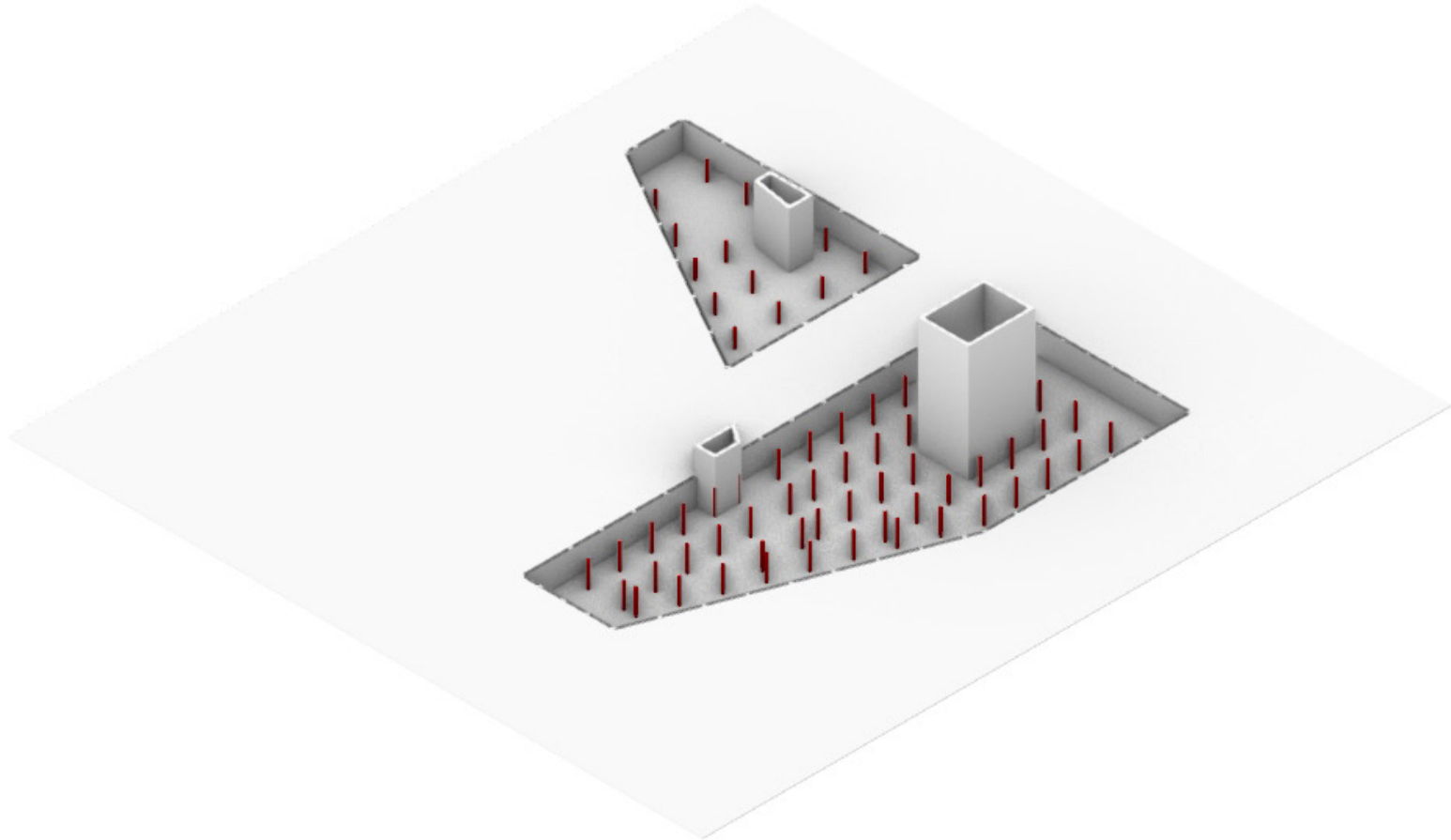
Heavy structure

## Core



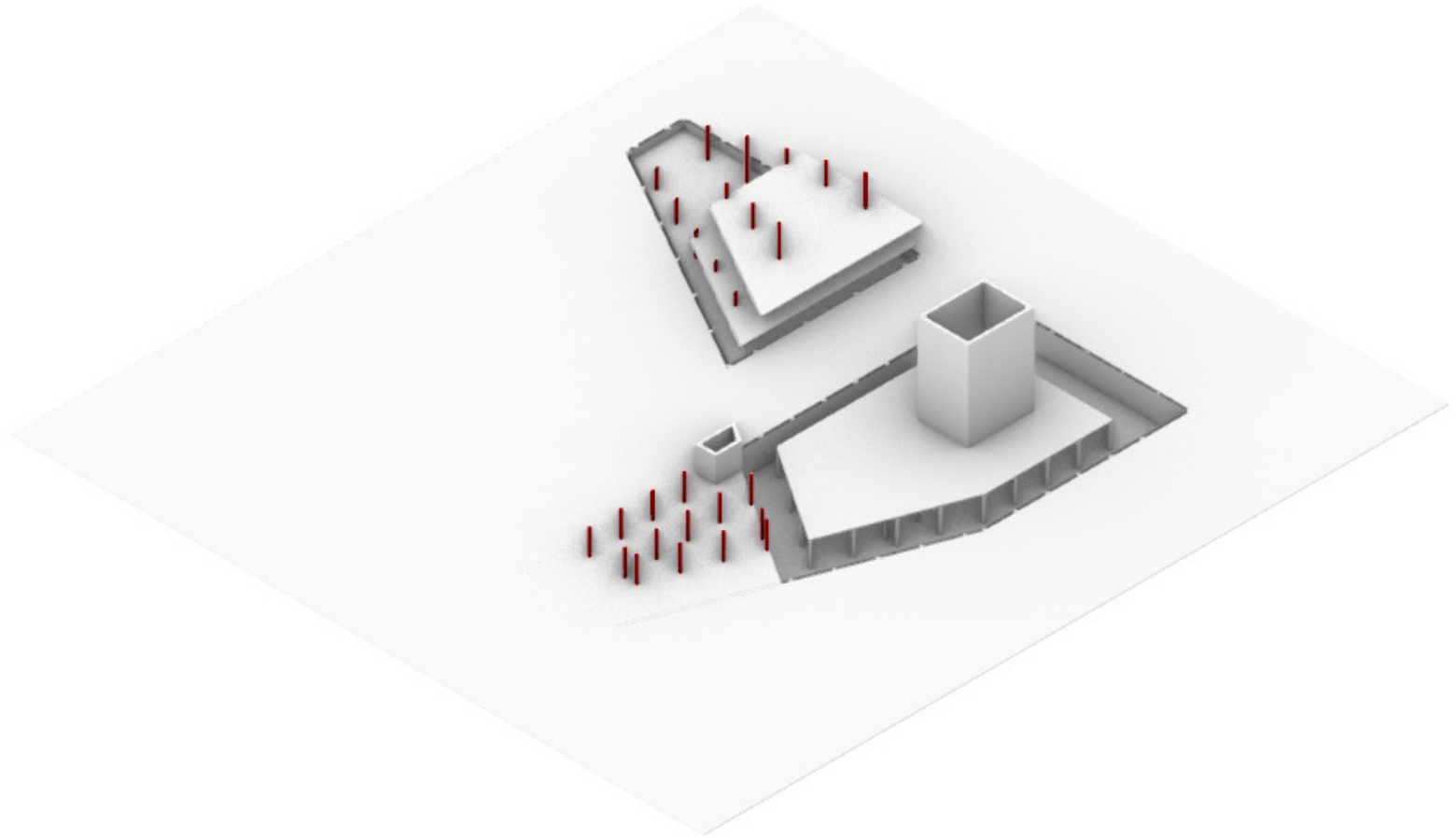
Heavy structure

## Concrete column



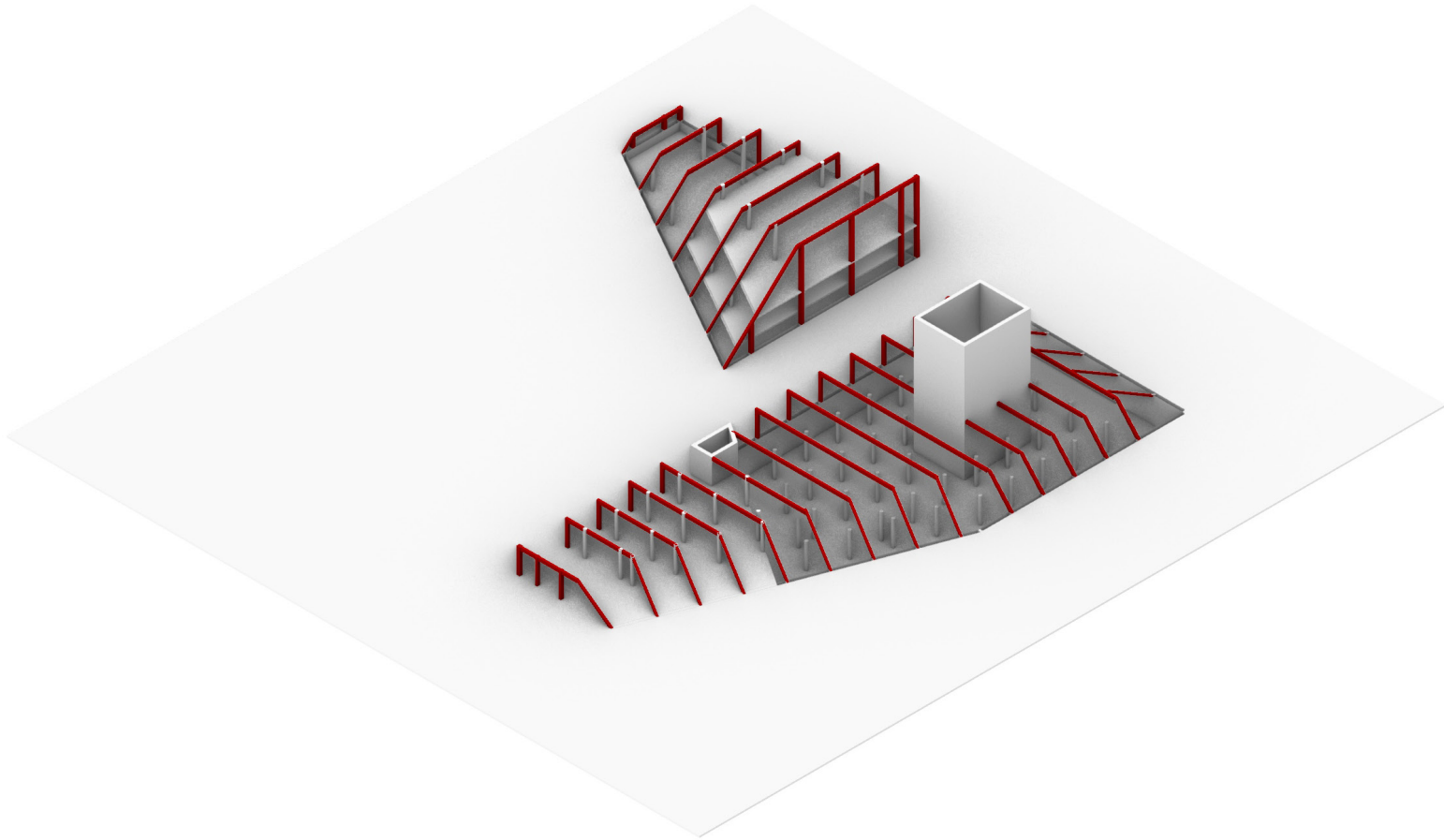
Heavy structure

## Concrete column



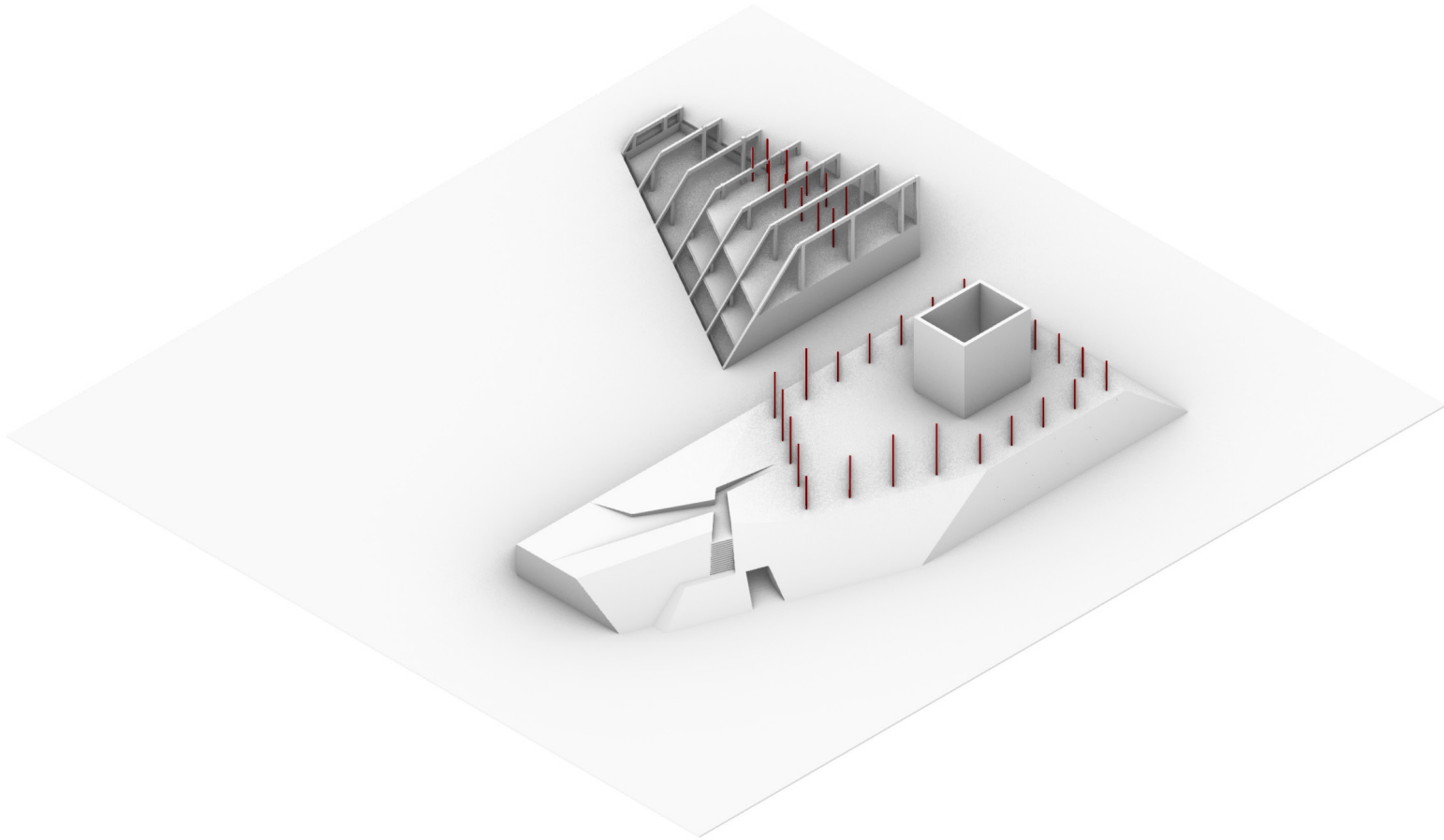
Heavy structure

## Ribs



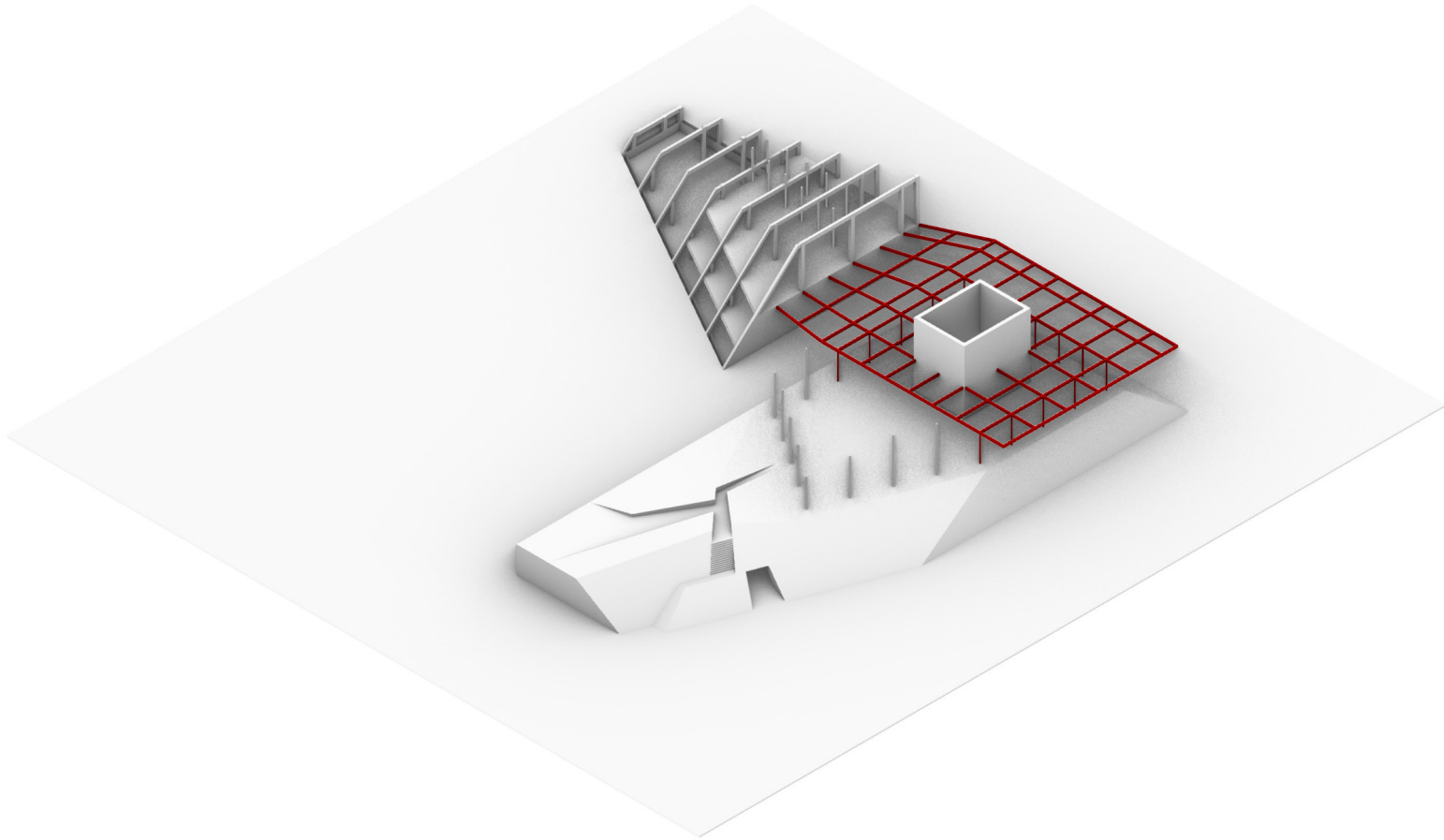
Light structure

## Steel structure



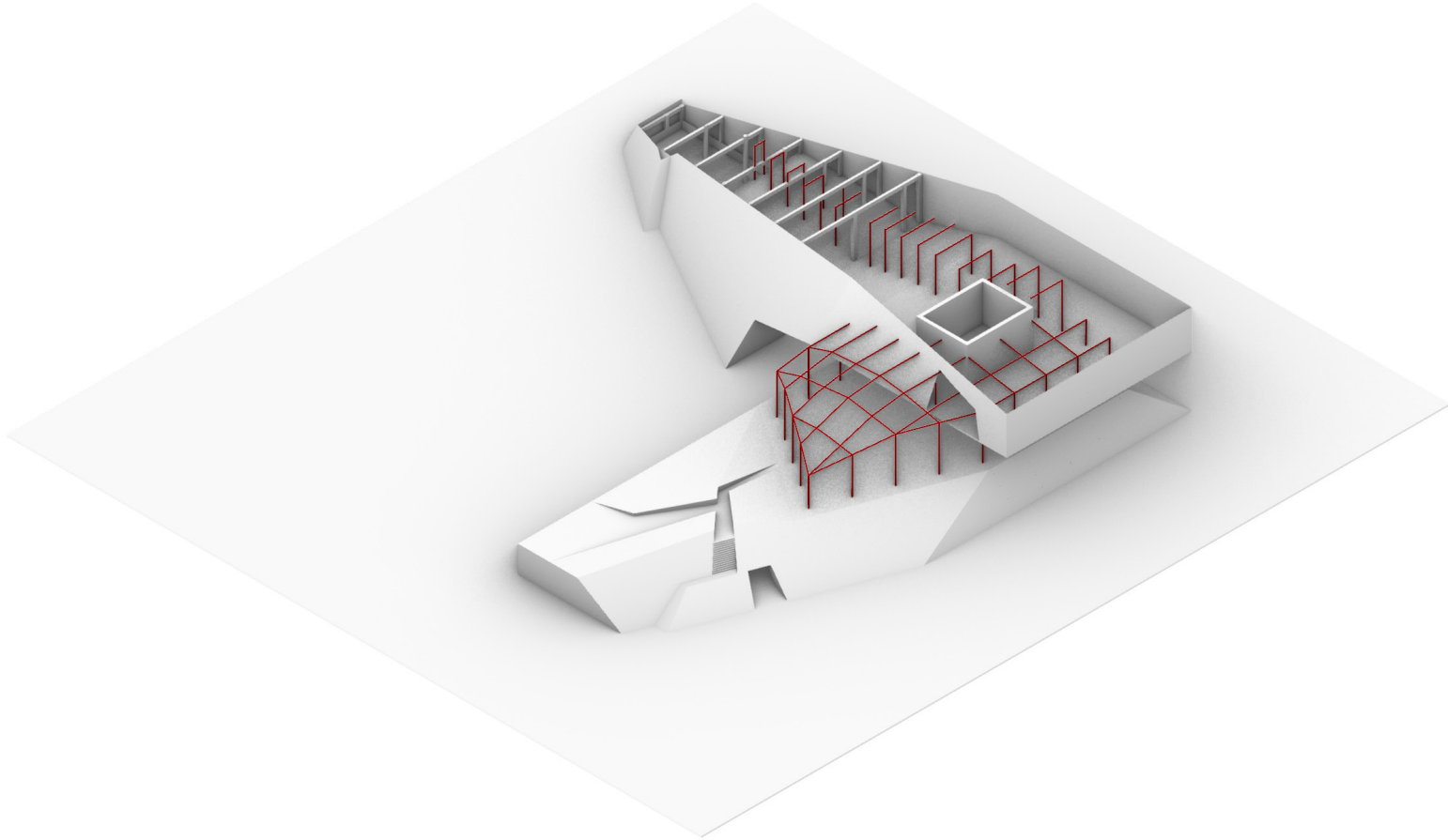
Heavy structure

# Beam

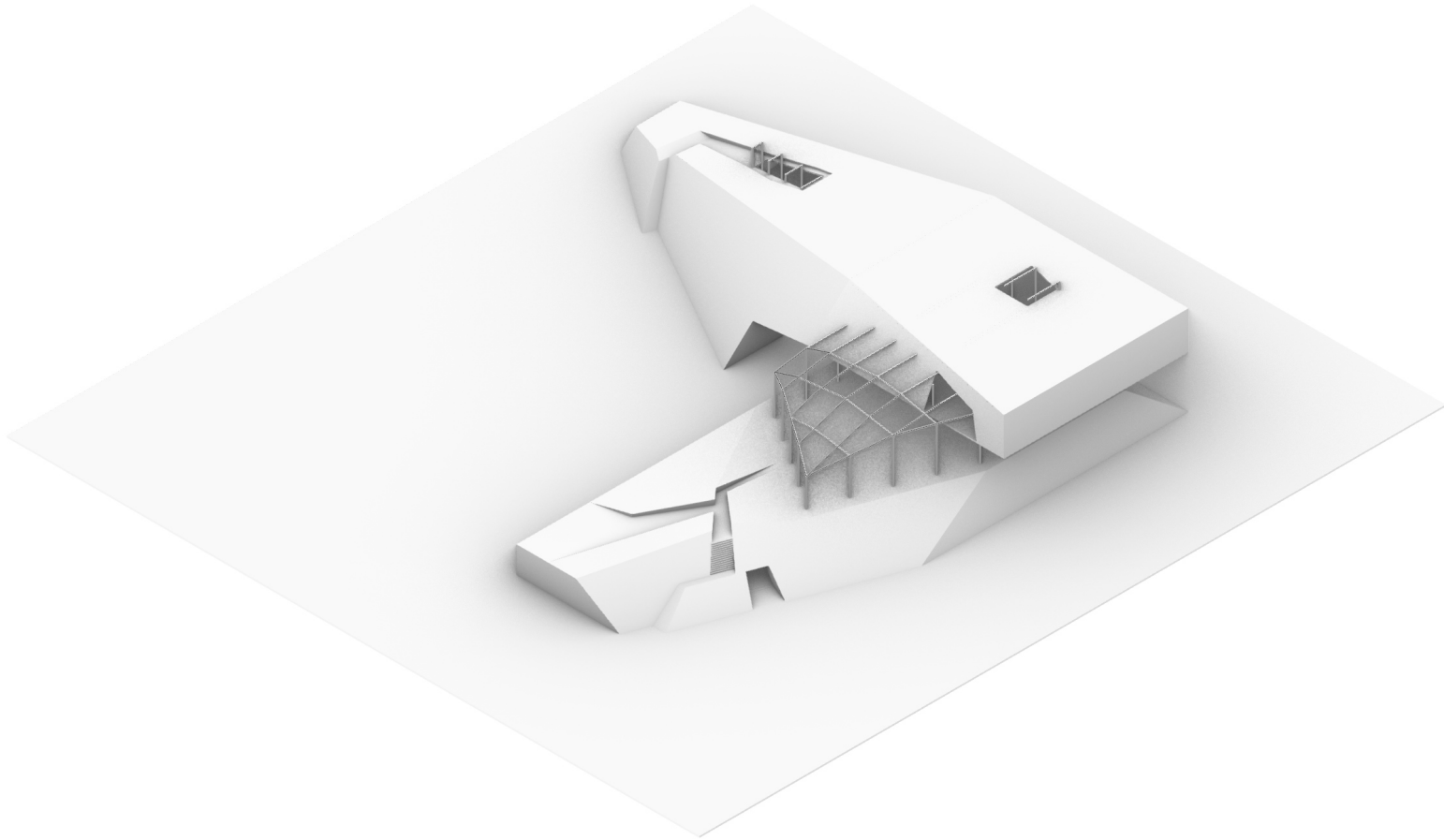


Light structure

## Steel structure



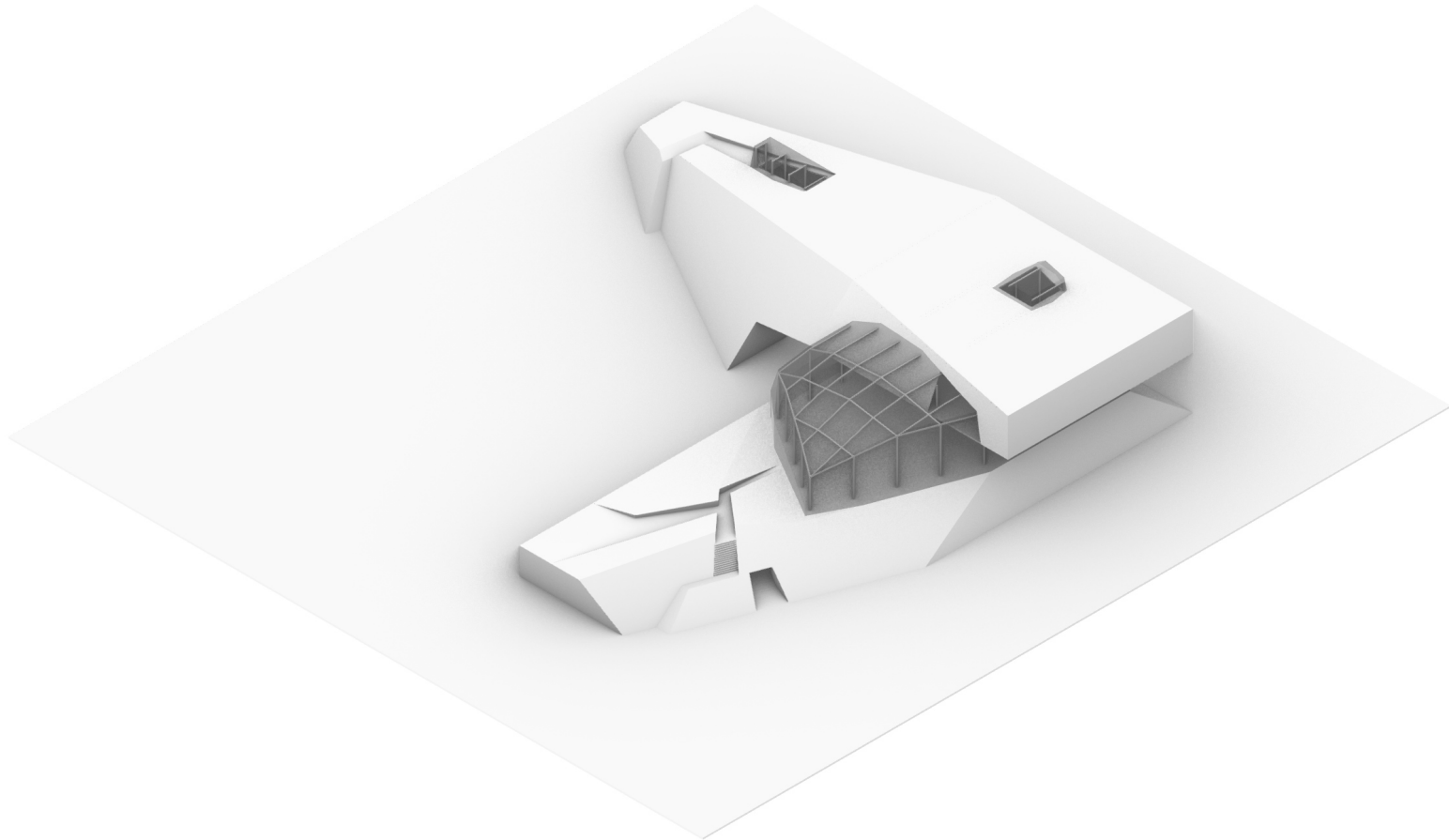
Heavy structure  
**Solid envelop**





Light structure

# Crystal envelop



## Special claddings

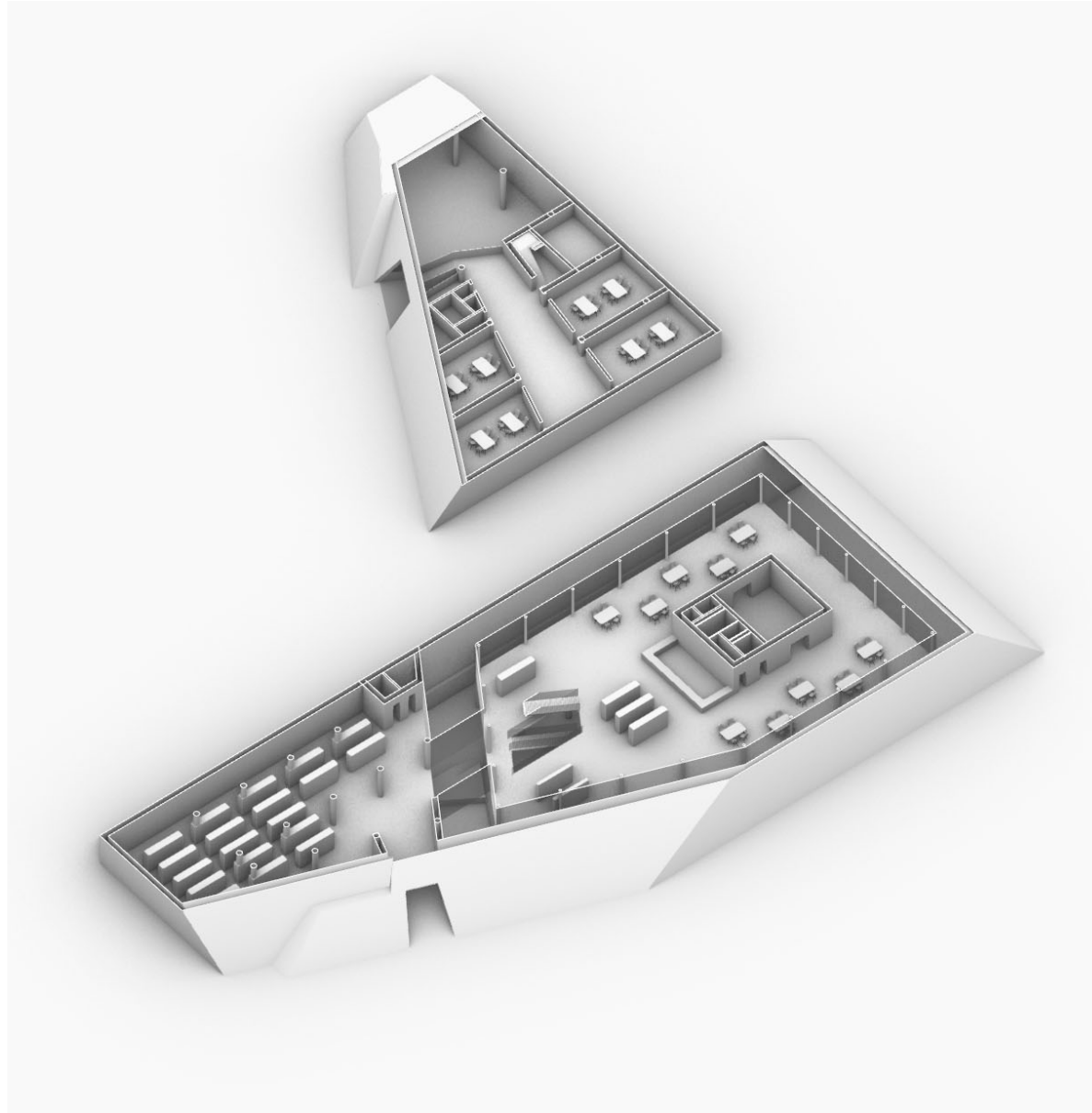


**Perforated weathered steel**



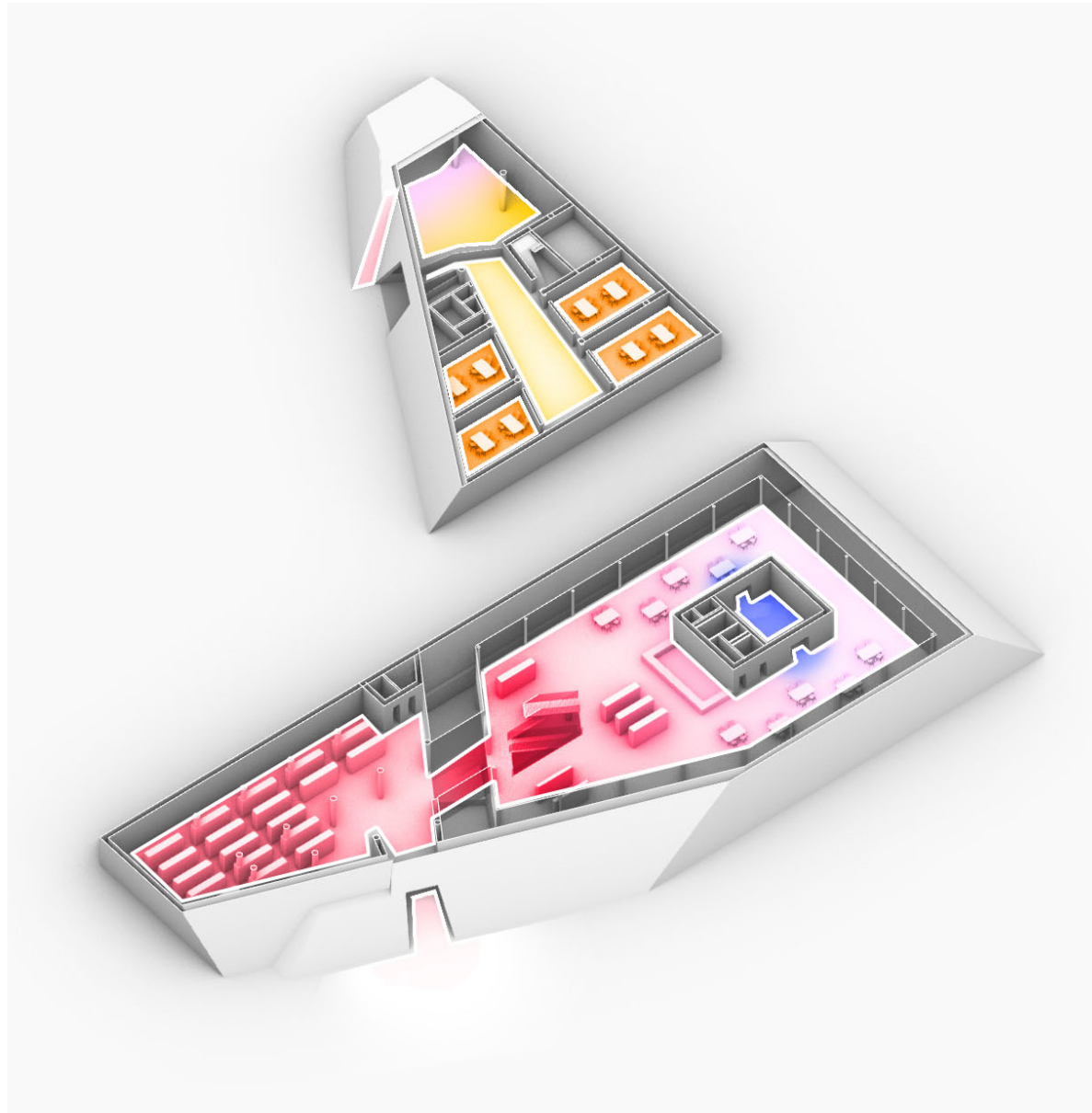
Main entrance level

**Ground floor ±0.00**



Main entrance level

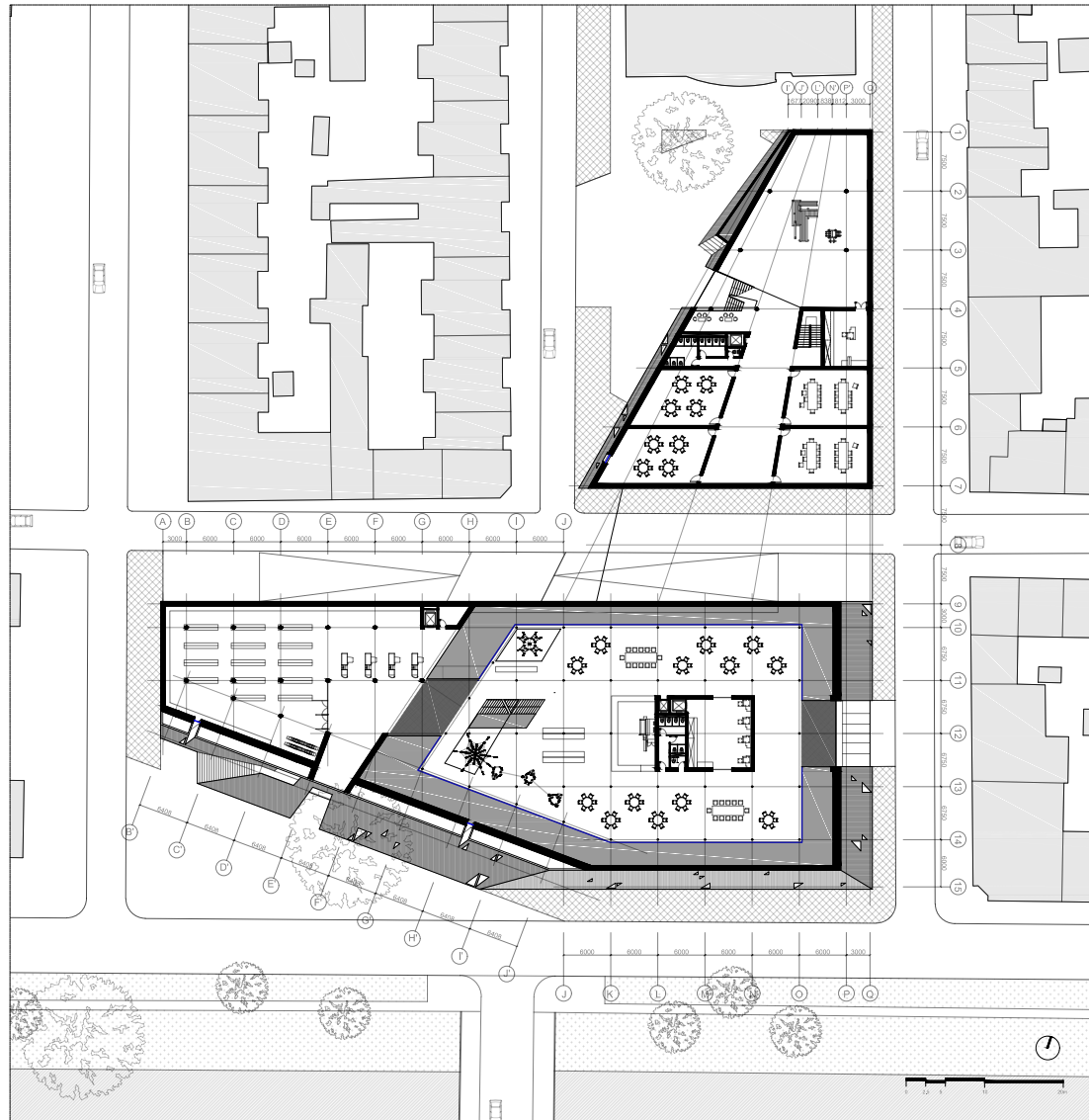
## Ground floor ±0.00



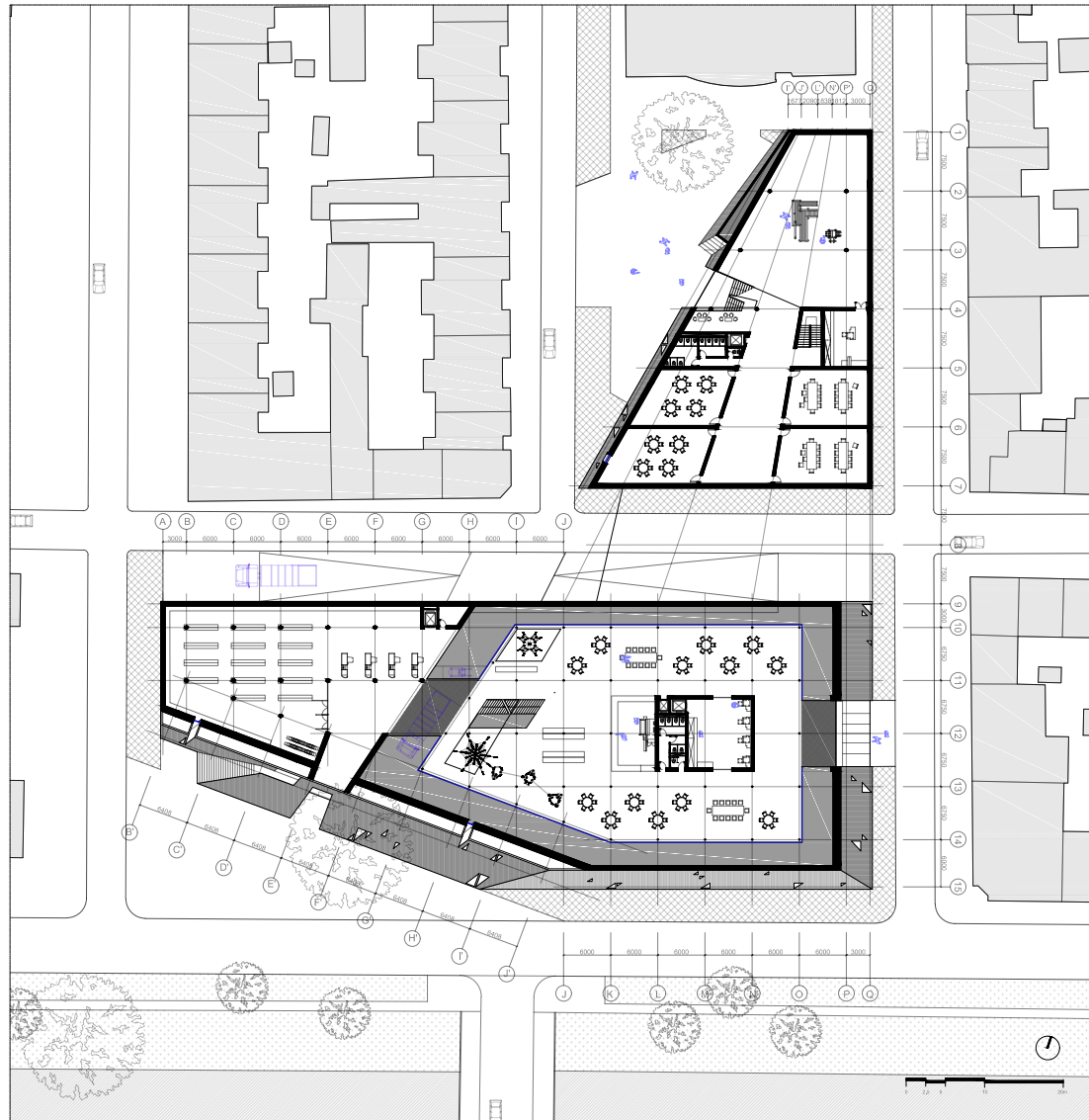
- Public workshop / play hall
- Supermarket / grocery
- Creative classrooms
- School kids' play hall
- Tools and machinery



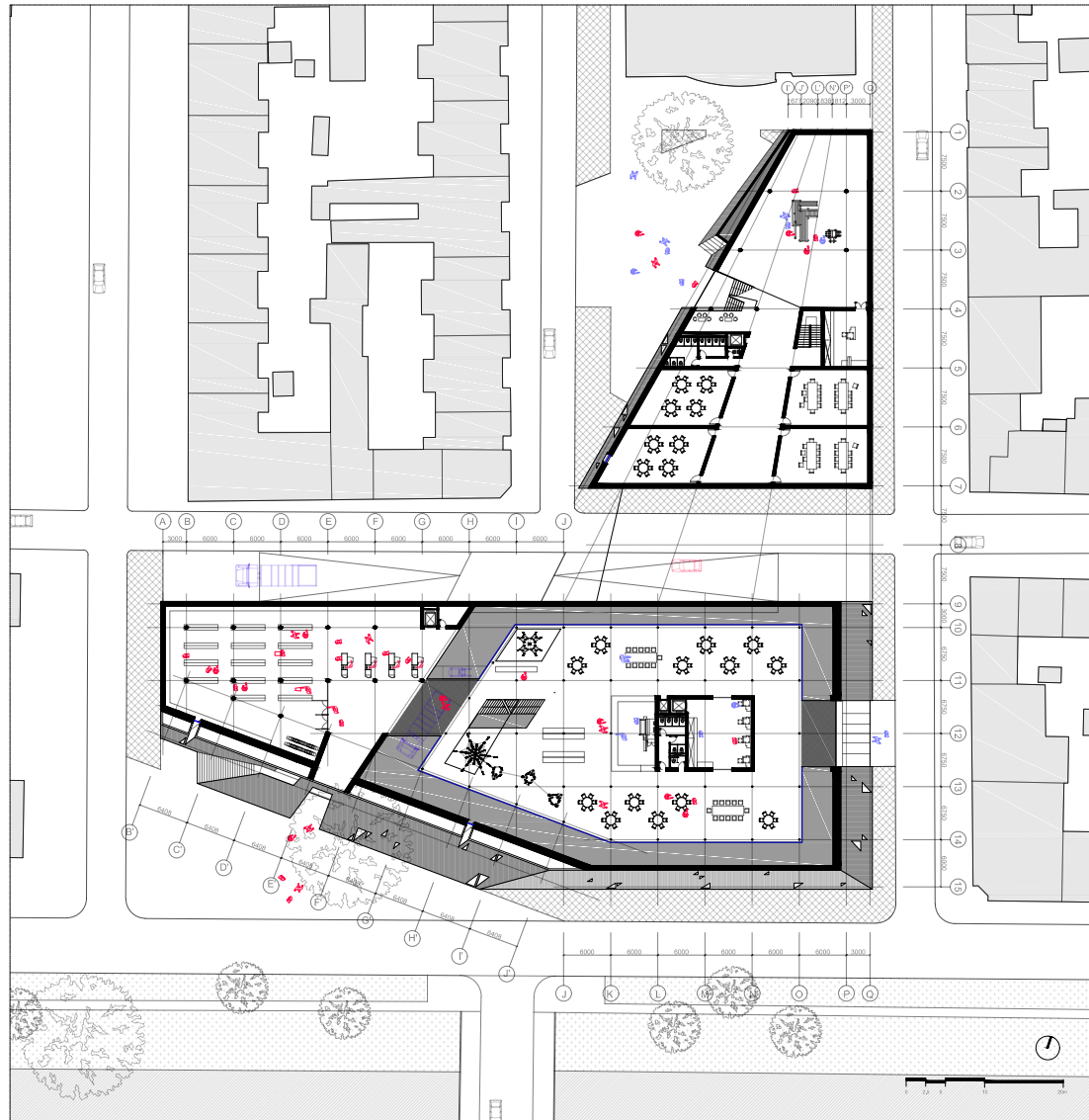
Main entrance level  
**Ground floor ±0.00**



Main entrance level  
**Ground floor ±0.00**



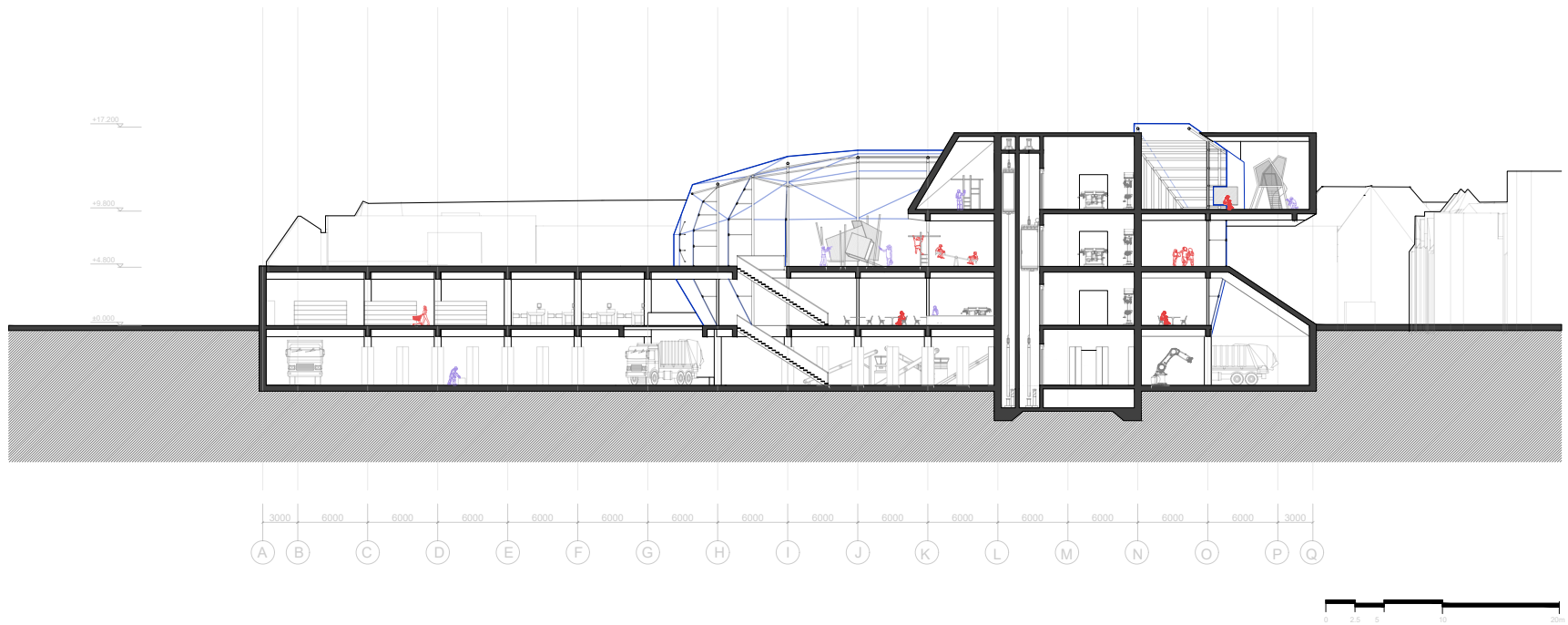
Main entrance level  
**Ground floor ±0.00**



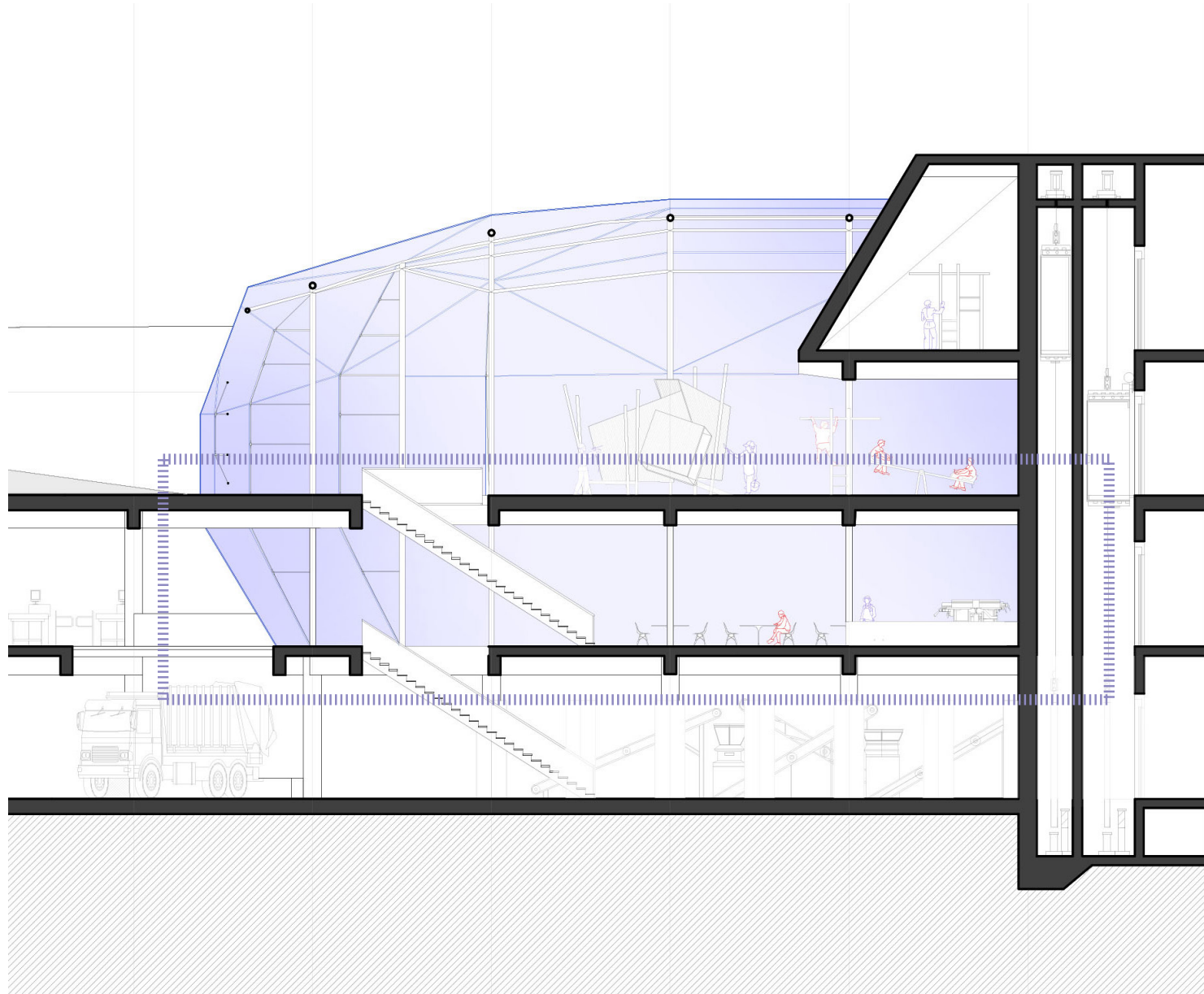


Public sector

# Section A-A

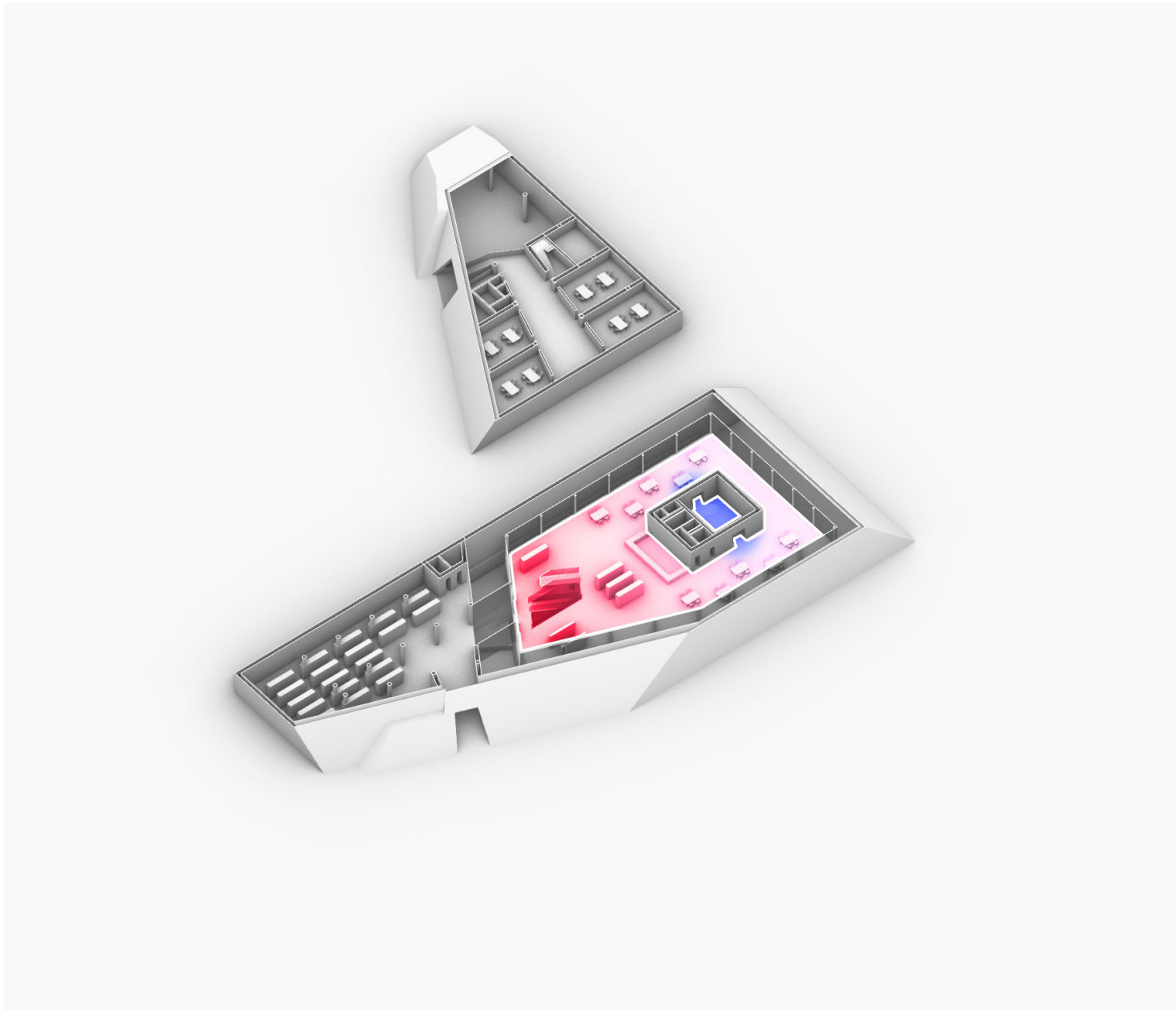


Fragment  
DIY workshop



Fragement

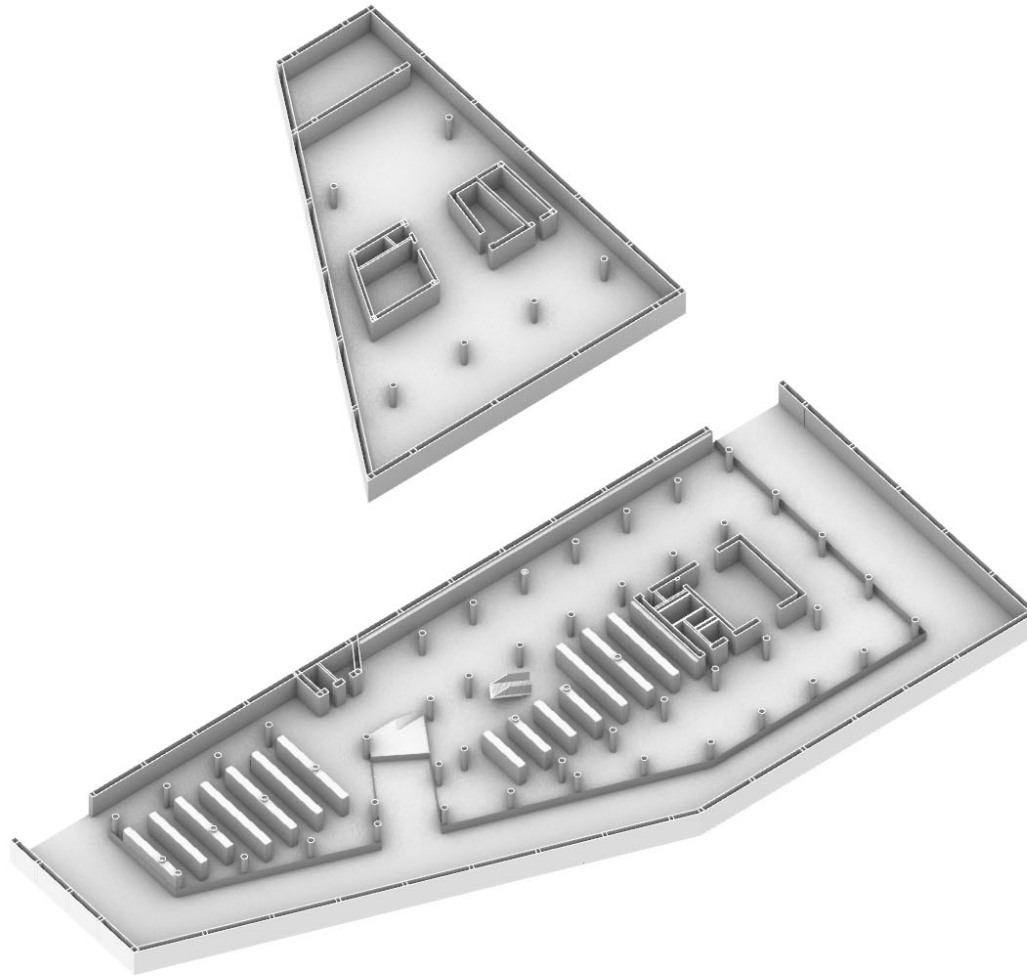
# DIY workshop





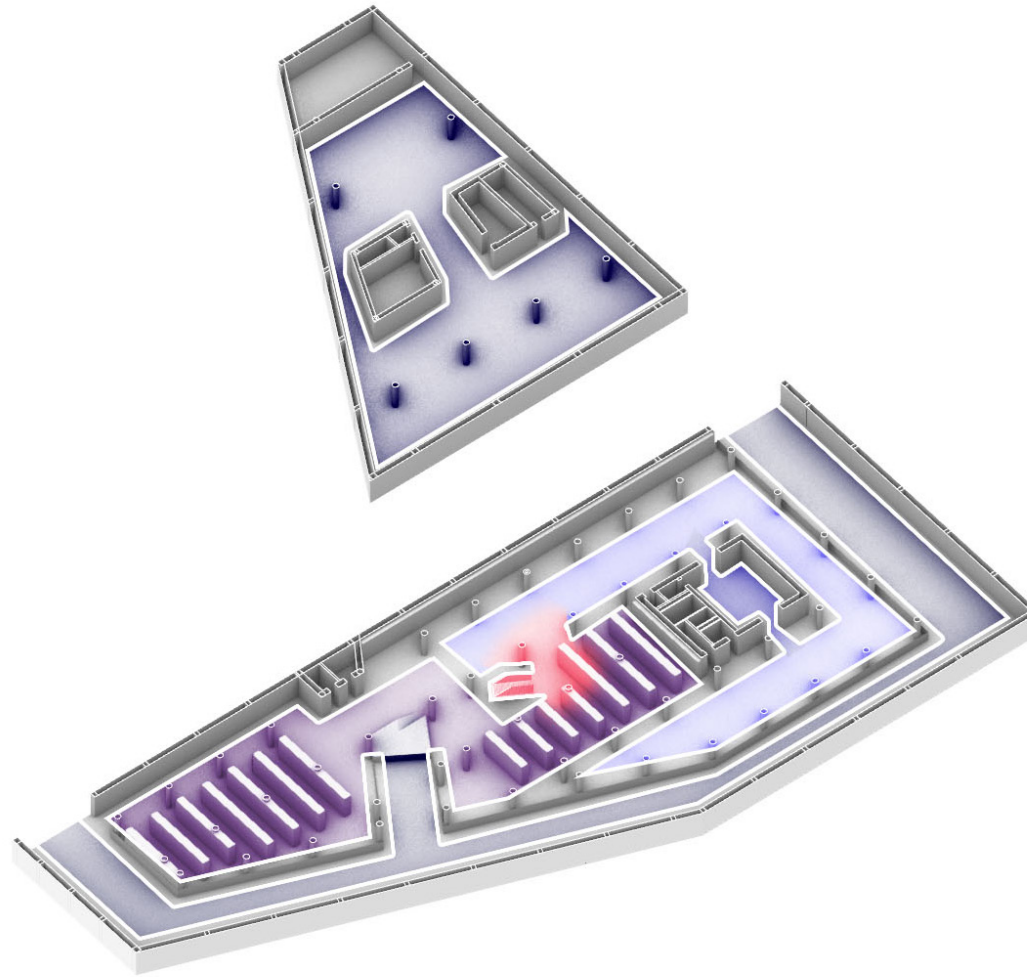
Warehouse level

## Underground floor -4.80



Warehouse level

# Underground floor -4.80

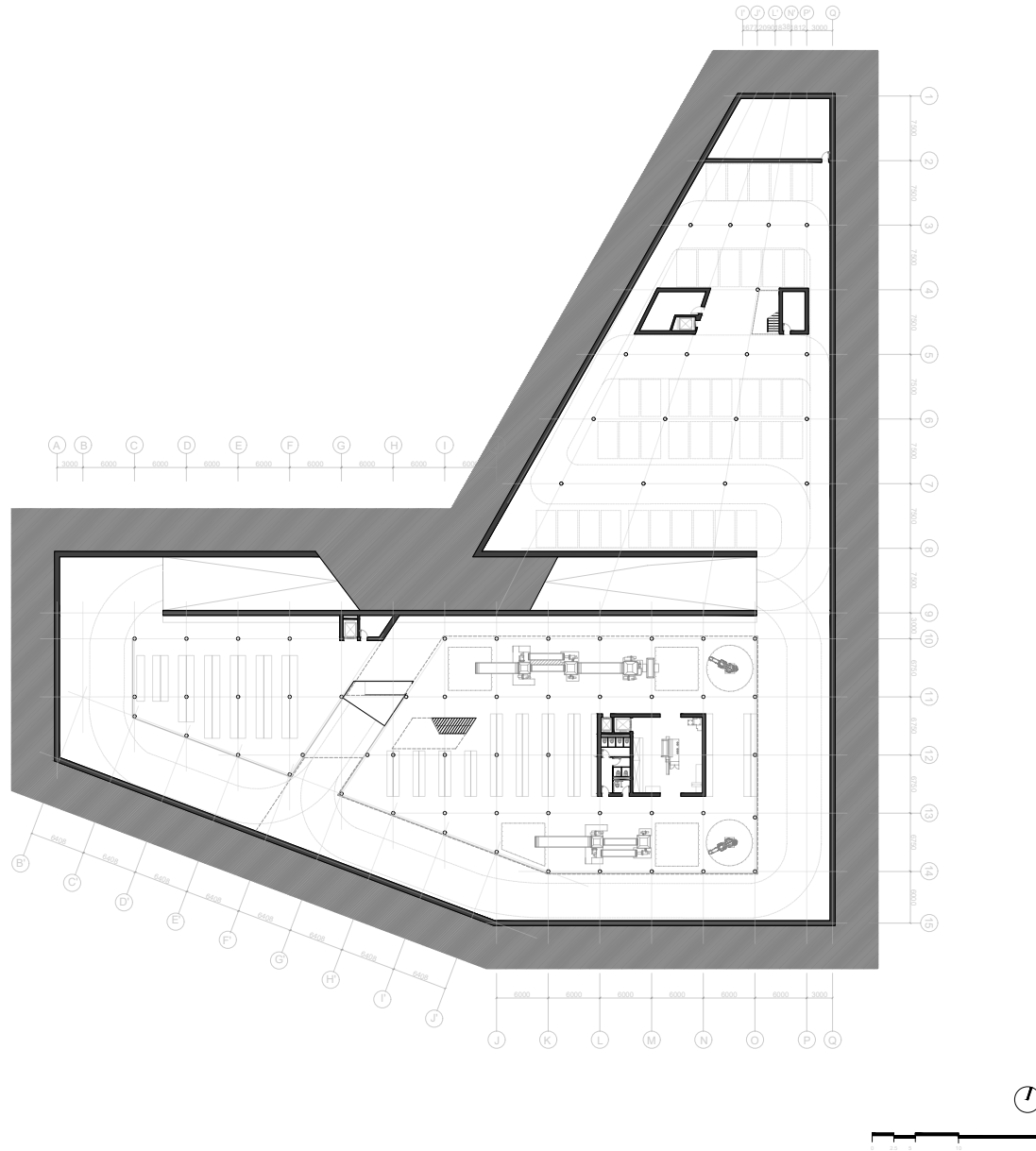


- Public workshop / play hall
- Developed upcycle workline
- Storage
- Parking / logistics
- Tools and machinery



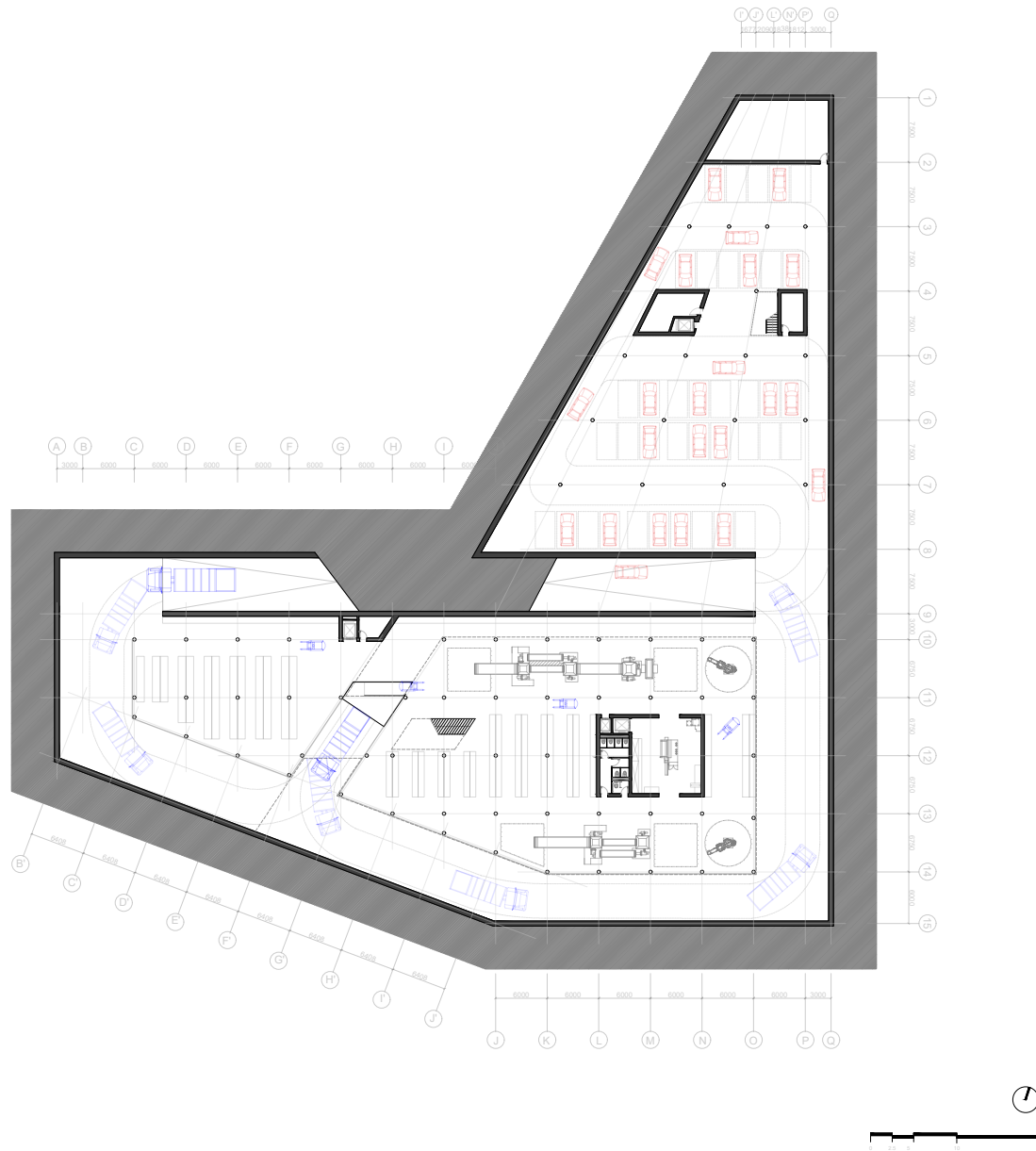
Warehouse level

# Underground floor -4.80



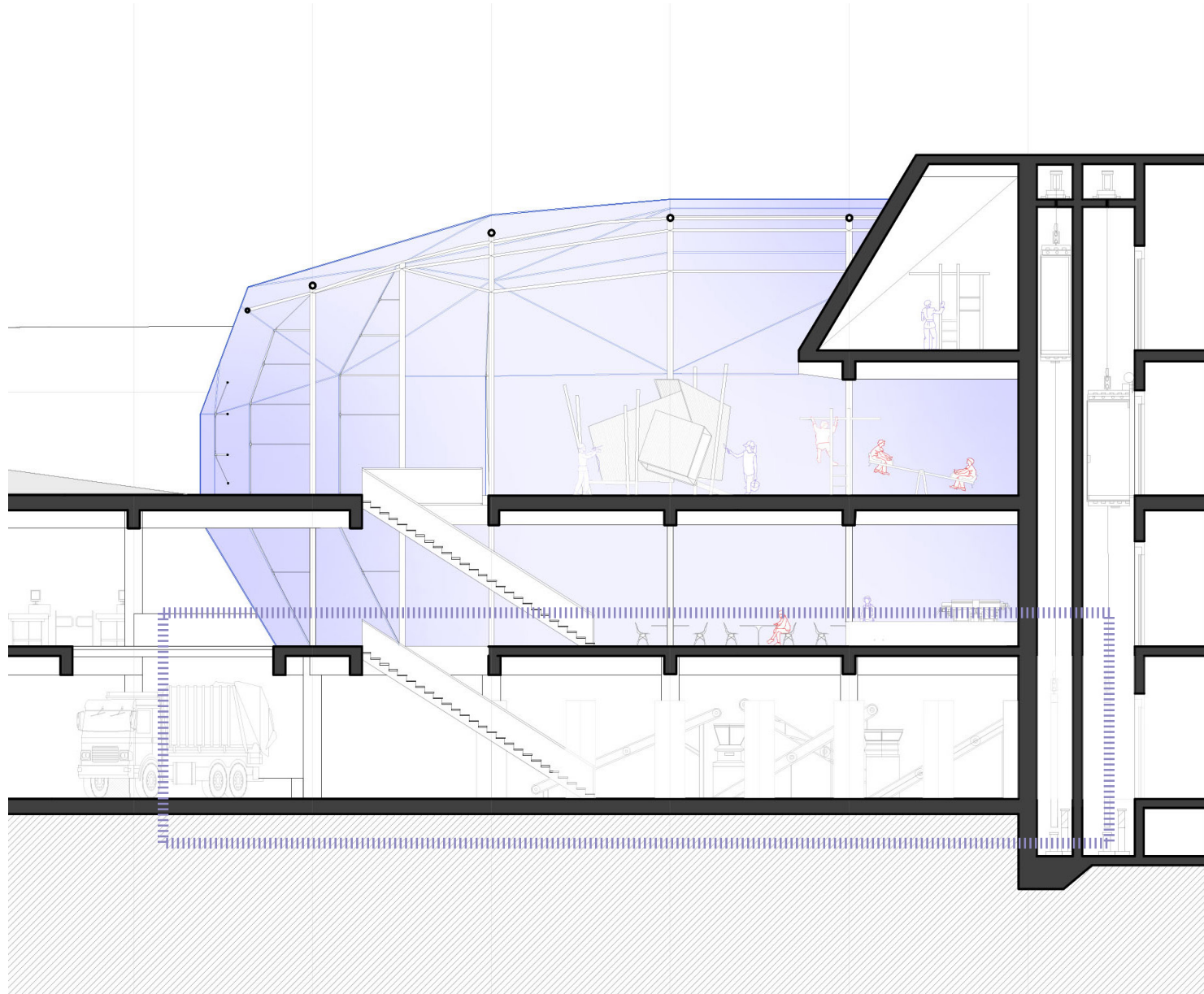
Warehouse level

# Underground floor -4.80





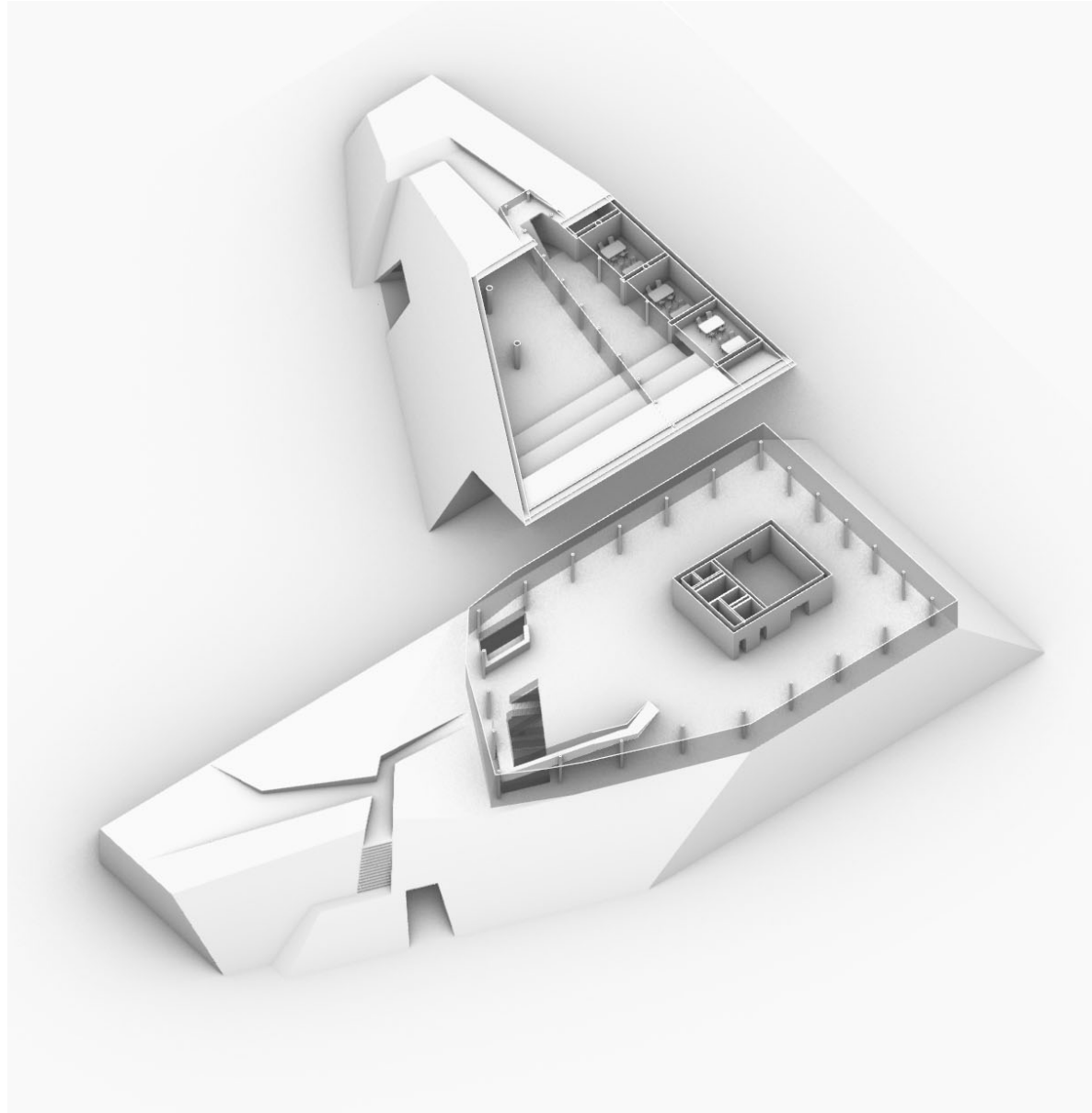
# Underground workshop





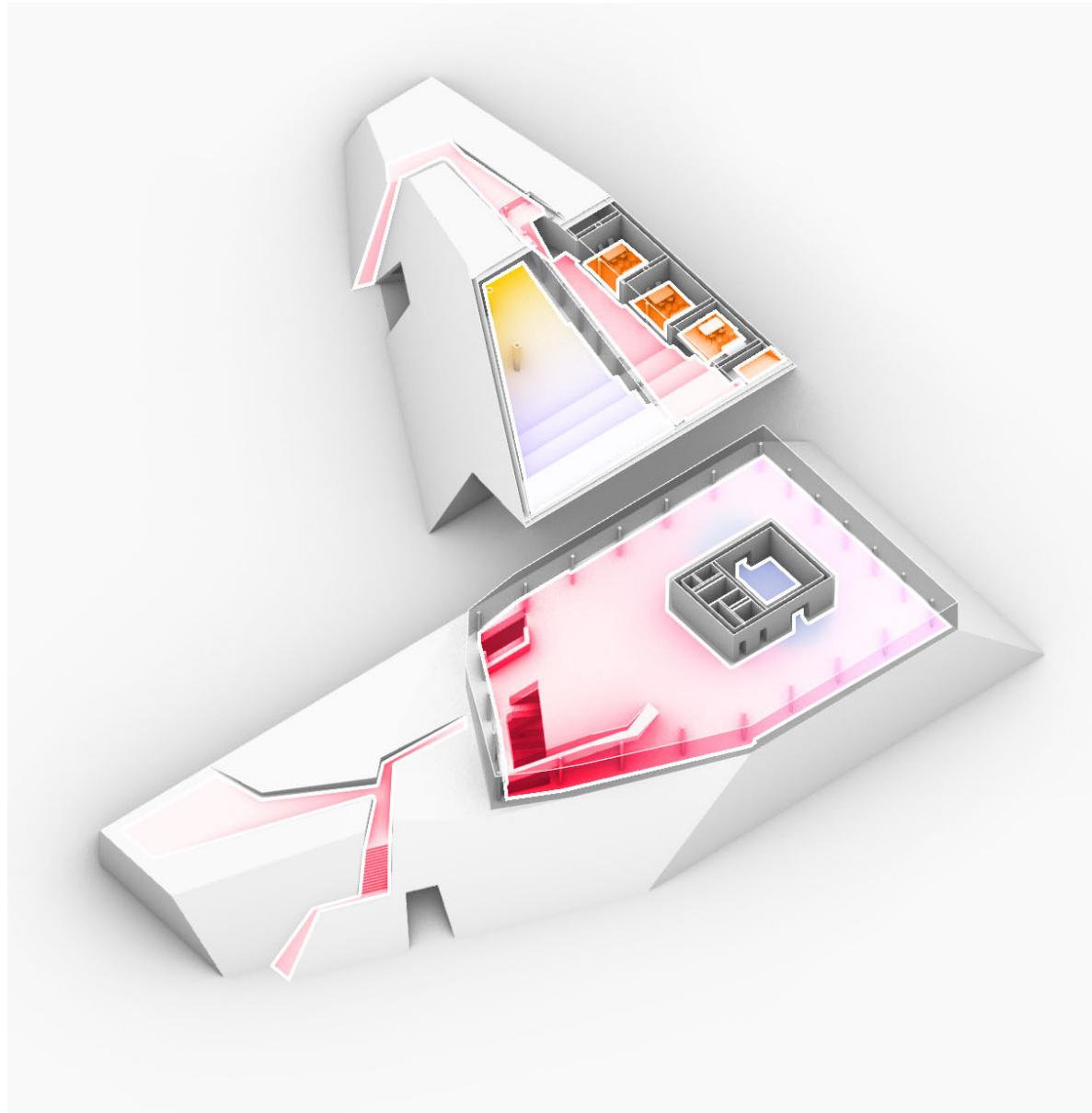
Main entrance level

**1st Floor +4.80**



Main entrance level

# 1st Floor +4.80

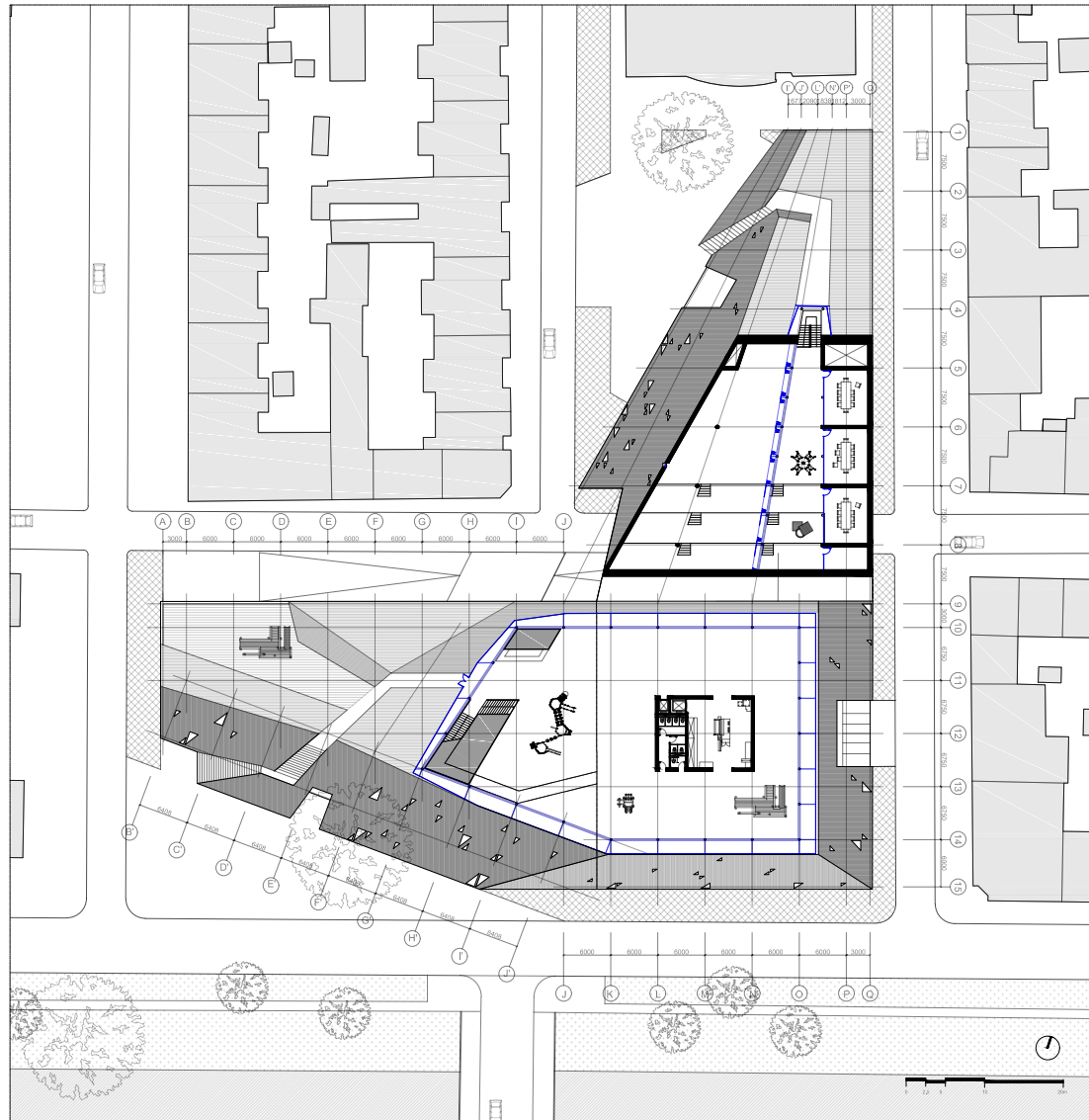


- Private workshop / play hall
- Public workshop / play hall
- Entrance / reception
- Creative classrooms
- School kids' play hall
- Tools and machinery



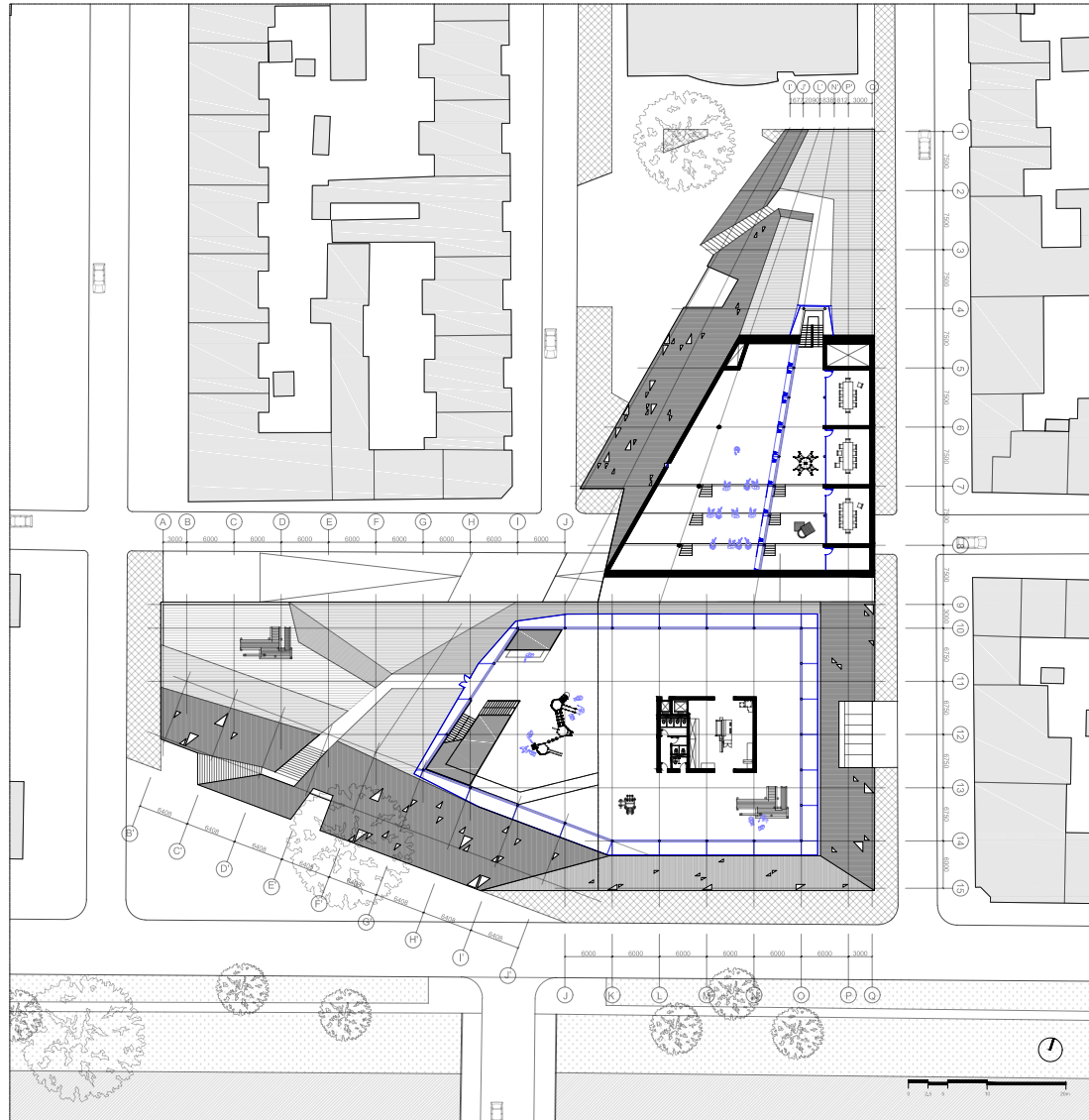
Main entrance level

# 1st Floor +4.80



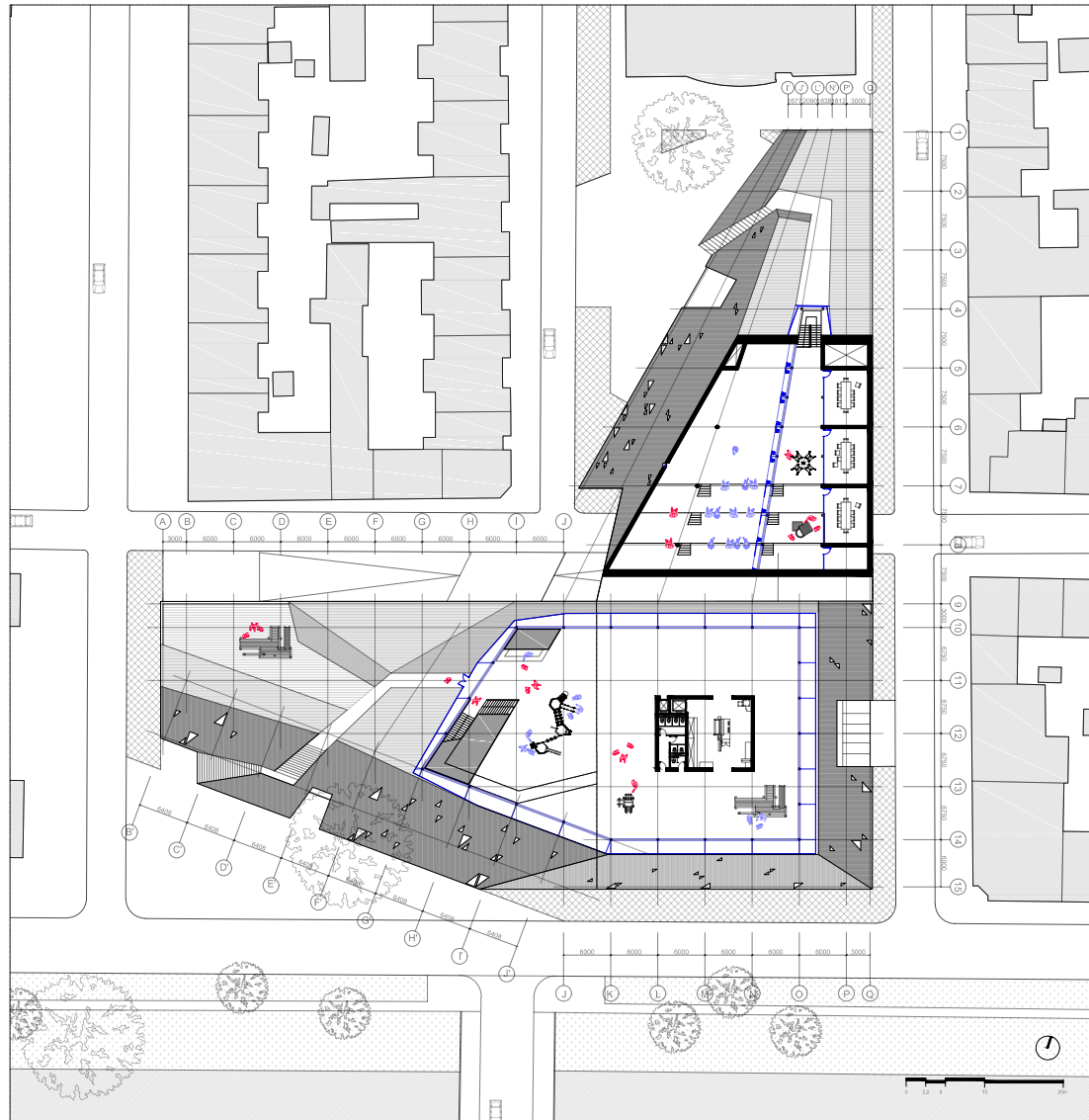
Main entrance level

# 1st Floor +4.80

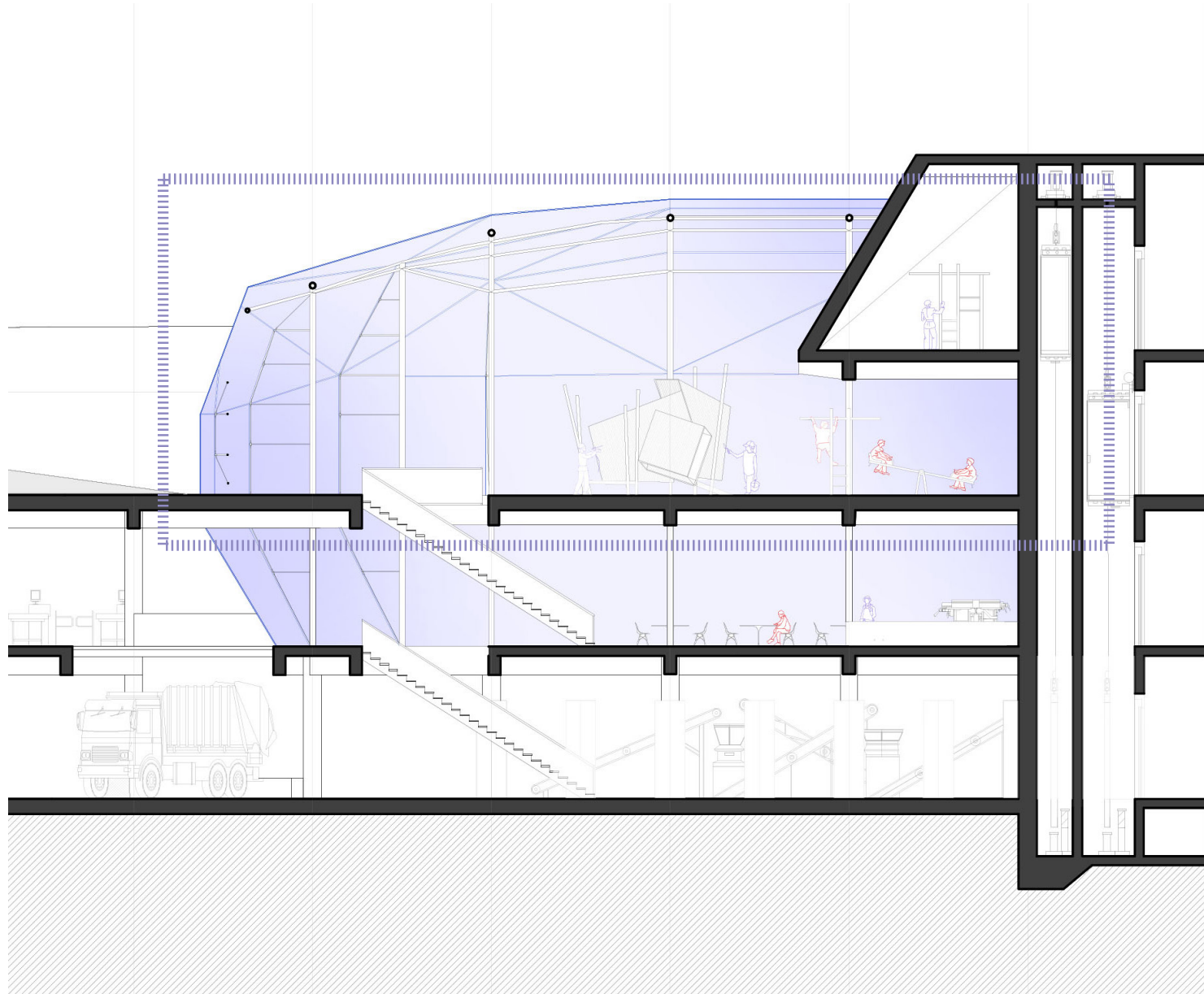


Main entrance level

# 1st Floor +4.80



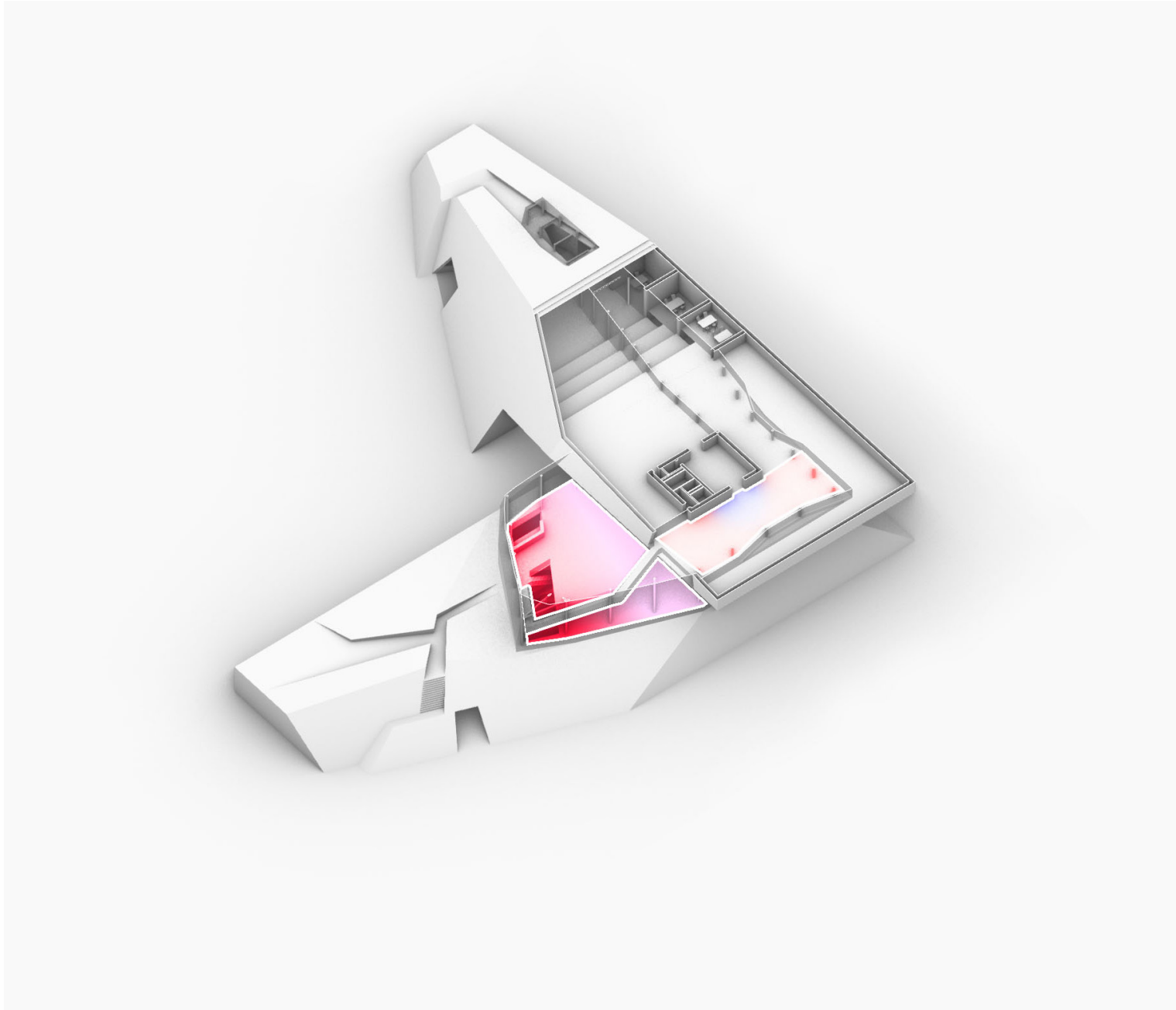
Fragment  
**Main hall**

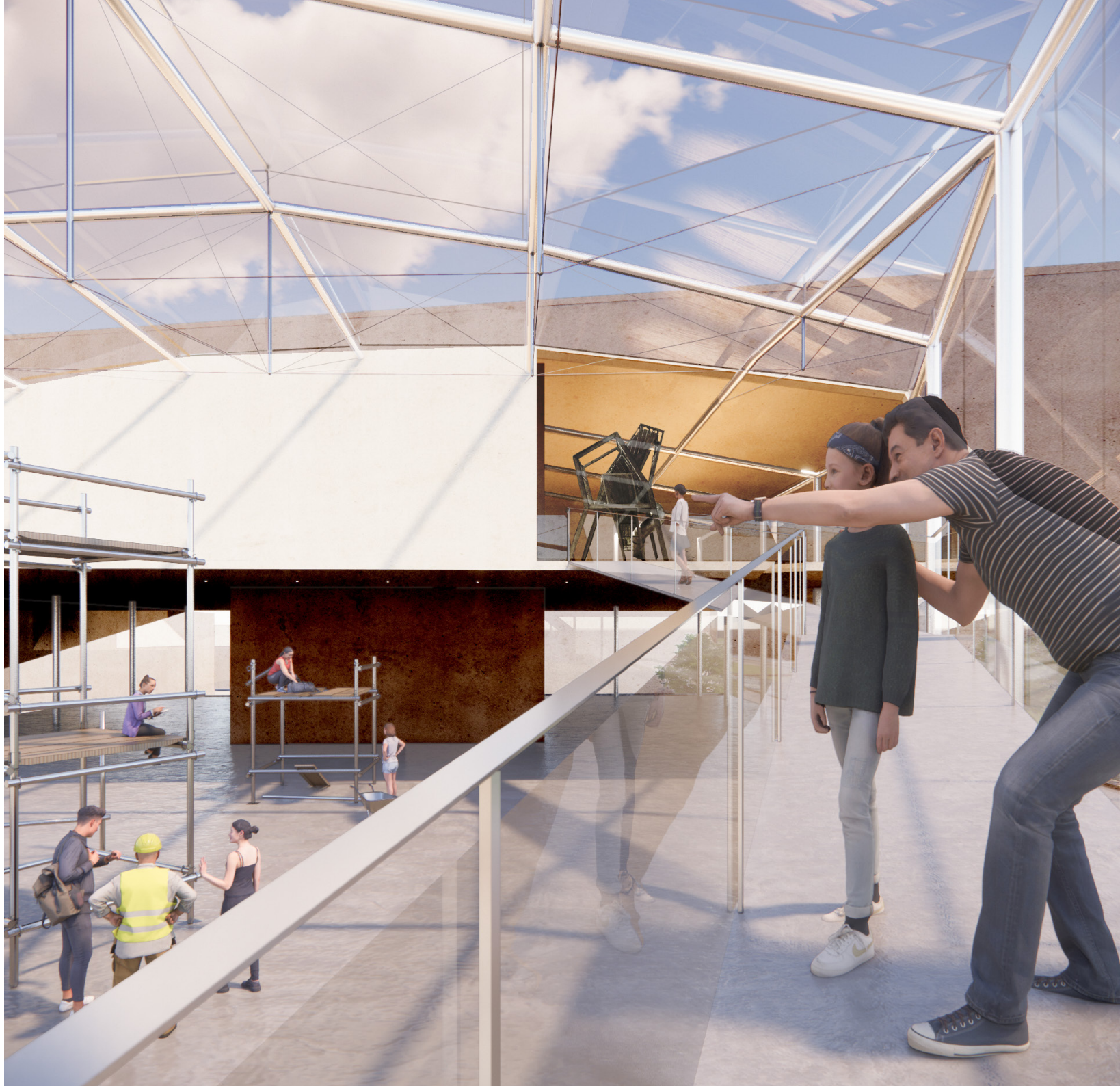




Fragment

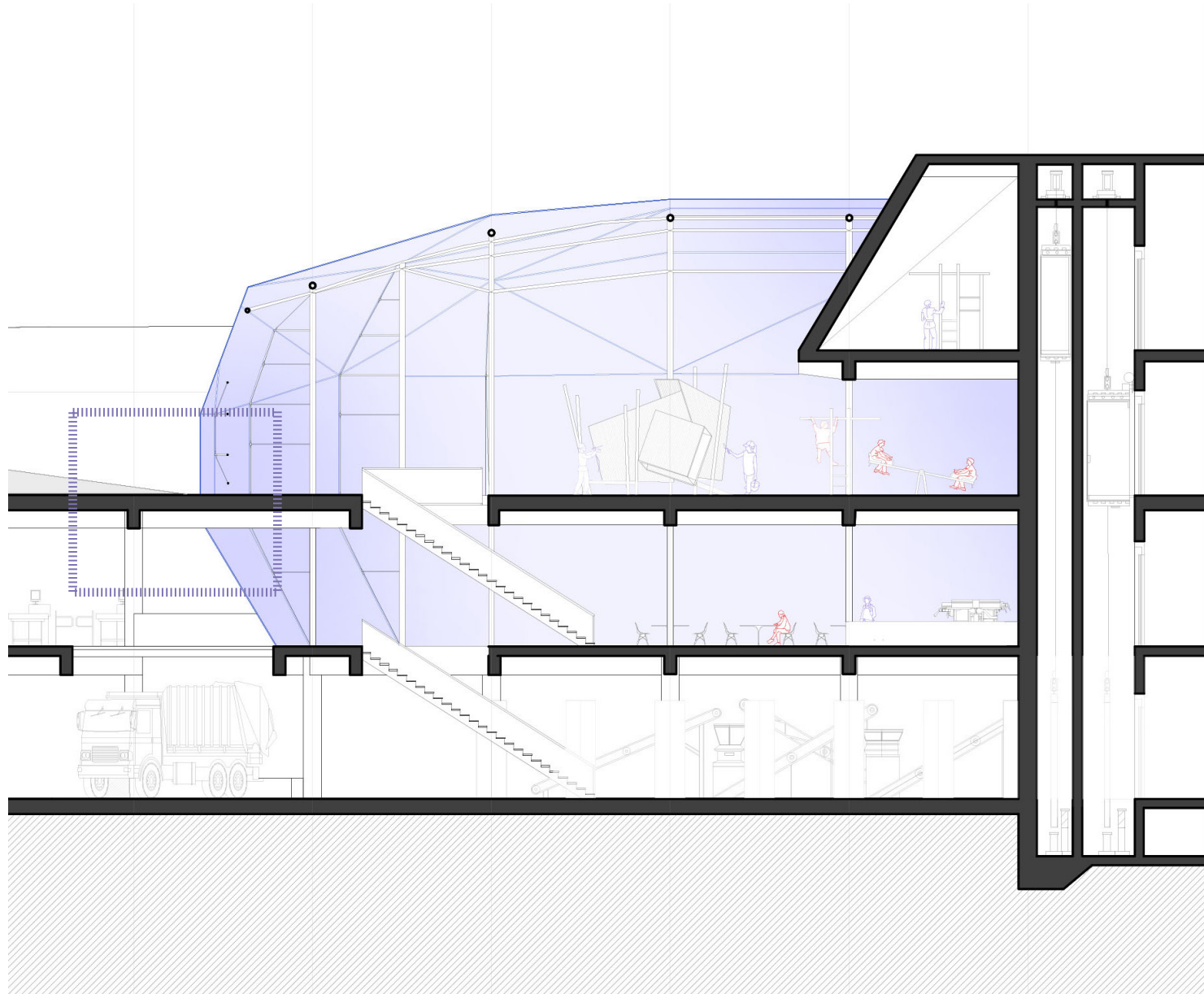
## Inserting crystal





Detail

# Flat & even from inside out

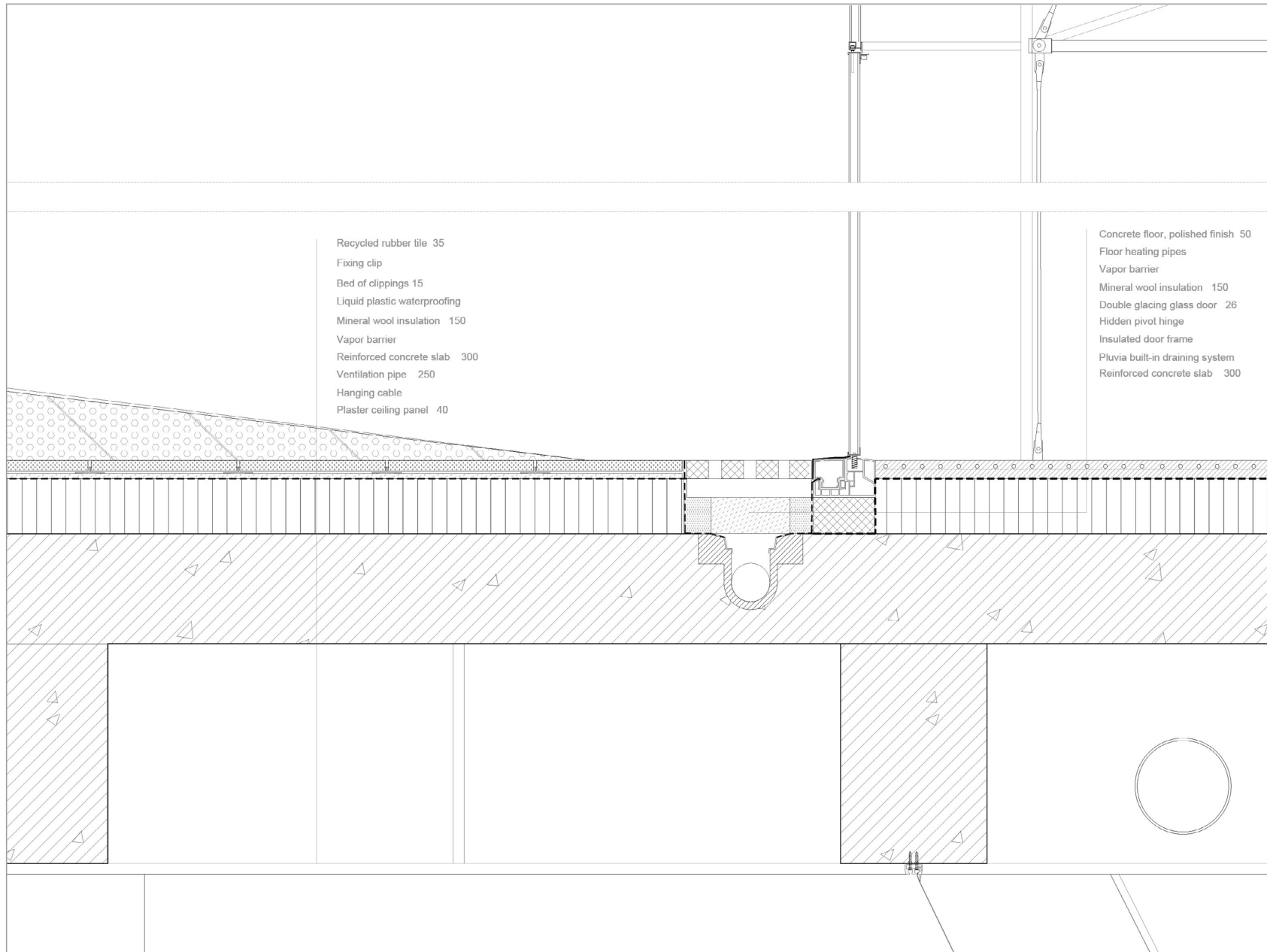


Detail

## Flat & even from inside out

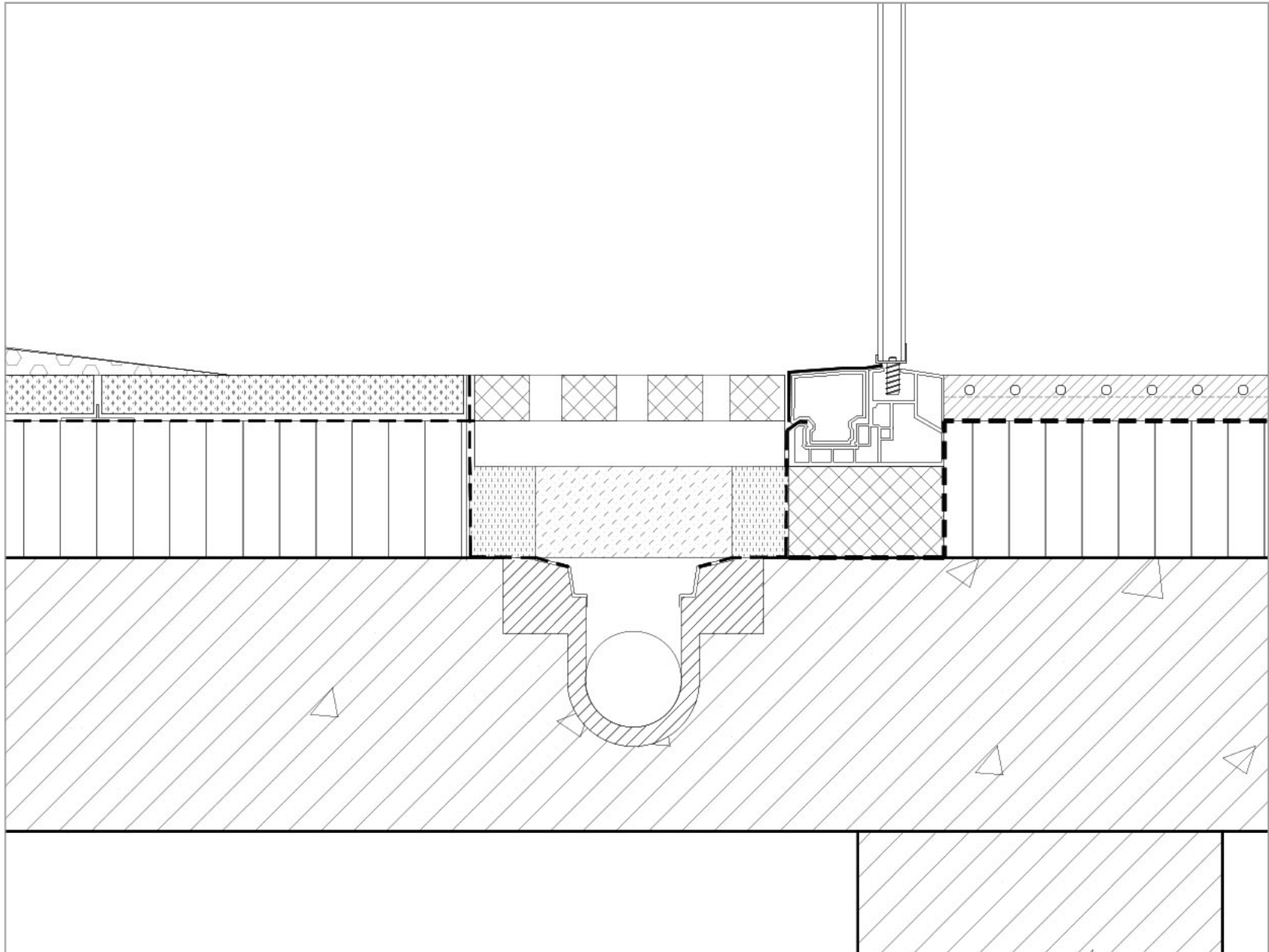


# Flat & even from inside out



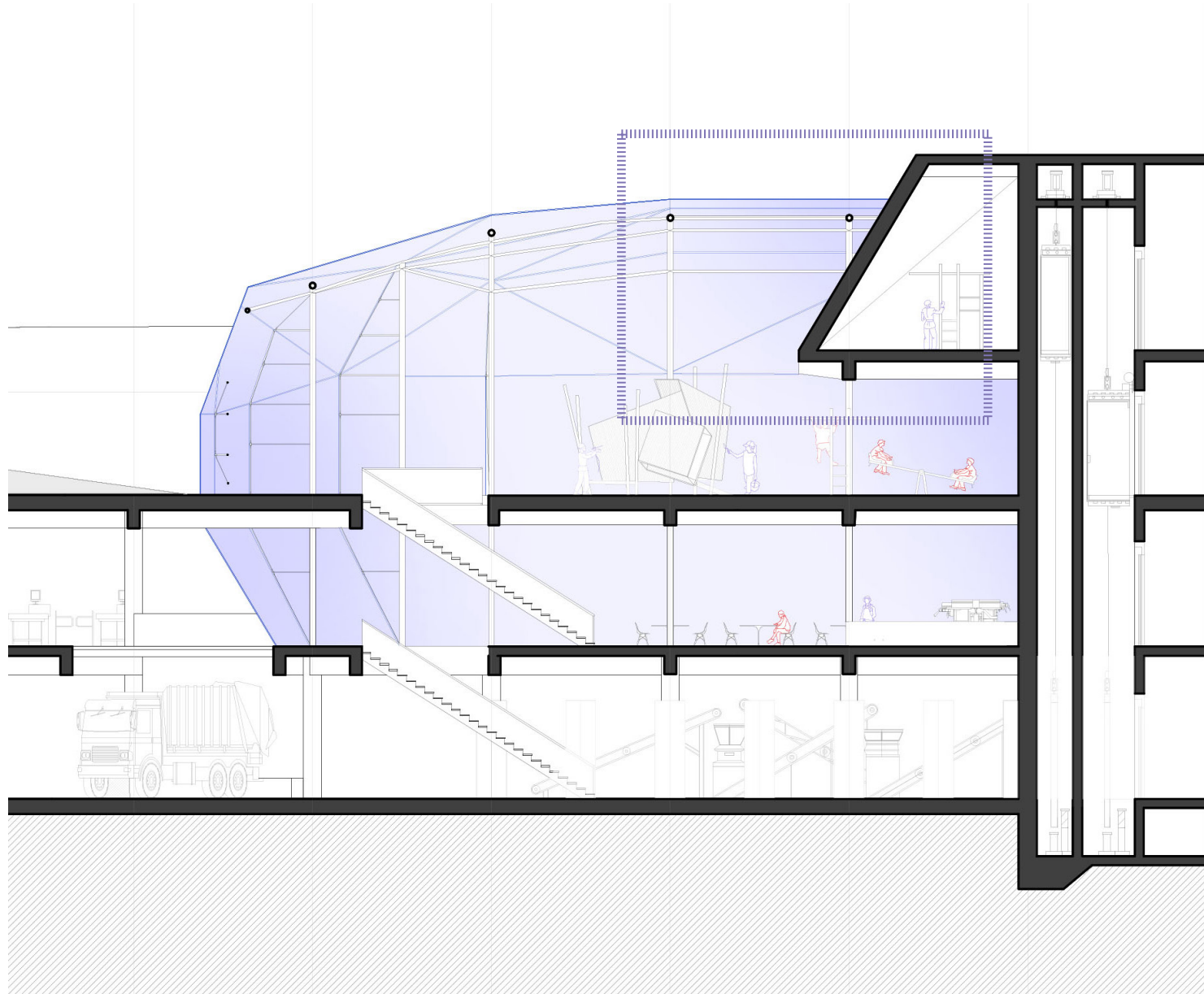
Detail

# Flat & even from inside out

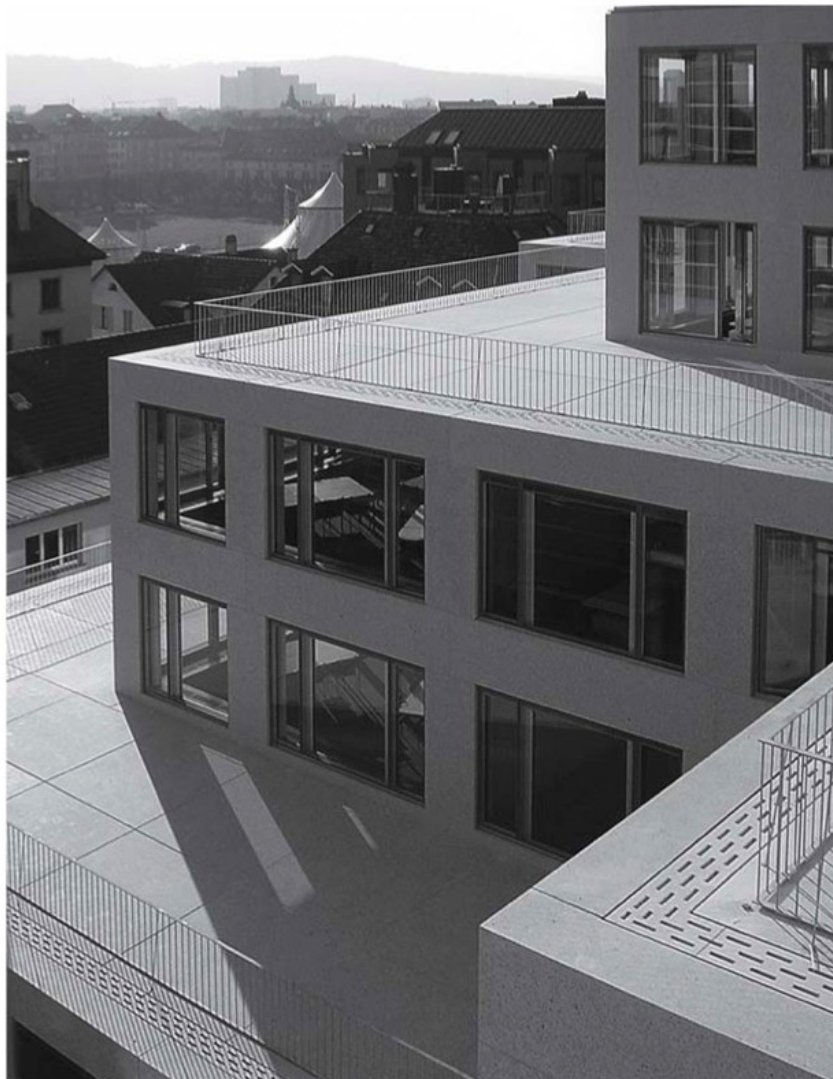


Fragement

# Inserting crystal



## Bulky solid: Roof gutter

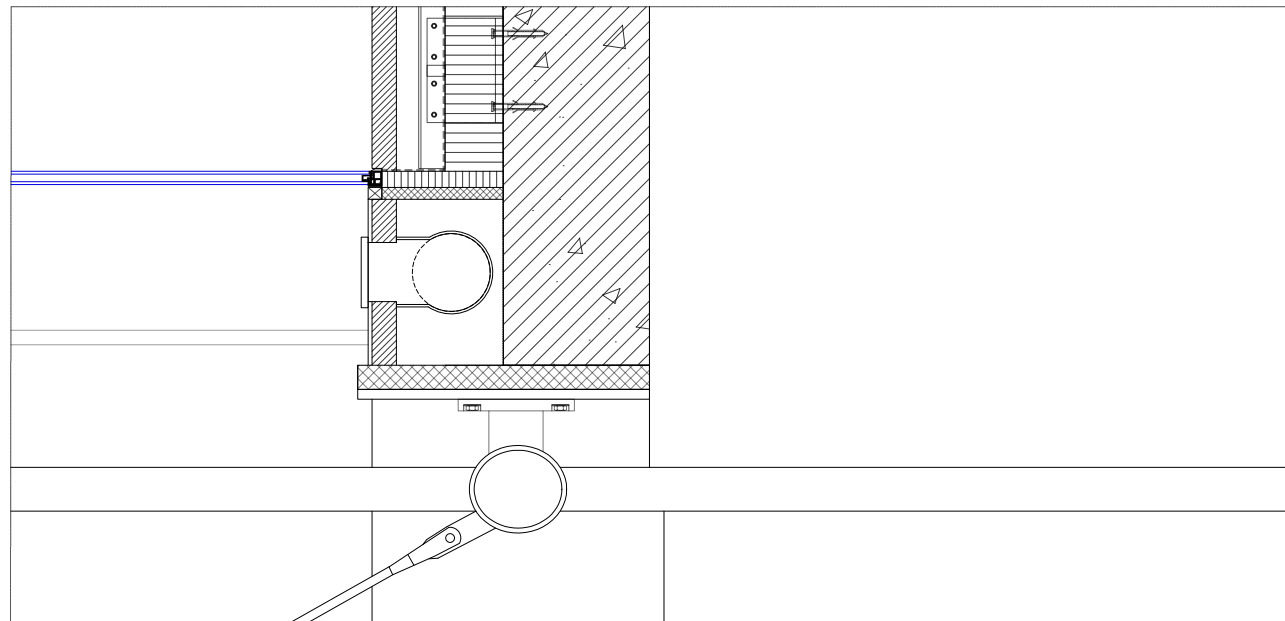
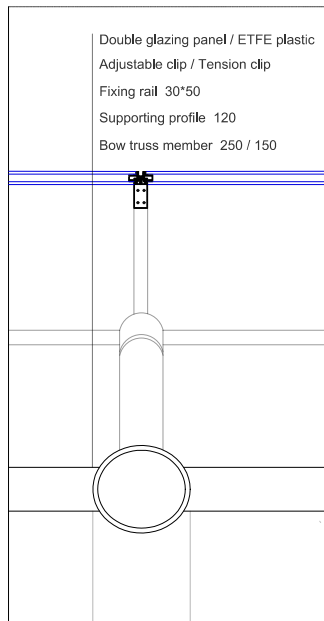
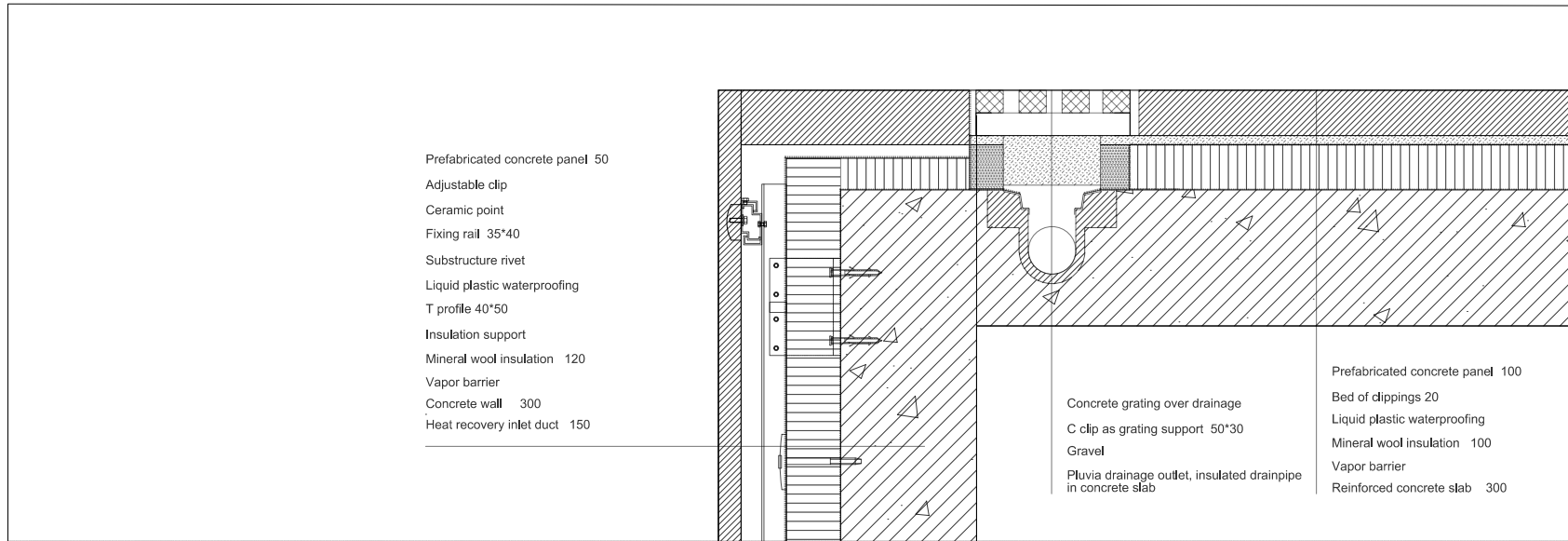


**Fig. 194: Terracing at rear of building**

Terraces and facades are finished with polished reconstituted stone panels; corner and edge pieces are three-dimensional elements.

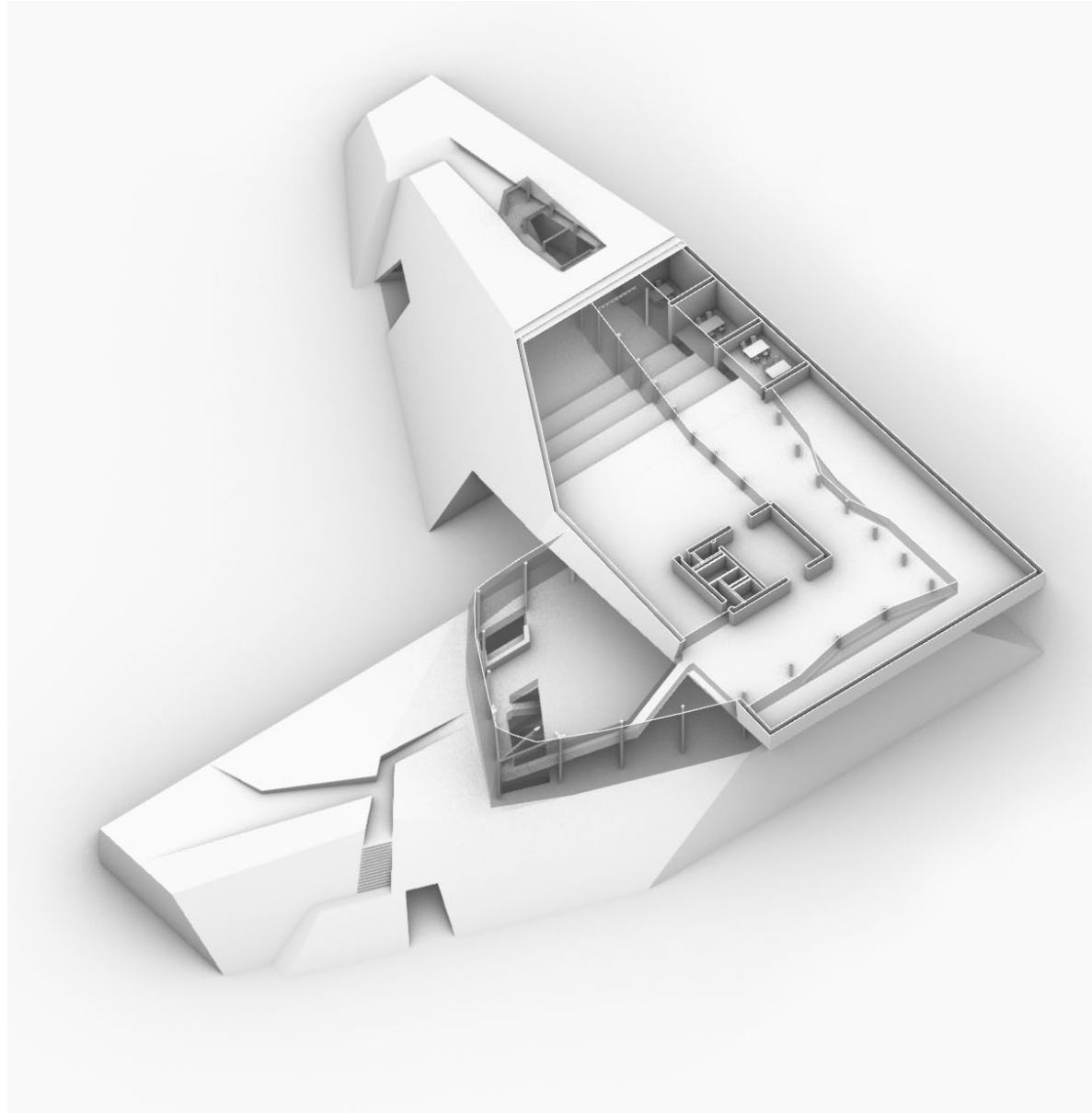


# Roof gutter + intruding crystal



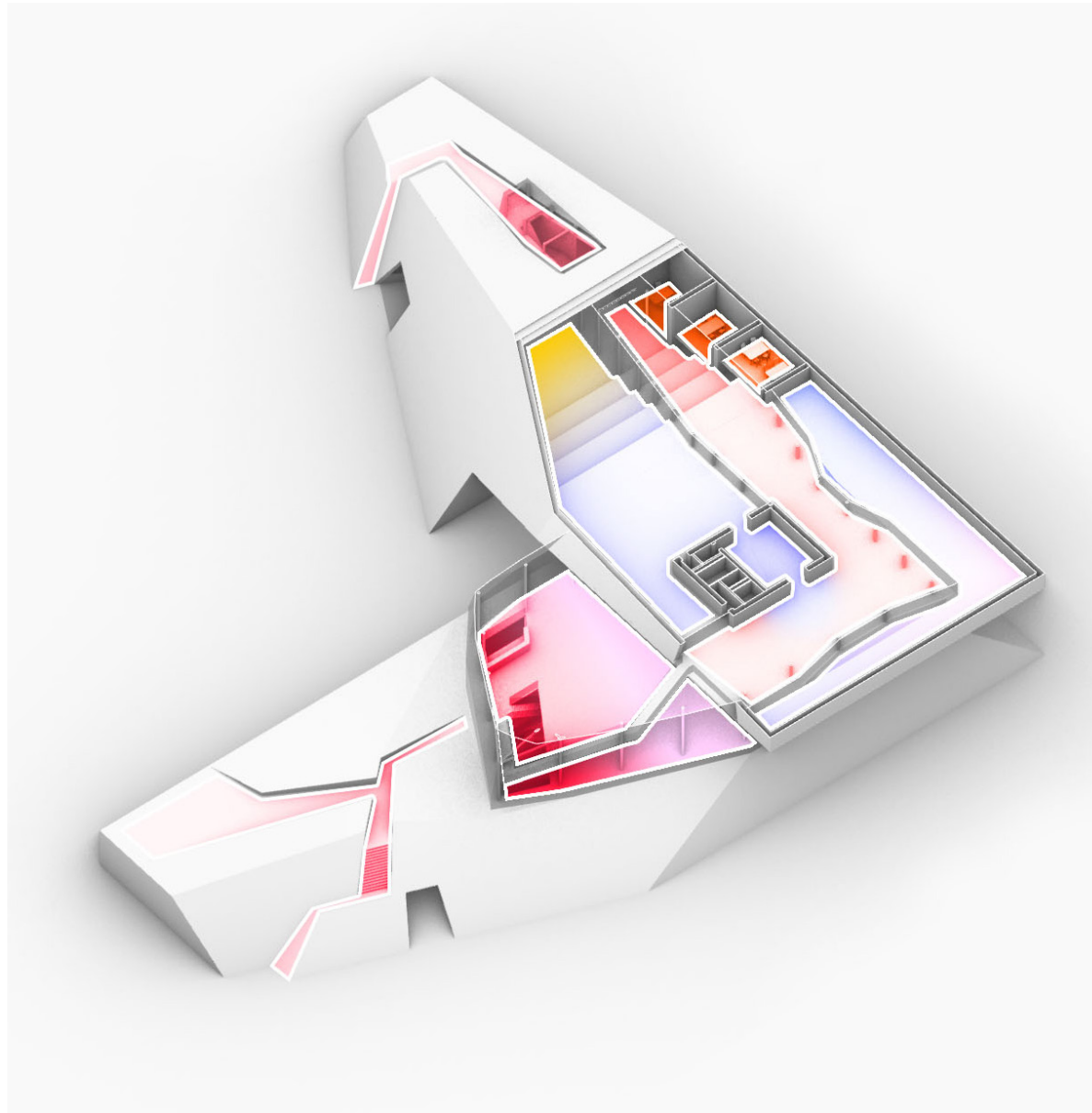
Floating pavilion level

**2st Floor +9.60**



Floating pavilion level

## 2nd Floor +9.60

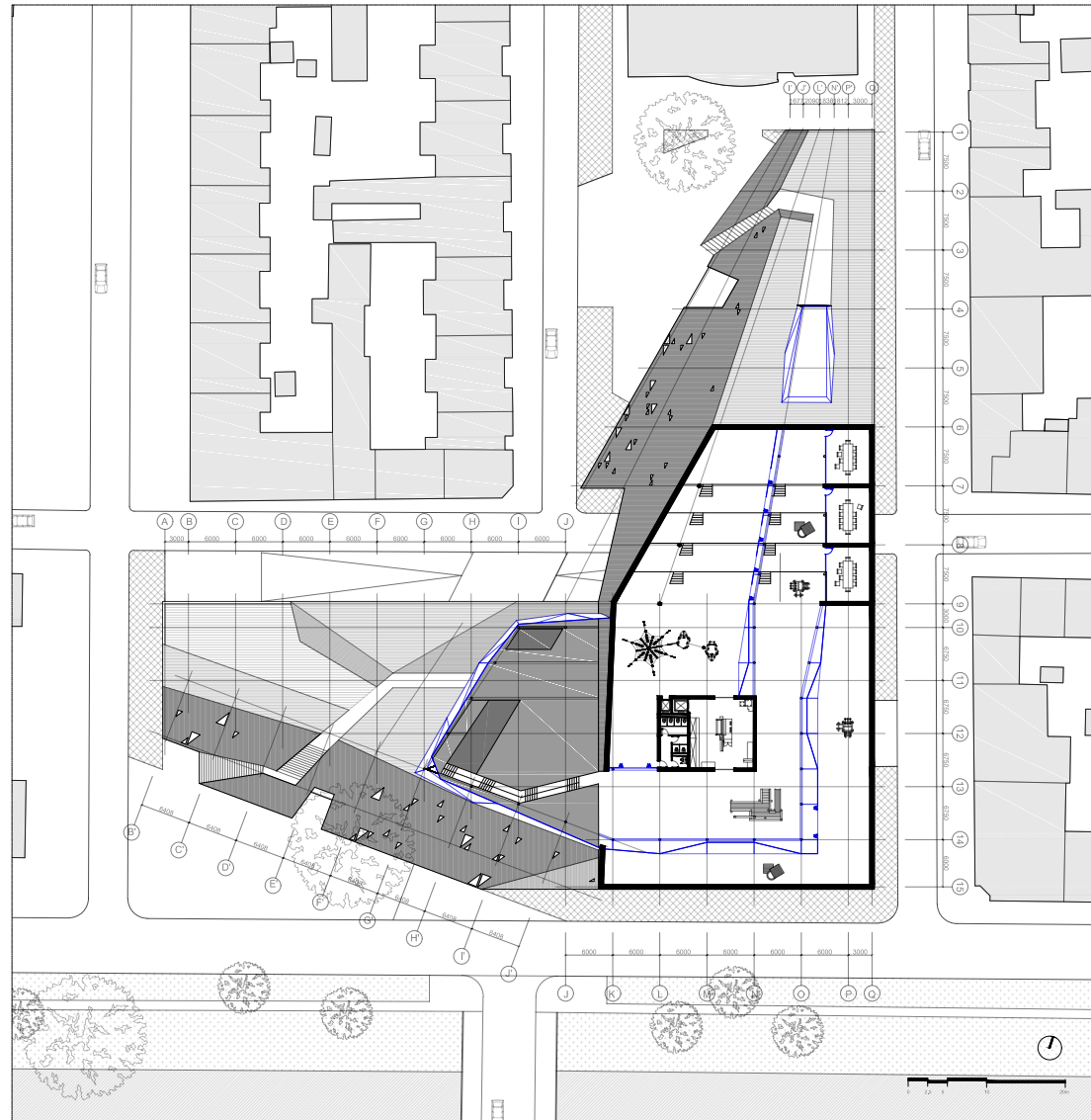


- Private workshop / play hall
- Public workshop / play hall
- Entrance / reception
- Creative classrooms
- School kids' play hall
- Tools and machinery



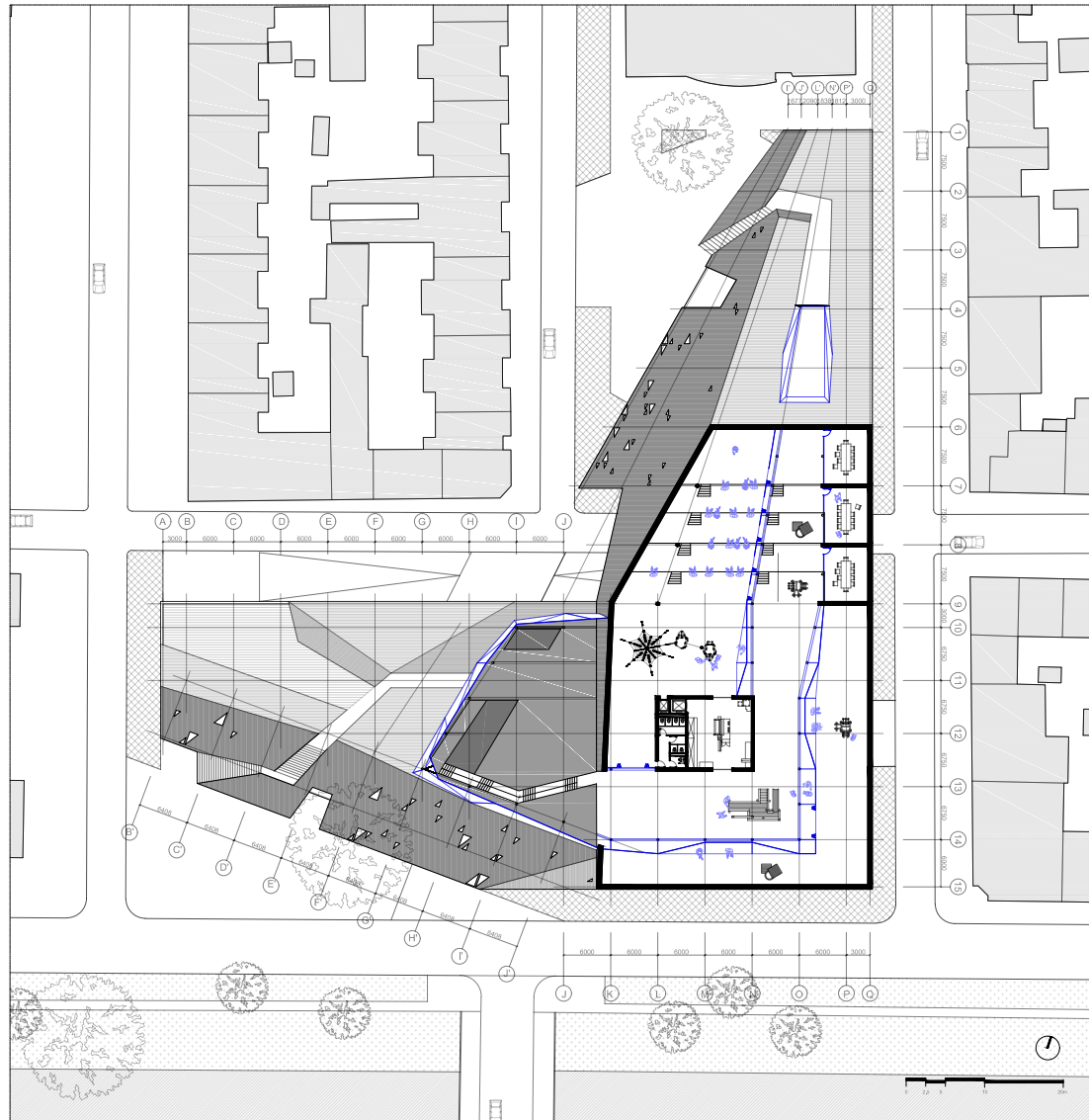
Floating pavilion level

## 2st Floor +9.60



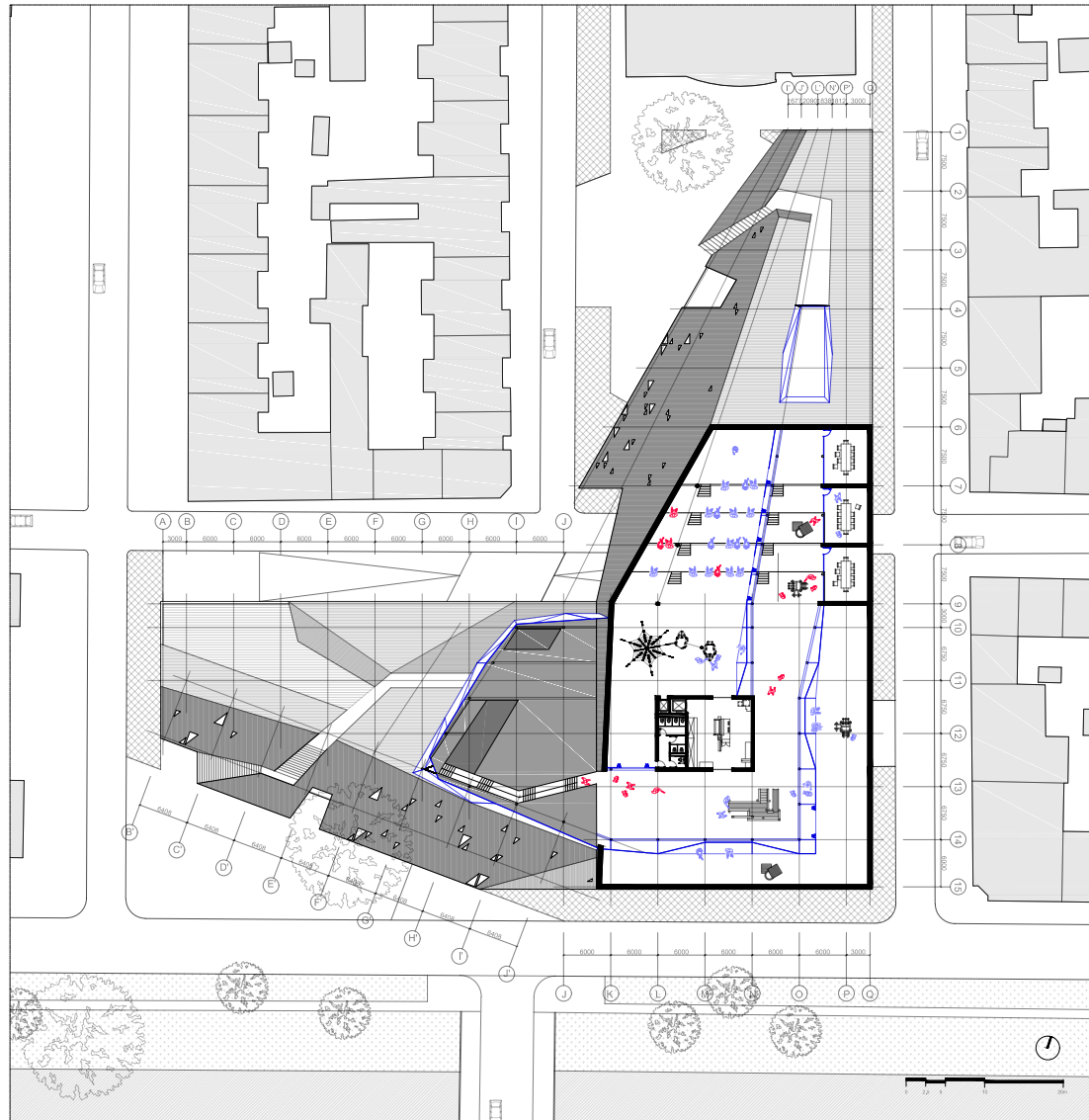
Floating pavilion level

## 2st Floor +9.60

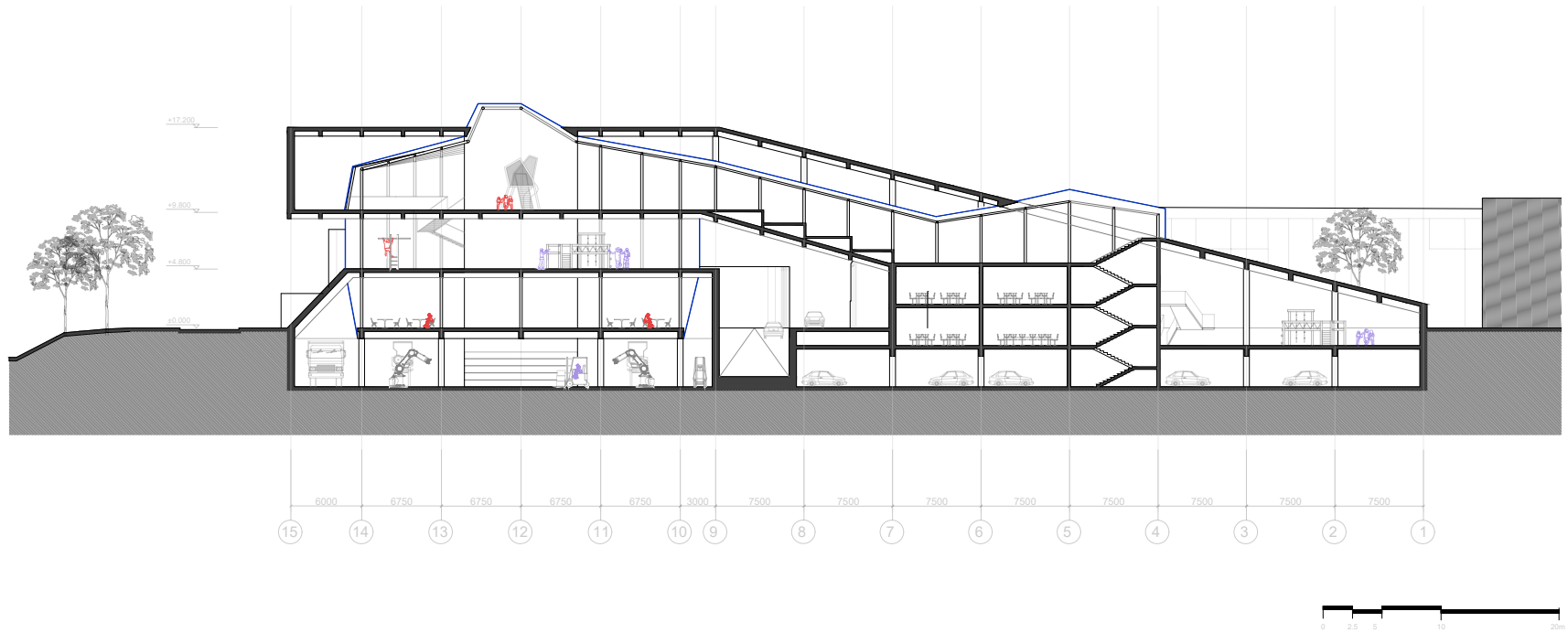


Floating pavilion level

## 2st Floor +9.60



School sector  
**Section B-B**



Fragment

## Ascending canopy





## Special claddings



**Perforated weathered steel**

**Acrylic colored claddings**



## Interior claddings



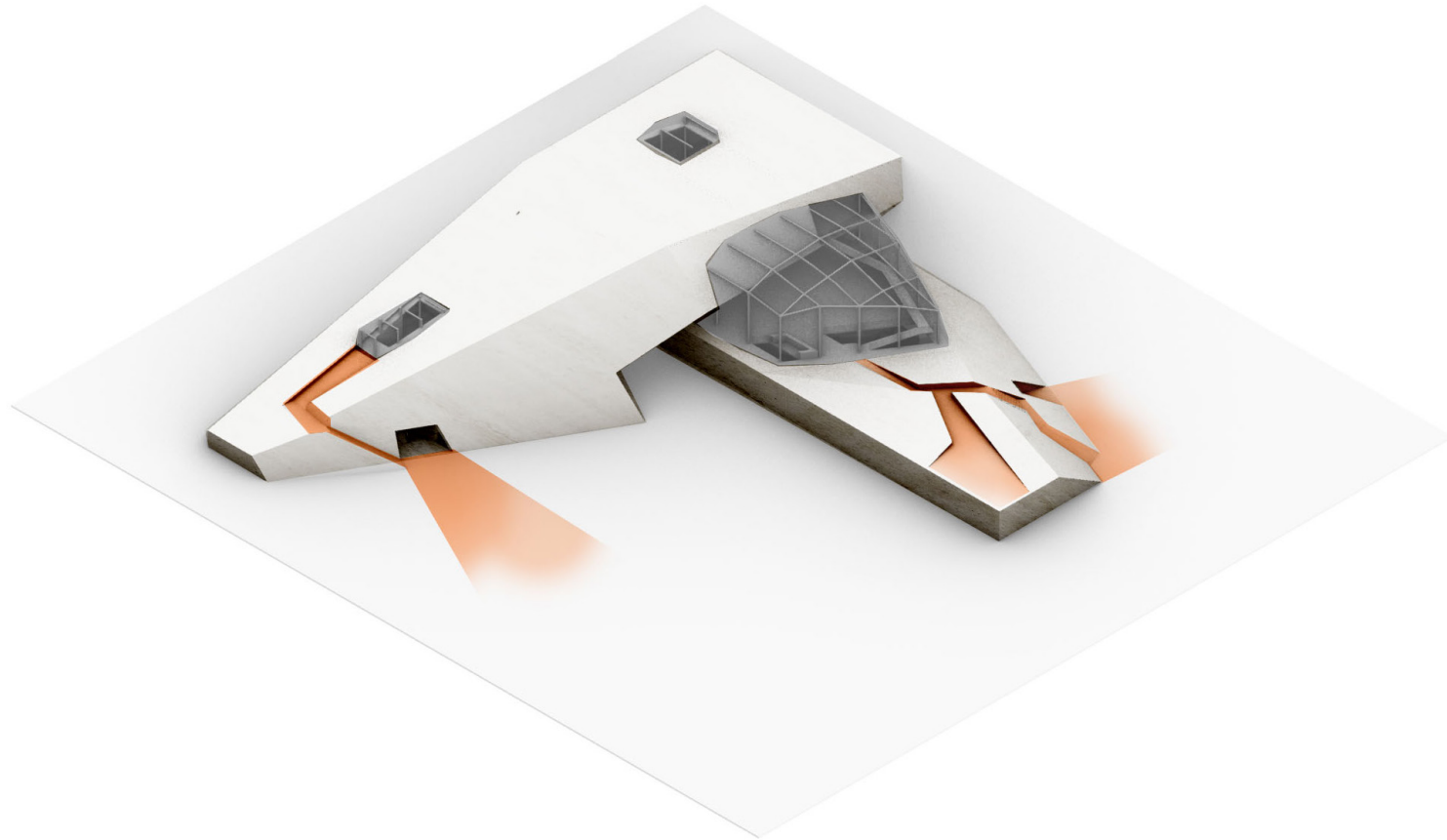
### Wood and plaster





Materialisation

## Walkable roof



## Special claddings



**Perforated weathered steel**



**Acrylic colored claddings**



**Recycled rubber tiles**



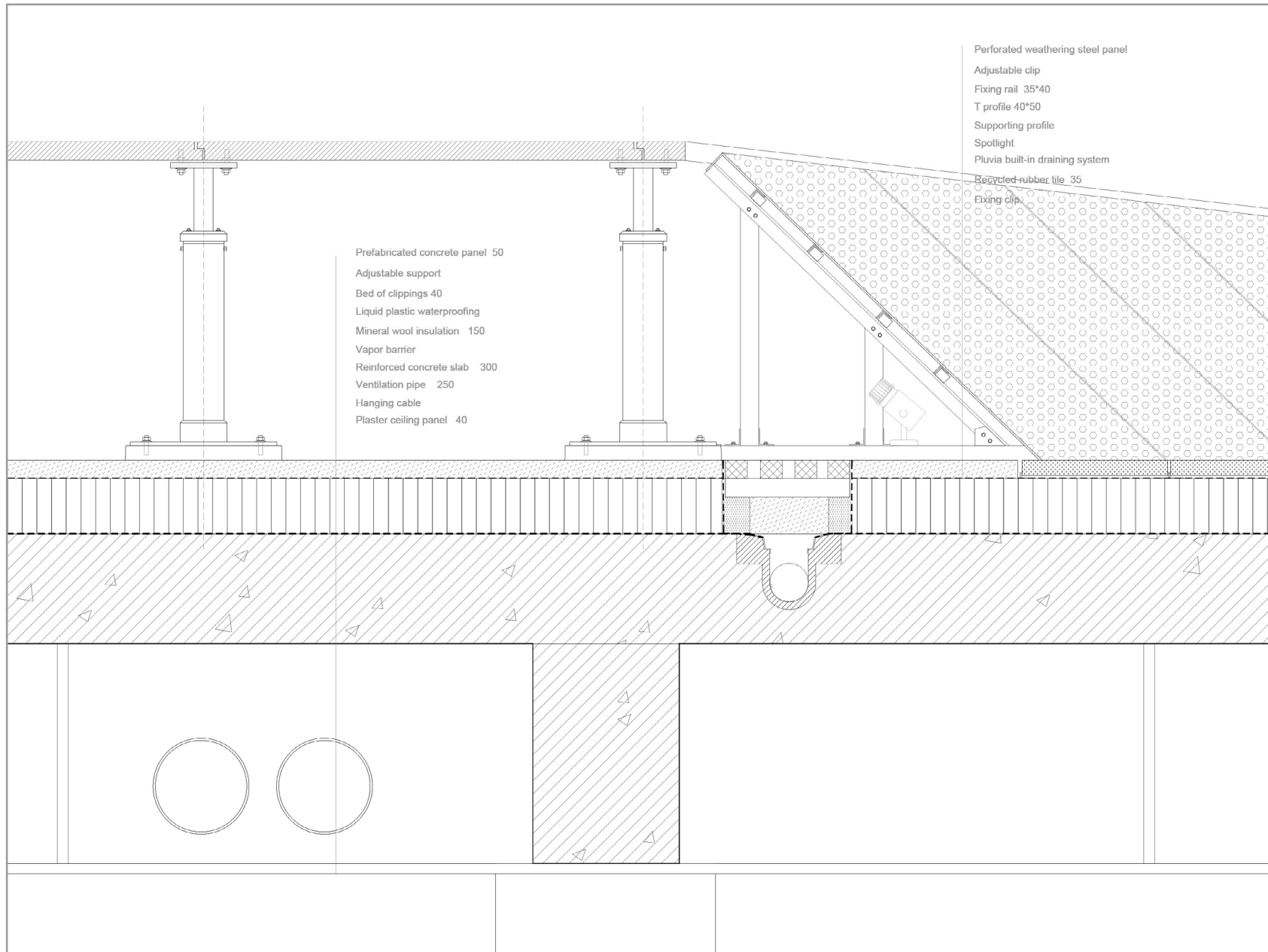
Detail

## Luminated cracks





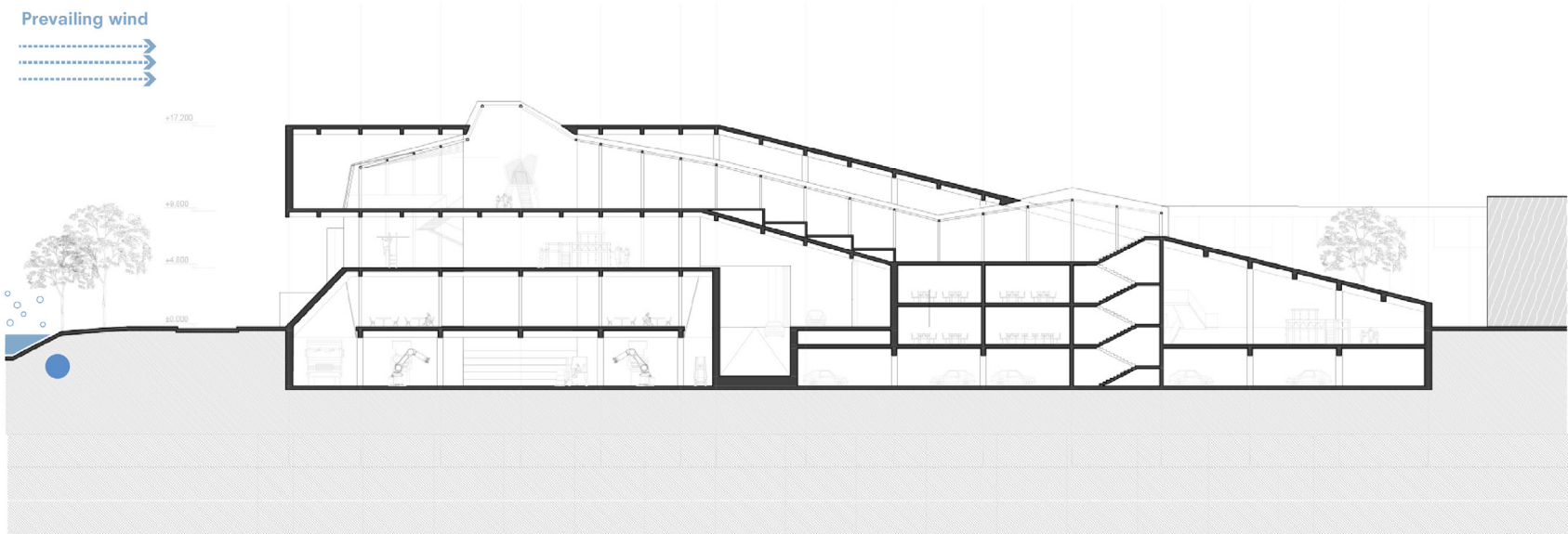
# Luminated cracks







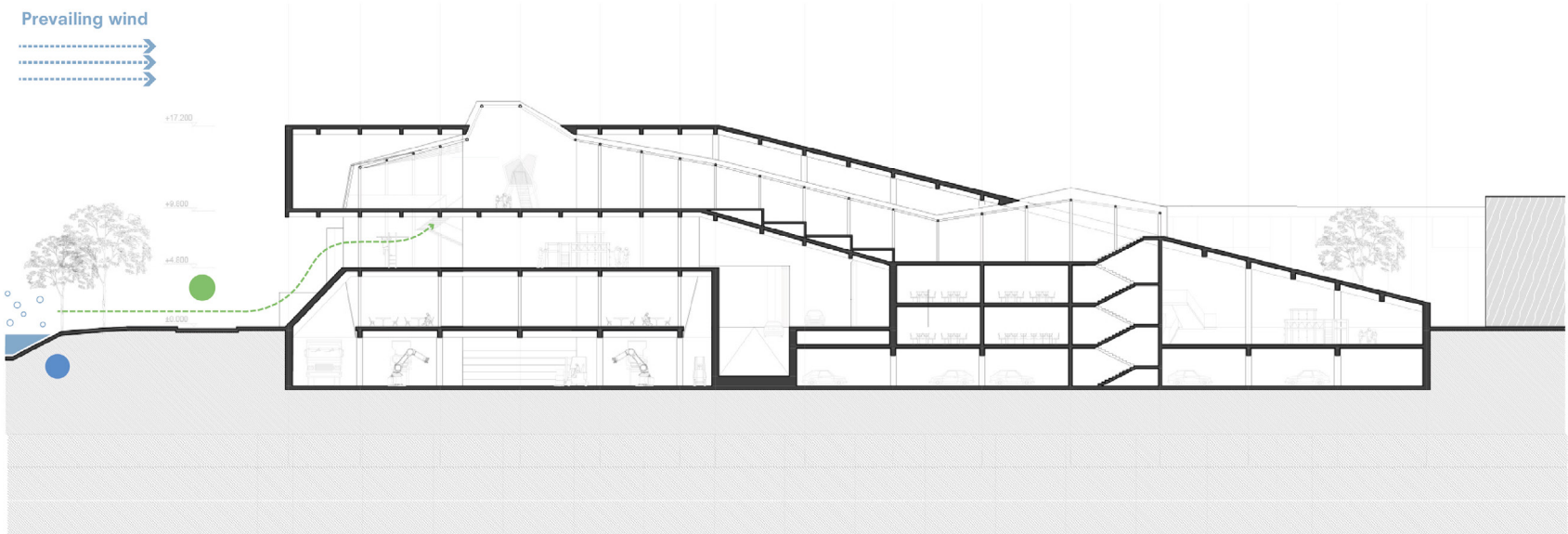
# Climate strategy



● Canal effect



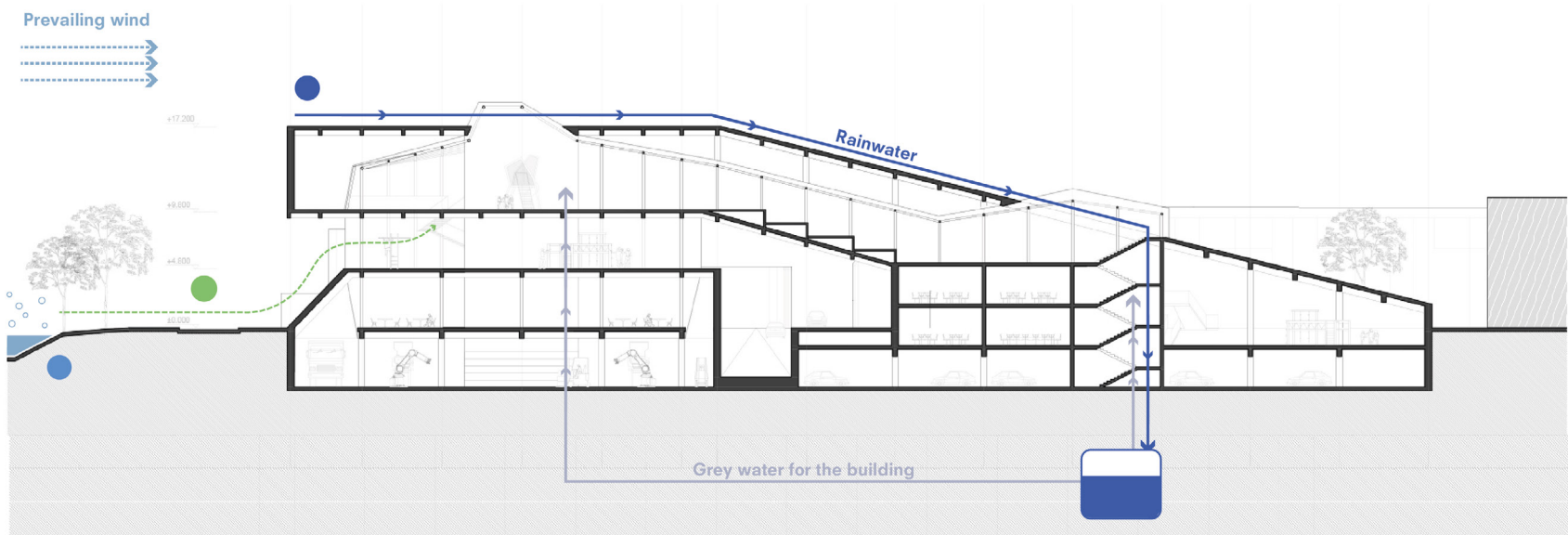
# Climate strategy



- Canal effect
- Outdoor comfort



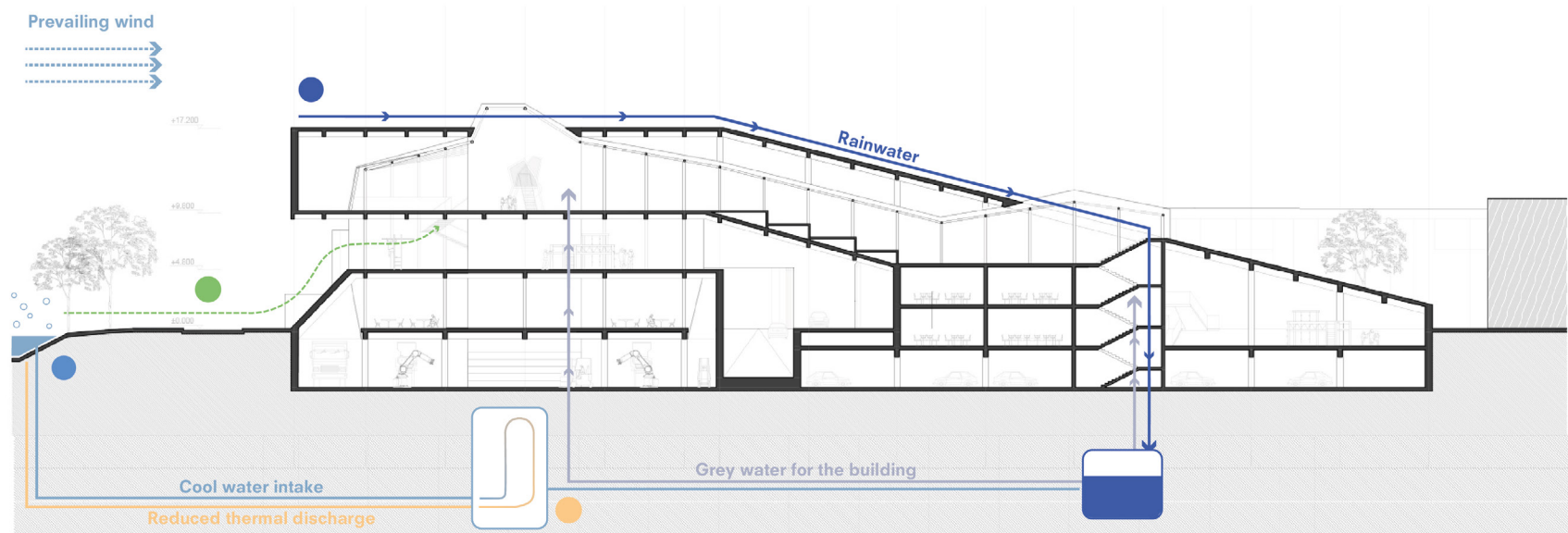
# Climate strategy



- Canal effect
- Outdoor comfort
- Rainwater collection



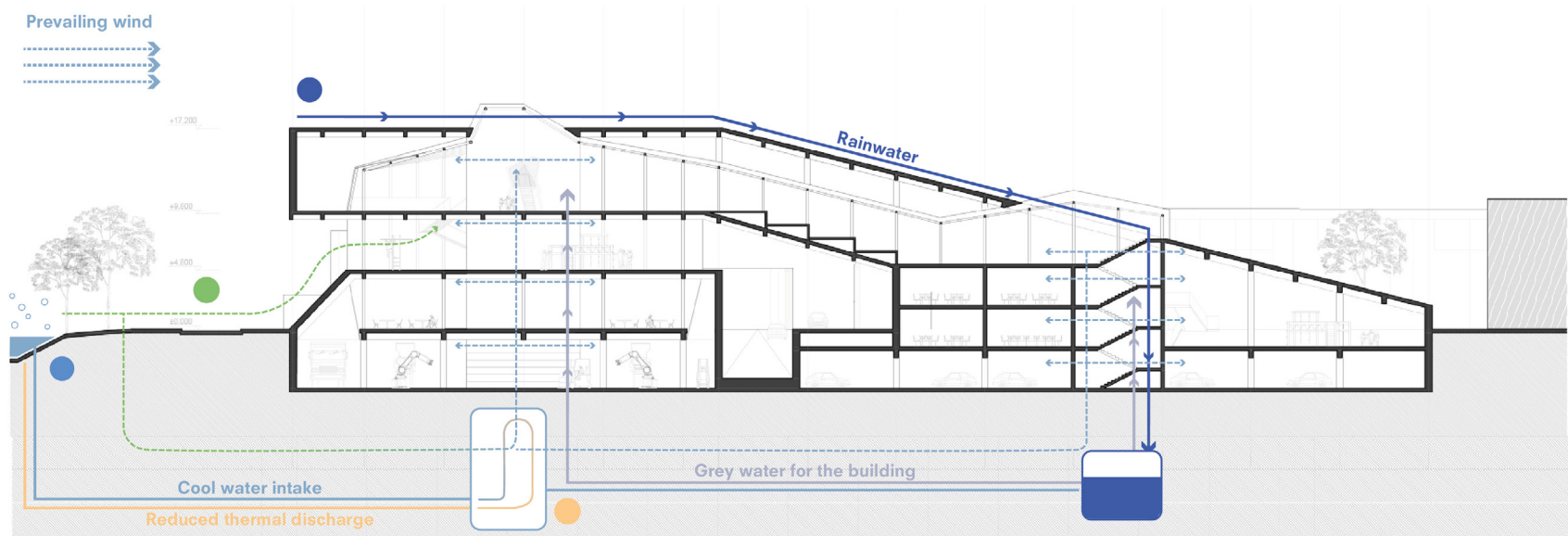
# Climate strategy



- Canal effect
- Outdoor comfort
- Rainwater collection
- Ground heat exchanger



# Climate strategy

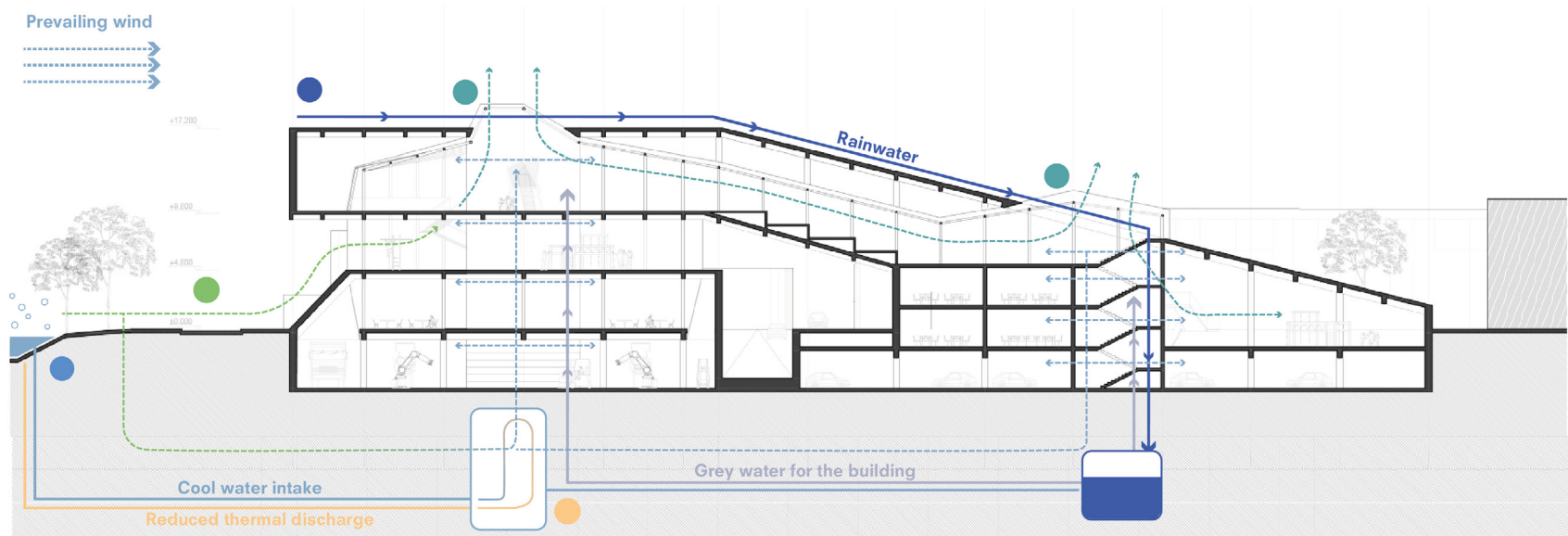


- Canal effect
- Outdoor comfort
- Rainwater collection
- Ground heat exchanger





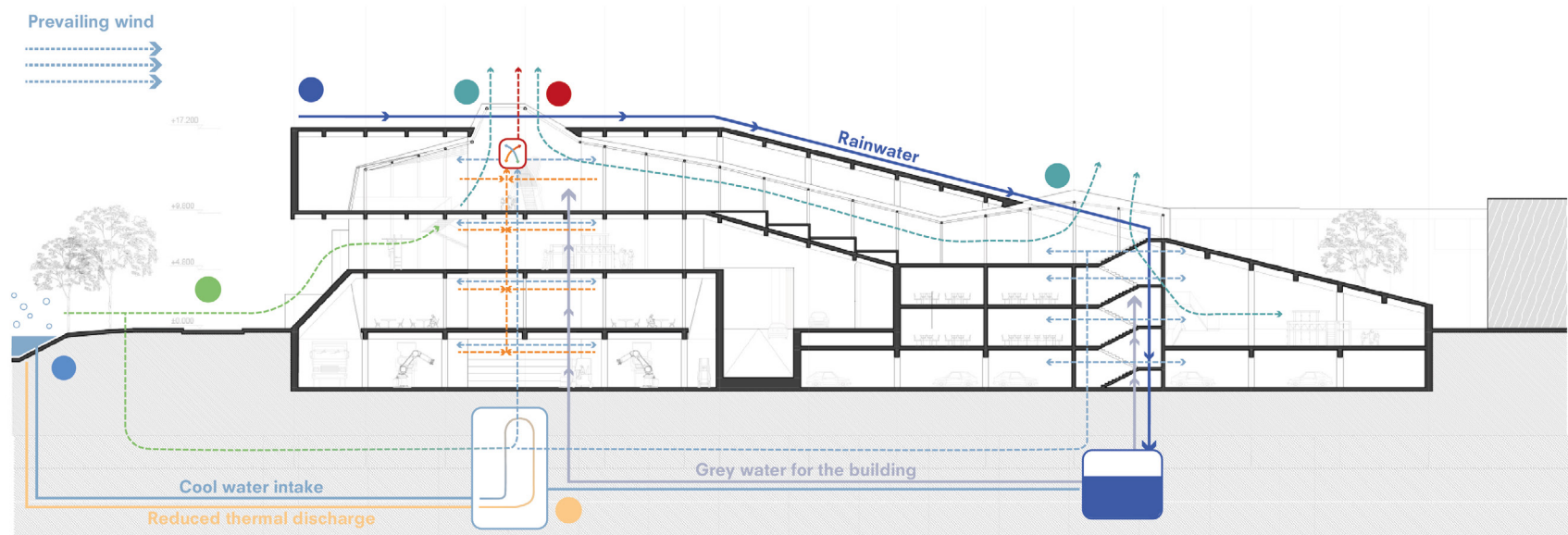
# Climate strategy



- Canal effect
- Outdoor comfort
- Rainwater collection
- Ground heat exchanger
- Passive ventilation



Building technology  
**Climate strategy**



- Canal effect
- Outdoor comfort
- Rainwater collection
- Ground heat exchanger
- Passive ventilation
- Heat recovery



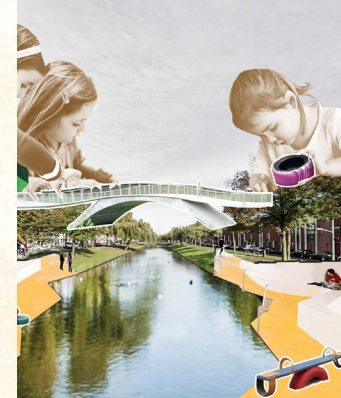
## Sun shading solutions



**Solar control film**



**Light-colored reflective mesh panel**





**THANK YOU.**



complex projects