the · urban · neighborhood

a people driven approach to creating culture, identity and home

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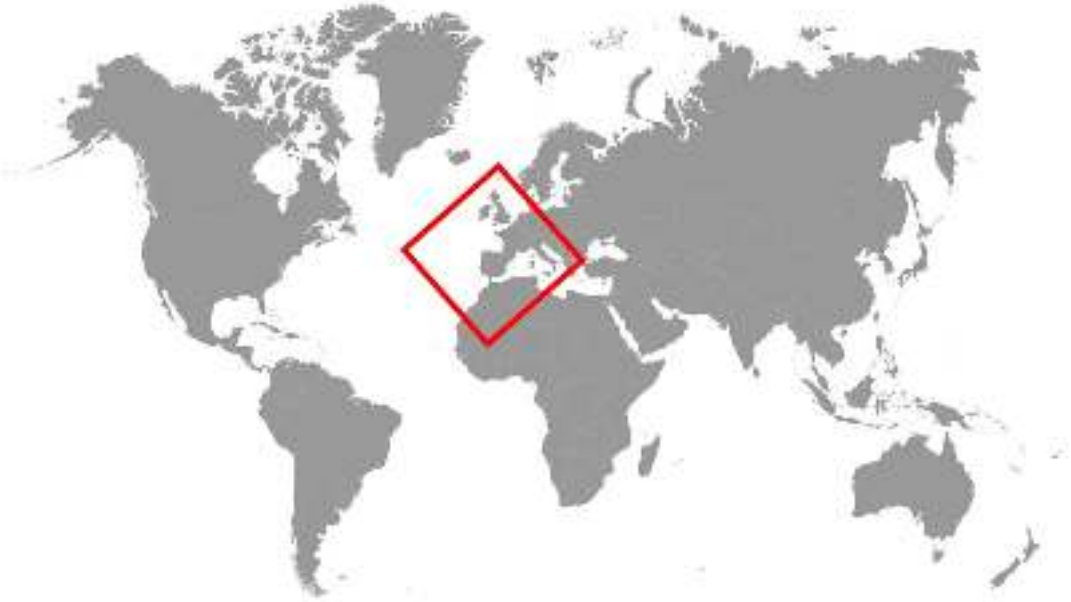
keyur moodley

multicomfort house
student contest edition 2020/2021



location map • saint denis, paris, france

- masterplan that enhances connections between existing context and establishes site activation

- protecting and revitalizing heritage building

- creation of a functional, usable and aesthetic living environment

- creation of environment for play centered learning

contextual response

- response to identification of problems

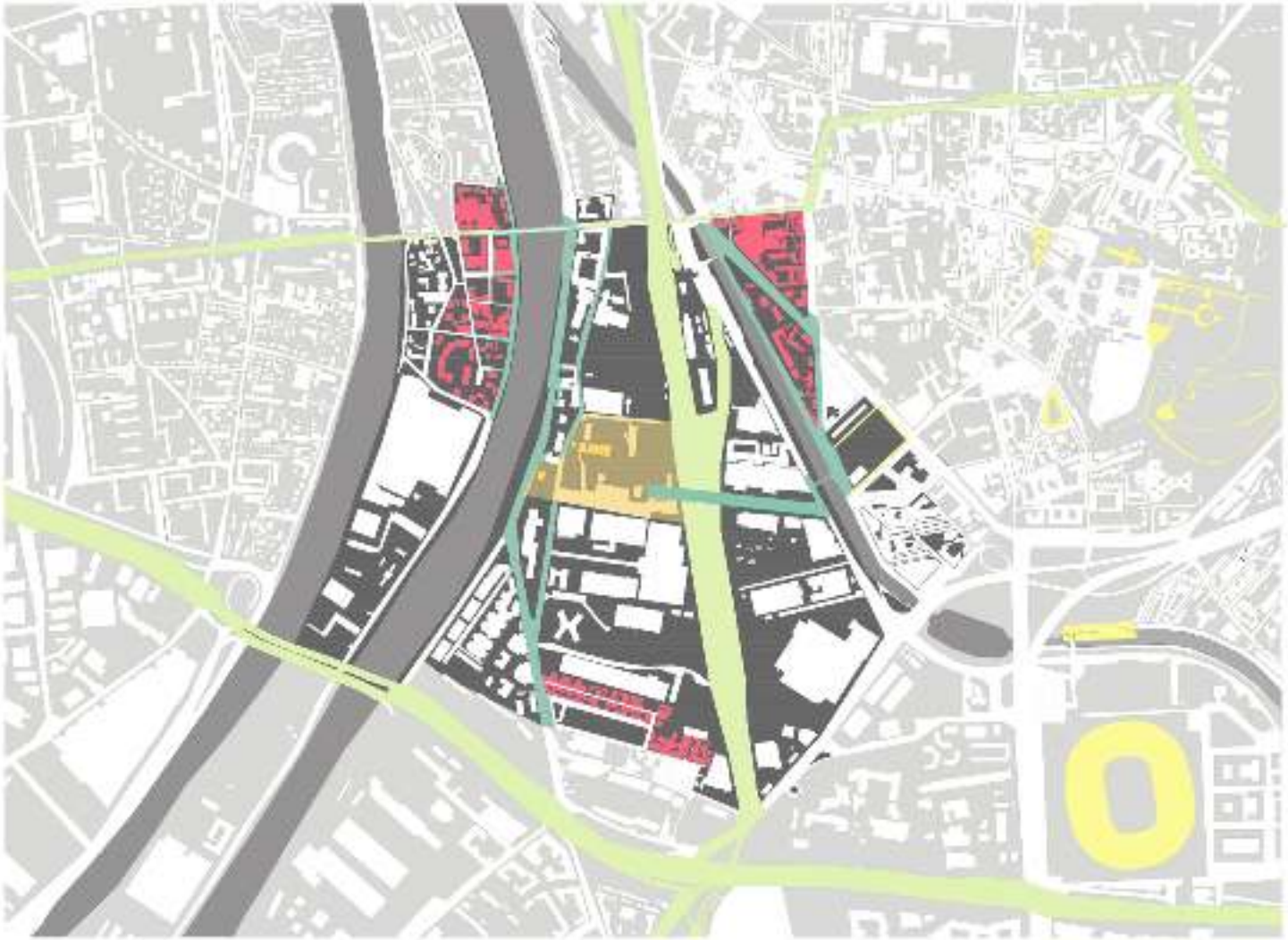


figure ground • contextual analysis

71 social housing units - jtb.architecture & mao architects (France)
- integration of traditional and modern
- shared communal spaces

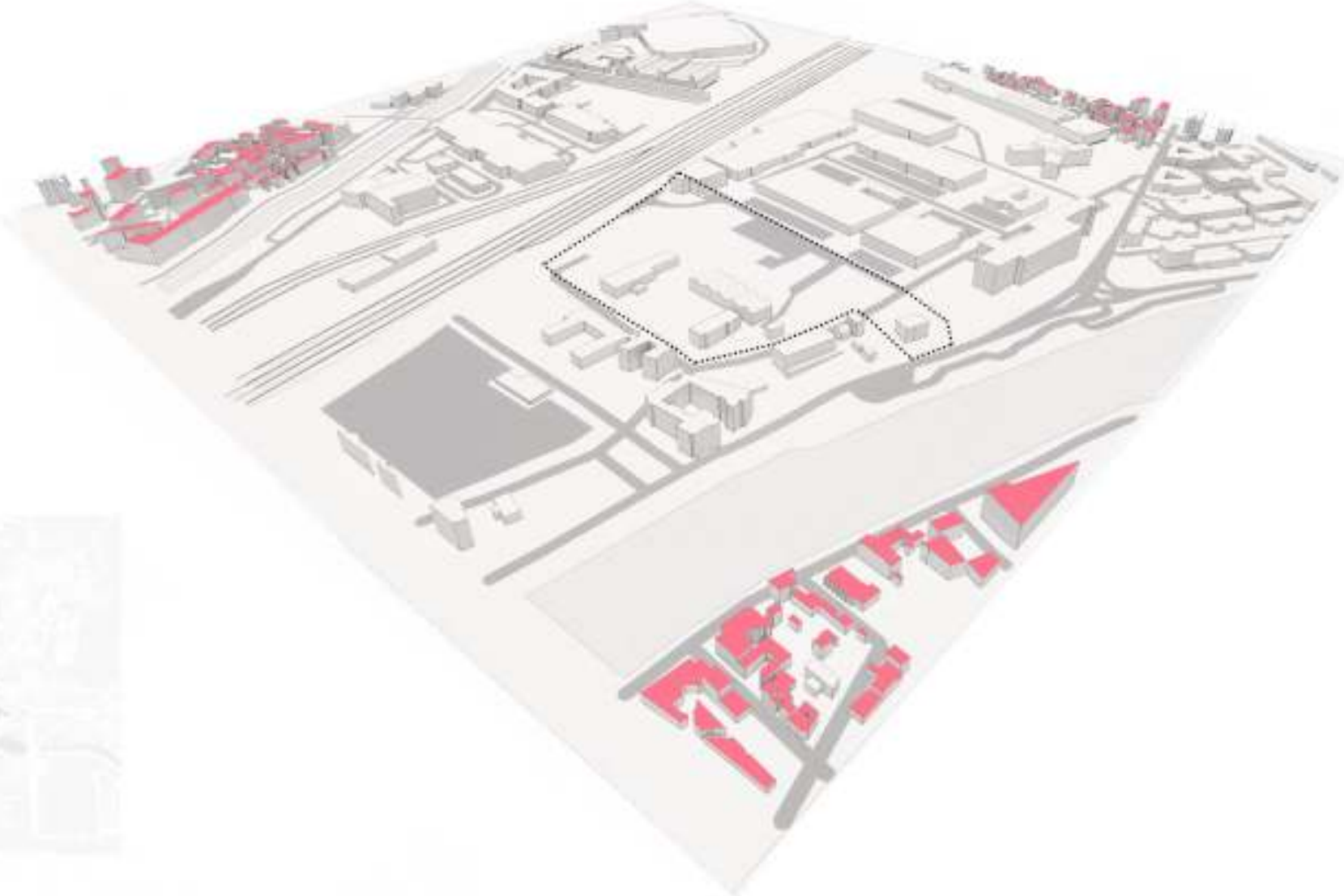
the self - sufficient city - gullart architects (China)
- sustainable clt construction
- shared green space
- hydroponic farming quality of life (mass produced efficiency)

koota wooden housing block - oopeaa (Finland)
- human scale dwelling
- intimate green linking spaces
- community atmosphere

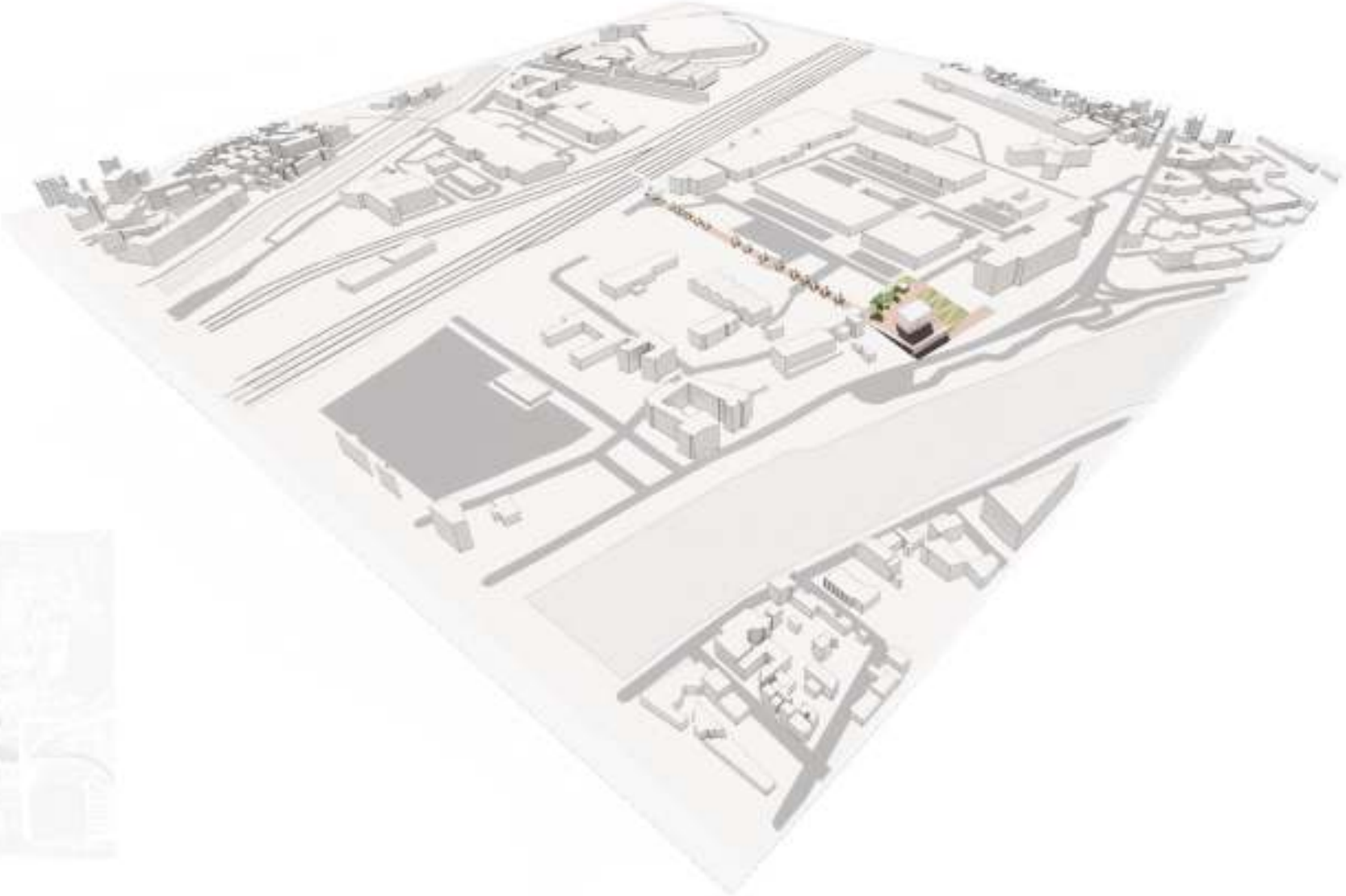
kajstaden tall timber building - cf møller architects (Sweden)
- sustainable green elements
- warm timber improves quality of life (mass produced efficiency)

precedent analysis

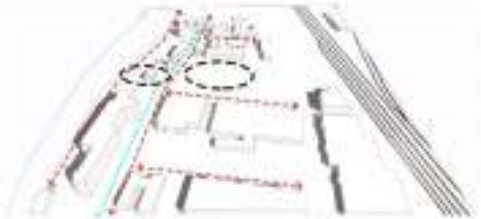
- precedent response to conceptual idea of home



residential connection • identification of existing residential clusters

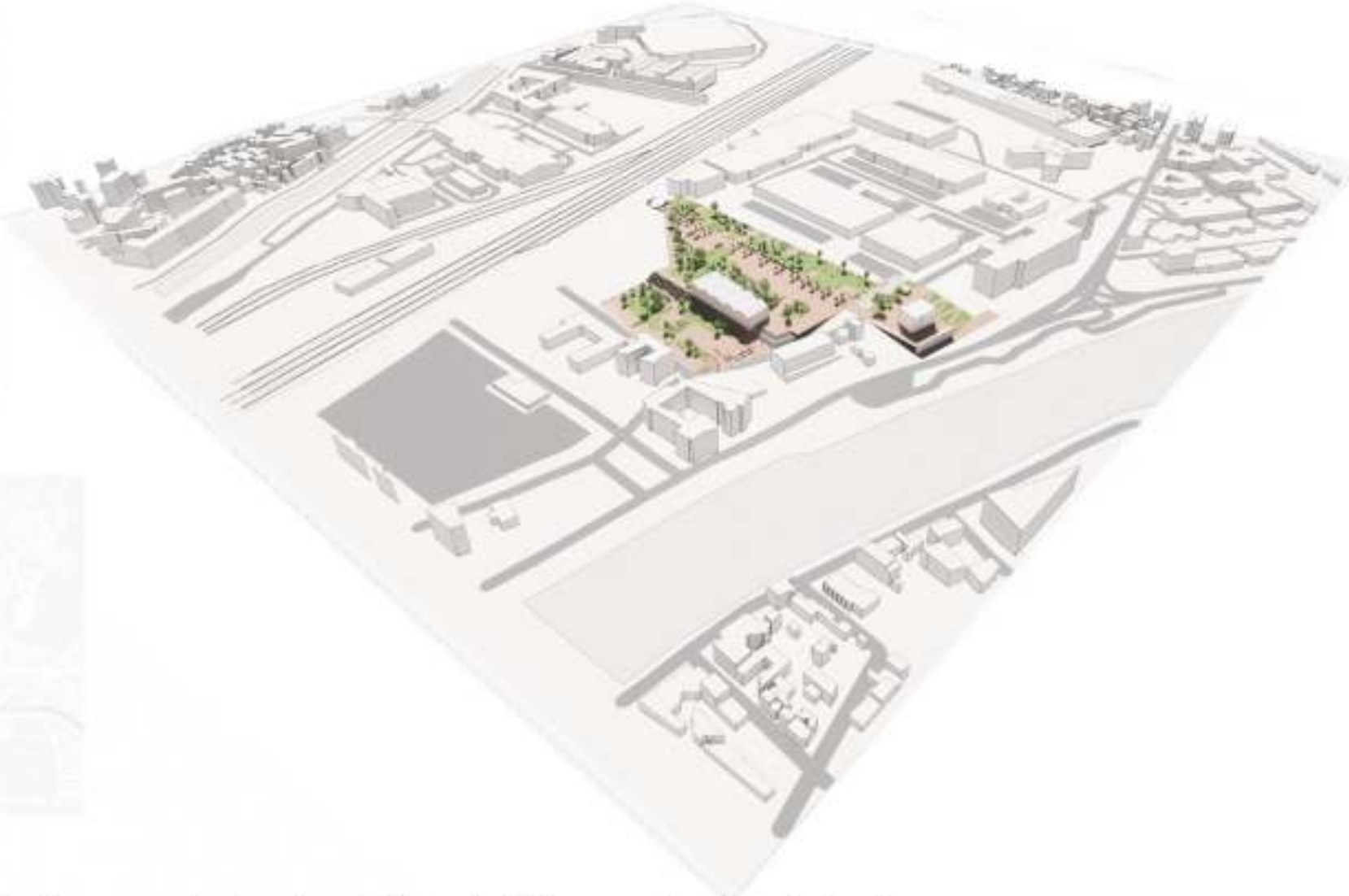


linkage • create an internal network of streets



main vehicular circulation

bicycle lane identification
along activity nodes

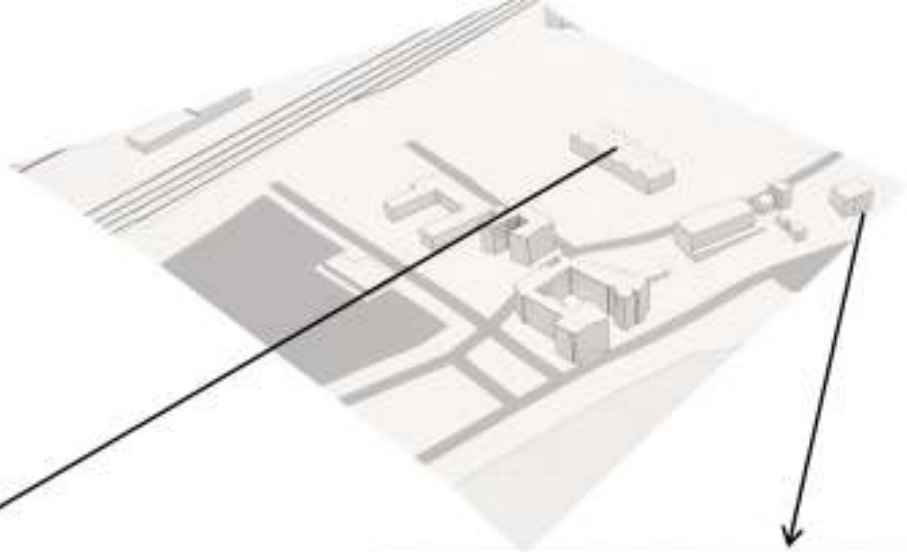


social sustainability

- integrate traffic prioritizing pedestrian/ bicycle
- connect important places

- pedestrian thoroughfare
- bicycle lane
- teleworking space
- communal nodes
- residences
- urban park
- playground equipment
- school
- cultural museum
- green roof
- open air market
- communal green house
- sports sector
- outdoor play area
- railway side ramp access

masterplan



- teleworking opportunities
- cyber physical systems
- professional and consumer connections

- designed approach and entry to Maison Coignet
- communal space promoting the arts and heritage

historical building interventions • response to absence of progressive spaces

restaurant/ cafe

library

retail

convenience store

office space

sports rental

art and music store

gym (pilates and yoga)

salon (barber/ hairdresser)

laundromat

hardware store/ electronics store

medical (doctor/ dentist/ physio/ pharmacy)

commercial foundation • services accommodating the urban home

1. residential zoning

2. separation of blocks

3. staggering of apartments

4. communal spaces formed

urban home formation

- mutual connection between residential, commercial and green spaces

1. communication between green spaces and built form
2. introduction of sustainable agricultural spaces
3. spaces for chance encounter

architectural intervention • social anchors creating place and identity

north east elevation

section a-a

urban home design

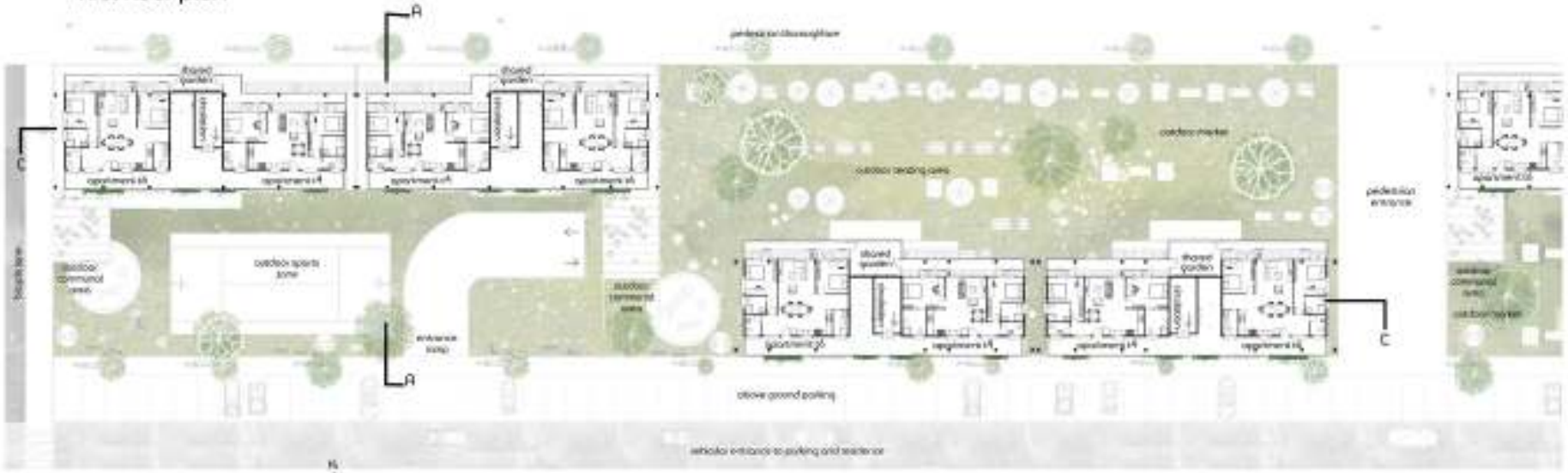
south elevation

section b-b

section c-c

urban home design

First Floor plan

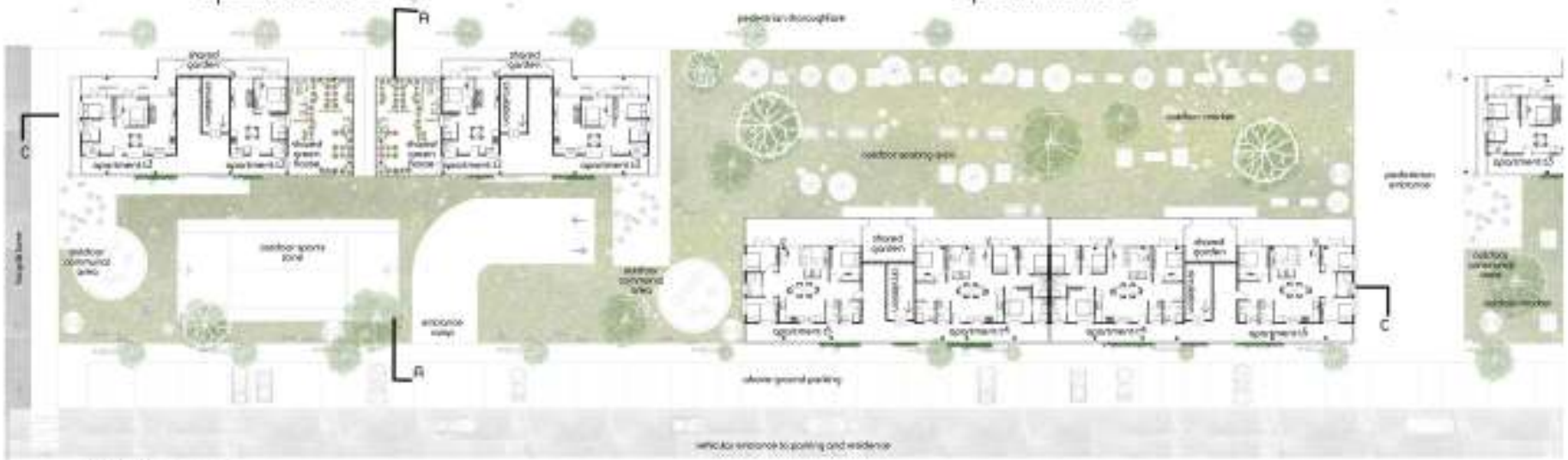


Fourth Floor plan

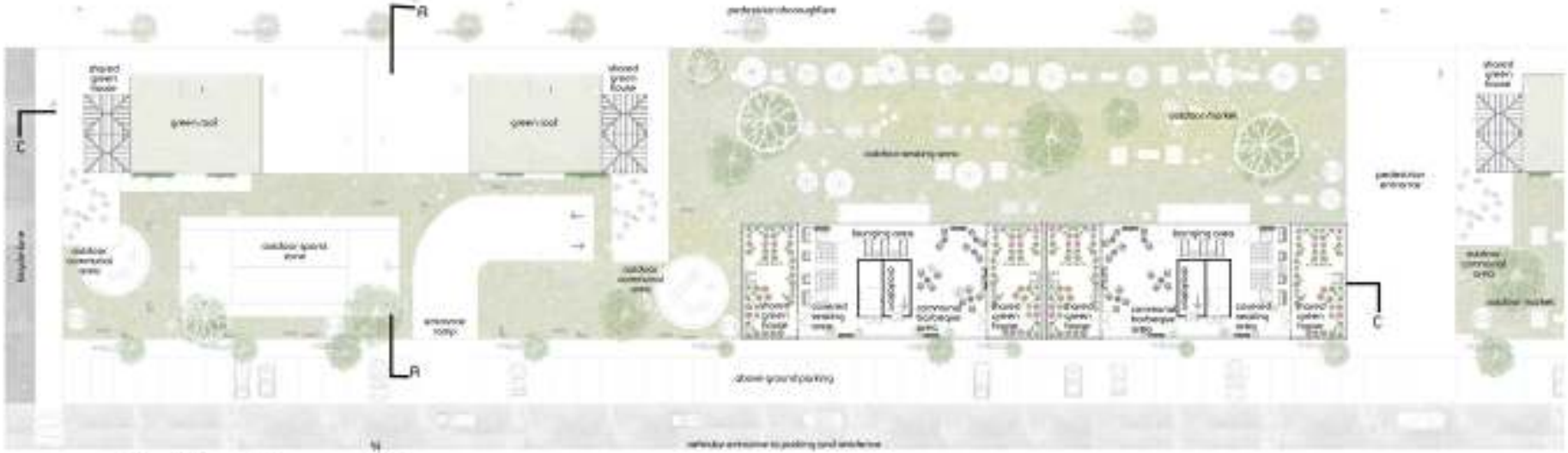
Floorplans

apartment a

apartment b



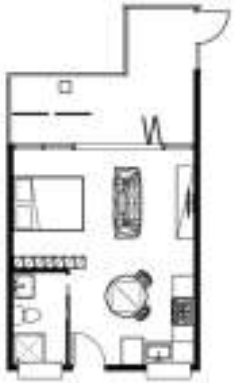
Fifth Floor plan



roof level Floor plan

Floorplans

T1 19m2



T1A 30m2

T2 48m2

T3 60m2

T4 80m2

T5 90m2

T6 100m2

T7 115m2

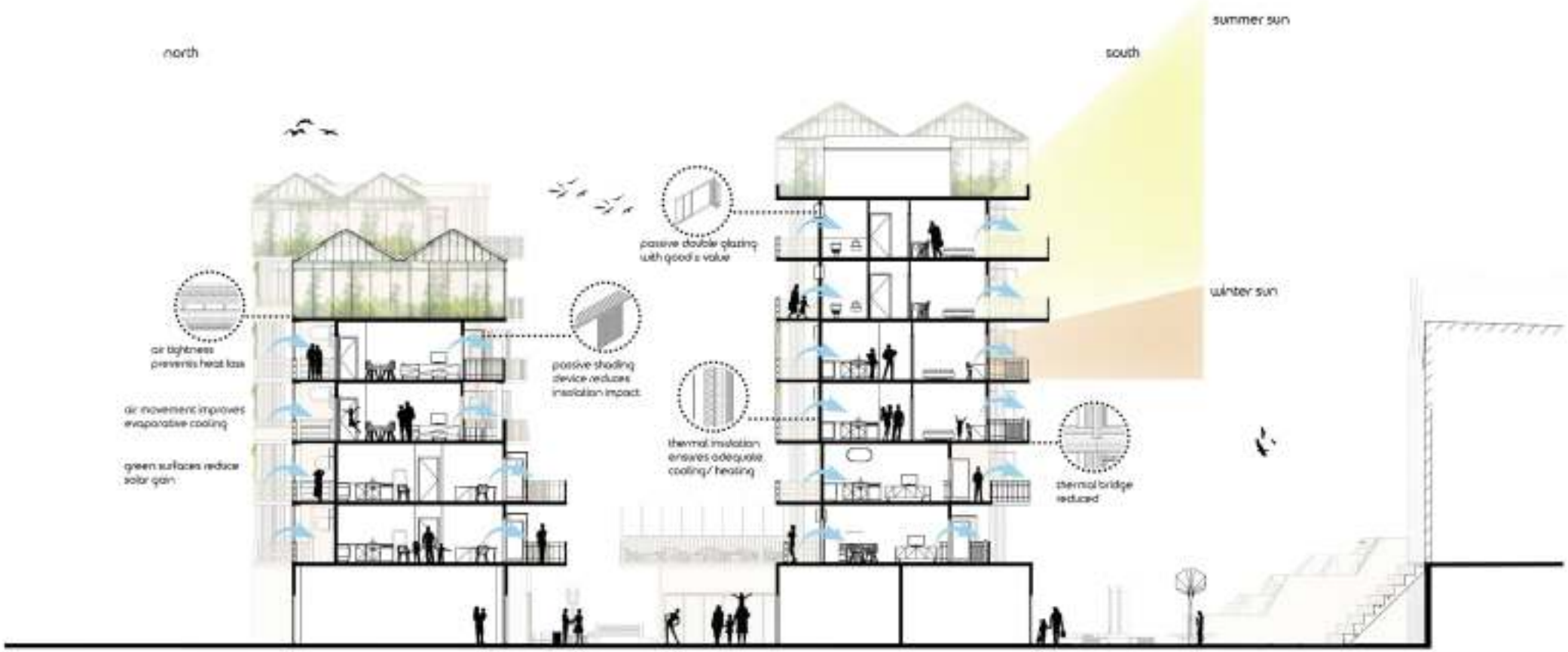
apartment plans

apartment 1a interior

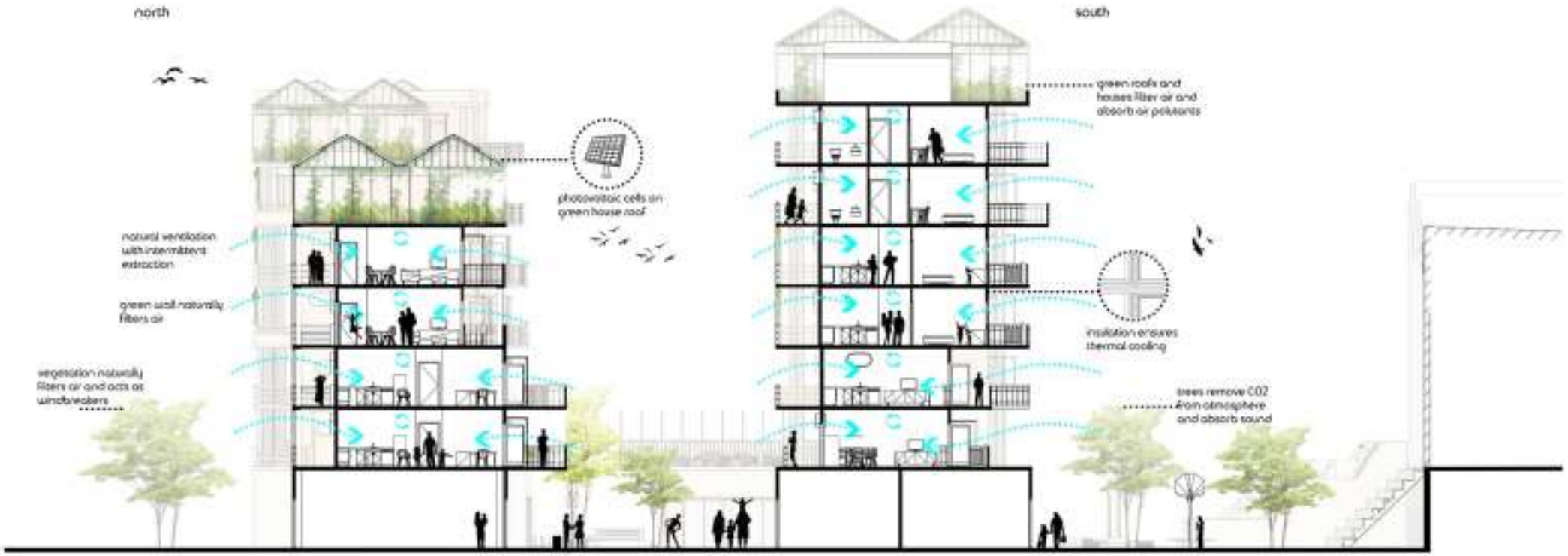
apartment 4 interior

apartment 6 interior

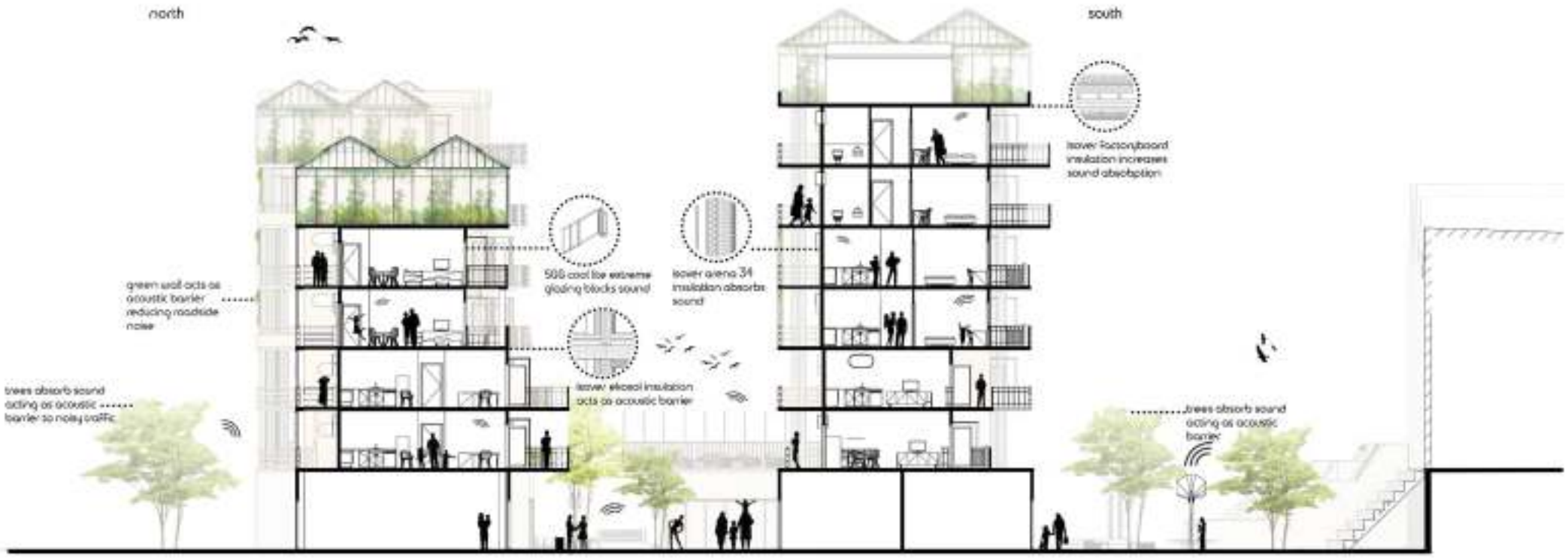
apartment layout renders



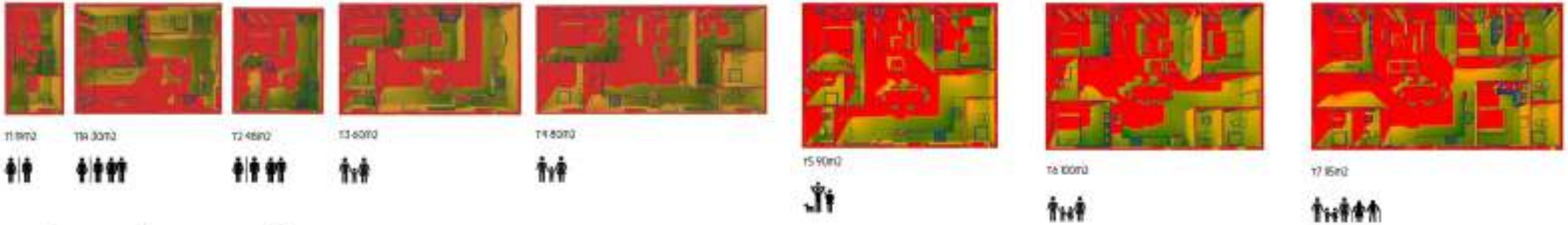
thermal comfort strategy



indoor air quality strategy



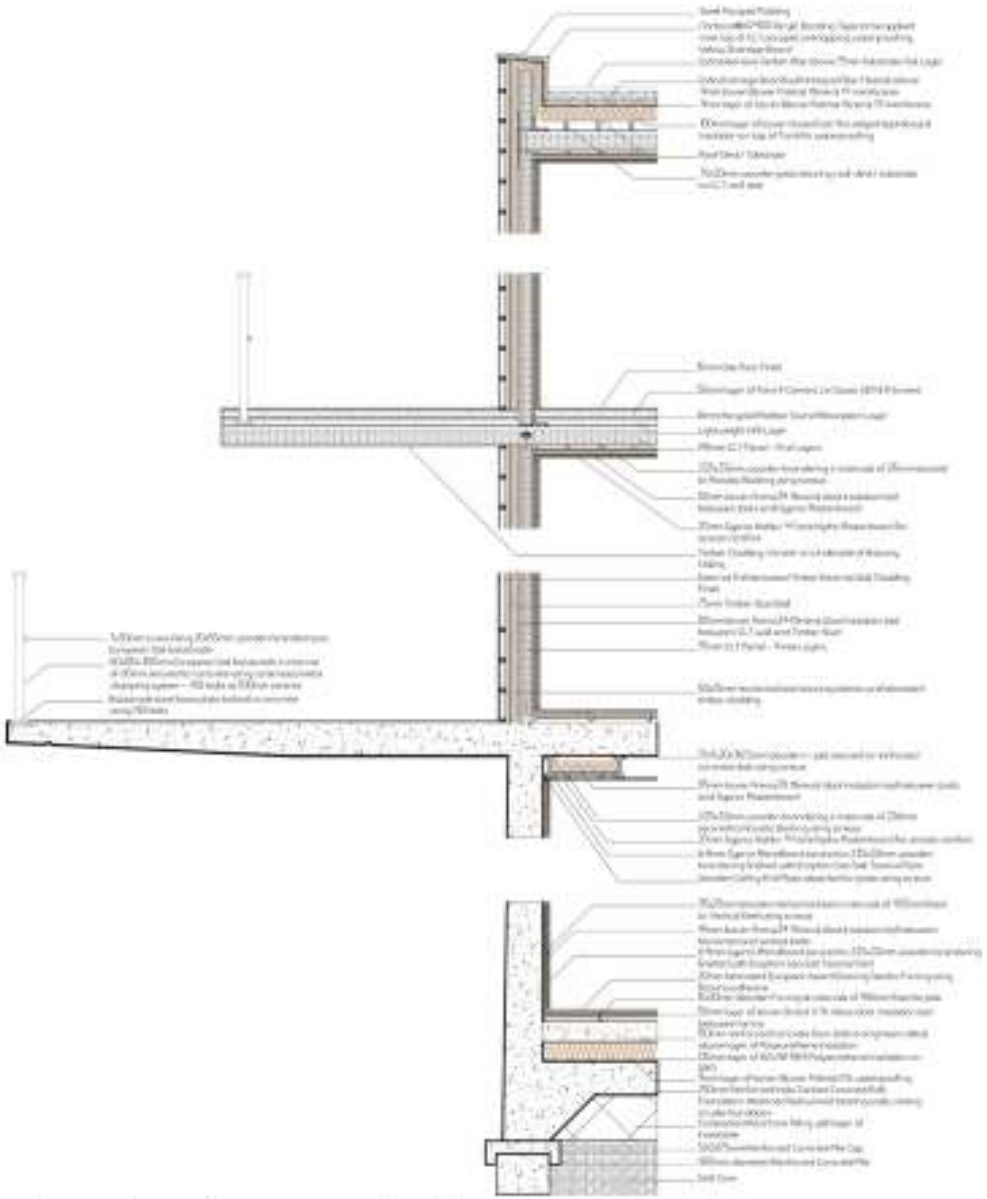
acoustic comfort strategy

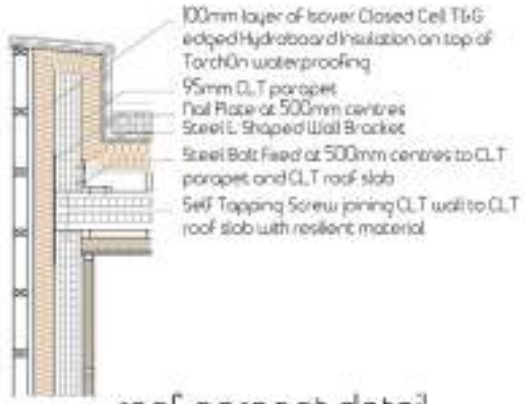


visual comfort strategy

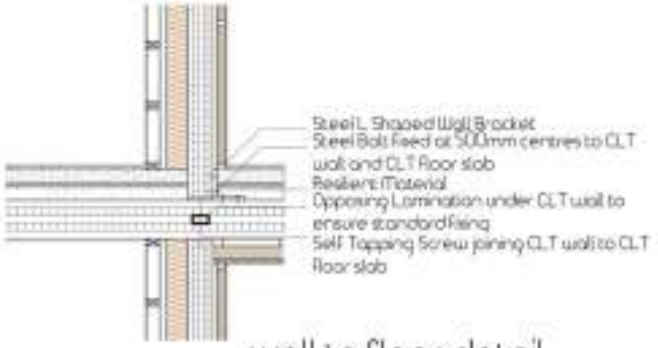
water and hvac strategy

fire strategy





roof parapet detail



wall to floor detail

wall to concrete floor detail

technical resolution • strip section

a. project data:

object:	apartment 1a
climate zone:	paris
type of construction:	new building
building type:	residential
usage:	for living
design temperature:	20°

b. area input

sum of living areas:	30m2
sum of heated space(m3):	84m3
a/v ratio:	0.36
sum of thermal envelope:	156.8m2

c. opaque elements (mean u-values)

roof flat:	0.11 W/(m2K)
wall against air:	0.11 W/(m2K)
slab against ground:	0.10 W/(m2K)

d. windows/doors (mean u-values)

windows:	0.73 W/(m2K)
doors:	0.80 W/(m2K)

e. quality

air tightness:	0.10
thermal bridge free:	yes

Multi Comfort Designer

f. shading (standard and summer shading)

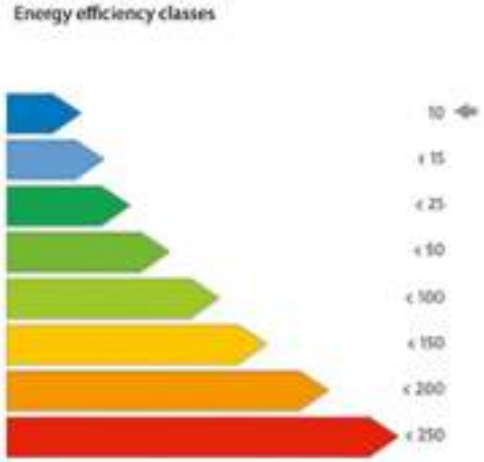
0°:	.07
180°:	.07
horizontal: .	07

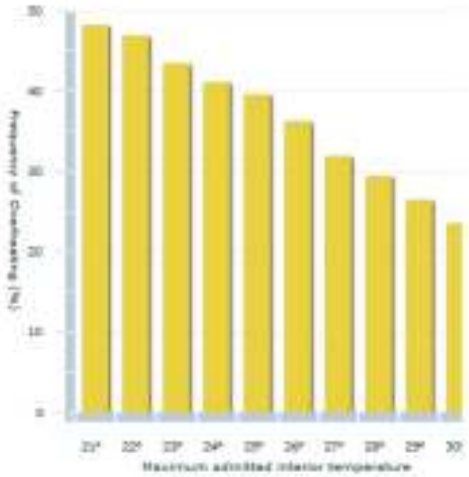
g. ventilation strategy

summer exchange rate:	
heat recovery system:	yes
night ventilation:	none
day ventilation:	titled windows +'(33%) 2h'

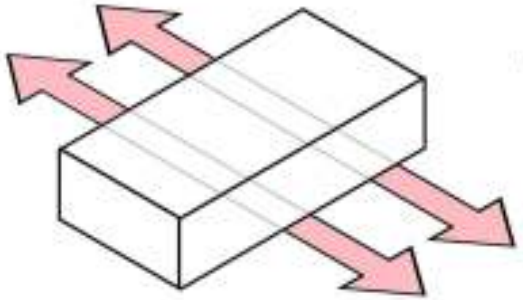
h. calculations:

annual heat demand:	8.13 kWh/m2
annual cooling demand:	11.56 kWh/m2
frequency of overheating:	48.19%

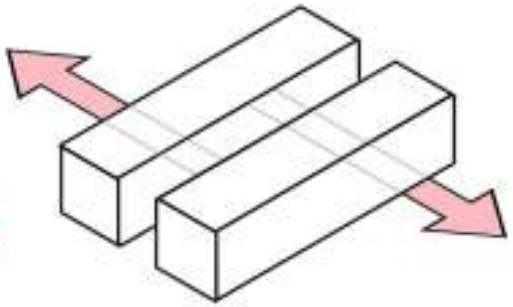




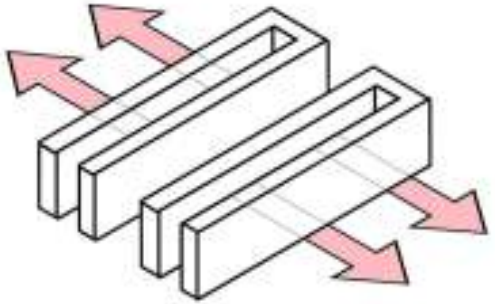
traditional form



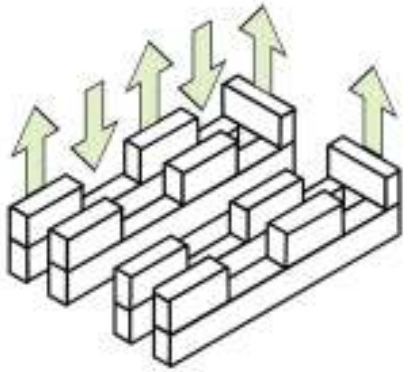
separation of schools

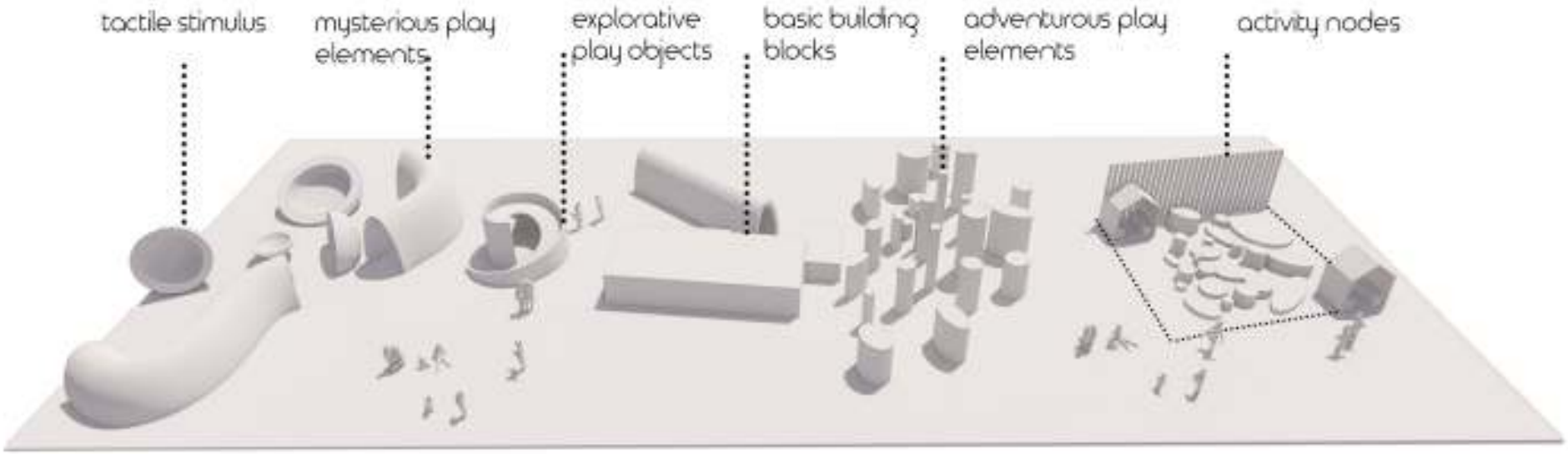


widening for play spaces

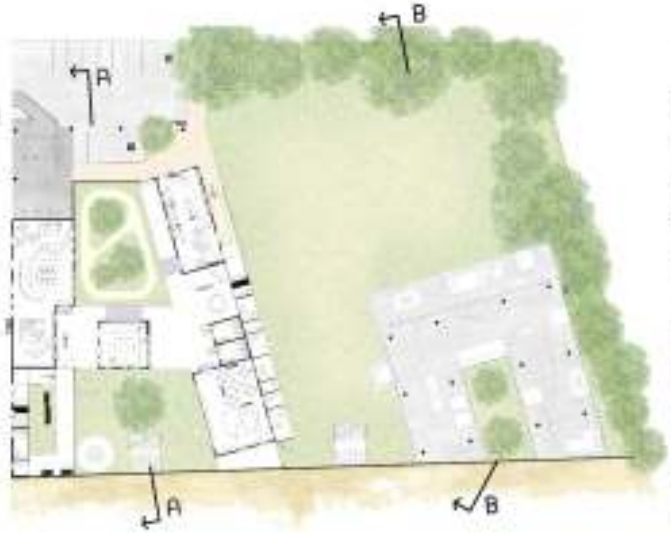


staggering for playground levels





urban playground • concept



lower ground floor plan

ground floor plan

first floor plan

- opening up of interior courtyard spaces creates building perimeter
- entry esplanade creates phenomelogical connection
- smaller playgrounds act as intimate activity nodes

floorplans • socratic method of teaching

section a-a

section b-b

northeast elevation

southwest elevation

entry esplanade

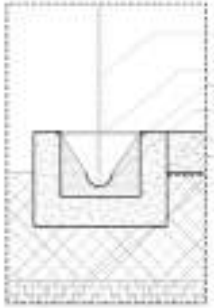
kindergarten resting room

lower ground outdoor area

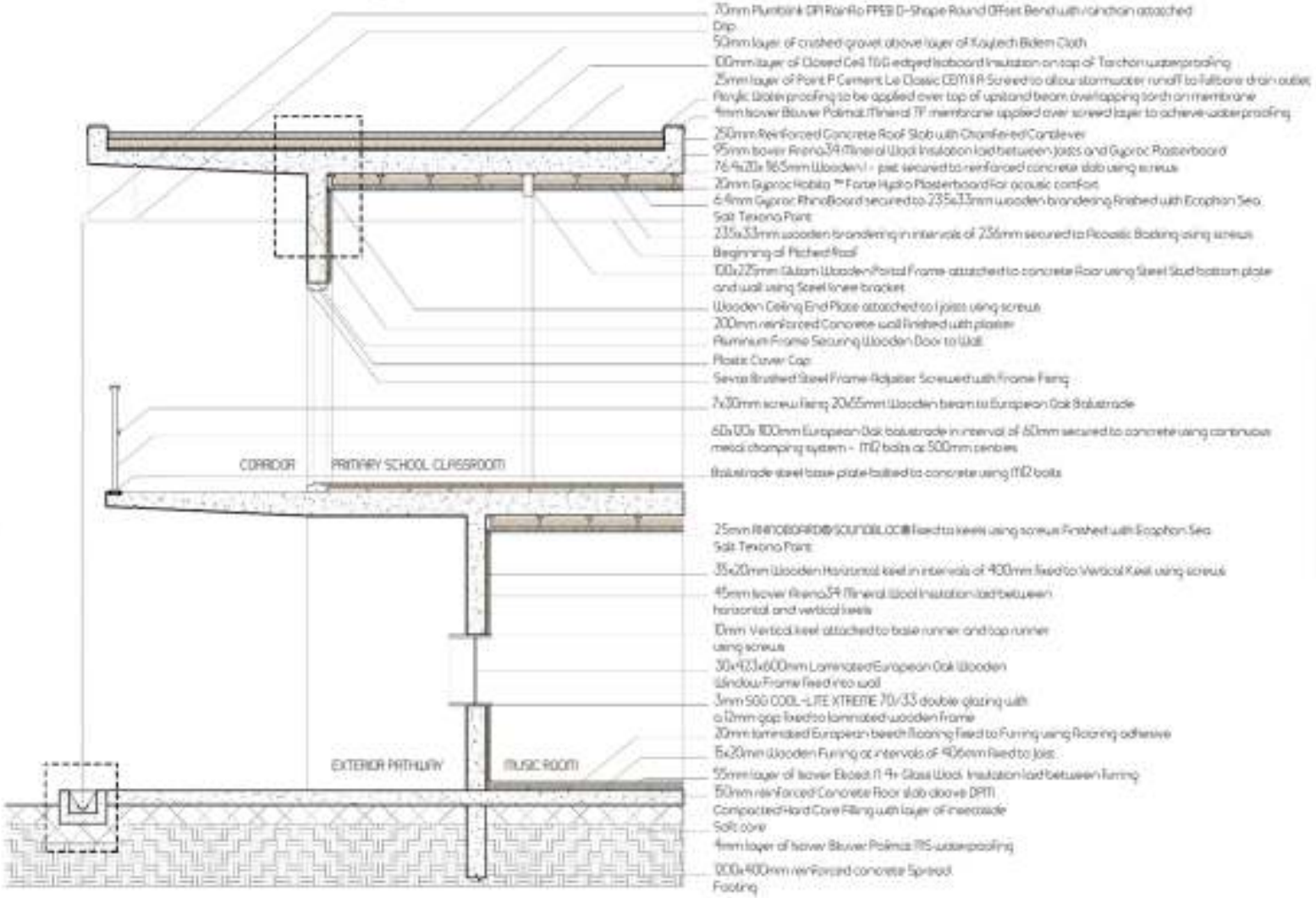
urban playground

• playground design

roof detail



gulley detail



technical resolution • strip section