



# CO-LIVING SOCIAL HOUSING IN KARLOVY VARY

KARLOVY VARY, ZAHRADNICTVI NA VYHLIDCE

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STUDIO ŠESTÁKOVÁ DVOŘÁK



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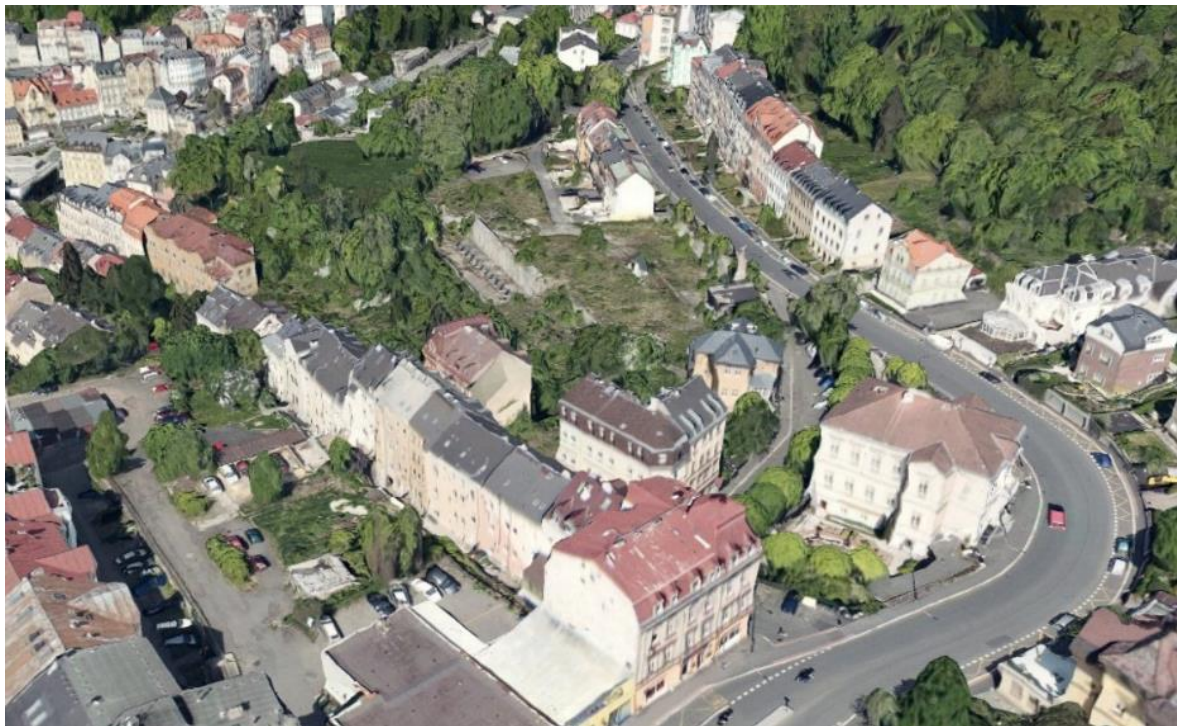
Locality within the team proposed urban plan



## Photo fixations







## Project description and justification

The project is based in a historically significant part of a Czech town Karlovy Vary – Zahradnictví na Vyhliďce. The urban development plan includes a completion of a housing group in the south-eastern part of the locality, particularly filling an empty plot of almost 20 meters between two existing buildings which this project is focused on.

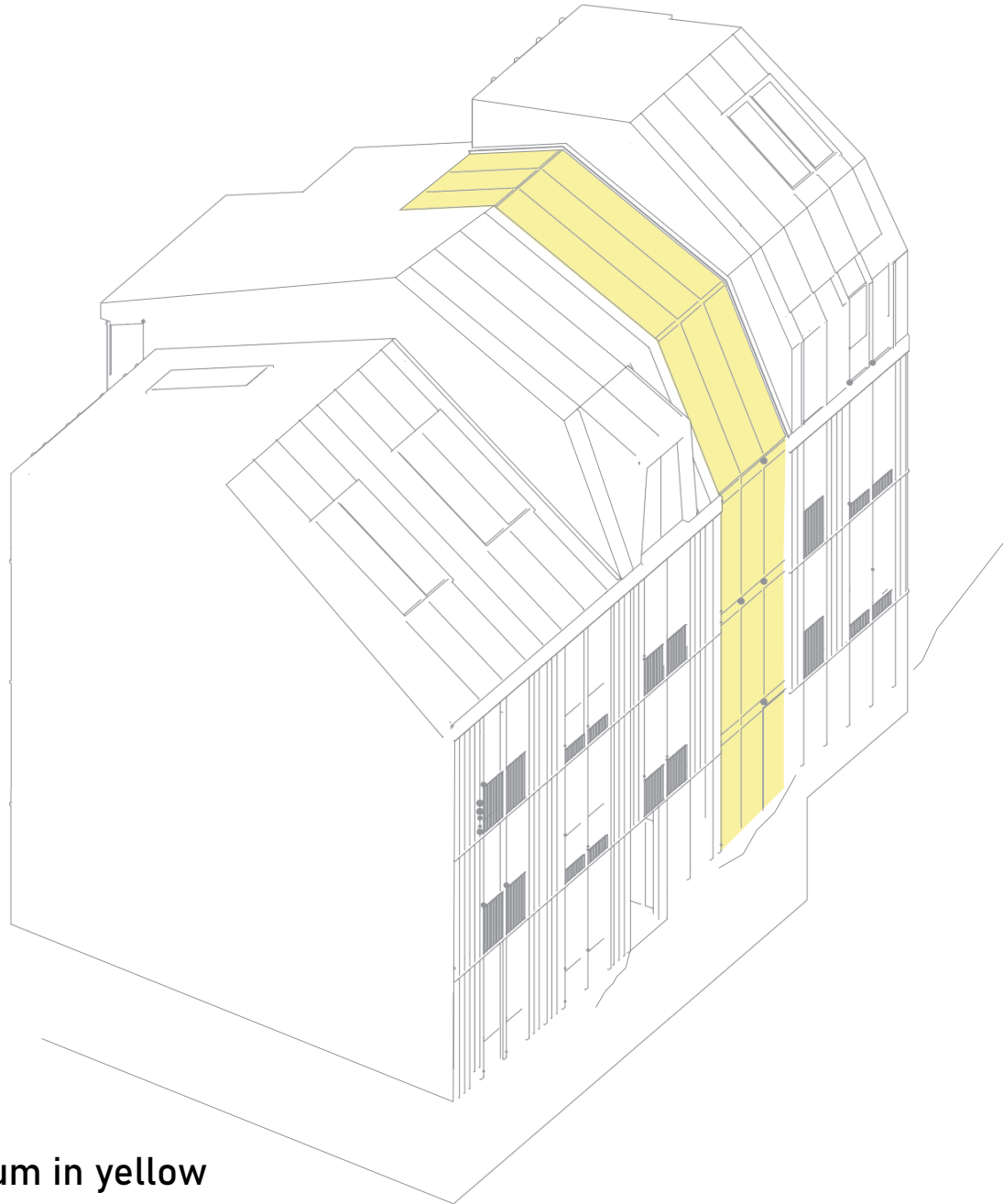
The project plot has rather complex limitations which needed to be turned into opportunities for guiding appropriate architectural solutions. First of all, the already mentioned narrowness of the plot which leads to the exploration of depth and verticality of the project. Secondly, for the width of the building, the street level change is quite stark. In response to this the main entrance was placed at street level in the middle of the building and the entrance to a commercial space is higher up the street. The terrain change allowed the addition of a basement space below ground floor and a play between volume height in accordance with the neighbouring buildings. Lastly, the most significant challenge is the narrow street to the south which puts the opposing buildings about 6 meters away from the building and significantly reducing the amount of sunlight accessing the building. To tackle the issue a proposal of implementing an atrium has been made. The idea behind it is both to collect light from the top of the building to distribute it farther inside and to create an open space which connects all the inhabitants closer together.

When it comes to the purpose of the building, it was intended as a residential building that would incorporate the theme of social care. It is done through an implementation of co-living principles to create more affordable housing. The ground floor is not used for residential purposes, but rather as a common space for the inhabitants in a form of a common kitchen and dining area and a smaller lounge zone. Separate from the main area is a commercial zone of 32,2 m<sup>2</sup> which can be rented by the inhabitants to start developing their businesses and by that creating an easier entrance into entrepreneurship. The residential floors (first through third) each have a separate common area for the residents of that floor. Those can be used as art studios, coworking spaces or even children play areas according to the need of the inhabitants.

The building is constructed using a CLT column/beam and panel system with cellulose-based insulation and mostly timber façade decoration. This is done to ensure the longevity of the building as social sustainability cannot be achieved while ignoring the environmental footprint of the construction and exploitation.

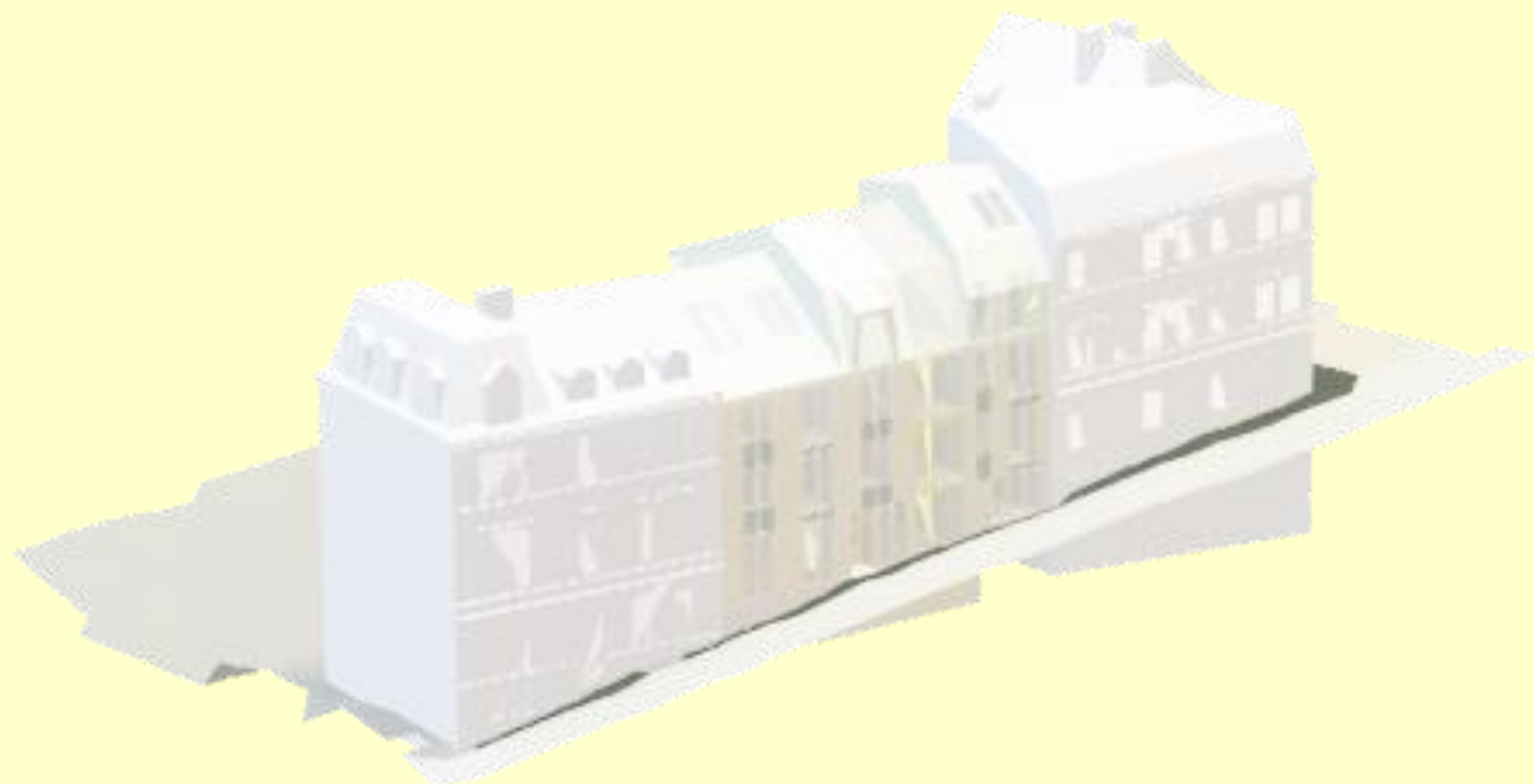
As a continuous theme throughout the project light yellow colour has been chosen in order to tie it together with both neighbouring buildings and to accentuate the social bond that the atrium space provides.





Axonometric view | Atrium in yellow





## Visualisations











## Basement plan | 1:100

The basement solution includes a common laundry room, which can be equipped with both washers and dryers, a drying rack area, a sink, and some storage area. It includes nine separate storage chambers, one for each apartment in the building. Farther down the hall is a separate room which can be equipped as a common gym.

The basement is accessible both by an elevator and the stairs.

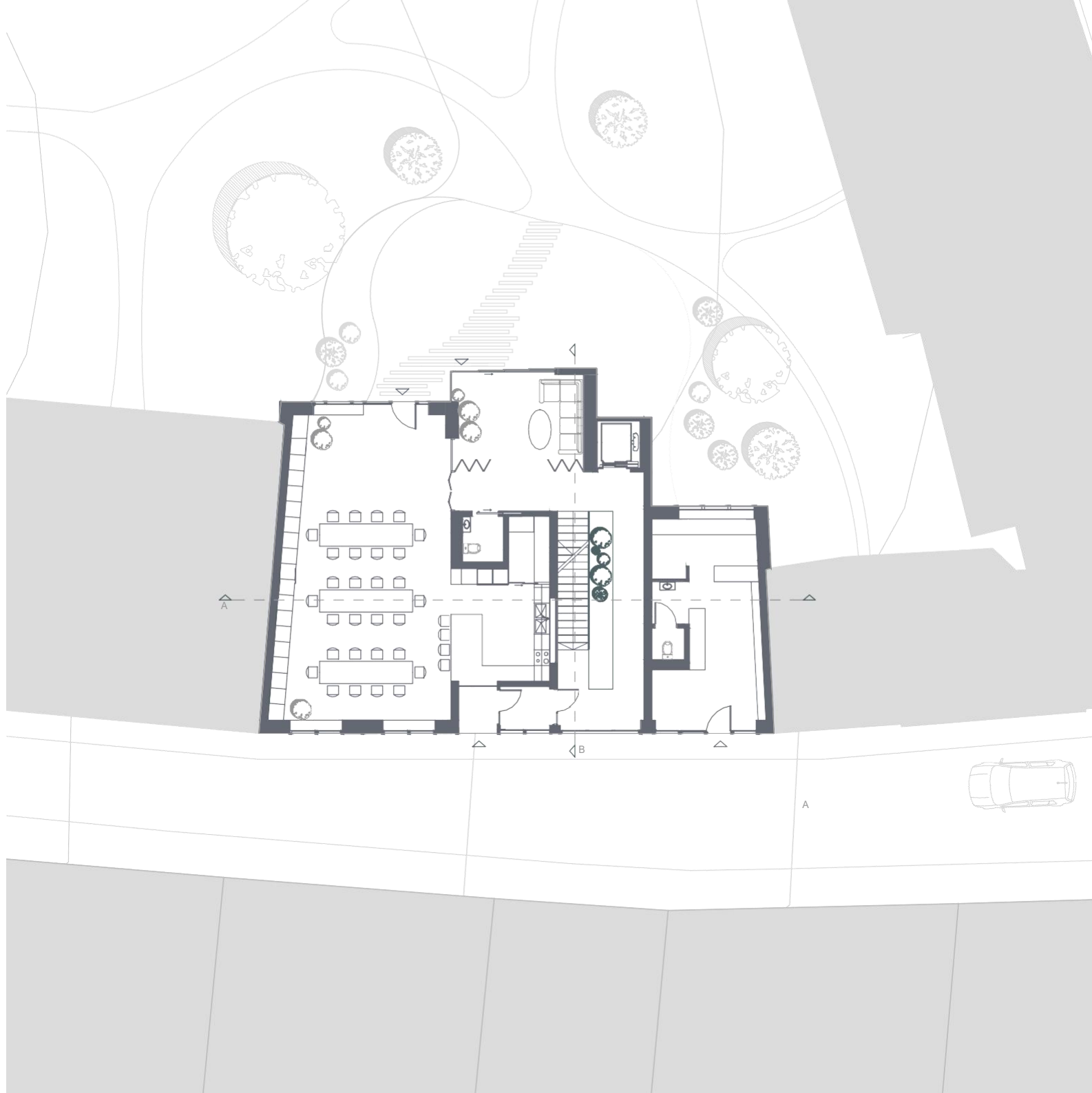




## Ground floor plan | 1:100

The ground floor is the main co-living space in the apartment building. It can be accessed both from the street through the atrium and a terrace to the dining and lounge areas. The dining area is directly connected with the kitchen and can serve up to 30 people. The kitchen is linked to a smaller storage/pantry room.

Separate from the residential part of the building is a commercial space with a separate restroom, a partially separate storage space and a possibility to install shelves and counters to be used by a small business.

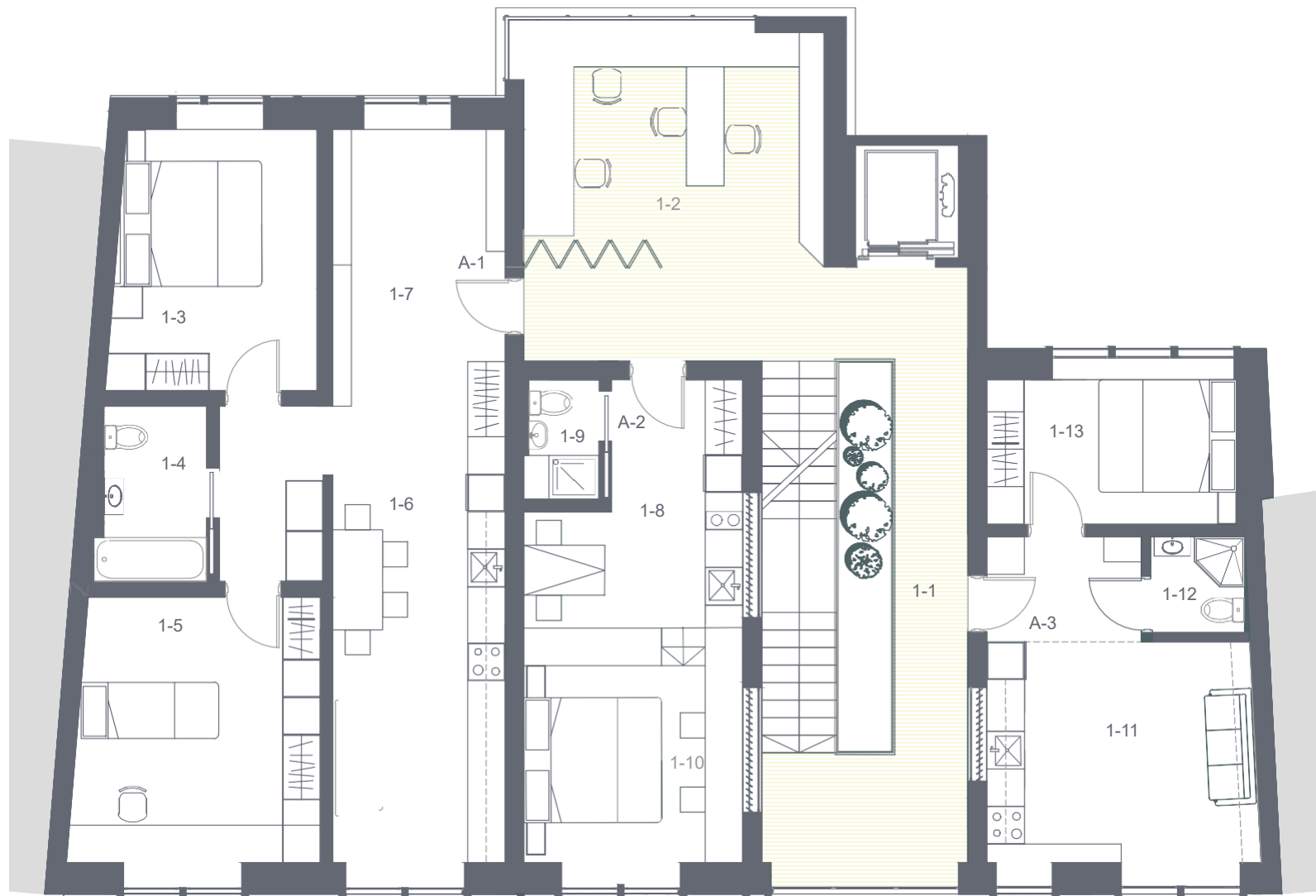


## First floor and second floor plan | 1:100

First and second floors are identical, with 3 apartments each. One two-bedroom, one single-bedroom and a studio type apartment. The apartments have vastly different layouts, to serve personal requirements from the residents and be more adaptable.

The atrium is partially connected to a common space which is intended to be used by the residents as extensions of their own apartments, whether it is an art studio, a co-working space or a playroom for children.





## Third floor plan | 1:100

On the third floor first type apartment has an altered layout to accommodate the roof slope, making it a one-bedroom apartment with a bigger work area.

The third type apartment is turned into a duplex apartment thanks to a raised roof in said volume of the building. A connecting staircase is added in the living room.

The first apartment has skylights on the south side, the second apartment has a large dormer window, and the duplex apartment has windows that begin in the walls and are connected to the roof.



## Duplex floor plan | 1:100

The plan shows top floor of the duplex apartment and roof plan for the first two volumes.

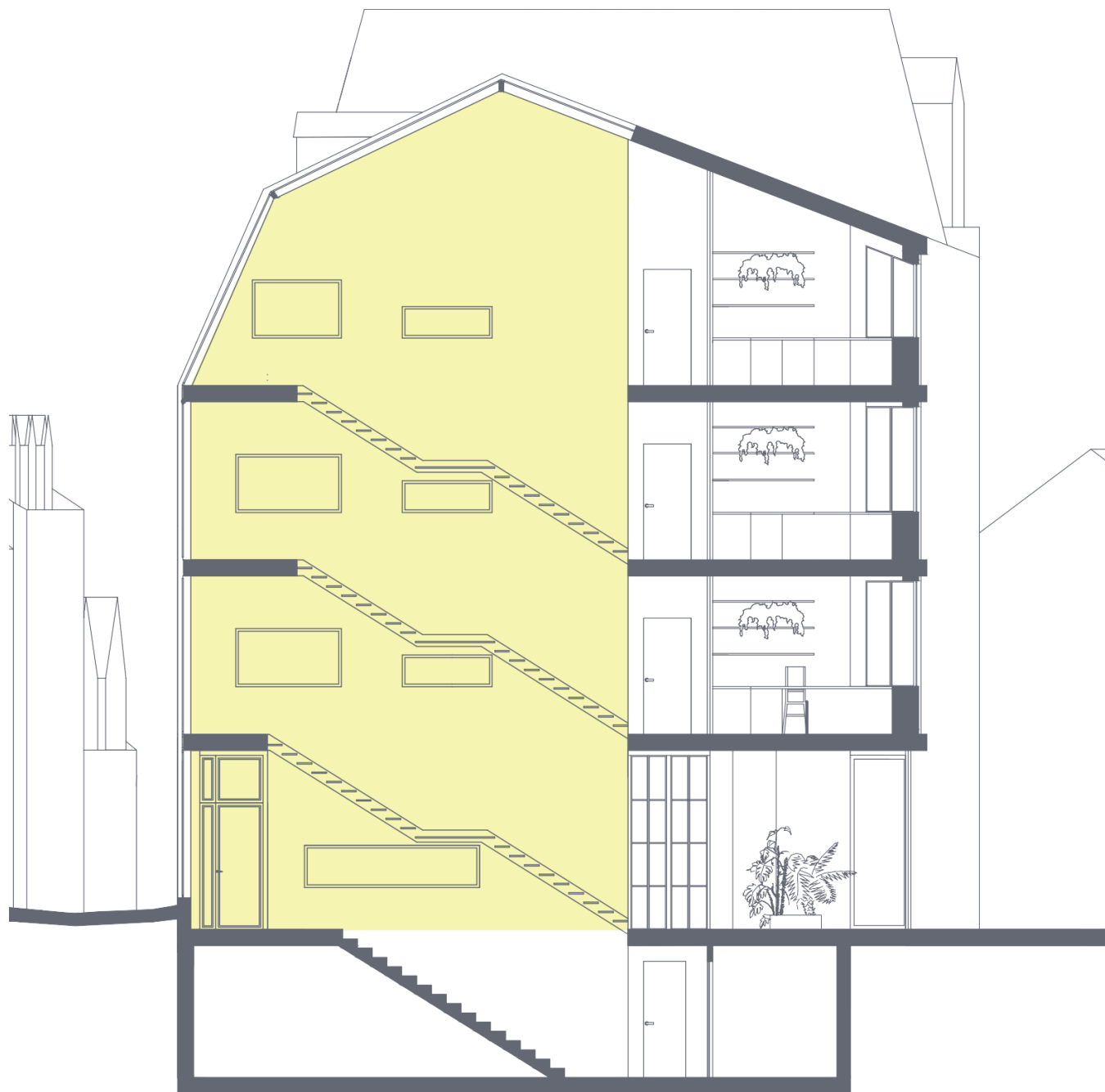




Section A-A | 1:100



Section B-B | 1:100



## Elevations | 1:100

### SOUTH ELEVATION







**NORTH ELEVATION**

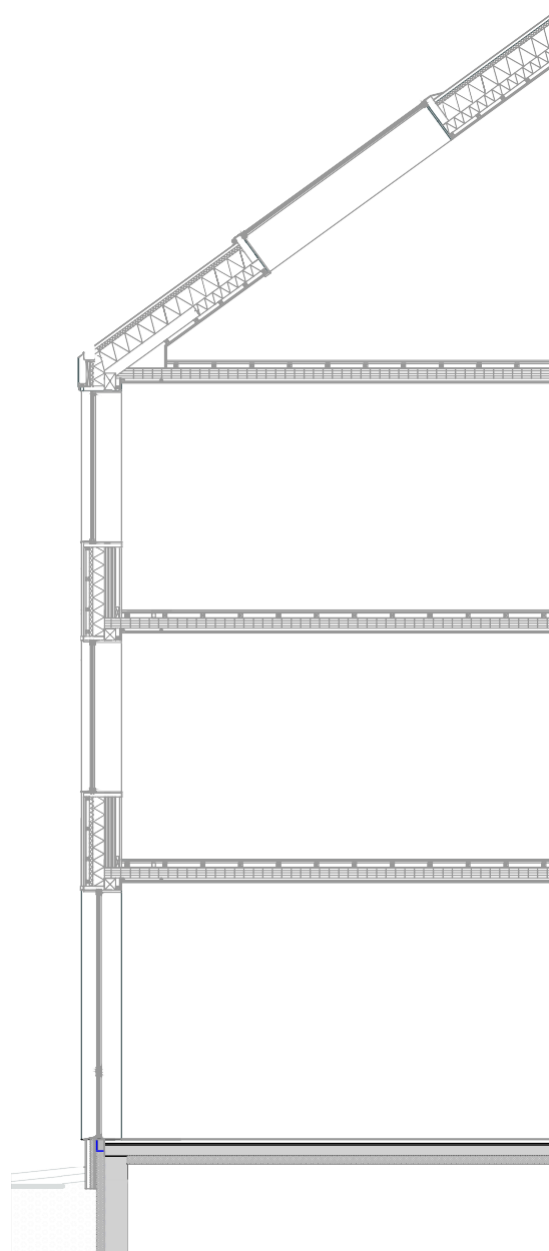
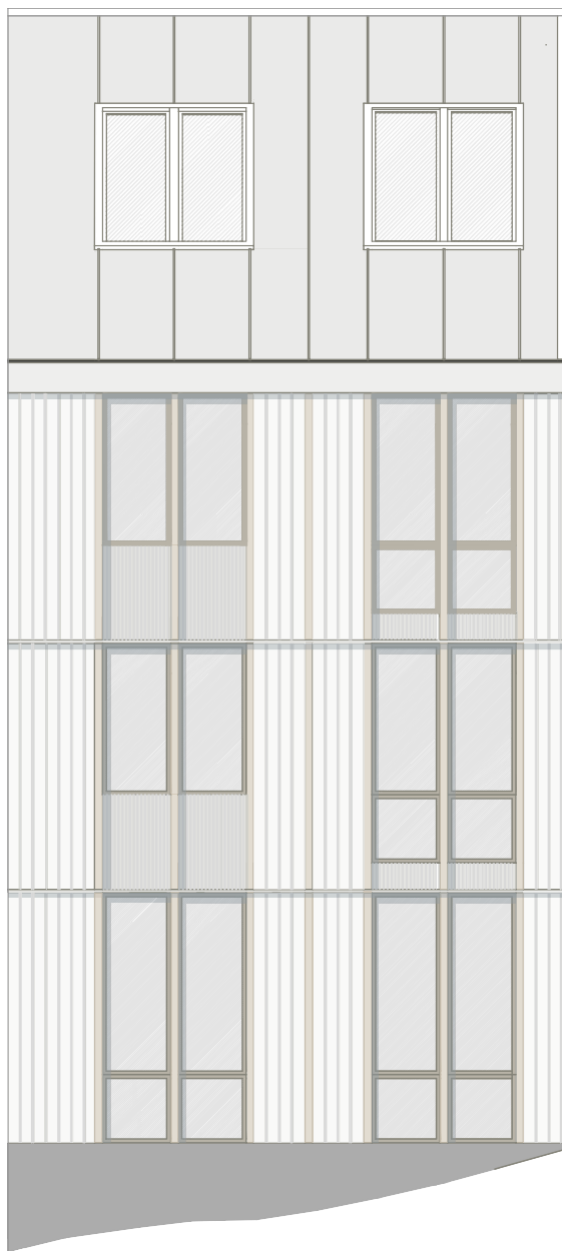
## Architecture detail and description

Due to the rising concern of climate change and the contribution to the problem from the architecture construction industry, the project has been developed featuring more sustainable technologies.

Architectural solution includes a system of CLT columns and panels, which have a significantly lower carbon footprint than the traditional concrete and aerated concrete and act as a storage for the embedded carbon. For the insulation in the building are used various cellulose-based materials are being used, such as STEICOtherm and STEICOuniversal rigid insulation.

The main (southern) façade is made from light-grey-stained wooden panels; other façade materials include ceramic tiles and clay work exterior finishes.

The window frames are aluminium-timber compounds, which ensure adequate exterior protection and desired interior visuals and appropriate microclimate.



## Room and apartment areas and explication

### Basement rooms and areas

Mark in plans	Name	Area, m2
-1-1...-1-9	Storage rooms	~4
-1-10	Common gym	32
-1-11	Laundry room	23
-1-12	Restroom	2,7
-1-13	Hallway and staircase	52
	Total	161

### Ground floor rooms and areas

Mark in plans	Name	Area, m2
0-1	Atrium and hallway	37,6
0-2	Lounge area	19
0-3	Dining area	75,4
0-4	Kitchen	19,6
0-5	Restroom	2,7
0-6	Commercial space	32,3
	Total	196

### First through third floor rooms, apartments, and areas

Mark in plans	Name	Area, m2
1/3-1	Atrium and hallway	37,6
1/3-2	Common area	18,1
1/3-3	Bedroom	13,3
1/3-4	Bathroom	4,8
1/3-5	Bedroom	16,4
1/3-6	Kitchen and living area	21,7
1/3-7	Work area and hall	10,6
	First apartment	76,5

Mark in plans	Name	Area, m2
1/3-8	Hall and kitchenette	10,6
1/3-9	Bathroom	2,2
1/3-10	Bedroom	13,3
	Second apartment	26,7

Mark in plans	Name	Area, m2
1-11	Kitchen and living room	19,4
1-12	Bathroom	2,2
1-13	Bedroom	9,1
	Third apartment	31,8

#### Duplex apartment rooms and areas

Mark in plans	Name	Area, m2
3-11	Kitchen and living room	19,4
3-12	Bathroom	2,2
3-13	Bedroom	9,1
3-14	Kitchen and living room	19,4
3-15	Bathroom	2,2
3-16	Bedroom	9,1
	Duplex apartment	31,8+27,4=59,2

