

Site Location

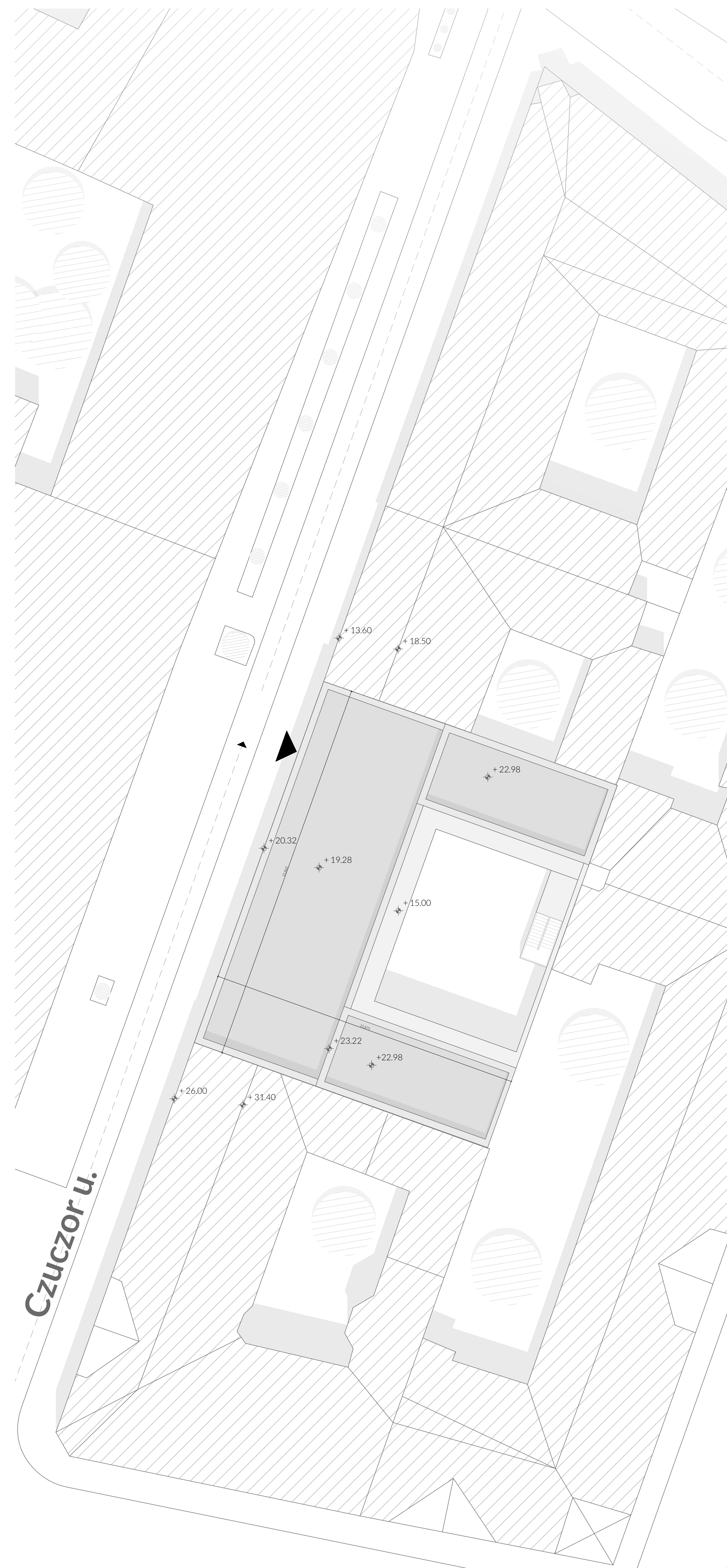
1093, Budapest Czuczor utca.

The designed building is a student housing program located in the 9th district of Budapest. The 9th of Budapest is one of the dense districts in the city that has undergone many developments, especially in recent years. This district went into the industrialization phase in the second half of the 19th century.

Nowadays it is widely serving different functions such as cultural and art centers, nightlife, amenities, class A offices, and housing due to the large-scale re-development programs in the past 15 years. It is one of the most beautiful districts located along the Danube River with a vibrant urban scent and a quality place to live. It has a large area of greenery, especially in the central part of the district which makes it a healthy atmosphere for living.

The National Theatre, Mupa, the Palace of Arts, and the Great Market Hall of Budapest are characteristic buildings in this district. Also Raday utca which is a semi pedestrian street is very well-known in the IX. district with a lot of cafes bars and residential buildings.

The site is close to multiple universities especially "Corvinus", "BME" and "Elte". Recently there has been a competition on this site with a similar program (student housing). The site is enclosed from three sides by the neighboring buildings.



Environment:

4 season suitable for using solar panel.
Summer cooling, winter heating.
Czuczor utca is a narrow, one way street. While this is beneficial for wind direction and its aspects, it is a disadvantage for natural sunlight.

The site is relatively close to the Danube river and there is a high water table level. Currently this site is functioning as a parking lot. However due to the function of the building which is a student housing, bicycle parking has been planned/
Accessing site and going to nearby universities is fairly easy by using public transportation such as, Trolley 83, Bus 15, Metro Lines M1, M2, M3 & M4. Also trams 47-49 are accessible very easily. Tram 4-6 is also reachable.

site restrictions:

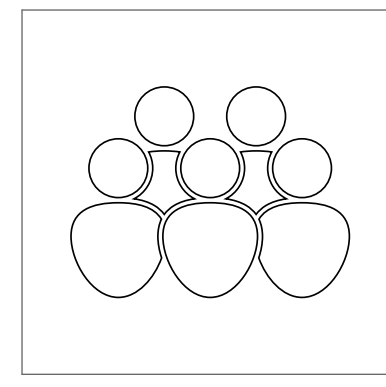
The building should have an enclosed frontal facade.

The enclosed frontal facade should not be higher than 21 meters.

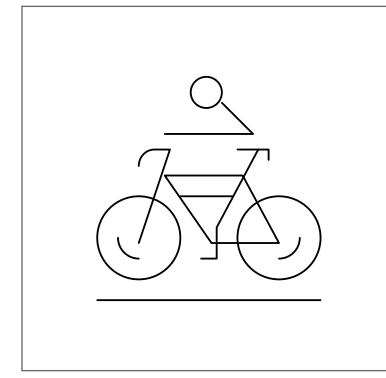
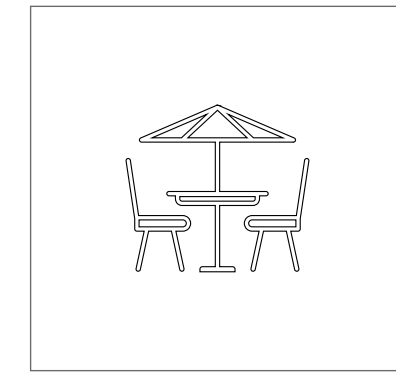
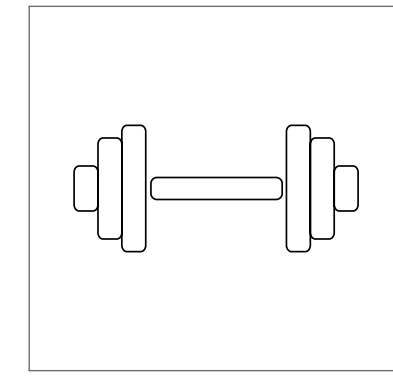


Building program & Functions

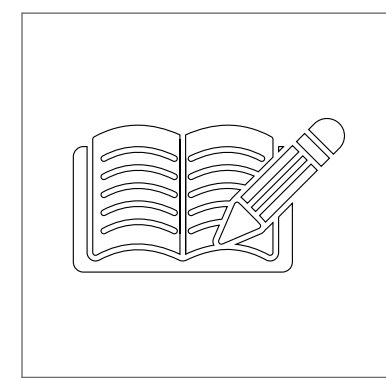
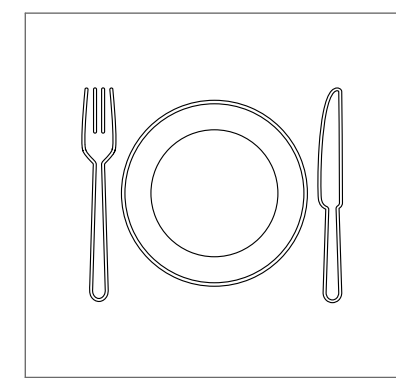
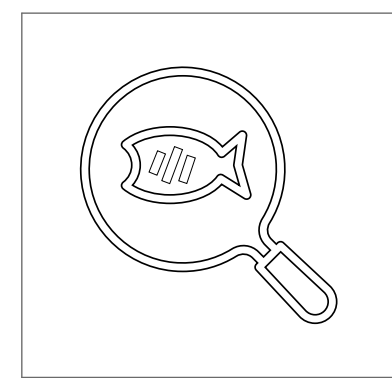
This project aims to target two different groups in terms of usage. The public users has access to ground floor and basement partially. Since the plot is small and located in the narrow street and considering the main users which are students, instead of parking, bike storage has been planned to make the building more eco friendly.



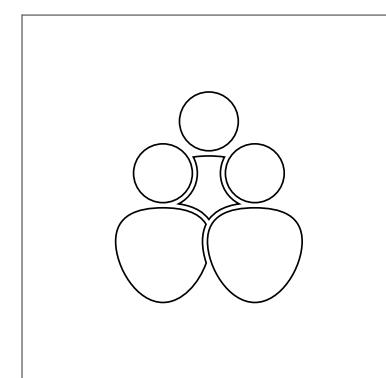
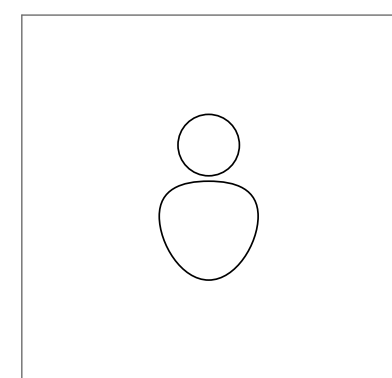
The functions of the project was chosen in a way that also public users can use specific programs of this project. Functions such as cafe, gym (plus shower, locker rooms and gym reception), and inner courtyard. The cafe and lobby of this building have direct connection with inner courtyard which has vegetation, sitting area and bike storage. To separate the boundaries between residents and public external staircase has been planned which is accessible for public from ground floor to basement.



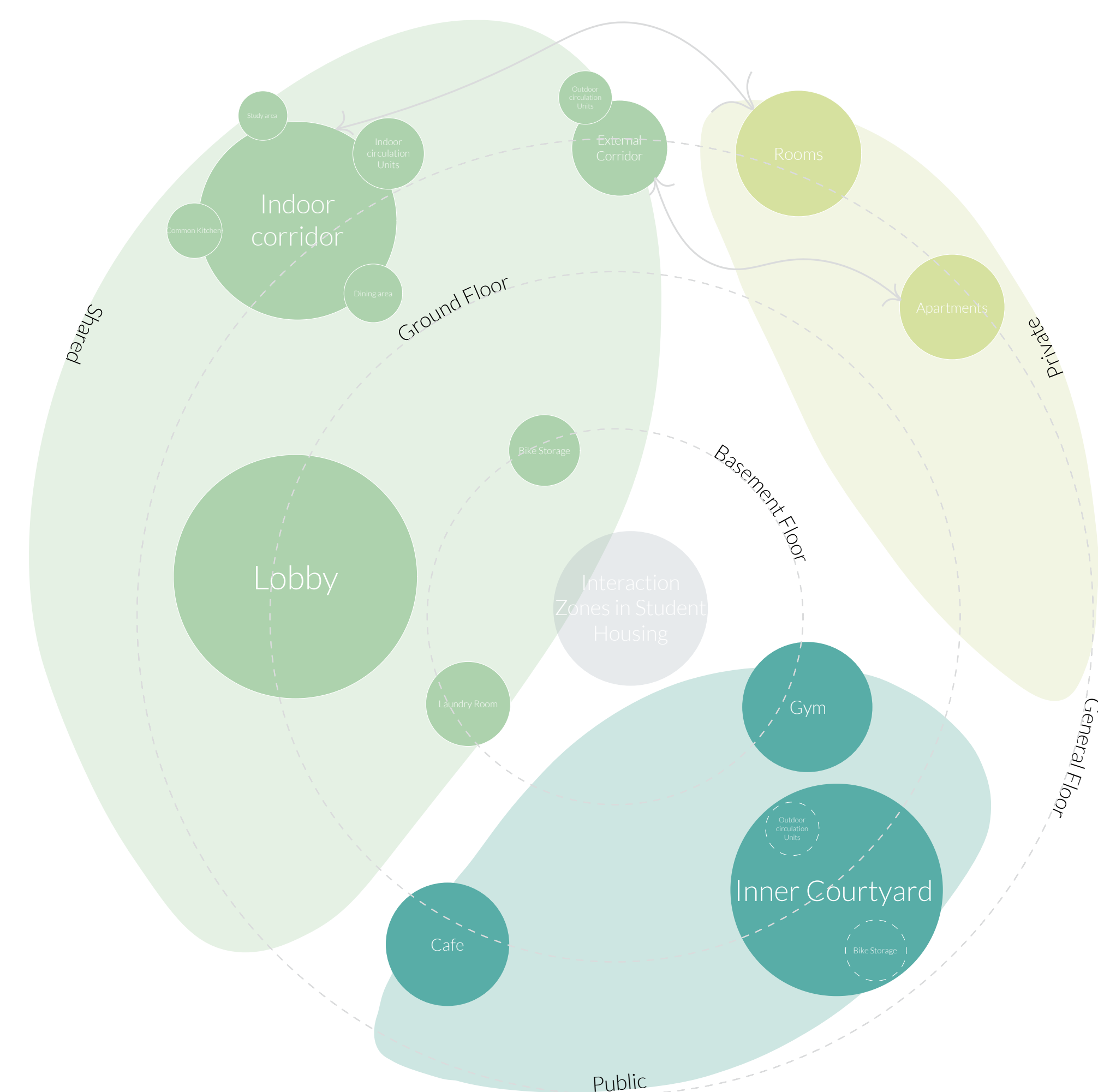
Unlike most of dormitories where the focus is the number of accommodation units, this building was designed by focusing on the ratio of floor area per residence. Since the plot is enclosed with gable walls the goal was to bring the most natural light to the building. The concept in designing this building was to make zones (functions) interact with each other and therefore create more meeting points. To achieve these goals a wide one way corridor was designed which has large rows of curtain wall facing the courtyard. The important common spaces were planned in this corridor such as common kitchen, dining area, and study zone. In this the corridor is not used only for access to rooms, circulation units and separate common function. This results in more interaction inside the corridor and turns corridor to a community zone.



Two types of residential units were designed. The first type is apartments with separate bedroom which are facing the inner courtyard, suitable for couples and the first type is private rooms for single person facing street. The apartments have direct access to the outdoor staircase and use the semi private terrace. The terraces in general floors functions as horizontal circulation units and it offers alternative sitting and dining area for residences.

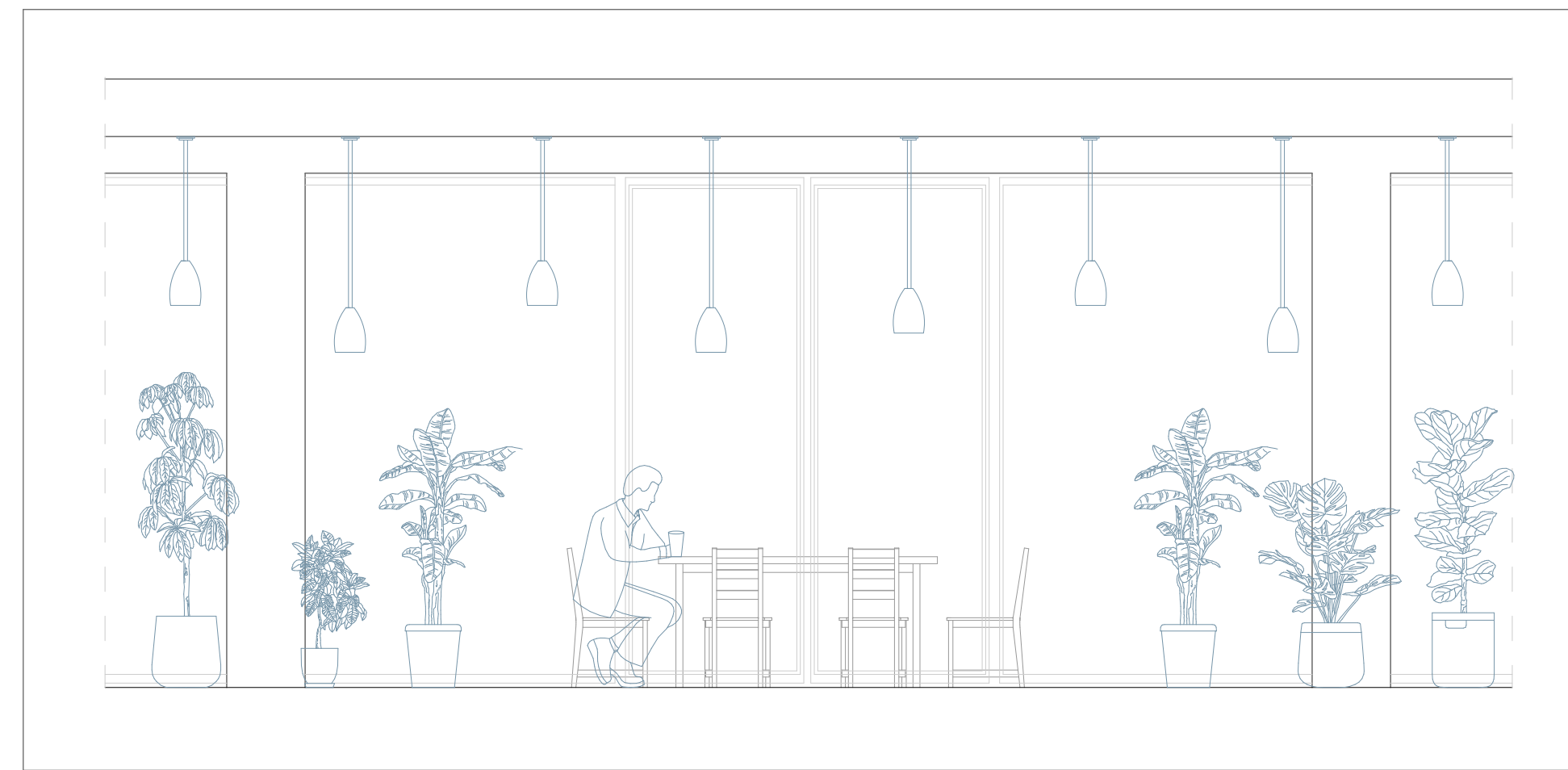


Bubble diagram



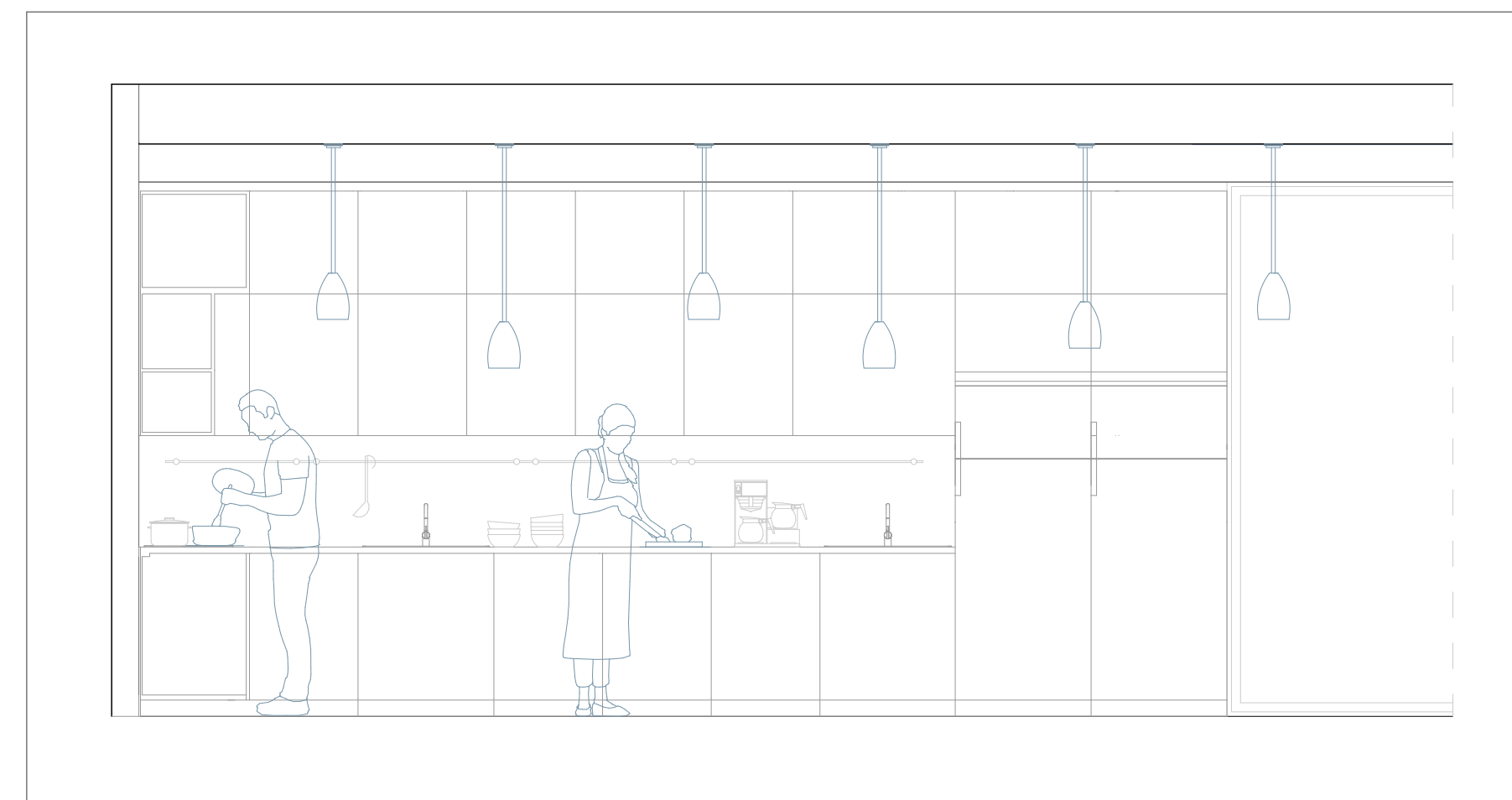
Dining zone:

Dining zone is planned next to the common kitchen in the center part of the corridor. In this zones three dining table is planned each with six dining chairs which welcomes the possible guests to the building. It is has a direct connection with outdoor corridor which is beneficial for natural ventilation. This makes the most interaction points in the corridor since it is placed next to plants. Moreover to this zone sitting places in the outdoor corridor has been planned which can be used for outdoor dining as well.



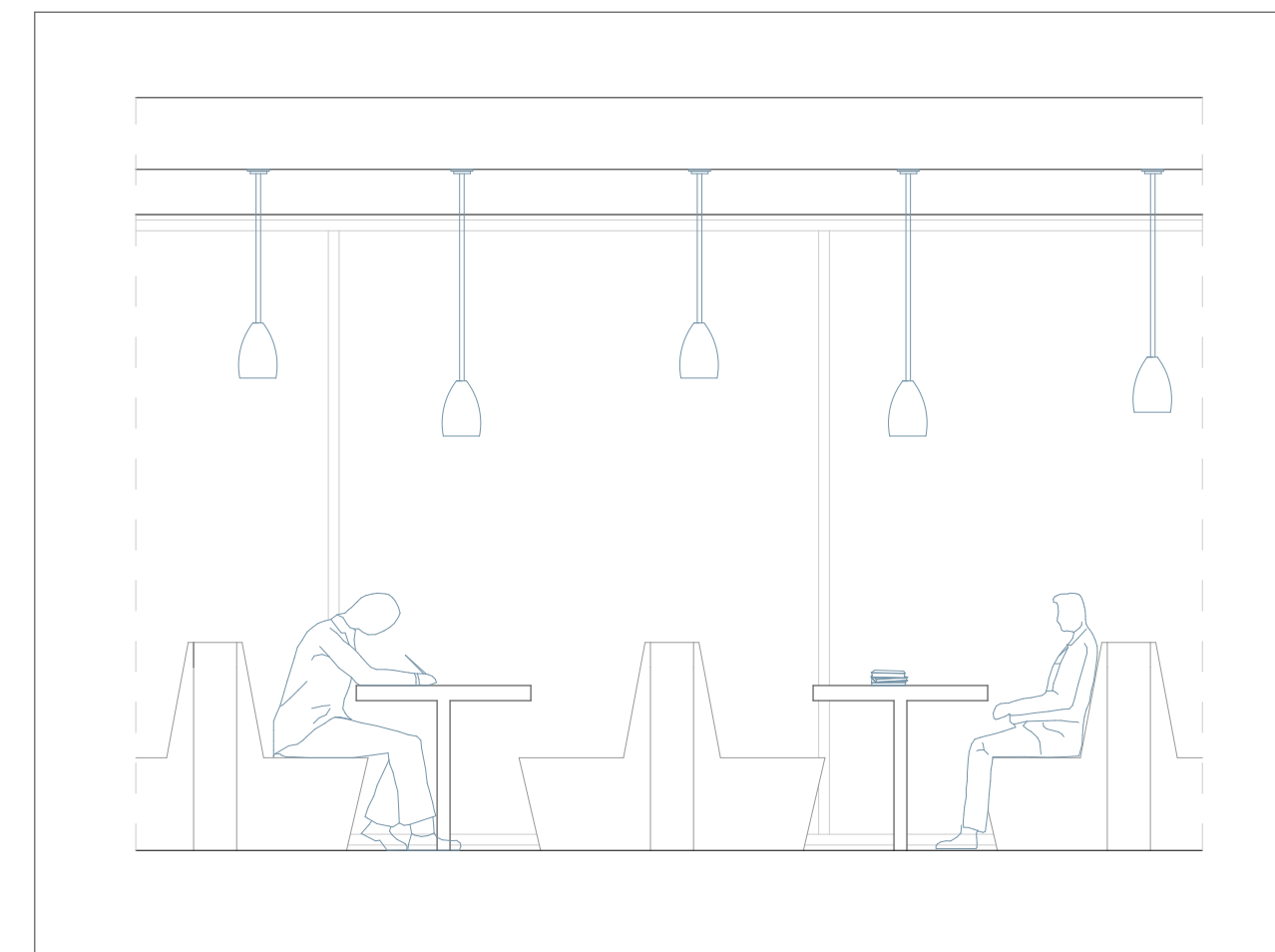
Common Kitchen:

Common kitchen is planned at the end of the corridor. It has two stoves, two fridges and two sinks. Planning this kitchen open and not separated by walls gives adds more interaction zones makes the corridor as mentioned a communal space. The kitchen is fairly close to the openings and it gets natural light.



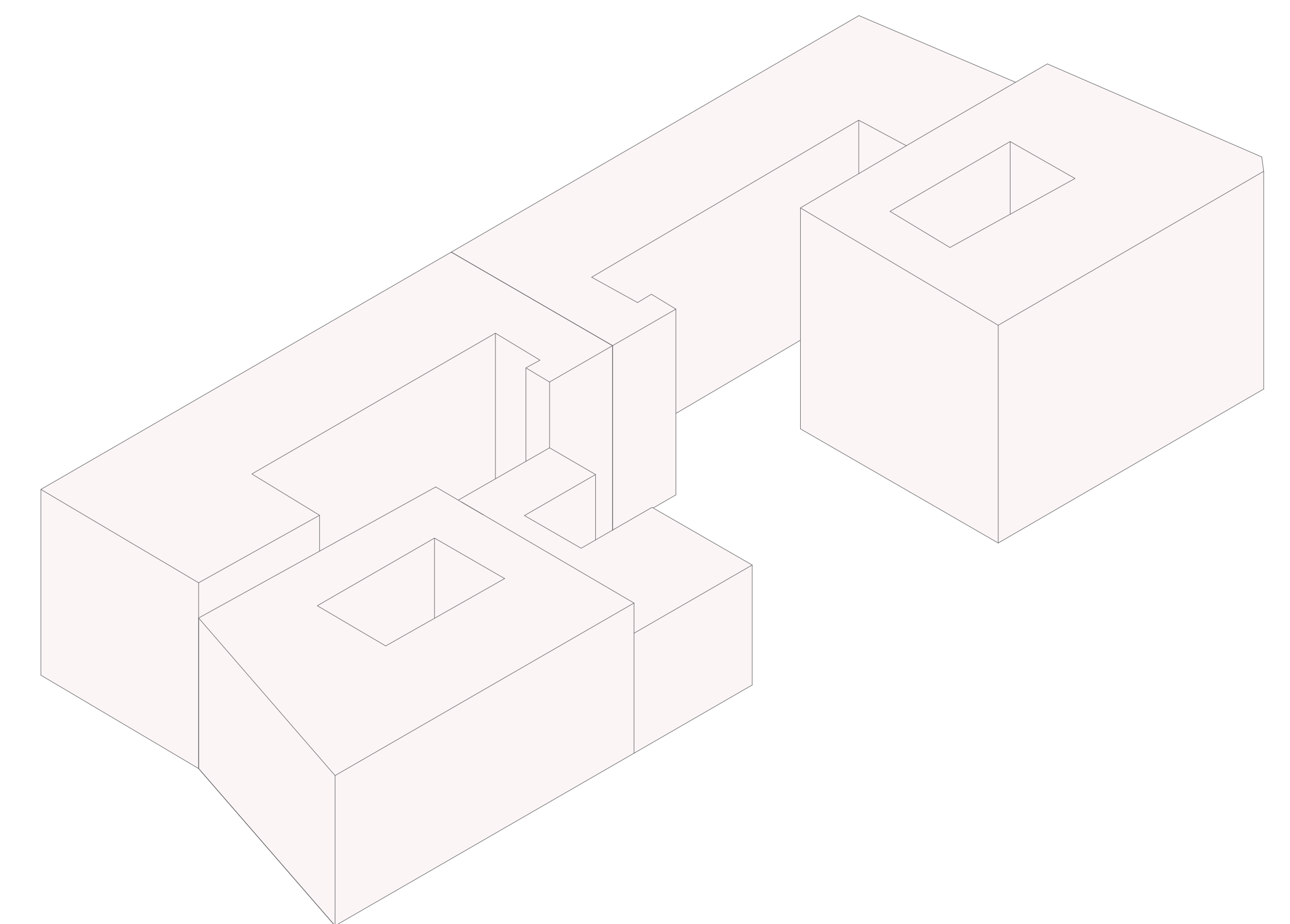
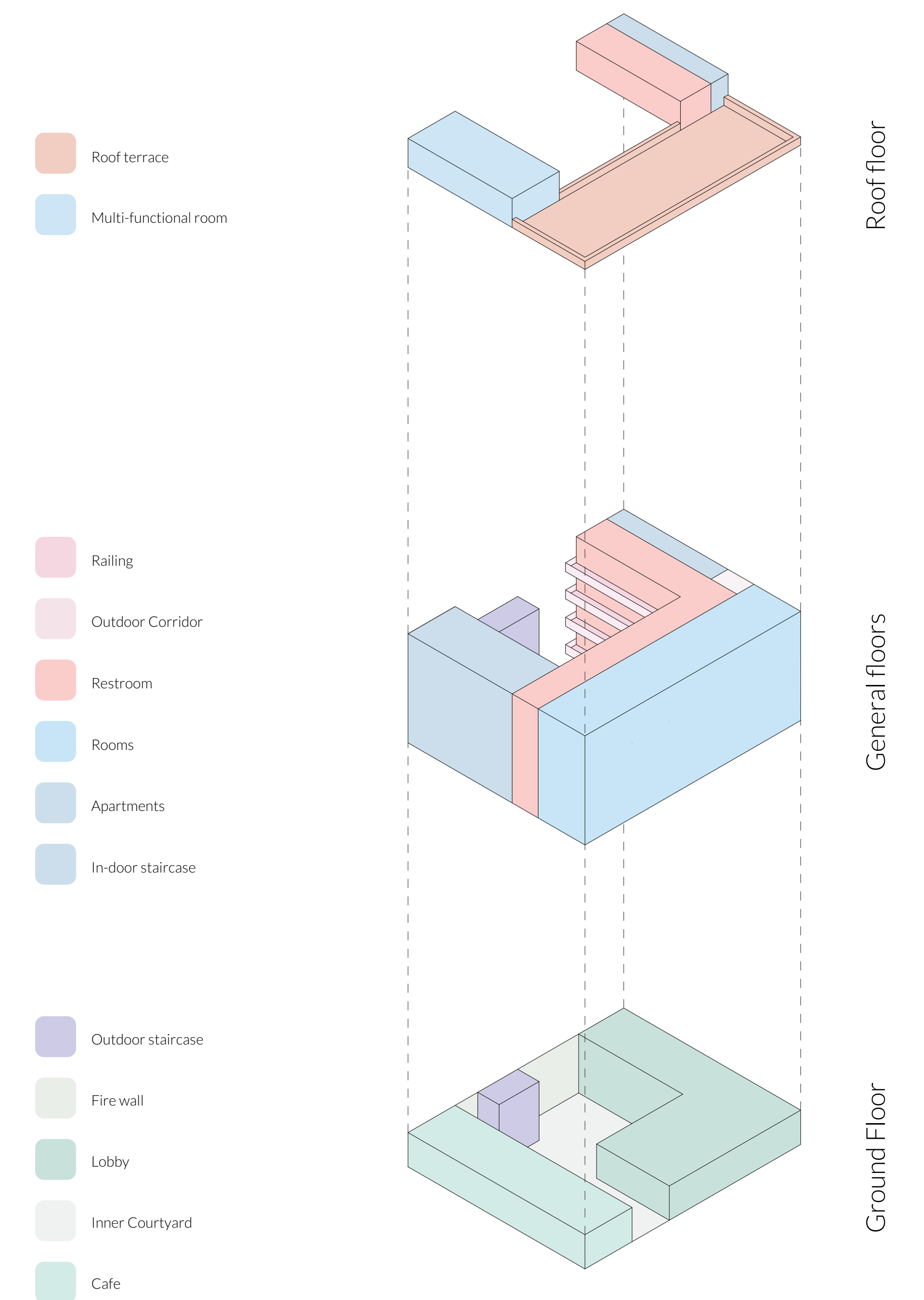
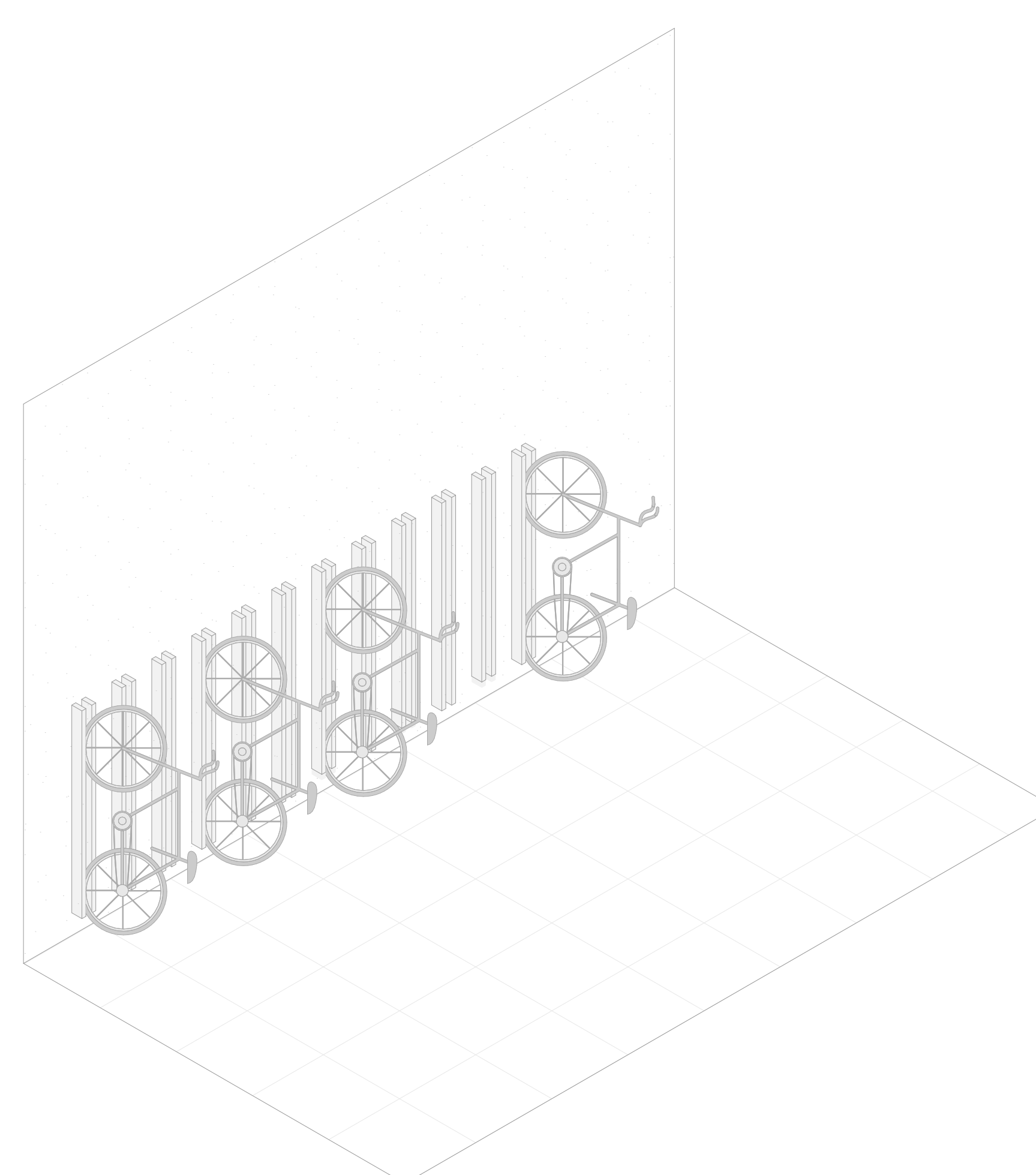
Study Zone:

As the goal of the project was to make the corridor a communal space, study zone is planned in the wide corridor. Study zone uses a booth type sitting which gives a contemporary look to the corridor and design. It is ideal space for studying since it gets wide range of natural light. The study zone consists of 5 desks and 10 bench type seating area suitable both for group and solo studying.

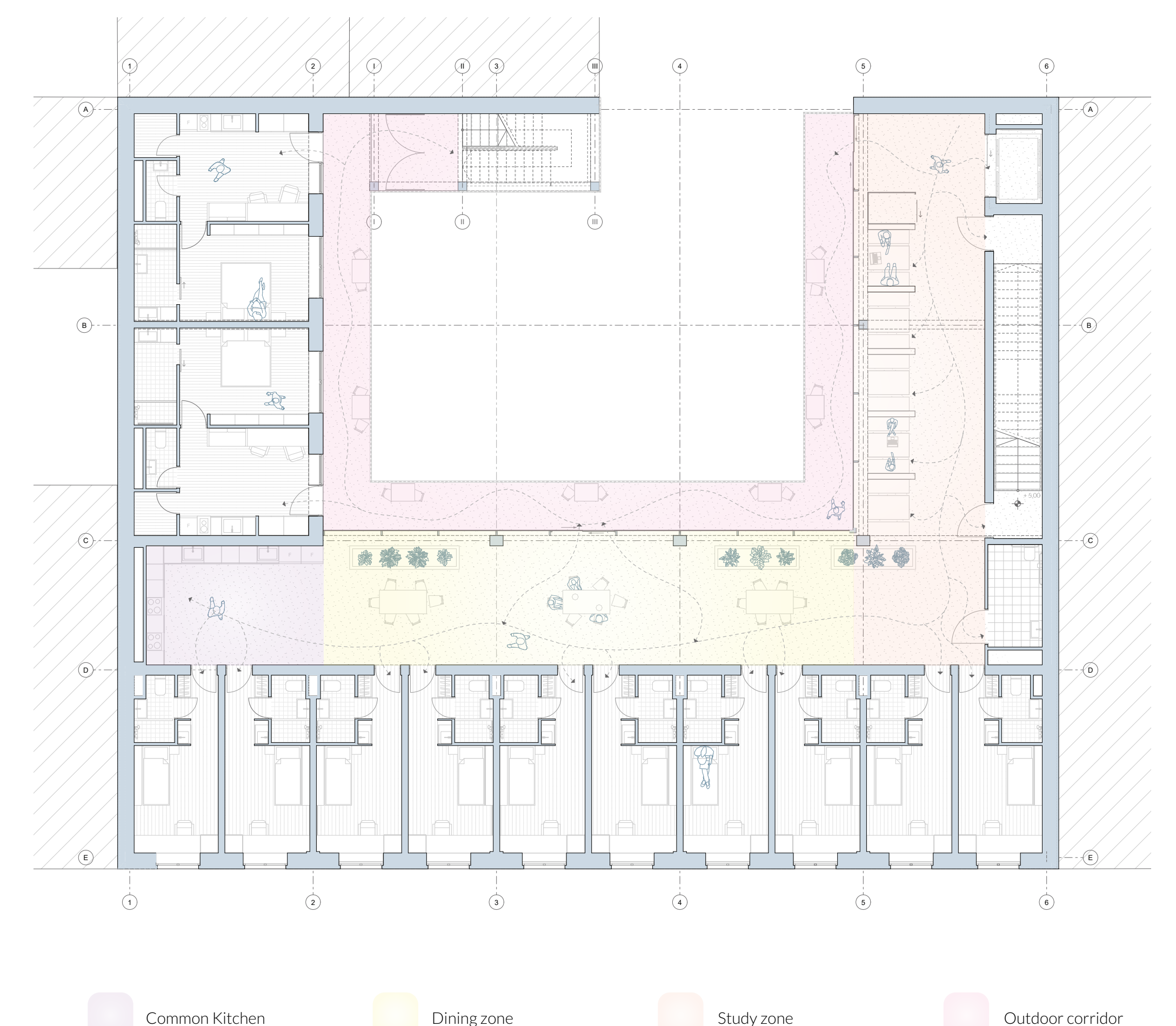


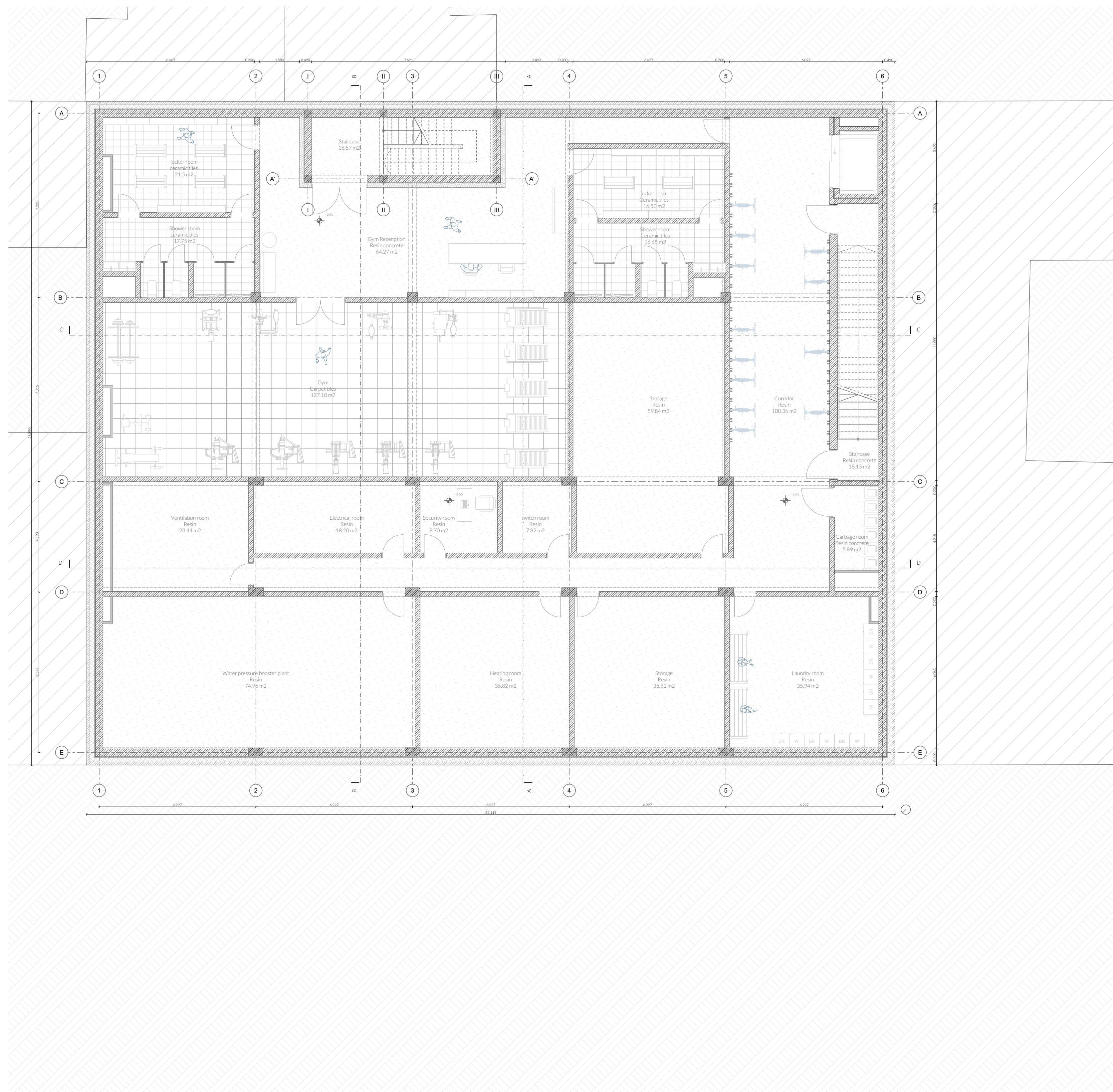
Vertical bicycle storage:

Since the goal of the project was to make the environment more eco friendly bicycle storage has been planned instead of car parking system. The building uses bicycle lift for storing bicycles. This smart system saves up to 40 % of floor. It is suitable for this building since the inner courtyard is open to public. It is completely automatic, effortless and easy to use even for heavy bikes. It does not need any electricity and it can be installed quickly and it is maintenance free. In addition to the bicycle storage in the inner yard also another vertical bicycle storage has been planned in the basement which is only used by the residents.



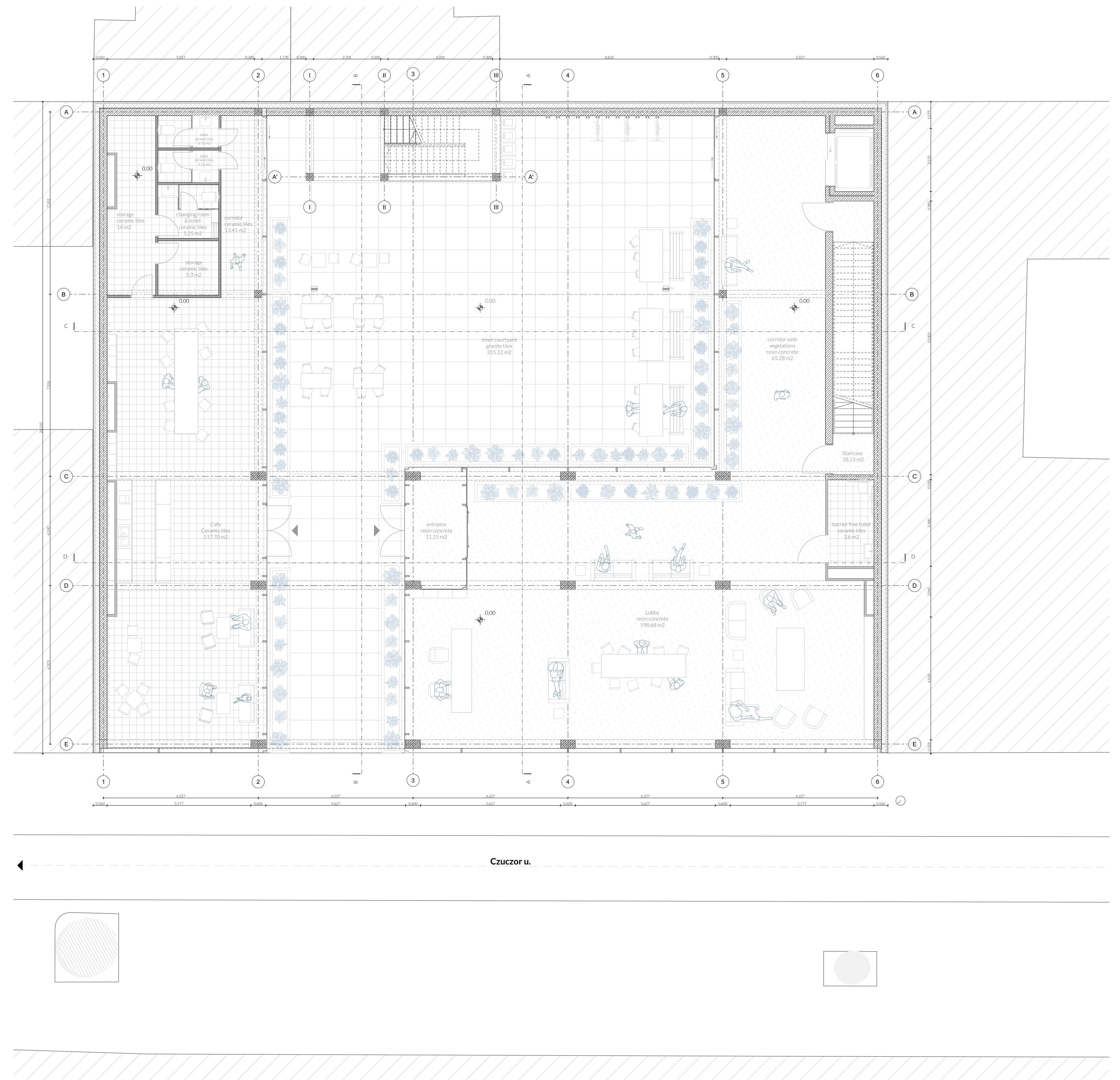
Circulation map





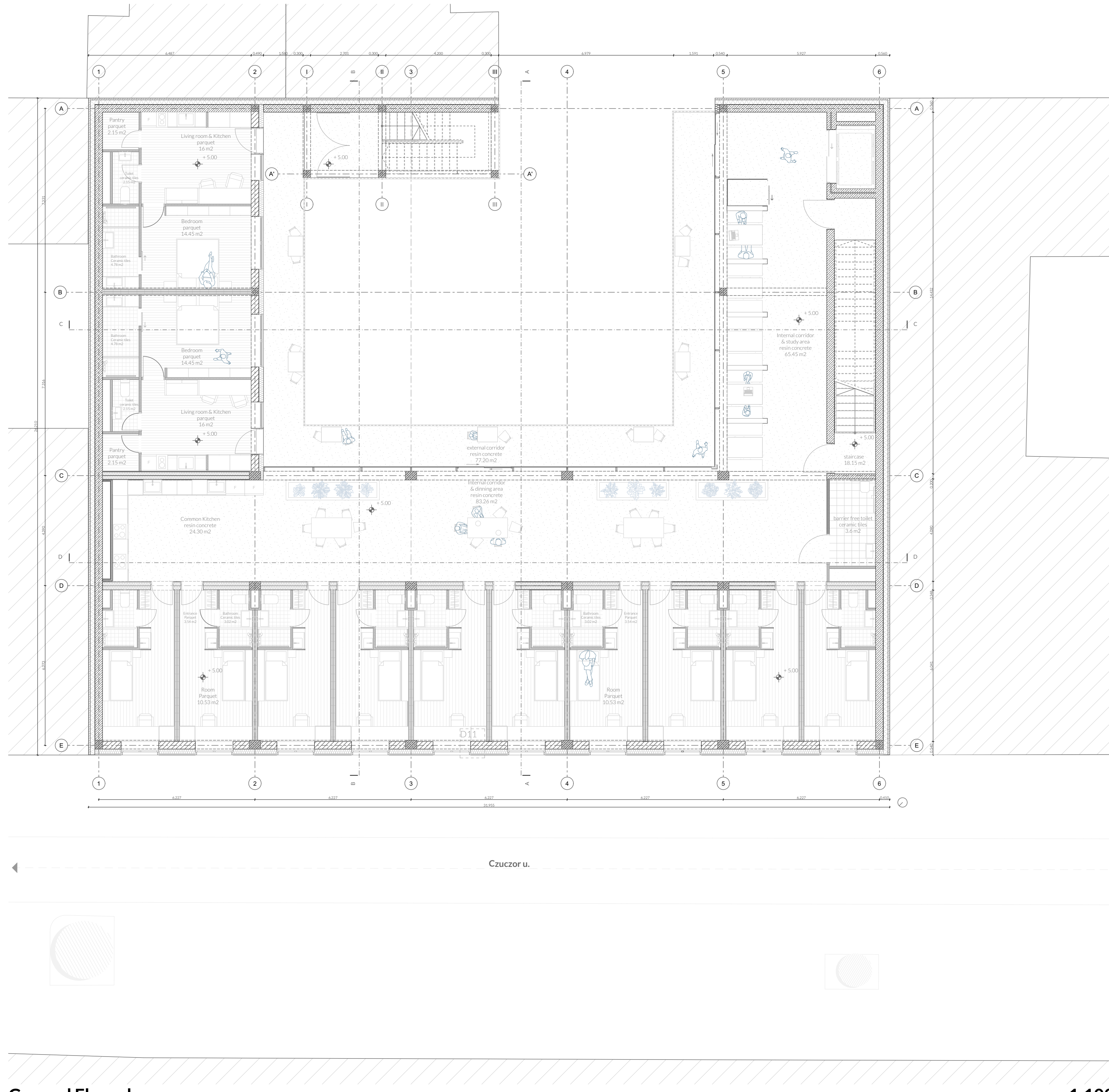
Basement Floorplan

1:100



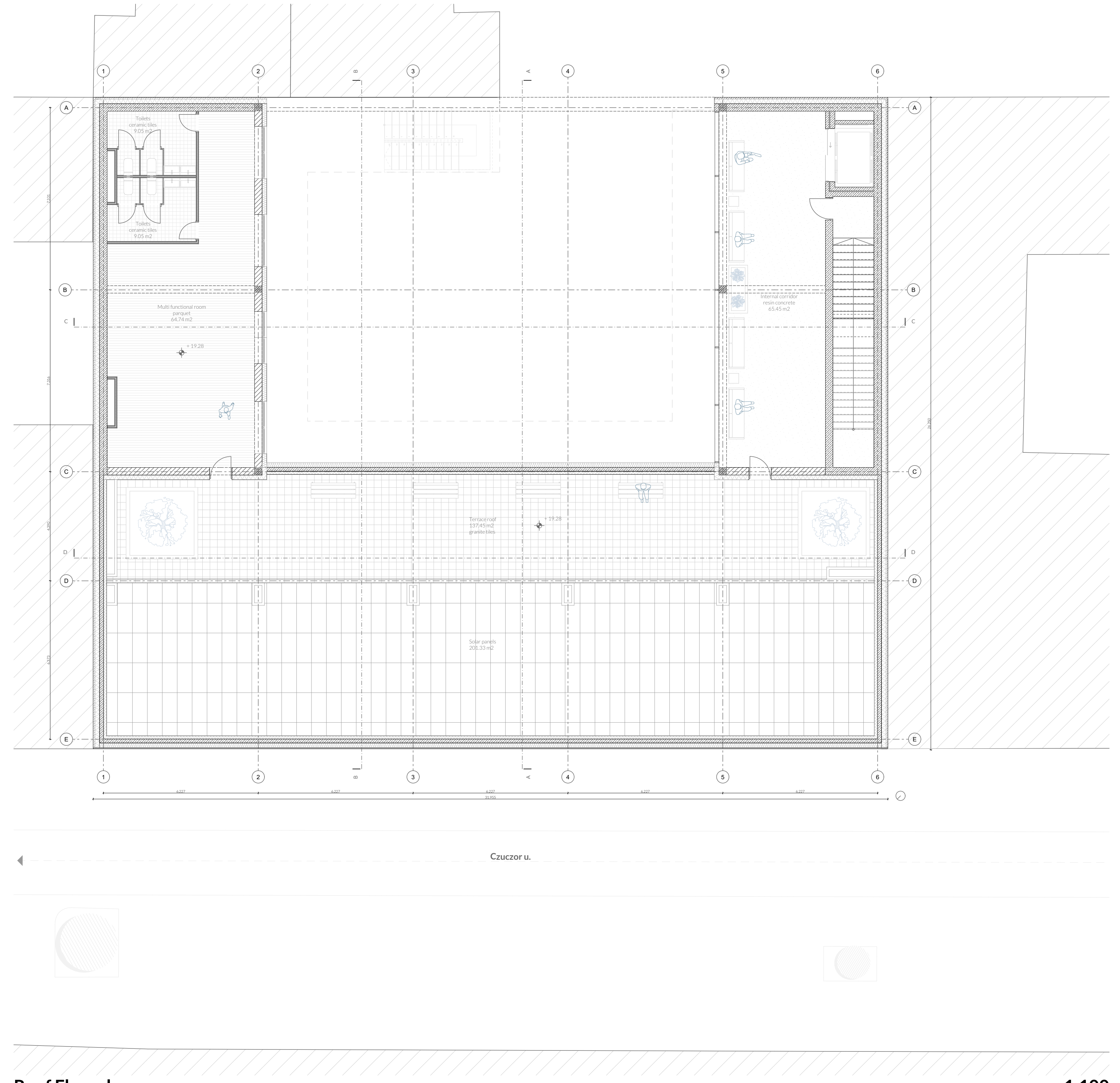
Ground Floorplan

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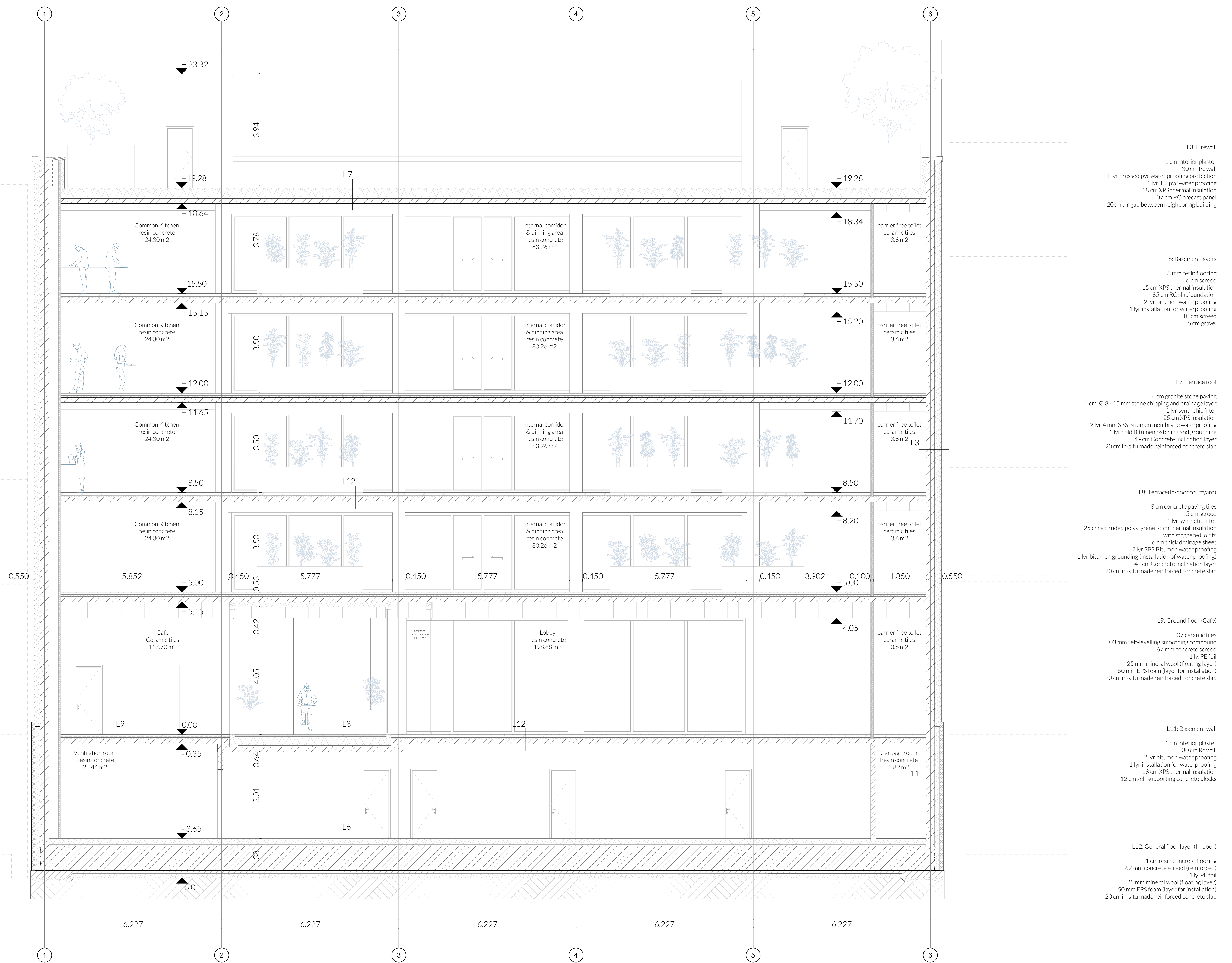
General Floorplan

1:100

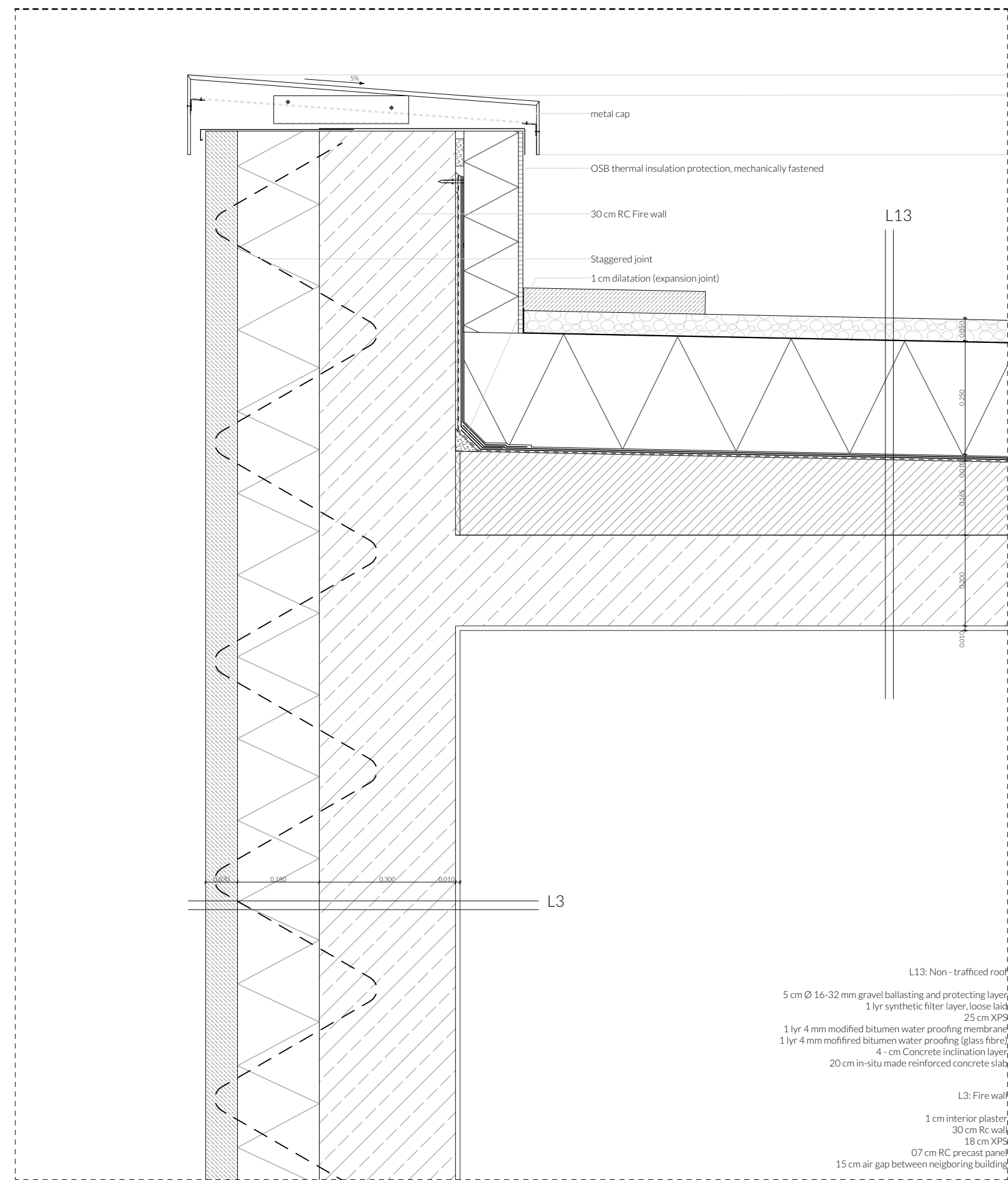


Roof Floorplan

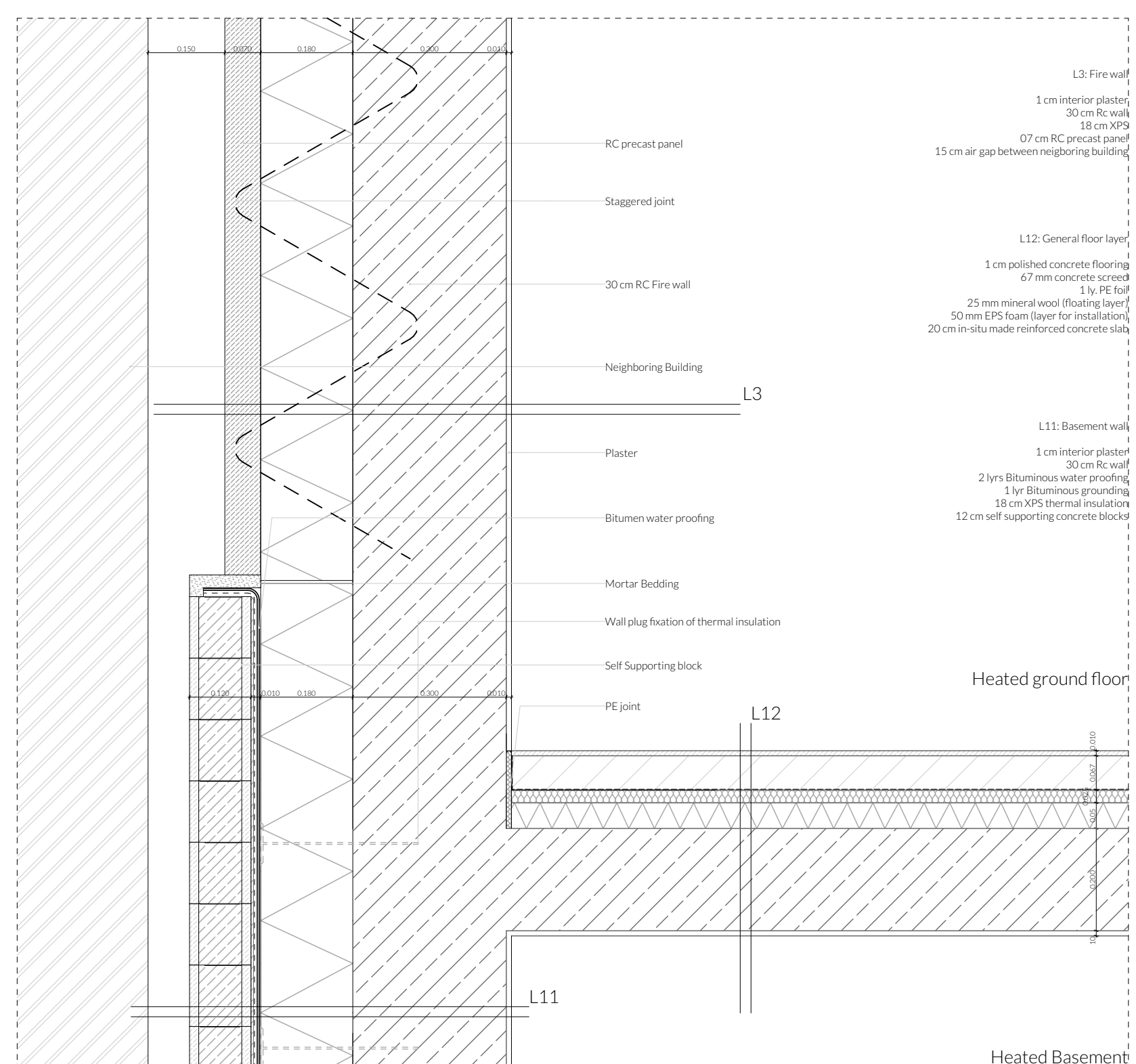
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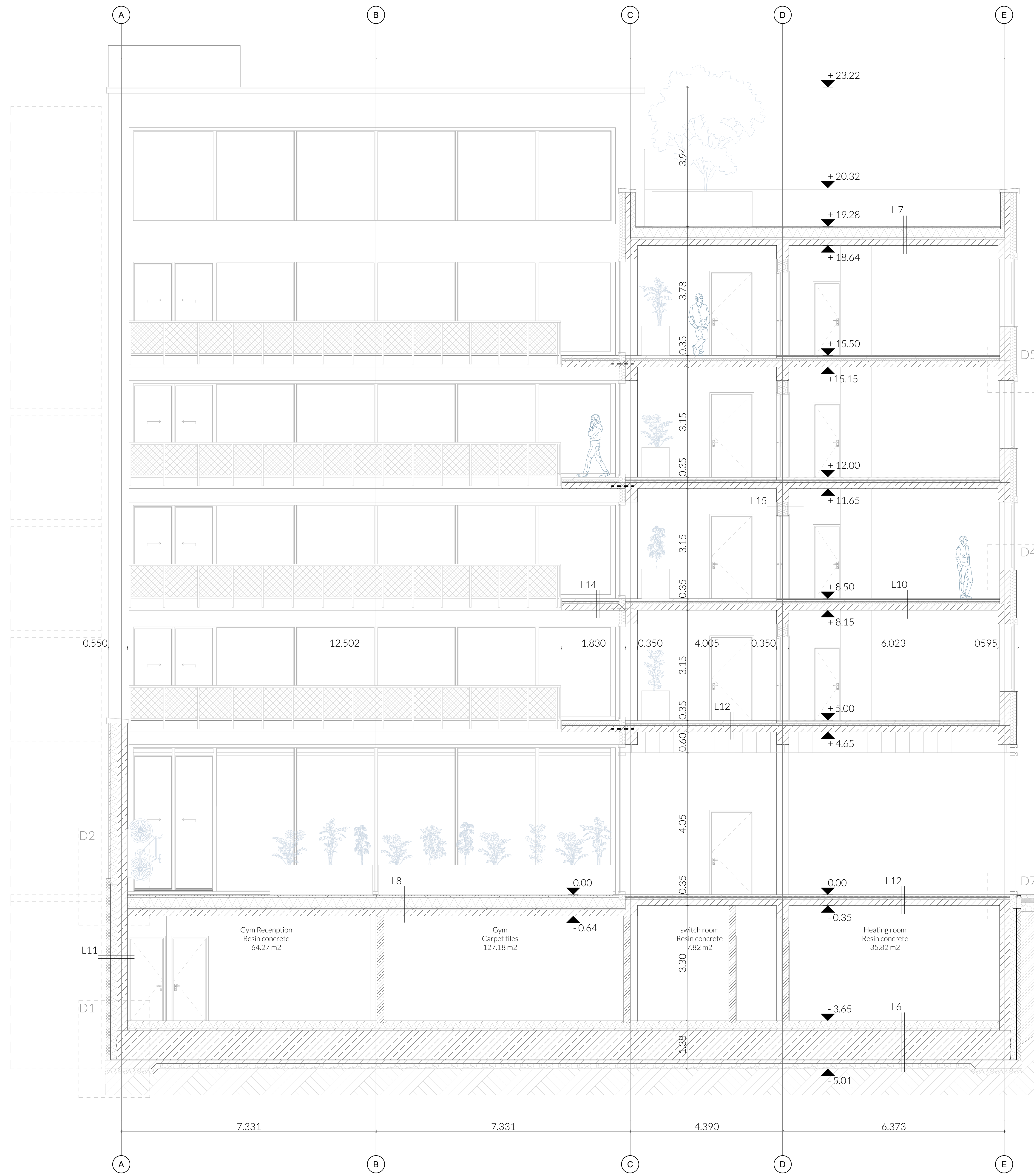
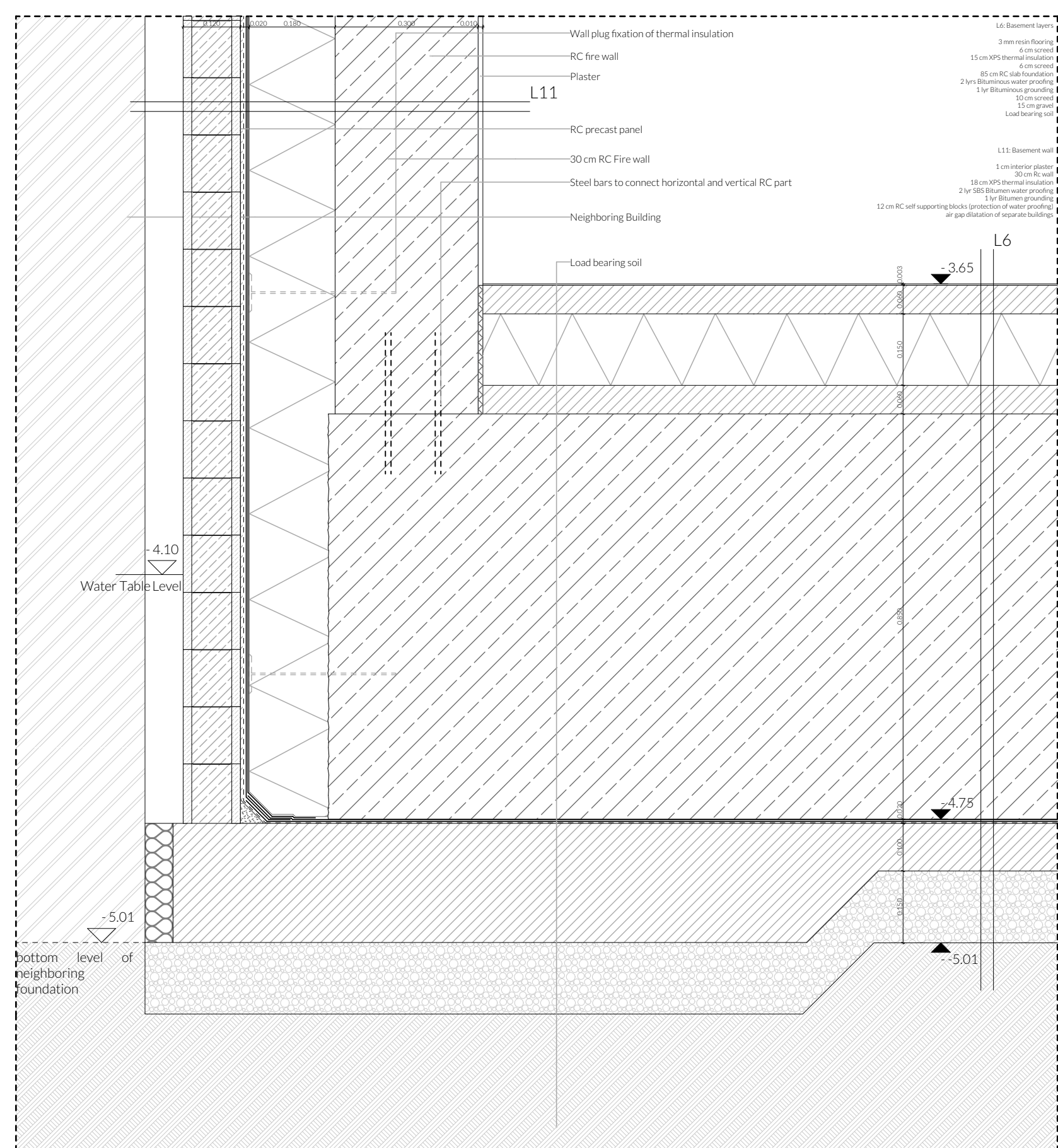
D6



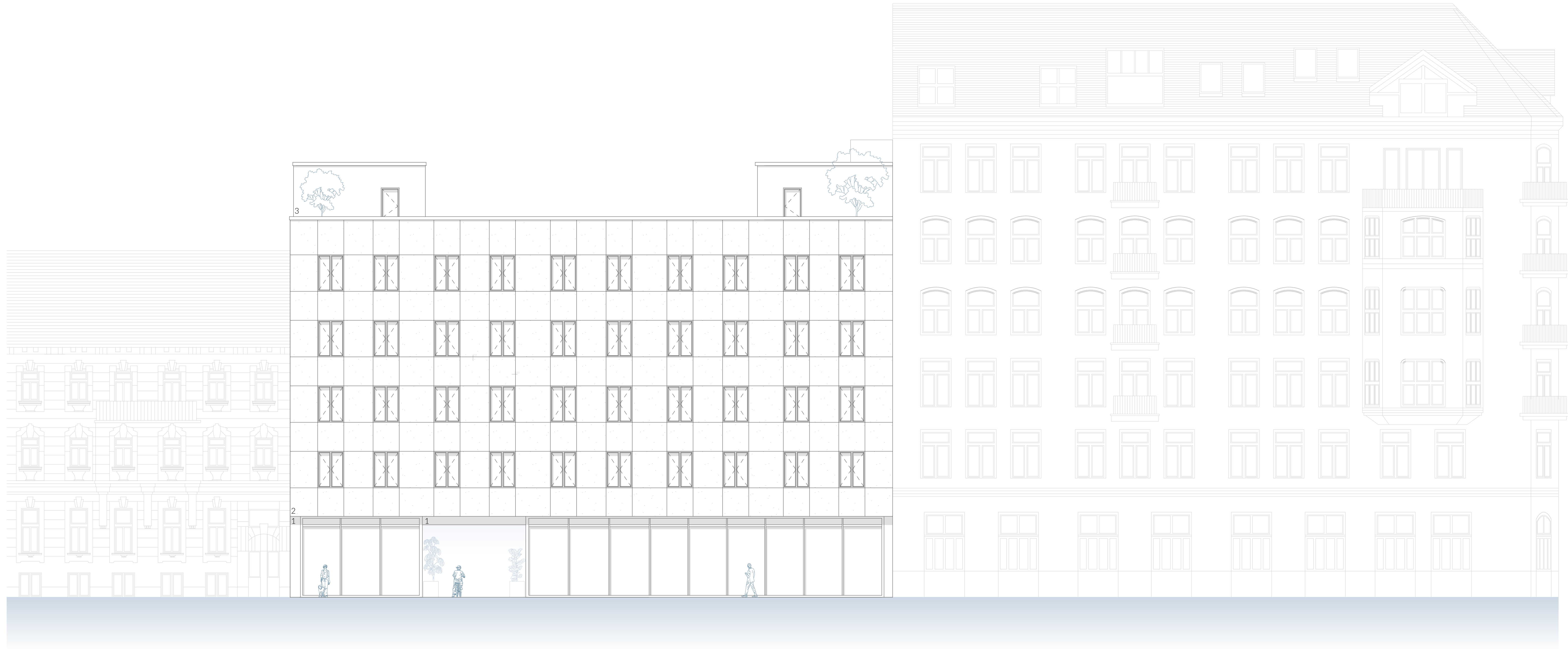
D2



D1



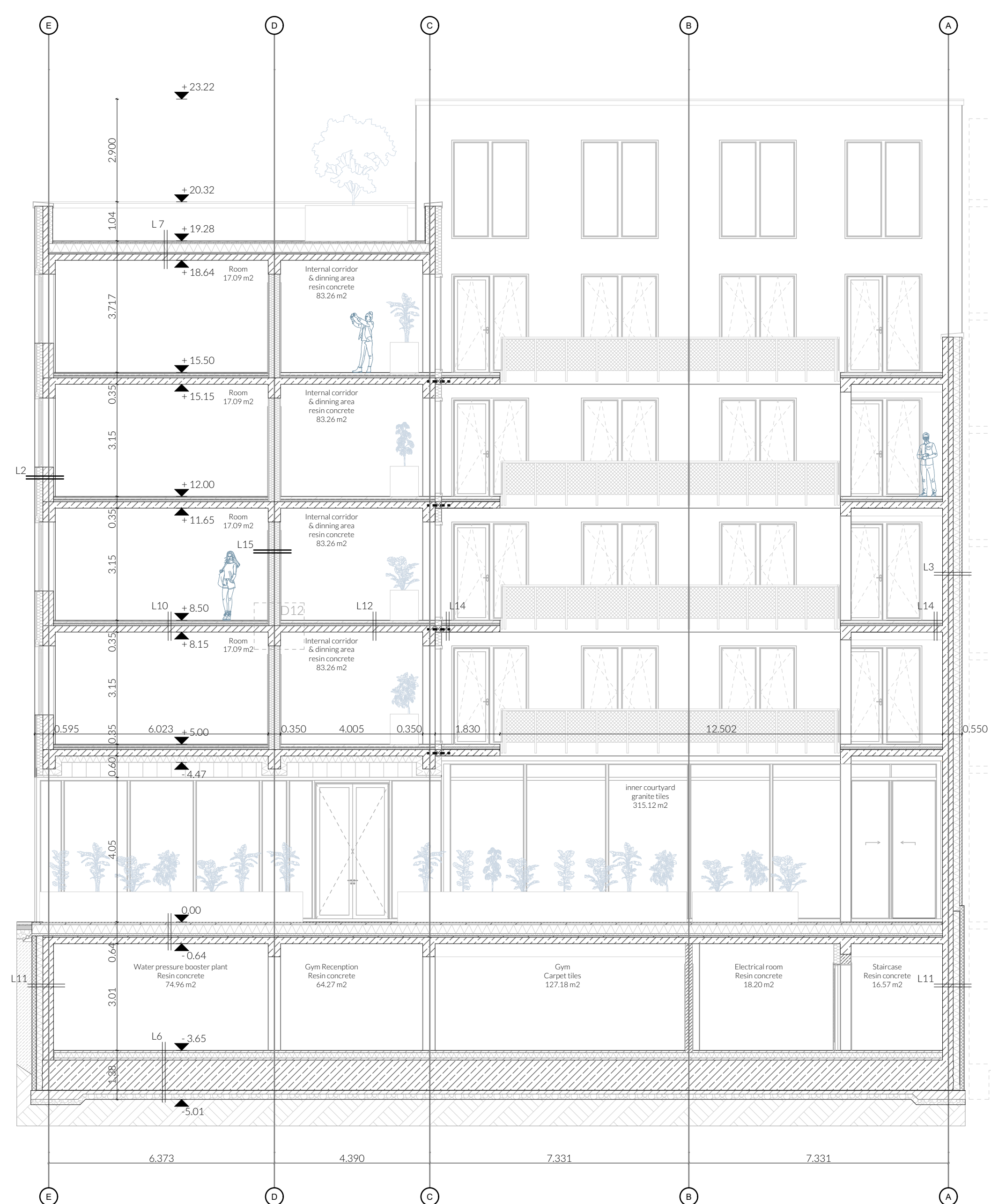
- L2: Facade wall
 - 1 cm interior plaster
 - 30 cm protherrm n+f infill block
 - 0.5 cm plaster
 - 18 cm mineral wool thermal insulation
 - 4 cm air gap
 - 1 cm fiber cement board cladding
- L3: Firewall
 - 1 cm interior plaster
 - 30 cm RC wall
 - 0.5 cm plaster
 - 18 cm mineral wool thermal insulation
 - 4 cm air gap
 - 1 cm fiber cement board cladding
- L6: Basement layers
 - 3 mm resin flooring
 - 6 cm screed
 - 15 cm XPS thermal insulation
 - 85 cm RC slab/foundation
 - 2 lyr bitumen water proofing
 - 1 lyr installation for waterproofing
 - 10 cm screed
 - 15 cm gravel
- L7: Terrace-roof
 - 4 cm granite stone paving
 - 4 cm Ø 8 - 15 mm stone chipping and drainage layer
 - 1 lyr synthetic filter
 - 25 cm XPS insulation
 - 2 lyr 4 mm SBS Bitumen membrane waterproofing
 - 1 lyr cold Bitumen patching and grounding
 - 4 - cm Concrete inclination layer
 - 20 cm in-situ made reinforced concrete slab
- L8: Terrace(In-door courtyard)
 - 3 cm concrete paving tiles
 - 5 cm screed
 - 1 lyr synthetic filter
 - 25 cm extruded polystyrene foam thermal insulation with staggered joints
 - 6 cm thick drainage sheet
 - 2 lyr SBS Bitumen water proofing
 - 1 lyr bitumen grounding (installation of water proofing)
 - 4 - cm Concrete inclination layer
 - 20 cm in-situ made reinforced concrete slab
- L10: Residential floor layers
 - 22 mm parquet with adhesive
 - 5 mm self-levelling smoothing compound
 - 50 mm concrete screed (reinforced)
 - 1 lyr PE foil
 - 25 mm mineral wool (floating layer)
 - 50 mm EPS foam (layer for installation)
 - 20 cm in-situ made reinforced concrete slab
- L11: Basement wall
 - 1 cm interior plaster
 - 30 cm RC wall
 - 0.5 cm plaster
 - 18 cm mineral wool thermal insulation
 - 4 cm air gap
 - 1 cm fiber cement board cladding
- L12: General floor layer (In-door corridor)
 - 1 cm resin concrete flooring
 - 67 mm concrete screed
 - 25 mm mineral wool (floating layer)
 - 1 lyr PE foil
 - 50 mm EPS foam (layer for installation)
 - 20 cm in-situ made reinforced concrete slab
- L14: Outdoor Corridor
 - 1 cm resin concrete flooring
 - 75 mm concrete screed (inclination layer)
 - 1 lyr PVC waterproofing
 - 50 mm EPS foam
 - 20 mm closed cell type insulation
 - 20 cm in-situ made reinforced concrete slab
- L15: Drywall Party wall (Separating rooms & corridor)
 - 2 lyr of rigips gypsum plasterboard
 - 12 cm mineral wool sound insulation
 - 1 lyr of rigips gypsum plasterboard
 - 35 mm air gap
 - 1 lyr of rigips gypsum plasterboard
 - 12 cm mineral wool sound insulation
 - 2 lyr of rigips gypsum plasterboard



1. Aluminium thin profile 2. Fiber cement board cladding 3. Plaster

North - West Elevation

1:100



Section B - B

1:100



Section C - C

1:100

