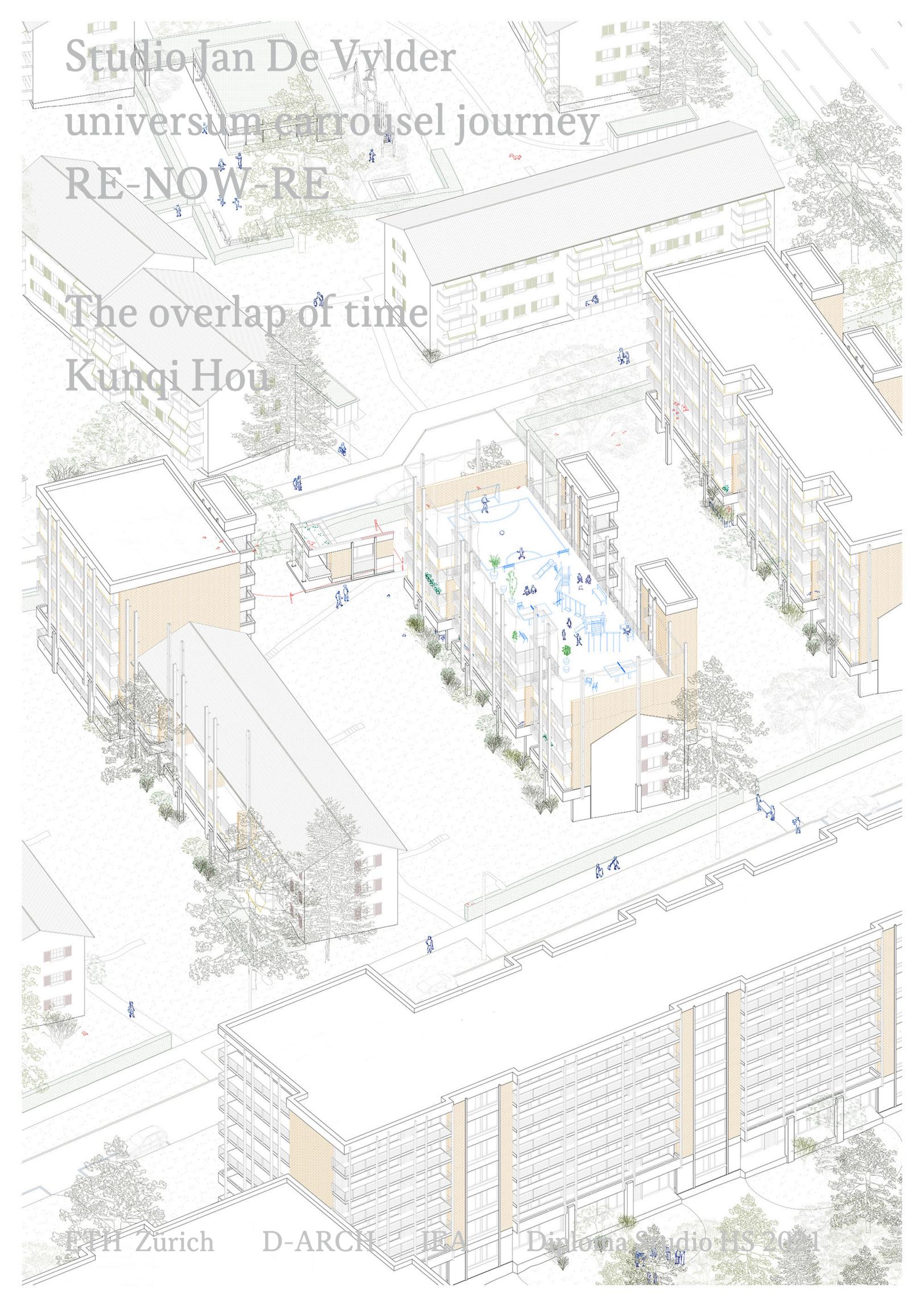


Studio Jan De Vylder
universum carousel journey

RE-NOW-RE

The overlap of time
Kunqi Hou



The overlap of time

Kunqi Hou

The settlement from Baugenossenschaft Linth-Escher in Seebach has a history of seventy-five years and now, to follow its «Nachhaltige Immobilienstrategie», the Baugenossenschaft has decided to replace the whole area. Based on observing the mockup, strolling in its surroundings as well as recording scenarios of life, this project proposes a new possibility for densification and transformation of old settlements.

When it comes to densification, each stakeholder has its own interests. Baugenossenschaft expects better economic benefits, city Zurich hopes to accommodate more residents, citizens are looking forward to more affordable apartments, and so on. However, to figure out what is the most pressing demands in specific situations, starting from local life may be the most direct and effective way.

The conclusion of the research phase indicates that the original occupants have various imaginations about the balcony of mockup. The data from recording objects on existing balconies reveal that the balcony is the most adaptable and flexible part of the apartment here. Under this circumstance, the modification of the balcony may be an efficient intervention.

The similarity between mockup and children's playground brings new imagination to some inhabitants in this community. mockup is supposed to represent the brutal construction site. However, on the contrary, a harmonious scene is playing out here. This coincidence indicated a possibility that old apartments can be given another perspective through facade imitation of new projects. Getting inspired by this phenomenon, this work starts with

reusing and reorganizing the facade of mockup.

The steel column of the mockup in front of its balcony is regarded as an important element, which is transformed into a new column type. This column consists of two pieces of C-profile steel. It can not only reinforce the old structure, but also support the additional floors. Those columns surround the old facade and they build up together a combined load-bearing system, which resembles the relationship between frames and core, which can increase the possibility of adding more apartments on top of existing buildings.

At the same time, with the help of this structure, densification does not have to be accomplished overnight. When the local demand for housing increases, by removing the upper terrace floor components and adding prefabricated elements to the above-mentioned steel columns, the provisional roof can be quickly transformed into apartments. Meanwhile, the inhabitants in bottom apartments do not need to find new accommodations due to the construction work, as the structure is exposed, the inside of existing parts would not be touched and most of the construction works can be carried out in parallel with daily life.

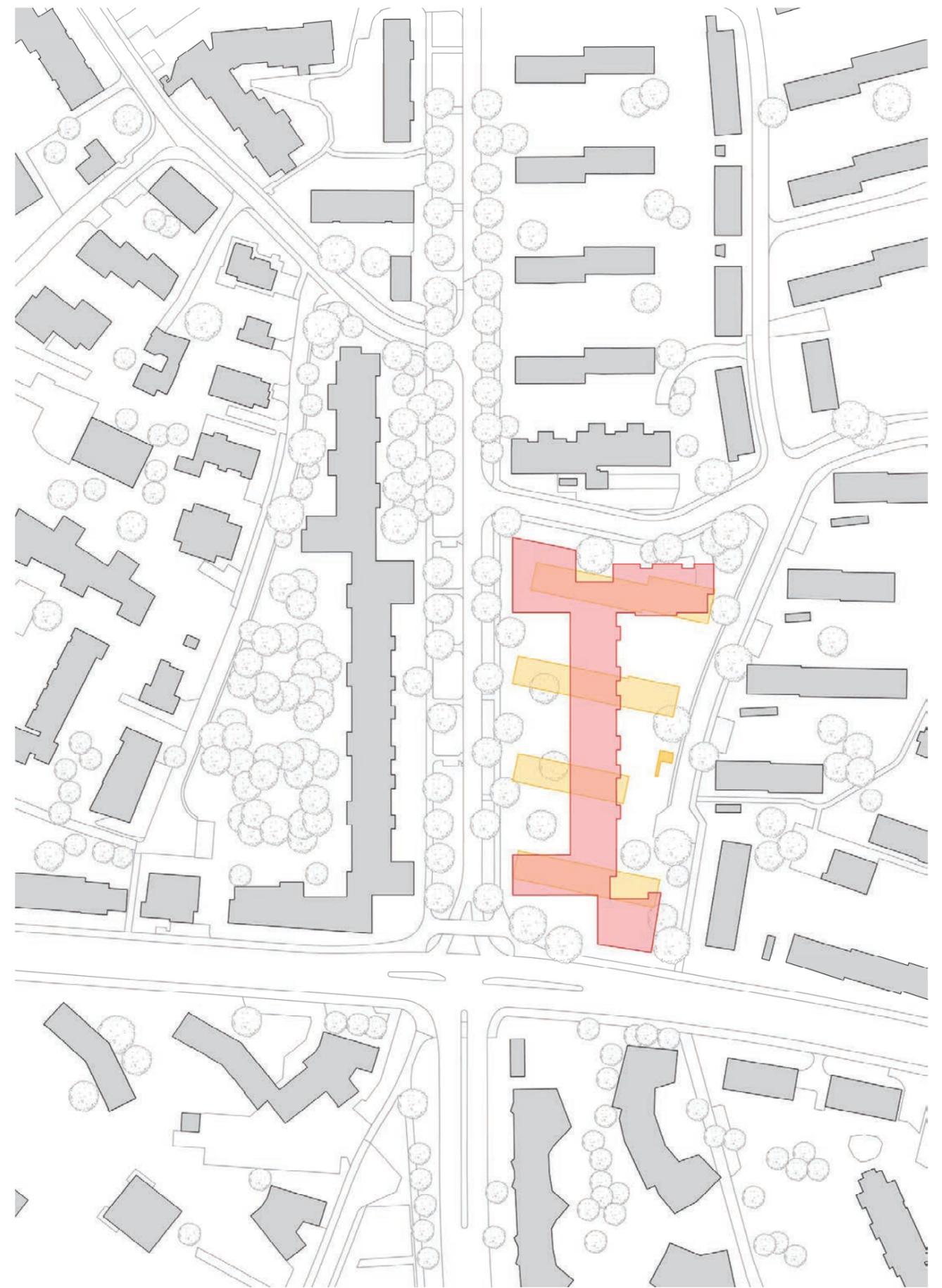
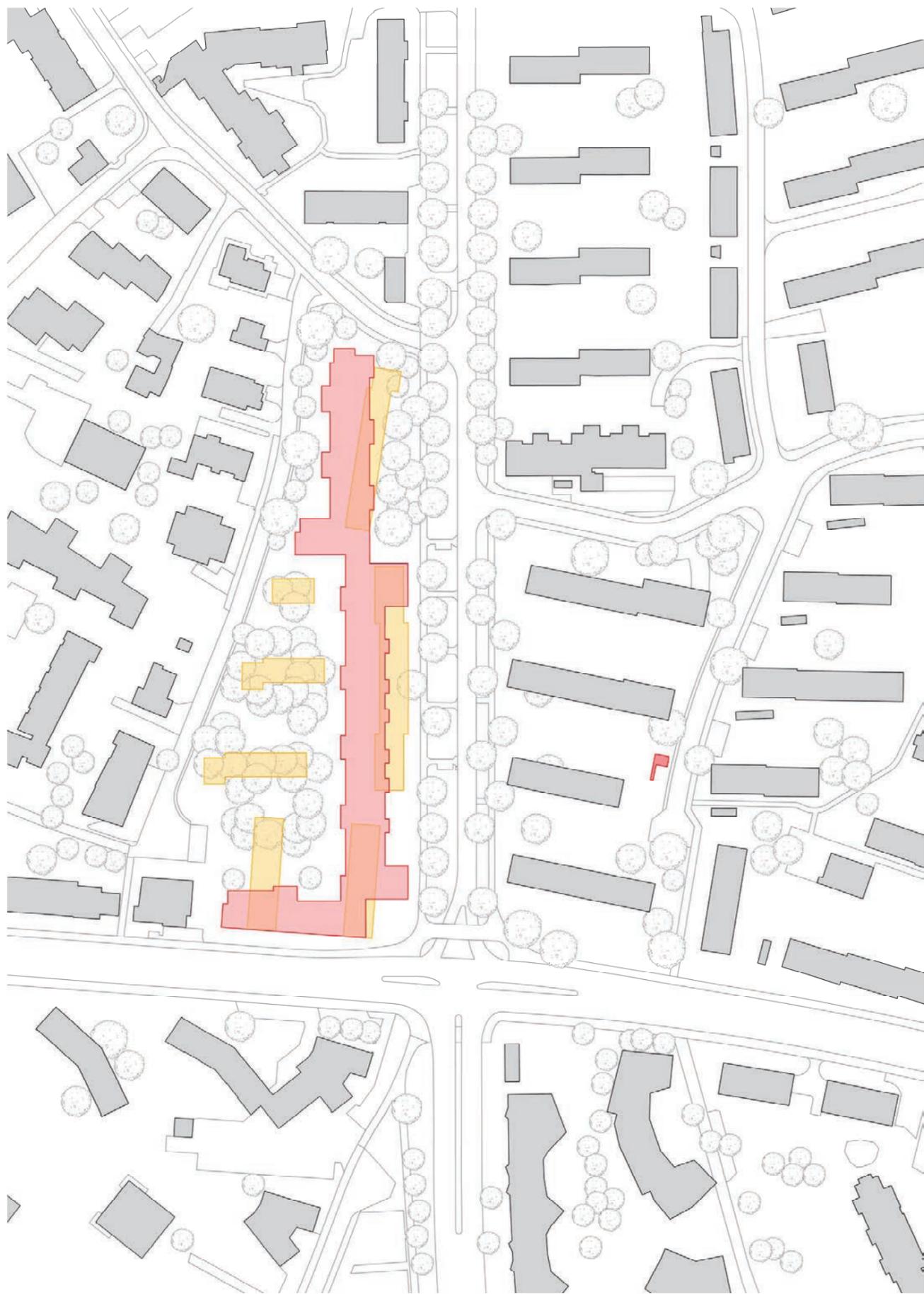
With those proposals, densification becomes a prolonged process, the construction works can be paused as needed and continue at any time, each stage of the building process can provide various services to the local inhabitants. The harmonious scenes that happened around mockup now, the coexistence of objects from different times can also be extended.

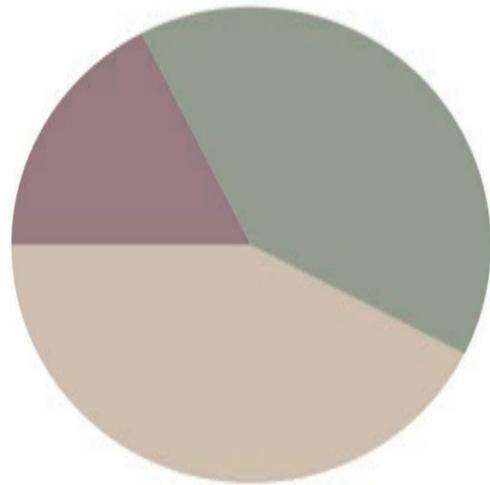
Densification

In recent years, the number of replacement housing projects in Zurich has increased significantly. Densification and gentrification have become essential themes in the urban fringe.

After deciding to renew the settlement, Baugenossenschaft formulated many detailed tasks for the competition of the new project, such as the new settlements requiring apartments with 1.5 to 5.5 rooms, each of which should have at least two types. In addition, the increase of living area is another significant purpose. Most importantly, the new project needs to double the number of existing dwellings.





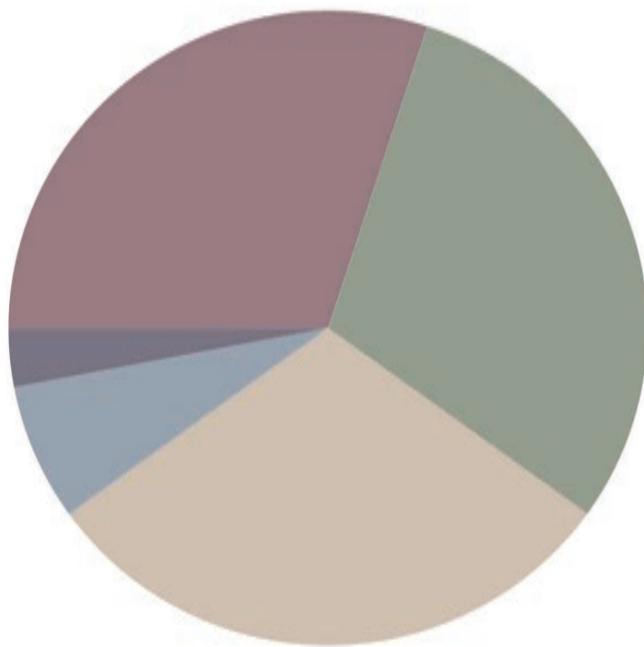


- 2.5-room
- 3.5-room
- 4.5-room

2.5-room	21
3.5-room	48
4.5-room	51
Detached house	19
Total	139

Number and proportion of apartments in current settlement

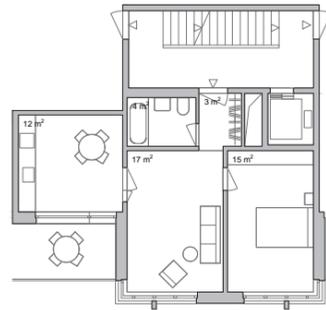
In order to meet these harsh conditions, the architects have to make some compromises for the floor plan. It is conspicuous that there are corridors of more than ten square meters in some apartment types, which do not have direct lighting. Even if the local residents need additional space, those luxurious spaces might still be a waste.



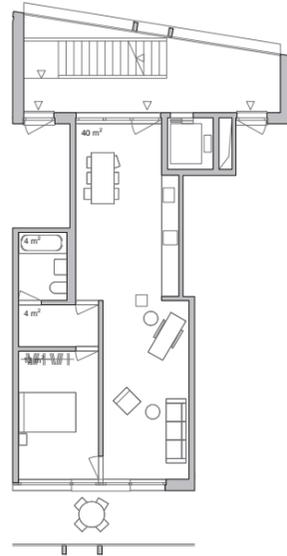
- 2.5-room
- 3.5-room
- 4.5-room
- 5.5-room
- 6.5-room

2.5-room	87
3.5-room	87
4.5-room	87
5.5-room	20
6.5-room	9
Total	290

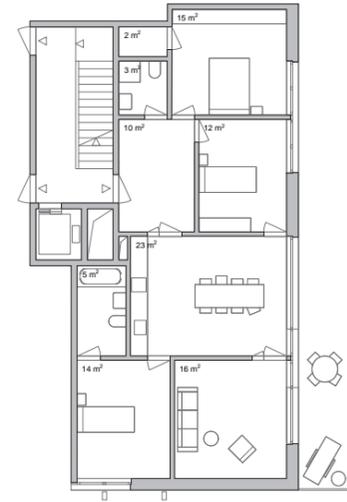
Number and proportion of apartments in the future



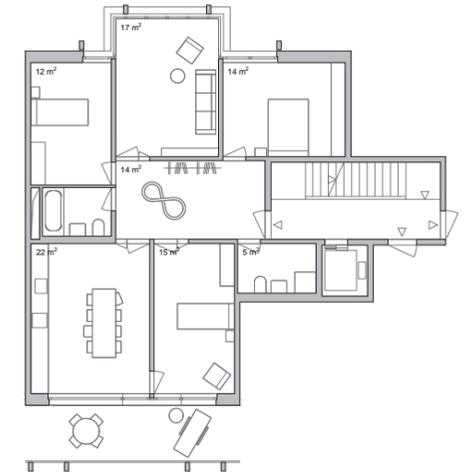
2.5-Zimmer Type A 1:150
53 m²



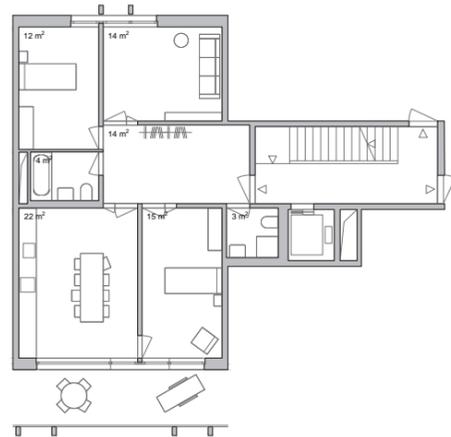
2.5-Zimmer Type A 1:150
61 m²



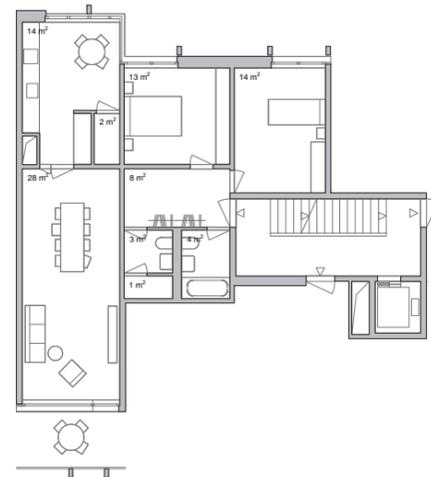
4.5-Zimmer Type A 1:150
95 m²



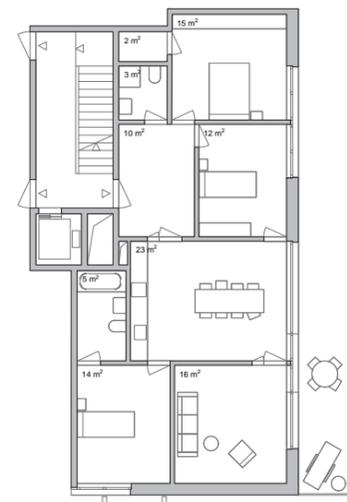
4.5-Zimmer Type B 1:150
103 m²



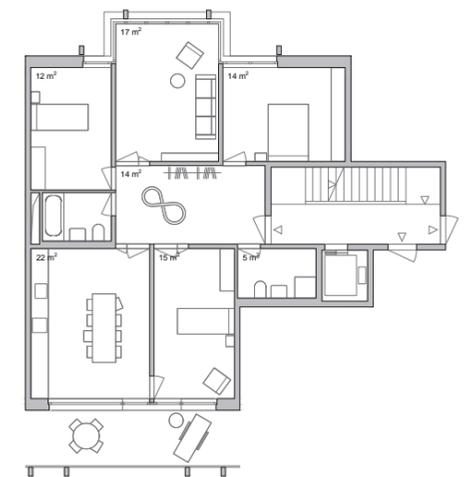
3.5-Zimmer Type A 1:150
72 m²



3.5-Zimmer Type B 1:150
86 m²



4.5-Zimmer Type A 1:150
95 m²



4.5-Zimmer Type B 1:150
103 m²



Although the new replacement housing project has reached the specified requirements, the number of floors has also changed from three floors to eight floors. To implement urban strategy, some units do not use the area efficiently. At the same time, all the plants in the original settlement will be erased. Considering these costs, in order to double the number of existing apartments, adding existing buildings from three to six floors may also be another solution.



The replacement plan 2021 is being implemented, so I chose seventy-two apartments from the rest part of the old settlement as my site.

Life on the balcony

The balcony is the medium that connects the private space in apartments with the public space in the city. For housing projects, balconies occupy most of the facade, they determine the urban impression of this area, that's why the city Zurich requires this mockup to ensure that new buildings are well designed, on the other hand, balconies can also imply the quality of life, which is the reason why residents are most interested with the balcony of mockup. Therefore, in order to collect more data about life in this residential area, I decide to observe and record scenarios on existing balconies.

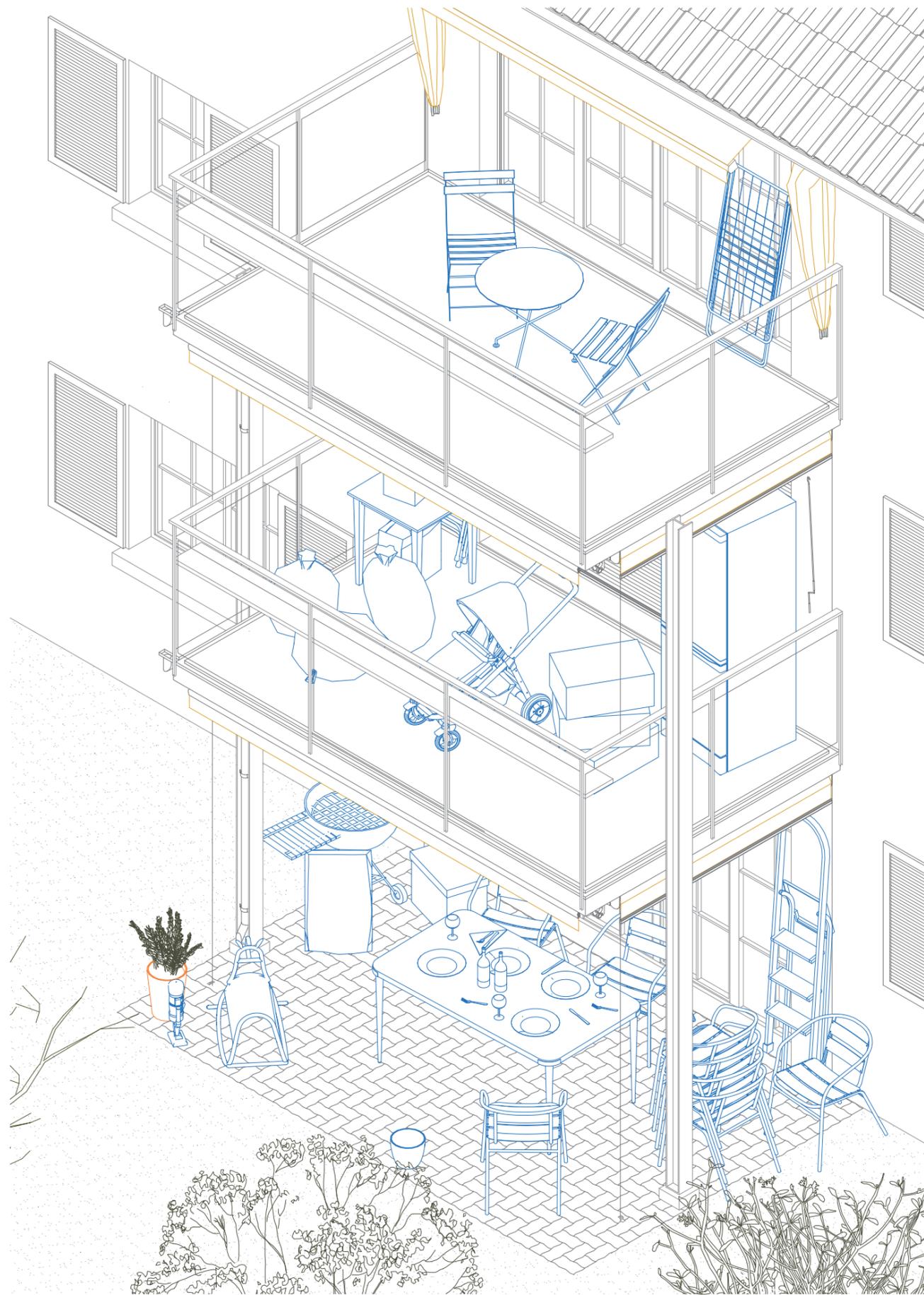




When the weather is good, the dweller on the second floor will move his birdcage with the parrot to the balcony.

The balconies of the entire community are equipped with flower stands under the handrails, and residents can easily arrange a small private garden for themselves.

There are interesting and creative people living on the ground floor. One of them fences his yard and creates a farm space for two rabbits.



When the weather is cold, the residents rarely stay out on their balconies. As a result, Most of the objects on some balconies have been moved back to the apartment, and only a few balcony tables and chairs are left in the cold wind.

There is also a family whose balcony is filled with indoor objects, such as a refrigerator. As children grow up, the interior space becomes tighter and tighter, so they have to convert the balcony into a storage room to alleviate the shortage of indoor space.

Many dwellers who live on the ground floor like to arrange activities in their yard, such as barbecues or having dinner with friends. The shrubs around the yard work as the threshold of their territory.



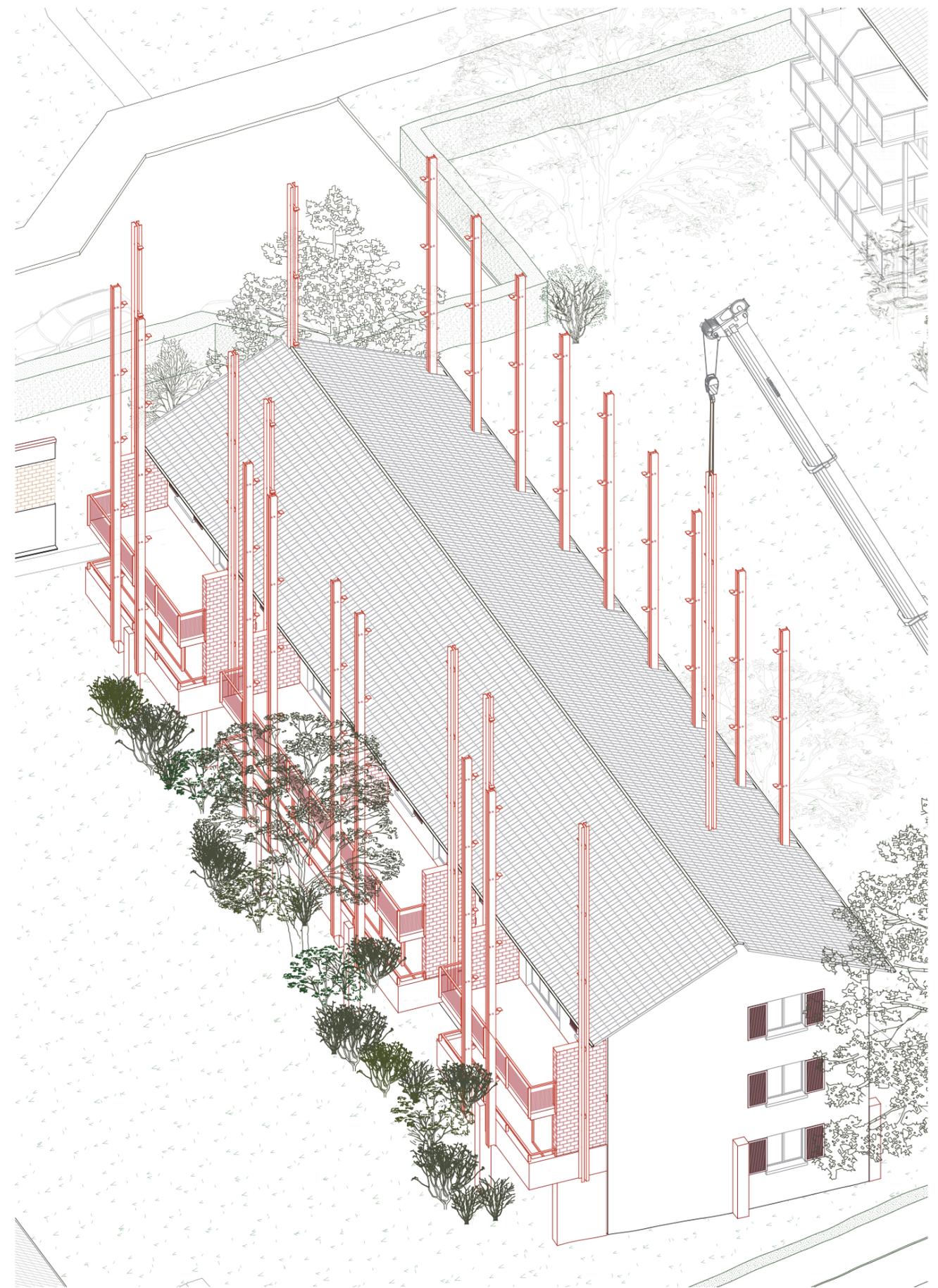
To ensure the privacy, all of the balconies are equipped with awnings in three sides.

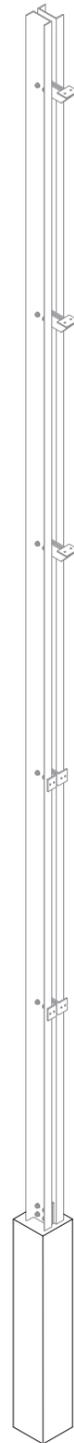
Despite lacking direct accessibility, some residents have placed huge barbecue machines on their balconies. Cooking is a hobby of most dwellers.

Some tenants choose not to live here due to the coming demolition, and their balconies or yards become deserted.

Refurbish, starting from life

The scenes which happen on the balcony can be regarded as the reflection of the living condition in this community, they reveal the habits of people. For some inhabitants, privacy has the highest priority. They are defensive. While others are more outgoing, good at organizing, can make full use of the space which is not defined. On the other hand, these scenarios also expose the problems of the old residential area, the biggest issue is lack of living space. Additionally, there is less adaptable public space in the community. Under these circumstances, balconies become the most active place.

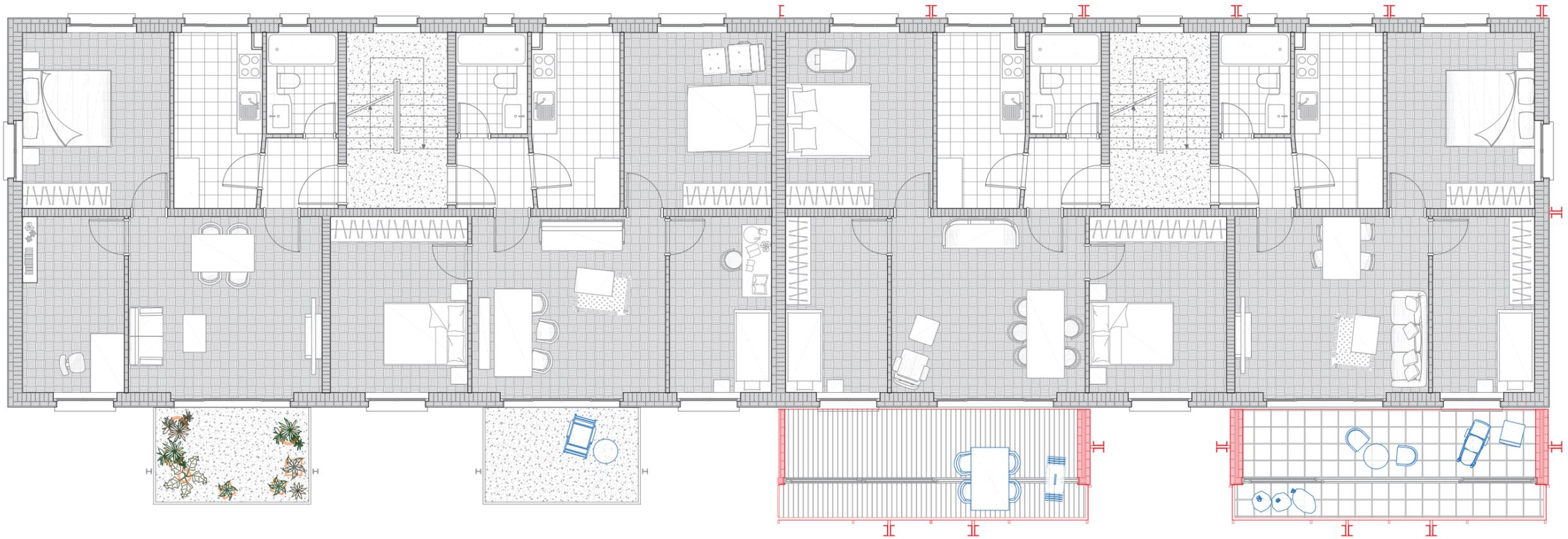




In comparison with the solid building, the balcony has strong flexibility on the structural level because of its lightness. Meanwhile, steel pillars are widely used on the facade of the new project "Tommy and Annika," in front of balconies. The mockup further verifies the contribution of this material to the creation of the atmosphere. In the previous interview, younger inhabitants prefer the new facade, they believe it is modern and open. In order to retain this image, I propose to take the characteristic of the steel columns.

The steel pillar of the mockup is transformed into a column with two pieces of C-profile steel. It can not only reinforce the old structure but also support the additional floors. Those columns surround the old facade and they build up a combined load-bearing system, which resembles the relationship between frames and core, which can increase the possibility of adding more apartments on top of existing buildings.

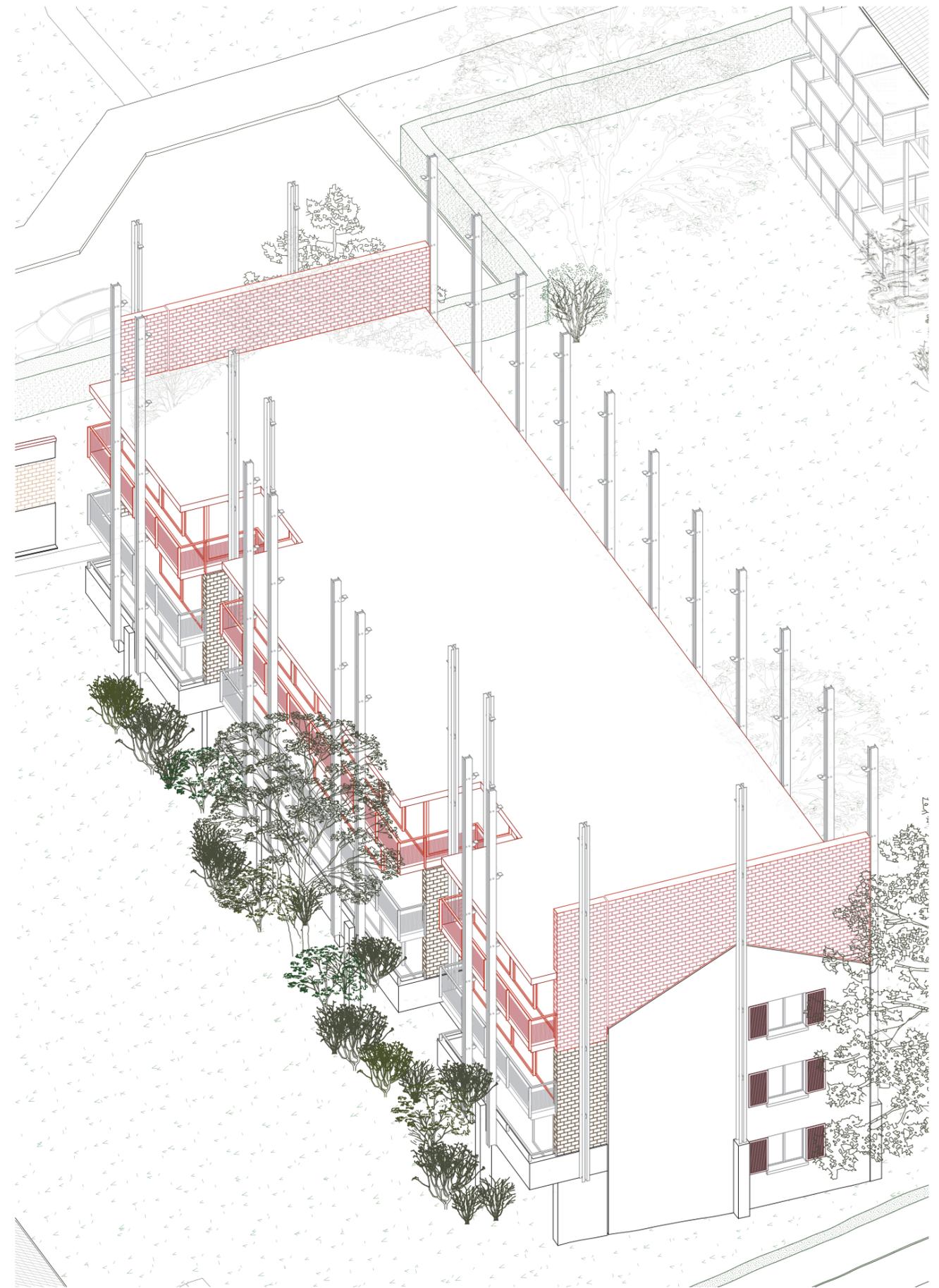






It's fake

In most cases, mockups can help architects test materials and details give clients intuitive information of the new project as well as meet the legal requirements from the government. However, for some of the inhabitants here, mockup means deception because it looks entirely different from the render images, based on which they voted through the project. In fact, the real fake is not the project itself, but the residents' imagination of life in the future apartment. Perhaps for them, the mockup represents a completely new life. In fact, what is expected might be just something that looks new.





During the research phase, I found out an interesting phenomenon. The mockup has similarities with a children's playground in the neighbor settlement in its size and location. Some children mistakenly regard the mockup as a new playground. This phenomenon is impressive. Based on this discovery, I propose to use the facade of mockup on the existing building to achieve the same imitate effect.

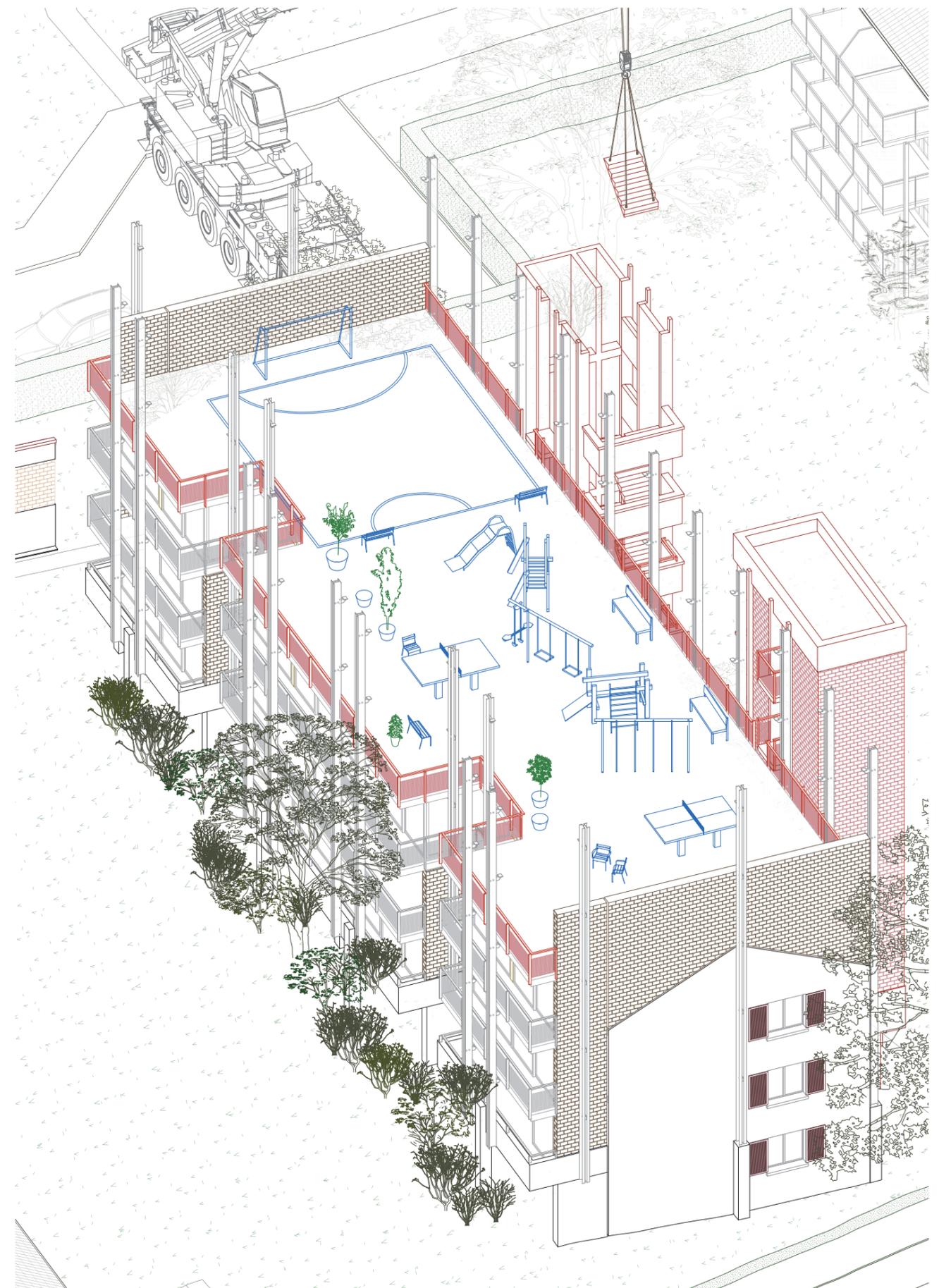


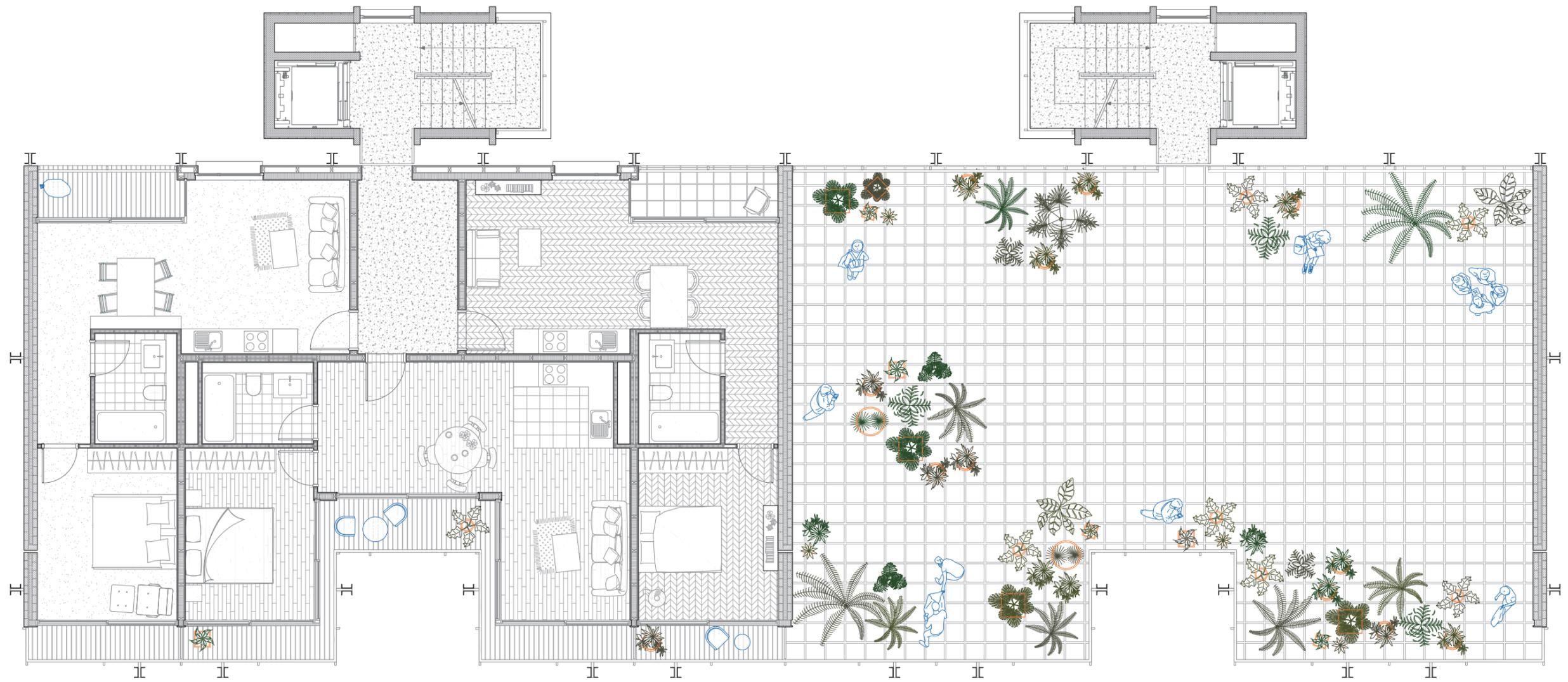


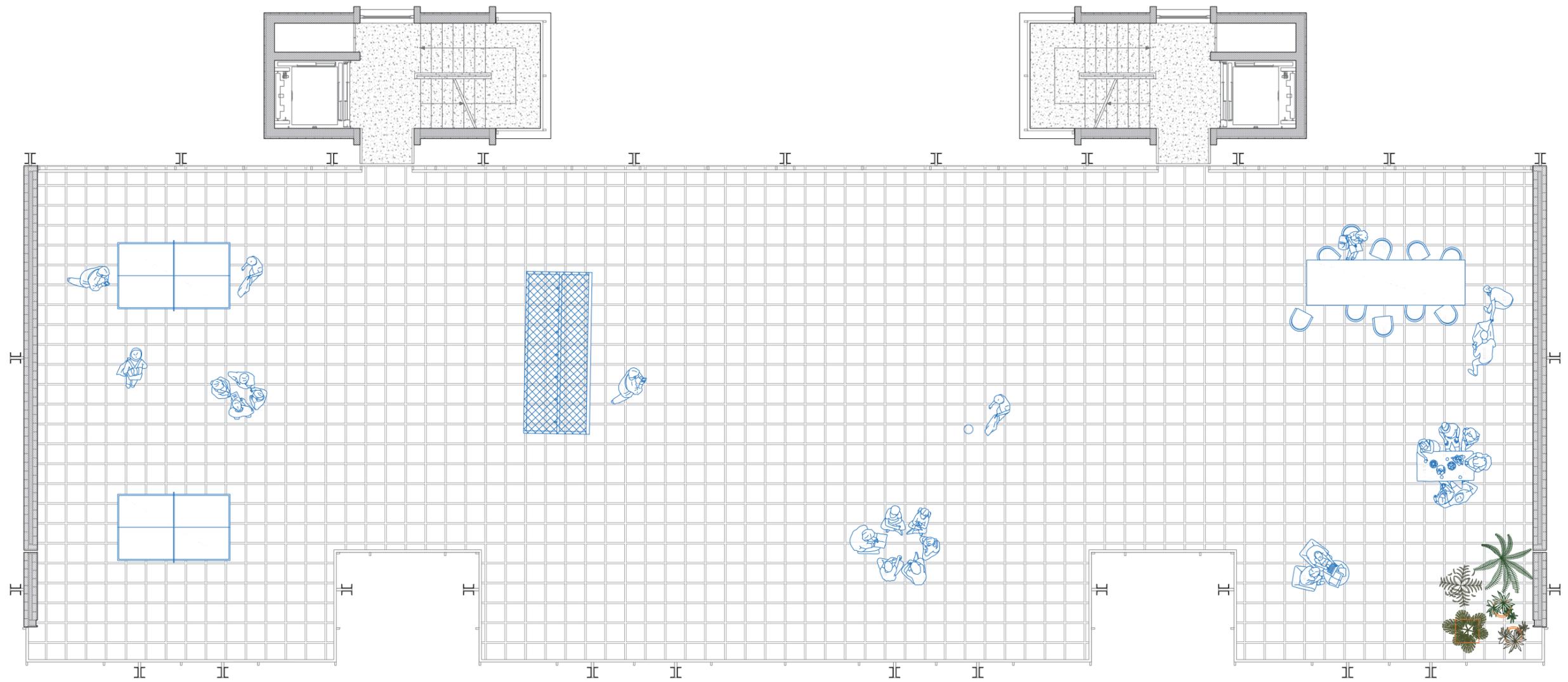
Let's take a break

According to the Zurich population forecast, in the next fifty years, the population will increase by twenty percent and then fall back to the current level in hundred years. However, the planned replacement project will be completed in just five years. Once construction starts, all local plants will be erased. Some residents may leave this settlement forever. The harmonious scenes and coexistence of objects from different times will no longer exist.

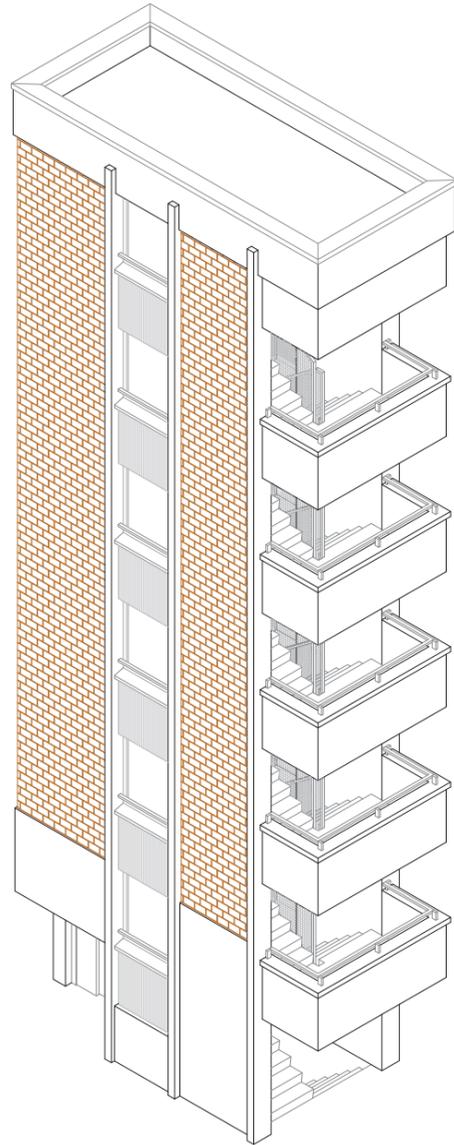
In fact, we have far more than five years to achieve densification. Therefore, I propose a new method. The new structure system provides a foundation, based on which, the prefabricated wooden components can be installed quickly and easily. In addition, the construction is divided into several phases, People can decide the number of additional apartments according to current demand. The vacant position on top can be converted into temporary leisure space to solve the shortage of public space in the old residential area.





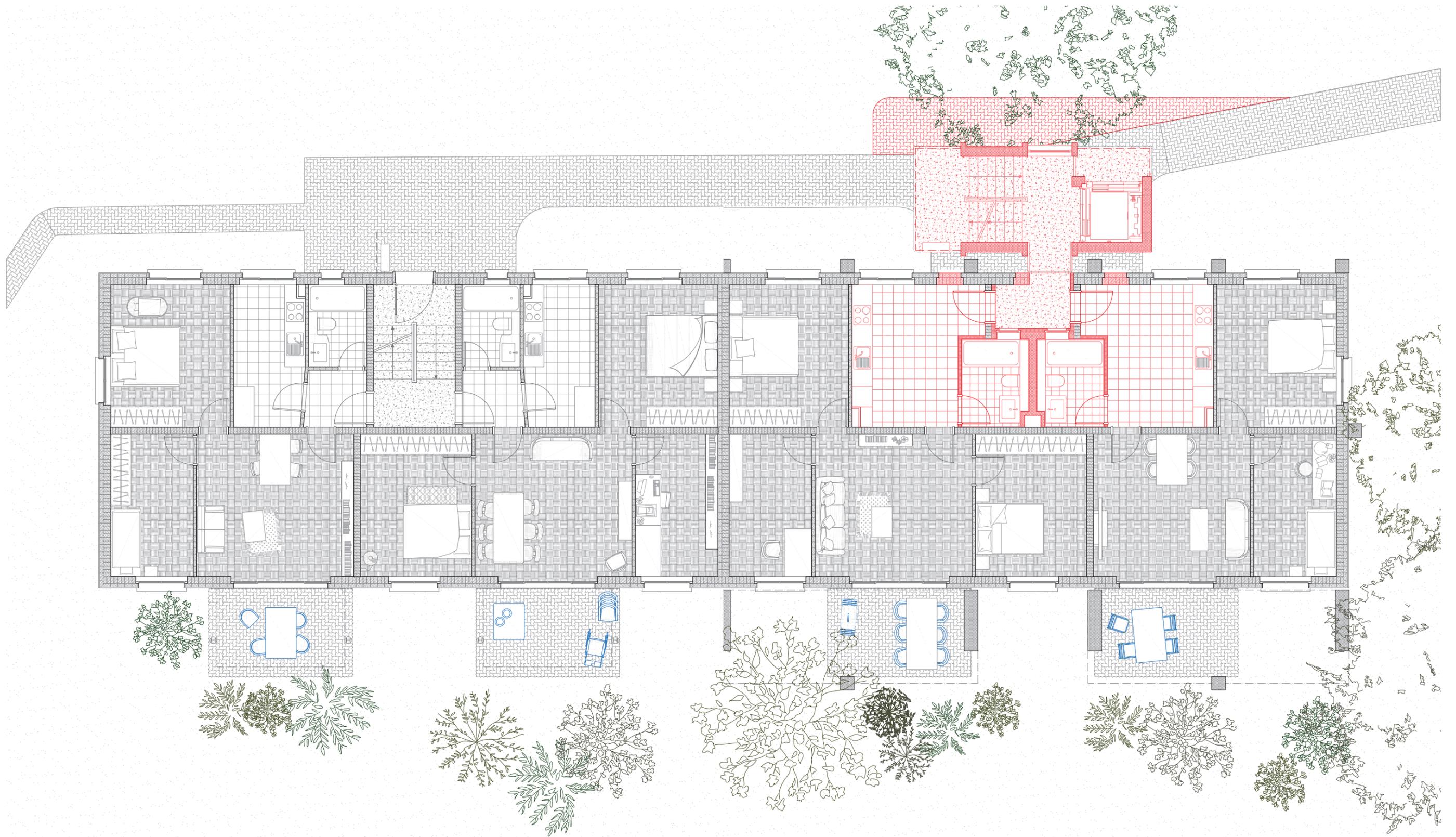






The new core is an independent tower. During its construction, residents can still use original staircases. When it is completed, the original staircases can be partially transformed into living space. They will win a spacious kitchen and bathroom. With the help of this tower, the material for subsequent construction can be easily transported upward.



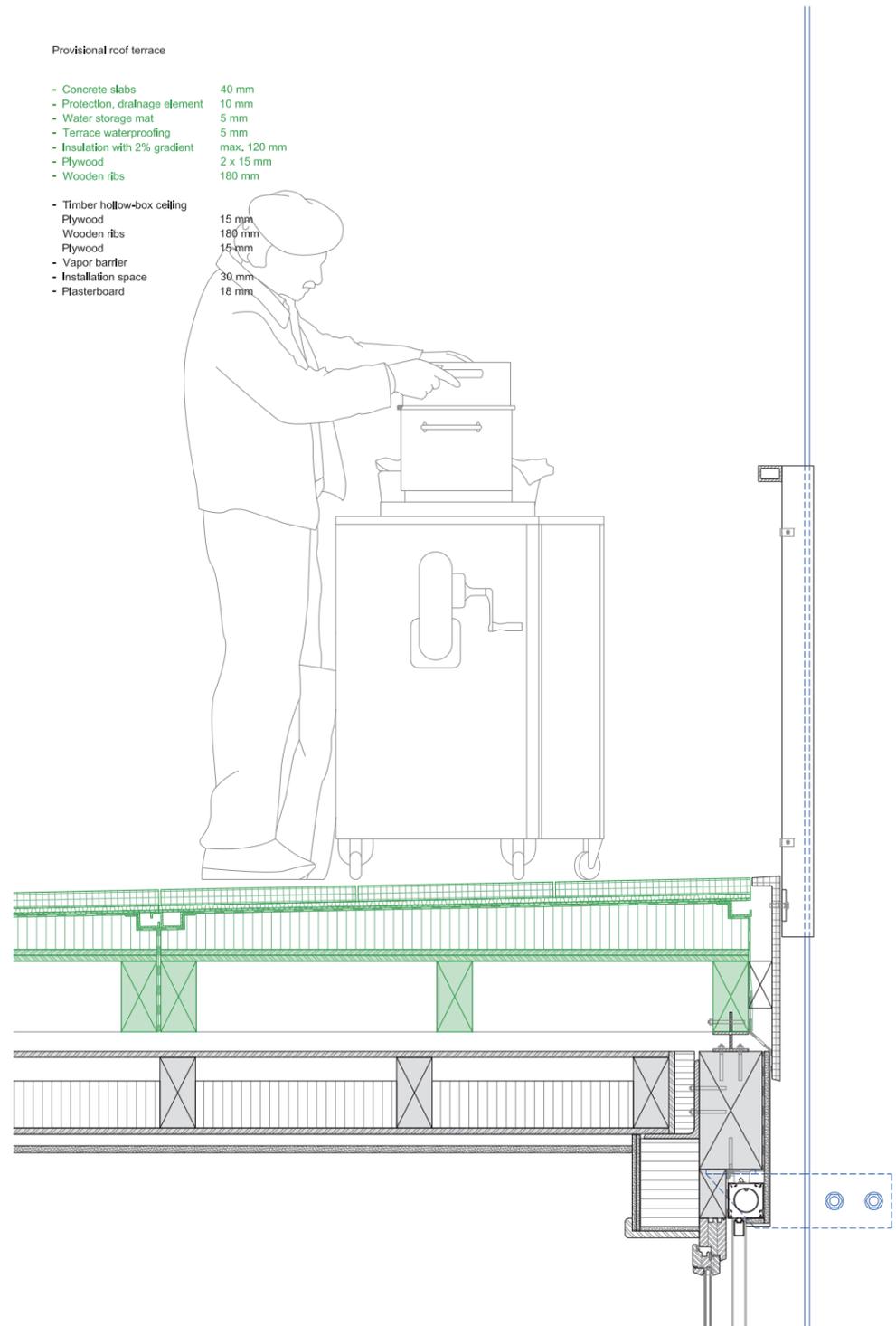




Provisional roof terrace

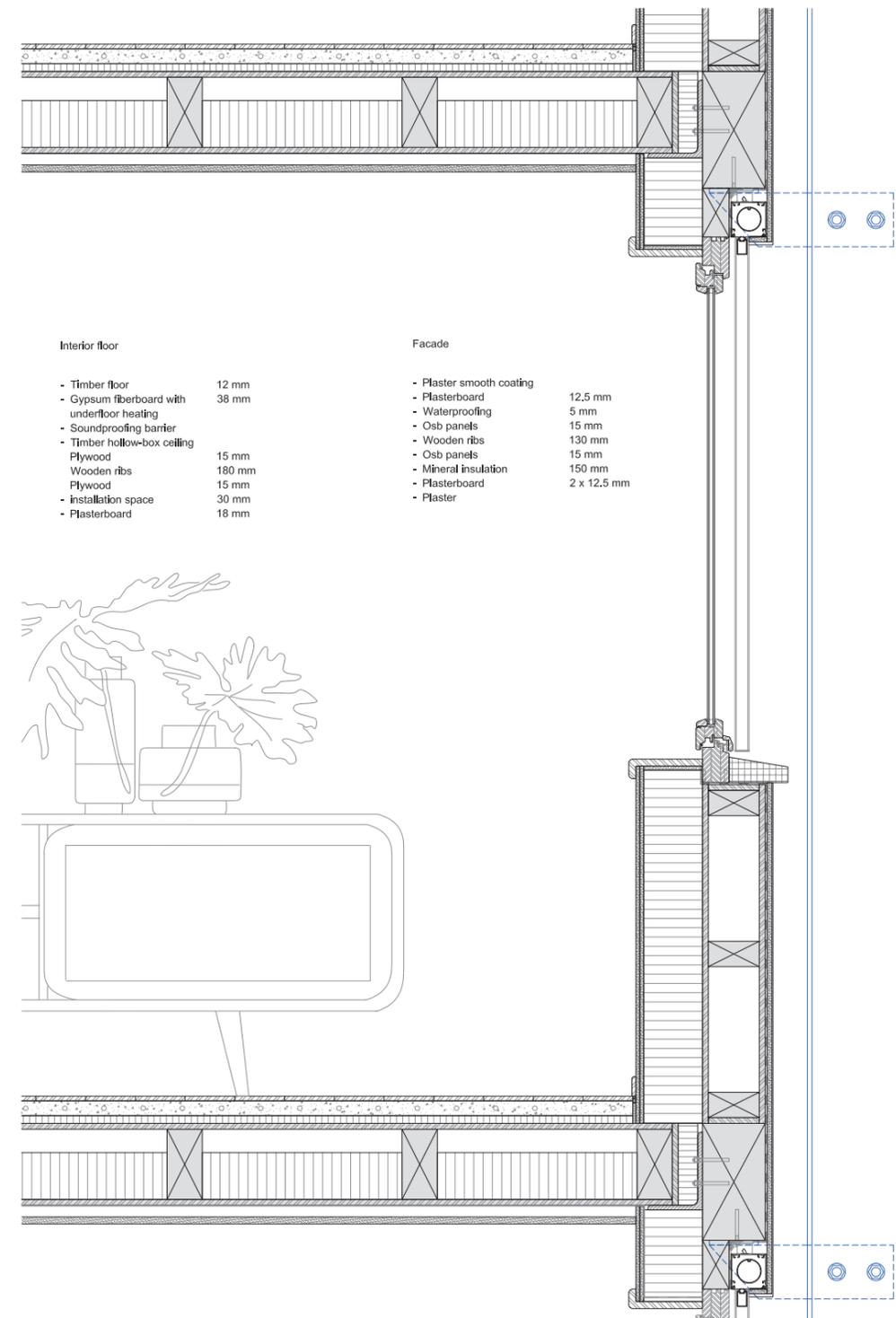
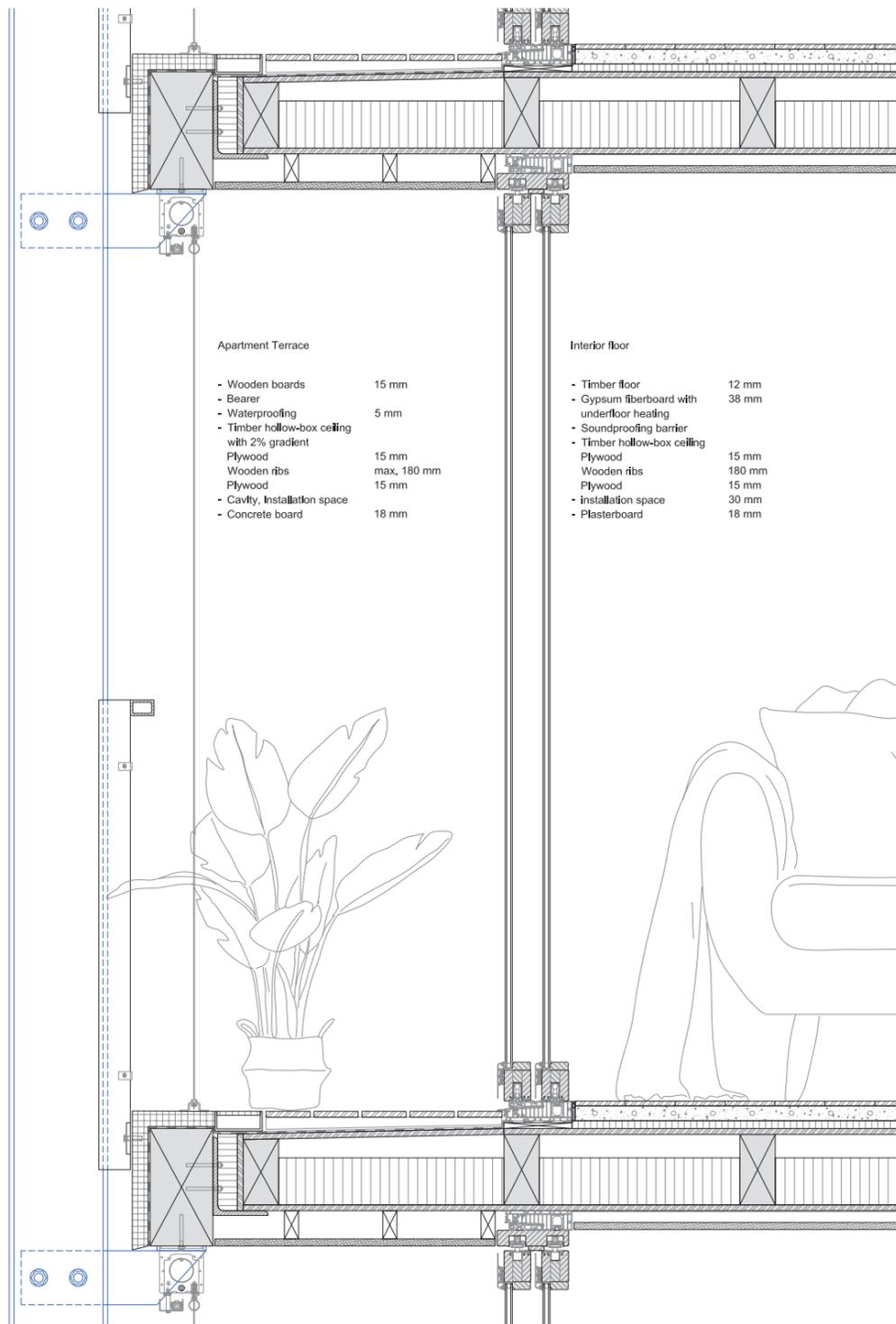
- Concrete slabs 40 mm
- Protection, drainage element 10 mm
- Water storage mat 5 mm
- Terrace waterproofing 5 mm
- Insulation with 2% gradient max. 120 mm
- Plywood 2 x 15 mm
- Wooden ribs 180 mm

- Timber hollow-box ceiling 15 mm
- Plywood 180 mm
- Wooden ribs 15 mm
- Plywood 30 mm
- Vapor barrier 18 mm
- Installation space
- Plasterboard



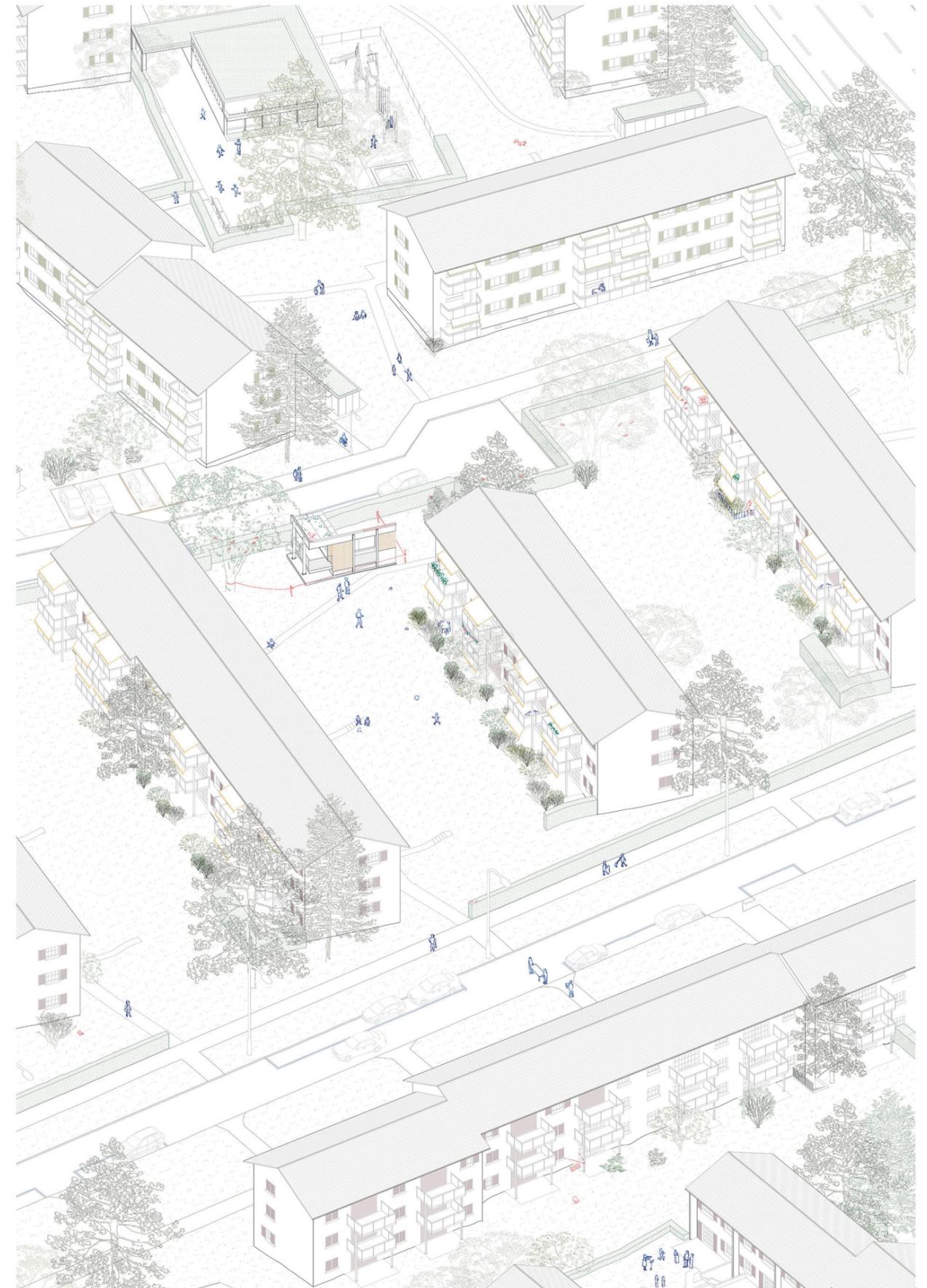
In order to realize this construction logic, the roof can not be permanent, it should have the possibility to transform to the floor of upper apartments so that the building can continuously grow upward. Therefore, the components of the roof terrace are removable. Double-layer roof construction is applied to the temporary terrace. The upper part is a prefabricated terrace floor panel, which is waterproofing. The bottom part is a normal hollow wooden floor slab, which can be converted into an indoor floor.

The insulation layer is placed inside the building shell, which can avoid breaking of insulation layer due to the connection between external steel columns and floor beams.



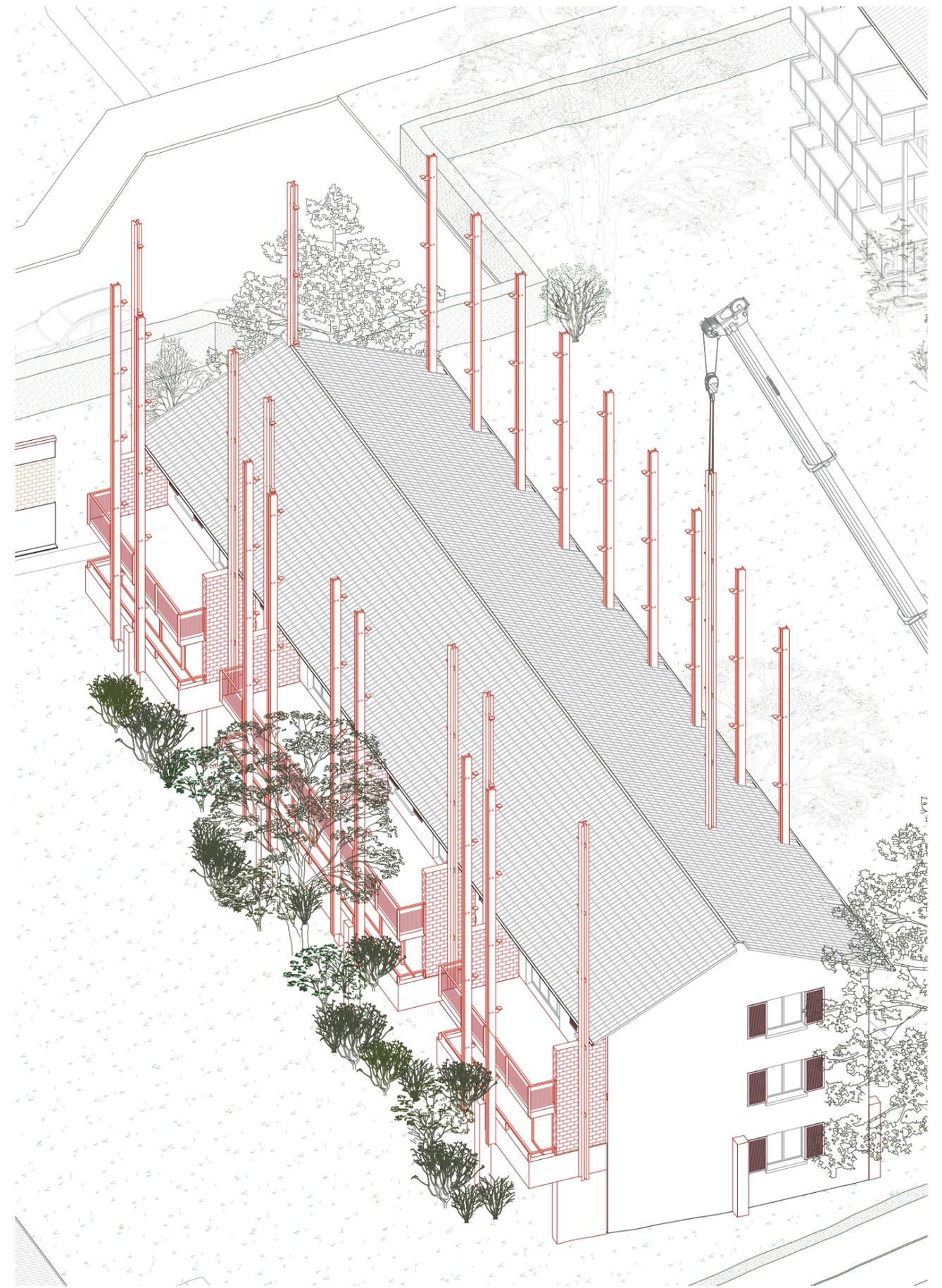
Building process

This project can bring up to ninety-six inexpensive 2.5-room apartments. In addition, a pause of construction at any stage is possible, the current unfinished building can still provide accommodation. In most time of the construction period, the inhabitants of the existing apartments do not need to move out, because the new structure and circulation tower are placed outside the footprint of the existing building.





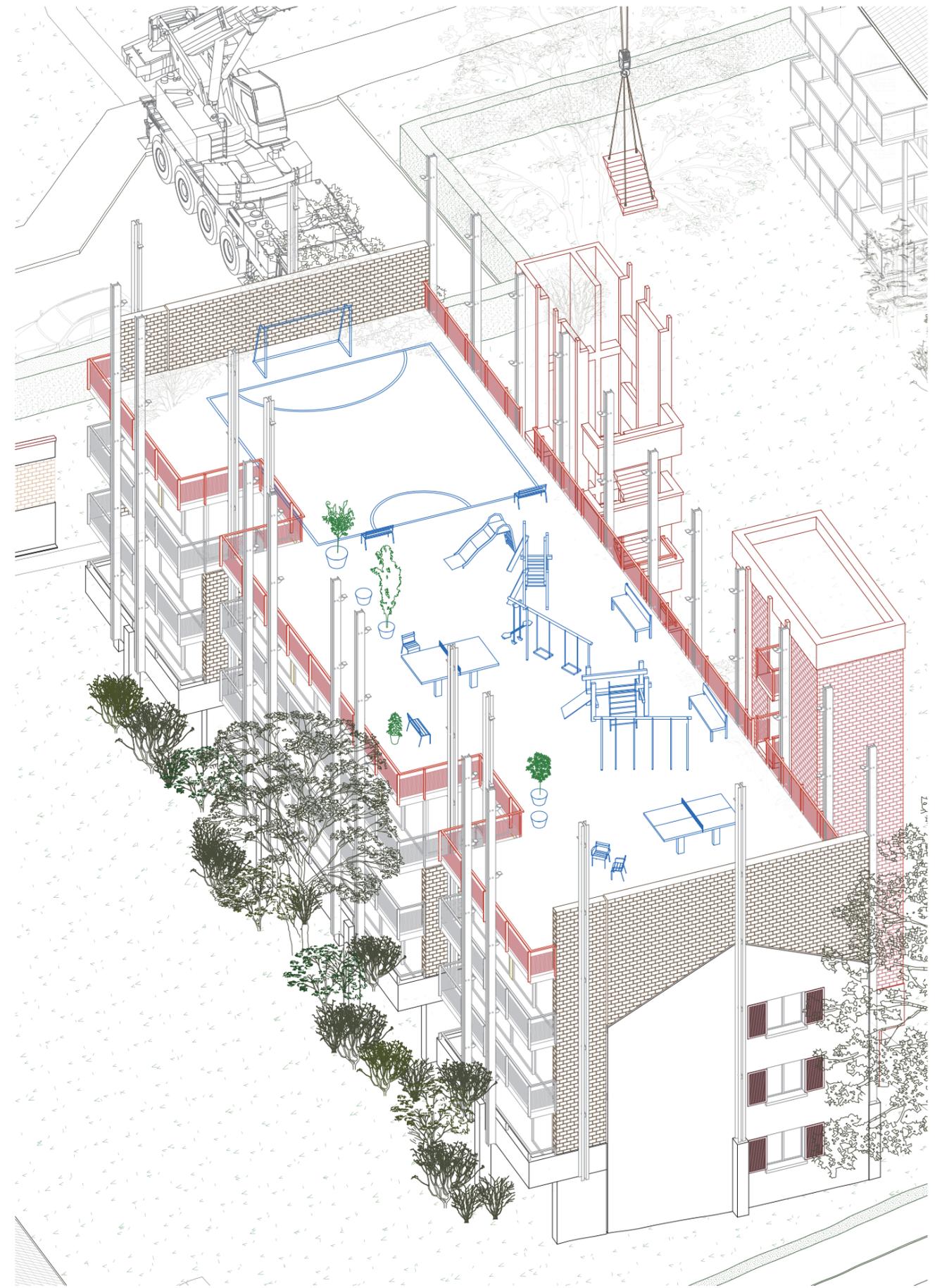
Phase 1: Removing original balconies



Phase 2: Placing new balconies



Phase 3: Adding the 3rd floor



Phase 4: Construction of new cores and roof terrace

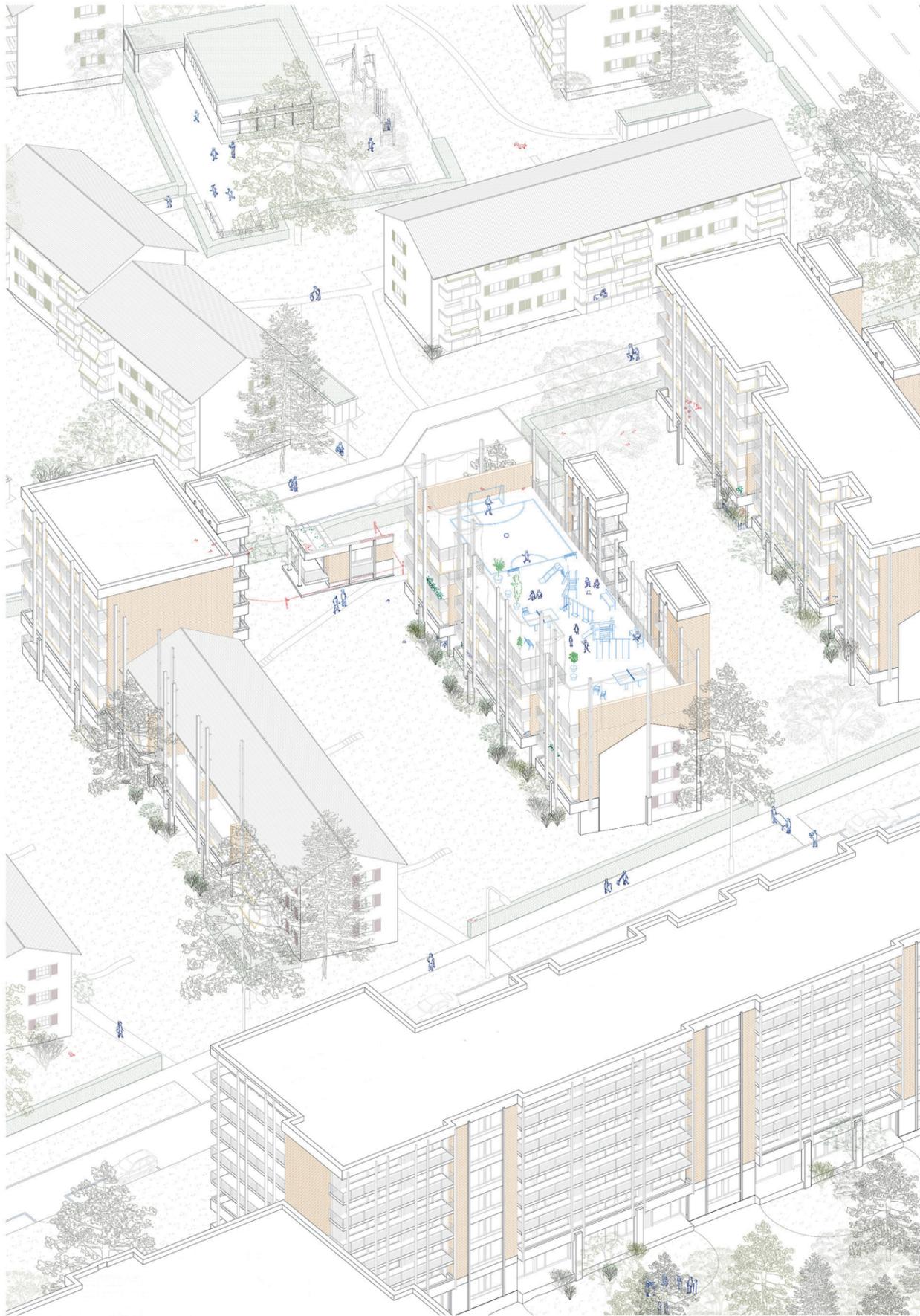


Phase 5: Increasing floors as needed



Phase 6: Achieving maximum density

Acknowledgement



Many thanks to all the inhabitants from Siedlung Birchstrasse who very kindly answered my interview questions and gave me many inspirations. Without your help, this work wouldn't be possible.