

(RE)SEARCH FOR CROSSING POINTS
between

COLLECTIVE
PRIVATE
COMMISSIONING

DEMANDS
OF THE
21ST CENTURY



Is Collective Private Commissioning the Answer to the Housing Demands of the 21st Century?

Area of research: collective private commissioning, demands of the people to their homes

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between
COLLECTIVE PRIVATE COMMISSIONING
and
DEMANDS OF THE 21ST CENTURY

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I. Introduction

1. Starting point

The poor economical situation from the last years influenced the housing market which has resulted in new ways of funding building initiatives. The decrease of large housing initiatives led to changes in the building industry, the architecture market and the profile of the clients. Besides the crisis, the Dutch society has become more individualised. In the past, people were less rushed and less stressed. During the last three decades, the social cohesion among the people has reached an all-time low.¹ These new circumstances lead to different ways of designing and building houses which meet the demands of the market.

One of the possible solutions for building in the financial crisis is collective private commissioning (CPC). The attention is attracted by the tendency of realizing more and

more projects under CPC and this can also be seen in the increasing publications, studies and articles on this topic.² The Dutch government also focused on private initiatives and in 2000 the target was formulated to construct at least 30% of the housing through private commissioning in 2005. (at that time this was less than 5%).³ This goal did not appear to be feasible and it was canceled in 2006.

In order to get a clear image of the present situation and the future development of dwelling, CPC will be investigated in the context of the present situation and more specific in relation to the demands of the people who will buy a home in the 21st century.

2. Problem statement

Due to the crisis, the production of housing projects is strongly reduced in the Netherlands. Many empty lots, ready to be built, are waiting for investments, but housing associations

and developers are bailing out.⁴ A trend to fill these 'gaps' is collective private commissioning. This concept skips the big investors, which makes it possible to build by private initiators, but will this way of building lead to housing that meets the demands of the 21st century?

3. Research questions

To look at CPC in a wider perspective than just analysing the phenomenon itself and reference projects that were built in private commissioning, we decided to compare the features of this model to the demands for dwelling in the 21st century. The following question will give direction to our research:

Is CPC the answer to the housing demands of the 21st century?

The research will therefore consist of 2 parts. First, the collective private commissioning will be

¹ Hurenkamp, Menno, and Evelien Tonkens. *De Onbeholpen Samenleving*. Amsterdam: Amsterdam University Press, 2011: p. 10.

² Gameren, Dick van, et. al. *Dash#8: Building Together*. Rotterdam: nai010 uitgevers, 2013: p. 6.

³ Gameren, Dick van, et. al. *Dash#8: Building Together*. Rotterdam: nai010 uitgevers, 2013: p. 5.

⁴ Gameren, Dick van, et. al. *Dash#8: Building Together*. Rotterdam: nai010 uitgevers, 2013: p. 5.

described, lead by several sub-questions:

1. What aspects of the present economical situation recently led to so many realizations of CPC projects?
2. What is the idea of the model?
3. Which urban design approach is relevant for projects developed under CPC?
4. Which are the design features of these projects and at what level of the design can they be implemented?

To compare the CPC with the demands of the current desires in housing, the demands of the 21st century should also be researched:

1. What are the needs and the expectations 21st century people have in regard to their homes?

4. Definitions

In the following text and analysis some terms are used with a specific meaning. Some of these terms are *flexibility, diversity, shared and collective space, building group.*

Flexibility

There is no clear definition on this term, however, it refers to "the ability of space- indoors or outdoors- to change, and to the ability of buildings to assume new functions"⁵. In the research the flexibility is used in terms of the possibility to change the layout during the exploitation period of the building as well as afterwards.

Diversity

In the research, the term is understood as a number of options from which the user can choose. These options can be found in several aspects of the analysed projects: different dwelling typologies, different spaces in terms of public, collective or private character and different program.

Shared space

In the case study analysis, zones which inhabitants pass through are considered as shared spaces. Such zones are staircases, passages, hallways, etc.

Collective space

These zones are the places where the inhabitants of the building spend time together - courtyards, terraces, special rooms in the building, etc.

Building group

Group of people who decide to build together a building which they will inhabit.

5. Goal

By looking into all these questions, a broad view on the key elements of CPC and the housing demands of the 21st century will be generated. After that we will be able to see what the intersections are between these two topics and to what extent they can work together.

⁵ Bosma, Koos, et. al. Housing for the Millions: John Harbraken and the SAR (1960-2000), Rotterdam, NAI Publisher, 2000: p. 76

As a result we will gain architectural tools and key points which can be incorporated in our individual design projects for Island 7 at Houthavens, Amsterdam.

By investigating both topics, knowledge about the future development and design of dwellings will be gathered. It can also help architects to get in touch with new clients. Through the building groups architects can meet potential clients. To meet the demands of these specific clients, the architect has different possible approaches to get to the right design which satisfy both-designer and user.

6. Method

In the research, both theoretical and practical knowledge will be gained through collecting, observing and analysing relevant literature on one hand, and analyzing different case studies on the other.

In the theoretical part, the reasearch questions will be answered. After that each of the case studies will be examined on several criteria,

chosen in order to show key elements.

In the end of the analysis of each case study a comparative table will show to what extent the project covers the demands of the people. From this, a conclusion about the crossing points between the CPC projects and the demands of the 21st century can be distilled.

The structure of the research is presented in the scheme on the right (Fig. I. 1).

Is CPC the answer to the housing demands of the 21st century?

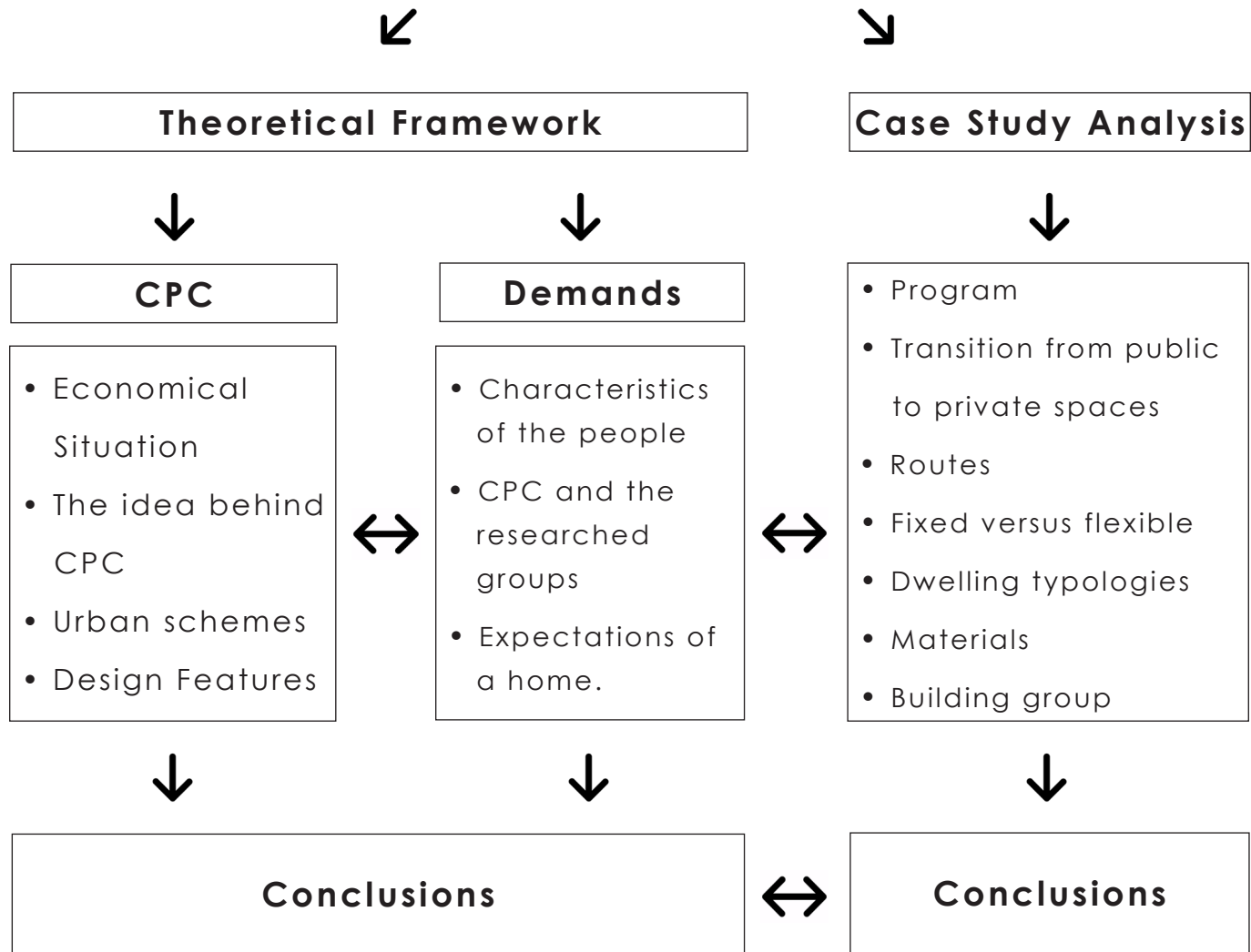


Fig. I. 1
Structure of the research

II. Theoretical framework

A. *Collective Private Commissioning (CPC)*

1. Present economical situation

The current economical crisis has changed the situation on the building market and especially in the housing sector. There are no more big developers willing to invest huge amounts of money in big housing projects. Because of the increased risk, many empty lots are waiting to be built upon. At the same time, most of the people state that they want private, custom designed houses that can satisfy their needs. However, most of these people cannot afford this kind of investment and this results in a gap between the expectations and the real ability of the people to finance a home. In this gap we can find the position of collective private commissioning.

2. The idea behind CPC

The main idea of the CPC model is involving the future inhabitants in the design process. In that way the prospective resident is involved in the design from the beginning of the process, instead of coming in the end as a consumer. The reason of doing that is the wish of having a custom home with specific qualities incorporated in the design. By using CPC, these custom dwellings are most of the time even available at a reasonable price. The balance between the quality and the cost is one of the strengths of this model.

The possibilities for the members of the building groups are numerous. They can make decisions in the design on different levels and in various scales. On one hand, the way of realization is up to the future inhabitant. They can choose to commission an architect and contractor, to build catalogue houses or self-build houses. On the other hand, there are physical decisions

to be made. For instance dwelling typologies, materials, collectivity and program are issues that can be considered.

3. Urban schemes and CPC

On an urban scale there are different options to develop buildings. According to the position of Alexandra Tisma, Like Bijlsma and Ed Dammers, the three main schemes in the Dutch development are: individual, collective and directed urban design⁶. Each of these three alternatives has different characteristics.

The individual one is for small scale projects as individual houses. This urban plan expresses the model of private lots which are bought by private parties in order to build their own homes. In that case the municipality set urban regulations and sometimes architectural requirements. The buildings which are set in the urban design are arising gradually according to the speed of realization of the individual projects.

⁶ Tisma, Alexandra, Bijlsma, Like, Dammers, Ed, Private initiatives in housing developments in The Netherlands and the role of directed urban design NL Institute for Spatial Research, 43rd ISOCARP Congress 2007

The collective urban design is oriented to big scale projects which are realised in a short period. The local authorities make the program of the urban plan and the developers fit in the plan. In other cases the municipality works in collaboration with the construction companies.

The directed urban design is oriented to middle scale projects. In that case the initiative is in the hands of private parties and the authority coordinates the urban and the architectural design. These plans are realized in a relatively short time. According to the authors, CPC development fits best in the third option, directed urban design.

4. Design features of CPC projects

The individual inhabitant in the center of the CPC development is the main factor that influences the design. The concept of involving prospective inhabitants in the design process already defines characteristics of the design.

Flexibility

When the future dwellers are

known in advance of the design, they should have the freedom of making decisions. This should be done in all scales and aspects, such as urban, architectural and interior. In order to achieve this freedom, architects design flexible dwellings with the opportunity for the future inhabitants to change their homes during the whole period they live there. Changes could be necessary due to an increase or decrease of the size of a family.

For example in De Hoofden, Marc Koehler designed an empty floor plan with a double height. The inhabitants have the opportunity to add an extra floor, which can increase the total floor space by 70%.

Such possibilities are also provided in Egebakken Community Housing in Denmark. Here the residents can extend their houses by adding modules. This is flexibility in terms of boundaries and amount of closed living area.

Diversity

Another architectural tool in the design of projects under CPC development is diversity. Diversity is

a characteristic of the design which can be found in several aspects of the buildings.

If we take a look at Vrijburcht, designed by Casa Architecten, we will find diversity in the program of the complex. Except dwellings, there is also a theater, a café-restaurant, care houses, day-care centre, studio and sailing school. According to the dwelling typology, different types are introduced in almost every project developed through the CPC model. This can be seen in Vrijburcht, De Hoofden, Egebakken and Wallisblok. There are different access routes also in most of the case studies. In some of the case studies diversity is also provided in the materials- both in the facades and in the interiors.

Diversity of spaces in terms of privacy is also provided in most of the CPC projects. The transition from the private to public is realized by introducing shared and collective spaces like staircases, passages, hallways, terraces, courtyards, etc.

5. Conclusions concerning future projects designed under CPC development

The projects which are already designed and realized in the Netherlands and abroad show that the diversity and the flexibility are key elements in each level of the project, namely urban, architectural and interior design. At some of these levels, the integration of the future inhabitants is easier than others. Although full flexibility is not possible, there are lots of tools to establish guidelines and still provide enough options for the future occupant. In the aspects where flexibility is not possible, diversity is also an element which can connect the design with the demands of the user. Providing options and leaving free space for further development makes the design suitable to the collective private commissioning concept and offers the opportunity to fill many of the empty lots in the Netherlands.

B. Demands of the 21st century

The second part of our research concerns the expectations of people who are going to buy a home. This investigation provided us with information about what people find important when choosing a new place to live in. To find out what people want from their future home, we based our research on a report commissioned by Ipsos MORI by the RIBA. This research was made to show how to build the right kind of homes for modern households. The investigation is developed in a qualitative approach to find out carefully what the details and the insights of these households are. The study is developed in two directions. On one hand, it shows what a range of different people needed and on the other- what the general public wanted. This is achieved by interviewing five ethnographic groups and organising four discussion groups.

I. Characteristics of the investigated people:

The interviews with the groups were made "in situ"- the people were visited and interviewed in their homes. The five groups represent the main modern households. The first family lives in a social housing complex and is a couple of around 35 years old with five children. The second group is a couple in around their forties with three children and mortgage. The next participants are a couple after their sixties with one daughter who does not live with them and they also have a home with mortgage. After that comes a young couple who has their first home for two years with mortgage and in which the man is running his own business and the woman is still studying. The last participant is a young single man who works full time in a large city and lives in a two bedroom rental apartment.

These groups cover a wide range of people who will buy a home in the 21st century. In that way the research aims to be representative as much as possible.

The second stage of the research refers to the expectations of the people when they consider to buy a home. Again, the four discussion groups are made by mixing different types of people in order to cover the maximum of the potential buyers. The main types of people within the groups are as follows:

- **First-time buyers in average salaried households without children, who needed to choose a home that is within their financial means;**
- **Young average salaried households without children or with one child under two years old who were choosing their second home;**
- **Young average salaried families with one or more children over three years old who were choosing their second home;**
- **'Empty nesters', parents whose children have grown up and left the house looking for a home that suits them better later in life.**

The report on which we based our research tries to cover most of the types of people that are going to buy a home in the near future.

The research is done for the English market but as it is done to show the average buyer's demands it can also be considered as representative for the general demands of the people within the European Union. Possible differences can be found in the economical means of the people but these would not reflect in the general demands concerning the new home.

2. CPC and the researched groups

In our research of particular interest is the collective private commissioning and the building groups. In that sense, the profile of the people who are part of these building groups, is what shows to which extent the demands extracted from the above described research are suitable to the members of the building groups.

In the end of each of the five case study analysis, which are examined in the second part of the research, relevant data about the participants in the building group is presented. From this data we can deduce that each building group can contain different profiles of future

users, but they are more or less the same within the group. For example, in De Hoofden and in Wallisblock the members of the building groups are aged between 30 and 40 years and are either young singles or couples with small children. On the other hand, in Egebakken the members of the group are aged above 50 years and are all empty nesters. Their children have left the homes.

Therefore, each building group can have a specific profile but the demands which are listed in the research of Ipsos MORI are representative to all of these groups. Therefore, they are also representative for people who would take part in a building group.

3. Expectations of a home

In the next chapter the expectations and the needs of the people are listed as they are described during the interviews and the discussions.

The first thing which is mentioned by the people is the feeling of space which they would like to have in their home. This feeling is associated with old buildings that have high ceilings, but also big windows and large rooms. They expect their new home to provide them with this "sense of space" by introducing the above mentioned elements.

The next demand which is described refers to the layout of the dwelling. People prefer an open layout with flexible living space for eating and socializing. Some of them prefer to have space for entertaining with family and friends and some even plan to organize bigger events as parties. This space is likely to be connected to the kitchen or open to outside spaces such as courtyards, gardens or terraces.

People also need time for themselves where they can be alone without the presence of the rest of the family. They want a place for private use, a room where an individual person can retreat from the other family members. Although most of the people are keen on the open layout suitable for a range of purposes, they still want the possibility to get some privacy.

For most people a private outside space or access to public green is of great importance to their wellbeing. Private outdoor space is especially appreciated by families with children. They enjoy the children to have outside space where they can make noise and mess.

An often neglected feature in a dwelling is storage. Most of the people want both space for long-term and short-term storage. For all of them the privacy is important and a large part of the people do not have enough storage space in their current house. They expect that their new home will provide them with both: space for their everyday needs such as clothes,

food and other items and also for long-term storage.

The next point which is underlined by the people is the need of space for domestic utility tasks, such as washing, ironing etc. They state that often they have difficulties with storing the washed linens or clothes.

The final preference is to have options for a different layout of the dwelling. Most of the people want to have flexible floor plans suited to the needs of particular moment. Although this flexibility is appreciated, some of the people are still sceptical to progressive design solutions, because they are not familiar with this kind of space.

4. Conclusions concerning the housing demands of the 21st century

The people who took part in the investigation state needs and expectations which can be easily integrated in the design of dwellings in the 21st century. The described elements are simple and logical but often are omitted by the architects in their designs. The CPC projects stress the needs and wishes of the people and can return the focus of the architects to providing quality to the users of the buildings they design. This is the aim of our research and of the following design.

In order to compare the demands of the people with the conclusions from the case study analysis, a summarized table with key elements is presented on the right (Table II. 1). These key elements will be "checked" in each of the projects listed in table II. 2.

Demands
Large living area
Large windows
High ceilings
Space for private time
Outside space
Storage space
Utility space
Options for different layout

Table II. 1- List of key elements

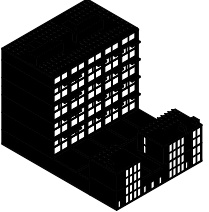

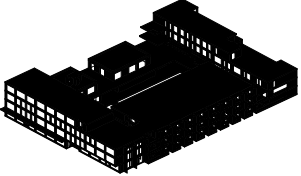

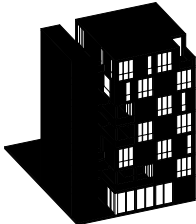
Name	Diagram
De Hoofden	
Wallisblock	
Vrijburcht	
Egebakken	
E3	

Table II. 2- List of case studies

III. Case Study Analysis

To analyse properties of CPC projects, 5 case studies will be reviewed. The selection of these case studies is based on the following criteria:

- Location
- Program
- Building group
- Urban context

The first reference project is De Hoofden by Marc Koehler architects in Amsterdam. It will be analysed since it is in the same master plan as the design studio project, island 7. Besides that, the project contains flexible floorplans and collective roof terraces.

The second case study is Wallisblock by Hulshof architects in Rotterdam. This project is interesting, since it is a renovation project. An existing traditional Dutch housing block is transformed into a collective living area for a variety of dwelling typologies, which are all situated around a collective courtyard in the centre of the dwelling block.

The third analysis is on Vrijburcht

by CASA architects in Amsterdam. This case is interesting due to its varied program. This large scale project contains a theater, café-restaurant, care houses, day-care centre, studio and sailing school. Not only the program is noteworthy, but also the large diversity in dwelling typologies is worth discussing.

The fourth reference is Egebakken Community Housing by Tegnestuen Vandkunsten in Denmark. This project has been chosen for the fact that the standard layout of the dwellings can be adjusted by adding modules. The inhabitants can choose from several pre-designed additions to match their specific needs. The target group was also interesting, since it is completely aberrant from other projects. These dwellings are designed only for elderly people.

The fifth and final case study is E3 by Kaden Klingbeil in Berlin, where CPC finds its origin in the German 'Baugruppe'. This project was particularly interesting due to its location, since it is built in a 'gap' of a dense city fabric.

The reference projects are analysed within the structure described below in order to underline specific characteristics of the projects that are important.

- I. Impressions of the project
- II. Location
- III. Program
- IV. Transition from public to private spaces:
 1. Diagram of the entire model with colored zones
 2. Architectural elements that create the transitions
- V. Routes
- VI. Fixed versus flexible
- VII. Dwelling typologies
- VIII. Materials
- IX. Building group data

The described structure above aims to show specific points of each project in order to find the diversity and flexibility within these designs.

In the end data about the building group is analysed to find out what kind of people would take part in buildings groups.

De Hoofden by Marc Koehler Architects



Fig. III. 1. 1



Fig. III. 1. 2



Fig. III. 1. 3

Fig. III. 1. 1 Superlofts exteriors, source: <http://dehoofden.nl/>

Fig. III. 1. 2 Collective roof terrace, source: <http://dehoofden.nl/>

Fig. III. 1. 3 Interior of a loft, source: <http://dehoofden.nl/>



Fig. III. 1. 4

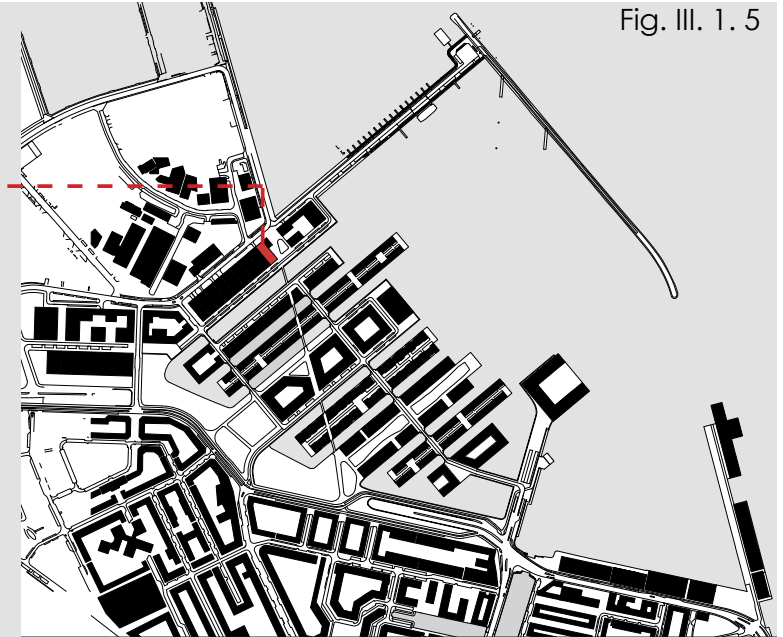


Fig. III. 1. 5

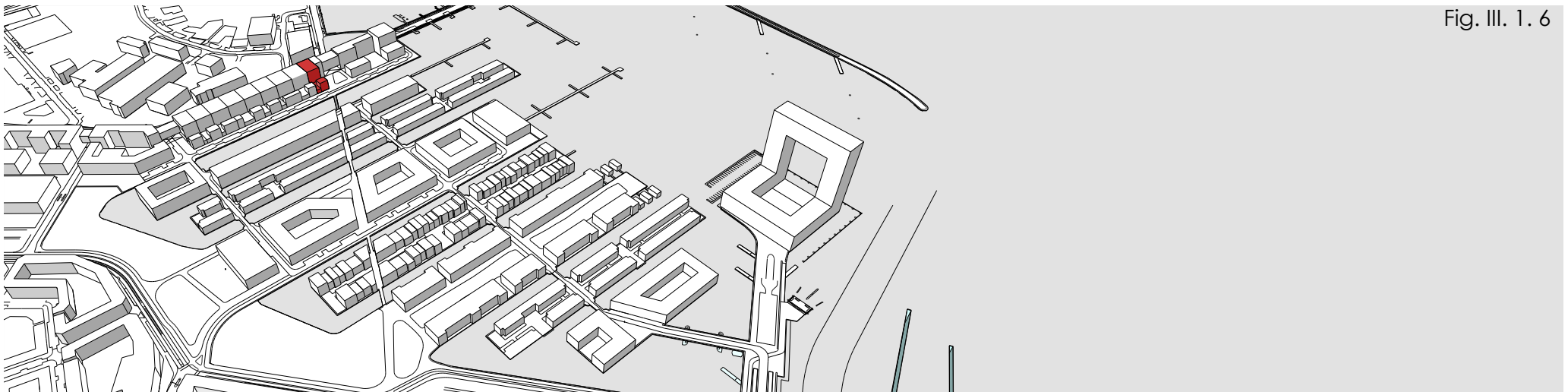


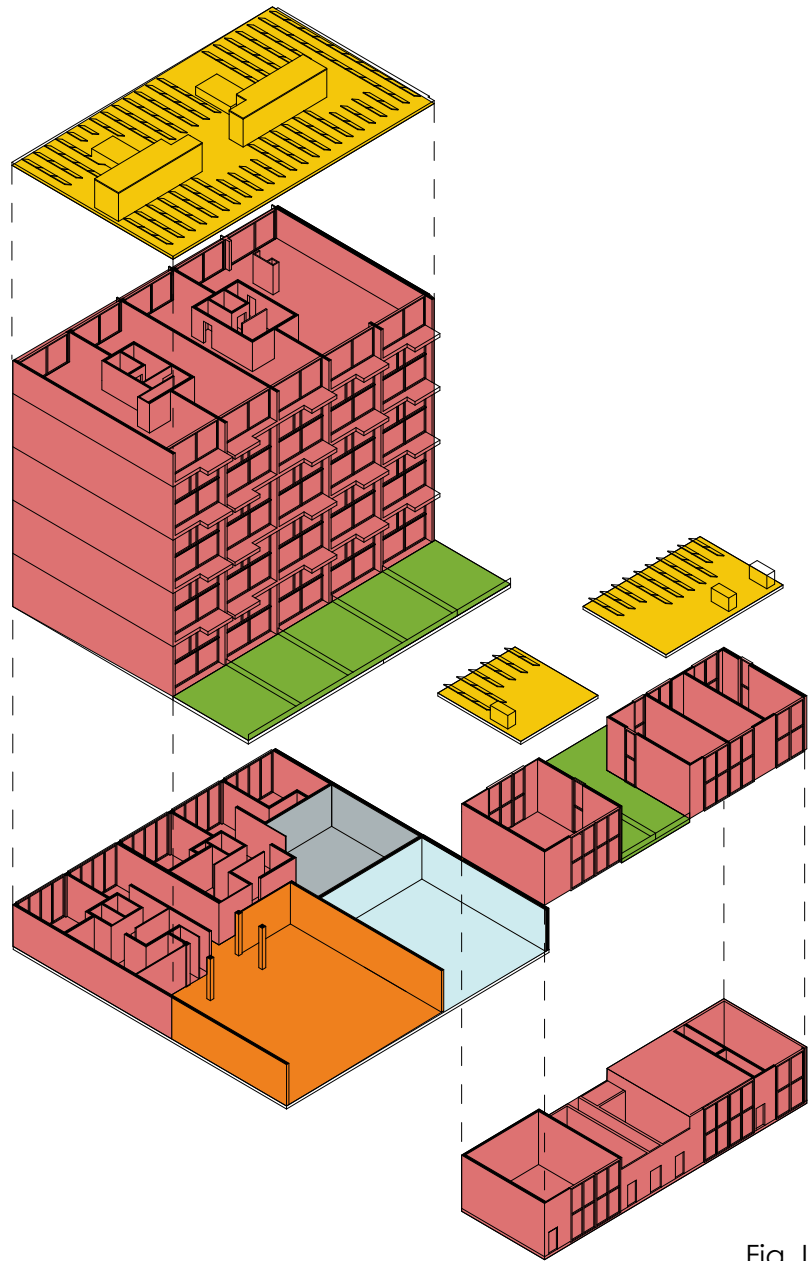
Fig. III. 1. 6

Fig. III. 1.4 Location of the project within Amsterdam, own illustration based on view taken from <https://maps.google.com/>

Fig. III. 1.5 Location of the project in the new masterplan of Houthavens, own illustration

Fig. III. 1.6 Birdeye view of the new masterplan of Houthavens, own illustration

Architectural program



De hoofden Lot 1

- dwellings
- green roof
- roof
- parking spaces
- storage
- technical room

Fig. III. 1.7

Fig. III. 1.7 Diagram, own illustration

public shared collective semi-private private Transition from public to private space

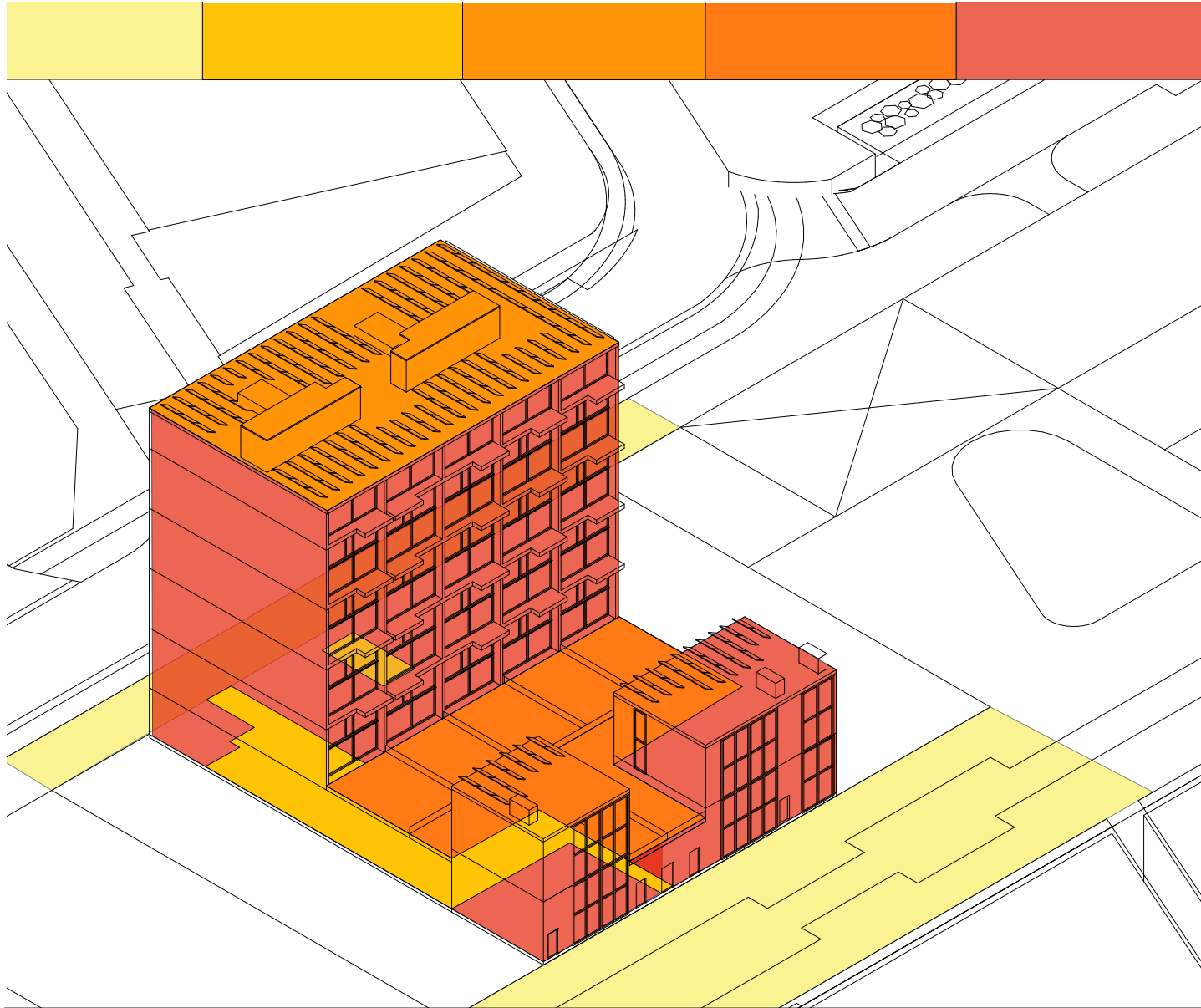


Fig. III. 1.8 Diagram, own illustration

Fig. III. 1. 8

Architectural elements which connect different zones



element



space

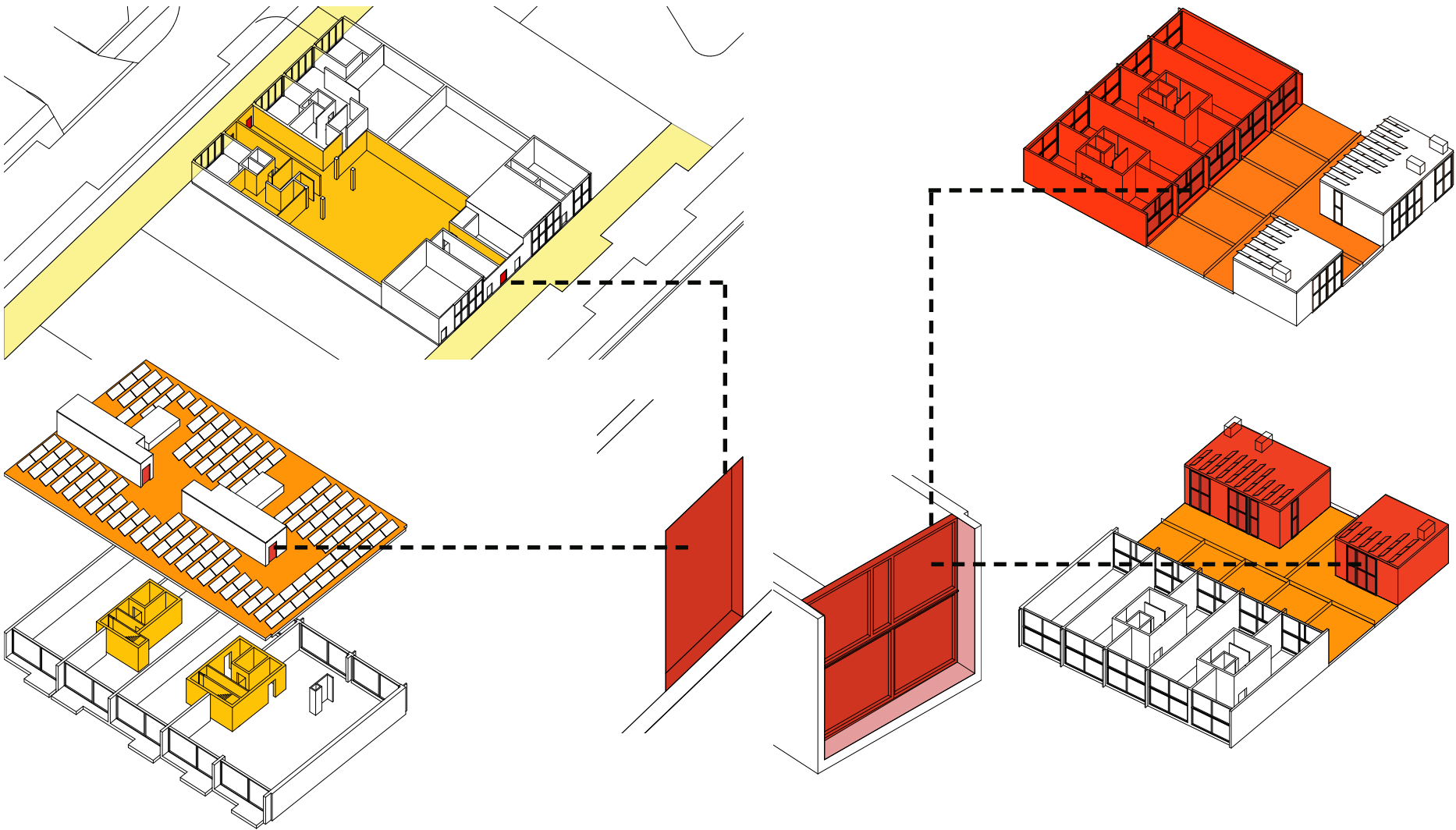


Fig. III. 1.9 Diagram, own illustration

Fig. III. 1. 9

Routing

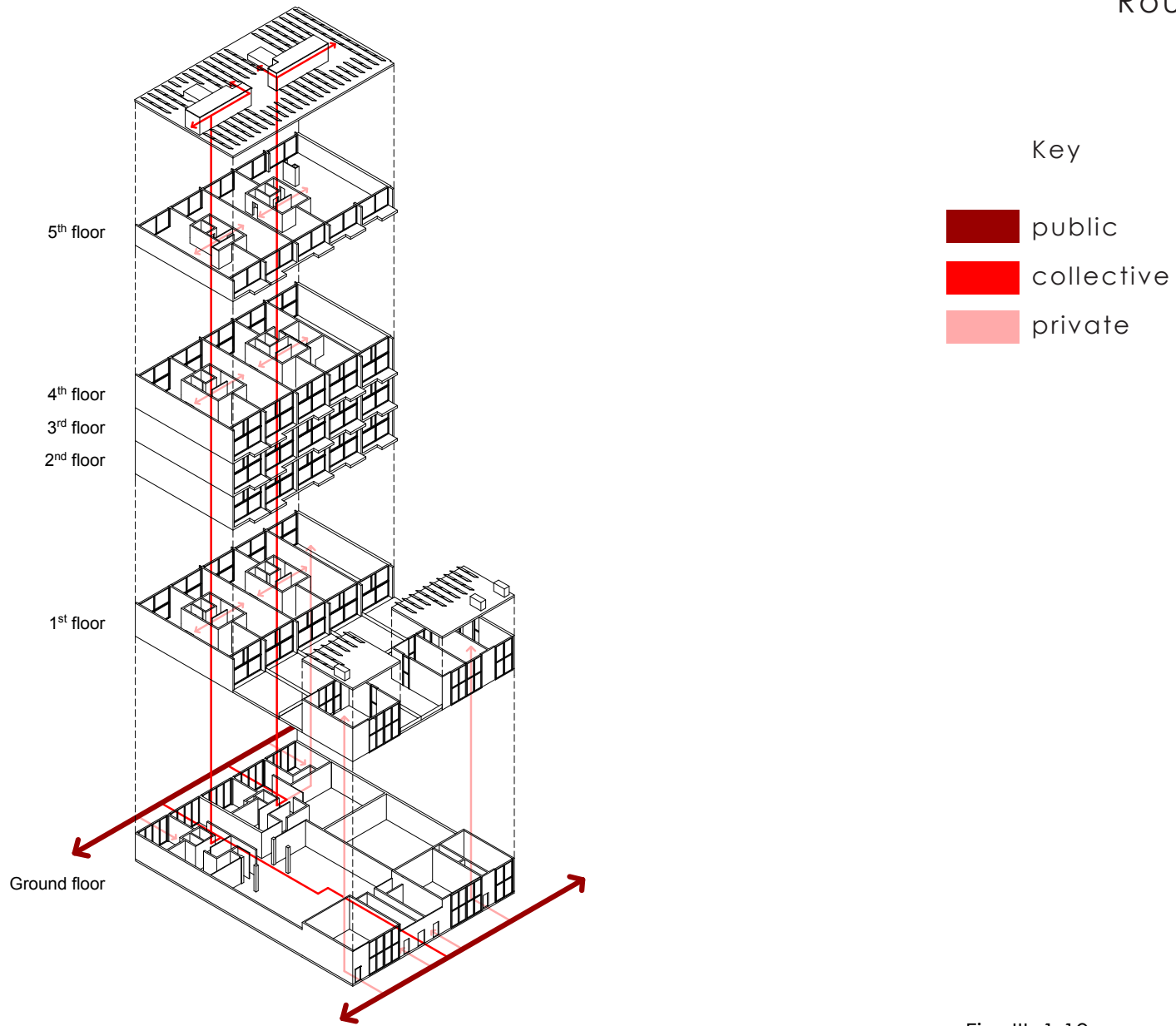
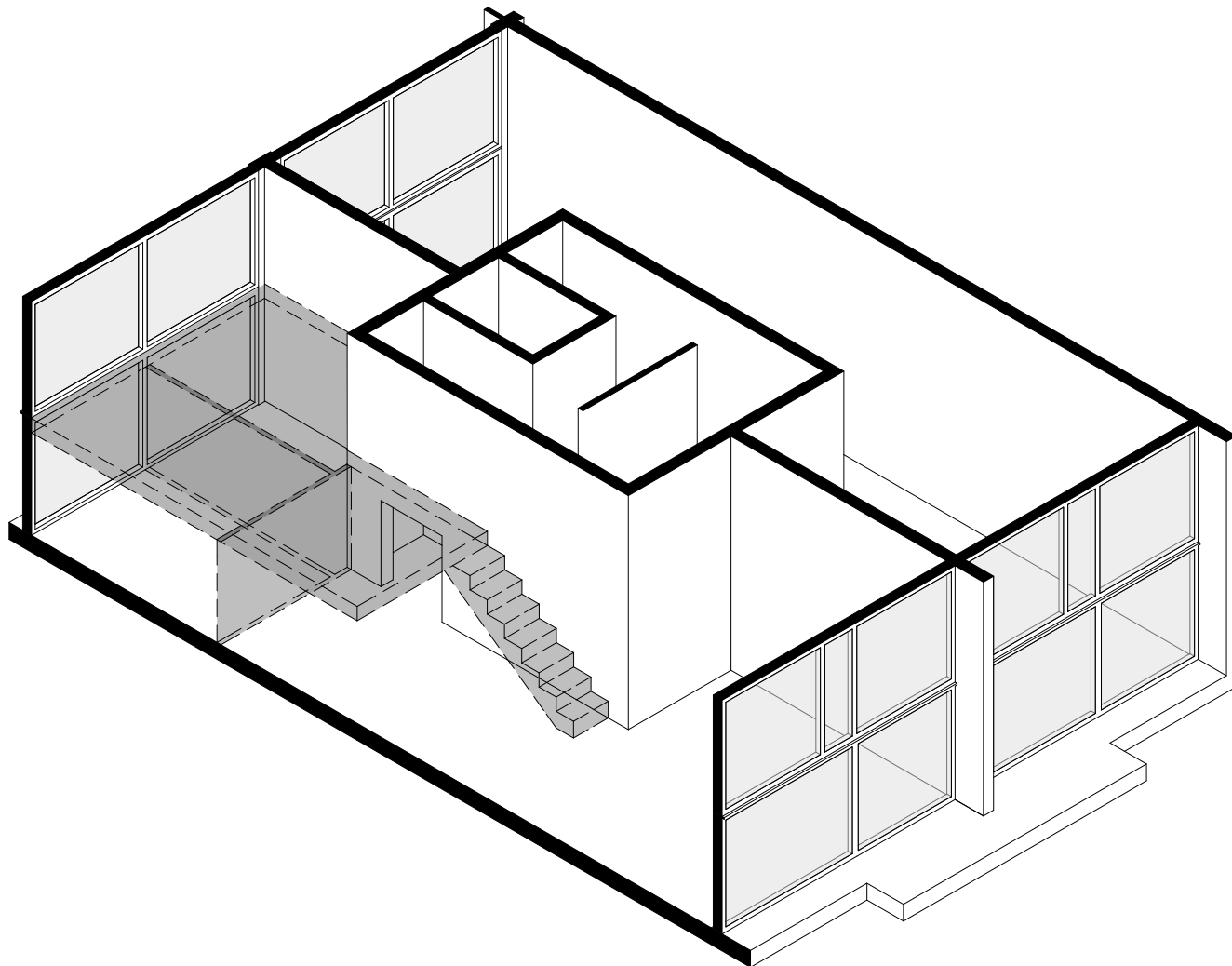


Fig. III. 1.10

Fig. III. 1.10 Diagram, own illustration

Diagram fixed/ optional



Key

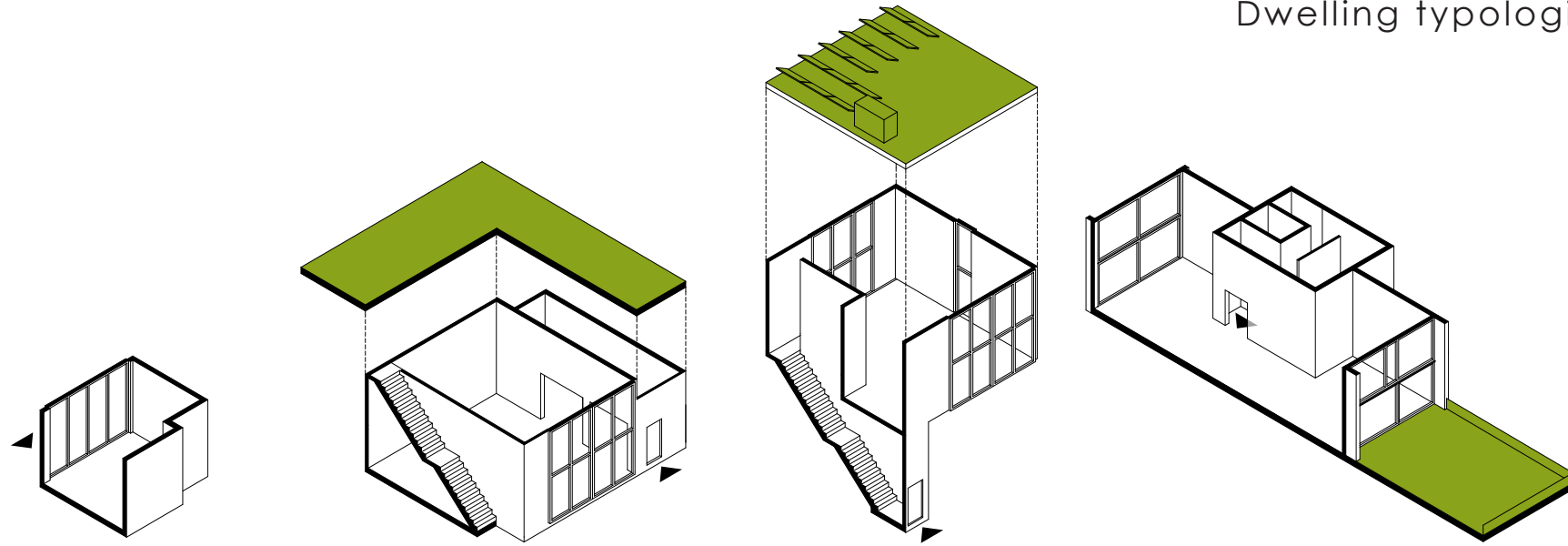
 fixed

 optional

Fig. III. 1. 11

Fig. III. 1.11 Diagram, own illustration

Dwelling typologies

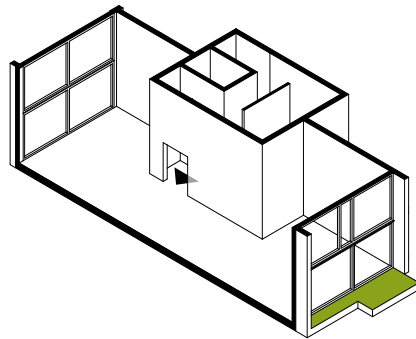


Studio
 29 m² inside area
 0 m² outside area
 89 m³ volume

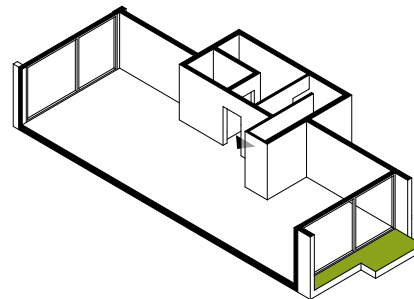
Quayside loft 1
 92 m² inside area
 91 m² outside area
 499 m³ volume

Quayside loft 2
 79 m² inside area
 39 m² outside area
 420 m³ volume

Garden loft
 79 m² inside area
 54 m² outside area
 395 m³ volume



Highrise loft
 79 m² inside area
 6 m² outside area
 395 m³ volume



Penthouse
 79 m² inside area
 6 m² outside area
 237 m³ volume

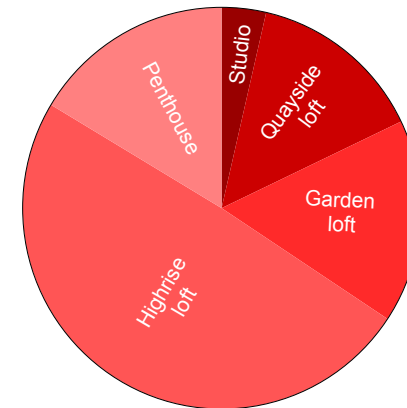


Fig. III. 1.12 Diagram, own illustration

Fig. III. 1.12

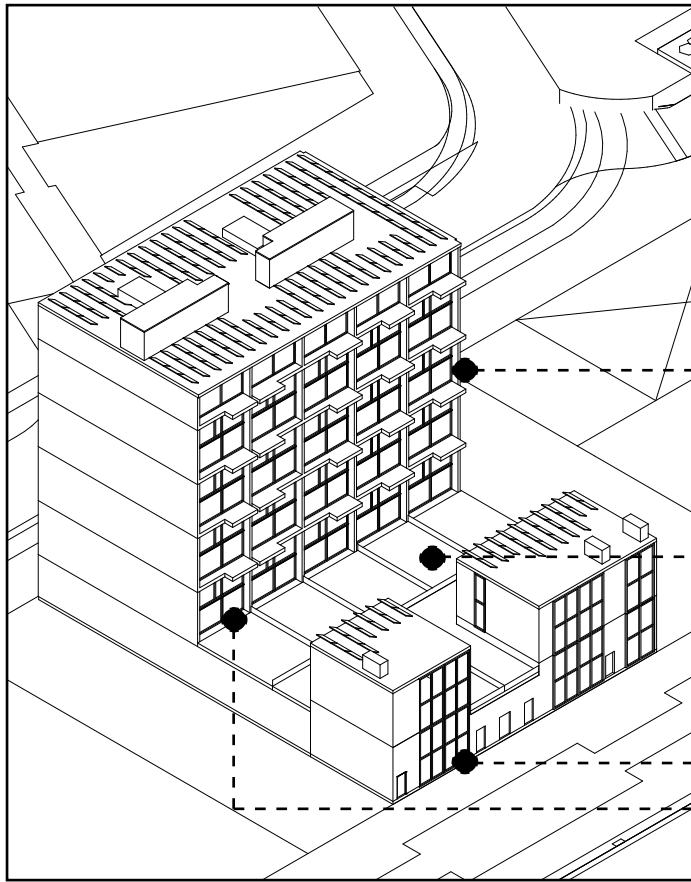


Fig. III. 1. 14



Fig. III. 1. 15



Fig. III. 1. 16

Fig. III. 1. 13

Fig. III. 1.13 Diagram, own illustration

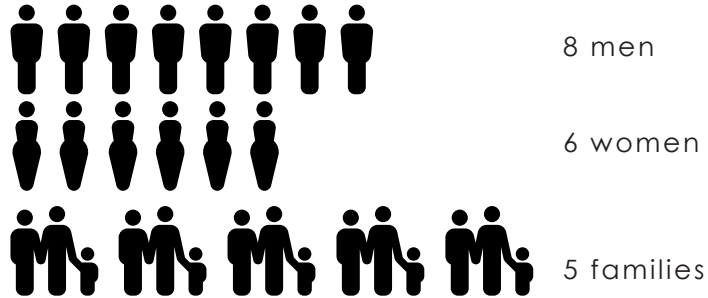
Fig. III. 1.14 Possible facade materials, source: <http://dehoofden.nl/>

Fig. III. 1.15 Image glass, source: http://www.diytrade.com/china/pd/6728467/Laminated_Glass.html

Fig. III. 1.16 Image grass, source: <http://www.mrgrassblog.net/category/turf-disease/>

Building group "Club De Hoofden"

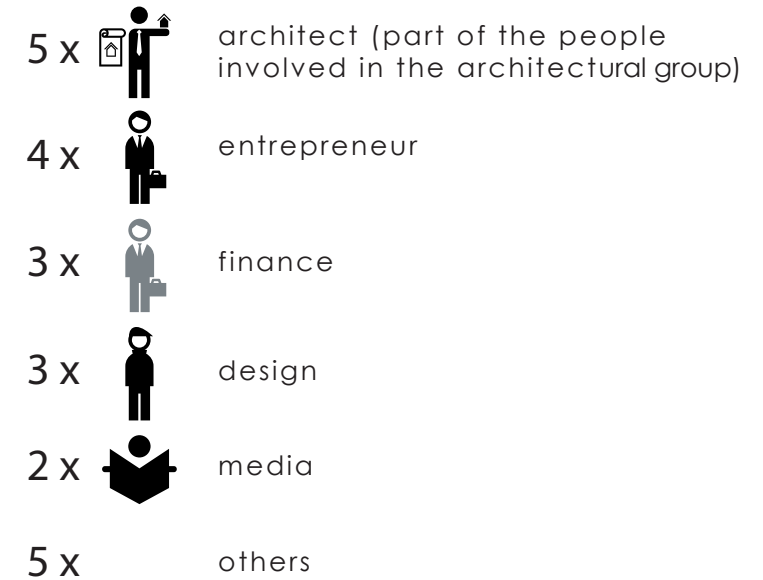
Size of the building group: 19 members



Age of the building group:

all the members are between the age of 30 and 40

Occupancy of the group members



Demands	De Hoofden
Large living area	o
Large windows	+
High ceilings	+
Space for private time	o
Outside space	+
Storage space	+
Utility space	o
Options for different layout	+

Key

- + present in the design
- o optional in the design
- missing in the design

Table III. 1

Conclusion

Table III. 1 on the left shows that "De Hoofden" covers most of the demands of the people in the 21st century. The three points which are indicated with "o" show that the architects provide the future users with the possibility to decide some parts of the design by themselves. This is one of the main characteristics of the CPC projects.

Wallisblock by Hulshof Architects



Fig. III. 2. 1



Fig. III. 2. 2



Fig. III. 2. 3

Fig. III. 2.1 Wallisblock exteriors, source: image taken from <https://maps.google.com/>

Fig. III. 2.2 Wallisblock interior, source: Hulshof, Ineke. "Poetic Freedom." Delft: TU Delft, 2008: p. 14.

Fig. III. 2.3 Section of an example dwelling in Wallisblock, source: Hulshof, Ineke. Urban Renewal and Affordable Housing in Rotterdam - the Wallisblok. Delft: TU Delft, 2011.



Fig. III. 2. 4



Fig. III. 2. 5

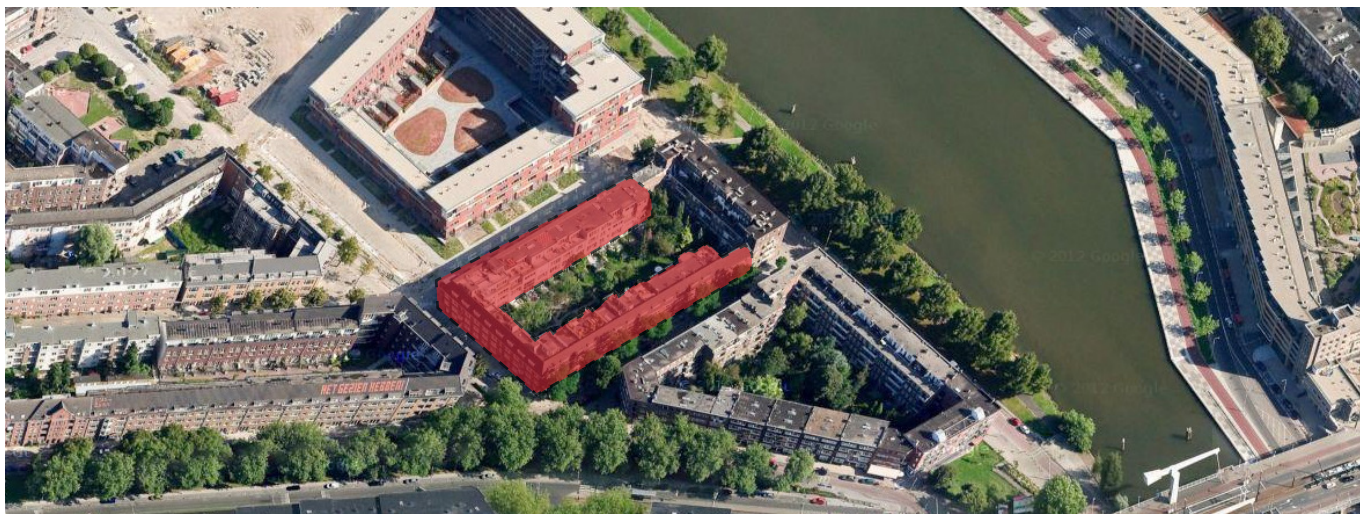


Fig. III. 2. 6

Fig. III. 2.4 Location of the project within Rotterdam, own illustration based on view taken from <https://maps.google.com/>

Fig. III. 2.5 Location of the project within the district Spangen in Rotterdam, own illustration based on view taken from <https://maps.google.com/>

Fig. III. 2.6 Birdseye view of Wallisblock, own illustration based on view taken from <https://maps.google.com/>

Architectural program

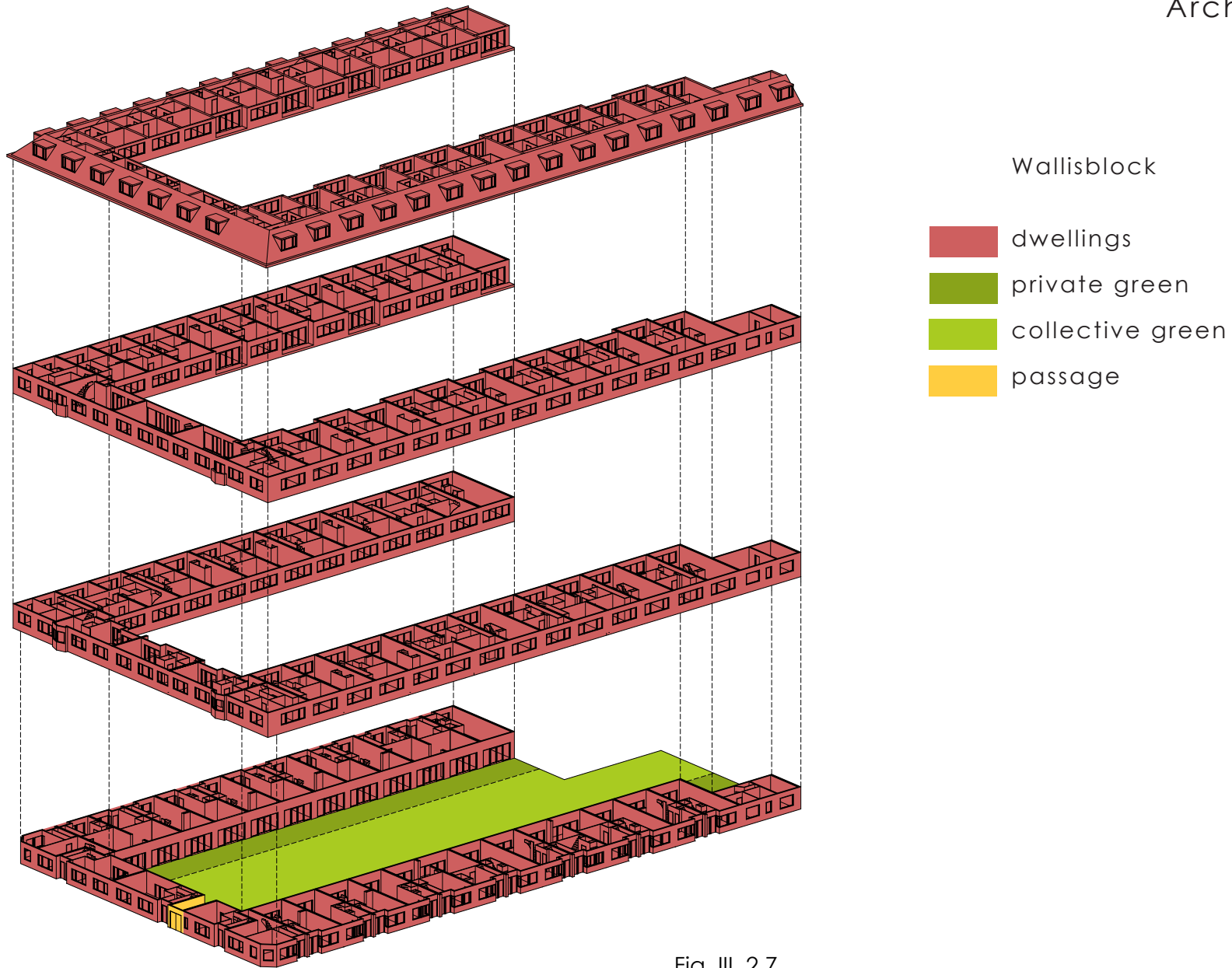


Fig. III. 2.7

Fig. III. 2.7 Diagram, own illustration

public shared collective semi-private private Transition from public to private space

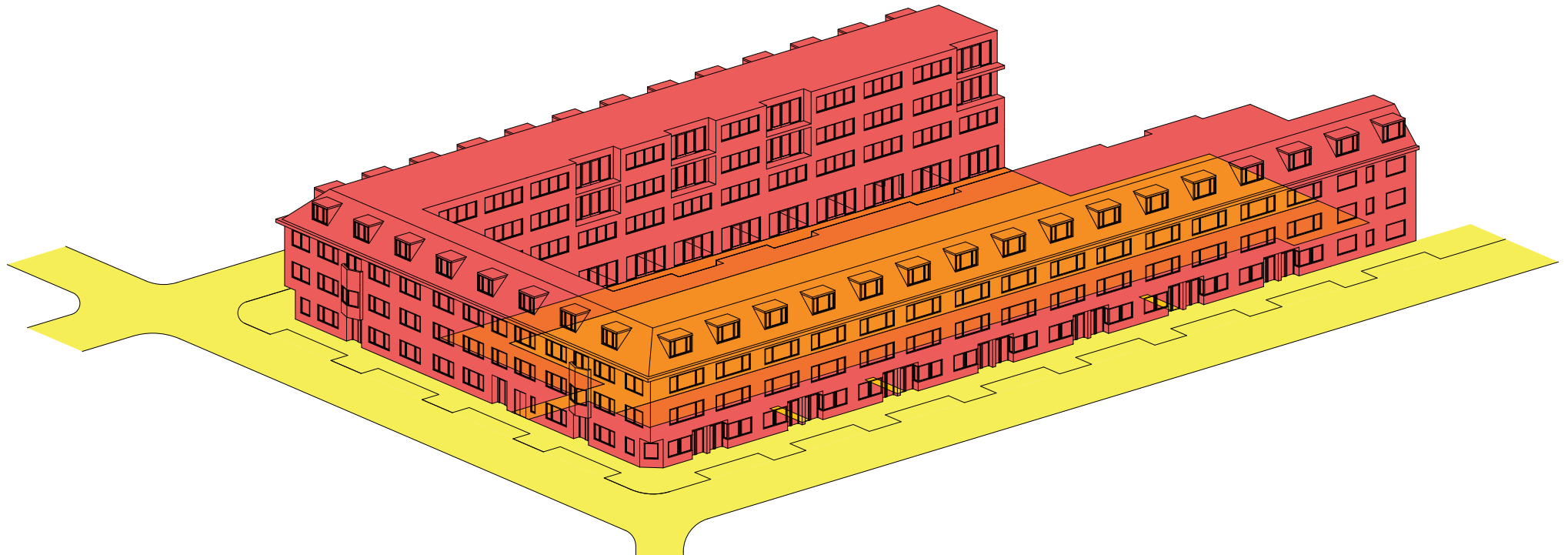


Fig. III. 2.8 Diagram, own illustration

Fig. III. 2.8



Fig. III. 2.9

Architectural elements which connect different zones



element



space



Fig. III. 2. 11



Fig. III. 2.10



Fig. III. 2. 12

Fig. III. 2.9 Own illustration, based on image taken from Hulshof, Ineke. "Poetic Freedom." Delft: TU Delft, 2008: p. 14.

Fig. III. 2.10 Own illustration, based on view taken from <https://maps.google.com/>

Fig. III. 2.11 Diagram, own illustration

Fig. III. 2.12 Own illustration, based on view taken from <https://maps.google.com/>

Routing

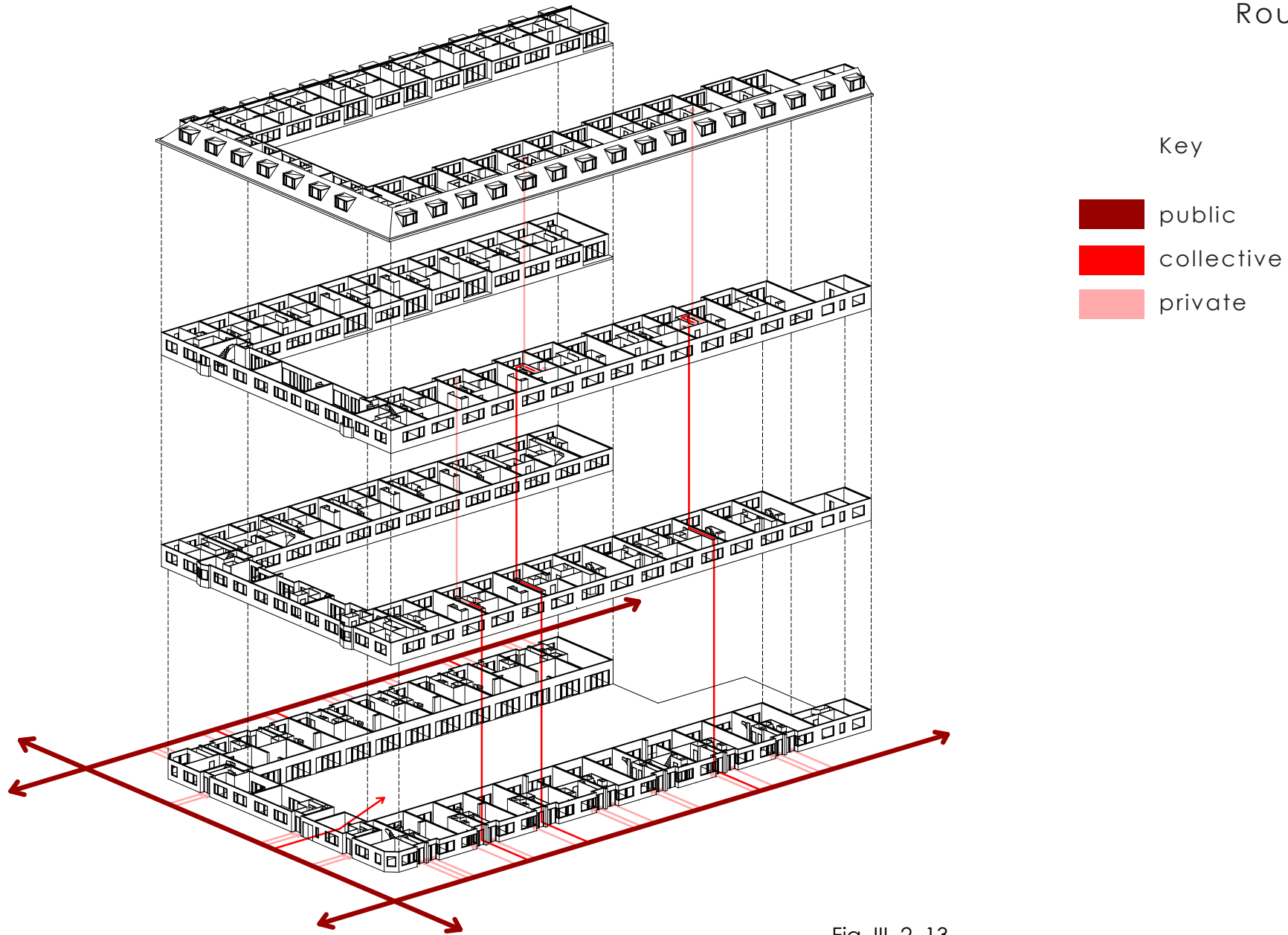
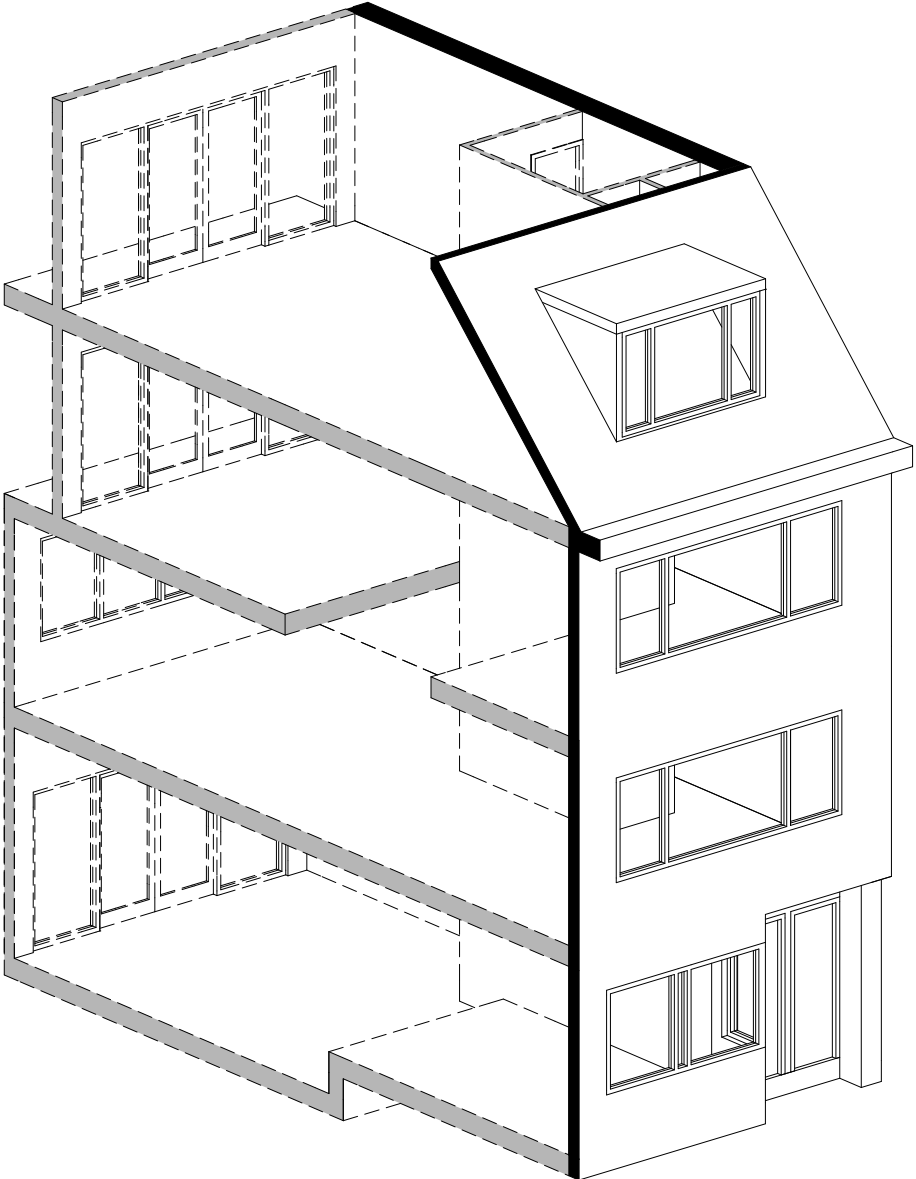


Fig. III. 2.13 Diagram, own illustration

Fig. III. 2. 13

Diagram fixed/ optional



Key

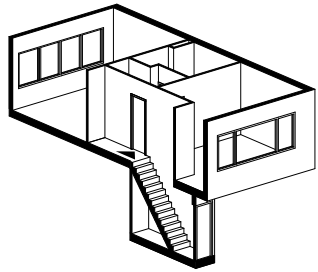
 fixed

 optional

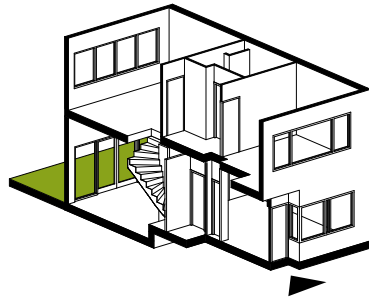
Fig. III. 2.14

Fig. III. 2.14 Diagram, own illustration

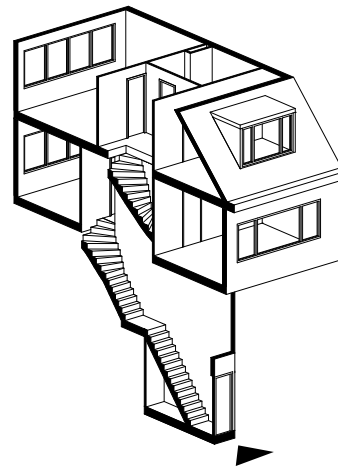
Dwelling typologies



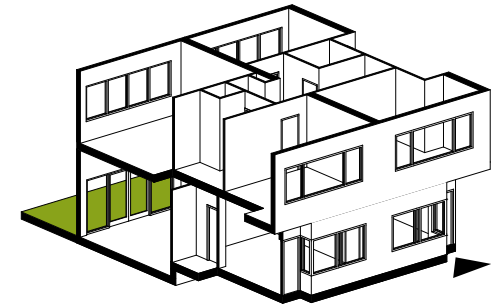
Single floor apartment
 59 m² inside area
 0 m² outside area
 159 m³ volume



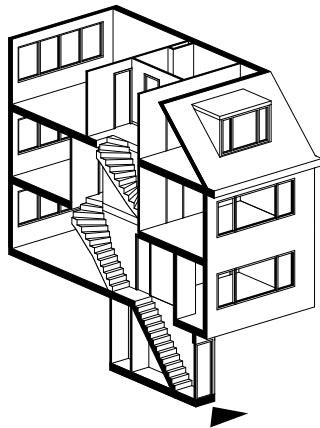
Duplex dwelling 1
 112 m² inside area
 35 m² outside area
 302 m³ volume



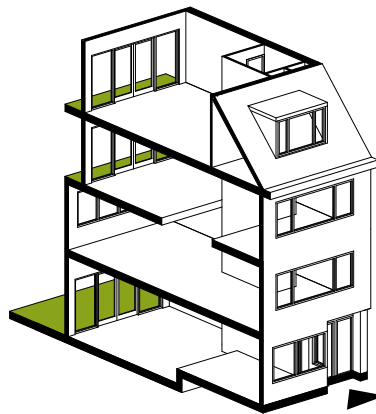
Duplex dwelling 2
 118 m² inside area
 0 m² outside area
 295 m³ volume



Duplex dwelling double width
 224 m² inside area
 70 m² outside area
 605 m³ volume



3 floor apartment
 176 m² inside area
 0 m² outside area
 475 m³ volume



4 floor row house
 218 m² inside area
 45 m² outside area
 588 m³ volume

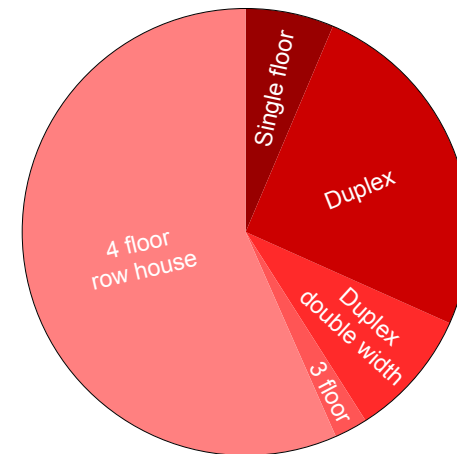


Fig. III. 2.15

Fig. III. 2.15 Diagrams, own illustration

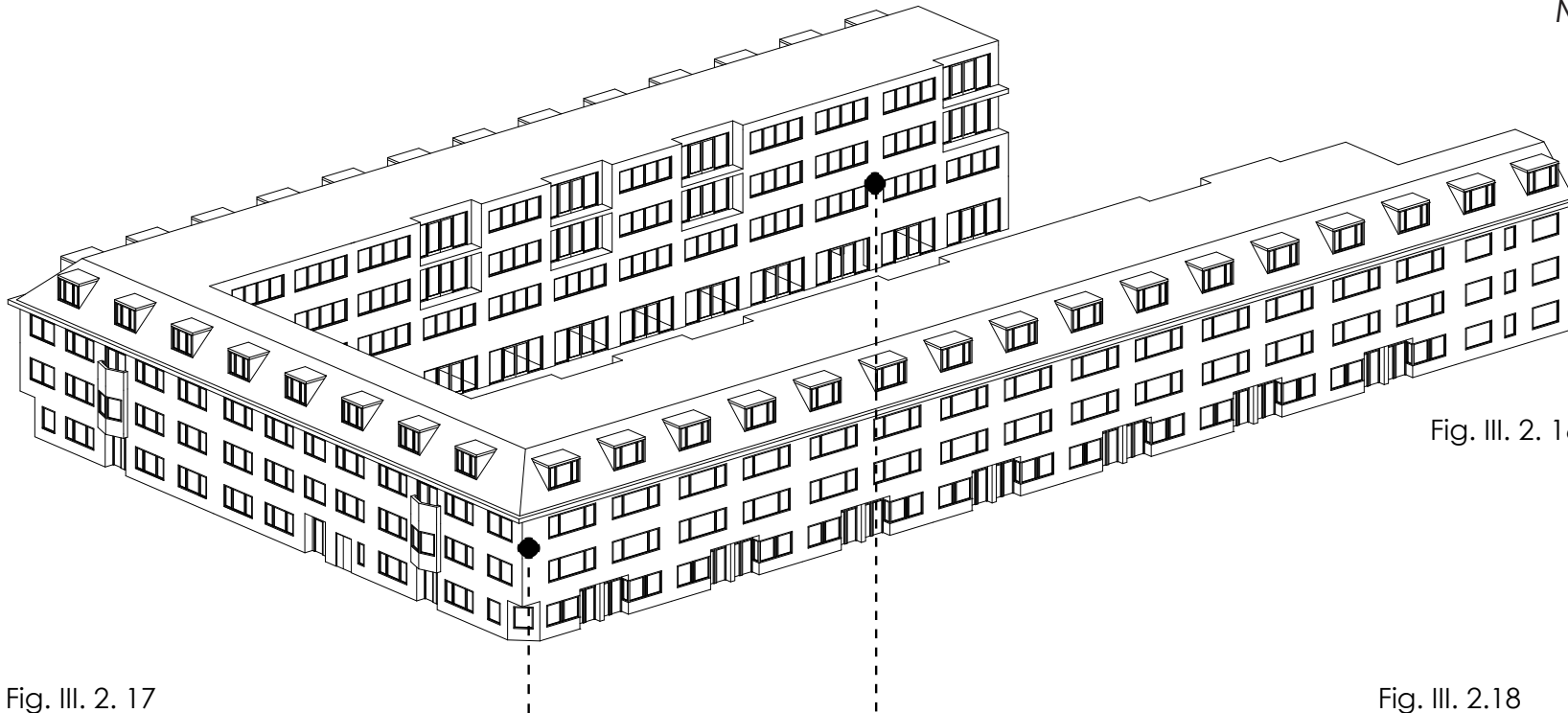


Fig. III. 2. 16

Fig. III. 2. 17



Fig. III. 2.18

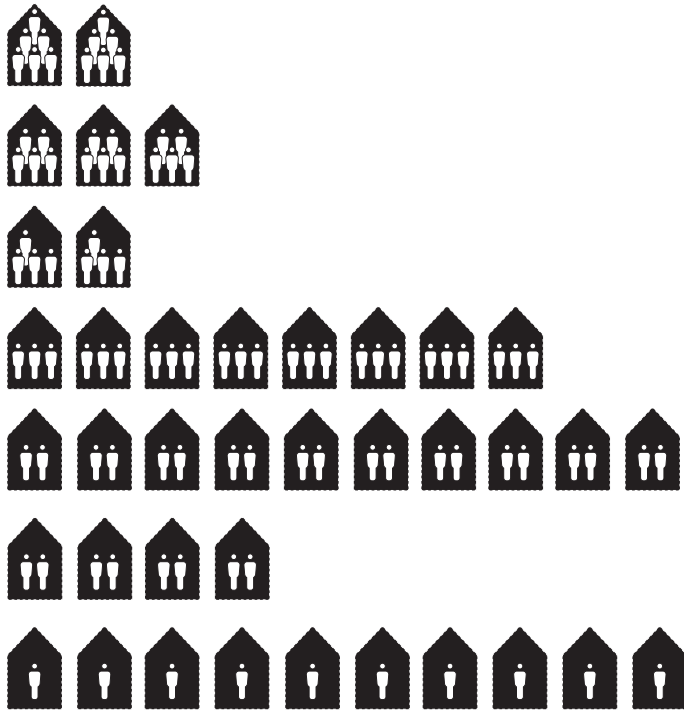


Fig. III. 2.16 Diagram, own illustration

Fig. III. 2.17 Brick exterior, view taken from <https://maps.google.com/>

Fig. III. 2.18 Wooden interior, image taken from Hulshof, Ineke. "Poetic Freedom." Delft: TU Delft, 2008: p. 14.

Size of the building group: 97 members



6 persons per dwelling

5 persons per dwelling

4 persons per dwelling

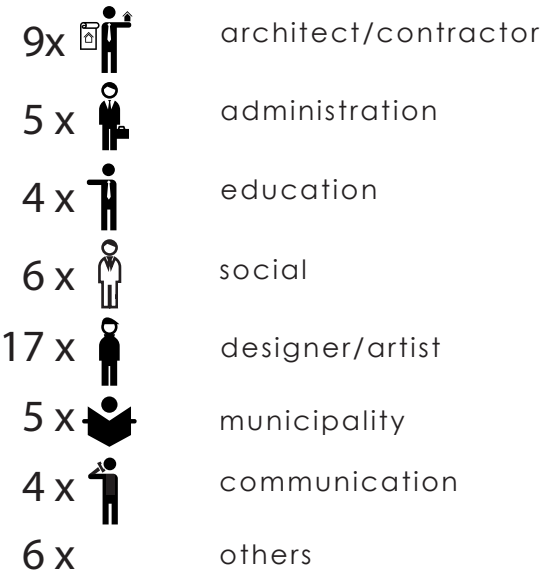
3 persons per dwelling

2 persons per dwelling

1 person per dwelling

Building group "De Dichterlijke Vrijheid"

Occupancy of the group members



Age of the building group:
Most of the members are between the age of 30 and 40, but there are also elderly and children living in Wallisblock

Demands	De Hoofden
Large living area	o
Large windows	+
High ceilings	-
Space for private time	o
Outside space	+
Storage space	o
Utility space	o
Options for different layout	+

Key

+ present in the design

o optional in the design

- missing in the design

Conclusion

The table on left shows that "Wallisblock" covers some of the demands of the people in the 21st century.

Because of the flexibility of the floor plans most of the functions in the dwellings are optional and depend on the user's needs.

The "Wallisblock" is a renovation project. In that sense the heights of the floors are fixed and this is the only point where the project does not always meet the demands of the people.

Table III. 2

Vrijburcht by CASA architects



Fig. III. 3. 1

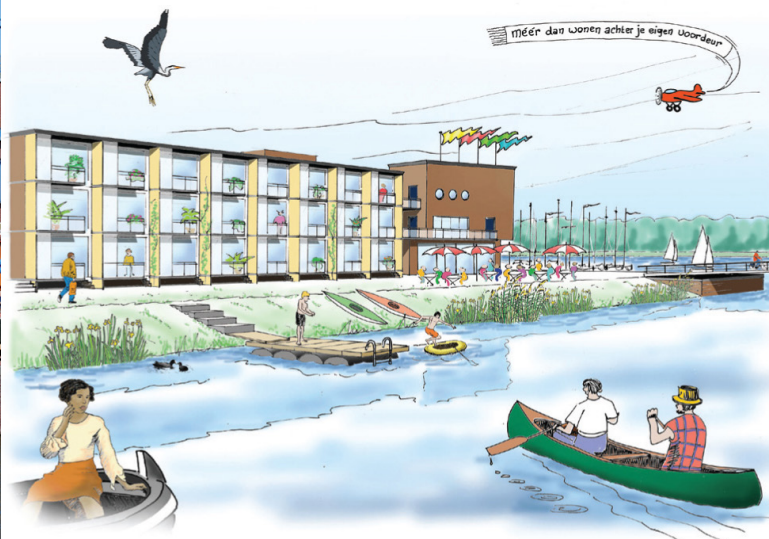


Fig. III. 3. 2



Fig. III. 3. 3

Fig. III. 3.1 Neighbourhood life on the quay, source: http://www.vluggp.nl/wp-content/uploads/2010/12/Vrijburcht_VLUGP_hr_A4-EN.pdf

Fig. III. 3.2 Impression during sales phase, source: http://www.vluggp.nl/wp-content/uploads/2010/12/Vrijburcht_VLUGP_hr_A4-EN.pdf

Fig. III. 3.3 Model, source: Vrijburcht_VLUGP_hr_A4-EN.pdf



Fig. III. 3. 4

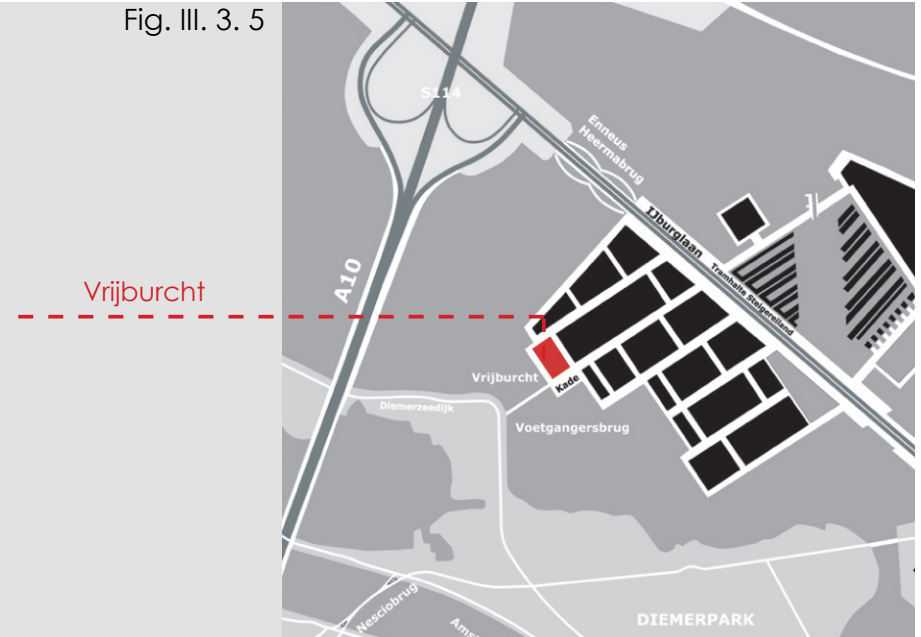


Fig. III. 3. 5



Fig. III. 3. 6

Fig. III. 3.4 Location of the project within Amsterdam, own illustration based on view taken from <https://maps.google.com/>

Fig. III. 3.5 Location of the project in the new masterplan of Vrijburcht, source: http://www.vluggp.nl/wp-content/uploads/2010/12/Vrijburcht_VLUGP_hr_A4-EN.pdf

Fig. III. 3.6 Birdseye view, own illustration own illustration based on view taken from <https://maps.google.com/>

Architectural program

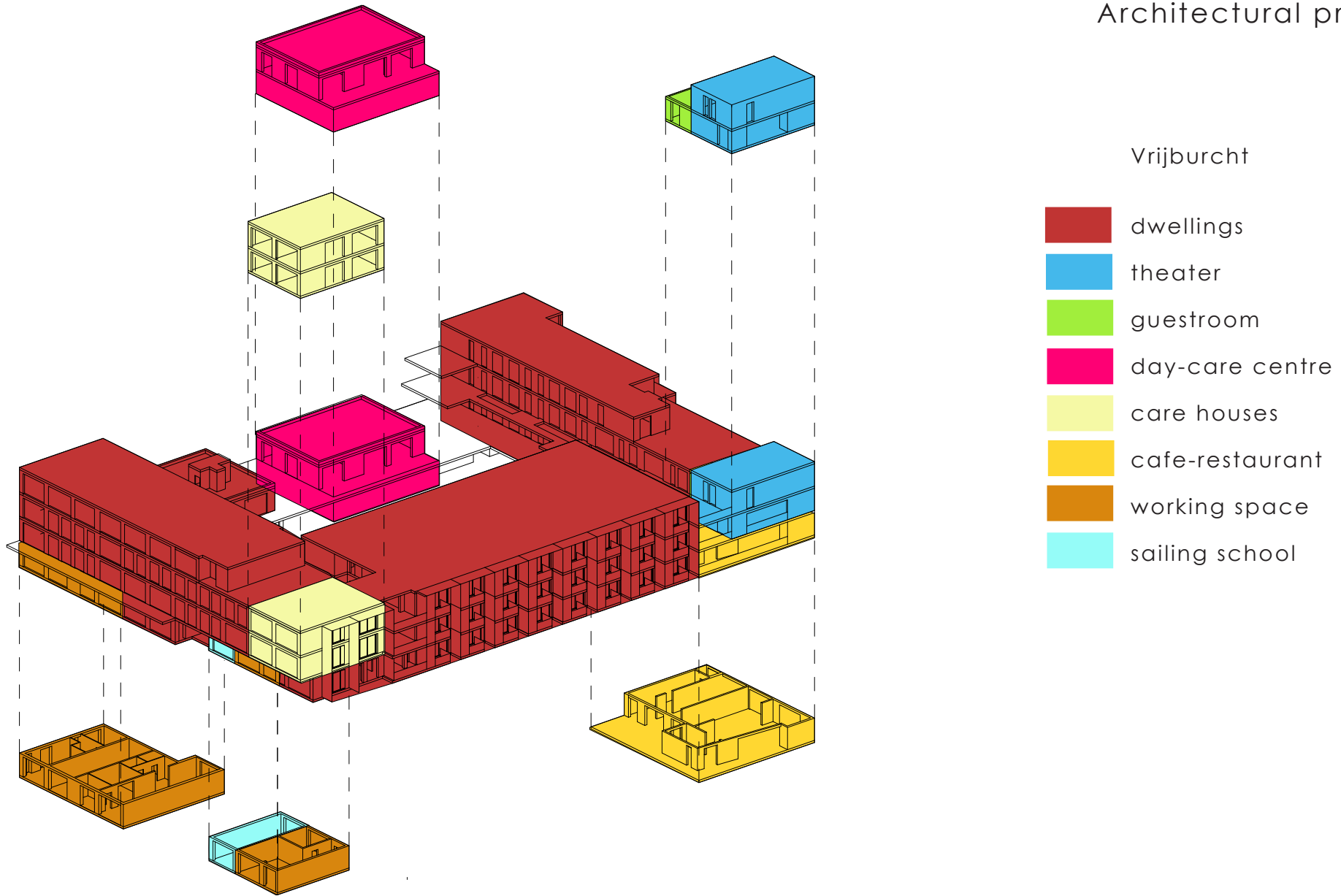


Fig. III. 3.7 Diagram, own illustration

Fig. III. 3. 7



Transition from public to private space

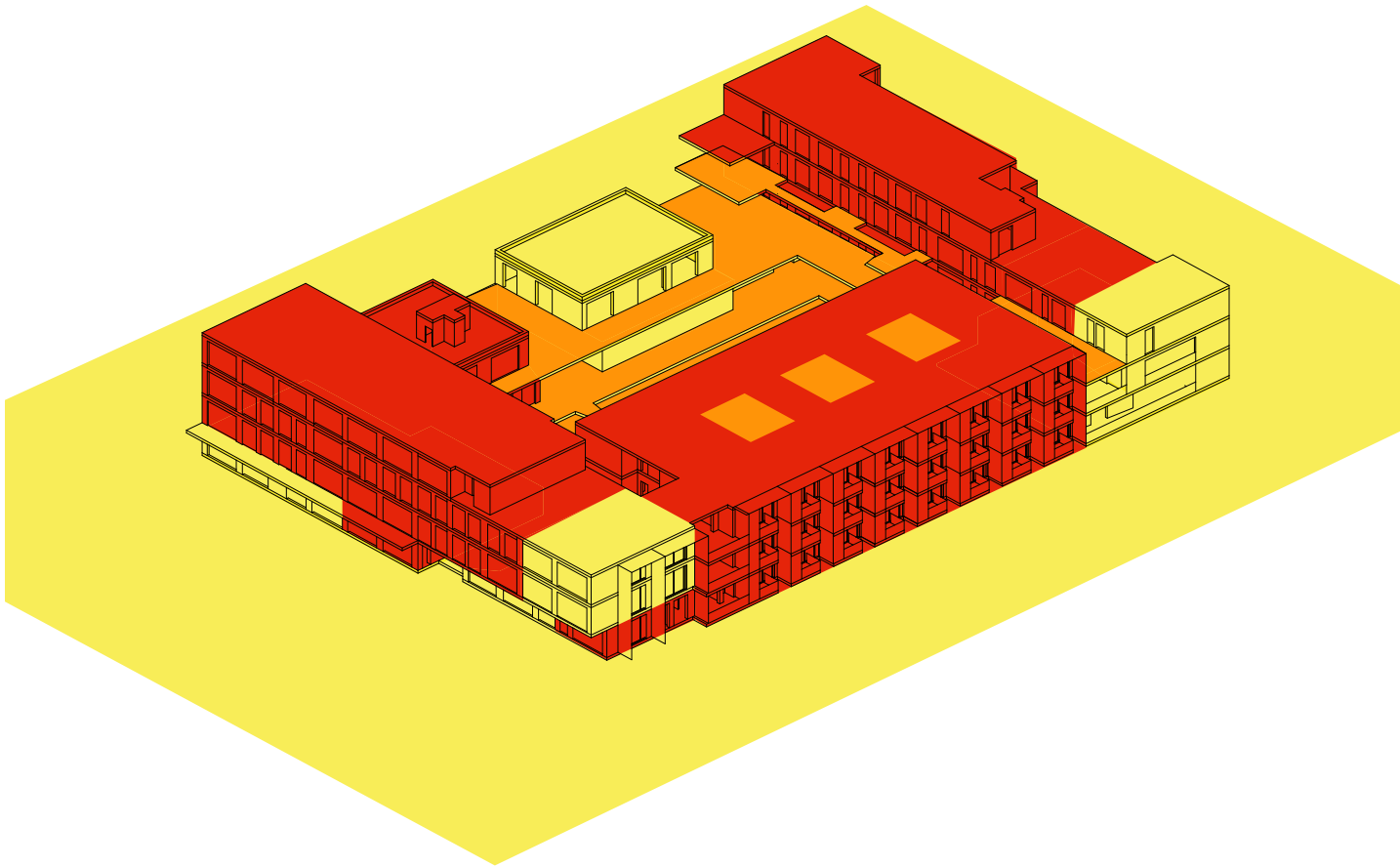


Fig. III. 3.8 Diagram, own illustration

Fig. III. 3. 8

Architectural elements which connect different zones

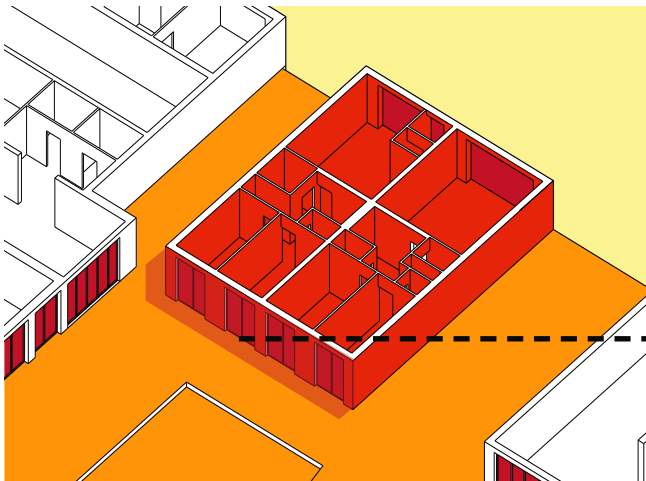


Fig. III. 3. 9



Fig. III. 3. 10

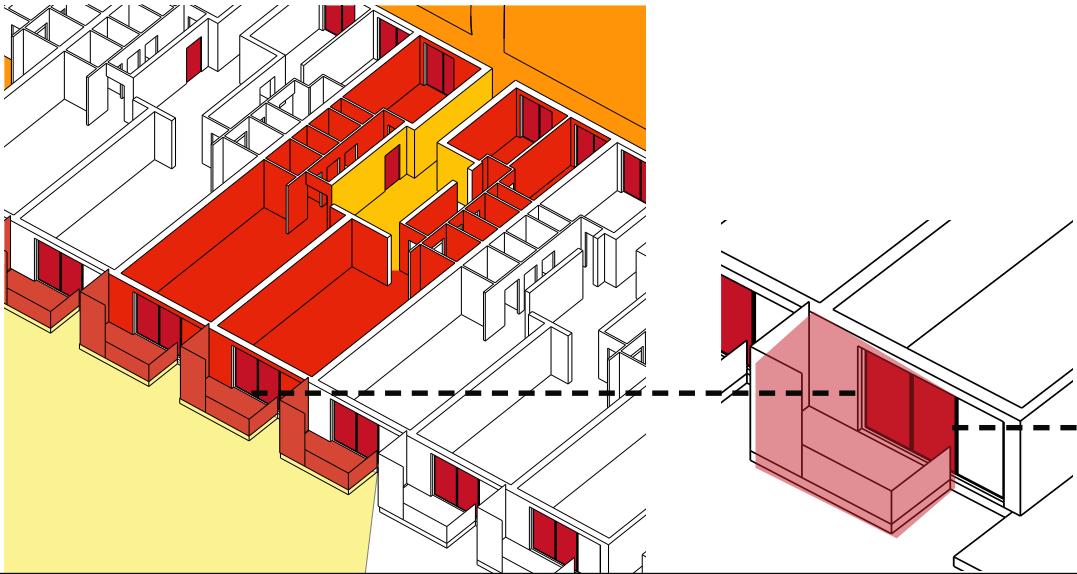


Fig. III. 3. 11

Fig. III. 3.9 Diagram, own illustration

Fig. III. 3.10 Image of the courtyard, source: <http://www.architetticercasi.eu/c/149>

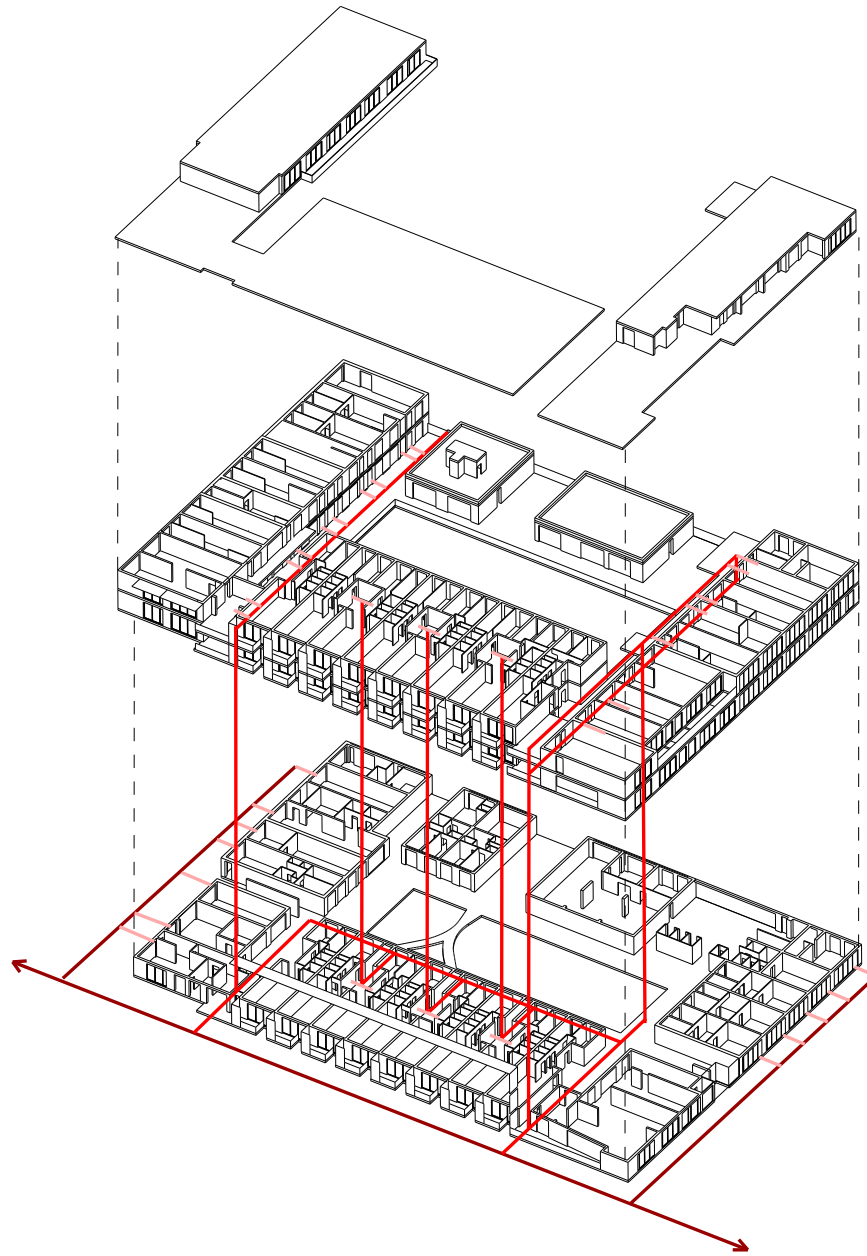
Fig. III. 3.11 Image of the facade, source: http://www.iceb.nl/professioneel/voorbeeldprojecten/project.asp?code_prj=8315

Routing

2nd floor

1st floor

ground floor



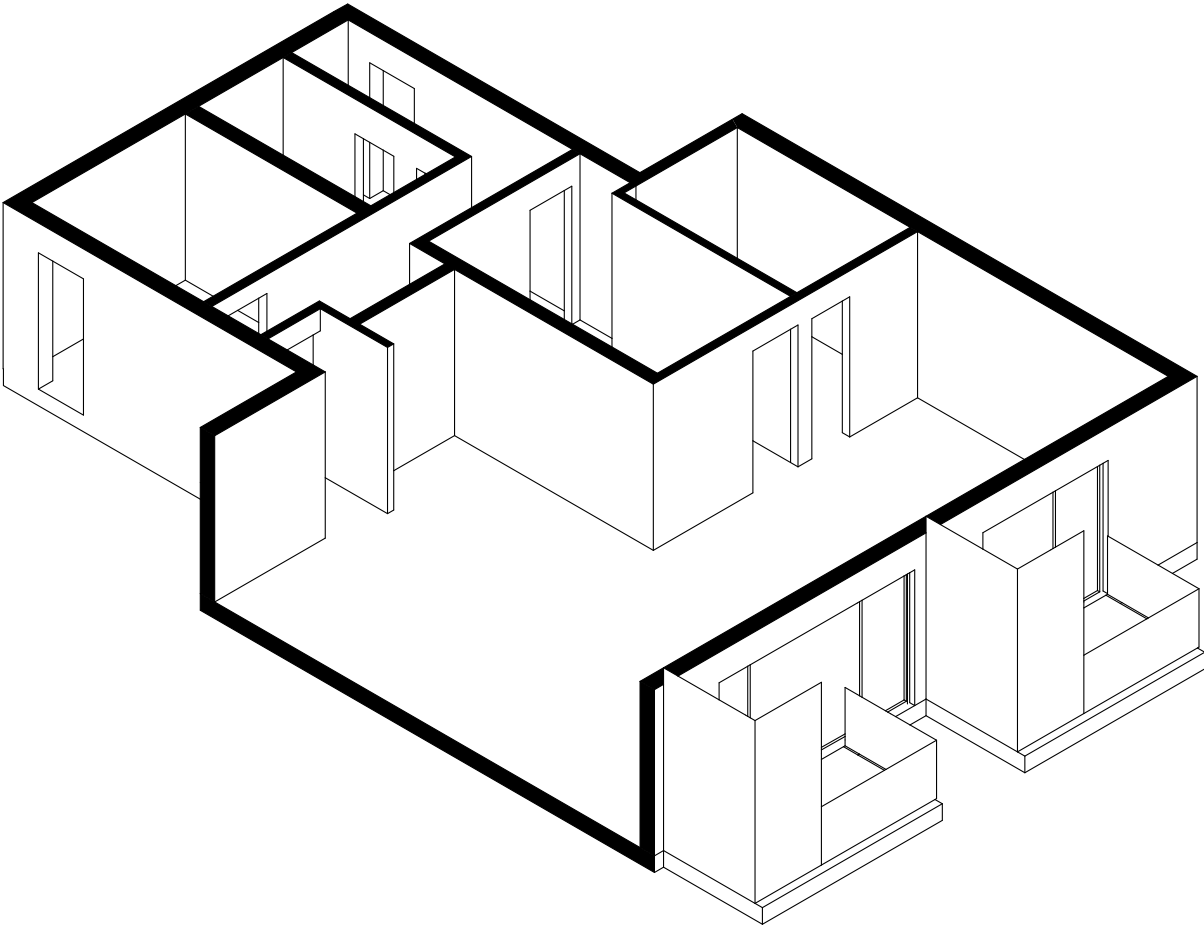
Key

- public
- collective
- private

Fig. III. 3.12

Fig. III. 3.12 Diagram, own illustration

Diagram fixed/ optional



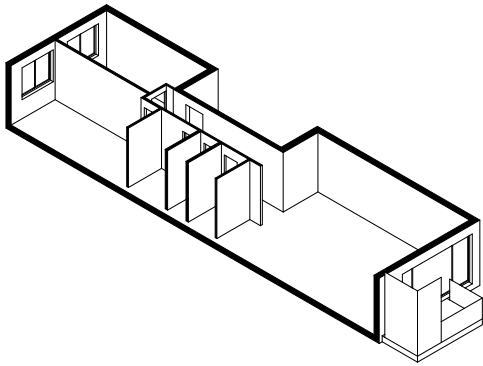
Key

- fixed
- optional

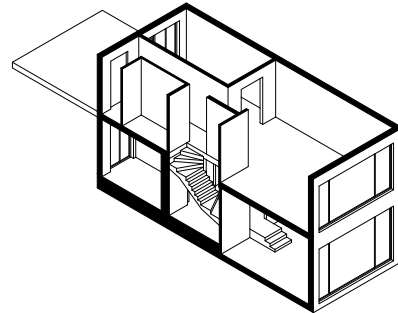
Fig. III. 3. 13

Fig. III. 3.13 Diagram, own illustration

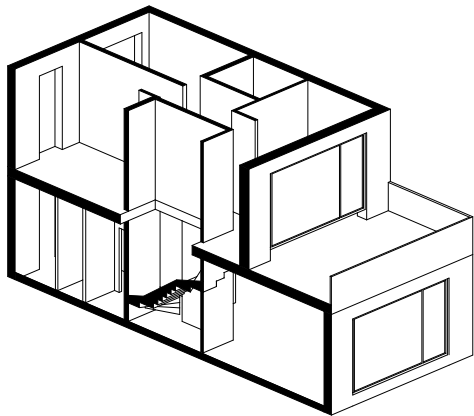
Dwelling typologies



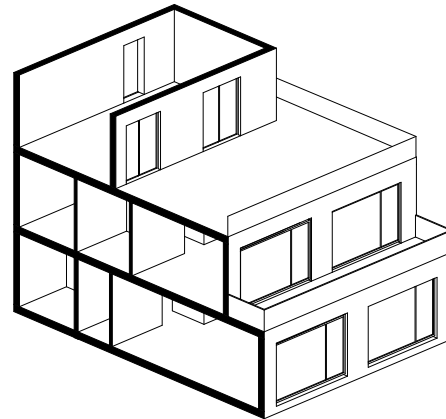
One floor dwelling
116 m² inside area
11 m² outside area
348 m³ volume



Two floors dwelling with office on the ground level
112 m² inside housing area
30 m² inside office area
21 m² outside area
426 m³ volume



Two floors dwelling
124 m² inside area
21 m² outside area
372 m³ volume



Three floors dwelling
282 m² inside area
60 m² outside area
846 m³ volume

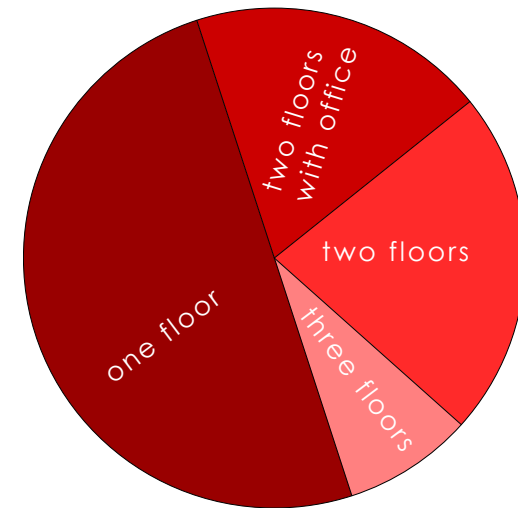


Fig. III. 3.14 Diagram, own illustration

Fig. III. 3. 14

Materiality



Fig. III. 3. 15



Fig. III. 3. 16

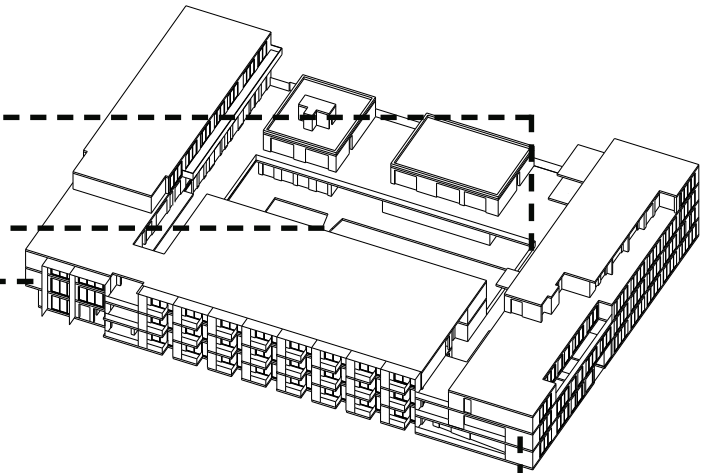


Fig. III. 3. 17



Fig. III. 3. 18



Fig. III. 3. 19

Fig. III. 3.15 Image courtyard, source: http://www.steigereiland.com/fotos/FotosvandeZuidbuurtStrook0en1/binnentuin_Vrijburcht_mei_2007_met_dank_aan_Marijke/

Fig. III. 3.16 Image deck, source: <http://architectuur.nl/project/de-vrijburcht-amsterdam-ijburg/>

Fig. III. 3.17 Diagram, own illustration

Fig. III. 3.18 Image Facade, source: <http://www.architetticercasi.eu/c/149>

Fig. III. 3.19 Image Facade, source: http://www.vlugg.nl/wp-content/uploads/2010/12/Vrijburcht_VLUGP_hr_A4-EN.pdf

Size of the building group: 52 households

Vrijburcht was initiated by inhabitants of the district Nieuwmarktbuurt in Amsterdam. The dwellers of the complex have various backgrounds.

People with certain disabilities can live in the nursing homes, people with low incomes can live in the so called 'AMH-dwellings' and there are also 12 dwellings suitable for artists and designers.

Demands	De Hoofden
Large living area	+/-
Large windows	+
High ceilings	-
Space for private time	+/-
Outside space	+
Storage space	+
Utility space	-
Options for different layout	-

Key

- + present in the design
- o optional in the design
- missing in the design

Table III. 3

Conclusion

In the table of "Vrijburcht" is shown that the layout is fixed and the users do not have the possibility to easily change it during the exploitation period. The architects provide a large diversity of dwelling typologies and that is why some apartments have big living areas and in some instances, spaces for private time, but some of them don't. This is indicated in the table with symbol "+/-".

Egebakken by Tegnestuen Vandkunsten



Fig. III. 4. 1



Fig. III. 4. 2



Fig. III. 4. 3

Fig. III. 4.1 Community centre, source: image taken from <http://www.dev.ihcdstore.org/?q=node/141>

Fig. III. 4.2 Frontside dwellings, source: image taken from <https://maps.google.com/>

Fig. III. 4.3 Backside dwellings, source: image taken from <https://maps.google.com/>



Fig. III. 4. 4



Fig. III. 4. 5



Fig. III. 4. 6

Fig. III. 4.4 Location of Nødebo within Denmark, own illustration based on view taken from <https://maps.google.com/>
Fig. III. 4.5 Location of the project within Nødebo, own illustration based on view taken from <https://maps.google.com/>
Fig. III. 4.6 Top view of Egebakken, own illustration based on view taken from <https://maps.google.com/>

Architectural program

Egebakken

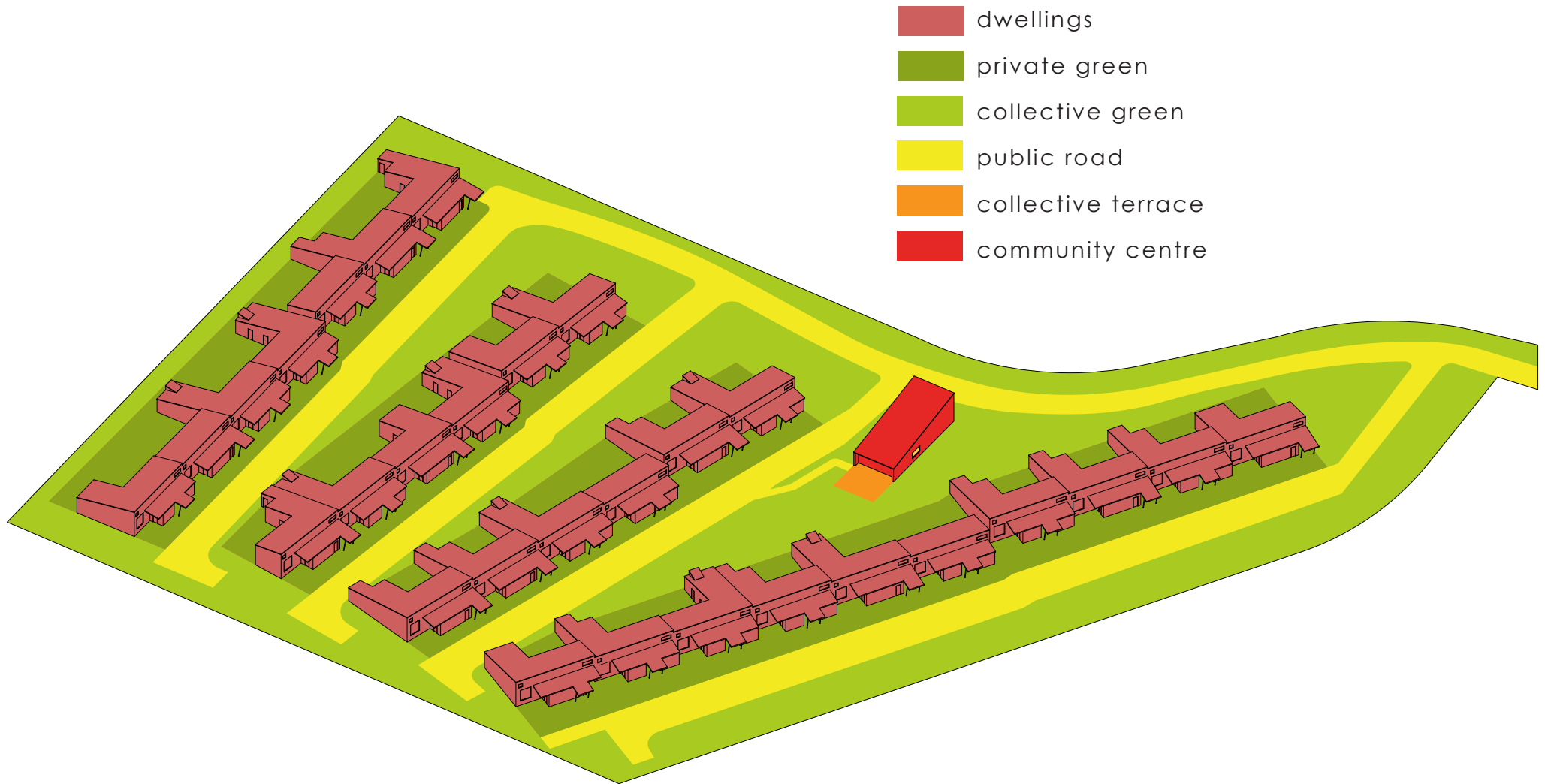


Fig. III. 4.7 Diagram, own illustration

Fig. III. 4. 7

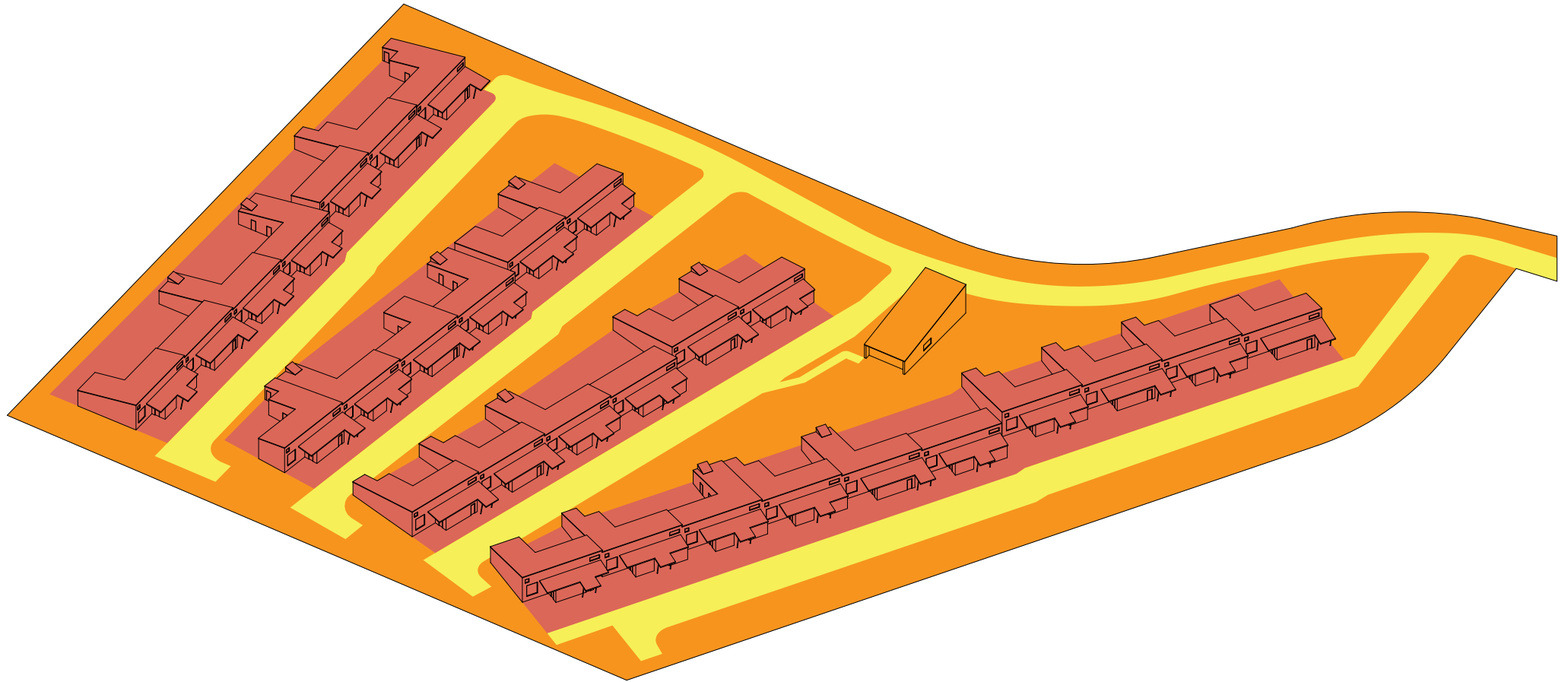
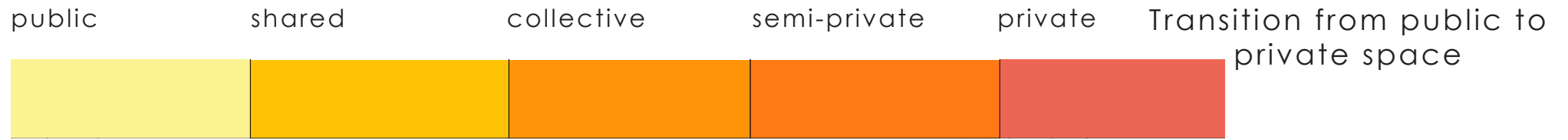


Fig. III. 4.8 Diagram, own illustration

Fig. III. 4. 8



element



space

Architectural elements which connect different zones



Fig. III. 4.9

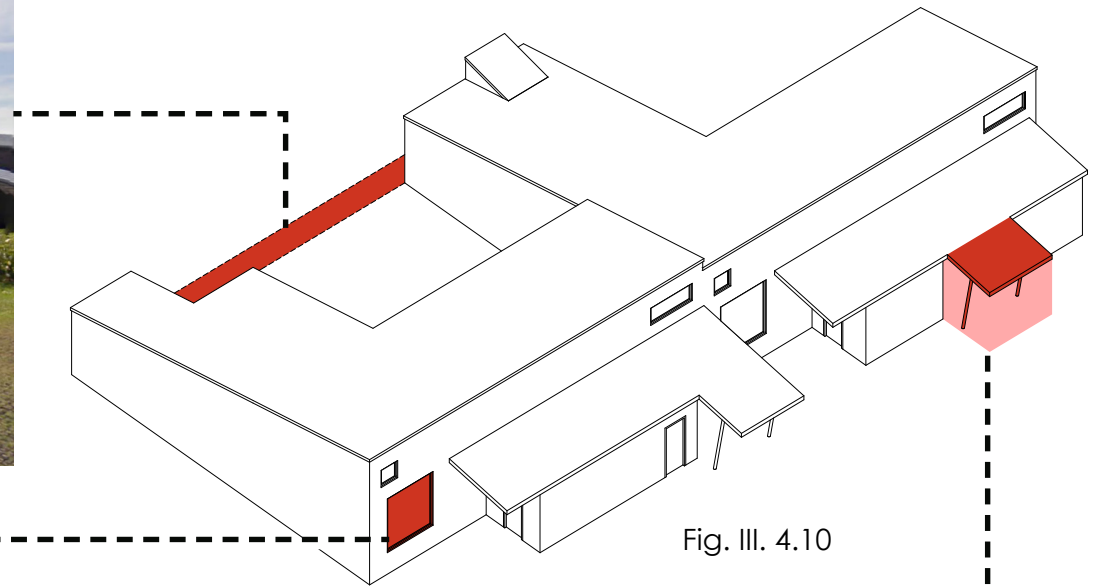


Fig. III. 4.10



Fig. III. 4.11



Fig. III. 4.12

Fig. III. 4.9 Own illustration, based on view taken from <https://maps.google.com/>

Fig. III. 4.10 Diagram, own illustration

Fig. III. 4.11 Own illustration, based on view taken from <https://maps.google.com/>

Fig. III. 4.12 Own illustration, based on view taken from <https://maps.google.com/>

Routing

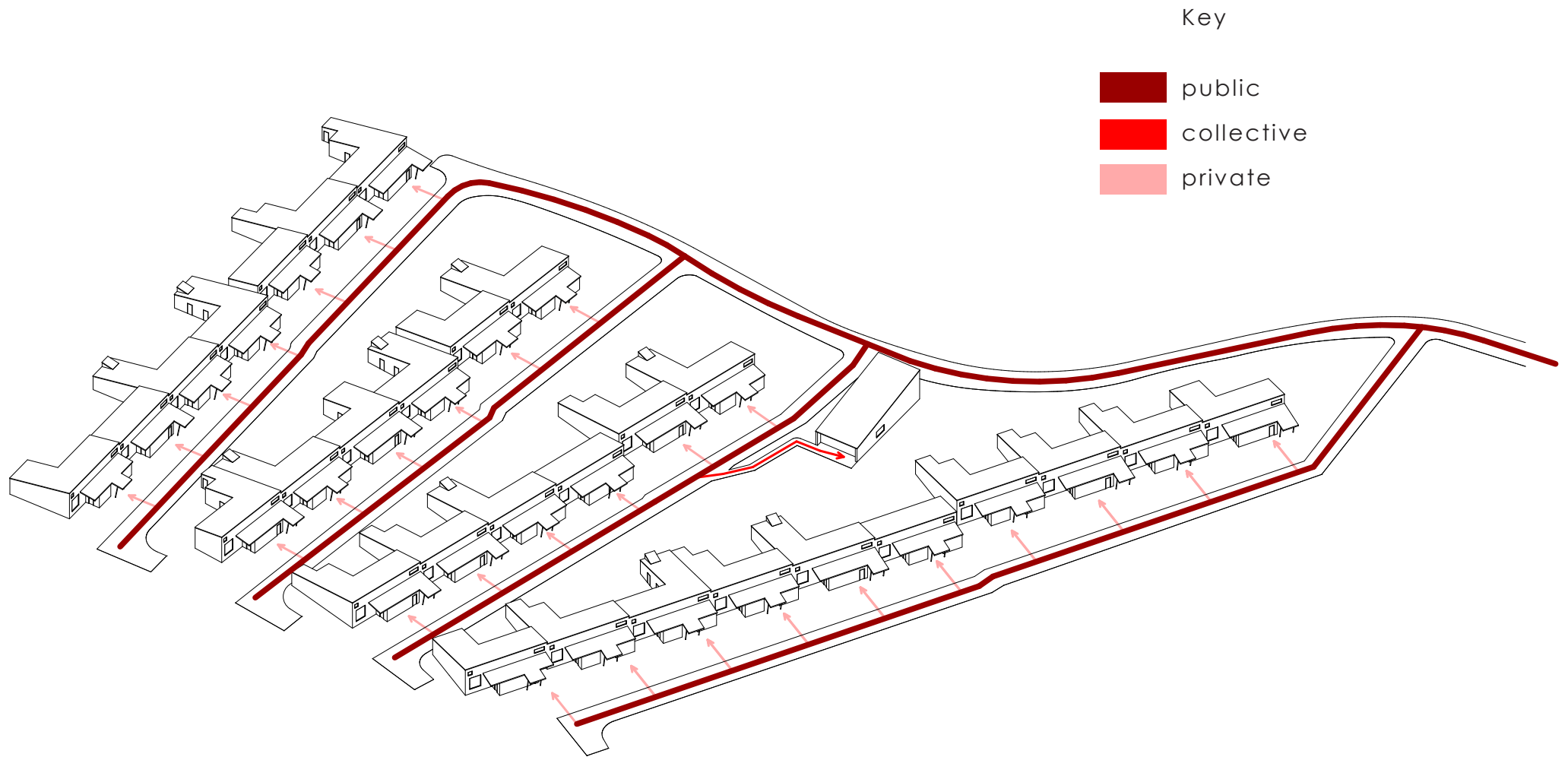
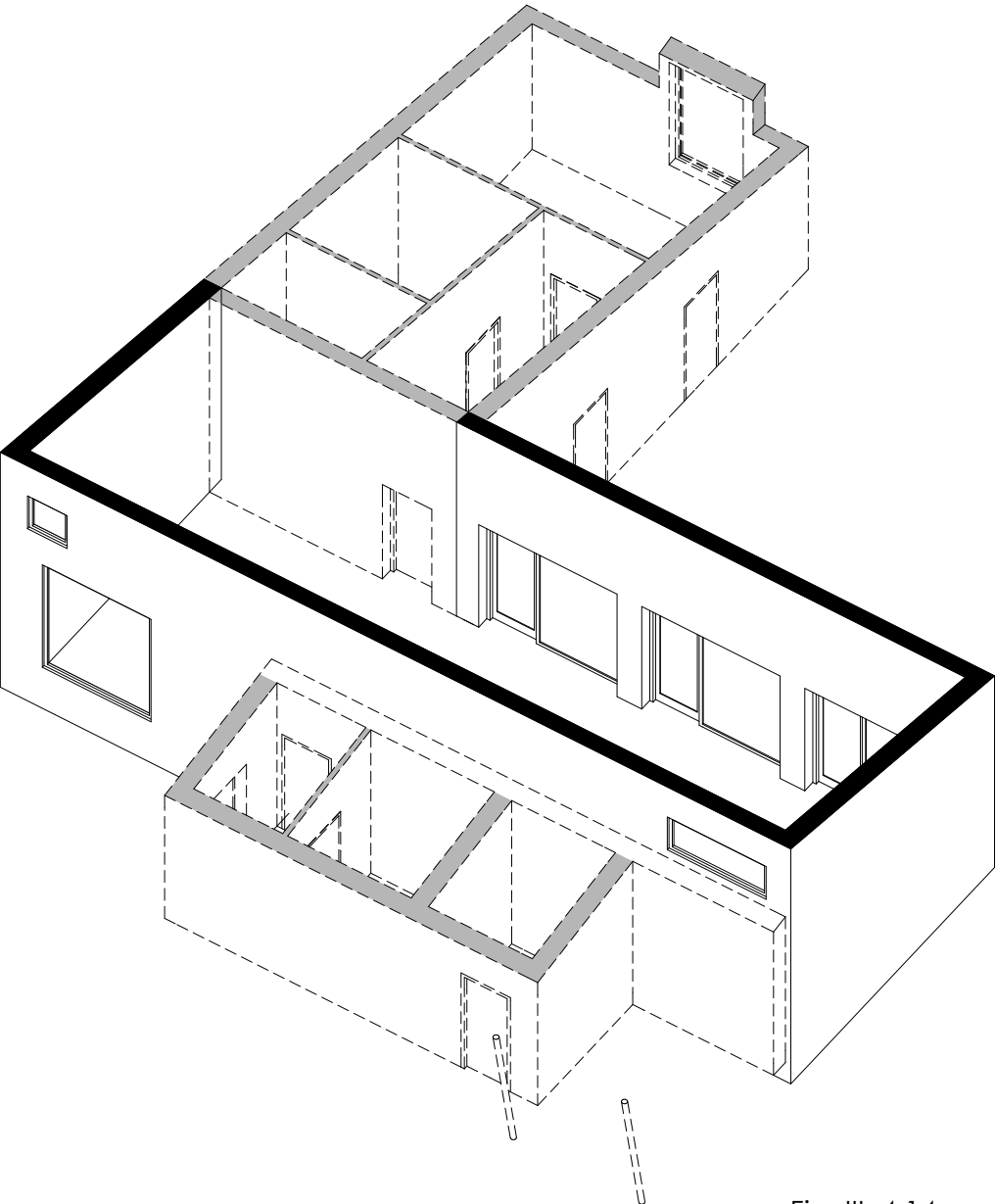


Fig. III. 4.13 Diagram, own illustration

Fig. III. 4.13

Diagram fixed/ optional



Key

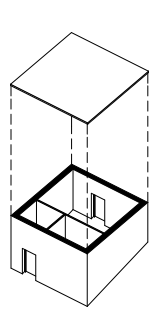
fixed

optional

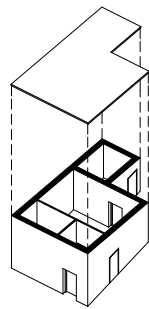
Fig. III. 4.14

Fig. III. 4.14 Diagram, own illustration

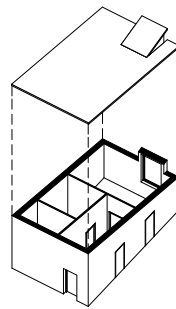
Dwelling typologies



Module Back-A
59 m² inside area
159 m³ volume



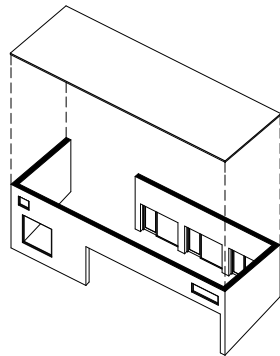
Module Back-B
59 m² inside area
159 m³ volume



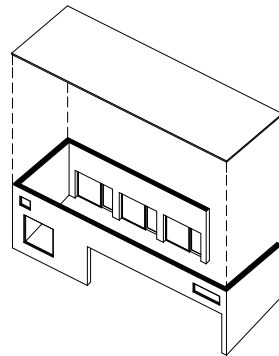
Module Back-C
59 m² inside area
159 m³ volume



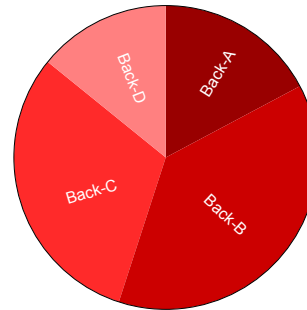
Module Back-D
59 m² inside area
159 m³ volume



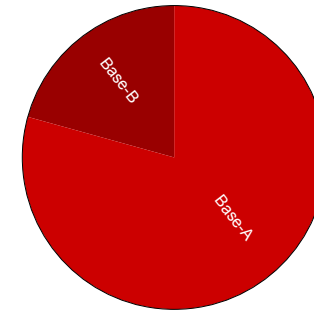
Base-A
59 m² inside area
159 m³ volume



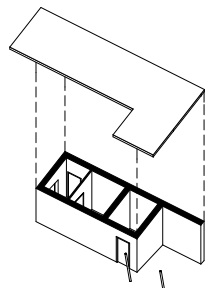
Base-B
59 m² inside area
159 m³ volume



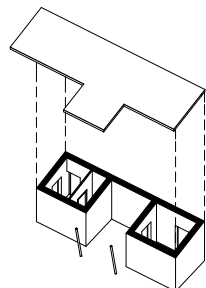
Backside



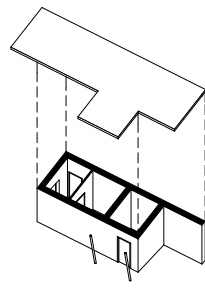
Base



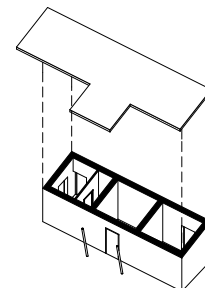
Module Front-A
59 m² inside area
159 m³ volume



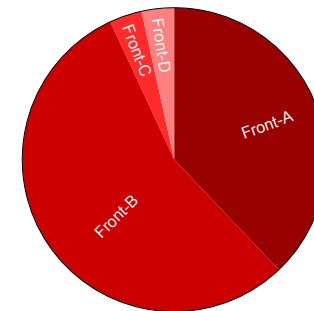
Module Front-B
59 m² inside area
159 m³ volume



Module Front-C
59 m² inside area
159 m³ volume



Module Front-D
59 m² inside area
159 m³ volume



Frontside

Fig. III. 4.15

Fig. III. 4.15 Diagrams, own illustration

Materiality



Fig. III. 4.16

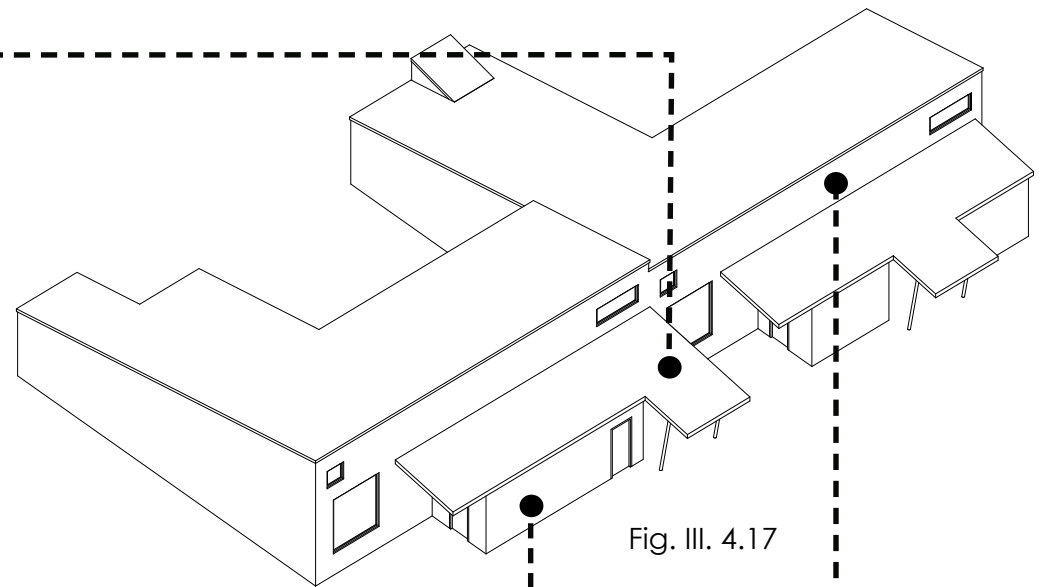


Fig. III. 4.17



Fig. III. 4.18



Fig. III. 4.19

- Fig. III. 4.16 Metal roofing, image taken from <https://maps.google.com/>
- Fig. III. 4.17 Diagram, own illustration
- Fig. III. 4.18 Wooden facade, image taken from <https://maps.google.com/>
- Fig. III. 4.19 Brick facade, image taken from <https://maps.google.com/>

Size of the building group: 29 households

The Egebakken complex for senior citizens was initiated around 2000 by 5 elderly couples. Their homes didn't fit their needs anymore so they decided to form a building group of likeminded people.

All the members of the building group are empty nesters over 50 years old and therefore there are no children living within the project.

Demands	De Hoofden
Large living area	+
Large windows	+
High ceilings	+
Space for private time	-
Outside space	+
Storage space	o
Utility space	o
Options for different layout	+

Key

- + present in the design
- o optional in the design
- missing in the design

Conclusion

The table of "Eggebakken" shows that the project meets most of the demands of the people. The only missing point in this case is the space for private time which is not presented in the layout of the project. The storage space and the utility space can be provided by adding modules to the main volume of the dwelling.

Table III. 4

E3 by Kaden Klingbeil



Fig. III. 5. 1



Fig. III. 5. 2



Fig. III. 5. 3

Fig. III. 5.1 Image from the street, source: http://www.stimuleringsfonds.nl/nl/toekenningen/small_urbanism

Fig. III. 5.2 Image to the passage, source: <http://wieweiterwohnen.de/11/karte/project/30>

Fig. III. 5.3 Image of the interior, source: <http://www.proholz.at/zuschnitt/33/lueckenfueller-mit-distanz/>

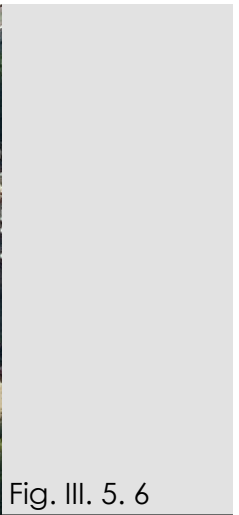
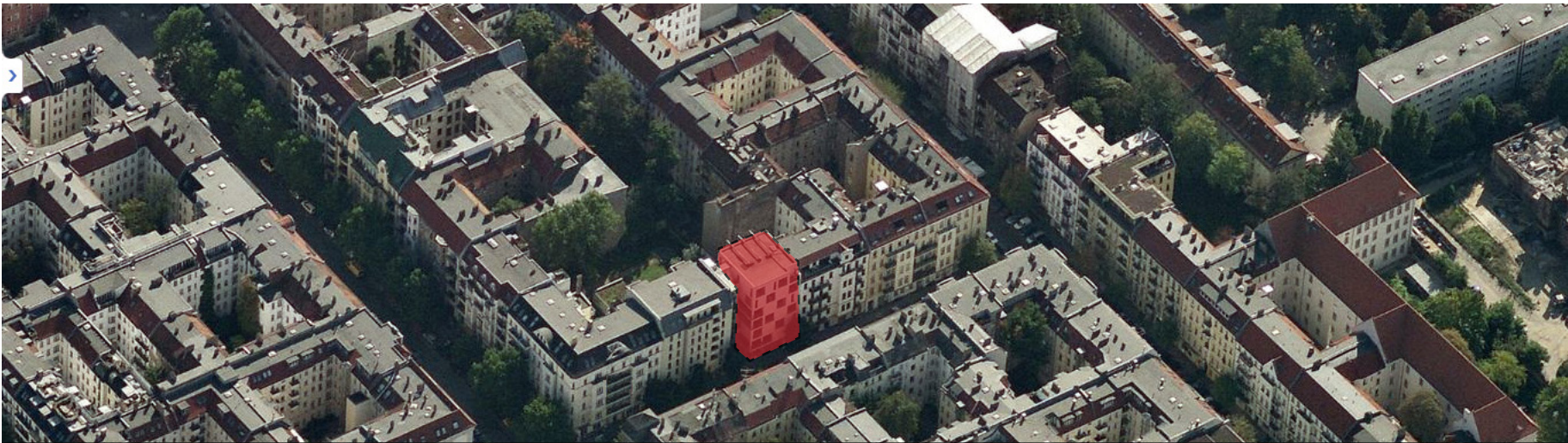
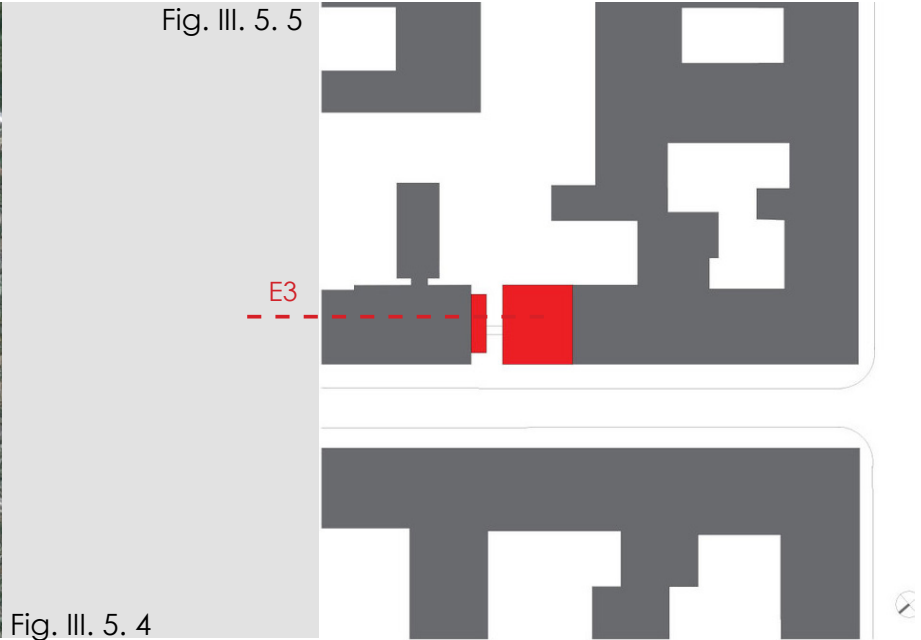
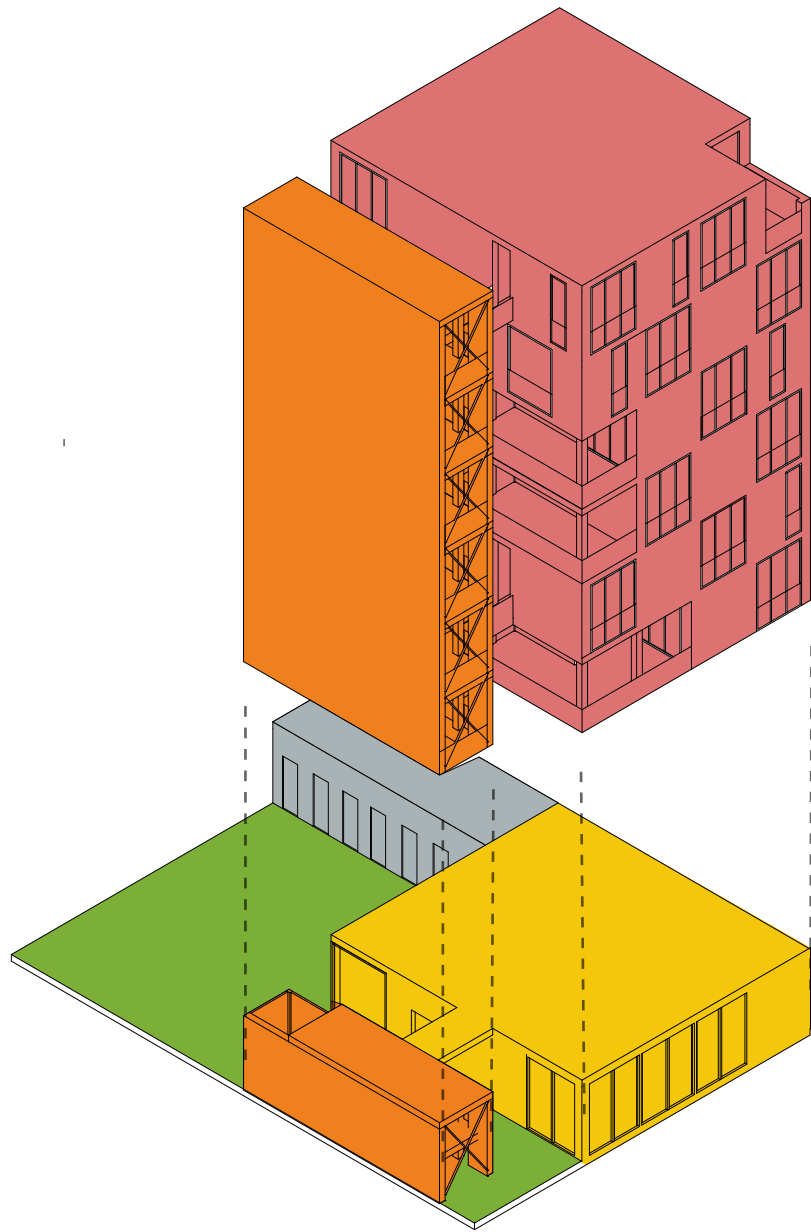


Fig. III. 5.4 Location of the project within Berlin, own illustration based on view taken from <https://maps.google.com/>
Fig. III. 5.5 Location of the project in the neighbourhood, source: <http://europaconcorsi.com/projects/239891-E3->
Fig. III. 5.6 Birdeye view, own illustration based on view taken from <http://www.bing.com/maps/>

Architectural program

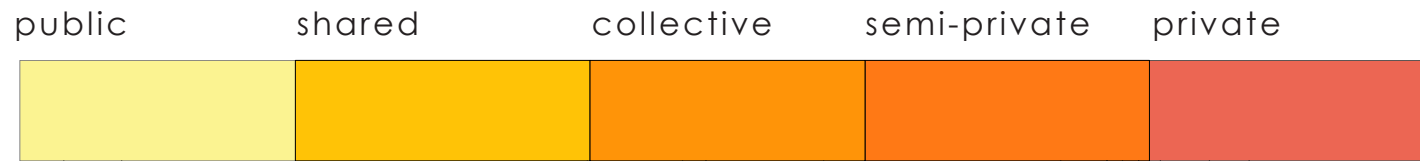
E3



- dwellings
- staircase
- office
- courtyard
- storage

Fig. III. 5. 7

Fig. III. 5.7 Diagram, own illustration



Transition from public to private space

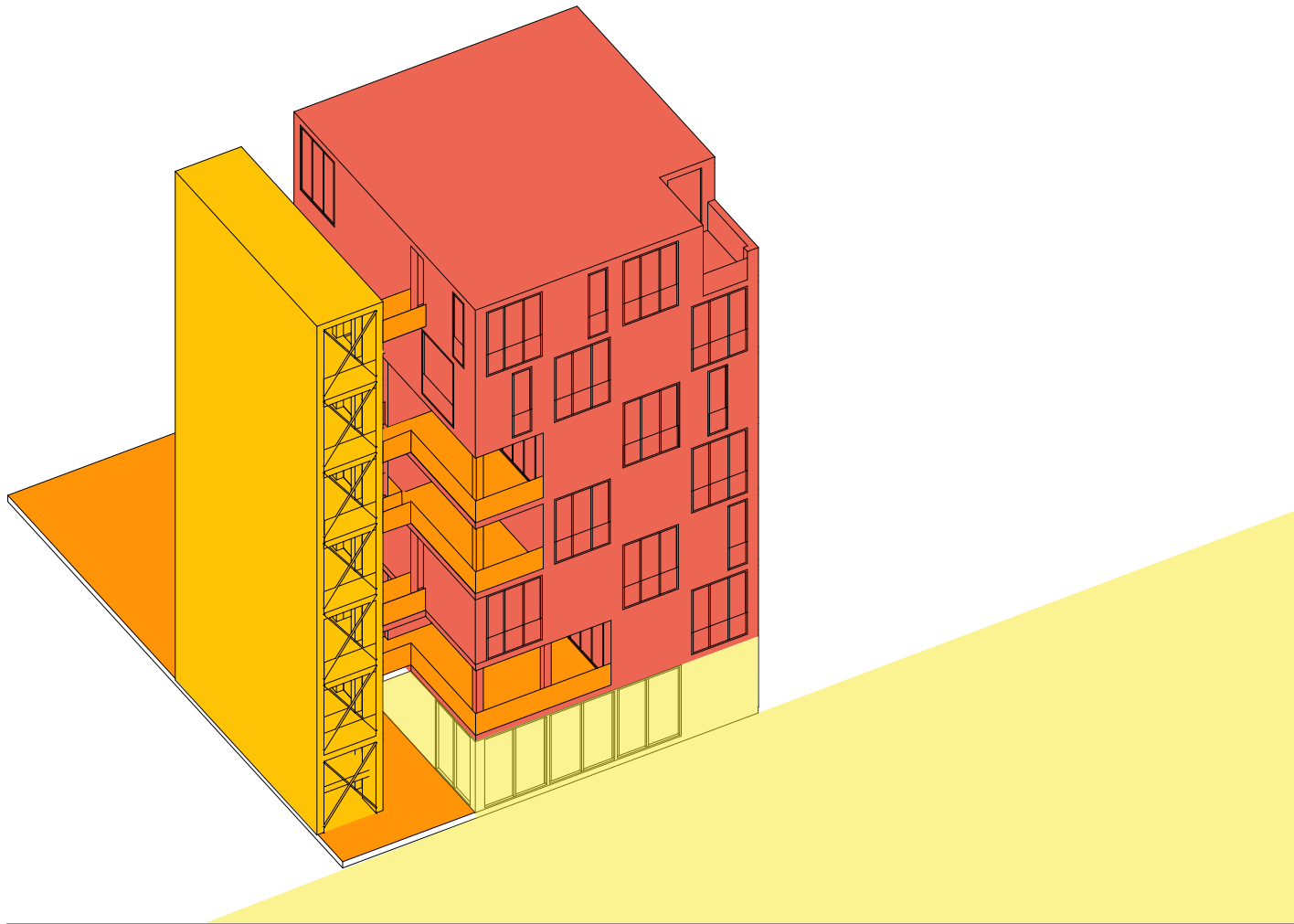


Fig. III. 5.8 Diagram, own illustration

Fig. III. 5. 8

Architectural elements which connect different zones



Fig. III. 5. 9

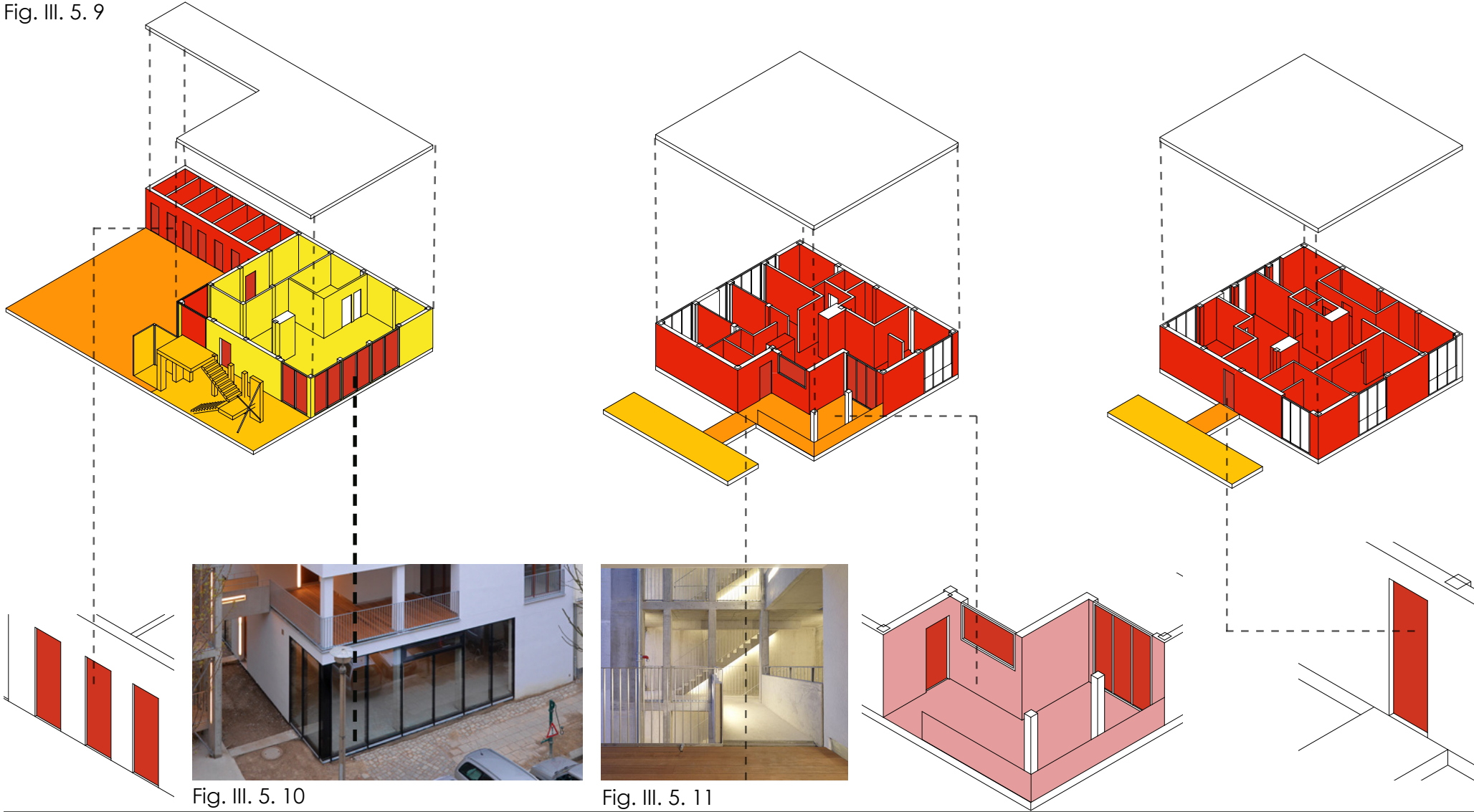


Fig. III. 5.9 Diagram, own illustration

Fig. III. 5.10 Image parter, source: http://www.stimuleringsfonds.nl/nl/toekenningen/small_urbanism

Fig. III. 5.11 Image from the loggia, source: http://www.iceb.nl/professioneel/voorbeeldprojecten/project.asp?code_prjc=8315

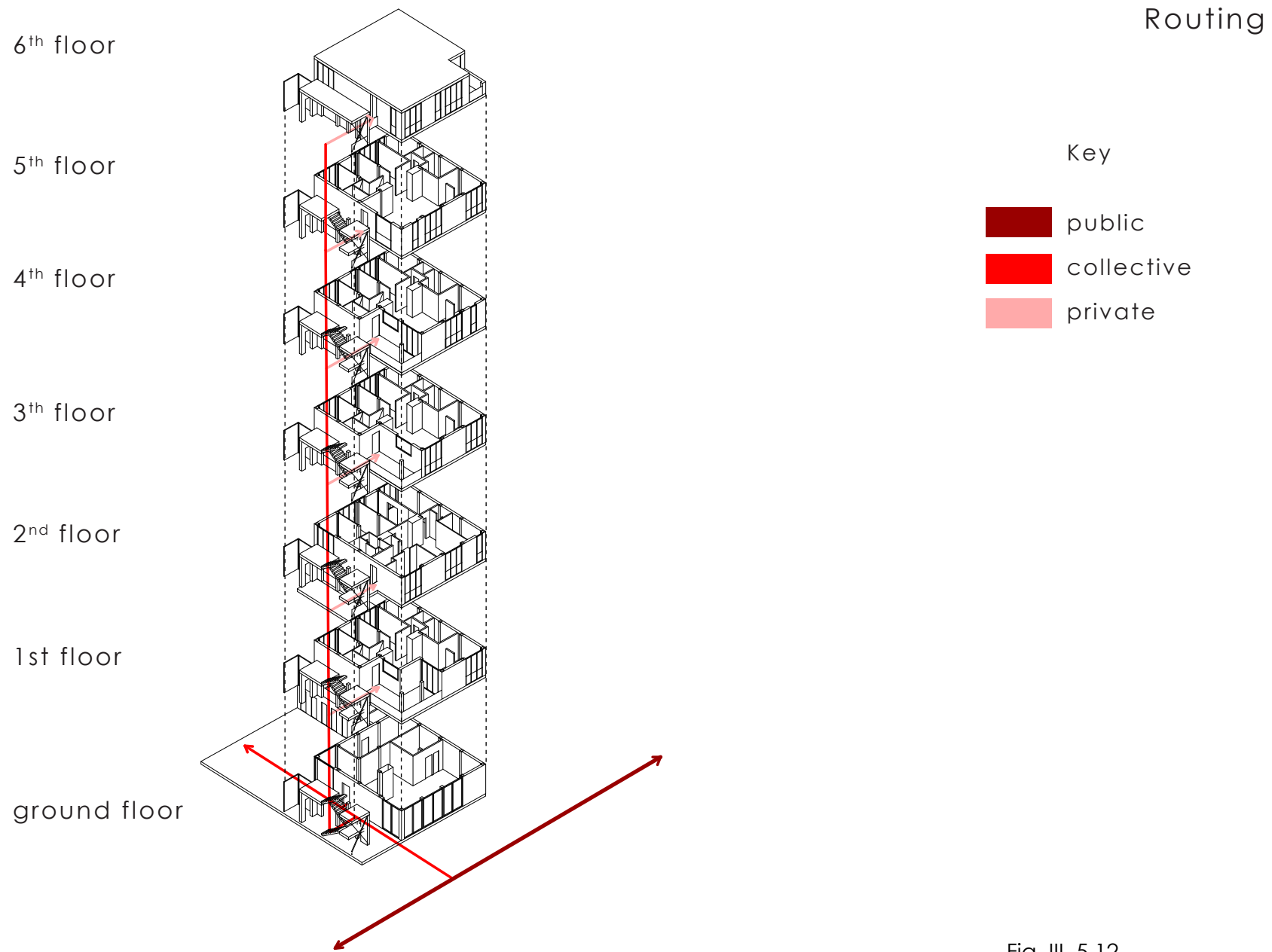


Fig. III. 5.12 Diagram, own illustration

Fig. III. 5.12

Diagram fixed/ optional

Key

- fixed
- optional

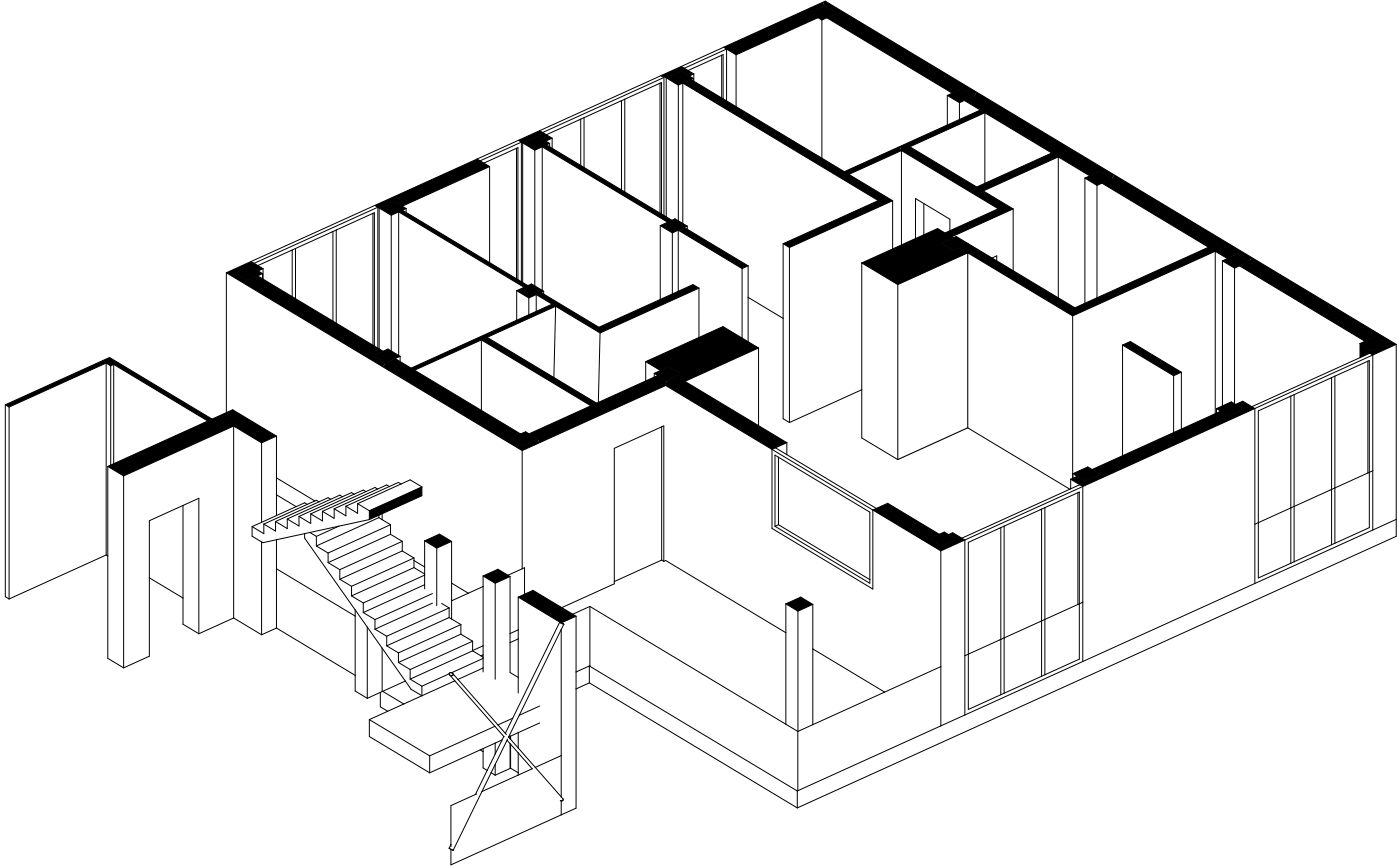
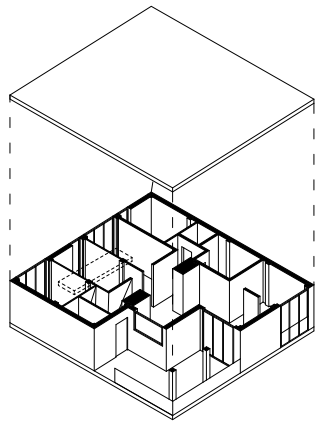


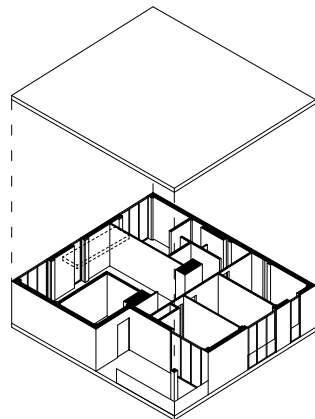
Fig. III. 5.13 Diagram, own illustration

Fig. III. 5. 13

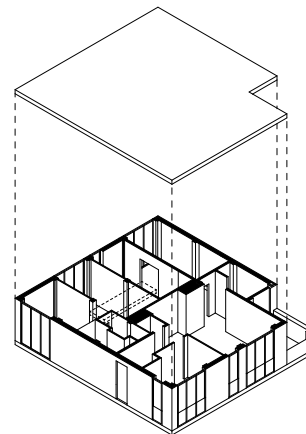
Dwelling typologies



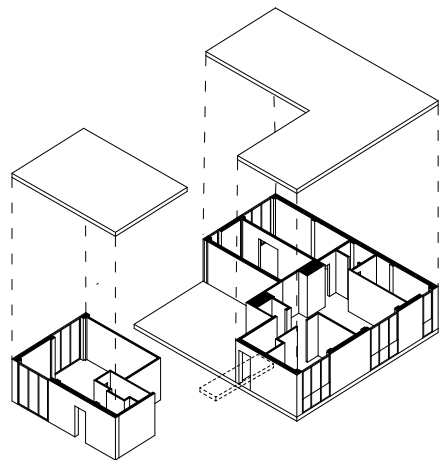
Type 1 with loggia
 133 m² inside area
 28 m² loggia outside area
 7,4 m² balcony outside area
 399 m³ volume



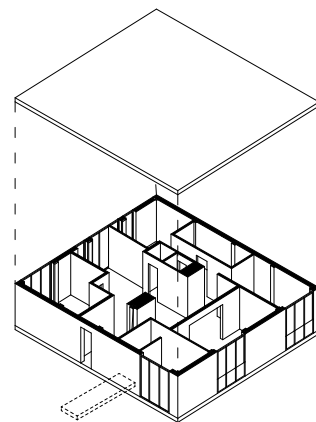
Type 2 with loggia
 133 m² inside area
 28 m² loggia outside area
 7,4 m² balcony outside area
 399 m³ volume



Type 3 with loggia
 153 m² inside area
 6 m² loggia outside area
 7,4 m² balcony outside area
 459 m³ volume



Type 4
 without loggia
 45,5 m² inside area
 5,4 m² balcony
 outside area
 136,5 m³ volume



Type 5
 without loggia
 118 m² inside area
 7 m² balcony
 outside area
 354 m³ volume

Type 6 without loggia
 161 m² inside area
 7,4 m² balcony outside area
 483 m³ volume

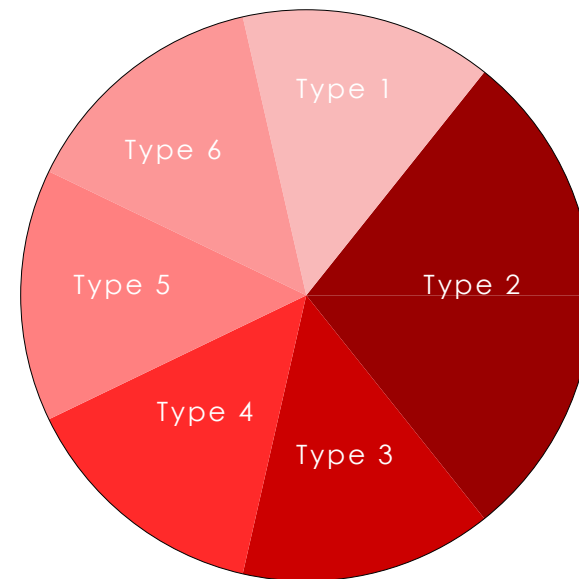


Fig. III. 5.14 Diagram, own illustration

Fig. III. 5. 14

Materiality



Fig. III. 5. 15

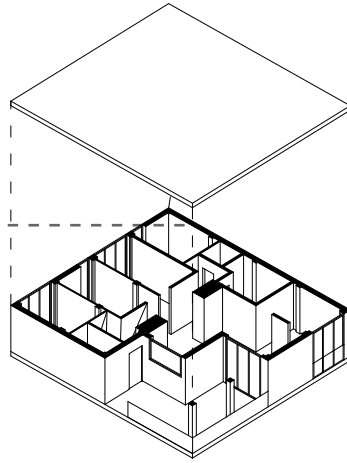


Fig. III. 5. 16

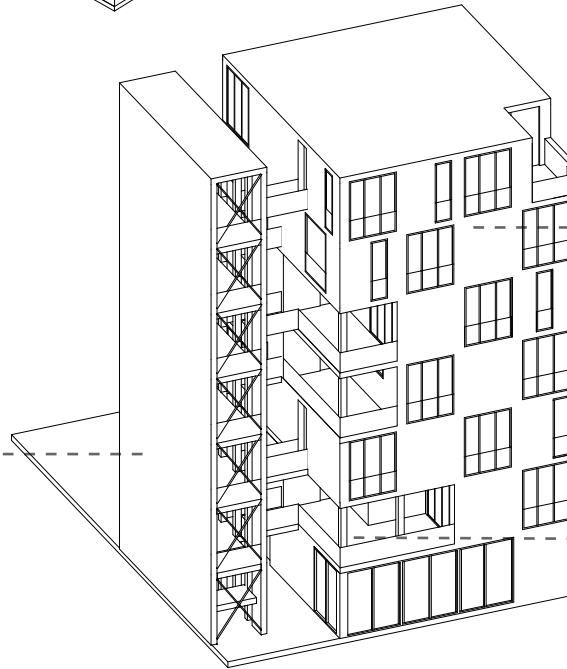


Fig. III. 5. 17



Fig. III. 5. 18



Fig. III. 5. 19

Fig. III. 5.15 Image interior, source: <http://www.proholz.at/zuschnitt/33/lueckenfueller-mit-distanz/>

Fig. III. 5.16 Image staircase, source: <http://wieweiterwohnen.de/11/karte/project/30>

Fig. III. 5.17 Diagram, own illustration

Fig. III. 5.18 Image facade, source: http://www.stimuleringsfonds.nl/nl/toekenningen/small_urbanism

Fig. III. 5.19 Image loggia, source: <http://europaconcorsi.com/projects/239891-E3->

Building group "E3"

Size of the building group: 7 households

The initiative arose after all seven households were looking for affordable homes in Berlin which would meet their needs. The groundfloor is the office of the architects of the building- Kaden Klingbeil.

Age of the building group:

All the members are young people under 35 years.



6 families



1 single



Kaden Klingbeil office

Demands	De Hoofden
Large living area	+/-
Large windows	+
High ceilings	-
Space for private time	+/-
Outside space	+
Storage space	+
Utility space	+/-
Options for different layout	-

Key

+ present in the design

o optional in the design

- missing in the design

Table III. 5

Conclusion

In the case of "E3" the architects designed each apartment according to the individual wishes of the users. In that sense the layout of the apartments is fixed. That is why the living area, the utility space and the private space are marked with +/- . In some apartments these elements are present, but in others they aren't. The height of the floors is equal in the entire building and does not provide extra height anywhere.

IV. Conclusions

A. Concerning the analyzed data

In the table below (Table IV.1) is shown the comparison between the demands and the analyzed case studies. From the presented data is clear that most of the demands are implemented in the projects and in the cases where the demands are missing there is an option for it to be included. In some cases part of the demands are missing but there

are other special qualities of the design. For example, in the case of Vrijburcht the layout is fixed and the heights of the spaces are not higher than in ordinary dwellings but the complex provides its inhabitants with a large variety of functions (see Fig. III.3.7) and outside spaces, such as a courtyard, collective terraces, galleries, balconies and roof terraces. In a different way E3 also provides the inhabitants with diversity of outside

spaces: private balconies, collective loggias and a courtyard. Hence, each of the analyzed case studies is not only investigated from the point of view of the demands but also from the point of view of the architectural qualities which they present. As architects, we should satisfy not only the needs and the wishes of the users, but strive to go beyond that and provide an even higher level of quality.

Demands	De Hoofden	Wallisblock	Vrijburcht	Eggebakken	E3
Large living area	o	o	+/-	+	+/-
Large windows	+	+	+	+	+
High ceilings	+	-	-	+	-
Space for private time	o	o	+/-	-	+/-
Outside space	+	+	+	+	+
Storage space	+	o	+	o	+
Utility space	o	o	-	o	+/-
Options for different layout	+	+	-	+	-

Key

- + present in the design
- o optional in the design
- missing in the design

Table IV.1

IV. Conclusions

B. Concerning the design

By investigating both- the CPC and the demands of the people, we already gained knowledge and ideas for the future design which we develop next to the research. To proceed further with our design we would not only incorporate the elements which the people mentioned and which we found in the analyzed case studies in the project, but we will try to develop some of the described features and add extra qualities to some of these elements. For instance, as we already underlined in the first part of the research as well as in the case study analysis, one of the characteristics of the Collective Private Commissioning is the diversity in the dwelling typologies. By using the demands of the people as a point of departure (open layouts, flexible space, high ceilings, big windows, etc.) each of us will design a set of dwelling typologies for Island 7

in which we will try to further develop the above mentioned characteristics and to elaborate such a typology which would meet the expectations of the 21st century. This can be achieved by combining spaces with different heights, creating visual connections between the interior spaces or/ and between outside and inside, designing "dynamic" floorplans which change during the lifetime of the building or providing extra space which can be exchanged between the inhabitants, depending on their current needs.

The need for outside spaces and the examples of the transitions from the case study analysis is the next point which can be used as an inspiration and can be further developed in the design of island 7. Each of us should find his own way to introduce collective or/and semi private spaces but possible directions are terraces, gardens, atriums or other interior and exterior spaces which would make the project rich

and interesting. Passing through spaces with a different atmosphere, size, illumination or usage, can add value to the project. By arranging spaces in certain order we can provoke different emotions in the inhabitants, we can add quality to the building and to make the design vital.

Another direction which is also full of potential is the time frame of usage of the spaces. The spaces can be used in one way during the day, but in a completely different way in the evening or during special days when the same spaces can be changed and used by other inhabitants. Terraces or collective interior spaces can be used by children during the day for games, arts, or just for spending time together and in the evening to be used by young people from the buildings to meet.

All above mentioned possibilities can add value to the design that would not have been possible in a traditional largescale housing block or in a private custom designed dwelling. Depending on an individual approach, some of these possibilities will be incorporated either in the design of the dwellings or in the collective and public spaces.

Choosing one or another approach is a decision which each of us should take according to the site, the program and the aim of the design. The key role of the research is that it already provided us with examples and knowledge which inspired us and which arouse great interest for the design. In that sence the research became part of the entire process of designing and serves as a base for making decisions and taking directions instead of being a separate study on CPC or the demands of the 21st century. The links between the examined projects and

the literature to the following design process are the starting points which should be further developed in the next steps of the design process.

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