



HOUSING INVENTIONS 2013

Social hållbarhet och bostadsutformning

Positive Footprint Housing

Research by design av master studenter
Institutionen för arkitektur, Chalmers tekniska högskola



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Cover:
[Student works from master studio]

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Förord

Detta är en sammanställning av studentprojekt från masterkursen Housing Inventions 2013, på Chalmers tekniska högskola, Institutionen för Arkitektur. Kursens inriktning är gestaltning av innovativa bostäder för ett framtida urbant boende, där en helhetssyn på hållbarhetsperspektivet är en utgångspunkt för arbetet.

Studenternas projektarbeten utgör en del av en undersökande studie med research by design. Studien är kopplad till ett doktorandarbete jag bedriver som är en del av forskningsprojektet Positive Footprint Housing, ett projekt i samarbete mellan Riksbyggen, Chalmers tekniska högskola, Göteborgs universitet och Johannebergs Science Park. Forskningsprojektet har som mål att utveckla hållbara, kvalitativa bostäder från ett urbant perspektiv. Detta görs via ett fullskaleprojekt, bostäder som planeras och byggs på en tomt i Södra Guldheden i Göteborg. Tomten gränsar till Chalmers campusområde och utgör i detta sammanhang en möjlighet att tydligt lyfta fram innovativt bostadsbyggande i högskolans närhet. Studenterna har arbetat med bostadsprojekt på tomten i Guldheden för att belysa hållbara utvecklingsaspekter i den specifika, urbana kontexten. Studentprojekten belyser olika möjligheter att tillvarata tomtens förutsättningar.

I mitt doktorandarbete undersöker jag möjliga samband mellan flexibla bostäder och social hållbarhet. I studenternas arbete har därför frågor om flexibla bostäders användning och påverkan på en livssituation varit en central fråga. Andra frågor som studerats i projektarbetet har varit bostadens rum utomhus, där en nytänkande utformning kan bidra till att erbjuda en större mångfald av bostäder i Guldheden. De nya bostäderna som en del av den befintliga stadsdelen med hänsyn till kringboende och omsorg om lokala, gemensamma stadsmiljöer och stråk har också varit en viktig fråga.

Den här sammanställningen redovisar exempel från studenternas projekt där två av de frågor de arbetat med lyfts fram; bostadens gemensamma rum och flexibla bostäder som kan erbjuda möjlighet att bo kvar i bostaden även då livssituationen förändras. Samtliga studentprojekt är presenterade i sammanställningen.

Arbetsgruppen i Positive Footprint Housing har tagit del av studentprojekten vid seminarier och kritiktilfällen. Intressanta idéer från studenternas projekt breddar på detta sätt inflödet av innovativa idéer i forskningsarbetet med utvecklingen av bostäderna i Guldheden. Förhoppningen är att ett bredare perspektiv ska föra vidare kvalitativa och nytänkande idéer in i det pågående bostadsprojektet.

Göteborg, Maj 2013

Anna Braide Eriksson

Konstnärlig lektor och PhD student, Chalmers tekniska högskola

Bostadens gemensamma rum

Gemensamma rum inom bostadshuset

Gemensamma mötesplatser i bostaden kan vara utrymmen som också utgör praktiska funktioner i vardagen. Man kan träffa sina grannar i entren, tvättstugan eller på gården. Sociala band med övriga boende ger förutsättningar för en mer levande och trygg boendemiljö. En gemenskap ger också förutsättningar för delaktighet och gemensamt ansvarstagande för närmiljö och människor. Vilka rum och vilka situationer kan agera mötesplatser i en boendemiljö? Hur kan en förutsättning för kvalitativa möten bli en del av bostadsmiljön? Hur ser morgondagens gemensamma mötesplatser och rum ut i boendemiljön?

Gemensamma rum i mötet mellan bostadshus och stadsdel

Bostadshuset blir ett nytt tillägg i stadsdelen Guldheden. Det nya bostadshuset kan av de etablerade guldhedsborna uppfattas som ett främmande tillskott som inte hör hemma eller som inte är bra i den sedan länge etablerade stadsdelen. Hur kan bostadshuset tillföra kvalitativa stadsrum och stärkta stråk som kan bidra till fler möten mellan människorna i stadsdelen?

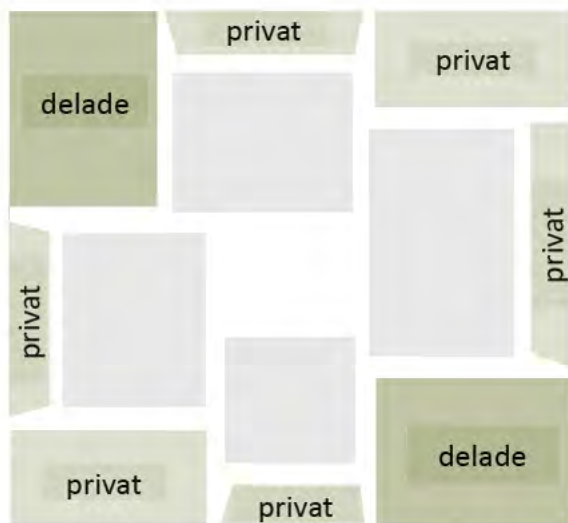
Social hållbarhet omfattar bland annat: *Trygghet, sociala sammanhang, kulturell mångfald, tillhörighet, identitet, livskvalitet, välmående*

Privata och gemensamma trädgårdar omger lägenheterna.

Uterummens dubbla våningshöjd och en tilltagen yta gör förslaget till ett intressant försök att skapa stadsbostäder med både privata och gemensamma sociala, gröna rum.

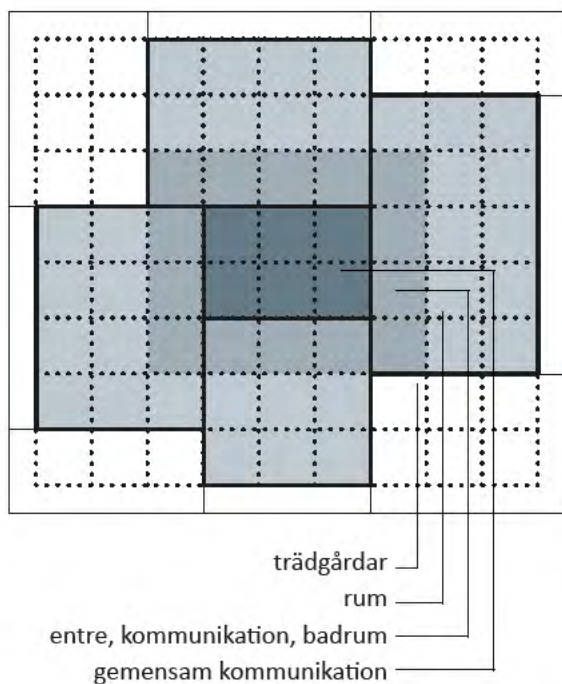
I kommande exempel presenteras kommentarer i färgad textruta

HELLO NEIGHBOUR



Princip för delade och privata trädgårdar för de boende

Privata och gemensamma trädgårdar omger lägenheterna. Uterummens dubbla våningshöjd och en tilltagen yta gör förslaget till ett intressant försök att skapa stadsbostäder med både privata och gemensamma sociala, gröna rum.



Princip för bostadsplan hela punkthuset



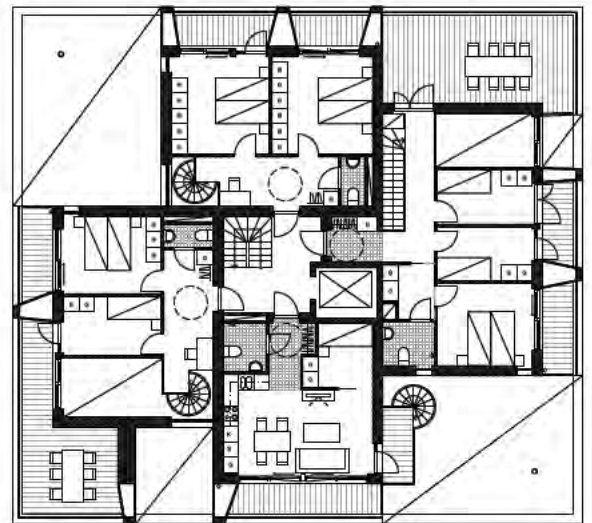
Gemensamma trädgårdar

gemensamma trädgårdar/ dubbel nöjd

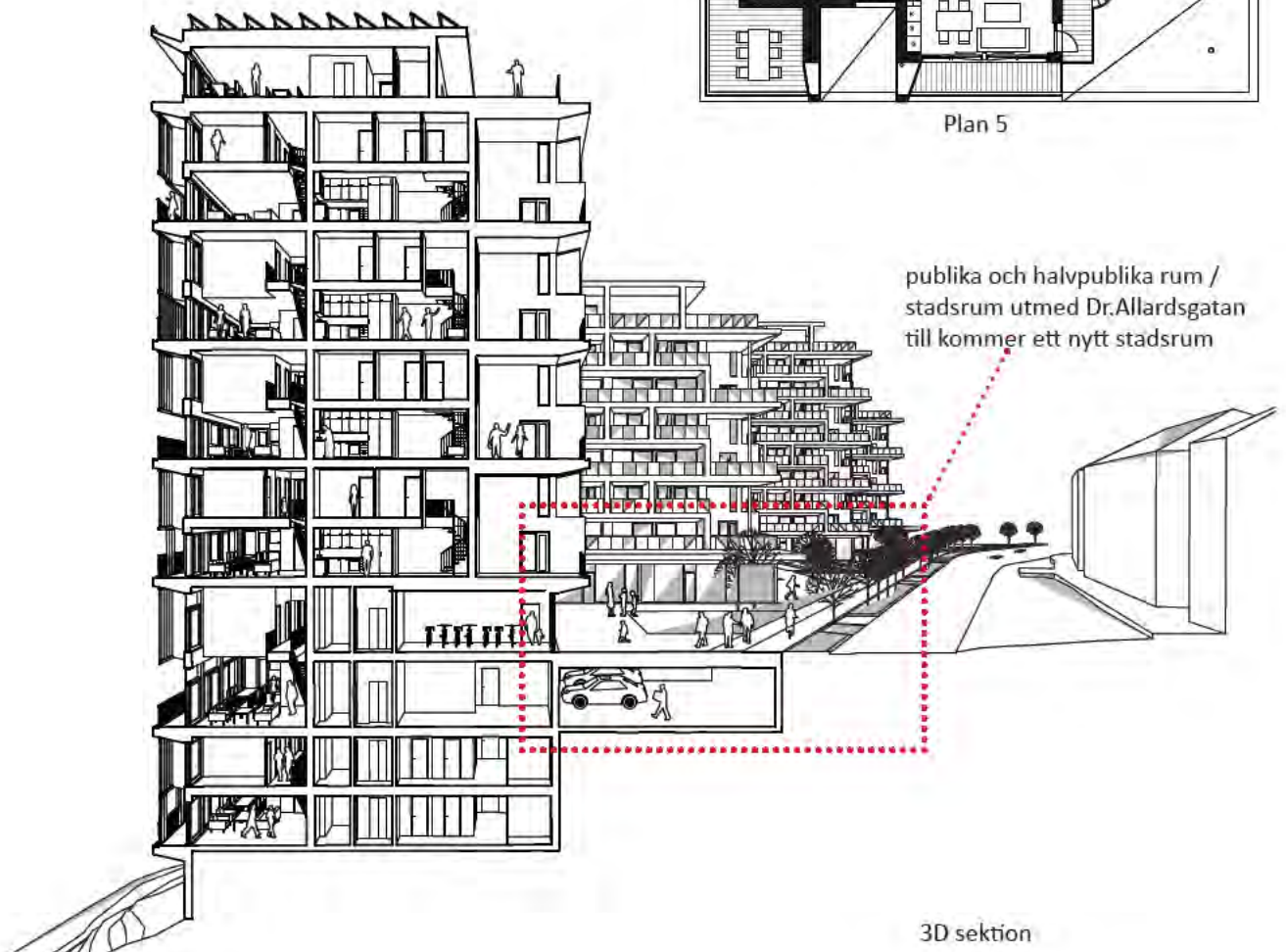
privata balkonger



Plan 4



Plan 5



publika och halvpublika rum /
stadsrum utmed Dr.Allardsgatan
till kommer ett nytt stadsrum

3D sektion

THE SEVEN GOLDEN ISLANDS



Situationsplan



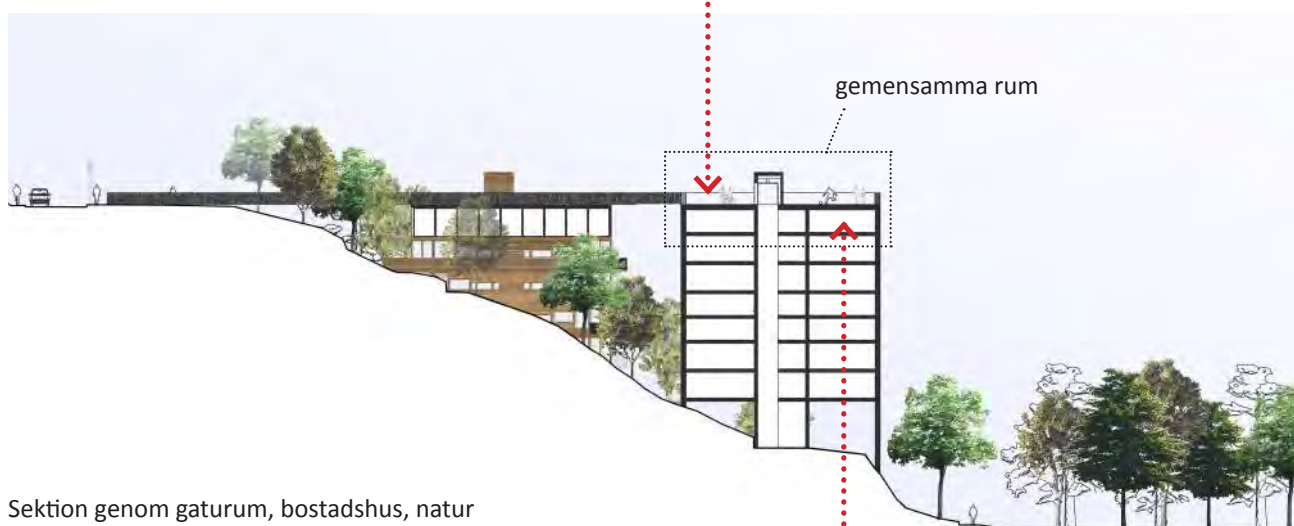
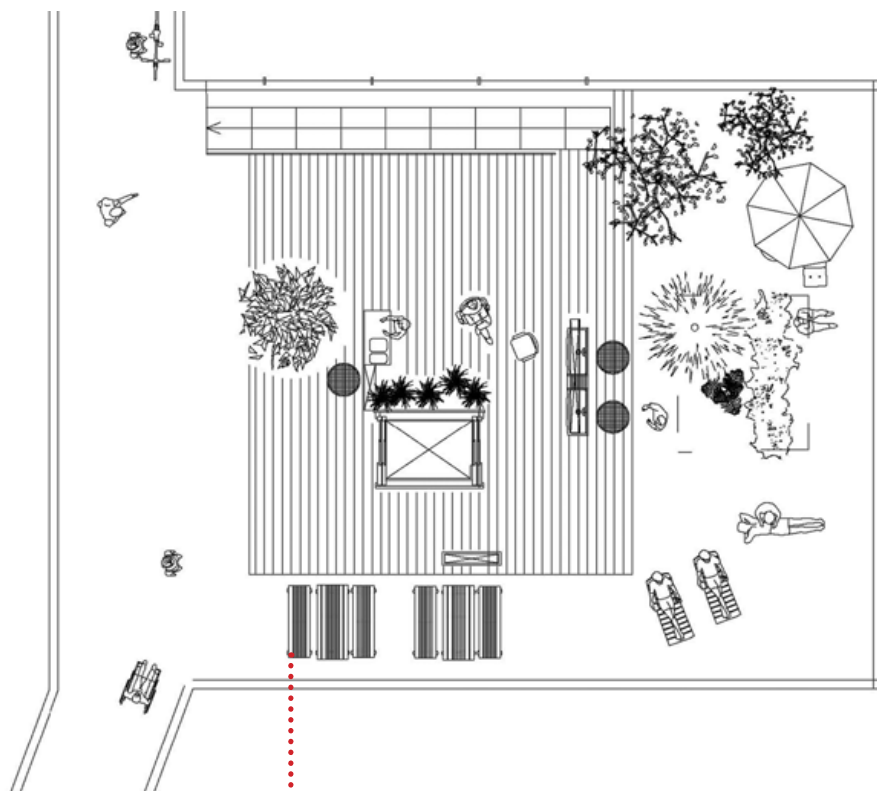
Gemensam takträdgård med entre till gemensamma rum högst upp i bostadshuset

De gemensamma utvändiga och invändiga rummen får ett exklusivt läge i bostadshuset. De ligger som en första mötespunkt då du går in i bostadshuset. Här passerar många av de som bor i huset. Spontana och planerade möten kan ske här.



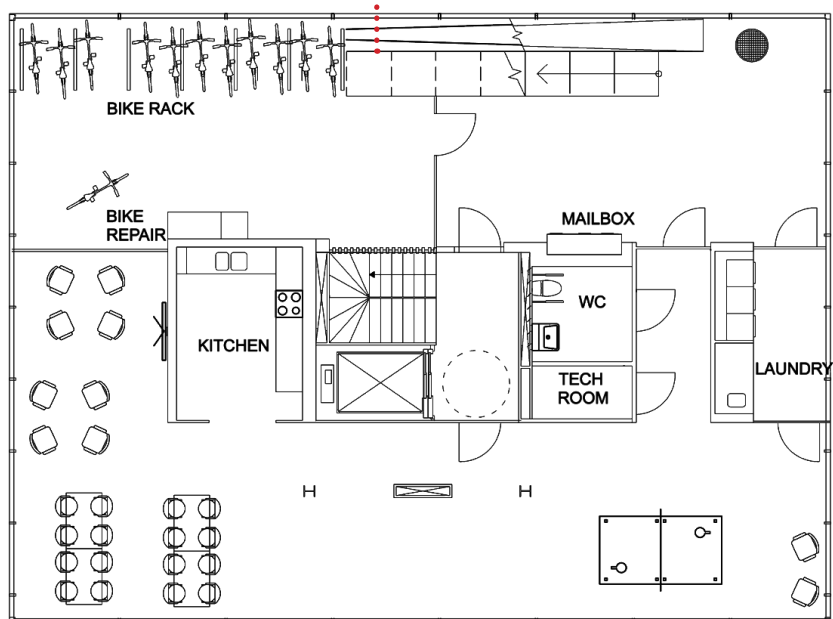
Vy från Dr.Allards gata / De gemensamma trädgårdarna ligger som öar mellan trädtopparna

Plan gemensam takträdgård



Sektion genom gaturum, bostadshus, natur

Plan gemensam invändig yta



Flexibla bostäder - en möjlighet att bo kvar

Att kunna bo på en plats under en längre tid gör att det finns möjligheter att lära känna sin närmiljö och människor som bor i området. Närmiljön kan vara något man knyter an till, för den boende kan detta innebära en trygghet att bo i en välkänd miljö. Närmiljön kan också utgöra en del av den egna identiteten. Där man bor använder man också ofta skolor, förskolor eller lär känna andra som bor i området. Sociala nätverk kan utvecklas och blir en del av vardagen. Nätverken kan betyda mycket för det sociala livet men också för att känna sig trygg och ha en bra boendemiljö. En bostad som kan anpassas för olika livssituationer kan betyda en möjlighet att bo kvar även då en förändring inträffar.

Hushåll som bor under en längre tid är en förutsättning för stabila och trygga boendekvarter. En närmiljö med boende som får och kan ta ansvar kan generera engagemang och ansvarsfullhet i såväl den byggda miljön som i den sociala gemenskapen. I detta sammanhang är längre boendetid en avgörande faktor. På en urban skala är därför möjligheten att bo kvar en viktig del av en hållbar stad.

Social hållbarhet omfattar bland annat: *Trygghet, sociala sammanhang, kulturell mångfald, tillhörighet, identitet, livskvalitet, välmående*

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I kommande exempel presenteras kommentarer i färgad textruta

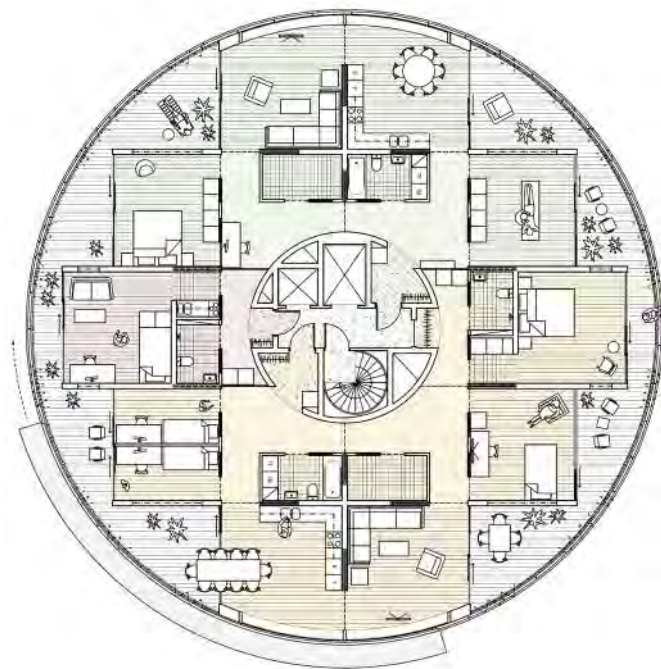
LOVE GENERATION



Situationsplan

Bostadshuset har en grundstruktur av generella rum (kvadratiska rum ca 4m) och en kärna med kommunikation, entreer och våtrum. Generösa utvändiga rum kan stängas eller öppnas mot naturen. Grundplanen kan delas in på olika sätt, efter de boendes behov, i olika stora lägenheter. Studenterna har presenterat projektet med iden om ett generationsboende. Här kan både mor/far föräldrar och den nästan vuxna tonåringen bo nära men ändå avskilt från resten av familjen. Lägenheter kan anpassas alltefter de olika livssituationerna.





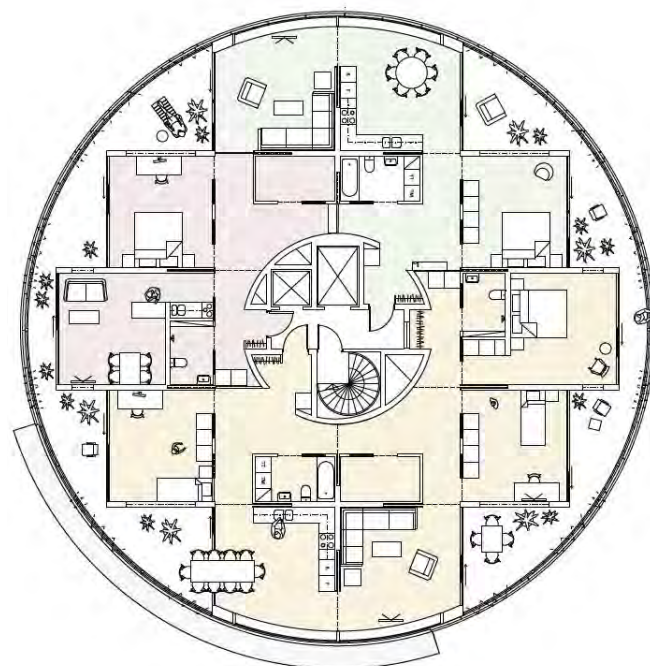
Plan A

Plan A: 2021

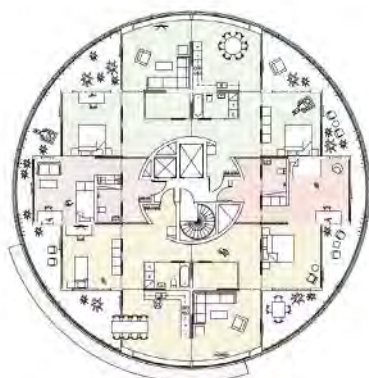
- 5 Rok, 140 m²
Föräldrar med 3 barn. Ett större rum är delat.
- 3 Rok, 110 m²
Mammans föräldrar bor nära familjen så de kan hjälpas åt. En av dem jobbar som massör hemifrån.
- 1 Rok, 30 m²
1 student bor här.

Plan B: 2032

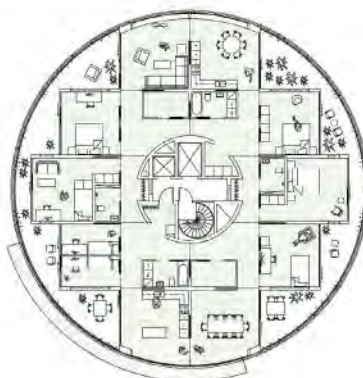
- 4 Rok, 140 m²
Äldsta barnet flyttar till lägenheten bredvid detta.
- 2 Rok, 76 m²
En av morföräldrarna dör. Kvar boende önskar ett rum mindre.
- 2 Rok, 63 m²
Studenten har flyttat och äldsta barnet har bor här.



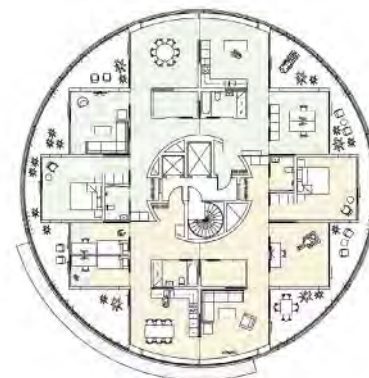
Plan B



Plan C



Plan D



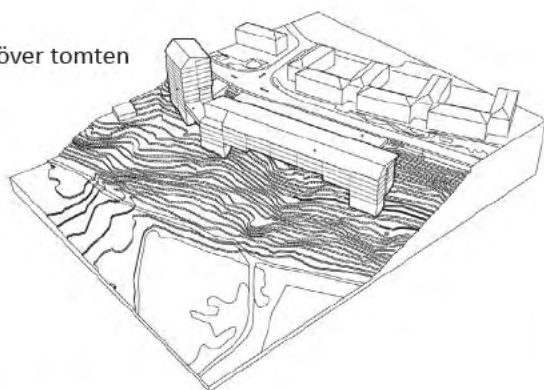
Plan E

HOUSING IN GULDHEDEN

Sektion



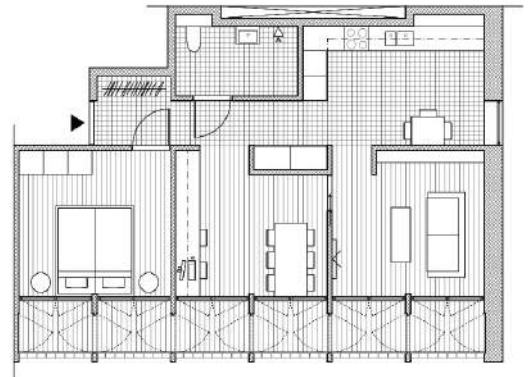
Vy över tomten



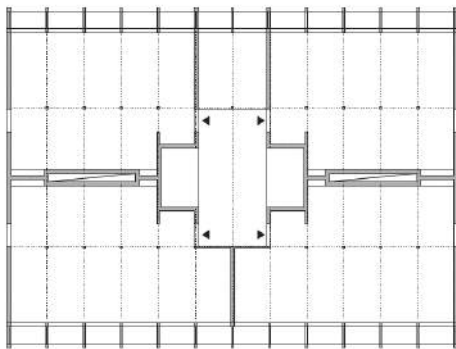
Projektet presenterar ett antal olika lägenhetstyper. Samtliga lägenheter är ytsnåla och väl planerade. Exemplet bredvid visar ett antal olika planlösningar som alla utgår från samma grundstruktur. Generella rum som kan delas i mindre rum eller slås samman och fungera som ett enda stort rum. Samtliga rum kan expandera ut mot balkongen och erbjuda generösare boendeytor under sommarhalvåret.

Interiör lägenhet

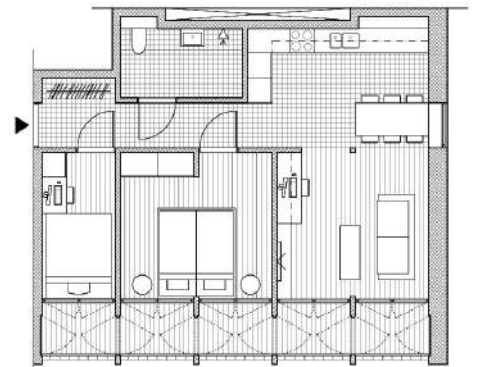




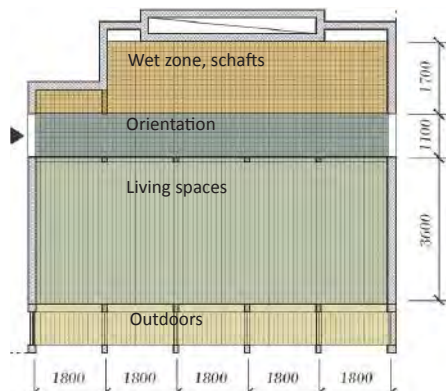
67 m² Två vuxna, jobbar hemifrån



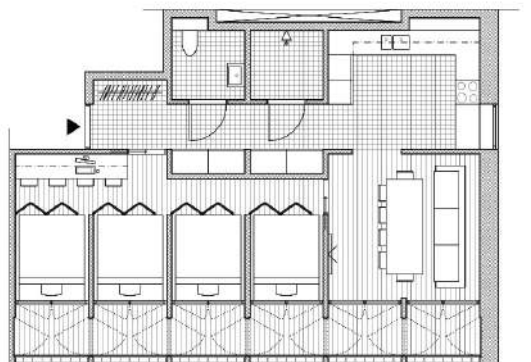
Byggnadsstruktur



57 m² Två föräldrar med en tonåring



Rumstruktur i varje lägenhet



67 m² 4 studenter bor tillsammans

COMMON SPACE
In the bottom floor of the tall building is a common space with direct access to the common terrace.

56 m²
2 rooms + kitchen
Couple with teenager

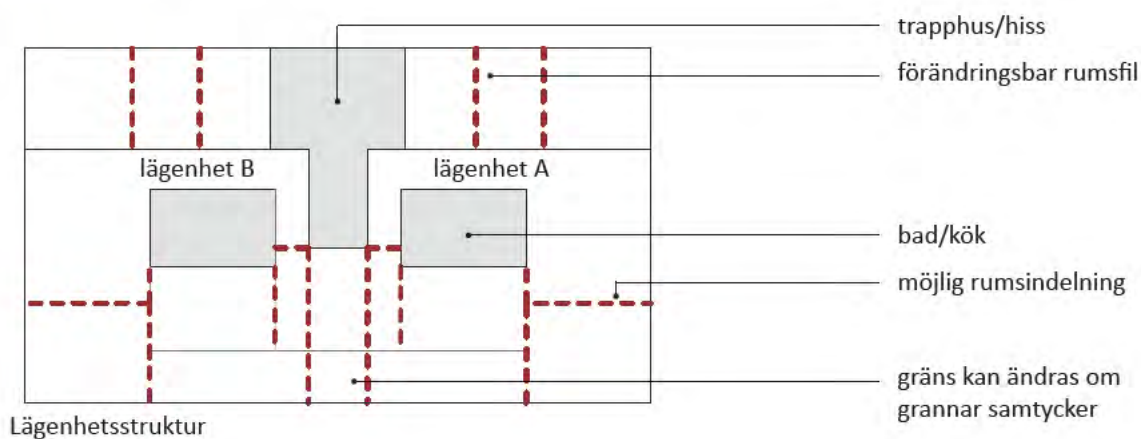
67 m²
5 rooms + kitchen
Four students

67 m²
3.5 rooms + kitchen
Couple + two children

Normalplan punkthus

TREE TOP BOXES

Husets grundstruktur har en central kommunikationskärna och i varje lägenhet en central våtenhet. En förändringsbar rumsfil i varje lägenhet gör det möjligt att förändra rumsstorlekarna efter skiftande behov. Lägenhetsdelande vägg kan även flyttas och förändra lägenheternas storlek. En förändring som kan genomföras endast om båda hushållen samtycker.



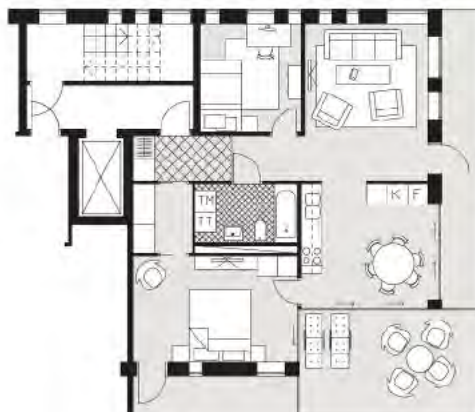


Plan E

2013

I lägenheten bor en fränskild förälder med två barn.

V



Plan F

2023

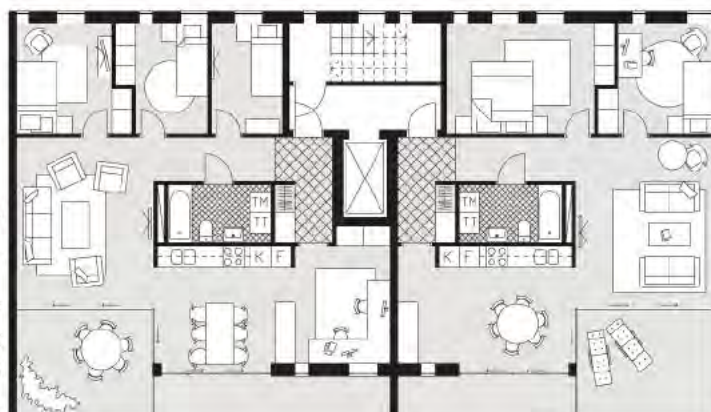
Barnen har flyttat. Föräldern bor kvar och hyr ut det mindre sovrummet.



Plan A

2013

Tre studenter delar lägenhet. De har var sitt privat rum, en delad arbetsyta, kök och allrum.



Plan C

2013

I lägenheten bor två föräldrar med ett barn.

V



Plan B

2023

När studierna är avslutade flyttar två av studenterna ut och den tredje bor kvar tillsammans med sin pojkvän. De väntar barn. De tycker att lägenheten är stor så de säljer ett rum till lägenheten bredvid.



Plan D

2023

Nu har familjen tre barn. De har utökat lägenheten och barnen har var sitt rum.

V

Boendesituation under 10 år

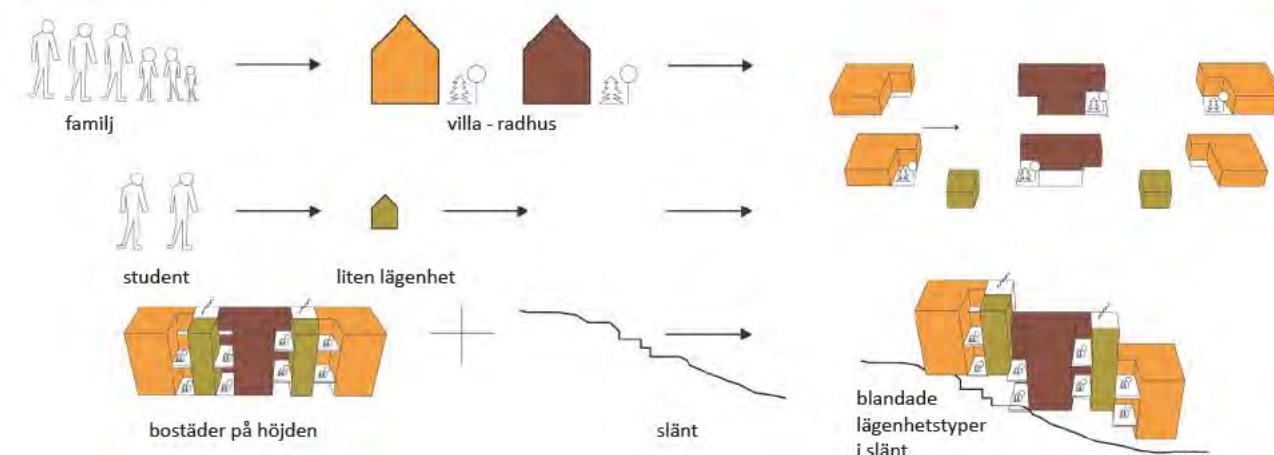
Bostadshusets grundstruktur är uppbyggd med tre lägenheter kring ett trapphus, mittlägenheten är en enkel rumsmodul som kan fungera självständigt som en egen lägenhet men även tillhöra någon av de kringliggande större lägenheterna. Det lilla trädgårdsrummet binder då samman lägenheten och rummen på båda sidor kan öppnas upp mot trädgården. Förändringar av lägenheternas storlek kan på detta vis underlätta för de hushåll som under olika livsskeden växer eller krymper. En förändring är dock möjlig först efter samtycke med grannar. I varje bostad finns även en förändringsbar rumsfil som kan göra det möjligt att få fler eller färre rum.

ENTER YOUR GARDEN

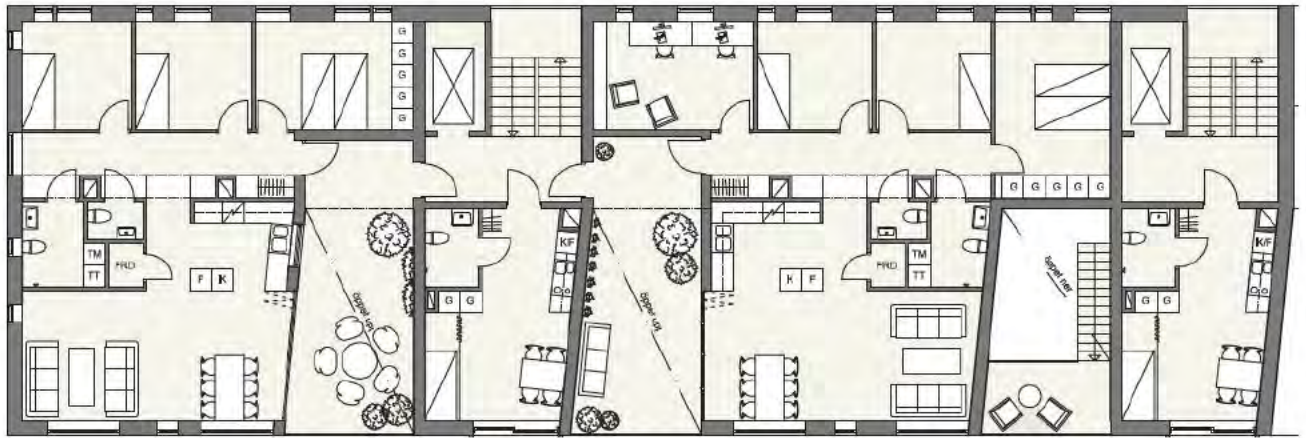


Sektion genom gaturum, bostäder och natur

Situationsplan



Koncept



Exempel normalplan

föränderbar rumsfil



1 Rok

Mittlägenheten är ett enkelt rum

4 Rok

Föräldrar med ett barn och ytterligare ett barn på väg. En förälder jobbar hemifrån.

>



10 År Senare

Tio år senare barnen är äldre och har sina egna rum. Föräldrars företag har vuxit därför ettan används som kontor.



5 Rok

Föräldrar med 2 barn 10 och 12 år.

>



10 År Senare

Tio år senare behövde familjen flytta pga. jobb på annan ort. Äldsta dottern började studera på Chalmers så familjen behöll lägenheten som gjordes om till ett kollektivt studentboende.

SKALA 5m 0 5 10m

Projektuppgiften

BAKGRUND

Masterkursen Housing Inventions medverkar i år i ett forskningsprojekt, Positive Footprint Housing Project. Riksbyggen, som bygger och förvaltar bostäder, driver projektet tillsammans med Chalmers tekniska högskola, Göteborgs universitet och Johanneberg Science Park. I forskningsprojektet uppför man ett bostadshus som ska representera hållbart bostadsbyggande med sikte på framtida behov och med ett helhetsperspektiv på hållbarhet. Arbetet med bostadsprojektet är pågående och man arbetar för närvarande med program och byggnad på en tomt i Guldheden, Göteborg. Under tiden fram till färdigt byggunderlag kommer projektet att fungera som ett fullskalelaboratorium, där bland annat frågor om innovation och hållbarhet inom områden som miljö, teknik och bostadskvaliteter undersöks. Riksbyggen har en arkitekt som arbetar med skisser på bostäderna. Ni ska som projektuppgift arbeta med ett eget, fristående förslag på bostäder på tomten. Ert förslag kommer i en del sammanhang att arbeta med samma förutsättningar som det pågående skissprojektet, men ska ändå ta ställning till många frågor utifrån ett eget resonemang. Riksbyggen kommer att medverka vid genomgångar och kritik av era studentprojekt och ta del av projekten. De projekt ni gör kan belysa innovativa, framåtblickande idéer som medverkar till att driva utvecklingsarbetet längre i den skissprocess som pågår på tomten.

FRAMTIDSSCENARIO

Södra Gulheden byggdes under 1950 – talet i Göteborg. Dagens bostadsbebyggelse utgörs av studentboende, seniorboende och vanliga hyres- och bostadsrätter. När Göteborg nu byggs tätare kommer fler att bo även i Guldheden. Nya bostäder i stadsdelen leder till behov av förskolor, butiker och bättre kollektivtrafik mm. En tätare stadsdel kan stödja det lokala torget, Dr Fries torg, och göra det till en mer levande mötesplats. Dr Allards gata utvecklas till en huvudgata i Södra Guldheden, med sänkt hastighet, träd och gång/cykeltrafik parallellt med bil- och kollektivtrafik. Chalmers campusområde förtätas, vilket också ger behov av ökad service och bättre kollektivtrafik. Chalmers campus området gränsar bland annat till Mossen (ett rekreationsområde) och tomten. Fler människor kommer att använda rekreationsområdet, både de som bor på Guldheden och de som arbetar på Chalmers. Mossen kommer därmed att bli en viktig, grön park, för fler människor

Inom 50 år kommer Södra Gulheden att vara en mer tätbebyggd stadsdel än idag, med fler verksamheter och människor som arbetar och bor. De gröna rekreationsområden som då finns i området kommer att vara viktiga andningshål för dessa människor. Mossen är ett av dess områden som också utvecklas varsamt för att behålla natur och naturliv. Exempelvis finns här en sällsynt hackspett.

Göteborg, Chalmers och Guldheden



RAMAR

Uppgiften för årets Housing kurs är att utveckla bostäder för ett framtida urbant boende i Guldheden. Till förutsättningarna hör att utveckla kreativa bostadslösningar som kan svara upp mot den pågående urbaniseringen och de demografiska förändringarna.

Ni ska som projektuppgift arbeta med ett eget, fristående förslag på bostäder på tomten. Hållbarhet, flexibilitet och arkitektoniska värden är utgångspunkt för utvecklingen av bostäderna i projektet.

Ni ska arbeta med siktet inställt på innovativa bostäder för det framtidsscenario som beskrivs ovan. Ett referensprojekt (eller flera) ska lyftas fram som studieobjekt och kvaliteter från detta ska transformeras (utvecklas) in i bostadsprojektet. Referensprojektet ska representera kvalitativa värden i frågor om extrem och/eller kvalitativ bostadsarkitektur, hållbarhet och/eller flexibla planlösningar. Ni väljer fritt ert referensprojekt. I slutpresentationen av projektet ska referensprojektet och arbetet med detta i arbetsprocessen presenteras.

Staden: De nya bostäderna vid Dr Allards gata utgör en del av bebyggelsen på Södra Guldheden. Omtanke om gemensamma stråk, gator och stadsrum är en del av uppgiften. Projektet ska undersöka möjligheten att tillföra kvalitativa värden till de gemensamma stadsrummen. Bostadshusets möte med Dr Allards gata utgör en av huvudpunkterna för arbetet med projektet. Det sätt som bostadsprojektet utformas på och vilka allmänna värden det tillför till sin kontext är avgörande för hur det tas emot i stadsdelen.

Vilka bor här – bostäderna: Förslaget ska omfatta ca 75-100 bostäder. Arbetar ni med ett koncept som inte tillåter detta antal bostäder kan ni, efter samtal med läraren, anpassa antalet till er idé. Målgrupp för bostäderna ska motiveras utifrån GIS-information som ni har tillgång till via skolans interna nät. Beskriv och motivera de grupper som ska bo i de bostäder ni utformar. Projektet ska presentera bostäder för olika typer av hushåll och för olika livssituationer. Flexibilitet och generella rum ska användas som ett verktyg för att tillhandahålla bostäder för en mångfald av hushåll och bostadssituationer.



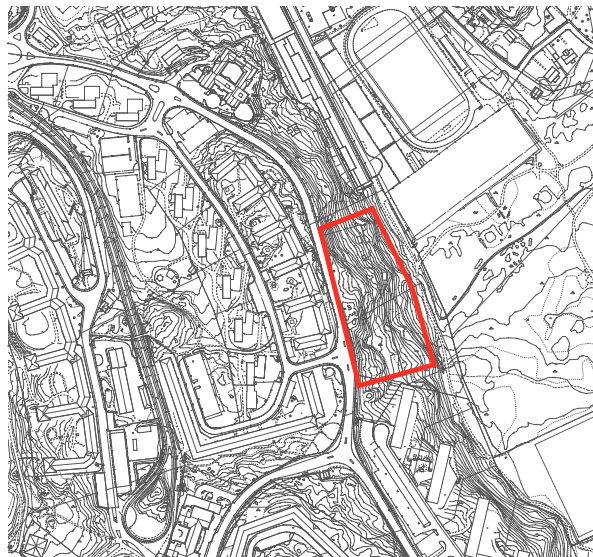
Satellitfoto över tomten

Arbeta med bostäderna utifrån nyckelbegrepp som privata- och publika rum, kvalitativa inom- och utomhus rum, riktning-axialitet och rörelse. Tomten sluttar brant mot öster vilket ger speciella ljusförutsättningar. Studera ljuskvaliteterna i projektet. Lagar och regler enligt BBR gäller för utformningen av bostäderna. Utformning enligt BBR är viktig då vi i forskningsprojektet önskar utveckla trovärdiga, kvalitativa bostadsidéer som är möjliga att bygga i Sverige idag. För att arbeta med flexibla bostadsstrukturer, där exempelvis zonerade planer eller valda rumskonfigurationer är ett mål, ska en bärande struktur som tillåter önskade samband utvecklas som ett första steg. Schakt för VVS och annan teknik ska samordnas och vara en del av denna struktur.

Ni ska presentera två olika lägenheter möblerade i skala 1:50. Dessa ska visa boendesituationen för de två hushållen. Visa också bostäderna, med samma hushåll, 10 år senare. Hur har familjesituationen förändrats? Kan bostaden anpassas för den nya situationen?

Fordon: Bostäderna riktar sig till de som önskar bo i staden och inte ha en egen bil. Det ska finnas goda möjligheter att använda kollektivtrafik i området. Cykeln ses som ett självklart fordon, bostäderna ska ha en bekväm och väl tilltagen möjlighet för cykelförvaring. En bilpol ska också inrymmas på tomten. Den omfattar fem fordon och samverkar med andra bilpoler i stadsdelen för att säkra en högre kapacitet. Totalt ska projektet omfatta 18 bilparkeringar varav två för rörelsehindrade.

Aktiviteter: Bostadsprojektet ska omfatta gemensamma inom- och utomhusrum, som terrasser eller gemensamma gårdsrum. Studera möjligheterna att utveckla dessa rum och undersök hur och av vilka de används. I ett framtida urbant boende finns en stor potential att utveckla detta område för att nå kvalitativa bostadslösningar. Ni kan också välja att undersöka hur ett större gemensamt rum eller bostadsdel kan komplettera och berika en mindre bostad.



<
Nivåkarta över tomten

WHERE WOOD YOU LIVE?



View from Doktor Allards gata towards the north. A public space is added by the street; in this case a small coffee shop The Golden café



PLAN OF THE URBAN SITUATION. SCALE 1:500

The three buildings become a reference to the high buildings along Doktor Forselius gata in regards to their position and placement on the ground. A small path with stairs create a connection between the higher street level and the running track in the forest. On the roofs solar panels are located as well as a larger common terrace. The buildings have from two up to ten residential floors.

the concept



WE WOOD LOVE TO LIVE HERE!

By Doktor Allards gata in Norra Guldheden in Gothenburg three new residential buildings are cutting through the slope towards Mossen recreational area. Situated on the border between city and nature, they form a new intersection and passway between the residential areas and the nature.

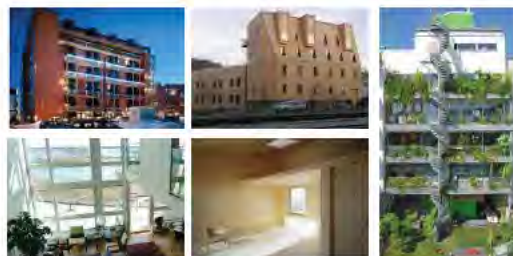
The aim of the project is to provide a different type of housing: a stacked terraced house, or an urban villa. To these houses apartments are added to give a variety of housing within the same block. As seen in statistics, in the city district of Guldheden fewer families live than in other parts of the city. We believe that couples move to other parts of the city when they have children, as there are few big apartments and almost no detached or semi detached houses in the area. That is why we introduce the typology of stacked terraced houses with terraces and balconies. Our aim is to make the families with children stay in the area and not to move out.

Families also have a need for adaptable solutions, where general rooms provide a variety of different functions within the housing.

The project also links the two levels of Doktor Forselius gata and Sven Hultins gata (by Chalmers University) with a new street. Along this street entrances for the blocks are situated as well as parking places. To link the two levels strengthens the urban network and gives more life to the recreational area of Mossen.



View of the three buildings showing the new connecting road through the buildings from Guldheden to Chalmers. The buildings themselves also link the lower level with the upper level by Doktor Allards gata.



REFERENCE PROJECTS

As a part of our design process we looked at references, in regard to spatial configuration as well as material use and for the construction. The three projects that we found most interesting are:
-Tila housing in Helsinki, for the flexibility and possibility to configure your own living space.
-Svartlamoen community housing in Trondheim for the materiality and because it is true connection to its inner construction.
-Urban villas in Malmö with the stacked individual villa. The generous terraces strengthen the feeling of an own private outdoor space.



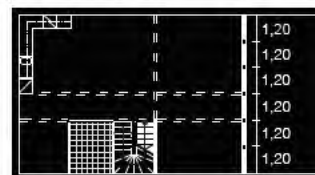
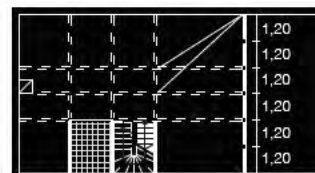
SECTION OF DOKTOR ALLARDS GATA, TO THE NORTH. SCALE 1:100

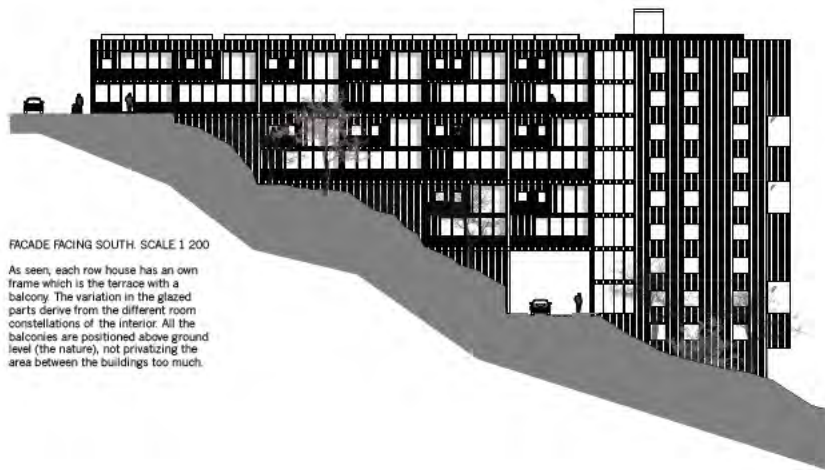
The speed limit of the street is lowered to 30 kilometres per hour, as cars and bikes share the same spaces. A few street parkings are added to give easy access to the public spaces by the street.

CONCEPT DIAGRAM. SCALE 1:50

The structural system of the row houses are based on a module of 1200 millimetres. The concept allows you to choose how the room configuration should be. There is also a possibility to have room with a double high ceiling. The loadbearing walls form the exterior and separating walls, and the installations such as toilet and kitchen are fixed.

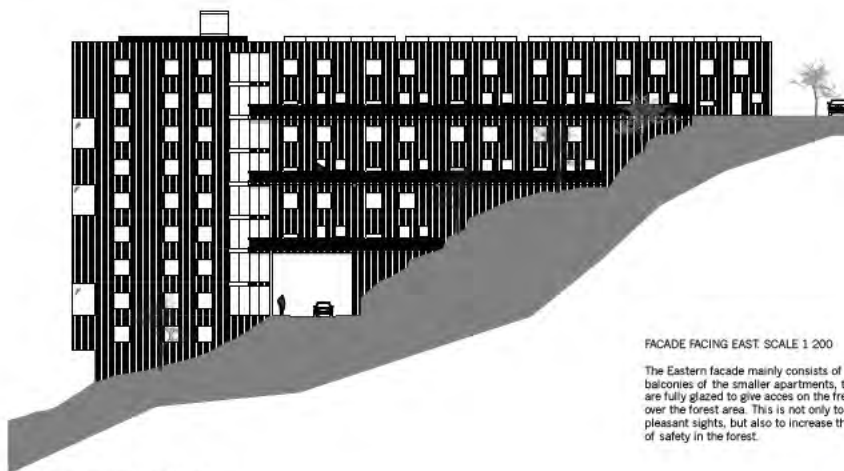
The diagram shows possible positions for interior walls, and where the high ceiling could be.





FACADE FACING SOUTH. SCALE 1:200

As seen, each row house has an own frame which is the terrace with a balcony. The variation in the glazed parts derive from the different room constellations of the interior. All the balconies are positioned above ground level (the nature), not privatizing the area between the buildings too much.



FACADE FACING NORTH. SCALE 1:200

Towards the North the pattern of the windows gives the facade its expression. It is still possible to understand the division of the row houses due to this pattern. The access to the main staircase and the row houses is along galleries on the more semi public floors of the row houses. One of the galleries connects the building to Doktor Allards gata, and creates a (semi-) public walkway to access the elevator down to the second street level between the buildings.

FIGURES AND NUMBERS

Total number of apartments

84 of which 34 (10 12 12) are row houses and 50 (14 18 18) are apartments.

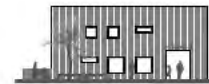
There are also three public rental spaces, as seen in plans on the following side. Above these there are also three smaller apartments which could be rented together with the space below or separately.

Floor area for the rowhouses is 130 squaremetres (the total squaremetre size differs depending on how many rooms are added), and of the apartment is 77 squaremetres. The public space and the apartment above are 70 squaremetres each.

We only present one of the buildings in the detailed drawings: the middle one. However: the northern one is identical and the southern one is one level lower at its highest and one row house unit shorter. (See the bird view on the first poster for exact configuration.)

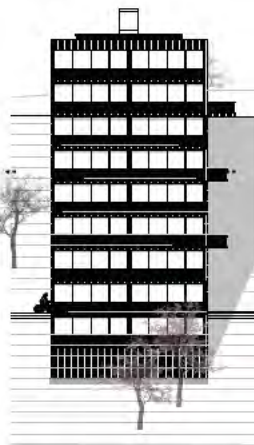
The facade consists of the same material as the constructive elements of the buildings, which is wood. (As exterior cladding it is probably larch in 150 millimetres wide planks).

The exterior facade is untreated and will become more grey over time as it is aging. At the interior parts of the balconies the wood will maintain a warmer and fresher appearance as it is more protected from the weather. The wooden facade refers to the forest as well as it is a familiar and well known material for row houses.



FACADE FACING WEST. SCALE 1:200

The public area has an entrance towards the street via the terrace.



FACADE FACING EAST. SCALE 1:200

The Eastern facade mainly consists of the balconies of the smaller apartments, they are fully glazed to give access to the free view over the forest area. This is not only to create pleasant sights, but also to increase the feeling of safety in the forest.



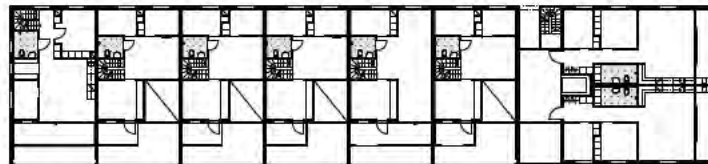
View to the North towards the middle house. The wooden facade is noticed as well as the glazed areas that get sun protection from the large terraces.

Studentprojekt

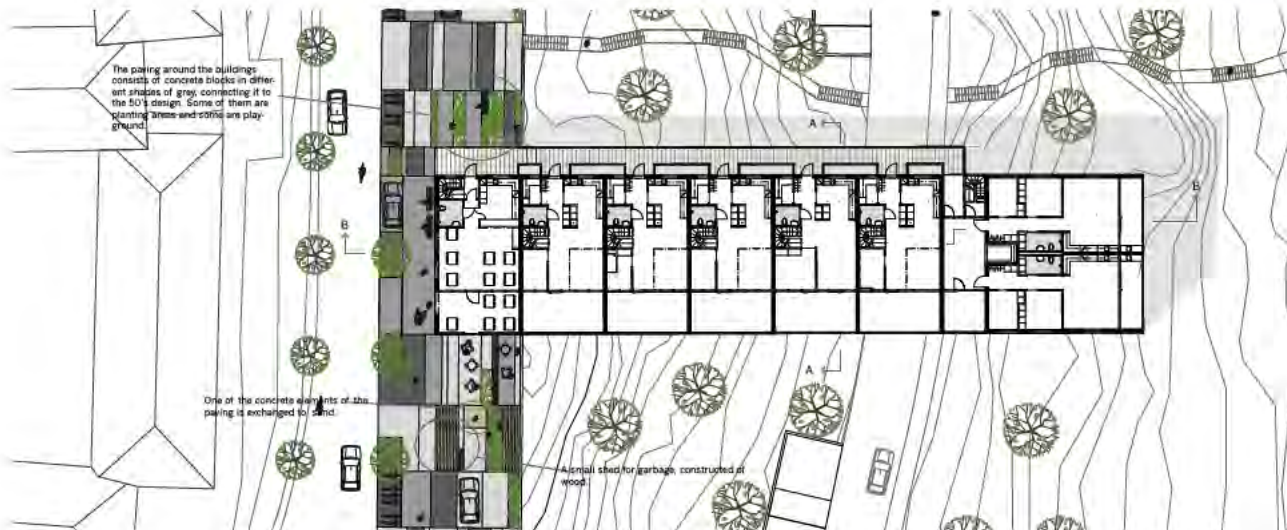
Jens Axelsson, Anna Einarsson

As seen in the plan, the row houses are located towards Doktor Allards gata and towards the East the apartments are located, with the communication between the two different typologies. In the staircase hall there is also a storage room for for example bikes and strollers.

Towards Doktor Allards gata a small rental space is located, which can be a cafe, a bike repair shop or maybe a collective space for the residents with childrens care, workshops or common area for gatherings. Above the rental area a small apartment is located, hence it could work as a combined living and working unit.



UPPER PLAN OF ROW HOUSES. SCALE 1:200

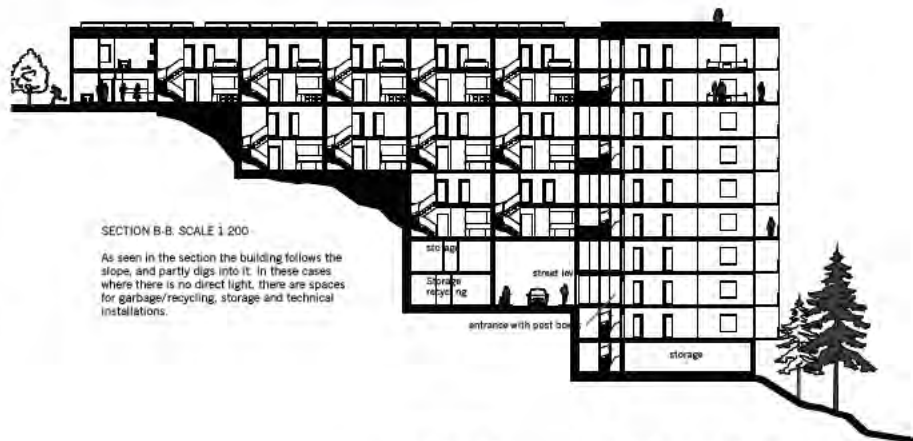


ENTRANCE LEVEL, DOKTOR ALLARDS GATA. SCALE 1:200



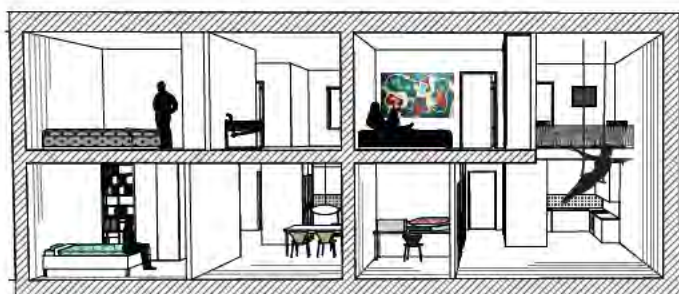
SECTION A-A. SCALE 1:200

Showing the row houses and the lower street level.



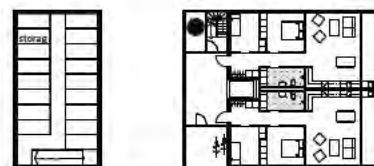
SECTION B-B. SCALE 1:200

As seen in the section the building follows the slope, and partly digs into it. In these cases where there is no direct light, there are spaces for garbage/recycling, storage and technical installations.



SECTIONAL VIEW OF THE INTERIOR SPACE C-C. SCALE 1:100

The double high ceiling gives one of the row houses its character. The other one has chosen to have more rooms instead. Notice the beautiful railing inspired by the 50's.



PLAN OF LEVEL ABOVE STREET. SCALE 1:200

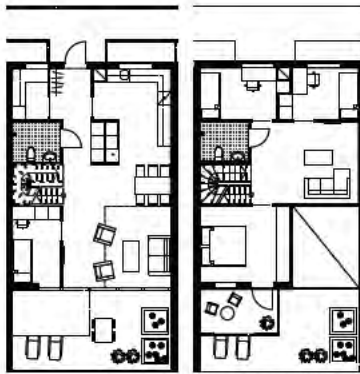


PLAN OF LOWER STREET LEVEL. SCALE 1:200

As apparent in the section, the recycling room and storage are put where there are worse light conditions, with direct access from the street and entrance level.

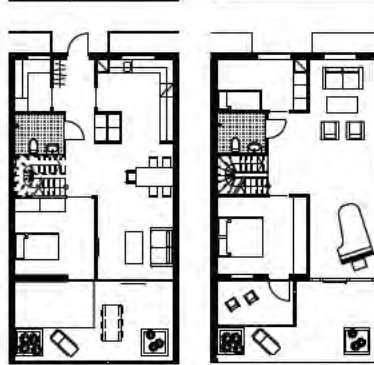
the living space

Jens Axelsson and Anna Einarsson
Housing Inventions: Spring 2013



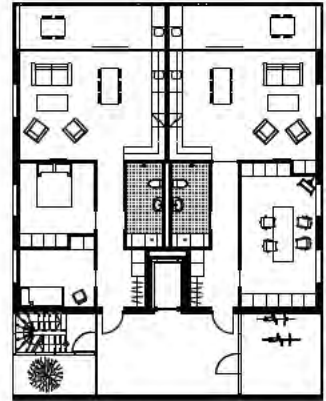
FURNISHED GROUND AND UPPER FLOOR OF THE ROW HOUSE, TODAY. SCALE 1 100.

This is a home for a family of five, that enjoys living in the city instead of a villa in the suburbs. The double high ceiling provides contact of the whole living space wherever you are. The parents have an own balcony next to their bed room, and they all enjoy growing vegetables together on the terrace.



FURNISHED GROUND AND UPPER FLOOR OF THE ROW HOUSE, TEN YEARS AHEAD. SCALE 1 100.

One of the residents is disabled and needs an accessible bedroom on the ground floor. The spouse still sleeps on the upper floor and they are pleased with having own private space as caretakers visit every day. Though enjoying living close to town, they like the generous living space and possibilities to have their grandchildren visiting.



FURNISHED APARTMENT FLOOR TODAY (LEFT) AND TEN YEARS AHEAD (RIGHT). SCALE 1 100.

A couple with a child live in this flat, and they enjoy the view over the forest. 10 years ahead the parents have moved out and the grown up child has decided to stay and make a studio with an own business out of the two bedrooms. There are a lot of people visiting so it is important to close off the public part from the private one room apartment, furnished with a sleeping couch.

As well as the construction material (wood) is visible on the exterior, the interior walls floors and slabs consist of the massive wooden structure. The surface is treated with lye to create a light surface for easy maintenance and durability. It is also sustainable and will last for a long time.

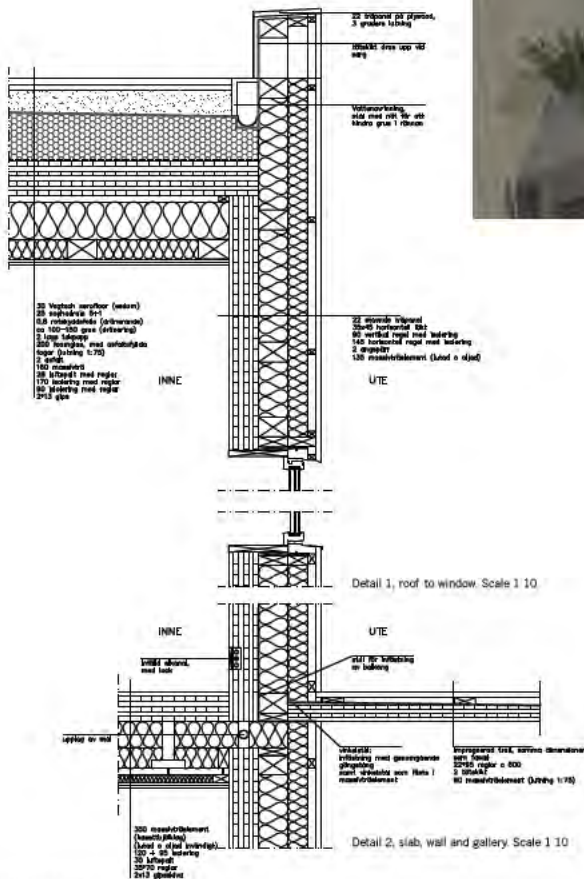
See detail drawings 1-4 to see the construction and materials.

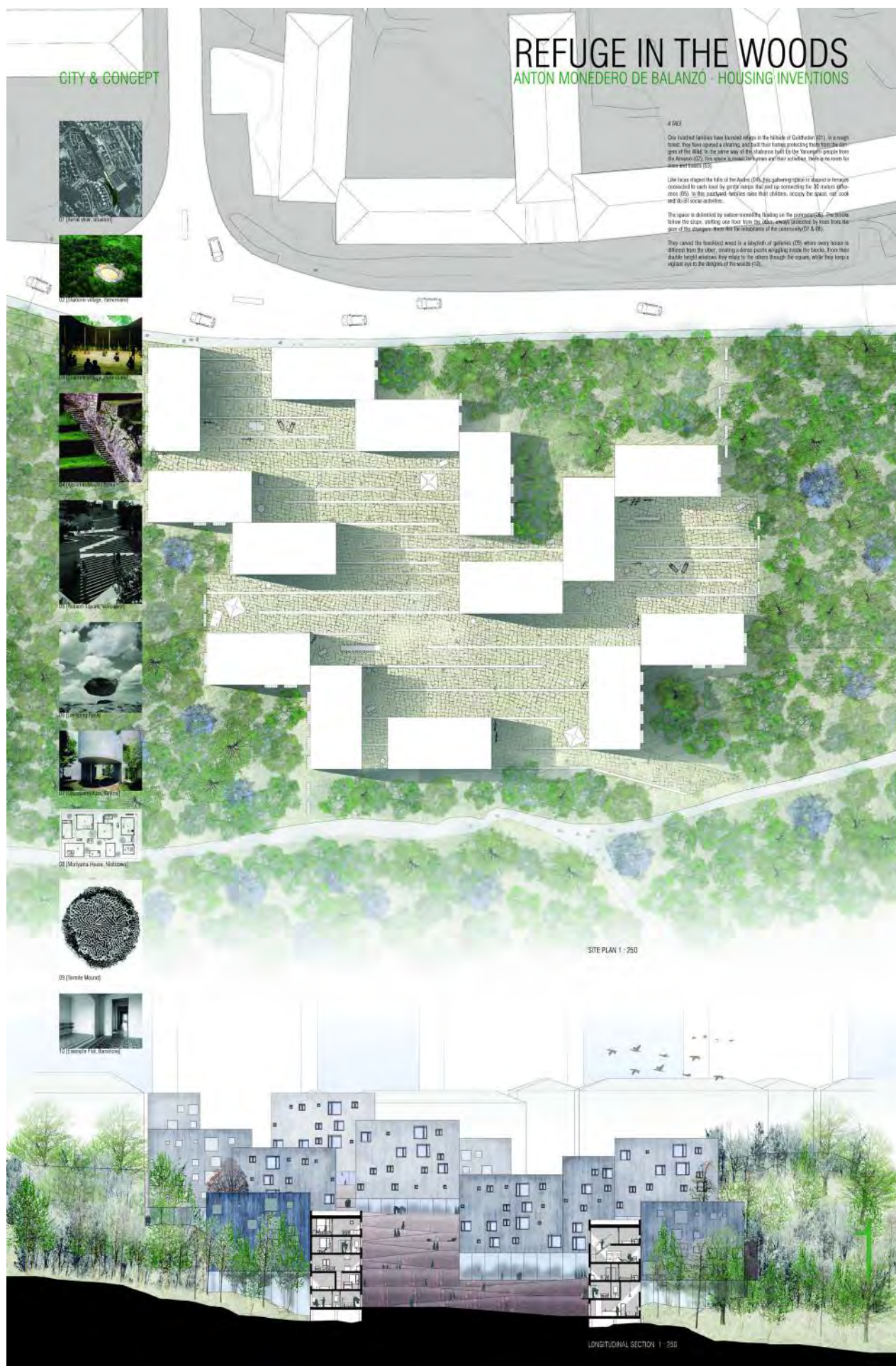
The big windows towards the south allow a lot of light to enter the apartment, yet the balconies and terraces give shade. The double high ceiling creates a smooth passage between the outside and the inside, as well as the sliding glass partitions.

As mentioned before, the constructive material of the housing is wood, and the foundation is made out of concrete.



View from the kitchen of a row house towards the living area and the terrace.





REFUGE IN THE WOODS

ANTON MONEDERO DE BALANZO - HOUSING INVENTIONS

PUBLIC SPACE & SOCIAL DIMENSION

DUALITY



The wild, the forest



Civilised town, the cow yard



Compact houses, the blocks



Scattered, the flats



Stone tombs, the blocks the ground



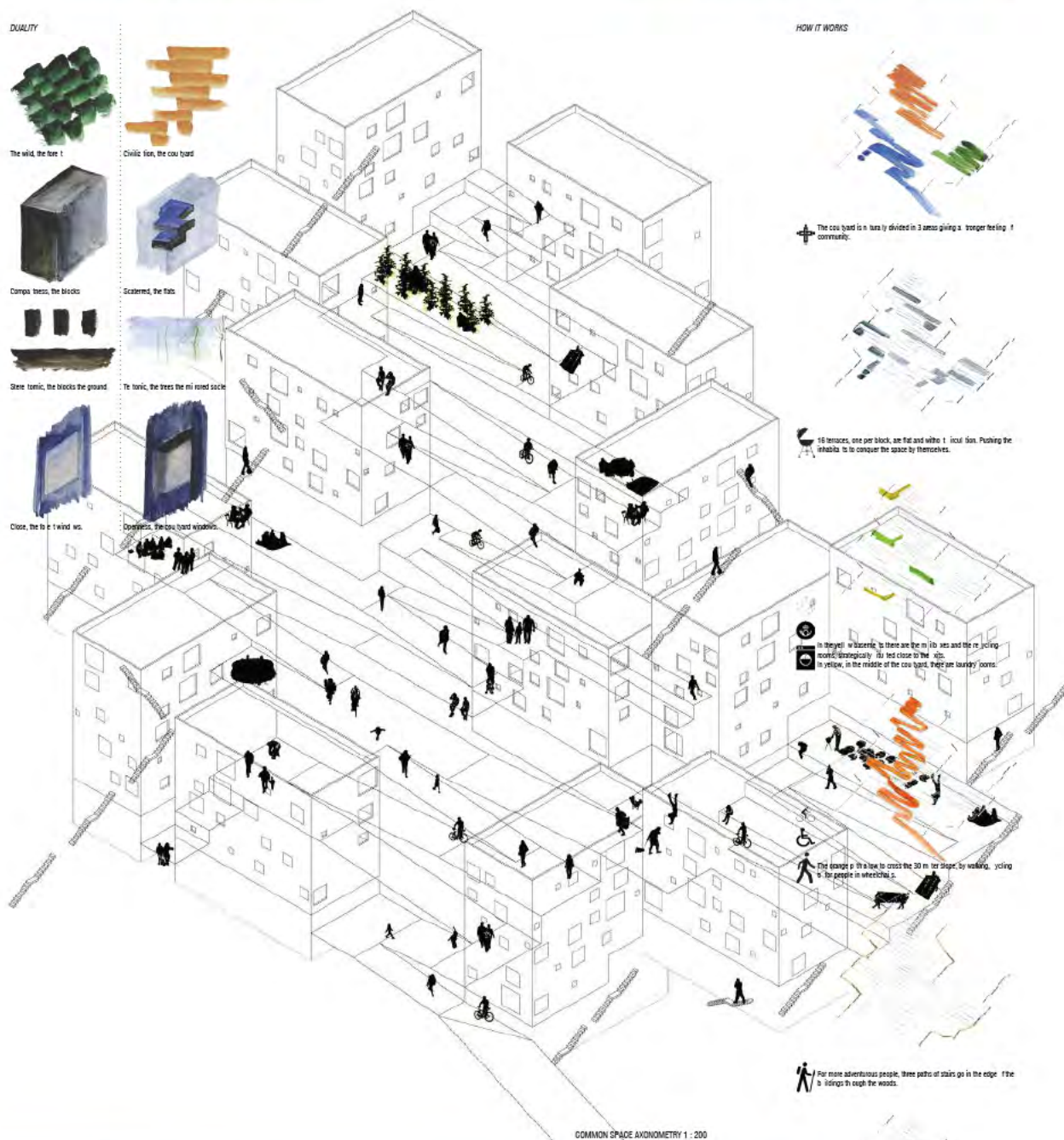
The town, the trees the mixed society



Close, the tight-knit community



Close, the tight-knit community



COMMON SPACE AXONOMETRY 1 : 200

HOW IT WORKS



The cow yard is naturally divided in 3 areas giving a stronger feeling of community.



16 houses, one per block, are flat and within 1 local area. Pushing the inhabitants to conquer the space by themselves.



In the red area, the houses are the most visible and the red area is the most strategic. In the yellow area, the houses are the most visible and the yellow area is the most strategic.



The design is in a line to cross the 30 m per block by walking, cycling or for people in wheelchairs.



For more adventurous people, three paths of stairs go in the edge of the cow yard to reach the woods.



TRANSVERSAL SECTION 1 : 250

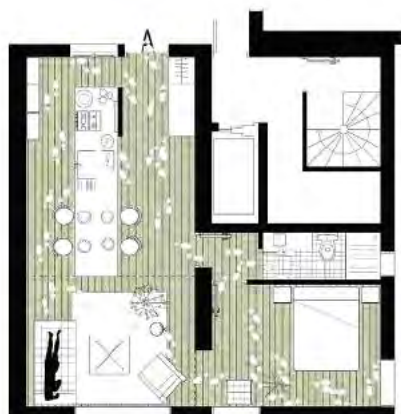


In case of a fire emergency, like a fire or an accident. An ambulance or a fire truck is able to access the middle of the cow yard through the ramps.

2

REFUGE IN THE WOODS

ANTON MONEDERO DE BALANZO - HOUSING INVENTIONS

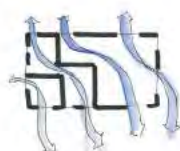


Small Apartment: 40 m²

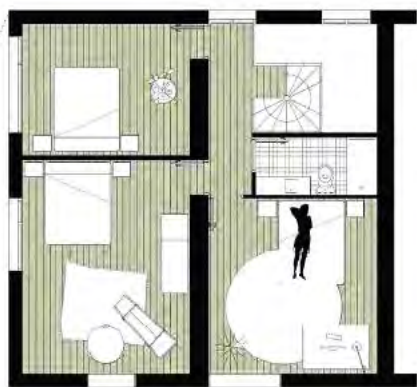
Even though the small size of the apartment, there is space for a huge kitchen connected to the courtyard, to the social space.
The living room, overlooks the trees. If the floor is 18 m², and can easily be transformed into a second bedroom. In some units this room has a double height. The bedroom is a terrace to the woods, to be more peaceful.



Inner elevations of an average apartment



Ventilation diagram



Big apartment: 120 m²

Designed for a family of 4, 3 bedrooms. A lot of variations can happen.
It can go up to 5 or 6 bedrooms. In this disposition the living room and the dining kitchen space are in a diagonal to have long views and a bigger sense of space. A double height in the living room allows the space and brings light to the small corridor. Rooms are never smaller than 14 m².

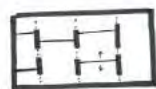


3

Floor plans 1:10



Expansion to the outside



Flexibility of walls



Exploded view of the apartment units in a two-block unit



Floor plan of a two-block unit 1:100

MATERIALITY & CONSTRUCTION

REFUGE IN THE WOODS

ANTON MONEDERO DE BALANZÓ · HOUSING INVENTIONS

MATERIALITY



REFERENCE MATERIALS



GROUND
Co ten steel and g a il rocks
[RCR Arquitectes, País de la pedra toska, Ol i]



SOCLE
R flective aluminium hon ycomb panel
[SA AA, Louve Lens]

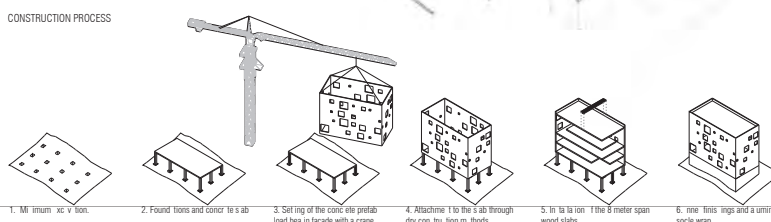


BUILDING
Wood formwork conor to "béton br i"
[Bunker in Normandie, France]



CONSTRUCT VE AXONOMETRY 1 : 60

CONSTRUCTION PROCESS



1. Minimum ac v floor.
2. Found lions and conor to s ab
load bea in facade with a crane
3. Set ring of the conc ele prefab
dry con the lion m. floor.
4. Attachme t to the s ab through
dry con the lion m. floor.
5. In ta ta ion t the 8 meter span
wood slabs.
6. nine lions rings and a minimum
sacle wrap.

1. ROOF

- 1a. Gr vel t=100 mm
- 1b. Ge x wils She t=1.5 mm
- 1c. W terproof She t=1 mm
- 1d. Insulation t=100 mm
- 1e. Slope conor to t=150 mm
- 1f. Ge teatle She t=1.5 mm
- 1g. LFE Lign tu wood slab. 4 mm lamin ted pine wood + 10 mm mineral insulation + 4 mm laminated pine wood. Fireproof.

2. WALL

- 2a. P i ted birch boards. 100 mm wide t=15 mm
- 2b. Gypton board t=15 mm
- 2c. Insul lion t=120 mm
- 2d. Prefab icated load-bea ing concrete. Exterior : Wood formwork "b ton brut" t=170 mm

3. WINDOW

- 3a. The mal b ridge breaker insul lion t=30 mm
- 3b. Solid birch board t=30 mm
- 3c. I w tale alum lion wind w frame.
- 3d. Double t flecting gla ing glass 6+12+6 mm

4. S AB

- 4a. Massif oak boards. Wt=130 mm t=8+6+8 mm
- 4b. Impact n ise acu tic insul lion t=20 mm
- 4c. LFE Lign tur wood slab.

5. FIR T FLOOR S AB

- 5a. Massif oak boards. Wt=130 mm t=8+6+8 mm
- 5b. Impact n ise acu tic insul lion t=20 mm
- 5c. Insul lion t=120 mm
- 5d. Coner to slab t=270 mm

6. SOCLE

- 6a. Concrete pilar 400x400 mm
- 6b. Aluminium lig t structure
- 6c. Aluminium Honeycomb panel 2+20+1 mm

DETAIL SECTION 1 : 10



Master plan 1:1000



Street level 1:250



Landscape section 1:250



HOUSING INVENTIONS, ARK 136, SPRING 2013
CHALMERS UNIVERSITY OF TECHNOLOGY
SANDRA RÄDER & CLARA ELLBORG



Concept



RESIDENTIAL SIZES TODAY IN GULDHEDEN

- 1-3 ROOMS AND KITCHEN 80%
4-5 ROOMS AND KITCHEN 20%

Collective housing

- Social
- Economical
- Today there are mostly small apartments in Guldheden. We want to provide apartments for large families and people living in collective.
- Cheaper housing costs as a result of sharing facilities.
- Practical
- Sustainable

Comparison

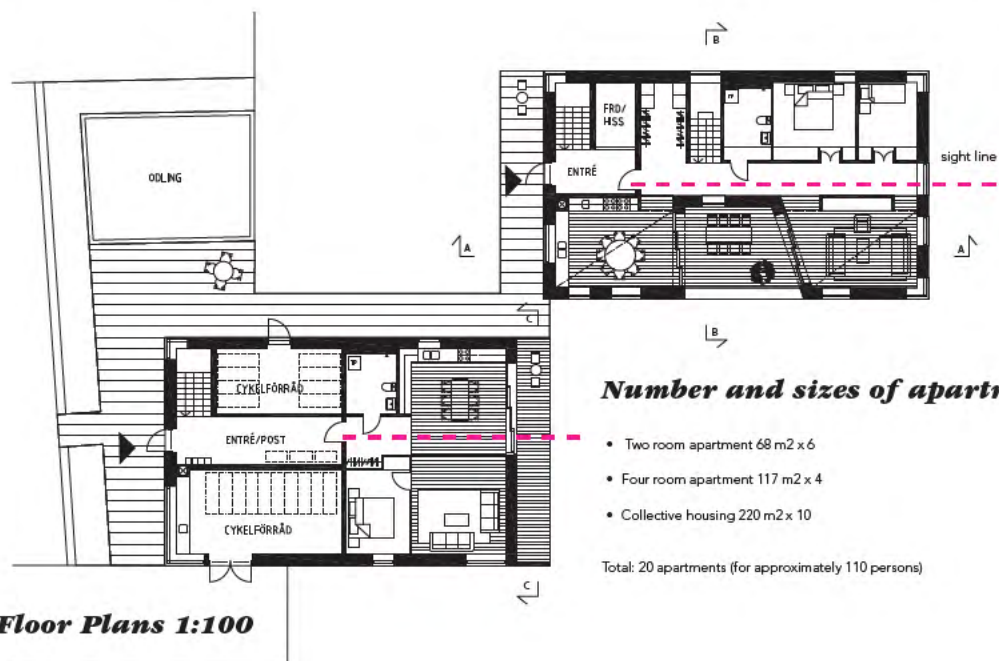
(110 persons)

Our proposal:

- 20 apartments → 20 kitchens + 30 bathrooms

Average apartment in Guldheden:

- 70 two room apartments → 70 kitchens + 70 bathrooms



Number and sizes of apartments:

- Two room apartment 68 m² x 6
- Four room apartment 117 m² x 4
- Collective housing 220 m² x 10

Total: 20 apartments (for approximately 110 persons)

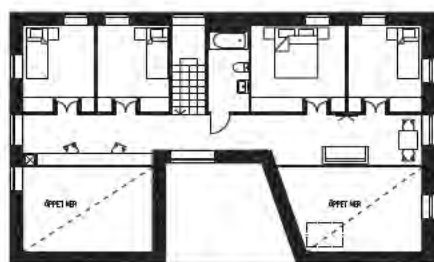
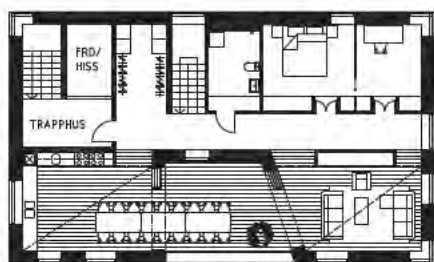
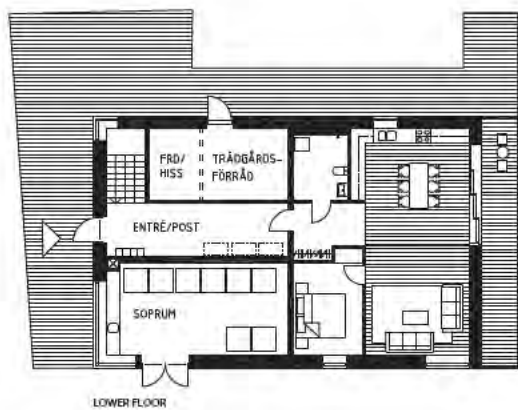
Studentprojekt

Clara Ellborg, Sandra Räder

House A

Two room apartment: 1-2 people

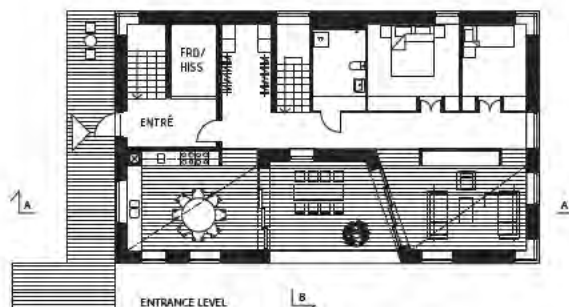
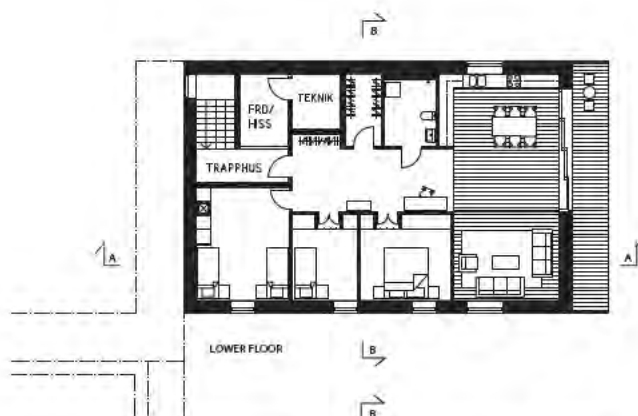
Collective apartment: Three generations



House B

Four room apartment: one family

Collective apartment: two families

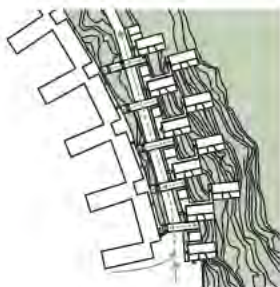
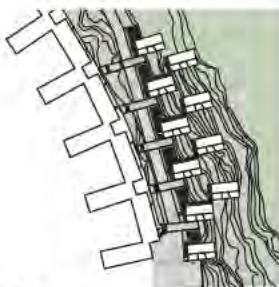


Private/public spaces

Movement

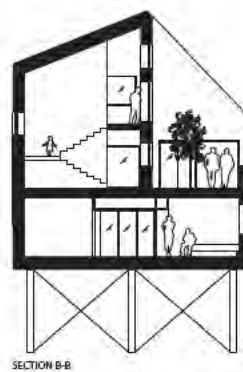
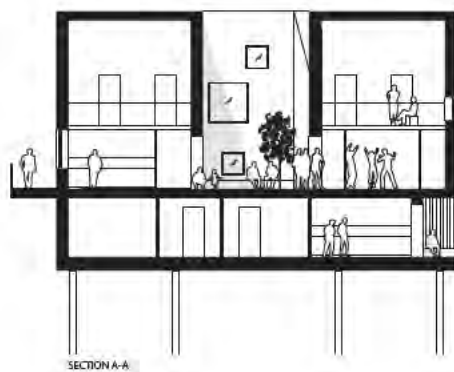
Sun

Sight lines



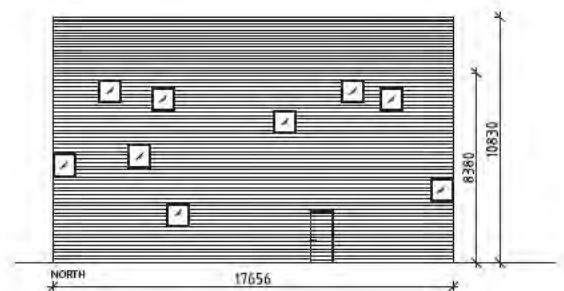
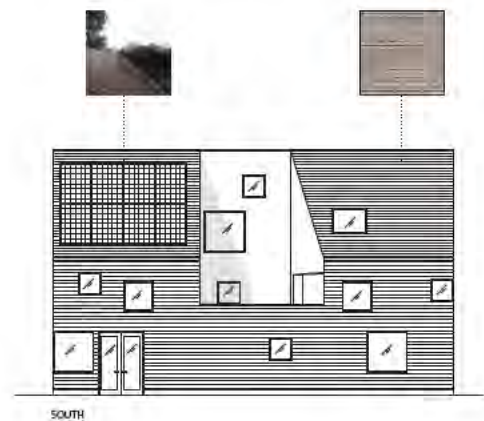
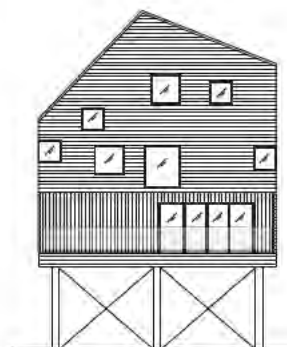
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SANDRA RÄDER & CLARA ELLBORG

Sections 1:100



Material

Facade 1:100



Why Wood?

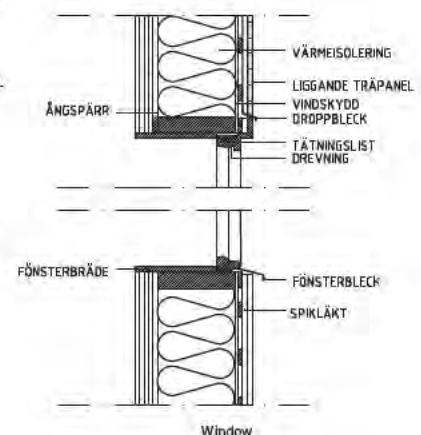
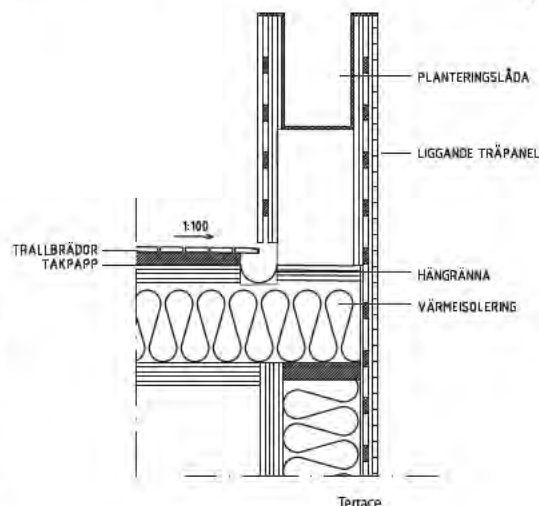
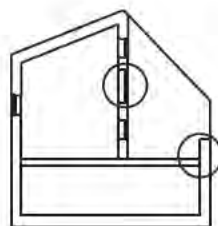
- Sustainable
- Locally produced
- Possible to recycle
- Blends into the surrounding nature

Locally produced alternative to charred cedar:

- "Thermowood"

Thermowood is heat-treated scandinavian spruce or pine. It's untreated, stable, durable, organic (no chemicals) and has a natural grey shade.

Details 1:10





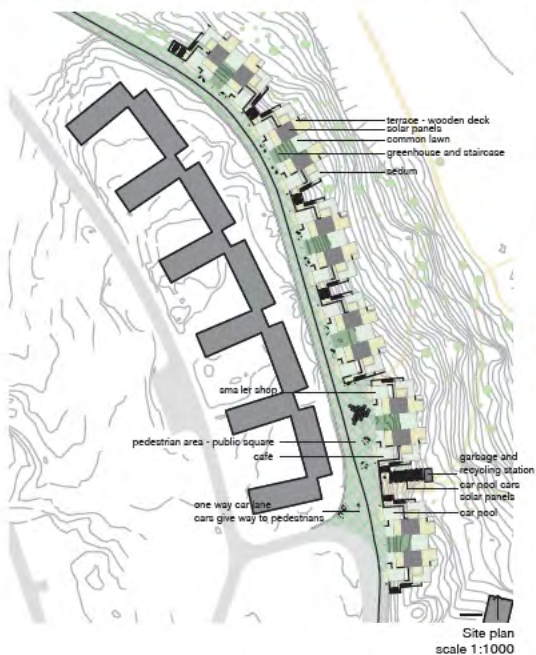
Dr Allards terrass

Chalmers University of Technology
Department of Architecture
MPARC
ARK 135 - Housing Interventions 2013
Ellen Persson

Guldheden is a central housing area in the southern part of Gothenburg. The project site is situated on the edge of Guldheden on the slope down to the recreational area Mossen and the Johanneberg district where Chalmers University of Technology is situated.

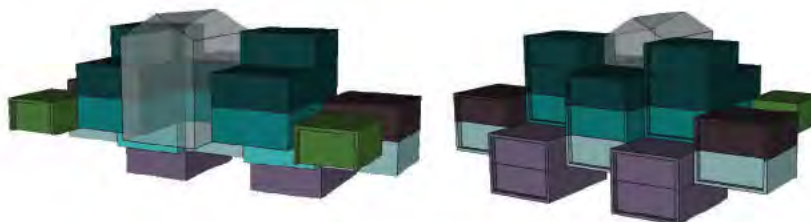
Doktor Allards gata is the outer border of Guldheden and the street doesn't feel integrated into the district. Today there isn't any bike lane and the pedestrian pathway is very narrow. Therefore there are not many pedestrians or bikers passing here and the street is only suited for motor vehicles.

In the project "Dr Allards terrass" the houses are placed along Dr Allards gata to frame the street and to integrate the area into Guldheden. Dr Allards gata is made into a pedestrian area, where cars are allowed to pass in one direction, but they have to give way to pedestrians and bikers. There are greenery, lighting, and places where to sit down placed out along the pedestrian street. In the southern end of the site there is a smaller public square where there, except from greenery, lighting and benches, also is a cafe, a smaller shop, a car pool, and a play and sitting friendly sculpture. There are also stairs down to a path which leads down to Mossen.





- 2x 147 m² 6 rooms and a kitchen
- 2x 98 m² 3-4 rooms and a kitchen
- 2x 43 m² 1 room and kitchen - student apartment
- 2x 49 m² 1-2 rooms and a kitchen
- 2x 49 m² 1-2 rooms and a kitchen
- 2x 164 m² 5 rooms and a kitchen
- 2x 33 m² premises/student apartment



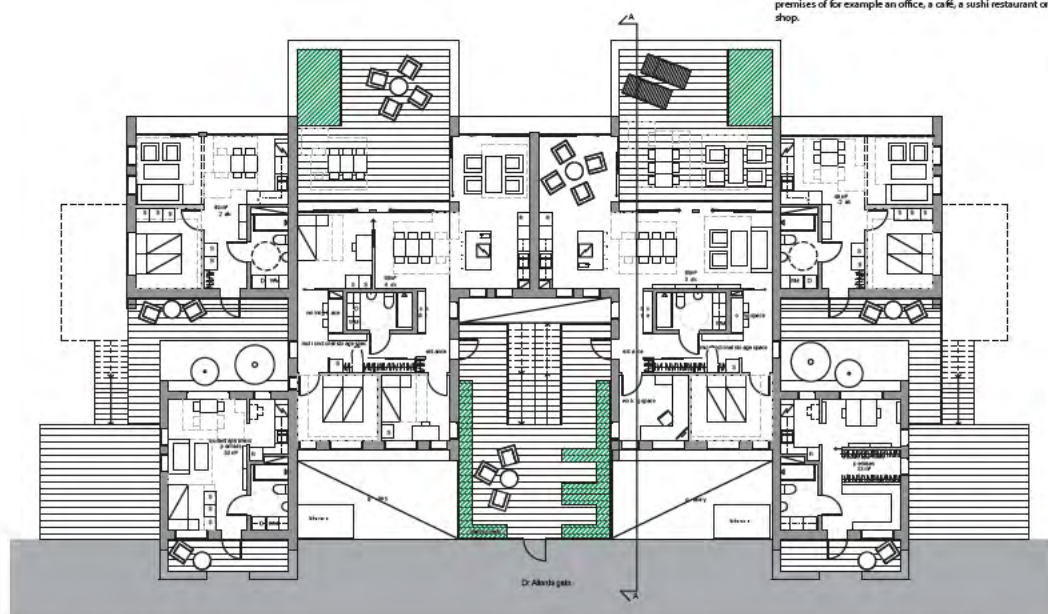
In Guldheden there are a lot of 2-3 room apartments, while there are less larger 4-6 room apartments. There are many 25-34 year olds living in Guldheden, but then after 34 they tend to move away from Guldheden. In many of these cases the reason is probably that they want to move to something bigger where they will be able to house a whole family. To make this age group stay in Guldheden the project "Dr Allards terrass" suggests large apartments of 98-164m². To get a mix of people in the area there are also designed 1-2 room apartments of 49 m² and student apartments of 33 and 43 m².

The advantage of living at "Dr Allards terrass" is that you have the street and the city on one side of your house and on the other side you have the forest. The dwellers also have a common greenhouse which except for planting beds also houses a staircase and the entrances to most of the apartments. Here the dwellers can grow their own vegetables and socialize with their neighbours while the kids play either in the greenhouse, or on the common lawn at the second floor or out on the square.

Apartment A is a 98 m² apartment, situated at ground floor level. There is a possibility to separate 4 rooms and still reach them from a neutral space. The apartment is suited for a family with one or two children. They have morning and evening sun coming into the apartment, and they have a large terrace facing east, where they also get hold of the midday sun.

In ten years when the children have moved out, the parents can remove a non-loadbearing interior wall to get a larger living room, and make the other bedroom into office space.

The 33 m² student apartments have some of them in ten years turned into premises of for example an office, a café, a sushi restaurant or a small shop.

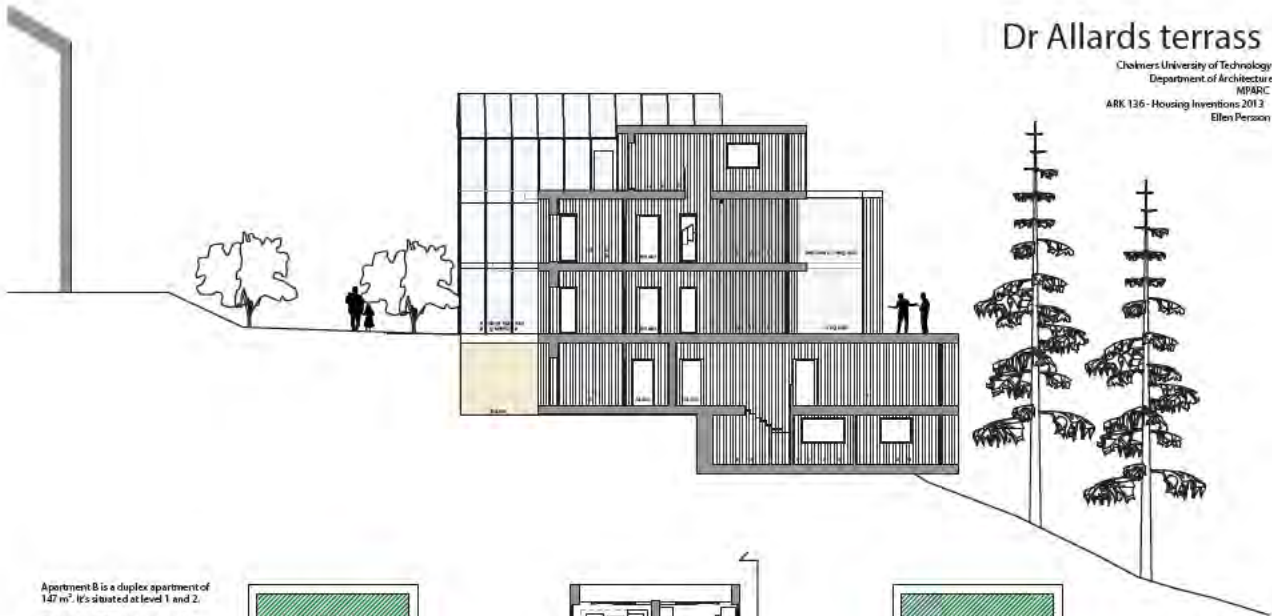


Floor plan - apartment A - today
scale 1:100

Floor plan - apartment A - in ten years
scale 1:100

Dr Allards terrass

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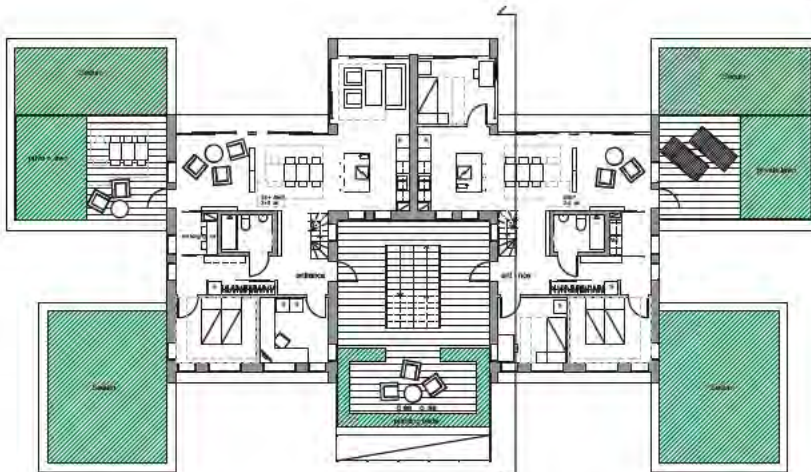
Apartment B is a duplex apartment of 147 m². It's situated at level 1 and 2.

6 rooms could be separated and still be reached from a neutral space which makes this apartment suitable for a family with many children.

They have one small terrace at the entrance level and then a larger one on the second floor facing the pedestrian street, where they get both midday and evening sun.

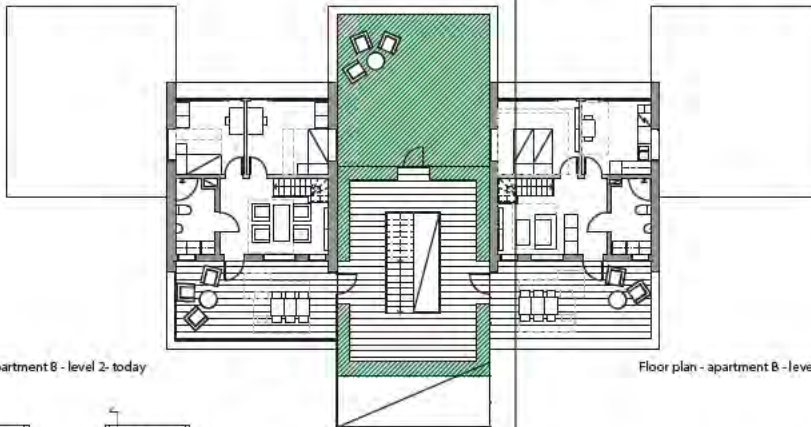
In ten years when the children have moved out the parents could build a wall around the stairs on the second floor and rent out the 45m² apartment to a student, a single person or a couple. Then as the couple grow older, maybe one of them passes away. Then the widow/widower could move upstairs and rent out the 98m² at the first floor to maybe students, a couple or a family.

Section A-A
scale 1:100



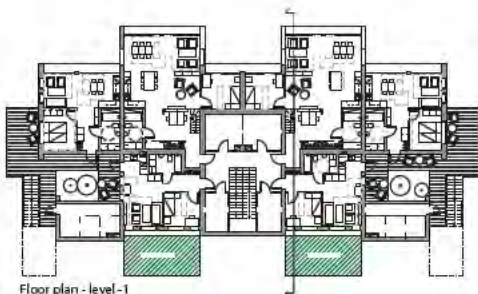
Floor plan - apartment B - level 1 - today
scale 1:100

Floor plan - apartment B - level 1 - in ten years
scale 1:100

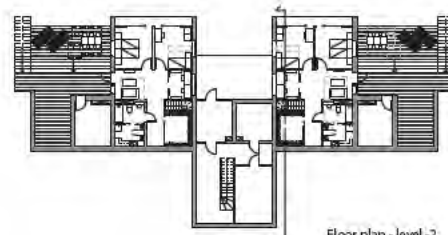


Floor plan - apartment B - level 2 - today
scale 1:100

Floor plan - apartment B - level 2 - in ten years
scale 1:100



Floor plan - level -1
scale 1:200



Floor plan - level -2
scale 1:200

Dr Allards terrass

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Ellen Persson



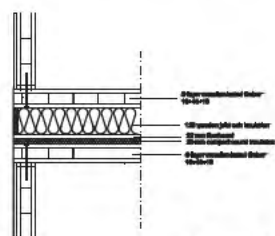
West elevation
scale 1:100



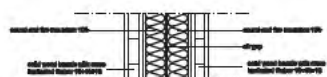
East elevation
scale 1:100

The houses are built out of solid wood beams with cross-wise glued lamellae. The units are built as boxes which are put on top of each other with insulation in between. This system makes it possible to have the terrace deck on the same level as the indoor floor.

The facade material is mainly vertical panels of pine which are treated with iron(II)sulfate, which makes them grey faster than pine normally does. The western facade which is facing the rest of guldheden consists, except from pine, also of dark red bricks.



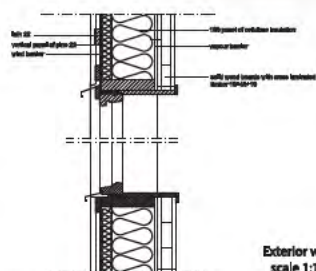
Partitioning slab
scale 1:10



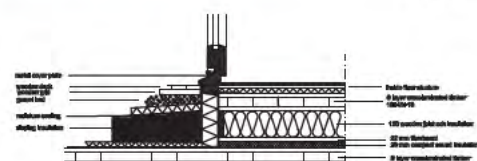
Partitioning wall
scale 1:10



North elevation
scale 1:100



Exterior wall
scale 1:10



Terrace - indoor floor
scale 1:10

HOUSING INVENTIONS

inspired by resilient thinking for social sustainability

E. Larrouy
springterm 2013



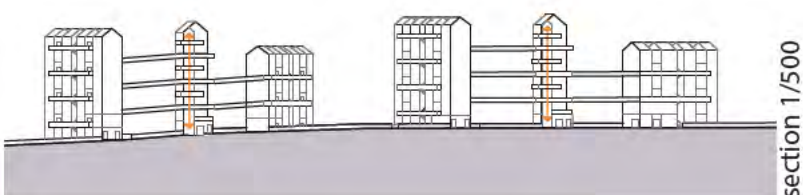
What is resilient
against what?

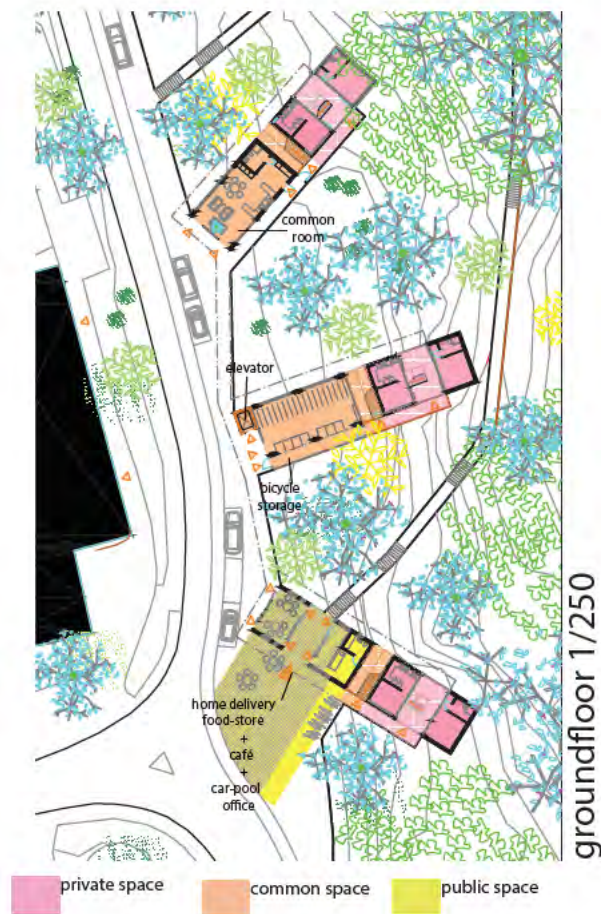
an organization of the dwelling to support changes and afford to be adapt for lifestyle-changes, new economic situations, changed social needs or new family situation.

key attributes

Diversity
openness
modularity
stock of capital

to help general
resilience





private space common space public space



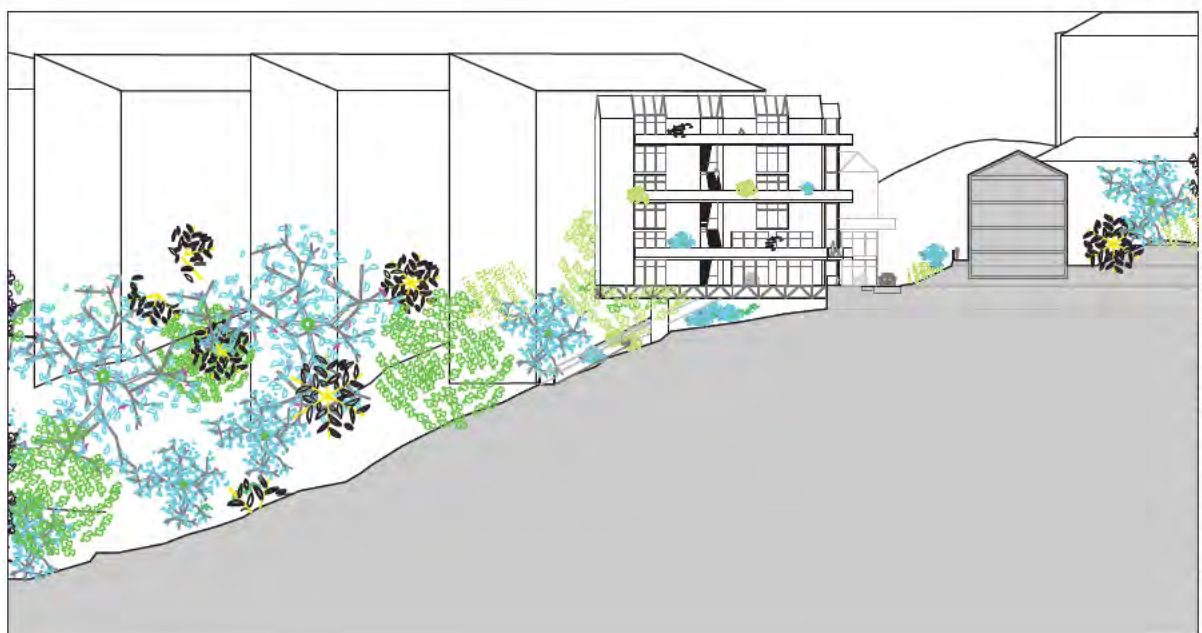
voices from
guldheden

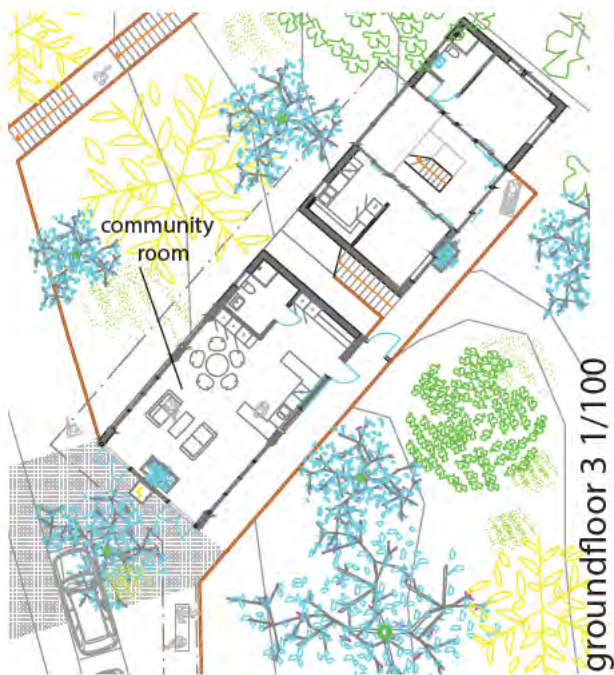


back casting

Design Components & processes	Actors & stakeholders (later on)	Design outcomes
Diversity - Different types of apartments and houses - Different types of building heights and program scales - etc. Safety & trust - Transparency in where people live - Transparency in who they live with - Transparency in who they live with - Transparency in who they live with - Transparency in who they live with - etc. Commitment & involvement - Transparency in decision making - Transparency in building process - Transparency in building process - Transparency in building process - Transparency in building process - etc.	Residents - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc. Professionals - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc. Organisations - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc. Sportsman - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc.	Diversity of - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc. Safety & Trust - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc. Commitment & involvement - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - Dr Forsell in the building - etc.

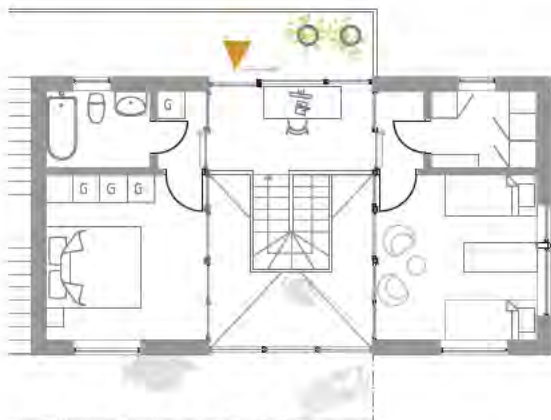
for a
increasing
social
sustainability





material & construction





plan 2 1/50 2013



plan 1 1/50 2013

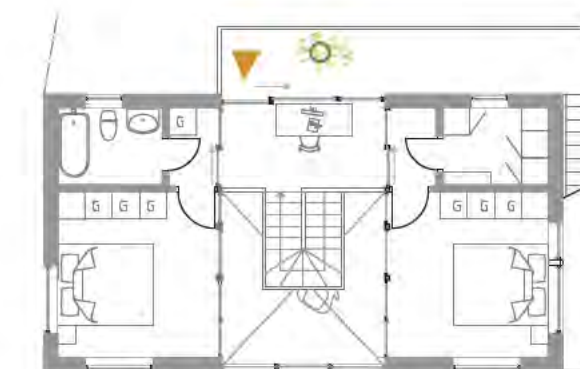
family of 4, kids 8 and 11 years



plan 2 1/50 2023



plan 1 1/50 2023



plan 2 1/50 2013



plan 1 1/50 2013

senior couple with grown up kids

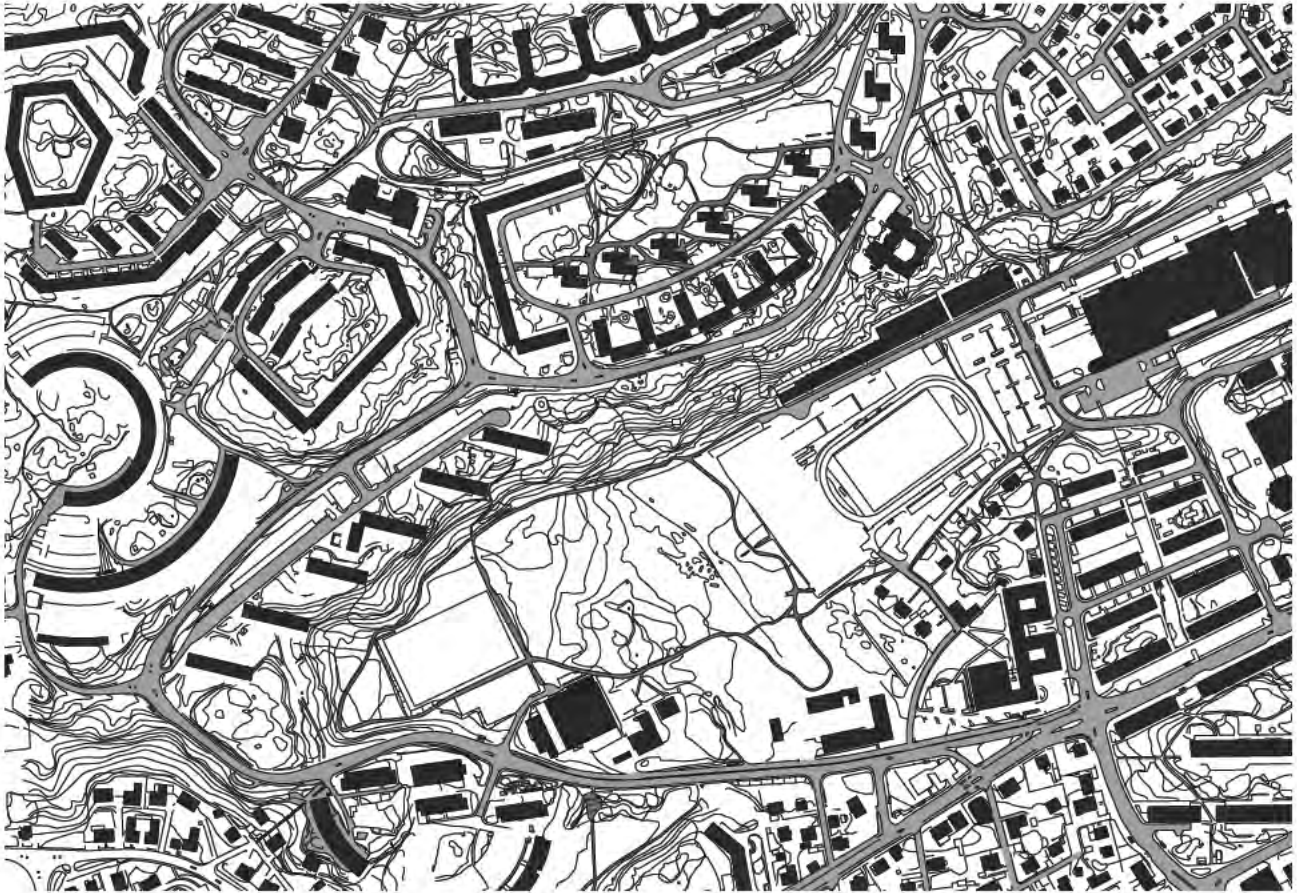


plan 2 1/50 2023



plan 1 1/50 2023

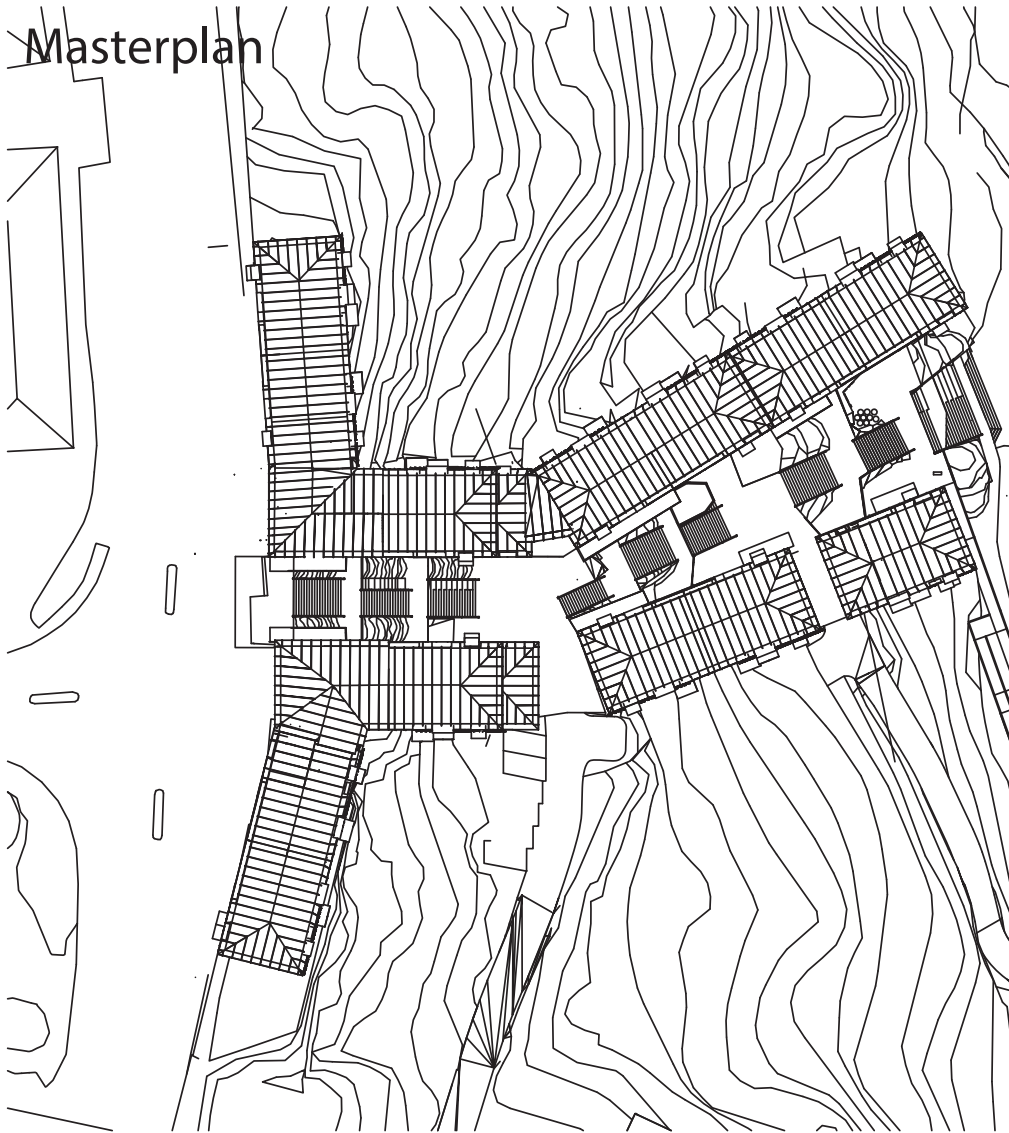
Area and site



Section and facade



Masterplan



Section Perspective



APARTMENT PLANS 1:100



Illustration from Dr Allards gata, Guldheden



Section

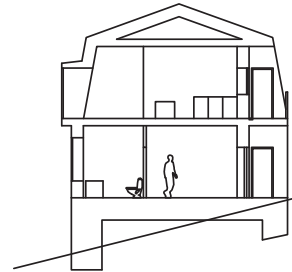
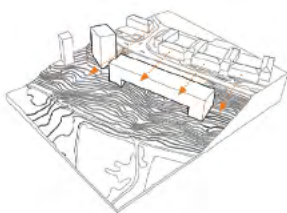


Illustration from path, Mossen

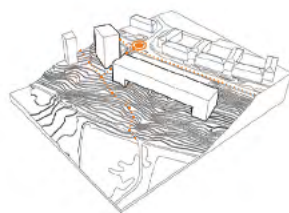




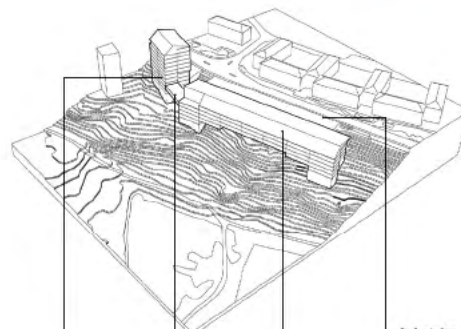
View from the crossing of Wilhelm street and Dr. Allards street, overlooking the interesting building volume and the entrance to the park leading to the recreational areas of Mönster.



The housing provided to the area is divided into two volumes, one low volume following the street in order to not block the views for current residents of the area, and one higher more dense volume placed in line with the building closest to the south of the site.



Adding to the area with smallest possible disturbance. The aim is for the buildings to not block any existing important views, and to provide the area with new recreational routes for hikers and pedestrians.



Higher, dense volume with more apartments

Roof terrace for the residents with an open path underneath for pedestrians

Low volume creating urban street and not blocking views

Surface in front of building can be used for the residents of the area or for future businesses located in the bottom floor of the new building



Day light condition

The main aims of the placement and design of the buildings are to provide Guldheden with ~80 apartments with an attention to detail and residential qualities, that would still be sufficient, rational to build and possible to change over time, that could fit a wide range of possible residents and thereby create a mixed part of the city.

The main distribution of apartments are one room, three room and four room apartments to meet the required apartment sizes that today are missing in Guldheden.

The project also aims to give Guldheden additional qualities such as creating a more urban street to be used for the residents in the whole of the area.



SECTION 1:200

Showing the street, the common outdoor area and the lower building volume in front of the street.

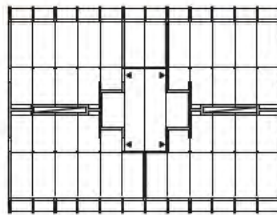
HANNA JAKOBSSON
Housing in Guldheden, Göteborg, spring 2013



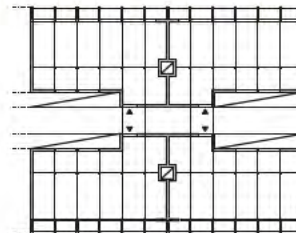
HIGH VOLUME
The floor plan is constructed according to a simple constructive principle, dividing a floor plan into four apartments and a common storage for bikes on each floor. This space also serves to provide the stair cases with daylight.

The distribution of apartments can vary within the structure to create bigger apartments, terraces and a more interesting facade.

The individual apartment floor plans aim to be flexible and provide general rooms with good lighting conditions and good accessibility. The measurements are chosen with respect of those factors and to make it possible for multiple usage of zones.



CONSTRUCTION PRINCIPLE

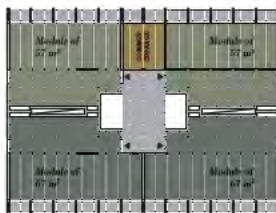


CONSTRUCTION PRINCIPLE

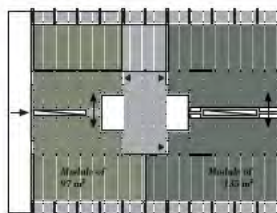
LOW VOLUME
In the lower volume the residents get a great view over Malmö, or they get nice evening-run balconies.

To make an effective distribution of apartments a gallery access is applied, though placed in atriums on the building side to create a gallery only accessible for the residents.

The distribution of apartment sizes can be chosen by placing the separating walls between apartments on different locations in the construction system and still get well-functioning floor plans in all choosable variations. The main sizes of the apartments chosen are modules of 55 m² and 44 m² to meet the demographic needs of the area.



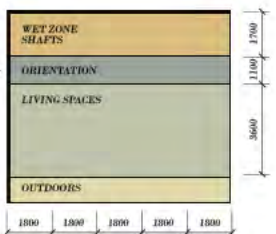
STANDARD FLOOR PLAN



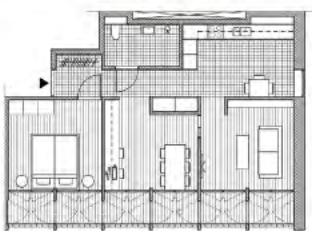
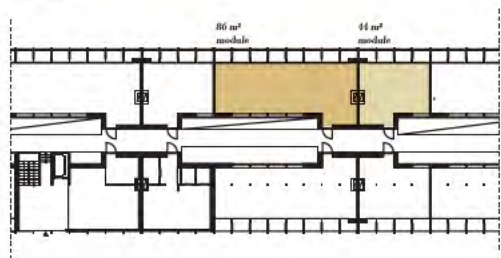
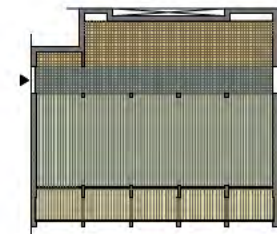
VARIATION PRINCIPLE



ENTRANCE GALLERY PRINCIPLE

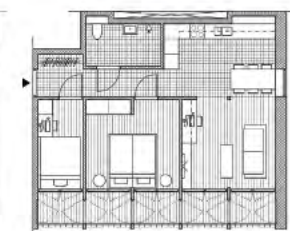


PLAN PRINCIPLE



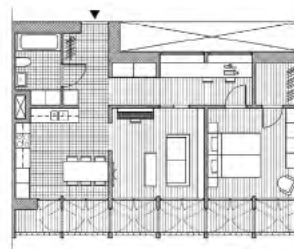
Apartment for couple working from home

MODULE OF 67 m²



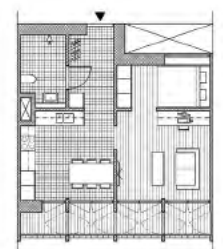
Apartment for couple with teenage

MODULE OF 57 m²



Apartment for couple working from home

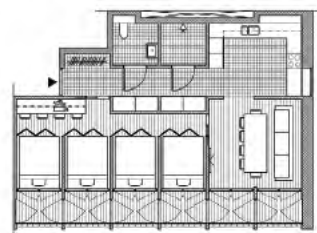
MODULE OF 65 m²



Apartment for one person

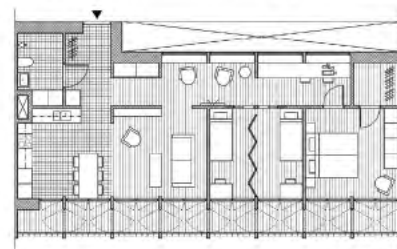
MODULE OF 44 m²

PLANS 1:100



Apartment for 3 students

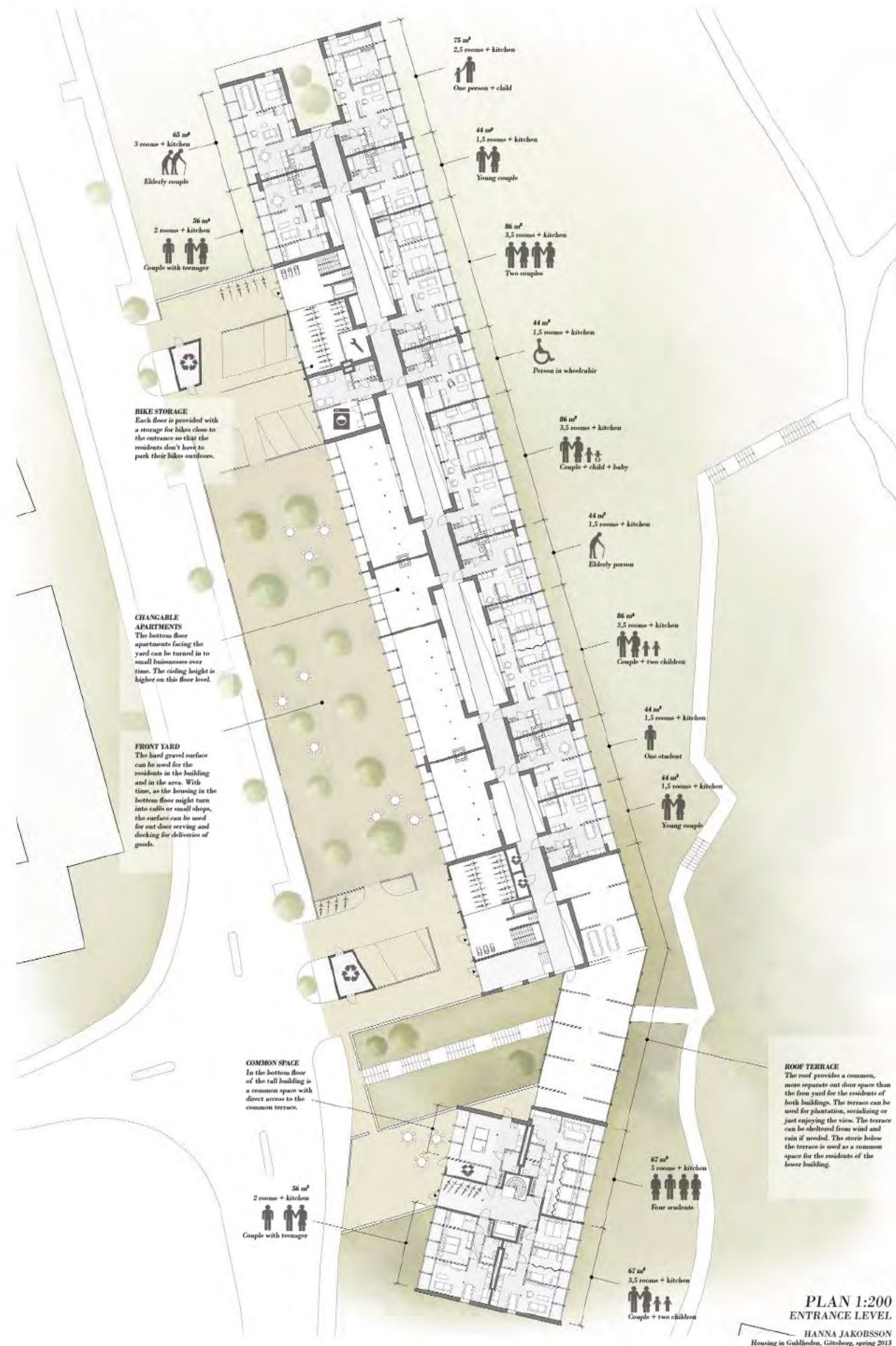
MODULE OF 67 m²



Apartment for couple with two children

MODULE OF 86 m²

HANNA JAKOBSSON
Housing in Gullboden, Göteborg, spring 2013



PLAN 1:200
ENTRANCE LEVEL

HANNA JAKOBSSON
Housing in Gullstaden, Göteborg, spring 2013



The area in front of the lower building volume, the separate density of the two volumes, the connection to the surrounding areas and the narrowing of the street help give the area a more urban scale without compromising with residential quality.



ELEVATION 1:200
WEST



MATERIAL REFERENCE: BRICK
Guldheden is an area existing of a large number of older brick buildings. Brick is also a sustainable material that stands time well.

MODULAR SYSTEM

Both buildings are constructed according to the same modular system, both regarding room sizes, functions and construction.

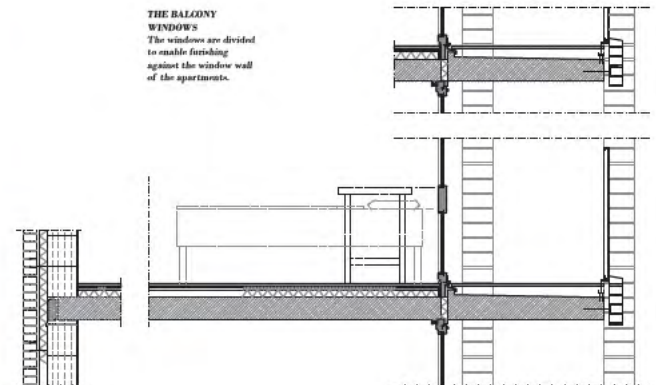
The balconies provide shutters to get privacy from the outside, but also to separate the balcony in order to create balconies private to separate rooms of the apartment. They could also serve as weather protection.

The shutters become an element that creates variation of the facade based on how the residents decide to use them.



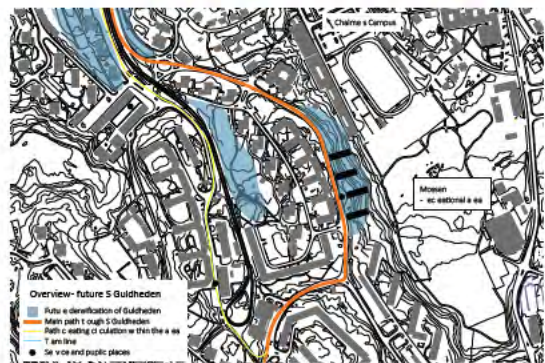
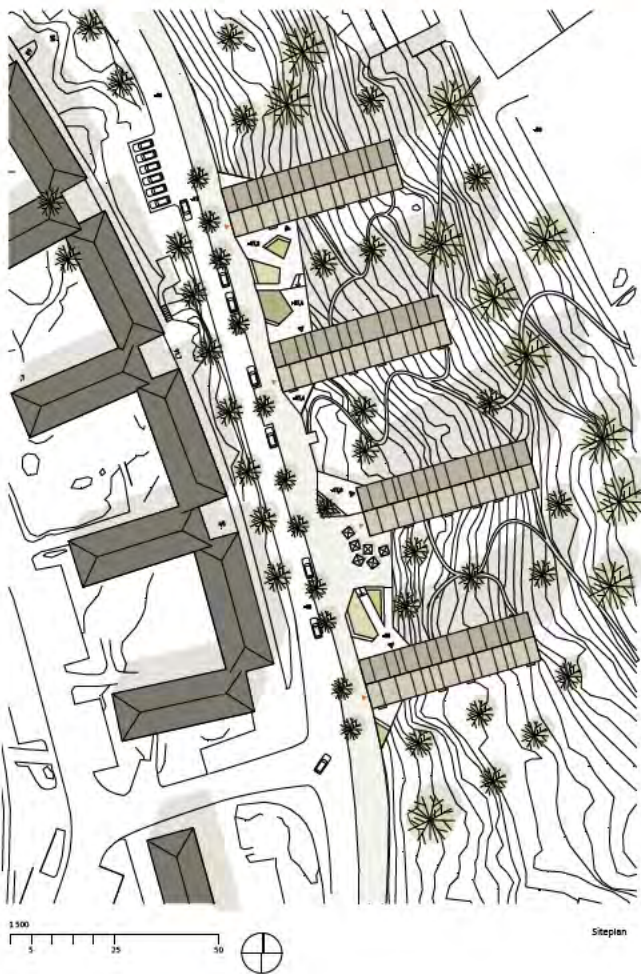
ELEVATION 1:100
EAST SECTION

THE BALCONY WINDOWS
The windows are divided to enable furishing against the window wall of the apartments.



DETAIL 1:20
EXTERIOR WALL AND BALCONY

HANNA JAKOBSSON
Housing in Guldheden, Göteborg, spring 2013



Placement

The new housing should create a streetspace along or Allards gata to strengthen the urban atmosphere in a denser future Guldheden. To preserve the view of the existing buildings, the new housing is shaped like terraces with the gable facing the street. They are placed as high as possible in the slope not to interfere with the recreational area Mossen. This high location also gives a lot of light to the apartments.

Target group

In the future more people will choose to live in cities due to shorter distances and closer to social life. Today many couples move to the suburbs when they get children because of too small living space and lack of garden. This project propose an alternative for this category of people to be able to stay in the city and still enjoy the qualities of the suburb.

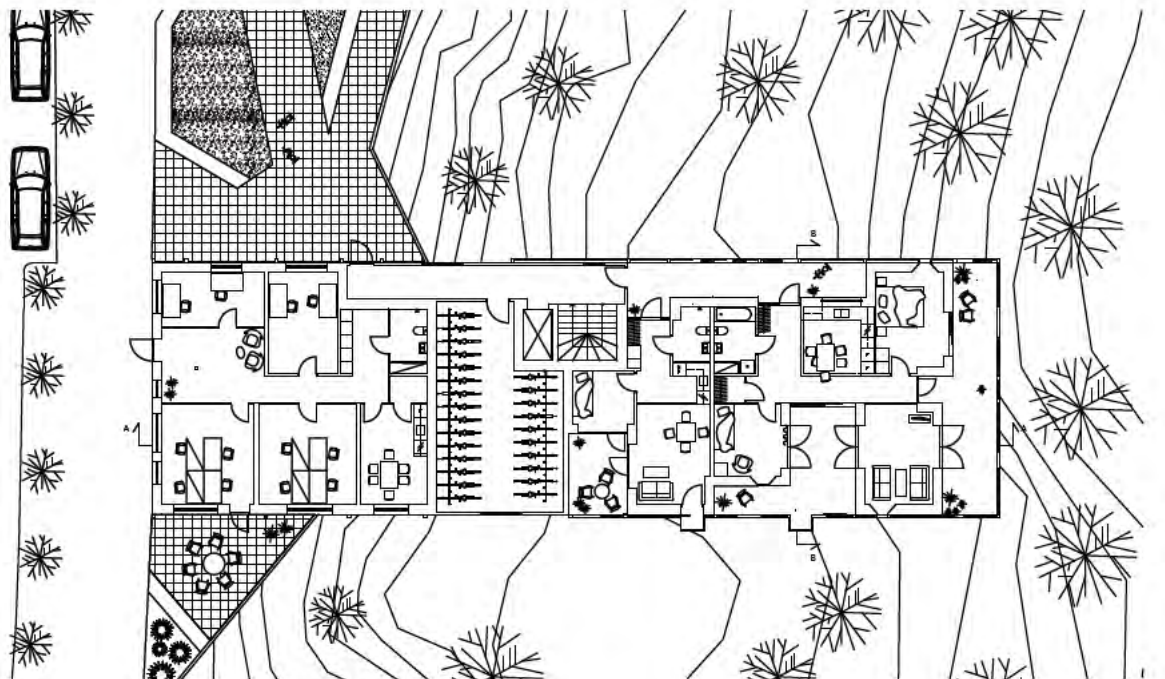




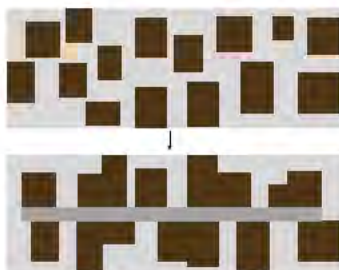
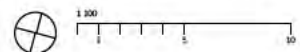
View from Chalmers



Doktor Allards street from south



Entrance level



Layout inspired by the Morioka house. A heated corridor creates a link between different rooms during winter time.

Concept

A division of the climate shell in two parts. The outer structure of steel and glass protects from wind and rain and the inner structure consists of untreated wood and insulation. The solar heated space between the two structures give the apartments many possibilities.

- A garden area to grow your own vegetables and flowers.
- An apartment that expands and retracts according to the seasons.

Separation of rooms into boxes to further integrate the garden area into the apartment. The boxes are connected through one heated corridor in winter time.

- The space between the boxes become interesting passages and undefined areas.
- The irregular wooden box structure is contrasting the more strict glass shell.



Reference project 1: Morioka House Ohta-ku Japan by Senae.
- Functions divided in separate boxes



Reference project 2: Social housing Mu house France by Lacaton & Vassal.
- Division of climatized and semiclimatized areas

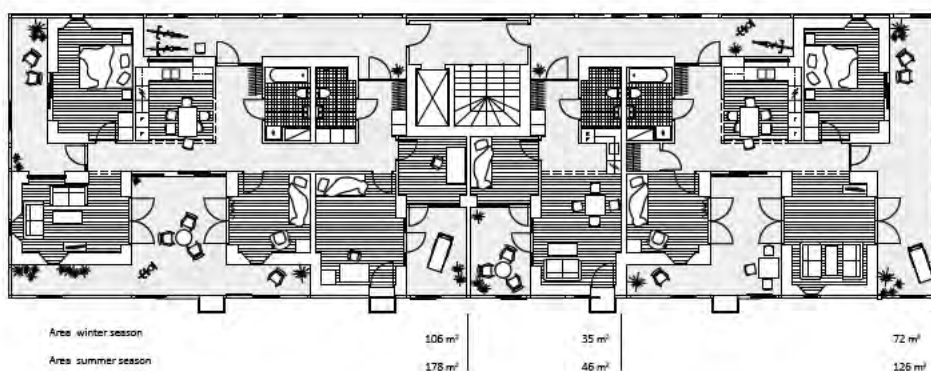




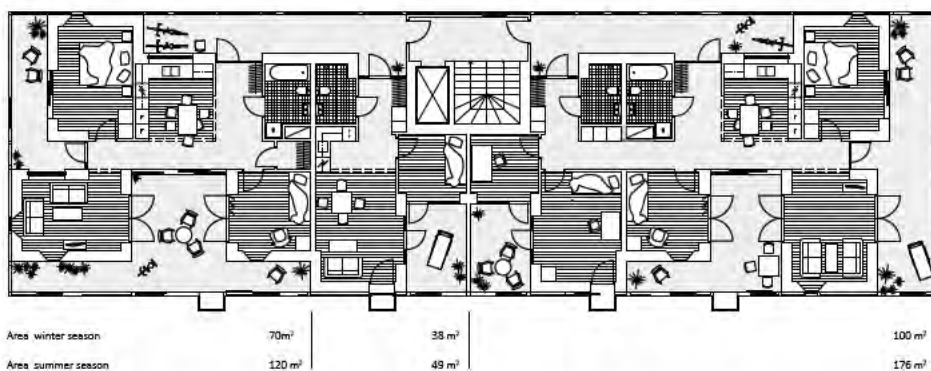
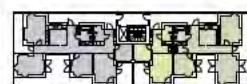
Greenhouse and common area



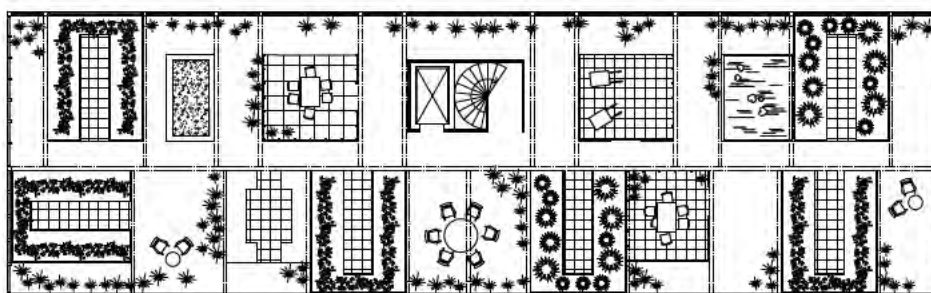
Interior view through kitchen to outdoor space



Floorplan



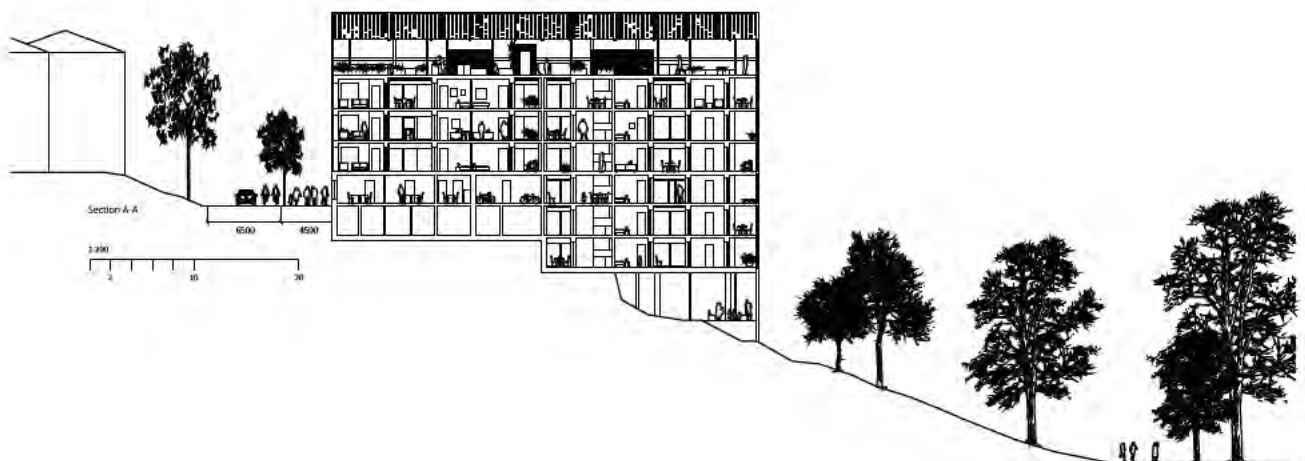
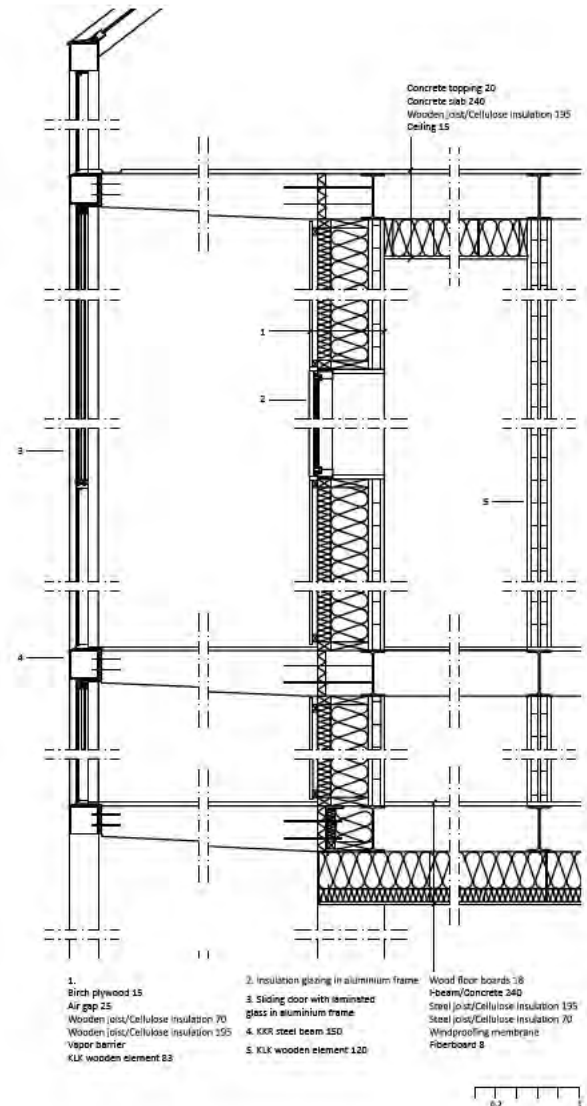
Floorplan - 10 years later.



Roof Greenhouse

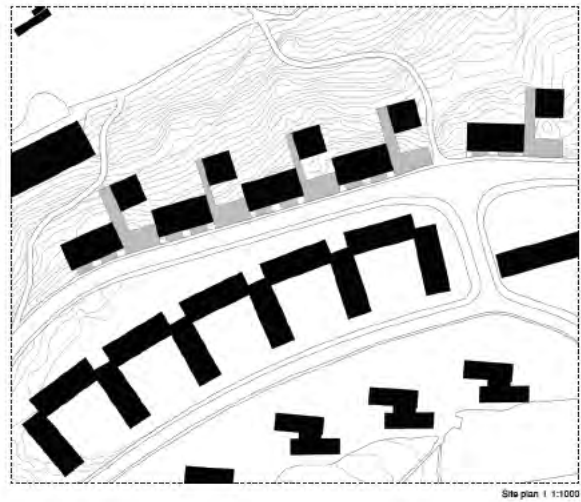
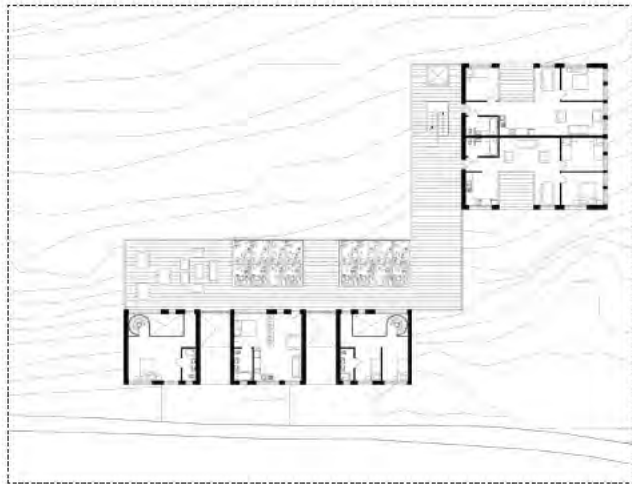
Common area where all the residents can meet and grow vegetables.





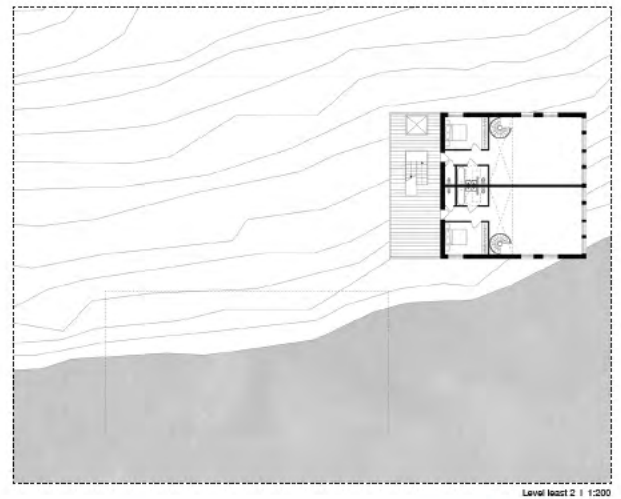
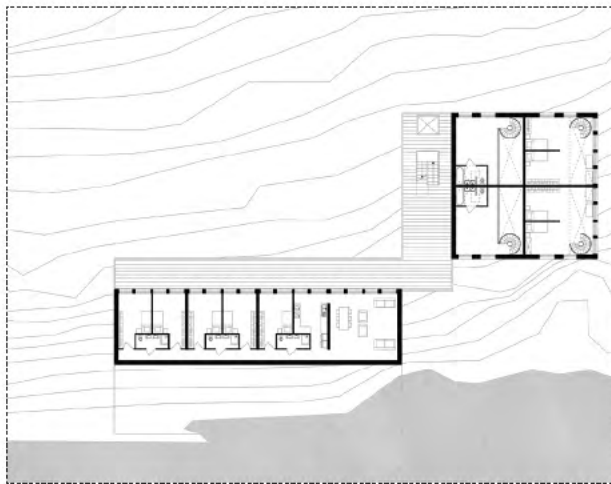
HOUSING INVENTIONS

SODRA GULDHEDEN | DR ALLARDS GATA | GÖTEBORG



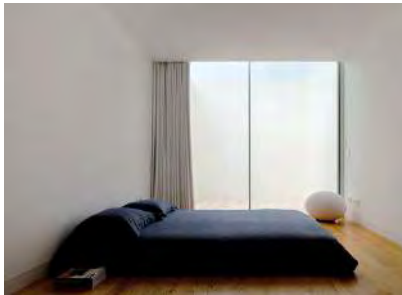


Hermine Le Cleac'h



HOUSING INVENTIONS

SODRA GULDHEDEN | DR ALLARDS GATA | GÖTEBORG



Aires Mateus | House in Leira | Portugal | 2008-2010



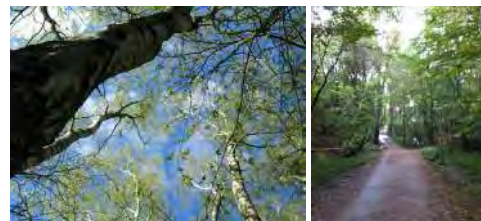
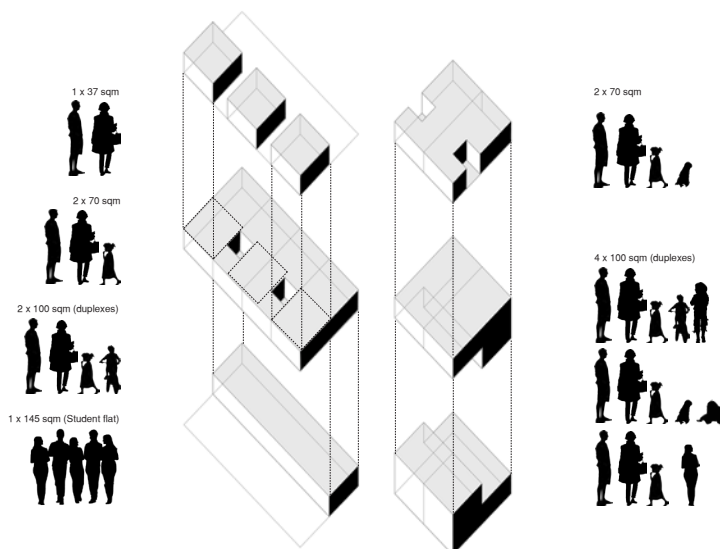
Paul Baumgarten architect | Hansaplatz | Berlin



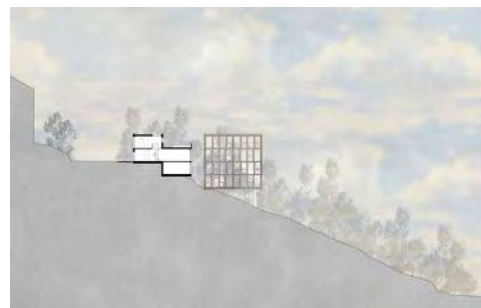
Philippe Gazeau | Logements, 46 rue de l'Ourcq
Paris XIXe | France | 1994



NL Architects | Columnar towers Colville



Images of reference | Pictures of the site | Google map



Cross section | 1:500



Longitudinal section | 1:200



Elevation from the south | 1:200

The Doctor Alvaro Gato street is today not made for humans, but for cars. If we want to create new housings along this street, we have to give it a new scale, made for humans, as new people will live there, and use this street in their everyday life. This is why this project is situated along the street, following it, creating a line of different units, separated from each other in order to create views on the slope and the nature. The units are only two levels higher than the street level, as the small scale appeared as the best option to give a human scale to this street. It also helps not to obstruct views to buildings located on the other side of the street.

Two different units create the line along the street. The first one has three levels, two on the street, and one on the slope, and is rectangular. Situated three meters far from the actual sidewalk, it is made of four different kind of apartments, for different households and living situations, mostly students, and families. The second unit has four levels, and only two visible from the street. It is made as a cube largely cut by the windows and patios. It is made of two different sizes of apartments. It is situated 15 meters far from the street. One outside circulation creates the link between the two units. Large and open on the slope, it creates a nice walkway on the nature, where people living in the two units can meet and talk. The first unit also provides a large terrace on the first floor, where people can rest around a barbecue, and cultivate vegetables on the plot made for it. This terrace also provides a nice point of view on the nature and the city of Gothenburg.

As the units are situated along the street, the question of the light was crucial. They are widely open on the slope and the nature, but also on the street, in order to have a double orientation for all apartments. Patios and double high apartments are also created to have the maximum of day light, and the best views on the nature.



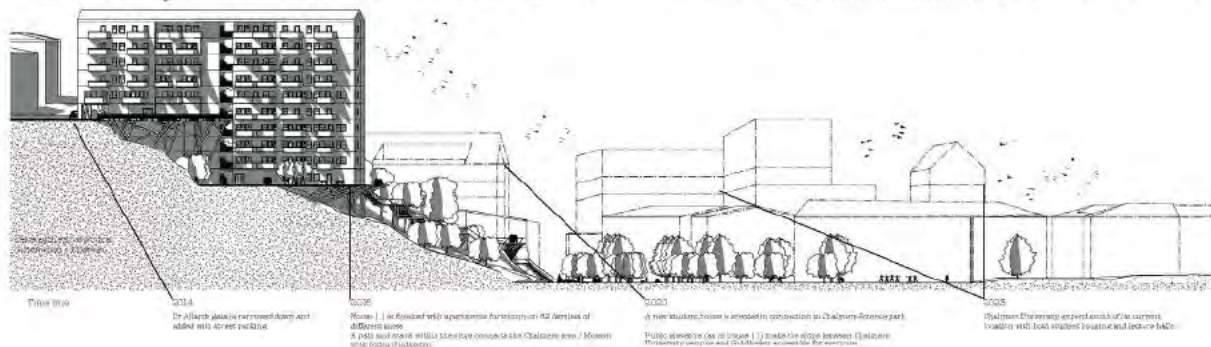
Interior view | Transparency through the patio to the nature



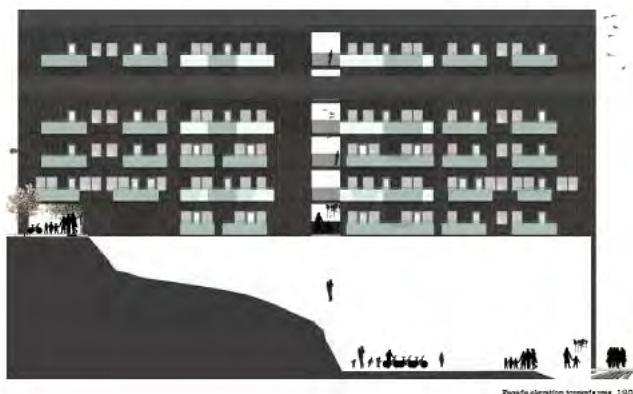
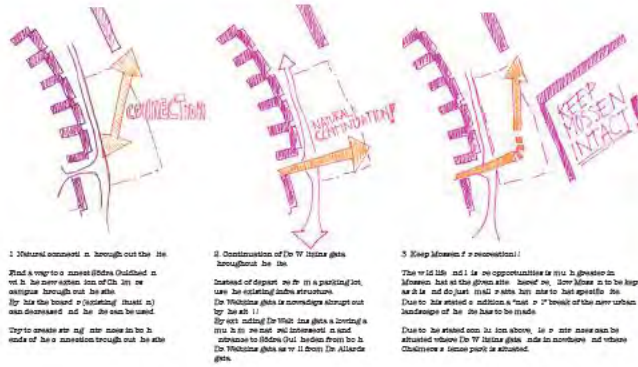
Elevation from the street | 1:100



Elevation from the slope | 1:200

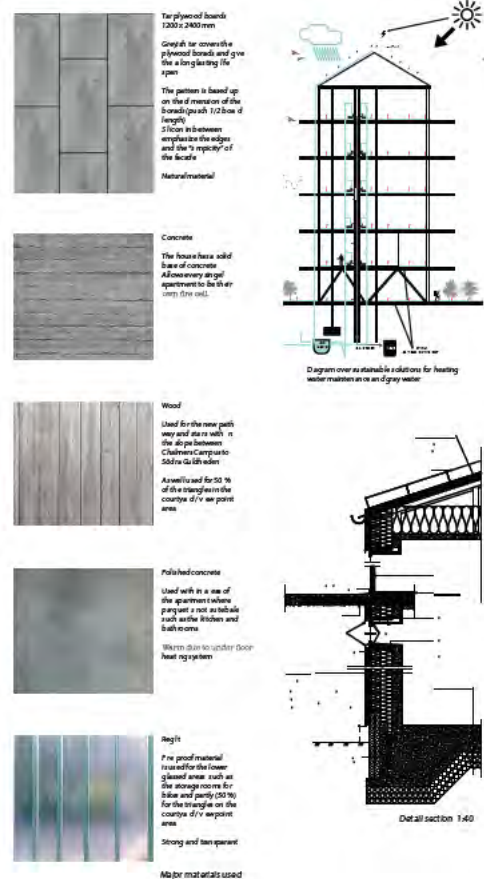
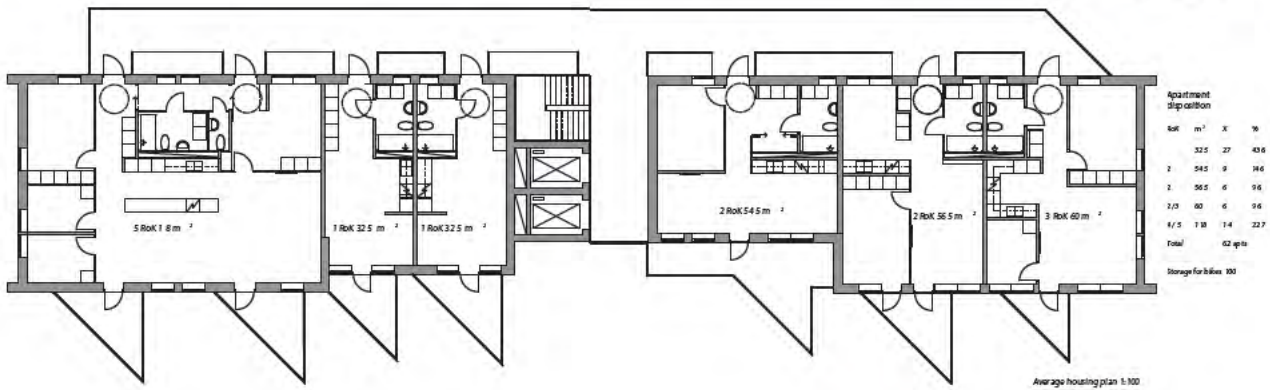


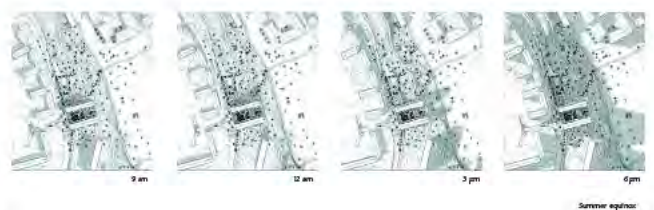
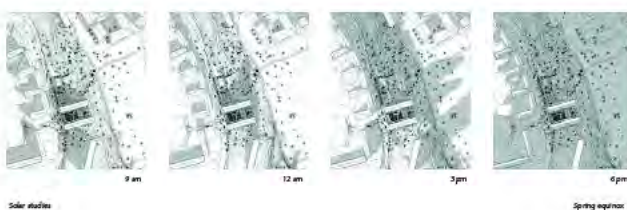
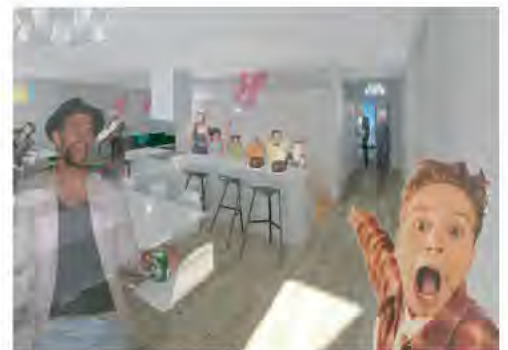
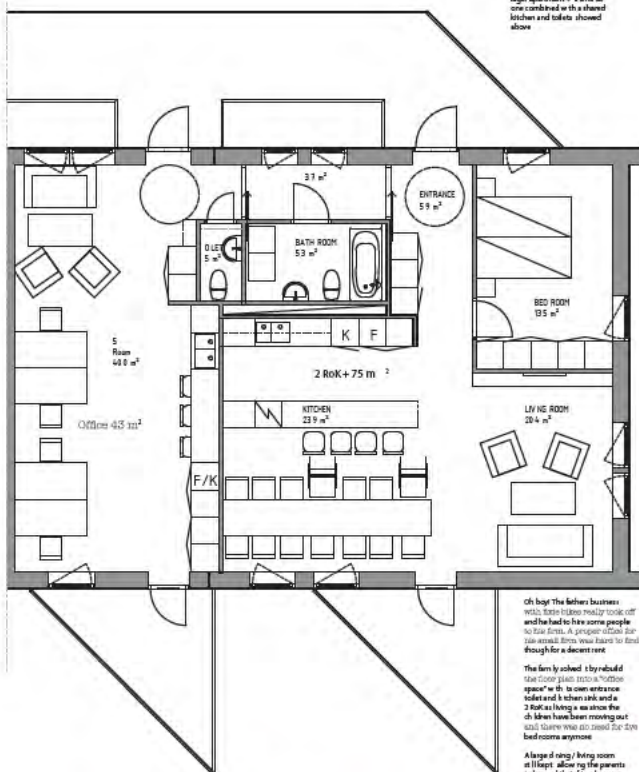
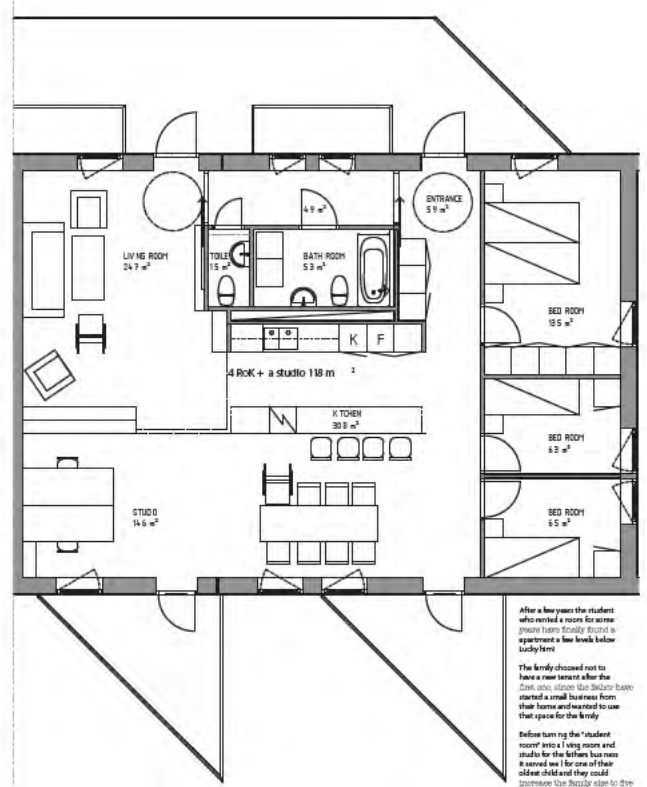
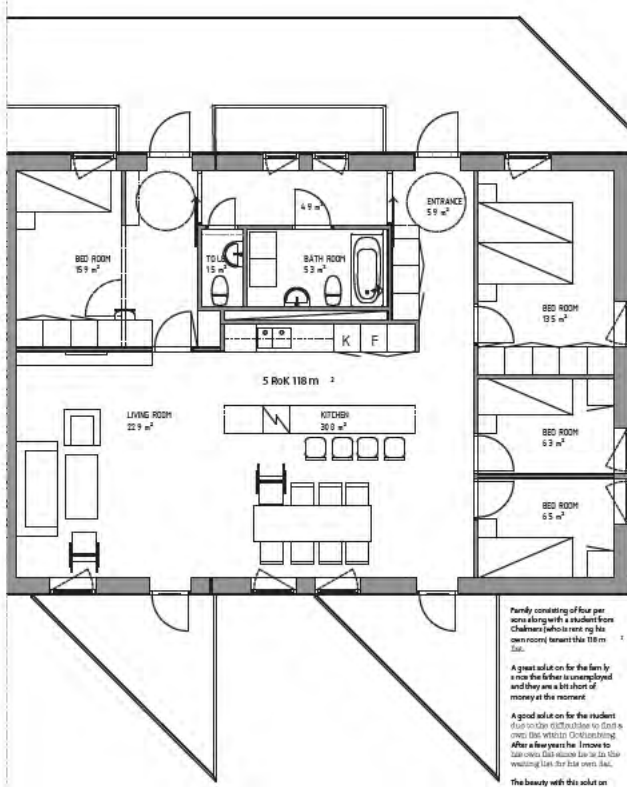
Studentprojekt
Jaocim Haag





View towards north west over the site and Chalmers Science Park







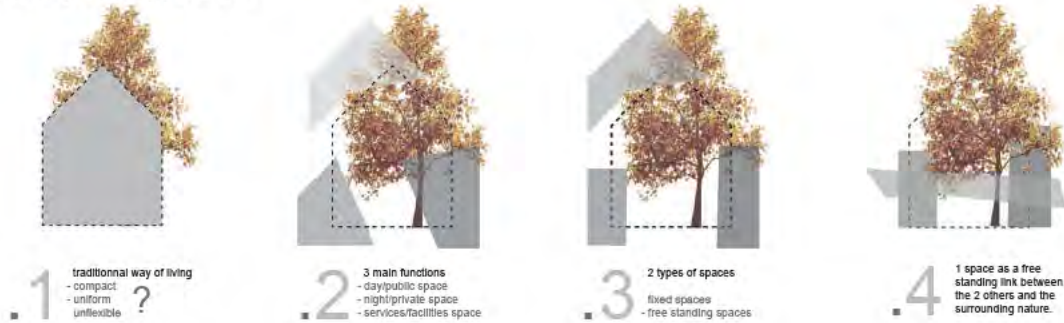
.1 conceptualized functions

CHALMERS University
ARK136 - Housing inventions
Doktor Allards gata - Göteborg

19.04.13
Jonathan Koder

URBAN VILLAGE

.conceptual approach



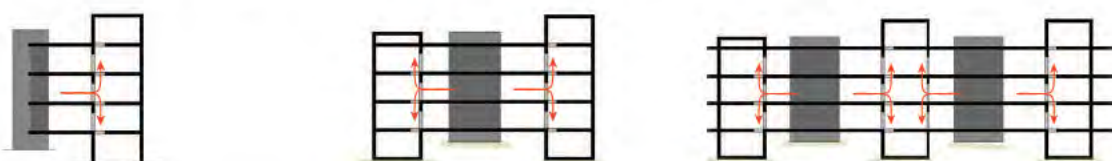
.conceptual living spaces



.degrees of composition



.degrees of expandability





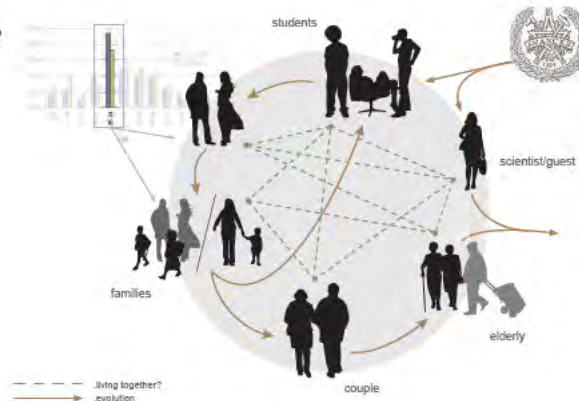
.2 conceptualized flexibility

CHALMERS University
ARK136 - Housing inventions
Doktor Allards gata - Göteborg

19.04.13
Jonathan Koder

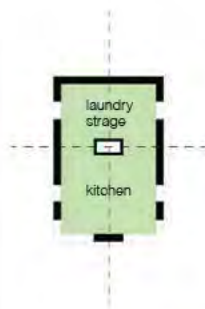
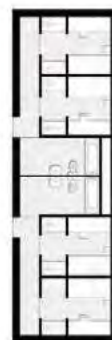
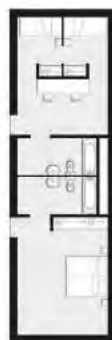
URBAN VILLAGE

.Who would live there?



.flexible blocks

0 1 2 5 10





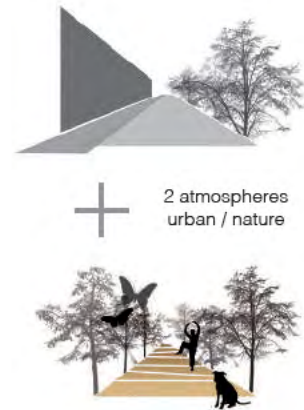
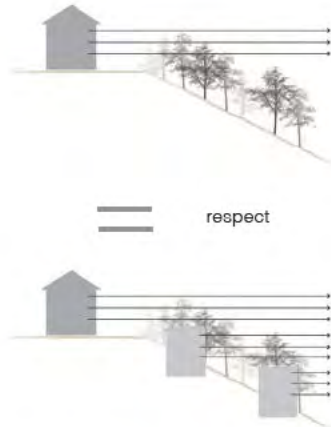
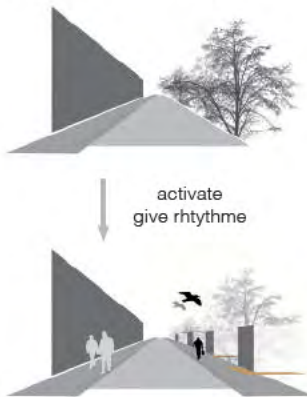
.3 urban application

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Jonathan Koder

URBAN VILLAGE

.main urban intentions



.a growing system ?



Activating
the existing
street with
small built
actions



Developing
a **second
band** which
creates a
**new public
space** in
between.



Expand this
principle
among the
whole street
can give a
new **identity**
to the street.





URBAN VILLAGE

.4 live in

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Jonathan Köder

.drawings



section AA'

0 2 4 10 20



possible East elevation

0 2 4 10 20

.details and perspectives



.wall section
To permit the flexibility for the windows in the rock wall of the night block, a band of wooden wall is used. By this way, even if it requires some works, it is easier to add/delete some windows.



a common entrance viewed from Doktor Allards gata



view from the new natural public street

.possible layout

0 1 2 5 10



the residents

1

2/5

3

4

6

WALK THE LINE

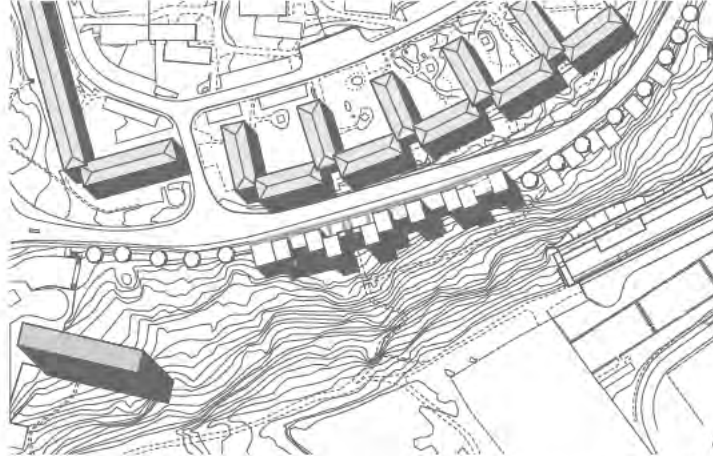
URBAN CONTEXT

CHALMERS UNIVERSITY OF TECHNOLOGY

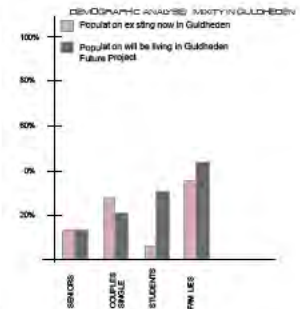
MPARC HOUSING INVENTION / ARK 136 MASTER | ARCHITECTURE / JULIE BOUE



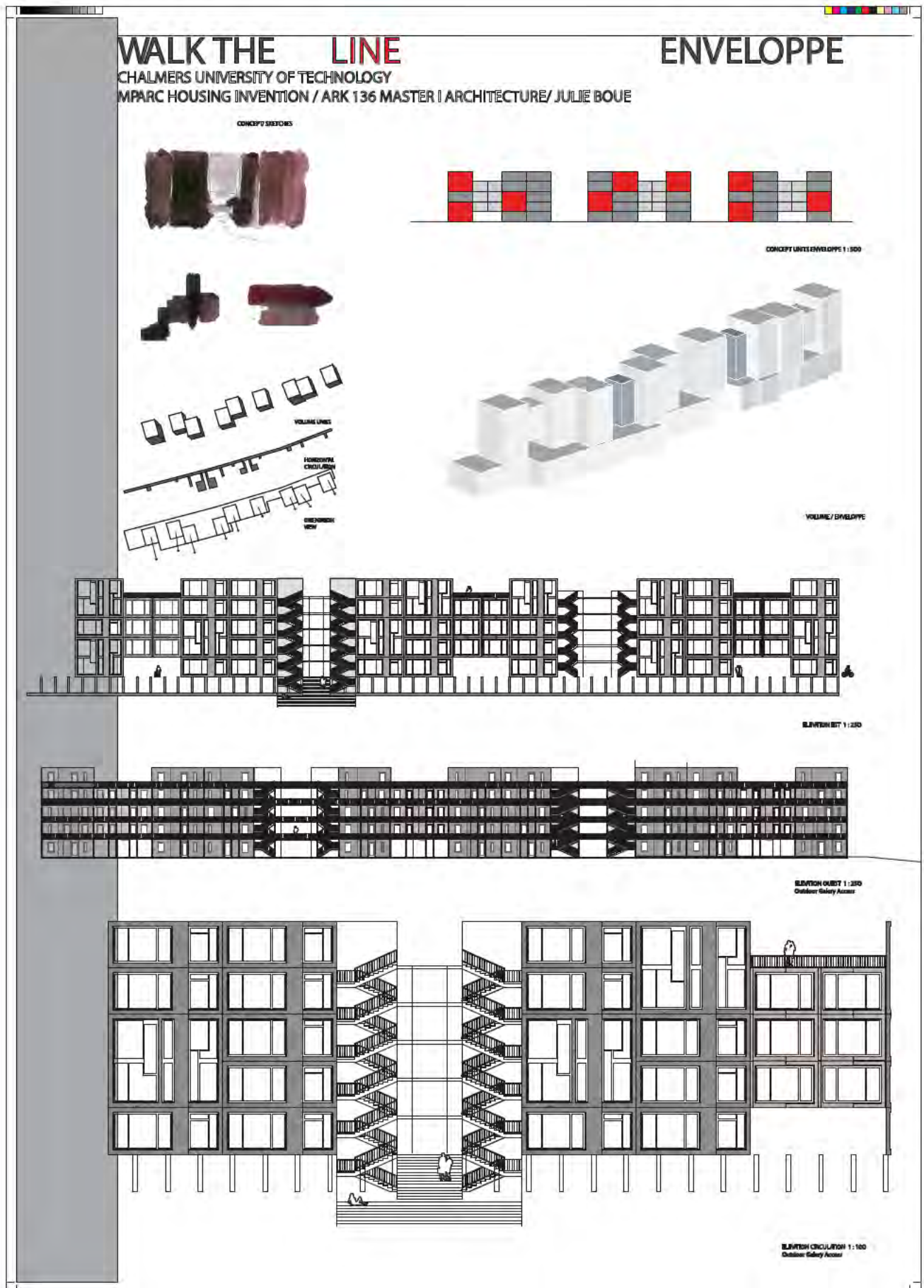
LOCALISATION PROJECT IN URBAN CONTEXT 1:5000



MASTER PLAN 1:500



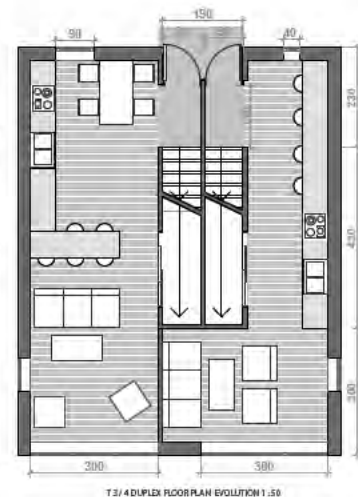
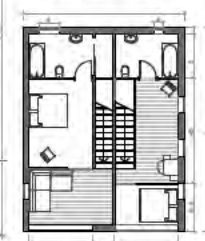
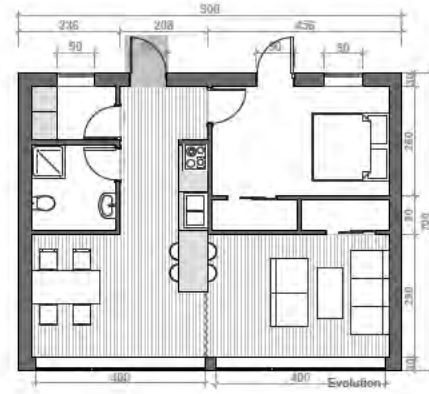
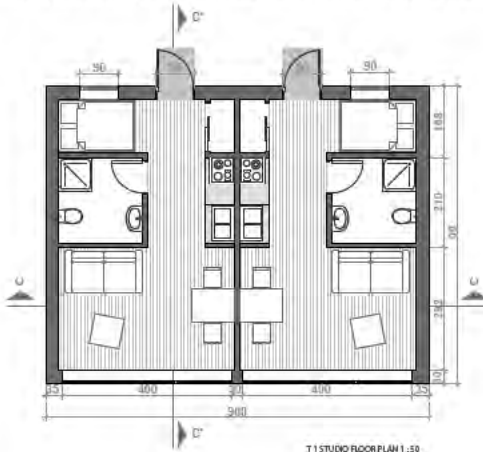
MASTER PLAN 1:500

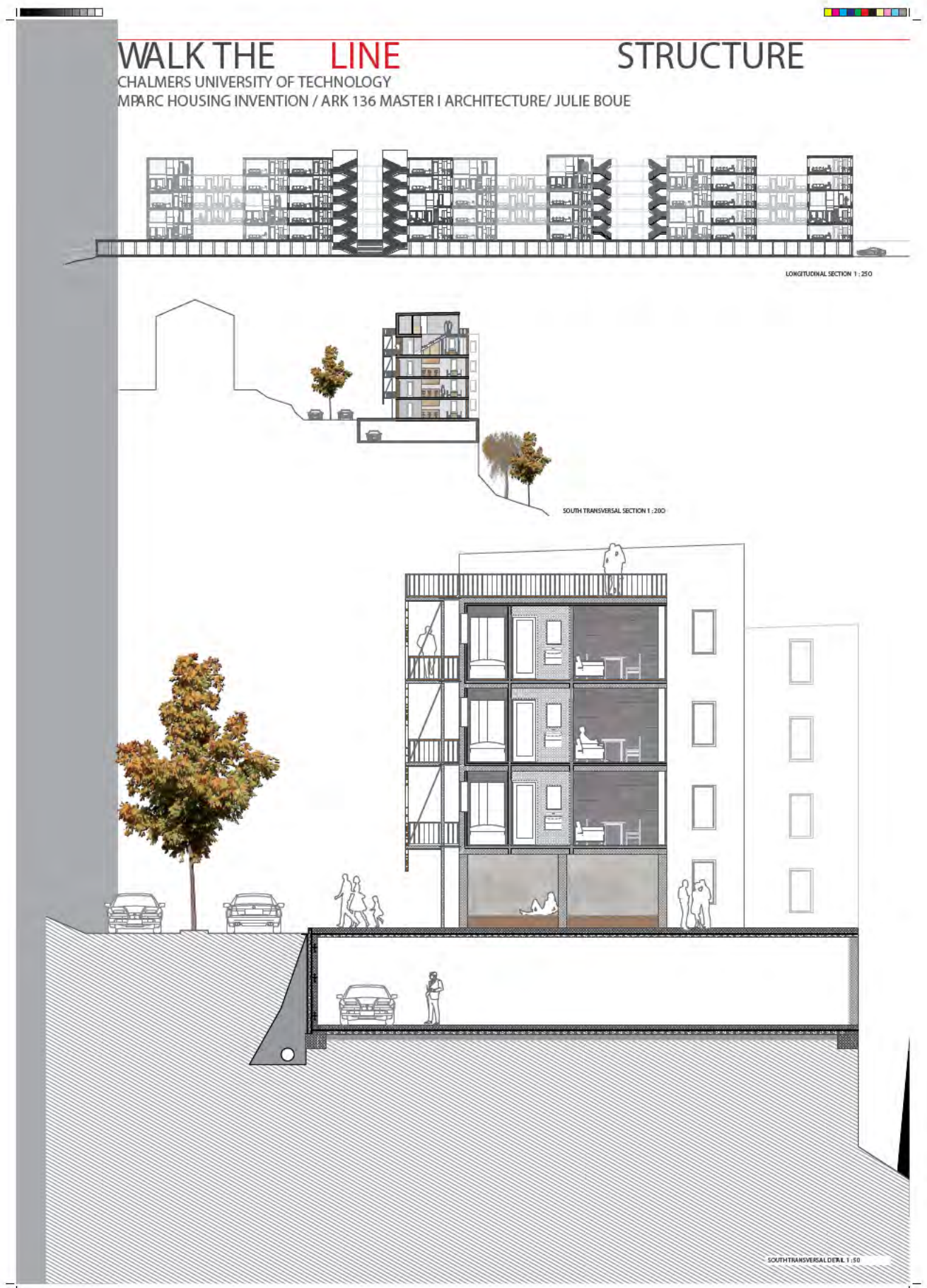


WALK THE LINE

UNITS RESIDENCE

CHALMERS UNIVERSITY OF TECHNOLOGY
MPARC HOUSING INVENTION / ARK 136 MASTER | ARCHITECTURE/ JULIE BOUE





LOVE GENERATION

housing inventions - Södra Guldheden Göteborg



PERSPECTIVE 1 - seen from Chalmers. The design language of the facade relates to the existing terraced houses at 5. For see on Göteborg.

IDEA

HOUSING FOR GENERATIONS

FLEXIBILITY - generation of cores
changeable in size of age groups

GENERATION - connection between old & Guldheden and modern, Chalmers, the city

SELF SUFFICIENT

SYMBOL OF SUSTAINABLE LIVING IN GOthenBURG

LOW FOOTPRINT

BACKGROUND

For the first time in housing, the project is a collaboration between the city of Göteborg and the city of Chalmers. The project is a collaboration between the city of Göteborg and the city of Chalmers. The project is a collaboration between the city of Göteborg and the city of Chalmers.

HOUSING FOR GENERATIONS

30 advantages of generational housing is an old phenomenon that has existed for thousands of years. It is a way of life where the young and the old live together. The benefits of generational housing are many. It is a way of life where the young and the old live together. The benefits of generational housing are many.

What you get you get	100%	100%	100%	100%	100%
100% of the total area	100%	100%	100%	100%	100%
100% of the total area	100%	100%	100%	100%	100%
100% of the total area	100%	100%	100%	100%	100%
100% of the total area	100%	100%	100%	100%	100%
100% of the total area	100%	100%	100%	100%	100%



FLEXIBILITY

In order to make generational housing work, it is important to have a flexible design. This means that the housing can be adapted to different needs and requirements. The design should be flexible enough to accommodate different age groups and lifestyles.

Form of generational cooperative housing is something that has been around for a long time. It is a way of life where the young and the old live together. The benefits of generational housing are many. It is a way of life where the young and the old live together. The benefits of generational housing are many.

GIVE BACK TO GULDHEDEN

Guldheden has a long history and a rich cultural heritage. It is a place where the young and the old live together. The benefits of generational housing are many. It is a way of life where the young and the old live together. The benefits of generational housing are many.

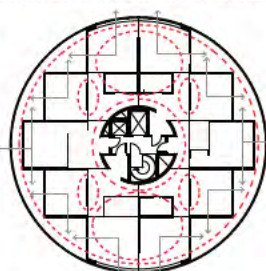


DIAGRAM - plan configuration

SELF SUFFICIENT

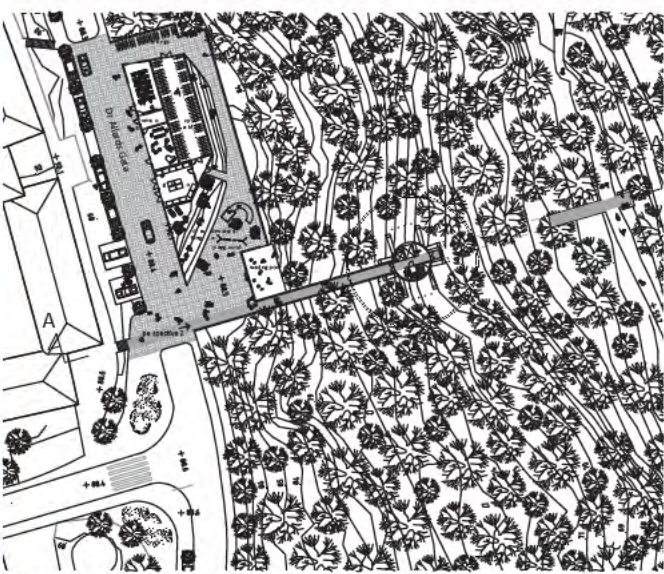
The tower has a round shape to the other parts of the building. The round shape also connects with the organic nature of the building. The round shape also connects with the organic nature of the building.

When studying other organic shaped towers, such as the tower of Guldheden and the tower of Chalmers, it was clear that the use of the organic shape was a key factor in the design. The organic shape was a key factor in the design.

The tower has a round shape to the other parts of the building. The round shape also connects with the organic nature of the building. The round shape also connects with the organic nature of the building.



SITE PLAN 1:1500 - connecting Möllevägen & Södra Guldheden

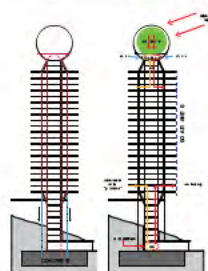


SITE PLAN 1:400 - at street level, showing the building's footprint and the surrounding area.

Josefin Karlsson, Åsa Landahl, Benjamin Gillner



PERSPECTIVE 2 - east side and platform with playground and viewpoint



DIAGRAMS - construction & energy system

SYMBOL OF SUSTAINABLE LIVING
IN GOTHENBURG

The globe on the top of the building, a for all the citizens of Gothenburg to have a great view of their city and to get, rap, led by urban farming and self-sufficiency. During daylight it is free for everyone to come and visit. Here the inhabitants of the house can cultivate their own vegetables as the globe works as a greenhouse. In the night time it lights up as a large light house. This globe will be the highest point in Gothenburg. It is so visible to enter Linnégatan as a gift, but you cannot enter it. So maybe, King that it is containers it but we will see that sustainable household and eco living, is something that can be the most important part of Gothenburg looking into the future.



REFERENCES

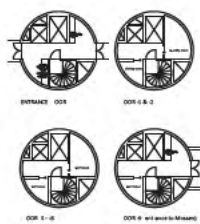
THE HEUTROPE - Feb 1988

THE PRONOUNS: I, he, she, it, we, you, and they

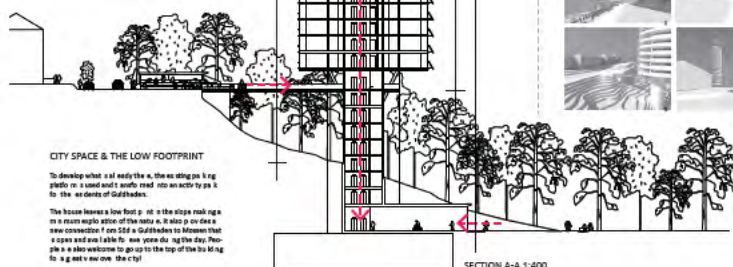
These pronouns are used to refer to people and things. They are used in the same way as in English. For example, "I am a student" or "He is a teacher".

TRIPPLE ZERO HOUSE - Stuttgart t

TRIPPLE ZERO HOUSE - Stuttgart
 Sided who who held the outside to. I glow get it into see Concept (see p. 142) at
 the house. I like the idea of a house where I can see other people's houses. I
 was just the opposite effect of the glass house, as high as me and h-give w windows, a
 tie on the house, all-give us in. Sided invented the so-called sided house. These glass walls still p-
 no insulation, because they are n- glazied, many Sided have in the glass walls a space
 between the glass and the wall. This is a space between the glass and the wall. This is a
 concave, e.g. a tube that are one cent on the side with 100 cm. In the 1950s, a large
 developed a technique one to set buildings into each other, half the amount of concrete used. I also said
 while now people because, when I comes time to take down the 100 mg, give rates 1500 of build
 together. The house is made of glass and steel, and the house is made of glass and steel
 together. So over the address is a similarity of things, which I have seen and it's checked per the p-
 ple - a houses together with its steel steel walls, with which I can reply be used: new on each side.



PLANS 1:200



SECTION A-A 1:400



SECTION A-A 1:200 - a road on low speed with low speed limit

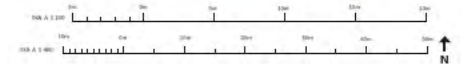


STREET VIEWS

1. D. Alla de Gato, from north.
The building is placed close enough to the street to connect to the platform.
2. D. Alla de Gato, from south.
But far enough to be placed in the slope, and the garage as a house on a hill.
3. From southeast Mosen.
Connects through its sand ramps to each of the corners of the house.
4. D. Libero Gato, from west.
It is placed to leave the open view from the street and at the same time be seen.

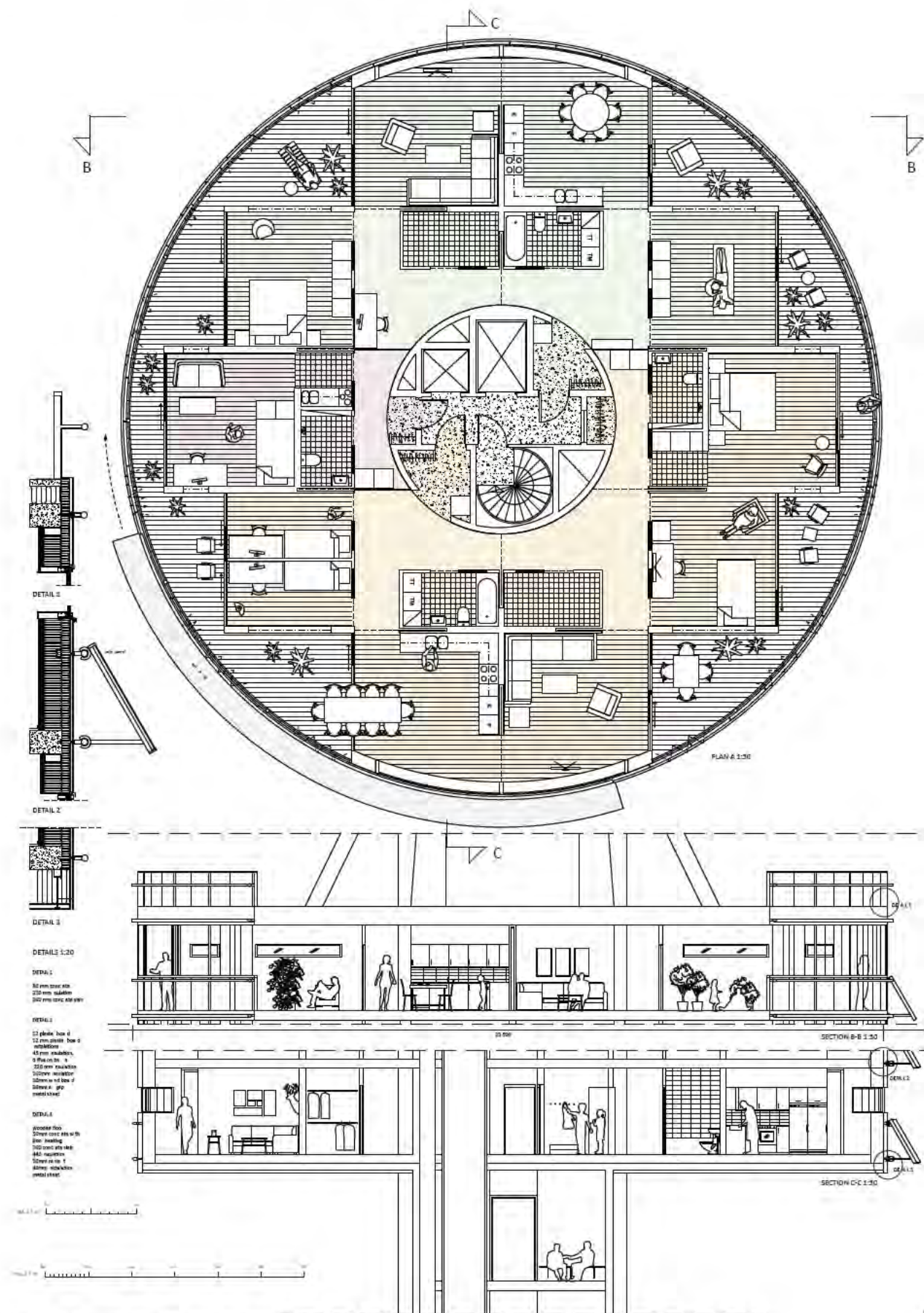


PERSPECTIVE 3 - *en de la globe*



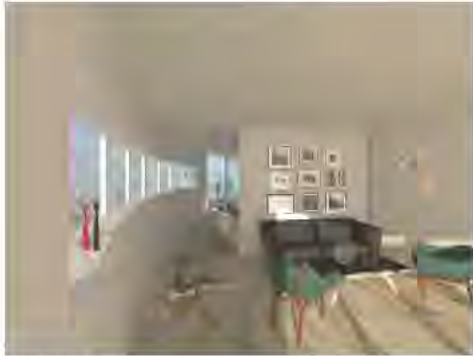
Studentprojekt

Josefin Karlsson, Åsa Landahl, Benjamin Gillner



Studentprojekt

Josefin Karlsson, Åsa Landahl, Benjamin Gillner



PERSPECTIVE 4 - livingroom



PERSPECTIVE 3 - balcony & aley

ONE FAMILY THREE GENERATIONS 33 YEARS

PLAN A 2021

- 1. 5 room apt (1000) - 140 sqm
A family of 4 people with 1 child live in the whole floor. They have 2 bedrooms and 1 bathroom. The child has a room and a balcony.
- 2. 2 room apt (1000) - 110 sqm
The parents of the mother live close by to help with the child. There is a child room and a bathroom. The mother manages up to 10 children and the father has a room and a balcony.
- 3. 1 room apt (1000) - 80 sqm
A mother and a father live in the room with 1 bedroom.

PLAN B 2022

- 1. 4 room apt (1000) - 140 sqm
The oldest child gets 1 room in 1 of the floor, with 1 room space for the other child to live in the room.
- 2. 2 room apt (1000) - 110 sqm
The mother and father live in the room with 1 bedroom.
- 3. 1 room apt (1000) - 80 sqm
The mother and father live in the room with 1 bedroom.

PLAN C 2027

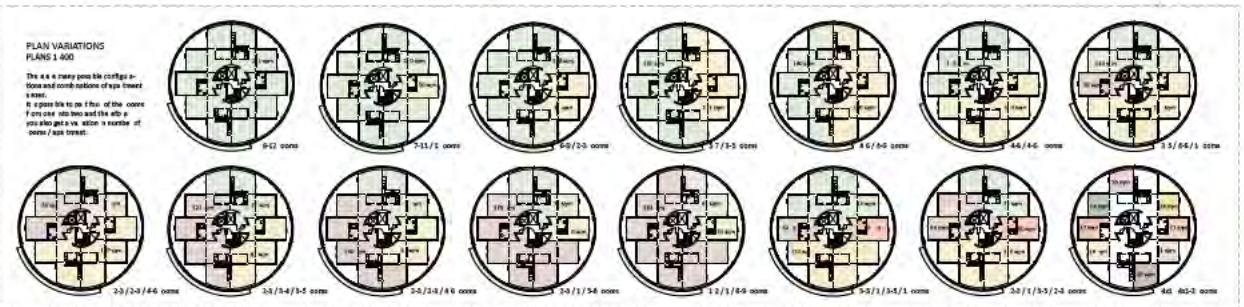
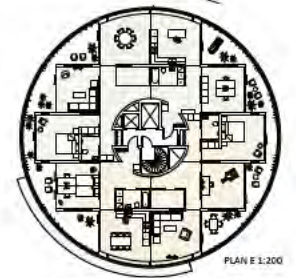
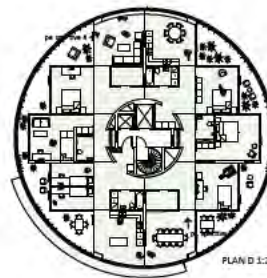
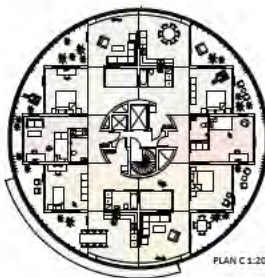
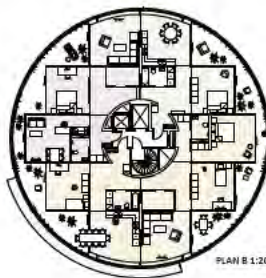
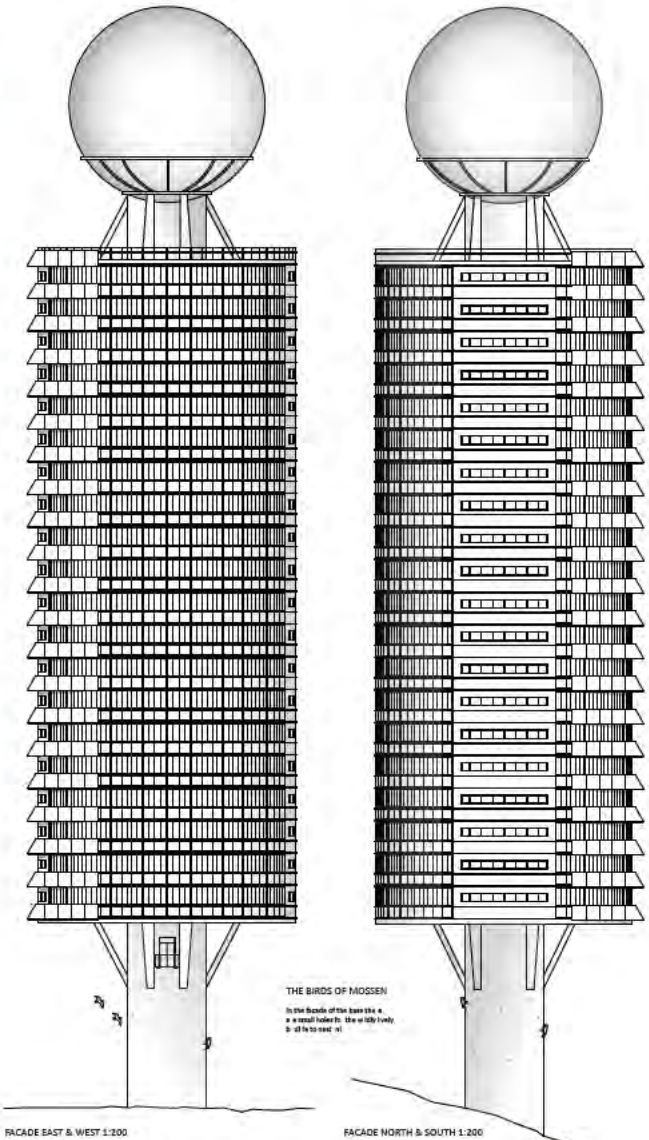
- 1. 5 room apt (1000) - 140 sqm
The couple has 2 children and the father has 1 room with another mother who has a child to live in the room. They have 2 bedrooms and 1 bathroom.
- 2. 2 room apt (1000) - 110 sqm
The mother and father live in the room with 1 bedroom.
- 3. 1 room apt (1000) - 80 sqm
The father and mother live in the room with 1 bedroom.

PLAN D 2048

- 1. 5 room apt (1000) - 140 sqm
The father has 1 room in 1 of the floor, with 1 room space for the other child to live in the room. The mother and father live in the room with 1 bedroom.
- 2. 2 room apt (1000) - 110 sqm
The mother and father live in the room with 1 bedroom.
- 3. 1 room apt (1000) - 80 sqm
The mother and father live in the room with 1 bedroom.

PLAN E 2074

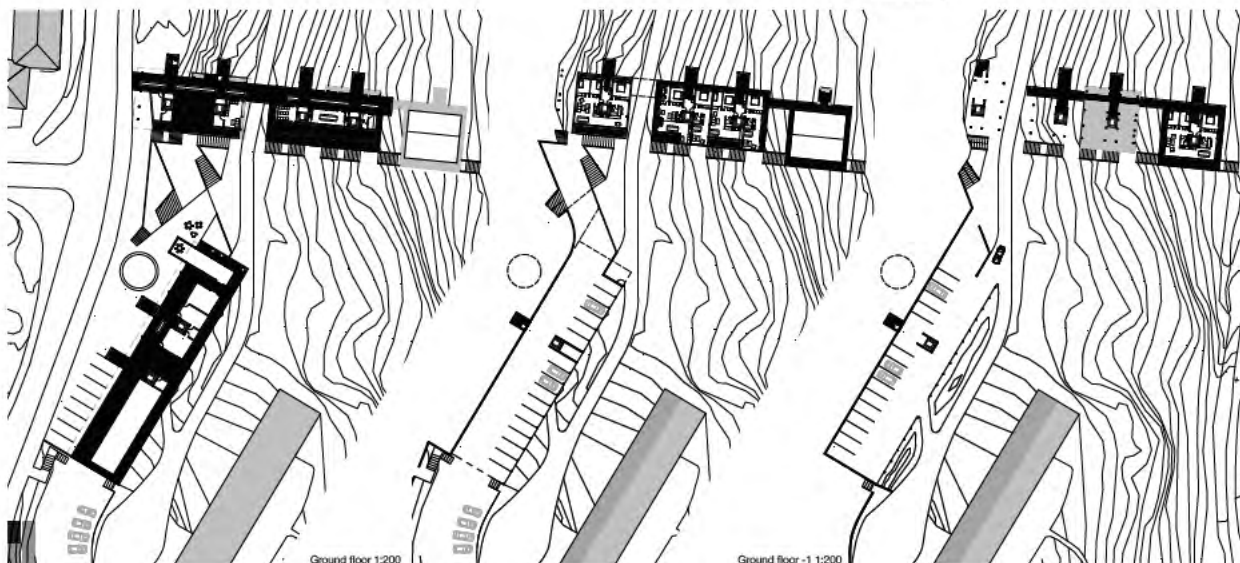
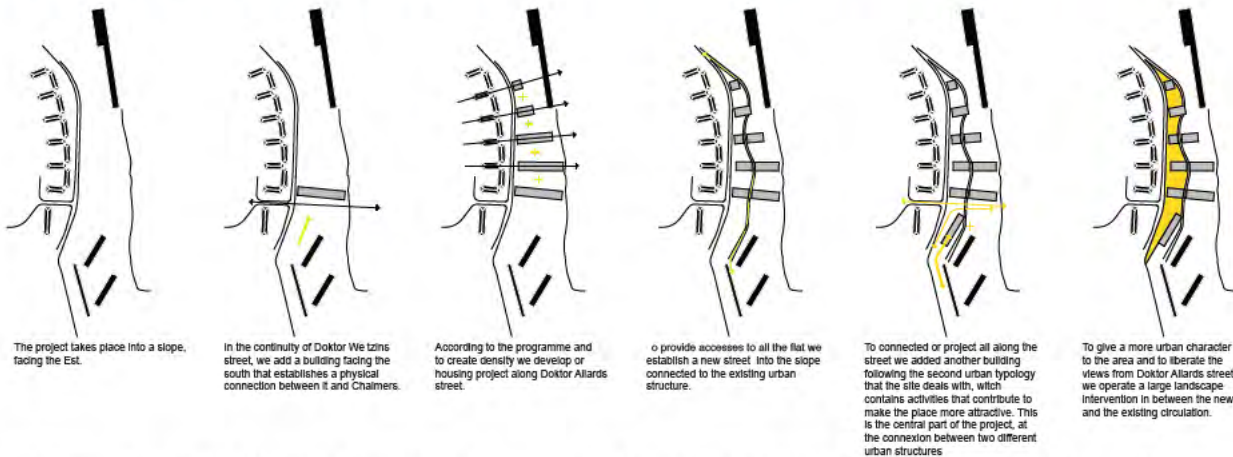
- 1. 5 room apt (1000) - 140 sqm
The father and mother live in the room with 1 bedroom.
- 2. 2 room apt (1000) - 110 sqm
The mother and father live in the room with 1 bedroom.
- 3. 1 room apt (1000) - 80 sqm
The mother and father live in the room with 1 bedroom.



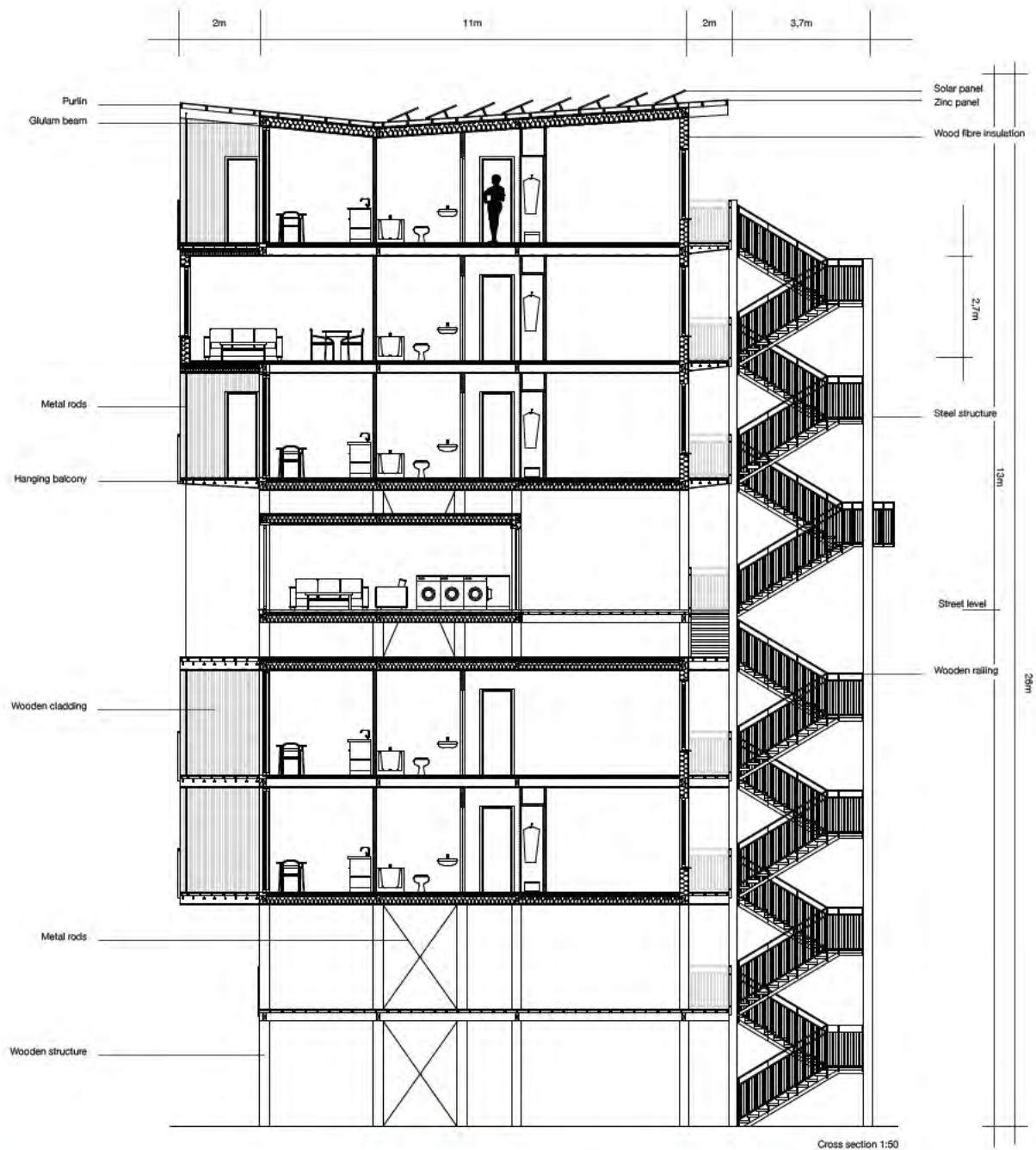


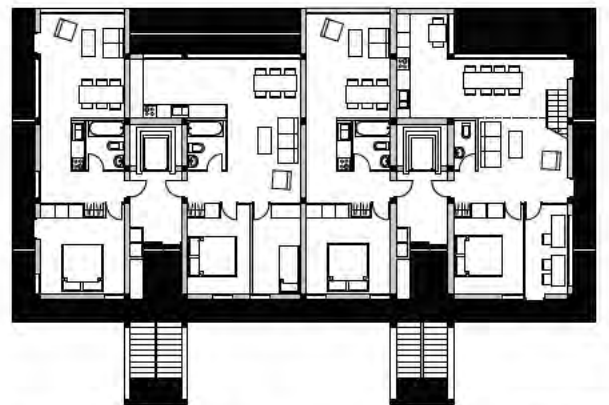
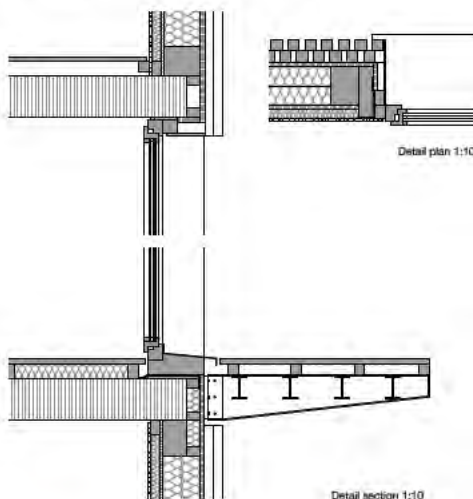
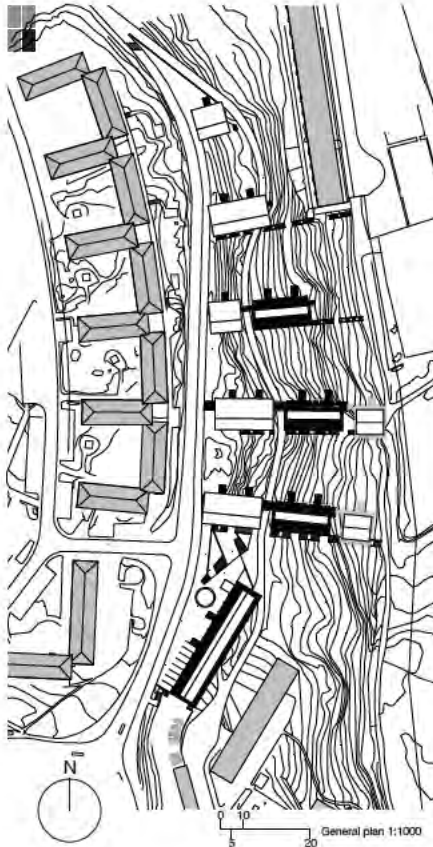
HOUSING INVENTIONS

ARK 136, VT 2013 Chalmers University of Technology - Lambert Lempereur - Paul Balay

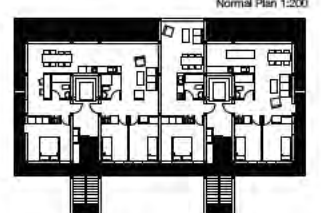
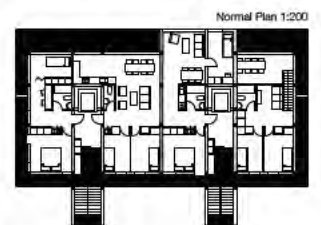
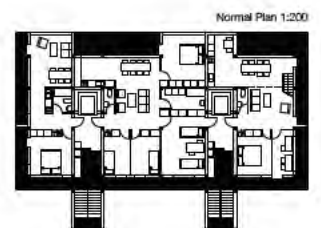
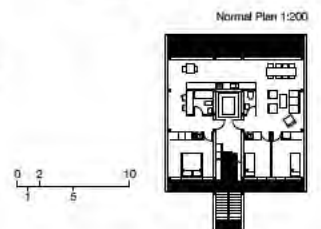








Flats
The design of the flats is inspired by the different thermic zones that you can find into a flat, could (circulation), warm (living places and bedroom) and hot, kitchen and bathroom). The spaces are organised around a central core which contains all the technical stuff that need the flat (water, electricity, ...) and the vertical circulation. The sleeping area is facing the north, with smaller opening to be protected from cold. The living areas are facing the south; they dispose of large opening in order to take a maximum of light. The bathroom are in the centre of the flat where you do not need light. Because of the wooden structure the flat are made to be really flexible and can involved in time.





Mass Plan - 1:500 / Urban Connections



Between Mössen and Guldheden, the design becomes a part of the existing nature coming from below, but also extend the settings of the public space on the top. In order to increase the different sensitive feelings you get from these two areas - for example the contrasts between varied sounds - the buildings are never higher than the street level. It thus dedicates their roofs to the public users, connected by bridges. These functions on the roof could be either gardens, urban farming or outdoor sport activities. By doing this, the classical way of imagining a house turns to be reversed. Therefore, the wish for having an impact as low as possible on the ground also fits in this reversion diagram.

The seven buildings, appearing as seven islands through the trees from the street level, get two different entrances, one from the top and one from the ground. These latter are connected by a central core giving access to every floor.

A simple progressive diagram organizes the units: from the core, the first square users reach their apartment's entrance that get indirect daylight coming from the living room. Entrances take part of the second square which includes bathrooms and kitchens putting the shafts in the core itself. Then the livingroom and the bedrooms can be considered as the third square and get daylight from the four facades. And finally the balconies generate an extension of the livingrooms. The organic shape highlights the rest on between them and, when the sliding windows on the corner are opened, both makes the whole surface as an unique space.

The design focuses on several aspects of sustainability. It aims to be efficient as much as to be well integrated. Indeed, instead of putting solar panels on the rooftop, they are included in the bridges railings, creating a continuous stripe between the islands. An other example can be the rainwater collected on the groundfloor that could become an opportunity to create an entrance related to natural elements.

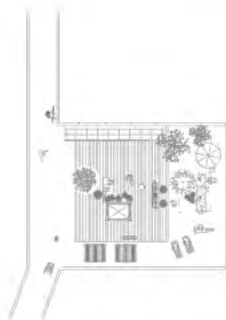
Description

Studentprojekt

Fredrik Asphult, Andreas Lindahl, Francois Massin



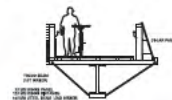
Landscape Section - 1:250 / Beyond the trees to reach the sky.



Rooftop - 1:200 / Public dedicated area



Entrance level (above) 1:200 - Shared spaces and access to the core



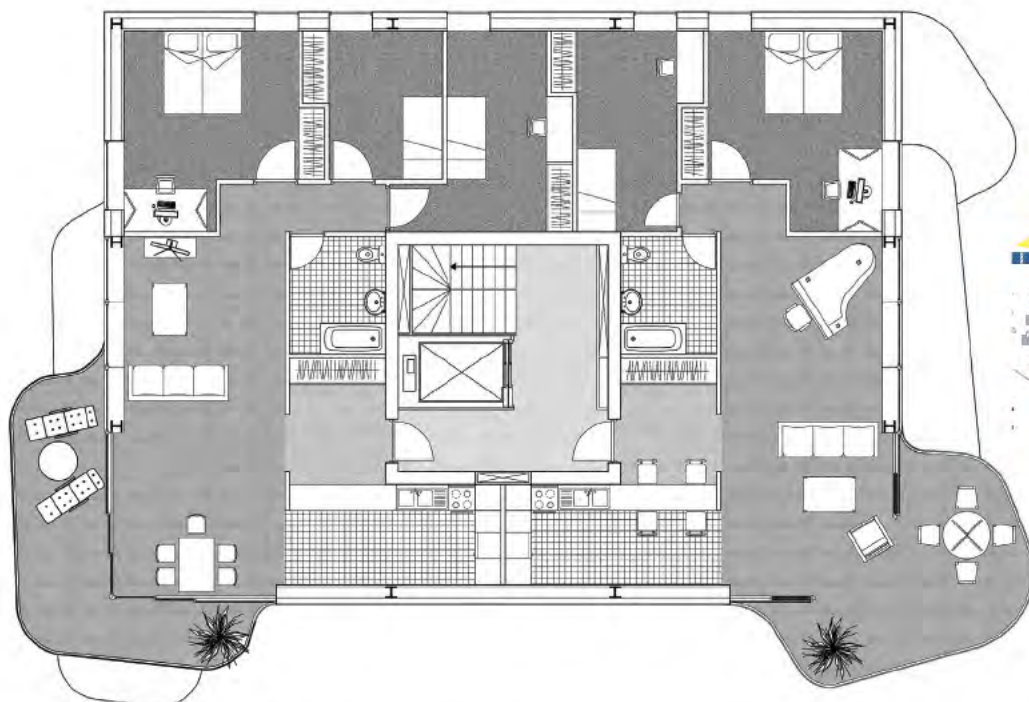
Detail of the bridge - 1:20 / Structure, comfort and technic



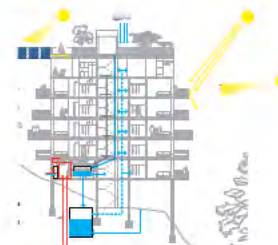
Perspective 2 / Walking inside nature



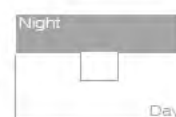
Perspective 3 / Shared public roof and entrance for the private shared floor



Climate zones & Dwelling organization

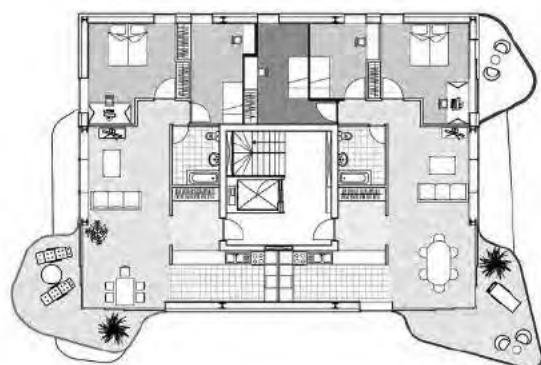


Sustainability: Water Heat and Energy

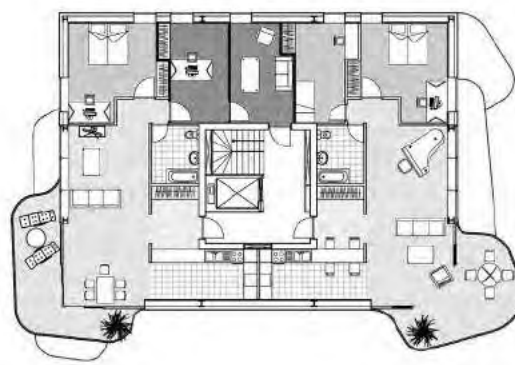


Day & Night

Floorplan - 1:50 / Two apartments on the same level



Floorplan - 1:100 / Rooms Flexibility



Floorplan - 1:100 / New entrance by the core



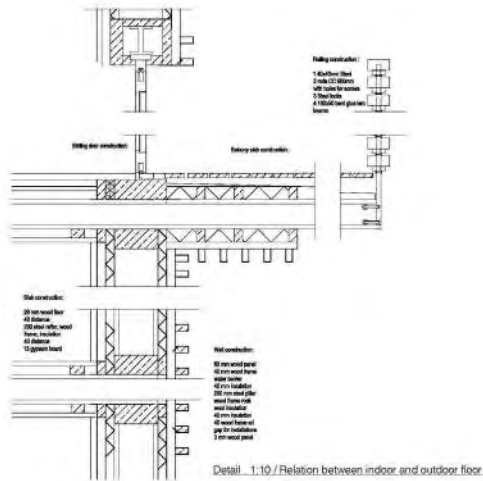
Floorplan - 1:100 / Three apartments on the same level



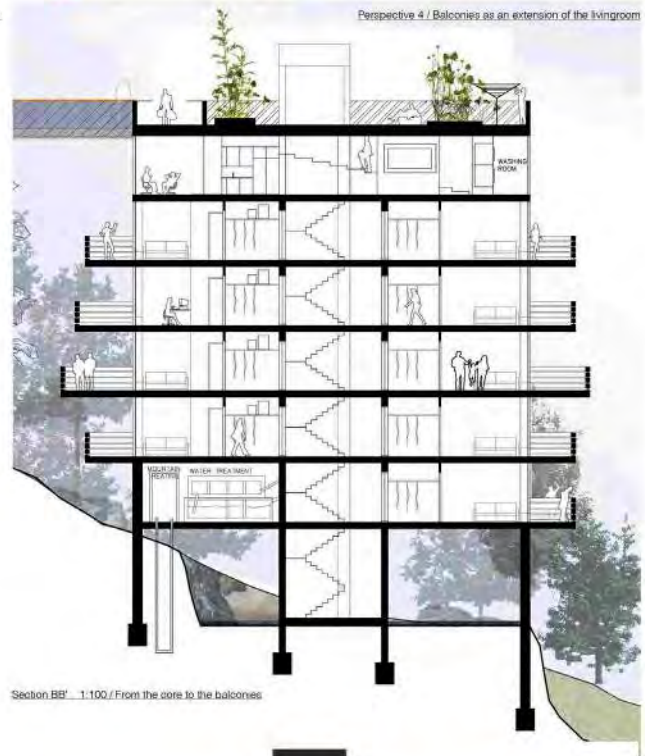
Floorplan - 1:100 / Extra rentable room

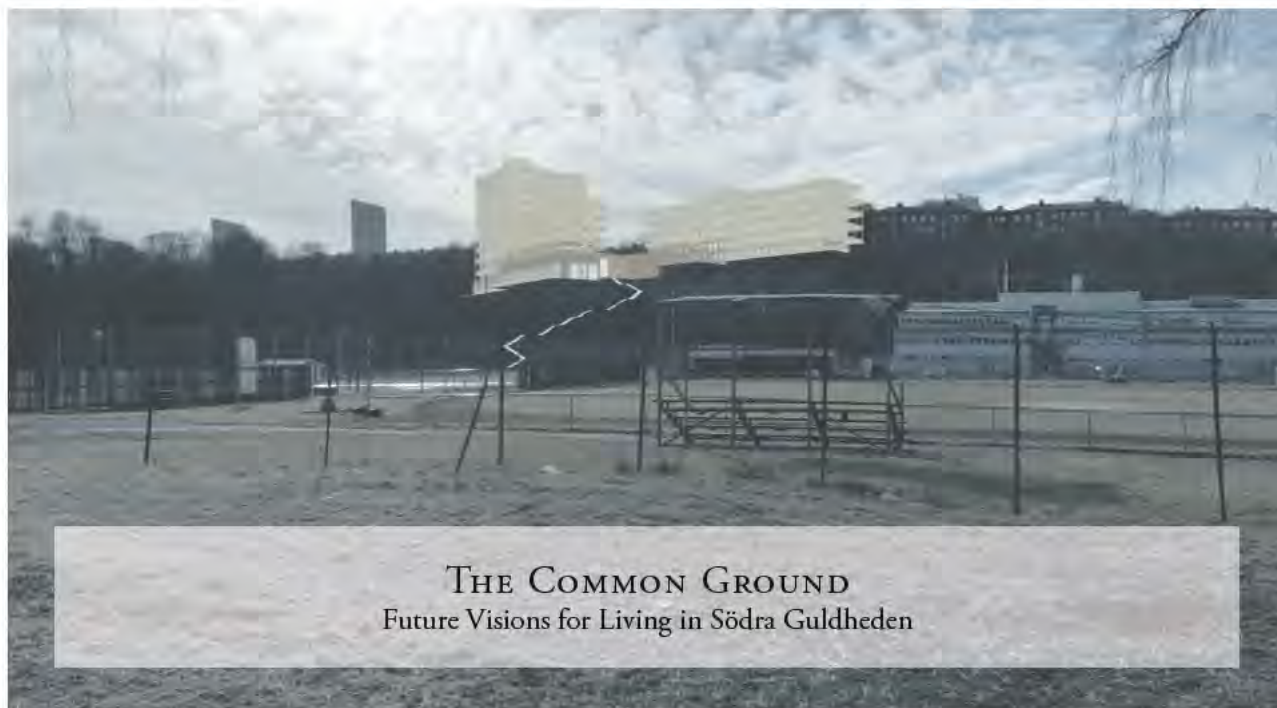
Studentprojekt

Fredrik Asphult, Andreas Lindahl, Francois Massin



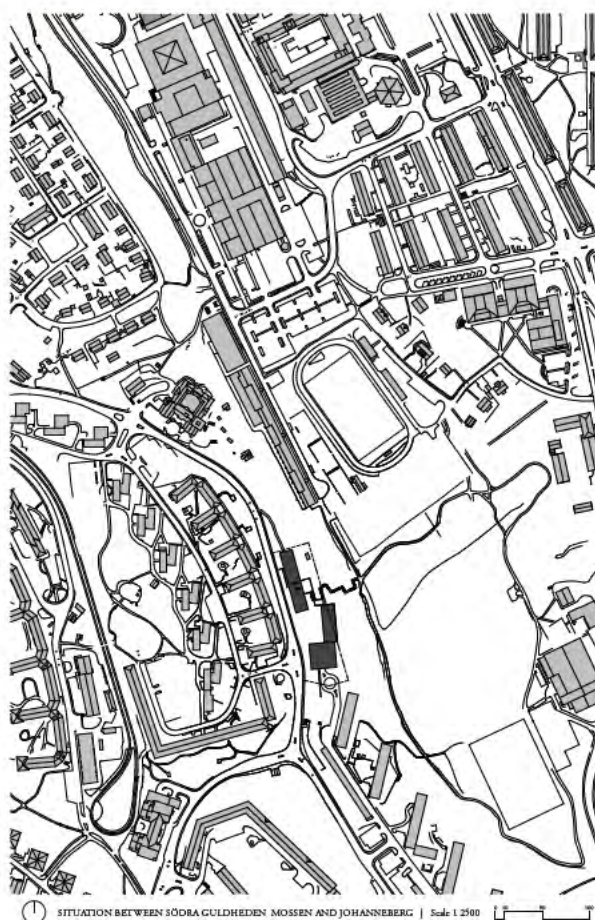
Perspective 4 / Balconies as an extension of the livingroom





THE COMMON GROUND

Future Visions for Living in Södra Guldheden



Today we experience big changes in society. People getting older, less couples getting children, more couples divorcing from each other and more people than ever leave their home town or country for work and studies. The development of individuality leads to more people living alone and needing rooms for their own, which were formerly used by whole families. As a result, the average consumption of dwelling space increases and with it energy consumption and environment destruction.

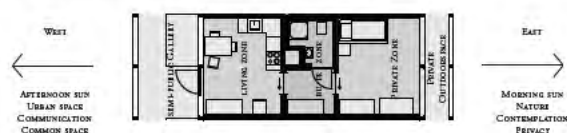
The idea of this housing design supposes to share common space for being used by the housing community as well as partly by the district community. This avoids a too big space need per single person and encourages the inhabitants to break up the individual insulation and to get in contact.



Also in Guldheden in Göteborg more people live alone - whereby mainly students and seniors live there. For both it is important to have short ways to the city and certain facilities like doctors or universities, and for both it is not possible to afford high-price-city-apartments. For that reason many small (from 40m² outdoorspace included) and middle-size apartments are designed, and also the design of the bigger apartments focuses on flat-shares and the possibility of renting out one room.

The special approach of the apartments is to live whenever it is possible, with the neighbours instead just next to them. Big galleries lead to the flats, passing the big floor-to-ceiling windows of the other apartments. These are supposed to be opened in summer and thus opening the apartment to the outdoorspace, where you even can put furniture on the gallery.

The privacy is always protected, separated by a functional core in the middle of the apartment. The private rooms have a general size and their own access to the bathroom.



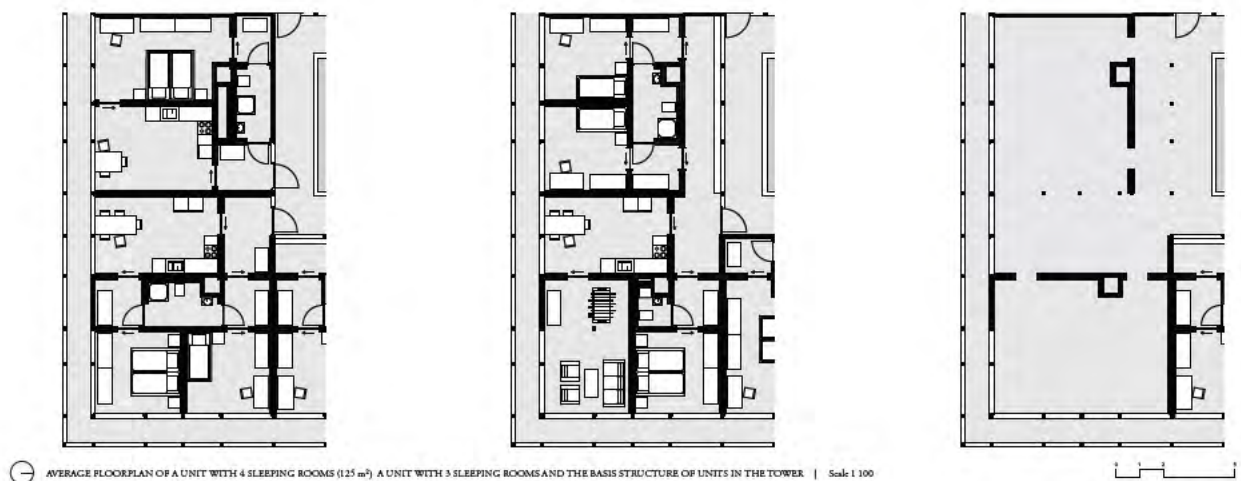
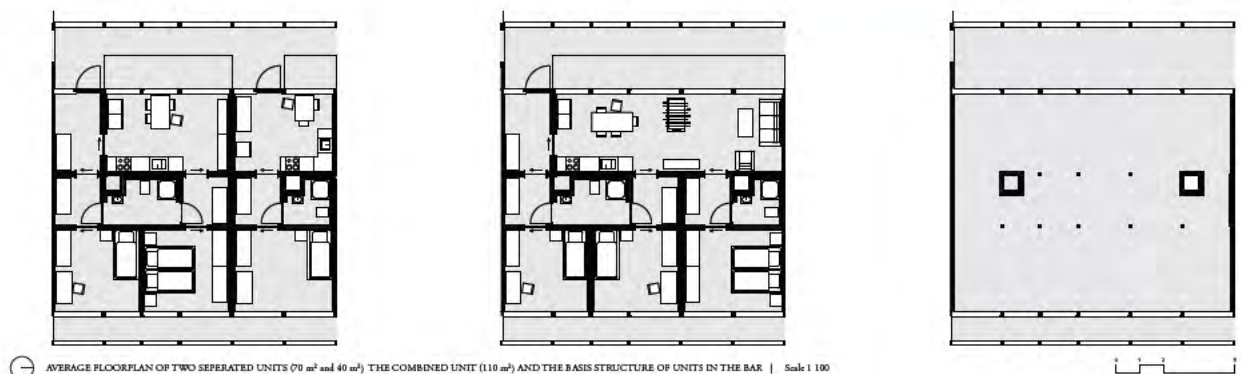
The proposed buildings mediate in their orientation and their height between the existing high-rise slabs in the south and the built structure close to Chalmers. They stand close to the street, creating an enclosed and protected streetspace with new trees and slower car traffic. This space opens up to a new square between the new buildings, which form an entrance to the recreation area Mossen.

The common ground floor of the buildings provide common facilities like a café and a swimming pool for all of the districts' residents. Therefore the proposal brings together hill and valley, people of Chalmers and Guldheden, old and young - and adds new value to living in Södra Guldheden.



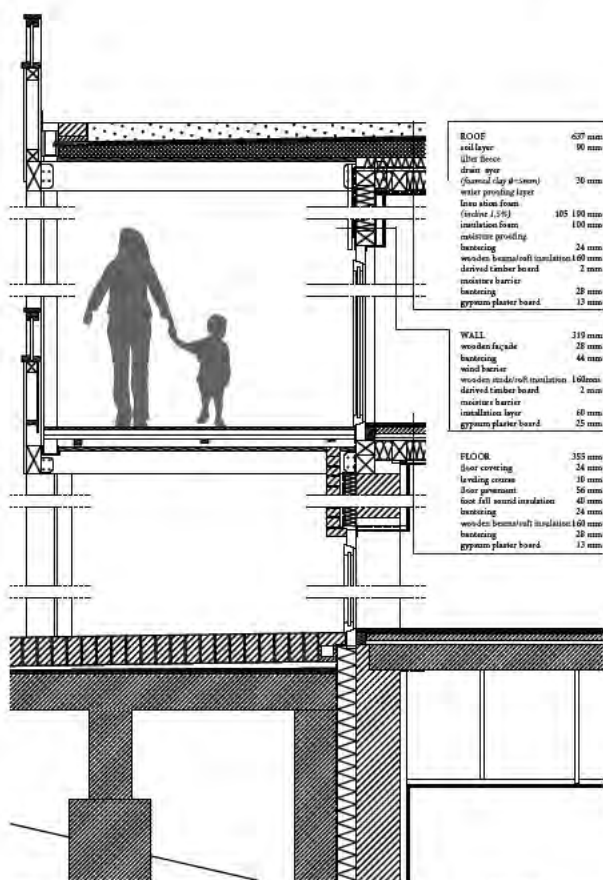


VIEW IN A 70 m² APARTMENT

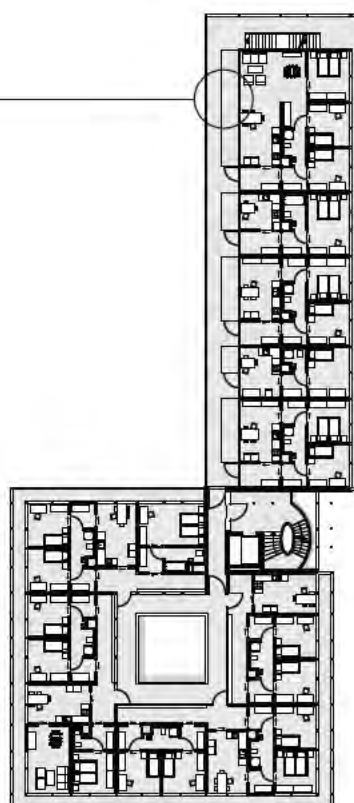




CROSS-SECTION FROM MOSSEN TO SÖDRAGULDHEDEN | Scale 1:250



DETAIL | Scale 1:20

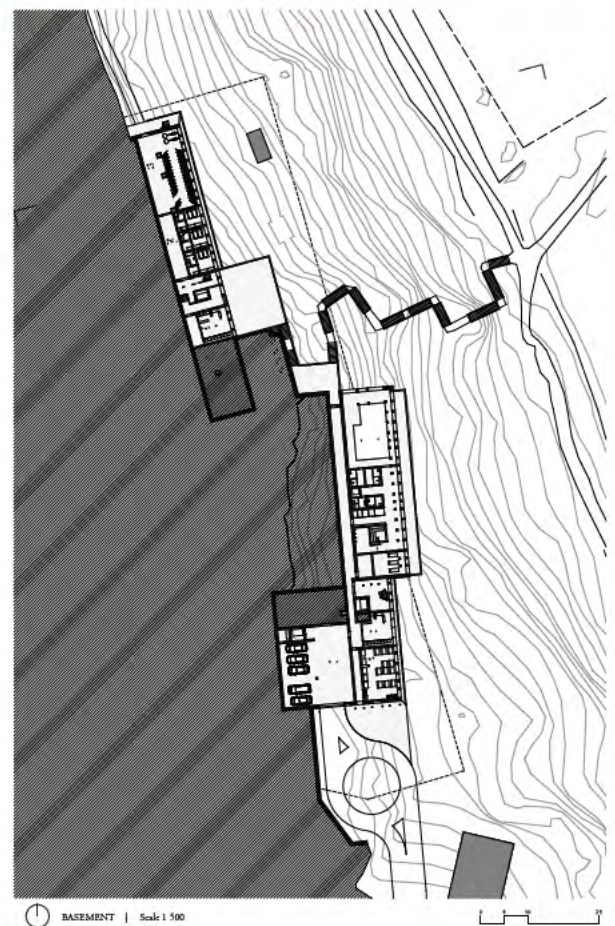
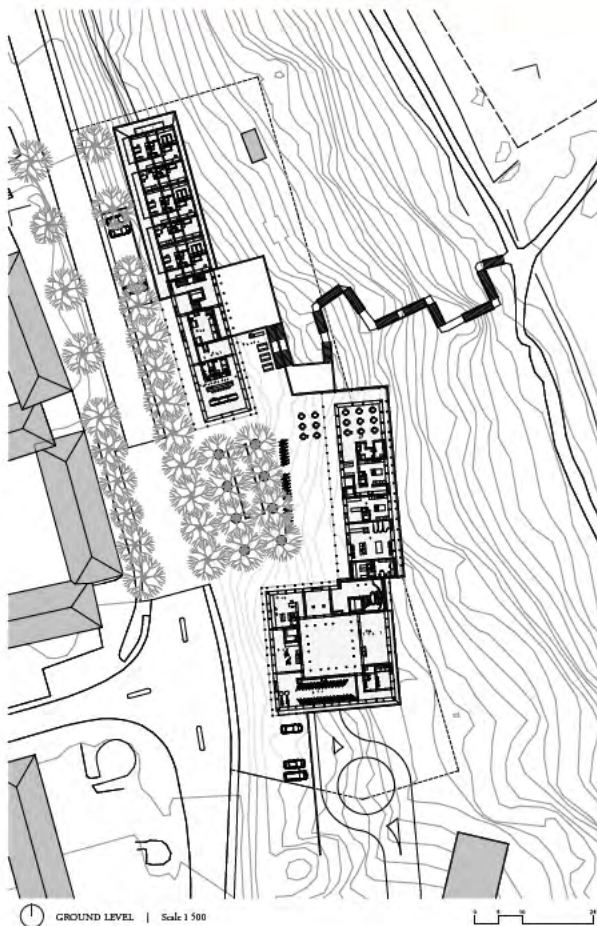


AVERAGE FLOORPLAN OF THE SOUTHERN BUILDING | Scale 1:200

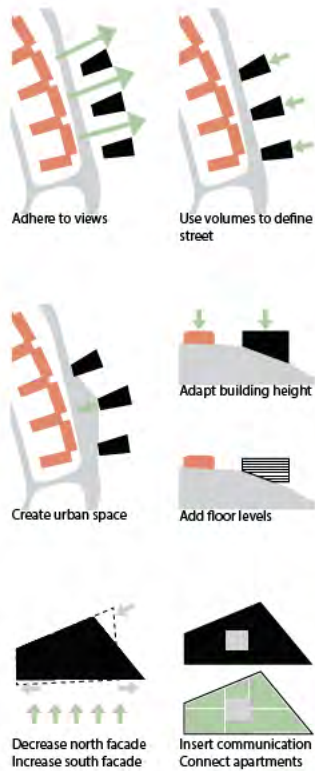




VIEW TO THE NEW PUBLIC SQUARE



Process

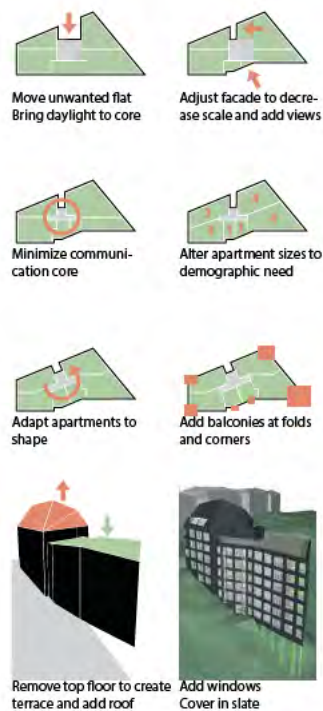


Site plan 1:1000



ARK 136 Housing Inventions

Bobbie Nyström Chalmers University of Technology April 2013



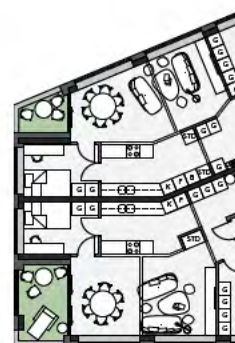
Street level plan 1:200

Elevation south 1:100
2 4 6 8 10 12 14 16 18 20m

Elevation east
2 4



Zoning and possible new apartment partitioning



Floor plan
2 4 6 8 10

1:100
6 8 10 12 14 16 18 20m

Elevation north
1:100
2 4 6 8 10 12 14 16 18 20m



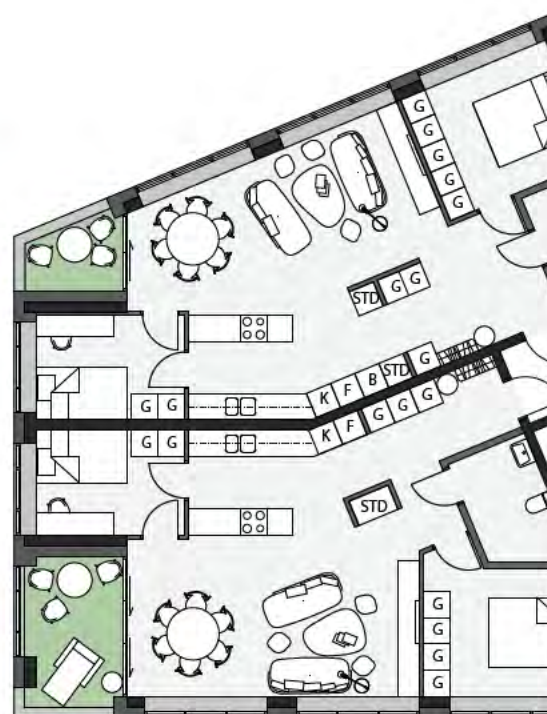
Universal access

Entry views

Large bedroom zone to
small communication core



1:100
12 14 16 18 20m



Apartment plan: Present
1:50
1 2 3 4 5 6 7 8 9 10m



View from southwest

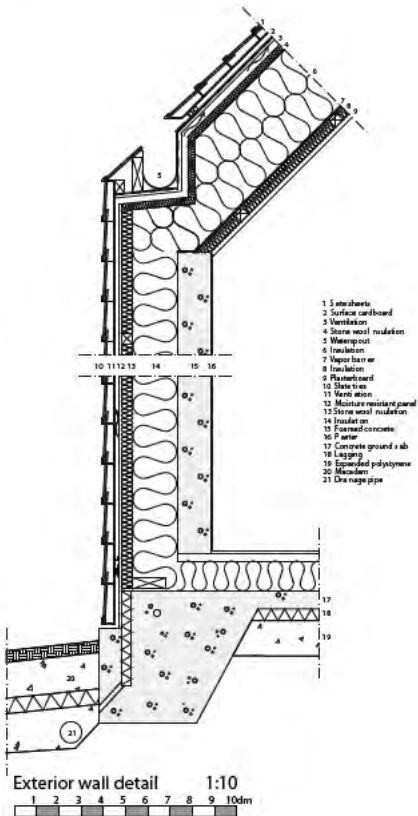


Project information

Data	Total (one house)
BYA:	1650 (542)
BOA:	5898 (1960)
LOA:	396 (132)
OPA:	1170 (390)
Solarpanels:	340 (106)
Terrace:	684 (228)
Storage/Laundry:	816 (272)
Kindergarden:	465 (155) m2
Apartment:	84 (28)
4 rooms	36 (12)
3 rooms	12 (4)
1 room	30 (10)
Attic studios	6 (2)
Bicycles indoor:	210 (70)
Bicycles outdoor:	48
Carpool parking:	10
Guest parking:	5
Disabled parking:	2 units



Apartment plan: Future 1:50



ENTER YOUR GARDEN

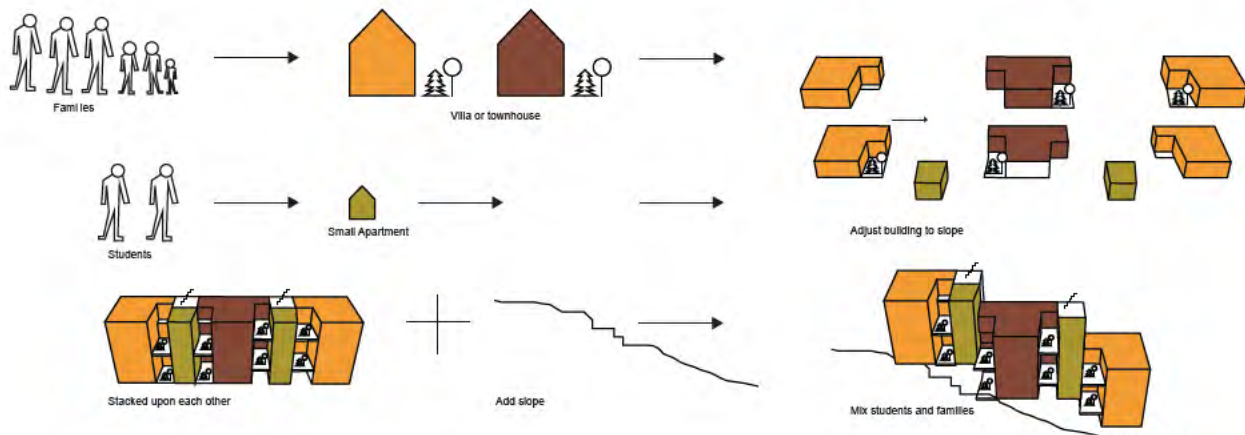
Housing Inventions VT13 Jenny Nystrom and Frida Westlin



The walking path up to the buildings from Mossen



SKALA A1, 1:1000



Landscape Section A-A Scale 1:250

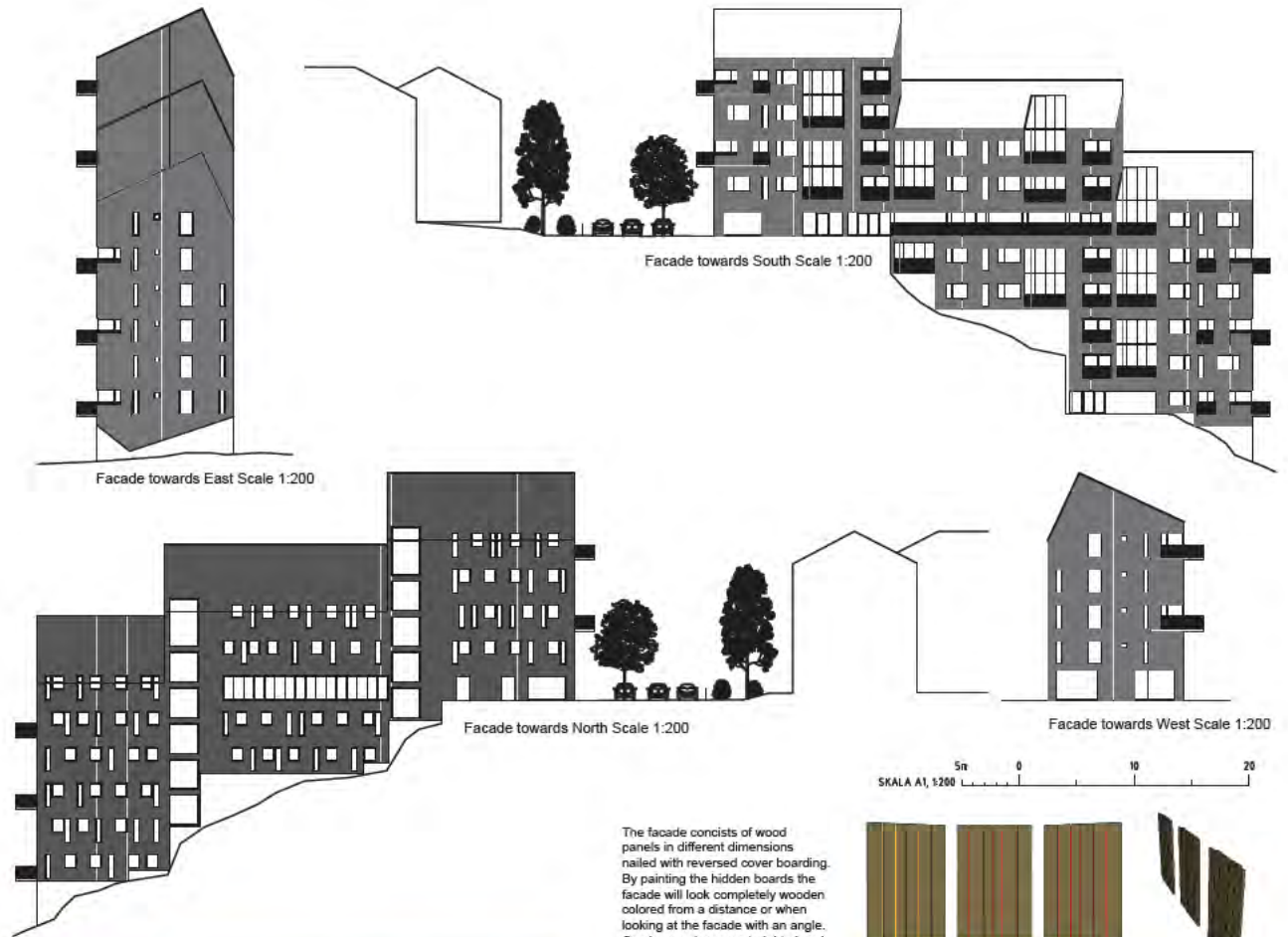
Guldheden is a central part of the city of Gothenburg. Today there is an overbalance of younger adults and elderly people living in Guldheden. To create a good working part of the city there is need for a mix of different people.

Today there is a lack of such a mix in Guldheden. There is an overbalance of smaller apartments, especially two room apartments, this makes it hard for people who want to start a family and want a bigger residence to stay in the area.

In our project Enter your garden we would like the families to stay in the area and offer small apartments for students and young adults. Most of the big apartments in the building have access to their own entrance garden, which give you an opportunity to use your "balcony" in a different way. It is becoming a part of your apartment.



SKALA A1, 1:250



The facade consists of wood panels in different dimensions nailed with reversed cover boarding. By painting the hidden boards the facade will look completely wooden colored from a distance or when looking at the facade with an angle. Coming up closer or straight ahead the colored boards will create another facade impression and by using different colors showing the identity of the specific building.



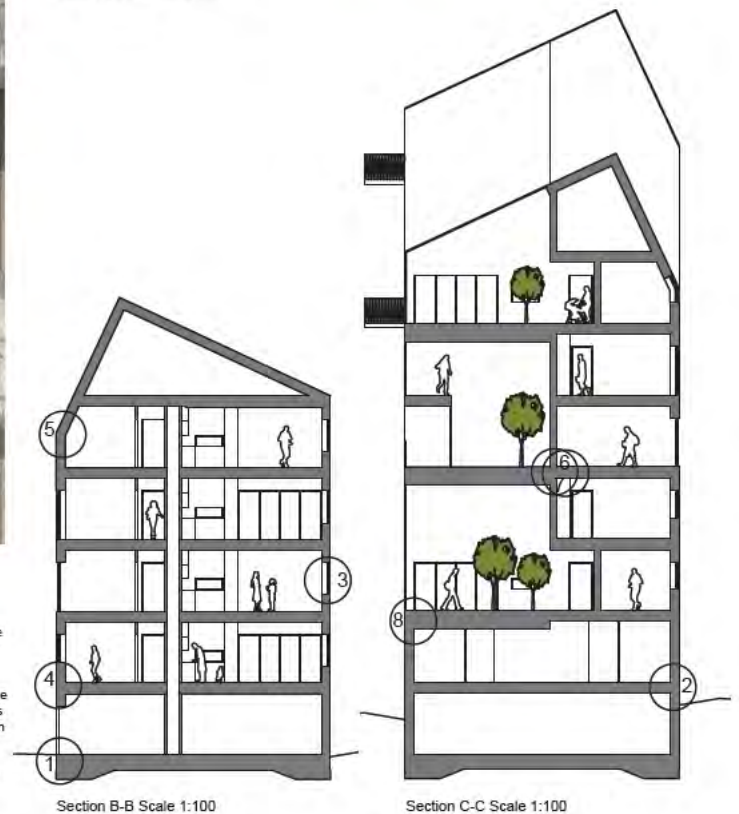
Part of the facade towards south

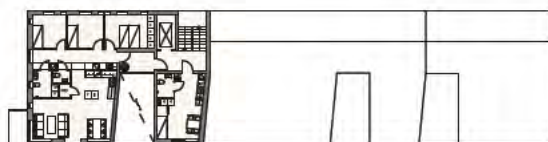
Material and sustainability

The building is made of massive wooden structure. Wood is a sustainable material because the CO₂ emissions is much lower during the whole building process than for example a building that has a steel or concrete structure.

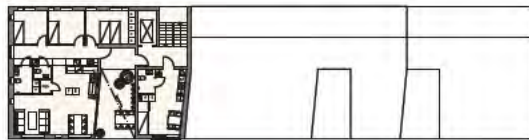
The facade towards south is equipped with different types of sun shading. The windows in the one room apartments which is the biggest windows of the building has a frame that reduces the solar insolation all the time. The second biggest windows has a more temporary solution that you can control and pull down on your own.

The rooftops facing south is covered with solar panels to provide the buildings with energy.





Plan 10



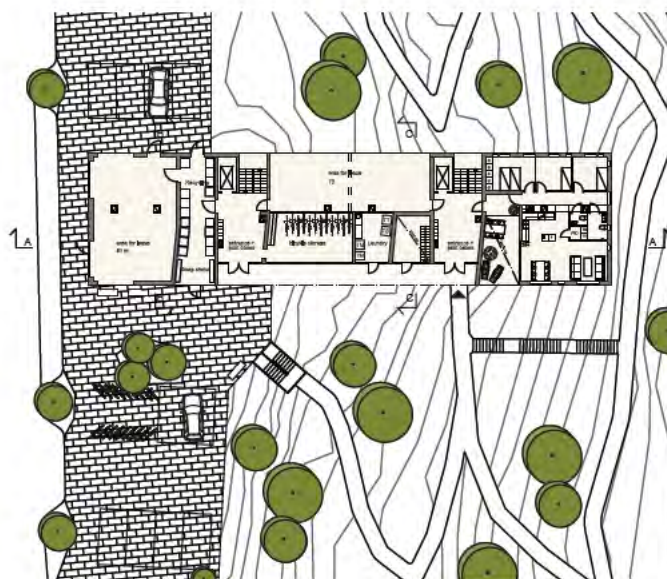
Plan 9



Plan 8



Plan 7



Plan 6 entrance plan

View from the entrance over your garden connected with your kitchen



View over livingroom and kitchen



Plan 5



Plan 4



Plan 3

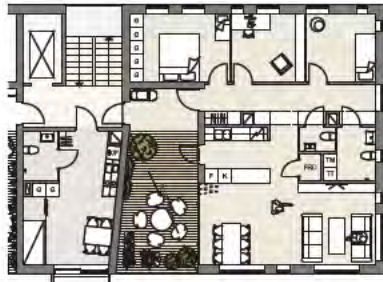


Plan 2



Plan 1 entrance from Mossen





Plan One Room Apartment Scale 1:100



Plan Four Room Apartment Scale 1:100

A family of three with one more baby on the way. One of the adults is having a company on her own and is working from home.

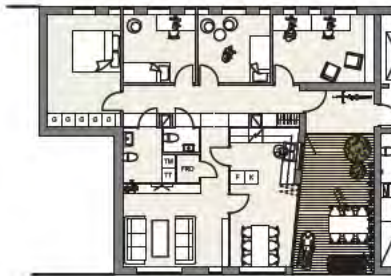


Plan One Room Apartment Scale 1:100
Ten years later



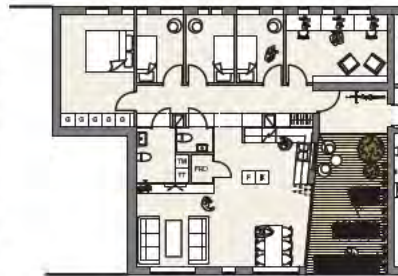
Plan Four Room Apartment Scale 1:100
Ten years later

Ten years later the kids are older and have their own rooms. Since her company has grown she now has one employee and therefore has expanded in to the one room apartment and uses it as an office.



Plan Five Room Apartment Scale 1:100

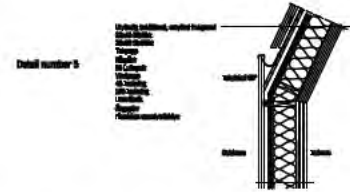
A four person family with two children, 10 and 12 years old.



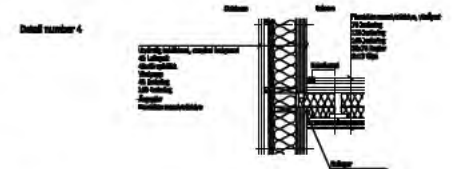
Plan Five Room Apartment Scale 1:100
Ten years later

Ten years later the parents got new jobs in a different city and the family was about to move, but the younger son decided to study at Chalmers. They then decided to keep the apartment where he could stay together with a few friends. Two bedrooms became three small ones and the kitchen and livingroom was combined.

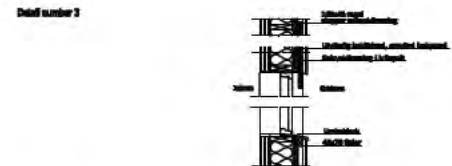
SKALA A1, 1:100 5m 0 5 10m



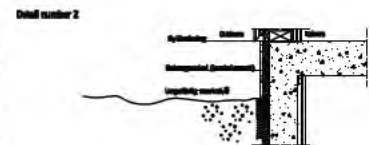
Detail number 5



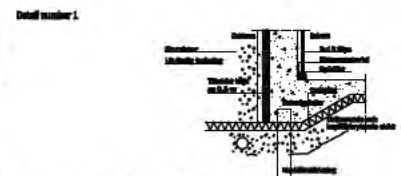
Detail number 4



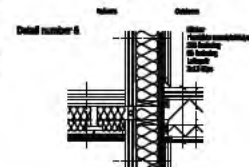
Detail number 3



Detail number 2

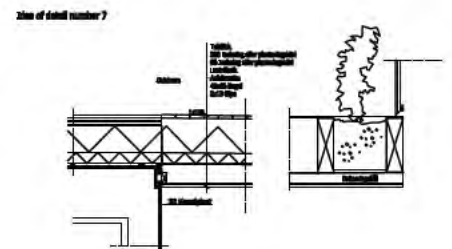


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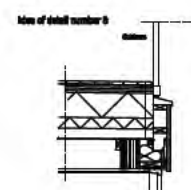


Detail number 6

View from Doktor Allards Gata



View of detail number 7



View of detail number 8

Details Scale 1:20

SKALA A1, 1:20 1m 0 1 2m

GULDHEDEN HOUSING



PERSPECTIVE FROM MOSSEN

INTRODUCTION

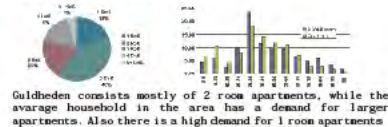
BACKGROUND

Built in the 1950's, Södra Guldheden is a popular place to live. Close to the city center, Södra Guldheden has a blended population and holds both student housing, homes for single and elderly and family apartments. As the city population constantly increases there is a need of densifying the inner parts of the city.

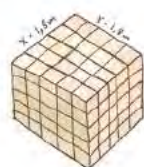
THE PLOT

The plot is situated in the slope from Dr Allards Gata down to Mossen, a nature and recreational area with protected wild life. Guldheden has a strong, uniform house design and configuration together with a clear topology and scale, which is affected by whatever is built on the plot. Also, the plot is located in between Guldheden, Johanneberg and Chalmers University, and have the potential of acting as a connecting hub.

DEMOGRAPHIC NEEDS

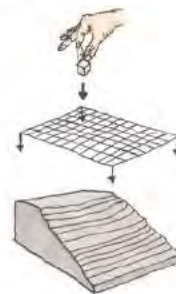


MAIN CONCEPT



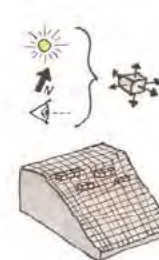
WORKING IN MODULES

The design takes of in modules based on 1.8m units, creating houses that can be constructed by standard construction elements with convenient room sizes that is always divisible by 60cm.



PLACING THE MODULES

The standard housing modules are distributed over the slope and are connected to each other through stairwells, galleries and footbridges.

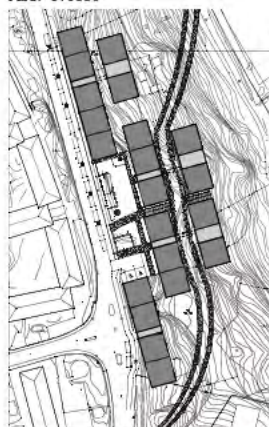


ADJUSTING POSITIONS/PLANS

After being distributed over the slope, the housing modules are adjusted according to sunlight, point of the compass and sightlines. Both regarding the modules position and regarding its internal floor plans.

SITUATION

PLAN 1:1000

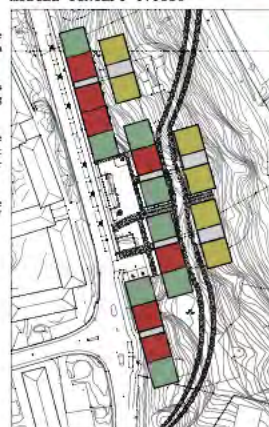


The modules are placed in 3 main files:

1. Along Dr Allards gata, enhancing the street.
2. Along the former parking lot creating an inner courtyard.
3. Down the slope along a bicycle / walk path.

0 50M

MODULE CONCEPT 1:1000



- CORNER POSITION
- MID POSITION
- SEPARATED

The placed out modules have three different main preconditions; modules in corner positions, modules in between others and the modules separated from the others by height.

0 50M

COMMUNICATION 1:1000



- PUBLIC BICYCLE / WALK PATH
- PUBLIC WALK PATH
- PRIVATE WALK PATH

The communication paths throughout the neighborhood offers good connections through Guldheden and against Mossen.

0 50M







MODULE DISTRIBUTION

The apartments in the modules are distributed according to the different preconditions of the modules.



NUMBER OF APARTMENTS

XX M2 1 Room apartments	42
XX M2 3-4 room apartments	24
XX M2 Villas	12
Total number of households	78

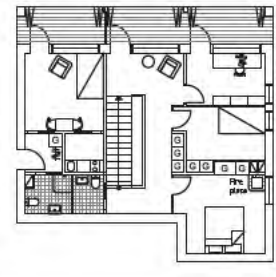
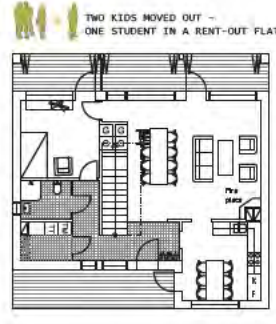
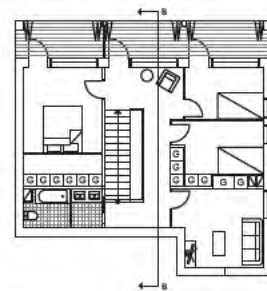
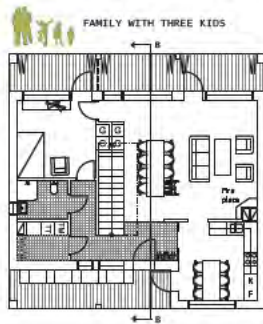
INTERIOR PERSPECTIVE

FLOOR PLANS

VILLA | XX M²

A possibility for the larger family to access some qualities otherwise associated with the suburban lifestyle in a more central location. A two floor villa with the classic division in private and public by floorplan. The provided qualities are for instance a private rooftop garden

and a front porch in the entrance situation. Emphasize has also been on generous storage possibilities, laundry room and large bathrooms, two create a practically functioning every day for a family with several children.



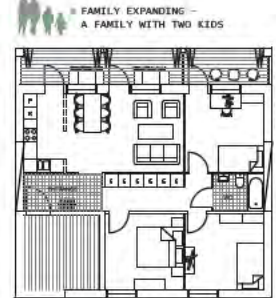
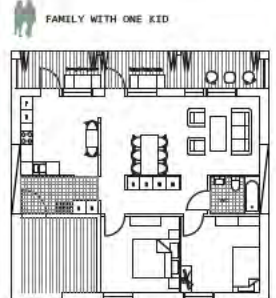
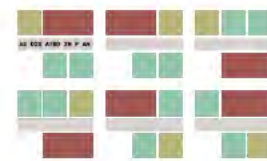
10 years later...

3 OR 4 ROOM APARTMENT | XX M²

Made to fit a demographic target group common in Guldheden. The young parents. Possibly with an expanding family. The general sized rooms enables a flexibility to adapt to a situation of changing living conditions; aging kids, divorces etc.

Due to the same sized modular rooms, the rooms are switched within the prefabricated module to adapt to conditions such as sun, view and noise depending on the location on the plot.

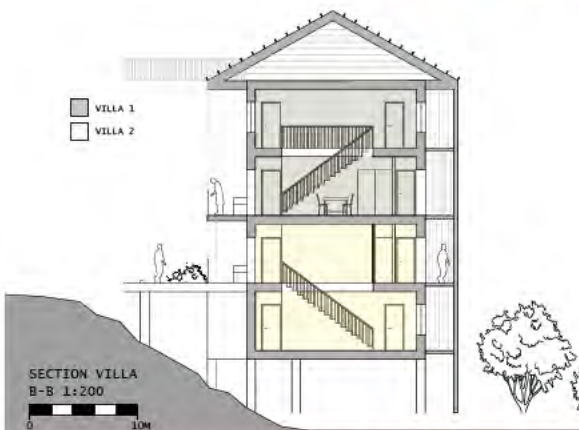
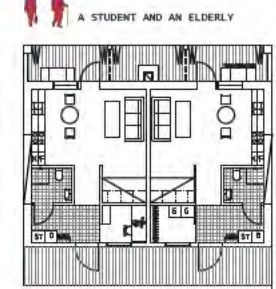
VARIATION OF ROOMS



10 years later...

1 ROOM APARTMENTS | XX M²

Responding to the need of small apartments in the city in general and close to the university in particular. It is designed to fit the young student, the commuting professor who stays over night or why not the elderly person moving to something smaller.

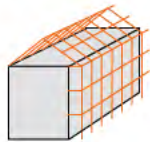


SECTION VILLA
B-B 1:200



LOWER STREET PERSPECTIVE

THE SHELL STRUCTURE



POSSIBILITIES OF THE SHELL

A wooden shell placed outside the modules provides several utilities:

THE LOAD BEARING ability makes the shell carry the weight of the balconies and eliminates potential thermal bridges.

ROOFTOP GARDENS take place in the roof shell structure and create qualitative spaces for the inhabitants.

SOLAR PANELS can be mounted in the roof shell structure and provide a large amount of energy for the houses.

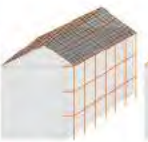
A **CLIMATE SHELL** can be achieved through balconies placed in the shell, with sealed, slided, folding doors.



LOAD BEARING



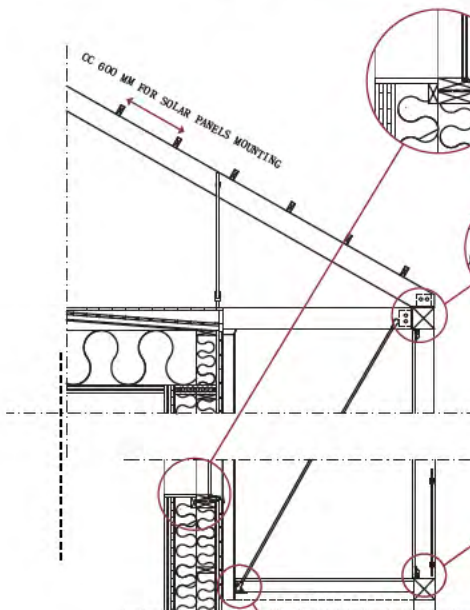
ROOFTOP GARDENS



SOLAR PANELS



CLIMATE SHELL



DETAIL 1:10

The metal stool is placed as close as possible to the facade and creates, together with a small ledge framing the window, a clean look.

DETAIL 1:10

The shell is mounted together with recessed steel plates, bolted through the beams.

The beams are mounted with a slight spacing, allowing the wood to expand and compress as well as dehydrate if moist.

DETAIL 1:10

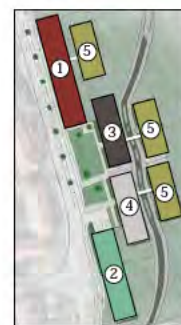
Slided folding doors are designed to seal the balcony space, making it airtight to achieve a seal climate-zone.

The hinges are placed on the outside of the door, which hides it when the doors are closed.

DETAIL 1:10

The shell structure takes load of the balcony beam by a tension rod that at the same time stabilizes the shell structure.

DETAIL 1:20
0 10M



ROOF TOP GARDENS

The shell structure enables outdoors rooms with different functions on the rooftops.

- ① A green park area for relaxation and recreation.
- ② Allotment area for the inhabitants very own urban farming.
- ③ Activity area with functions such as basketball court, sun deck, etc.
- ④ Schoolyard for the day care center located in one of the lower floors in the building.
- ⑤ Private gardens for the inhabitants of the villas

MODULE CONSTRUCTION

The module construction has the same solid wood load bearing system regardless of unit, with enables cheap and fast construction. Each unit contains of three or four stories, with continuous shafts through the floors.



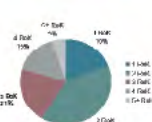
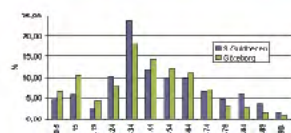
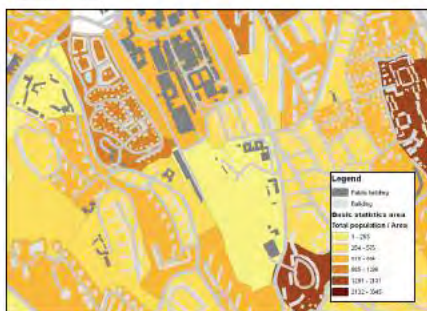
1 APARTMENT 100 M² 1 APARTMENT 87 M² 2 APARTMENTS 43 M²

The inner division of apartments in the module can then be distributed in several different ways, which gives a large degree of freedom.





Target groups



The urban villa



1 Larger apartments
(3-4 rooms)



2 Good storage
(8 ke, baby carriage)

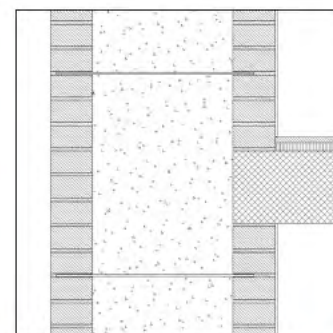
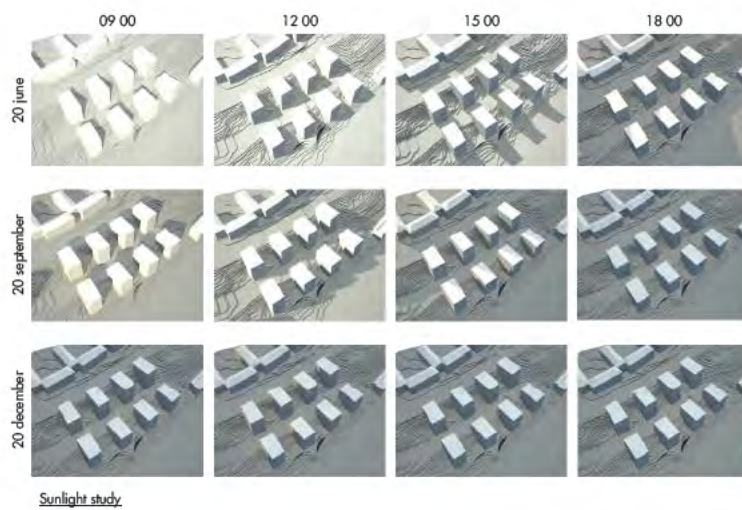


3 Terrace / garden
(Gardening, barbecue, sun bathing, dinners etc.)



4 Equipment
(Washing machine, dryer, fireplace etc.)

Studentprojekt Per Kaatman



Detail, exterior wall, scale 1:10

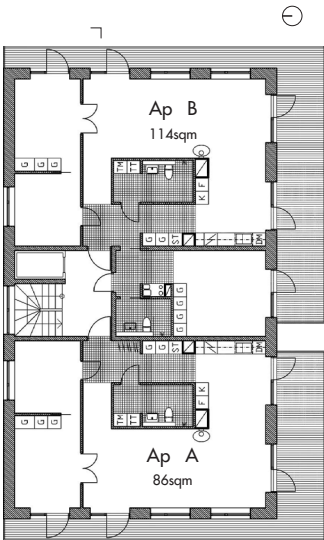
top down

- 1 Parquet flooring of solid oak tiles 5mm
- 2 Impact sound insulation 20 mm
- 3 Reinforced in situ cast concrete 220 mm

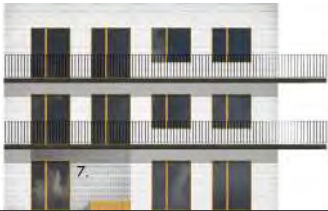
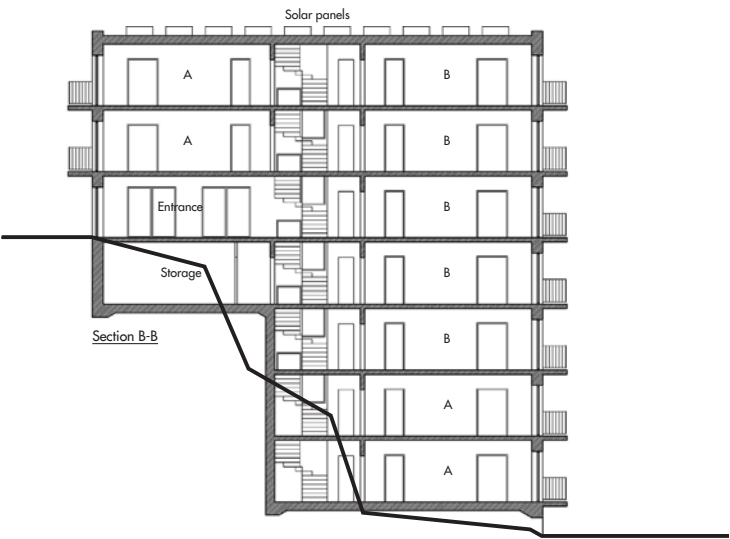
Outside in

- 1 Brick wall 20mm
- 2 Water resistant mortar (tätbruk)
- 3 Perlite 400mm
- 4 Brick wall 20mm
- 5 Mortar (murbruk)
- 6 Plaster 6mm (tunnputs)





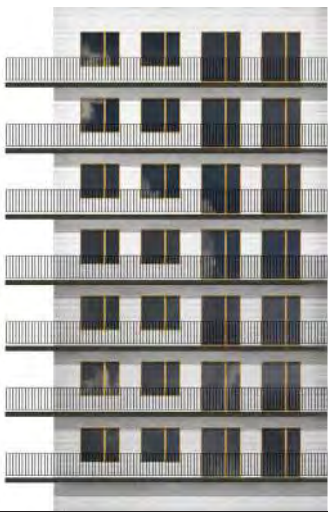
Average housing plan



West elevation



South elevation

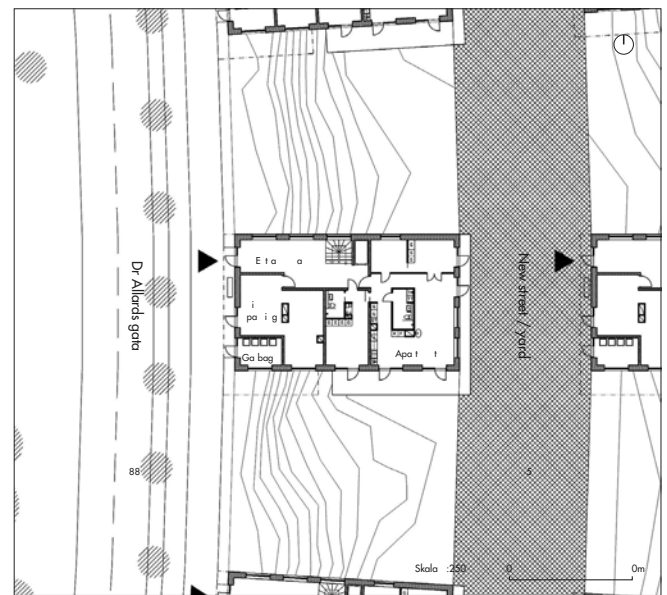


East elevation

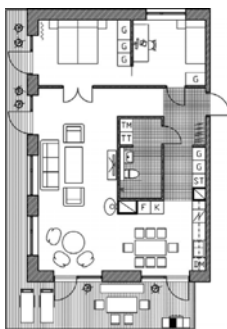


North elevation

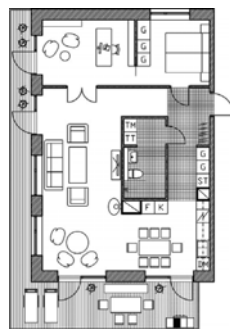
5 0 0 0 0 5



Entrance floor



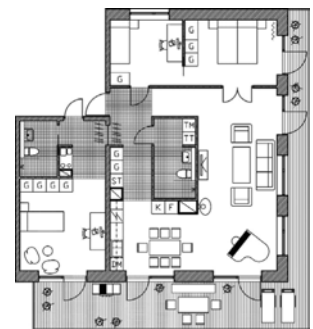
Apartment A



Apartment A ten years later

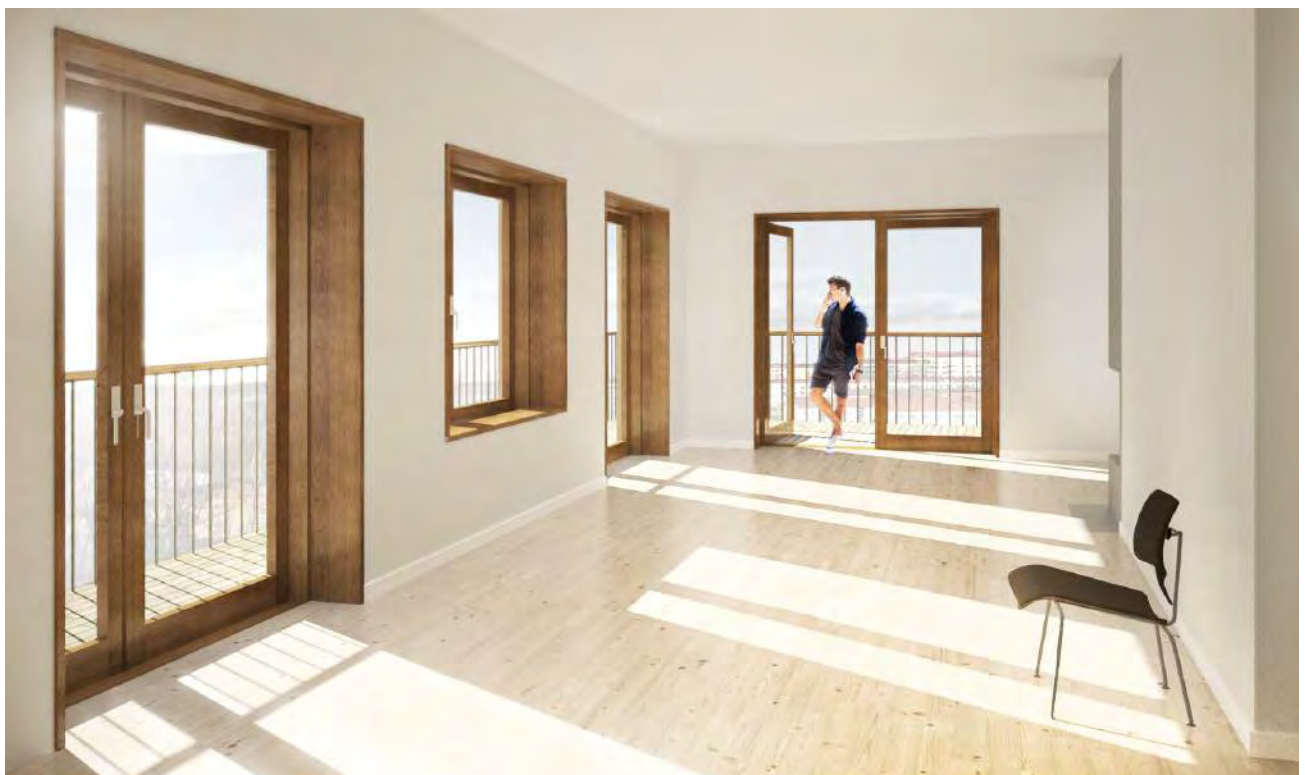


Apartment B



Apartment B ten years later

Skala : 00 0 5m

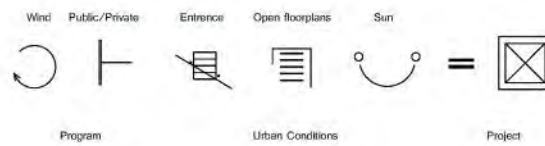


PAIR OF ACES

Transformation process



Building concept



Pair Of Aces

North Guldheden is well known for its historical architecture. Tage William Olsson, Sune Lindström and Bengt Östnäs to mention some of them that have affected the area.

North Guldheden has its character in form of narrow streets and uniform building embedded in an ocean of greenery. The area is desirable as residential for almost everyone.

The volume is strongly adapted to the site and the natural condition as the former areas in Guldheden are. The building volumes are beautifully placed in the nature and are combined with a natural walking path. The connections are strengthened and the pedestrians and the cyclist are prioritized! Guldheden is a place for those who loves the nature.

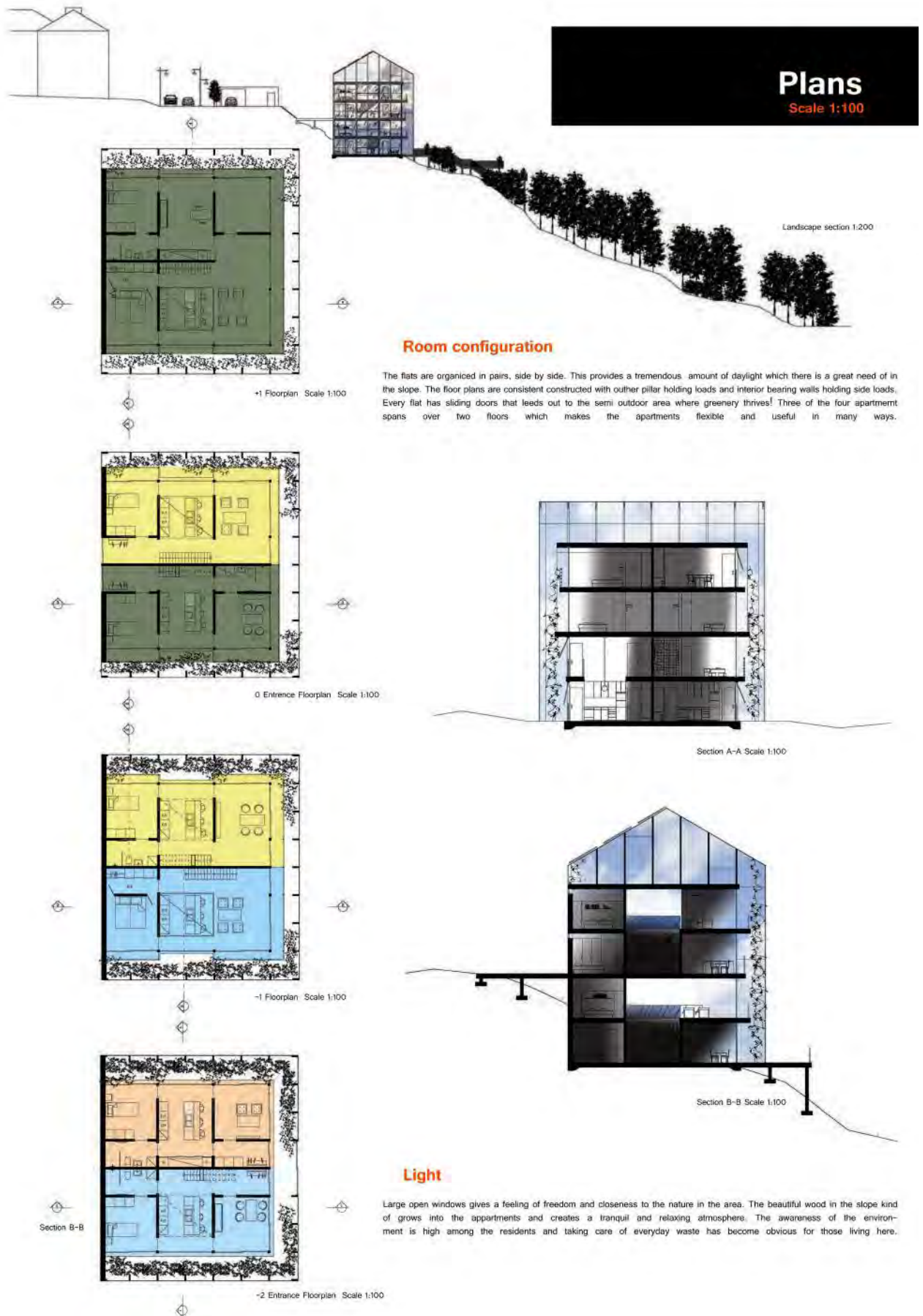
The area is planned to operate without elevators which makes it possible to invest money on other things than costly install applications.

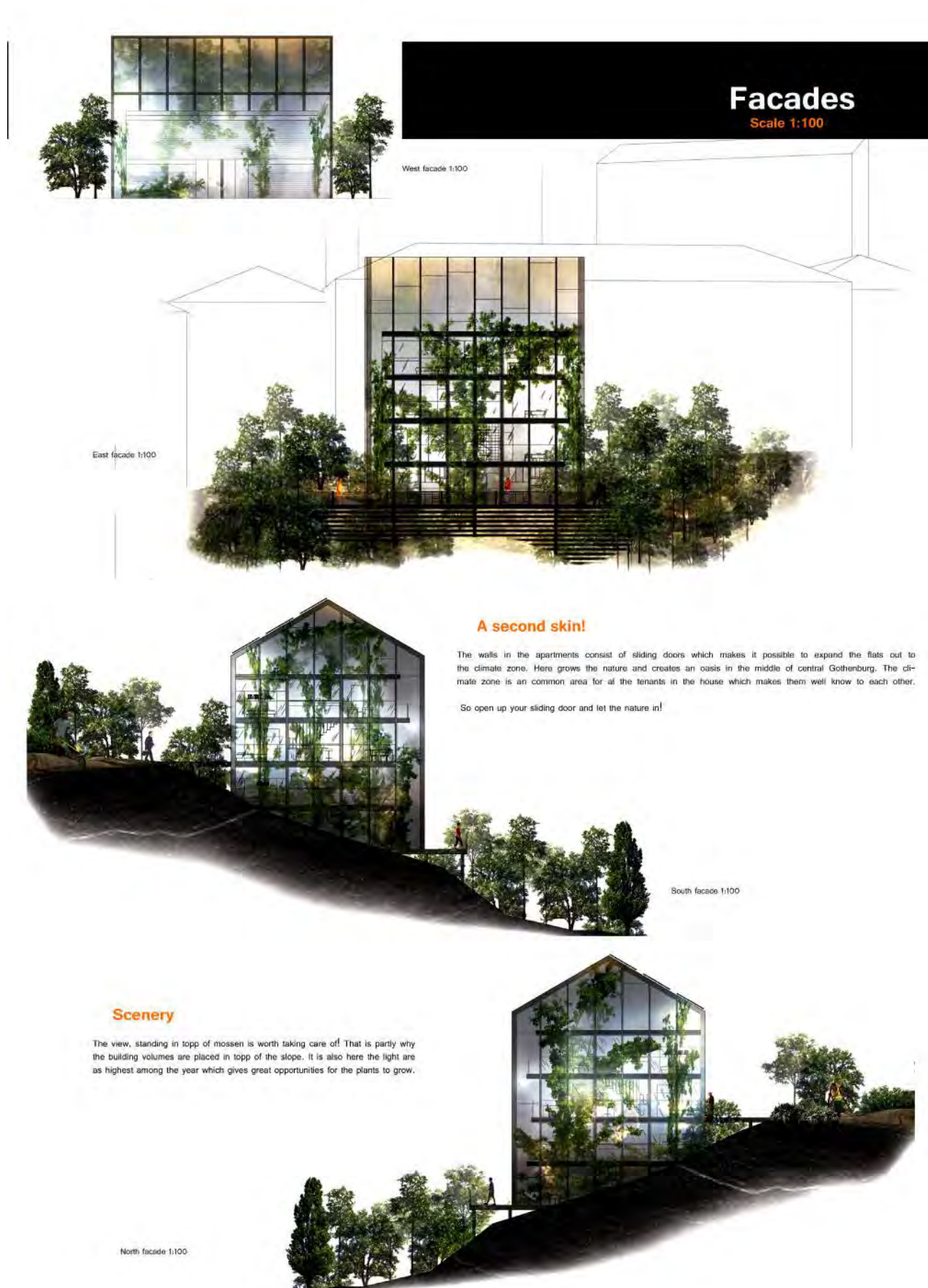
Siteplan

North Guldheden, Gothenburg
Scale 1:500

HOUSING INVENTIONS
VICTOR ALTENIUS







Detail/Perspective

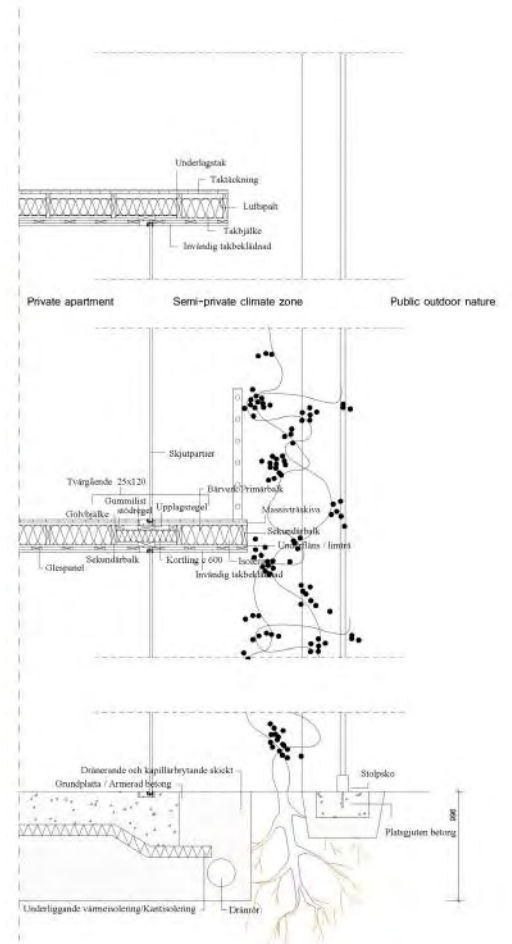
Scale 1:20



Interior perspective

Material

With the open floorplans, the "pair of aces" focuses particularly on the relation between interior and exterior! The semi-private climate zone arose in the process of creating a space that could be used all year since the site is located in a dark windy place. The climate shield makes it possible to let the material of the inside floor continue out on both sides of the sliding doors which gives a feeling that the flat is expandable. The expandable zone is a common area for the flatmates which advantageously uses this for growing. The climate zone provides protection against cold winds and times when the slope is located in shadows.



Detail 1:20

Showing - Section thru the climate shield and the outer sliding doors.



Perspective

ARK136 Future housing inventions

Street view



Bird's Eye view



Facade / communal space



Interior / view on communal space



Urban context

Level +36
1:100



Grid
The grid is a key element in the design, providing a structure for the building's form and organization. It is a simple grid, but it is a grid that is not just a grid. It is a grid that is a part of the building's identity, a grid that is a part of the building's story. It is a grid that is a part of the building's future, a grid that is a part of the building's hope.

Communal space
The communal space is a key element in the design, providing a place for the building's residents to gather and interact. It is a space that is not just a space, but a space that is a part of the building's identity, a space that is a part of the building's story. It is a space that is a part of the building's future, a space that is a part of the building's hope.

Landscape
The landscape is a key element in the design, providing a context for the building's form and organization. It is a landscape that is not just a landscape, but a landscape that is a part of the building's identity, a landscape that is a part of the building's story. It is a landscape that is a part of the building's future, a landscape that is a part of the building's hope.

Block

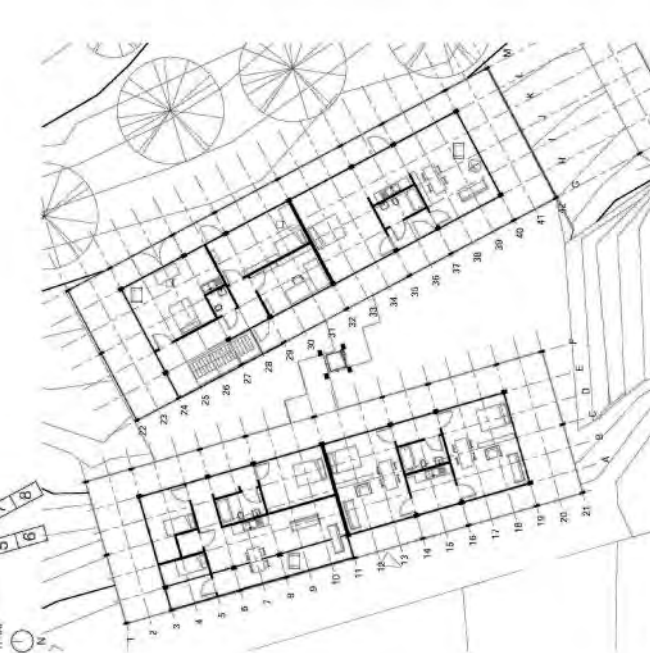
Level 1 (+48)
1:100



- 1. One unit - guest rooms
- 2. One unit - Bicycle storage + entrance to office space
- 3 (7). Two units - Ground floor of a two story family unit
- 4. One unit - shared by two individuals (common kitchen, common living room)

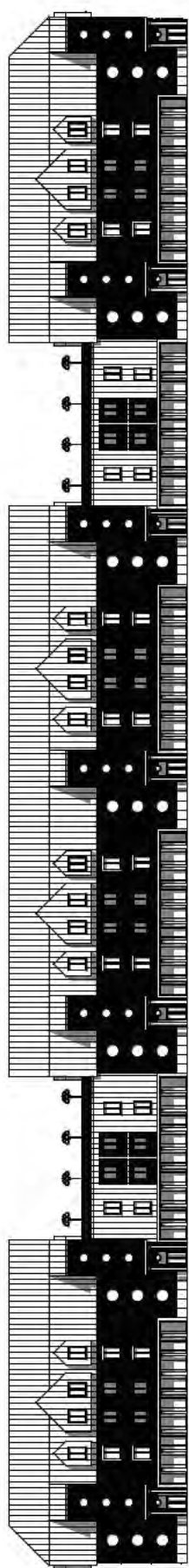
Block

Level 2 (+89.5)
1:100

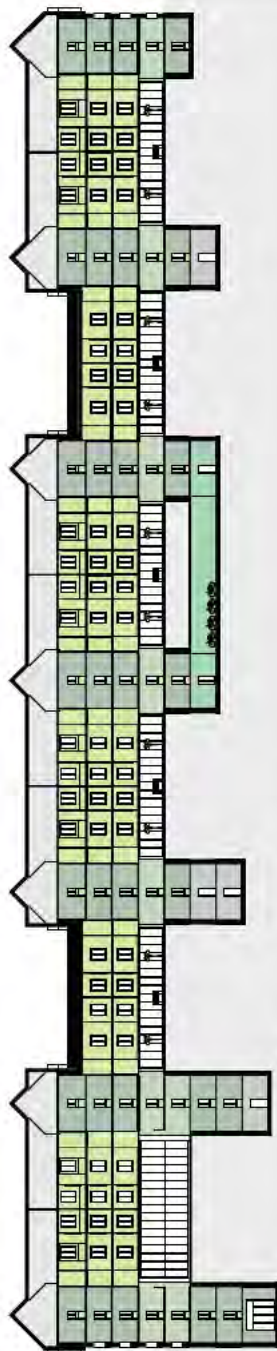


- 5. One unit, inhabited by a family (3 bedroom)
- 6. One unit, shared services/private living room
- 7 (3). Upper floor of a two story family unit (possibly to rent out the bigger room)
- 4. One unit, shared by a couple, individuals (common kitchen, common living room)

[illegible]



THESE RESULTS ON THE PROPERTIES OF ALUMINUM DATA, SCALING FROM 1.1000



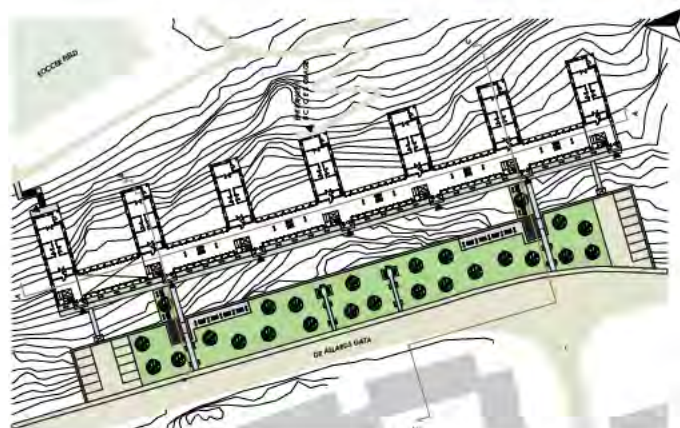
THE POLYMERIZATION OF COMPOUNDS OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ WITH AROMATIC AMINES IN THE PRESENCE OF A CATALYST OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ HAS BEEN STUDIED. THE POLYMERIZATION OF COMPOUNDS OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ WITH AROMATIC AMINES IN THE PRESENCE OF A CATALYST OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ HAS BEEN STUDIED. THE POLYMERIZATION OF COMPOUNDS OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ WITH AROMATIC AMINES IN THE PRESENCE OF A CATALYST OF THE TYPE $\text{R}_2\text{C}=\text{C}(\text{OR})_2$ HAS BEEN STUDIED.



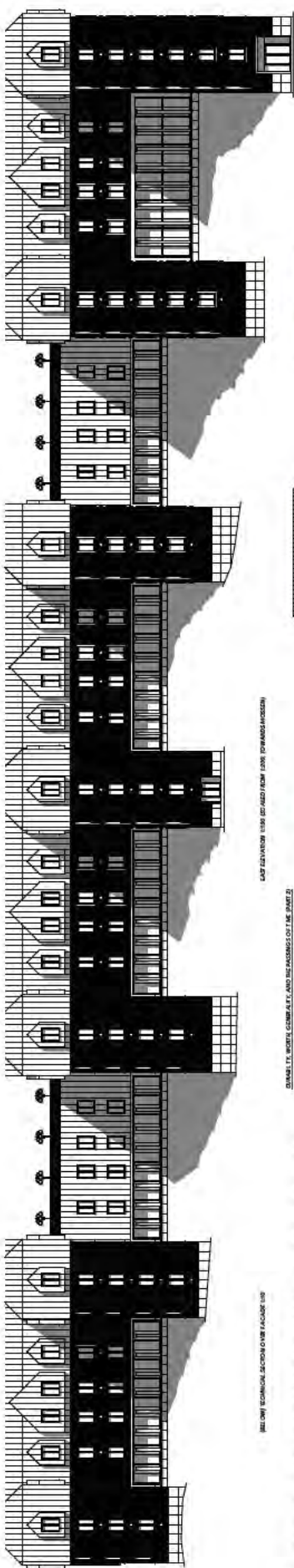
SECTION C-1210 OVER THE SHOWN CURB TO THE CURB ON THE SMALL ADD'S SIDE, PAINTED WHITE, NEW SIGNING TINS, AND ACCORDING TO THE VARIATION AND VARIATION



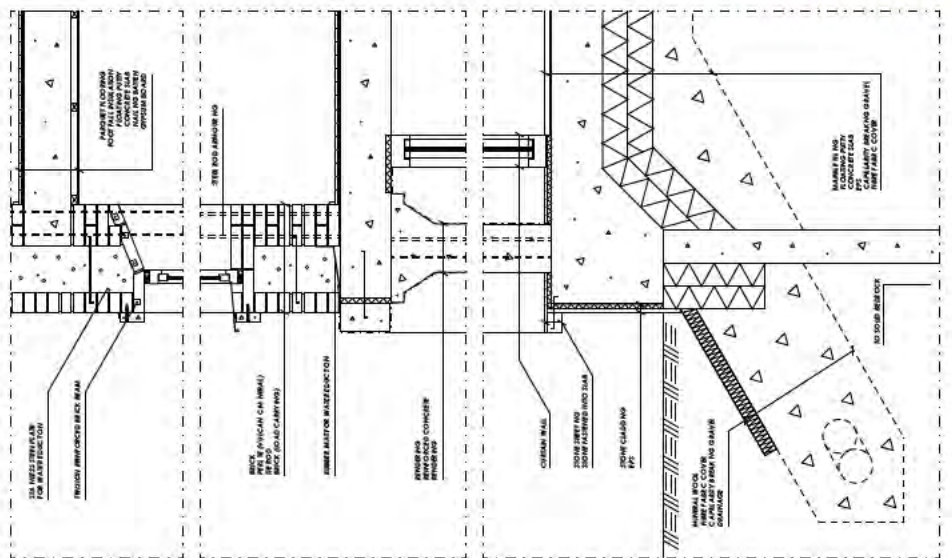
UNDER NO FROM EAST SOUTHERN WIND-OFFS NOW ALSO WIND-
GARDEN NORTH WIND OF BURNING



RESEARCH SITE PLAN: 1 500 (CULLED FROM 1000) BREWING RUBY, AFTERBERRY, CAP, PINKS, ENRICHES, FOR THE WEST END AND PINKISH AND 8 CYCLE ENRICHES, FOR THE EAST AND THE PINKISH.



THE OWI TECHNOLOGICAL ELECTRONIC FACADE 1-87



CUNNING, T. WORTH GENERALITY AND THE PASSINGS OF TIME (PART 2)

[illegible]

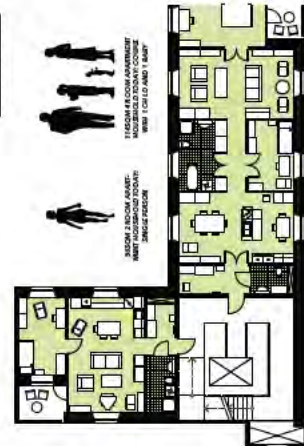
TRANSMITTAL SECTION 1000 (SET AUTO FROM 1000)



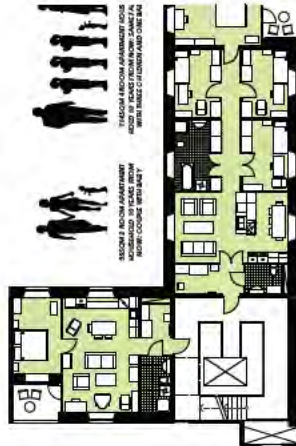
CONCLUSIONS



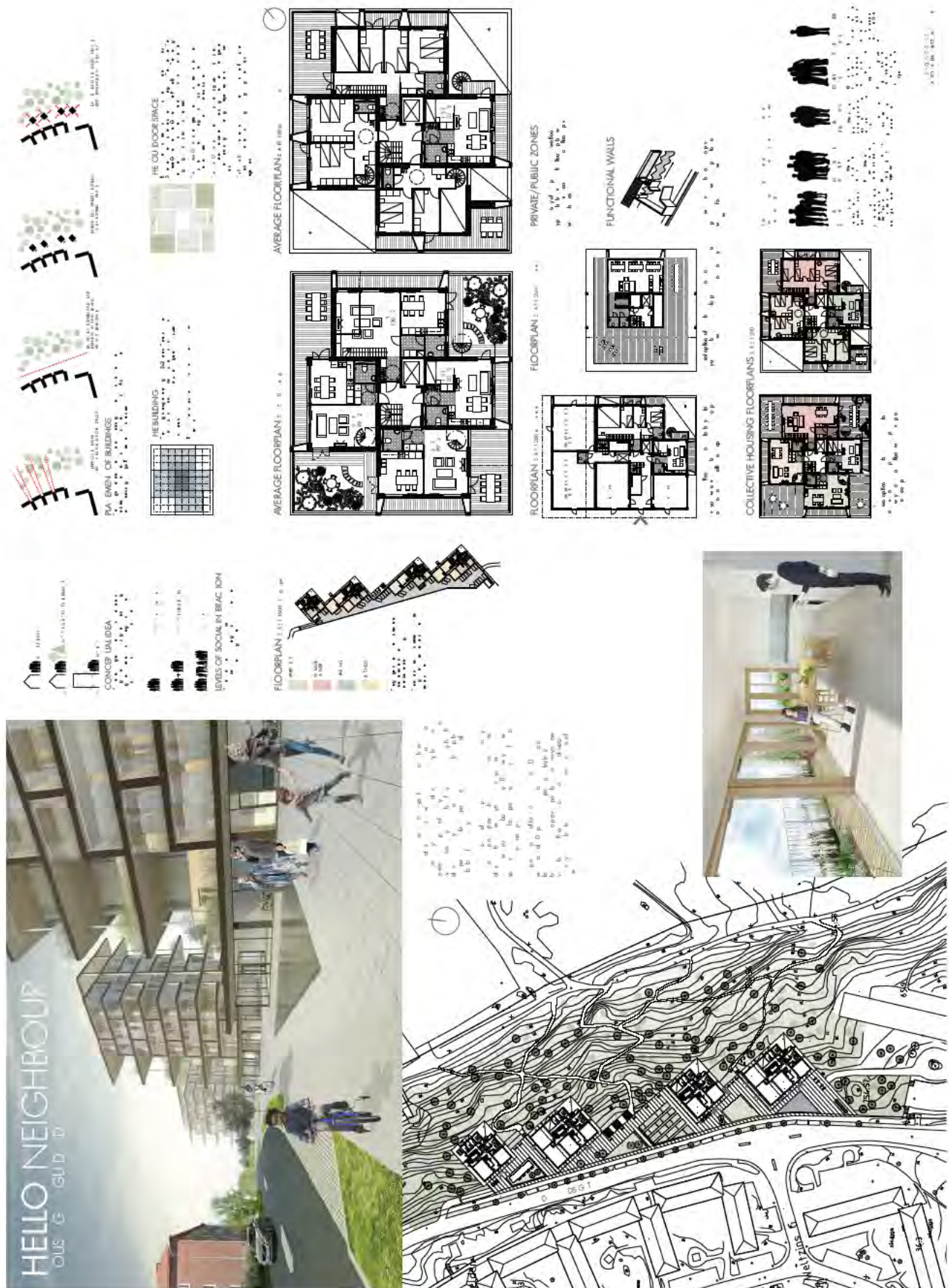
only 10% of the population is covered by the network of roads, which is not sufficient for the country's needs.

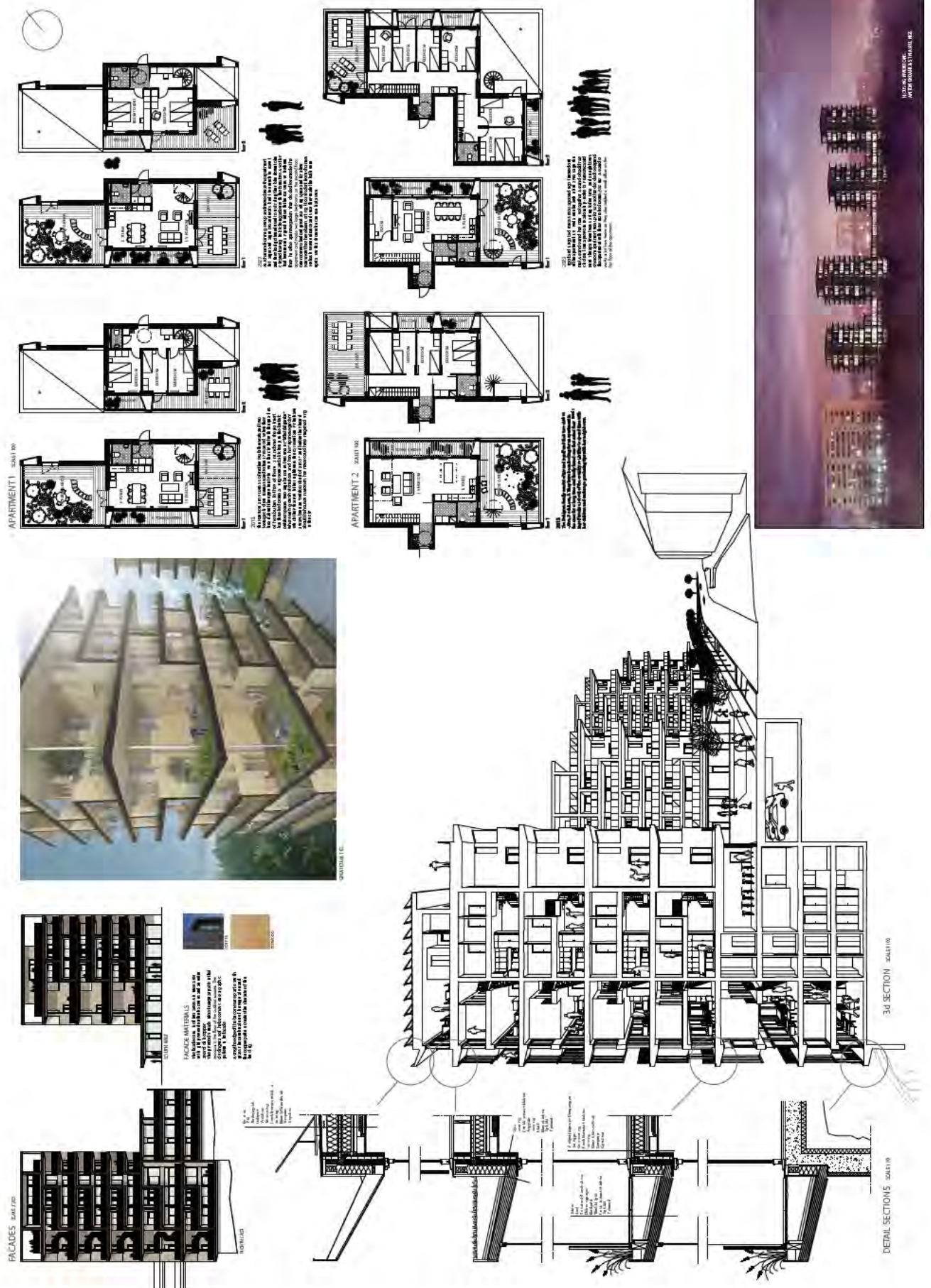
[illegible]

2ND FLOOR APART.



Abstract





LIVING IN GULDHEDEN

TODAY

Historical urban context is a key factor in the development of the project. The area is characterized by its rich history and the presence of the old church, which is a central element in the urban fabric. The project aims to preserve the historical character while introducing modern housing solutions.

TOMORROW

The new and old buildings are integrated into a new urban fabric. The project is a response to the need for modern housing in a historic area. The design is a response to the need for modern housing in a historic area. The design is a response to the need for modern housing in a historic area.



ENTRANCE LEVEL FLOOR PLAN 1:400



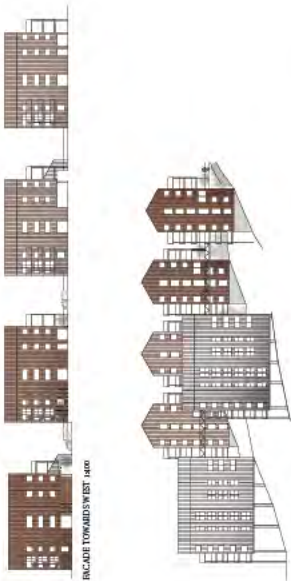
VIEW FROM STREET



VIEW FROM THE STREET



SECTION 1:400



FACADE TOWARDS WEST 1:400



FACADE TOWARDS NORTH 1:400



FACADE TOWARDS EAST 1:400



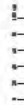
FACADE TOWARDS SOUTH 1:400

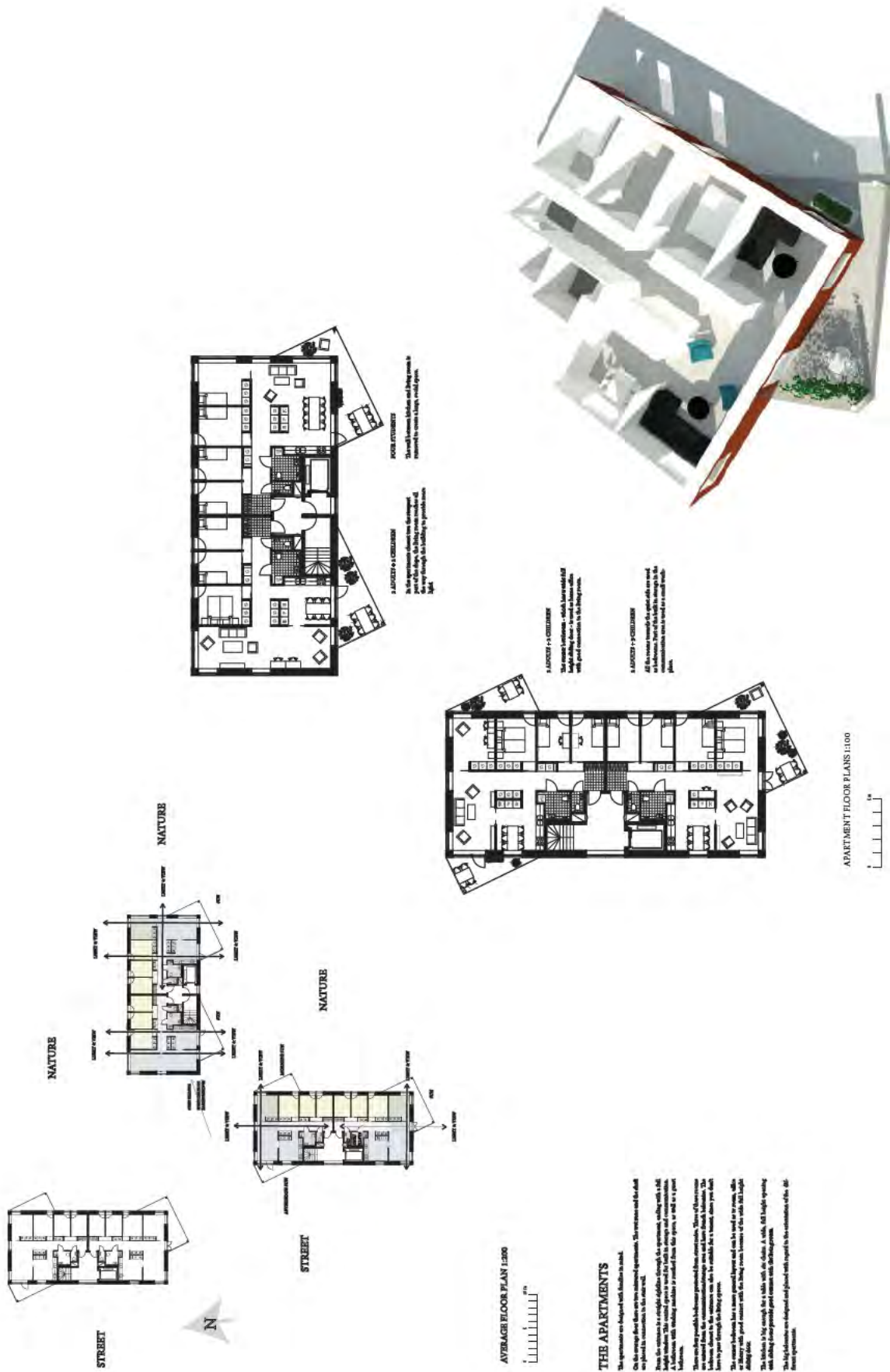
THE FACADE & THE ROOF

The facade and roof are designed to be a response to the historical context. The design is a response to the need for modern housing in a historic area. The design is a response to the need for modern housing in a historic area.

- The facade and roof are designed to be a response to the historical context.
- The design is a response to the need for modern housing in a historic area.
- The design is a response to the need for modern housing in a historic area.

CONSTRUCTION DETAIL 1:20



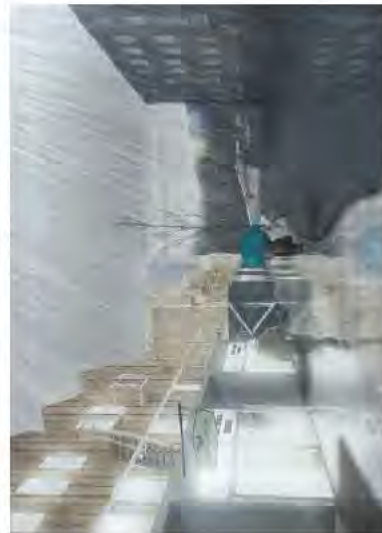


THE APARTMENTS

The apartment was designed with a focus on the...
On the average floor there are two...
The apartment was designed with a focus on the...
On the average floor there are two...
The apartment was designed with a focus on the...
On the average floor there are two...



The common elements of the proposed area is situated in the centre between the two added rooms of houses. Fund one such as bicycle age gets bags disposal and outdoor gardening offers the people a natural place to roam. One of these three structures works as a kinder garden facing the increase in demand which will occur with the arrival of the new households.



PEAK VILLAGE

Nature needs city life most; quite, public trees, untouched need to persist. The proposed knowledge and emphasis will strengthen areas. These dividing lines are to be kept in order to create contrast, variation and identity to the area. Here urban meets the suburban and the rural landscape.

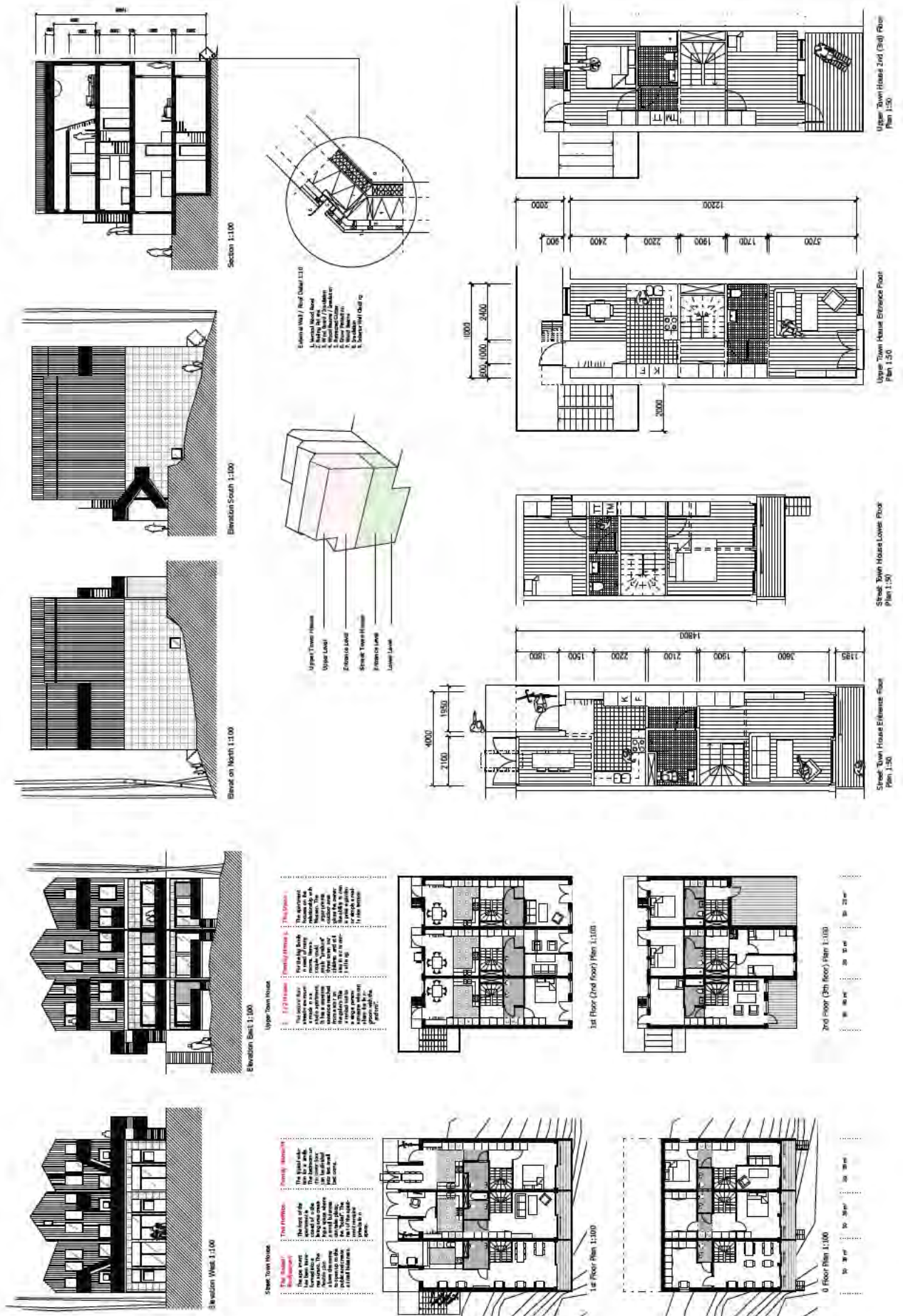
Resisting is an African ideology. In Gambia, a hypothesis that is not existing today and won't be helpful because the majority of people in the area, that is meeting a demand reality today is here for me to encourage their own tomorrow and at the same time, I'm within the city. I ask you for feedback from the family and the land. The concept of owning, or house-keeping, is to be a smaller thing, space. This and on you makes more sense for a larger amount of land to be a small thing, space. The way of keeping things within reasonable limits as well as helping people make the way they do it, to be different, is one of reason.

There is a lack of housing in Lecky of Gethburg. Not the most student and young people often stand without permanent homes. The university forbid ding student housing for rental apartments are vague. In order to add with the near the proposal provides a possibility for people to rent rooms, rooms with alternative on tances. This not only helps provide a place for people to live during their stud on, it also offers a flexibility a traditive for the owners. It will a improve the opportunity to create a larger community spirit where people social year around.

This project questions everything city-life (or lack thereof) in Galati and instead try to highlight and move what's far from the norm. The location gives a geographical context, attractive and could be made into an attractive living area, which provides beautiful urban atmosphere of living and the architecture. The construction of the two first apartment attractive way of living can be the city centre. The site also offer a special relation to one of the interesting within the city. *Moses.*

The proposal introduces two different types of town houses, where there have different ways of being strong to the urban design. On the street level, the town houses have a relation directly to the street outside but at the same time maintaining a free, quiet and a feel of privacy. At the same time the domestic common outdoor offers a possibility of experience which could be attractive for the urban life. Thus, it is why the offer of a dynamic urban form, the front of the town house to the street and a small back where it is made to stand up a small town house with a surface, catering to kitchen or second story, the front facilitates the transformation of the retreat from about steps to the street, it could even be taken into a small restaurant or place etc.

The second town house is put on top of the first one and slides up to fit snugly. It is removed from the street corner and instead resembles a more traditional suburban town house. The front door or garden entrance if from a rear side door and is not put on the second floor as a rear entrance. Within these walls we have provided a chance of truly changing your home. Depending on your situation and current needs some areas are more important than others and thus they are shown to the left.



Stories of Wood

Mattias Ivarsson - Jonathan Lindström - Viktor Karlsson

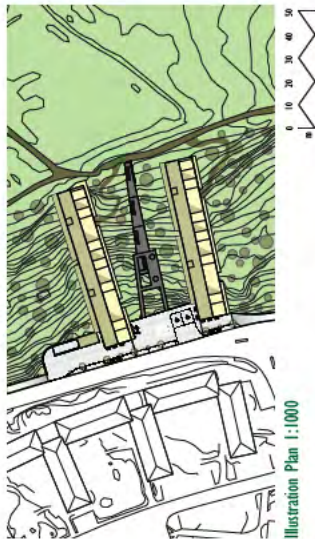


Illustration Plan 1:1000

In the slope beneath Dr. Allards Gata at Södra Guldheden there is a plan to build a residential area. In this proposal two lamellas are placed in the slope rising 6 stories towards the street and impressively 14 stories towards the mossen recreational area looking out over the city skyline. At the entrance from Dr. Allards Gata the residents can enjoy a cup of coffee at the local cafe before heading back home via the private

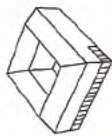
yard situated in the heart of the building. This housing project aims to be the highest building ever made in massive wood elements. And the best thing is that almost all apartments are in at least two floors. This is possible thanks to an effective construction and layout that in the end doesn't take more space or effort to achieve than ordinary housing.

Studentprojekt

Mattias Ivarsson, Viktor Karlsson, Jonathan Lindström

Approach

1. Traditional Quarter
The possibilities from a traditional quarter typology in the point of departure. On street level one can find smaller foot shapes and used the main structure to rise from it and higher up.



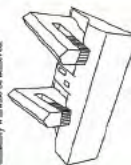
2. Transformation to lamella
Due to neighbors the view and footprint of the building is limited. The aim is to transform the quarter into a lamella. This allows good qualities for view and light.



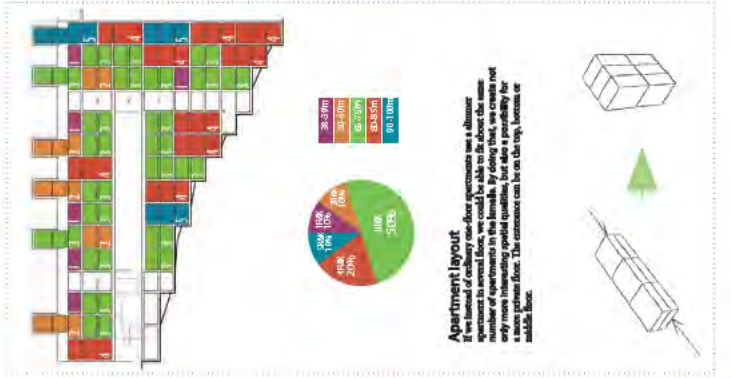
3. Optimized typology
With this typology it is possible to have two sided apartments if we use an inner hall only. With the thin structure a courtyard can be kept within the main structure. Courtyard gardens are thus situated in the middle of the building.



4. Placement in Slope
When adding one more lamella structure the space in between will be a semi public space. This space can be used for a small garden. A defined space and sense of community will also be achieved.

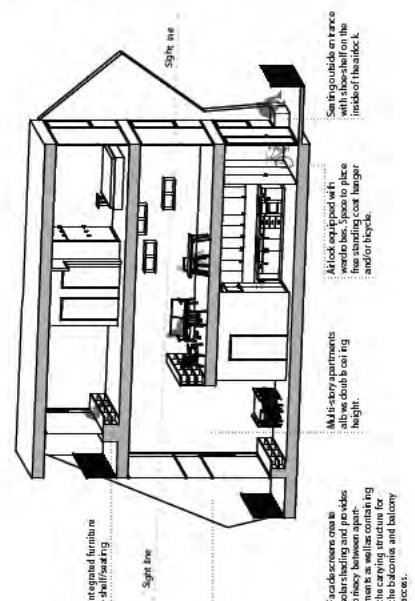
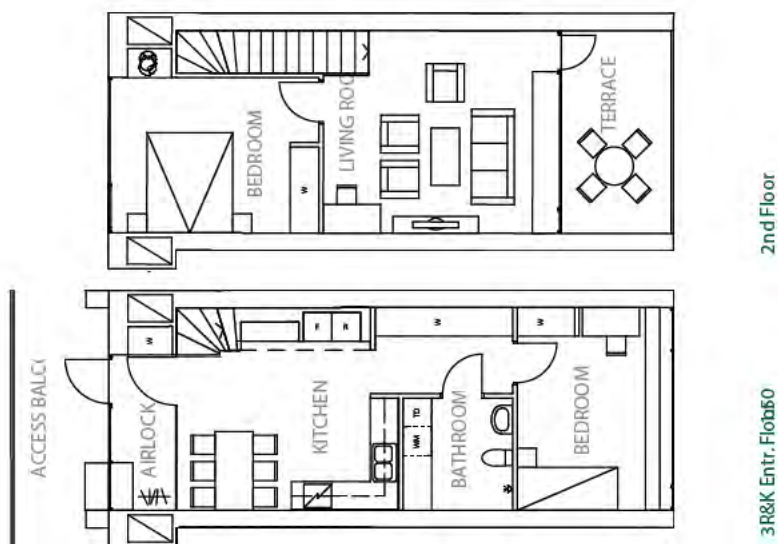
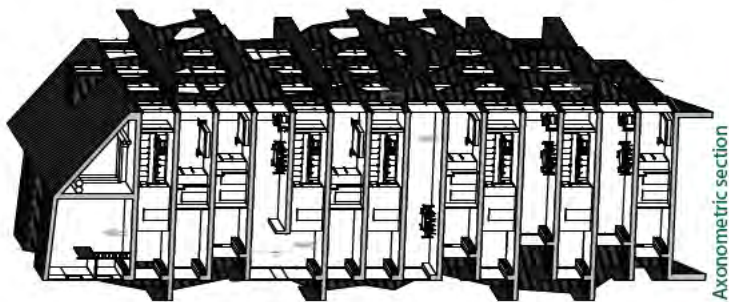
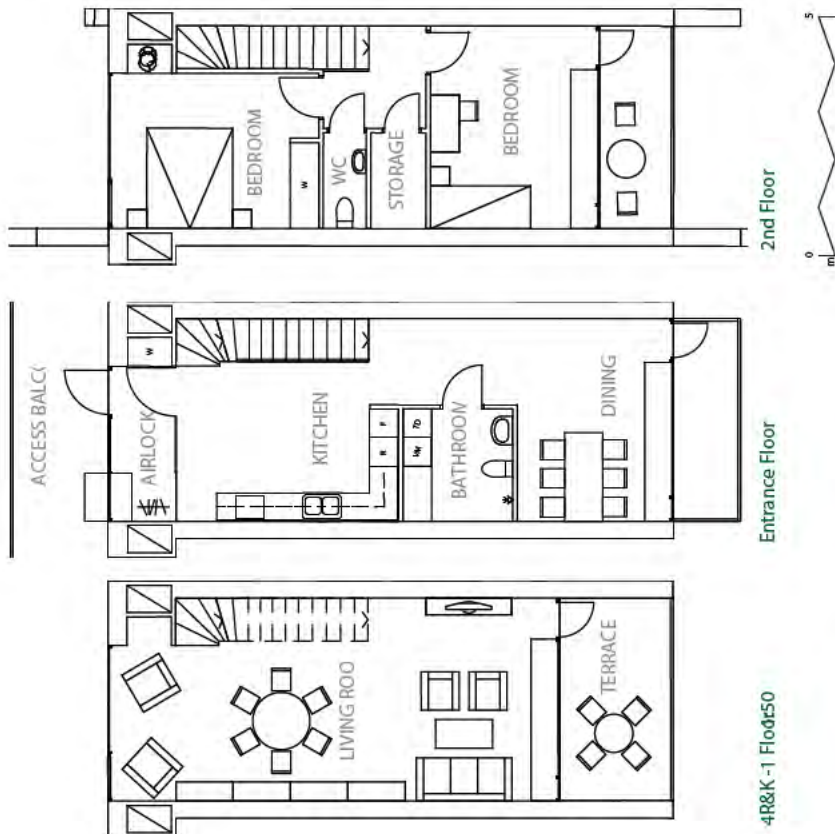


Landscape section 1:250



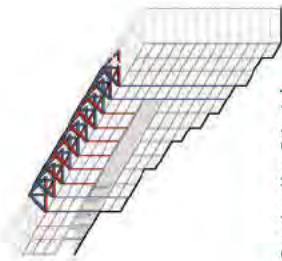
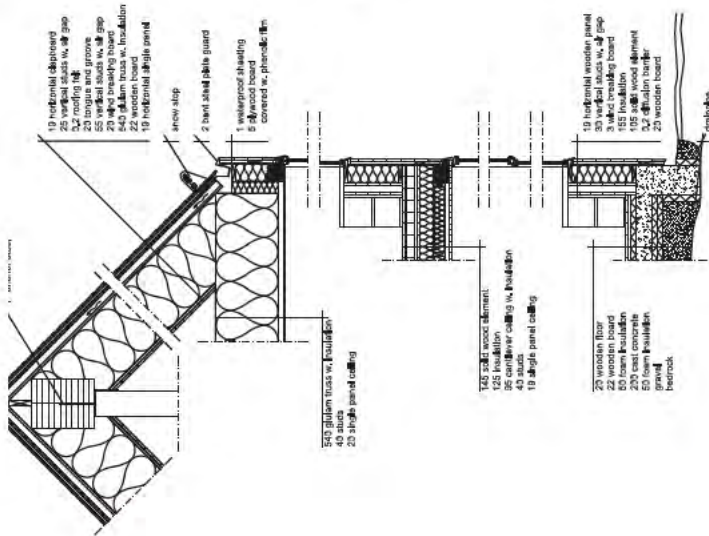
Mattias Ivarsson, Viktor Karlsson, Jonathan Lindström

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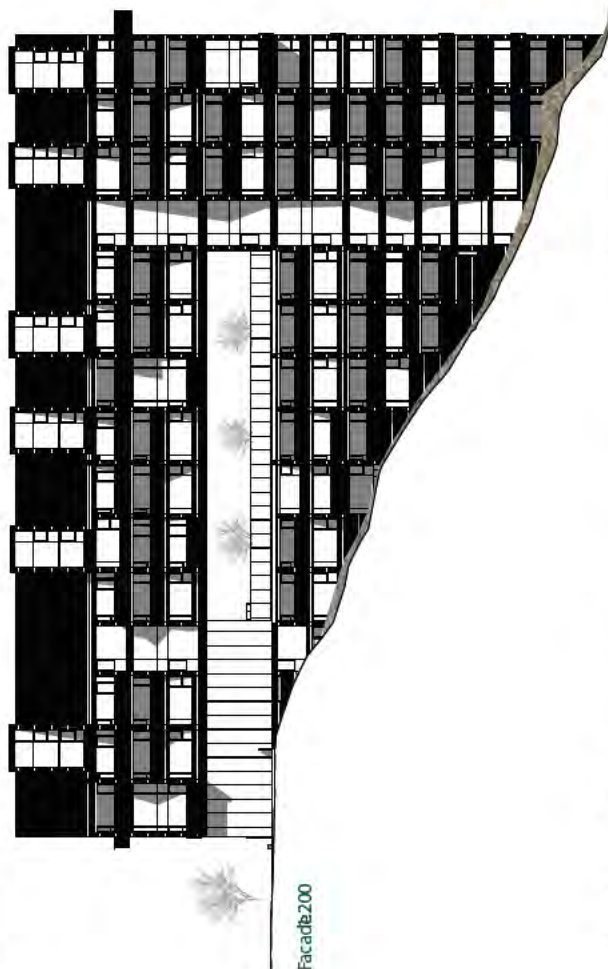
Mattias Ivarsson, Viktor Karlsson, Jonathan Lindström



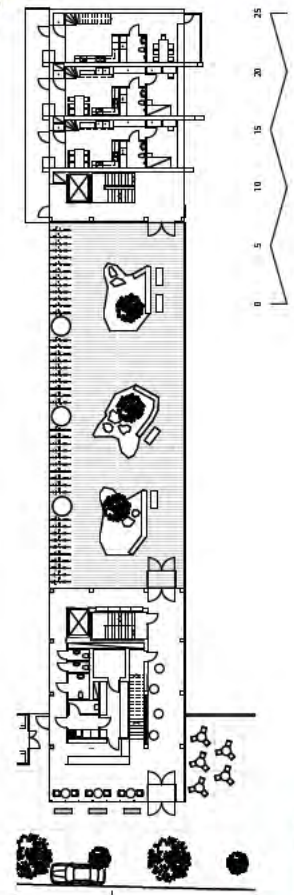
Construction Principle



Facade200



Facade 200



Ground Floor 200



TREE TOP BOXES





The apartments

The gene already with the age breeds it to have a American and flexible living was that doesn't have to be very big for them and other households should be able to live in the age breeds one a long period of time even though their living situation change.

The deer also be able to make the age breed when it was one out to and have a stable living during the war.

Types of apartments

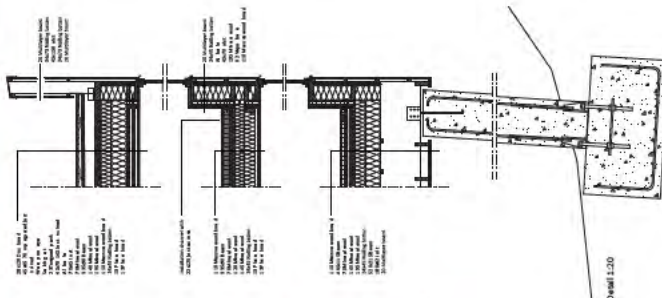
[illegible]

Concept indoor/outdoor space

Winter
One temperature is, snow and it
Catching a lot of study weather
makes the residents writing to stay
inside. The writers get a huge
boost to prevent the flu in winter
as get in the

Construction and materials

materials



sun shading
balconies

in the south the balconies present a wide frieze of vegetation. On the balconies are also trees that plants can grow on, with glass doors sliding. These are placed in a line so that the students themselves can put them where they



Living situations within a 10 year span

[illegible][illegible][illegible]

A detailed floor plan of the first floor of the building. The plan shows a central corridor connecting various rooms. On the left side, there is a staircase and several rooms, including what appears to be a lounge or meeting area. On the right side, there are more rooms, including a large open area that could be a common room or a large office. The plan is oriented with the entrance at the top.

The floor plan shows a central corridor connecting various rooms. On the left side, there is a large lounge area with a sofa and armchairs, a smaller lounge area, and a staircase. The central part contains a reception desk, a waiting area, and a small office. The right side features a large meeting room with a round table and chairs, a smaller meeting room, and a lounge area with a sofa and armchairs. The plan also shows several restrooms and a kitchen area.

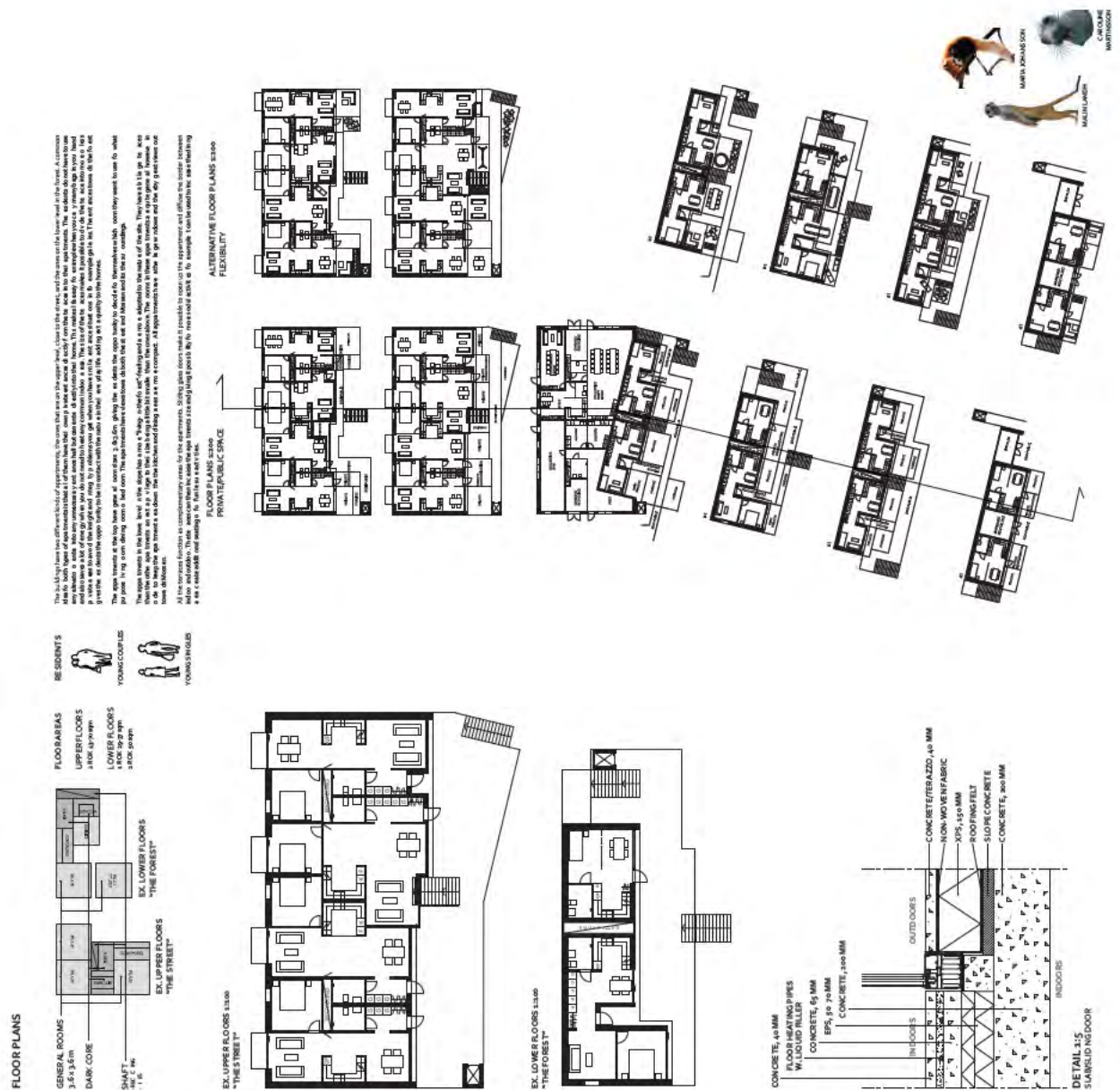
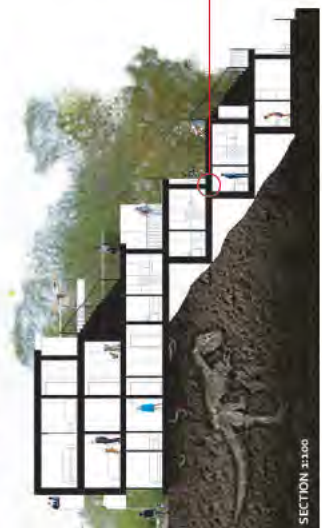
1023 We asked the 15 women 22 years or older whether or how they moved in their own place after the girls moved out. Items included: to what city or state they had moved and the time taken to find a new place; whether they had come to America and got a first job; and whether they had been able to find a place.

Spring
The trepasse sees and the sun
begins to warm the south facade.
Now the students may open the
side garden and extend the

The terrace above is now pleasant. The nine recent sliding doors of the new garage doors have been taken away to fully extend the living room. The sliding doors in the kitchen are by now open to further room expansion and give space onto the balcony.



Maria Johansson, Malin Landh, Caroline Martinsson



DR ALLARDS GATA NR X-Y

BY FIA NIKLASSON & HANNA LARQVIST
HOUSING INTERIORS, CHALLENGE ARCHITECTURE, SPRING 2013

CONTEXT & CONCEPT

In Göteborg, Gullbergs stands for simplicity and greenery, a tighter world housing volumes, offering high quality living in green environments. The area rarely consists of residential buildings from the 1950s or 60s. The area is a relatively spread out, large-scale and built-up area. The area is a mix of old and new, and it is a mix of old and new. The area is a mix of old and new, and it is a mix of old and new.

By the time when the buildings were new, the area was a mix of old and new. The area was a mix of old and new, and it is a mix of old and new. The area was a mix of old and new, and it is a mix of old and new.

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When the buildings were new, the area was a mix of old and new. The area was a mix of old and new, and it is a mix of old and new. The area was a mix of old and new, and it is a mix of old and new.

positioning of the buildings and the area was a mix of old and new. The area was a mix of old and new, and it is a mix of old and new. The area was a mix of old and new, and it is a mix of old and new.

of what is the landscape and the area was a mix of old and new. The area was a mix of old and new, and it is a mix of old and new. The area was a mix of old and new, and it is a mix of old and new.



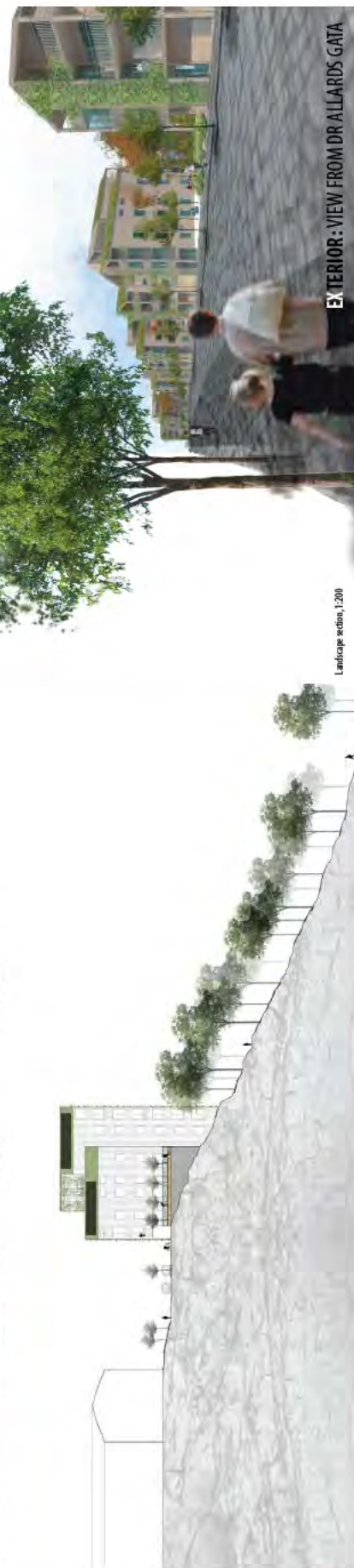
Sida Gullbergs, 1:5000



EXTERIOR: VIEW FROM MOSSEN



Sida Gata, 1:200



Landscape section, 1:200

EXTERIOR: VIEW FROM DR ALLARDS GATA

FLOOR PLANS & SECTIONS

THE BUILDING

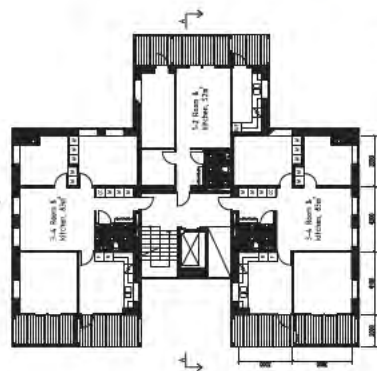
Three stories consists of three interconnected volumes, a high pitched roof and a gabled living area and a flat roof. The highest volume is placed in the middle, the other two sit on either side of it. The building is designed to be a mix of residential and commercial use. The building is designed to be a mix of residential and commercial use. The building is designed to be a mix of residential and commercial use.

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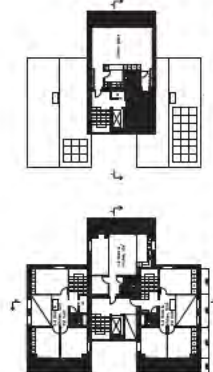
THE APARTMENTS

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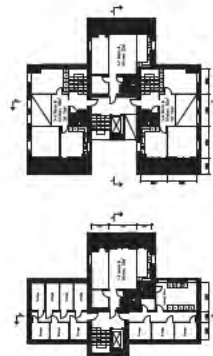
The building is designed to be a mix of residential and commercial use. The building is designed to be a mix of residential and commercial use. The building is designed to be a mix of residential and commercial use. The building is designed to be a mix of residential and commercial use.



Level 1, 1:300



Level 2, 1:300



Level 3, 1:300

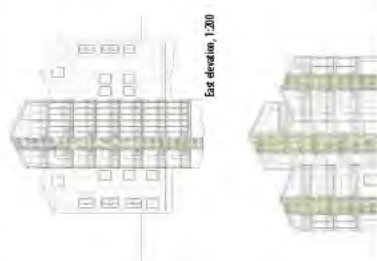


Section A-A, 1:100

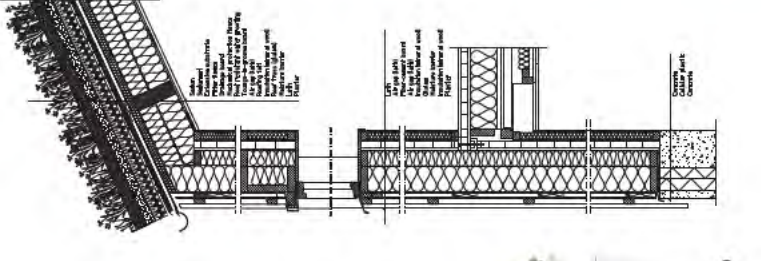


Section B-B, 1:100

ELEVATIONS & CONSTRUCTION



East elevation, 1:200



West elevation, 1:200

HOUSING SCENARIOS: TODAY & 10 YEARS LATER

