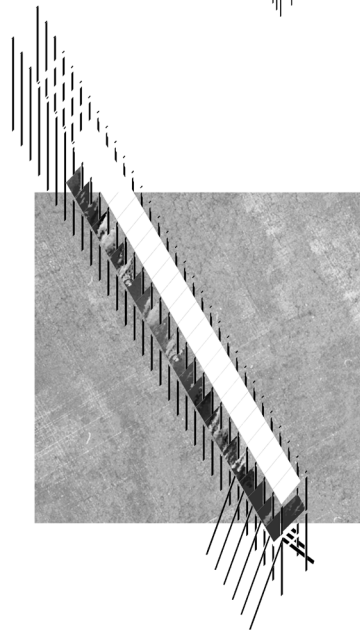
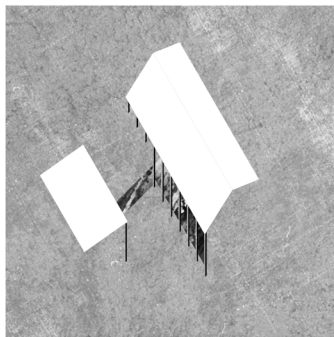
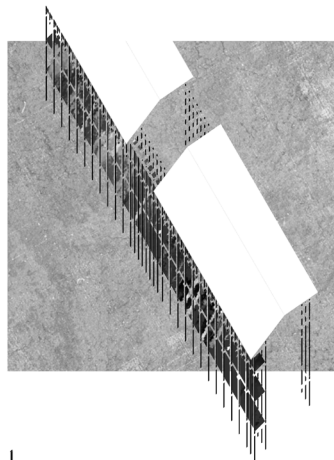
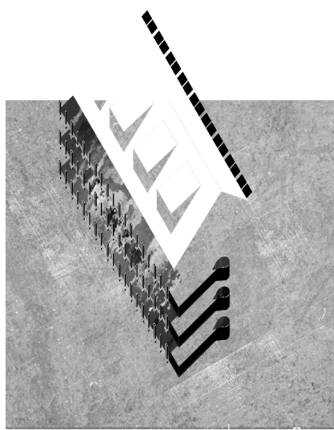


VI KREVER ETT HJEM!



Og da han hadde sitt eget hjem. Han var en stolt mann.
Veldig stolt.

*And then he had his own home. He was a proud man.
Very proud indeed.*

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Studio Scandinavia

The Norwegian built landscape is the outcome of a nation-shared suburban dream. The arrays of single detached homes are immensely popular with nearly three-quarters of the population dwelling in alike neighbourhoods. Strategies and models striving towards more dense typologies proved controversial as a sound conservative culture resented altering or disrupting its heartfelt building history. However, the sequence of rapid demographic growth with its related economic viabilities gradually construct a political platform to create policies aimed at densifying its dispersed landscape.

*Thesis submitted to obtain the degree of
Master of Engineering Science: Architecture*

Author

Thibaut Van der Beken

Promotor

Yuri Gerrits
Barbara Oelbrandt

Tutors

Erik Frydenlund Hofsbro
Marius Hauland Næss

External Readers

Ward Verbakel -Plus Office-

Institution

March 2019 - June 2019

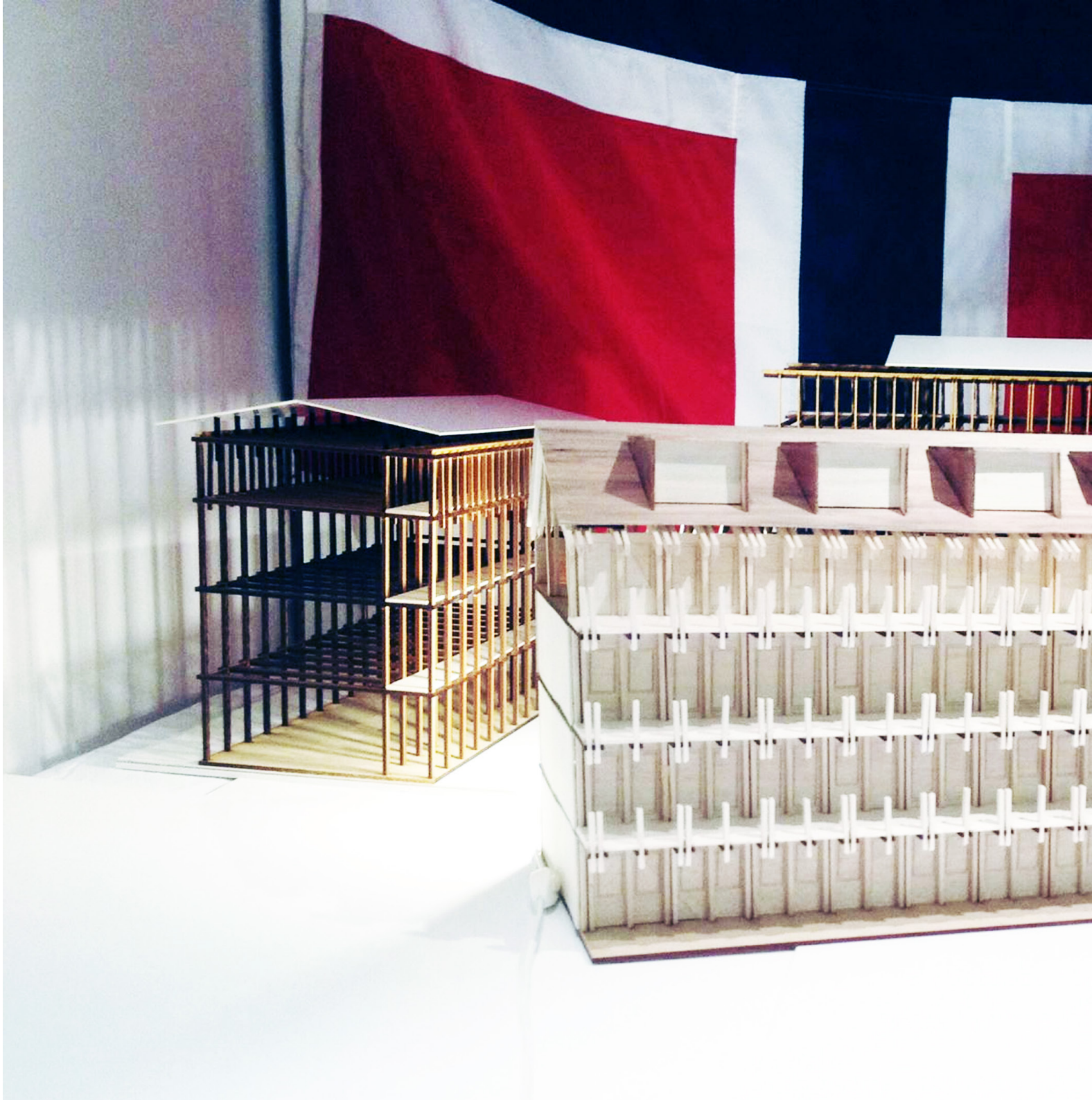
Norges Teknisk-Naturvitenskapelige Universitet, Trondheim.

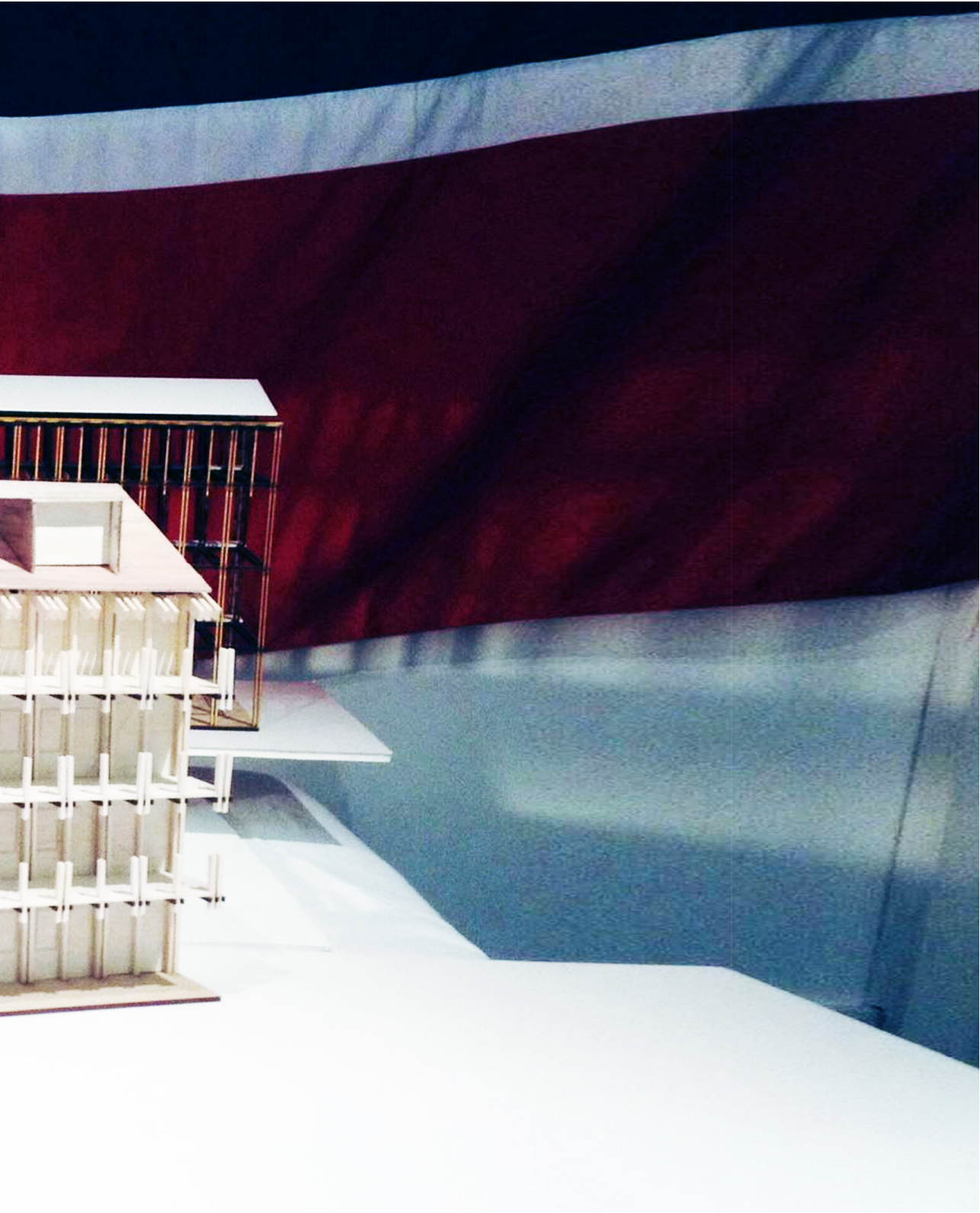
Supervisors: Erik Frylund Hofsbro -NTNU-, Marius Hauland Næss -Snøhetta-

September 2019 - January 2020

Katholic University of Leuven, department of Architecture.

Supervisors: Yuri Gerrits -WIT-, Barbara Oelbrandt -BLAF-.





RIGOROUS GROWTH

REGULATED MARKET

1945 - 1982

Throughout the post-war period, a central aim of Norwegian housing policy aspired to empower the populace obtaining qualitative dwellings. Strengthened by a variety of subsidies and market-driven tools, the government was acknowledged for its "social housing policy"^[01], constructing almost 1 million homes while increasing the portion of individual homeownership from 64 to 82 per cent within a 30 year period^[02].

ii-iii

1945

WELFARE STATE

During the German occupation, the then-imprisoned Norwegian government embarked on a variety of social democratic reforms. Affordable, qualitative homes were one of four main constituents^[05] aimed towards "building the welfare state", accompanied by free healthcare, free education and the elimination of unemployment.

1945-1950

SOCIAL ATTEMPTS

Trygve Brattellie convinced the Norwegian Parliament that peoples' homes should not be a "field for business"^[06]. Initially, the motivation for promoting self-ownership for all was an anti-business and anti-landlord sentiment that thrived through the newly founded social democracy.

1955

NEW HOMES

The Norwegian State Housing Bank financed a substantial share of new constructions. Already 300,000 new homes were constructed as a result of state interference^[07]. This number would develop to 1,000,000 new homes out of 2,000,000 total habitats^[08] by the millennium change.

1963

OIL ADVENTURES

In May 1963, Norway asserted sovereign rights over natural resources in its sector of the North Sea. The Ekofisk discovery of 1969 launched the Norwegian oil adventure, and production from the field started on 15 June 1971. Supplementary discoveries made in the following years had a significant impact on Norwegian society^[09]. State ownership of firms exploiting the oil propelled the country from an agrarian one towards one of world's richest countries.

1960-1980

PHASING OUT

Reselling state-financed homes came with restrictions and presented inequality among homeowners. The state slowly revoked the price regulations, with increasing segments of the housing stock becoming subjected to the free market^[07].

1970

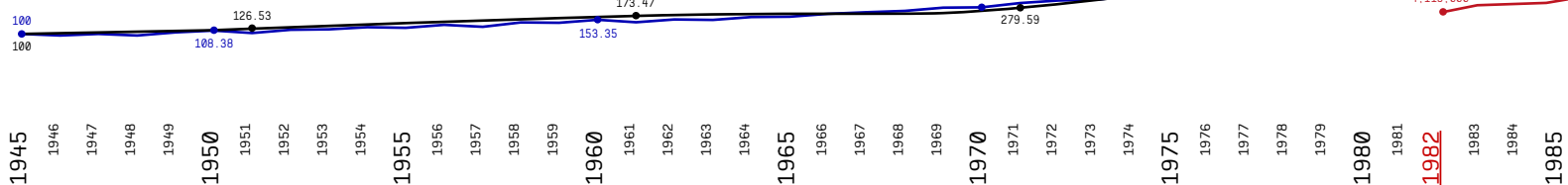
TAX REGIME

Since the seventies, it has not proved possible to gain a political majority for more realistic property appraisals as a basis for property taxes^[07]. In 1990, valuations of homes for tax purposes subsequently averaged 25 % of their actual value. Today, this number verges between 15 % and 20%, making the homestead a tax paradise.

1982

PERCEPTION

The legitimacy and the intended effects of the regulation gradually disappeared and the position of the government turned over time in favour of an entirely free market^[07]. At the beginning of the 1980s, the state decided to gradually deregulate the housing market.



DE-REGULATED MARKET

1982 - present

The emergence of a free housing market quadrupled^[03] home and land valuations. Individuals and households who did not enter the liberated market at early stages gradually fell behind. Families subsequently regard their home nowadays not only as an accommodation but also as an investment and commodity^[04].

1987-1992 RECESSION

Oil prices dropped significantly causing a Norwegian deficit and a devaluation on the Krone. A recession began as public and private institutions consolidated their books^[05]. It would progress as the largest financial crisis in Norway since the Second World War.

1996 HUSBANKEN

The Norwegian State Housing Bank terminates subsidized loans. These credits allowed the population to live in a house with certain area and cost limits^[04]. On a side note, these limits were quite generously set.

2016 NATIONAL OUTCRY

The Norwegian household debt is growing faster than the average household income. Today, it represents 230% of the sector's disposable income^[08], significantly higher as to other comparable nations. This may be an early indication that households are indeed starting to struggle converting their consumer loans.

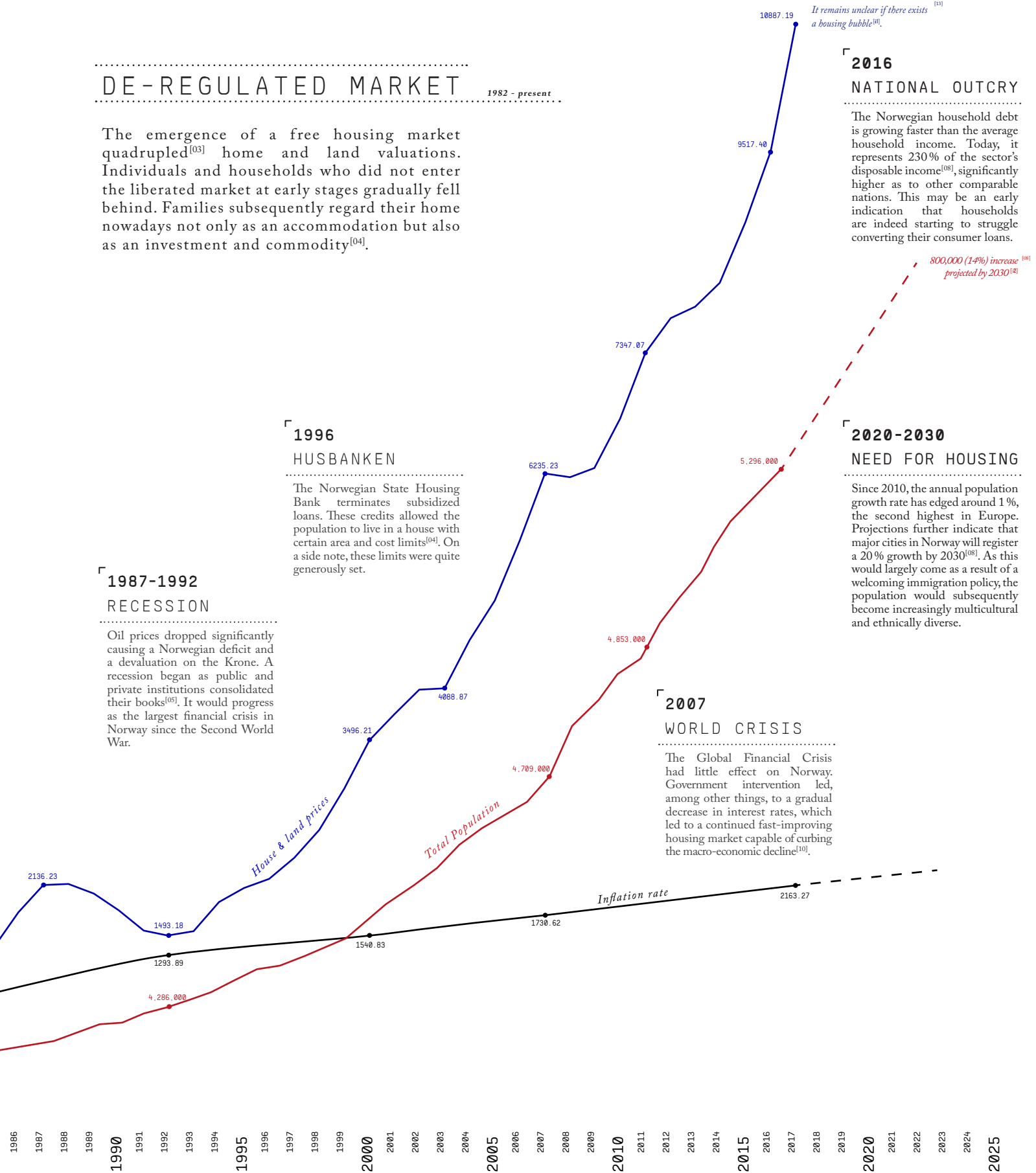
2020-2030 NEED FOR HOUSING

Since 2010, the annual population growth rate has edged around 1%, the second highest in Europe. Projections further indicate that major cities in Norway will register a 20% growth by 2030^[08]. As this would largely come as a result of a welcoming immigration policy, the population would subsequently become increasingly multicultural and ethnically diverse.

2007 WORLD CRISIS

The Global Financial Crisis had little effect on Norway. Government intervention led, among other things, to a gradual decrease in interest rates, which led to a continued fast-improving housing market capable of curbing the macro-economic decline^[10].

It remains unclear if there exists a housing bubble^[01].







1st of may demonstrations, 1972

State-build apartments were confined to certain restrictions involving the trade of such subsidized residences. The government determined the most expensive legal acquisition price based on what it had taken to build the home copulated with the overall price increases^{[05][07]}. However, construction costs rose significantly more as opposed to the general inflation, resulting in the value of used flats hanging in comparison to the costs of similar new dwellings. These assessment controls grew into general disrepute and ultimately led to the deregulation of the housing market.

Today

The imminence of a social gap pushes young adults to enter the housing market as early as possible. Not participating in homeownership conducts a vulnerable position since it would exclude individuals from the upturns of land valuations as well as the before-mentioned generous tax regime regarding homeownership. Therefore, citizens who did not enter the housing market at the early stages gradually fell behind.

There is subsequently a growing public call to balance today's housing market once again.



The high demand and small supply of accommodations undermine the added value of quality in dwellings, with prices mainly set as a primitive sum of floor area and number of rooms. Therefore, minimum requirements must be considered as an expression of a national housing standard since profit margins will consistently shoulder private developers towards such limits.

AFFORDABLE HOUSING

P I L O T S

The comprehensive subject of "Rimelig bolig" frequently canvasses political debate. The outspoken ambitions on both municipal and state levels stand challenged by rapid demographic growth. While implementing statutes enhancing the pace of construction, the quality and affordability of the new-build dwelling remain jeopardised.

Initiated by
Hanne E. Marcussen,
leader of Granpartet.

Project can be read on
Allmennbolig.no^[1]

M O T E N T R E D J E B O L I G S E K T O R

The call for accommodation outstripped the desire for quality housing. To keep pace with demographic growth, municipalities primarily operate a facilitating role by regulating areas for housing construction and by approving projects promoted by landowners. Government measures and local guidelines safeguard the necessary high velocity of development while *technical regulations have been prepared to reduce construction costs*^[22]. In these -proposed- renewed technical regulations, quality themes are often condensed to functional and aesthetic properties, overlooking fundamentals in architecture and engineering facets. These features have subsequently weakened in recent years and may develop consequences regarding the objectives set under the climate agreement and the Public Health Act installed in 2012^[22].

By engaging different models for less expensive housing, it is believed to enable more people accessing the housing market. Across the kingdom, several municipalities have expressed their desire to be once again a driving force for the development of a social and inclusive municipal housing policy -a politically biased statement as

public instances ceased building homes for the general populace almost 40 years ago^[27]. As Norway remains the sole Scandinavian country lacking an alternative to the ordinary free market, it regards its neighbours for suitable policies. *The Danish Almen Bolig Plus* -where the municipality entered into agreements with private developers- and Copenhagen's numerous non-profit residential foundations stand included among the considered models^[21].

A third sector amid social housing and the expensive housing market. The Oslo Kommune subsequently launched a pilot project that would emerge during the current municipal administration period. This pilot examines various forms of public housing construction and explores models for developing this so-called "third sector" where the target group is comprised of people with ordinary income and who have no prospect otherwise to enter the equity-demanded housing market. Attempting to preserve diversity throughout the city, the pilot project emerges as the follow-up of the *Action Plan for Increased Housing*, which was adopted by the committee in spring 2016. In this model, the distribution and pricing of housing neglect the

premises of the commercial market but instead operates through targeted allocation guided and often initiated by the Kommune. Various (student) projects such as the one in Svartlamon or *Mot en tredje boligsektor* -translated as "Towards a third housing sector"- commenced exploring the outskirts of such undertakings. Though, propositions inferring a non-commercial public rental sector remain compromised on a statewide political level as a result of financial feasibilities. Today, the municipal directed *Tilskudd* program remains the primary device supporting -particular young and nuclear^[12]- households to enter the private housing market in the traditional fashion.

More about the Norwegian
history of public development
on page 2-3 & page 6-7.

Tilskudd or "Grant"
is given by the
municipality in order
to fulfil primary equity
demands for attaining
a mortgage at private
institutions.

A B S T R A C T

The division between market-driven proprietorship and exclusive benefit for the disadvantaged stands exposed. There is an increasingly large population segment failing to pay the entry ticket for homeownership. Disparities in society as a consequence of rising land valuations, resulted in Oslo being notorious for containing both the best and worst living conditions in Norway. The municipality has subsequently expressed its desire to be once again the driving force for the development of a social and inclusive municipal housing policy.

This graduation project strives to offer a vision regarding the potential of the ambitious re-emergence of state-constructed dwellings. It explores various templates of both social and public housing and intends to produce a feasible model for this new aspired "Third Housing Sector". Given the appearance of 200,000 new households in the upcoming decade, can public programs aid with solving densification complications? And in particular, can the dispersed suburban landscape be altered to accommodate these new arrivals? Is it attainable to embed quality once more as the propulsive agent in densification projects? This thesis could, therefore, be perceived as the suburban sequence of "Mot en Tredje Boligsektor", which addresses a renovation project at Adamstuen in Oslo.

The first chapter offers a program that, over time, intends to replace the existing Tilskudd procedure. It hypothesizes that ownership should be the intention of short-term prospects while allowing households to acquire equity on longer operating schemes. The associated financial model is constructed in conversation and collaboration with Trondelag Kommune, who presently offer this Tilskudd program. The second chapter analyses current densification policies for the suburbs and proposes an urban strategy aimed at enriching the existing conservative suburban landscape with new typologies. The third and last chapter is the architectural attitude of the constructed proposals and stands separately as a spatial response to the existing socio-economic conditions.



VI KREVER EIENDOM

Husbanken
Housing Policy
Across Europe



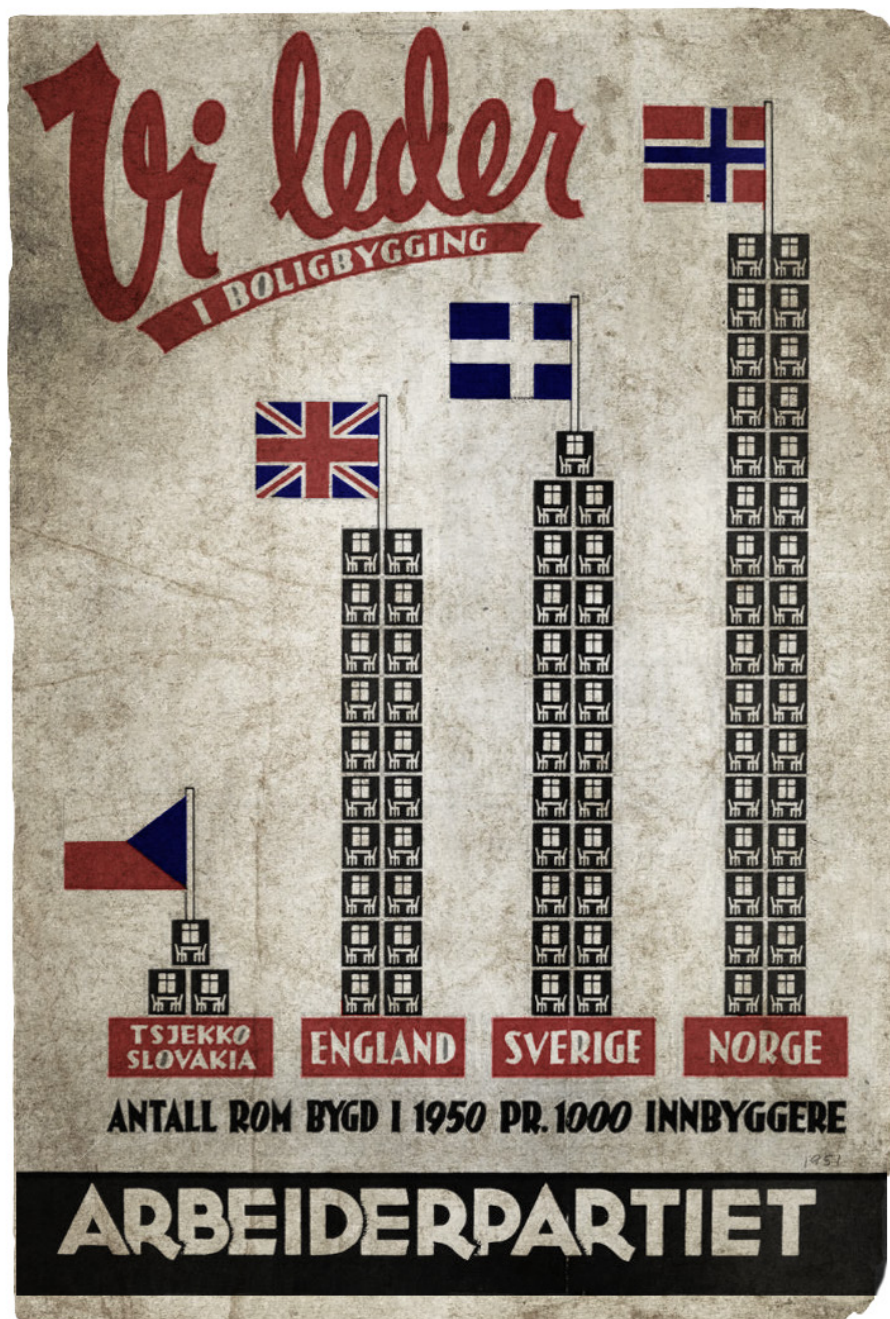
VI KREVER RÅDYR

Norwegian Non-Urbanity
Kommuneplanen
Småhusplanen



VI KREVER ETT HJEM

Husvikveien
Hermelinveien
Fagersandveien



During the post-war transition, the demand for housing was one of the most pressing political issues. Both housing shortages and its affiliated living conditions emerged as primary anxieties across the nation⁶⁵. The government became -successfully- the principal apparatus for erecting new dwellings. Today the housing predicament stands again as a troublesome issue. However, -in a more pluralistic society- it has become more challenging to collect around political parties and culminated policies.

Can the public once again be the incentive for better housing provisions for all?

1-19



VI KREVER EIENDOM

A civil demand emerged requesting to differentiate the housing offer and stipulate a more balanced housing policy.

With an increasingly broadened segment of the population struggling to attain ownership, it is often challenging to target the fitting indigent groups. Absent of a cross-party agreement on a national strategy^[05], municipalities lack the guidance to address affordability concerns in their region. Though acknowledging the success of particular schemes implemented across the country by those local authorities, the absence of a legislative impulse undermines the ability of these projects to wield the scale of the argument. For now, the provision of a Tilskudd^[12] proves to be the preferred arrangement for several municipalities, though it arguably merely acts as an ever-expensive gapfiller.

– *What led to the existing social and economic conditions?*

– *Can the public once again provide affordable and sustainable homes?*

– *What are the duties of public instances in residential development?*



Throughout history, the state has contributed to the positive development of the housing sector.

The “Social Housing Policy”, implemented through Husbanken after the Second World War, allowed households to attain a dwelling that was of a higher standard than their former one.

A family in kautokeino photographed in front of their old house in the winter of 1965. On the right the erected Husbank Huset.

THE NORWEGIAN HOUSING BANK

In the past century, the social-democratic kingdom has provided its inhabitants with quality accommodations through several measures. The Norwegian Housing Bank became the embodiment of qualitative housing fashioned by state-subsidized loans^[04]. Though it allowed for affordable yet large home developments, it ceased since 1996 its renowned public building practises and introduced a policy trend towards supporting the resident himself instead of the dwelling.

From public to social.

The introduction of public housing originated from an unsatisfied demand for homes. Throughout the 19th century, private developers were enabled to construct rental units without state interference. The rise of industrialisation enhanced work opportunities throughout the city and people would increasingly move towards it. Both private actors and factory owners were encouraged by municipalities to accommodate the numerous workers and their families themselves. Absent of governmental control, neighbourhoods consisting of labour habitats became overly densified and confined with dark and narrow backyards. *As the population grew, these areas eventually turned into slums with feeble sanitary conditions.* Arguably, the Kristiana crash of 1899 might have stopped this defective development for the capital city^[11]. The crisis came as a combination of a credit and real estate bubble following the formidable demographic growth of the 1890s. Companies and banks were forced to conclude their operations which gradually drove the populace away from the capital. The active construction business related to the past decades' economic and demographic growth came to an abrupt halt. The sudden decrease in population and high speculation in the real estate market inflicted a ten per cent vacant building stock across Kristiana^[11]. Rent prices plummeted to oblivion as landlords attempted to prevent decay in their newly constructed rental homes. Though the situation overturned over time, it had frightened the beaten developers along the way. When the housing demand returned five years later, there was a scarce of private developers willing to again enter the construction business. Across the country, *municipalities were forced to step in as a home builders* and would continue that depiction in the following decades^[11].

The interwar period was an era of a proud municipal building tradition. The crowded labour neighbourhoods and poor sanitary conditions that remained from last century's housing boom created a political platform for action. Founded in 1913, the *"Norsk Forening for Boligreformer"* was a state-supported institution focussed on this widespread social problem and mainly consisted of planners, politicians, developers and others. The enterprise acted as a forum for social planning in Norway and operated through publications, exhibitions and conferences. Since its inauguration, it influenced municipalities to build homes for lower-income groups following the widespread garden city movement. Accordingly, the sprouted projects had their backyards consolidated in parks, and height limits for residential fabrications would not exceed three stories. With shifts towards conservatism in the 1930s, the municipal's social housing policy eventually seized to exist. In retrospect, it was replaced by companies -for instance *OBO-* that overtook the role of the municipality's building body.

The establishment of the Norwegian Housing Bank in 1946 emerged from a governmental desire to create a welfare policy template. Since the Second World War, *the term public housing is inseparable with 'Husbanken'*. Through mortgages handled by the institution, the state succeeded in its ambition to provide affordable and qualitative homes for all. Approximately half of all houses built^[04] bankrolled through the establishment since its foundation. The bank's ambitions changed over the years following political conditions and economic realities but remained faithful to provide accommodation for disadvantaged groups in an ever-changing market.

Now known as BOBY.

OBO is Norway's largest construction corporation with over 420 000 members.

1948	Enerhaugen as forerunner for urban transformation.		
1947	Honningsvåg as symbol for war-torn reconstruction.		
1947	First 3,500 homes built through OBOS.		
1946	OBOS as municipal body.	1958	Block on loans from Husbanken.
1946	Formation of Husbanken.	1954	Rapid recovery caused problems.
1945	Gerhardsen becomes prime minister.	1951	Oscar Top becomes prime minister: focus on reconstruction.

THE FORTIES

Until 1946, state participation in creating social credit institutions had been challenging to obtain. However, the crisis allocations of '40-'45 provided a basis for political agreement on establishing a state-owned housing bank. The most important task during the first few years was to finance the reconstruction of war-torn areas, but the bank also provided loans for general housing development as Gerhardsen promised the production of 100,000 homes by 1950^[04]. Though the lack of construction materials delayed the objective with three years, it eventually upheld its promise. The bank ensured families to receive three rooms, and by doing so, drastically improving housing conditions across the nation.

THE FIFTIES

Plentiful new construction plots characterised the first years of the Fifties. Living conditions continued to improve while the economy grew stronger. Housing demand shifted towards the cities as urbanization gained significance. Positive developments endured till Husbanken faced restrictions on its budget in 1954^[04]. Questions arose on the purpose of the institution as to it should serve *conventional people or merely concentrate on providing support to disadvantaged groups.* As lending stiffened, fewer homes were built from 1954 to 1965 than throughout the early fifties.

Home ownership rates ^[14]	55.0%
Detached dwelling ^[15]	23.2%
Unemployment ^[16]	N.A
Urbanisation ^[17]	50.1%

Home ownership rates	62.2%
Detached dwelling	25.2%
Unemployment	1.80%
Urbanisation	52.2%

- 1969 Focus on quality in housing development by Husbanken.
- 1968 Support schemes for disadvantaged groups.
- 1968 Ammerud as forerunner for urban transformation.
- 1966 Petronord starts oil exploration.
- 1966 National insurance scheme as a climax of the welfare state.
- 1965 Husbanken and the Ministry of Local Government are tasked with housing development.
- 1965 Termination of the housing directorate.
- 1965 Bourgeois government came to power.
- 1961 Industrial boom.

- 1977 City of Oslo started to sell its land on the free market.
- 1975 OBOS built its 50,000 home.
- 1972 Legislation no.76 meant security on house financings.
- 1971 Start of the oil era.

- 1986 The trial of Arne Treholt.
- 1985 Labour party has a clear majority in the Storting.
- 1984 Take on me by A-ha.
- 1982 Private banks can now match Husbanken's offer.
- 1982 Deregulation of the market.
- 1982 Price controls on housing cooperatives were partly abolished.
- 1980 Political right wing.

- 1996 Husbanken terminates its loanscheme for the general public.
- 1993 Husbanken finances all housing constructions during the recession.
- 1992 Gro Harlem Brundtland's last term as prime minister.
- 1991 Death of King Olav V

- 2014 First time buyers are excluded from start-up loanschemes.
- 2011 Svarthamoen as urban experiment for affordable housing.
- 2011 5 million inhabitants.
- 2007 Home values increase with 20% avg. in one year.
- 2002 Husbanken solely provides for the most disadvantaged.
- 2001 Statoil is listed on Oslo's Stock Exchange market.
- 2001 Schengen agreement in Norway.

THE SIXTIES

THE SEVENTIES

THE EIGHTIES

THE NINETIES

A NEW MILLENNIA

The Sixties were a golden era of prosperity and optimism. Economic growth led to more leisure time, larger homes, a car and a television. Housing construction became one of the main arguments in the election campaign of 1965 as the housing deficit remained high. After 20 years of uninterrupted labour party rule, a bourgeois coalition government came to power pledging to build 160,000 homes in their following four years^[04]. However, these ambitions proved too ambivalent for the public instances and living conditions weakened following high development pressure in the suburbs.

Home ownership rates	: 64.3%
Detached dwelling	: 27.8%
Unemployment	: 1.90%
Urbanisation	: 57.2%

The optimism of the Sixties prevailed as Norway commenced extracting oil from the Ekofisk field. High inflation rates led to a significant increase in construction and acquisition costs. As the program consequently lost its capacity to provide qualitative homes, the government pushed the institution to solely bankroll low-income groups. Husbanken's commitments shifted in concurrence towards the rehabilitation of older homes.

Home ownership rates	: 64.2%
Detached dwelling	: 36.6%
Unemployment	: 1.63%
Urbanisation	: 65.9%

In similar fashion as to the rest of Europe, an open and market-liberal society emerged in Norway with the introduction of a partisan right wing. The housing market deregulated and private banks were for the first time capable of providing mortgages that could compete with Husbanken's offer^[18]. For the establishment, the decade was a downturn as their scheme was no longer particularly favourable for ordinary people^[04]. Instead, it commenced subsidizing exclusively the most low-income groups as well as disadvantaged individuals.

Home ownership rates	: 74.0%
Detached dwelling	: 48.2%
Unemployment	: 1.73%
Urbanisation	: 70.3%

The recession that began in 1987 liquidated most private banks. The government conducted Husbanken to finance housing construction for all societal groups during the crisis. When the depression eased in 1993, private banks were eager to regain their decade-long monopoly on "common people". Husbanken countered this course with advertising campaigns, firing up a debate on what role the enterprise should portray in Norwegian society.

Home ownership rates	: 78.8%
Detached dwelling	: 65.7%
Unemployment	: 5.23%
Urbanisation	: 72.4%

The Storting determined in 1996 that Husbanken would no longer provide subsidized loans, but rather advocate "those who needed it most". Entering the new millennia, this policy trend towards supporting the resident instead of the construction itself proved to be controversial^[13]. Municipal housing constructions seized to exist and more fragile groups had to apply for a grant instead of a home. The threshold handled on determining who can be supported, exclude many in-need individuals from the start-up mortgage scheme^[04]. Only marginal groups that can't secure sufficient living conditions on their own are eligible to apply at the institution. Quality in housing diminished as it became the subject of both a free market as well as inadequate technical requirements^[22].

Home ownership rates	: 81.7%
Detached dwelling	: 55.0%
Unemployment	: 3.47%
Urbanisation	: 77.3%

Who administers "bolig kvalitet" in this new public-driven residential sector?

Since 2010, the annual population growth rate has edged around 1 %, the second upmost in Europe. Projections further indicate that major cities in Norway will register a 20 % growth by 2030^[08]. While monitoring densification, development pace and cost-efficiency interests, little focus lingers on the quality of the new-build dwelling.

A high demand yet little supply. The number of square meters evolved as the decisive factor regarding the sell value, with increasingly lower regard towards the practical construction costs. As a result, quality has become less economically significant for developers. Some of the largest private residential developers have subsequently been enabled to build with weaker quality standards hoping to safeguard the necessary high velocity of development. As profit margins in residential projects remain decisive to design decisions, *smaller and repetitive apartment sizes, sparse outdoor spaces and bad technical characteristics*^[19] stand tolerated. Furthermore, a lack of variety within the current house stock implied the targeting of similar apartments by different segments of the population.

Arguably overlooking essences in architecture, engineering and urbanism, technical regulations were altered in order to reduce general construction costs. While such decrees deal with some performance characteristics -fire safety, thermal transmittance, ventilation, and more-, functional elements are ambitioned in "Planløsning og bygningsdeler i byggverk" as quoted *"shall have satisfactory security and quality of use"*. Only recently -and as a result of widespread misuse-, political and public support argued in favour of composing regulations administering minimum floor areas, consequentially attaching a value to a "satisfactory" usage. It is of great importance that these new minimum legislations can ensure homes built with the fundamentals enabling a viable living degree and creating a sustainable building pattern within the *objectives of carbon neutrality by 2050*.

Throughout history, den Norske Stats Husbank contributed to the positive development of the housing sector. The establishment held responsibility for the implementation of the housing policy and distribution of financial instruments that were accustomed by government incentives. As mentioned, it presently mainly acts as "en velferdsetat for vanskeligstilte" or "a welfare agency for disadvantaged". However, through an already established cooperation agreement with Husbanken until 2020, the municipality of Oslo strived to contribute towards a policy development pleading social considerations by stimulating varied population compositions in new developments. The potentials of this housing offer between the municipal one aimed at disadvantaged groups and the costly ordinary market, are strengthened by the in concurrence running state-program "*Balansert Boligkvalitet*". This scheme resulted in the construction of three to five *distinct pilot projects* focussing on both affordable qualitative living conditions and sustainability goals for Oslo 2020. In this masterthesis, it is hypothesised that *Husbanken can once again be the agent ensuring qualitative requirements in new public residential developments*. Through the near-established collaboration with the different municipalities, it would be able to adress *quality issues through various assesments when giving loans to developments*. That instrument should consider minimum floor areas, architectural excellence, a varied mix in typology compositions ensuring the targeting of unbiased segments of the population among others. The list on the right is a first indication of the considered duties of the municipality as an incentive and Husbanken as a monitor.

M Y H O M E I S M Y C A S T L E^[05]

1. Municipality

- To develop a public / non-profit rental sector within today's housing market.
- Managing municipal plots striving towards residential developments.
- Obtaining strategic sites in order to buckle with existing state-owned parcels.
- Facilitating non-commercial housing and alternative forms of living on such sites.
- Integrating municipal housing and its functionalities within the existing housing stock.
- Administering regulations for private residential developments within the focus of the affordable housing topic.
- Advising on the preservation of architectural features in existing (historical) suburban areas.
- Safeguarding the area's urban qualities.
- Ensuring comprehensive urban development within social and environmental sustainability.

2. Den Norges Stats Husbank

- Fund municipal or private projects within the (sub)urban tissue.
- Enforcer of the financial feasibility of such projects.
- Establish a list of requirements for private or public driven projects.
- Create a member-based platform for this new third sector.
- Establish a list of requirements members need to satisfy.
- Progress a national housing standard with explicit "minimum" floor areas.
- Ensure diversity in typologies for rental and long term benefit purposes.
- Allow private investments with medium term improvements in order to accelerate early developments.

3. Households

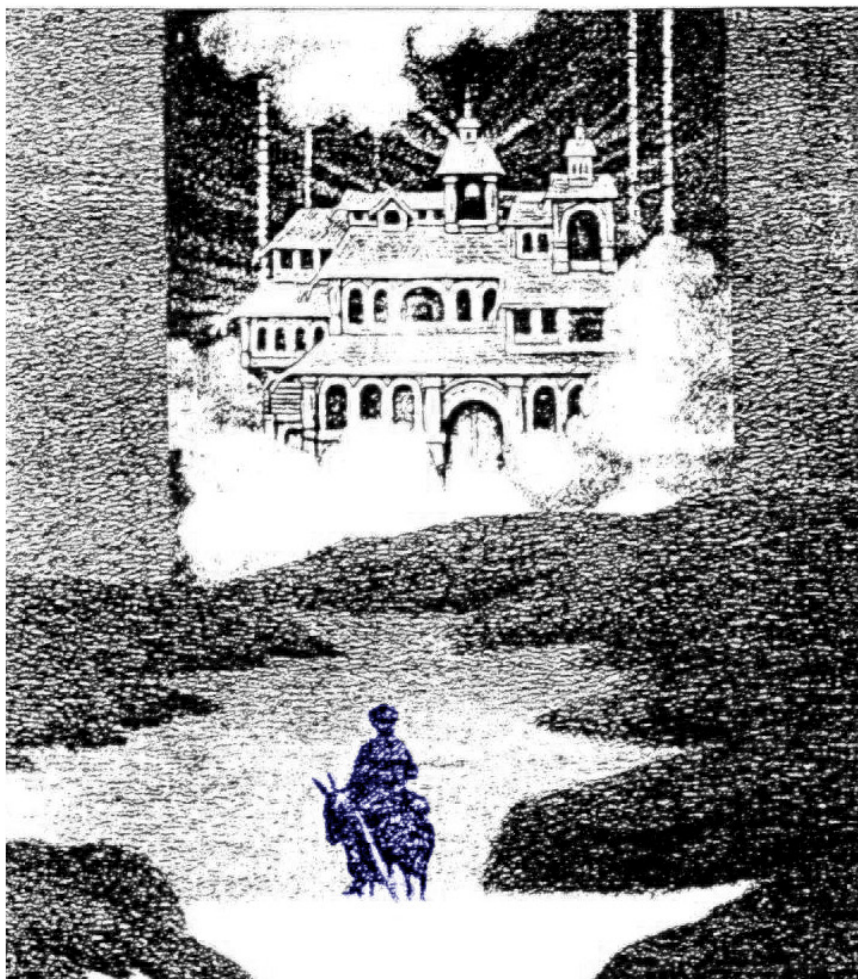
- Apply to Husbanken to attain membership.
- Take loans with Husbanken on a separate display if accepted.
- If necessary, demand Tillskud to municipalities -yet now only for the most disadvantaged-.

Population projections for 2019 - 2030 ^[08]		
Oslo	673,500	+24% 788,000
Bergen	213,585	+26% 269,000
Trondheim	147,139	+17% 172,000
Stavanger	121,610	+18% 144,000
-	-	-

Technical regulation TEK 17 can be consulted on the website of direktoratet for byggkvalitet: www.dibk.no

-Second column- Amongst those pilot projects are the ongoing Karihaugveien 22 and Hauskvartalet .
-
- This ambition is enforced by passing various regulations who primarily focus on transit-oriented densification . More on page 26-27.

Den Norske Stats Husbank



KRITERIER FOR GOD BOLIG

The Norwegian Housing Bank,
benchmark for qualitative housing.

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HOUSING POLICY

TOWARDS OWNERSHIP

The high homeownership share distinguishes Norway from neighbouring and other European countries, where a vast segment of the population is housed as part of the rental market. There, the state or municipality often plays a meaningful role in housing construction. Today, Norwegian housing policies are particularly market-driven.

From egalitarian to capitalistic.

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norwegianhistory.no

Einar Henry Gerhardsen (1897-1987) was a Norwegian politician who represented the Labour Party. In Norway, Gerhardsen is well-known under the nickname "THE NATIONAL FATHER" as he is referred to as one of the main architects behind the Norwegian welfare state that emerged after World War II^[06].

Prime minister
1945–1951
1955–1963
1963–1965
President of the Storting
1954–1955
President of Nordic Council
1954
Leader of Labour Party
1945–1965

Preceding the Second World War and the exploitation of offshore oil rigs, Norway was primarily an agrarian nation. Often overlooked, the foundations of the Norwegian culture are established on *entities*^[20] within the century-old *farming, fishing and hunting communities*. These rural entities accounted for ninety per cent of the populace in the 19th century, only to be matched by urban life mid fifties. Today, many youngsters still retain ties to rural regions, with parents or grandparents habiting those remote grounds. These societies were – and to a large extent even presently are – deeply rooted in the old farming traditions and “*way of life*”. This inherited culture is displayed throughout various patterns in today’s society. In particular, the expectation of possessing your own piece of land in the world comes to mind. This pressure towards self-ownership rendered into political endeavours from the Second World War onwards.

Under the leadership of Gerhardsen, there has been a cross-party agreement on an ownership model in housing policy. Since 1945, the home has become Norwegians’ preferred form of saving due to favourable tax deductions, lack of taxation and almost guaranteed price increases^[06].

Through a variety of subsidies and market-driven tools, the Norwegian government promoted individual and co-operative home ownership. Strict price regulations on municipal-build dwellings kept housing affordable, even in the *second-hand market*. Subsidised loans by the state bank provided the traditional family the opportunity to self-ownership. *Egalitarian* values at the root of this welfare state manifested themselves via additional targeted subsidies^[07] for low-income families, making home ownership attainable for all.

Initially, the motivation for promoting self-ownership for all was an anti-business and anti-landlord sentiment that thrived through the newly founded social democracy. That thinking was expressed by *Trygve Brattellie* when he convinced the Norwegian Parliament that peoples’ homes should not be a field for business. Furthermore, home ownership was also an opportunity to enable income equalisation over the course of life. Households would settle long-term loans before retiring, which made it possible to maintain their dwellings despite modest pensions. This ambition of public support through low-interest state loans, which was often labelled as the “*Social Housing Policy*”^[06] helped to increase the portion of home ownership across Norwegian households from 64 to 82 per cent in just 30 years.

A LOT CAN CHANGE IN 30 YEARS

The regulated "Social Housing Policy" set by the government and enforced by the municipality, came with restrictions on the owners' property rights. As mentioned, the constraints on municipal-build dwellings kept the housing market affordable, even in the second-hand market. The population did not consider this as a major concern as people were content to get a home of a higher quality than their former dwellings. However, as price controls only applied to flats in housing cooperatives but not for individually owned homes, problems arose when households acquired a taste for moving up the housing ladder and reselling their state-financed homes at a high price without hindrance^[5]. Households moving between these regulated and non-regulated market segments encountered principal obstacles as similar trading stocks within the free market did not span equal price ranges anymore to those on the regulated market, which in its turn created a growing social gap. Consequently, the state commenced phasing out the price regulations in the sixties. This transformation took place across a twenty-year span, with increasing segments of the housing stock becoming subjected to the free market. The legitimacy and the intended effects of the regulation gradually disappeared and the position of the government turned over time in favour of an entirely free market. At the beginning of the 1980s, the state decided to deregulate the housing market.

The economic advantages of home ownership has put the rental sector at a marginal position. With a large majority of the population owning their dwelling, individuals who did not enter the housing market at the early stages gradually fell behind. Not participating in homeownership lead to a vulnerable position as it excluded people from both the upturns of rising land valuations and this generous tax regime towards homeownership. As the private static rental market is under even greater price pressure with several population segments competing for the same housing units, the imminence of a social gap continuously pushes young adults to enter the housing market as early as possible.



The provision of a "Tilskudd" may be a heavy model to sustain. Tilskudd is a grant awarded to young households who meet determined criteria regarding capital, age, children, marital status, etc. This municipal-provided subsidy can be adopted as an equity requirement to obtain a mortgage with private banks. It permits households to enter the housing market on average 2 years earlier. However, as land prices increasingly became more expensive, the required equity demands raised accordingly. The fractional influence of every Krone allocated on this public program subsequently decreased over time. Therefore, the extent to which these programs remain sustainable to be solely supported by public funds is uncertain. In addition, the model itself does not respond to the given issue as it merely acts being a bridge to attain ownership. These subsidies will go directly to the private actors selling the residences, arguably leaving the scheme with *no long-term social benefit*. As a result, local authorities are looking into other ways to achieve affordable homesteads in their municipality.

91.3 % of households
with children have
ownership over their dwelling.
This number rises to 93% when
those children 6 years or older.

Our peoples' homes
should not be a
field for business

-Trygve Brattellie



The high private ownership rates separate Norway from neighbouring countries. With *minimal public interference in today's housing policy*, the Norwegian model has more similarities with the USA and the UK than neighbours Sweden and Denmark. Other European nations with high ownership usually have a similar agrarian history. Different from Norway, those often tend to have low urban rates. This link between urbanisation and ownership in agricultural societies is clear in Spain or Portugal, whose ownership rates have decreased over the past decades.

Country	Ownership rate ^[21]
Romania	96.4
Estonia	96.0
Slovakia	90.3
Croatia	89.7
Hungary	86.3
Poland	83.5
Norway	82.8
Spain	78.2
Czech Rep.	78.0
Iceland	77.8
Portugal	74.9
Greece	74.0
Cyprus	73.1
Italy	72.9
Finland	72.7
Luxembourg	72.5
Belgium	71.3
Sweden	70.6
Ireland	68.6
Netherlands	67.8
France	65.0
USA	64.5
UK	63.5
Denmark	62.7
Austria	55.0
Germany	51.9
Switzerland	43.4

3.2 % of households
live in a home owned by
the local authority.

WHAT
ABOUT
NOW ?

Several municipalities launched pilot projects aspiring to improve housing access for the general public. As today's public sector solely works with the most disadvantaged groups, *low-income households are increasingly driven towards the rental market*. With renting prices as high as they are today, ownership is often far ahead. Political and economic conditions restrain plausible strategies permitting housing for non-disadvantaged groups. However, initiatives in Sandnes and Bergen proved the feasibility to work regardless of the existence of such limitations. Those projects usually are the product of a reduced availability in local housing stock. Therefore, the emergence of such models is customarily public-driven, releasing this pressure and allowing more households to attain a (temporary) dwelling.

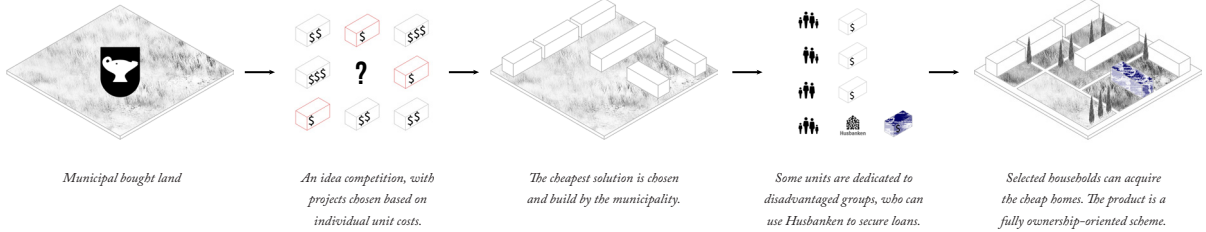
Since Gerhardsen, the home
has become Norwegians'
preferred form of saving due
to favourable tax deductions,
lack of taxation and almost
guaranteed price increases.

31.0 % of households
below the at-risk
threshold have ownership
over their dwelling.
This number rises to 94%
in higher income spans.

Tomtelskap

Location Sandness
Appearance 2014
Initiator Kommune
Architect Various
Units 550+

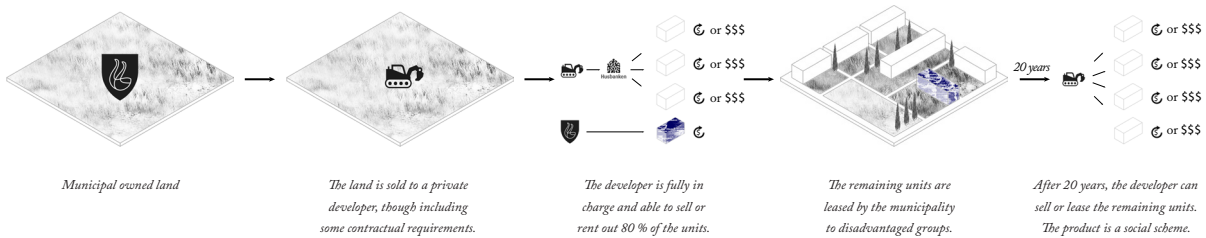
The municipality took an active role as a site operator upon this self-financed model. It acquired the plot and constructed the framework for a design competition. *The proposed designs were solely canvassed on individual unit costs* and could as a result be offered at a price range from 15 to 20% lower than average market values in surrounding areas. The proposals included dwellings dedicated to disadvantaged groups and could subsequently benefit from programs administered by Husbanken. The lease is subject to a 3-year residence permit before a resale or rental. Exclusively young households meeting established criteria are allowed to purchase the accommodation.



Hamarøy Model

Location Hamarøy & Bergen
Appearance 2011
Initiator Kommune
Architect Various
Units 100+

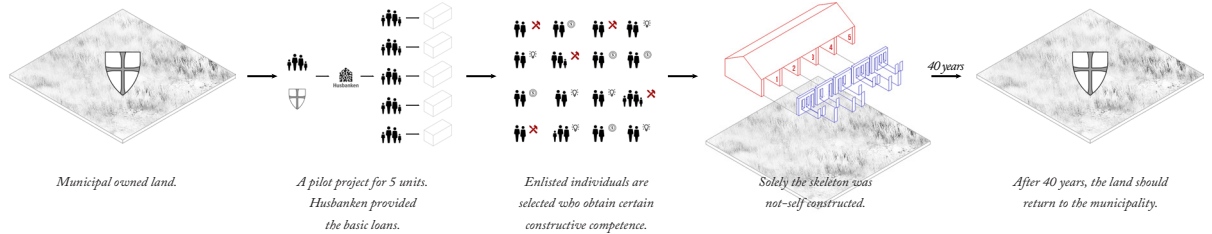
Distinctive from the Sandnes model -which obtained public financial input- the Hamarøy model merely requires municipal inventiveness. Developers could register and, if accepting certain requirements, purchase a site and furthermore utilise Husbanken's basic loans and subsidies. The developer would now oversee all financial aspects of the project yet may sell or rent out 80% of the constructed units himself. *The remaining 20% is to be allocated through rental accords by the municipality himself*, with an agreement lasting up to 20 years. After this period, the developer procures the right to sell the remaining 20% of the unit stock on the open market.



Svartlamon

Location Trondheim
 Appearance 2017
 Initiator Students
 Architect Nøysom
 Units 5

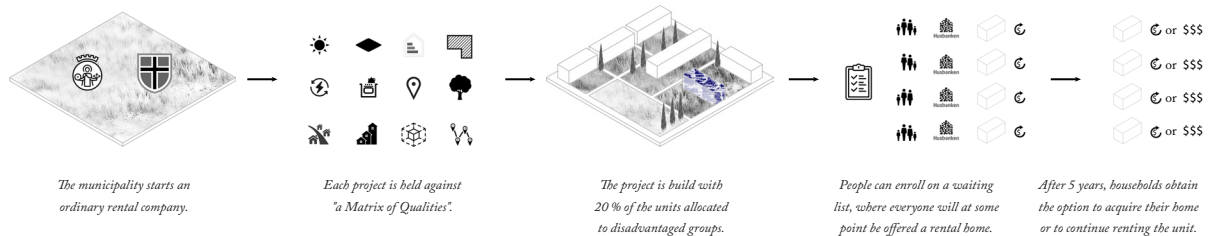
The area of Svartlamon was the setting of a bottom-up housing experiment. Initiated by undergraduate students, *only the skeleton of the house wasn't self-build by the future dwellers.* This method reduced building costs to a quarter compared to projects with similar living areas. The municipality leased the land for forty years to a non-profit organization run by a board of representatives from the neighbourhood, while Husbanken provided the necessary primary loans. Though there is no private ownership at Svartlamon, residents pay a significantly lower rent than the market prices in Trondheim in return for constructing their own sustainable houses.



Oslo Allmennboliglab

Location Oslo Kommune
 Appearance 2017
 Initiator Students
 Units 150+ (virtual)

The project proposed an ordinary rental corporation that contracts secure housing to young households. Through a waiting list, applicants would at some point be offered a rental residence with the opportunity to apply for loans at Husbanken. *These credits would allow families to acquire their rental homes at a later stage.* Such contracts avoid maximum rental periods but instead operate with a minimum lease of 5 years. This rent-to-own model is believed to diminish the differences between young people who have access to financial assistance from home and those who haven't. It hopes to allow both groups to become owners of their dwellings instead of proceeding to the rental market.



What are the aspirations of this new public housing sector?

As proprietorship was acquired dominantly by older generations, the private Norwegian rental sector sole reason for existence was providing accommodation for those in a transition period. Students, graduates and young couples customarily began their home career with a rental unit, over time acquiring the necessary capital requirements permitting a mortgage. However, recent mass immigration^[23] and the lack of public support for starting families since 1996 provided the rental market with added responsibilities. Consequently, today's rental charges per square meter account for the highest in Europe opposed to its GDP per capita^[25].

LEIE TILL EIE / RENT TO OWN

A non-profit renting mechanism that allows households to attain ownership. In the wake of the historical high ownership rates -as well as their current value in tax regimes-, it is hypothesised that a *delayed ownership model* should be the general intention. Akin schemes would allow households to receive equivalent benefits compared to first time buyers who were able to collect the equity requirements for a mortgage. This overall reasoning is strengthened by *existing pilot projects*, and harmonious with the Tilskudd program. Although the rent-to-own program is increasingly offered by a multitude of large developers -such as Tobb^[23]- its use remains limited by private market fluctuations and is evidently refrained by profit-aimed premises. Furthermore, it could -down the road- be argued that such a delayed ownership model should aspire to replace the expensive Tilskudd program to block related public funds of moving directly to developers selling the sponsored residences on the private market. However, this is to be examined by both the municipalities and Husbanken if it would indeed benefit long term prospects of such enactments.

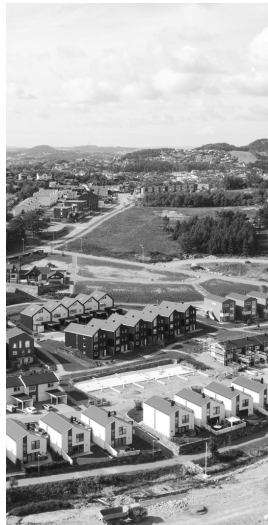
The "Renting before owning" model allows members to acquire enough equity to enter the housing market. The target group or "beboersamsetning" consists of households or individuals lacking sufficient equity for home purchases, but would be competent to do so with more time. This segment of the population is subsequently different from the target group currently addressed by Husbanken, yet partially overlaps with the households currently endorsed through the Tilskudd program. This new scheme would offer its members -instead of progressing towards Europe's most expensive rental market- likewise a rental home, yet a segment of the lease charges would be salvaged as a deposit towards an eventual acquisition of "a" dwelling that exists within the established curriculum. This preferably, but perhaps not mandatory, the one that has been *antecedently rented*. On a side note, it is hypothesized alike measures would *counter generic dwelling typologies* when altering between units for different life arrangements stand supported. This ambition further allows the scheme to attain enough money to sustain its loan burden at the

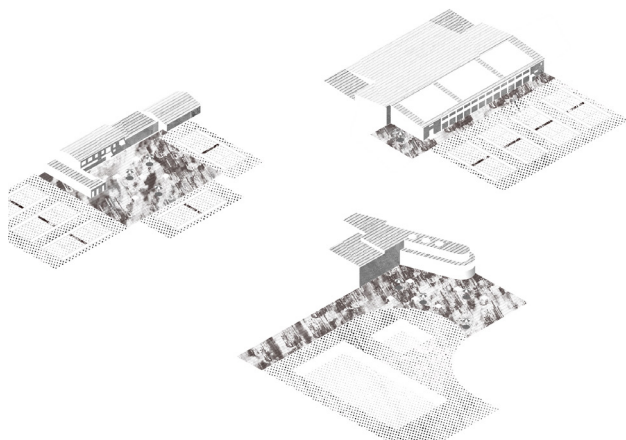
early stages, as well acts as security for its members towards a *desired acquisition through the institution*. Though the comparable program offered by (profit-oriented) Tobb offers the property for a 3 till 5 year period, it is hypothesised that longer-term rental commitments with upper limits of 30 years would benefit early developments without harmful repercussions for its members. Though this could be argued as a somewhat anti-liberal commitment from participating households, it is argued one would benefit along on alike time terms as more funds -and subsequently more quality- could be allocated towards each unit. This would moreover be harmonious with the in concurrence running loan schemes Husbanken offers. On a side note, it remains uncertain on which interest terms such loans would be constructed by the establishment -and perhaps the municipality itself at the stage of plot acquisition-

Frederigsborgbolig offers a similar profit oriented template since October 2019^[26]

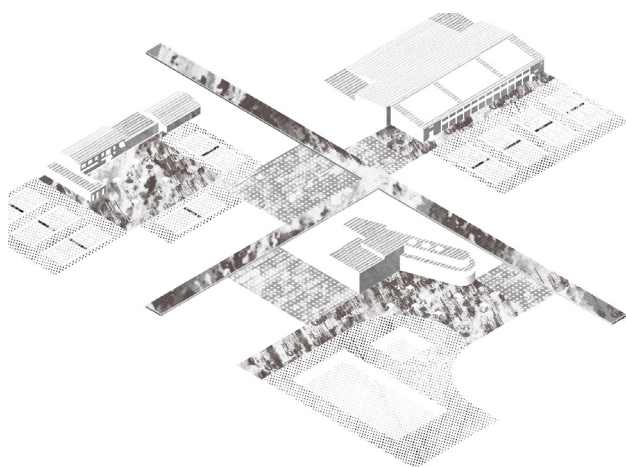
A financially feasible enterprise with long term (public) investments. For households below the 60% of median equivalised income, rent costs account for 54% of the disposable income^[25]. Though expenditures for housing maintain nationwide around 32% of households' net income^[25], the scheme aims to reduce these values to 25%, hoping to provide larger capital margins for enrolled members. After this period, the tenants would be capable to either obtain a loan at private institutions and finally purchase a residence. In my composed economical model, this translated to a minimum commitment of 56 months -rounded up towards 5 years-, which was extrapolated established on current market prices and these targeted household incomes. The acquisition charge itself is set at the dawn of the rental period, which proves invaluable as families would nevertheless enjoy the benefits from prospected rising housing prices. This furthermore provides both equity and condemns the imminent described gap for tenants when entering today's liberal rental market. Though it is argued by Tobb's own profitseeking "leie til eie" scheme that market value rises of more than 15 per cent during the rental period would be nullified -and the buyer is obligated to pay the increase over the equity requirements at the acquisition stage-, in the model no akin limits are implemented. Though this consideration gives the model a more pessimistic outcome, it arguably forecasts a more realistic scheme lacking this ambiguous extra gross income. Therefore, -as intended with the original non-profit motive- the program *fully surrenders the value increase* until the equity requirement is met to the members, endowing the same prospects as first-time buyers who were able to obtain a mortgage at private institutions.

On a side note: though there lacks a legal foundation, it seems profitable for all parties if it would be somehow possible that acquiring households could directly inherit the existing loans given by Husbanken to Allmenbolig instead of attaining additional loans through private institutions. Though this is unrealistic at the early stages of the sector, it proves bigly profitable for once the program matures.

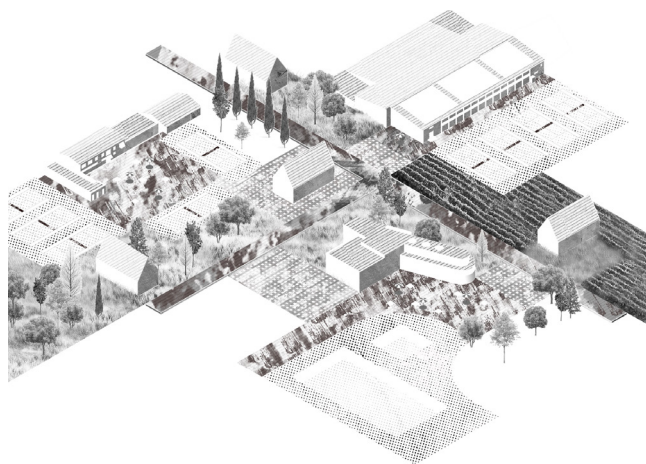




Upon completion of a project, wait-listed members will be designated to the new dwellings. They are offered rental contracts for a five term containing a similar offer if compared to the free rental market, yet 30 % of the monthly charges would continuously be deducted from the eventual acquisition price. Though this value could be altered on request for certain households, it would allow the scheme to obtain enough funds at the early stages of this self-sufficient municipal sector. It is argued that some of the apartments could be sold immediately, further curbing financial exposure at the start of the project. However, this can have implications on the "beboersamsetning" that the program originally aimed for.



After five years, the suggested rent-to-own contract expires, and leaseholders possess the option of acquiring said apartment. It is insinuated by various models that approximately half of the apartments would be sold at that time. Tenants who remain inadequate to acquire the apartment may extend their lease for additional periods on equal terms. This is considered rather profitable for the scheme and should be encouraged if somehow possible. Residents who opt not to purchase the dwelling may bear the option of pursuing a different unit within the existing stock of the newly constructed housing sector with the overall collected discount. The terms regarding the valuation of a chosen new residence should be considered on an individual base.



It is contended that almost 80% of the dwellings are transferred into private ownership after 15 years. The municipality can subsequently alter its capacity of public (or even social) dwellings in the future.

With the funds of the sold apartments, the remaining loans of Husbanken and the municipality can be repaid. Households who remain tenants constitute an integral profit for the scheme, perhaps allowing necessary funding for additional projects.

Now, members have successfully entered the free market abiding its benefits. In comparison to entering the alternative free market, they have spent considerable less rent, lived in their future home for some years, and expectantly have a more qualitative dwelling.

The initial Norwegian model of public housing distinguished itself by serving all social spans in society. Though social housing is a broad term with different connotations around the world, it is internationally admitted as housing for low-income groups. In several European countries, state-financed homes subsequently often accommodate low-income or disadvantaged groups who would otherwise not be able to secure living arrangements on their own. Some nations, including Sweden, purposely did not adopt this term but rather "public housing". Here, municipal companies promote the provision of homes in their district, yet operate on business-like principles. Norway did start with similar premises, providing all of its inhabitants with qualitative and affordable dwellings through the clarified state-financed mortgages. Though over time these objectives diminished, and current practices by Husbanken classify as exclusively serving the most disadvantaged in society, impacting young and below-average income groups.

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"Allmännyttig"
in Swedish

S W E D E N

Though it is not customary for wealthy individuals to live in public accommodations, the housing benefits in Sweden are open for all its inhabitants. To avoid stigmatization, admission regulations for potential residents solely include holding an income and being absent of any payment remarks. This income is either interpreted as a regular salary, social security or student loans and scholarships. Established as *joint-stock companies* in the late forties and throughout the fifties, municipalities themselves remained majority shareholders. These housing associations were tasked with the provision of housing in their district but operated without particular benefits or advantages compared to the private rental sector. Following the exclusion of general housing subsidies in 1990, the income generated from rents principally funded the investments in public housing. *A utility value principle determines rent rates* and subsequently functions as a statute countering possible high prices

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www.scb.se

「SOCIAL & PUBLIC」 HOUSING 「ACROSS EUROPE」^[21]

Norway has one of the most passive housing policies in Europe. Only a fraction of households reside in a home owned by the local authority and are often part of a rental scheme. Several European countries, including its neighbours Denmark and Sweden, installed associations or companies that deliver affordable accommodations for its members.

Public -- Social
Ownership -- Rental

set by individual landlords. As a result, the private sector only averages a five per cent increase in rental charges for similar units. Regulations concerning this utility value principle exclude new-built dwellings from its ordinances which causes some paradoxes. Today, accommodations residing in the city centre consequently hold lower rents than newer homes in the outer city. This different statute of older dwellings further provoked demolition when confronted with development pressure. *The "Allmännyttig" is capable of providing homes for all social groups* and through government participation, these rental facilities can behave as a *transition towards ownership*.

THE NETHERLANDS

With approximately *one out of three dwellings*, the Netherlands account for the largest share of social housing in the EU. Though there is not an indivisible definition of "social housing" in the nation, the constitution states that the promotion of adequate shelter is the object of the care of public authorities. In reality -and contrast to other European countries- non-profit housing associations in the Netherlands are not controlled by the municipality, but rather by *private foundations or cooperatives* (Woning Corporaties or WOCOs). The Dutch Housing Act of 1901 offers a legal framework for this private provision of residences at below market prices and additionally secures government surveillance. The 425 registered alike organisations maintained their social commitments and were given state guarantees for subsidized loans and security from different social funds. Municipalities additionally bankrolled these organisations by *granting public land* at a lower price

index. Admission to these dwellings was until recently unbounded to income and *open to all citizens*. The scheme can consequently be labelled as public housing and aligns with the Norwegian premises in past housing policies. Today, it unwillingly acts as a tool that provides housing for the most disadvantaged and low-income groups.

Following allegations that this strategy breaks competition rules and is a form of illegal public support, the decision of the European Commission in 2010 introduced an *income ceiling* for those who want to access these homes. The ruling insists that WOCOs must now concentrate their efforts offering accommodation solely to the most disadvantaged groups as well as limiting their activities to social housing tasks. This ruling faced international criticism as several nations were in the process of adapting the Dutch' system.

The European Commission's
decision and the original
complaint can be read on
ec.europa.eu

U N I T E D K I N G D O M

Social housing in the United Kingdom is the low-cost housing allocation based on individual need. It accounts for 17.5% of the total dwelling stock in England and grows up to 24% in Scotland. In 1951, the goals of state interference in housing changed from affordable homes for all to accommodations exclusively for the neediest. Rental charges have subsequently been altered and set at 50% of current market taxations. This ruptured the existing social mix in such neighbourhoods by grouping dysfunctional families together. Therefore, the debate on public housing provision in the United Kingdom is politically polarised,

with an active conversation whether the procurement should act as a stepping stone to ownership, or if state interference could perform the transition itself. The act of social housing comprises the provision of rental dwellings but also *allows for affordable homeownership as well as shared ownership systems*. The method of pursuing homeownership rather than solely supplying shelter proved over the years to *overcome unemployment and crime rates*. This popular "Right to Buy" scheme allowed tenants who had continuously lived in a council or housing association home to purchase their rental residence at a discount.

~Austria
Denmark
~Ireland
The Netherlands
Sweden
~Switzerland

Belgium
Bulgaria
Croatia
Czech Rep.
Finland
Germany
Iceland
Italy
Luxembourg
Poland
Portugal
Norway
Romania
Slovenia
Spain

Estonia
~France
Slovakia
United Kingdom

The Netherlands 30.0 %
Austria 24.0 %
Denmark 20.9 %
Sweden 19.0 %
U.K. 17.6 %
France 16.8 %
Finland 16.0 %
Iceland 12.0 %
Czech Rep. 9.4 %
Ireland 8.7 %
Switzerland 8.4 %
Poland 7.6 %
Belgium 6.5 %
Slovenia 6.0 %
Luxembourg 5.1 %
Germany 3.9 %
Italy 3.7 %
Norway 3.1 %
Slovakia 3.0 %
Spain 2.5 %
Bulgaria 2.5 %
Portugal 2.0 %
Croatia 1.8 %
Estonia 1.7 %
Romania 1.5 %

Social rental schemes that transfer into homeownership could enhance the stigmatisation of secluded groups. The "Right to Buy" scheme in England proved that the remaining unsold stock tends to accumulate in areas with little employment opportunity. The tenant's decision to attain ownership often signifies a favourable location and good quality of the home combined with an improved financial situation. *This further isolated inept renters and over time concentrates the most vulnerable groups together.* Unfortunately, models regarding the identification of suited neighbourhoods for social rental dwelling proved too politically biased and not persistently viable.

Targeted allocation of tenants constructs social and economic ghettos by policy design.^[32] Housing mix policies are one of the primary constituents impersonating the stimulation of integration in society. These strategies transpire on the assumption that the well-being of individuals also depend on the social balance of the neighbourhood in which they reside. In countries as the Netherlands and Sweden, the broad spectrum of tenants enrolling in public services has *proven capable averting these social neighbourhoods to decay.* The presence of civil supervision remains one of the central doctrines preventing unwanted garbage disposal and other misdemeanours. However, maintaining a certain degree of social mix incorporates an extended dimension of residential services and necessary capital. Allocation

of these funds is consequential more spread across a larger target group, which leads to a challenging *trade-off between targeted admittance and social inclusion.* The appearance of a broader range of household's incapable of ownership, questions the capabilities of today's Norwegian housing policies.

D E N M A R K

Public housing in Denmark consists of rental services provided by non-profit housing associations. Market shares vary between 18% and 21% of the total housing stock in the country. Provided with benefits by the municipality and regulated by the state, these organisations remain *privately owned by the individuals it houses.* This member-based structure allows for a tenant's democracy principle, and the running of each home estate is consequently done through the central role the inhabitants play. The scheme operates through a *queuing system accessible to everyone with a minimum age of 15 years.* Lacking income ceilings for the beneficiaries, state regulations restrict construction costs and subsequently limits the rent and size of the dwellings. The allocation is also restricted with priority criteria, allowing disadvantaged groups to advance responsive in the queuing system. The term "Almennyttigt Boligbyggeri" is commonly utilised in Denmark, and translates as *"non-profit housing for all".*

Doff and Kleinhaus, 2011 ^[32]

Pickett and Pearl, 2001 ^[33]

Yen and Syme, 1999 ^[34]

S W I T Z E R L A N D

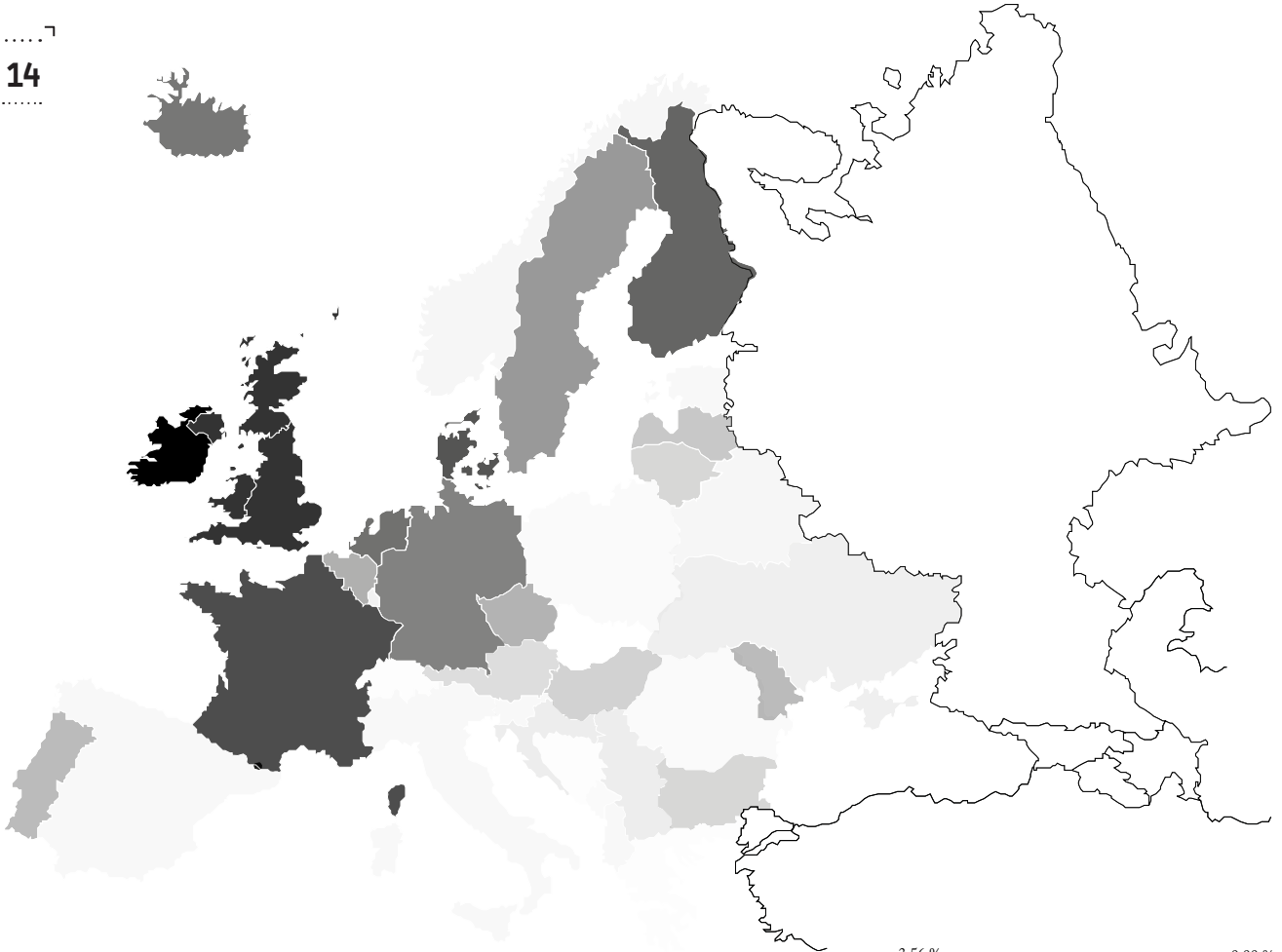
The lack of any national or cantonal policies for the provision of social housing places Switzerland's affordability enigmas entirely in the hands of the people. *Cities consequently design strategies themselves and implement programmes counteracting the effects of an unsatisfied capitalistic market.* The city of Zurich retains a mere 9% ownership rate and hence has a dominant rental sector. However, it is renowned for its approach concerning affordable housing, with a multitude of non-profit cooperatives succeeding in offering low-cost rental residences to differentiated target groups. The social mix residing in the designated areas ensure qualitative neighbourhoods and stable urban development. These non-profits were granted city loans, supporting *quality in homes to be the decisive factor while canvassing different design proposals.* Resolutions on social, economic and environmental responsibilities ascended as key arguments, supporting a sustainable tomorrow.

F I N L A N D

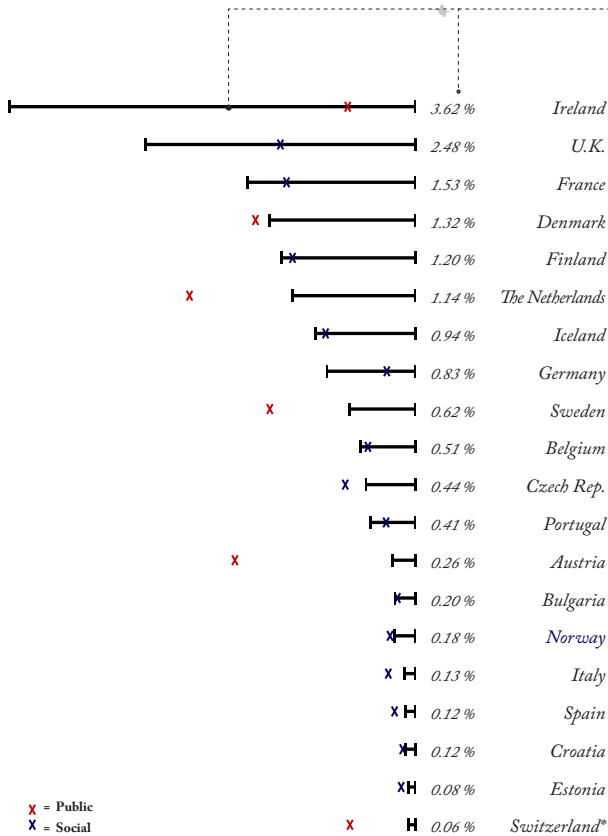
Established by the Finnish Constitution, the right to housing is outlined as "to facilitate high-quality housing for all". Social Housing in Finland consists of dwellings subsidised by loans and grants given by ARA, a public-owned corporation. *Local authorities have the responsibility to provide housing for defined vulnerable groups.* Necessary financial resources were obtained through loans from various banks for which ARA provides conditional guarantees. Though income prevails as an essential factor to qualify for social housing, there are no fixed income ceilings. *The rent is set accordingly to the financial capabilities of the tenants.*

E S T O N I A

Due to its immense homeownership rates, social housing in Estonia solely represents 1% of the total housing stock. Current policies mainly promote homeownership, lacking interference with *the rental market who exclusively target low-income groups.* Today, public companies finance through state support 50% of project costs, allowing inexpensive homes. Though this variety of social housing is administered exclusively by municipalities, the legal framework would allow for other types of providers as well. Districts furthermore receive grants from the government to allocate housing allowances for unemployed people and families with children.

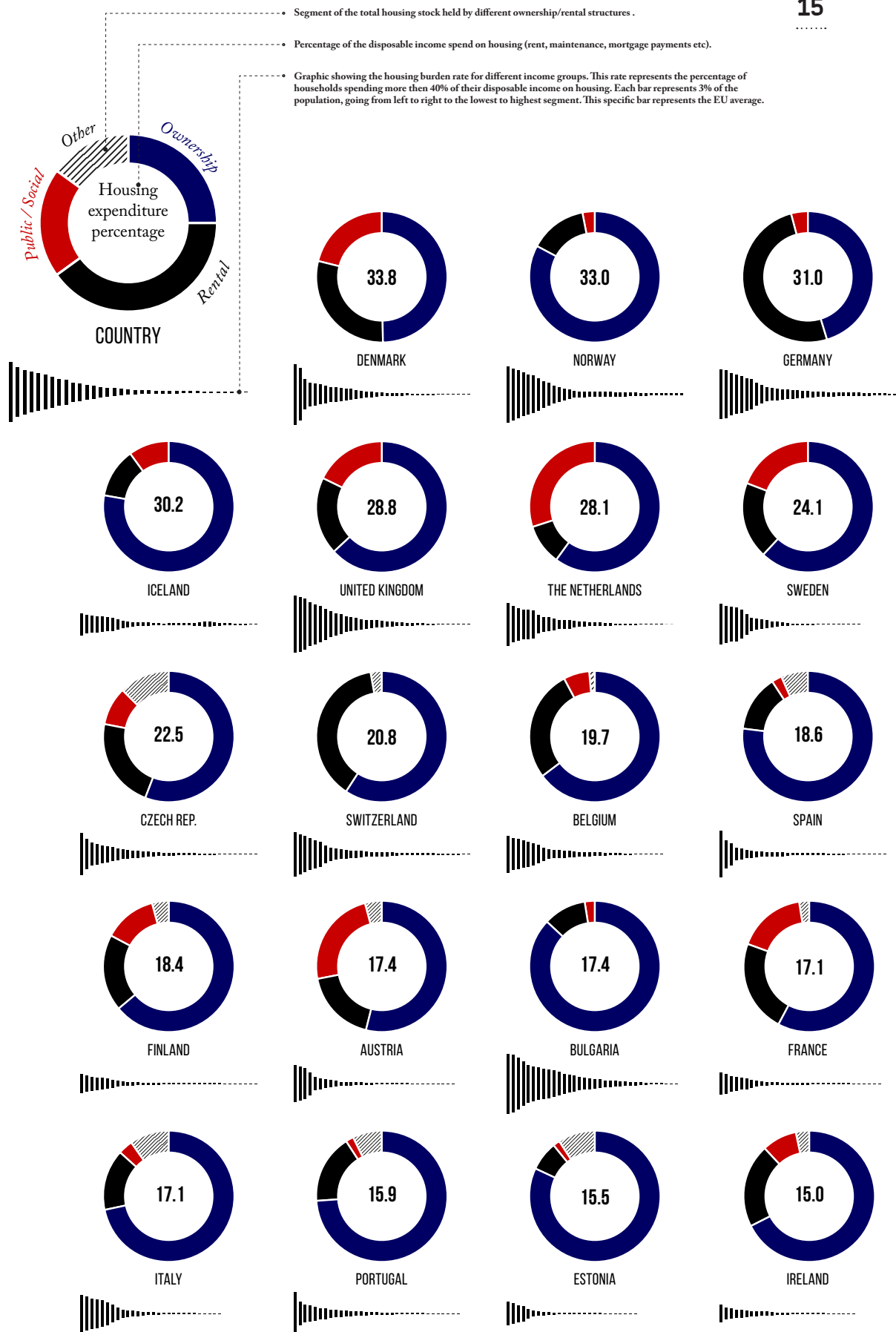


3.56 % 0.00 %
Expenditure on governmental housing as a percentage of GDP.



Today's imbalance in investment on housing amenities. Since 1995, the last documented year before Husbanken's loan offer for the general populace was abolished, the number of state funds conducted towards affordability programs dropped considerably lower than its neighbouring countries Denmark, Sweden and Finland (as observed on the graphs on this left page). Yet, the general governmental expenditure regarding housing and community amenities persists as one of the highest in Europe as opposed to its GDP with 0,9%. Unsurprisingly, this value is only surpassed by East-European nations such as Bulgaria, Croatia and Romania, who progressively improve their overall urban conditions in respect upon recent European directives. Though these substantial volumes in Norway occur partially as a consequence of the complicated expansion of its built landscape, it is deceiving to anticipate higher quality in housing through said measures as quality and affordability remain principally connected to market conditions. Therefore, it is hypothesised that a balance could once again be sought, designating more funds intended for creating a widespread public housing stock.

A public housing stock equals little investment. Though Sweden bankrolled merely 0,4% more of its GDP towards affordable programs, the nation obtained 20% of the overall stock compared to Norway's 3,1%. This relation between different state intentions are witnessed in the Netherlands, Denmark and Austria, who also pursued public instead of social housing. Acknowledging that those values, including the house expenditure rates on the right page, are not straightforward and should be considered in a broader context, it is important to apprehend that social and public housing not intend to alter overall land and home prices⁽⁸⁾, yet are designed as a mechanism to allow struggling households obtain an adequate home within the existing market settings. As the ambition of "the third housing sector" is to enable members achieve homeownership, it is argued that an owner-oriented public program could expand to 8 or 10 % of the existing housing stock within the current expenditures on overall housing amenities. This value is further conducted by the desire for ownership (evaluation of land prices over time), the demographics of the population and overall growth as the outcome of immigration.



How should municipalities balance the extent of the public sector in their Kommune?





"Allmennbolig" translates as "Public Housing". This term has previously been used within the spectrum of the ambitious third housing sector, and will throughout this document be implemented as the member-based public organisation that distributes the non-profit leie-till-eie scheme.

The distribution of municipal housing across Norway has been the subject of private market fluctuations. The capital region of Oslo contains one of the lower amounts of dwellings, yet holds most of the social assets compared to other municipalities. As the input of governmental aid has *transpired on a need-base*, a close correlation between land and home prices and the general allocation of the social housing stock is detected. This housing stock is subsequently largely located outside city-centres on more affordable, though less attractive properties. However, within the ambition to produce a public sector embracing an ownership model, this expansion hopes to relate to the *specific housing demands within the spectrum of the targetted segment of the population*. For instance, the Netherlands' "Revolving Fund Model", where housing associations act as independent bodies in an environment of guaranteed capital market loans and rent-price regulation, was capable of delivering dwellings on prime locations throughout the cities. The new Norwegian establishment "Allmennbolig" should hold a comparable template capable of continuously acquiring new parcels without restrictions on funding and as a consequence deliver a more wholesome "*beboersamsetning*" in engaged neighbourhoods.

The table lists all municipalities with their respective amount of dwellings compared to the state-wide housing stock. The second value represents the segment of the total social housing stock in each region. The last number compares the average square meter price compared to the national average of 25,150 kr/m².

Nr.	County	of total housing stock	of social stock	of avg. m ² price
01.	Østfold	5,9 %	5,5 %	101 %
02.	Akerhus	10,3 %	7,7 %	150 %
03.	Oslo	4,6 %	11,6 %	251 %
04.	Hedmark	5,2 %	4,5 %	76 %
05.	Oppland	5,0 %	4,4 %	75 %
06.	Buskerud	5,7 %	5,2 %	107 %
07.	Vestfold	5,0 %	4,9 %	105 %
08.	Telemark	4,1 %	4,3 %	75 %
09.	Aust-Agder	2,9 %	2,1 %	77 %
10.	Vest-Agder	3,7 %	3,4 %	84 %
11.	Rogaland	9,1 %	7,0 %	96 %
12.	Hordaland	9,6 %	8,9 %	107 %
13.	Sogn og Fjordane	2,8 %	2,7 %	76 %
14.	Møre og Romsdal	5,9 %	5,5 %	73 %
15.	Sør-Trøndelag	5,6 %	6,7 %	90 %
16.	Nord-Trøndelag	3,3 %	3,5 %	75 %
17.	Nordland	5,9 %	6,3 %	81 %
18.	Troms Romsa	3,5 %	3,4 %	101 %
19.	Finnmark	1,9 %	2,2 %	87 %
20.	Svalbard	0,0 %	0,0 %	223 %
Total		100 %	100 %	100 avg.

Which template can bear the responsibility to deliver qualitative and affordable housing?

Inspired by the Swedish model for cooperative housing construction, Allmennbolig is a member-based institution capable to develop qualitative dwellings and provide an affordable transition towards ownership, despite today's social-economical environment and political challenges.

Allmennbolig -
Husbanken -
Kommune -

A self-sustaining public association that develops on municipal request. The Allmennbolig would be a separate public controlled institution, whose sole purpose is to construct, deliver and administer affordable residential projects on municipal-owned or bought parcels. The establishment would be operating nationwide and contain multiple jurisdictional branches for each Kommune -this comes as a result of today's distinct approaches and pilot projects by the individual municipalities-. In this template, plots will be sold preemptively to the local institution with funds of the overarching Allmennbolig, preventing the release of county-owned plots to private developers for-profit purposes. The local branch would then oversee the construction of its projects and in turn market them to its members. As mentioned in the listing on page 4, this newly-found member-based organisation gets bankrolled by loans provided through both Husbanken and imaginably private investments. *These loans conduct defined restrictions ensuring the overall quality in said unremunerative development.* It repays those loans continuously through rent charges and the downstream selling of the dwellings as previously made clear.

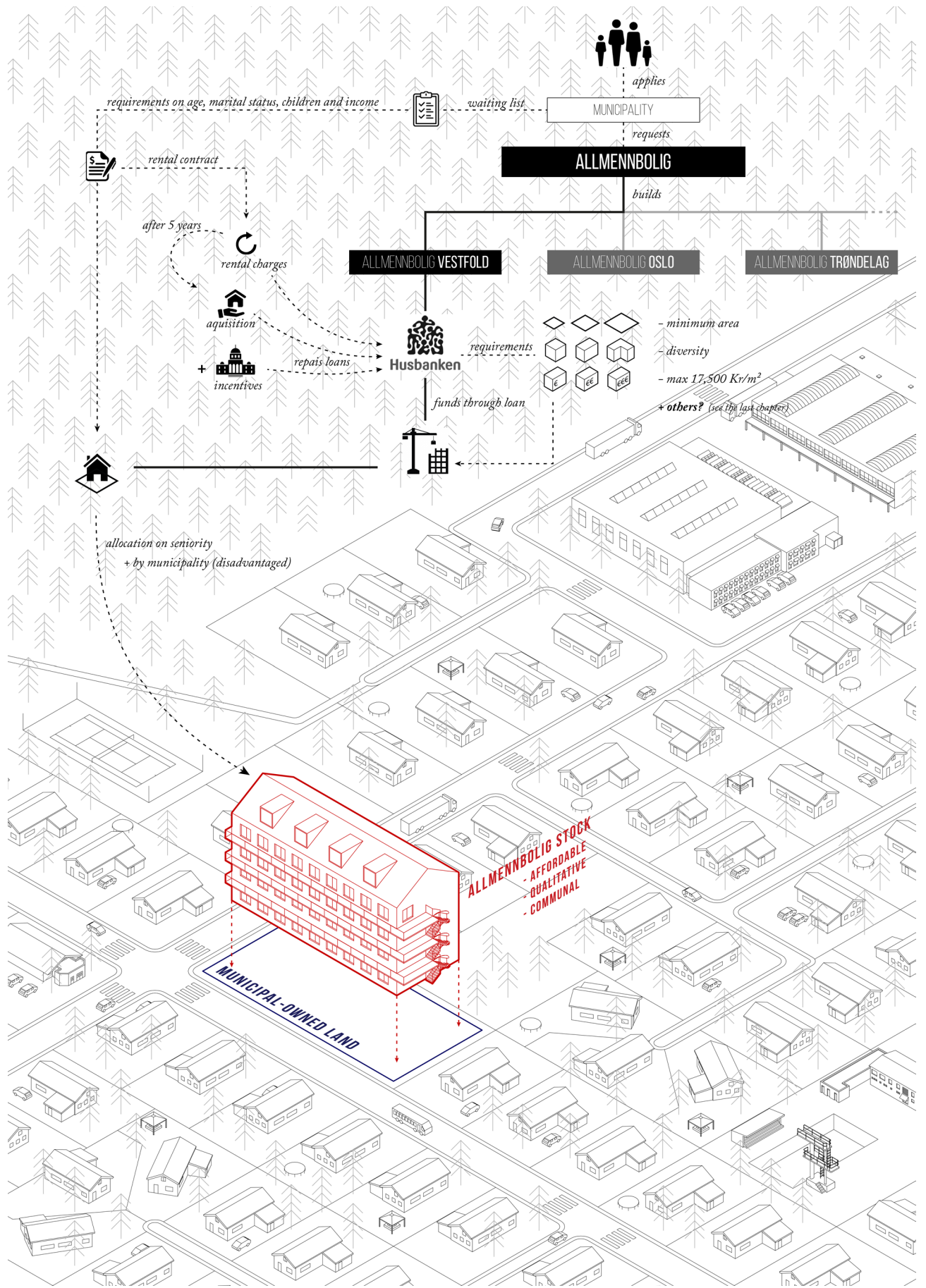
The appearance of a new balance in housing policy. It has previously been hypothesised on page 14 that a public program could expand from 8 to 10 % of the total housing stock regarding today's expenditures on housing by the Norwegian government. However, the leie-till-eie scheme attempts to provide its applicants with ownership on short-term prospects while allowing households to acquire equity on longer operating schemes. If unrestricted, such circuit would continuously advance the created public housing stock towards the

free market and therefore decrease the state-owned segment. Yet, the municipality would now be capable to continuously buy parcels within its own designed urban transformations without the necessity for additional governmental subsidies as a consequence of the instantaneous trade of funds from Allmennbolig. Therefore, it can *balance the extent of the public sector* countering altering market settings and adjust where needed. The ability for municipalities to sell its parcels to a public institution furthermore creates *the byproduct of an instrument for its urban transformations* as examined in the next chapter "Vi Krever Rådyr".

The application process for house seeking members is held to certain requirements regarding income, age, marital status and children. Households or individuals can apply at the municipal office to gain access to the program created by Husbanken. It is hypothesised the municipal involvement is crucial at this stage for the right entities enrolling in the program. Once accepted in the curriculum, members with the *longest seniority* will be offered a housing unit within a preferred neighbourhood with regard to availability. This system is not uncommon in Norway and instances as Sitt (rental homes) in Trondheim or the many åplegardens (~fenced neighbourhoods) at the heart of Oslo use similar draft processes. The municipality can additionally offer financial advice during the rental period ensuring that the buyer receives the best possible entry into the housing market. Afterwards, when the property is finally released again on the free market at the acquisition stage, it is additionally hypothesised that the Allmennbolig would be allowed to *match any offer at the moment of an exit.* This needs to

be investigated within its time frame recognizing new financial stages but is insinuated to be favourable if the market stabilizes in a distant future -and evidently stands without implications for the enrolled members-.

An adjustment of the Tilskudd program. Today's designated budget for the Tilskudd scheme at each municipality could be used to either lower the overall land acquisition price for Allmennbolig or serve as extra security for the most low-income segments of the conscripted members, truly labelling the Allmennbolig scheme as public driven. These funds would therefore perpetually remain within a *closed circuit between the municipality and the institution*, establishing the pleaded *separation of public endowments and profit-oriented developers.* This is considered to interrupt the spiral that Tilskudd unwillingly created by bridging the mentioned gap on the liberal market.



20 - 35



The "Åssiden Borettslag", one of the forerunner cooperative development projects under construction in the summer of 1980.

[VI KREVER RÅDYR]

The Norwegian housing market stands gridlocked by conservative building developments. An accumulation of large detached dwellings was the product of state-financed constructions and formed today's urban landscape. Homes in Norway remain tailored to the steered nuclear household, and the static market has not provided solutions for increasing diversity in household compositions. The subdivision trend of western-Europe seems doubtful as dwelling typologies as space sharing or co-housing have yet to make a stamp on the Norwegian liberal market. Anno 2019, more people habit individually, there are increasingly more households with separated parents, and perhaps most urgent: 400,000 new immigrants with often different dwell preferences will appear in the next decade.

- *What led to the existing urban landscape?*

- *Can public policies change its self-inflicted suburbanism?*

- *What is the expected role of the third housing sector in suburban neighborhoods?*



NORWEGIAN NON-URBANITY

The demographic boom of the fifties produced a pattern of large single-detached homes, satisfying the needs of an agrarian-raised generation. Due to the substantial availability of land, municipalities have continued to allow arrays of this typology since. Today, Norway attained the highest growth rate across Europe, and urban planners grew aware of possible complications its patrimony could inflict. Both the lack of density and the mono-functionality related to these typologies, constitute the Norwegian society as a car-dependant one.

suburbanity

The Norwegian built patrimony is the reaction of numerous processes commenced on the verge of the 20th century. The period announced the installation of industrialism, producing urbanity in its tracks. Mass migrations towards the city brought forward miserable living conditions^[65] as the newly found labour class settled in industry-built neighbourhoods. While the population grew, these areas eventually turned into slums with feeble sanitary conditions. The city received a negative connotation well into the 20th century, provoking an opposite movement as the upper class moved away from the centre and instead settled along the rural coastline^[28]. The fear of uncontrollable socialist neighbourhoods in the city evolved as the proletarianisation of farmers and artisans became a threat^[29]. *Relocation became the attitude of an identity pursuit among the fatigued bourgeoisie* and would continue to do so until the Second World War^[65]. Einar Gerhardsen's strategy to finance the reconstruction of war-torn areas addressed the poor sanitary conditions as Husbanken's loans for general housing development suddenly created the possibility to construct a home with three rooms. This implied a considerable increase in floor area and produced vast improvements for housing and hygienic provisions across the country. Therefore, it became apparent that building a spacious detached home on inexpensive parcels outside the city was most lucrative. The newly found bourgeoisie became subsequently empowered to construct their

dwellings in the periphery, and the commonality of public transport meant that residing further away from the industries was not an obstacle anymore.

The apparatus of commuting became an irreversible motive for suburbanisation. The increased job security after the Second World War enhanced the *separation of living and working* across the country. Consequently, the created fragmented landscape demanded an efficient development of public transport. This spiral permitted new developments and encouraged individual building practices^[65] as infrastructure increasingly connected the industry with surrounding villages. Though public transport was eventually overthrown by the car in the late sixties, the established road and train networks allowed a perpetual procurement of new and cheaper land, ultimately composing a monofunctional metropole along the coastline.

The urbanization process came with new social constructs on where to live. Origins of social democracy in Norway converged around the concept of the nuclear family. This notion bolstered through beneficial regulations when getting married, and an active conservative approach installed within Norwegian culture. Across the country, this model family established themselves in urban sprawls around prominent cities. An accumulation of large detached dwellings was the product of before-mentioned state-financed constructions and formed today's urban landscape. These newly created neighbourhoods caused over

time *large-scale gentrification effects* as it was chiefly wealthy families that moved towards the larger plots available on the outskirts of the city. Such areas were principally habited by a labour class who worked in nearby industries but now were increasingly driven out. The presence of the upper-class rose land valuations in these communities and consequently changed the housing policy across the state. In today's expensive market, a step-by-step "home career"^[11] is dictated where one gradually moves from *small apartments close to the city centre towards larger detached homes at the outskirts of the city.*

The traditional house prevails as the archetype, with many families permanently moving to the periphery of the city after successfully commencing their career. Led by a generation raised within the century-old farming, fishing and hunting communities, the *post-war housing boom* was a -suburban- upgrade of the beloved ancestral homes. The associated rurality of the periphery appealed to a populace nurtured within indicated settings and arose in concurrence with the subliminal expectation of homeownership^[65]. Many families dreamed of a house with a garden, and together with the high housing prices in Oslo, it implied that more people *moved to the neighbouring municipalities* or their roots when they establish themselves. The composed social networks and communities created in these calm neighbourhoods impeded the will to move back to the progressive city, even when children ultimately moved out.

In 2017, 17,043 people moved from Oslo to Akershus, with only 10,267 people going in the opposite direction^[19].



Period	Enebolig <i>Single</i>	Tomanns <i>Double</i>	Rekkehus <i>Rowhouse</i>	Boligblok <i>Apartment</i>	Bofelleskap <i>Shared</i>	Andre <i>Other</i>	Total <i>by value</i>	<i>in %</i>
1890-1899	22,136	4,800	5,744	42,381	502	3,142	78,705	3.9 %
1901-1920	19,839	8,112	5,793	18,895	426	1,906	54,971	2.7 %
1921-1940	34,381	15,453	9,786	45,194	660	2,279	107,750	5.4 %
1941-1945	3,185	1,090	576	2,019	19	155	7,044	0.3 %
1946-1960	83,500	39,764	30,043	64,674	1,341	4,434	223,756	11.1 %
1961-1970	93,193	15,545	26,474	68,325	3,999	2,921	210,457	10.5 %
1971-1980	125,765	13,980	46,231	76,962	4,290	2,823	270,051	13.4 %
1981-1990	173,038	21,474	43,934	43,731	6,023	7,555	295,755	14.7 %
1991-2000	102,658	19,769	34,149	44,744	11,912	8,068	221,300	11.0 %
2001-2010	90,043	25,223	40,075	100,212	12,267	11,488	279,308	13.9 %
2011-2020	70,300	23,850	38,937	109,066	14,132	7,672	263,957	13.1 %
<i>unknown</i>	462,966	46,407	29,906	27,428	7,738	21,866	596,311	
Total	1,276,690	232,948	307,910	628,145	61,912	73,550	2,610,040	
Total in %	48.9 %	8.9 %	11.8 %	24.1 %	2.3 %	2.8 %		

Honningsvåg, 1947

The city of Honningsvåg was destroyed by the Germans in 1944 and became a symbol for war-torn reconstructions. The church was the only building that was kept from the ignited fire. After the occupation, the primary objective was housing assembly and the reconstruction of alike areas. The image illustrates the construction of permanent single detached housing steadily replacing the transitory erected barracks.^[30]

© Picture from Th. Skotaam, 1947.

Statistics from ssb.no

Illustration of the production of single detached dwellings during the post-war housing boom.

Which policies aim to deliver qualitative and sustainable neighbourhoods?

Attempts to develop new typologies are often undermined by preexisting policies aimed at safeguarding the beloved suburban communities. New densification proposals in these single building neighbourhoods could create social upset.

Dwelling in an idyllic rural landscape, equipped with a villa and garden, remains the unbeatable dream. Though the point of excess has perhaps not been reached, it is apparent that the model of continuous suburbanisation will no longer be sustainable given the expected growth patterns. The need for alternative methods of development has been advocated by municipalities, showing eagerness to densify the existing (sub)urban landscape instead of tolerating further expansions. However, *conservation of the natural heritage and historic living conditions* prevails as a primary objective in urban planning and ought to be reassessed towards the designed goals of a sustainable tomorrow^[31]. Allowing a *diversification* in the suburbs and strengthening the existing communities could create more autonomous neighbourhoods.

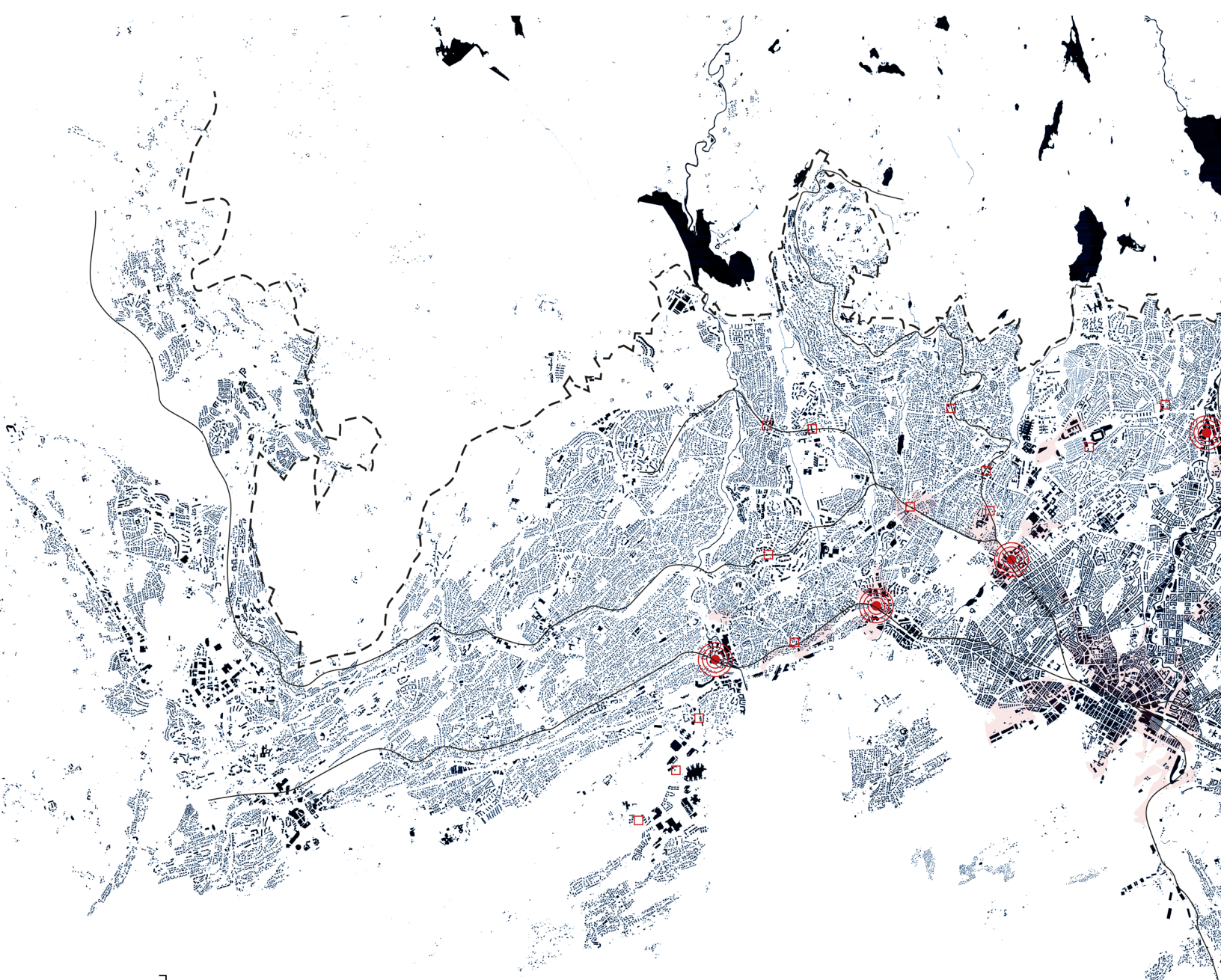
Useable area	Dwellings
0-19	26,390
20-29	39,585
30-39	60,374
40-49	96,674
50-59	144,381
60-69	193,065
70-79	157,963
80-89	121,445
90-99	148,432
100-119	252,483
120-139	224,202
140-159	197,135
160-199	337,913
200-249	225,588
250-299	91,453
300-349	32,541
350+	19,895
128 m² averaged	

It is senseless to ambition sustainability by building passive houses in a fragmented landscape. Ecologically responsible architecture is more than the volume or component. Therefore, new policies should restrict the ability of private developers to farther expand today's built pattern, and instead allow for qualitative densification. Though such high or middle-rise building could be an attractive instrument to tackle the compaction problem, the archetype proved to hold provocative stigmas. However, it could be a catalyst in the process of sustainability, preventing the process of endless monofunctional urban sprawl.



View of Oslo from Oslofjorden. A disparity between high-density typologies driven by the progressive policy "Kommuneplan" and the detached dwellings represented by the ever conservative "Småhusplan".
© Picture altered from wikipedia.





26-27

Oslo Kommuneplan 2030/2050 ^[31]



" Collective node "

" Kollektivknutepunkt "

Area with the potential for urban development and the connection of two or more transportation lines. High land use ambitioned.



" Development area "

" Utwiklingsområder "

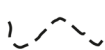
Specified in legal provisions as 'transformation area'. High or higher land use ambitioned.



" Priority area near Station "

" Prioriterte Stasjonsnære Områder "

High potential area with close connection to a subway, train or bus line. Higher land use should be considered.



" Existing or new Station "

" Eksisterende eller nye Stasjon "

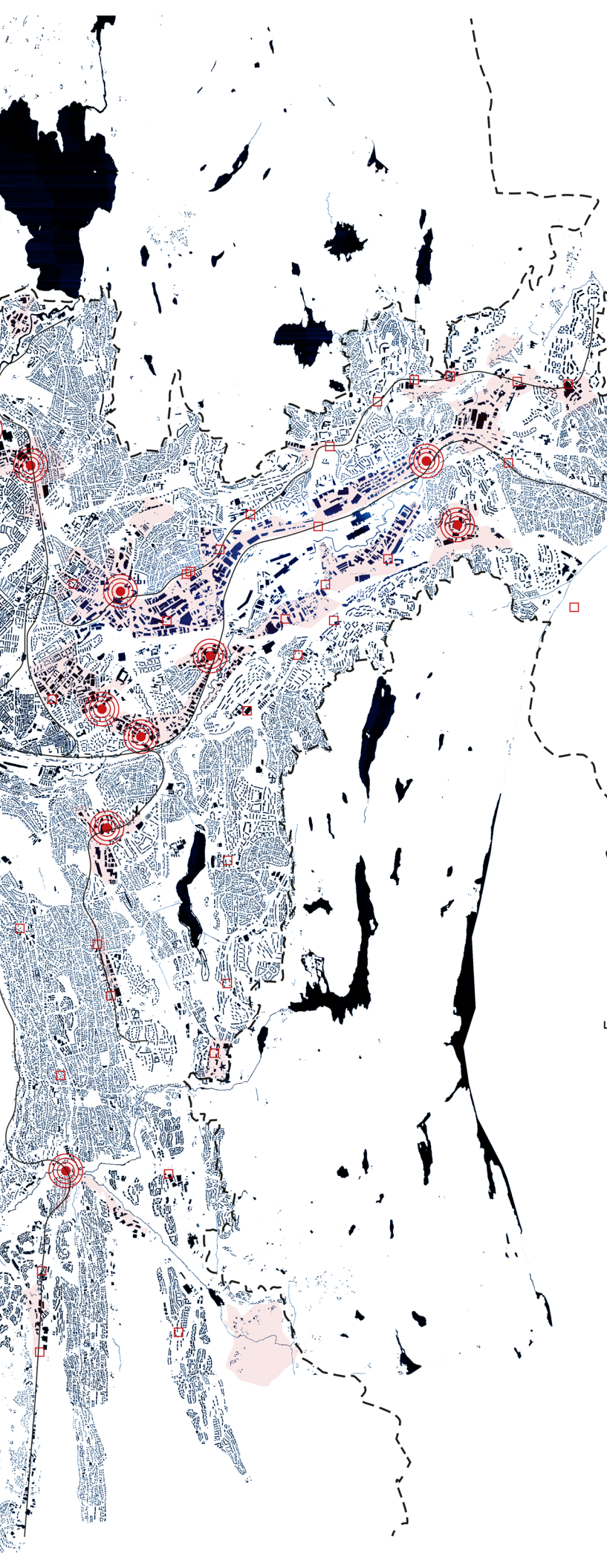


" Green-Blue line "

" Markugense "

KOMMUNEPLANEN

Both economical and political powers achieved the construction of high rises near transportation nuclei throughout the city. Though, the surrounding typologies remain the single detached houses where an older generation still resides. This created a dislocated scale between these typologies enlarged through immense development pressure.



Progressive

As the metropolitan area will face a future with increased urbanization, climate change, digitalisation, changing competence requirements, new forms of dialogue, user participation and an increasingly multicultural society; the municipality has set new bold goals to create a green and well-functioning city with a focus on efforts against inequality."

A brief overview of the regulation on page 30-31.

Oslo and Akershus county adopted a regional plan in 2015 for transport infrastructure and related land development. Following the success of transit-oriented improvements in other Scandinavian capitals, Norwegian cities increasingly pursue comparable progression. The so-called "Kommuneplan"^[31] conducts the intention to increase density nearby focal points, aimed at creating a more car independent society. This network-based transformation emphasises on the so-described "localisation of housing construction and business development" through multifunctional land-use. Though this produces a direct effect for the few areas surrounding train and metro stops, the scheme also programs suburban areas to be reevaluated. As the mono-functional planning of the late eighties caused car reliance, the draft (surprisingly) aspires to propel this dispersed suburban landscape into autonomous communities with powerful mixes of services. However, developments in the small-house areas remain governed by the transcending "Småhusplan" and additional annexed regulations. This scheme will be described later on in this chapter, yet it is essential to notify its intention to maintain the existing urban fabric and safeguard its overall qualities. Actual progression in these suburban areas surrounding major cities in Norway consequently appears improbable as the Kommuneplan is not a legally binding document. From an outside perspective, this extremely conservative approach seems fairly remarkable as such matter hasn't been considered as an obstacle towards sustainability ambitions. Looking upon other European countries, this attitude could cause malady when predicted demographic changes set in. Yet, those monofunctional environments have a lot to succeed, as these neighbourhoods were built with high quality as well as holding sound social networks within.

Kommuneplanen contributes to urban development and increased housing construction through strategic site purchases. The county expresses within the draft its eagerness to carry out pilot projects related to this concept of a third non-commercial and public driven housing sector. Through an active purchasing policy, the municipality aims to build up a more substantial property reserve for the development of municipal infrastructure and housing in prioritised urban development areas. However, the document fails to reveal how it intends to accomplish these overall objectives while ambitioning a more social and inclusive real estate strategy across the country. Nevertheless, with the creation of three to five distinct pilot project through Husbanken's before-mentioned "Balansert Boligkvalitet" program, it demonstrated its desired focus on both affordable and qualitative living conditions as well as its projected overall sustainability goals for 2030 and 2050. However, lacking a precise instrument or tool to achieve those goals, the document does question its capacity to thoroughly alter today's built pattern.

The preservation and strengthening of the Green-Blue line is an imperative premise in Norwegian urban development. The imaginary frontier consists of the fjord edge (blue) and the hillsides (green), acting as a city border wherefrom no constructions are permitted. Different from other nations across Europe -where similar ideas are achieved through national parks-, every municipality possesses these regulated limits. Those perimeters shield the nature from development pressure and should over time ensure densification rather than urban sprawl. The interaction and contact between the historic city and the surrounding landscape are fundamental in Norwegian's culture and remain a principal tool for urban planners. Though population growth leads to increased use of the available space, local authorities continue to make an effort in establishing new or developing existing green areas.

Which typologies have historically been used attaining higher densities in the major cities?

... - 1899	1900 - 1919	1920 - 1940	1945 - 1959	1960 - 1979
  <p>- Rekkehus - 63°25'48" N - 10°24'13" O</p> <p>Location Trondheim, Bakkdandet Typology 6 story ap. & off. Density ~74.9 inh/ha Material Wood</p> <p>Notorious for being very expensive and contains subsequently increasingly less housing.</p>	  <p>- Klassiske Murgården - 59°55'24" N - 10°45'24" O</p> <p>Location Oslo, Grunerløkka Typology 4 story apartments Density 228.24 inh/ha Material Slate & Wood</p> <p>Widespread city-center residential areas. Built for all classes.</p>	  <p>- Sosiale Boligområdet - 59°56'30" N - 10°43'55" O</p> <p>Location Oslo, Ulevål Typology Semi-detached Density 81.7 inh/ha Material Brick</p> <p>Government-owned homes, found just outside the city limits.</p>	  <p>- Mursteinbygning - 59°55'38" N - 10°46'22" O</p> <p>Location Oslo, Sofienberg Typology 7 story apartments Density 188.6 inh/ha Material Brick</p> <p>Built just outside the city-center. Constructed for families and larger households.</p>	  <p>- Delt villaområdet - 60°18'53" N - 5°20'50" O</p> <p>Location Bergen, Nesttun Typology Single detached Density 42.3 inh/ha Material Wood</p> <p>Slow process of densifying far-away suburban neighbourhoods with larger dwellings, holding multiple households.</p>
  <p>- Boligområdet - 59°55'46" N - 10°43'47" O</p> <p>Location Oslo, Adamsstuen Typology Single, detached Density 54.9 inh/ha Material Wood</p> <p>Extremely large dwellings found in the middle of the city. Today often next to high density projects.</p>	  <p>- Villaområdet - 59°57'24" N - 10°44'32" O</p> <p>Location Oslo, Nordberg Typology Single detached Density 30.5 inh/ha Material Wood</p> <p>Large homes surrounding the major cities, yet indifferent from today's suburban landscape.</p>	  <p>- Delt villaområdet - 60°23'17" N - 5°17'30" O</p> <p>Location Bergen, Laksevåg Typology 3 story semi-detached Density 58.3 inh/ha Material Wood</p> <p>Large collective detached homes. Next to the harbor and bymarka, on a steep landscape.</p>	  <p>- Mursteinbygning - 59°55'49" N - 10°45'00" O</p> <p>Location Oslo, Ila Typology 4 story apartment Density 98.9 inh/ha Material Brick</p> <p>Built just outside the city-center. Smaller apartments and increasingly elder inhabitants.</p>	  <p>- Tomannsbolig - 63°25'14" N - 10°25'14" O</p> <p>Location Trondheim, Berg Typology Double single detached Density 34.7 inh/ha Material Wood</p> <p>To uphold the status of the single detached living, two families reside in one large dwellings.</p>
		  <p>- Arbeiderkvartallene - 60°24'07" N - 5°19'43" O</p> <p>Location Bergen, Eidemarken Typology 3 story residences Density 84.3 inh/ha Material Wood</p> <p>Often found just outside the center, in a hilllike landscape. Originated from workers quarters.</p>	  <p>- Delt villaområdet - 59°55'03" N - 10°49'24" O</p> <p>Location Bergen, Solheim Typology Single detached Density 69.7 inh/ha Material Wood</p> <p>Built on the hills of Bergen with up to four families residing in one dwelling.</p>	  <p>- Eplegården - 59°55'03" N - 10°49'24" O</p> <p>Location Oslo, Teisen Typology Single detached Density 70.7 inh/ha Material Wood</p> <p>Dense single detached homes. Randomly spread in the city centre. Waiting lists to reside here are full for up to 70 years.</p>

1980 - 1999

2000 - 2019

2020 - ...



- Mursteinbygning -
60°22'29" N - 5°19'48" O

Location **Bergen, Gyldenpris**
Typology **3 story apartments**
Density **78.5 inh/ha**
Material **Concrete**

Often replaced the detached dwellings, achieving higher densities. Found outside the citycentre.



- Barcode Oslo -
59°54'28" N - 10°45'34" O

Location **Oslo, harbor**
Typology **17 story ap. & off.**
Density **~1320.5 inh/ha**
Material **Steel & Glass**

Project started as a residential one, but now largely attains offices.



- Sørenga Waterfront -
59°54'05" N - 10°45'21" O

Location **Oslo, Sørenga**
Typology **7 story apartments**
Density **682.4 inh/ha**
Material **Variated**

Notorious for containing the most expensive residences in Oslo. Lots of urban interventions and activities.

The Norwegian suburbanisation may not necessarily be inadmissible. Even when neglecting the national parks, the immense country retains an incredibly low inhabitant per square meter ratio. Though acknowledging that continuous suburbanisation cannot persevere, the suburbs have arguably not reached a boiling point just yet. Therefore, it is important to strengthen the existing suburban tissue instead of further expansion. The Norwegian challenging and inconsistent natural landscape found farther from the city do not allow for perpetual high-density development. It is essential to inject functionality to the otherwise mono-functional suburban neighbourhoods. This page chronologically contains the most displayed residential typologies found near the city-centres Oslo, Bergen and Trondheim.



- Nabohus -
63°24'49" N - 10°26'02" O

Location **Trondheim, Moholt**
Typology **Rowhouse**
Density **45.9 inh/ha**
Material **Wood**

Rowhouses on parcels outside of the citycentre. Constructed in large numbers to cater the increased urbanisation.



- Moholt Towers -
63°24'41" N - 10°25'55" O

Location **Trondheim, Moholt Stby**
Typology **15 story apartments**
Density **721.5 inh/ha**
Material **Wood**

Student units centered around a shared kitchen. Floor level includes wash, sport facilities and more.



The structure of the ancestral home persists to be the chosen configuration for new suburban homes. Commonly constructed between 1946 and 1964, new homes were strongly related to the traditional barn or rowhouse typologies. Today, these volumes and shapes prevail within the detached dwellings in Norway's countryside, as well as Oslo's and Bergen's profuse urban villas where multiple families separately coexist. Like their state-built family dwelling, it is most common to live in a fully-fledged home with all functions, regardless of whether one is alone, in a couple or indeed a nuclear family.

© Picture from Nils Olsson Reppen.

SMÅHUSPLANEN

In 1997, the city council of Oslo approved the first draft to regulate developments in the so-called "Småhusplanen" or "small house areas". The scheme ensured the ability of small scale development in these communities, but was altered in 2006 pursuing further adequate attention towards the preservation of these suburban neighbourhoods.

Conservative

The plan thoroughly aims to safeguard the areas' aesthetic, functional and cultural heritage as well as environmental challenges related to existing buildings, landscapes, vegetation and biological diversity.

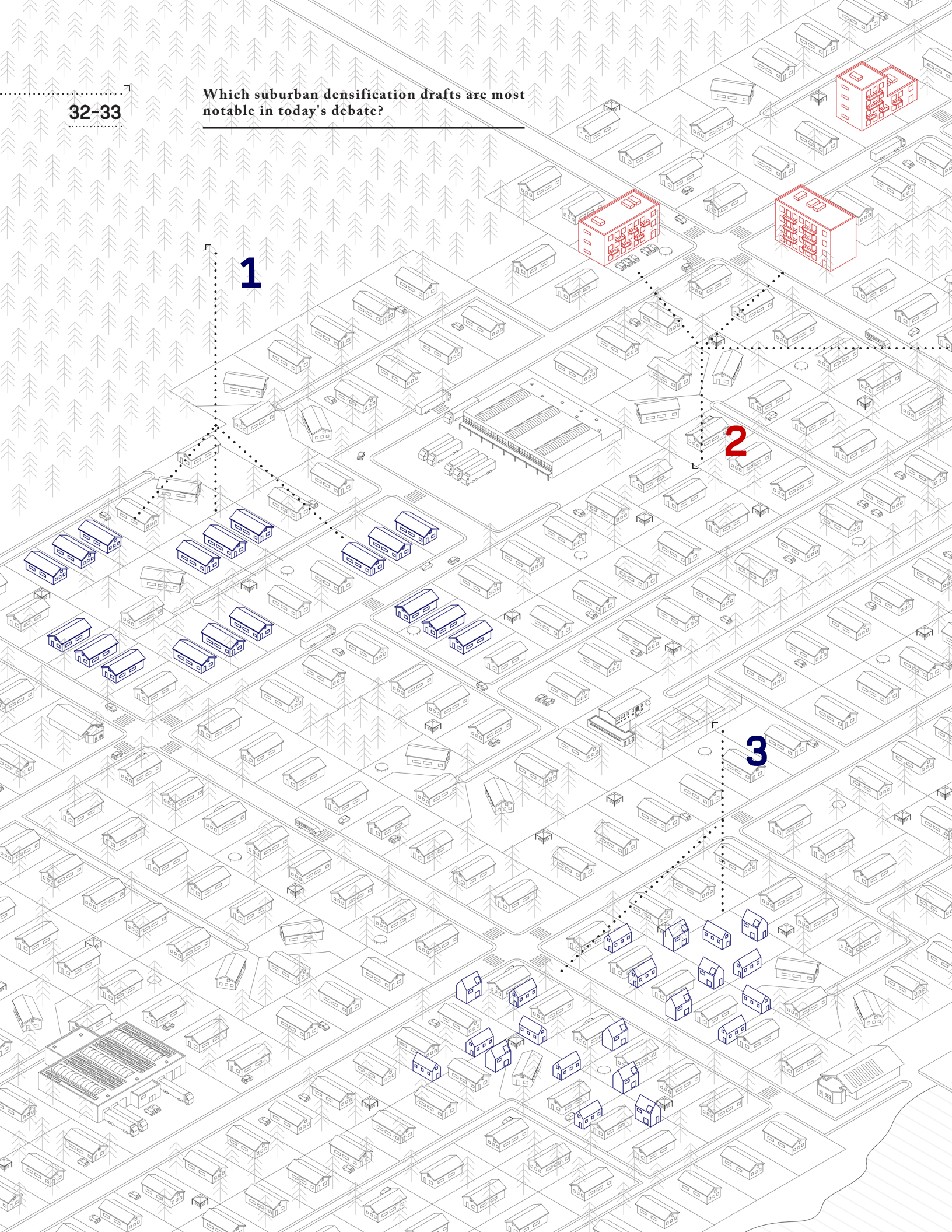
The suburbs became a reflection of the status symbol of the middle class. The suburban dwellings created a powerful anchoring for a multitude of social and economic reasons. As most of these houses were self-constructed^[28] or self-designed, people tend to tighten oneself more to their homes. The typology of such areas historically represented success in life and in conjunction with the traditional detached dwelling, continues to be the *chosen environment for raising children*. These static neighbourhoods subsequently refuse to alter, in fear of changing its history and overall portrayal. Regulations as Småhusplanen presently embody these despairs, incapacitating changes of an arguably unsustainable building culture.

Densification in suburban districts demands comprehensive care concerning its urban qualities and social networks. Oslo's suburban areas are considered an important historical component of the housing structure in the city, and the municipality aims to *conserve classic living conditions* in these neighbourhoods. The purpose of the zoning plan is to facilitate growth in those areas though in concurrence maintain and strengthen the qualities of the small detached homes^[36]. As such, the plan *entails changes in an already installed and often erratic built environment*.

Småhusplanen fails to produce necessary developments ambitioned by Oslo's Kommune plan. The growth buffers identified in the Kommune plan for both 2030 and 2050 include densification for these small house areas conveying numerous sustainable intentions. However, advancements in these communities remain governed by the traditional Småhusplanen as it *transcends* the rather *progressive* Kommuneplan. Unfortunately, the document's only practical merit is that it *determines the development of unbuilt land regarding its immediate surroundings*^[35]. Achieving higher densities will consequently principally be achieved by constructing identical monofunctional typologies on now smaller plots. It arguably questions the purpose of this typology altogether as it is today still forced by conservative building idioms. In retrospect, life quality and the social value within these historic neighbourhoods could stand threatened as this traditional scheme diffuses the qualities it so much valued if pursued: the calm and open communities engulfed by green surroundings. On the right stands a recap of the content of Småhusplanen. Note the ideology of new constructions in §6's "Plassing av bebyggelse", actively disallowing contrasting typologies. Further on the minimum living areas of 200m² and minimum plot size of 600m² in §11 and §12's "Uteoppholdsareal", and the monofunctionality described in §19's "Strøktstjenlig virksomhet"^[36].

- § 1 **Delimitation**
 - According to the regulation plan. Excluding areas who obtained their own provisions.
- § 2 **Purpose of regulation**
 - Regulations for housing constructions.
 - Preservation of architectural features.
- § 3 **Purpose of the zoning plan**
 - Facilitate developments.
 - Safeguard all the area's qualities.
 - Ensure biological diversity.
- § 4 **Building plan**
 - Only for small developments =< 10 units.
- § 5 **Outdoor plan**
 - Terrain adaptations are not allowed.
- § 6 **Location of buildings**
 - Division of properties.
 - Placement of new constructions.
 - Uniform building structure implying that at least 3/4 of the houses in the immediate area have equal location and grouping.
 - In areas without a dominant structure, constructions can be placed in innovative plans, and these must bind the area together.
 - A maximum of 40% of the plot area can be receive a water-impervious surface.
- § 7 **Design of buildings**
 - The majority of the following shaping factors must be taken from existing buildings: height, length, width, base area, volume structure, roof shape, material use.
- § 8 **Conservable buildings**
- § 9 **Preservation of shoreline**
- § 10 **Buildings, heights, degree of utilization**
 - Maximum height of 6,5 m measured from the average terrain level, with a top of 9 m for sloped roofs and 7 m for flat roofs.
 - The built-up are is restricted to 24% on each plot.
- § 11 **Minimum size of dwellings**
 - The minimum plot size must be 600 m².
- § 12 **Living area**
 - Minimum 200 m² for detached houses and 300 m² for semi-detached houses.
- § 13 **Parking**
 - On site.
- § 14 **Roads**
- § 15 **Noise**
 - lowest noise limits according to TEK.
- § 16 **Air pollution**
 - No new constructions allowed in areas that exceed minimum air quality limits.
- § 17 **Soil pollution**
 - No new constructions allowed in areas with soil contamination.
- § 18 **Automatically preserved monuments**
- § 19 **Regional activities**
 - Area-serviceable business is permitted, provided that the municipality finds the business suitable for the residential area.
- § 20 **Documentation**
 - List of required documents for a construction or renovation application.

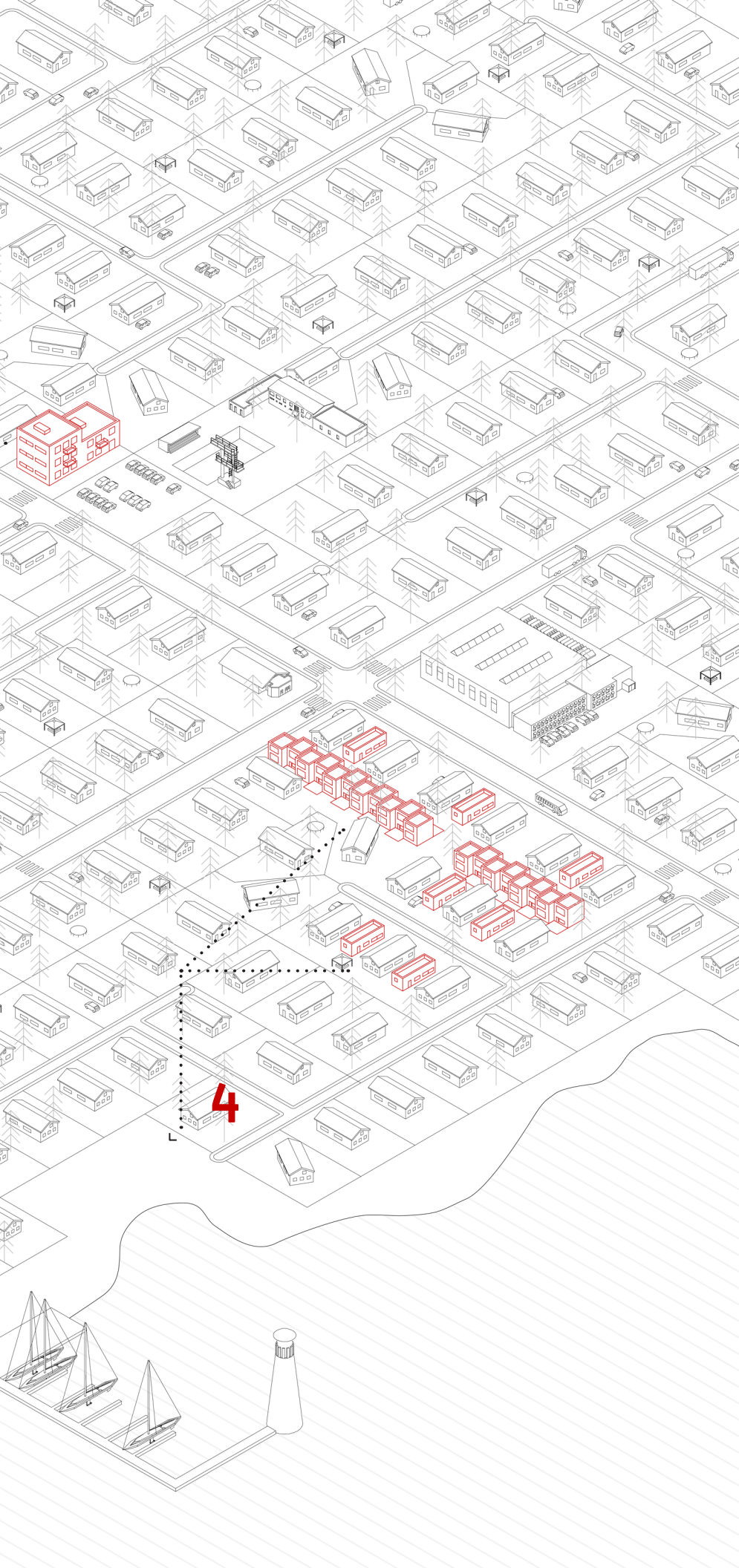
Which suburban densification drafts are most notable in today's debate?



1

2

3



1

Småhusplanen

Appearance 1997
Status Active
Initiator Kommune
Architect Various
Actor Households

The overall strategy of Småhusplanen aims for the safeguarding of the historical and green qualities of the single detached areas. Often, these zoning plans include conservation of landscape resolutions, such as Sogn Hageby, Huk Aveny and the Nordstrand slope. It allows for small densifications, though any supplement must attain the same qualities and characteristics of the territorial architecture.

Is it enough to merely densify the suburban tissue by constructing identical monofunctional typologies on now smaller plots?

2

Kommuneplanen

Appearance 2015
Status Active
Initiator Kommune
Architect Various
Actor Kommune

Oslo's Kommuneplan aims to propel her dispersed suburban landscape into autonomous communities with powerful mixes of services. Suburban plots gained four-story height limits on parcels through new zoning plans. This could create neighbourhood upset as such progresses are mainly economically motivated. However, as a general rule, developments in the small-house areas remain governed by the Småhusplan and other similar regulations.

Acknowledging that almost three-quarters of the population dwells in such neighbourhoods, the document's lack of a legal base in these areas undermines its ambitions to succeed farther away from the city centres.

3

500k

Appearance 2016
Status Conceptual
Initiator SNB
Architect Kod Ark.
Actor Households
Kommune

Increased collaboration between municipalities and homeowners ambitions 500,000 new sustainable homes within Sweden's suburban neighbourhoods. The research project investigates necessary rule changes to enable a civil share-home movement allowing extensions and the division of today's large homes. It is driven by beneficial tax-cuts for homeowners entering the program, who in return would collectively open their houses and backyards to attain more inhabitants on each parcel without changing the individual dwelling culture.

Will a largely conservative culture open their backyards to a young (and ethnically diverse) generation?

kodarkitekt.se/projekt/500k/

4

Leggeplanen

Appearance 2016
Status Conceptual
Initiator Students
Actor Kommune

The scheme acts as a negative from Småhusplanen. The requirements in the latter document state minimum requirements concerning the distance between dwellings. Leggeplanen attempts to fill in these gaps with a strip of tiny houses who share facilities across different parcels. These plans would principally be developed on municipal acquired lands hence the lack of feasibility towards the established individual ownerships.

Can municipalities practically drive cohousing as its main instrument for the third housing sector, acknowledging that cohousing attains a negative trend in Norway? Are such schemes even relevant on a larger scale with drafts as Småhusplanen as popular as they are?

Which strategy enholds the competence to adept outspoken ambitions?

BRUK
AV
ARV

~Utilising the patrimony

The fabric of the last century's suburbanisation sets the foundation of tomorrow's living. Continuous mass usage of open space appears unsustainable, given the expected demographic changes. Therefore, it is vital to absorb these additional households within today's patrimony. A new and flexible urban pattern settled within a traditionalistic community.

Today's legal provisions appear incompetent to deliver real change on the desired scale. The existing suburbs, with their large parcels and Europe's most spacious homes, offer a vast opportunity for densification. Acknowledging today's rigid political and cultural views, the *patrimony of the current landscape must be upheld* and instead find solutions within the preexisting compositions of these neighbourhoods. It is fundamental to demonstrate to homeowners that the construction of different typologies within their affected community could somehow be a *catalyst for improved living conditions* while abolishing farther expansion of today's built landscape. Therefore, given guidelines should not solely consist of illustrations but rather be part of a regulated and bold policy. Though the enthusiasm of *Kommuneplanen* is a valuable first step towards a sustainable built landscape, new developments in these suburban areas should refrain from being solely commercial driven.

There is a shortage of strategies inducing households to participate in progressive policy. Some suburban areas affected by the *Kommuneplan* recently gained new overall height limits. This decision sprouted discussion among both homeowners and architects who are in fear of high development pressure and associated gentrification issues. In comparison to *Småhusplanen*, where *households are the incentive* towards suburban development, the overall sentiment of the draft is enforced by the liberal market. It is hypothesised that *transferable development rights* or TDR could instead prove a feasible instrument regulating a new cohesive and *cultural-driven building ideology*, seeking to re-empower the community itself. Rather than

the proposed gradual and peculiar densification among the affected plots, those privileges could be *collected on a few grounds*, allowing higher-density developments in the aspired "untroubled suburbs". In legal terms, development rights are detached in such a scheme from the parcel and instead assigned to adjacent ones. With many practised forms of TDR, it is contemplated that a so-called *dual transfer zone scheme balances the ambitions* presented by *Kommuneplan* and regulations of *Småhusplan*. A single transfer zone is a licensing-based scheme created with each parcel allocated according to designed criteria. Though the assessment of each individual ground creates a labour-intensive system and is primarily market-driven, it proves useful reducing unwanted effects on a small scale. However, considering the opted TDR with a dual transfer zone, the transmission and reception areas are defined for specific purposes. Here, transformations can be directed to more suitable areas. Though this method is also less expensive, such litigations could be composed of *area-serving functionality* instead of monetary arrangements and accomplish the ambitious cultural-driven building ideology. Apart from balancing the preexisting regulations, the choice for this strategy was also made regarding its ability for punctual densification, something deemed useful regarding the workflow of the new aspired third housing sector. This hypothesis will unfold in the next chapter "Vi krever et Hjem".

More information on

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"Property Rights and the Transfer of Development Rights" by Vincent Renard.^[37]

-

"From Land Marks to Landscapes" by Robert A. Johnston and Mary E. Madison.^[38]

L

Transferable Development Rights

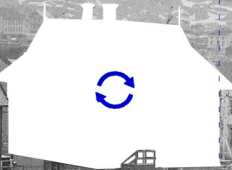
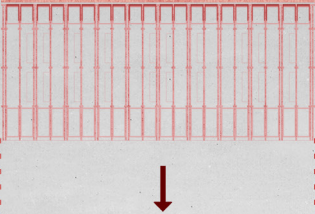
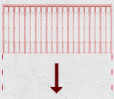
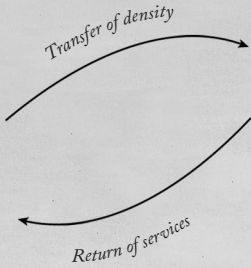
originated from New York City. The zoning decree of 1916 authorized the sale of unused development rights to neighbouring plots. Initially, the scheme existed as a localized transmission system that was solely allowed in assigned areas, yet from 1961 it became possible to **EXCHANGE DENSITIES** between neighbouring plots. The 'receiving' parcel could now exceed height limits or the 'red line'^{[37][38]}.

L



Can we utilize the existing patrimony for the creation of new services? When a public bought parcel already obtains built tissue -and proves too erratic to transform for residential purposes-, the construction could be surrendered for area-serviceable functions traded for higher densities on adjacent acquired plots.

How to safeguard today's living conditions in the uncompressed suburbs? Today's underbuilt suburban landscape could secure the required capacity consuming the expected demographic growth. Though, it is key to find the appropriate scale for such constructions. As Småhusplanen already restricts developments in such areas to a maximum of 10 units, solutions involving the scale of new entities, might revolve around that value.



36-70





VI KREVER ETT HJEM

Social-driven densification as the unveiled byproduct of the third housing sector. Throughout the following chapter, the potential of the presented economic and strategic models are demonstrated through three suburban pilot projects. It hypothesises that around 20% of the built engagement is to be designated to services capable of creating a more attractive neighbourhood. In accordance with Småhusplan's §19's "Strøktjenlig Virksomhet", practices as kindergartens, regional artisans, local shops and public health conveniences could all aim at supplying the monofunctional suburb with autonomy. The proposed interventions recognise that the inheritance of the current landscape should be upheld, and experiments *sedentary* within the structures of an established community.

- *Is it attainable to densify while preserving the living conditions of the neighbourhood?*

- *Which interventions could inject functionality and autonomy in the suburb?*

- *How to secure quality in affordability driven developments?*

The suburban landscape of Husvik, Tønsberg.

An area flocked with red pine trees.

The daily observation of deer.

Winters bring snow along with its pleasantries
and in summer,

the neighbourhood is pestered by seagulls,
a bird many Norwegians *rightfully* strongly dislike.

It truly is the most wonderful place to live.

Husvik, Tønsberg, Vestfold og Telemark. 59°15'08"N - 10°28'34"O

The suburban community of Husvik is positioned on a peninsula underneath Tønsberg at the Oslofjord. The site embodies all of the epiphanies one would encounter travelling through the Norwegian built tissue and serves as a generic context for three pilot projects exemplifying the constructed strategies.

The Southern Norwegian waterfront consists of a perpetual lineup of suburban neighbourhoods. As the seashore constitutes an essential duty in the life of a "Typisk Norsk", the small scattered beaches shape the framework of daily summer swims, the start of explorative sailing trips and the setting of afternoon picnics. These often historic estates, part of the metropolitan running from Oslo to Skien, are consequently immensely popular and under tremendous price pressure. Unfortunately, the nautical antiquities have been overpowered by the arrival of wealthy inhabitants, establishing *gentrification difficulties* in alike areas. One of these areas is Husvik, a suburban neighbourhood of Tønsberg just south of Klopp and Vallø. Positioned on a peninsula at the Oslofjord, it is connected with the mainland through one modest main road. The parcelled landscape consists of several natural obstructions such as small cliffs and ridges, though admits homes delivering usable floor space between 200 and 400 square meters. The plot sizes are around 600 square meters but can be significantly larger due to the frequently challenging terrain.

The neighbourhood embodies the aspirations of Småhusplanen. Following the draft, houses have a central position on the individual plots. The lawn encircles the home, with small kitchen gardens displaying a wide range of flowers and berries. The residence is customarily oriented towards the waterfront and consists of three distinct levels: A half-sunk basement characterised by concrete bedding. A wooden ground floor which is a meter higher established compared to the land level. And a first floor consumed by sleeping arrangements, often obtaining a secondary living area. The volumetry of the facade endures throughout the neighbourhood, with a distinguished sloped roof reaching an altitude between 6,5 and 9 meters. Parking is always arranged on-site and often accompanied by a substantial shed. Entering these home commonly occurs via a porch, with a few steps associated with the meter high concrete bedding. While some of these homes have recently been constructed, the spatial expressions and volumetry prevailed throughout the years.

"Osloregionen" enholds
23% of the total population.



Husvik.

"Bor i naturen og i nærheten av vannet."
Living in nature at the waterside.
Exemplary for Småhusplan and the
Norwegian suburbs in general.

Water line.

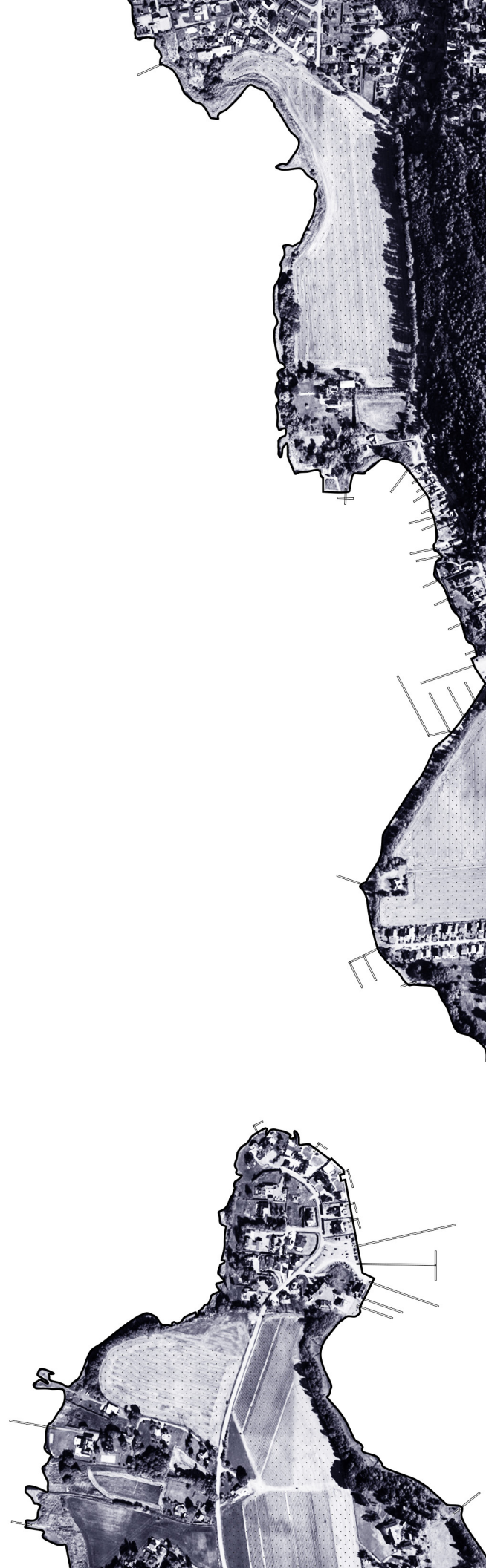
Decisive connection with the built tissue.
Periodic environment for activities.

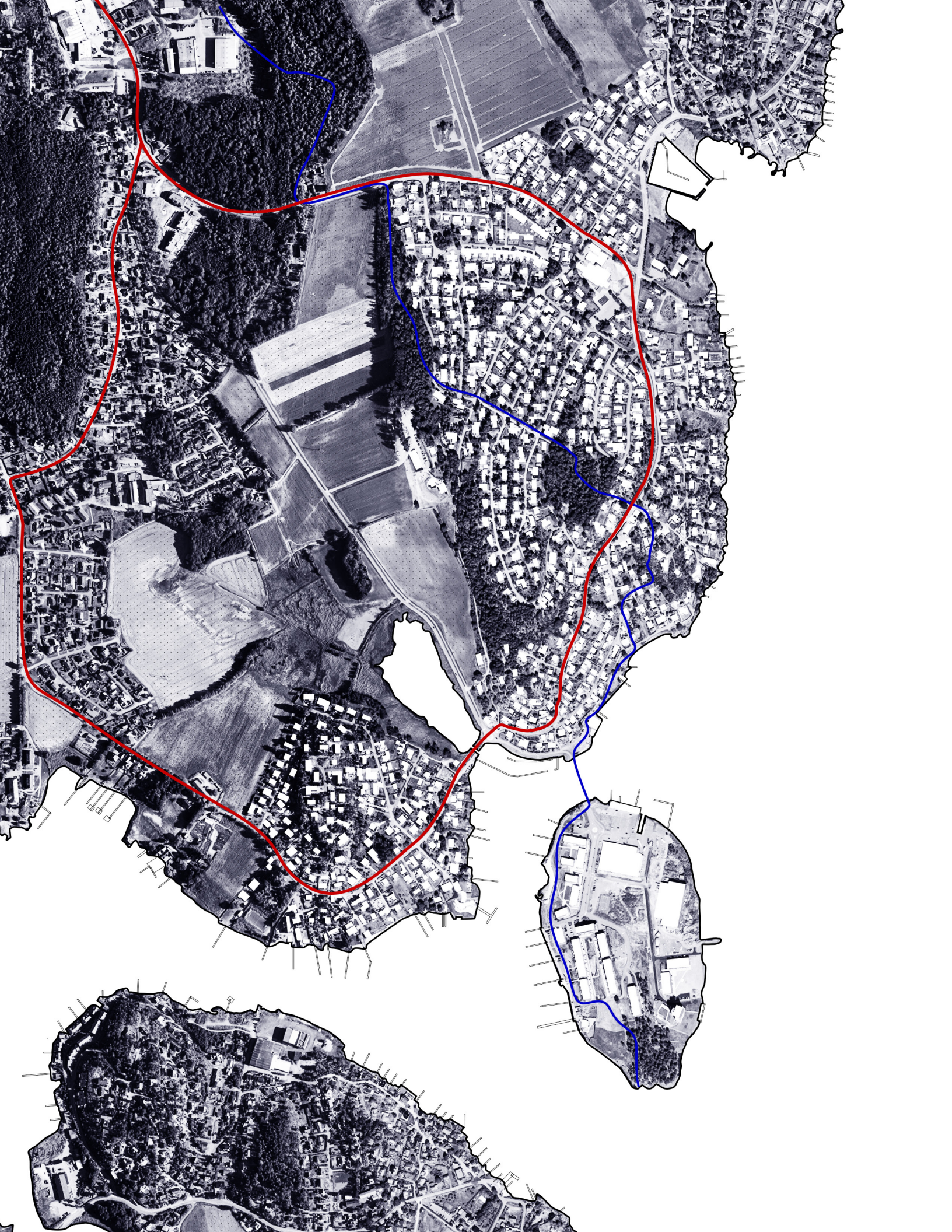
Slow traffic.

Used by pedestrians as a shortcut through the neighbourhood.
Portrays an important role in daily activities.

Heavy traffic.

Car and bus connection to the city, its
services, ferries and surrounding villages.





Which densification strategies are competent to persuade conservative homeowners?

The ability for municipalities to sell its parcels to a public institution created a mechanism supporting its own desired urban transformations. New decrees could recondition the owner-orientated Småhusplan to a culture-driven draft without threatening the suburban spatial- and related living conditions.

High-density constructions could boost the overall suburban living conditions. Though the archetype bears provocative characteristics and often carries a stigma, high-rise constructions are a confirmed instrument to tackle the protracted compaction problem. The model offers numerous benefits on the scale of the individual unit, the building and the broader environment. Therefore, not the house rather the type of housing could prove a useful contribution towards the ambition of a greener tomorrow. If Norwegian architects could somehow disprove the extant stigma, middle or high-rise buildings could yet contain the craved suburban living characteristics. When addressed correctly, new typologies could incorporate added functionality to the otherwise monotone suburban tissue. Furthermore, high-density developments can settle affordability anxieties related to today's expensive land appraisals.

Transferable rights allow for an exchange of density to gain shared or communal services. Modifications on Småhusplanen that create either an increased height limit or allow discontinuity in volumetry induces a higher property assessment. This added value, to be enjoyed by the (public) developers, would through a TDR strategy be nullified through an added legal commitment. This obligation could, for instance, regard the preservation of forests through plot acquisition, completing new communal infrastructure on- or off-site, an overall limitation of the ultimate sell price of the constructed units and more.

A new zoning plan developed by and for the community. Aiming to manage the TDR strategy efficiently, it is hypothesised the municipality would initiate a conversation with its communities to mandate new zoning plans for each suburban area. This federal involvement has been acknowledged previously on page 4 and applies its promises given in Kommuneplanen. The new zoning draft, a legal extension of Småhusplanen, would present strategic sites for long and short-term municipal acquisition as well as service inquiries. Parcels who in this newly created zoning plan gained densification purposes, are to be chosen strategically not to disturb the serenity of the present built landscape. Available plots with beneficial topography, useful forestation or located on second-row lands are consequently prioritised as acquisition objectives. Furthermore, it is pivotal to locate unbuilt areas surrounding communal property as this would allow for consolidation and support more comprehensive interventions. In conversation with representatives of the subjected neighbourhood, specific demands regarding functionality are to be regulated. Though Småhusplanen advocates area-serving functionalities, new admissions should vary and be open for interpretation, hoping to encourage participative proposals from the individual communities. On the right, a short recap of "Vi krever eiendom" added with new responsibilities for both the municipality and Allmennbolig.

1. Municipality -*see page 4-

- Managing municipal plots striving towards residential developments.*
- Obtaining strategic sites in order to buckle with existing state-owned parcels.*
- Facilitating non-commercial housing and alternative forms of living on such sites.*
- Advising on the preservation of architectural features in existing (historical) suburban areas.*
- Safeguarding the area's urban qualities.*

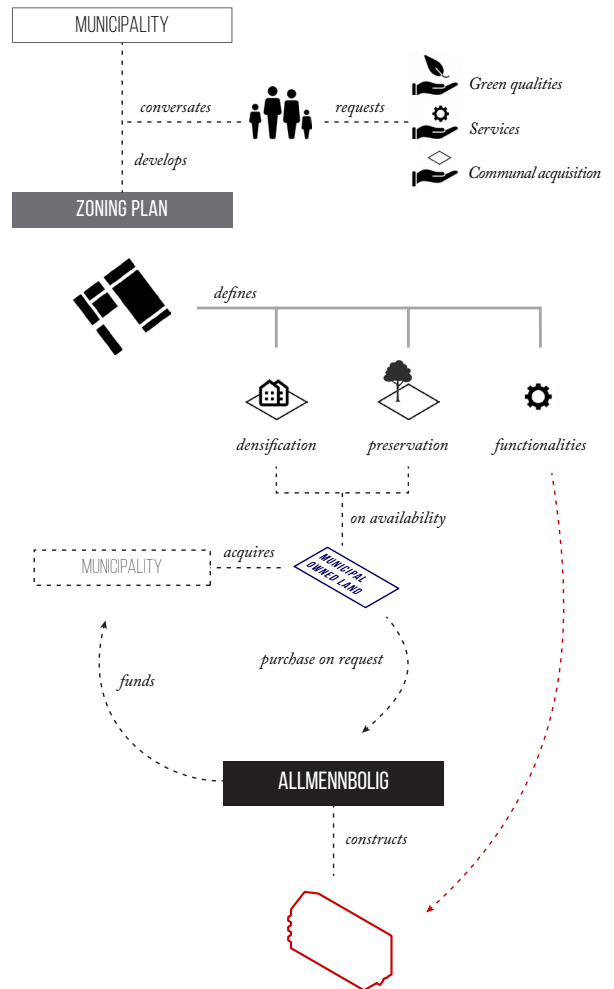
- + Developing new zoning plans in conversation with the encompassed communities.
- + Obtaining strategic sites with the purpose of enrolling in the Allmennbolig curriculum.
- + Regulating exchange of density for functionalities.

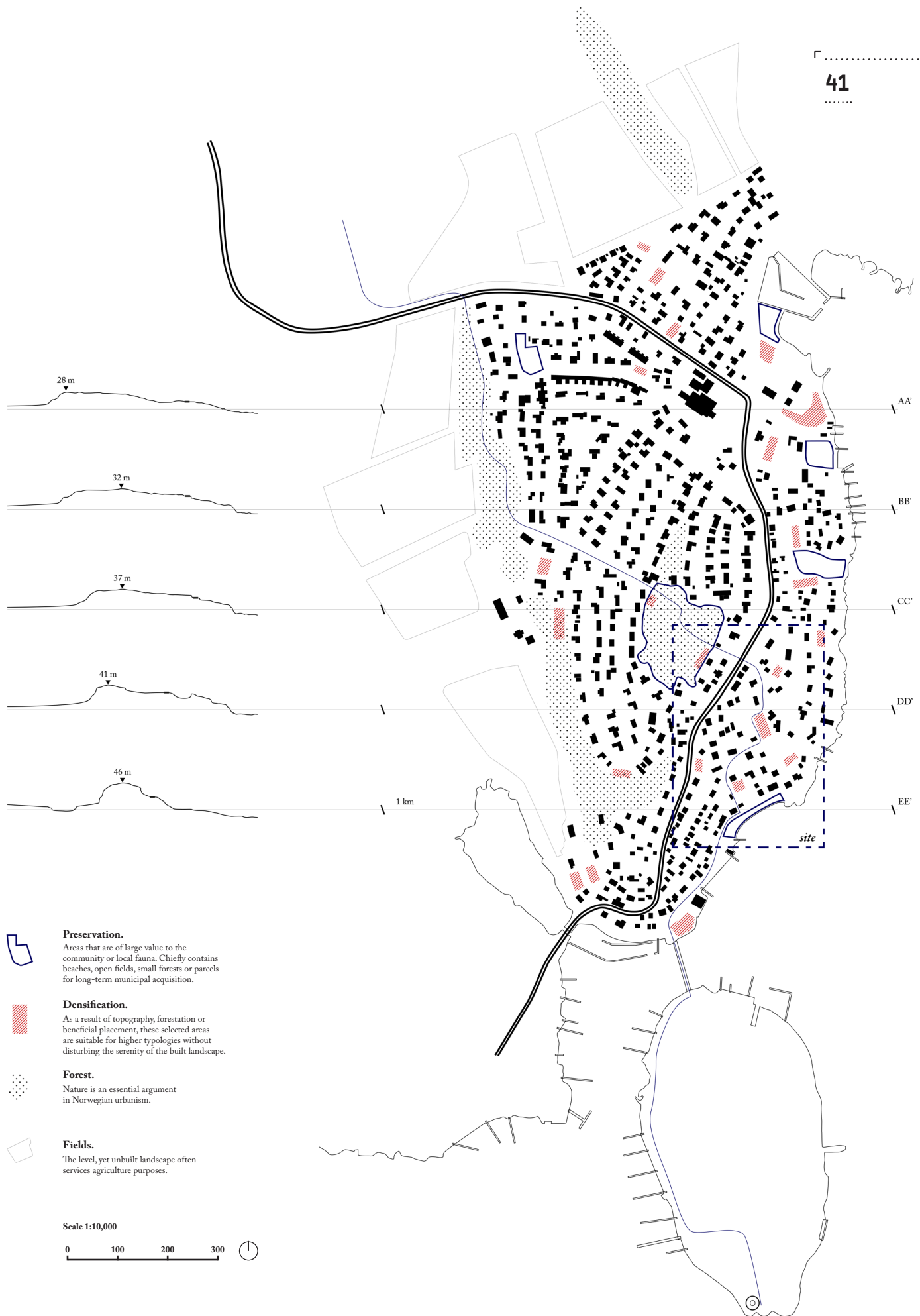
2. Communities

- Forwarding a board of representatives.
- Enlisting democratic chosen services to include in the zoning plan.
- Inquiring for communal or private acquisition as foreshadowed in Husbanken's list on page 4.

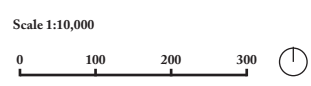
3. Allmennbolig

- Acquiring municipal plots with affordable housing purposes.
- Constructing units according to the zoning plan.
- Developing Allmennbolig to a service-providing public construction company.





- Preservation.**
Areas that are of large value to the community or local fauna. Chiefly contains beaches, open fields, small forests or parcels for long-term municipal acquisition.
- Densification.**
As a result of topography, forestation or beneficial placement, these selected areas are suitable for higher typologies without disturbing the serenity of the built landscape.
- Forest.**
Nature is an essential argument in Norwegian urbanism.
- Fields.**
The level, yet unbuilt landscape often services agriculture purposes.





Which architectural and spatial features should be considered in added typologies?

The most fundamental part of the house is the ever-expanding porch. During summer, the porch is -next to the year-round popular dinner table- the most lingered space on the parcel. The concept for this outside area originated from the Alpine residences with their distinctive wooden architecture. In Norway, this Swiss-style was introduced by architect Linstow, who believed that the dominant neoclassicism -with a design language derived from stone architecture- was unsuitable for the Norwegian wooden houses. Therefore, he felt that a new building style was needed for small wooden homes based on traditional residences in the countryside. While most of the homes in this neighbourhood date from the early 1980s, the implemented architecture, often described as a Norwegian descendant of the Victorian style, copies older habitats constructed in the early 20th century. The fully-wooden architecture of the elder homes consistently displays the beam underneath the roof, oftentimes culminating half a meter above the rooftop at a sharp point. Dormers further compose extensions in the facade and change the figure of the building.

1. Top left page:

An emblematic Norwegian Swiss-style home, where one can notice its depiction as being a descendant of the Victorian style. Notice the constructive roof elements and the large porch.

© Picture from Bjørn Vidar Johansen.

2. Bottom left page:

The area of Husvik in 1960. The district was known for its whaling activity. The homes were often self-built and owned by marines working in these industries.

© Picture from Vestfoldmuseene.

3. Top right page:

A typical residence in Husvik, with distinct constructive features surrounding the roof.

4. Bottom right page:

The suburban area of Husvik in 2018, pictured from the island of Jarlso.



How to ensure qualitative living conditions in a value-driven agenda?

Qualitative living conditions remain a legal concern to regulate. While restrictions on Husbanken's loans addresses today's profit-orientated rationalisation, other attributes formulating satisfying dwellings are not endorsable. Architectural competitions might formulate the primary response towards a qualitative third housing sector.

The financial model composed in chapter "Vi Krever Eiendom" allows for calculations concerning the ambitious housing typologies with their maximum charge. With values deducted from Statbank such as net income for households, average rental charges, average acquisition prices and more, it is possible to determine the maximum construction costs and the largest square meter value that enrolled members could financially bear. Given an inflation rate of 1% for upcoming 30 years (today's value hovers around 3%^[13] and is evidently more positive) and an interest rate of 4% (equals the current offer from Husbanken^[14]) with acquisition opts of 80% after 15 years, the model estimates maximum construction costs for "Allmennbolig" around 28,450 NOK/m². For comparison: this value floats 1,61 times above the finished Moholt timber towers in Trondheim (15 stories, composed of CLT). Though such calculations hold uncertain variables such as the acquisition opts, inflation

rates and more, it does achieve a first assessment of the proposed template. More relevant in this work are the deducted typologies. With the target composed of first-buyers with often lower than average income, the *expenditures for housing are set to this ambitious maximum of 25%*. Extrapolated from the 70% rent ratio with a fixed square meter^[53] rental price and in concurrence with a modal distribution for household incomes across the population segment of [1,0.55], we achieve 4 different area typologies enrolled members could be competent to obtain.^[54] ^[55]The 112 m², 98 m², 76 m² and 64 m² units would allow tenants to balance their house expenses on the ambitious 25 % limit considering a [20,20,40,20] distribution across the built curriculum. Though more diversification within the distribution could be considered, it is argued for design purposes a *specified grid* could obtain these dimensions allowing flexibility within the architecture.

Not all attributes that ensure adequate living provisions can be regulated. Unfortunately, the assessment of quality exceeds the discussion of construction costs and the useable floor area. The measurement of the condition of a dwelling transpires through a variety of arguments: its *architecture, energy performances, location, implementation and volumetry among others*. While commands often deal with regulating ceiling height, corridor width and minimum floor area, surveillance concerning sunlight, materiality and variation in unit typologies are troublesome to monitor. Different approaches and pilot projects have been proposed to cope with the issue, but market supply often stands in the way towards *mass-usage* of these propositions. For instance, the draft "Mot en Tredje Boligsektor" presents a matrix of invaluable provisions new projects are held against, yet fails to support this claim through an *endorsable procedure*.

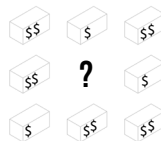
Husbanken stands as the benchmark for qualitative housing. Discussed in "Vi krever eiendom", the Norwegian Housing Bank will address critical characteristics through various evaluations when giving loans to residential developments. Hence it is recommended for Allmennbolig and Husbanken to address quality at the dawn of each project. The format of the Sandness model, discussed on page 8, seems a suitable strategy. However, it is hypothesized submitted proposals must *already attain a maximum cost limit* while the *basis of evaluation becomes the characteristics in architecture* and energy performances. A separate instance could furthermore evaluate these proposals with input from the community. It is imagined the Allmennbolig website could obtain a page with each bought parcel attaining a competition with a *limit on estimated project expenditures* and Husbank's requirements. After a specified deadline, the most qualitative project is chosen, regardless of its cost price.



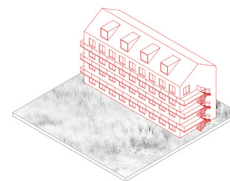
Allmennbolig acquired land



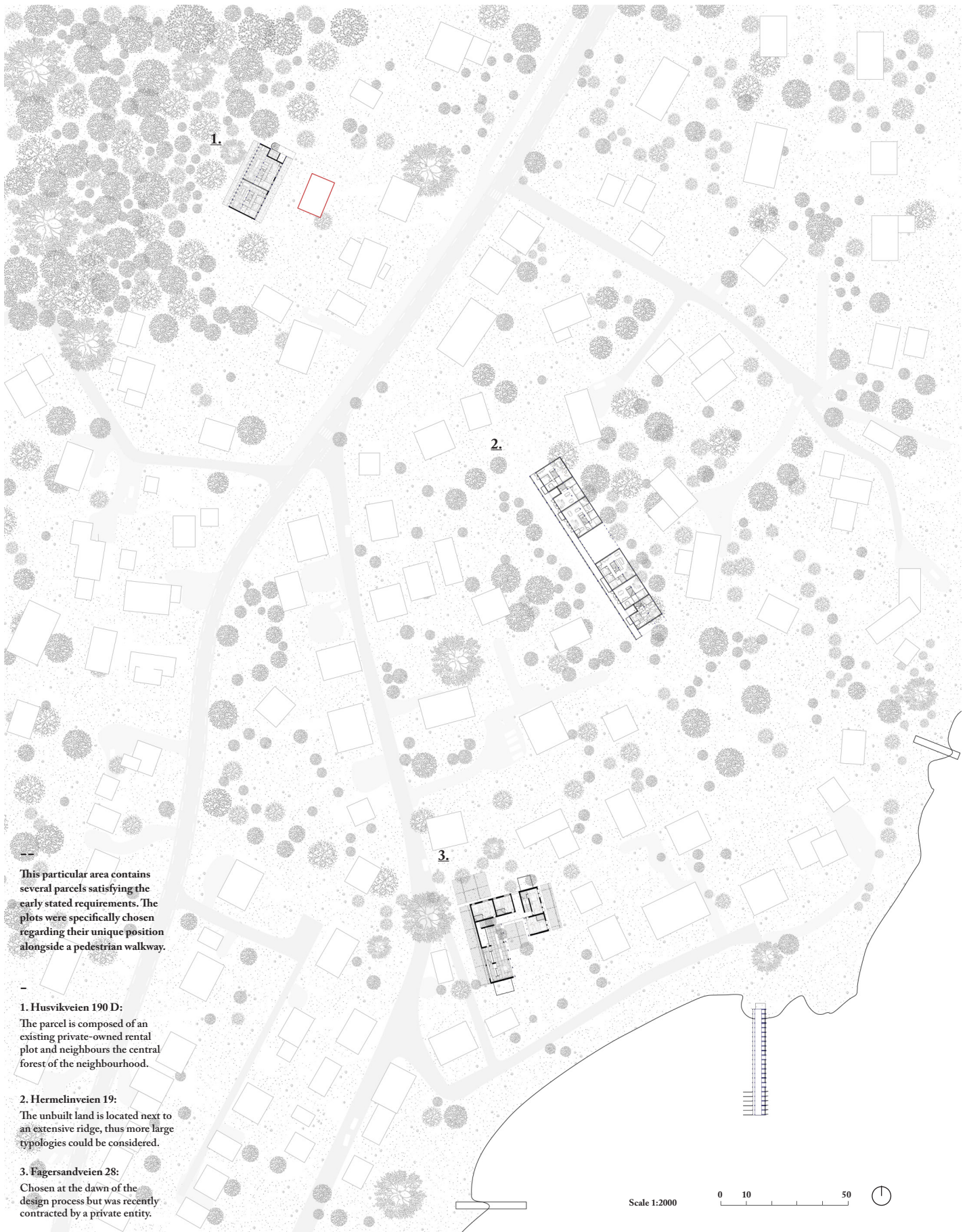
Husbanken's basic requirements concerning floor areas, unit sell prices and range of typologies.



Architectural competition with delivered projects must contain basic requirements.



Most qualitative design wins the competition and will be constructed through Allmennbolig.



This particular area contains several parcels satisfying the early stated requirements. The plots were specifically chosen regarding their unique position alongside a pedestrian walkway.

1. Husvikveien 190 D:

The parcel is composed of an existing private-owned rental plot and neighbours the central forest of the neighbourhood.

2. Hermelinveien 19:

The unbuilt land is located next to an extensive ridge, thus more large typologies could be considered.

3. Fagersandveien 28:

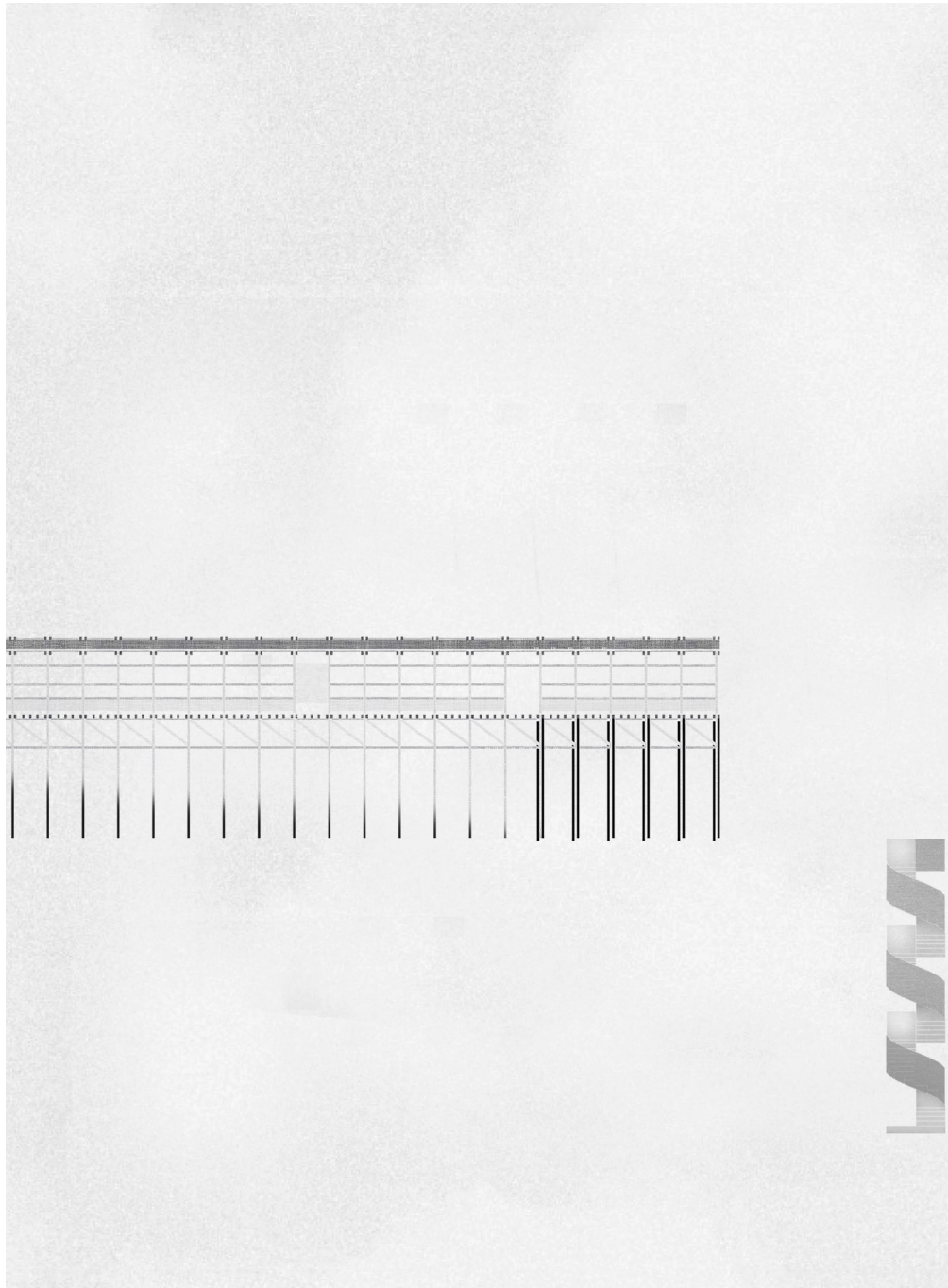
Chosen at the dawn of the design process but was recently contracted by a private entity.

Scale 1:2000

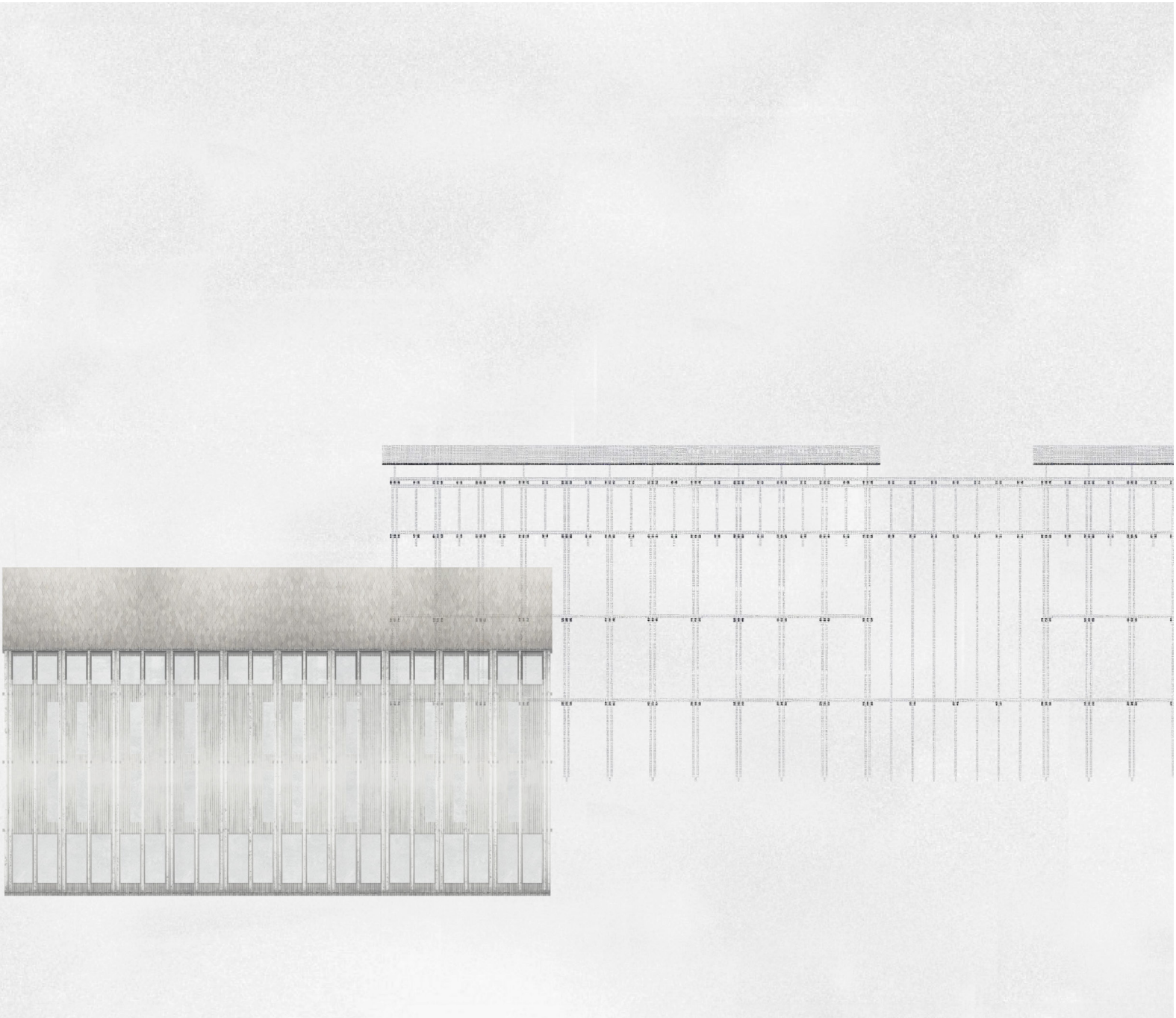


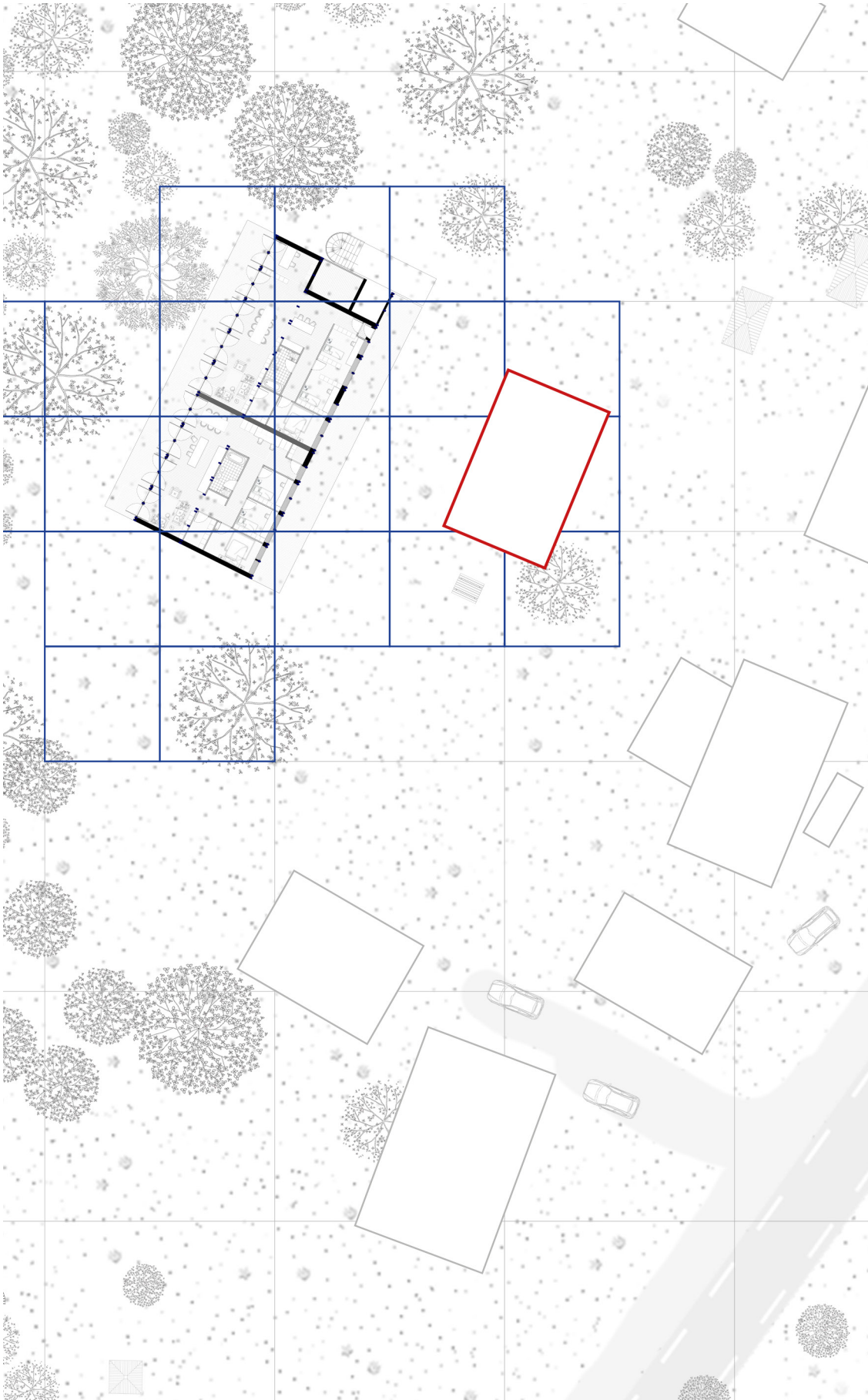


The pursuit of a cohesive spatial and architectural vocabulary. When inserting sizeable new typologies in an often monochrome building environment, it is imperative to find an archetype who lends elements of the surrounding structures to service its welfare. The language of a gridlike formation was opted, related to the structural Swiss-style, and in concurrence confined by the affordability and typology delimitations elaborated in "Vi Krever Eiendom" and "Vi Krever Rådyr". Through three pilot projects, the possibilities of early stated strategies will be explored, varying from conservative building ideologies to participative dwelling structures. These distinct projects took the title of their parcel: "Husvikveien 190D", "Hermelinveien 19" and "Fagersandveien 28". These three mixed-residential designs are joined with a supplementary structure near the waterside, embodying the arrival of new communal infrastructure.



—
Rythmetics of the facades.
Sloped roof as a mandatory serenity.







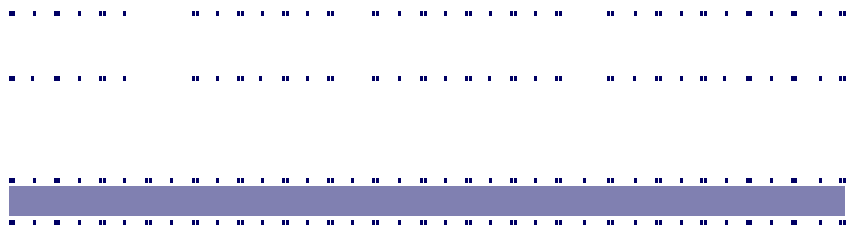
HUSVIKVEIEN 190D

The project is situated next to the informal pedestrian route adjoining the central forest. The introduction of a more dense and tall typology on this green parcel demands, according to the established strategies, a countering commitment. Therefore, this first pilot project ambitions to reuse the existing patrimony (red on the plan) to establish area-serviceable functionalities. In this case, due to the proximity of the forest and the waterfront, a Samfunnhus (kindergarten/communal centre) was favoured. The chosen unit typologies are rather typical in today's housing market and hope, especially in the early stages of Allmennbolig, to convince investors that within the frame of hypothesised strategies, generic and validated typologies are conceivable. Within these confinements, a grid of 2.65 x 9.85 x 3.05 was used, with a supplementary porch of 2.5 meters wide.

Husvikveien 190 D.

10 apartments
4 x 64 m²
6 x 112 m²

+ feasible unit typology
+ preservation of patrimony

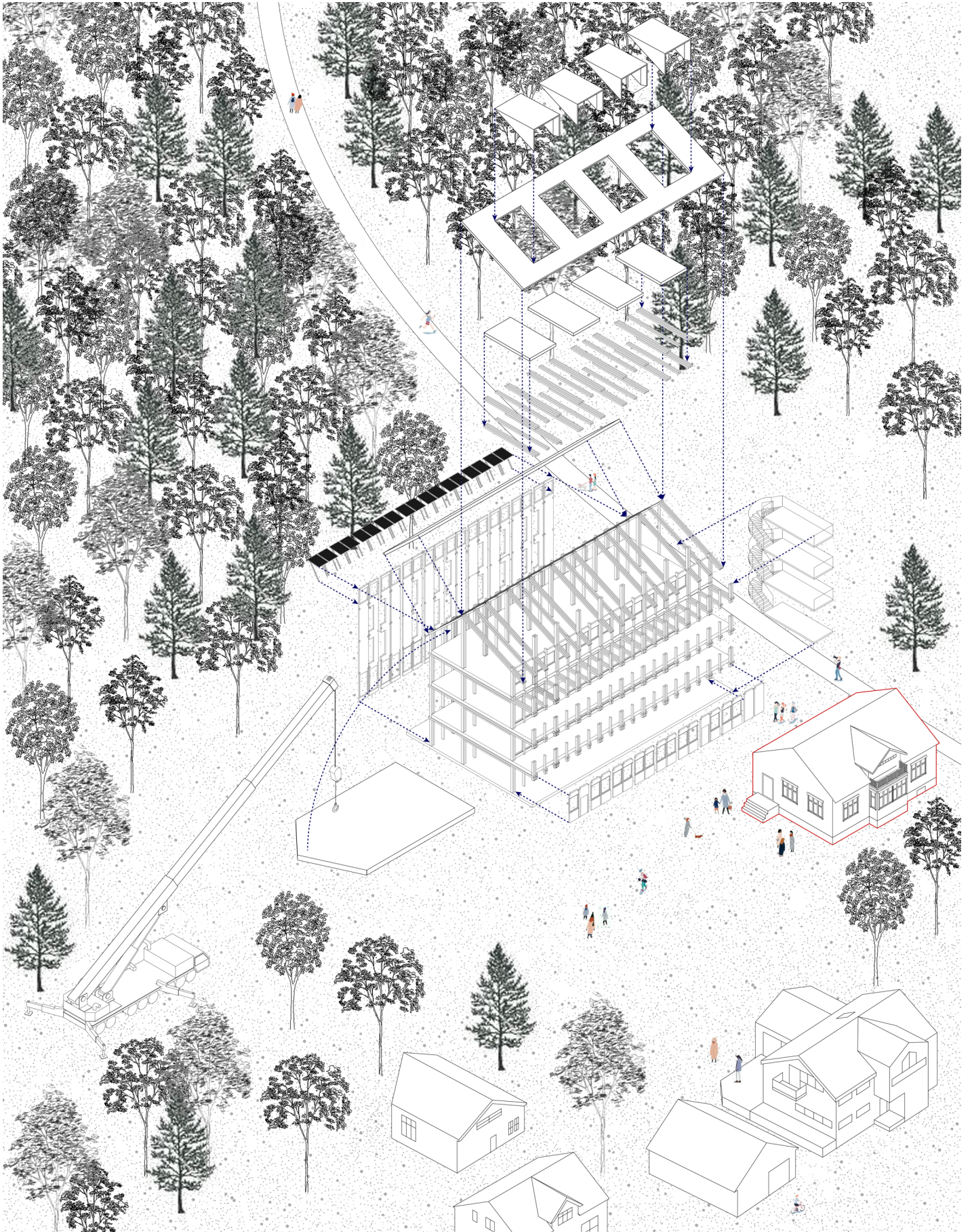


64 m².
2 room apartment
6.625m x 2.5m
4,640,000 NOK (amb)

76 m².
3 room apartment
7.95m x 2.5m
5,510,000 NOK (amb)

98 m².
3 room apartment
10.6m x 2.5m
7,105,000 NOK (amb)

112 m².
4 room apartment
13.25m x 2.5m
8,120,000 NOK (amb)



Rooftop
4 apartments
4 x 64 m²

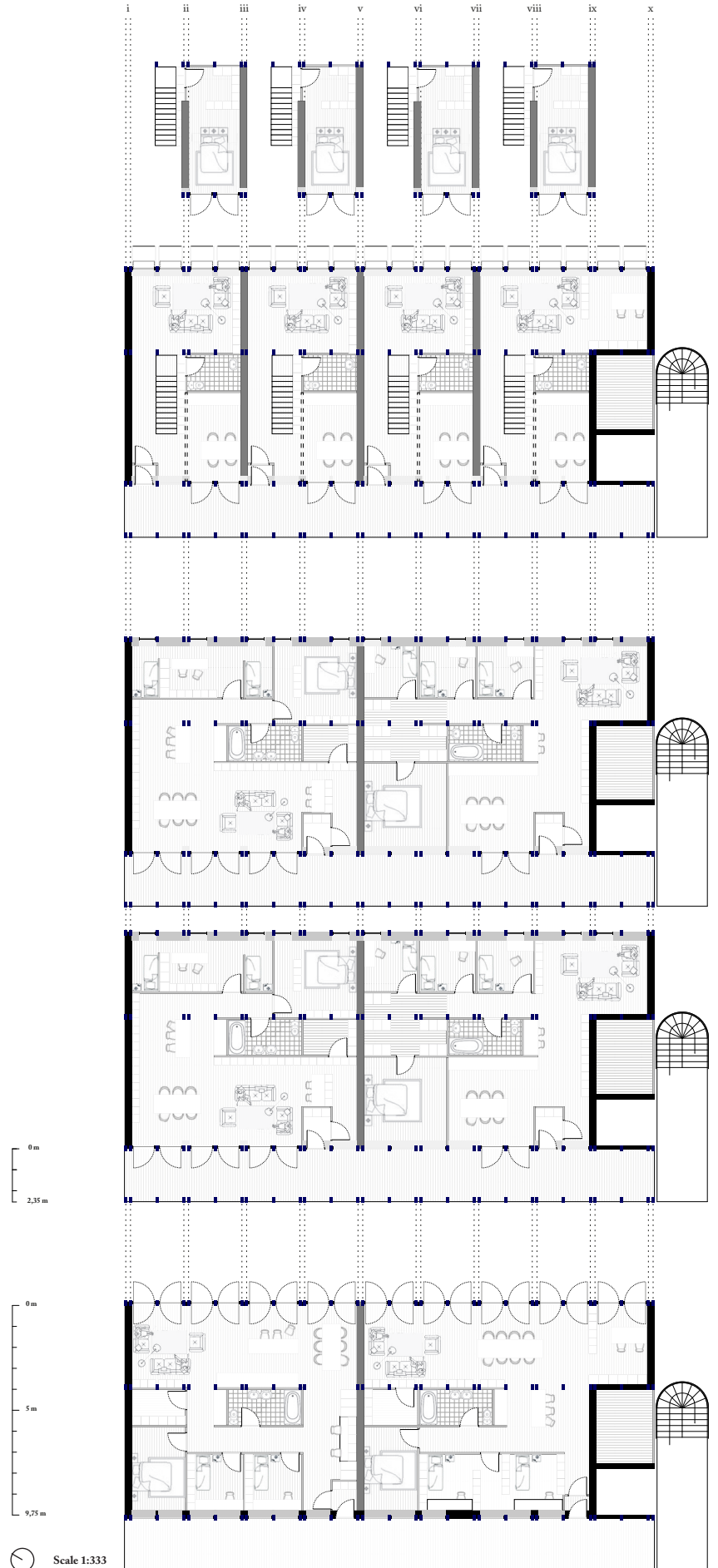
The top apartments are duplexes, who are endowed with the characterising dormers. These volumes obtain large windows overlooking the seaside, providing abundance of light in these smaller typologies. The wide corridor could obtain a multitude of uses, with the staircase able to function as a storage room and a desk.

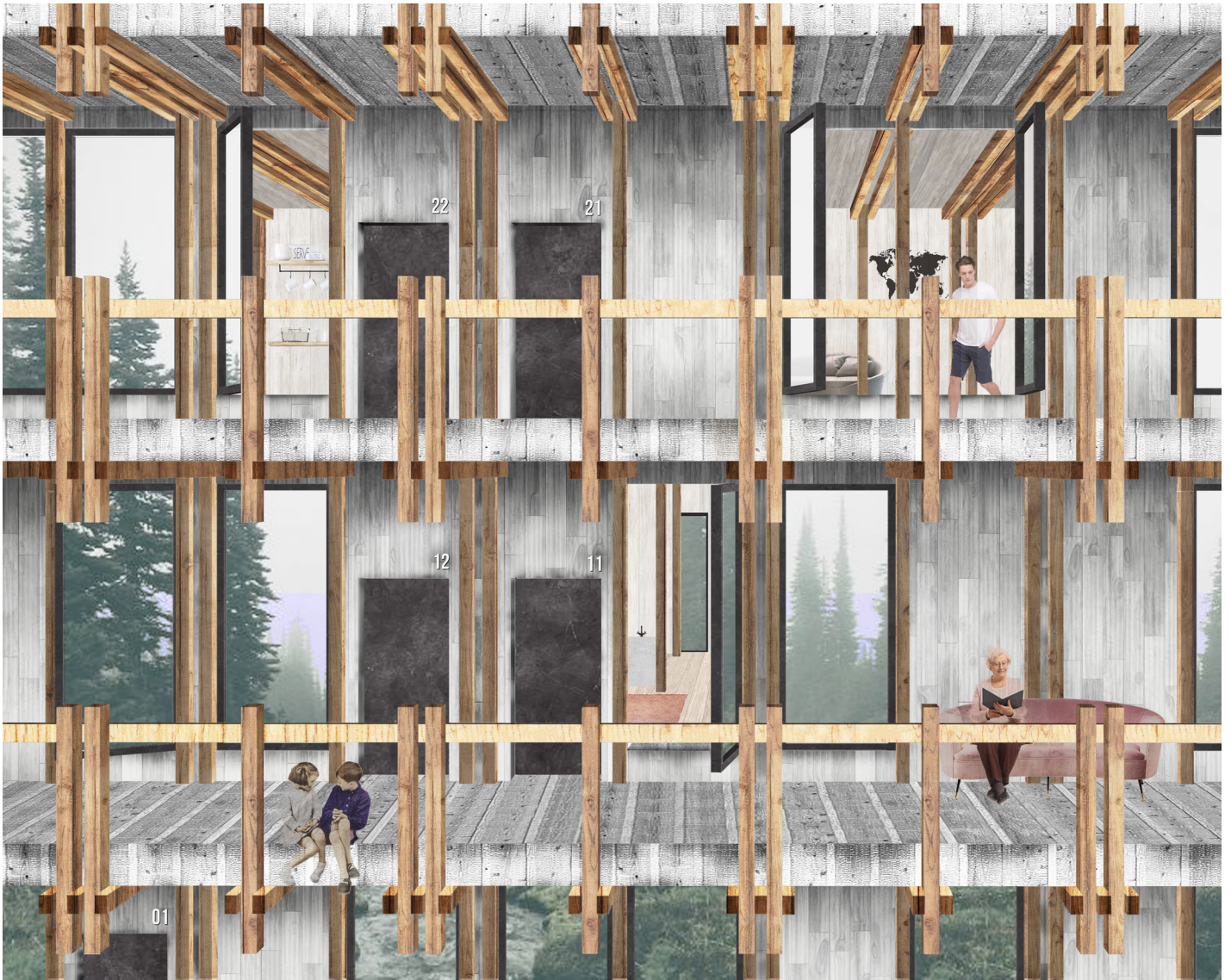
Battery
2 x 2 apartments
4 x 112 m²

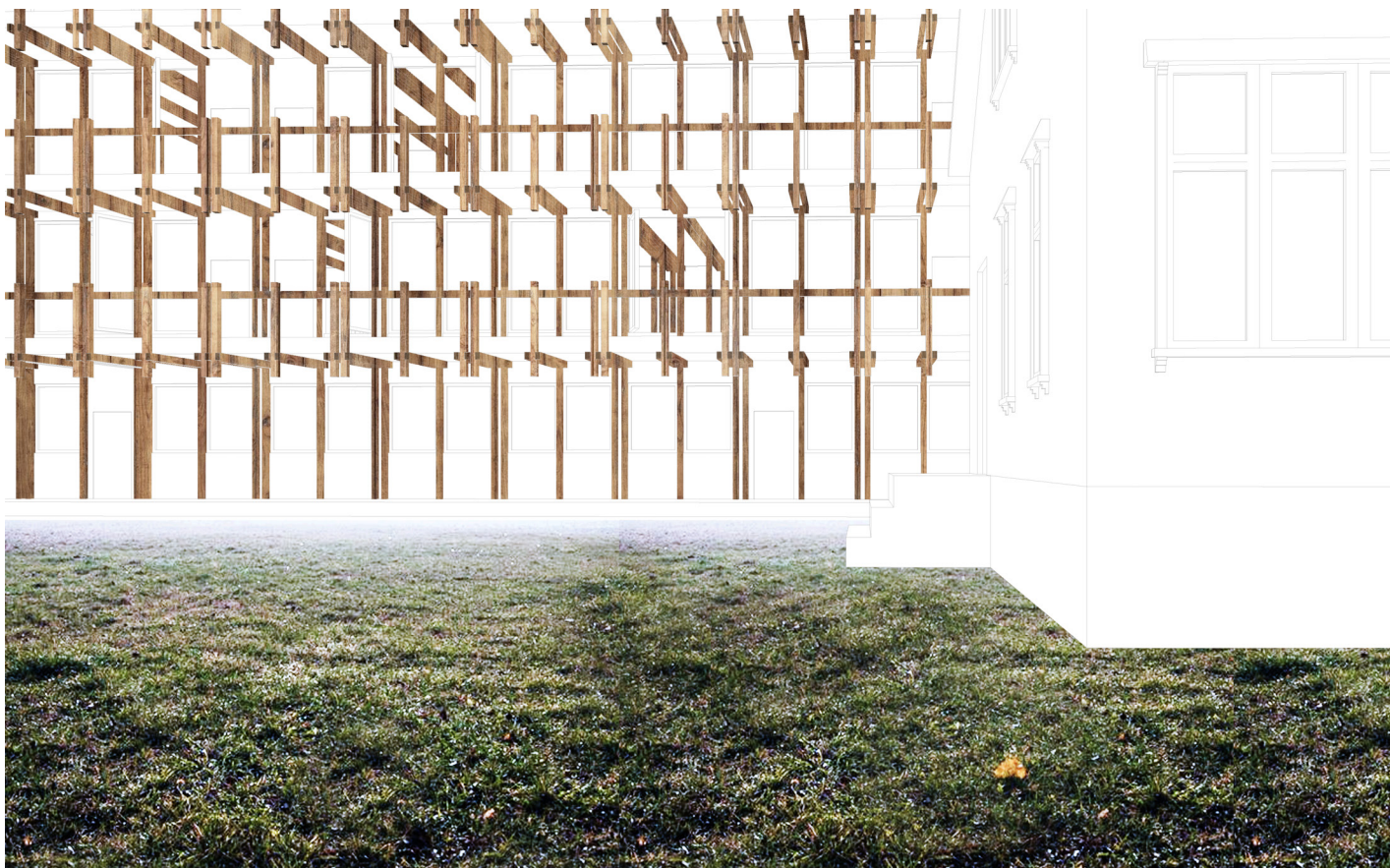
These dwelling typologies are most common in the existing housing market. The first and second level defines the grid and subsequently the layout for both the top and bottom apartments. Wet-areas are located centrally in each of these habitats, leaving large open living areas. Articulated with large windows, the units are arranged towards the porch overlooking the seaside and the garden. With the grid in place, the units are adaptable in number of bedrooms as well as the overall plan composition. The 2,5m wide porch stands as the central element and aims to invite inhabitants for informal encounters. Each level obtains next to the elevator the obligatory cold-rooms, where winter equipment is stored.

Forest
2 apartments
2 x 112 m²

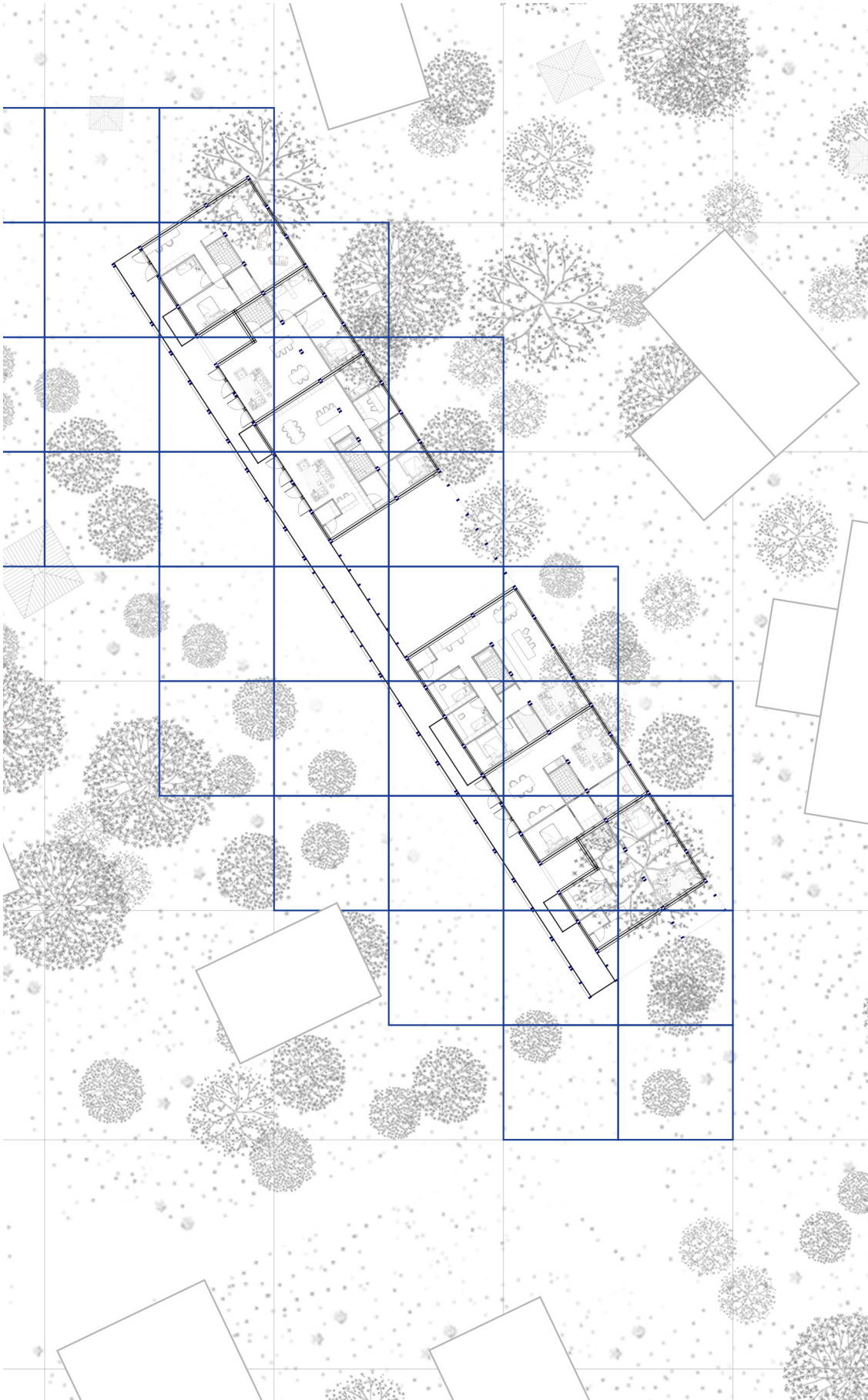
The bottom residences have their living areas positioned towards the forest. Smaller windows towards the garden aim at privacy, while large revolving windows hope to spot deer more easily.













HERMELINVEIEN 19

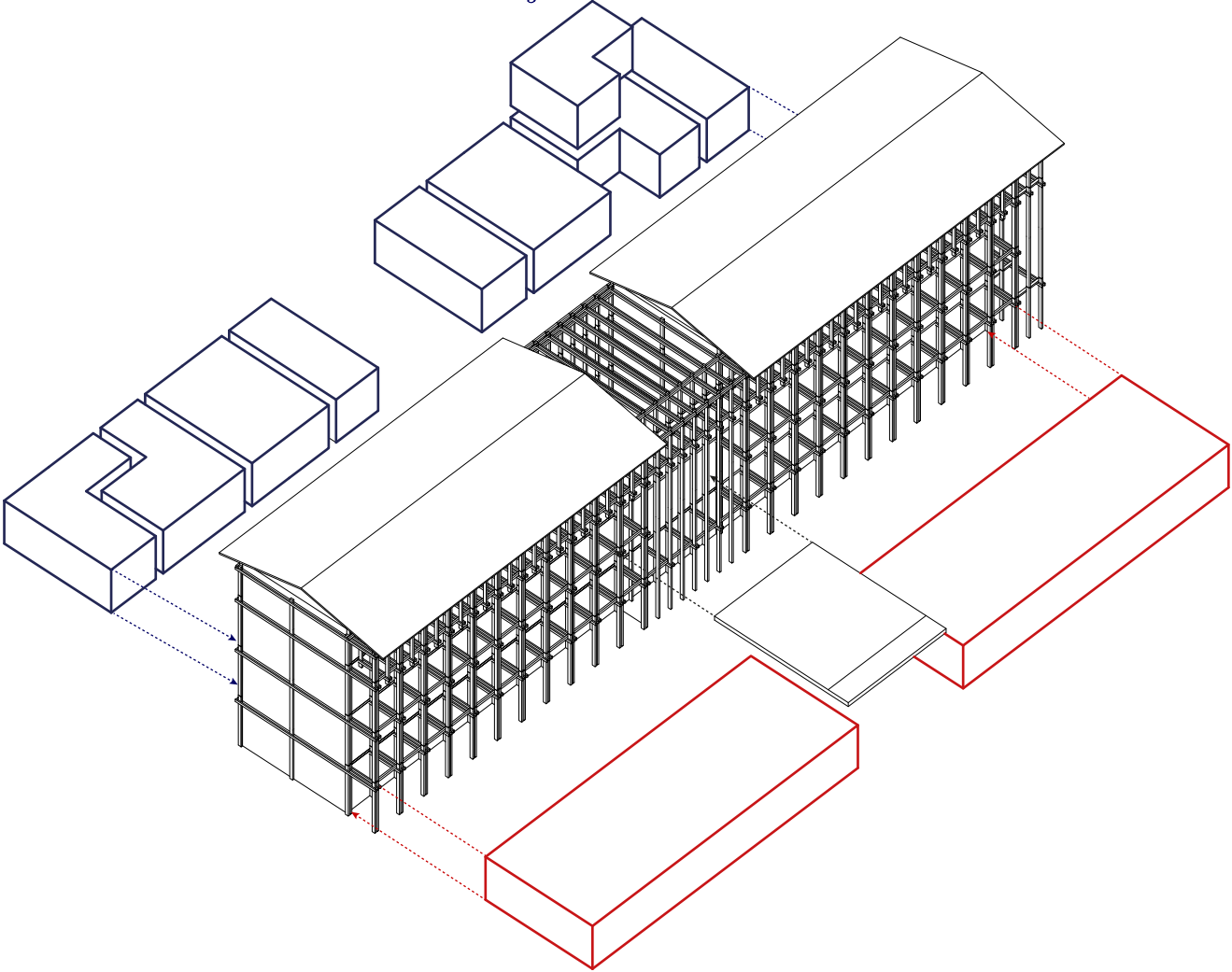
Hermelinveien 19.

2 x 9 apartments
2 x 3 x 64 m²
2 x 3 x 76 m²
2 x 3 x 96 m²

Compensates the height with an open ground floor plan. This space can be completely opened, or used as a local artisanal workspace, a shop, kindergarden, community center and more.

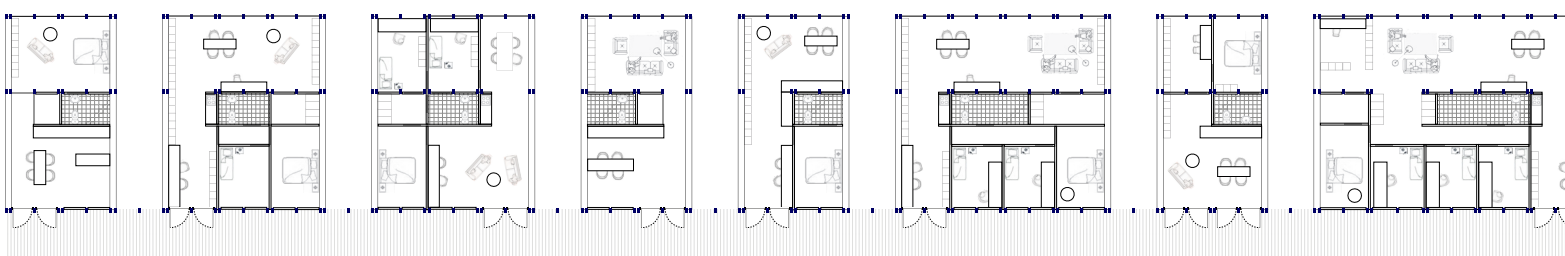
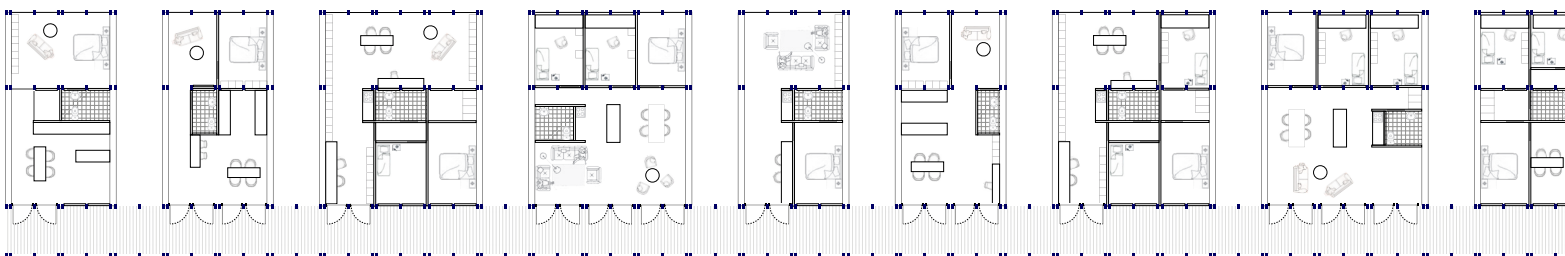
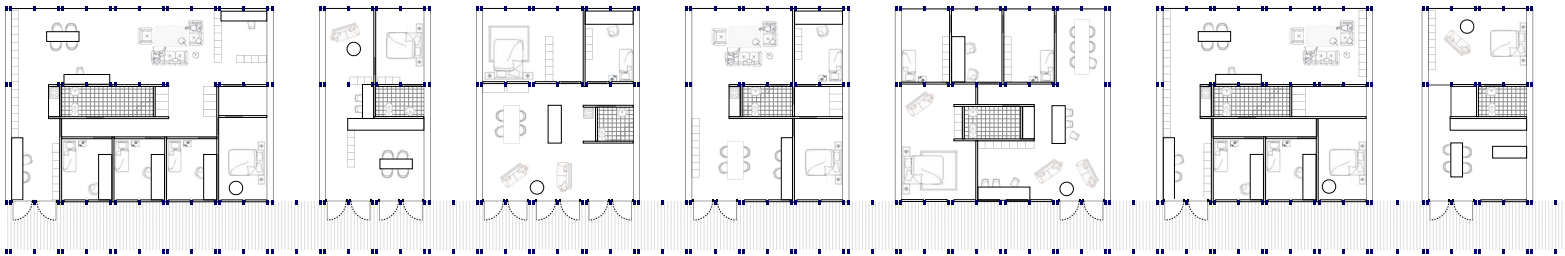
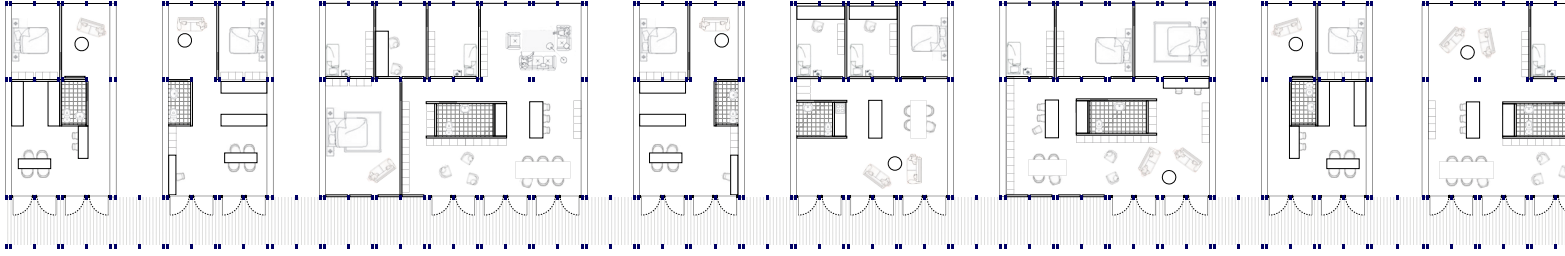
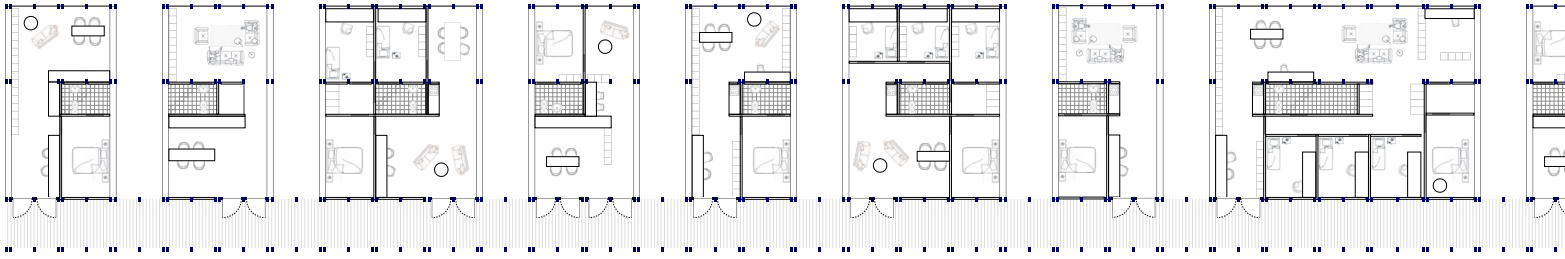
A grid of 1.85 x 7.85 x 3.15 was used in this case, experimenting with the dimensions of the grid. An additional porch of 2,4 meters wide is added. A collective staircase, an elevator and on ground level a confined storage space for skis, sledges and other material services the dwellers. On the first floor, a communal space can be formed between the two buildings. Sports activities, barbeque spot etc.

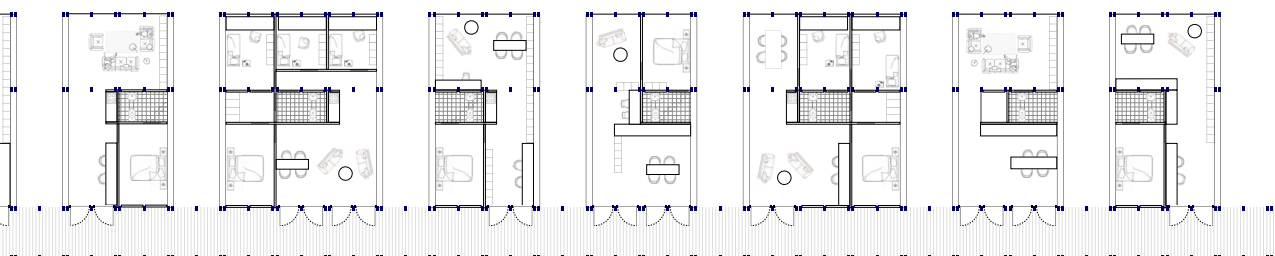
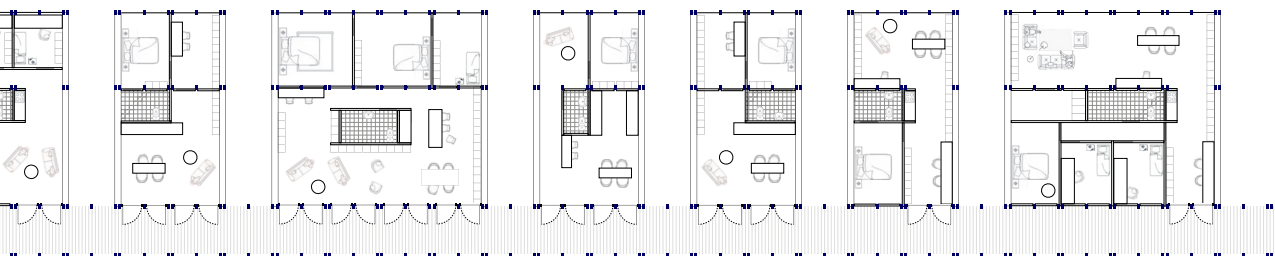
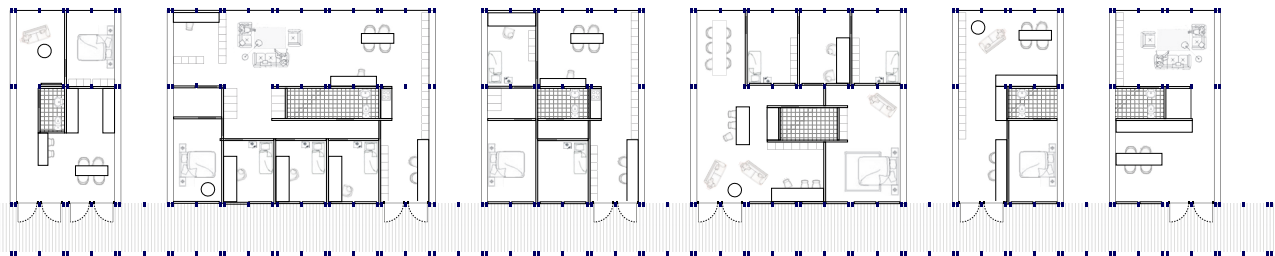
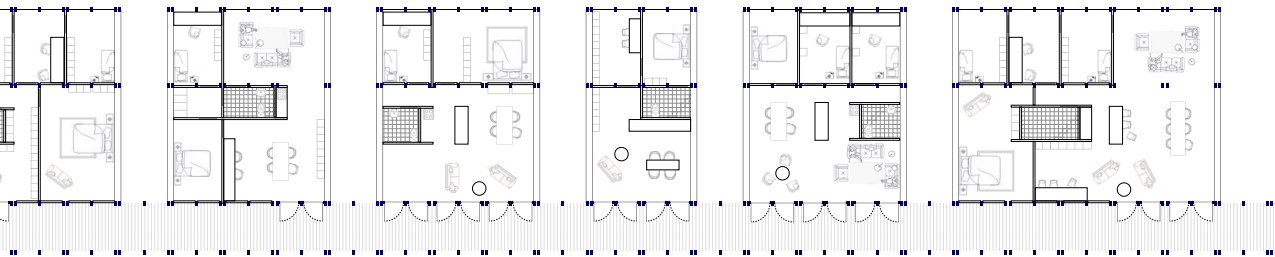
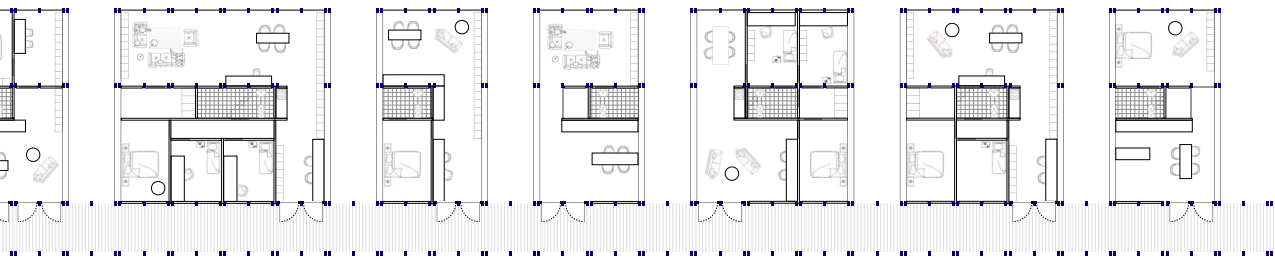
DIVERS UNIT TYPOLOGIES



COMMON SERVICES





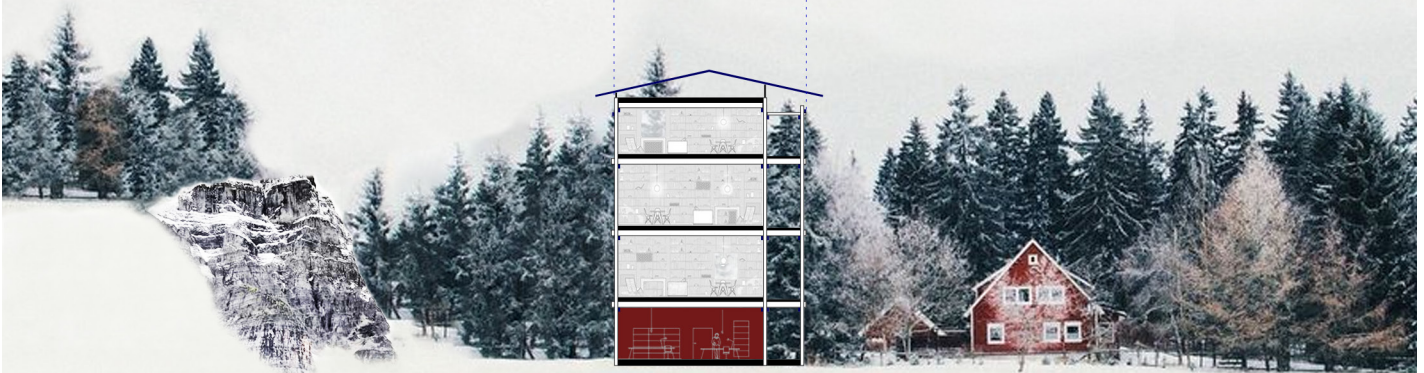
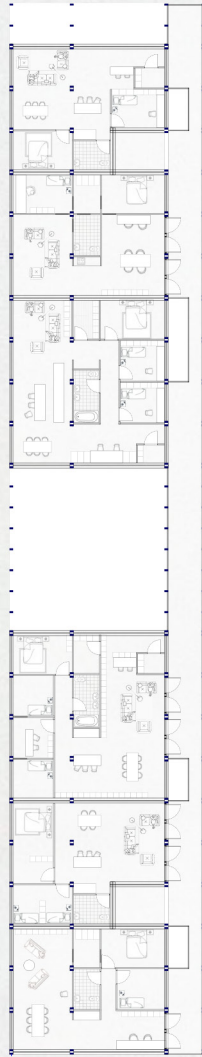


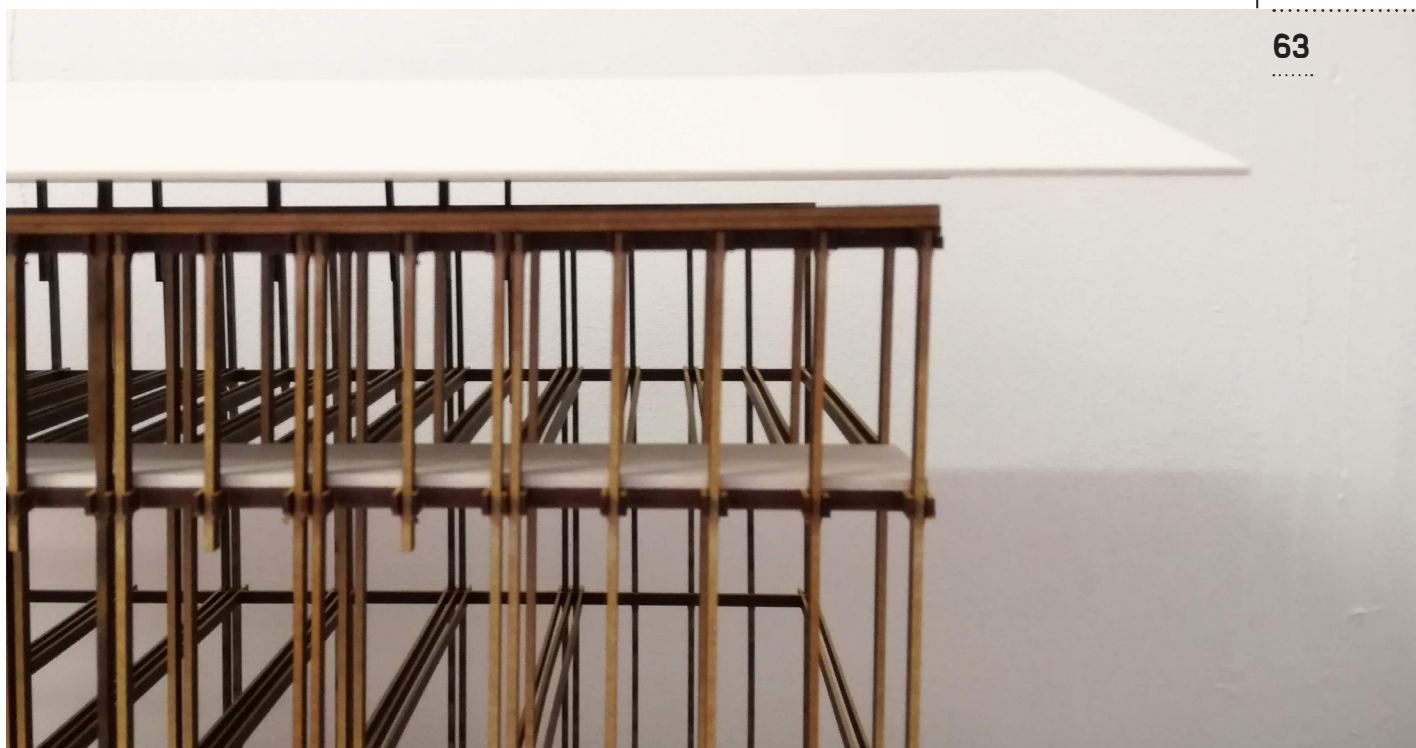
It is hypothesised new tenants could have the option of laying out their new apartment as a byproduct of the open grid. Different choices could be made adapting to individual privacy preferences towards the porch. On the drawing, different options are witnessed from full exposure complete obstruction of the living areas. The alteration of the porch is evidently an additional instrument.

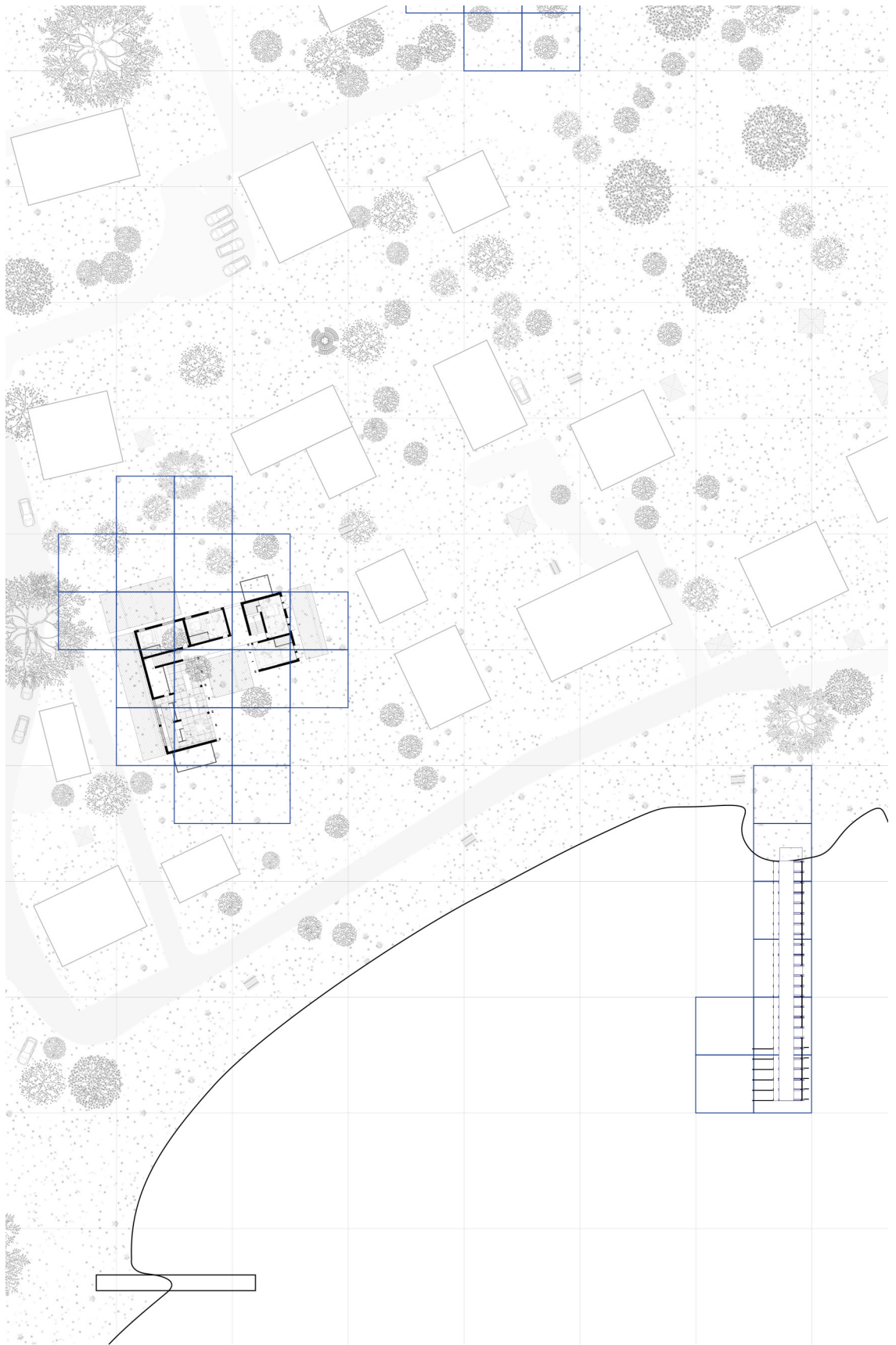
Ensuring structural security, certain walls are already established through a wooden skeleton. Thin walls can be further attached to the structure, allowing great adaptability for future alterations of the unit.

Section with first floor plan.
The ridge on the left visually
permits the added floor of
the construction compared
to the previous project.
The ground level in red
signifies the feasibility of
a servicable function.

Scale 1:500







FAGERSANDVEIEN 28

Fagersandveien 28.

10 cohousing units

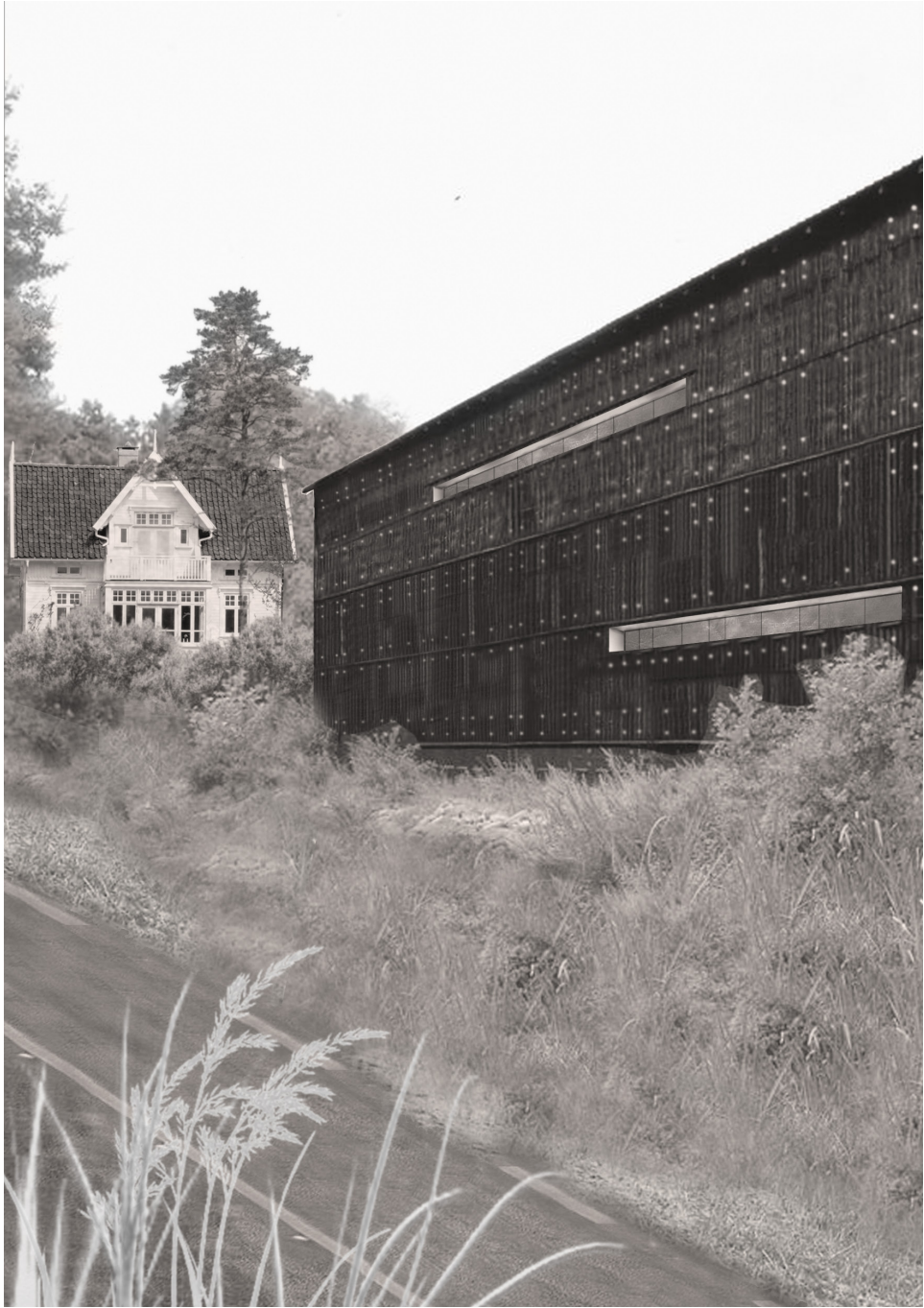
8 x 26 m²

2 x 32 m²

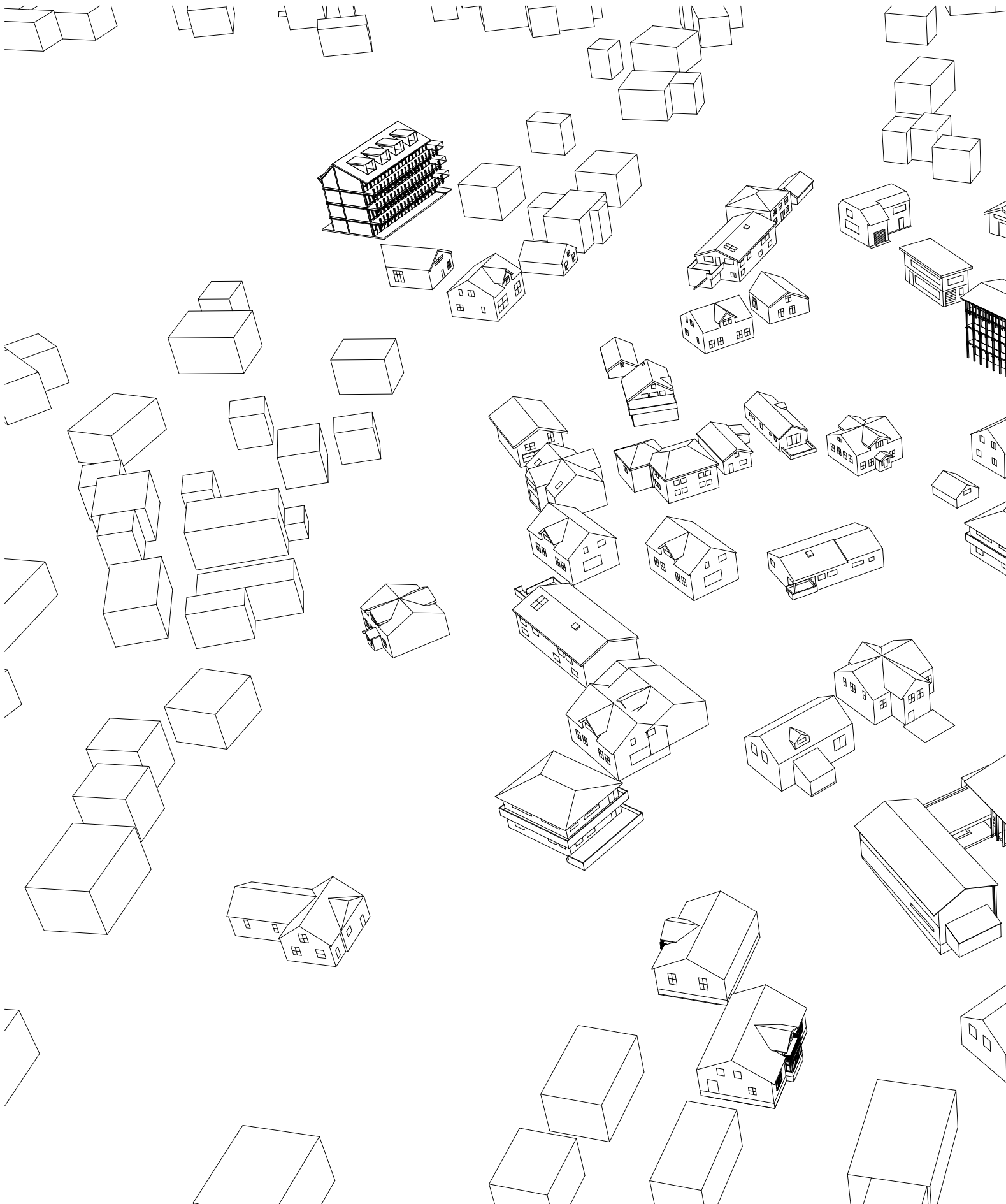
Uses the same structure, though completely closes from the outside. All units have a view towards the water and the inner garden. On the floor level, a large collective space is present with the kitchen island as decisive volume.

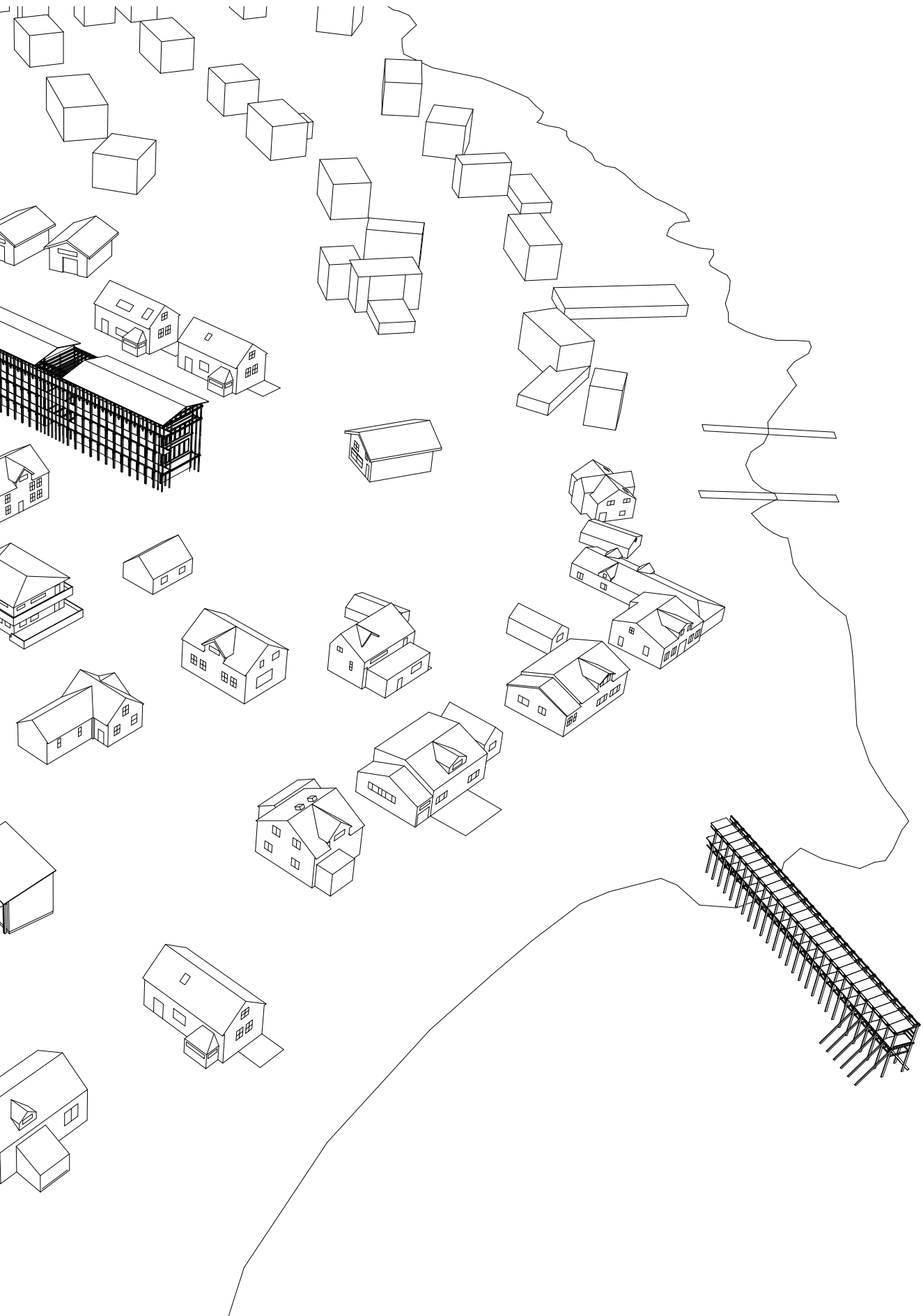
The same original grid of 5.56 x 9.85 x 3.05 was used in this case, though experimenting with inner dimensions of the corridors. An outside collective storage space for skis, sledges and other material services the cohousers.

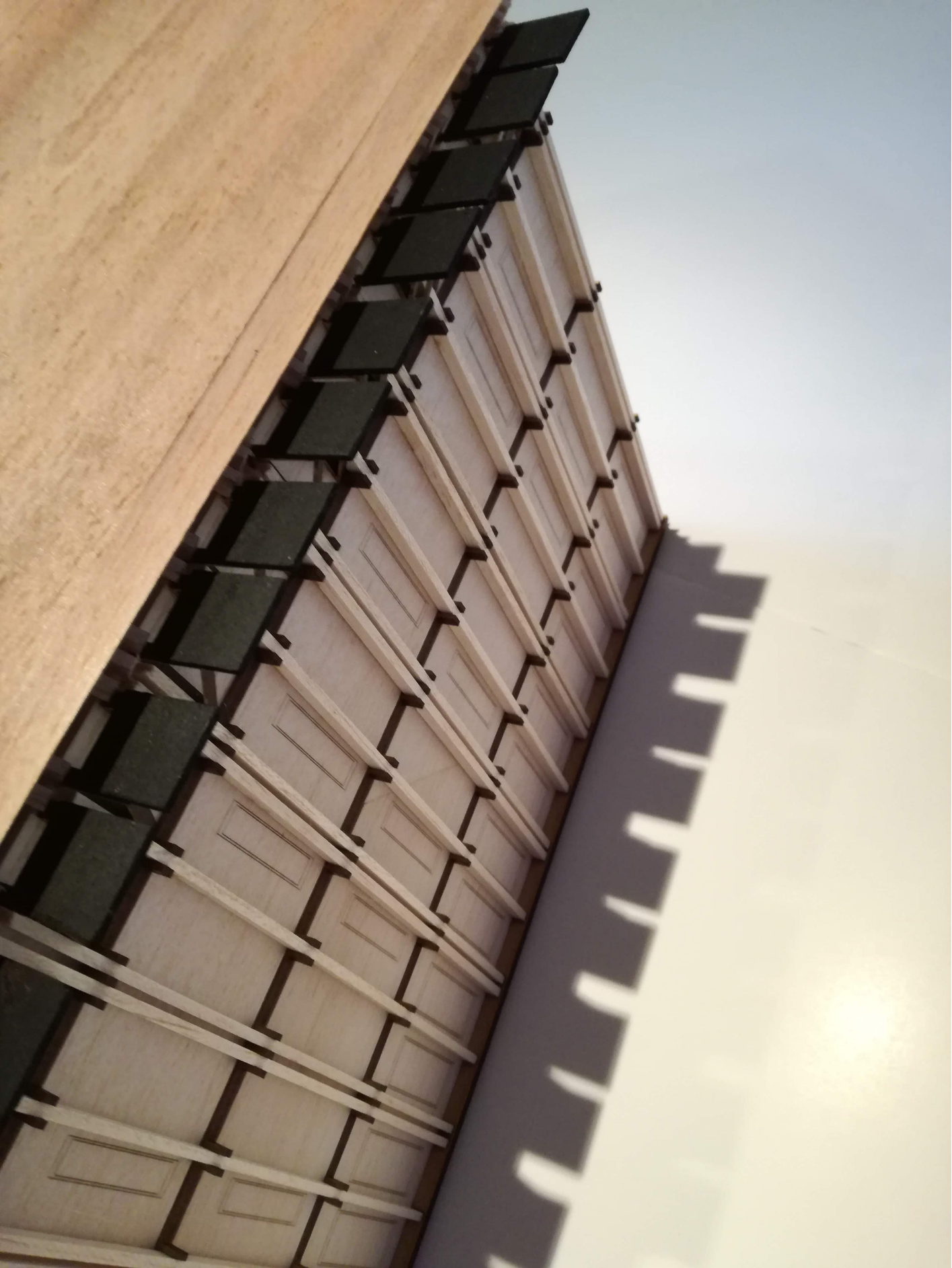
Instead of adding services to the plot, it is argued a pier could be constructed out of wood, strenghtening the existing beach and its pathway.











C O N C L U S I O N

This graduation project foremost strived to propose a template of the ambitious re-emergence of state-constructed dwellings. I believe the hypothesis of pursuing a slow ownership model is correct, though, it proved extremely difficult to convince public instances. After four months of intense conversation with Trøndelag Kommune, gaining a sufficient economical (and Norwegian) background, I repeatedly failed to convince the municipality to alter their Tillskudd model. Why? The key was in the so-called "Beboersammensetning" or simply: who could join? My original composed model proved curiously simply too good. Everyone would want to participate in such scheme and the municipality didn't ambition to turn into a developer without state-wide legislations.

And now, since my return to Belgium, several Leie til Eie projects have sprouted with almost identical ideas as my original model. Though, those projects are constructed by profit-oriented developers such as Fredensborg or Tobb. And perhaps the icing on the cake, on the first of January 2020, before-public owned institution OBOS now offers its own Leie til Eie business. Yet, unsurprisingly, only sells 70% of the unit (this is probably another way to overcome the inflation burden just as in my model with the same percentage) I believe this is partly due to the expectation that land prices will decline within 2020 as early signs prove immigration solely will not suffice to uphold the growth of last decades house prices. Perhaps I've given up on such a public instance in Norway as the issue was arguably most pressing from 2013 till early September 2019.

We'll have to see what Oslo Kommune will do upcoming years.

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En stor takk

Aller først vil jeg takke Erik Frylund Hofsbro for kontinuerlig støtte gjennom hele året mitt i utlandet i Norge. Jeg var veldig heldig som fikk deg som min lærer for Heidelberg-designen, og er veldig god for hjelpen på fritiden på mitt andre semester på NTNU. Jeg håper vi kan møtes igjen i fremtiden.

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Author

Thibaut Van der Beken

