

CENSORS BOOKLET

# THROUGH ADDITIONAL CELLS

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NAME: Through additional cells  
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“All material, including photographs and maps,  
unless otherwise stated is by the author.”

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## INTRODUCTION

# POINT OF DEPARTURE

The theme for the project is densifying an area of suburban single-family homes. Lately Oslo has been growing rapidly and these areas have come under pressure to densify further. This has resulted in a series of protests with: “Do not destroy our neighbourhoods” as the main message. That is what happens when an area is reclassified as a development area: The plots are aggregated into larger units to allow for higher and bigger buildings and existing buildings are torn down to open up space for new ones.

Areas of small scale housing are always densifying, trending towards the maximum allowed in any time-frame. This they do through subdivision of existing plots and extensions to existing houses. Always growing to the max allowed utilization under the current rules, there seems to be no fear for densification in and off itself: It is the destruction of the existing that creates the problems.

That destruction is the method of change but also a symptom of the planning framework. In Norwegian planning today, the rules are geared towards either a low density area of single-family homes, a suburban structure with larger buildings or a more urban structure with large buildings and higher density. Change in the structure of an area usually starts with the erasure of the existing. Thus there are no paths for an area for single-family homes to become a denser, more urban area, creating a missing type of density: The almost urban, the not quite urban but more coherent and denser than the suburban.



Sign: Not for sale; Stop destroying our neighbourhood

This project will work with the rules governing the density, and form of an suburban area and try to reach the goal of a FAR of 1.0 without breaking the structure of the existing. This will be done following the individual plot as the primary unit and through the subdivision of plots and the addition of small scale housing to the existing fabric of houses.

The project consists of four parts; first an analysis of the existing, how it behaves, of the ways it changes and some of the main drivers of this change. In the second part, working with the existing set of rules, flexing them to see what would result. The third part is the formulation of a new set of rules, replacing the existing rules. In part four I make an example, a set of buildings conforming to these rules.

## DENSIFICATION

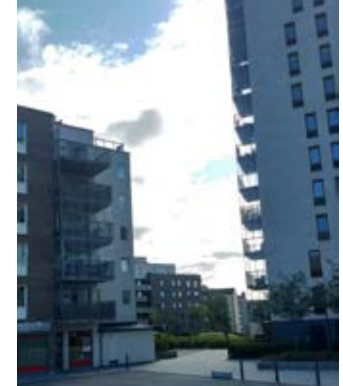
# Småhusplan vs Knutepunkt

Småhusplanen is the current plan for the majority of these areas of small scale housing. This plan, while seeking to preserve the typology of the area as one of small houses, still seeks to densify.

Once in a while one of these areas are reclassified to a development area, or a knutepunkt. This unleashes a series of densifications where the existing houses are torn down, the plots are combined into larger plots and the developer builds housing slabs, but mostly it would take the form of plot based densification: A large plot is redeveloped by tearing down the original house and several new houses erected in its place.



Current street of Grefsen



New housing slabs at Storo



Tyslevveien 1962



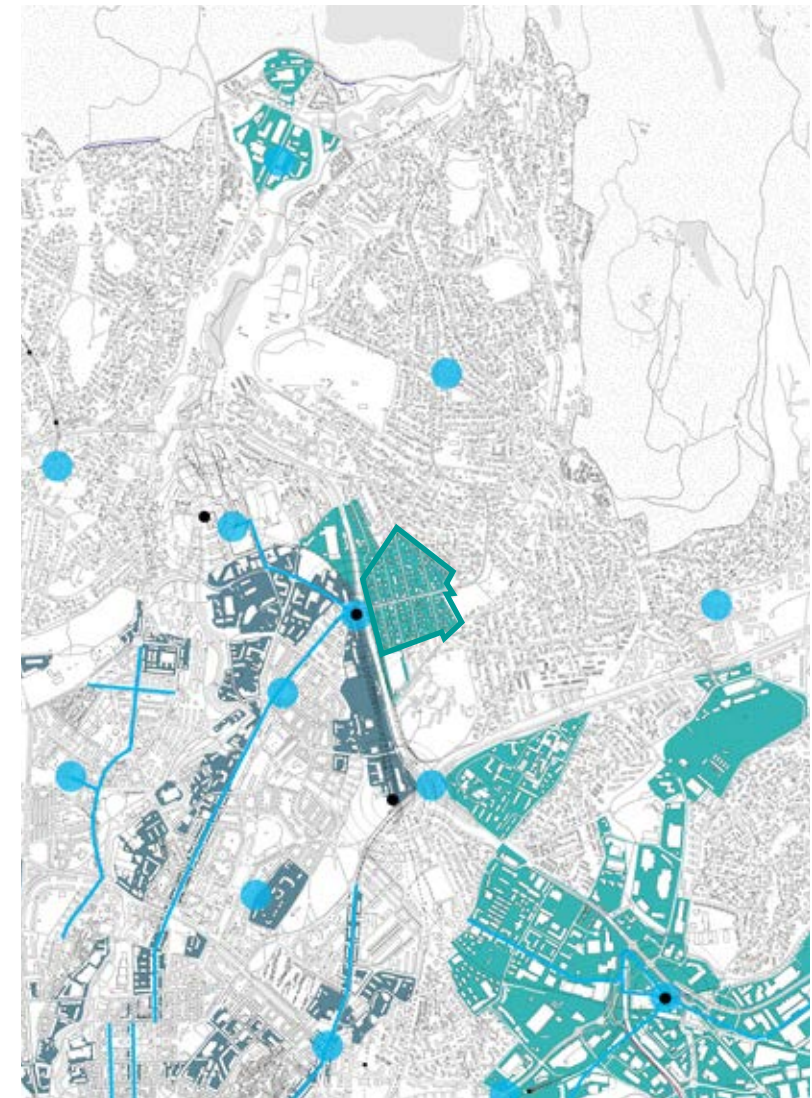
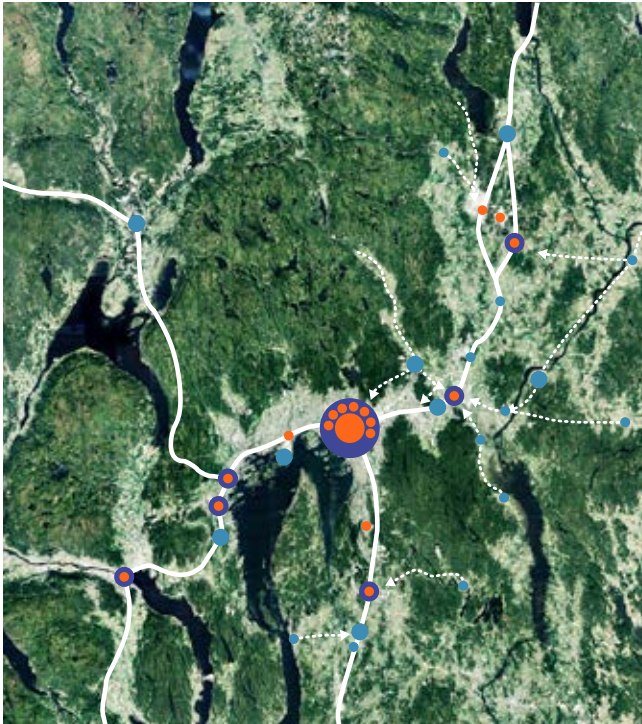
Tyslevveien 2015



## DENSIFICATION

# KNUTEPUNKTSPLANEN

There is a regional planning framework in place, binding future land use in both Oslo and the surrounding county of Akershus. The goal is that the majority of future development should occur close to existing infrastructure. This drives densification in Oslo, concentrating development into two zones: Former industrial areas and the areas surrounding a transportation node. Grefsen, the site for the project, is located within 500 m of one of those.

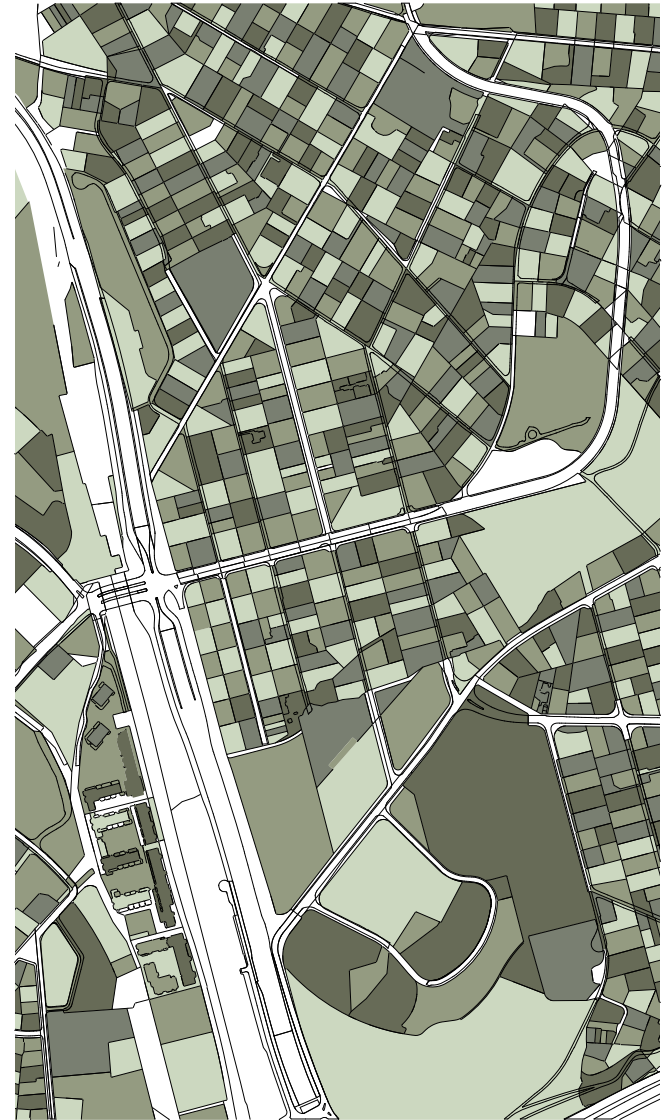


- Development area outer city
- Development area inner city
- Main streets
- Designated transportation node
- Plazas planned and existing
- Site

## SMALLER HOUSES IN OSLO



## PLOTS



## DENSIFICATION

# WAYS

During the prediploma I looked on four different areas of single-family housing in Oslo and found that they all had densified. They did so in four different ways:

1. Swelling: Through increasing the size of the original house.
2. Spawning: Through the addition of houses in the gardens of the existing house.
3. Cloning: Through the demolition of the existing house and its replacement of several identical houses respecting the scale of the neighbourhood.
4. Replacement: The demolition of the existing house and its replacement with a completely new typology such as housing slabs.

-  Eremit
-  Spawning
-  Swelling
-  Cloning
-  Replacement





## DENSIFICATION: REPLACEMENT

# POCKET DRABANT

**Adress:** Kongsveien 86

**Findings:** Three houses were situated close to a tram stop in an area undergoing densification through re-planning. This means the developers have been able to densify further than they would at other spots. Thus the houses are torn down to make space for a new development, in effect replacing the former structure with a new one. (201608724 - Byggesak (2018)).

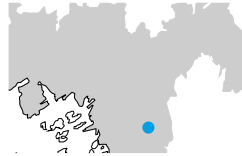
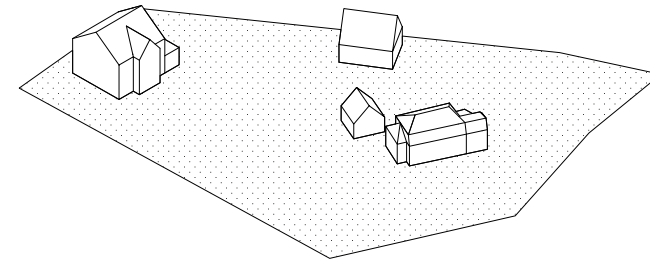


Image 35: Kongsveien 86 - Prospekt

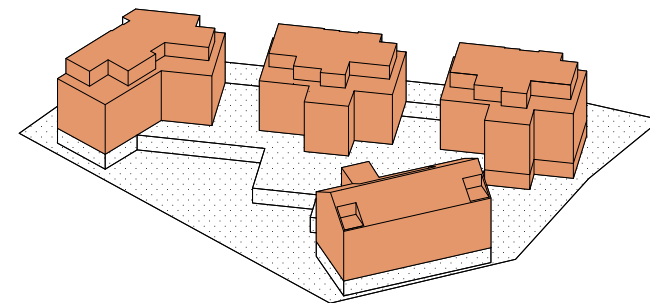
2015: Three existing single-family homes on individual lots.

BYA: 20  
BRA: 769  
FAR: 0,17  
Number of dwellings: 3  
Parkingspaces: 6



2018: Four new buildings built with 47 units

BYA: 30%  
BRA: 4852  
FAR: 1,1  
Number of dwellings: 47  
Parking spaces: 52



DENSIFICATION: SWELLING:

## ROOF AS THE WORLD

**Adress:** Nils Bays Vei 9

**Findings:** This house is swelling in an interesting way; it always swells to the side while maintaining the same roof. This is an interesting take on the overall tendency to apply the direction of the roof as the direction for extension (200109948 - Byggesak (2003)).

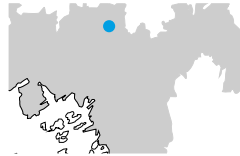
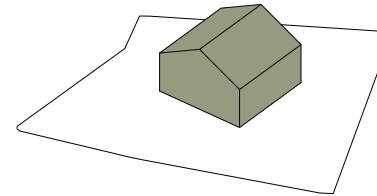


Image 37: Nils Bays vei 9

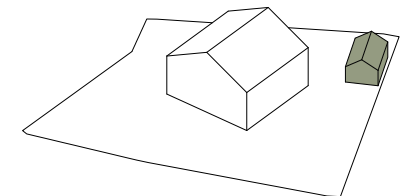
1950: Original house: A single family filling the entire house.

BYA: 11%  
BRA: 260  
FAR: 0,28  
Number of dwellings: 1  
Parkingspaces: 2



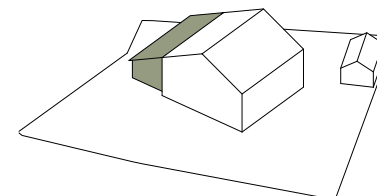
1954: The addition of a small garage.

BYA: 13,5%  
BRA: 269  
FAR: 0,31  
Number of dwellings: 1  
Parkingspaces: 2



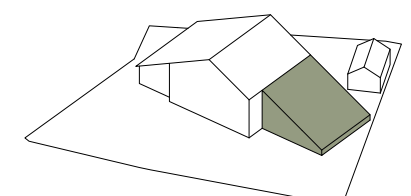
1955: The lengthening of the house outwards.

BYA: 18,5%  
BRA: 336  
FAR: 0,37  
Number of dwellings: 1  
Parkingspaces: 2



1990: New addition containing garages and sleeping rooms.

BYA: 26%  
BRA: 409  
FAR: 0,44  
Number of dwellings: 2  
Parkingspaces: 4





## DENSIFICATION: CLONING

# QUADRUPLETS

**Adress:** kapellveien 50

**Findings:** Three houses were situated close to a tram stop in an area undergoing densification through re-planning. This means the developers have been able to densify further than they would at other spots. Thus the houses are torn down to make space for a new development, in effect replacing the former structure with a new one. (201608724 - Byggesak (2018)).

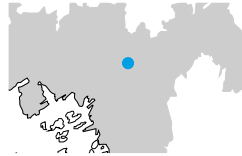
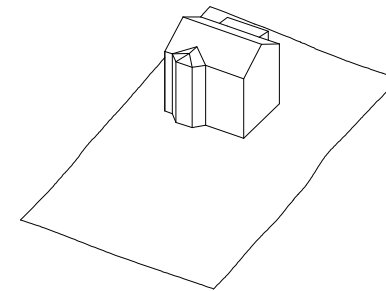


Image 35: Kongsveien 86 - Prospekt

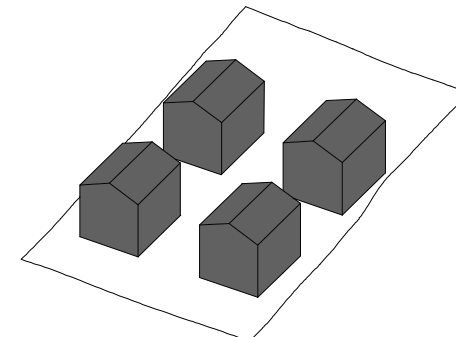
2015: Three existing single-family homes on individual lots.

BYA: 11%  
BRA: 300  
FAR: 0,2  
Number of dwellings: 3  
Parkingspaces: 2



2018: Four new buildings built with 47 units

BYA: 24%  
BRA: 870  
FAR: 0,6  
Number of dwellings: 4  
Parking spaces: 8

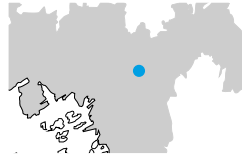


DENSIFICATION: SPAWNING

## FRONTPACK

**Adress:** Kapellveien 19A

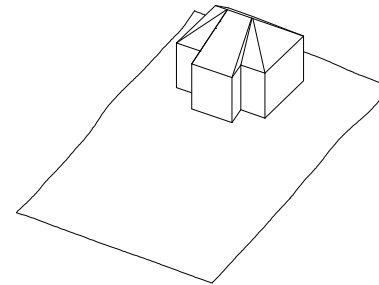
**Findings:** Original house built in 1911 got a new house added in front in 1983. The plot is split into two, with a court approved access over the house in front plot to the plot in the back.



Kapellveien 19A

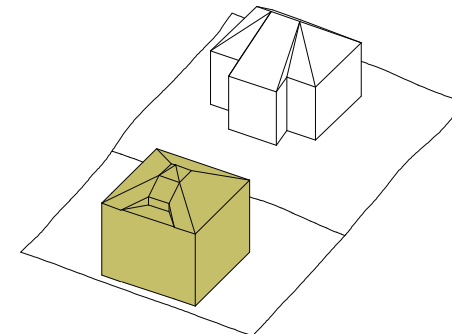
1911: Original House is built

BYA: 10%  
BRA: 300  
FAR: 0,2  
Number of dwellings: 1  
Parkingspaces: 2



1983: A new house is added in the frontgarden of the original house

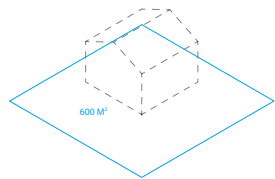
BYA: 24%  
BRA: 840  
FAR: 0,64  
Number of dwellings: 2  
Parking spaces: 4



## CURRENT REGULATIONS

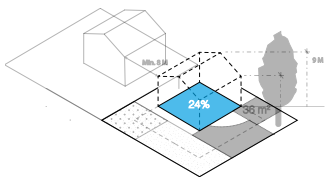
# SMÅHUSPLANEN

The main regulation for single-family housing in Oslo is the "Småhusplanen", a regulation that deals with the houses through the tools of set-backs, maximum heights, maximum occupancy of the site and by detailing the amount of landscaping you are allowed. The regulation provides further rules for planning for several units on the same plot. All of these illustration is based upon Oslo kommune (2006).



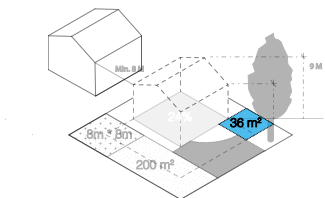
### Plot size

The minimum plot size for a new plot is 600 square meters.



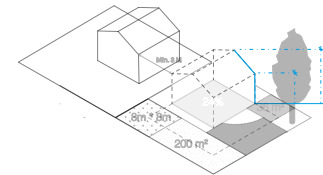
### Occupancy

A maximum of 24% of the site can be occupied by building, roofs and parking.



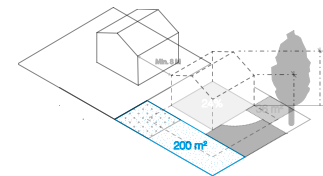
### Parking

A house needs two parking spots, each being 18 square meters. In addition it is necessary to be able to turn a car on you property.



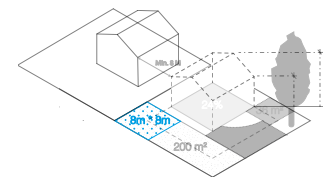
### Eaves height

The max height for a house from the average level of the ground is 6.5 to the eaves, and 9 m to the top of the roof.



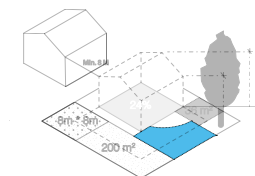
### Outdoors area

There needs to be a least 200 square meters of "occupancy area" outside. Of this, a square of 8 m by 8 m is to continuous.



### Play area

There needs to be a continuous square of 8m x 8m of green space with a slope of no more than 1/3.

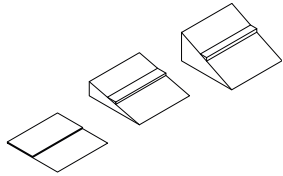


### Turning area

You need to be able to turn a car on your own property.

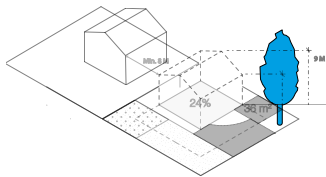
## CURRENT REGULATIONS

# OTHER REGULATIONS



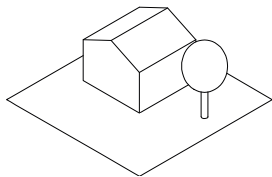
## Retaining walls

The amount you can alter the terrain is regulated by steepness of the plot. If it is  $< 1/3 = 1,5$  m, if it is between  $1/3$  to  $1/6$  it is 1 m. If it is less you are allowed to alter the terrain by 0,5 m



## Treekeeping

Trees with trunks above 90 cm in diameter 1 m above the ground can't be felled without extraordinary reasons.

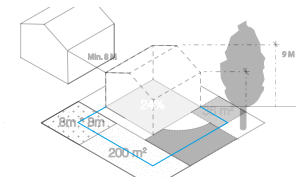


## Light

All rooms for permanent habitation (in a private home this would be the bedrooms and the living room) need adequate light.

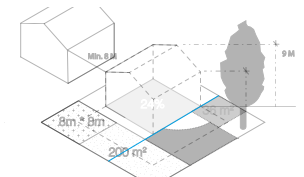
## Setback

TEK17 regulates a setback of 4m from the plot line on all sides for any structure intended for permanent inhabitation.



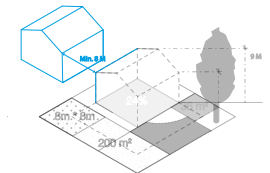
## Distance from roads

The law regulating roads, dictates that you have to apply for dispensation to build closer than 15 m from the middle of a municipal road.



## Firedistance

TEK17 Dictates that there should be 8 m in between buildings for inhabitation if they don't have firewalls facing each other.



SMÅHUSPLANMAX

## SMÅHUSPLANMAX

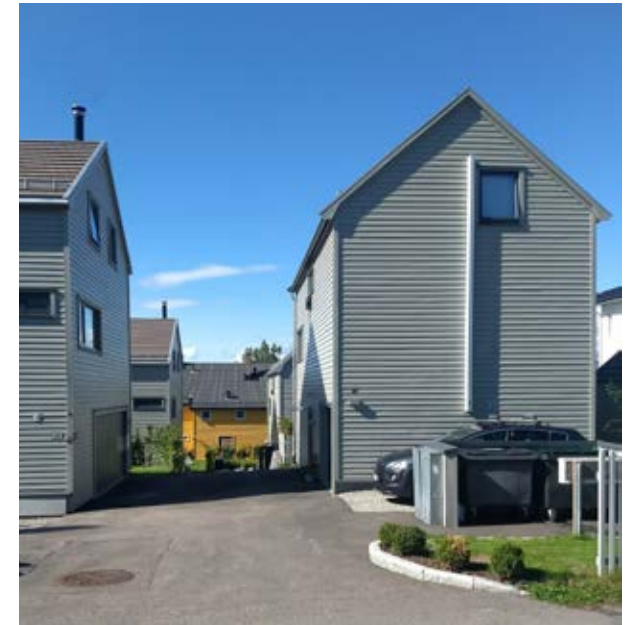
This is the starting point for the proposals, a predicted future, wherein the area is built out according to a textbook example of småhusplanen: reaching a FAR of 0.53, adding 26 houses to the existing 28, it drastically increases the number of dwellings.

This is done in a way that adds little to the intermediate spaces, that makes sure trees dies of natural causes before building starts and keeps the car dependency. The result is a structure that approaches a density akin to that of Ski or Moss, while having none of the urban qualities of a small town.

The main driver of densification in this situation is family crises; divorces, deaths and other events that force the family to let their home change hands. Faced with the elevated value a plot in these areas incur, they often chose to sell.

### SMÅHUSPLANEN

Outdoors area	Retaining walls	Privacy
Play area	Treekeeping	Occupancy
Turning area	Light	Street access
Parking	Setback	Outdoors space
Plot size	Treekeeping	No street parking
Occupany	Firedistance	No street walls
Eaves height	Distance from roads	Open Ground



Loft at Torvetjønn, Stav og loft





## SMÅHUSPLANMAX

# ANALYSIS

There are several problems with this plan, many of them have their origin in the same design solutions. Put together they produce a large number of edges that are either left underused and to decay on their own or are used to shield the property in an aggressive manner. There are six main problems, with solutions to each problem. The synthesis of these solutions will become my counterproposal: The Småbyplanen.

### Parking driven

A lot of space is devoted to asphalt. This is necessitated by the parking requirement. The requirement to be able to turn on your own lot intensifies the problem of asphalt.



### No added infrastructure

With other planning regimes developers are required to provide infrastructure, either social or physical. Under Småhusplanen this is not the case, as long as the plot is less than



### Dead Space

With a four meter offset from the plot line, and in all other directions around the house, you end up with a lot of areas too small to use.



### Privatisation

The street edge are frequently take on the characteristics of an infrastructure space, hardening in response to the houses being setback to ensure privacy from the ver more busy road.

### Lack of porosity

As the houses are set closer, they more often feature tall hedges, closed fences and other means of visual controll. This encloses areas that earlier were used as informal paths.



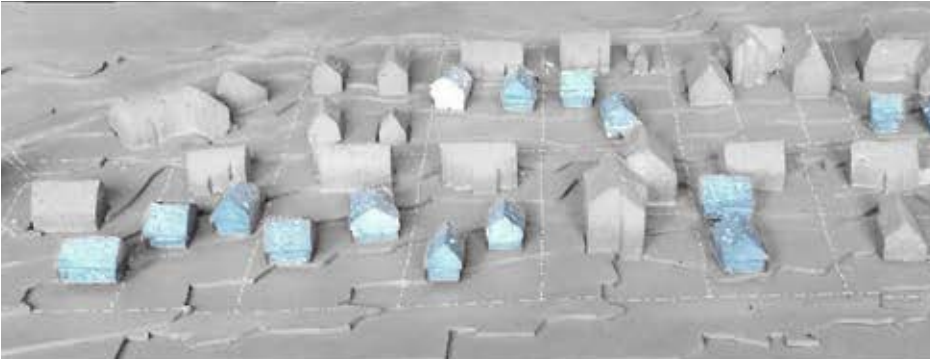
### Death of a shared landscape

As a means to an end most trees are felled to allow for the development of the plots. While the planing regulation prohibits the felling of trees, they do have a nasty habit of dying accidentally just before new developments starts. Reducing the amount of trees in the area drastically changes the visual composition: Going from living in a green area dominated by trees to actually seeing the amount of asphalt put in by your neighbours.

# CARPET OF UNITS

This proposal is grounded in the form of densification of small houses most often seen in Oslo: adding small houses on the original lot. The inspiration for this type came from the Lofts of Norwegian Vernacular. They rise up forming a vertical volume and cantilever out on the top floor. The houses in this proposal rise to the full allowed height and cantilever out on all sides to take advantage of a loop hole in the rules for ground occupation: Any cantilevering building parts that jut out less than 1 m and is more than 0.5 m above ground is not counted in the amount ground covered by the building.

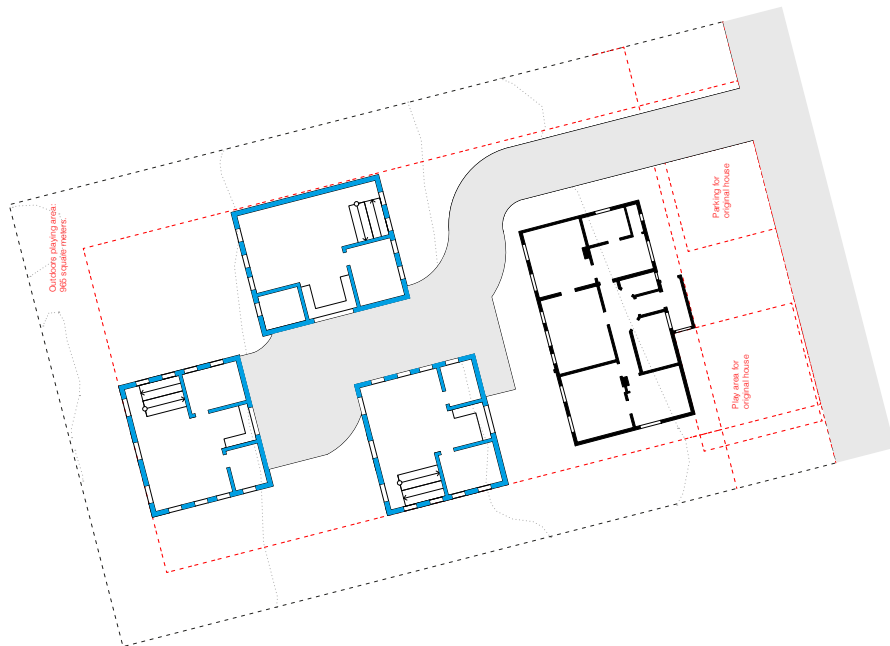
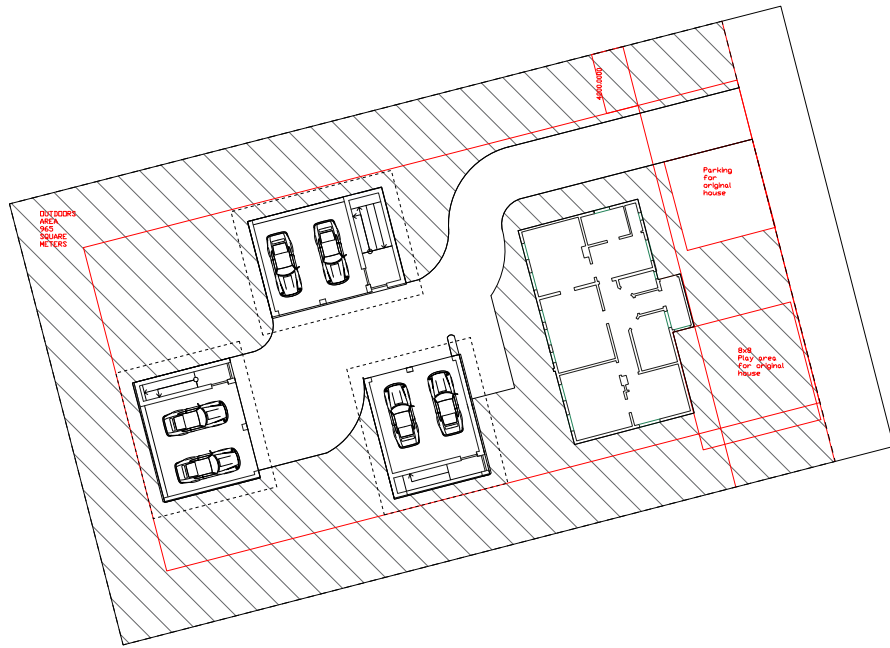
Keeping the original building the additional buildings are placed to form a tun, either in front or to the back of the existing building, depending on the buildings placement on the lot. The architectural idea is an ensemble of small buildings forming a space.

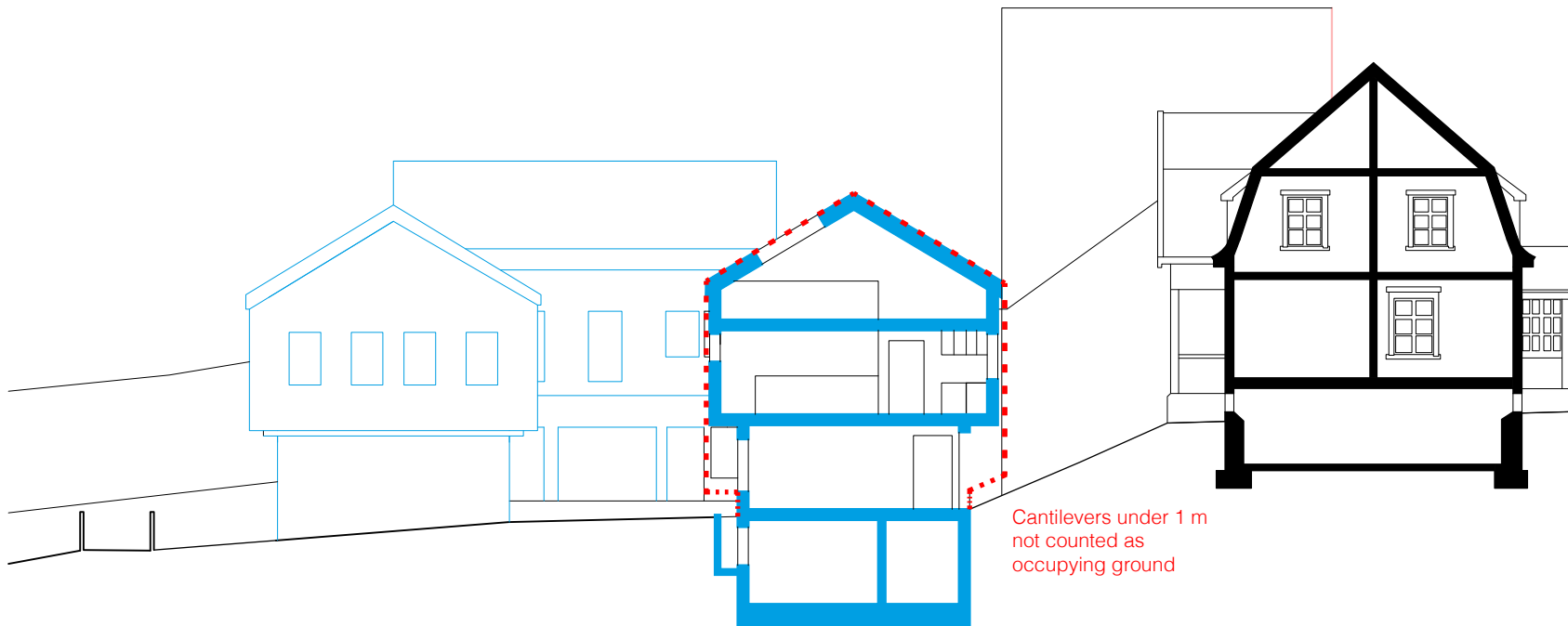


SMÅHUSPLANEN		SMÅBYPLANEN	
Outdoors area		Retaining walls	Privacy
Play area		Treekeeping	Occupancy
Turning area		Light	Street access
Parking		Setback	<b>X</b> Outdoors space
Plot size	<b>X</b>	Treekeeping	No street parking
Occupany		Firedistance	No street walls
Eaves height		Distance from roads	Open Ground



Loft at Torvetjønn, Stav og laft





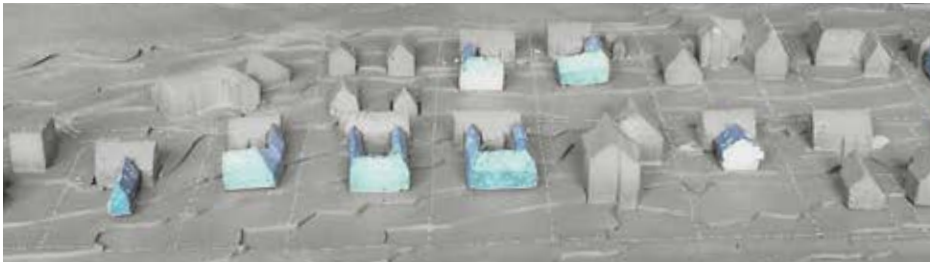
Cantilevers under 1 m  
not counted as  
occupying ground



# SWELLING UNITS

In this proposal the original houses swell out to accommodate more habitants. This is a natural process in Oslo, houses getting new additions to accommodate either new inhabitants or a subdivision of the house. In this case the house swells to accommodate a new type of household: A co-living collective.

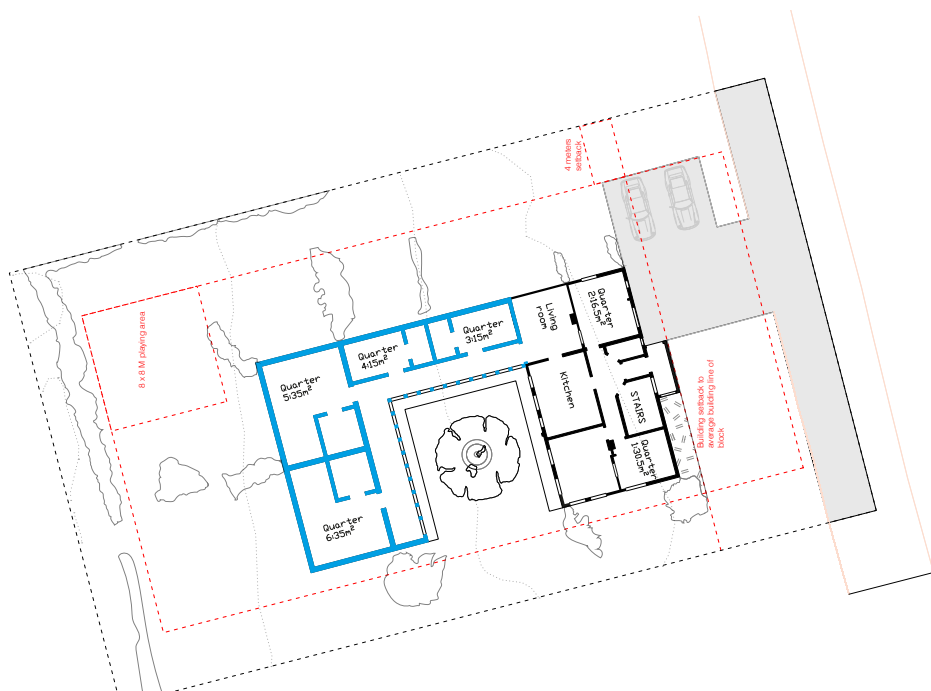
This is housed in building that is shaped by two main architectural ideas: The meeting of two buildings and the central court. The swell expands from the existing building, forming a rectangular volume with a court in the middle. The meeting is done by connecting the old roof and the new roof, with no expression of the joint except what occurs through the very act of adding the new. The new subvert the existing hallway, stairs and main living rooms, converting them into the main common areas and circulation for the new complex. The main living room faces onto the common court, and new lighter structure lines the common court with circulation to the private quarters on each side.

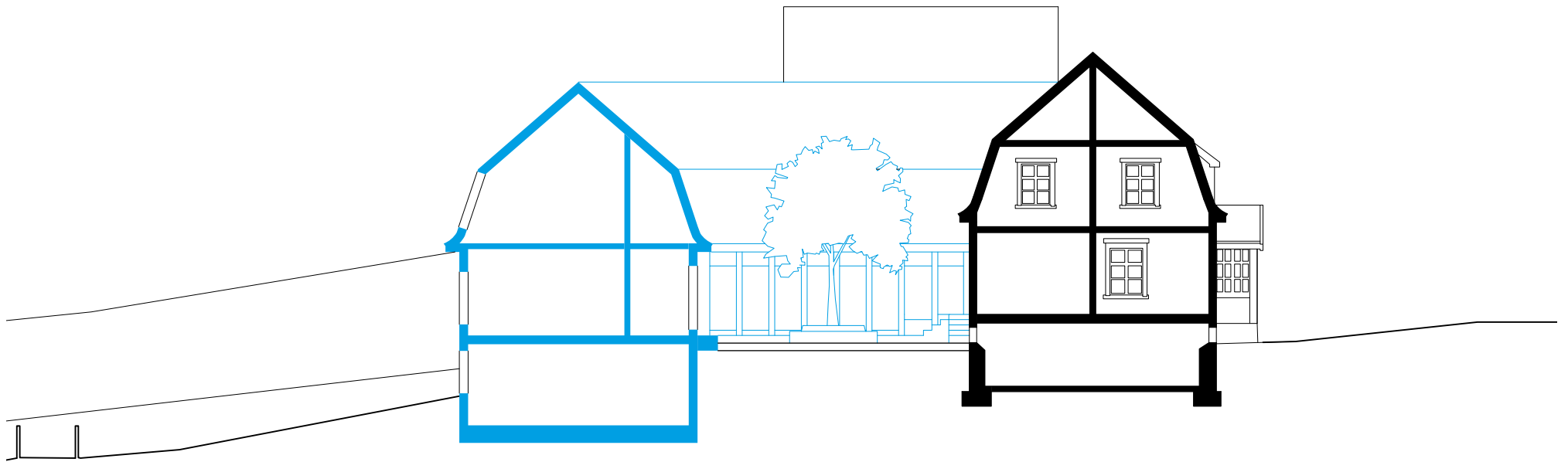


SMÅHUSPLANEN		SMÅBYPLANEN
Outdoors area	Retaining walls	Privacy
Play area	Treekeeping	Occupancy
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Parking	Setback	Outdoors space
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Cusco university Courtyard



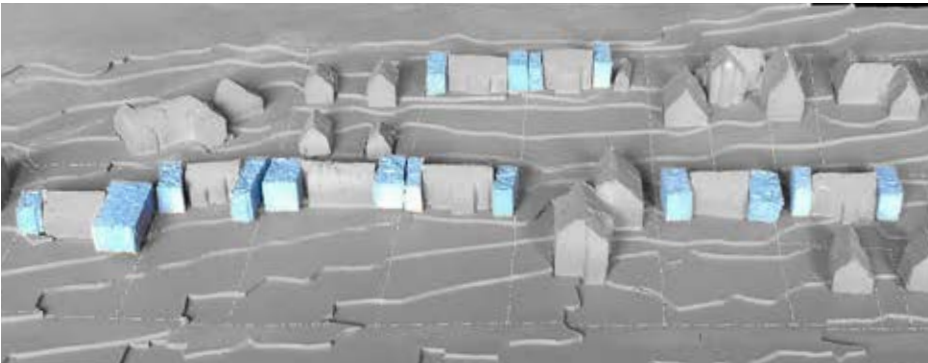


# ROWS OF UNITS

The Dingbat typology of Los Angles serves as the inspiration for this typology. Living with their cars, the inhabitants are placed on the top, to the back and around this organizing element. Between two firewalls there is a range of relations to the outside, both direct, mediated and indirect.

Here the setback rule is disregarded, the rowhouses go right up to the edge of the plot. Following the same building line as the existing houses, they expand towards the garden side of the plot.

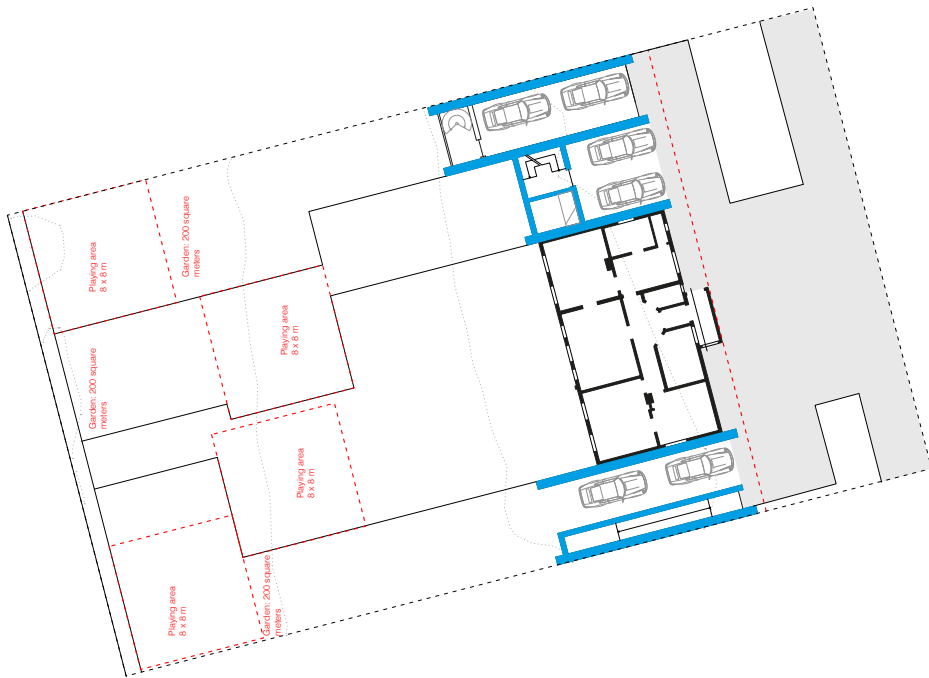
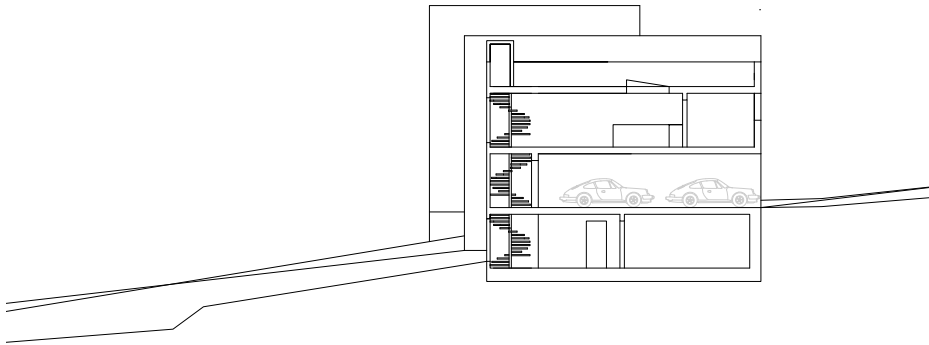
This gives a structure that preserves a continuous belt of green where this is still in existitence, that uses less space on driveways than the SMÅHUSMAX trial.



SMÅHUSPLANEN			SMÅBYPLANEN	
Outdoors area		Retaining walls		Privacy
Play area		Treekeeping		Occupancy
Turning area		Light		Street access
Parking		Setback	X	Outdoors space
Plot size	X	Treekeeping		No street parking
Occupany		Firedistance		No street walls
Eaves height		Distance from roads		Open Ground



DINGBAT  
Los Angeles, US.





## NEW RULES

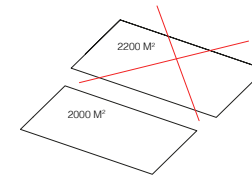
# SMÅBYPLANEN

The intention for the plan is to use the plot as the basic unit in an attempt to create an semi-urban structure. Semi-urban here means that the street is well defined but still not fully enclosed, the density is above the average suburb of Norway but that the neighbourhood still retains a degree of porosity both in the built structure and in the form of green areas and that there is a more mixed land use than the sub-urban areas but less than the urban areas.

The hierarchy of space in the neighbourhood is defined by four steps: Plot, Prime plot, Block and Neighbourhood. Each plot is responsible for their piece of the shared landscape. The prime plot takes on responsibility for the shared cars, the cars, play-areas and spaces for kindergartens. On the block levels there applies incentives to ensure a more porous, walkable structure and a minimum width of the public road. The neighbourhood is defined by a set of more public streets enclosing the more private residential streets.

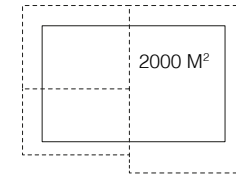
The prime plot is a level of organization allowing for shared amenities on a local scale. This is a counter to the tendency for plotbased strategies to have ever smaller plots, and therefore smaller responsibilities. Smaller responsibilities means that either the public has to step in to provide the services, or the inhabitants have to do without them. The prime plot occurs on the larger, previously undivided plots or on new plots aggregated to provide more efficient building ground.

Along the streets and the new paths, the plan doesn't specify residential use, but assumes that this will be the dominant use. At the same time, it makes it easier to allow for smaller offices to have their premises closer to their workers or clients. This is already a trend in the area, especially closer to the transportation node. In the closest streets, small businesses are located on the side streets, often with the owner living in the same house. It might be a doctors office, a kindergarten or a plumber.



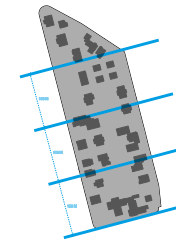
## §1 Too big for plan

Plots larger than 1 acre/2000 m<sup>2</sup> is considered too big for the plan and requires separate handling.



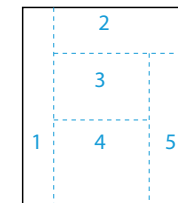
## §2 Non-aggregation

As a rule it is prohibited to aggregate smaller plots into a plot larger than the cut-off size of for the plan except for the use in public infrastructure such as schools, hospitals and roads.



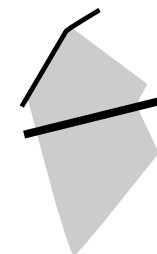
## §3 Throughfares

For every 100 m, measured perpendicular from the short end of the block there is to be a thoroughfare. Any plot in these areas will be allowed to build on 4% more of their land if they provide access to the far end of their plot



## §4 Prime plots

All plots as of 01.08.18 and all additional plots that are aggregated to a size larger than 1000 m<sup>2</sup> are to used as units for determining social amenities. These plots are refereed to as Prime plots.



## §5 Main streets

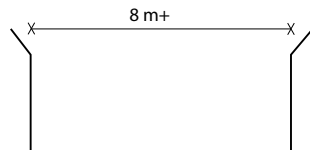
Along the main roads there applies different planning regulations, emphasising the street to a larger degree and allowing for the lateral expansion of existing buildings.

## NEW RULES

# AMENITIES

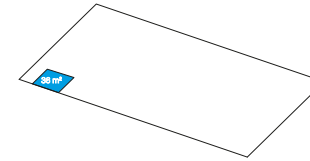
To deal with the increased density and retain the positives of living in the neighbourhood it is necessary to share more. Rather than each household having their own trash-can, carport, driveway and play-area these are to be shared by the dwelling occupying a prime plot. This is founded both in the goal of increasing the efficiency in the use of space and in the desire for the plan to accommodate for more social interaction. The contrast is to the current plan, which prescribes that all amenities should either be found on the level of the plot, or be defined as a municipal investment from the outside. The effect of the current regime is large areas becoming denser and denser without added infrastructure in the form playgrounds, roads or vegetation leading to swathes of the city having an impoverished public realm.

Both the play space and the space for kindergartens are predicated on a certain number of dwellings on a prime plot. The intention is to make sure larger developments start contributing back into the social fabric of the area, rather than being a net drain on the amenities of the neighbourhood. Through opening up these playgrounds to the area around, it becomes more plausible that they will be in continuous use, rather than being left to decay. It also provides a larger degree of variation for eventual pixel kindergartens popping up in the neighbourhood: rather than being limited to a single playground they can vary their location according to the needs of the children.



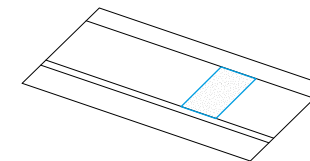
## §6 Right of way

The public right of way along the perimeter of the block is to be at least 8m wide at all times. This is defined from the middle of the already established road.



## §7 Parking

The number of parking spots is to remain the same as per 08.08.18, but the spots will be allocated to a car sharing program.

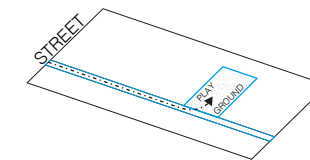


## §8 Kindergarten

Any plot, as identified per 01.08.18, that is occupied by more than six dwelling units should contain a common, indoors area for the inhabitants of the plot of at least 30m²/dwelling unit. This is to be made available to any kindergarten wishing to operate on the grounds.

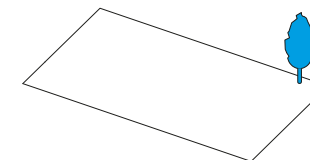
## §9 Common Play-area

If a prime plot is occupied by more than four dwellings it is to accommodate a common playarea the width of the original home and 8 m deep.



## §10 Play access

The common play-area is to be accessible for any decentralized kindergartens operating in the area.



## §11 Treeplanting

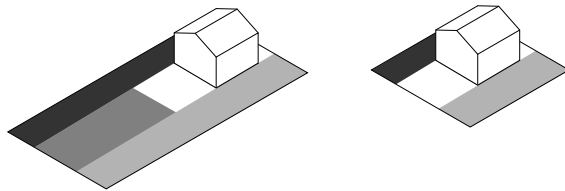
Every building is to have a tree with a mature height of at least 12 m on its grounds.

## NEW RULES

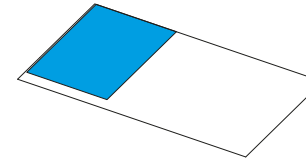
# PLOT REQUIRMENTS

The plan aims to densify through subdivision of existing plots. This is to be done on the level of the individual plot.

The plots to be divided are of three categories; 1) Smaller plots that have been divided earlier 2) Larger plots that retain their original size and 3) exceptions along the main streets. 1. and 2. both have lateral setbacks forming buildable land. The plan aims to subdivide these. All the plots in the area have lateral setbacks that offer space for new buildings. In addition, on the larger lots, there are a free space either to the front or the back of the building.

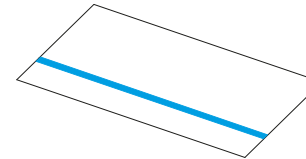


By subdividing these into separate plots, and if large enough, repeating the process, the goal is to reach a FAR of 1.0. It is thought that every plot owner will, at some point, opt for the maximum usage of their land.



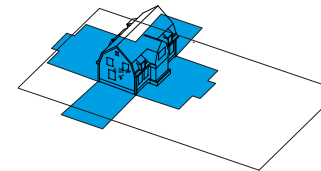
## §12 Access

Any plot meant to be built on is to have access either by bordering on a road or by means of an access path of at least 1.5 m in width.



## §13 Size

The minimum dwelling is to be set at a ground occupancy of 30 m<sup>2</sup>



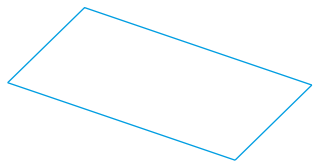
## §14 Green

All plots are to retain at least 30% of the ground covered by vegetation.

## NEW RULES

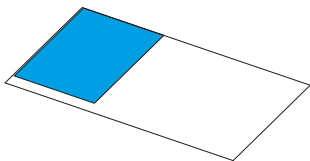
# WHERE CAN YOU BUILD

After the plots are divided, a series of rules determine what portion of the individual plots that are buildable. The biggest change from the existing Småhusplanen is to allow building right to the edge of the plot. This changes the orientation of the buildings, from being positioned in the middle of the plot, towards being positioned on the edges, looking onto their private gardens.



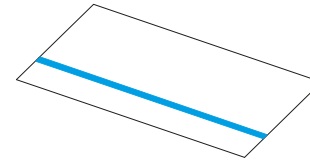
### §15 Plot lines

You can build on the plot lines/next to the pavement. The only limitation is that any wall facing another plot must be made as a firewall.



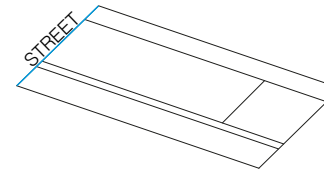
### §16 Density

It is allowed to occupy up to 36% of the ground with buildings. Unused utilization can be transferred from one plot to another within the original plots.



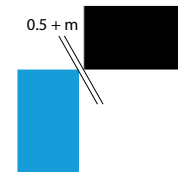
### §17 Plot access

If there are any buildings that does not have a direct access to the street, they are to be accessed by a path of at least 1.5 m in width.



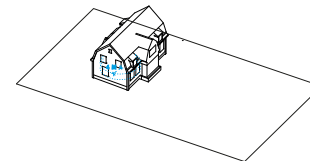
### §18 Building Line

All plots that has street frontage has a building line along the road and are obligated to build to the height of at least 1 m along this line. Other uses than residential are allowed in this zone of plots.



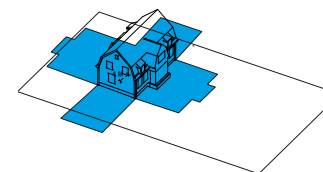
### §19 Diagonals

Houses on the same plot should have at least a 0.5 m gap in-between corners. This does not apply if two firewalls face each other.



### §20 Windows

From any window there shall not be any windows in a circle of 4 m diameter. This is decided in chronological order; older windows take precedence.

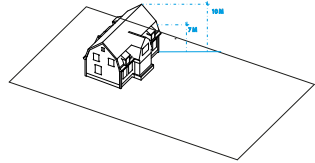


### §21 Existing Light

The existing houses are to have a 8 m path from any wall with windows.

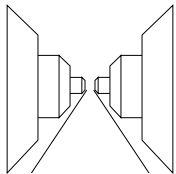
## NEW RULES

# HEIGHT OF BUILDINGS



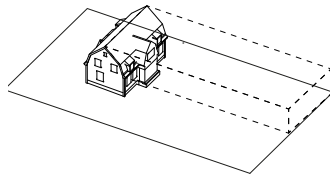
### §22 Height

The height of new structures is regulated to be at most 8 m to the eaves and 10 m to the roof line. Height is measured from the average level of the pre-existing ground around the building. For flat roofs the height limit is 8.5 m from the average ground.



### §23 Street emphasis

You are allowed to raise all the roofs by 1 m in the area between 10 m from the start of the road and the road.

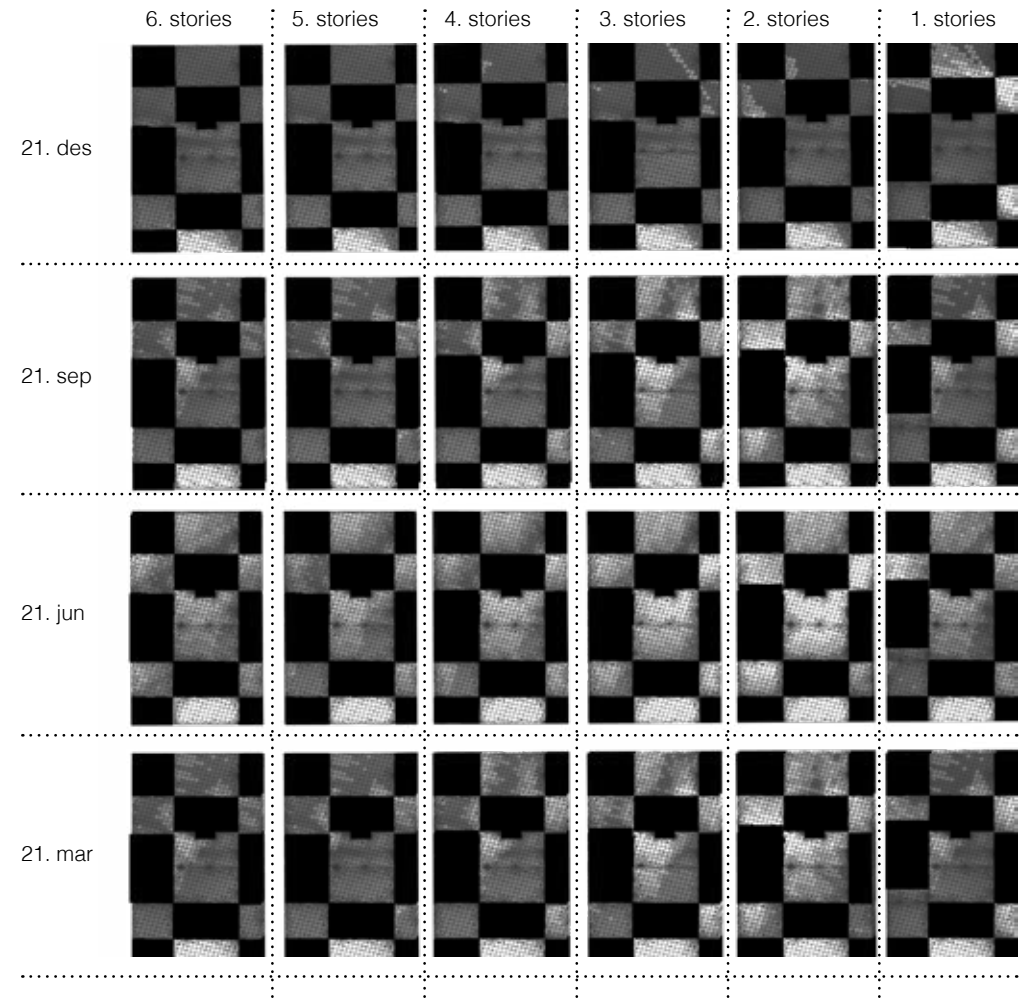


### §24 View-keeping

The original house is to have a view from the second floor.



To figure out the height for the additional buildings I did a series of volume and daylight tests. Indicated below is a test measuring whether the playground on the example plot would get enough sunlight to be classified as a playground. At above 3 stories less than 30% of the playground got more than 3 hours of sunlight during the day on 15. of march





NEW RULES APPLIED ON EXAMPLE BLOCK

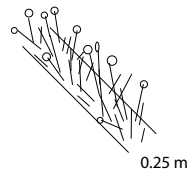
## SMÅBYPLANEN





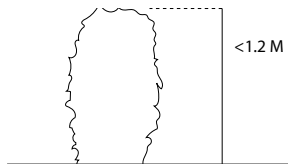
# STYLE GUIDE

Based in the desire to create a coherent structure and a clear sense of belonging all new buildings are to follow these rules. The basis of the rules are in an analysis of the existing houses on the block. The goal is to make sure the borders and edges are planted in such a way that the area gives a feeling of being green and soft. To harmonize with the existing heterogeneity, the style guide mandates the new houses to adopt two characteristics of the existing houses: Porches a roofs with articulated viewing logias/gables.



## §1 Edges

The borders of paths and roads are to be bordered by a buffer of 0,25 m planted with wild flowers



## §2 Hedges

Along all places where one wants to mark division and borders there is to be hedges of maximum 1.2 m in height.

## §3 Roofview

All roofs are required to provide an articulated space.

## §4 Porches

All buildings are to have a porch situated at the point of entry.

## ANALYSIS: EXISTING TYPOLOGIES

The block contains four main types of houses and a category of exceptions. In this analysis I will focus on the commonalities between the main types. The examples here are not subdivided into smaller dwellings, but that is a common occurrence on the block.

There are traits that are common in several of them, but not all: Porches/Shielded entrances, Roof extensions, Viewing Balconies, An organization of the house into two zones, stairwell that is separated from the main functions direct access to private outdoors space and clear division into front-side and backside.

As we get closer to the current buildings, the typologies used get more and more simplified. My take-away from this is to counter this simplification. Most especially the separated stairways and the porches is important elements to be able to live in a denser environment.

### CHARACTERISTICS

Porch/Shielded	<b>X</b>
Roof extensions	<b>X</b>
Viewing Balconies	<b>X</b>
Division into zones	<b>X</b>
Seperated stairwell	<b>X</b>
Private outdoors	<b>X</b>
Front/Backside	<b>X</b>

## TAKE AWAY:

The project will try to replicate the filters both on the building itself in the form of an protected entry/Porch and around the buildings in the form of green buffers around paths and roads. In addition the idea of viewing balconies/gables will be articulated into the different examples.

## NEWLY BUILT HOUSE

This is an example of the current trend in building in the area. It is characterized by being vertical, having a flatter roof and of the entrance zone being diminished into a bathroom cot and a stairwell. The green zone in front of the houses are reduced to parking and rubbish storage. This combined with the lack of a shielded entry means you exit directly into the asphalted parking.



### CHARACTERISTICS

Porch/Shielded entry

Roof extensions

Viewing Balconies

Division into zones

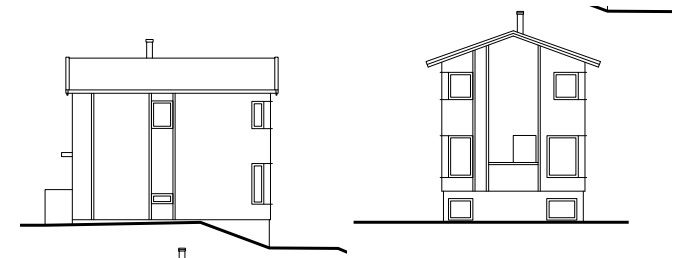
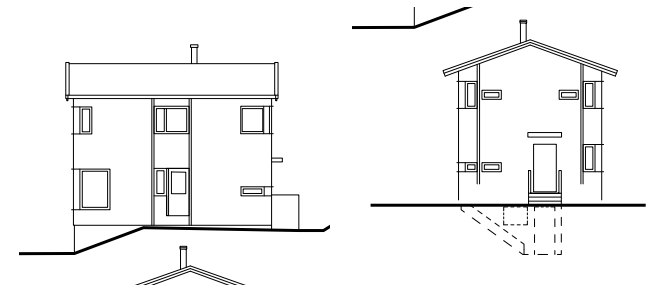
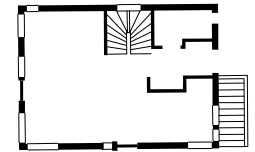
Seperated stairwell

Private outdoors

X

Front/Backside

X





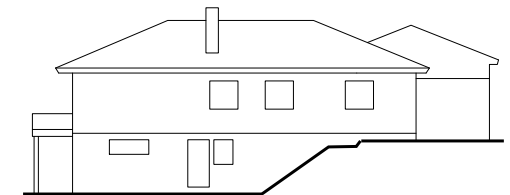
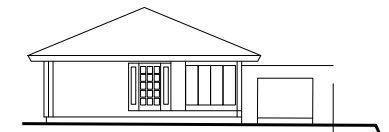
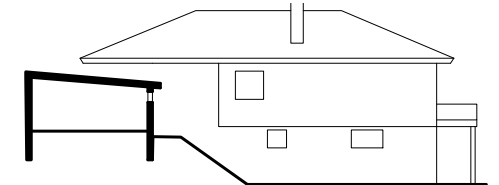
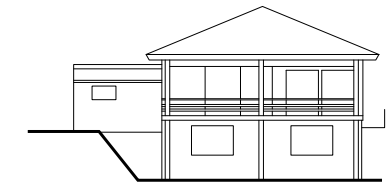
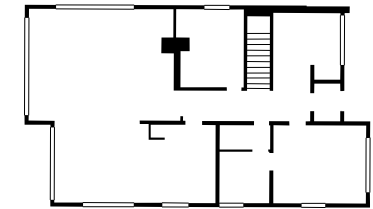
## 70ies prefab

This is an example of a 70ies prefabricated home and is repeated twice on the block. The volume is a long one story house with a basement. It is placed with the short side towards the road. On the side facing away from the view there are smaller and more private rooms such as bathrooms and bedrooms. This is a pattern that repeats in newer houses on the block; open towards the view and placed perpendicular to the road.



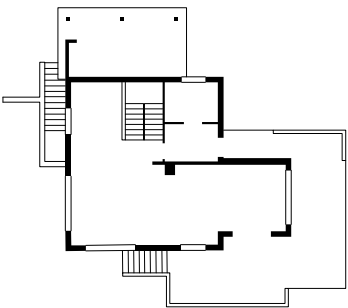
### CHARACTERISTICS

Porch/Shielded entry	<b>X</b>
Roof extensions	
Viewing Balconies	<b>X</b>
Division into zones	<b>X</b>
Seperated stairwell	
Private outdoors	<b>X</b>
Front/Backside	<b>X</b>



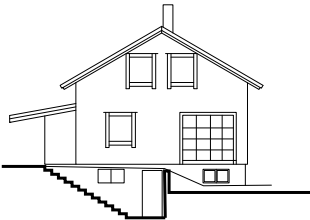
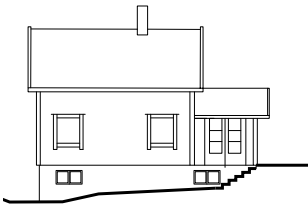
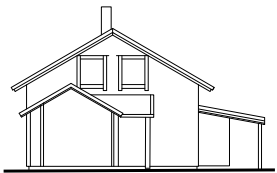
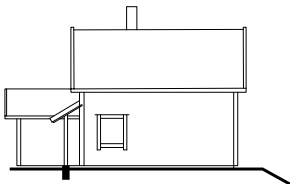
# REBUILT COTTAGE

This is an example of a modest house gone large. Through a series of additions, the house has gone from being a simple cottage over two levels to being a sequence of rooms and porches. As is typical, this house has had its basement made habitable. Outside the first floor there are large expanses of terraces to enjoy outdoors living.



## CHARACTERISTICS

- Porch/Shielded entry X
- Roof extensions X
- Viewing Balconies X
- Division into zones X
- Seperated stairwell X
- Private outdoors X
- Front/Backside X



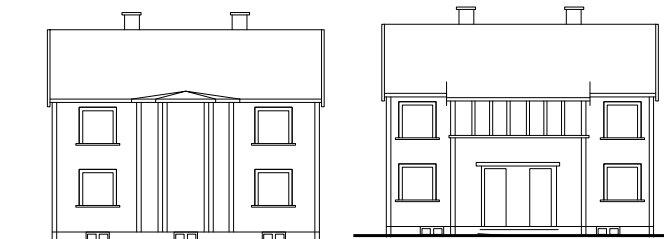
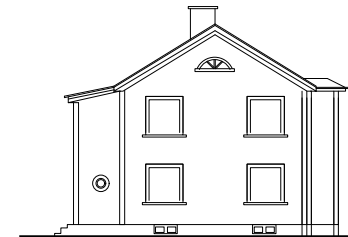
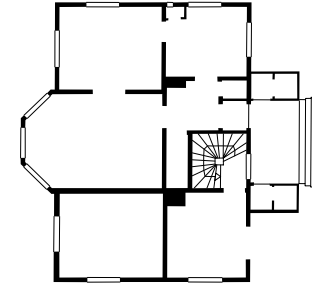
## OLD VILLA

The entrance is one the backside through extended entrance section. In front of this entrance there is trees, a wooden fence and a gravel driveway with grass peeking up. Inside there is a clear divide between smaller rooms on the backside and larger on the front. The front rooms used to be the public rooms with the more private and service oriented rooms on the backside of the house. In more recent times, this house has been subdivided into two units, with the existing hallway and stairs as the common entrance.



### CHARACTERISTICS

Porch/Shielded entry	X
Roof extensions	X
Viewing Balconies	X
Division into zones	X
Seperated stairwell	X
Private outdoors	X
Front/Backside	X

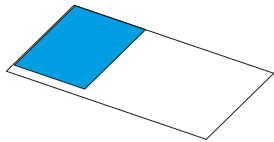


## TYPES:

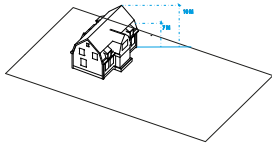
# BUILDING ENVELOPE

The building envelope is set by rules such as those governing views, distances, car access, playground space and the access into the plot. Below are the rules most pertinent to the building envelopes.

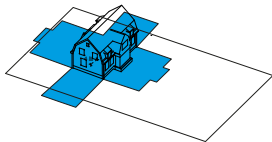
§2 Density



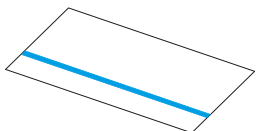
§3 Height



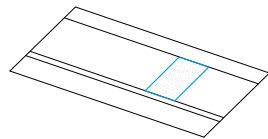
§4 Existing Light



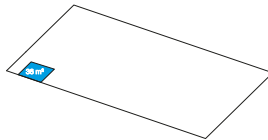
§6 Plot access



§7 Common Playarea



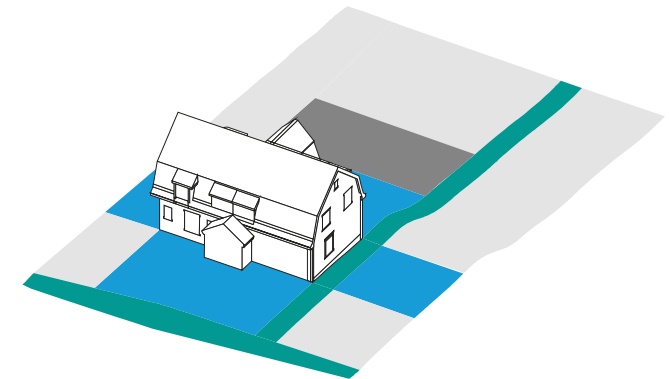
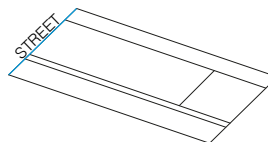
§8 Carsharing



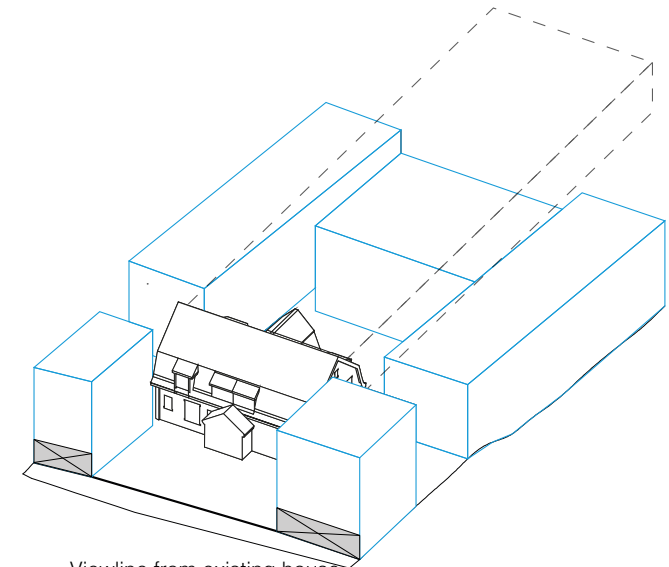
§15 Street emphasis



§16 Building Line



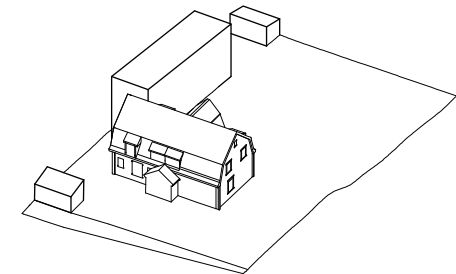
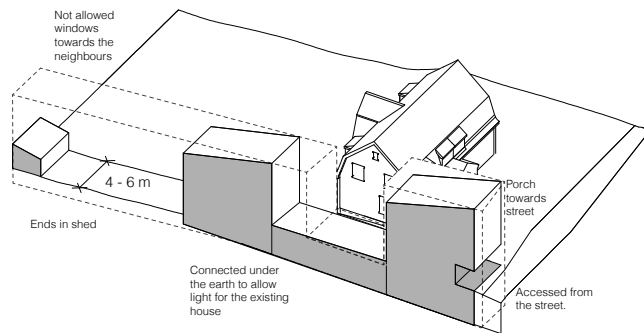
- Sightlines for existing house
- Road
- Playground
- Buildable land



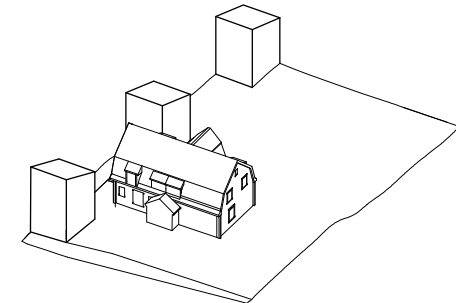
- Viewline from existing house
- Buildable envelopes
- Building Line.

## TPOLOGY: LINE HOUSE

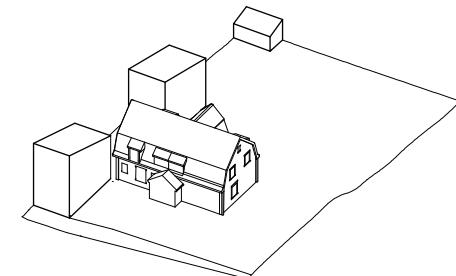
This is a house that sits on a narrow lot bounded by the existing house on one side and the neighbouring plot on the other. While the plot is shallow, being between 4 and 6 meters wide, they stretch the full length of 60 meters. Taking into account the allowances for sightlines from the existing house the house ends up broken into smaller pieces



Large volume with small entryhouse and shed

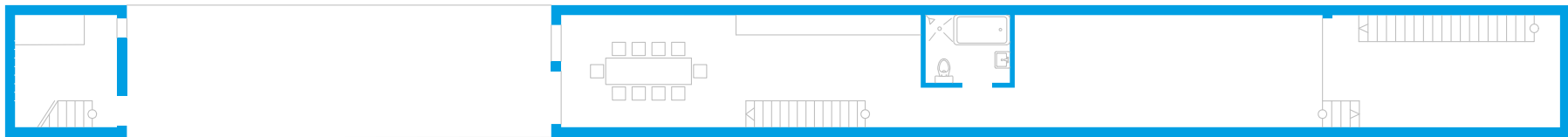
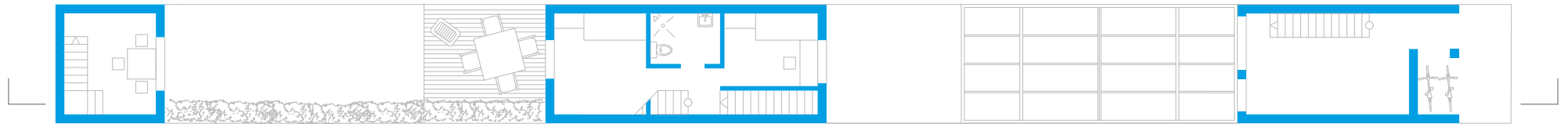
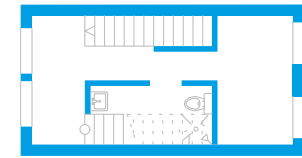
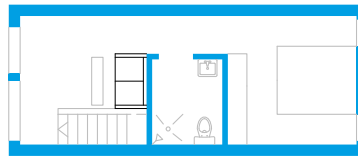
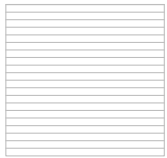
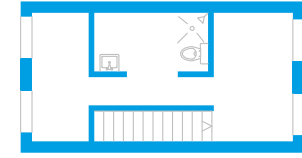
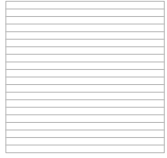


Three seperate units with walkthrough on first floor

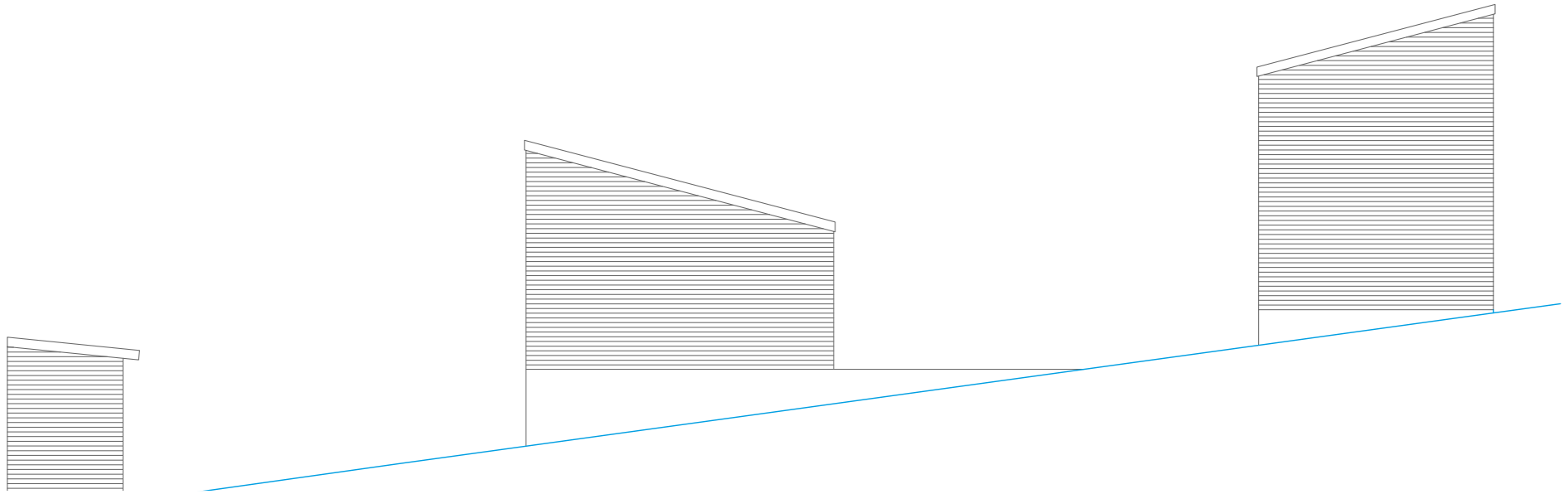
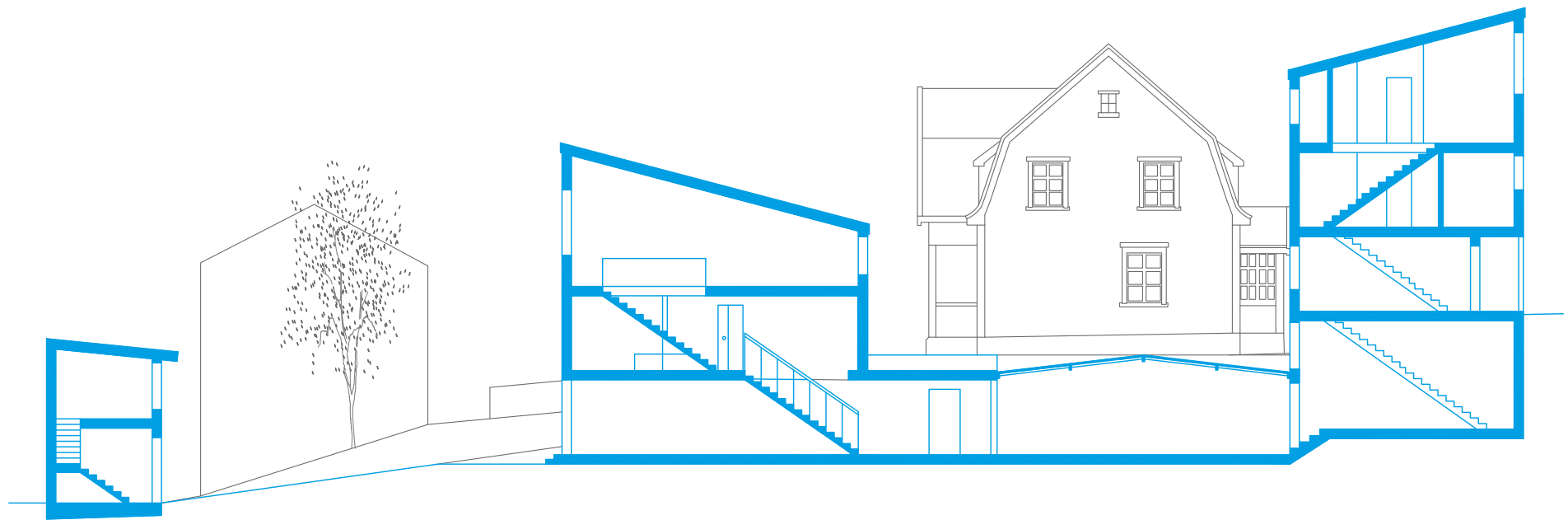


Two equal volumes and a shed





Plans: 1:200

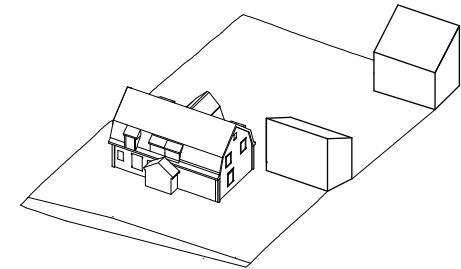
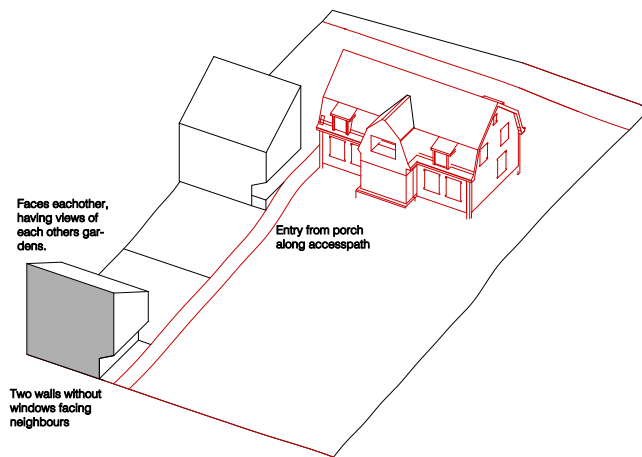


Section and facades: 1:200

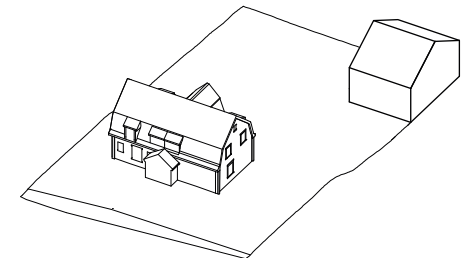


## TPOLOGY: TWIN HOUSE

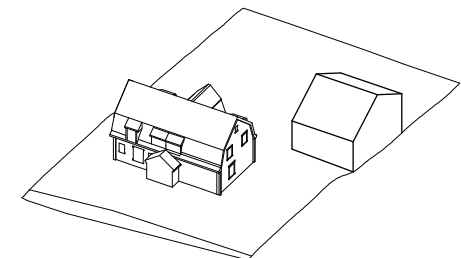
This is a set of two houses that sit on quite large plots. The houses are accessed from the pathway, onto a porch. This porch is overhanged by the building and provides a filter to the inhabitants inside.



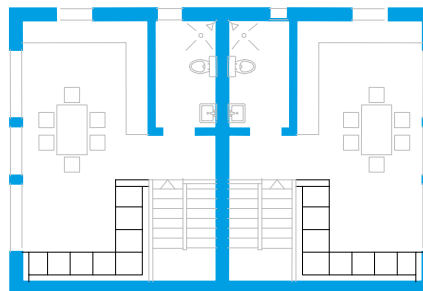
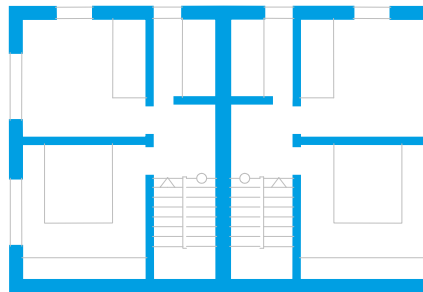
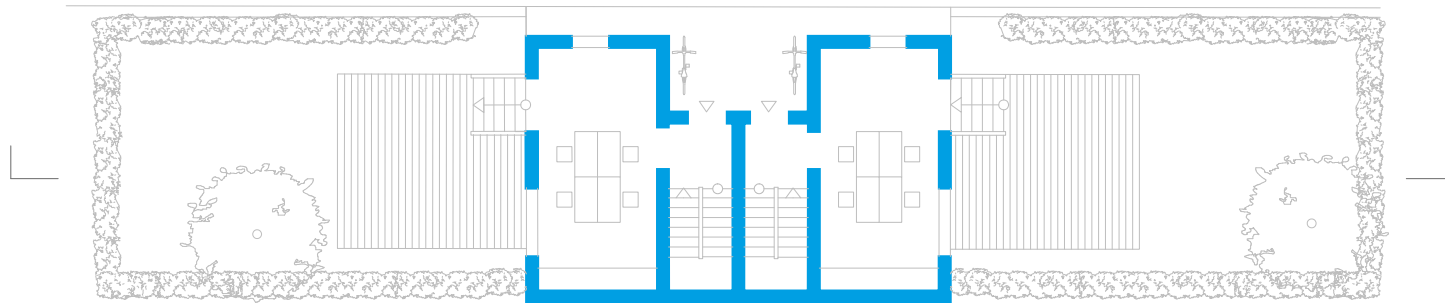
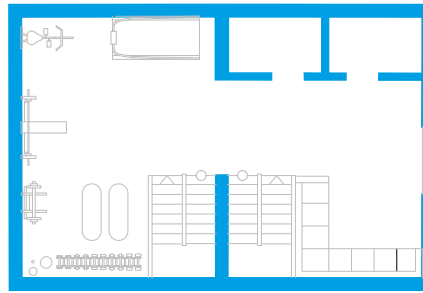
Alternative 1: Two houses facing each other



Alternative 2: Large house occupying the corner



Alternative 3: Large house on the middle of the plot

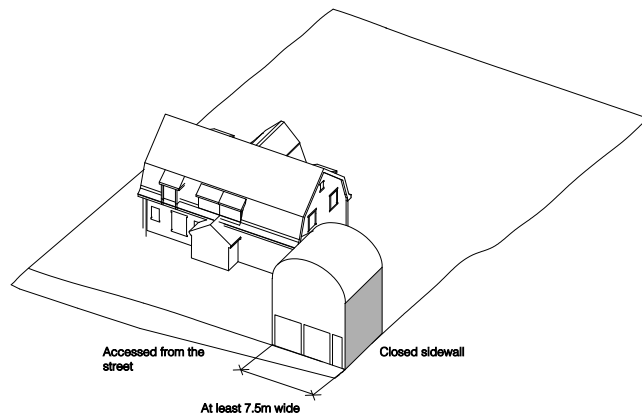


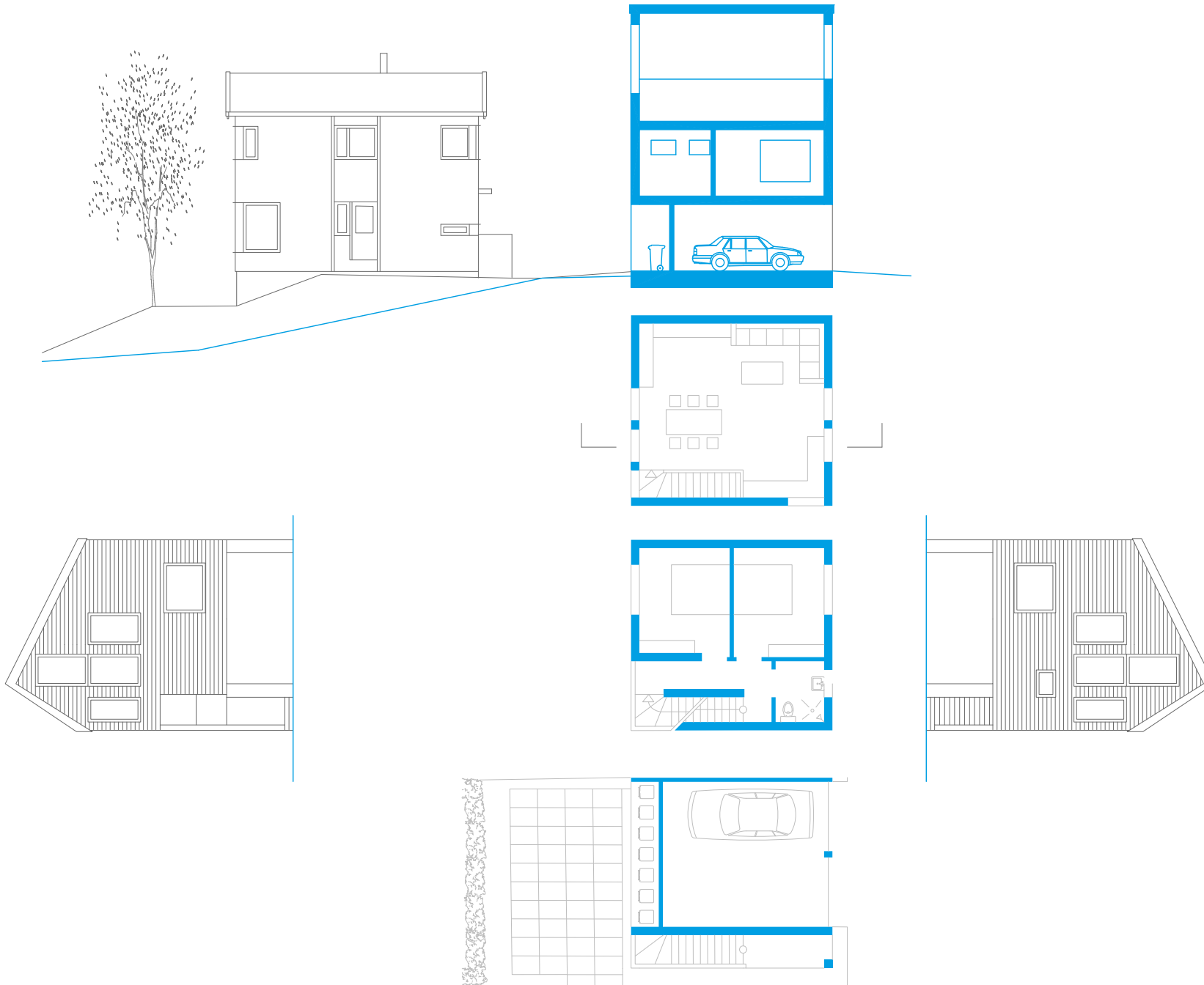




## TYPOLOGY: GARAGE HOME

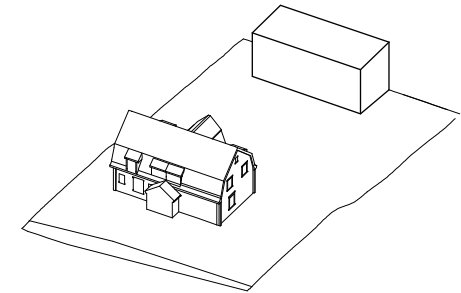
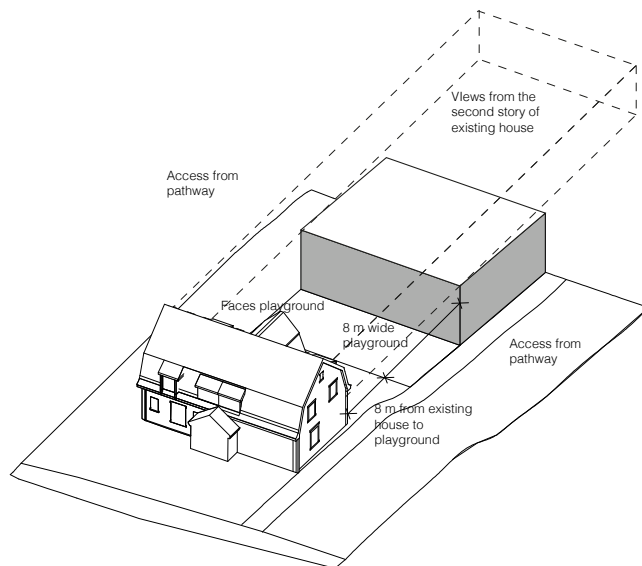
The garage home is defined by its position on the plot and in relation to the other occupants of the plot. They are placed on the edge of the plot, looking out on the street. The living areas of this typology start at the second floor, with the first floor containing the parking for the shared cars of the plot, a nook for the trashcans and a parking for bikes.



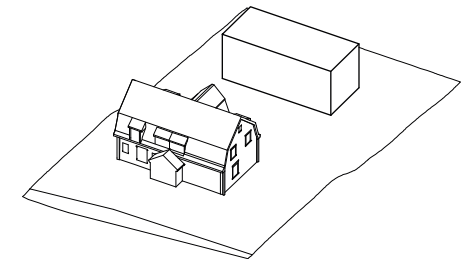


## TPOLOGY: KIDS HOME

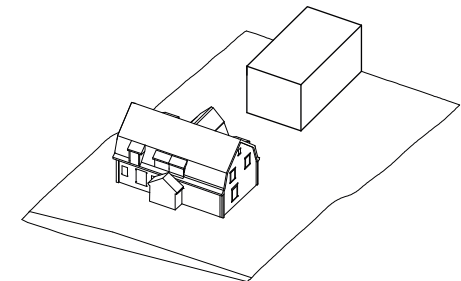
This building is defined by the requirements placed upon it: It is supposed to allow the view from the middle of the existing house to pass over it and to contain a shared area available for kindergardens and social functions.



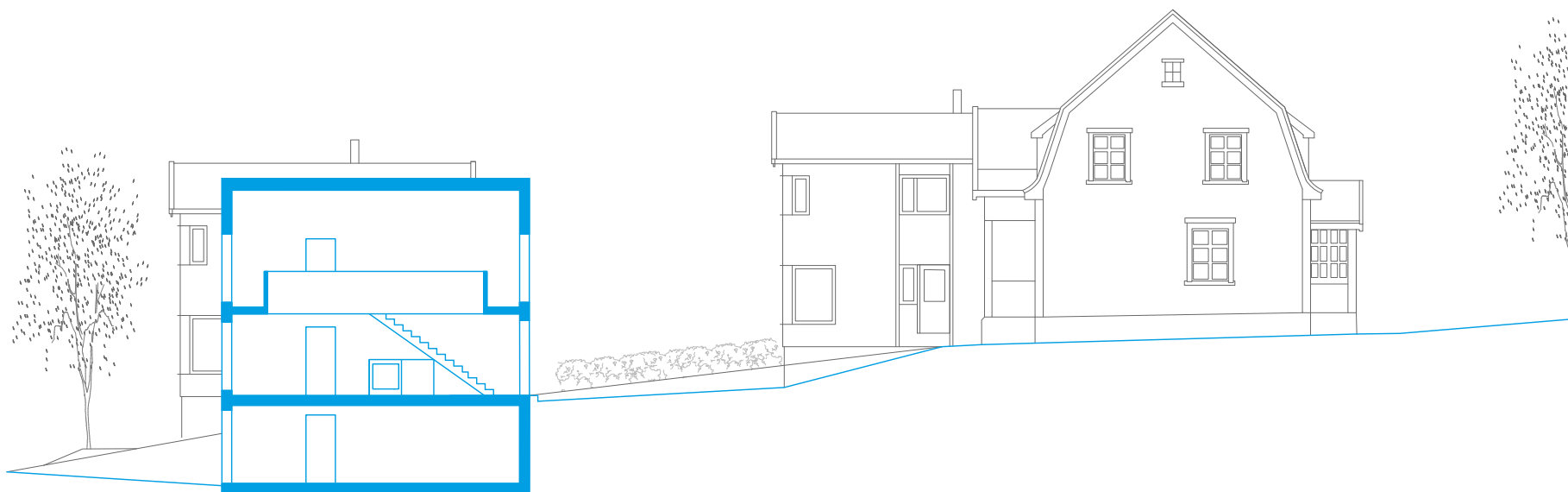
Alternative 1: Building facing the inside of the plot

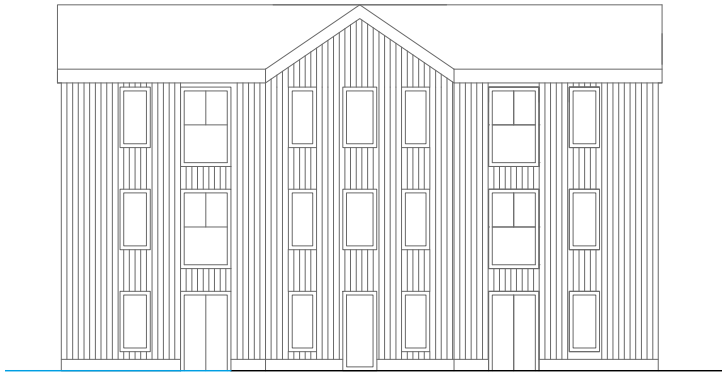


Alternative 2: Building facing acing two ways

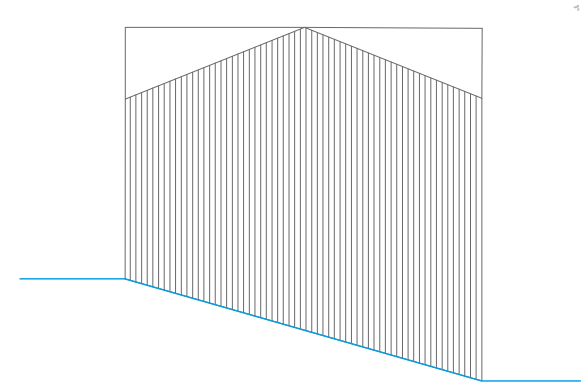


Alternative 3: Building centered in its plot.

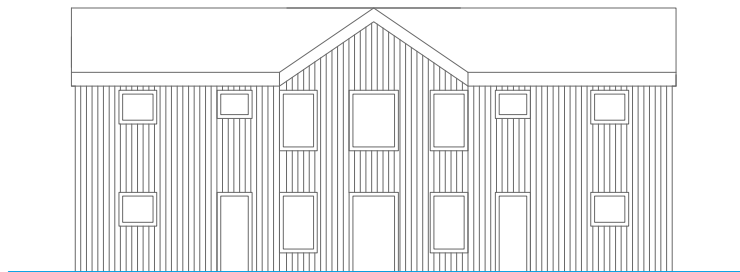




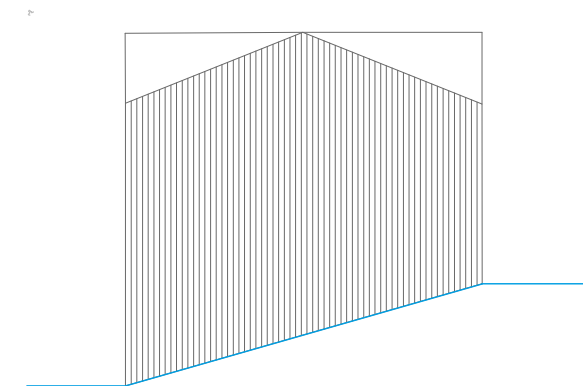
South facade: 1:200



East Facade: 1:200



North facade: 1:200



West facade: 1:200