Censor booklet

Densifying suburbia

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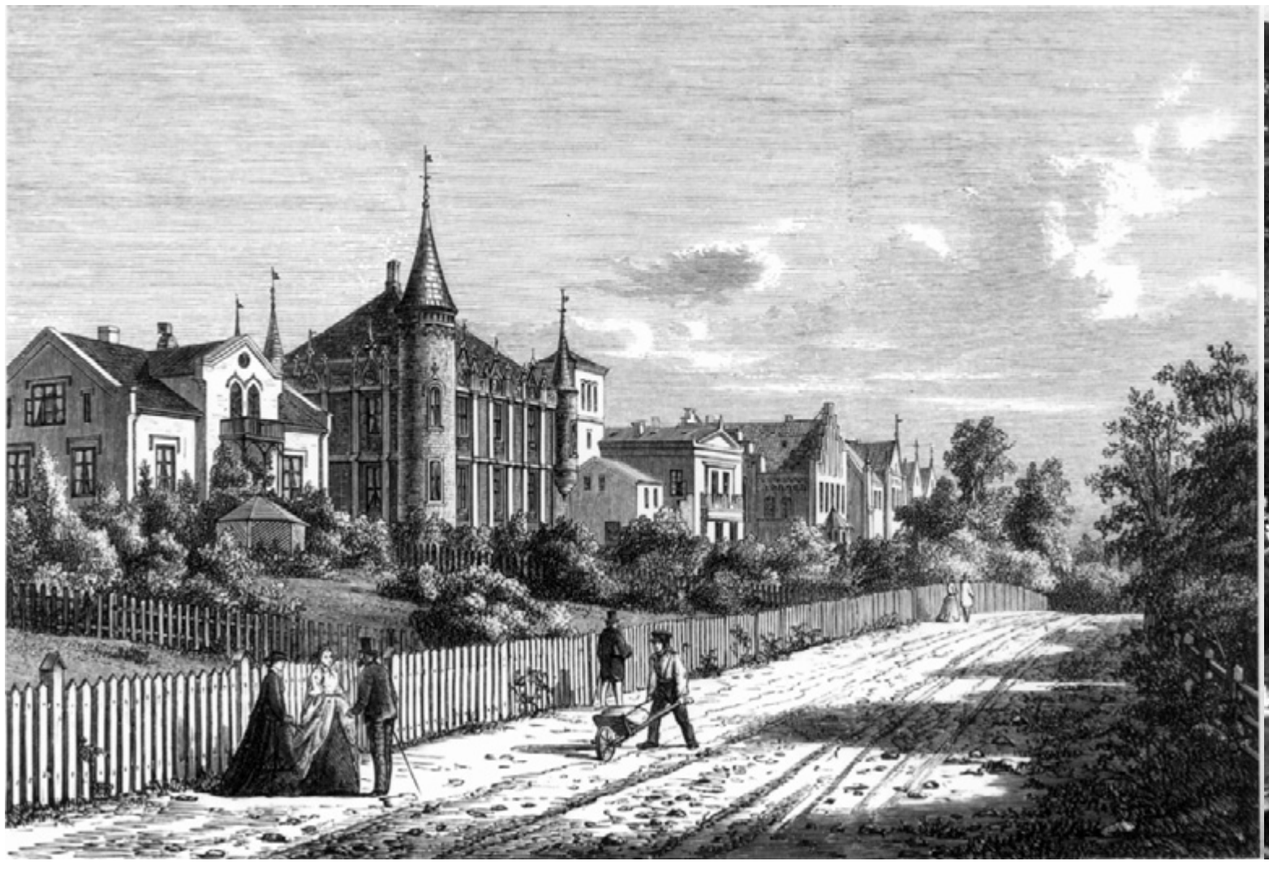
AHO 2018

The Assignment

Oslo, late 18th century

Oslo at the end of the 18th century was, much like any other city of the day, a small and compact unit, surrounded by farmland.

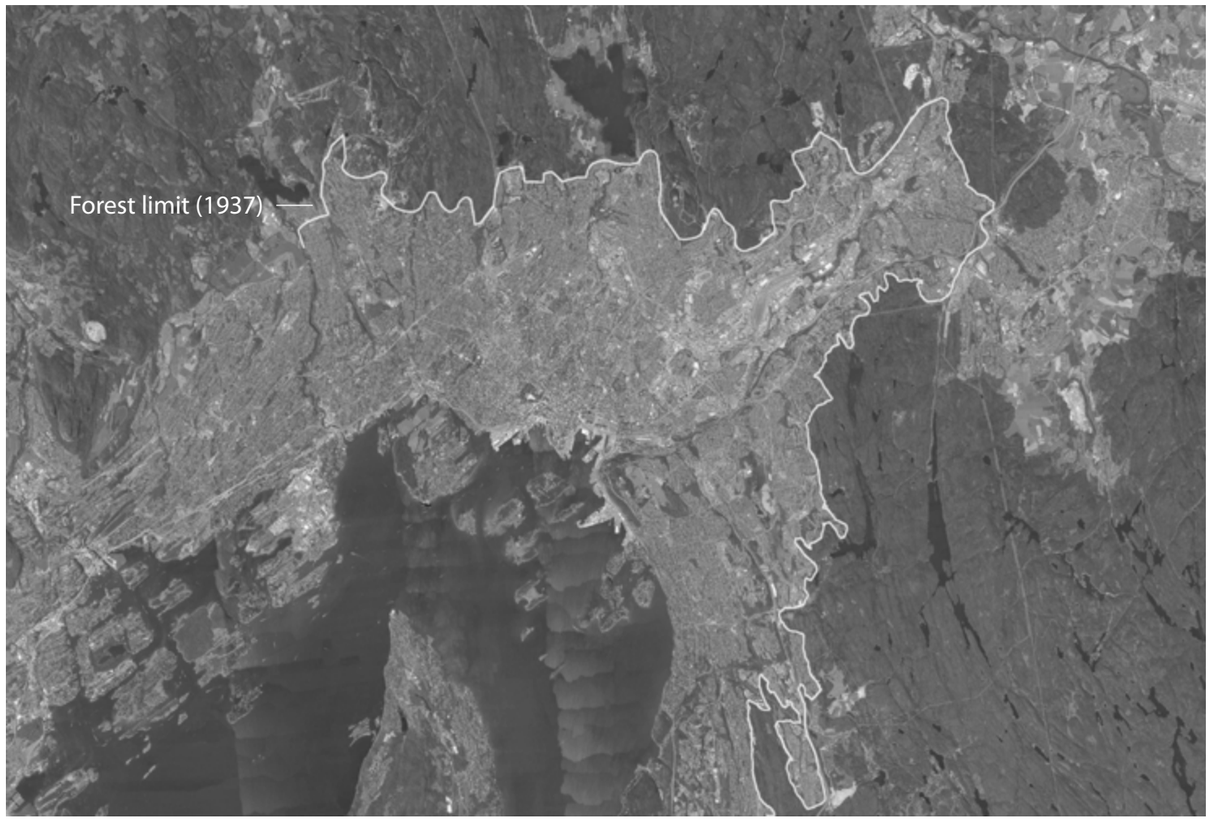
Homansbyen, Scandinavia's first villa district

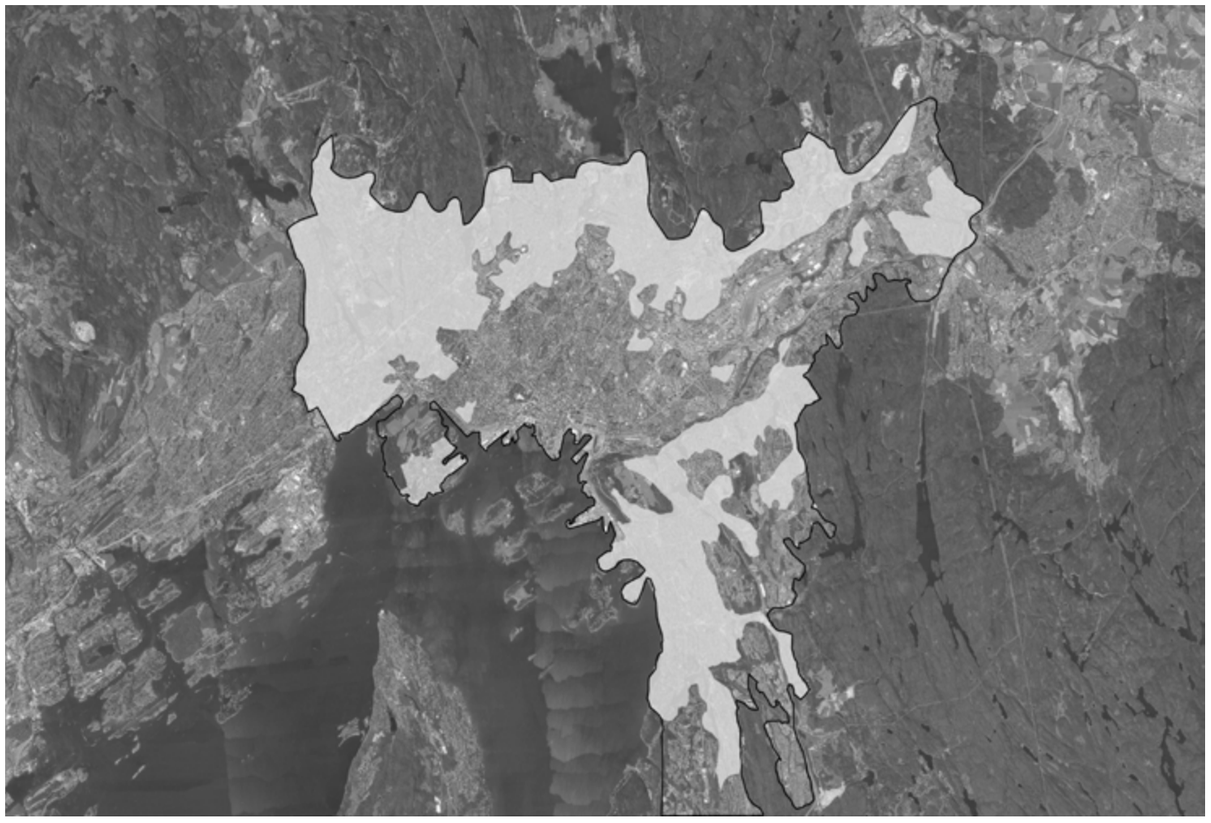


Villa sprawl, 1947

50 years later that was all about to radically change when Homansbyen, the first villa district of Scandinavia was established behind the royale palace. A new bourgeois class of urban merchants had acquired the means and will to replicate the life and style of the noble class villas of old, but this time in an urban context.

Over the next century the phenomenon would spread rapidly over the easily purchasable farmland of the Oslo perimiter, driven by a combination of demand, speculation and the transport revolution. By the 1940s almost the entire Oslo basin had been covered by a huge field of the new typology. Some of the villas were drawn by Norway's most famous and talented architects. Others were based on cheap and easy mass production.

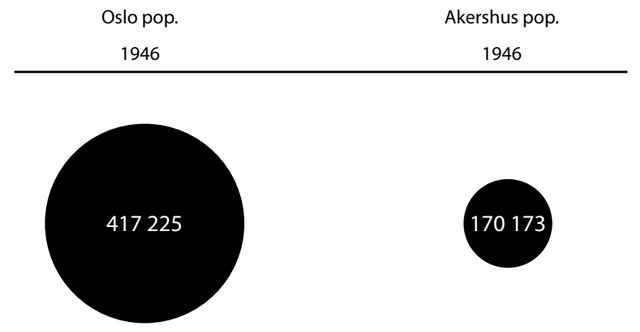


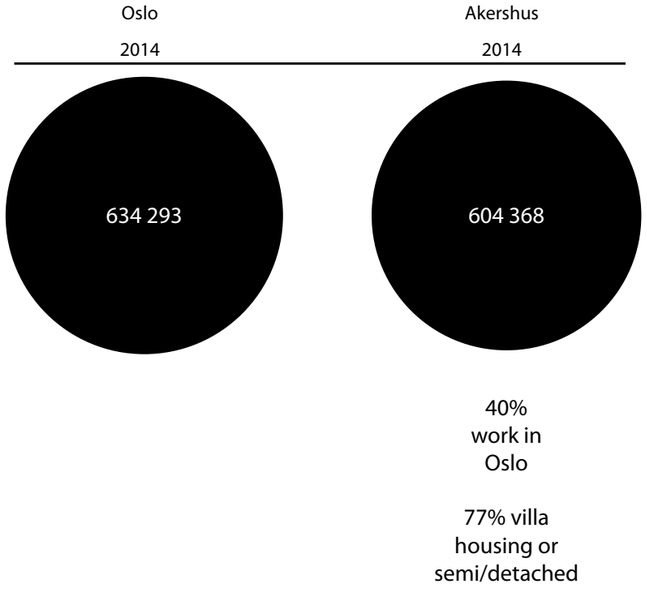


The forest limit (markagrensa), introduced in 1934 because pumping water above contour 220 was deemed unpractical, placed a limit on the sprawl. However, in the neighbouring districts, where space was still abundant, the development continued. The neighbouring province of Akershus experienced a massive boom after the war, growing faster than any other province in Norway.

Today, roughly 47 % of the built area in Oslo is low density. In Akershus, even more so.

Suburbia prevails throughout Norwegian cities.





40%
work in
Oslo

77% villa
housing or
semi/detached

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http://www.ssb.no/a/fob2001/kommunehefte/0301/fob_0301_tabeller.pdf

Yet, the ideals behind the villa are in many ways representative of a bygone era. The nuclear family is a much rarer phenomenon today than when the villa typology first experienced it's immense popular growth.

The car, which was a necessity for the suburban development to work at a grand scale, is no longer a symbol of freedom and vitality. Does the villa typology really best represent the demands, social compositions and ideals of our time?

Unquestionably, many still dream of the private and secluded life in green environments, but in many instances one can question if the reality of suburbia is truly a realization of those dreams. There are also legitimate concerns about the manner in which densification is taking place today. Does the so called "apple garden"-strategy of densification preserve any qualities in suburbia, or introduce any new ones?

This project raises the question of whether it's possible to work within the existing structure of suburbia, addressing the many problems associated with urban sprawl. The goal was to develop a strategy which would not necessitate a complete "tabula rasa" of the suburbs, which would probably never be realized. Instead the goal was to work within the existing structure, while, at the same time, imagining a new suburban ideal.

The Site

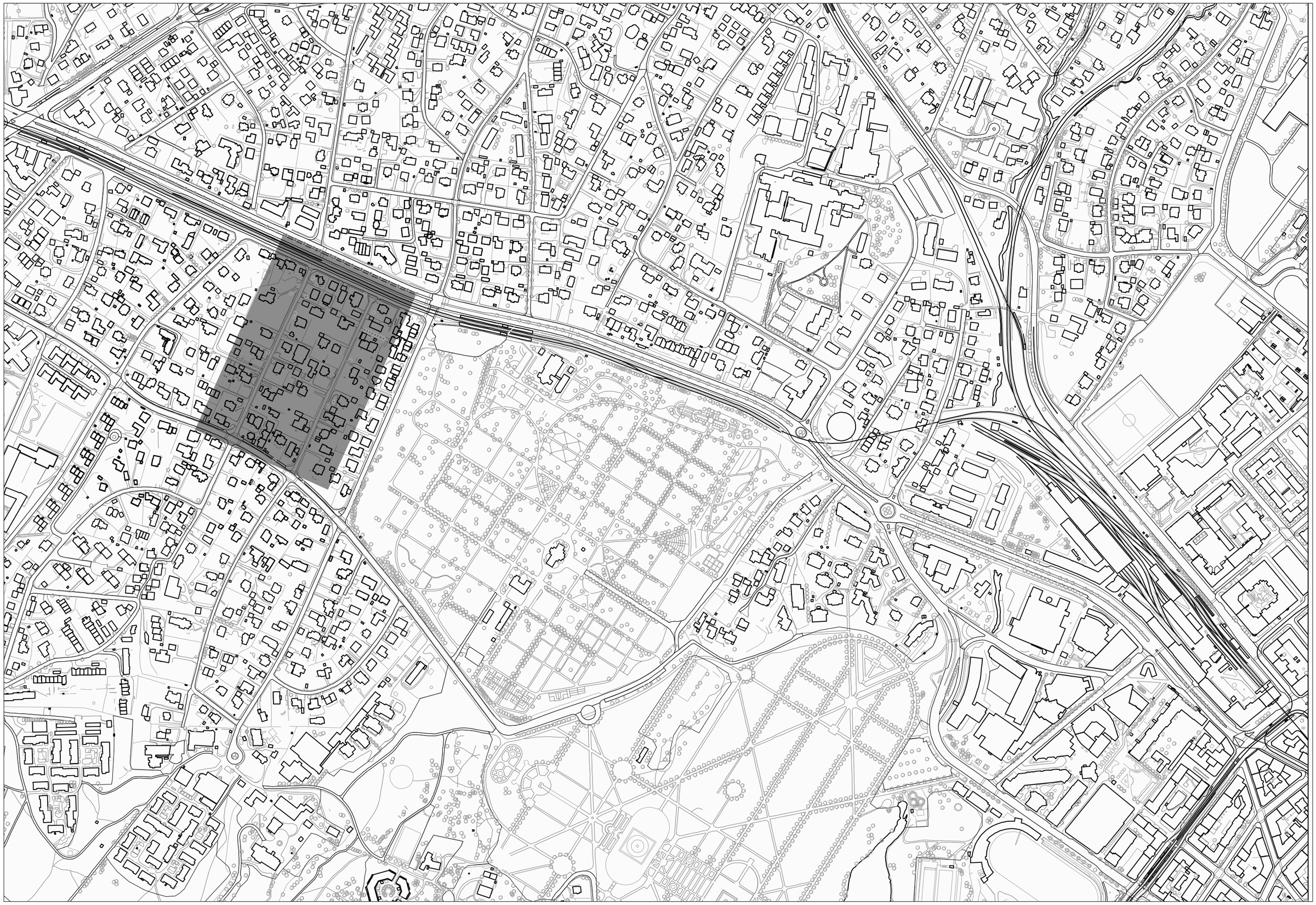
Choice of site

The focus area of the project is Borgen, in the western suburbs, close to downtown Oslo.

Borgen is a part of a continuous belt of villa districts, located between the second and third ring road, that are all located within walking distance of downtown Oslo.

Borgen has several amenities and vital institutions within a twenty minutes walking radius, including three hospitals, the Oslo university campus, the Skøyen business area and the Norwegian broadcasting corporation, necessitating a daily flow of almost 100 000 workers.

Borgen has a much greater transportation infrastructure than it's population density suggests and is not dependant on car travel. It has more metro stations (8) than downtown Oslo, and another one is soon to follow with the establishment of Fornebubanen.



Two streets in the grey area above were chosen to make a pilot project.

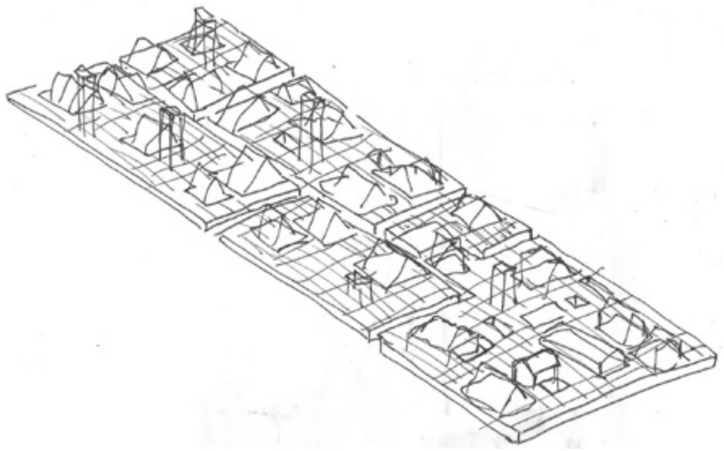
The site is not remarkable in any way, except that it's close to downtown Oslo. It has relatively small gardens compared to other parts of the suburbs. The thinking was that a strategy that could work here, would perhaps be more easily replicated in other places.

It's also part of a zone close to the main road of "Sørkedalsveien" (north in the first photo), where the Oslo municipality is considering exempting the district from the "småhusplan" law, regulating construction in the suburbs. If that were to happen, the economic incentive would be strong for the whole area to be purchased and replaced by solitare blocks in a short time frame. One could then imagine that the inhabitants of the area could be willing to try an alternate strategy, if there was one.

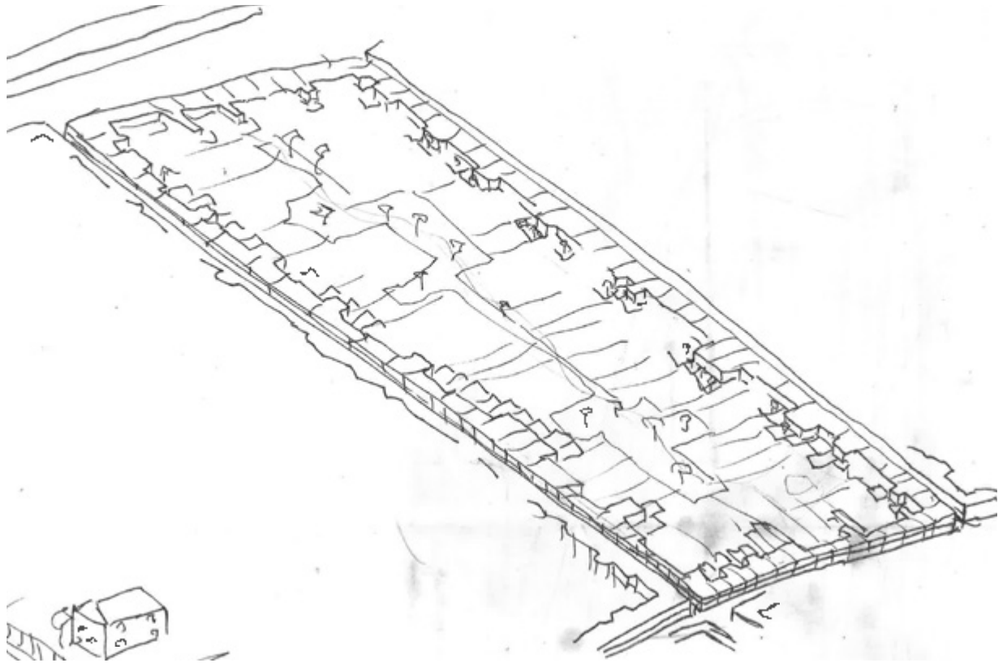
On inspecting the site, the first impression was that the network of roads, driveways and garages was taking up a large amount of space for a small population. This could offer a potential for better use.

Early process

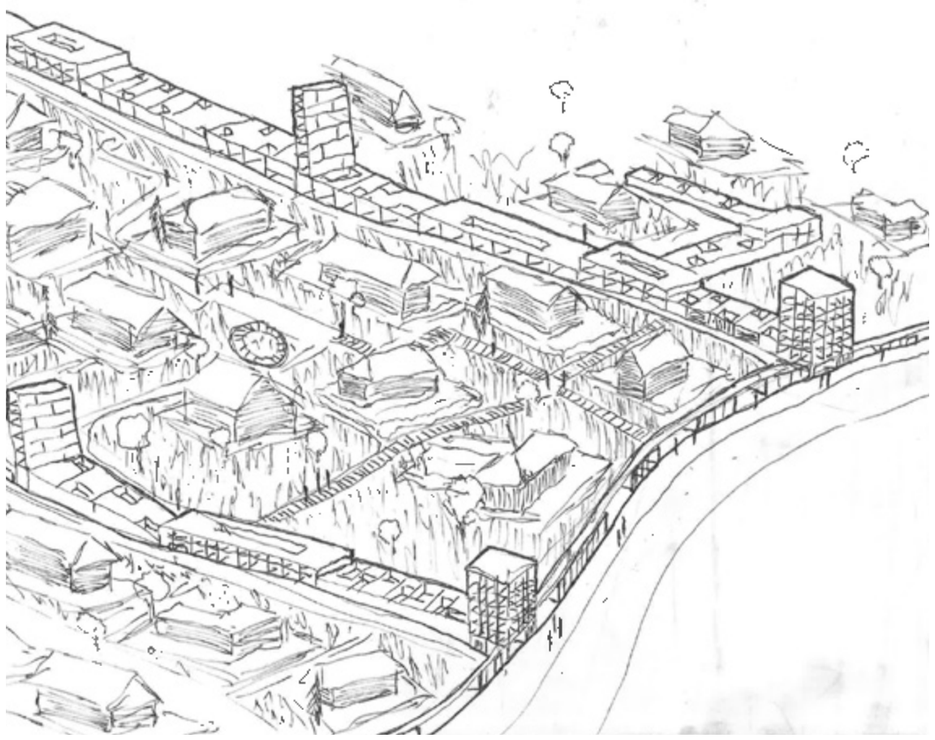
In the beginning the goal was to keep an open mind and try any possible approach, no matter how radical.



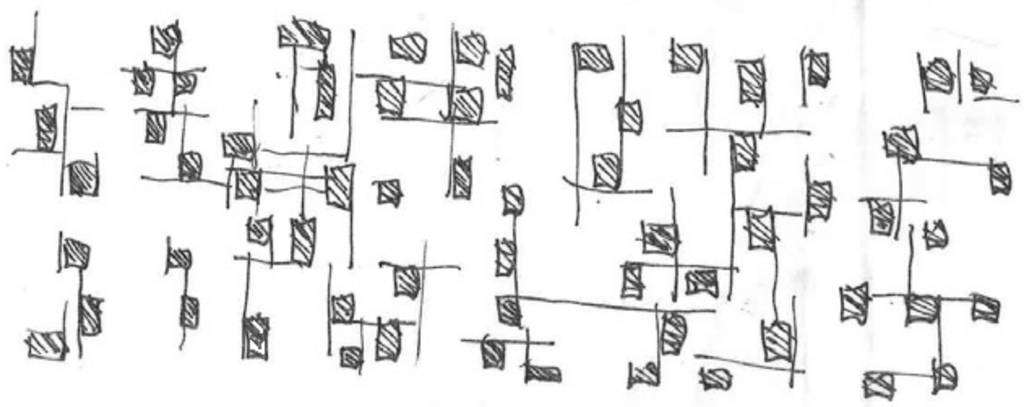
A “mat-building” approach



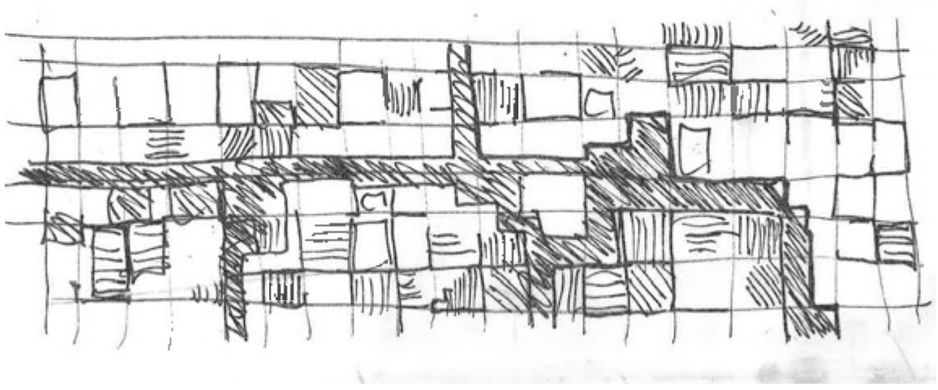
Converting the district to a block with villas inside.



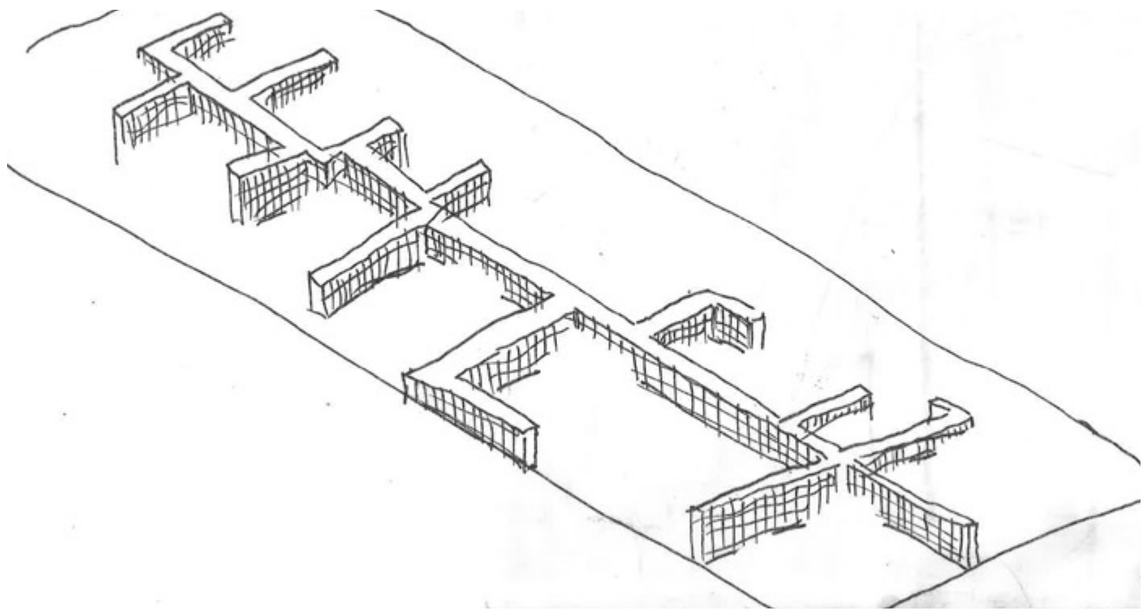
Converting the roads to a continuous building



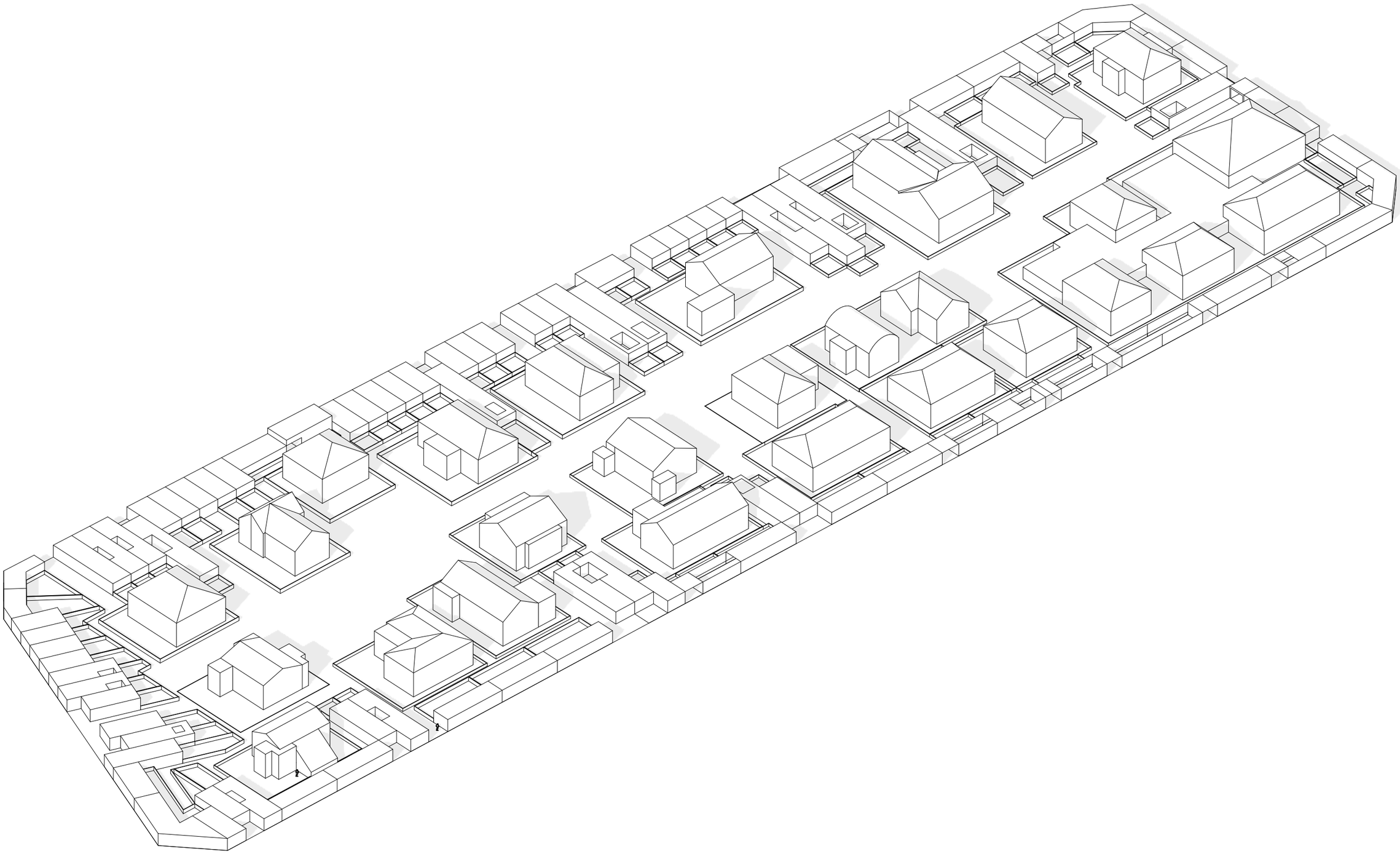
A more radical version of the “apple garden” strategy



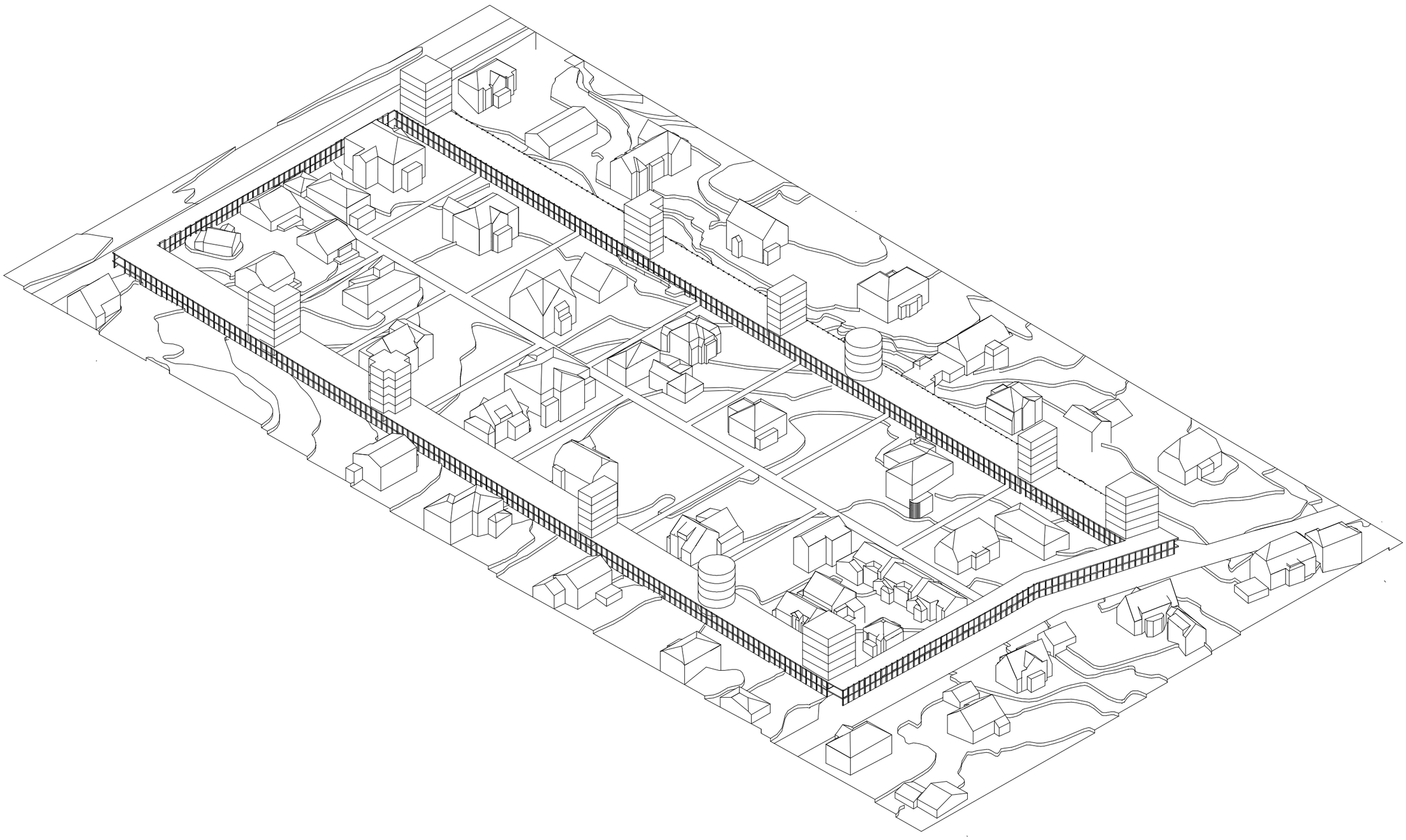
Grid based strategy



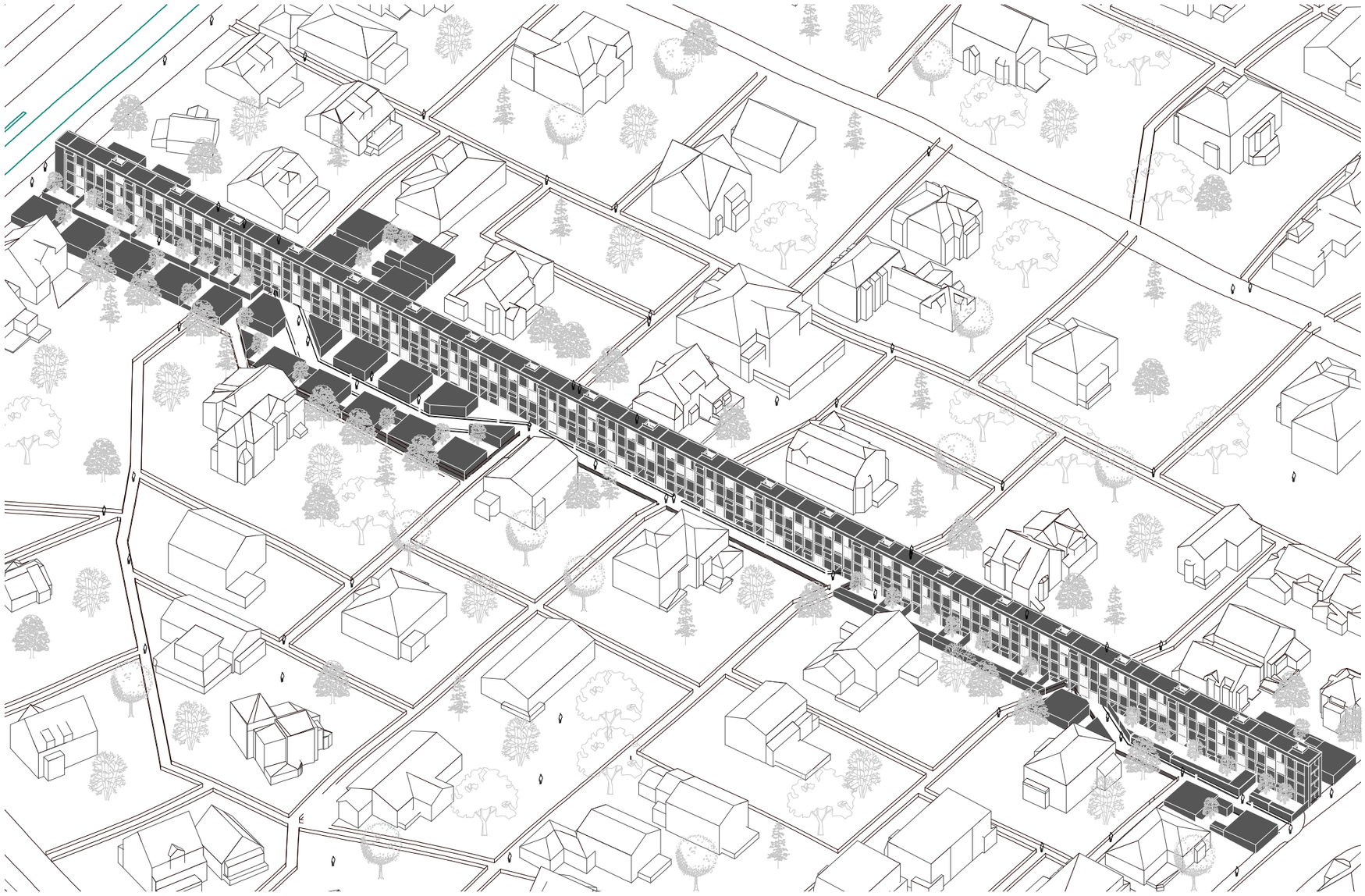
A mega-structure in between

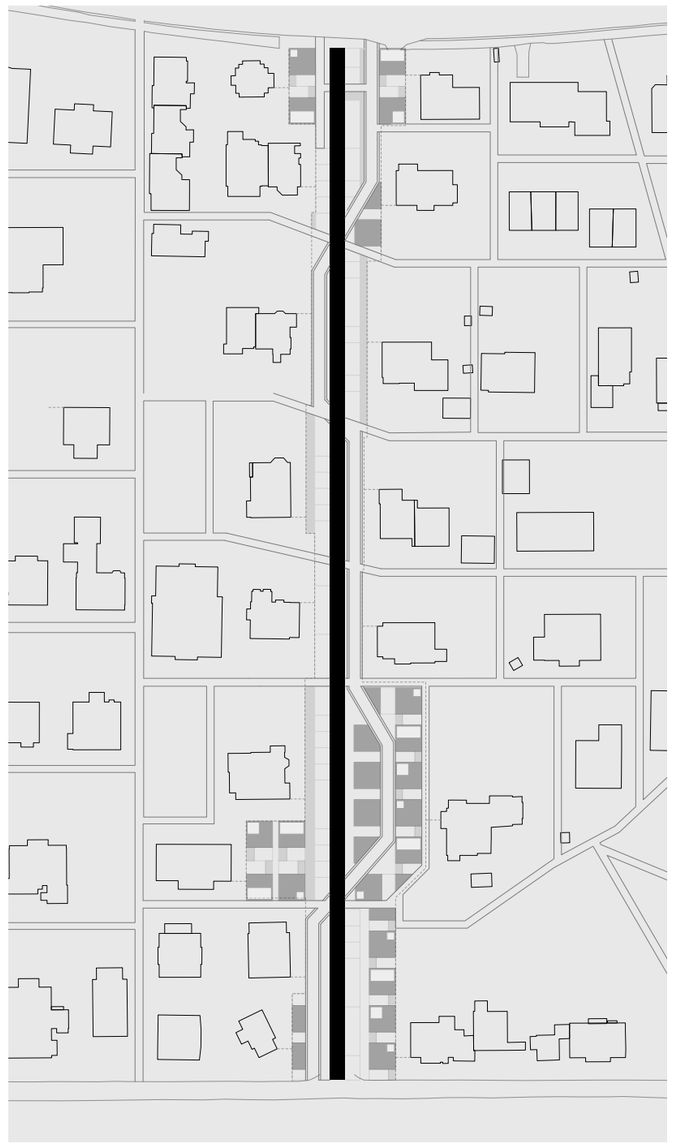


Converting the district to an urban block with villas inside was one of the early alternatives. It was ultimately rejected because the remaing space inside the block was not very believable as an attractive option for the existing residents.

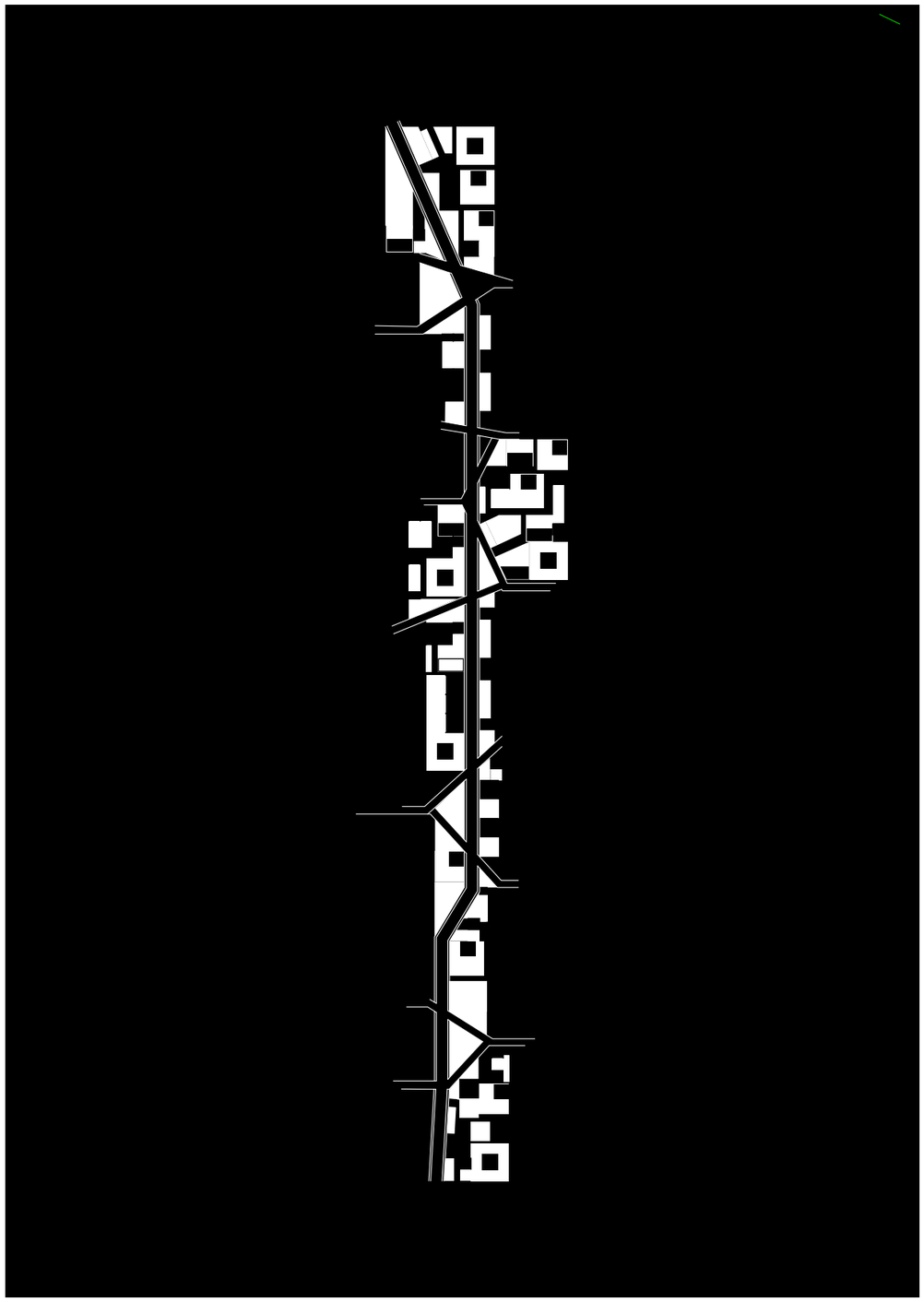


Converting the roads to a mega-structure, utilizing the gardens as the new circulation space was also tested. It was rejected for being too extreme in it's context and unrealistic in it's approch to re-utilizing the garden space.





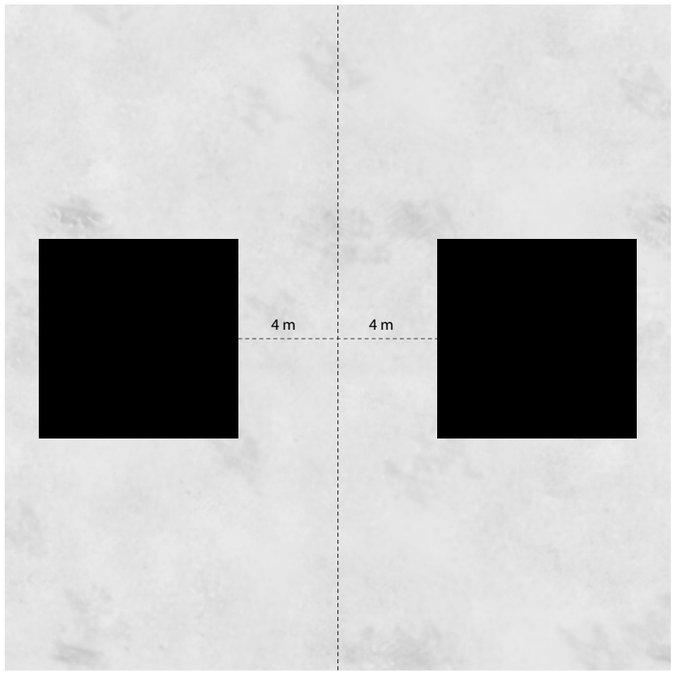
A less extreme version based on using only the throughfare roads to build a linear architecture project was the main alternative for a long time. It was however rejected for being a type of paper project which has been tried many times before. The whole idea of a megastructure also seemed unfit for this particular assignment. It would be inflexible in the complex reality of suburbia and hard to imagine as a half-built utopia. Even if realized it wouldn't change the essential spatial features of suburbia so much as offer a mere juxtaposition.



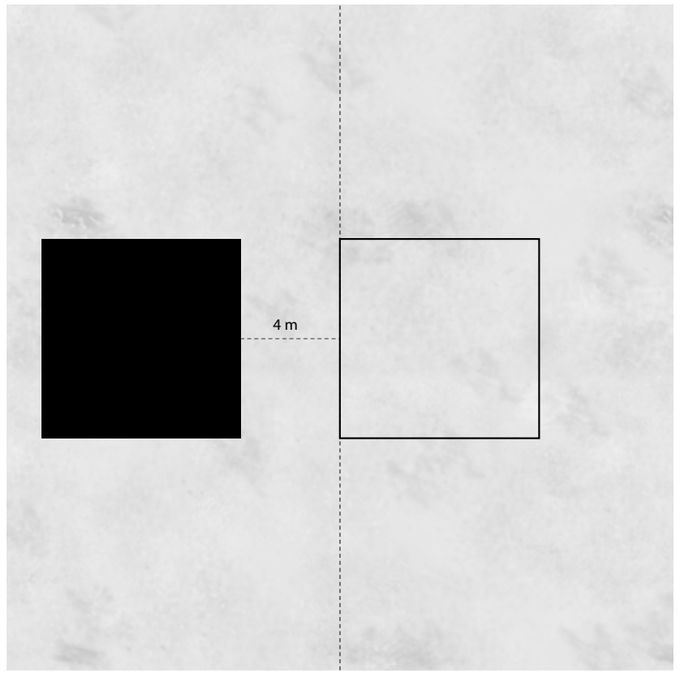
The final alternative was also based on densifying around the throughfares, but with a catalogue of dense, small scale typologies. Such an approach could offer flexibility comapred to the complex mega-building. It could work in many time frames, and the the new ideal of the street could offer a radical change, while still giving the oppertunity to preserve other parts of the suburbs.

The final project

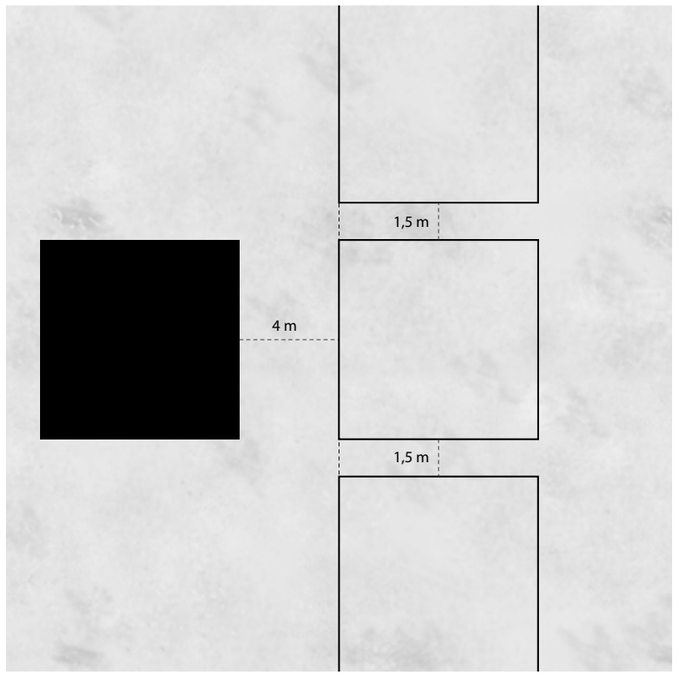
Density strategy



The minimum distance between houses in villa districts is governed by the four meter rule.

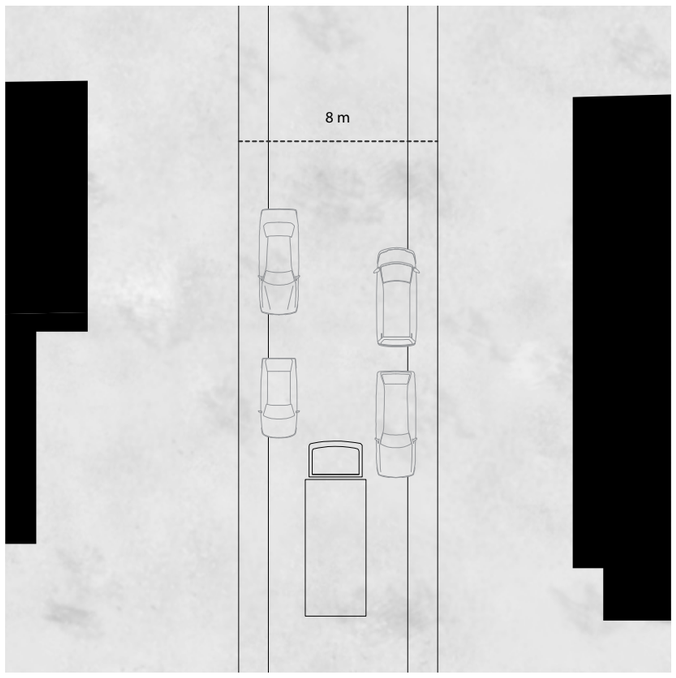


If one could be allowed to build at the plot line...

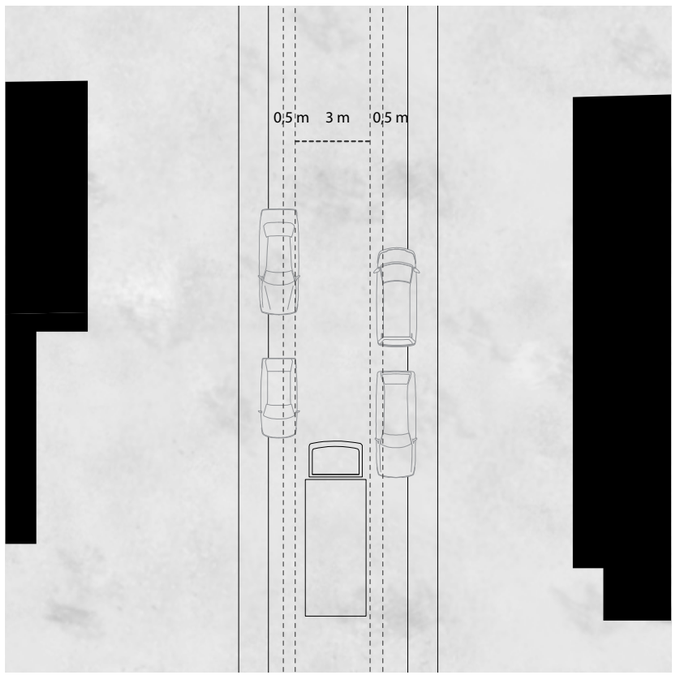


...and establish a new minimum distance of 1,5 meters between new plots, densification could be much more concentrated.

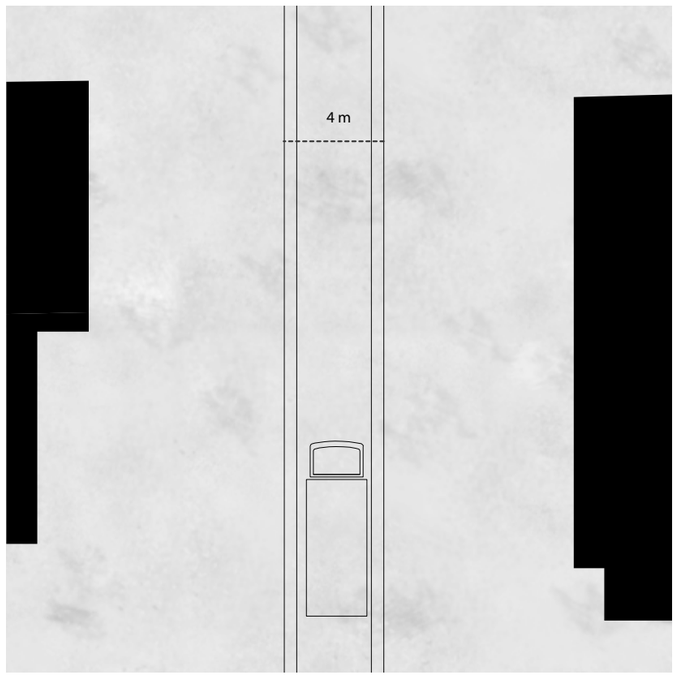
Road strategy



The average width of a villa throughfare is 8 meters, allowing parking on both sides, and large trucks to pass.

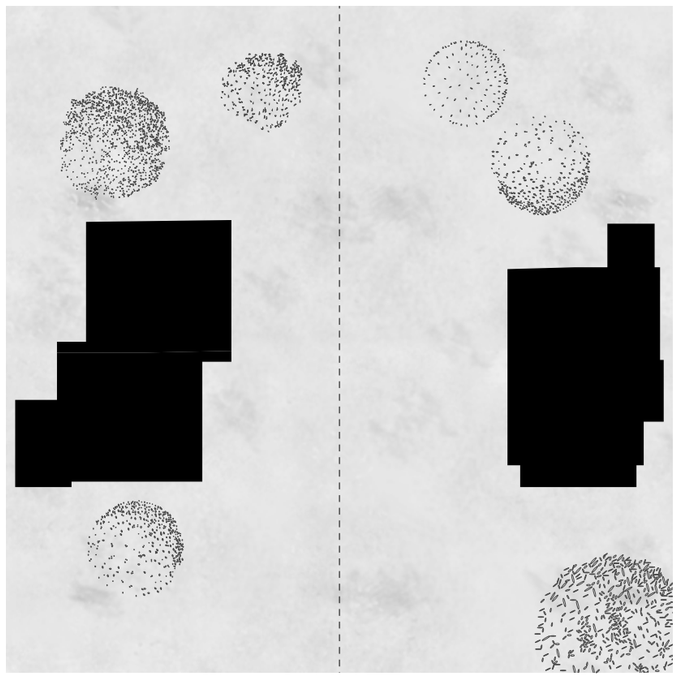


If the width of the road could be reduced to the minimum of emergency trucks...

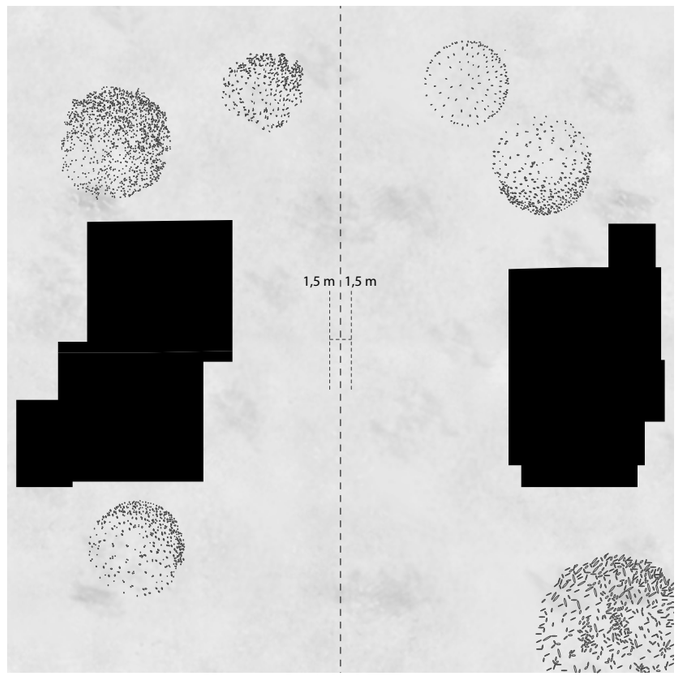


... more space for densification could be made, while disincentivizing car use and thoroughfare traffic.

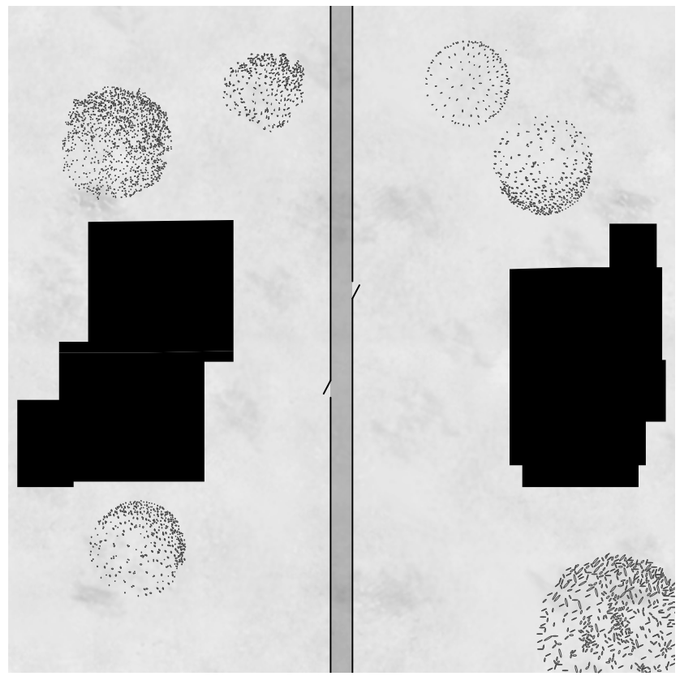
Publicness strategy



Every villa is divided by a plot line.



If every villa owner could sell between 1 and 1,5 meters of the threshold between plots...

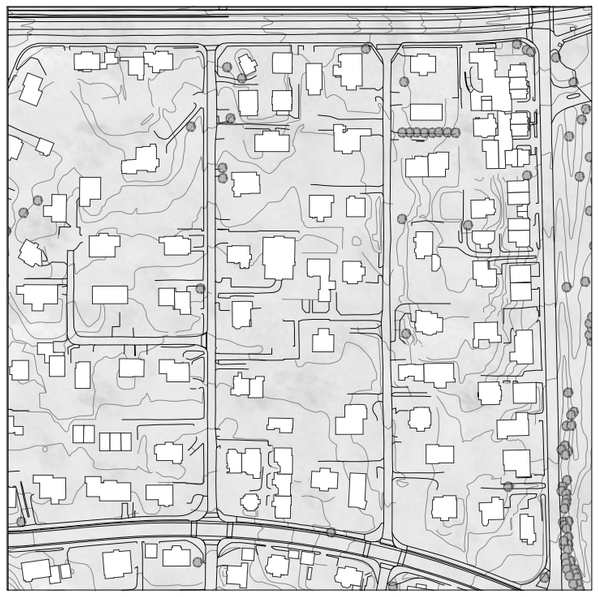


... a new pedestrian road could be established. Granting more intimate access to the qualites of villa districts , while making the large blocks more pedestian friendly.

The strategy employed at the site

The site has a massive transportation infrastructure of small garages and wide roads.

All existing villas could be preserved if the sprawl of small garages and driveways could be concentrated in collective parking houses by the entrance to a block.



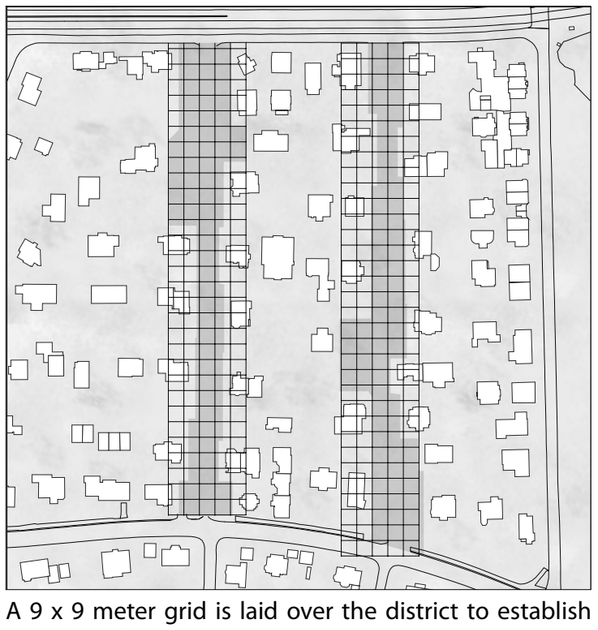
The site without the small structure sprawl.

Defined by the new four meter minimum distance, all densification could take place along the road, to preserve the villa district within.

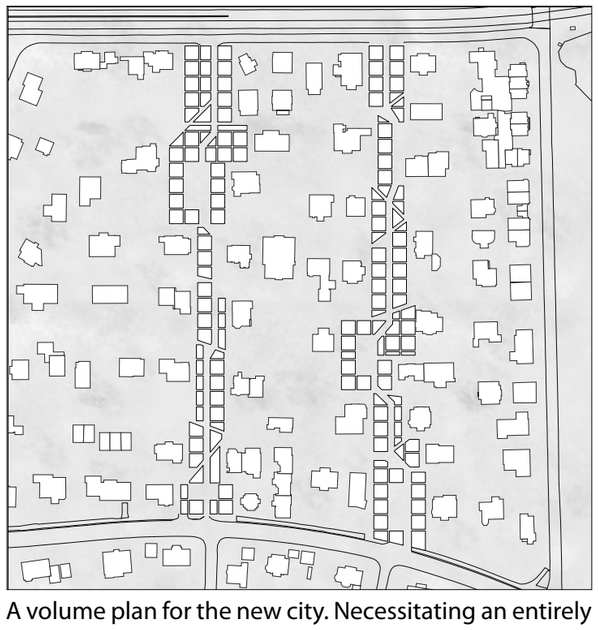
A new, much more narrow road is established, meandering through the site to make the most of the space on each side.

The plot boundaries.

A new pedestrian road is established in the threshold, allowing for a more fine-meshed movement pattern through the city and more intimate contact with the gardens. It can also be used by emergency vehichles.



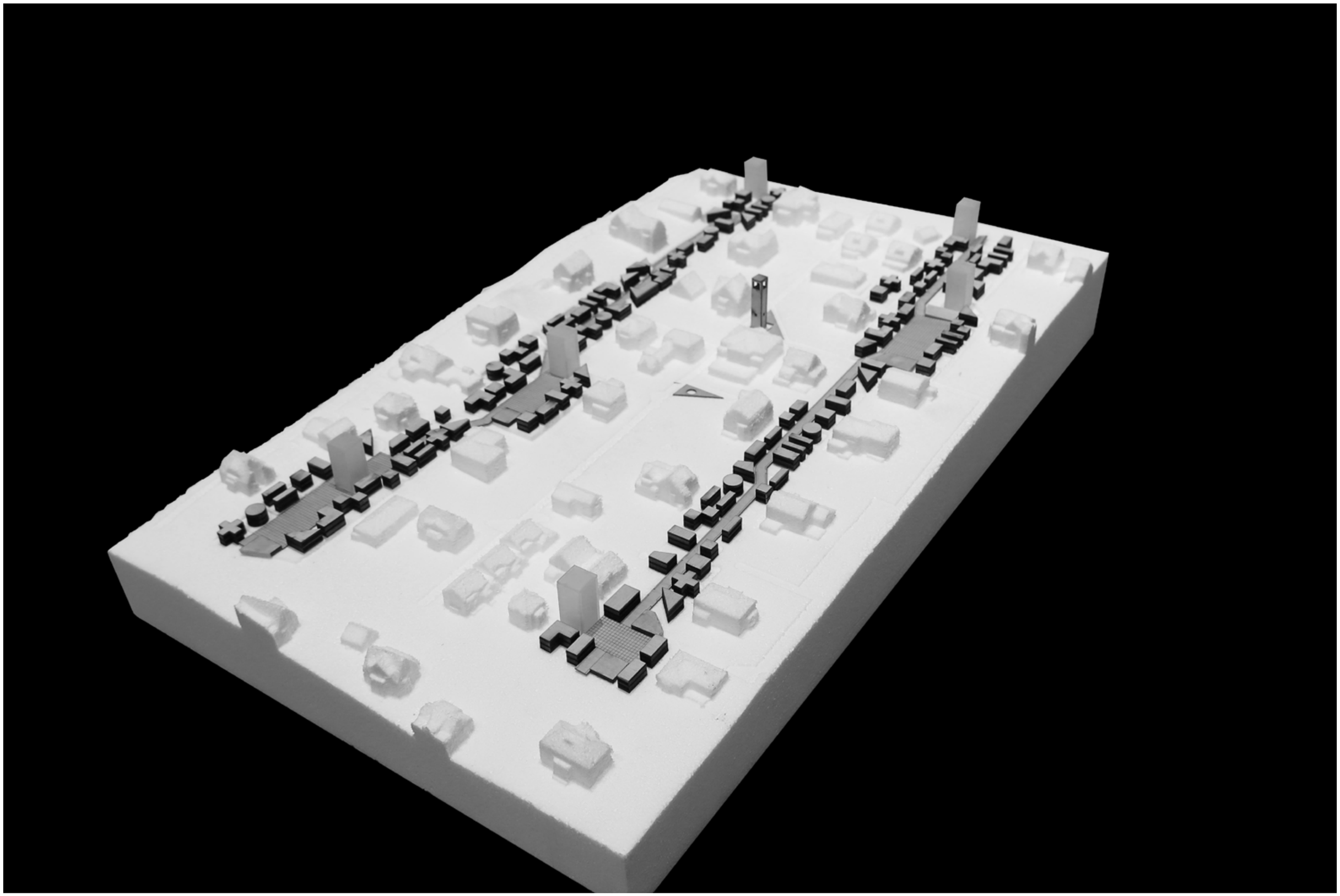
A 9 x 9 meter grid is laid over the district to establish new plots for new typologies.



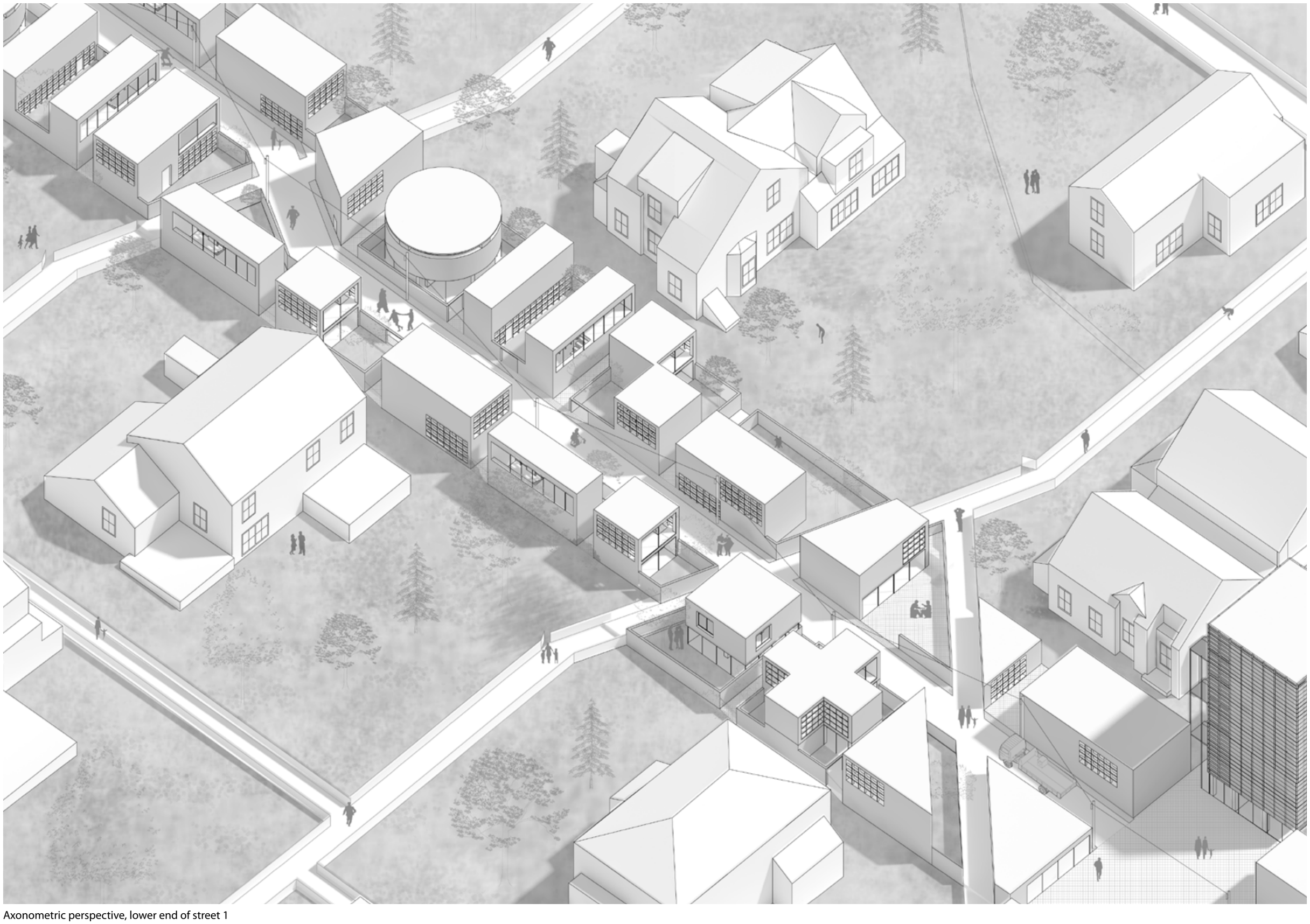
A volume plan for the new city. Necessitating an entirely new set of typologies in a Norwegian context.

Siteplan

1: Underground parking entrance
2: 7-eleven
3: Community house
4: Restaurant
5: Super market
6: Underground parking entrance
7: Architecture office
8: Biergarten
9: Café
10: Community house
11: Underground parking entrance
12: Public rock garden
13: Public panorama tower



Site model 1:500



Axonometric perspective, lower end of street 1

Site elevation

Half built project: One advantage of the small scale typology strategy, as opposed to a megastructure is that it can be built gradually and is not dependant on all villa owners to want to participate in order to work.

Future expansion: It's also more adaptaptable to a future where some of the villa owners might not be interested in preserving their house, and would rather want to sell their entire plot. In this instance one can imagine a rule that a certain percentage of the plot needs to be public space, and that historically significant architecture needs to be repurposed.

Life inside the villa area: Is much like before, except that the new pedestrian road gives both locals and guests a more intimite way of discovering the villas and apple gardens of Oslo. Where garages used to be located the villa owners could either extend their gardens, or sell the plot to the street cooperative, allowing the introduction of small islands of publicness inside the villa gardens.

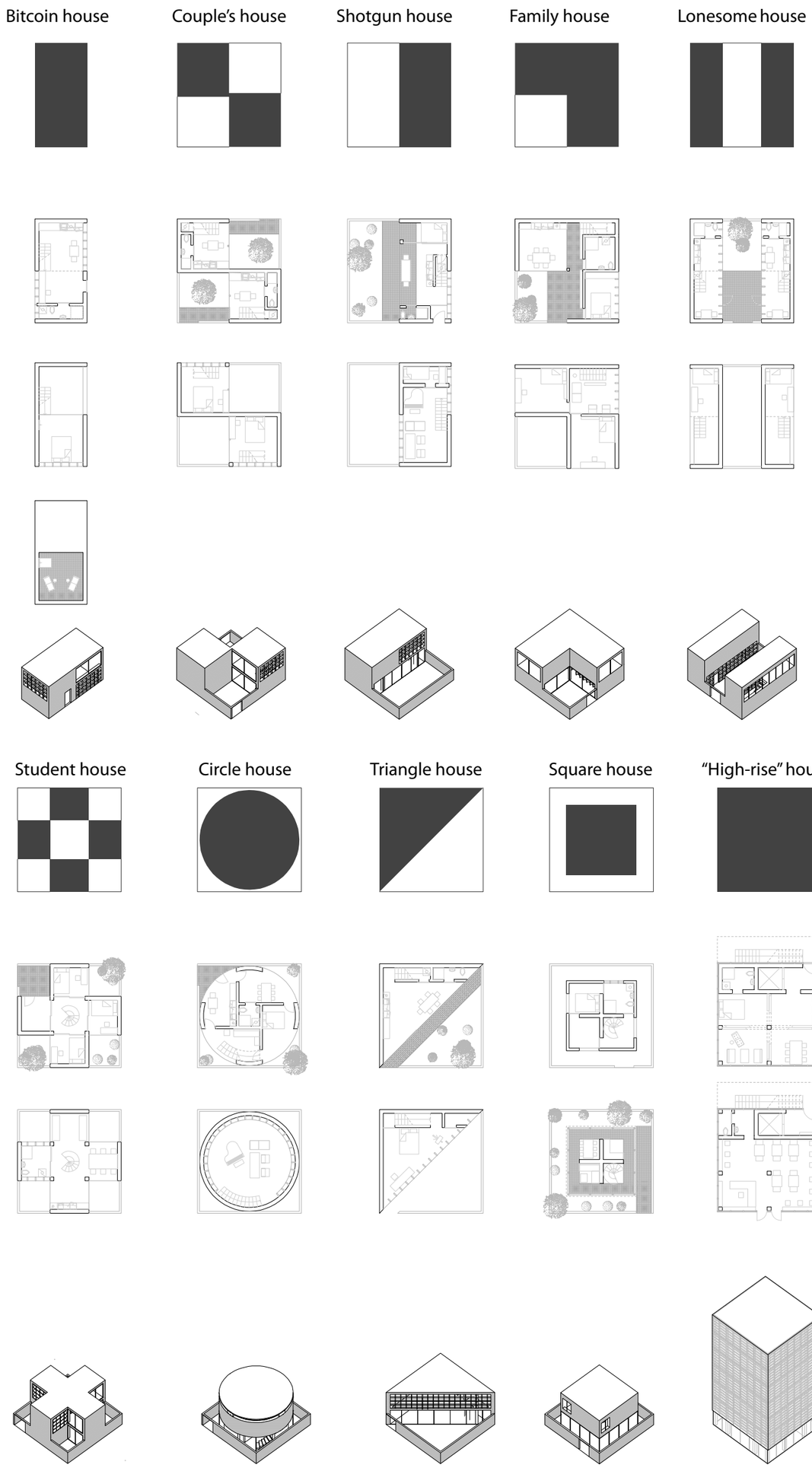
Perspective from the pedestrian road.

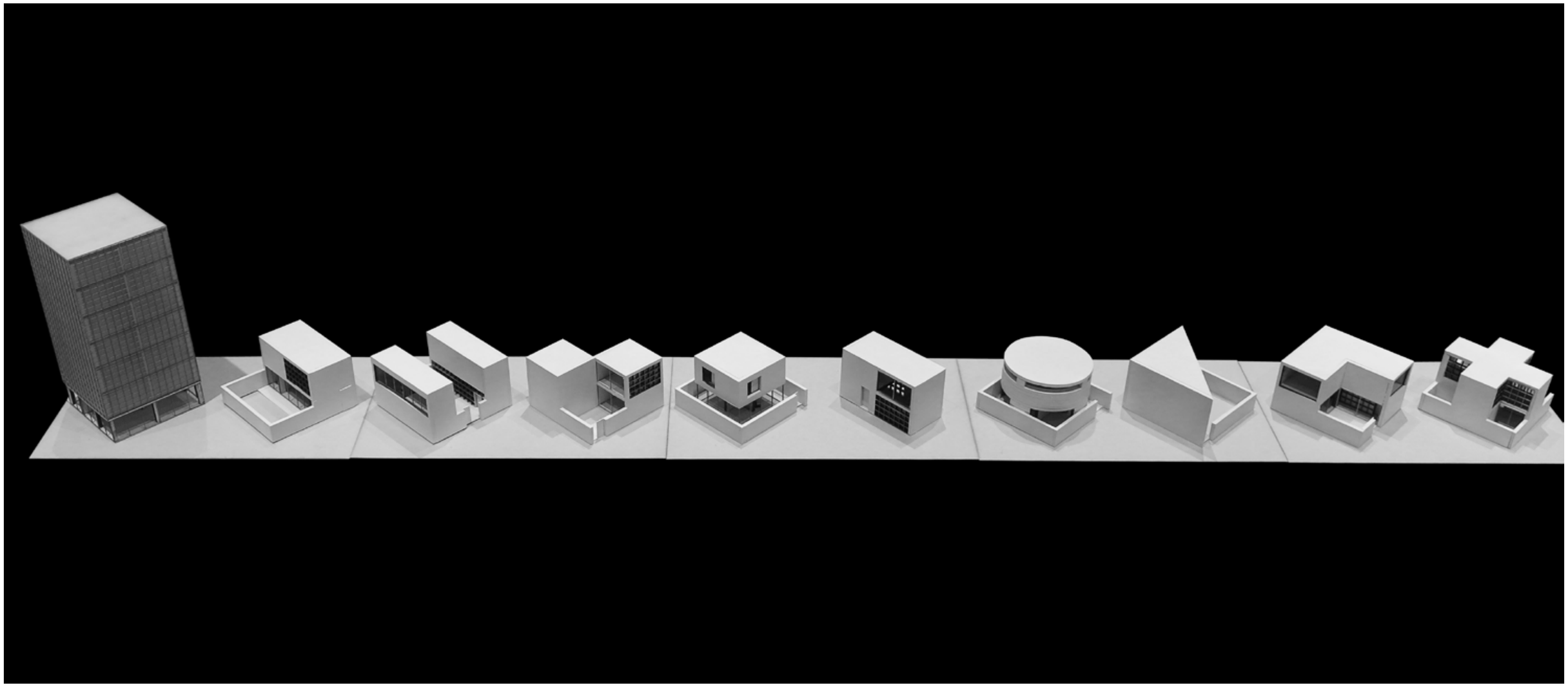
The Typologies

A goal of the project was to work in the big and small scale simultaneously. To showcase that living in the new city could be attractive, despite being dense. An 8x8 meter plot size fits best within the given project area, while still offering the chance to offer a large variety of small houses. It became the central premise.

A series of ten new typologies were designed. What they have in common is an approximite average of 30m2 per person and the idea of a courtyard and filter window to meet the challenges of privacy.

They each represent the idea of replicating some aspect of living in a villa and an idea of a central room. Possible user groups have been identified as a challenge to the homgenous nature of suburbia. The details of each plan will be discussed in the final presentation.





1:50 model of each house



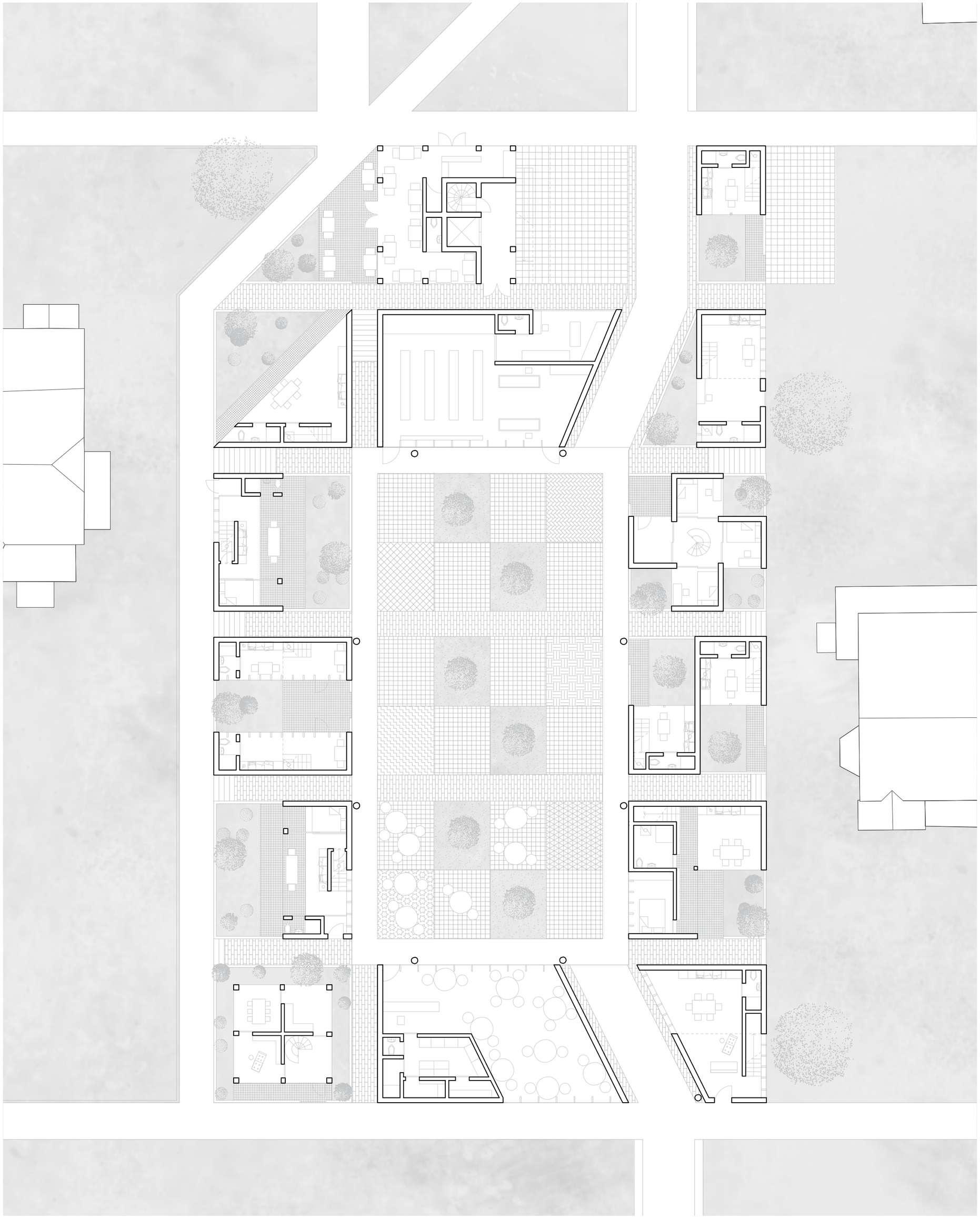




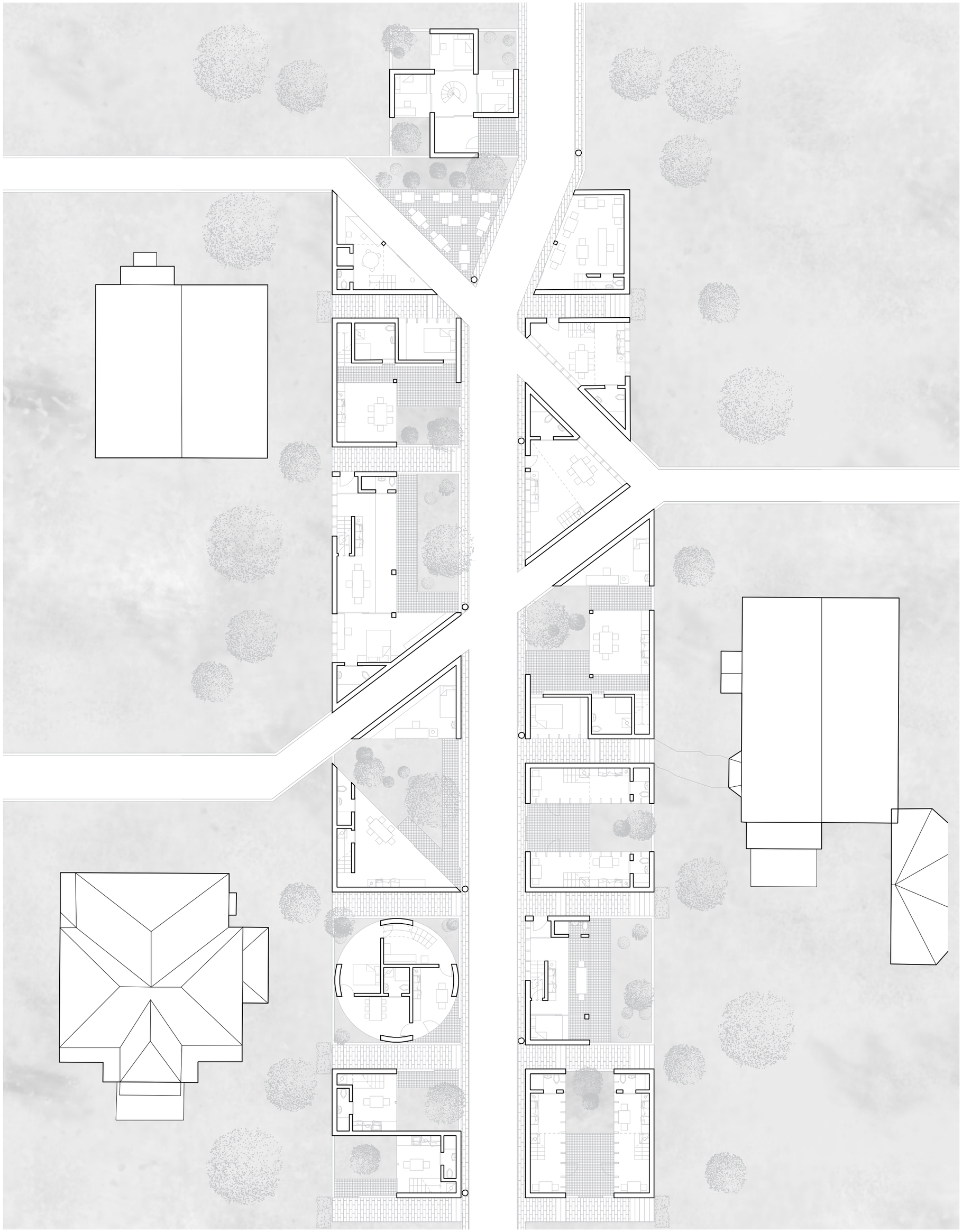



Rendering of the spacial idea of each house

Three areas designated for closer study



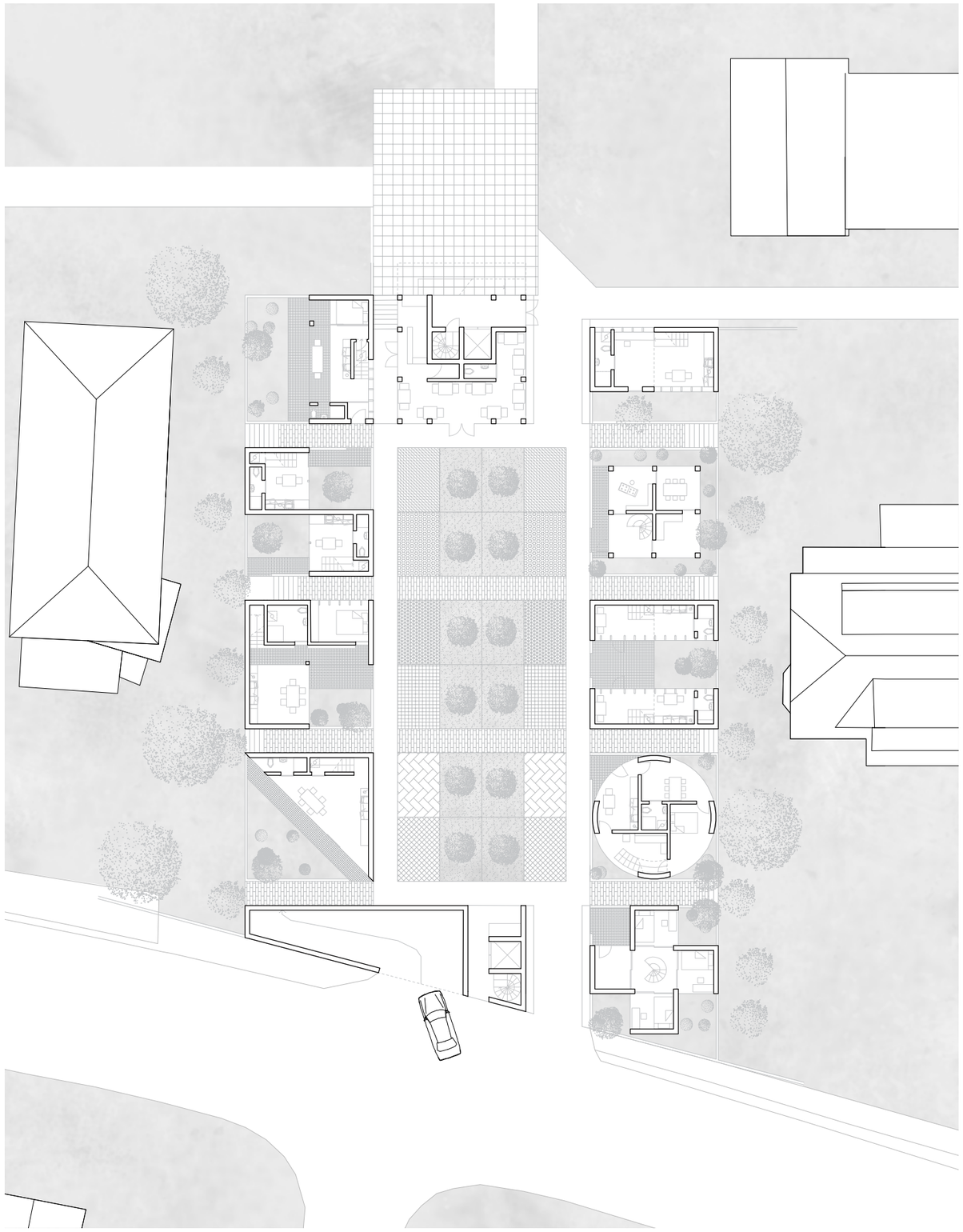
1 Detailed drawing of a public plaza: Introduced at a regular interval at the largest crossroads inside the new city. Suburbia completely lacks public space. Plazas like this one could give more people an incentive to visit suburbia while also giving pause to the density of the street.

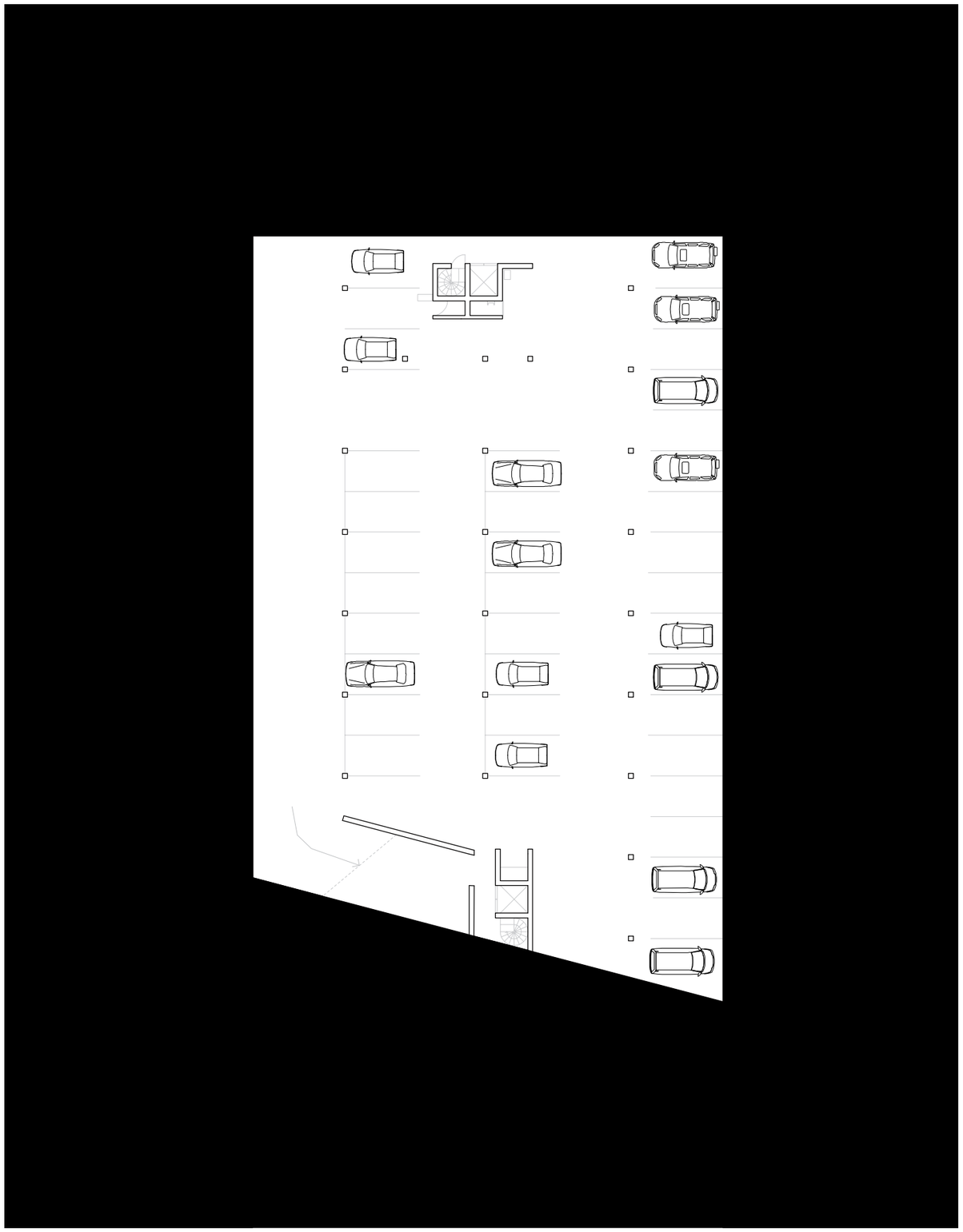


2 Detailed drawing of a typical street: The small alleyways is an attempt to avoid the new city to be percived as a wall and allow full flexibility for the villa owners, who choose to either leave them open or seal them of with greenry.

Street space: A warmth of materials, greenery growing above the walls of the courtyard and a continuation of the power pole; already a recognisable symbol of suburbia are intended to make the street spacially attractive.

Villa/city threshold: The new typologies will stand as lamella wall on one side of the villa garden. They are are designed to open towards inner courtyards and only face villas directly through filter windows of small rectangles of frosted glass and regular glass intermingled.





3 Detailed drawing of a project entrance: The entrance has a plaza much like the first one, with the potential for some public program and a driveway for a shared underground parking space. It's intended for both the existing villa owners and new inhabitants. The size of the parking space would ideally only cover those villa owners who once owned their own garage and a few extra spots for a shared car pool.

Could the suburbia of the future be a continuous field of
narrow streets, pedestrian roads and historical villa corridors?