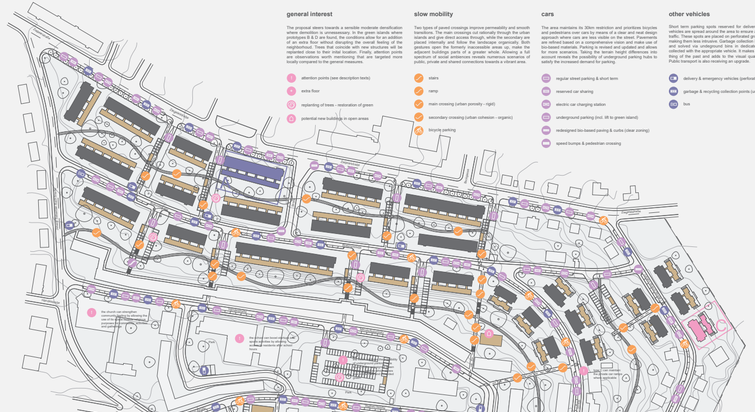
bio-based idiolect



general interest

The proposal steers towards a sensible moderate densification where demolition is consequently. In the green loosely where prototypes B & D are found, the conditions allow for an addition of an extra floor without disrupting the overall feeling of the neighborhood. Trees that coincide with new structures will be replanted in the vicinity of the building site. Along the roads there are observations worth mentioning that are targeted more locally compared to the general measures.

1. attention points (see description tracks)
2. extra floor
3. replanting of trees - restoration of green
4. potential new buildings in open areas

slow mobility

Two types of paved crossings improve permeability and smooth transitions. The main crossings run rationally through the urban islands and give direct access through, while the secondary are placed intensely and follow the landscape organically. Both gestures open the formerly inaccessible areas up, make the neighborhood more alive and bring the residents closer. Taking a spectrum of social ambiences reveals numerous scenarios of public, private and shared connections towards a vibrant area.

1. stairs
2. ramp
3. main crossing (urban porosity - rigid)
4. secondary crossing (urban cohesion - organic)
5. bicycle parking

cars

The area minimizes its 30km restriction and prioritizes bicycles and pedestrians over cars by means of a clear and neat design approach where cars are less visible on the street. Pavements are refined based on a comprehensive vision and make use of bio-based materials. Parking is revised and updated and allows for a more organized flow. Taking the parking spots into account reveals the possibility of underground parking hubs to satisfy the increased demand for parking.

1. regular street parking & short term
2. reserved car sharing
3. electric car charging station
4. underground parking (incl. lift to green island)
5. redesigned tiles-based parking & curbs (clear zoning)
6. speed bumps & pedestrian crossing

other vehicles

Short term parking spots reserved for delivery & emergency vehicles are spread around the area to ensure a smooth flow of traffic. These spots are placed on perforated ground with green, allowing water to seep through. Bicycle parking is revised, improved and extend via underground lines in dedicated areas to be collected with the appropriate vehicle. It makes scattered bins a thing of the past and adds to the visual quality of the area. Public transport is also receiving an upgrade.

1. delivery & emergency vehicles (perforated green)
2. garbage & recycling collection points (underground bins)
3. bus

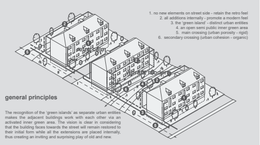
Inclusive & Vibrant

'Bio-based Idiolect' ambitiously tackles all the challenges and suggests a moderate densification in this special location where living, working & sharing overlap in a variety of offered units.

With collaboration, flexibility and inclusivity as key qualities, the private, public and in-between spaces are consciously re-evaluated and designed to enhance spatial experience with a full spectrum of social ambiences.

By enriching the layouts, four replicable prototypes of a distinct and inviting architectural language gracefully bridge the old with the new and are supported further by a permeable slow mobility network in the accessible extensive green.

Bio-based materials and a comprehensive sustainability & circularity strategy strengthen a vibrant revitalized neighbourhood for decades to come.



general principles

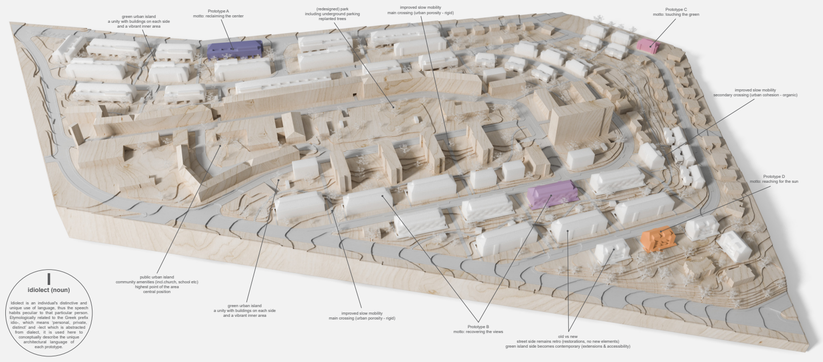
The recognition of the 'green islands' as separate urban entities is crucial for the proposed densification. It allows for a more activated inner green area. The vision is clear in considering that the building faces towards the street will remain resilient to the ever-changing urban environment and, more generally, thus creating an inviting and surprising play of old and new.

1. no new elements on street side - retain the retro feel
2. all additions internally - promote a modern feel
3. the 'green island' - distinct urban entities
4. an open semi public inner-green area
5. improved slow mobility network
6. secondary crossing (urban cohesion - organic)

situation map

Legacy & the future

The densification vision overcomes demolition and extends the life of the existing building stock. Bio-based additions may stay there until the true end of their (extended) lifespan. By that time the original volume will be broken down to its materials to be reused elsewhere. Alternatively, the original volume and the parts of additions will be dismantled and reused in other locations.



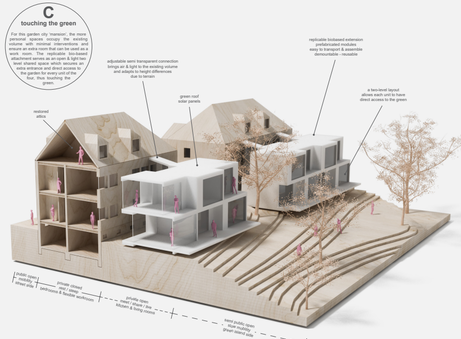
I
idiolect (noun)

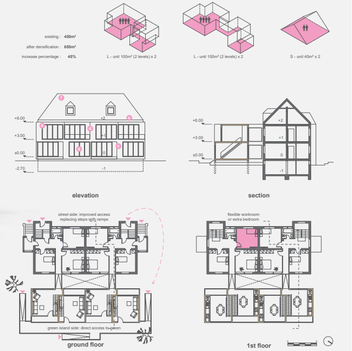
Idiolect is an individual's distinctive and unique use of language, thus the speech patterns, vocabulary, and accent of a person. Etymologically related to the Greek prefix idio-, which means 'personal, private, distinct' and dialect which is distinctive speech of a group of people. In this conceptually descriptive the unique architectural language of each prototype.

bio-based idiolect

C
touching the green

For this garden city 'mansion', the more generous approach to the existing volume with minimal interventions and ensure an extra room that can be used as a bedroom. The proposed solution of adding attachment serves as an open & light-filled west shared space which secures an extra entrance with lift and connects the gardens for every unit of the four. thus touching the green.





moderate densification types

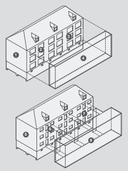
A moderate densification which starts from within is achieved via enriching the qualities of the existing volumes with interior interventions and extensions. The proposed vision sees no reason for demolitions of any kind and works from an addition of a bio-based layer that ensures a long-term resilience. The attributes found per prototype, the extensions are grouped in 2 types based on the way they relate to the original volume.

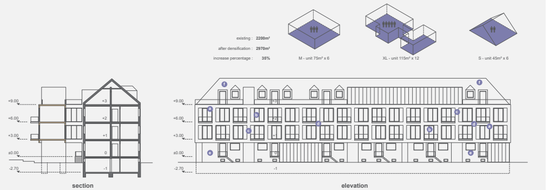
as attachment (prototypes B & D):
directly attached to the original volume - moderate increase in unit size - more open facade with larger openings

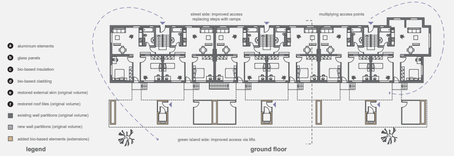
1. restored original unit (extra floor seamlessly integrated)
2. adjusted interior to fit the attachment
3. expanded openings in original volume (loadbearing solutions)
4. replicable & demountable bio- based extension

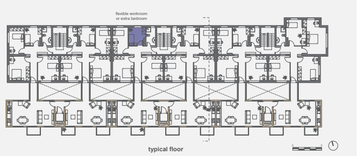
as insertion (prototypes A & C):
inserted in distance from the original volume - substantial increase in unit size - more open facade with larger openings - the original volume retains access to light & air

1. restored original unit (extra floor seamlessly integrated)
2. adjusted interior to fit the insertion (loadbearing solutions)
3. entry points in original volume (loadbearing solutions)
4. replicable & demountable bio- based extension



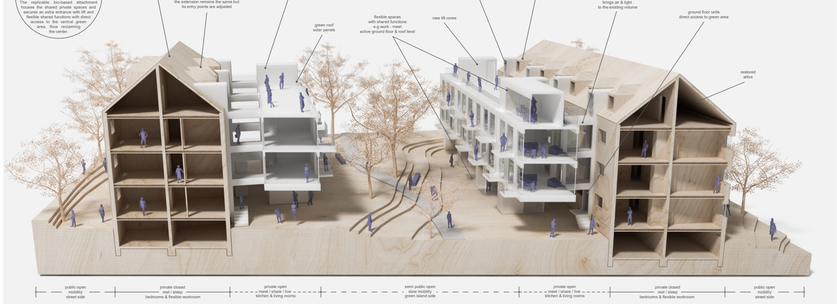




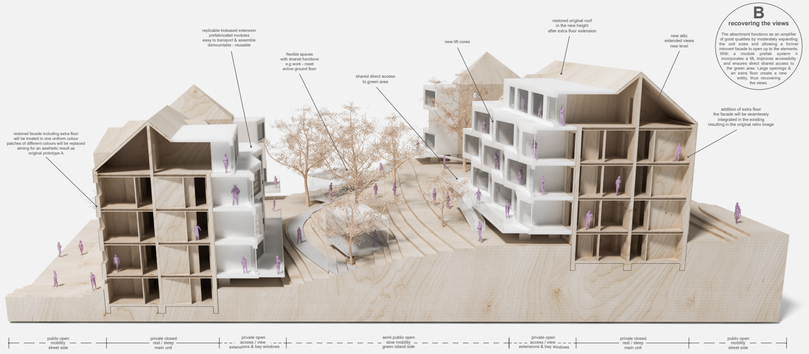


A
reclaiming the center

In the biggest of the prototypes, the more generous spaces occupy the existing volume with minimal interventions, where a bio-bed layout allows each unit direct access. The replicable bio-based attachment houses the shared private spaces and secures an extra entrance with lift and creates shared terraces with direct access to the green. Thus, reclaiming the center.

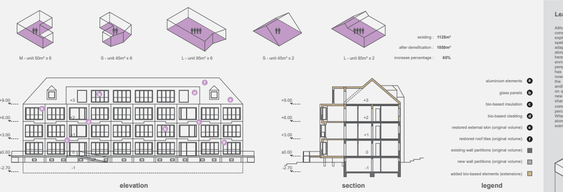


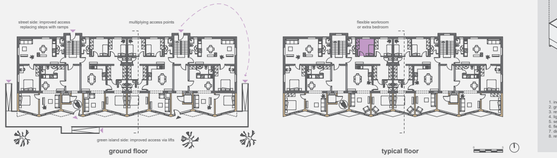
bio-based idiolect



B
recovering the views

The attachment functions as an amplifier for the existing architectural characteristics the unit sides and allowing a former introvert facade to open up to the elements. The new attic extension, which incorporates a lift, improves accessibility and ensures direct shared access to the green. The attachment functions as an extra floor volume in each entity, thus reconnecting the views.





Learning from Covid-19

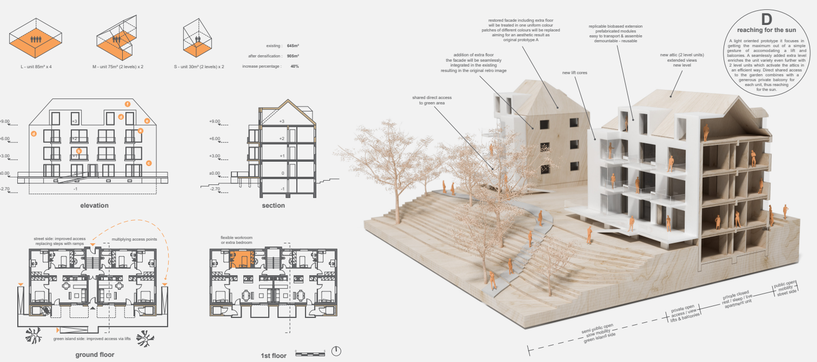
Although we can only speculate in what the long-term consequences of the pandemic are, the current possibilities are explored and implemented in the proposed vision. From a spatial perspective Covid-19 confirms the need to design more generous and inviting spaces for the shared environments, along with the constant need for quality green areas. Especially here where change starts from within, positive qualities are enhanced and negative aspects are tempered. From a social perspective, the so called 'outdated' layout of the existing units has more to offer as a starting point. Departing from an extensive analysis of the existing units, the proposed densification, the existing units, allows the residents to flexibly distance and/or connect. Therefore the old layout is supplemented. While the existing units keep their (extra) rooms, each unit gets a new additions secure balconies, large openings and private & shared terraces. The change of pace and the decrease in density, which is felt by the residents, is also felt and perceived as extensive requested space for a functional unit. Where possible, the prototypes offer flexible workroom spaces along with securing enough rooms to allow these sorts of scenarios to take place.

A bio-based prototype

The design proposal makes an extensive use of bio-based materials along with a comprehensive energy plan to reach a sustainable & circular way of building & living. Following the guidelines of the R-ladder (see booklet), the materials used are chosen based on their ability to be reused or recycled, thus strengthen the sustainability value of the suggested densification by making full use of recycled - upcycled materials and/or bio-based materials. The use of bio-based materials can be further supported by prefabrication and by approaching the project and especially the additions as a temporary measure (extendable lifespan, easy to dismantle, transport and reach expiration date). This means that all the extensions and added materials are designed and chosen with a second life after their first life in mind. The bio-based additions can be dismantled, used, a new future after dismantling is possible, a choice which reduces material waste actively.

1. increased openings
2. new balconies / balconies
3. revised interior layout - suitable division per user
4. light & open extension (social ambiences)
5. flexible workroom - open space as work room
6. flexible shared functions
7. direct access to green area
8. revised landscape - opens up for public access & use

1. bio-based interior elements (walls, flooring)
2. bio-based facade cladding & insulation
3. bio-based facade cladding & insulation
4. extra level with bio-based materials (extensively integrated)
5. bio-based roof insulation (extensively integrated)
6. solid wood core (prefabricity gramics & demountable)
7. lightweight bio-based foundation
8. landscaping & paths with bio-based materials



D
reaching for the sun

A light oriented prototype D focuses in giving the maximum out of a simple gesture of accentuating a lift and extending the roof towards the sun. This welcomes the unit variety even further with 2 level units which activate the attics in an efficient way. Direct shared access to the green is secured with a generous private balcony facing the sun.