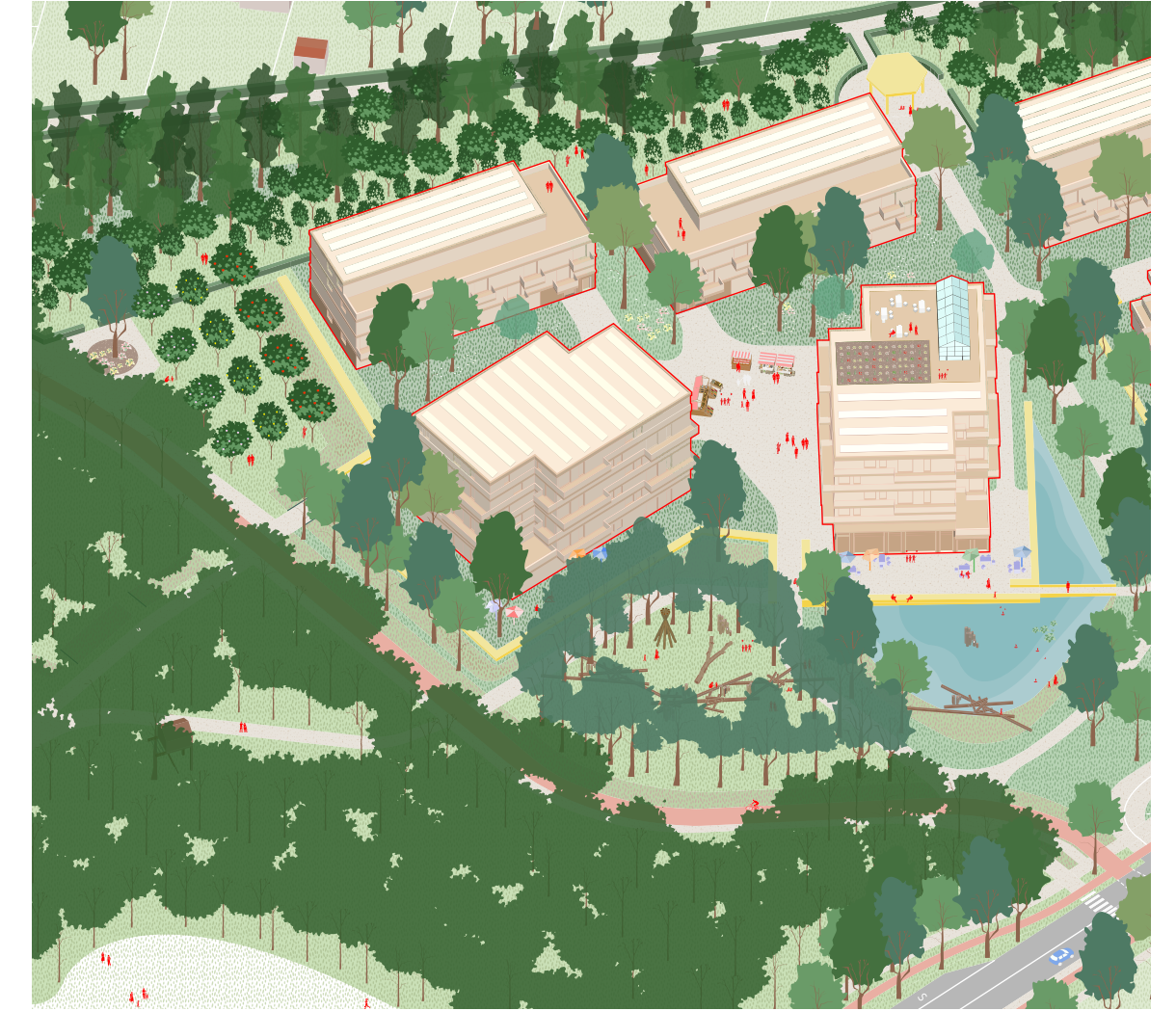


4x4

4 challenges
4 projects



Brut



Flanders combines one of the highest population densities in the world with a very fragmented settlement structure



By 2040 the development of new greenfields will not be allowed anymore

New development will take place in already developed locations, densifying existing towns and cities, redeveloping brownfield sites, etc...



How can we use this need for densification to open up the discussion about quality of living?

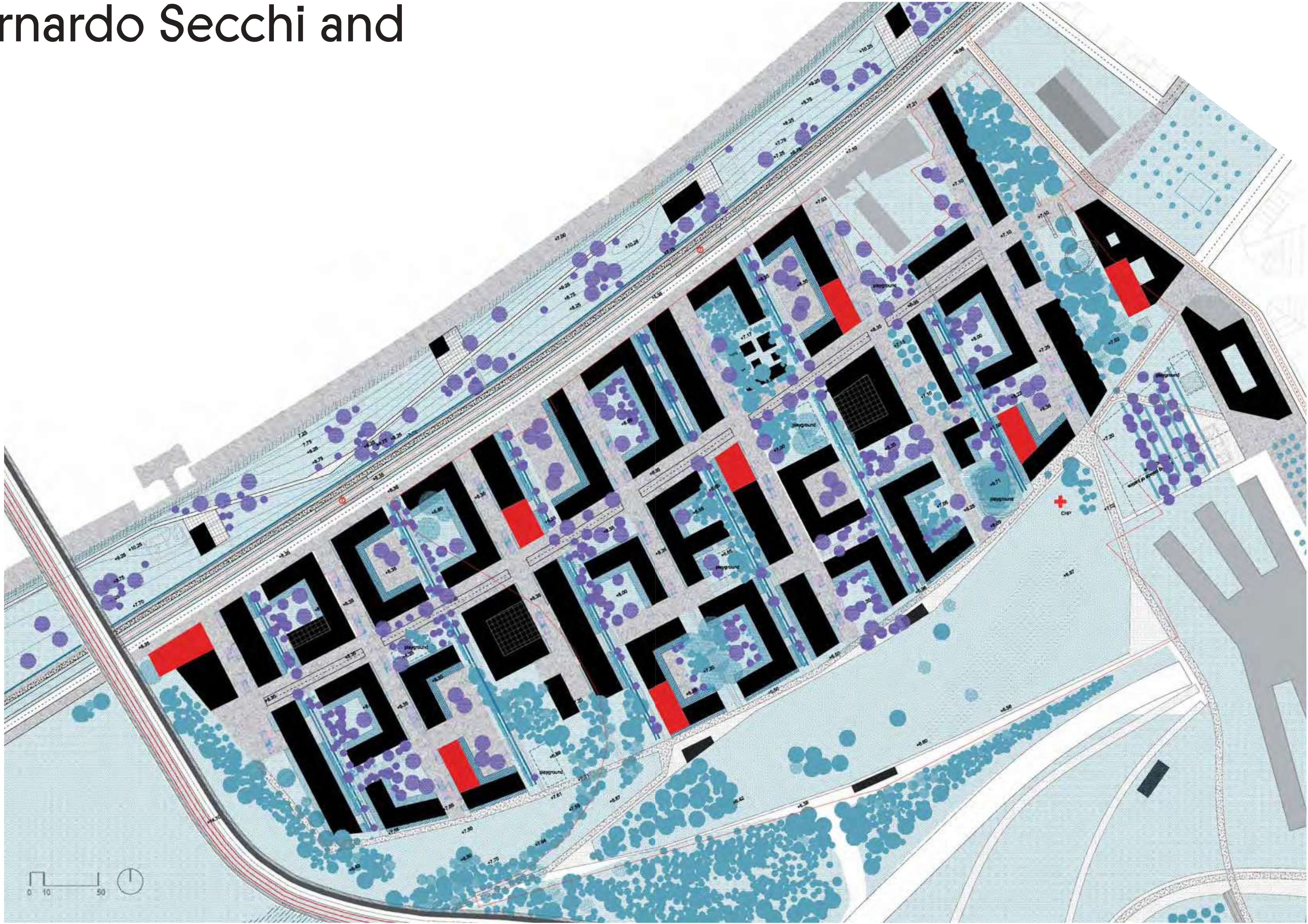
Scheldezicht, Antwerp, in collaboration with C.F. Møller

Residential tower combined with offices and retail

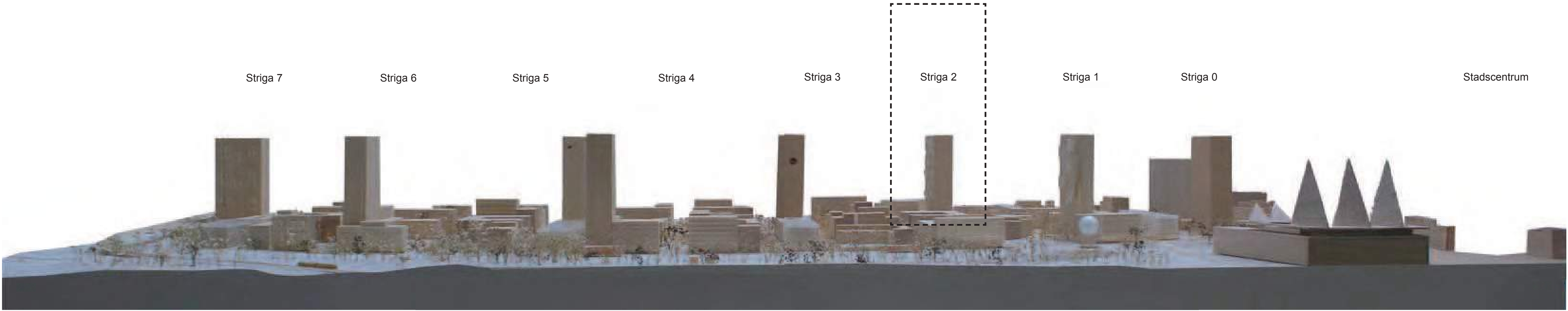
South of the center of Antwerp,
along the river: New South
neighborhood



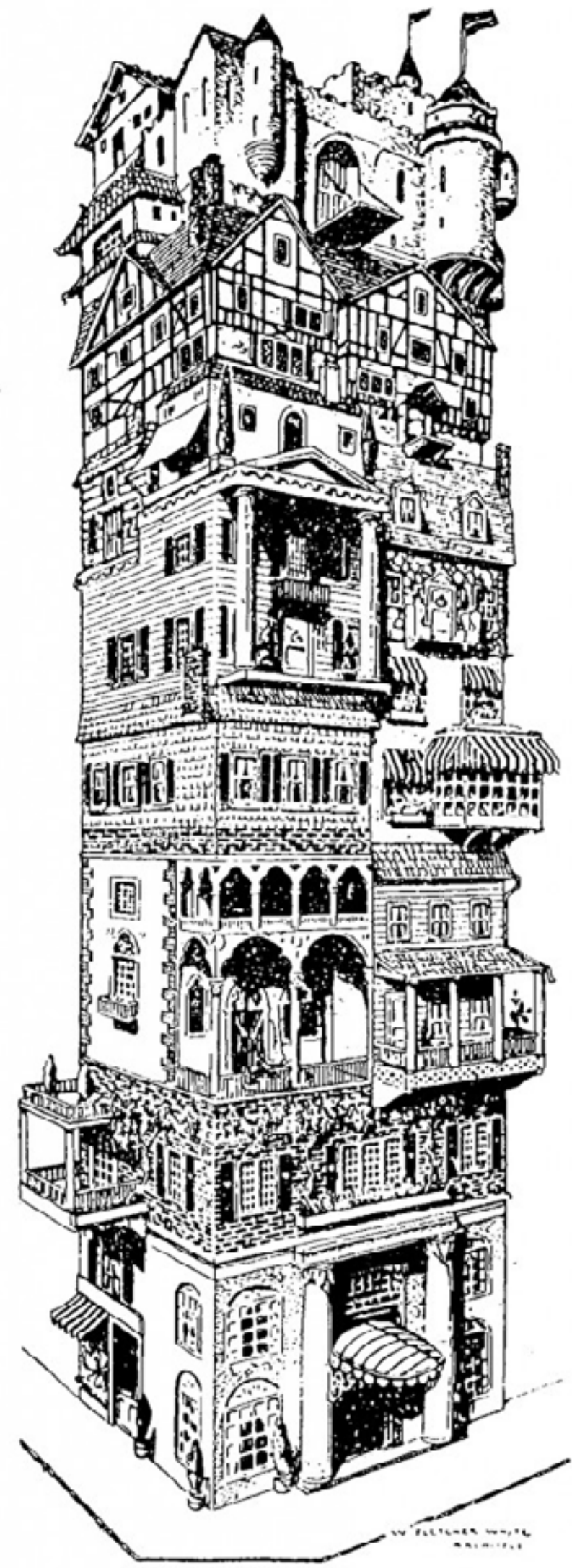
Masterplan by Bernardo Secchi and Paola viganò



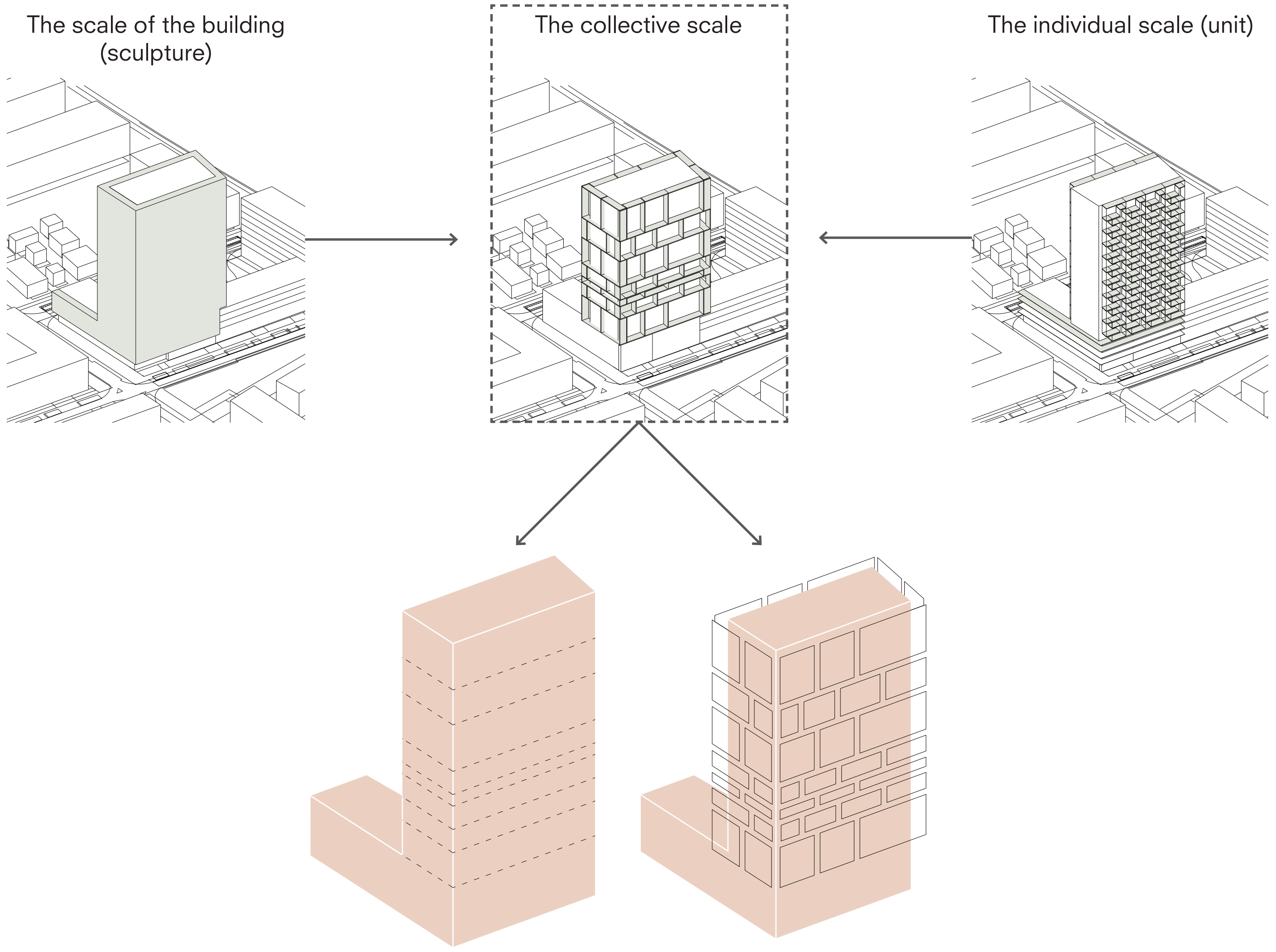
Combination of lower urban blocks and high rise towers



How to turn a high rise into a vertical community?



Introduction of an intermediate collective scale





A vertical village











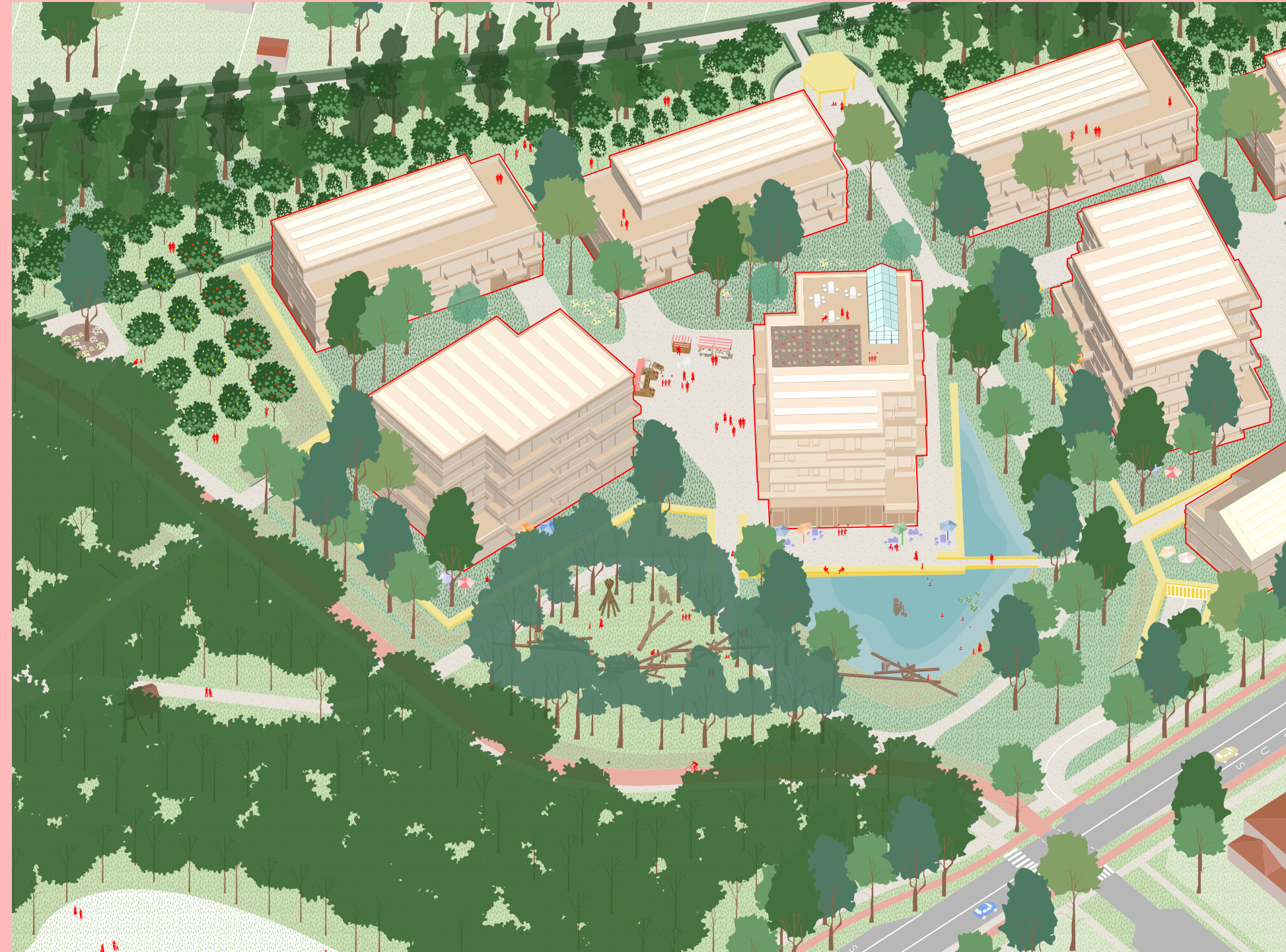




Flanders is the most sealed region of Europe. This creates problems of flooding due to heavy rains and drought because rainwater carried away via pipes instead of infiltrating locally.



Due to climate change these effects will further increase



New developments need to be climate-proof

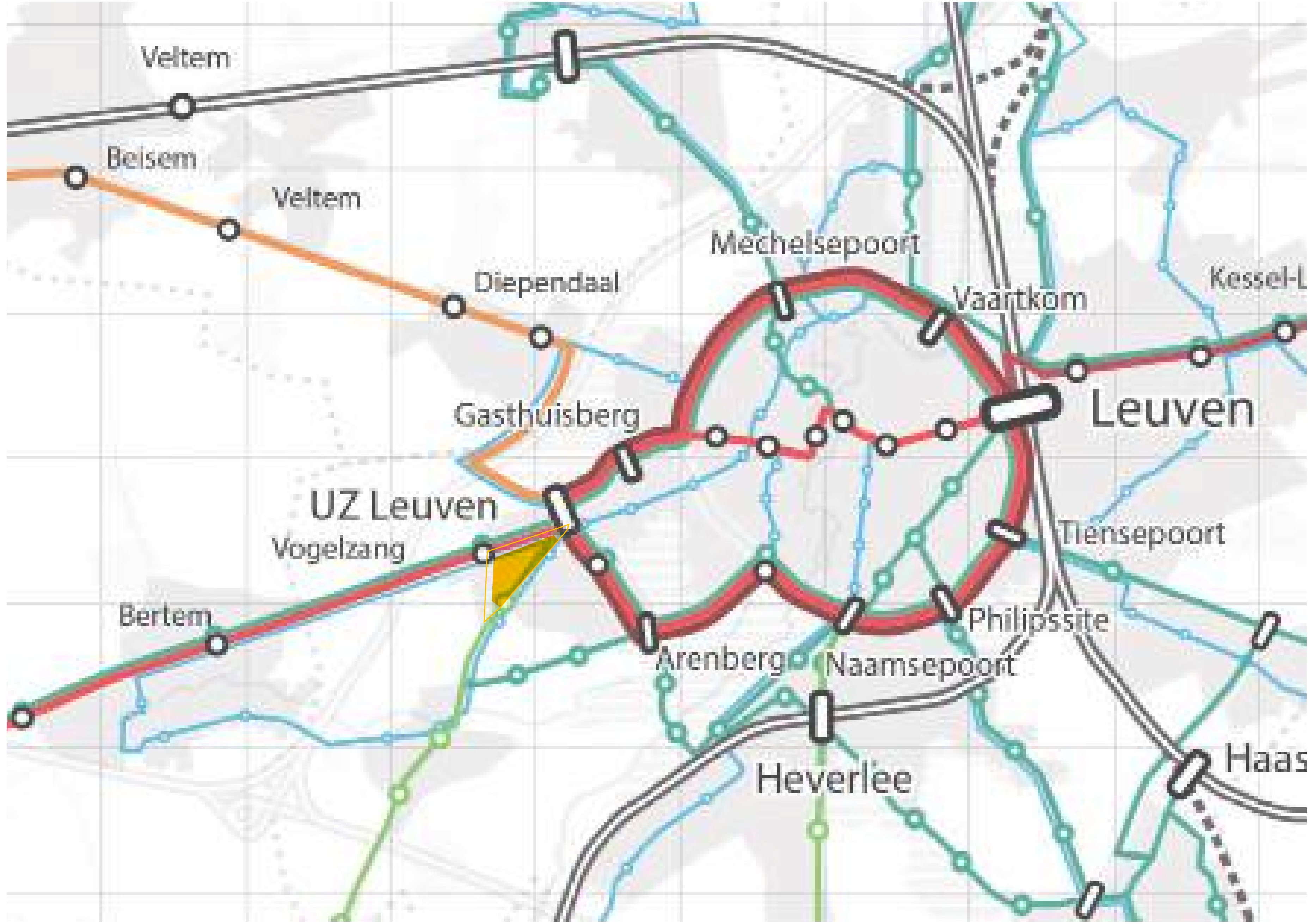
Forest neighborhood, Leuven, in collaboration with Lama landscape architects

500 housing units, 50% social rental, 50% short term housing for foreign university researchers

Close to the center but peripheral in Leuven



Part of a future ring of high-intensity public transportation



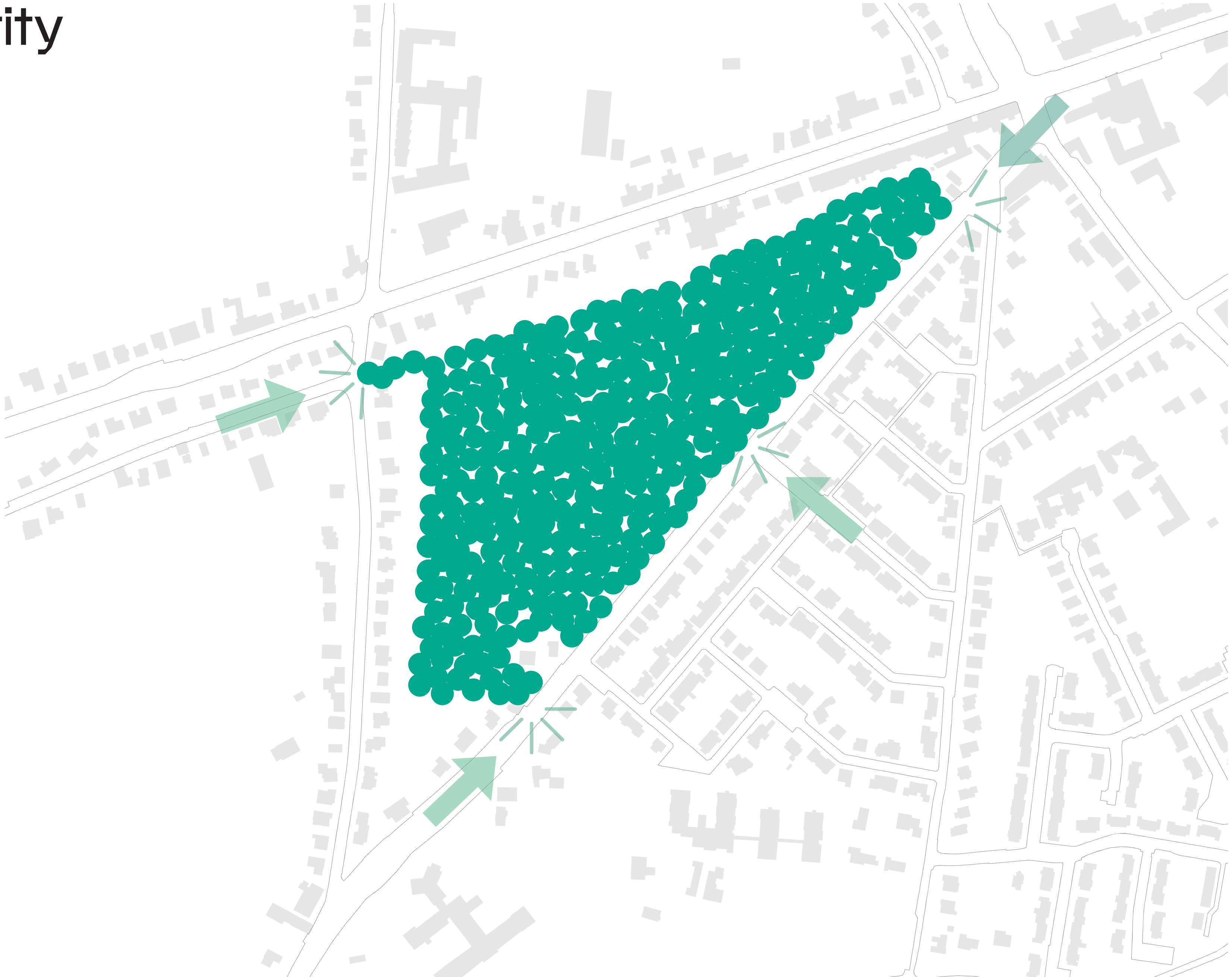
How to create support for a high density development in a suburban context?



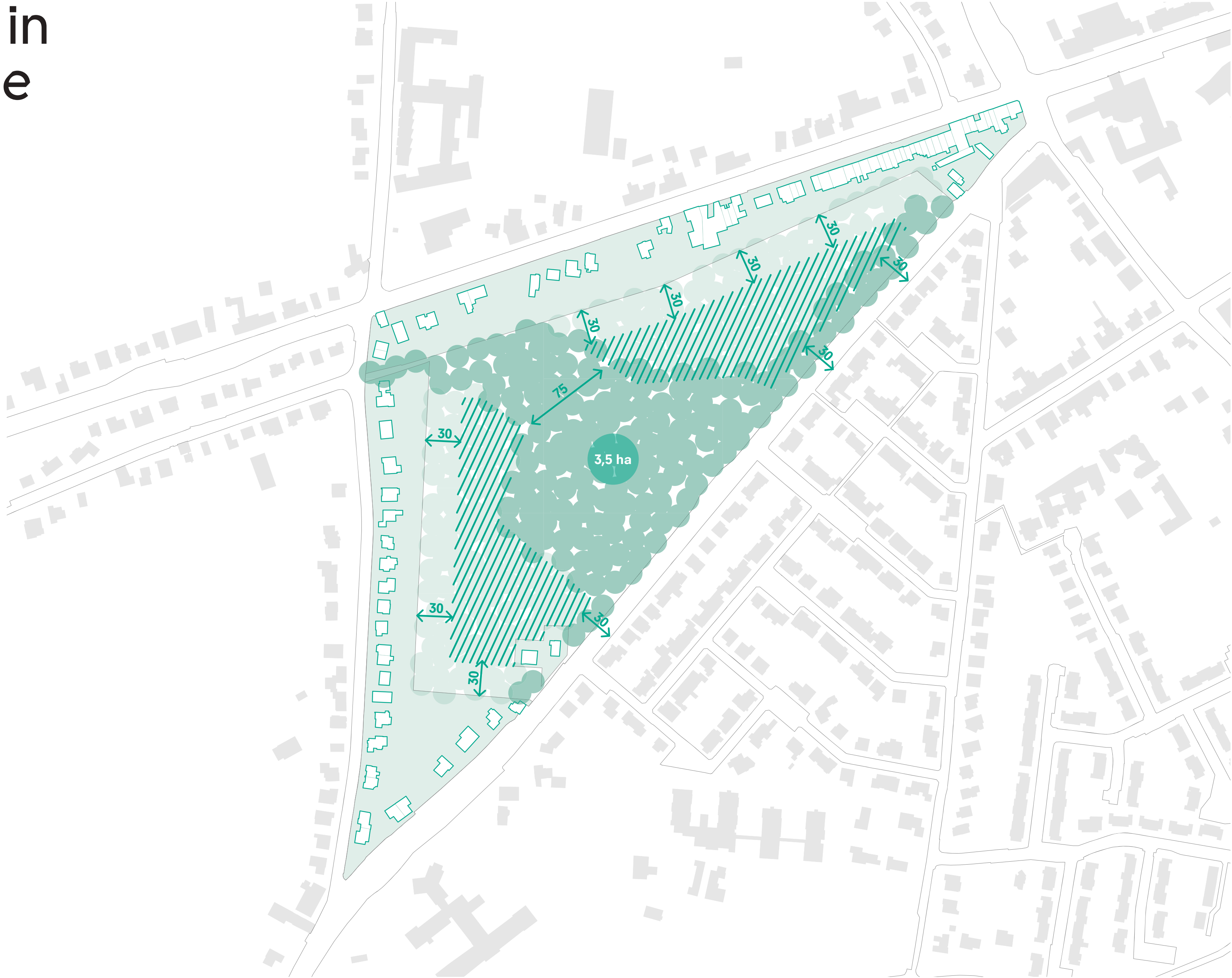
Climate neutral forest neighborhood



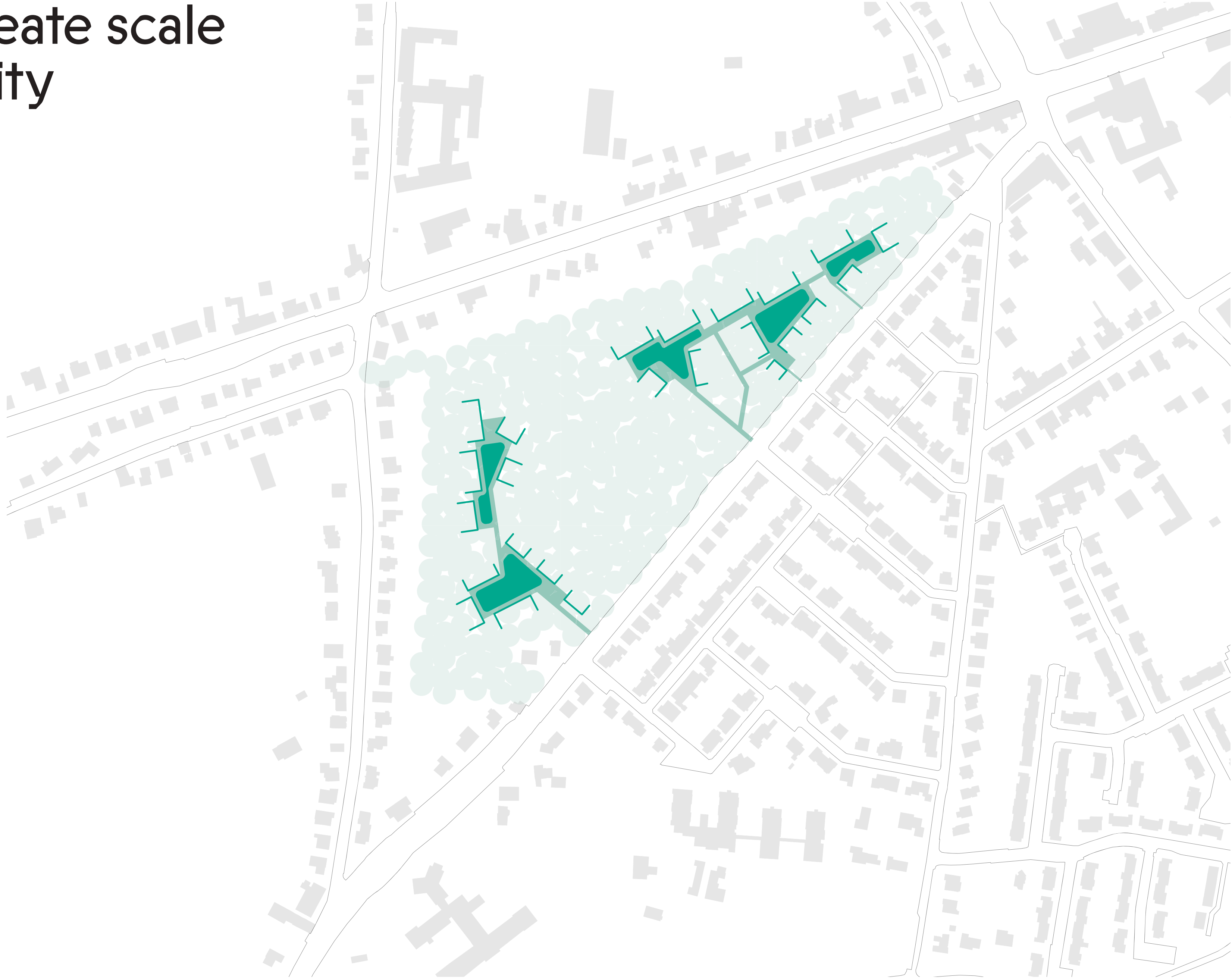
Forest as base and identity



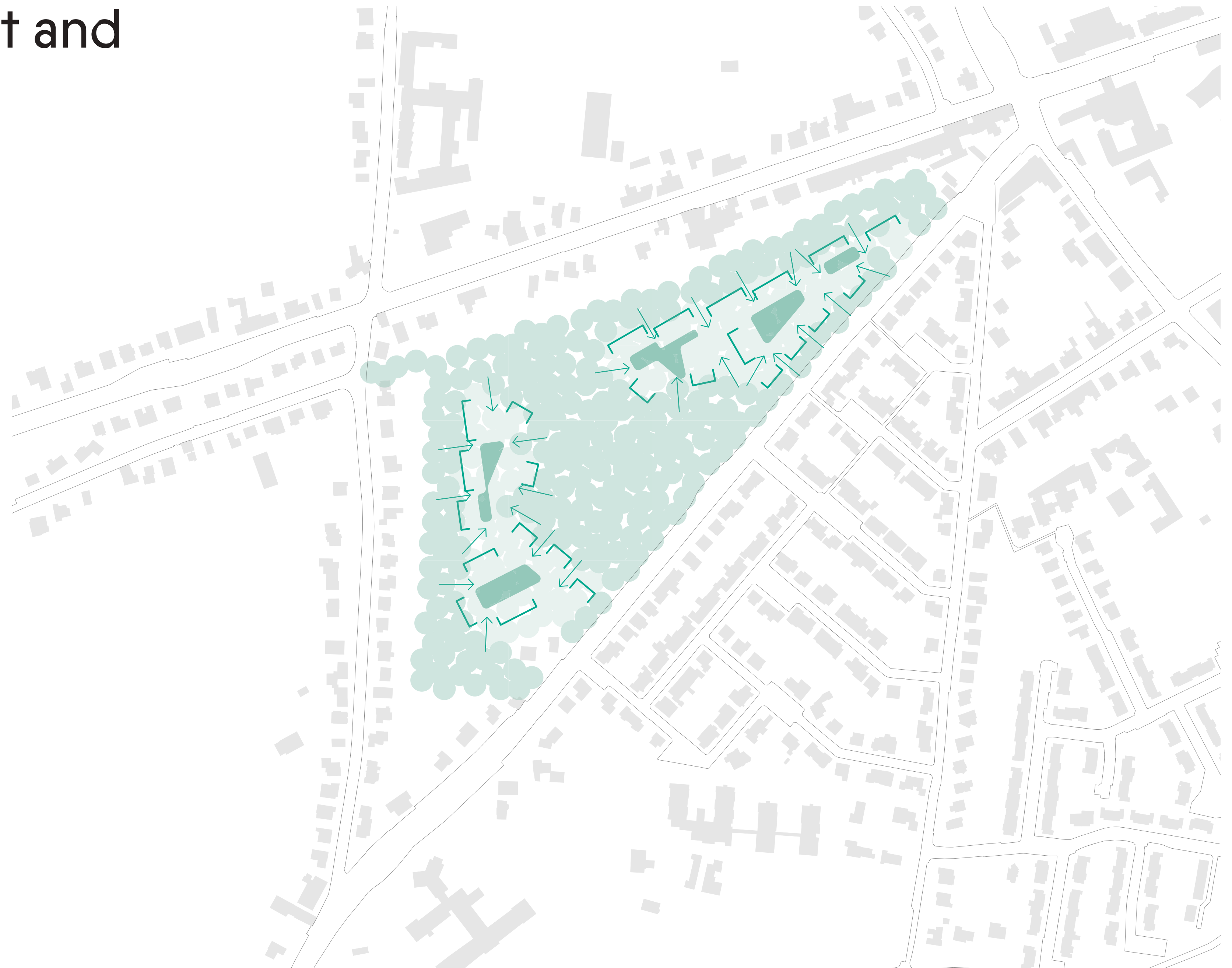
Two development areas in the forest, adapted to the surrounding neighbors



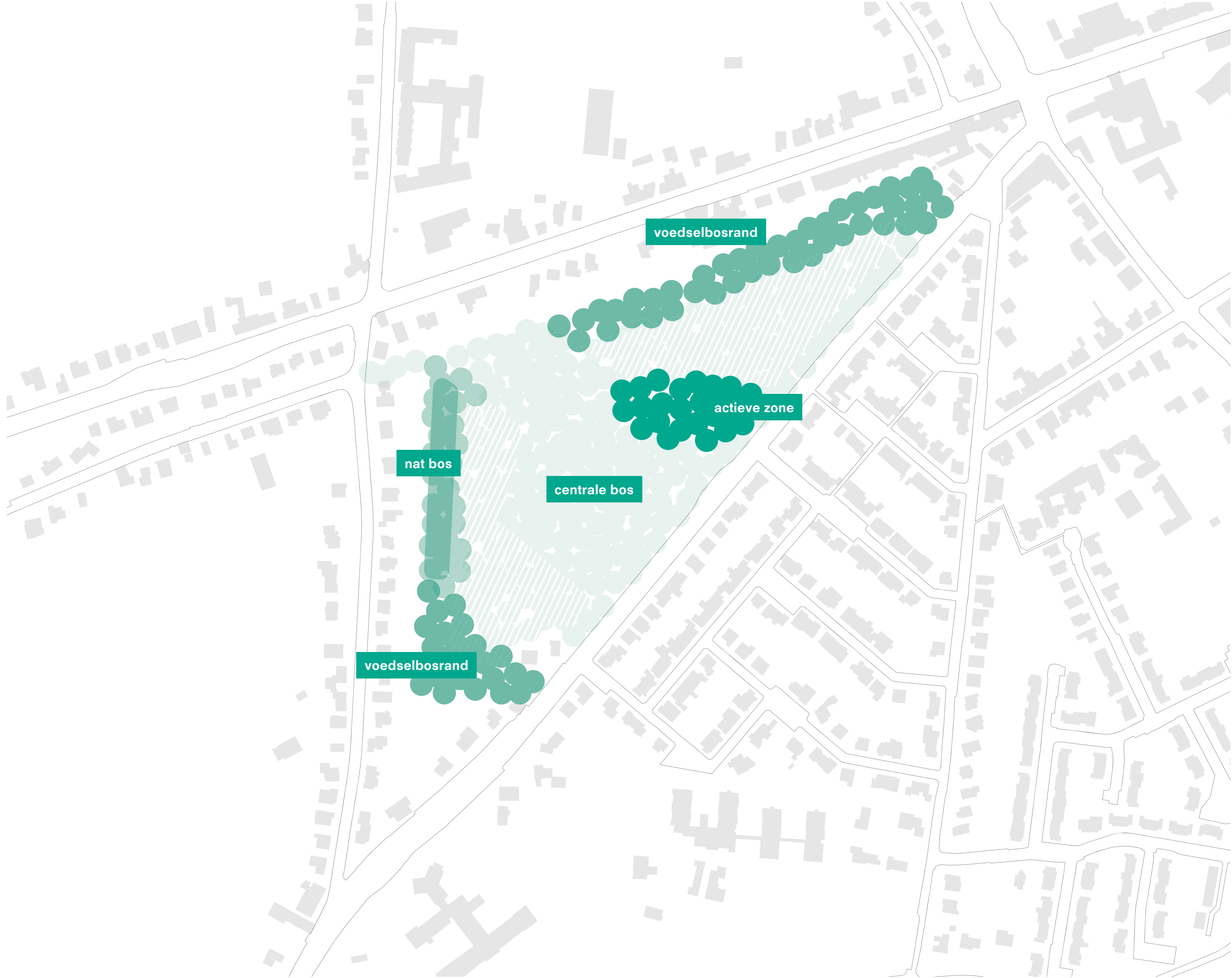
Collective courtyards create scale and a sense of community



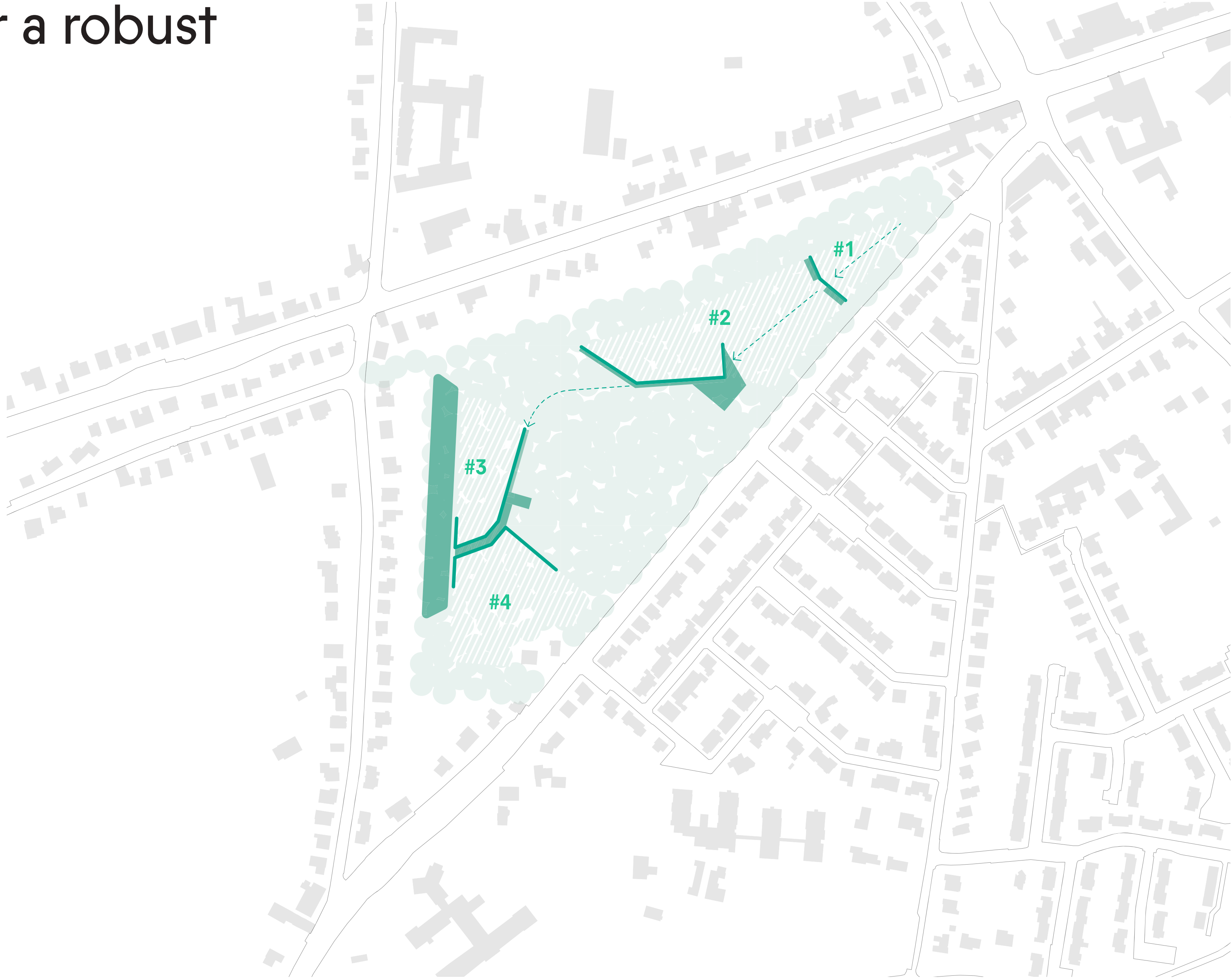
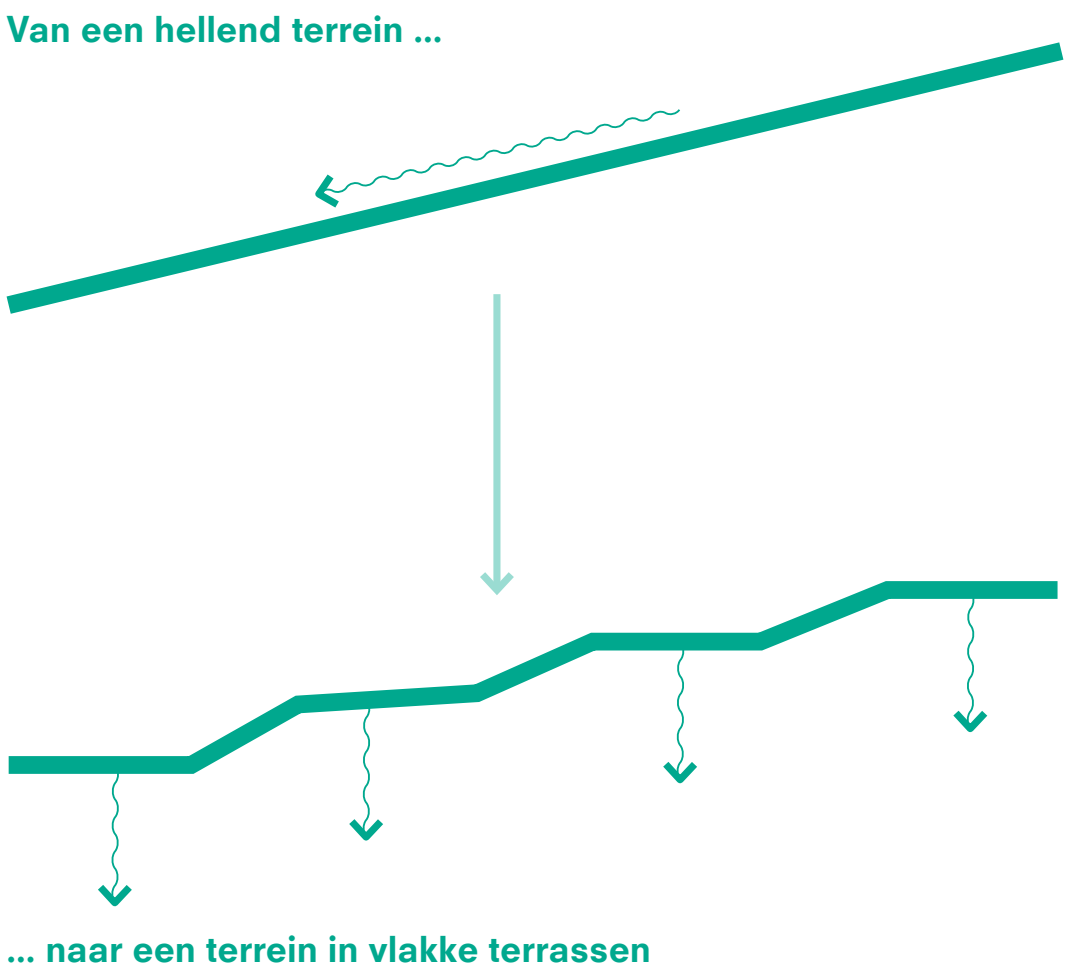
Dialogue between forest and housing



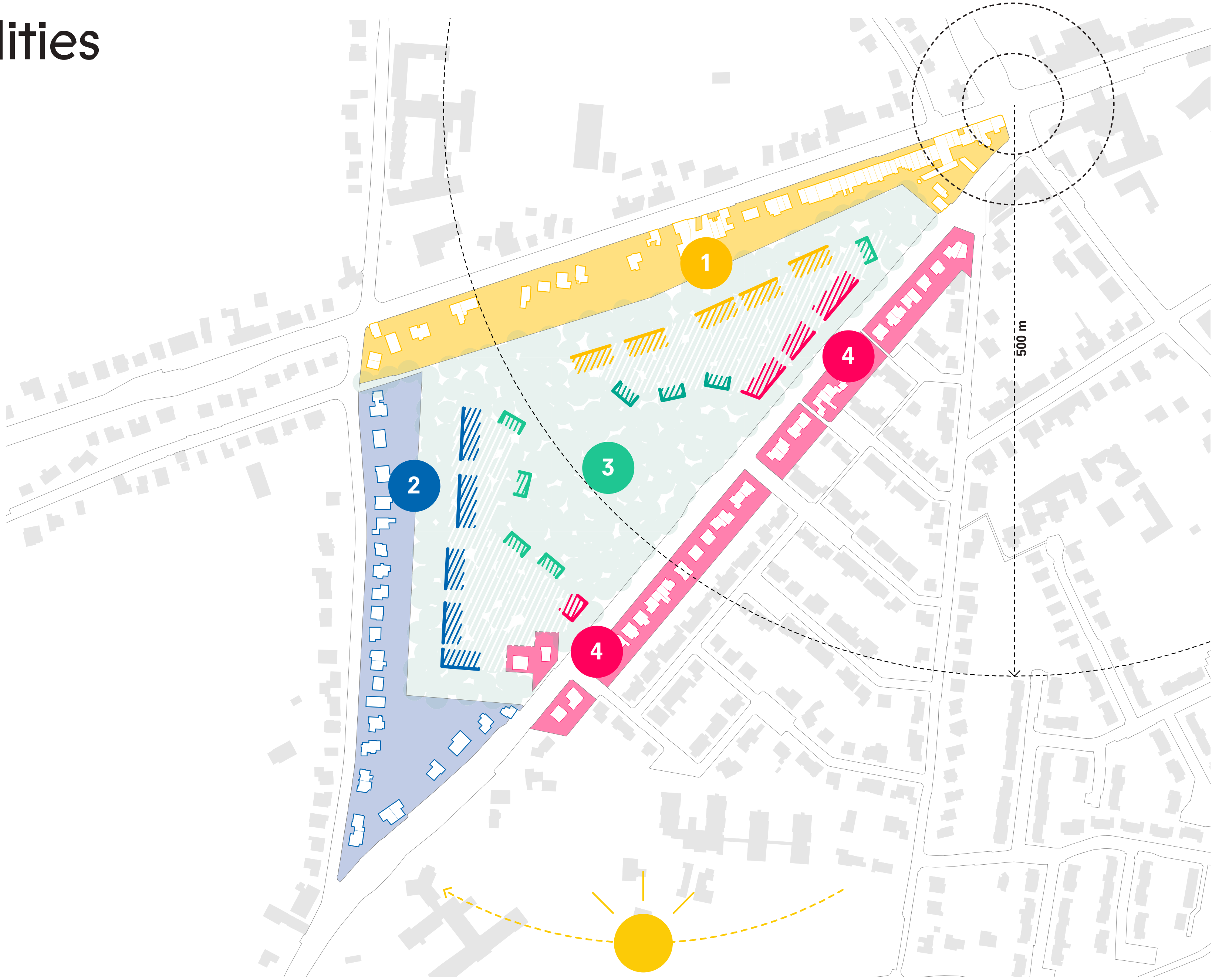
Activated open space



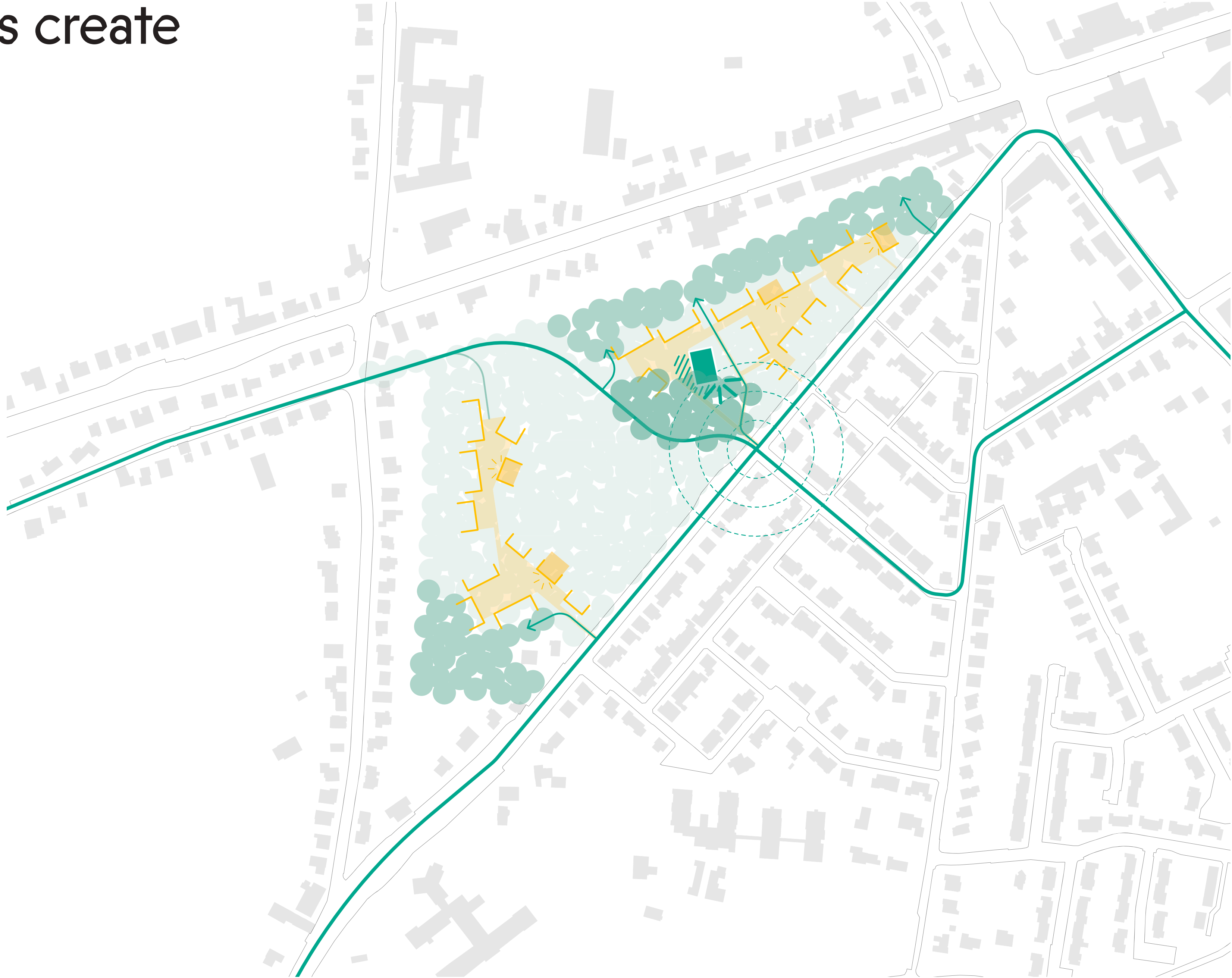
Terraced topography for a robust water system



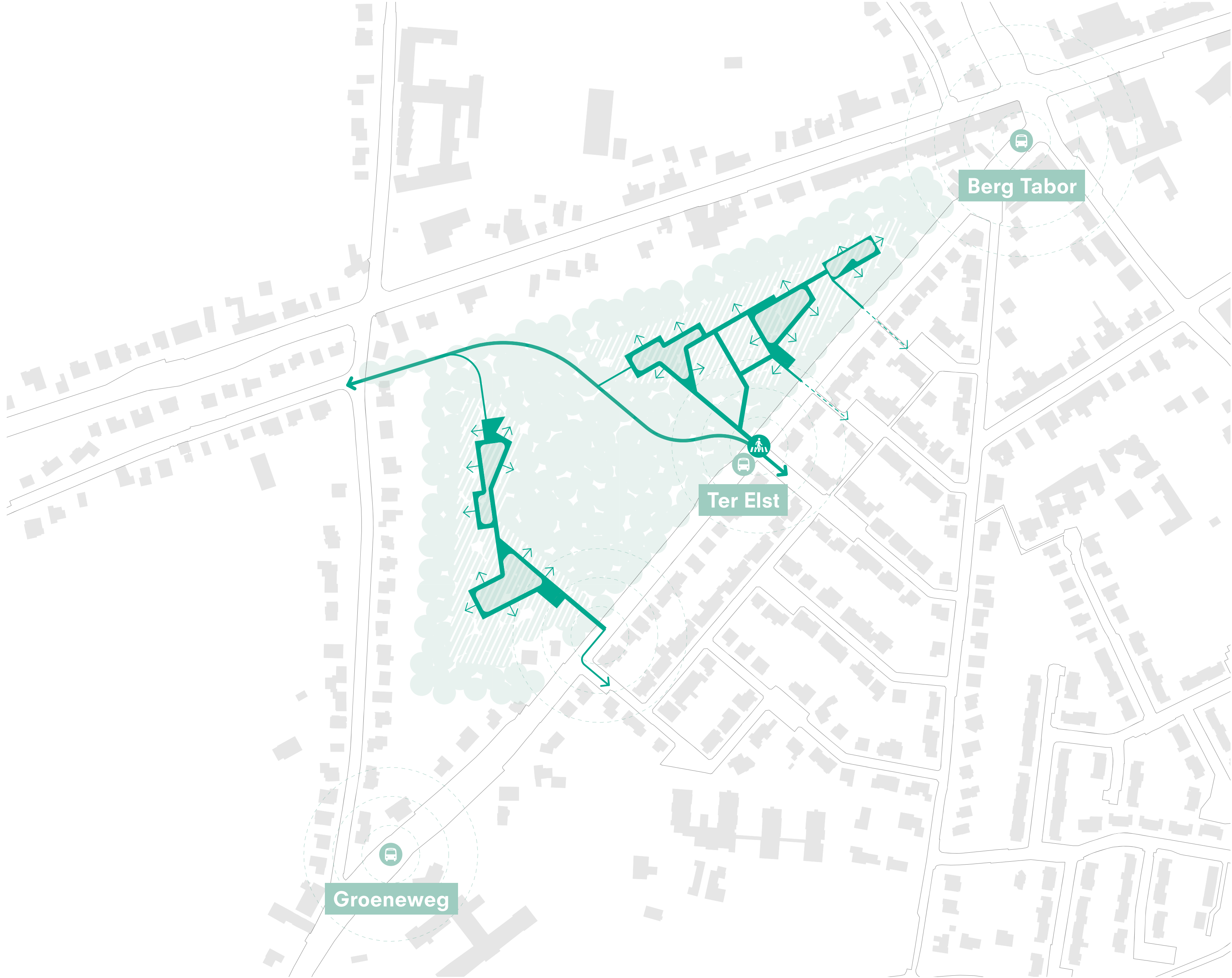
Diversity of housing qualities



Neighborhood amenities create centrality



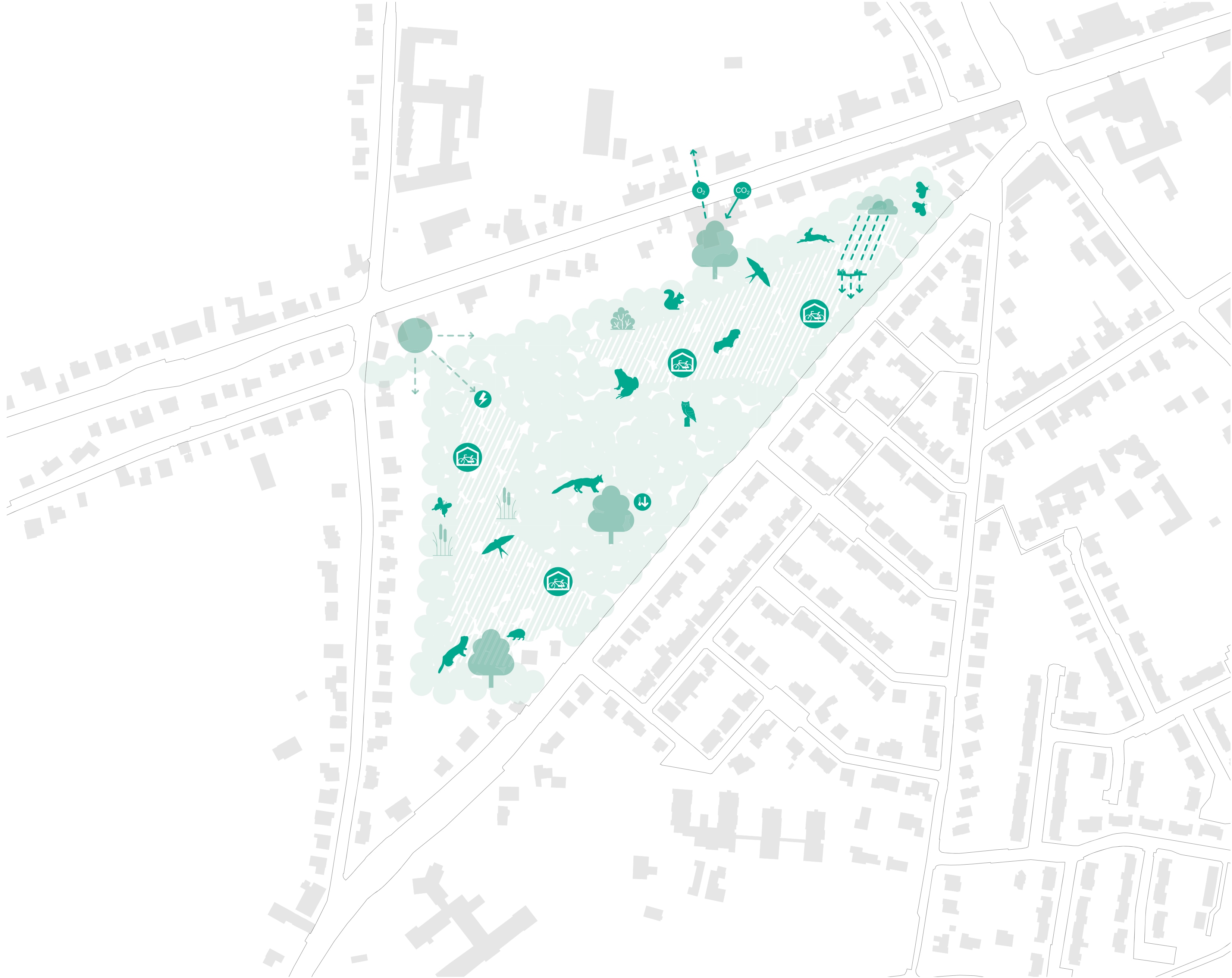
Car-free neighborhood

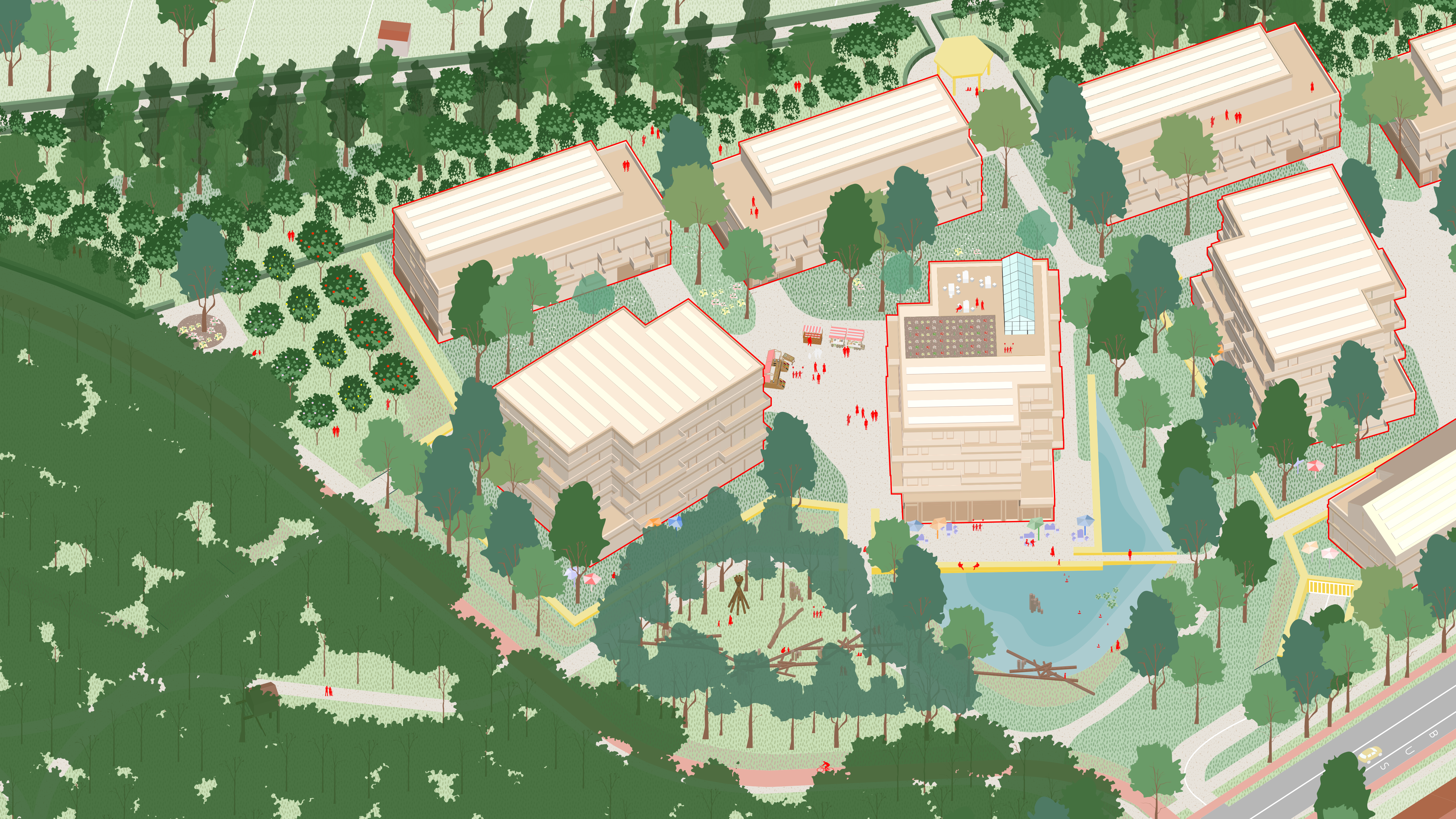


Half-underground car parking on the edge

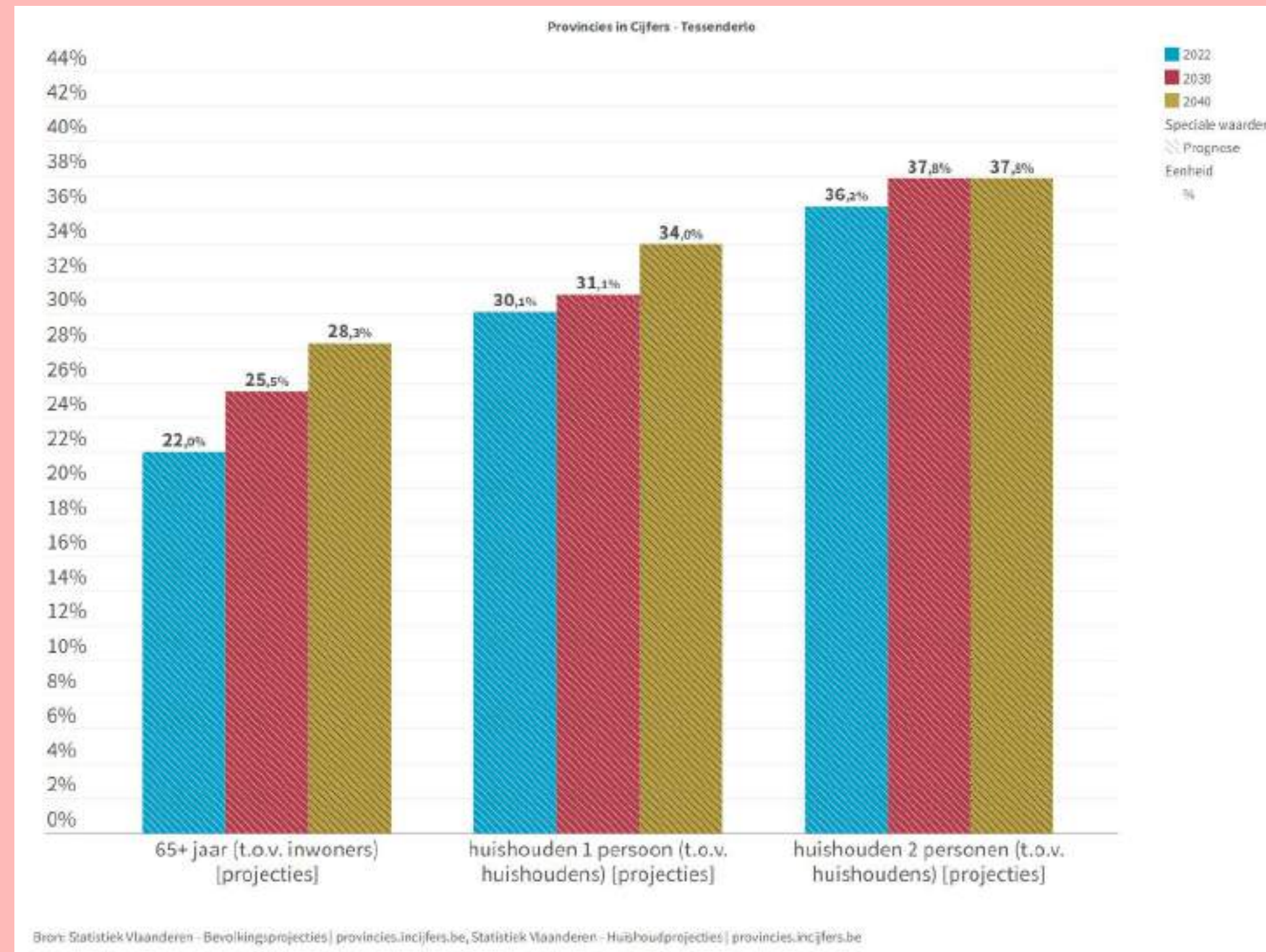


Nature inclusive and climate neutral

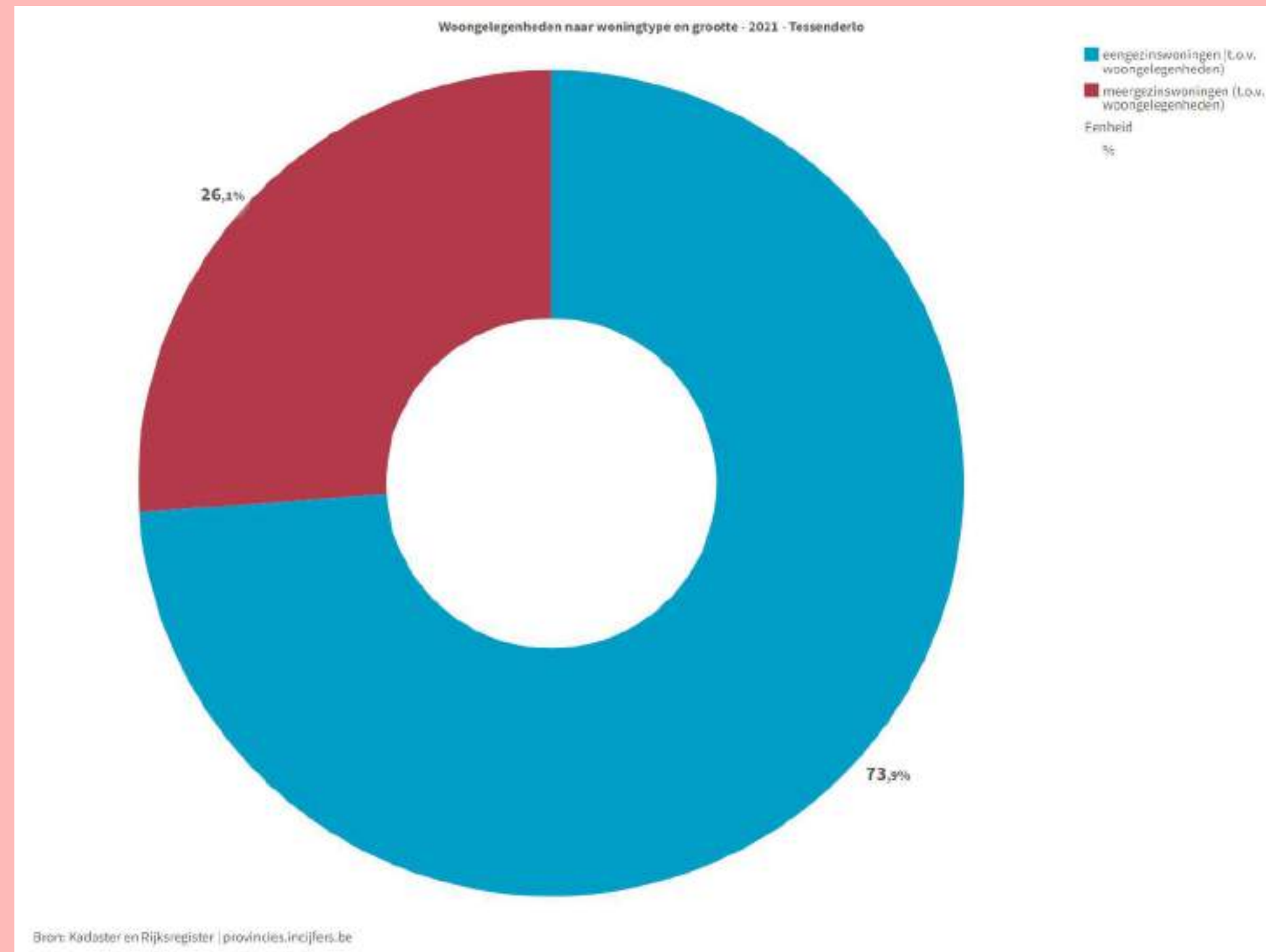








In Flanders the growth in amount of households is higher than the growth of the population. Family size is decreasing and the population is aging.



But the housing stock still largely consists of single family houses and is thus not adapted to the demographic composition.



New developments should not approach the housing question in a quantitative way but create attractive living environments for specific target groups

Nursing the neighborhood, Antwerp, in collaboration with Osar architects

Elderly home, day care centre, assisted living units and a community centre

In one of the sub-centers of Antwerp



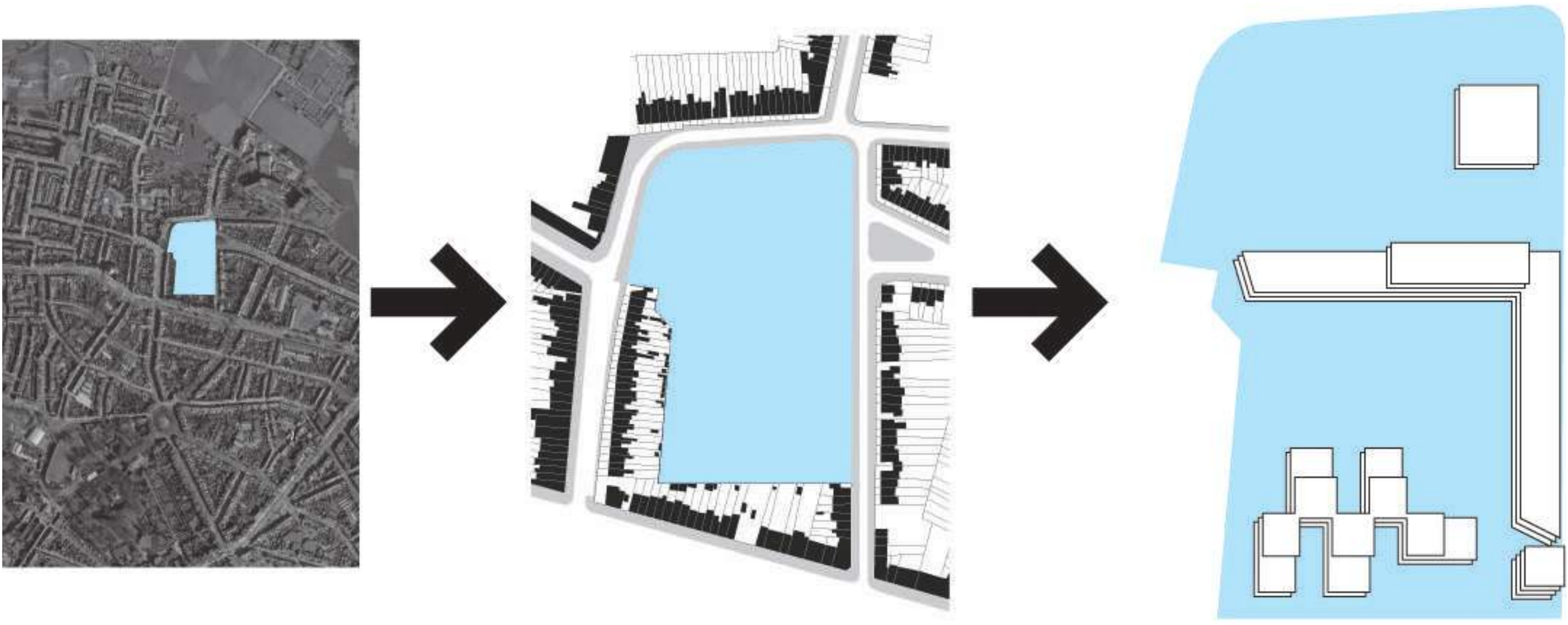


How do we transform a large scale institution for the elderly into an attractive living environment that dissolves into the surrounding neighborhood?



Top-down: what can this development add to the neighborhood?

TOP-DOWN



A new local park as a meeting place between the development and the neighborhood



With the most independent assisted living units and a local community centre with a neighbourhood restaurant on the ground floor



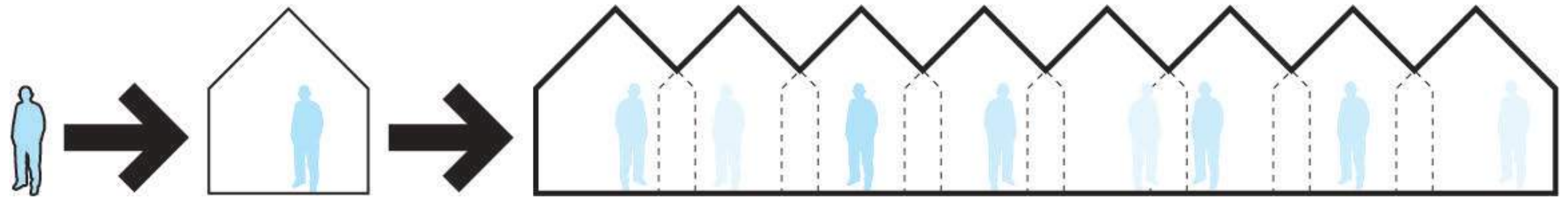
Two parts of the elderly home form an L-shaped volume that finished the urban building block



The housing for the inhabitants needing the most care is located in an intimate location inside the building block



Bottom-up: How can we tailor the design to the needs of the inhabitants?



BOTTOM-UP

Working on a 1:1 scale





Creating an urban facade with many addresses





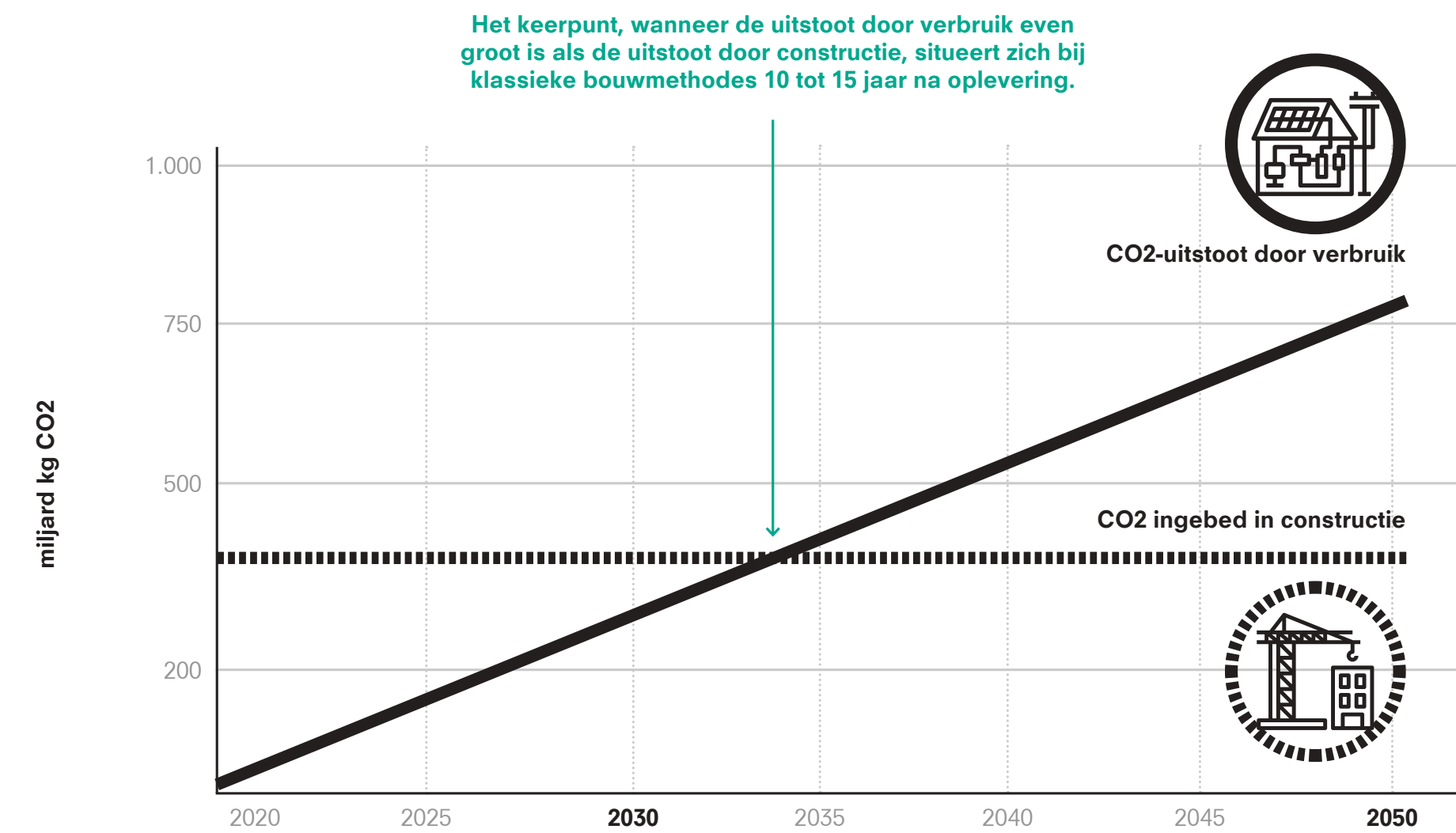
Different atmospheres and meeting places











CO2-uitstoot van wereldwijde bouwsector (2020-2050), volgens "business as usual"

Bron: UN Environment Global Status Report 2017; EIA, International Energy Outlook 2017

It takes 10 to 15 years for the CO2 emissions caused by the use of the building to outgrow the CO2 emissions embedded in the construction of the building.



More and more we will have to work in complicated urban environments with different layers of previous structures to take into account.



New developments will have to use creative adaptive reuse to harvest the identity of a place and create circular environments

Parc de la Sennette, Brussels, with Okra landscape architects

A new linear park on a former river bed

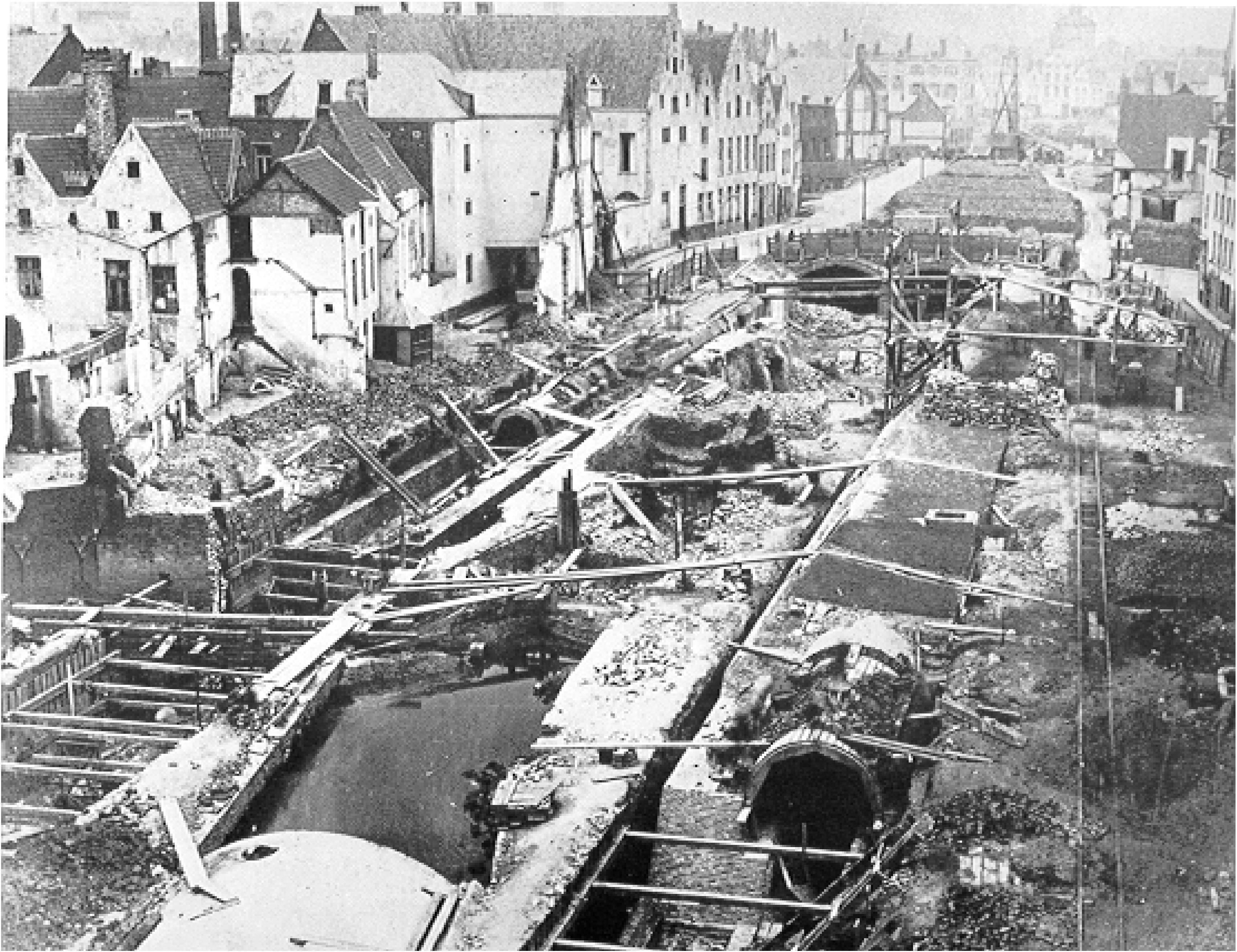
In one of the most dense neighborhoods of the center of Brussels



Where a sidearm of the river Senne used to flow



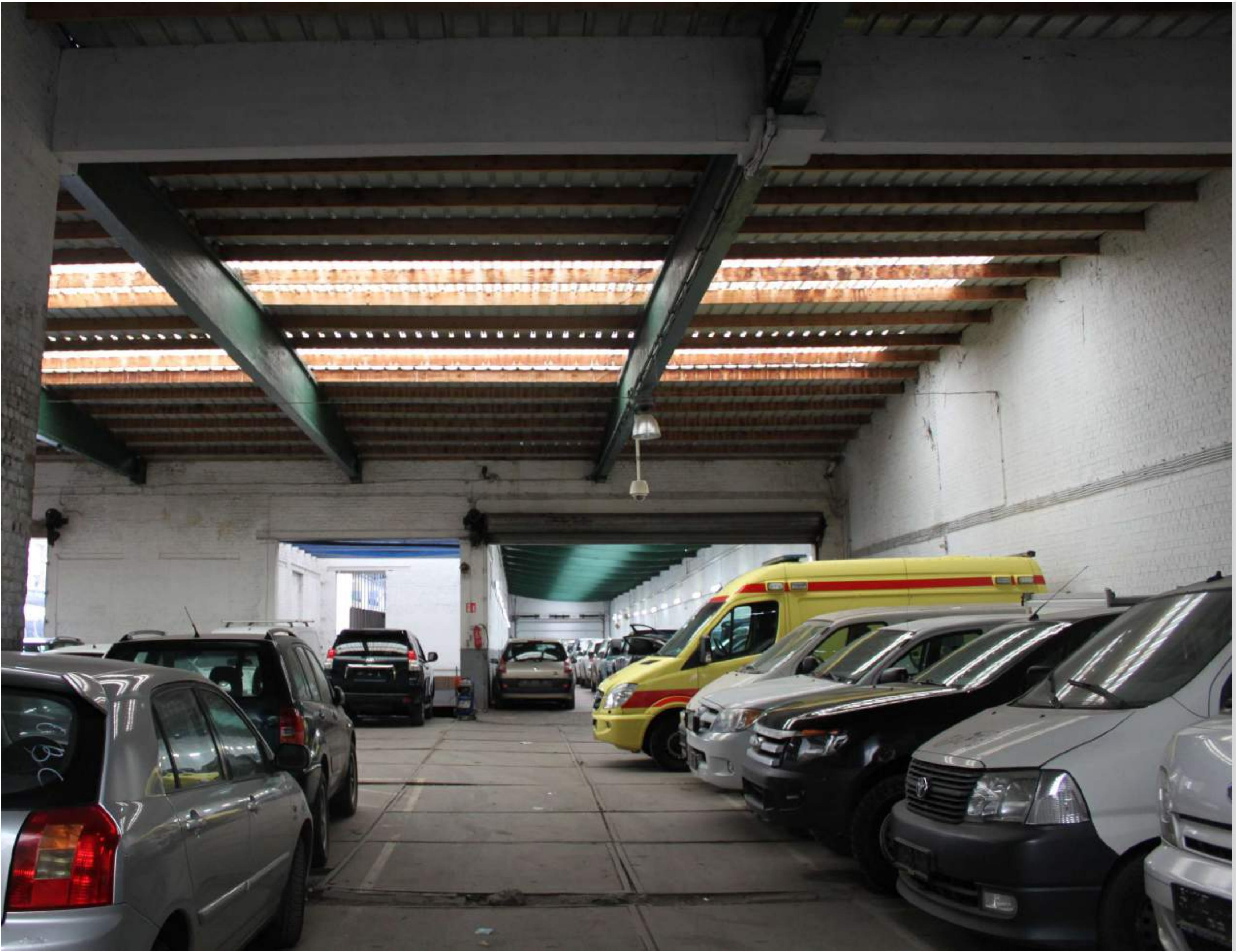
River was covered
end of 19th century



Making space for industry



Old industries being replaced by new ones, namely second hand car trade



Also on the bed of the of river arm

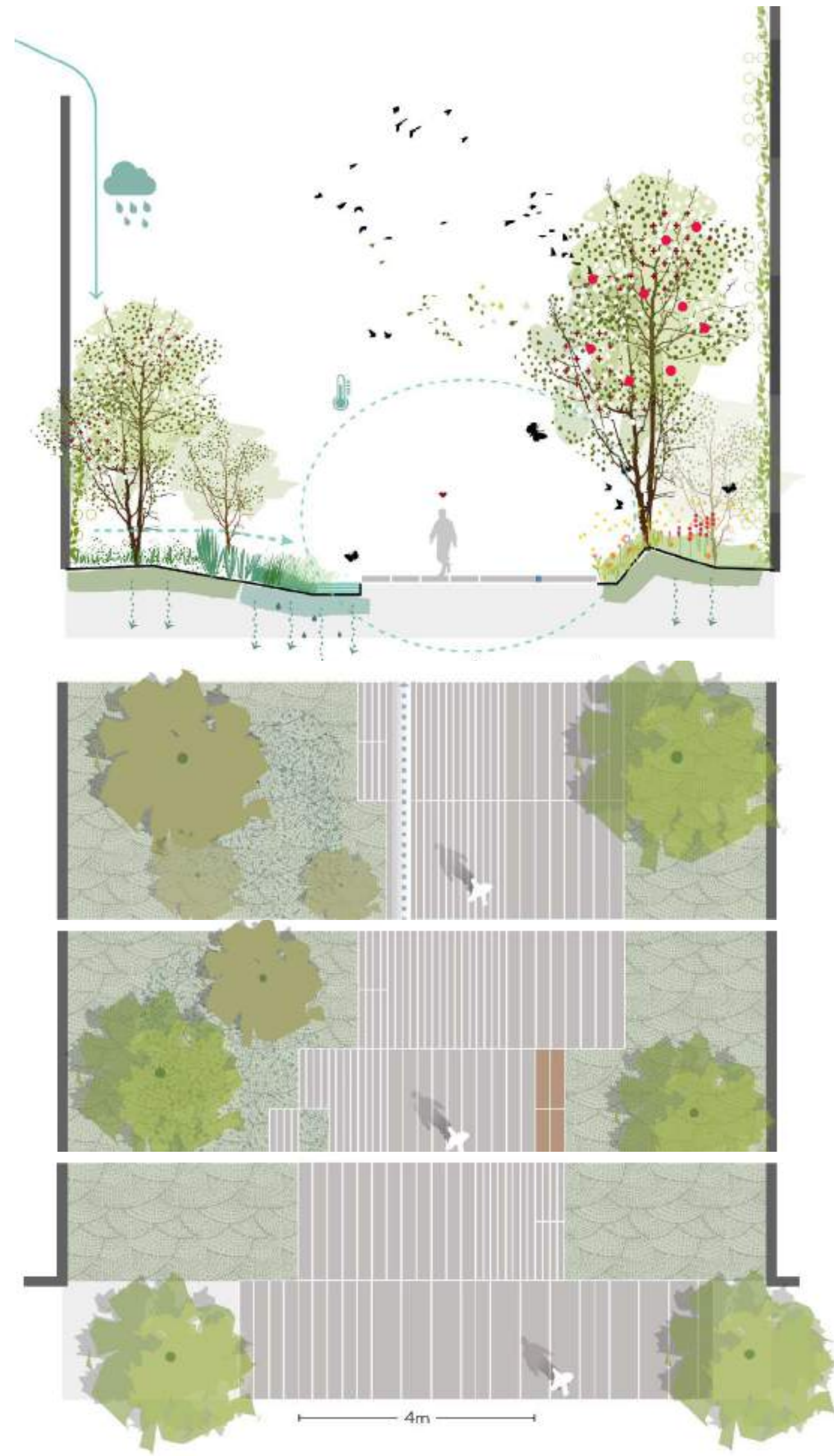
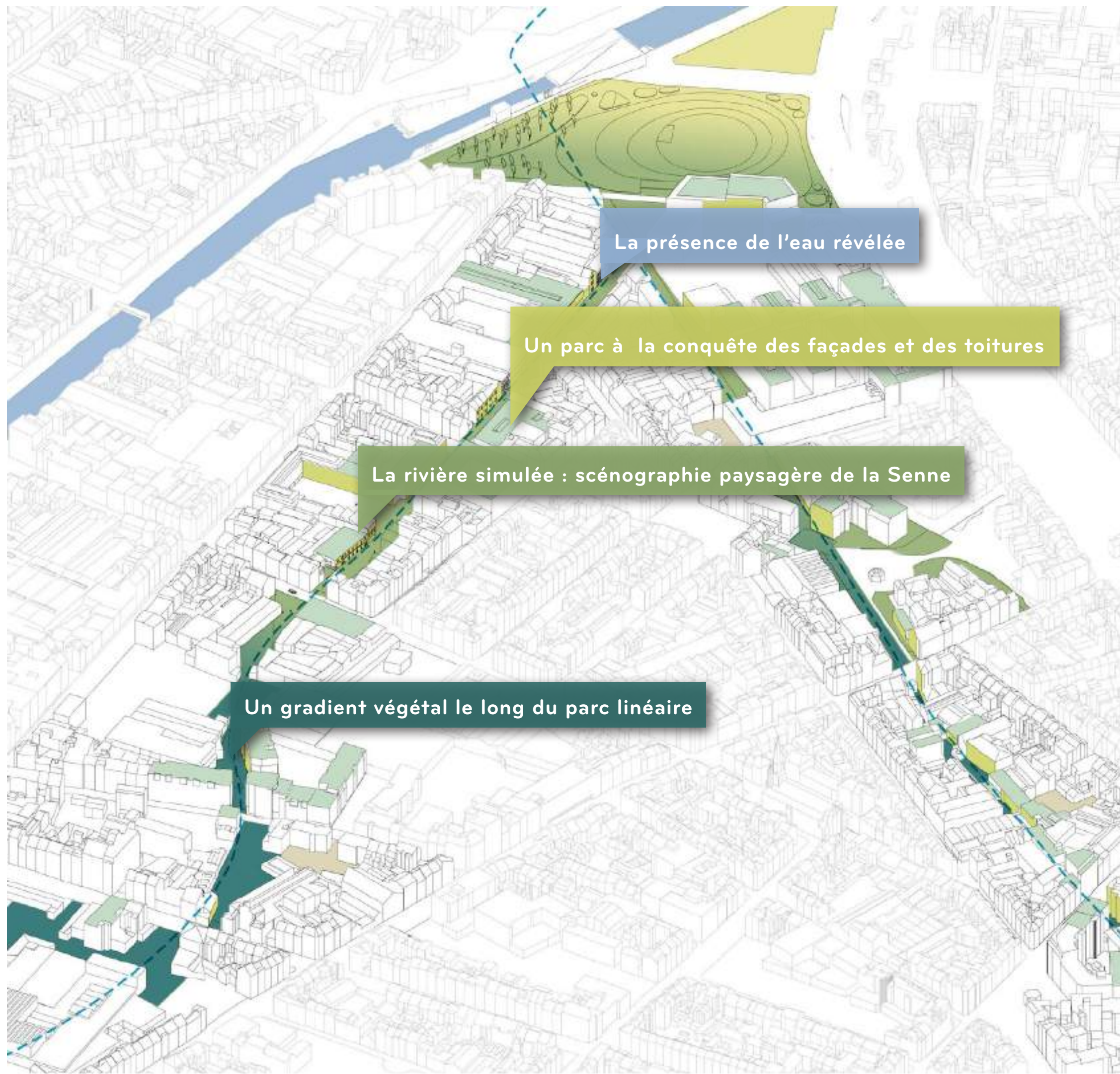


What's next?

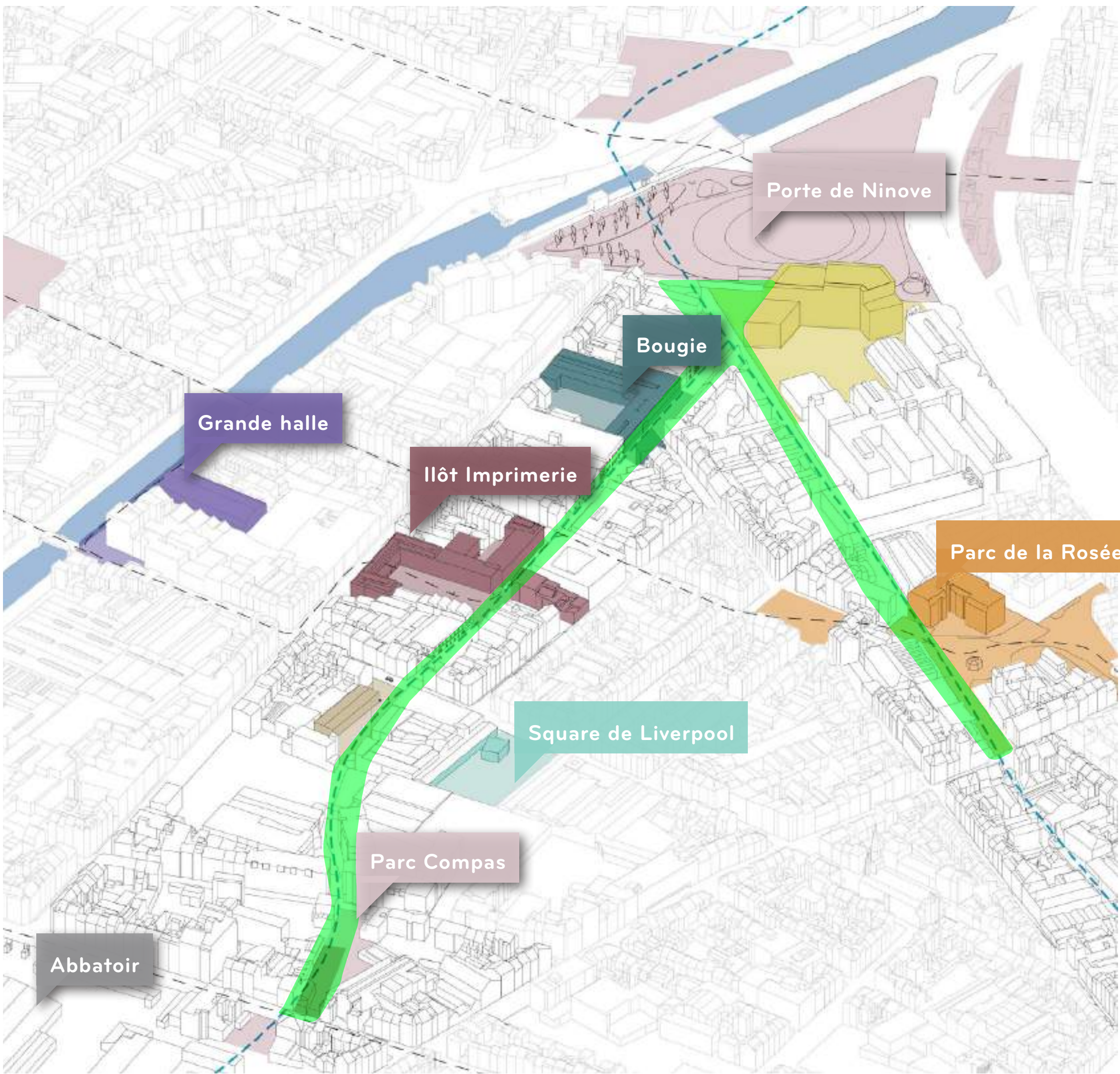
A green river through a dense neighborhood



A linear park of alluvial nature



Social space: urban living rooms



Une chambre sportive



Un lieu de sociabilité, de rencontre et d'échange au coeur du quartier



L'histoire des marchands de voitures comme base ludique

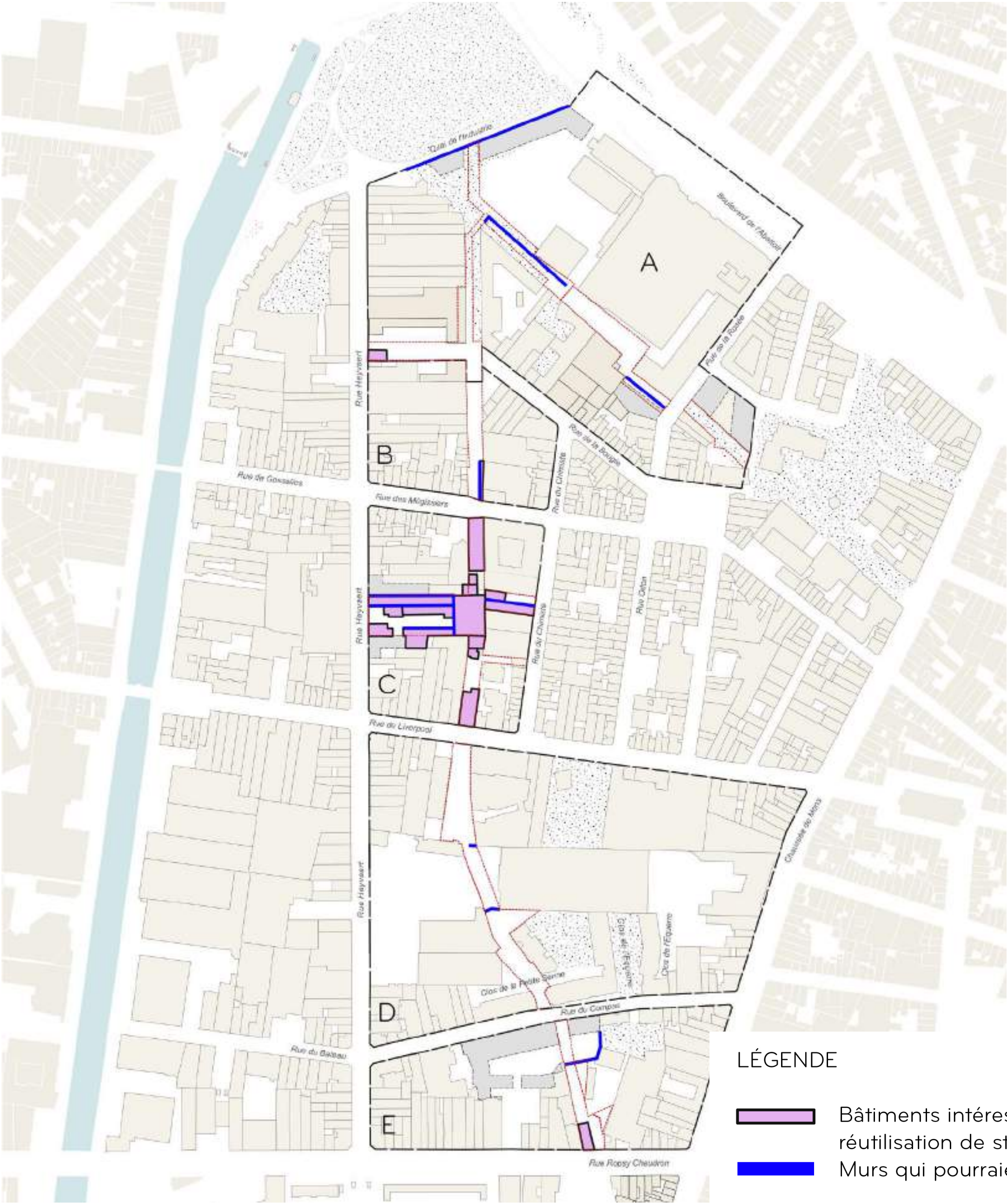


Interventions architecturales pour mettre en valeur des éléments de patrimoine





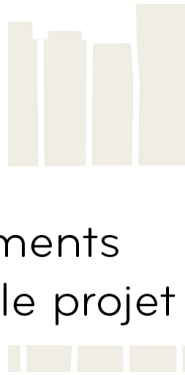
Une galerie urbaine en plein air

Re-use of resources and industrial heritage

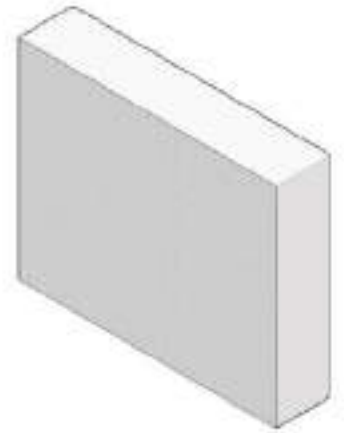


LÉGENDE

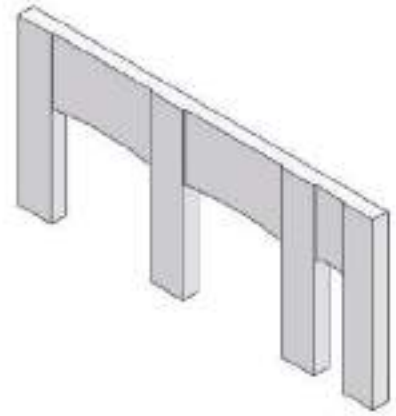
-  Bâtiments intéressants pour la réutilisation de structures ou de revêtements
-  Murs qui pourraient être intégrés dans le projet



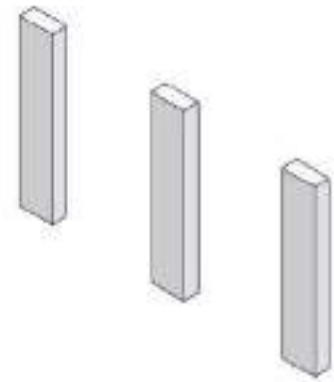
Re-use of resources and industrial heritage



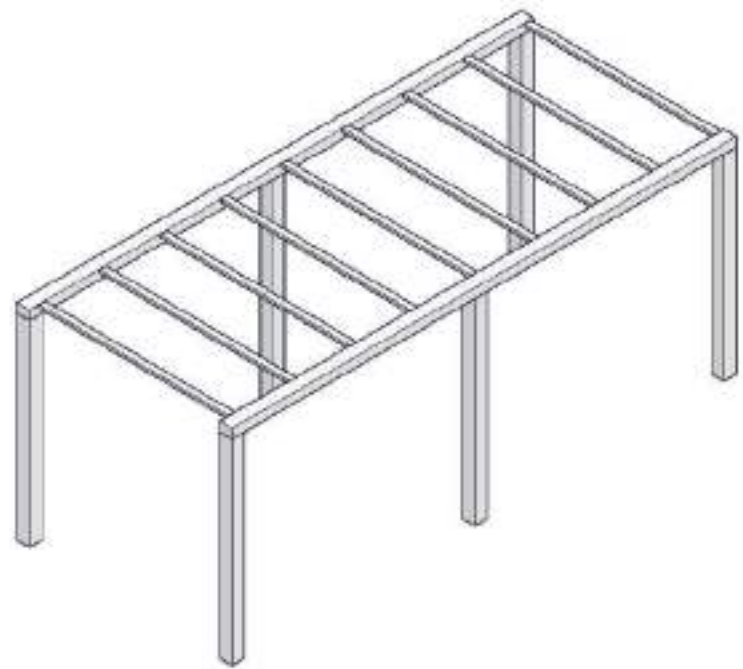
Murs



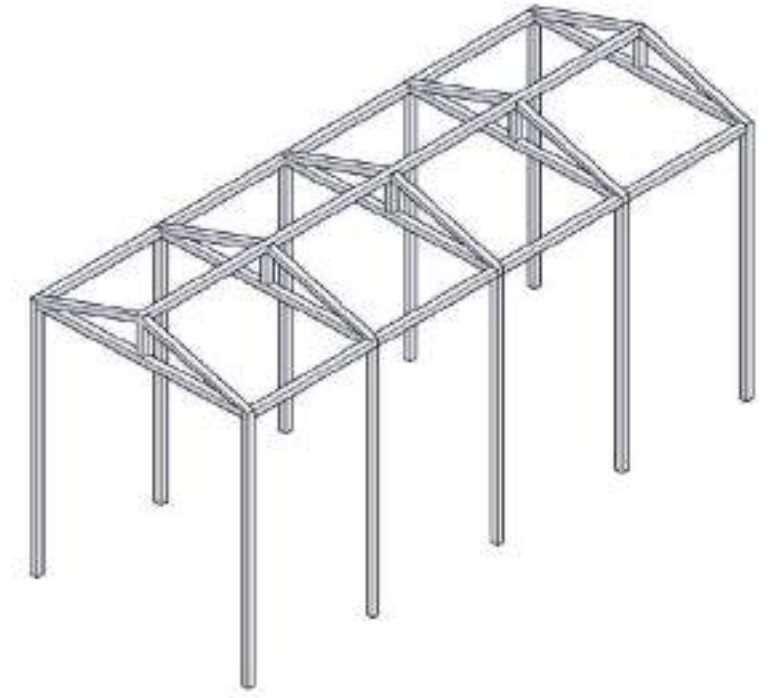
Façades



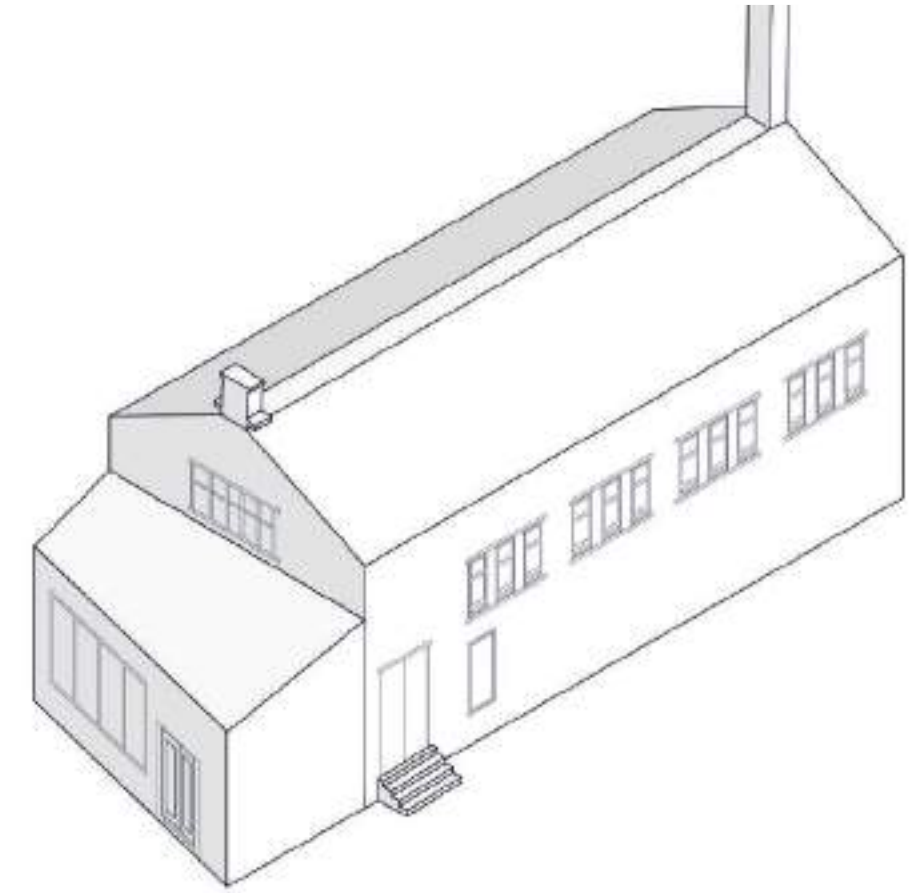
Piliers



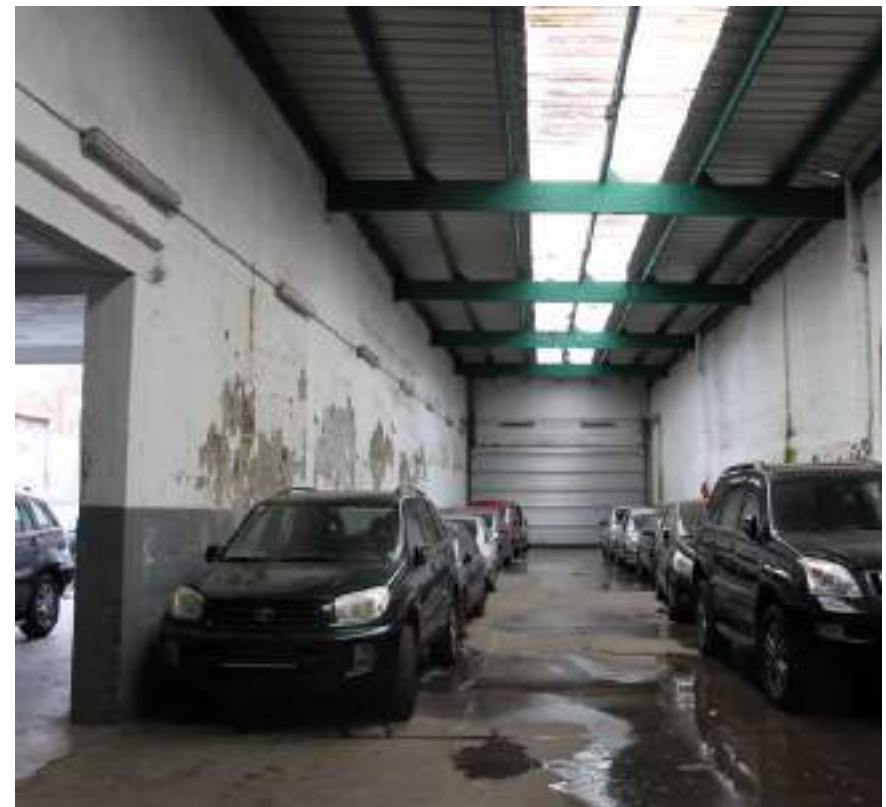
Auvents



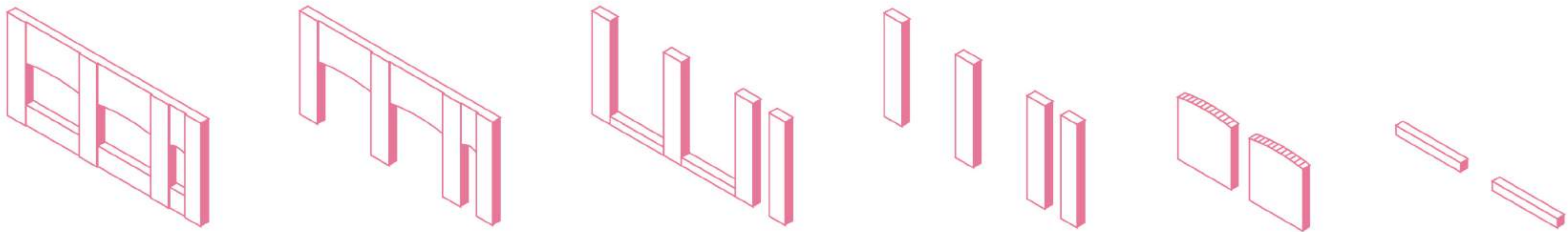
Structures en acier



Bâtiments patrimoniaux emblématiques



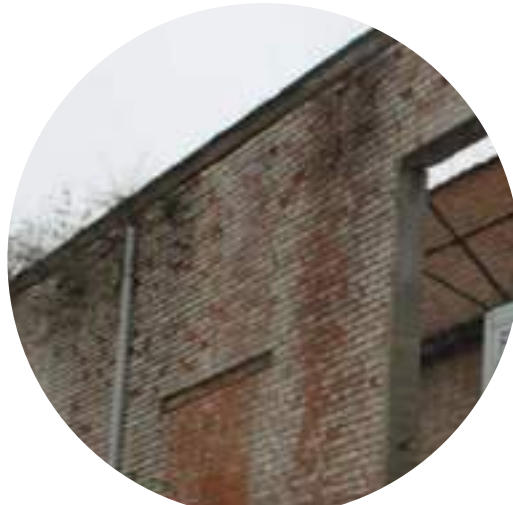
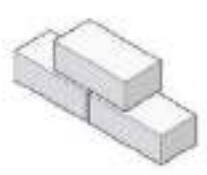
Re-use of resources and industrial heritage



Typologies d'interventions envisageable sur les murs et structures en place



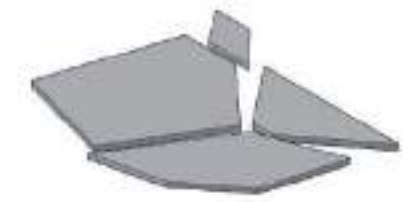
Re-use of resources and industrial heritage



Briques



Stelcon plates



béton / asphalte



pavés



Elements d'assise informels

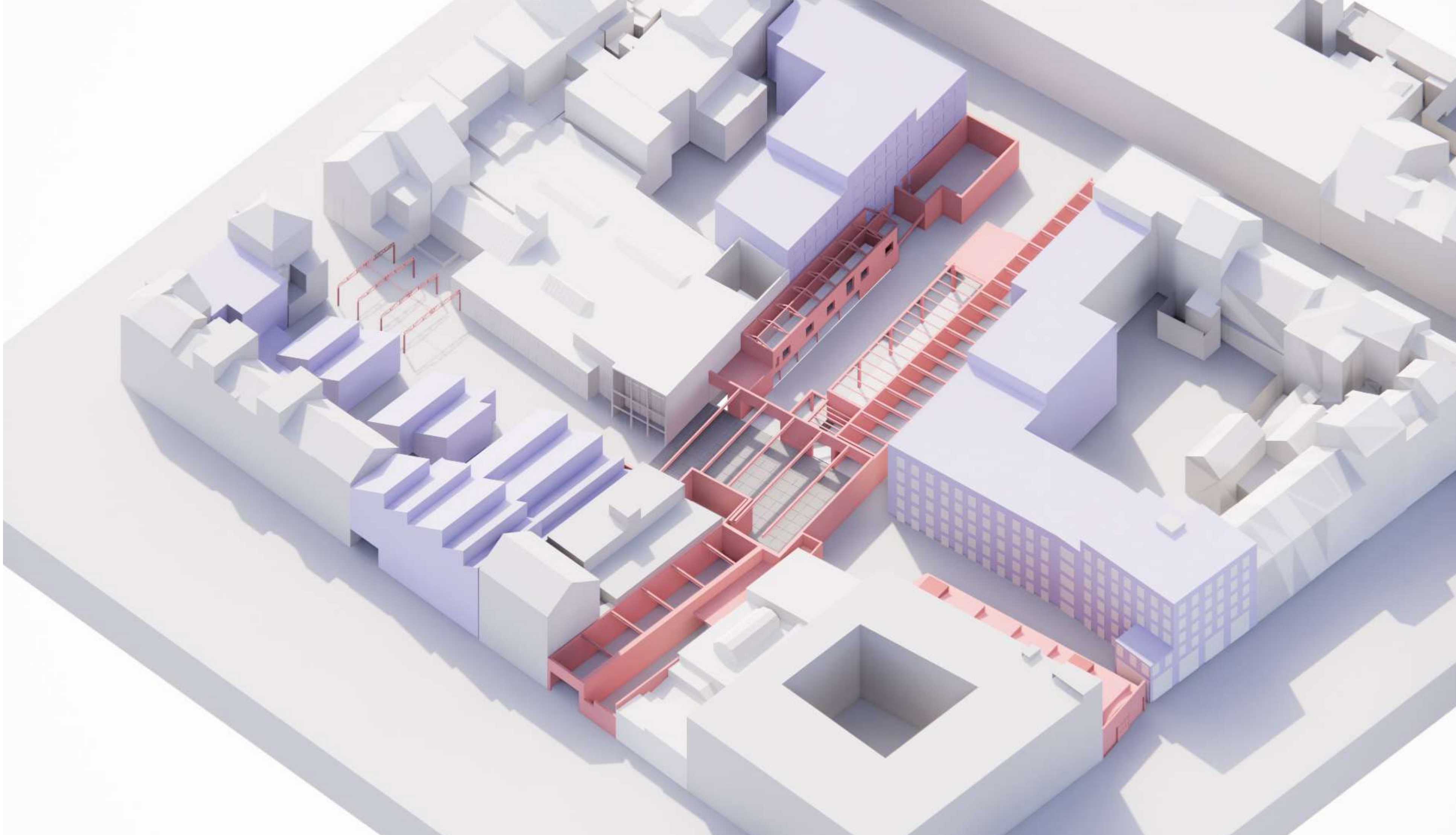


Traces de fondations

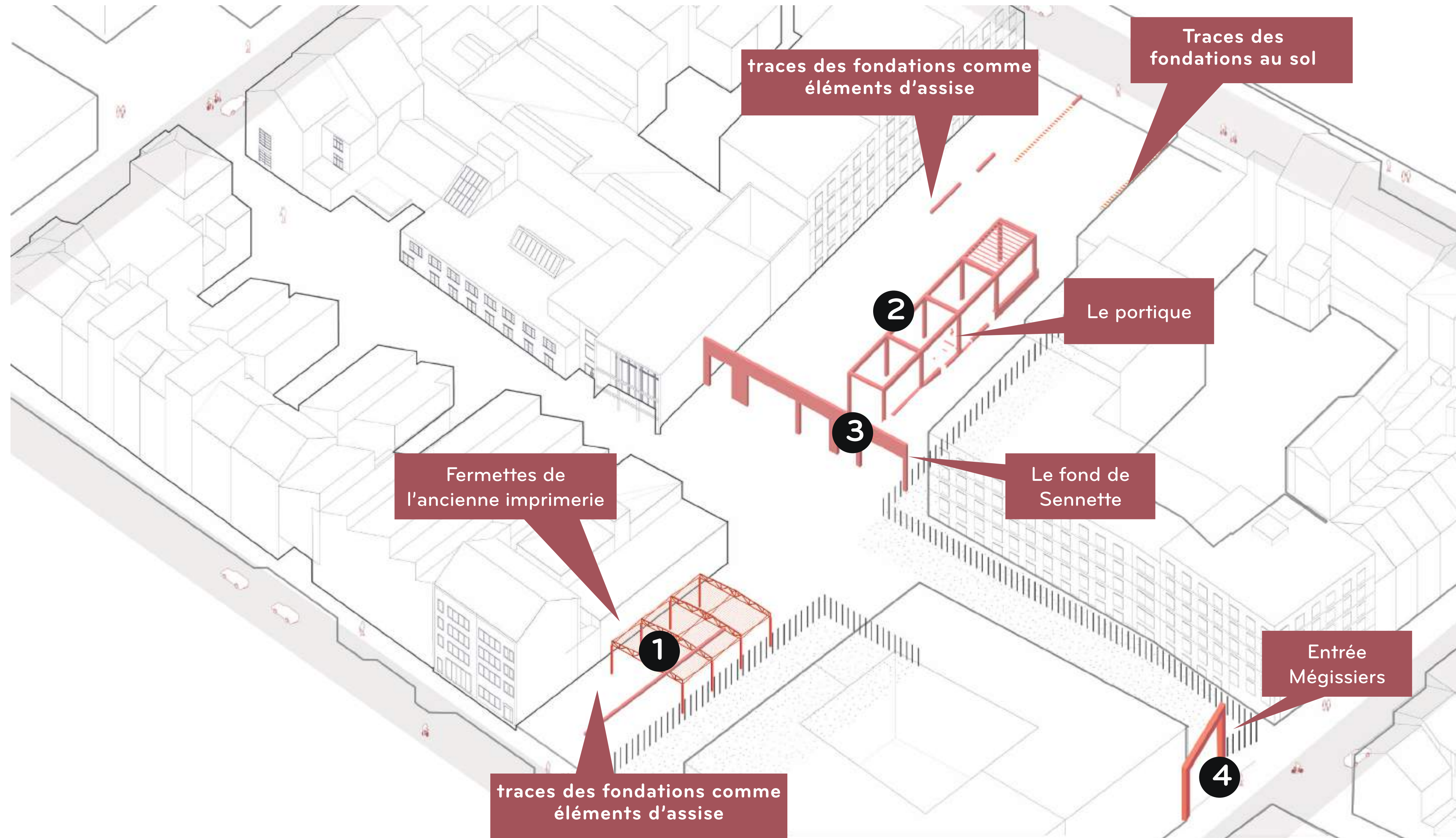


Banquette en plaques d'enrobé le long d'un cheminement

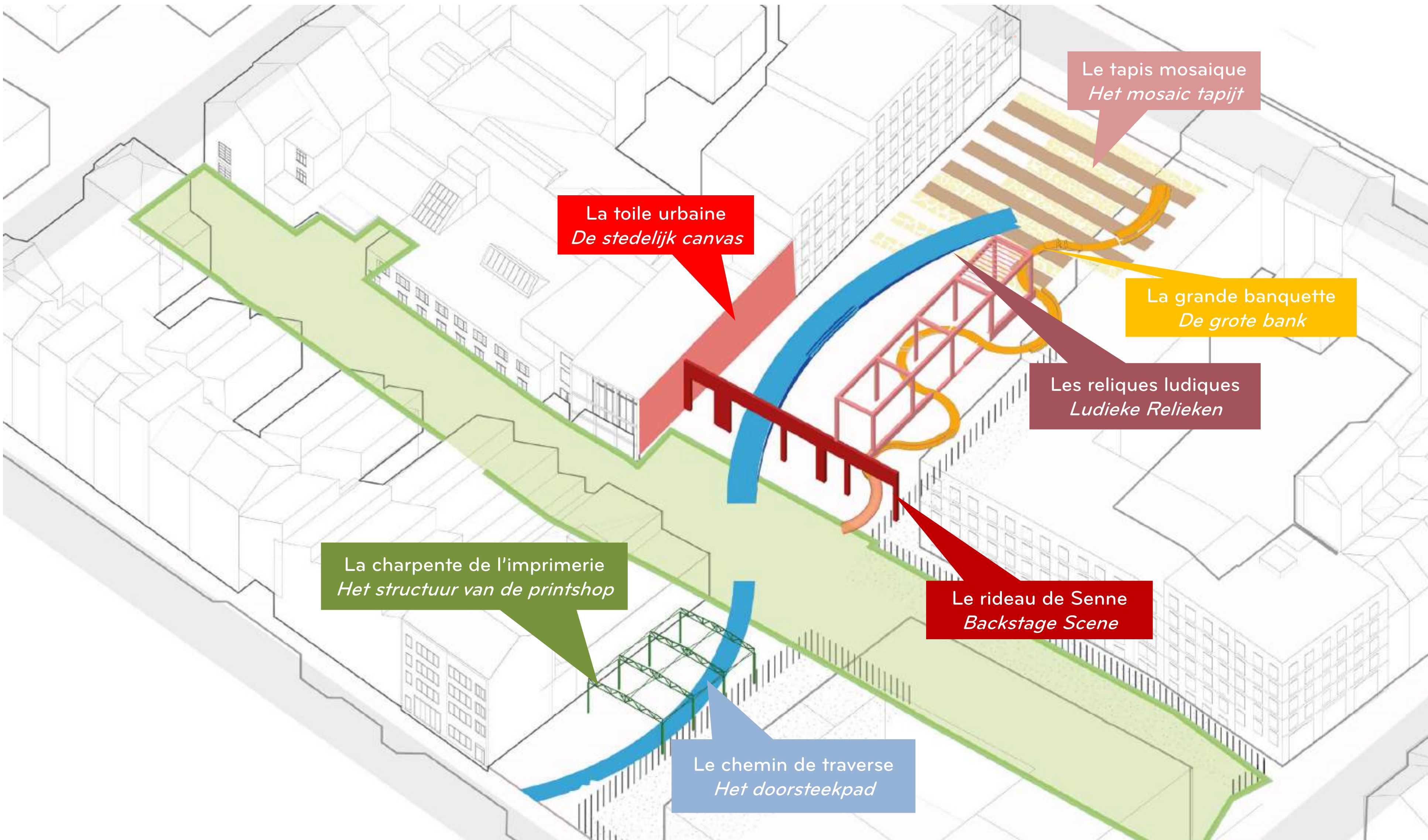
Study of existing structures



Re-use of existing structures



Creating a new identity



Final design of the building block of the first phase

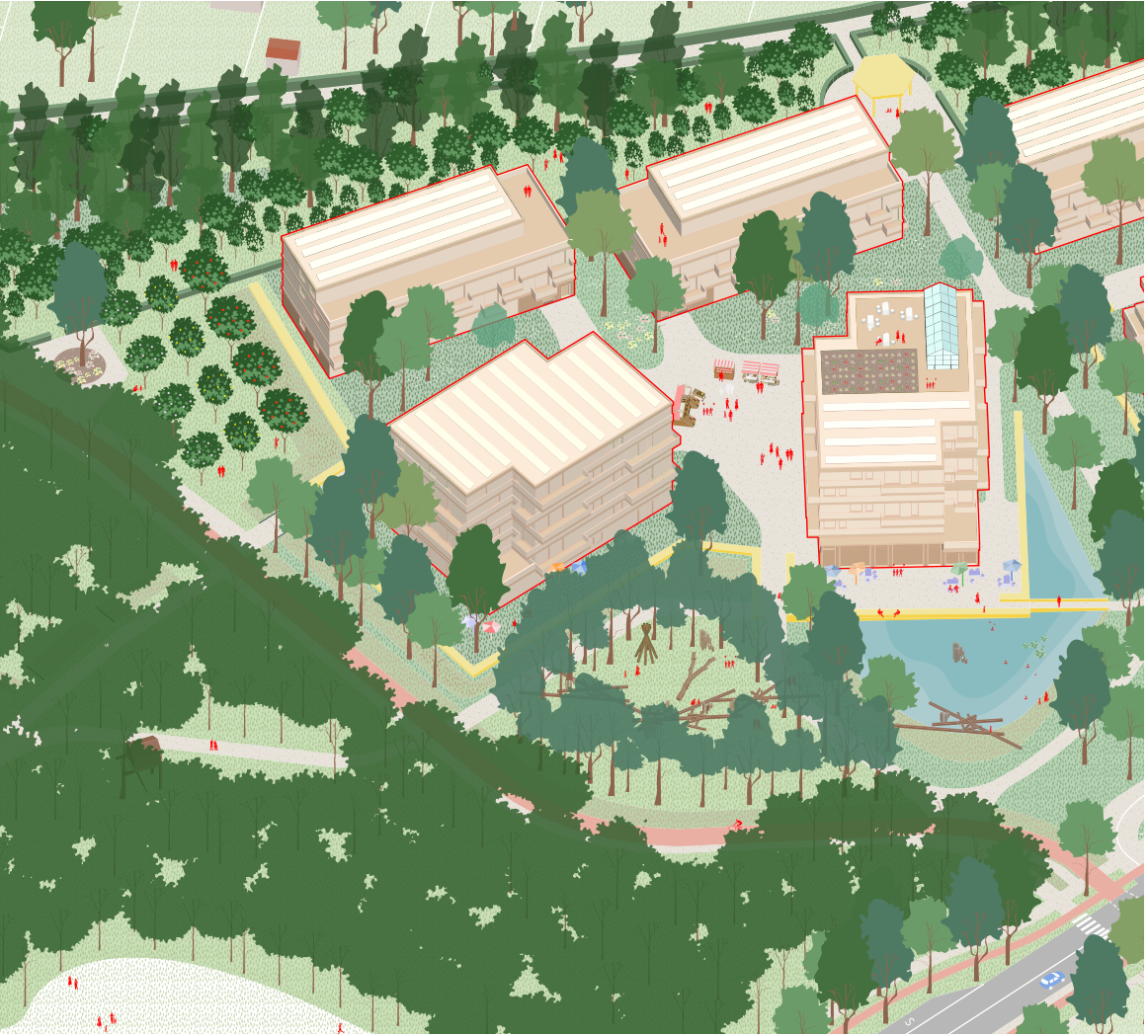








Thank you!



Brut