

NEW SPACE FOR LIVING

DESIGN GUIDELINE – QUALITY OF PUBLIC SPACE





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Fietser in Groningen
Photo by Kayla
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CONTENTS

INTRODUCTION:	06
Background and objective	08
Framework	10
Groningen as a pioneer	12
Process	14
Essay by Marco te Brömmelstroet	16
METHOD:	18
Streets as catalysts	20
Living- and climatestreets	22
Ten dimensions of our streets	24
Now, soon and later	46
Manuals and icons	48
THE STREET:	50
Urban Radial - Access road	58
Urban Radial - Neighbourhood Street	68
Concentric Connecting Road	76
Concentric Neighbourhood Street	86
Place where quality of public space comes first	94
Edge of the city center	102
Residential Street - Early Expansion	110
Residential Street - Post-War Neighbourhood	118
Woonerf	126
Business Street	136
Village Through Street	144
Village Destination Street	152
'Haren' Village Street	158
Rural Street	164
THE NEIGHBOURHOOD:	172
Early Expansion	178
Post-War Neighbourhood	184
Woonerf Neighbourhood	190
Urban Fringe	196
Village Centre	202
Bussiness Park	208
THE MUNICIPALITY:	214
Stationsweg	218
Aweg	228
Eikenlaan	236
Discussing The Guideline	244



Diepenring from the Vissersbrug
Photo by Alexei Maridashvili

INTRODUCTION

*'The new municipality is green,
healthy, social, and sustainable'*

BACKGROUND AND OBJECTIVE

Pressure on public space has increased sharply in recent years. While the populations of the city of Groningen and the surrounding villages have grown, public spaces have not expanded in tandem. Our city centre is attracting larger numbers of visitors and there is greater pressure in our neighbourhoods as a result of building density in the city centre or because workers from outside the city are parking their cars there (as well as using the space in various other ways). Our city also needs to be accessible to all users: people of all ages and with and without disabilities. We seek to create an inclusive public space.

Other than in the urban development districts (uitbreidingswijken), no new public space will be created, while at the same time many more people are looking to use this same space. The growing pressure is also caused by a larger population and more visitors, as well as due to various competitive (and sometimes new) uses. There are a variety of uses that lay claim to the same public space, including traffic, parking, room to walk around, play, green spaces, water, street cafés/outdoor hospitality, and bicycle parking facilities. These lay claim on the ground-floor public space, but we also need underground space for tree canopies, trenches, cables and pipes, and so on. We are seeing a shift in focus in terms of usage and pressure.

Climate change, for example, has created problems such as heat and flooding, and offering solutions to these issues requires more space for trees, greenery and water. It is essential to facilitate cooler temperatures and the harvesting of rainwater and other precipitation. The energy transition also raises a number of questions where the underground is concerned: there is potentially less space available for gas pipes, while demand for heat grids and, for example, underground space for thermal energy storage is increasing. These are significant claims on space in the already-crowded below-ground world. The new town planning issues arising from the energy transition and the need to create a climate-resistant space are creating more pressure and a shift of interests. Finally, surveys conducted among a wide cross-section of our city's residents reveal a growing need for more space for greenery and places for people to meet.

These new developments prompted the Municipal Executive to put people first in

the coalition agreement and to announce a reclaiming of our public space. The coalition agreement states the following: 'With the ongoing growth of the city, one of the main challenges for the foreseeable future is reclaiming our public spaces. The appeal of our city centre, districts and villages would benefit from a sufficient amount of public space, and in order to ensure this we will take a critical look at the use of public space. Reducing car parking and bicycle parking in the public space means more room for greenery, sport facilities, play, and meeting places, and will therefore contribute to better public health.'

The coalition agreement introduced the Guideline for Public Space as a practical resource for this purpose. The Guideline is designed to provide inspiration and a quality framework for another public space: a 'recaptured public space' in which the area has a different layout and where there is more room available for 'greenery, sports, play, and meeting one another.' The Guideline should help us to find a new balance and, if necessary, make choices between all claims on public space.

The Design Guideline – Quality Public Space is a document that serves as inspiration for future projects: a visual medium that reveals changes in public space over time using photographs, profiles, 3D images and brief notes and explanations. The Guideline visualises what a public space with more room for meeting places, pedestrians and cyclists, and greenery would look like for various usage types, streets, areas and neighbourhoods in the city. The Guideline identifies principles and conditions that are required to create a different type of public space while remaining true to the area's identity. Additionally, the Guideline also explains what the implications will be for all areas of focus and all users of the space, both aboveground and underground.

The Guideline has not yet been implemented at this point; the images contained therein serve as inspirational visuals, but they should in no way be interpreted as designs. The Guideline offers an alternative way of looking at the city, and there will continue to be a need for individual solutions whenever streets are being redesigned. The Design Guideline – Quality of Public Space aims to support this process.



Gezond, Groen, Gelukkig Groningen
Coalitieakkoord 2019-2022



FRAMEWORK

Several policy frameworks served as the point of departure for the Design Guideline – Quality of Public Space. The Guideline assesses the objectives, principles and design rules from the relevant policy documents, including (list is not exhaustive): Mobiliteitsvisie, Groenplan ‘Vitamine G’, uitvoeringsagenda Klimaatbestendig Groningen, Visie Binnenstad, the Next City, actieplan Toegankelijk Groningen, Gezonde Stad, Visie op de Ondergrond, de Fietsstrategie 2015-2025 and Boomstructuurplan ‘Sterke Stammen’.

The Mobility Plan, in particular, served as one of the foundational documents for this Guideline. Opportunities to improve quality of public space tend to arise mostly in areas where speed limits are reduced, for example, from 50 to 30 kilometres per hour. A similar link also exists with the Parking Plan. Paid parking is one of the key conditions for implementing ambitious plans for our streets and neighbourhoods. It provides us with a tool to reduce the number of parked vehicles, curb parking disturbance, and encourage commuters and non-local traffic users to reconsider their parking choices. The Guideline uses analysis and various images to reveal what opportunities are available.

Since a Guideline for the City Centre was already drafted back in 2018, the city centre is not considered in the Design Guideline – Quality of Public Space. However, the project group for the City Centre has been consulted on the lessons learned in the Guideline for designing the City Centre in relation to areas such as accessibility, change/adaptivity, and management of expectations.



Coalitieakkoord



Omgevingsvisie



Vitamine G - Groenplan



Mobiliteitsvisie



De g6 voor een gezonde stad



Parkeervisie



Sport- en bewegvisie



Uitvoeringsagenda klimaat



Cultuurnota Kunst & Cultuur



Fietsstrategie 2019-2022



Actieplan Toegankelijk Groningen



Leidraad binnenstad Groningen

GRONINGEN AS A PIONEER

Groningen has played a pivotal role in changing the way we think about Dutch cities. Back in 1977, it was the first city in the Netherlands to launch a traffic circulation plan, and later it became the first to keep cars out of its city centre. Pressure on public space has increased sharply in recent years. The compact city, which is only increasing in density, and the surrounding villages all have an impact on the use of space. The current objective to reclaim the public space and improve quality of life within our public spaces is part of a wider public debate on how we design our urban areas. This gives Groningen the opportunity once again to play a groundbreaking role.

There is a strong correlation between mobility and the public space, particularly in our streets, since infrastructure and traffic flows are also part of the public space. For decades, Groningen has played a trailblazing role when it comes to theories on mobility and the use of public space. In the new Mobility Plan, the City is attempting to find a new balance between the various modes of transport, with motorists expected to behave more like 'guests' in the area. Pedestrians and cyclists will serve more prominently as main modes of transport, with the objectives including to promote the efficient use of space and clean and healthy forms of transport. It also includes technological trends and developments related to traffic safety, including Intelligent Speed Assistance, which enables us to change the way we think about our streets. This serves to accommodate the growth of the city of Groningen, while mobility contributes to a safe energy transition.

Cyclists in Groningen
Photo by Unknown



PROCESS

The Design Guideline – Quality of Public Space is a document that serves to inspire and offers a new perspective on our public spaces. In addition, the document serves as a manual that characterises the various streets and neighbourhoods of the city with a set of corresponding design principles and measures. However, the Guideline also serves as a tool for building a future-proof public space for all, as well as being a plea for pursuing an ‘ideal’ process. The document shows what dimensions are necessary for a high-quality and valued public space and that informed decisions are made by all stakeholders during the design process. This applies at the street, neighbourhood and city levels, as well as serving to improve the ambience of the public space, ensure easy accessibility, meet the climate targets, etc.

The Guideline is more than a document; it represents a method that calls for collaboration between residents, stakeholders, and the City – an action plan centred on quality of public space that can be used during the design and implementation process. It is important to keep in mind that no two places in Groningen are the same and that there will continue to be a need for customised solutions, which is something we must undertake together.

The Guideline is an inspiration document.

As soon as a street is being redesigned, talks with inhabitants and stakeholders will be held.

Custom-made designs will remain necessary.

Neighbourhood walk in Coendersborg
Photo by Elan Redekop



ESSAY BY MARCO TE BRÖMMELSTROET



The Guideline for Public Space is nothing short of a paradigm shift. If we seize the opportunity it provides, people will still be talking about this 40 years from now – just like we are still talking about the Groningen traffic circulation plan from four decades ago.

The language we currently use to describe our reality not only mirrors that reality, but also has a strong impact on how we shape this reality. The best example I can think of to illustrate this is forests.

Forests are complex, self-regulating systems that manage to find their own balance in all climates and on all continents; they are places where you can easily hide, go hunting, hunker down, play, and grow.

In other words, they are places with an endless variety of plant and animal species that all play their own role in maintaining a dynamic balance. All this began to change in the late eighteenth century, when the timber trade started taking off. Timber is an important resource, ingredient and fuel, and large land owners therefore wanted to know how they could manage their forests more efficiently for the purpose of timber production. This marked the start of scientific forestry, which replaced trees and their endless variety of purposes with an abstracted forest entity: the Normalbaum, also known as the Standard Tree. It was an idea-typical object from the perspective of optimum timber production.

By subsequently and steadily shaping our forests into this image, a new type of forest was created, known as the 'production forest'. This trend soon began to spread all across Europe: forests filled with identical trees, planted all in rows and without any low shrubbery. It was easy to harvest and, in theory, could produce more timber per hectare.

After some time, the massive environmental

impact of this one-dimensional approach was revealed. It proved to be hard to go hunting, hiding or hunker down in a production forest, and

the habitats of all kinds of animal and plant species ended up disappearing. This was not included in the forestry models; the simplification needed to manage the forest resulted in an unmistakable blind spot, which had a large impact on the world around us.

Along with the forest, there are our streets and our public spaces: a complex ecosystem that served for several millennia for a variety of purposes and a diversity of users.

'The remaining space between buildings' served as a place to trade, play, meet others, live, and move around. This also represented a dynamic balance, a situation that changed around 100 years ago. The rapid mass introduction of motorised vehicles in our streets ended up compromising this balance.

The years between 1920 and 1930 subsequently saw a major struggle to come to a new understanding. This started out as a discussion about justice, but less than a decade later it focused on efficiency, management and the freedom of individual motorists.

As in forestry, the streets were also assigned a scientific manager: the discipline of traffic engineering was established after 1930. There had been no such field prior to that, and it was initially dominated by hydraulic engineers. However, this changed rapidly, and we currently have trained traffic experts, who have completed more than three years of specialised education. As part of their training, they learn to speak their own language, through which they make choices and decisions about how we design our streets.

'The limits of my language are the limits of my world.'
- L. Wittgenstein

What language do we currently use when discussing our streets? And what are the choices inherent to this?

We have come to take these choices for granted. More often than not, these decisions were made a long time ago and have been incorporated into guidelines, standards and traffic models, as well as being enshrined in law, enforced by our institutions and integrated into people's behaviour. They are evident in the asphalt, concrete and technologies we see around the city.

And finally – Ivan Illich referred to this as a 'radical monopoly' – it is seared in our imagination. We no longer realise there are alternative ways of looking at things, and that it is therefore essential to make choices.

Many of these choices are packed with metaphors and concepts based on theories from economics and physics. What is the guiding principle?

Over the past century, we have increasingly come to regard our streets as pipelines of sorts: distribution stations to move people from A to B as efficiently as possible, and particularly from their homes to their workplaces.

Travel was viewed as a concomitant demand: people must be in A or B, as they find a purpose in this.

This turned travel time into a disutility, i.e. something to be minimised. The network must not get congested during peak times, as these are vehicle loss hours.

Gains in travel time become logical policy goals and are no longer up for discussion. Every 30 minutes we hear the latest traffic updates on all radio stations, even on Christmas Day and during the Covid lockdowns.

And what's more, this does not even surprise us anymore.

But as with forests, our ORIGINAL streets gradually morphed into PRODUCTION streets: spaces whose only purpose was as an efficient network for optimum traffic flow.

Of course, there are also secondary goals, such as safety. In the Netherlands, this created a shift in focus from cars to bicycles.

But essentially, our streets – without this necessarily being our choice – remain the preserve of traffic specialists and vice-mayors for mobility.

Meanwhile, streets remain unsuited as public spaces, and we are compelled to close our parks when people start visiting these in droves during lockdowns.

While in other cases, parks remain places where we come to cool down, away from the heat and bustle of the city.

Our children are forced to play remotely with their peers (and we teach them to go to the playground as safely as possible) or, increasingly, very close to home (to the point where we increasingly don't allow them to leave the confines of our own gardens).

The language we currently use to describe our reality not only mirrors that reality, but also has

a strong impact on how we shape this reality. But that language is not a given. Language is a living thing, which we constantly adapt to changing circumstances. In other words, it is up to us to change the language, which also means we can change what kind of future we make possible and how we WANT to think about our streets.

In a certain sense, Groningen has experienced all this before. The world-renowned Traffic Circulation Plan put paid to the notion that a city should be an efficiently operating machine above all: a place where through traffic is facilitated up to the Grote Markt at the cost of everything else. But then who could ever object to circulation?

From our vantage point, we can see that Groningen went on to build on these plans. Dividing the city into different sections turned out to be an inspired move and the new language was incorporated into guidelines, models, standards, asphalt, and concrete and is currently nurturing the imaginations of cities all over the world.

But no matter how powerful this might have been at the time, our streets remained the domain of the traffic experts. Up to this day, we still think about who has primacy where.

This often excludes vehicles but includes cyclists, buses and pedestrians. However, the issues that increasingly demand space and the importance of improving the quality of our public space call for a new language.

The Design Guideline – Quality of Public Space offers this opportunity. Mobility no longer needs to serve as a standard for what is and isn't possible in our streets. Although we might still opt for this, by having an alternative framework, this makes clear it is a choice and, effectively, always has been.

Our streets are our public spaces, and our public space is, by its very definition, complex.

This is why we will always be faced with dilemmas between different purposes, which means we must make choices and not shy away from conflict.

Let's agree to make these choices and conflicts visible instead of hiding them in a technocracy. Let's look for as many goals as possible that can be served instead of a single, radical monopoly.

And let's attempt not to manage the production forest, but rather to learn how to garden in the primeval forest.



METHOD

'The personal quality of public space is decisive in our approach to municipal policy. This means we can abandon the traditional sectoral approach adopted by government authorities and institutions and intend to create essential connections between sustainability, homebuilding, health, welfare, and green spaces.'

OF URBAN TRANSFORMATION

21

LIVING- AND CLIMATESTREETS

A NEW PERSPECTIVE ON OUR STREETS

Wanneer we straten op een andere manier willen inrichten, met meer ruimte voor beleving en niet enkel voor beweging, moeten we ook weg van het doel dat straten primair ingericht worden als functionele verbindingen.

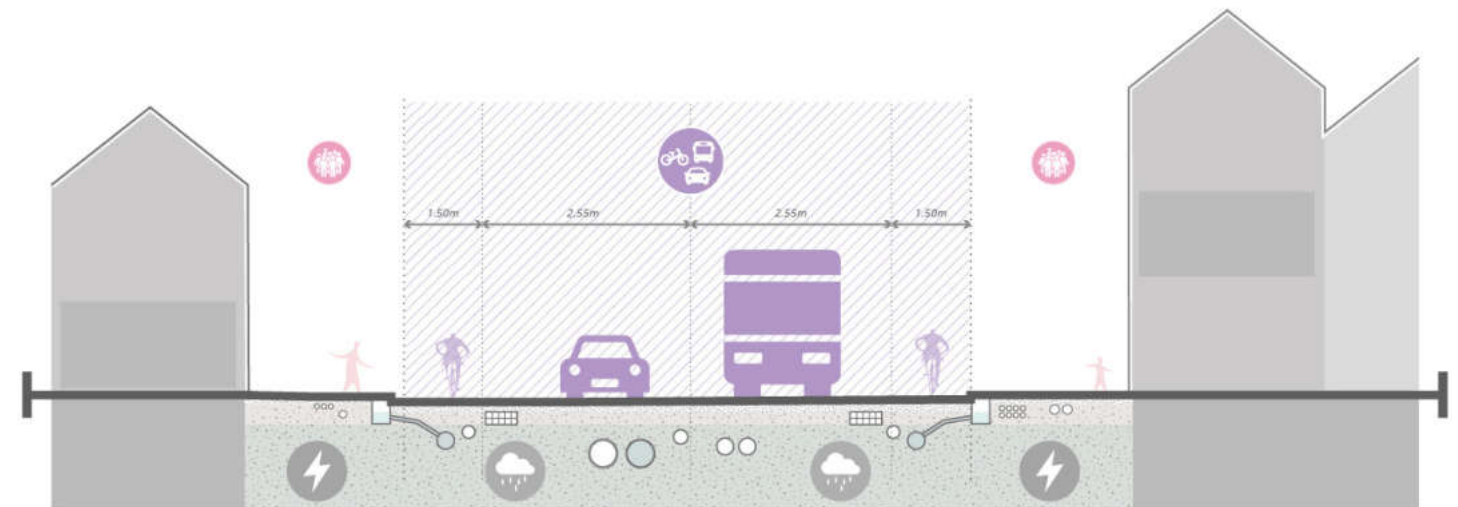
'The models, guidelines, manuals and algorithms we use to design the "survival of the quickest" is underpinned by a strategy, which is integrated into the streets. We can continue with the same approach, which means choosing the survival of the quickest, the most efficient, and the most comfortable. However, that means we forego all the other options available. The right to reach a destination without the aid of technology or the support of a company. The right to spend time in the streets with our children without needing to be afraid. The right to find peace and tranquillity in the public space. The right to clean air. The right not to die or kill another person by accident. The right to equality in our streets. What happens if you do this anyway?'

- *Recht van de Snelste ('Survival of the Quickest'), T. Verkade & M. te Brommelstroet*

Our streets are fully connected to multiple urban systems and a good design makes them better equipped for the purposes they should have. We want a public space that invites people to use, play, and meet each other. First

of all, this is good for all our residents and businesses. Along with parks and squares, the streets represent the public spaces of cities and villages. Groningen is home to a number of remarkable sites, including the Noorderplantsoen (park), the Stadspark city park, the Grote Markt, and the Haren village centre. While these special places contribute significantly to the city's identity, it is the streets that determine its everyday ambience, as this is where people in the cities and villages live their everyday lives.

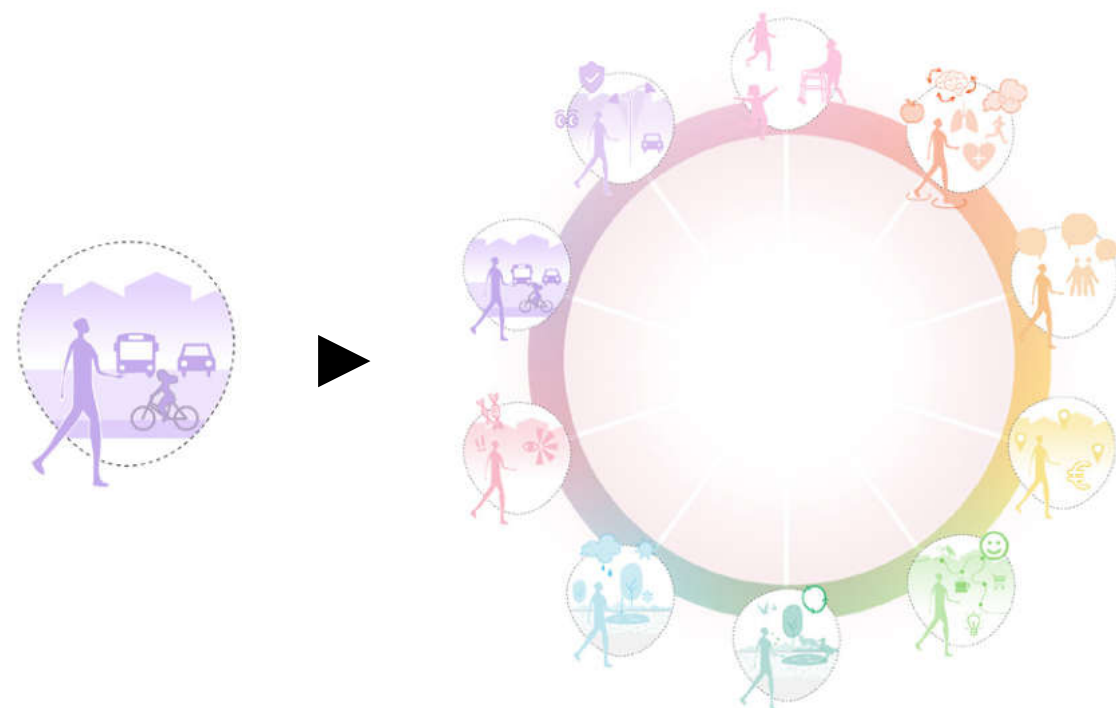
Meeting climate adaptation challenges in our streets offers opportunities for increasing the correlation between Groningen's environmental and cultural identities, as well as overall correlation. Sustainable water management in the street grid could play a fundamental role in this process. Urban environments are faced with the paradox of excess water in the form of flooding, coupled with water shortages. Water infiltration and storage can both relieve the impact of heavy downpours and reduce drought and heat-related stress. The strategy of transforming from a drainage city into a sponge city, where each rain drop counts, provides the basis for the renewed Groningen street grid.



TEN DIMENSIONS OF OUR STREETS

In order for us to design streets for people, we need to start thinking of our streets as 'shared spaces' again – public spaces for people as opposed to functional connections.

Our streets face a different set of challenges these days, with greater pressure and the need for more high-quality spaces. In addition, the redesign of our streets focusses on creating streets where water, green and recreation lay an additional claim on the street profile and its operation. They were designed so as to be viable for the future, so they could contribute to solving the issues and town-planning challenges the City of Groningen will be facing over the next several years. This is why the Guideline for Public Space is adopting a new approach to street design. Rather than being based on a one-dimensional perspective on our streets, the Guideline for Public Space is based on a multidimensional design method for the streets of the city of Groningen, where mobility is not a defining criterion but where accessibility, safety, experience, health, social interaction, the environment, climate adaptation, the economy and cultural history all combine to define our streets.'



OUR STREETS BELONG TO US ALL



OUR STREETS ARE SAFE



OUR STREETS OFFER CUSTOMISED MOBILITY



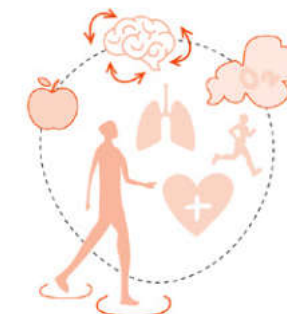
OUR STREETS ARE ECOSYSTEMS



OUR STREETS CREATE AN EXPERIENCE



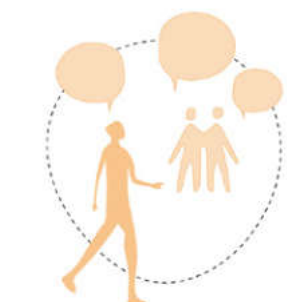
OUR STREETS ARE CLIMATE-ADAPTIVE



OUR STREETS ARE HEALTHY ENVIRONMENTS



OUR STREETS CREATE VALUE



OUR STREETS ARE PUBLIC DOMAIN



10. OUR STREETS HAVE AN IDENTITY

1. OUR STREETS BELONG TO US ALL

ACCESSIBILITY



Wheelchair accessibility?
Photo by Unknown



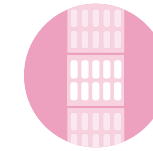
Our streets must be inclusive. This means accessibility for all, irrespective of income, disabilities, sex, cultural background, or age. An inclusive public space calls for a special focus on people with disabilities, the elderly, and children. Is the space wheelchair-accessible? Is there a palpable difference in height between pavements and streets for blind and visually impaired people? Or can you comfortably cross the cobble-stoned streets with your scooter? By eliminating obstacles and creating free but tangible passageways, we encourage people to use the public space as meeting places. This offers equal opportunities to all and means the streets belong to us all.

- Coalitieakkoord
- The Next City
- Actieplan Toegankelijk Groningen
- Sport- en bewegvisie

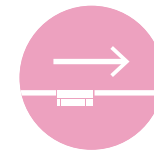
MEASURES TO BE IMPLEMENTED



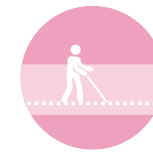
Wheelchair-accessible crossings



Use guiding lines in busy locations



Streets built all at the same level (i.e. with no differences in height)



Design with natural guiding lines



Avoid obstacles in the street and combine/integrate design elements



Design our streets for all ages, from 0 to 99

REFERENCES



Mariahilferstrasse, Wenen
Photo by B+B / Ricky Rijkenberg



Paleisbrug, Den Bosch
Photo by Nanda Sluijsmans

2. OUR STREETS ARE SAFE

SAFETY



Cycling roundabout Wilhelminakade
Photo by Gemeente



- Mobiliteitsvisie
- Coalitieakkoord

People must feel safe in their city or village, in their neighbourhood, street and home – this is vital to their wellbeing and applies both to traffic safety and to social safety in public spaces. Safety and quality of public space can be promoted through the physical design of our streets. We can do this by prioritising the safety of the most vulnerable people using our streets: children, senior citizens and people with disabilities. But it also applies to the most vulnerable traffic users, including pedestrians and cyclists. By connecting the plinth programme and the public space with each other, we increase social control, which enhances people’s sense of safety in the streets. It is also important to avoid backside situations or cluttered public spaces that are viewed as unsafe.

MEASURES TO BE IMPLEMENTED



Good lighting



Design the streets with clear layouts and easy-to-read signs



Sufficient number of safe passenger crossings



Link the programme/plinth programme with the public space and encourage different uses throughout the day to increase social control in the streets.

REFERENCES



Exhibition Road, London
Photo by Gary J. Wood



BIGyard, Berlijn
Photo by Simon Menges

3. OUR STREETS CREATE AN EXPERIENCE

EXPERIENCE



Noorderplantsoen, Groningen
Photo by indebuurt Groningen



- Coalitieakkoord
- The Next City
- Sport- en bewegvisie

A clear street design makes it more enticing for us to walk. A clear street design entices us to walk. The pedestrian space is currently often the space that remains after motorised modes of transport and bicycle traffic have appropriated the public space with their rules and requirements. Pedestrian spaces are often designed based on the same ‘mechanical’ logic as that applied to motorways. The experience en route is less important, in this case, than reaching the destination as quickly as possible. A greater focus on a positive experience of the route is a first step towards a walkable environment, where people choose to walk rather than drive or cycle. The efficiency of walking is not related to time, but rather to quality and the added value of the walk. Streets are multidimensional, dynamic spaces that people experience with all their senses. This mindset is likely to pay off not just in relation to walking; cycling and other forms of ‘slow traffic’ also stand to benefit.

MEASURES TO BE IMPLEMENTED



Walking routes with sufficient variety, including: diverse green areas and the amenity value of water



Design of obstacle-free walking routes



Promote art in public spaces



Provide seating areas along walking routes



Use of brick paving



Facilitate sufficient destinations along walking routes

REFERENCES



Place d'Youville, Montreal
Photo by Claude Cormier + Associés



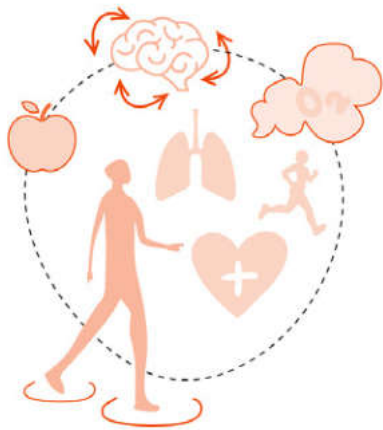
Heemraadssingel, Rotterdam
Photo by Yoreh Schipper

4. OUR STREETS ARE HEALTHY ENVIRONMENTS

HEALTH



Sports on Oosterkade
Photo by Humankind



- Coalitieakkoord
- Vitamine G
- G6 voor een gezonde stad Gro.
- Sport- en beweegvisie

We are faced with growing gaps in health between various groups and neighbourhoods, while the number of unhealthy life years is also increasing. The life expectancy of our city's residents is lower than the Dutch national average, with residents of North Groningen even living an average of 7 years less and 19 years longer in poor health than the average for the city as a whole. In terms of the physical territory, we also face a number of challenges: the city is growing and pressure on public spaces is increasing. How we can keep our growing, compact city liveable and appealing to all age groups is an important issue that is central to the current and updated new Environmental Plan ('The Next City'). Health is one of the common issues here. The notion that, alongside all sorts of preventive health measures, the social and physical living environment can also play a key role in improving the health of urban residents has been gaining traction in recent years. The fact that a significant portion of disease burden is related to the environment is not new, but is becoming more popular during this period of growing urbanisation. An appealing and well-designed living environment encourages healthy lifestyles with sufficient exercise. People who live in areas with lots of green space nearby feel healthier and don't see doctors as often as their counterparts in less salubrious areas. We launched the G6 for a healthy living environment several years ago as part of the public health policy for the city of Groningen.

MEASURES TO BE IMPLEMENTED



Alternate covered spaces with open spaces



Make sure there are enough places for children to play, both formal and informal



Provide sports facilities in public spaces



Make sure there are enough walking and running trails



Provide people with the option to take various walks, offering different experiences and distances



Provide space for gardening



Create meeting places

REFERENCES



Sollvallsparken, Uppsala
Photo by Alex Giacomini



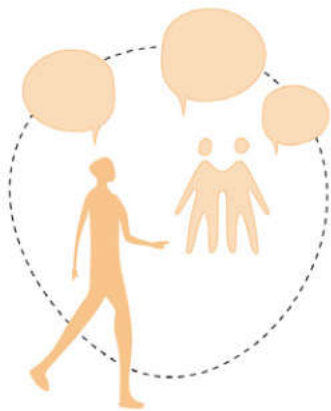
Drapers Field, London
Photo by Adrian Taylor

5. OUR STREETS ARE PUBLIC DOMAIN

SOCIAL



Dancing on Damsterplein
 Photo by Stichting Tango
 Argentino Groningen (STAG)



- Coalitieakkoord
- G6 voor een gezonde stad Gro.
- Sport- en beweegvisie

Streets play a central role in the public life of cities and communities and must be designed as accessible public spaces that promote encounters between people and other forms of social interaction. It is a place where neighbourhood residents create a sense of unity, a place that residents can make their own.

MEASURES TO BE IMPLEMENTED



Create a sufficient number of communal areas/meeting places



Create seating areas for different group sizes (individuals, couples or groups)



Provide venues for cultural and other events (squares and other spaces)



The 'monumental meter': a transitional area along the facade which residents of the adjacent home can design themselves (bench, flower boxes).



Design the streets together with residents



Promote communal gardens



Link the social programme and public meeting places with each other

REFERENCES



Pluktuin 'De Witte Velden'
 Photo by Pluktuin 'De Witte Velden'



Living street, Gent
 Photo by Lab van Troje

6. OUR STREETS OFFER CUSTOMISED MOBILITY

MOBILITY



Herman Colleniusstraat
 Photo by Gemeente



- *Mobiliteitsvisie*
- *Parkeervisie*
- *G6 voor een gezonde stad Gro.*

Mobility and accessibility improve our quality of public space by ensuring that people can travel to educational institutions, workplaces and health facilities and can engage and interact with others. There is also a need for retail shops to be stocked. In the Mobility Plan, the City opts for a new balance between various modes of transport: pedestrians and cyclists are ranked number 1 from here on out. Flow and reliability of public transport and having a ‘permeable’ city are other factors important to car traffic. Cars must adjust their speed and behaviour to their environment in many other places. This way, the City ensures that vehicle use meets the needs of the residents and visitors to the city. The new balance differs depending on the location. Walking distances are dominant when it comes to streets with a key residential and/or retail use. Major public transport links (along with the ring road and several vehicle connecting roads) require a higher speed due to travel times and the operation of the traffic system. From a mobility point of view, the design options of streets are always linked to the position in the overall mobility/transport network.

MEASURES TO BE IMPLEMENTED



More space for pedestrians and cyclists



Ensuring flow and reliability of public transport



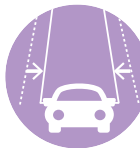
Blending different types of traffic where possible to keep the traffic space compact



Vehicles parked in the street should generally be parked on the pavement rather than on the driving lane in order to restrict the amount of asphalt used and slow down the speed of car traffic through narrow driving lanes.



Strategic clustering of parking facilities



Narrowing the driving lane

REFERENCES



Maijweg, Den Bosch
 Photo by A.F.A.M. Wetzter



Frans Halsbuurt, Amsterdam
 Photo by Gemeente Amsterdam

7. OUR STREETS ARE A ECOSYSTEMS

ECOLOGY



Drielanden Waterland
Photo by Henk Tammens



- Vitamine G
- Coalitieakkoord
- The Next City

Nature and biodiversity are vital, with insects, for example, playing a key role in the food chain and food production. However, nature is vulnerable, and biodiversity is declining for a variety of reasons, including urbanisation, changes in the use of our land, and climate change. It is therefore important to view our urban environments as ecosystems. Our cities and rural environments also have specific natural features, including climate, topography, landscape type, and subsurface. The street design is adapted to these features and has the right trees and plants that are right for the natural conditions. This is how we create solid green structures. Through the right management, we increase biodiversity to ensure a resilient green environment.

MEASURES TO BE IMPLEMENTED



Green environmental roadsides



Green avenues with mature trees



Integrated design between buildings and streets



Facade gardens (remove tiles, start planting!) and community gardens



Flowering grass



Ecological maintenance



Diversity in vegetation



Develop closed ecosystems for flora and fauna

REFERENCES



Boulogne-Billancourt, Parijs
Photo by AAUPC



Jaktgatan, Stockholm
Photo by Kasper Dudzik

8. OUR STREETS ARE CLIMATE-ADAPTIVE

CLIMATE ADAPTATION



Wadi in Helpermaar
Photo by Kuiper Compagnons



- *The Next City*
- *Coalitieakkoord*
- *Vitamine G*
- *Klimaatbestendig Groningen*

The climate is changing. The Royal Netherlands Meteorological Institute (KNMI) states that ‘Between now and 2050, average annual temperatures will increase (i.e. we will experience warmer weather), the amount of precipitation during the summer months will fall sharply (i.e. we are experiencing dryer weather), the amount of precipitation will increase (i.e. weather conditions are becoming wetter and more extreme) and water levels are rising (i.e. greater risk of flooding)’. Groningen’s quality of public space may be undermined as a result of climate change. Smart street designs account for the negative effects of climate change. Adding green spaces helps to mitigate the effects of climate change: it helps control temperatures and mitigates the impact of heavy rainfall, without the need to expand our sewage facilities. Measures ensure that our streets are protected from more extreme weather conditions. Trees can play an important role in this protection, as they provide a refuge on hot summer days. Another important measure is to reinforce the sewage system by installing separate sewage systems, which involves separating the disposal of precipitation (rain, snow and hail) and the disposal of wastewater from households and businesses. Public green areas, such as parks and gardens, can make a vital contribution by storing the precipitation during heavy rainfall and using it during dryer periods.

MEASURES TO BE IMPLEMENTED



Wadis



Bioswale



Shadow from trees



Infiltration in greenery



Reduction of paving



Disposing of precipitation in adjacent green areas or surface water



Creating more surface water



Delayed disposal of precipitation

REFERENCES



Kluyver Park, Delft
Photo by Karres en Brands



Passeig de Sant Joan, Barcelona
Photo by Adrià Goula

9. OUR STREETS CREATE VALUE

ECONOMY



Shops of Folkingestraat
Photo by Onbekend



- Coalitieakkoord
- The Next City

Streets are the economic drivers of our cities and villages. Well-designed streets create environments that entice people to linger, which generates revenues for companies and increases property values for homeowners.

MEASURES TO BE IMPLEMENTED



Outdoor space for bars/
restaurants



Small-scale neighbourhood/
community uses



Facilitate room for events/
community events



Living in green, liveable
streets increases property
values



Densification

REFERENCES



Botermarkt, Mechelen
Photo by Joost Joossen



Wasbar, Antwerpen
Photo by WASBAR

10. OUR STREETS HAVE IDENTITIES

IDENTITY



Rijksstraatweg, Haren
Photo by Jildo Tim Hof
Rijksdienst voor het Cultureel Erfgoed



- Vitamine G
- Coalitieakkoord
- Cultuurnota

Many streets are designed from the perspective of cars, being configured to suit the pre-set proportions of vehicles or bicycles. This means our streets have become quite generic-looking and hard to tell apart. Streets become unique only if they have their own identities which essentially symbolise the street in question. People can identify with specific streets and feel at home there. A street's identity cannot be created simply by adding an eye-catching object, but is rather related to functionality, cultural history, or the underlying landscape. These must serve as basic principles for street design.

MEASURES TO BE IMPLEMENTED



Protecting landmarks and monuments



Specific interventions for each type of landscape/scenery



Retaining cultural/historical elements and lines

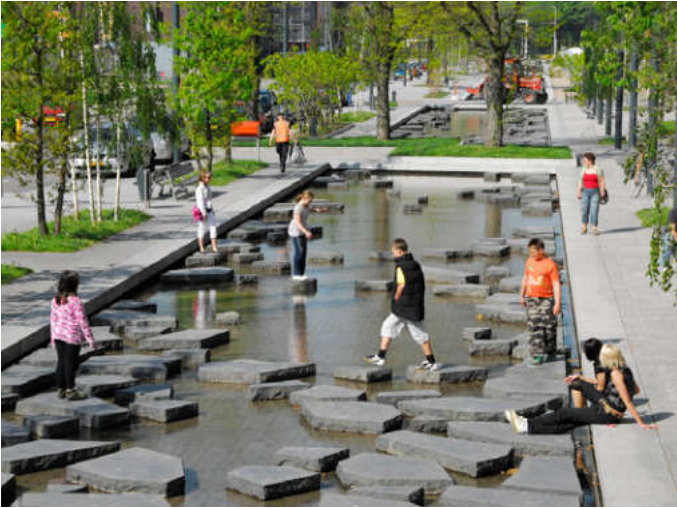


Develop streets with new uses and purposes



Place the street in its historical context (neighbourhood, district and city) in order to reinforce the city's identity

REFERENCES



Roombeek, Enschede
Photo by Sant en Co



Pingoruïne bij de Appelbergen, Glimmen
Photo by Jannes van Echten

NOW, SOON AND LATER

The Guideline contains analyses and assessments of the current situation, the 'Present', while designs and inspirational images for the future are classified as 'Soon' and 'Later'. The design proposal for the 'Soon' contains plans for the various policy areas, within the prerequisites set in the Mobility Plan. We maintain a time frame until 2040.

A 'Later' inspirational image has also been created for a number of street typologies. With the future developments around urban life, e.g. 'Intelligent Speed Assistance (ISA)' and innovative parking solutions, mobility will make less of an impact in the organisation of our streets. By learning more about the potential scenarios for the long term, we can prepare for a desired future image through short-term interventions. The design for 'Later' shows how, and with what design tools, the other policy topics can be directional in future mobility issues. This image provides a look into the future after 2040.



Now



Soon



Later

MANUALS AND ICONS

The Design Guideline – Quality of Public Space uses two tools to work towards reclaiming the public space. In the huge diversity of streets within the city, the Guideline creates an organisation of street typologies. A 200m representative street has been selected for each street typology, where different challenges and conditions are combined. For example, streets are selected with a diversity of mobility uses, a distinctive environmental profile, or with a specific wide programming. The development includes a rich palette of public spaces, street environments and spaces within the urban fabric and the village centres. Rather than being fully developed street plans, the designs are blueprints that must be equipped to be applied to multiple locations within the city. Generic design solutions were distilled from the designs of the specific street sections, which can be used for similar streets in the city of Groningen.

The design principles of the street typologies will subsequently serve as the basis for design studies at a neighbourhood level. At the neighbourhood level, a total of 6 types of urban fabric were selected which are typical of the city's different neighbourhoods. We will assess how the new street typologies can result in an alternative organisation of the neighbourhoods and what the consequences are of choices made at the street level.

Three iconic spaces have been developed as counterpoints to the typical designs. These are unique spaces that have been placed on a pedestal to seduce and inspire: spaces to which people are attached and where the new perspective on the public space is likely to be appealing. These exemplary designs provide solutions to current problems, which may cause a reversal of the current trend. Owing to the importance of these iconic spaces, we can reach a larger proportion of residents of the city of Groningen.



Luchtfoto Groningen
Photo by Koos Boertjens





Residential street
Photo by Kayla

THE STREET

'Reintroducing car parks, bicycle parks and displays in the public space means more space for greenery, sporting facilities, play, and meeting places, thereby contributing to better public health.'

STREET TYPOLOGIES

Groningen's street network and public space cannot be summarised or captured in a single typology or typical street profile. No two streets are the same, the width between the facades varies, the programme is different, and uses change throughout the day.

A selection of 14 street typologies has been developed for the purpose of the Guideline. This rich palette of streets is designed to position every street in Groningen within the urban fabric. Next, the 10 dimensions, adapted to the appropriate street, can be used during redevelopment projects. The 14 street typologies include:

- *Urban Radial - Access road*
 - *Urban Radial - Neighbourhood Street*
 - *Concentric Connecting Road*
 - *Concentric Neighbourhood Street*
 - *Place where quality of public space comes first*
 - *Edge of the city center*
 - *Residential Street - Early Expansion*
 - *Residential Street - Post-War Neighbourhood*
 - *Woonerf*
 - *Business Street*
 - *Village Through Street*
 - *Village Destination Street*
 - *'Haren' Village Street*
 - *Rural Street*
-
- *Cycling street Bessemoerstraat*
 - *Living street Grote Appelstraat*
 - *Sand roads*

In order to identify the town-planning challenges of the streets of the future, a concept was designed for each street typology based on the '10-dimension method'; this concept has an existing, inspiring design profile aligned with the Mobility Plan 2040. Note that this does not involve the design of specific streets; the streets selected are specifically intended as inspirational images for each street typology.



1. Bedumerweg, De Hoogte



2. Paterswoldseweg, Grunobuurt



3. Diamantlaan, Vinkhuizen



4. Van iddekingeweg, Helpman



5. Zonnelaan, Paddepoel



6. Griffeweg, Oosterpoortwijk



7. H.W. Mesdagstraat, Schildersbuurt



8. Bloedkoraalstraat, Vinkhuizen



9. Dukdalf, Lewenborg



10. Stavangerweg, Eemspoort



11. Gaykingastraat, Ten Boer



12. Stadsweg, Winneweer



13. Westerse Drift, Haren



14. Zuidveld

OUR STREETS – READING GUIDE



Location

The map of the city of Groningen shows the streets included within the specific street typology; these streets are similar to the typical street section.



Spider diagram

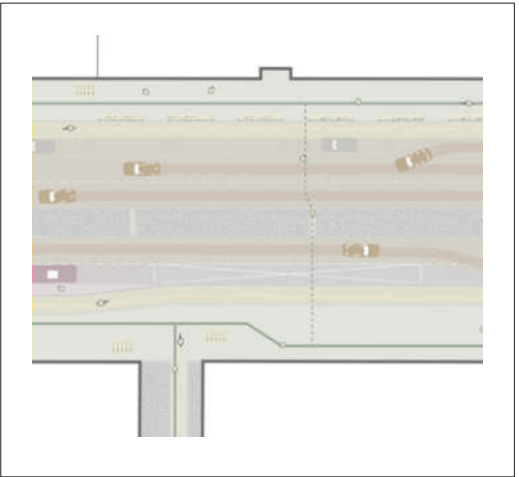
A spider diagram (also known as a radar diagram) is a web-shaped diagram that is used in statistics in order to indicate the relative impact of different numerical parameters. For the 14 street designs, the spider diagram shows a valuation of the 10 dimensions of the street.

The diagram is designed for the current situation, as well as for the design profiles for the 'medium-term' and 'long-term' situations. This shows what dimensions are changing and in what areas our streets are improving. The spider diagrams show at a glance the hierarchy of the dimensions for each street. In addition to the spider diagram for the current situation, a number of characteristics (marked by explanation points) have been listed based on the analysis of the street or context. Besides the spider diagram for the design profiles for 'medium term' and 'long term', a number of design principles are identified (marked by a lamp icon).



Concept schemes

The concept schemes beside the spider diagrams show the conceptual development of the street.



Map of the current situation

The map shows the various types of transport using the street; it depicts the separation or mixture of different traffic users.



Scroll bars beneath the design profiles

Under the perspective-based design profiles, you will see a drawing of ten bars that indicate where the different dimensions will be integrated into the street profile. Icons serve to clarify where design principles, and which design principles, were used, to achieve the street's town-planning challenges.



OUR STREETS AND MOBILITY

Mobility usage and the position of streets within spatial environments

The need for mobility is closely linked to the spatial environment. In the vicinity of the main railway station and the old city centre, people use different modes of transport than in the development district (plan boundary) or when travelling to and from the villages. See the image on the next page, with an overall layout based on urban rings. The old city centre, the early development district and the urban environments (including high-rise buildings), in particular, have a higher density of uses, more mixed-use developments and greater pressure on public spaces. This often also involves different construction periods. The actual use of mobility in these areas is already geared more towards walking, cycling and use of public transport. Here are the most opportunities, and the greatest urgency, for dealing more efficiently with parking cars and bicycles.

Position of streets in urban mobility networks

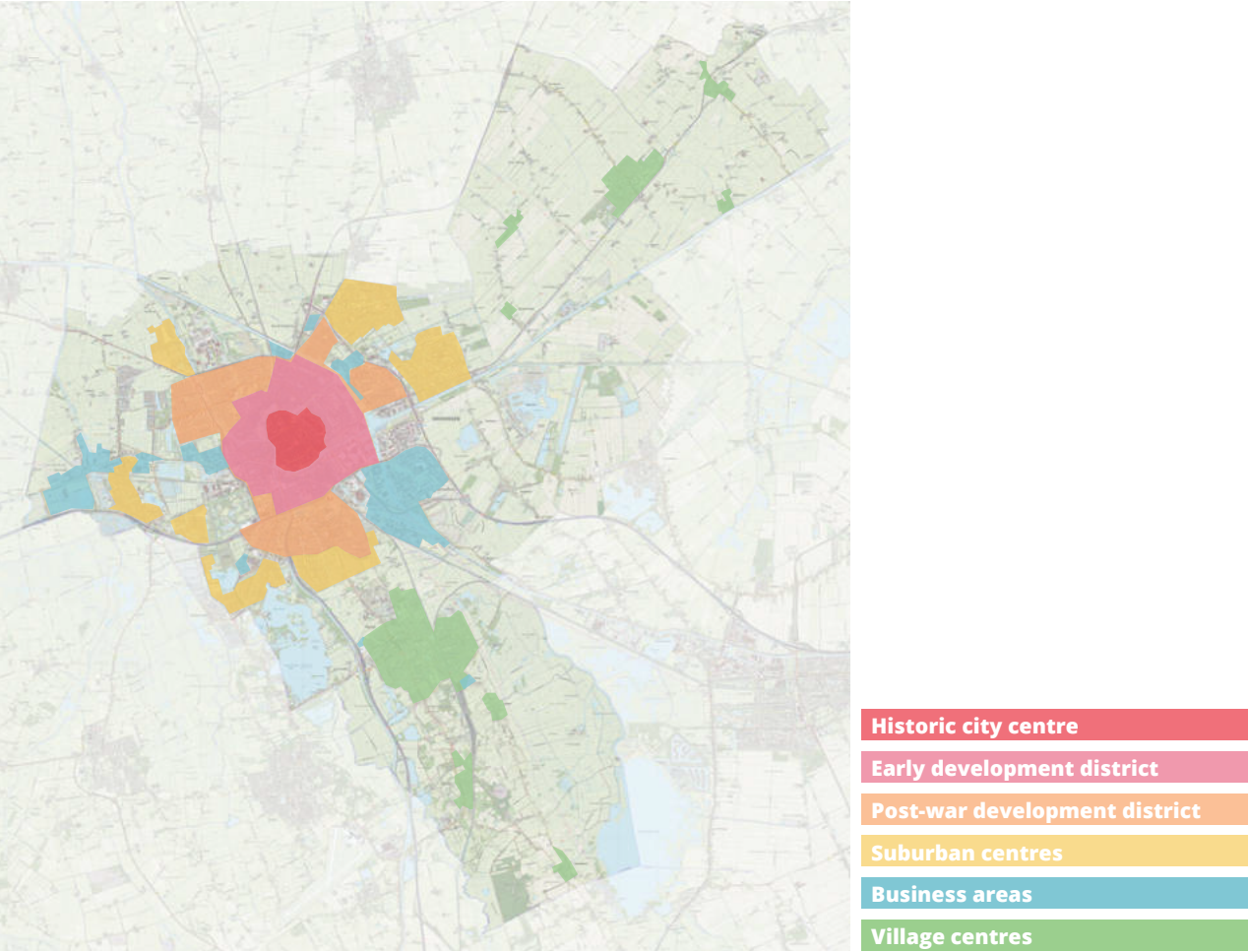
Streets also serve a purpose in larger urban mobility networks. Some streets are located in metropolitan (high-density) areas, or actually in more village-like environments. This has an impact, for example, on the distribution of the public space between modes of transport and parking facilities (for cars and bicycles). In addition, some streets are part of a hiking trail or regional bicycle trail to the city centre, or part of a busy Qlink bus connection to the main railway station or a connection between the ring road and the parking garages in the city centre. This may create requirements for the design of the public space of streets and also has an impact on the speeds and types of vehicles that must be facilitated within the public space of a street. The Mobility Plan identifies, among other things, bicycle transit routes, high-quality public transport routes (axial and tangential), ring roads and connecting roads (for cars).

Organisation based on speeds to promote traffic safety and accessibility

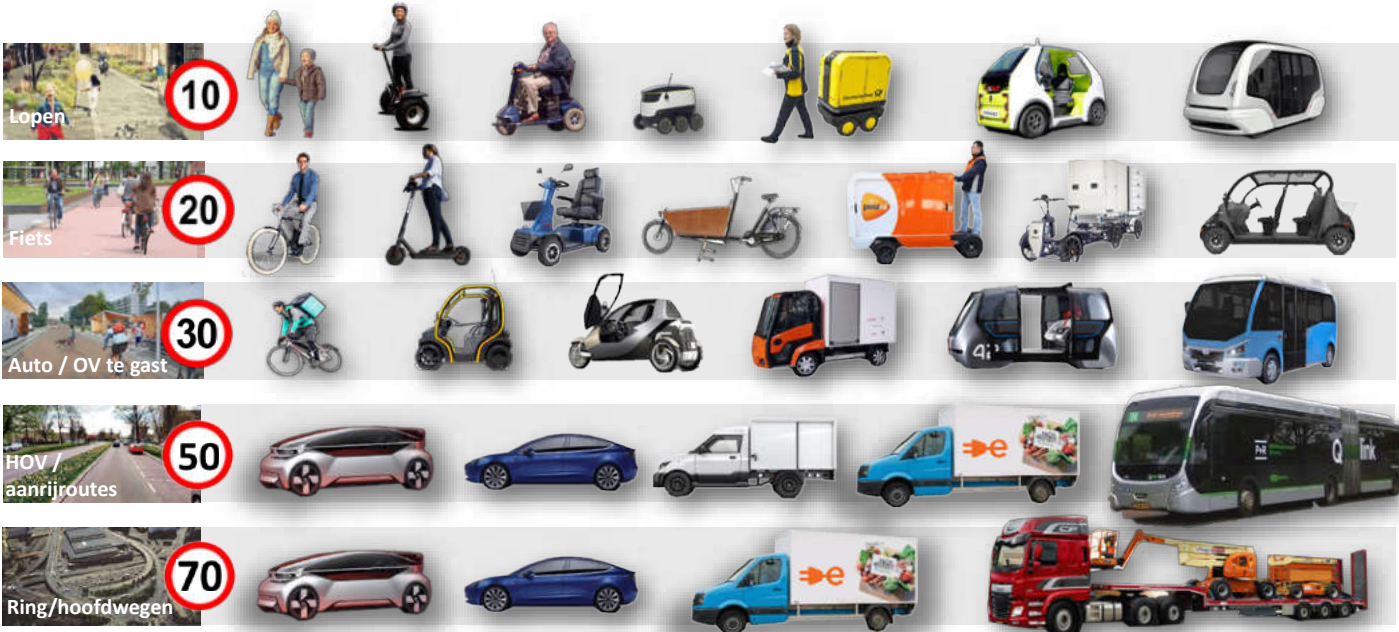
From the point of view of traffic safety and accessibility, the urban mobility networks must be linked to design speeds and other speeds in the public space. This also contributes to a healthy balance between traffic flows and living spaces. See the schedule below, in which new forms of mobility can also be integrated into the public space. Within streets with a wide public space, it is possible to facilitate multiple speeds, for example, a walking zone alongside bike lanes and a vehicle connecting road or bus lane. For

streets offering limited public space or in streets subject to specific requirements for the public space, you need to make a main decision, where other speeds are adjusted to the main forms of mobility. In these cases, the lower speed is dominant, from the perspective of traffic safety and accessibility.

District typologies



Design based on speeds





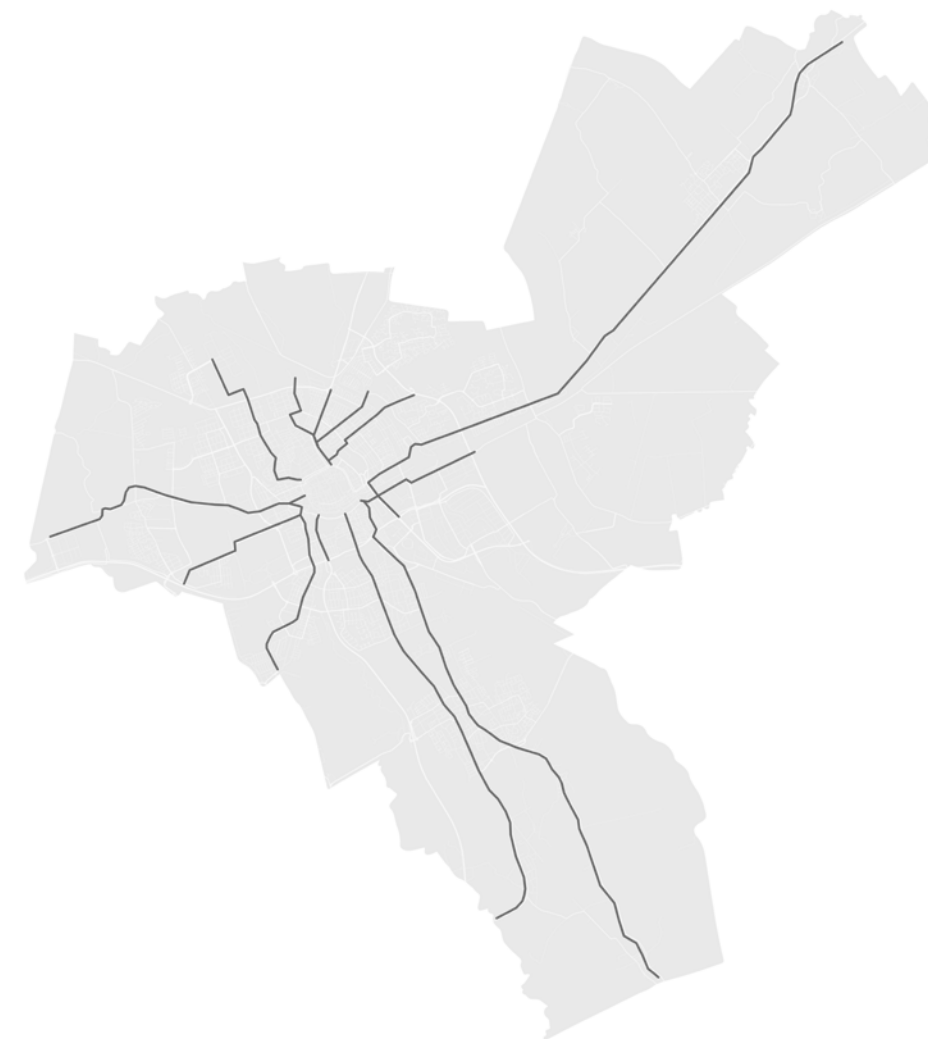
Bedumerweg
Photo by Henk Tammens

URBAN RADIAL - ACCESS ROAD

Urban radials are the long lines you'll find around the city. They tend to have a long history and connect the city centre with the various village centres and the surrounding rural areas. The urban radials intersect the various historical sections of the city, which requires a clearly identifiable and continuous street profile. Urban radials generally contain a diverse palette of uses and programmes, including schools and shopping centres. Some of the urban radials serve as access roads; a direct connecting road between the ring road and the city centre. They serve as main arterial roads in the Groningen mobility network.

Bedumerweg started out as the road to Bedum, which was accompanied by Boterdiep, and is currently one of the five access roads from the ring road to the Groningen city centre. The road connects the Northern ring road (N370) and the Nieuwe Ebbingestraat/Rodeweg, which leads into Boterdiep in the south. The current Bedumerweg is constructed on the former Boterdiep and serves as the boundary between the Oost-Indische district and De Hoogte.

Bedumerweg serves as a primary access road to and from Groningen city centre. The street profile ranges from 50 to 70 metres in width, with a parallel road on both sides and directly adjacent to buildings (mainly residential). The wide profile consists mainly of paving and is an a true 'mobility profile' in which (parked) vehicles play a dominant role.



Macro scale



Meso scale

Urban Radial:

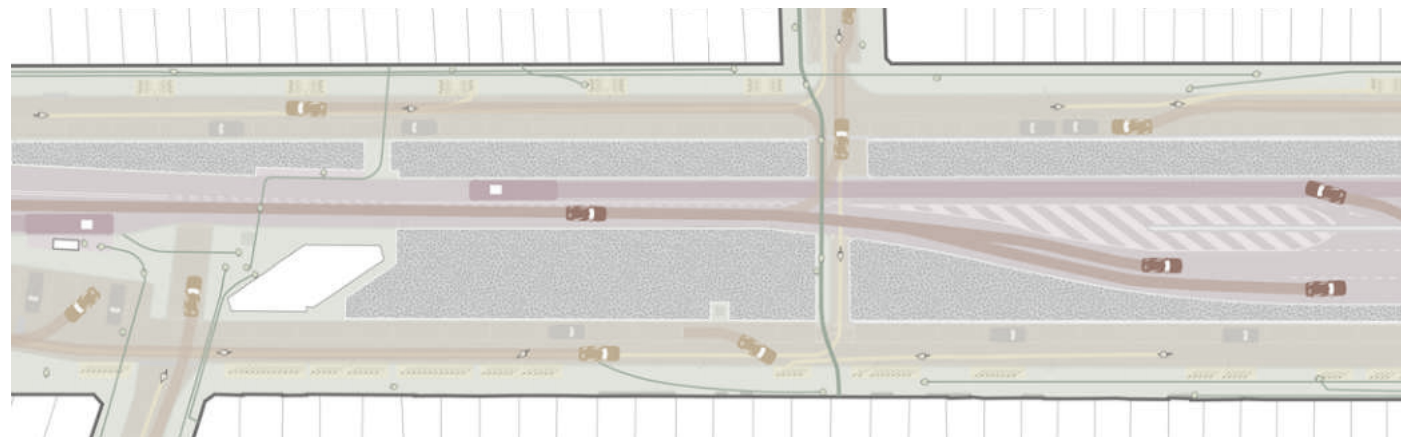
- *Bedumerweg (Access road)*
- *Damsterdiep (Access road)*
- *Europaweg (Access road)*
- *Emmaviaduct (Access road)*
- *Hoendiep (Access road)*
- *Hereweg*
- *Paterswoldseweg*
- *Peizerweg*
- *Zonnelaan*
- *Kastanjelaan*
- *Korreweg*
- *Oosterhamrikkade*
- *Damsterdiep*
- *Helperzoom*

CONCEPT

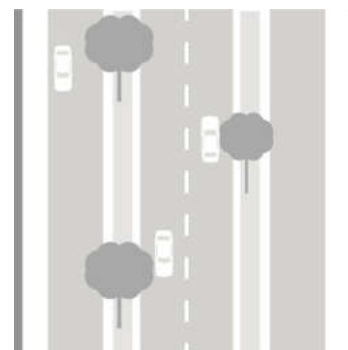
URBAN RADIAL - ACCESS ROAD

CURRENT SITUATION

Due to the dominance of cars and bicycles, there is no room left for recreational areas, making the street look fairly generic. Owing to the lack of crossings on Bedumerweg, the access road forms a barrier for the surrounding neighbourhoods. The large amount of paved surface combined with the poorly penetrable soil causes heavy flooding during rainfall. Furthermore, rainwater flows to Bedumerweg from the immediate vicinity, which further increases flooding. Heat-related stress is another issue in this street on account of the limited shading, large amount of asphalt, and paving.

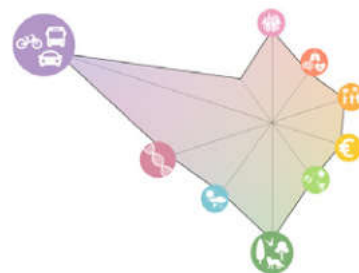


Concept schemes



- ! 60% cars/19% pedestrians
- ! 20% low-income households
- ! poor infiltration as a result of heavy marine clay

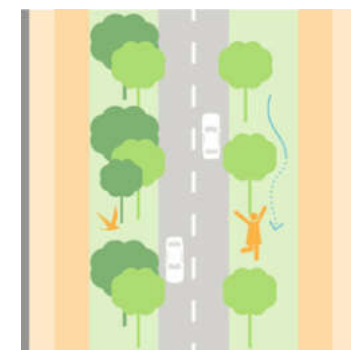
Spider diagrams



SOON

The versatile profile of Bedumerweg south of Asingastraat offers space to become a destination for the surrounding neighbourhoods. Since Bedumerweg is located between the Noorderplantsoen and the Park Oost Indische buurt, the opportunity is created to become a stepping stone and green connection between these two green areas.

In the immediate future, the roads can be redesigned into agreeable shared spaces with more room for pedestrians and where neighbourhood residents can meet each other and spend time/engage in recreational activities. Parking is grouped into 'parking pockets', which means homes have a direct connection with the green zones connected to the street. The green areas on Bedumerweg are becoming more diverse, invite you to play, and contribute to solving the city's water-related challenges. The addition of different types of vegetation contributes to the area's biodiversity.



- Recreational areas in green
- Diversity in vegetation
- Wadis



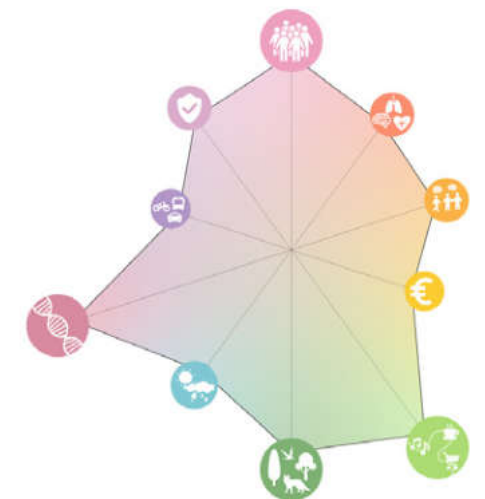
LATER

Over the longer term, there will be an opportunity to remove the parallel roads and make the entire street profile green, from facade to facade. This would transform Bedumerweg into Bedumer Park, with winding park paths through the green areas. The road, which is reserved for cars, also meanders through this green space like a parkway.

The section of Bedumerweg south of Asingastraat is located in the ring neighbourhoods with paid parking. The reduction of parking and, by extension, reclaiming of the public space, is facilitated by: no visitor passes and/or second permits to be distributed, excluding new buildings from parking permits in the street, and a quota to be set for the number of permits to be issued. In setting quotas, fewer permits are distributed than there are parking spaces in the street – for example, 80%. This is a relatively far-reaching measure, as new residents are no longer granted permits. It is, however, the best way to reduce the high demand for parking space and improve quality of public space. These measures will result in an estimated reduction of parking of 20% to 30%.

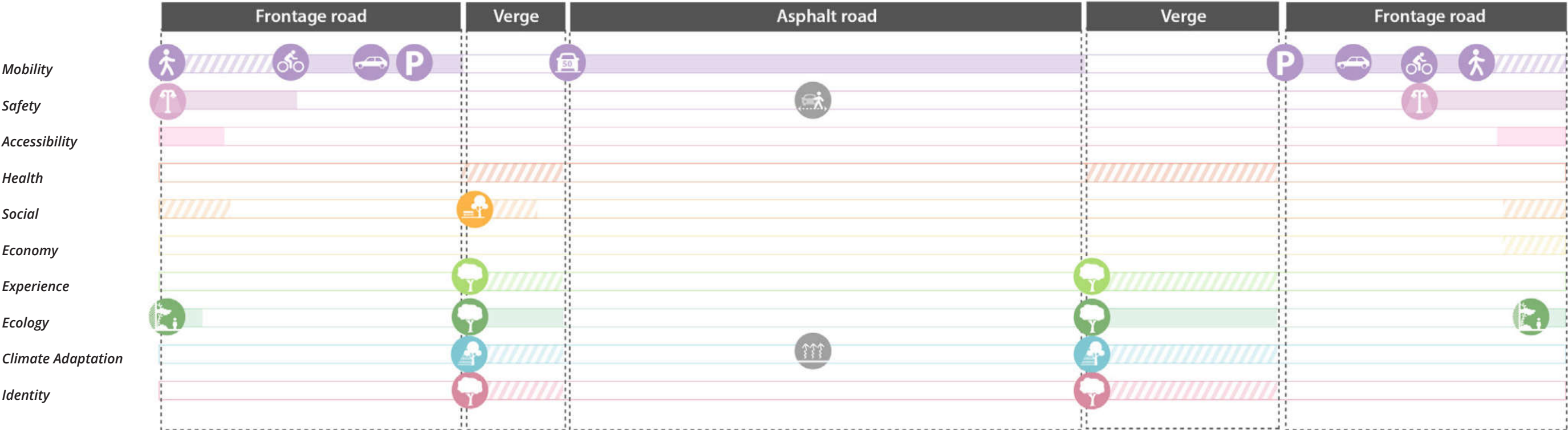


- Green from facade to facade
- Parkway

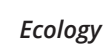
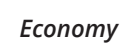
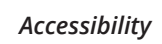


URBAN RADIAL - ACCESS ROAD

CURRENT SITUATION



INSPIRATIONAL IMAGE SOON



INSPIRATIONAL IMAGE LATER



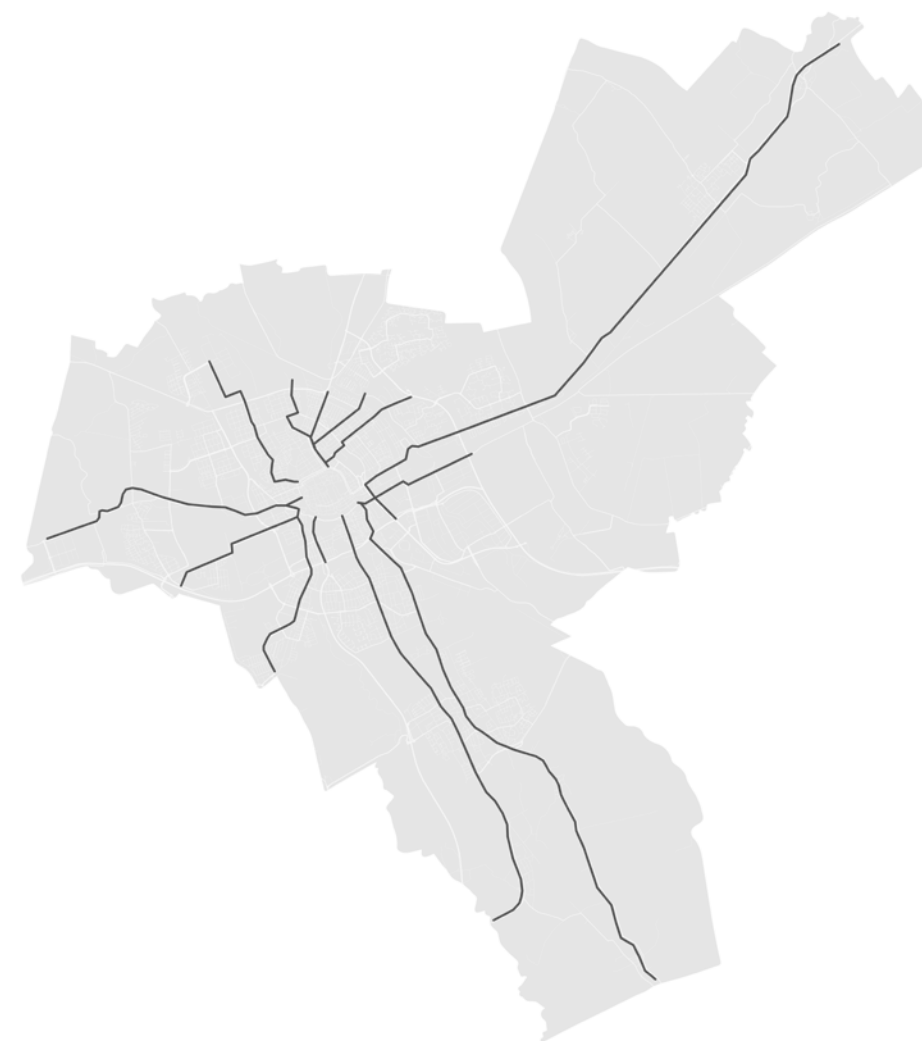


Paterswoldseweg
Photo by Henk Tammens

URBAN RADIAL - NEIGHBOURHOOD STREET

Urban radials are the long lines you'll find around the city. They tend to have a long history and connect the city centre with the various village centres and the surrounding rural areas. The urban radials intersect the various historical sections of the city, with a related diverse urban programme including schools, retail outlets, or cultural and social uses. This means urban radials often have different purposes along the way. The Mobility Plan details several sections of the urban radials for access roads with 30 km/h, also known as 'neighbourhood streets' (GOW 30). These 'urban radial neighbourhood streets' are located mainly within the ring road and often have uses in the plinths.

Paterswoldseweg was originally the road to Paterswolde and the Paterswoldsemeer, where the motor tram used to ride between Eelde and Groningen. Currently, this urban link connects the Groningen city centre to the Stadspark (City Park), Corpus den Hoorn, the Martini Hospital and the Piccardthofplas, and runs along the Hoornseplas and Hoornsemeer towards Paterswolde. The section of Paterswoldseweg from the city centre to Leonard Springerlaan will become a neighbourhood street with 30km/h (GOW 30), while the section that follows is a connecting road with a speed of 50km/h.



Macro scale



Meso scale

Urban Radial:

- *Paterswoldseweg (Buurtstraat)*
- *Hereweg (Buurtstraat)*
- *Korreweg (Buurtstraat)*
- *Meeuwerderweg (Buurtstraat)*
- *Peizerweg*
- *Zonnelaan*
- *Kastanjelaan*
- *Oosterhamrikkade*
- *Damsterdiep*
- *Helperzoom*
- *Bedumerweg*
- *Damsterdiep*
- *Europaweg*
- *Emmaviaduct*
- *Hoendiep*

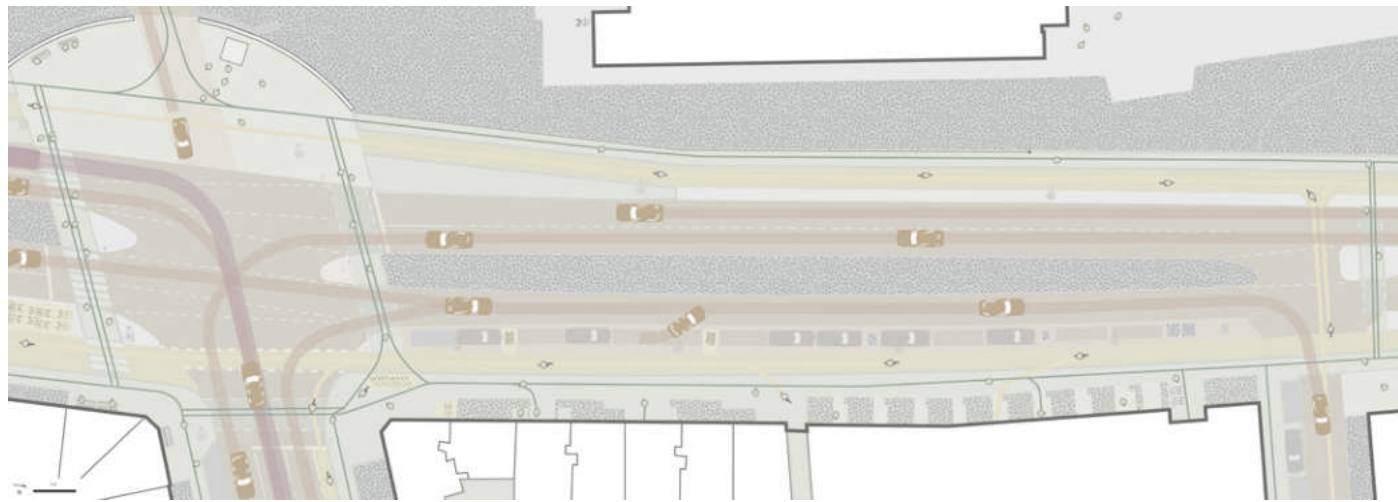
CONCEPT

URBAN RADIAL - NEIGHBOURHOOD STREET

CURRENT SITUATION

Paterswoldseweg is a historical line through the city with several different appearances. The road responds to different sections of the city and the environment that intersects it. The section of Paterswoldseweg selected borders directly on the city park Stadspark, where the speed is reduced to 30km/h. Paterswoldseweg is used

extensively as a recreational bicycle route and also serves as an important link between the city centre and the surrounding areas. It takes 30 minutes by bicycle to get from Vismarkt to Paterswoldsemeer. The proximity and recreational quality of this route is currently not experienced to the extent it could or should.



SOON

The design of Paterswoldseweg is not geared to its role as a recreational bicycle connection between the landscape and the city of Groningen. The new street profile can potentially give cyclists a prominent position, whereby Paterswoldseweg is designed as a pleasant bike route with separate bike lanes: a route that stimulates the senses and invites people to exercise and engage in various recreational activities. This will also reinforce the character of the 'village line', with the typical rows of trees on each side (one tree, two lateral parking spaces, a tree, etc.). Where possible, the green image of the road is enhanced and extended, for example near the Stadspark city park. We regard Paterswoldseweg as a string of beads that intersects and connects the various sections and neighbourhoods. This creates an opportunity to make the entrance to the Stadspark visible and design it in a welcoming and inviting way. The green parking experience is essentially continued into

the eastern wall of Paterswoldseweg, ensuring that the village runs through, rather than alongside, the park. This improves the connection between the surrounding neighbourhoods and the park, while the homes located in the area are upgraded to 'park-facing homes'. The entrance to the park is designed as a recreational area and marked by a work of art. In addition, this spot also forms a key link when it comes to strengthening and improving the walking route between the south side of the Central Station and the Martini Trade park. The section of Paterswoldseweg around the entrance of the Stadspark city park is located in the ring neighbourhoods with paid parking. Measures (see Appendix 4) will likely result in an estimated reduction of parking of 20% to 30%.

CURRENT SITUATION

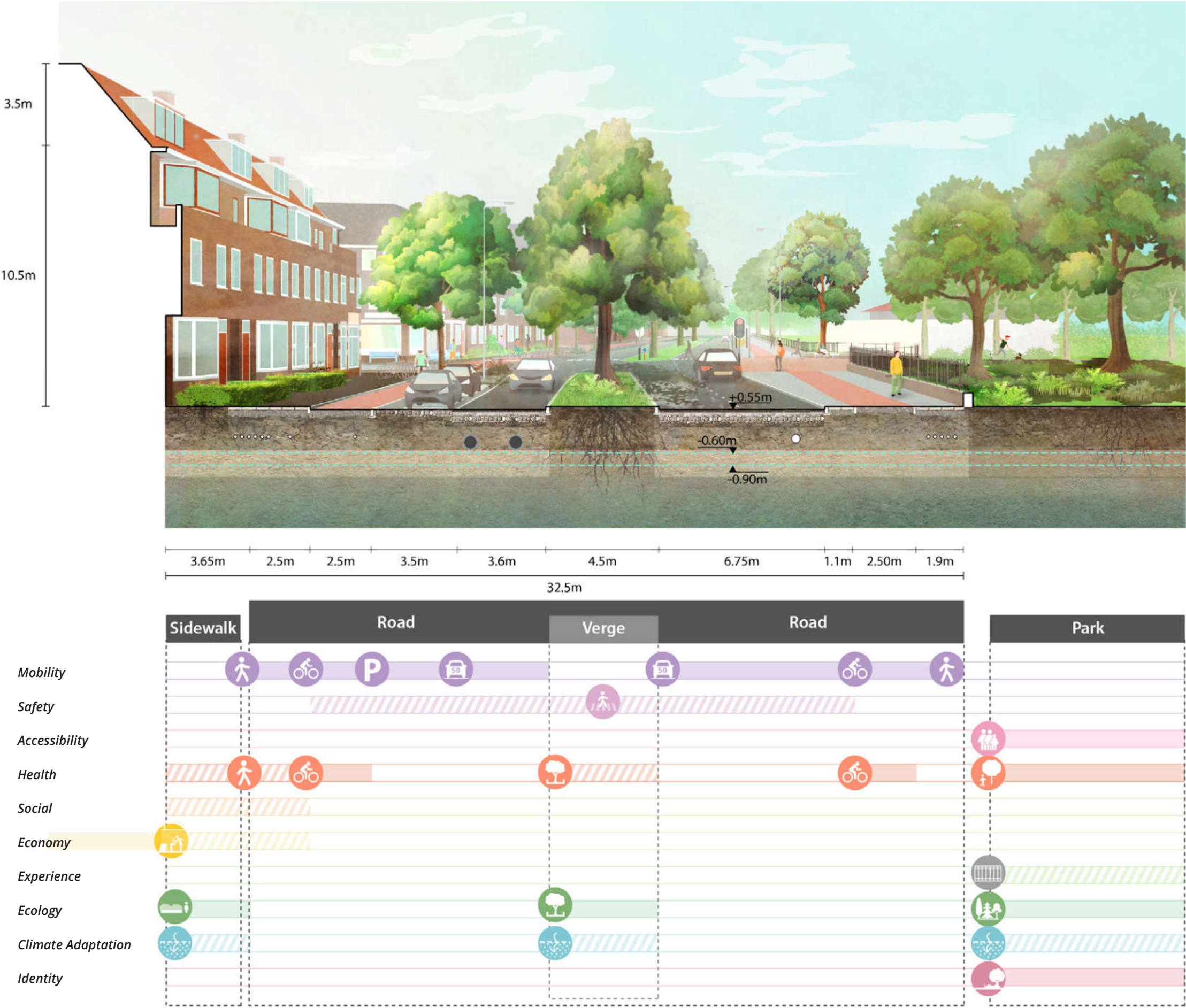


SOON

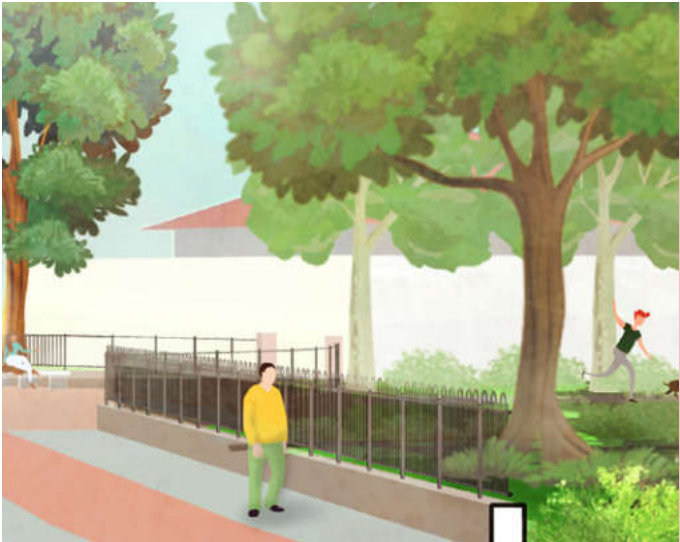


URBAN RADIAL - NEIGHBOURHOOD STREET

CURRENT SITUATION



43% cars/14% pedestrians



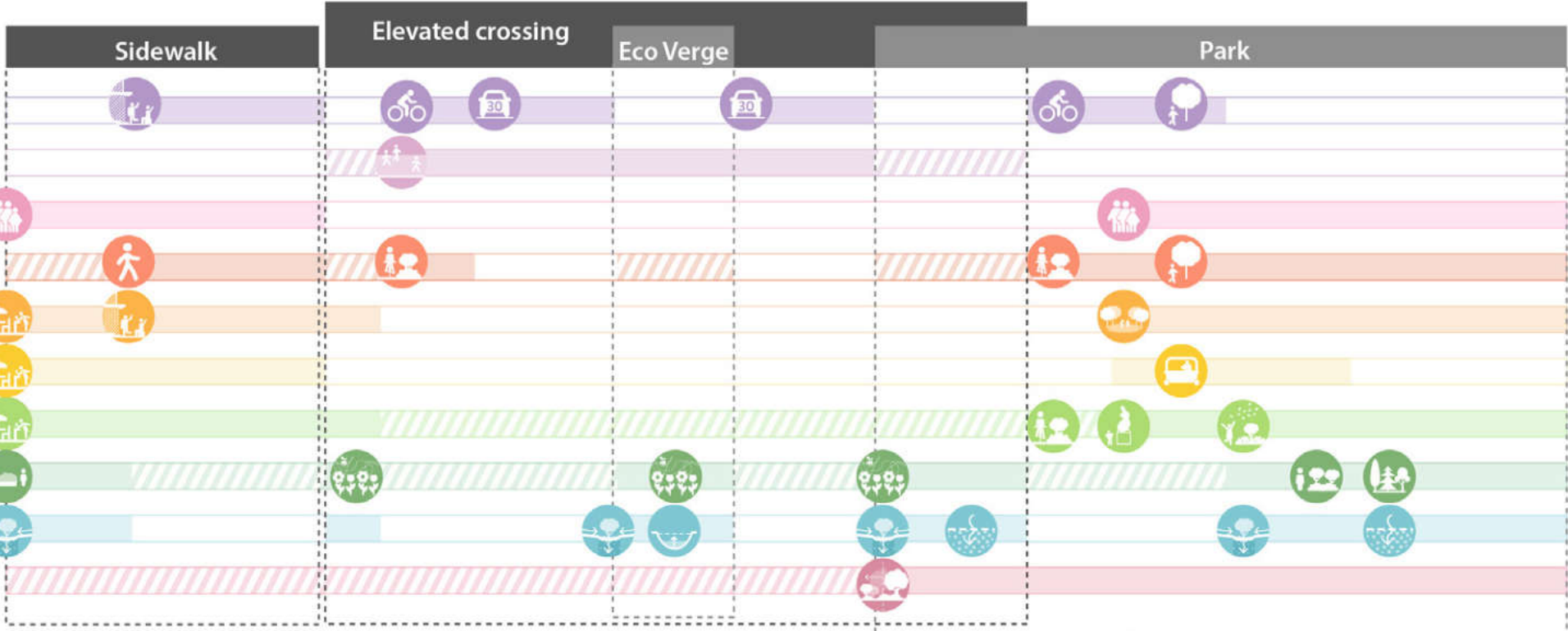
Entrance to the Stadspark (city park)



Recreational route from city to surrounding areas

URBAN RADIAL - NEIGHBOURHOOD STREET

INSPIRATIONAL IMAGE SOON



Marking the park entrance



Sensory bicycle route



Outdoor space for bars/restaurants

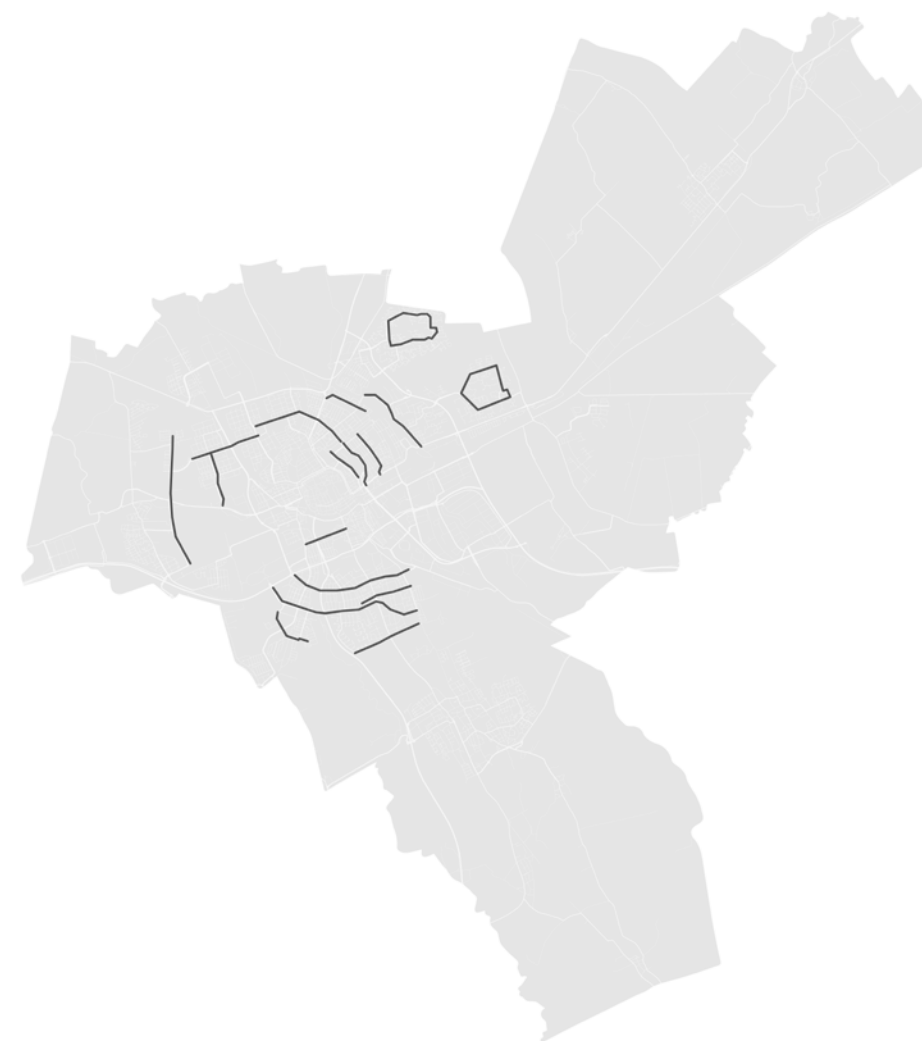


Diamantlaan
Photo by Henk Tammens

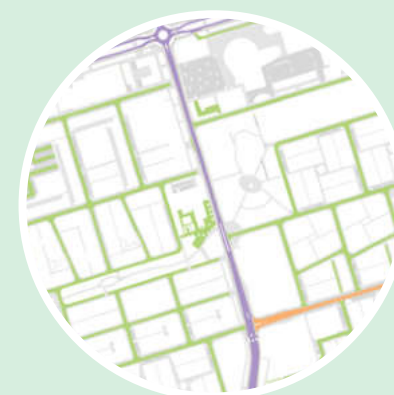
CONCENTRIC CONNECTING ROAD

Concentric streets are the ring-shaped streets through the sections around the city centre. They have often been planned as part of the development of the district and, unlike the urban radials, they have a relatively short history. The concentric connecting roads (with a speed limit of 50km/h) are mainly located in the post-war development district of the city, where they serve as main arterial roads. They serve an important purpose in terms of allowing access to the neighbourhood, while also serving as a connection between individual neighbourhoods and as part of the bus route network. For the neighbourhood, the streets also have programmatic significance when it comes to schools, shopping centres or social uses. These are streets where residents can meet each other in a spontaneous and informal manner.

Diamantlaan is one of the concentric streets that runs through the post-war Vinkhuizen neighbourhood; it is a spatial structure bearer for Vinkhuizen. Diamantlaan is home to a number of neighbourhood uses, including a shopping centre, schools, a community centre and sports facilities. A major Q-link bus service runs across Diamantlaan: This is the rapid bus network between Groningen City and the larger commuting areas.



Macro scale



Meso scale

Concentric Streets:

- *Diamantlaan (50km/u)*
- *Siersteenlaan (50km/u)*
- *Goeman Borgesiuslaan (50km/u)*
- *Laan Corpus Den Hoorn (50km/u)*
- *Van Ketwich Verschuurlaan (50km/u)*
- *Van Swietenlaan (50km/u)*
- *Pleiadenlaan (50km/u)*
- *Van Iddekingeweg*
- *Asingastraat*
- *Sumatralaan*
- *Eikenlaan*
- *Savornin Lohmanlaan*
- *Petrus Campersingel*
- *Oostersingel*
- *Zaagmuldersweg*
- *Ulgersmaweg*
- *Pop Dijkemaweg*
- *De Held*

CONCEPT

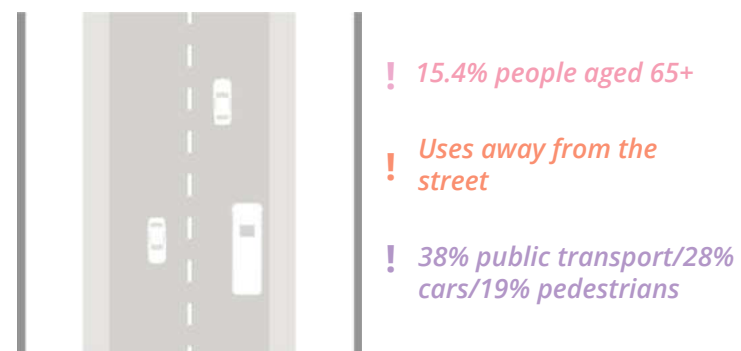
CONCENTRIC CONNECTING ROAD

CURRENT SITUATION

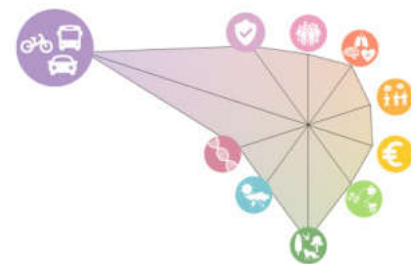
Post-war neighbourhoods are organised to keep public life separate from traffic as much as possible. The extensive street profile includes, alternately, detached tower blocks, green park spaces and apartment buildings, but not directly facing on the street. This gives Diamantlaan an anonymous appearance and coupled with the wide lanes, this causes people to drive fast. The congestion on the southern part of Diamantlaan will increase over the next several years as a result of developments in the area, including Suikerzijde.



Concept schemes



Spider diagrams



SOON

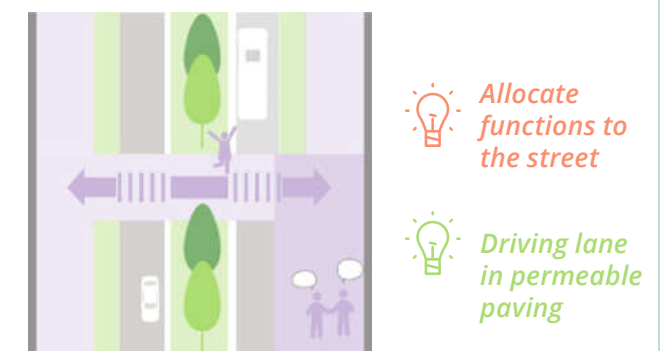
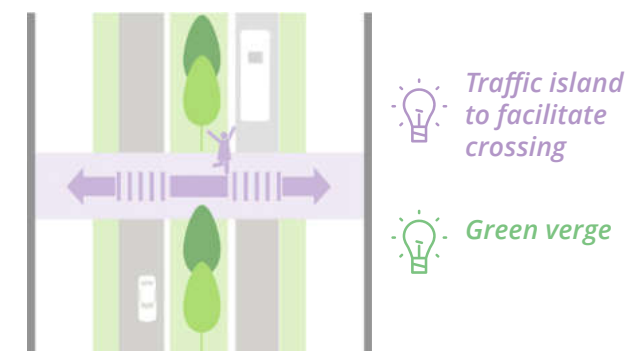
Diamantlaan has the potential to be transformed into a green avenue in the immediate future, which connects the different green structures in Vinkhuizen together. The avenue will then serve as the link between the green area around the West End sports park, Diamantpark and Park Kornalijnlaan north of Vinkhuizen, and represents a connecting structure bearer within Vinkhuizen. The addition of a green central reserve with trees gives Diamantlaan the appearance of a green avenue. It also provides pedestrians with a space to temporarily wait while crossing the street. The central reserve promotes safe crossing by reducing distances by half.

LATER

The current bus route across the section of Diamantlaan south of Siersteenlaan does not make it possible in the immediate future to reduce traffic speed from 50km/h to 30km/h, although there may be opportunities down the road to reduce the distance. If this is the case, we see the opportunity to adapt the existing uses to Diamantlaan and make them street-facing. This will transform Diamantlaan into a vibrant, green and lush avenue full of activity.

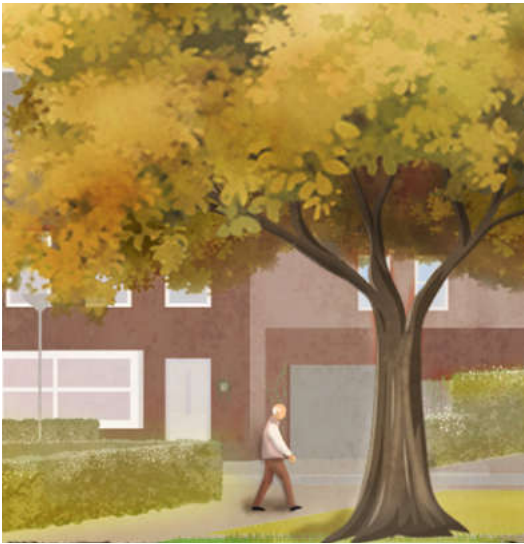
Diamantlaan is located outside the expansion zone for paid parking (third ring). There are currently no plans in place to introduce paid parking in this area. There are no resources for this area to reduce the high demand for parking, other than encouraging people to use their cars less often.

We therefore expect an estimated reduction of high parking demand of only 0 to 10%. The existing parking spaces in the extensive profile for Diamantlaan are not causing any problems and will be upheld in the 'medium term' variant.



CONCENTRIC CONNECTING ROAD

CURRENT SITUATION



15.4% people aged 65+



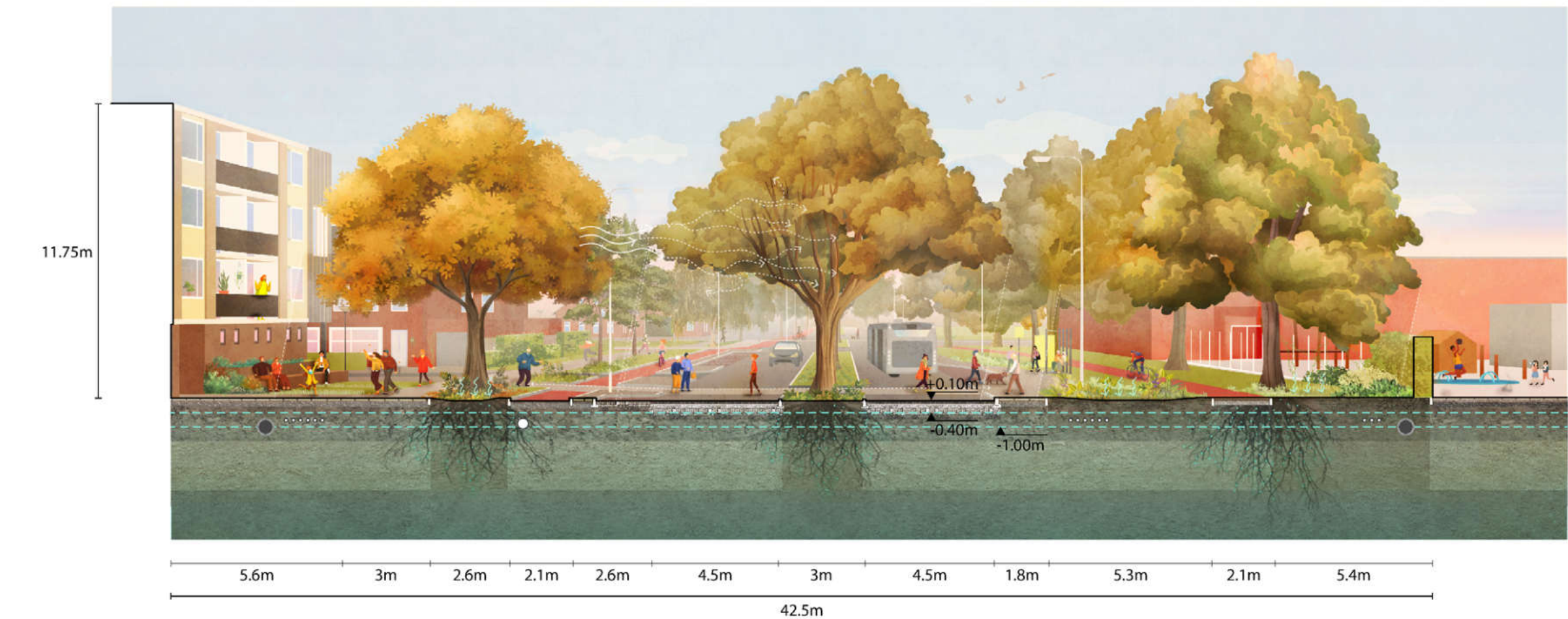
Uses away from the street



38% public transport/28% cars /19% pedestrians

CONCENTRIC CONNECTING ROAD

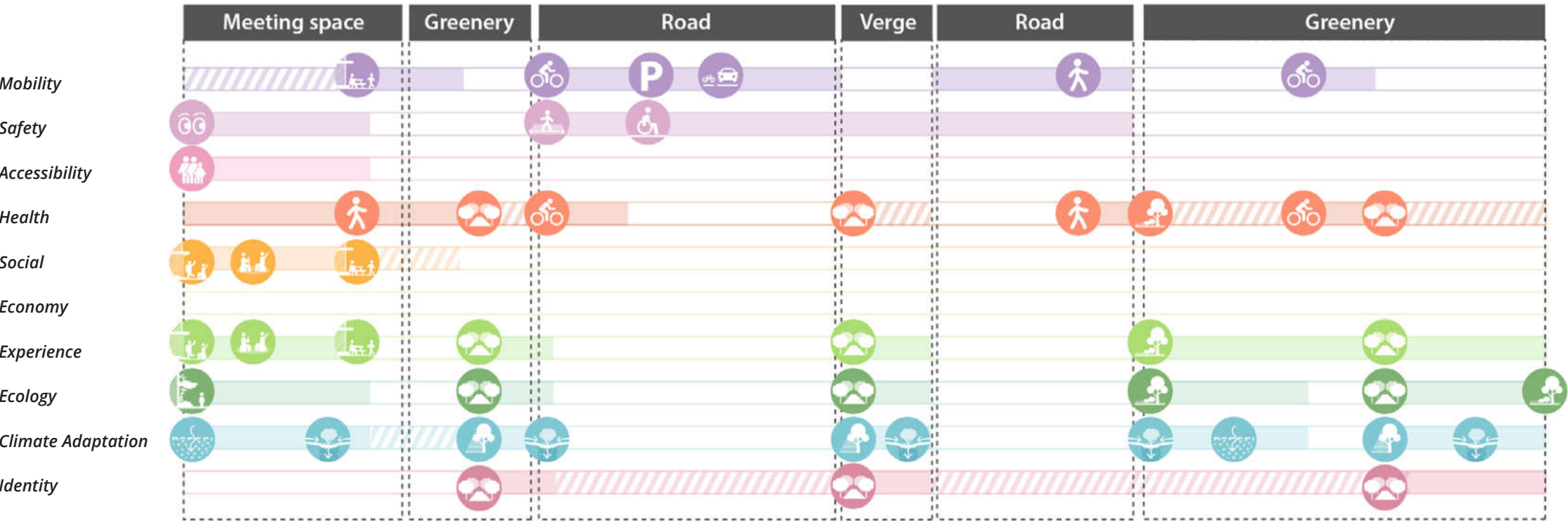
INSPIRATIONAL IMAGE SOON (50 KM/H)



Traffic island to facilitate crossing

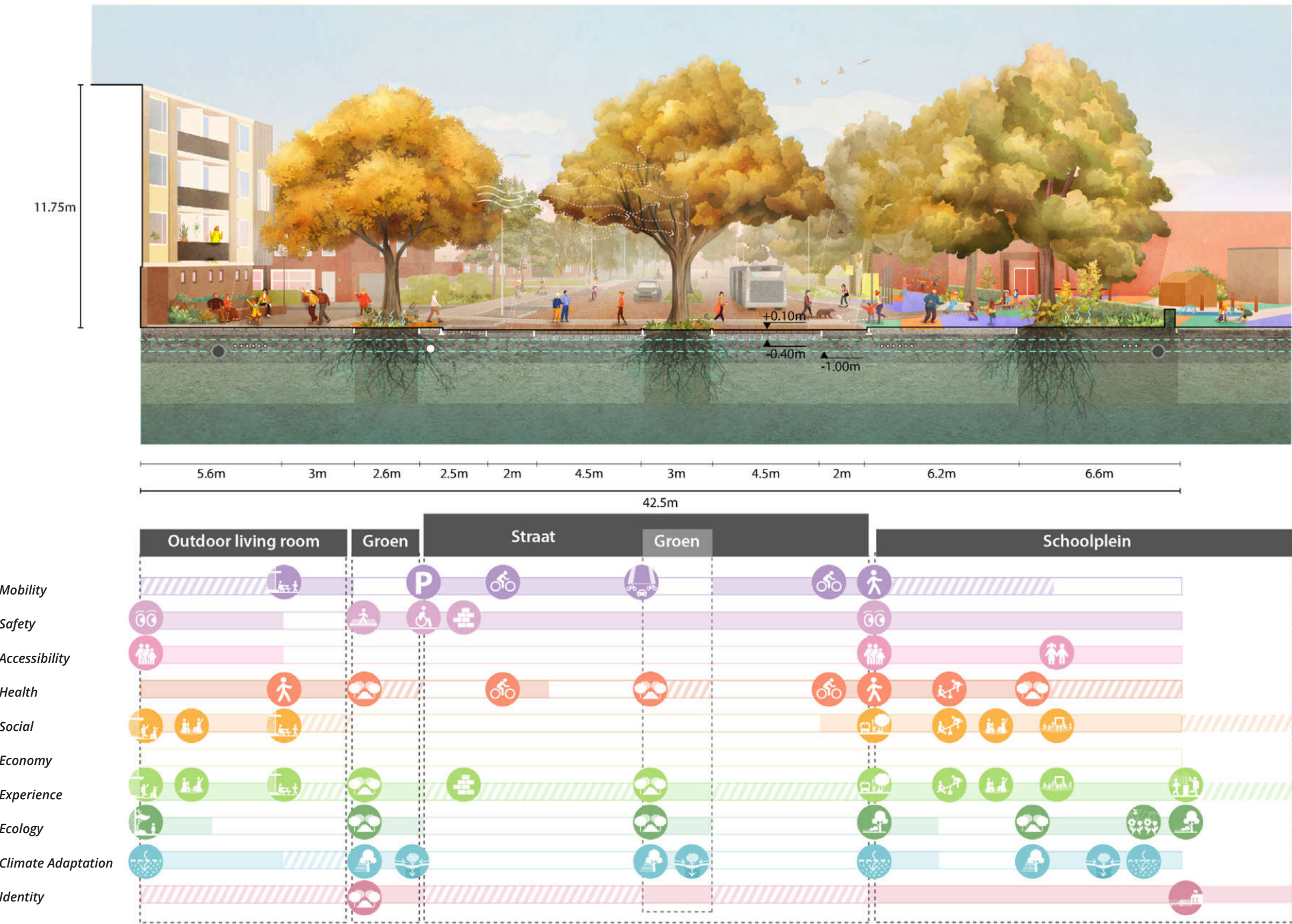


Green verge



CONCENTRIC CONNECTING ROAD

INSPIRATIONAL IMAGE LATER (30 KM/H)



Allocate functions to the street



Driving lane in permeable paving

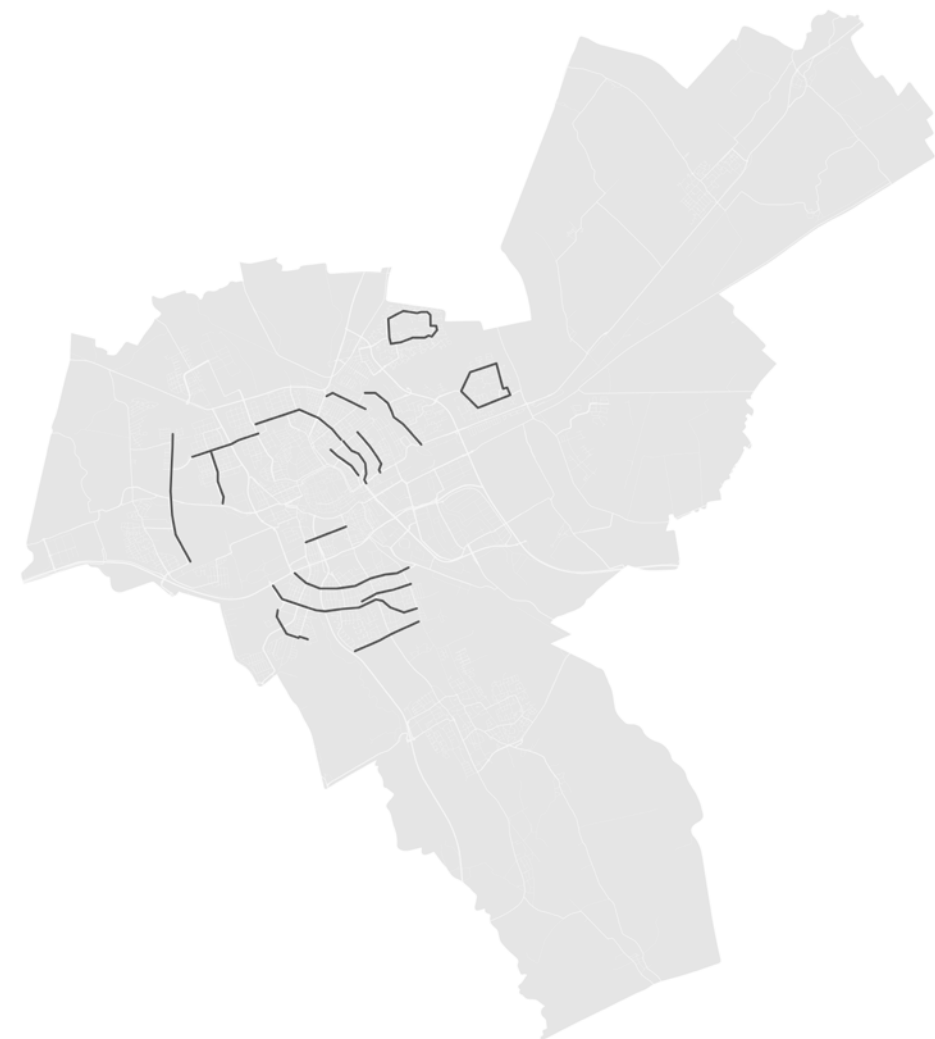


Van Iddekingeweg
Photo by Henk Tammens

CONCENTRIC NEIGHBOURHOOD STREET

Concentric streets are the ring-shaped streets that run through the sections around the city centre. They have often been planned as part of the development of the district and, unlike the urban radials, they have a relatively short history. Concentric streets with a speed limit of 30km/h are referred to as neighbourhood streets (GOW30). Nevertheless, they also serve a role for neighbourhoods as access roads in some areas with a district programme and neighbourhood uses. These concentric neighbourhood streets are often located in the early development districts and sometimes in the post-war neighbourhoods.

Van Iddekingeweg is a concentric neighbourhood street located in Groningen's Helpman district. The street currently provides mainly for parking spaces for the houses, leaving little room for walking and recreation.



Macro scale



Meso scale

Concentric Streets:

- Van Iddekingeweg (30km/u)
- Asingastraat (30km/u)
- Sumatralaan (30km/u)
- De Savornin Lohmanlaan (30km/u)
- Pop Dijkemaweg (30km/u)
- De Held (30km/u)
- Petrus Campersingel (30km/u)
- Oostersingel (30km/u)
- Zaagmuldersweg (30km/u)
- Ulgersmaweg (30km/u)
- Diamantlaan
- Siersteenlaan
- Goeman Borgesiuslaan
- Laan Corpus Den Hoorn
- Van Ketwich Verschuurlaan
- Van Swietenlaan
- Pleiadenlaan
- Eikenlaan

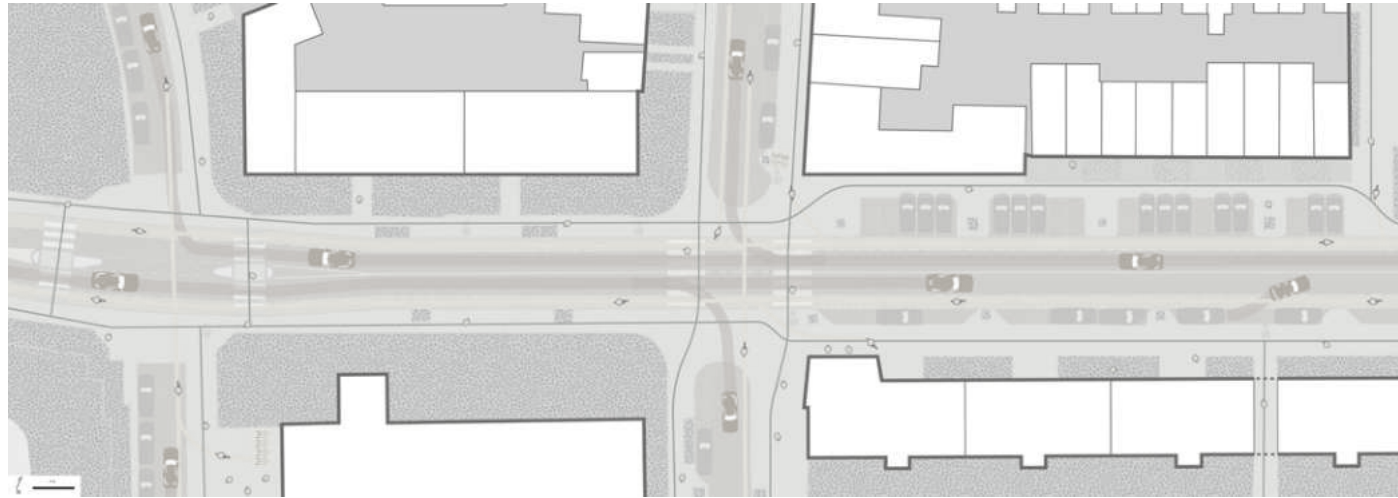
CONCEPT

CONCENTRIC NEIGHBOURHOOD STREET

CURRENT SITUATION

The section of Van Iddekingeweg between Hora Siccamasingel and Verlengde Hereweg is located on the flank of Hondsrug and has a difference in height of approximately 5 metres (this is higher on Hereweg). This

type of landscape has specific characteristics which, when used to redesign a street, can enhance the identity of the place.



SOON

The sandy soil on Hondsrug offers the opportunity to easily infiltrate rainwater and serves as a high-quality surface for specific trees such as Acer platanoides (Norway maple), Gleditsia triacanthos (honey locust or sweet locust) and Quercus robur (English oak). A rich variety of trees and plants, appropriate to the surface, has helped strengthen biodiversity in the area. Van Iddekingeweg is part of the main bicycle route, with speed increasing from 50 to 30km per hour. This provides the opportunity to transform this neighbourhood street into a cyclist street with a lower speed limit for car traffic and more space for residents to spend time, play, and meet one another. Streets do not need to be designed

symmetrically. Public spaces react to the street's climactic conditions. Recreational areas that catch plenty of sunlight are perceived as more pleasant/agreeable than places in the shade. By removing a number of parking spaces on the north side of the city, this space can be used as a pleasant recreational space in the sun.

Van Iddekingeweg is located in the expansion zone for paid parking (third ring). If parking fees are charged, this will help reduce parking demand – we anticipate a reduction of between 10 and 20%. Shared mobility (i.e. shared transport) can help reduce parking demand in this area.

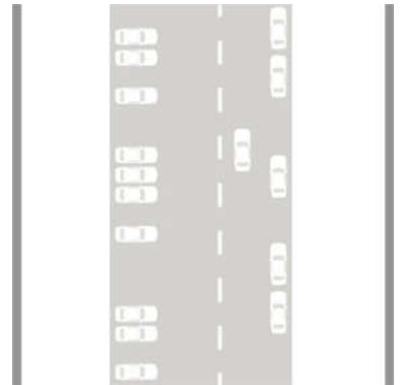
CURRENT SITUATION



! 60% cars/19% pedestrians

! Esdorp landscape on sand

! Heatstress related to Helpman shopping centre



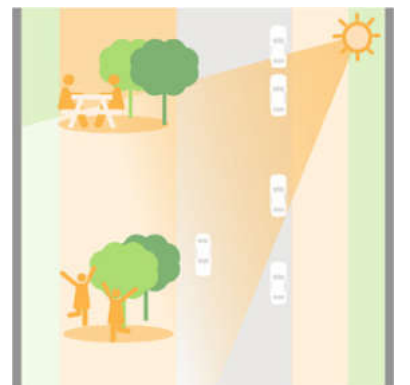
SOON



💡 Planting various types of trees

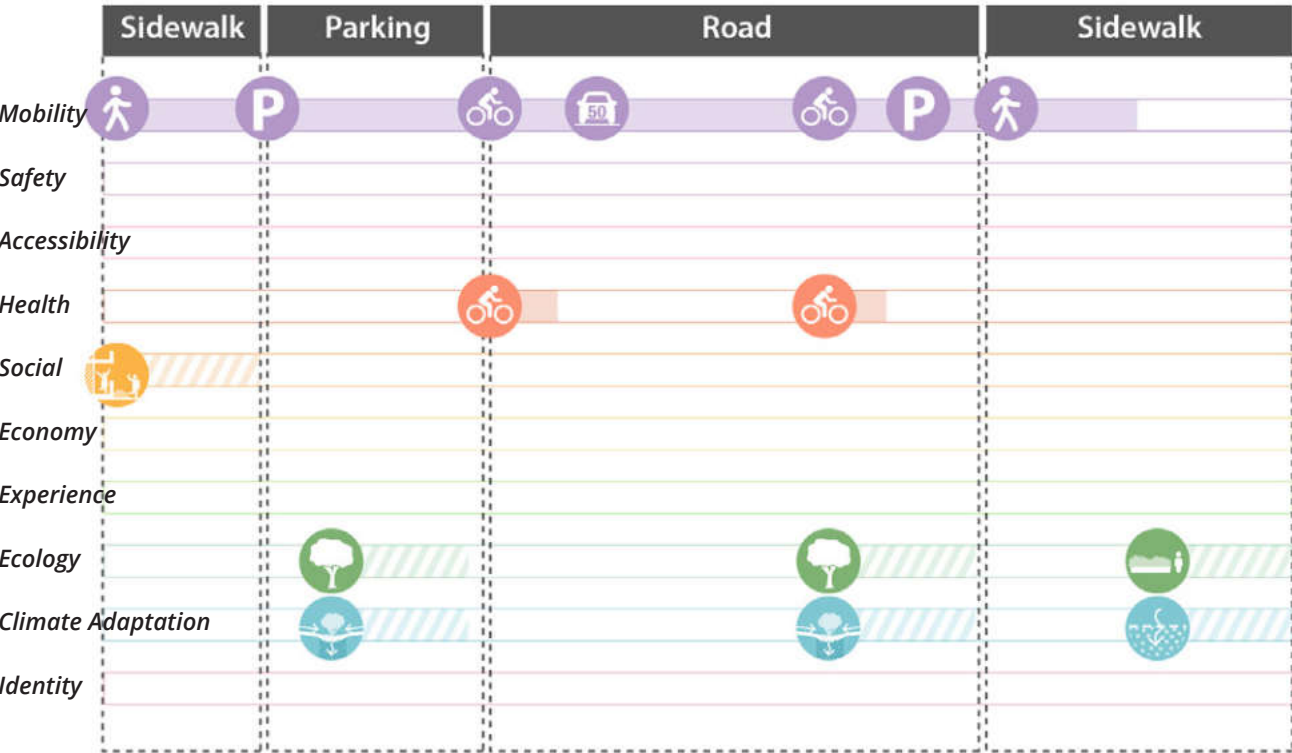
💡 Infiltration of greenery

💡 Play spaces in the sun



CONCENTRIC NEIGHBOURHOOD STREET

CURRENT SITUATION



CONCENTRIC NEIGHBOURHOOD STREET

INSPIRATIONAL IMAGE SOON



EXAMPLE CYCLINGSTREET

BESSEMOERSTRAAT



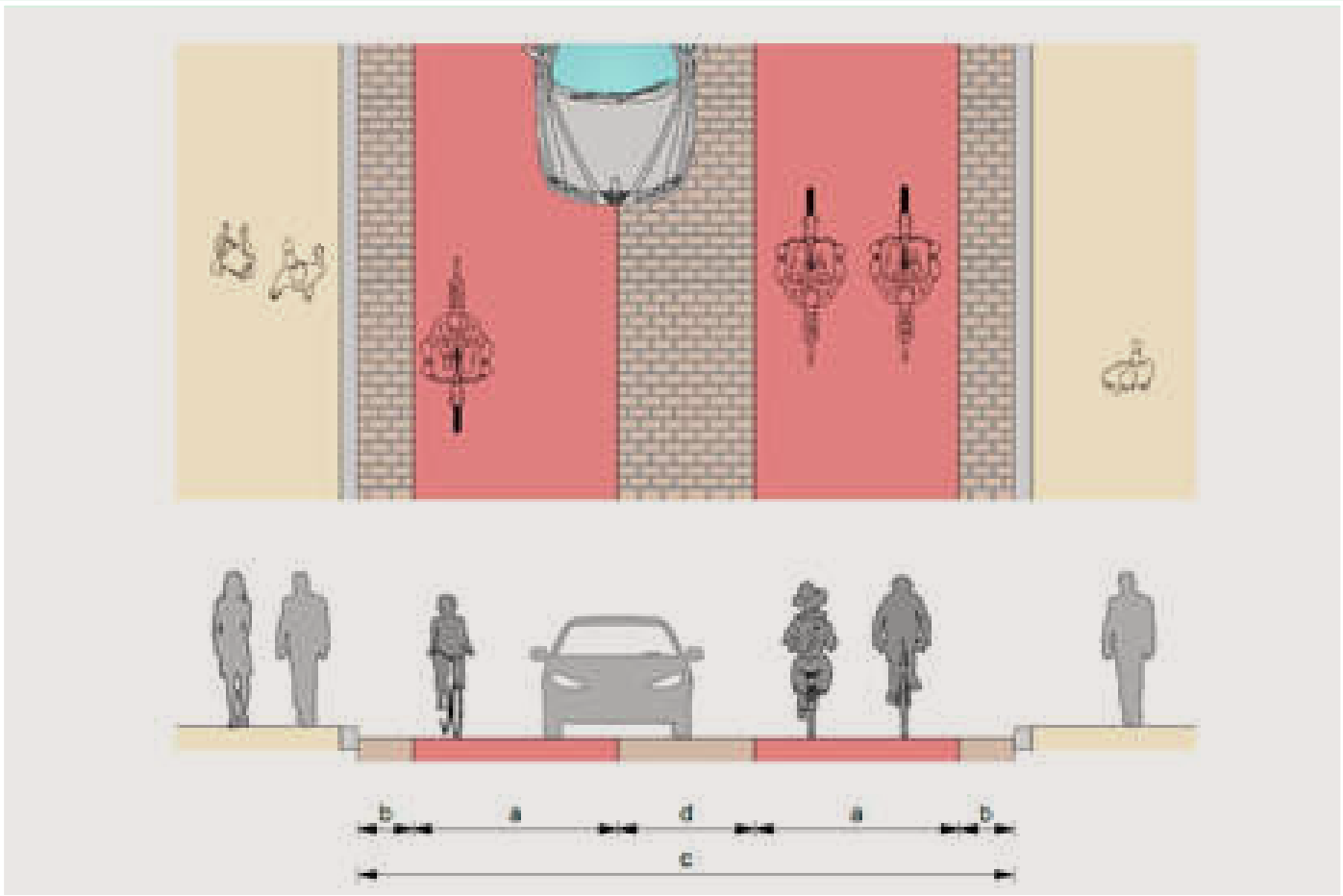
Bessemoerstraat
Photo by Woonstad Groningen

Cyclist streets come in many different types and sizes. If we focus strictly on situations around the built-up area, what they often have in common is a large number of cyclists, combined with an access function for cars. The trick is to combine form, function and usage as effectively as possible. Groningen already has several examples of cyclist streets, including Bessemoerstraat.

The renovated Bessemoerstraat is part of the ‘smart’ bicycle route from the city centre to the Zernikecomplex. To reduce bicycle traffic on Zonnelaan and in other areas, the City is experimenting with a bicycle trunk road. Zonnelaan has a large number of streetlights, and during the morning rush hour cyclists prevent traffic flow to the ring road’s access and exit lanes. The alternatives were there already: separate bike lanes without traffic lights along the Reitdiep and Park Selwerd. The routes were initially only given a name, and students were enticed to use these names. This was targeted at new students, because older students are harder to influence. A campaign was launched, signs were put up, and flyers were distributed to students who were waiting at the traffic lights and cyclists who rode the Smart Route bicycles were rewarded. The initiative turned out into a success. The street has a 4-metre-wide layer of red asphalt, with emergency lanes on the sides. Cyclists dominate on

Bessemoerstraat and they cycle in the middle of the road, making it harder for motorists to overtake cyclists. This makes them realise they need to adapt and that they are ‘guests’ in the street.

You can’t turn just any street where many cyclists use the roads into a ‘cyclist street’; the main criterion is that there must be more bicycle traffic than car traffic. In Bessemoerstraat, this ratio is 3:1.



Fietsverkeer n39 jg 15 by CROW-Fietsberaad

Maximum size	
Rabat (b):	0,60m
Rijloper (a):	2,25m
Midden (d):	1,50m
Rijloper (a):	2,25m
Rabat (b):	0,60m
Totaal road (c):	7,20m

Minimum size	
Rabat (b):	0,30m
Rijloper (a):	2,00m
Midden (d):	0,80m
Rijloper (a):	2,00m
Rabat (b):	0,30m
Totaal road (c):	5,40m

Critical size	
Rabat (b):	0,30m
Rijloper (a):	1,70m
Midden (d):	0,70m
Rijloper (a):	1,70m
Rabat (b):	0,30m
Totaal road (c):	4,70m

CROW-Fietsberaad teamed up with Rijkswaterstaat (the Directorate-General for Public Works and Water Management) to investigate bicycle-dominated streets. The research study resulted in the ten following design elements for the perfect cycle lane:

1. The width of the driving lanes must be in line with the standard vehicle combination. Avoid critical takeover manoeuvres.
2. The layout of the road highlights both the purpose for bicycles and as a recreational space:
 - a. Side strips on both sides (0.5m),
 - b. Single lanes with bicycle lane/strip width,
 - c. Centre lane (if applicable) (0/7 to 1.5m),
 - d. No length marking.
3. Paving strengthens the character as a bicycle-dominated and recreational area:
 - a. Single lanes: red or reddish asphalt;
 - b. Side strips and centre lanes: clinkers, tight paving.
4. Low-speed car traffic guaranteed: sinus-shaped 30km thresholds if necessary.
5. Traffic circulation measures: bend or (alternating) one-way traffic if necessary for motor vehicles.
6. Intersections with ETWs: exit construction or intersection crossroads, continue profile.
7. No parking, loading and unloading, kiss & ride on driving lane: possibly separate facilities in lengthwise direction.
8. Avoid conflicts with pedestrians, pavements and any crossing facilities.
9. Signs, symbols and signposting: cyclist street sign L51.
10. Lighting columns, trees and other vertical elements can highlight both the recreational use and the bicycle-dominated character



Zonnelaan
Photo by Henk Tammens

PLACE WHERE QUALITY OF PUBLIC SPACE COMES FIRST

Several locations around the city have been designated in the Mobility Plan as places where quality of public space comes first. These are places around community and neighbourhood uses such as schools and shopping centres where mobility, safety, quality of public space and recreational uses are all integrated. These are also locations that offer opportunities to reduce speed (from 50km/h to 30km/h or lower) and improve quality of public space. The Mobility Plan states that pedestrians and cyclists come first.

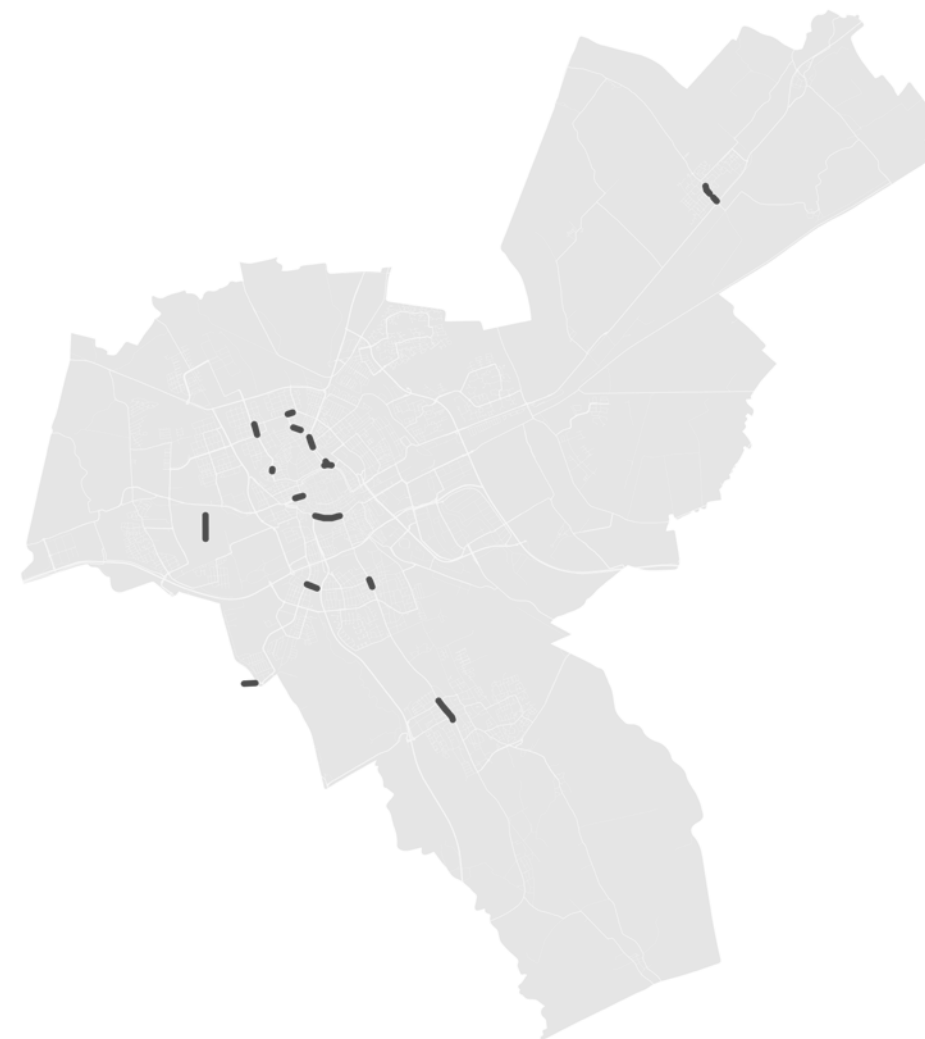
Zonnelaan, at the level of the Paddepoel shopping centre, is an example of a place where quality of public space is the highest priority. The shopping centre is an important destination in the district and will be converted into a mixed-use community centre.



Macro scale



Meso scale



Place where quality of public space comes first:

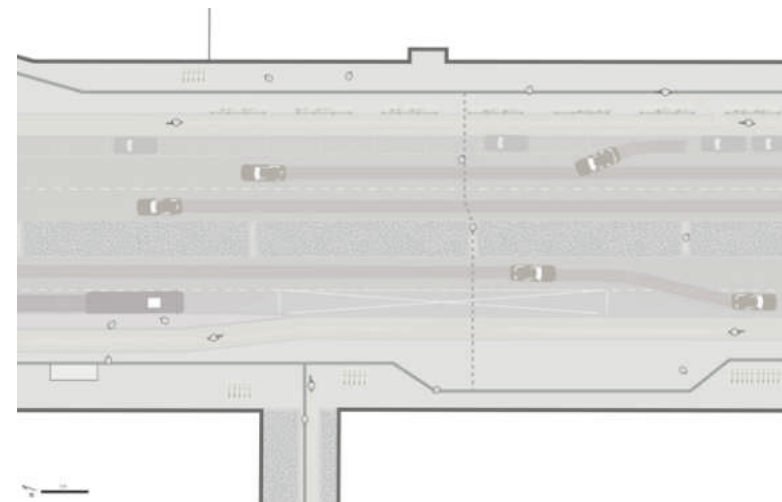
- Zonnelaan/WC Paddepoel
- Nieuwe Ebbingestraat/Rode-weg
- Boterdiep/Turfsingel
- Astraat/Aweg
- Stationsweg
- Overwinningsplein
- Rijksstraatweg/Centrum Haren
- Verlengde Hereweg/WC Help-man
- Princesseweg/Nassauplein
- Gaykingastraat/Buurhoes
- Gaykingastraat/Burgemeester Triesenbergstraat

CONCEPT

PLACE WHERE QUALITY OF PUBLIC SPACE COMES FIRST

CURRENT SITUATION

Paddepoel is isolated from its immediate environment due to the surrounding streets. The area is home, for example, to many vulnerable seniors who have a hard time reaching the shopping centre. The informal crossings are not easily accessible to them due to the differences in height and narrow paving. But in street design, too,



the emphasis is on car usage and not on pedestrians' comfort. The various traffic flows are separated in order to ensure safety. Fences have been installed across a length of 150 metres, which is exemplary when it comes to thinking in terms of separate mobility flows.

SOON

Zonnelaan will offer more space for random movements to walk from the neighbourhood to the shops, and vice versa. These movements satisfy a number of basic prerequisites: accessible to all (i.e. older people, the physically disabled, blind and visually impaired people, etc.), clearly marked out/identifiable, and well laid out/well organised. By removing half of the road surface and replacing it with square space, the street will initially become less of a barrier. The narrower section of the road will subsequently be redesigned, whereby diagonal crossings will be integrated into the paved surface. These crossings have a difference in height of only 2cm, creating direct walking routes to the shopping centre for all. A square space could be created on the east side of the

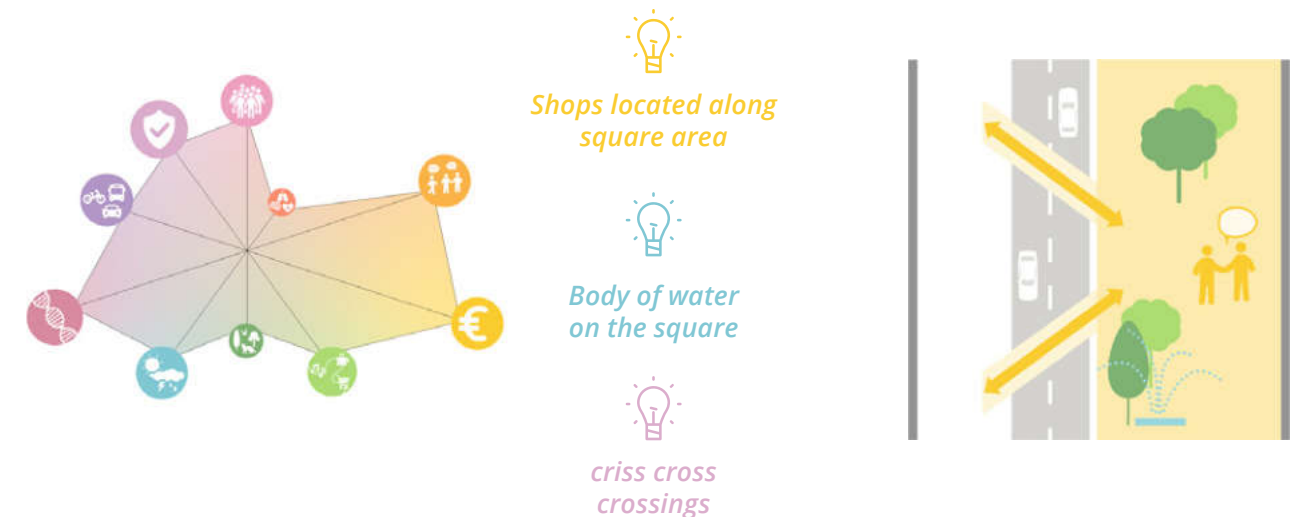
street profile, directly adjacent to the facilities/amenities, thereby creating a pleasant residential area with sufficient space for neighbourhood residents to meet one another.

Zonnelaan is located in the expansion zone of paid parking (third ring). If parking fees are charged, this will help reduce parking demand. As a place where quality of public space comes first, parking pressure will be reduced more definitely and more actively. We therefore anticipate a larger reduction than the estimated 10 to 20%. Parking in front of the Paddepoel shopping centre is organised in two large car parks; these are private car parks where parking spaces are offered at commercial rates.

CURRENT SITUATION

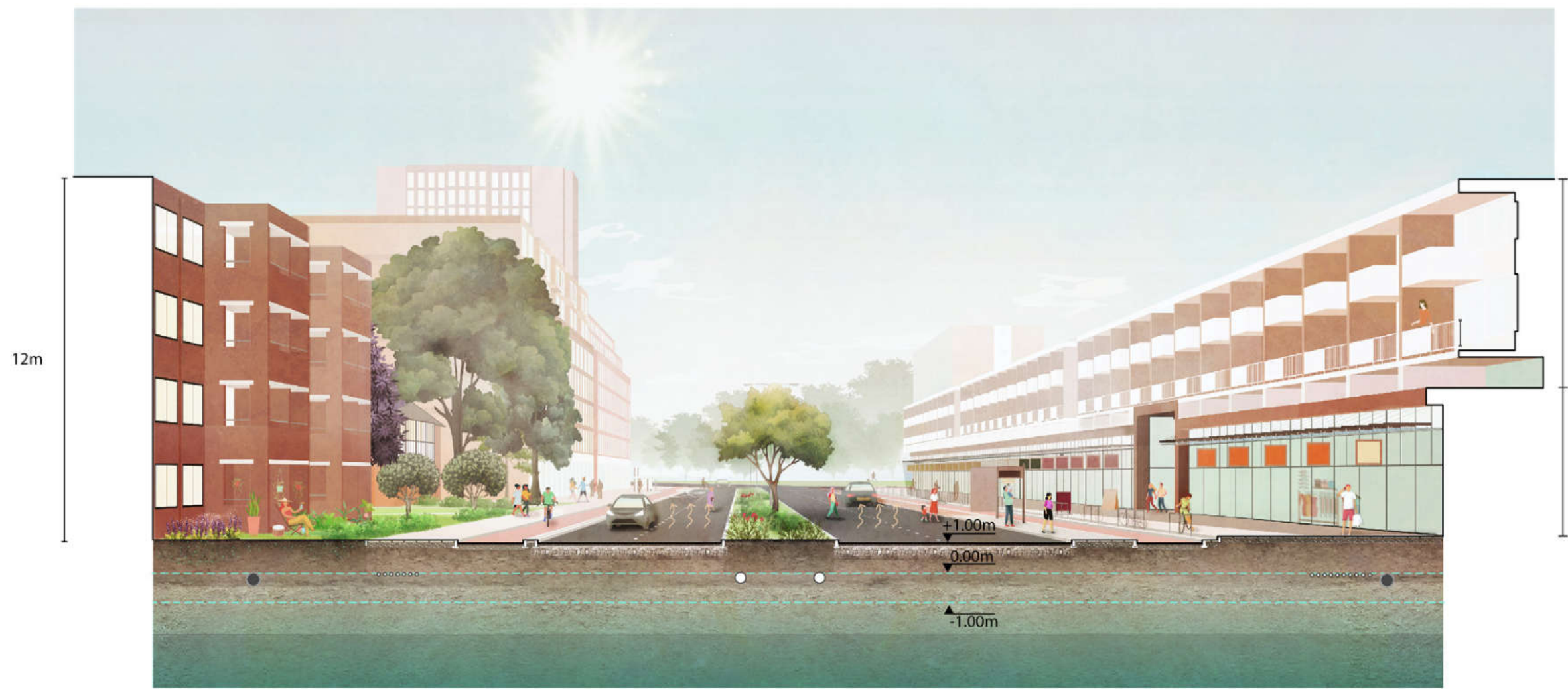


SOON



PLACE WHERE QUALITY OF PUBLIC SPACE COMES FIRST

CURRENT SITUATION



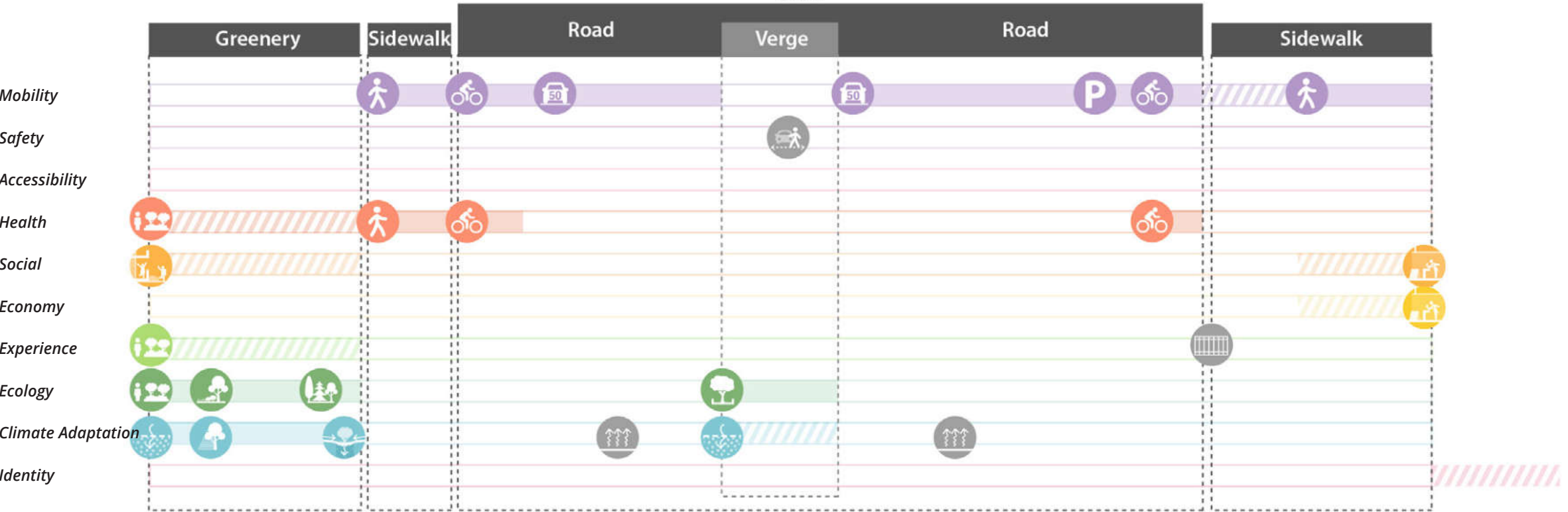
Difficult to cross



23.5% people aged 65+



Heatstress related to Paddepoel shopping centre



PLACE WHERE QUALITY OF PUBLIC SPACE COMES FIRST

INSPIRATIONAL IMAGE SOON



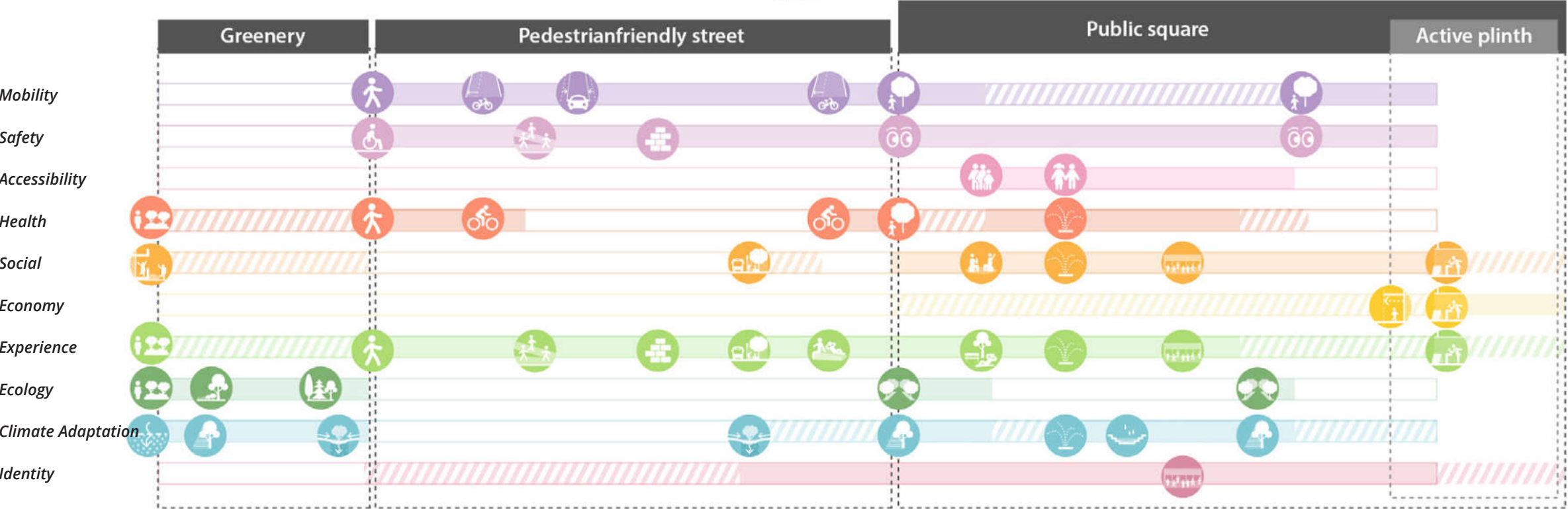
Shops located along square area



Body of water on the square



criss cross crossings



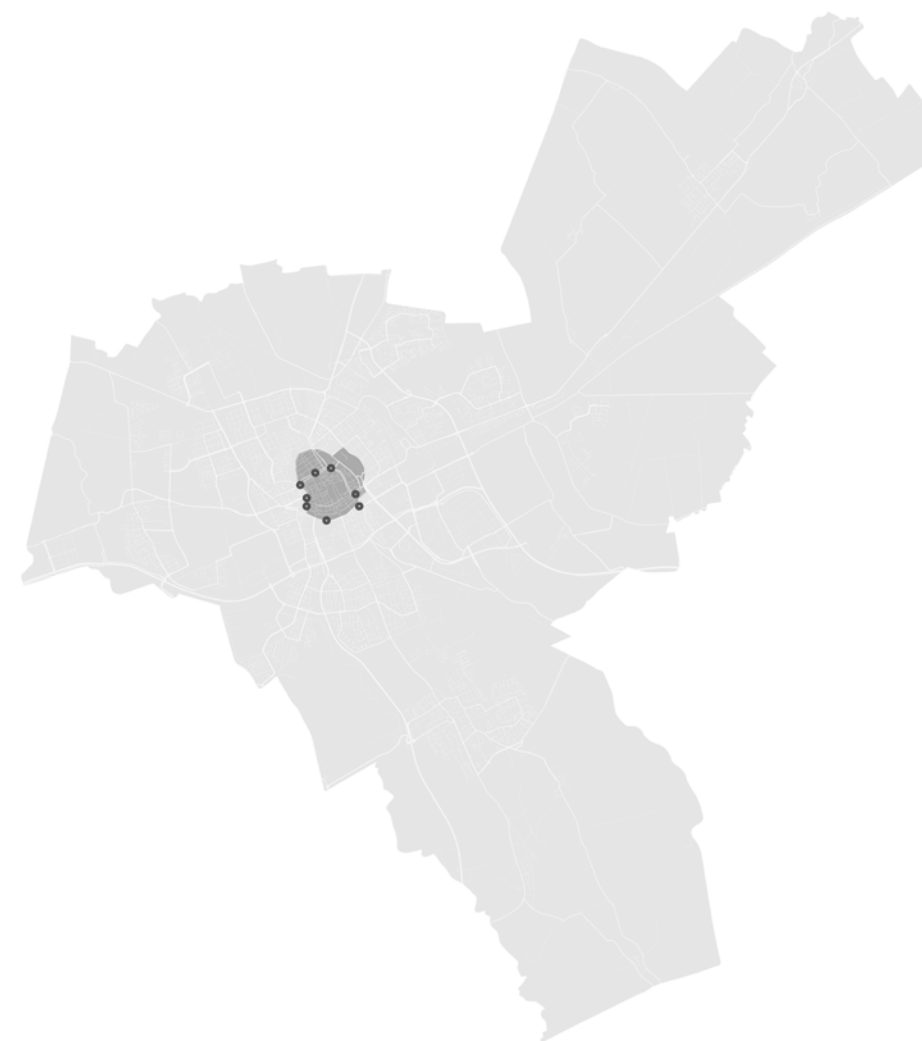


Griffeweg
Photo by Henk Tammens

EDGE OF THE CITY CENTER

As the city has grown in size, so will pressure on the city centre over the next several years. This will have an impact on the areas directly adjacent to the city centre or the other side of the Diepenring, including the Ebbingekwartier district. There are already locations here that seem like they belong in a city centre, with a high building density and extensive use of the public space. These areas call for a new, fresh perspective on the public space, with more room for pedestrians and cyclists. The station area (which includes Stationsweg) is a good example of this. In addition to Stationsweg, there are several other spots on the outskirts of the city centre that need a quality boost, including Ossenmarkt, Damsterplein, Verlengde Visserstraat and Boterdiep/Dudok.

Griffeweg is one of these places with a direct connection to the city centre through Trompbrug bridge. The road intersects a space that has potential to serve as a square for the adjacent programme, but this is currently not perceived this way. The Mobility Plan proposes a reduction of car traffic on Stationsweg. This will result in a change of the traffic use of Griffeweg, which provides opportunities to reduce speed (from 50km/h to 30km/h or lower) and improve quality of public space. This offers opportunities to renovate Griffeweg in its current condition.



Macro scale



Meso scale

Edge of the city center:

- Griffeweg
- Stationsweg
- Astraat
- Damsterplein
- Ossenmarkt
- Westerkade
- Boterdiep/Turfsingel
- Verlengde Visserstraat

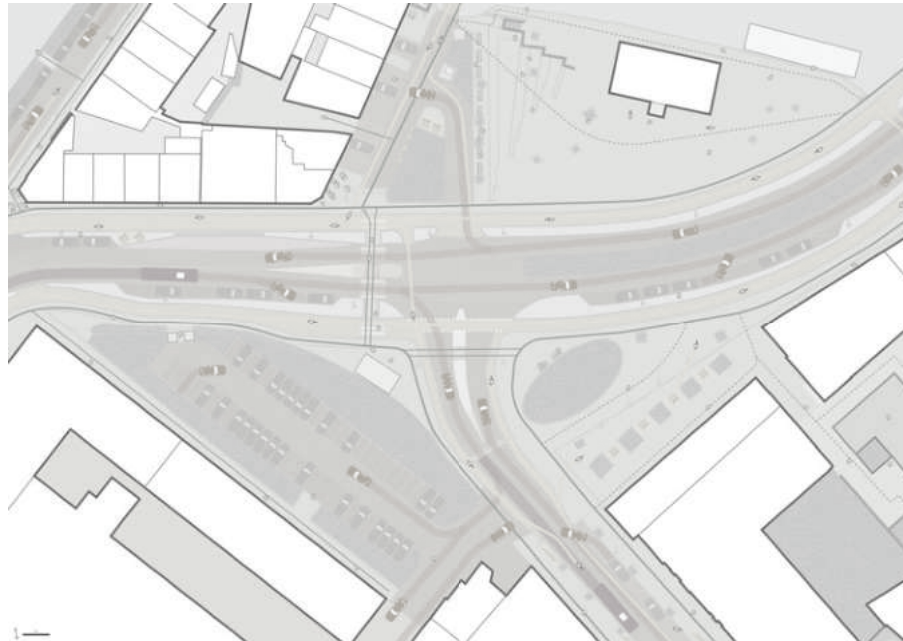
CONCEPT

EDGE OF THE CITY CENTER

HUIDIGE SITUATIE

Griffeweg is currently a disjointed space with the size and scale of an urban square area. However, this space will be divided into three separate parts by Meeuwerderweg and Griffeweg. The three separate parts are not perceived as a single square space, particularly due to the lack of

coherence/disparity, and there are not enough crossings. In addition, the square also serves as a hotspot when it comes to heat-related stress on account of the large amount of paving.



SOON

Griffeweg has the potential to become a prime location bordering on the city centre. The proximity of Muziekcentrum de Oosterpoort and the Conservatory of Music presents an opportunity to turn this area into a cultural hotspot: a public square for people to spend time and a venue for cultural events. Furthermore, the area is located at a stone's throw from the Tromp bridge, a direct traffic link across the Diepenring canal belt. By connecting the three separate parts of the square, you create a square space directly aligned with the programme bordering on the square. A continuous canopy creates a sense of unity, sufficient protection, and an agreeable place to spend time. The green central reserve will be removed and the driving lanes of Griffeweg and Meeuwerderweg are part of the paving pattern

of the square space, with cars being merely 'guests'. A subtle difference between driving lane and pavement (both rough and smooth) contributes to safer crossings for people with physical disabilities.

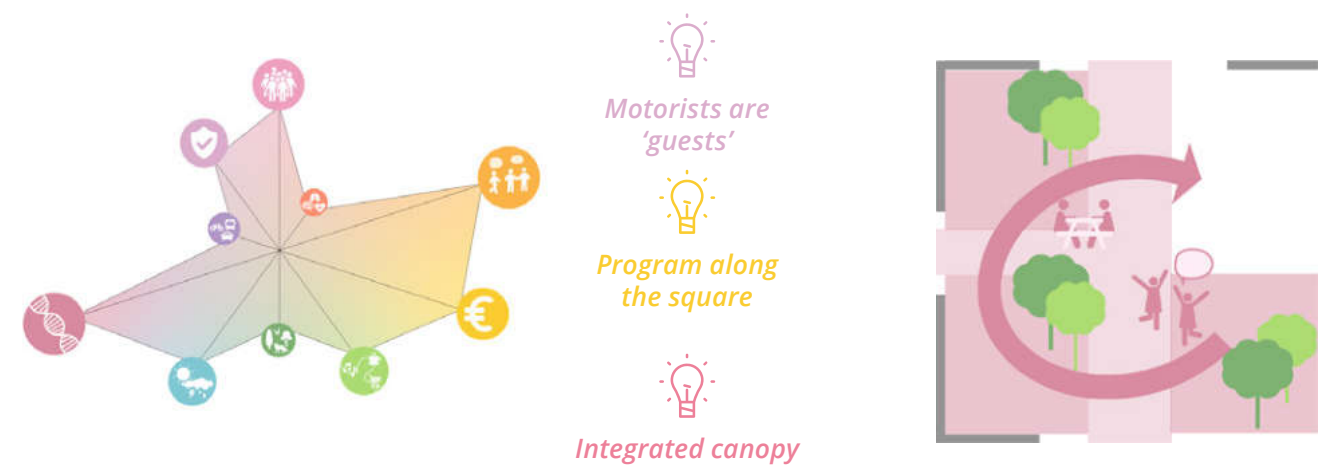
This makes Griffeweg a valuable addition to existing square spaces in Groningen with a 'city centre' look and feel.

The quality boost can result in Griffeweg becoming part of the parking zone in the city centre. We therefore expect an estimated reduction of the parking pressure of only 30 to 50%. The parking spaces to be retained will be concentrated on the outskirts of the area in order to keep the actual square itself free from parked vehicles.

CURRENT SITUATION

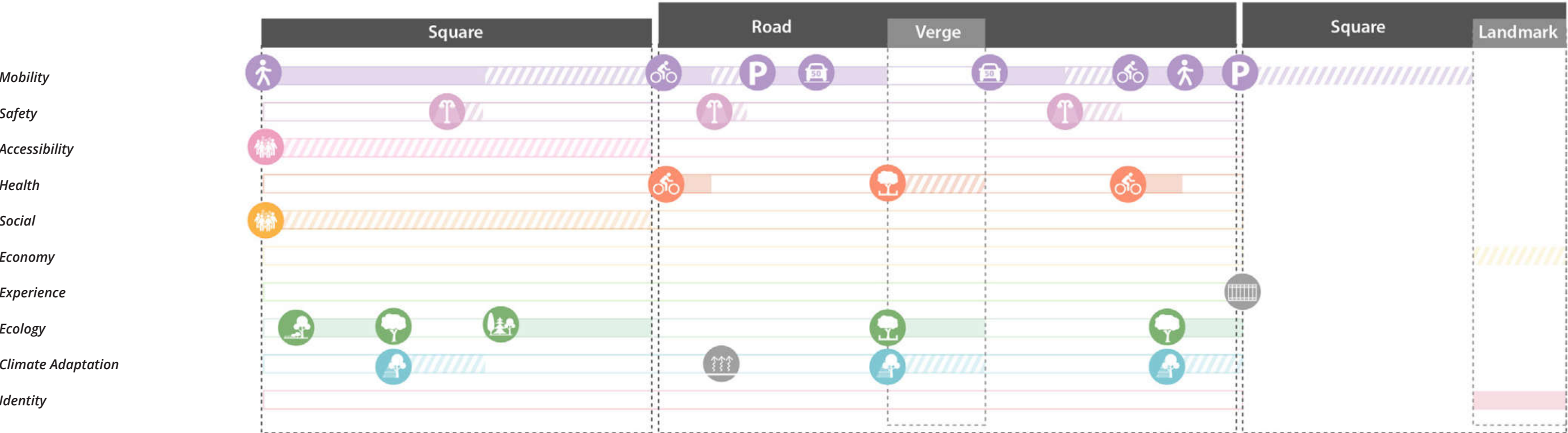


SOON



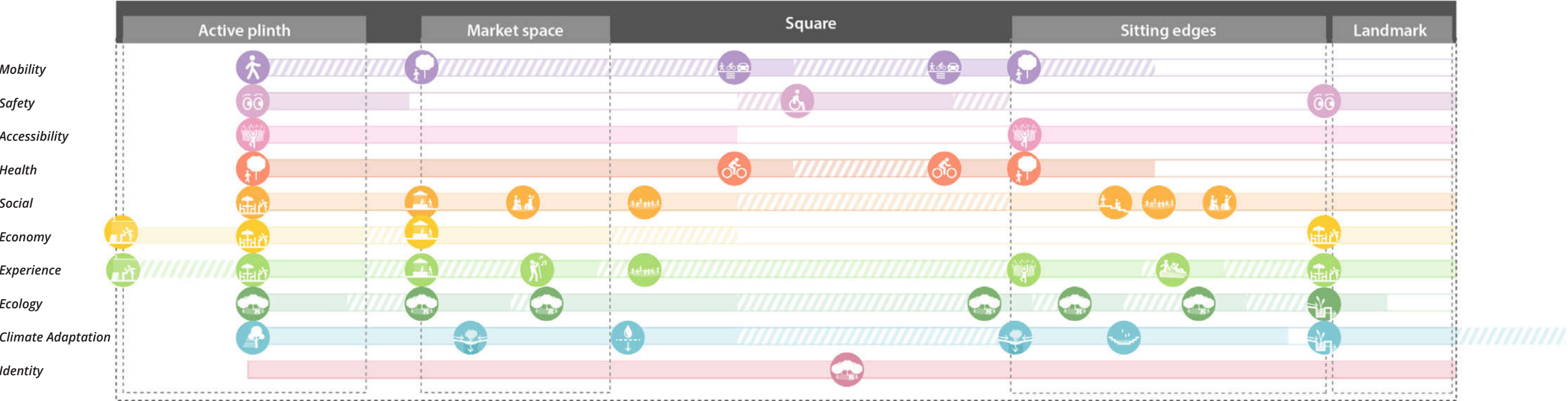
EDGE OF THE CITY CENTER

CURRENT SITUATION



EDGE OF THE CITY CENTER

INSPIRATIONAL IMAGE SOON



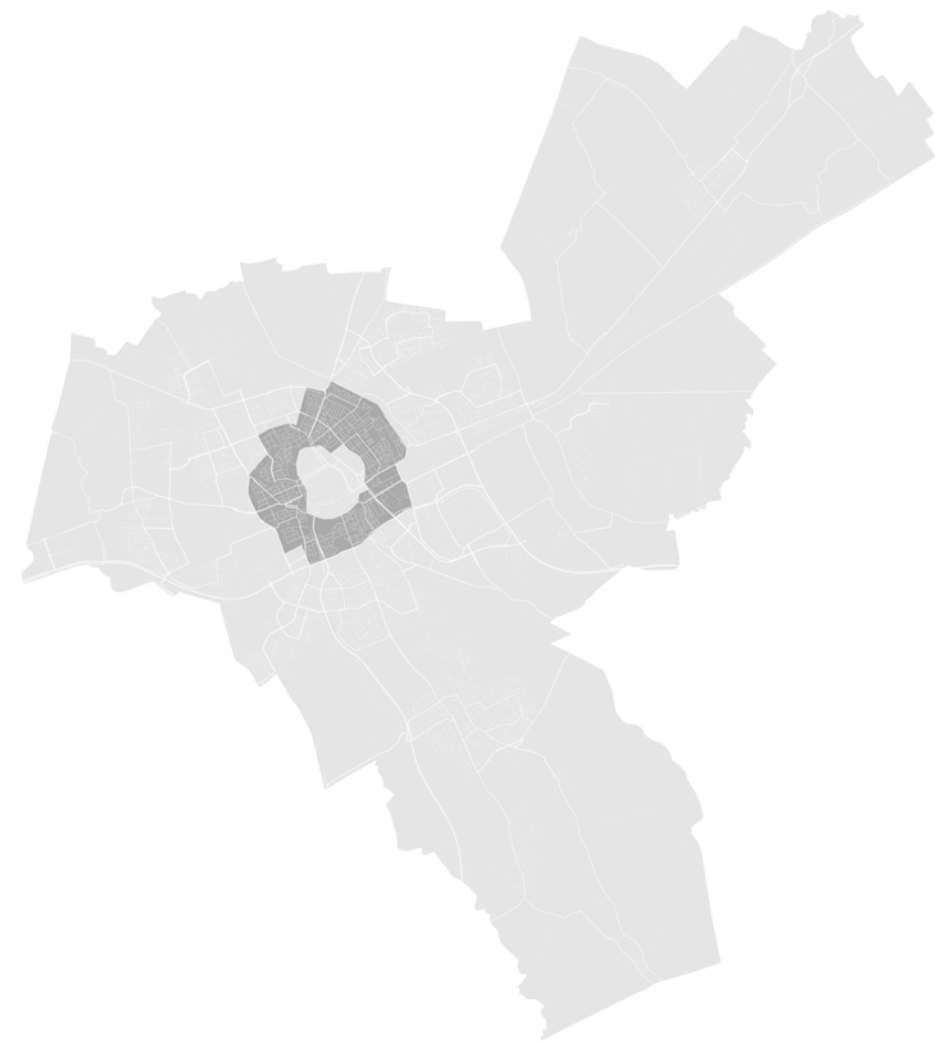


H.W. Mesdagstraat
Photo by Henk Tammens

RESIDENTIAL STREET - EARLY EXPANSION

Neighbourhoods that form part of the urban renewal are characterised by the narrow street pattern with closed building blocks. These neighbourhoods were built in the late 19th and early 20th century, even before cars became a widespread means of transport. Cars claimed space in this area afterwards despite the fact that there is often not enough room to accommodate them.

H.W. Mesdagstraat – a landmark street with many historically significant buildings – is located in the Schildersbuurt district, one of Groningen's protected townscapes. The neighbourhood is located at a stone's throw from the city centre.



Macro scale



Meso scale

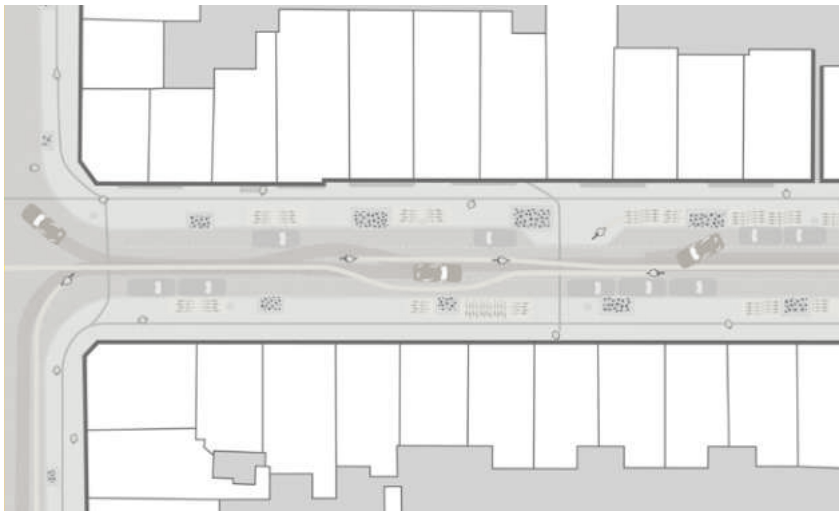
Residential Streets - Early Expansion:

- HW Mesdagstraat
- Nieuwe Blekerstraat
- Wassenberghstraat
- Graaf Adolfstraat
- Baanstraat
- Louise Henriëttestraat
- Tweede Willemstraat
- Van Heemskerckstraat
- Floresstraat
- Plantsoenstraat
- IJsselstraat
- Sophiastraat
- Soerabajastraat
- Cortinghlaan
- Fruitstraat

CONCEPT
RESIDENTIAL STREET - EARLY EXPANSION

CURRENT SITUATION

The largest section of the street profile is currently taken up by parked vehicles and bicycles, leaving little room in the street for other purposes. There are several meeting places located right outside, with a few roof gardens scattered around. This street typology is dominated by residential properties. The paving consists of cobblestones, which suits the street's historical character. However, for cyclists this type of paving is not comfortable; they often use the pavement, which creates unsafe situations outside people's homes.



Concept schemes

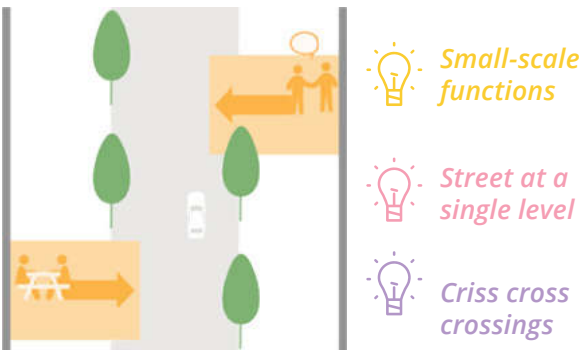


Spider diagrams



SOON

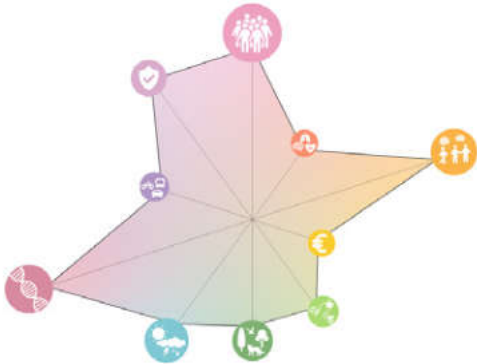
H.W. Mesdagstraat has many spatial qualities that are somewhat eclipsed by the dominance of cars in the streets. By eliminating some of the parking facilities, some leeway is created in the street profile. This space can be used to create high-quality recreational spaces where neighbourhood residents can meet one another or to give the street a greener appearance. The typical paving material of the driving lane has been maintained; it is part of the cultural/historical identity of the place. In urban redevelopment projects, the cobblestones can be sawed before they are reused, making it more pleasant and comfortable for cyclists to use the driving lane. This releases the area outside people's front doors and is designed as a social meeting place with roof gardens that provide a smooth transition between private and public space. For residential streets, the entire street profile is designed with minimal height differences (minimum of 2cm), making it clear that the streets are the domain of pedestrians, with bicycles and cars being 'guests'.



LATER

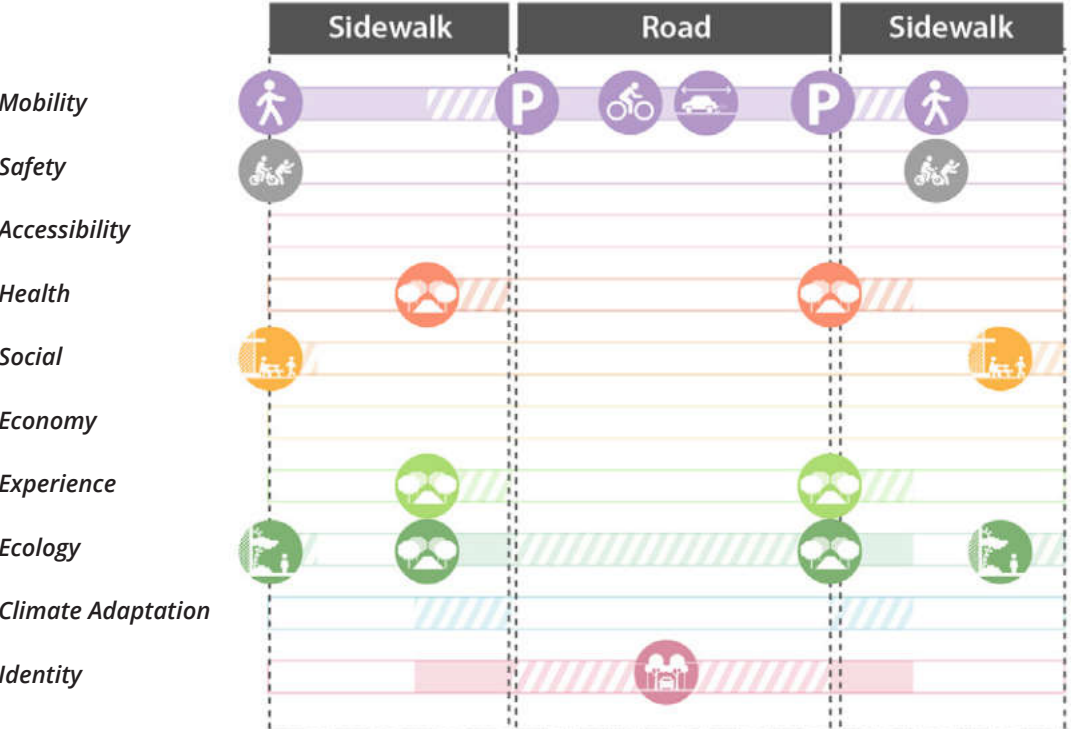
Given the technical advances related to future modes of transport, it is conceivable in the long term that cars will play a less dominant role in residential streets, to the point where a residential street such as H.W. Mesdagstraat can be made completely car-free. However, this is only possible if there is a parking solution available and this does not cause any disturbance or inconvenience for the other streets in the neighbourhood. Car-free streets offer space for a creative and liveable design that invites people to engage in shared activities, making space available for residents to meet each other and have children play in the street safely. Bicycle parking spaces can be grouped together at a higher capacity, so that parked bicycles no longer form obstacles on the pavement. This ensures that people are put first.

H.W. Mesdagstraat is located in the ring neighbourhoods with paid parking. The measures to be taken anticipate an estimated 20 to 30% reduction in parking. In this area, shared mobility/shared vehicles can help reduce parking pressure.



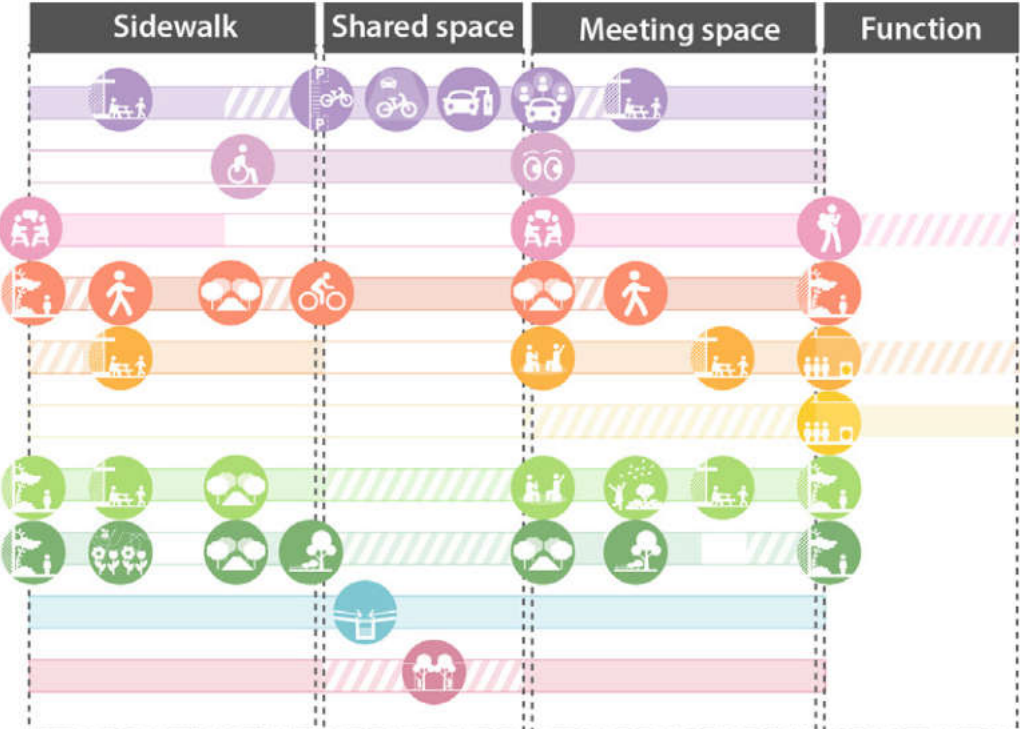
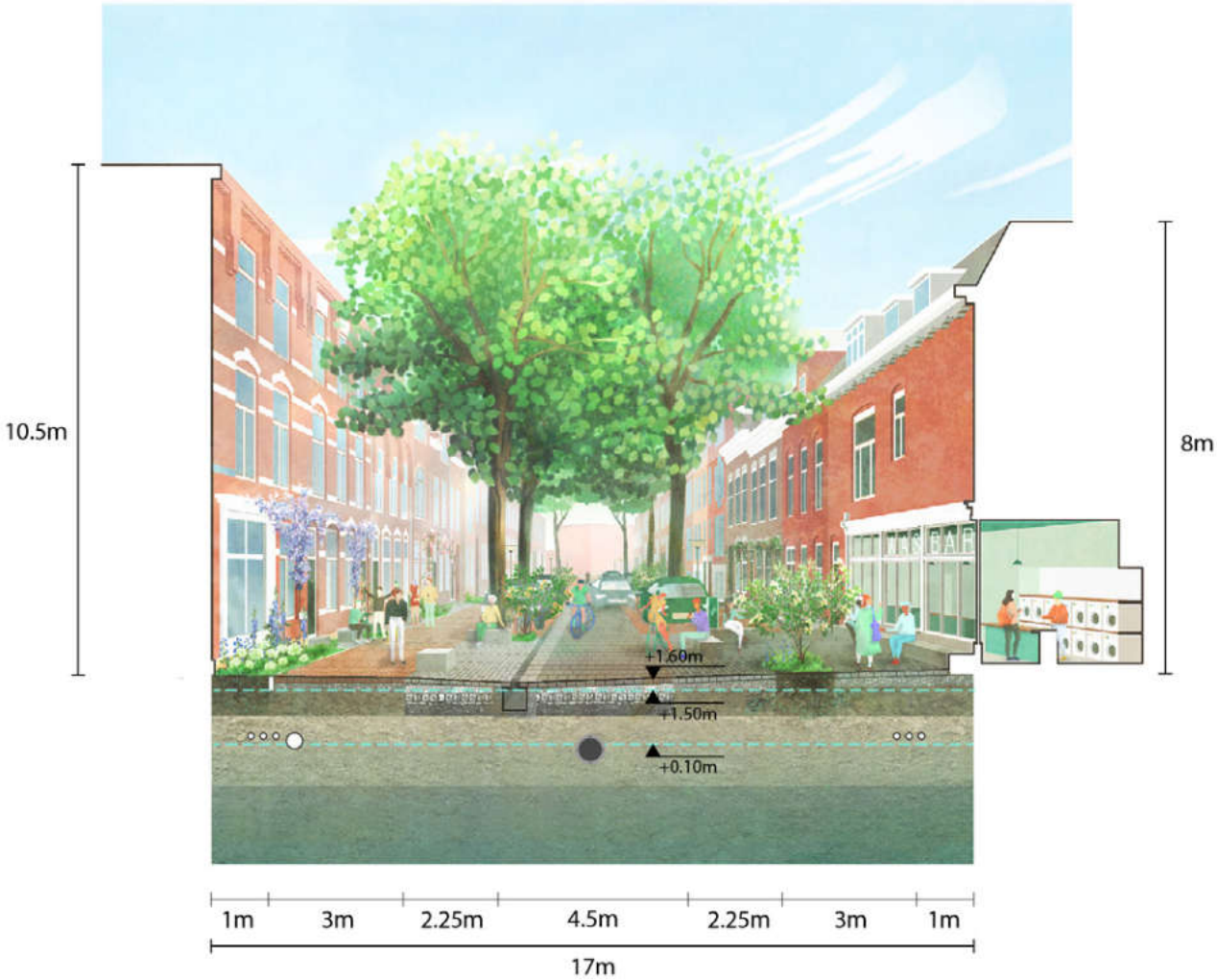
RESIDENTIAL STREET - EARLY EXPANSION

CURRENT SITUATION



RESIDENTIAL STREET - EARLY EXPANSION

INSPIRATIONAL IMAGE SOON



RESIDENTIAL STREET - EARLY EXPANSION

INSPIRATIONAL IMAGE LATER



EXAMPLE LIVINGSTREET

GROTE APPELSTRAAT



Grote Appelstraat
 Photo by Alfred makelaars & adviseurs

Grote Appelstraat, which is located in Groningen's Hortusbuurt district, has been redesigned as a 'Leefstraat'. The residents have taken the initiative to add more green spaces to their street and make room available to facilitate interactions between people. While the project receives funding from the City, residents also make a valuable contribution by planting vegetation and through their involvement in future management and maintenance. The highly paved street offered little room for social interaction, and in addition there was a need for a long-term solution for speeding in the street and parked bicycles on the pavement. A plan has been drafted in conjunction with the City of Groningen, which states that motorists must reduce their speed, while plant troughs add more green and more colour to the street. The addition of more bicycle stands contribute to a neat, organised look, while benches invite us to spend time there and meet one another.

Grote Appelstraat is a good example for residential streets in early development districts with little traffic in Groningen, whereby residents can play a key role in improving their living environment.

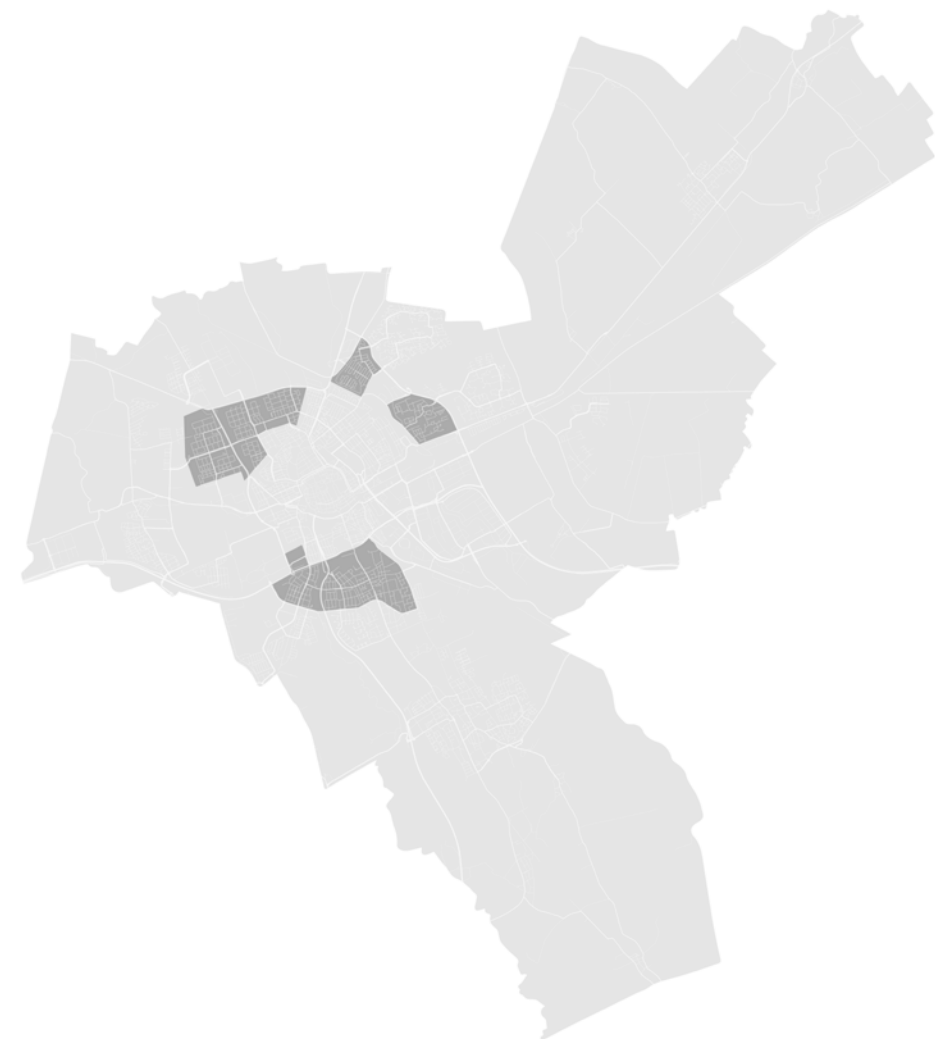


Bloedkoraalstraat
Photo by Henk Tammens

RESIDENTIAL STREET - POST-WAR NEIGHBOURHOOD

In the 1960s, stempel- en strokenbouw, construction methods involving a repetitive pattern, was viewed as the solution to the huge demand for housing. The street network forms the basis for the spatial framework, with the street offering room for cars and parking. Public uses such as playgrounds and other play spaces have been separated from traffic as much as possible in the green areas of the prop.

Bloedkoraalstraat is a post-war residential street located in Vinkhuizen-Noord.



Macro scale



Meso scale

Residential Streets - Post-War Neighbourhood:

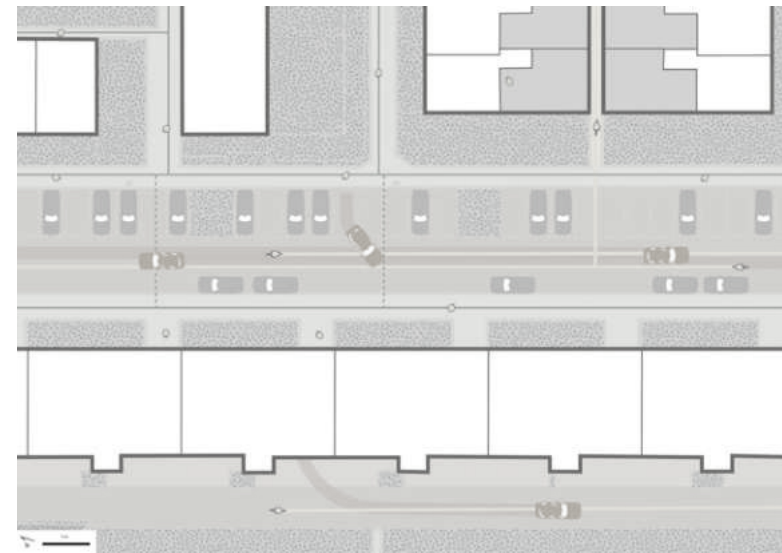
- *Bloedkoraalstraat*
- *Hazelaarstraat*
- *Bosboom-Tussaintstraat*
- *Duindoornstraat*
- *Abraham Kuyperlaan*
- *Regulusstraat*
- *Madame Curiestraat*
- *Spicastraat*
- *Amethiststraat*
- *Mangaanstraat*
- *Reviusstraat*

CONCEPT

RESIDENTIAL STREET - POST-WAR NEIGHBOURHOOD

CURRENT SITUATION

The street is home to typical post-war tower blocks with anonymous plinths with storage spaces located on the street. The rear of the apartment block has a small pavement that makes it possible for car traffic to reach the garages. The street profile is accompanied on one side by a side wall of a four-level apartment block. On



the other side, the lateral walls of two-level ground-level homes are visible. The street view is dominated by parked cars and unused green areas. Vinkhuizen is home to many vulnerable elderly people, who want to be able to take walks in the neighbourhood.

SOON

By concentrating parking facilities strategically, there are opportunities to redesign the post-war neighbourhood, ranging from a residential street with cars to 'guest' cars to fully or partially car-free areas. In Bloedkoraalstraat, it was decided to show the latter. The street will be largely free from parked cars, while the other parking spaces will be concentrated at the beginning and end of the street. This obviates the need for the street as a through street and creates room for recreational and community activities. The car-free street can be part of an enjoyable walking route through the neighbourhood: a residential street with sufficient opportunities for sports and games for people of all ages. Many post-war residential streets lack a specific character, and by adding new vegetation

with both user value (i.e. fruit trees) and experiential value, the area takes on a new identity: green, climate-adaptive, and ready for the future.

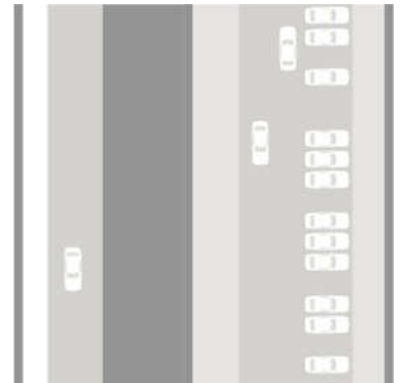
Bloedkoraalstraat is located outside the third circle. There are currently no plans in place to introduce paid parking in this area. There are no resources for this area to reduce the high demand for parking, other than encouraging people to use their cars less. The emphasis in this area is on relocating and concentrating parking spaces instead of removing parking spaces. However, it is possible to take into account a small reduction of parking pressure by offering shared mobility.

CURRENT SITUATION



!
44% cars/
22% pedestrians

!
15.4% people
aged 65+



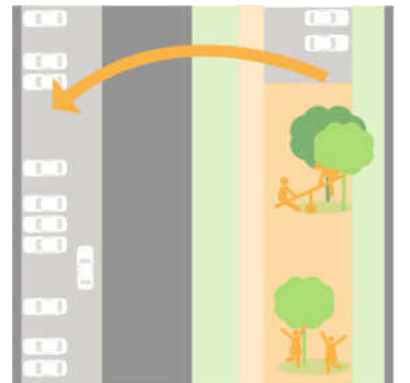
SOON



💡
Parking spaces at the
backsides

💡
Facilities for sports and
play

💡
Car-free residential street



RESIDENTIAL STREET - POST-WAR NEIGHBOURHOOD

CURRENT SITUATION



RESIDENTIAL STREET - POST-WAR NEIGHBOURHOOD

INSPIRATIONAL IMAGE SOON



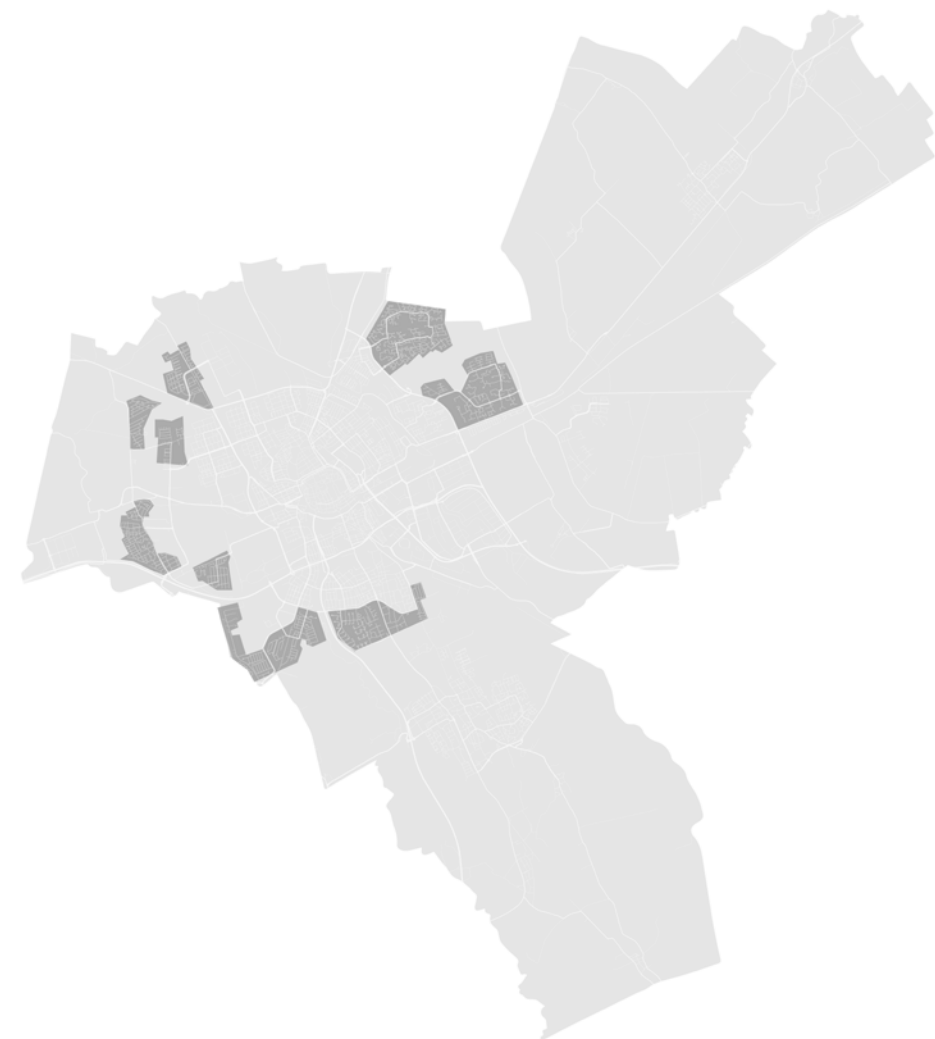


Dukdalf
Photo by Henk Tammens

WOONERF

Since the 1970s, urban development districts have been built in the Netherlands that are characterised by a strictly hierarchical but also fairly disjointed traffic network. Collective residential areas make up the ends of what is known as the 'cauliflower structure'. The residential area is regarded as a new interpretation of the street, with a speed limit of 15km/h (pedestrian). Whereas uses such as car traffic and bicycle traffic and/or play areas used to be separated, these are integrated in the residential area for the purpose of promoting social interaction. In reality, the residential areas are mostly filled with parked cars, with little space for recreation and social interaction.

Dukdalf is a street in Lewenborg-Zuid where three residential areas form the end of what is known as a 'cauliflower structure'. The residential area is typical of the residential neighbourhoods in Lewenborg and Beijum.



Macro scale



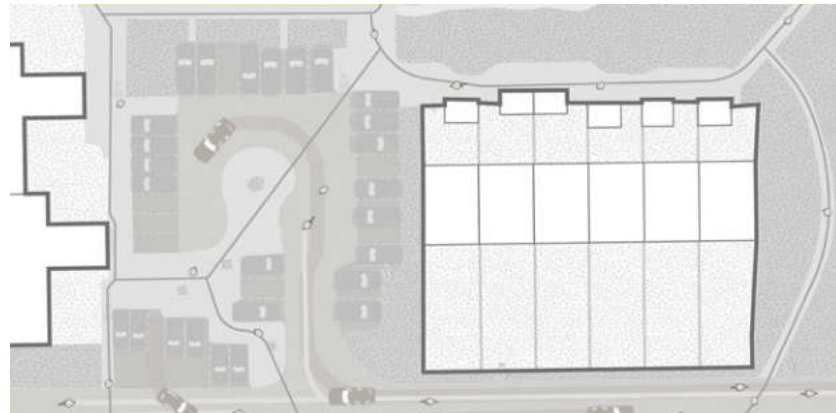
Meso scale

Woonerven:

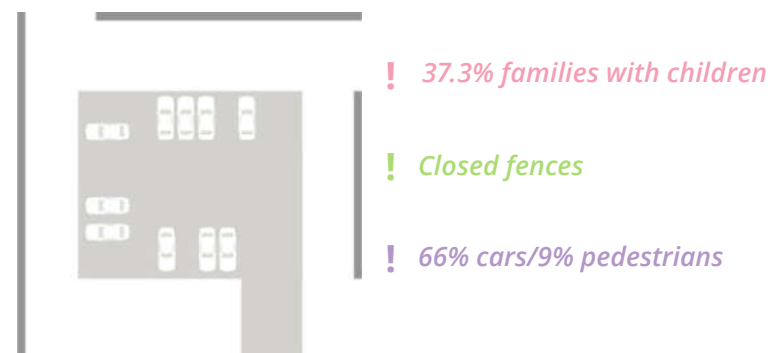
- *Dukdalf*
- *Jaltadaheerd*
- *Fultsemaheerd*
- *Boelemaheerd*
- *Bunnemaheerd*
- *Kluisgat*
- *Vaargeul*
- *Du Perronlaan*
- *Ten Oeverlaan*
- *Orchideestraat*
- *Hans Lodeizenstraat*
- *Barthstraat*
- *Voetiusstraat*

CURRENT SITUATION

The original idea behind the residential area is to combine play and recreation on the street and share this traffic space with cars. However, the substantial increase in the ownership and use of cars has resulted in residential areas completely filled with parked cars. The residential area is also characterised by a large amount of paved surface (mainly closed paving such as asphalt), resulting in heat islands, a heavy impact on the sewage system, and various water-related challenges. The 'cauliflower districts' have an usual urban structure. One noteworthy result is a double orientation of the homes, for example with an entrance and front garden in the residential area. However, many of the gardens are surrounded by high fences and shrubs in order to block the view of the parked vehicles. The lack of coherence makes for a somewhat disjointed picture. It gives the residential area an anonymous look and feel, with low value as a recreational location and no opportunities for spontaneous social interactions.



Concept schemes

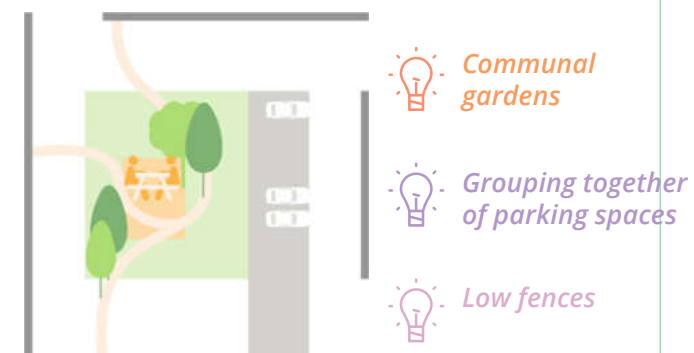


Spider diagrams



SOON

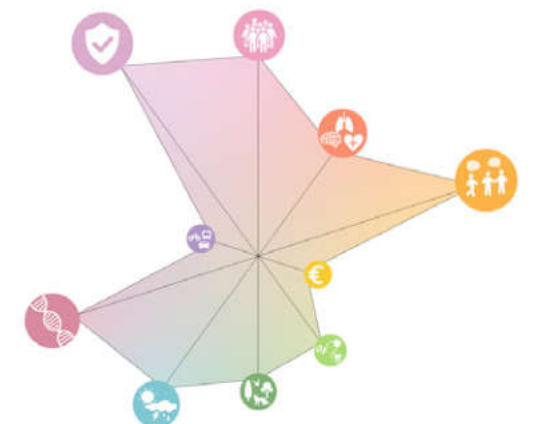
The spatial and urban-design structure of the residential area contains the perfect conditions for creating a meeting place for the local community. By organising parking facilities more efficiently and grouping them together at several locations in the neighbourhood, we can eliminate parking from the residential area. Shared mobility (i.e. shared vehicles) can also provide a solution here, to an extent, in terms of contributing to reducing parking facilities. This 'playground' creates the opportunity to return the residential area to the neighbourhood residents and those living in the adjacent areas. The residential area can become a green area with picnic tables, an orchard and informal play spaces. In conjunction with the housing association, the high fences and barriers can be given a strong redesign, with the objective of creating order and coherence. The new, green residential area makes for a pleasing view: an extension of the living room, as it were. This is why it is conceivable that the fences will be lowered in order to promote social interaction and a sense of community.



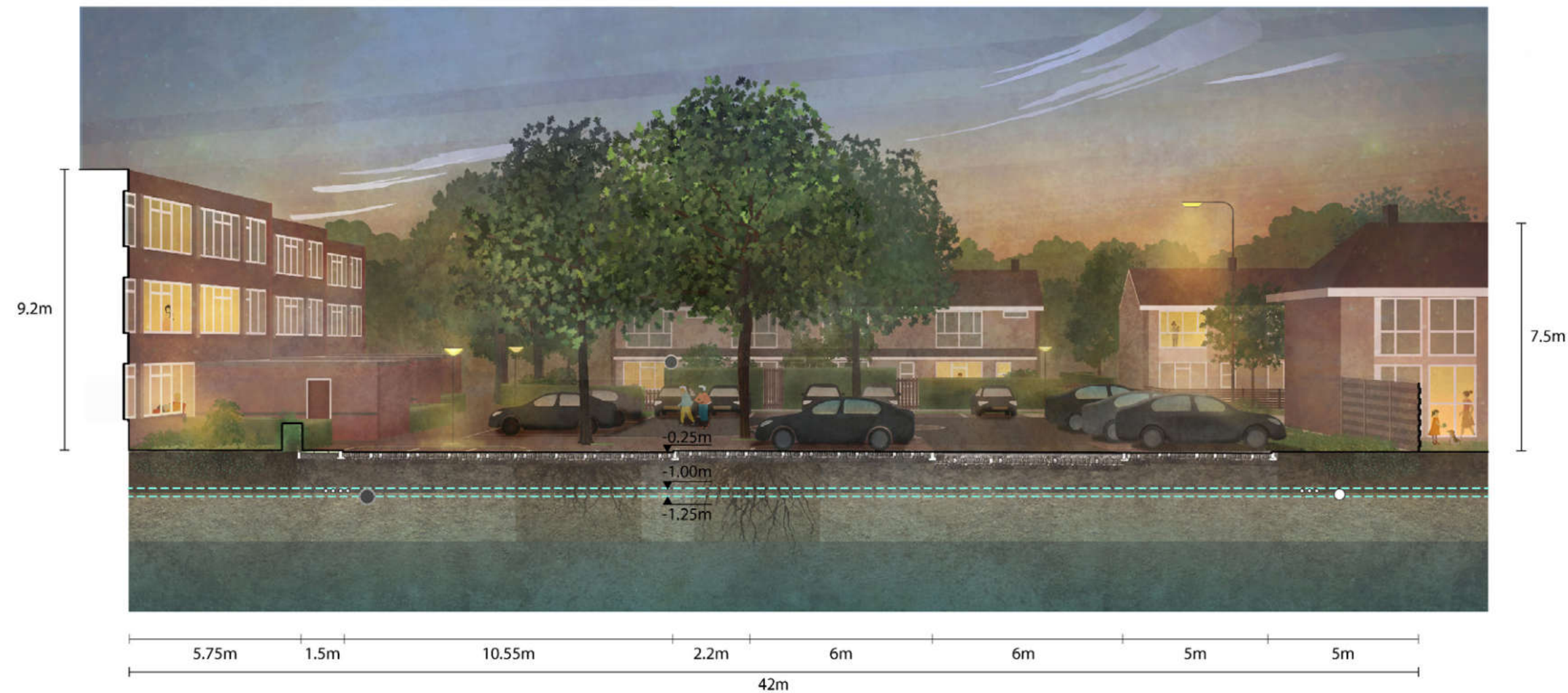
LATER

In the long term, we see opportunities that the residential area can become a self-sufficient neighbourhood within the district. A collective vegetable garden and greenhouses provide food production, with small-scale windmills and solar panels that generate energy. This will require a underground infrastructure with, for example, a thermal energy storage system. At which point, the public space becomes more than just a place for recreation and social interaction. It works towards the municipality's ambition to become a future-proof city.

Dukdalf is located outside the third circle with paid parking. There are currently no plans in place to introduce paid parking in this area. There are no resources for this area to reduce the high demand for parking, other than encouraging people to use their cars less. The existing parking spaces are spread inefficiently in the neighbourhood. Concentrating parking spaces closer to the main roads would mean less traffic in the woonerven and therefore more space for recreation and social activity.



WOONERF
CURRENT SITUATION



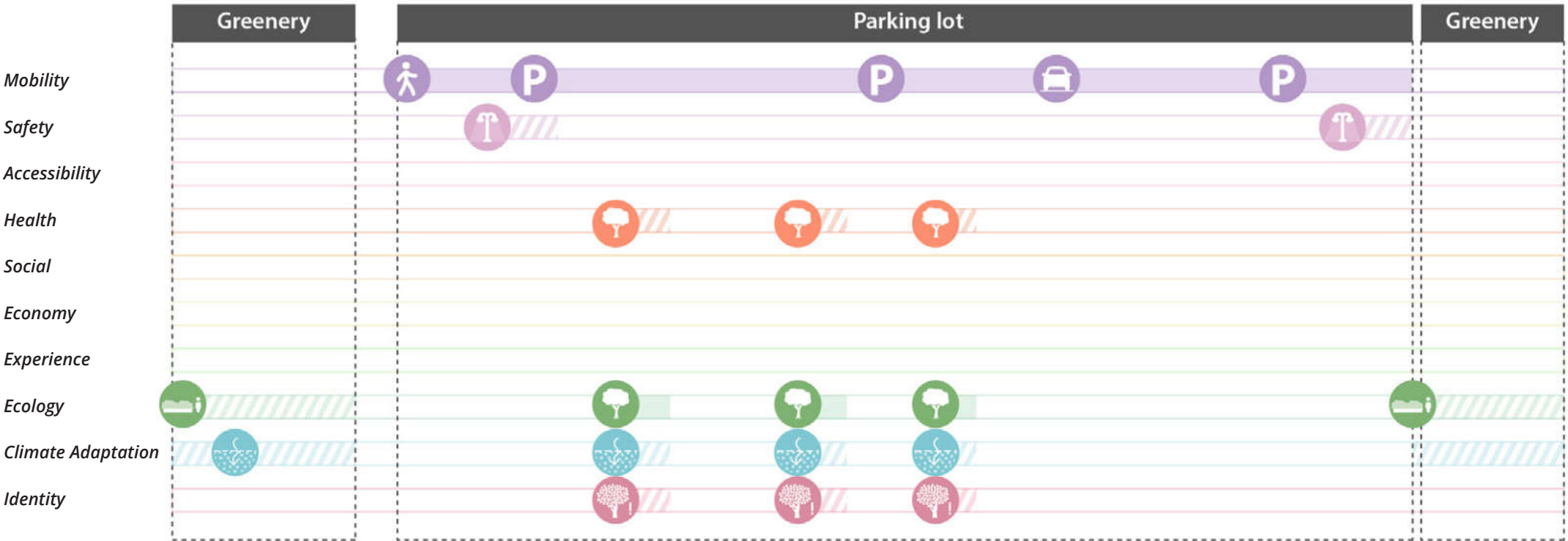
37.3% families with children

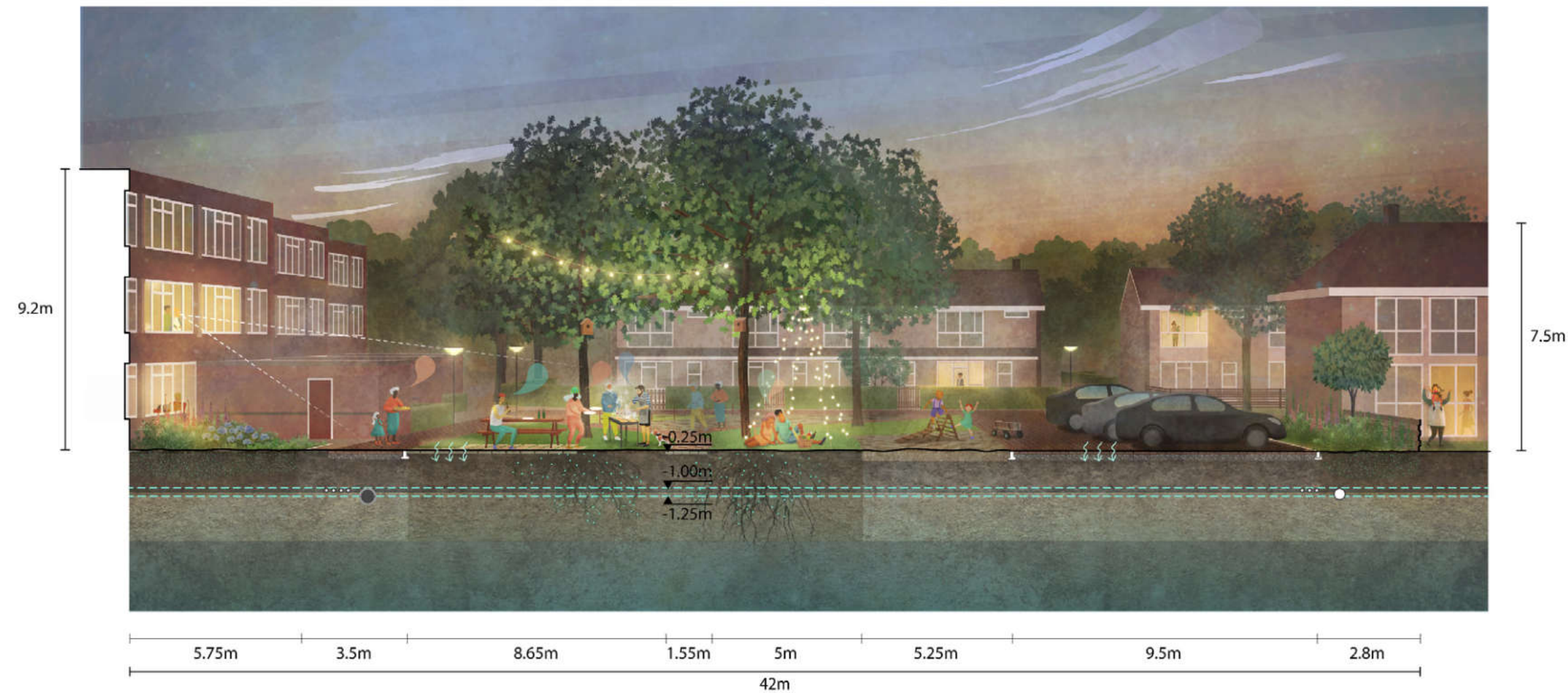


Closed fences



66% cars/9% pedestrians





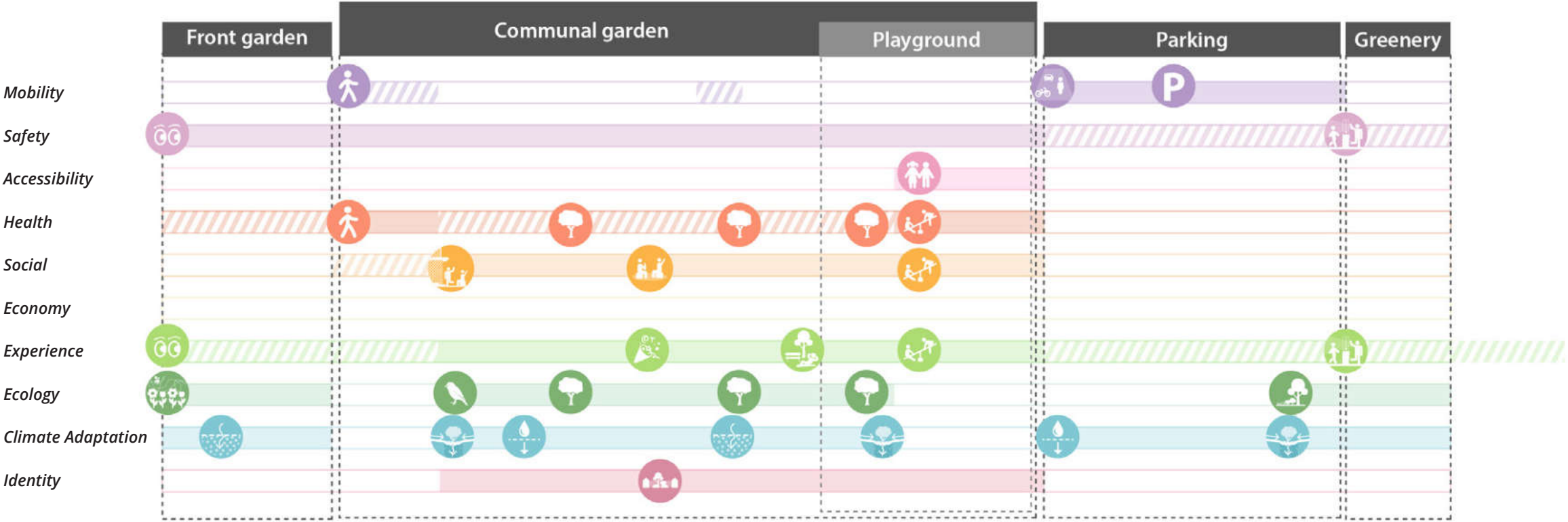
Communal gardens

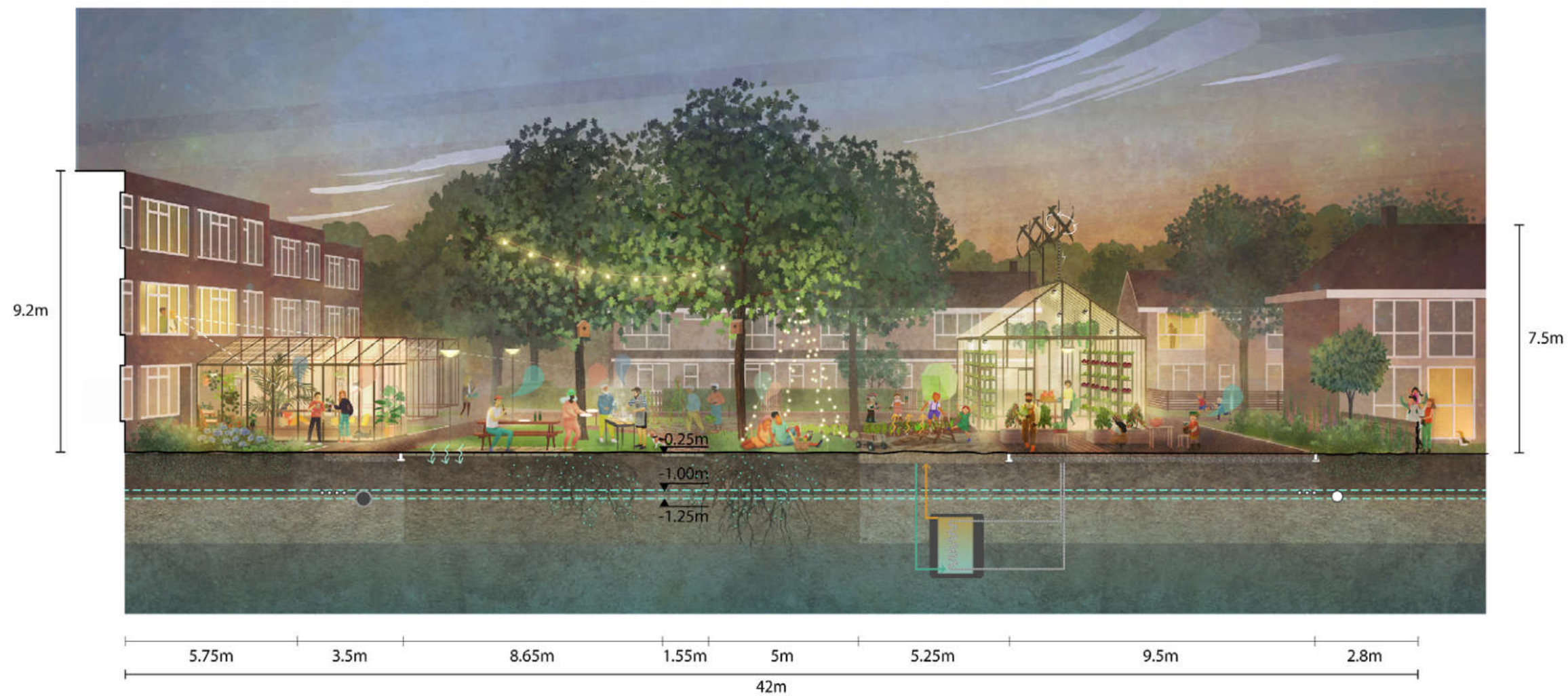


Grouping together of parking spaces



Low fences

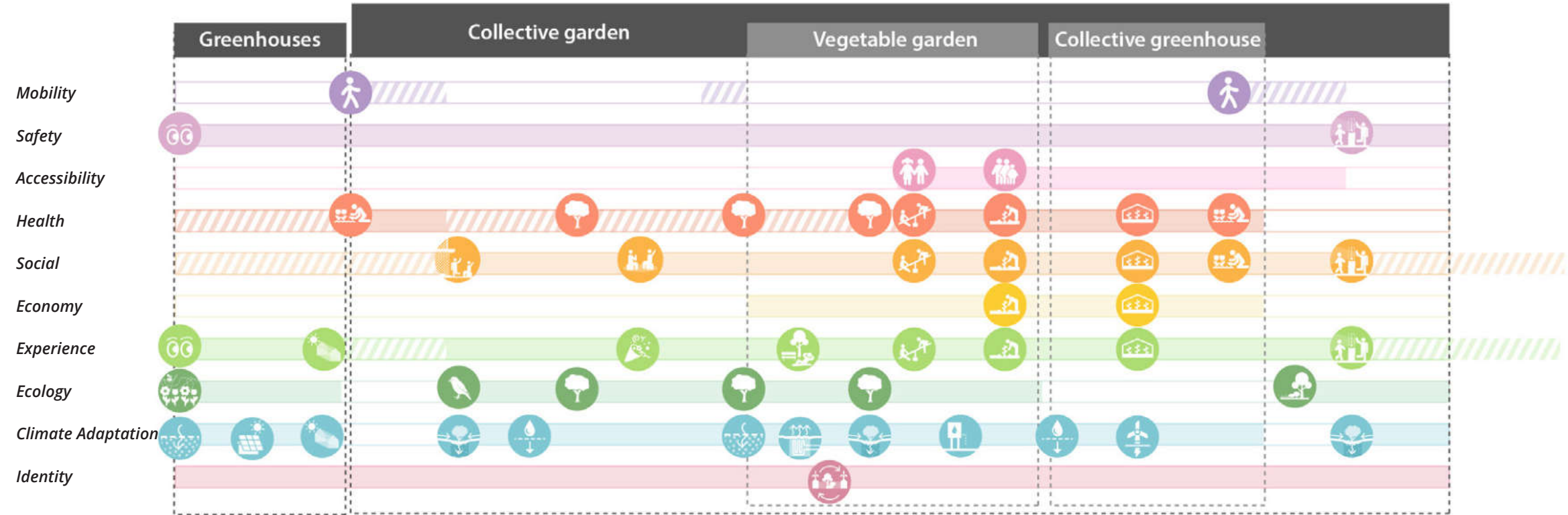




Energy production



Communal vegetable gardens





Stavangerweg
Photo by Henk Tammens

BUSINESS STREET

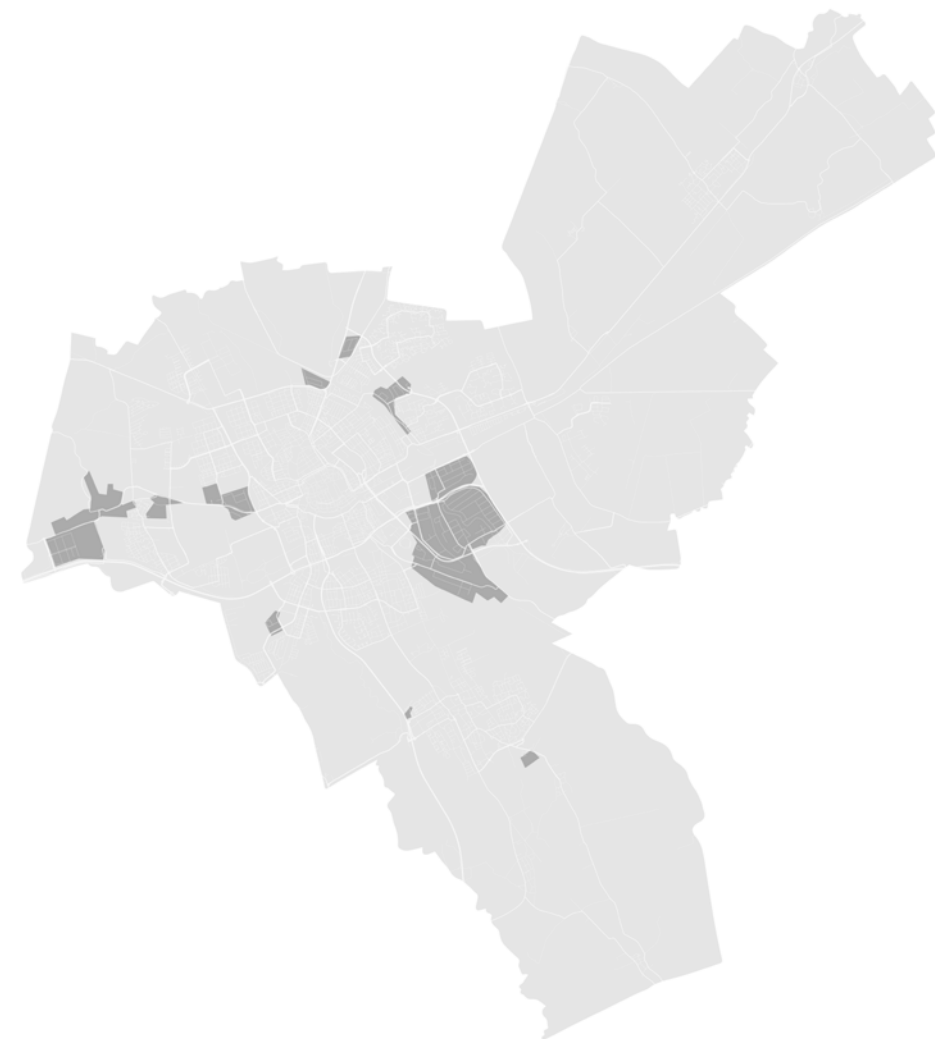
Parked cars, vans and lorries dominate the street view in business parks. The streets are bordered by long, blind facades or steel fences serving as barriers to the separate plots of land, creating a somewhat 'messy' and anonymous look. The public space is designed primarily for motorised traffic with wide lanes, where there is little or no focus on room for pedestrians and cyclists. Stavangerweg is an example of a typical business street.



Macro scale



Meso scale



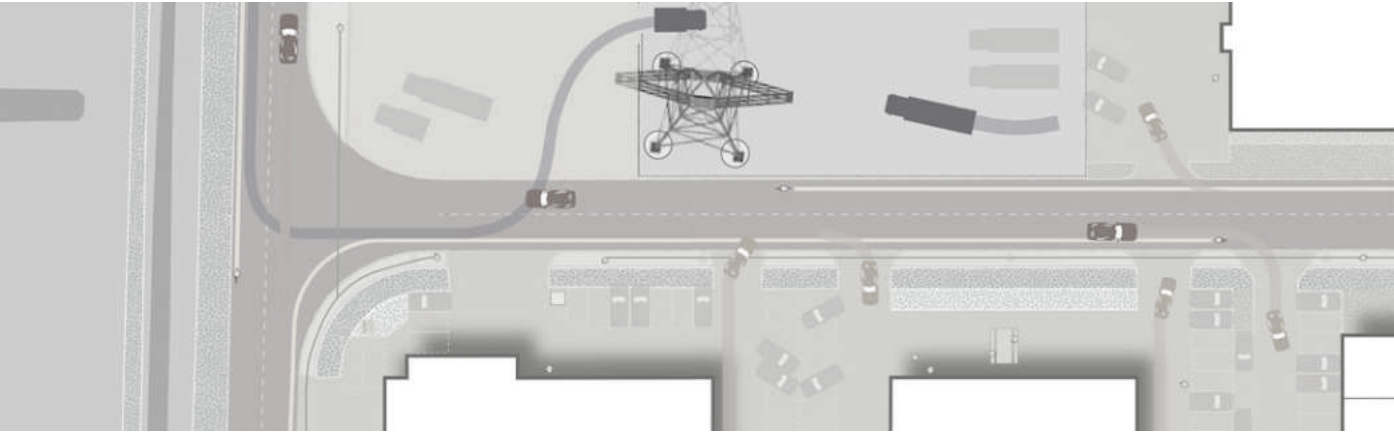
Business Streets:

- Stavangerweg
- Protonstraat
- Koldingweg
- Rigaweg
- Bremenweg
- Rouaanstraat
- Felland Noord
- Smirnoffstraat
- Lamsoor
- Beckerweg
- Bieslookstraat
- Gotenburgweg
- Pop Dijkemaweg
- Bedrijvenweg
- Sylviuslaan

CONCEPT
BUSINESS STREET

CURRENT SITUATION

Nearly 100% of the business park consists of paving: in the public space, on the plots of land, and on the roof surface. These types of areas are known within the city council as ‘heat islands’, where there is a substantial water-related challenge in terms of quality improvement. Stavangerweg is located in Eemspoort, a business park built around the Hunzezone area. Although two business parks border directly on this nature reserve, the connection and routes leading there are not widely used.



Concept schemes

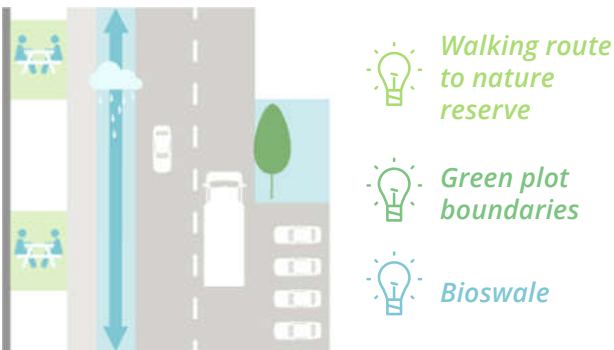


Spider diagrams



SOON

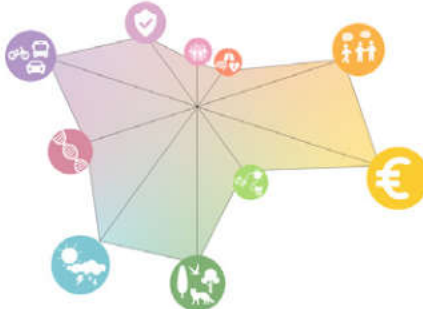
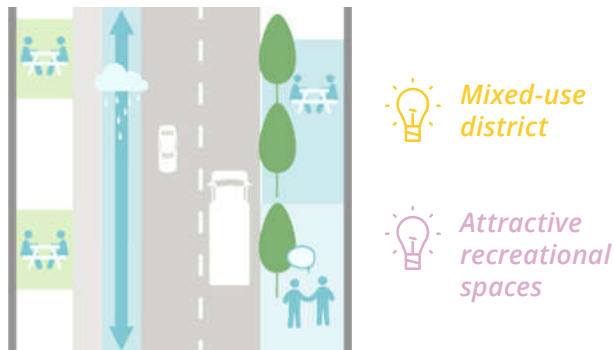
The challenge for climate adaptation in these types of areas is urgent and substantial. The streets must be designed to be climate-resistant and viable for the future. ‘Our streets are climate-adaptive’ and ‘our streets are an ecosystem’ are the two main dimensions for business streets. A bioswale will be provided along the driving lane, which will collect the contaminated rainwater from the road and the roof surface and subsequently filter it before it is disposed to the Hunzezone area. In addition to water purification and use as a storage facility, it offers protection for pedestrians and contributes to biodiversity. The adjacent footpath is directly connected to the nature reserve, giving local workers the opportunity to take a relaxing walk on their lunch break.



LATER

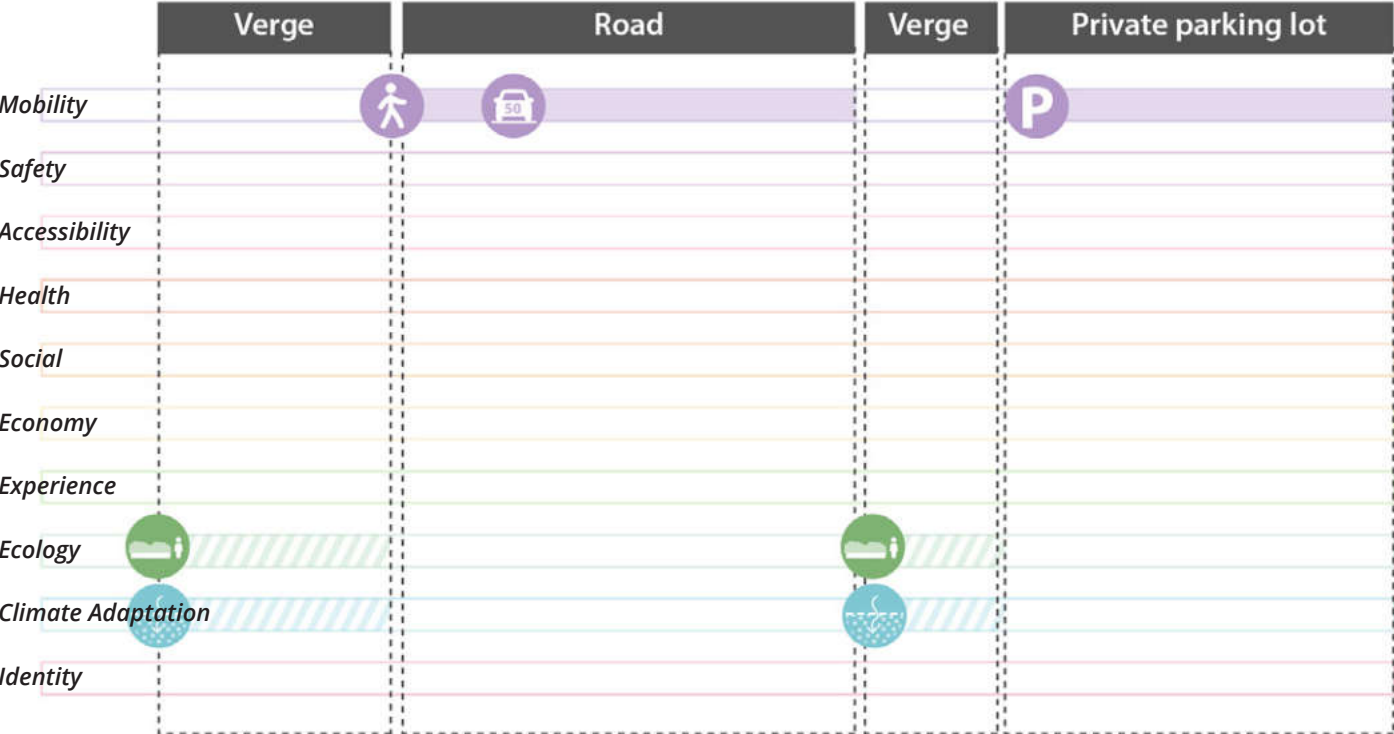
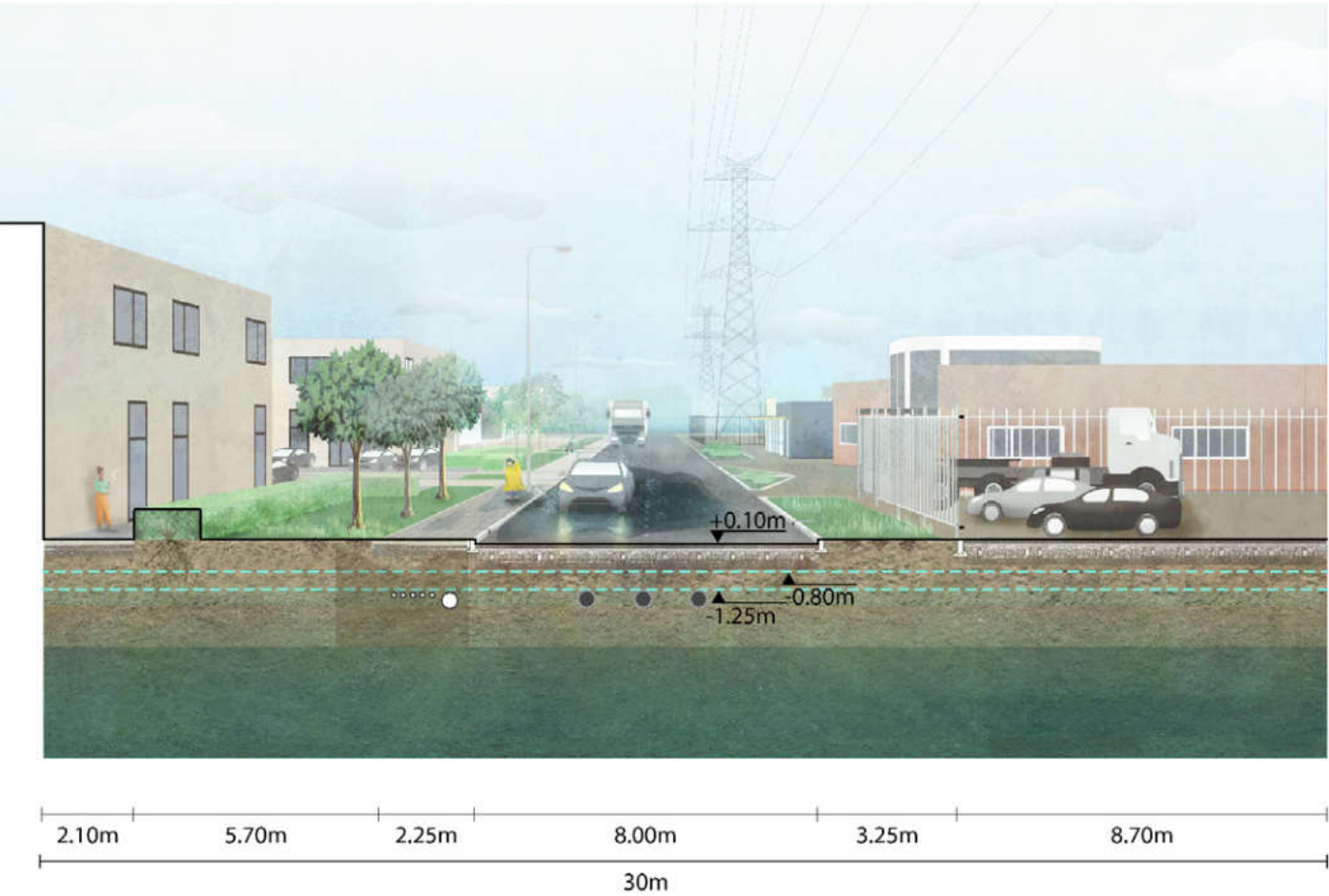
In line with the proposals presented at the Climate Campaign of January 2021, the business park can be further intensified in the future. By combining uses, it is possible to achieve higher density in order to protect the surrounding green landscape from new developments. The public space calls for a higher density and a layout that provides for high-quality routes and attracting recreational spaces. The streets will then become increasingly the domain of pedestrians and cyclists. The business functionality of the street with commercial traffic and large turning circles will then no longer be self-evident.

The business streets officially do not contribute to parking facilities in the public space. However, the wide business streets invite us to park our cars on the driving lane; this includes workers who are not employed in the area itself but can park here free of charge. In order to gain space and improve quality of public space, a parking ban can be imposed.



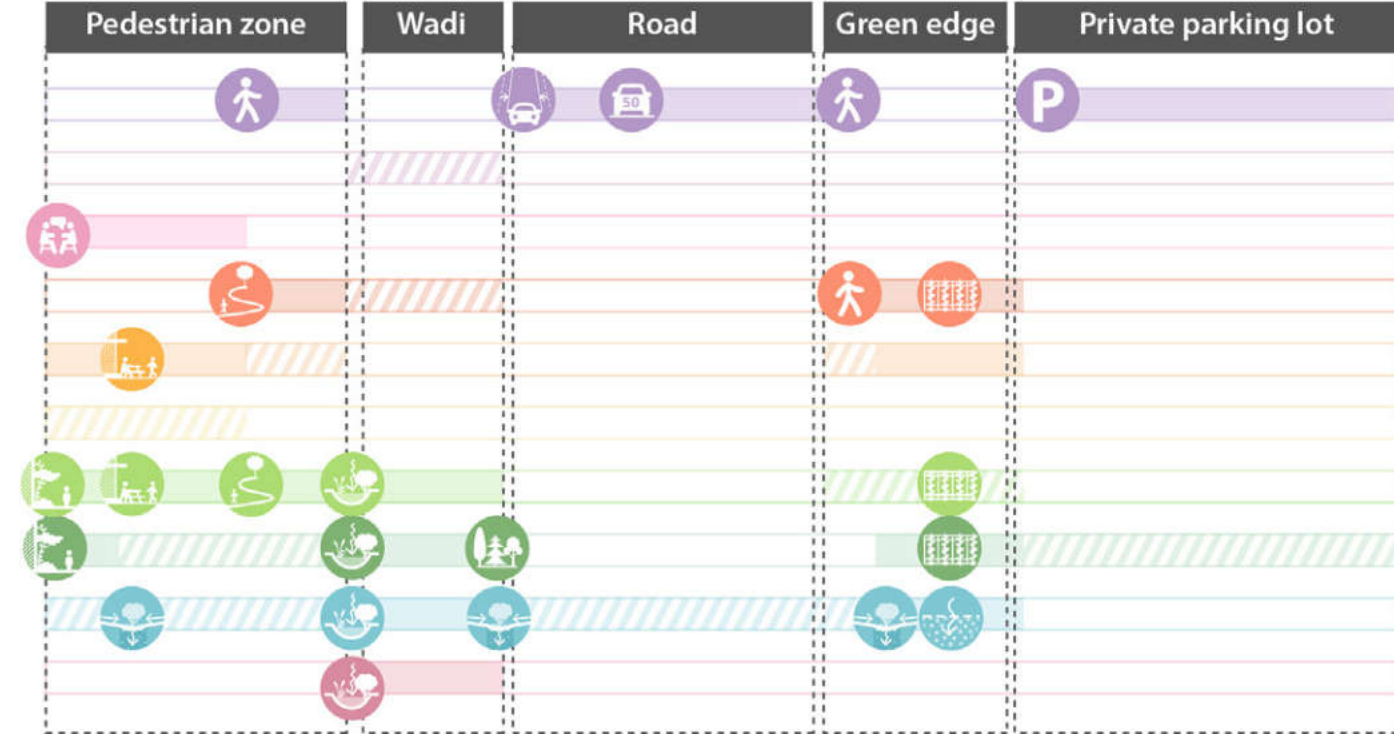
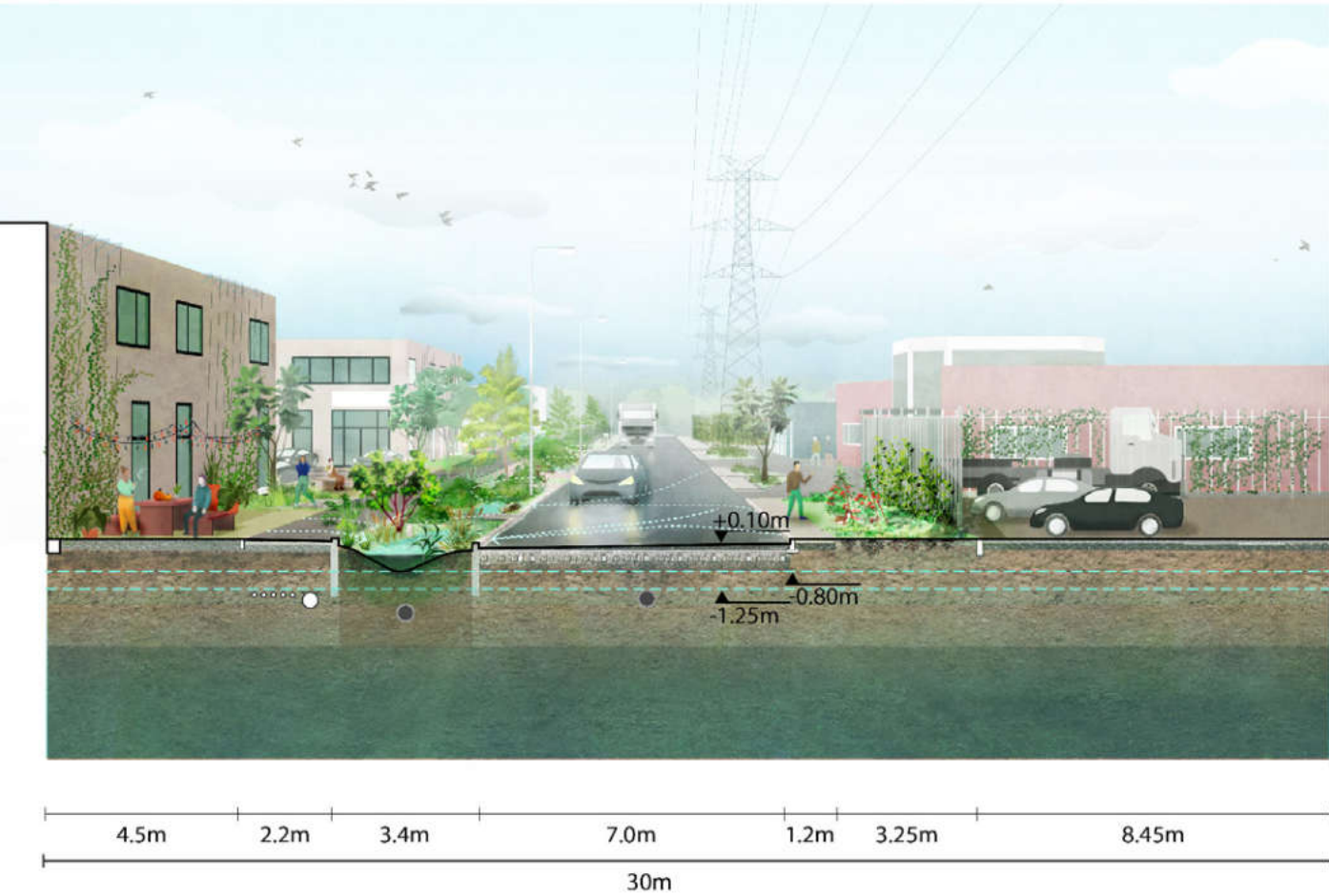
BUSINESS STREET

CURRENT SITUATION



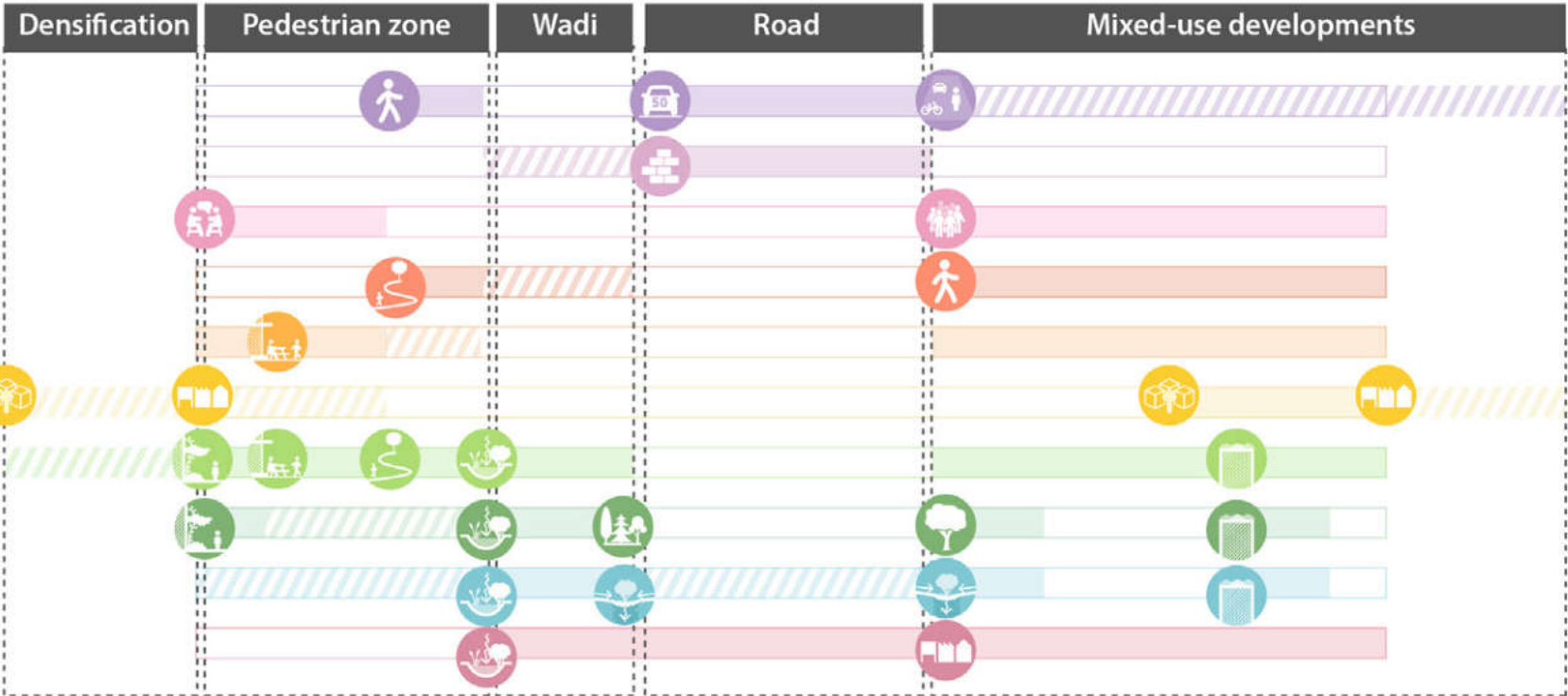
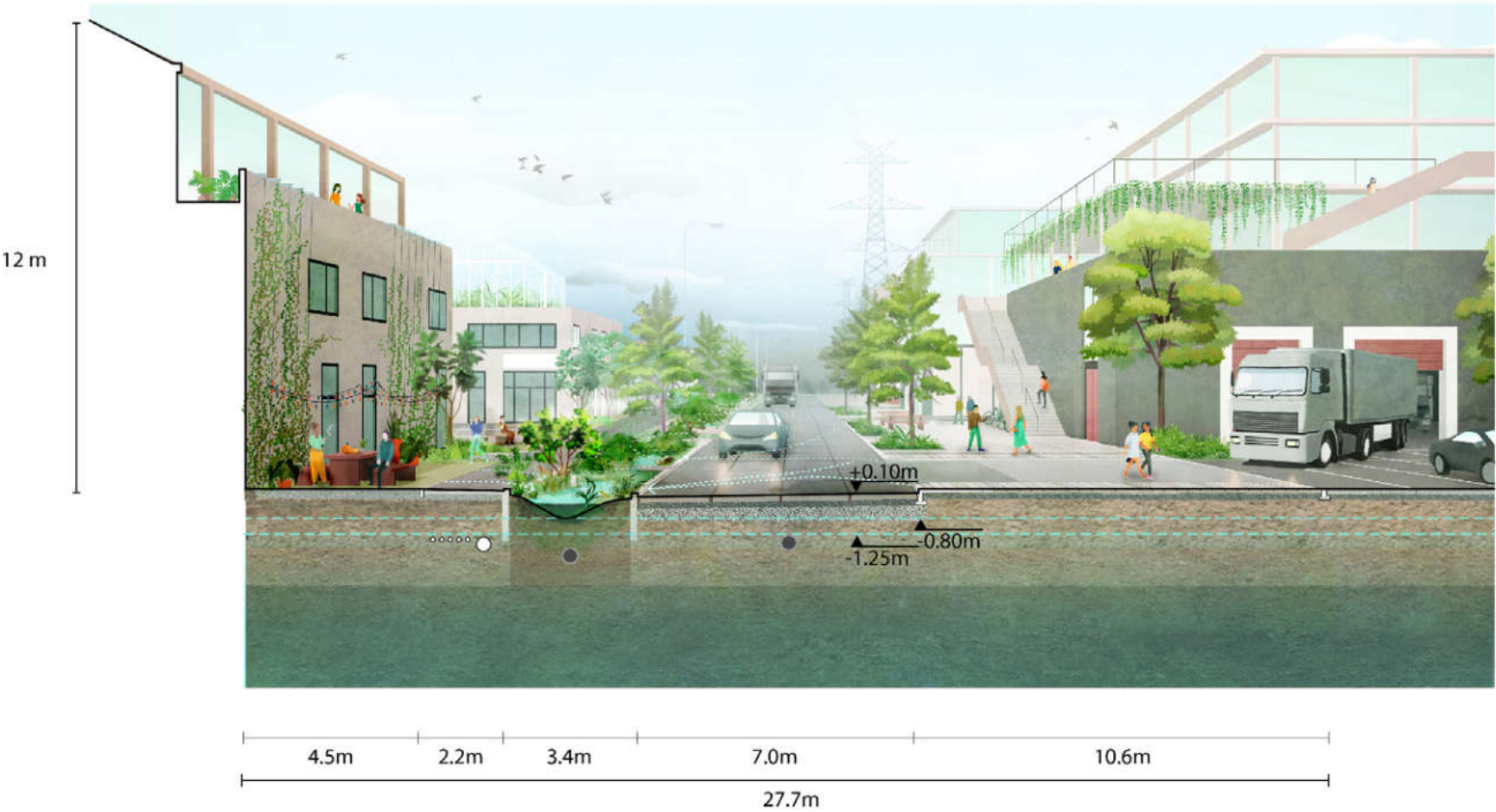
BUSINESS STREET

INSPIRATIONAL IMAGE SOON



BUSINESS STREET

INSPIRATIONAL IMAGE LATER



Mixed-use district



Attractive recreational spaces

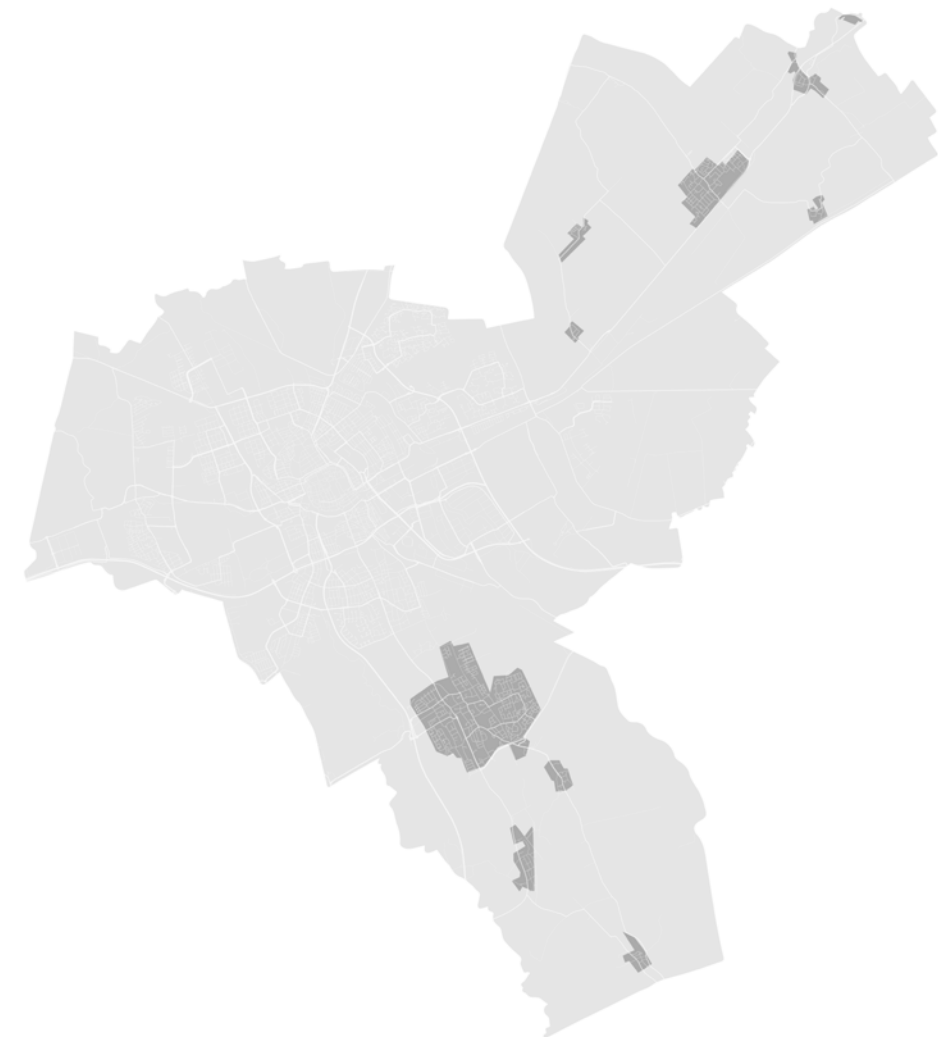


Gaykingastraat
Photo by Henk Tammens

VILLAGE THROUGH STREET

This village-street typology can generally be found in the village centres located around the city centre, including Ten Boer, Zuidwolde, Woltersum, Schildwolde, Noordlaren, etc. But there are also areas closer to the city centre that have corresponding characteristics which are appropriate to this typology, such as Hoogkerk and the Haren city centre. Village streets serving as through streets have different types of users, ranging from cyclists and pedestrians to cars, buses and agricultural traffic. Since these streets run right through the village, this can potentially create conflicts.

Gaykingastraat is one of these through streets that goes straight through the Ten Boer village centre, with its village square and the Buurhoes community centre. This section of Gaykingastraat has therefore been designated as a place where quality of public space should come first.



Macro scale



Meso scale

Village Through Streets:

- *Gaykingastraat (Ten Boer)*
- *Stadsweg (Ten Boer)*
- *Riekele Prinsstraat (Ten Boer)*
- *Eestumerweg (Ten Post)*
- *B. Kuiperweg (Ten Post)*
- *Rijksweg (Ten Post)*
- *Felland (Haren)*
- *Rijksstraatweg (Glimmen)*
- *Dorpsweg (Onnen)*

CONCEPT

VILLAGE THROUGH STREET

CURRENT SITUATION

The section of Gaykingastraat between the village square and the community centre is a place where the streets literally form a barrier between homes, shops, the community centre and the adjacent public space. This is a result of the materialisation used, as well as of the limited

number of crossings in this location. The square and the Buurhoes community centre are two separate areas, from a spatial perspective, as neither of them enters into a relationship with the street or with each other.

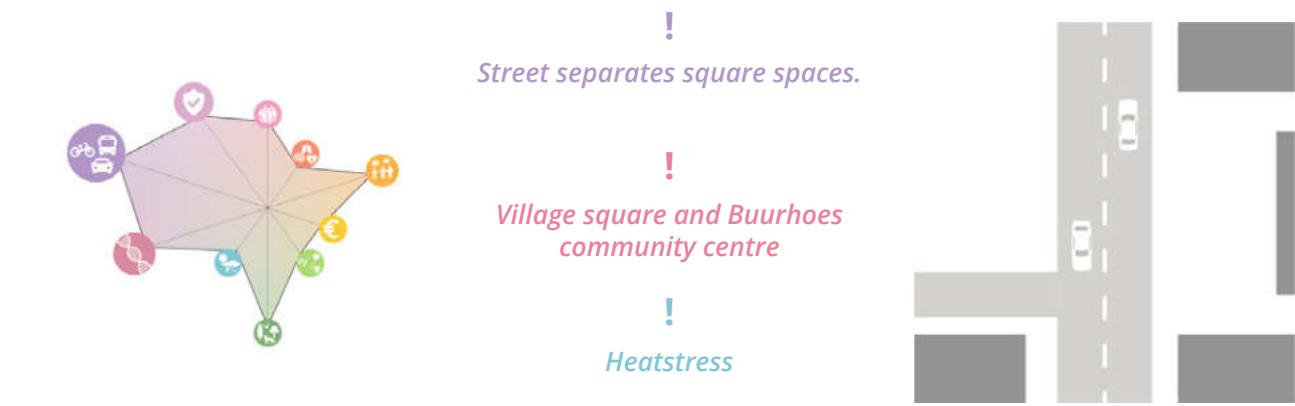


SOON

Both the square and the Buurhoes community centre are two key destinations in the village for recreation and social interaction. However, this does not result in any interaction, plus the added value this brings. By connecting the square and the community centre with each other, we create a new village centre for Ten Boer:

a place that can accommodate larger events, as well as a place where people will want to hold their wedding in the summer. The proposal is to give the square a new materialisation that enhances and borders the square space. Cars are considered 'guests' in this area, and speed limits will be reduced accordingly.

CURRENT SITUATION



SOON



VILLAGE THROUGH STREET



Safety

Accessibility

Health

Social

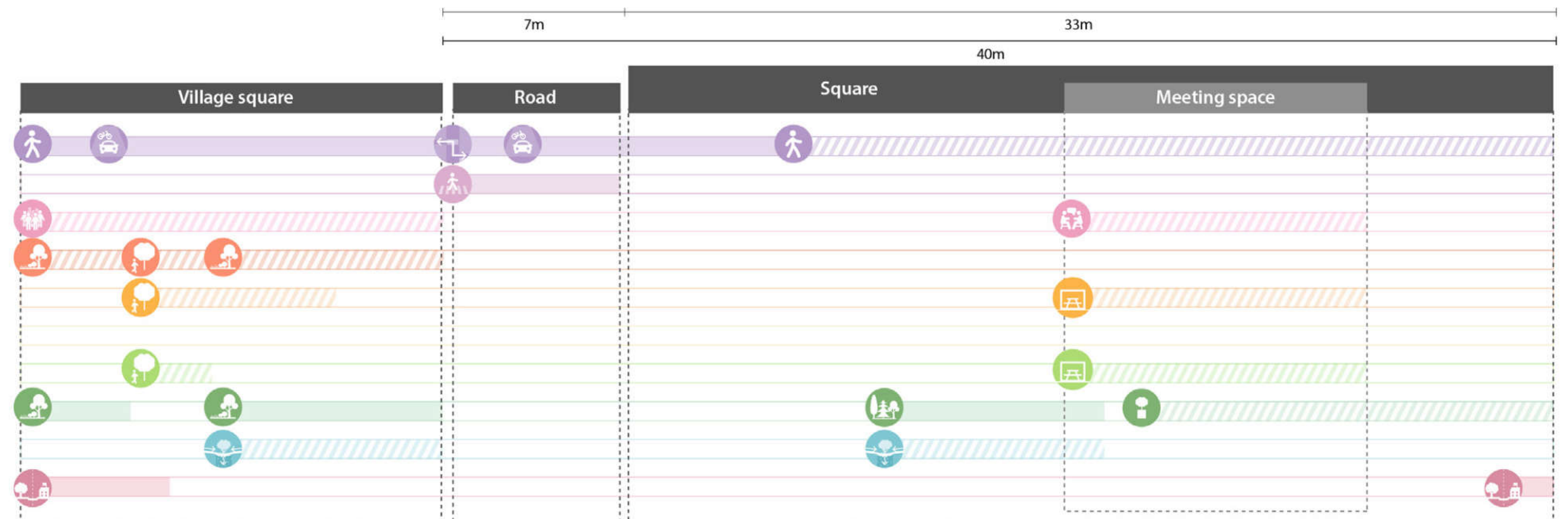
Economy

Experience

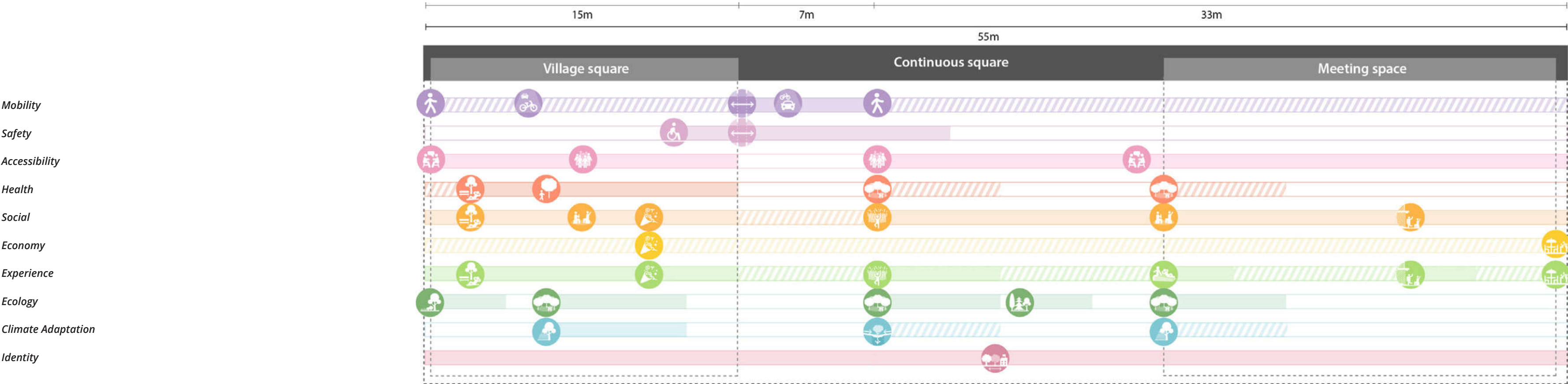
Ecology

Climate Adaptation

Identity



VILLAGE THROUGH STREET
INSPIRATIONAL IMAGE SOON



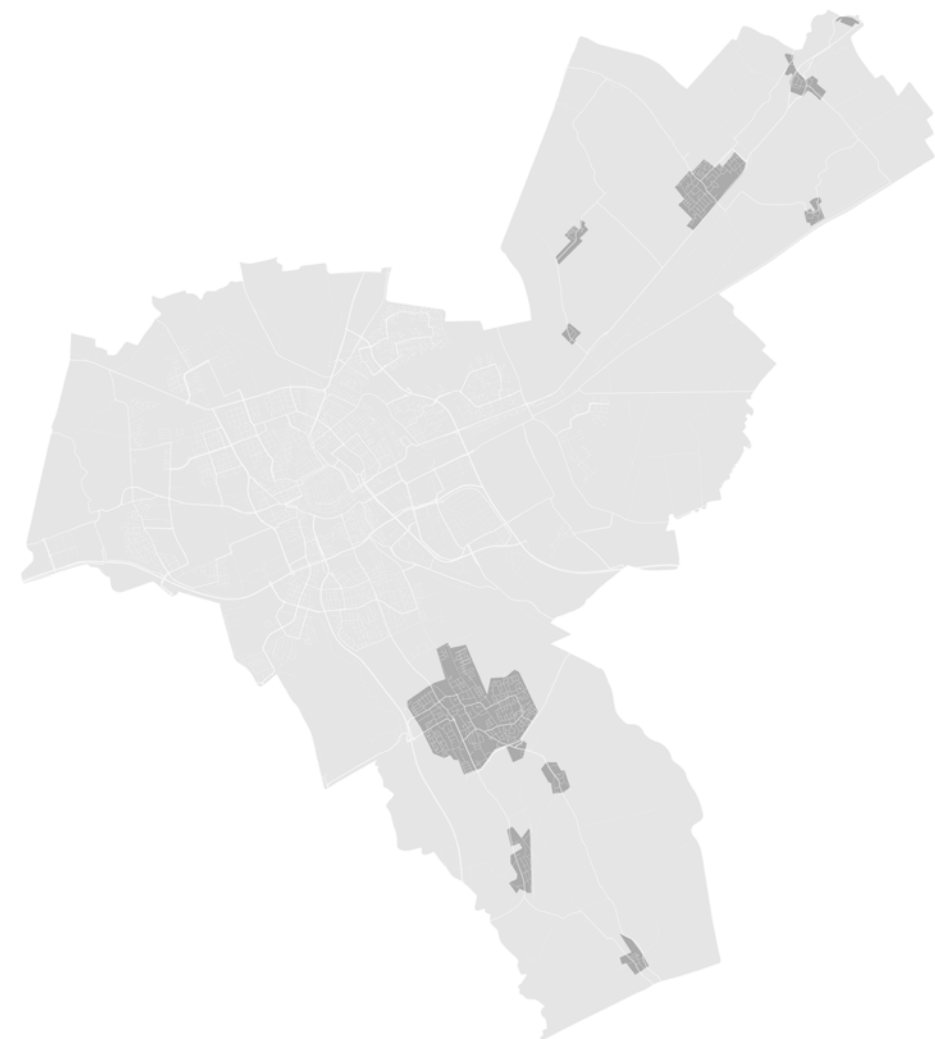


Stadsweg
Photo by Henk Tammens

VILLAGE DESTINATION STREET

The 'village street' typology can be found in the city's village centres. Village streets through the small centres with historical ribbon development often do not serve as through streets, but rather as residential streets that are used mainly for local residents. Village streets have a highly rural and informal character, characterised by a frayed edge of detached construction. The plots of land are relatively large, which creates an open structure and a view of the underlying (rural) area.

The Winneweer city road is an example of a village street without any through traffic. The centre is located in the northernmost part of the city of Groningen and runs parallel to the Damsterdiep canal. You will find both detached homes and industrial premises in this street.



Macro scale



Meso scale

Village Destination Streets:

- *Stadsweg (Winneweer)*
- *Hoofdweg (Woltersum)*
- *Rijksweg (Garrelsweer)*
- *Mottenbrink (Onnen)*
- *Kerkstraat (Thesinge)*

CONCEPT

VILLAGE DESTINATION STREET

CURRENT SITUATION

Stadsweg is a small village street consisting of a 6-metre-wide driving lane and a narrow ditch. The driving lane is partly made of asphalt and partly paved, resulting in a somewhat unstructured/disjointed appearance. The plots of land have small paved gardens facing the street

and large green backyards facing Damsterdiep; these backyards tend to be the liveliest. This gives Stadsweg the appearance of an anonymous street, where people drive at high speeds due to the wide driving lane.



SOON

Despite the wide road, the narrow profile of Stadsweg provides little room for a different structure/layout. It is difficult to modify the structure of the street. The street can be upgraded by changing the materials used. Element paving is more in line with the use and gives the street a

gentler look. Trees can make the road appear narrower and be used as a natural demarcation between vehicles and pedestrians. It is possible to incorporate space to let oncoming traffic pass into the street design.

CURRENT SITUATION

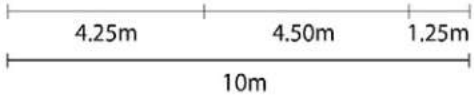


SOON



VILLAGE DESTINATION STREET

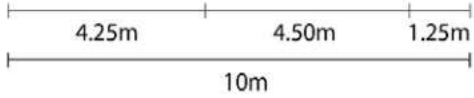
CURRENT SITUATION



	Ditch	Road
Mobility		  
Safety		
Accessibility		
Health		
Social		
Economy		
Experience		
Ecology		
Climate Adaptation		
Identity		

VILLAGE DESTINATION STREET

INSPIRATIONAL IMAGE SOON



	Eco ditch	Road	Path
			 
			 
			 
			 
		 	
		 	
		 	
		 	

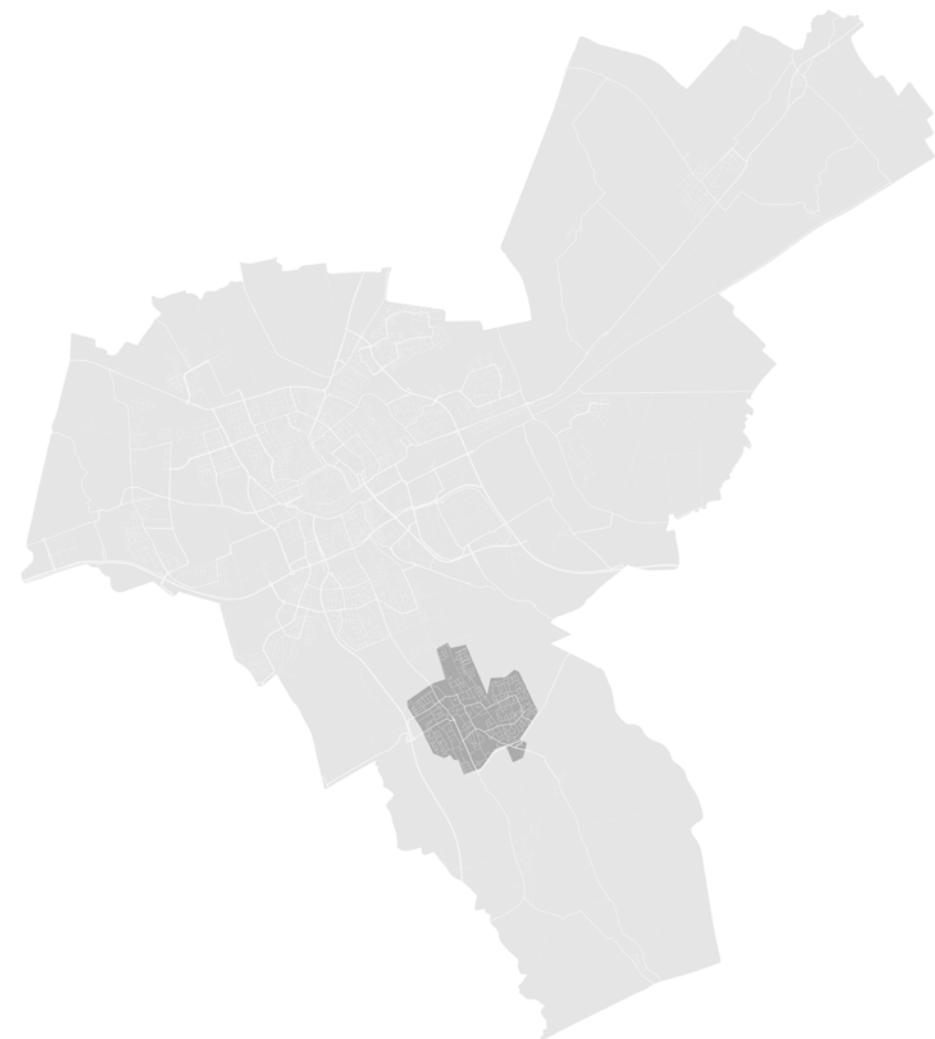


Westerse Drift
Photo by Henk Tammens

'HAREN' VILLAGE STREET

The village of Haren has a framework of streets with a characteristic street profile that is visible and integrated into the entire village centre; this is known as the 'Haren profile'. The structure of the street profile consists of a building line, a garden, a green fence, a pavement of closed asphalt paving, a green ditch with trees and subsequently the driving lane and then the same on the other side of the road axis. This results in a green and lush perception of the street. The rich and varied palette of different tree types in the green verges is typical in this respect.

Westerse Drift is a typical street in Haren, a section of which is built from this typical 'Haren profile'.



Macro scale



Meso scale

'Haren' Village Streets:

- *Westerse Drift*
- *Emmalaan*
- *Vondellaan*
- *Onnerweg*
- *Mellensteeg*
- *Kaverlaan*
- *Rijksstraatweg*
- *Molenweg*
- *Kromme Elleboog*
- *Spinozalaan*
- *Wilhelminalaan*
- *Julianalaan*

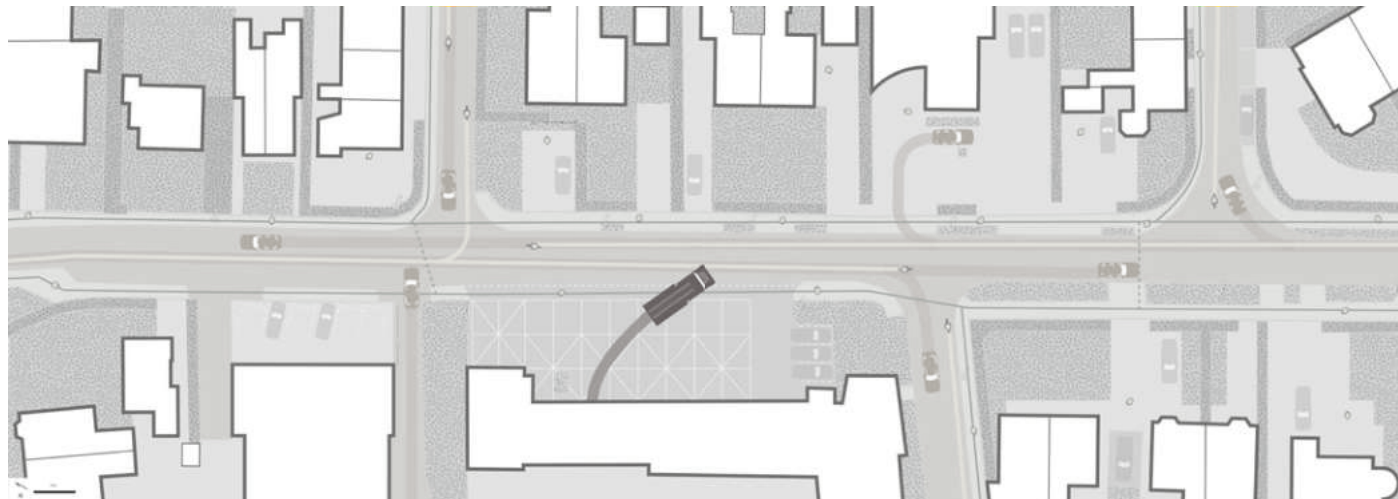
CONCEPT

'HAREN' VILLAGE STREET

CURRENT SITUATION

The programme along Westerse Drift consists mainly of detached homes, several of which are of historical value. The section of Westerse Drift around the fire station and the local authority waste collection site is currently a paved area. The typically Haren profile is still missing

here in connection with the emergency services/first-responders. Westerse Drift is also used as an exit for traffic going from Haren to access the motorway. This is related in part to the width of the road.



SOON

The coherent green picture of the 'Haren profile' is an important source of identity and structure for Haren. Since a section of Westerse Drift is already designed based on this street profile, the choice for the rest of the street is obvious. The landscape identity and green character can be enhanced. The assertions that 'Our streets are an ecosystem' and 'our streets have identities' are right in line with the 'Haren profile'.

space available to achieve the trademark green verges with a rich variety of vegetation and trees based on the 'Haren profile'. This enhances the green character and contributes to biodiversity in the area. The proposal is to design the pavement as permeable paving, as this improves infiltration and gives the residential street a friendly and inviting look. The current fire station, where the street profile is significantly wider, provides space for building a residential area and meeting place. A green space providing seating contributes to the experience of pedestrians taking a stroll around the neighbourhood.

There are plans in place to relocate the fire station, which would make it possible to change the street profile. The wide driving lane can be narrowed, thereby making

CURRENT SITUATION



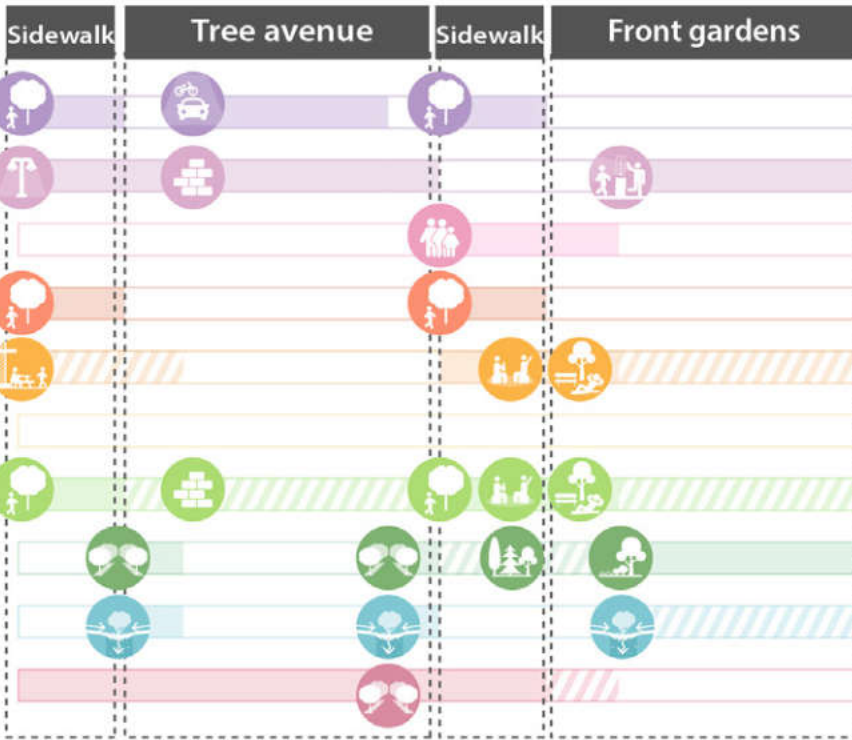
SOON



'HAREN' VILLAGE STREET
CURRENT SITUATION



'HAREN' VILLAGE STREET
INSPIRATIONAL IMAGE SOON



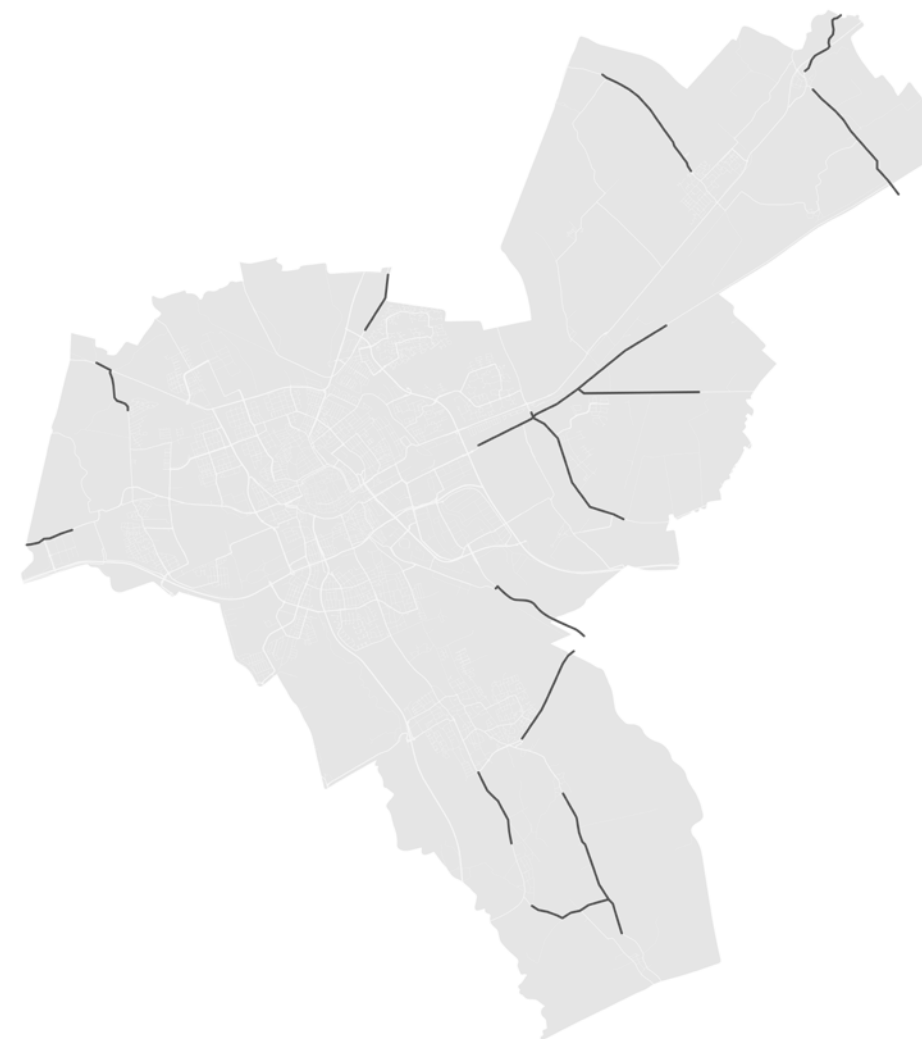


Zuidveld
Photo by Henk Tammens

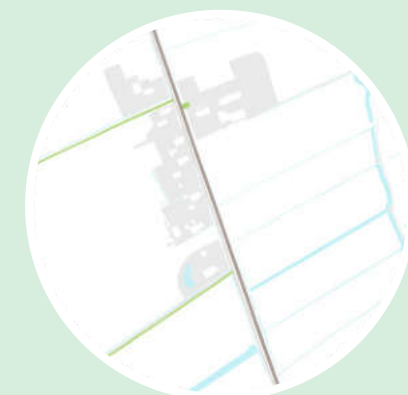
RURAL STREET

The city and village centres are surrounded by rural streets that connect the various centres with each other. These streets can be found mainly outside the city in agricultural areas and nature reserves and tend to be used for recreational purposes. The streets are characterised by a narrow driving lane accompanied by landscape elements such as rows of trees, ditches or hedges. These streets, located outside the built environment, have a speed limit of 60km/h. There are streets outside the built area where cyclists can use a separate bicycle lane, while there are also streets with a hybrid profile, where cyclists and cars use the same driving lane.

Zuidveld is located between the village centres of Onnen and Noordlaren. The road is used mainly by agricultural traffic, local residents and users who drive from Noordlaren to Haren or Groningen. Recreational cyclists also use Zuidveld (which is part of the junction route). There is agricultural grassland located on both sides of Zuidveld.



Macro scale



Meso scale

Rural Streets:

- Zuidveld
- B. Kuiperweg
- Boersterweg
- Driebondsweg
- Eemskanaalzone Zuid.
- Groningerweg
- Hoendiep
- Noodweg
- Winschoterweg
- Zuidlaarderweg
- Slochterdiep
- Rijksweg

CONCEPT

RURAL STREET

HUIDIGE SITUATIE

A historical section in the rural area between Onnen and Noordlaren, Zuidveld is located on the eastern flank of the Hondbrug bridge and has open sightlines across the brook valley of the Hunze river. Recreation, mobility, landscape and residential purposes are all

integrated here. There is currently a narrow bike path that is used in two directions and which is also used by pedestrians; this creates unsafe and chaotic situations. Pedestrians and cyclists are therefore considered not conducive to this area.



LATER

The existing, narrow profile provides few opportunities for the immediate future. A bicycle lane on both sides of the street profile is advisable, but there is no room for this due to property boundaries. Expropriating land is currently not an option. The area was recently redesigned, with areas being designated for emergency storage combined with nature development, and a clear distinction has been made between nature managed by NatuurNetwerk Nederland (the Dutch government network of new and existing nature reserves), managed

nature reserves, and more regular farmland. A potential future for this area was outlined during the climate campaign held in early 2021. The focus here is on further enhancing nature and water storage, thereby creating opportunities to modify the profile for Zuidveld. These developments could increase the recreational use of Zuidveld, while adding a second bike path is advisable. The bicycle route can be given open sightlines in this scenario across the new natural peatlands, which enriches the experience of the route.

CURRENT SITUATION

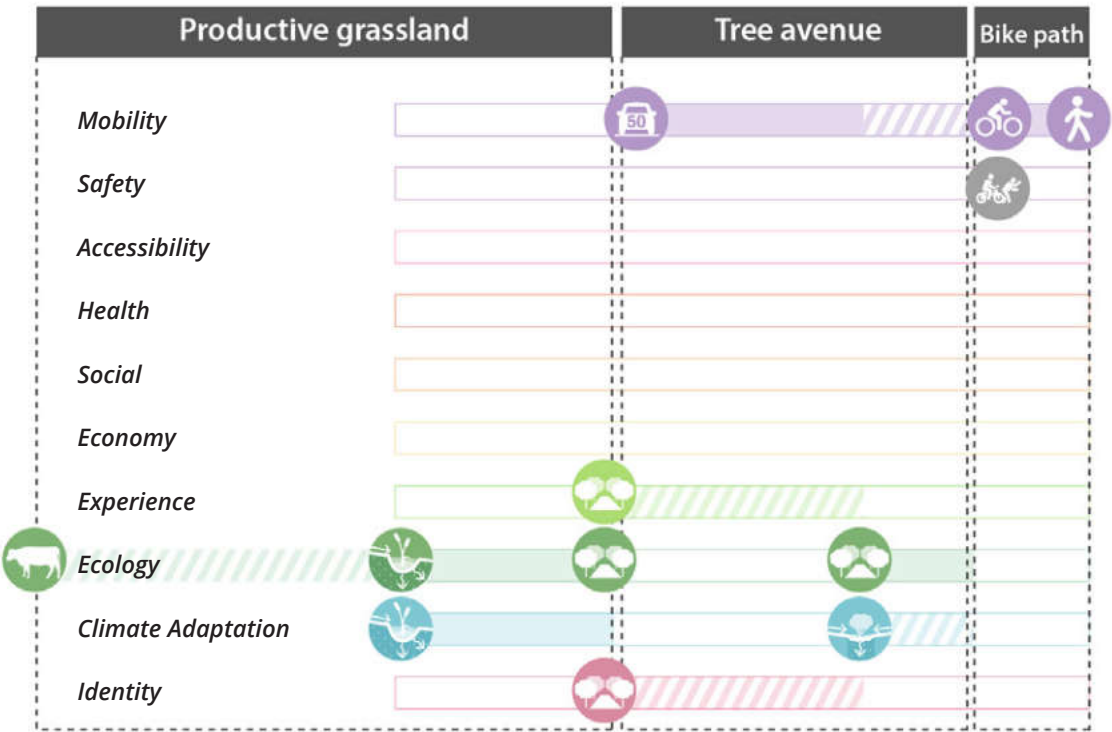


LATER



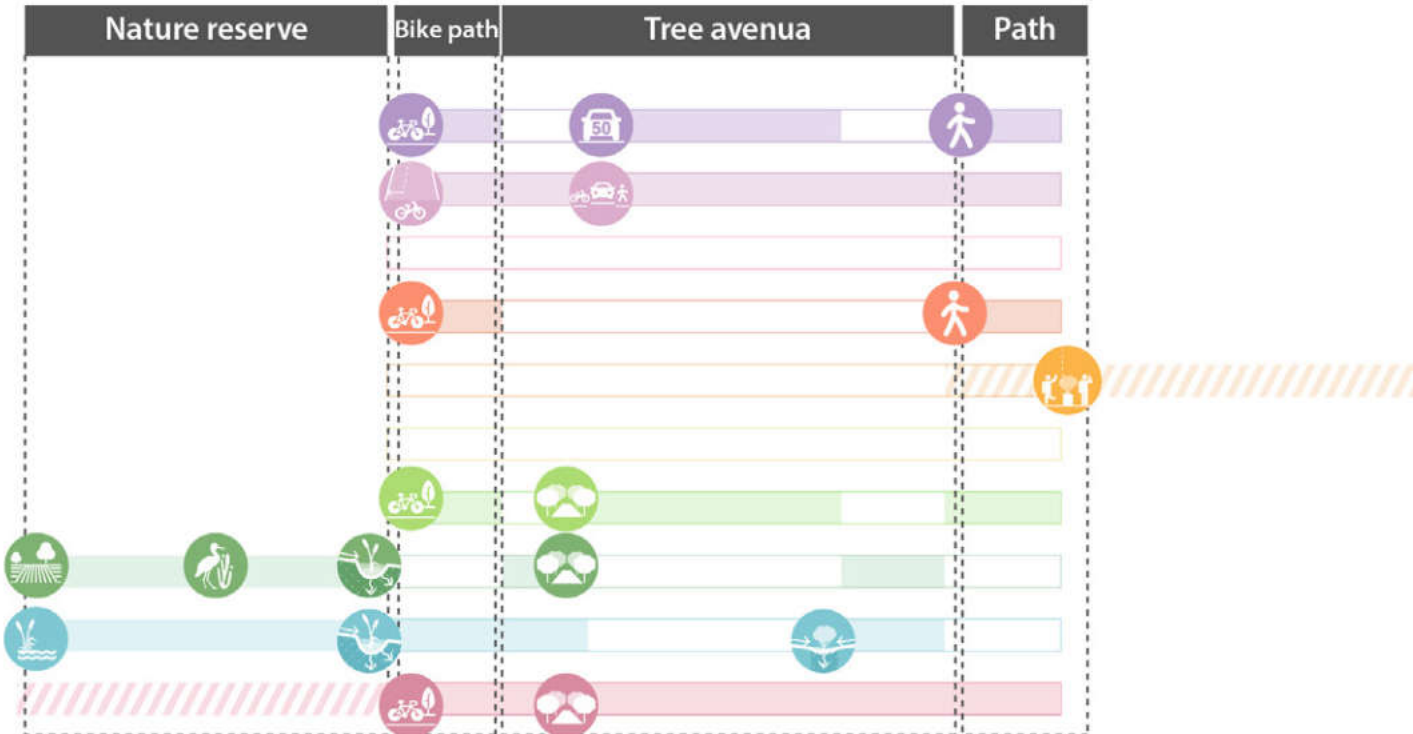
RURAL STREET

CURRENT SITUATION



RURAL STREET

INSPIRATIONAL IMAGE LATER



SAND ROADS IN HAREN

The rural area around the Hondsrug is home to historical sand roads and other unpaved paths. They form the basis for an intricate recreational network of walking paths and bicycle lanes or equestrian trails and are cherished and valued in the wider community.

The sand roads are of great significance on account of the high scenic, cultural/historical and environmental values. They contribute to the recognisability and readability of the landscape history of this section of the Hondsrug ridge of sand. The scenic appearance (i.e. the location, the coherence with the environment, and the sand from the last ice age which has been present all along) determines the identity of the esdorp landscape. In addition, the sand roads are of great environmental value because they contribute to a green interlacing of the rural area. Sand roads are important for the habitats of plant and animal communities, including various rare ones. Animals can move along verges and wood and forest crescents, and in addition unpaved roads are – easy to take – environmental connections between nature reserves.

The sand roads are part of the area’s character. However, the use of the sand roads has changed over the years. There has been an increase in traffic, while recreation (in various forms) has increased as well and agricultural activity has declined, but has not disappeared. This change in use has an impact on the user and experiential value of sand roads, as well as how sand roads should be managed and maintained.

As the authors of the Guideline, we cherish the scenic, recreational and environmental value of the sand roads, while at the same time acknowledging the problems they create. While this document does not include design principles for sand roads, it does contain recommendations that help to strengthen these roads.

Recommendations:

- *Paving sand roads is essentially not an option;*
- *Maintaining sand roads and sand paths in their original scenic and cultural-historical set-up/structure;*
- *Enhance scenic and cultural-historical experience;*
- *Spread the narrative of the sand roads through education, promotion or expositions;*
- *Restore ‘disappeared’ sand paths whenever opportunities present themselves;*
- *Ensure clear and sufficient signage;*
- *Research speed-limiting measures and the extent to which they are necessary;*
- *Develop a set of policy ideas with a development plan that enhances environmental value;*
- *Explore the possibilities and desirability of closing some sand roads off to non-local traffic;*
- *Maintain the sand roads and paths according to a manageable standard.*





Park path
Photo by Alexei Maridashvili

THE NEIGHBOURHOOD

*'Groningen accommodates a number of
different worlds, each with its own character.
We value and cherish this unique, individual
character.'*

NEIGHBOURHOODS

Streets, along with parks and squares, constitute the public space of a city within the urban fabric. However, these street typologies are not separate, standalone features: they are part of a network, district or neighbourhood and of the city and surrounding villages. On a larger (neighbourhood) scale, there are other forces at play that affect the design of the street and the public space. In some cases, the priority is more to ensure that the streets are easy to cross and on traffic safety, for example when primary school pupils need to cross a city radial. However, sometimes it can serve as a link in a green-blue network that allow us to contribute substantially to solving the climate challenge in one go. The scale of the neighbourhood can be effective in this case.

This is why we tested for the neighbourhood scale how the new street typologies can result in an alternative organisation of the various neighbourhoods. The main principle here is to promote walking, exercise and to increase experiential value. The organisational structure was investigated at a strategic level, and the streets were tested on a neighbourhood scale. The result is four strategic frameworks for each neighbourhood, with 'measures' and 'refinements' for both the neighbourhood scale and the street typologies. For the framework cards, the 10 dimensions are grouped into four specific areas: Mobility (Mobility, Safety and Accessibility), Green-Blue (Environment and Climate Adaptation), Social (Social Cohesion, Healthy Environment, and Economy) and Experience (Experience and Identity).

In order to access the required information while designing the framework maps, a participative process has been established. Redesigning the public space is not a top-down process. A neighbourhood is something that is created together with residents, business owners and other stakeholders. While drafting the Guideline, 'experience walks' were therefore organised together with residents, interested parties and the area teams. During the walks, the impressions are indicated on the map, the challenges and concerns have been identified and grouped together in twos, in order to clearly define the neighbourhood challenges and street typologies.

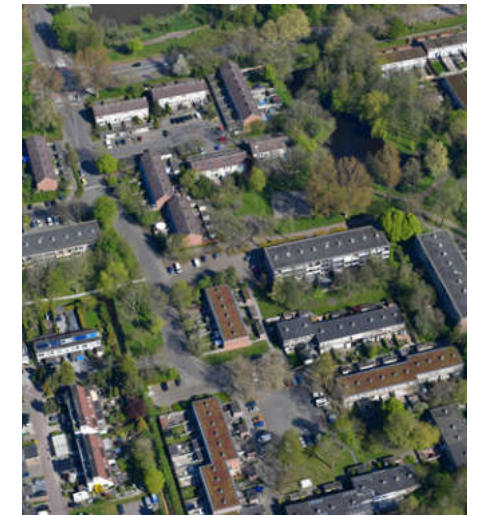
Like the street typologies, the neighbourhoods are not separate, standalone elements. In conjunction with the area managers, a total of six neighbourhoods were selected appropriate to the historical development (and various levels) of the city, which represent a specific urban-design structure. These include: Early Expansion, Post-war Expansion, Residential Neighbourhood, Urban Periphery, Village Centre, and Business Parks.



1. De Hoogte



2. Coendersborg



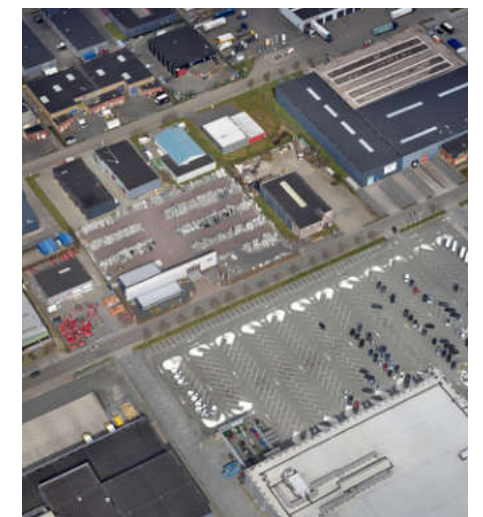
3. Lewenborg-zuid



4. De held - Vinkhuizen



5. Haren



6. Eemspoort

READING GUIDE FOR THE NEIGHBOURHOOD



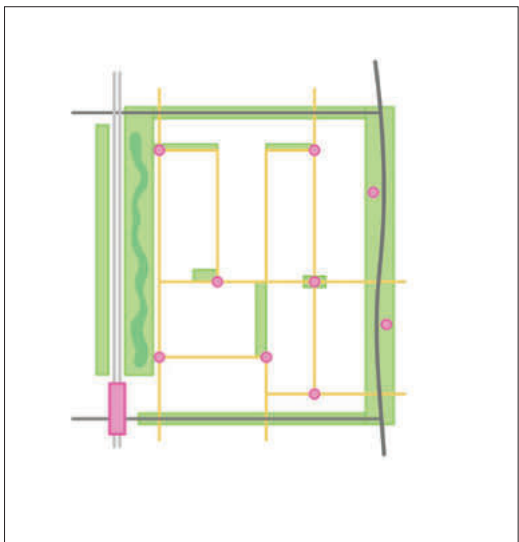
Location

The map of the city of Groningen shows the neighbourhoods falling within this specific urban fabric.



Spider diagram

A spider diagram (also known as a radar diagram) is a web-shaped diagram that is used in statistics in order to indicate the relative impact of different numerical parameters. For the six neighbourhoods, the spider diagram shows the valuation of the 10 dimensions on a neighbourhood scale. The diagram is designed for the current situation and for the alternative organisation of the neighbourhood. This shows what dimensions will change and in what areas the neighbourhood is being improved. The spider diagrams show at-a-glance the hierarchy of the dimensions for each neighbourhood. In addition to the spider diagram of the current situation, a number of characteristics (with explanation mark) have been noted from the analysis of the neighbourhood or context. In addition to the spider diagram of the neighbourhoods, a number of design principles will be identified (marked by a lamp icon).



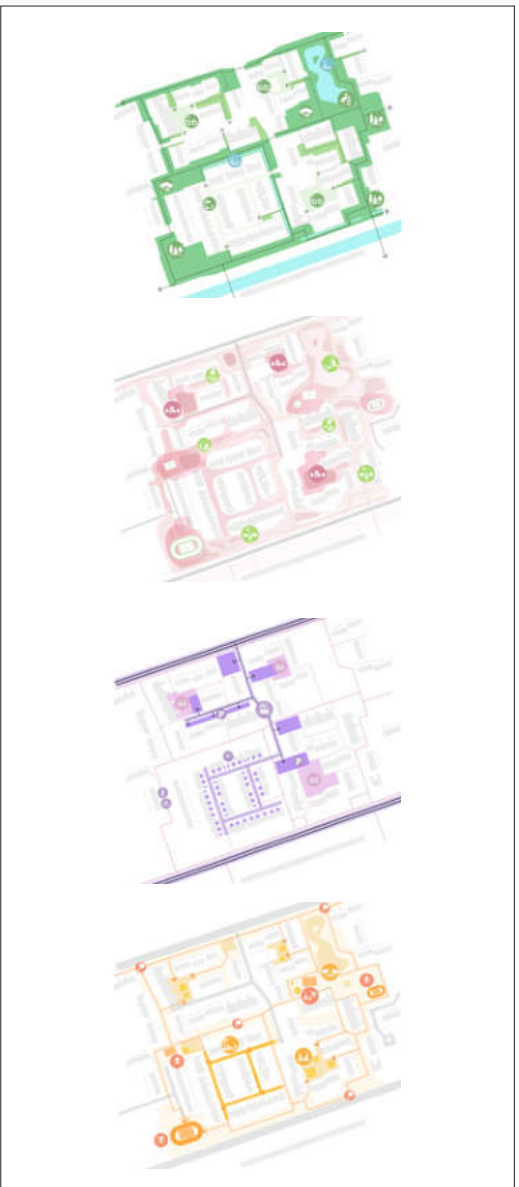
Design schemes

The coloured schedules beside the spider diagrams show the conceptual development of the neighbourhood organisation.



Alternative organisation

The schematic plan shows the alternative organisation of the neighbourhood. This is an overall representation of a new future-proof spatial framework. This involves combining and integrating the 10 dimensions of the street into four thematic maps for the neighbourhood: Mobility, Social, Experience and Green-Blue.



Strategic frameworks

The four strategic frameworks are displayed separately and show where in each area the opportunities are for the 10 dimensions, along with the corresponding measures.

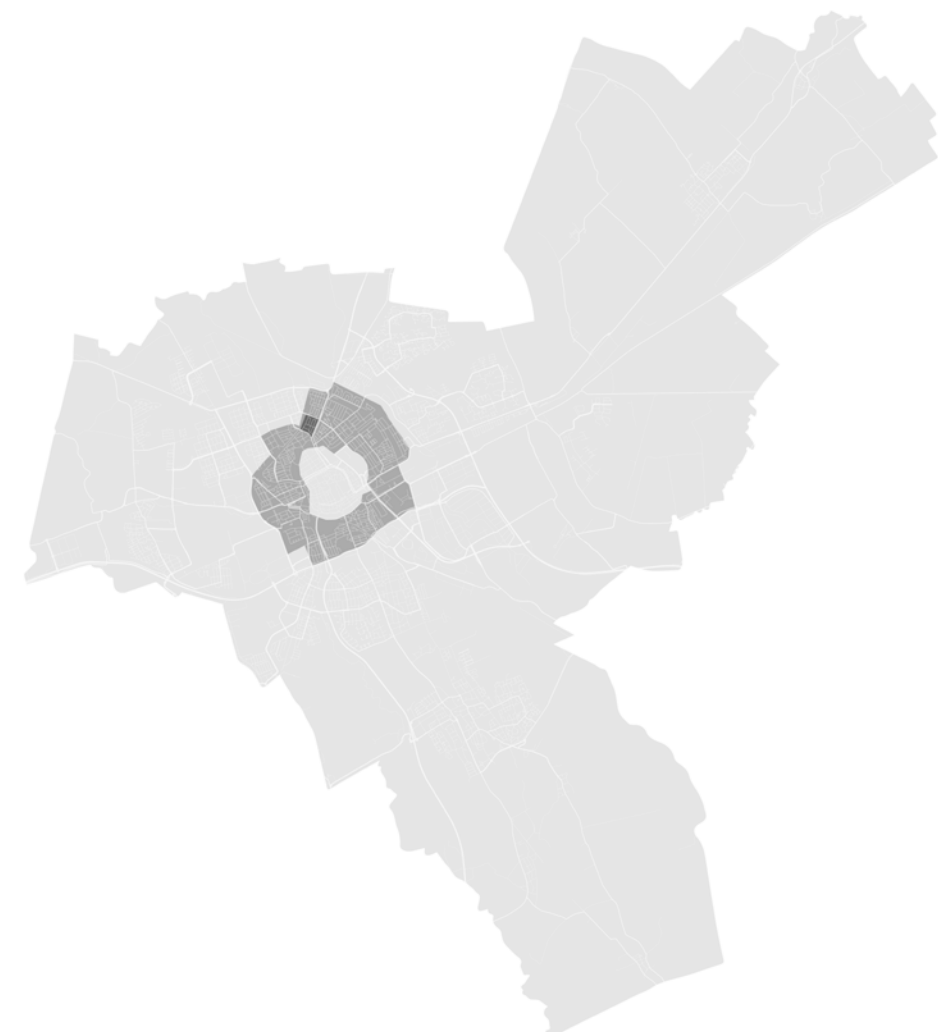


EARLY EXPANSION DE HOOGTE

Neighbourhoods which are part of the urban renewal project contain elements from different construction periods. For example, the foundation for the narrow street pattern with closed building blocks was created between the late 19th and early 20th centuries. In the 1970s, the quality of the housing was so poor that they were renovated or demolished and sometimes replaced by new buildings. According to various studies, many urban renewal neighbourhoods are ready for a new round of conversions.

De Hoogte, a residential neighbourhood located in the north of the city of Groningen, borders in the southwest on Noorderstationsstraat, in the west on the Groningen-Delfzijl railway, in the north on the Van Starckenborghkanaal canal, and in the east on Bedumerweg and the Indische Buurt neighbourhood. Until 1953, the location of the present-day Bedumerweg was the site of the Boterdiep, the waterway that ran from Groningen to Bedum and the north of the province. The railway to Delfzijl was constructed in 1884, while the Van Starckenborghkanaal canal was completed in 1938.

The section immediately north of Noorderstationsstraat is the Selwerderwijk-Zuid neighbourhood, which extends into Asingastraat. The neighbourhood is part of the 'Oude Wijken' area.



Similar neighbourhoods:

- *Indische buurt*
- *Professorenbuurt*
- *Oranjebuurt*
- *Noorderplantsoenbuurt*
- *Schildersbuurt*
- *Zeeheldenbuurt*
- *Badstratenbuurt*

ORGANISATION AND CHALLENGES

EARLY EXPANSION

Early urban development districts have a characteristic urban-design structure. De Hoogte features a tight pattern of residential streets, with little underlying hierarchy between them. Parked vehicles are bringing down the quality of public space in the local streets, while parked bicycles also don't improve the local environment. The residential streets are not large or wide in size: they have narrow pavements, which means various design elements or parked bicycles tend to form barriers. The streets are designed for car traffic with an elevated kerb between the pavement and the driving lane. The street profile has been divided into different parts, causing the different users to have a one-sided perception of the street. The difference in level does not make the street more accessible or facilitate crisscross movements.

The neighbourhood has a paved surface in the public space, creating regular flooding. This is due in part to the substrate, i.e. a heavy clay soil, which inadequately infiltrates water, also due to the lack of green spaces to harvest the water. The existing railway embankment is a green-blue area on the outskirts of the neighbourhood and is part of the Urban Environmental Structure (Stedelijke Ecologische Structuur/SES) of Groningen and enhances the green experience in the neighbourhood. However, the environmental structure does not form part of a network and is connected to a limited extent with other green spaces in the area, including the picking garden on Johan de Wittstraat. This picking garden has

been created and planted by a neighbourhood resident and constitutes the green heart of the neighbourhood, as well as contributing to the climate challenge and biodiversity. These types of initiatives contribute to 'greening' the neighbourhood and improves social cohesion in neighbourhoods. Besides the picking garden, there are relatively few green spaces in this area. The closest park is the Noorderplantsoen public garden, but in order to reach this park one must cross several busy streets.

De Hoogte borders on busy traffic streets, which are perceived as spatial barriers. Bedumerweg serves as one of these barriers, as an access road from Ringweg to the city centre, and has a lack of crossings, resulting in a lack of comfortable walking routes.

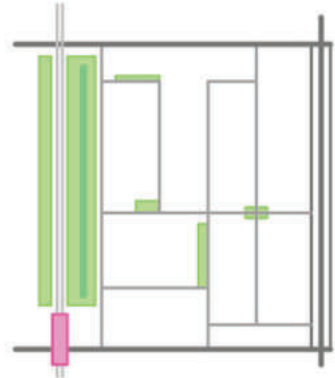
De Hoogte is currently a single-purpose residential neighbourhood with a lack of neighbourhood uses such as a local supermarket or coffee shop, and the playgrounds and local squares have limited appeal to local residents. Residents are creating their own picking garden, which has become the green heart of the neighbourhood and even has an educational purpose. A community service called 'Handig in de buurt' is located around the corner: a workshop where local residents can borrow tools or have small repairs carried out.

ALTERNATIVE ORGANISATION

EARLY EXPANSION



CURRENT SITUATION

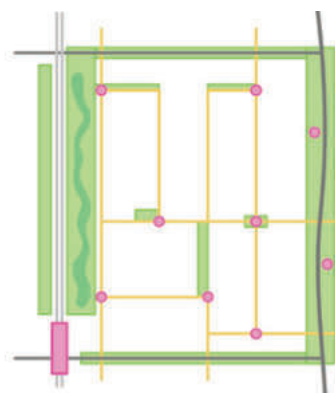


! Surrounding streets as barriers

! 20% low-income households



ALTERNATIVE ORGANISATION



Green spaces

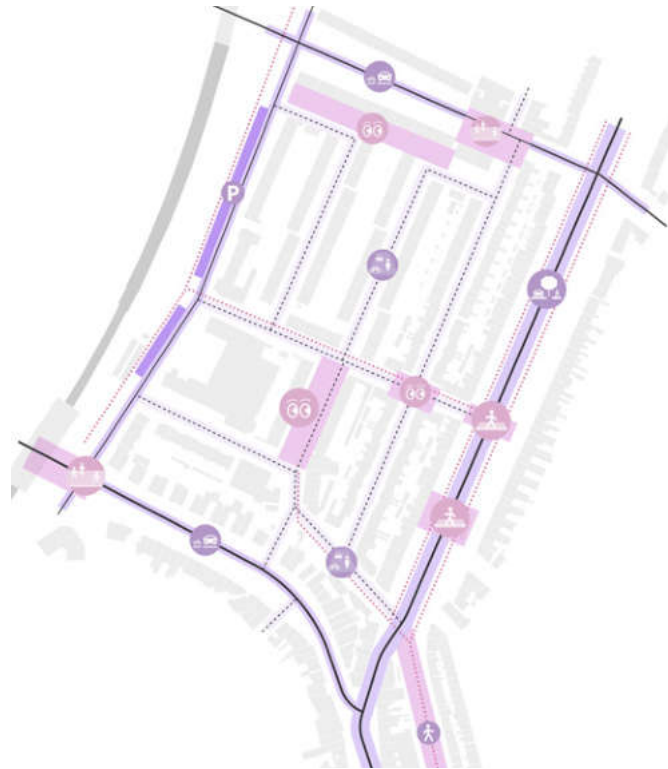
Bedumerweg as 'Bedumerpark'

Residential streets as woonerf



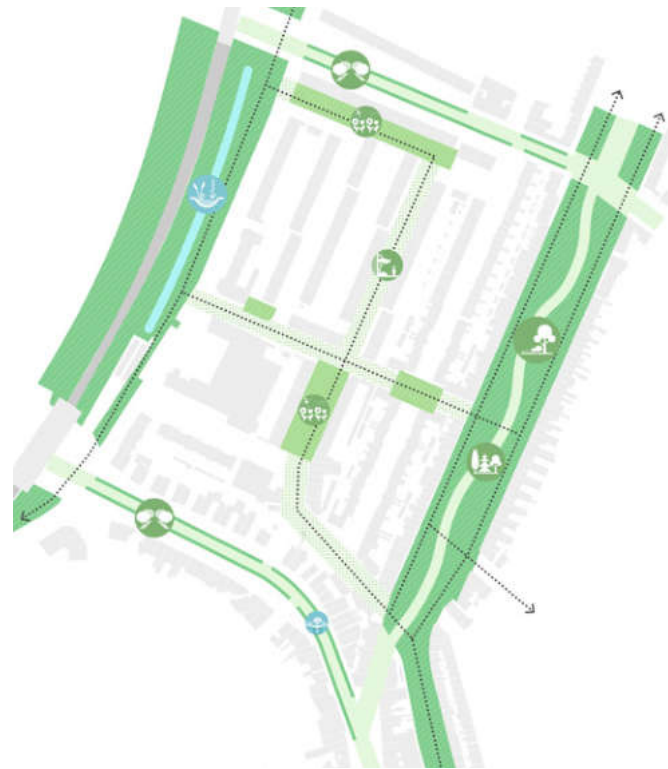
STRATEGIC FRAMEWORKS

EARLY EXPANSION



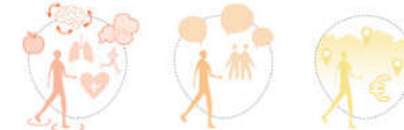
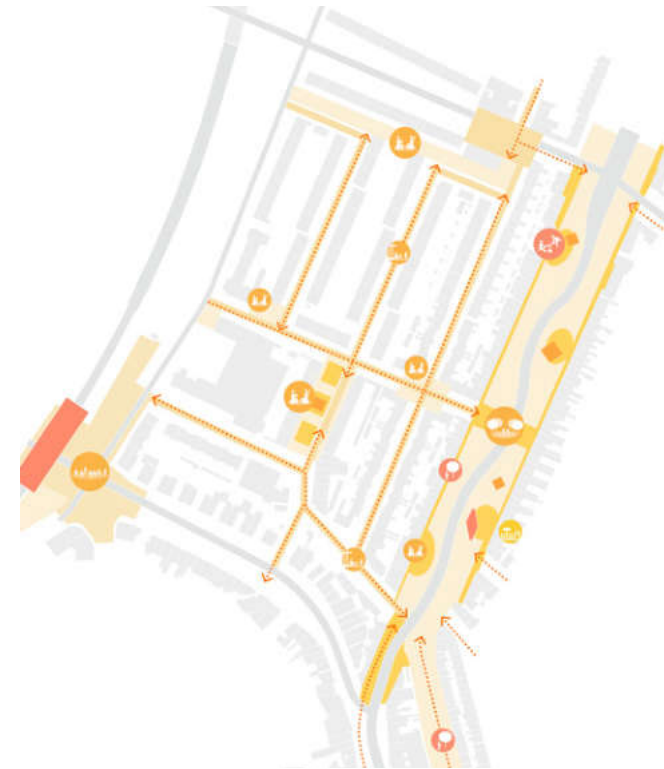
MOBILITY FRAMEWORK

- Strategic integration of parking spaces, so as to free up space for greenery, play and recreation.
- Concentrating some of the parking facilities on the outskirts of the neighbourhood.
- Gradually/systematically converting residential streets into living streets with sufficient green spaces, more space for pedestrians, and meeting places.
- Designing Bedumerweg as a parkway that provides space for safe crossings, creating pleasant walking routes to and from the neighbourhood. The 'parkway concept' applies to Bedumerweg as a whole, but responds to the various segments related to traffic intensity.
- Making the Bedumerweg- Sumatrалаan intersection more compact by managing the parallel roads differently



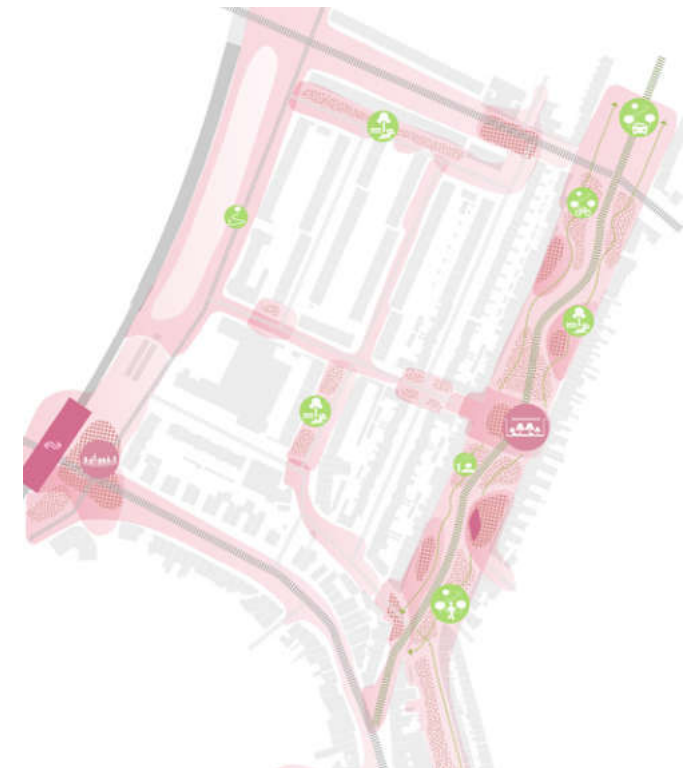
GREEN-BLUE FRAMEWORK

- Bedumerweg as a green connection between Noorderplantsoen and the Park Oost-Indische buurt.
- Two parallel residential streets as green 'carpets' to interconnect the various green recreational spaces and create pleasant walking routes to and from the neighbourhood.



SOCIAL FRAMEWORK

- More space for recreation and social interaction in the residential streets as residential areas.
- Bedumerweg as a green park destination close to the neighbourhood, which is a safe space for children.



EXPERIENTIAL FRAMEWORK

- Reducing differences in height at the street level to a minimum
- Reducing parking creates space for pedestrians in residential streets
- Increasing the amount of green space in existing places and connecting them to each other
- Comfortable and intricate walking grid where pedestrians are prioritised
- Green residential areas that connect De Hoogte with the surrounding neighbourhoods, as well as connecting spaces within the neighbourhood with each other
- Designing Bedumerweg as 'Bedumerpark'. The green park setting offers a pleasant recreational and walking environment and also serves as a link to the city centre and the Noorderplantsoen park.

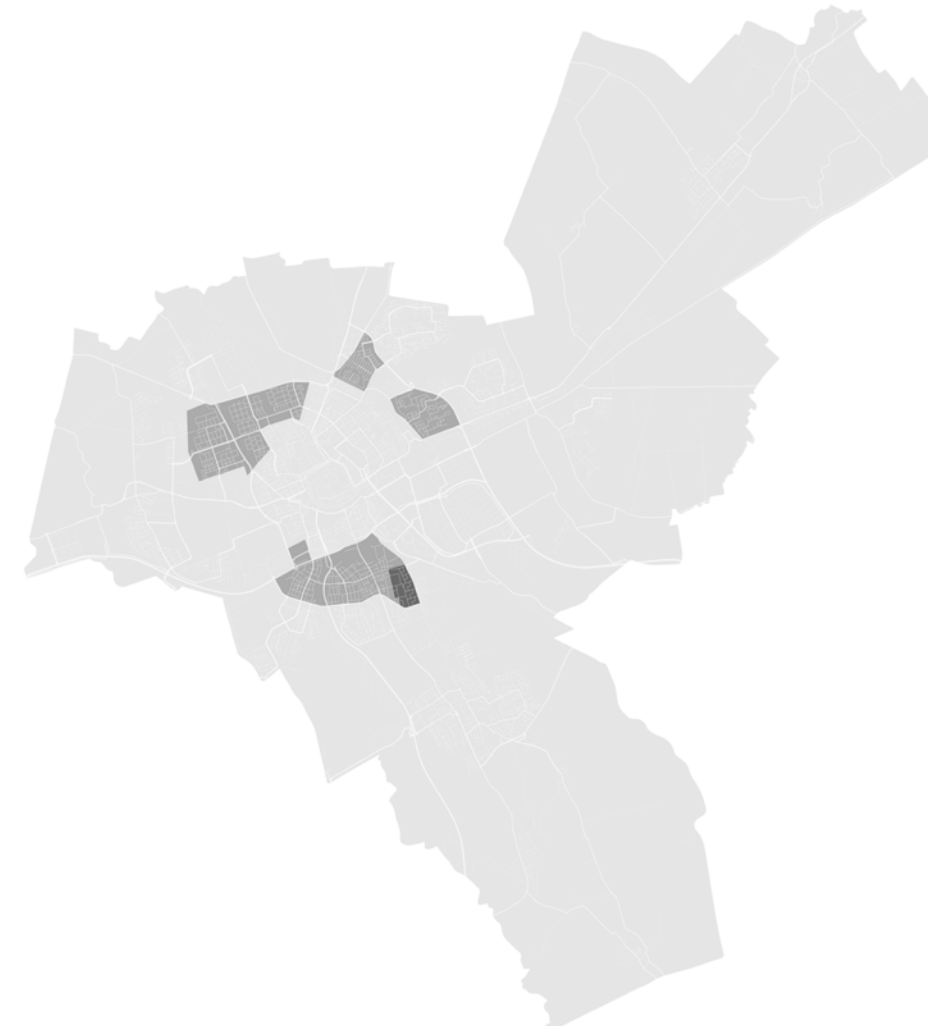


POST-WAR NEIGHBOURHOOD COENDERSBORG

As in the rest of the Netherlands, Groningen attempted after 1945 to solve the housing crisis. Most building plans created in the immediate aftermath of the war were developed as quickly and inexpensively as possible using the materials available at the time.

This type of location has a clear spatial hierarchy of main streets, residential streets, squares and public green spaces, both at the neighbourhood level and the district level. Neighbourhoods are designed as independently functioning units with a centrally located neighbourhood centre and a great diversity of housing types. Building volumes are organised in repetitive patterns or columns.

Coendersborg is a neighbourhood in the southern part of the city of Groningen, located between Helpman and the Groningen-Assen railway. The older part of the neighbourhood is characterised by public housing from the 1960s and 1970s, while the newer section consists mainly of more expensive owner-occupied homes dating from the end of the twentieth century.



Similar neighbourhoods:

- Vinkhuizen-Noord
- Paddepoel-Noord
- Paddepoel-Zuid
- Selwerd
- De Wijert-Noord
- Corpus Den Hoorn-Noord

ORGANISATION AND CHALLENGES

POST-WAR NEIGHBOURHOOD

Coendersborg was built during a period which saw a massive increase in the amount of car traffic, and cars play an important role in the neighbourhood. The neighbourhood is intersected by three east-west connections: Helper Brink, De Savornin Lohmanlaan and Goeman Borgesiuslaan. An intricate network of residential streets is located between the main roads. The buildings consist mainly of a strip of high-rise buildings (three to four levels) and low-rise buildings that are repeated elsewhere. Situated within the strip is a bayonet-shaped former residential street into which a 10-metre-wide green zone has been integrated. These green areas serve as a central ‘green lung’ and living space for the surrounding homes and their residents. Behind the single-family homes, you will find paved parking spaces with garage boxes that have been constructed to relieve the high demand for parking in the residential streets. Despite the parking clusters, the residential streets are filled with parked cars. The back of the apartment blocks face peaceful green courtyards, which are poorly accessible from the street, are underused, and serve mainly aesthetic purposes for residents of the surrounding apartments.

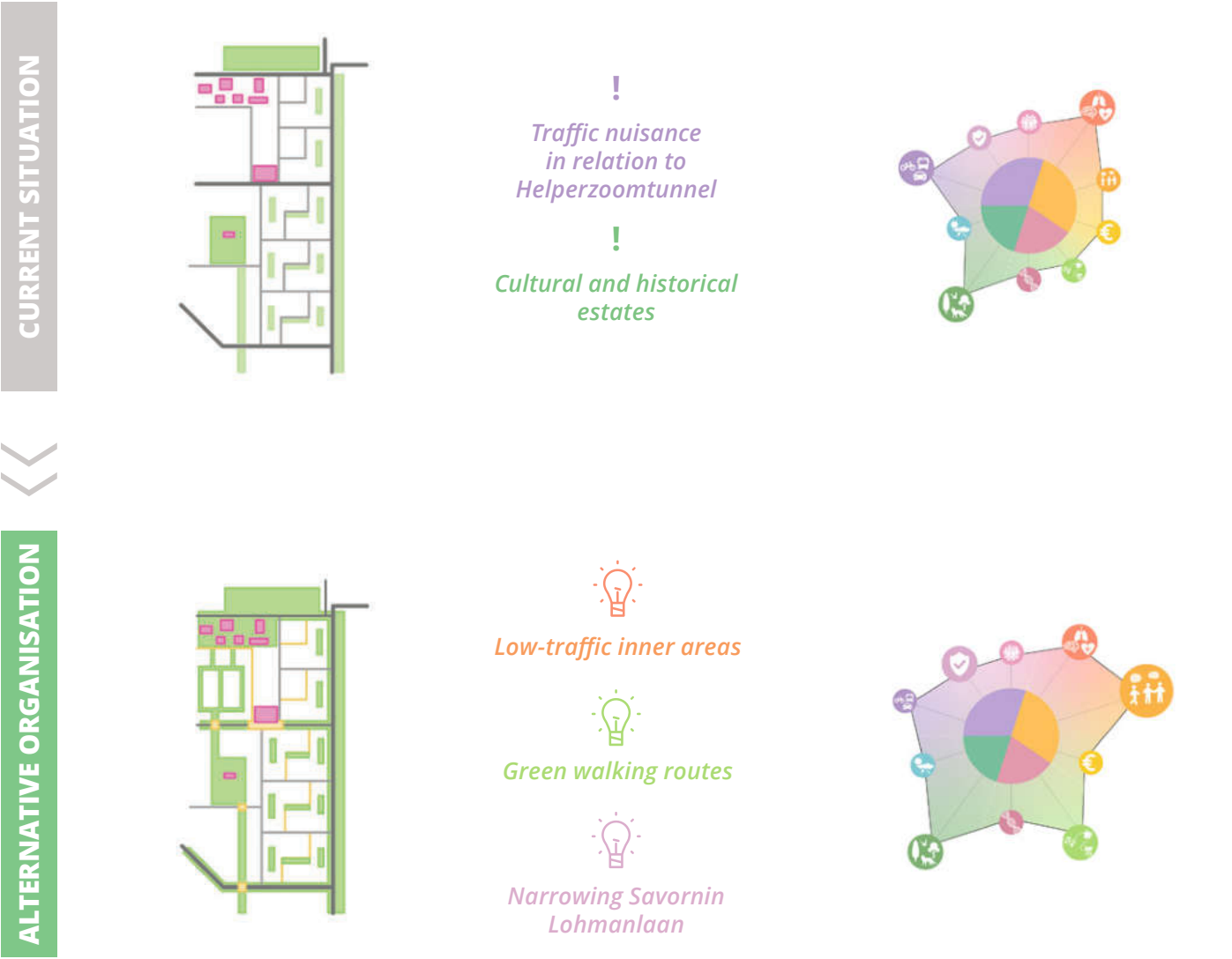
Coendersborg has a number of valuable green features,

including the Groenestein park, the Coendersborgh estate, and the Esserveld cemetery. A green walking network connects the cemetery and the estate with each other, but there is no walking link that leads to the Groenestein park. In addition to the country estates, the Helperzoom serves as a green structure through the neighbourhood. The extensive profile of Helperzoom consists of wide green sections and a ditch with environmental reed banks.

The neighbourhood uses are concentrated on the east-western lanes. De Savornin Lohmanlaan is home to the central shopping centre, while the Helper Brink is home to a number of schools and care homes. The construction of Helperzoomtunnel has increased the amount of traffic in the neighbourhood. It was decided to create a strip for car traffic on the Helper Brink, on account of the vulnerable populations who use the avenue (i.e. the elderly and children). This has resulted in a significant increase in congestion on De Savornin Lohmanlaan, even though the avenue is designated as a neighbourhood street in the Mobility Plan.

ALTERNATIVE ORGANISATION

POST-WAR NEIGHBOURHOOD



STRATEGIC FRAMEWORKS

POST-WAR NEIGHBOURHOOD



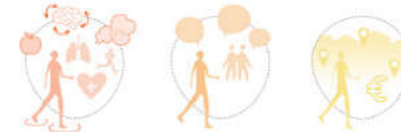
MOBILITY FRAMEWORK

- By incorporating a narrower design for Savornin Lohmanlaan with a different use of materials (e.g. partial permeable paving), the street will have the look and feel of a neighbourhood street and be less welcoming/appealing to car traffic.
- Designing the square in front of the shopping centre more for pedestrians, with cars being regarded as 'guests'.
- Make the 'through-traffic streets' (east-west) more accessible through strong slow-traffic routes and crossings in the north-south direction,
- Narrow the driving lane and make more room for cyclists,
- Park in parking spaces on the pavements as much as possible instead of on the driving lane, so as to make the latter appear narrower,
- Make sure the streets are less the domain of cars: less asphalt, more baked-brick paving, more room for pedestrians and bicycles,
- More variety and asymmetry in the street profile,
- Car traffic can be reduced in the bayonet-shaped residential streets in order to create pedestrian-friendly inner areas where children can play safely.



GREEN-BLUE FRAMEWORK

- Connecting the Coendersborgh estate and the Groenestein park with each other by making the green areas around the tennis courts and school complexes accessible as green corridors with park paths,
- Connecting green features in the neighbourhood together and creating an intricate green network, such as increasing the visibility of the local Landgoed Coendersborgh estate,
- Enhancing the green, avenue-like quality of De Savornin Lohmanlaan by replicating the existing green strip on the southside of the driving lane on the northside,
- The green lungs on the bayonet-shaped residential streets can be integrated into the courtyards behind the tower blocks in order to create green walking links within the strip and towards the Coendersborgh estate,
- Increase biodiversity through the use of green fences, several types of trees and green gardens/ front yards, for example Troelstralaan,
- Cherish the green inner areas as havens of peace and tranquillity



SOCIAL FRAMEWORK

- By reducing the amount of car traffic in the bayonet-shaped residential streets, the central green areas are enhanced as spaces for social interaction between neighbourhood residents.
- Offer a meeting place in the square around the shopping centre on De Savornin Lohmanlaan, so as to transform the square into the social heart of the neighbourhood.
- Residents are engaged; involve them in the process of designing their own neighbourhood and/or street, including on Groen van Prinstererlaan.



EXPERIENTIAL FRAMEWORK

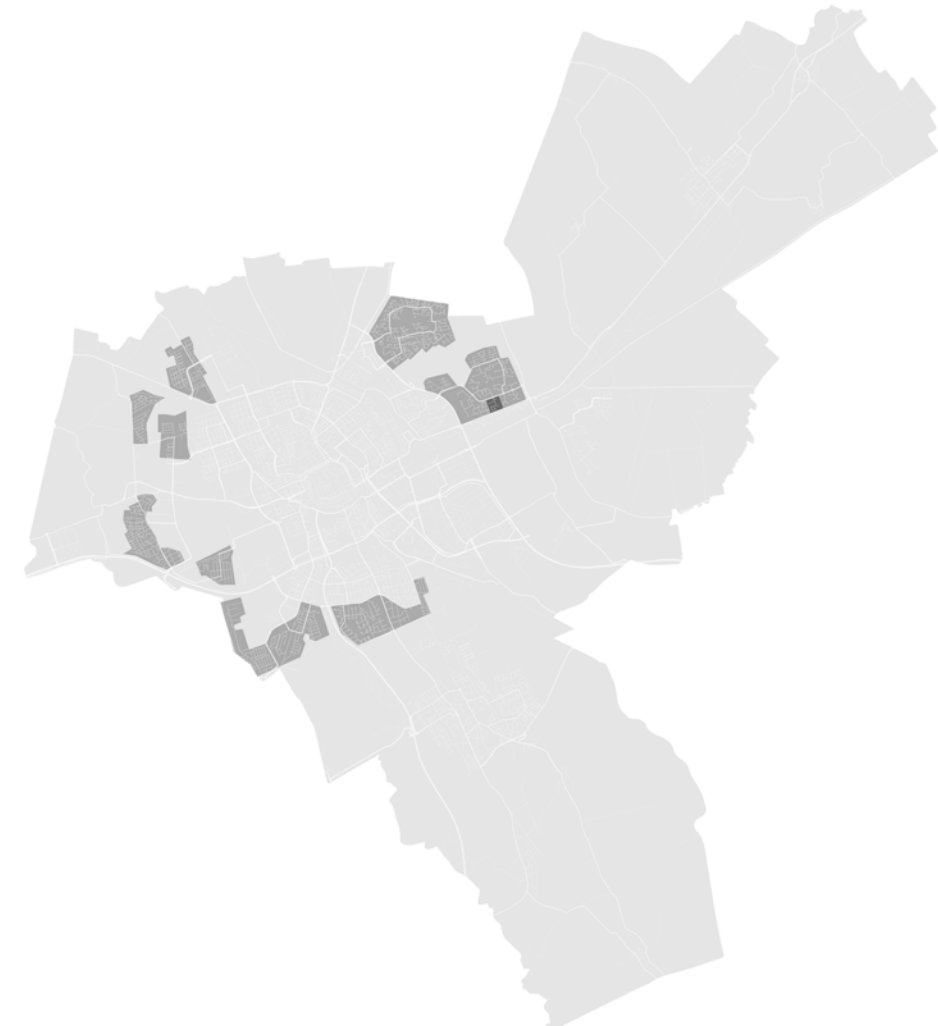
- The area within the strip will become a pedestrian territory, where people can move around and spend time in comfort.
- Increase the contrasts in the neighbourhood with hidden green havens within the strips, more opportunities for play and recreational activities in the residential streets, and promote shared use of the street in the east-western avenues and north-south streets.
- Make sporting facilities part of a route network: 'Seeing other people exercise will make you want to exercise'
- Enhance the area around the shopping centre on De Savornin Lohmanlaan as a comfortable square zone. The high-rise buildings located in this area serve as a reference point in the neighbourhood
- Make various 'walking routes' visible and perceptible
- Enhance the routes, visibility and connections with a powerful identity medium such as the Landgoed Coendersborg estate and the neighbourhood.



WOONERF NEIGHBOURHOOD LEWENBORG-ZUID

The residential neighbourhoods of the 1970s were built in response to the large-scale structure of the post-war urban fabric. The fabric is focused mainly on qualities such as peace/tranquility, green areas, and intimacy as an alternative to the busy city centre. The through traffic was kept out of the residential neighbourhoods. Angled streets and speed ramps were added to reduce traffic speed. The neighbourhoods have a highly branched map, with most of the residential streets ending in cul-de-sacs.

Lewenborg is a neighbourhood located in the eastern part of the city of Groningen. It is situated outside the ring road and borders on the Damsterdiep on the southside and the surrounding land on the North side and East side. Construction of the neighbourhood began in 1971.



Similar neighbourhoods:

- *Beijum*
- *De Wijert-Zuid*
- *Oosterhoogebrug*
- *Gravenburg*
- *De Held*

ORGANISATION AND CHALLENGES

WOONERF NEIGHBOURHOOD

Lewenborg is characterised by what is known as a ‘tree-shaped traffic structure’. The dead-end residential streets end in enclosed residential areas; these are single-purpose residential areas with no commercial programme or facilities/amenities. The residential neighbourhood was originally conceived as a green and quiet residential neighbourhood where pedestrians and cyclists are prioritised. However, in reality, the residential areas are dominated by cars: they are filled with parked vehicles, many of which are parked poorly and inefficiently. They are mostly paved, with few green spaces. The surrounding homes have their front yards facing the residential area. However, many of the gardens are surrounded by high fences and shrubs in order to block the view of the parked vehicles. This creates an anonymous perception of the residential area, poor ambience, and no opportunities for spontaneous social interactions.

The backs of the homes border on a green structure consisting mostly of impenetrable shrubs, which

makes living in a residential area a very private experience. The continuing green structure is a key source of identity and is full of play facilities and sports fields. These green areas may have an anonymous feel to them due to the lack of main walking routes.

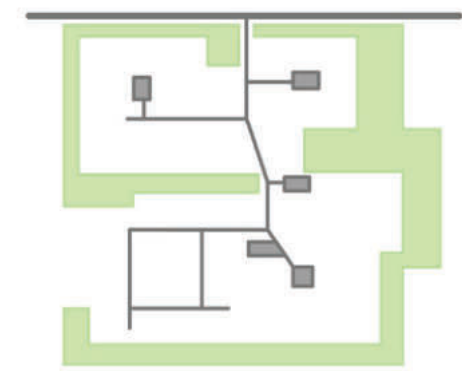
The Bakboordswal is the thoroughfare that links the residential areas and connects Lewenborg with the rest of the city. The bus stops are located on this tree-lined avenue. In Lewenborg-Zuid, we can make a distinction between the section with owner-occupied homes and the section containing rental homes. The sections with many public-housing units see a lot of residents passing through, which reduces the amount of social cohesion in the area. This is visible in the condition of the public space. The section of the neighbourhood is highly paved, but looks more carefully maintained. People feel more like ‘owners’ of the public space outside their homes.

ALTERNATIVE ORGANISATION

WOONERF NEIGHBOURHOOD



CURRENT SITUATION

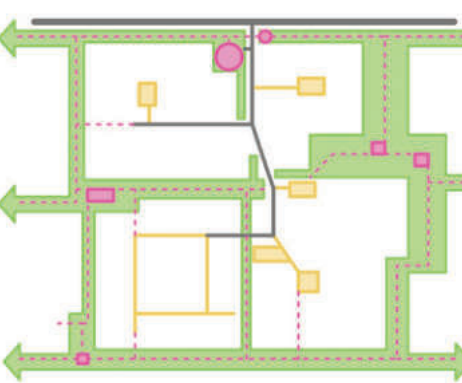


! Inefficient parking spaces

! Inaccessible green spaces



ALTERNATIVE ORGANISATION



💡 Communal gardens

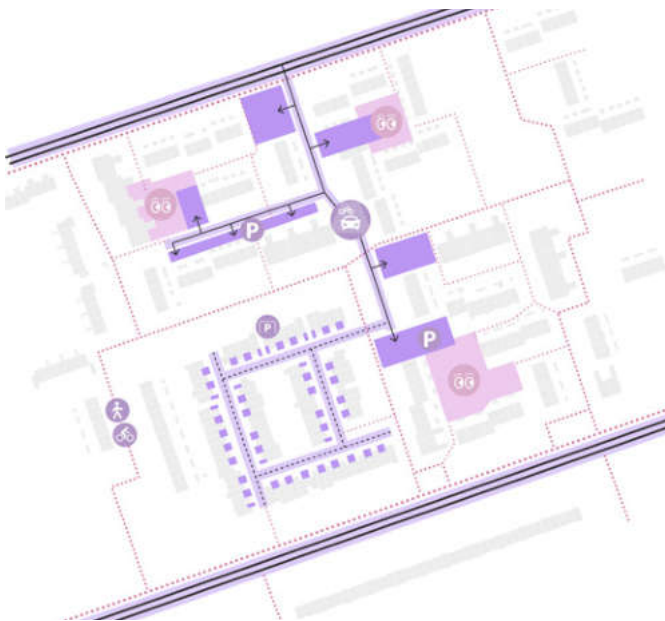
💡 Walking routes through the green spaces

💡 Clustering of parking spaces



STRATEGIC FRAMEWORKS

WOONERF NEIGHBOURHOOD



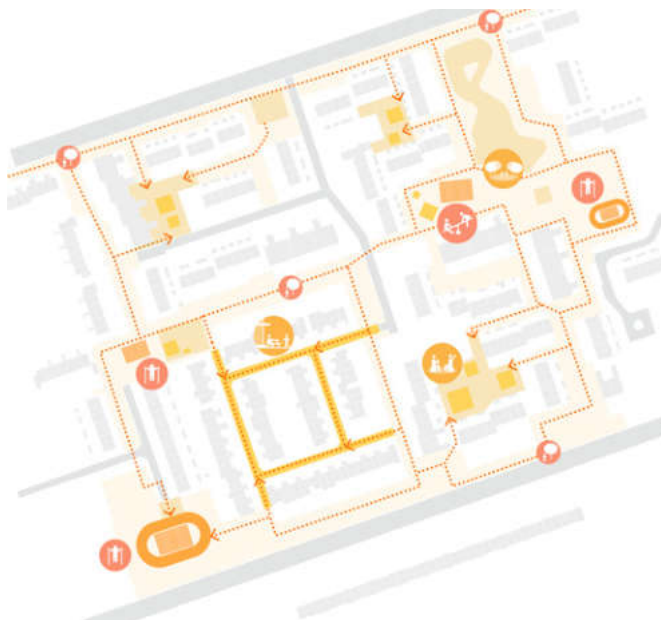
MOBILITY FRAMEWORK

- By grouping the parking space together as close as possible to Bakboordswal in a number of areas, the residential areas can be kept free of parked vehicles. Cars will then not venture as far into the neighbourhood, thereby creating room for meeting places and activities;
- Strategically grouping together parking facilities in the neighbourhood (e.g. on the sides of homes where there are no addresses) to make space available in the typical residential areas;
- Establishing a mobility hub on Bakboordswal combined with a parcel machine and postage machine;
- The green ring around the neighbourhood can be activated by a solid bicycle and walking network with high-quality connections into the residential areas,
- Redesigning streets in order to reduce speed;
- Using Bakboordswal as a high-quality public-transport ring through the neighbourhood.



GREEN-BLUE FRAMEWORK

- The green ring road around the neighbourhood provides numerous opportunities. By improving access to the green areas through walking and cycling routes, the green areas can serve as the new front where people enter the neighbourhood,
- Differences in height at ground level block vehicles from view,
- Connect the fragmented green areas with each other to create a well-organised intricate green network,
- Green fences add some tranquillity, provided that there is sufficient coherence and adequate management and maintenance,
- Greater variety in green areas in terms of images, perception and biodiversity,
- Improved maintenance of the green areas, in order to improve views and enhance the quality of the disorganised green areas.



SOCIAL FRAMEWORK

- The private nature of the residential areas can serve as a starting point to convert the areas into communal gardens where neighbourhood residents can meet each other while retaining a sense of ownership and responsibility for the space,
- Greater diversity in recreational areas in the public space, and linking this to the adjacent programme, where the need is the greatest, e.g. near apartment buildings,
- The green ring in and through the neighbourhood will be activated with main bicycle and walking routes, where the public programme (including play facilities) are located.



EXPERIENTIAL FRAMEWORK

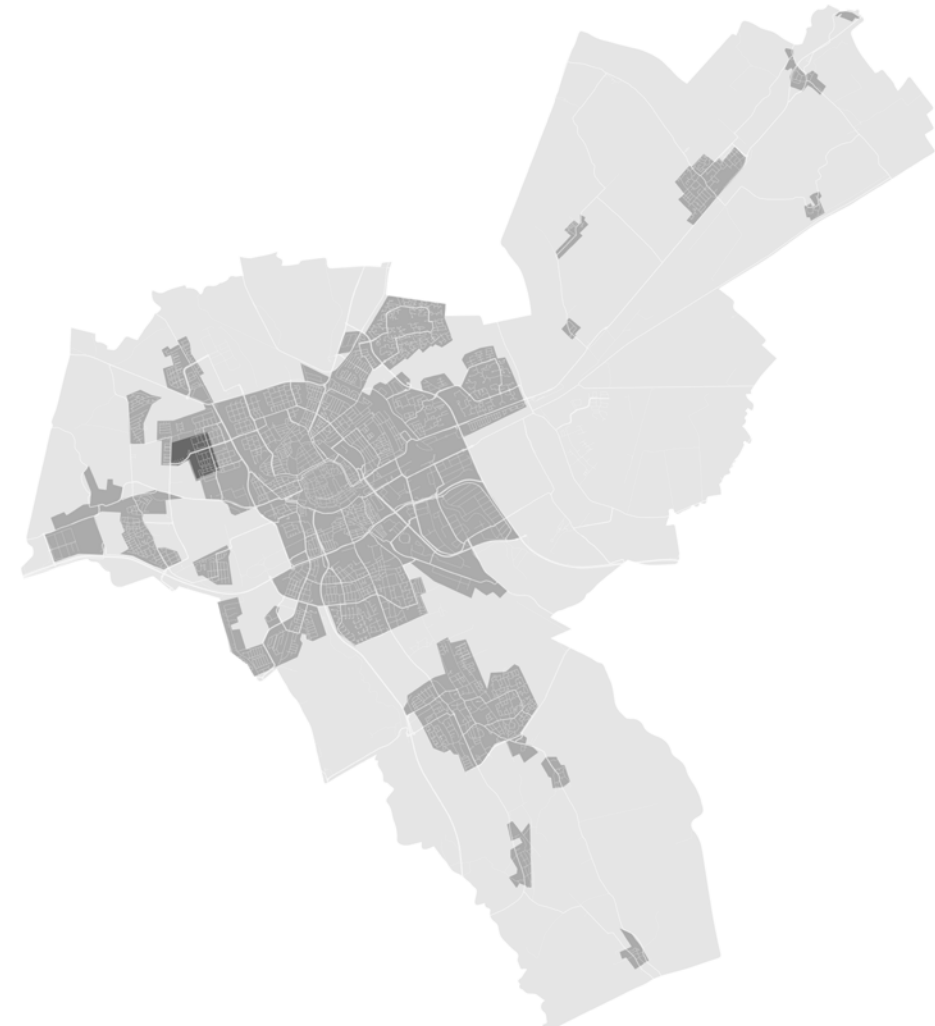
- The green structure, which will become the comfortable transit route through the neighbourhood, contains public neighbourhood uses such as play spaces,
- Add more variety to play spaces and recreational spaces,
- The residential areas will be converted into communal/community gardens where neighbours can meet each other and pedestrians can move around freely,
- Create clear and well-organised fronts and backs that enhance the neighbourhood's structure in order to improve the disorganised public space,
- Lowering fences towards the residential area in order to increase/promote social control.



URBAN FRINGE DE HELD - VINKHUIZEN

The urban periphery is the transitional area between the city and the surrounding rural areas. At the urban periphery, there is room for communal garden complexes, large-scale green areas and recreational areas alongside residential and recreational areas. In addition, we see that urban outskirts are increasingly used to generate sustainable solar and/or wind energy. The composition of these different uses varies for each urban periphery. However, something all urban peripheries have in common is that they serve as 'buffer zones': areas that connect friction between the high-rise red buildings and the surrounding green landscape.

The Vinkhuizen neighbourhood is located in the northwest part of the city, west of the western ring road (Friesestraatweg). The southern side is bordered by the Hoendiep, the Kostverloren district and the West-end business park. Located on the westside are De Held, the Roege Bos and the rural Westpark area, and on the north side you will find the area on the rural Golden Raand, which is also home to a communal garden project.



Similar neighbourhoods:

- *Reitdiep*
- *Gravenburg*
- *Hoornse Meer*
- *Piccardthof*

ORGANISATION AND CHALLENGES

URBAN FRINGE

Like Coendersborg, Vinkhuizen was designed during the post-war period, and the massive housing crisis affecting the country at the time caused the district to be built and completed within record time. This involved the most far-reaching standardisation and rationalisation of the building practice which the city of Groningen has seen throughout its history. The main structure of Vinkhuizen consists, in east-west direction, of Siersteenlaan, and in northern-southern direction it consists of Diamantlaan. Linked to these thoroughfares you will find neighbourhoods with an intricate network of residential streets. These residential streets are paved, with little green space, causing regular flooding and heat-related stress in the neighbourhood. The local green recreational spaces are located mainly behind the apartment complexes. The street has an anonymous feel to it, due in part to the large number of parking facilities located in the streets. Several residential streets are designed as car-free residential paths. These residential paths are often paved, while at the same time providing space for children playing. In addition to families with children, there are many older people living in Vinkhuizen, particularly in the apartment blocks. These vulnerable populations require a safe and comfortable living environment.

The commercial uses and facilities are centrally grouped around the district. The Vinkhuizen shopping centre and the vensterschool (comprehensive primary school) are located on Siersteenlaan. Around Metaallaan on Diamantlaan, there are schools that have no address and are facing the street, due in part to the busy traffic on Diamantlaan. Congestion will also increase in the coming years in connection with the scheduled developments just outside the Vinkhuizen district. In the south, a new link will be constructed with the new Suikerzijde residential district, while in the west there are development plans for the area around De Held.

Located between De Held and Vinkhuizen are the recreational areas the Roege Bos and the Westpark park. Despite the proximity of these green areas, the relationship between the city and the surrounding countryside remains underutilised. The Diamantpark park and the Kornalijnlaan park are an early initiative to incorporate the green landscape into the neighbourhoods. Nevertheless, the surrounding landscape is not very visible or perceptible in the neighbourhoods.

ALTERNATIVE ORGANISATION

URBAN FRINGE



HUIDIGE SITUATIE

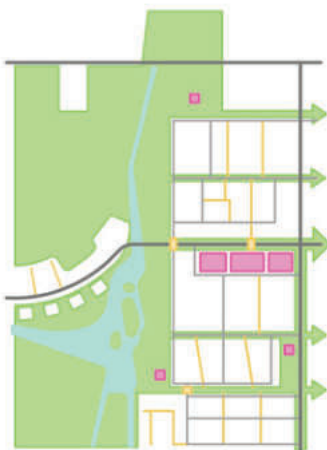


! Paved residential streets

! Vulnerable senior citizens



ALTERNATIEVE ORGANISATIE



💡 Residential streets as residential paths

💡 Integrating surrounding landscape into the neighbourhood

💡 Parking spaces at the backsides



STRATEGIC FRAMEWORKS

URBAN FRINGE



MOBILITY FRAMEWORK

- By converting multiple residential streets into communal residential neighbourhoods, a car-free pedestrian network is created through the neighbourhood,
- The parking spaces in these changing residential streets are relocated to the back of the tower blocks to the extent possible,
- Strategic concentration of parking facilities,
- Promoting the use of shared vehicles in the neighbourhood,
- Relocating parking from the driving lane to the pavement.



GREEN-BLUE FRAMEWORK

- Create a stronger connection with the landscape area (e.g. Het Roege Bos) and integrate this green quality into the neighbourhood by 'greening' the streets,
- More green spaces and less paving helps reduce heat-related stress,
- As tree-lined avenues, Diamantlaan and Siersteenlaan can become the structure bearers of the neighbourhood's spatial framework,
- Increase biodiversity through the use of green fences, several types of trees and green gardens/front yards.



SOCIAL FRAMEWORK

- By positioning parking spaces at the rear of the tower blocks as much as possible, there will be room in the residential streets for various activities and interaction, creating lively streets with social interaction at the front of the homes,
- Connect the social programme with the neighbourhood and the directly adjacent public space,
- Convert district and neighbourhood uses into attractive recreational spaces,
- Involve residents in designing their own neighbourhood and/or street.



EXPERIENTIAL FRAMEWORK

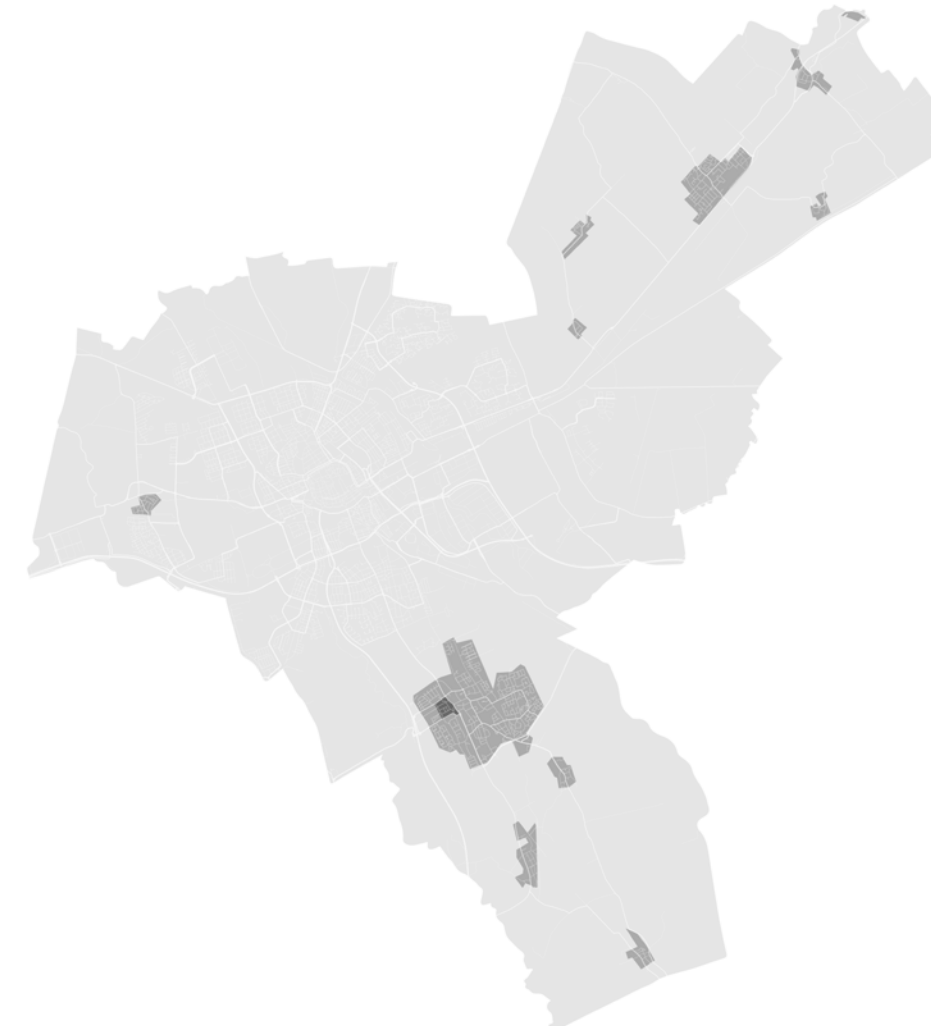
- Create a green network/walking network that is connected to an adjacent landscape area (e.g. Het Roege Bos) and connect this with the neighbourhood,
- Create a network with car-free residential paths, so as to provide enjoyable walking routes for people of all ages in and through the neighbourhood,
- Add more variety to play spaces and other spaces,
- As part of redevelopment projects, give the street a new identity that enhances the character of the location or introduces a new and unique quality.



VILLAGE CENTRE HAREN

Since the municipal redevelopment on 1 January 2019, the villages in the former municipalities of Haren and Ten Boer and the city of Groningen have been combined to form a new municipality. Most of the village centres have a green structure with a low construction density; they often consist of historical ribbon development and esdorp villages that have grown organically. Various ribbons in the municipality of Groningen have a highly rural and informal style, characterised by a frayed edge of detached construction. The plots of land are relatively large, which creates an open structure and a view of the rural hinterland.

Haren is located immediately southeast of the city of Groningen. Due to its location and other factors, it is a typical 'bedroom community'. The earliest signs of habitation in the area that is the present-day town of Haren dates back around 4,500 years. Haren is the largest town centre in the municipality of Groningen and differs from other, smaller village centres in terms of its town planning.



Similar neighbourhoods:

- *Ten Boer*
- *Ten Post*
- *Woltersum*
- *Hoogkerk*

ORGANISATION AND CHALLENGES

VILLAGE CENTRE

Haren will be connected to the Groningen city centre through Rijkssstraatweg, an urban radial that runs through the Haren village centre. The street has been designed as a shared space and serves as the village’s shopping precinct. Facing the street you will find, for example, Raadhuisplein and the village church as one of the village’s key landmarks. Vondellaan and Emmalaan run perpendicular to Rijkssstraatweg and connect the village to the A28 motorway. The avenues have a typical ‘Haren profile’, featuring old rows of trees and green verges with adjacent detached village houses and large green plots of land. The avenues and gardens give Haren a green look and feel with a solid green framework. However, there are some connections still missing, including Westerse Drift. The section of Westerse Drift around the fire station has a wide design and is paved to ensure accessibility for

first-responder services. The village centre is also paved and contributes to heat-related stress. Raadhuisplein is a meeting place and provides room for small-scale events, but has a lack of green spaces.

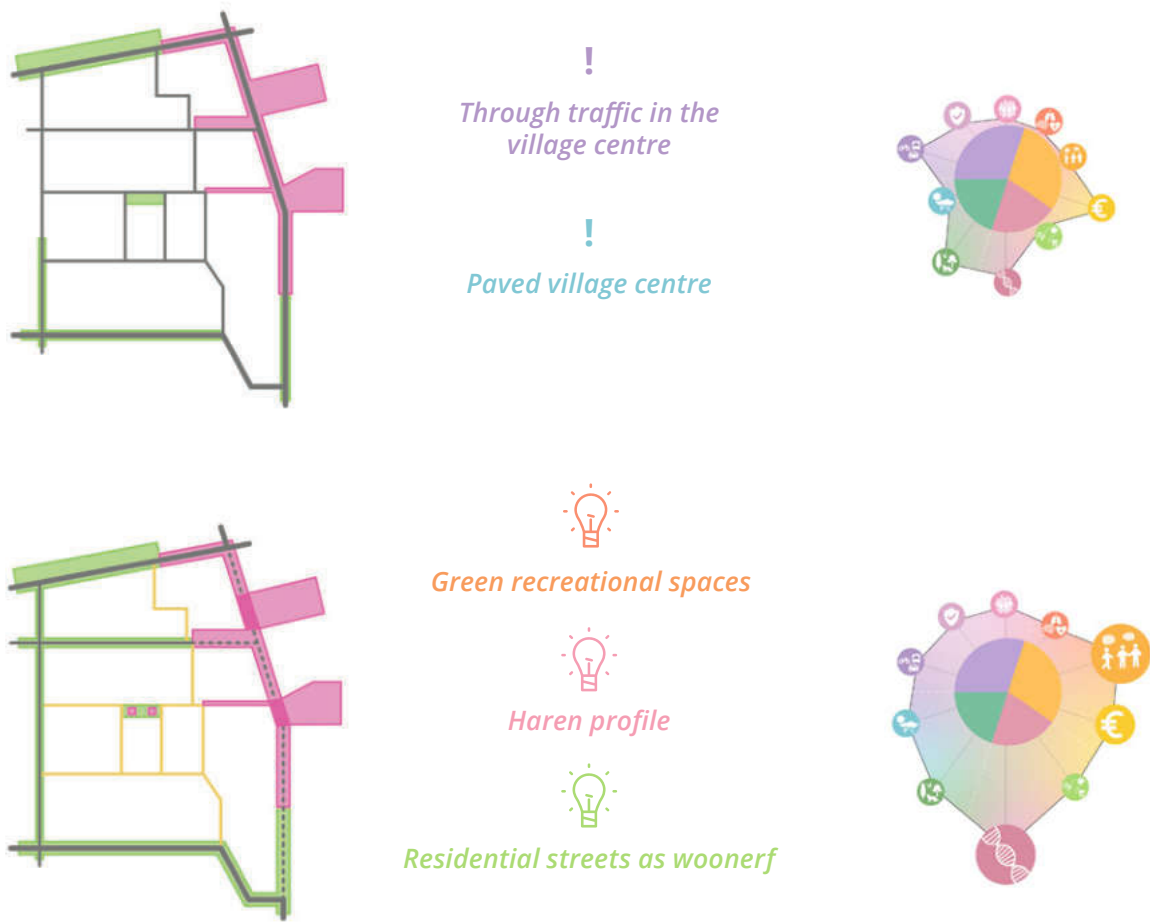
The residential area consists of narrow residential streets. Most of the streets in the village are asphalted, with the pavements also designed in closed asphalt paving. The green spaces in the streets consists mainly of greenery in private areas. There are a number of public green spaces with play facilities, where neighbourhood residents can meet one another. However, these spaces are still lacking in quality as recreational spaces.

ALTERNATIVE ORGANISATION

VILLAGE CENTRE

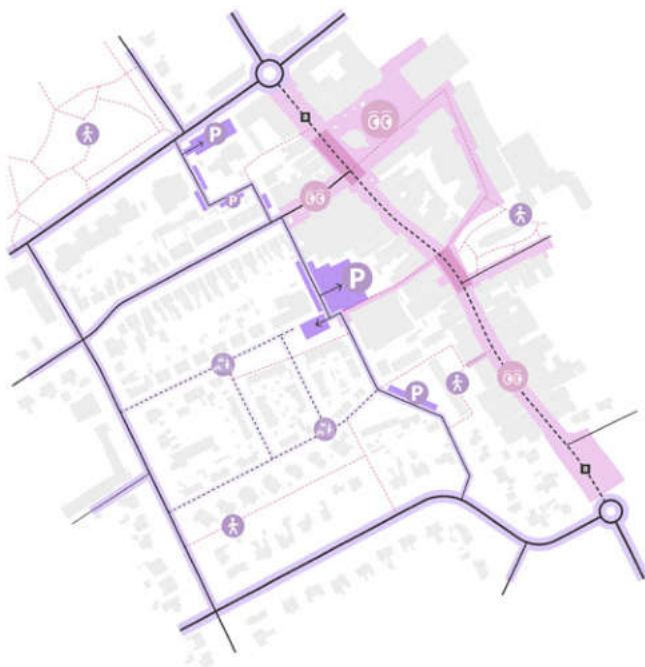
CURRENT SITUATION

ALTERNATIVE ORGANISATION



STRATEGIC FRAMEWORKS

VILLAGE CENTRE



MOBILITY FRAMEWORK

- Prevent through traffic through village centres. Bring the through traffic in Haren towards the motorway through Emmalaan and Vondellaan: this makes it possible to relieve part of the city centre from through traffic.
- Design the local residential streets as residential areas,
- Improve crossing options on Vondellaan,
- Design neighbourhood streets at a maximum speed of 30km/h,
- Evaluating the redesign of Rijksweg in order to make it easier to cross.



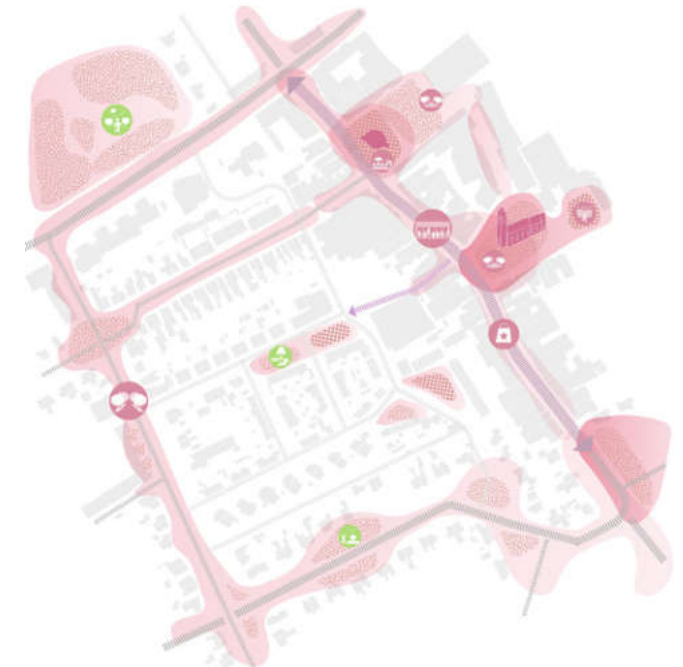
GREEN-BLUE FRAMEWORK

- Haren is a village with a clear structure of green spaces. The main challenge lies in filling the missing links of the green framework,
- Add more green spaces to Rijksweg appropriate to the extensive use of this road,
- Cherish the (green) triangular recreational spaces within the centre,
- Maintain existing trees in the redevelopment of the street profiles,
- Maintain and strengthen existing biodiversity,
- Add more green spaces to the village centre, starting with Raadhuisplein, which has the potential to become a green recreational space with no heat-related stress.



SOCIAL FRAMEWORK

- One factor that is important to strengthening Haren's social framework is creating enjoyable routes to and from the village centre,
- Residents of the village centres are members of their community, so involve residents in designing their own neighbourhood and/or streets,
- Make sure recreational spaces are diverse and in line with the adjacent programme,
- In the neighbourhood itself, the green spaces can be activated using a small-scale programme including small playgrounds and/or seating spaces.



EXPERIENTIAL FRAMEWORK

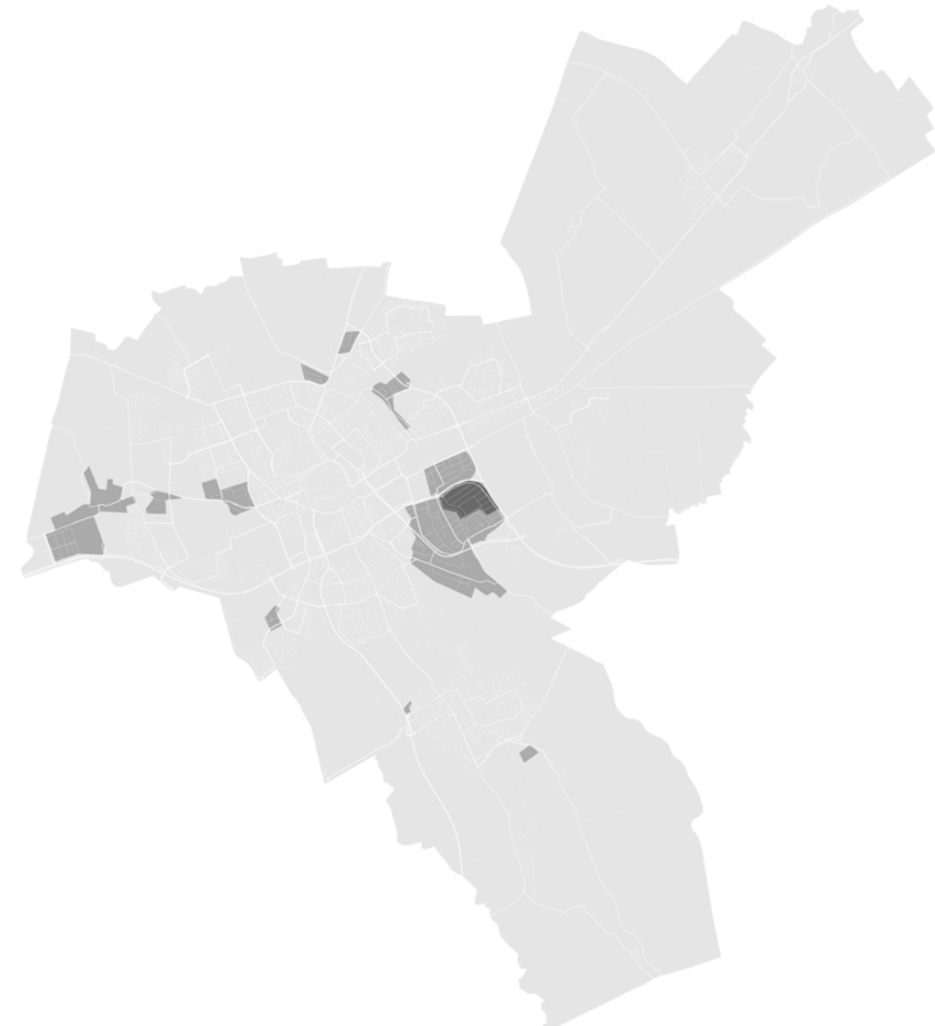
- By using brick paving for residential streets, the streets are given a much gentler look, making pedestrians feel at home,
- The various shortcuts in the centre are unexpected and create an intricate (almost covert) walking network. Enhance this network and improve its visibility,
- Cherish the 'Haren profile' – it gives the village centre an identity,
- Improve quality of public space on Hendrik de Vriesplantsoen and connect the windmill and Multatuli playground with this park and the centre,
- Create a well-organised route network between the centre and the outer area (recreation and sand roads).



BUSSINESS PARK EEMSPOORT

Business parks tend to be situated along railway tracks, waterways and motorways. They are located at some distance from city centres for logistics reasons or due to land prices, which often makes them more difficult to reach on foot or by public transport. Business parks are based on rational site plans and organised completely from the logic of car traffic and commercial traffic. These are single-purpose areas that are generally not known for their ambience.

Eemspoort, a business park located southeast of the Groningen city centre, is built along the Hunzezone area, which is part of the Urban Environmental Structure. The site is filled with commercial and industrial warehouses, multi-tenant buildings, offices and retail businesses of various sizes.



Similar neighbourhoods:

- *Ulgersmaborg*
- *Peizerweg*
- *Vierverlaten*
- *Felland*
- *Winschoterdiep*
- *Industriebuurt*

ORGANISATION AND CHALLENGES

BUSSINESS PARK

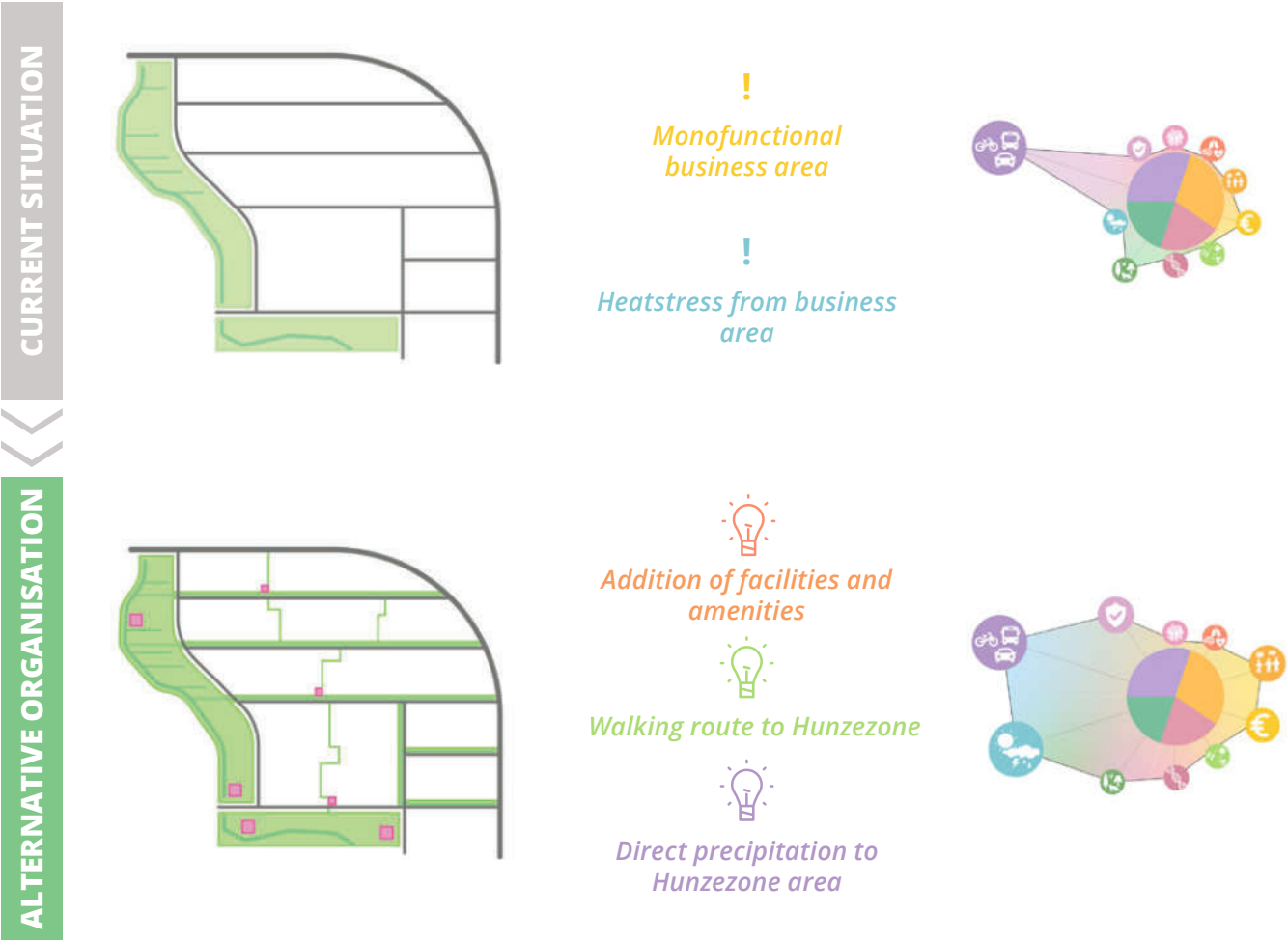
Eemspoort is a single-purpose business park with offices and warehouses. The street network consists of rational parallel business streets which are designed entirely to accommodate commercial traffic. The road is wide and asphalted, so as to provide room for the rotating circles of lorries. Located on the streets are large parking spaces on private land, surrounded by steel fences. The area is fully paved, making it a red spot on the heat-related stress card, while flooding is also a common problem. The business streets are not designed for pedestrians. The pavement is a leftover strip, a residual after all other transport uses are assigned a space within the street profile.

The Hunzezone area is located adjacent to the business park. It is a remainder of the landscape of the Hunze river, a brook that flows towards the Wadden Sea from Drenthe province. We owe the survival of this piece of the Hunze landscape mainly to Mr Thies Dijkhuis,

who devoted much of his life to preserving the land that belonged to his family. This nature reserve is part of the city's Urban Environmental Structure. In addition to its environmental value, the area is also responsible for the water management of the surrounding business parks. A recreational bicycle route runs through the area and a number of farms have been maintained, including the farm belonging to Thies Dijkhuis. However, attachment and connection between the business park and the Hunzezone area remains underutilised. There is only limited access to the nature reserve from the business park, and the business park has no other public or communal spaces. Picnic tables have been arranged along a number of office buildings, where employees can eat outside on balmy days. This would indicate there is, in fact, demand for open-air spaces!

ALTERNATIVE ORGANISATION

BUSSINESS PARK



STRATEGIC FRAMEWORKS

BUSSINESS PARK



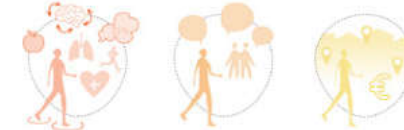
MOBILITY FRAMEWORK

- Improve the continuity and comfort of the pavements, make them wider, make them continuous and make more room for pedestrians in the streets,
- Improve walking routes to the rural Hunzezone area,
- No parking on the driving lane,
- Use business plots for double use, including: parking
- Creating a pedestrian network in order to make the area more easily walkable (i.e. taking local walks), for example by adding shortcuts between the various business streets.
- Make the business park more easily accessible by bicycle, in order to reduce dependence on cars.



GREEN-BLUE FRAMEWORK

- 'Greening' street profiles in order to ensure a climate-adaptive street, e.g. bioswales or wadis for filtering and disposing of precipitation or various green spaces to increase biodiversity,
- Adding mature trees to the street profile,
- Greening hardened surfaces such as parking facilities near retail outlets,
- Connect the green landscape quality of the Hunzezone area with the business park and integrate this green quality into the area by making streets greener.
- Use greening or sustainability to create added value in the motorway area,
- Encouraging local business owners to make the plot of land more environmentally friendly for improved infiltration of precipitation and ambience on the plot of land.



SOCIAL FRAMEWORK

- Improve the visibility of the landscape programme among users; for example, the apple orchard is not visible to passers-by,
- Use vacant farms to make room for facilities so as to allow employees of the business site to use it,
- Add high-quality living spaces to the Hunzezone area for both employees and recreational users,
- Spread the central focus areas of the Zuidoost business association: clean, safe, whole, sustainable and cybersecurity,
- Improve cooperation between stakeholders in the area, including: Groninger Landschap, City of Groningen, business owners, and the Zuidoost business association,
- Create connections between business owners and promote connectivity between various companies, for example in: energy supply, parking, shared mobility, water-related challenges, greenery, and communal/shared spaces,
- Consider densification and intensification to meet the demand for expansion,
- Revitalising now means creating value for the future for real estate and the area itself.



EXPERIENTIAL FRAMEWORK

- Make the Hunzezone area visible and livable for people working on the business park and recreational users by adding entrances,
- Reinforce a walkable Hunzezone area and business park, for example by making visible a lunchtime walk through the nature reserve. This increases the sense of proximity, encouraging workers to adopt an active lifestyle.
- Tell people about the history of the place (Farmer Ties) and communicate this widely among users,
- Use the design of the public space to improve bicycle routes and experience,
- Link recreational places in the public space to the scale of the companies and businesses.



Martinitoren
Photo by Alexander Bagno

THE MUNICIPALITY

'The appeal of the city centre, districts and villages would benefit from a sufficient amount of public space, and in order to ensure this we will take a critical look at the use of public space.'

THREE ICONIC PLACES

The Guideline for Public Space provides attractive opportunities for the future for the City of Groningen, the actual city, and the village centres. The street typologies, strategic frameworks and design principles were used to create a manual and design methodology that offers an alternative to traditional design. The Guideline provides direction and tools for designers, policymakers and residents alike.

However, the Guideline is more than just a manual: they are designed to reclaim the public space and return it to its rightful owners. This requires endurance and a change in mentality for anyone who is part of urban life in the streets and would like to actively contribute to this life. This also calls for an inspiring long-term outlook that shows what the future of the city might look like – something to look forward to. In creating the Guideline, we have therefore selected three iconic places where a dream for the future has been visualised. For three representative 'Groningen locations', the 10 dimensions for the street were used, complete with the corresponding street typologies. However, the anchoring within the neighbourhood frameworks and the position in the city have also been incorporated into these three sketch designs. This serves to implement and assess the Guideline as a manual.

Each in their own way, the three locations occupy a valuable position in the urban fabric. Each of these places also have a specific identity and role within the Groningen planning context: in the past, now, and in the future.

The three iconic places are:
Aweg/Hoendiepskade
Stationsweg
Eikenlaan

Aerial picture Groningen
Photo by Esri



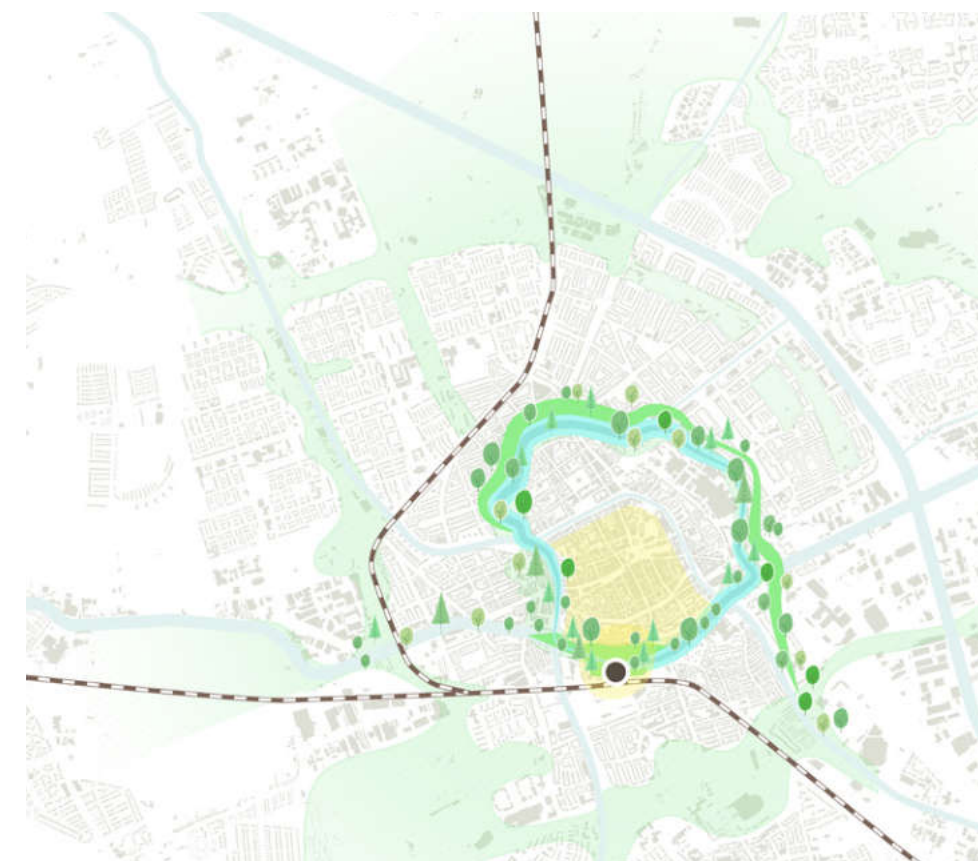


STATIONSWEG

Groningen's main railway station serves as the entrance to the city for visitors who arrive in the city by train and bus. The Stationshal ('station hall'), a landmark building that was built between 1895 and 1898, was originally located in an informal square space which was directly linked to the water of the Verbindingskanaal canal. When cars were growing in popularity back in the 1960s, roads were built connecting the railway station and the water. When the Stadsbalkon (City Balcony) was subsequently built in 2007, the relationship between the station building and the water further disintegrated.

The Groninger Museum (Groningen Museum) was built in the Verbindingskanaal in 1994. The building consists of three large volumes in the water and is connected by halls and two squares. The museum building is considered a highlight of the postmodern movement, and the Groninger Museum also includes the H.N. Werkmanbrug bridge, a pedestrian bridge that connects the station area with the city centre. The bridge extends from Folkingestraat and Ubbo Emmiusstraat, which together form a direct link to Vismarkt. This route serves as a major pedestrian route into the city centre.

Groningen's main railway station is being renovated; the idea is for a brand-new station to be completed in 2023. The area must become more appealing, including a high-quality transport connection with the city centre. The northside of Groningen's railway station is currently a disorganised paved circulation area, an almost unsurmountable barrier with limited appeal as a location. There is a lack of coherence, the spatial experience and perception are below par, there are no clear lines of sight, and the Stadsbalkon ('City Balcony') blocks the view of the main building from the H.N. Werkmanbrug bridge.



Station square 1927

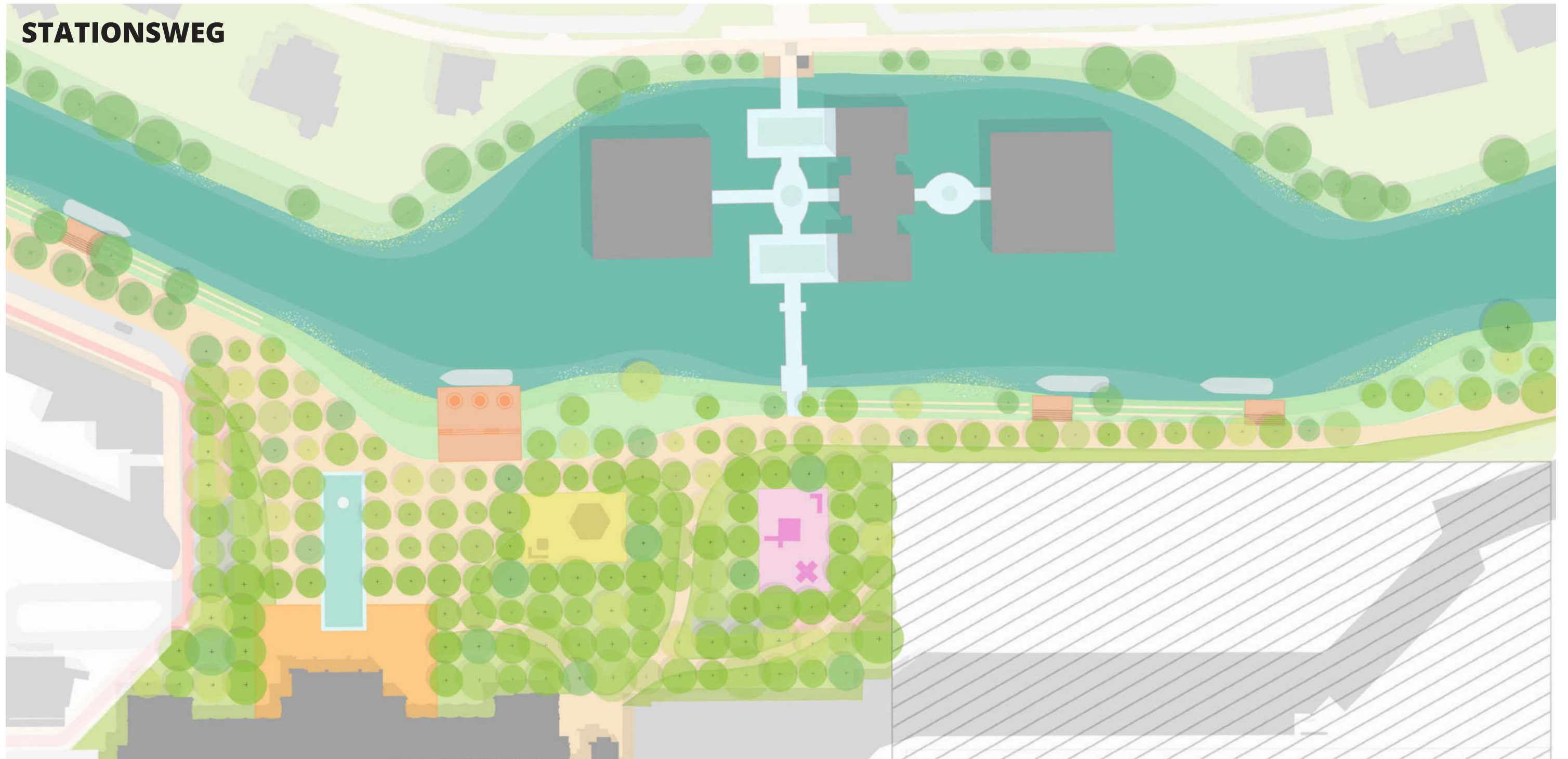


Station square 1950-1960



Station square Now

STATIONSWEG



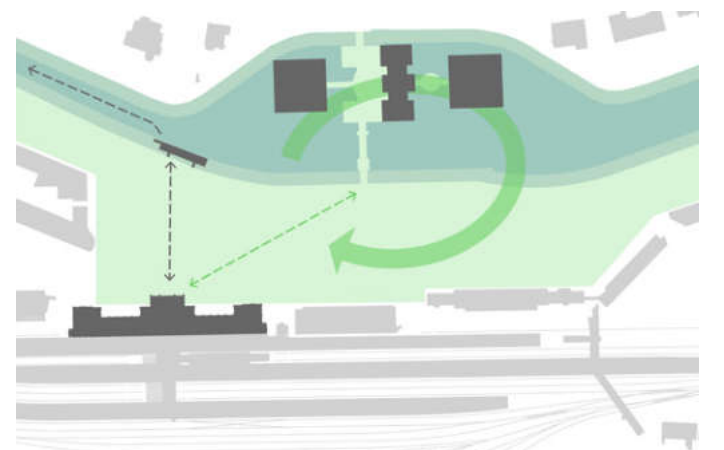
Due to the ongoing renovations of the railway station, the bus platform will be relocated to the south side, and space is created to redesign the north side of the station. Transit car traffic across Stationsweg is discouraged, which provides opportunities for the route between the city centre and the station, with more room for pedestrians and more ambience. While the Groninger Museum is an impressive icon for the city, there is no distinguishable city entrance. The concept for Stationsweg is unmistakable: extending the green-blue quality of Diepenring to the new station building. This gives rise to an attractive green square space located on the water, a new address for the city of Groningen. In addition, the Groninger Museum will be enriched with a green parklike space that will enhance the museum's landmark status:

a sculpture garden outside the Groninger Museum. The elegant station building will be connected to the water again, in a nod to the original station square, except this time around it is designed more for pedestrians and cyclists. The station building is located in a formal square space, complete with a large pond that creates a direct route and visual connection to the water. There is an informal route that runs towards the Groninger Museum, with winding paths through the green area. The north side of the station will see the construction of a grid of trees with a green, but open and transparent canopy. This creates an enclosed space that is more aligned to the scale of the area and the perception of pedestrians. One of the main principles is that the view of the station and the visual connection between the station building

and the Groninger Museum is clearly readable and perceivable. There are a number of rectangular square spaces within the canopy, orthogonally positioned and appropriate to the abstract volumes of the Groninger Museum. The squares are comfortable spaces to meet one another: suitable for staging events or exhibiting art in the public space. (Note: logistics routes, space for aid services or cars as 'guests' are further developed within the project group, which is responsible for expanding on the redevelopment challenge)

Dimensions:

- Identity
- Ecology
- Mobility
- Economy
- Experience







Accessibility:

- Obstacle-free walking routes between the station building and the H.N. Werkmanbrug bridge.

Safety:

- Ambience at the station square for social safety
- Station square as a pedestrian space

Mobility:

- Entrances to the underground bicycle tunnel on the edges of the square
- Separate bicycle lane across the square that is accessible to emergency services/first-responders.

Ecology:

- Natural green bank
- Nesting opportunities in the trees on the square
- Green square floor with a variety of vegetation

Experience:

- Sculptures as accompaniment from the route to the city centre
- Promenade along the water

Climate adaptation:

- Reflective pond in front of the station building entrance to provide cooling
- Continuing canopy across the station floor to ensure a pleasant/comfortable climate.

Health:

- Air purification thanks to the trees/shrubs/greenery on the station square
- Station square designed for walking and cycling

Economy:

- Mooring place for canal boats on station square
- Option for small-scale pavilions with food-service outlets on the square.

Social:

- Station square as a meeting place
- Recreational spaces on the water

Identity:

- Good lines of sight to the station building as a national monument
- The station square as a sculpture garden of the Groninger Museum



Reflective pond to reduce heatstress



Recreational spaces along the water



Station building as rijksmonument



Air purification thanks to greenery



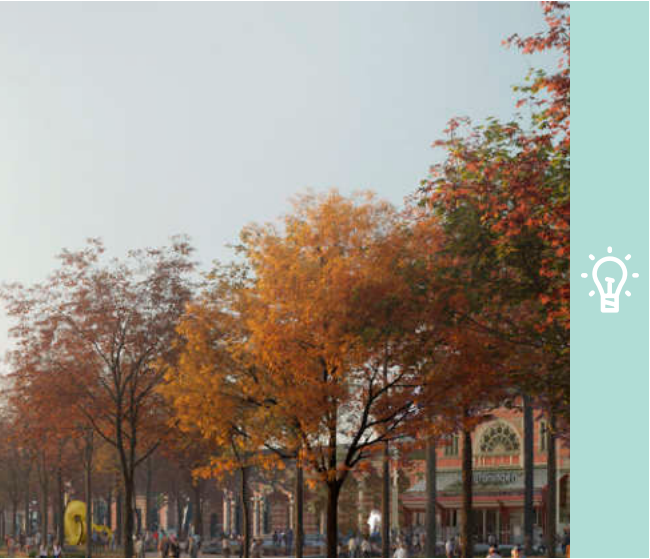
H.N. Werkmanbrug as entrance to city centre



Mooring place for canal boats



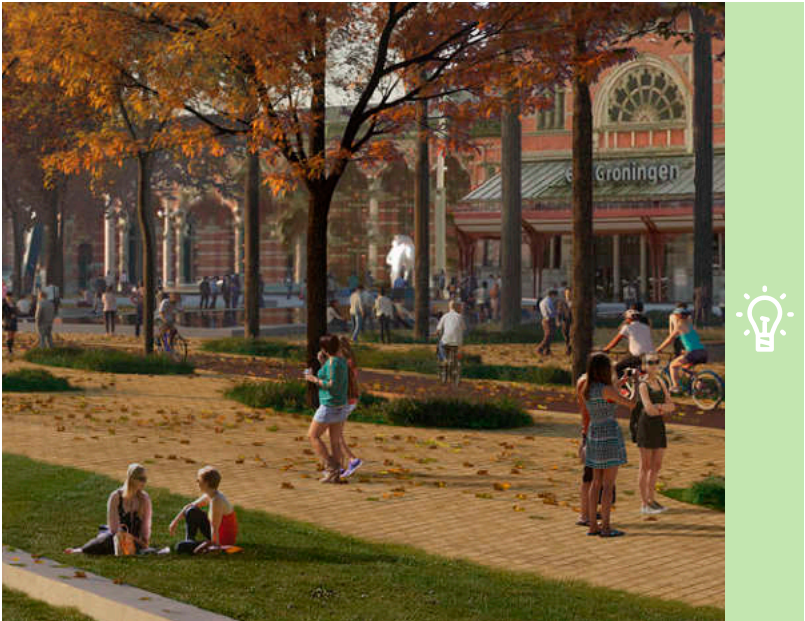
Sculpture garden of the Groninger museum



Continuous green structure



Shadow from trees



Promenade along the water



Natural embankment



Space for waterinfiltration

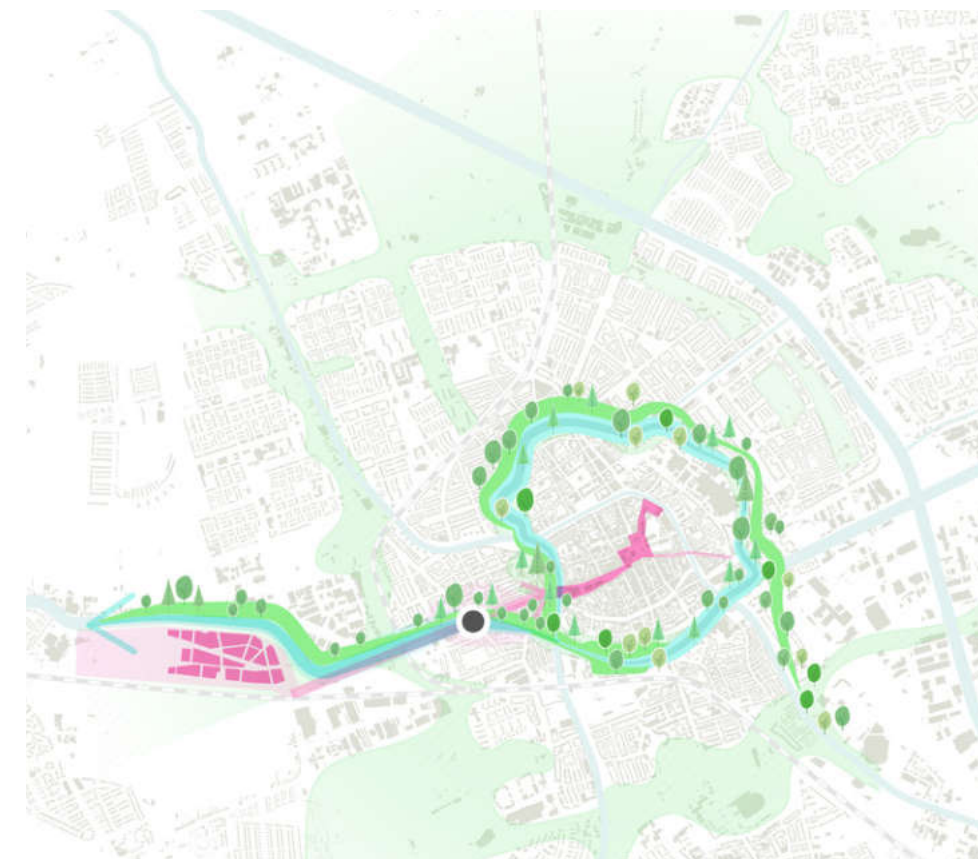


AWEG

Along with Hoendiep and Astraat, Aweg is one of the access routes from Westelijke Ringweg to the city centre. The street consists of two lanes with traffic out of the city centre (Aweg) and one lane with traffic towards the city centre (Hoendiepskade). A car park is located between these lanes, where market vendors from Groninger Markt park their vans. On the south side of the street there are some landmark buildings, several of which have been designated as listed buildings and municipal listed buildings.

Part of the Hoendiep – a former major shipping lane between Groningen and Zuidhorn – used to be situated in the current location of the car park. In order to improve the winding shipping route, the Eendrachtskanaal canal became operational in 1909. The Westerhaven port and the section of the Hoendiep between the port and the Eendrachtskanaal canal were subsequently cushioned.

Following the development of the Suikerzijde residential and business district, Aweg will become a main entry to the west side of the old city centre. A slow transport connection (LVV Suikerzijde) has been planned between the new section of the city and the city centre. The bicycle route will be located on the southern bank of the Hoendiep. It is conceivable that this bicycle route will be extended towards the city centre; the exact purpose will be further developed in the near future.



Hoendiep 1965



Hoendiep 1950



Warehouses 1974



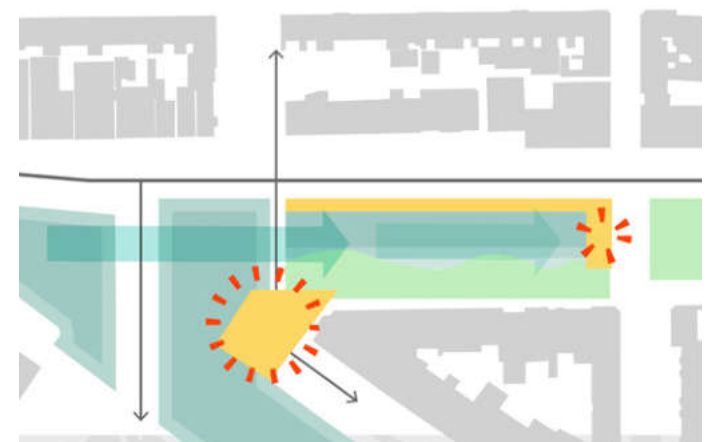
Groningen's city centre has a clearly identifiable historical urban structure, whereby a large section of the old city has been retained within Diepenring. As early as 1871, the Hoendiep neighbourhood was visible on the map as one of the main scenic connections between Hoogwerk and Diepenring. However, the traffic congestion that occurred as a result of post-war urban development projects caused this water to be erased from the city's urban fabric.

The development of the Suikerzijde district has created the opportunity to establish a stronger link between the city centre and the landscape, and to redesign the public space of a city entrance such as Aweg. The concept for this area is self-explanatory: reclaim the public space and return it to the city. The existing car park will be

converted into a new park for adjacent neighbourhoods. Early redevelopment districts have a compact design, with little value as green spaces in the actual streets. This has created a need for a large, green space with a good ambience and located within walking distance. The green parklike space enhances environmental opportunities and recreational links between the scenery, the Suikerzijde districts, and the city centre. On the north side, a paved edge of the park enhances the urban perception of the city entrance with a separate bicycle lane (between the Suikerzijde district and the city centre), with mature trees providing plenty of shade. On the south side, one finds a smooth transition from park to streets, complete with green terraces and trees. The parklike space is located at a lower level and provides sufficient water storage for the adjacent streets and public space, with (on the west

side) a number of water features with water-purifying vegetation. The park can be flooded with water during heavy downpours, creating a perception of the park as a 'wet' place; this refers to the former Hoendiep, which shaped the identity of this area. This gives a new role to cultural history in the design of the public space. The wood platform on top of the Eendrachtsskade Noordzijde facilitates perception of the water.

- Dimensions:**
- Identity
 - Ecology
 - Mobility
 - Economy
 - Experience





- Accessibility:**
 - Safe and wheelchair-accessible crossings with tangible edges for the visually impaired
 - Tangible edge for blind and visually impaired people between the bicycle lane and walking path.
- Safety:**
 - Safe crossings across the access road to the city centre
- Mobility:**
 - Bicycle route between the city centre and the Suikerzijde developments
- Ecology:**
 - Natural green bank
 - Nesting opportunities in the trees
 - Various types of vegetation along the bicycle route
- Experience:**
 - Jetty across the water
 - Central tree as an orientation point and meeting place
- Climate adaptation:**
 - Shadow effects of the canopy
- Health:**
 - Air purification thanks to the trees/shrubs/greenery
- Economy:**
 - Restaurants and bars
- Social:**
 - Park serving the surrounding neighbourhoods
 - Recreational spaces on the water
- Identity:**
 - Line of sight to the city centre with Martinitoren
 - National monuments/listed buildings and municipal monuments/listed buildings facing the park



Safe crossings



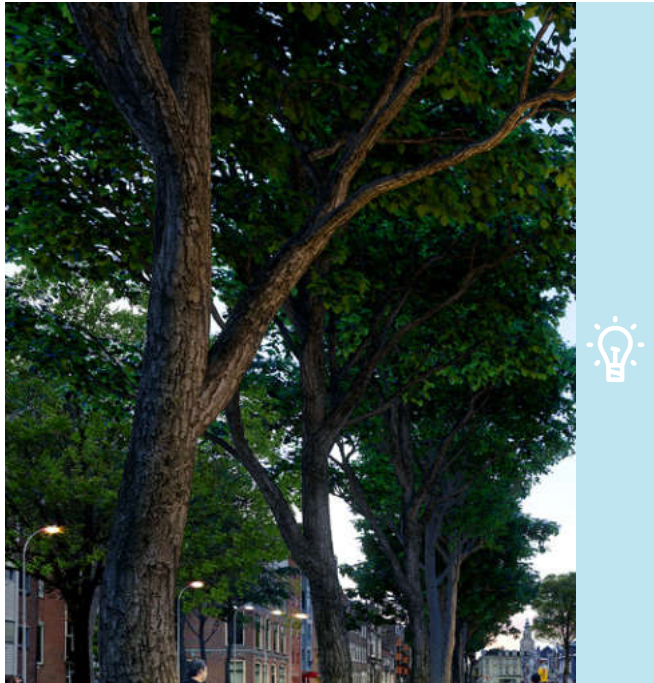
Entrance to the city centre



Park serving the surrounding neighbourhoods



Rijksmonument



Schadow from treecanopy



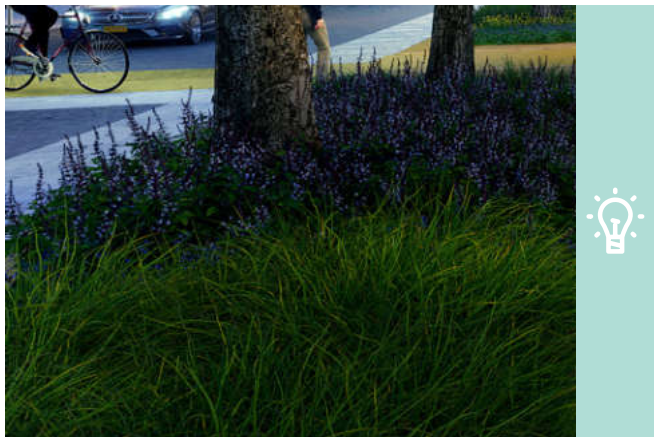
Deck along the water



Restaurants and bars



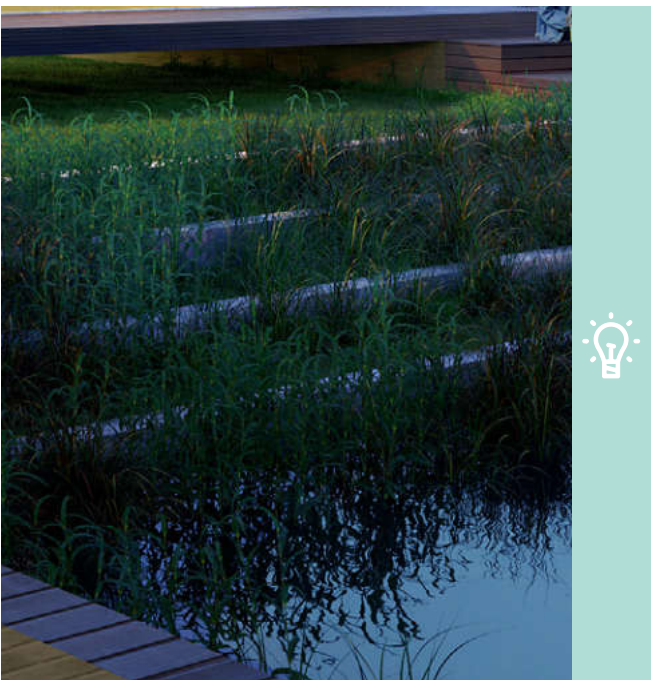
Central tree as a landmark



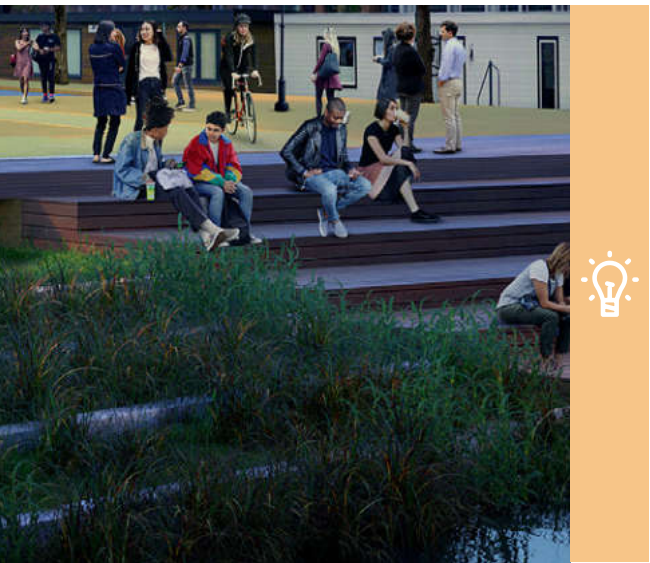
Diversity in planting



Cycling route between the city centre and the Suikerzijde



Natural embankment



Recreational spots along the water

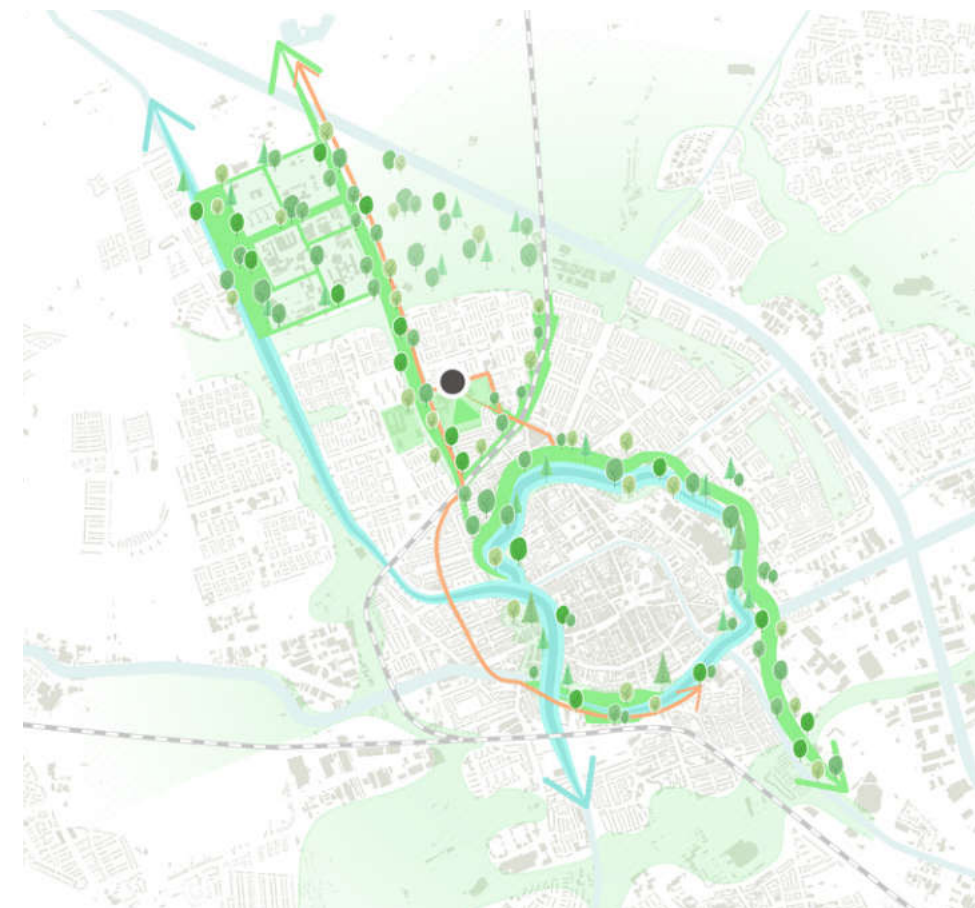


EIKENLAAN

Eikenlaan is currently a concentric street that is used as a connecting road. There are several public facilities and amenities on Eikenlaan, including shopping centres, schools and a swimming pool. Wilgenpad, the busiest bicycle route in the Netherlands, runs perpendicular to Eikenlaan. This smart bicycle route is the eastern part of the Zernike route, a bicycle connection between the city centre and the Zernike Campus.

The bicycle route runs through Park Selwerd and Bessemoerpark, both of which are part of Groningen's Urban Environmental Structure. The SES is a tool that reveals bottlenecks within the green structure of the city of Groningen and shows where target species can and cannot move around easily. Park Selwerd contains several sports field that create bottlenecks, particularly around the Vensterschool, a multi-tenant building comprising a primary school, a youth centre, a library, a sports centre, a community centre and a swimming pool. The paved roof surface and parking square around the building complex create heat-related stress and flooding onsite.

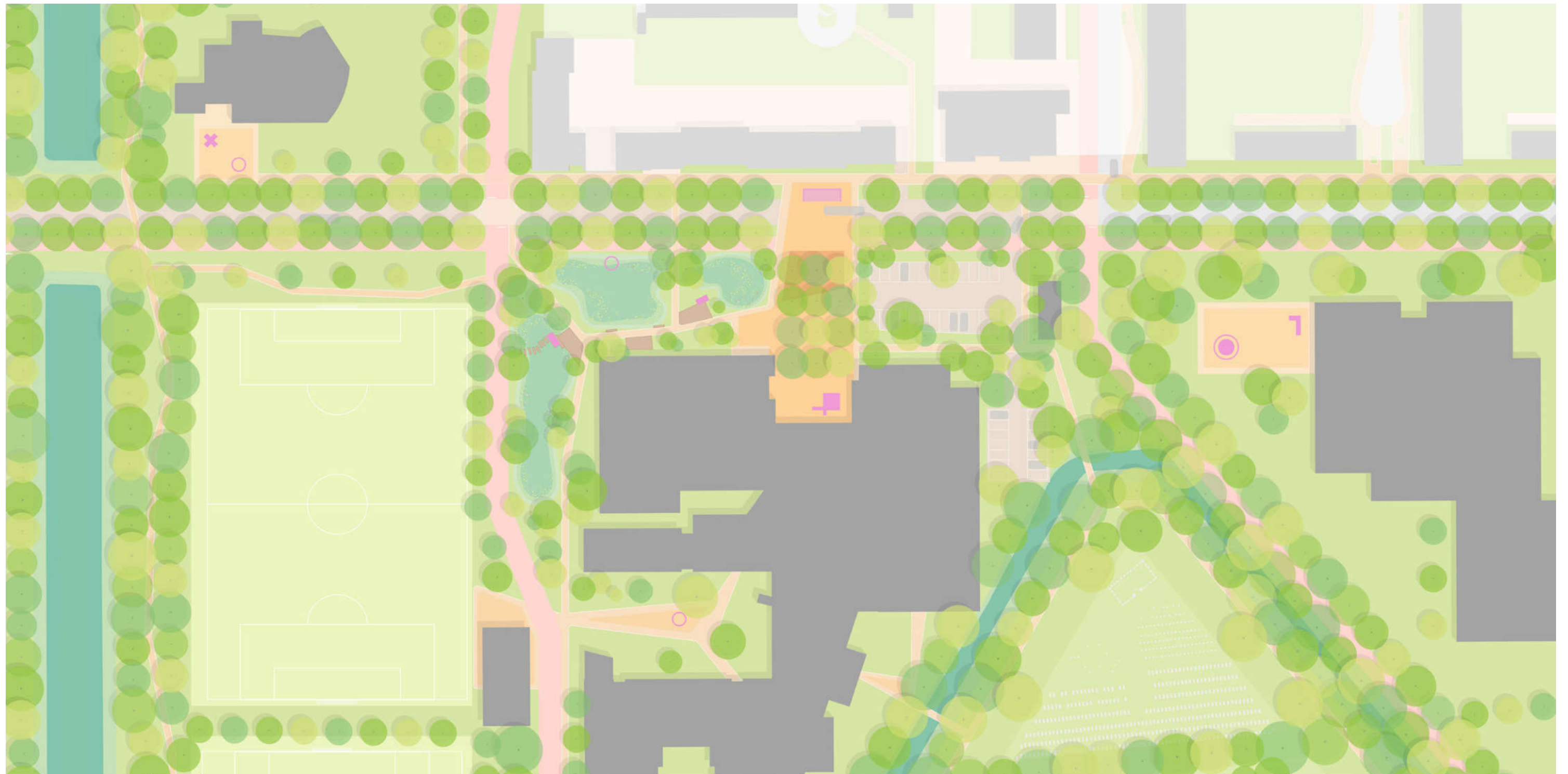
The City is making plans to improve the Zernike route. The Mobility Plan contains a plan to create a bend in Eikenlaan. While buses will continue to use the street, cars will no longer have an ongoing connection in the future. This makes it significantly easier for cyclists to cross Eikenlaan. The Groningen Noord (North Groningen) railway station will continue to grow in importance in the coming years. A good bicycle connection will be needed between Wilgenpad and the railway station; this route will run across Sleedoornpad and part of Kastanjelaan.



Paddepoel 1975



Paddepoel 1971-1972



The area of which Eikenlaan forms part is green, ecological, and open. The open, scenic character north of Groningen is extended into the city between Zernike Campus and the Selwerderhof by Park Selwerd. This Urban Environmental Structure offers room for recreation, interaction and sports, and has significant potential when it comes to meeting the climate targets set by the City of Groningen. The logical next step for the design for Eikenlaan is strengthening the Urban Environmental Structure. More green spaces will be added to the avenue-like structure of Eikenlaan.

By accommodating cars elsewhere, cyclists and pedestrians are given more room with additional connections and improved crossing opportunities

across Eikenlaan. The bus stop is located directly across from the building complex containing the Vensterschool multi-tenant building, the Parrel swimming pool, and the Selwerd sports centre. This results in the creation of a well-organised square space, stretched between the northern street wall and the main entrance on the south side. Pedestrians are prioritised here, with a safe crossing and play and circulation area. Located on the west side is the Zernike Route, the 'busiest bicycle route in the Netherlands'. By also extending the green environmental quality of the area into an eastern-western direction, this separate bicycle lane will have its own place within the green space. Crossing opportunities (for bicycles and pedestrians) have been improved since this has become a car-free area. On the east side and north

side of the building complex, more green spaces will be added in favour of the current paving. Precipitation is captured here in a large wadi (buffering and infiltration facility amid the green space) and disposed of to the Paddepoelstergracht canal with some delay. Trees and vegetation to be planted here in the future increase biodiversity and provide sufficient shelter on hot days.

Dimensions:

- Ecology
- Mobility
- Climate adaptation
- Health
- Safety
- Experience





* Dit is een inspiratiebeeld en géén ontwerp

Accessibility:

- Wheelchair-accessible walking paths through the park

Safety:

- Bend for cars (still accessible by buses)

Mobility:

- Smart bicycle route to Zernike Campus

Ecology:

- Environmental maintenance
- Nesting opportunities for various species
- Ongoing green structure

Experience:

- Informal walking routes through the green spaces

Climate adaptation:

- Reflective pond in front of the station building entrance to provide cooling
- Continuing canopy across the station floor to ensure a pleasant/comfortable climate.

Health:

- Air purification thanks to the trees/shrubs/greenery
- Play opportunities for children in the green spaces

Economy:

- Grouping together public community/neighbourhood uses

Social:

- Recreational areas in the green spaces to promote social interaction.

Identity:

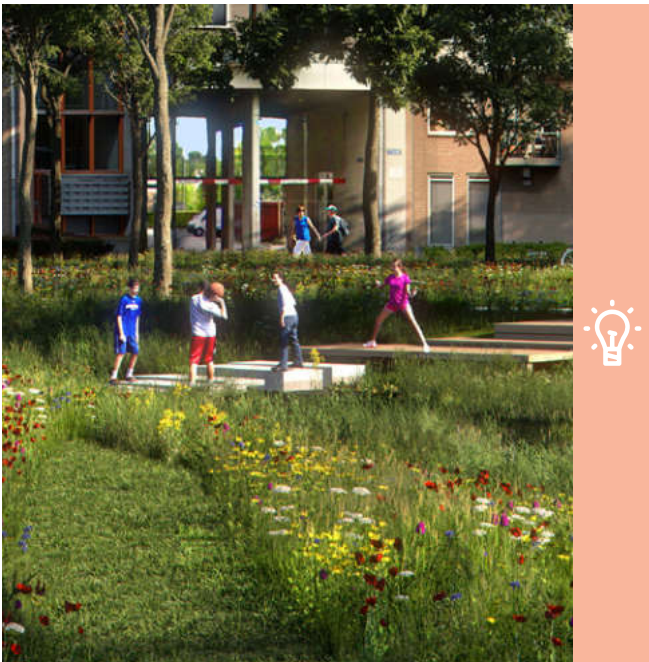
- Neighbourhood campus as the neighbourhood's green core.



Bikeroute to Zernike



Informal walking routes through the greenery



Playelements in greenery



Nesting opportunities and diversity in trees



Park paths with recreational spots



Wadi for waterstorage



Public buildings in green



Ecological maintenance for biodiversity

DISCUSSING THE GUIDELINE

On Monday 5 July 2021, a meeting was held at the Forum Groningen venue to discuss the Guideline for Public Space. On that evening, residents, interest groups and other interested parties were briefed on the provisional draft of the Design Guideline for Public Space. Moderator Alfred Kazemier (director of Urban Development) guided a discussion on the main topics of the Guideline together with aldermen Roeland van der Schaaf (whose portfolio includes Spatial Development and Urban Regeneration) and Philip Broeksma (who presides over, among other things, Traffic & Transport and Energy Transition). They were joined by Ingrid Bolhuis (programme manager for Quality of Public Space). Marco te Brömmelstroet (Professor of Urban Mobility at the University of Amsterdam) recited an essay, while landscape designer Michiel van Driessche of bureau Felixx explained the plan. Audience members were given the opportunity at the session to ask questions, while those attending the event remotely could use the chat feature. Below, we outline the main topics discussed during the session.

Change of track

At the start of the Municipal Executive term, the coalition agreement Gezond, Groen, Gelukkig Groningen (2019- 2022) contained a firm decision to reclaim the public space. Roeland van der Schaaf: 'We plan to really take a different approach to public space, in the sense that public spaces belong to us all. We need the public space to create green spaces, for climate adaptation, and for spaces where children can play and people can meet one another. The Guideline represents a choice for inclusive society where everyone feels at home in the public space, and where it's not simply the survival of the fittest.' The Guideline for Public Space is linked to the new Mobility Plan, as in areas where cars are becoming less dominant, opportunities are created to add quality of public space. Philip Broeksma says that the space taken up by transport (including both vehicles in motion and parked vehicles) was automatically granted to cars in the past. The two aldermen feel this approach is dated, as there are other aspects to traffic, including emissions, noise, lack of safety, and so on. Philip Broeksma: 'We shouldn't look first at how much space we need for car traffic and vehicle parking. In fact, it's the other way around: what forms of transport are suited to our current public space?'

During our session, we drew a parallel with the decision made back in 1998 to ban cars from the Noorderplantsoen park. This park is now a place you can ride your bike across, where people meet each other, where children can play, and where the natural world is tangible and perceptible again. All this is the result of the decision to ban cars from the park. In drafting the Guideline for Public Space, we're about to make similar decisions in the redevelopment of streets, urban and village regeneration, etc. Roeland van der Schaaf adds that if we want to keep not just our planet, but also our cities and villages liveable for future generations, we must now start making different choices regarding town planning and urban design. 'We are trying to gain support for this through the inspirational images in the design guideline for the Quality of Public Space. This is something the City cannot do on its own; we need the support of the residents of the streets in the city and the villages.'

Practical implementation

If we extend this to the 'The Next City' (2018) environmental plan, the coalition agreement (2019) and the conceptual approaches that followed (i.e. the Green Plan, climate adaptation, mobility plan), the Guideline can be regarded as the method that combines these topics. The tools to make it happen.

Roeland van der Schaaf: 'If you really want to change tack, you need to go ahead and do it. This calls for a systematic approach where you work based on a number of principles, which are also inspiring and will get people in the city and villages all excited.' But as the alderman explains, this is not without obligation. The council intends to use the Guideline in the immediate future in order to change the streets in the city in this direction. The Guideline does not serve as a blueprint, but rather to engender a discussion. The Design Guideline – Quality of Public Space translates the targets from the coalition agreement into inspirational images for different streets and locations around Groningen. As Ingrid Bolhuis explains, the intention is for streets to be converted in stages: 'It's a gradual process, it doesn't just happen overnight – we lack the financial resources for that. That's why the streets are being overhauled at the same time as other operations are being carried out. This includes moving cables and pipes, replacing the sewage system, the installation of the heat grid, or in urban and village regeneration.' Ingrid Bolhuis adds: 'We must communicate this message clearly within the council to people





who are involved in design, employed at the city engineering firm, and the people working in the neighbourhoods and villages. This ensures that, as soon as work is carried out, we know that these inspirational images help us to conduct a discussion with residents and that we can use this as a blueprint for our design.'

Roeland van der Schaaf can imagine how some people might be critical. 'Sure, the pictures are lovely, but can we actually pay for and maintain all that, and can we do it all in one go? And what will happen to bicycles and cars?' The alderman believes these are fair questions to ask, but points out it all starts with a dream: A dream to beautify a city, village or neighbourhood, make it more livable, and putting people first again. 'The images are designed to inspire, and incite enthusiasm in the districts, neighbourhoods and villages and to work with us to make our city even more beautiful.'

Accessibility

One of the attendees at the session asked a question about the accessibility of the public space. Accessibility is an issue where there are conflicting interests at play. For example, wheelchair users want spaces with no thresholds or pavements, but this makes blind and visually impaired people unhappy, as it means they will lose their sense of orientation. This is further compounded by the growing trend toward electric vehicles and bicycles, making it more difficult to hear them coming. It would be good to find an integrated solution to this issue. Michiel van Driessche (Felixx) states that there are technologies related to electric vehicles that are currently being investigated, and that he has a solution available: 'It's called Intelligent Speed Assistance (ISA). Then there are sensors that make electric cars slow down or brake based on the applicable speed limit, which improves safety in these areas.' The town-planning challenge that remains at this stage is to ensure that the steps are not too high for wheelchair users, while also leaving demarcations for blind and visually impaired people. This tends to be solved in an oversimplified way, which means shared spaces are flat surfaces without conduction. It is important to think of ways how we can facilitate all users as well as possible. Marco te Brömmelstroet adds that this shows that, as soon as we abandon car logic, people will end up losing out too. However, this does not mean that this is the ultimate no-conflict solution, and in fact it is interesting to let these conflicts come to the fore and discuss them with each other. 'We must learn to accept that there's no such

thing as a conflict-free public space – you will always need to make choices, but the trick is to keep making them with each other. The Design Guideline – Quality of Public Space can help us to make these choices clearer, more defined, and more visible.'

Social impact

An audience member at the session asked whether, if we invest so much in homebuilding, streets and maintenance, we also look at ways of reducing unemployment. One of the best ways to rise out of poverty is through gainful employment. Have you assigned anyone to meet this challenge? Roeland van der Schaaf replies that the city is already strongly focused on social return, i.e. where a portion of the land outsourced by the council is used towards social initiatives. 'In addition, we are already trying to ensure, as part of the urban regeneration project in Selwerd, that companies to be carried out work must make sure not only that people who are currently poor or unemployed find employment, but must focus their attention specifically on local residents. You could then say you're engaging in social return at the neighbourhood level. We have already seen the first example of this in Selwerd, and the alderman understands that this example might be replicated in other areas.'

The Design Guideline – Quality of the public space deals with physical aspects of nature, including trees, cars and crossings. Roeland van der Schaaf says this is what we are doing at the end of the day, which is why we have prioritised investments in the northern neighbourhoods, as we believe residents stand to gain the most if we invest in public space. 'This is not only because some of them end up finding a job, but because it improves the quality of the living environment and incites people to move around, meet one another, or play. This will improve people's health and wellbeing.'

