

Rebalancing the city

Redistributing Urban
Space in Amsterdam-Zuid
Oost Through the 15-
Minute City Concept

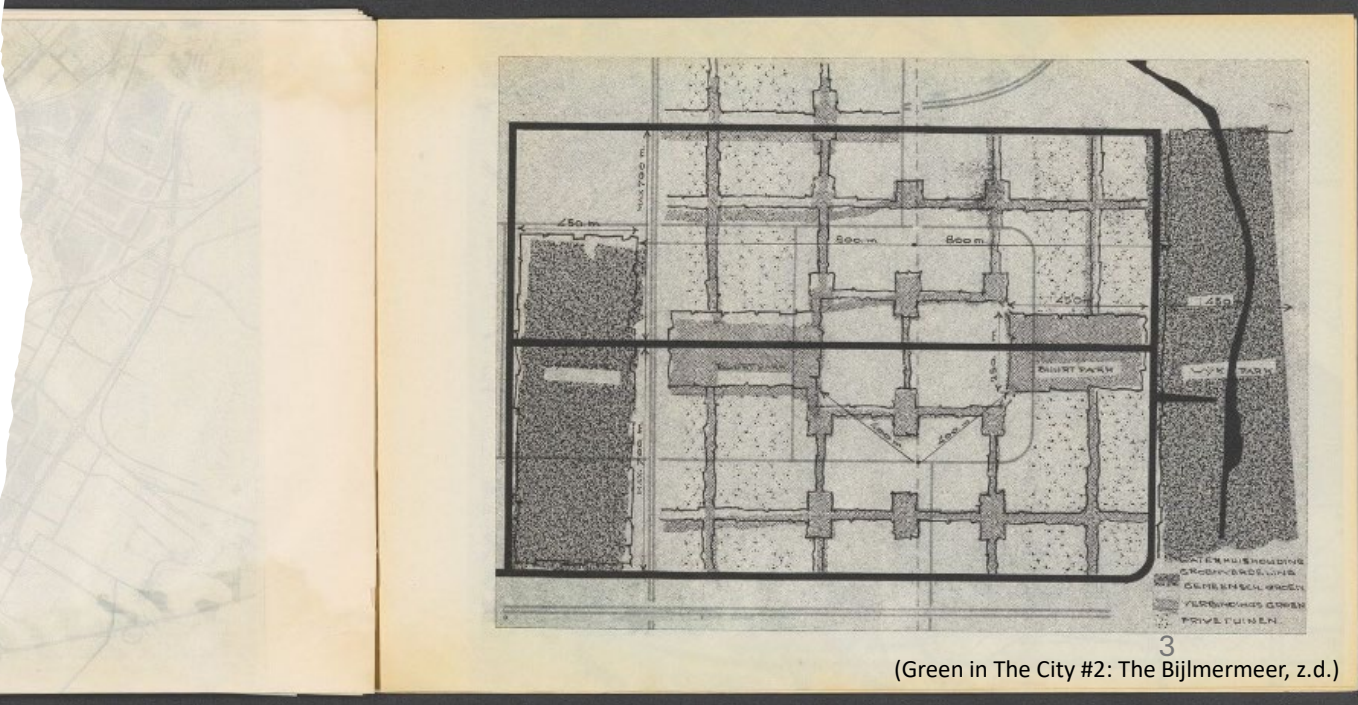
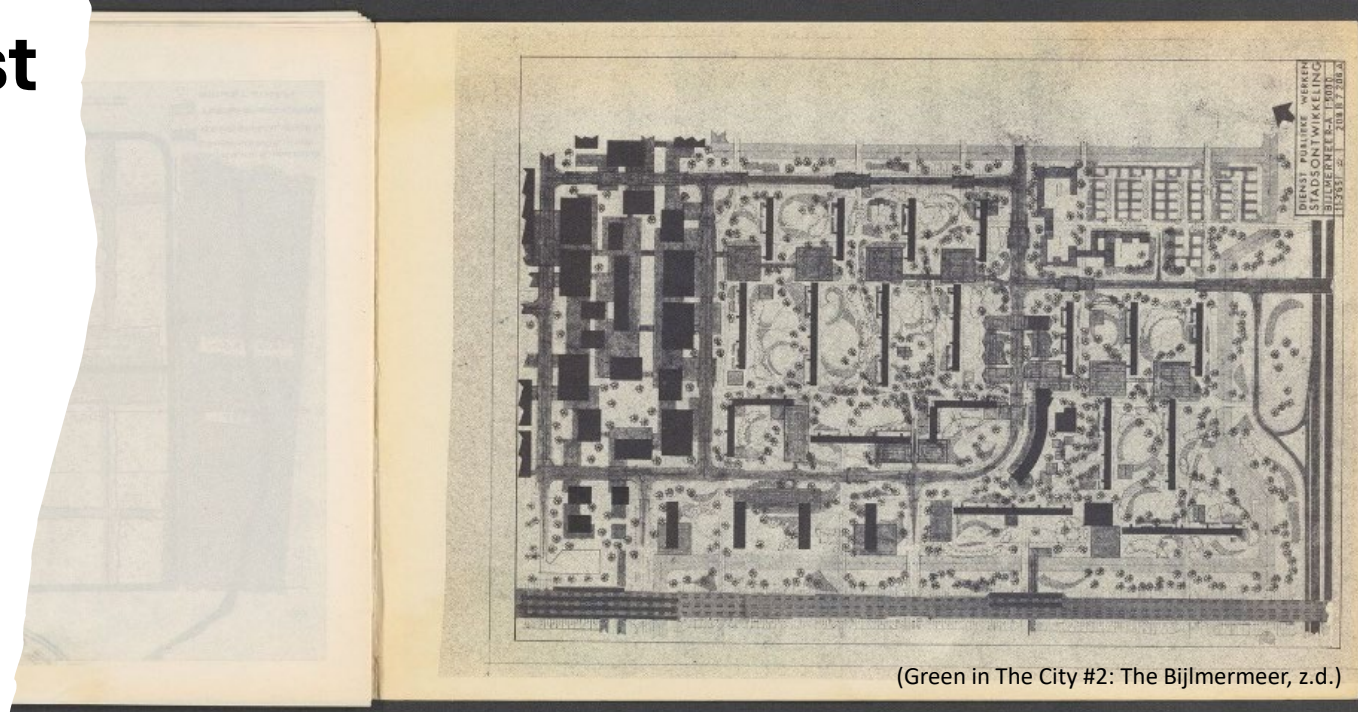


1.

Introduction: Problem and Approach

Root of the problems in Zuid Oost

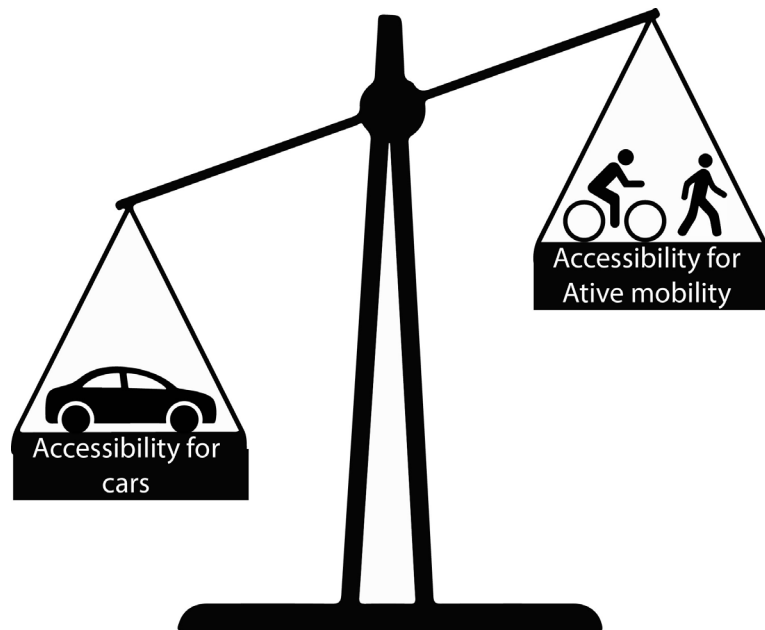
- Modernist urban expansion
- Demand was overestimated
- Vacancies turned it into a social allocation
- Strict zoning, large infrastructure, and high-rise housing
- Functional, efficient, and rational urban environment
- Led to spatial and social inequalities.



Problem:

There is unequal access to daily amenities for active mobility users compared to car users.

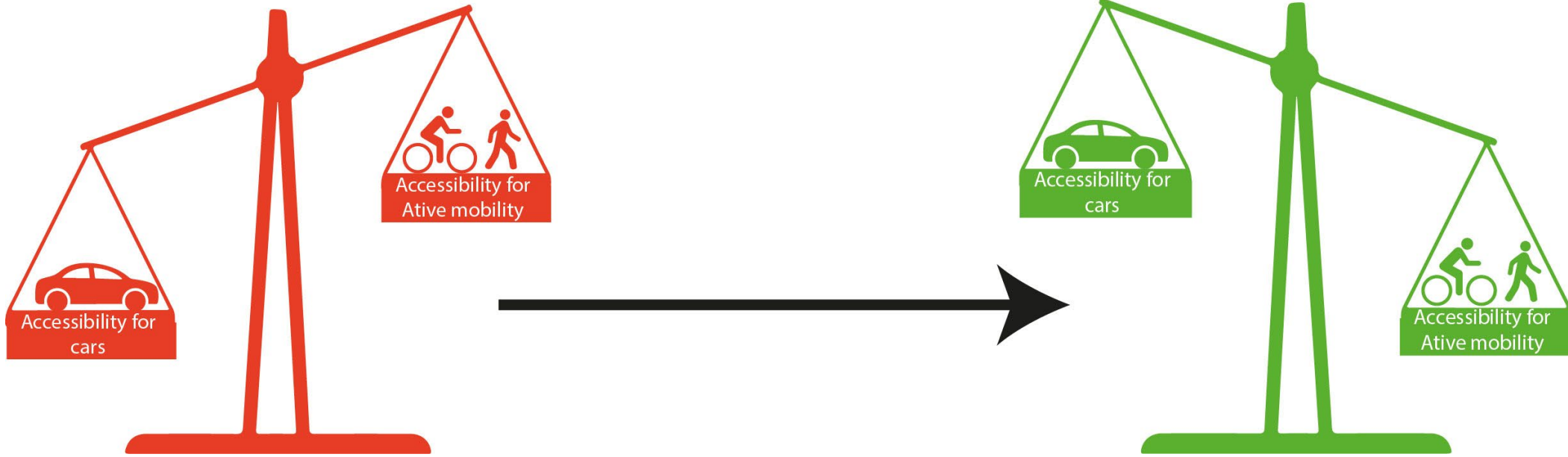
- Urban space is unevenly distributed.
- Creates barriers to active mobility.
- People without access to a car are even more disadvantaged.
- Unequal distribution: Spatial Injustice



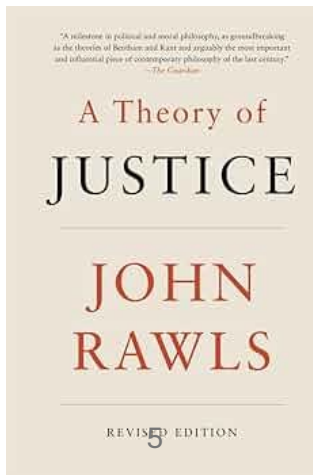
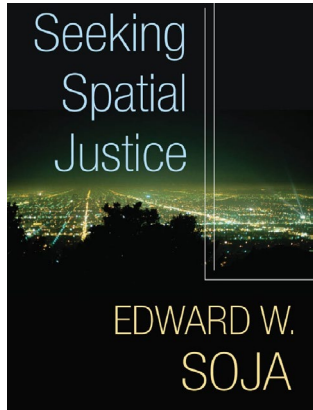
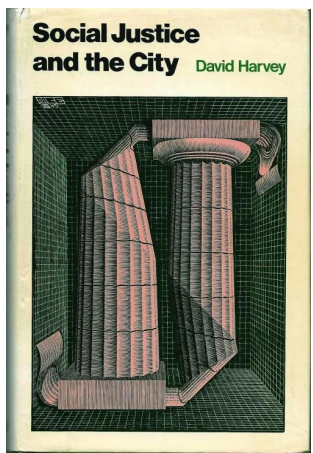
Unequal distribution of accessibility towards cars



Spatial Justice

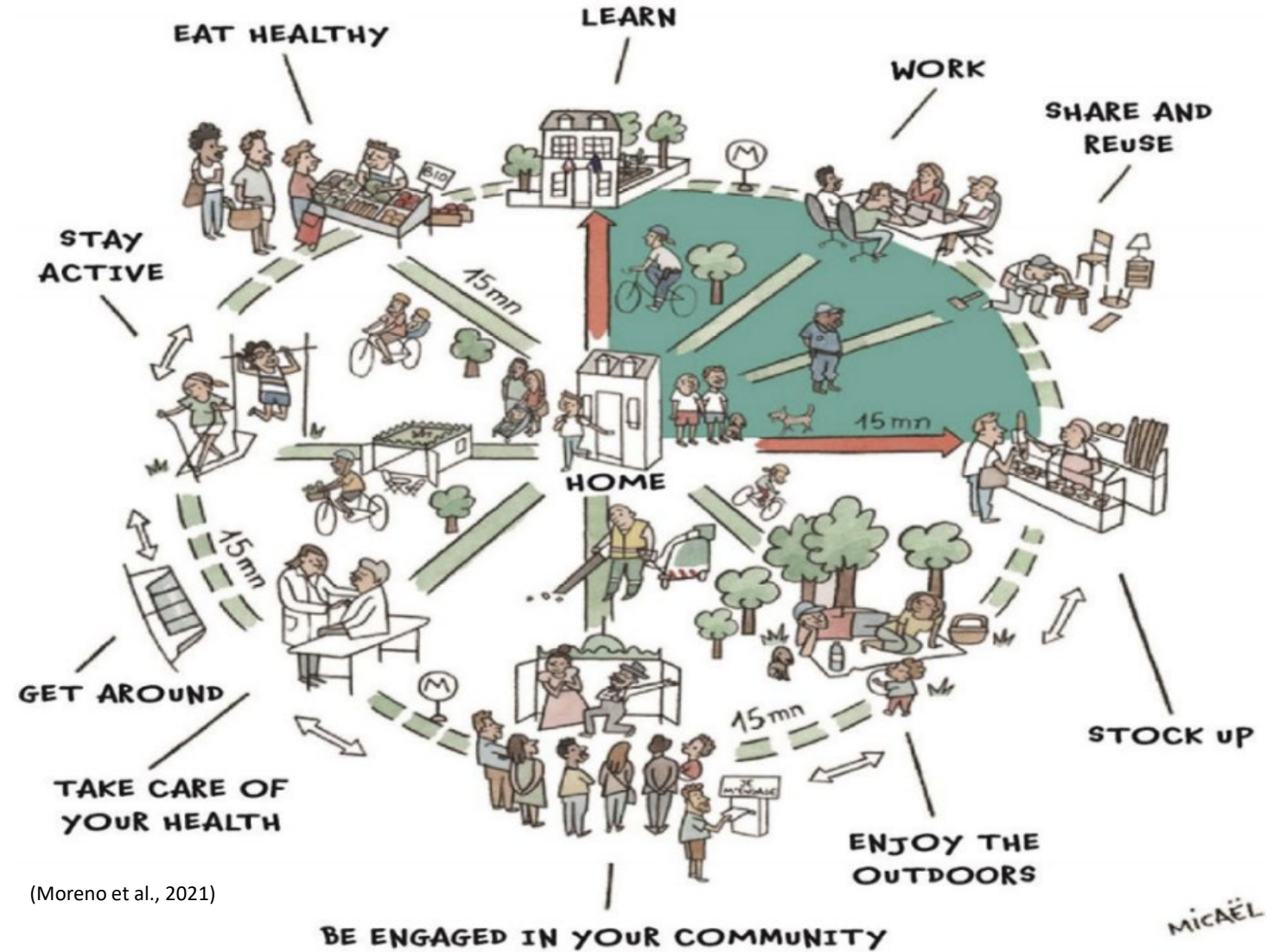


Necessary rebalancing towards active mobility to tackle the historical over-prioritization of the car



15-minute city concept

An urban planning concept where essential services are accessible within a 15-minute walk or bike ride from home.



(Moreno et al., 2021)

Main Research Question

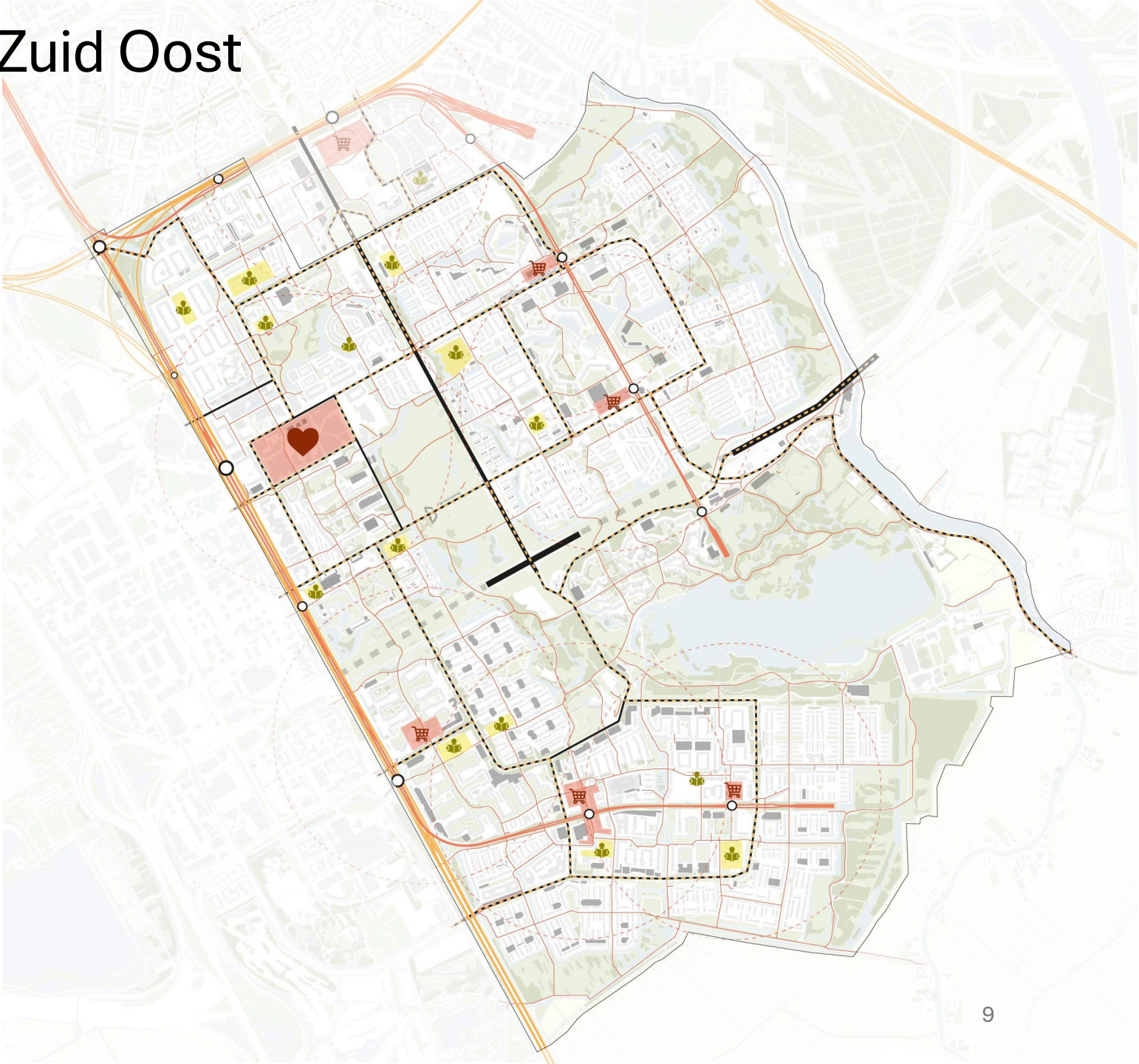
“How can Amsterdam Zuid Oost be redeveloped to redistribute urban space away from cars and towards active mobility, in order to improve access to everyday facilities and increase livability?”

2.

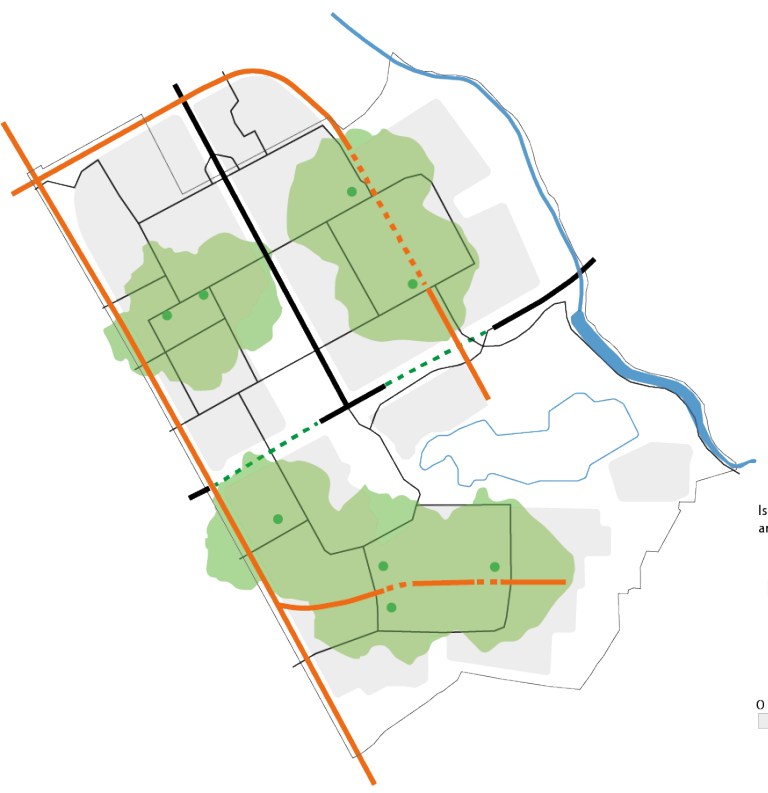
Analysis

Spatial Analysis Amsterdam Zuid Oost

Multiple spatial layers were analyzed to understand the area as a whole

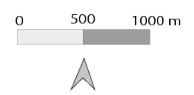


Proximity analysis 10 minutes walking

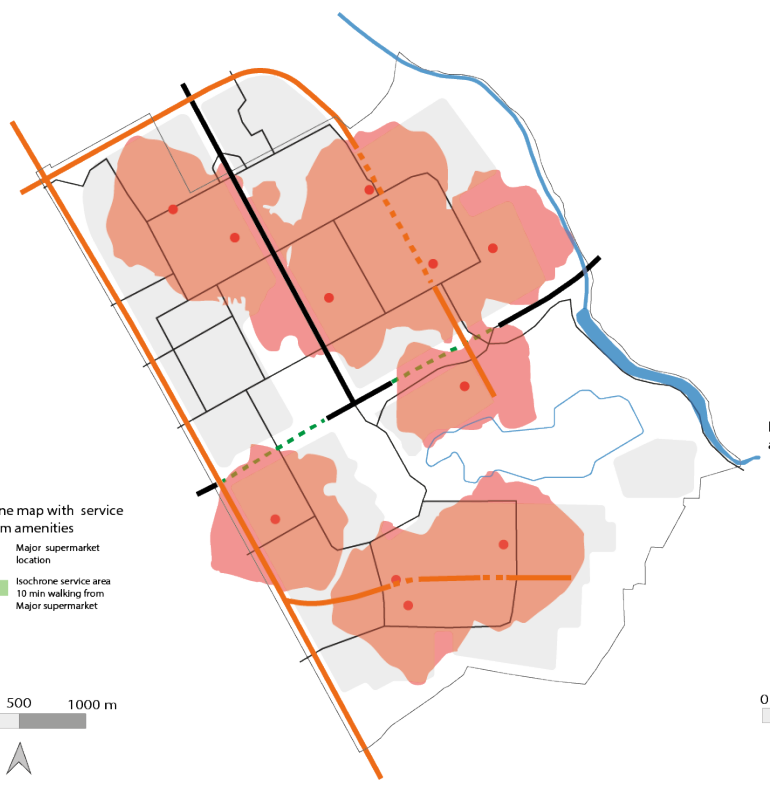


Isochrone map with service area from amenities

- Major supermarket location
- Isochrone service area 10 min walking from Major supermarket

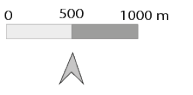


Supermarket



Isochrone map with service area from amenities

- General practitioner location

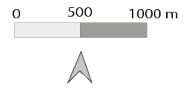


General practitioner



Isochrone map with service area from amenities

- Primary school location
- Isochrone service area 10 min walking from primary school



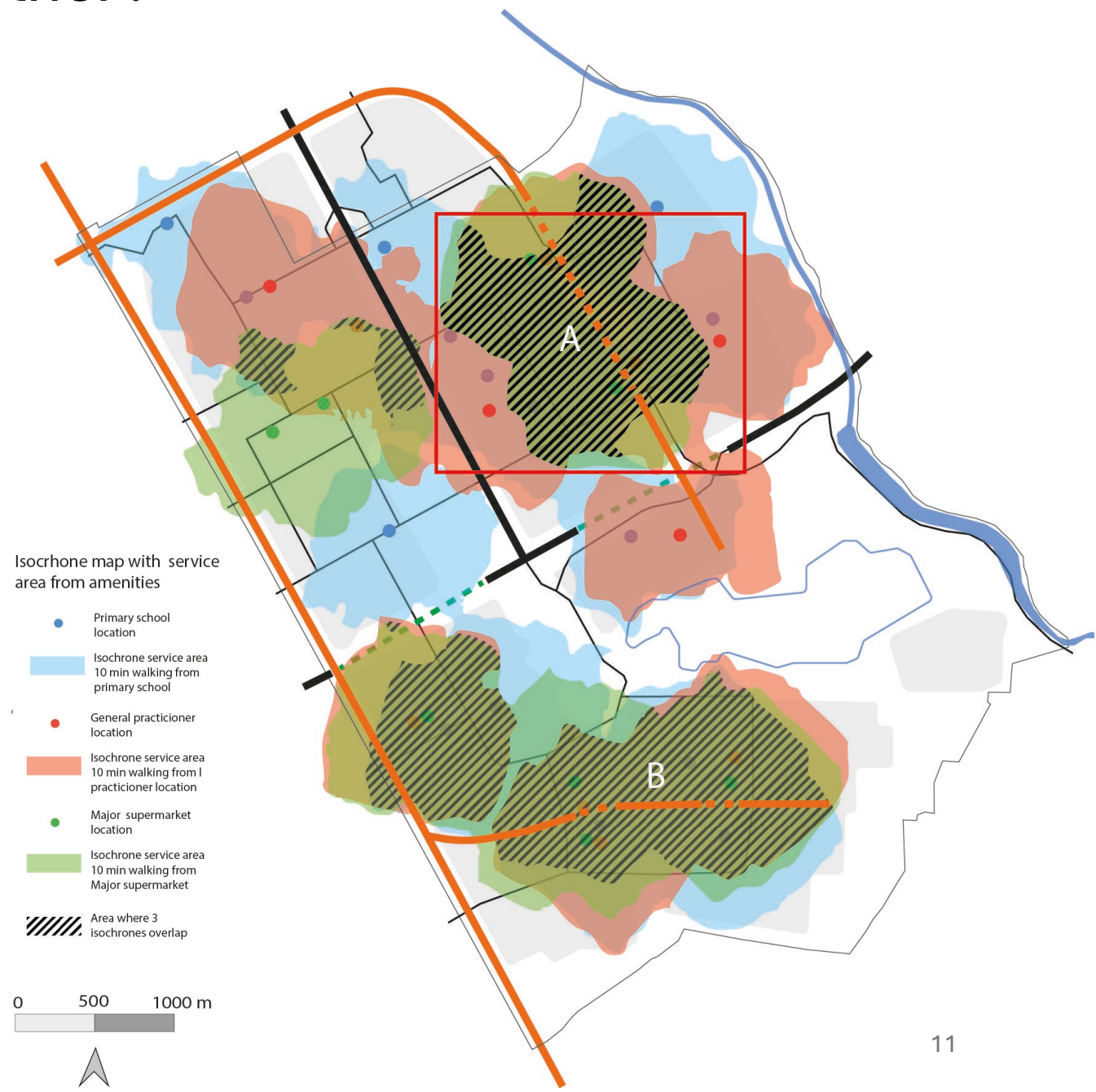
Primary school

Where does everything come together?

- Few areas where all overlap.
- These are Strategic leverage points for behavioral change.
- Physical conditions are right.
- Small changes here can have a big effect.

Why area A:

- High density benefits more residents
- Youth can drive mobility changes.
- Large leftover spaces offer redevelopment potential.

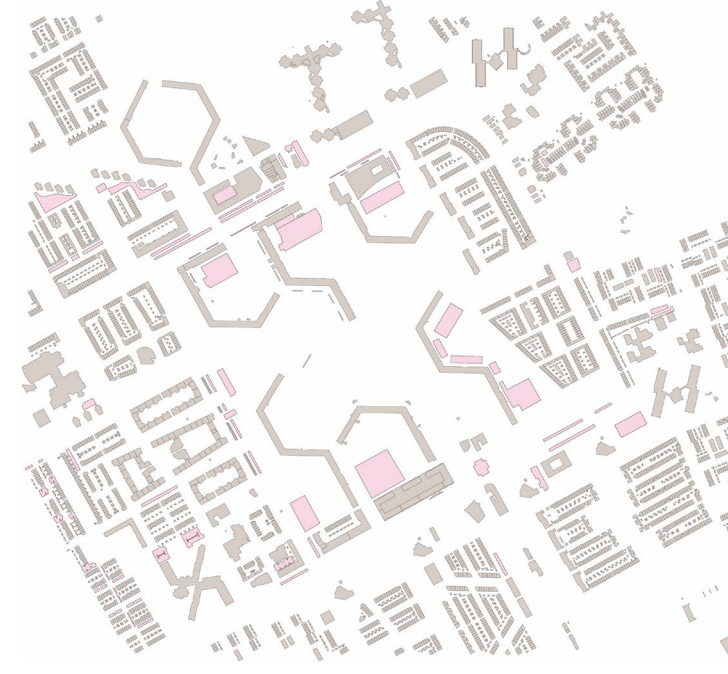


Spatial analysis zoom in area

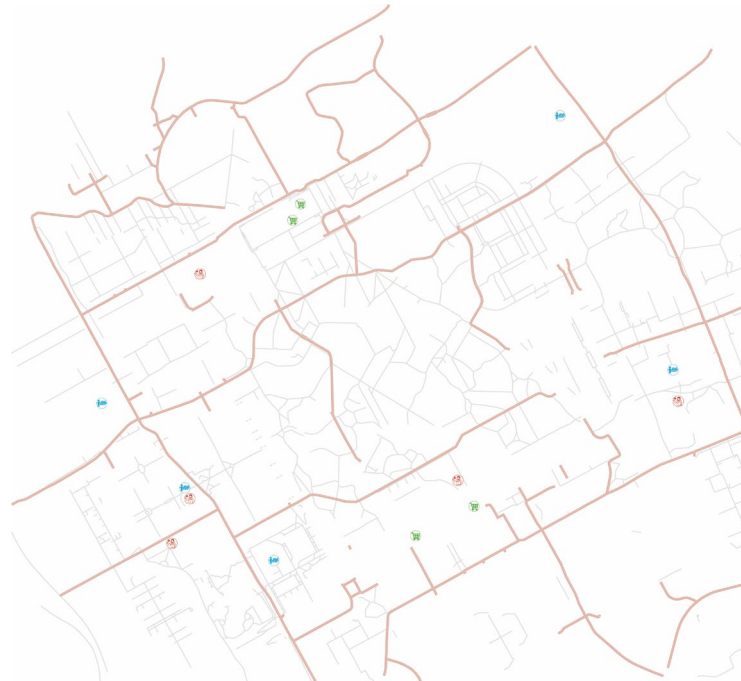
- Car roads dominate and create barriers.
- Two different typologies in the area.
- Bike infrastructure exists, but is fragmented.
- Green spaces are plenty, but poorly connected



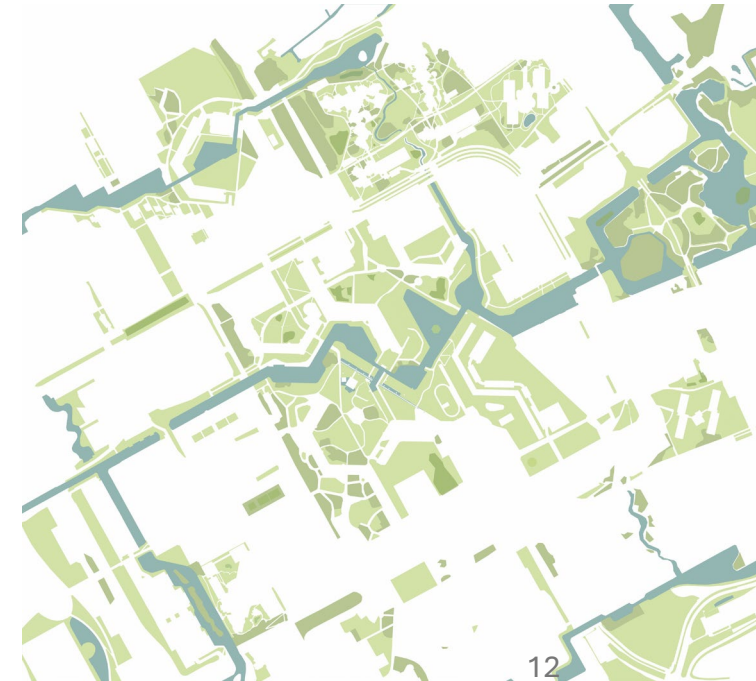
Car infrastructure and public transport



Building typology and parking



Active mobility infrastructure

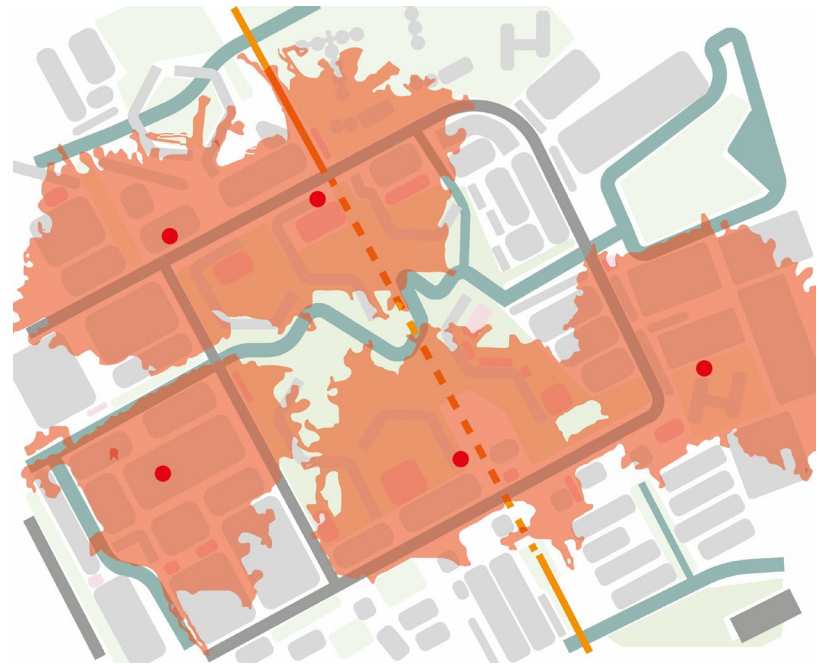


Green-blue infrastructure

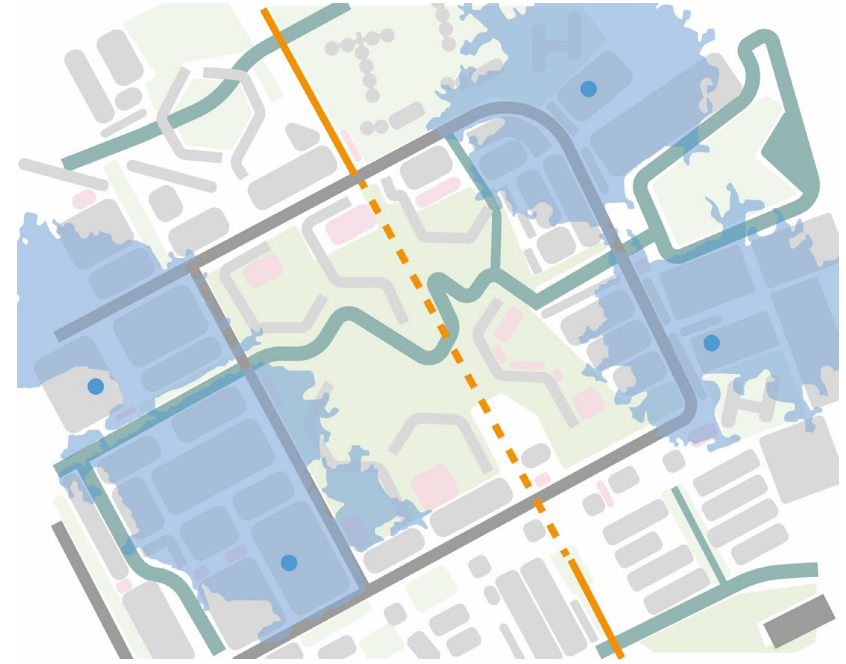
Proximity analysis 5 minutes walking



Supermarket



General practitioner



Primary school






Observation and interviews

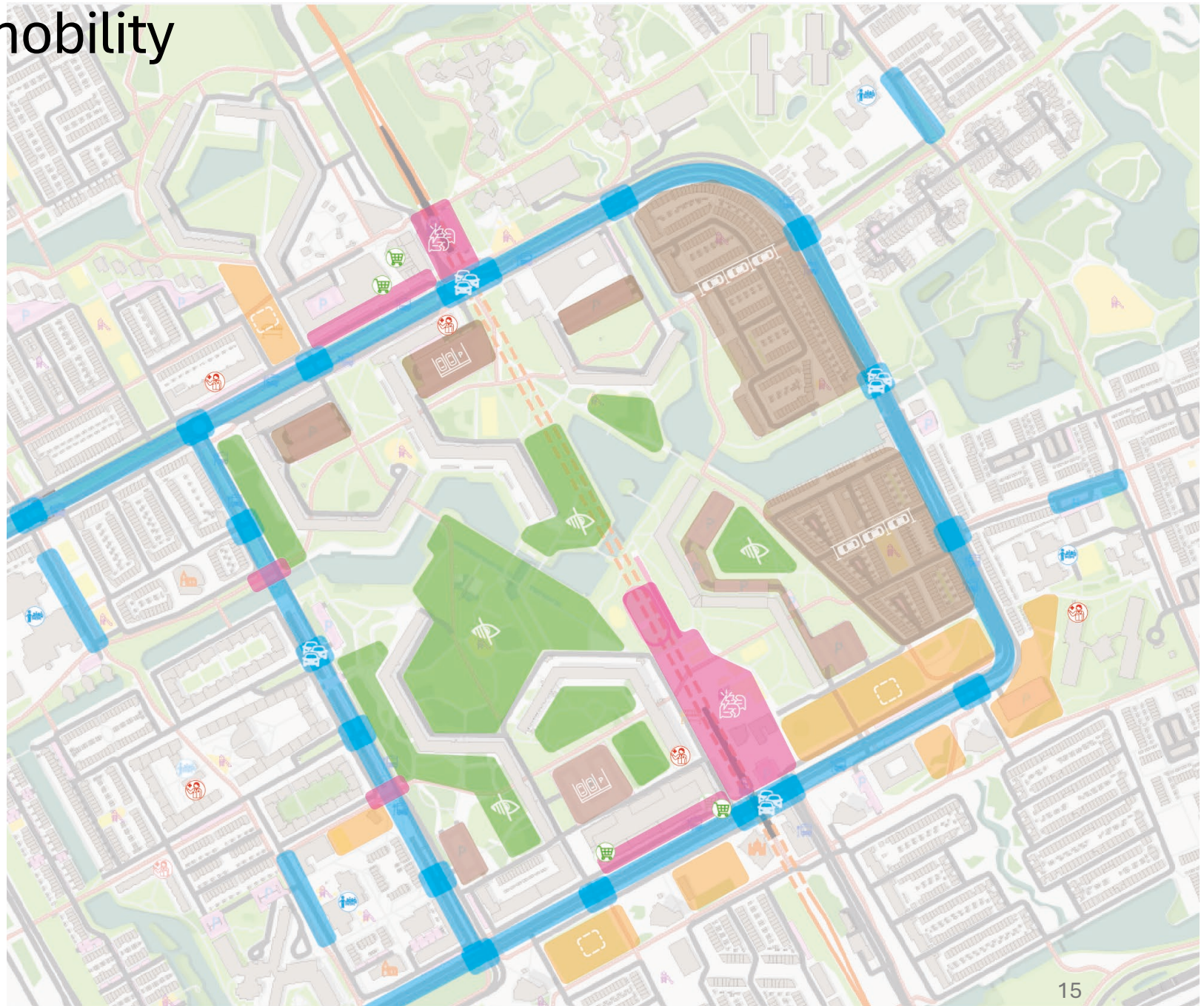
- Observation on 4 representative locations
- 16 interviews with people in the same area
- Result: Total 32 spatial and non-spatial barriers to active mobility



Spatial barriers to active mobility

Because the locations were representative, the insights could be mapped across the whole area.

-  Infrastructure & Traffic Safety
-  Stay Comfort & Social Engagement
-  Perceived Social Safety
-  Dominance of the Car as the Norm
-  Route Comfort & Everyday Functionality



None spatial barriers

- Not all barriers are physical; emotional, cultural, and social barriers that don't appear on the map but still shape behavior.

"I would maybe let my kids walk or bike to school if it actually felt safe — but right now, I just can't take that risk."

"Carrying kids or heavy groceries just isn't doable on foot or by bike — sometimes the car is the only real option."

"I never really learned how to bike, and with all the traffic around here, I don't feel good enough to start."

"I don't even have a bike right now — and public transport is too expensive for short everyday trips."

3.

Design

Program of actions

Mobility

- 1- Active mobility
- 2- Car traffic & parking
- 3- Barriers & permeability
- 4- Routing & orientation
- 5- Public transport & shared mobility

Physical Policy

+ - + -

Program

- 1- Public facilities & proximity
- 2- Local economy & employment
- 3- Use efficiency & reprogramming
- 4- Affordability & housing differentiation
- 5- Health & well-being

Physical Policy

+ - + -

Quality

- 1- Stay & meeting space quality
- 2- Social safety
- 3- Climate & ecology
- 4- Accessibility & inclusivity

Physical Policy

+ - + -

Policy measures

Regulatory Measures

District-wide 30 km/h; 15 km/h in residential streets

Restricted-access zones

School streets (car-free at peak times)

Parking enforcement

Maintenance & Management

Rapid repair of paths & sidewalks

Winter priority for active routes

Lighting standards

Regular safety audits

Regular green maintenance along Mobility routes

Financial & Incentive

Bike & e-bike subsidies

Bike repair vouchers

Yearly active-mobility budget

Regular safety audits

Higher (long-term & multi-car) parking fees

Cultural & Educational

Car drop-off at schools prohibited

School cycling lessons + group rides

Cycling proficiency tests

Adult cycling lessons

Car-free neighbourhood events

Neighborhood mobility campaigns

Inclusivity & Mobility Access

Adapted bicycles for residents with disabilities

Senior mobility-safety workshops

Loan bikes for newcomers/parents

Work & Employment

Employer mobility programmes

Bike allowances / e-bike leasing

Active commute check-ups

No reimbursement for <5 km car trips

Car-free neighbourhood events

Health & Care

Employer mobility programmes

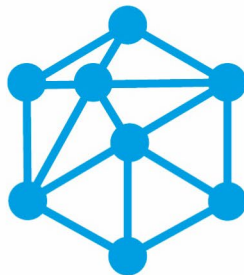
Movement programmes (walking/cycling)

Age-specific mobility guidance

Joint initiatives between care providers & neighbourhoods

Guiding principles per theme

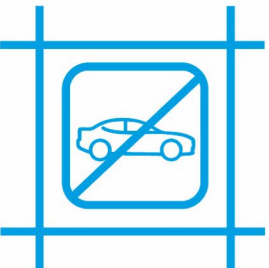
Active mobility- Seamless network



Active mobility- Accessible bike parking



Car traffic and parking- Car free cores



Car traffic and parking- Reclaim public space



Barriers and permeability- safe crossings



Barriers and permeability- Create new connections



Public facilities and proximity- Daily needs nearby



Public facilities and proximity- Densify around centres



Stay and meeting space quality- Public space as destination



Stay and meeting space quality- Lively everyday spaces



Social safety- Safe at all times

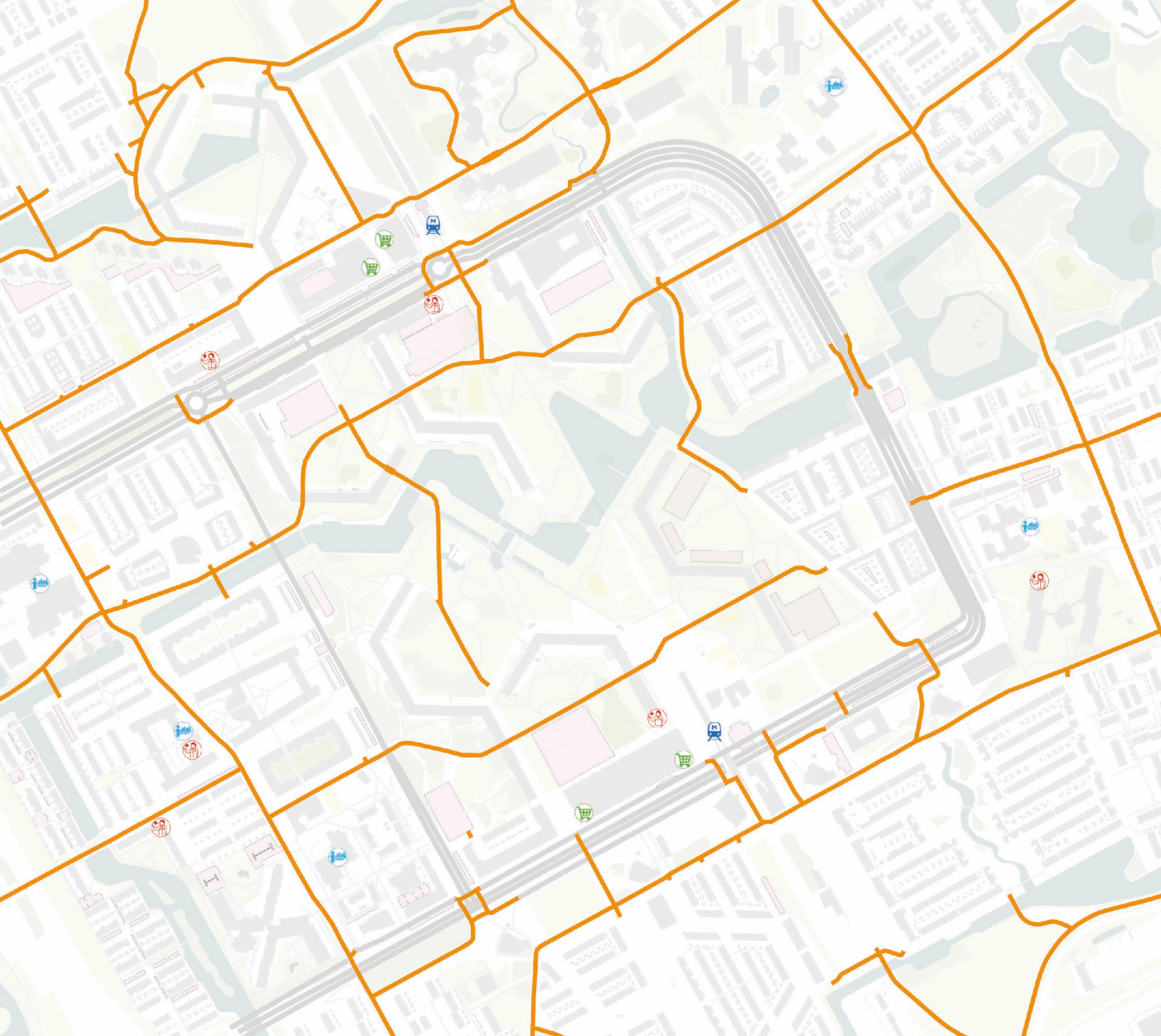


Social safety- Eyes on the street



Active mobility

Current situation: fragmented network



Current Fragmented Active Mobility Network

- Existing bike network
- Supermarket
- Primary school
- General practitioner
- Metro station

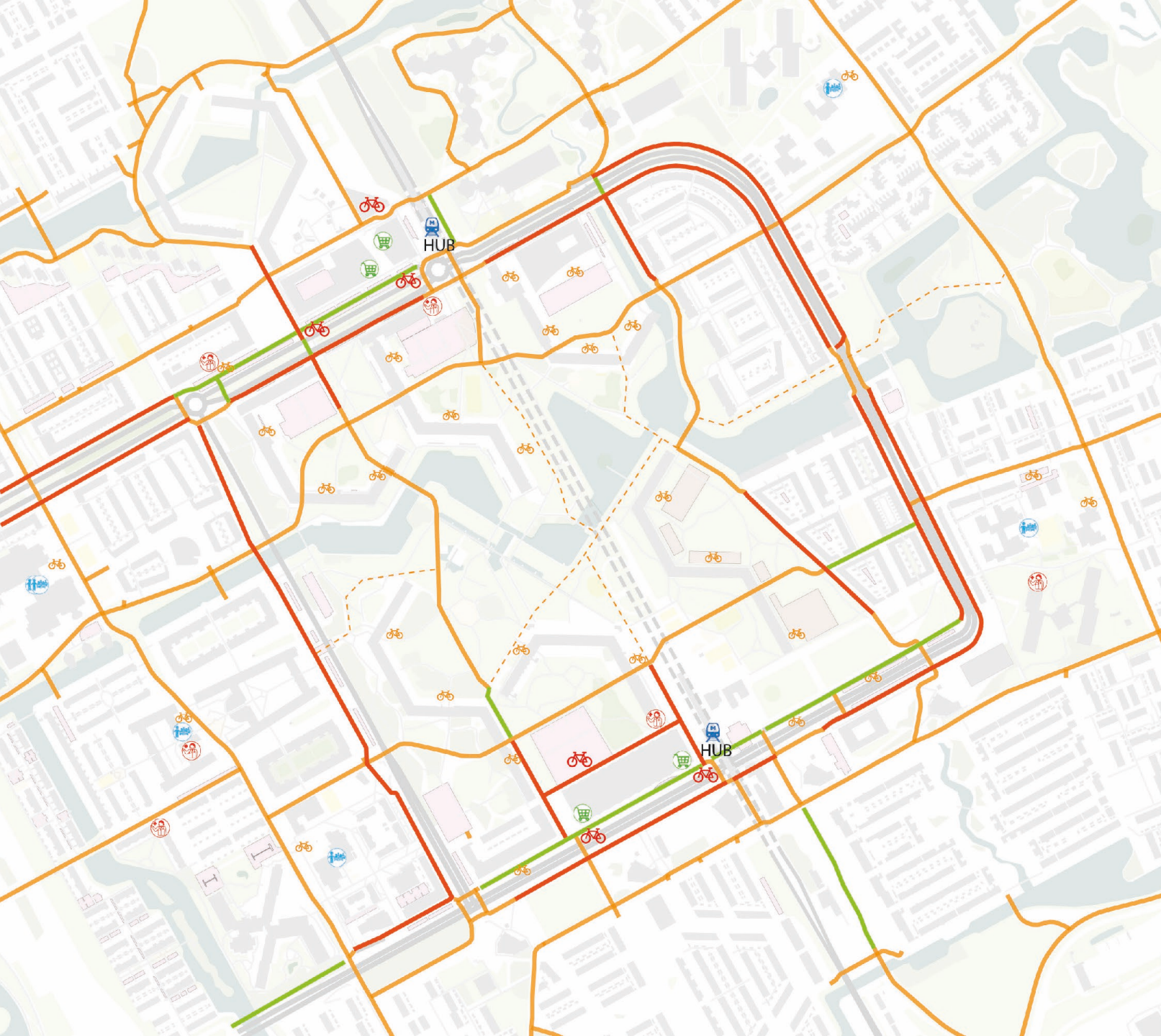


0 100 200 m



Active mobility

Future situation: Seamless network



Active mobility- Seamless network



Active mobility- Accessible bike parking



Fully Connected Active Mobility Network

- Current Bike network
- Bike path connection
- Bike street connection
- - - Shared walking path
- 🚲 New bike parking
- 🛒 Supermarket
- 🎒 Primary school
- 🏥 General practitioner
- 🚇 Metro station

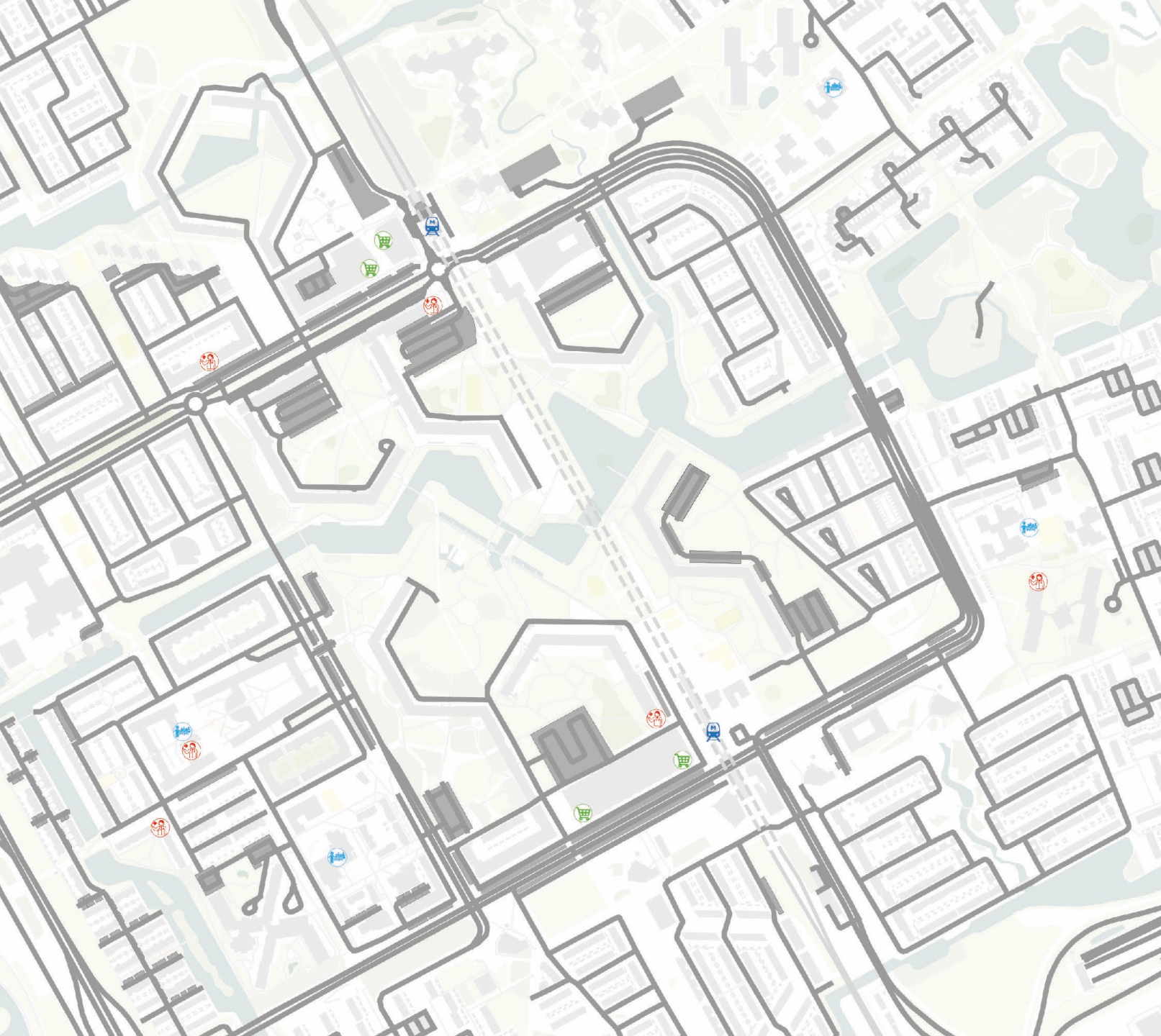


0 100 200 m



Car traffic and parking

Current situation: Streets ruled by cars



Existing Car Dominated Network

- Car dominated street
- Major parking area
- 🛒 Supermarket
- 🎒 Primary school
- 👨‍⚕️ General practitioner
- 🚇 Metro station



0 100 200 m



Car traffic and parking

Future situation: People centered streets




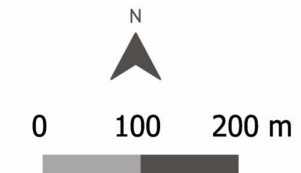
Car traffic and parking- Car free cores

Car traffic and parking- Reclaim public space



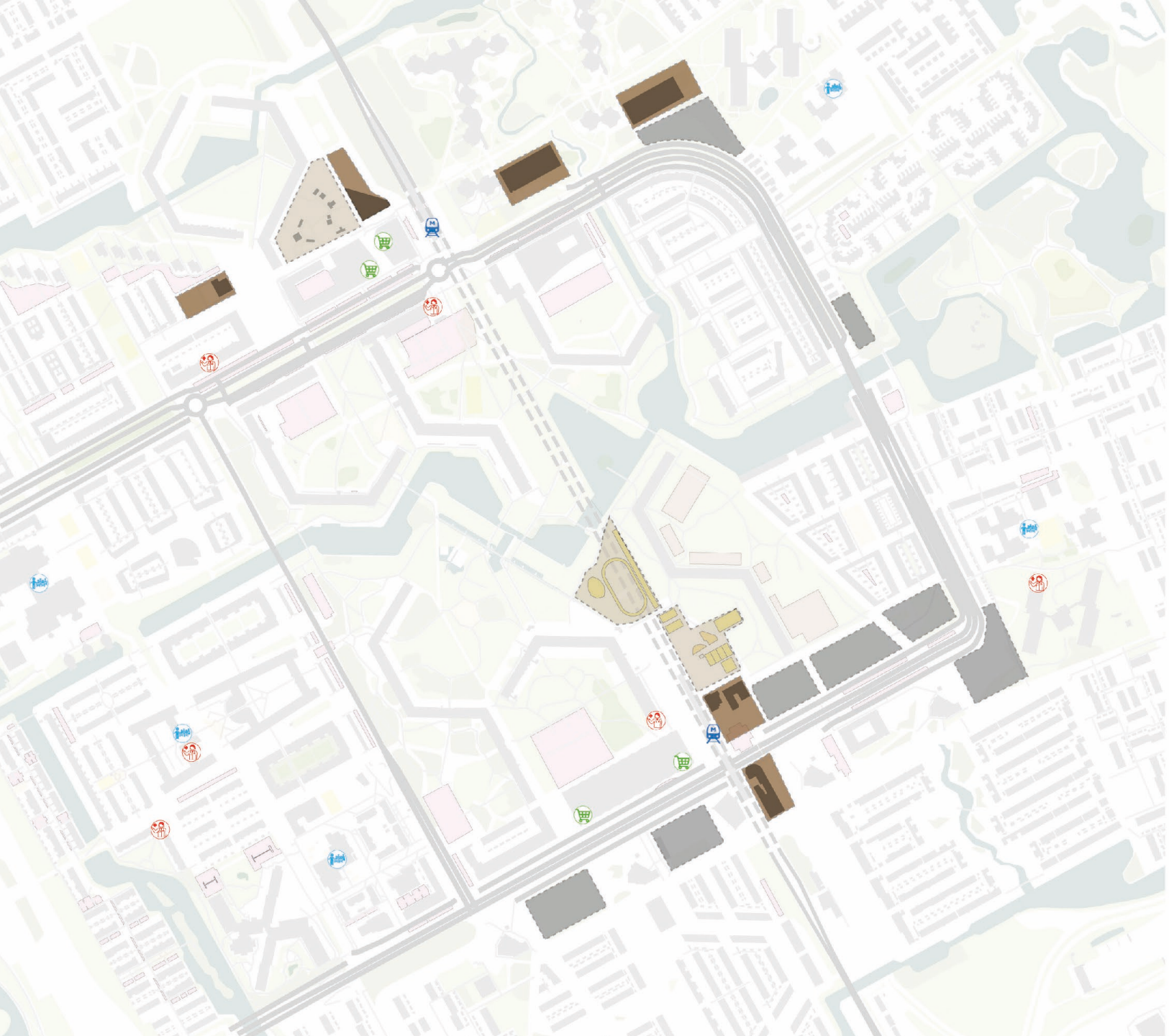
Car-Free Core and Calmed Roads

-  Car free area
-  Car is guest street
-  Car dominated street
-  Major parking area
-  Shared car parking
-  Supermarket
-  Primary school
-  General practitioner
-  Metro station

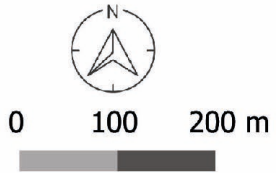


Public facilities and proximity

Current situation: Vacant Plots, Limited Choices

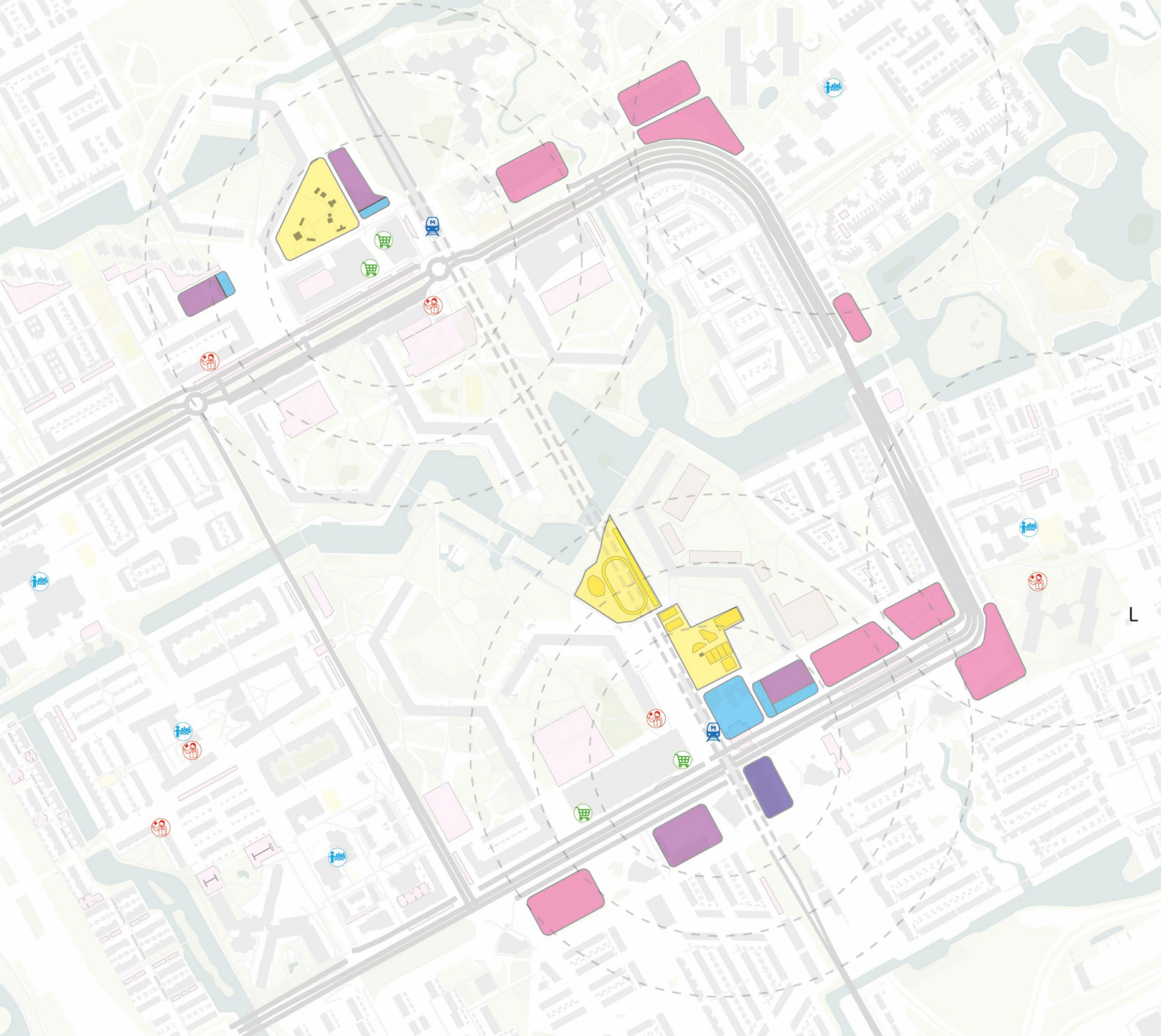


- Needs improvment
- Destroy for new
- Empty plot
- Supermarket
- Primary school
- General practicioner
- Metro station



Public facilities and proximity

Future situation: Vibrant local hubs



Public facilities and proximity- Daily needs nearby



Public facilities and proximity- Densify around centres

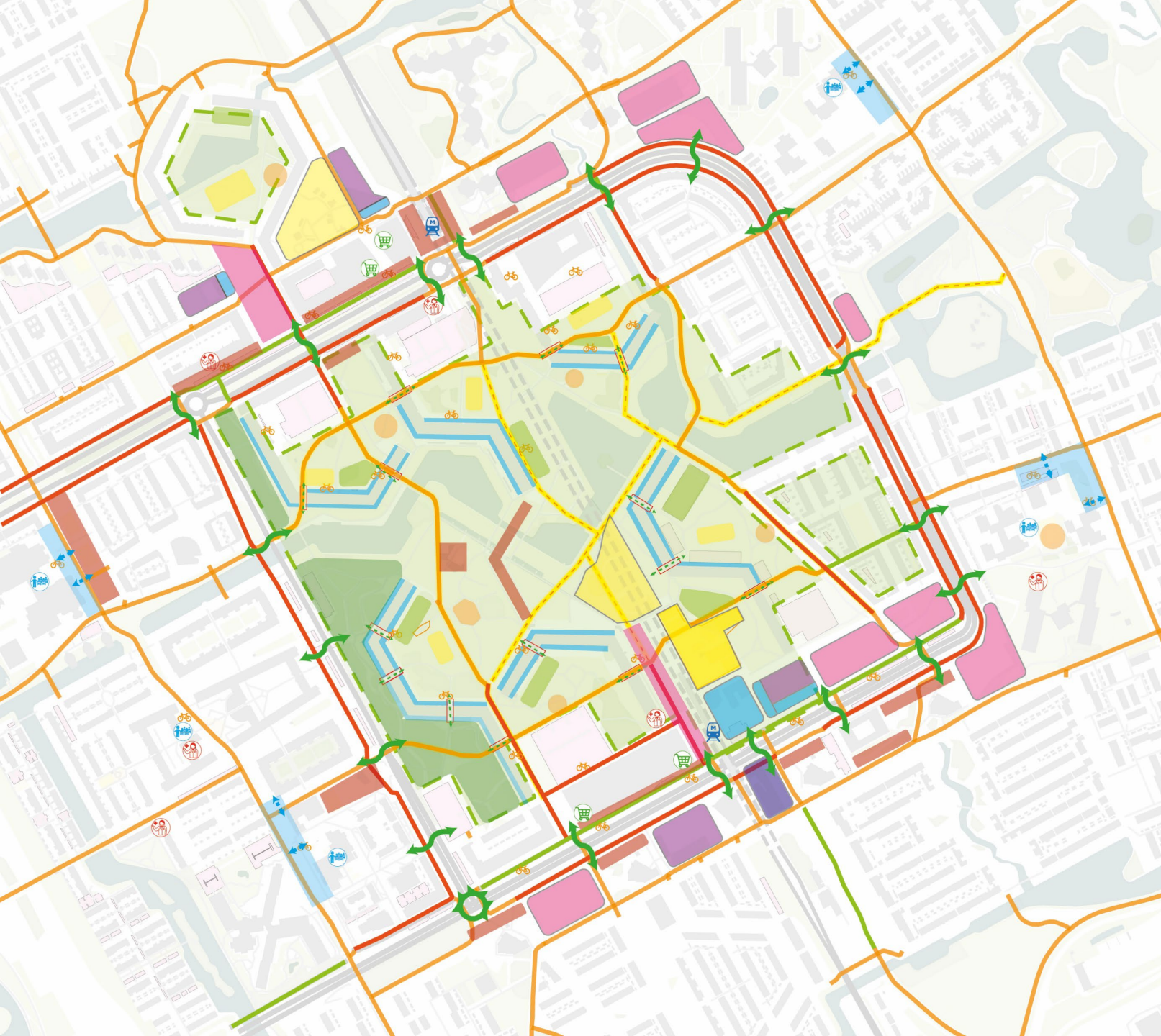


-  New amenities
-  New Mixed use
-  New residential
-  Upgrade and diversify existing amenity
-  New workspaces
-  Supermarket
-  Primary school
-  General practitioner
-  Metro station



0 100 200 m

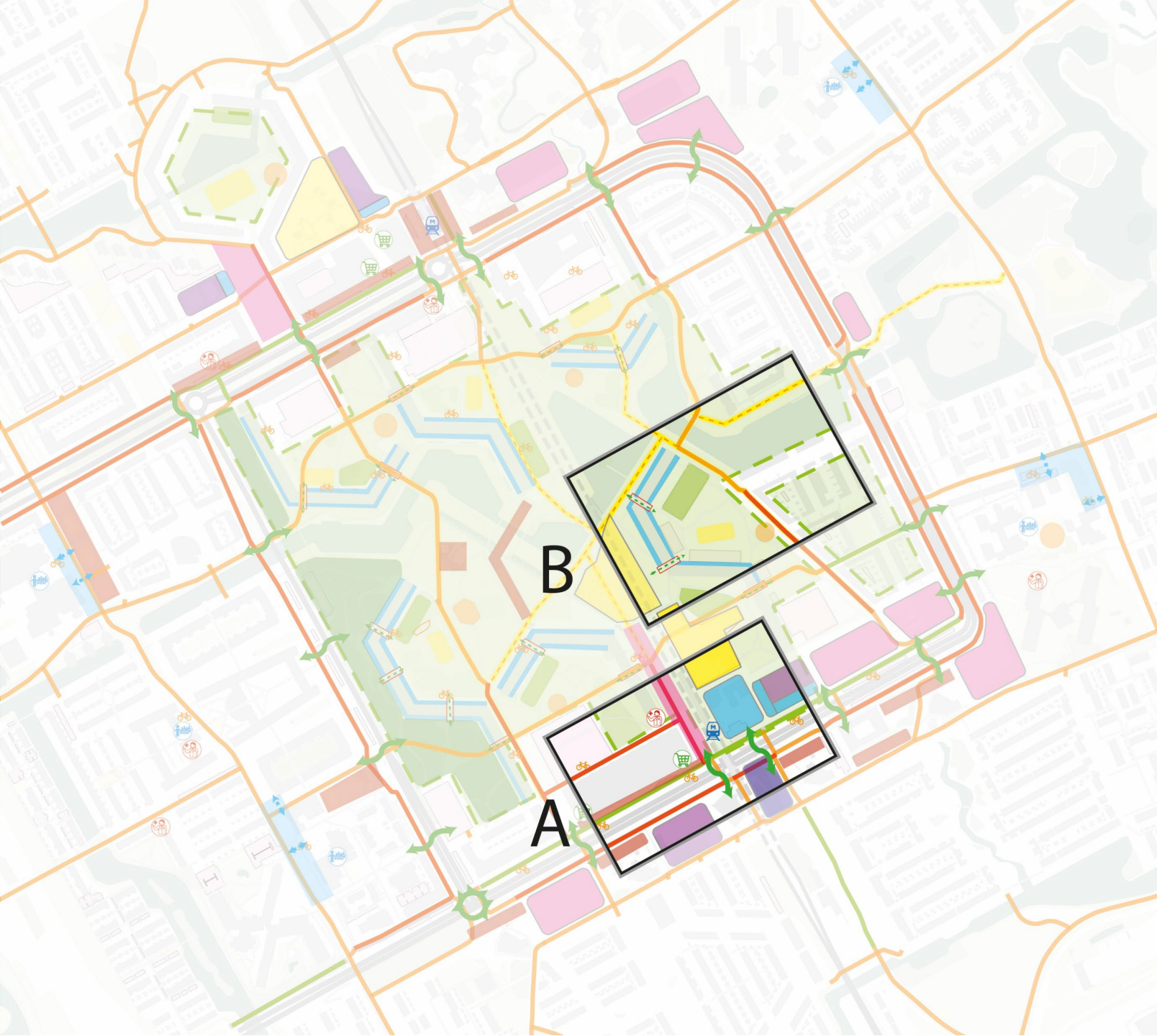




Thematic vision

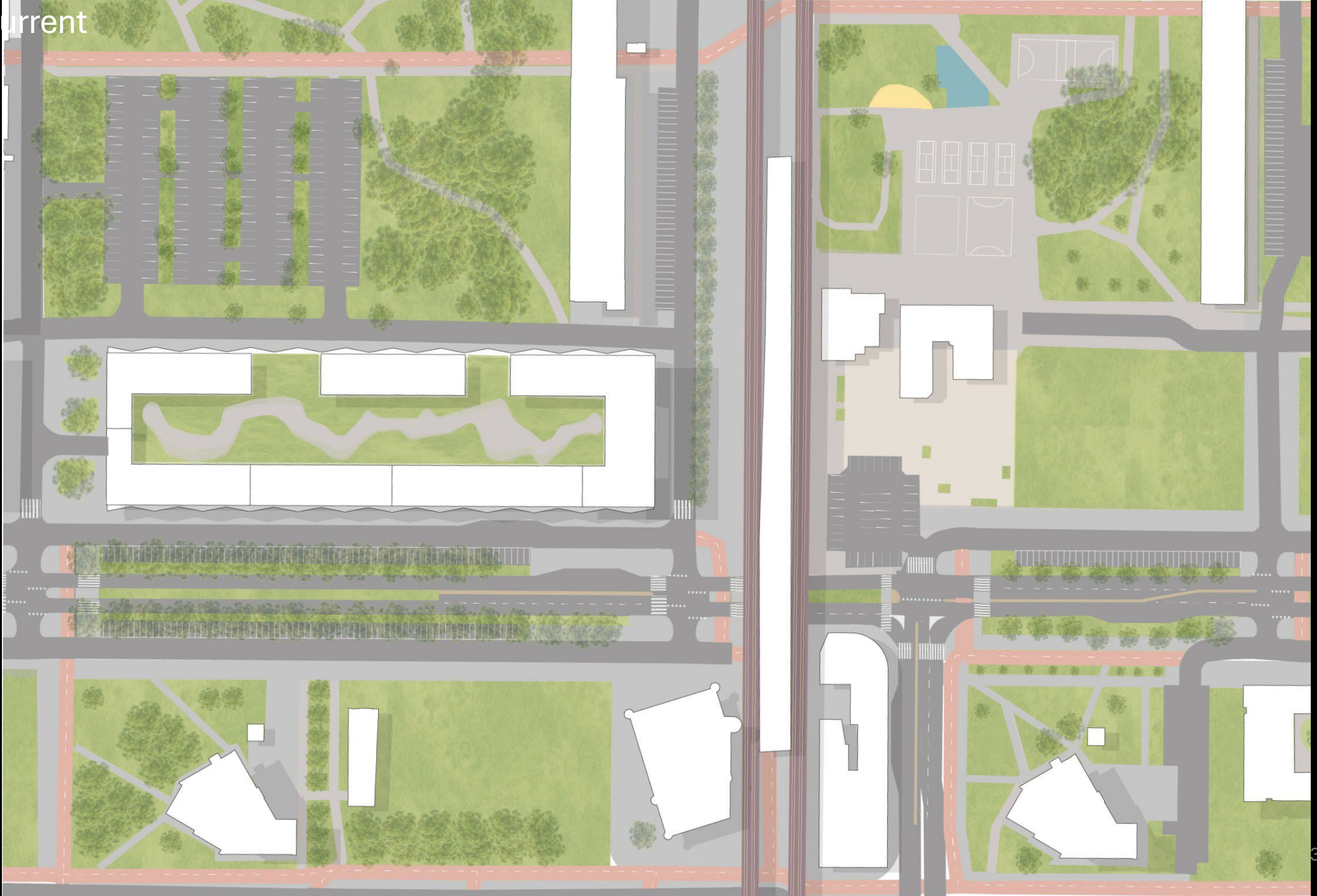
- Shows how all themes connect in the area
- Reveals overlaps, conflicts, and impact zones.
- Helps identify key areas to zoom into next.

Selection of key areas

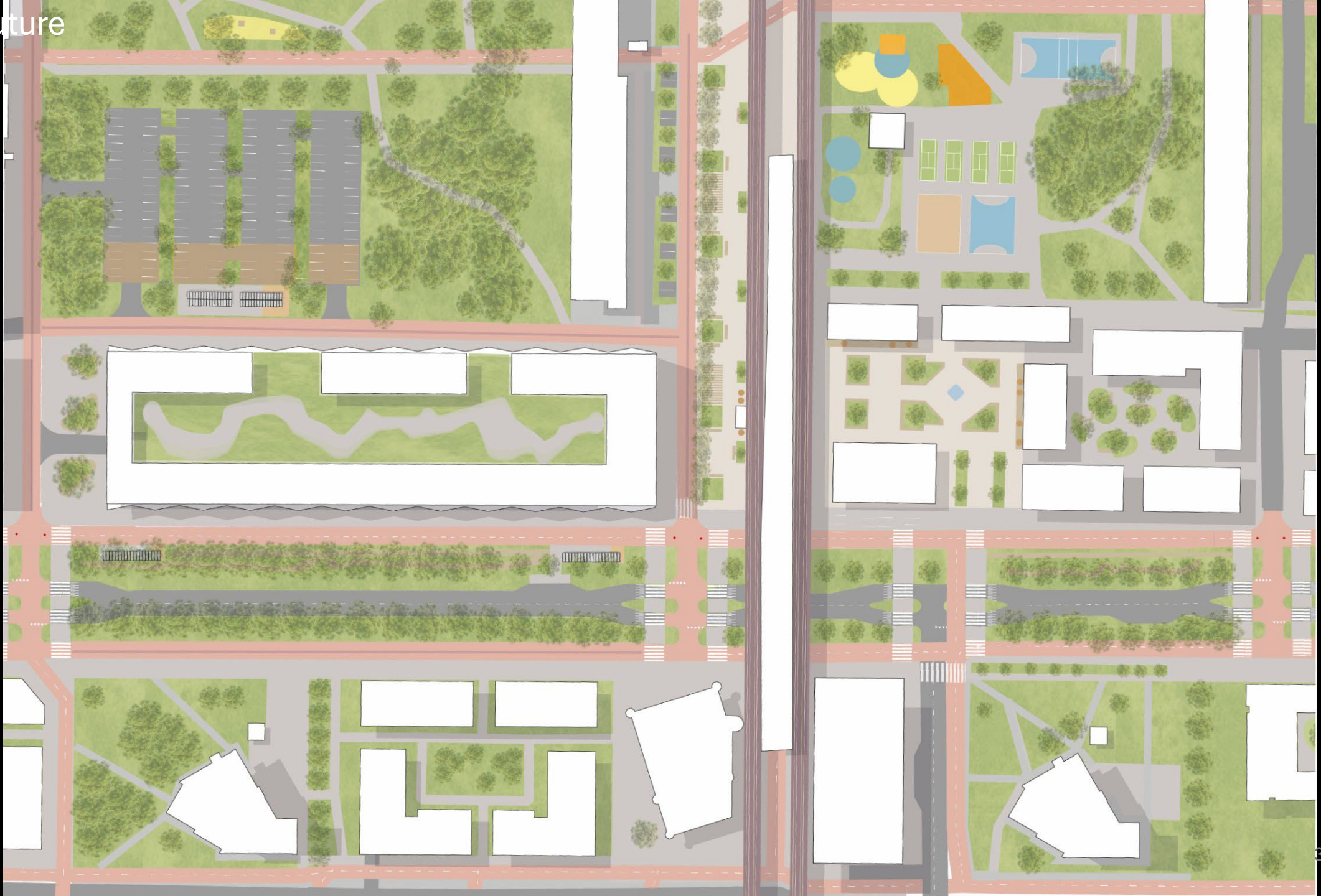


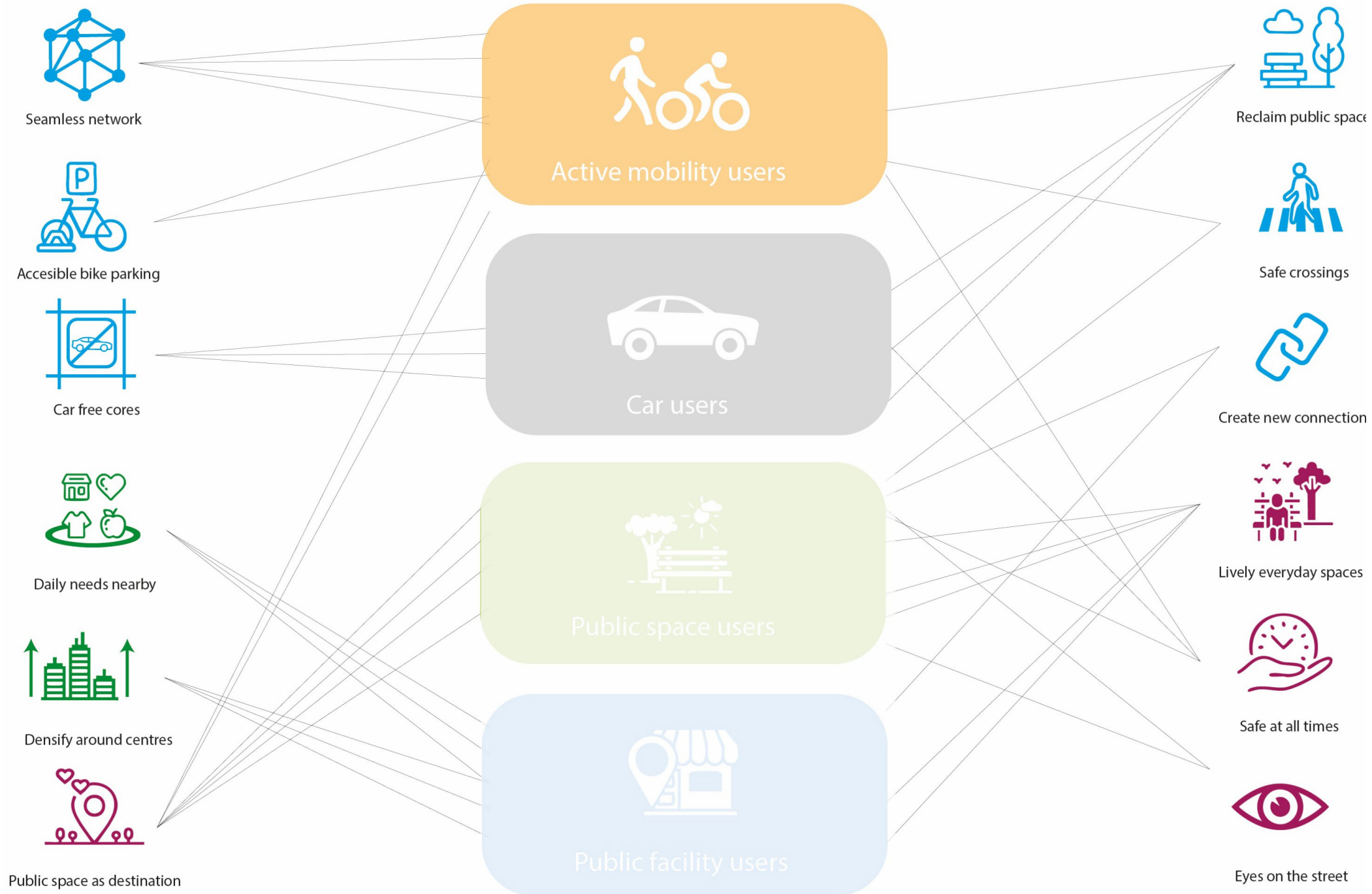
- Area A: A dynamic and high-intensity area
- Area B: Focus on living quality, staying spaces, and safety.

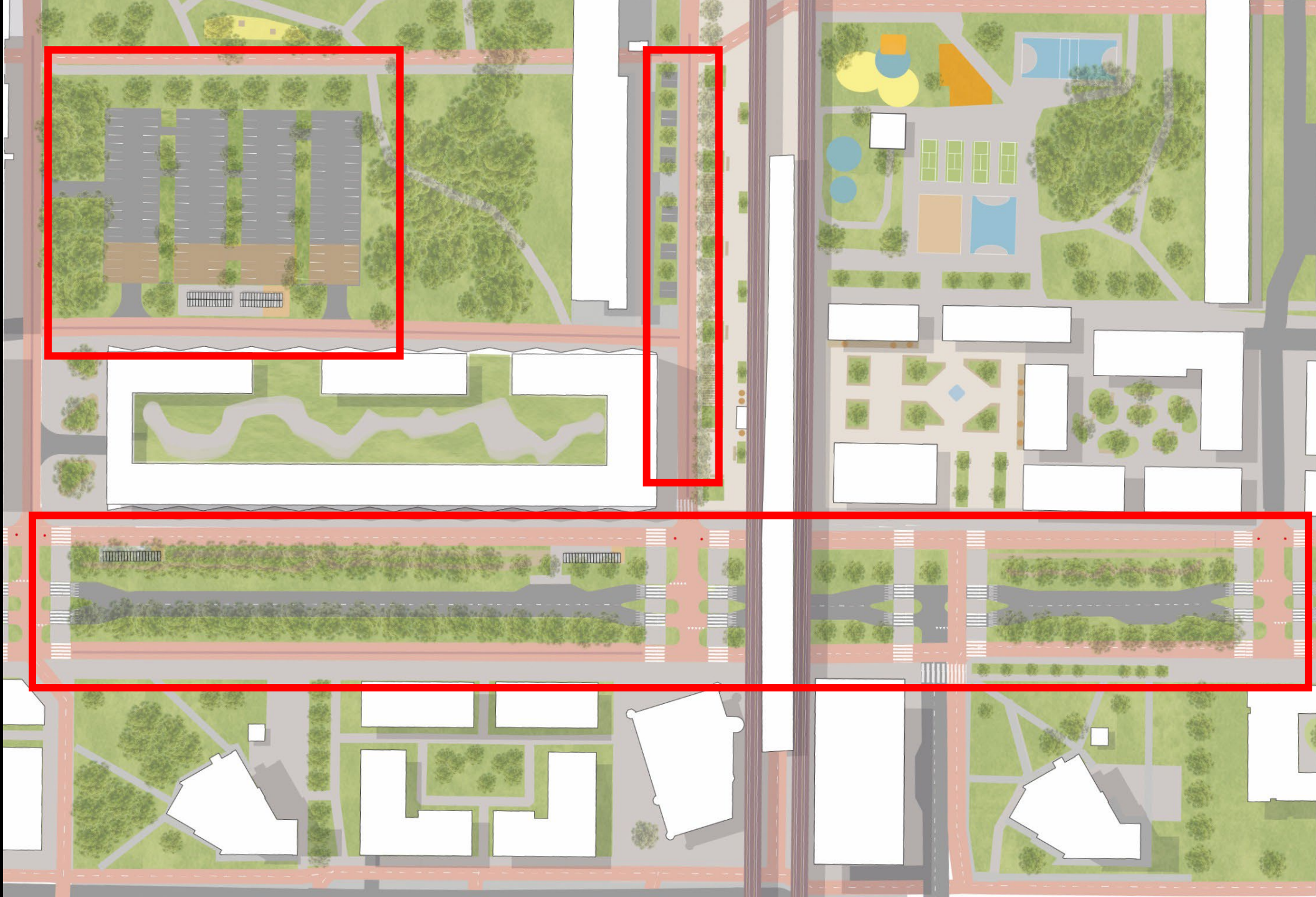


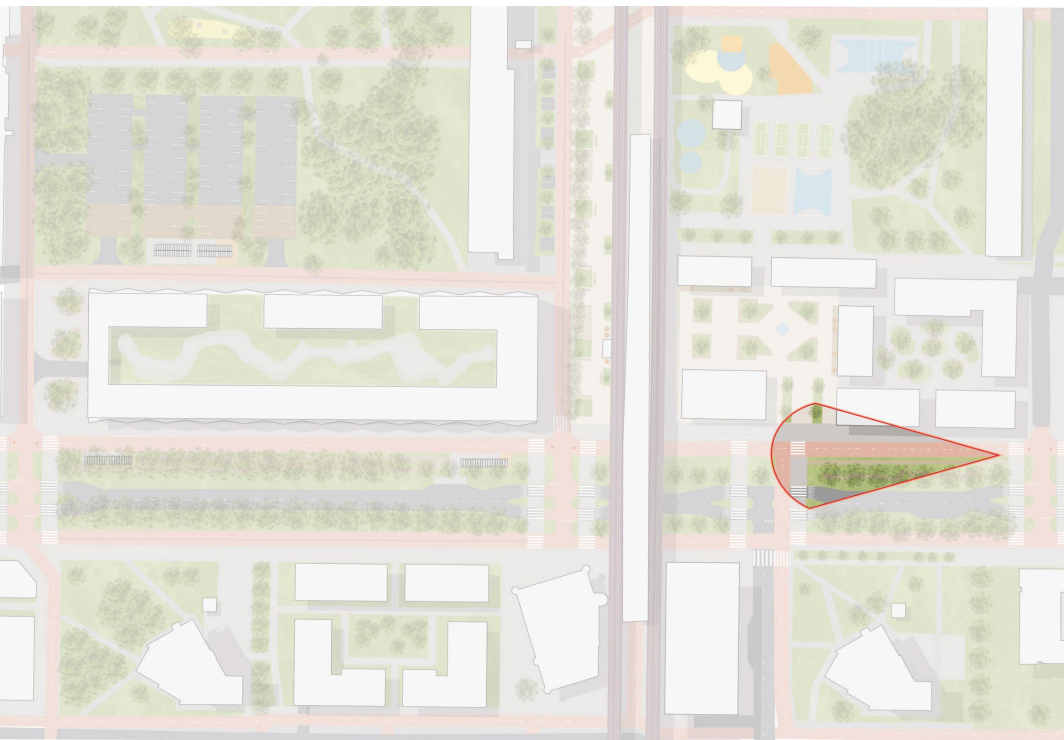


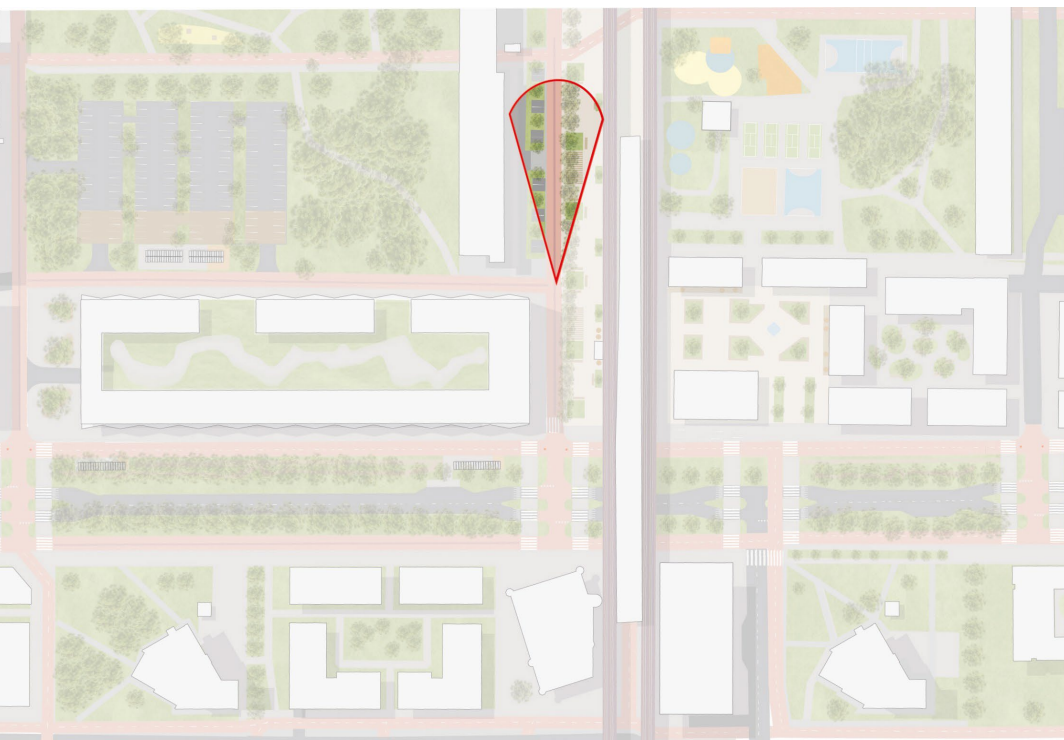
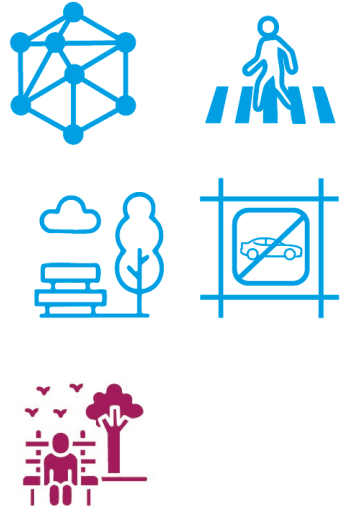
Area A future

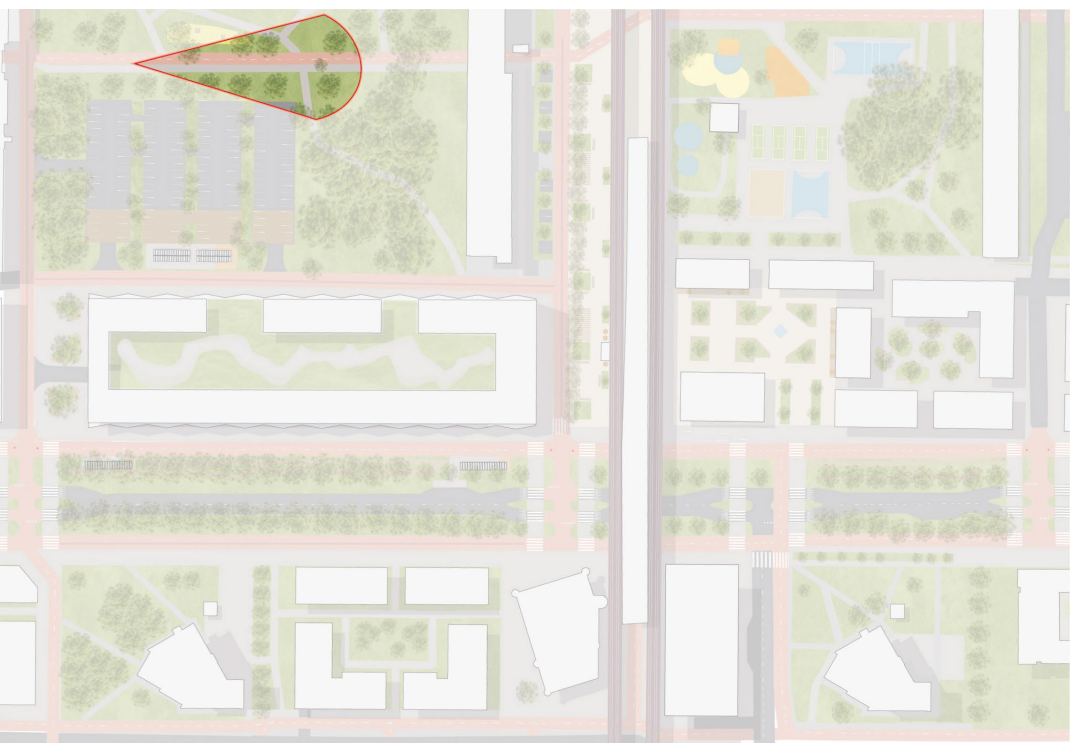
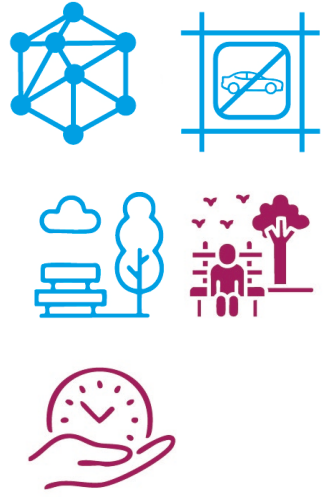




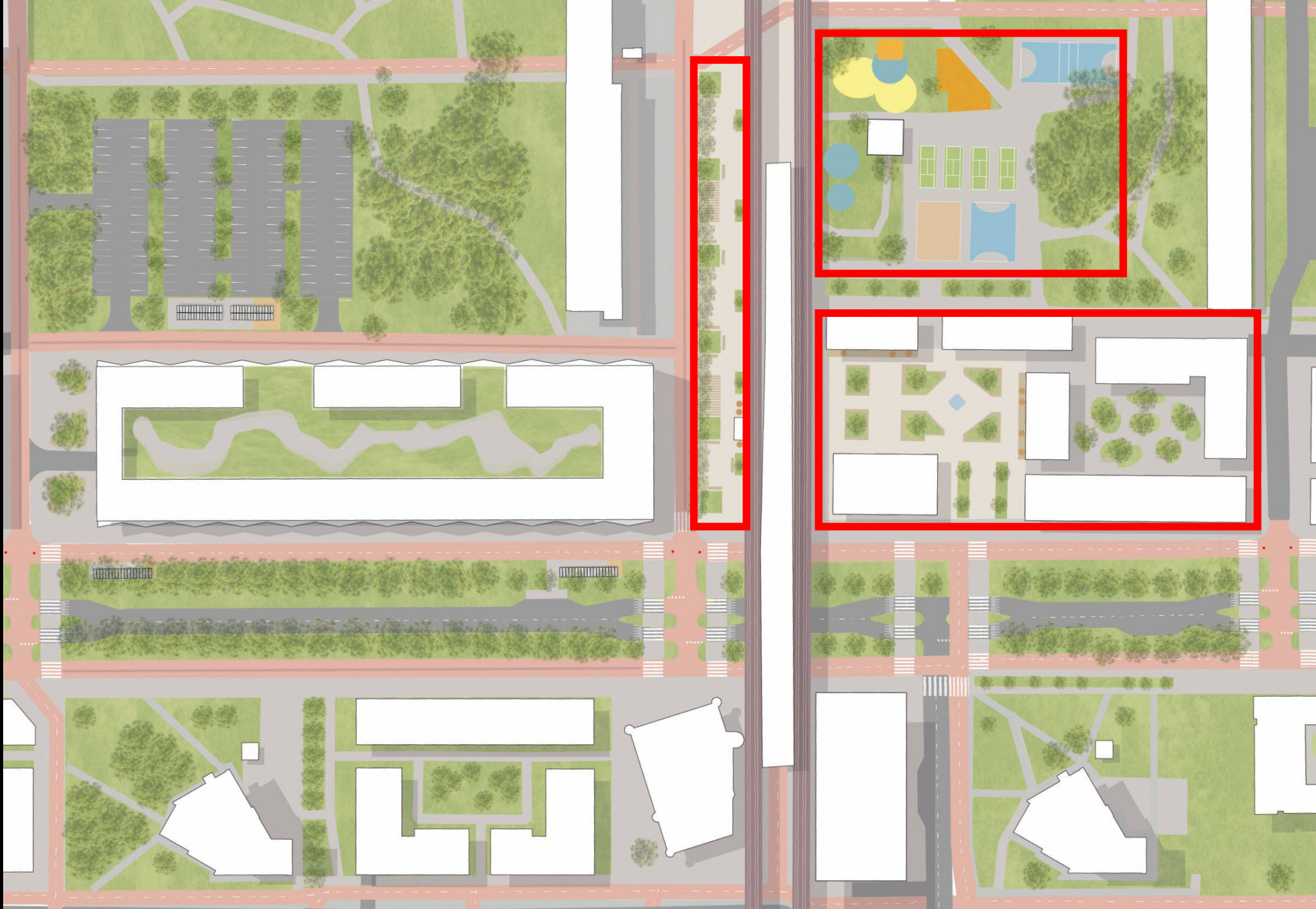




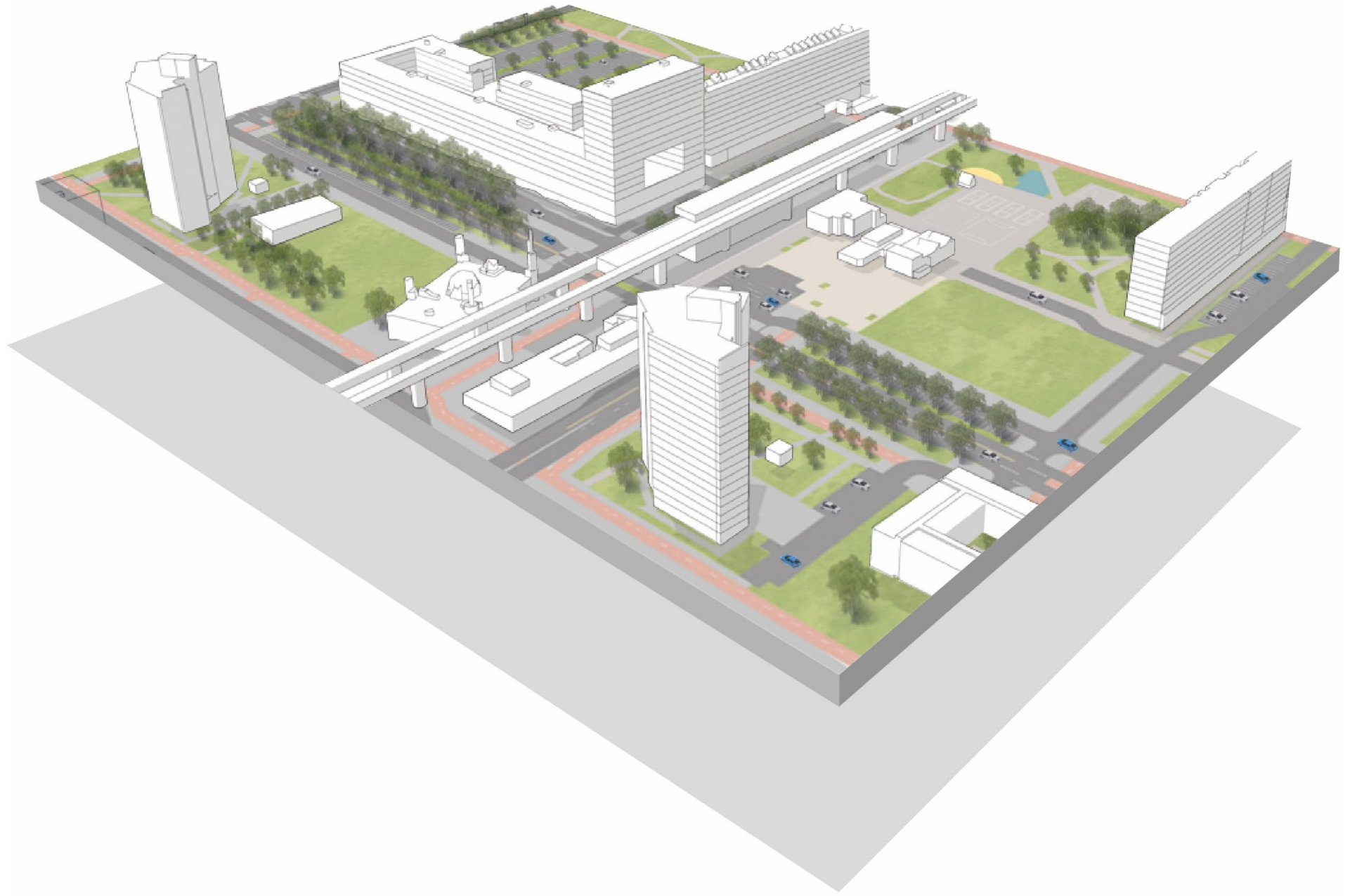




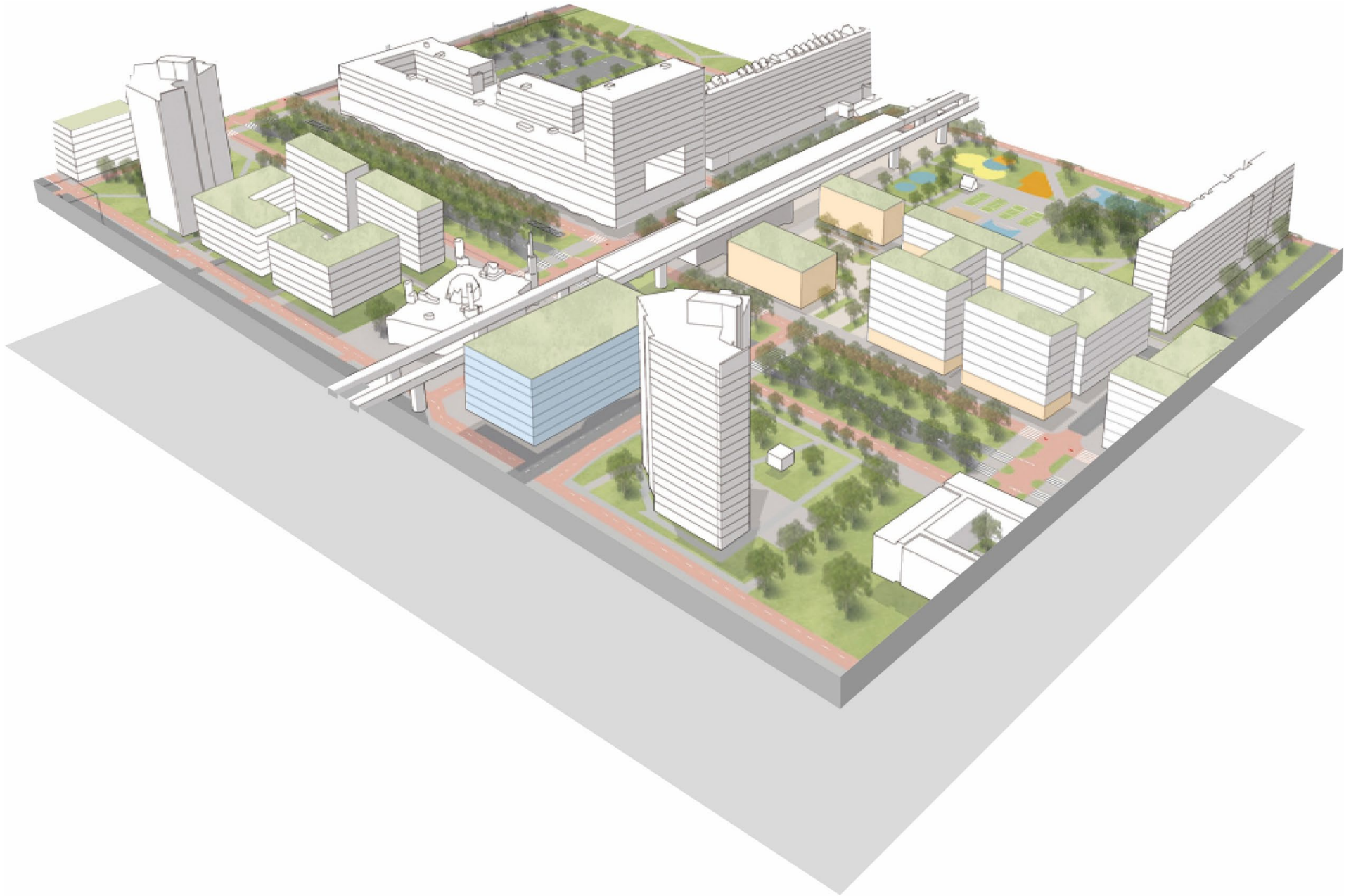


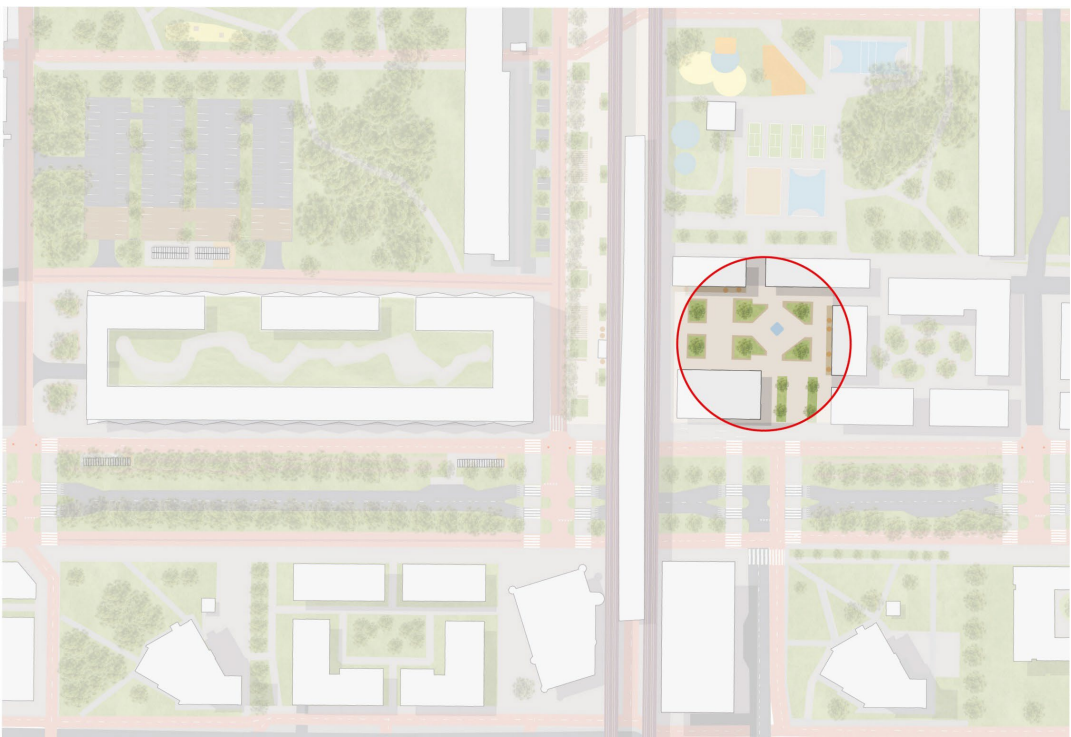


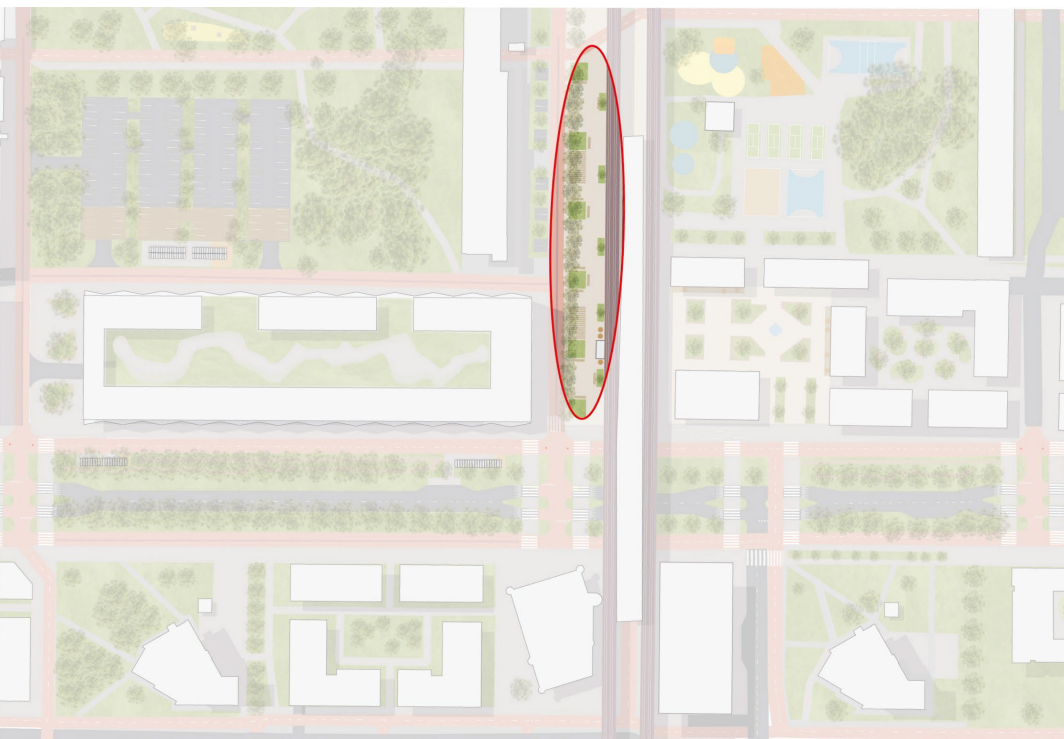
Area 1 Current

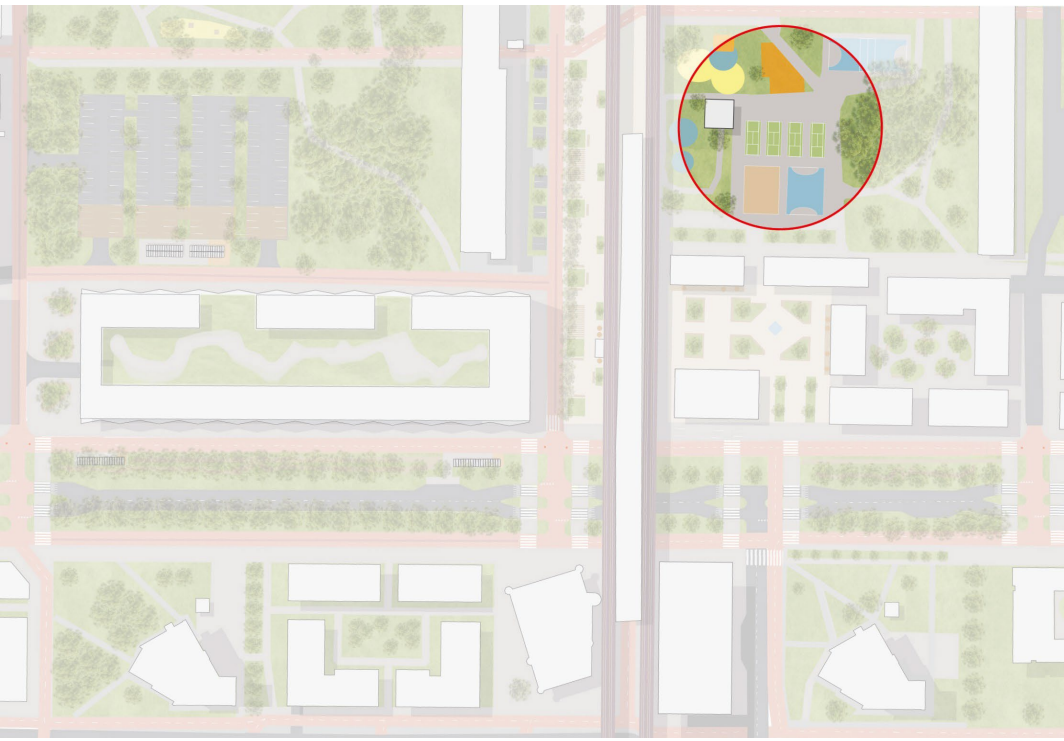


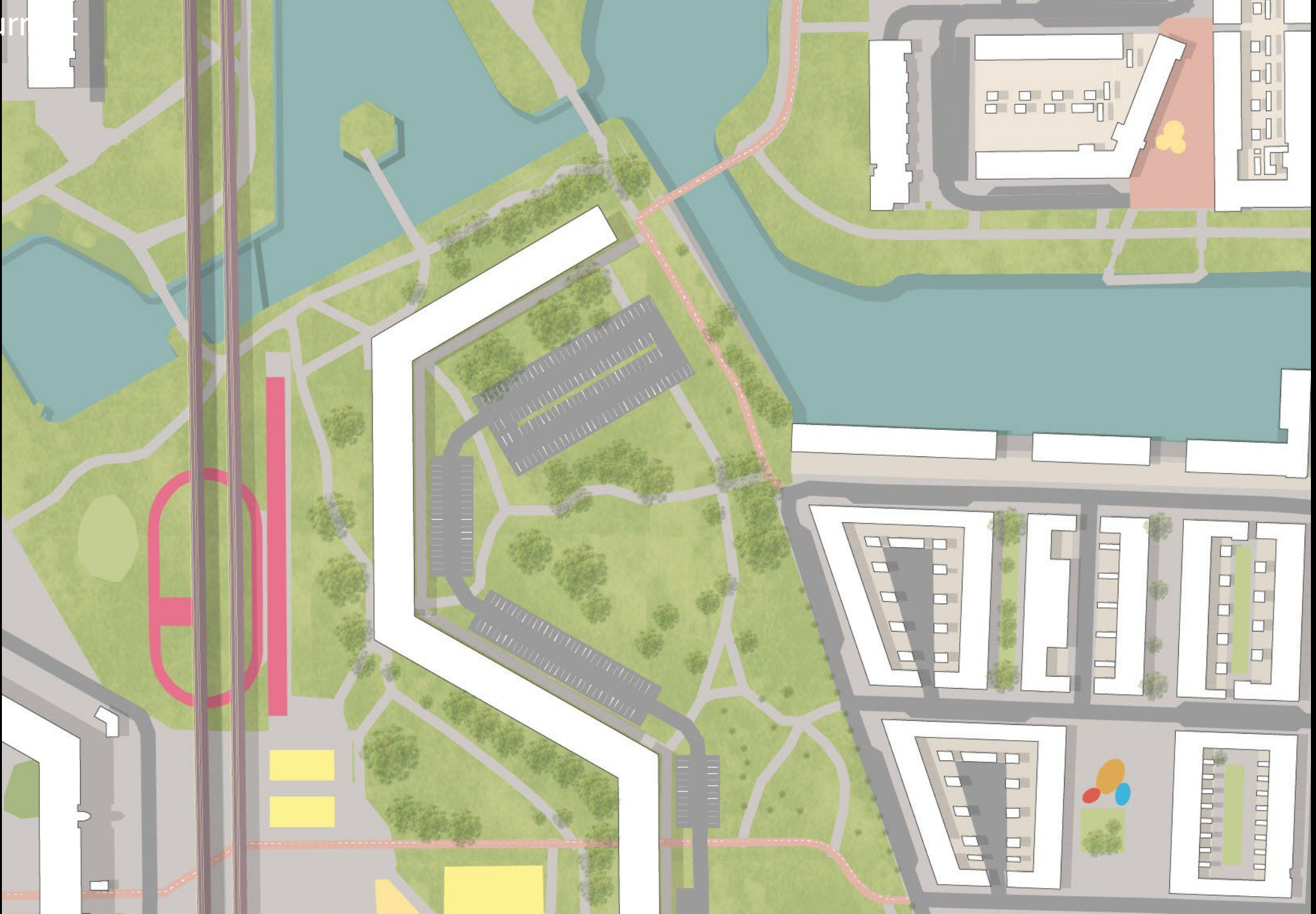
Area 1 Future

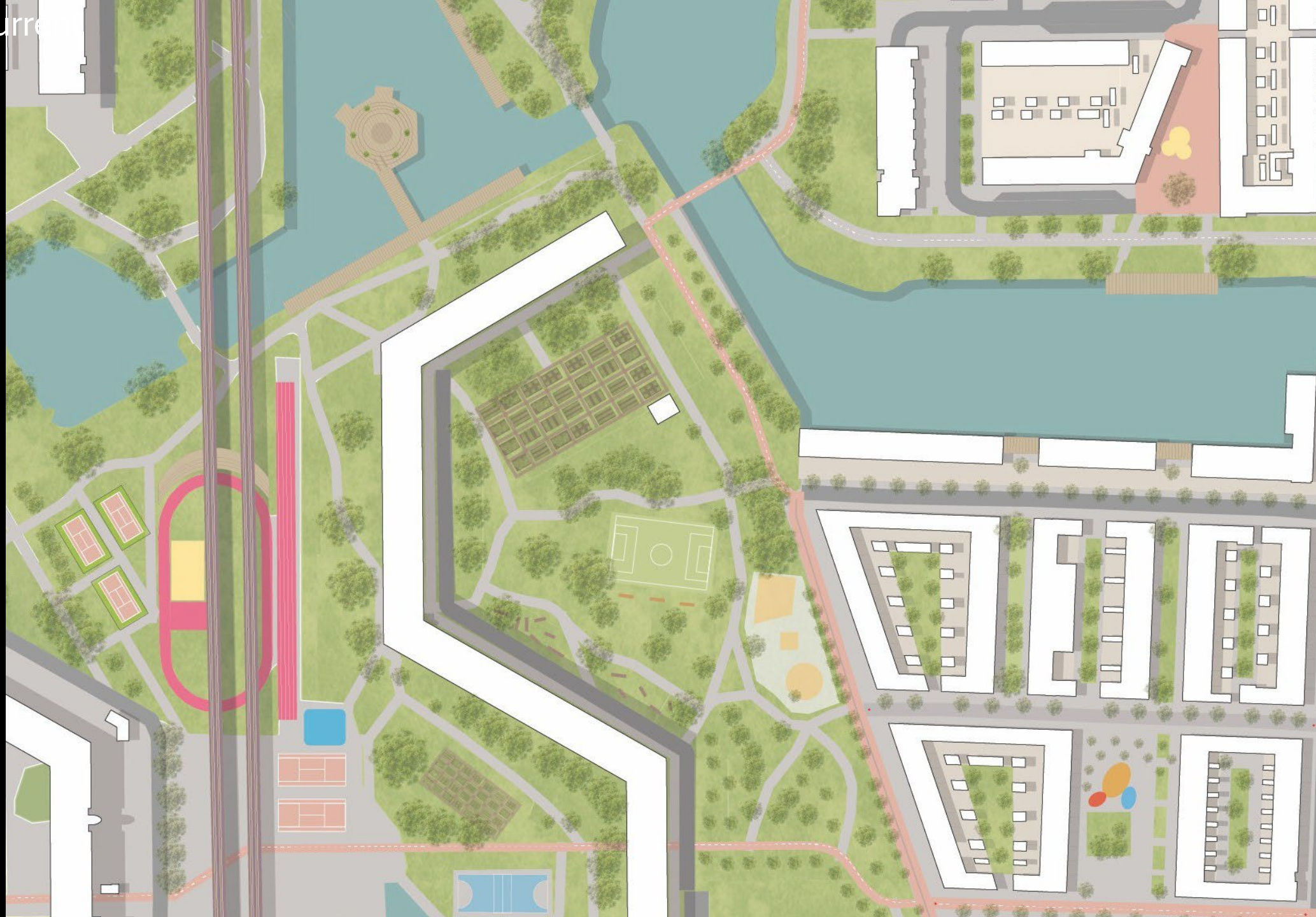


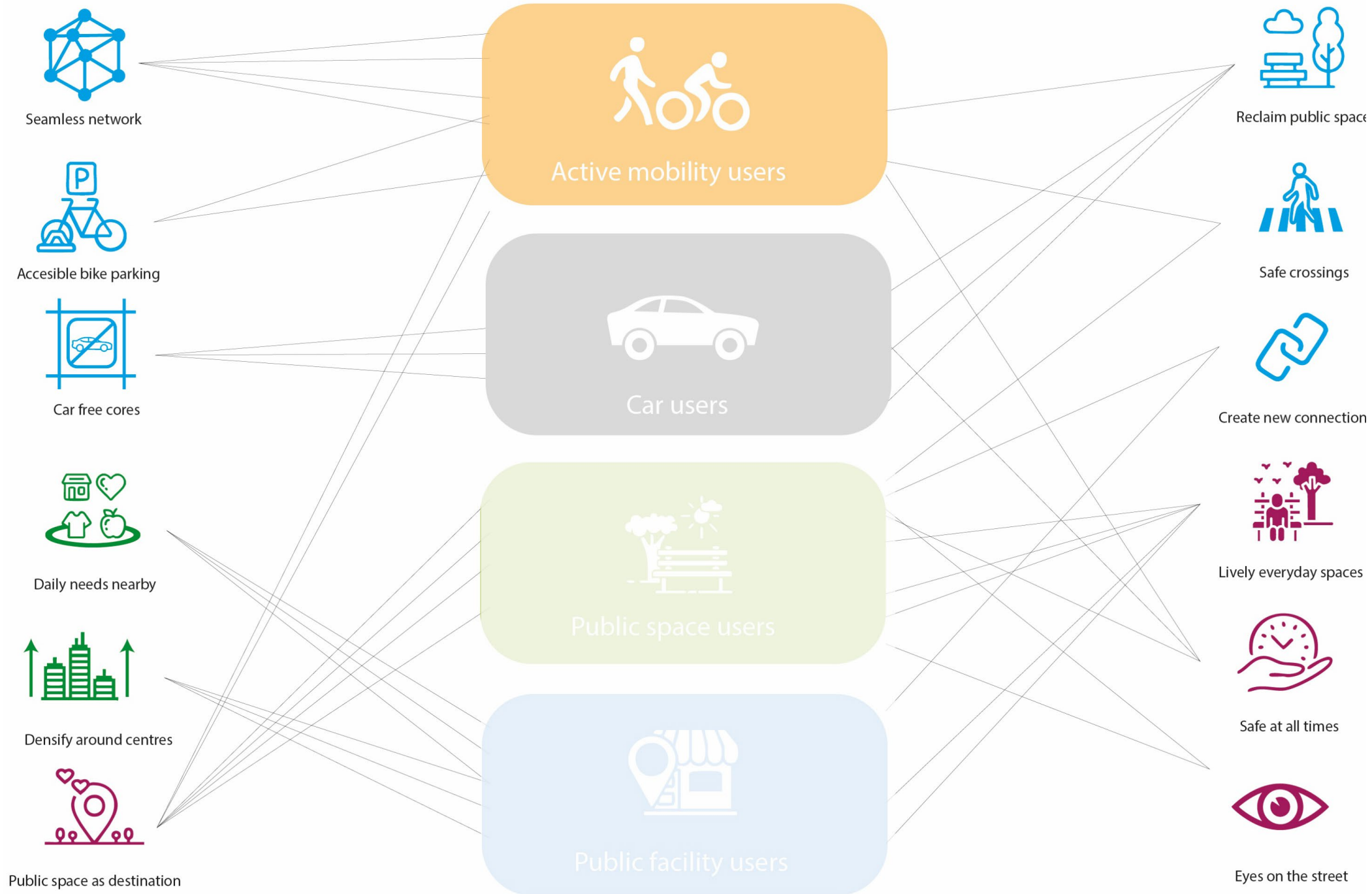


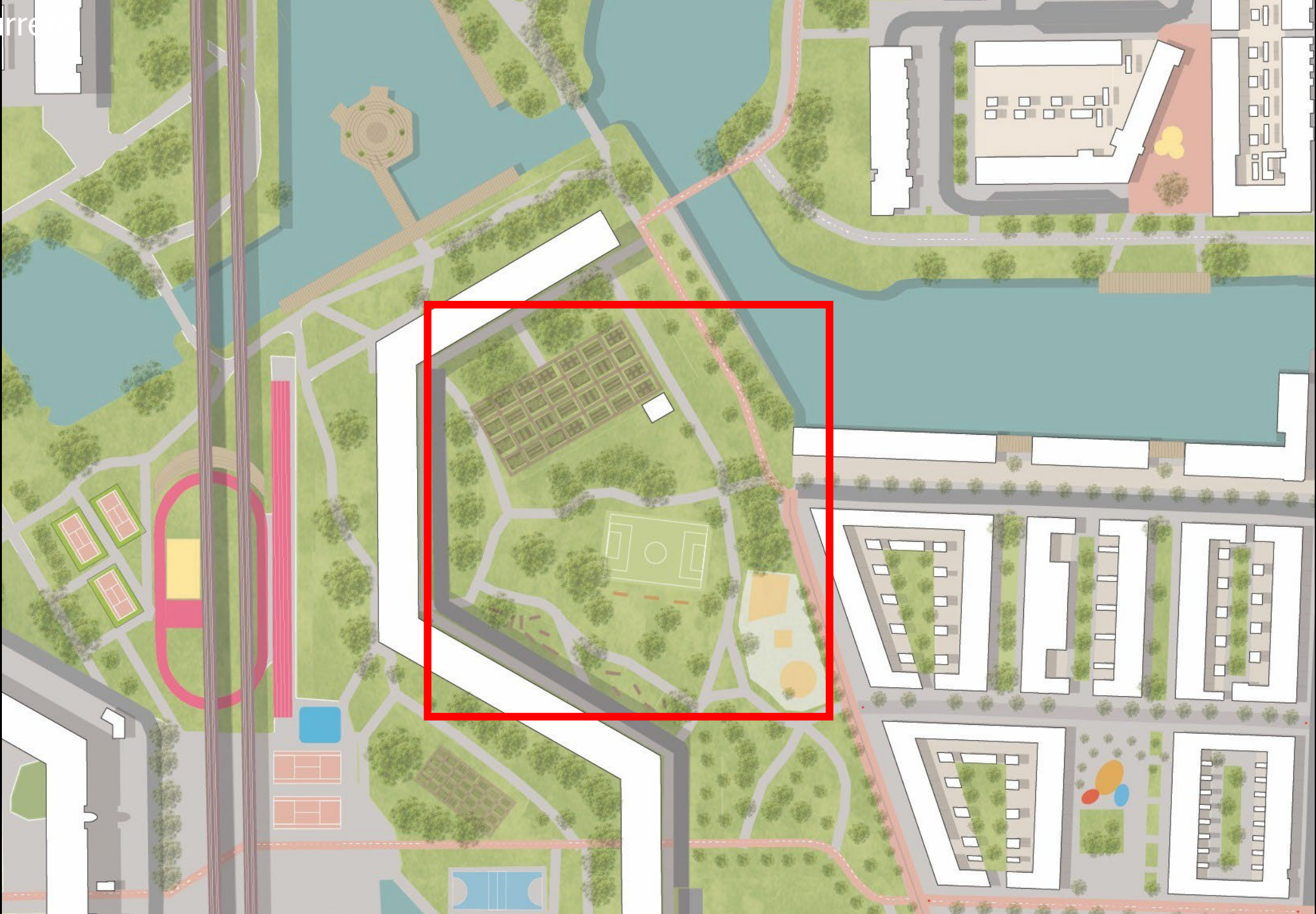


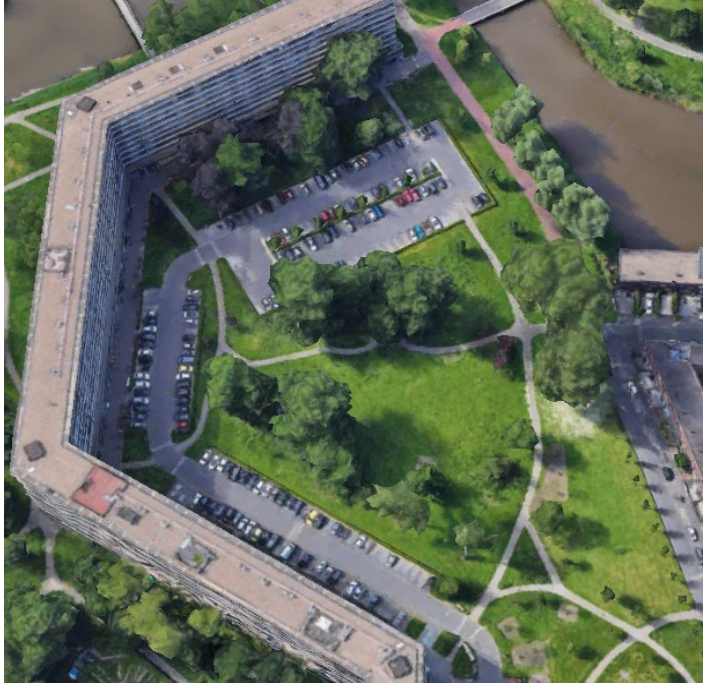


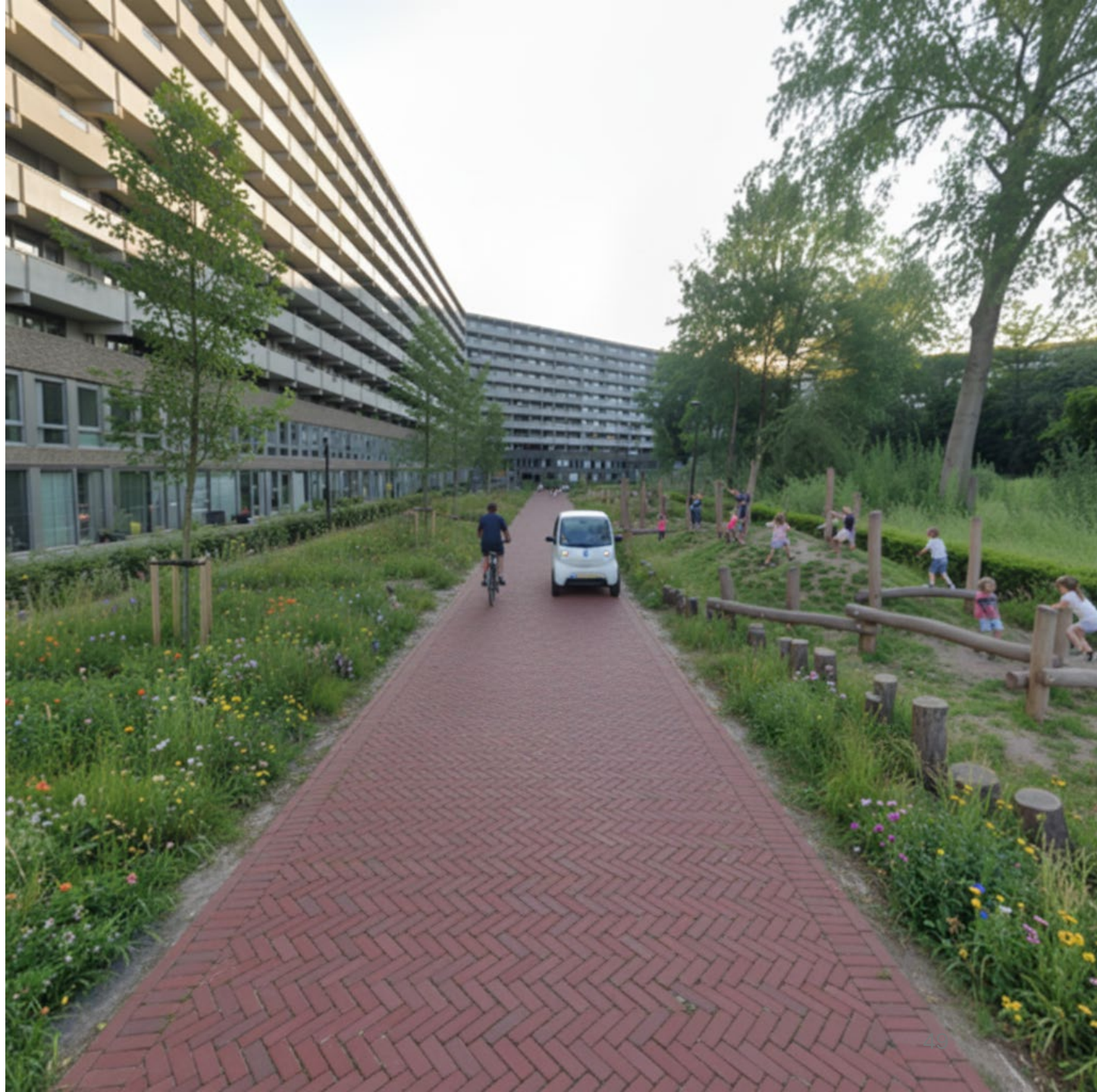


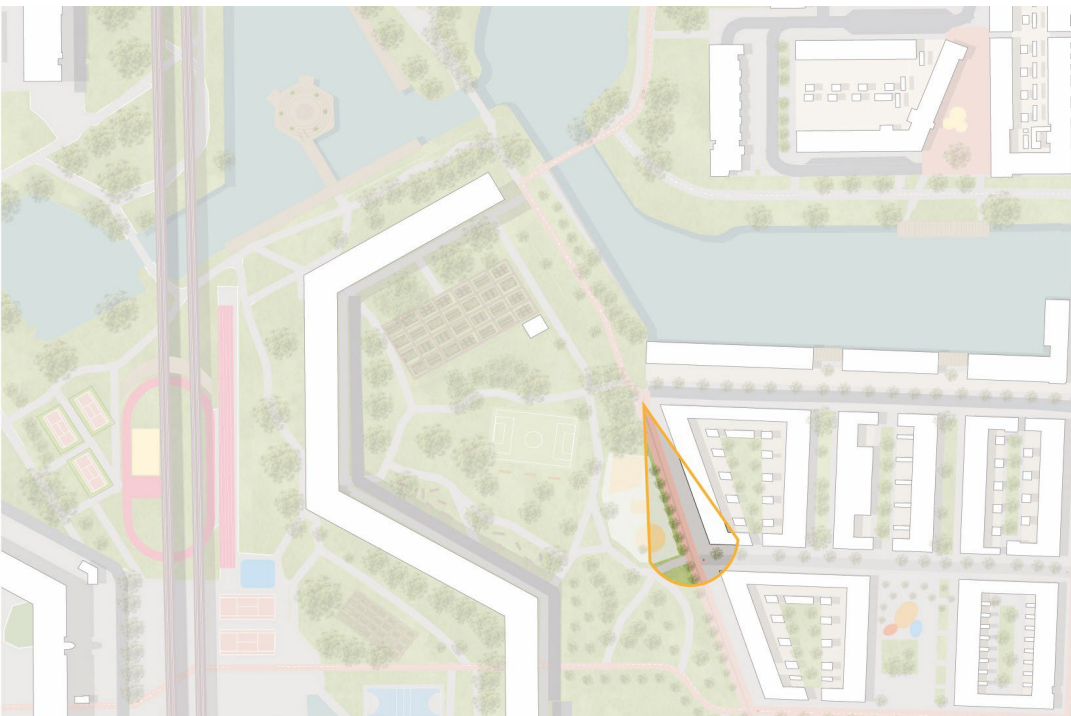


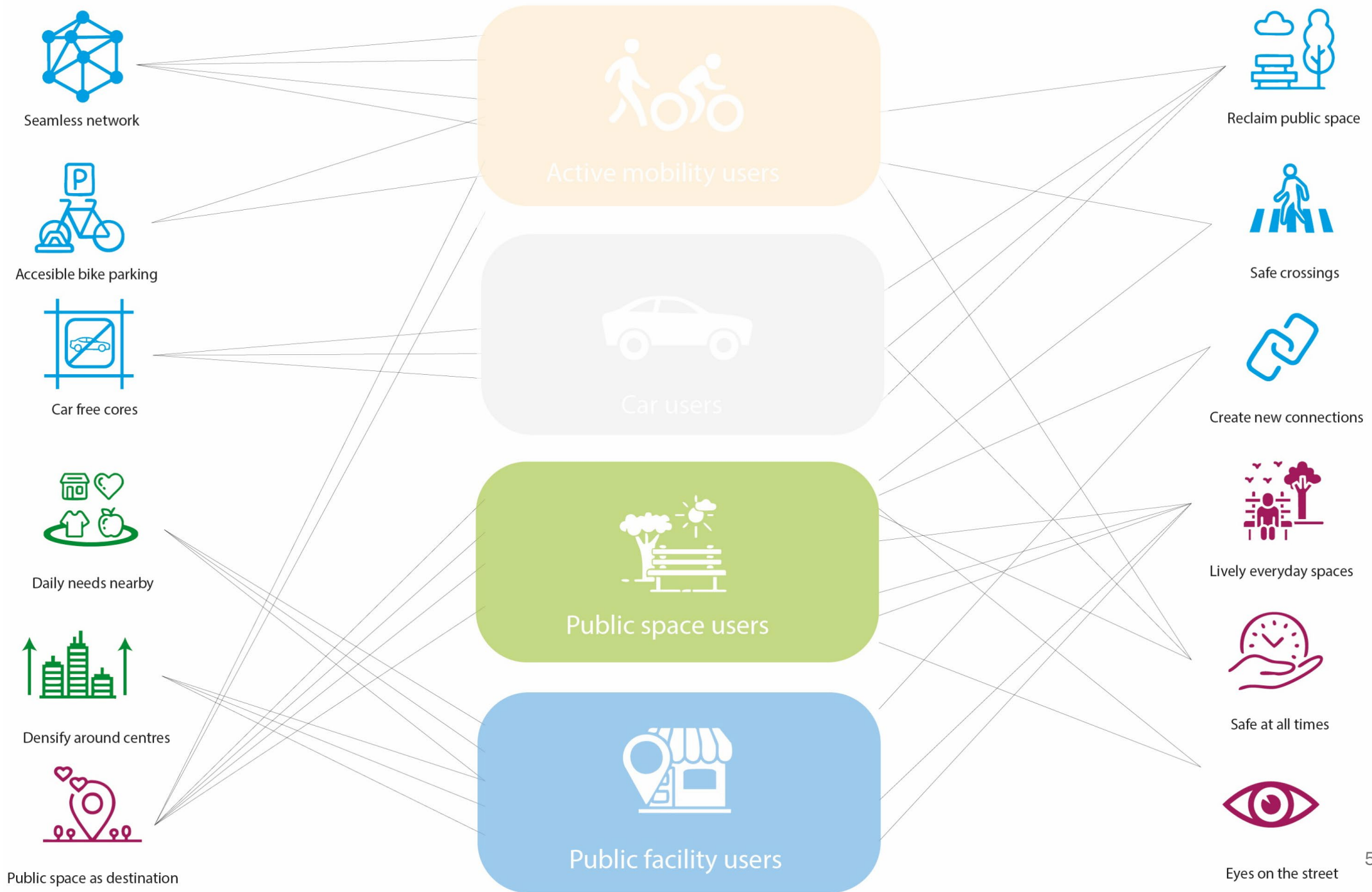


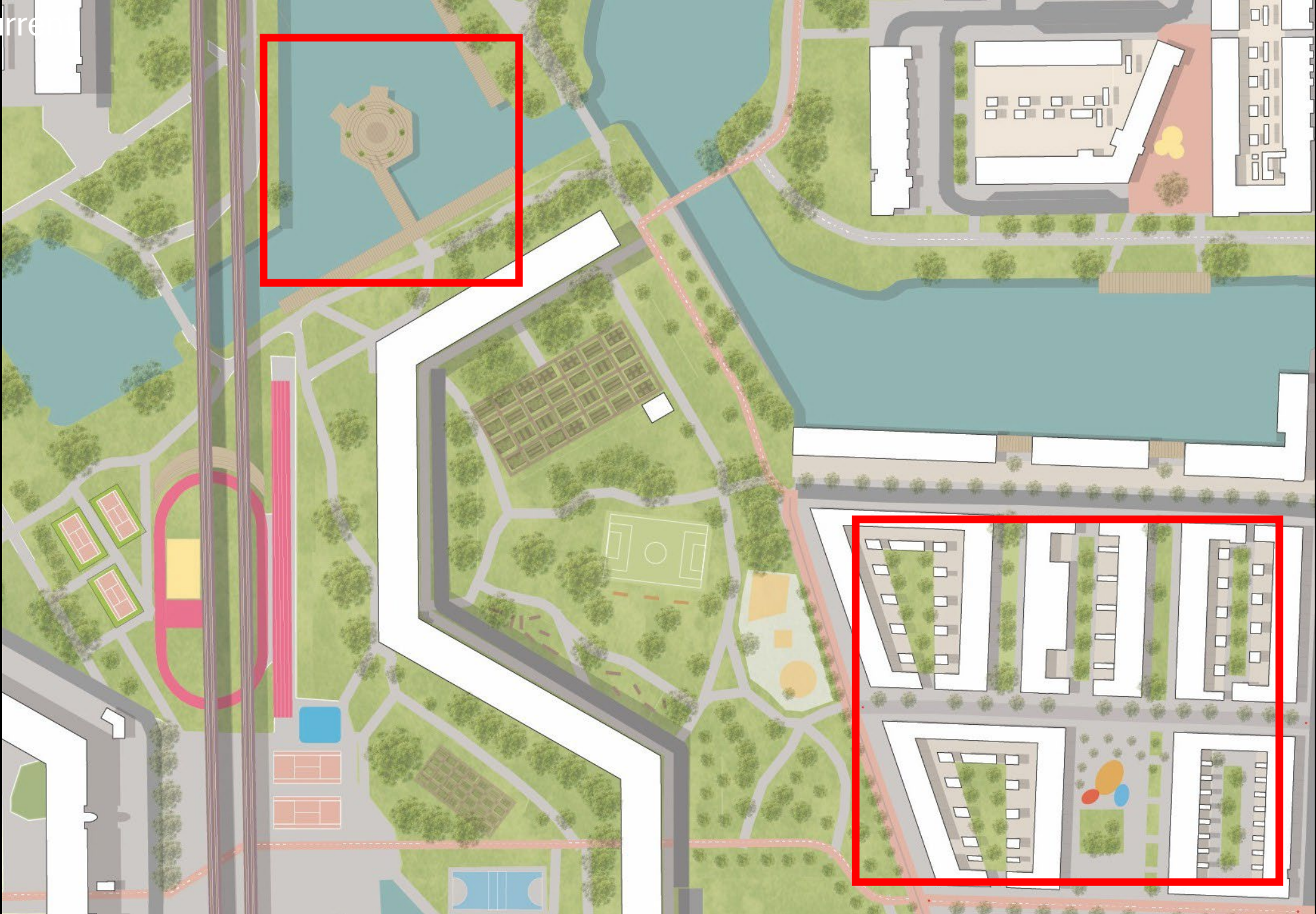


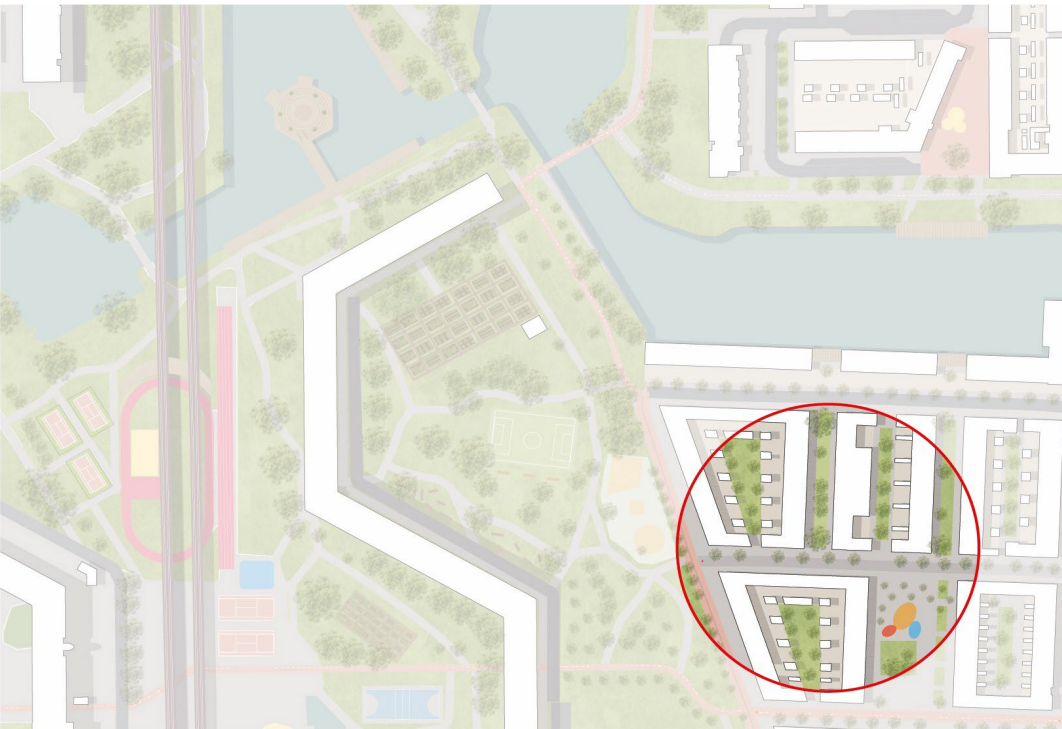
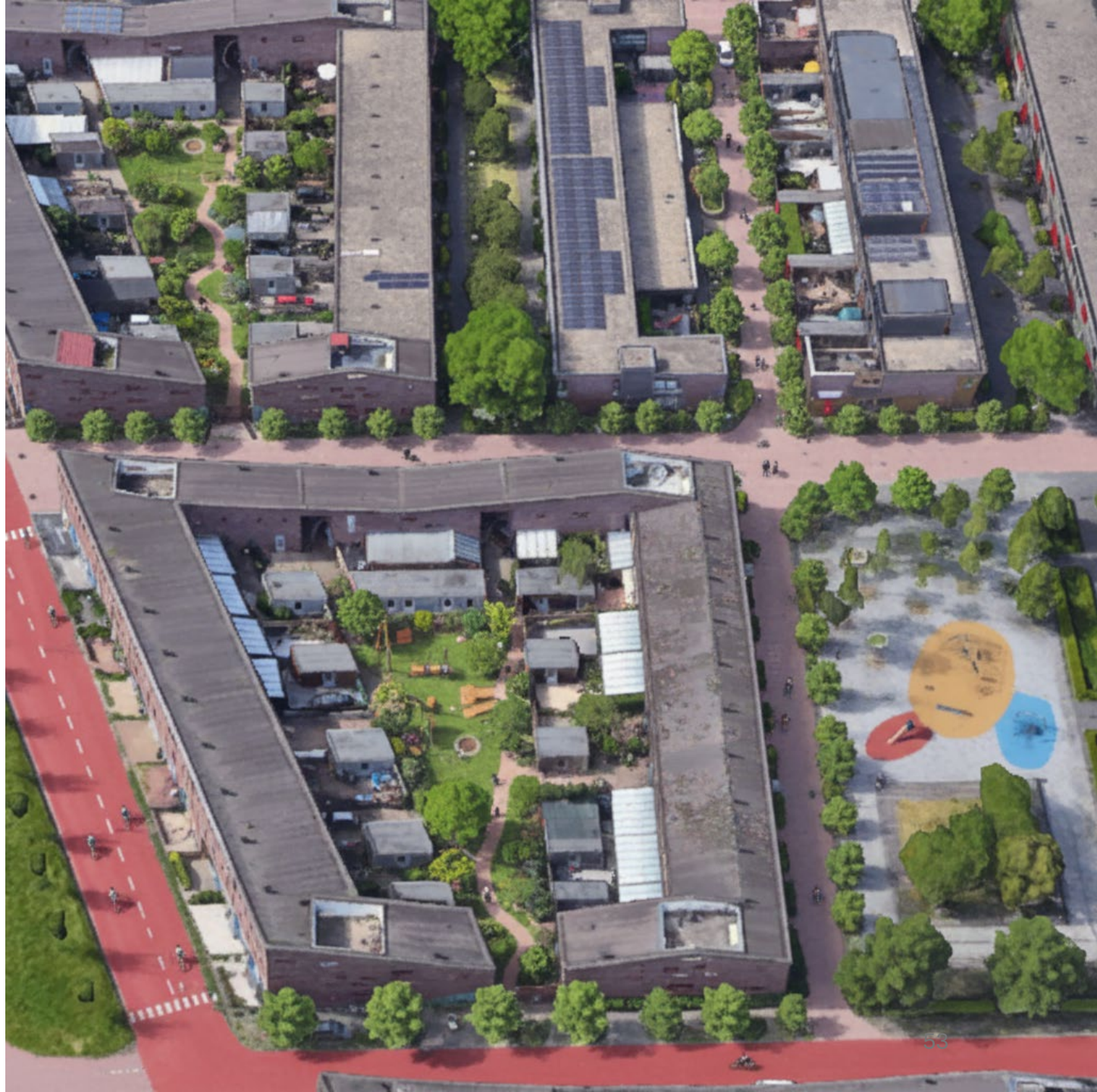
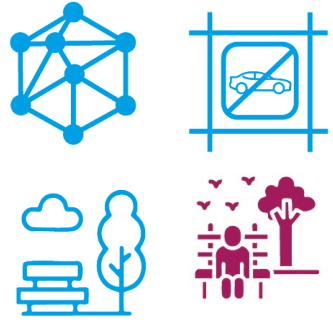


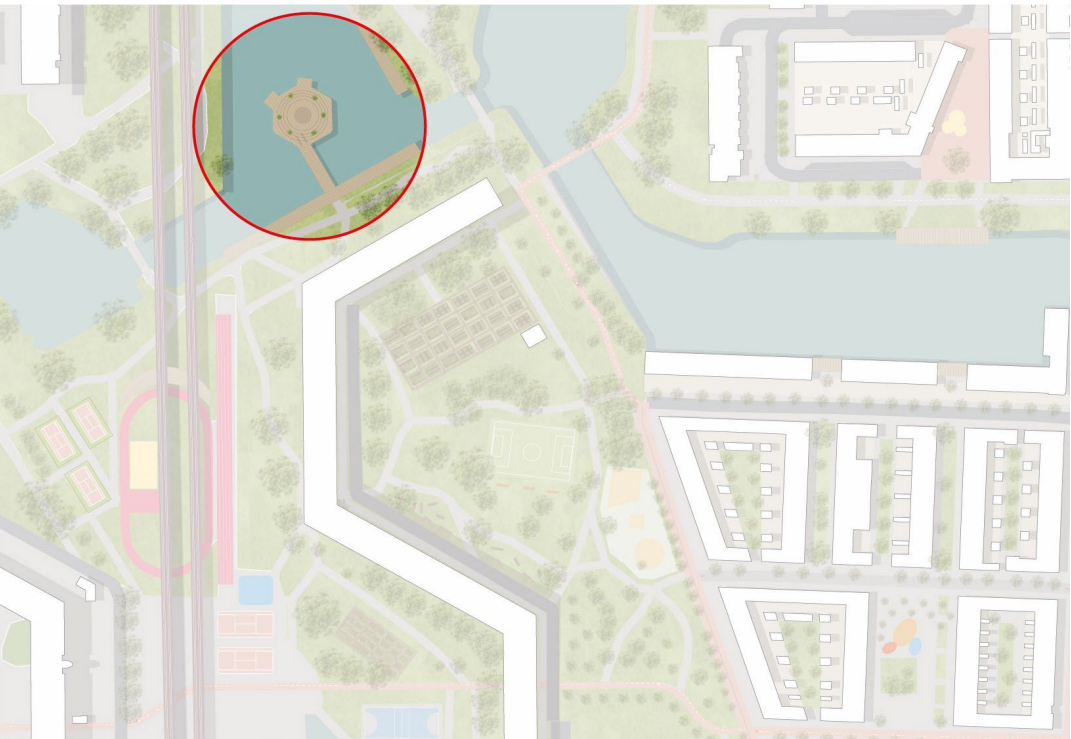
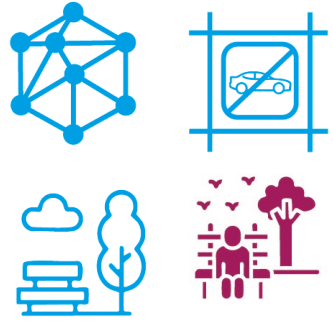




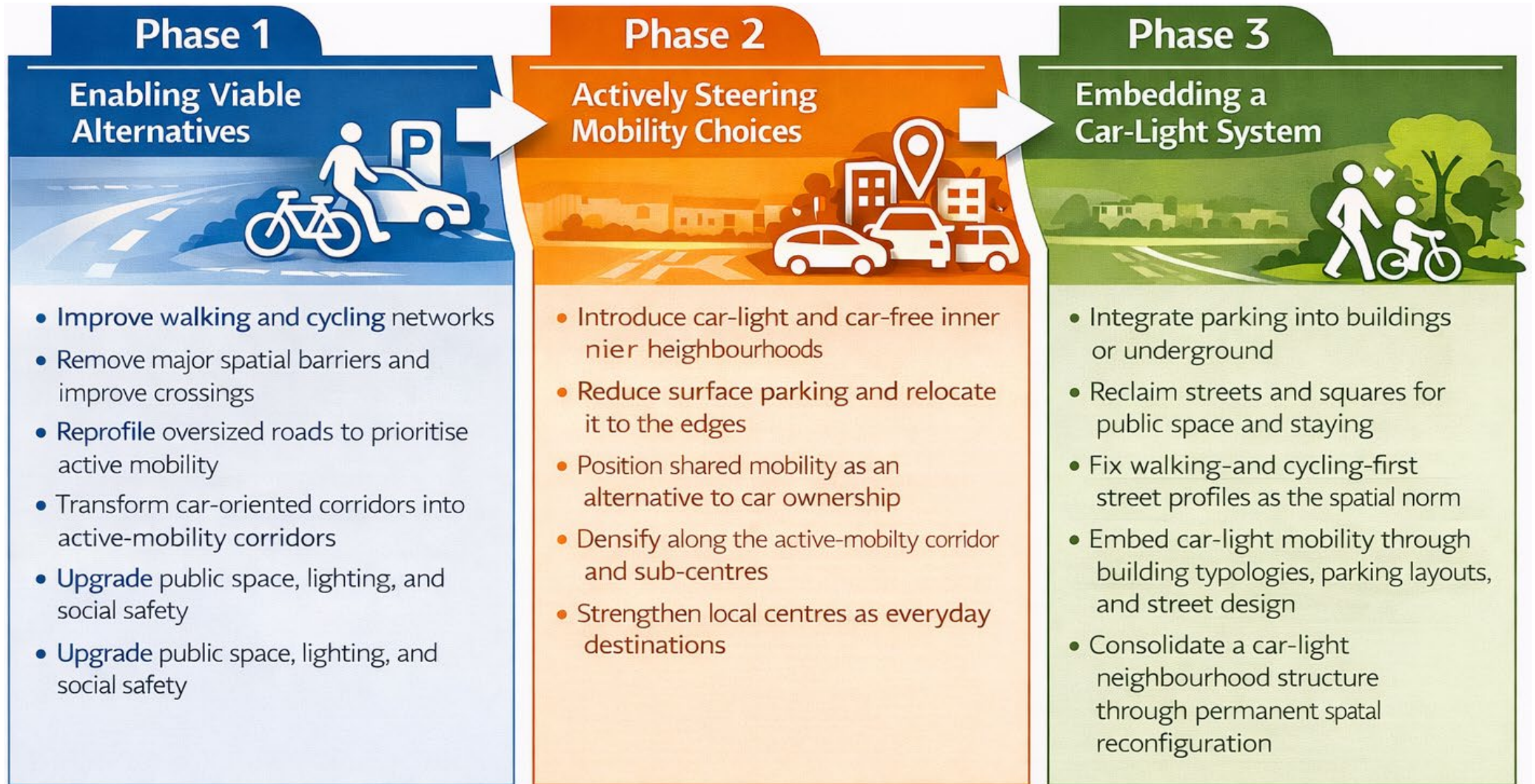




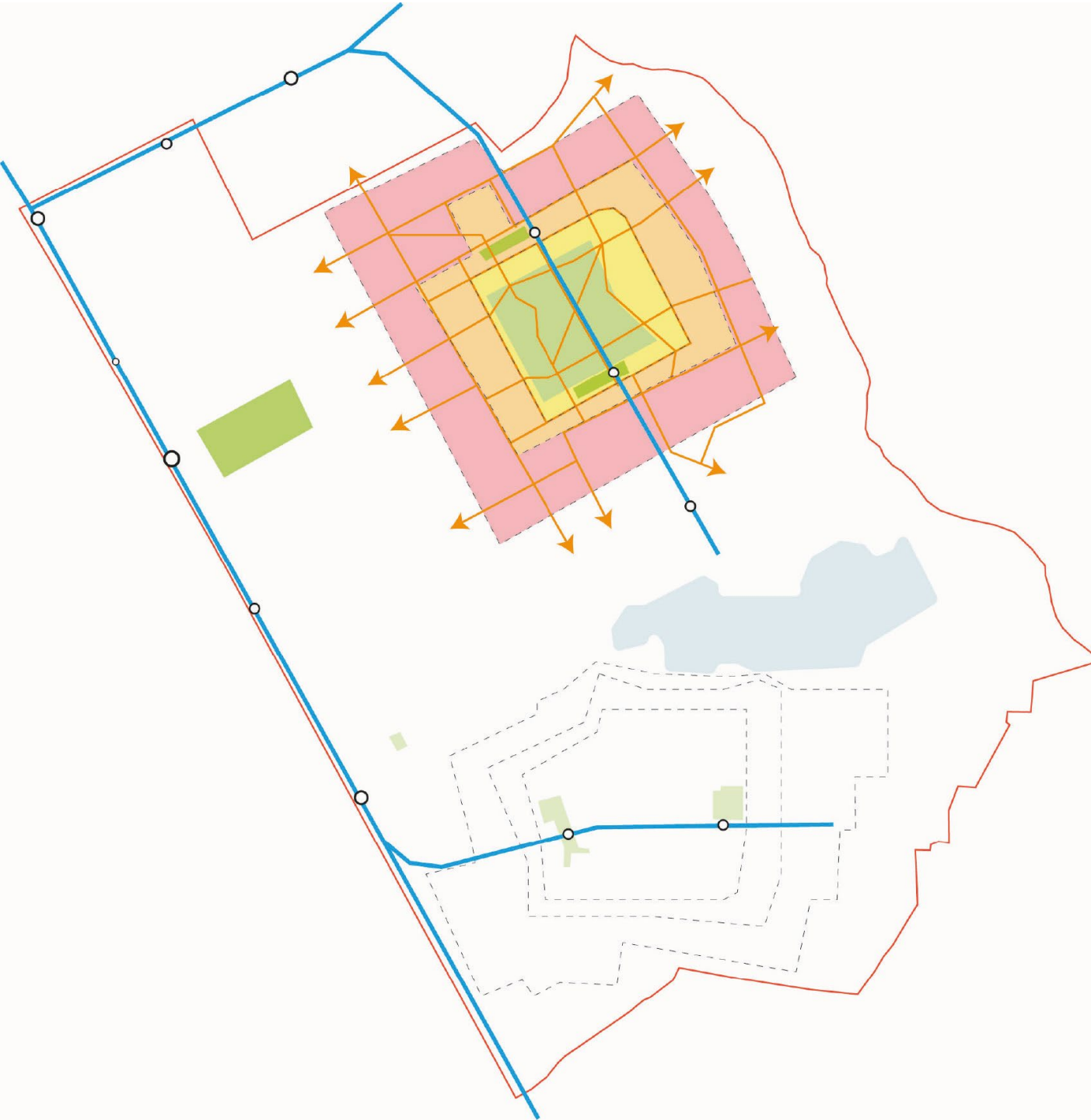




Phasing strategy



Broader strategy



- Surrounding areas experience these successful effects through use and connection.
- Ripple effect: Surrounding areas start adopting similar active-mobility behavior.
- This eases the future transformation of neighboring areas.

Contribution to other urban challenges



Energy Transition



Climate Adaptation & Urban Ecology



Social Cohesion & Inclusivity



Public Health & Well-being



Local Economy & Everyday Life



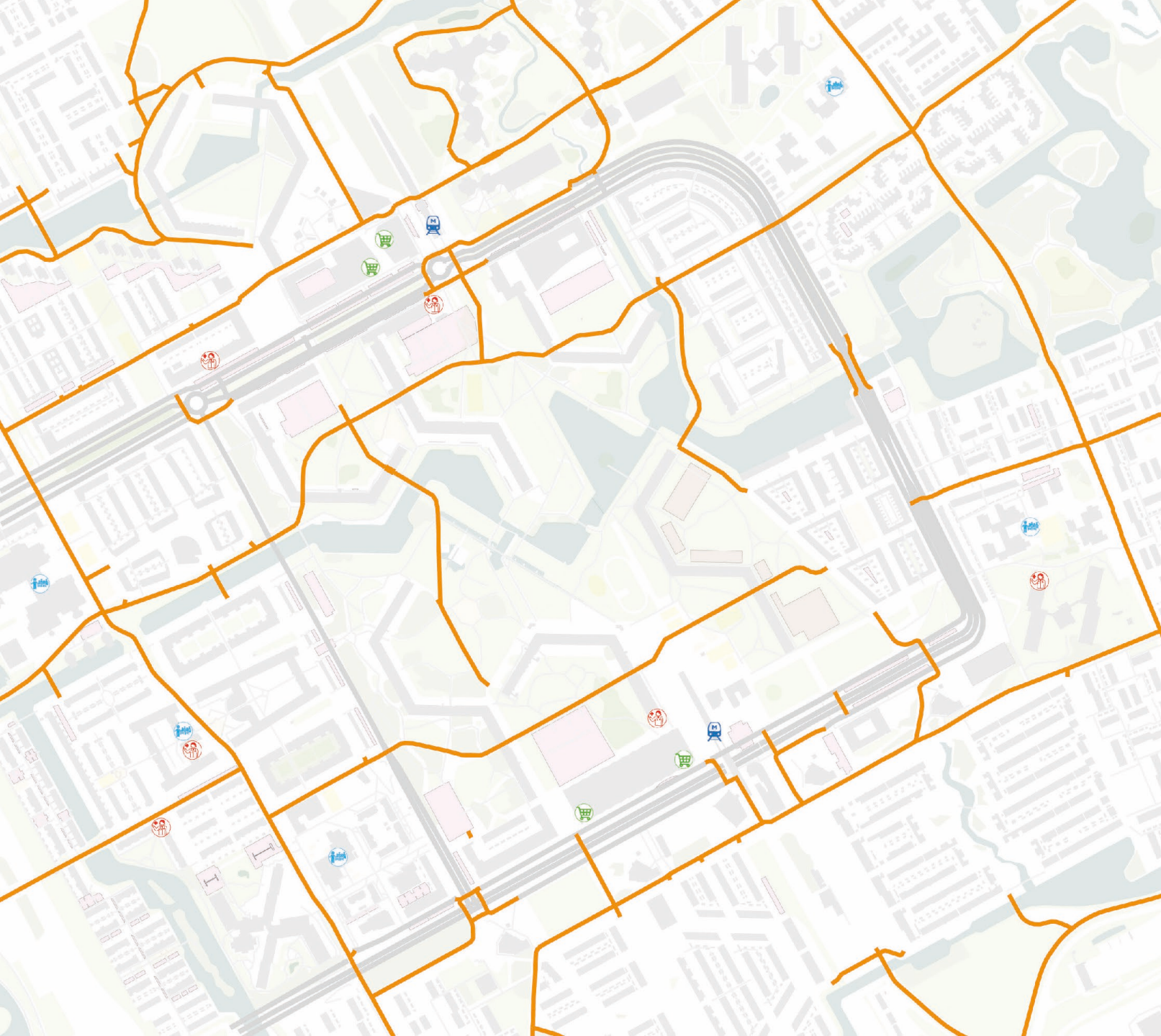
Housing Shortage



Questions?

Active mobility

Current situation: fragmented network



Current Fragmented Active Mobility Network

- Existing bike network
- Supermarket
- Primary school
- General practitioner
- Metro station

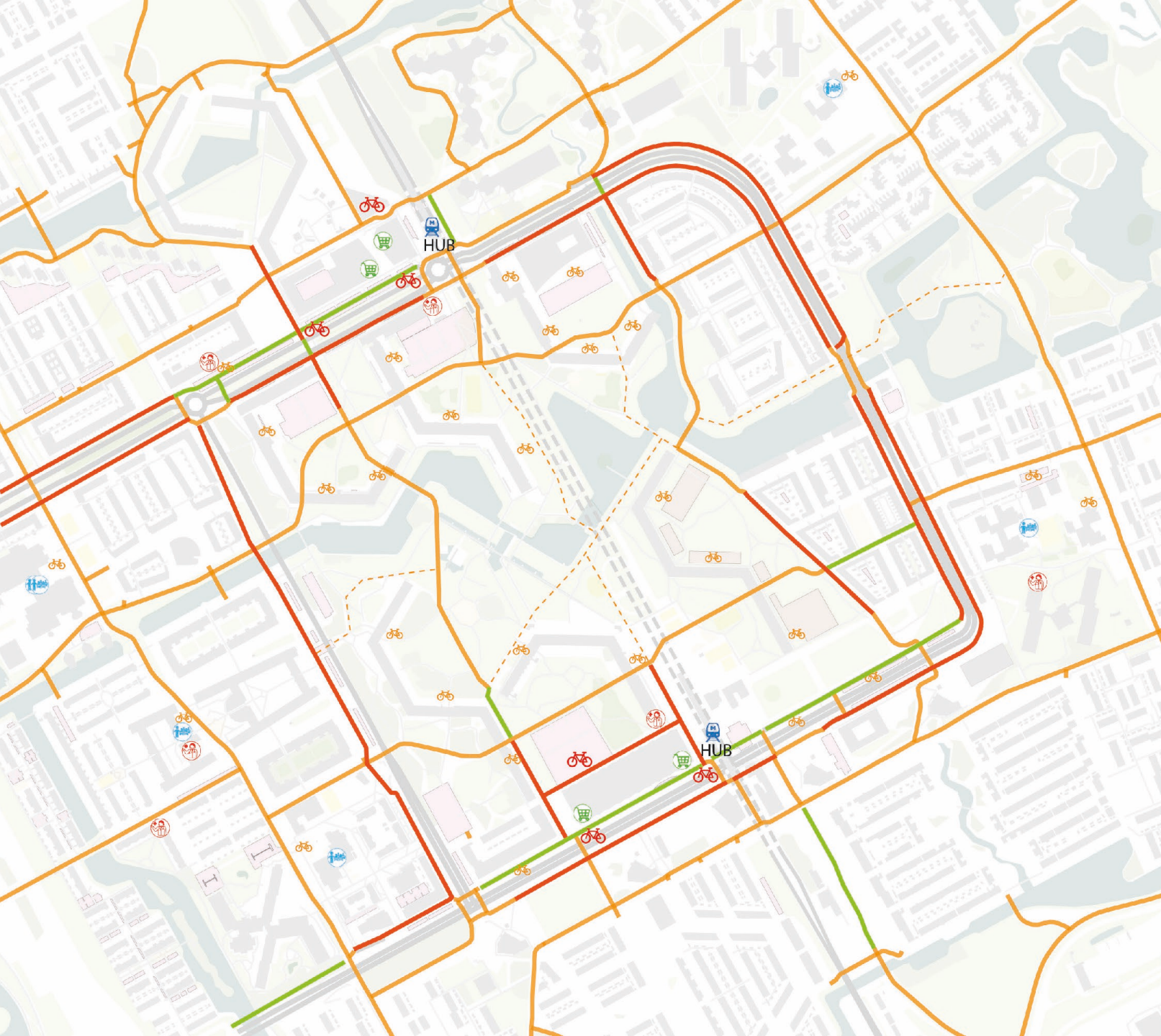


0 100 200 m



Active mobility

Future situation: Seamless network



Active mobility- Seamless network



Active mobility- Accessible bike parking



Fully Connected Active Mobility Network

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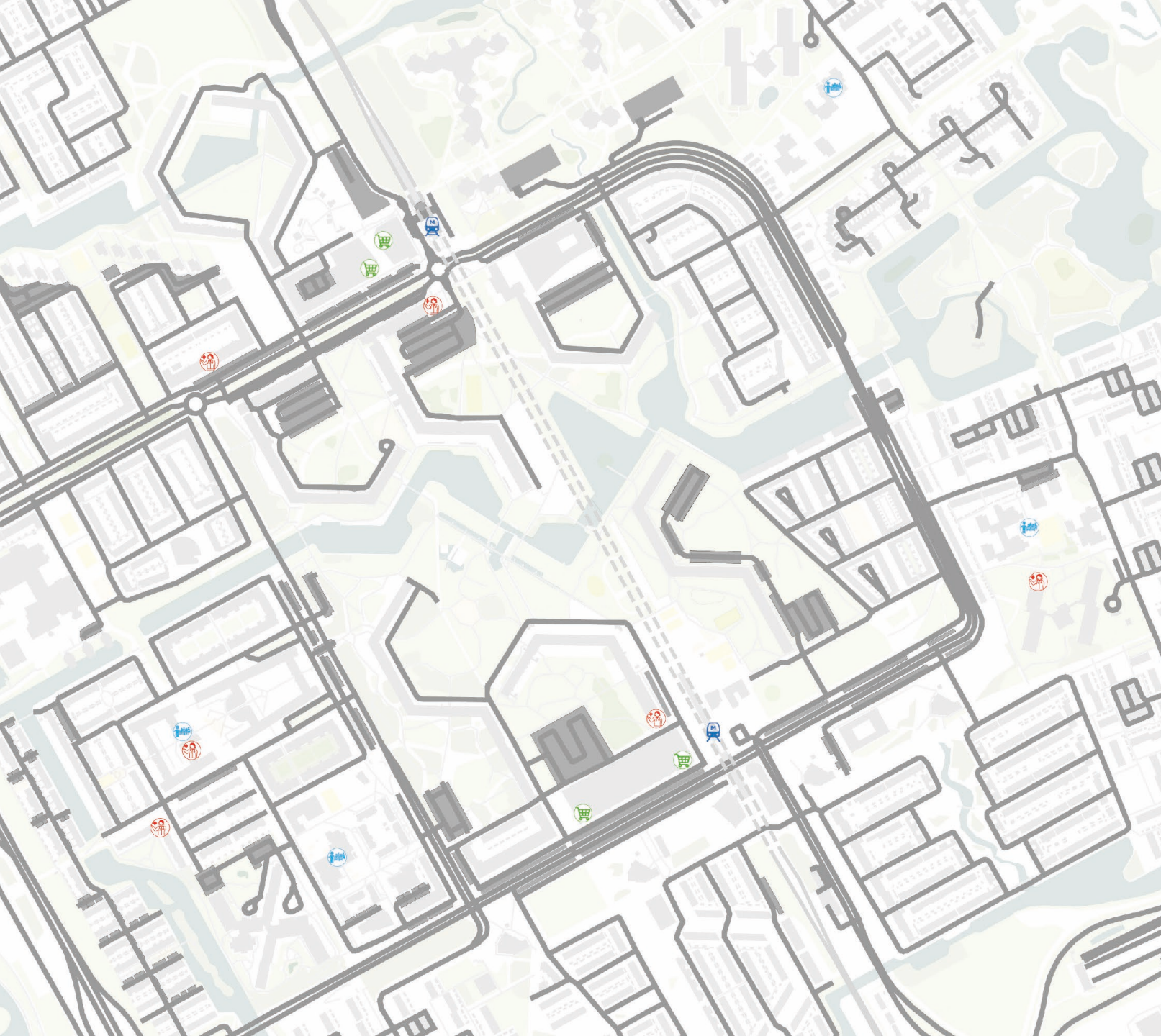


0 100 200 m



Car traffic and parking

Current situation: Streets ruled by cars



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- Metro station



0 100 200 m



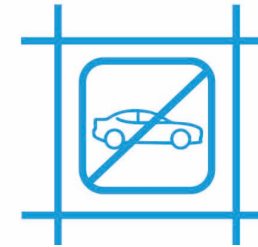
Car traffic and parking

Future situation: People centered streets




Car traffic and parking- Car free cores

Car traffic and parking- Reclaim public space



Car-Free Core and Calmed Roads

-  Car free area
-  Car is guest street
-  Car dominated street
-  Major parking area
-  Shared car parking
-  Supermarket
-  Primary school
-  General practitioner
-  Metro station

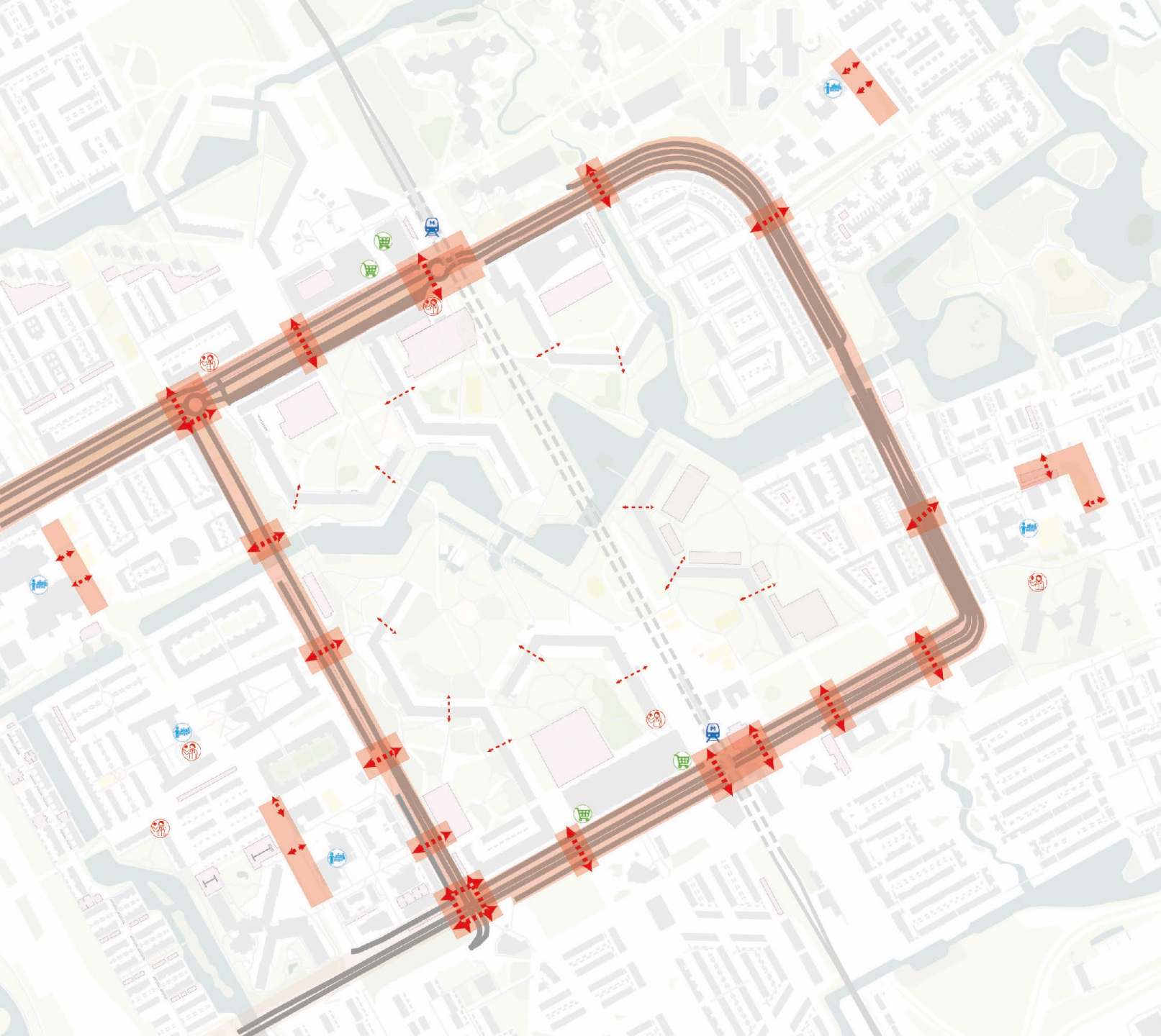


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Barriers and permeability

Current situation: Divided by barriers



- Major infrastructure barrier
- Unsafe road crossing
- Unsafe Intersection crossings
- Unsafe tunnel crossing
- Supermarket
- Primary school
- General practitioner
- Metro station

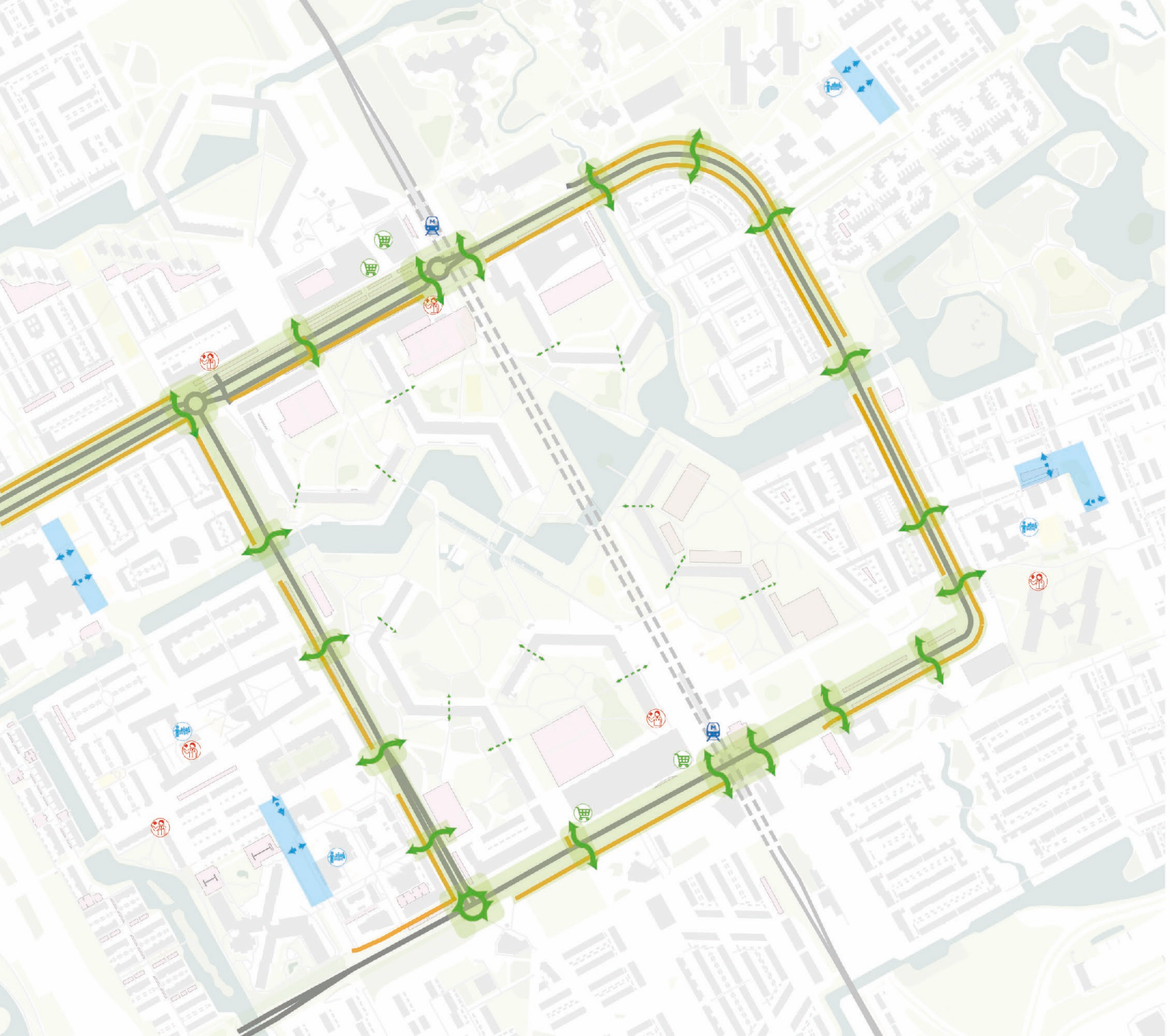


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Barriers and permeability

Future situation: Connected by crossings



Barriers and permeability- safe crossings

Barriers and permeability- Create new connections

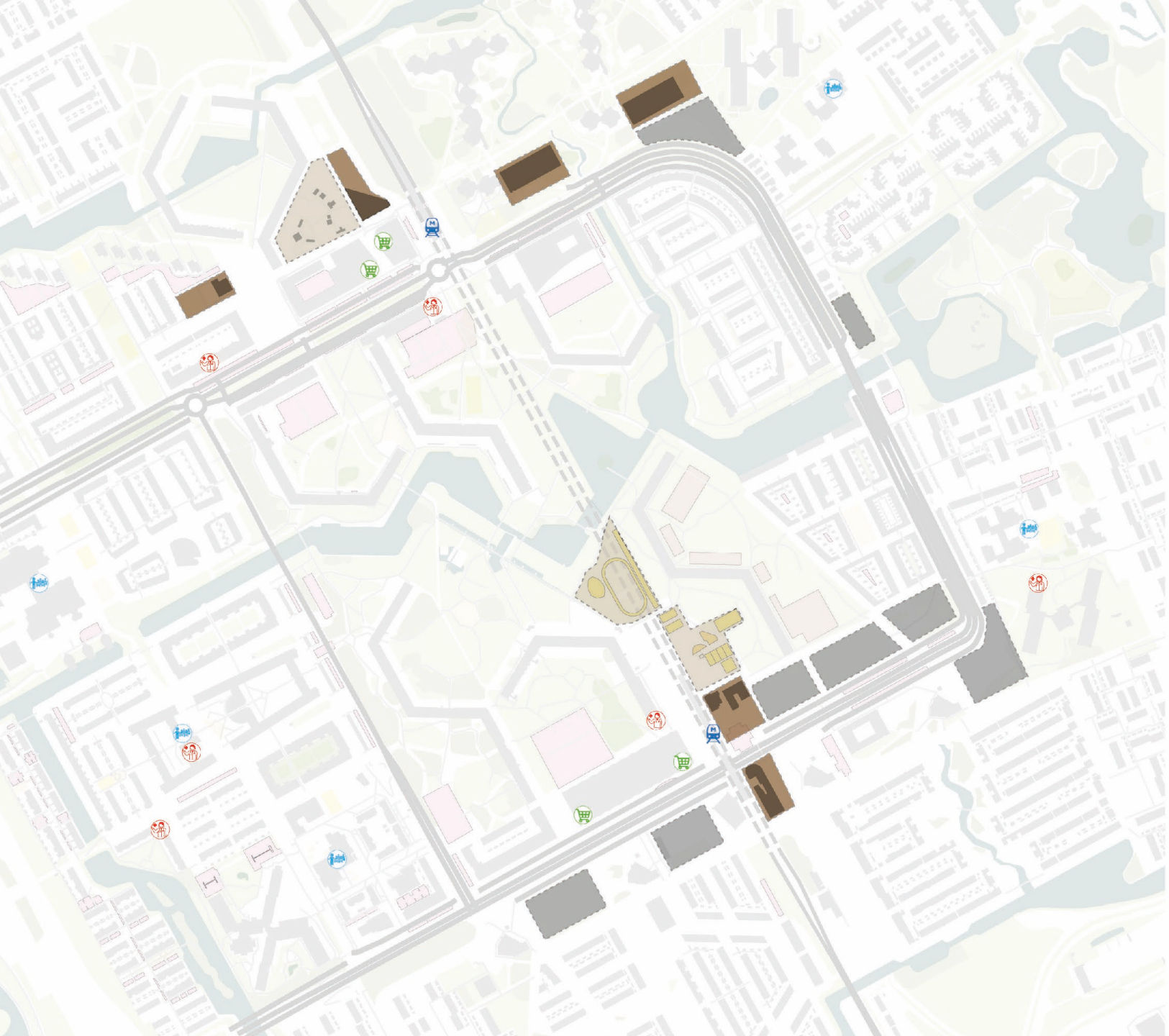


-  School zone
-  Green lane
-  Safe pedestrian crossing
-  Roundabout
-  Safe tunnel crossing
-  Supermarket
-  Primary school
-  General practitioner
-  Metro station

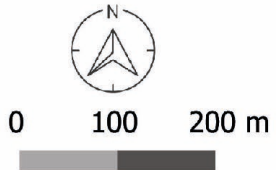


Public facilities and proximity

Current situation: Vacant Plots, Limited Choices

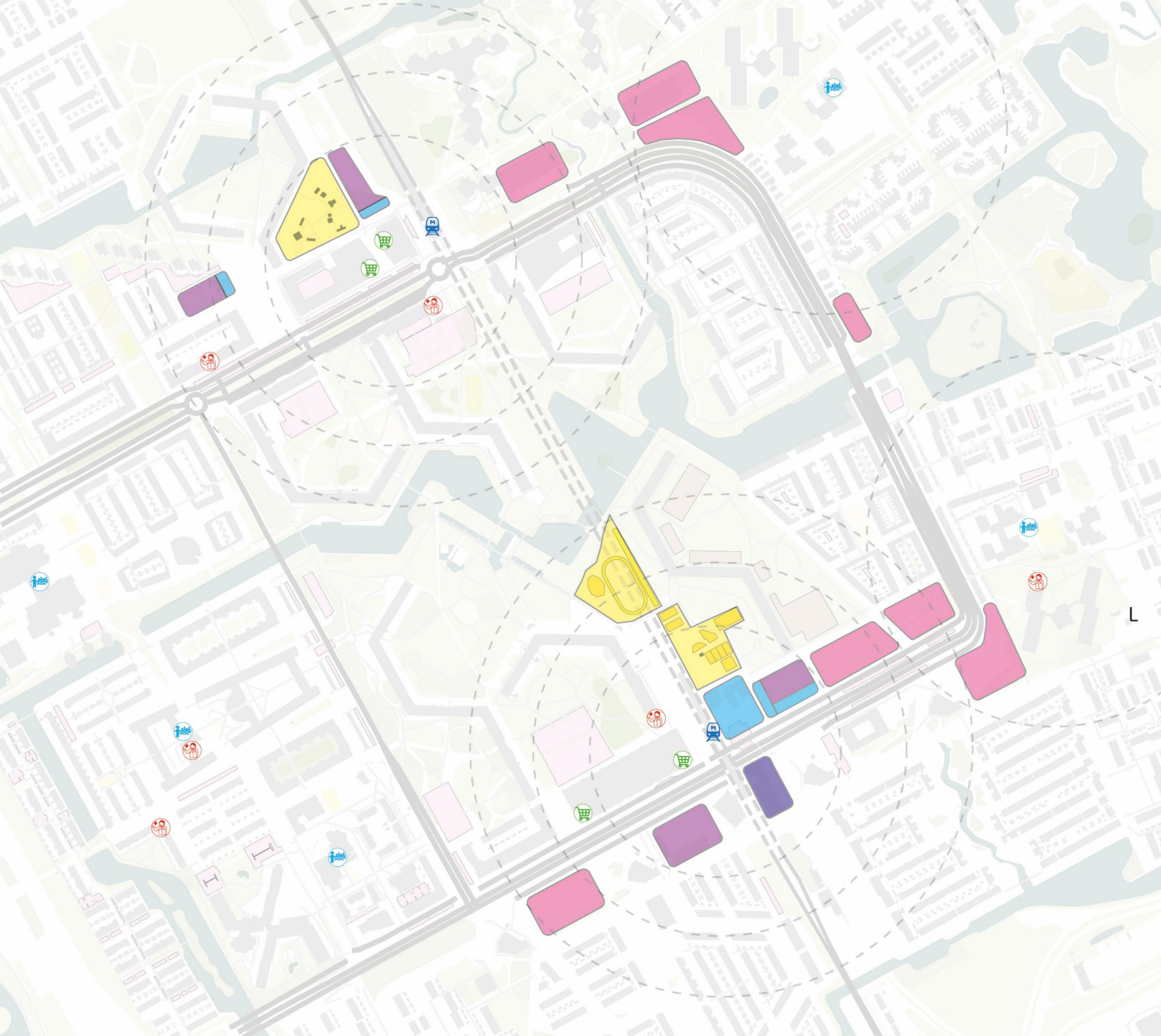


- Needs improvement
- Destroy for new
- Empty plot
- Supermarket
- Primary school
- General practitioner
- Metro station



Public facilities and proximity

Future situation: Vibrant local hubs



Public facilities and proximity- Daily needs nearby



Public facilities and proximity- Densify around centres



-  New amenities
-  New Mixed use
-  New residential
-  Upgrade and diversify existing amenity
-  New workspaces
-  Supermarket
-  Primary school
-  General practitioner
-  Metro station



0 100 200 m



Stay and meeting space quality

Current situation: Underused and uninspiring spaces

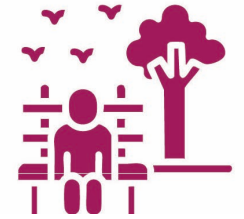


Stay and meeting space quality

Future situation: Inviting spaces full of life

Stay and meeting space quality- Public space as destination

Stay and meeting space quality- Lively everyday spaces



- Residential cluster
- Service cluster
- Improve current public space
- Improve market area
- Turn into food forest
- Create or improve playground
- Create or improve sports area
- Create allotment
- Supermarket
- Primary school
- General practitioner
- Metro station

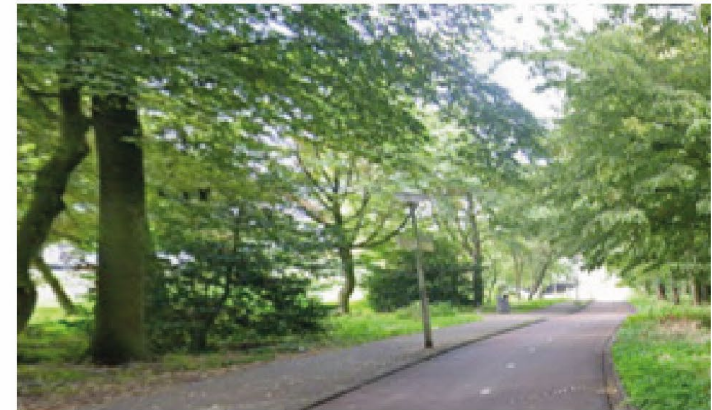


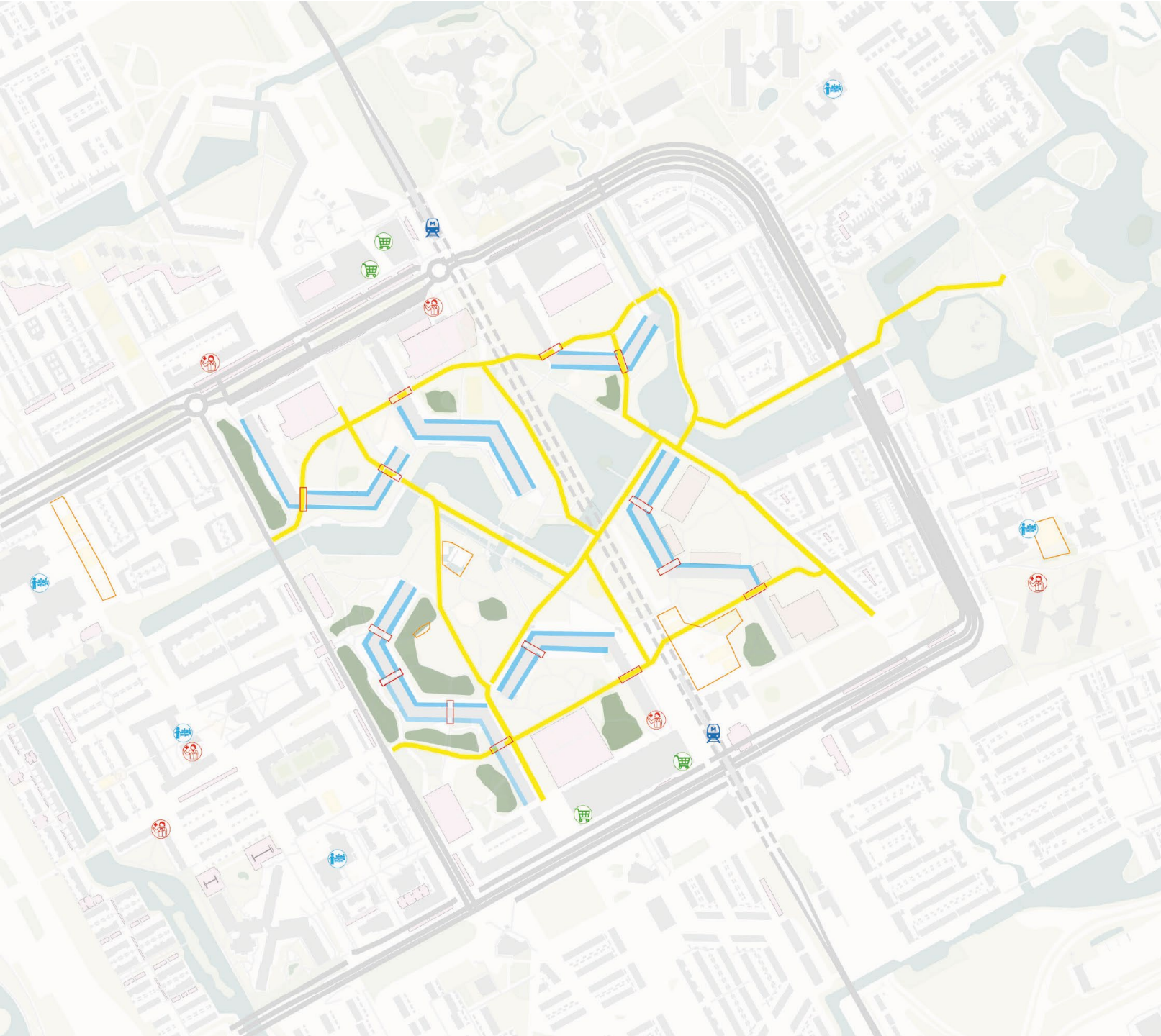
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Social safety

Current situation: Closed, dark, and Unwelcoming





Social safety

Future situation: Open, bright, and Active

Stay and meeting space quality- Safe at all times

Stay and meeting space quality- Eyes on the street



- Add extra lighting
- Open plinths for vision
- Manage or remove bushes
- Improve passage
- Prevent lingering
- Supermarket
- Primary school
- General practitioner
- Metro station

