

Leevan HUANG

P5 | 6 July 2018

FAB-LAB SLOTERDIJK

towards a porous Amsterdam in
developing the Ringzone

why border condition of the Ringroad A10

what opportunities of Ringzone

how make your city! Fab-lab Sloterdijk

SLOTERDIJK IMPRESSION

Sloterdijk
Station

A10

Amsterdam
Central Station



Sloterdijk - annexation of Amsterdam with train and metro access



Built upon Western Garden AUP 1935



Amsterdam - lively street life



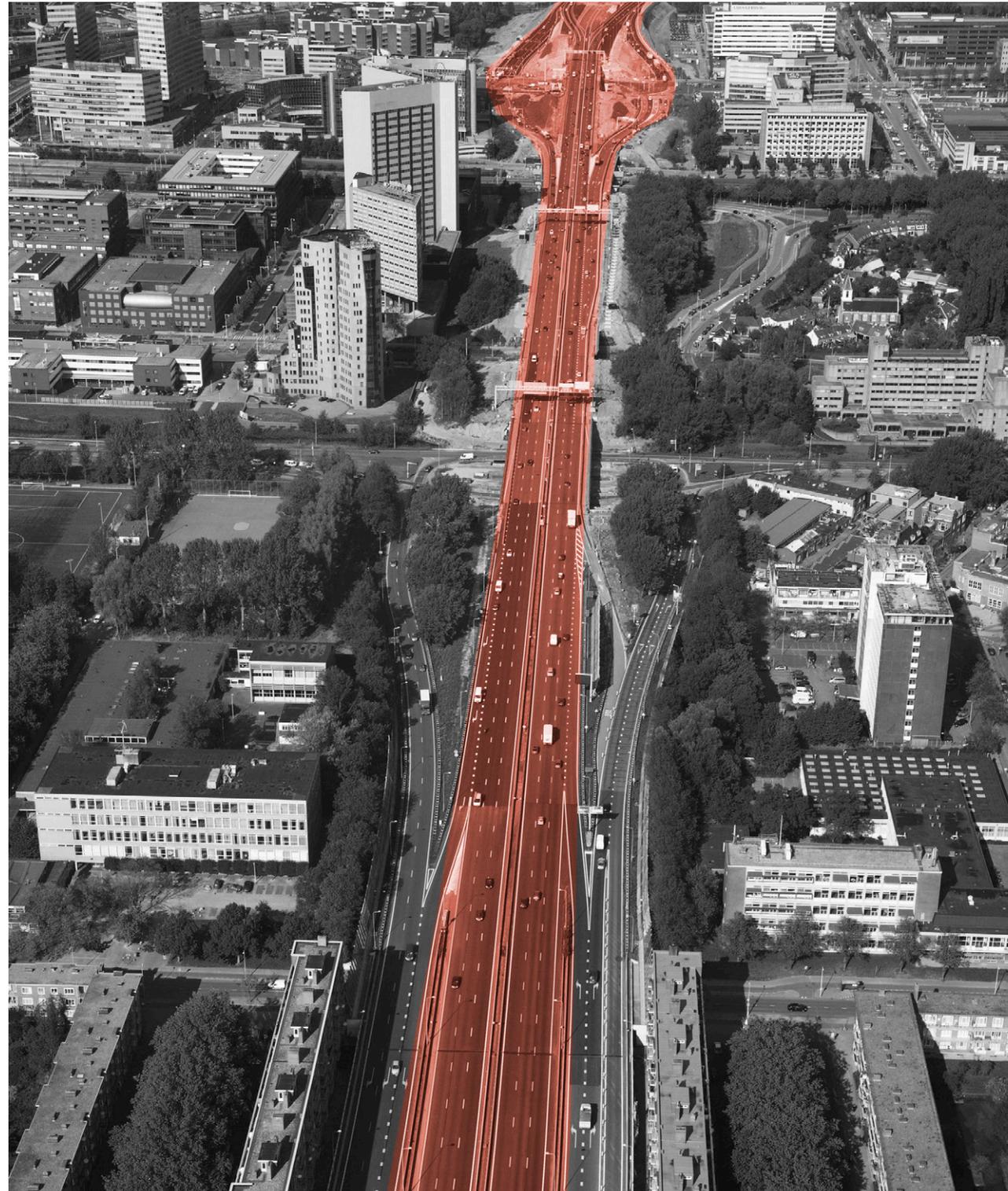
Sloterdijk – a hinterland of Amsterdam?



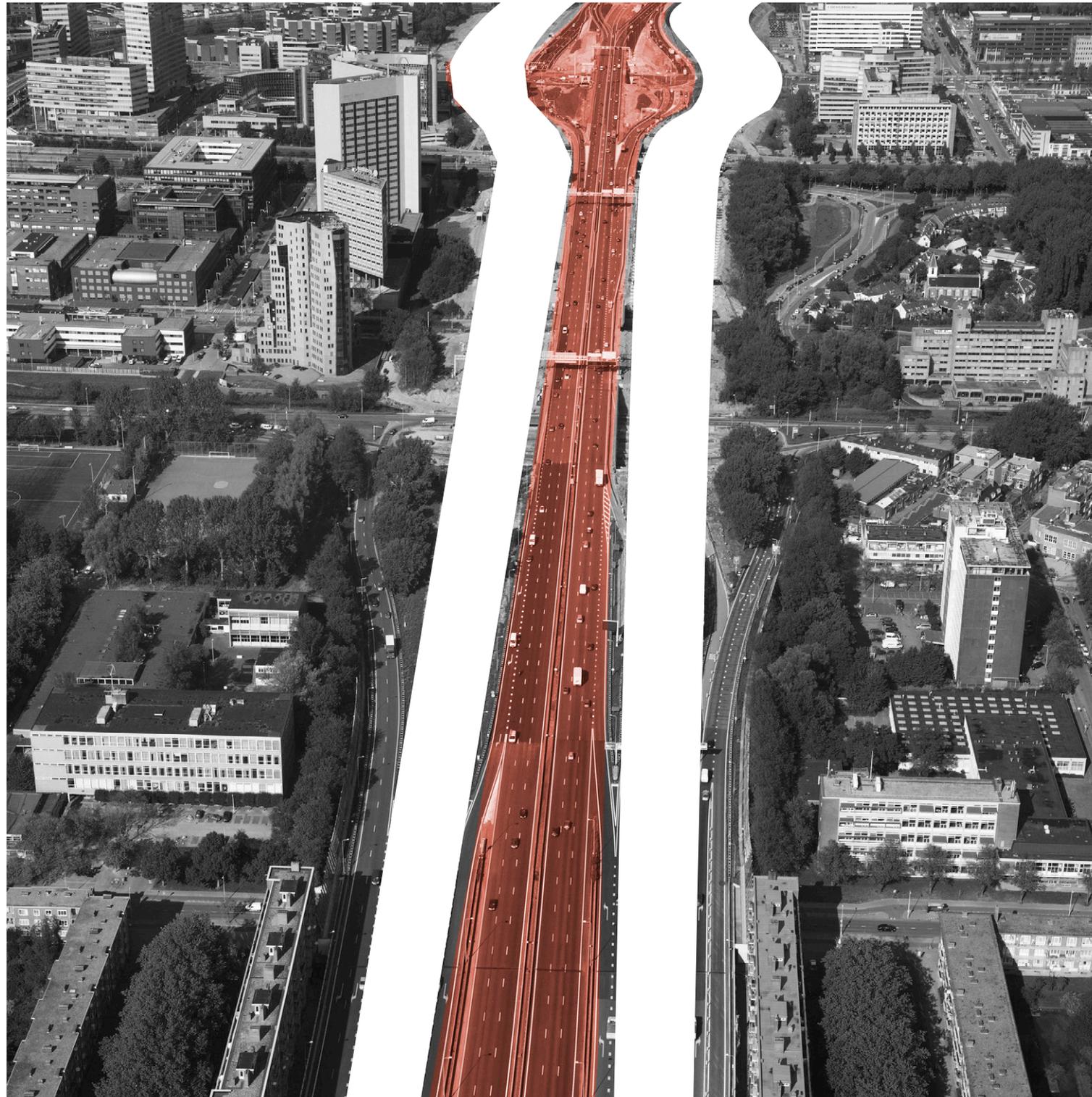
mapping of mixed use land



A deadly urban periphery space



Two urbanities on two sides of the huge infrastructure



Sloterdijk - Ringroad infrastructure - city Amsterdam ?





'De Dames en de Muze'
Berkman en Janssens >> 2003



Suspicion - Sloterdijk is secluded by
the infrastructure of Ringroad A10

RING ROADS

border condition of urban highways in cities

RING ROADS

*"Roads not just lead to places,
they are places,"*

*-- American historian,
JB Jackson*



highway infrastructure out of an urge for mobility

RING ROADS

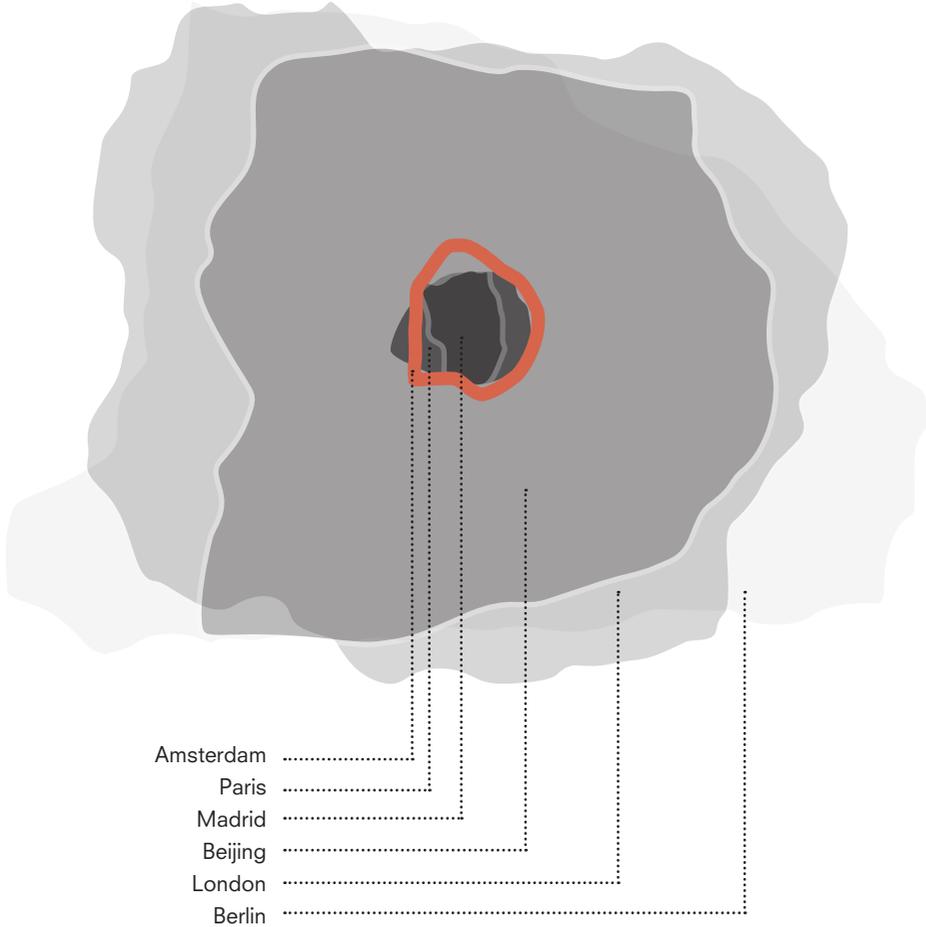


ring roads in economic centers since 1960s

RING ROADS



less time, higher mobility



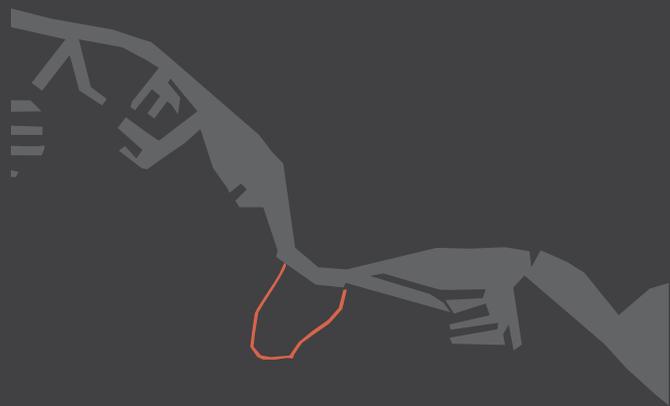
more than a driving circle

what are the influences the Ringroad A10 exerts on
spatial development?

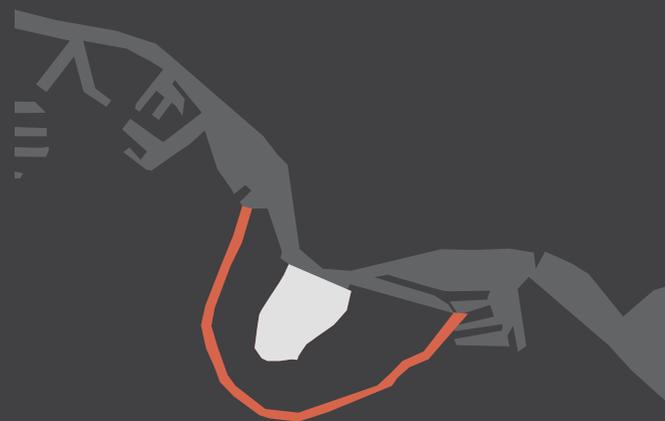
how (if inevitably) does it reconstructs
social and economic patterns?

THE RING – A10

the modern city wall



1450 - 1st ring - the Singel



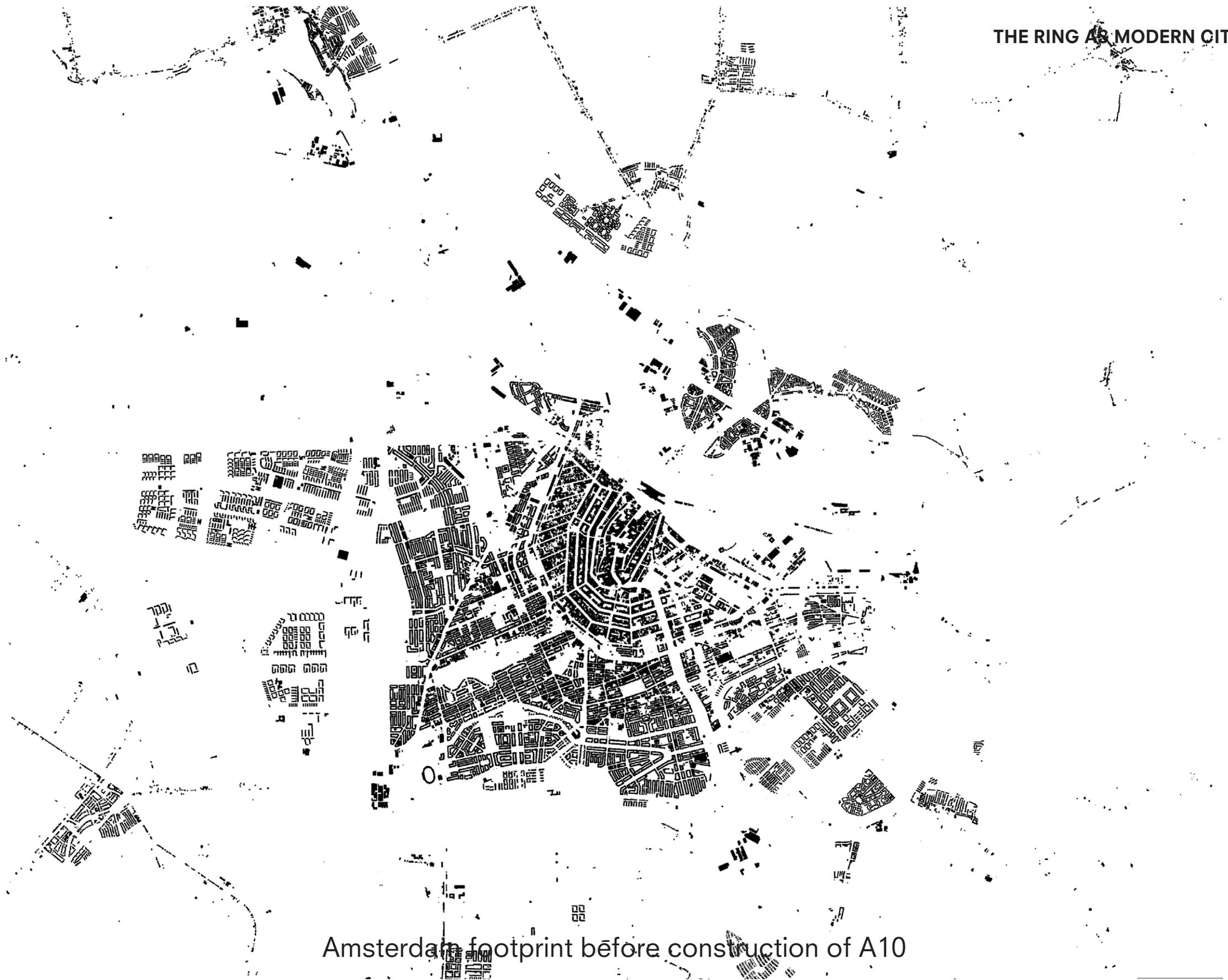
1660 - 2nd ring - the Singelgracht



1960 - 3rd ring - the A10

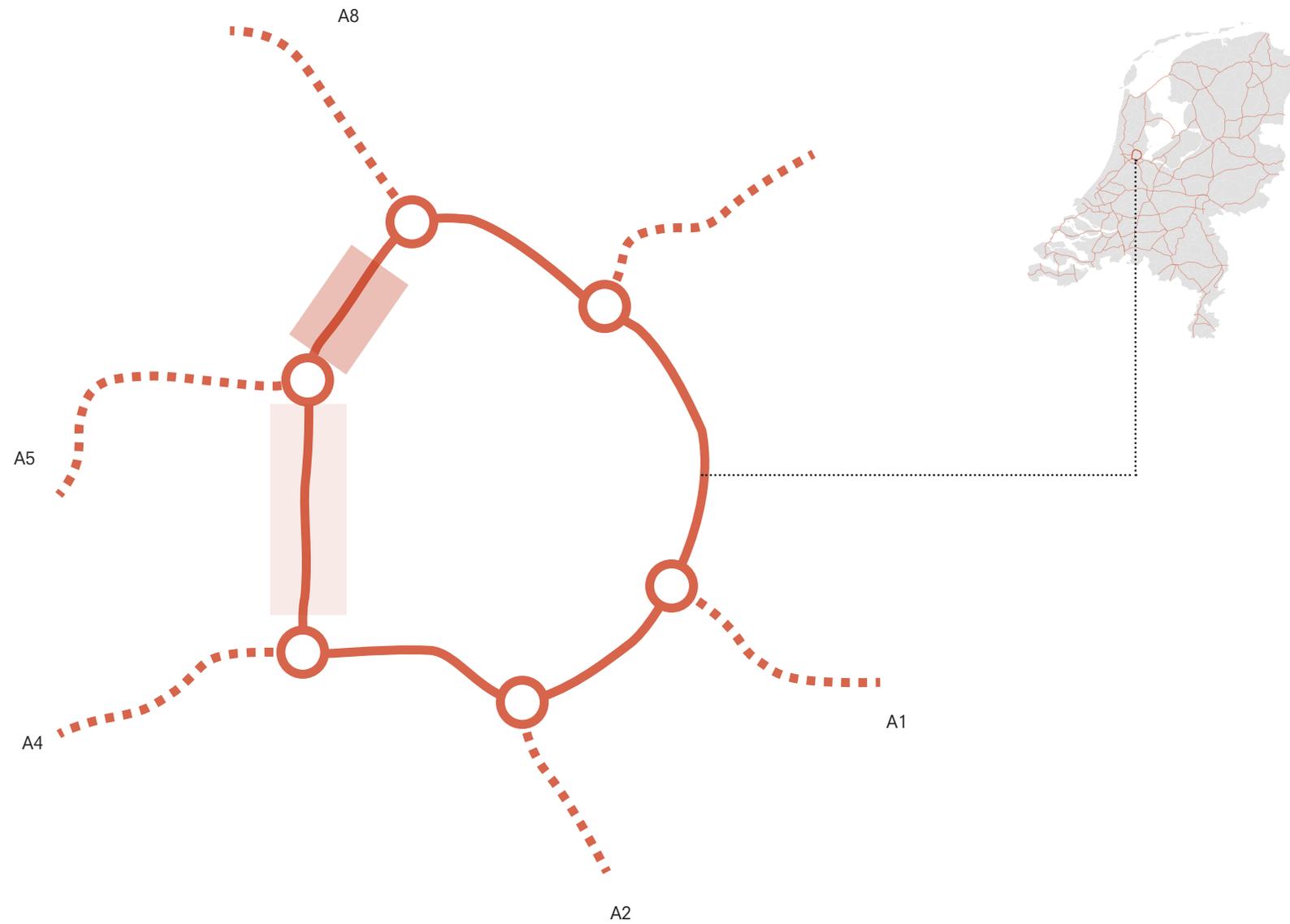
a historical perspective | Amsterdam with many rings

THE RING AS MODERN CITY WALL



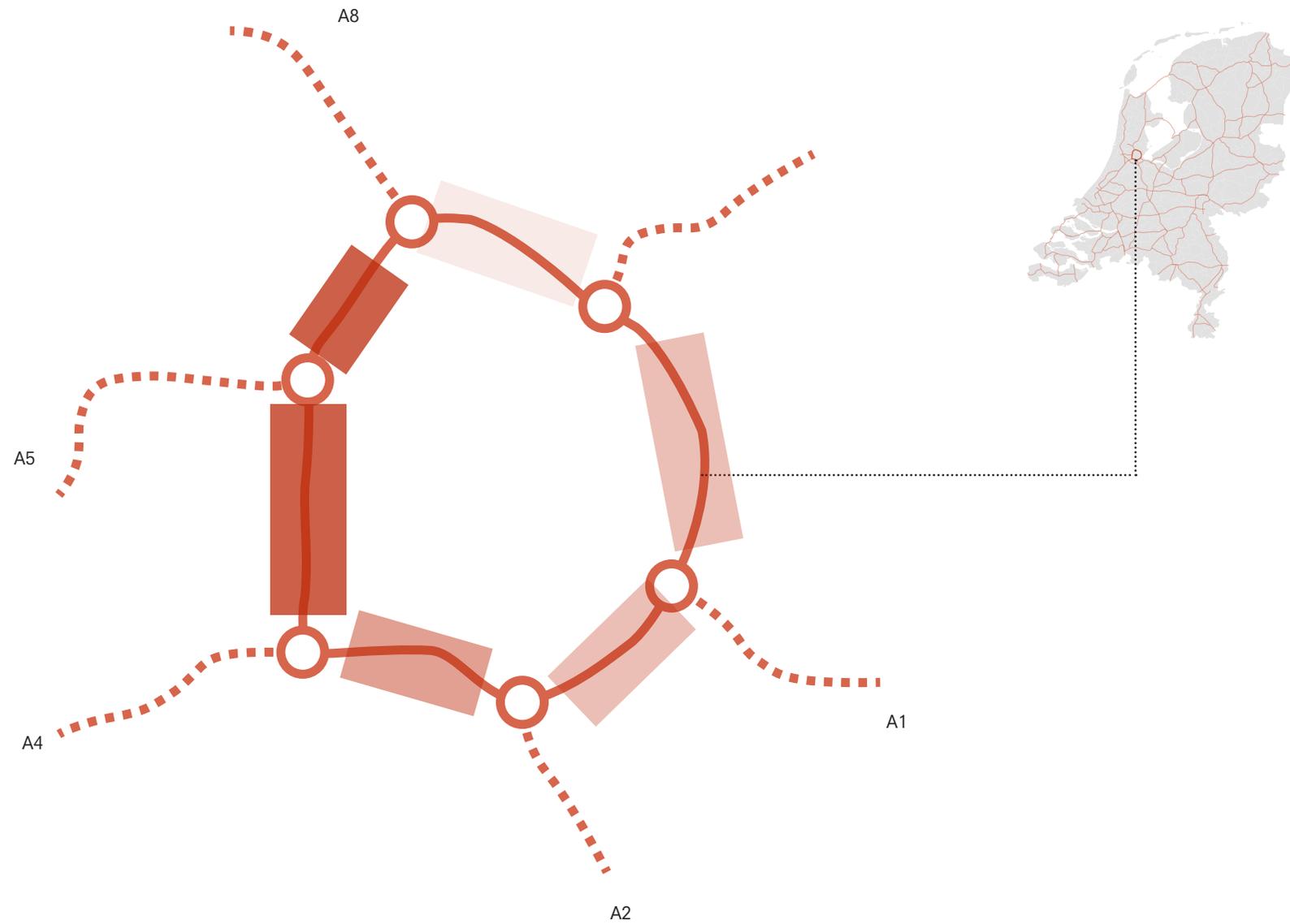
Amsterdam footprint before construction of A10

THE RING AS MODERN CITY WALL



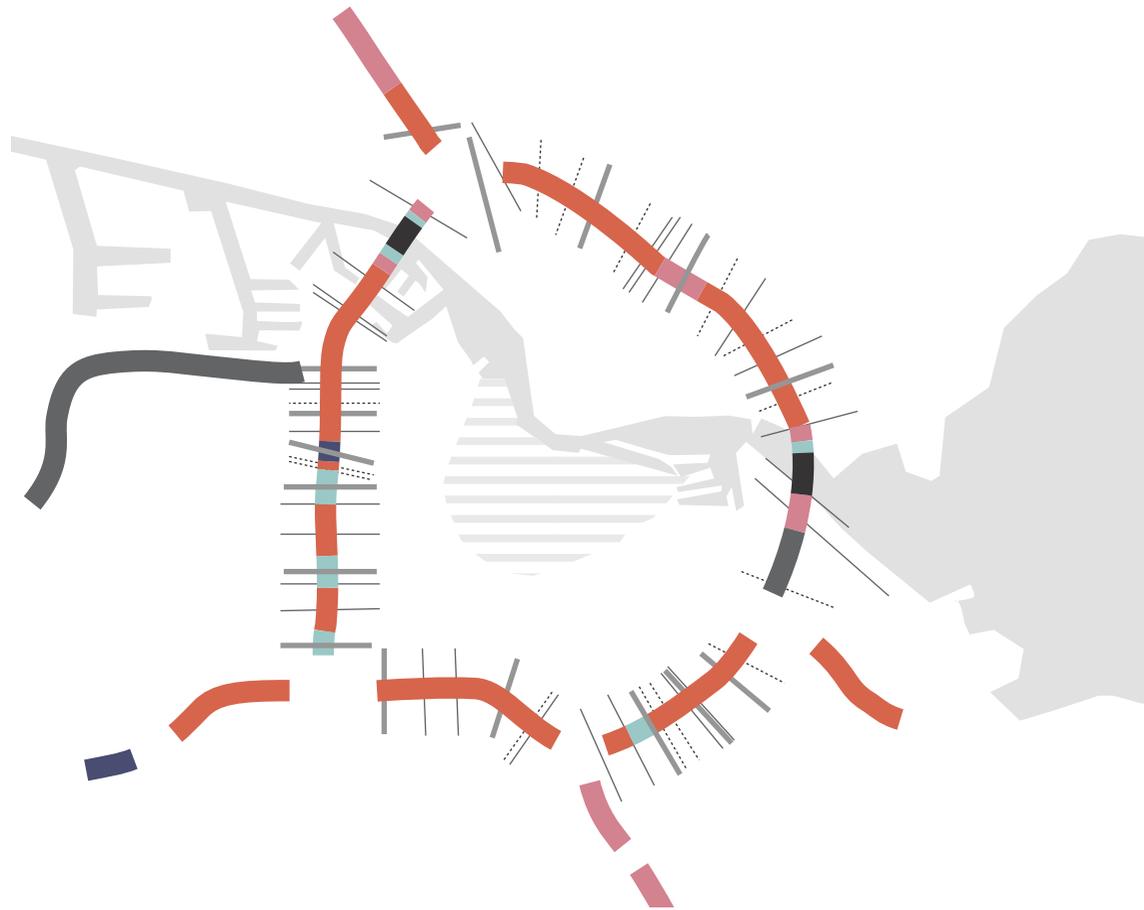
stage construction of A10 - starting in West in 1960s

THE RING AS MODERN CITY WALL



stage construction of A10 - orbit completion in 1990s

THE RING AS MODERN CITY WALL



Building as sound wall



Tunnel



Elevated freeway



Sloped



Leveled



Sunken

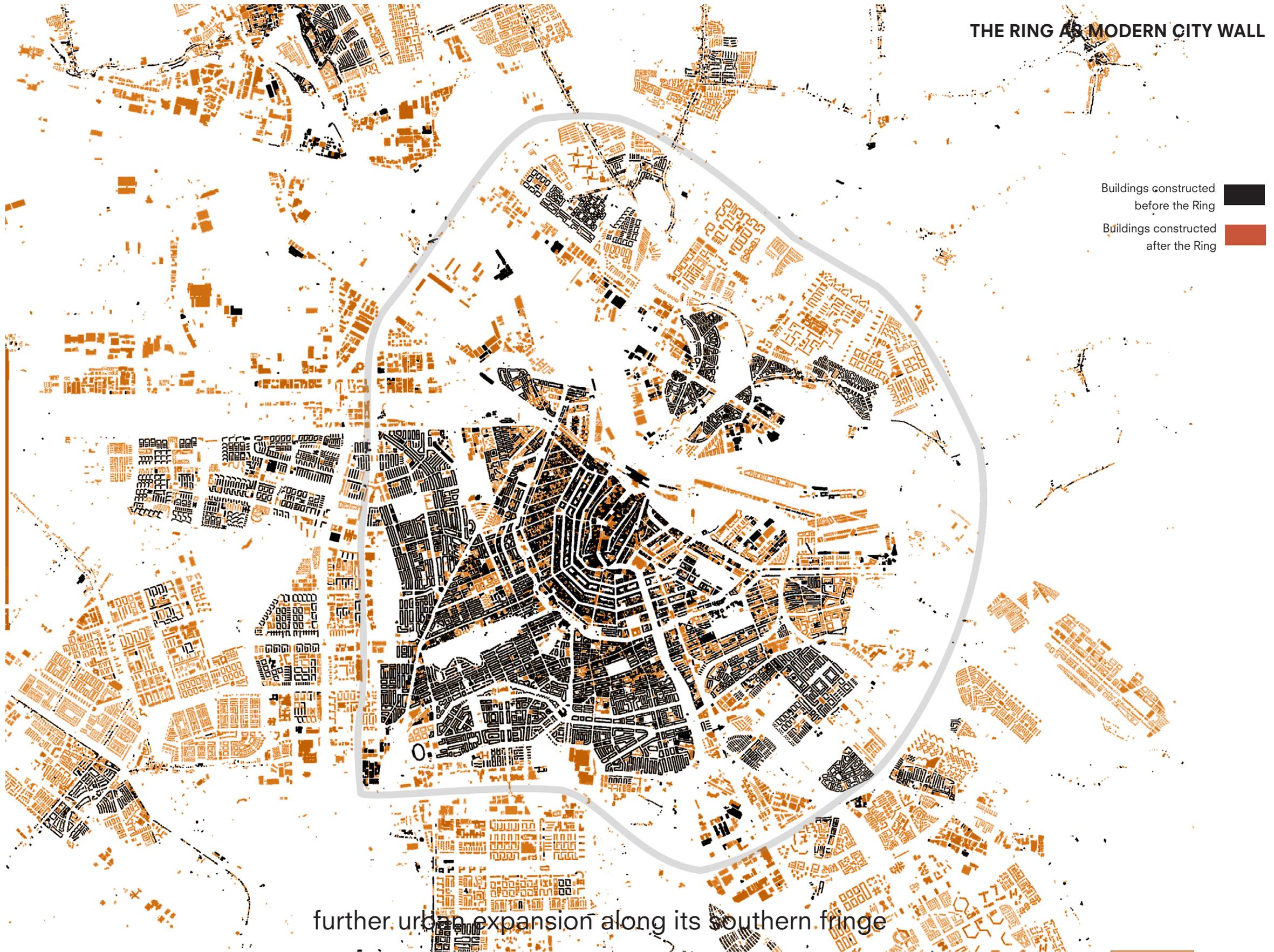


A10 mapping - typologies of highway profile

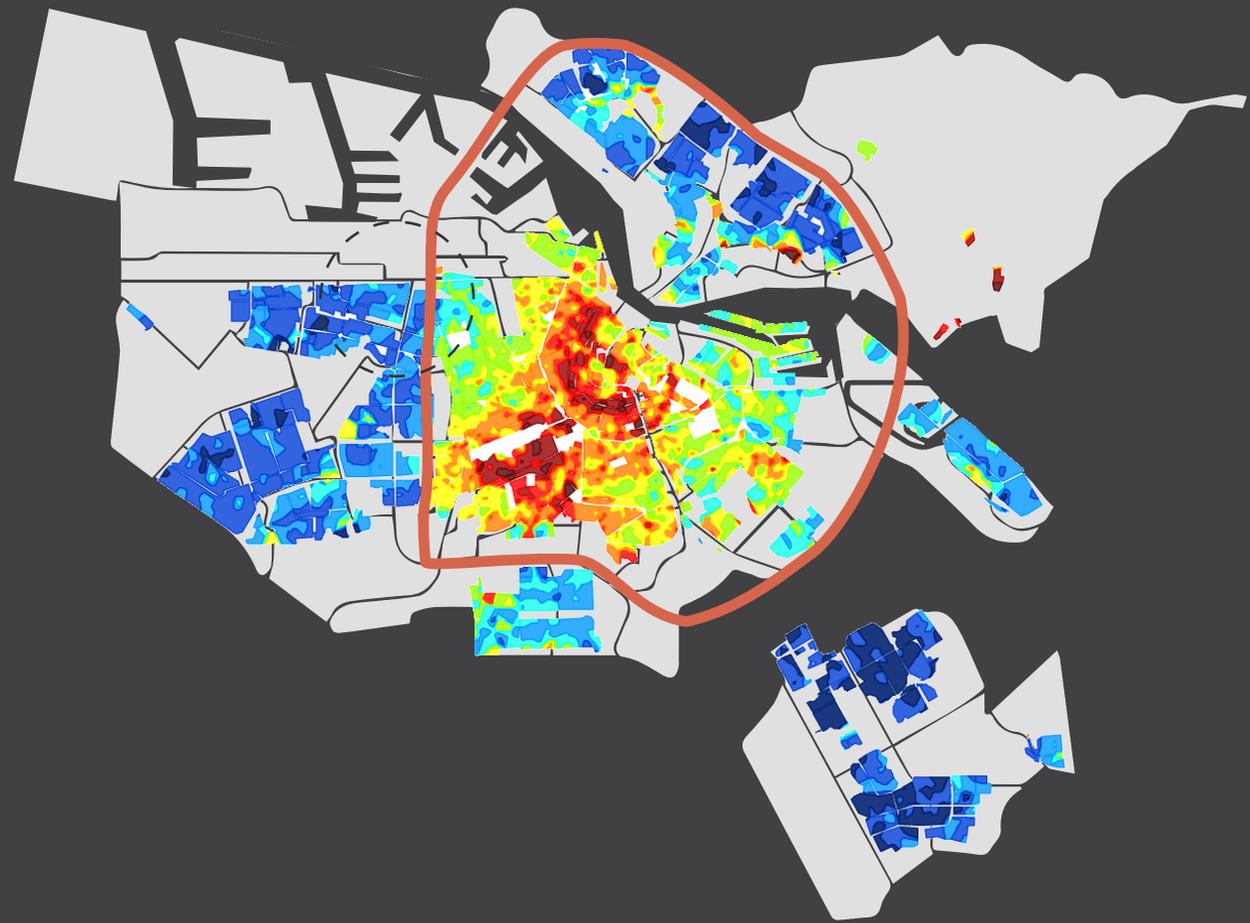
THE RING AS MODERN CITY WALL

Buildings constructed
before the Ring

Buildings constructed
after the Ring



further urban expansion along its southern fringe



mapping of land price



mapping of non-western immigrants



mapping of education level



mapping of unemployment rate



RESEARCH QUESTION

How to address the border issue of Amsterdam
in the context of a social-economically less advanced
neighbourhood secluded by the Ring?

POROUS BORDER

in making an “Open City”

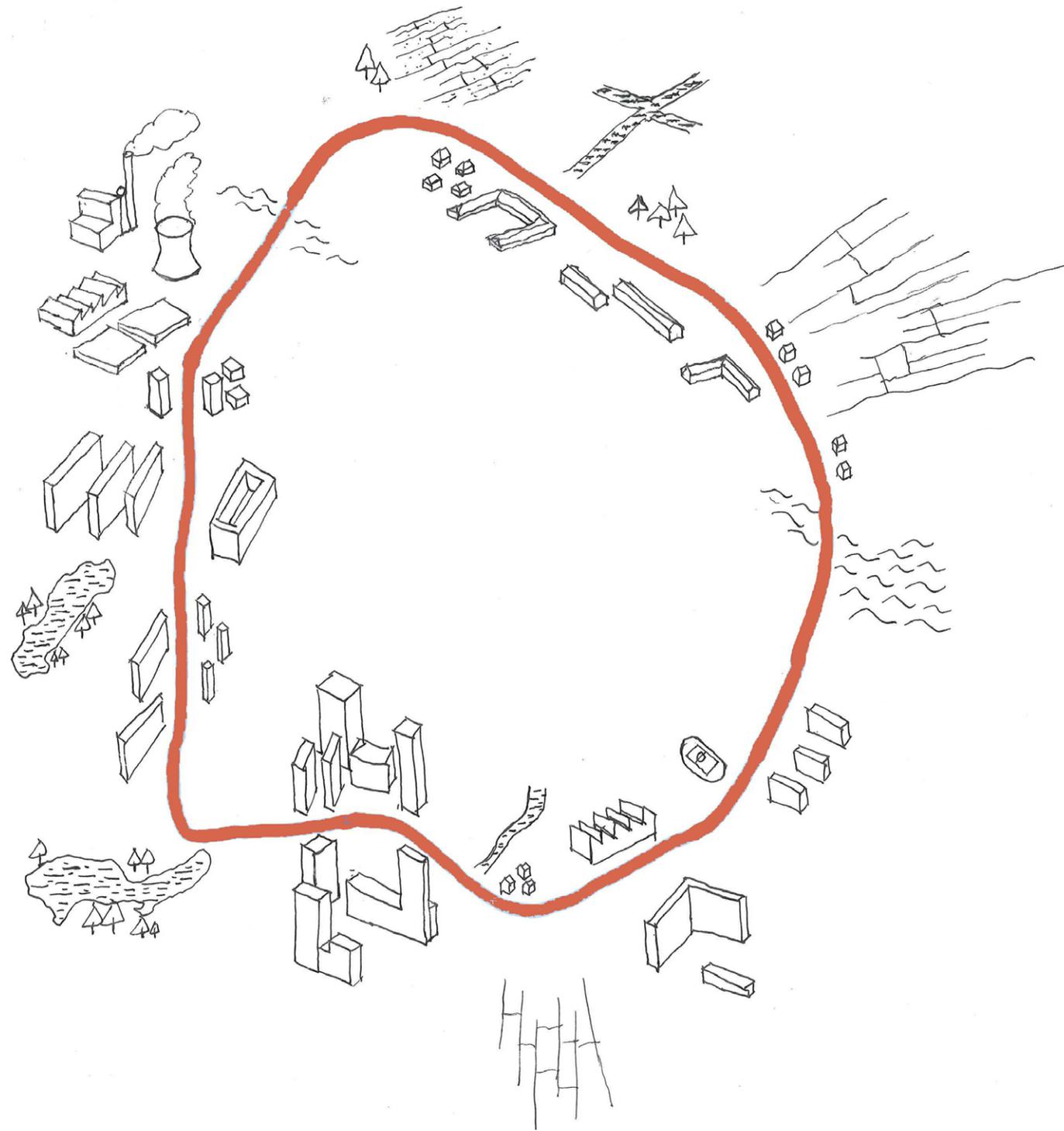
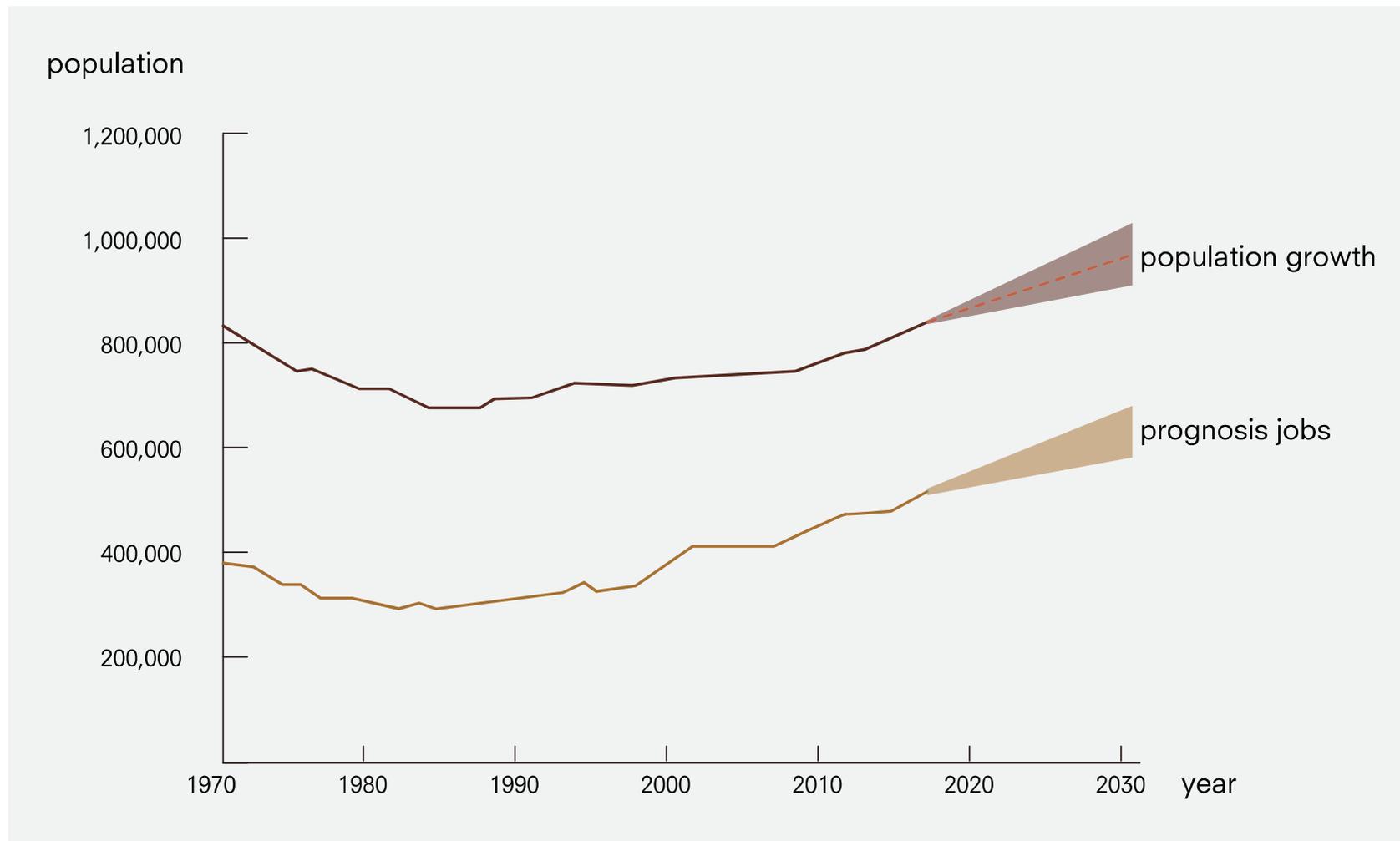
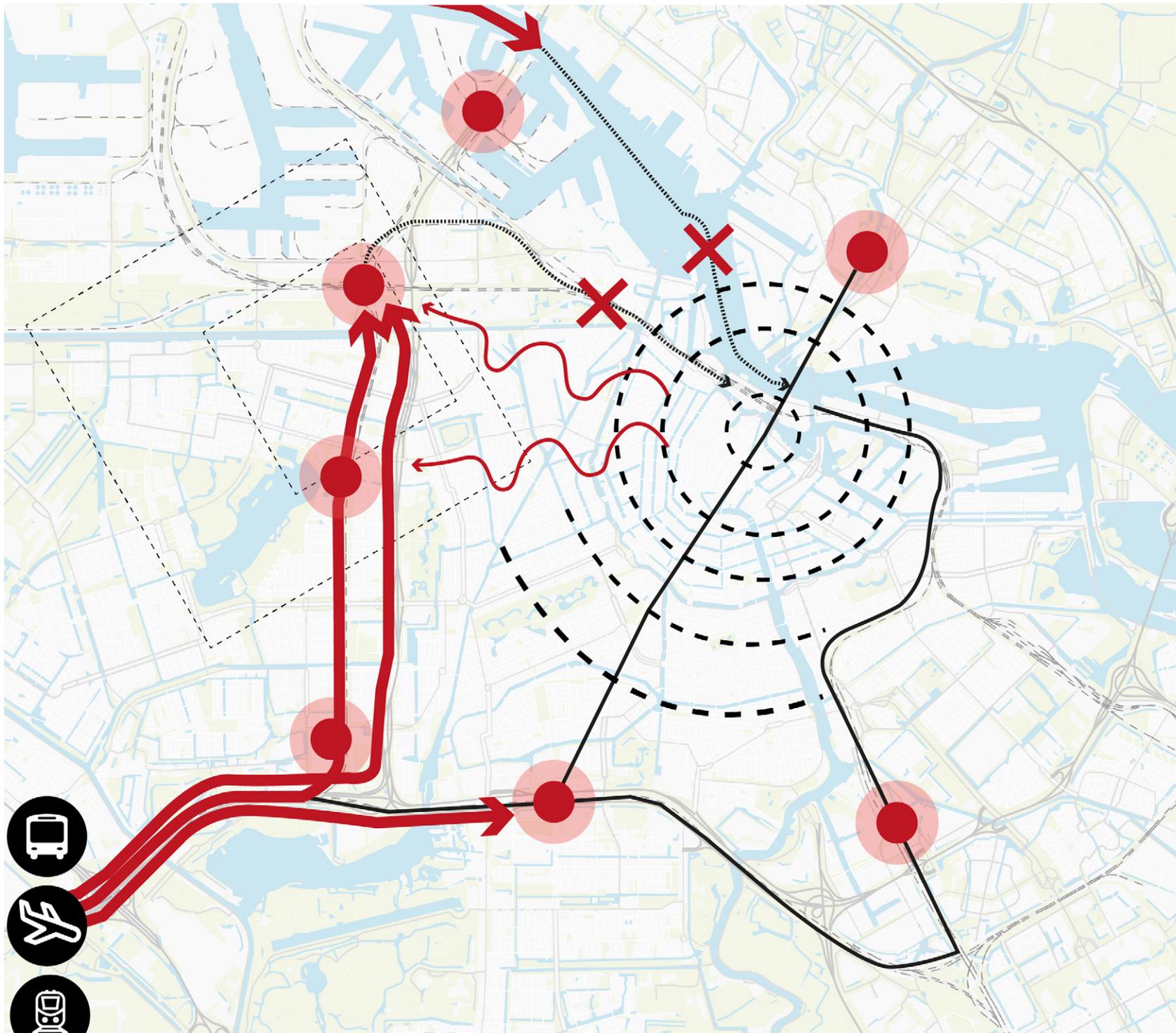


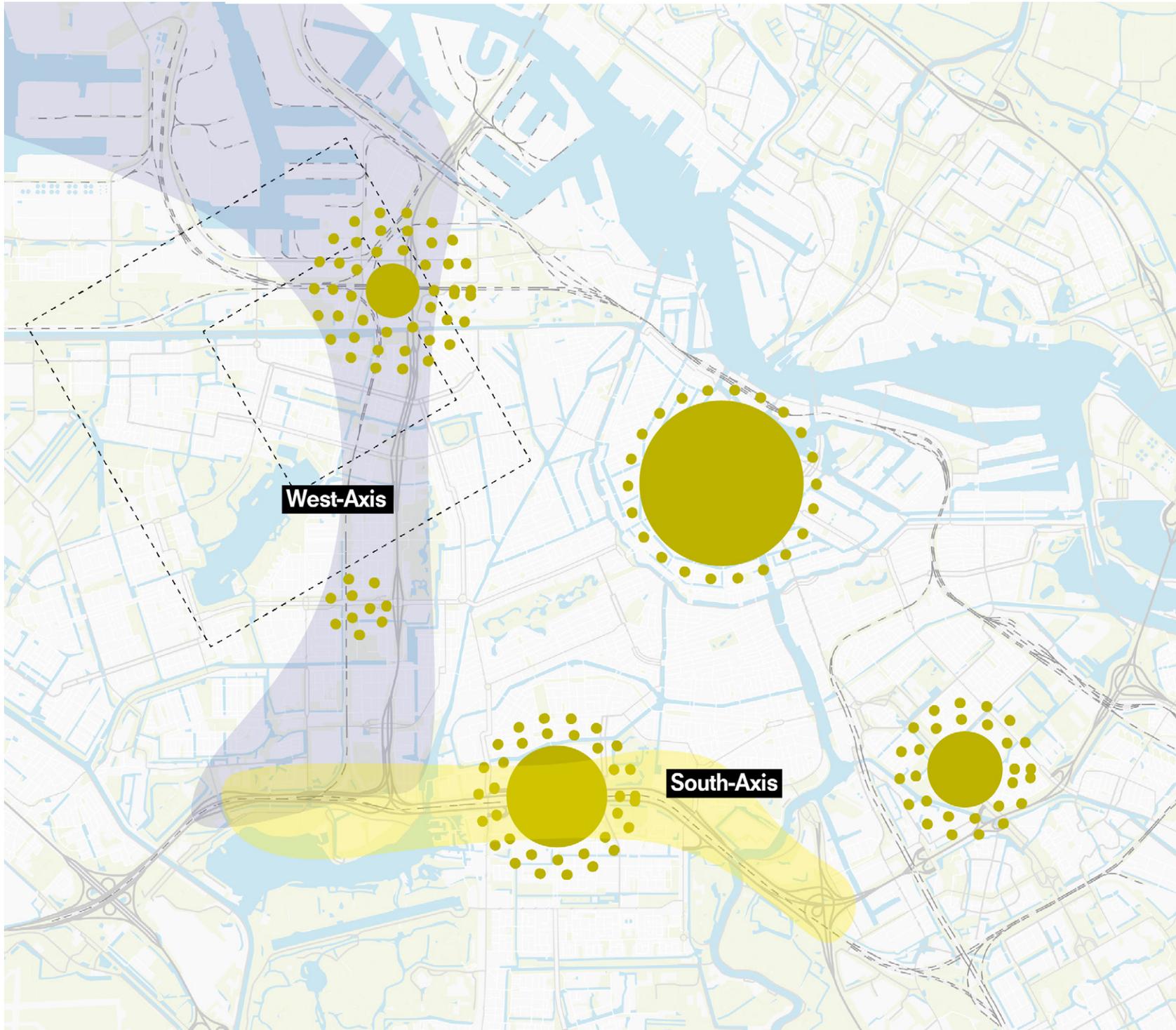
image of A10 - an infrastructure through diverse urbanity of Amsterdam



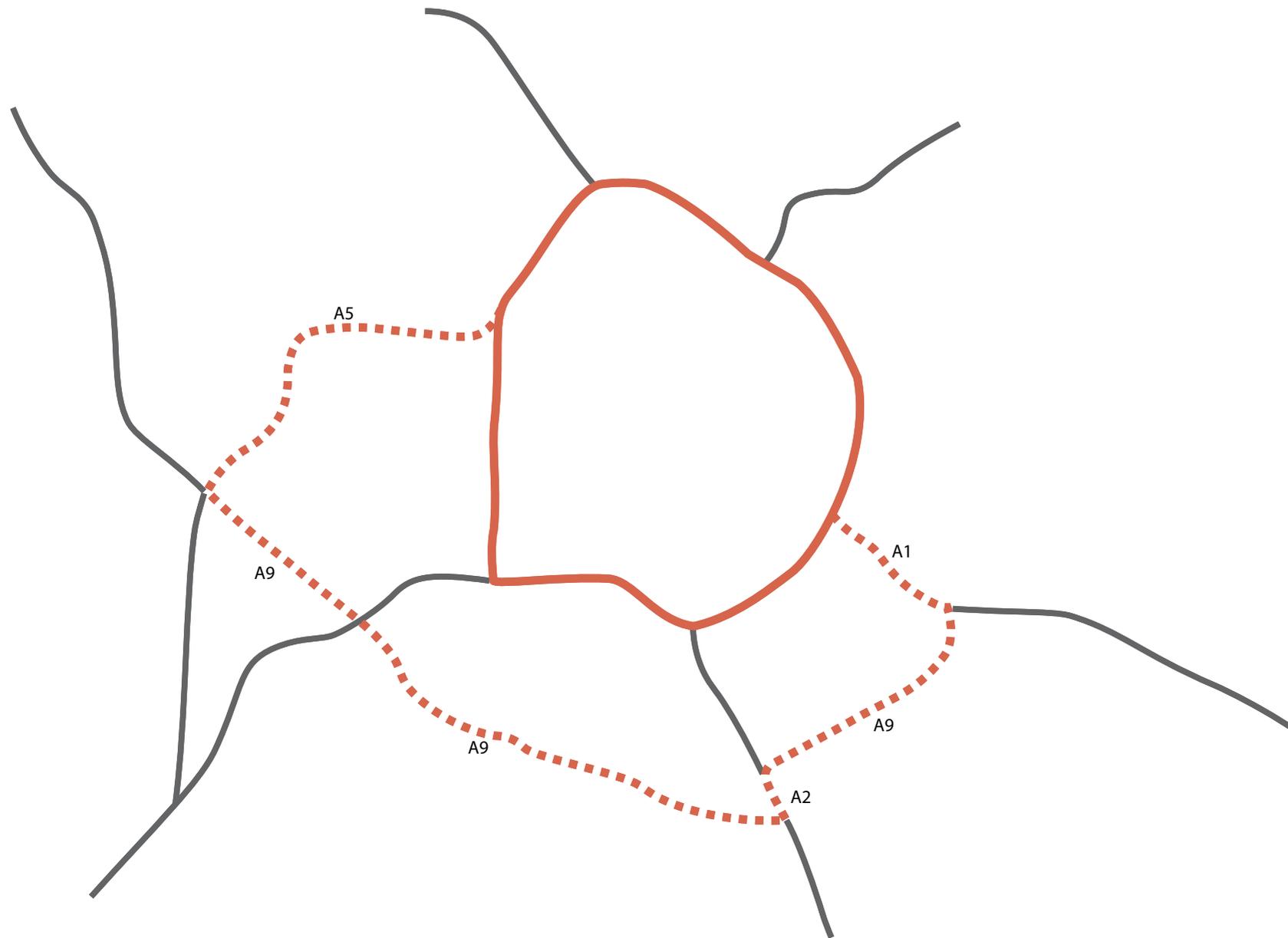
continuous population and job growth



towards a polycentric Amsterdam



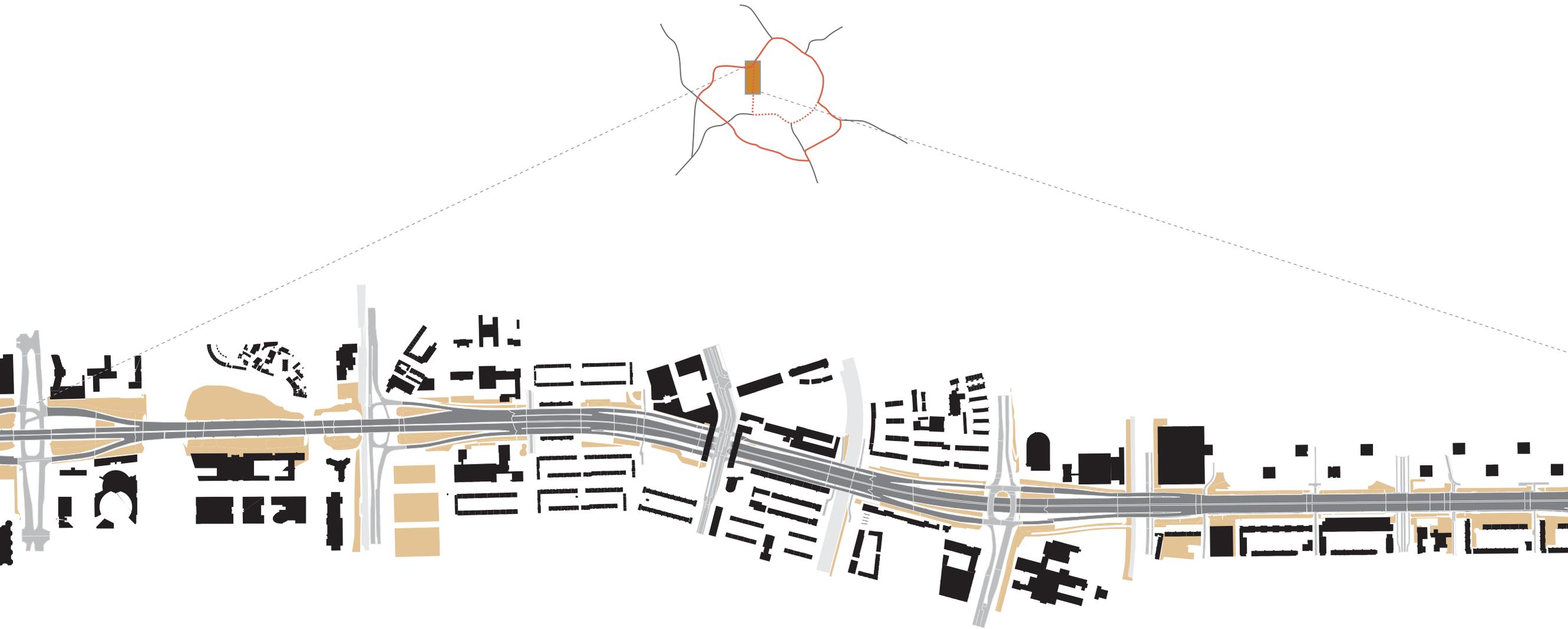
more economy development along Ringzone



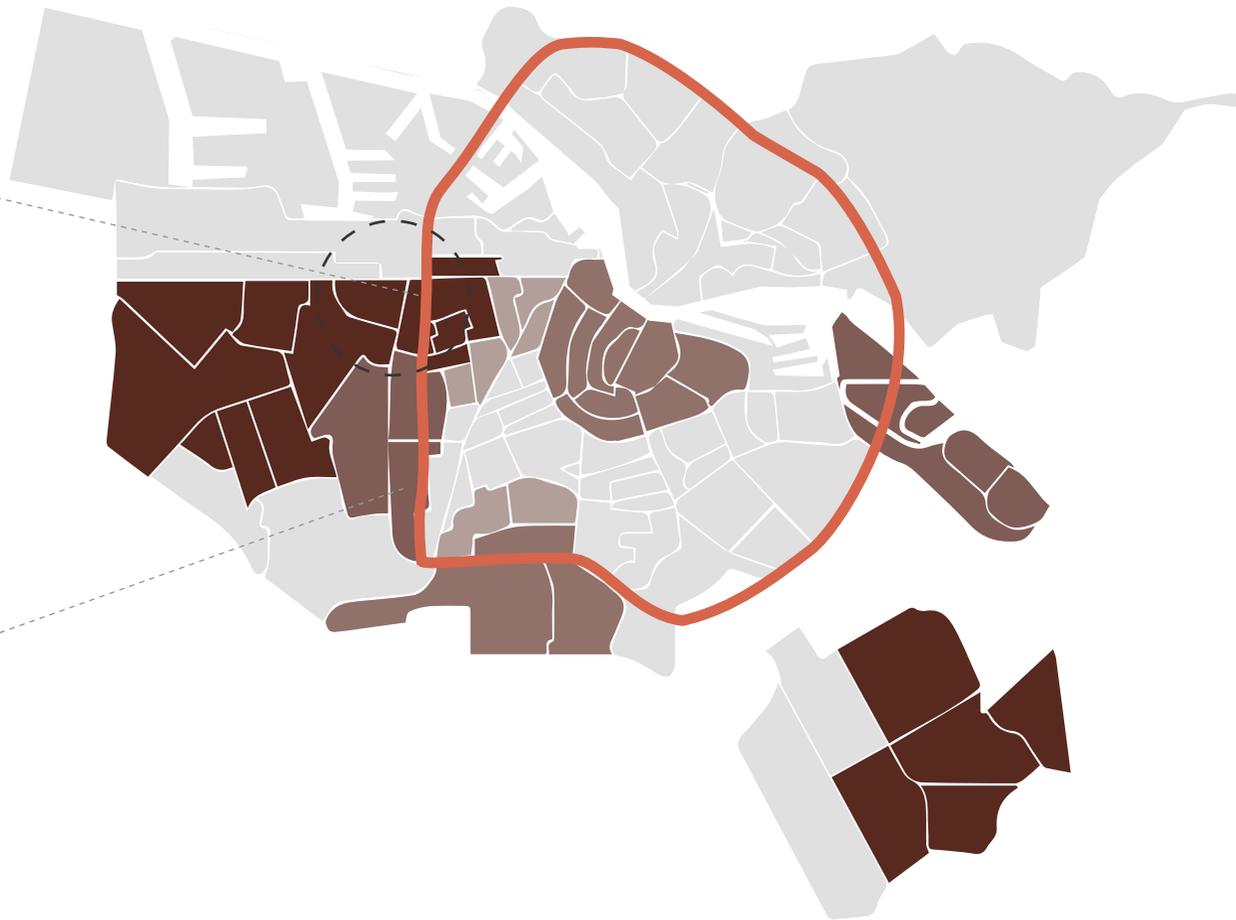
replacing A10 with A11



A10 becoming a less strong border presence



existing border to be reconstructed to connect with urban fabric



Economic Opportunity - an affordable place for start-up economy

TOOLS

Ottawa Tool Library
EST. 2014

About | Memberships | Inventory | Calendar | Get Involved | Community | Special Events

Borrow tools. Learn new skills.
Discover community.

Become a Member

Our next **Repair Café** will be Saturday, February 24th from 9:00am to 3:00pm. You can find more information here.

Maker Day Jan. 14 / **Maker Night** Dec. 11

RESEARCH

Science EXCHANGE | ENTERPRISE | RESEARCHERS | SERVICE PROVIDERS | Search experiments, providers, etc... | SIGN IN | JOIN

THE LEADING MARKETPLACE FOR SCIENTIFIC RESEARCH

Find and order outsourced research and development services from thousands of qualified service providers.

Search experiments, providers, etc...

ENTER traditional economy RESEARCHERS
Save time and money while expanding access to innovation with award-winning marketplaces for managing outsourced research and development.
LEARN MORE

SERVICE PROVIDERS
Gain exposure to thousands of new customers. Immediately initiate new business through pre-negotiated legal agreements.
LEARN MORE

Desks Near Me

News No service fee on bookings through 2017

Find a space to work

Search by city or address

Find out more

sharing economy KICKSTARTER

Bring your creative project to life.

Start a project

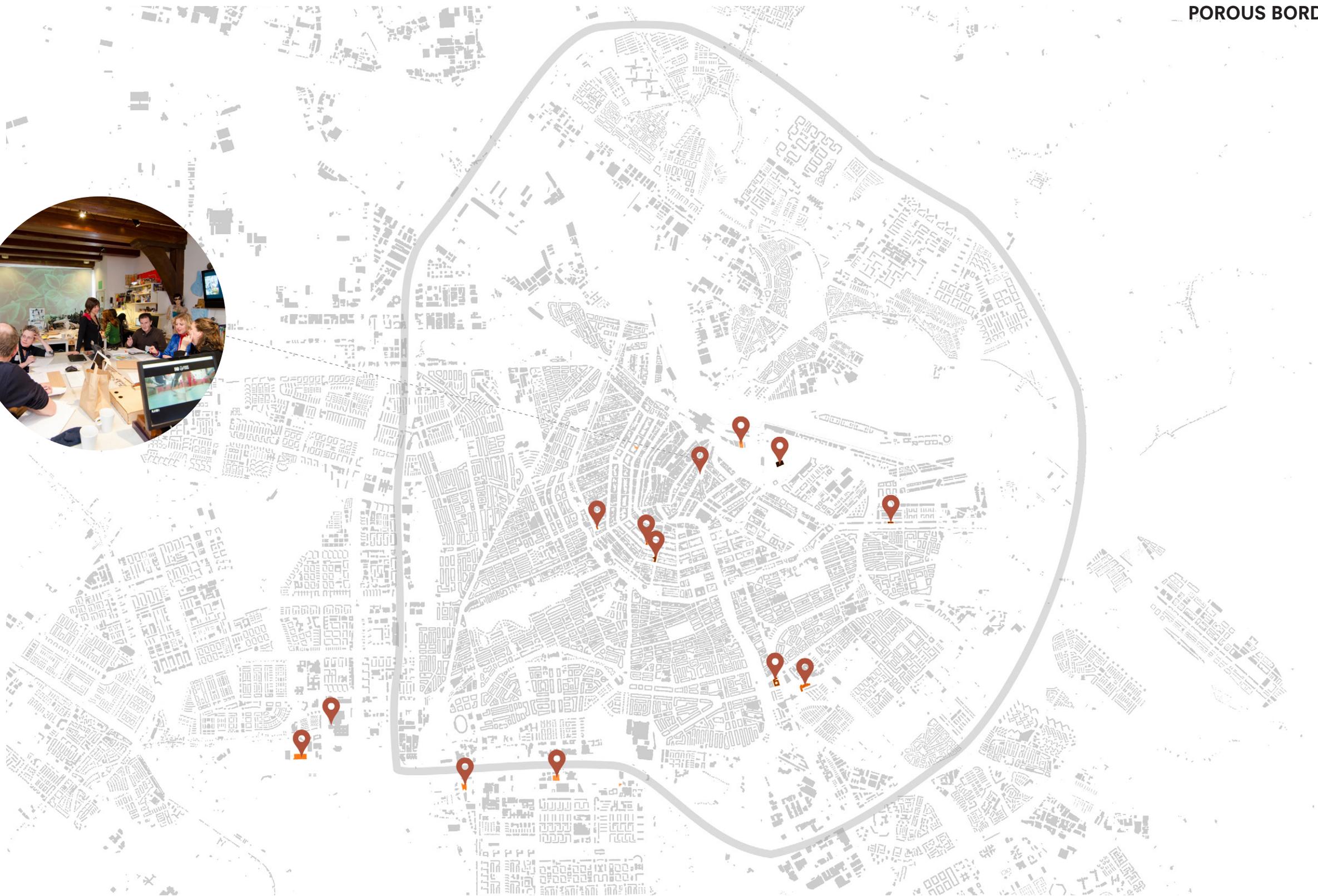
2010 2012 2014 2016 2018 2020 2022

With the support of 13,454 backers, Elena Favilli and Francesca Cavallo published *Good Night Stories for Rebel Girls* — and became best-selling authors.

WORKSPACE

PRODUCTION

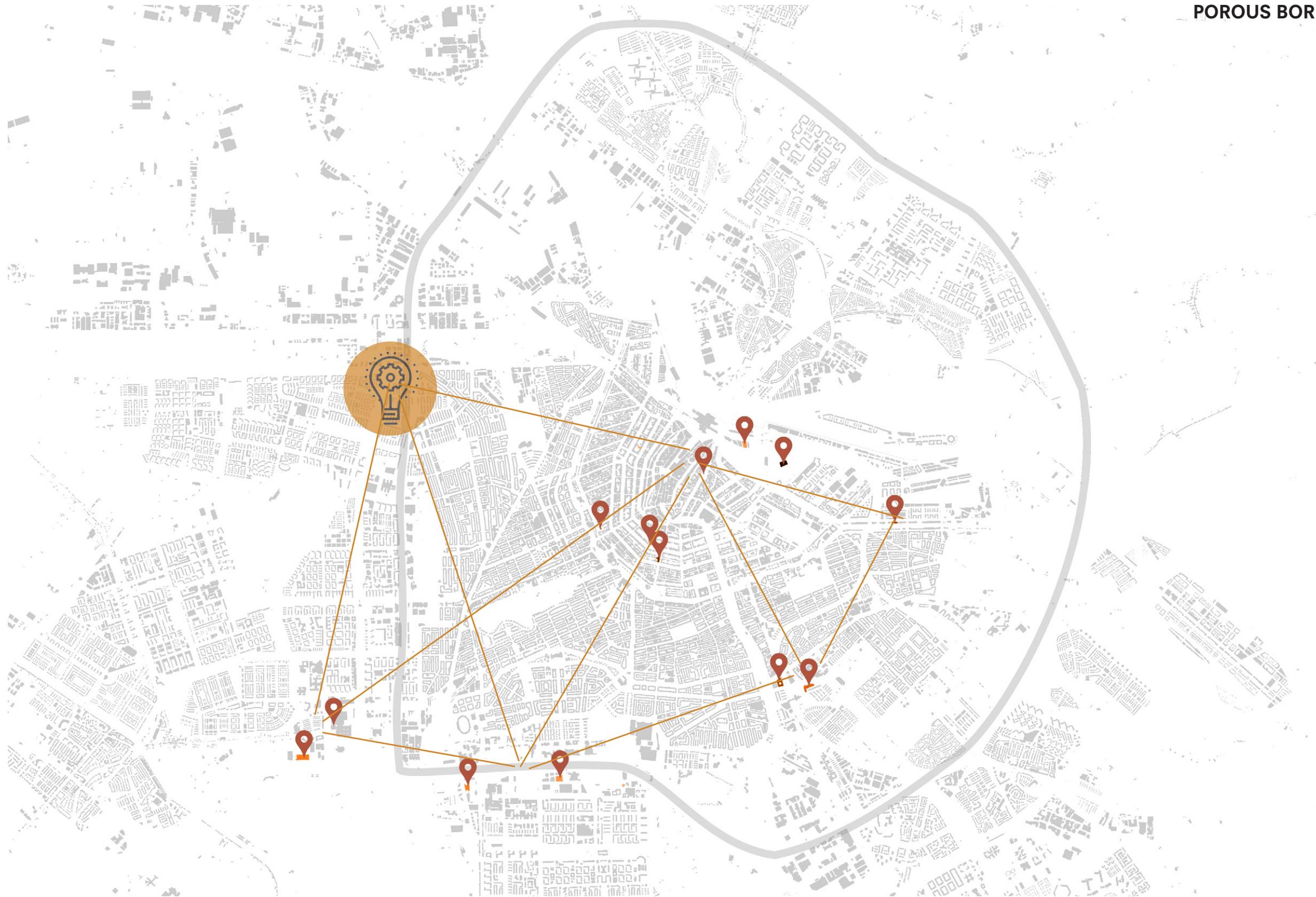
some rising types of sharing economy



current fab-lab and coworking space in amsterdam



in making a polycentric Amsterdam



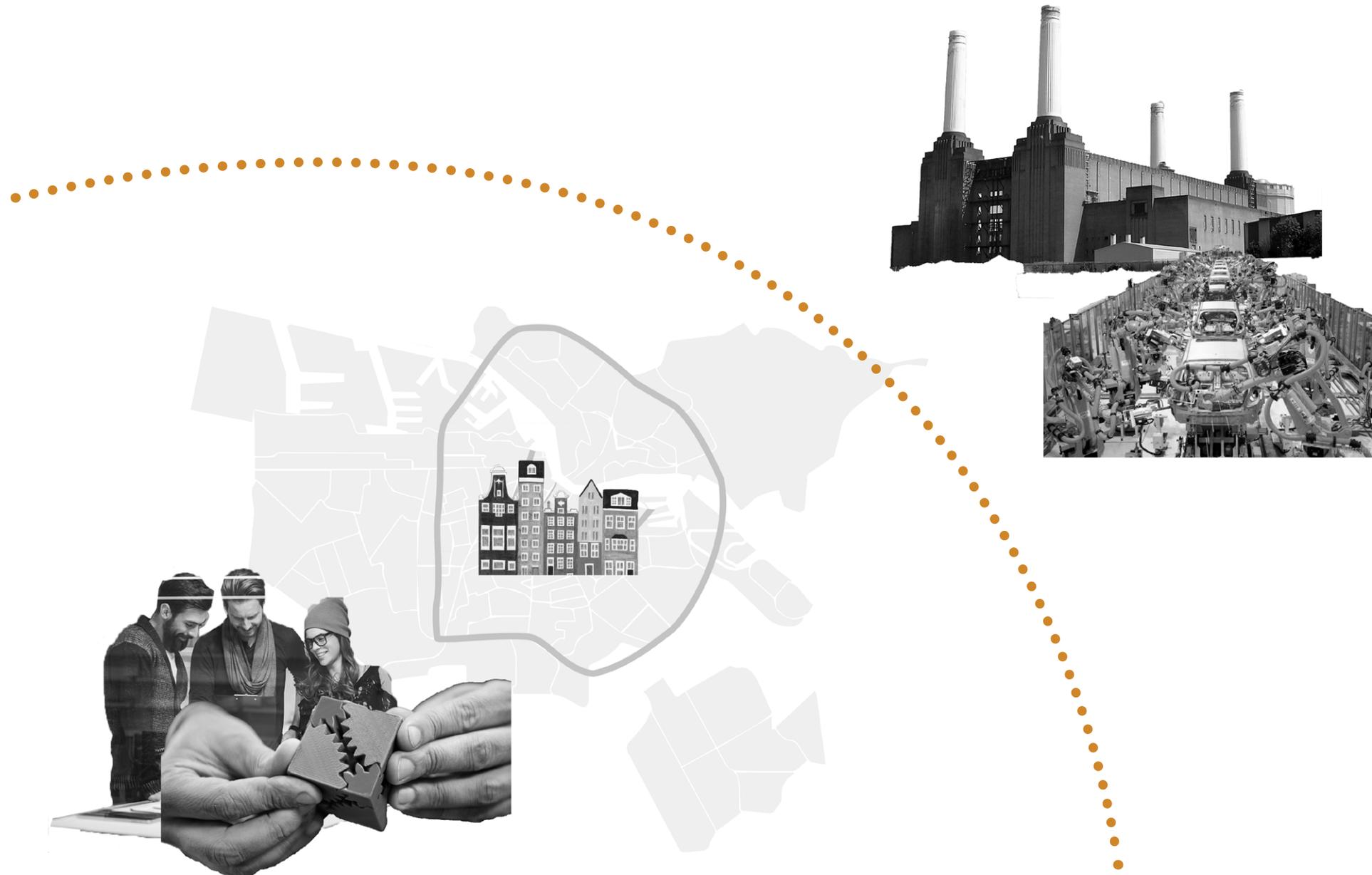
Fab-lab Sloterdijk needed as center of innovation and production



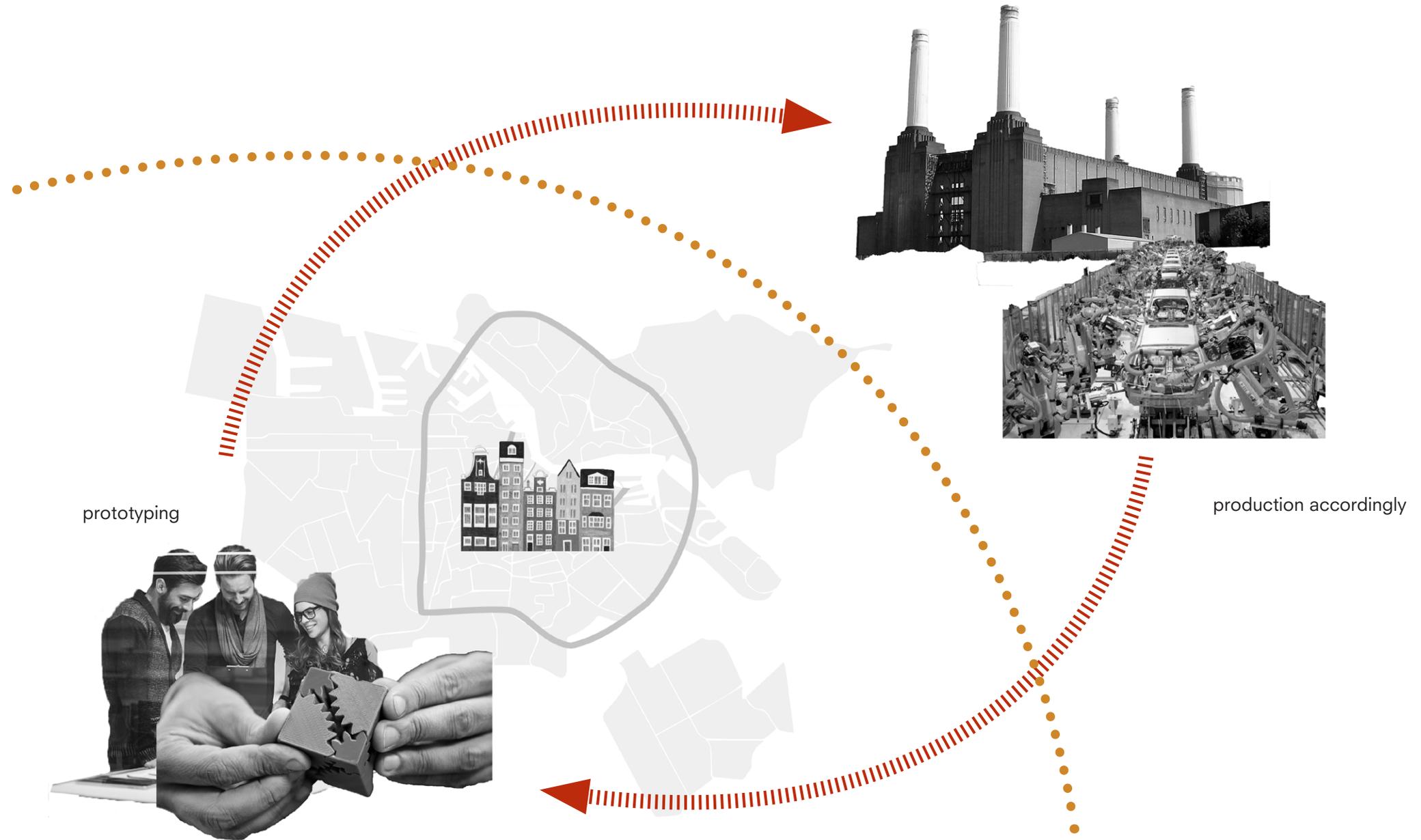
RINGZONE
VISION



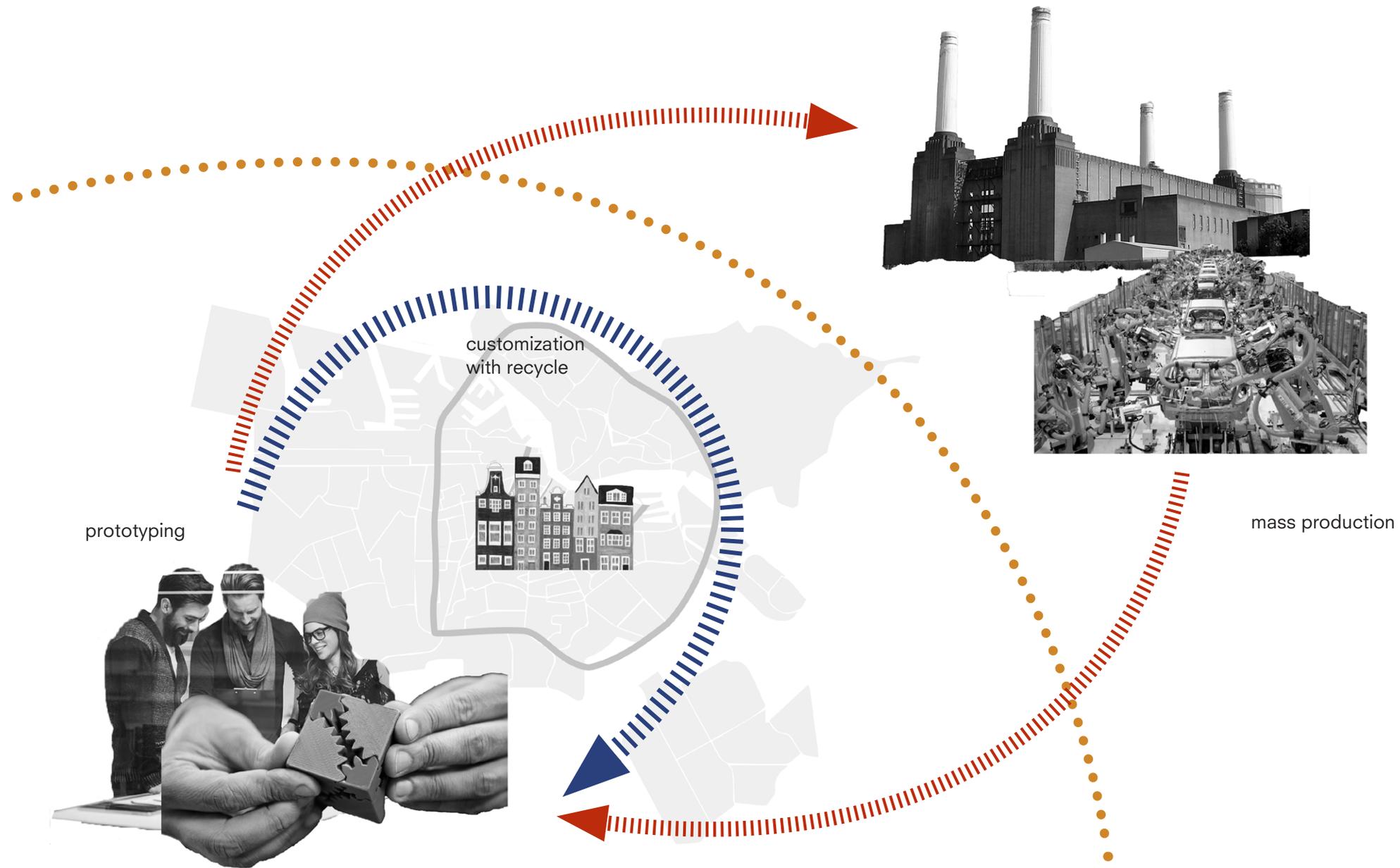
TOWARDS 2050



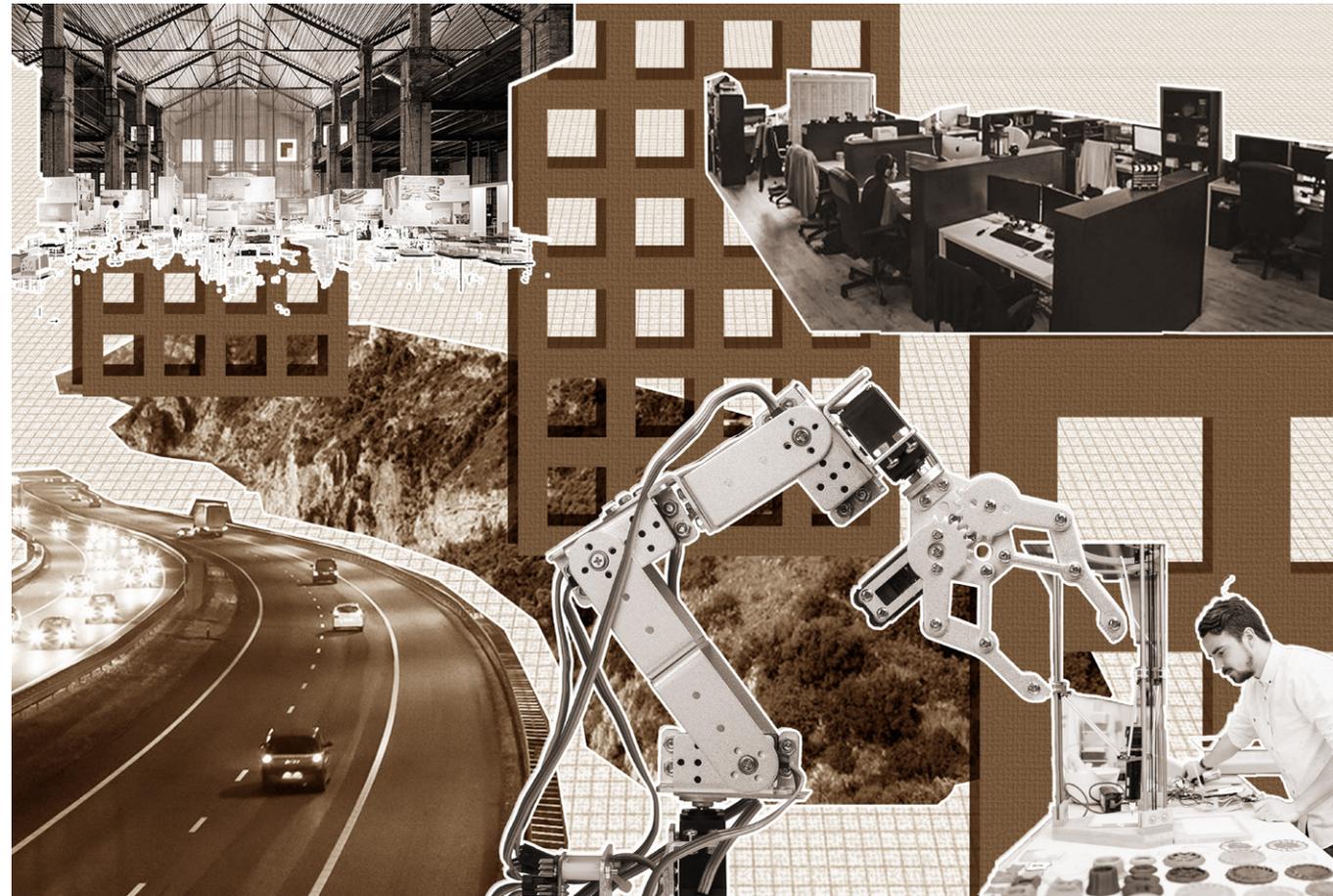
Current situation - factory making mass production and people in city making prototype



Near future - production follows design more promptly



Ambition - fabrication in the city center with local recycled resource



Ambition - fabrication with digital technology

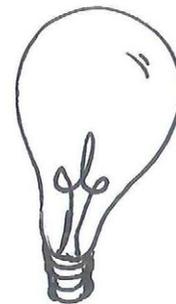


“fabrication”
that empowers
people with tools

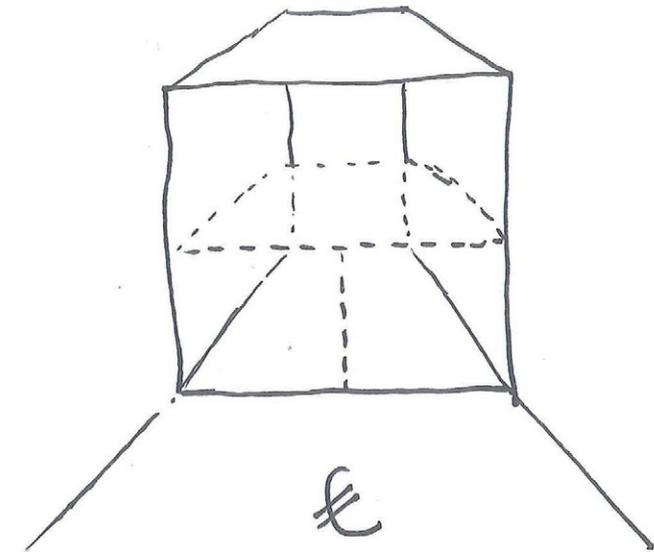
“laboratory”
that breeds
innovation



Local production
Integration with technology to produce with local collected resource, so to achieve circular economy.



Innovation driven
Idea platform to exhibit and exchange



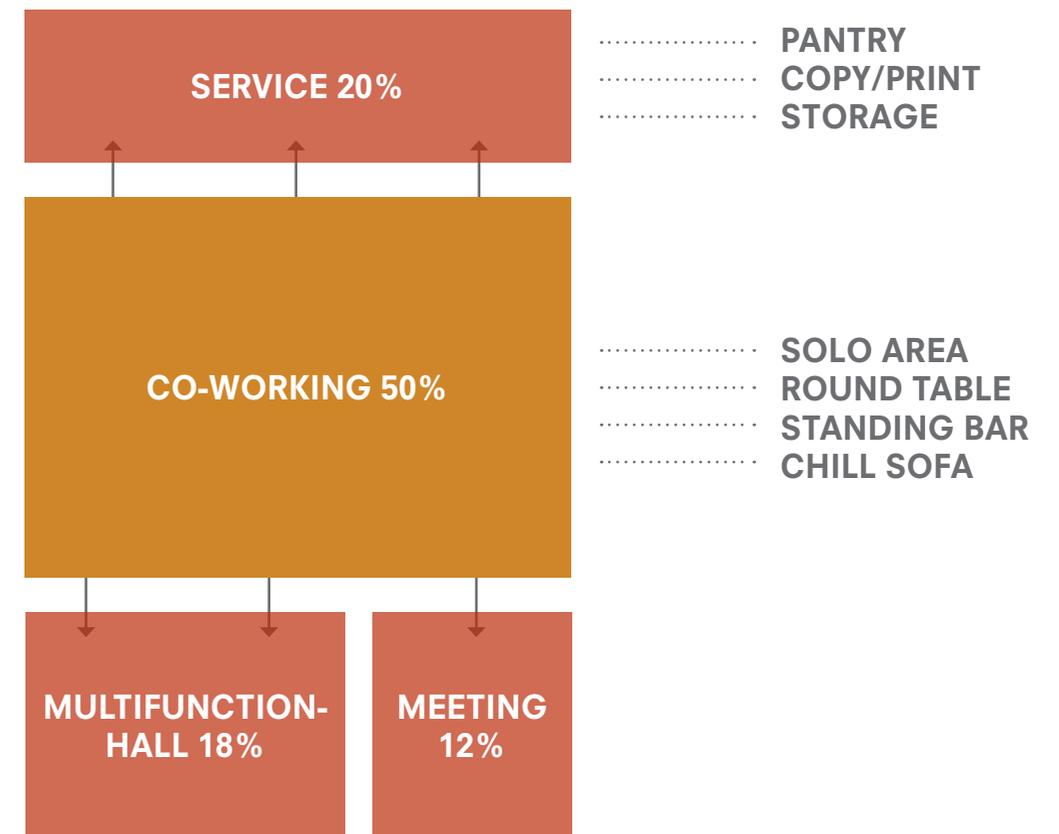
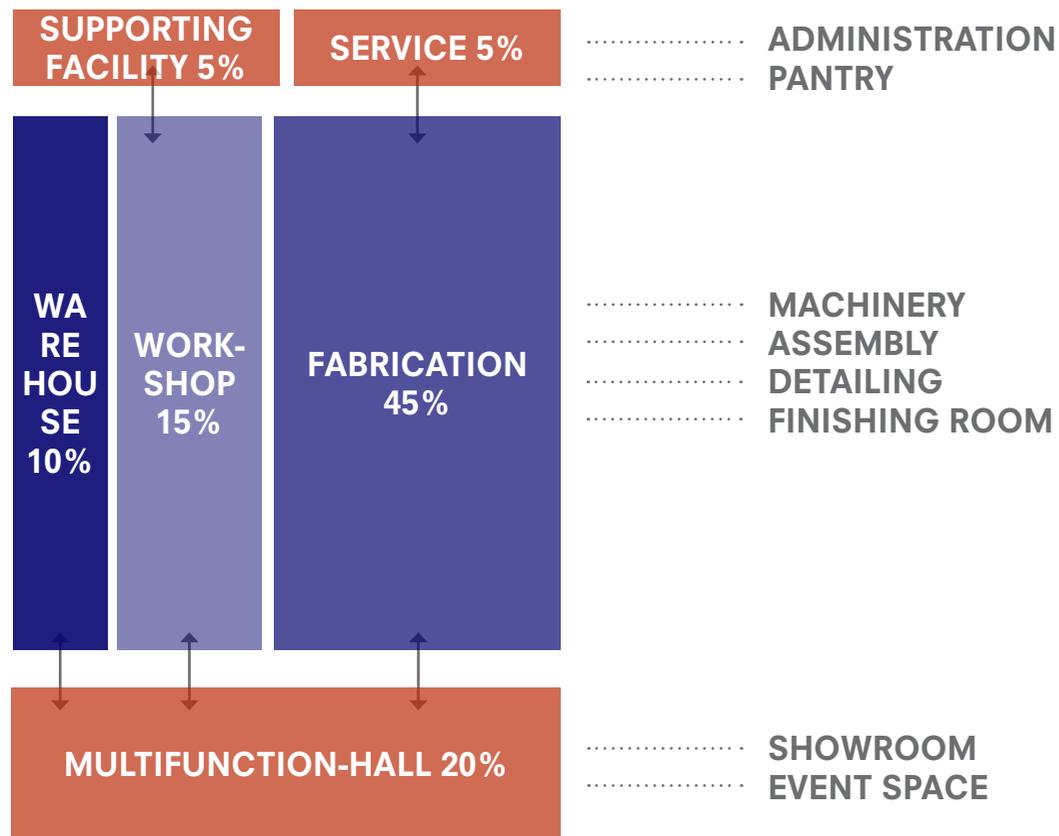
Flexible space
open structure to accommodate shifting spatial requirements



people, make your city

DESIGN STRATEGY

a center for making at a porous border

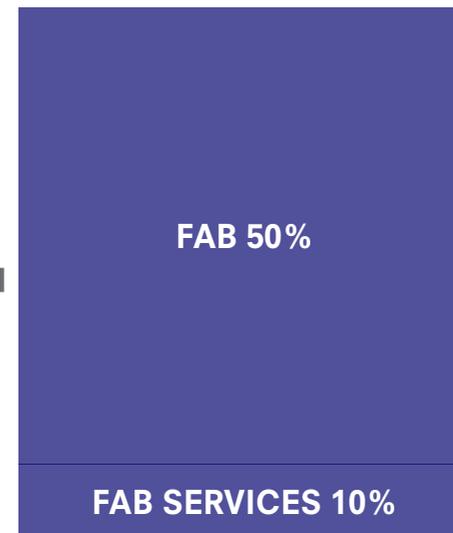




ambition - making Amsterdam a porous city by designing the context around A10

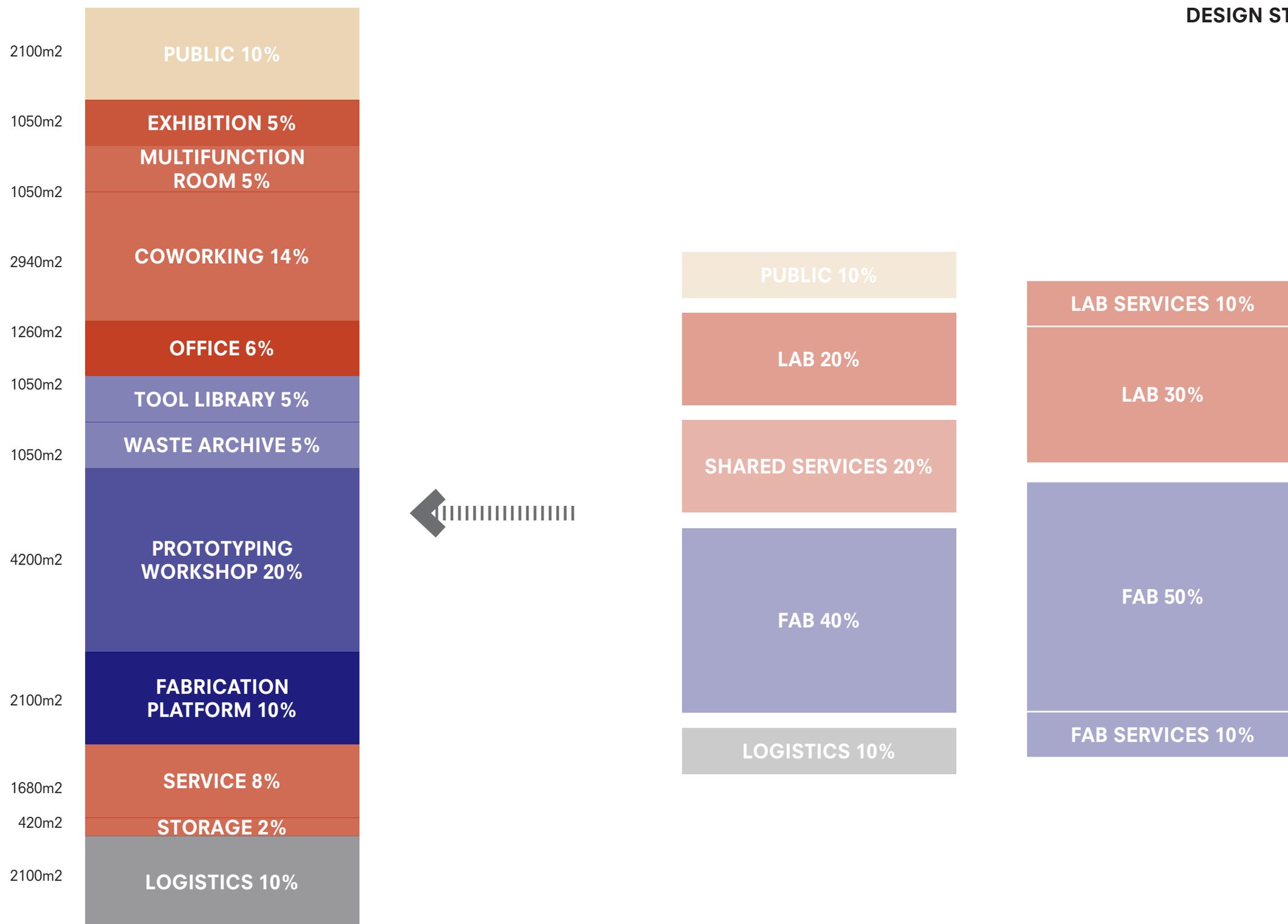


ambition - porous building no more soundwalls

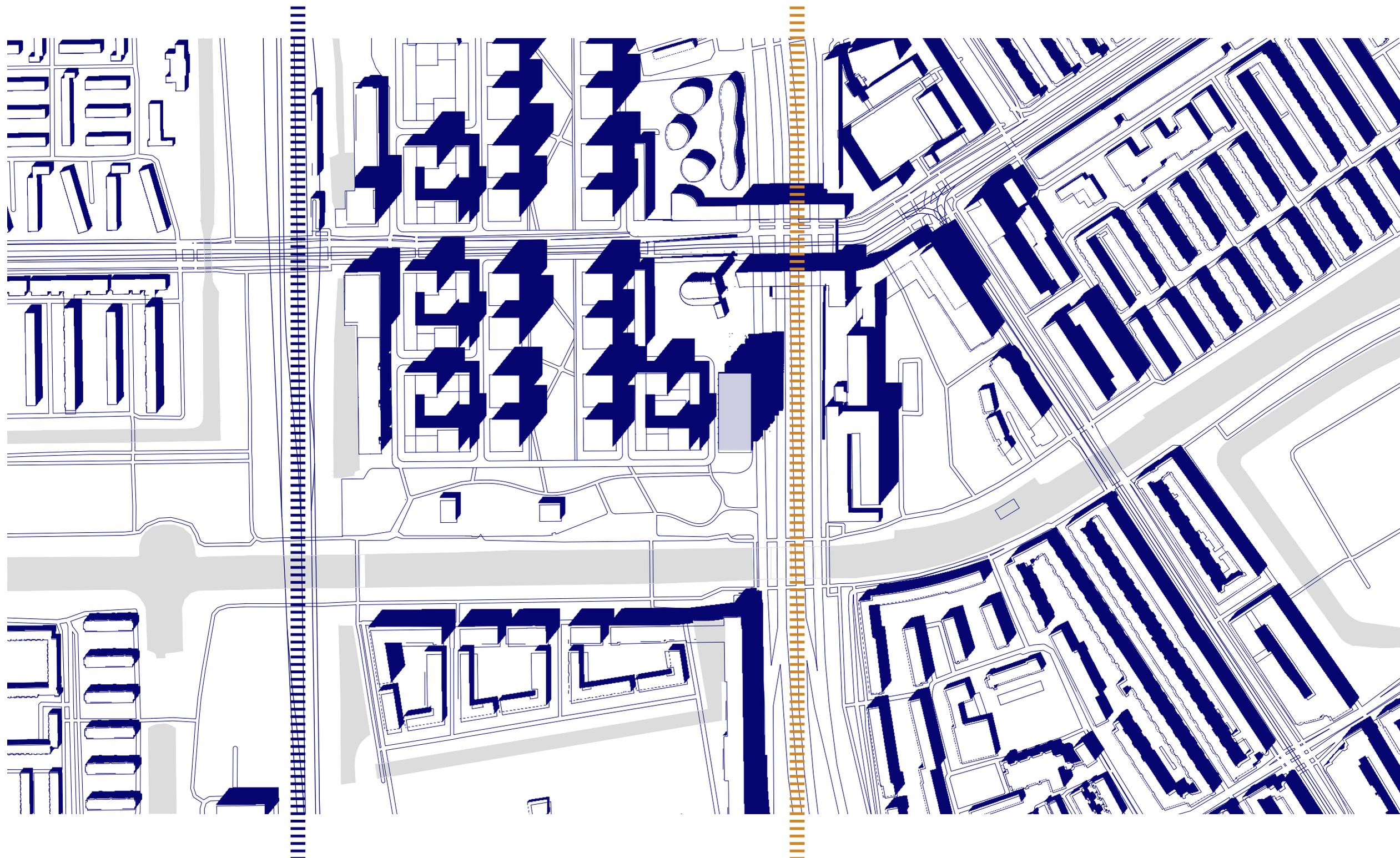


program proposal

DESIGN STRATEGY



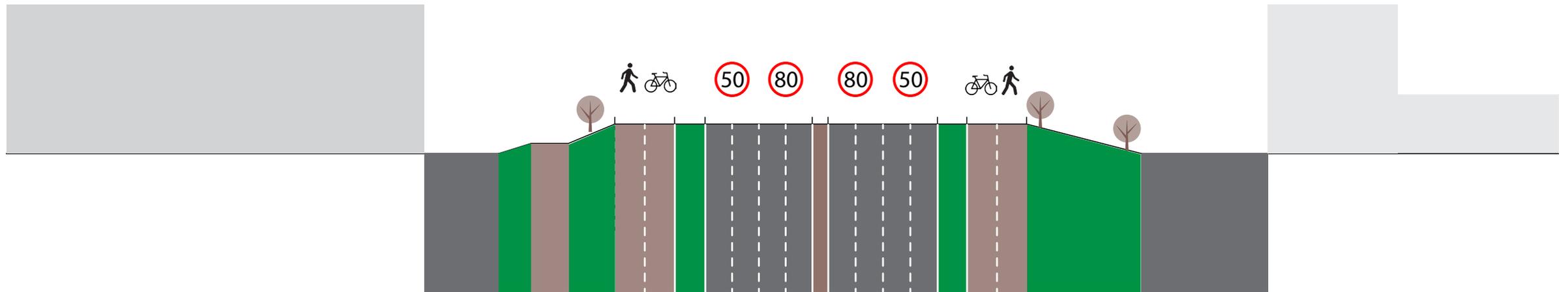
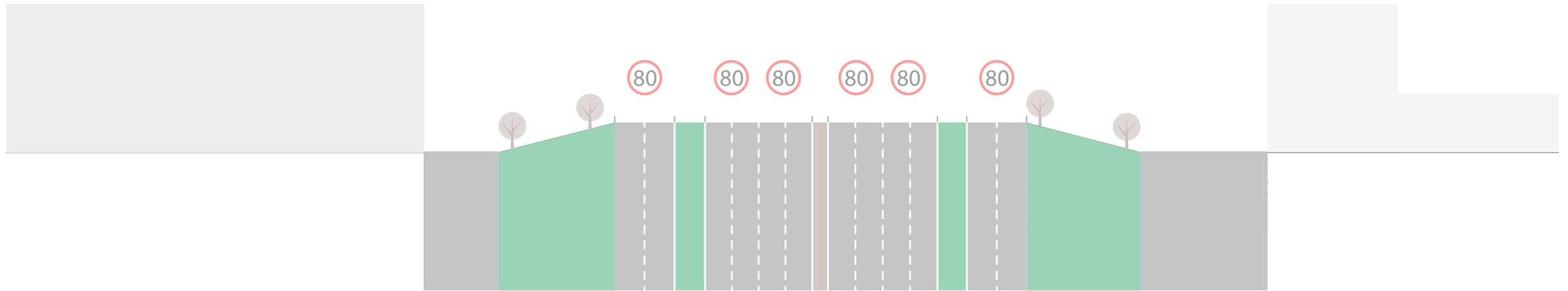
program proposal of total GFA 21000m²



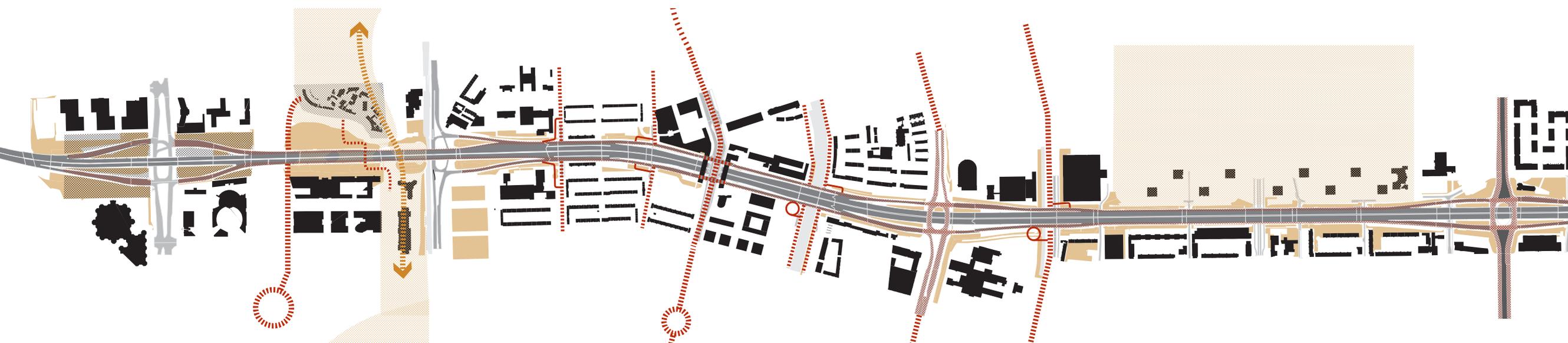
site location - the Ringzone



future of A10 - downgrading with more direct connections to city



future of A10 - downgrading with reduced speed and bypass



future of A10 - downgrading with reduced speed and bypass

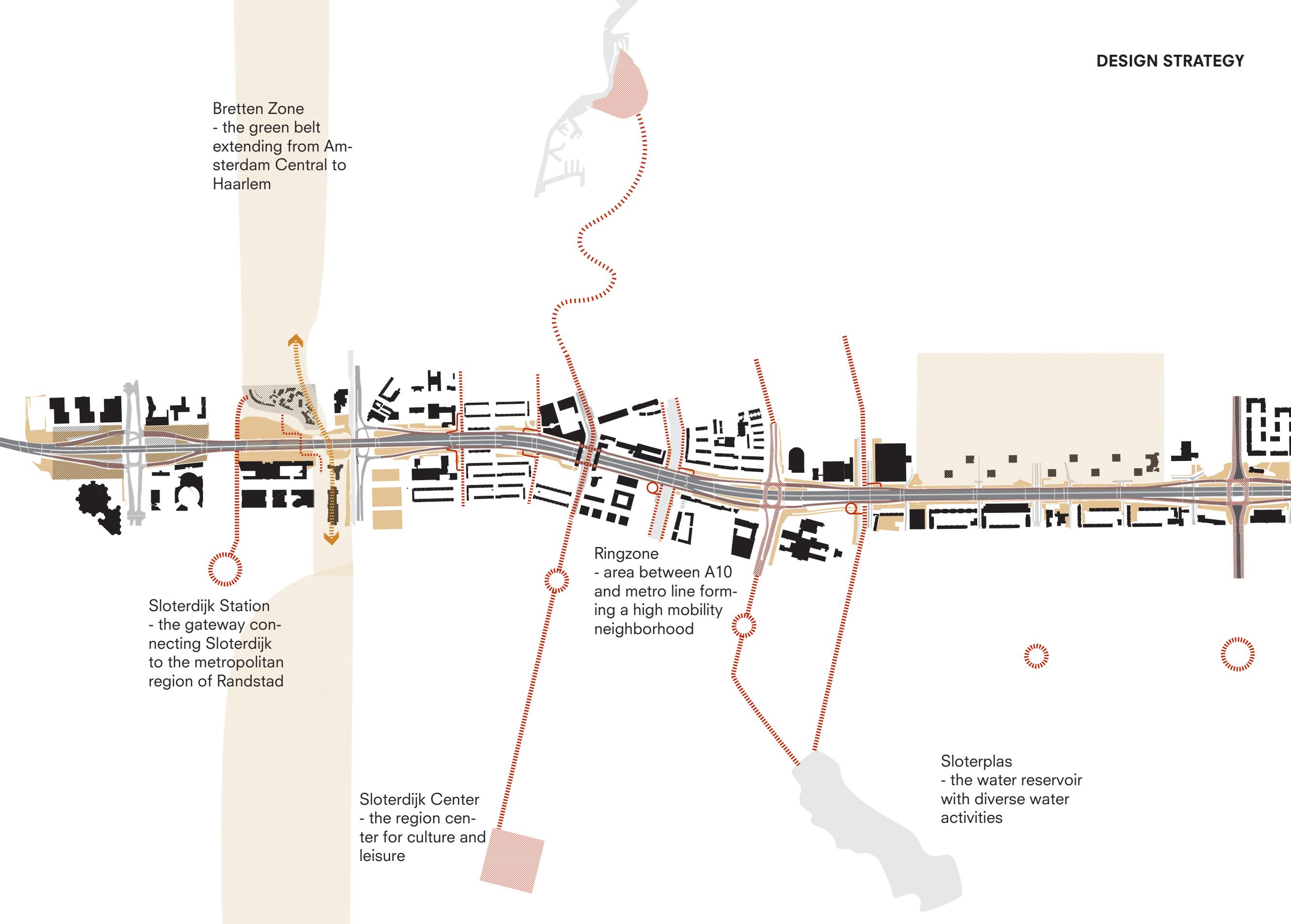
Bretten Zone
- the green belt
extending from Am-
sterdam Central to
Haarlem

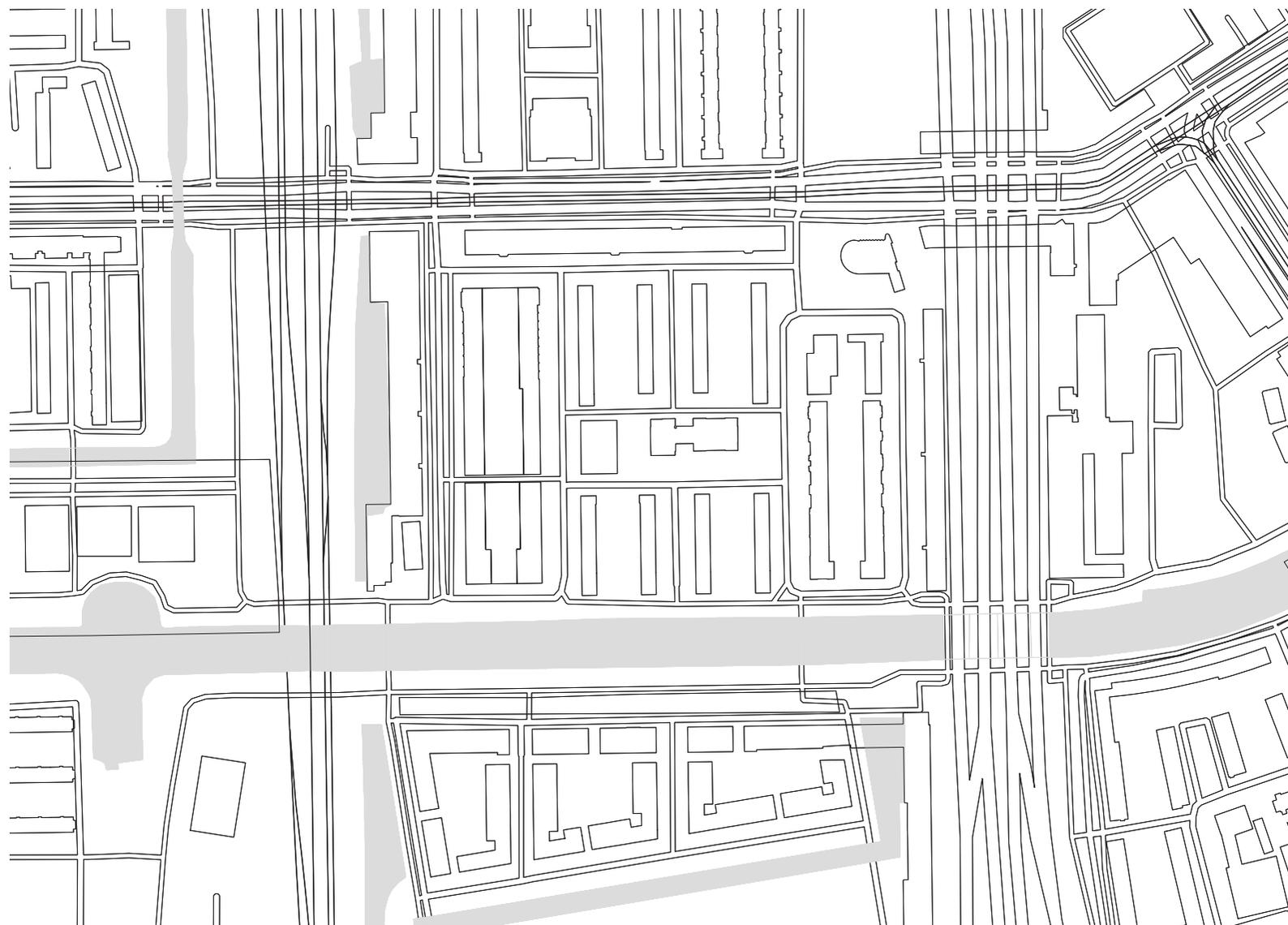
Sloterdijk Station
- the gateway con-
necting Sloterdijk
to the metropolitan
region of Randstad

Sloterdijk Center
- the region cen-
ter for culture and
leisure

Ringzone
- area between A10
and metro line form-
ing a high mobility
neighborhood

Sloterplas
- the water reservoir
with diverse water
activities

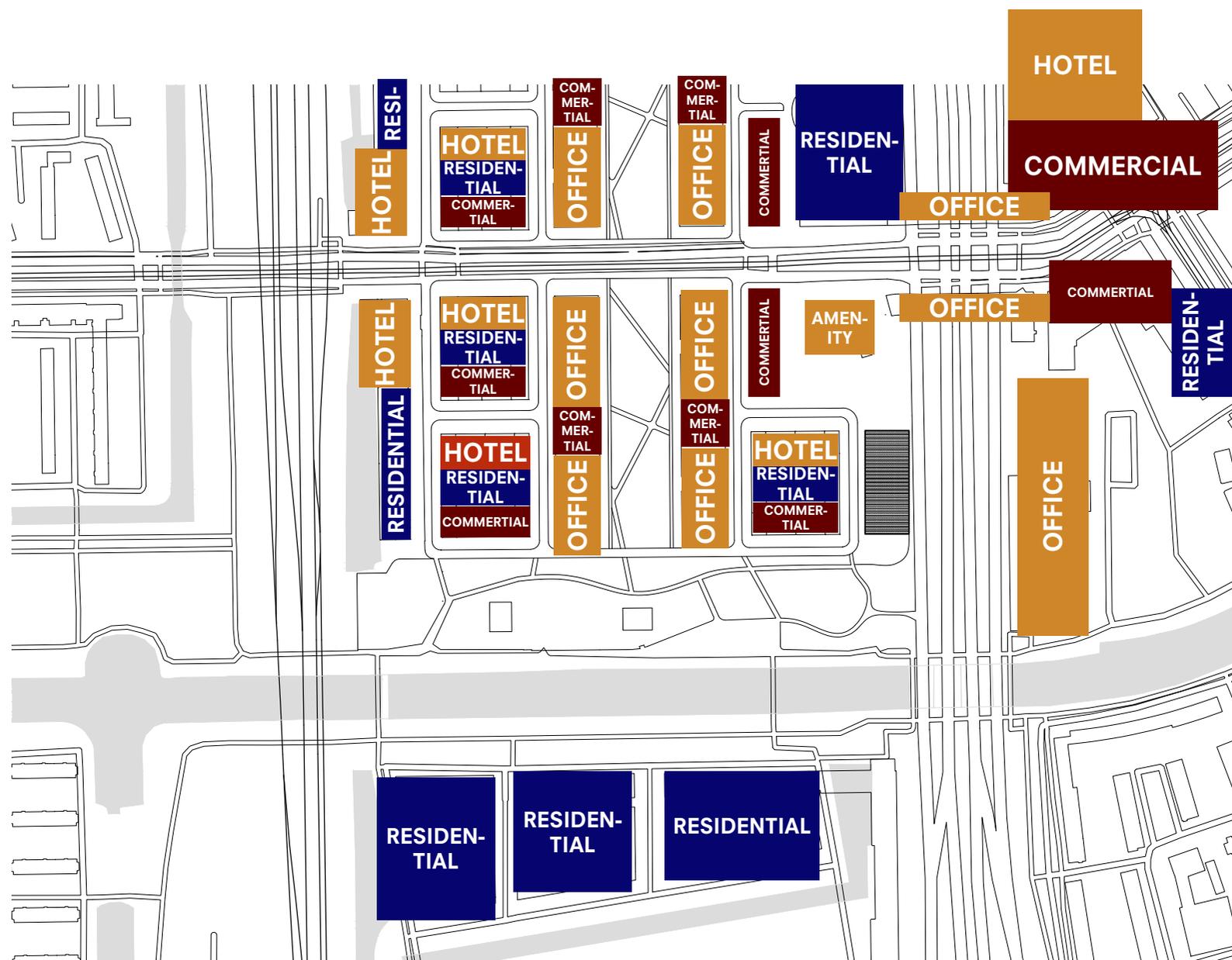




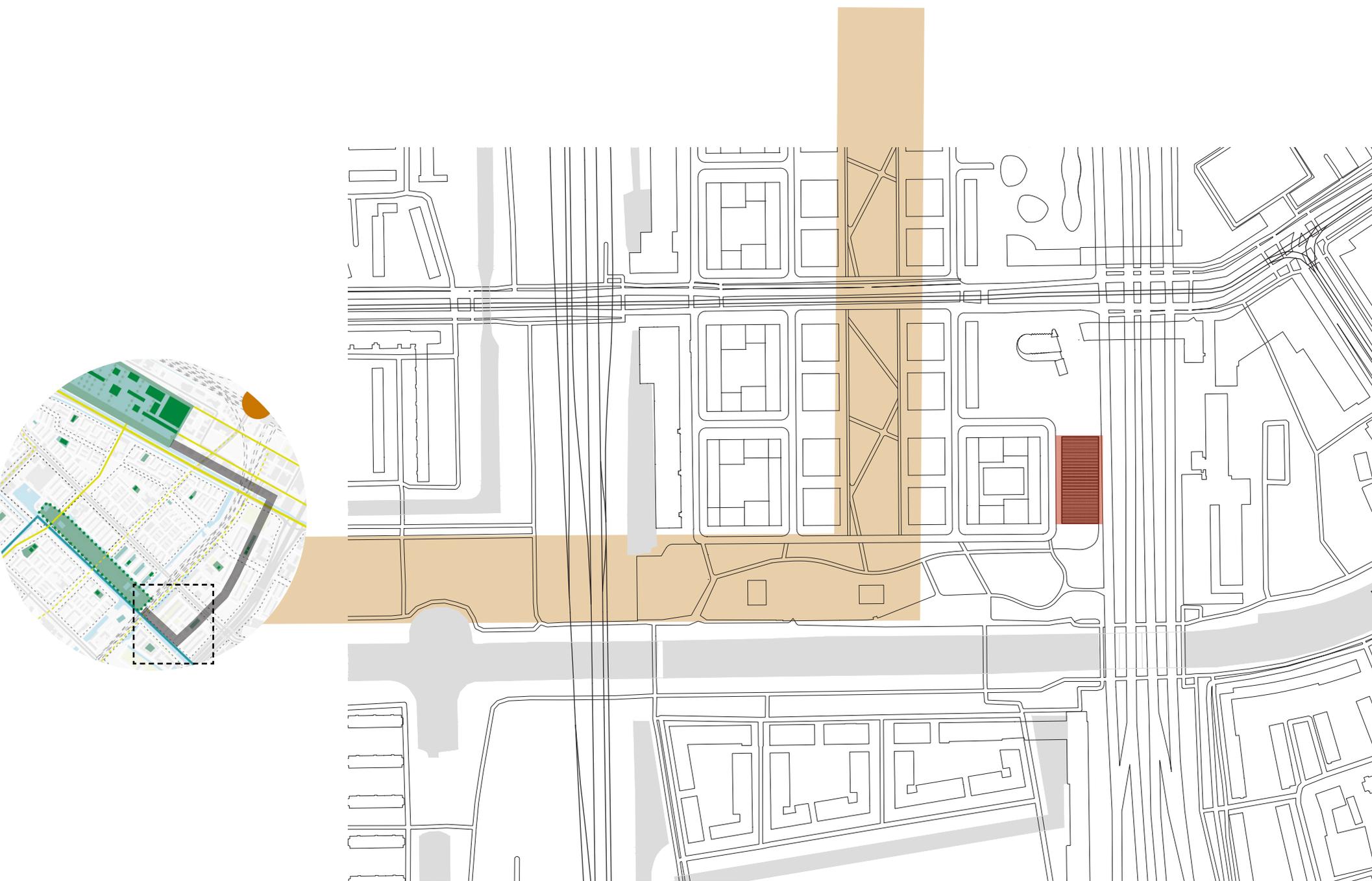
current situation



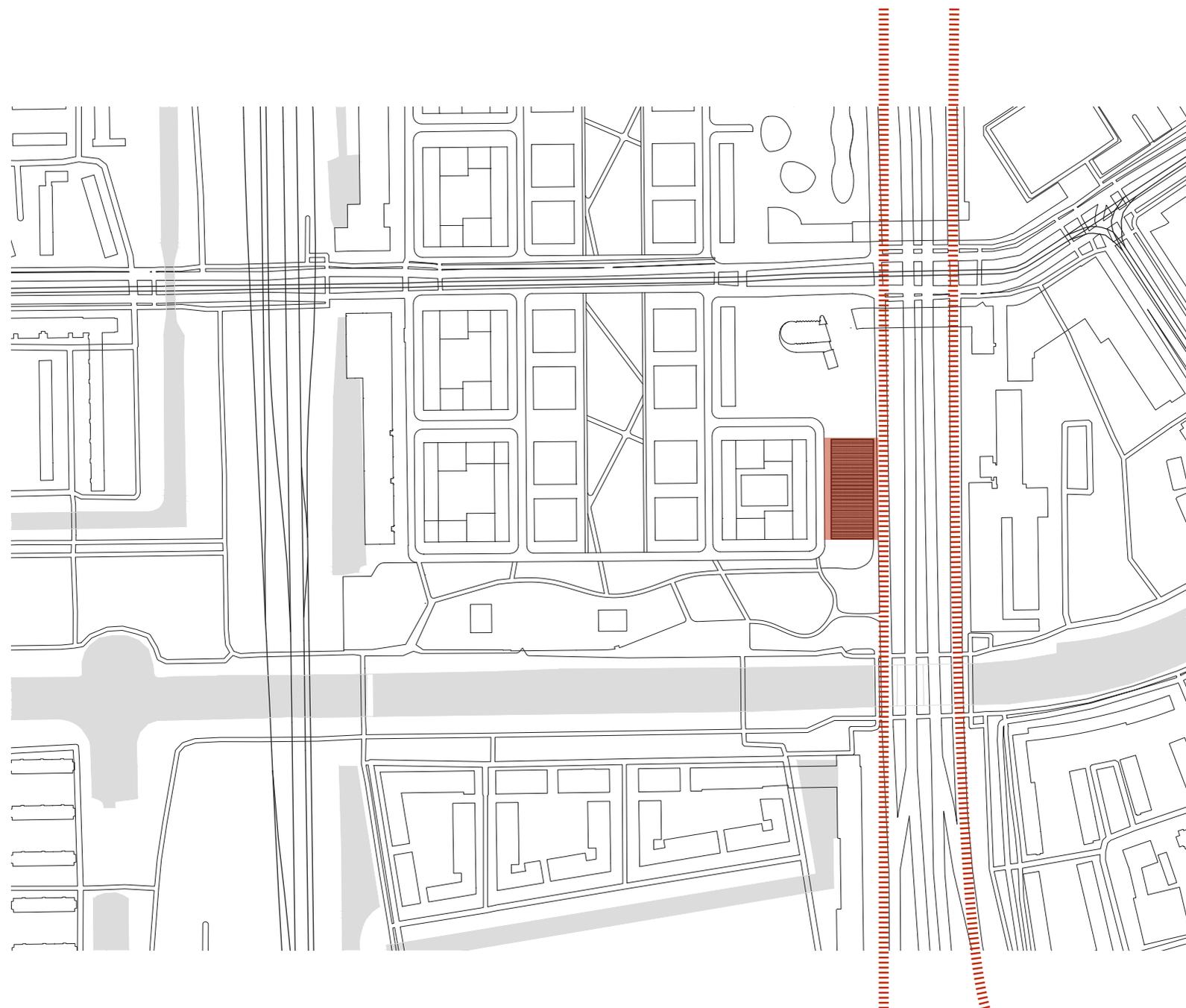
masterplan | demolishing and relocating



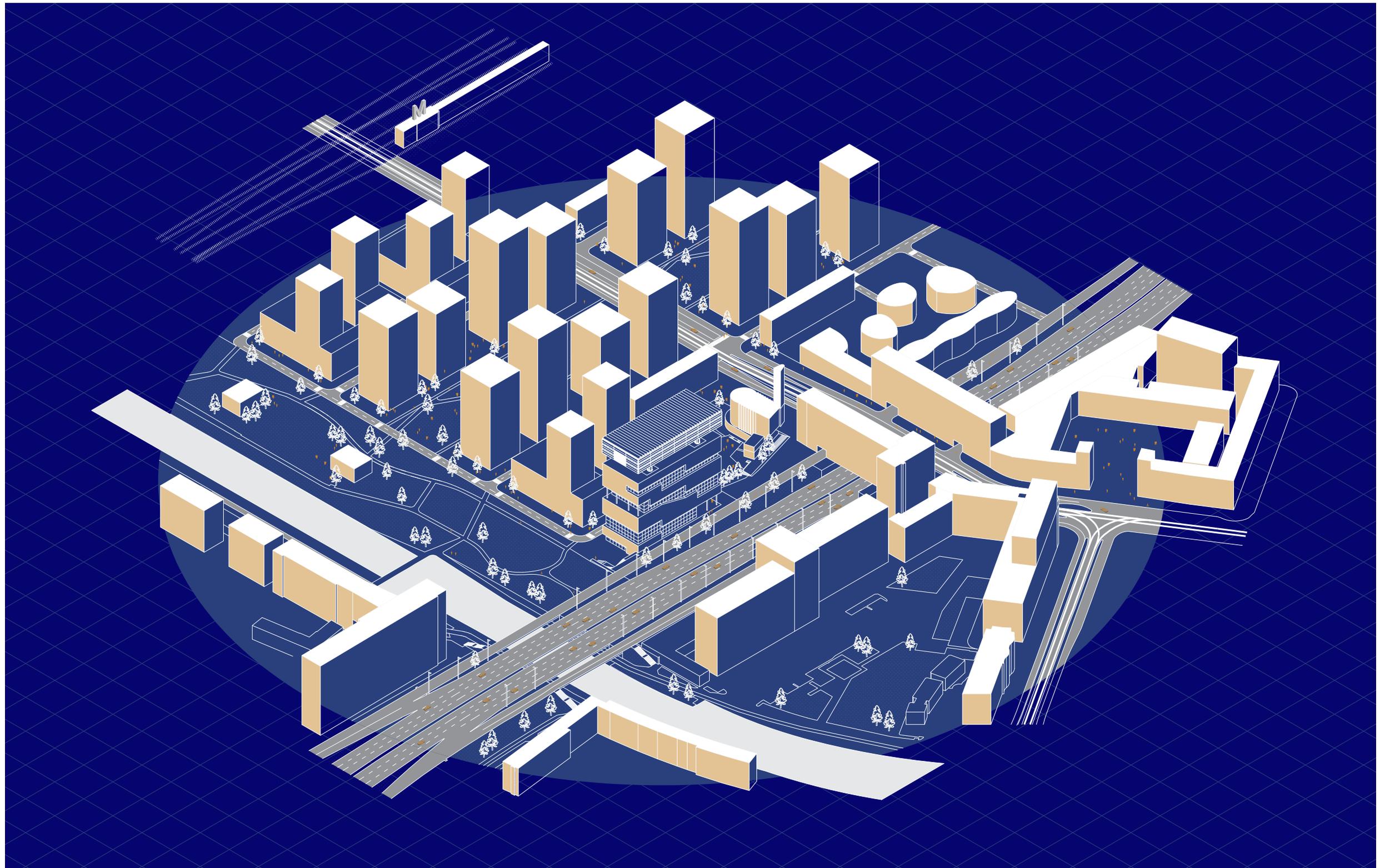
masterplan - building program in context



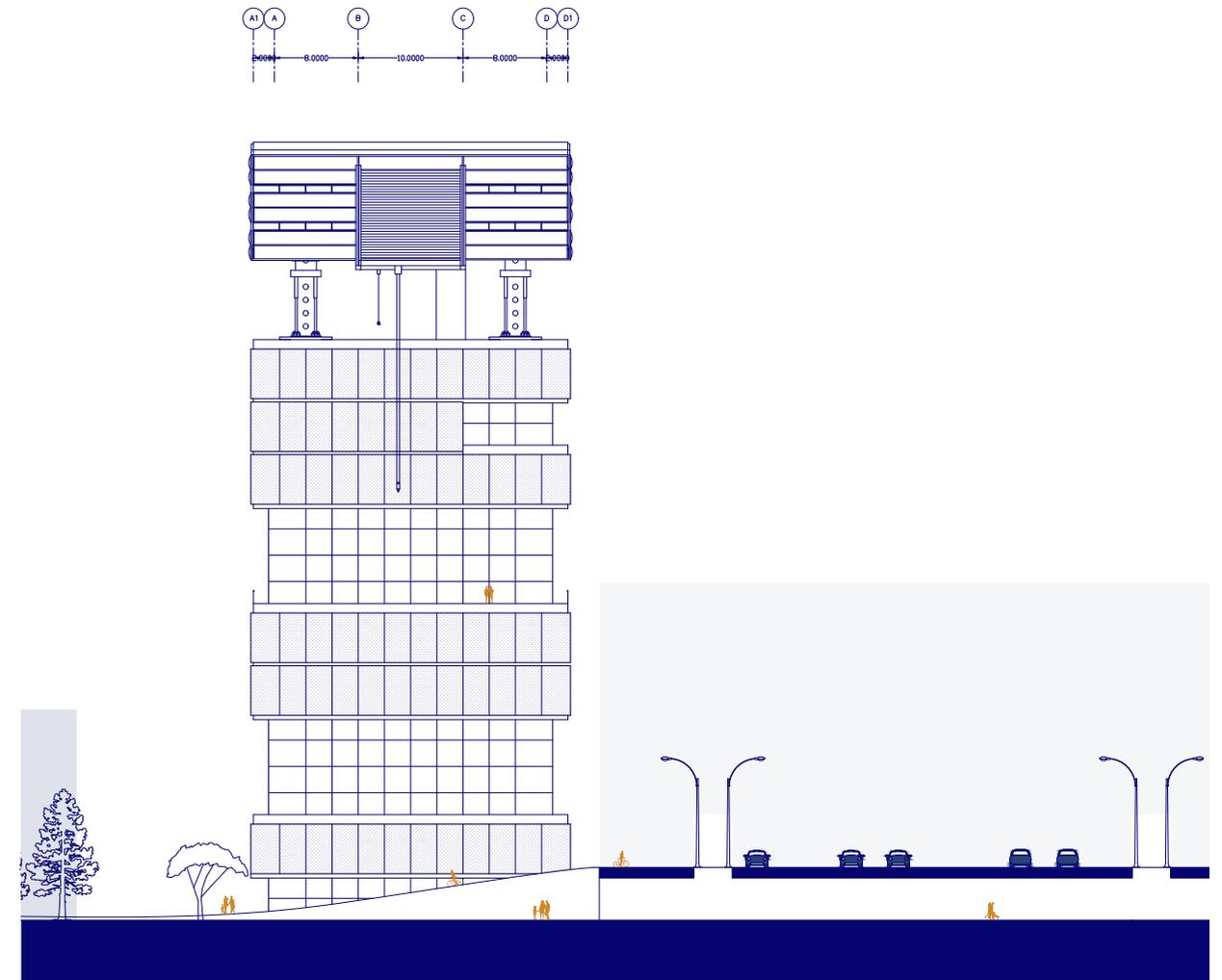
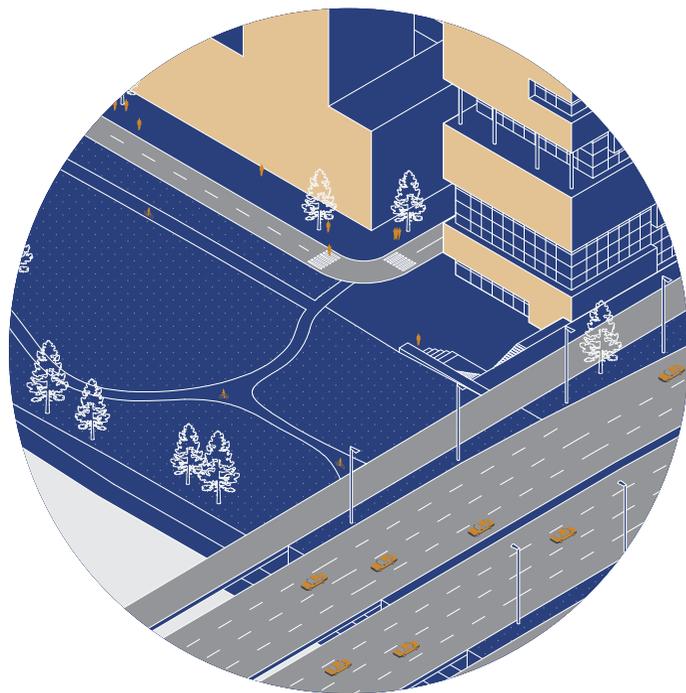
masterplan - creating public park in Ringzone



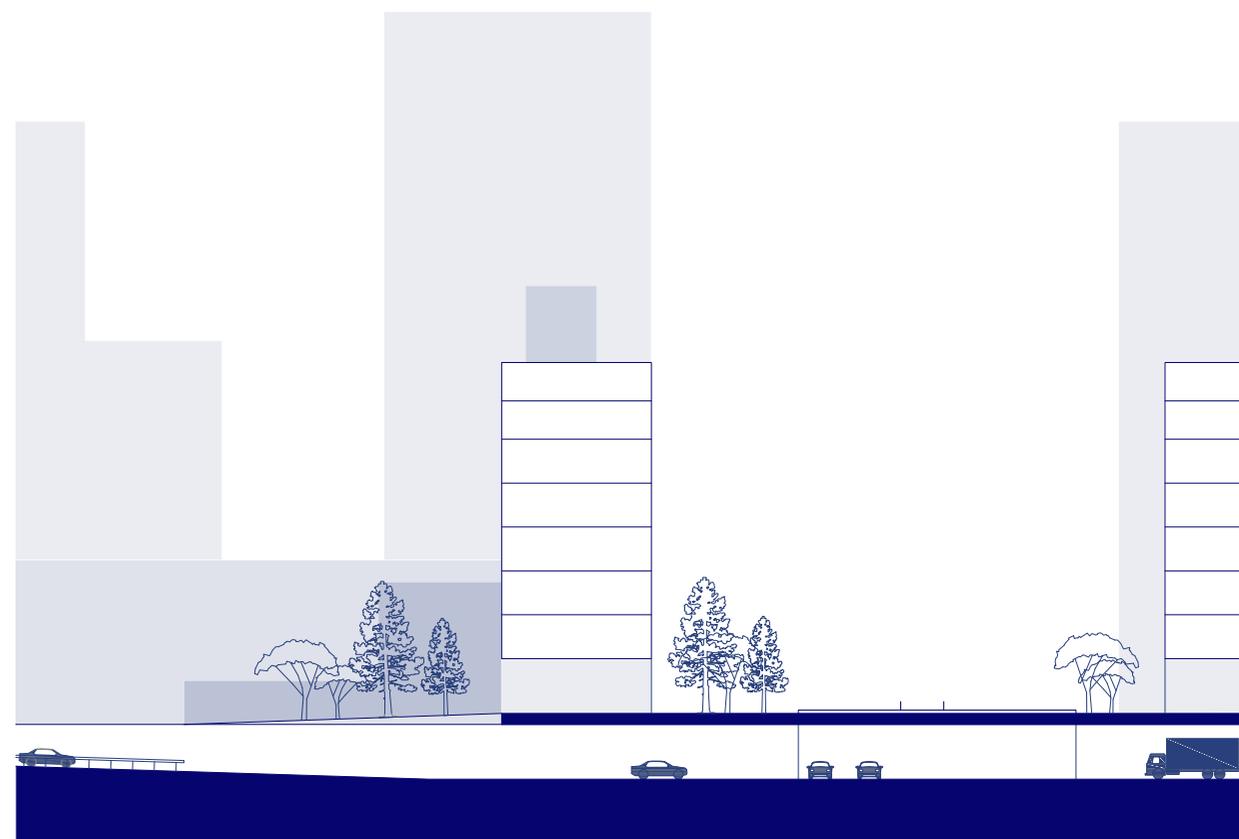
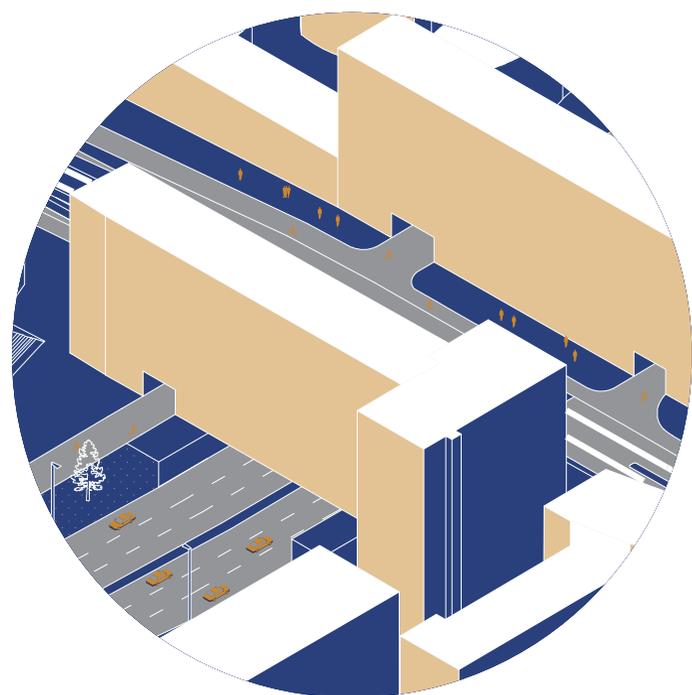
masterplan - changing bypass to cycling highway



masterplan - building program in context

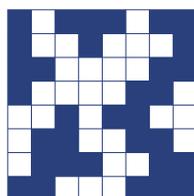
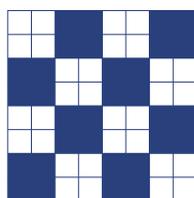
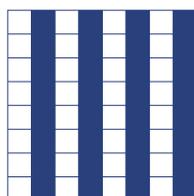
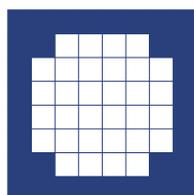


masterplan - building program in context

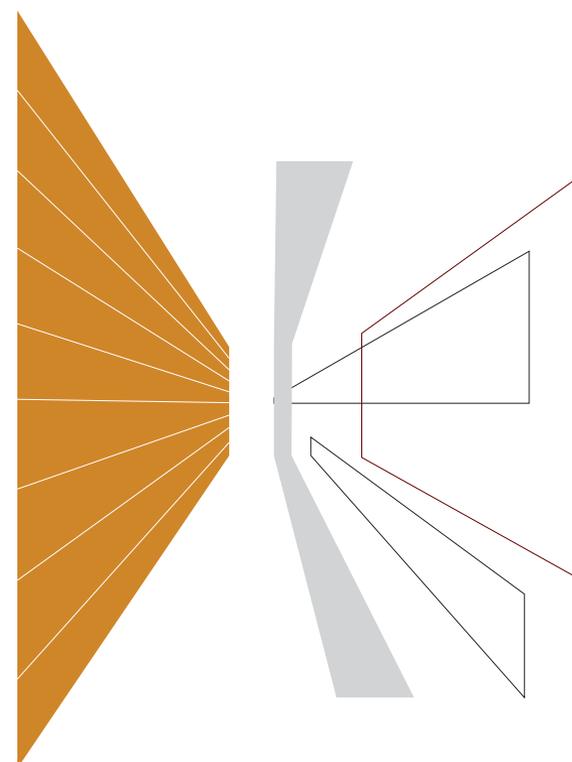
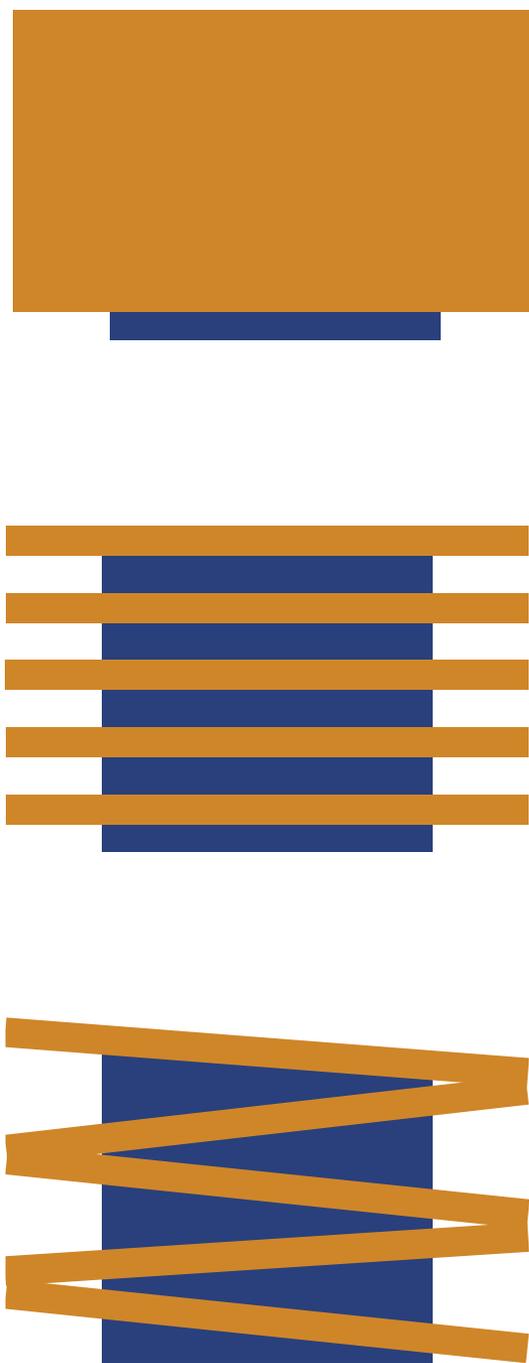


masterplan - building program in context

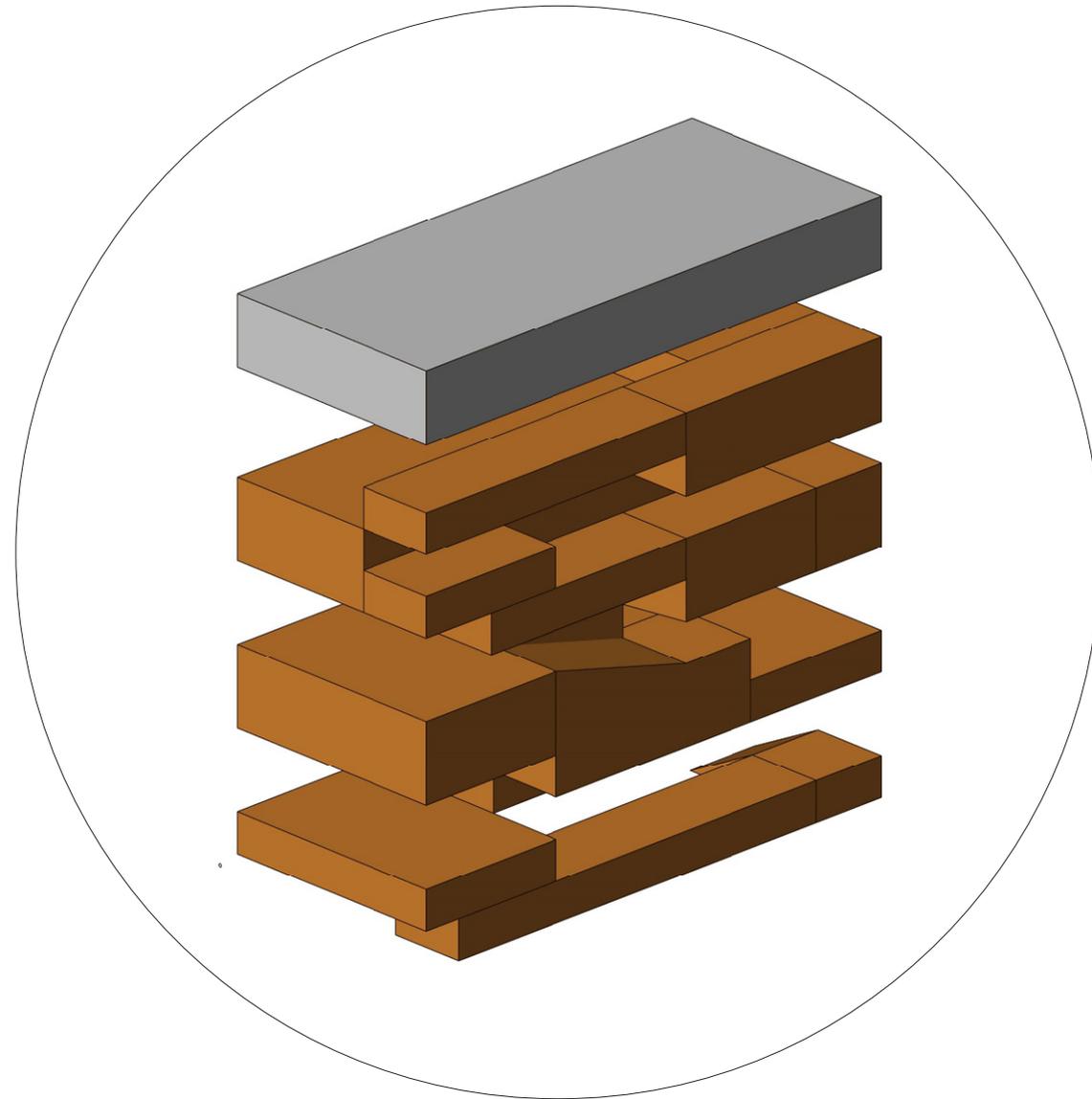
DESIGN REALIZATION



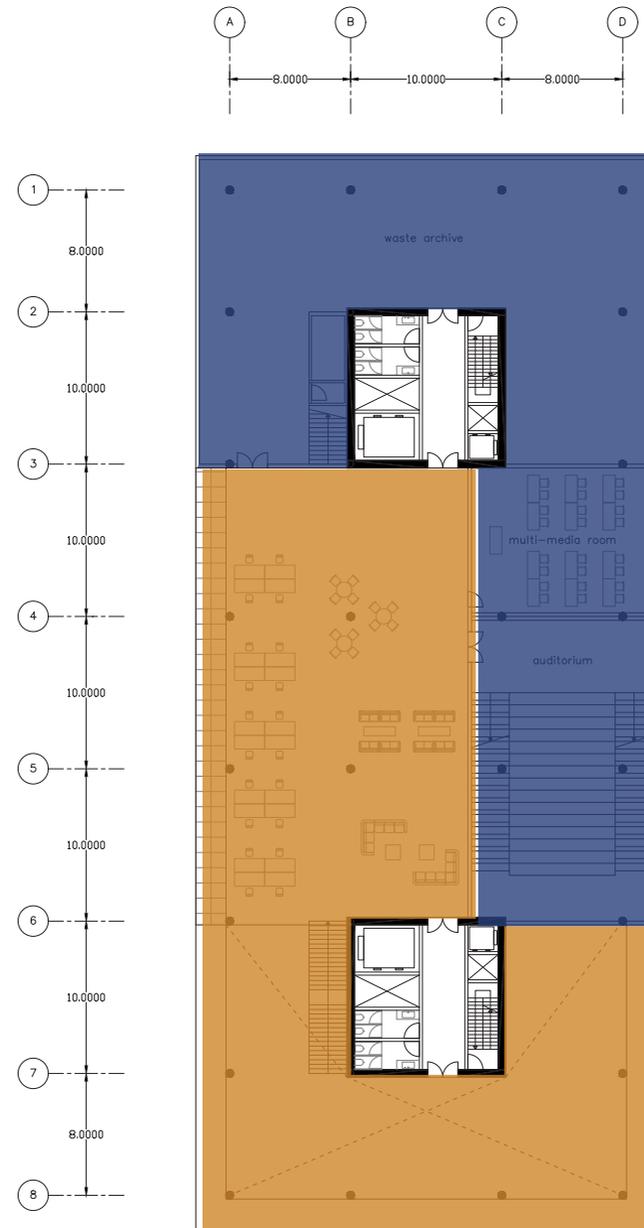
concept study - massing model



articulation of border interface



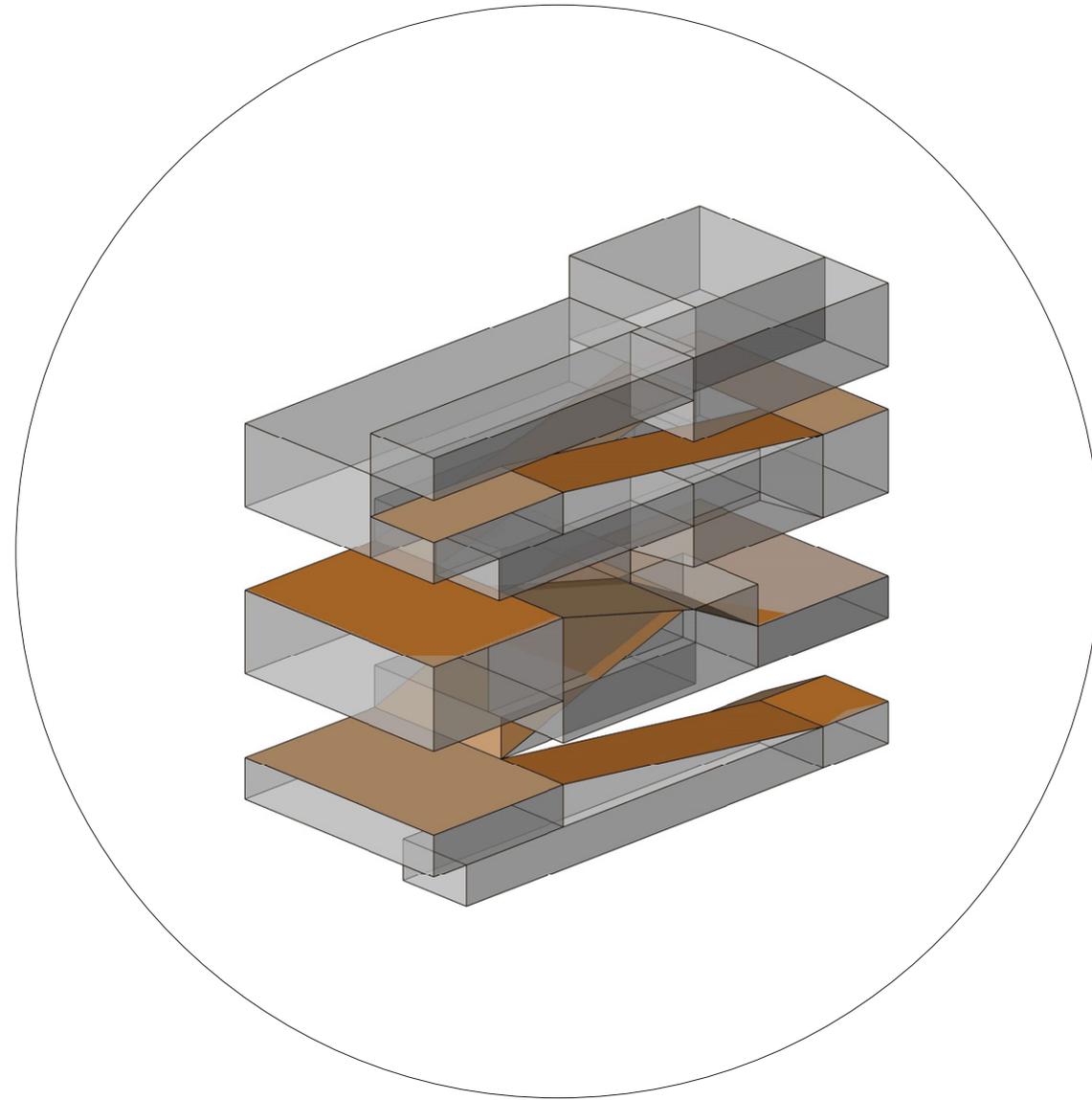
space organization - porous arrangement of program blocks



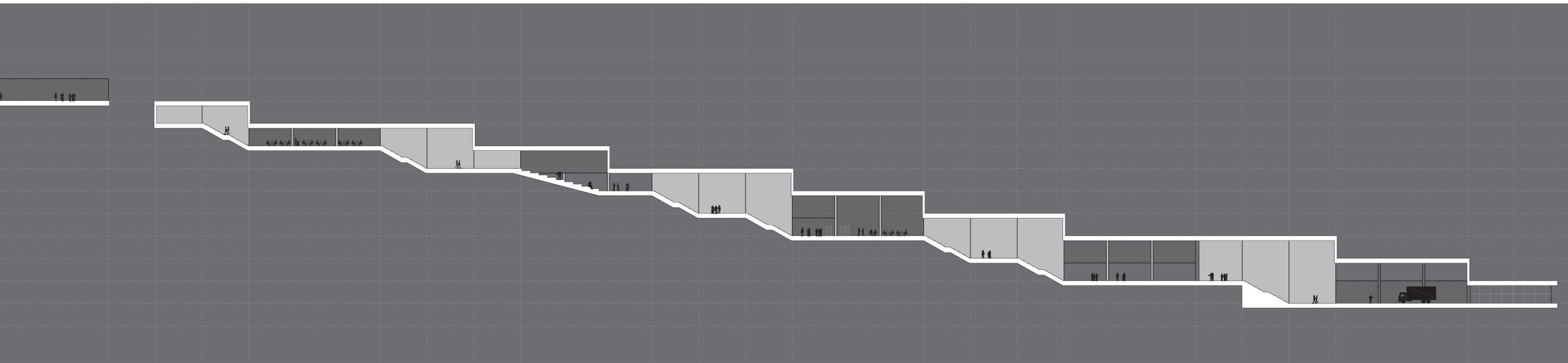
space approach | typical configuration of solid and void space



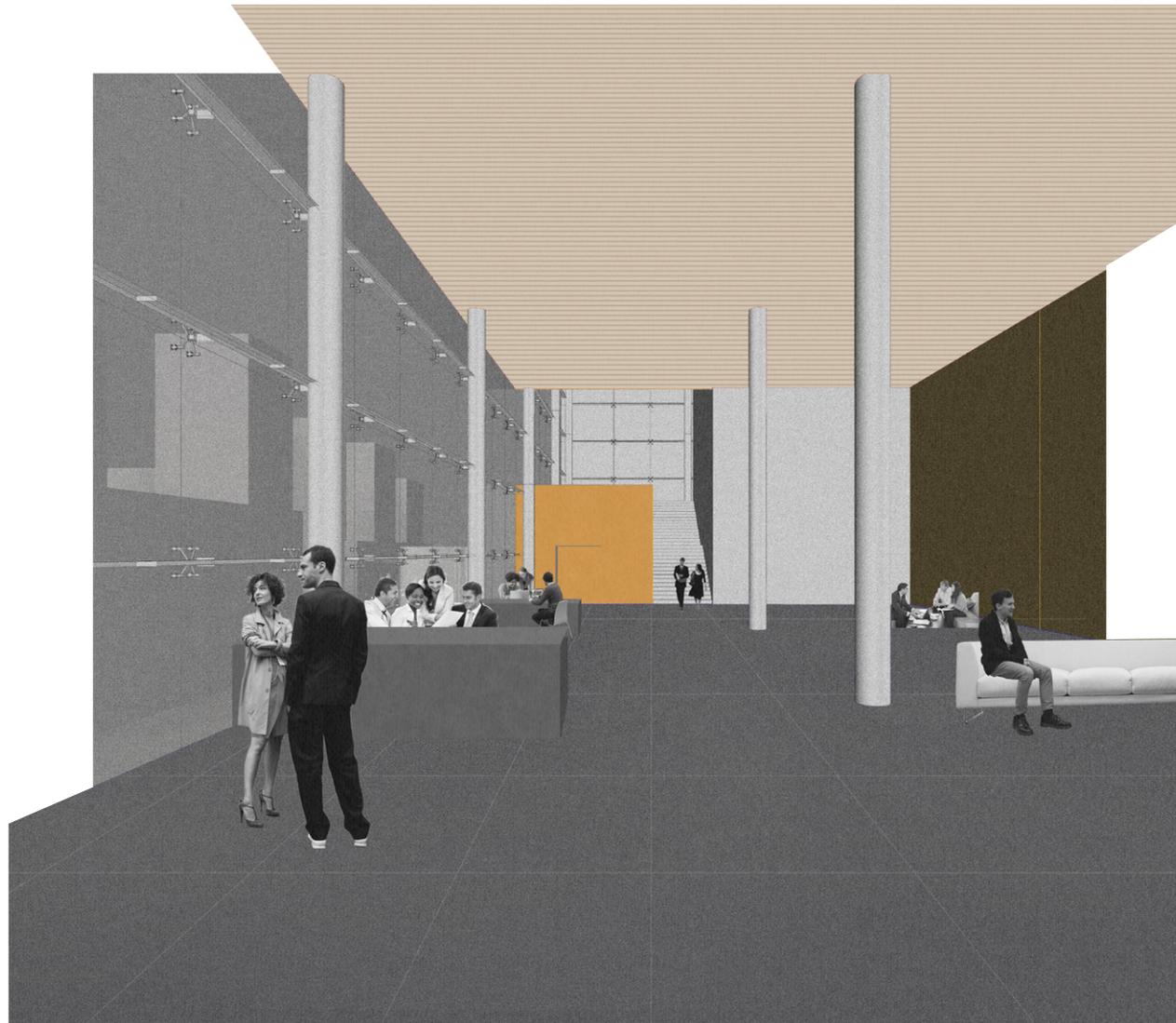
space approach | shift stacked program creates interesting solid and void spatial quality



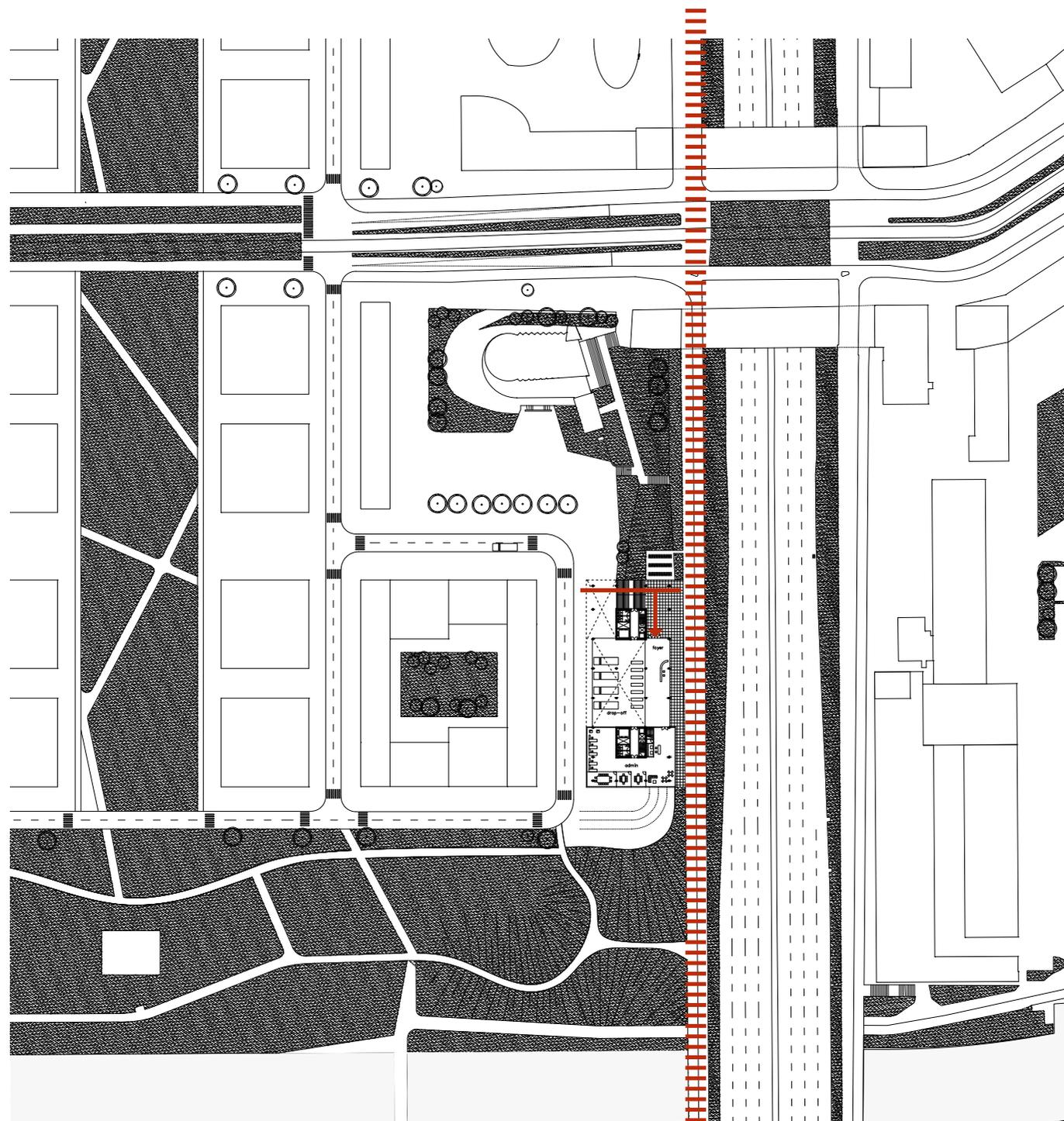
space organization - continuous flow of semi-public space



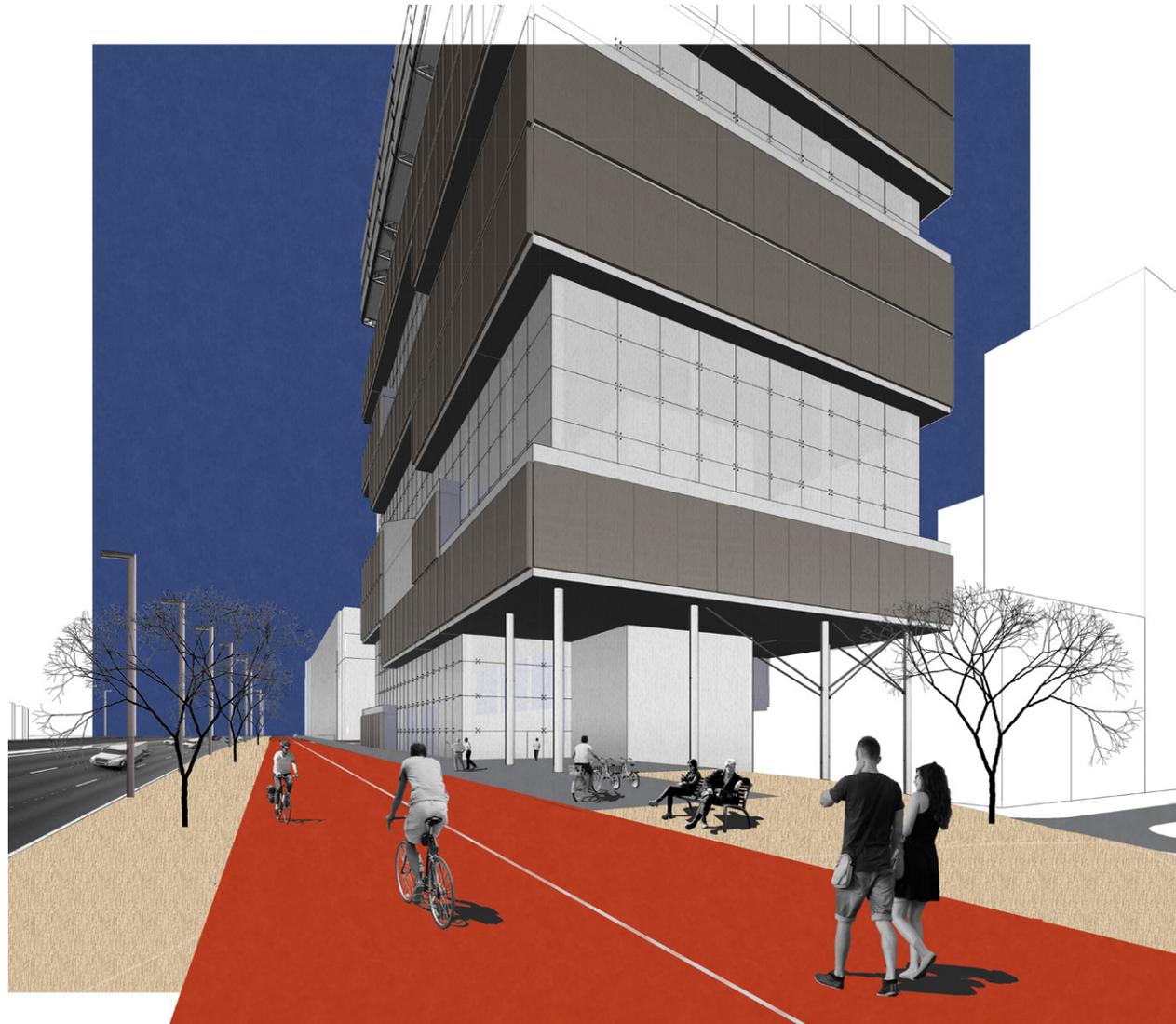
space approach | unfolded section of continuous circulation flow



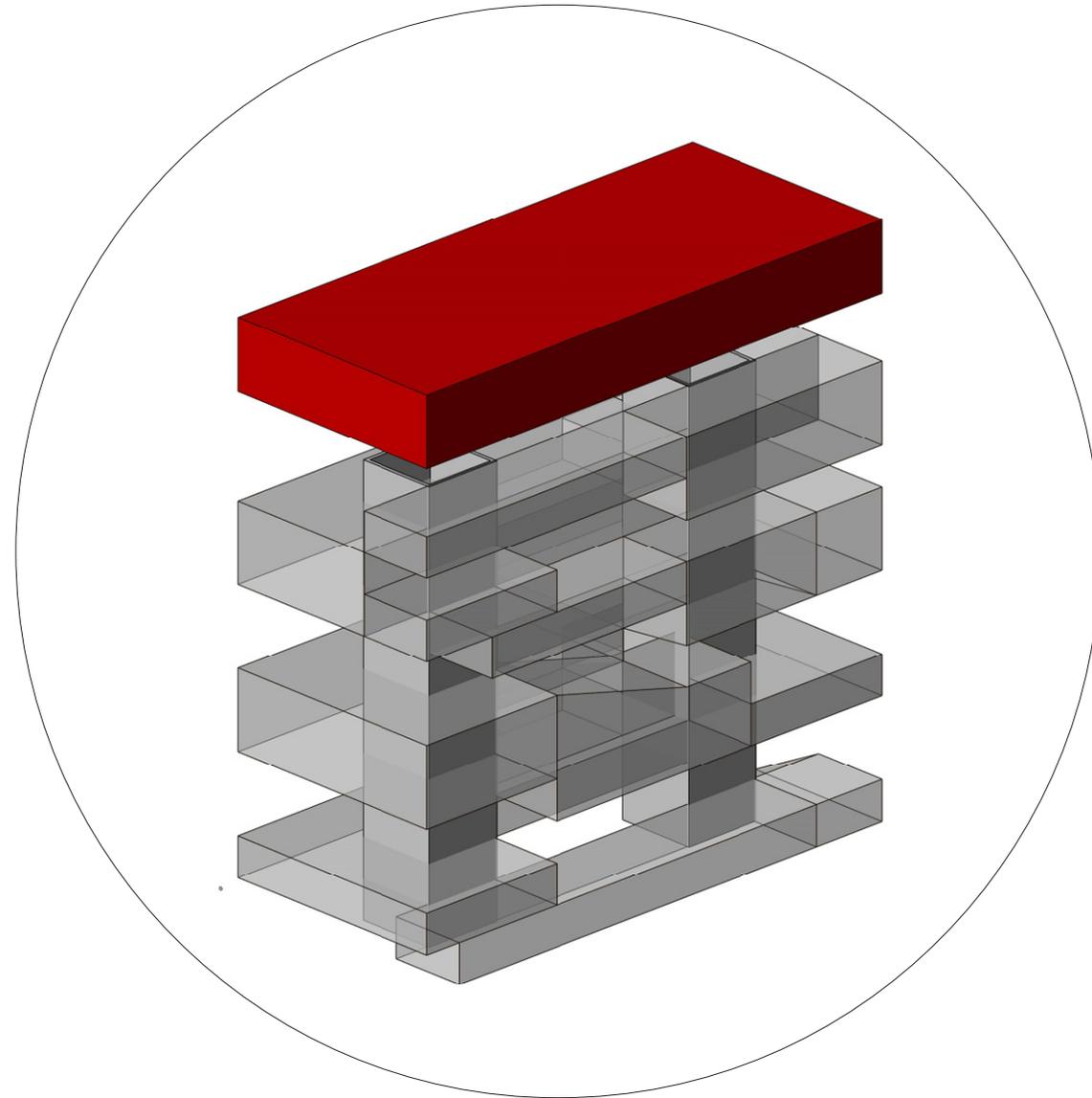
space approach | unfolded section of continous circulation flow



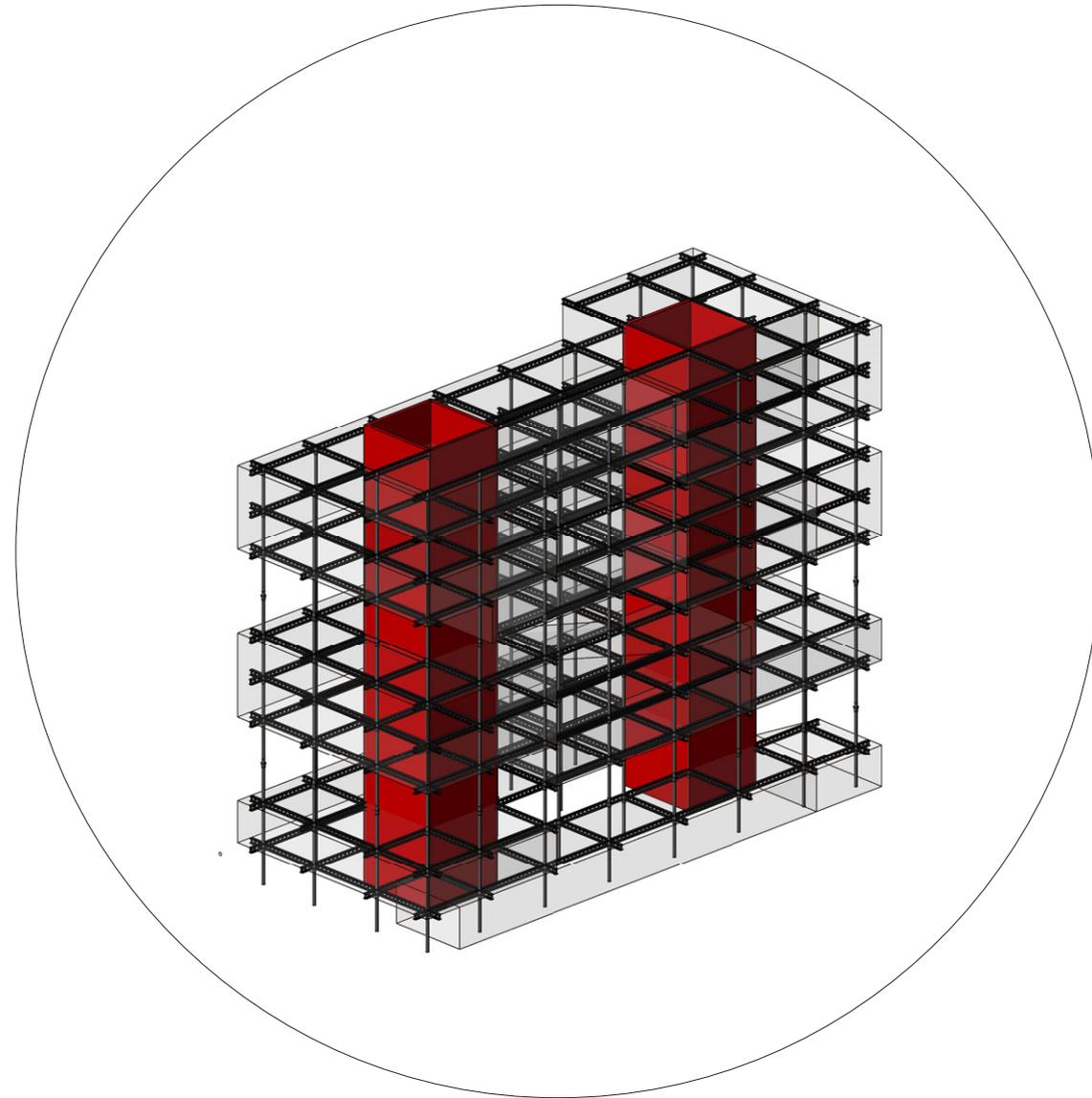
site approach | ground floor pedestrian access from east side facing A10



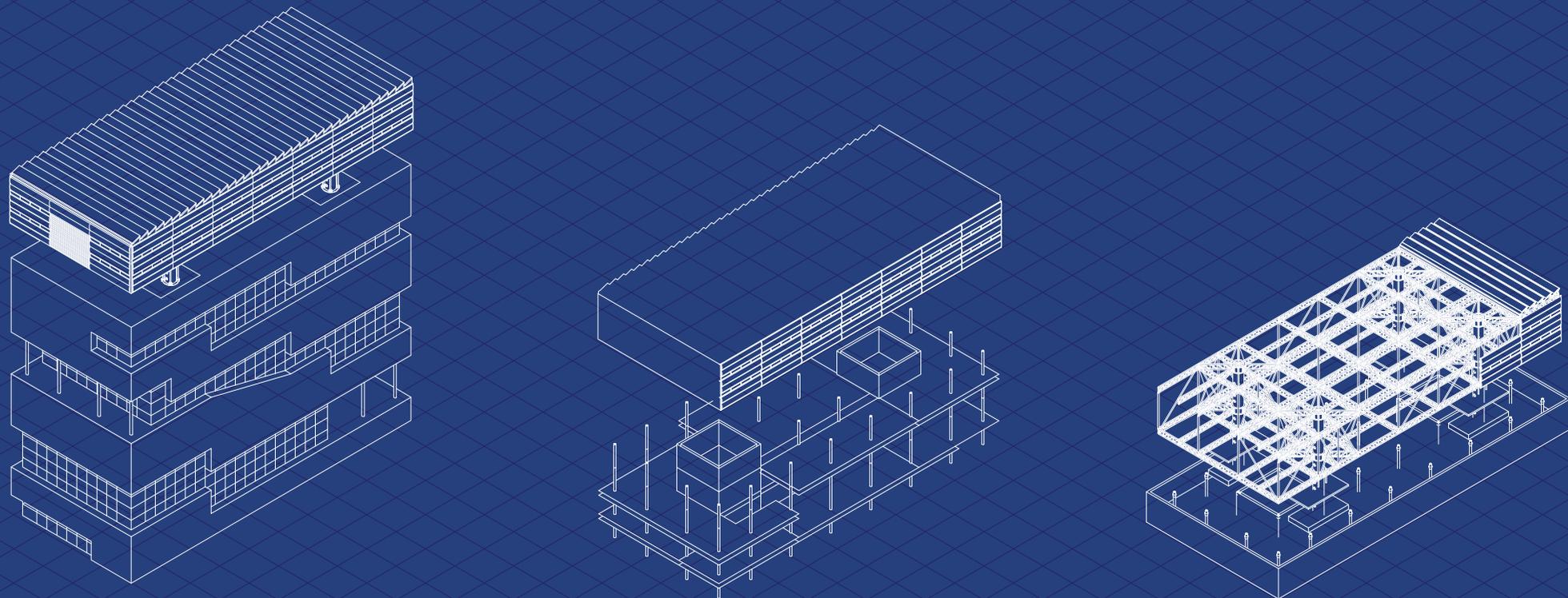
site approach | a vibrant frontage of bicycle highway along A10



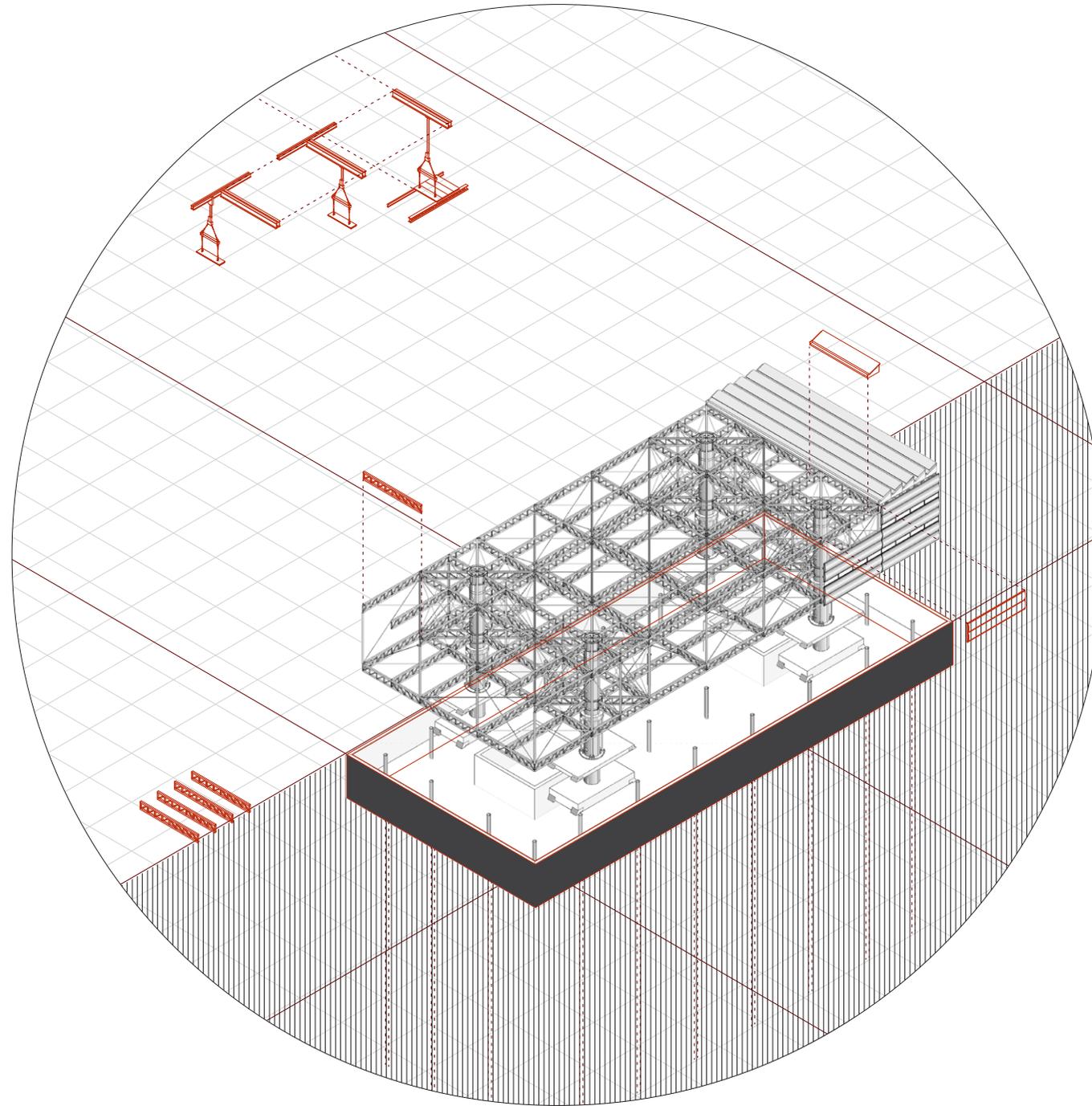
space organization - fabrication platform on top



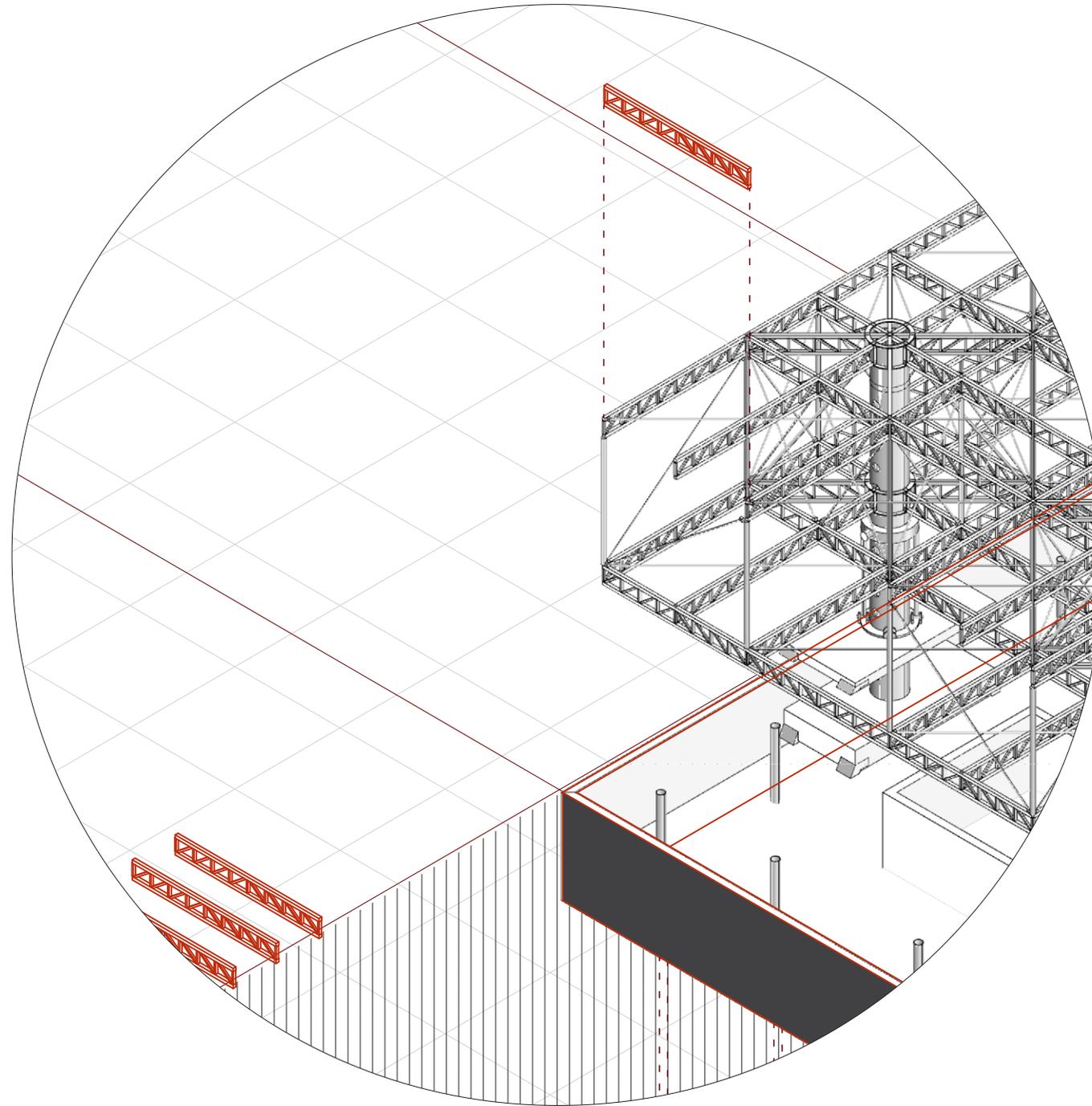
space organization - structure grid and core



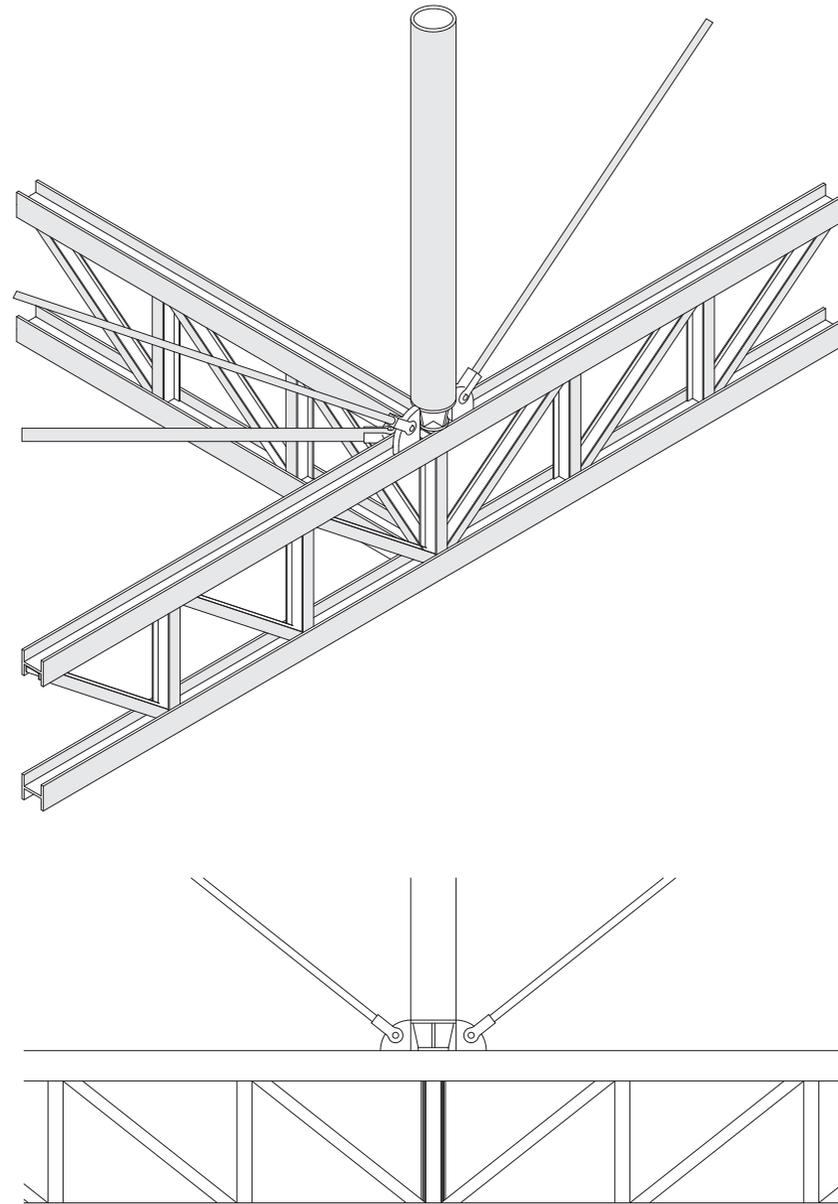
self-construction process



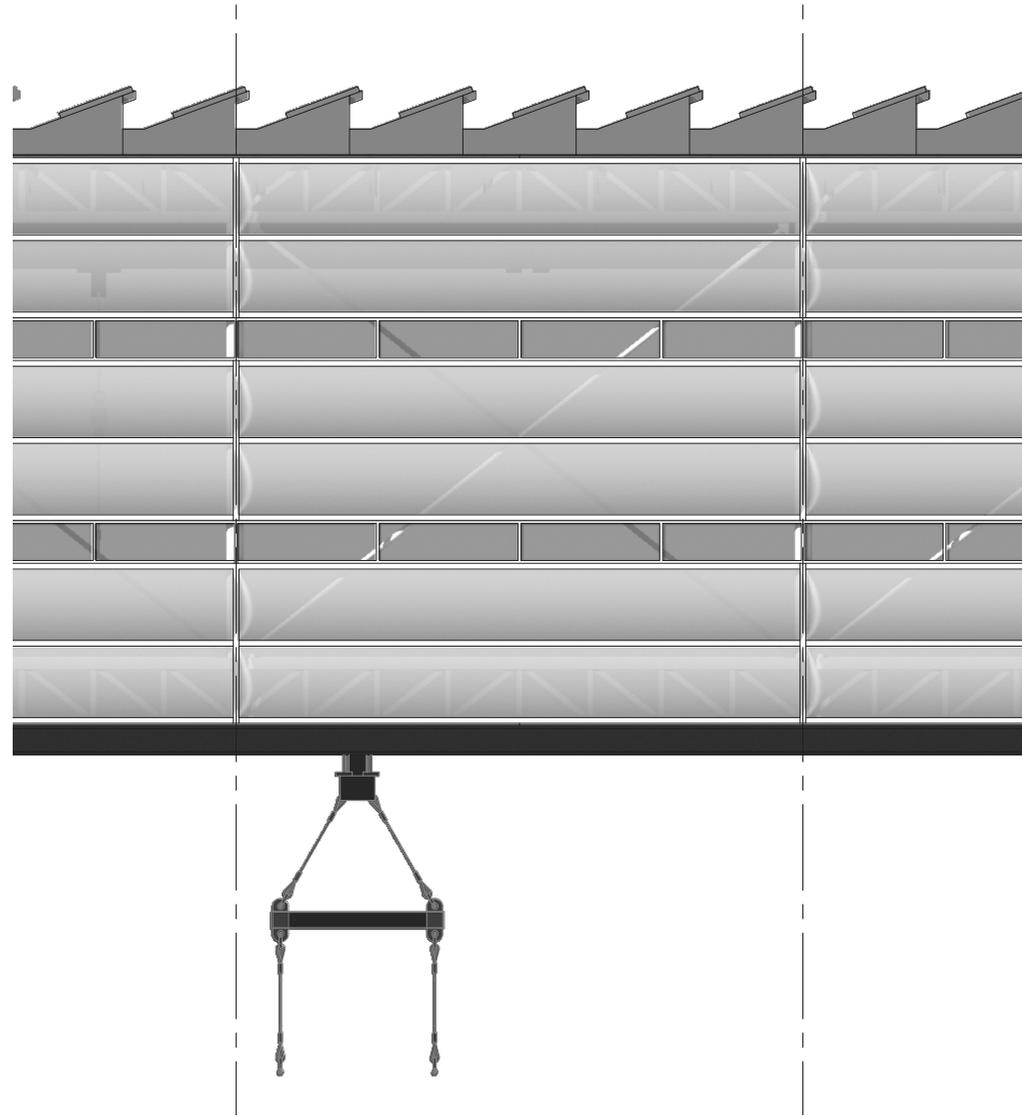
construction illustration - assembly of fabrication platform



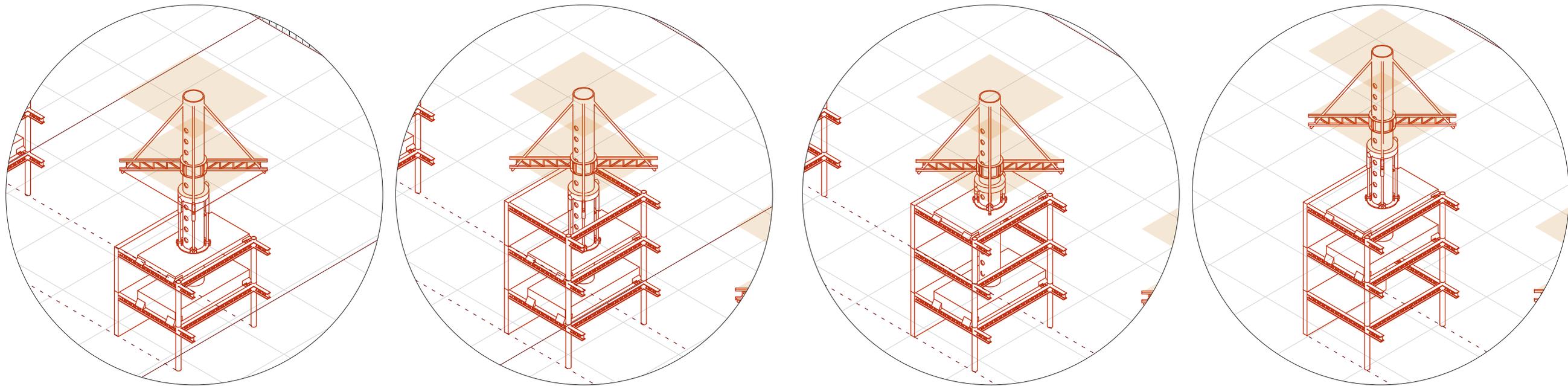
construction illustration - installing of platform lattice beam



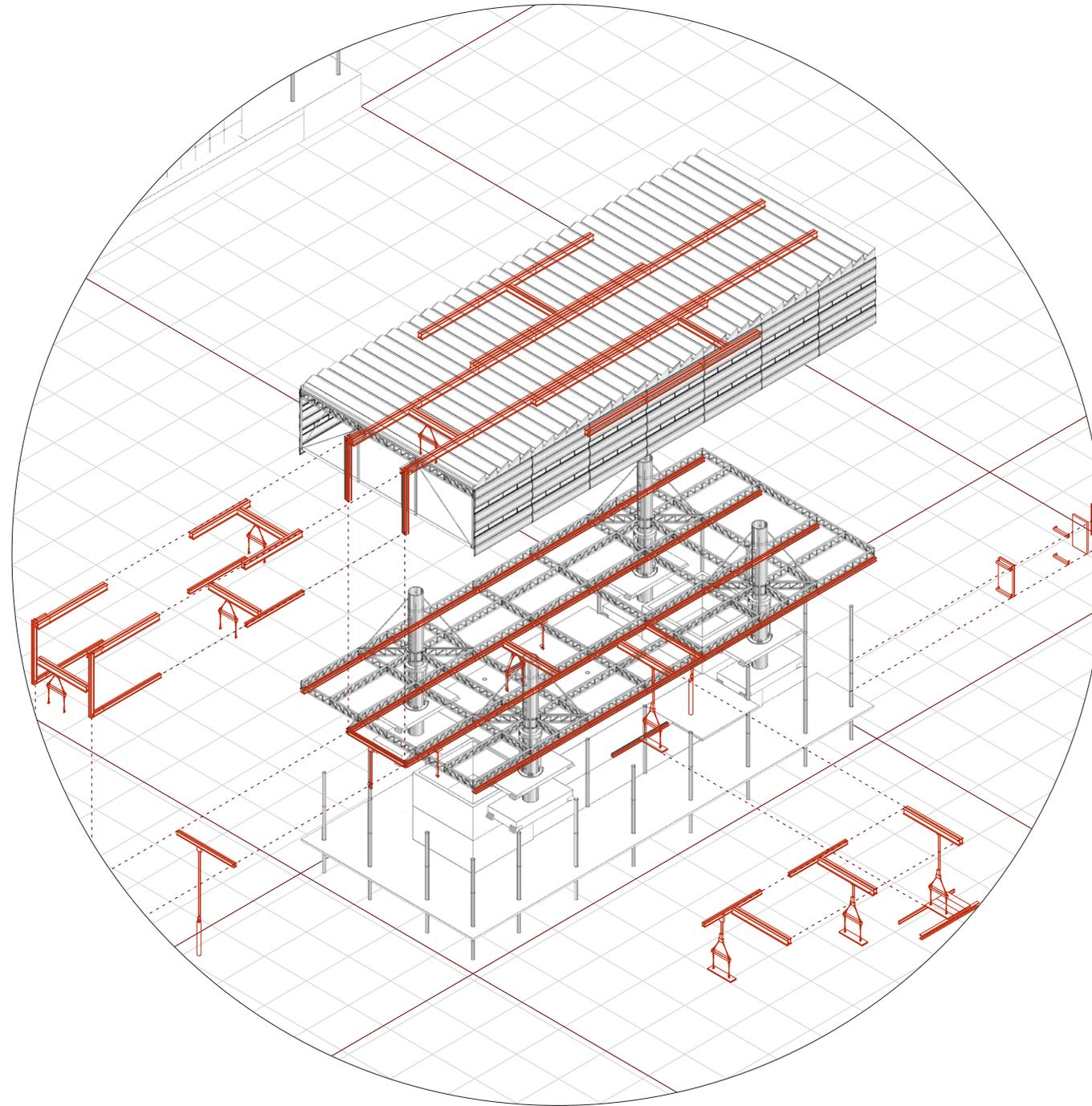
platform lattice beam beam



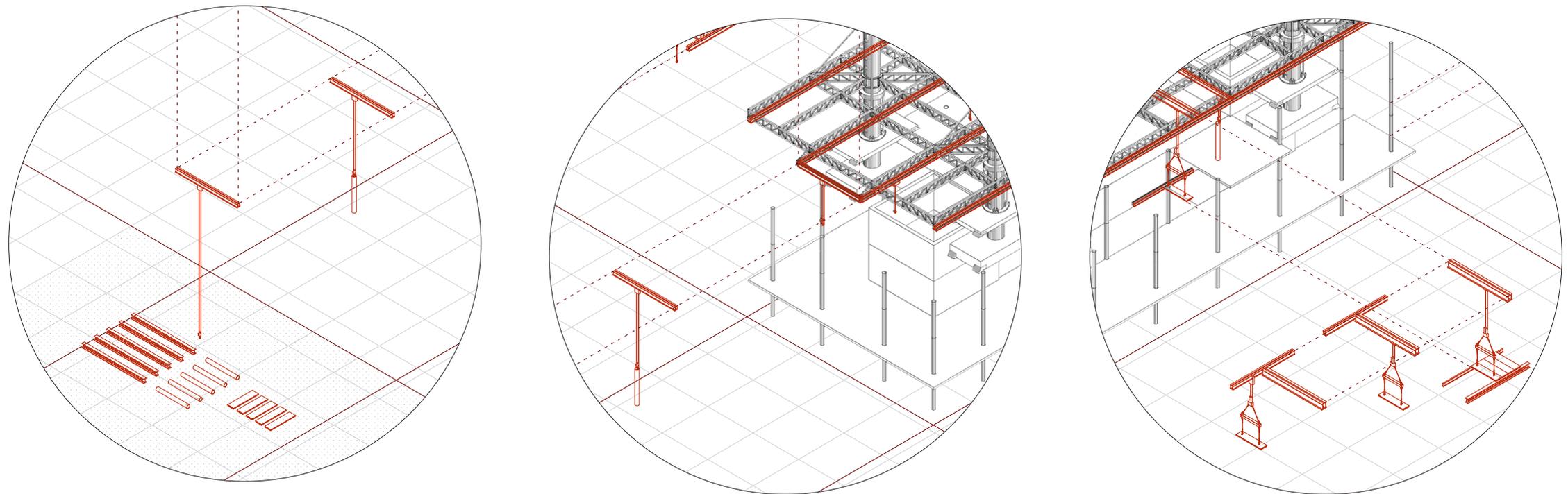
platform facade of light materials



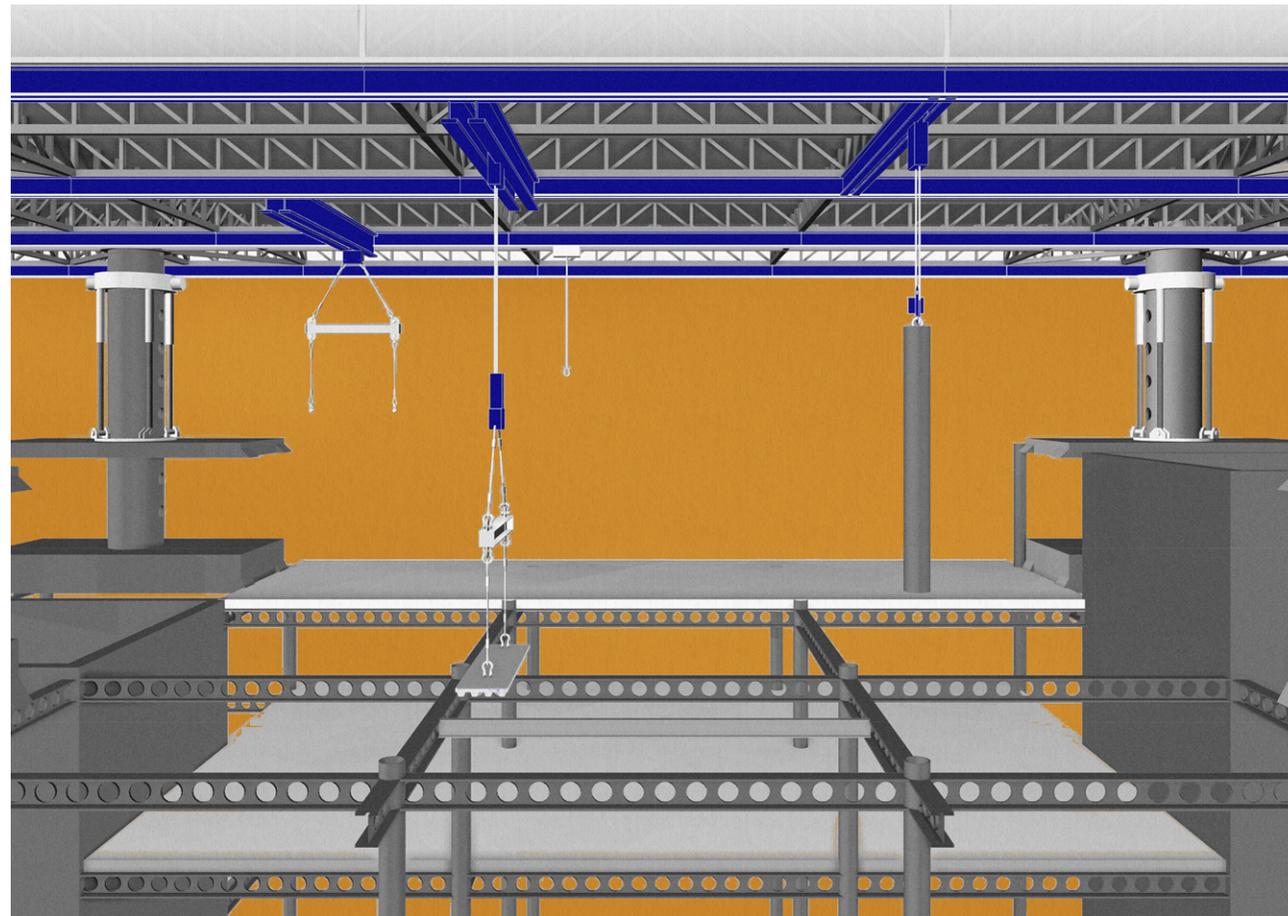
construction illustration - jacking up platform



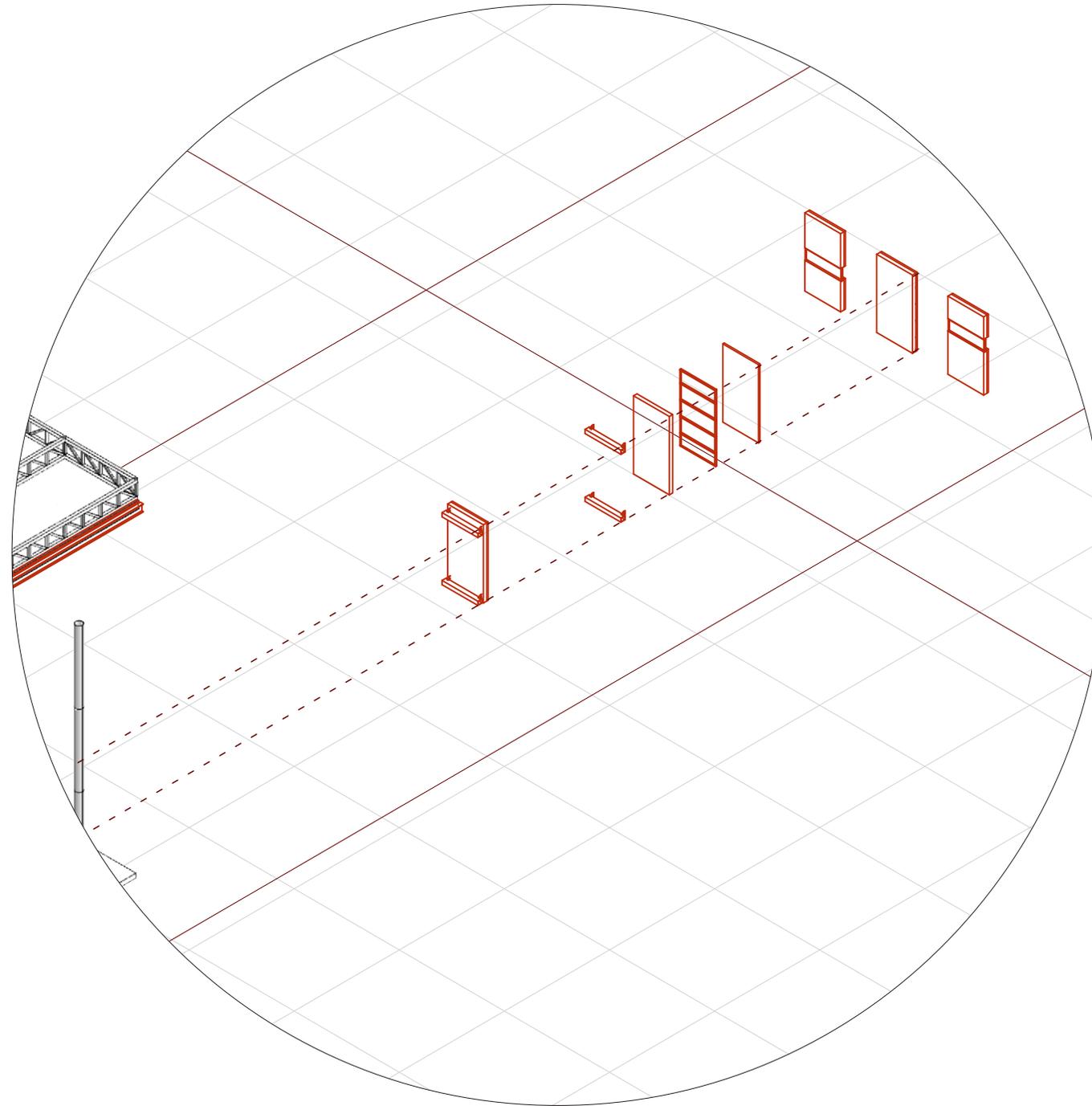
construction illustration - platform constructing structure below



construction illustration - delivering columns and beams



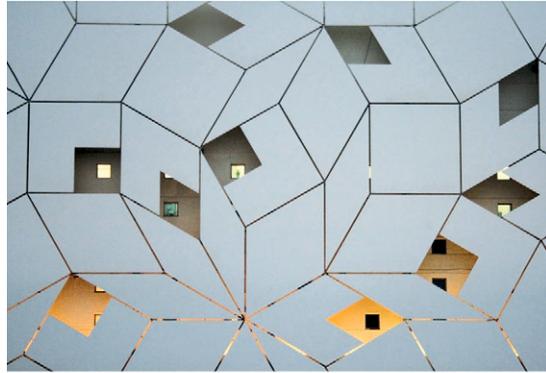
construction illustration - installing structure members



construction illustration - installing prefabricated facadepanel



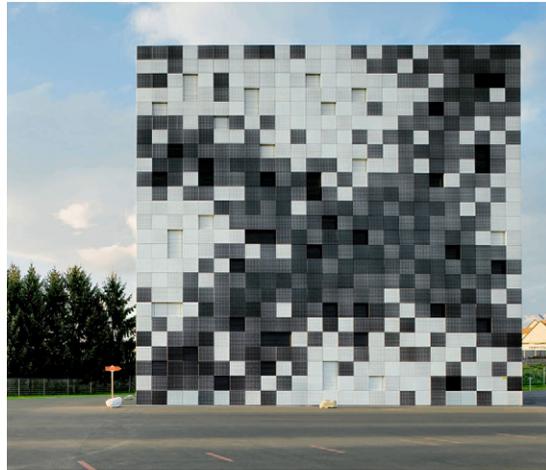
an digital fabrication platform to manufacture facade of building



The aperiodic tiling pattern wraps the building as a continuous yet differentiated field.
Apertures in the facade's tiling system closely correspond to the building's windows behind.

Basel Arts and Sciences College

STACKED/TILED 1

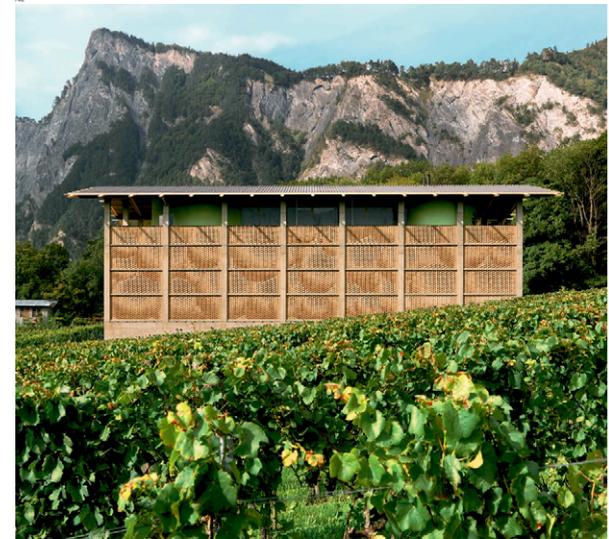


ing Queen

APPLIED

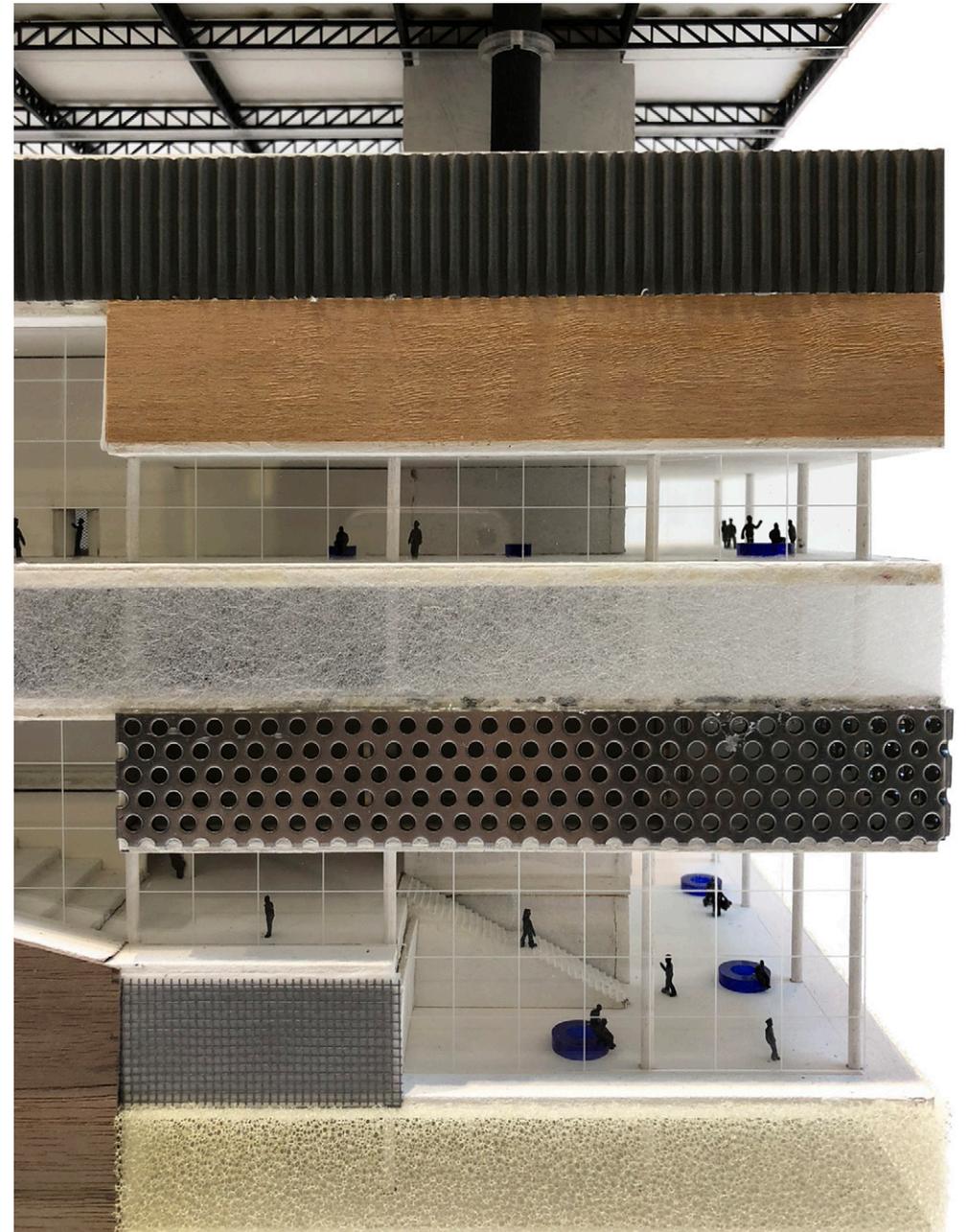
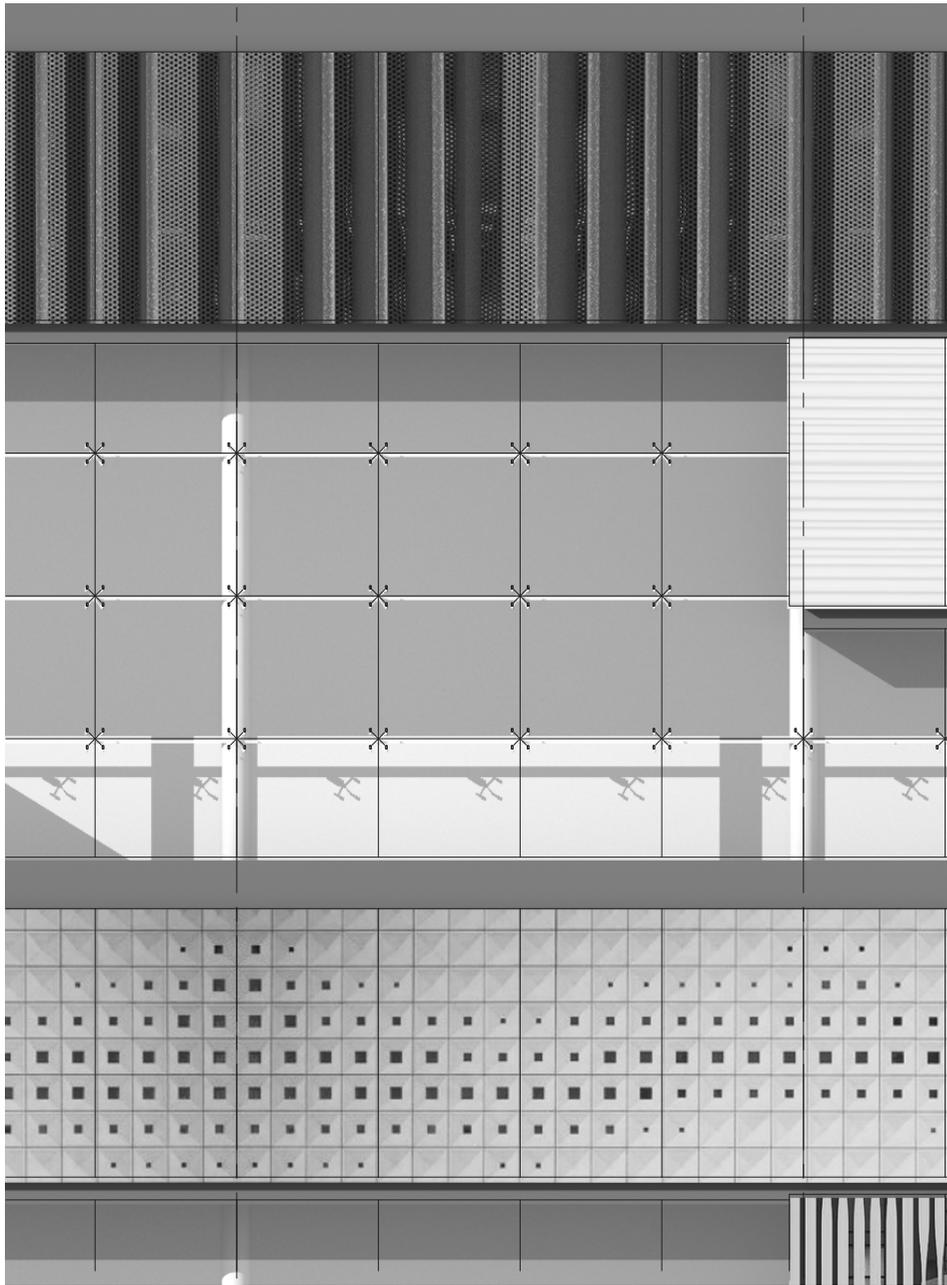


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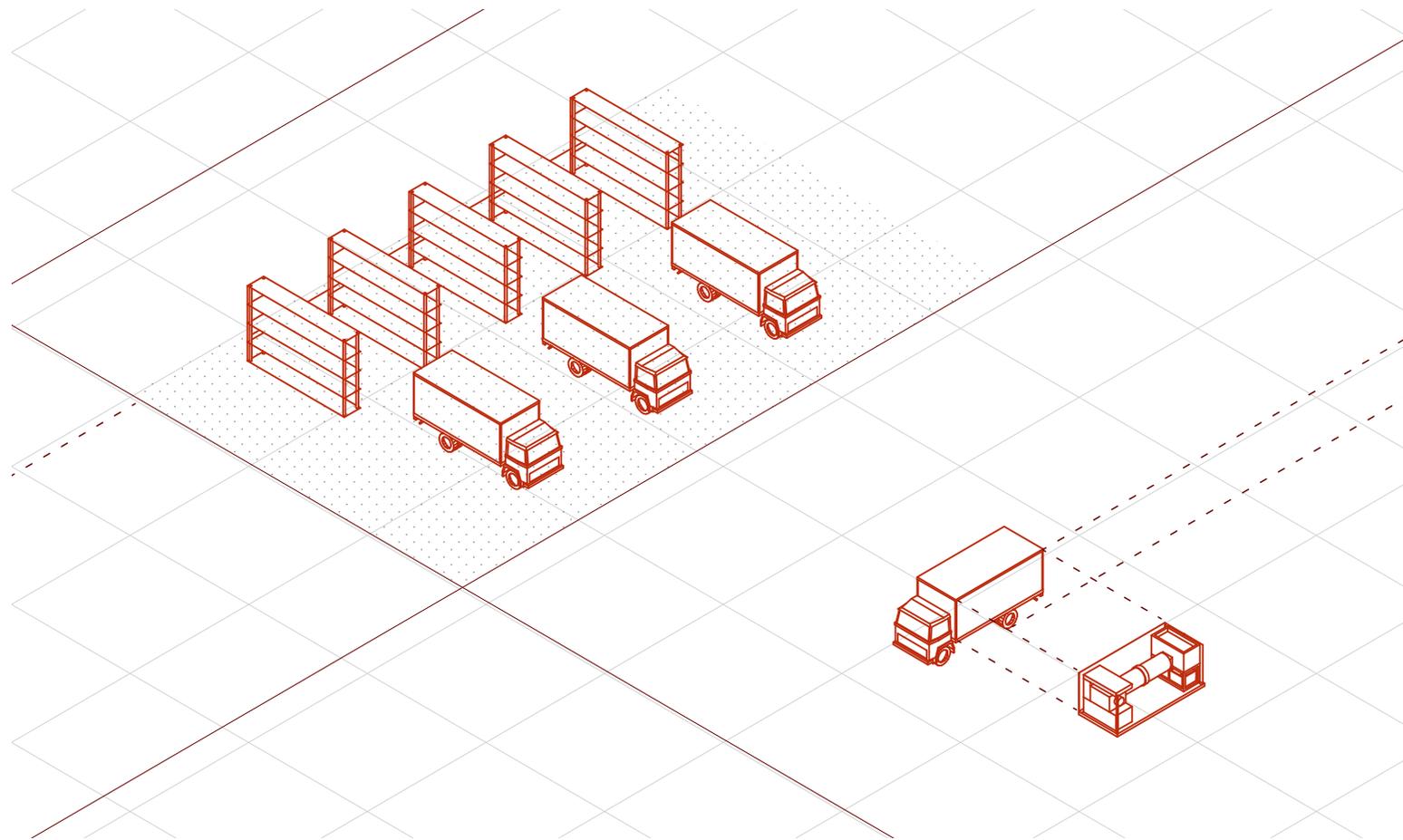


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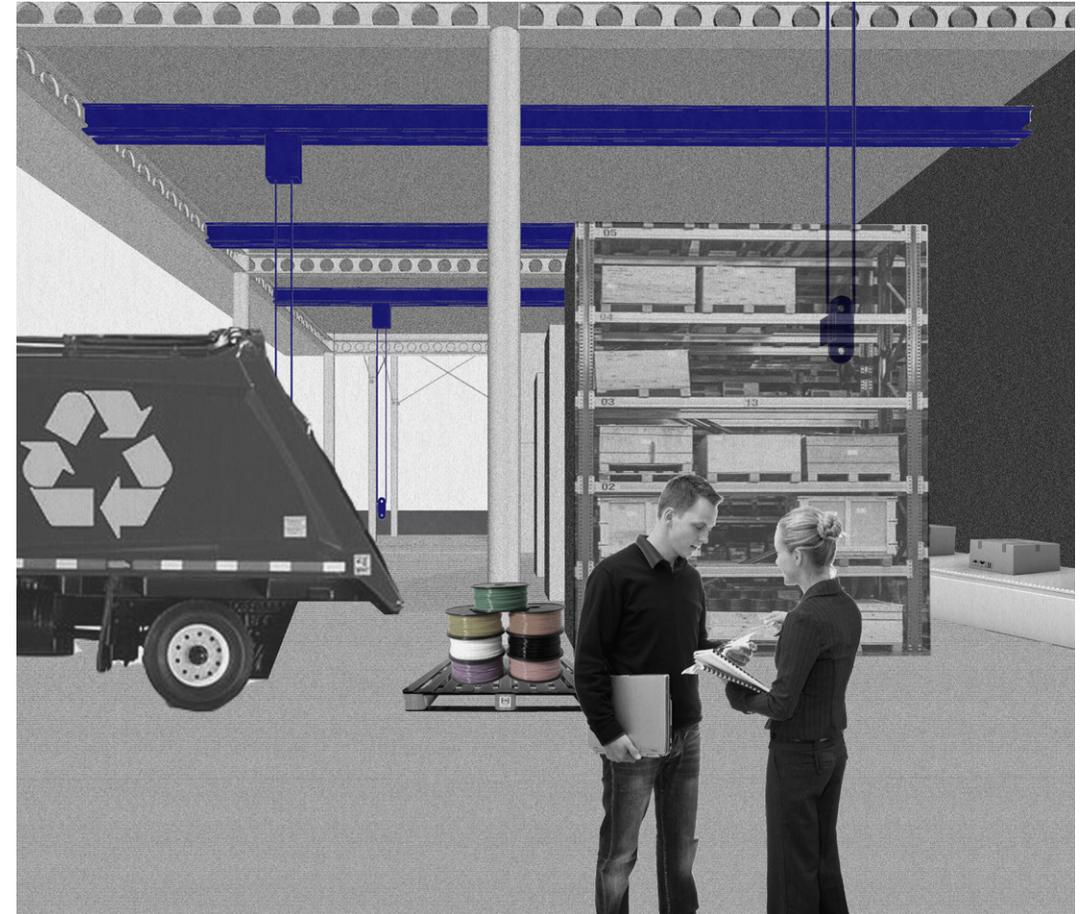
facade surface articulation



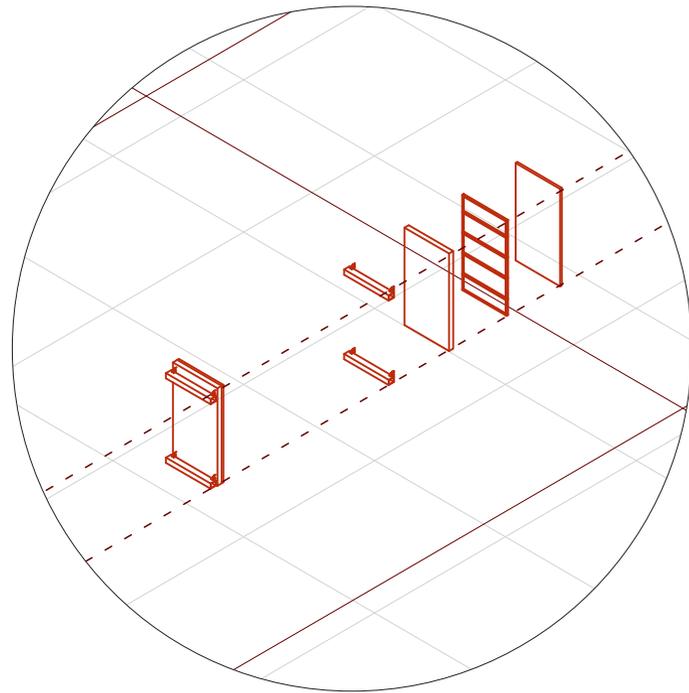
facade opportunity of diverse pattern showcasing identity



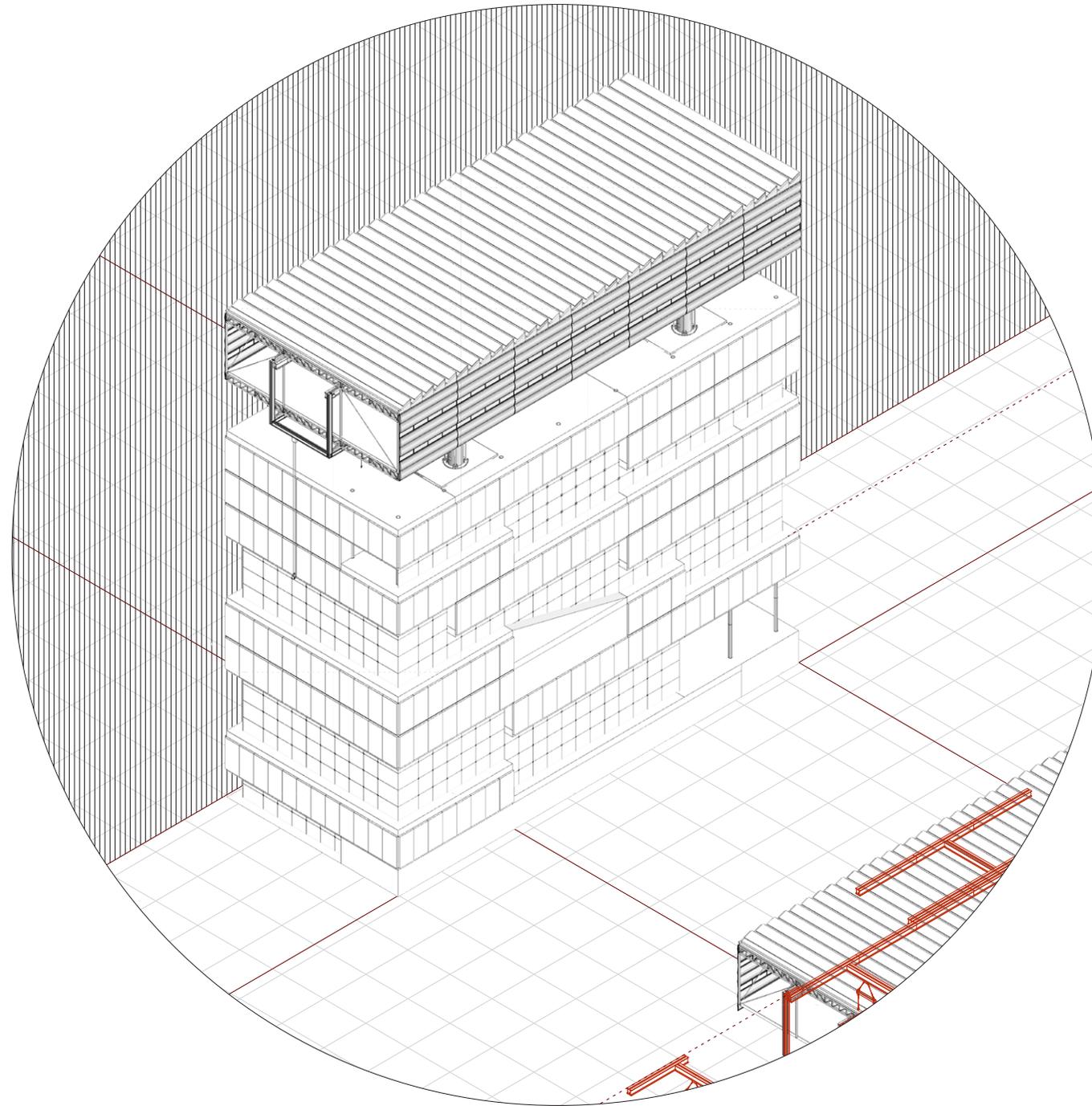
delivery of 3D print material recycled from waste within Sloterdijk neighborhood



Automatic loading and storage bay



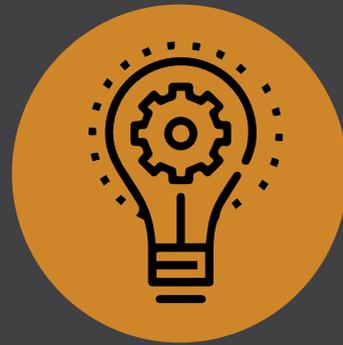
Fabrication of building components can be used in renovating Sloterdijk neighborhood

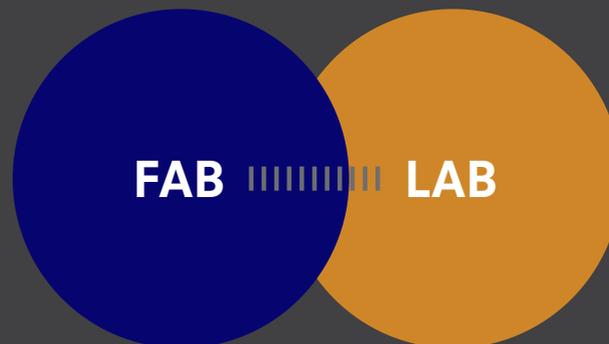
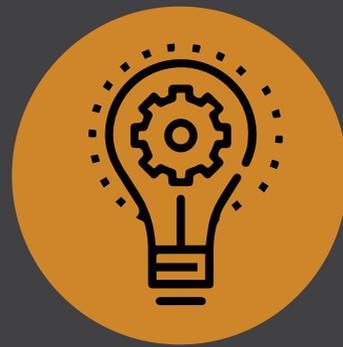


completion - locally fabricated facade that is customized for identity

CONCLUSION







END

