

Rhizomatic Networks

Investigating the Infrastructure Space of Data

A. Sebastian Schulte

P5 Presentation - 02.07.2019

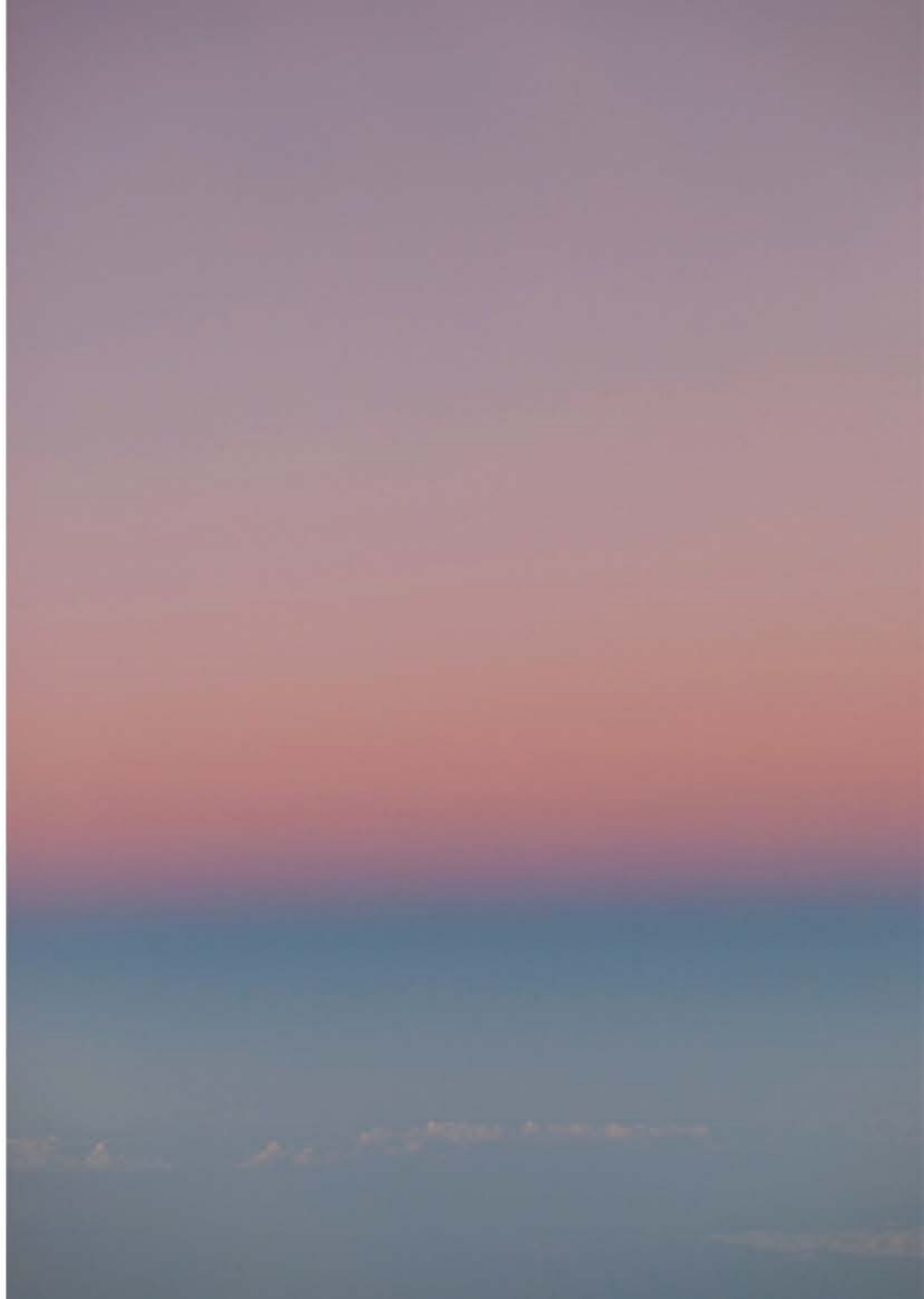
Transitional Territories

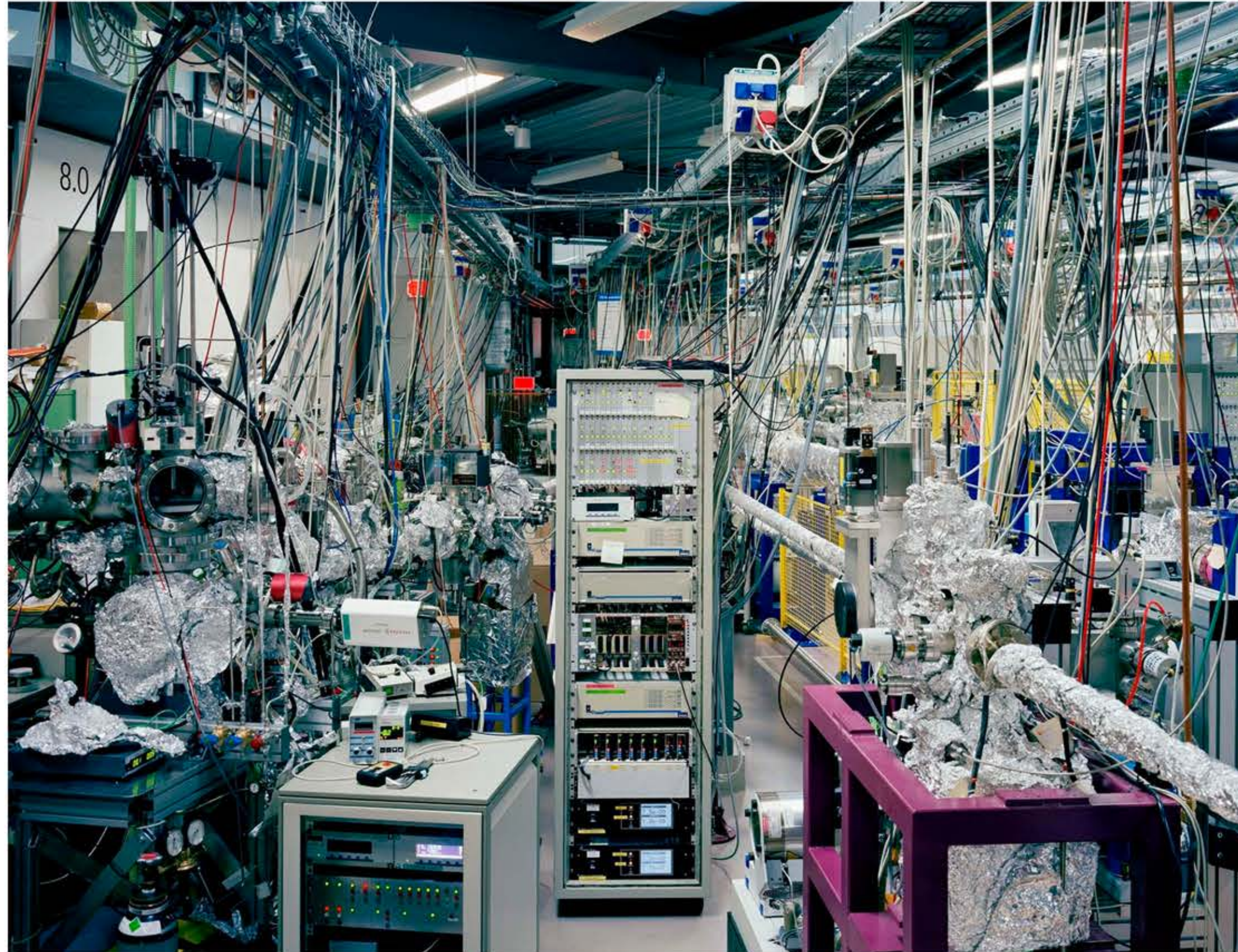
Dr. Taneha Bacchin

Ir. Sjaap Holst

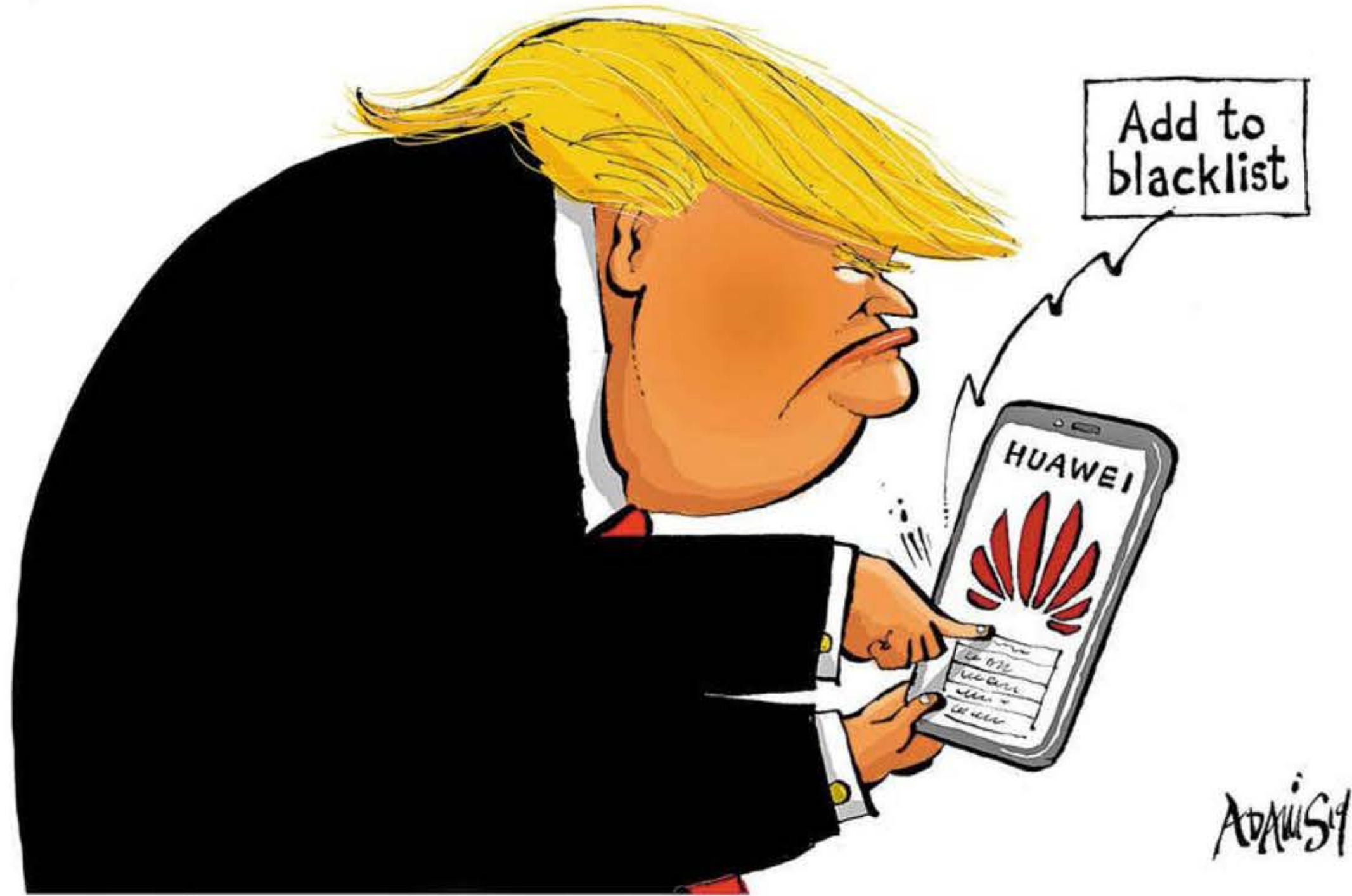
Ir. Stefano Milani

Daan Vitner





Thomas Struth, 'Synchrotron Radio Lab' (2012)



Christian Adams for the Evening Standard (2019)

Content

I Research

Territorial Analysis

Regional Analysis

2 Project

Urban Infrastructure

Typology

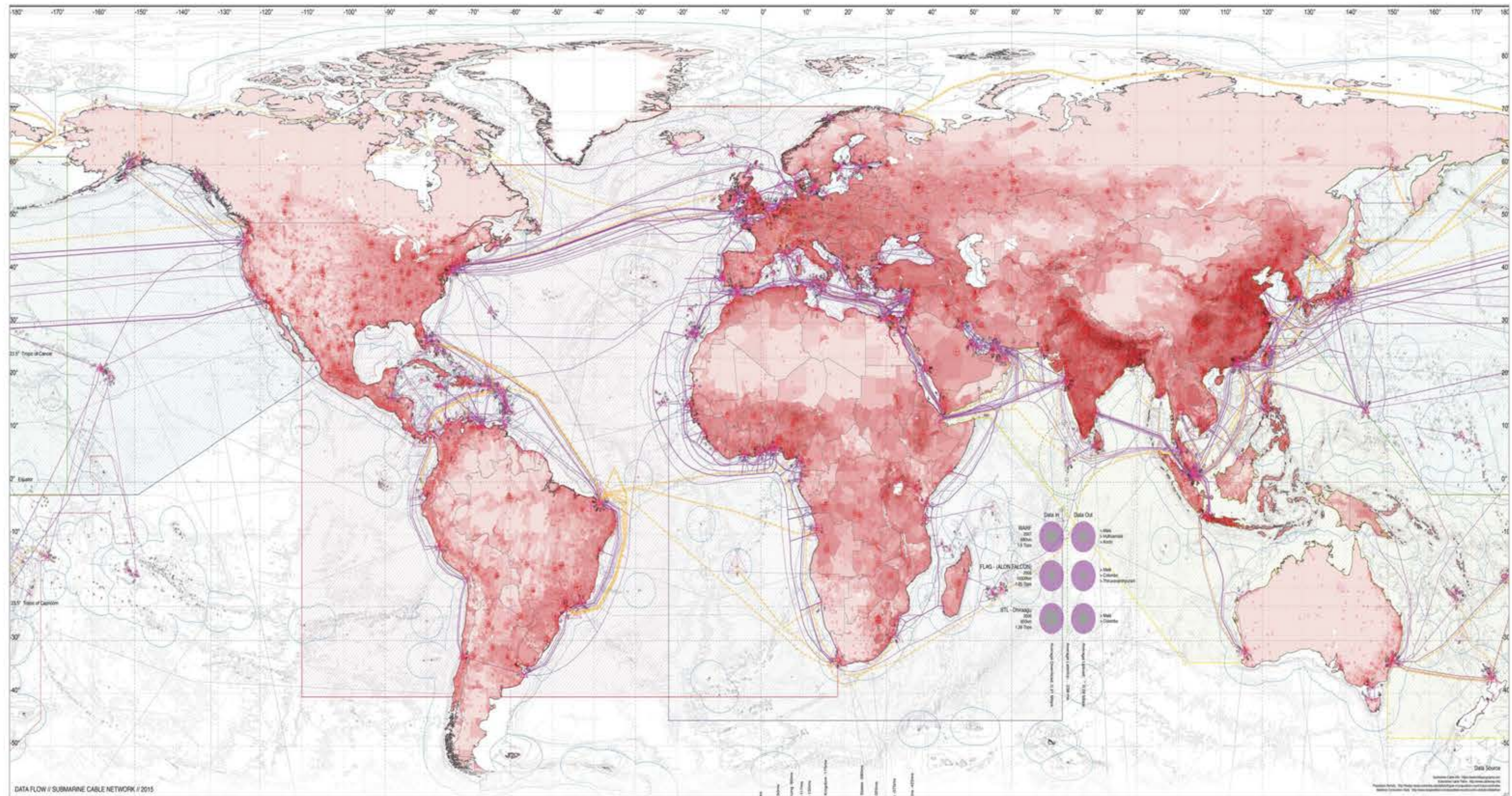
3 Reflection

Architectural Outcome

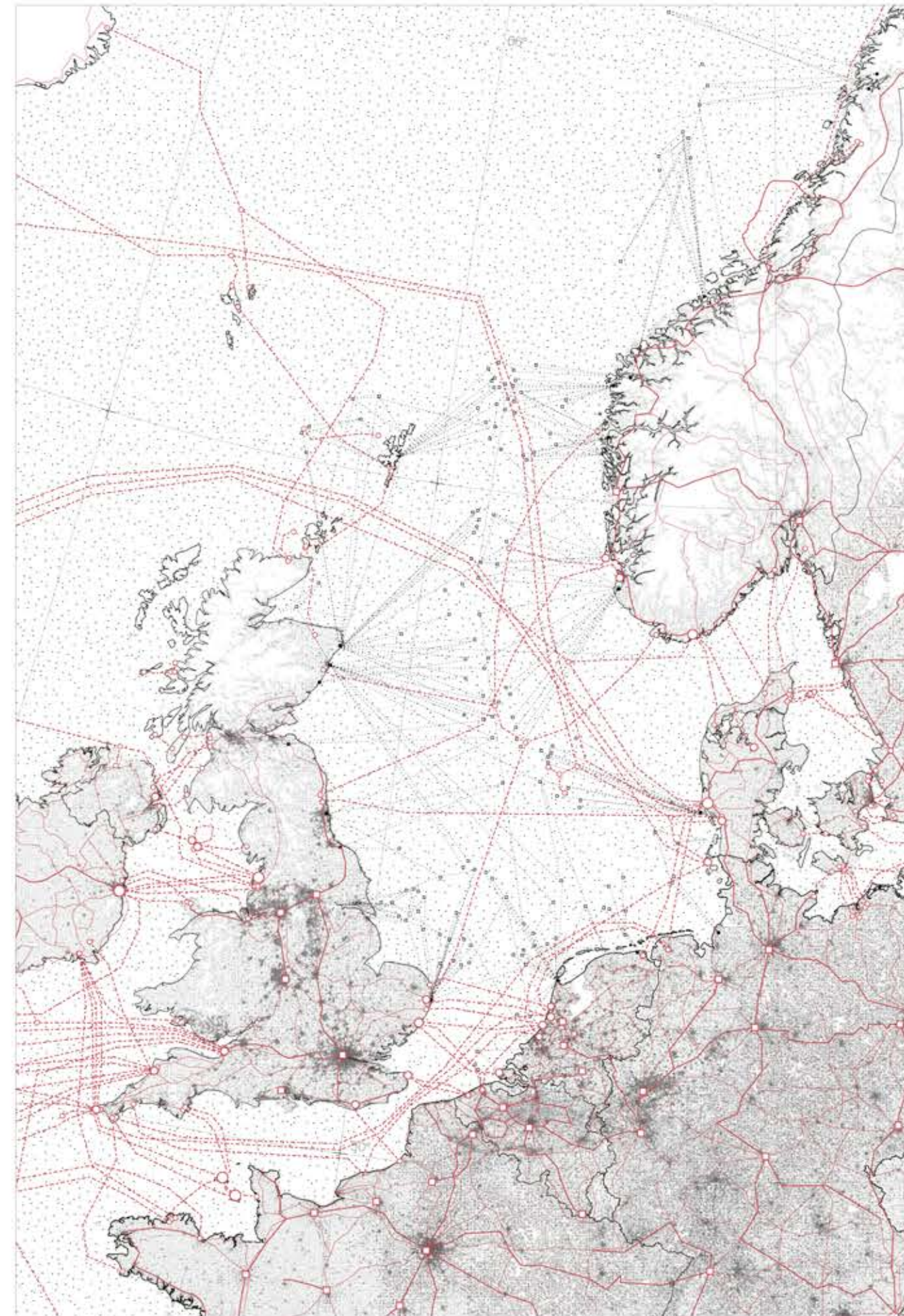
Conclusion



Introduction



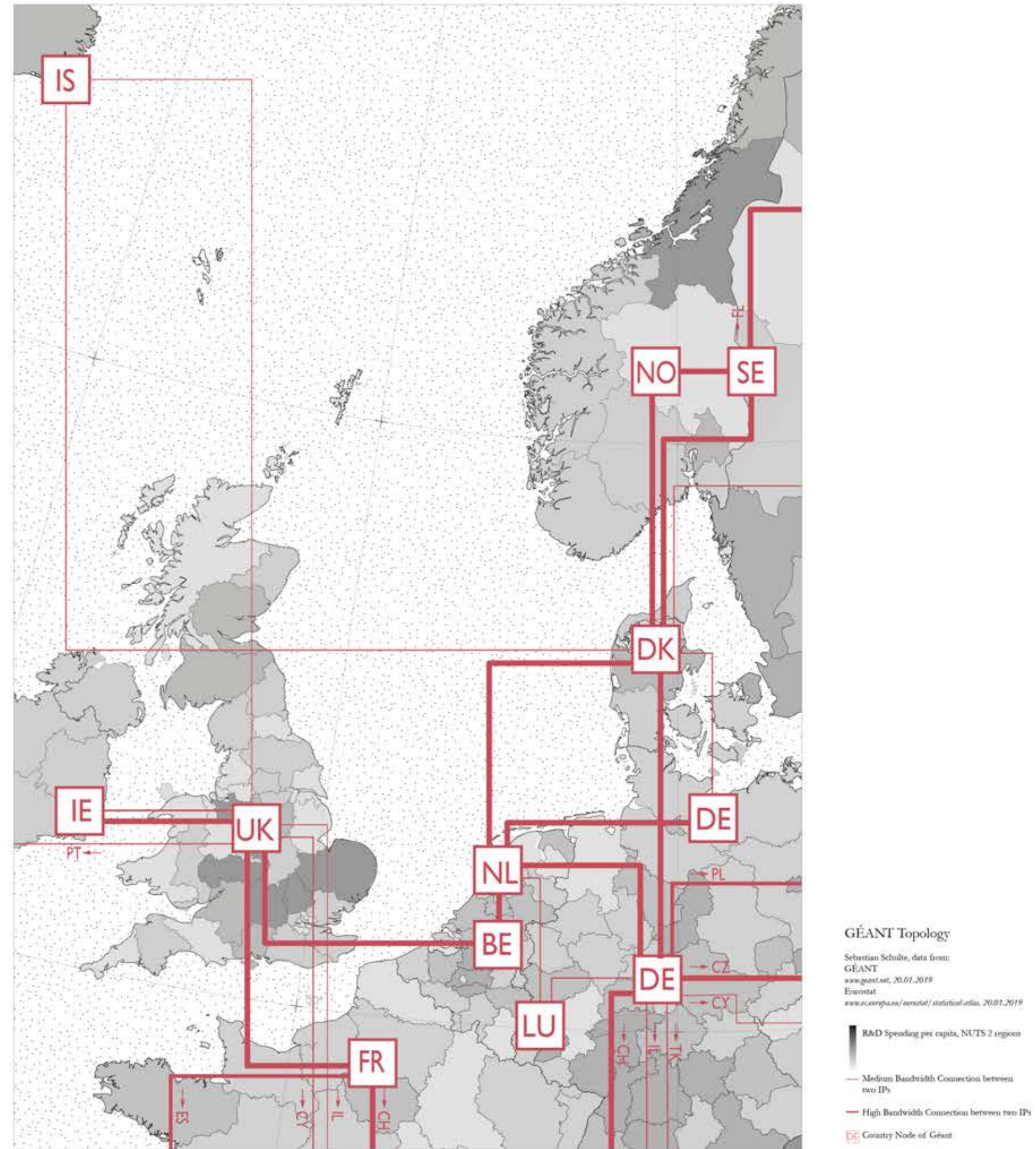
Ben Pollock, 'Global Flows' (2012)

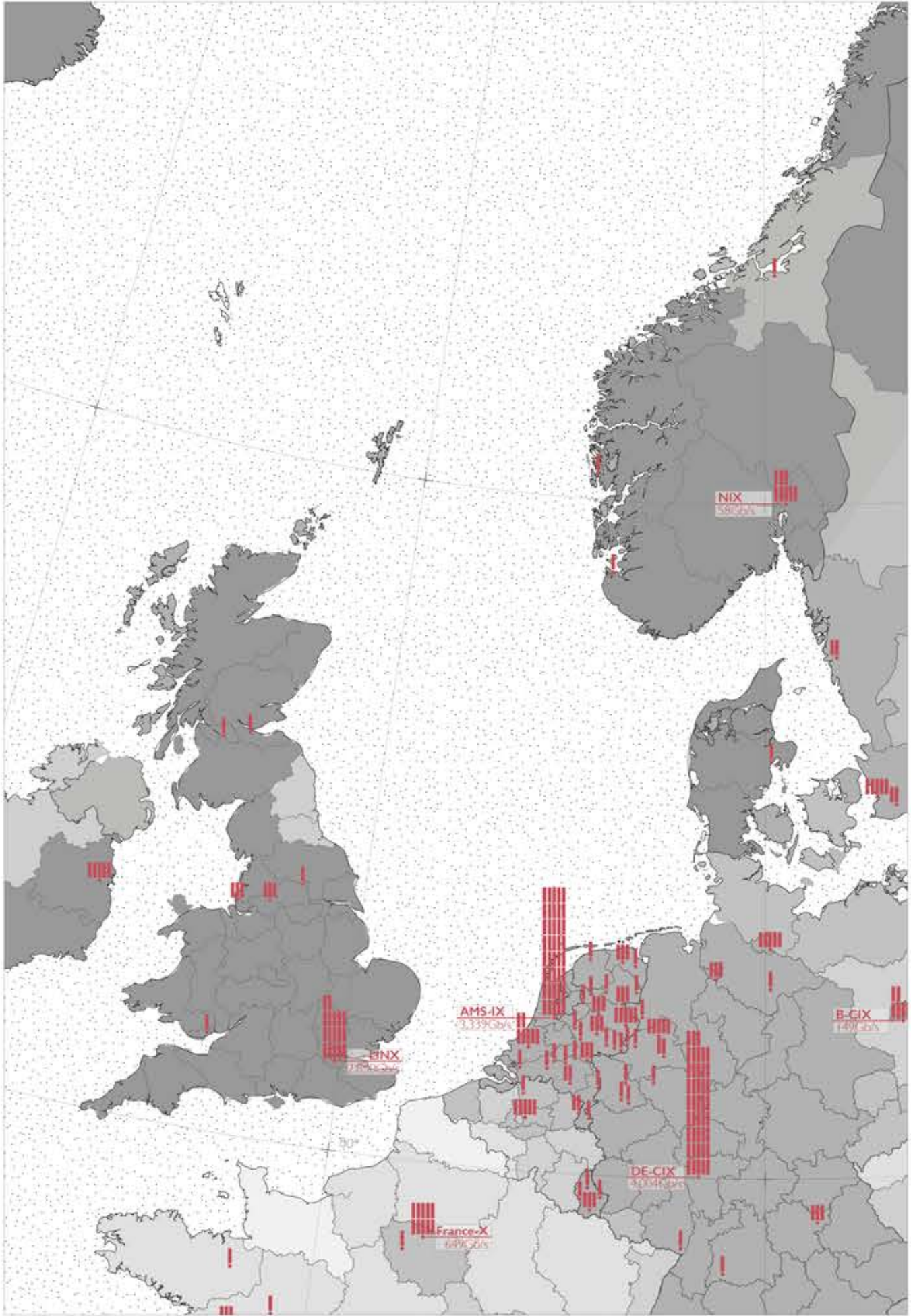


North Sea Cable Map

Sebastian Schulte
Teleogeography:
<http://www.submarinecablemap.com>, 20.01.2019
International Telecommunication Union (ITU)
<http://www.itu.int/itu-d/tut-map-public/>, 20.01.2019
European Environment Agency
<http://www.eea.europa.eu/data-and-maps>, 20.01.2019

- Cable Landing Station
- Terrestrial Node
- Submarine Cable
- Terrestrial Backbone Network
- Population Density
- Network Link Offshore
- Offshore Node (Platform)

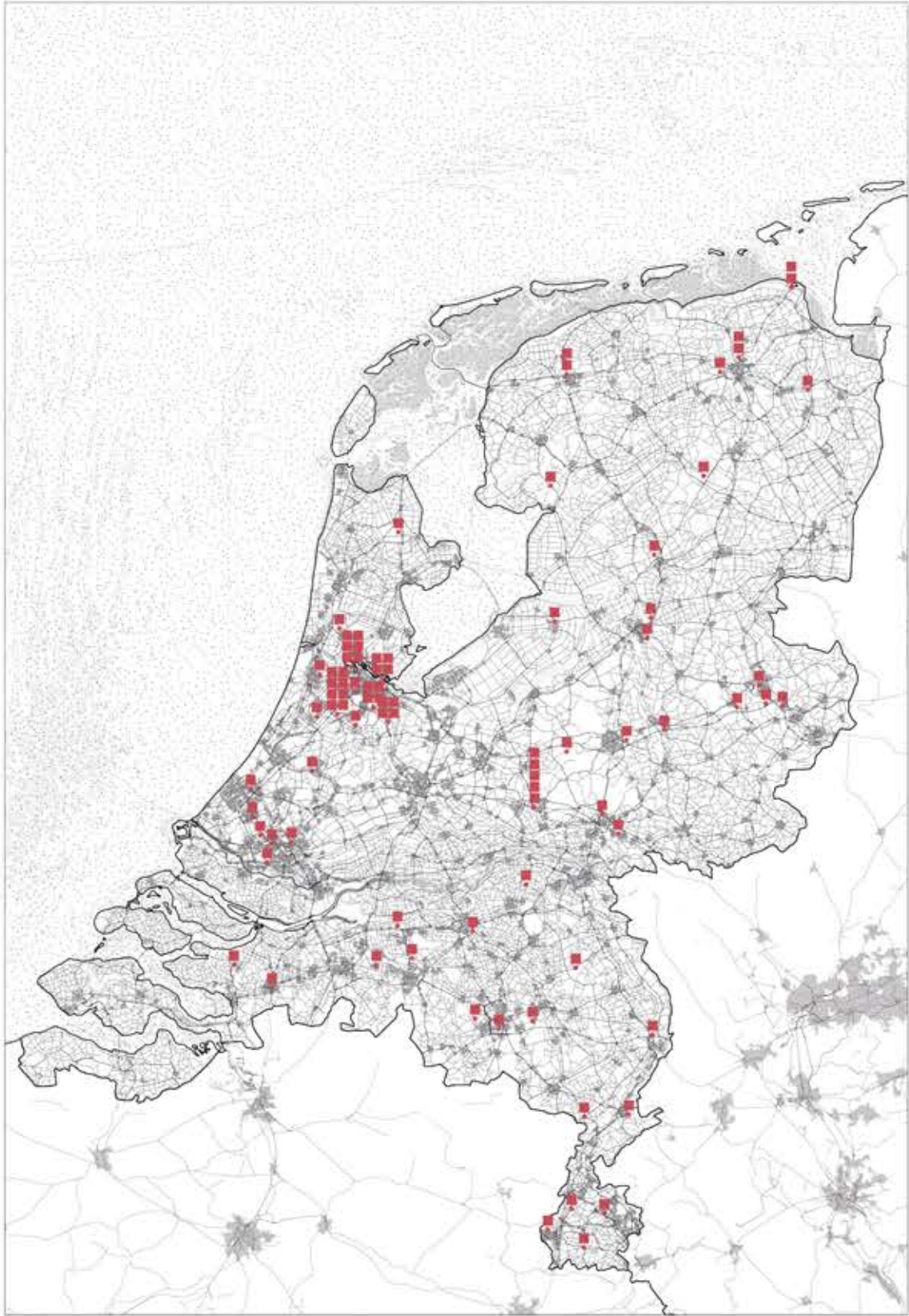




Internet Exchange Map
North Sea

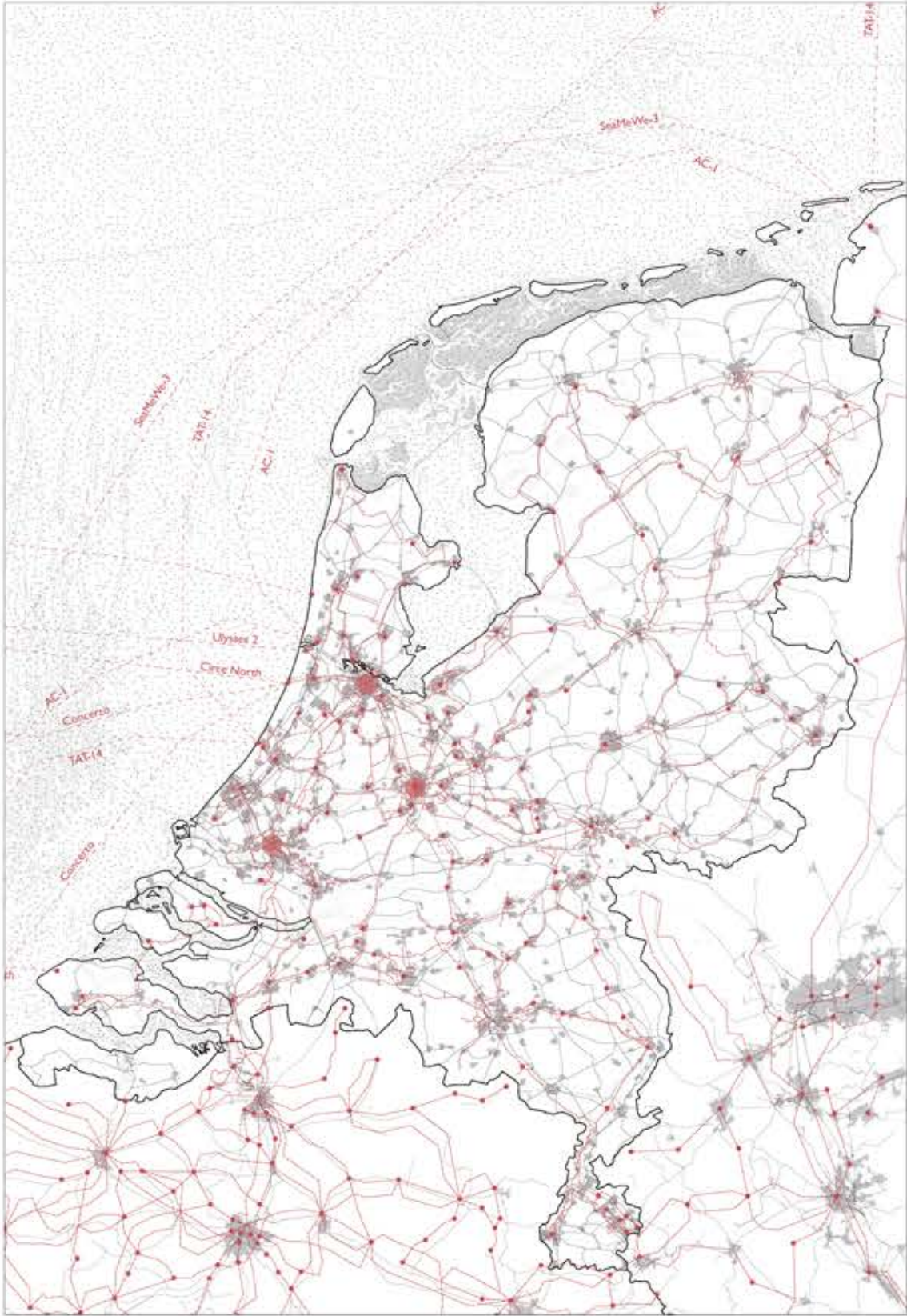
Sebastian Schulte, data from:
Teleography
<https://www.internetexchangemap.com>, 20.01.2019
Eurostat
www.ec.europa.eu/eurostat/statistical-data, 20.01.2019

- Internet Exchange Points
- X Internet Exchange Points
- Name Internet Exchange Point
- Average Throughput
- Household Penetration of Broadband



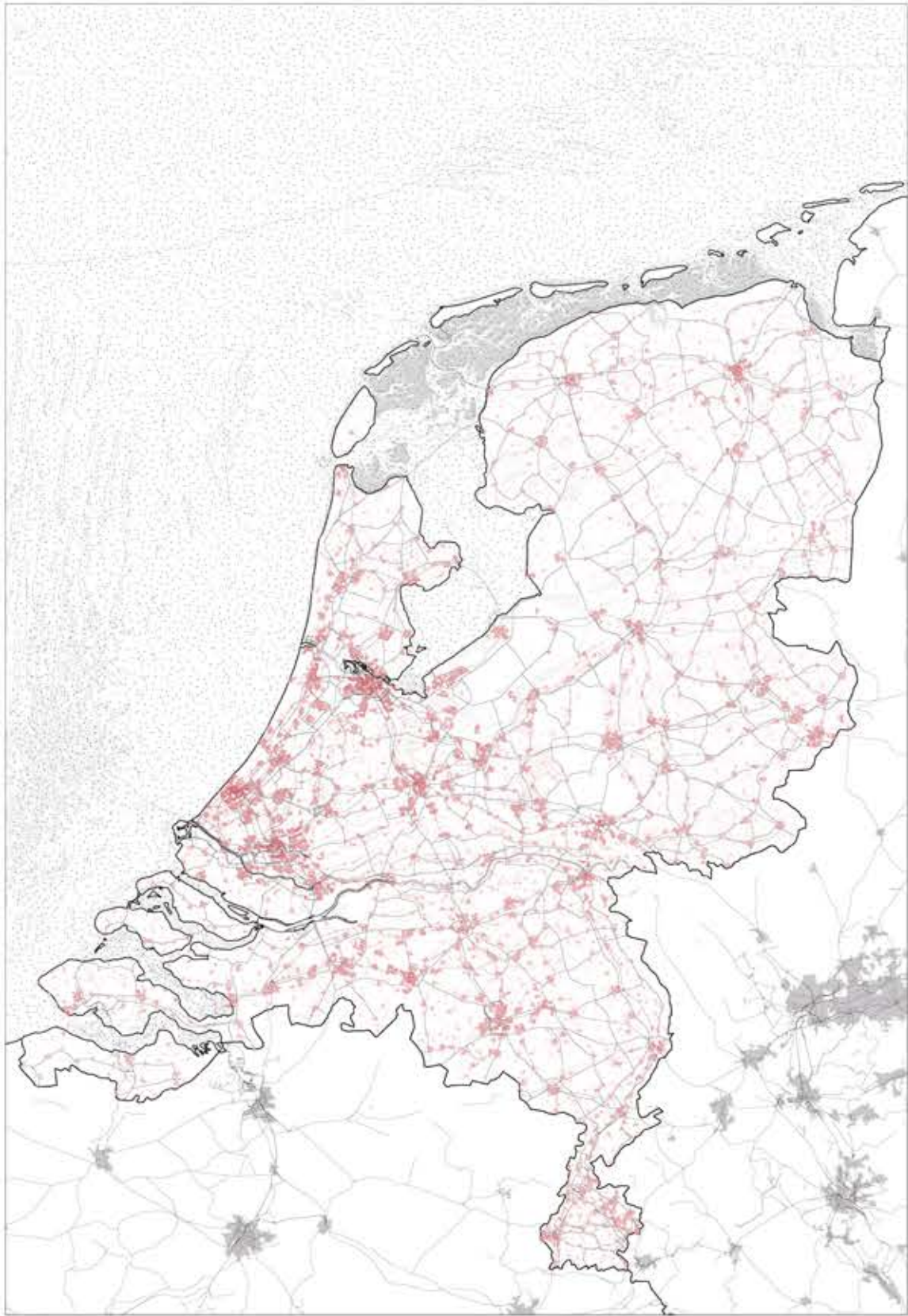
Data Centre Map
Netherlands

- Data Centre
- ✕ Internet Exchange Points



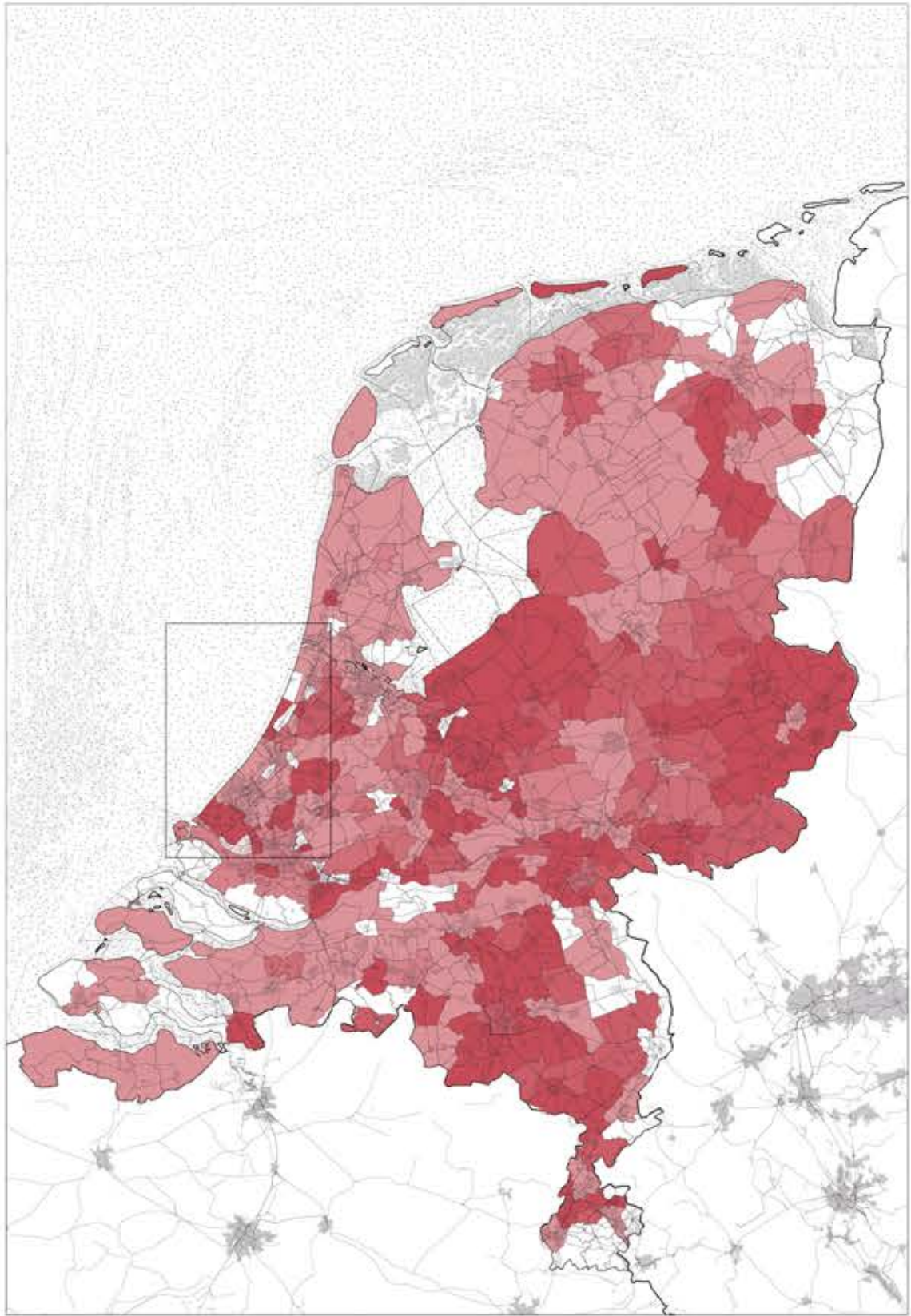
Glasfibre Map NL

- Network Node
- Dense Urban Network
- Submarine Cable
- Terrestrial Backbone Network



Netherlands Population Density

Population Density

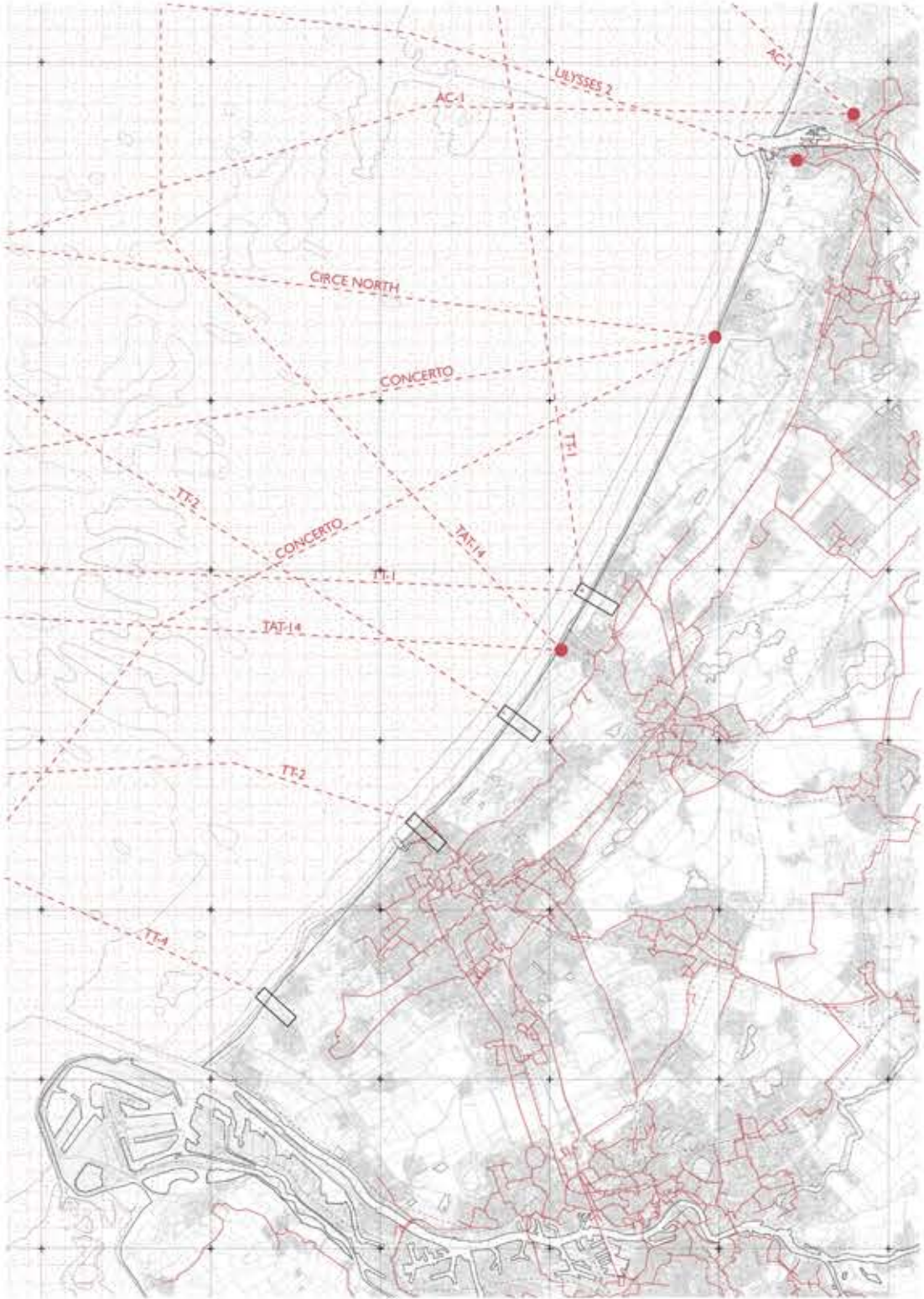


Netherlands Glasfibre
Connected household ratio per
Municipality

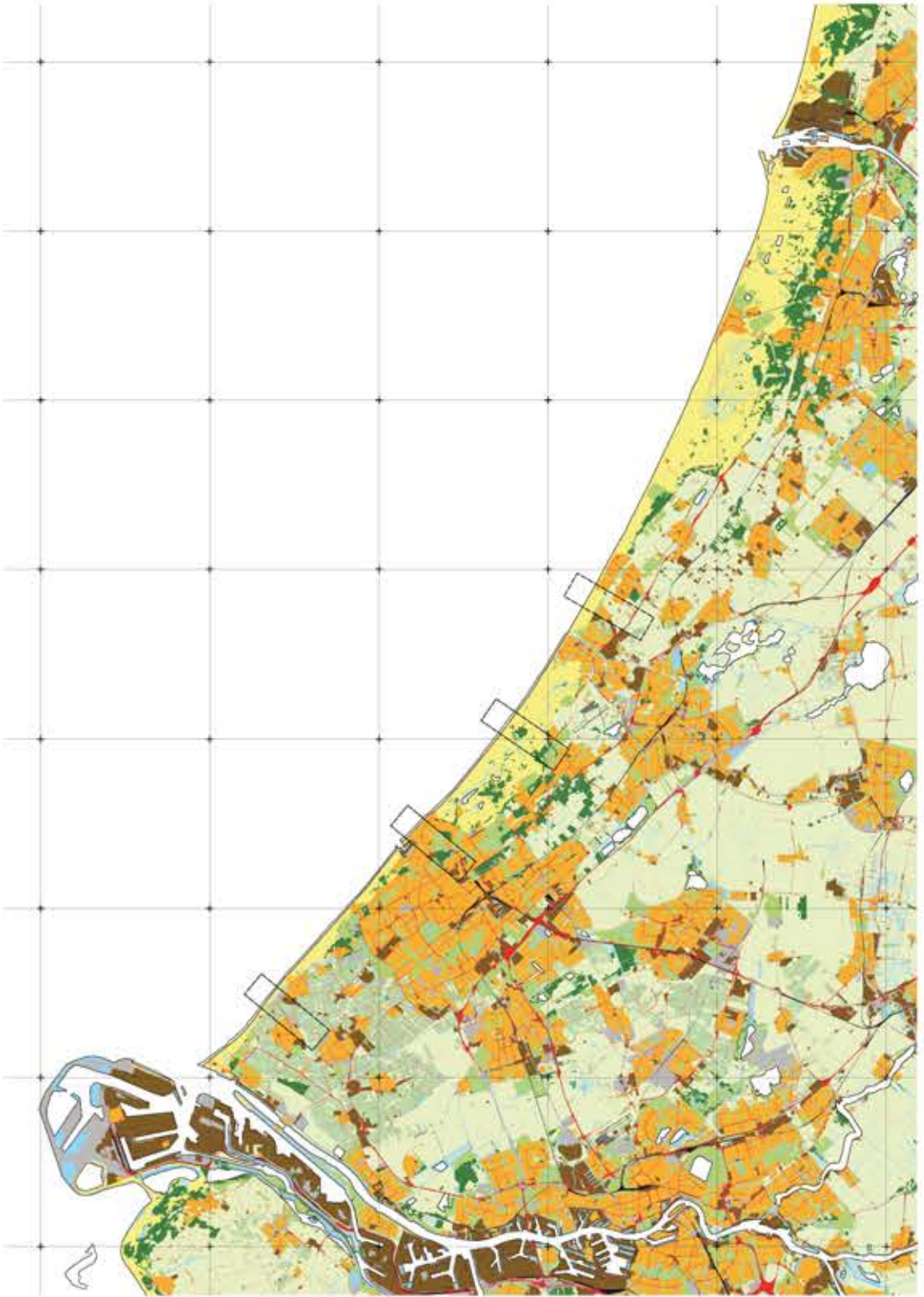
Percentage Households passed



Zuid-Holland Coast
Population Density and Cable
Connections



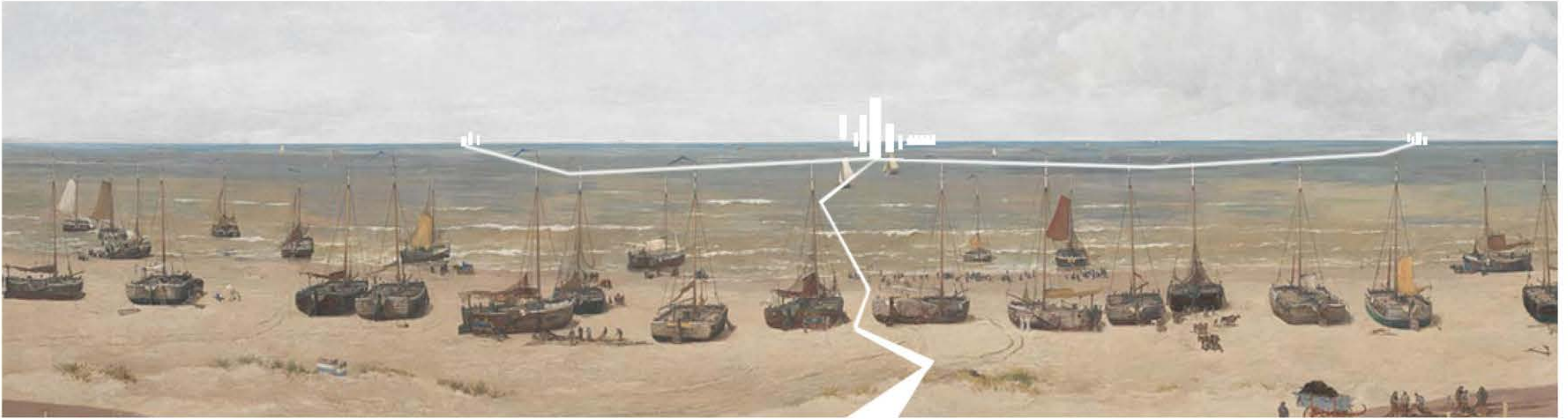
Zuid-Holland Coast
Eurofiber Network

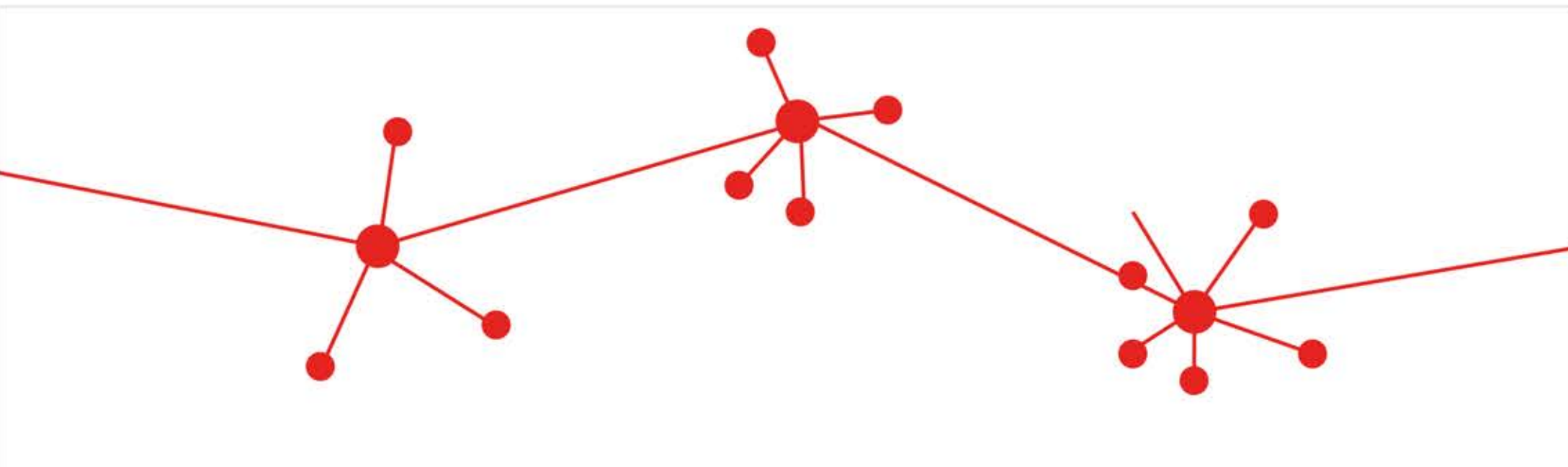
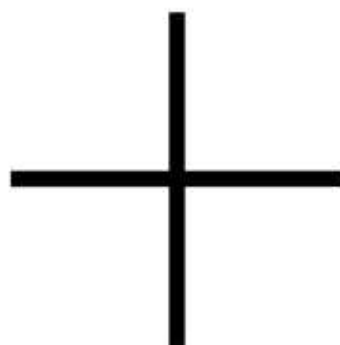


Zuid-Holland Coast
Land Use



The Internet by Dave Greer





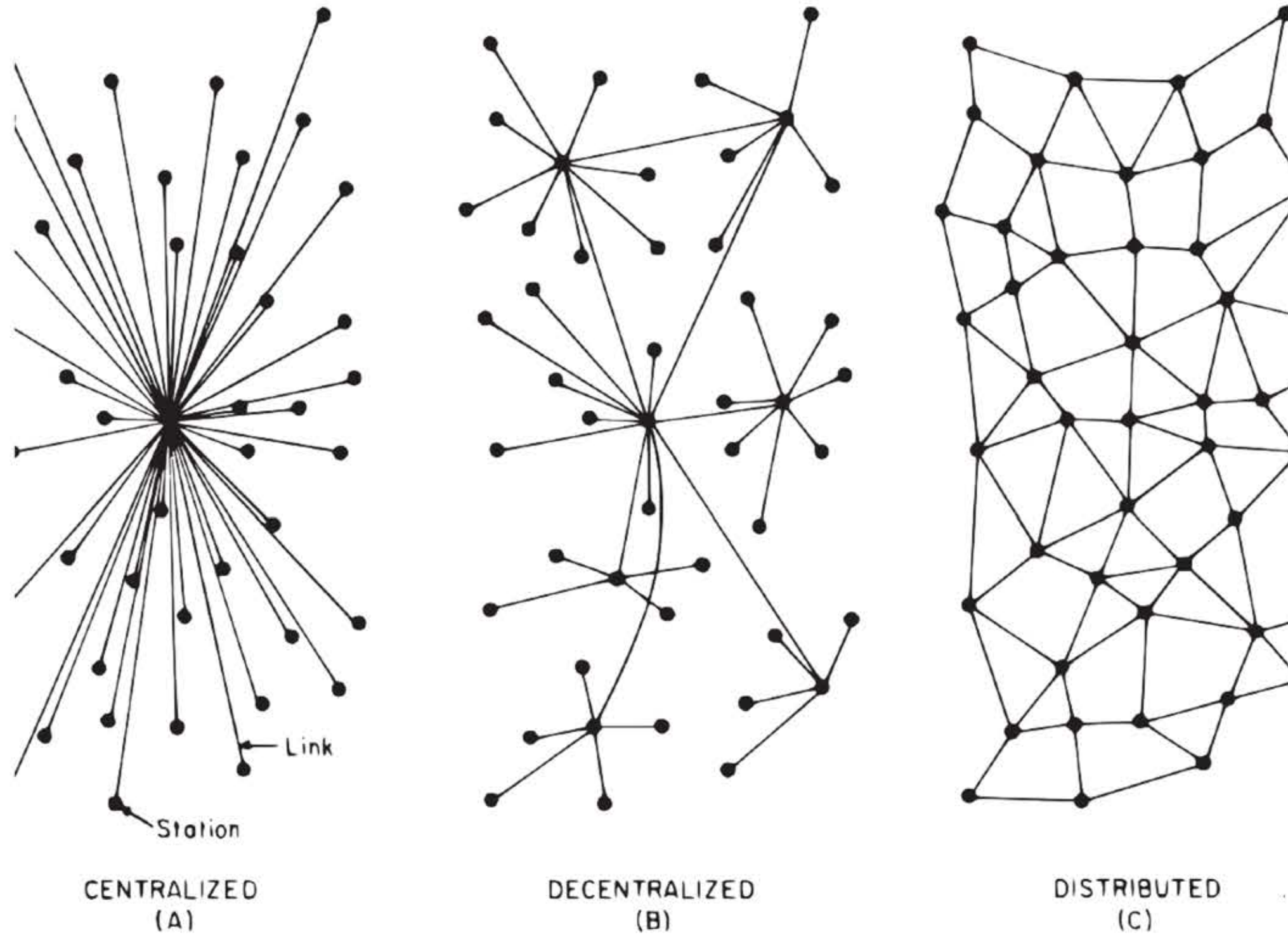
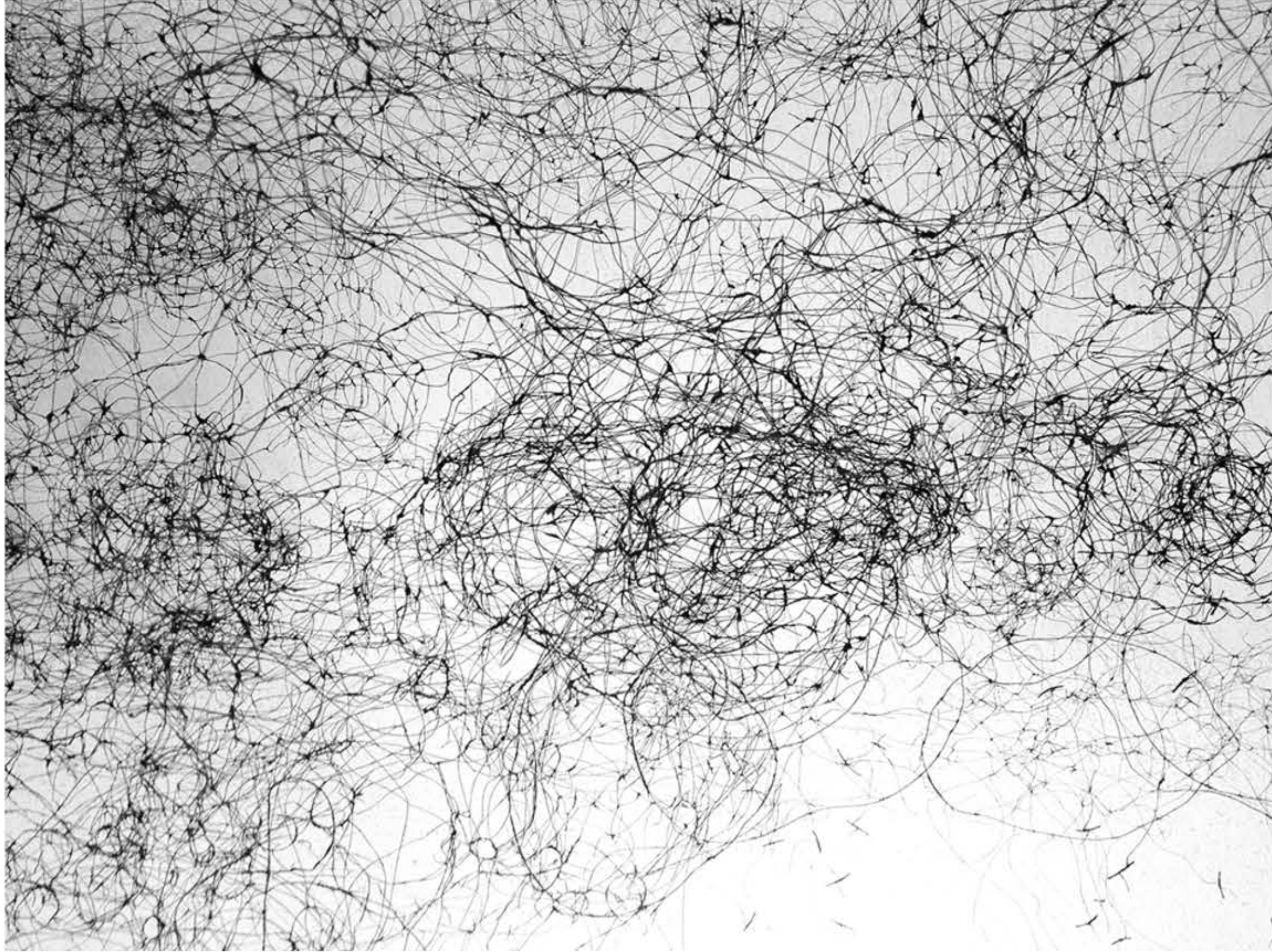


FIG. 1 – Centralized, Decentralized and Distributed Networks

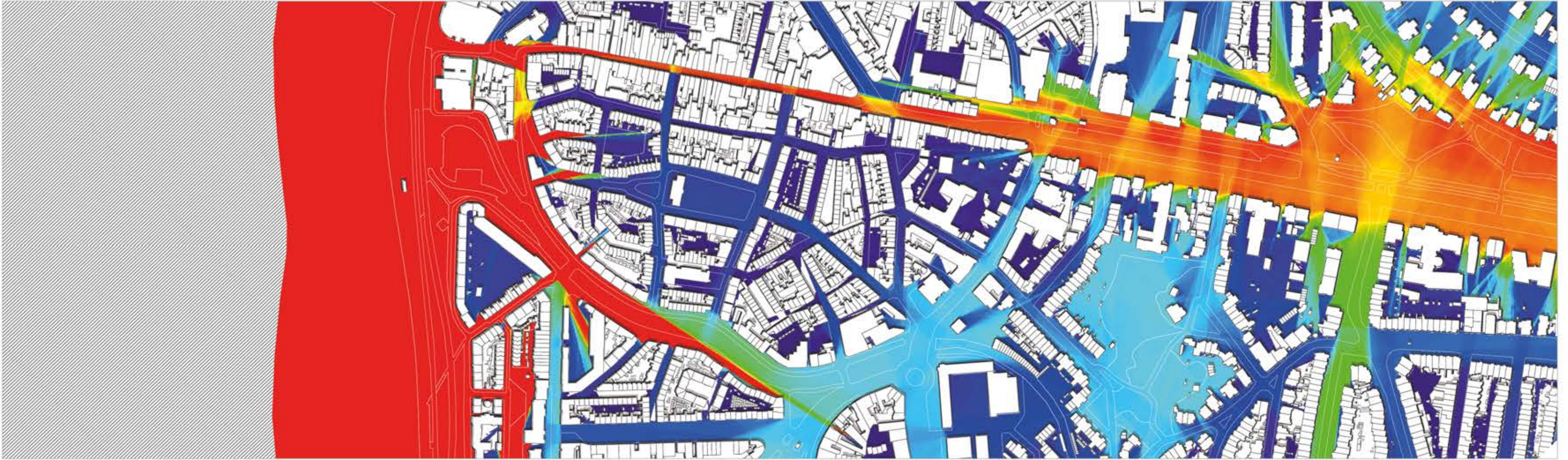
Networks from Walter Christaller 'Central Place Theory'



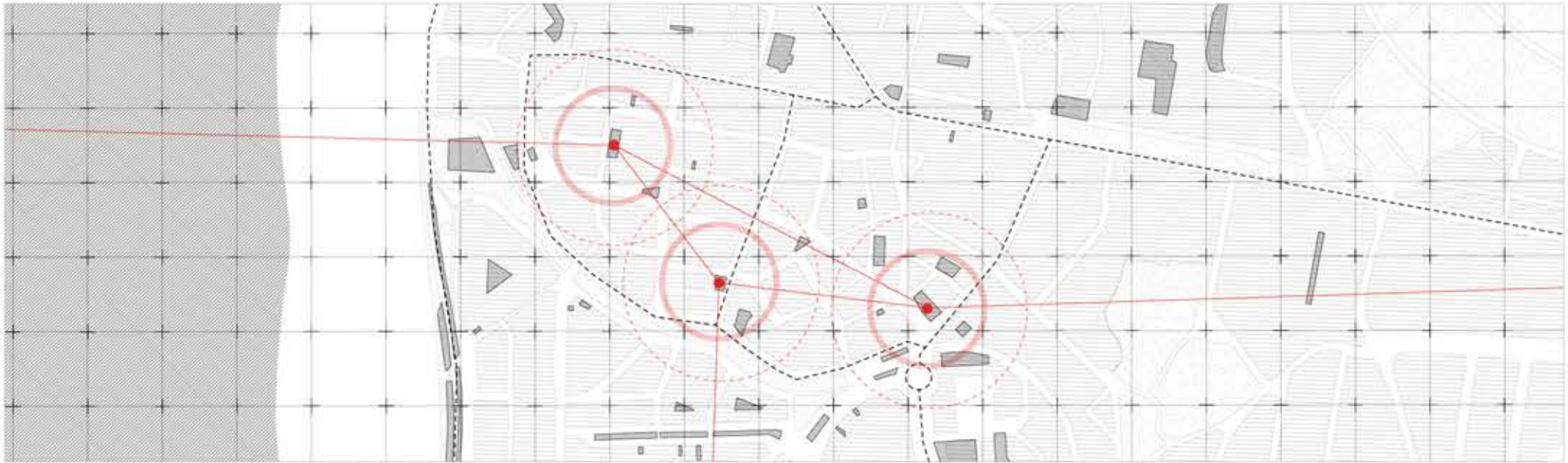
Swarm by Joomi Chung (2014)



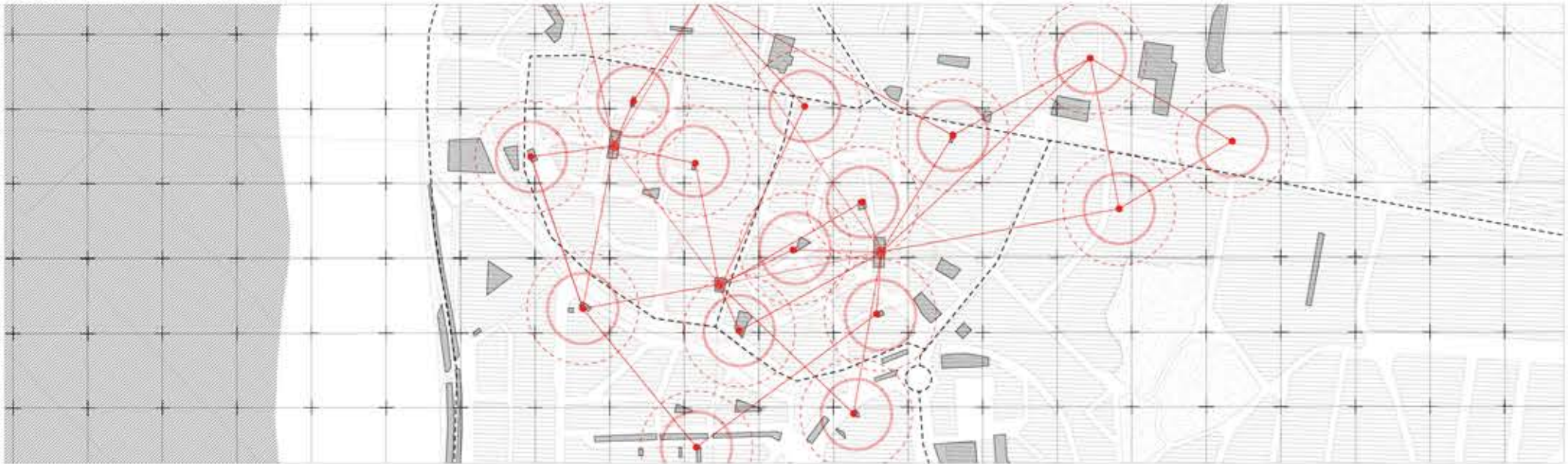
Road Integration
Axial Graph R3



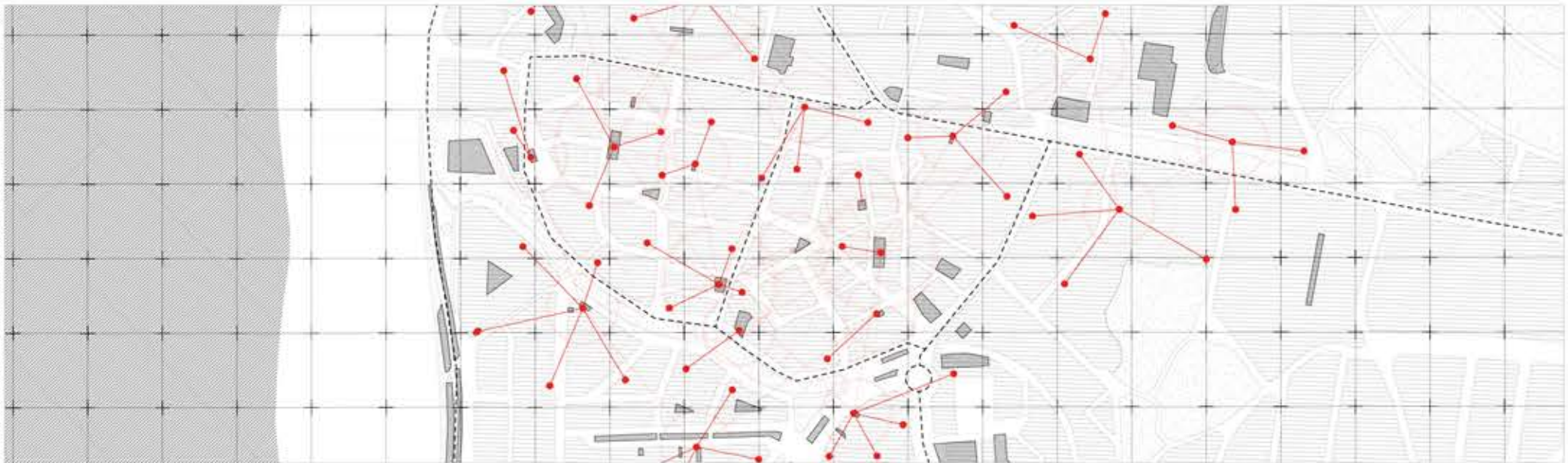
Controllability
Isovist



Network
Level 1



Network
Level 2

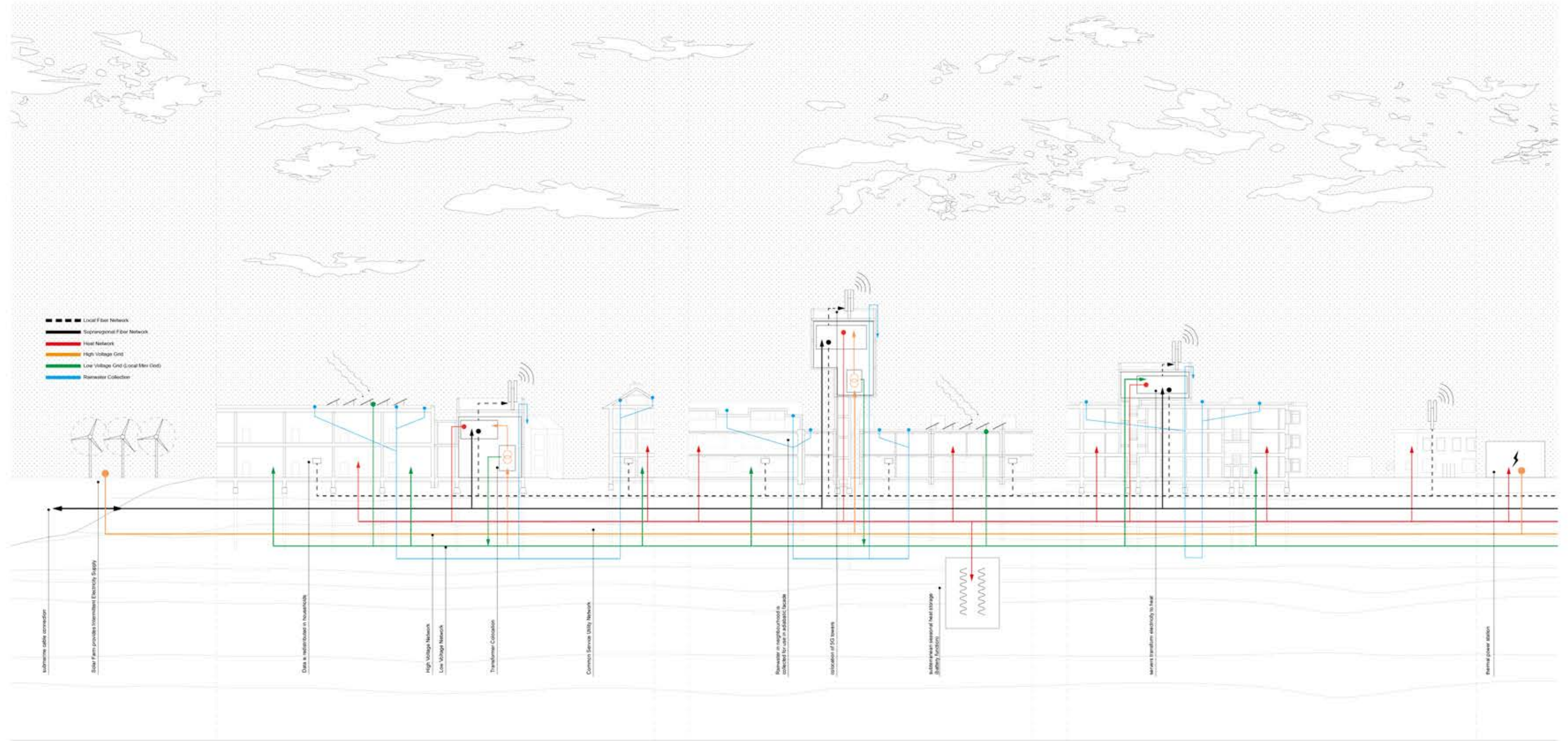


Network
Level 3

Urban Infrastructure

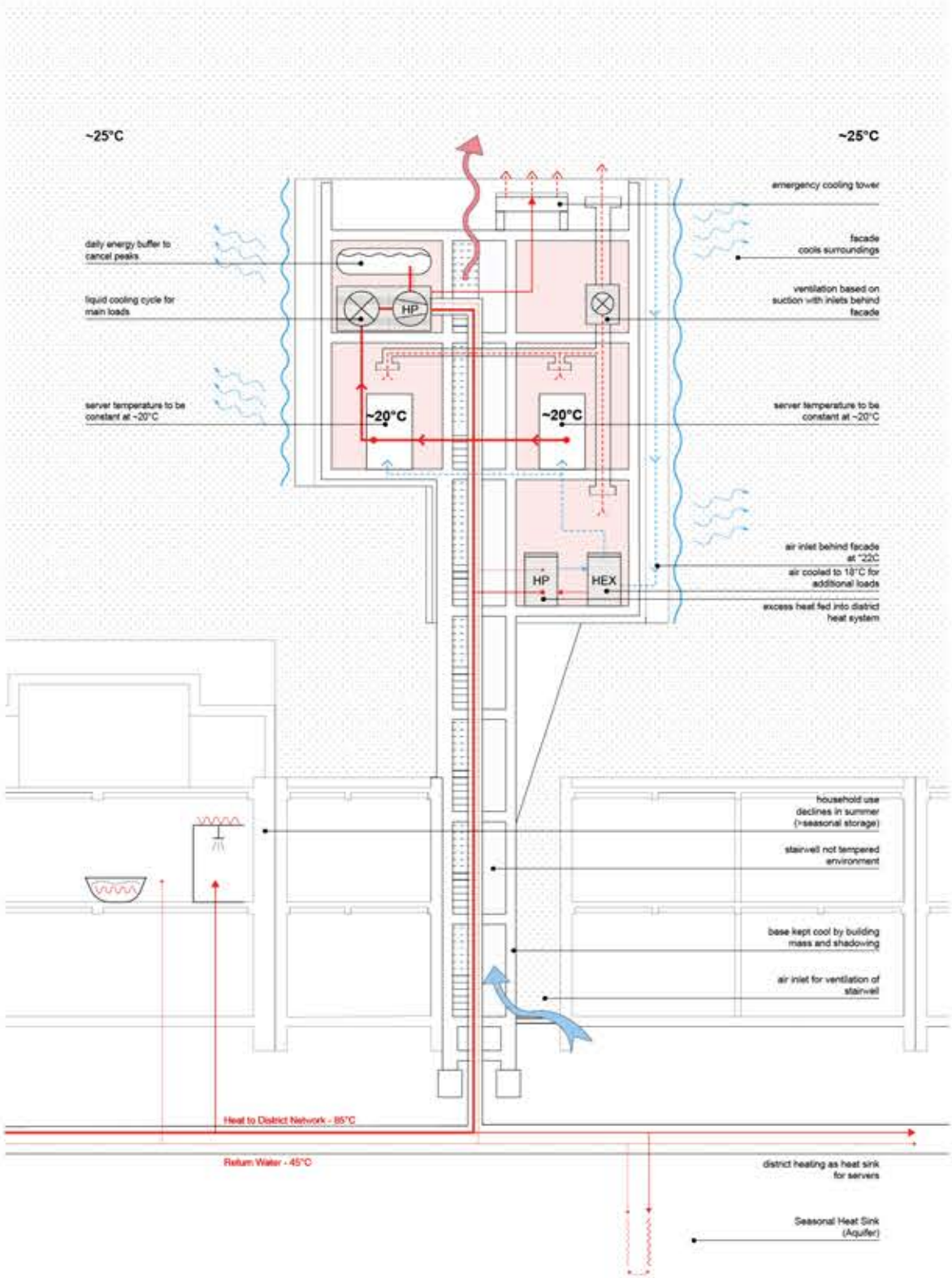


Siteplan All Types

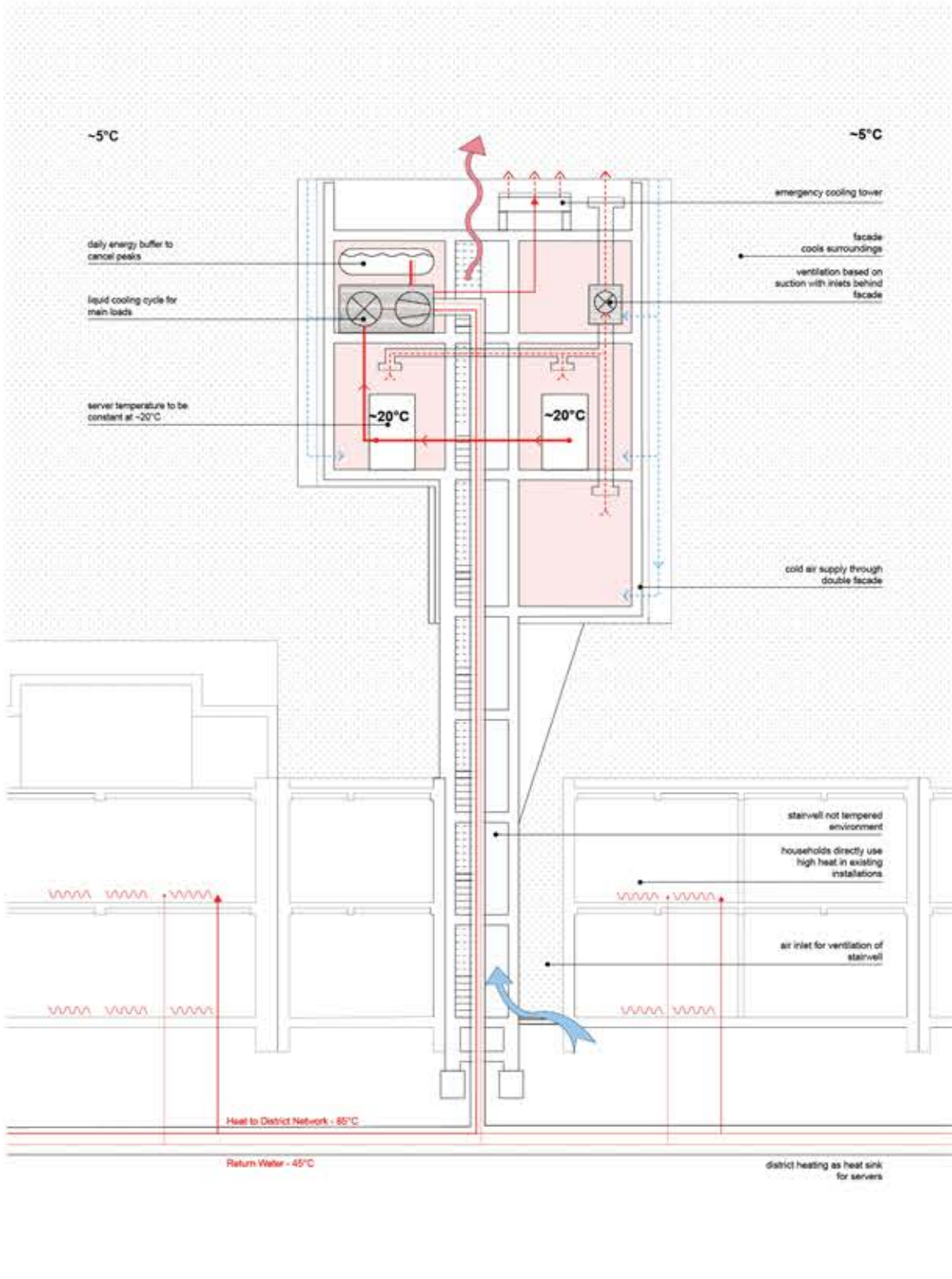


System Integration Section

System Integration

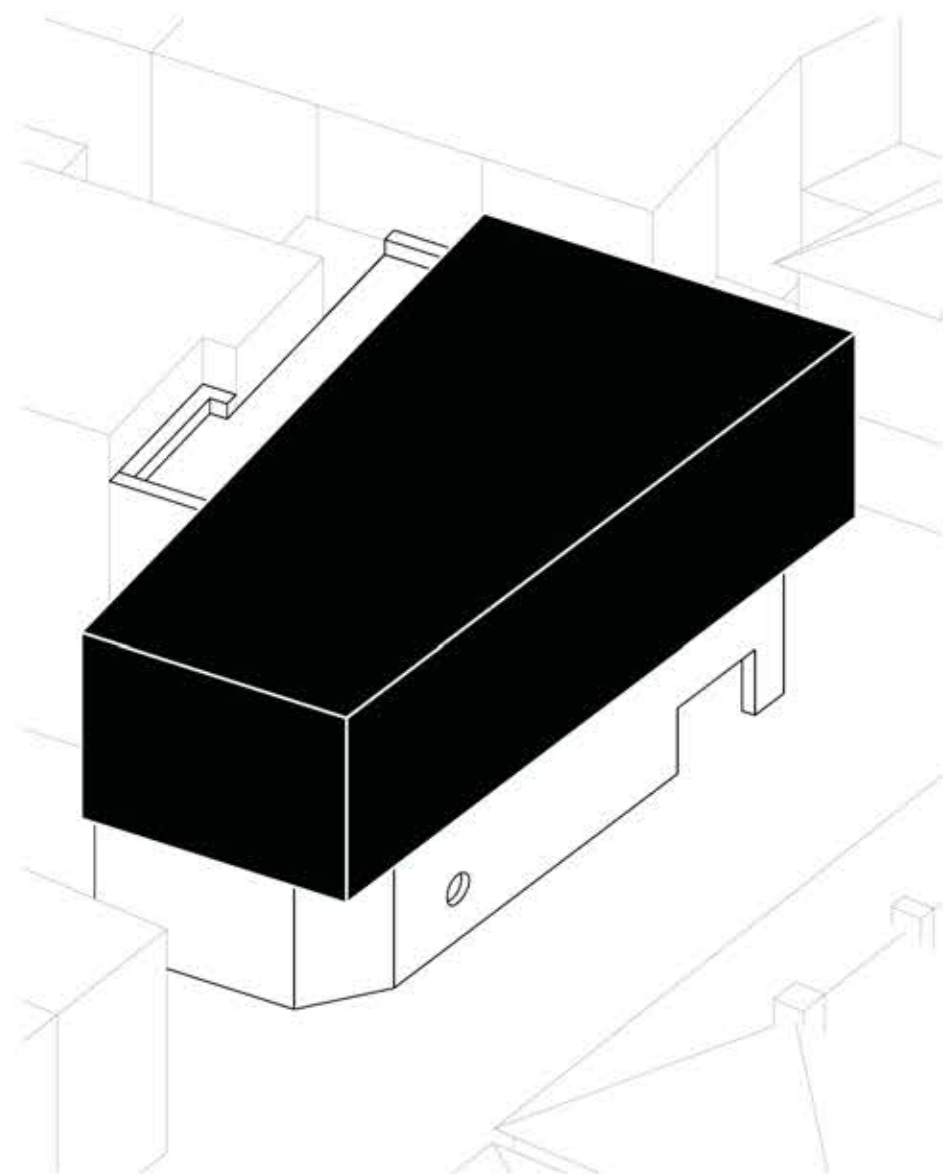


Climatic Concept Summer

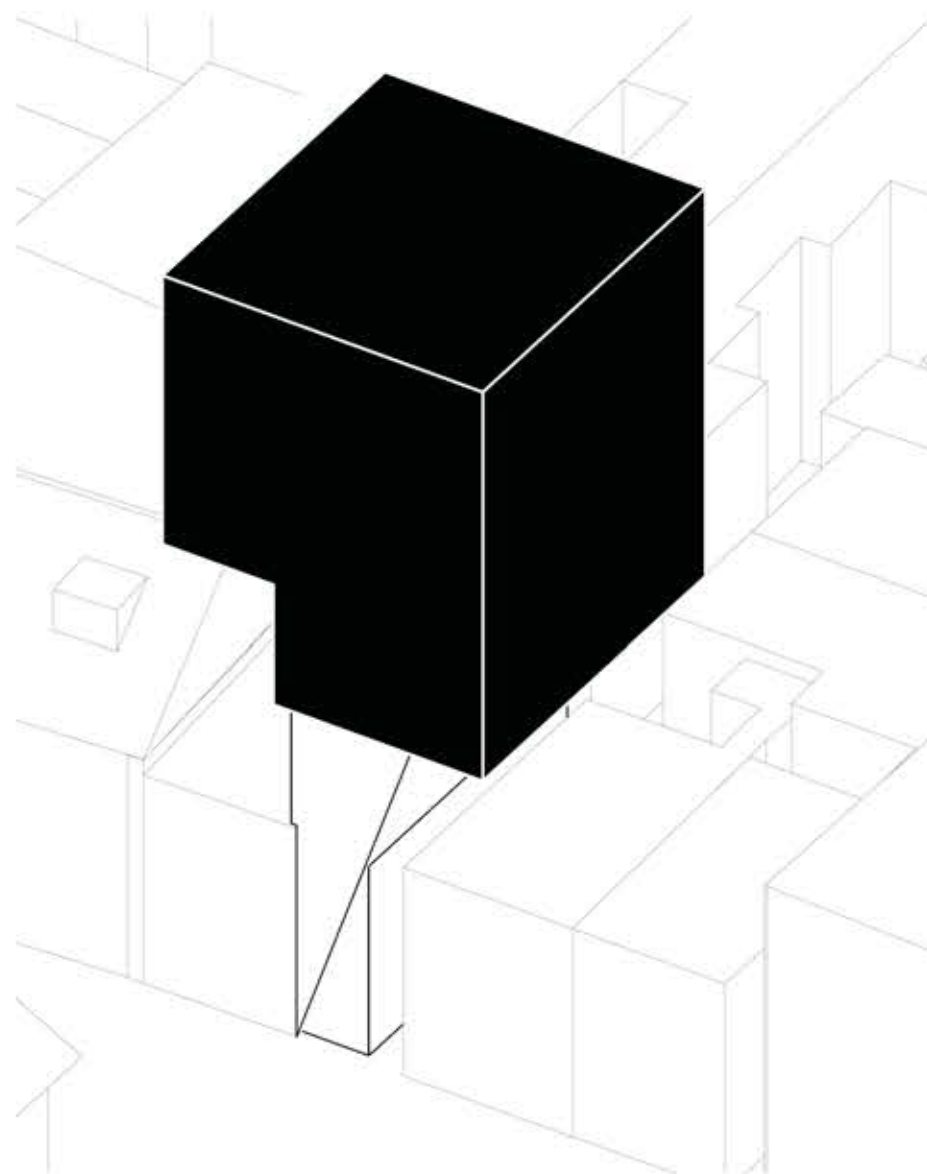


Climatic Concept Winter

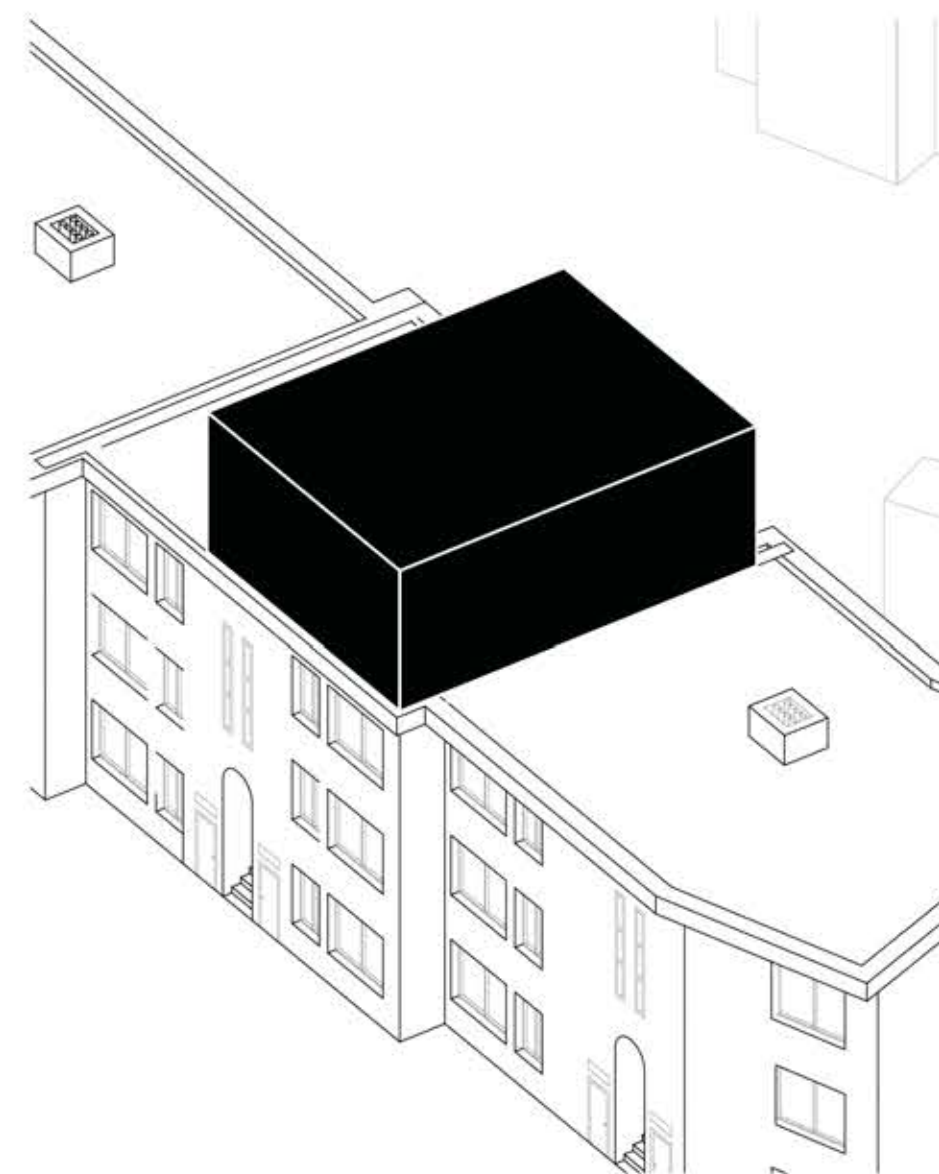
Project as Type



A

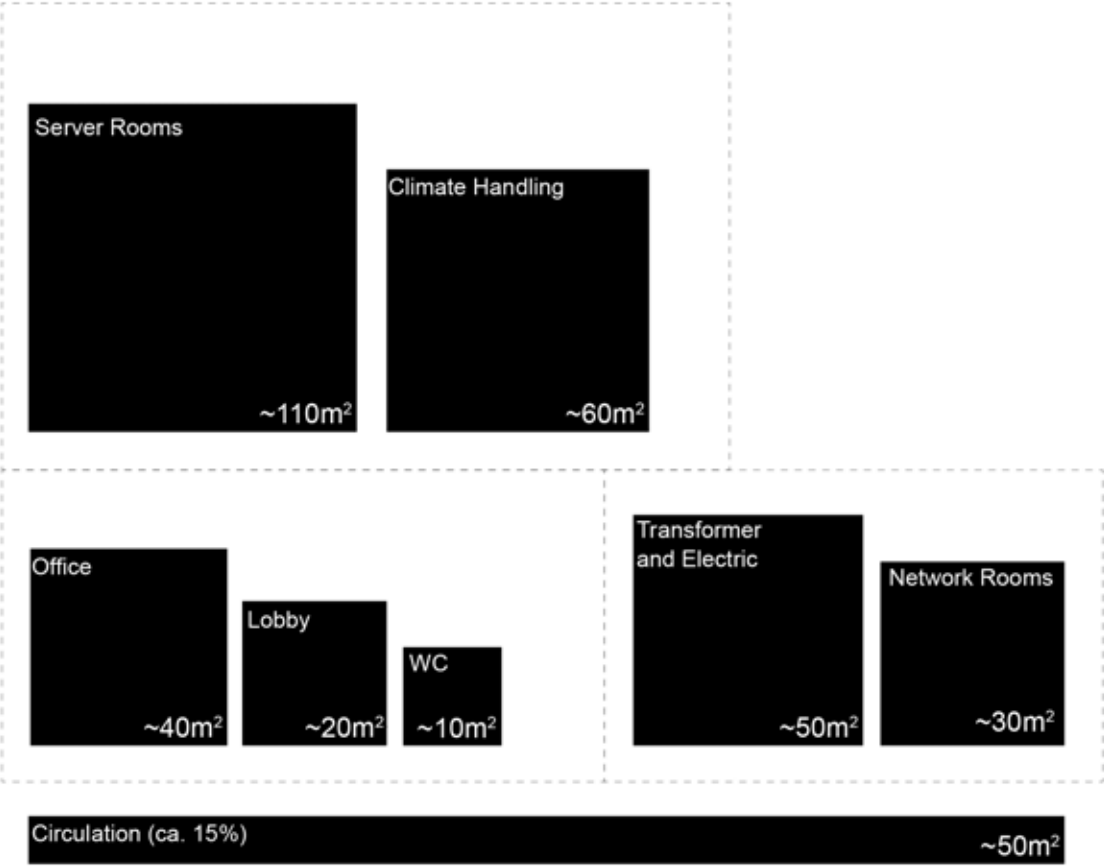


B

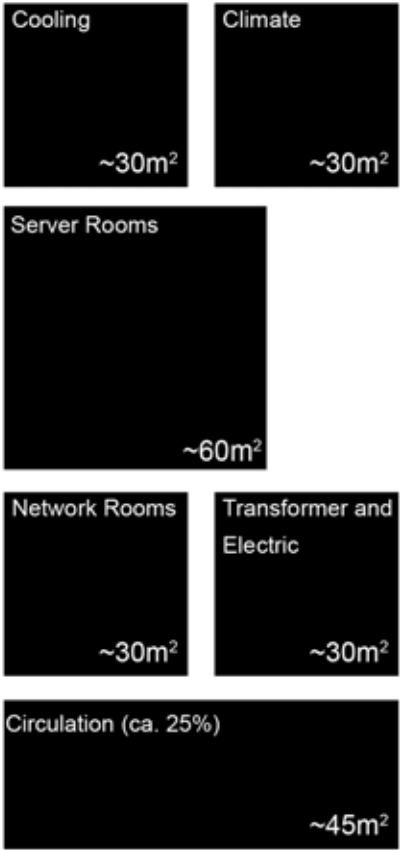


C

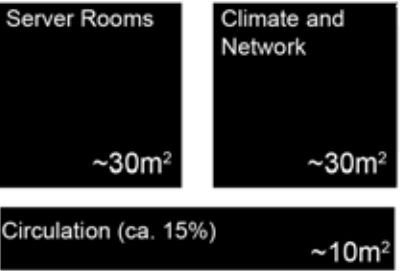
	A	B	C
Urban Relation			
Scale			
Frequency			
Social Construct	public	civic	private



A

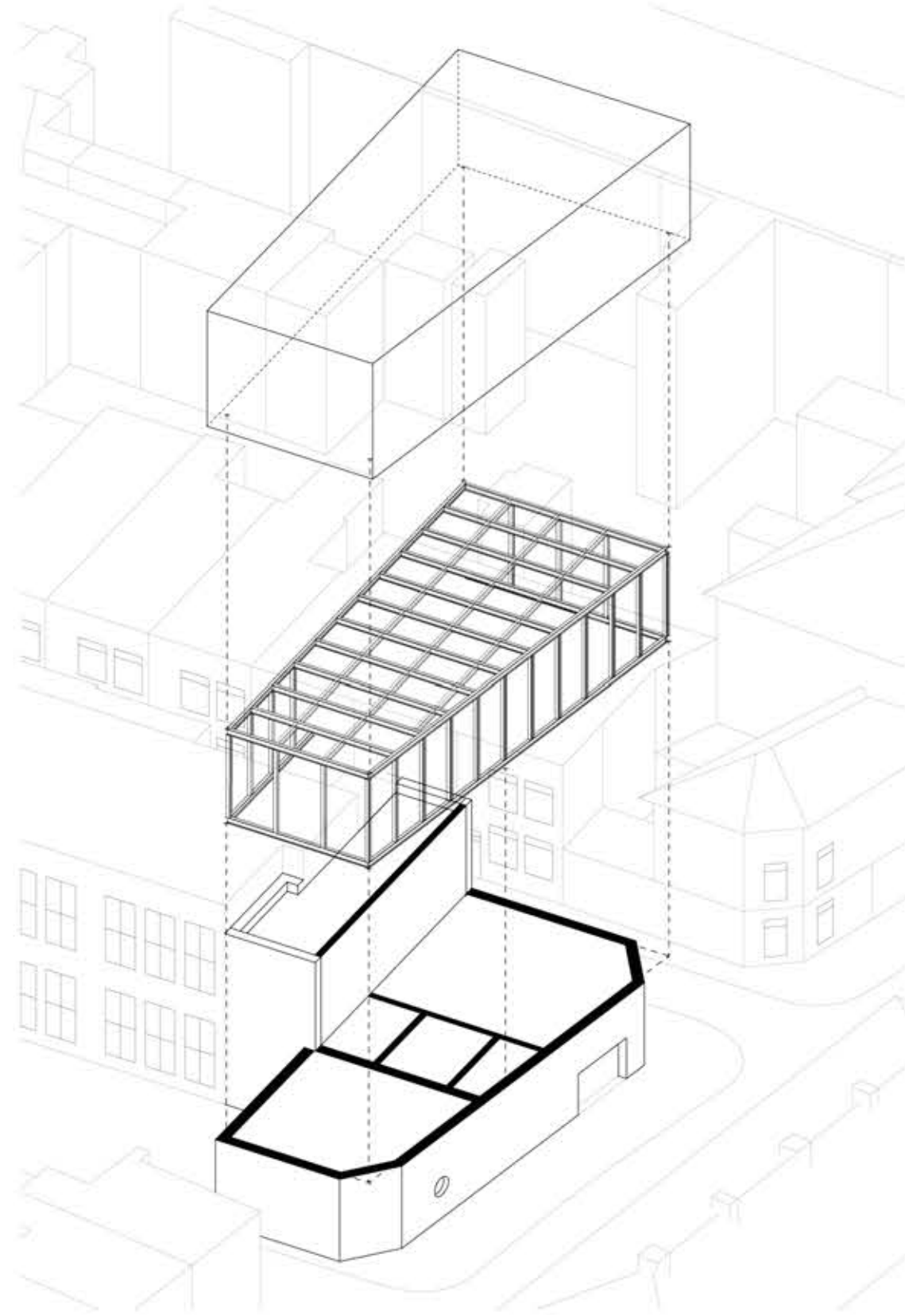


B

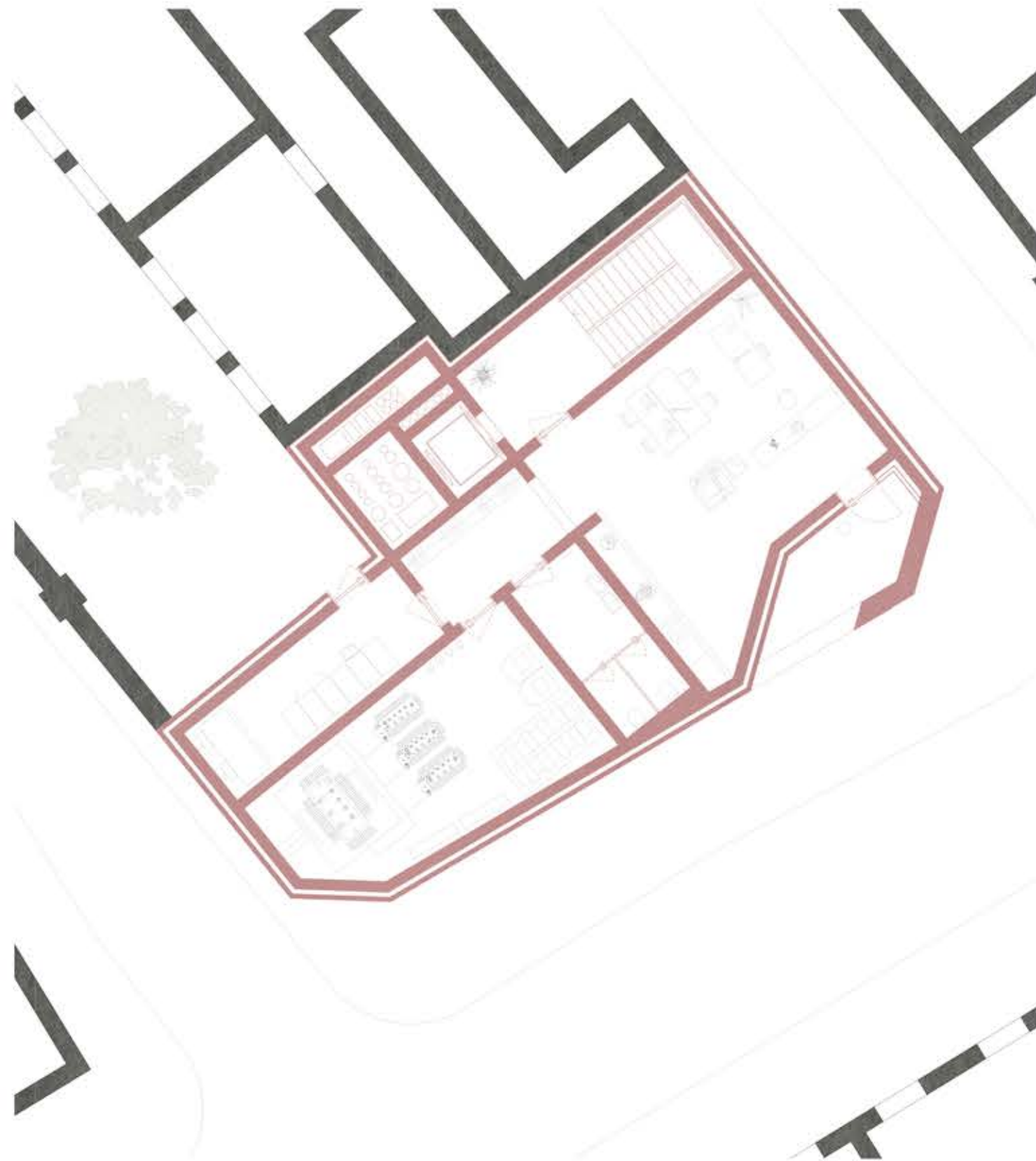


C

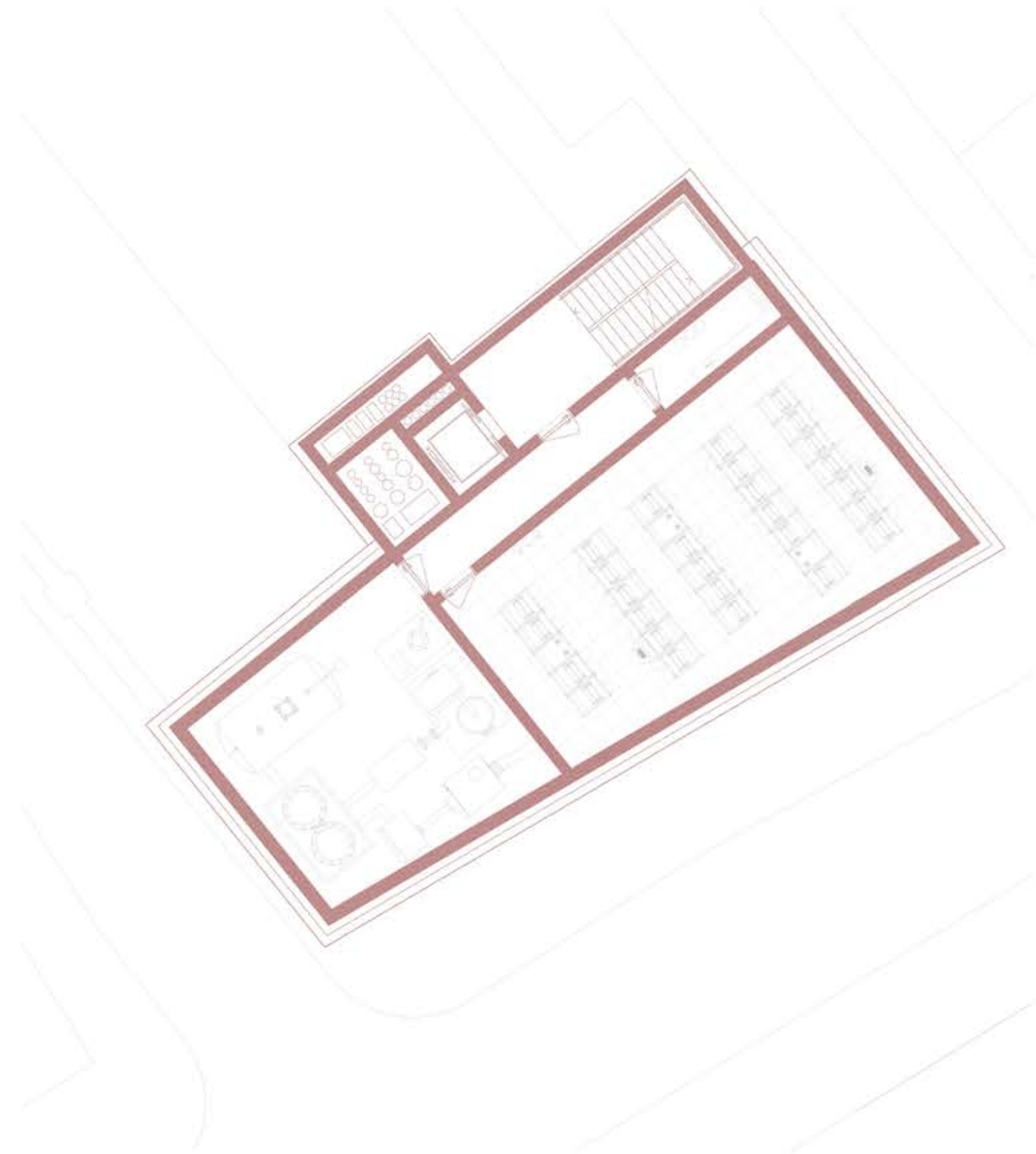
TYPE A



Construction System Diagram

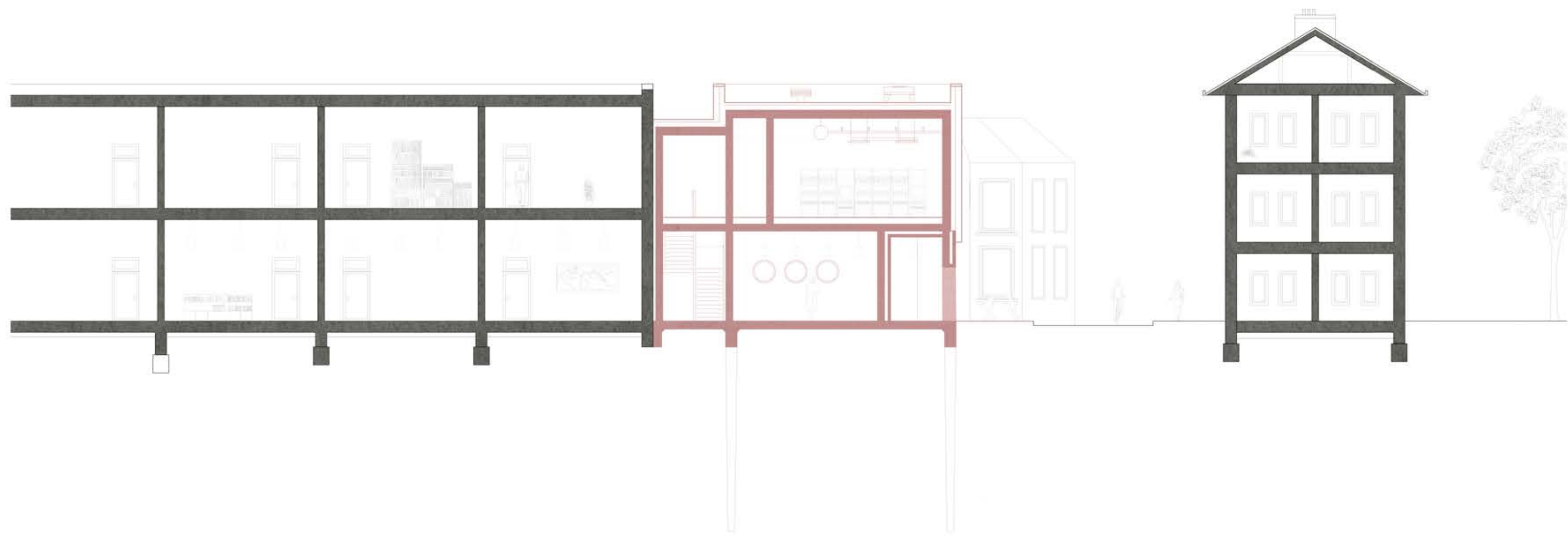


Groundfloor Plan Type A

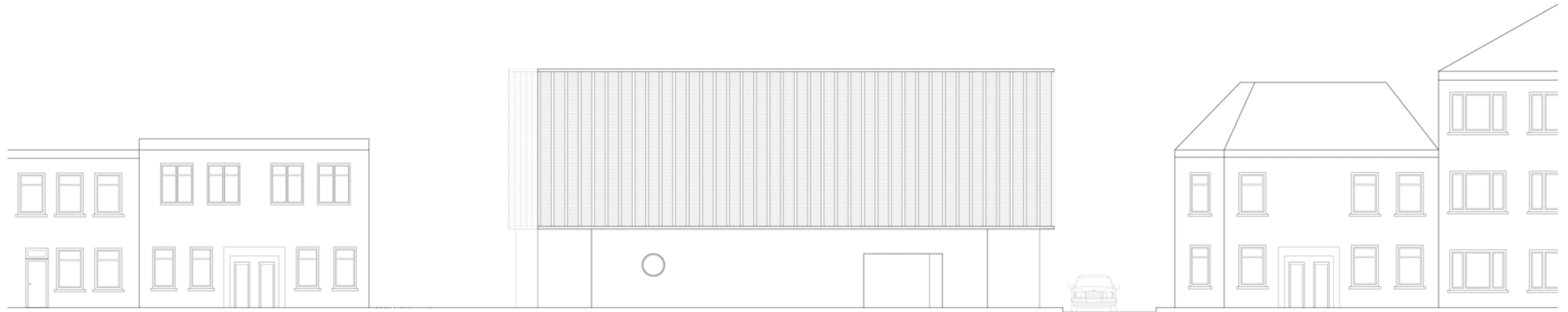


Second Floor Plan Type A

Type A

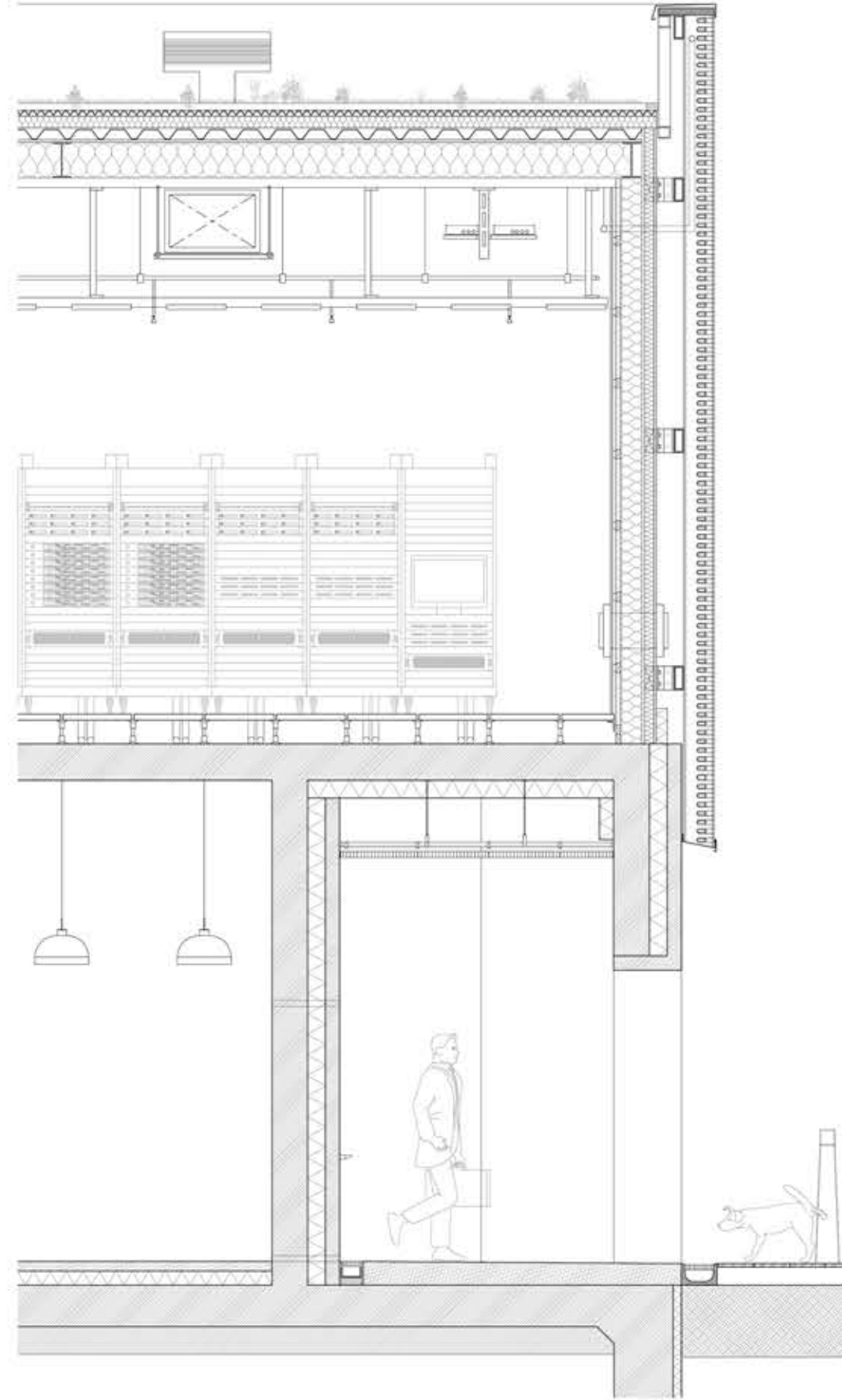


Section Type A

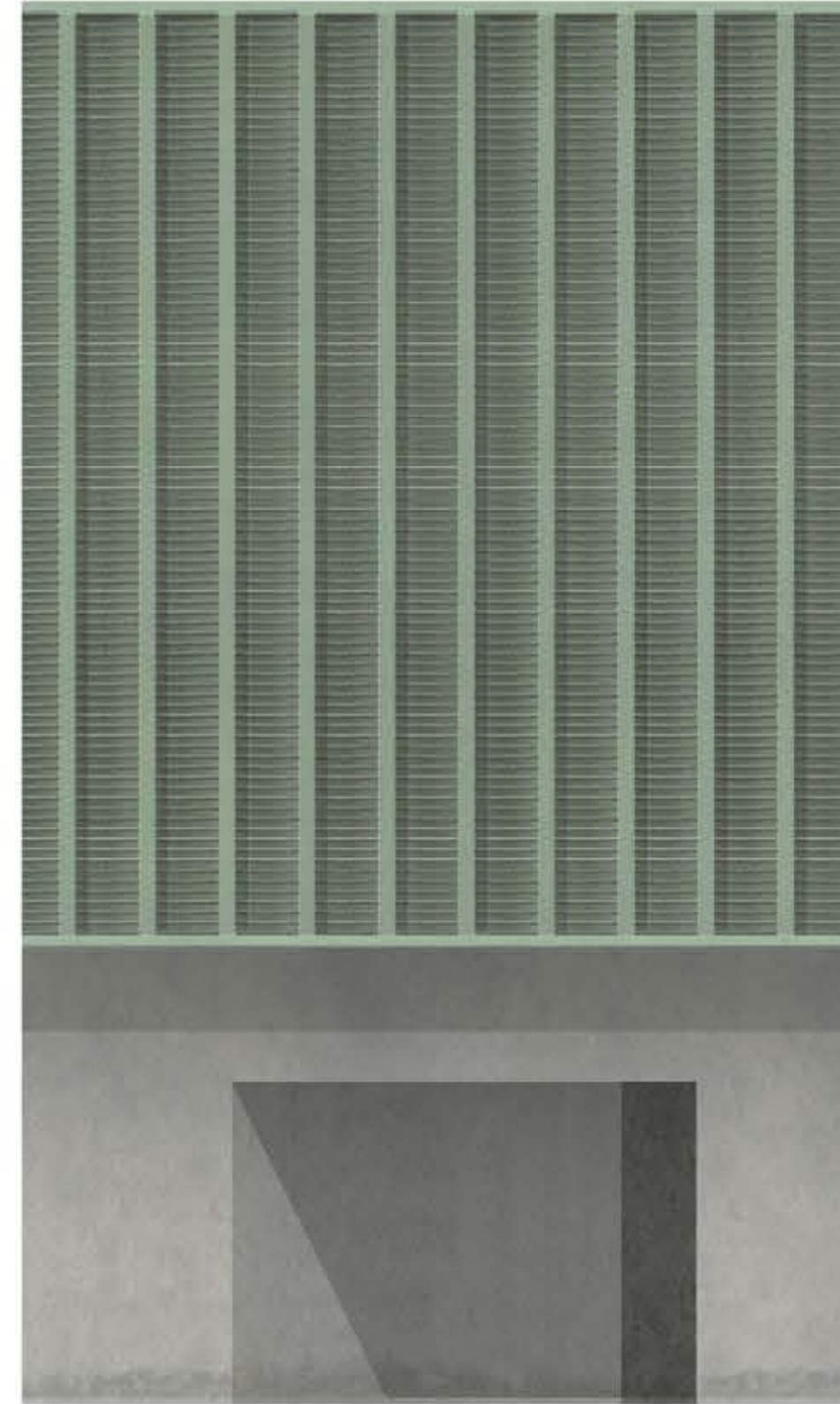


Elevation Type A

Type A

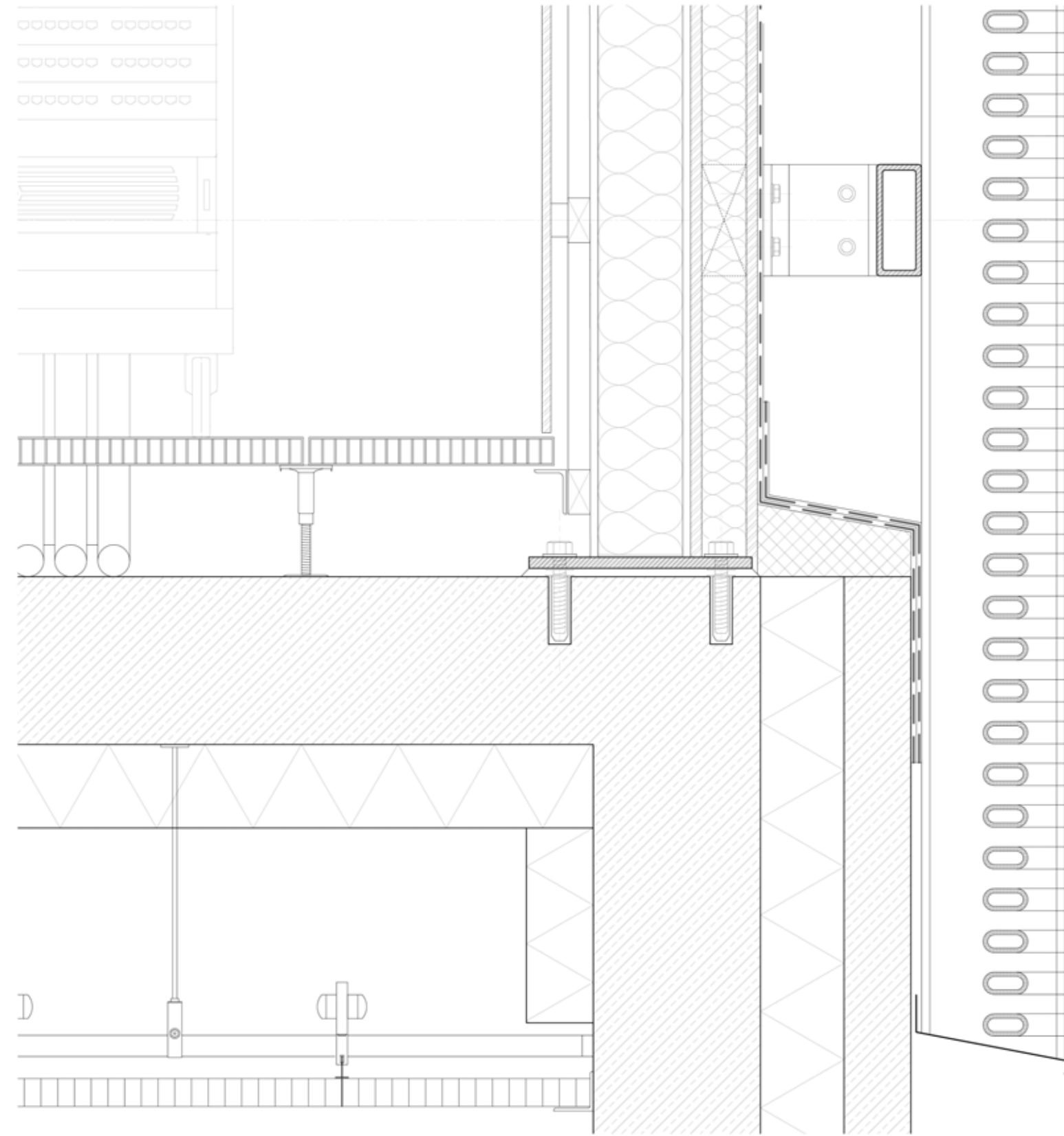


Section Detail Type A



Elevation Detail Type A

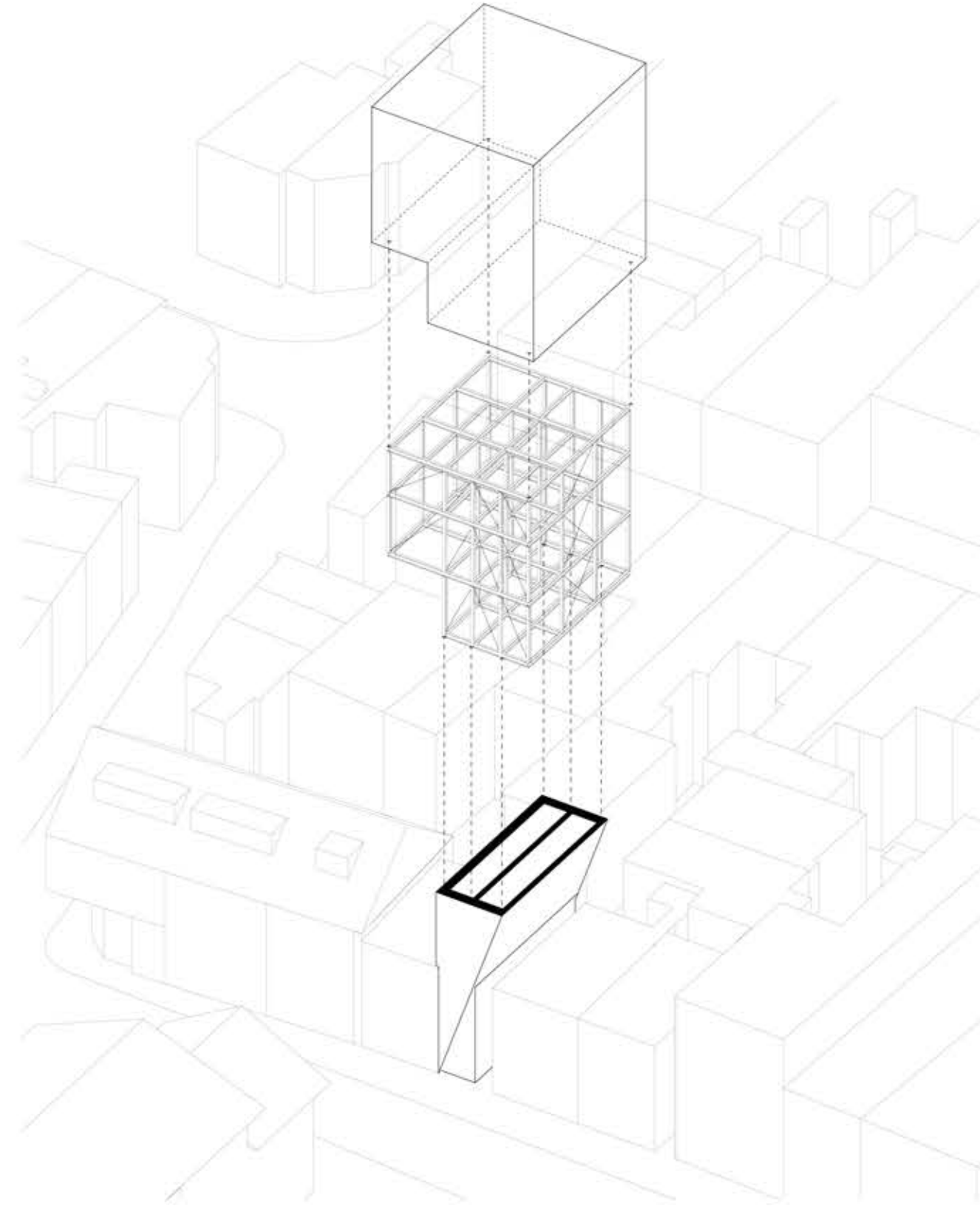
Type A



Detail Transition

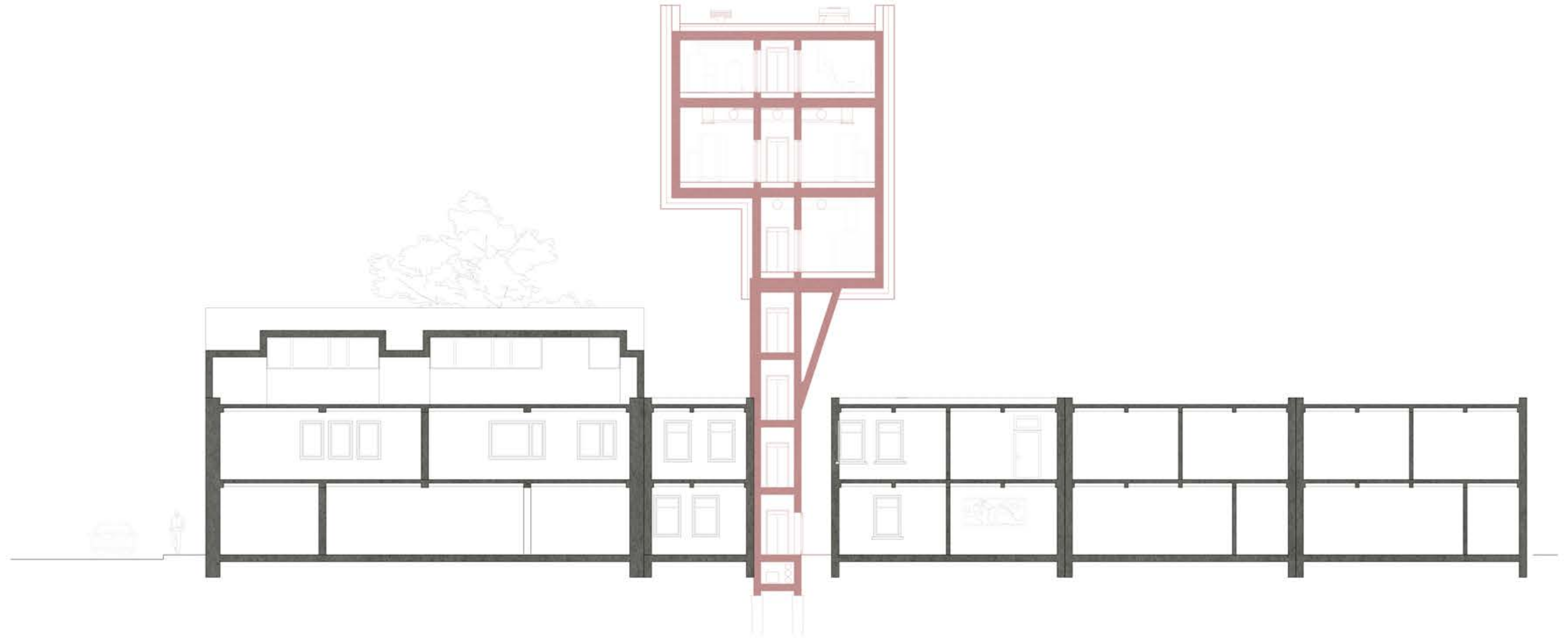


TYPE B

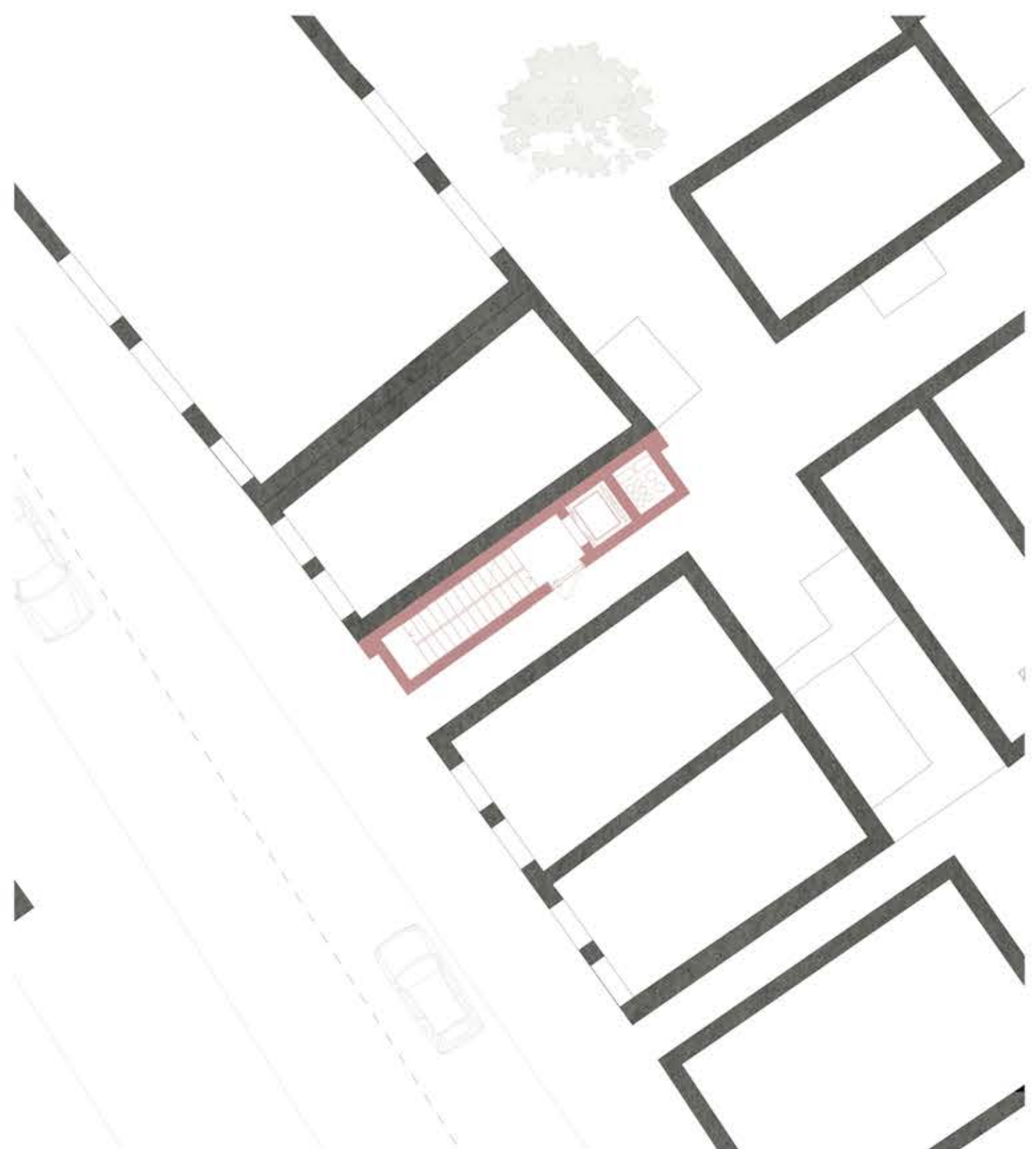


Construction System Diagram

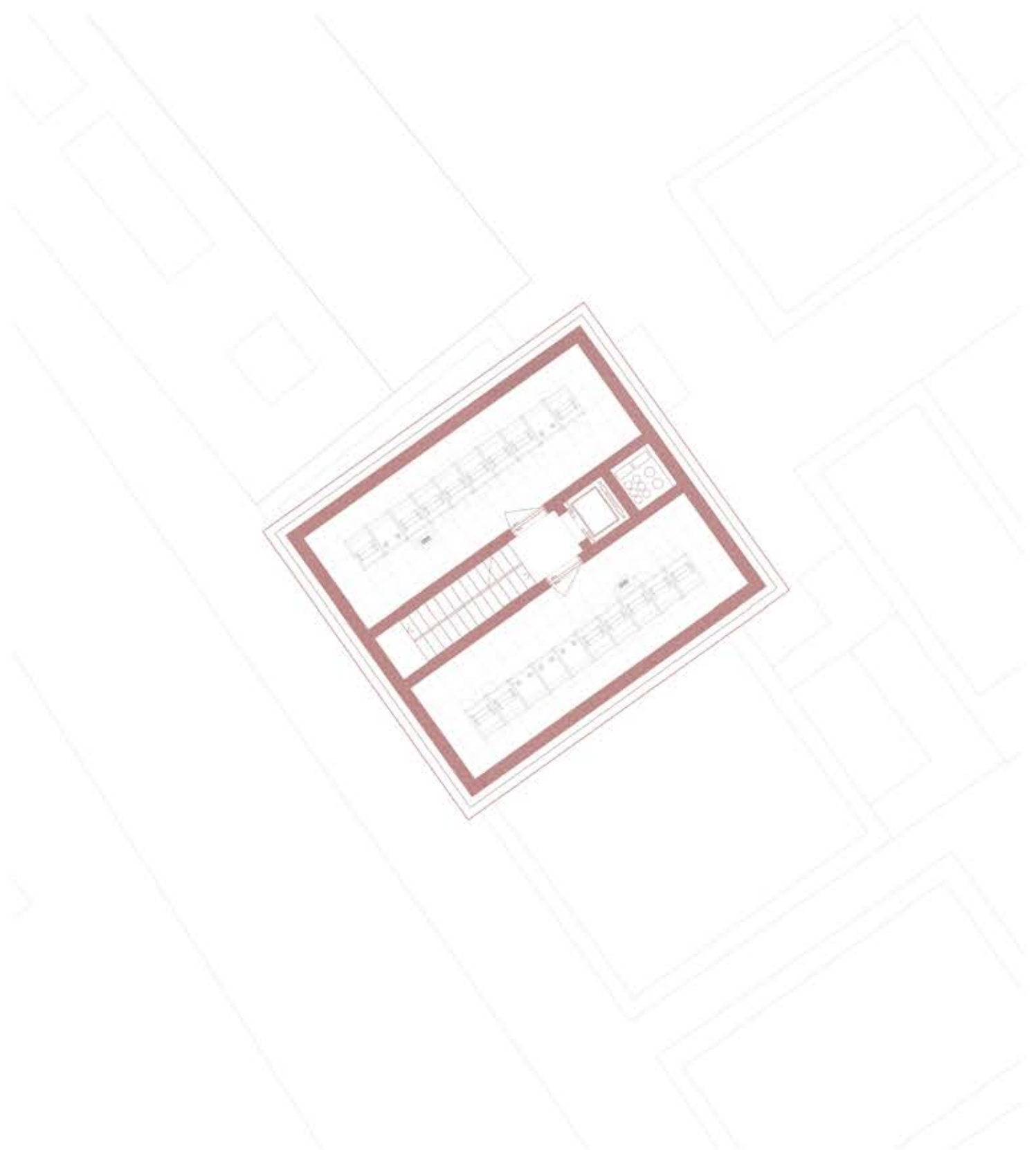
Type B



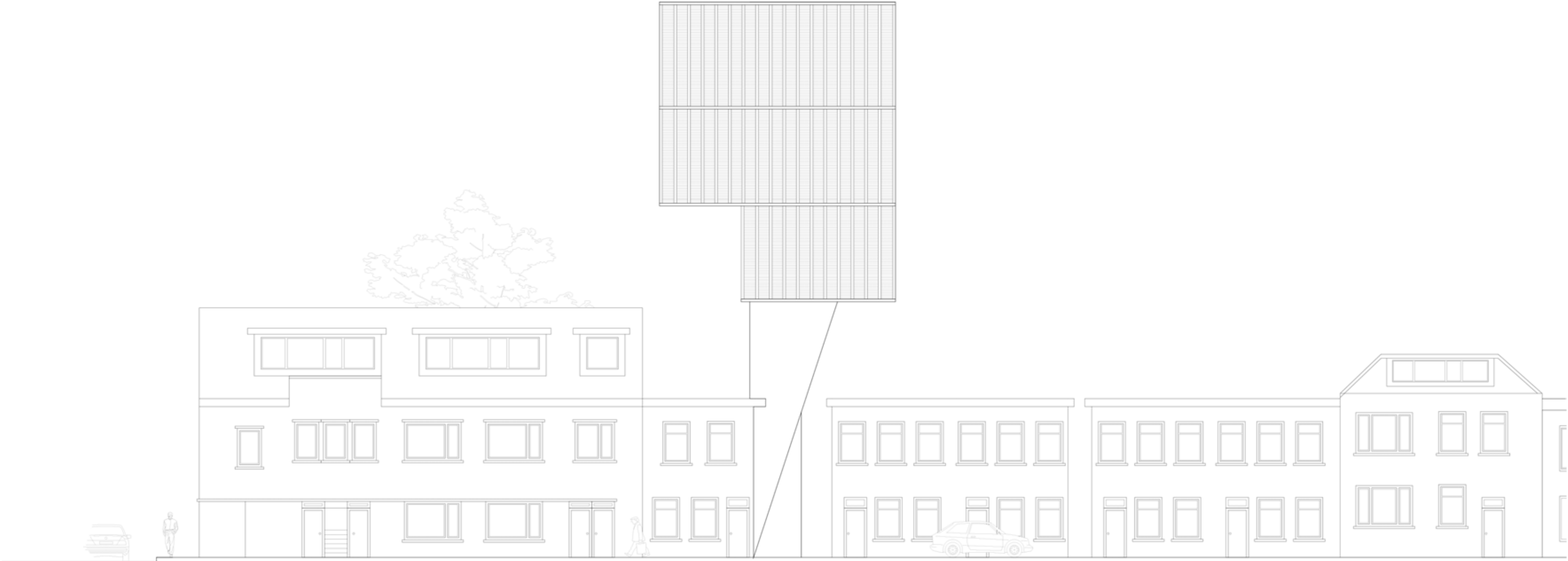
Section Type B



Groundfloor Plan Type B

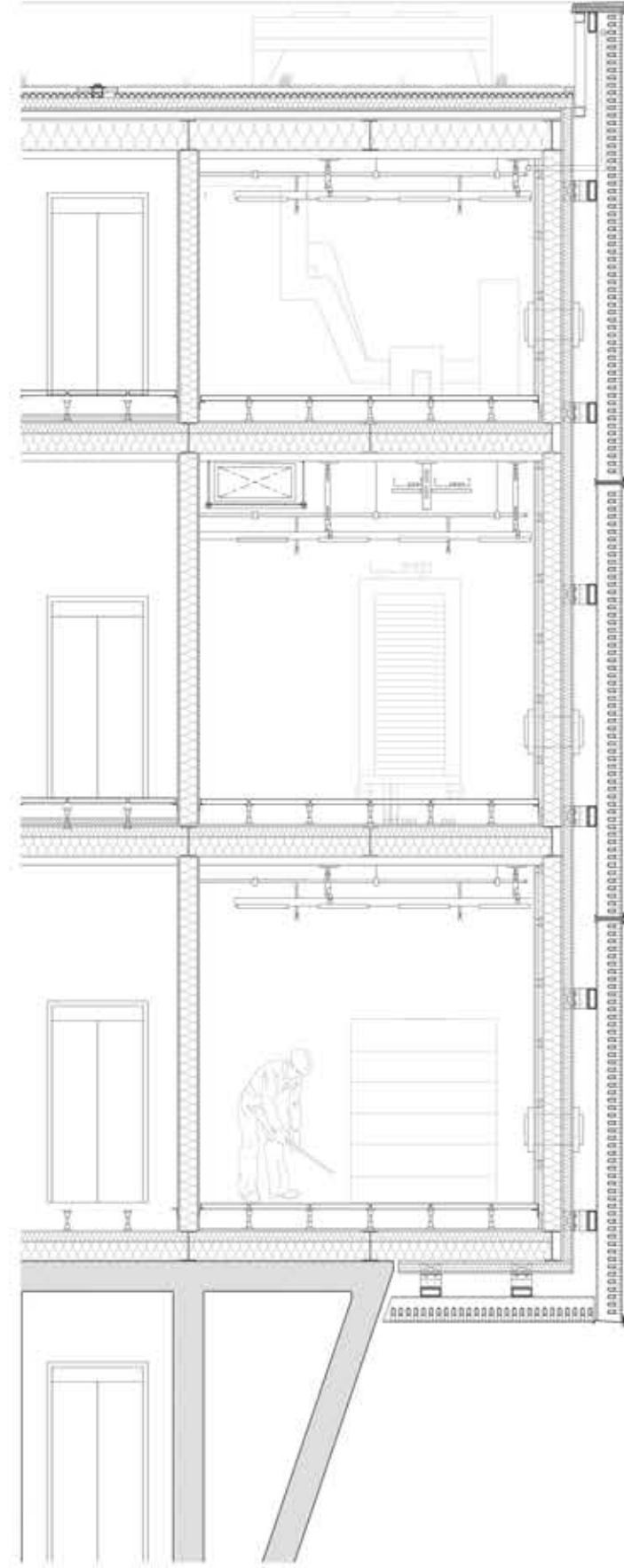


6th Floor Plan Type B

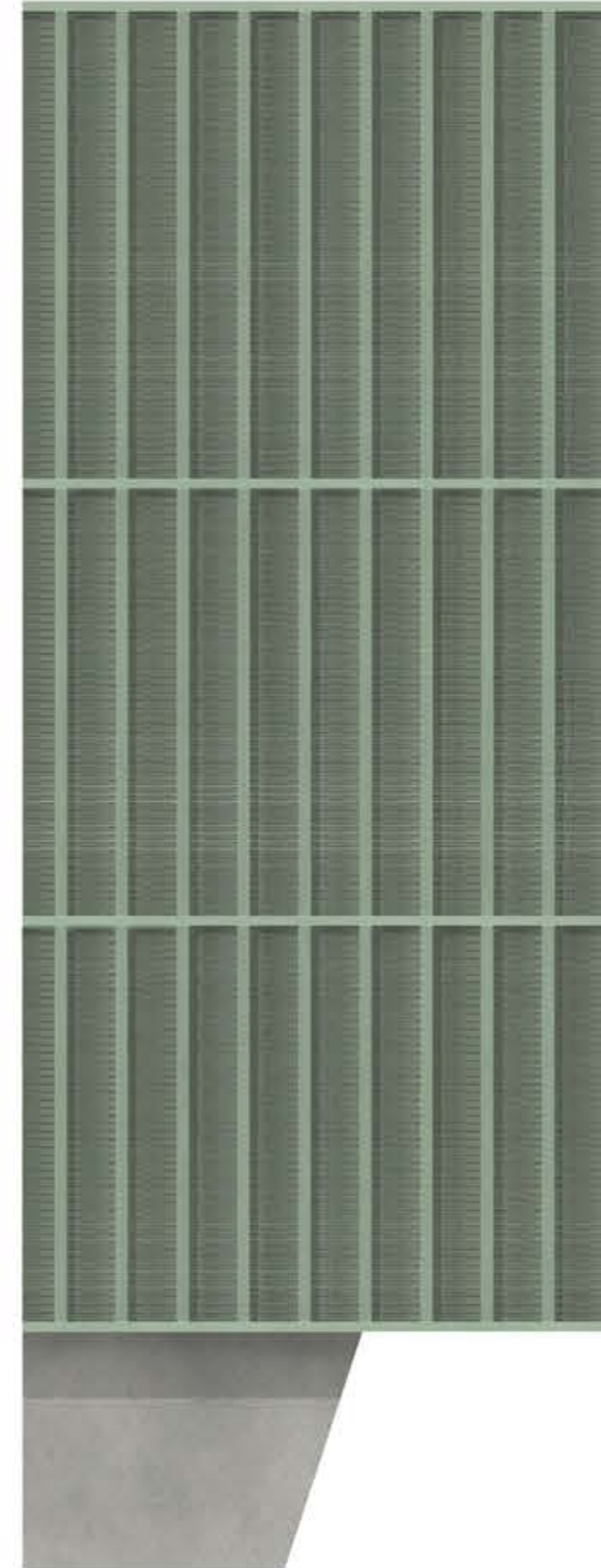


Elevation Type B

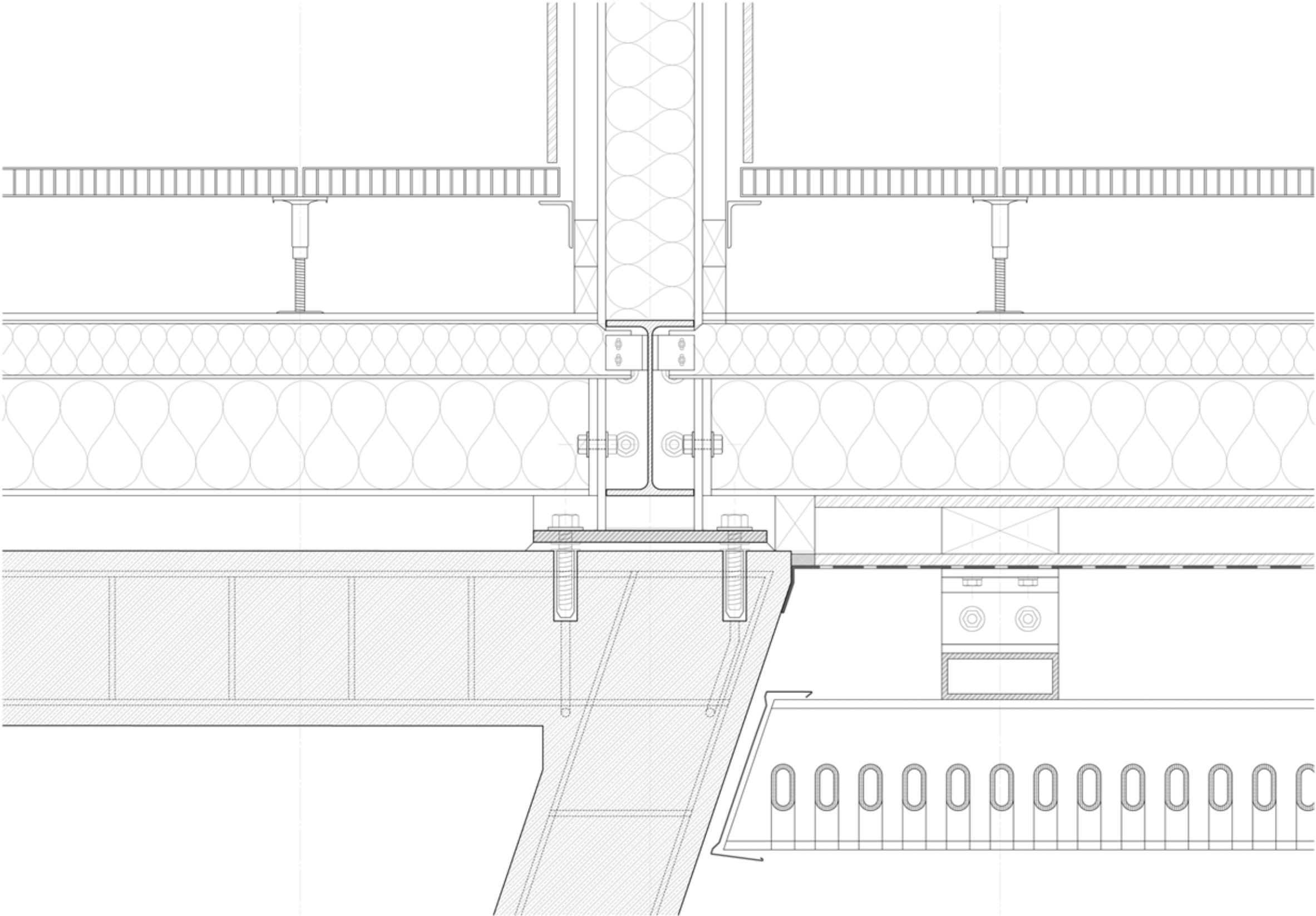
Type B



Section Detail Type B



Elevation Detail Type B

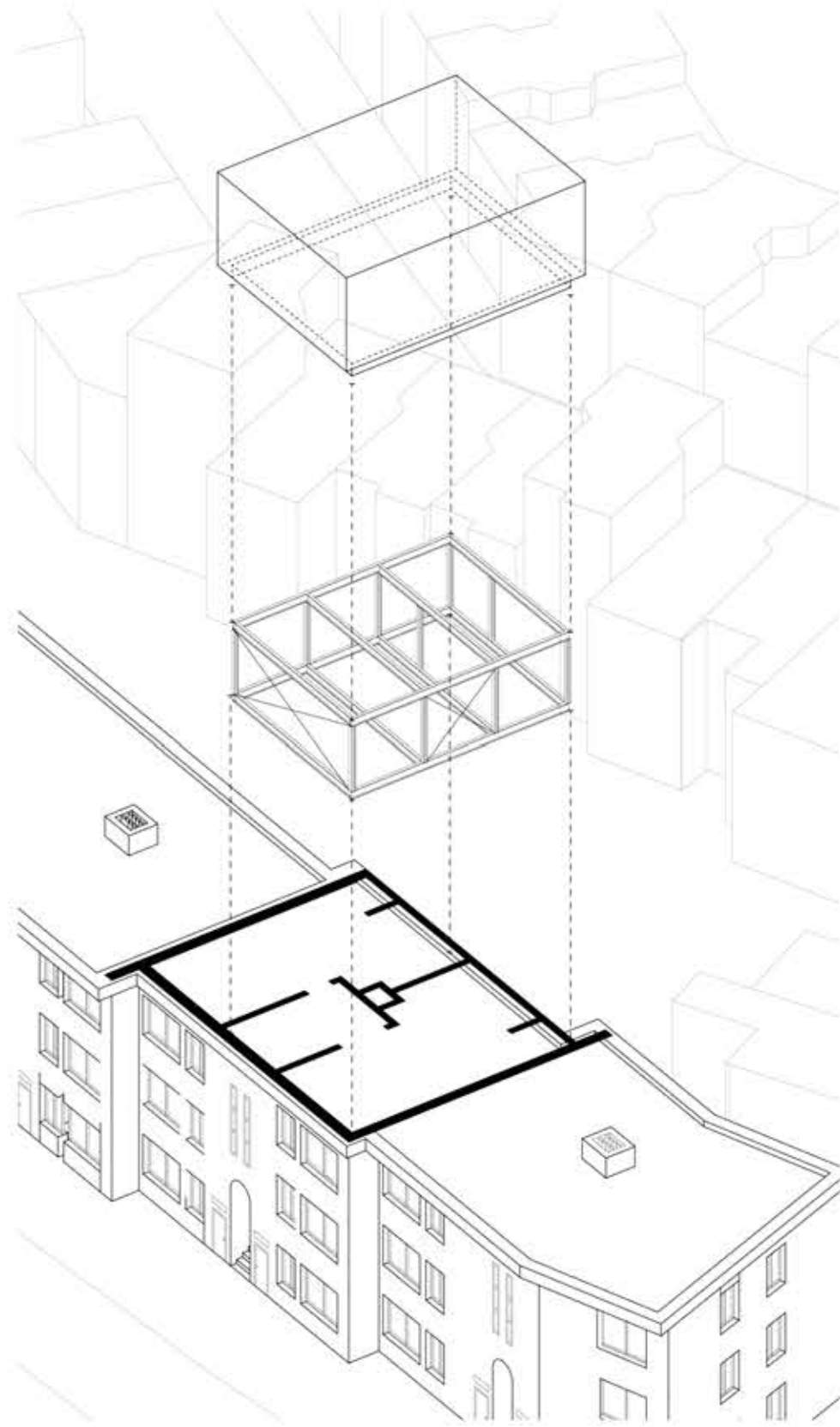


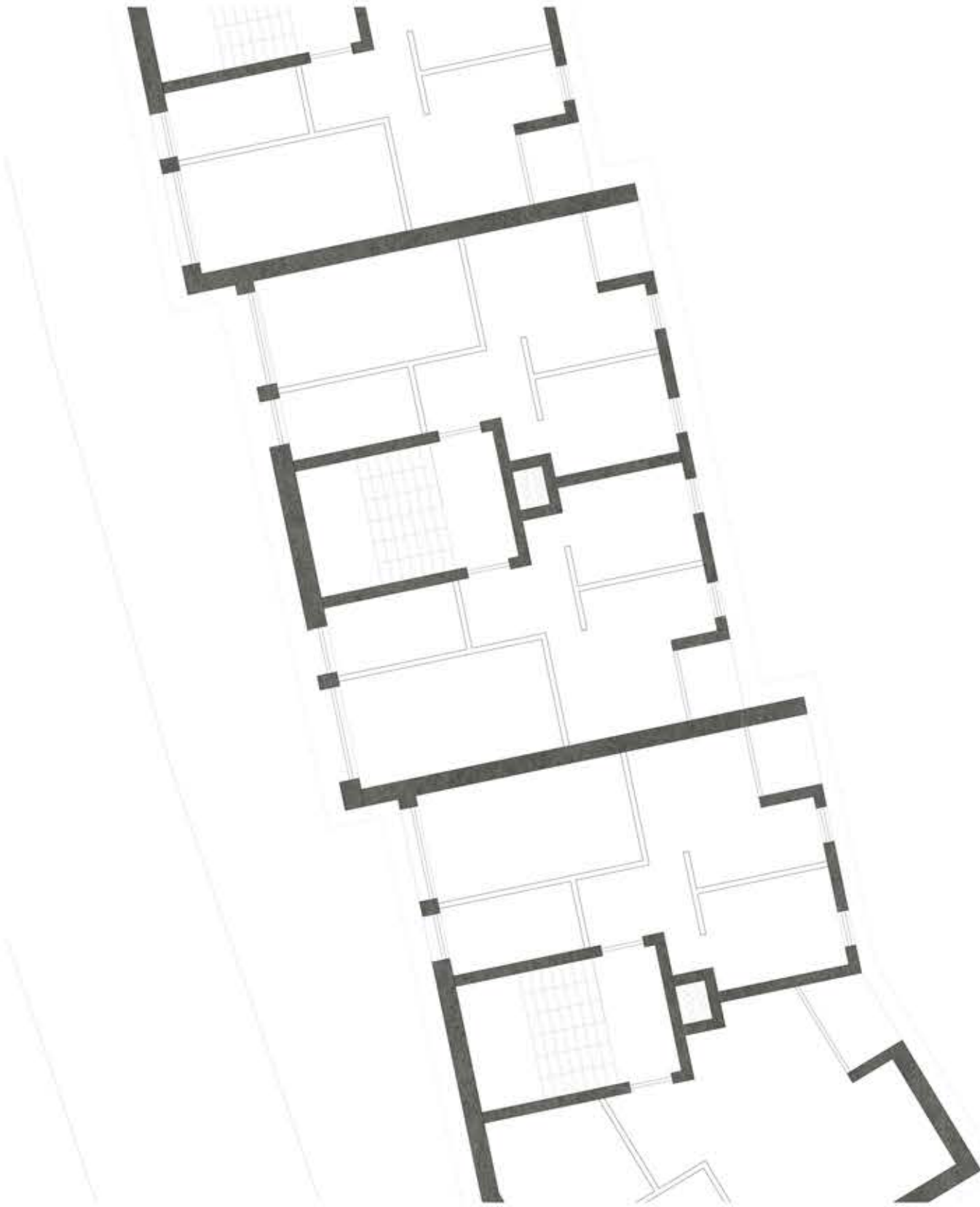
Transition Detail Type B



TYPE C

Type C



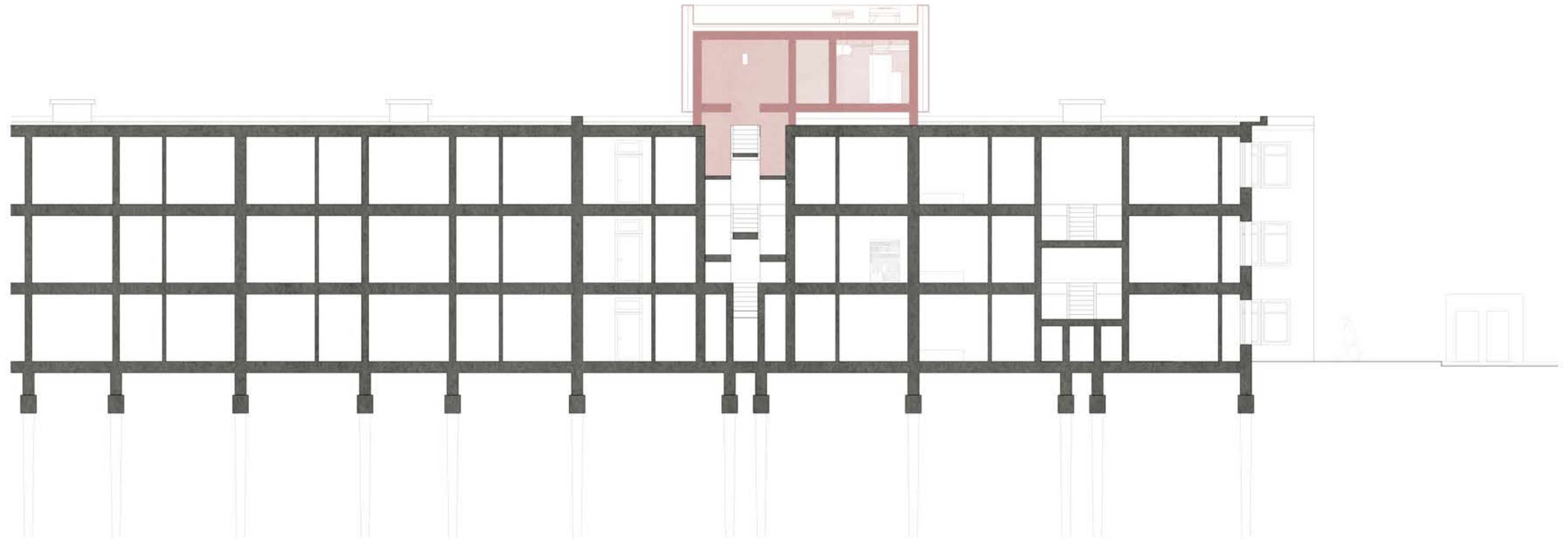


3rd Floor Plan



4th Floor Plan Type C

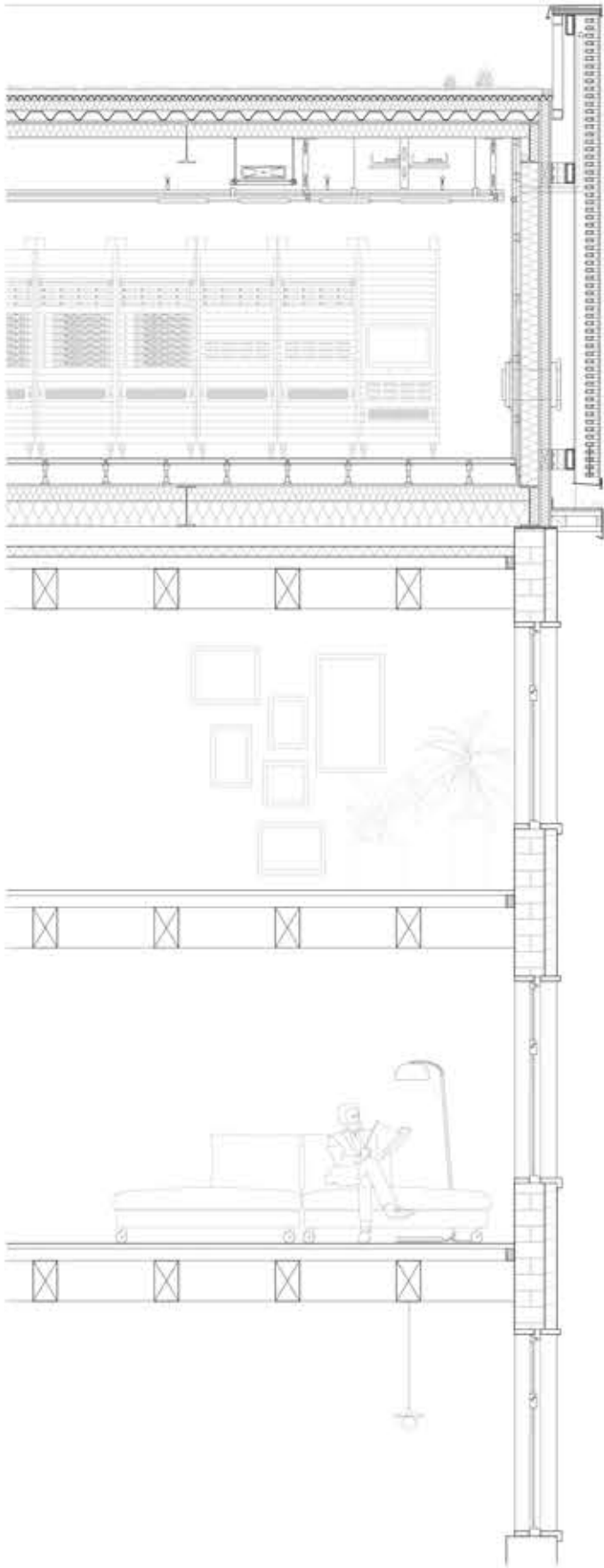
Type C



Section Type C



Elevation Type C

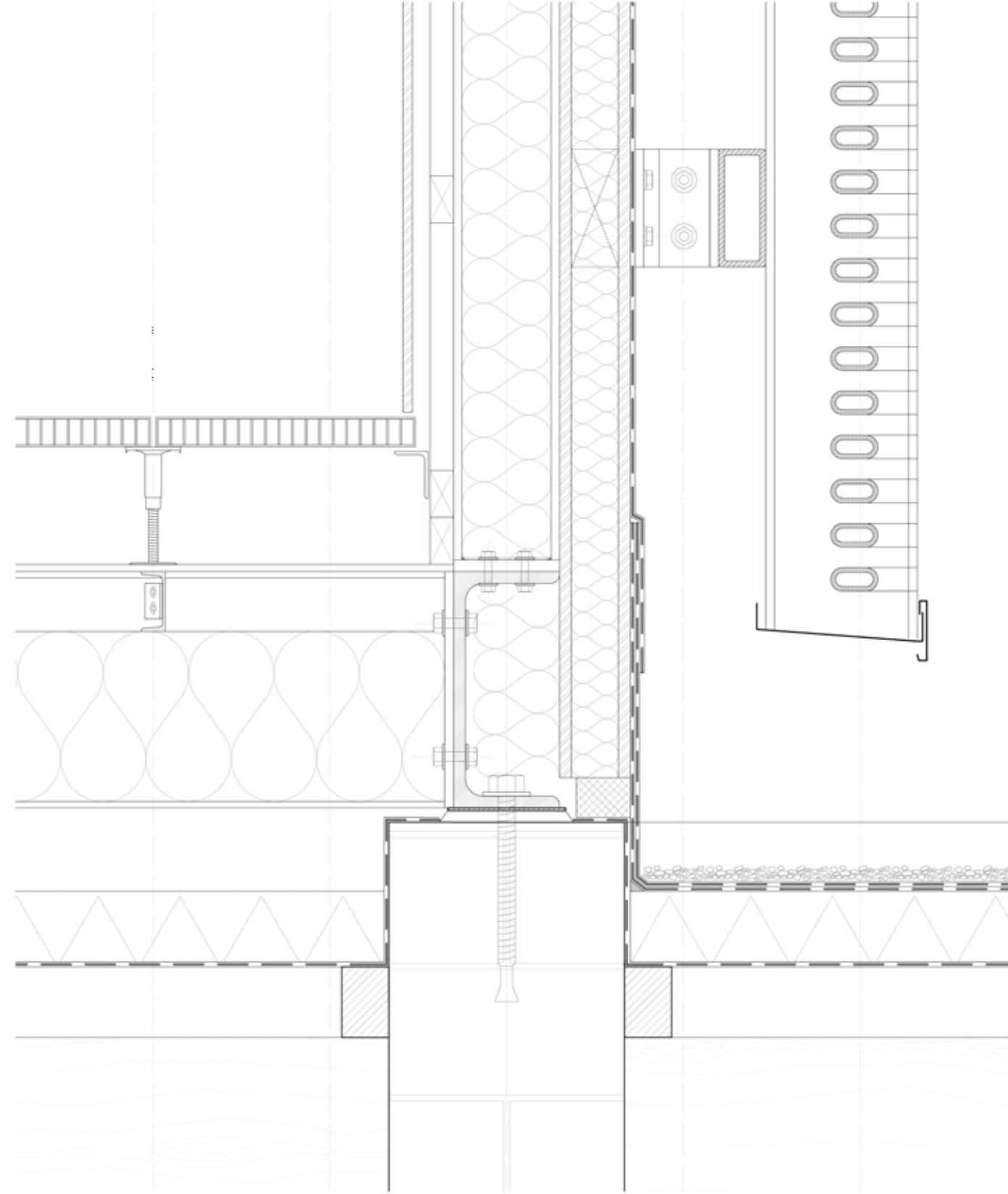


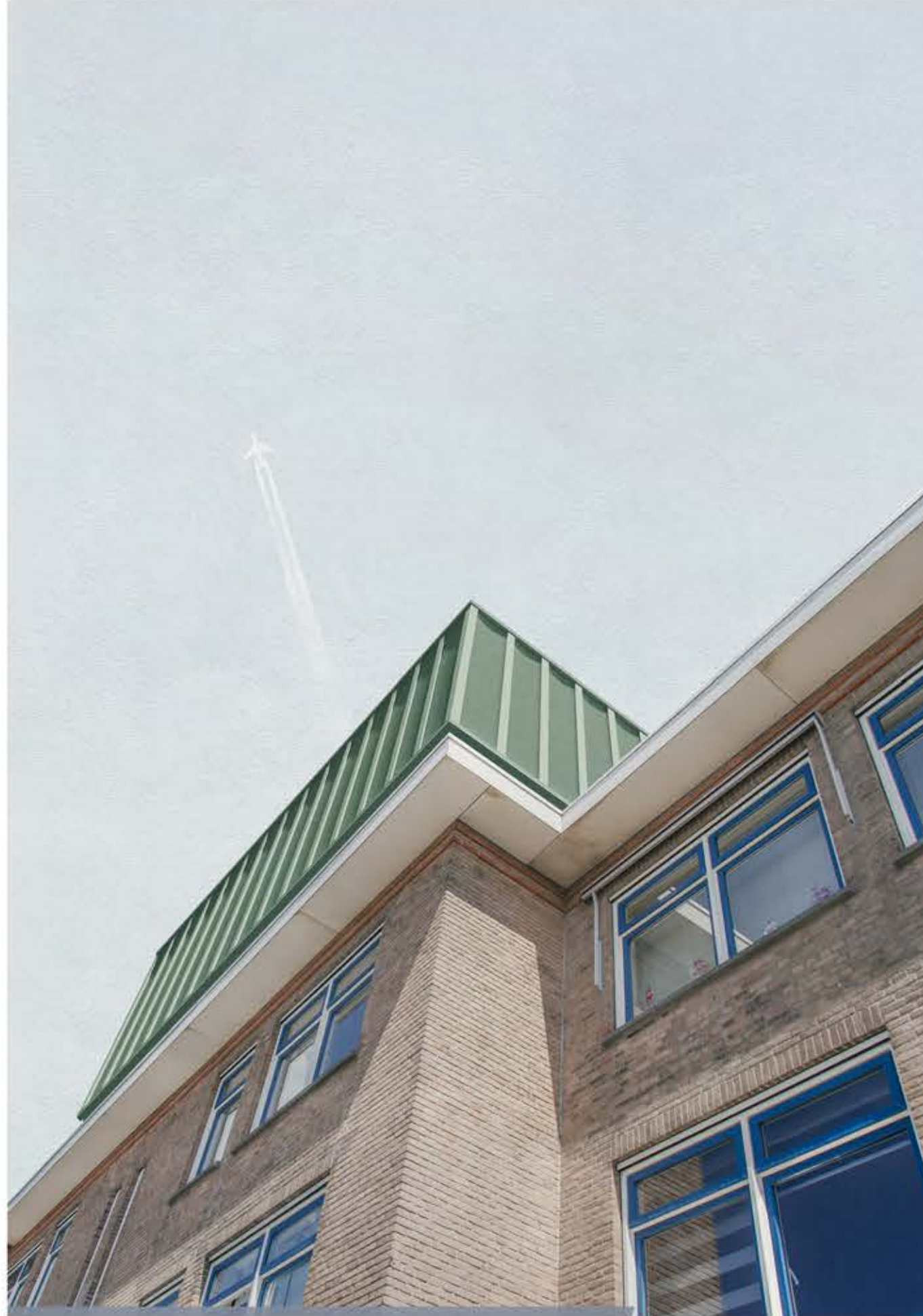
Section Detail Type C



Elevation Detail Type C

Type C

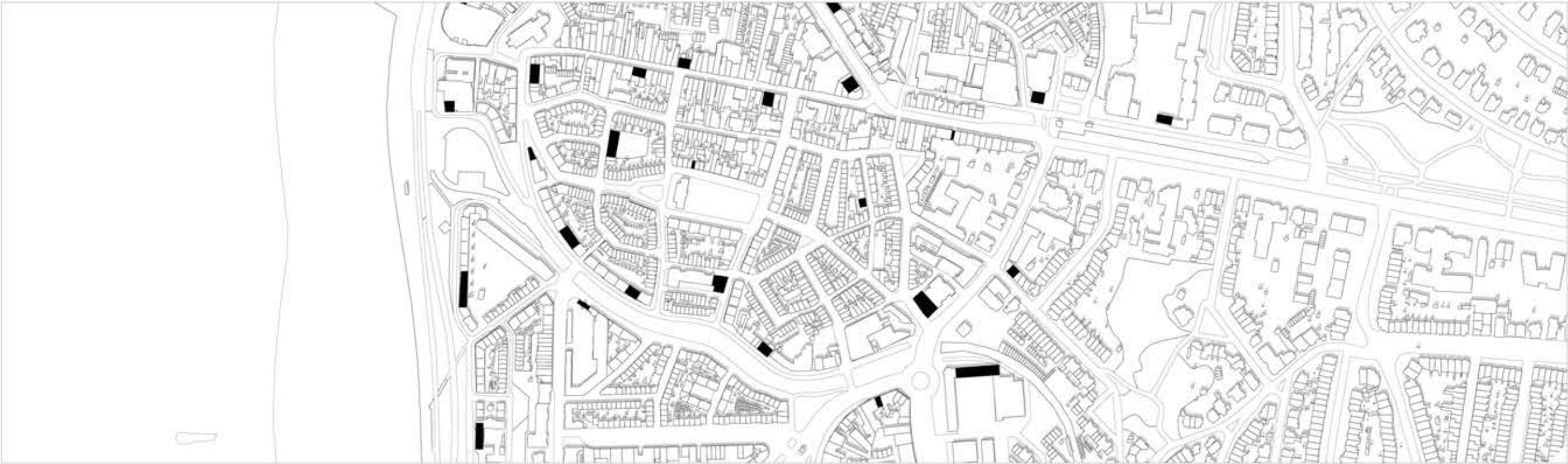








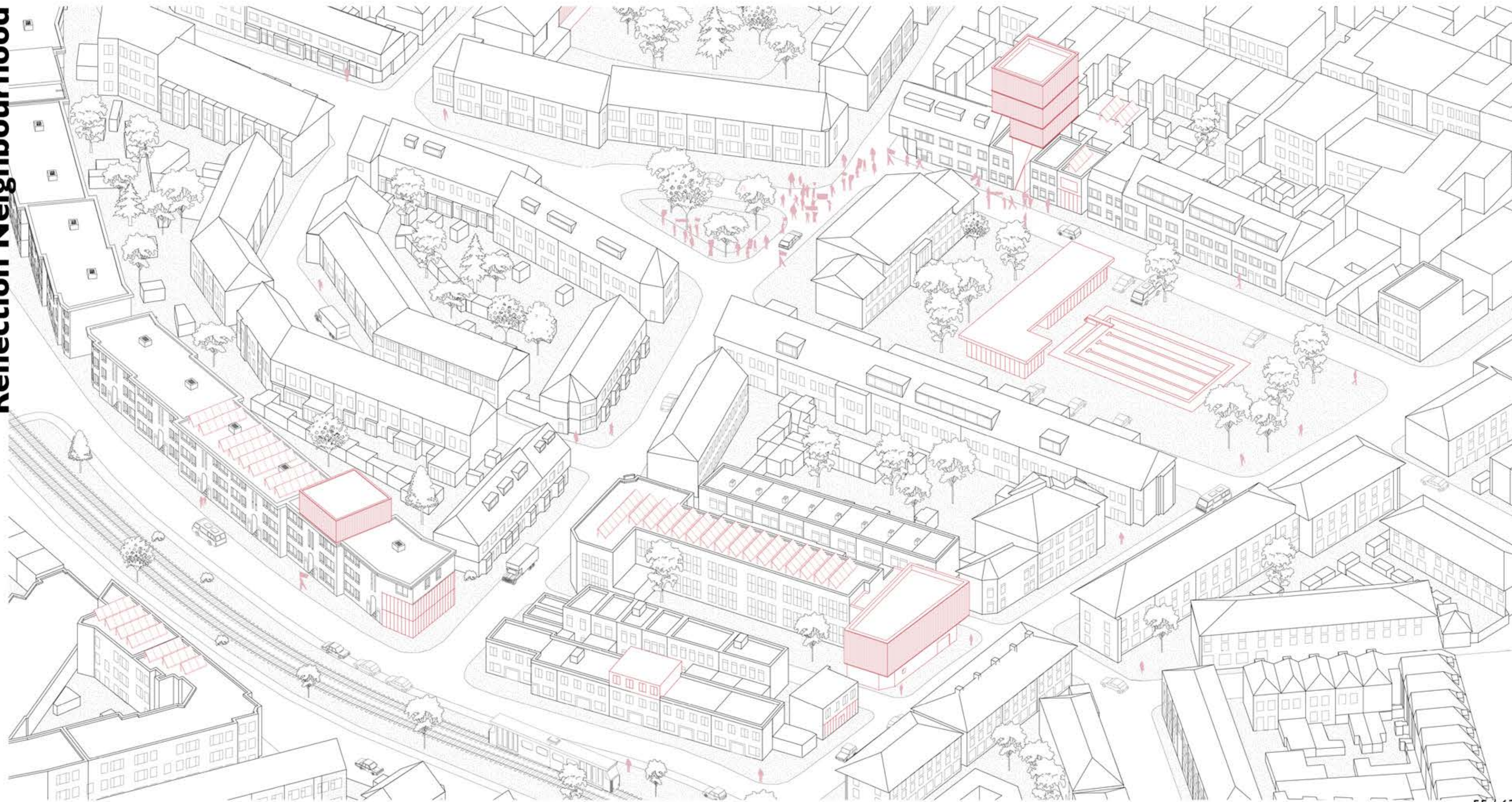
Potential Sites



Resultant Network



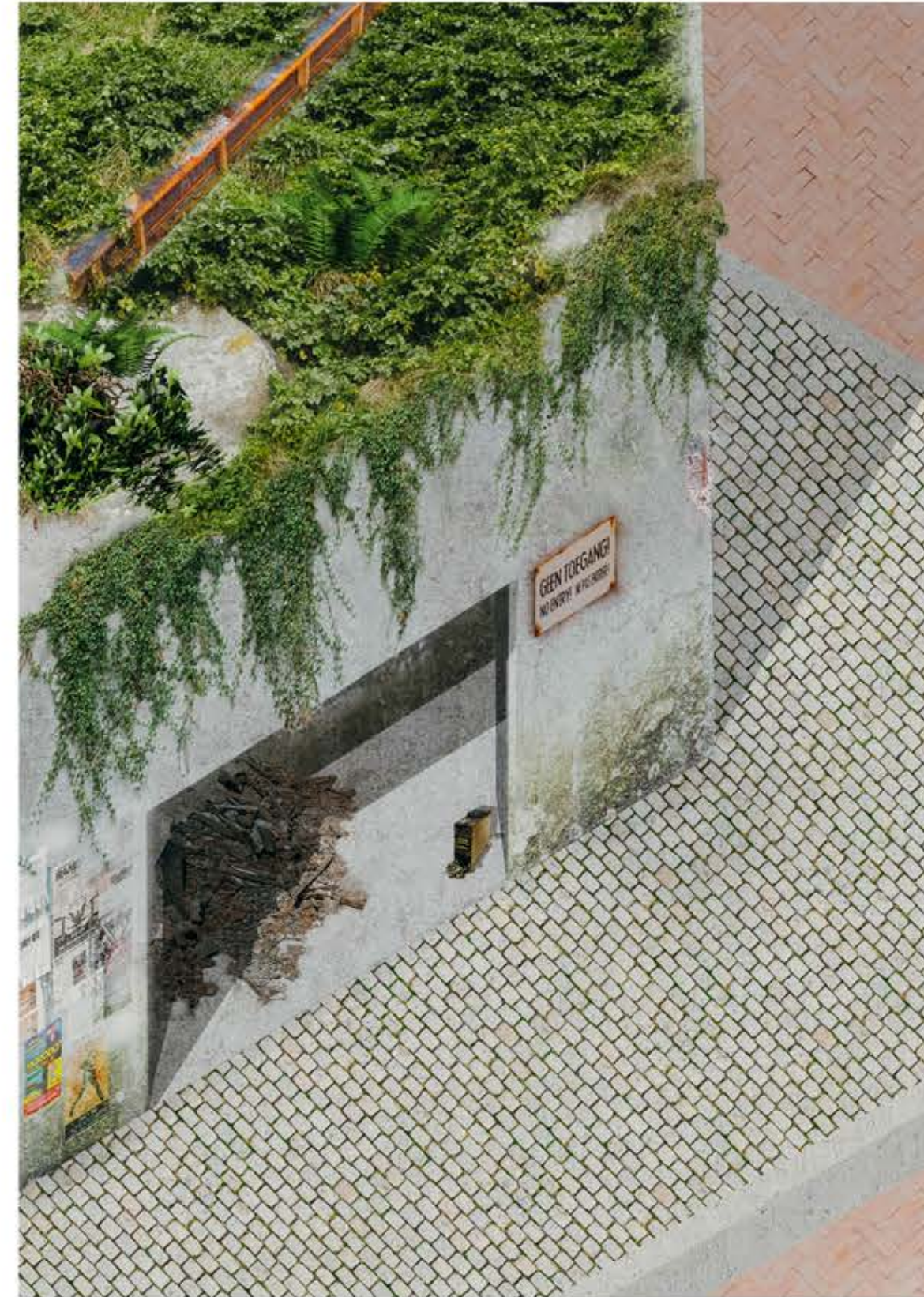
Reflection Neighbourhood



Reflection Type A



Usage Type A



Scenario Type A

Reflection Type B



Usage Type B



Scenario Type B

Reflection Type C

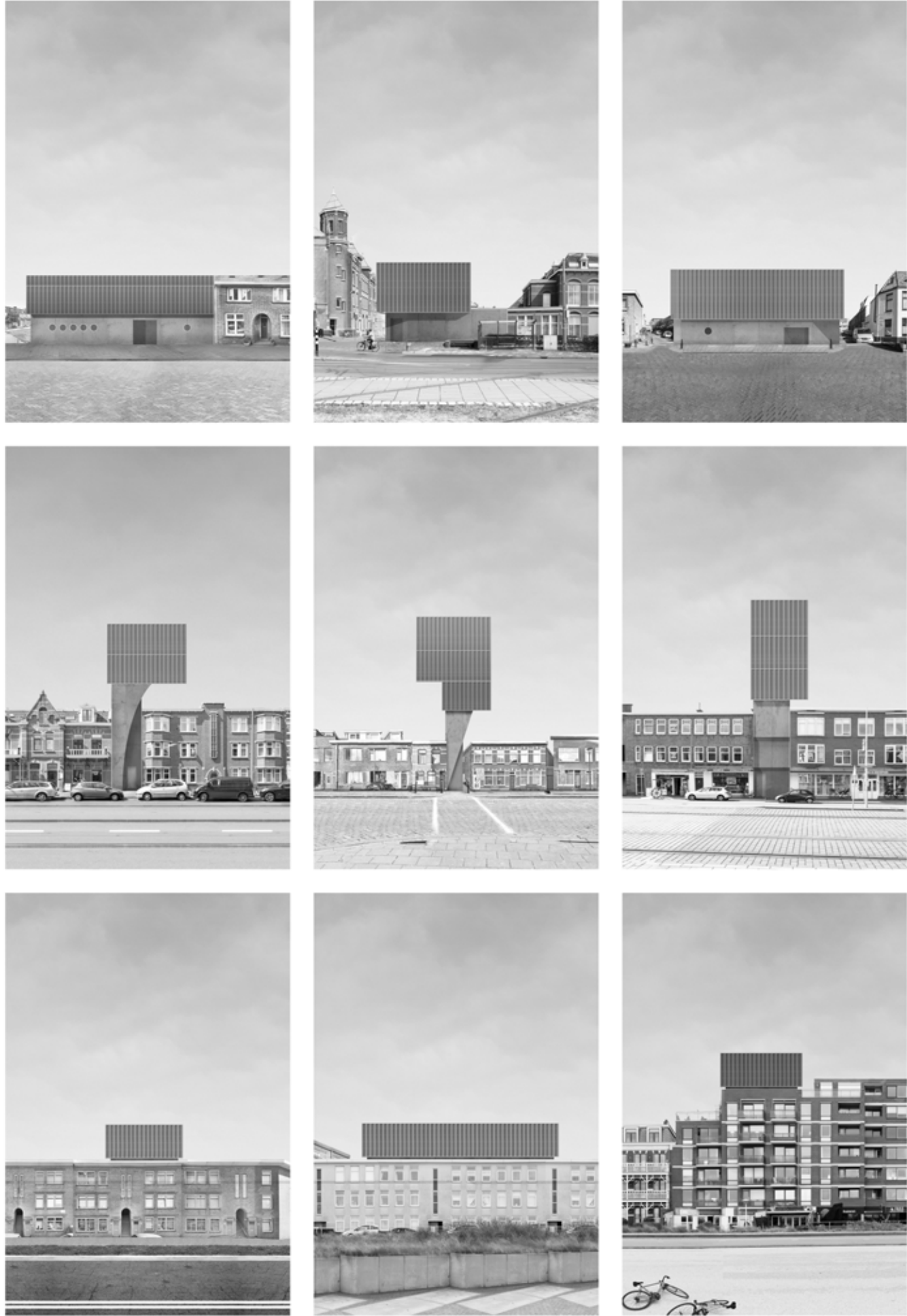


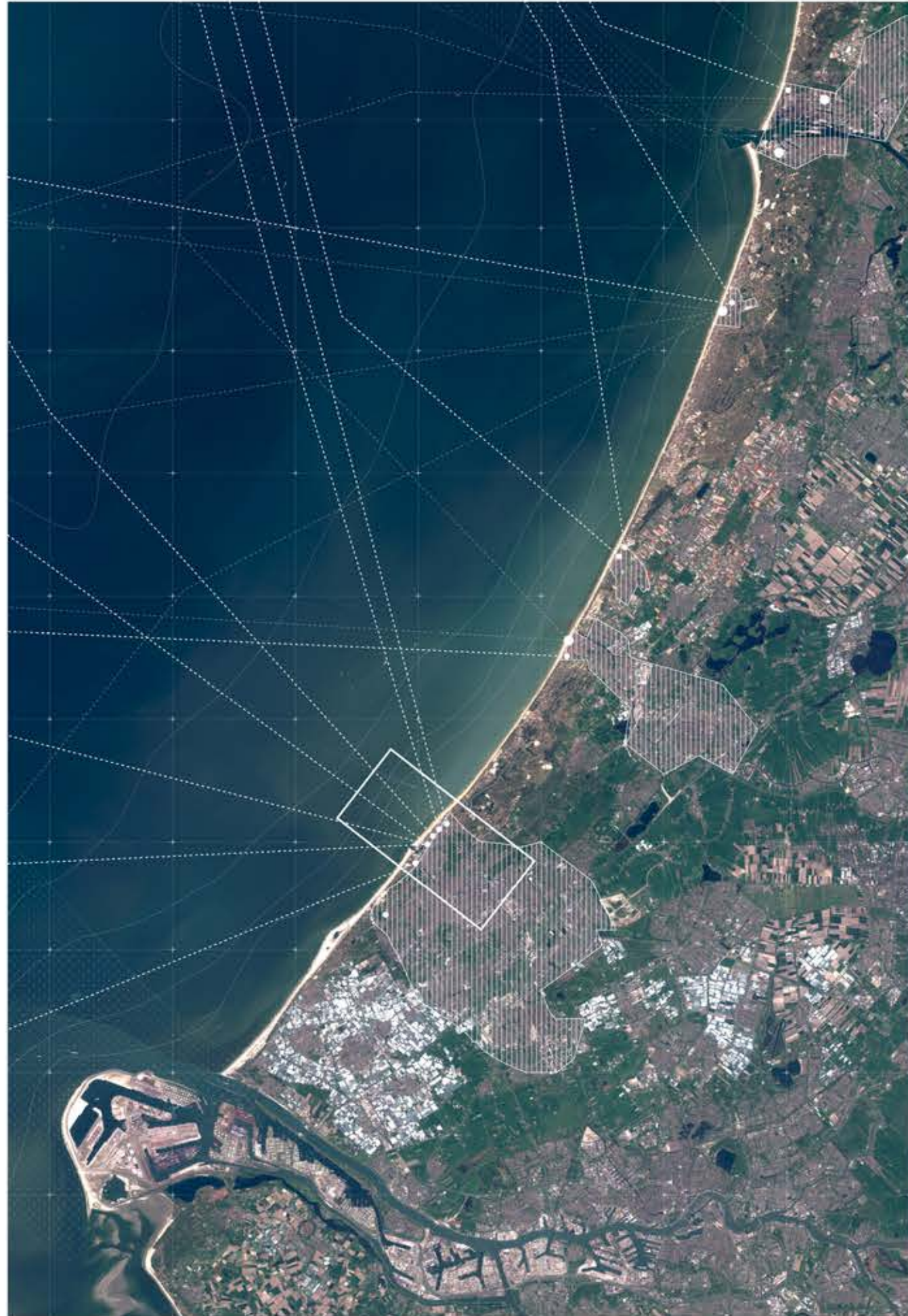
Usage Type C



Scenario Type C

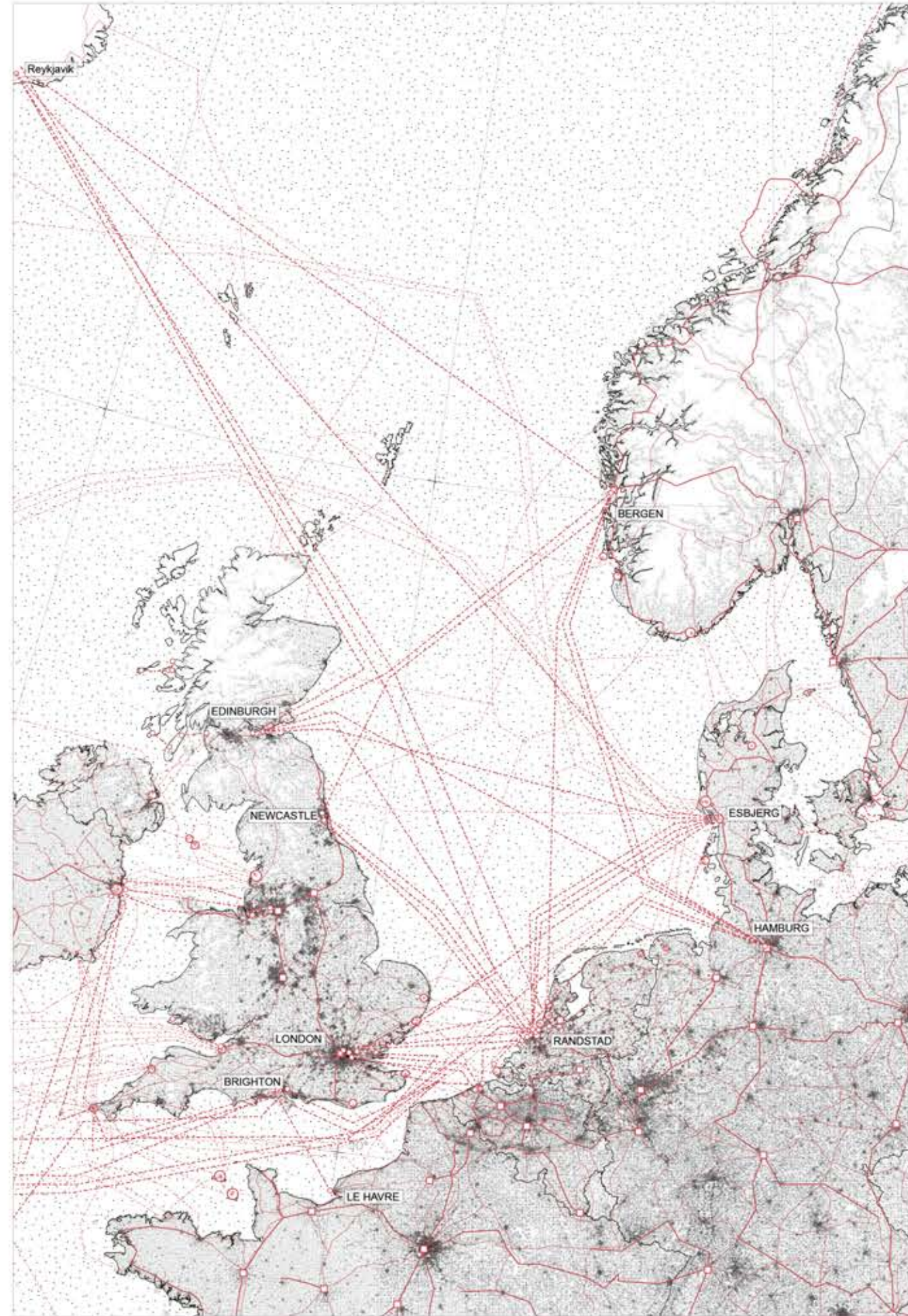
Reflection Typology





Regional Impact

Territory Projection



Territorial Conclusion

Conclusion

