
smalltext*

<https://youtu.be/KJXdqRbHQWw?si=ptFU0ySsJDQLZi-l>

video

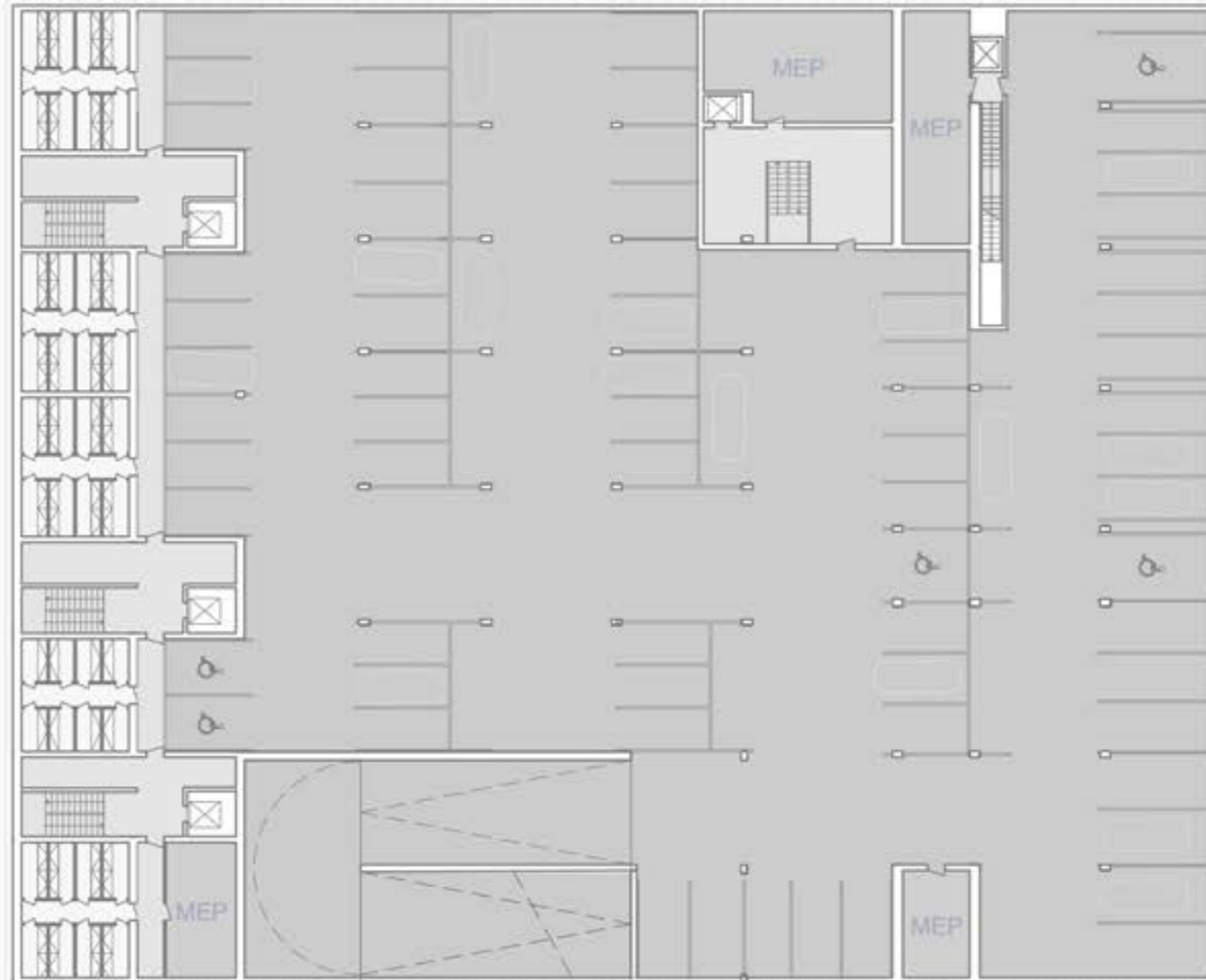
the video is a satire to low quality, often AI internet adverts, trying to sell you even lower quality products

western harbour



Welcome to Edinburgh - Now on sale!
The place to be!

Plans only to a residential site, details





A1..... 45m ²	A2..... 60m ²	A3..... 60m ²	A4..... 60m ²	A5..... 60m ²	A6..... 60m ²	A7..... 60m ²	A8..... 60m ²	A9..... 42m ²	A10..... 42m ²
B1..... 70m ²	B2..... 70m ²	B3..... 60m ²	B4..... 60m ²	B5..... 60m ²	B6..... 60m ²	B7..... 60m ²	B8..... 70m ²	B9..... 70m ²	B10..... 70m ²
							D1..... 81m ²	D2..... 40m ²	D3..... 40m ²





A1 _____ 45m²

A2 _____ 60m²
B1 _____ 70m²

A3 _____ 60m²
B2 _____ 70m²

A4 _____ 60m²
B3 _____ 60m²

A5 _____ 60m²
B4 _____ 60m²

A6 _____ 60m²
B5 _____ 60m²

A7 _____ 60m²
B6 _____ 60m²

A8 _____ 60m²
B10 _____ 60m²
D4 _____ 81m²

A11 _____ 42m²
B8 _____ 70m²
D5 _____ 40m²

A12 _____ 42m²
B9 _____ 70m²
D6 _____ 40m²





B11 70m²

B12 83m²

LIBRARY 160m²
 PUB 219+133m²

B13 78m²





A13 40m²

A14 89m²
 B14 79m²
 C1 57m²

A15 88m²
 B15 79m²
 C2 57m²
 D7 85m²

A16 105m²
 B16 79m²
 C3 57m²
 D8 94m²

A17 81m²
 B17 63m²
 C4 57m²

A18 61m²
 D18 76m²





B10 _____ 79m²

B20 _____ 79m²

A10 _____ 115m²

B21 _____ 79m²
 D0 _____ 173m²

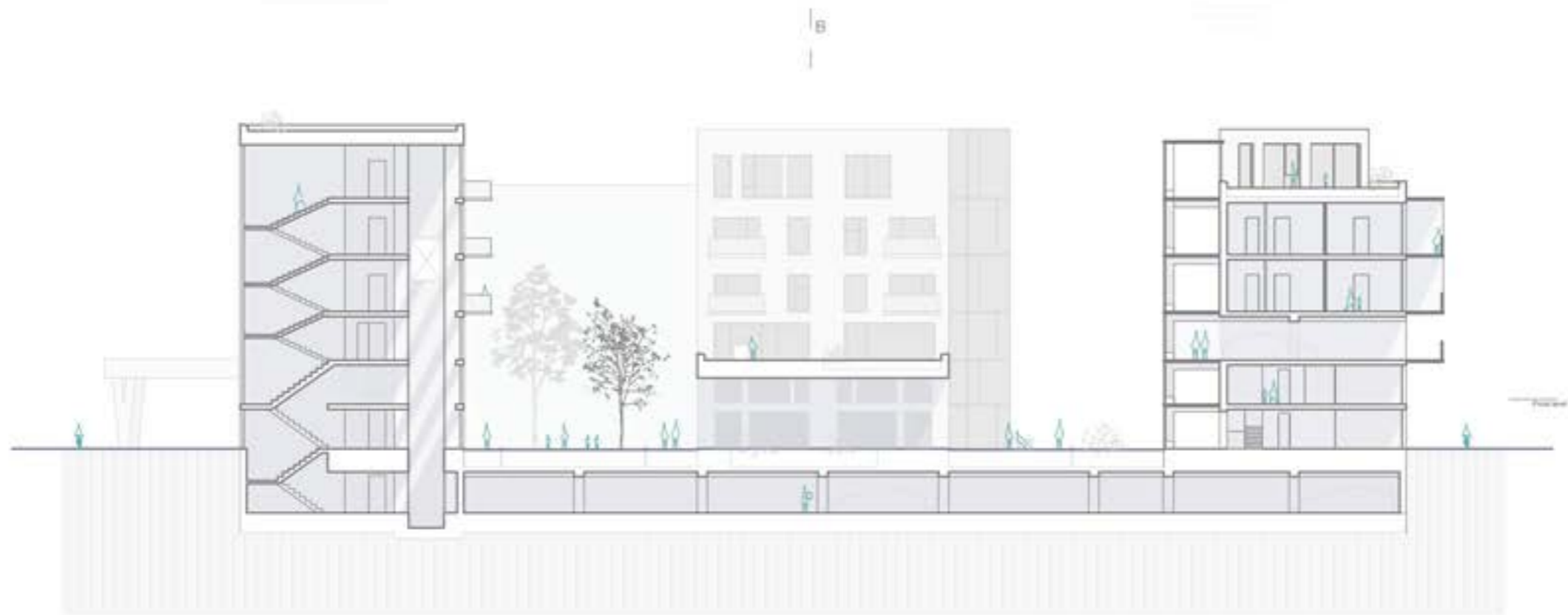
A20 _____ 80m²

B22 _____ 63m²

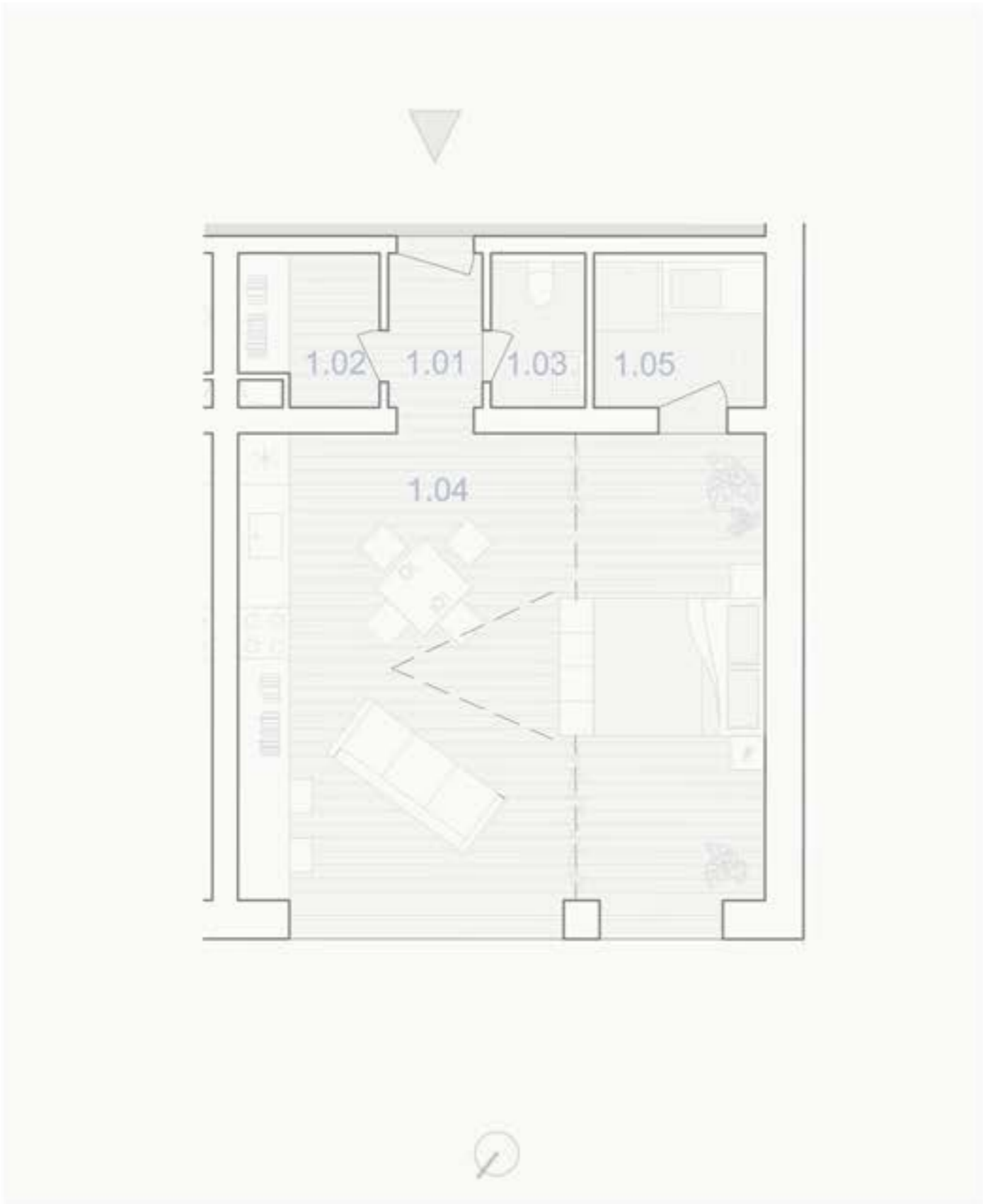
B23 _____ 78m²



11



< back to selection



1.5-room flat (D3)

46m²

1.01	hall	2m ²
1.02	closet	2,7m ²
1.03	toilet	2m ²
1.04	main room	34m ²
1.05	bathroom	3,6m ²

I am interested in this flat

£180,000

< back to selection



2-room flat (A9)

42m²

1.01	hall	3,9m ²
1.02	kitchen+living room	18,9m ²
1.03	closet	2,7m ²
1.04	bathroom	2,8m ²
1.05	bedroom	11,7m ²

I am interested in this flat

£220,000

< back to selection



2-room flat (A2)

60m²

1.01	hall	8,4m ²
1.02	staircase	3,6m ²
1.03	bathroom	3,4m ²
1.04	living room	14m ²
1.05	kitchen	3,6m ²
1.06	hallway	8,2m ²
1.07	bathroom	3,4m ²
1.08	bedroom	12,8m ²

I am interested in this flat

£240,000

< back to selection



3-room flat (B13)

76m²

1.01	hall	3m ²
1.02	hallway	4,5m ²
1.03	bathroom	3,4m ²
1.04	master bedroom	16,7m ²
1.05	closet	3,3m ²
1.06	toilet	3,5m ²
1.07	bedroom	11m ²
1.08	kitchen + living room	28m ²

I am interested in this flat

Price on demand

< back to selection



3-room flat (B11)

76m²

1.01	hall	2,9m ²
1.02	bathroom	3,2m ²
1.03	kitchen + living room	40,7m ²
1.04	bedroom	11,7m ²
1.05	closet	3,2m ²
1.06	master bathroom	3,4m ²
1.07	master bedroom	14,2m ²

I am interested in this flat

price on demand

< back to selection



3-room flat (B8)

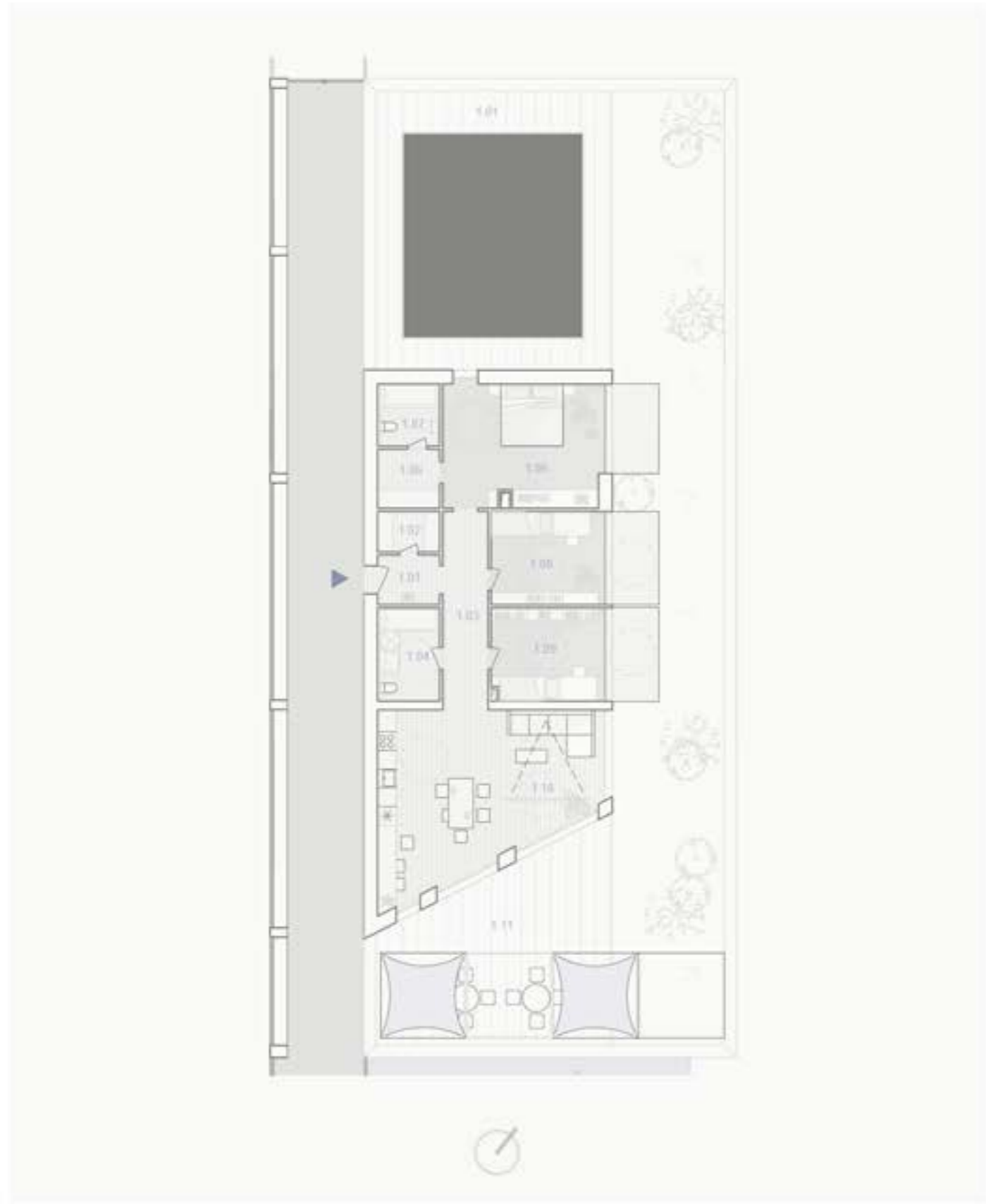
70m²

1.01	hall	3,1m ²
1.02	bathroom	4,1m ²
1.03	kitchen + living room	26,6m ²
1.04	staircase	3,6m ²
1.06	hallway	7,8m ²
1.07	bathroom	4,1m ²
1.08	master bedroom	10,8m ²
1.09	bedroom	7,6m ²

I am interested in this flat

£350,000

< back to selection



4-room flat (A19)

115m²

1.01	hall	3,2m ²
1.02	closet	2,6m ²
1.03	hallway	9,2m ²
1.04	bathroom	6,1m ²
1.05	master bedroom	20,2m ²
1.06	closet	3,8m ²
1.07	master bathroom	4m ²
1.08	bedroom	11,7m ²
1.09	bedroom	11,6m ²
1.10	kitchen + living room	35,5m ²
1.11	porch	4,1,4m ²
1.12	gardening area	6,1,8m ²

I am interested in this flat

price on demand



- | | | | | | | | | | |
|--|----------|---|-----------|---|------------|---|----------|---|---------|
|  | Stage I |  | Stage II |  | Stage III |  | Stage IV |  | Stage V |
|  | Stage VI |  | Stage VII |  | Stage VIII |  | Stage IX |  | Stage X |



Smalltext is an ideological urban project with the purpose of bringing new housing into the emerging areas of the largest city in Scotland*. A vital part of the scheme is the creation of a precedent for other cities, a precedent that can define future design strategies for lands reclaimed back from the sea but developed with high residential quality.

The study is situated in the northern, coastal part of Edinburgh, on reclaimed land of the former port of Leith, specifically in the area known as Western Harbour. According to the city's administrative division, the site falls within the districts of Leith and Forth. The SIMD map (Scottish Index of Multiple Deprivation, 2020) clearly indicates that these two districts are among the most deprived areas in northern Edinburgh. Healthcare, education, crime. People whom others are quick to label as parasites, despite the fact that their position is rarely of their own making. There is a certain irony in the fact that areas marked by the highest levels of deprivation also register the highest levels of poverty--poverty that recent UK legislation on affordable housing has begun to address. Under this legislation, at least 10% of newly proposed residential development must be allocated to affordable housing, although individual cities are permitted to raise this threshold. In London, for instance, values exceeding 30% are not uncommon. These dwellings are described as affordable; however, some may call them more bluntly - disposable.

Western Harbour presents itself as an exceptionally attractive location. Its connection to the city centre is, in several instances, direct: bus line no. 11 ends in situ, and only a few metres south runs the tram line connecting the city centre with the airport. Parallel to it stretches the city's outer ring road, encircling Edinburgh and linking to motorways leading west towards Glasgow and east towards Newcastle upon Tyne. The site offers expansive views of the sea, with the opposite coastline faintly visible on the horizon. From the west it is washed by open water; from the east, by the maintained remnants of former port infrastructure. Yet it is precisely the sea that ultimately determines the project's final form. By 2050, sea levels in the Edinburgh area are expected to rise by approximately two feet, while during storm surges and high tides this increase may temporarily reach up to two metres. The proposal deliberately adopts a hypothetical scenario: according to NASA projections, flood risk becomes severe once sea levels exceed the two-metre threshold. This scenario is consciously embraced. It is precisely the convergence of environmental vulnerability and socio-economic fragility described above that led to the selection of Western Harbour as the study site.

The resulting urban form derives from geographical conditions and the existing urban structure. A spatial grid emerges from the built fabric in the western part of the peninsula, informing the layout of newly formed blocks on the opposite side, while completing those already under construction to the south. The overall development consists of six- to seven floored residential blocks, with largely elevated courtyards designed as a response to flood risk. The first two floors accommodate affordable housing. The higher one lives, the wealthier one is. What emerges is a distorted, inverted reflection of Honoré de Balzac's Paris - where poverty once occupied the upper floors and the elite remained closer to the ground, near water. Here, however it is not the affordable housing that is disposable - it is the people who inhabit it. Separating these two vertical social zones is the third floor - a so-called buffer zone containing parking and a road. This level represents the only space where the two groups, mutually labelling one another as parasites, can encounter each other. Going down is easy. Going up is nearly impossible. It is on this level that the only road of the entire area meanders, parasitically linking the signs of gentrification to all residential blocks.

At the centre of the peninsula lies a newly formed park, sunken eight metres below the surrounding development. Reinforced from below by a structural grid and laterally by Larsen profiles, it functions as a retention basin for floodwater. This water is subsequently exploited by a small hydroelectric power plant located at the park's southern edge. The very existence of this plant is the reason why flood-protection measures, though designed and constructed, are never activated. In the event of flooding, they will remain inactive. The first two floors containing affordable housing will be drowned. Once the water recedes and the corpses are removed, the apartments will be sold again. People fleeing in panic will seek an escape offered at the third floor. Rich and poor alike, without distinction of caste, will attempt to flee along the single road above the water. The only outcome will be a traffic jam - a metaphor for the fact that no matter how many earthly possessions one gathers in life, in death all are equal.

And how disposable we all are.

Smalltext je ideovým urbanizmom, ktorého cieľom je priniesť nové bývanie do v súčasnosti developujúcich sa častí najväčšieho škótskeho mesta. Podstatnou časťou návrhu je aj zavedenie precedensu pre iné mestá - precedensu, ktorý by mohol slúžiť pre navrhovanie na územia na od mora znovunadobudnutej zeme, s vysokým rizikom povodní, a zároveň s vysokými štandardami na bývanie.

Štúdiá je situovaná v severnej, prímorskej časti Edinburghu. Využíva znovunadobudnutú zem niekdajšieho prístavu Leith, konkrétne jej časť zvanú Western Harbour. Tá, podľa politického členenia mesta patrí medzi mestské časti Leith a Forth. Mapa SIMD (Scottish Index of Multiple Deprivation 2020) ukazuje, že sú to práve tieto dve mestské časti, ktoré v severnej časti Edinburghu trpia zaostalosťou najviac. Zdravotníctvo, školstvo, kriminalita. Tí, ktorých ostatní označujú za parazitov, aj keď za to zväčša nemôžu. Je tak zároveň miernou iróniou, že v oblastiach s vysokou zaostalosťou, je tiež najvyššia miera chudoby, proti ktorej vo Veľkej Británii v poslednom čase začal bojovať zákon o dostupnom bývaní. Podľa neho musí byť aspoň 10% novo navrhovaného územia dedikovaného práve dostupnému bývaniu, avšak konkrétne mestá si tento prah môžu upravovať na vyššie hodnoty. Sú známe prípady z Londýna, kde tieto hodnoty presahujú 30%. Tieto byty sa síce nazývajú dostupné, avšak niekto by ich mohol označiť aj za jednoducho odstrániteľné.

Western Harbour sa javí byť veľmi lukratívnou lokalitou. Jeho napojenie na centrum mesta je v niekoľkých prípadoch priame - na jeho pôde má konečnú zastávku autobusová linka č.11, a pár metrov južne aj električka vedúca cez centrum mesta až na letisko. Rovnobežne s ňou sa tiahne aj vonkajší mestský okruh mesta - obchvat okolo celého Edinburghu, ktorý sa napája na diaľnicu vedúcu jedným smerom do Glasgowa, druhým do Newcastle upon Tyne. Ponúka nádherné scenérie morskej hladiny, s črtajúcim sa protitahým pobrežím v diaľke. Zo západnej strany je danou morskou hladinou aj obmývaný - zo strany východnej nápodobne, avšak udržiavane, bývalou infraštruktúrou prístavu. Je to však práve táto morská hladina, ktorá určuje finálny výraz návrhu. Do roku 2050 je očakávaný nárast morskej hladiny v oblasti Edinburghu o približne dve stopy, čo však v momentoch prílivu a búrok môže vystúpať až na dva metre. V tomto návrhu pracujem s hypotetickým scenárom - podľa stupnice NASA je vysoká hrozba povodní pri stúpnutí morskej hladiny nad dva metre. Tento scenár je v návrhu vedome prijatý. Presne pre dôvody uvedené v posledných dvoch odsekoch bol pre štúdiu vybraný práve Western Harbour.

Na základe geografických poznatkov a existujúcej urbanistickej štruktúry sa odvíja podoba výsledného návrhu. Vzniká raster daný existujúcimi objektami v západnej časti polostrova, ktorý udáva podobu novovznikajúcich blokov na strane protitahlej. Dotvárajú sa bloky, ktorých výstavba sa už začala na južnej strane. Celková výsledná zástavba má podobu 6 až 7 podlažných blokov s vo veľkej miere vyzdvihnutými vnútroblokmi ako reakciou na povodňové riziko. V prvých dvoch podlažiach sa nachádzajú finančne dostupné byty. Čím vyššie človek býva, tým bohatší je. Vzniká tak obraz znetvoreného, obráteného zrkadla Paríža Honoré de Balzaca, kde chudoba bývala na najvyšších podlažiach a šľachta kvôli dostupnosti vody na prízemí. Skutočnosťou teda je, že nie dostupné byty sú tie odstrániteľné. Sú to práve ľudia, ktorí v nich žijú. Oddelujú tieto dve výškové zóny, na ŽNP, je takzvaná buffer zóna s parkovaním a cestou ako jediné miesto, kde sa tieto dve kategórie, navzájom sa nazývajúce parazitmi môžu stretnúť. Dostať sa dole je jednoduché. Dostať sa hore je priam nemožné. Na tomto podlaží sa vlní aj jediná cesta celého územia, ako parazit spájajúca znaky gentrifikačie územia so všetkými obytnými blokmi. V centre polostrova sa nachádza novovzniknutý park, zapustený o osem metrov pod úroveň okolitej zástavby. Zo spodnej strany je spevnený konštrukčnou sieťou, z bokov Larsenovými profilmi. Funguje ako retenčný priestor pre povodňovú vodu, ktorá je následne využívaná malou vodnou elektrárnou na južnom okraji parku. Práve existencia tejto elektrárne je dôvodom, prečo sú síce protipovodňové opatrenia navrhnuté a vybudované, no nikdy nebudú aktivované. V prípade povodne teda nebudú opatrenia aktivované. Prvé dve podlažia s dostupnými bytmi budú zatopené. Ved' keď povodeň ustúpi a mŕtvi budú odvezení, opäť sa predajú. Ľudia v panike utekajúci, hľadajúci únik, ktorý sa bude ponúkať na treťom podlaží. Ako bohatí, tak chudobní, bez rozdielu kasty skúsia uniknúť po jedinej ceste územia vinúcej sa nad vodou. Avšak jediné čo tým docielia je dopravná zápcha, metafora na to, že nezáleží, koľko bohatstva v živote kto nazbierať, v smrti si sú všetci rovni.

And how disposable we all are.

41,81	33,4	57	43	6700	160	2957	44	2784	88
area under study (ha)	built-up area ratio (%)	paved surfaces ratio (%)	greenery ratio (%)	number of inhabitants	inhabitants/ha	number of housing units	affordable housing (%)	number of parking spots	green roofs

Balances

*largest city of Scotland is Glasgow. The website is there to give a feeling that something is wrong

*this garage plan smaller

*this text was written with regular contracts in mind. Very few people read those, and if they do, they generally just read the first paragraph, or first few words of each paragraph. Hence, those never realise the true intentions of the concept, or its already serious.

.housing in the UK

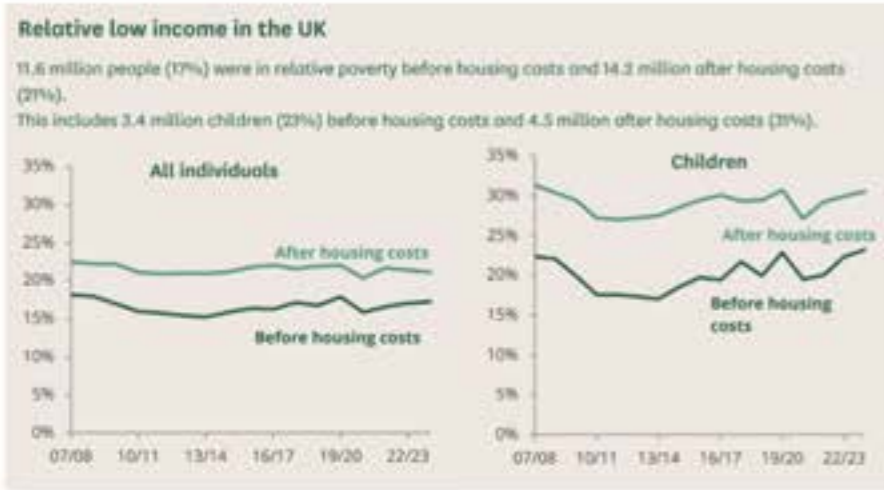
Despite United Kingdom having a reputation of a high income country, Poverty remains a significant social issue. Around one in five people live in relative poverty after housing costs are taken into account. Housing costs play a crucial role in this reality: rent and mortgage payments push many working households into financial hardship. Private renters are particularly affected, with a substantial proportion struggling to afford basic housing expenses. Child poverty is especially concerning, as nearly one third of children grow up in households below the poverty threshold. All of these numbers has once again risen since Covid, despite the fact they were on decline prior. Rising living costs, stagnant wages, and limited access to affordable housing have intensified these pressures in recent years. As a result, poverty in the UK is no longer limited to unemployment, but increasingly affects working families and young adults. Addressing housing affordability, income stability, and access to secure homes is therefore central to reducing poverty and improving long-term social resilience.



% of workers who can afford to buy a 2/3 bed price home, ONS, 2024
<https://www.parliament.uk/document/520106/520106.pdf>



Absolute low income in the UK, DWP, 2023/2024
<https://www.parliament.uk/document/520106/520106.pdf>



Relative low income in the UK, DWP, 2023/2024
<https://www.parliament.uk/document/520106/520106.pdf>

.affordable housing

UK has had a tradition in building affordable homes for some time now. Right after the second world war, after housing crises emerged, the Churchill gardens (1946-1962) was conducted, delivering housing for thousands of victims of war. Nowadays, the reason has changed, solving housing crisis of different cause, through the same means.

Under current national planning policy, major residential developments are expected to deliver at least 10% affordable home-ownership units, with many local authorities requiring higher proportions through their Local Plans. Contemporary schemes illustrate this shift: Chatham Waters integrates affordable rent and shared-ownership units within its waterfront regeneration; Harbour Village in Ebbsfleet earmarks roughly 30% of its 567 new homes as affordable; and Barking Riverside commits to approximately 35% affordable provision within its masterplan.



Chatham Waters
https://en.wikipedia.org/wiki/Chatham_Waters



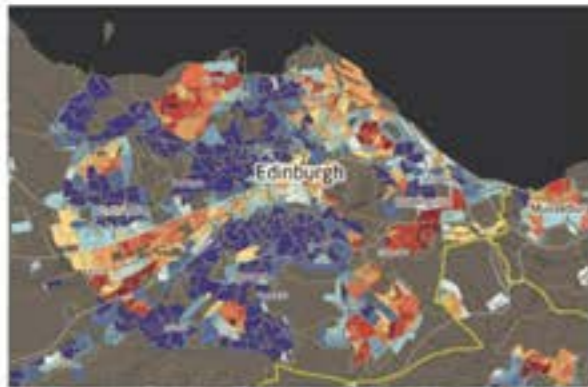
Barking Riverside, London, 35%
<https://www.barking.gov.uk/2020/09/16/understanding-the-policy-changes-and-regulation-framework-for-affordable-housing-in-the-uk/>



Harbour village Ebbsfleet, 30%
https://en.wikipedia.org/wiki/Harbour_Village_Ebbsfleet



Churchill gardens, London, 1962
https://en.wikipedia.org/wiki/Churchill_Gardens



SIMD map of Edinburgh
<https://www.edinburgh.gov.uk/m2020-8771717/238285489870-228155-819/>



Pilton, SIMD 868
https://en.wikipedia.org/wiki/Pilton,_Dorset



Granton, SIMD 355
<https://www.edinburgh.gov.uk/news/edinburgh/news/granton-estate-first-time-deprived-area-511685>

.edinburgh

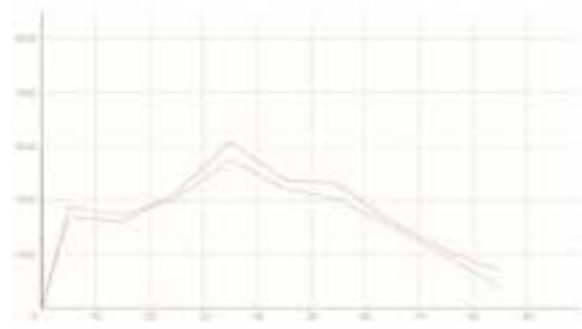
According to the Cambridge dictionary, word „depravity“ means the state of being morally bad, or an action that is morally bad. Ironically, it is often in areas with the highest deprivation where poverty concentrates most acutely. SIMD 2020 data show that several districts of Edinburgh remain persistently among the most deprived in Scotland: parts of Muirhouse, Granton and Niddrie are explicitly mentioned among the country’s 5% most deprived zones.

Historic SIMD rankings (2016 and earlier) similarly identify neighbourhoods such as Muirhouse and Granton among the consistently disadvantaged, with parts of Leith, around its historic port, making an appearance as well.

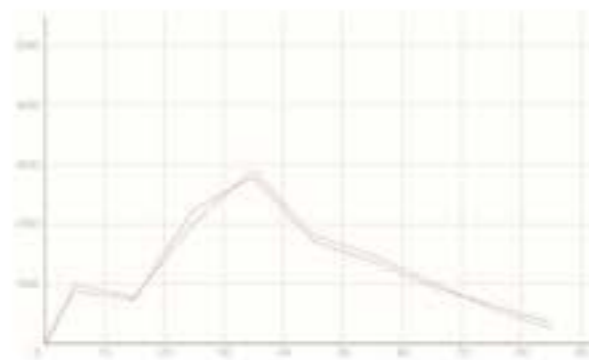


Leith Port

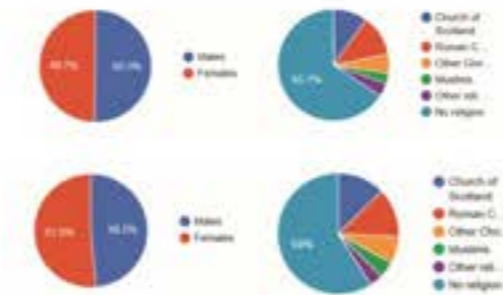
.leith&forth



Demography of Forth
https://www.citypopulation.de/en/uk/scotland/wards/city_of_edinburgh/1500002/_form/



demography of Leith
https://en.wikipedia.org/wiki/Leith#City_of_Edinburgh



Genders and Religions in Leith (up) and Forth (down)
<https://www.citypopulation.de/en/uk/>

Leith and Forth reflect overlapping demographic configurations on Edinburgh's northern waterfront. As of the 2022 census, Leith ward houses about 23,531 residents, with roughly 18% aged under 18 and around 12% aged 65+. Its population is ethnically diverse: ~86.8% identify as White, ~5.9% as Asian, ~2.1% as African/Caribbean, and ~5.2% as Mixed/Other. Gender proportion remains very similar, 49.7% to 50.3% for males. The majority of people do not recognize themselves as religious. Forth, encompassing communities like Granton, Pilton, Newhaven and Wardie (some of the least rated ones in SIMD), counted 32,036 people in 2022. City Population Among these, the majority are of working age (18–64), with a substantial youth cohort and a smaller share of pension age residents. Forth counts more women than men by 0.7%. As whole of Scotland does, majority of its population does not recognize themselves as religious.



Leith Port







1
West Harbour
residential areas



2
Leith Docks Development
residential areas



3
Dockside Extension
residential + mixed use areas



4
Ocean Terminal Redevelopment
residential + mixed use areas



5
Harbour 31
residential + mixed use areas



6
Newhaven rd.
interventions



7
Tram extension
infrastructure - Newhaven, Granton



future projects

*the whole area or part of Leith is currently subject to development from the side of the city. As the part itself loses significance, the area is being directly redeveloped into, mostly, residential and mixed use areas.



- | | | | | | | | | | |
|---|------------|---|-------------|---|------|---|--------------------|---|-----------------------|
|  | Bike lanes |  | Bike stands |  | Port |  | Outer city circuit |  | Active port direction |
|  | Bus stop |  | Tram stop | | |  | Collector road |  | Tram line |



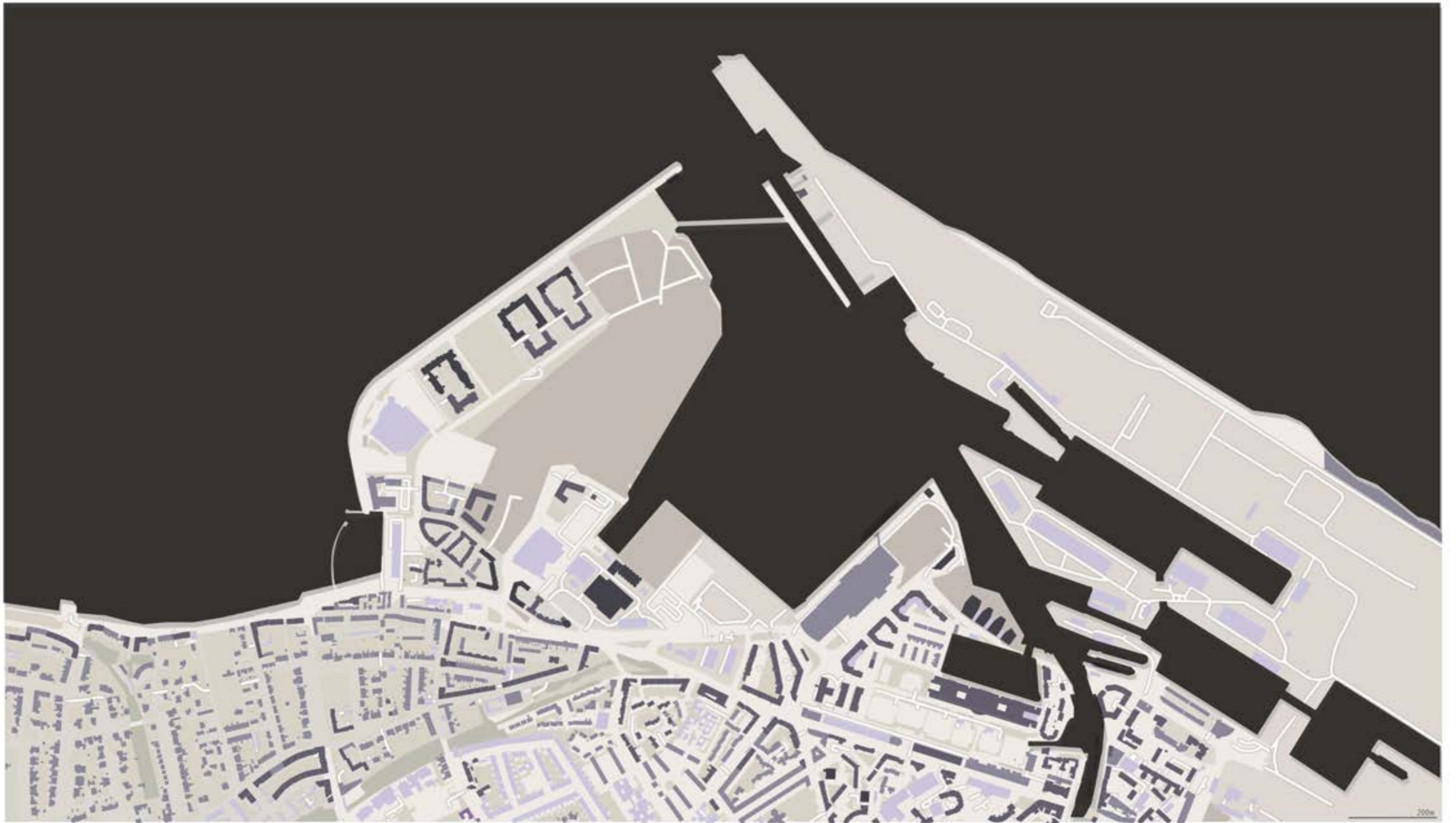
traffic_analysis

mensprings, the area of Lath and Fort is very well equipped with transport options. The city centre and town is accessible via tram, the outer city circuit goes straight through. Bus lines 11, 22, 33 and 44 connect this area with the rest of the town, with 11 ending directly in the harbor. Bike lane network is very well developed as well.



land use analysis

majority of urban fabric in Leith and Fernhill consists of residential architecture. However, much more interesting are the signs of gentrification in the areas of former port of Leith - in form of kindergartens, pubs and restaurants



1-2 floors

3-4 floors

5-8 floors

9+ floors

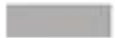


height_analysis

*Height of urban fabric in Cairns and Perth consists of residential buildings approximately 8 to 12 metres high. This becomes interesting when juxtaposed with sea level rise maps, as some of these, especially the family houses, shall be fully under water in the worst cases.



expected sea level rise by 2050



unaffected buildings



flooded buildings



terrain height_analysis_1

*approximately by the year 2050, the sea levels around Edinburgh will rise by feet or two, which may not seem like a significant amount, but combined with storm surges and high tides, the worst case scenarios may reach 2 meters of sea level rise. This will render useless significant portion of Leith, and entirety of newly developing area around port of Leith.



sea level rise by 5m

unaffected buildings

flooded buildings



ferrain height_analysis_II

*approximately by the year 2280, the sea levels around Edinburgh will rise by 5 meters, in the worst case scenario. Once that happens, significant portions of Leith will be fully under water, rendering it useless. It is important to note this will not be a gradual process, as the rise by itself will only make around 3 meters, but most likely a result of a storm surge and high tides combined, which does not make it any less deadly.



Somerset floods, 2014
<https://www.bbc.com/news/uk-england-somerset-1219778>



Boscastle Flood, 2004
<https://www.bbc.com/news/uk-england-devon-1219778>



Northern England Floods, 2015, 2019
<https://www.bbc.com/news/uk-england-1219778>

.flooding

A flood is a natural disaster that happens when water covers land that is usually dry. Floods can occur slowly or suddenly, depending on the cause. They can result from heavy rainfall, snowmelt, storm surges, or the overflowing of rivers, lakes, or seas. Floods can also be triggered by human activities, such as the failure of dams or poor drainage systems in cities. The effects of floods can be severe, including damage to homes, infrastructure, crops, and natural habitats.

Floods can also pose serious risks to human health and safety, causing injuries, waterborne diseases, and sometimes loss of life. While some flooding is natural and helps maintain ecosystems, extreme floods are dangerous and costly. Communities use flood management strategies, like building levees, improving drainage, and creating early warning systems, to reduce risks. Understanding floods is important to prepare for and minimize their impacts on people and the environment.





Composition of Flood Water
Warning to flood victims: remaining in flood waters could be life-threatening (2018)

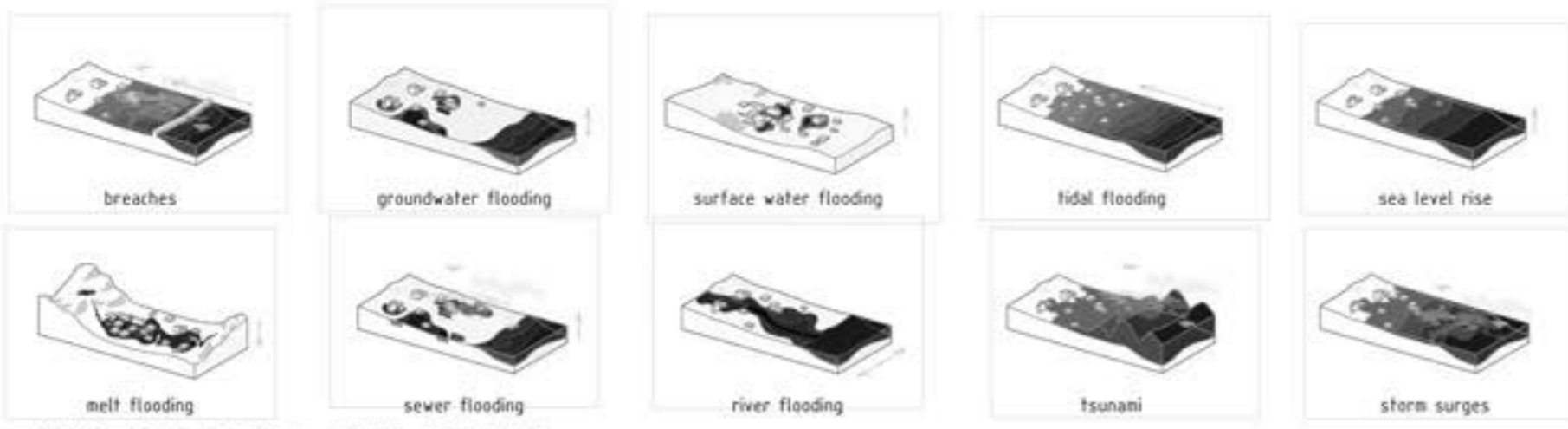
.floodwater

Flood water is typically opaque, murky, and inherently hazardous. It carries a mixture of both organic matter and man-made materials mobilised as the water spreads across the landscape. It is important to recognise that flood water seldom arrives alone: it often transports debris and sharp objects such as metal fragments, broken glass, or discarded needles, making any movement through it physically dangerous. In addition, flood water may also contain fuel, lubricants, and acidic substances released from damaged vehicle batteries. These contaminants can render the water flammable and capable of conducting electrical current, significantly increasing the risk of injury. Compromised sewage systems allow human and animal waste to enter the flood. As a result, flood water frequently contains harmful bacteria and pathogens, rendering it a biological hazard.



oily water

<https://www.flickr.com/photos/143497810@N01/10481444444/>



.types of flooding

Floods can occur from variety of sources and originate through both natural and artificial means. They can be classified as both inland and coastal, with inland happening further from the sea, usually when water tunnels such as rivers or sewers exceed their capacity, and coastal happening when masses of water are directed from the sea by either earthquakes, high winds or other natural causes.

We divide them into 10 main groups, each having their separate properties and thus also their own adaptation strategies. For this project, the most important two are Sea level rises and storm surges. I work with sea level risen by two metres, heightened by storm surges.



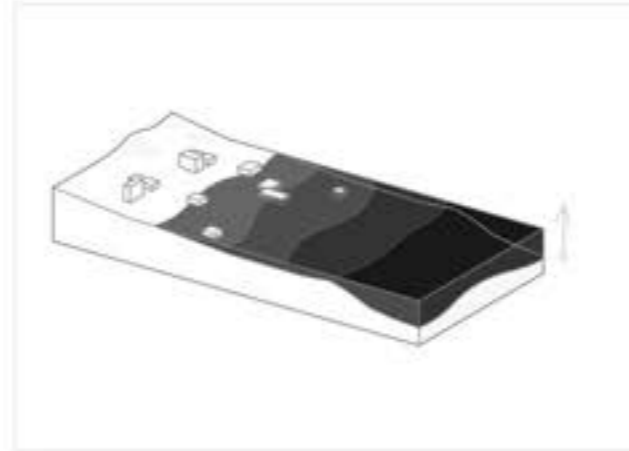
- BARSLEY, Edward, Retrofitting for Flood Resilience, RIBA publishing, 2019, 344p, 95947342

.sea level rises

Adaptation strategies:

- positioning critical infrastructure of lower flood risk or above future flood datums
- developing and implementing short-, medium- and long-term strategies for shoreline development
- maintaining, enhancing and restoring natural coastline management measures
- Creating, practising and communicating evacuation plans
- enacting managed realignment (vertically or horizontally) in those areas most at risk
- Restricting inappropriate types of development and retrofitting existing building stock to be flood resilient
- Modeling future climate risks to inform adaptation strategies
- Upgrading drainage networks and systems to limit backflow and restrict saltwater aquifer contamination
- exploring development strategies that can both attenuate and accommodate water

- BARSLEY, Edward, *Retrofitting for Flood Resilience*, RIBA publishing, 2019, 364p, 95963361



Sea level rise is a form of flooding caused by the gradual increase in the world's oceans. This phenomenon is mainly driven by climate change, which leads to the melting of glaciers and ice sheets, as well as the thermal expansion of seawater as it warms. Coastal areas are particularly vulnerable, as even small increases in sea level can lead to more frequent and severe flooding events. These floods can damage homes, infrastructure, and natural habitats, and they often disrupt local communities and economies. In some regions, sea level rise can also cause saltwater to intrude into freshwater sources, affecting drinking water and agriculture. Governments and scientists are monitoring these changes closely and developing strategies to reduce risks, such as building sea walls, restoring wetlands, and improving urban planning in coastal zones. Understanding sea level rise is crucial for preparing societies for the challenges of future flooding.



.storm surges

Adaptation strategies:

- Enhancing natural coastal ecosystems to regenerate habitats and protect shorelines
- Designing or adapting the built environment to be compatible with high and extreme storm surge datums
- Positioning critical infrastructure in areas of low risk level, for example by moving it inland or upwards
- Developing and positioning short-, medium-, and long-term strategies for shoreline management
- Using early warning systems and creating and practising evacuation plans
- Running community engagement workshops to communicate the severity of the risk and help empower adaptation
- Restricting inappropriate types of development and retrofitting existing building stock to be flood resilient
- Maintaining and enhancing coastal defences where appropriate
- Embedding flood management and modelling into integrated land use planning

- BARSLEY, Edward, *Retrofitting for Flood Resilience*, RIBA publishing, 2019, 344p, ISBN47542



Storm surges are a temporary rise in sea level caused mainly by strong winds that push large volumes of seawater towards the coast, where it begins to accumulate. Their impact is strongly influenced by local conditions, including the shape of the coastline, coastal topography, and the depth and slope of the ocean floor near the shore. Low-lying areas with shallow coastal waters are particularly vulnerable, as these features allow water to spread miles inland. As the climate crisis continues, storm surges are expected to occur more frequently and with greater intensity, driven by rising sea levels and stronger storms. Historically, such events have resulted in significant loss of life, and without adequate adaptation measures, the risks are likely to increase.





Borneo-Sporenburg (Amsterdam, Netherlands)
<https://www.perspectivalandscapes.com/2019/02/15/amsterdam-reclaimed-land/>
<https://www.researchgate.net/publication/324127127>



Nordhavn (Copenhagen, Denmark)
<https://www.urbancitylab.com/nordhavn-copenhagen/>
<https://www.researchgate.net/publication/324127127>



Lystbådehavn (Aarhus, Denmark)
<https://www.perspectivalandscapes.com/2019/02/15/amsterdam-reclaimed-land/>

.case studies

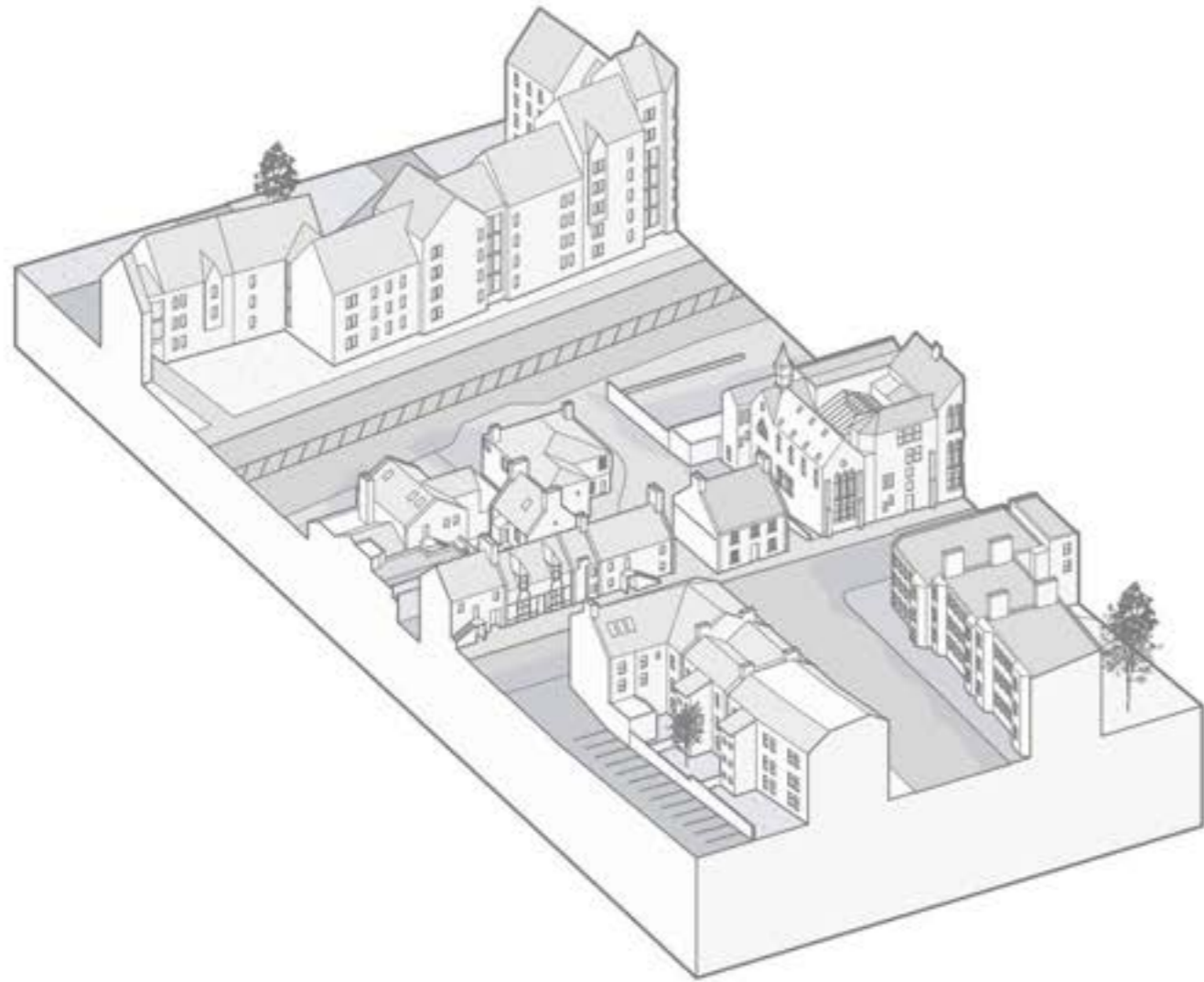
City districts established on reclaimed land constitute a specific trajectory of urban growth in which new terrain is deliberately constructed or recovered from coastal or riverine environments. Once primarily employed for the expansion of port infrastructure—as in Hong Kong or Edinburgh—land reclamation has evolved into a platform for contemporary urban strategies, enabling the creation of entirely new waterfront neighbourhoods.

Designing on reclaimed land introduces a series of spatial and technical considerations that diverge markedly from typical development sites. The most fundamental of these is ground performance: engineered soils are subject to differential settlement over extended periods. Moreover, reclaimed districts occupy inherently exposed positions along the water's edge, making them vulnerable to storm surges, tidal floodings, and long-term sea-level rise. As a result, water-sensitive design becomes integral to the planning process, often taking the form of elevated topographies, blue-green infrastructure, coastal-defence landscapes.

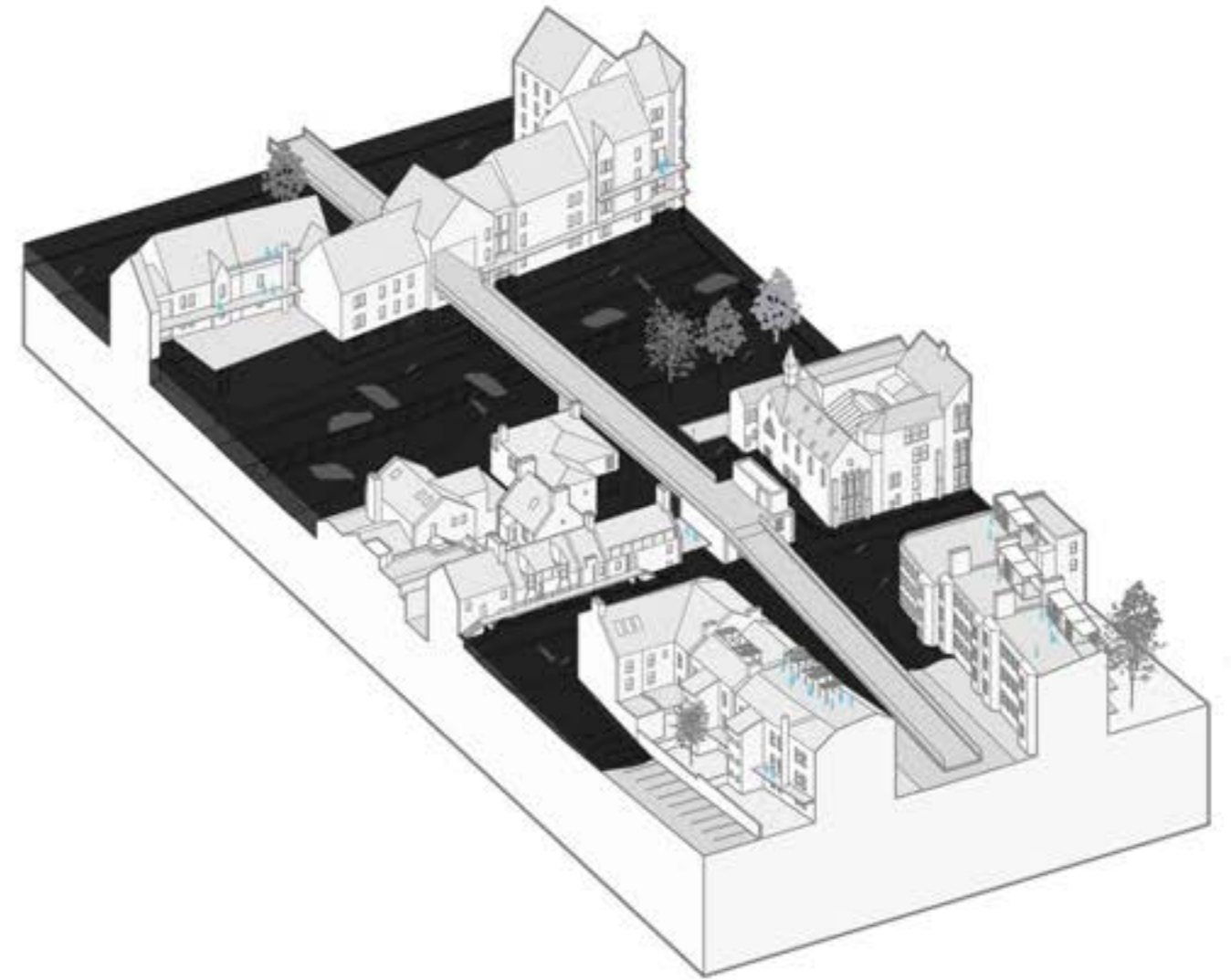


Västra Hamnen (Malmö, Sweden)
<https://www.perspectivalandscapes.com/2019/02/15/amsterdam-reclaimed-land/>





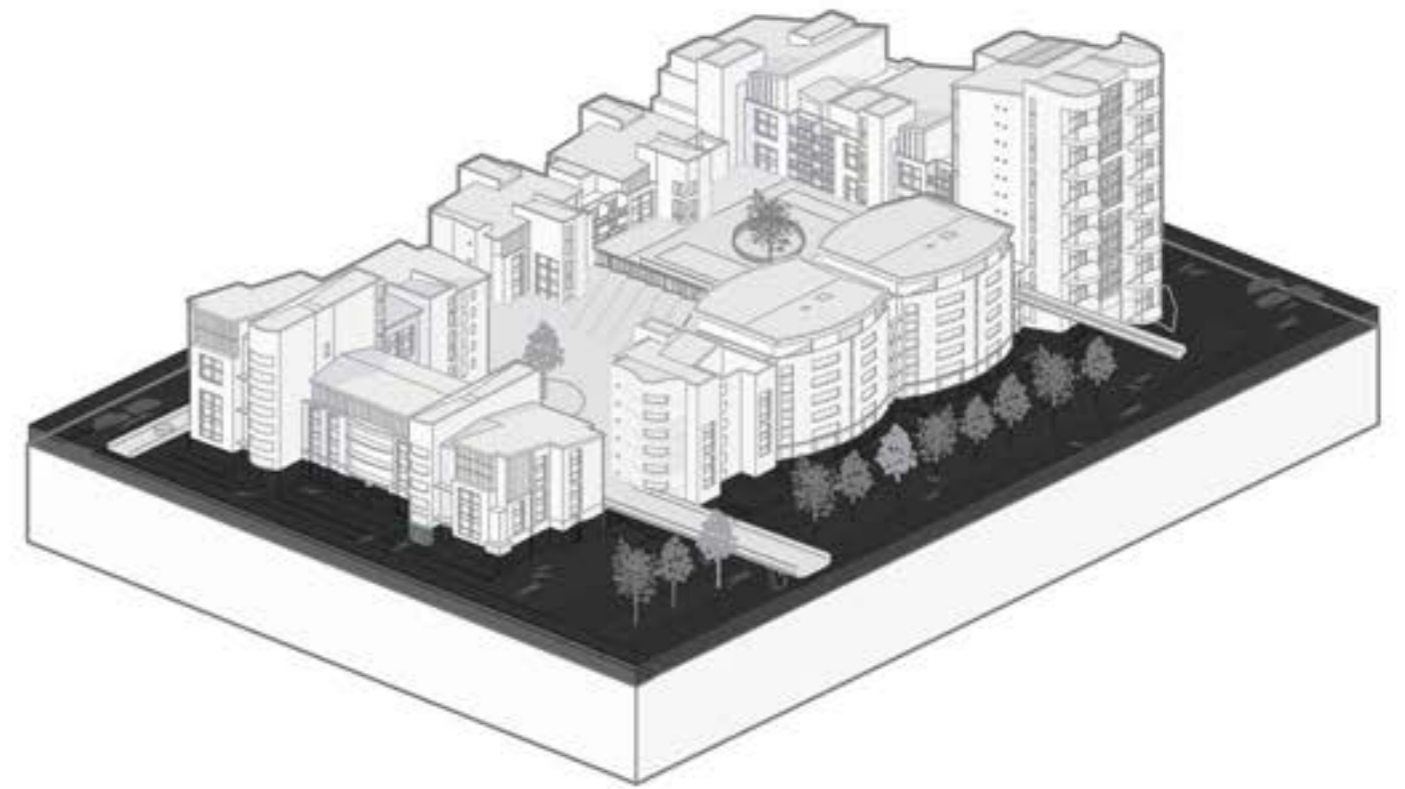
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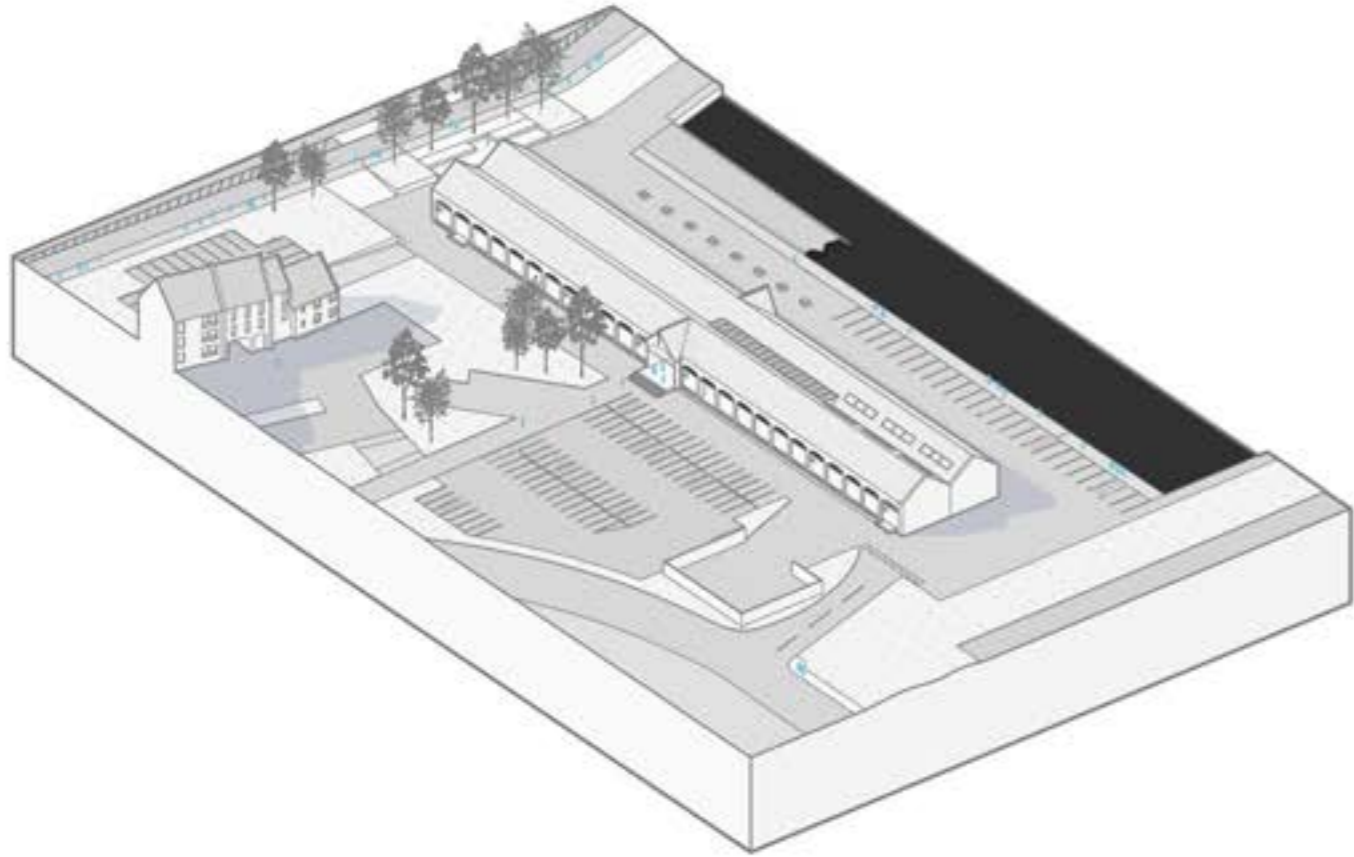
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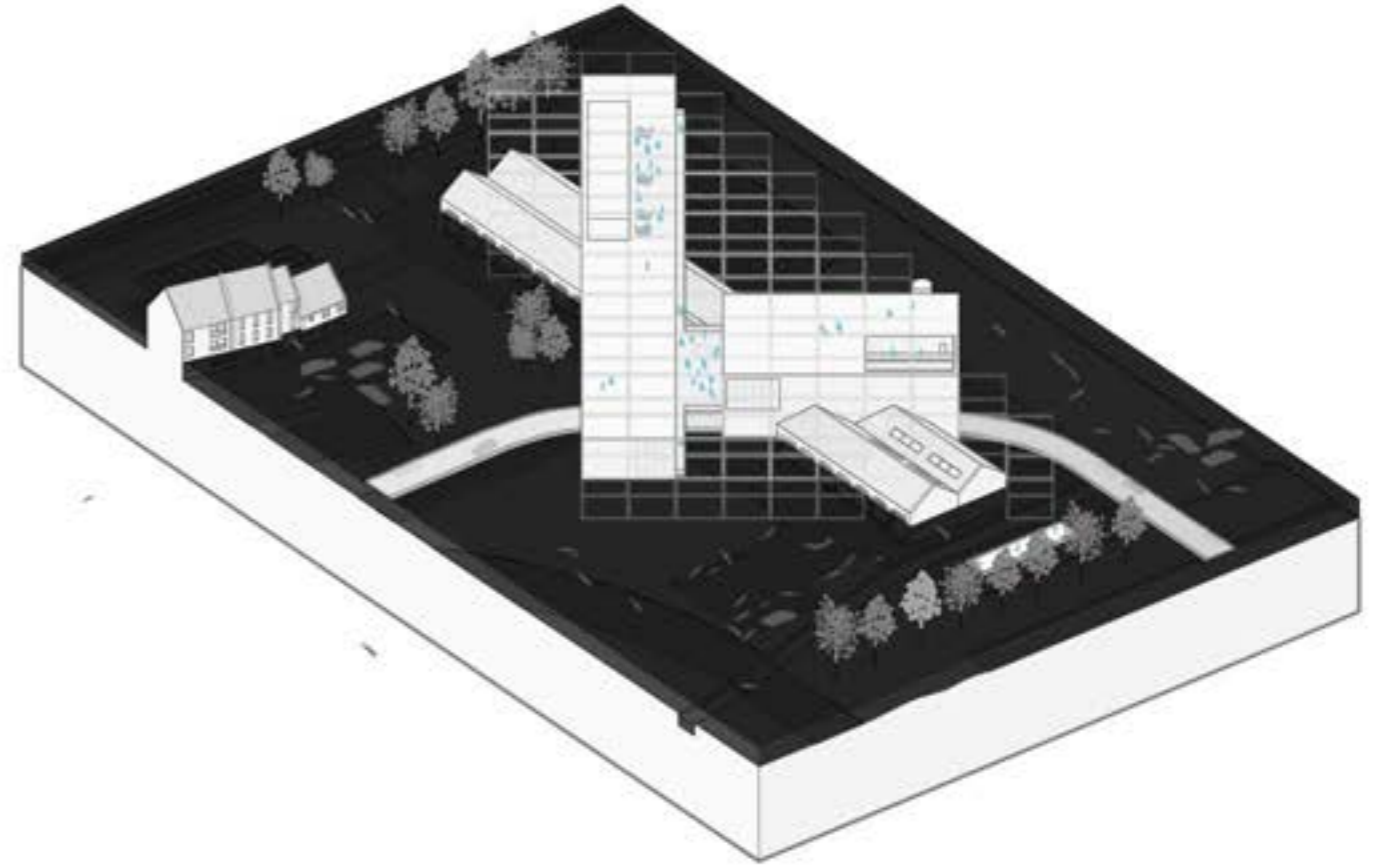
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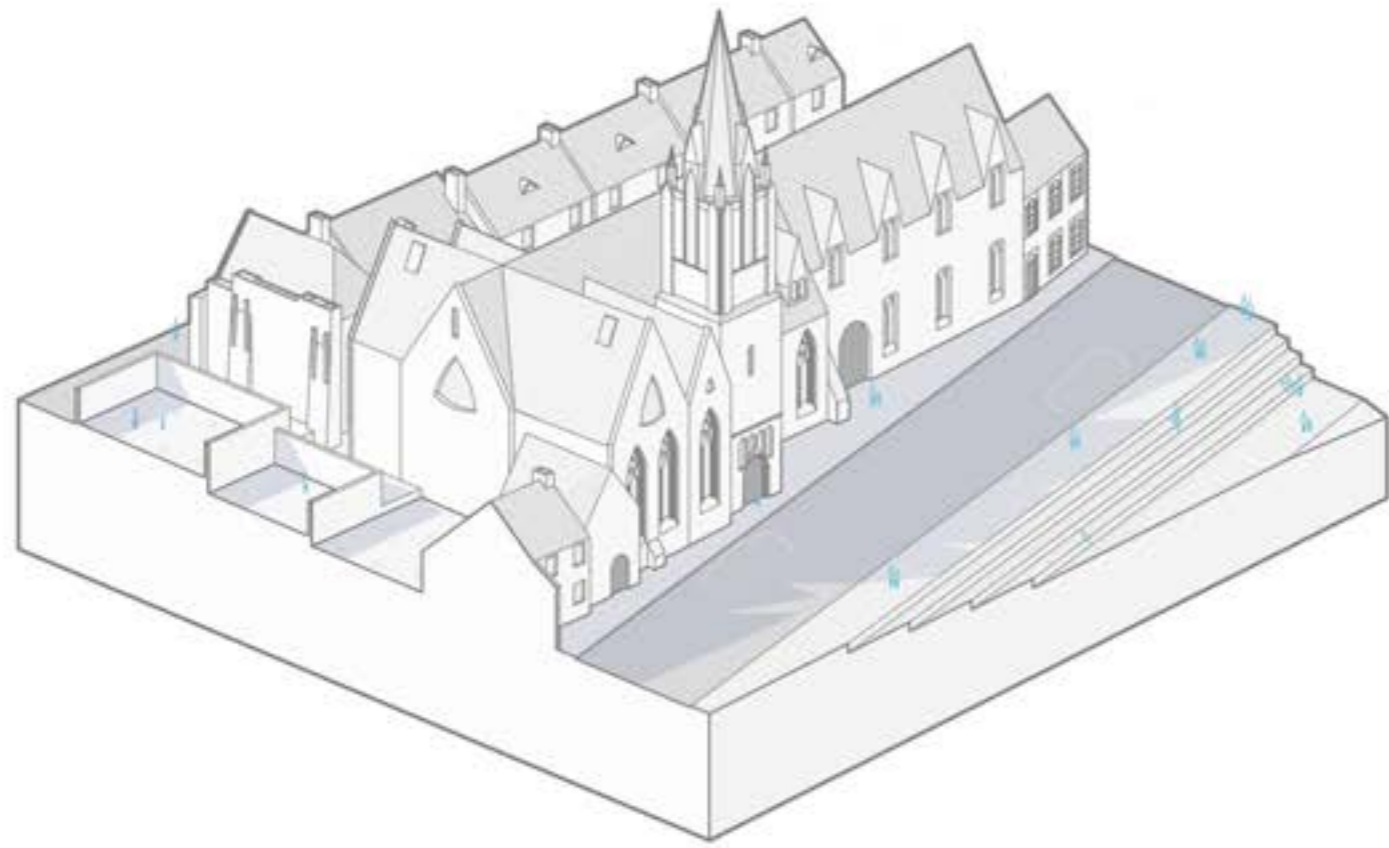
B



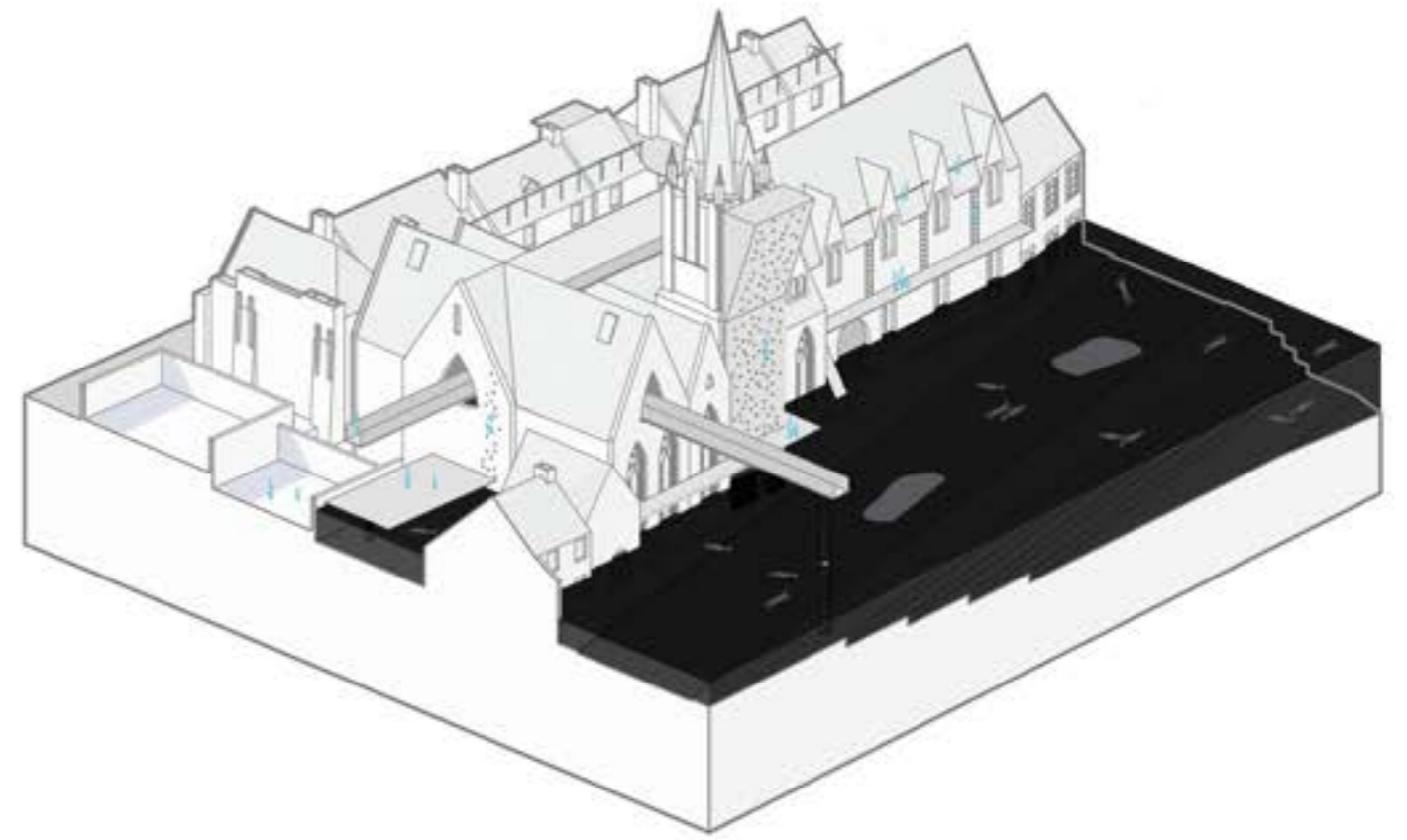
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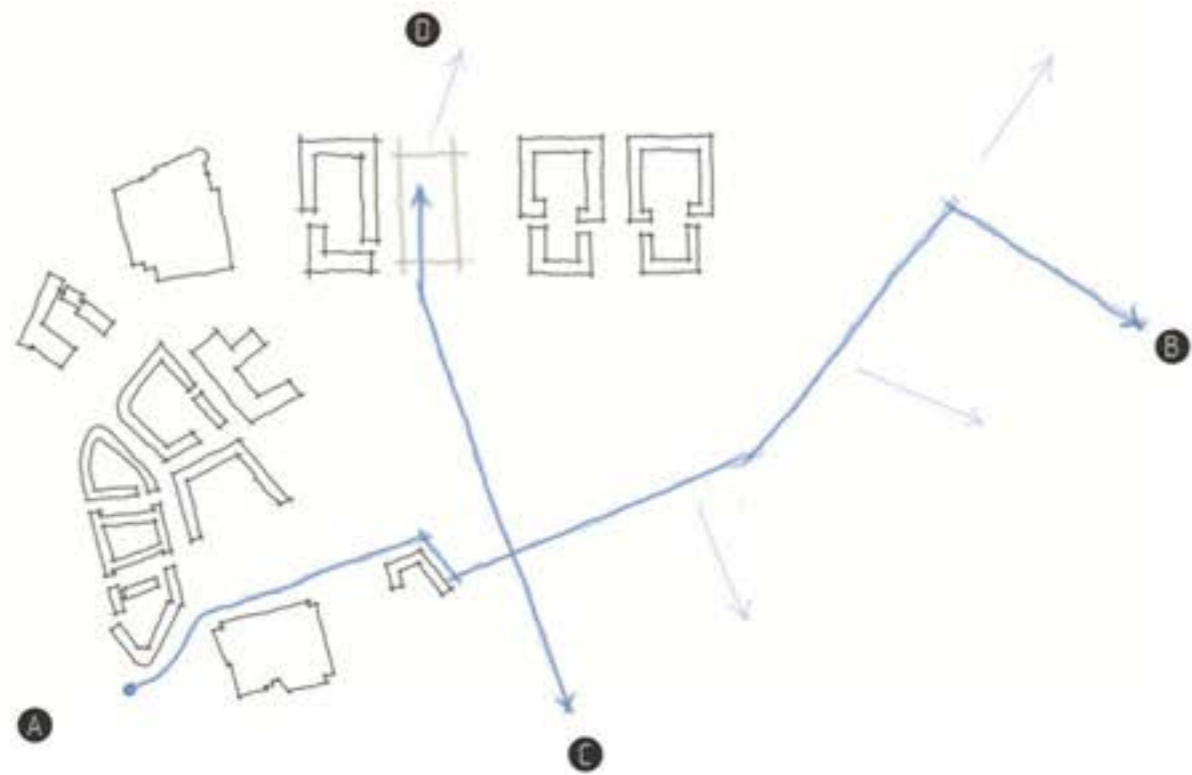
B



A



B

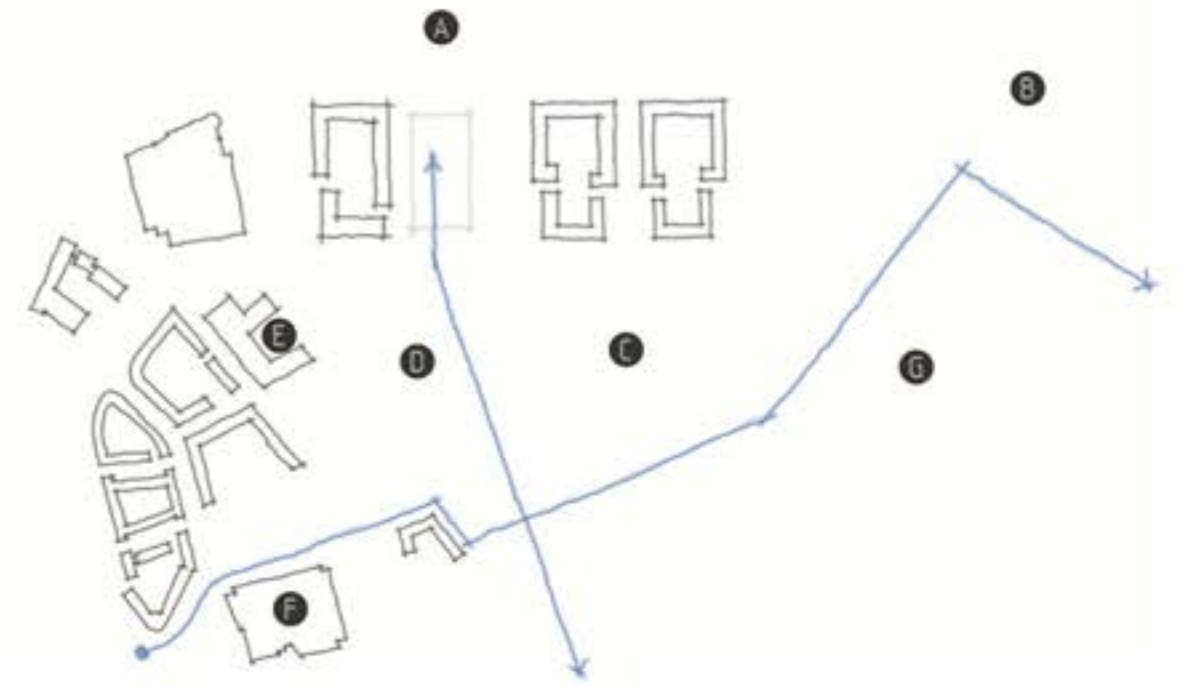


1

lines

establishing two main lines, generating connection between different parts of former port of Leith, as well as Leith itself, while maintaining open visual axes with sea view.

A/ Leith; B/Forth Lock; C/Ranks Quay; D/ Sea



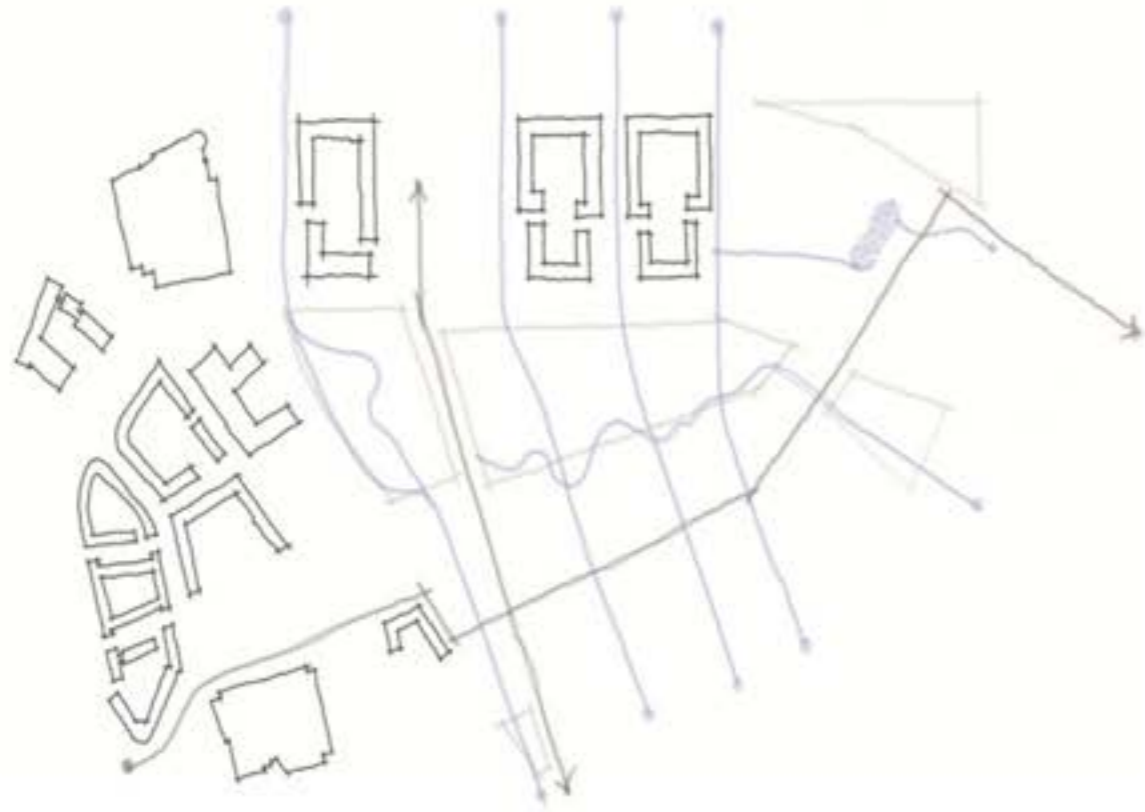
2

attractions

Activation of the main pedestrian line by introducing key points of interest, while staying connected to the main points of established gentrification.

A/ Sea; B/ Lighthouse Park; C/ Park; D/ Forest area; E/ Primary school; F/ Asda; G/ Square

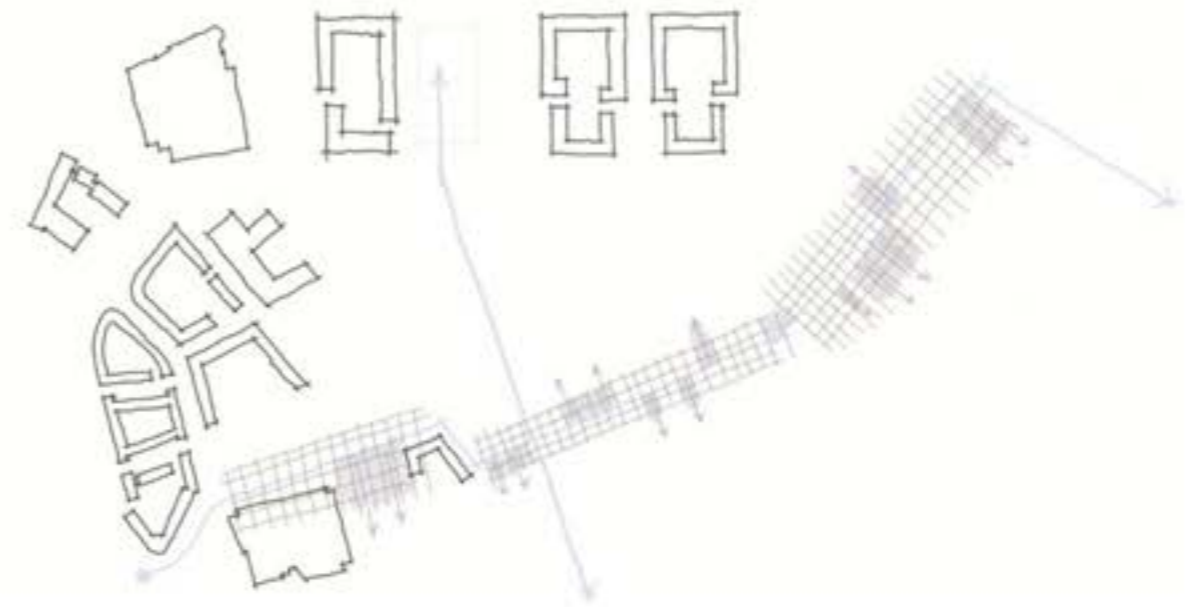




3

blue-green framework

Creation of a compositional network of public spaces and a blue-green corridor in the middle of the area

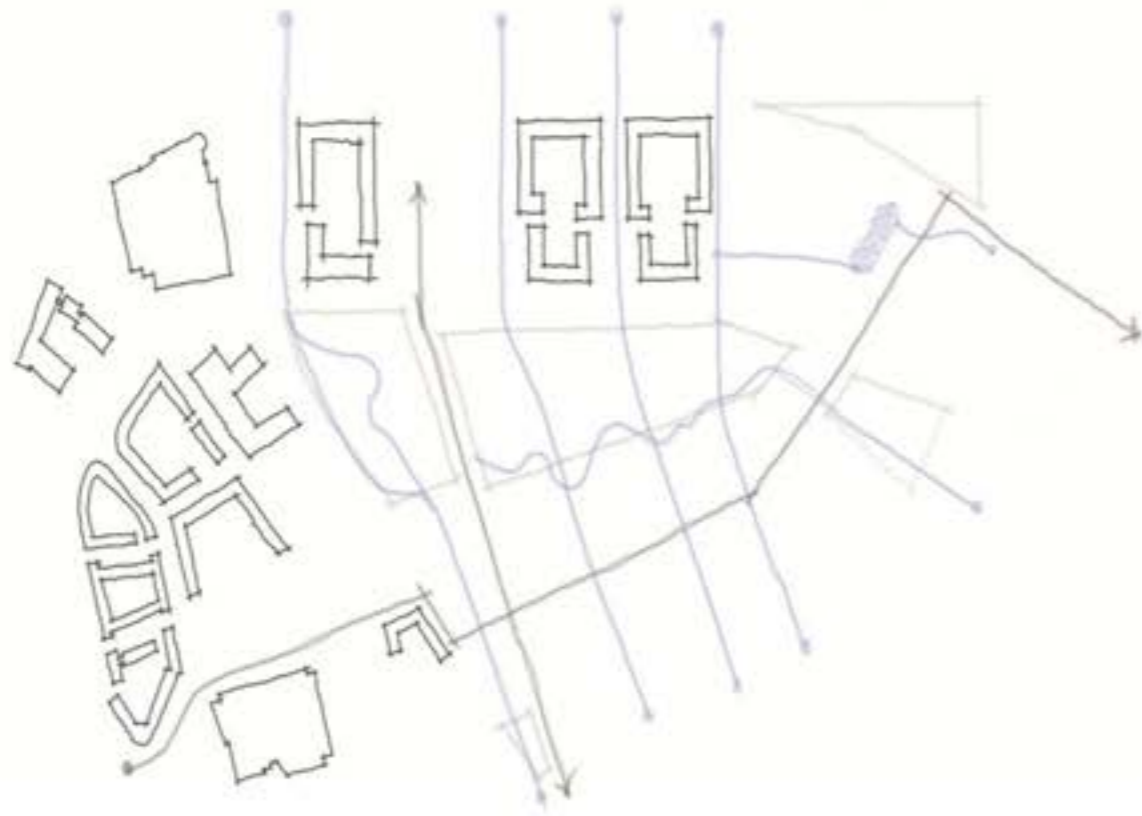


4

grid

Establishing a grid in the residential section of the line; partial infill of "squares" – the main pedestrian axis shifts alternately left and right.

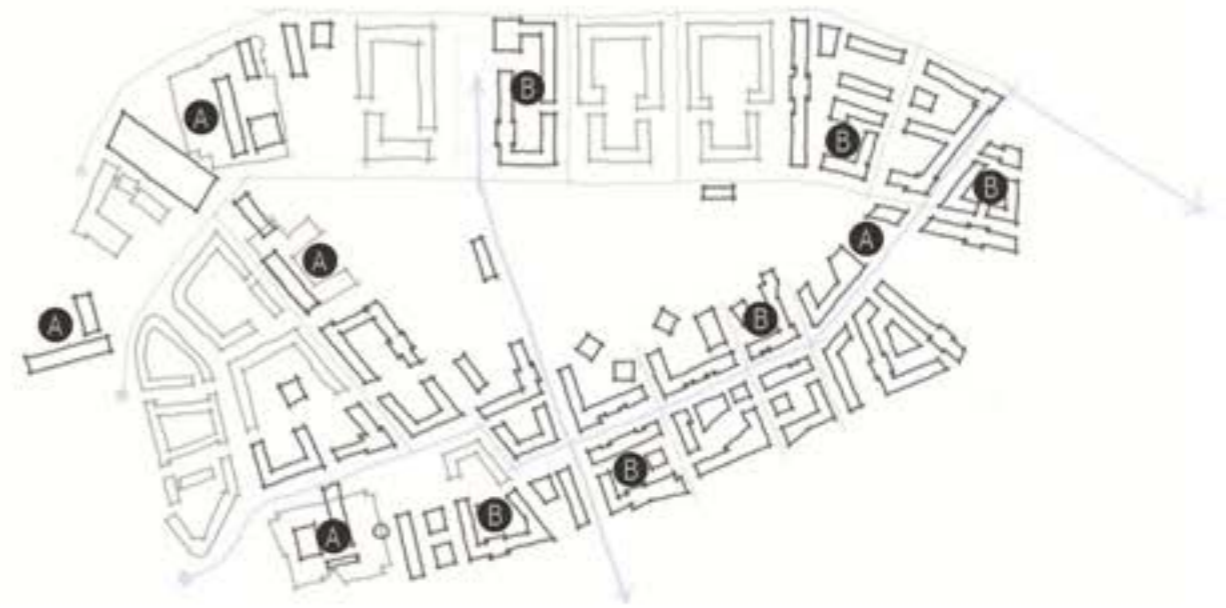




5

blocks

Based on the blue-green framework, street structures are formed and interstitial spaces defined.



6

structure

A/ tectonic - used for amenities and already established signs of gentrification; from which catwalks and bridges branch out, parasitic in nature.
 B/ stereotomic - used residential architecture, integrates with already established urban fabric, forming high quality block and linear structure.



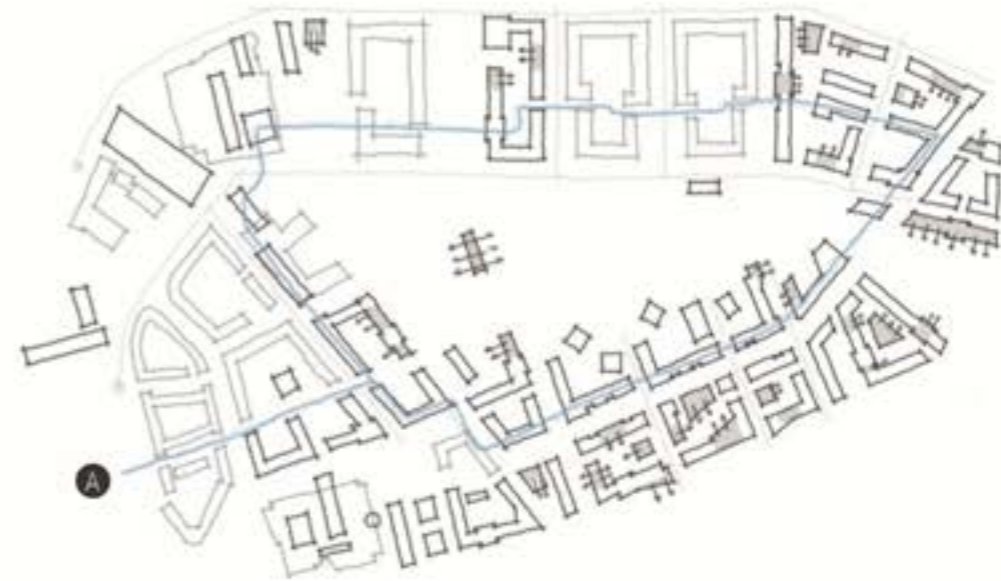


7

ecological concept

Retention of rainwater within the area, preservation of as many existing trees as possible; lawns serve as the primary retention units.

A/ living breakwaters; B/ adaptable defensive barriers; C/seawater; D/permanent deployable barriers; E/ super/inhabited levees; F/ rain-gardens; G/ linear drains; H/point drainage; I/ retention channels; J/ green roofs; K/ retention tanks; L/wetlands; M/ water channels



8

amenities

Orientation and activation of block third floors; encouraging open and publicly accessible third-floor uses.

A/ main road circuit





- | | | | | | | | |
|---|--------------------|--|-----------------------|---|-----------------------------|---|--|
|  | proposed objects |  | removed objects |  | existing objects |  | proposed densification |
|  | future development |  | main pedestrian route |  | communicating public spaces |  | proposed objects for other parts of the port |
|  | piers |  | bridges |  | parks |  | seawater |



wider context

apart from proposed objects and interventions, the areas built in Fatti, is also identified. These houses can accommodate more people in case of flood



- | | | | | | | | | | | | |
|--|----------------|---|------------------|---|----------------------|---|---------------|---|------------|---|-------|
|  | proposed roads |  | existing objects |  | water channel |  | grass |  | green roof |  | water |
|  | service paths |  | ground surface |  | entrance into blocks |  | stone masonry |  | plazas |  | park |



1-2 floors



3-4 floors



5-8 floors



9+ floors

height_scheme

Due to the nature of flooding, majority of the objects are at least 5 floors high.

**The objects represent hierarchy in their heights. The ground floors are dedicated to the pursuit of food, while the higher one goes, the more luxurious one gets. While one would want to live on the ground due to water, now, because of it, they may want to live as high as possible.



- | | | | | | | | | | |
|--|----------------------|---|---------------------------|---|----------------------|---|--------------------------|---|-----|
|  | Residential blocks |  | Industrial use/Warehouses |  | Garages |  | Non-commercial amenities |  | Sea |
|  | Family houses blocks |  | Schools |  | Commercial amenities |  | Sports facility | | |

land use scheme

majority of commercial land use is located on the third floor, instead of the ground one. Second and first floors are reserved for the affordable housing.



kindergarten area



green roofs



park greenery



public greenery



cloister greenery



sports lawn



existing trees



playgrounds



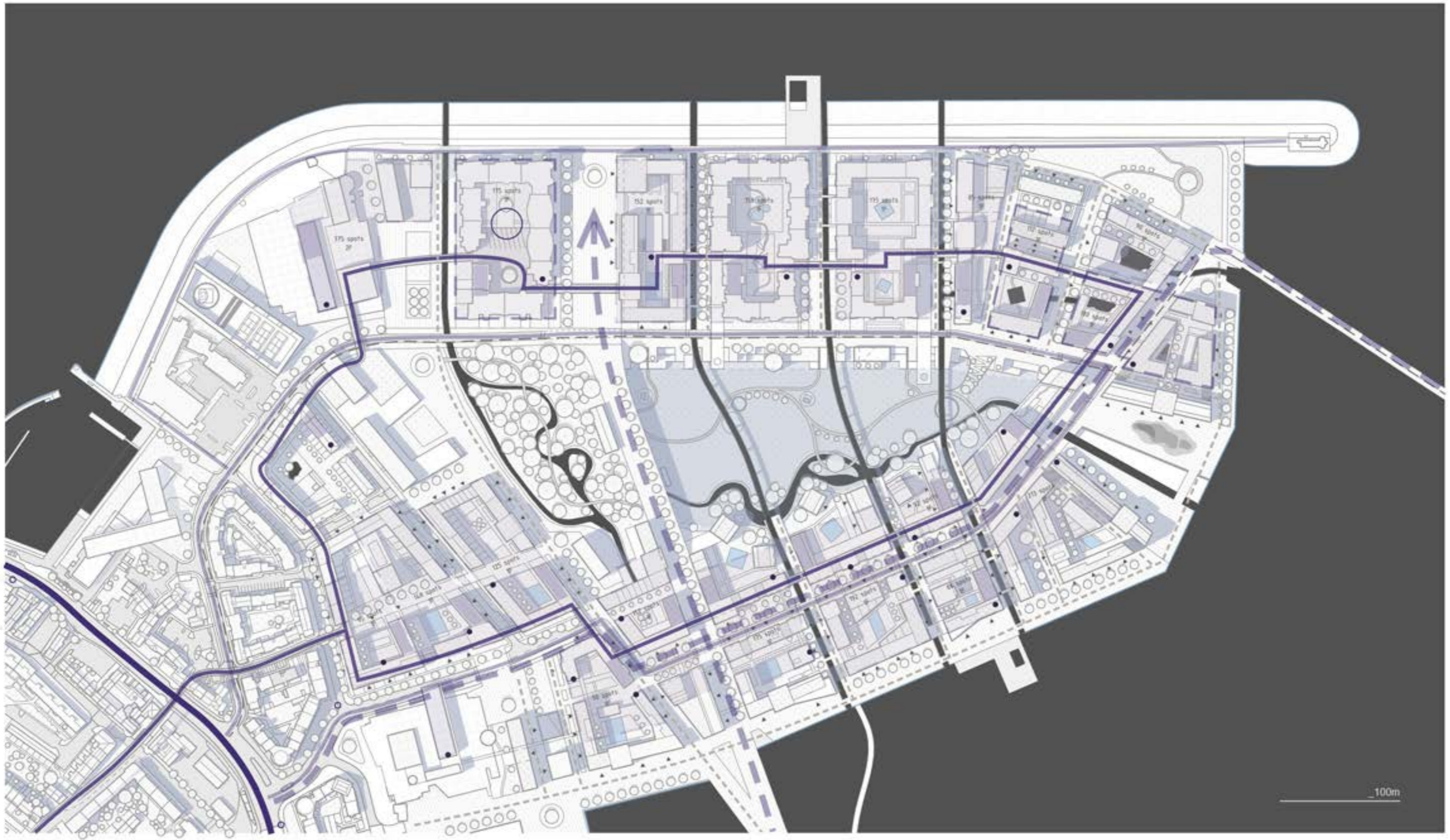
proposed trees



residential front gardens



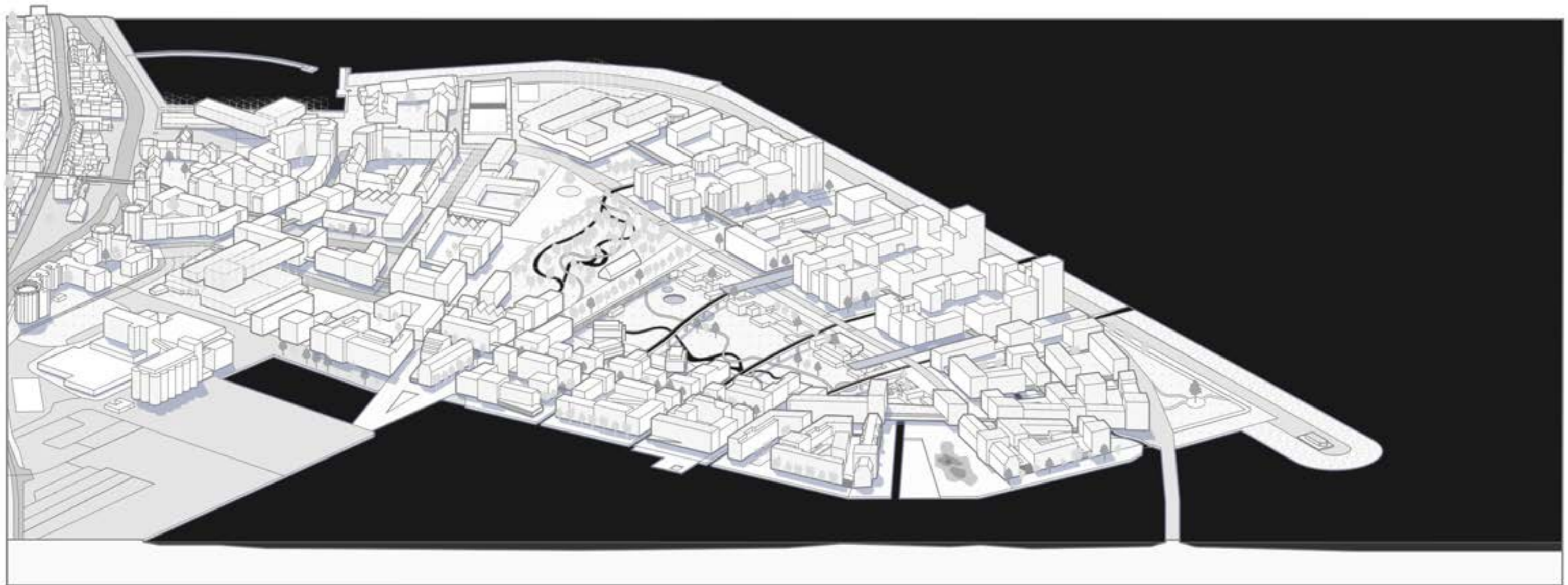
greenery_scheme



- | | | | | | | | | | |
|--|--------------------|--|------------------------|--|-----------------------------|--|---------------------|--|--------------------|
| | city outer circuit | | main pedestrian routes | | secondary pedestrian routes | | main road - 2F | | walkable driveways |
| | garage ramps | | waste management | | bus stops | | parks | | bus station |
| | bike lanes | | parking house | | | | underground garages | | sea |

transport_scheme

How to the nature of flooding, the main road and all surface parking spaces are moved to the second floor. The floor with road not only acts as a natural buffer zone between the rich and the poor - it is also the only space these two can meet. It is naturally much harder to get up than to go down. In case of flood, however, both categories meet here, trying to save their lives. Having only one road, however, it becomes clogged, disallowing both the rich and the poor the escape. This is my way of saying that it does not matter how many worldly possessions you have gathered while walking this Earth - in death, we are all equal. Parasites of all kinds rot of. Disposed.



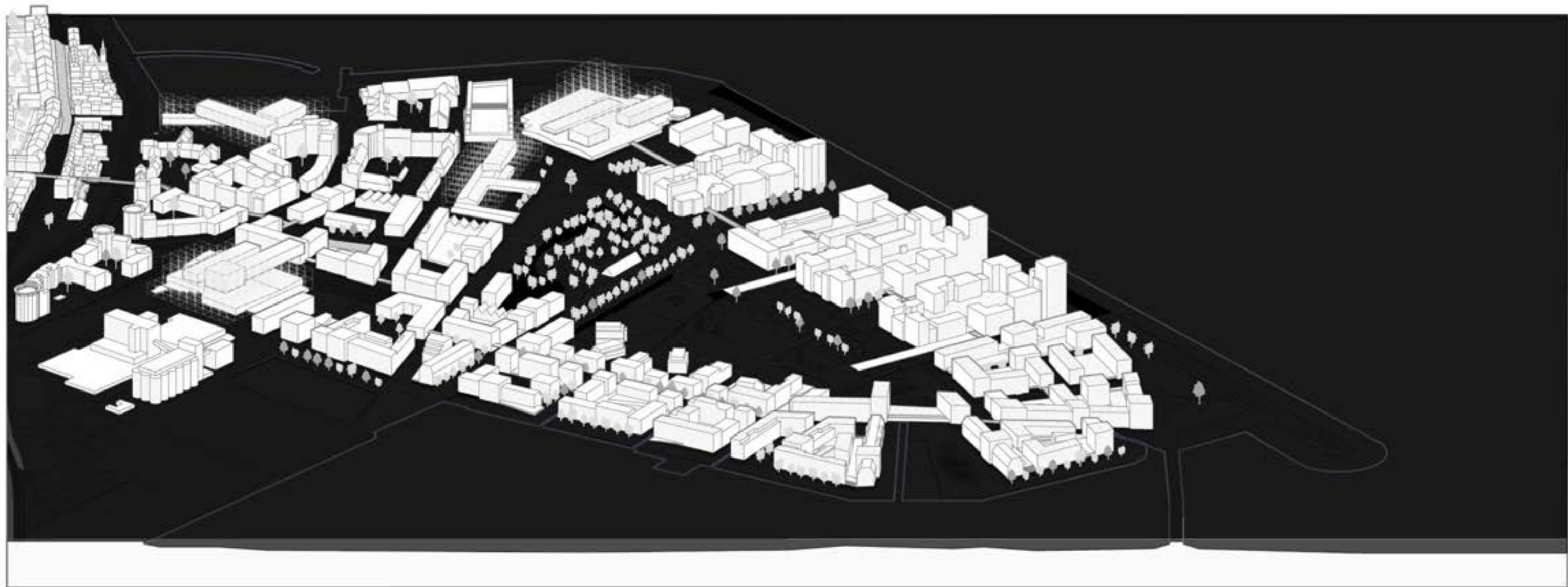
proposed objects



existing objects



green roofs



planned objects



existing objects



green spaces



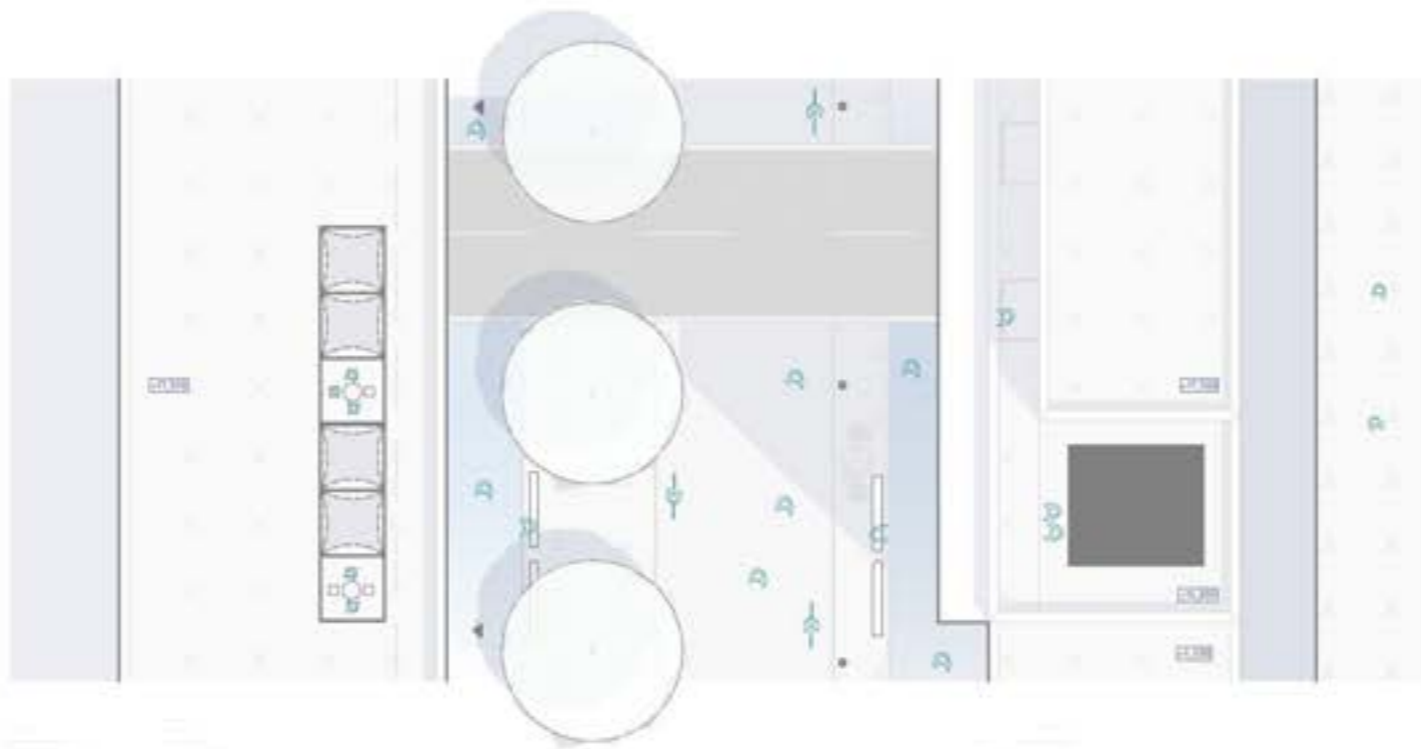
100m



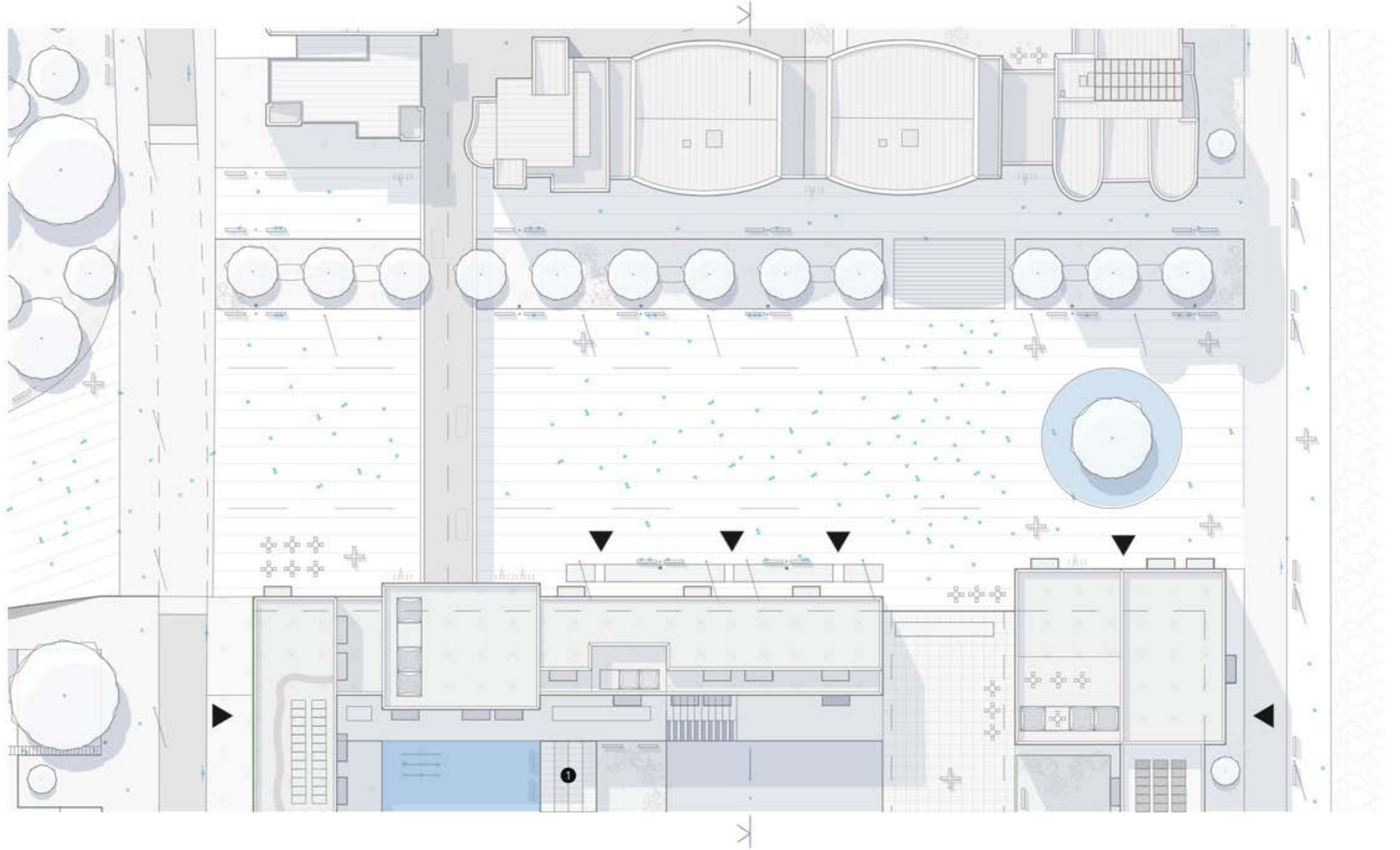
A-A PL 2008



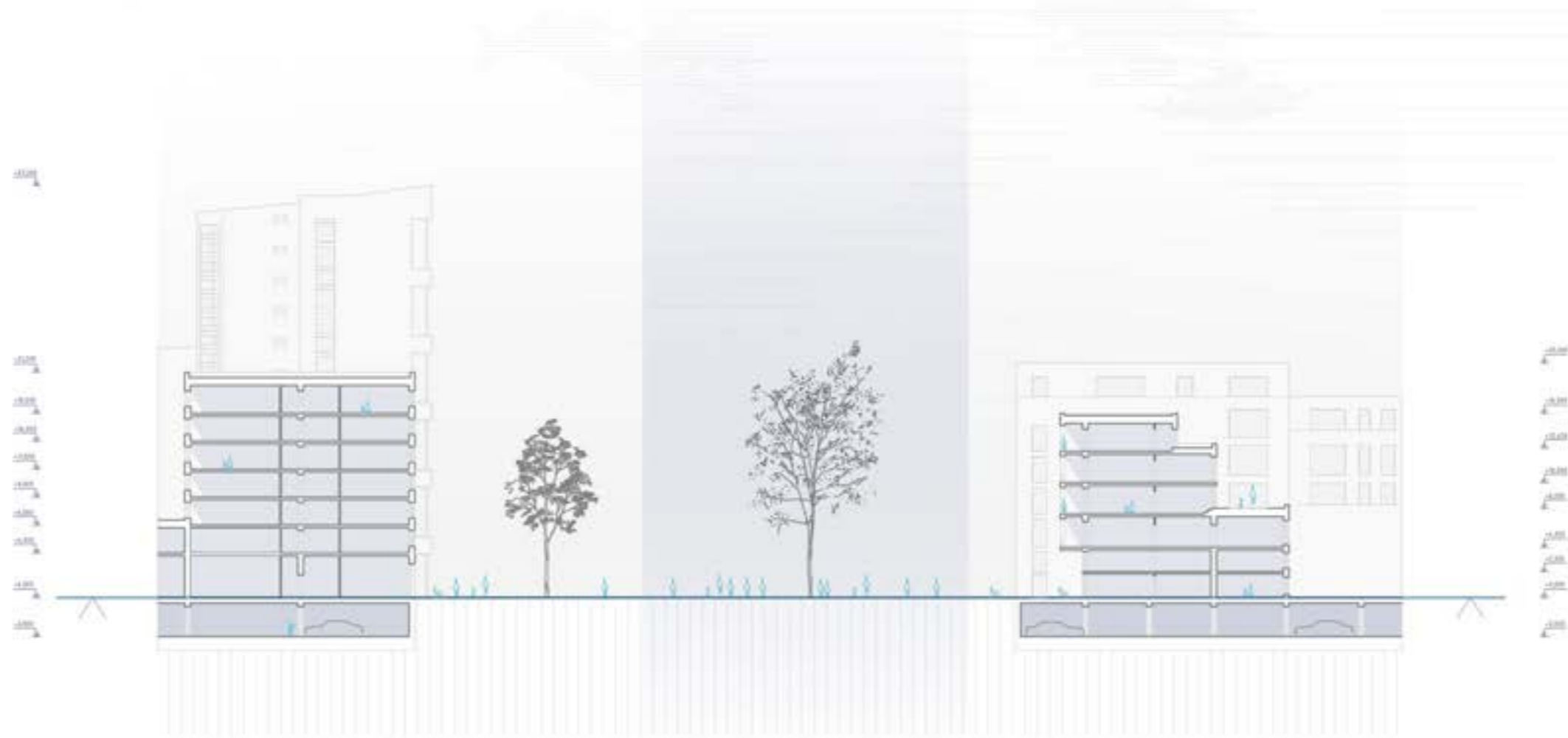
0-0 1/1000

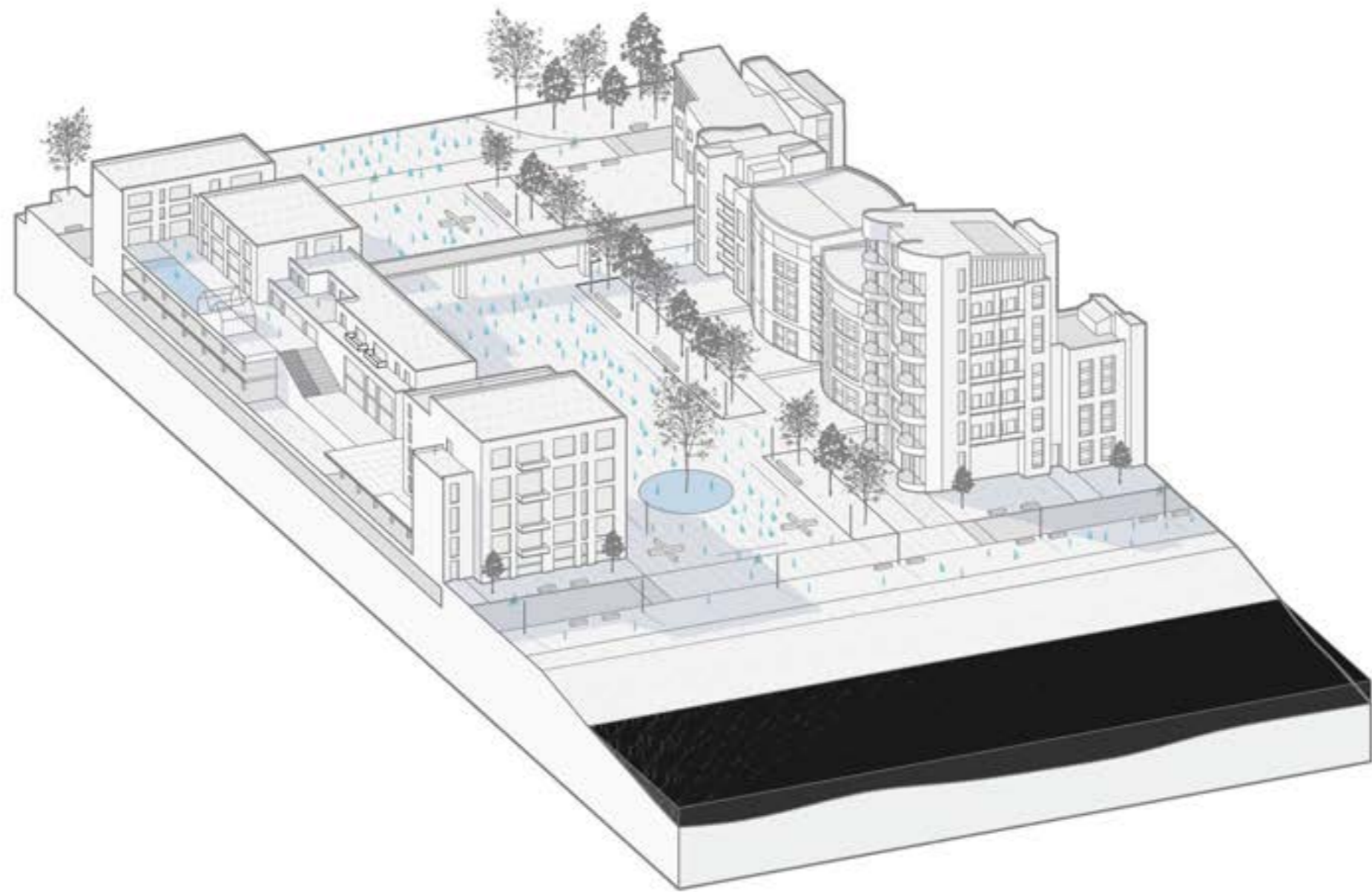


front profile



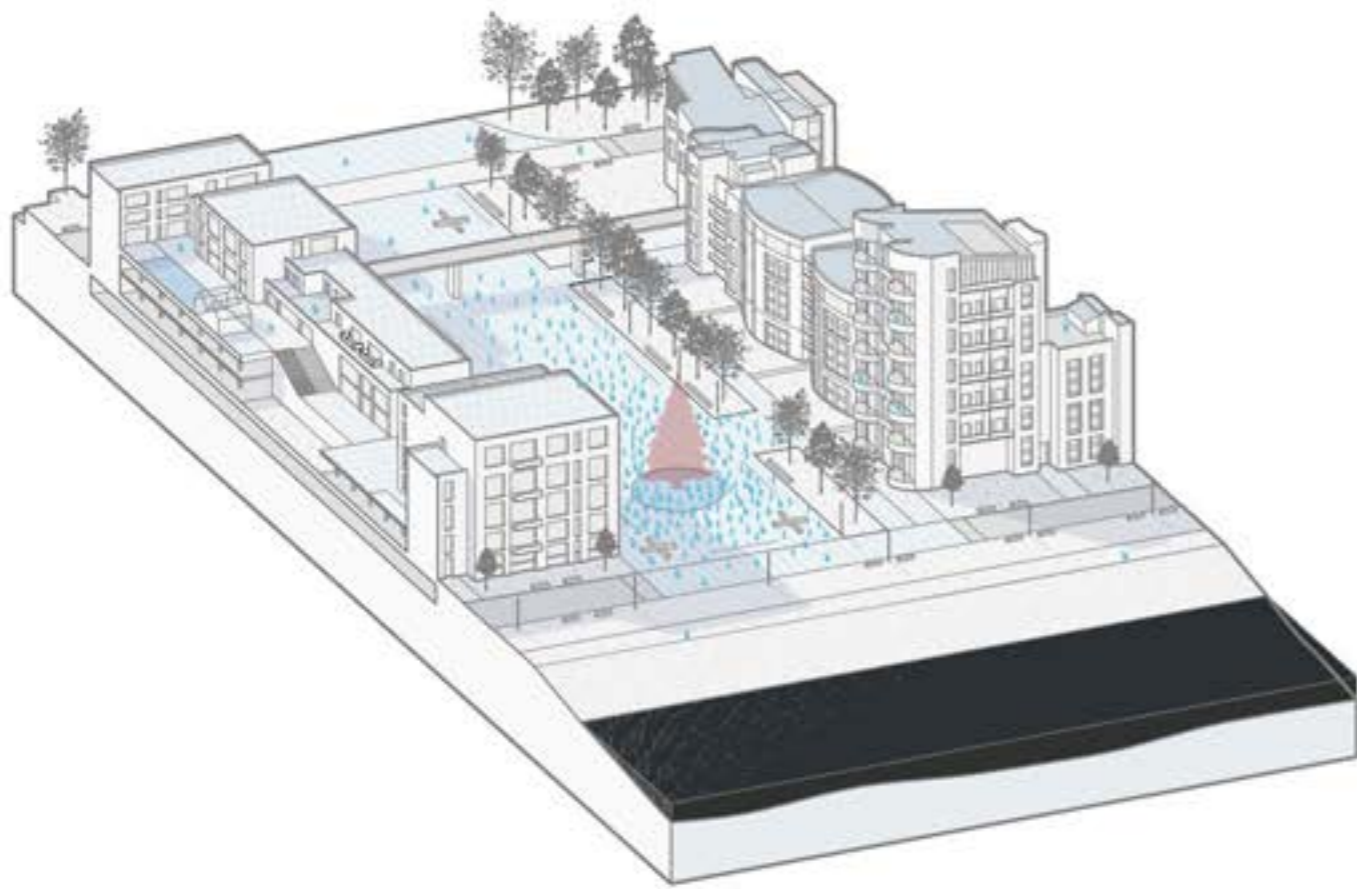
- | | | | | | | | | | |
|---|-------------|---|--------------------------------------|---|---------------|---|------------------|---|-----------------|
|  | Greenhouses |  | Bike Share |  | Blue Box |  | Parking space |  | Proposed lights |
|  | Green roof |  | Linear lights integrated into paving |  | Entrance sign |  | Small circle |  | Water fountain |
|  | Bicycle |  | Breadable sidewalk |  | Fountain |  | Plan Road Detail |  | Large pool |



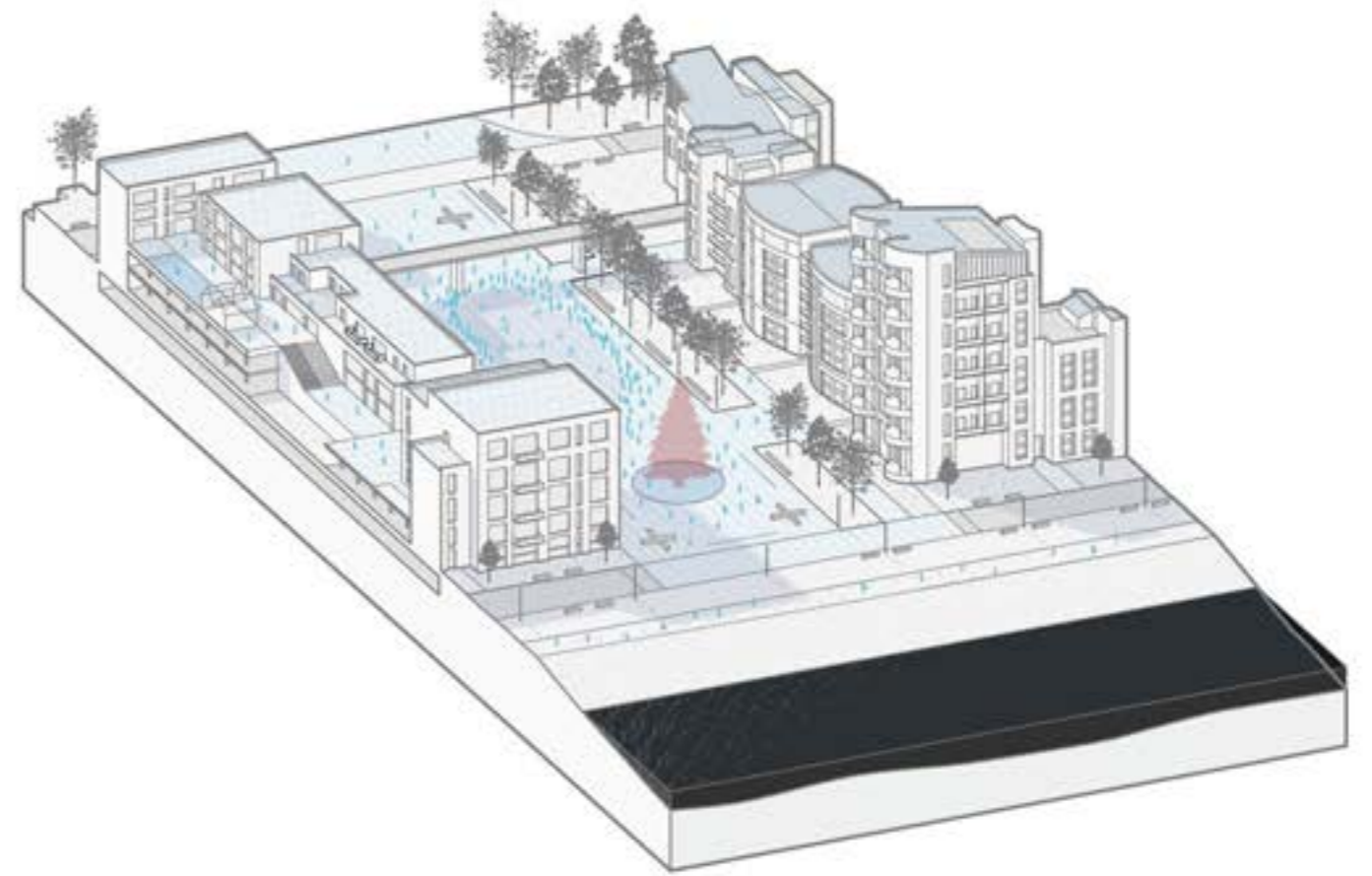


1

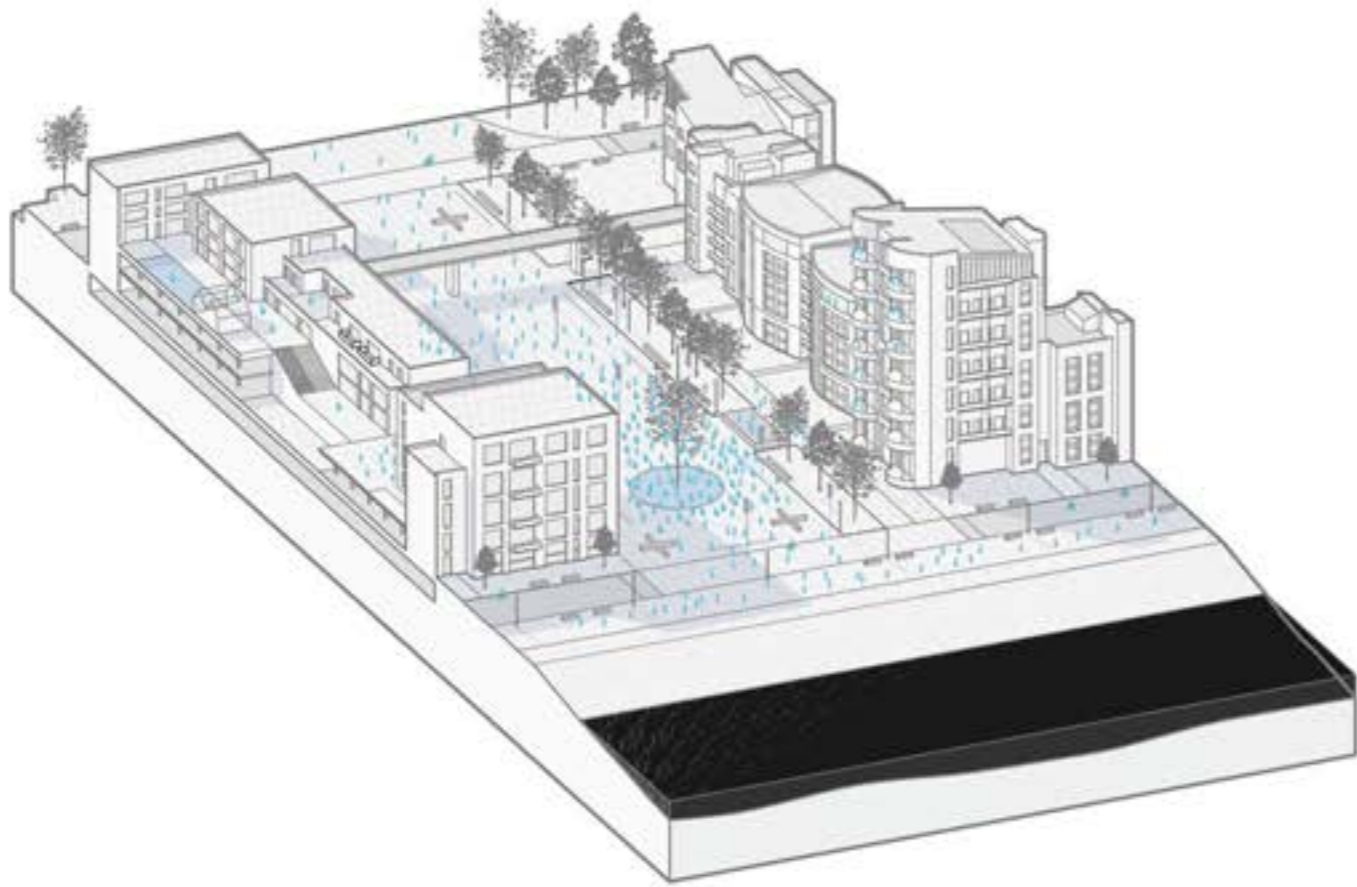
Site use



02.01.2018

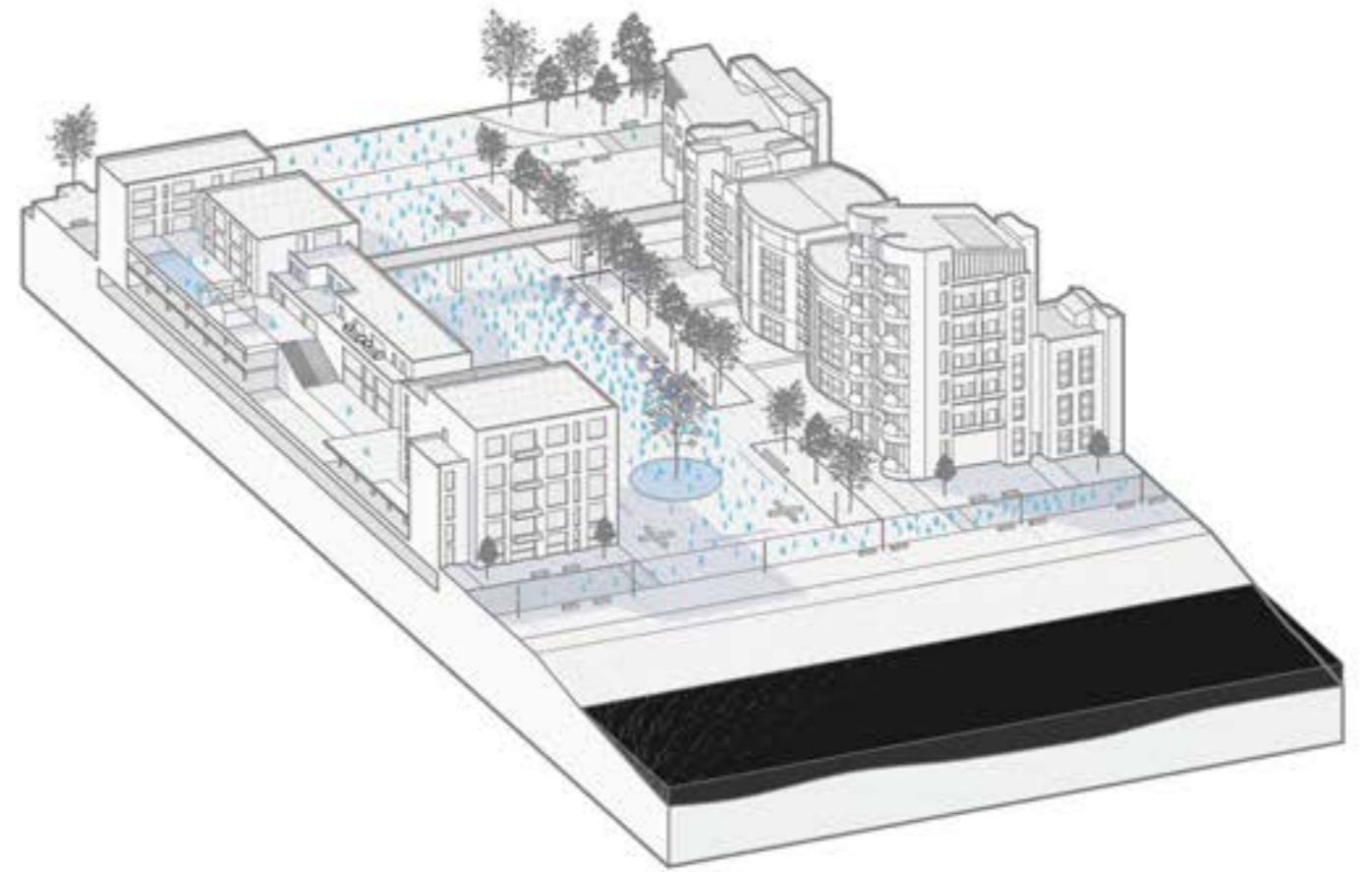


02.01.2018



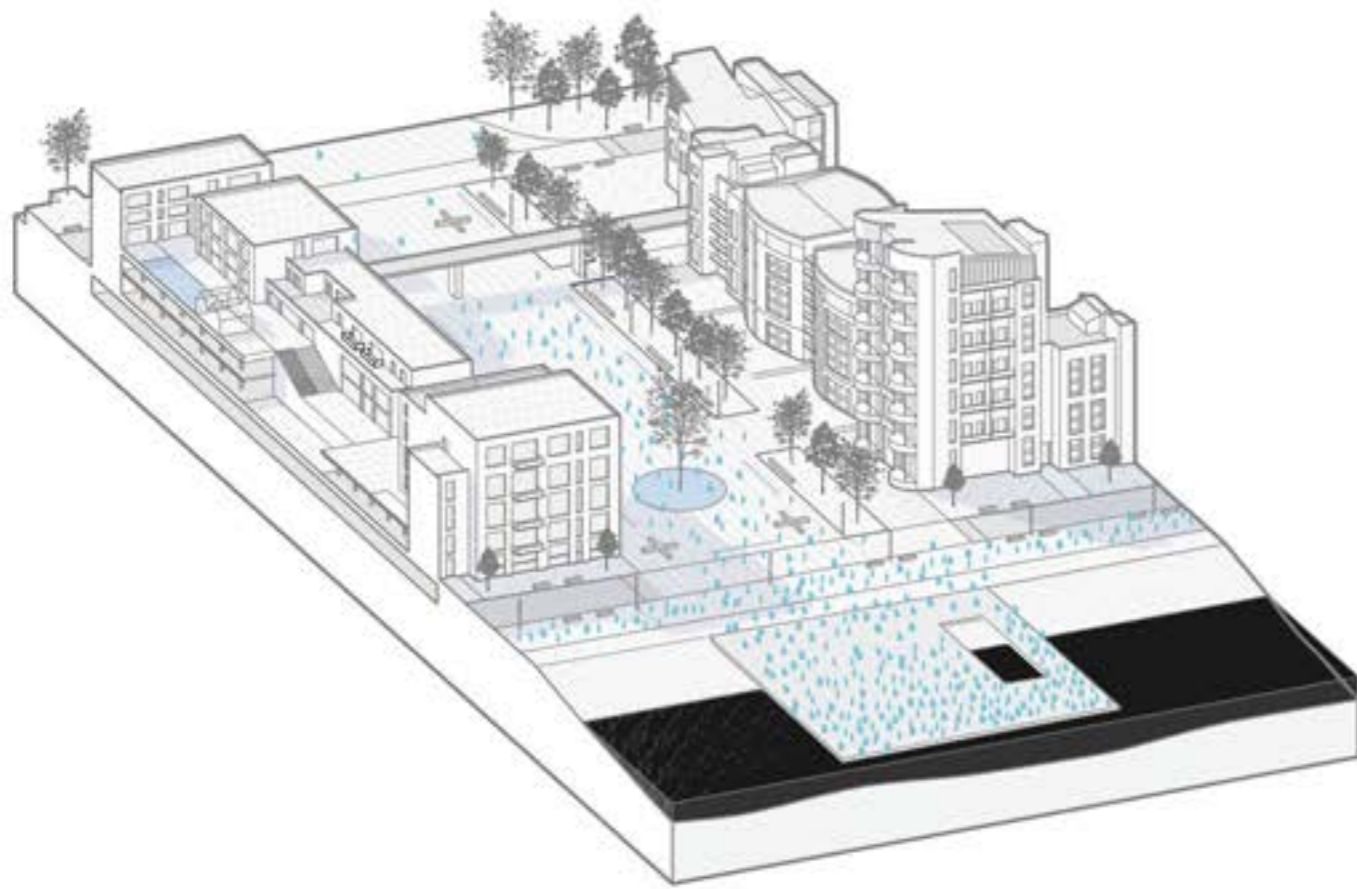
IV

street parkings court



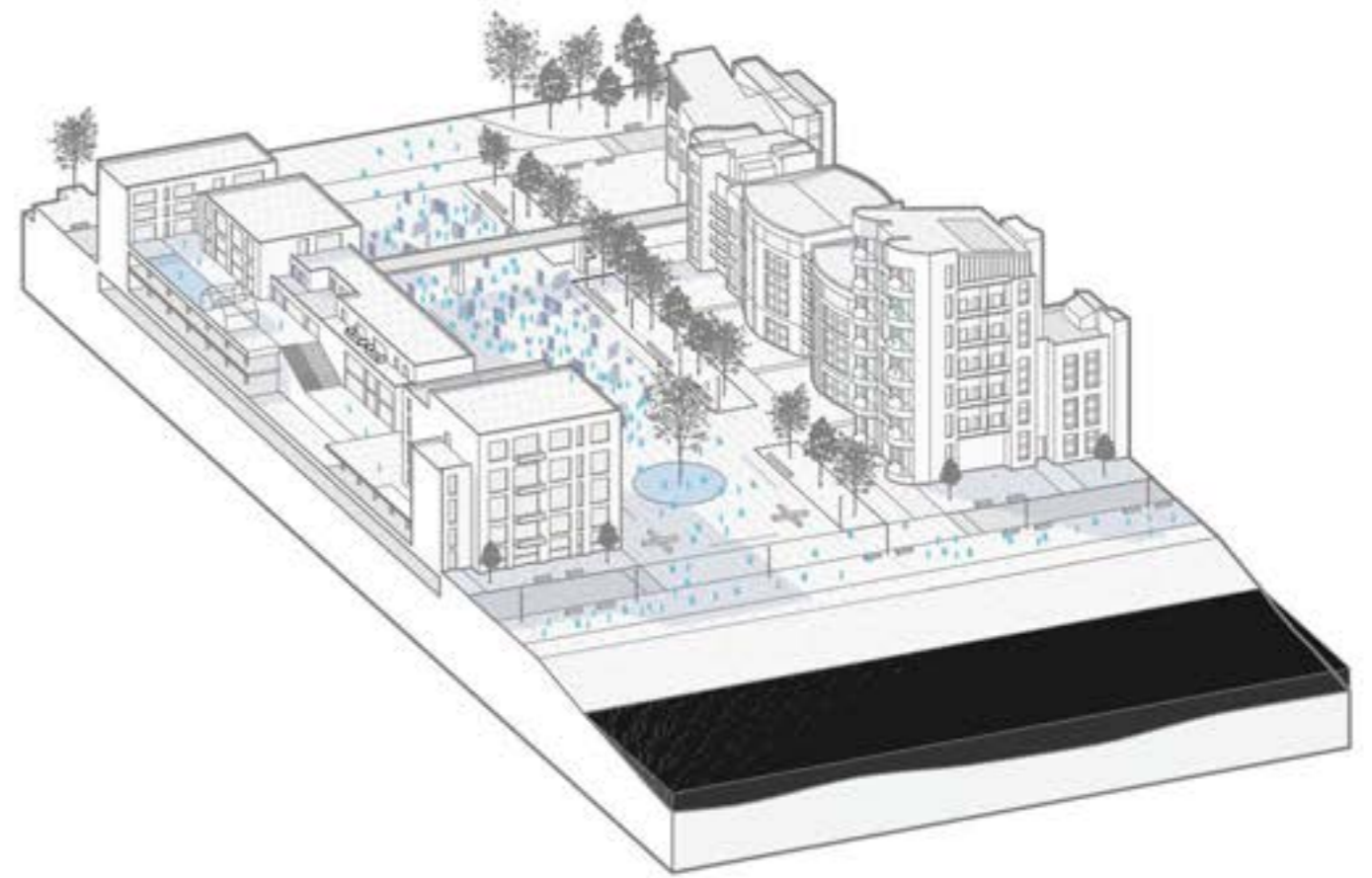
V

street foot_parking



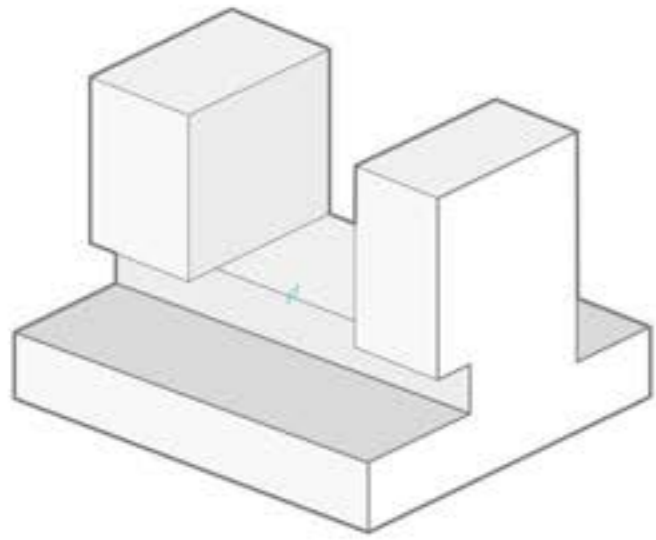
VI

edilizia per azioni



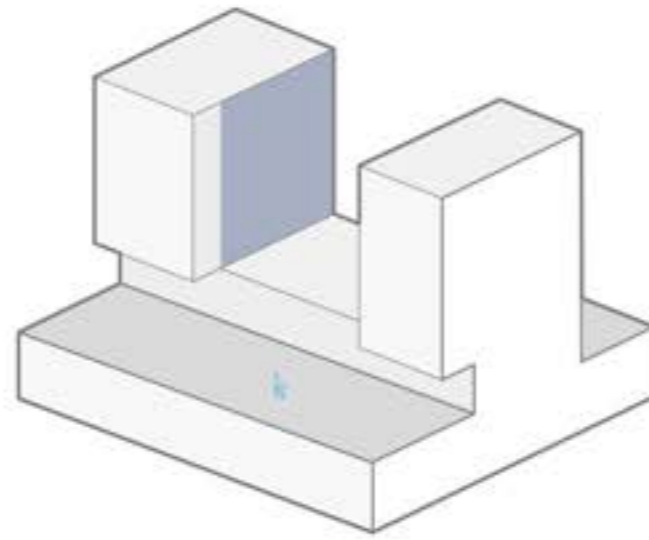
VII

artistic incubator



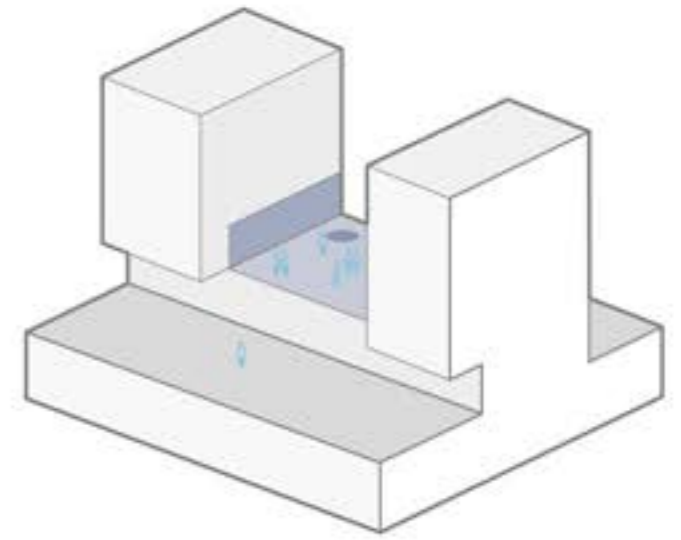
1

Void



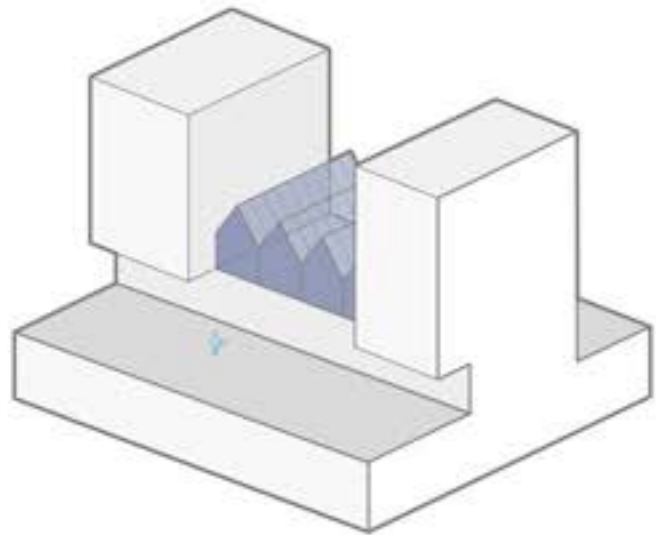
2

Mural / Dualmural



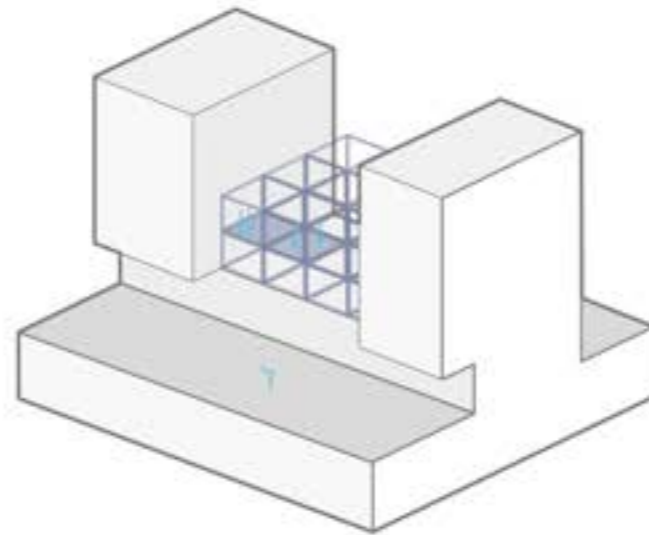
3

Community roof



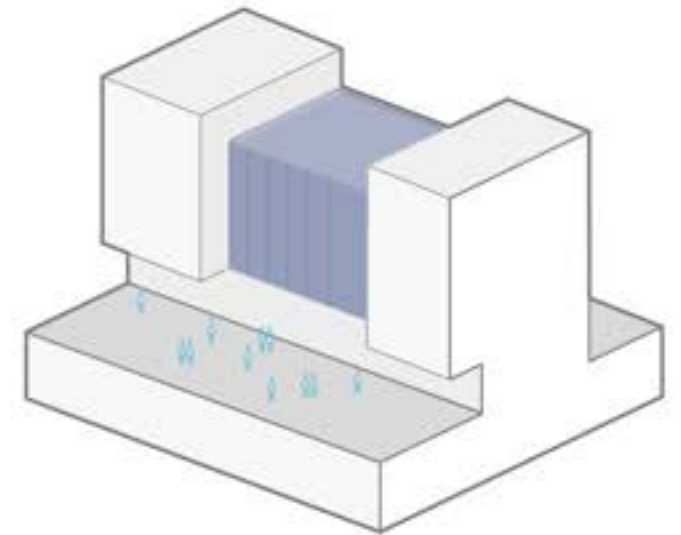
4

Gardener



5

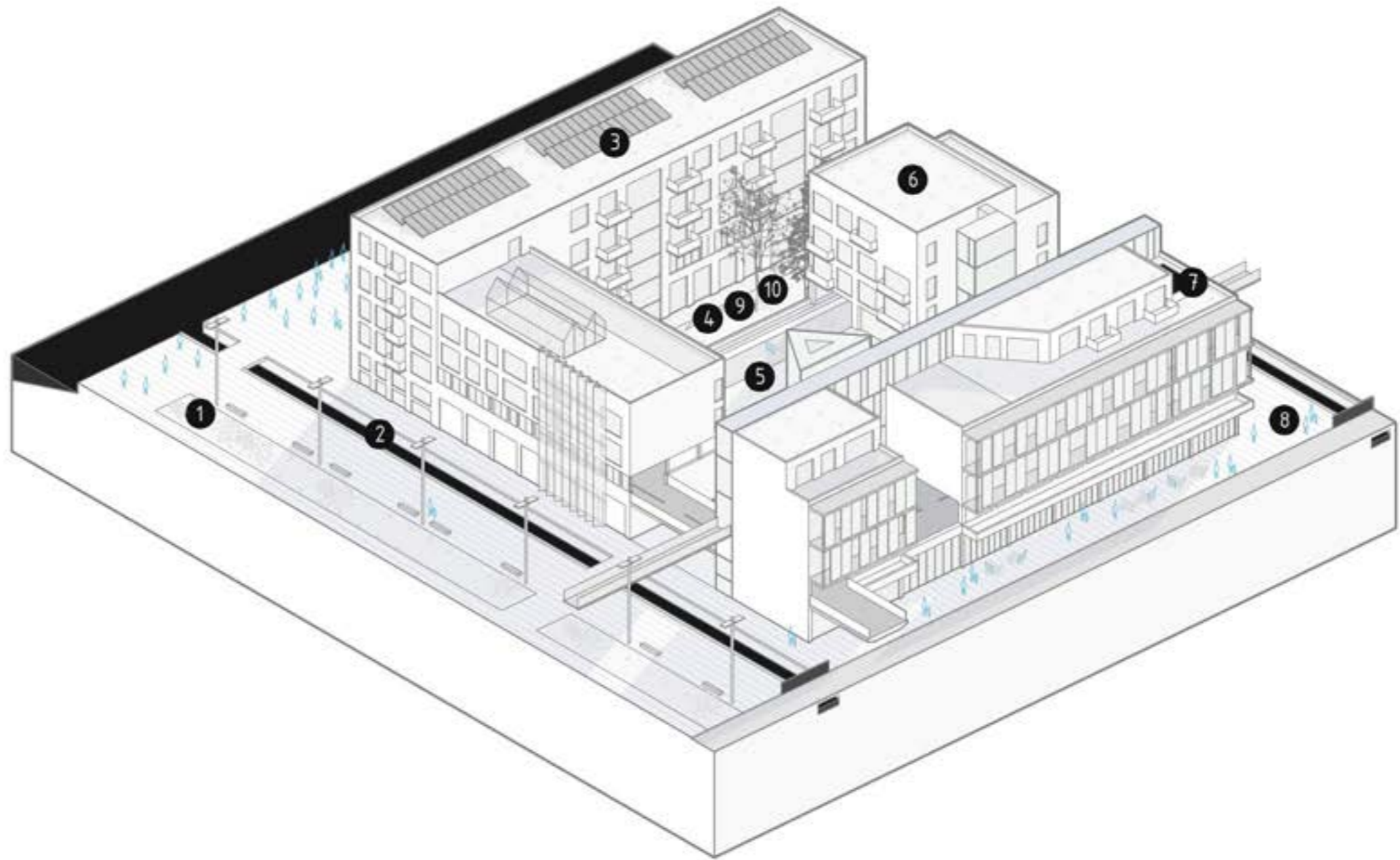
Parasite



6

densification





- 1** Rainwater
- 2** Newly added water elements
- 3** Solar collectors
- 4** Preservation of existing primary planting area
- 5** Drainage system as shared water retention
- 6** Green roofs
- 7** Community garden
- 8** Retention basins
- 9** Retention basins
- 10** Retention basins for on-site water reuse

















"Cities, Leoman had once told Corabb, were born not of convenience, nor lordship, nor markets and their babbling merchants. Born not even of harvest and surplus. No, said Leoman, cities were born from the need for protection."

- Steven Erikson*

note

AI was used for grammar purposes only

sources

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