

P4 PRESENTATION

Reviving the Forgotten Gasholders

*Harnessing the potential of heritage sites through
complementary architectural gestures*



11 June 1918. Female workers of the Gas Light and Coke Company serving tea on top of a gasometer in Bromley-by-Bow, east London. Hulton Archive

*Nadia Antoniadis
P4 Presentation | June 2023*

1800-1900: Functional Pieces of Engineering
Prime locations to deliver gas/electricity to the area



Dark, toxic sites - isolation and health problems
Large imposing industrial structures



1950s: Transition to natural gas

Abandoned, desolate, gloomy sites & relics of the past as a backdrop



Decommissioned: reference point in the skyline
Start to see the beauty of these majestic structures



Spectacular on landscape
Part of the character of the city



CITY TRANSFORMATIONS
Industrial Revolution, urban shifts,
technological shifts, creation of networks

CHARACTER
essence, identity, heritage

ENERGETIC FLOWS
significance of hubs,
powerful engines, dense cities

SITE SPECIFICITY
repetitive neighbourhood flows
strategic view for a systemic approach

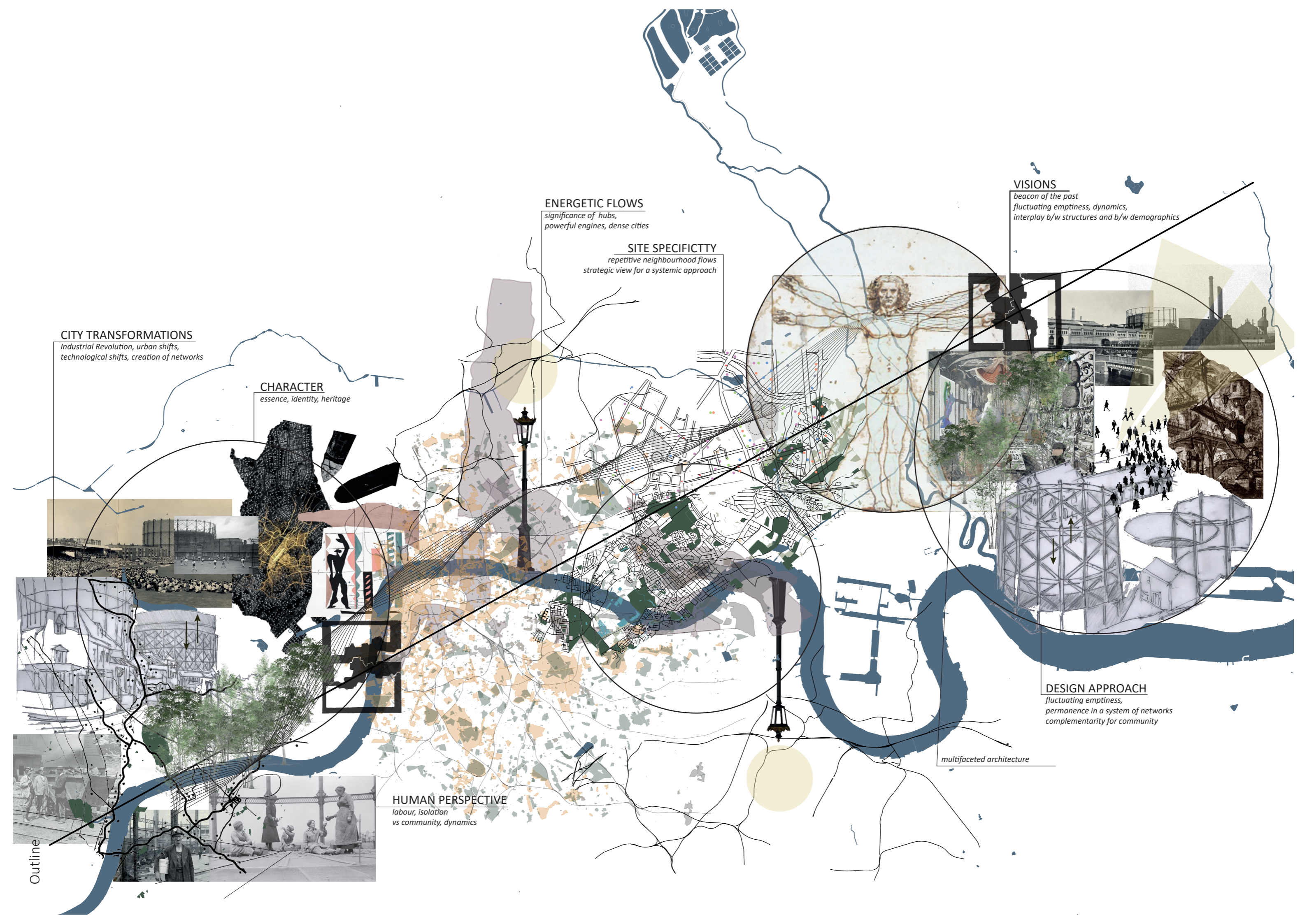
VISIONS
beacon of the past
fluctuating emptiness, dynamics,
interplay b/w structures and b/w demographics

DESIGN APPROACH
fluctuating emptiness,
permanence in a system of networks
complementarity for community

HUMAN PERSPECTIVE
labour, isolation
vs community, dynamics

multifaceted architecture

Outline



Shifts in perception: Dead space to Space with Potential



by Richard Chivers



Montford Place, near The Oval, Kennington (1953)



Montford Place, near The Oval, Kennington (2022)

Embody the symbolic emptiness to create a sense of belonging



"...only in vacuum lay the truly essential. [...] A vacuum is there for you to enter and fill up the full measure of your aesthetic emotion." (Okakura, 1906)

In the pursuit of urban revitalisation, how can complementary architecture serve as a transformative mediator, enabling the revival of vacant heritage sites in a dense urban city while transcending their physicality, stimulating a collective reimagining of community, and embodying the essence of the city's evolving identity and values?

A Post-Industrial City and its Relics

Potential Locations using city-scale studies



Determining a Site

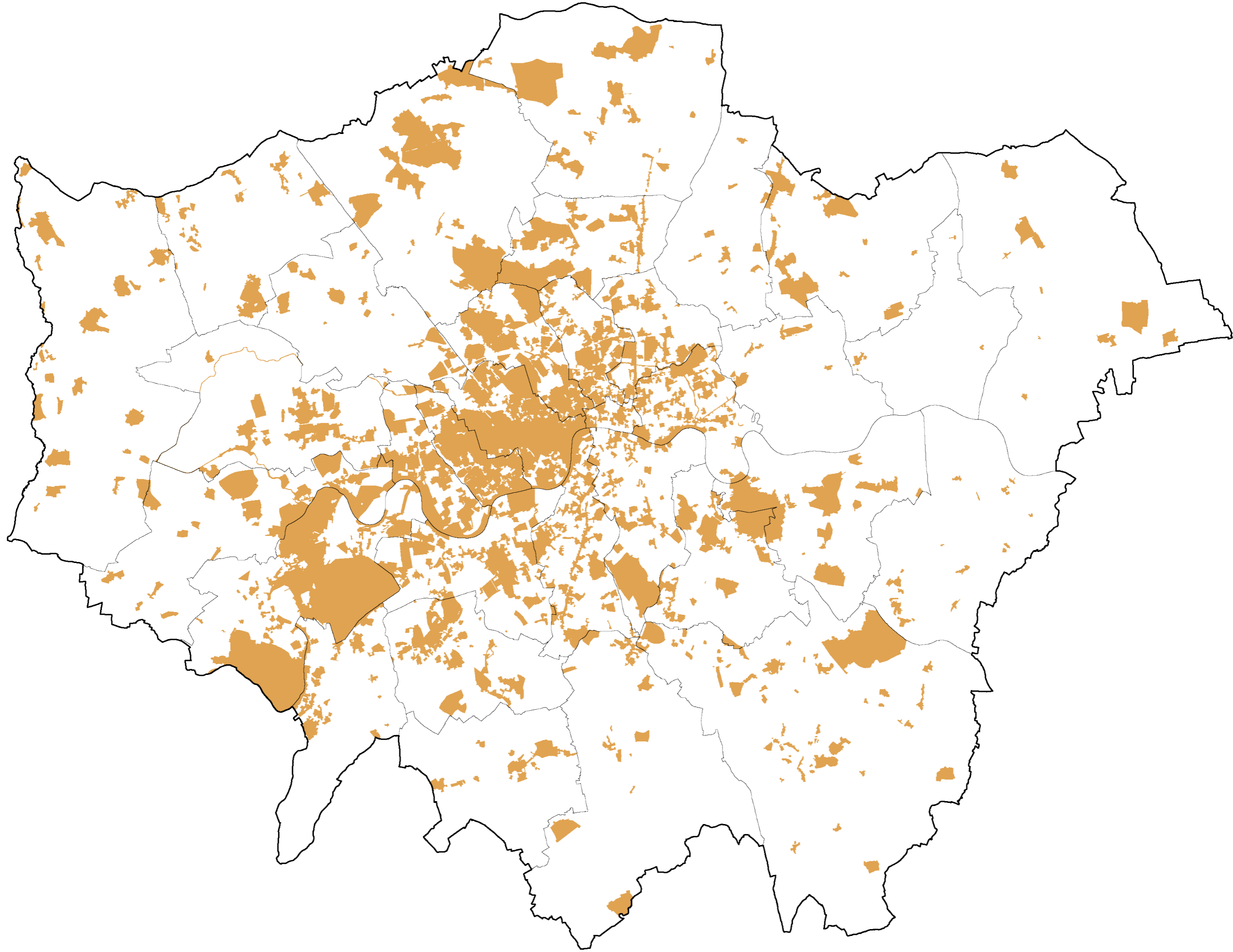
System of networks in London
Setting parameters and constraints
Refining study through single site specific research





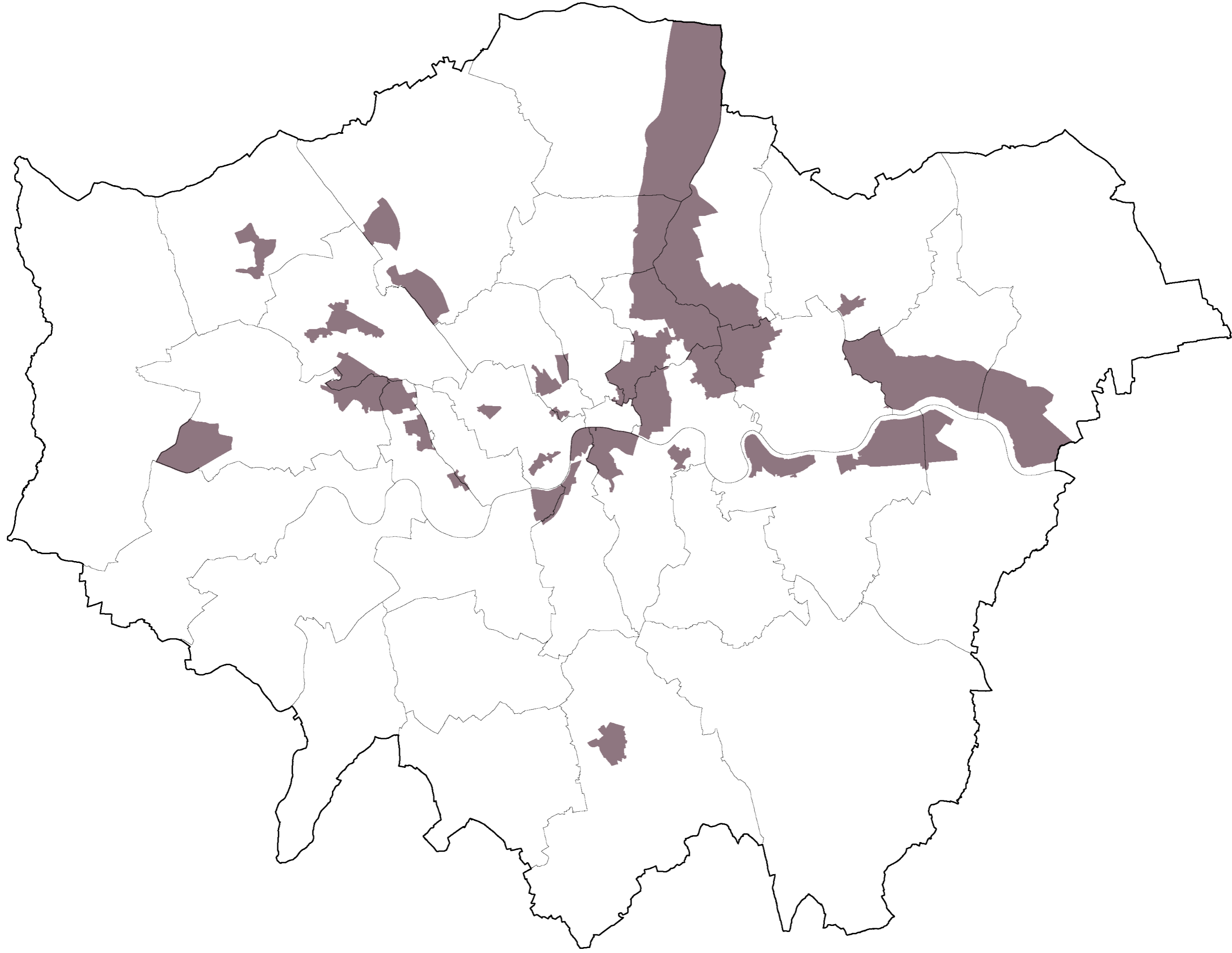












Location Map of existing, redeveloped, and dismantled gasholders of London



- EXISTING
- REDEVELOPED
- DISMANTLED

Location Map of existing gasholders of London (remains)



Logbook of Typologies

*Programme, Location, Building Technology
Successful Aspects, Petitions*

		Albert Road Gas Works (Barnet Gasworks) New Barnet	Beckton Gas Works	Bromley-by-Bow Holder Station	Crayford Holder Station (London Road Gas Works)	Haggerston Gasworks (Hackney, Bethnal Green, Tower Hamlets)	Imperial Gas Works (Fulham)	Kennington (Oval) Gas Holder Station (Berkeley Grip)	Leigh Road Gas Holder	Motspur Park (Worcester Park) Gas Holders	Old Kent Road Gas Works	St. Mary Cray Gas Holder Orpington Gas Holder (in Bromley)	Rotherhithe Holder Station	Yarnton Way Gas Works (Belvedere)
Structure	<ul style="list-style-type: none"> framework excavation 	<p>1 frame (with crown)</p> <p>A Cutler patent guide frame gasholder in a below ground tanks was still present on site in 2018 although decommissioned. Some 20th C brick buildings and modern gas infrastructure are present on site.</p>	<p>NOT SURE IF A STRUCTURE REMAINS 1 or 2 possible present frames?? + 4 flat areas below ground?</p> <p>OTHER REMAINS: The gasworks had its own pier for loading coal. Remains: jetties on water rotting away some modern gas infrastructure. The workers cottages on Winsor Terrace and the Entrance gates still survive.</p>	<p>7 column guided skeletons present (Grade II) with crown</p> <p>all below ground tanks</p>	<p>1 frame belowground with crown + 1 crown only (with minimal to no framing?) - 2/3GH</p> <p>OTHER REMAINS: A whitewashed red brick building, parts of the boundary wall and two gasholders survived in 2018.</p>	<p>2 skeletons with crown + 2 crowns no frame below ground tanks</p> <p>No5 (big) No2</p> <p>NOT LISTED</p>	<p>1 small skeleton with crown + 1 crown without skeleton</p> <p>+ 1 dismantled belowground showing "dumpling" (cone of earth), + 1 crown removed with exposed trusses</p>	<p>3 frames with crown + 1 crown no frame (maybe spiral) below ground</p> <p>GH No.1 is Grade II</p> <p>3 flying lift, column guided</p> <p>There were five GH operating before WWII but only two were still operational after the war, these were (No.1 and No.3), but were all eventually brought back into use. The early gasholders (No4&No5) have the symbol of the phoenix on their columns (because purchased by Phoenix Gas Company in 1847). Vested in the SEGB in 1949. No.3 gasholder was demolished after 1987</p>	<p>1 frame with crown below ground tank</p>	<p>2 frames present with crowns, above ground</p>	<p>1 crown below ground tank with frame + 1flat area delimitation (no structure traces, no digging)</p> <p>column guided framing</p>	<p>2 aboveground gasholders one with frames, one without (because it was spiral) + 1dismantled (not sure about tank)</p> <p>No5: spiral guided No4: frame guided No3: cutler patent frame guided (dismanteled)</p> <p>OTHER REMAINS: modern regional office</p>	<p>1 frames with crown, below ground</p> <p>2 frames vsible, with crown, above ground</p>	
Setting	<ul style="list-style-type: none"> dead space greenery waterbodies private/public space 	<p>Greenery parking spaces</p>	<ul style="list-style-type: none"> dead contaminated space River Thames railway tracks 	<p>round waterbody greenery</p>	<p>Lots of open green space</p>	<p>Busy area with a lot of amenities. Might make the space overwhelming if another venue is added</p>	<p>dead space possibility for parking</p>	<p>Kennington Park parking potential</p>	<p>Greenery River Roding</p> <p>near beckton gas works</p>	<p>Green space, organised (sports)</p>	<p>dead space (brownfield+paved)</p> <p>paved area river cray</p>	<p>field</p> <p>Surrey Water parking potential</p>	<p>dead brownfield</p>	
Surrounding programs	<ul style="list-style-type: none"> assembly commercial industrial institutional residential 	<p>Assembly</p> <ul style="list-style-type: none"> Park, playground Football field Gym Sports centre Bars, restaurants <p>Commercial</p> <ul style="list-style-type: none"> Supermarket Pet grooming Taylor <p>Accountant</p> <ul style="list-style-type: none"> Contracting companies <p>Industrial</p> <ul style="list-style-type: none"> Cadent Gas Company (distribution of nat gas) <p>Institutional</p> <ul style="list-style-type: none"> Tutoring school Jewish community school Primary/Nursery <p>Residential</p>	<p>Commercial</p> <ul style="list-style-type: none"> Tesco Supermarket Toy store clothing stores Restaurant <p>Industrial</p> <ul style="list-style-type: none"> Docklands Light Railway Ltd Depots Delivery offices <p>large Eastern European community settled in the area</p>	<p>Industrial</p> <ul style="list-style-type: none"> DHL Depot Manufacturer Car inspection 	<p>Residential area for a community. Very personal</p> <p>Residential mostly Assembly</p> <ul style="list-style-type: none"> large green park (Shenstone Park) village hall (gathering space for school) tennis club (fields) <p>Institutional</p> <ul style="list-style-type: none"> school church hall 	<p>Assembly</p> <ul style="list-style-type: none"> Art gallery Pub/Bar 2 event venues Garden <p>Commercial</p> <ul style="list-style-type: none"> Art Store Pharmacy <p>Institutional</p> <ul style="list-style-type: none"> Offices Post Office <p>Residential</p>	<p>Assembly</p> <ul style="list-style-type: none"> Rockclimbing <p>Commercial</p> <ul style="list-style-type: none"> Supermarket General store <p>Institutional</p> <ul style="list-style-type: none"> Offices <p>Residential</p>	<p>Assembly</p> <ul style="list-style-type: none"> Art gallery Stadium Football field Pub/Bar Kennington Park <p>Commercial</p> <ul style="list-style-type: none"> Supermarket <p>Institutional</p> <ul style="list-style-type: none"> Highschool Primary School Office Gin distillery <p>Residential</p>	<p>Commercial</p> <ul style="list-style-type: none"> Clothing stores supermarket hair salon building material store <p>Industrial</p> <ul style="list-style-type: none"> train depot (store trains) Self storage facility contractors warehouse engineering company construction services (east) <p>Institutional</p> <ul style="list-style-type: none"> church <p>Residential (all of west side)</p>	<p>Assembly</p> <ul style="list-style-type: none"> Small café & small brewery a few small restaurants football field (+club) <p>Commercial</p> <ul style="list-style-type: none"> Kitchen supplies <p>Industrial</p> <ul style="list-style-type: none"> Reuse and Recycling Centre Electric Utility centre Waste Management Facility <p>Institutional</p> <ul style="list-style-type: none"> Churches 2 Primary Schools <p>Residential</p> <ul style="list-style-type: none"> their green space 	<p>Assembly</p> <ul style="list-style-type: none"> park golf course starbucks café a few restaurants trampoline park indoor small village hall (for community events) <p>Commercial</p> <ul style="list-style-type: none"> 4 supermarkets stores constuction (flooring, tile,electronics, kitchen, plumbing) <p>Industrial</p> <ul style="list-style-type: none"> waste management distribution service solar energy company car inspection building restoration services <p>Institutional</p> <ul style="list-style-type: none"> 2 primary schools church <p>• SGN offices • SGN Depot • SGN Workshop</p> <p>Residential around public area + residential North</p>	<p>Residential surrounding gasholder</p> <p>Assembly</p> <ul style="list-style-type: none"> Bacon's community sports centre (College Function & Event Hall Football club/terrain Tennis court) Event Venue (Printworks London, BroadwickLive event management company) Bow Arts Studio Fishing pier Parks <p>Commercial by the dock</p> <ul style="list-style-type: none"> Cafe, Restaurant Decathlon Sports store <p>Institutional</p> <ul style="list-style-type: none"> Alfred Salter Primary School Bacon's College Canada Water Library 	<p>Commercial related to industrial sector</p> <ul style="list-style-type: none"> construction accessories plumbing metals <p>Industrial</p> <ul style="list-style-type: none"> car service industria equipment supplier construction company food supplier <p>Institutional</p> <ul style="list-style-type: none"> school + facilities (sports, green space) Church pharmacy supermarket consultant offices <p>Residential (east)</p>	
Movements (+ accessibility)	<ul style="list-style-type: none"> river rail/public transp roads 	<p>road, bus</p> <p>walk not easy</p>	<p>underground network (Barking or Plaistow) + bus</p> <p>Road, bus</p> <p>Bow Creek</p>	<p>Road, bus</p> <p>Rail (crayford) + bus</p> <p>Underground (Woolwich)+ bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Regent's canal</p>	<p>Underground network (Imperial whard)</p> <p>Road, rail</p> <p>Rail network, bus</p>	<p>Underground network (east ham)</p>	<p>rail network (Worcester Park)+walk</p> <p>Bus</p>	<p>Road, bus</p>	<p>rail network</p> <p>St Mary Cray + walk</p> <p>Orpington + bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Thames River</p>	<p>Rail network (Belvedere)</p> <p>Road</p>		
Coordinates		51.653688537587705, -0.17227492560199803	51.51394183881501, -0.07794401999716147	51.5250532397, -0.00357402176827	51.4534954148, 0.16638259522	51.533437678423205, -0.06040929172773984	51.4772014694, -0.186421286929	51.485631035415324, -0.11493224623193321	51.54112472151783, 0.06480400119278792	51.3902959668, -0.240912312467	51.482239, -0.059760	51.3983790523, 0.11196355185	51.50252267758361, -0.048031474636269104	51.4934335988, 0.14824527006
Present/Features	<ul style="list-style-type: none"> at risk? redevelopment plans? 	<p>AT RISK OF ENTIRE REMOVAL OS STRUCTURE</p> <p>Redevelopment schemes. 539 residential units (13 buildings,4-7 storeys) + retail/commercial spaces+community space+pedestrian routes+parking (overdevelopment of the site)</p> <p>https://publicaccess.barnet.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=QVMN36I09100</p> <p>https://www.theresavilliers.co.uk/news/high-rise-blocks-new-barnet-victoria-quarter-are-betrayal</p>	<p>http://www.iddc-history.org.uk/beckton/index.html</p> <p>https://weeklytales.com/articles/beckton-alps</p> <p>https://boltancestry-uk.weebly.com/beckton-london.html</p> <p>Beckton is ethnically diverse, with large numbers of single people, lone parents and students</p>	<p>All are listed Grade II. Not at risk. No redevelopment scheme on site</p>	<p>Is currently being demolished. To be replaced with 14 warehouses</p> <p>https://www.yourlocalguardian.co.uk/news/19858790.croydon-gasworks-site-pulled/</p> <p>https://www.mylondon.news/news/south-london-news/south-london-skyline-change-forever-22248637</p>	<p>Plan 1: Conservation of Gasholders (No2 & No5) with new development schemes put in place (housing inside one and green open space insode other)</p> <p>"positive contribution to the character or appearance of the Regent's Canal Conservation Area can and should be preserved"</p> <p>http://friendsofregentscanal.org/features/property-devt/Bethnal-Green-gasholders/planapp/docs/Marian-Place-Gas-Works-Report.pdf</p> <p>Plan 2: housing inside both holders + 2 more cylindrical towers housing</p> <p>https://www.architectsjournal.co.uk/news/rshp-gets-consent-east-end-gas-holders</p>	<p>1,800 new homes and 100,000 sq ft of commercial space</p>	<p>3 gasholders dismantled large gasholder kept for housing inside</p> <p>Oval Village https://www.ovalvillagecommunity.co.uk/</p> <p>owned by SGN</p> <p>Berkeley Group: tall buildings, 1250 apts mixed and affordable + public space 1hectare</p>	<p>Assumed not at risk. No redevelopment plans found</p> <p>building homes, no info about status of gasholders</p>	<p>No dismantling</p> <p>good redevelopment plan with 60% to 40% market/ affordable split</p> <p>Old Kent Road area action plan (gasholder not included in this doc) https://consultations.southwark.gov.uk/corporate-strategy/okraapdec20/</p> <p>land owned by SGN. Corke's Meadow has been urbanised: permanent housing built</p>	<p>1 dismantled, others at risk.</p> <p>40 dwellings for social rent</p> <p>39 dwellings for discount market rent</p> <p>198 private dwellings</p>	<p>At risk of dismantlin structure; develop into residential space</p> <p>Assumed not at risk. No redevelopment plans found</p>		

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Appendix: Guide Frame Typology

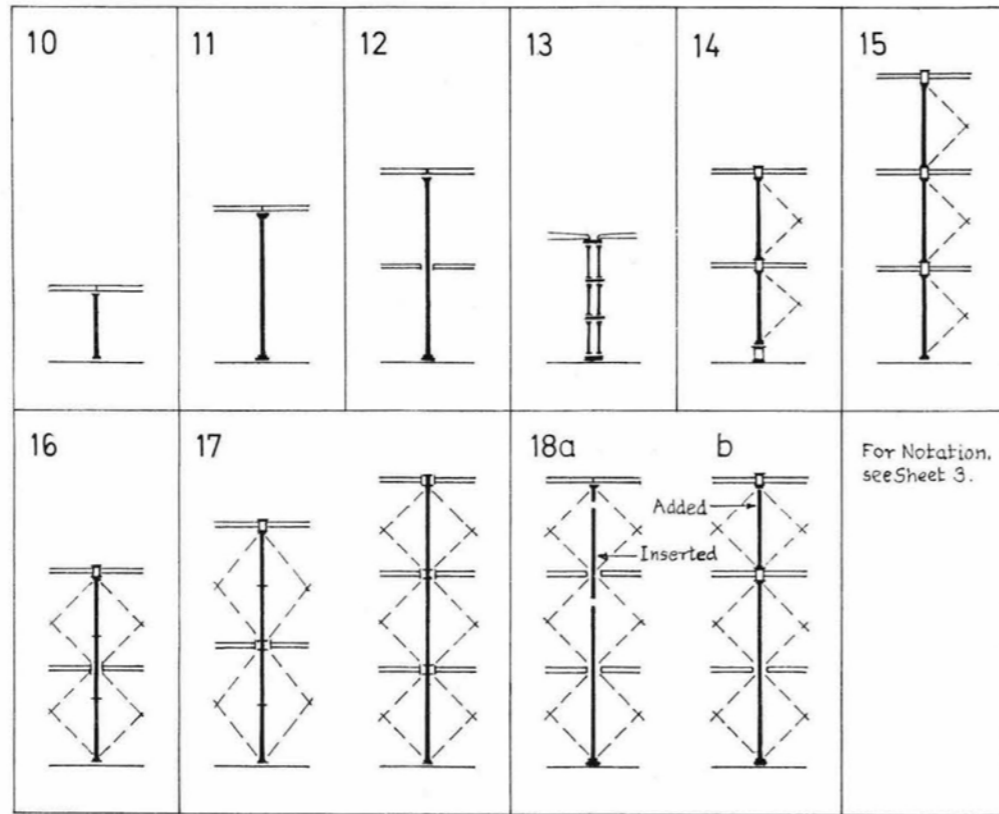
Code	Frame Type	Bracing	Typical Girder Types		Approx Period	Original Numbers	Survival (GB)
			Top	Lower			
0: Early types							
1	Enclosing House	0	B	-	1800s–1830s	? Many	Saltisford
2	Enclosing Walls	0		-	1820s–1830s	Several	None
3	Wooden Frame	?	A	-	Early C19	?	None
4	Freestanding Columns	0	-	-	1810s–midC19	? Many	None
5	Diametrical Beams	0	A, E	-	c1815–?	? Many	None
6	Transverse Trusses	0	B	-	1820s–1830s	? Many	None
7	Central Guide Pole	0	-, A, E	-	c1817–1830s	Several	None

1: With hollow cast-iron columns							
10	Small single order	0	E, F, G	-	1820s–1890s	Many	Lavenham
11	Giant single order, single tier of girders	0	E, F, G, H	-, C	1847–1870s	Many	Fakenham
12	Giant single order, double tier of girders	0	G, (G2)	G, (G2)	c1870	Several	Battersea
13	Paired columns in multiple order	0	E	-	c1835–c1855	Many	None ?
14	Double order, double tier	+	F, G, H	F, G, H	1858–1880s	Many	None
15	Triple order, triple tier	+	G, H	G, H	1861–1890s	Many	Many
16	Giant single order cols with external joints, lower girders abutted	X	G	G	1870s–1890s	Many	Several
17	Giant single order cols with external joints and joint boxes	X	G, (L)	G, (L)	1880s	Several	Some
18	Giant single order, subsequently enlarged	X	G, H, R, T	G, H, R, T	Late C19–C20	Several	Some

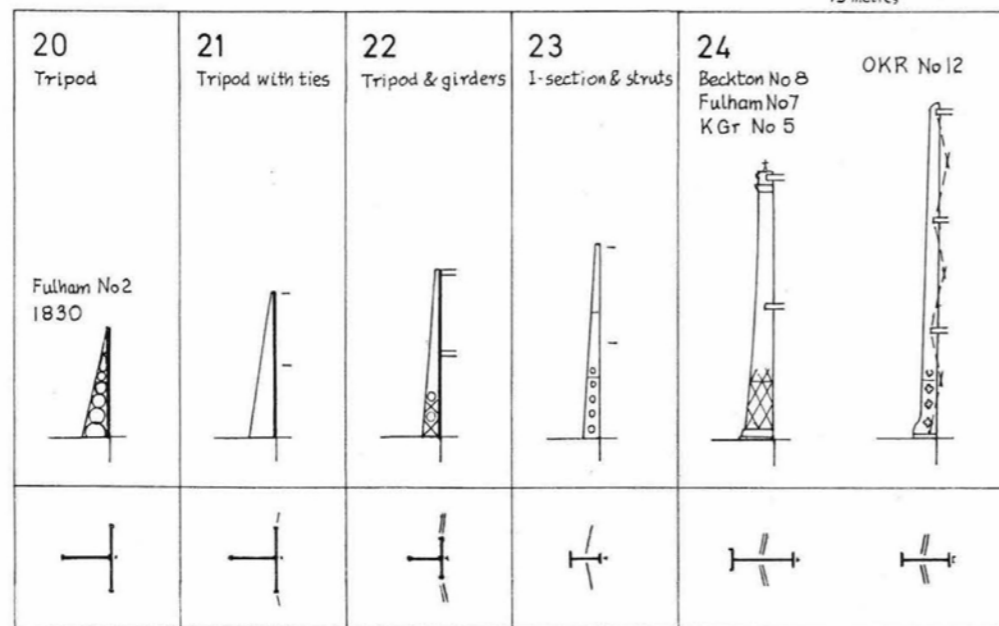
Code	Frame Type	Bracing	Typical Girder Types		Approx Period	Original Numbers	Survival (GB)
			Top	Lower			
2: With cast-iron standards							
20	Tripods, free standing	0	-	-	c1829–1850	Several	Fulham
21	Tripods with ties	0	D	-	c1850	Few	None
22	I-section CI stds, with girders	0	F, G	F, G	c1860–1875	Few	None
23	I-section CI stds, ties	0	D	D	1850	Few	None
24	I-section CI stds, with girders	+	G	G	c1865–1879	Several	None

3: With rivetted lattice standards							
30	T-section lattice standards	X	G, (GV) (G2)	G, (GV) (G2)	1876–c1890	Several	Few
32	Equal-I-section lattice standards	X	G, L, M, O, P	G, L, M, N, O, P	c1880–c1930	Many	Several
34	Box-section standards with vertical-web girders	+	G	G	1882–1890s	Several	Some
35	Box-section standards with horizontal-web girders	+	L, M, N	N, O	1886–c1930	Many	Several
36	Narrow-box standards, considerably tapered	X	GV, G	(LV), G	1882–c1890	? Few	? None
37	Narrow-box standards, lightly tapered	X	G, L, P	M, N, O, P	c1890–1930	Many	Many
38	Dumbbell-section standards	XX	K	(NV)	1886	1 pair	Windsor St
39	Cutler's Patent (shallow I-section lattice standards and helical girders)	★	L, G	NZ	1889–c1935	Many	Several

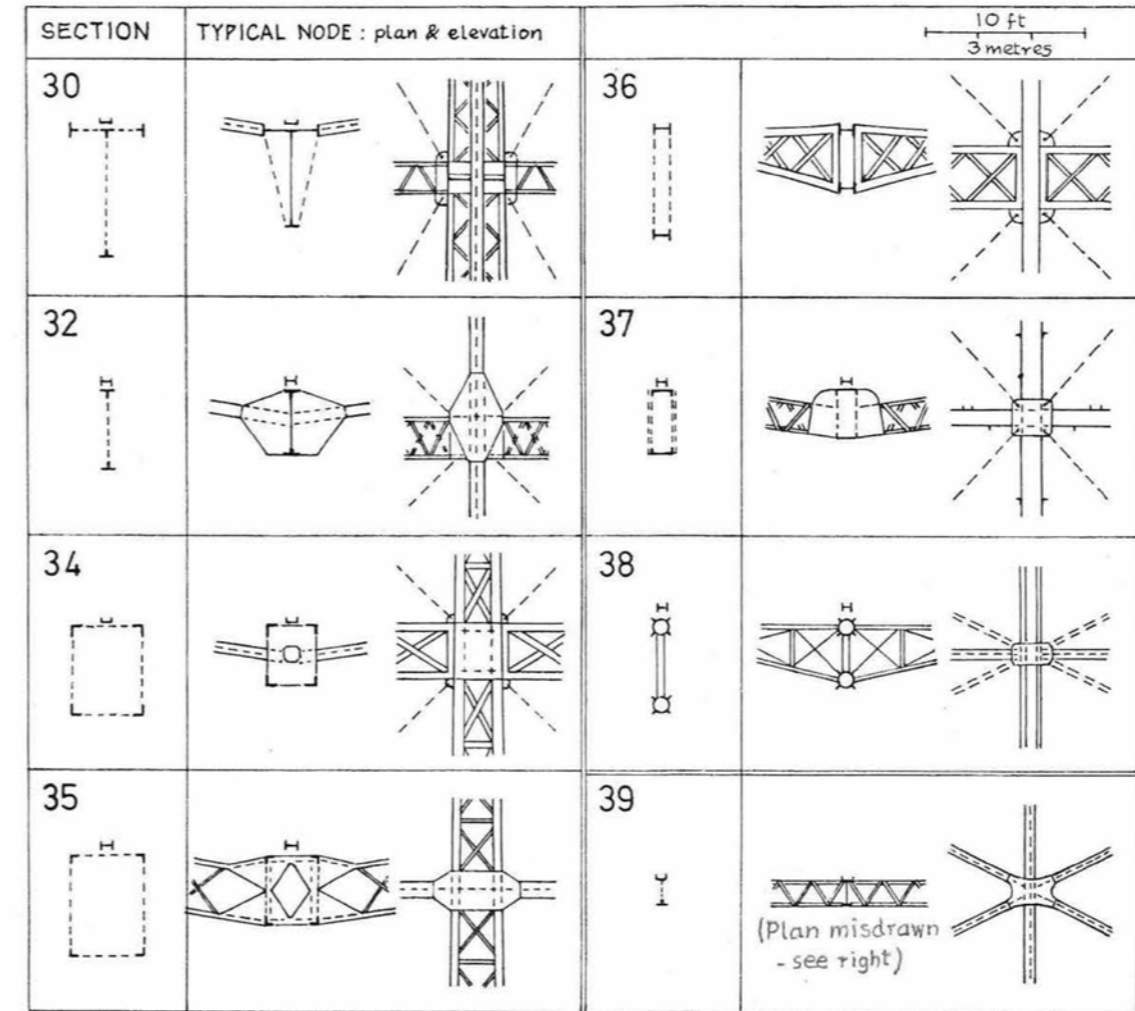
I: WITH HOLLOW CAST-IRON COLUMNS (frontal elevations)



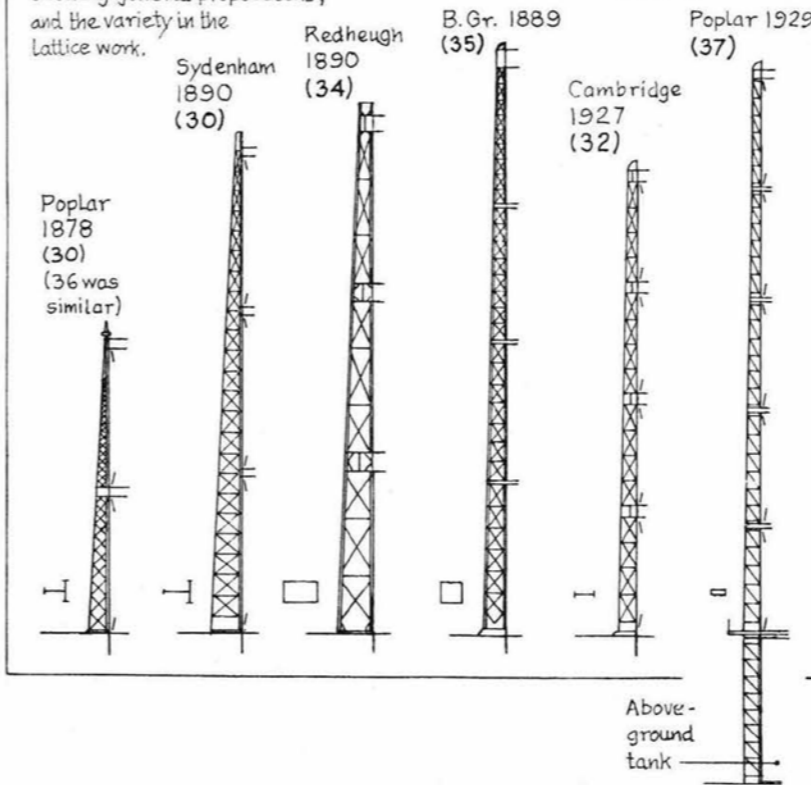
II: WITH CAST-IRON STANDARDS (side view & plan)



III: WITH RIVETED LATTICE STANDARDS Types differentiated primarily by sectional form of the standards.

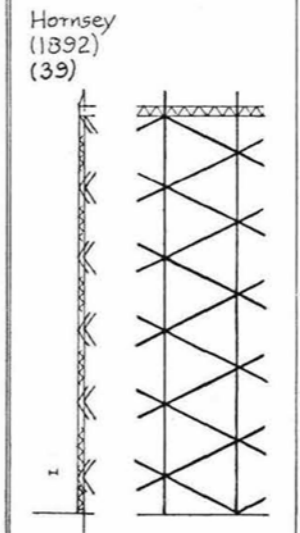


SIDE ELEVATIONS - a range of examples, showing general proportions, and the variety in the lattice work.

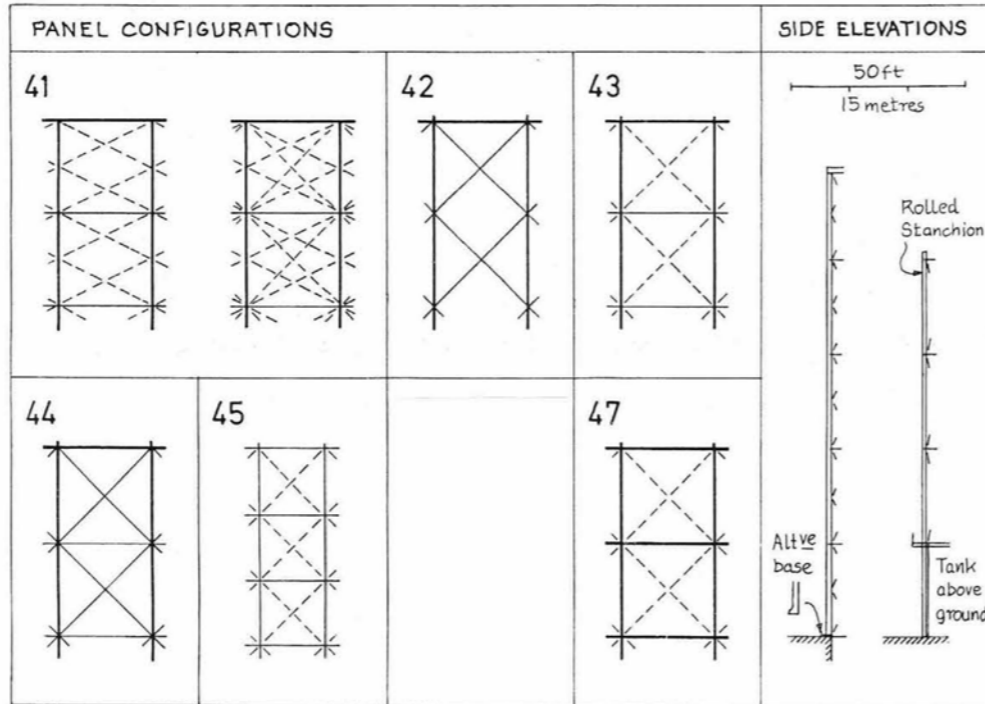


ELEVATIONS, Type 39

Except for its lattice-webbed members, this has closer affinities to Family IV.



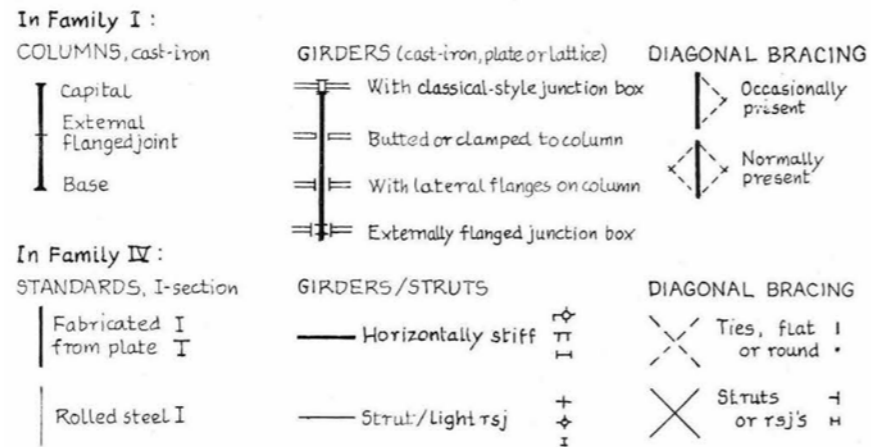
IV: WITH SOLID-WEBBED STANDARDS



V: WITH TUBULAR FABRICATED COLUMNS

Frames with riveted wrought-iron tubes (50) or welded or spun steel tubes (51) followed the elevational principles of Types 11/12 in general, Type 51 incorporating gusset-plated connections and diagonal bracing rods in place of classical details.

NOTATION for the diagrammatic frontal elevations



GIRDERS

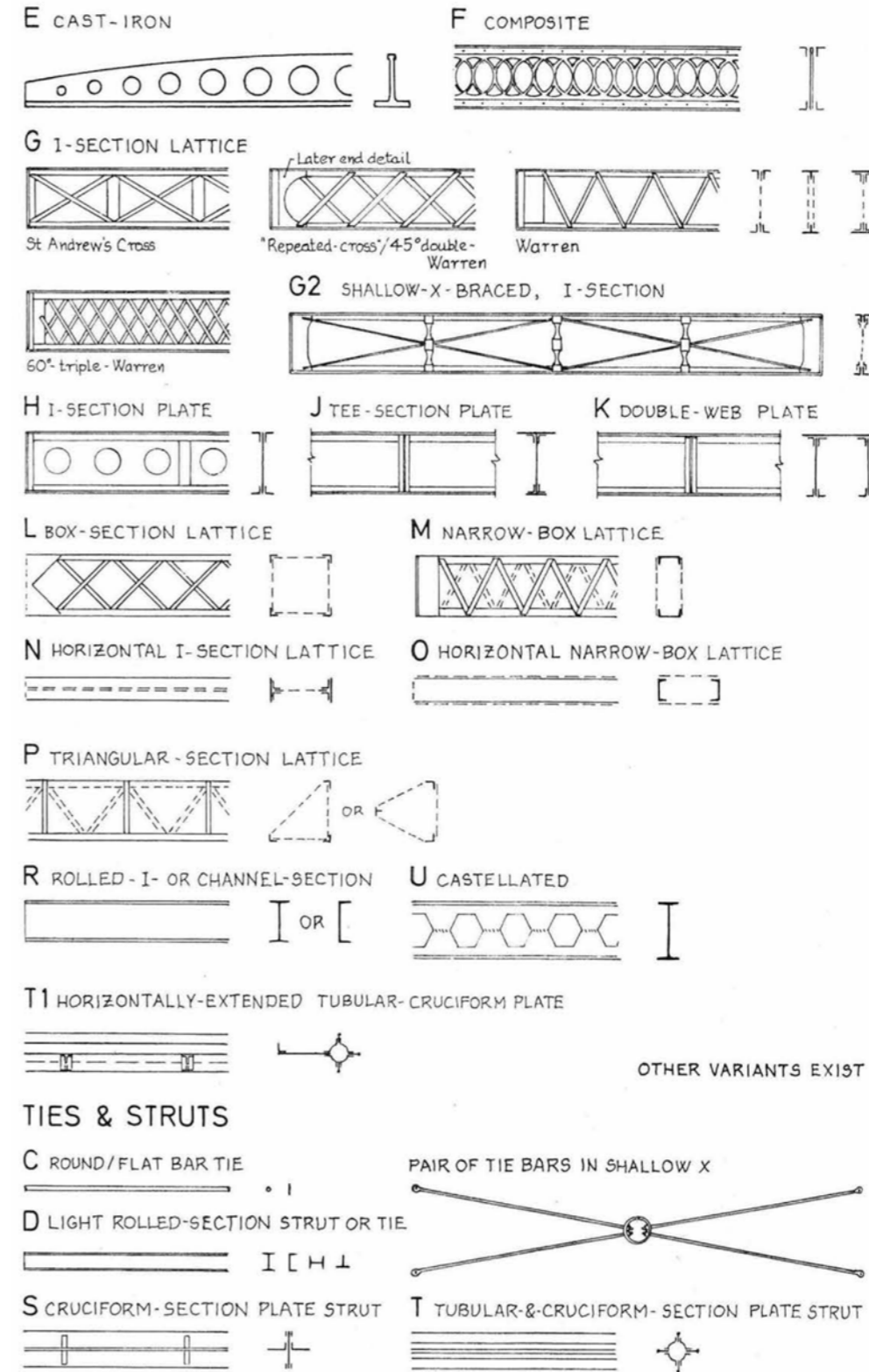


Figure A1, parts I to IV: Typology of guide frames. Source: Tucker (2000), pages 13-15.

Figure A2: Types of girder used in guide frames. Source: Tucker (2000), page 16.





Abbey Lane



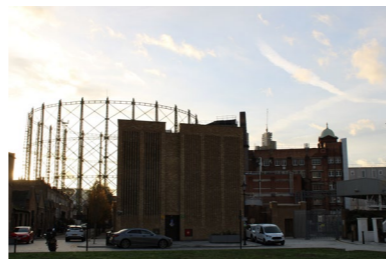
Bromley by Bow



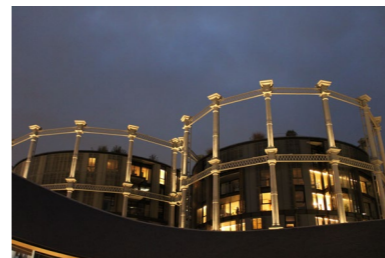
Bethnal Green



Kennington Oval



King's Cross



Old Kent Road



Rotherhithe





Bromley-By-Bow
Newham
1870 - 1976

Imperial Gasworks
Hammersmith and Fulham
1824 - 1970

Kennington Oval
Lambeth
1847 - 2014

Marian Place
Tower Hamlets, Hackney
1853 - 1953

Old Kent Road
Southwark
1833 - 1953

Rotherhithe Station
Southwark
1849 - 1959

OVERLAPPED NETWORKS



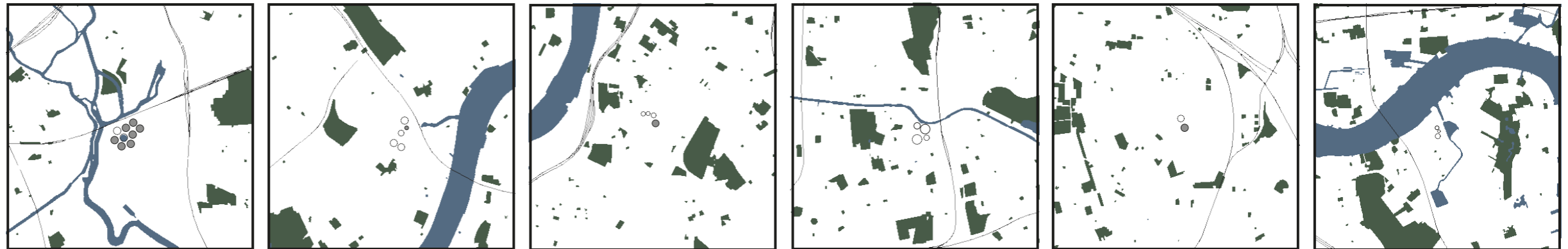
CONSERVATION AREAS

Areas where extra planning controls apply due to their special architectural and historic interest



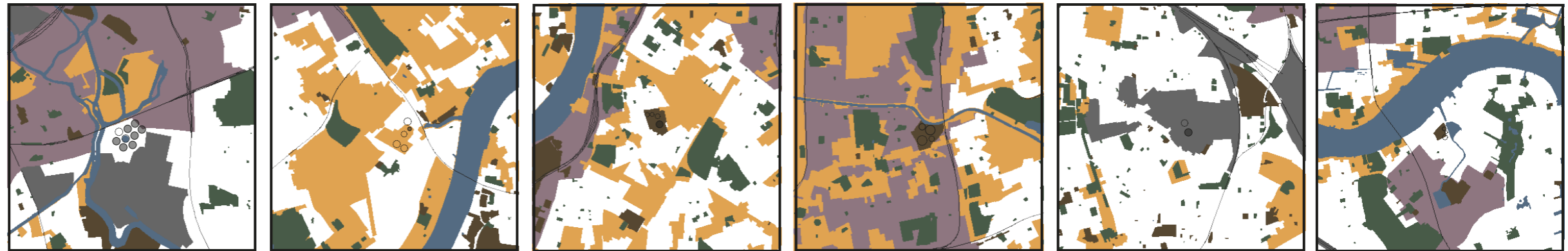
GREEN SPACES

Areas of vegetation that are currently publicly managed and publicly accessible, be these currently used or unused.



Bromley-By-Bow Newham 1870 - 1976	Imperial Gasworks Hammersmith and Fulham 1824 - 1970	Kennington Oval Lambeth 1847 - 2014	Marian Place Tower Hamlets, Hackney 1853 - 1953	Old Kent Road Southwark 1833 - 1953	Rotherhithe Station Southwark 1849 - 1959
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OVERLAPPED NETWORKS



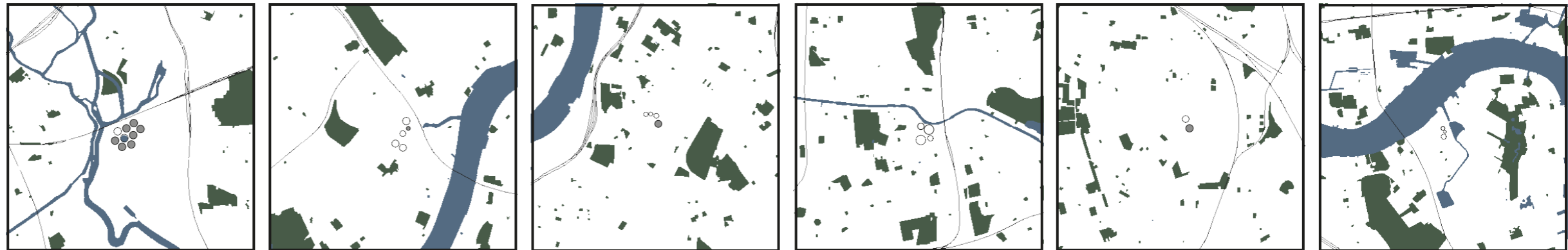
CONSERVATION AREAS

Areas where extra planning controls apply due to their special architectural and historic interest



GREEN SPACES

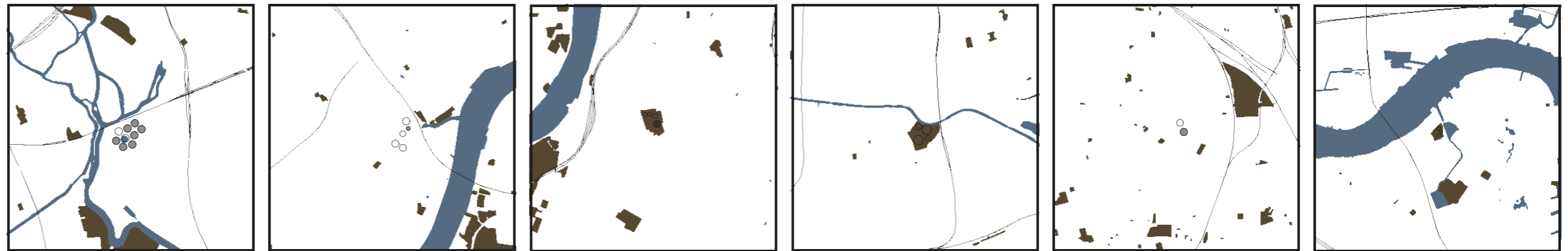
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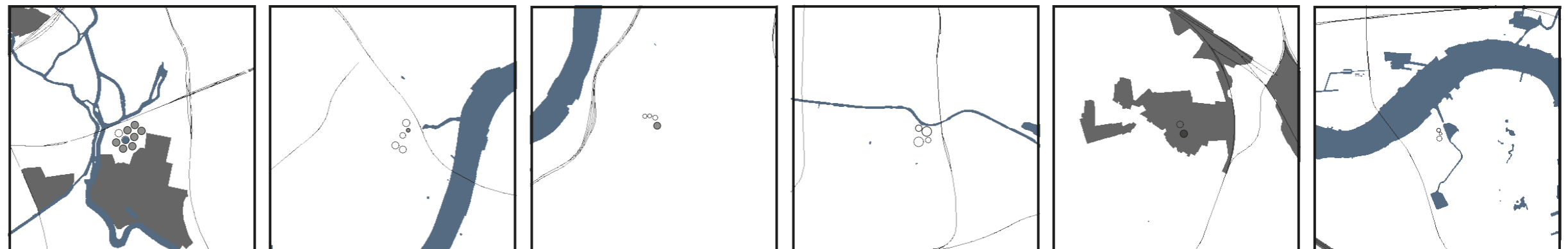
BROWNFIELDS

Areas of previously developed industrial lands available for residential and mixed-use developments.



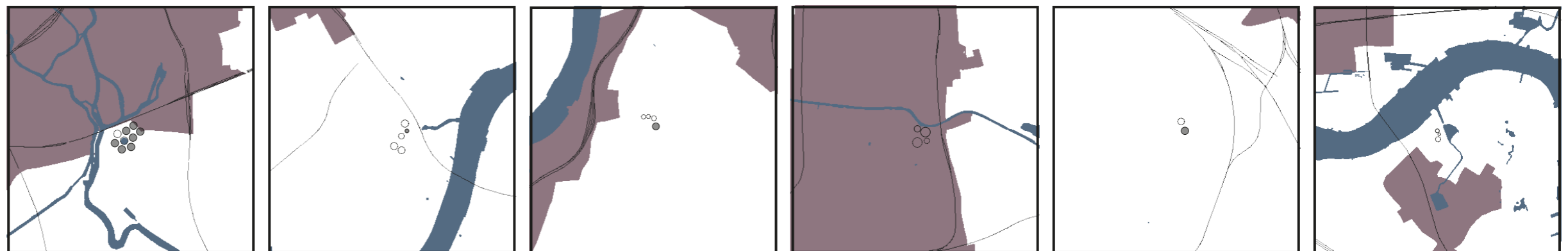
STRATEGIC INDUSTRIAL LOCATIONS (SIL)

London's main reservoirs of industrial and related capacity. There are two types of SILs: Preferred Industrial Locations (PIL) and Industrial Business Parks (IBP). Development proposals within or adjacent to SILs should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities.



OPPORTUNITY AREAS

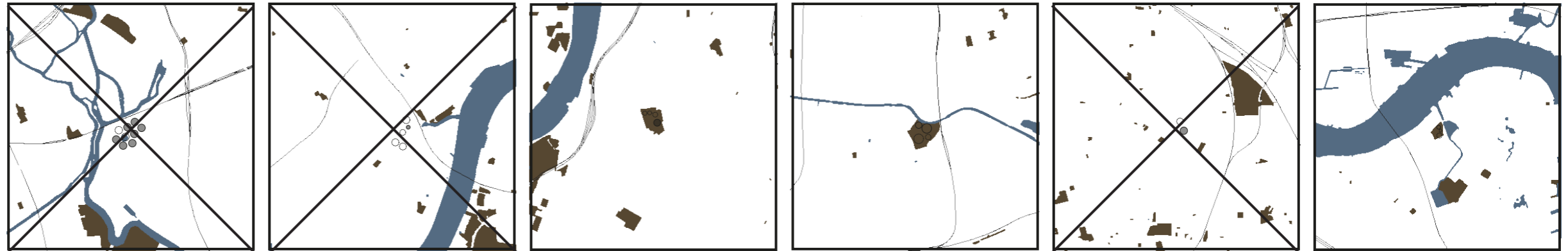
Defined in the Mayor's London plan as key locations with major source of brownfield land which have significant capacity and potential for development.



Bromley-By-Bow Newham 1870 - 1976	Imperial Gasworks Hammersmith and Fulham 1824 - 1970	Kennington Oval Lambeth 1847 - 2014	Marian Place Tower Hamlets, Hackney 1853 - 1953	Old Kent Road Southwark 1833 - 1953	Rotherhithe Station Southwark 1849 - 1959
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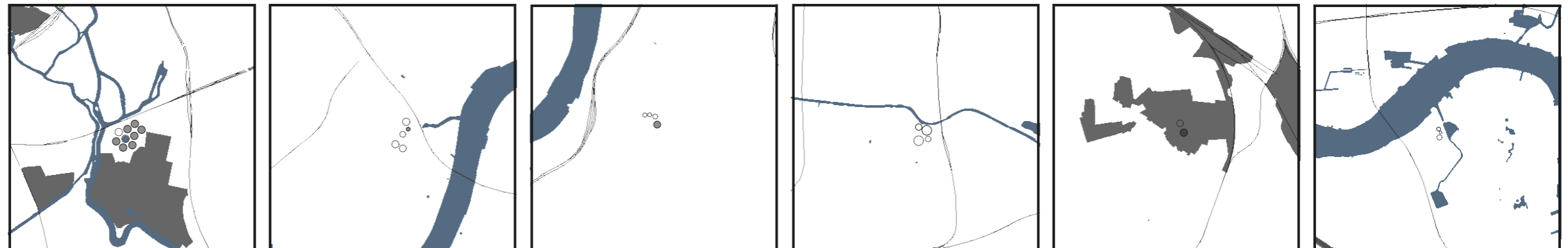
BROWNFIELDS

Areas of previously developed industrial lands available for residential and mixed-use developments.



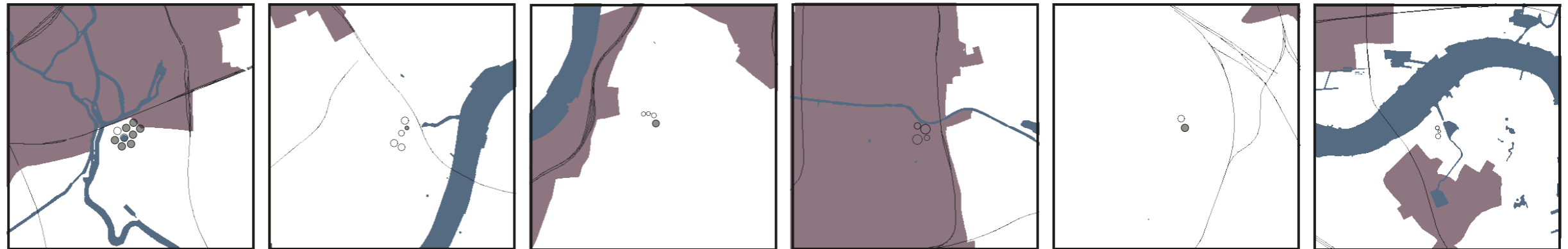
STRATEGIC INDUSTRIAL LOCATIONS (SIL)

London's main reservoirs of industrial and related capacity. There are two types of SILs: Preferred Industrial Locations (PIL) and Industrial Business Parks (IBP). Development proposals within or adjacent to SILs should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities.



OPPORTUNITY AREAS

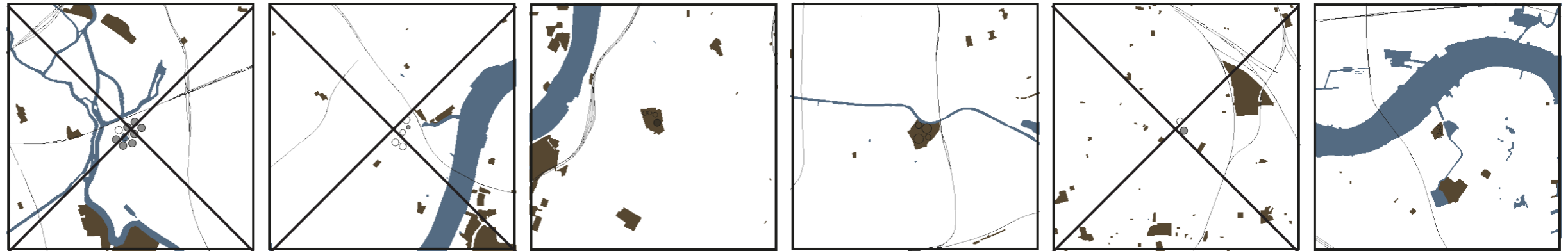
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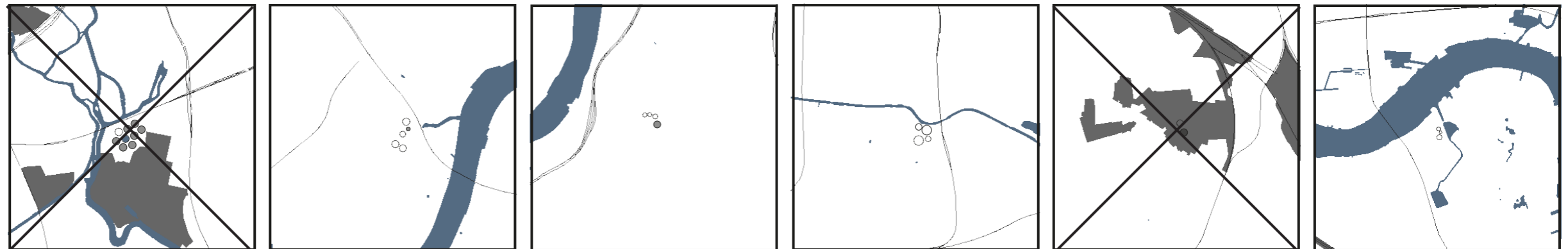
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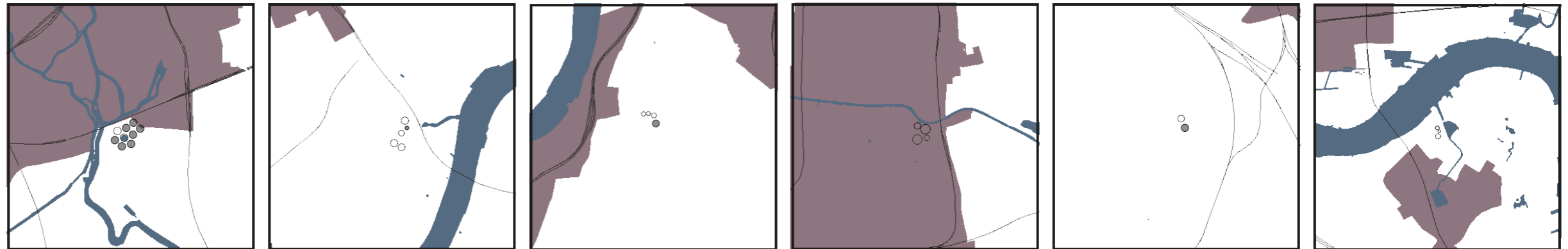
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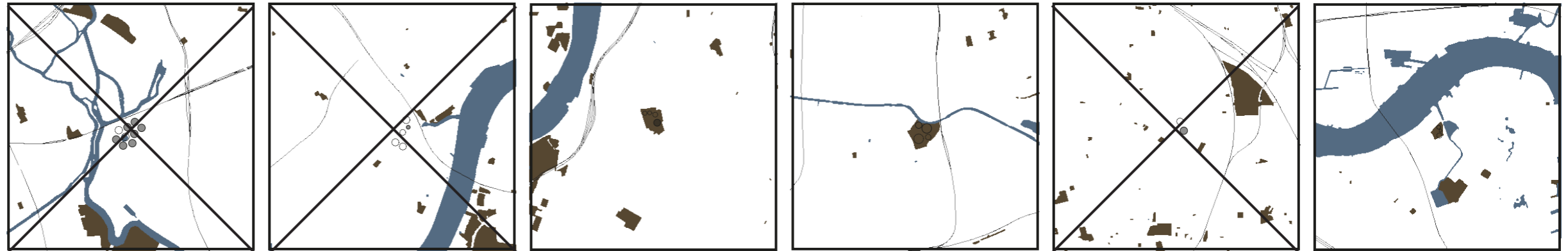
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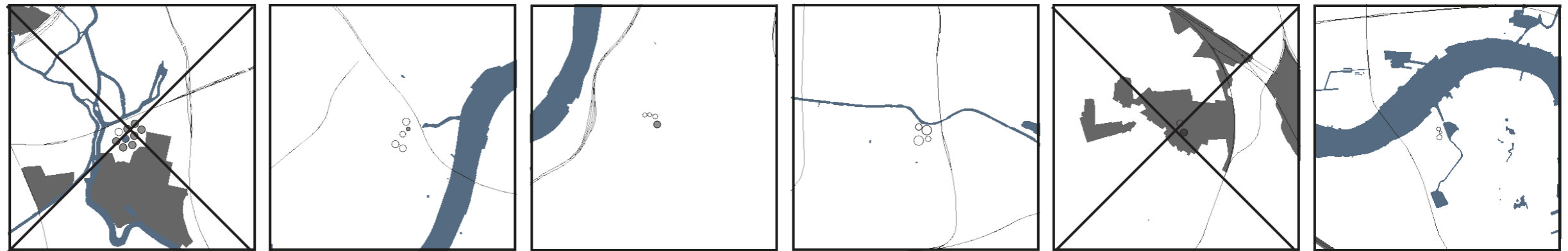
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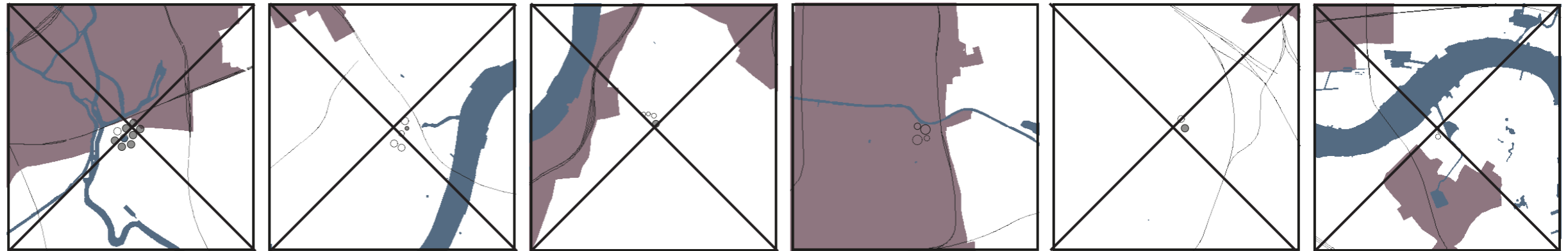
STRATEGIC INDUSTRIAL LOCATIONS (SIL)

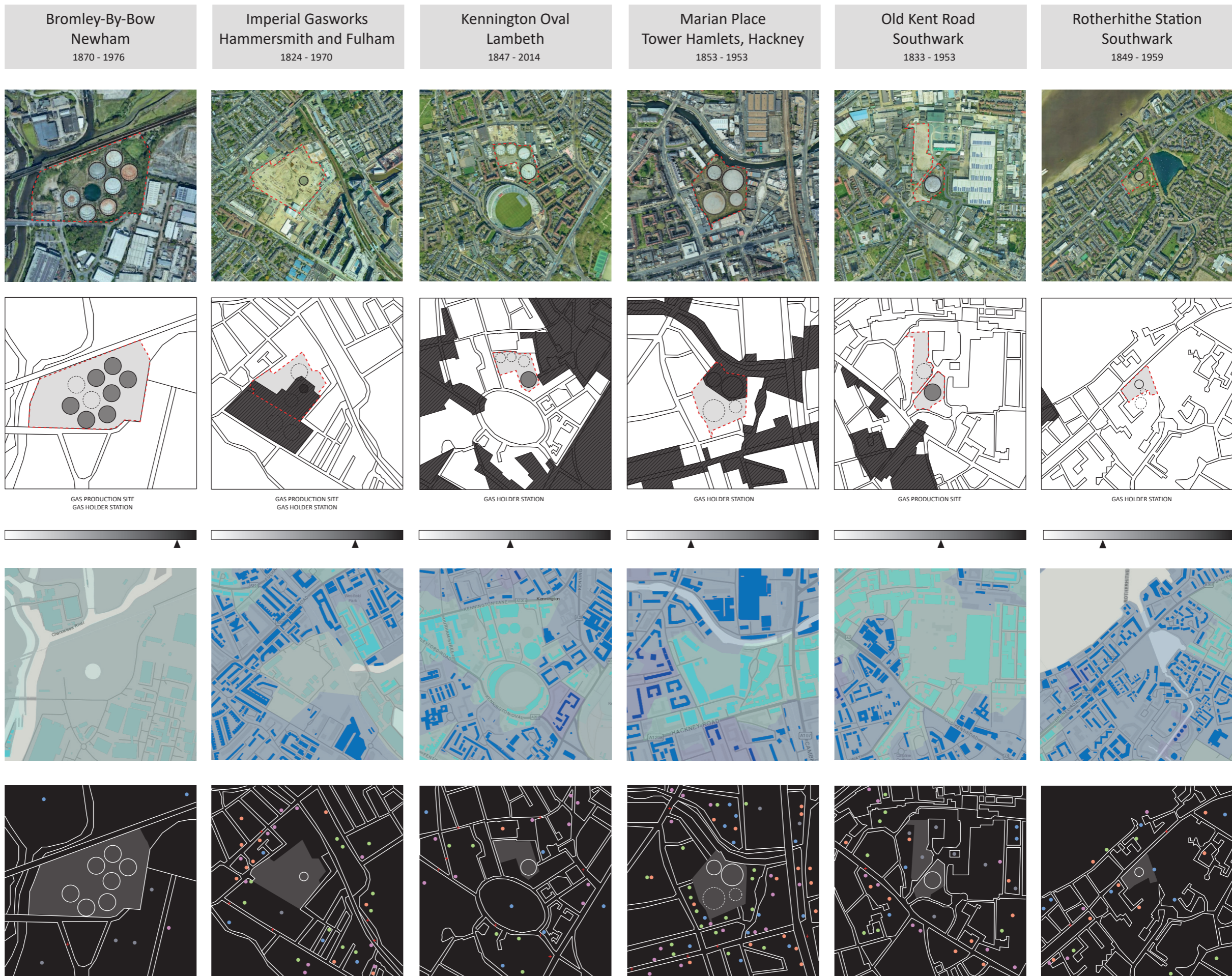
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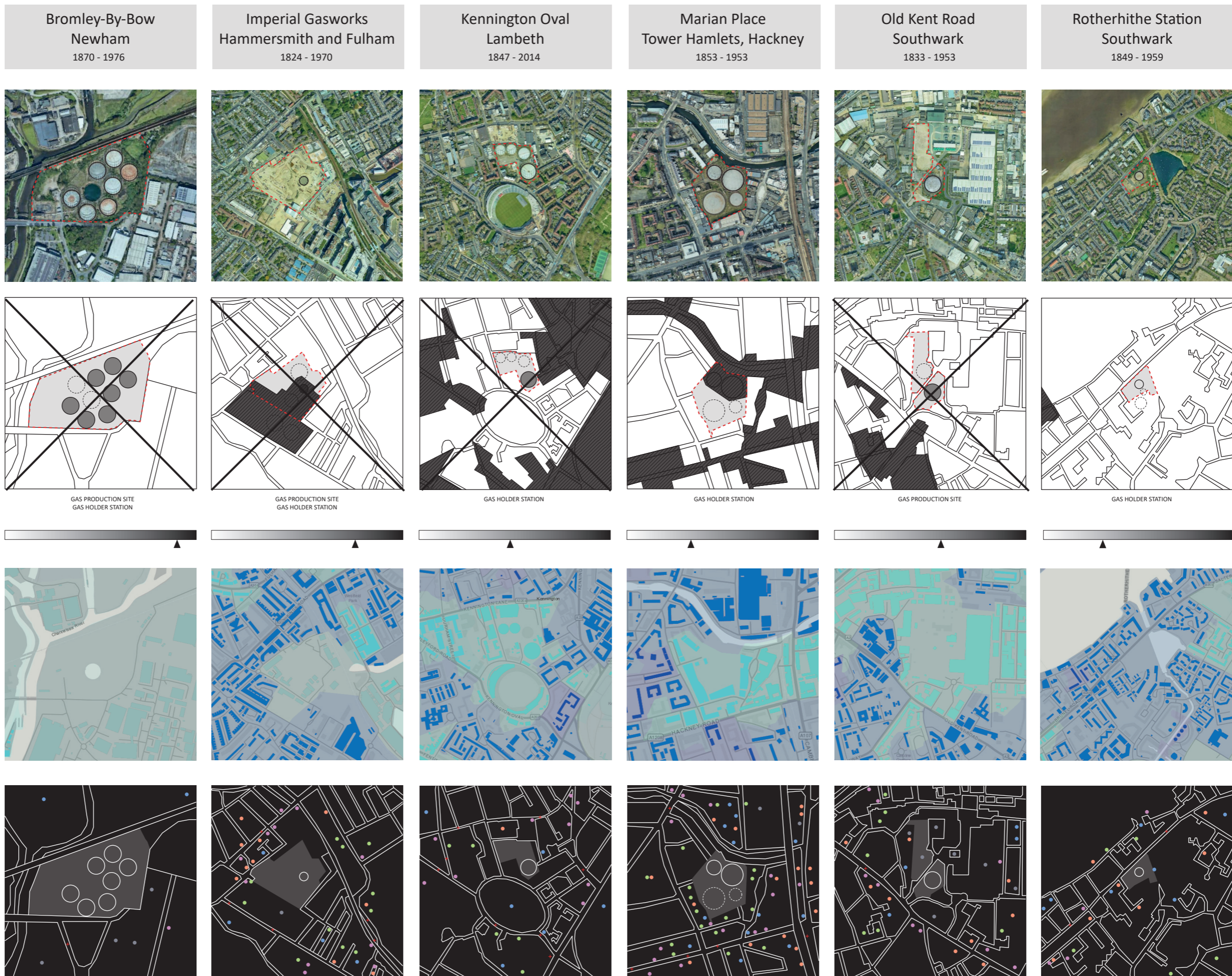


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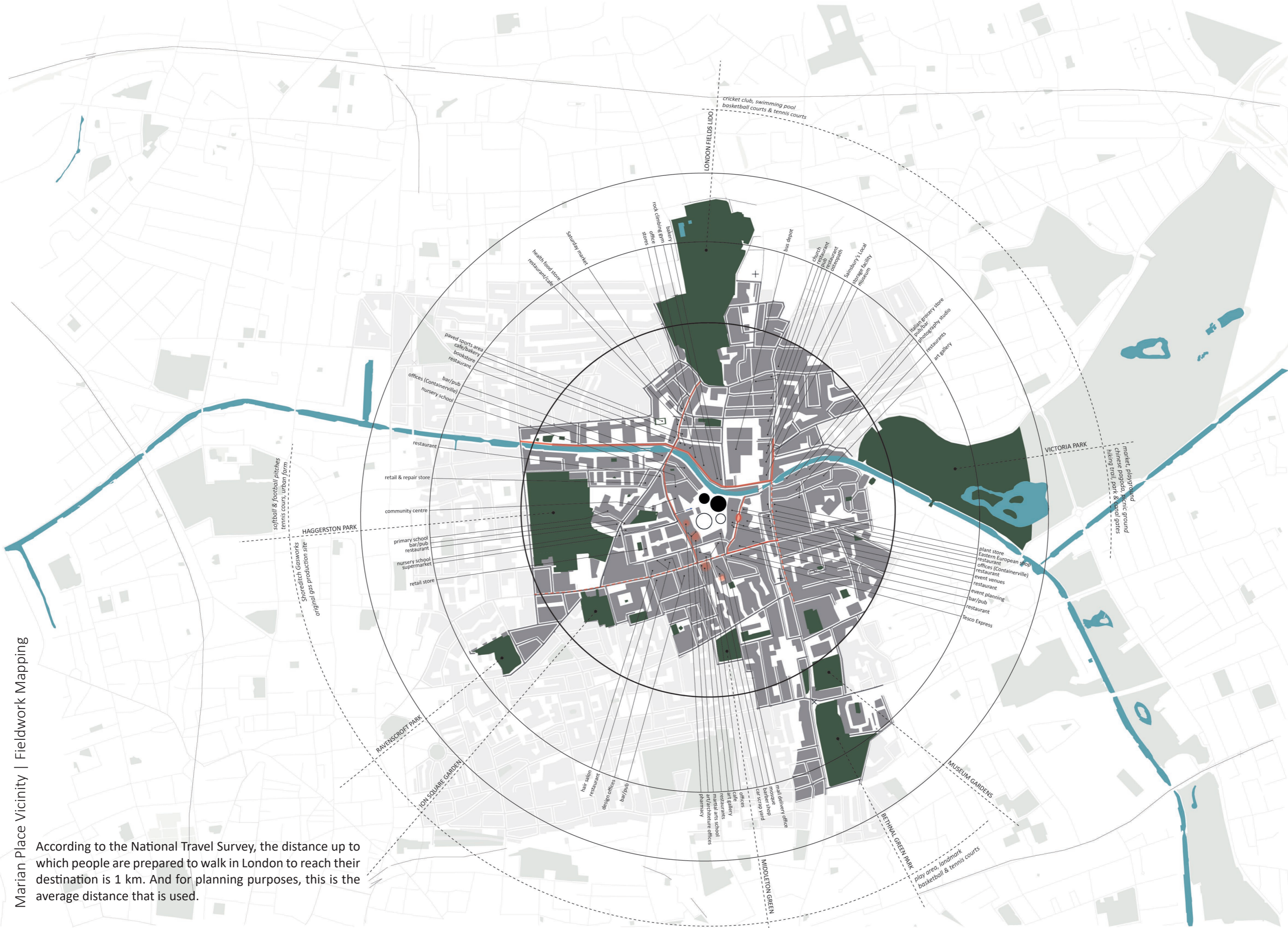




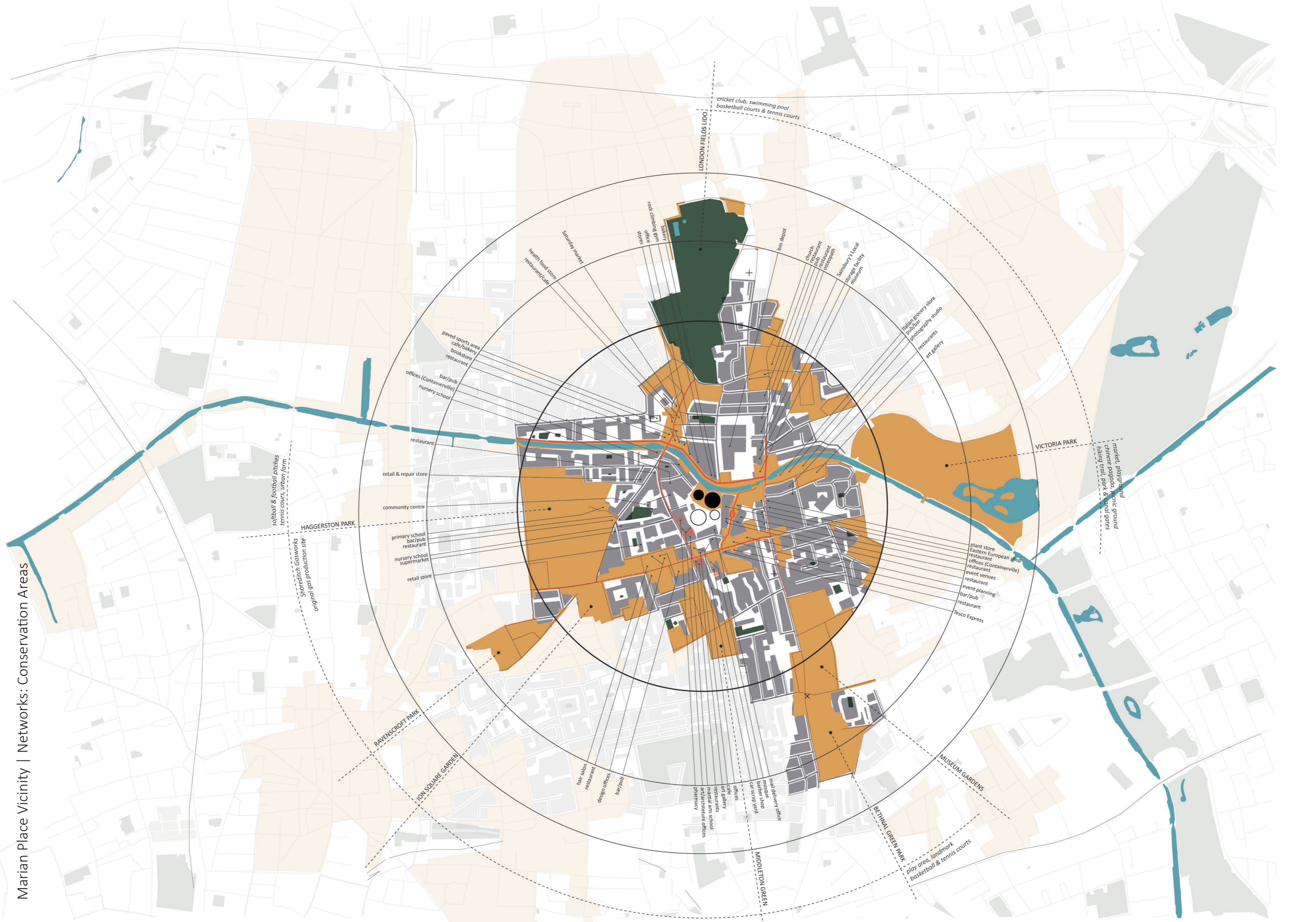
FINDING THE GAP

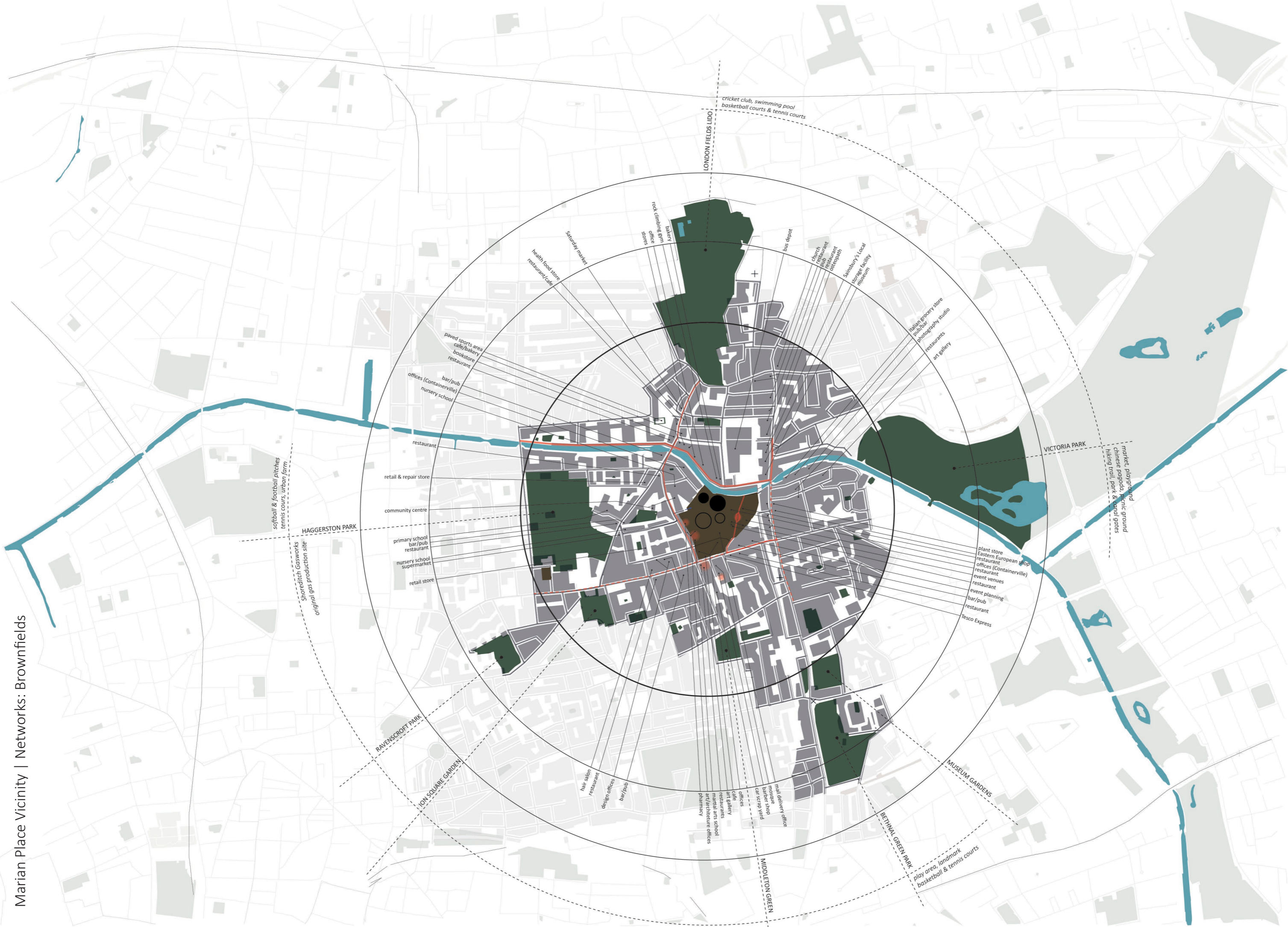
What are the current flows?
What is missing in the neighbourhood?

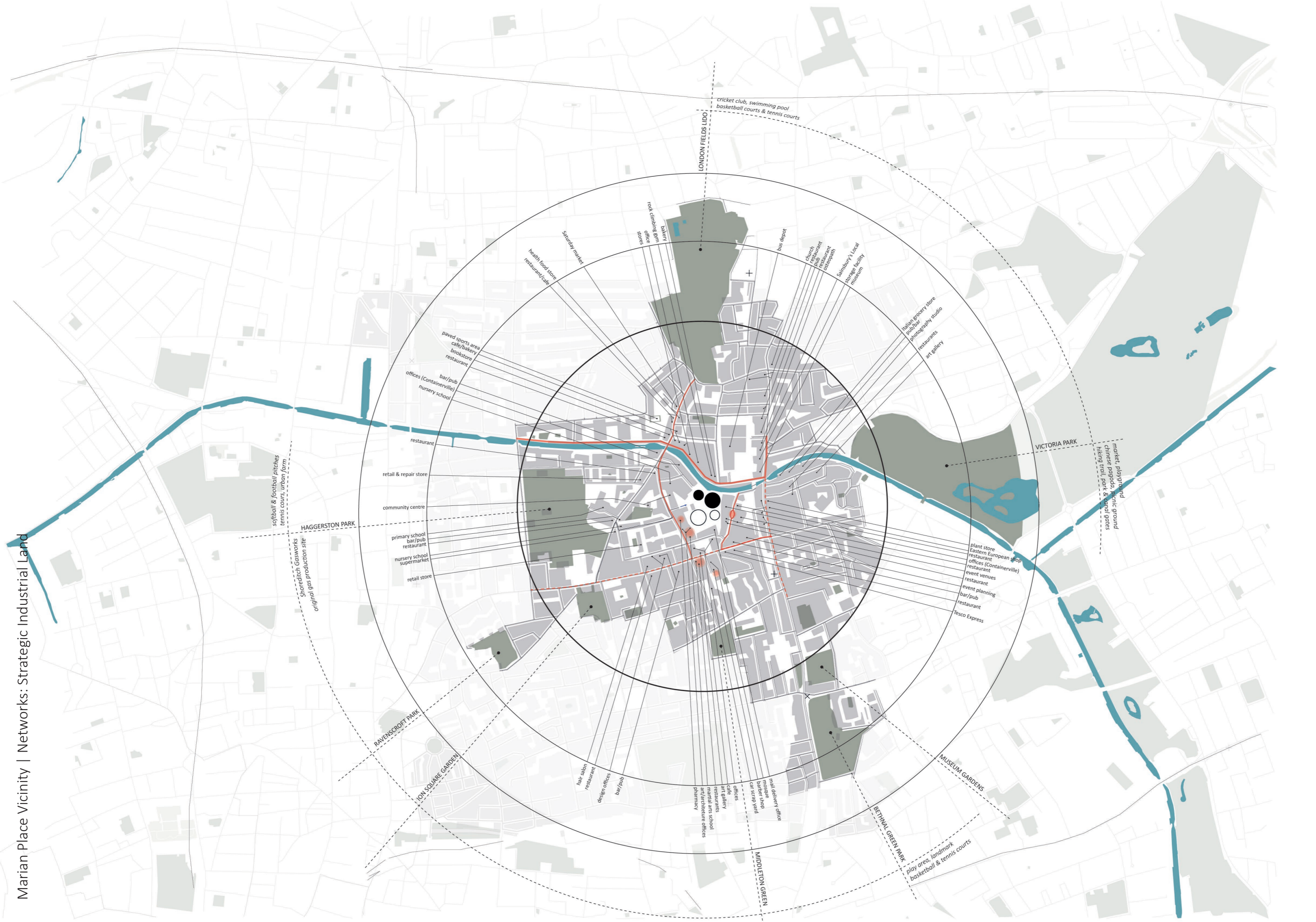
According to the National Travel Survey, the distance up to which people are prepared to walk in London to reach their destination is 1 km. And for planning purposes, this is the average distance that is used.



Marian Place Vicinity | Networks: Conservation Areas







LONDON FIELDS LIDO
cricket club, swimming pool
basketball courts & tennis courts

VICTORIA PARK
market, playground
chinese pagoda, picnic ground
hiking trail, park & animal gates

HAGGERSTON PARK
softball & football pitches
tennis courts, urban farm

Shoreditch Gasworks
original gas production site

RAVENSCROFT PARK

ION SQUARE GARDEN

BETHNAL GREEN PARK
play area, landmark
basketball & tennis courts

MUSEUM GARDENS

MIDDLETON GREEN

Saturday market

health food store
restaurant/cafe

rock climbing gym
bakeries
offices

bus depot

church
restaurant
restaurant
postcard shop

Sainsbury's local
pub/bar
photography studio

paved sports area
cafe/bakery
bookstore
restaurant

offices (Containerville)
bar/pub
nursery school

restaurant

retail & repair store

community centre

primary school
bar/pub
restaurant

nursery school
supermarket

retail store

hair salon
restaurant

design offices
bar/pub

offices

cafe/gallery
art gallery

offices
art/architecture offices

pharmacy

mail delivery office
mobo shop
noodle shop
bar/scrub yard

offices

offices
art gallery
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

offices
art/architecture offices

Italian grocery store
pub/bar
photography studio

restaurants
art gallery

plant store
Eastern European shop

restaurant
offices (Containerville)

restaurant
event venues

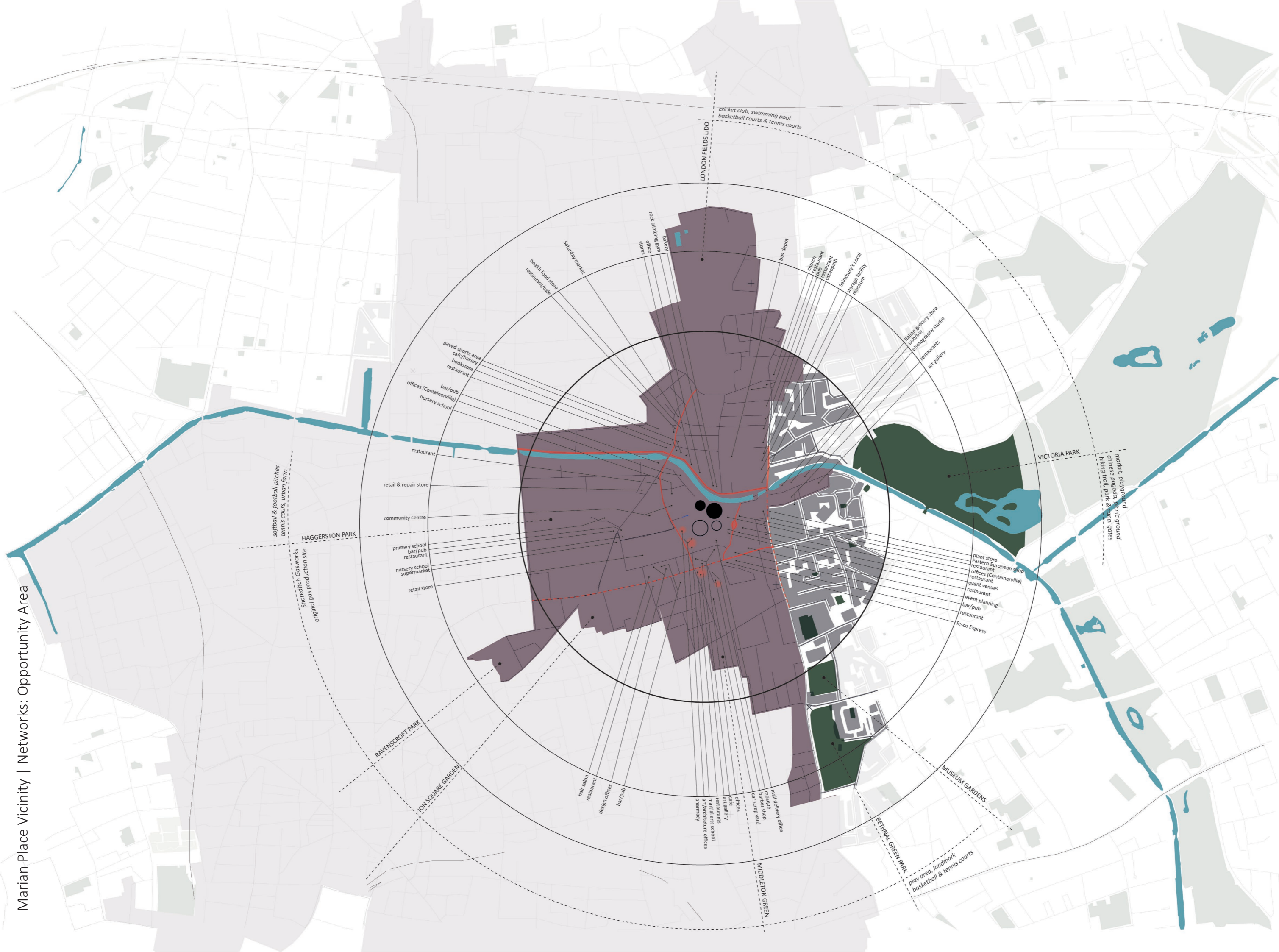
restaurant
event planning

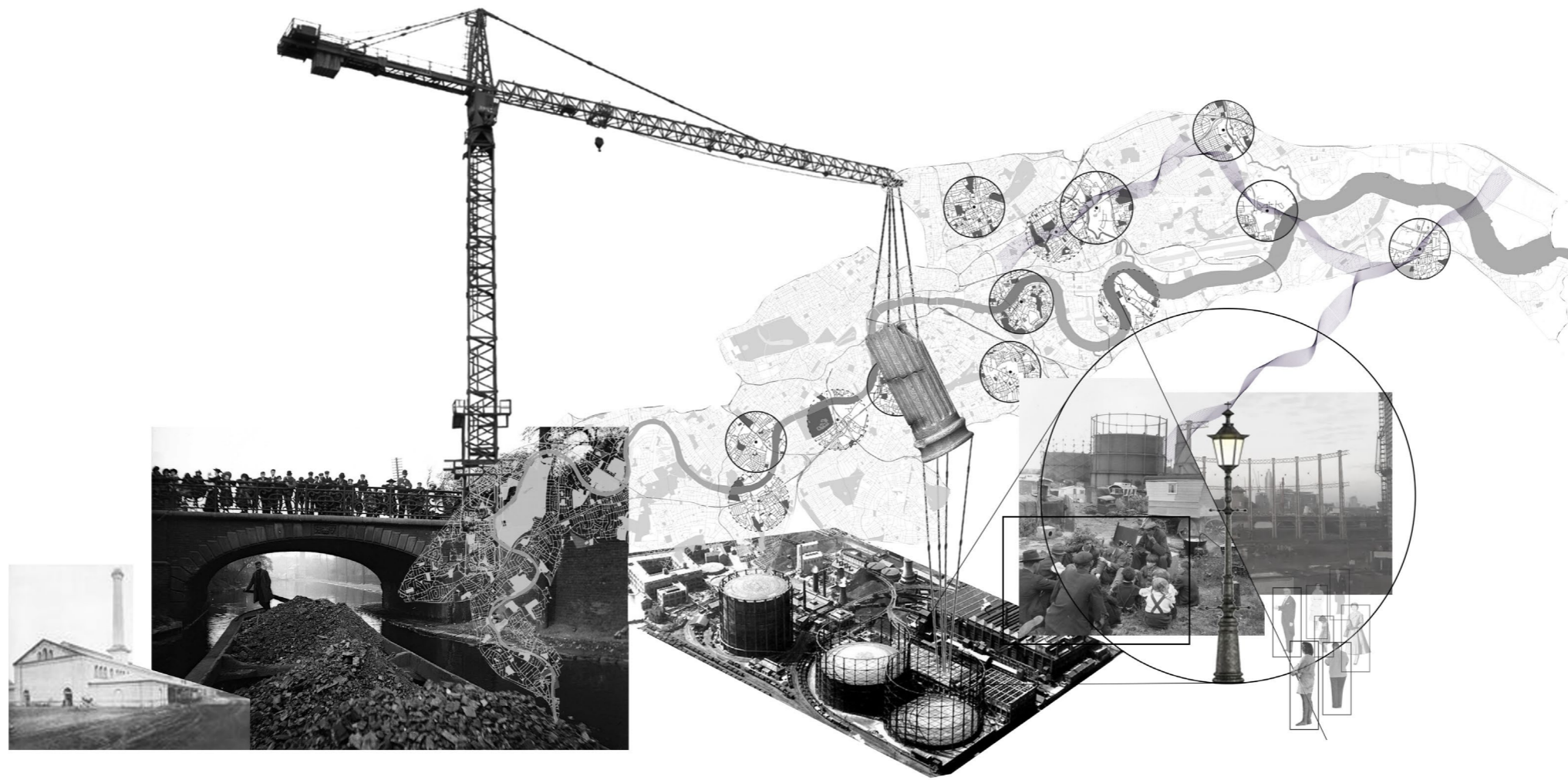
bar/pub
restaurant

restaurant

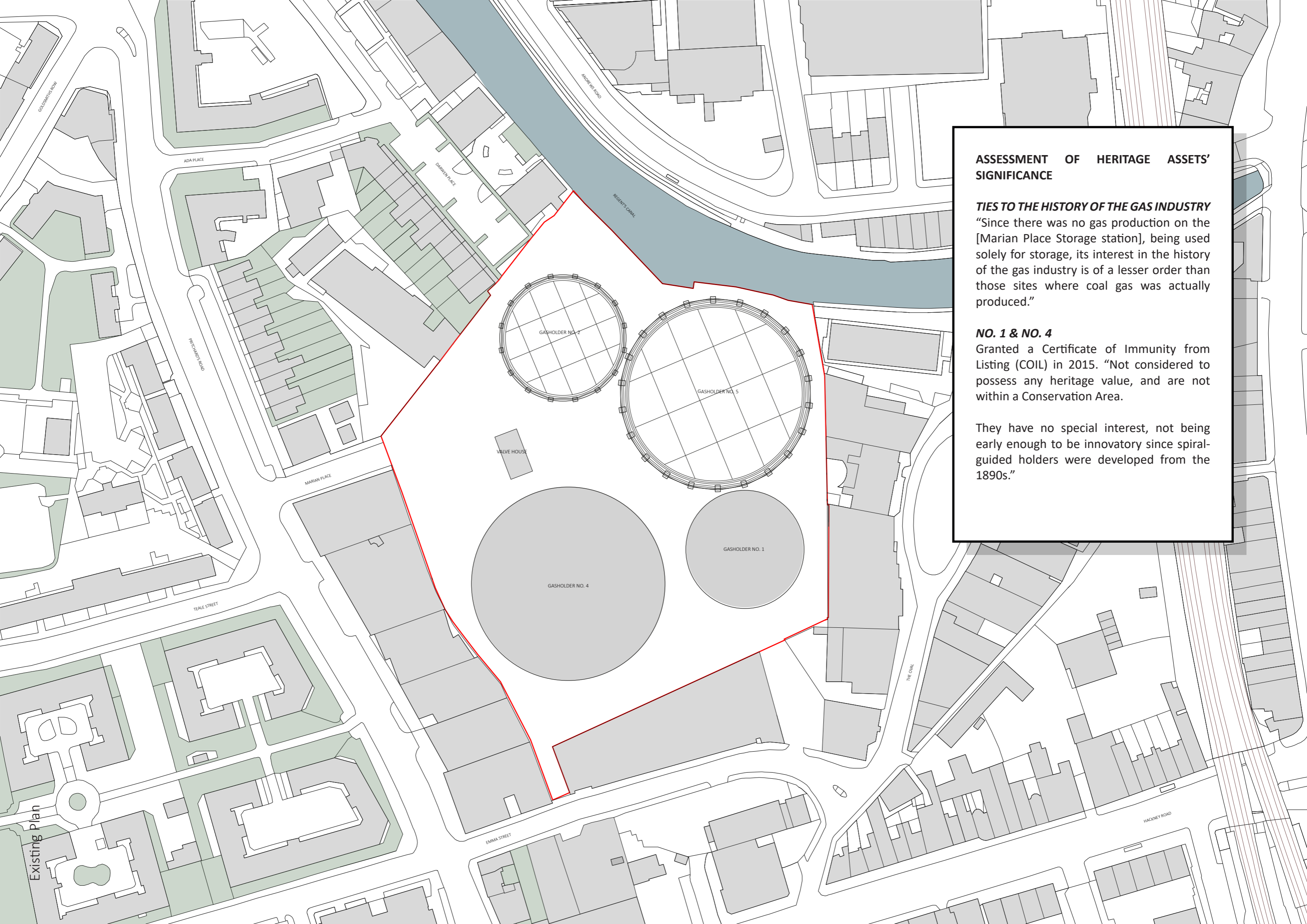
Tesco Express

Marian Place Vicinity | Networks: Opportunity Area





“No understanding of a site is conceivable without communal history, or conceivable with a substitution of history.” (Forster, 1983).



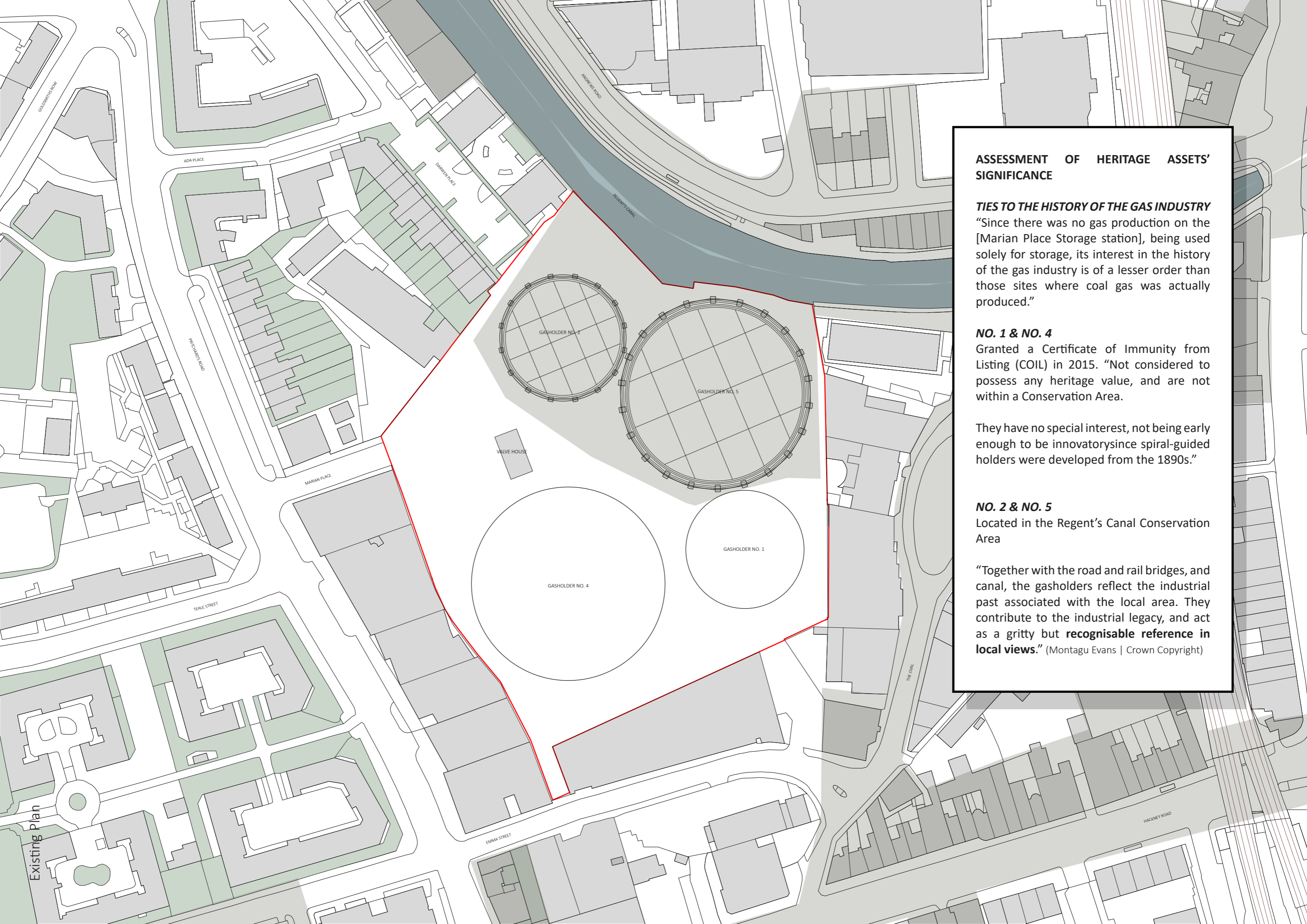
ASSESSMENT OF HERITAGE ASSETS' SIGNIFICANCE

TIES TO THE HISTORY OF THE GAS INDUSTRY
"Since there was no gas production on the [Marian Place Storage station], being used solely for storage, its interest in the history of the gas industry is of a lesser order than those sites where coal gas was actually produced."

NO. 1 & NO. 4
Granted a Certificate of Immunity from Listing (COIL) in 2015. "Not considered to possess any heritage value, and are not within a Conservation Area.

They have no special interest, not being early enough to be innovatory since spiral-guided holders were developed from the 1890s."

Existing Plan



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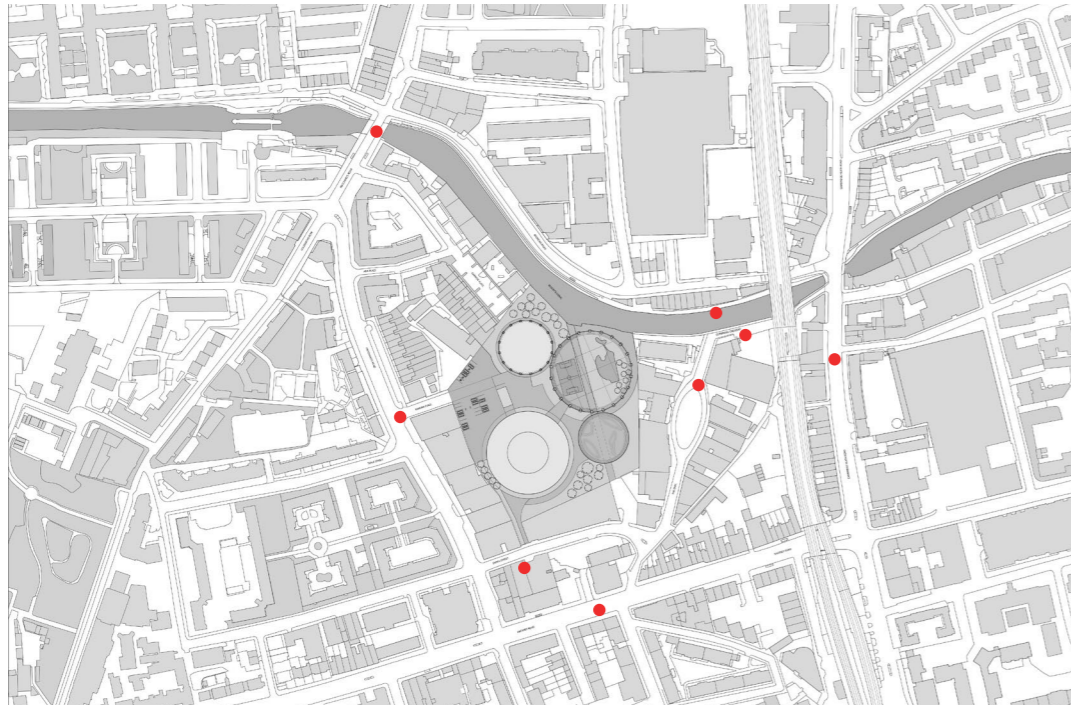
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NO. 2 & NO. 5

Located in the Regent's Canal Conservation Area

"Together with the road and rail bridges, and canal, the gasholders reflect the industrial past associated with the local area. They contribute to the industrial legacy, and act as a gritty but **recognisable reference in local views.**" (Montagu Evans | Crown Copyright)

The area embodies a post-industrial character derived from the canal's historical function and the surrounding industrial structures. While transitioning primarily to recreation, its fundamental character remains centred around the linear waterway and remnants of 19th and 20th-century architecture.



View from the canal towpath (North of Marian Place)
Serve as a reminder of the area's former thriving industry. These structures play a vital role in preserving and reflecting the industrial character and heritage Tower Hamlets and Hackney.



View from Hackney Road
The lightweight structure of Gasholder No.5 seen in the background gives a glimpse of the industrial heritage of the area while contrasting with heavy brick building in the foreground.



View from Corbridge Crescent
Prominent view of the gasholders, framed by the tunnel and the railroad bridge above



View from Cambridge Heath Road
With the presence of rail bridges and roads, the gasholders collectively create a comprehensive depiction of the area's industrial legacy



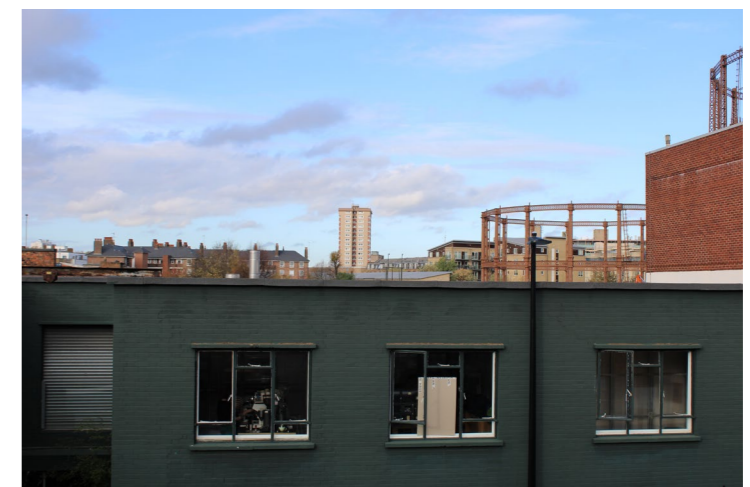
View from Pritchard's Rd (Broadway Market CA)
From this vantage point, observers can grasp the industrial history of the area, symbolised by the presence of the gasholder.



View from The Oval
Gasholder No. 5 can be seen through the passageway of Containerville, and positively contributes to the character of the area.



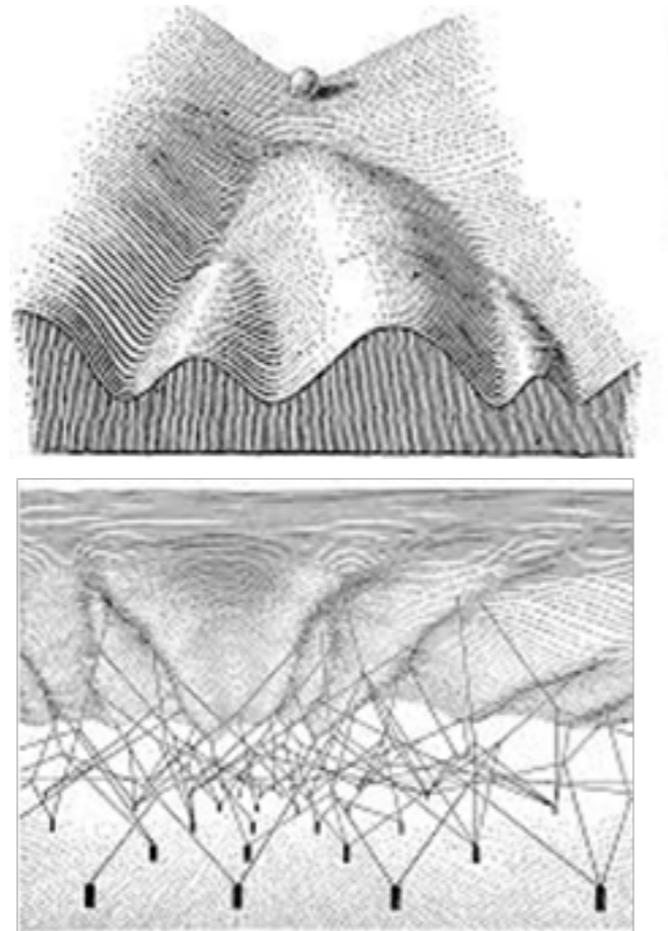
View from Marian Place
Gasholder No. 2 and 5 seen from the previously used main entrance of the gas storage station site



View from Emma Street
Both Gasholders are visible above the adjacent buildings' skyline, from upper office terraces of Containerville, allowing for a comparison in scale.

How to enhance and stimulate additional dynamics in this urban environment?

Epigenetic Landscape, seen from above and below, Conrad Waddington, 1957



Waddington portrays the view underneath the landscape, as the functional networks that are controlled by genes, “suggesting a territory thickened by forces, which are dynamic, responsive, and networked to each other.” (Sheppard, 2012).

Technique:

Isolating independent forces

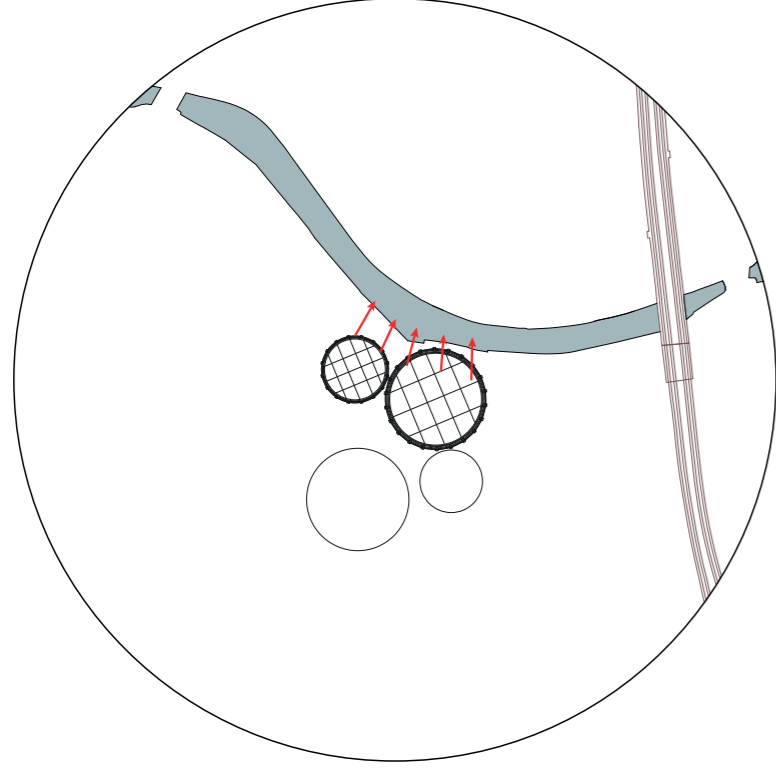
- identity of the chosen site typologies
- surrounding networks,
- systems they are or can be part of

Predominant Vision as a Catalyst

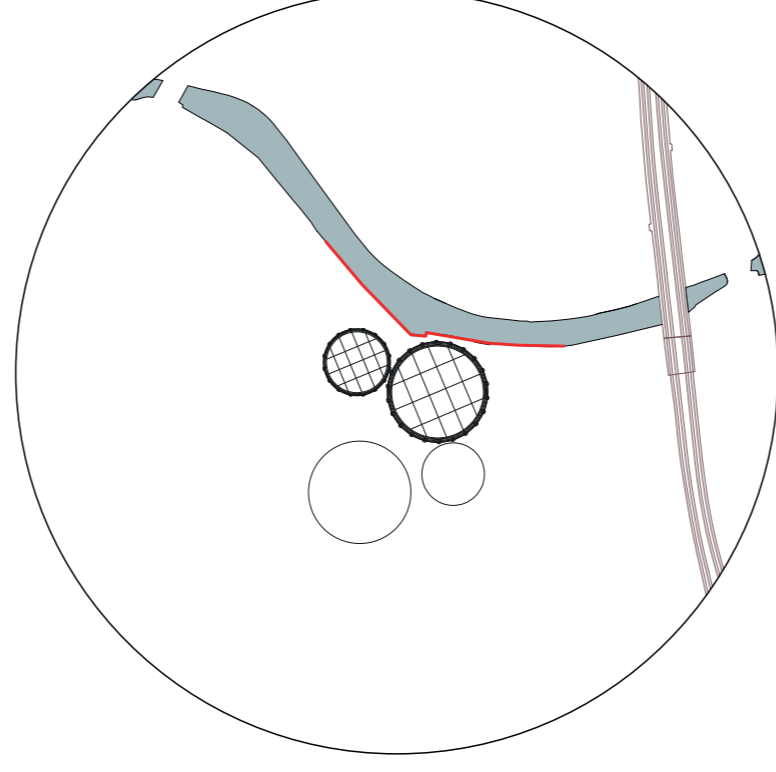
- stimulate additional dynamics
- open-endedness

1. DETECT THE RECURRING URBAN CONDITIONS

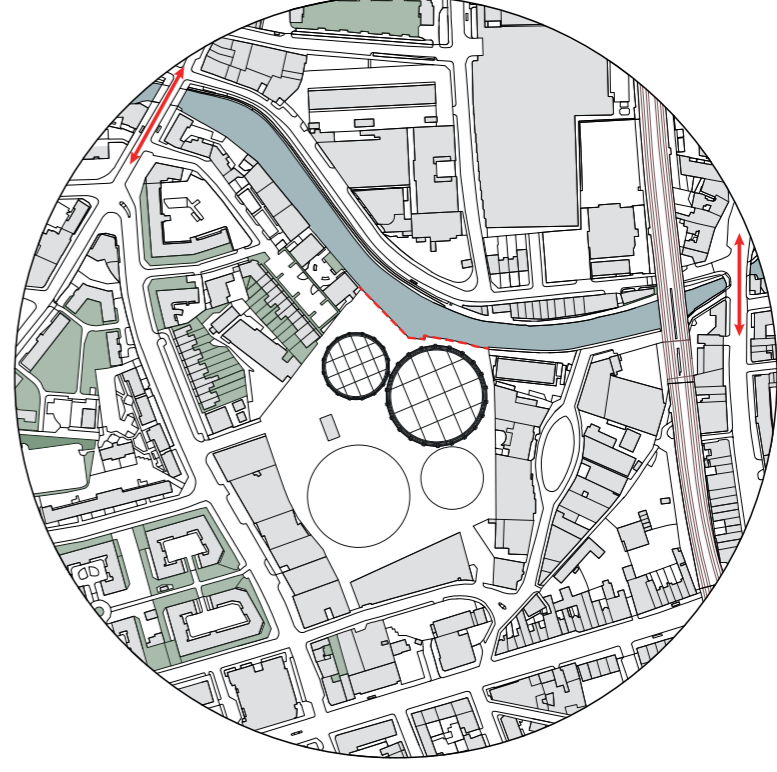
WATERFRONT



waterfront dedicated to site
direct interaction / access

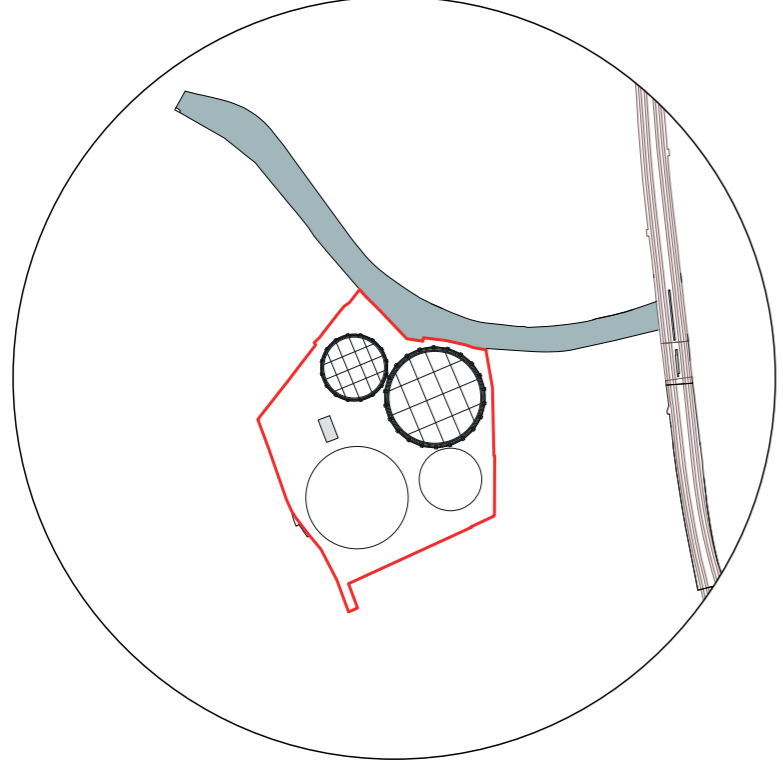


physically disconnected
no direct interaction

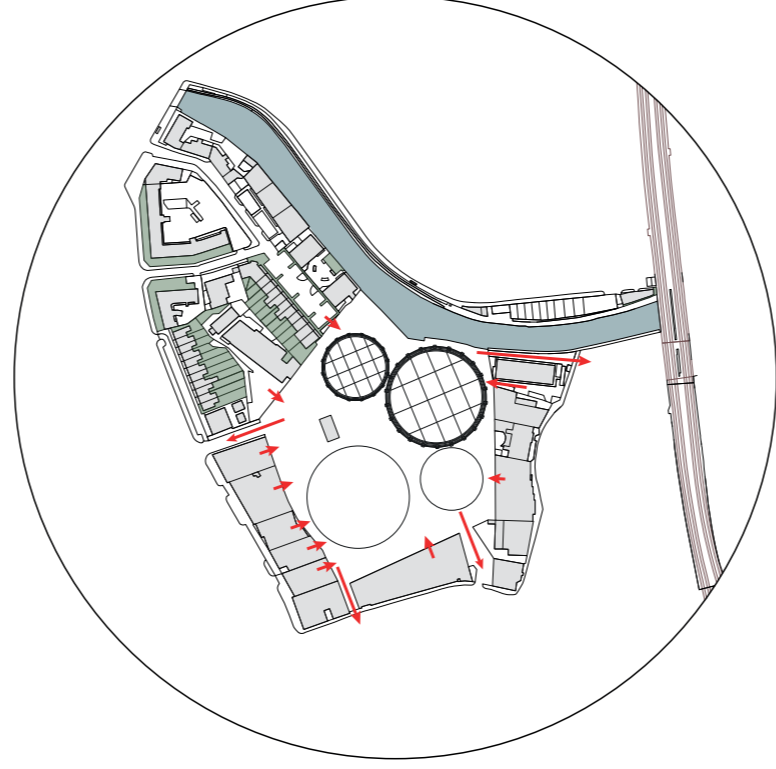


connected boroughs
partial interaction

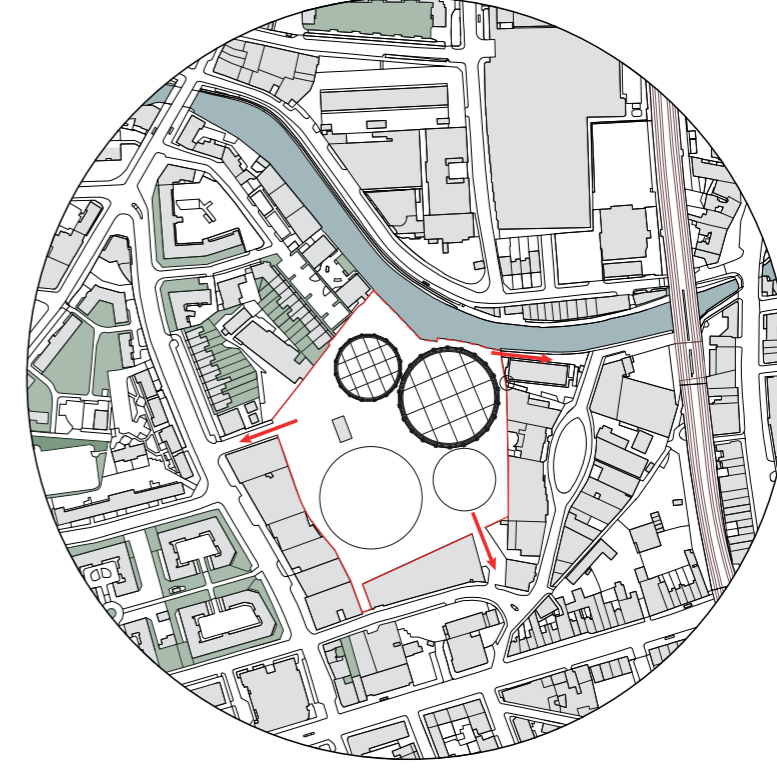
ENCLAVE



fenced-off area

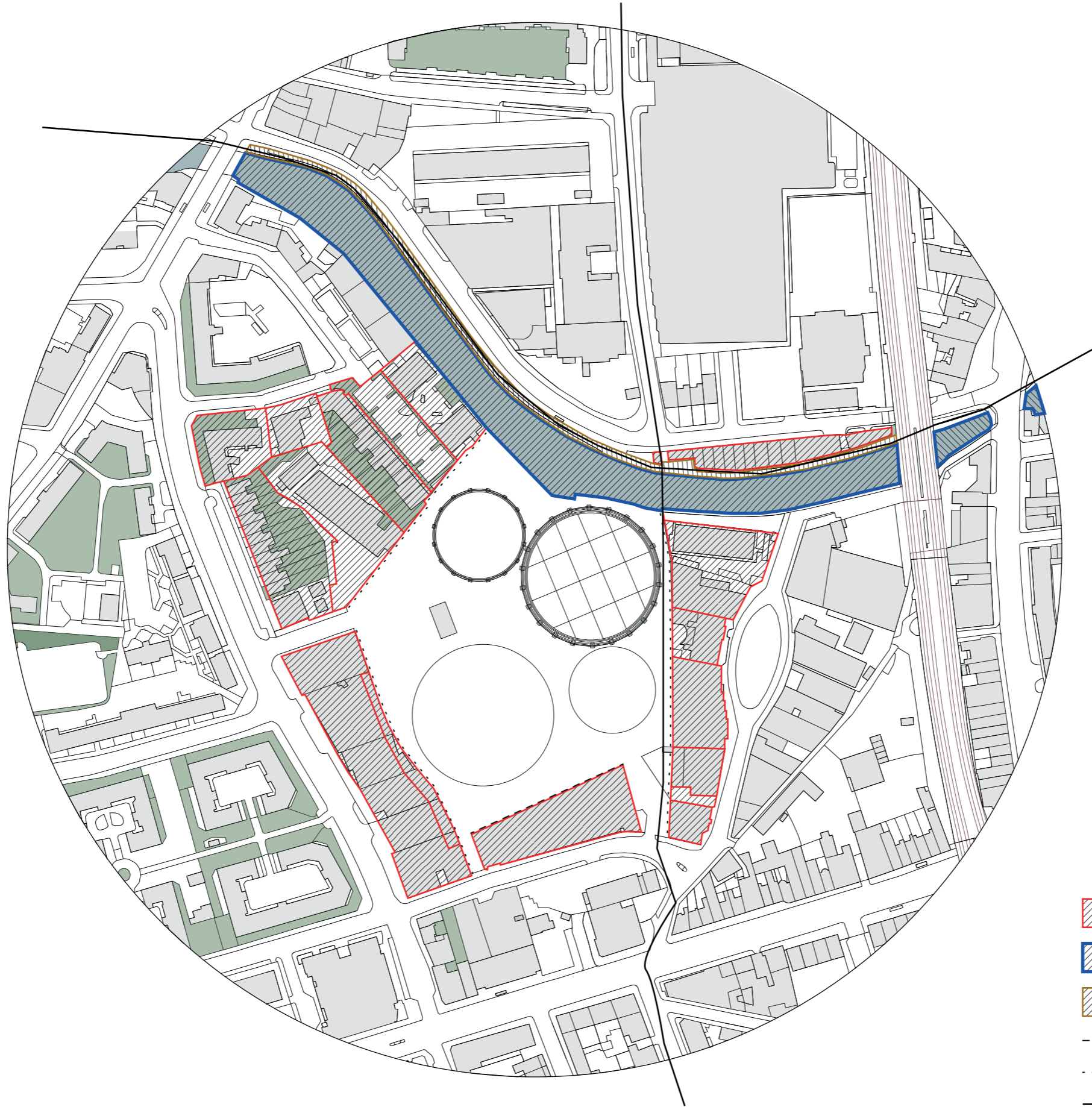








entirely open site
unconfined accessibility



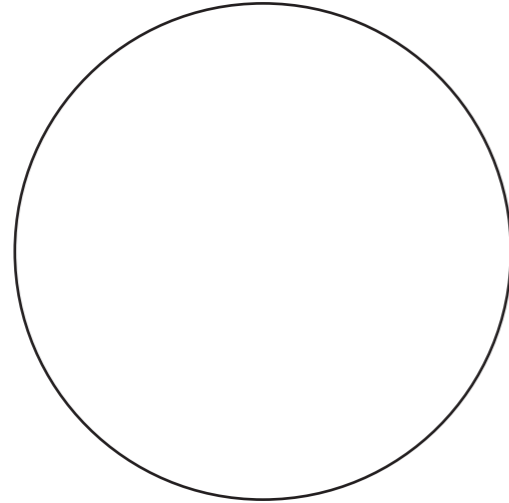
communication with
surrounding area (specific)

2. IDENTIFY THE FRAGMENTS



-  buildings
-  waterbody
-  towpath
-  facade fragment
-  brick wall
-  continuous promenade

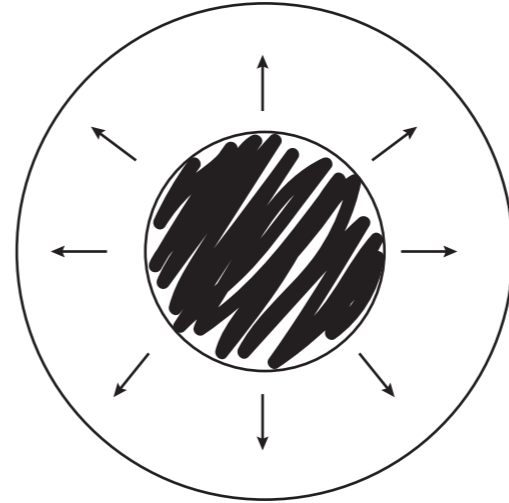
3. PROPOSE INFILL STRATEGIES



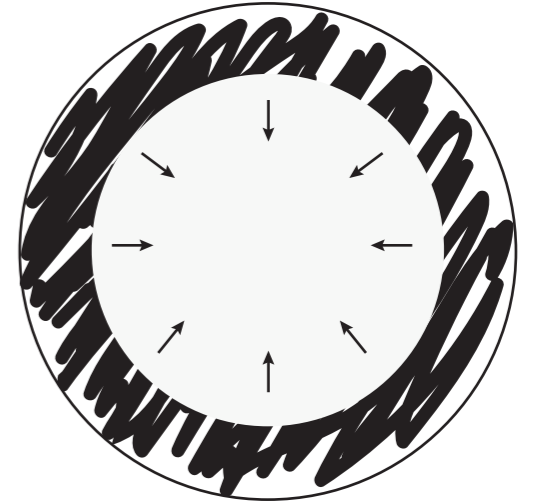
GEOMETRY | VOID



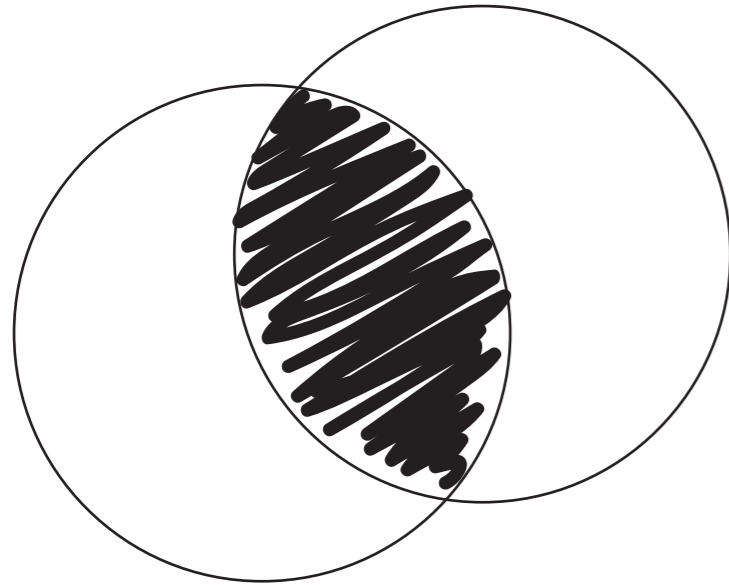
FULL



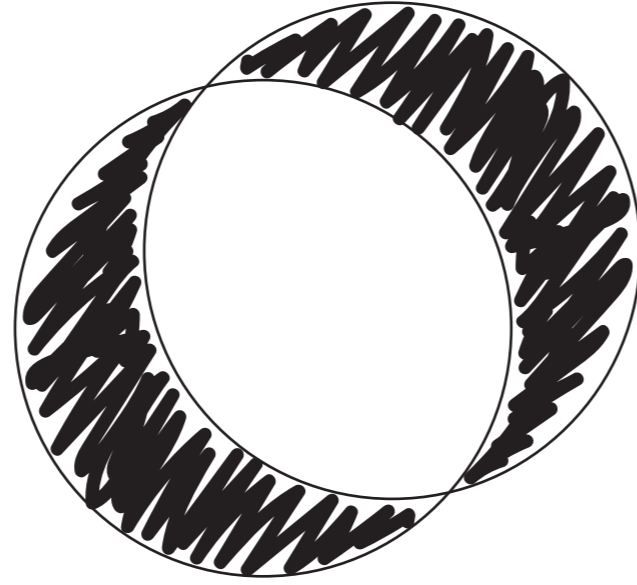
EXPOSURE



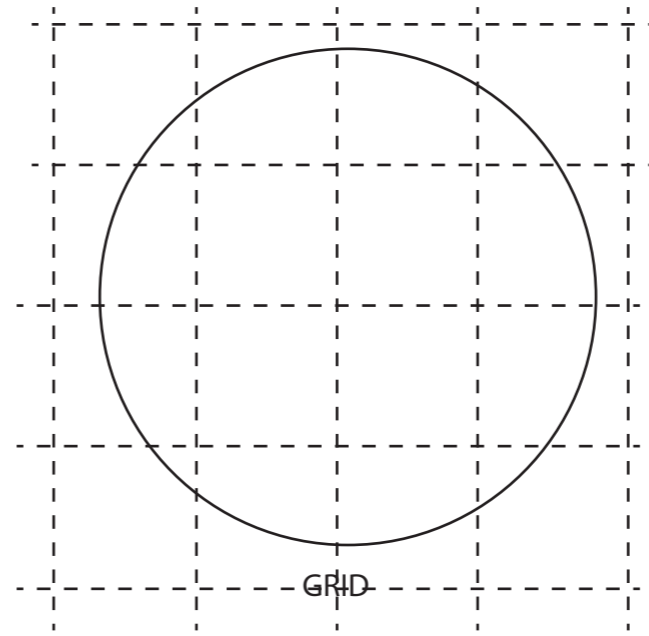
ENCLOSURE



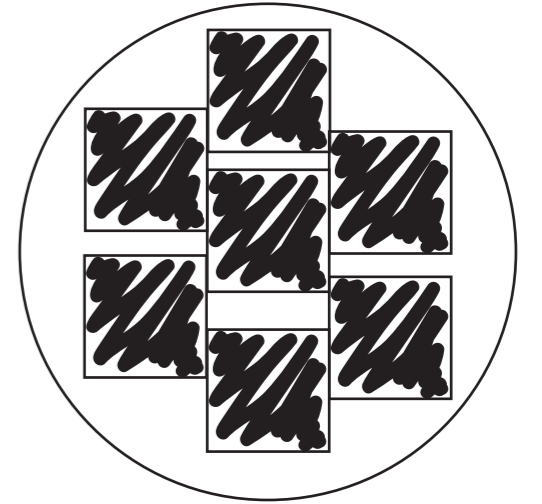
SHIFT IN



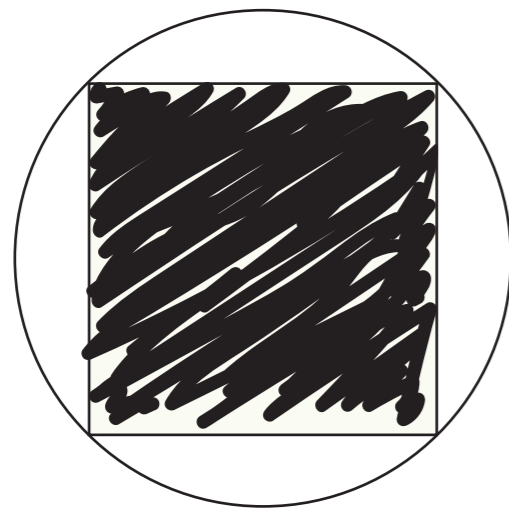
SHIFT OUT



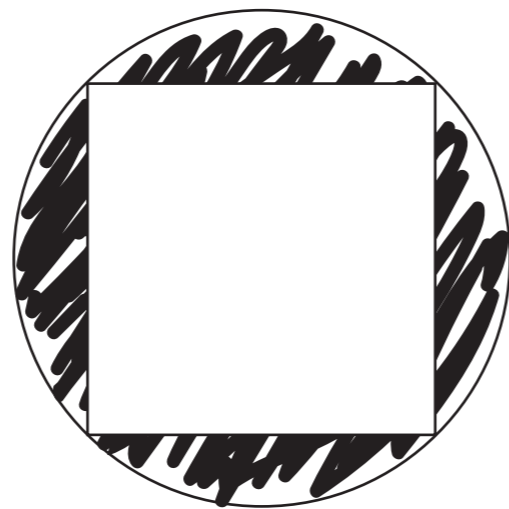
GRID



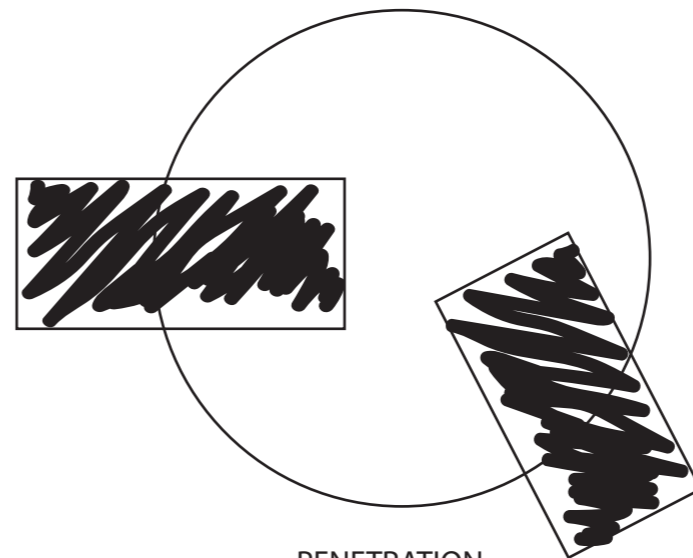
CLUSTER



INFILL



INFILL INVERSE

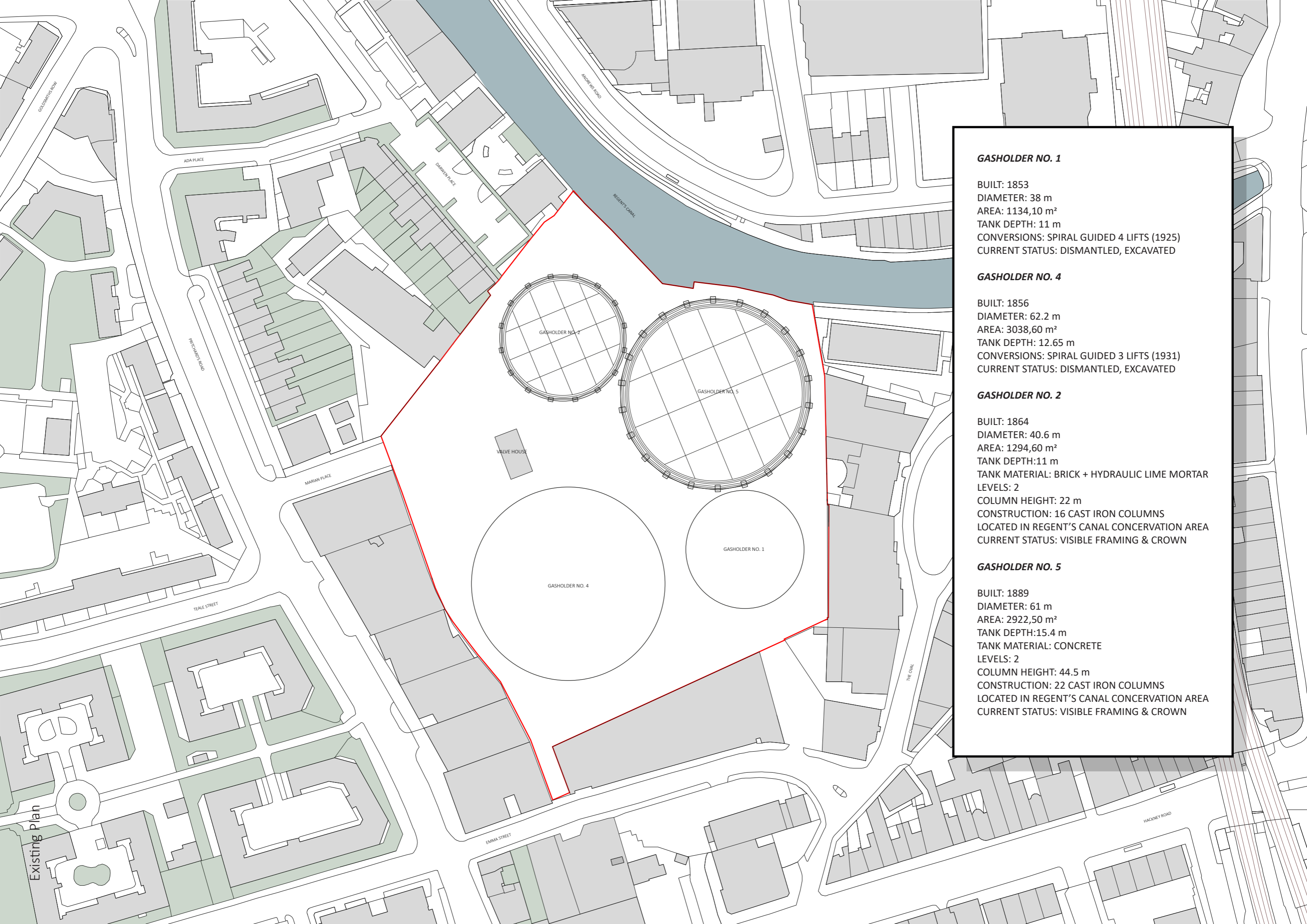


PENETRATION



FOREIGN

SITE SPECIFIC STRATEGIES IN DESIGN



GASHOLDER NO. 1

BUILT: 1853
DIAMETER: 38 m
AREA: 1134,10 m²
TANK DEPTH: 11 m
CONVERSIONS: SPIRAL GUIDED 4 LIFTS (1925)
CURRENT STATUS: DISMANTLED, EXCAVATED

GASHOLDER NO. 4

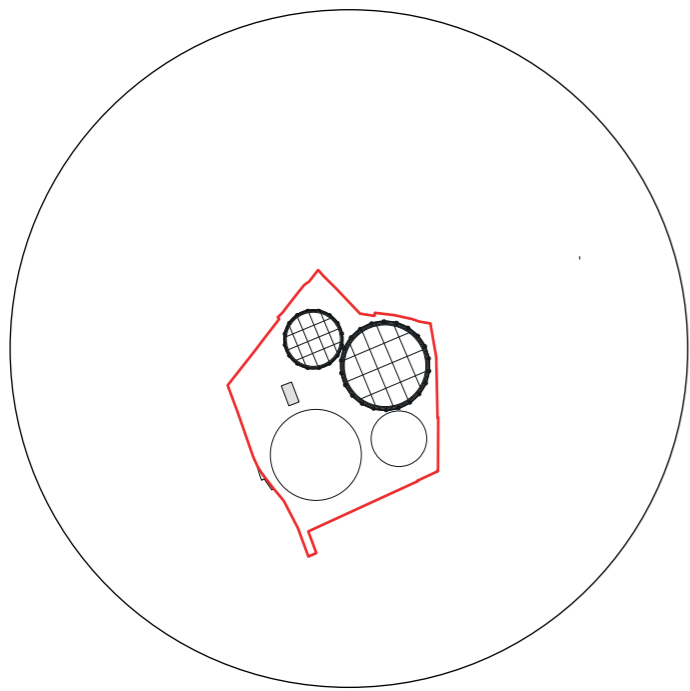
BUILT: 1856
DIAMETER: 62.2 m
AREA: 3038,60 m²
TANK DEPTH: 12.65 m
CONVERSIONS: SPIRAL GUIDED 3 LIFTS (1931)
CURRENT STATUS: DISMANTLED, EXCAVATED

GASHOLDER NO. 2

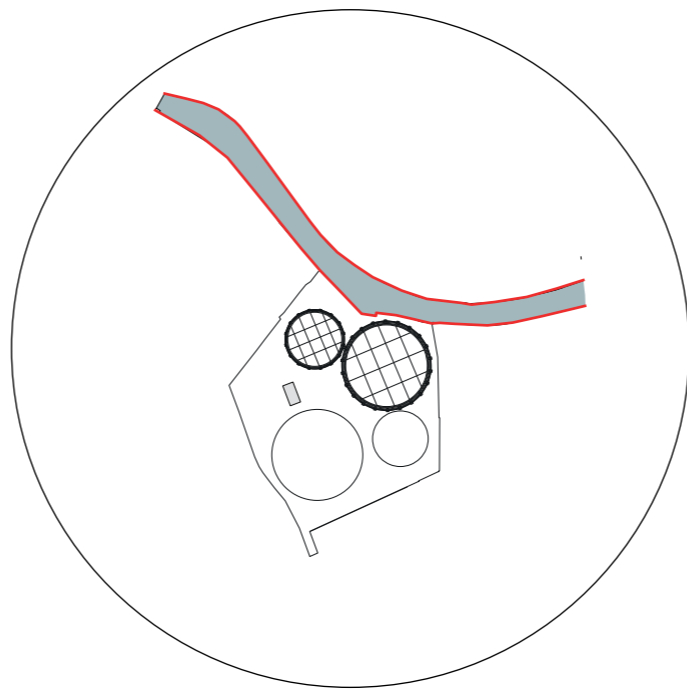
BUILT: 1864
DIAMETER: 40.6 m
AREA: 1294,60 m²
TANK DEPTH: 11 m
TANK MATERIAL: BRICK + HYDRAULIC LIME MORTAR
LEVELS: 2
COLUMN HEIGHT: 22 m
CONSTRUCTION: 16 CAST IRON COLUMNS
LOCATED IN REGENT'S CANAL CONSERVATION AREA
CURRENT STATUS: VISIBLE FRAMING & CROWN

GASHOLDER NO. 5

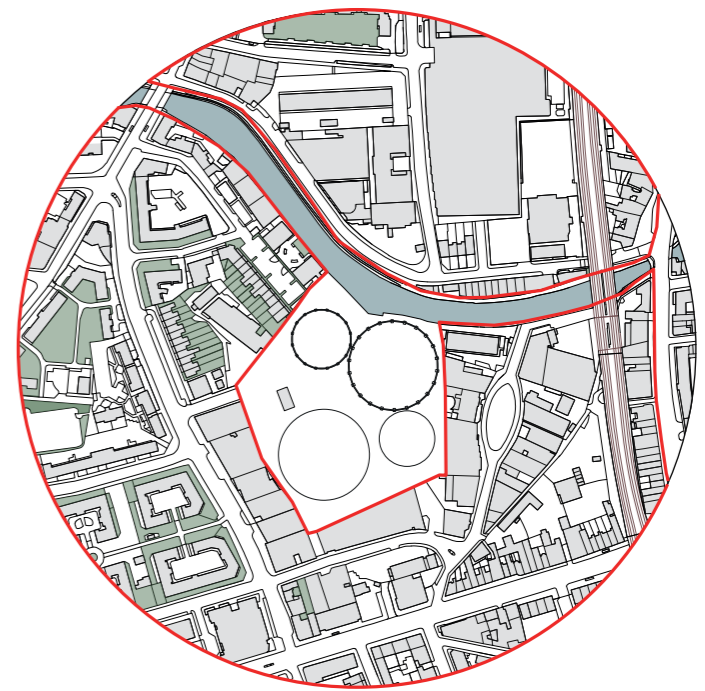
BUILT: 1889
DIAMETER: 61 m
AREA: 2922,50 m²
TANK DEPTH: 15.4 m
TANK MATERIAL: CONCRETE
LEVELS: 2
COLUMN HEIGHT: 44.5 m
CONSTRUCTION: 22 CAST IRON COLUMNS
LOCATED IN REGENT'S CANAL CONSERVATION AREA
CURRENT STATUS: VISIBLE FRAMING & CROWN



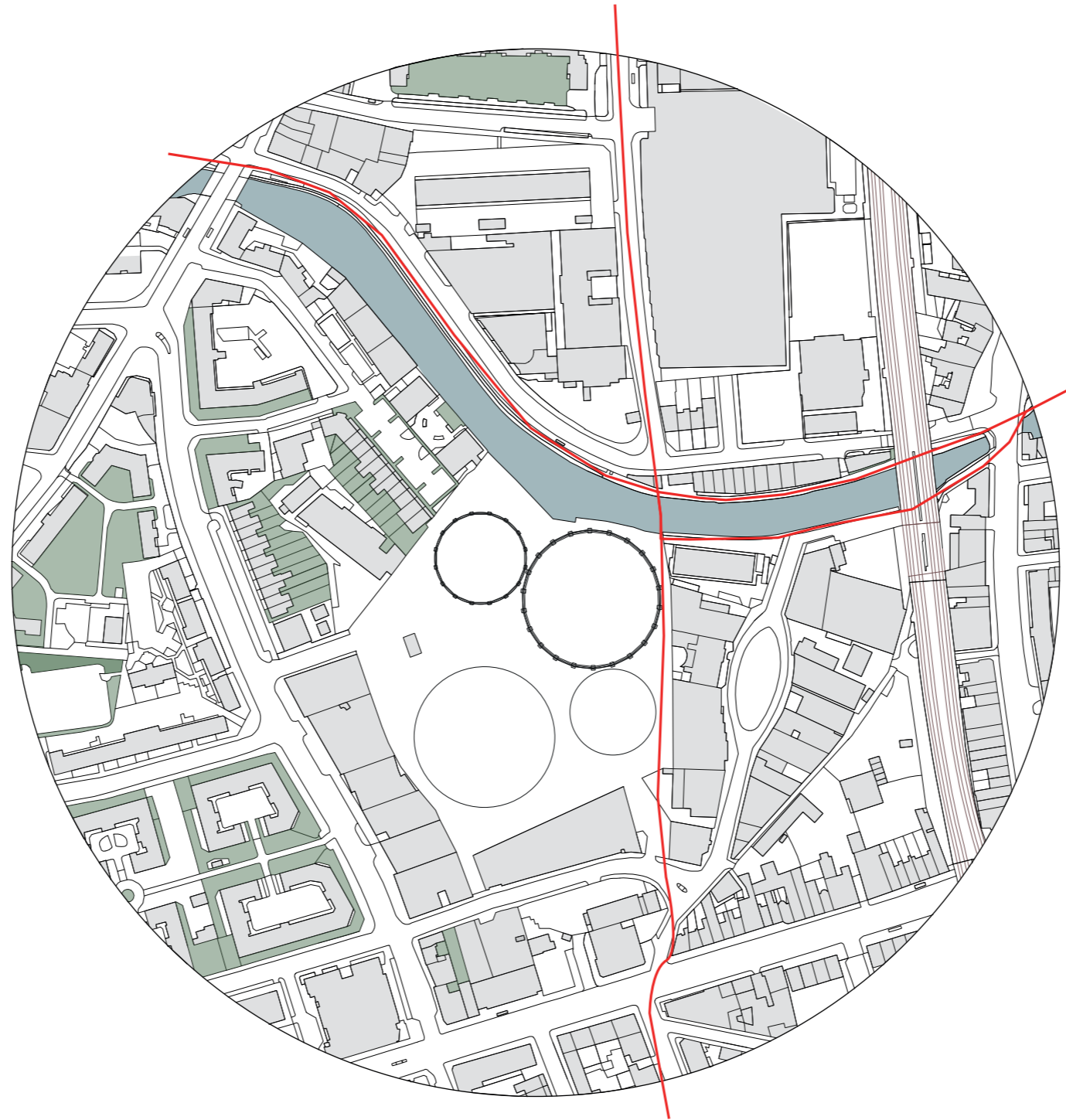
ENCLAVE, BOUNDARY | PHYSICAL



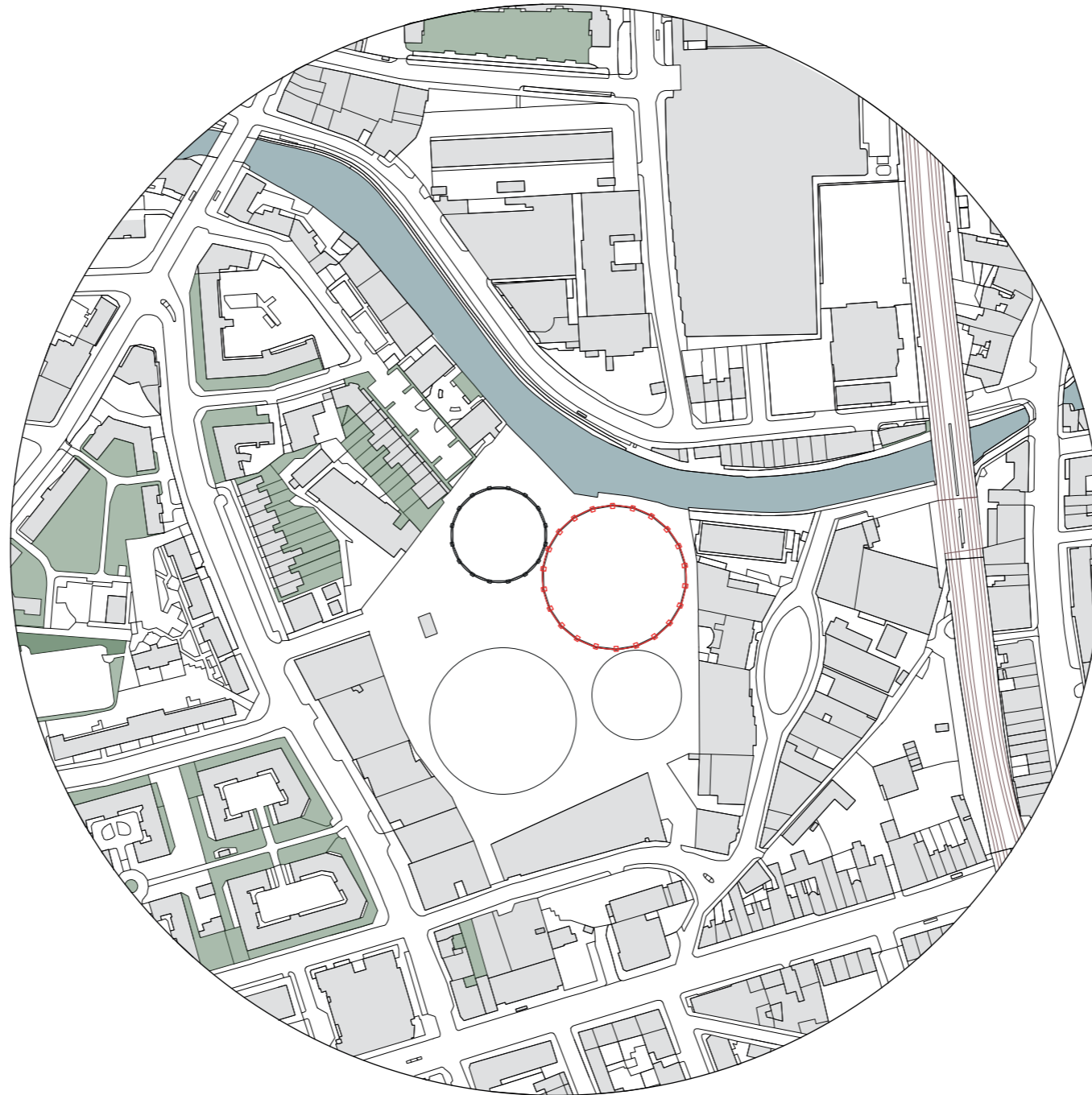
WATERFRONT, TOWPATHS | VISUAL



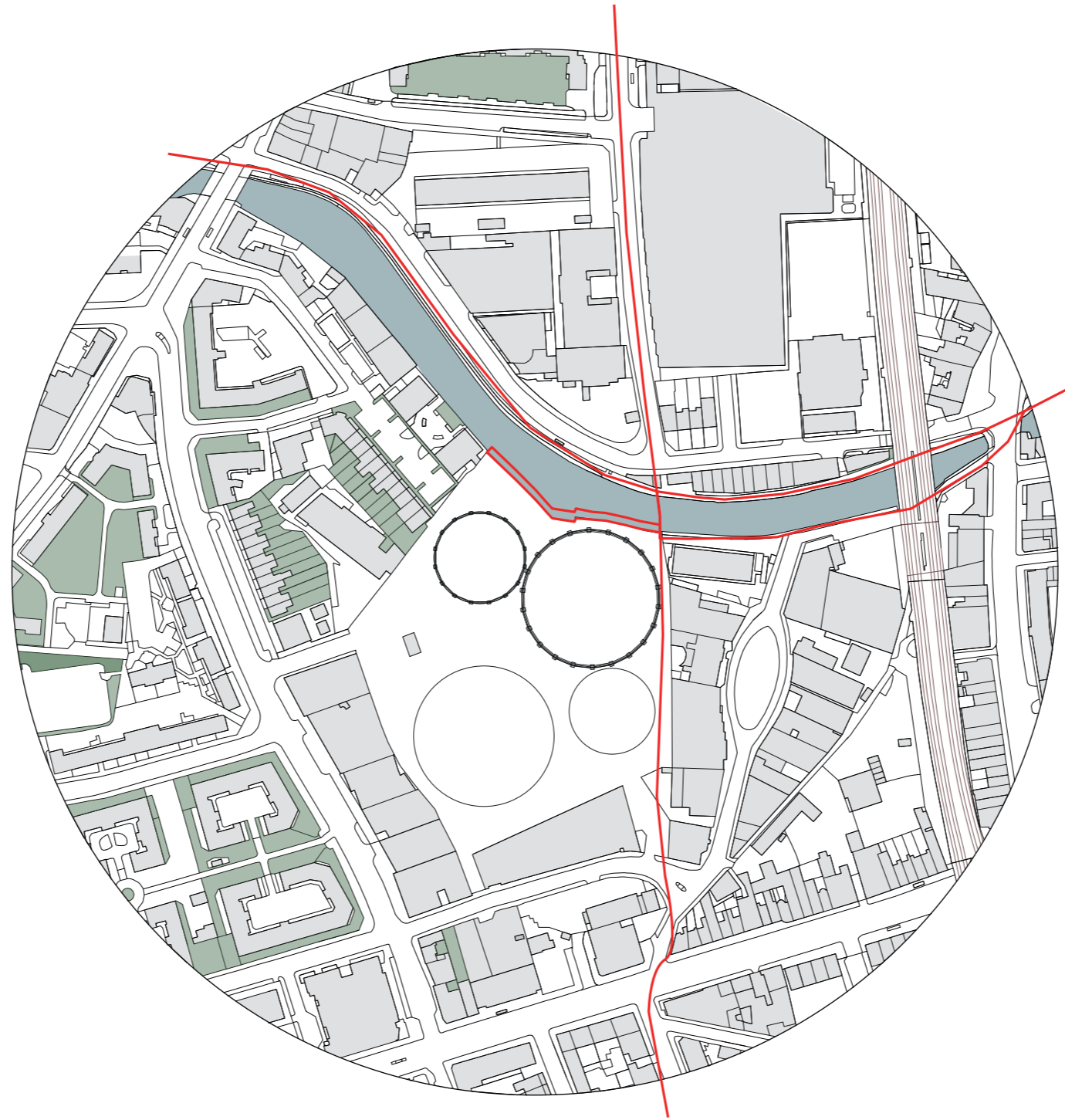
ISOLATED URBAN DYNAMICS



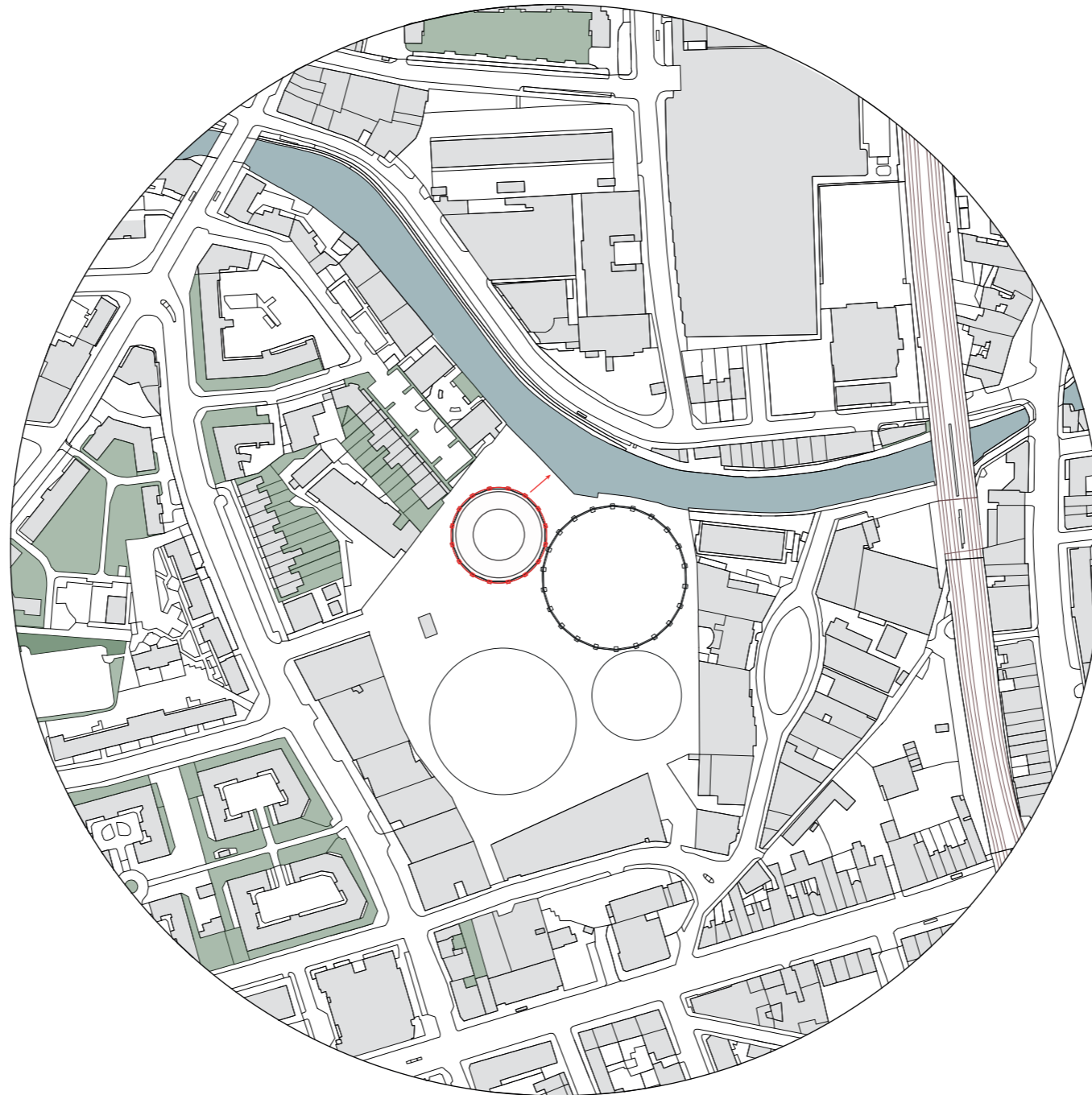
CONNECTING URBAN DYNAMICS



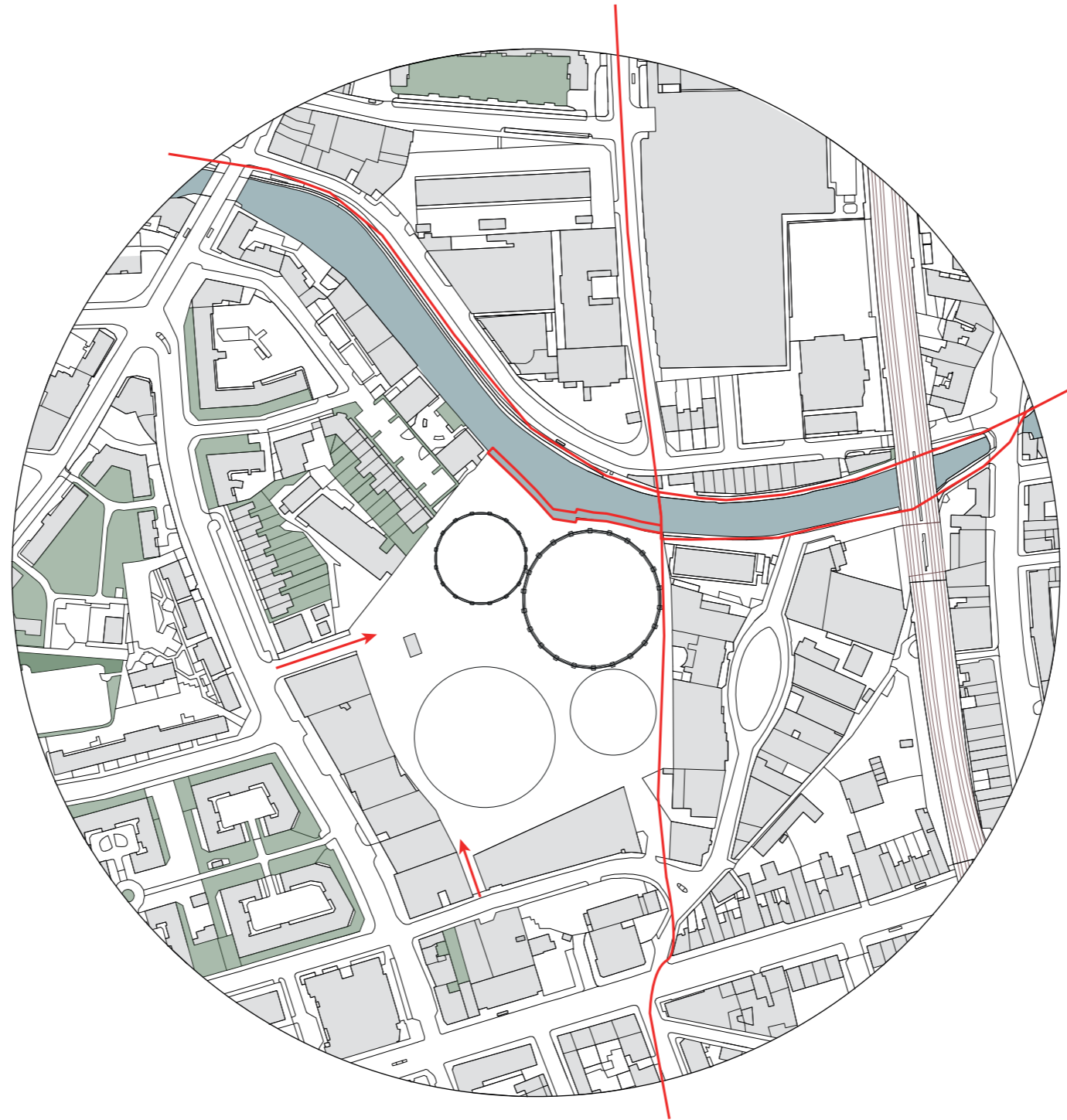
ACCESSIBLE MONUMENT |
VERSATILE EVENT VENUE



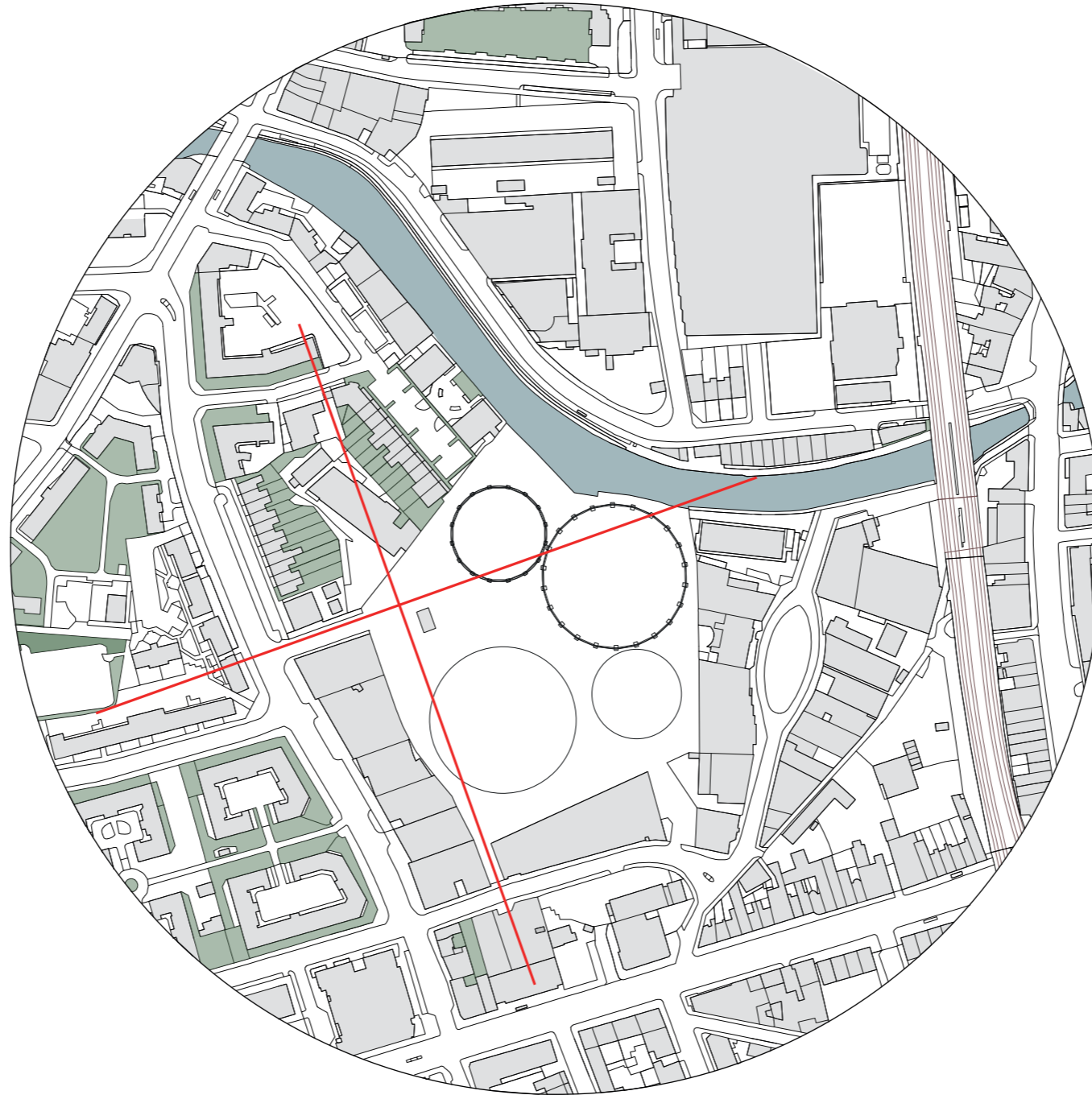
ENHANCED WATERFRONT



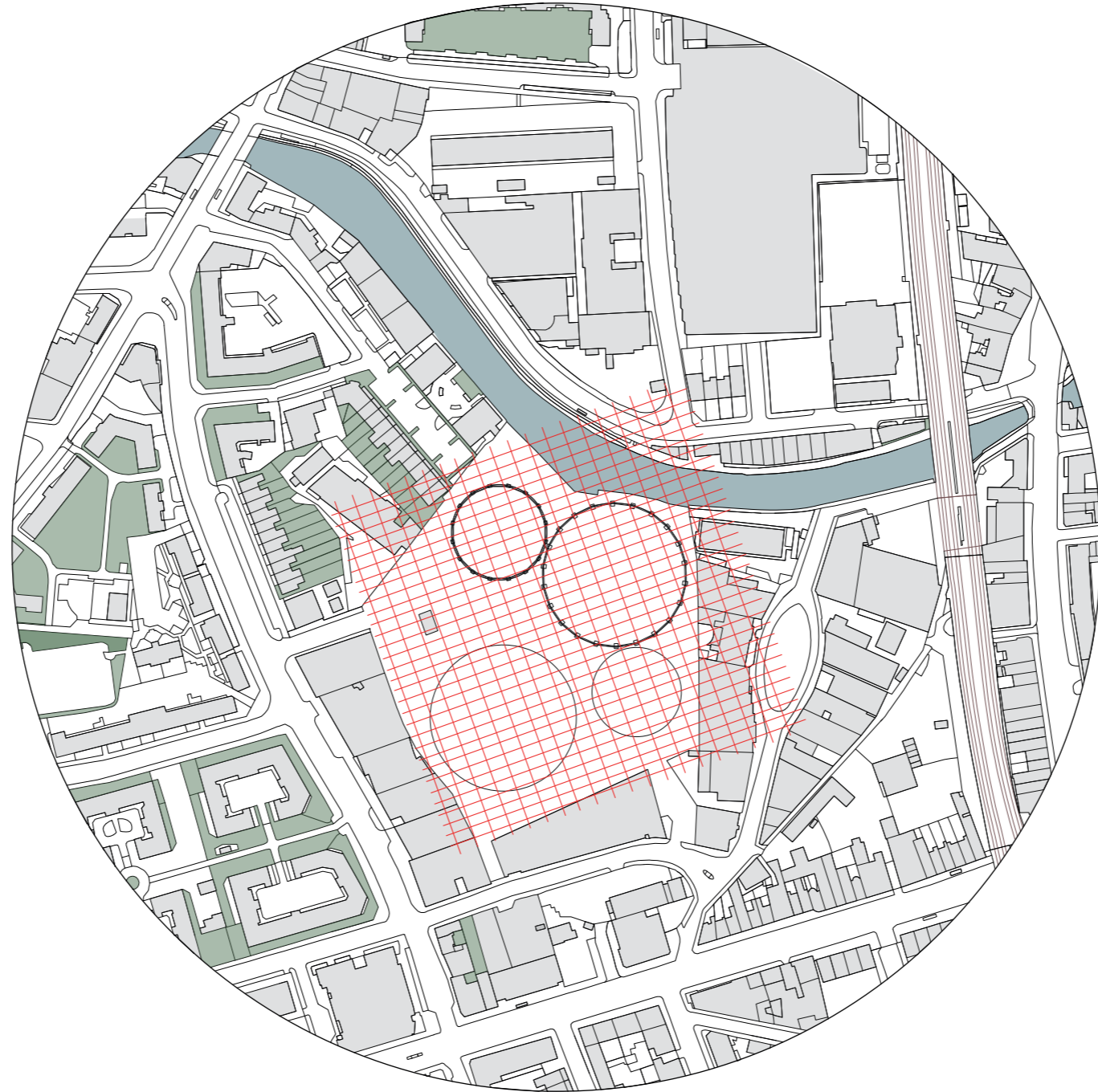
PARK | MONUMENT PROMENADE |
WATER FRONT DYNAMICS



ACCESSIBILITY | BREAKING BOUNDARY



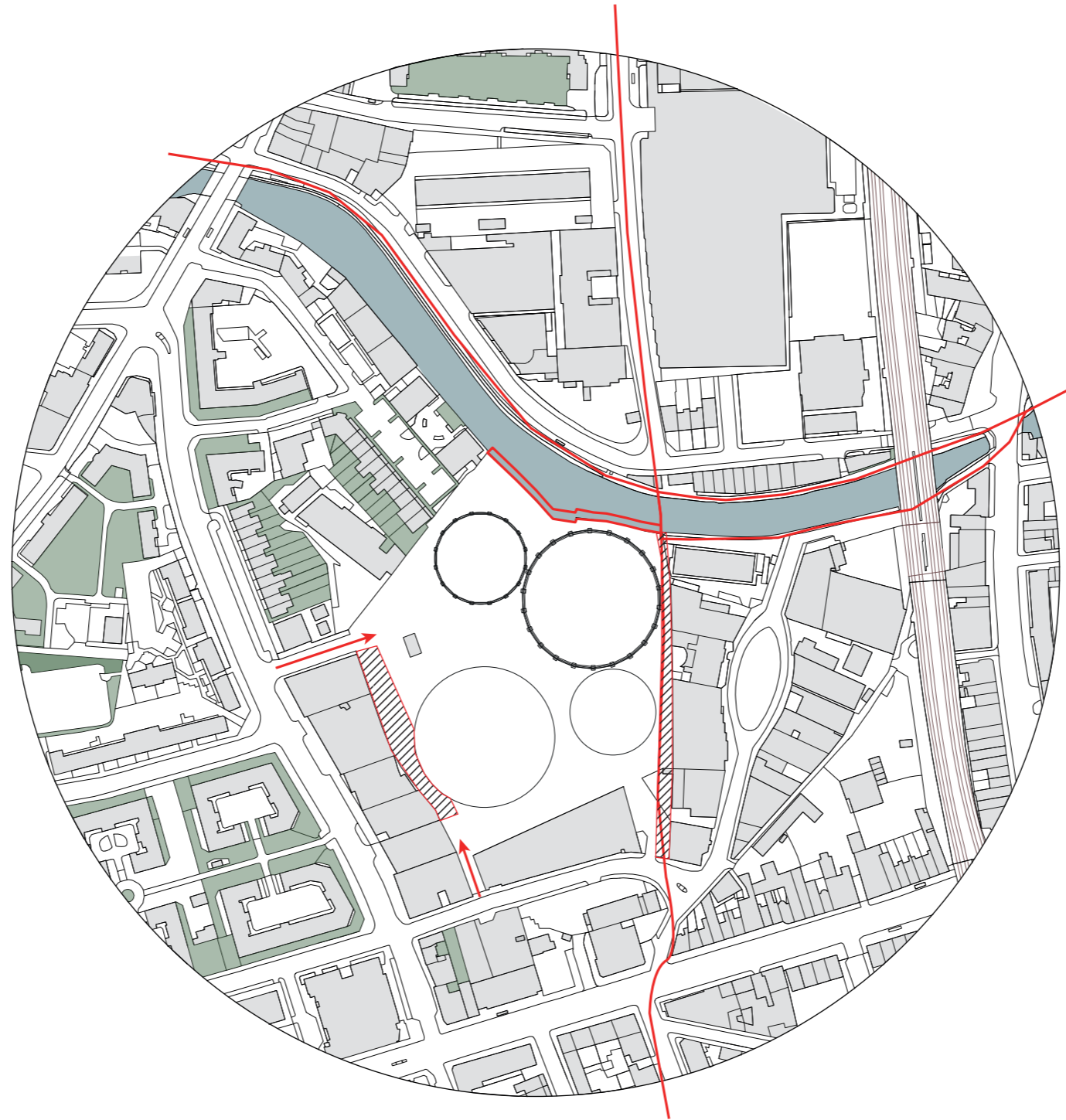
GRID | GUIDELINES FROM
EXISTING ROADS & ENTRANCES



GRID | ENTRANCE ROADS |
PROGRAMMATIC SPACES



WELLNESS NEXUS & SUPERMARKET



DEALING WITH FACADES



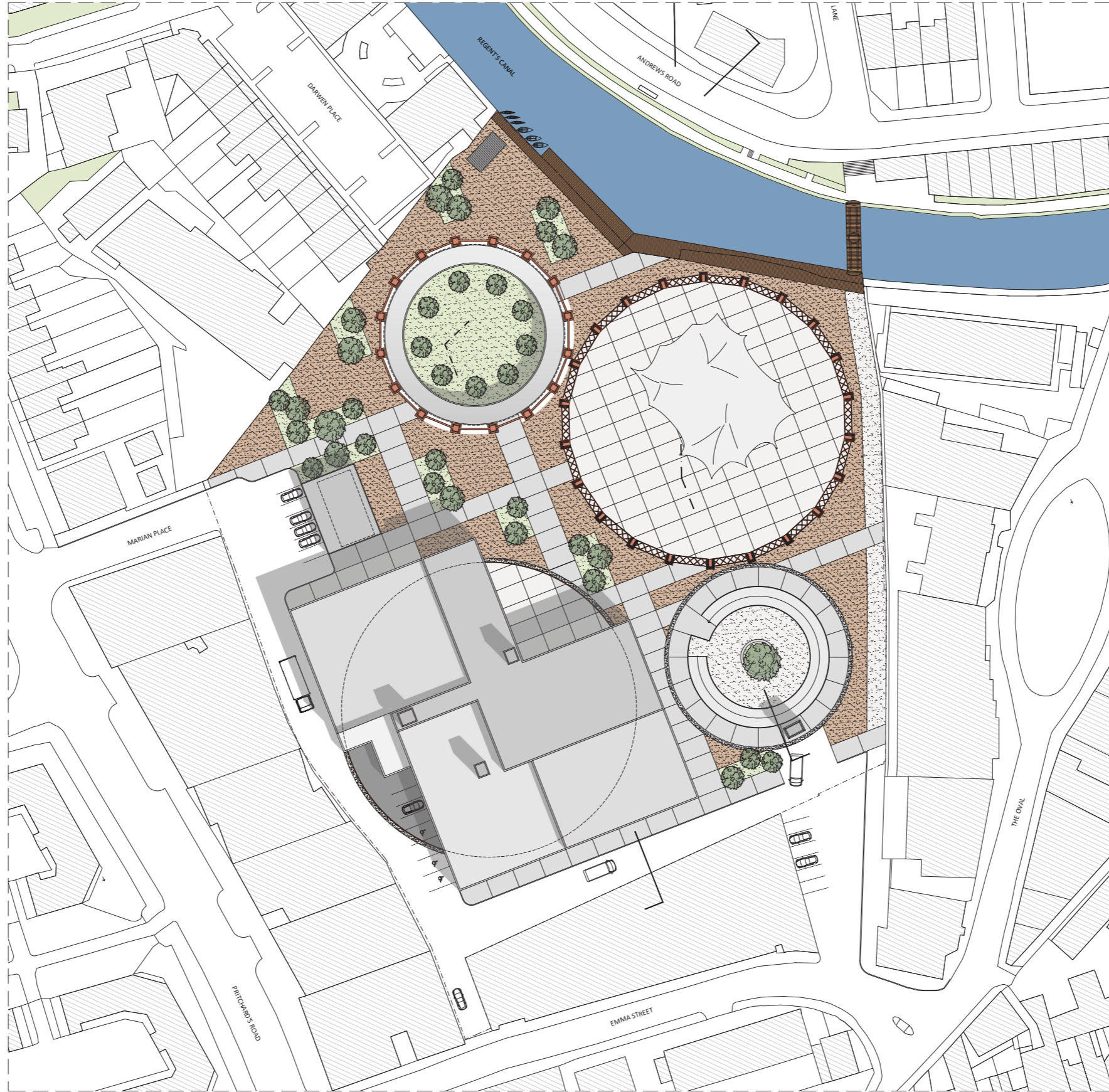
SHARED BACKSIDE |



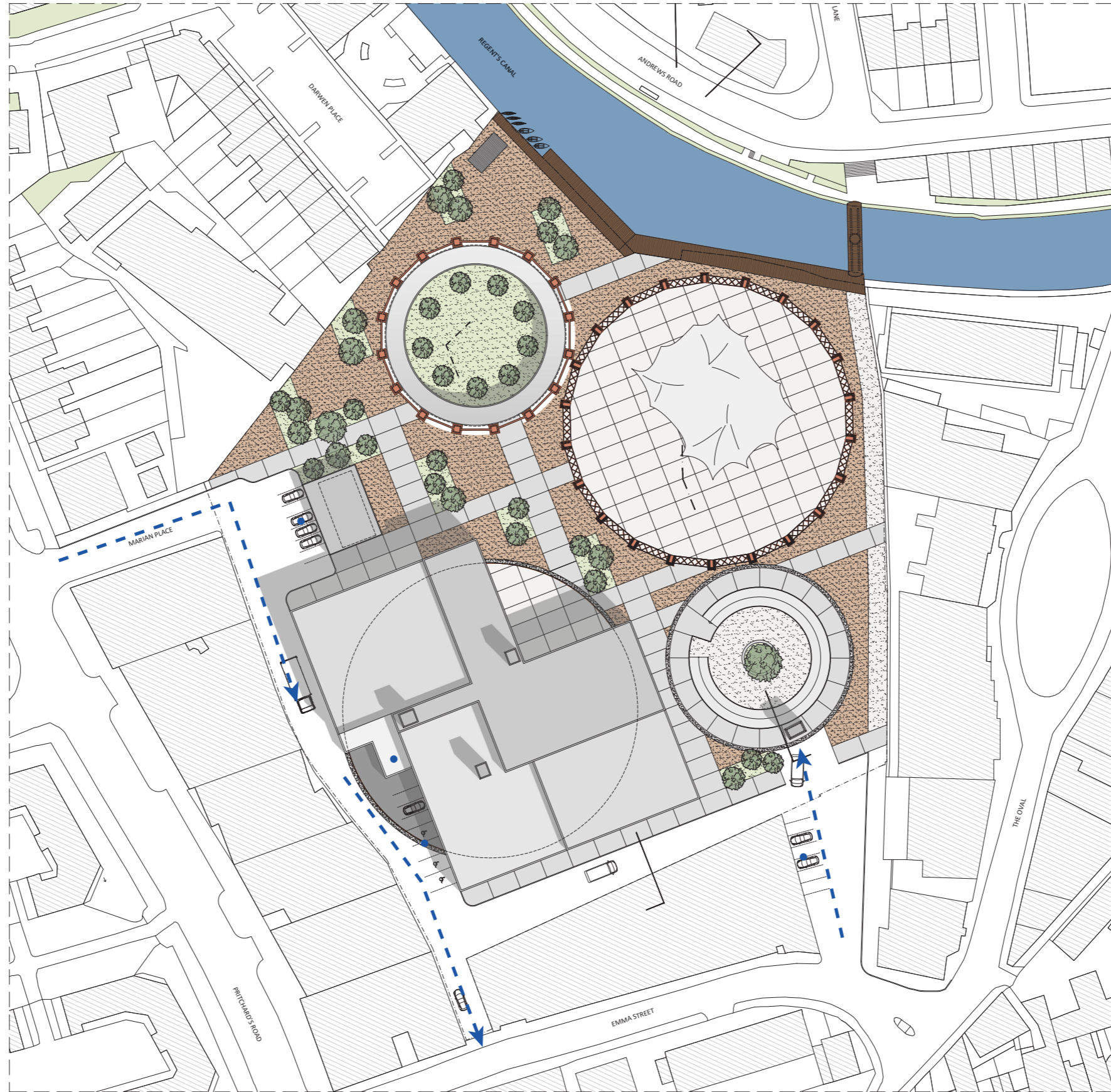
UNDERGROUND HAVEN | COMMUNITY
ASSOCIATIONS, SUPPORTIVE SPACE

DESIGN PROPOSAL

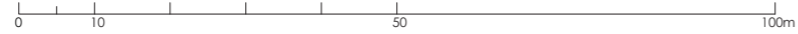
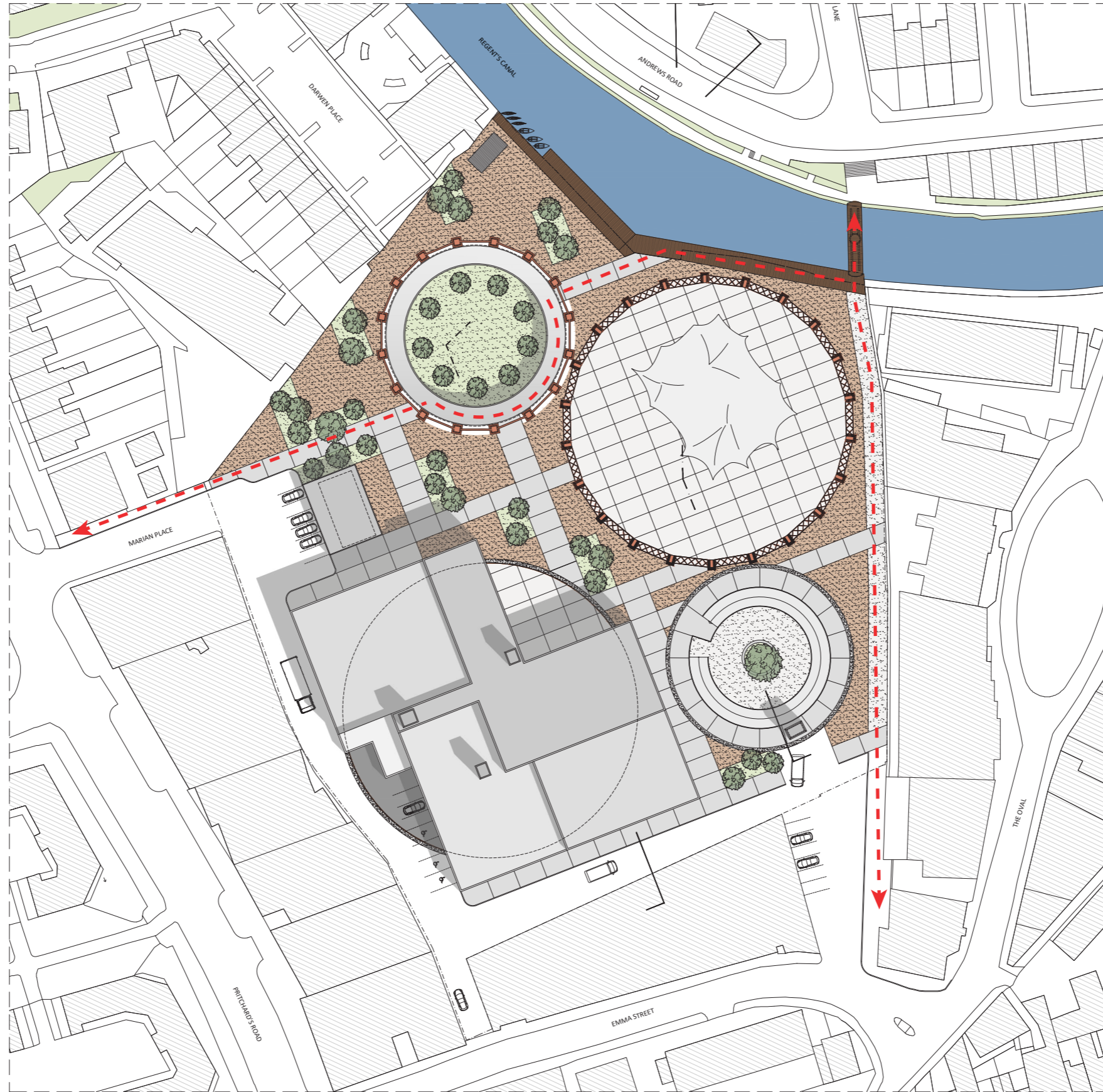
The proposal promotes a new form of creative dynamics that connects with the cultural professionals and creative industries of the city.



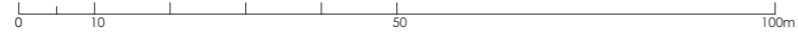
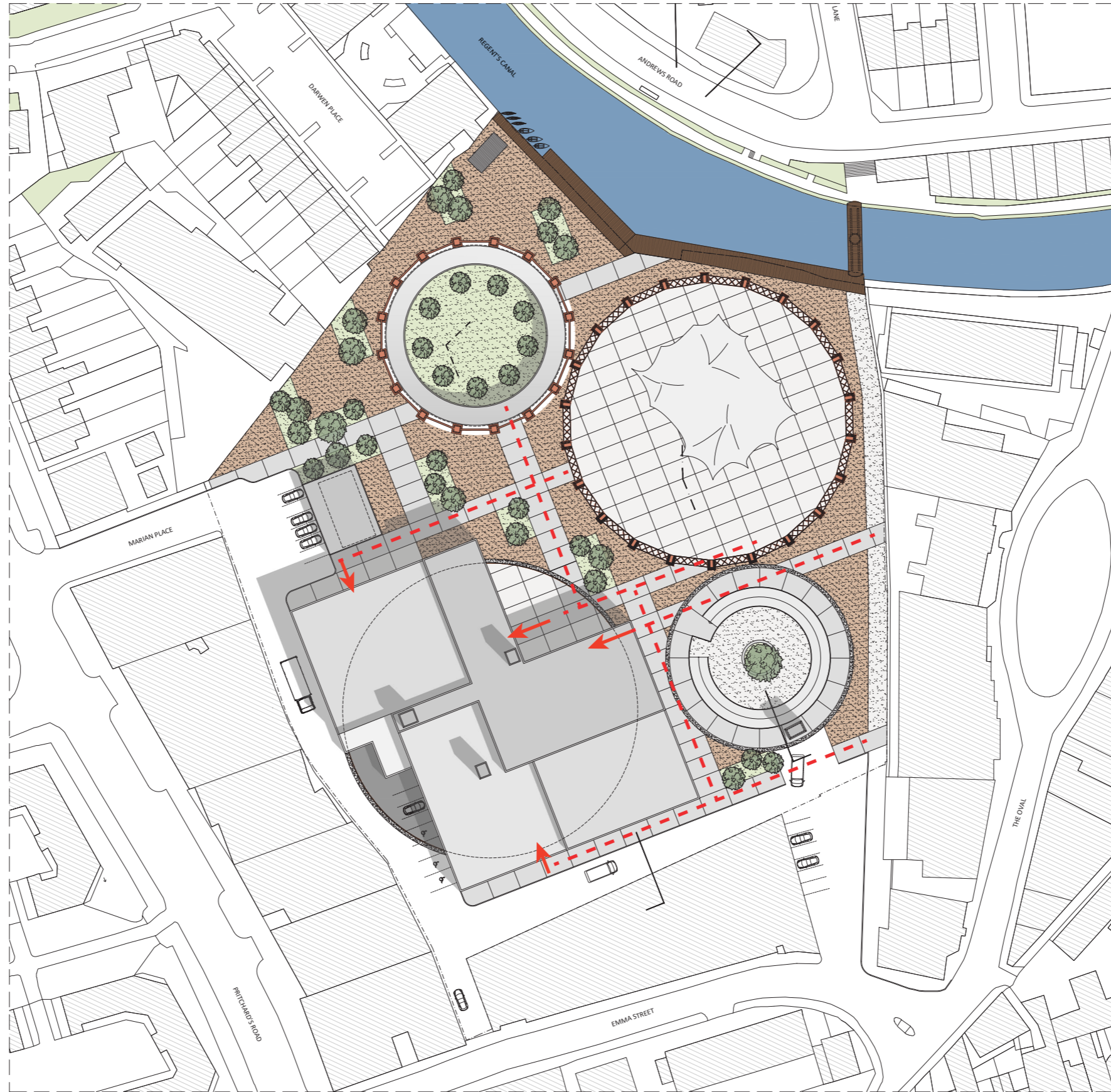
0 10 50 100m



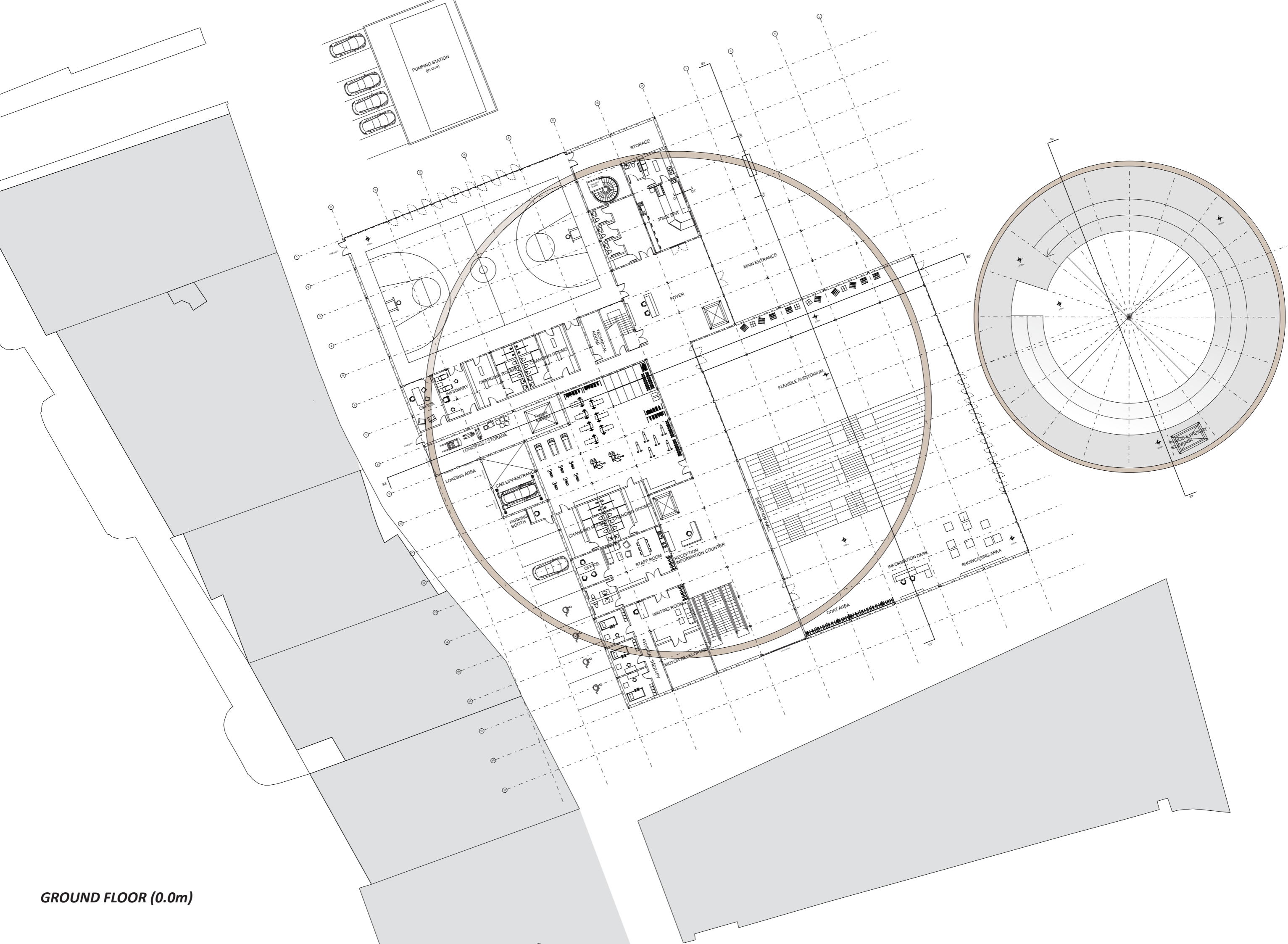
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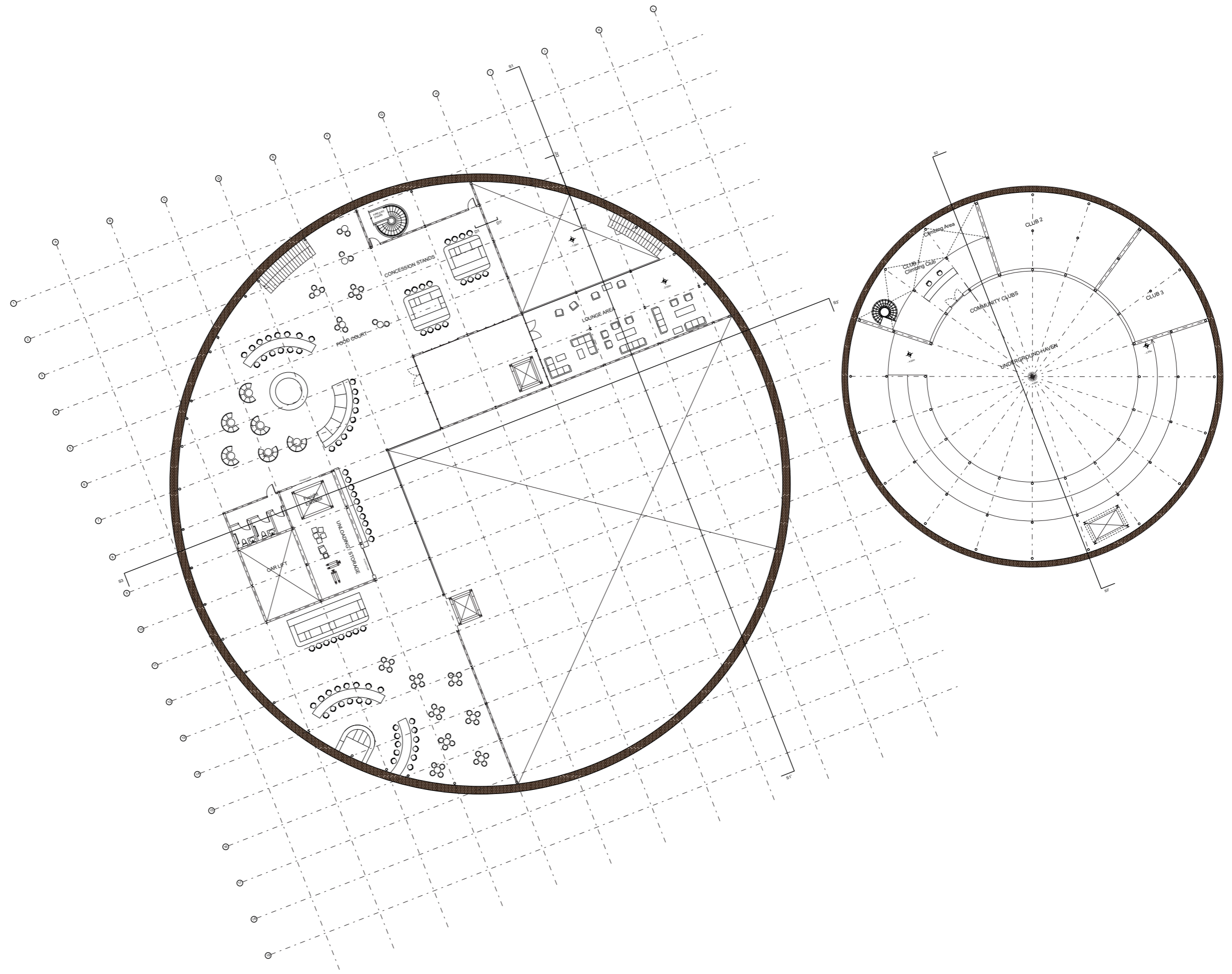
MASTER PLAN - PEDESTRIAN CIRCULATION (FASTEST BOROUGH CROSSING)



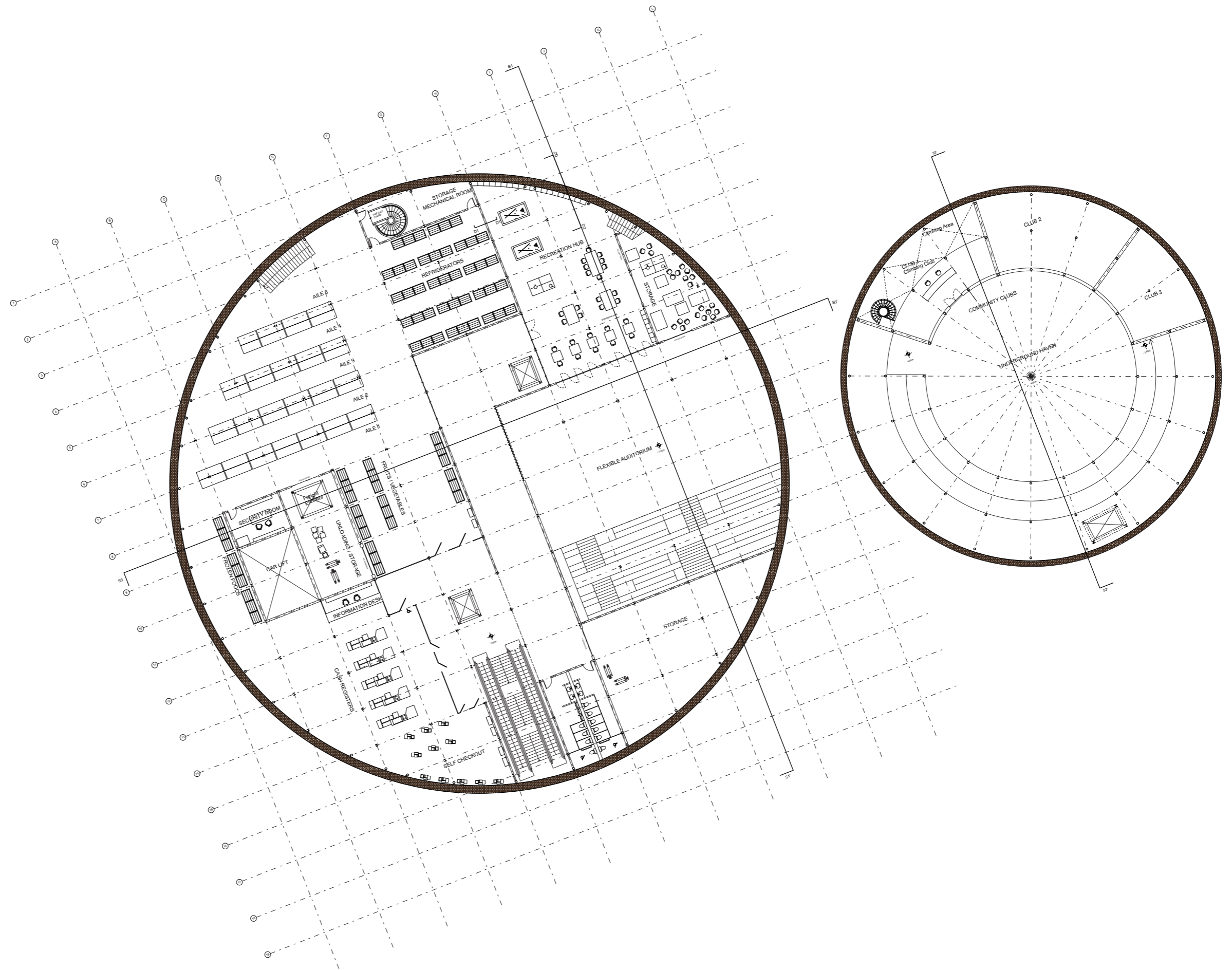
MASTER PLAN - AXIS, CONNECTIONS TO NEW BUILDING



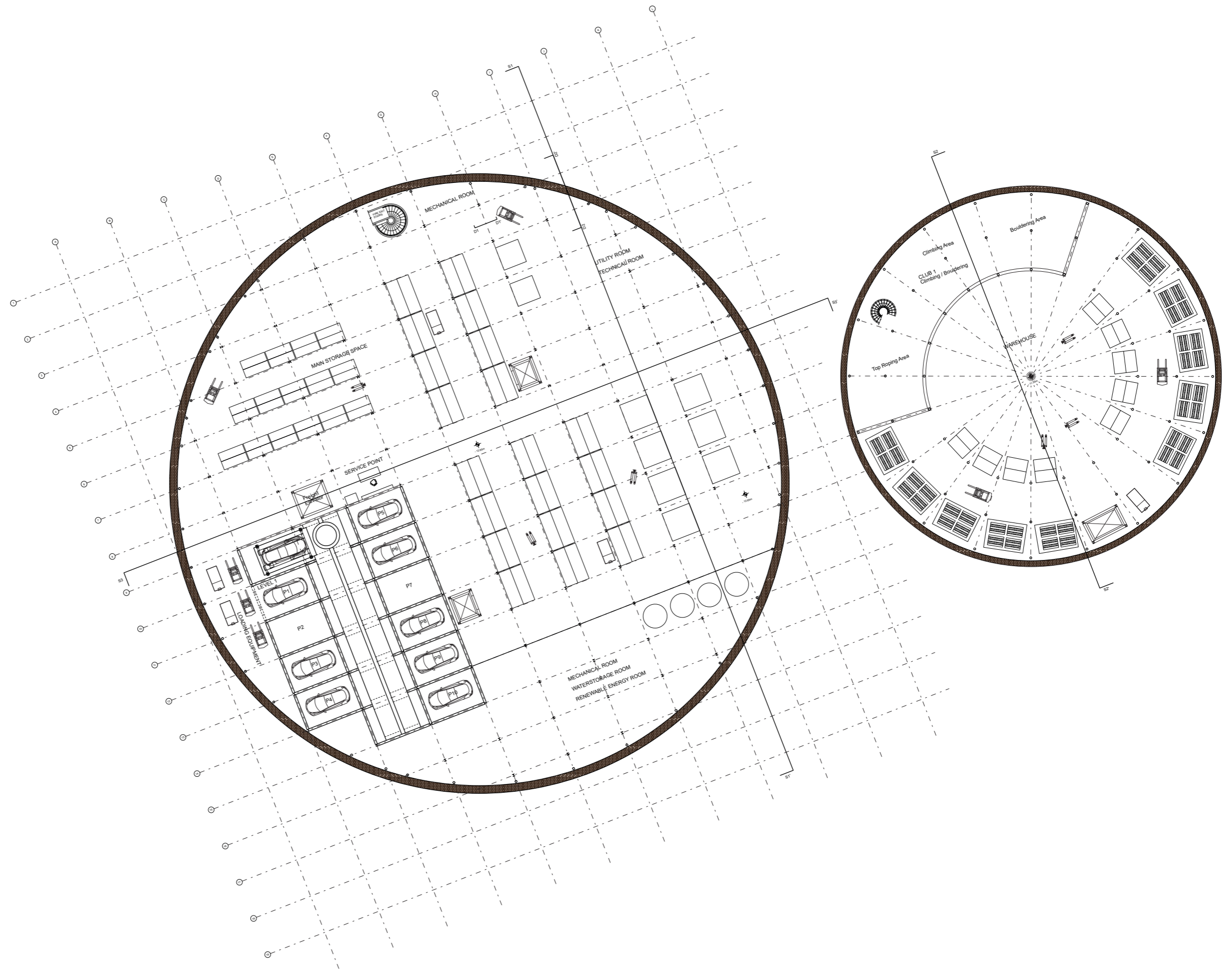
GROUND FLOOR (0.0m)

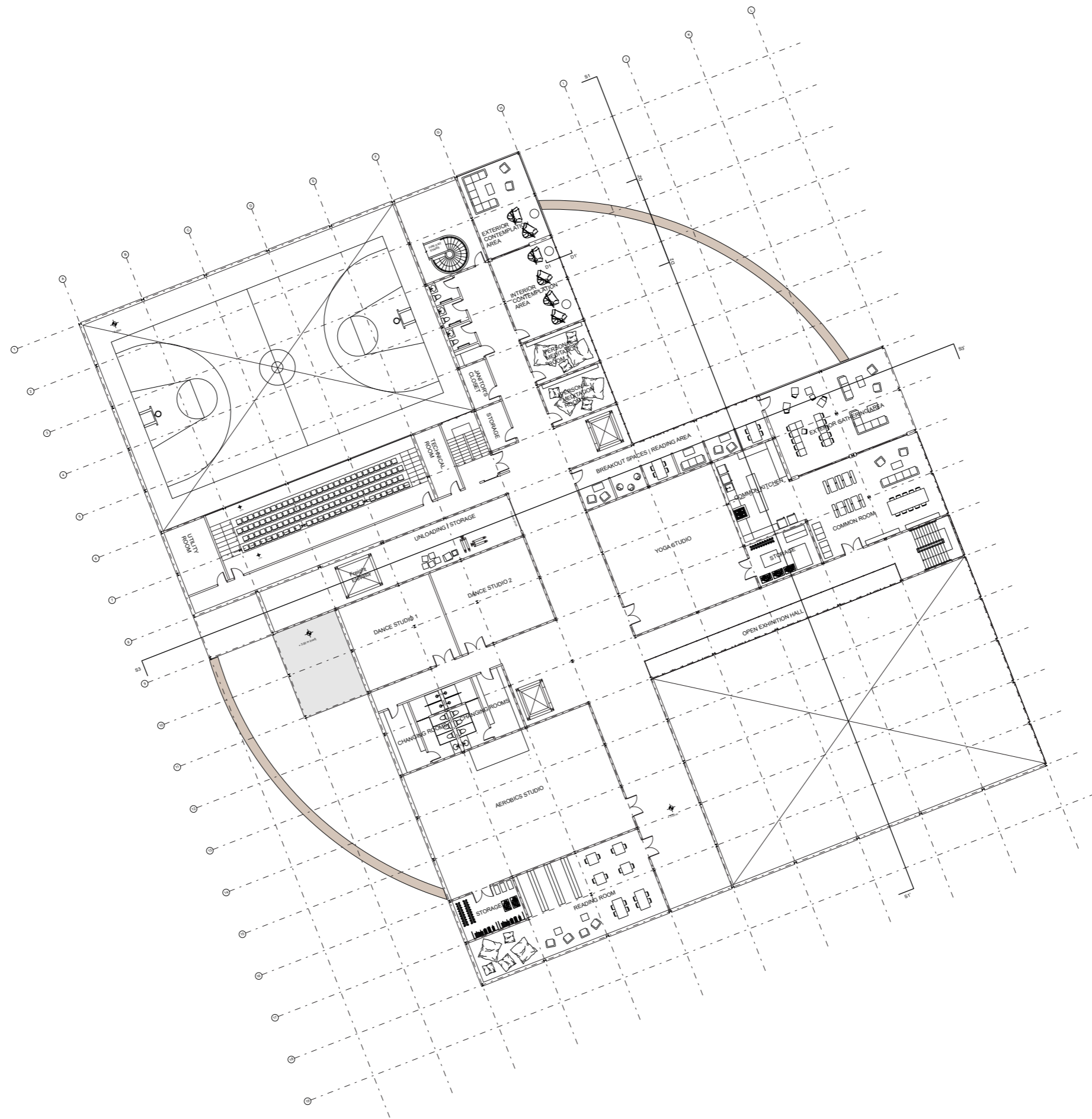


BASEMENT LEVEL -1 (-3.50m)

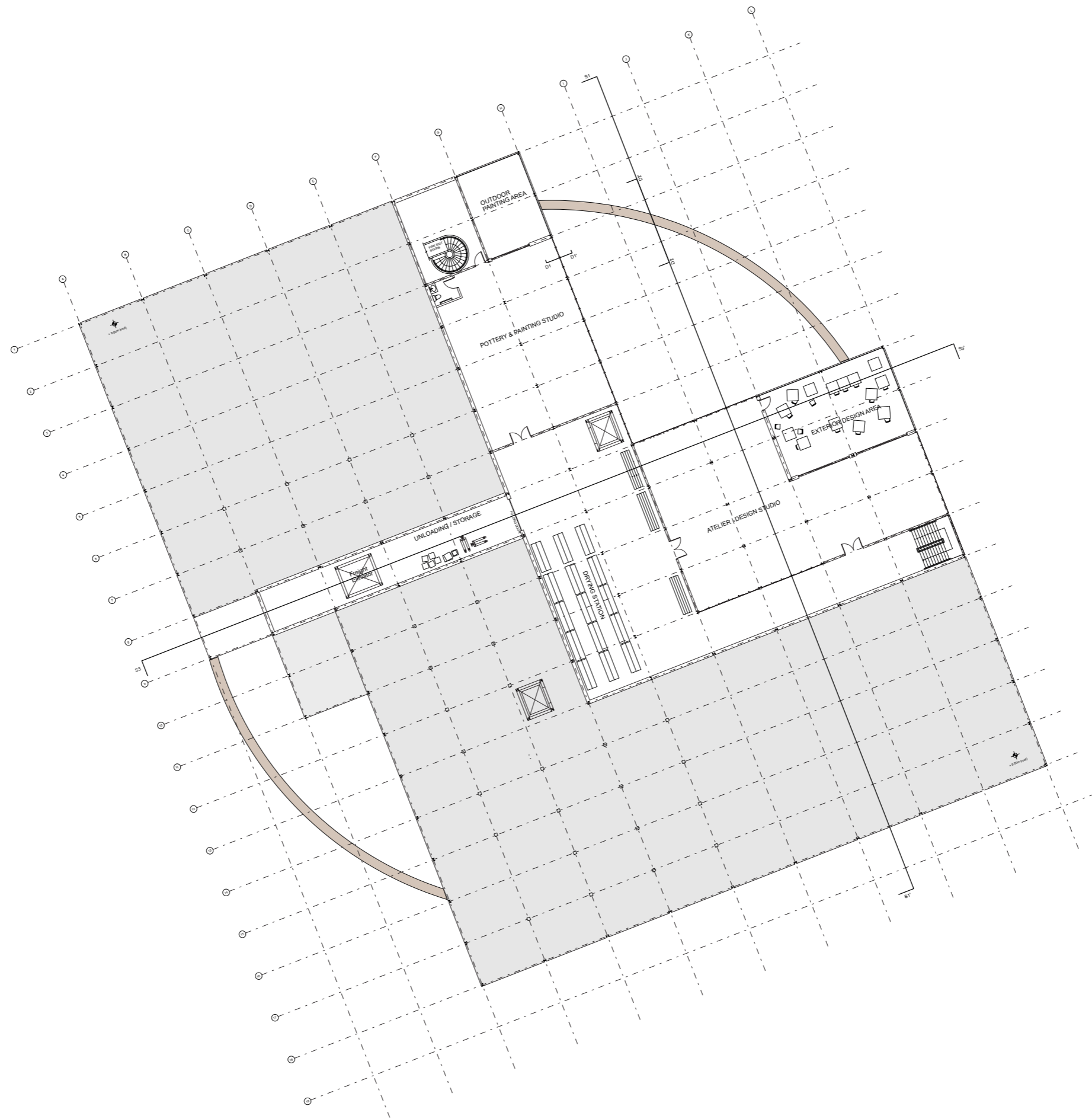


BASEMENT LEVEL -2 (-7.00m)



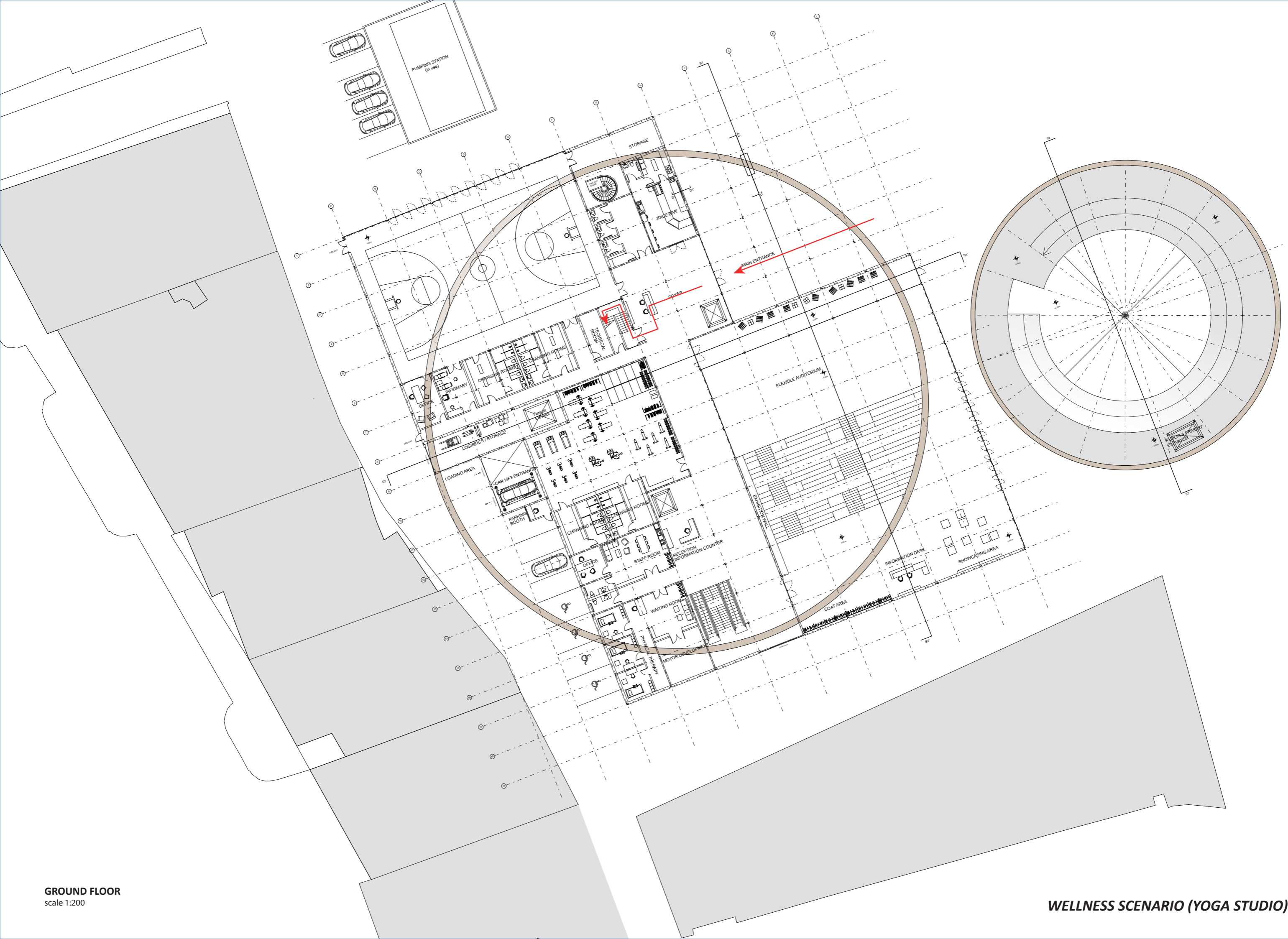


FIRST FLOOR (3.50m)



SECOND FLOOR (7.00m)

CIRCULATION



PUMPING STATION
(in use)

STORAGE

MAIN ENTRANCE

TECHNICAL ROOM

CHANGING ROOMS

LOGISTICS / STORAGE

FLEXIBLE AUDITORIUM

CAR LIFE ENTRANCE

PARKING BOOTH

CHANGING ROOMS

OFFICE

STAFF ROOM

WAITING ROOM

PHYSIOTHERAPY

MOTOR DEVELOPING

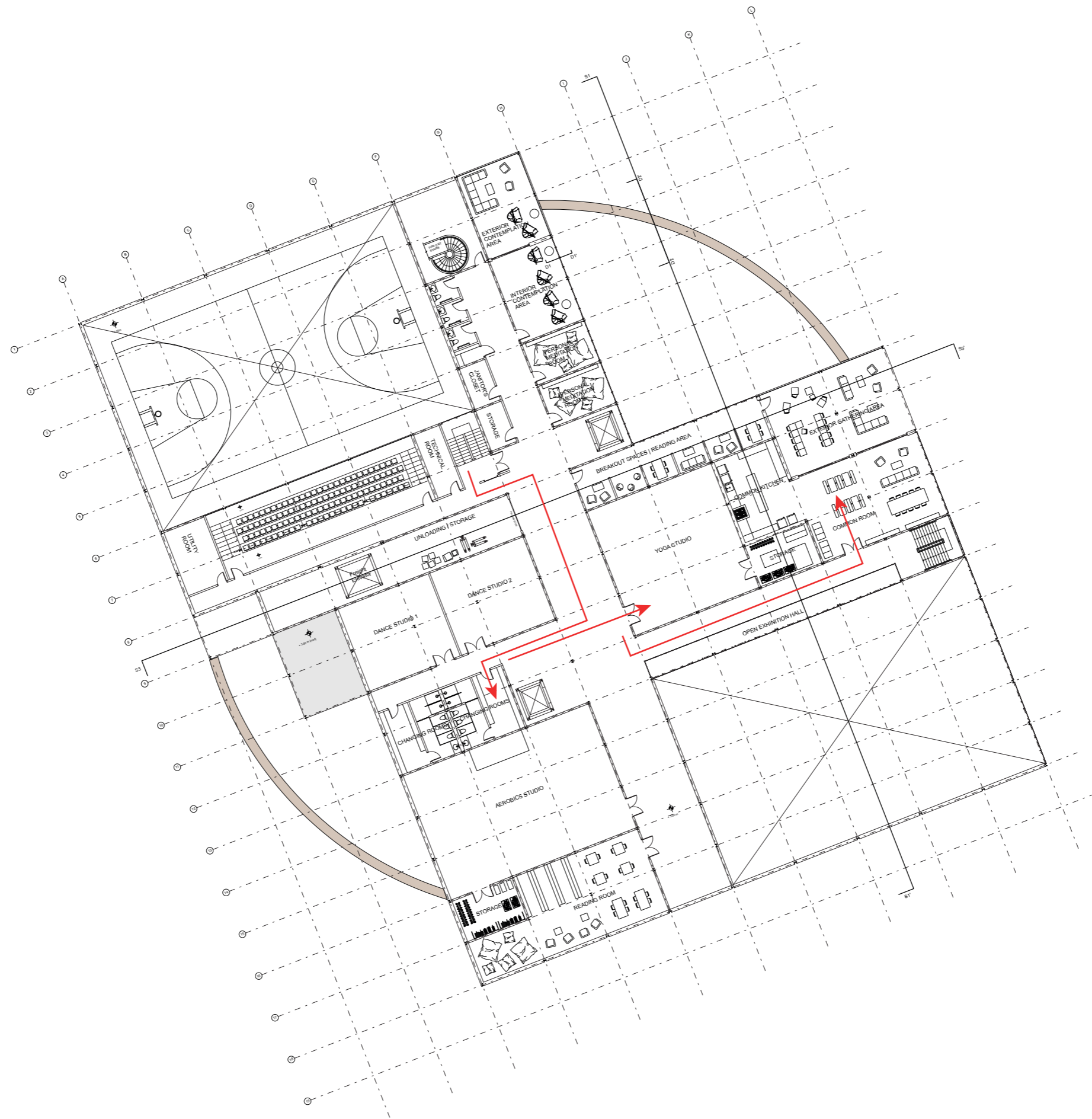
RECEPTION INFORMATION COUNTER

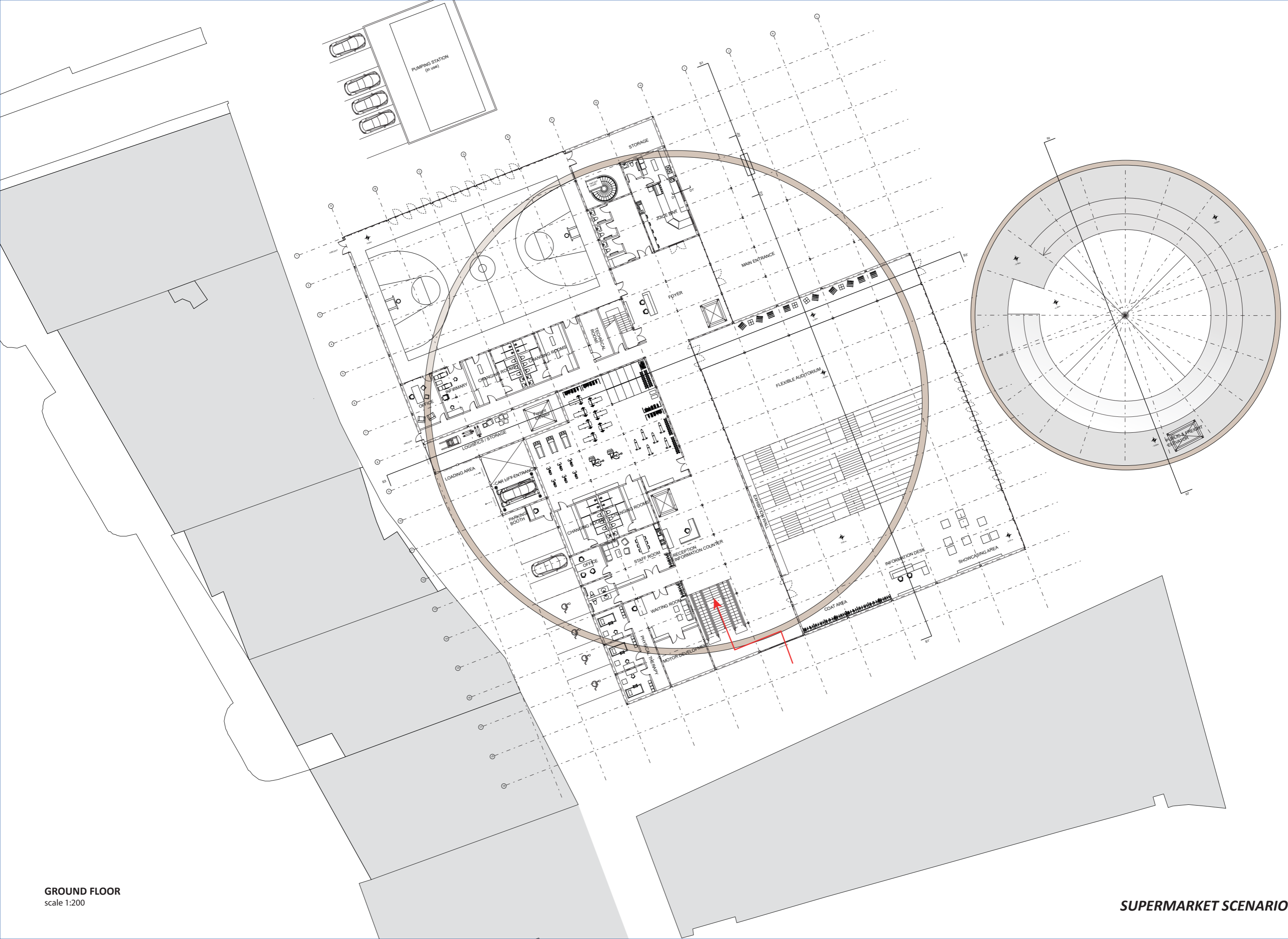
COAT AREA

INFORMATION DESK

SHOWCASING AREA

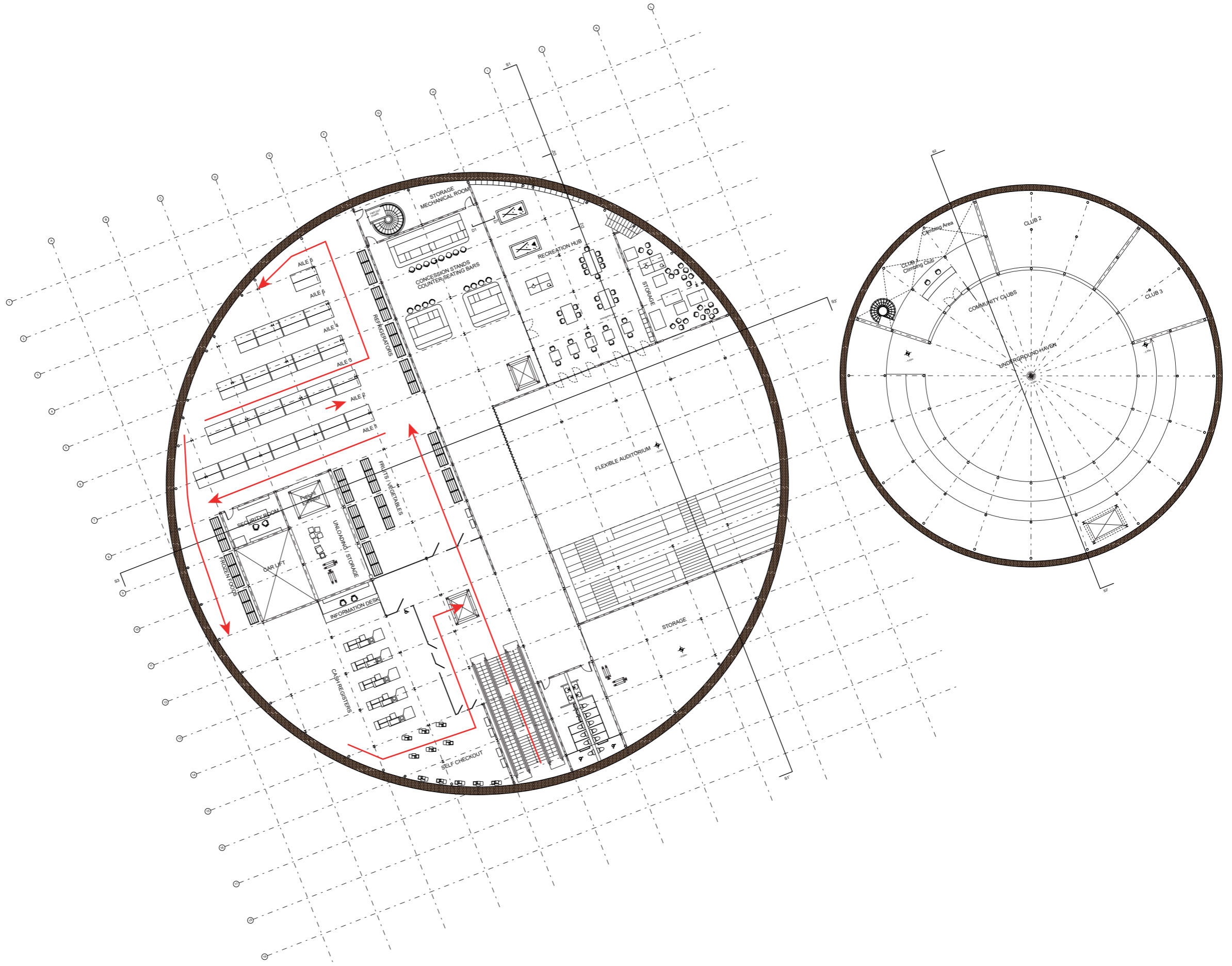
LIBRARY & PRESENTATION ROOM

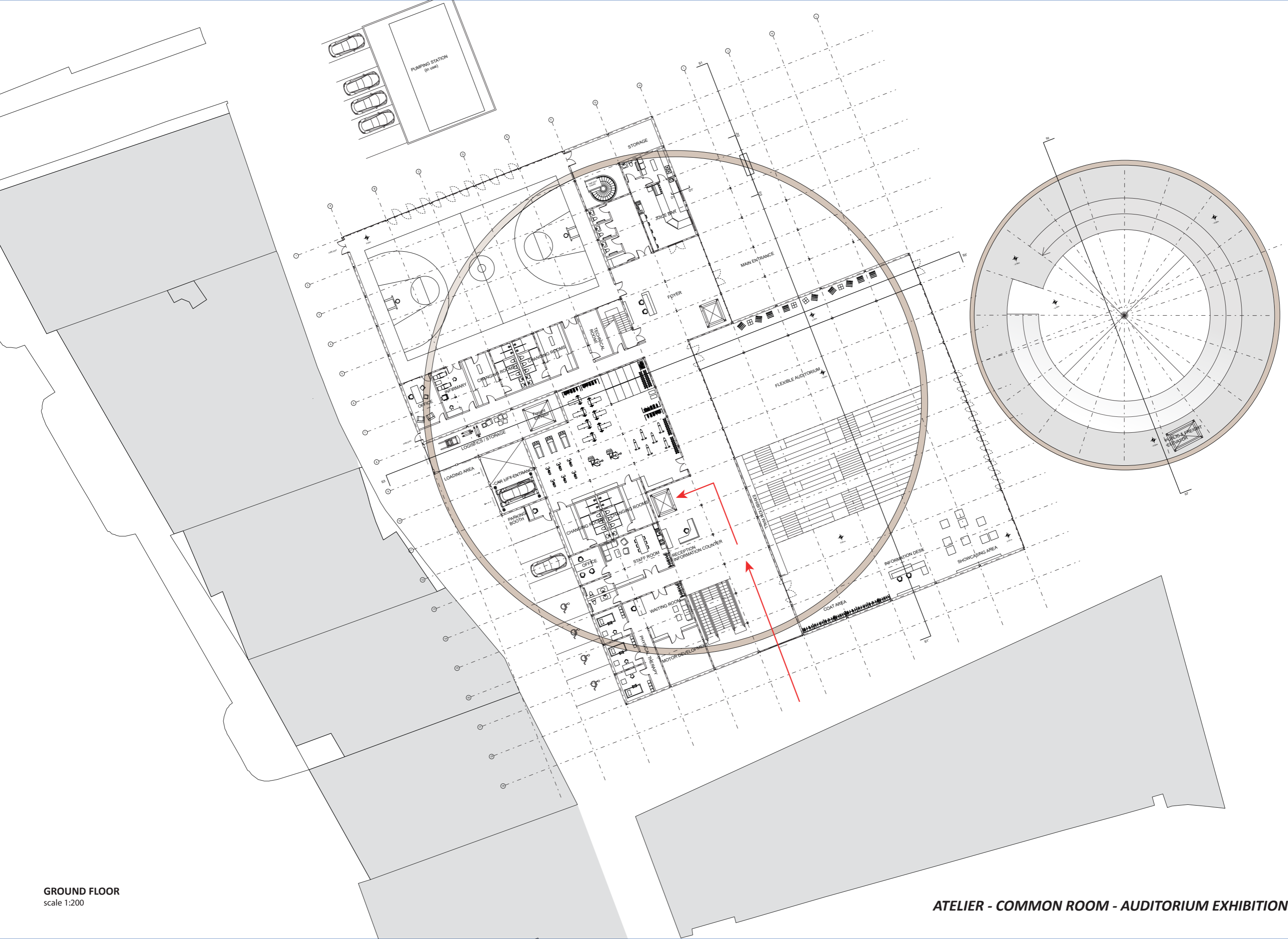




GROUND FLOOR
scale 1:200

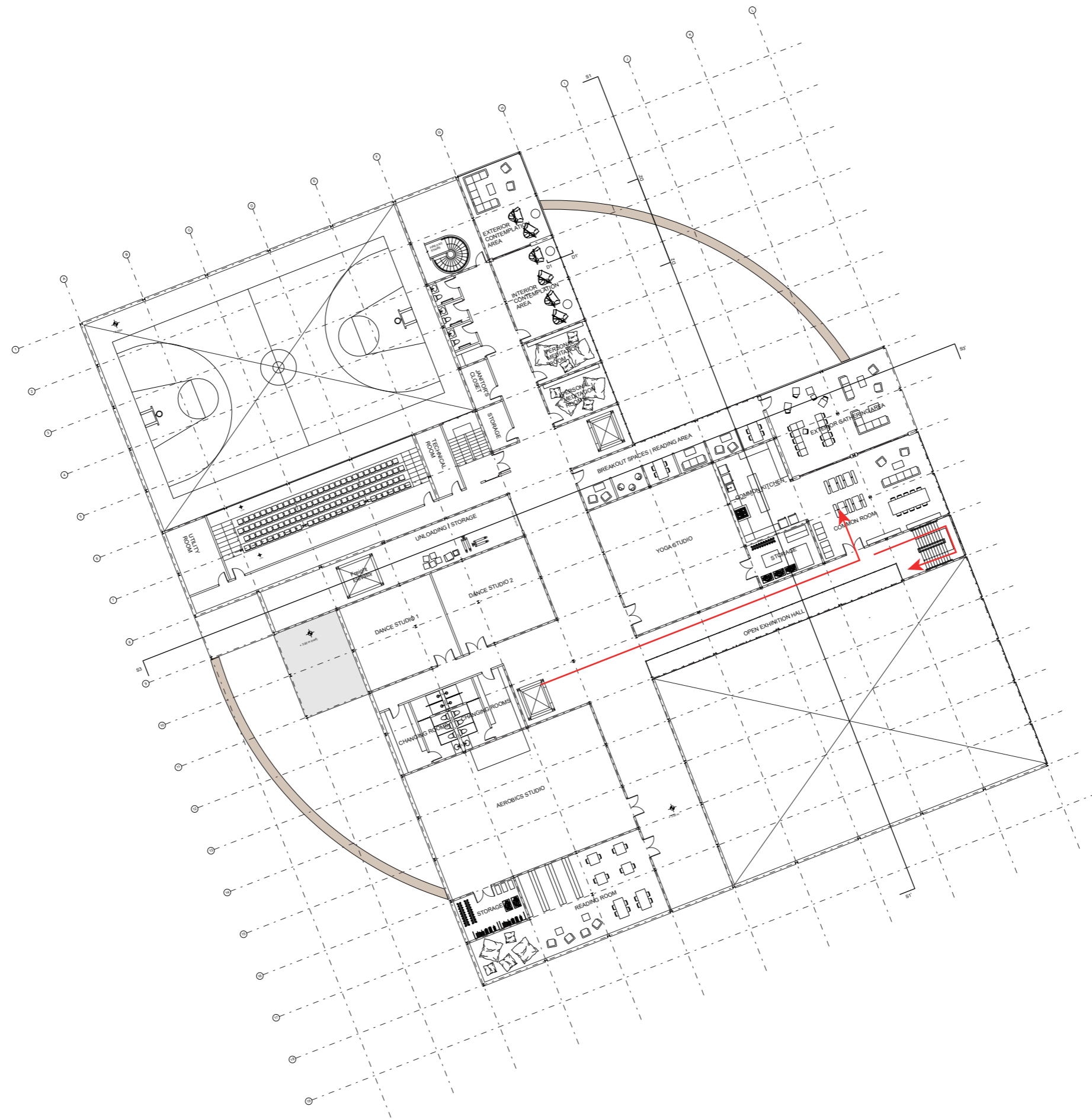
SUPERMARKET SCENARIO

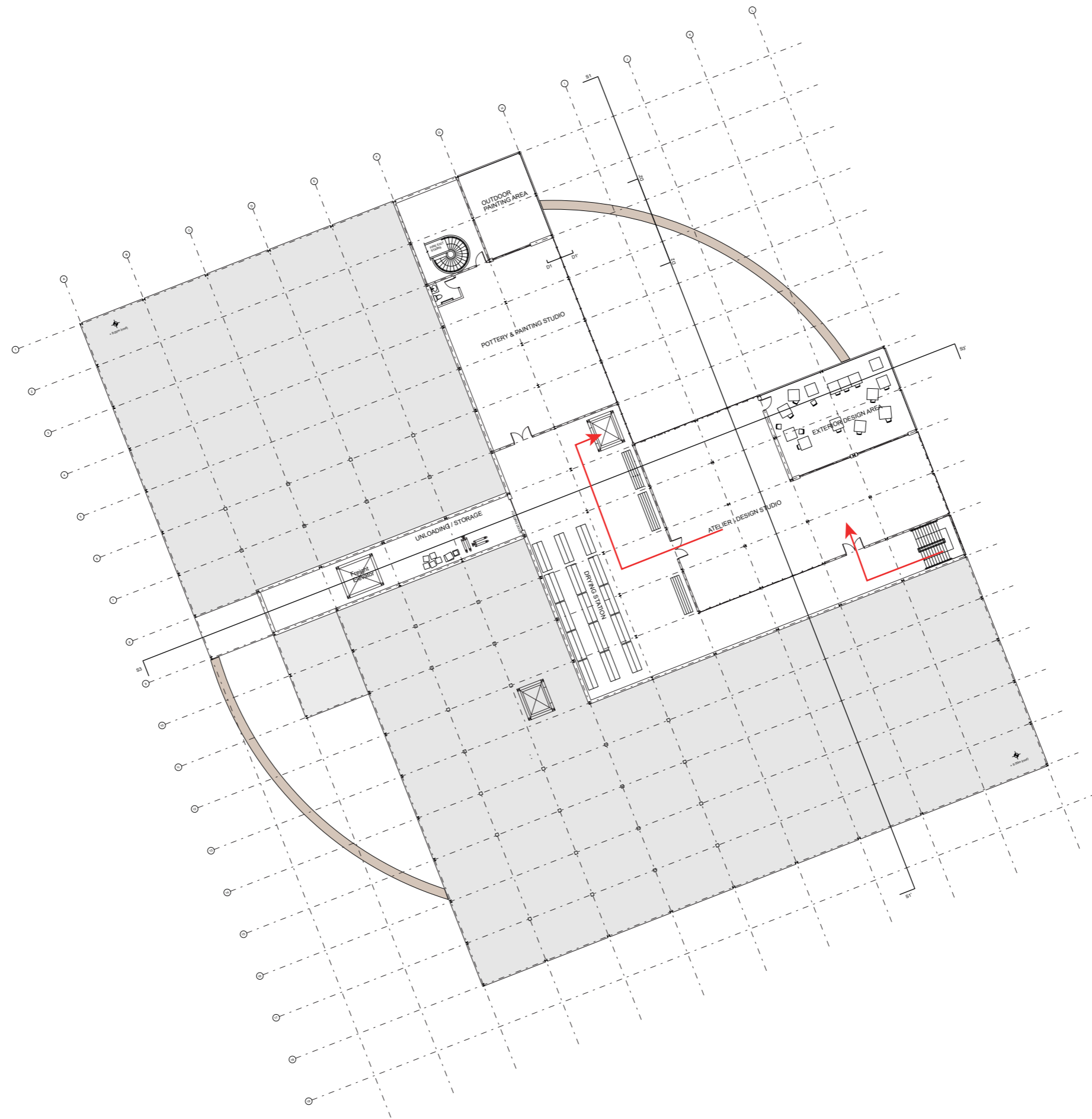


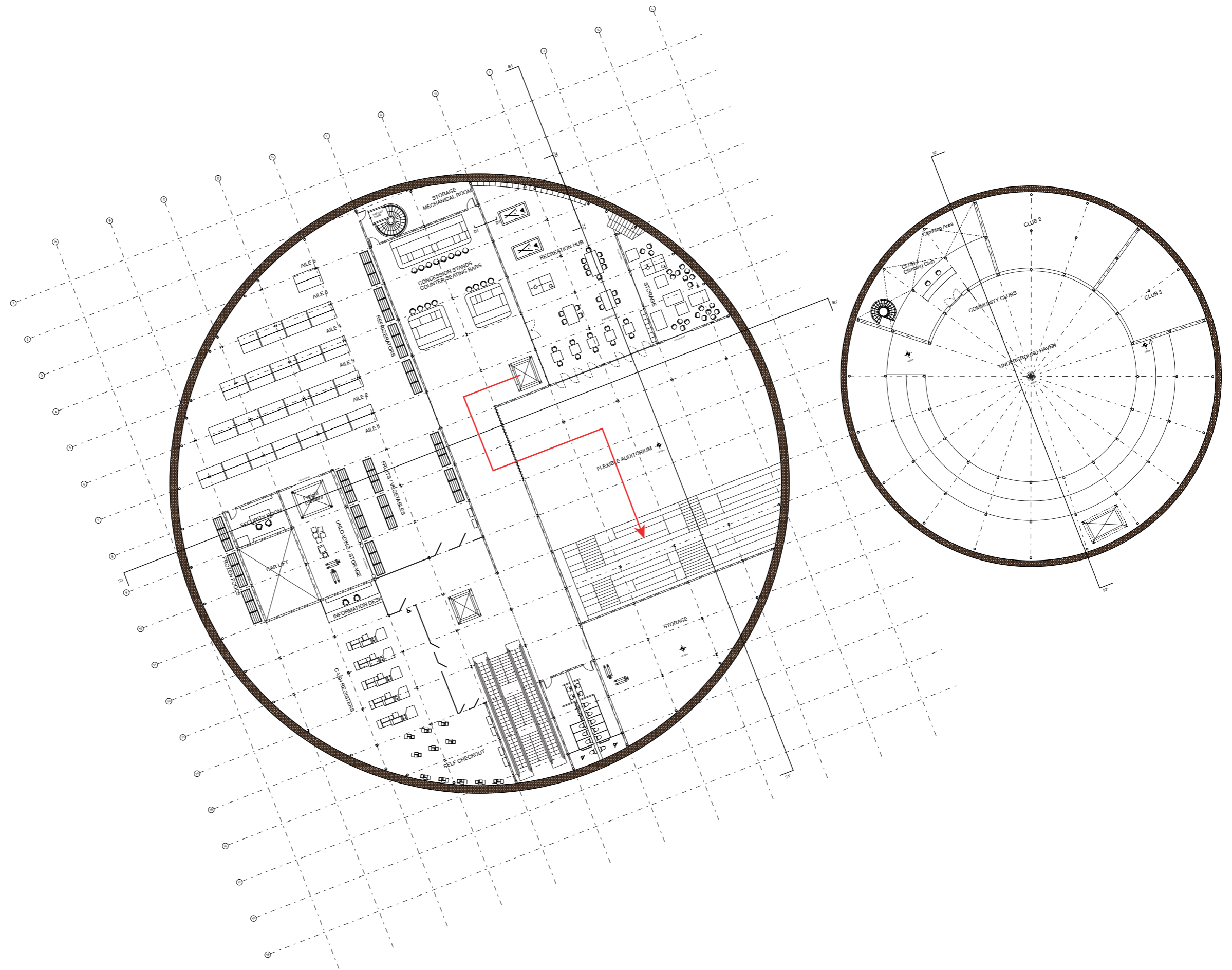


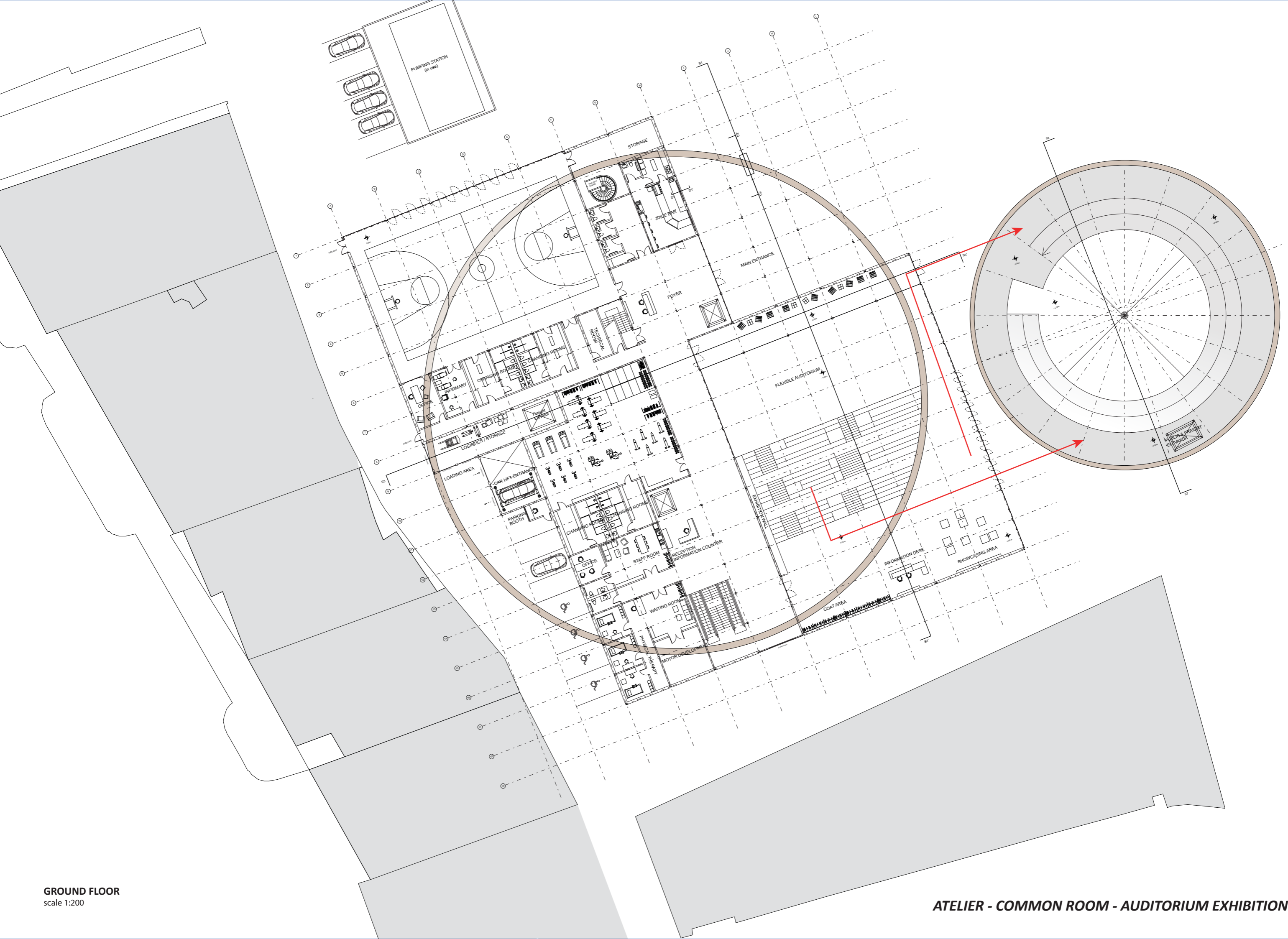
GROUND FLOOR
scale 1:200

ATELIER - COMMON ROOM - AUDITORIUM EXHIBITION



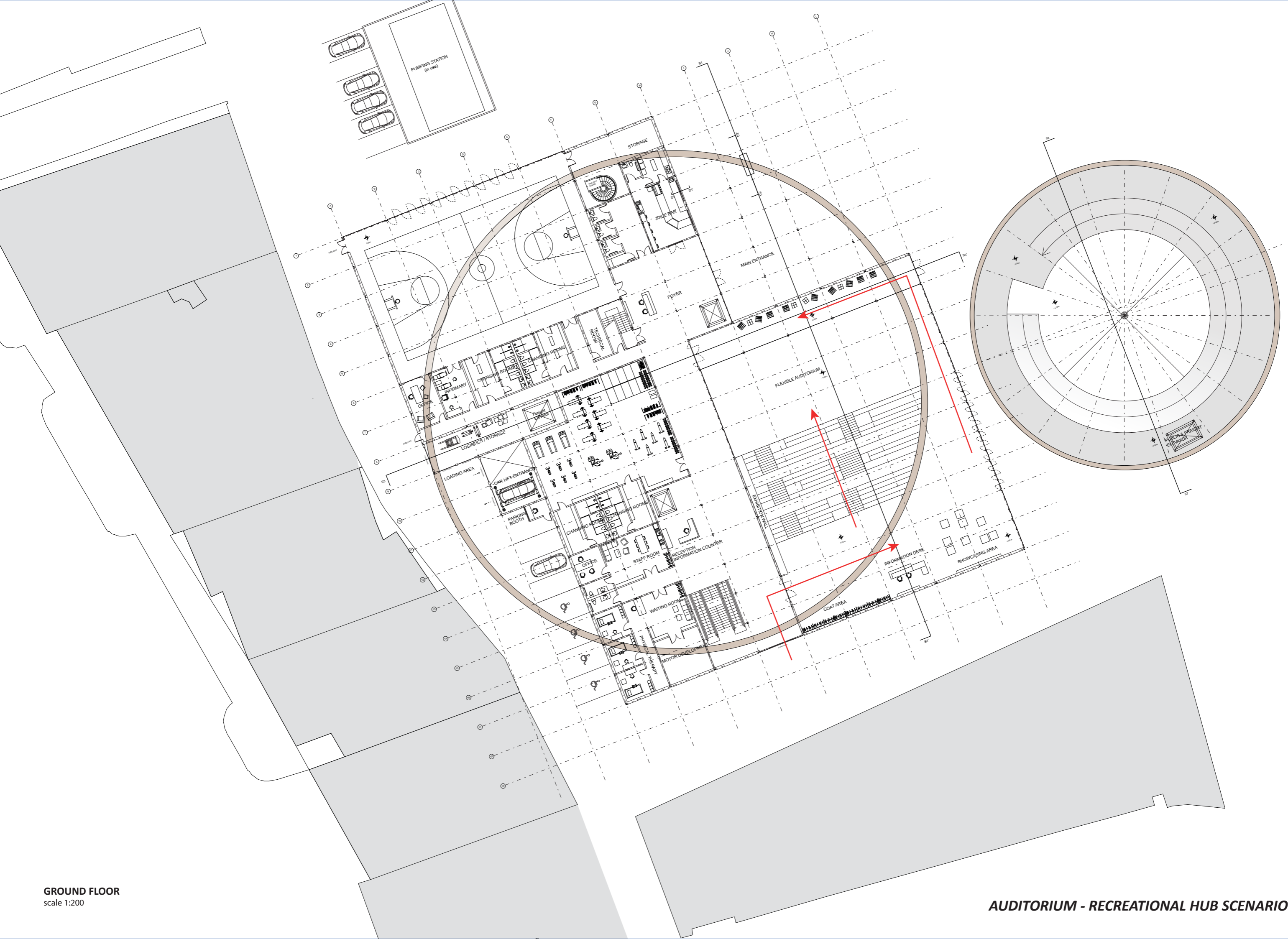






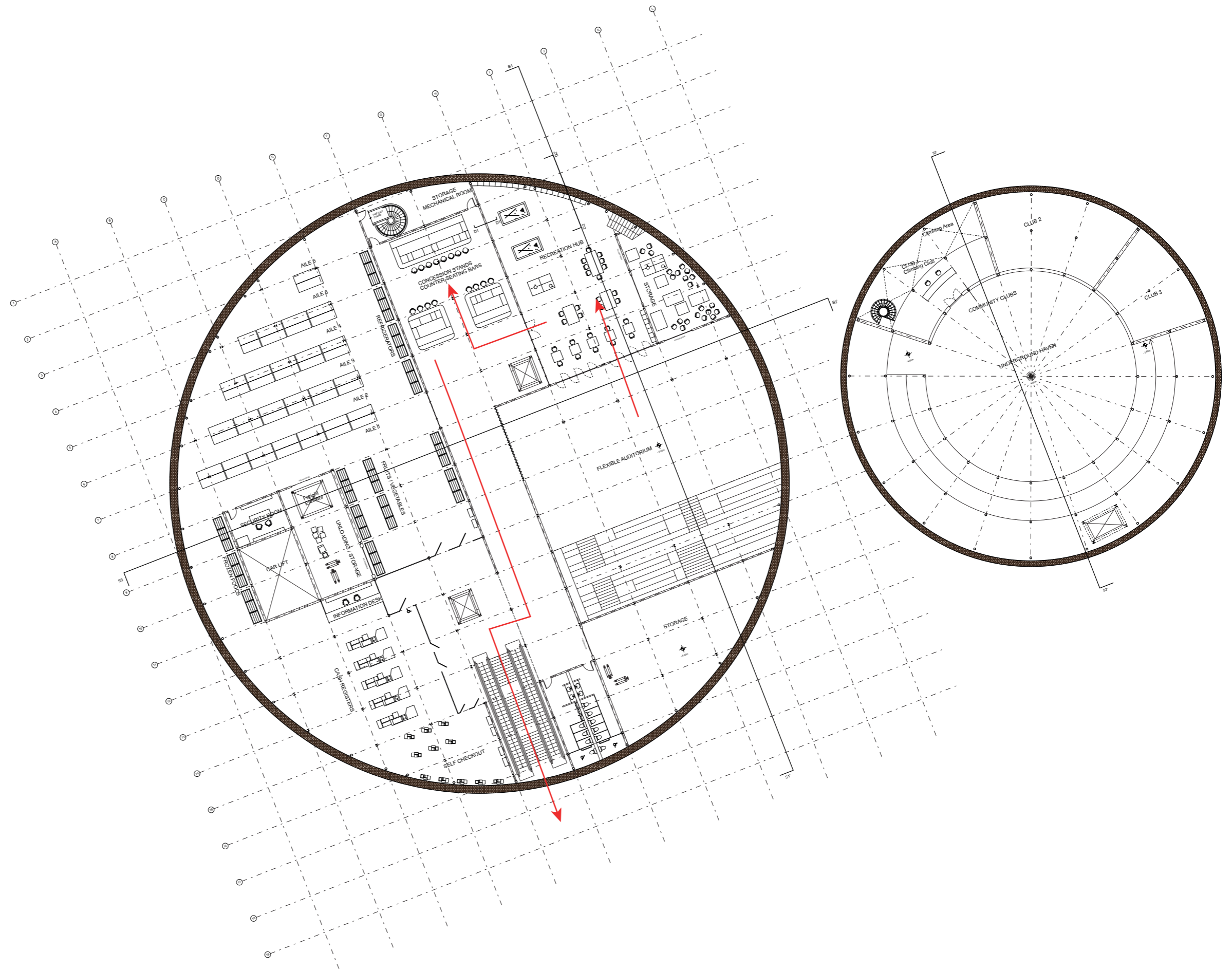
GROUND FLOOR
scale 1:200

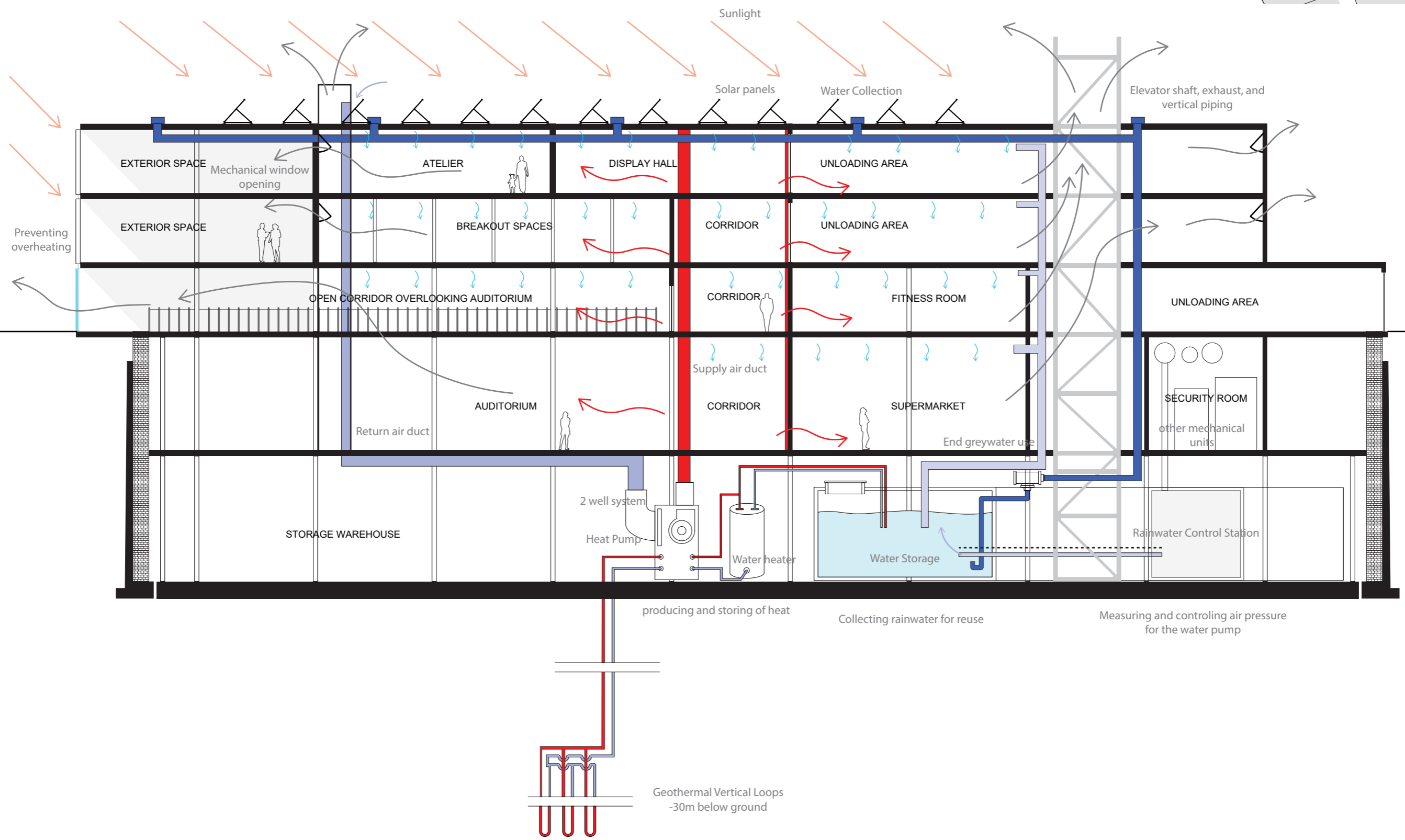
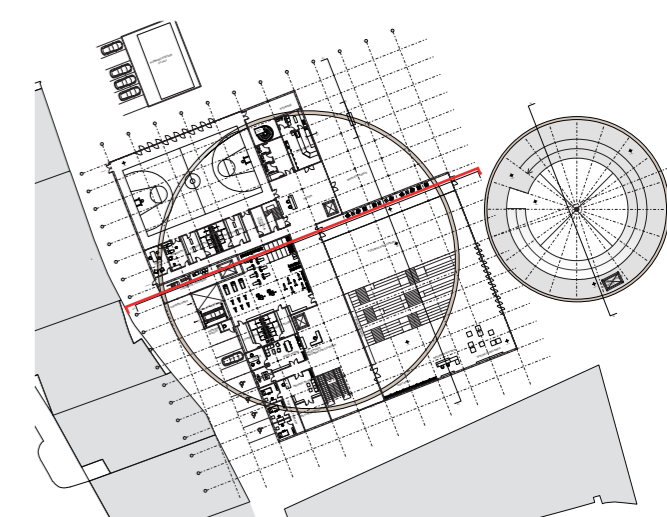
ATELIER - COMMON ROOM - AUDITORIUM EXHIBITION

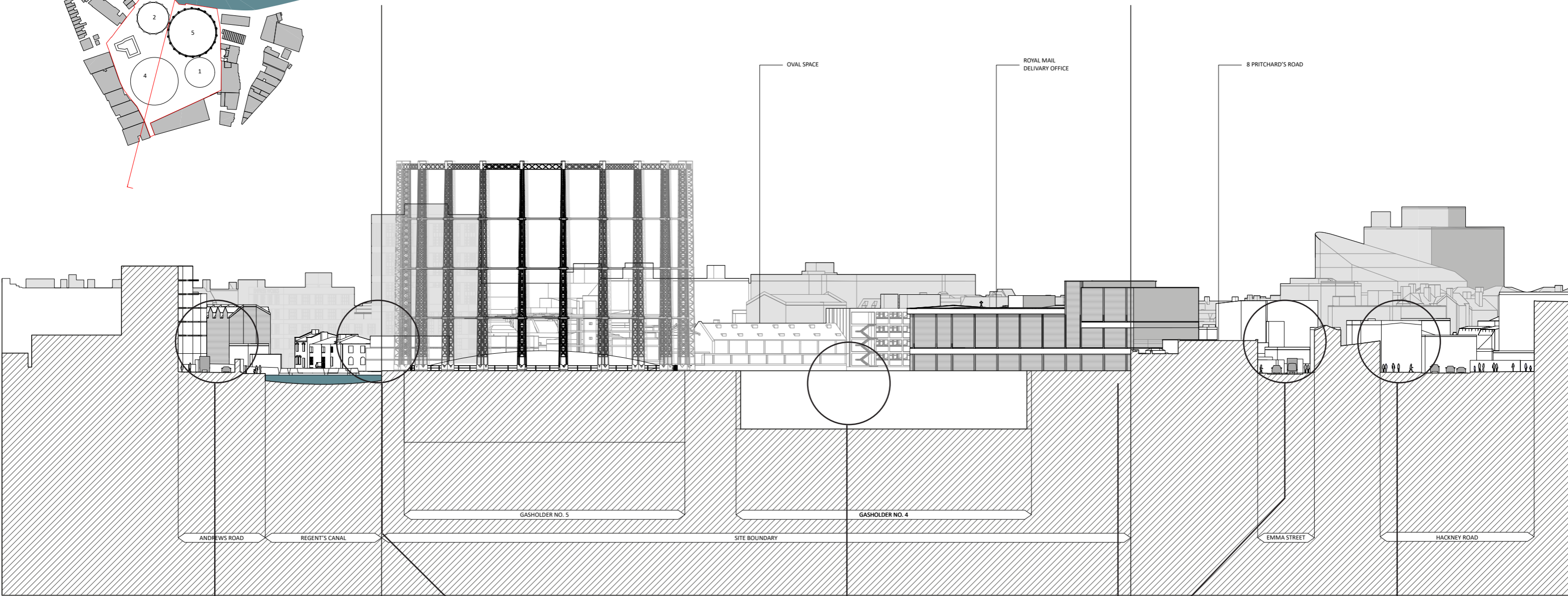
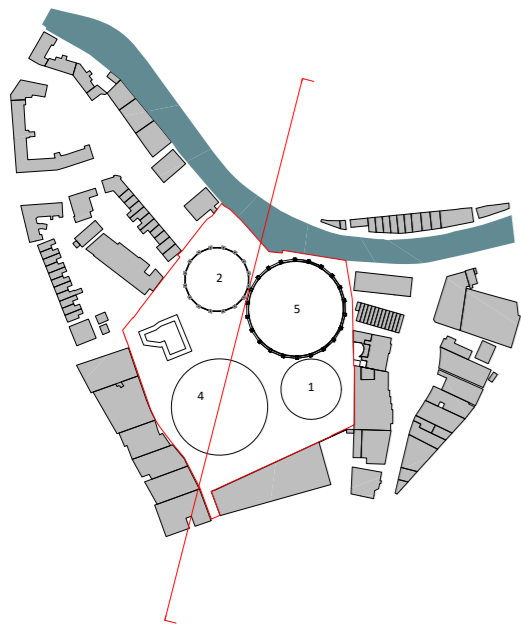


GROUND FLOOR
scale 1:200

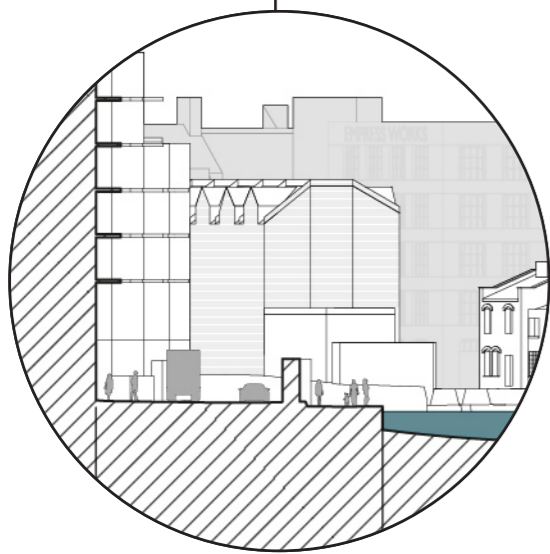
AUDITORIUM - RECREATIONAL HUB SCENARIO



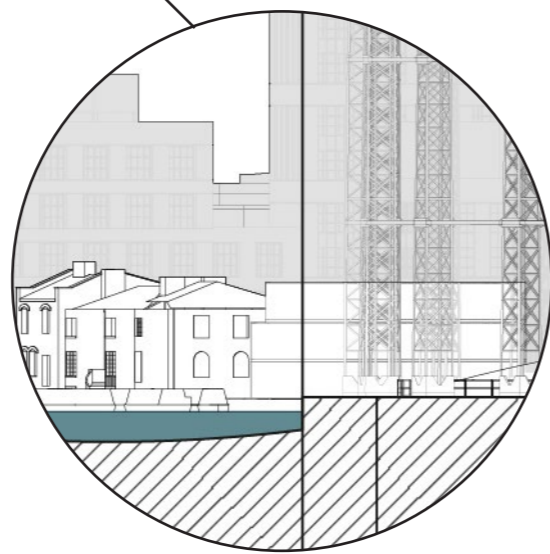




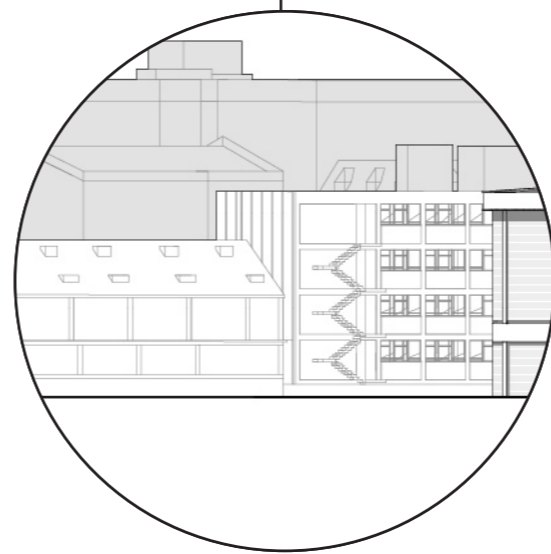
Mariam Place | Existing



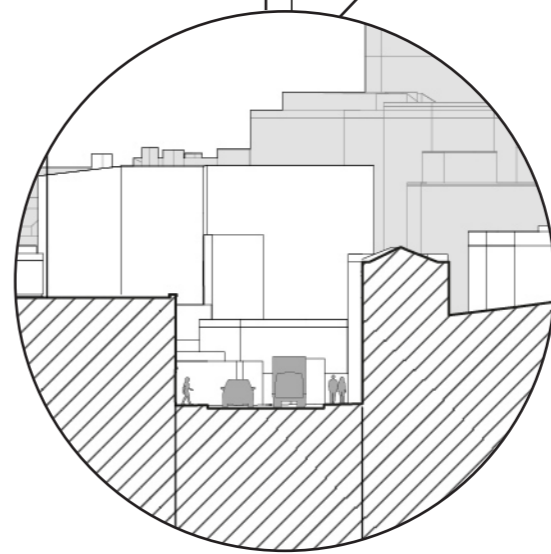
WALK ALONG THE REGENT'S CANAL NORTH TOWPATH



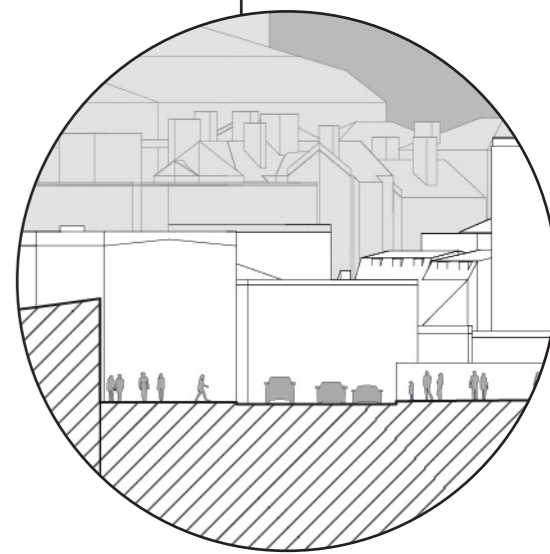
INACCESSIBLE TOWPATH SOUTH OF REGENT'S CANAL



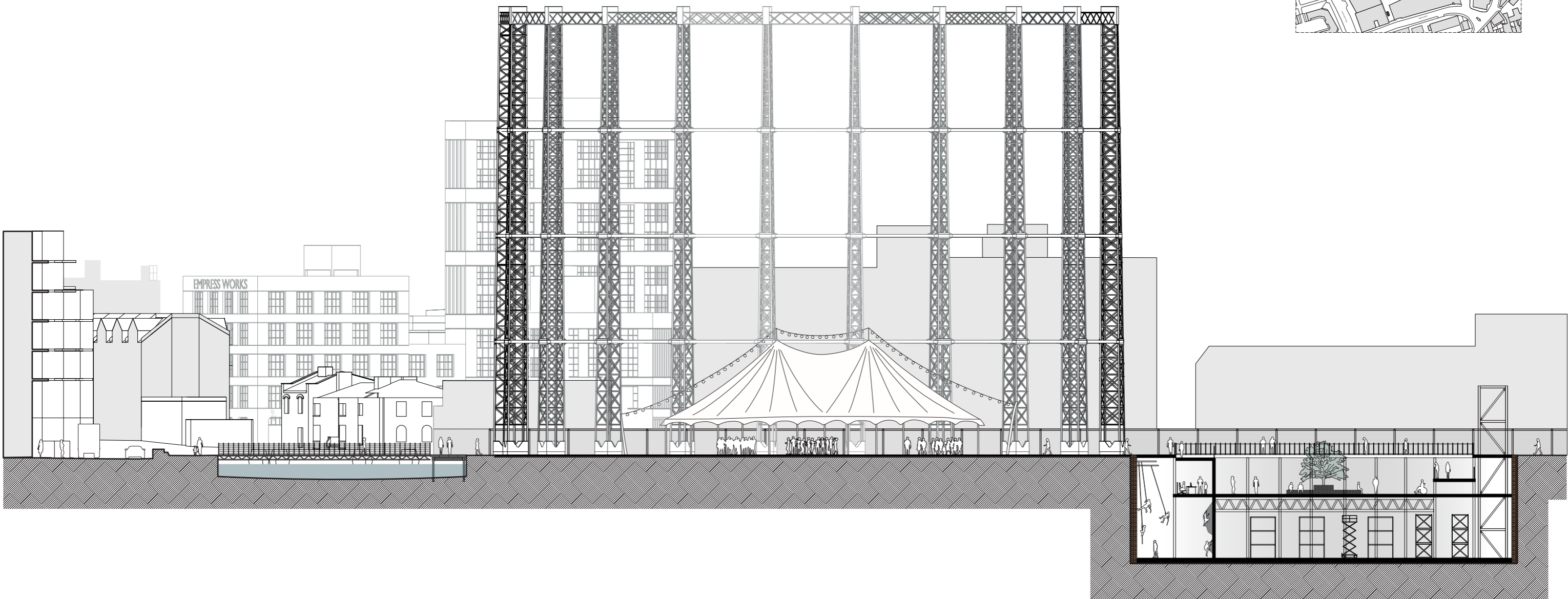
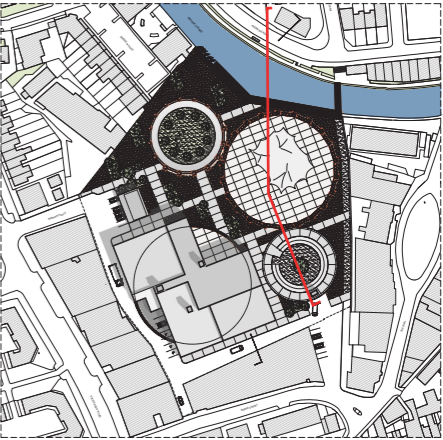
EXCAVATED GH NO. 4 VACANT SPACE, EMPTY SITE



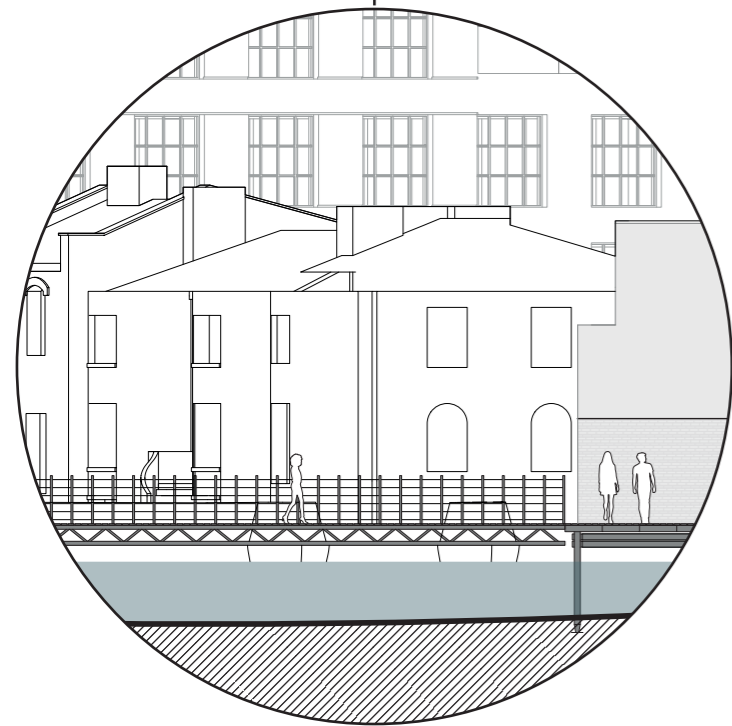
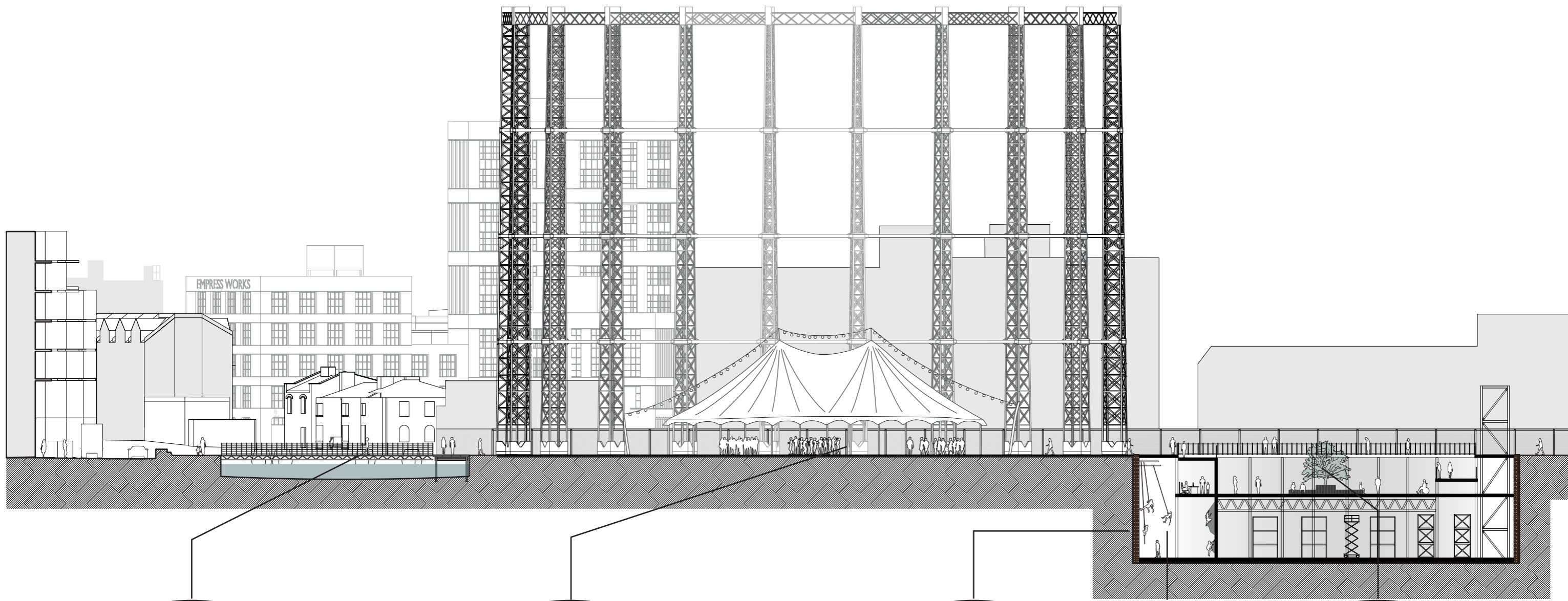
BUSY NEIGHBOURING STREETS



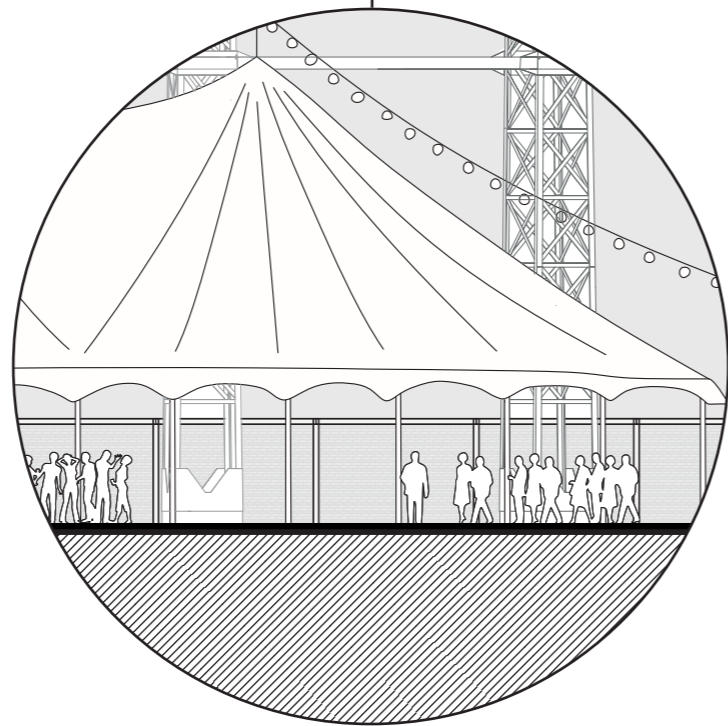
BUSY NEIGHBOURING STREETS



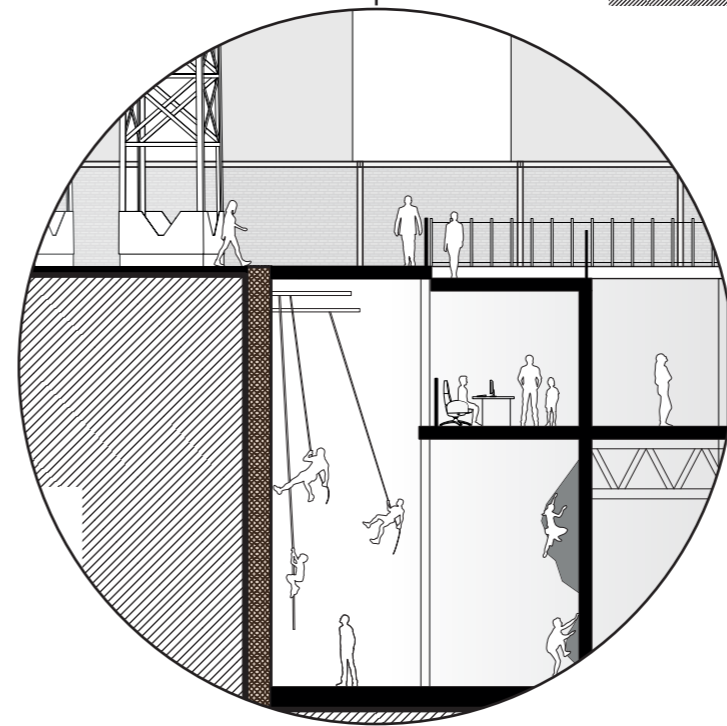
SECTION S2-S2'



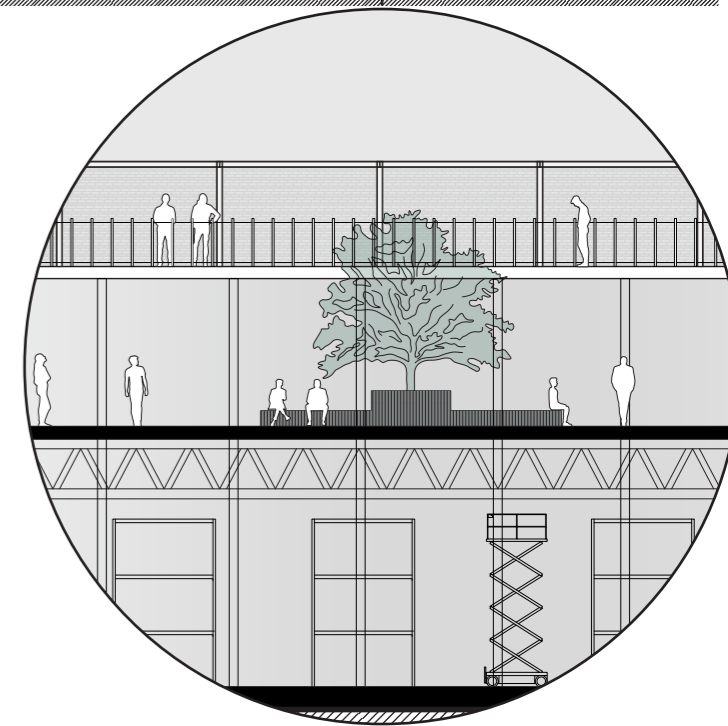
PEDESTRIAN BRIDGE
CONNECTING HACKNEY WITH
TOWER HAMLETS BOROUGH



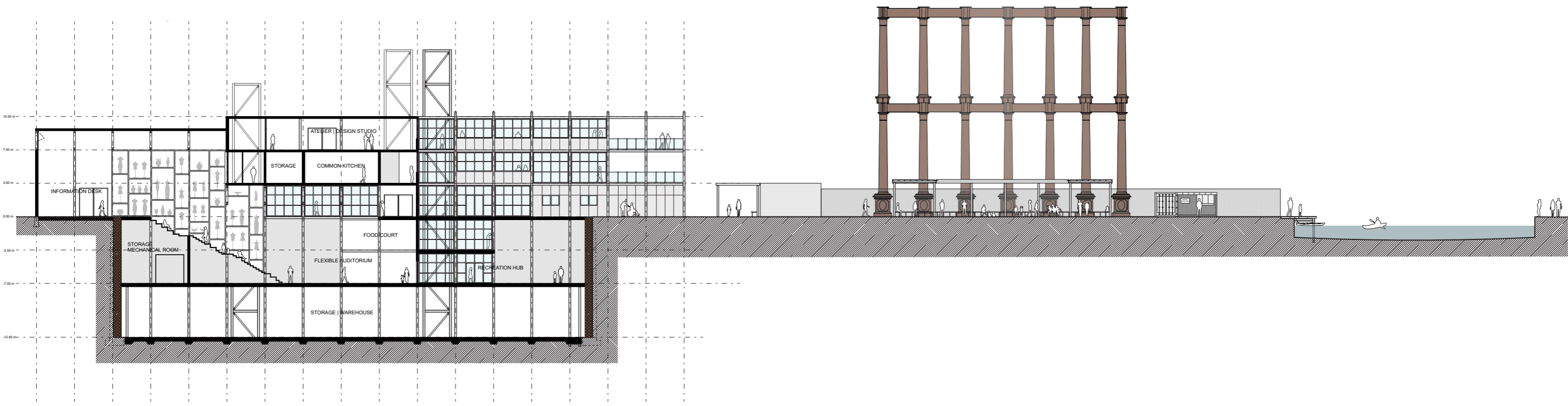
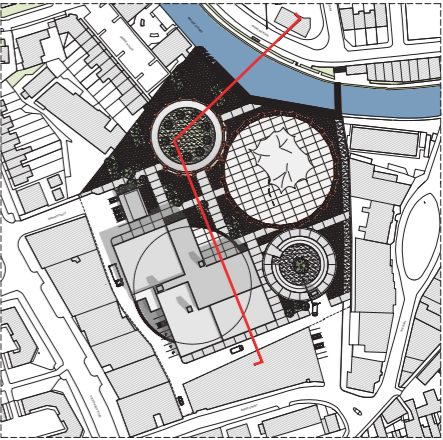
GASHOLDER NO. 5 USED AS
EVENT VENUE



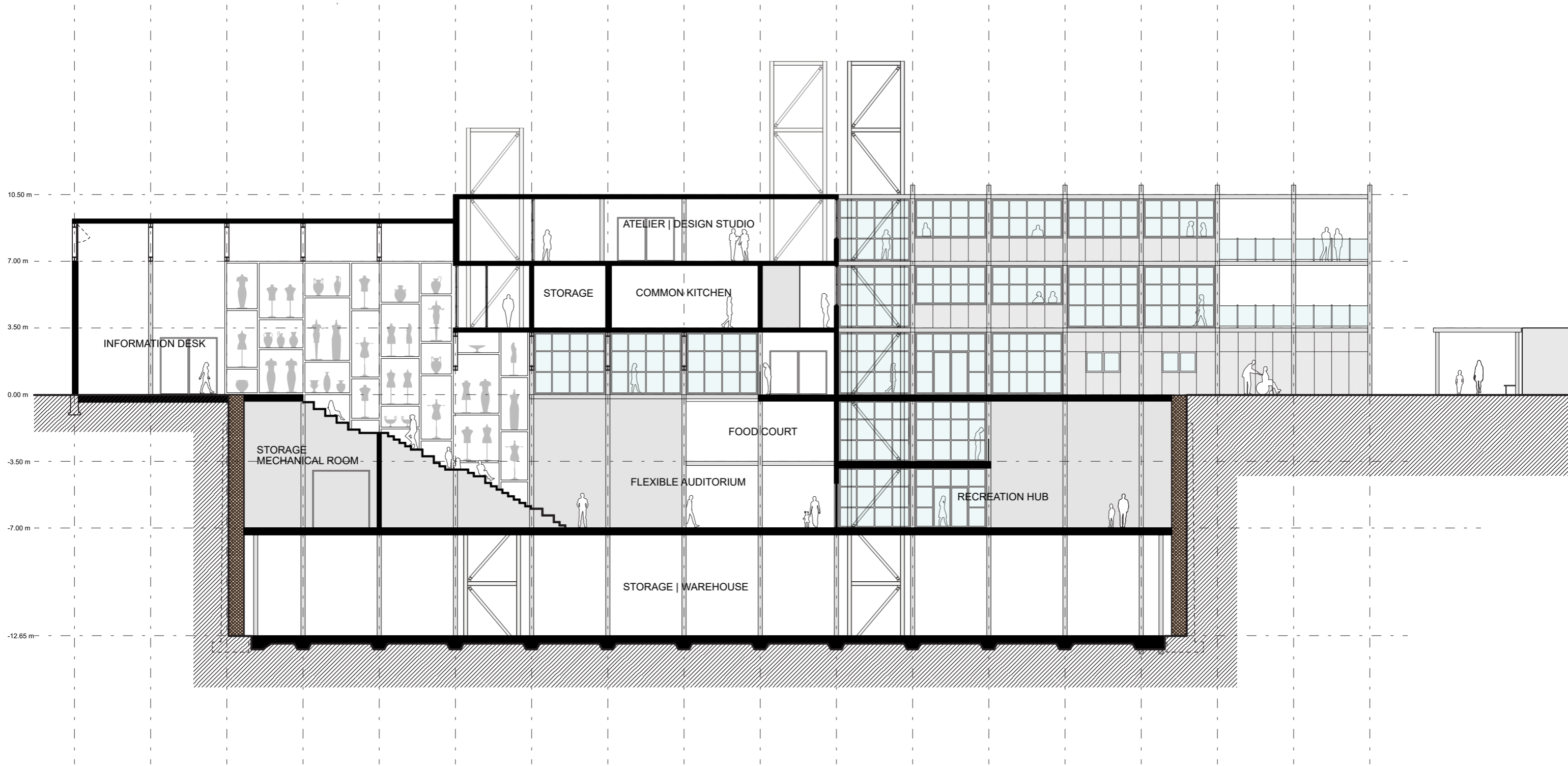
GASHOLDER NO. 1 TANK
COMMUNITY ASSOCIATION
SPACE. CLIMBING/BOULDERING
PROGRAMME

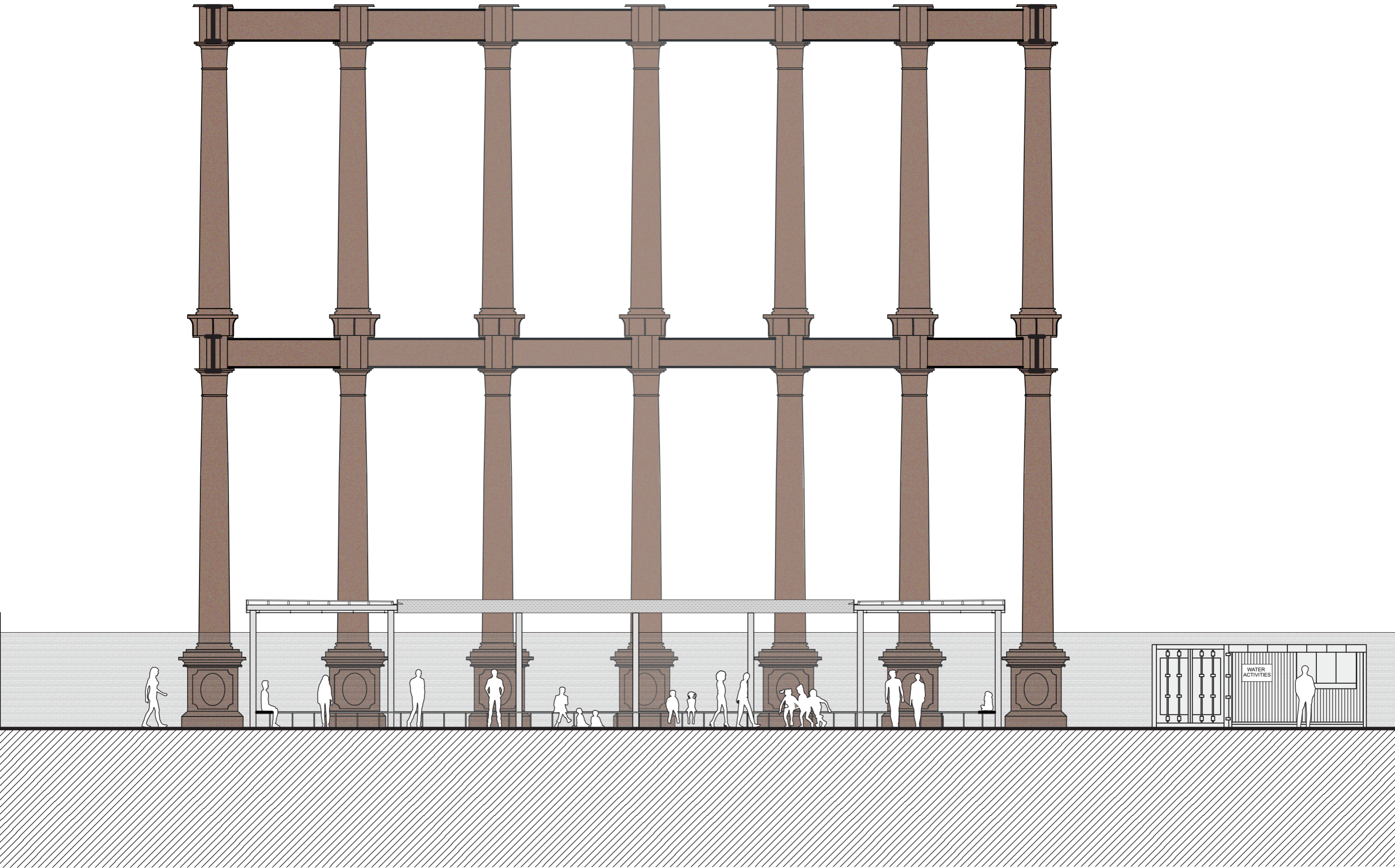


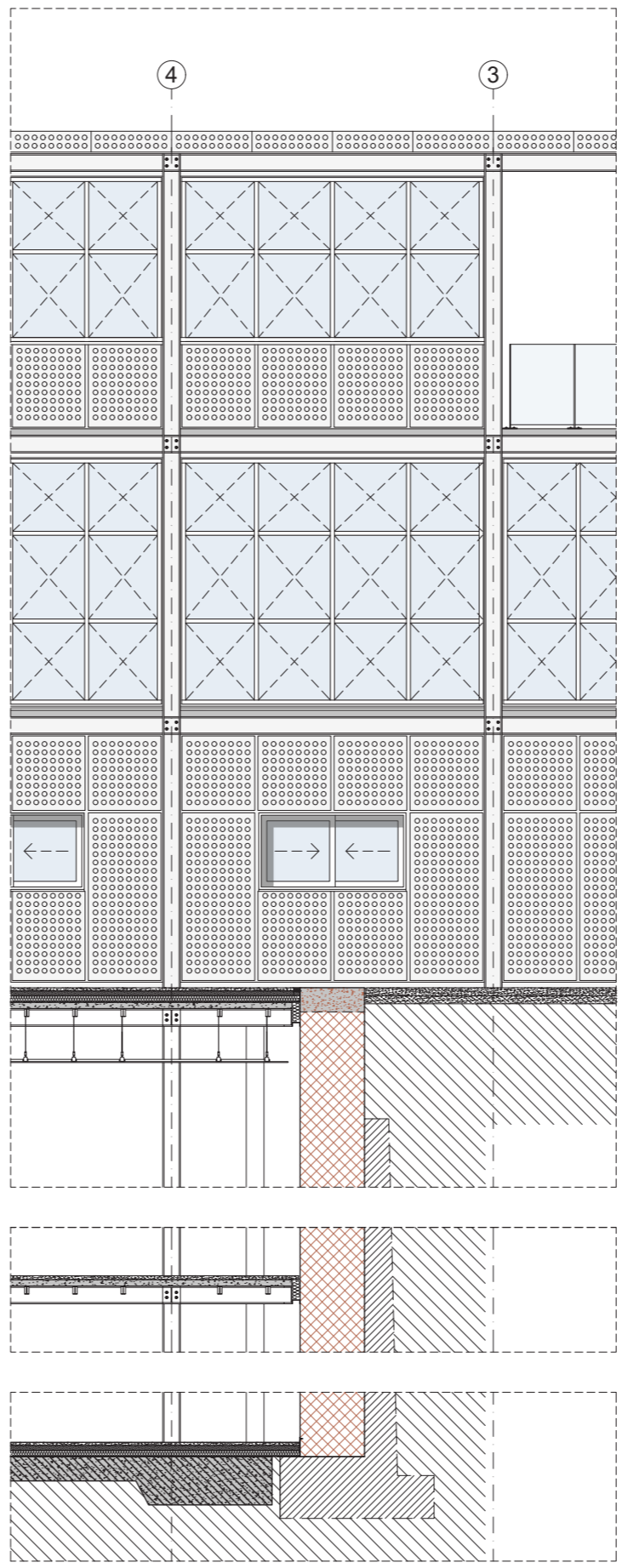
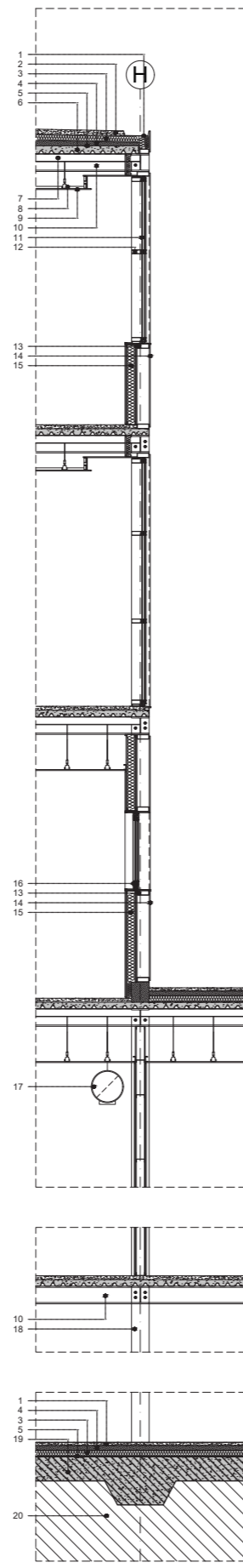
GASHOLDER NO. 1 TANK
UNDERGROUND HAVEN
PROMENADE EXPOSED TO THE
BRICK TANK



SECTION S1-S1'

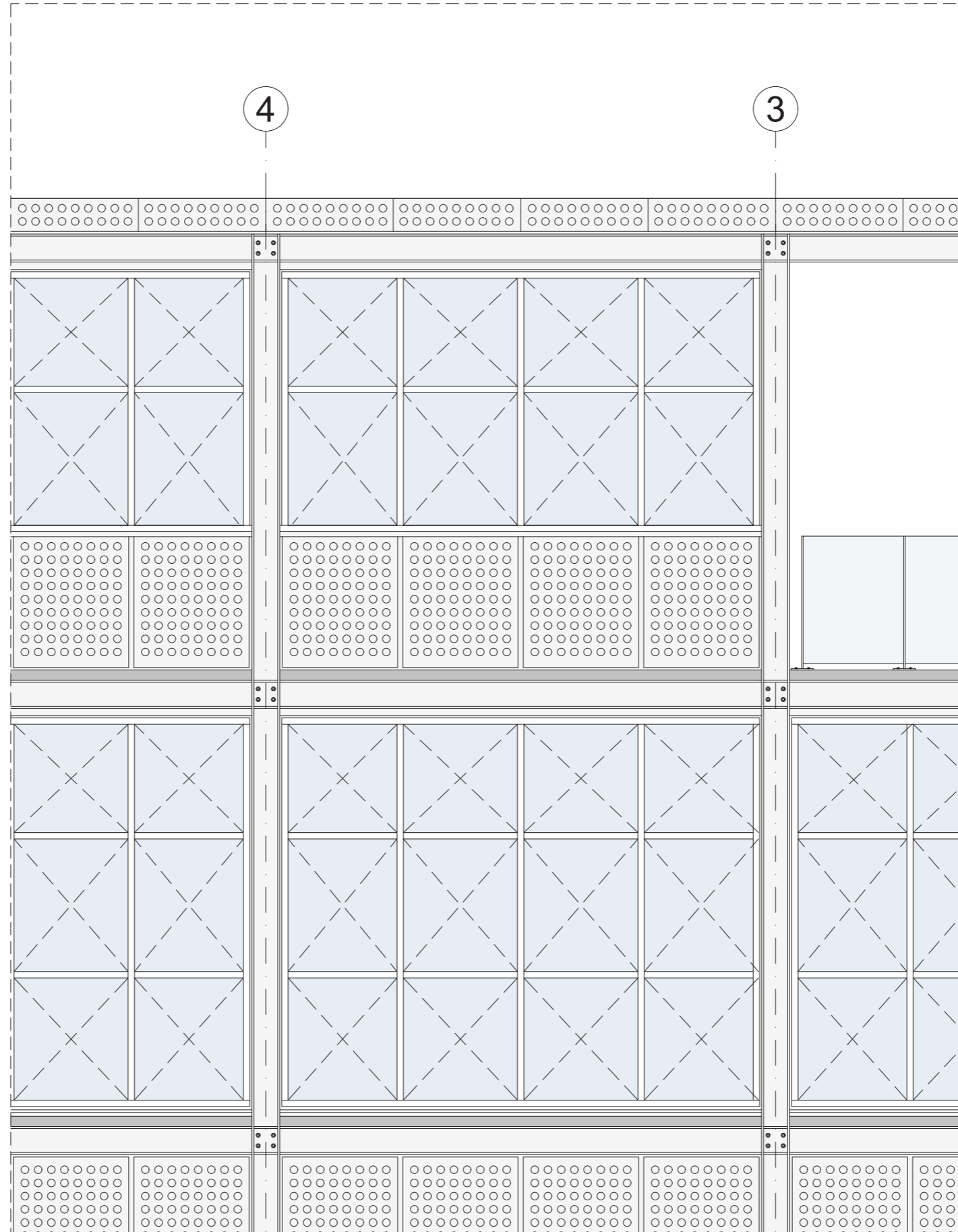
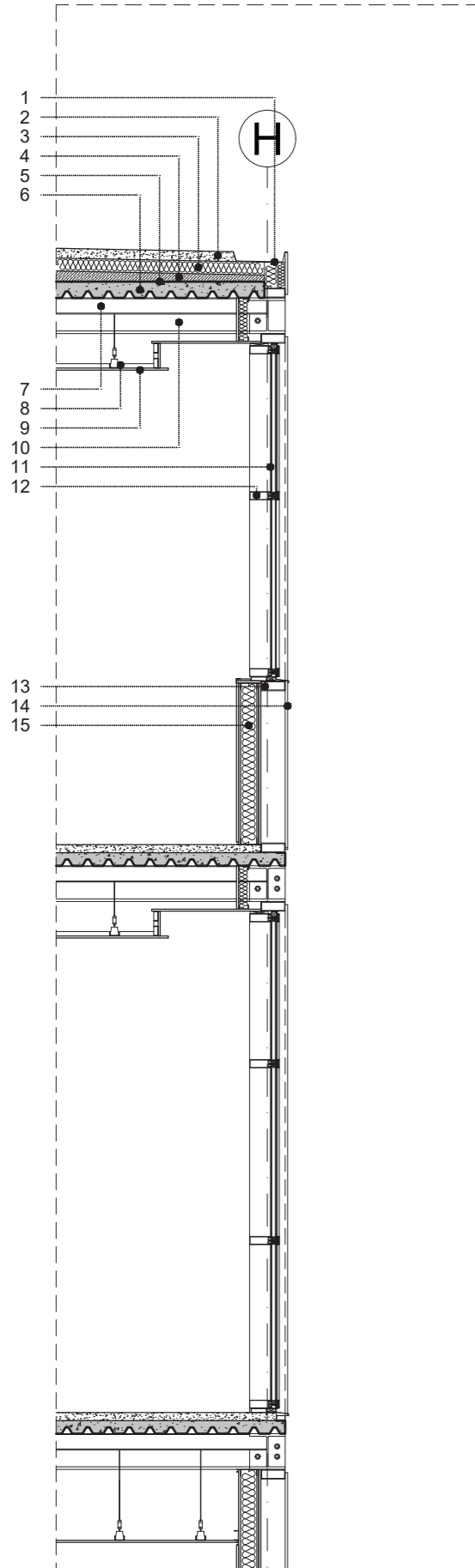




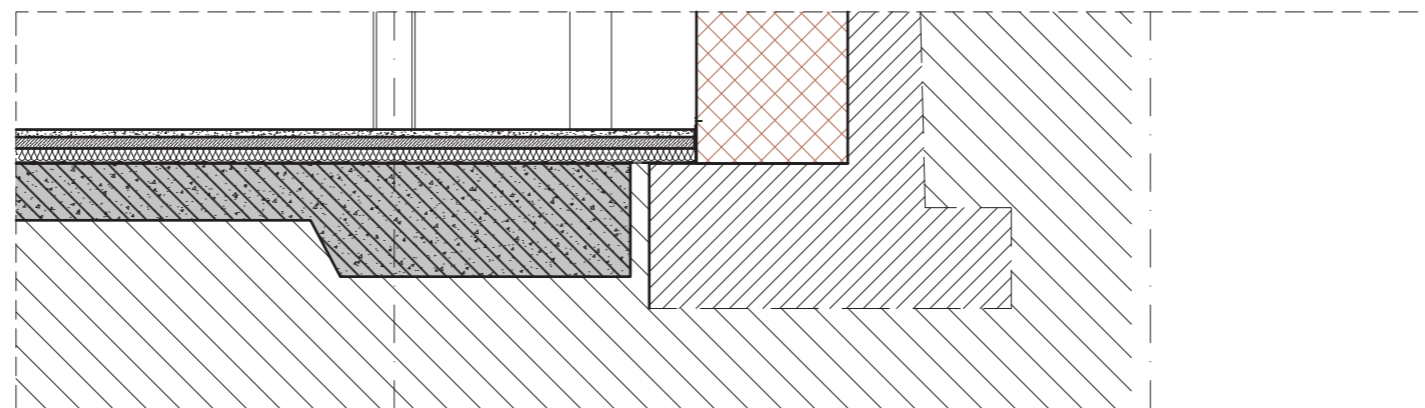
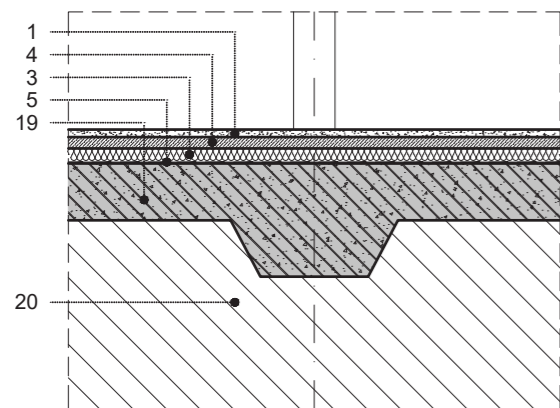
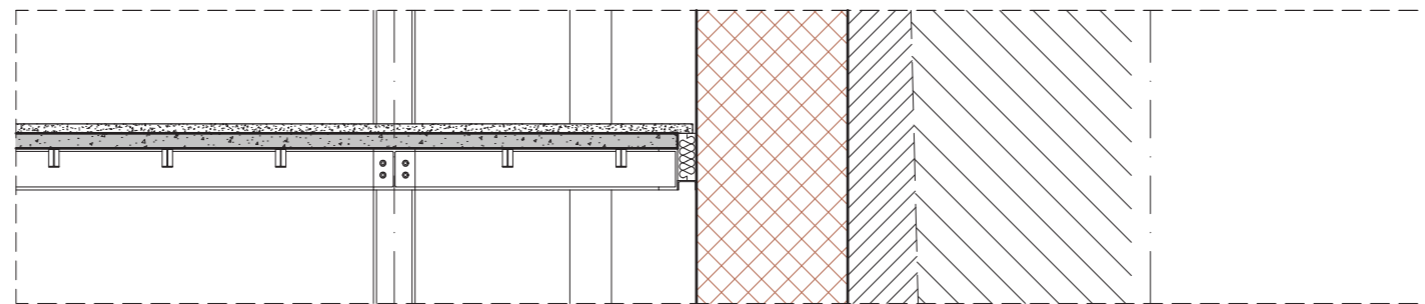
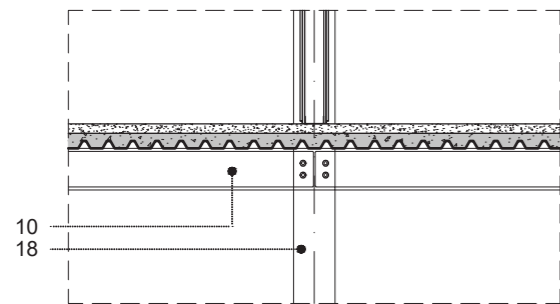
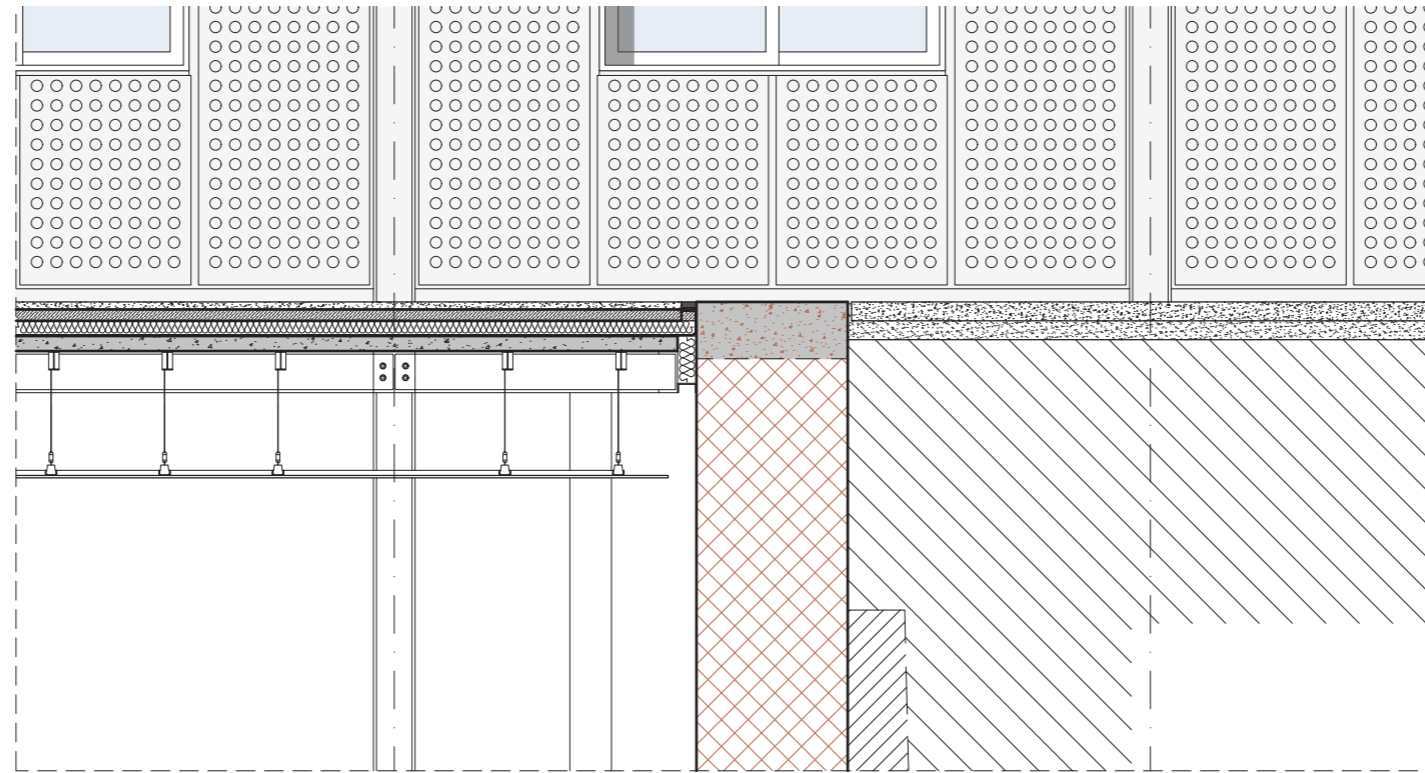
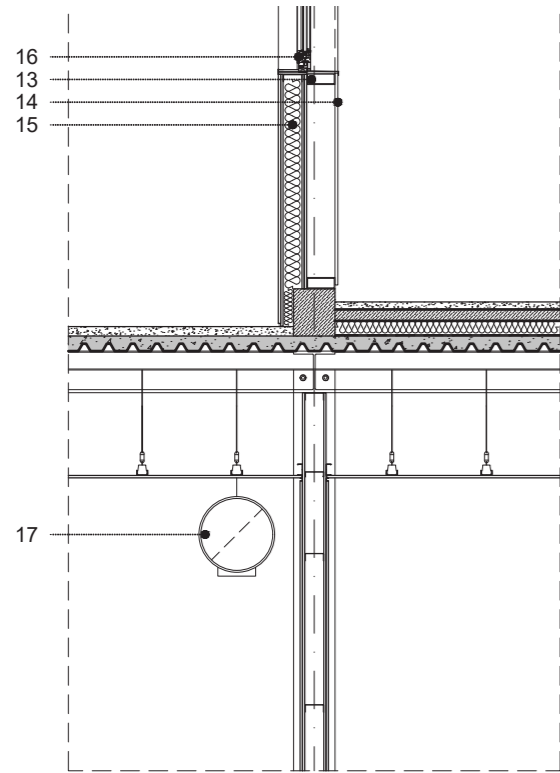


- 1. Metal profile drainage
- 2. Concrete topping Slab
- 3. Insulation 8cm
- 4. Foamed Concrete
- 5. DPM
- 6. Trapezoidal Concrete Slab
- 7. IPE 100 beam
- 8. Suspended ceiling
- 9. Plasterboard roof
- 10. HEB 220 beam
- 11. Glazing
- 12. Aluminum Curtain wall
- 13. Metallic skeleton 150x60x5 mm
- 14. Perforated metal sheet
- 15. Wall with double plasterboard and insulation 150mm
- 16. Sliding window
- 17. Air duct
- 18. HEB 220 column
- 19. Foundation platform - reinforced concrete
- 20. Ground



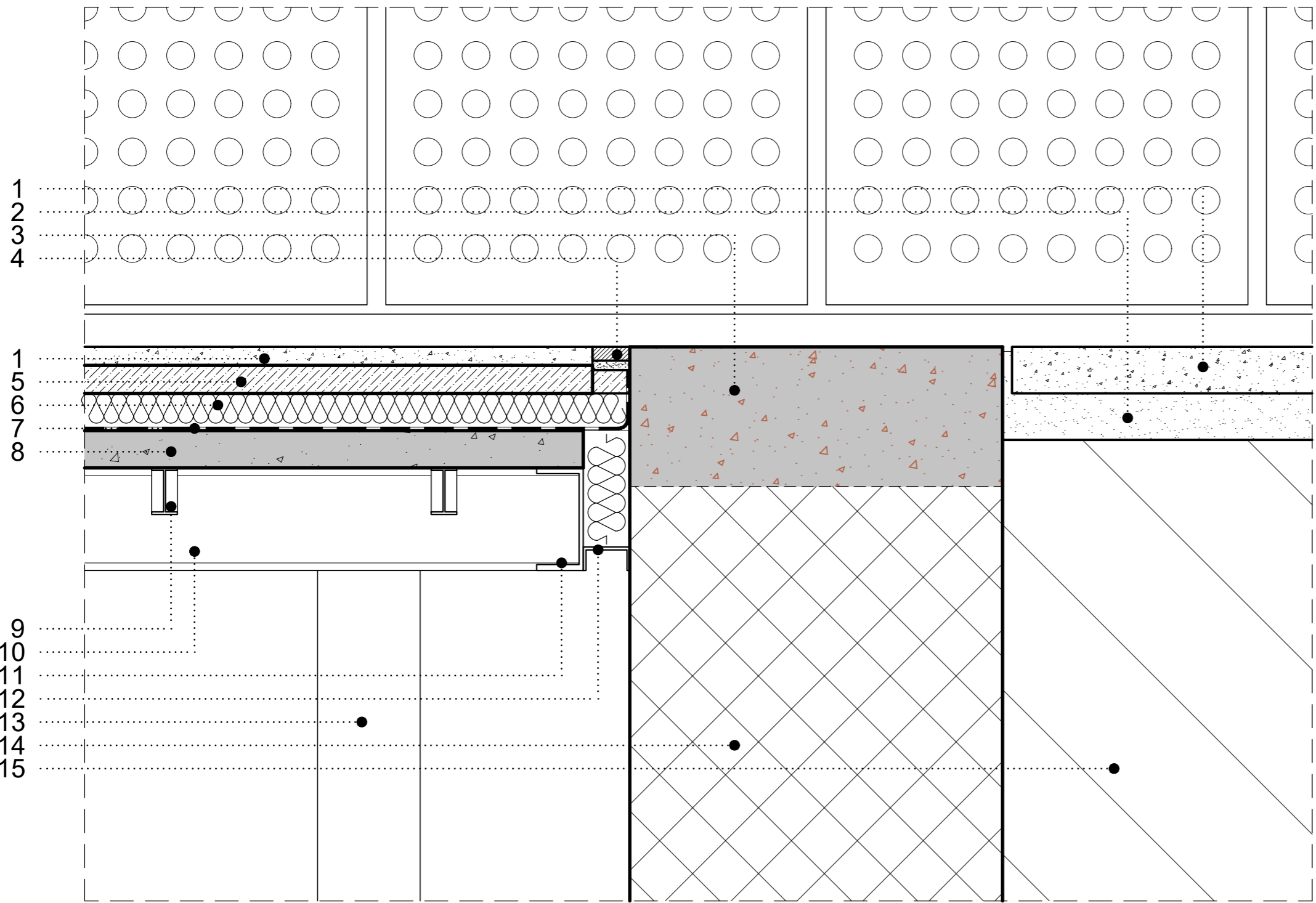


1. Metal profile drainage
2. Concrete topping Slab
3. Insulation 8cm
4. Foamed Concrete
5. DPM
6. Trapezoidal Concrete Slab
7. IPE 100 beam
8. Suspended ceiling
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15. Wall with double plasterboard and insulation 150mm
16. Sliding window
17. Air duct
18. HEB 220 column
19. Foundation platform - reinforced concrete
20. Ground



FRAGMENTED SECTION

0 0.5 4 5m

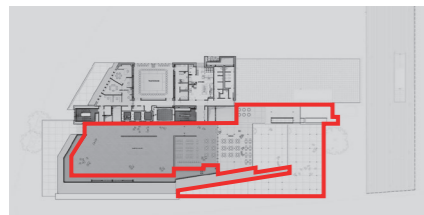


1. Concrete topping Slab
2. Sand
3. Concrete imbedded brick mosaic
4. Ceramic Tiles
5. Foamed concrete
6. Insulation 7 cm
7. DPM
8. Trapezoidal Concrete Slab
9. IPE 100 beam
10. HEB 220 beam
11. UNP 220 curved beam
12. UNP 100 profile
13. Circular ST 37-2 1/2" Column
14. Original gasholder brick wall 800r
15. Ground

0 10 50 100cm

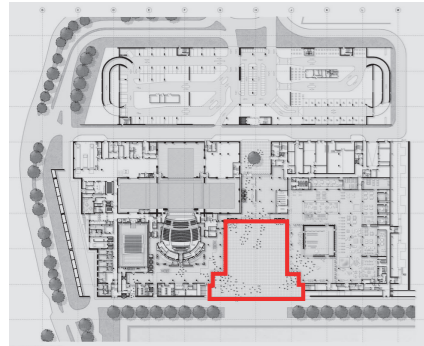
THANK YOU.

The Whitney Museum | New York, USA
Renzo Piano + Cooper Robertson

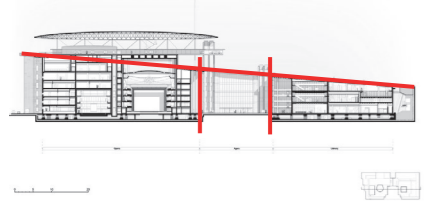


Various outdoor levels/larger areas - viewpoints.

Stavros Niarchos Foundation | Athens, Greece
Renzo Piano



Active/dynamic public space. Flexible uses.



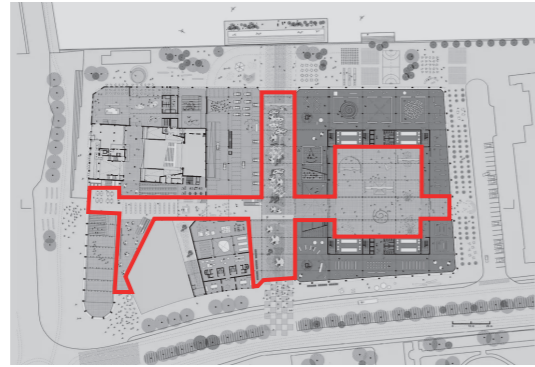
Integral building, continuous/complete and fragmented by central courtyard.

Neues Museum | Berlin, Germany
David Chipperfield



Retains existing fabric by reinforcing it, leaving traces of the original finish.

KANAL | Brussels, Belgium
OMA

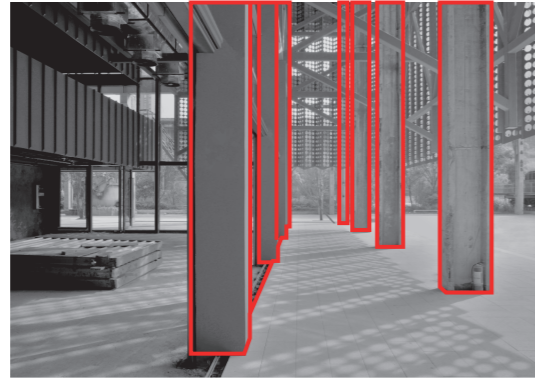


Undisrupted public space + transition spaces.



Flexible hall, showroom.

Chongqing Industrial Museum | Chongqing, China
WallaceLiu

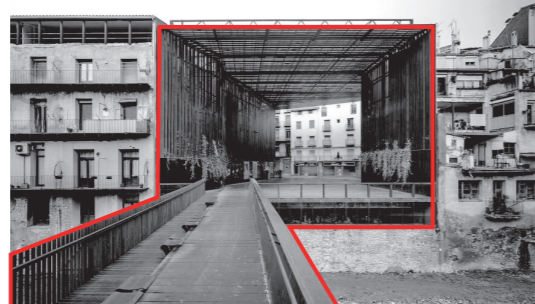


Lightweight steel structure inserted in the old.



Semi-enclosed space | min. need for mechanical ventilation.

La Lira Theater Public Open Space | Spain
CR Arquitectes



Overarching language. Indicative strategy, walkway to building.

World Trade Centre, Memorial | NY, USA
Santiago Calatrava, Michael Arad

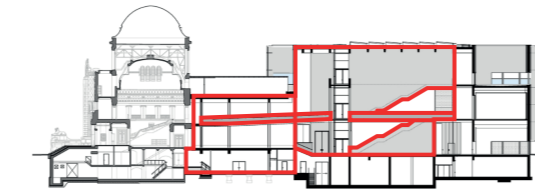


Integration of memorial, commercial, cultural functions.

Kunsthalle Mannheim Building | Mannheim, Germany
gmp Architects



Circulation within the building remains simple for the visitors and grid in plan and elevation replicate the order and straightforwardness of this "city of squares".



Central atrium enclosed by exhibition space and rooms for supporting functions connected via galleries, terraces, and bridges creating routes with changing views and vistas.

Dexamenes Seaside Hotel | Kourouta, Greece
K-Studio

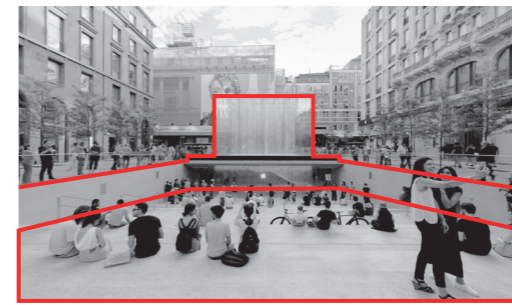


History and raw beauty of existing buildings is showcased. Two steel drums preserved, used as exhibition/leisure hall.



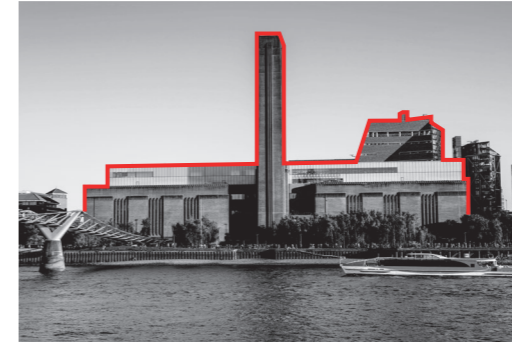
Concrete blocks divided for wine storage tanks (5m x 6m) used as hotel rooms. Doorway openings - slabs used as stepping pathway.

Apple Store | Milan, Italy
Foster + Partners

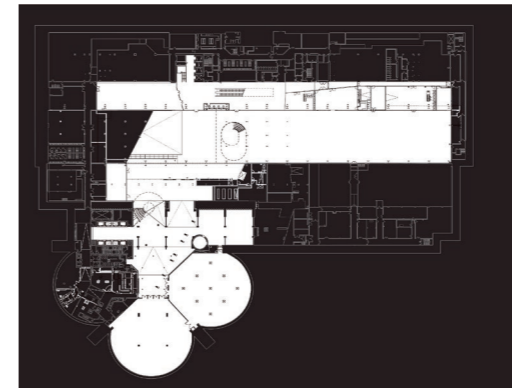


Provides a public welcoming square for visitors to take over. Sense of transparency and openness.

Tate Modern | London, England
Herzog & de Meuron

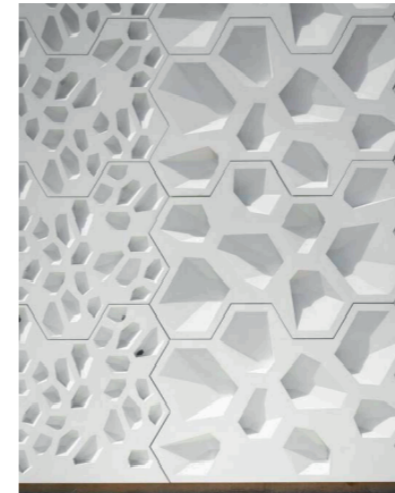


Iconic chimney of the Tate Modern still serves as a reference point on the Thames River as the new structure (north) does not compete with it.



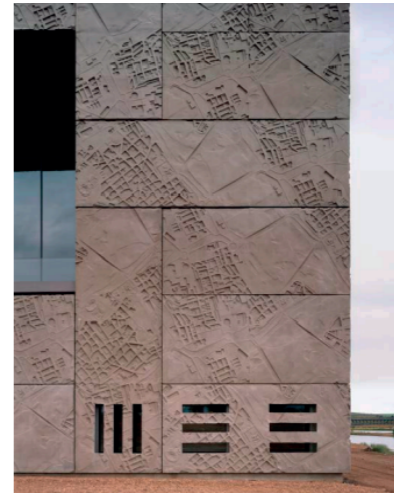
Celebrates the industrial heritage of the Bankside area. Attractive surrounding urban regeneration facing riverbank.

Centre for Contem Art | Cordoba, Spain
Nieto Sobejano Arquitectos



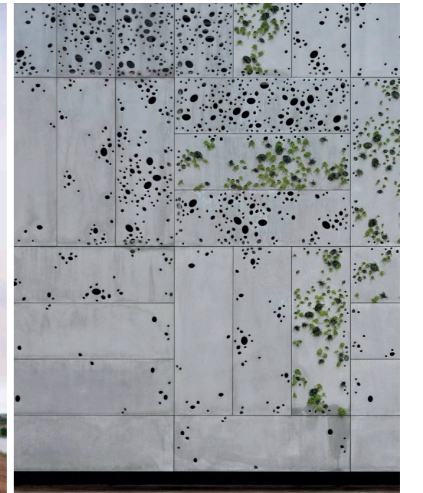
The geometry evokes the ornamentation of the Islamic architecture.

Congress Centre | Merida, Mexico
Nieto Sobejano Arquitectos



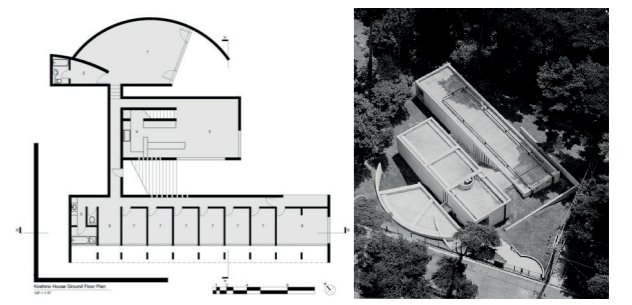
Stone-like material imprinted with fragment of the city to establish visual/symbolic link.

San Telmo Muesum | San Sebastian, Spain
Nieto Sobejano Arquitectos



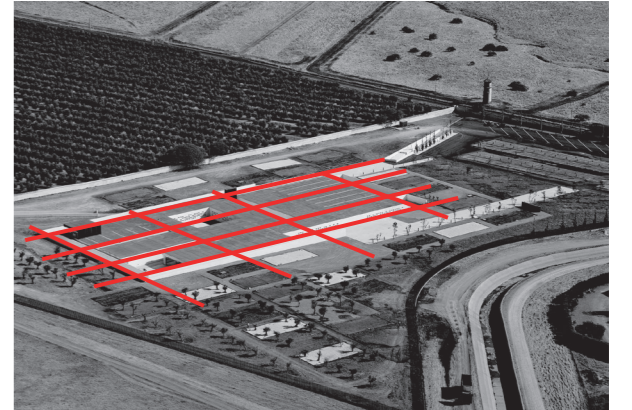
Perforations allow moss and lichens growth, alludes to rock and vegetation of the city.

Koshino House | Hyogo, Japan
Tadao Ando



Balances rectilinear forms with crescent-shape. Staircase creates breathing space between concrete blocks.

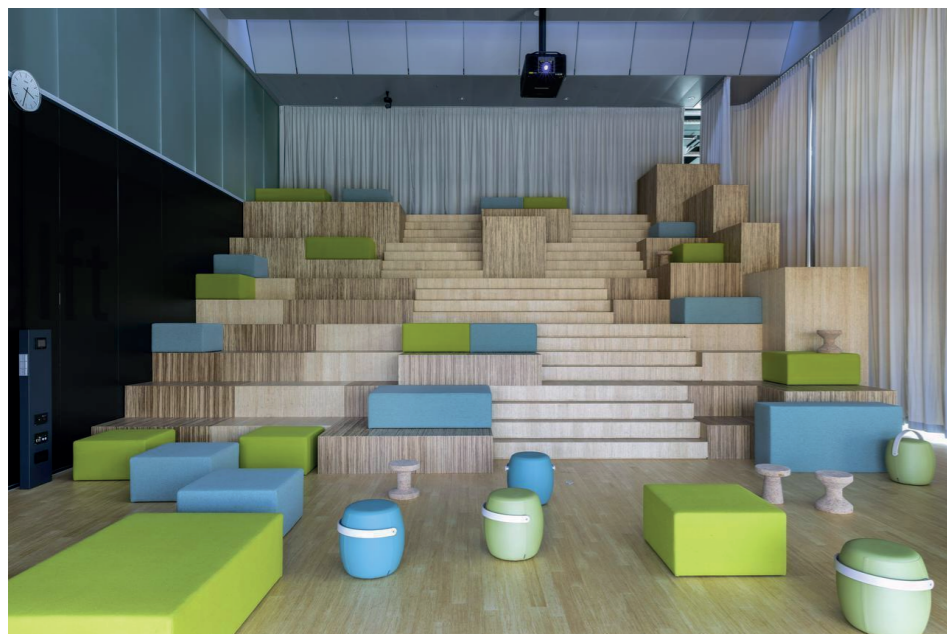
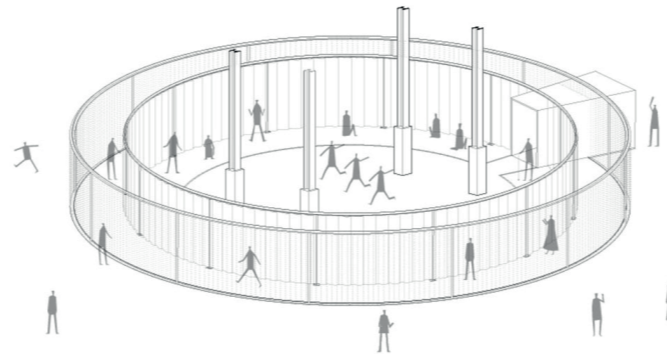
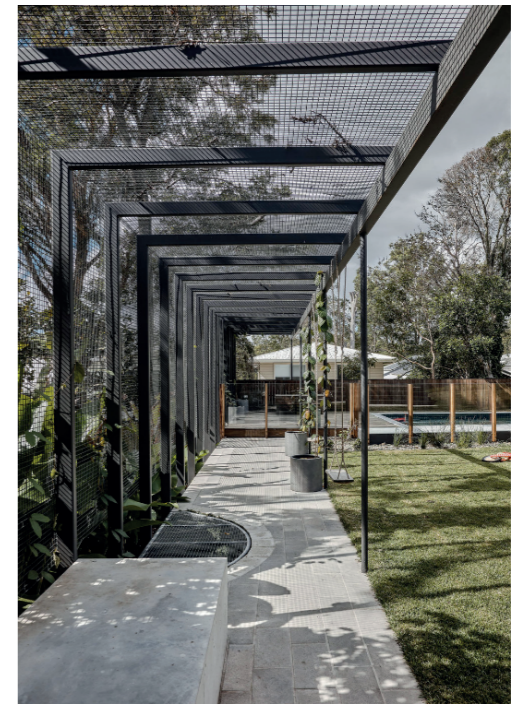
Madinat Al Zahara Museum | Cordoba, Spain
Nieto Sobejano Arquitectos



Respects a two-dimensional orthogonal grid, excavations follow rectangles of the grid.



Use of white concrete and rusted steel i.e. contemporary materials that communicate with stucco and ceramic of the ancient city.



THANK YOU

