Pilbrow & Partners | PERMASTEELISA GROUP

EDGE London Bridge

Tall Buildings Summit

Presenters

Keb Garavito Bruhn

Founding Partner

Pilbrow & Partners

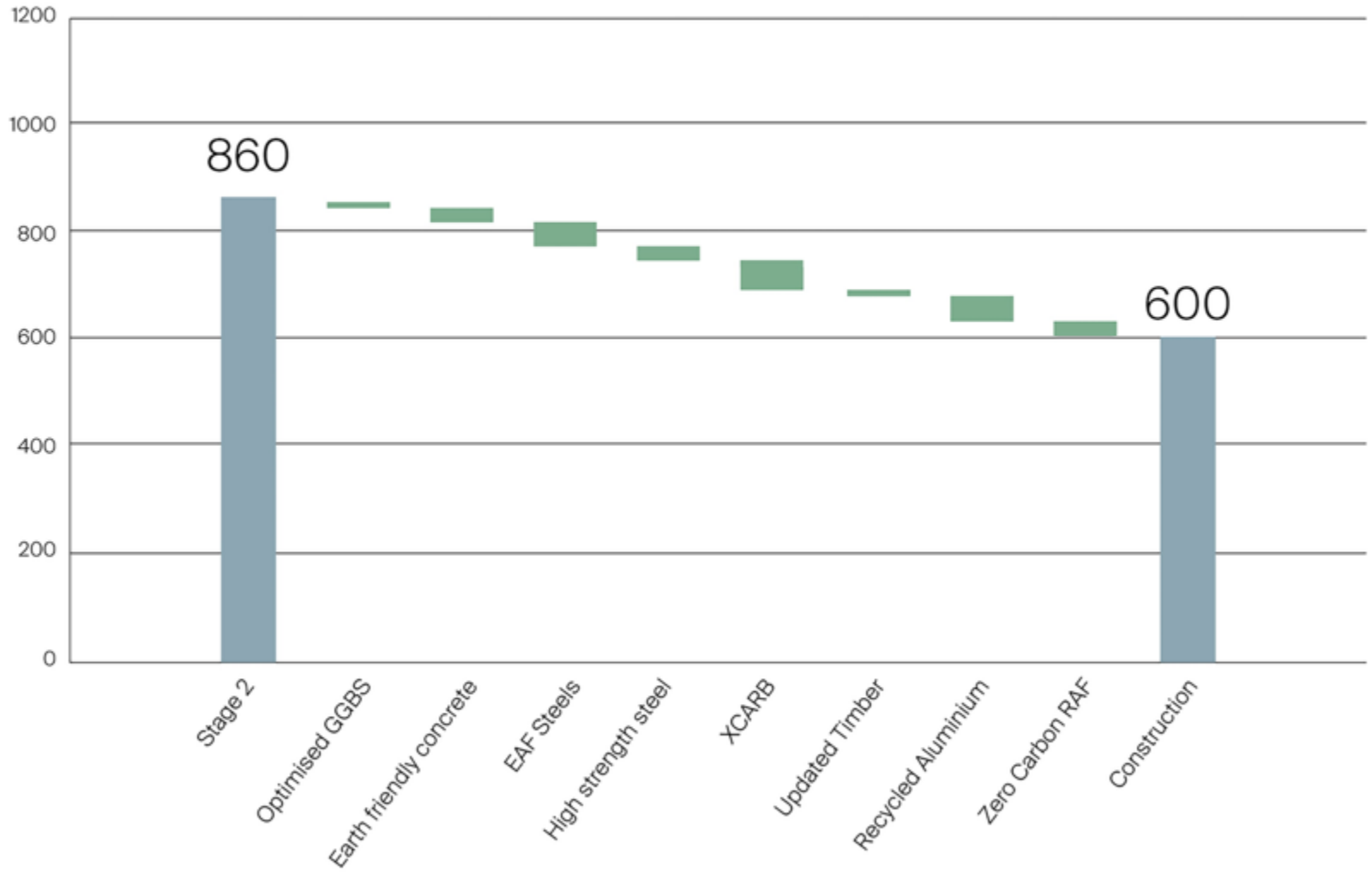
Hans Jansen

Lead Concept Designer

Permasteelisa

Creating a future workplace

CARBON REDUCTION: A COLLABORATION



EDGE

mace

Pilbrow & Partners

PERMASTEELISA

akt II

atelier ten

Churchman Thornhill Finch

Goldman Sachs

GT GARDINER &THEOBALD

Embodied Carbon

Health and Wellbeing

Operational Energy

< 600 kgCO2e/m2

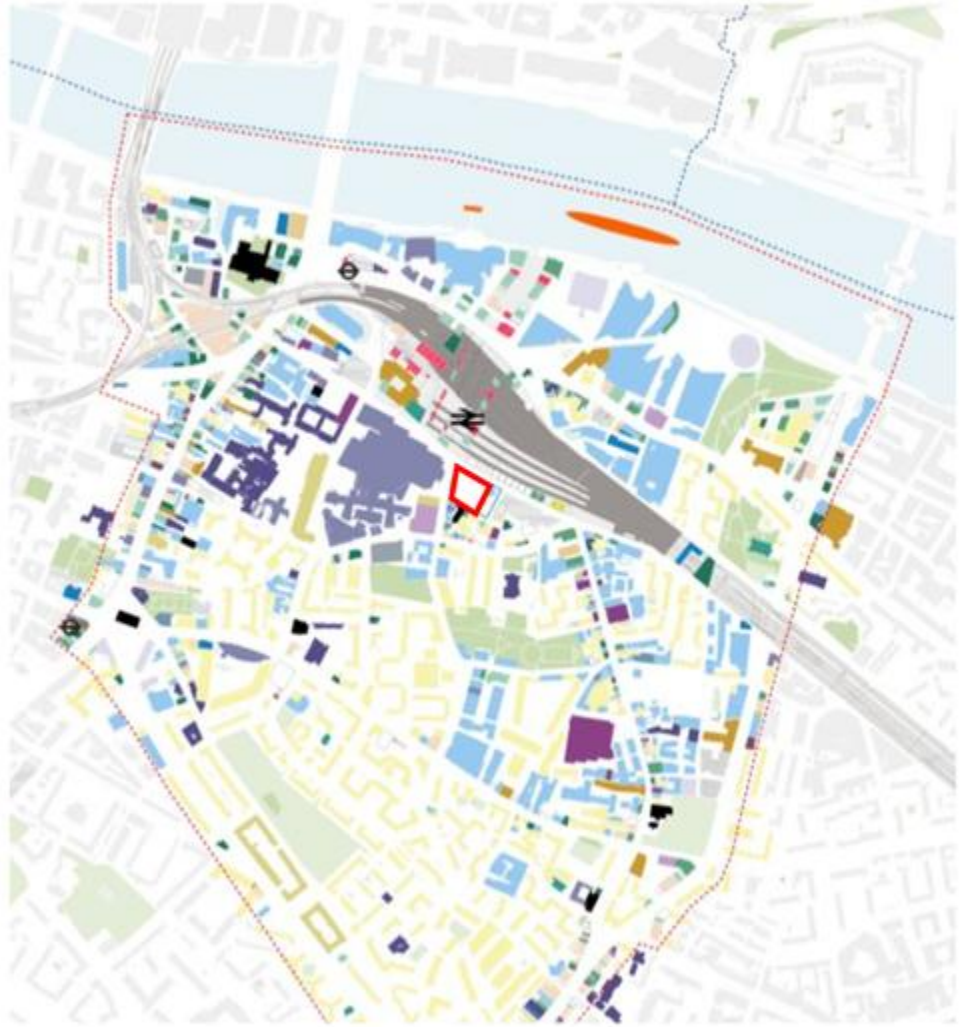
< 55 kWh/m2/y

Embodied Carbon	Health and Wellbeing	Operational Energy
< 600 kgCO2e/m2		< 55 kWh/m2/y
BREEAM®	NABERS UNITED KINGDOM	WELL	WiredScore
Outstanding	5+ Stars	Platinum	Platinum

LONDON BRIDGE

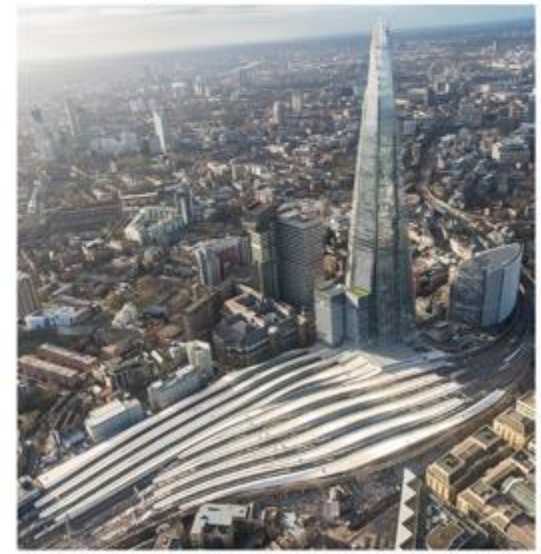
River Thames

Borough Market



Land Uses

Bermondsey Street

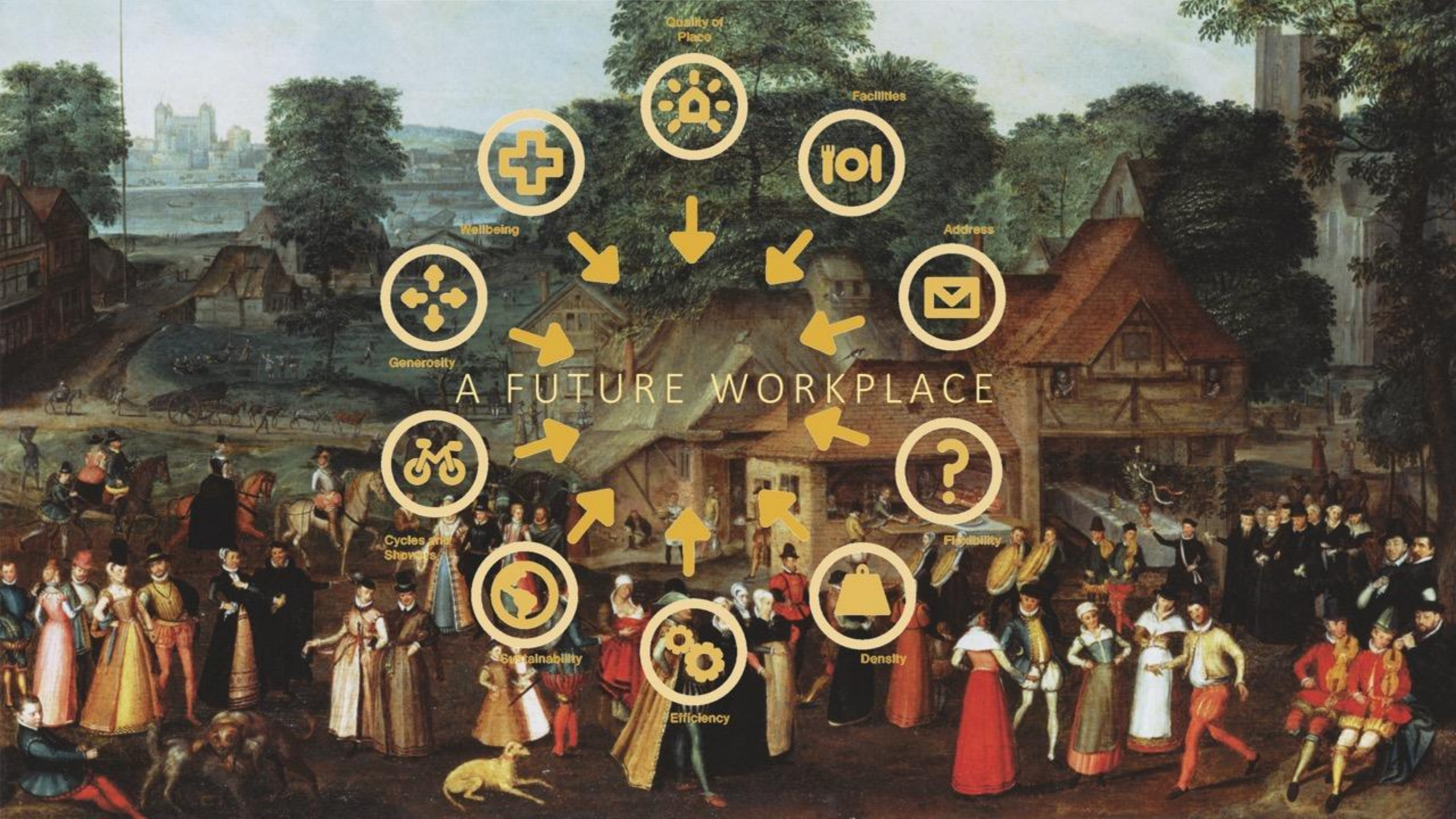


Transport Interchange / London Bridge Cluster


THE SITE


TALL STRUCTURES SUPPORTING A FERTILE GROUND


A FUTURE WORKPLACE


Quality of Place
Facilities
Address
Flexibility
Density
Efficiency
Sustainability
Cycles and Showers
Generosity
Wellbeing
A FUTURE WORKPLACE

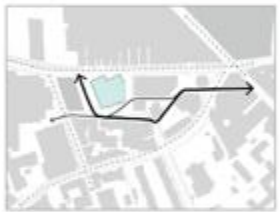
SITE

Framework Masterplan

SITE

Reconfiguring

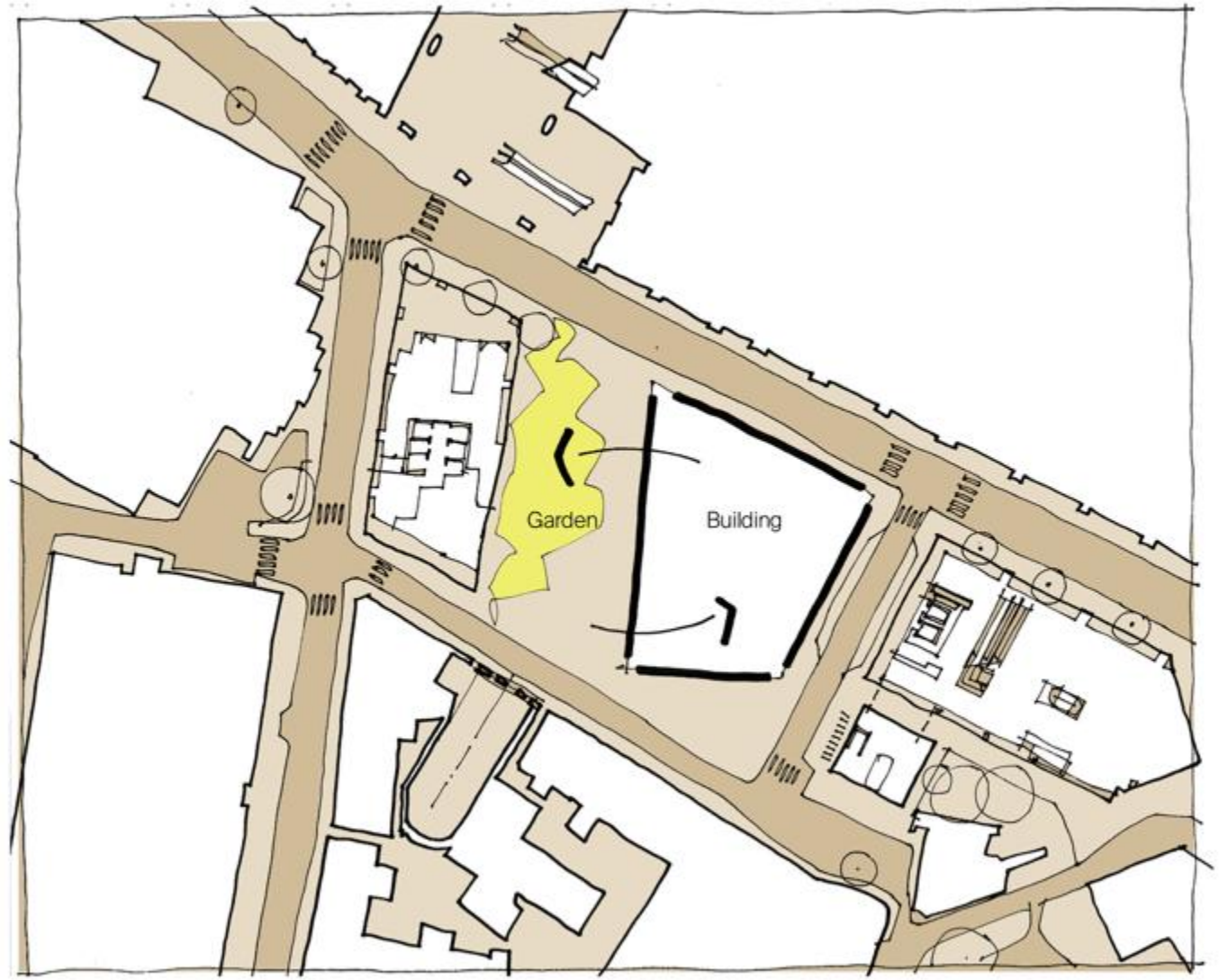
Public spaces on St. Thomas Street



Permeability and Connectivity

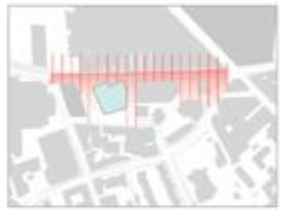
Spatial character

Enhancing the setting of historic buildings



SITE

Reconfiguring

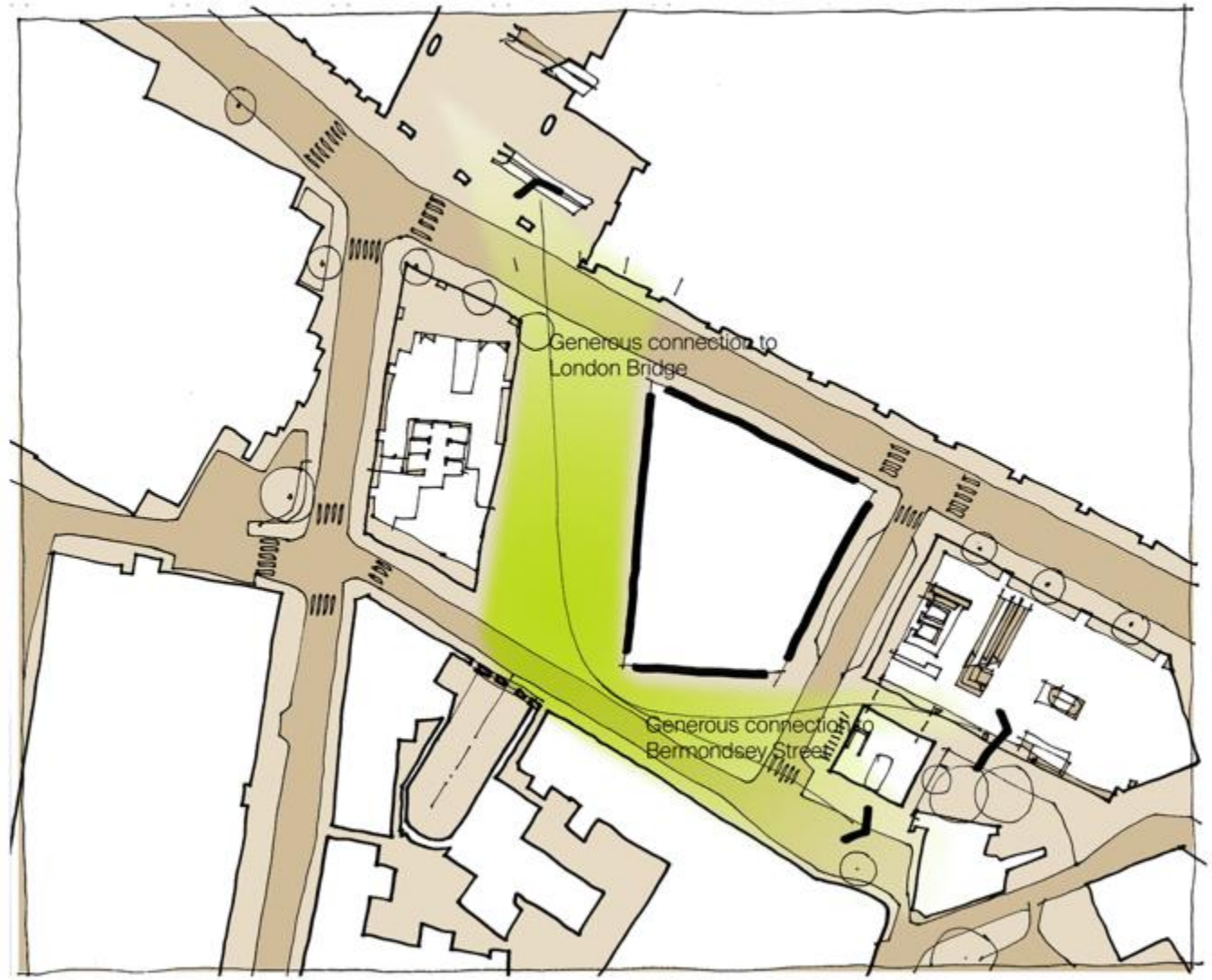


Responding to the Low Line

Active Frontages

New strategic elevations

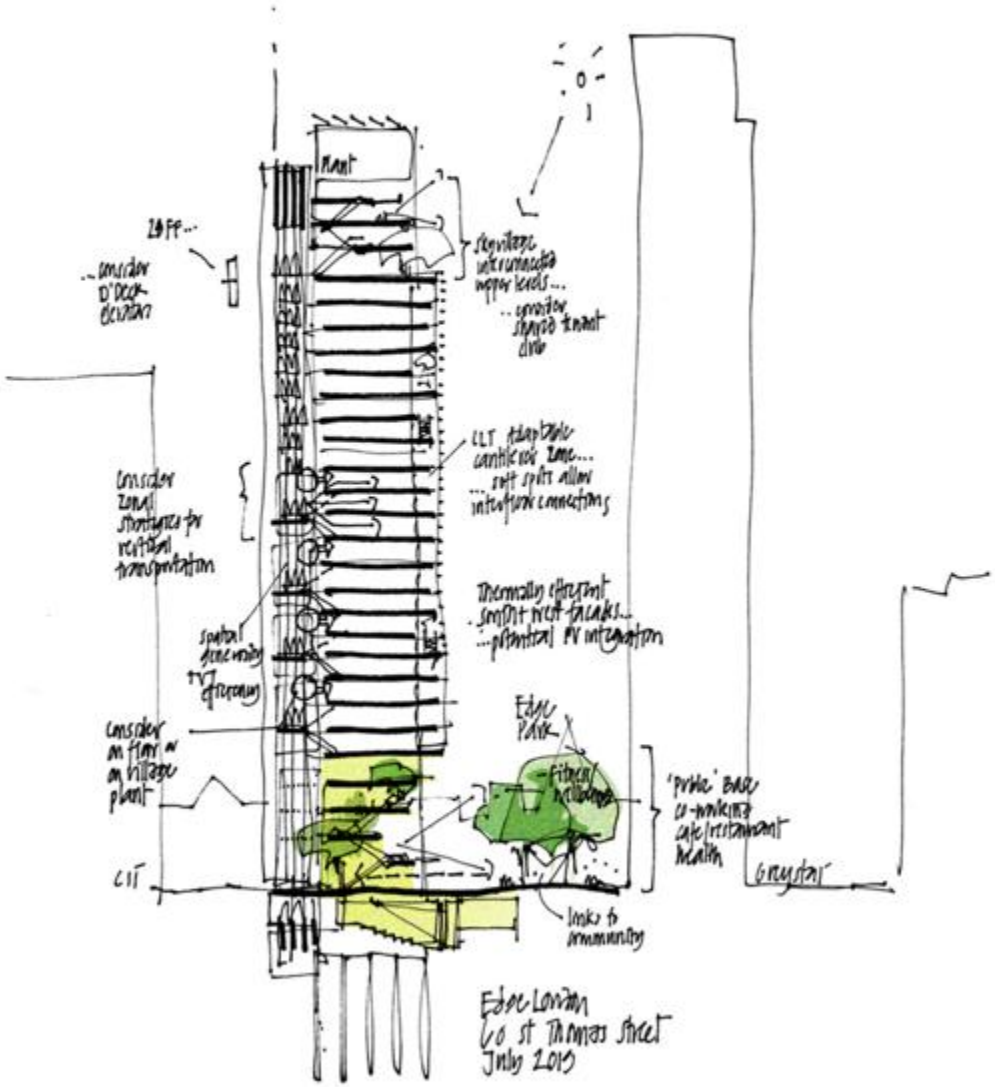
Minimising vehicle movements




LONDON BRIDGE
GUY'S HOSPITAL
← THE LOW LINE →

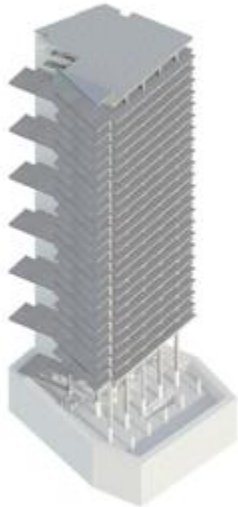
PROPOSAL

An Active and Generous Development



BUILDING FORM & ORGANISATION

Southeast Core



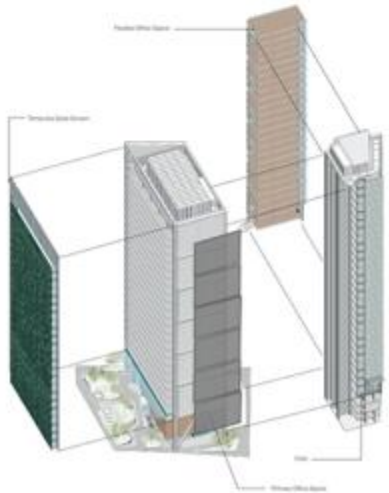
Low Carbon PT Frame

North Bracing

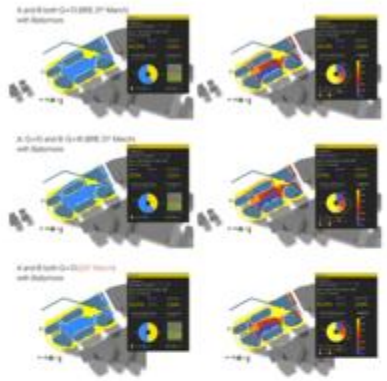
Hybrid Timber and External Terraces

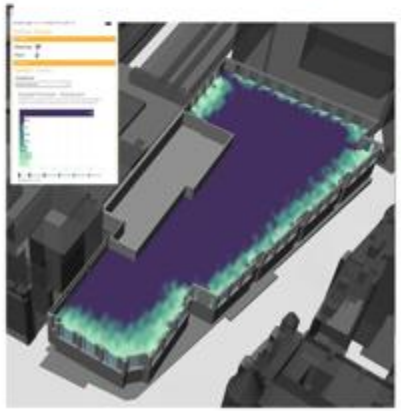
High Performance Facade

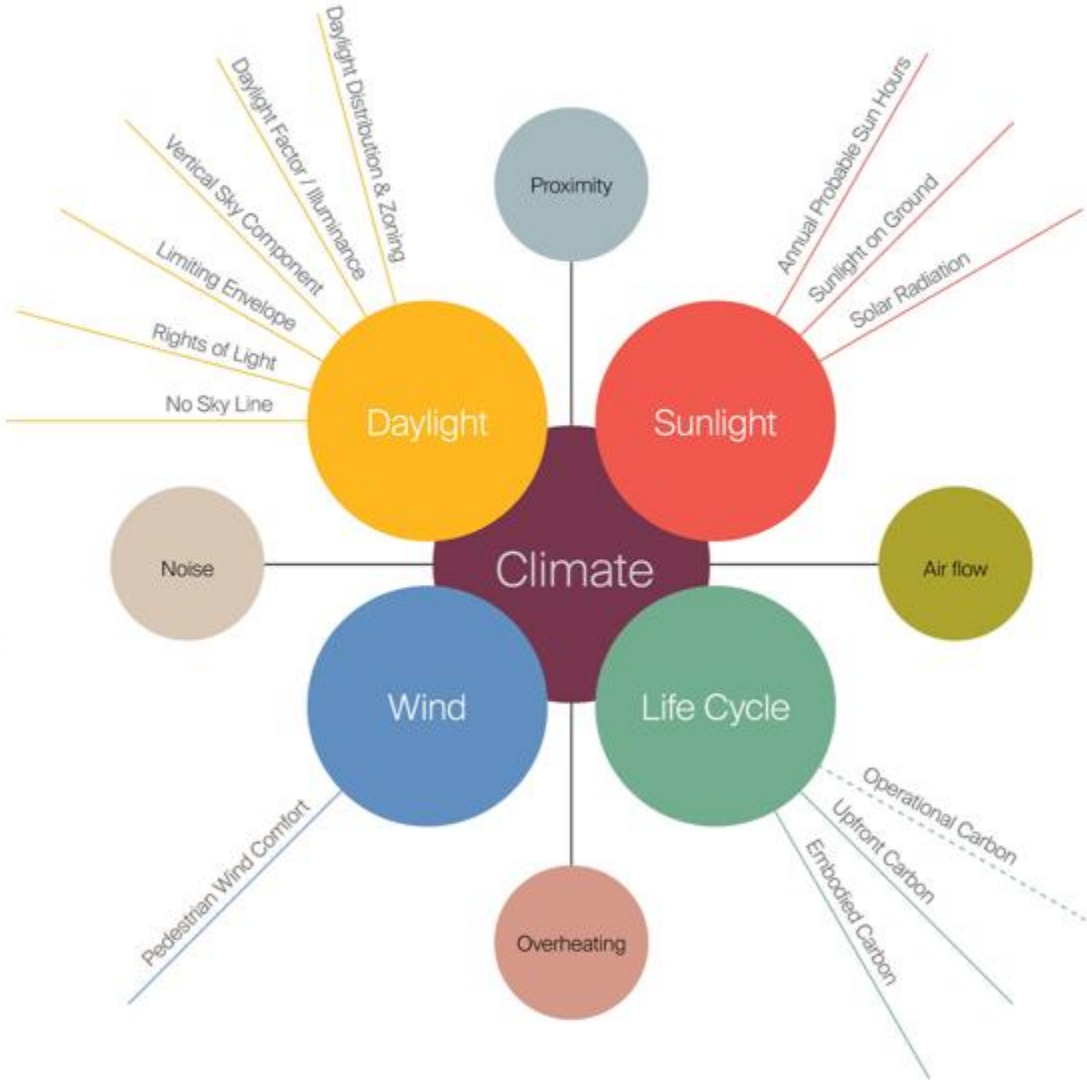
South and West Brise Soleil

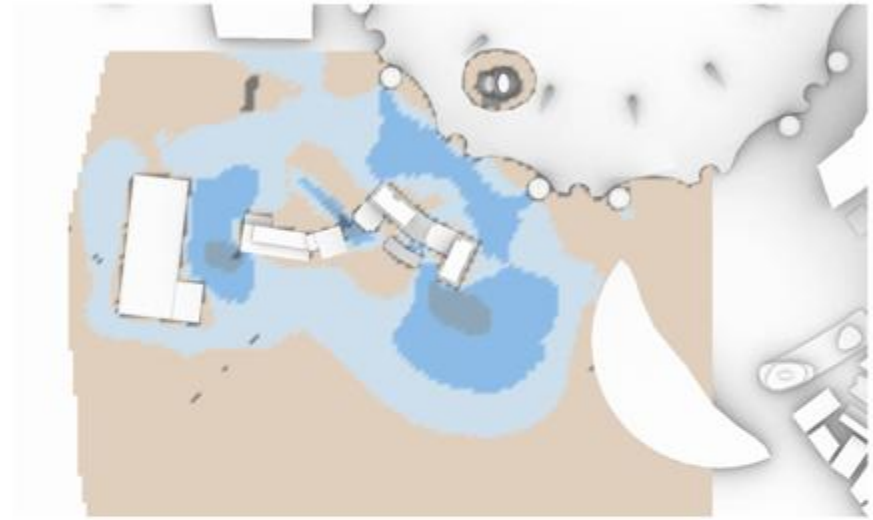


IN-HOUSE ENVIRONMENTAL ANALYSIS



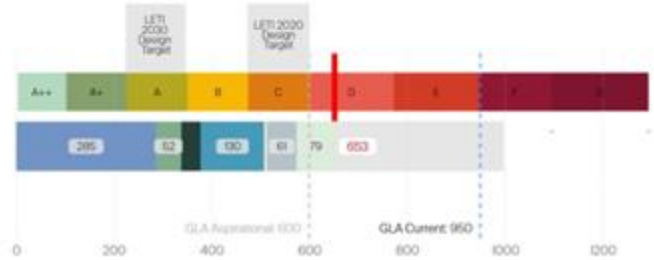






Offices // Carbon Assessment

Module	%	WLC Benchmark (KgCO2e/m² GIA)	WLC Aspirational (KgCO2e/m² GIA)	Baseline	Innovative	Pioneering
Site Emissions	0	5	3	79	67	55
External Works	2	14	9	52	44	36
FF+E	2	19	12	40	34	28
Internal Finishes	5	48	30	5	4	4
Partitions	5	48	30	61	52	43
Building Services / MEP	14	133	84	1	1	1
Envelope	17	162	102	285	242	200
Substructure	19	181	114	0	0	0
Frame	36	342	216	130	110	91
Benchmark				653	554	458



162 hectares of mixed British woodland required to offset the **78160** tCO2e

WATER MANAGEMENT & BIODIVERSITY

Green / brown roofs

Water efficient fixtures

Enhanced biodiversity

Cellular stormwater attenuation

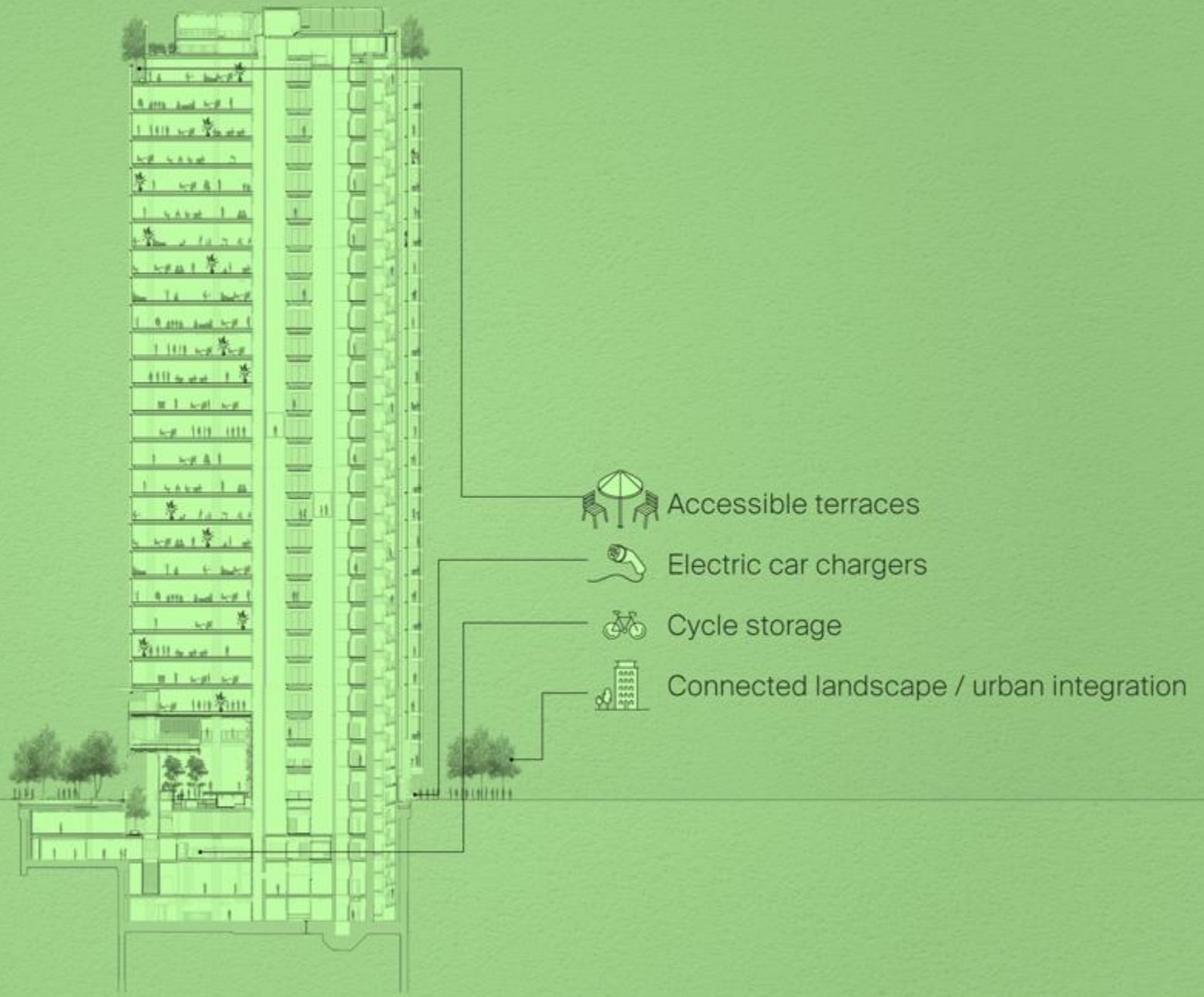
Greywater storage


Guy's Hospital
Capital House
St Thomas Street
Wolfson House
Weston Street
48-50
52-54
56
58
60
Slovak Church
Melior Street
12
10
8
Fenning Street
Vinegar Yard
Greenwood Theatre

NORTH AND SOUTH PORTICOS

Arrival Gardens

SUSTAINABLE MOBILITY INFRASTRUCTURE

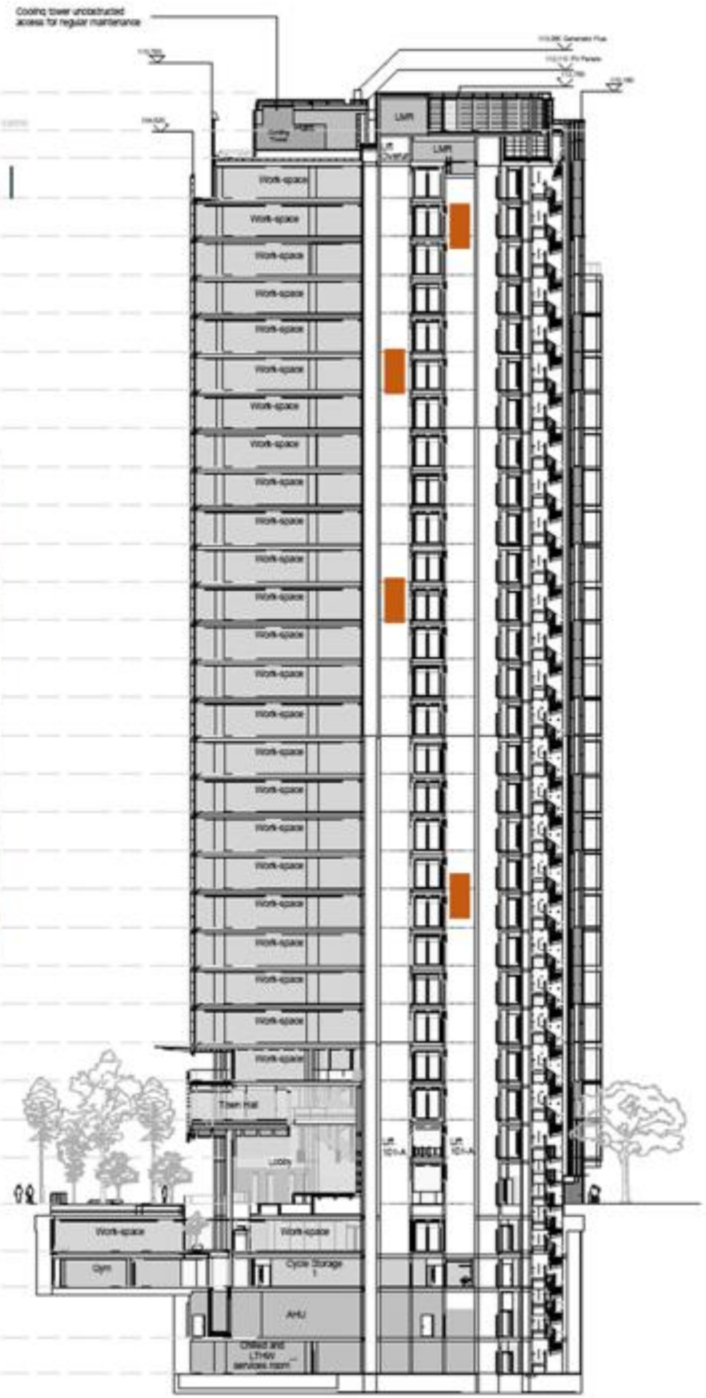


NORTHERN ENTRANCE

Reception Hall

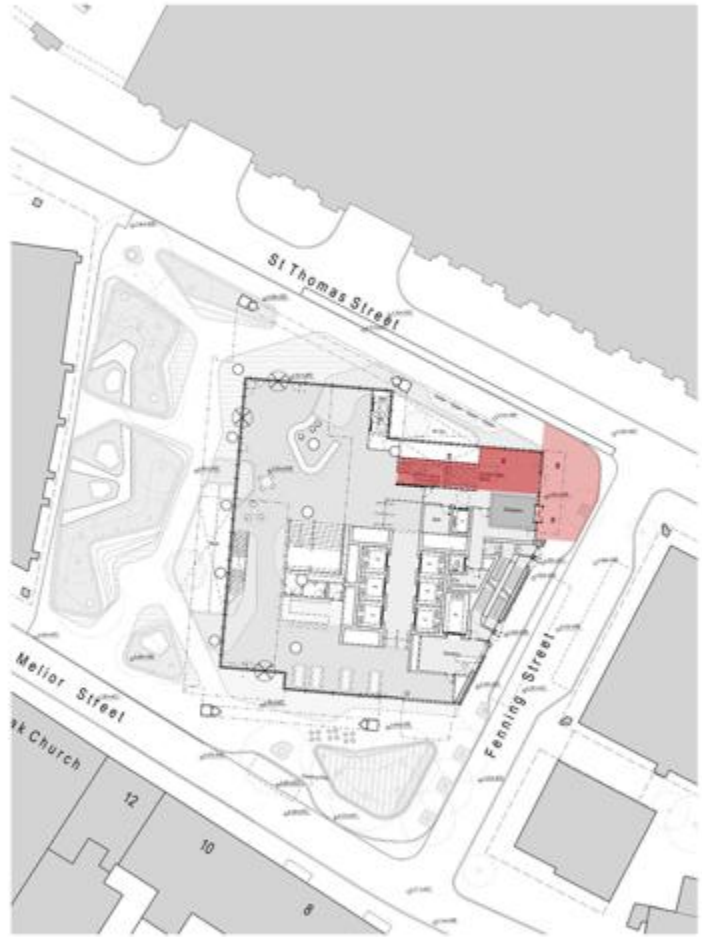
TWIN LIFTS

Embodied and Operational Carbon Reductions



CYCLE STAIR

View Towards Cycle Entrance



PUBLIC CAFE

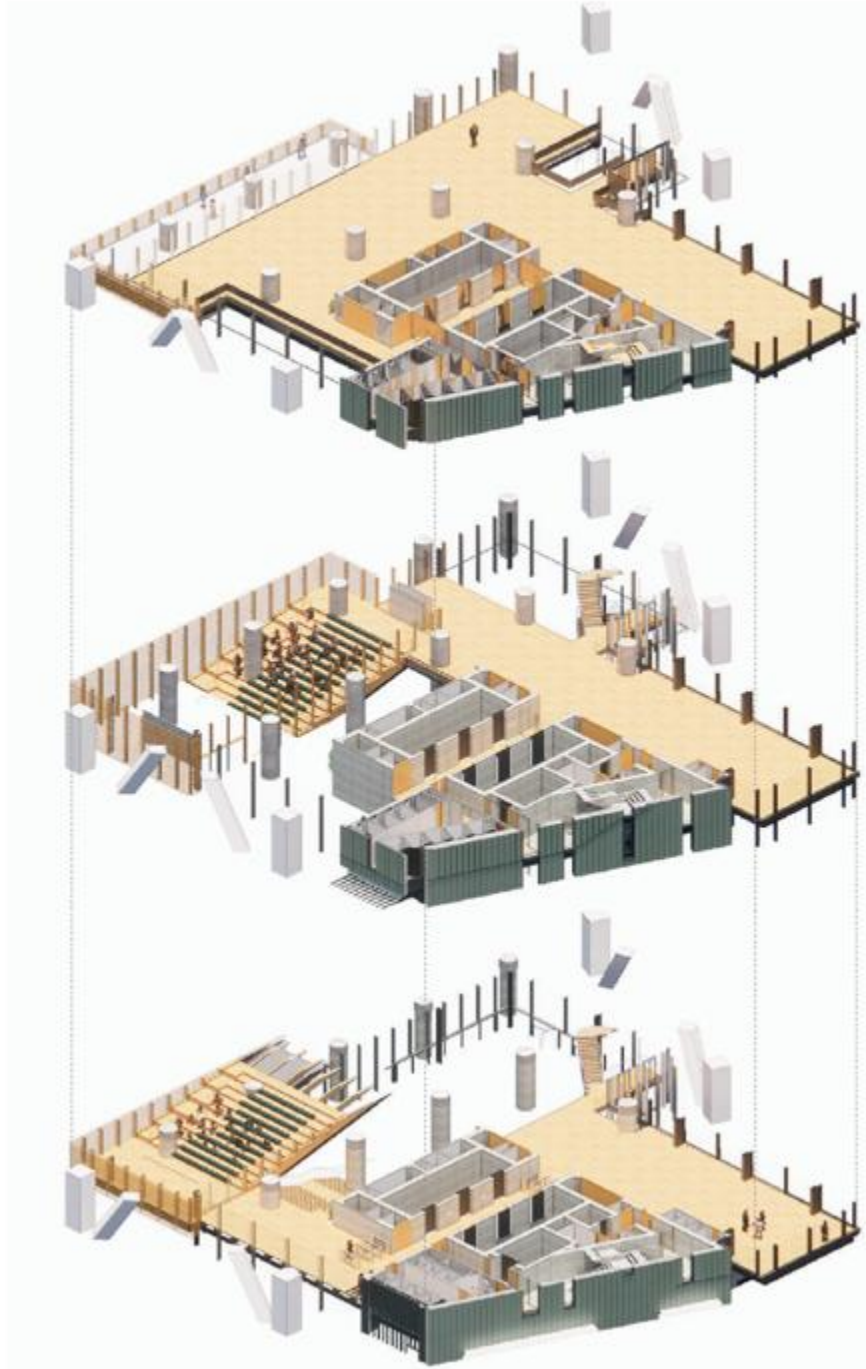
Southern Entrance

DELIVERIES & COLLECTIONS

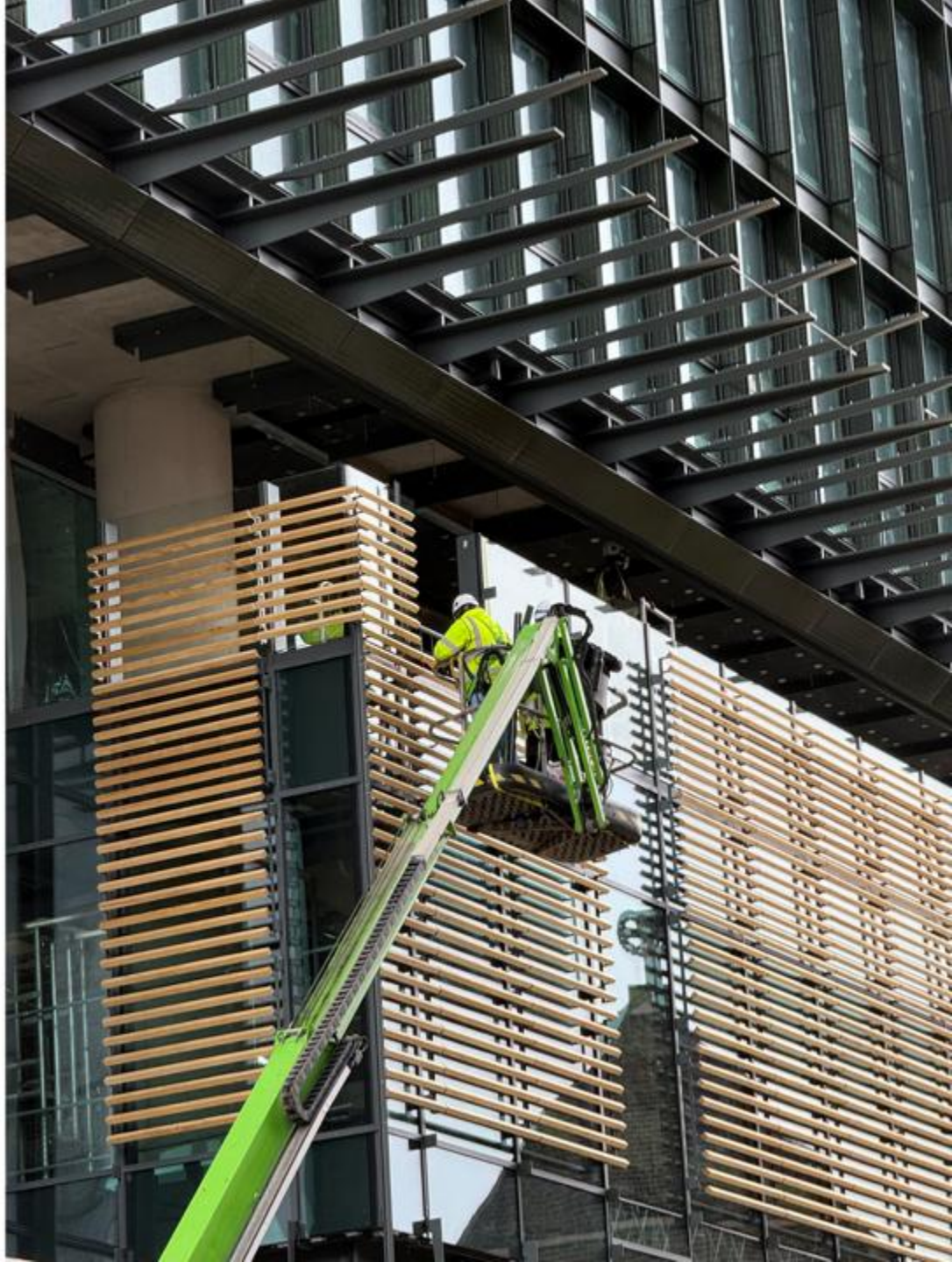
Activating the Southeast Corner with Consolidated Offsite Deliveries

PODIUM LEVELS

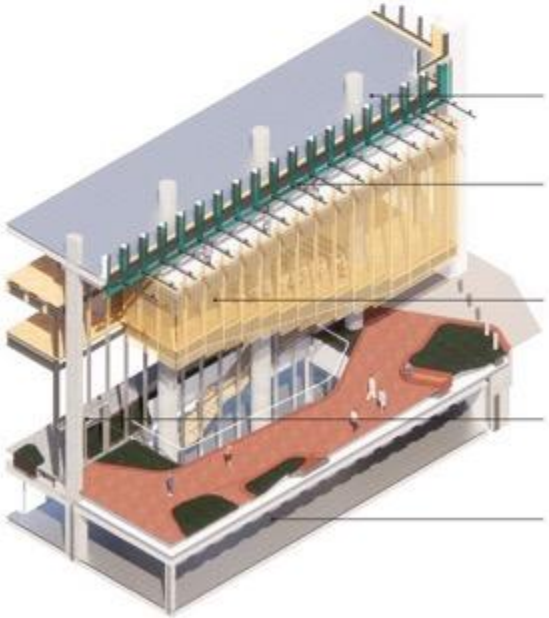
Above Ground



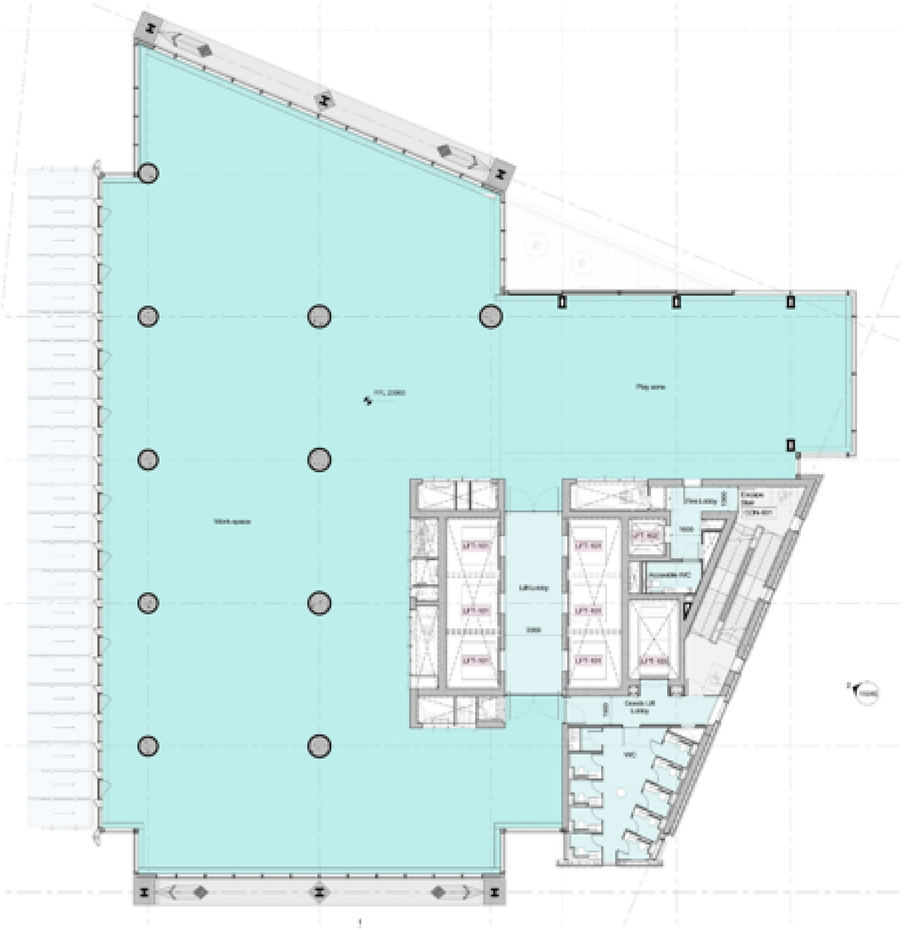
TOWN HALL AUDITORIUM



TOWN HALL AUDITORIUM



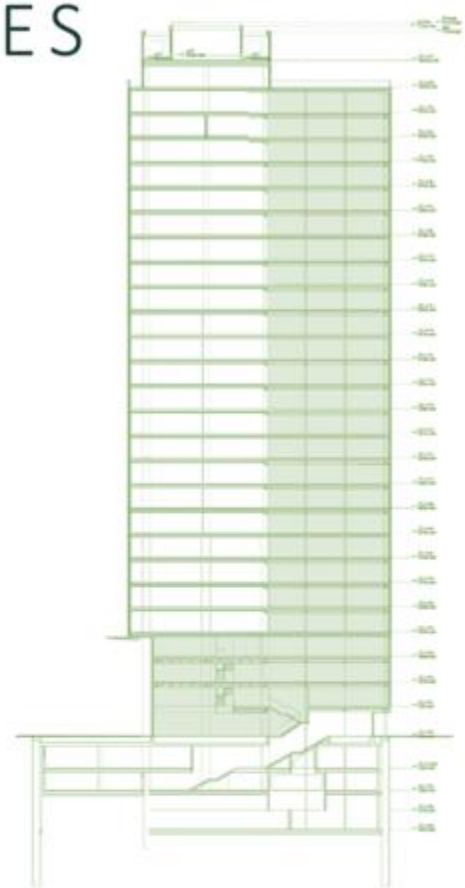
TYPICAL OFFICE FLOOR



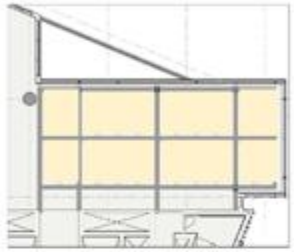
HYBRID TIMBER ZONES

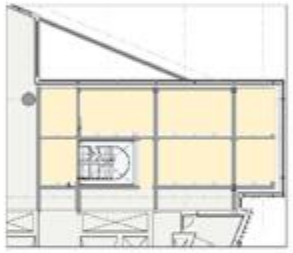
Podium and Typical Floors

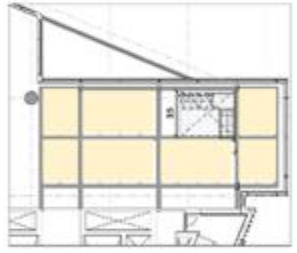
- Tenant Adaptability
- Character and Warmth
- Reduced embodied carbon
- Life cycle designed for deconstruction

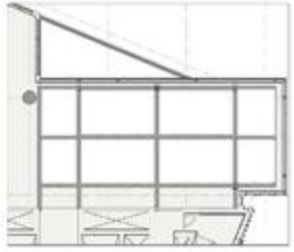


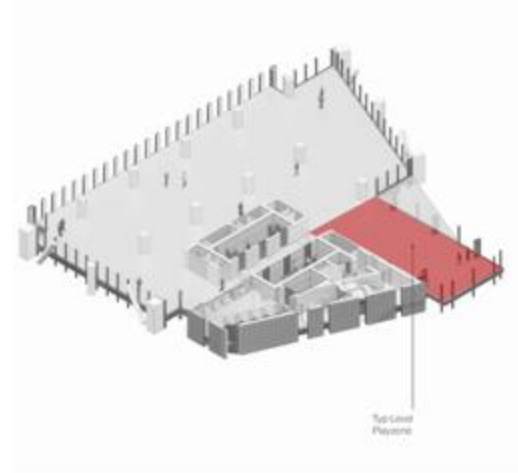
TIMBER PLAY ZONE











OPERATIONAL ENERGY

Photovoltaic panels

Air source heat pumps

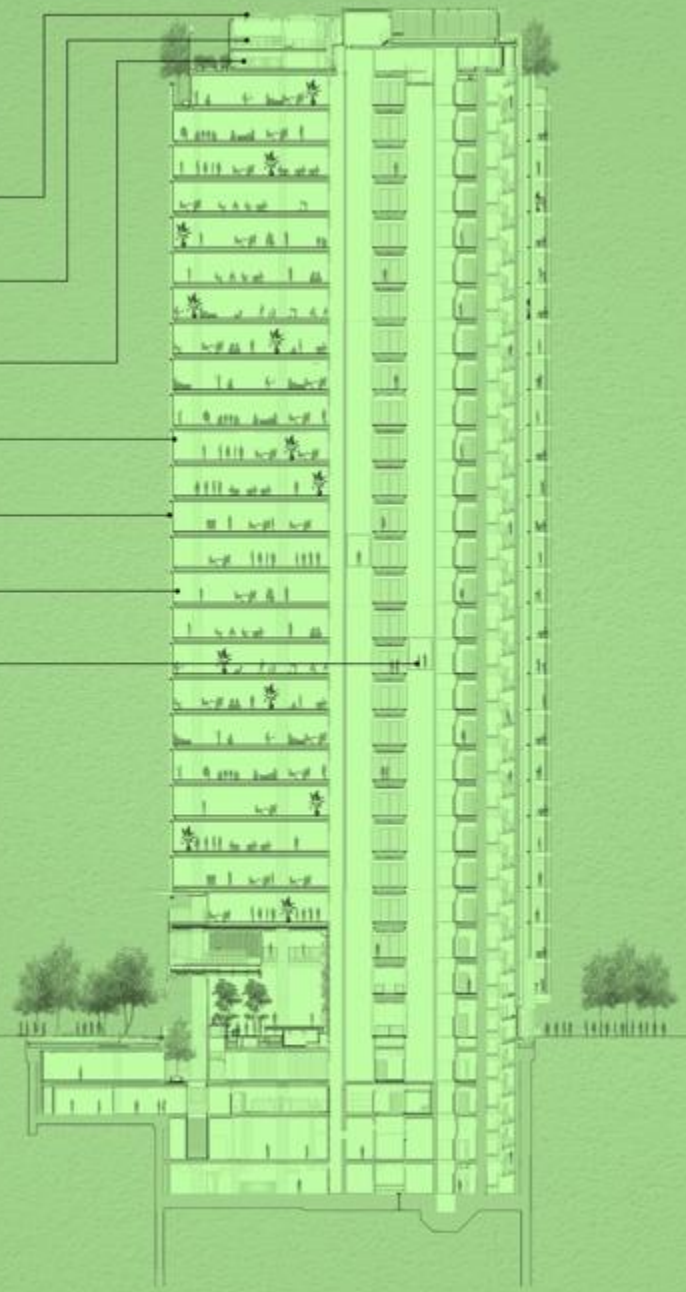
Cooling towers & air handling units

Solar control glass

Optimised external shading

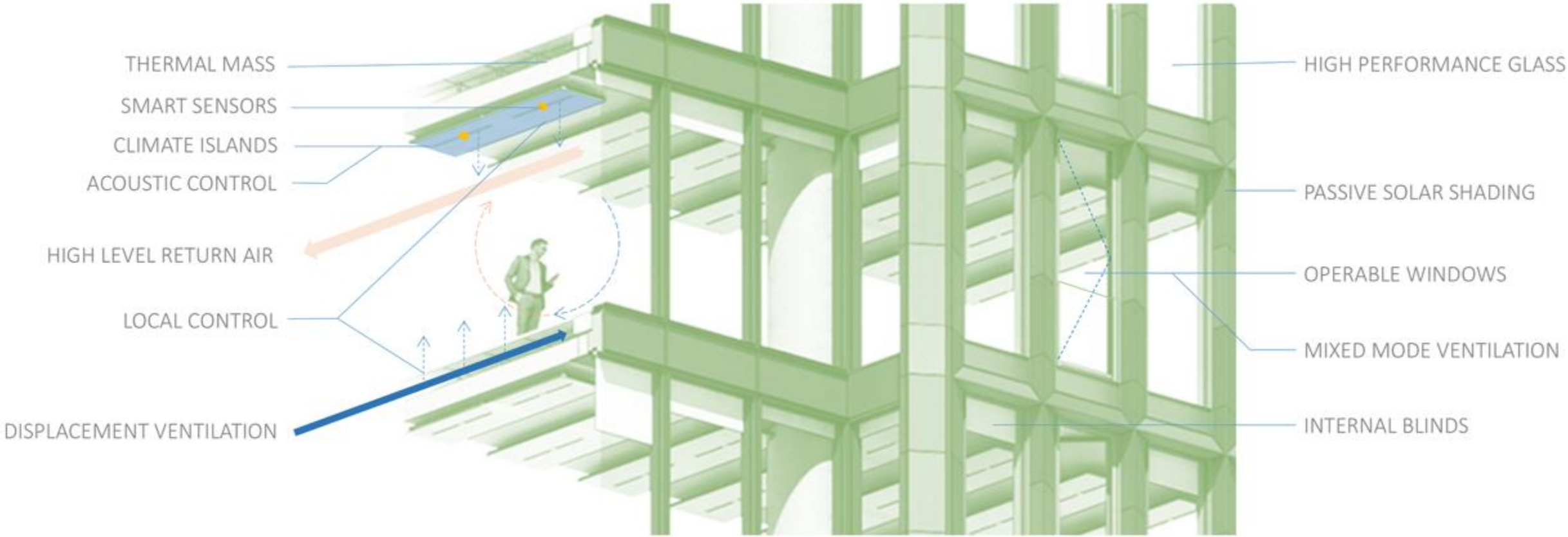
Internal blinds for glare control

Energy efficient lifts



ENVIRONMENTAL CALIBRATION

Typical Floors




Climate Island Sensors:
1. Occupation
2. Temperature
3. Noise
4. Humidity
5. Air quality
6. CO2
7. NOx
8. Light levels

HEALTH & WELLBEING

Vegetated terraces / accessible green roofs

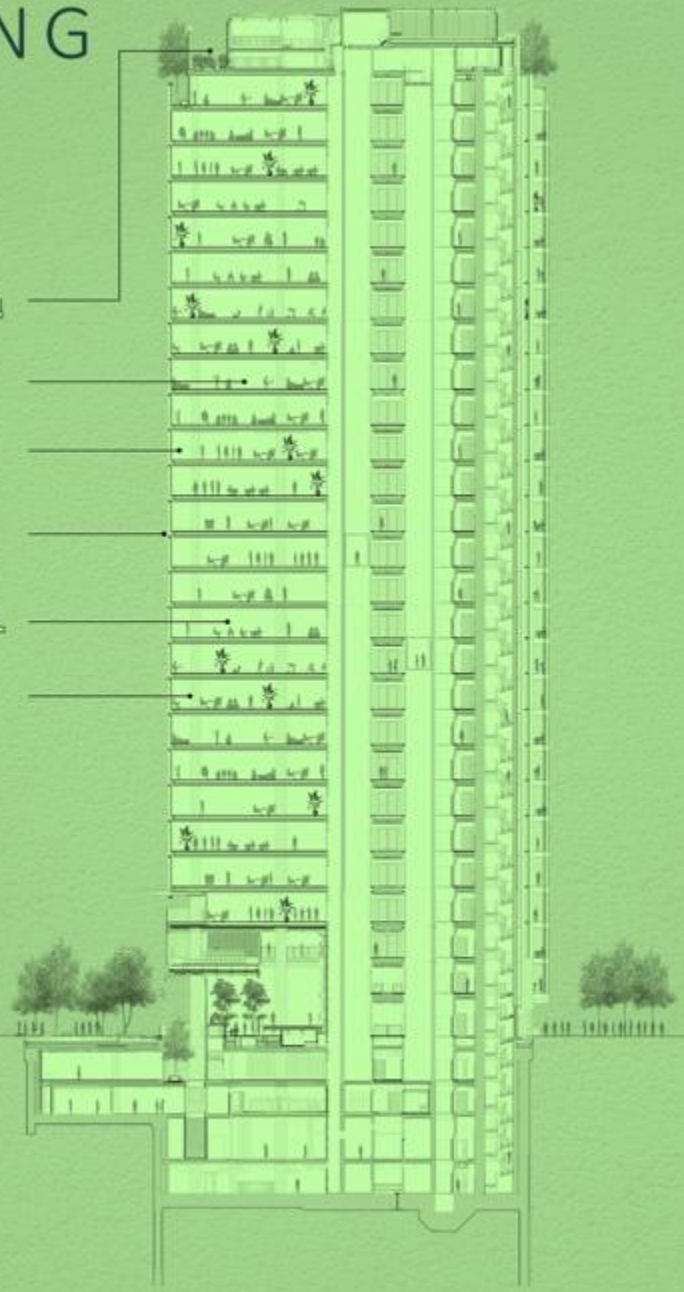
Indoor air quality to WELL standards

Good daylight levels

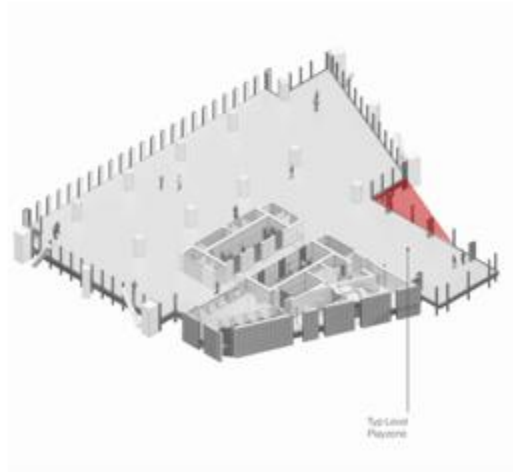
Views out – narrow plates

Displacement ventilation

Climate island mitigation



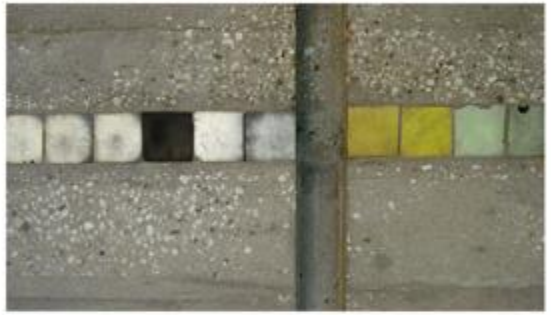
TENANT TERRACES



DESIGN DNA

Textures

Materials that involve our senses to promote familiarity used in unconventional ways



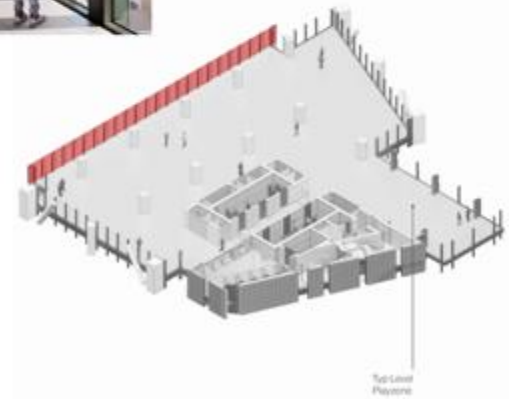
Colours

A natural calm and humble colour scheme best described in shades and tones

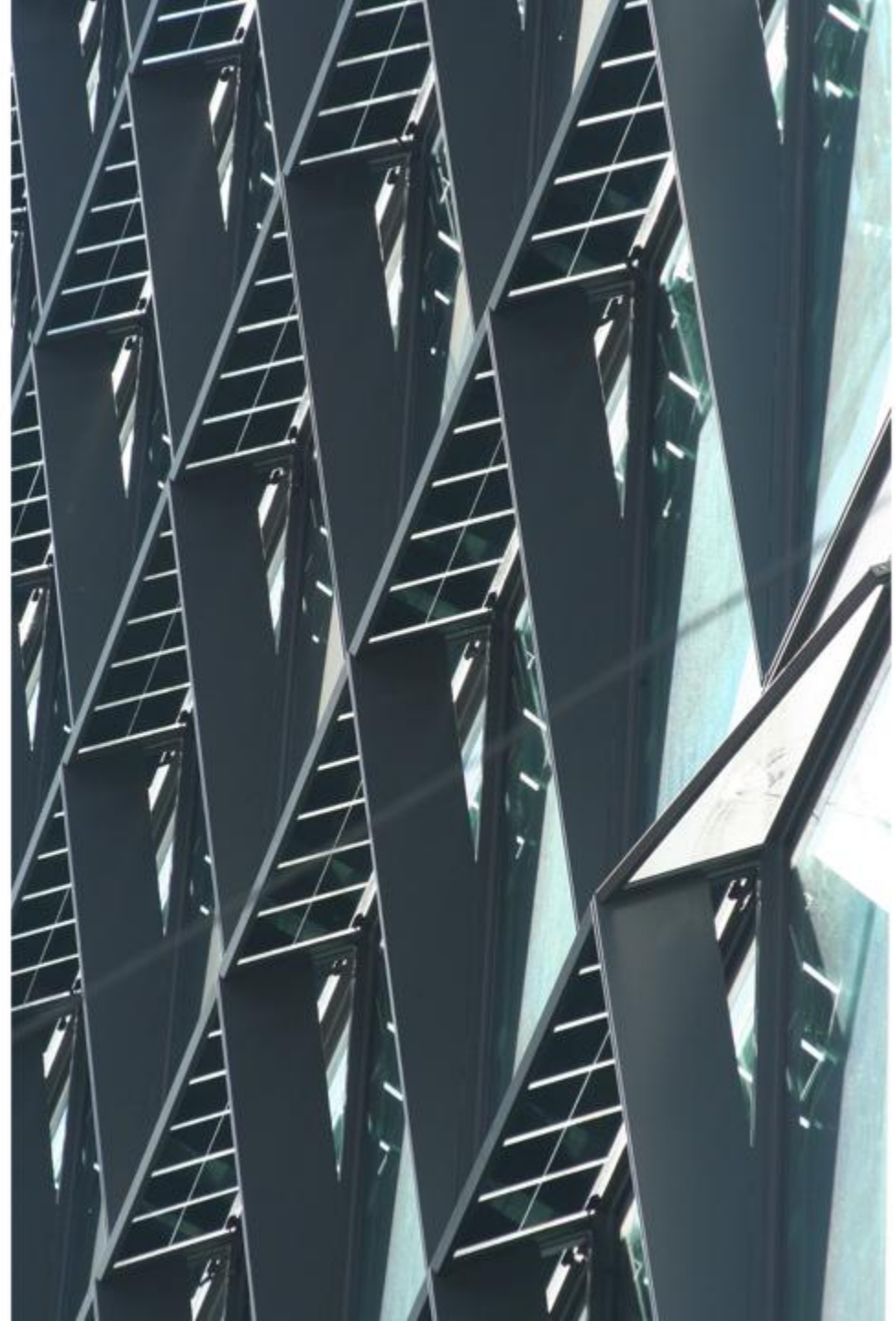
Natural Elements

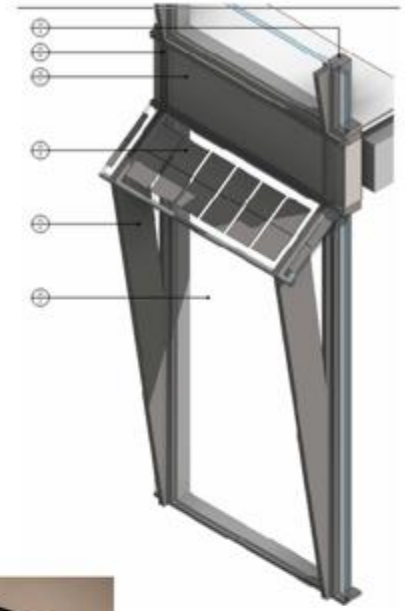
"EDGE buildings intend to allow users to return to their roots, to nature..."

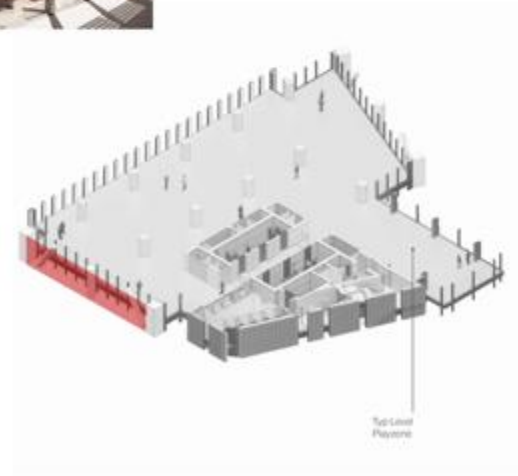
WEST BRISE SOLEIL



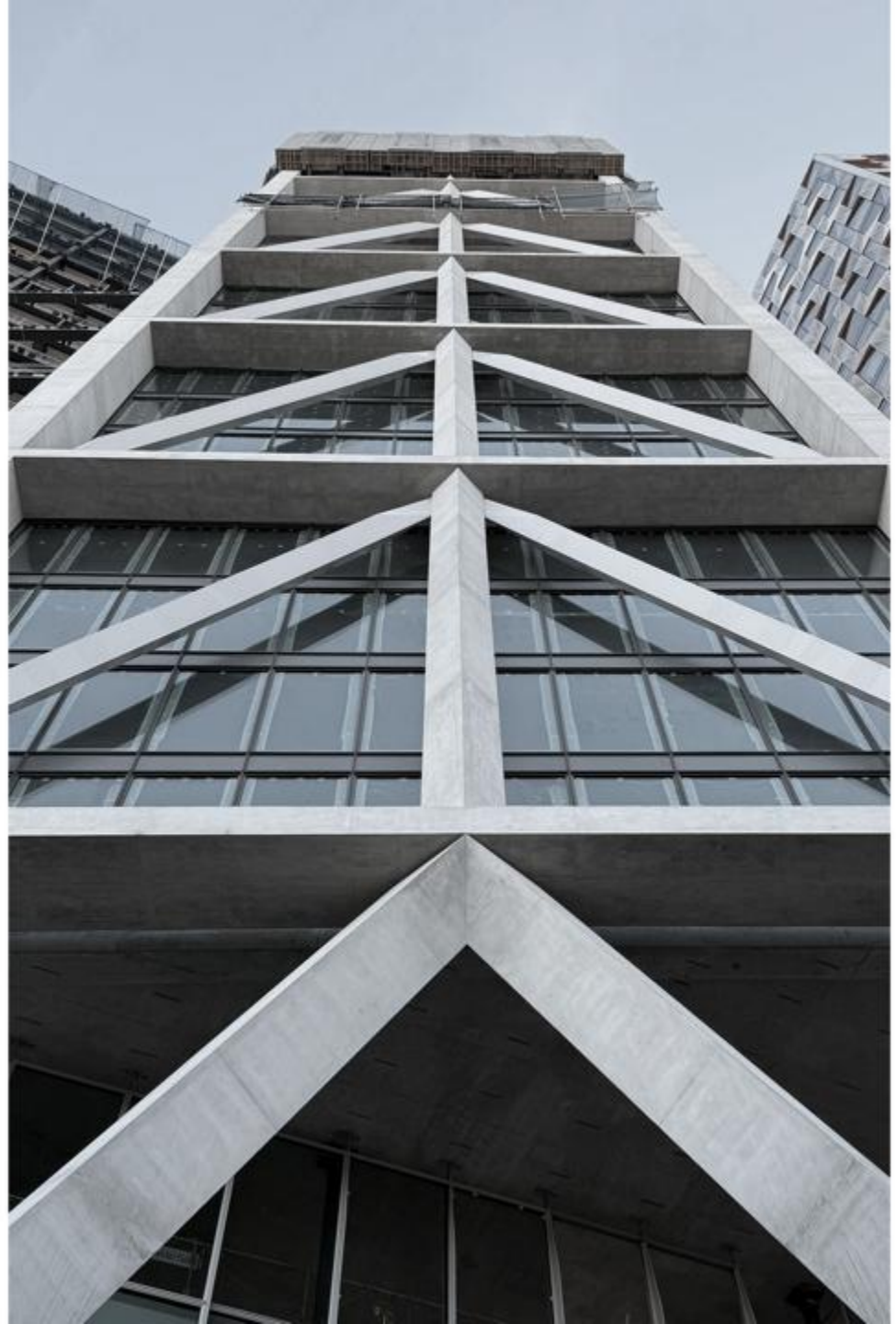
SOUTH BRISE SOLEIL

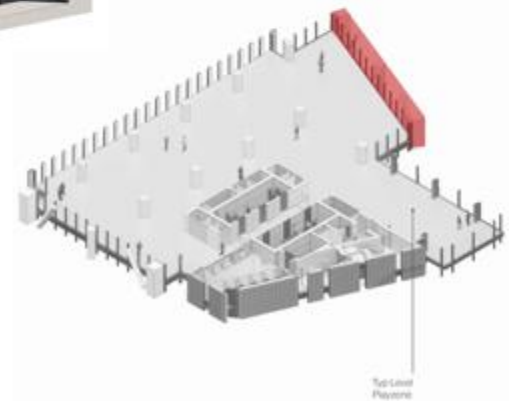




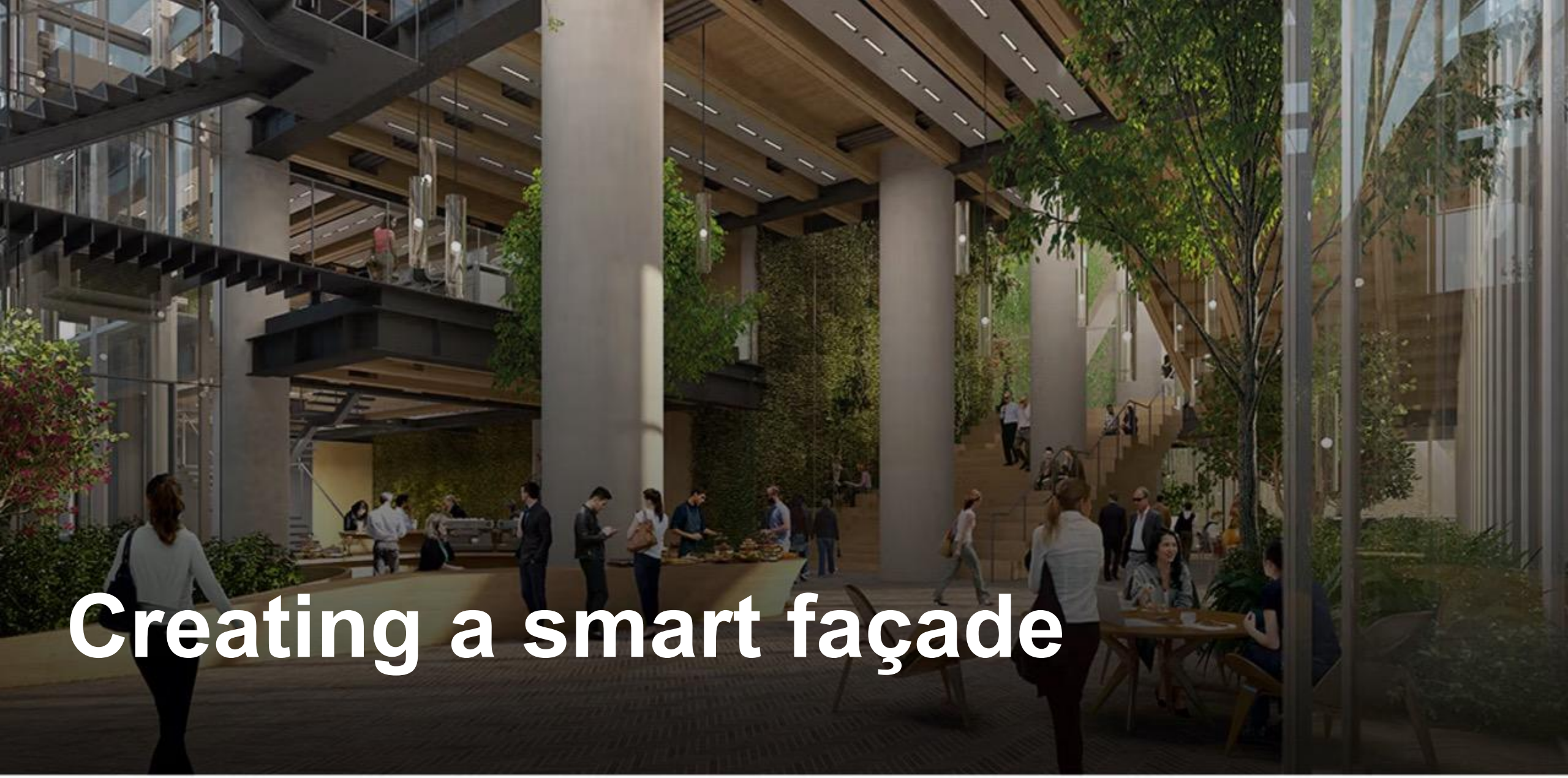


NORTH BRACING





Pilbrow & Partners



Creating a smart façade

Our History

1973
Permasteelisa Group – a small window manufacturing company – was born in Italy

2000s
Consolidated market-leading position through acquisition of the German Gartner Group

2020
Joined the Atlas Holdings family

2024
Global retail expansion. Hubs in the Hong Kong, Middle east, North America & South Korea

19 70 | **19 80** | **19 90** | **20 00** | **20 10** | **20 20**

2006
Permasteelisa began operations in the Middle East –in UAE, Qatar and Saudi Arabia

1980s and 90s
Expanded across the Australian, European, Asian and US markets

1994
Acquired the Dutch company Scheldebouw B.V.

2010s
Grew as an international enterprise, working on ever-larger projects

2024
Permasteelisa Group acquires Benson Industries

TODAY

Permasteelisa Group's story keeps evolving, driven by an unwavering passion for innovation, technology and quality. Today, as ever, we dedicate our expertise and experience to providing cutting-edge solutions for the world's most iconic architectural and engineering projects.

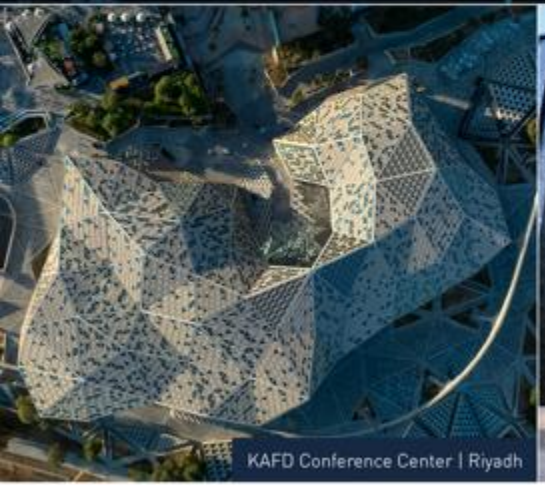
Global Landmarks


The Shard | London


Sydney Opera House | Sydney


Taipei 101 | Taiwan


1 Vanderbilt | New York City


KAFD Conference Center | Riyadh

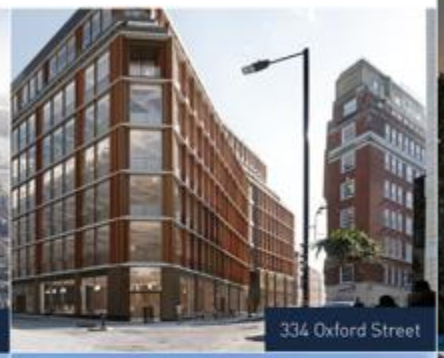

Louis Vuitton Maison | Seoul

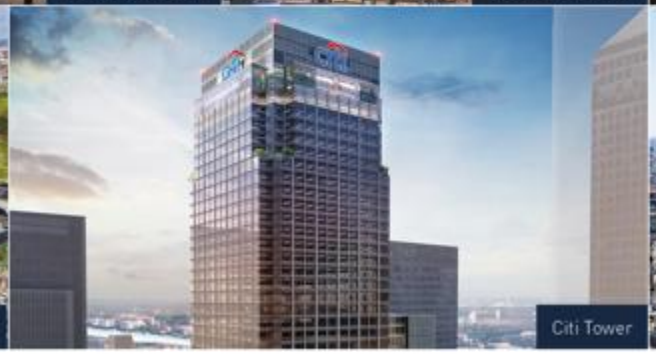

Guggenheim Museum | Bilbao

End-to-end Engineering Excellence

We are the only global façade specialist that provides a complete service – from early concepts through to installation and aftercare.

Ongoing London Projects





Related Permasteelisa Group Projects

Innovations: What gives EDGE London Bridge its edge?

A new aesthetic: The façade celebrates Bermondsey's Victorian engineering using a specialised material palette, including glazed terracotta façade panels and expressed steel structural elements.

A unified system: The structural bracing and the envelope work together to lower embodied and operational carbon, combining material innovation, tightly controlled joints, and the careful structural integration of external terraces.

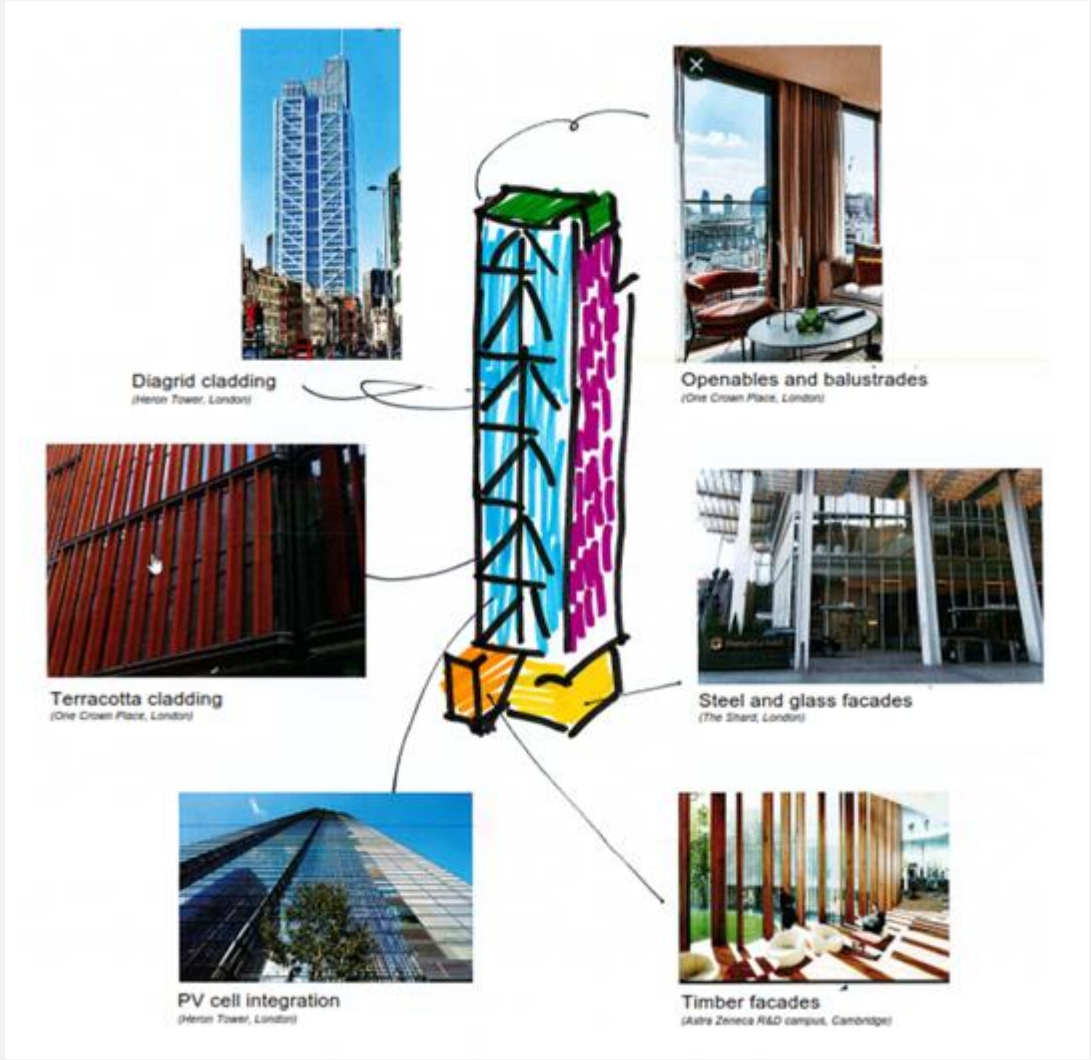
Adaptive engineering: The façade balances light and shade and solid and glass to flood the interior with natural daylight, while reducing overheating and limiting thermal loss.

Localised natural ventilation:
The envelope includes openable façade elements on every level.

EDGE London Bridge: Façade Types

Permasteelisa Group carried out the design and engineering, manufacturing, and installation of 20,000 sqm (215,200 sq ft) of bespoke façade, including:

- 12 different unitized systems including glazed terracotta, GRC, and accoya timber, for a total of 14,000 sqm (150,700 sq ft)
- 5 rainscreen systems, for a total of 2,700 sqm (29,000 sq ft)
- 3 stick systems, for a total of 1,500 sqm (16,100 sq ft)
- 4 louvre systems, for a total of 700 sqm (7,500 sq ft)
- Soffits, balustrades, and canopies, for a total of 1,100 sqm (11,800 sq ft)



Building on past experience of pioneering tall buildings

Bringing continuous invention and improvement

At the same time, de-risking and securing certainty in delivery

Terracotta façade: Conceptual idea

Colours

"A natural calm and humble colour scheme, best described in shades and tones."

Built on a legacy of innovation

58 Fenchurch Street

33 King William Street

Terracotta development process

0 **Glazing development by architect**

1 **Initial glazing development**

1-A, Initial glazing sample, manually glazed
1-B, Final glazing sample, manually glazed
1-C, Post-contract glazing samples

2 **Production samples development**

2-A, Initial Lab samples, manually glazed
2-B, Cold engobing,
2-C, Final Lab samples, manually glazed
2-D, Production samples, automatically glazed

3 **Die development**

3-A Design finalization
3-B Die manufacturing

4 **Initial impact testing**

4-A Soft body impact serviceability
4-B Soft body impact safety

5 **Visual mock-up**

5-A Dimensions, tolerances & jointing
5-B Finish approval

6 **Performance mock-up**

7 **Benchmarking on site**

Initial glazing development

1

Producing samples development

2

Visual mock-up

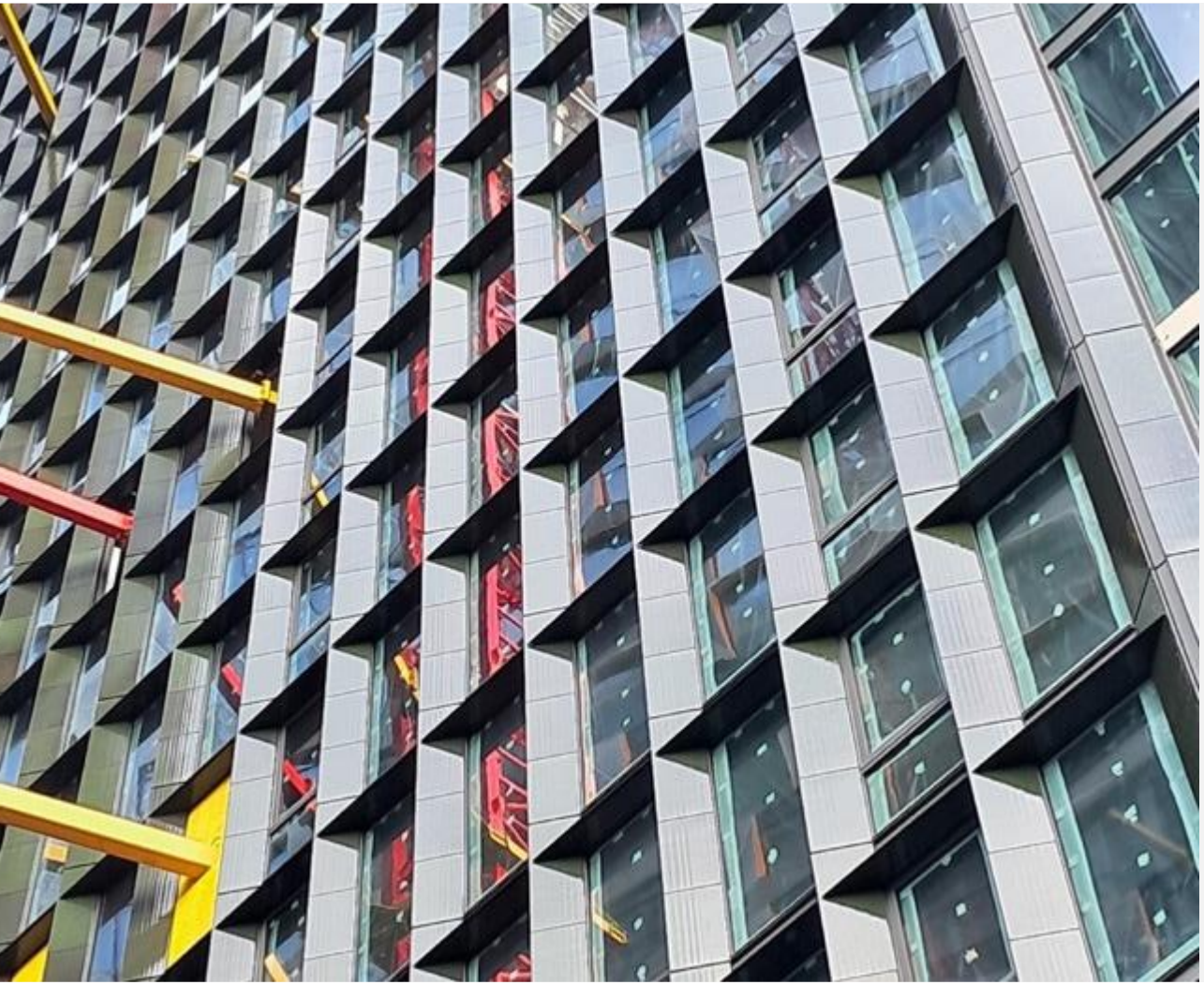
5

Performance mock-up

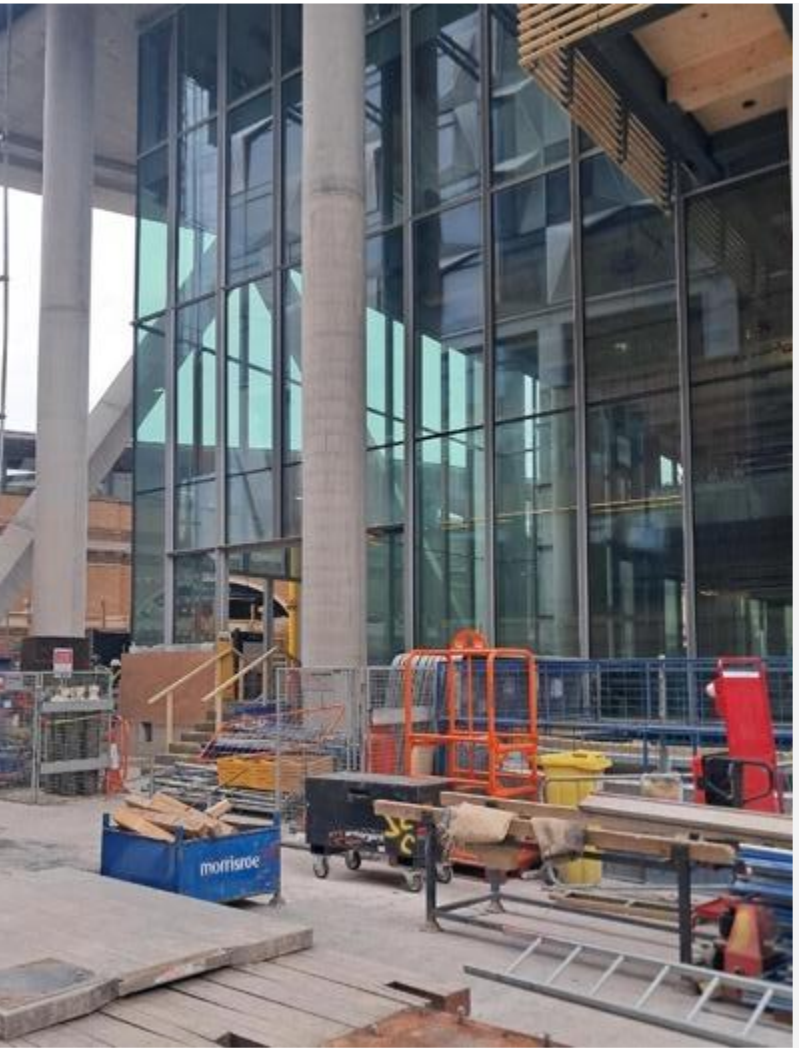
6

Benchmarking on site

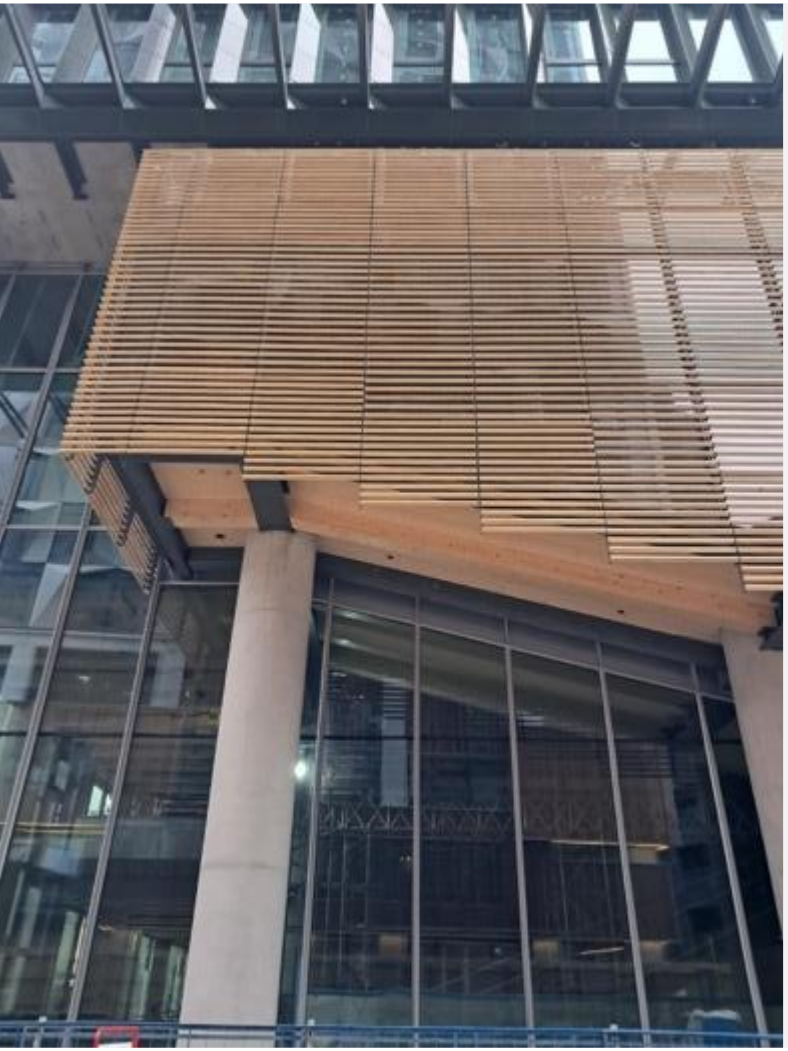
7

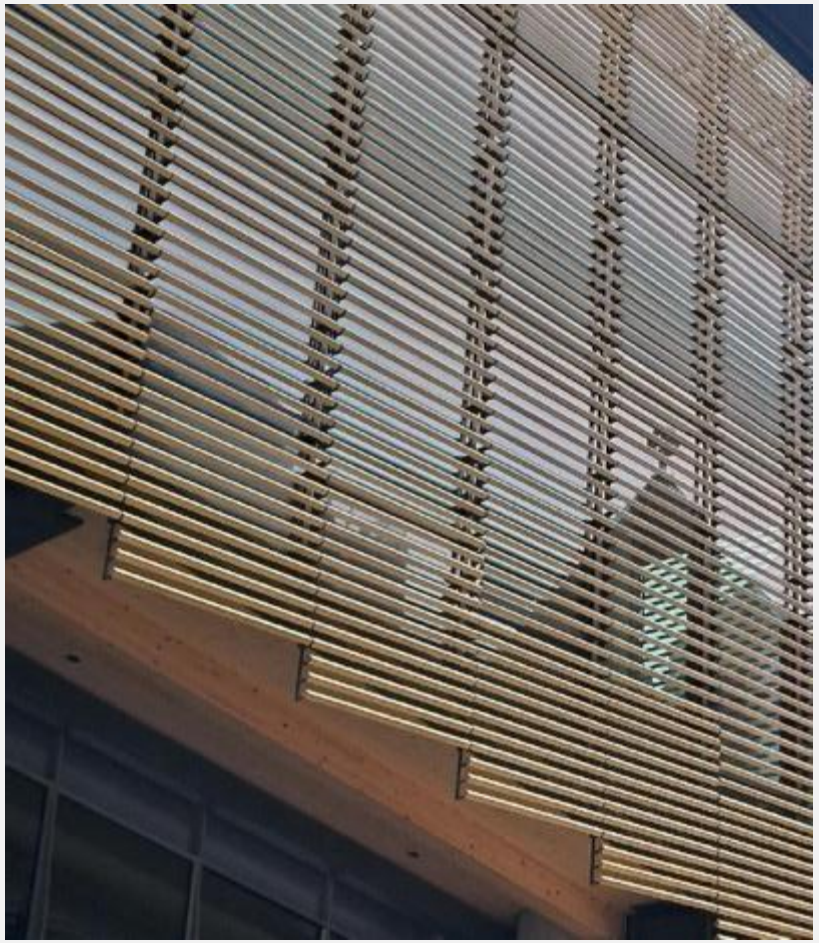


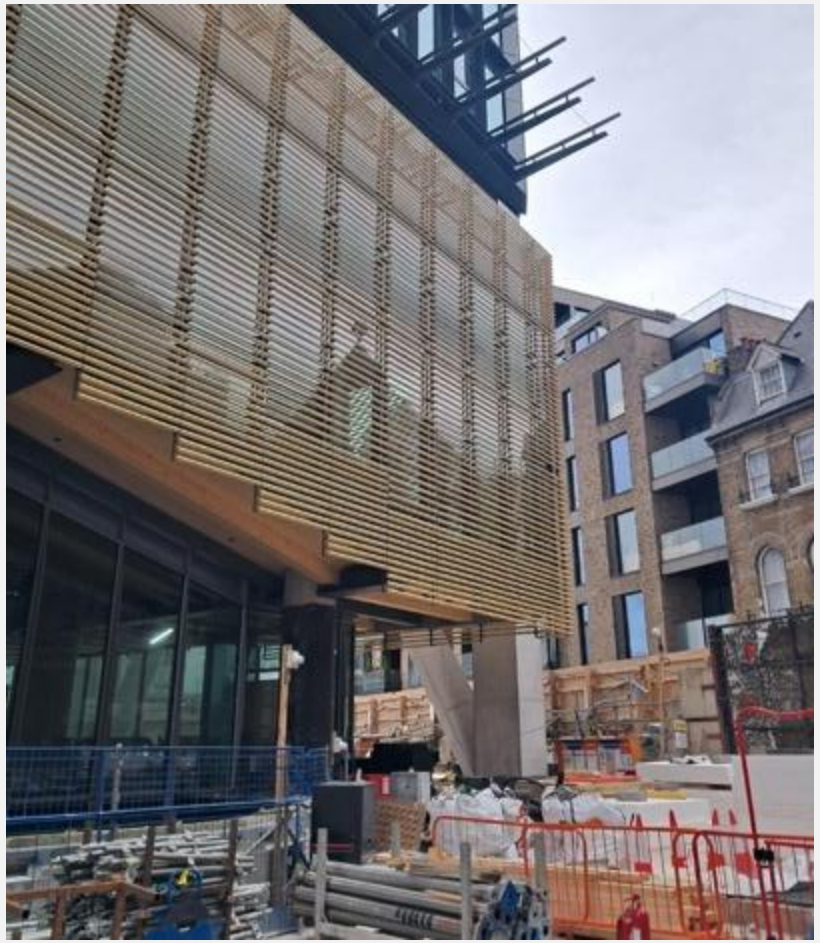
Entrance area - Podium



Entrance area - Auditorium







Looking forward

What makes EDGE London Bridge a standout high-rise project

- The shared vision and ambition between developer, architect, specialist contractors
- Collaboration in the PSA, design and execution
- Harnessing decades of collective vertical expertise as a foundation for innovation
- The room to push boundaries, with safety and certainty

WHAT NEXT

- Due for completion Q3 2026, EDGE London Bridge is projected to become one of London's most sustainable office towers, targeting a combined BREEAM Outstanding and WELL Platinum rating
- The first UK project by the Dutch developer, it is set to pave the way for future smart-tech, ultra-green buildings in London

KEY TAKEAWAY

- Façades can do more of the heavy lifting in the future of tall buildings - driving the structural expression, air quality, thermal strategy, energy efficiency, and community engagement

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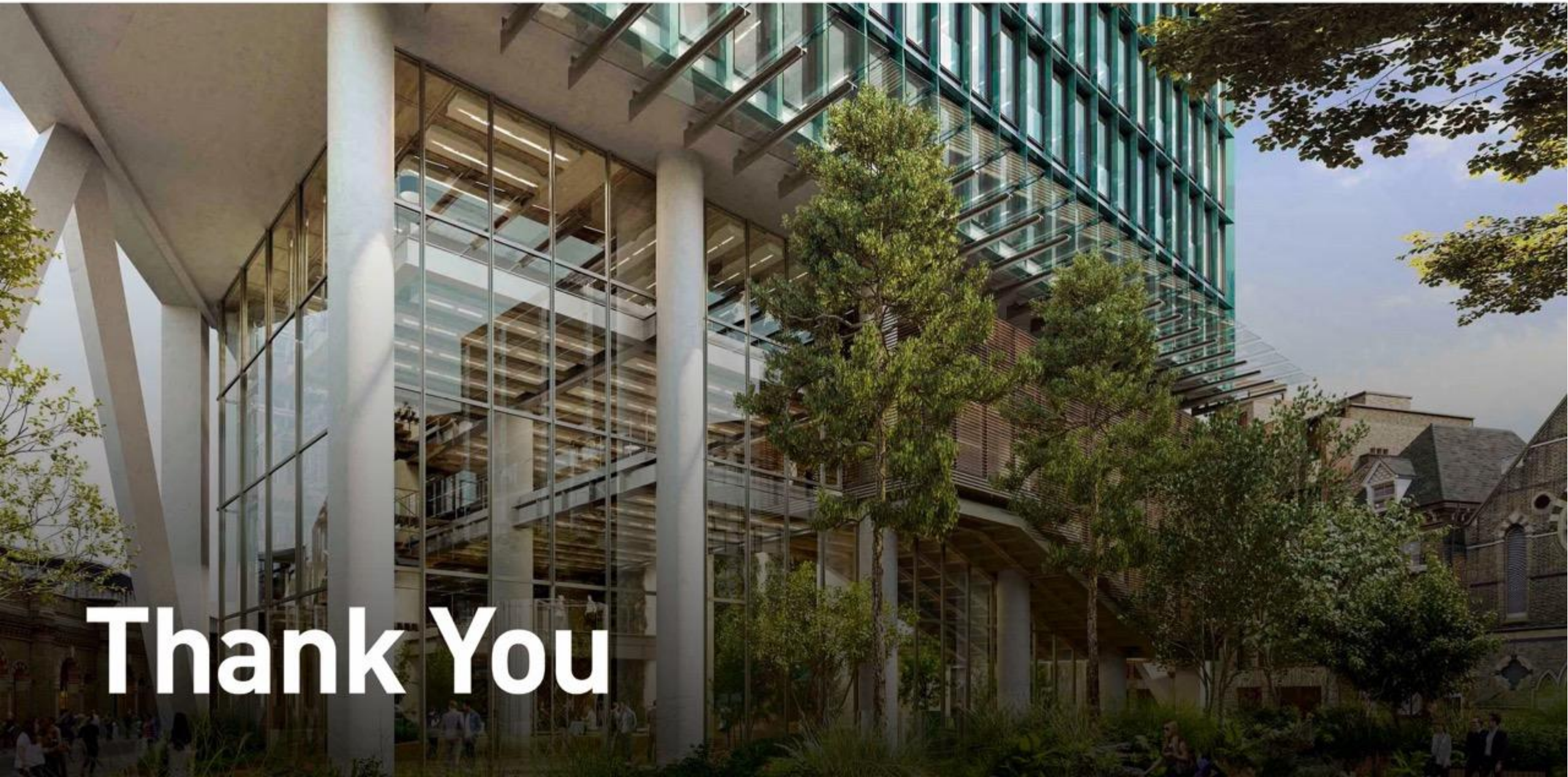

Thank You