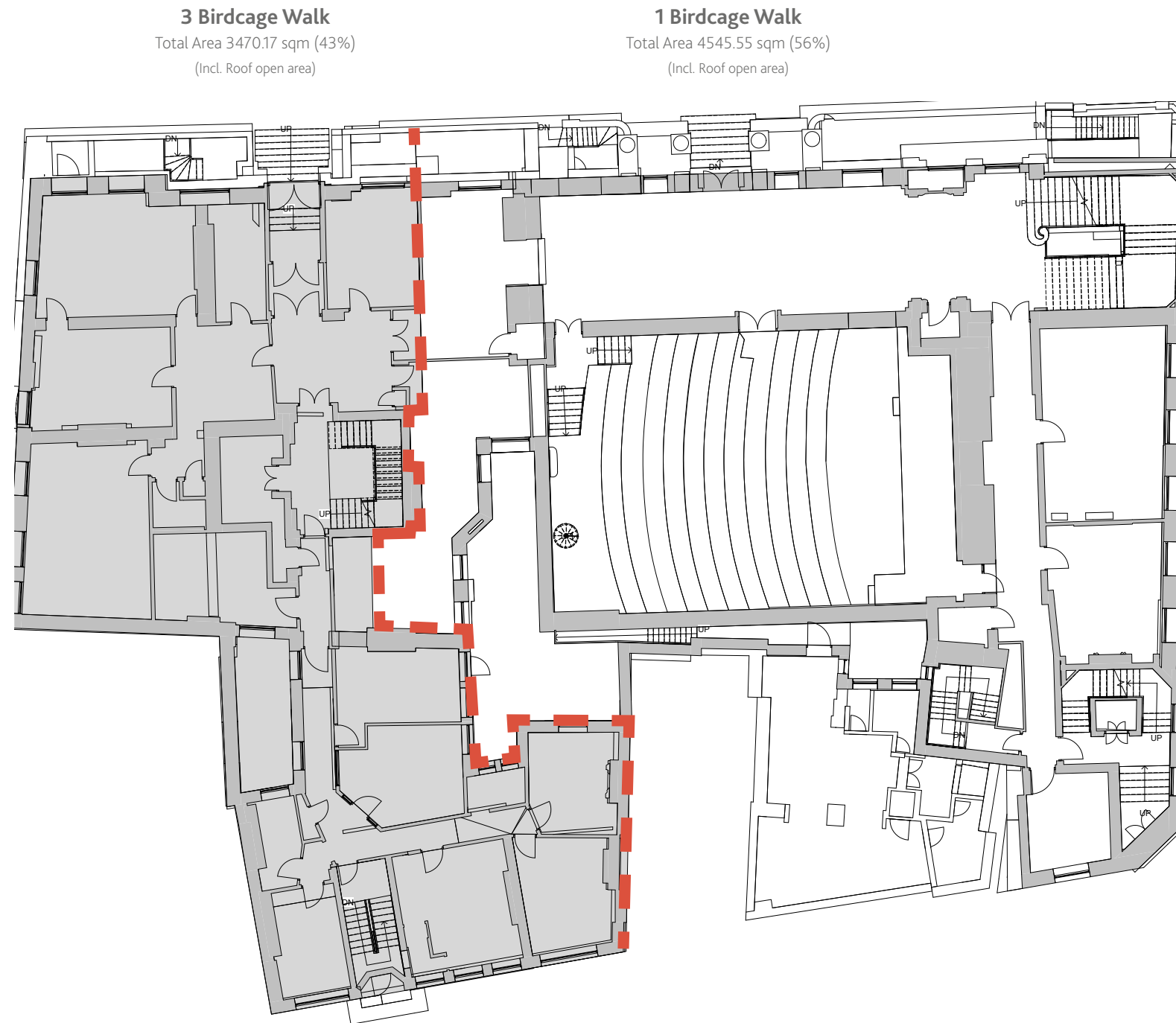


Crafting well-rounded user journeys for members and the general public will allow them to fully experience innovative mechanical engineering through design elements.

Sustainable Thinking Building Level

To create a financially sustainable project, the proposal divides the space between numbers 1 and 3 Birdcage Walk as indicated throughout this document.

An optimised, rationalised design accommodates all the necessary functions for IMechE HQ within 1 Birdcage Walk, which in turn creates the opportunity to lease 3 Birdcage Walk and thus generate profits that will allow for the necessary works and maintenance of number 1.



DESIGN CONSIDERATIONS

1 BIRDCAGE WALK

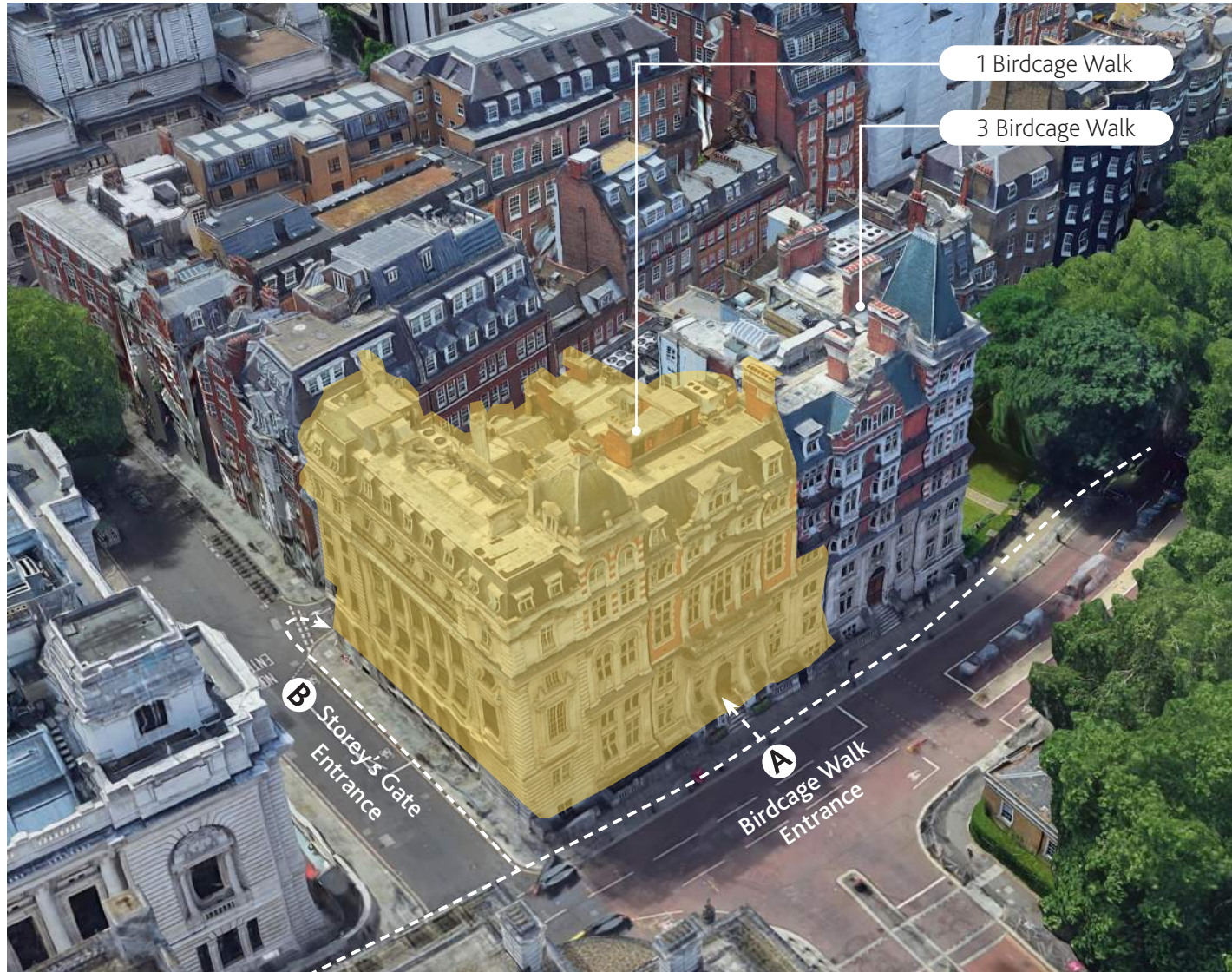
- Desire to retain 1 Birdcage Walk as IMechE Headquarters.
- Refurbish member spaces and facilities, adding new features using the latest technology and innovation.
- Almost all areas used by members, including the Library, Lecture Theatre, Reception and the main meeting rooms, are within 1 Birdcage Walk.
- Making more space in 1BCW usable (basements, server rooms, roof etc).

3 BIRDCAGE WALK

- A long-term lease of 3 Birdcage Walk would protect our ultimate ownership whilst providing key capital to fully refurbish 1BCW for generations.
- 3 Birdcage Walk mainly comprises staff offices and space leased to other organisations. A 'Working from home' policy will help to take advantage of the space, keeping all current activities within number 1.

Accessibility

Existing Street Access



A

Birdcage Walk Entrance

- Access not available for Wheelchair users
- 7 Steps from street level to ground floor access
- Landing space is quite reduced
- Doors manually operated with lock mechanism controlled by the reception
- Lower Ground and Basement level below the entrance



B

Storey's Gate Entrance

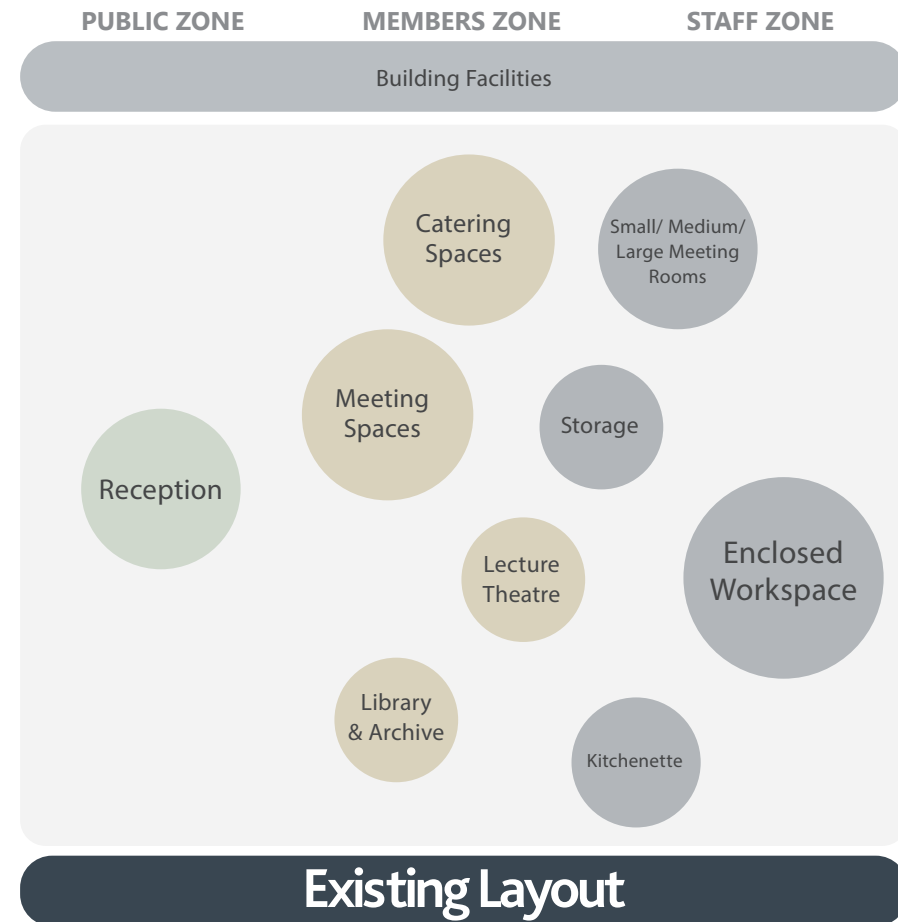
- Access not available for Wheelchair users
- 3 Steps from street level + additional steps after door entrance to ground floor.
- Landing space not available
- Doors manually operated and locked
- Lower Ground and Basement level below the entrance

Layout Strategy

Welcome to IMechE

The IMechE user's experience will inform the planning of the spaces across the building. We have distilled the experience down into the following zones: Members / Visitors Zone, Catering Zone and Workplace Zone.

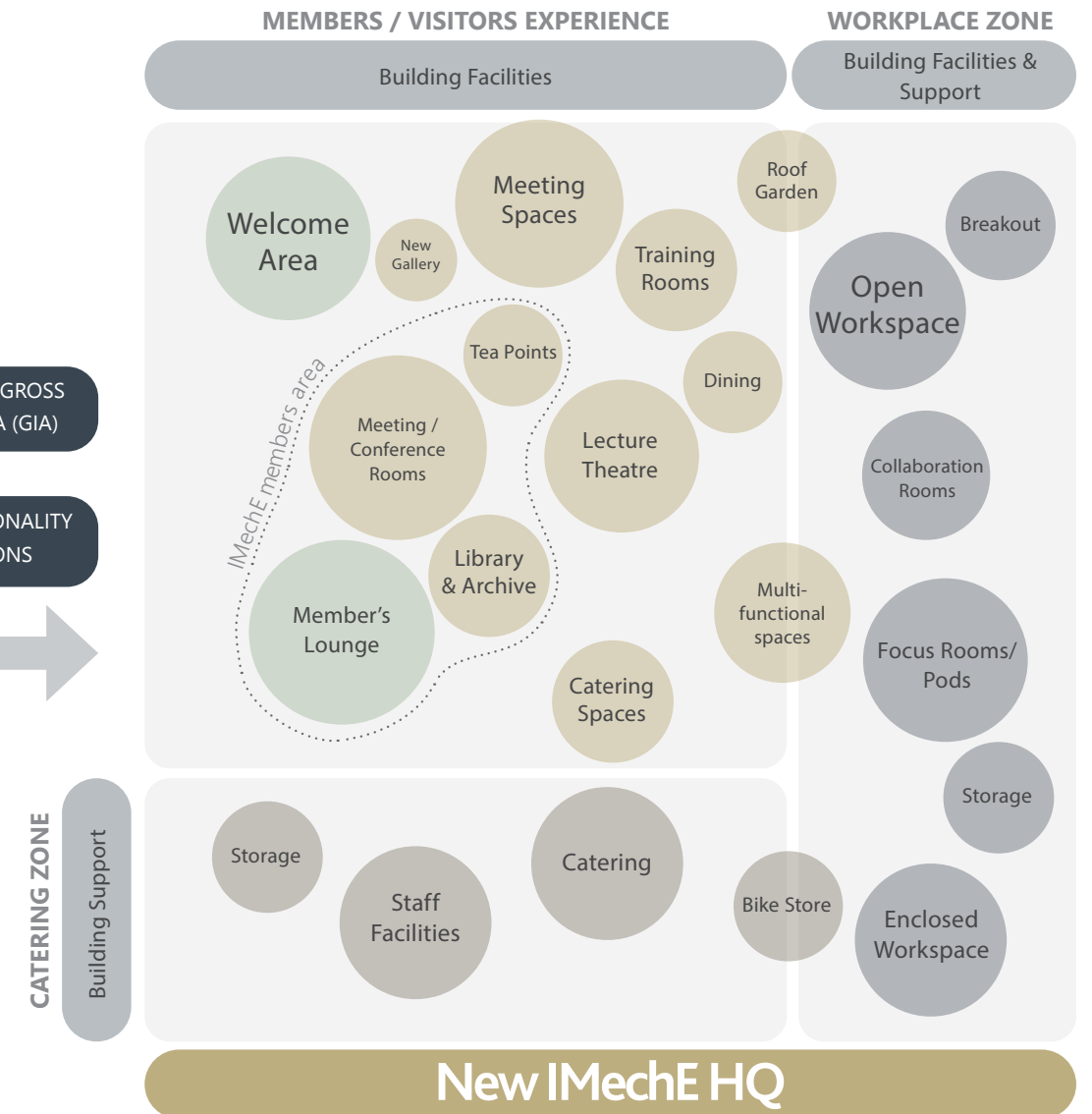
- The current spatial layout of BCW intends to create a distinct separation between the public zone, members zone and staff zone. However, the segregation is not clearly defined and consequently, the circulation flow between the three primary areas is unclear and complex.
- The new IMechE HQ will be planned to create a fluid experience for all, offering a more intuitive zoning and circulation flow providing a better experience to members/visitors, workplace staff and catering staff. Shared facilities will allow blurring the boundaries between each zone without compromising the security and access control.



REDUCTION OF GROSS INTERNAL AREA (GIA)

+

SPACE / FUNCTIONALITY OPTIMISATIONS



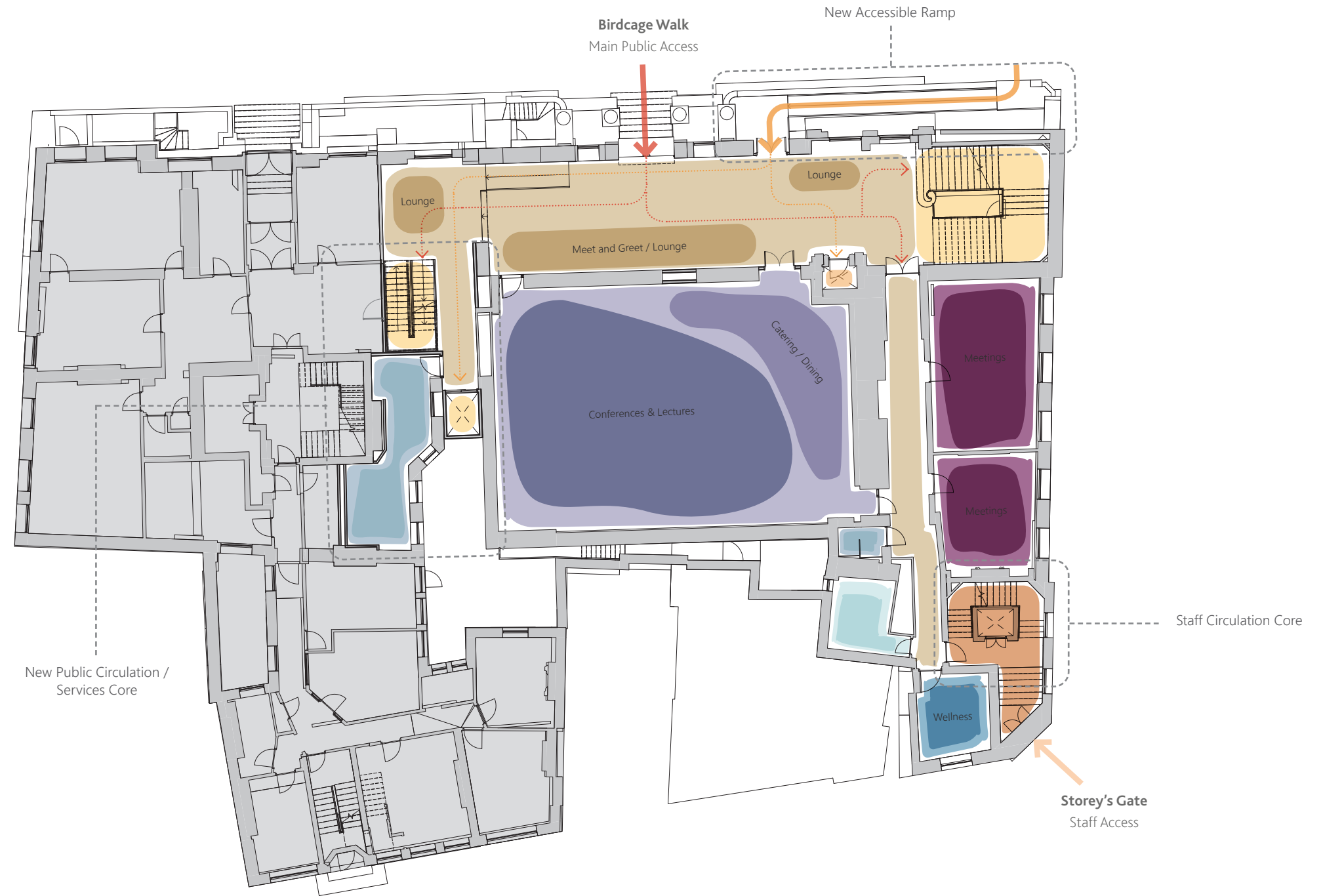
Spatial Design Layout Strategy

Circulation & Distribution

- Members/ Visitors Circulation
- Members/ Visitors Stairs and Lift
- Staff Circulation (access controlled)
- Staff Stairs and Lift (access controlled)

- Meeting Space
- Catering
- Members Learning & Development
- Open Workplace
- Enclosed Workplace
- Roof Garden
- Storage / Support
- Facilities (Toilets, Changing Rooms, etc.)
- Wellness (Bike Store, Relaxation Room, etc.)
- New Lease 3 Birdcage Walk

- Members/ Visitors Main Entrance
- Accessible Entrance
- Staff Main Entrance (access controlled)



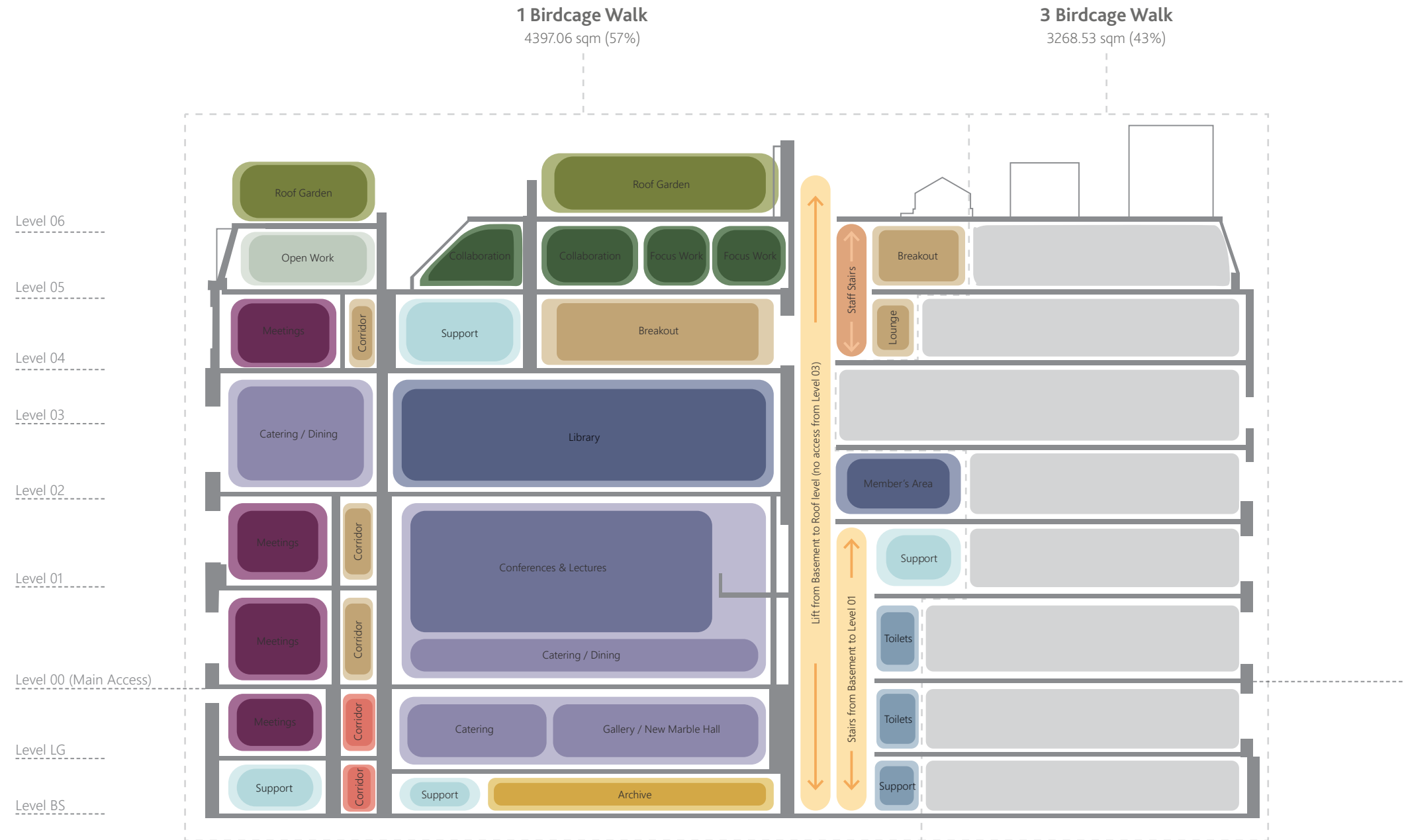
Spatial Design Layout Strategy

Building Stack

- Members/ Visitors Circulation
- Members/ Visitors Stairs and Lift
- Staff Circulation (access controlled)
- Staff Stairs and Lift (access controlled)

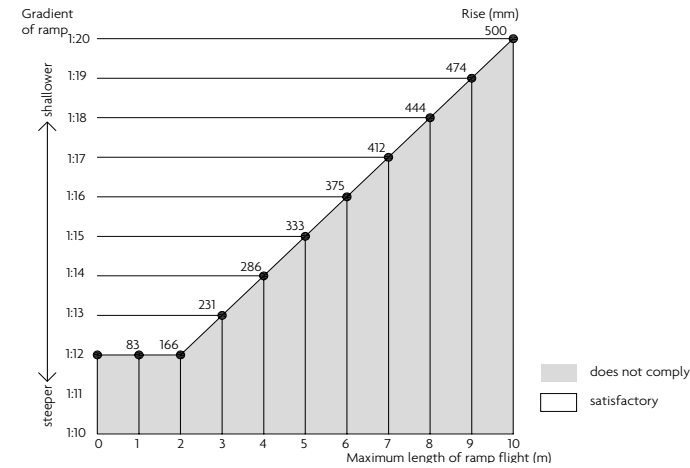
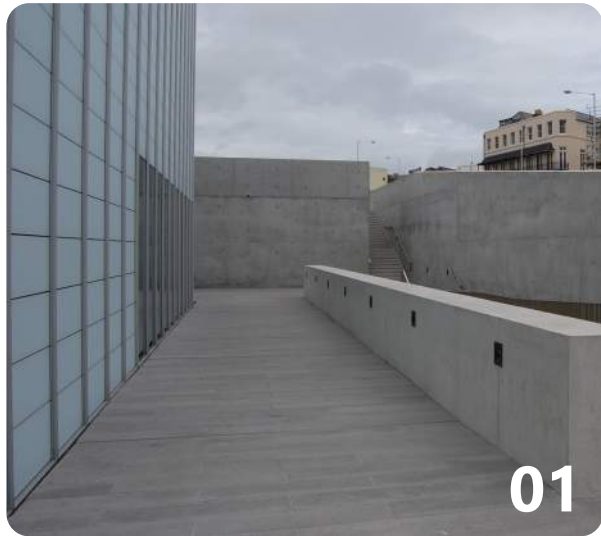
- Meeting Space
- Catering
- Members Learning & Development
- Open Workplace
- Enclosed Workplace
- Roof Garden
- Storage / Support
- Facilities (Toilets, Changing Rooms, etc.)
- Wellness (Bike Store, Relaxation Room, etc.)
- Archive
- New Lease 3 Birdcage Walk

- Members/ Visitors Main Entrance
- Accessible Entrance
- Staff Main Entrance (access controlled)



Optimisations

Mobility Strategy Accessible Ramps



GENERAL CONSIDERATIONS

- Individual flights are:
 - for gradients up to 1:15 – not more than 10m long
 - for gradients up to 1:12 – not more than 5m long
- Every flight has a minimum clear width of 900mm.
- Planning approval will be required, and being a Heritage building the solutions will need to show a sympathetic approach to the main Façade and openings.
- Structural considerations on lower levels.

01 External Accessible Ramp - Street Level

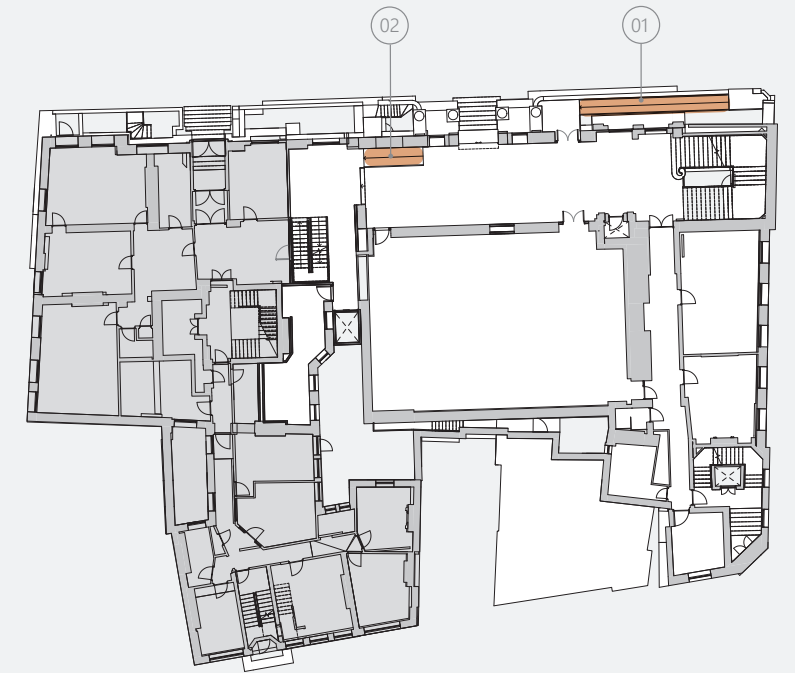
Approx threshold: 322mm (TBC)
 Approx Length: 10000mm
 Gradient: 1:15

02 Internal Accessible Ramp - Ground Floor

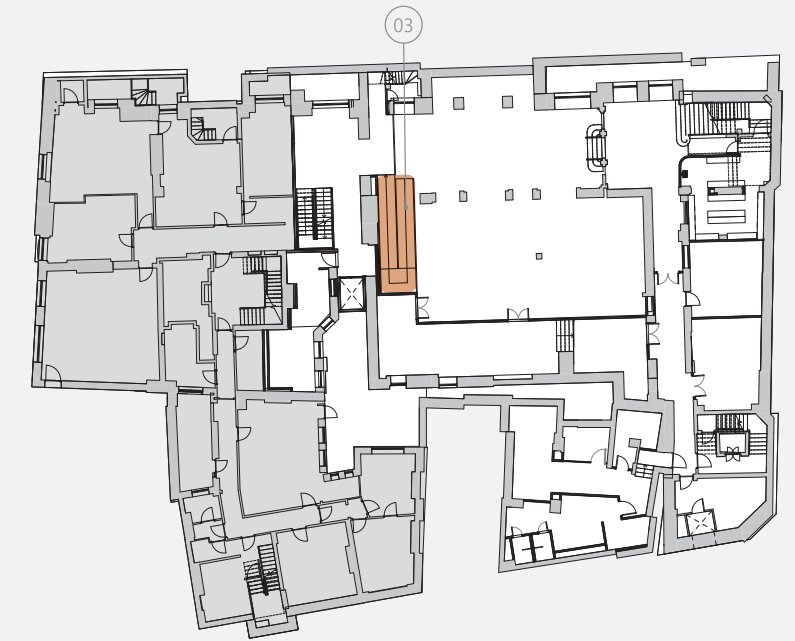
Approx threshold: 270mm
 Approx Length: 4050mm
 Gradient: 1:15

03 Internal Accessible Ramp - Lower Ground Floor

Approx threshold: 615mm
 Approx Length: 6000 mm (x2 flights)
 Gradient: 1:20



Ground Floor Level - Main Access



Lower Ground Level - Marble Hall / Gallery

Mobility Strategy

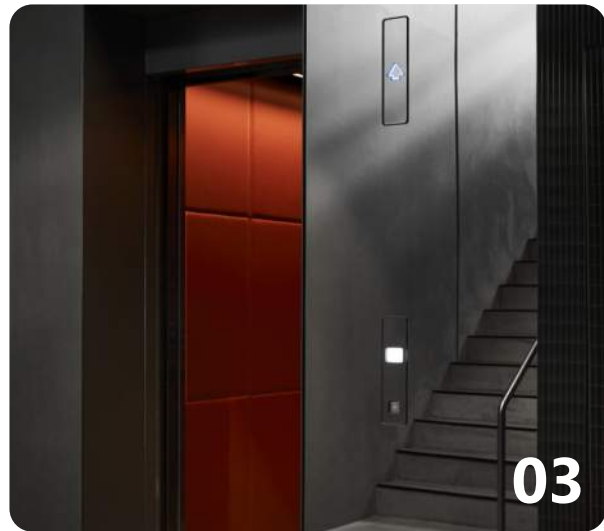
Passenger Lifts & Platforms



01



02



03



04

01 Existing Passenger Lift (Public)

Approx Internal Size: 1500mm x 1700 mm

Created in 1899, the existing Otis lift was one of a number of novel electrical features in the UK. This will be retained but decoration needs to be replaced/ restored. Specialist to confirm further M&E repairs.

02 New Passenger Lift (Public/Staff)

Approx Internal Size: 1500mm x 2100 mm

Public lift from BS level to Roof Garden level. Restricted access for staff only in BS level, 04 and 05. No access from level 03 (New 3 BCW side). Double door system with side opening in level 04 (refer to GA drawings).

03 Existing Passenger Lift (Staff)

Approx Internal Size: 1200mm x 1600 mm

This will be retained but decoration needs to be replaced/ restored. Specialist to confirm further M&E repairs.

04 Library Platform Lift

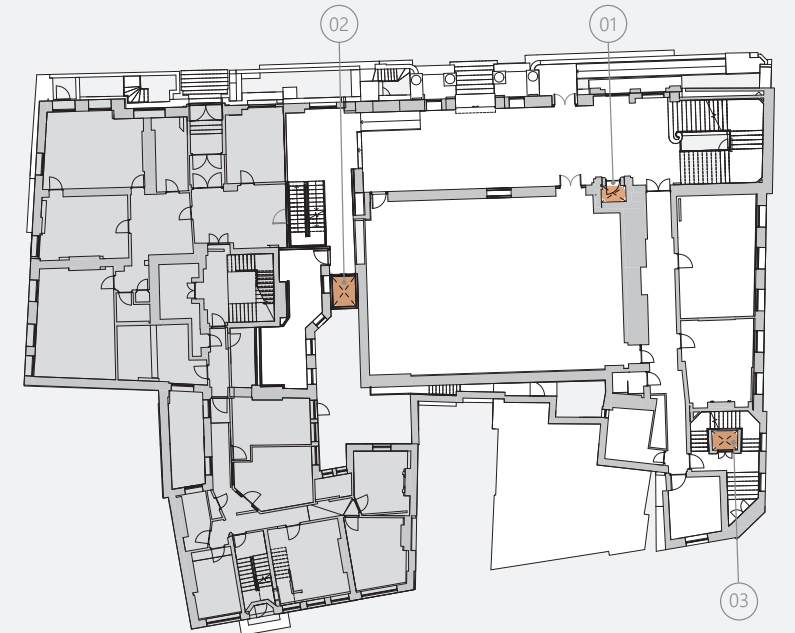
Approx Internal Size: 1000mm x 1500 mm

Automatic gate at the upper landing level and a rising platform that sits flush with lower landing when not in use.

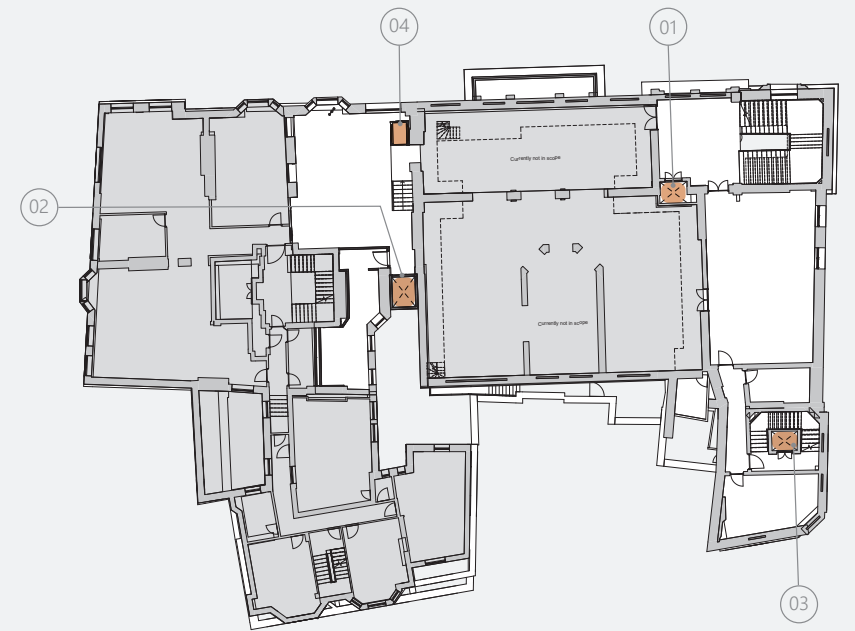
05 Catering Platform Lift (Reference Image not shown)

Approx Internal Size: 1200mm x 1600 mm

Rising platform from Lower Ground floor to Storey's Gate Street level (GF). To be utilised for easy transportation of delivered goods (refer to GA drawings).

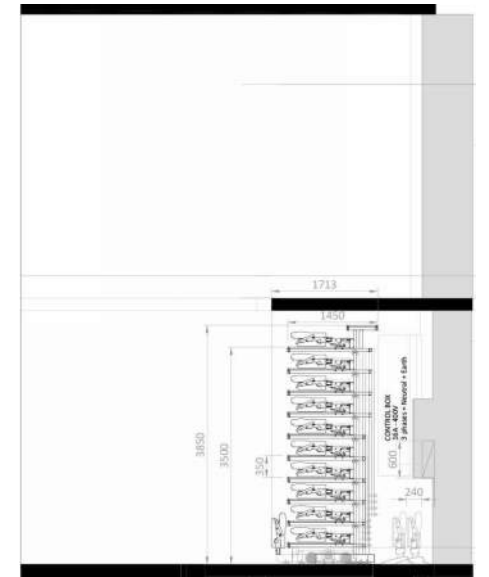
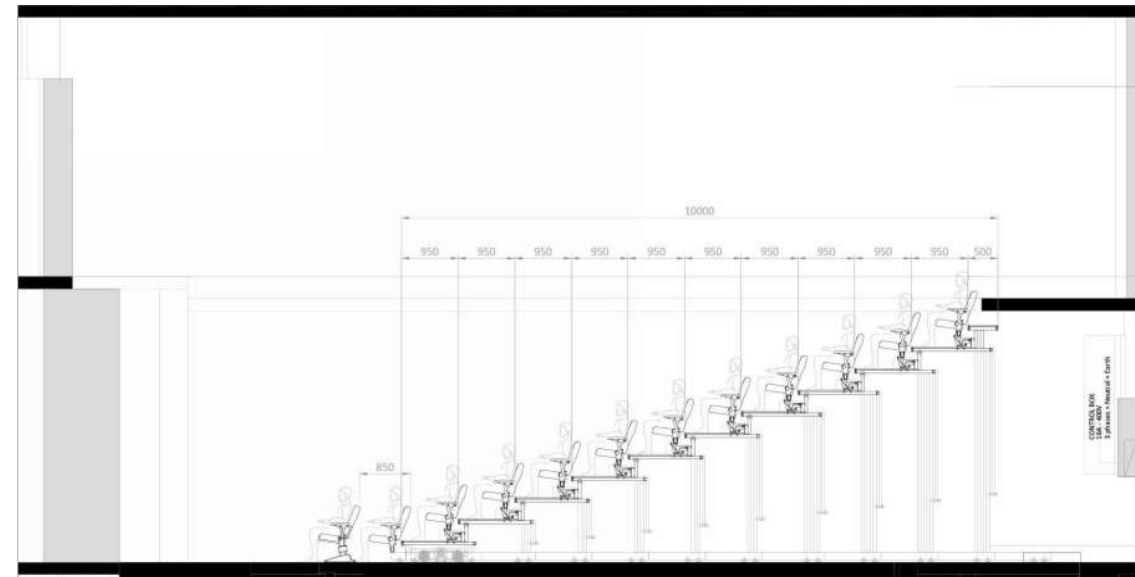
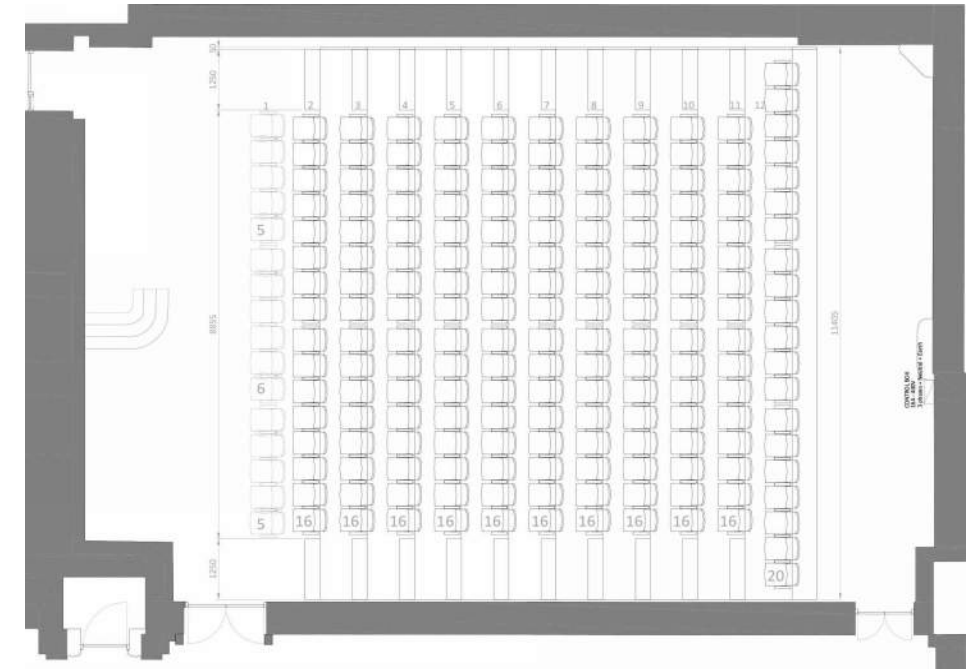
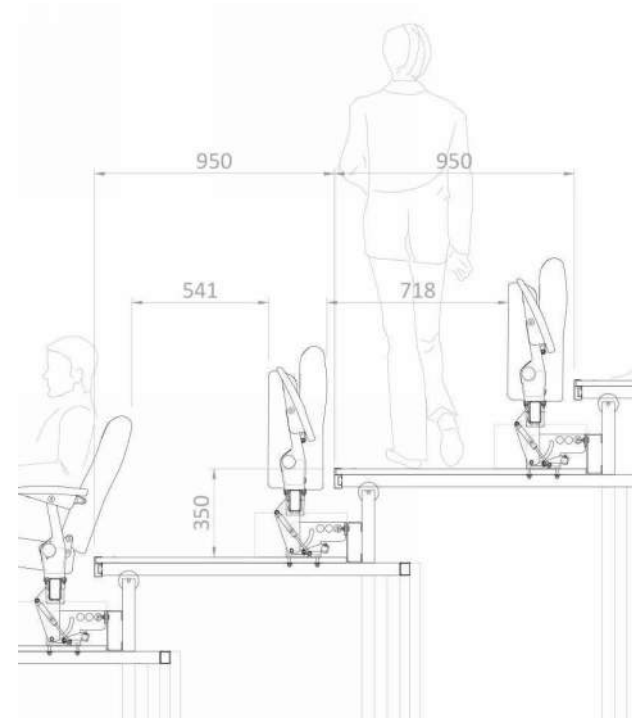


Ground Floor Level - Main Access



Level 02 - Member's Lounge/ Library

Lecture Theatre Retractable Seating



Telescopic Tribune: 180 Seats
Additional Seating (not telescopic): 16 Seats
Total capacity: 196 Seats

IMechE Workplace The Hybrid Future

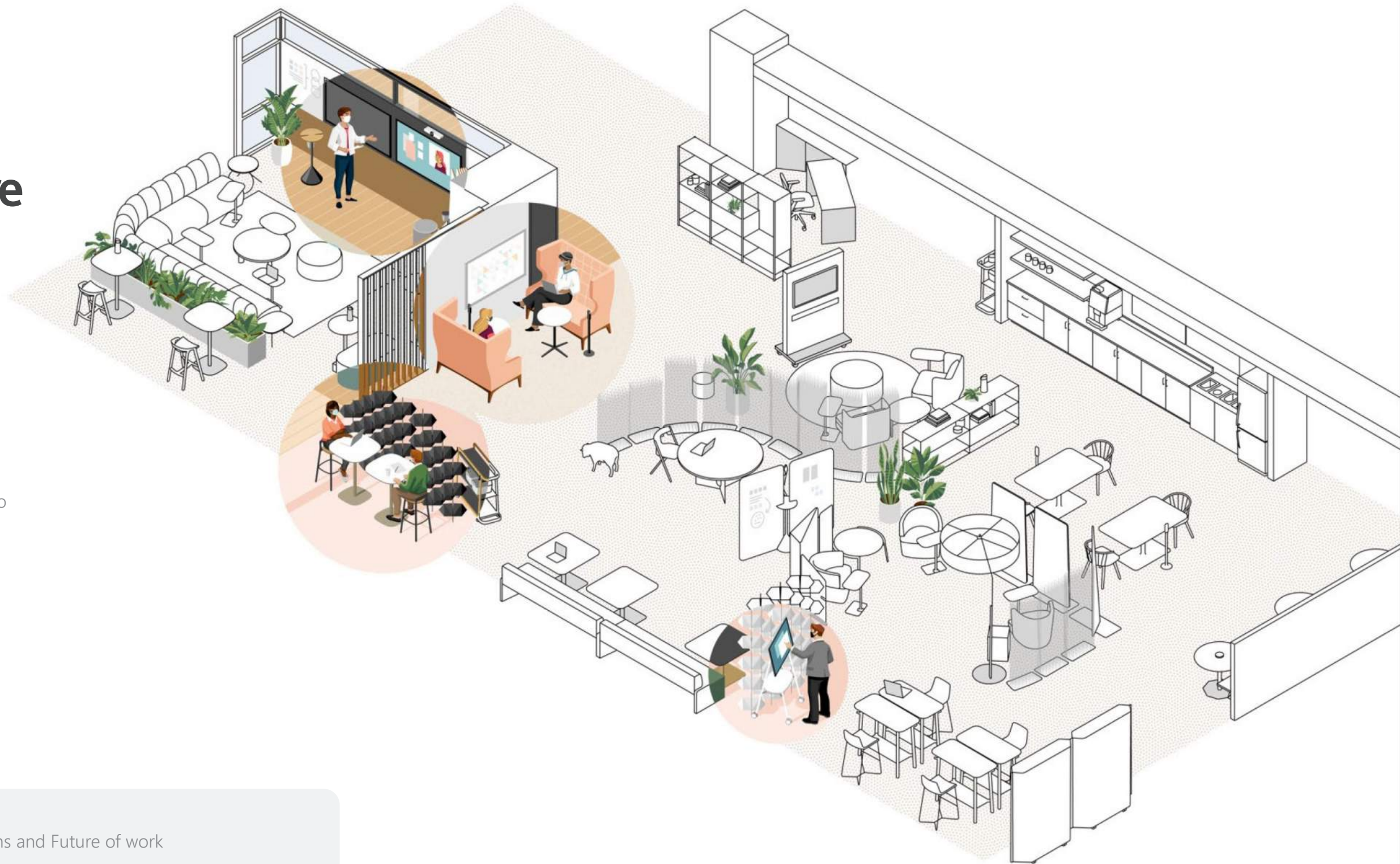
Steelcase

Braiding the Digital + Physical

- Add collaboration devices and access to mobile power to boost use
- Provide Shielding + backgrounds for solo video calls with headphones
- Access to large-scale mobile devices in the open working area lets teams work through problems on demand.
- Embed sensors to monitor density and utilisation.

Further information:

Steelcase Report - Changing Expectations and Future of work



IMechE Workplace Foundational Typologies

In collaboration with Steelcase

Spaces for Learning



Spaces for Focus Work



Spaces for Collaboration



Digital Experience

This is what the **future** looks like.

The pandemic has triggered a massive shift in global work and socialisation patterns. We've learned new behaviours, adopted new technologies, and adjusted to new ways of living. We've also come to a deeper understanding of the fundamental role of place in how we work, especially how we work together.

Organisations around the world are rethinking the future of the workplace based on experiences and learnings from the past year, with particular focus on the well-being and connectivity of their teams.

Collectively, we are reimagining the future of IMechE at global scale, with the physical institution continuing to play a central role in creating more connected, equitable experiences that benefit people, organisations, and their surrounding communities.



Digital Transformation For Visitors + Members



01 Digital Ecosystem

Digital tactile/sensorial exhibits, interactive touchpoints, and personalized moments that create a holistic brand journey.

02 Information Display and Smart Integrations

Sharing newsfeeds and social content from around the institution, as well as also featuring information about innovations and developments in the Mechanical Engineering Sector across the world.

03 Digital Concierge

Taking care of the entire visitor journey from receiving the meeting invite before arriving at the building, to the touchless sign-in process.

04 Mixed-media Entry experience

Combining digital screens with a large scale joinery piece with niches to house physical artefacts highlighting the latest technologies in the Mechanical Engineering sector.

05 Immersive Experience

Using facial recognition technology and mobile augmented reality to engage the public beyond the new IMechE walls.

Digital Transformation For Working + Collaboration



01 Digital Whiteboard

This technology provides a shared digital canvas, fostering collaboration and co-creation allowing participants to draw and brainstorm with colleagues, wherever they are.

02 Hybrid Meetings

Including technologies that can feature live captions, live transcription, raise your hand, live reactions, and chat help people follow along and offer opportunities to chime in nonverbally or without interrupting the speaker.

03 Immersive Mixed Reality

Enabling presence and shared experiences from anywhere – on any device – through mixed reality applications.

04 Smart + Flexible Collaboration

Enabling teamwork anywhere with movable screens fully integrated with other devices.

05 Smart Room and Desk Booking System

Providing a web-based scheduling system to help employees to reserve a particular space, collaborate with coworkers, and enjoy a safe workplace experience.

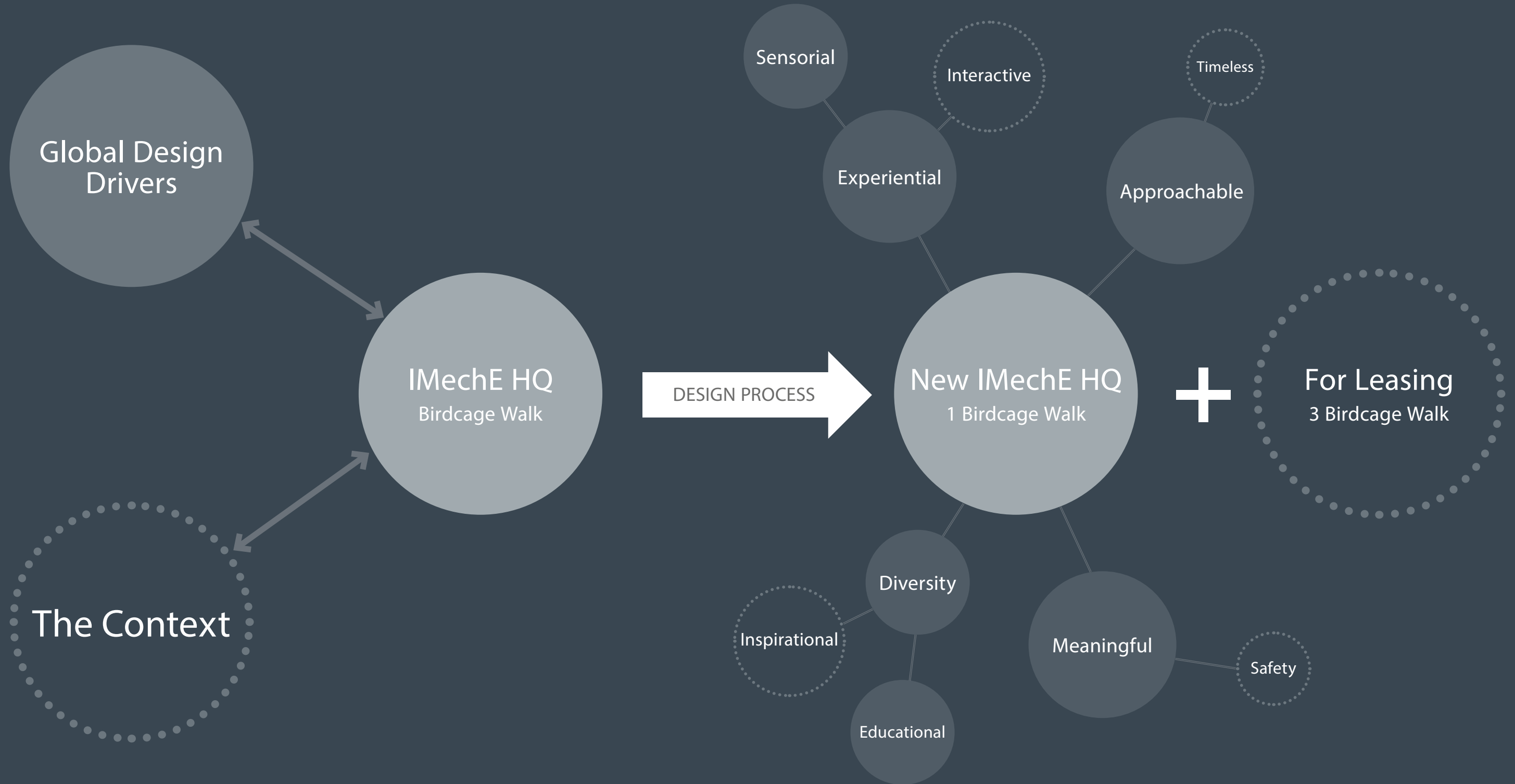
06 Mobile Power

Empowering mobility and flexibility across the workplace with portable power equipment.

Look & Feel

Note: The following images are for reference purposes only. The IMechE branding is not reflected within this chapter as this development will follow in the upcoming stages of the project.

HOME // CELLULAR SPACES // COLLABORATION
SAFETY // DIGITAL EXPERIENCE // CONTACTLESS
SHOWCASE EXCELLENCE // AUTOMATION // AI
CLOUD COMPUTING // LEGACY // BIOMEDICAL
ELECTRIFICATION // SELF-SUSTAINABLE // DATA
HERITAGE // REMOTE WORKING // INTERNET OF
THINGS // INDUSTRIAL REVOLUTION // FUTURE
INNOVATION// SOCIAL // ACCESSIBILITY // 4D
APPROACHABLE // CONSCIOUS // FUNCTIONAL
WELLNESS // SENSORIAL // SMART // INCLUSIVE
CONNECTIVITY // ENERGY // INTERPLANETARY
DIVERSITY // CITY FARM // DECARBONISATION





EXPERIENTIAL



INTERACTIVE



APPROACHABLE



SENSORIAL



TIMELESS



Educational



Meaningful



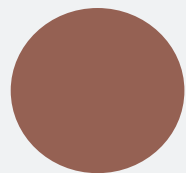
Diverse ways of working

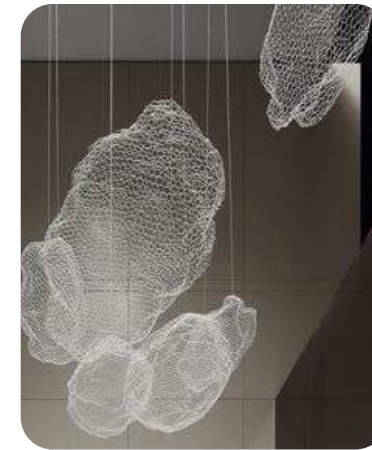
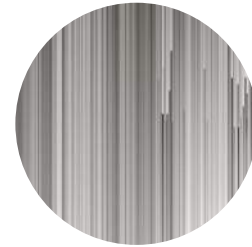
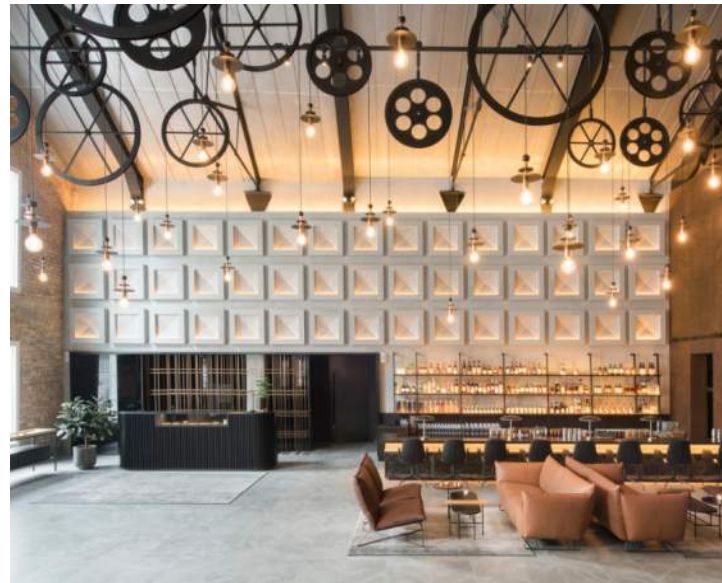


Feeling of Safety



Inspire Innovation





ABOUT

Straight through the main entrance is the Welcoming/Reception Area, combining digital screens with a large scale joinery piece with niches to house physical artefacts highlighting the latest technologies in the Mechanical Engineering sector.

METRICS

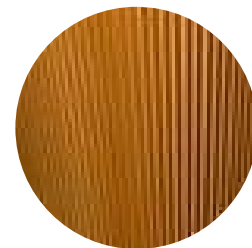
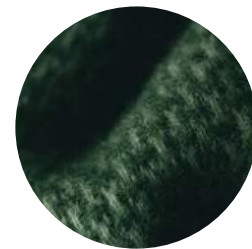
Area: 152.81 sqm
Seating Capacity: 20 people approx

WORKMODES / ACTIVITIES

- Welcoming Area
- Digital Concierge
- Lounge Seating
- Exhibitions

KEY FEATURES

 Accessible Spaces	 Inclusive Spaces	 Arrival Experience
 Social Events	 Exhibits and Innovation areas	 Digital signage & Messaging



ABOUT

The IMechE Member's lounge is a new area located on the second floor strategically designed to work in conjunction with the existing Library. This particular space is born from the desire to offer all members a place where they can connect and feel proud of all the historic achievements within the ME sector.

METRICS

Area: 85.64 sqm
Seating Capacity: 20 people approx

WORKMODES / ACTIVITIES

- Historic Artefacts Display
- Coffee Lounge
- Digital/ Interactive Displays
- Exhibitions

KEY FEATURES



Accessible Spaces



Inclusive Spaces



Amenities



Social Events

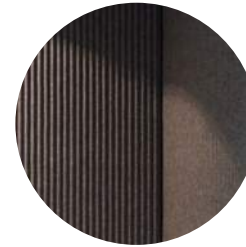
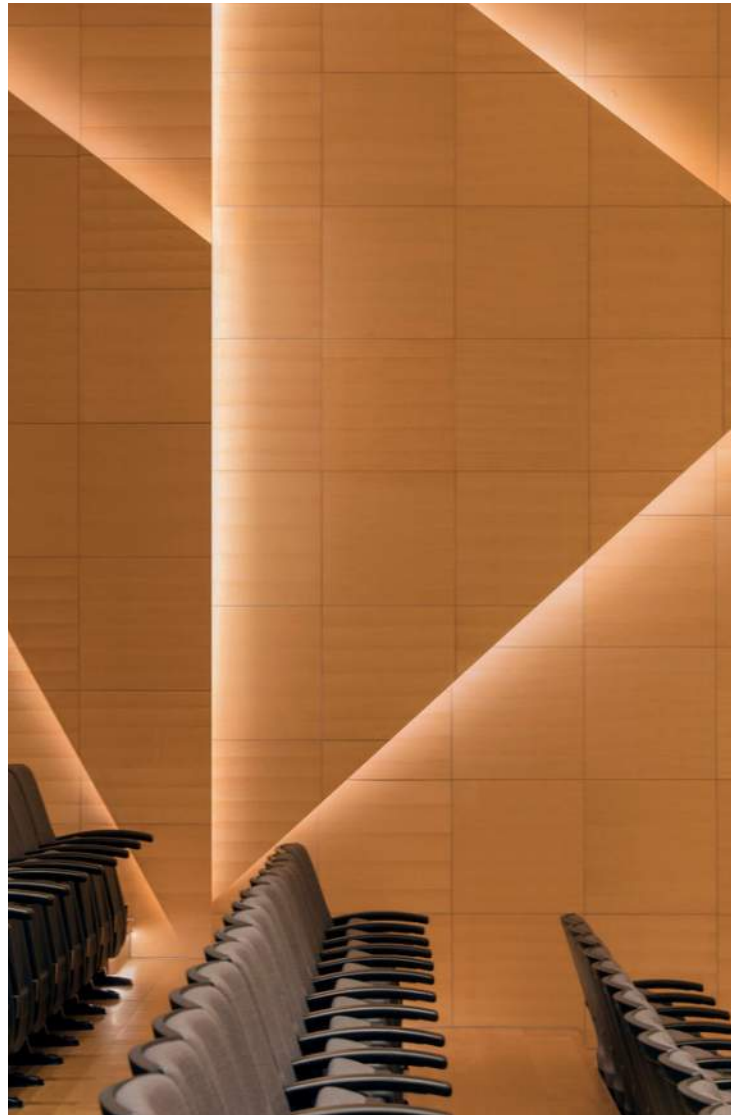


Sensorial Experience



Digital signage & Messaging





ABOUT

Located on the ground floor, the Lecture Theatre will count with a semi-automatic tiered seating arrangement. This technological addition allows the theatre to be utilised, not just as a conference, broadcast, speeches and product launches space; but also as a dining area when the seats are stored.

METRICS

Area: 205.29 sqm
Seating Capacity: 196 people approx

WORKMODES / ACTIVITIES

- Lectures/ Seminars
- Reception/ Dinners

KEY FEATURES



Accessible Spaces



Inclusive Spaces



Comfort



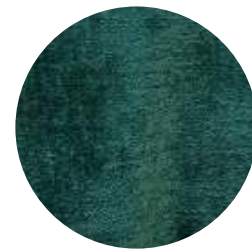
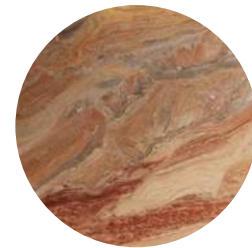
Social Events



Profitable Solutions



Safe Maximum Capacities



ABOUT

Currently decorated in Venetian palazzo style, the Marble Hall and Gallery are the perfect spaces for evening drinks receptions and exhibitions. Both spaces can also serve as catering area to support any of the activities happening in the upper floors.

METRICS

Area: 243.23 sqm
Seating Capacity: 70 people approx

WORKMODES / ACTIVITIES

- Catering
- Reception/ Dinners
- Exhibitions

KEY FEATURES



Accessible Spaces



Reuse & Restore



Comfort



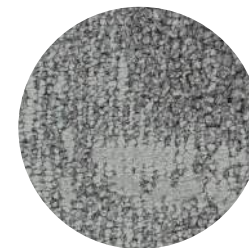
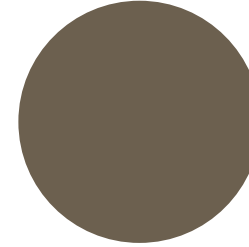
Social Events



Profitable Solutions



Safe Maximum Capacities



ABOUT

Located on the ground floor, the George Stephenson can be configured as both, a boardroom or a conference/lecture style room thanks to the flexible furniture. Due to its proximity to the Lecture Theatre, this venue space can also be used as a green room/waiting room for speakers of larger events.

METRICS

Area: 45.56 sqm

Seating Capacity: 13 people approx

WORKMODES / ACTIVITIES

- Private meetings
- Conferences
- Exhibitions

KEY FEATURES



Accessible Spaces



Next Gen Space



Comfort



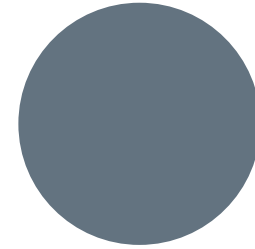
Booking System



Energy Saving



Safe Collaboration



ABOUT

The Joseph Whitworth room, located on the ground floor can accommodate up to 12 people boardroom style. Ideal for small meetings, this room can also be used as a private meeting room for larger events due to its close proximity to the Lecture Theatre.

METRICS

Area: 28.99 sqm

Seating Capacity: 12 people approx

WORKMODES / ACTIVITIES

- Private meetings
- Conferences
- Exhibitions

KEY FEATURES



Accessible Spaces



Next Gen Space



Comfort



Booking System

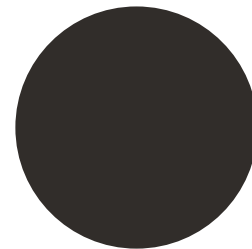


Energy Saving



Safe Collaboration





ABOUT

Located on the first floor, the Manufacturing Room offers an abundance of natural light and can be arranged to host a variety of events. A modern space with restored original features and beautiful views over St James's Park, ideal for away days and drinks receptions.

METRICS

Area: 83.47 sqm
Seating Capacity: 24 - 60 people approx

WORKMODES / ACTIVITIES

- Boardroom / Lecture
- Conferences
- Dinner/ Receptions
- Exhibitions

KEY FEATURES



Accessible Spaces



Next Gen Space



Comfort



Booking System



Energy Saving



Social Events



ABOUT

Located on the first floor, the Frank Whittle and Lanchester Room will be converted into a versatile space that can be divided into three smaller meeting rooms thanks to its high acoustically-rated foldable partitions.



METRICS

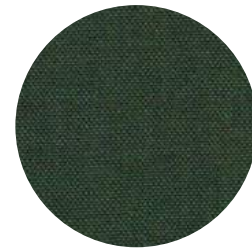
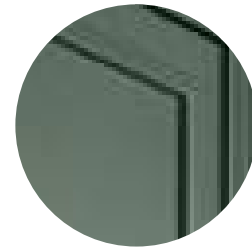
Area: 75.16 sqm (in total)
Seating Capacity: 32 - 60 people approx (in total)

WORKMODES / ACTIVITIES

- Boardroom / Lecture
- Conferences
- Small Private Meetings
- Exhibitions

KEY FEATURES

 Accessible Spaces	 Next Gen Space	 Comfort
 Booking System	 Energy Saving	 Safe Collaboration



ABOUT

The new Charles Parsons room, relocated on the first floor next to the Manufacturing Room, is a modern space with restored original features and beautiful views over St James's Park. This room offers natural daylight and is the perfect setting for a small meeting.

METRICS

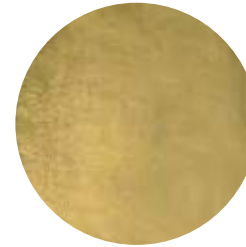
Area: 15.84 sqm
Seating Capacity: 6 people approx

WORKMODES / ACTIVITIES

- Small Private Meetings

KEY FEATURES

 Accessible Spaces	 Next Gen Space	 Comfort
 Booking System	 Energy Saving	 Safe Collaboration



ABOUT

Featuring Edwardian-style antique oak panelling, golden chandeliers, fireplaces and an ornate ceiling, the Council room is one of our larger event spaces. It is located on the second floor and can be arranged in a variety of layouts such as formal board meetings, filming locations, evening drinks receptions and dinners.







METRICS

Area: 92.12 sqm
Seating Capacity: 24 - 60 people approx

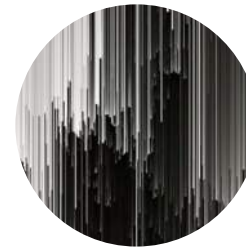
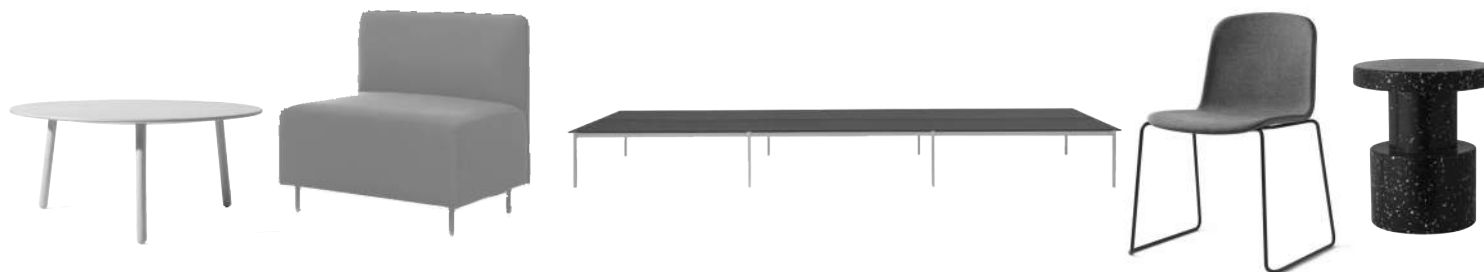
WORKMODES / ACTIVITIES

- Boardroom / Lecture
- Conferences
- Dinner/ Receptions
- Exhibitions

KEY FEATURES

 Accessible Spaces	 Next Gen Space	 Comfort
 Booking System	 Energy Saving	 Social Events





ABOUT

Located on the fourth floor, the Napier Room will be converted into a versatile space that can be divided into two smaller meeting rooms thanks to its high acoustically-rated foldable partitions. It is a flexible mid-sized room with an abundance of natural light, ideal for meetings and workshops.

METRICS

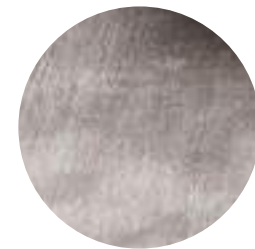
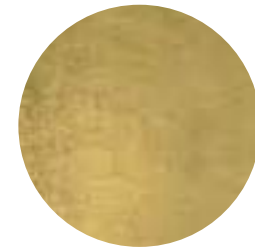
Area: 68.99 sqm
Seating Capacity: 22 - 50 people approx (in total)

WORKMODES / ACTIVITIES

- Boardroom / Lecture
- Conferences
- Dinner/ Receptions
- Exhibitions

KEY FEATURES

 Accessible Spaces	 Next Gen Space	 Comfort
 Booking System	 Energy Saving	 Safe Collaboration



ABOUT

Relocated to the fourth floor, the new President and Deputies area offers an abundance of natural light and wonderful views of Westminster. It will offer a lounge common area for safe collaboration and informal meetings, but also individual pods for more privacy.

METRICS

Area: 31.35 sqm (in total)

Seating Capacity: 3 - 7 people approx

WORKMODES / ACTIVITIES

- Focus Work / private Pods
- Lounge
- Informal Meetings

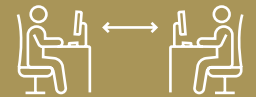
KEY FEATURES



Connectivity



Hybrid Working



Safe Focus Work



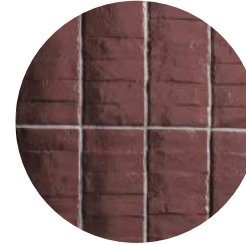
Booking System



Energy Saving



Safe Collaboration



ABOUT

New toilets and changing areas are strategically located across every floor with access from all the different circulation cores, making almost all the services provided accessible and inclusive.

METRICS

Area: N/A
Capacity: N/A

WORKMODES / ACTIVITIES

- Gender Neutral Toilets
- Changing Rooms
- Shower Rooms

KEY FEATURES



Accessible Spaces



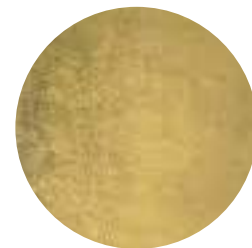
Inclusive Spaces



Additional Toilets



Sanitising Stations



ABOUT

Corridors and circulation areas will be transformed into experiential and informative spaces where all type of users can not just move around, but also exchange ideas, relax, learn and communicate.

METRICS

Area: N/A
Capacity: N/A

WORKMODES / ACTIVITIES

- Circulation
- Lounge
- Mixed Display

KEY FEATURES



Accessible Spaces



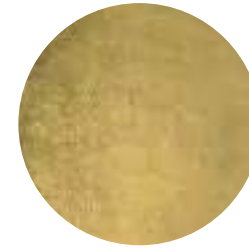
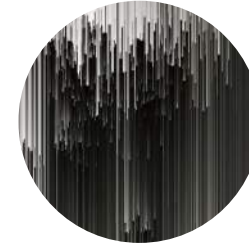
Inclusive Spaces



Social Network Integrations



Sensorial Experience



ABOUT

Lift lobbies and stairs will be transformed into experiential and informative spaces where all type of users can not just move around, but also exchange ideas, relax, learn and communicate.

METRICS

Area: N/A
Capacity: N/A

WORKMODES / ACTIVITIES

- Circulation
- Lounge
- Mixed Display

KEY FEATURES



Accessible Spaces



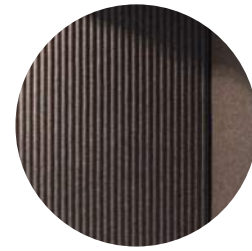
Inclusive Spaces



Social Network Integrations



Sensorial Experience



ABOUT

The new IMechE open workspace will reflect the need of both, in-person and remote workers, providing much more freedom to work and collaborate when and where they feel they're at their most productive.

METRICS

Area: 216.13sqm (in total)
Seating Capacity: 50 - 60 people approx

WORKMODES / ACTIVITIES

- Open Flexible Seating
- Lounge
- Informal Meetings
- Collaboration

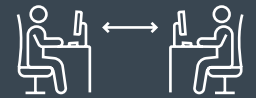
KEY FEATURES



Connectivity



Hybrid Working



Safe Focus Work



Booking System



Energy Saving



Safe Collaboration



ABOUT

The new IMechE enclosed workspace will reflect the need of both, in-person and remote workers, to perform tasks that require more privacy and focus, 1-1 video calls, but also private small meetings.

METRICS

Area: N/A
Seating Capacity: 1 - 8 people approx

WORKMODES / ACTIVITIES

- Focus Work / private Pods
- Lounge
- Small Private Meetings
- Video conferencing

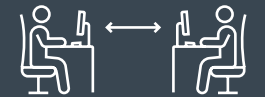
KEY FEATURES



Connectivity



Hybrid Working



Safe Focus Work



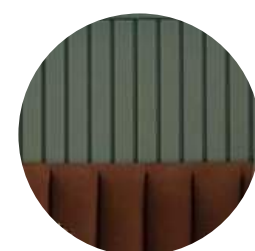
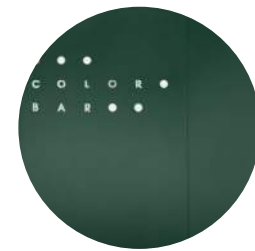
Booking System



Energy Saving



Safe Collaboration



ABOUT

The new IMechE breakout areas will provide comfortable spaces to work and collaborate but also to dine and relax. Some features like acoustic curtains, movable panels, etc. will allow the users to create different configurations as needed.

METRICS

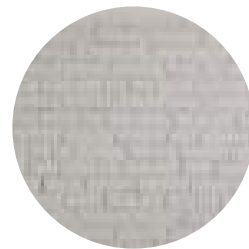
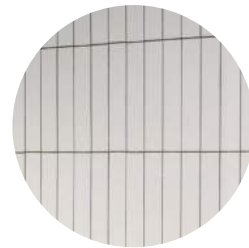
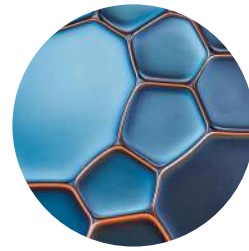
Area: N/A
Seating Capacity: 10 - 20 people approx

WORKMODES / ACTIVITIES

- Open Flexible Seating
- Dining / Lounge
- Informal Meetings
- Collaboration

KEY FEATURES

 Connectivity	 Wellness	 Amenities
 Sanitising Stations	 Safe Collaboration	 Digital signage & Messaging



ABOUT

The new IMechE Bike Store it is accessible to all the staff but also to registered members. It is an initiative that intends to encourage people to reduce CO2 emissions and to have a more healthy lifestyle.

METRICS

Area: 16.90 sqm
Capacity: 20 bikes approx

WORKMODES / ACTIVITIES

- Bike Storage
- Changing Area
- Lockers

KEY FEATURES



Cycle to Work



Wellness



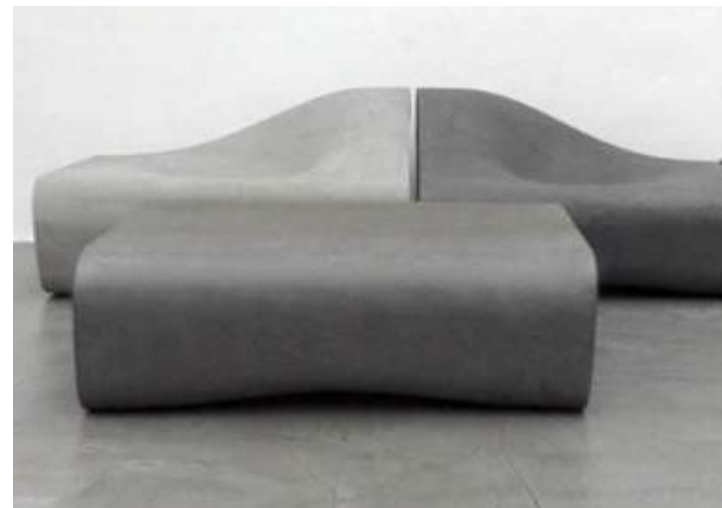
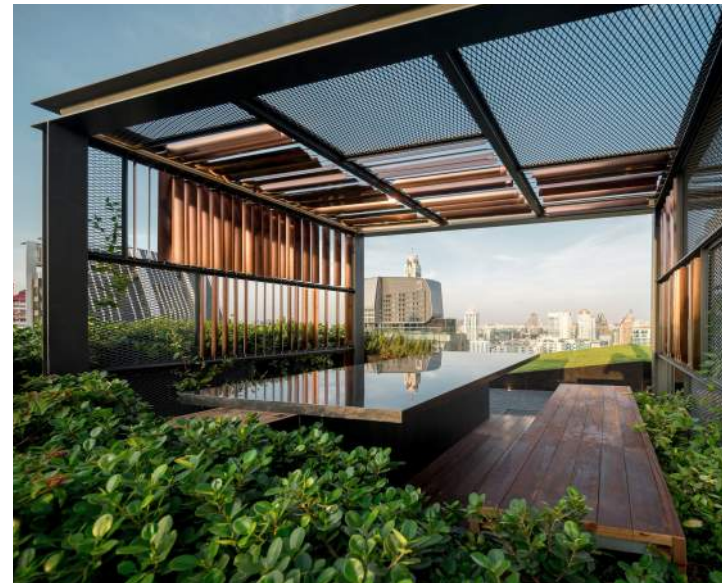
Sanitising Stations



Net Zero Carbon



Energy Saving



ABOUT

The new IMechE urban garden will be conditioned to be accessible to the public. Initial thoughts are focusing on creating a roof garden that can be also utilised for small scale horticulture that could potentially support the catering services. Special events and art installations can also be arranged in this space while enjoying the views of Westminster.

METRICS

Area: 249.60 sqm
Capacity: TBD

WORKMODES / ACTIVITIES

- City Farm/ Garden
- Outdoor Events
- Fitness / Relaxation

KEY FEATURES



Roof Garden



Wellness



Social Events



Net Zero Carbon



Energy Saving

