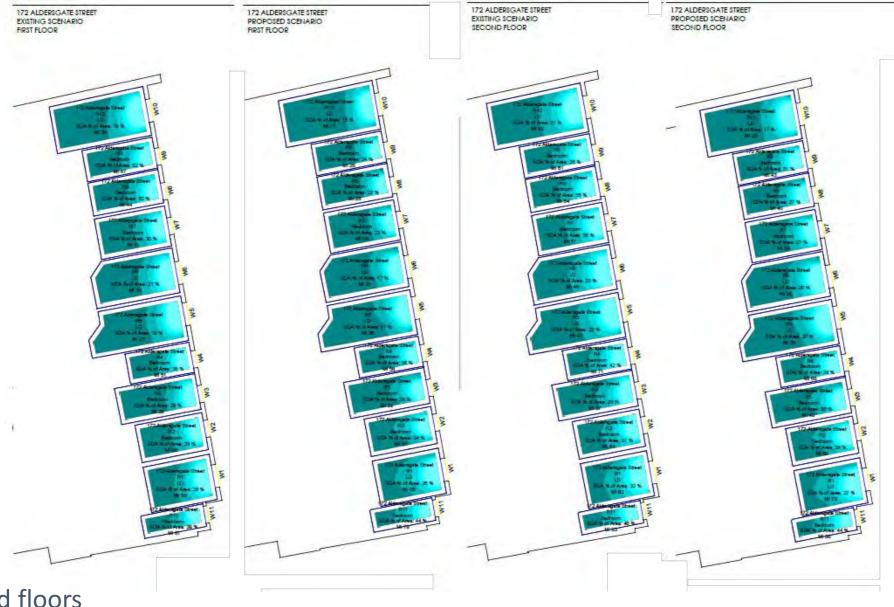
Daylight illuminance



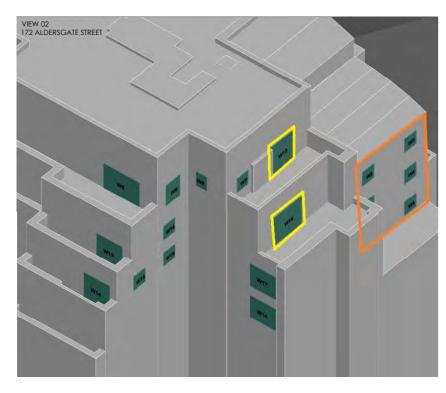


SDA LUX

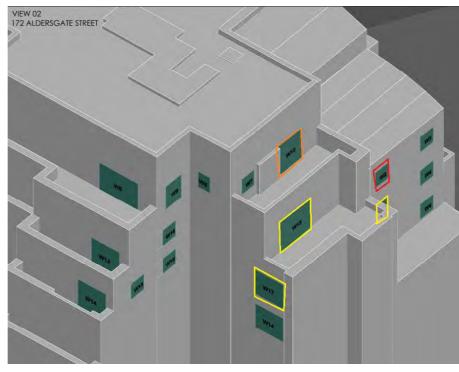
First & Second floors



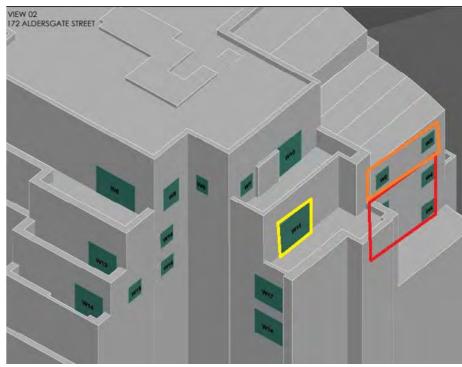
Daylight (VSC)



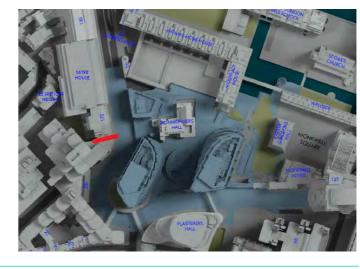
Daylight (NSL)



Sunlight (APSH)



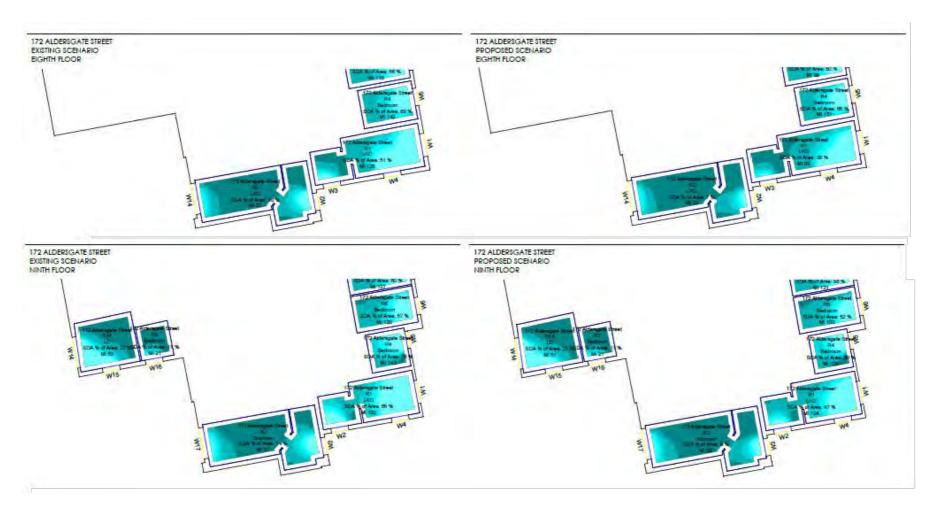
Location

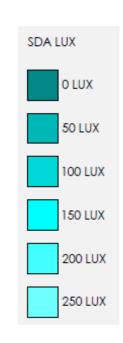


Reductions from baseline for individual windows / rooms.

- Minor adverse (20% to 30%)
- Moderate adverse (30% to 40%)
- Major Adverse (>40%)

Daylight illuminance

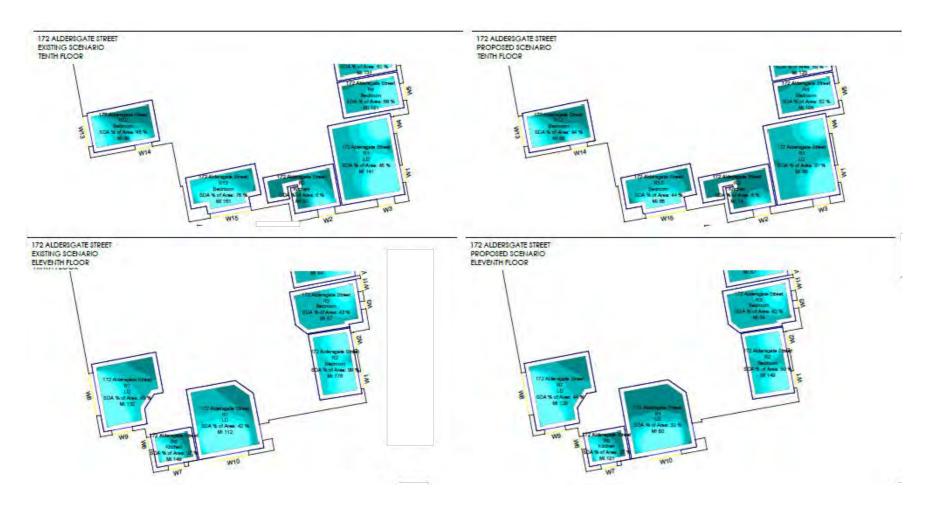


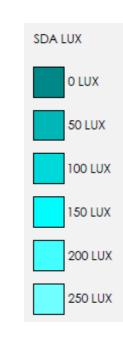


Eighth & Ninth floors



Daylight illuminance





Tenth & Eleventh floors



Ironmongers Hall, Beadles Flat

Daylight (VSC)



Daylight (NSL)



Sunlight (APSH)



Location



Reductions from baseline for individual windows / rooms.

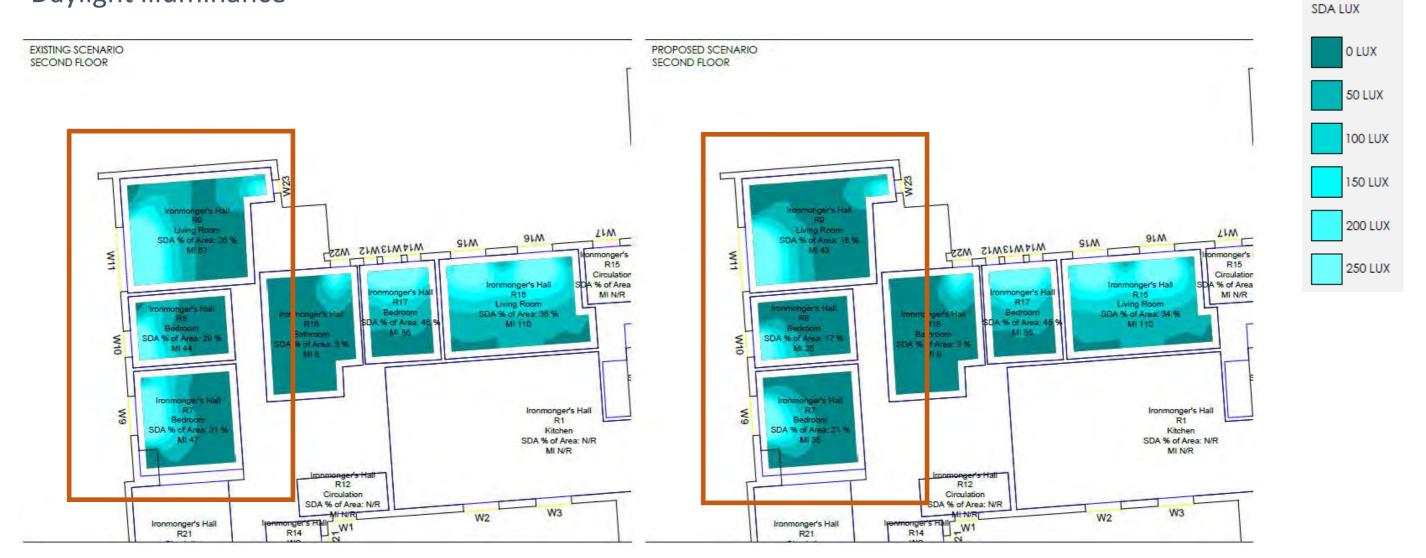
- Minor adverse (20% to 30%)

- Moderate adverse (30% to 40%)

- Major Adverse (>40%)

Ironmongers Hall, Beadles Flat

Daylight illuminance



Beadle's flat outlined.



Mountjoy House

Daylight (VSC)



Daylight (NSL)

Sunlight (APSH)

Reductions from baseline for individual windows / rooms.

- Minor adverse (20% to 30%)
- Moderate adverse (30% to 40%)
- Major Adverse (>40%)

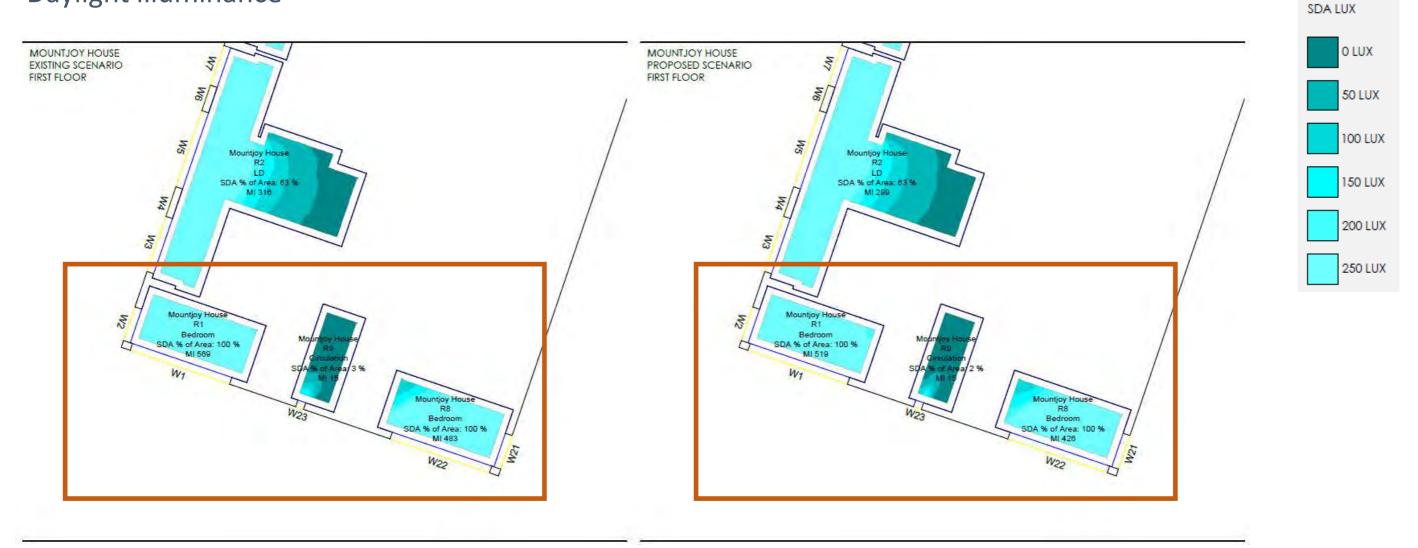
Location





Mountjoy House

Daylight illuminance



First floor shown, upper floors above show improved daylight illuminance.



2-6 Monkwell Square

Daylight (VSC)

Daylight (NSL)



Sunlight (APSH)

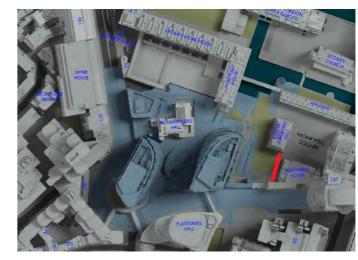
Reductions from baseline for individual windows / rooms.

- Minor adverse (20% to 30%)

- Moderate adverse (30% to 40%)

- Major Adverse (>40%)

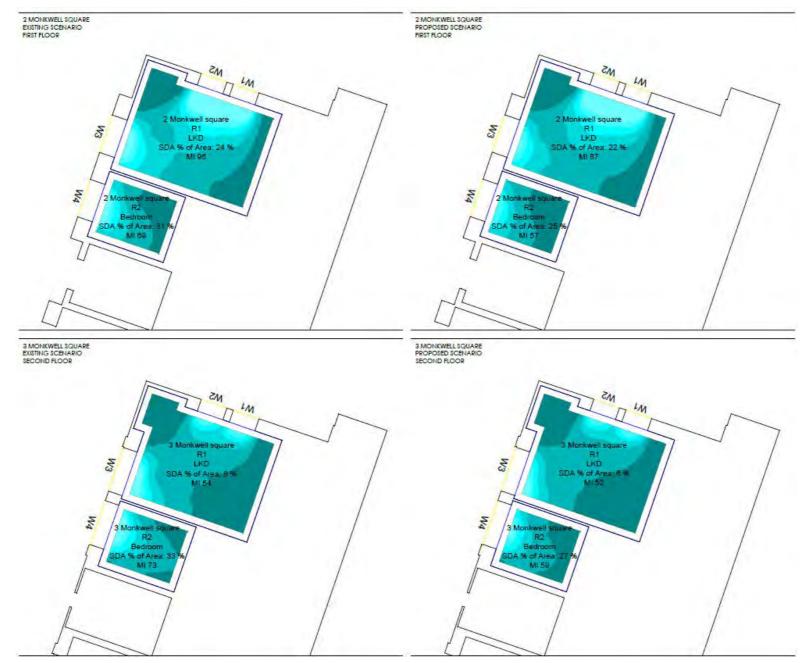
Location

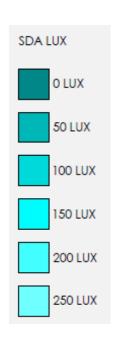




2 & 3 Monkwell Square

Daylight illuminance

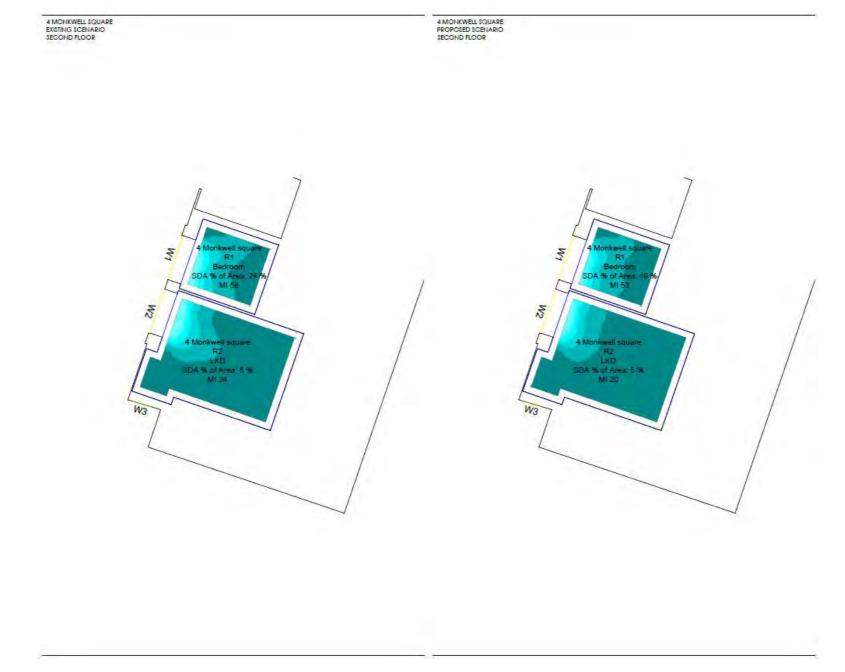


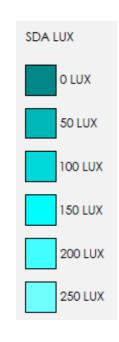




4 Monkwell Square

Daylight illuminance

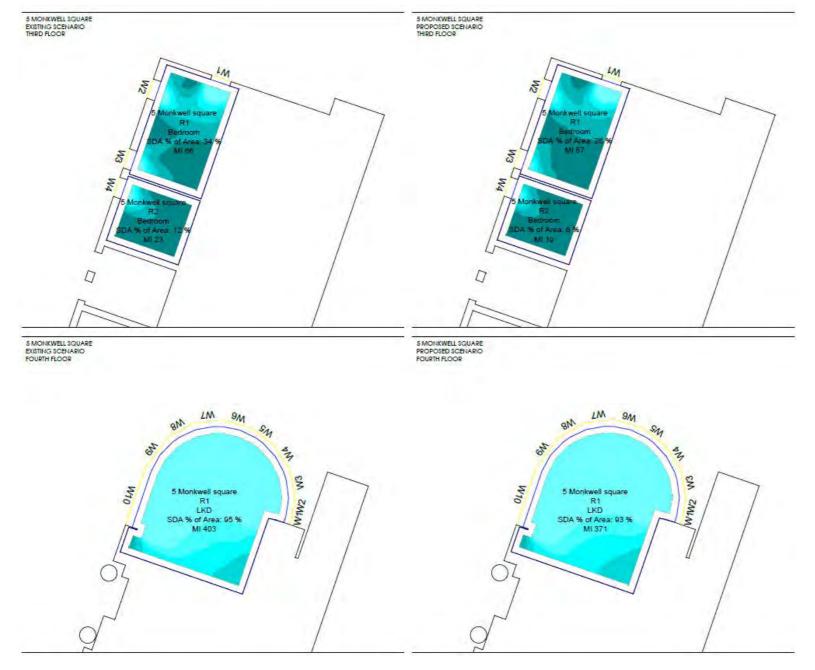


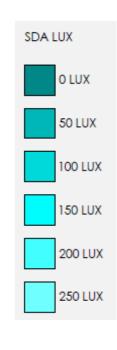




5 Monkwell Square

Daylight illuminance







Thomas More House

Daylight (VSC)



Location



Sunlight (APSH)



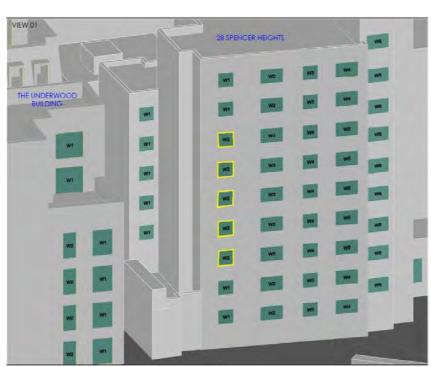
Reductions from baseline for individual windows / rooms.

- Minor adverse (20% to 30%)
- Moderate adverse (30% to 40%)
- Major Adverse (>40%)

Spencer Heights

Daylight (VSC)

Daylight (NSL)



Sunlight (APSH)

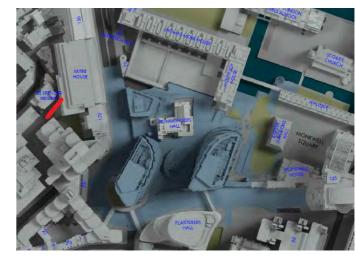
Reductions from baseline for individual windows / rooms.

- Minor adverse (20% to 30%)

- Moderate adverse (30% to 40%)

- Major Adverse (>40%)

Location





Daylight / Sunlight

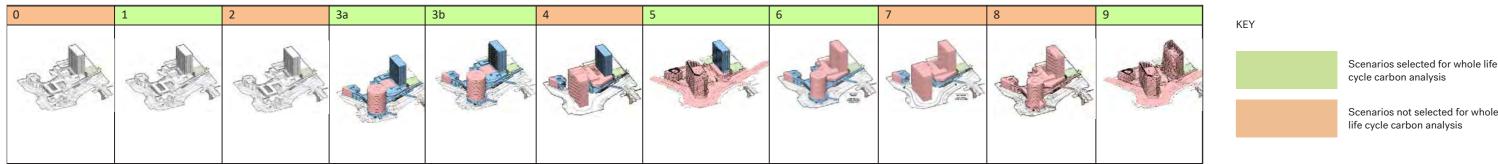
Summary of impacts residential properties with impacts beyond negligible

| | Daylight (VSC) | Daylight (NSL) | Daylight illuminance | Sunlight (APSH, living rooms) | Overall |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| 172 Aldersgate Street | Negligible to moderate adverse | Negligible to Major adverse | Negligible to Minor adverse | Negligible to moderate adverse | Minor adverse, not significant |
| Ironmongers Hall Clerk's / Beadle's Flat | Negligible to Major adverse | Negligible to Minor adverse | Negligible to Minor adverse | Negligible to Major adverse | Moderate adverse, significant |
| Mountjoy House | Negligible to Major adverse | Negligible | Negligible | Negligible | Negligible to Minor adverse, not significant |
| Thomas More House | Minor adverse | Negligible | Negligible | Negligible | Minor adverse, not significant |
| 2-6 Monkwell Square | Negligible | Negligible to Major adverse | Negligible to moderate adverse | Negligible | Minor adverse, not significant |
| Spencer Heights | Negligible | Minor adverse | Minor adverse | Negligible | Minor adverse, not significant |

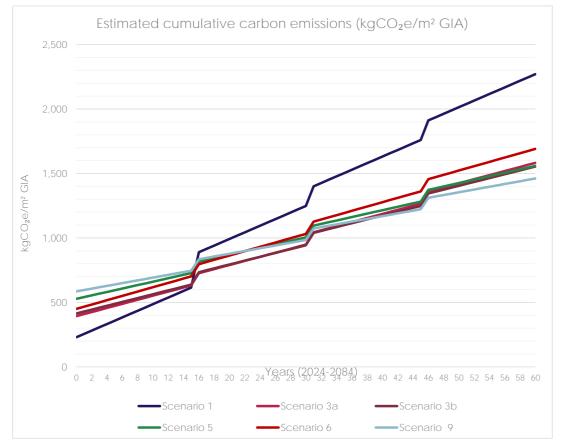


Sustainability Summary

The design team carefully considered the re-use of the existing buildings of the former Museum of London Building and Bastion House having regard to the City's Carbon Options Gudiance Planning Advice Note.



Potential Re-Use Scenarios



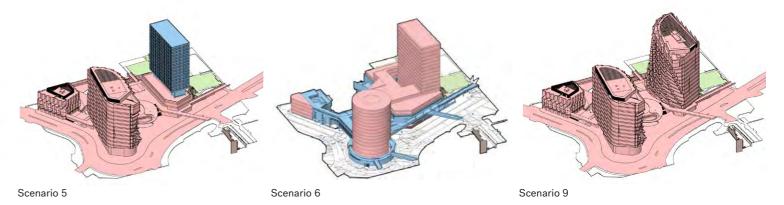
Estimated cumulative carbon emissions (kgCO₂e/m² GIA) over a 60-year period, including whole life-cycle carbon (Embodied and Operational) emissions



- · Scenario 1. Minor Refurbishment which considers interventions to extend the life of the buildings considering the need to adapt the vacant Museum of London spaces and the future regulations that office spaces will need to comply with in the near future. This scenario is considered a short-term solution and a Major Refurbishment is introduced after 15 years of further operation.
- Scenario 3a. Major Refurbishment with Extension, retaining the Bastion House building but changing its use to hotel, retaining the former Museum of London building and proposing a new office building on
- Scenario 3b. Major refurbishment with Extension, retaining the Bastion House building but changing its use to residential, retaining the former Museum of London building and proposing a new office building
- Scenario 5. Major Redevelopment with Retention, retaining the Bastion House building to be used as hotel and building a new Rotunda office building, a North building, a podium with cultural uses and new public realm.
- Scenario 6. Major Refurbishment with Extension, retaining the former Museum of London building and building a new office building on top of the Rotunda site as well as demolishing the Bastion House building to be rebuilt to the same height but with improved floor-to-floor heights.
- Scenario 9. Full Demolition and New Build which considers full demolition of the site and erection of two new office buildings a North building with a podium with cultural uses and new public realm.

The results showed that, whilst Scenario 9 starts at project completion with higher embodied carbon than the rest of the scenarios, at 30 years of operation, the cumulative carbon emissions equalize to the other scenarios and at 60 years it outperforms the other scenarios mainly due to the higher operational efficiency that the buildings present.

Scenario 9, a full demolition and new build, is over a 60year lifecycle and on a per sqm basis the most carbon efficient option. It further delivers on the project brief, delivering the highest quality and quantity of office space, with a transformative public realm.



The proposal is for a highly sustainable Net Zero Carbon development that is designed to comply with all the sustainability requirements of the local planning policies. Some key sustainability headlines for the project are as below. A visual summary of these measures is presented on the diagram opposite.

- BREEAM UK NC 2018 'Outstanding' for Office areas BREEAM 'Excellent' for Retail and Cultural areas
- Enhance the capacity and efficiency of the City of London energy network with Citigen
- The Proposed Development Be Lean Building (the first step of the GLA Energy Hierarchy) currently achieves 16% against Part L 2021, exceeding the GLA target of 15%. GLA Be Clean and Be Green 35% improvement target were met using Part L 2013 based on Citigen SAP 12 Carbon factors
- Passive design measures well-oriented buildings, fabric performance aligned with LETI targets, to achieve the new BCO 2023 solar gain target.
- NABERS -UK Design for Performance (DfP) approach adopted
- Innovative Structural and Mechanical, Electrical and Plumbing (MEP) design used significantly reducing embodied carbon
- Whole Life Cycle Carbon Assessment (WLCA) results show that the development currently achieves an upfront embodied carbon (A1-A5) of 560 kgCO₂e/m², below the GLA aspirational benchmark (600 kgCO₂e/m²) and 248 kgCO₂e/m² for modules B-C (excluding B6 and B7), below the GLA standard benchmark (450 kgCO₂e/m²)
- Water conservation with greywater & rainwater harvesting, utilization of Sustainable Urban Drainage Systems (SuDS), and recovery of Air Handling Units (AHU) condensate
- WELL-ready targeting Platinum to allow future tenants to certify their areas fully
- Enhancing biodiversity by achieving a minimum of 20% net gain exceeding the latest DEFRA Metric methodology.



Along delivering a Net Zero Carbon development, the aim is also to ensure that it can adapt through its useful life and can be reclaimed and reused when no longer fit for purpose



Photovoltaic panels, to generate clean on-site energy

Be LEAN

Be CLEAN

Be GREEN



The project will allocate space for Air Source Heat Pumps owned by CITIGEN at roof and basement levels to help decarbonize their grid.



LED lighting with high efficacy and linked to perimeter daylight dimming



Centralised ventilation

The main building, including office floors, will be mechanically ventilated from a centralised ventilation system. Air handling units (AHUs) are to be located in the basement and at roof level for both buildings.



External solar shading

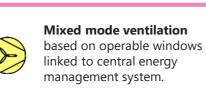
to minimise the need for additional cooling, therefore reducing energy consumption and glare discomfort.



Connection to the **CITIGEN** district heating and cooling network



Greening, Enhancement of green planting and green spacing to increase site permeability and encourage pedestrians to use alternative routes to the roadside





Demand control ventilation, based on room temperature and air quality (CO₂ levels), meaning less energy is used

Façade optimisation

so rec an hig cu so

The façade systems have been optimized to reduce solar gain through the reduction of glazed areas, and the integration of high thermal performance curtain wall system and solar control coating. Reducing the need for additional heating and cooling.



SuDS, to incorporate roof, rain garden, permeable surfacing, Greenfield discharge, Rainwater harvesting

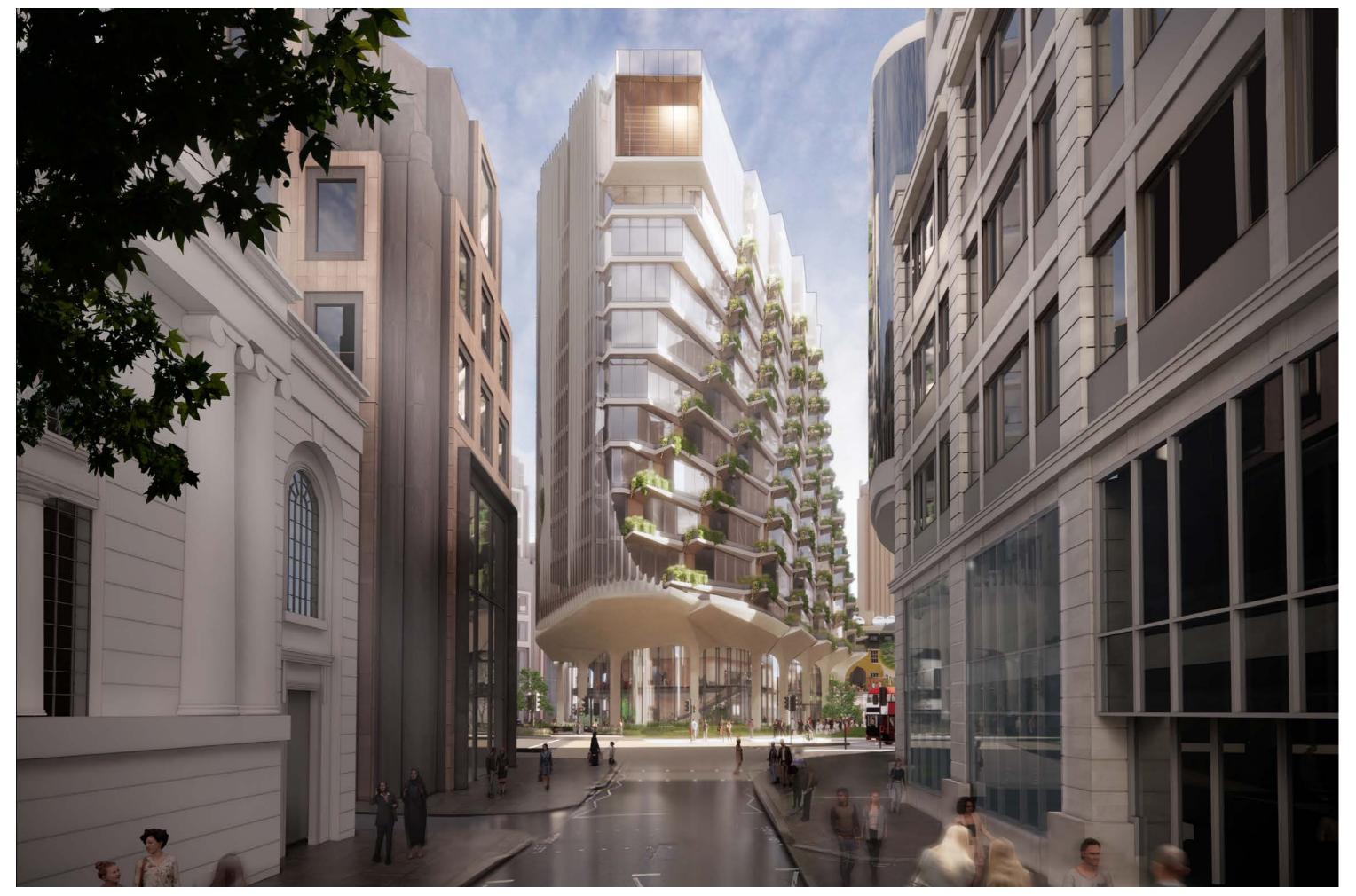
Overview CGIs



AERIAL VIEW FROM SOUTH



NORTHERN VIEW FROM THE BARBICAN ESTATE



SOUTH APPROACH UP ST MARTIN'S LE GRAND



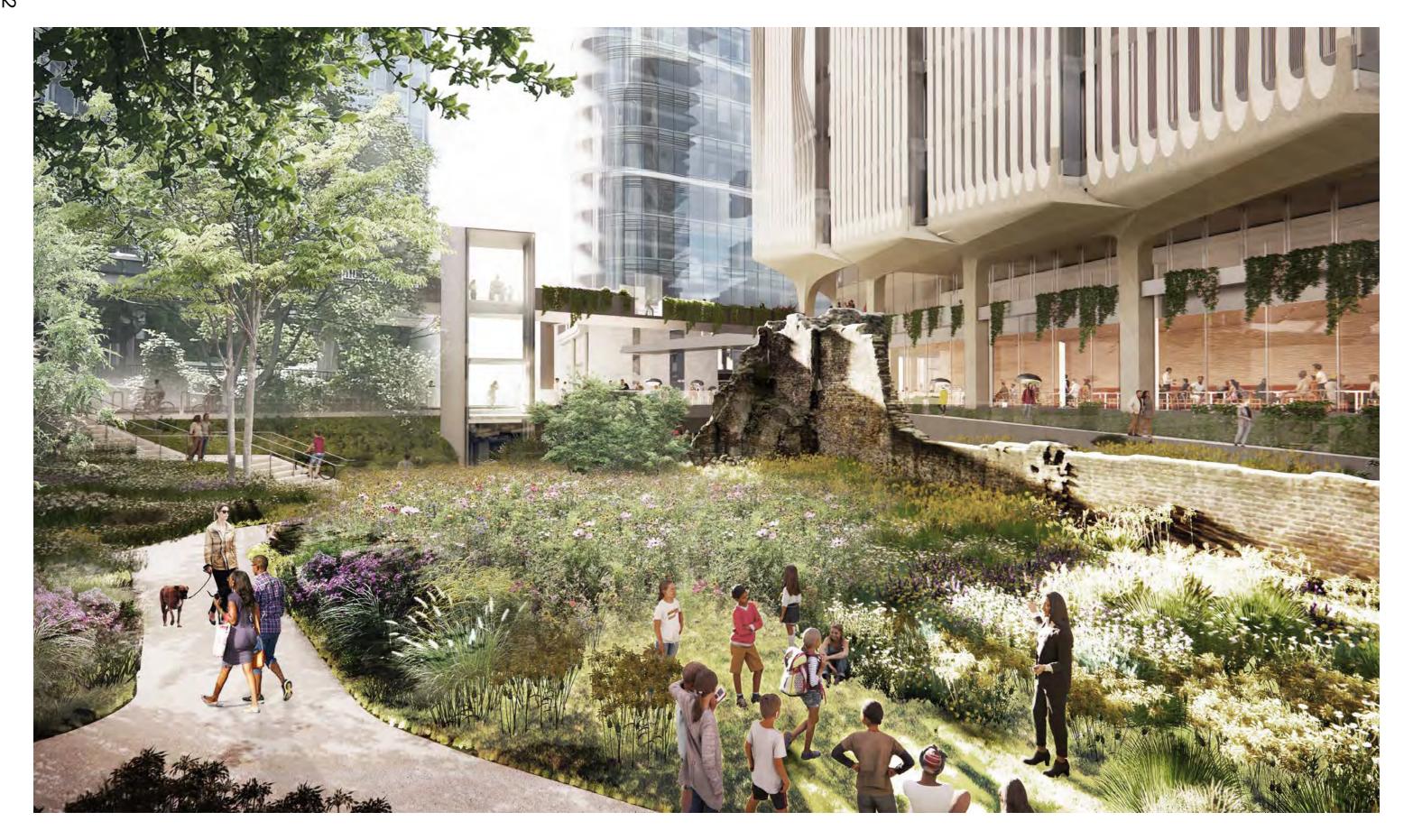
AERIAL VIEW OF CENTRAL PLAZA







NORTHERN GARDEN - PROPOSED



BARBER SURGEON'S GARDEN



ROMAN GATE VIEWING AREA

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