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05.02.2023

Barr’s Street, Bristol

Design & Access Statement Addendum

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Status P1
Revision: B

Introduction

Following planning submission in November 2023, further consultation has been undertaken and comments have been received and reviewed from consultees and the public. Where applicable these have been addressed by way of design update.

This document provides an overview of design changes in relation to comments received on the following items;

- articulation, materiality and height and design of the tower element of the scheme;
- long distance views and impact on heritage assets
- residential aspect and orientation;
- roof terrace design to add places of shelter and provide additional dwell space;
- incorporating incidental play into the public realm

A separate addendum to the TVIA has also been prepared to accompany this submission.

Separate technical documents to address comments raised in relation to sustainability have also been submitted.

Architectural Quality

Summary of Design Revisions

Consultation has been undertaken with Historic England and the BCC City Design Group and through that process we have undertaken a design review of the tower element.

This report presents the following considerations:

Materiality and Proportion

- The original design of the tower uses a palette derived through iterative design development and extensive consultation with independent design consultees; following planning submission the use of these materials has been further varied through the upper levels of the tower element of the proposals to give clearer architectural definition to the proposals through the introduction of stone bands to every third storey and to the tower top.
- The introduction of stone to the upper levels creates additional visual interest with the interplay of materials, providing crisp definition to the 3 storey facade grouping reinforcing the primary grid design and enhances the connection to the stone within the context.
- The open rooftop has been removed lowering the height of the building.
- The articulation of the top has been revised, providing clear definition and balanced proportions across the elevations.
- Accentuation of the lightweight materials at the building top has been integrated to the north and south, providing a 360 degree lightweight building top, mitigating the visual impact of the building in long distance views from all directions. This complements the approach elsewhere whereby lighter colours and materials have been used to provide appropriate backdrop to key longer distance views.

Depth and articulation

- The originally submitted façades have depth and articulation, however the revised proposals have increased the depth to the primary horizontal and vertical grid elements to accentuate this articulation further.
- The revised proposal provides greater depth to the facade, stronger vertical emphasis with the fenestration arrangement, revised proportions and clearer definition to the tower top.
- The visual depth of the façades have been further accentuated within the stepped architectural detailing of horizontal stone banding, providing shadow and interplay of light on this material, emphasising the high architectural quality, both in the close proximity and longer distance views.

Architectural Quality

North Elevation

November 2023 Planning Submission
- All brick tower with stone colonnade to base

Revised Proposal
- Horizontal stone bands introduced every 3 storeys within the tower and to the northern tower top
- Depth of facade increased to provide greater articulation to facade
- Stronger vertical emphasis created by centralised fenestration pattern
- Height of tower reduced (open rooftop element removed)
- Tower top revised to provide clear definition and balanced proportions across the elevation

Architectural Quality

South Elevation

November 2023 Planning Submission
- All brick tower with stone colonnade to base
- No defined 'top' to southern' element

Revised Proposal
- Horizontal stone bands introduced every 3 storeys within the tower and to the northern tower top
- Depth of facade increased to provide greater articulation to facade
- Stronger vertical emphasis created by centralised fenestration pattern
- Height of tower reduced (open rooftop element removed)
- Tower top revised to provide clear definition and balanced proportions across the elevation

Architectural Quality

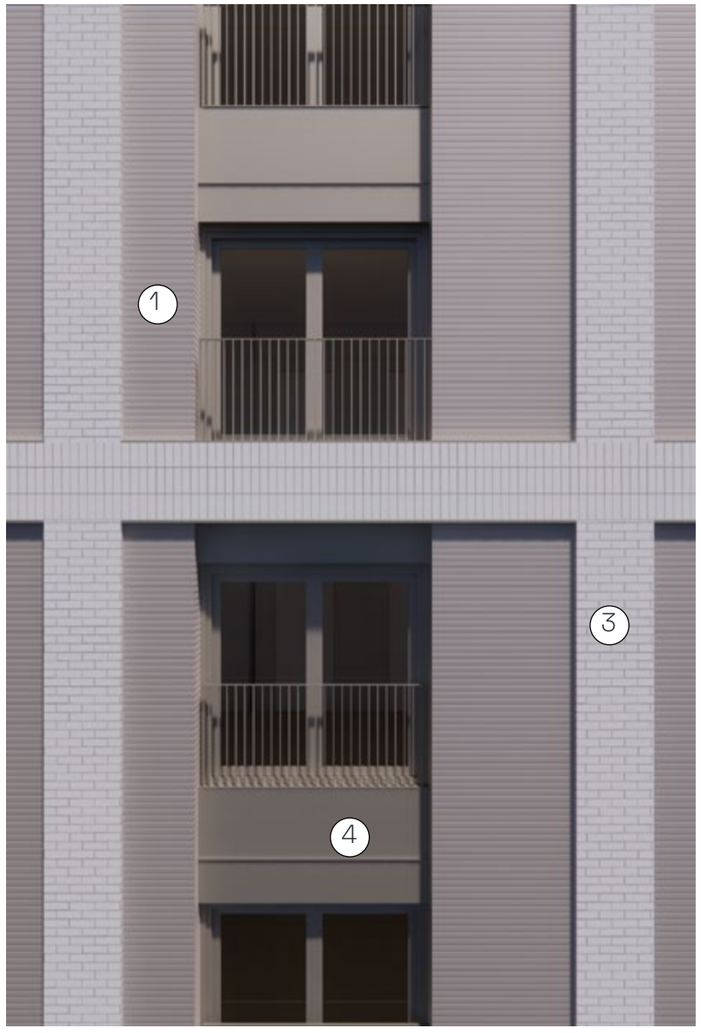
Street View from North

November 2023 Planning Submission
- All brick grid to tower with stone colonnade to base
- No defined 'top' to southern' element

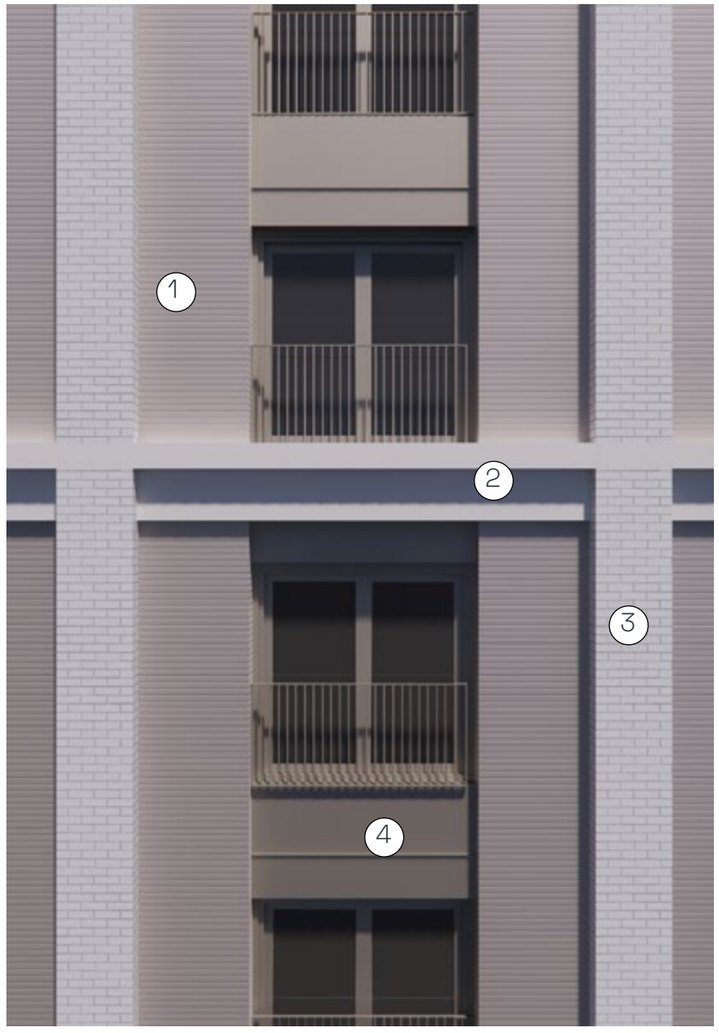
Revised Proposal
- Horizontal stone bands introduced every 3 storeys within the tower and to the northern tower top
- Depth of facade increased to provide greater articulation to facade
- Stronger vertical emphasis created by centralised fenestration pattern
- Height of tower reduced (open rooftop element removed)
- Tower top revised to provide clear definition and balanced proportions across the elevation

Architectural Quality

Detail - Northern Tower Facade

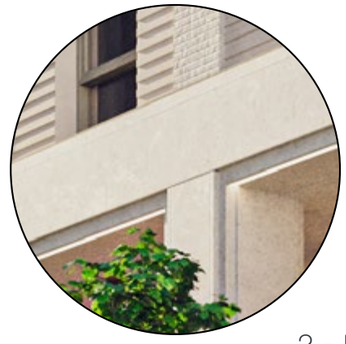


November 2023 Planning Submission
- All brick grid to tower with stone colonnade to base

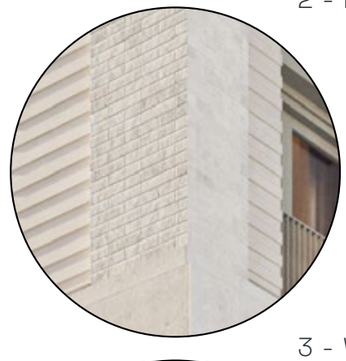


Revised Proposal
- Horizontal stone bands introduced every 3 storeys within the tower and to the northern tower top
- Stone bands provide additional definition, visual interest and quality to the facade
- Depth of facade increased to provide greater articulation

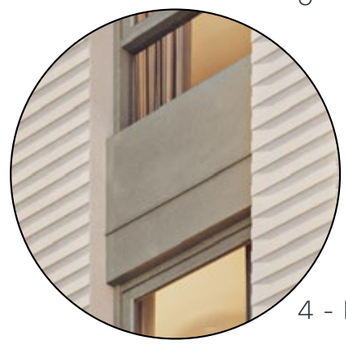
1 - Textured metal cladding



2 - Pre cast stone



3 - White brickwork - stretcher bond



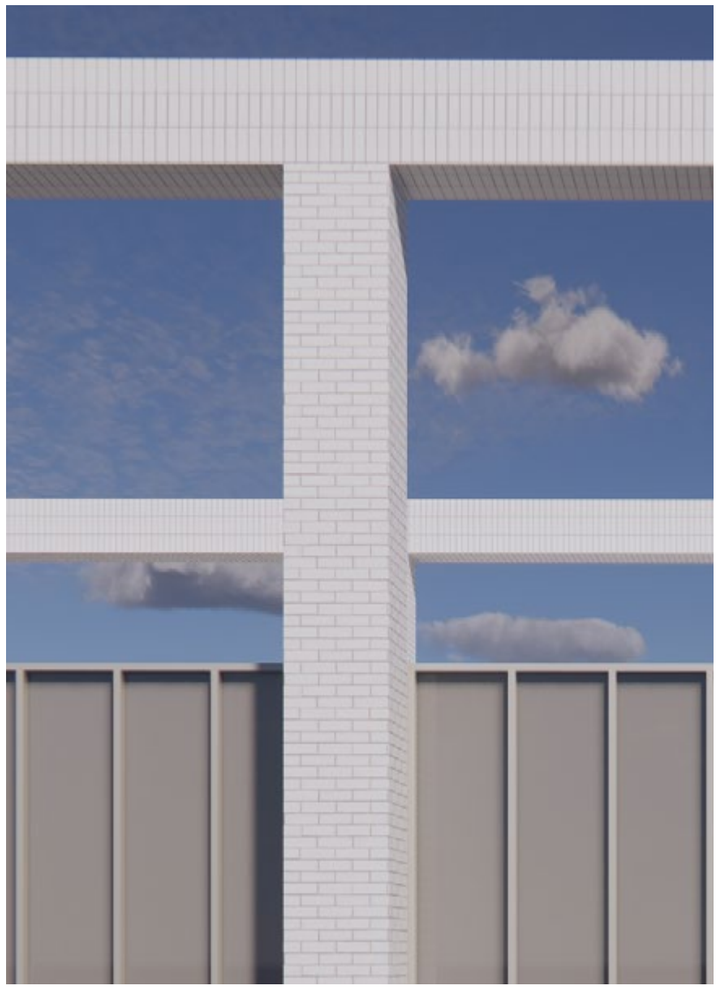
4 - Bronze toned metal panel

Architectural Quality

Revised Proposal

Architectural Quality

Detail - Northern Tower Facade - Tower Top

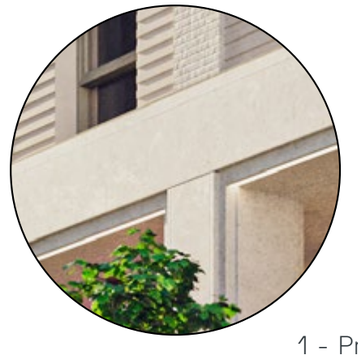


November 2023 Planning Submission

- Building facade elevated above roof level on northern tower only
- All brick grid to tower with stone colonnade to base

Revised Proposal

- Proportions of top redesigned to provide a greater glazed area and a more lightweight appearance.
- Previous airspace removed and parapet height reduced
- Tower top re-designed with stone to additional definition, visual interest and quality to the facade



1 - Pre cast stone

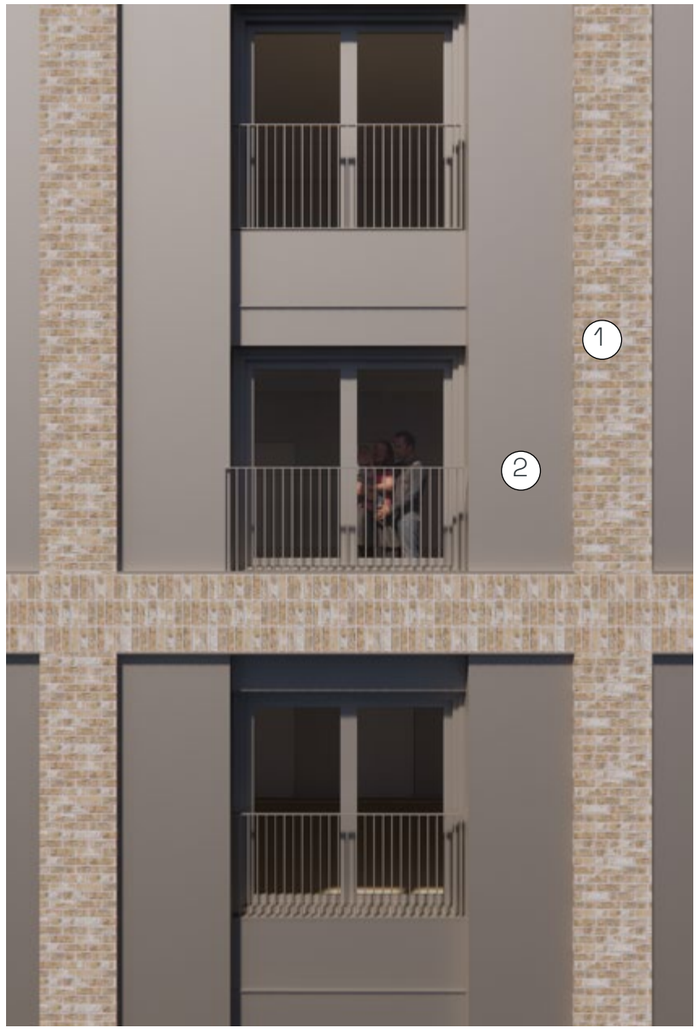
2 - Glazed curtain walling

Architectural Quality

Revised Proposal

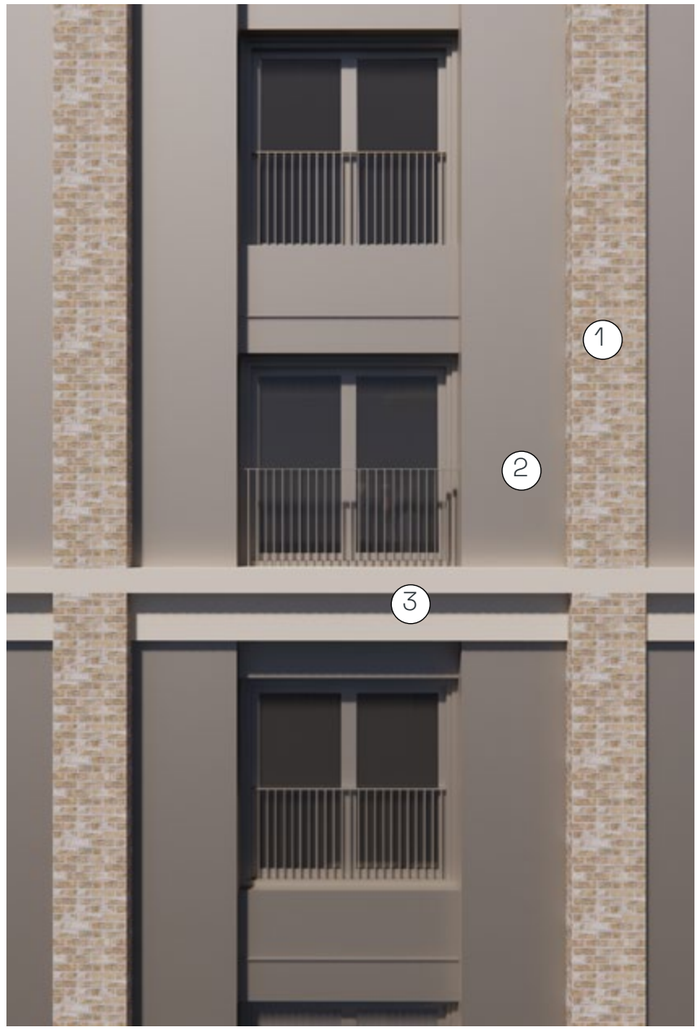
Architectural Quality

Detail - Southern Tower Facade



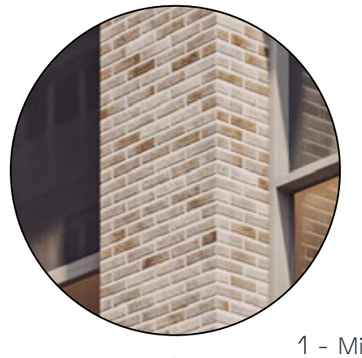
November 2023 Planning Submission

- All brick grid to tower with stone colonnade to base

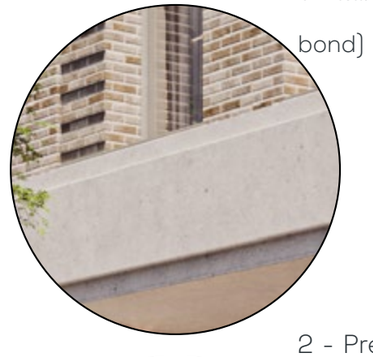


Revised Proposal

- Horizontal stone bands introduced every 3 storeys within the tower and to the northern tower top
- Stone bands provide additional definition, visual interest and quality to the facade
- Depth of facade increased to provide greater articulation



1 - Mixed tone buff brickwork (stretcher bond)



2 - Pre cast stone

3 - Bronze toned metal panel

Architectural Quality

Revised Proposal

Long Distance Views

Revised Proposal - Lower Maudlin St

The originally submitted scheme was scaled to keep the height of the tower beneath the spire of St James' Priory, so that the spire remains the tallest element in the view.

The revised proposal reduces the height of the tower where it provides a backdrop to the spire.
The revised material proposal provides a lightweight and reflective top to the highest four storeys further reducing its visual impact and providing a clear counterpoint to the solidity of the spire.

November 2023 Planning Submission

Revised Planning Submission

Key

Lightweight glazed top

Original tower profile

Long Distance Views

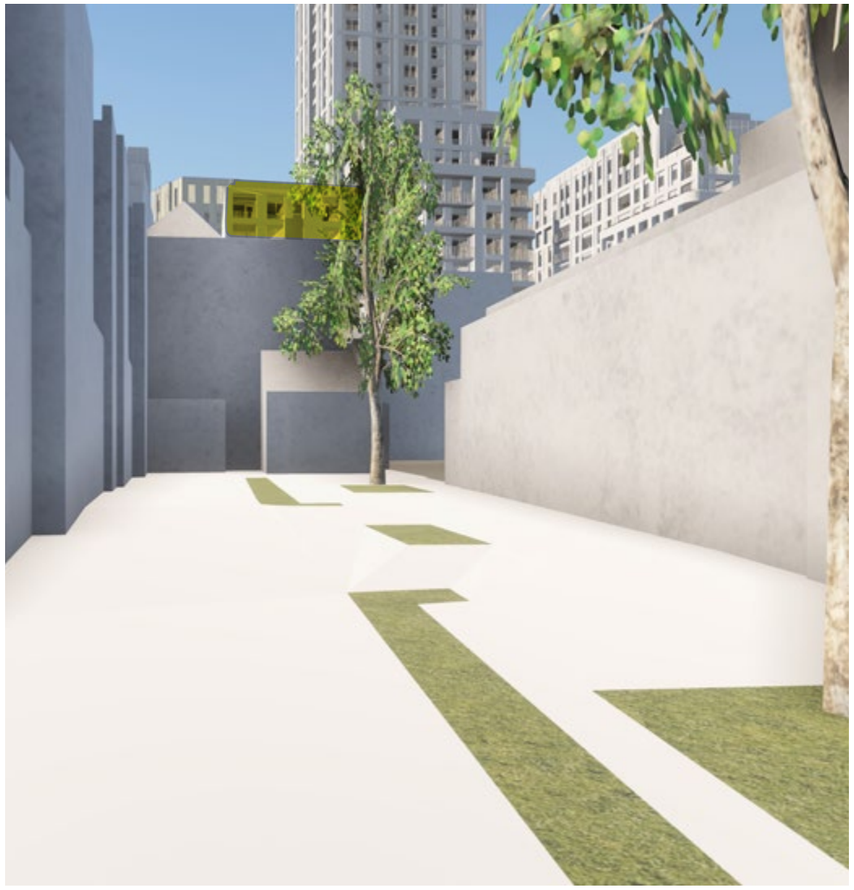
Entrance to John Wesley's New Room

The massing of the originally submitted scheme was scaled to provide continuity with the Primark building parapet along the Horsefair elevation. The design considered the view from the New Room courtyard and substantially reduced the scale of the buildings directly to the north of the New Room beneath the height of the Primark parapet and removed any roof structures within this zone to provide a low and streamlined skyline directly behind the New Room with the higher massing located to the east of the site.

The revised proposal provides the same low streamlined massing directly north of the New Room. At the top of the tower (out of view in this image) the revised proposal provides a 360 degree top to the tower with the highest 3 storeys to the south redesigned as curtain wall glazing to decrease the solidity to the tower in long range views and provide an appropriate 'crown' to the tower.

Additional stone banding is proposed to the tower elevations to provide greater continuity with the materiality of Broadmead.

Light coloured cladding is proposed to the higher levels of the podium building so that it appear recessive in long range views.



November 2023 Planning Submission

Key

Reduced massing proposed within the south west of the site closest to the New Room

Revised Planning Submission

Key

Reduced massing proposed within the south west of the site closest to the New Room

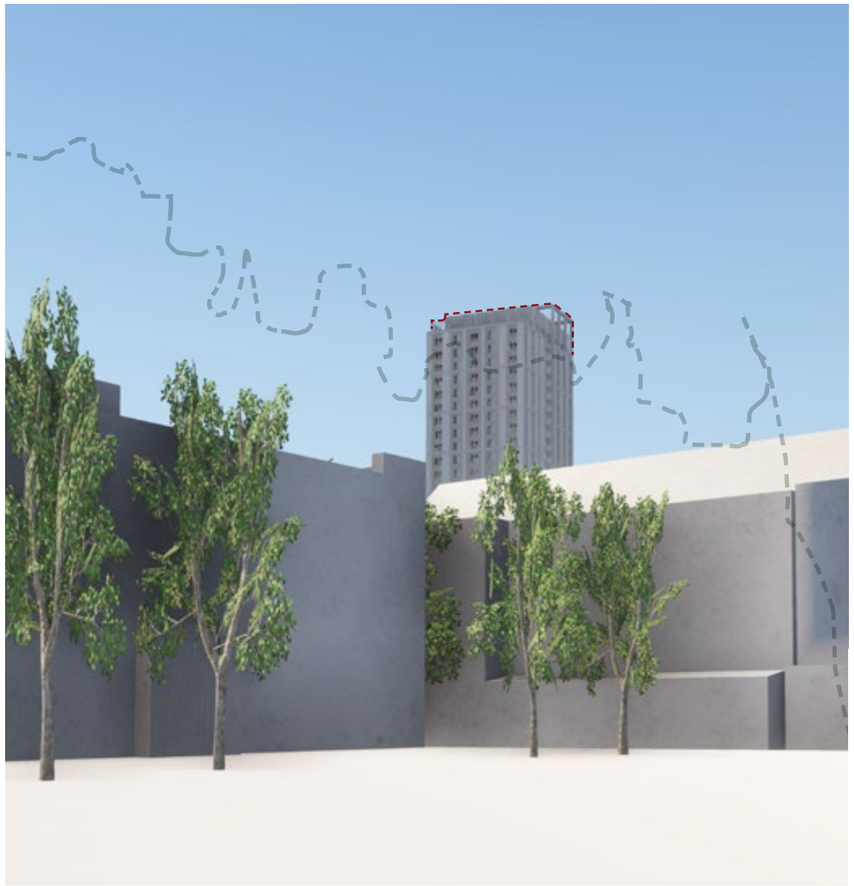
Long Distance Views

Quakers Friars

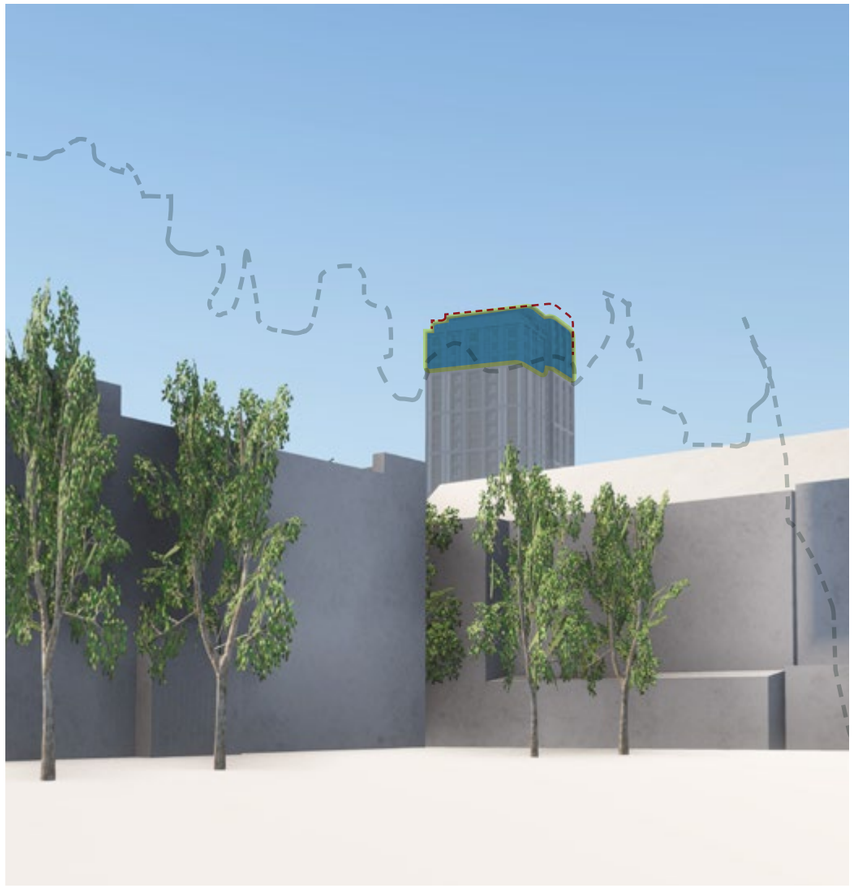
The original proposal included a stepped tower profile with reduced massing to the south. In distance views from Bristol Bridge this reduced the visual mass closest to the ruins of St Peter's Church.

The revised proposal provides a 360 degree top to the tower with the highest 3/4 storeys redesigned as curtain wall glazing to decrease the solidity to the tower and appear recessive in long range views.

Additional stone banding is proposed to the tower elevations to provide greater continuity with the materiality of Broadmead.



November 2023 Planning Submission



Revised Planning Submission

Key

Lightweight glazed top

Original tower profile

Tree canopy shown in TVIA view

Long Distance Views

North East Portland Square

The original proposal locates the tallest element of the scheme to the west of the site to reduce the impact on views from the east.

The revised proposal provides a 360 degree top to the tower with the highest 3/4 storeys redesigned as curtain wall glazing to decrease the solidity to the tower in long range views and provide an appropriate 'crown' to the tower. The change in materiality reduces the impact in views from Portland Square where the tower will appear as a recessive glazed element.

November 2023 Planning Submission

Revised Planning Submission

Key

Lightweight glazed top

Original tower profile

Long Distance Views

Bristol Bridge

The original proposal included a stepped tower profile with reduced massing to the south. In distance views from Bristol Bridge this reduced the visual mass closest to the ruins of St Peter's Church.

The revised proposed reduces the height of the tallest element so the tower is less prominent. The revised materiality and design of the tower top with lightweight and reflective curtain walling for the top 3/4 storeys reduces the solidity of the tower in long range views and provides a datum level consistent with the tree line in Castle Park when viewed from Bristol Bridge.

November 2023 Planning Submission

Revised Planning Submission

Key

Lightweight glazed top

Original tower profile

Aspect & Orientation

Summary

The following pages aim to provide an overview of the aspect and orientation of the residential accommodation at Barr's Street in response to comments received from the BCC Urban Design Team.

The design has been developed to maximise opportunities for dual aspect while responding to the wider site context and delivering a new street through the centre of the site.

The following pages review the site context and plot depths; provide a in depth study of accommodation facing St James Barton, summarise the various apartment types and provide a breakdown of the various aspect and orientation across the development.

Aspect & Orientation

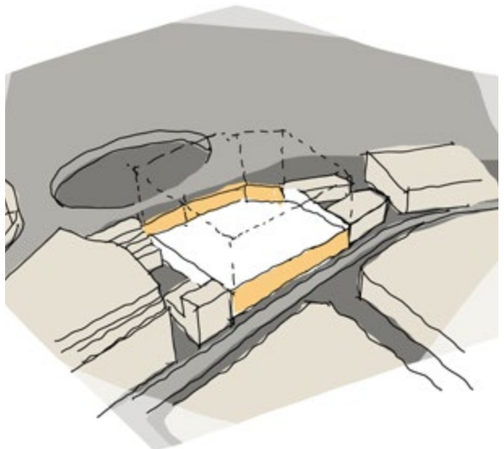
Urban Edges

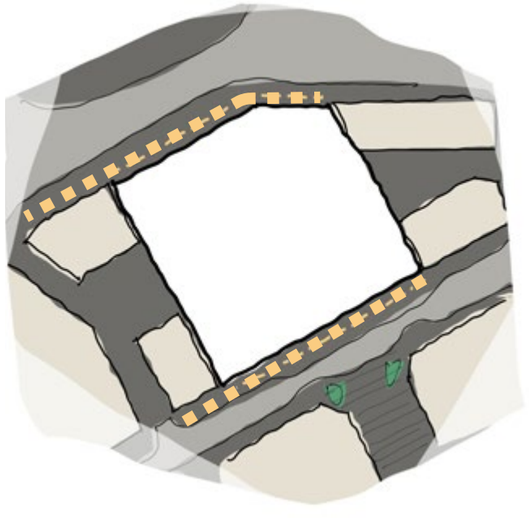
The adjacent diagrams show the evolution of the site strategy at ground floor level and the creation of a new green link through the site to align with the aspirations of the DDP.

Creating a new central street through the centre of site will significantly increase the opportunity for active frontage across the site, linking Stokes Croft and residential areas to the north with the city centre. This new street will act as a continuation of Merchant Street and establishes two building plots to the east and the west.

Either side of the new street, to the north and south, the buildings will continue the existing urban edge to St James Barton & The Horsefair.

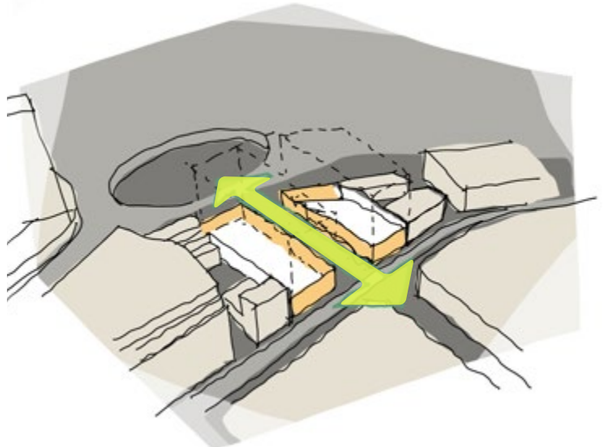
Lack of Permeability

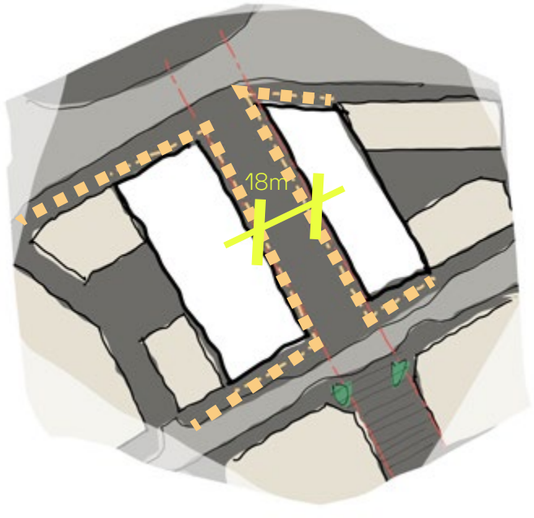




Existing building provides limited active frontage and creates a physical barrier between Broadmead and St James Barton.

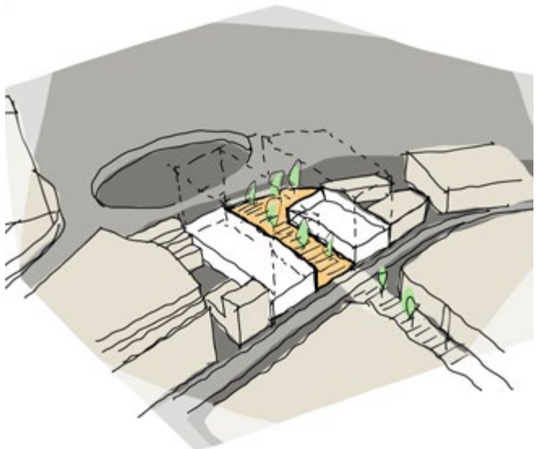
New Connection

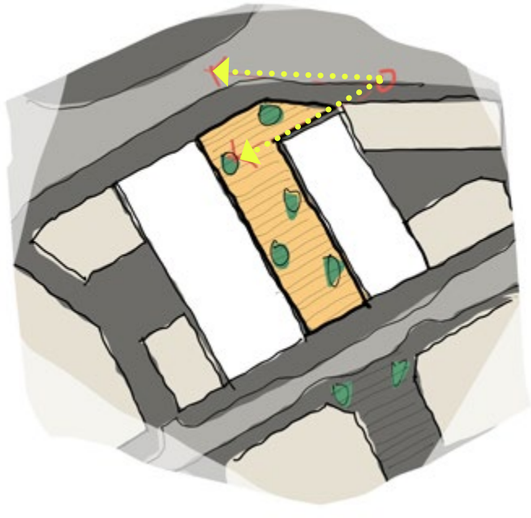




Creating a route through site will increase active frontage by almost 50%.

New Public Realm





Set back north east corner open site to the East and dedicate over 1/3 of site to new active public realm.

Aspect & Orientation

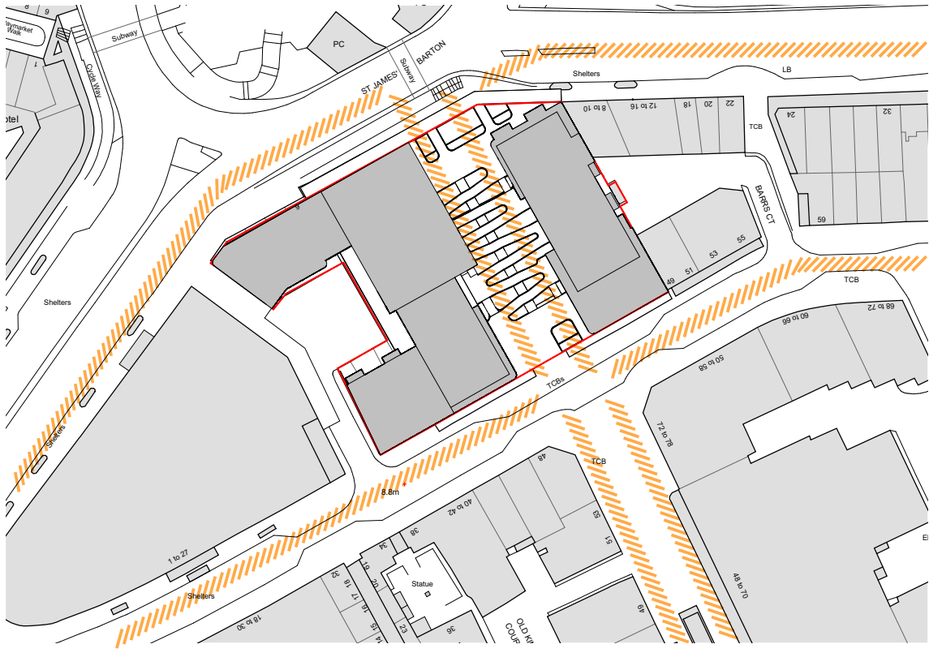
Urban Edges

The adjacent context study shows the proposed building form within the wider street context.

The key urban edges are:
- St James Barton
- Barr's St continuing to Merchant's St
- The Horsefair

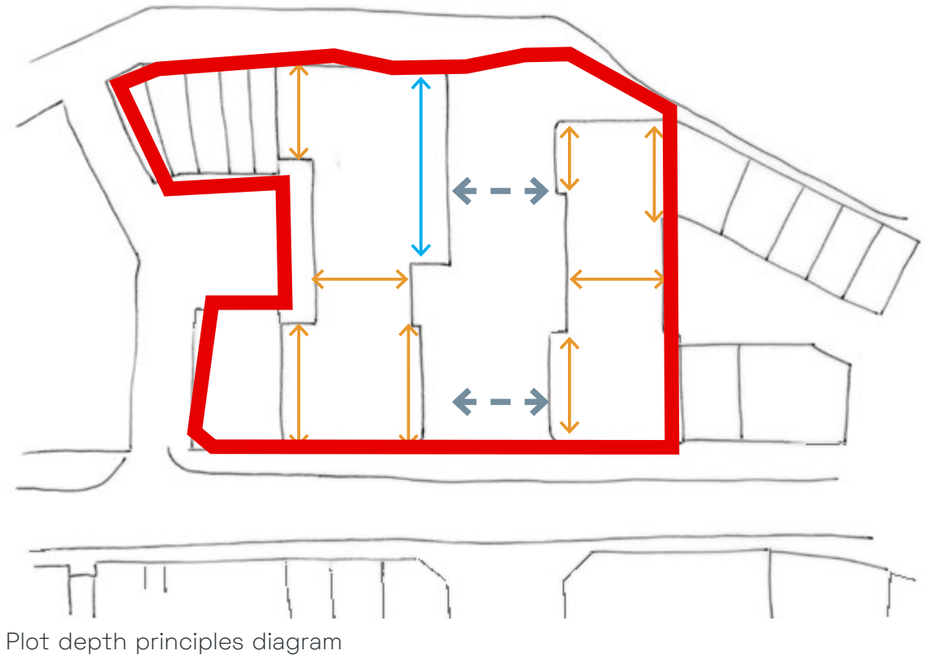
The plot depth diagram shows the principles for the building footprint. The building massing is stepped within the Barr's Street elevation to provide comparable plot depth to the surrounding streetscape. This also creates additional corners and opportunities for dual aspect.

To the Horsefair and St James Barton elevation the proposal provides a strong street edge that provides continuity with the surrounding urban realm. These elevations are punctuated by inset balconies which provide the opportunity for partial dual aspect accommodation.



Key
- Key urban edges

Wider site context plan with key urban edges highlighted



Key
- Width of Barr's Street to be comparable to Merchants St and Horsefair
- Width of buildings to suit residential use and plot depths within the immediate context
- Increased plot depth on key frontages

Plot depth principles diagram

Aspect & Orientation

Accommodation Facing St James Barton

The site is located adjacent to a busy thoroughfare - St James Barton. This page reviews precedents for residential use in this location and how the design has been developed to provide a suitable outlook, acoustics and ventilation for the residential accommodation.

The ground floor facing St James Barton has been designed as 1 to 2 storeys of flexible commercial or amenity space with residential accommodation provided at upper levels only.

In the east building, apartments are located above road level by a minimum of a commercial storey height to provide separation and views over the traffic. Glazing is at a minimum of 5.6m above street level. The east building is set back from the road edge by 6.5-17.5m and a planted buffer (2.5m wide) and new street trees provide further separation from the road. The apartments facing St James Barton have projecting balconies (except for level 02 where apartments are located directly over commercial frontage) which provide opportunities for sunlight and greater aspect.

Within the west building the apartments are set back from the street edge by 8.1-10.6m. All apartments facing St James Barton are raised above street level by at least one commercial storey, with all single aspect apartments raised above the road by two commercial storeys (8.85m). Existing mature street trees provide a further buffer to traffic.

The design has also undertaken overheating analysis and provides suitable temperatures without opening windows. All apartments have integral MVHR units which will provide highly efficient and low energy ventilation. Openable windows are however also provided to all habitable rooms and can be used to suit user comfort as required.

The planning submission includes technical reports and site surveys of noise and pollution levels demonstrating how the scheme has been designed to provide a suitable residential environment in this location.

Typical residential level (L03)

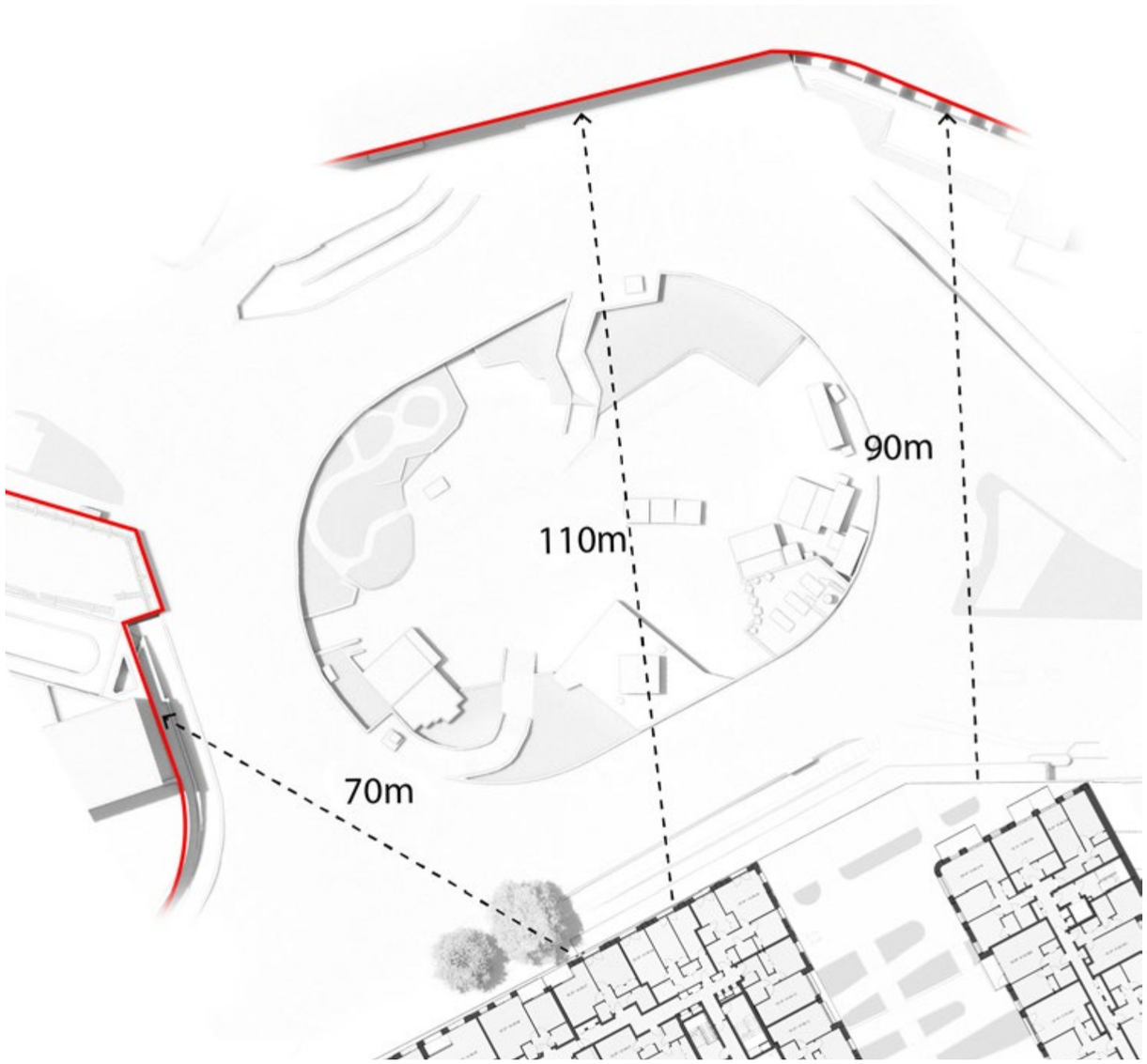
Aspect & Orientation

Accommodation Facing St James Barton

Due to the urban nature and size of the site there are some dwellings that face within a 45% angle of due north.

The design aims to minimise single aspect dwellings and only 9.6% of the development has single aspect dwellings within an orientation 45% of north, none of these dwellings face directly north and actually face at a 25 degree angle north west.

These apartments benefit from either long reaching, unobstructed city views to the north (for the apartments facing St James Barton) or wider frontages and larger glazed frontages and projecting balconies (to the apartments facing into the western courtyards).



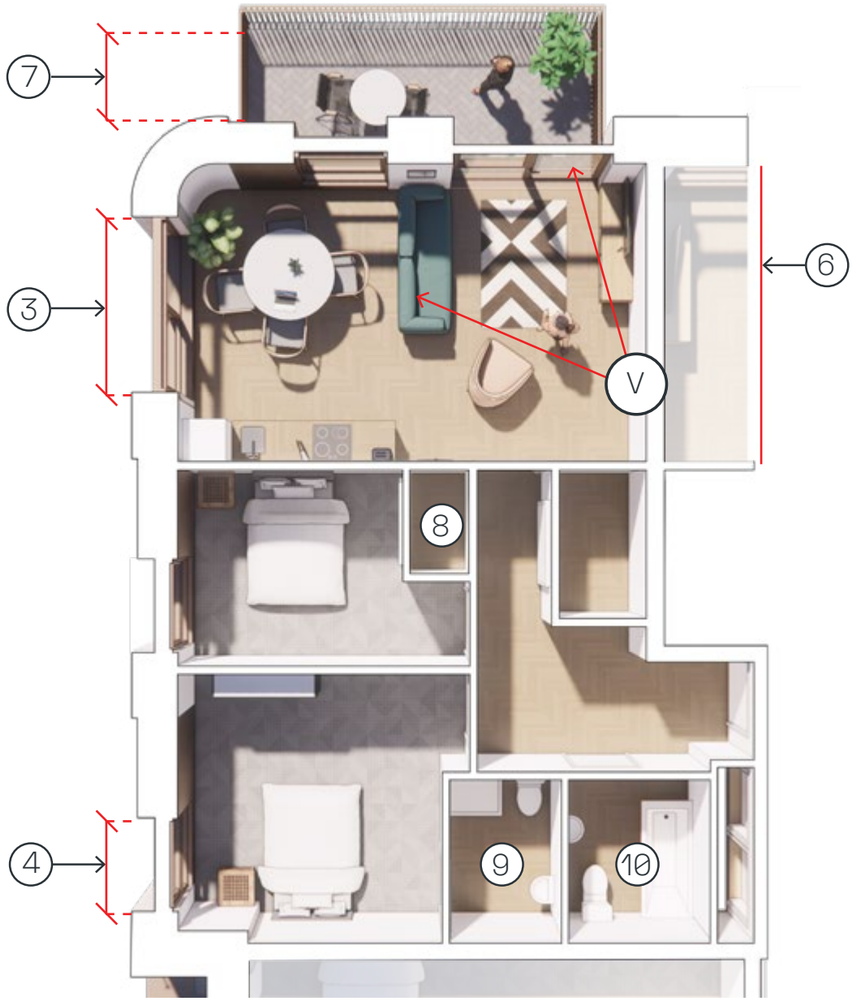
Plan showing unobstructed city views to apartments facing St James Barton

Aspect & Orientation

Typical Apartment - Projecting Balcony - Dual Aspect

1. 2.6m floor to ceiling heights in kitchen / living and bedroom areas
2. 2.4m floor to ceiling height in all other rooms
3. Living room includes floor to ceiling glazed double doors to balcony. Windows in kitchen / living areas (2372.5mm wide)
4. Floor to ceiling windows with open-able upper pane in bedroom (1247.5mm wide)
5. Bedrooms adjoin bedrooms
6. Living space adjoins other living space
7. 1500mm projecting balcony
8. Built in wardrobe/storage in bedrooms
9. En-suite
10. Bathroom

V - Projecting balcony apartment - 3D Section



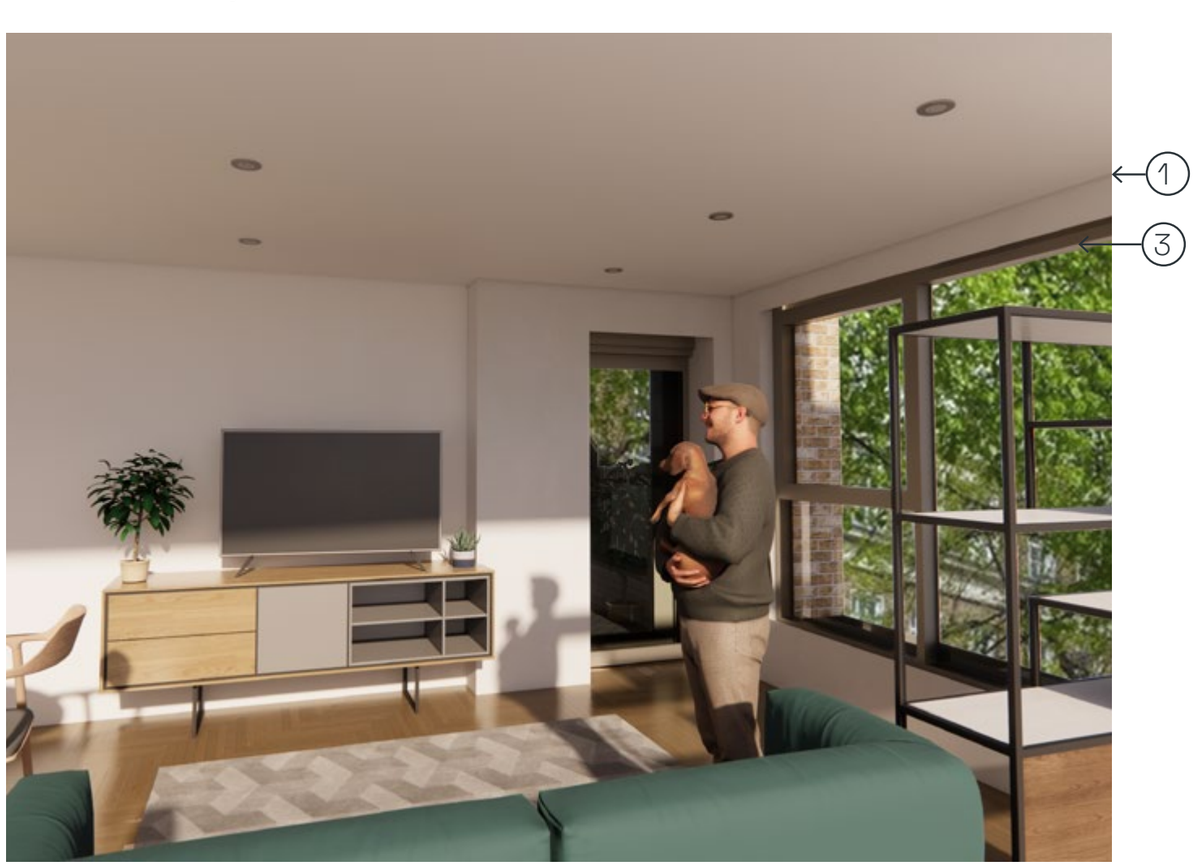
Typical projecting balcony apartment layout

- Note: All apartments exceed national space standards.
- Note: All apartments to be M4(2) accessible and adaptable dwellings

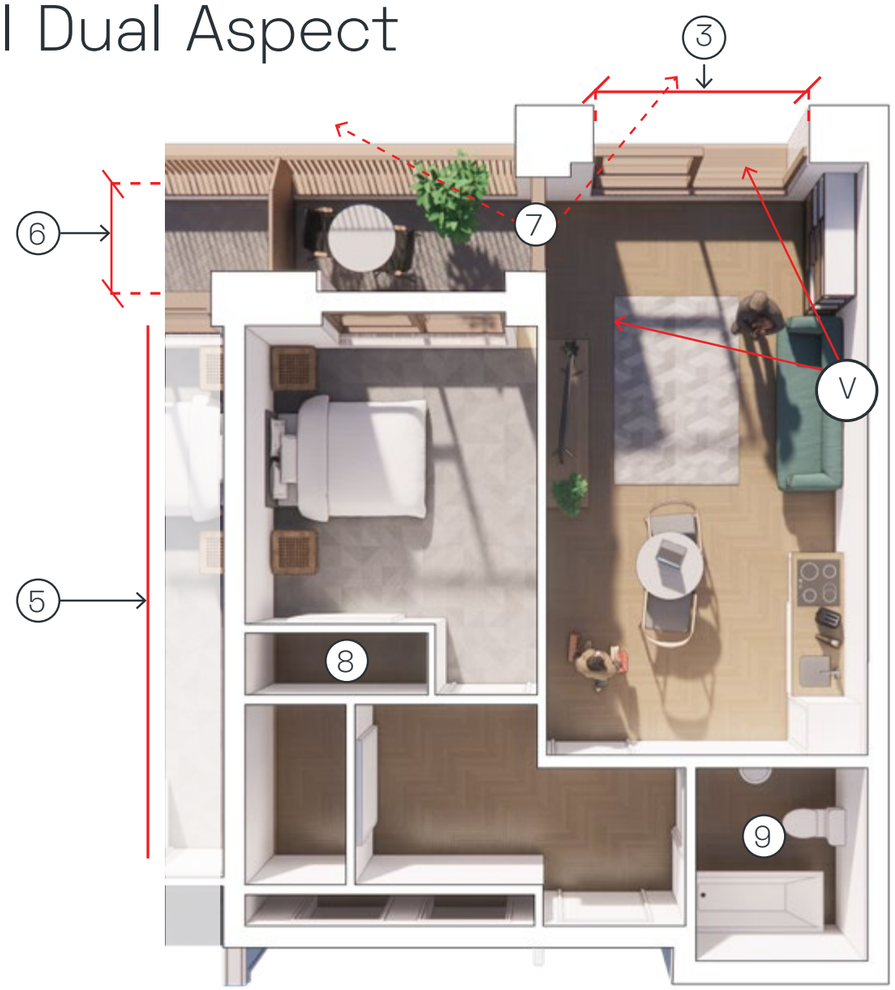
Aspect & Orientation

Typical Apartment - Inset Balcony - Partial Dual Aspect

1. 2.6m floor to ceiling heights in kitchen / living and bedroom areas
2. 2.4m floor to ceiling height in all other rooms
3. Living room includes floor to ceiling windows (2372.5mm wide) and glazed door to inset balcony.
4. Floor to ceiling windows with open-able upper pane in bedroom (1247.5mm wide)
5. Bedrooms adjoin other bedrooms
6. 1500mm deep inset balcony with privacy screen
7. Dual aspect living space
8. Built in wardrobe/storage in bedroom
9. Bathroom



V - Inset balcony apartment - 3D Section



Inset balcony apartment layout

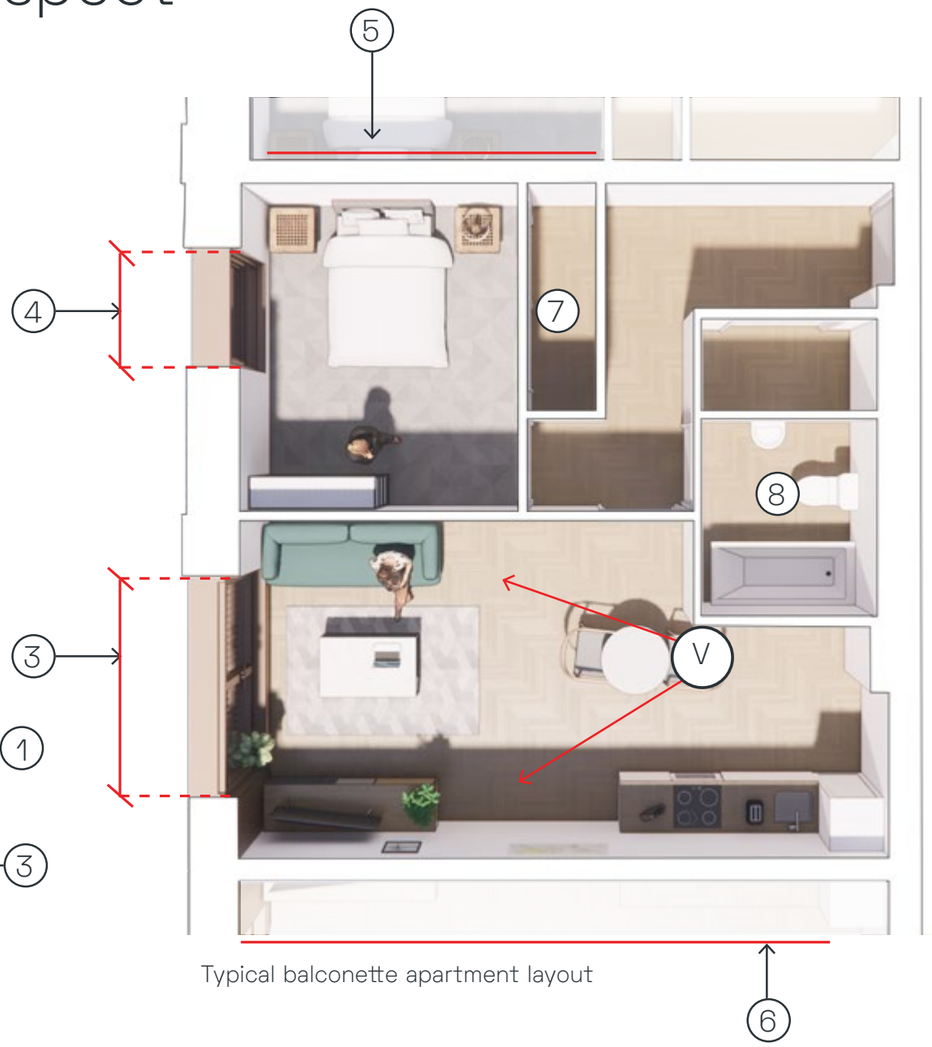
- Note: All apartments exceed national space standards.
- Note: All apartments to be M4(2) accessible and adaptable dwellings

Aspect & Orientation

Typical Apartment - Balconette - Single Aspect

1. 2.6 floor to ceiling heights in kitchen / living and bedroom areas
2. 2.4m Floor to ceiling height in all other rooms
3. Living room includes floor to ceiling glazed double doors to balconette. Windows in kitchen / living areas (2372.5mm wide)
4. Floor to ceiling windows with upper open-enable pane in bedroom (1247.5mm wide)
5. Bedrooms back onto other bedrooms
6. Living space backs onto other living space
7. Built in wardrobe/storage in bedroom
8. Bathroom

V - Balconette apartment - 3D Section



Typical balconette apartment layout

- Note: All apartments exceed national space standards.
- Note: All apartments to be M4(2) accessible and adaptable dwellings

Aspect & Orientation

Orientation & Aspect

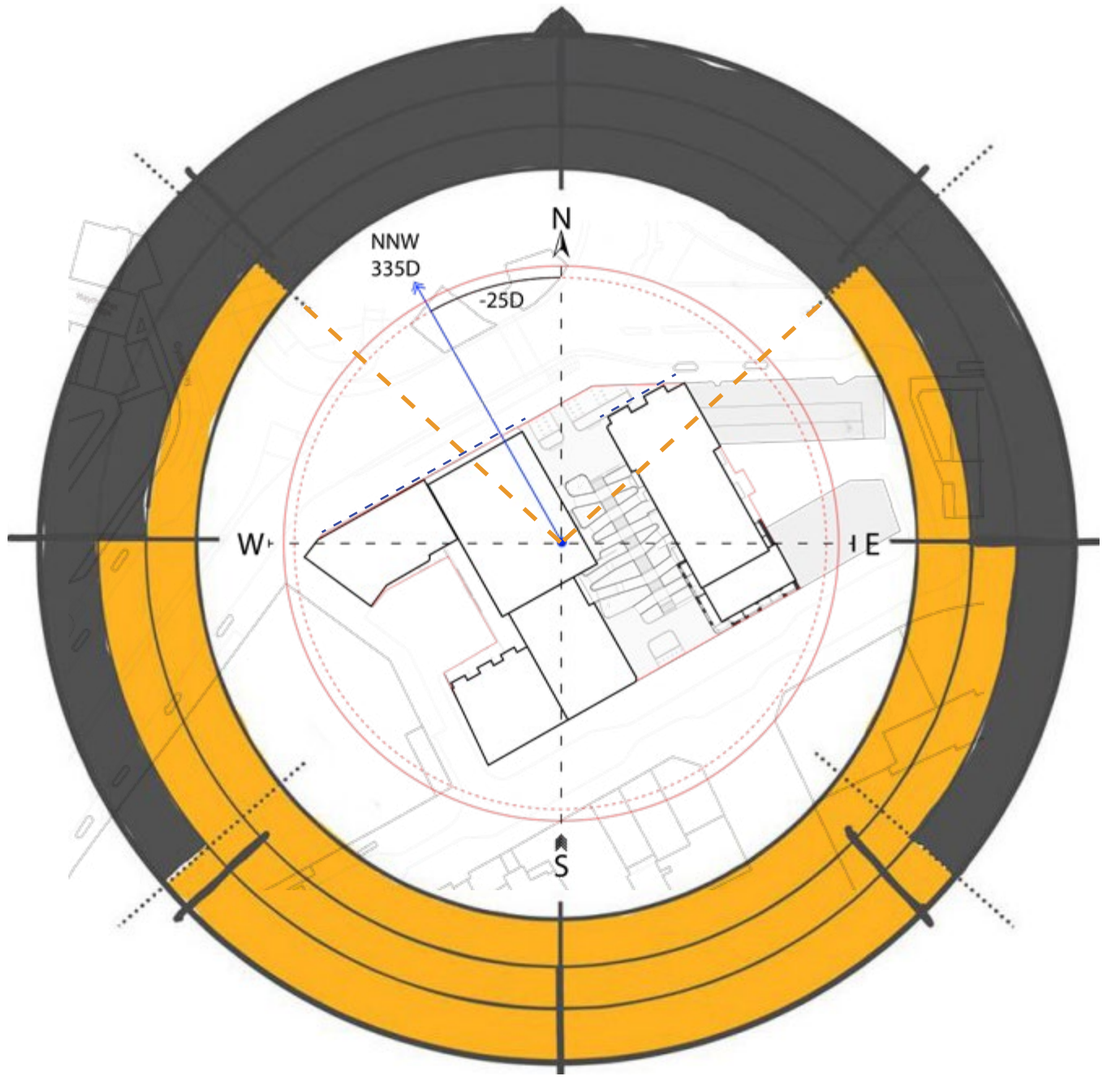
The layouts have been designed with regard to both orientation and aspect. This site is an urban location and great consideration has been given to ensure that dwelling aspect is maximised away from north. The creation of a wide public realm through the site has maximised the east and west orientations of the dwelling frontage across the development.

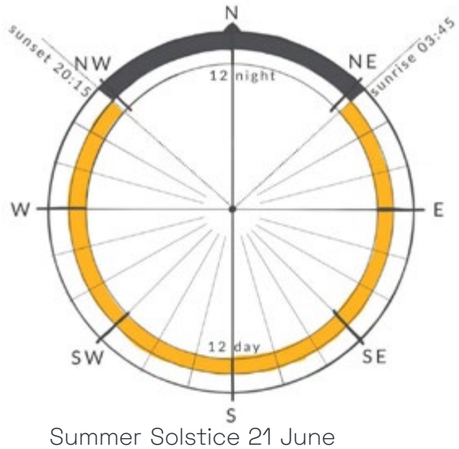
It is widely considered that in assessing northern aspect a 45 degree angle should be utilised from north, this is illustrated by the yellow dashed lines in the diagram adjacent.

Due to the urban nature and size of the site there are some dwellings that face within a 45% angle of due north. 9.6% of the development has single aspect dwellings within an orientation 45% of north (these face north-west at 25 degrees from due north).

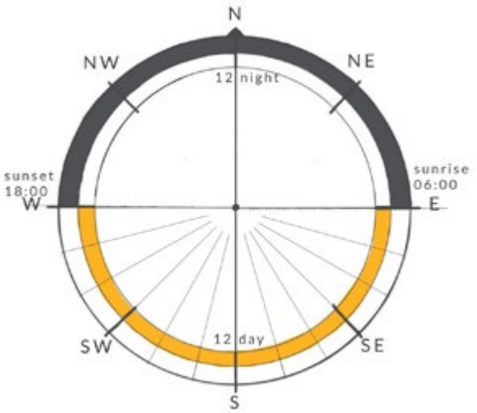
However these benefit from either long reaching, unobstructed city views to the north (for the apartments facing St James Barton) or wider frontages and larger glazed frontages and projecting balconies (to the apartments facing into the western courtyard).

The following page provides an evaluation of aspect and orientation across the development.

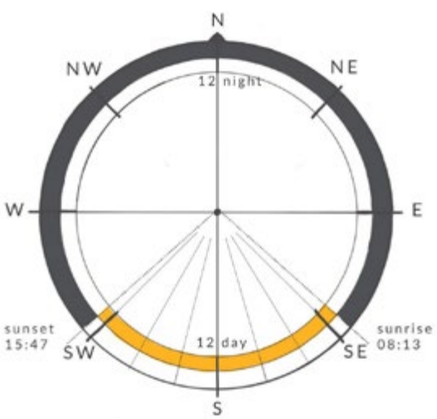




Summer Solstice 21 June



Spring / autumn equinox 21 March and 23 September



Winter Solstice 21 December

Sun path diagrams courtesy of:https://www.firstinarchitecture.co.uk/

Aspect & Orientation

Dwelling Orientation

The layouts have been designed to maximise dual aspect, as well as consideration of benefits and constraints of this urban site including street noise, longer range views and modification of apartment typologies to suit various locations.

The adjacent diagram shows the various orientation of the apartments. These have been classified as either:

- dual orientation or
- partial dual orientation

or if single aspect:

- north facing St James Barton
- north facing courtyard
- east/west facing
- south facing

46% of the apartments are either dual aspect or partial dual aspect and only 9.6% are north facing single aspect.

Key

- Dual orientation - 38.10%
- Partial dual aspect - 7.94%
- North facing St James Barton 8.93%
- North facing courtyard 0.60%
- East/west facing 36.90%
- South facing 7.54%

Landscape Design

Summary of Updates

The following pages address the urban design comments provided by Bristol City Council on 29/01/2024.

Churchman Thornhill Finch Landscape Architects have made the following updates:

- Updated playspace including incidental play within the public realm

- Landscape design to include public art within the public realm.

- Installation of pergolas on rooftops to create sheltered spaces for users to dwell and protect them from wind.

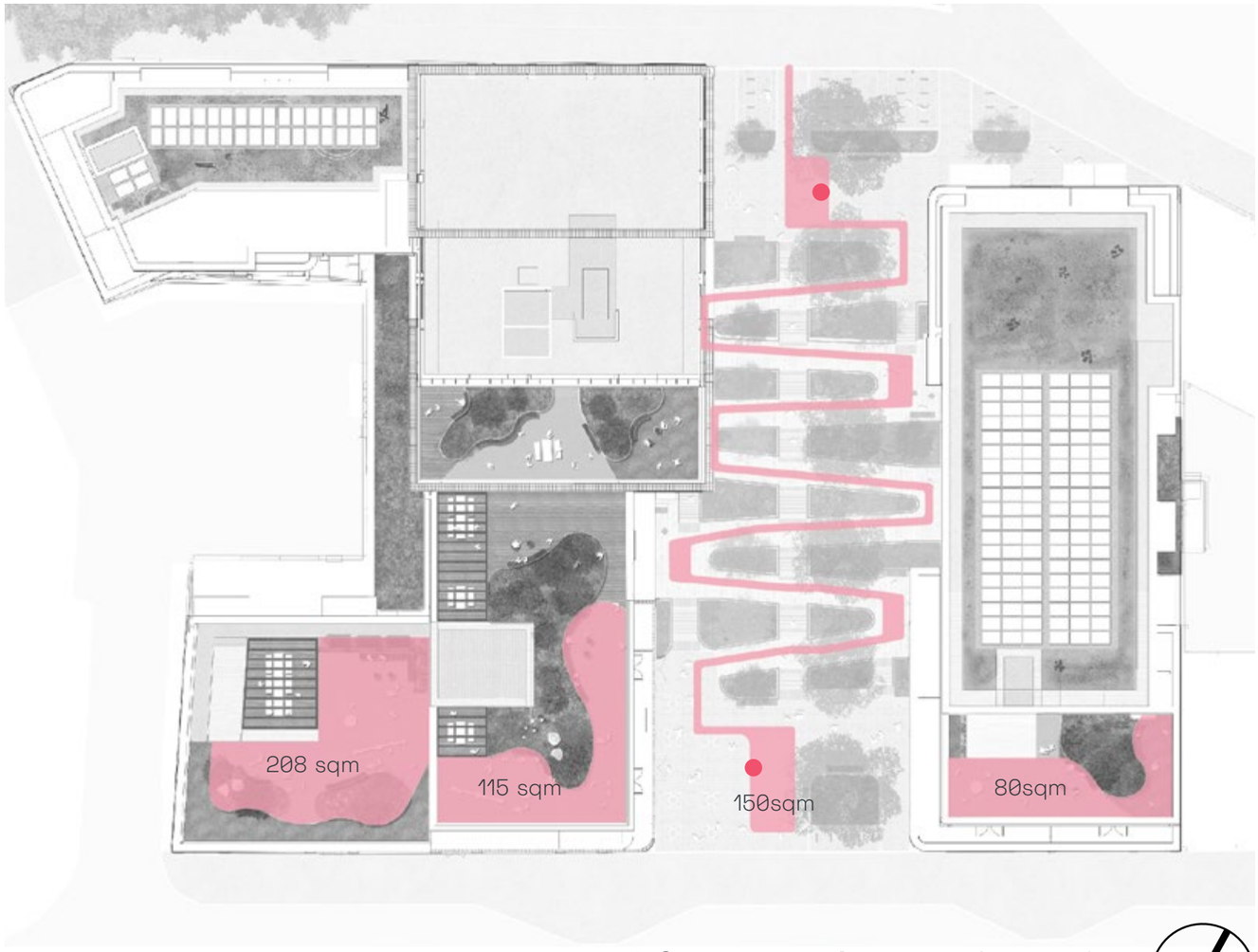
Landscape Masterplan

Play Provision

East Building		
Estimated number of children from development		Play Space Standard (10sqm/child)
Age 0-4	17.34	173
Age 5-11	9.71	97
Age 12-15	2.94	30
All children aged 0-15	29.99	300

West Building		
Estimated number of children from development		Play Space Standard (10sqm/child)
Age 0-4	24.33	243
Age 5-11	11.10	111
Age 12-15	3.59	36
All children aged 0-15	39.02	390

TOTAL	
Required	Proposal
416	553



● Opportunity for artist designed sculptural play elements

The scheme provides dedicated play space for 0-4 years olds on site. These are distributed across the buildings and public realm to ensure convenient access to all residents and a range of facilities. The amount of play space exceeds the SPD requirements by over 30%.

Play provision requirements are set out in Bristol City Council's document, Urban Living SPD- Making successful places at higher densities.

"For children aged between 0-4 this (play) should be incorporated within the development as part of the provision of private open space, or as doorstep play integrated within the public realm immediately adjacent to the development."

"For older children, the open space provision could either be provided on site or as an off site contribution. This will depend on the size of the development, and the sites accessibility on foot to existing play provision."

The proposals provide 0-4 year old play provision in the development, with older children play provided as an off-site contribution.

Landscape Masterplan

Public Realm - Incidental Play & Public Art

The public realm will incorporate artist designed pocket play elements aimed at children aged 2-7. The details of this will be refined as part of the public art strategy, designs will be created following a research and engagement period of artist residency which will provide the time and space to explore themes and successful play approaches with local communities.

This could take the form of a captivating play trail that winds along the ramp, inviting children to explore and engage with their surroundings. Playful features not only add charm to the landscape but also serve as interactive markers, guiding children along the trail as they walk the site.

There is also the opportunity for larger sculptural elements within the north and southern square. sculptures in the north and south squares. Positioned strategically, they would invite passersby to pause, admire, and perhaps even interact with them.

Please see the separate Public Art Strategy prepared by Ginkgo for further information on the public art proposals including playable elements.

Examples of elements embedded within the public realm to create a play trail

Examples of sculptures inviting incidental play

Roof Gardens

Introduction

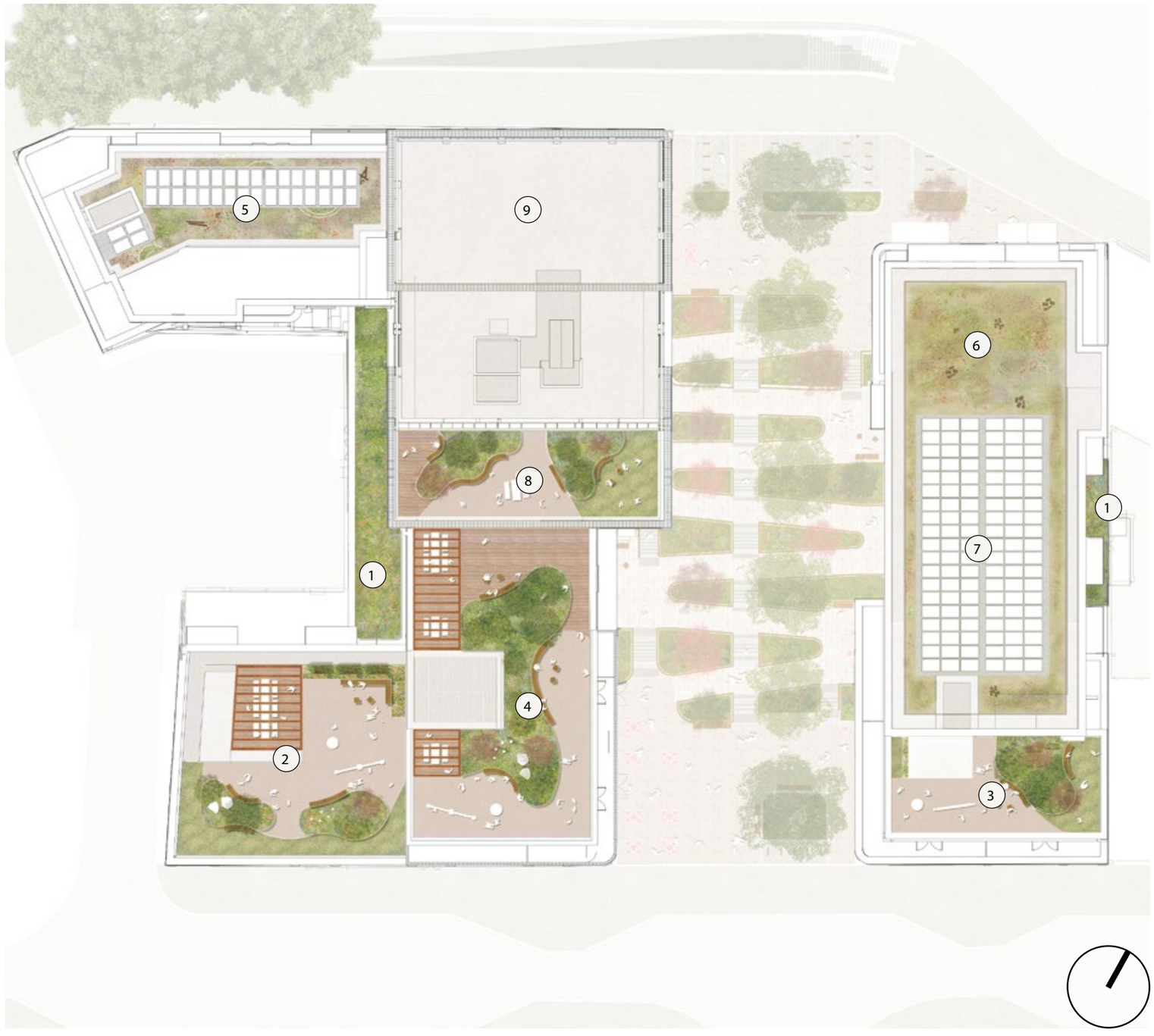
Residents gardens are located on the roof levels 11, 12, 13 and 26. The gardens are accessed from the cores of the buildings. The design looks to create intimate, secure communal garden spaces for residents to enjoy, with views over Bristol.

Seating is positioned in sheltered locations and framed by greenery and small ornamental trees. Pergolas provide additional shelter from wind and sun The intimate spaces allow more than one group or individuals to enjoy the space at any one time.

Play elements are an important part of these terraces, particularly for younger children to enjoy with their friends and carers. They serve as gathering spots for neighbours and friends, providing opportunities for socialising and connecting with nature.

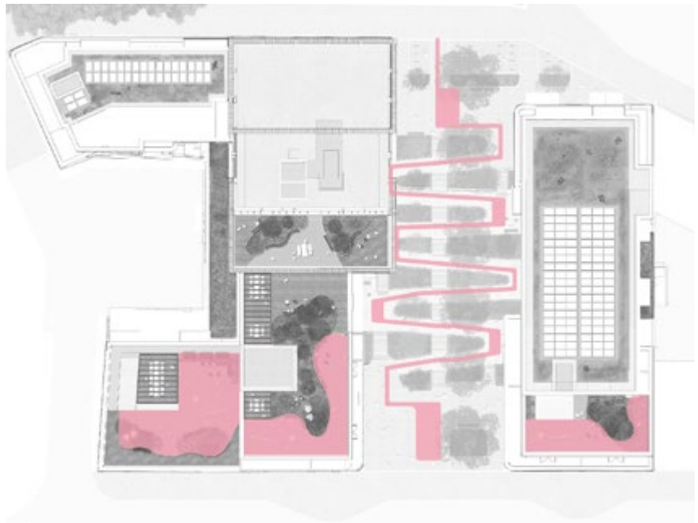
The roof design provides 1.5m wide perimeter where needed to allow for façade cleaning access. Bio-solar and biodiversity roofs are implemented on roofs that are not accessible to residents. However, due to limited available plant space, certain areas cannot accommodate these features.

1- Level 1 Green roof
2 - Level 8 Amenity roof
3 - Level 11 Amenity roof
4 - Level 11 Amenity roof
5 - Level 12 Bio-solar roof
6 - Level 13 Biodiversity roof
7 - Level 13 PVs and plant space with biodiveristy planting in the edges
8 - Level 26 Amenity roof
9 - Level 29 Plant space



Roof Gardens

Audit of users and time



Play areas

The proposal provides a range of play space across various levels of the development.

Social areas and group seating

The roof gardens create numerous social areas with generous seating and movable furniture to relax and enjoy the views.

Quiet spaces

Quiet areas provide residents with the opportunity to reflect without being affected by other users.

Morning - Users

- Quiet users
- Social users
- Children

Aftenoon - Users

- Quiet users
- Social users
- Children

Evening - Users

- Quiet users
- Social users
- Children

Roof Gardens

Typical Roof Plan - Level 11

1 - Raised planters define the space, planted with flowering perennials and low shrubs.

2 - Play area and play elements

3 - Timber deck for community use

4 - Pergola provides additional shelter and definition to dwell spaces

5 - Timber cube seat

6 - Timber bench along the planting bed

7 - Biodiversity roof

8 - 1.5m clear route for maintenance and facade access.

9 - Group table and bench

Roof Gardens

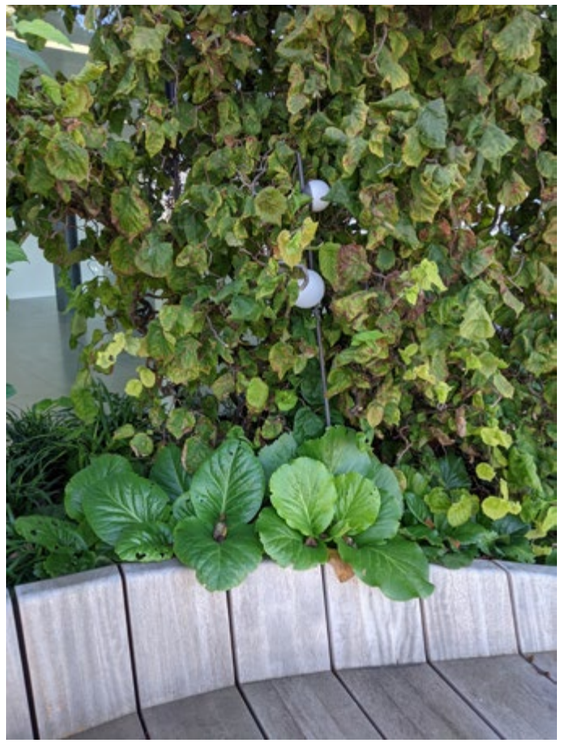
Users and time diagram

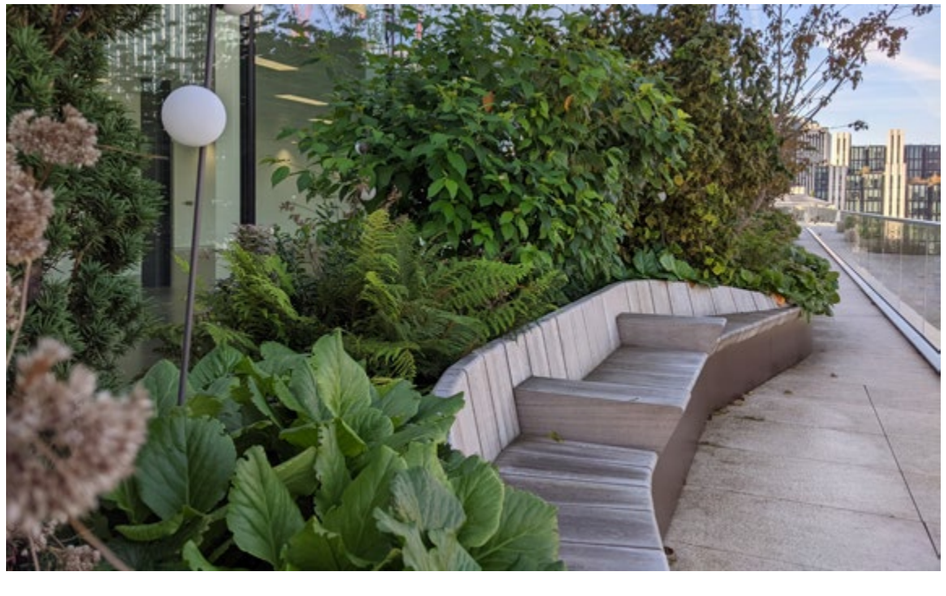
Day use

Evening event

Roof Gardens

Precedent Study : 60 London Wall by Churchman Thornhill Finch





Roof Gardens

Rooftop Raised Planters - Typical Detail

Key

1. Footing to steel planter edge. To Engineer's detail and manufacturer's recommendations.

2. Drainage layer to Engineer's detail and specification.

3. Attenuation and drainage layer. To Engineer's/Architect's specification and detail.

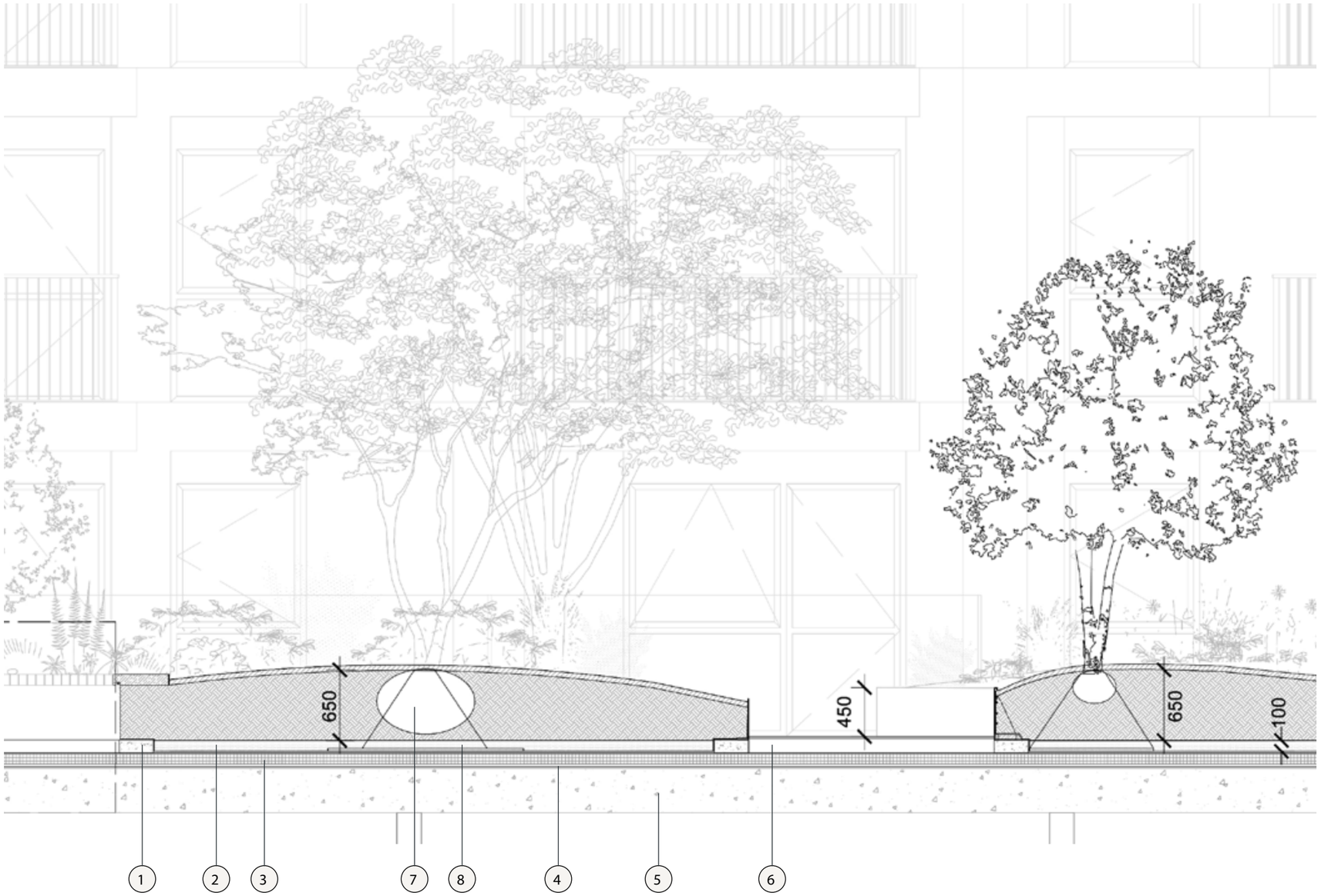
4. Waterproofing and separation layer.

5. Slab.

6. Play surface, colour to be agreed.

7. Root ball to small multi-stem tree.

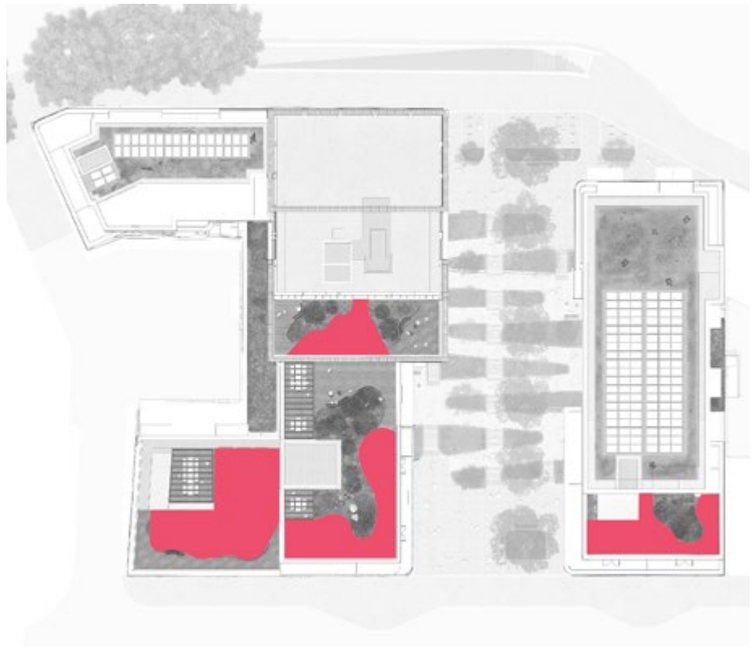
8. Platypus or similar root ball anchors mounted on galvanized tree grille below drainage layer.



Open Space

Materials strategy

Location highlighted - raised metal edge to amenity roof planters



Location highlighted - Play surface to amenity roofs

Example - raised metal edge to amenity roof planters

Example - play surface to amenity roofs

Open Space

Furniture strategy

Location highlighted - **Decking to amenity roofs**

Location highlighted - picnic style tables

Example - decking to amenity roofs

Example - picnic style tables

Biodiversity

Amenity roofs planting strategy

Key plants to be specifid on the amenity roof terraces and gardens.

Structure shrubs / trees

Planted as 2.5-3m high specimens planted into 600mm depth growing medium.

- Amelanchier
- Cornus Kousa
- Cornus Mas

Amelanchier

Cornus Kousa

Cornus mas

Stachys olympica

Groundcover matrix

Planted using 9cm to 2L stock at a density
of 11 plants per m^2. Planted into 250-300mm
depth lightweight growing medium.

Grasses and Perennials

- Sesleria nitida
- Sesleria autumnalis
- Luzula nivea
- Calamagrostis Karl Foerster
- Aster linosyris
- Gernamium sp.
- Stachys olympica
- Pennisetum ‘Hamelm’
- Miscanthus sinensis

Luzula nivea

Calamagrostis Karl Foerster

Sesleria nitida

Sesleria autumnalis

Verbena spp

Anemone

Aster linosyris

Gernamium spp

Biodiversity

Biodiversity rooftop planting strategy

Bauder Flora 5 Seed mix

• UK Native British Provenance Seed Mix
• 38 Species
    • 28 wildflowers
    • 6 Annuals
    • 2 sedge and grasses
    •2 Sedum species
•Mix percentages; 80% perennial wildflowers, 10% annuals & 10% grasses

Key plants
• Red Valerian
• Wild Red Clover
• Vetch
• Bird's foot Trefoil
• Kidney Vetch
• Red Fescue
• Quaking Grass
• Wild Marjoram
• Black knapweed
• Wild Teasel
• Common Toadflax
• Evening Primrose

The planting strategy for the bio-solar roofs is set out below:

Bauder Flora 3 Seed mix

- UK Native British Provenance Seed Mix
- 49 Species
- 31 species of which eight are annuals
- 8 Grasses/Sedge
- 2 Sedum species
- Mix percentages; 65% perennial wildflowers, 20% annuals & 15% grasses




Indicative plant species

Key plants

- Wild Red Clover
- Vetch
- Bird's foot Trefoil
- Kidney Vetch
- Black Knapweed
- Common Toadflax
- Rough Hawkbit
- Mousear Hawkweed
- Sedums
- Wild strawberry

Precedent of a biosolar roof

Use of crushed aggregate for the substrate

Get in touch

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05.02.2023

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