5.2
Site Observations

Waterloo's urban fabric has been shaped by a history of growth and renewal. This diverse, layered and engaging character inspires the design of contemporary buildings and spaces.

A wide diversity of building typologies front the streets of Waterloo, with shops, offices and hotels found in clusters and at corners. The majority of the site is not within the heritage conservation zone, however, a small number of heritage items are located near and within the site. Waterloo Metro Quarter is contributing to an additional layer of urban fabric that responds to existing and future needs and builds upon Waterloo's unique character, diversity, and vibrancy.

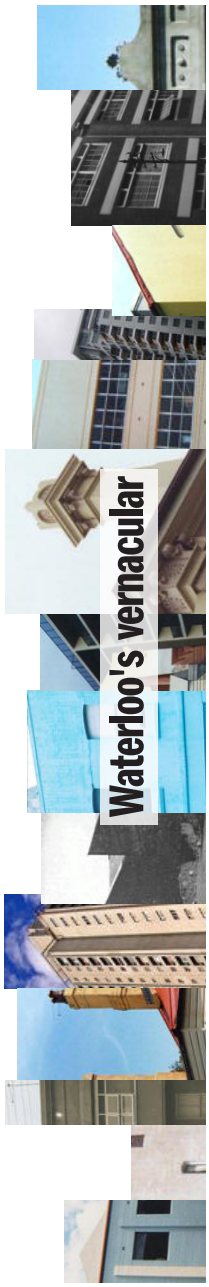
Botany Road has a mix of small and large lots with focused areas of intensity to the northern end and lot size increasing heading south.

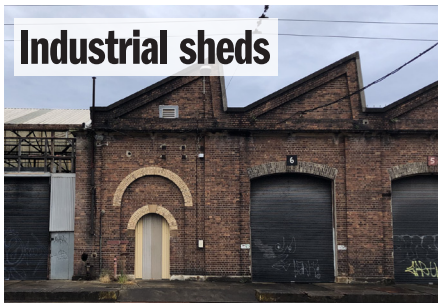
Cope Street is characterised by larger industrial lots with many having been adapted for various retail, commercial and residential uses.

Raglan Street is well vegetated to the east and hosts a mix of building typologies providing predominantly residential use with retail and commercial in focused areas near intersections.

Wellington Street is characterised by a mix of heritage buildings. residential terraces, and industrial lots with some adapted for commercial uses.













Four building typologies have been identified as distinctly Waterloo. These typologies vary in scale and usage but share some qualities - robust materiality, vertical expression, a balance of repetition and customisation. These typologies can be applied to different buildings across the site - to give a sense of diversity, as well as cohesion.

Street and space-fronting
Repetition and customisation
→ Vertical expression (lot/terrace/bay)
Built for adaptation
Robust, tactile, personal

5.3 Summary of Opportunities and Constraints

The SSD 9393 UDPD Report identified a number of key opportunities and challenges for the Waterloo Metro Quarter.

DENSITY AND SCALE

Opportunities: To respond positively to the existing and future context through the built form approach.

PUBLIC DOMAIN

Opportunities: To provide an enhanced public domain that promotes walking and cycling.

MOVEMENT

Opportunities: To provide clear, direct, sheltered and safe connections between transport modes.

SOLAR ACCESS TO ADJACENT SITES

Opportunities: To maintain solar access requirements to adjacent open spaces and context.

SOLAR ACCESS

Opportunities: To maximise solar access through the built form response.

VIEWS AND VISTAS

Opportunities: To respond positively to view corridors from adjacent areas towards the site to optimise the views from the site.

ONE SITE, TWO PARCELS

Challenges: To provide separate utilities, servicing and site access points for the two development parcels.

TOPOGRAPHY AND FLOODING

Challenges: To incorporate required PMF floor levels without compromising access, operation and uses across the site.

WIND

Challenges: To respond positively to wind impacts (particularly from westerly winds) through the built form approach.

NOISE

Challenges: To provide appropriate noise mitigation measures without compromising open space or building amenity.

METRO INTERFACE

Challenges: To respond to the setbacks and clearance zones required by the metro interface and to achieve an integrated design outcome across different approvals, e.g. wind.

METRO LIMITATIONS

Challenges: To work with the loading limitations on the metro station boxes

The proposed amendment remains generally consistent with the approved plan; however, provides the potential to deliver improved outcomes in three ways.

1
A GREATER MIX OF USES TO DELIVER IMPROVED DIVERSITY AND ACTIVATION OF THE SITE

The amendment of the Building 1 envelope allows for a greater proportion of commercial floorspace for the WMQ site. This supports the creation of a precinct that has greater visitation, diversity and round-the-clock activation.

The significant height reduction of this envelope reduces overshadowing to adjacent areas (in particular, the Alexandria Park heritage conservation zone) and impact on viewlines from neighbouring residential buildings. It also allows for a a non-residential use against the noisy environment of Botany Road. Interface with the Metro is improved through the creation of Raglan Walk, which provides additional access to and activation of the station entry.

Key Opportunities and Constraints addressed by this amendment

- → To provide clear, direct, sheltered and safe connections between transport modes.
- → To maintain solar access requirements to adjacent open spaces and context.
- → To respond positively to view corridors from adjacent areas towards the site to optimise the views from the site.
- → To provide appropriate noise mitigation measures without compromising open space or building amenity.
- → To respond to the setbacks and clearance zones required by the metro interface and to achieve an integrated design outcome across different approvals, e.g. wind.

2
A BETTER INTEGRATION OF COMMUNITY AND CONNECTIVITY SYSTEMS

The amendment of the Building 2 envelope allows for a better integration of the Community Building with the tower above, the Cope Street plaza and surrounding pedestrian connections. The extension of podium levels in this building allows for a better resolution of levels (and therefore the challenges of topography and flooding), as the plaza transitions into a colonnade space.

Compared to the previous reference design, public space provision across the WMQ has been increased, with solar access to the Cope Street Plaza improved. Better integration of connections (including the proposed Raglan Walk and clearer lines of movement through laneways) make this a safer, more walkable place.

Key Opportunities and Constraints addressed by this amendment

- → To provide clear, direct, sheltered and safe connections between transport modes.
- → To incorporate required PMF floor levels without compromising access, operation and uses across the site.
- → To respond positively to wind impacts (particularly from westerly winds) through the built form approach.

3
A STRONGER EXPRESSION OF THE CULTURE, COMMUNITY AND CHARACTER OF WATERLOO

A reference design proposal for the WMQ has been developed and is described in Section 8 of this report. The reference design process has been informed by analysis and site observations, cultural research, conversations and collaborations with local community members and artists.

A key consideration of the design process was an understanding of the diverse scale, density, use and character of the Waterloo context. The aspiration of creating a place of "both conflict and cohesion" has allowed for a range of architectural expressions across the site, while maintaining a sense of integration with and connectedness to the surrounding context.

Key Opportunities and Constraints addressed in the reference design proposal

- → To respond positively to the existing and future context through the built form approach.



Yellowmundee Park, Redfern NSW


REDFERN COMMUNITY
CITY OF SYDNEY

URBAN DESIGN PRINCIPLES AND STRATEGIES



This section describes how the proposal aligns with and builds upon the findings of Chapter 6 of the SSD 9393 UDPD Report.

The Waterloo Metro Quarter urban design principles and strategies were developed to guide the planning and design of the whole site, as well as individual buildings, spaces and other elements.

The urban design principles for Waterloo Metro Quarter are outlined in Chapter 6 of the SSD 9393 Urban Design and Public Domain Report. This amendment supports, groups and expands upon the principles defined for the approved development, the intent of which was summarised as follows:

This chapter defines the urban design principles underlying the built form strategies for the Waterloo Metro Quarter. The urban design principles have been developed through an understanding of the precinct at various scales: strategic, neighbourhood, context and local – as well as the inherent characteristics that make Waterloo unique. These urban design principles are further refined into a design approach that responds to the specific site constraints of the Waterloo Metro Quarter.

The built form strategies developed from the Metro Quarter design approach respond to the key design insights, opportunities and challenges identified in the previous chapter. Although there is an existing approval for the station, there is a need to ensure that the Waterloo Metro Station and Metro Quarter design achieves an integrated design outcome.

Commencing with a summary of the urban design principles, key moves and strategies outlined in the SSD 9393 UDPD Report, this section explains the urban design development by the successful Mirvac/John Holland Waterloo Metro Quarter BID and it implications for subsequent building designs.

An overview of the design objectives ends the section, with a comment on how the design strategies of the approved SSD 9393 are implemented in the proposed amendment.


Redfern Park, Redfern NSW


Kensington Street, Chippendale NSW



Pop-up marketplace


Redfern Park, Redfern NSW

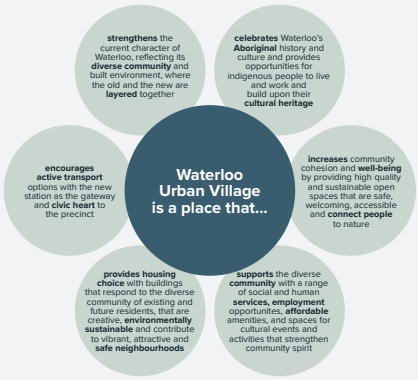


Kensington Street, Chippendale NSW

6.1 Urban Design Principles and Built Form Strategies Overview

An overview of the relevant SSD 9393 section is included below with a summary of additional analysis and proposed amendment.

The Waterloo SSP Precinct urban design principles were developed to guide the design process and fullfill the objectives and project proposition to deliver the vision for the Precinct.



The principles fall under five thematic groups and are aligned with the research and design process the Technical Innovation Working Groups (TIWGs). Key stakeholders and technical consultants worked collaboratively to identify, develop and recommend best practise and innovative approaches to guide the design development of the reference design proposal.

Six design responses were developed to guide the reference design proposal for Waterloo Metro Quarter to achieve optimum integration between the surrounding context and the station.

- → Integrated;
- → Inclusive;
- → Connected;
- → Diverse;
- → Local; and
- → Liveable.

Eighteen built form strategies were developed for the SSD 9393 UDPD Report. These strategies identify key moves across the site. The following page has grouped these strategies into four overarching urban design objectives followed by a series of key moves.

Housing: A fully, integrated urban village of social, private and affordable housing

Locally responsive, distinctive and adaptable buildings, homes and spaces.

Diversity of homes and living choices underpinned by innovative delivery and tenure models.

Emphasise Waterloo's character areas and neighbourhoods.

A variety of indoor and outdoor shared spaces that support resident needs and wellbeing.

Culture & Design: A safe and welcoming place to live and visit

A significant place shaped by the community for gathering in Waterloo.

Activated and engaging places for all.

Aboriginal people are intrinsic to Waterloo.

Embed local stories of people and place.

Open Space & Environment: High quality public spaces and a sustainable urban environment

Celebrate Waterloo's unique green attributes including topography, water and trees.

Promote a sense of wellbeing and connection to nature.

A high performing resilient environment.

Transport and Connectivity: A well connected inner city location

An active transport hub and local centre working as one.

Highly connected neighbourhood that prioritises walking and cycling for all.

Services & Amenities: New and improved services, facilities and amenities to support a diverse community

Local services to meet every day and everyone's needs.

Flexible and adaptable land uses, infrastructure and buildings that are responsive to opportunities and needs over time.

Foster local economies and productive environments to create, learn and share.

Additional analysis

The Waterloo Metro Quarter site remains aligned with the five principles developed for the Waterloo Precinct. This section marks a departure from the SSD 9393 UDPD Report by Turner. Additional analysis undertaken through the separate processes for the Competitive BID and design excellence have been integrated with the built form strategies developed in the the Turner Report, and grouped into four overarching precinct-wide design objectives:

1. An authentically public place:

→ Central public spaces
→ Network of connections
→ Cultural ecosystems

2. Ultra diversity in use, form, and character:

→ Diverse uses
→ Diverse form and materiality
→ Diverse community spaces
→ Diverse landscapes

3. Responsive to a complex and changing context:

→ Urban layering
→ Intensity of grain
→ Edge and corner response
→ Public amenity and

4. A local neighbourhood network:

→ Green connectors
→ Democracy of movement
→ Connections as spaces
→ Stacked open spaces

The design objectives have been articulated into a series of key moves which describe spatial outcomes across the WMQ site.

The objectives and key moves provide the basis from which to review the proposed reference design. They address context integration; pedestrian and vehicle movement; precinct typologies; a heritage response; entry and address; awnings; active uses; public art; built form lower and upper and building materials.

Proposed amendment

This analysis highlighted a number of opportunities to improve local and strategic outcomes within the amended proposal. These include precinct-wide approaches to the public domain to address flooding and create attractive public places that encourage people to dwell, through to opportunities for artwork and other appealing features in the public domain. A key focus of the proposed amendment includes provision for a more inclusive environment catering to diverse community needs and supported by a program of events and training opportunities.

The amended proposal also includes:

→ Pedestrian focused connections through the site linking public spaces with active frontages to broader precinct attractors;
→ Central public plaza with community, retail and commercial uses to encourage 24/7 activity;
→ Public art installations connecting communities through histories of the site;
→ Improved pedestrian comfort with weather protection;
→ Consistent street edges which respond to the heritage context;
→ Diversity in building typologies to reflect Waterloo's character;
→ Intensifying the richness of the vernacular material palette; and
→ Ensuring buildings at the lower levels are engaging by reflecting the urban grain and articulating site entries.

Amendments to the building envelope can be summarised as:

Building 1: Insets to break street wall length south east corner stepped down to reduce overshadowing to plaza;

Building 3: Setback to reduce overshadowing to Wellington Street terraces; and

Building 1, 2, 3: Separation for ADG; located and scaled for solar access to adjacent public spaces; and, over-set on some façades.

6.1
Urban Design Principles and Built Form Strategies Overview

The SSD 9393 UDPD Report outlined 27 design strategies for the Waterloo Metro Quarter.

These design strategies covered a range of issues and solutions, including public domain and connectivity, station entry, contextual response and built form.

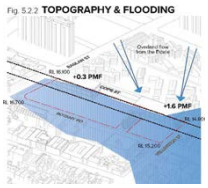
During the Competitive BID process, an Urban Design Framework was developed to articulate:

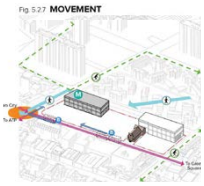
- → Four overarching urban design objectives, supported by design principles; and
- → A series of Key Moves that describe spatial outcomes across the WMQ site.

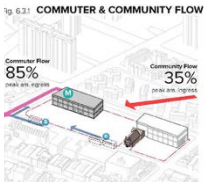
1.
An authentically public place

2.
Ultra diversity in use, form, and character

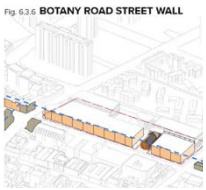


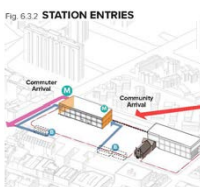


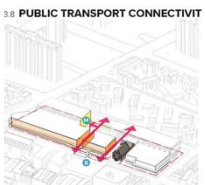


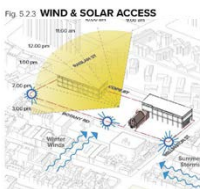


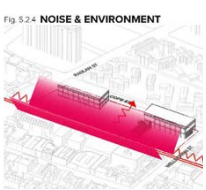




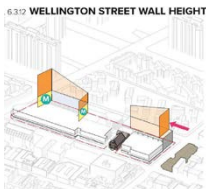


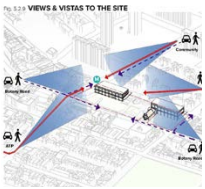










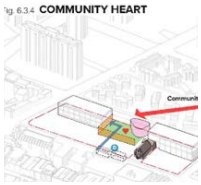


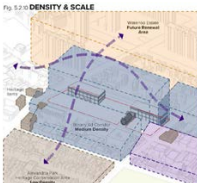
3.
Responsive to a complex and changing context

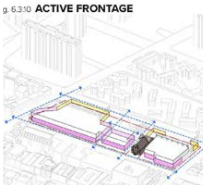
4.
A local neighbourhood network

Overarching urban design objectives.

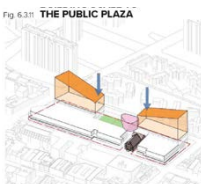


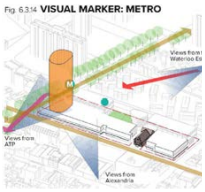


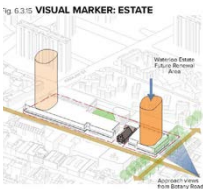


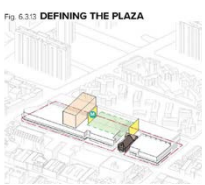




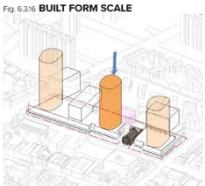


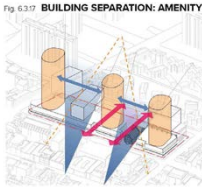


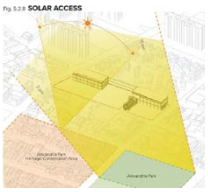


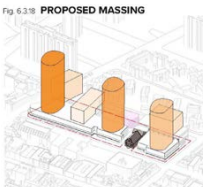












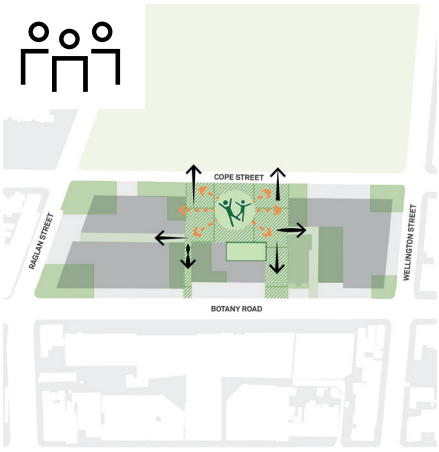
SSD 9393 UDPD Report Urban Design Strategies and their categorisation within the proposal's urban design objectives.

6.2
Design Objectives (precinct wide)

The Waterloo Metro Quarter will be anchored by a network of public spaces - from a large central plaza to gritty laneways and green yards. It will be a place of community interaction, expression and enterprise

Design Objectives

Four design objectives have been established specific to the vision, objectives, principles, opportunities and challenges identified for the Waterloo Metro Quarter.



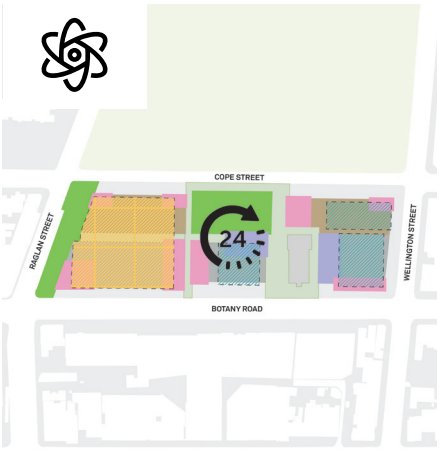
An authentically public place

→ Central public spaces
Clearly delineated, open and accessible public space and cross-site connections at the core of the site.

→ Network of connections
A site-wide network of publicly accessible connections of varying scale, character and access.

→ Community hub
Clustering of community uses, retail and commercial spaces around and adjacent to the main open space.

→ Cultural ecosystems
A cultural ecosystem throughout the site with many moments of expression, both large and small.



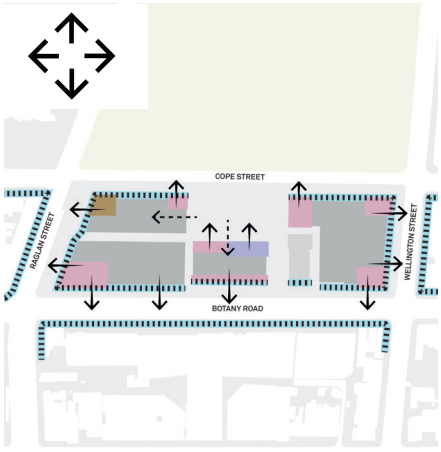
Ultra diversity in use, form, and character

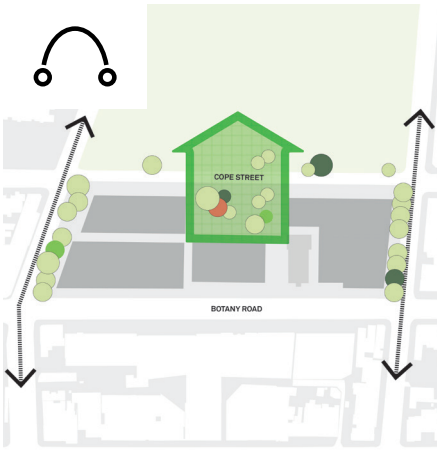
→ Diverse uses
Diversity of uses for expanded choice, complexity, interaction and round-the-clock activation.

→ Diverse form and materiality
Building on and intensifying the richness of the local Waterloo vernacular.

→ Diverse community spaces
Different spaces to attract, hold and engage a highly pro-active, diverse community.

→ Diverse landscapes
Contemporary planting strategy that reflects complexity of original natural systems.







Croydon South End, London UK

Responsive to a complex and changing context

→ Urban layering
Buildings that respond to three distinct urban layers: the human, street and tower scale.

→ Intensity of grain
Buildings articulated at base, engaging at street level and responding to urban grain of the context.

→ Edge and corner response
Consistent street edge with expressed corners, setbacks to match church and insets at entry points.

→ Public amenity
Public amenity on and off site protected through placement and modulation of buildings.

A local neighbourhood network

→ Green connectors
Generous landscape expression of connections along east-west streets and within the main plaza.

→ Democracy of movement
Prioritisation of pedestrians within main spaces and streets allows for easy access and interchange.

→ Connections as spaces
Connections through the site create a network of distinct, engaging, surprising spaces.

→ Stacked open spaces
Open spaces on rooftops and terraces to create “soft centre” of community spaces and landscape expression.

6.3
Key Moves (precinct wide)

Waterloo is a place for locals with an established, engaged, active community. There is a network of community spaces and services throughout the neighbourhood - for young and old, for vulnerable communities, for creative and entrepreneurs, for all.

Public Domain

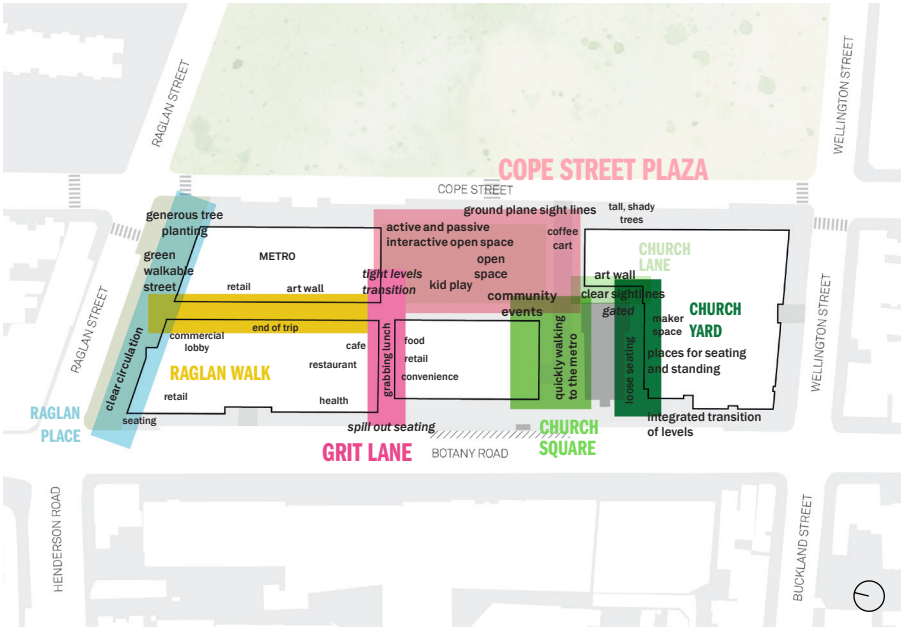
The Waterloo Metro Quarter will be anchored by a network of public spaces - from a large central plaza to gritty laneways and green yards. It will be a place of community interaction, expression and enterprise.

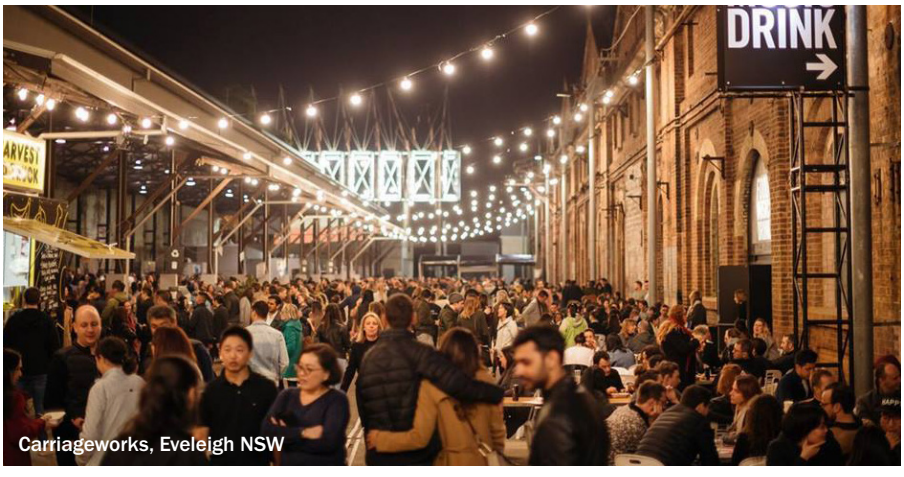
Critical to our design process, has been a desire to ensure a diversity of places and experiences are provided throughout Metro Quarter to respond to the changing needs of the community.

Throughout the site, the ground plane has been designed to create useable and attractive public places, whilst protecting the buildings from flooding. This results in a ground plane that is terraced and ramped up to a higher plane on which most of the buildings are located. The terraced edges create opportunities for incorporating seating and planting across the site, maximising the useability of these edges.

The ground surface materials are intended to vary in response to the type of place, with opportunities to include artwork and other appealing features.

Waterloo Metro Quarter will be a successful precinct through the combination of thoughtful building ground floor uses - that attract people and create reasons to dwell in the precinct, and, through the placement and modulation of buildings, a program of community activities that occur in the public spaces on and off-site.





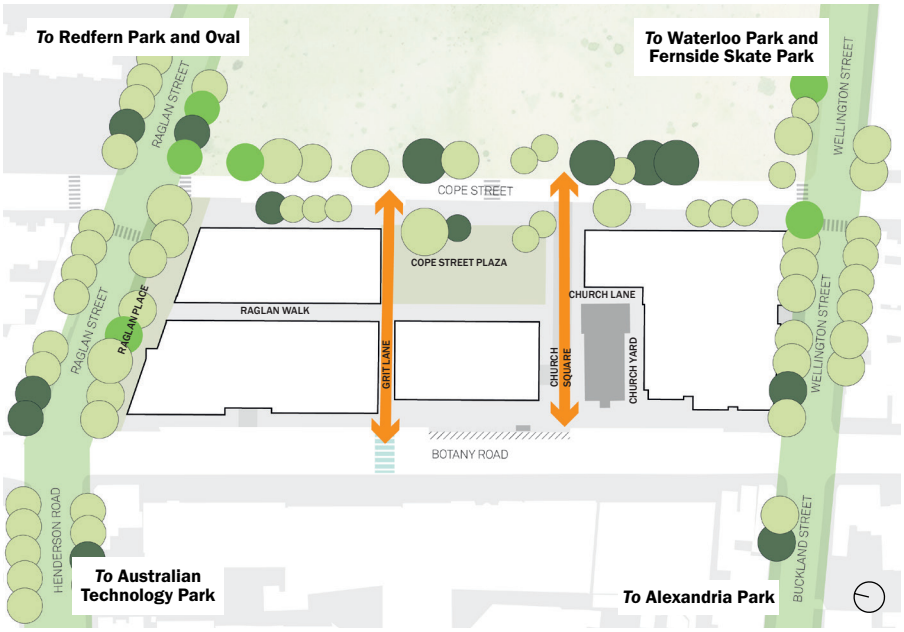
Carriageworks, Eveleigh NSW

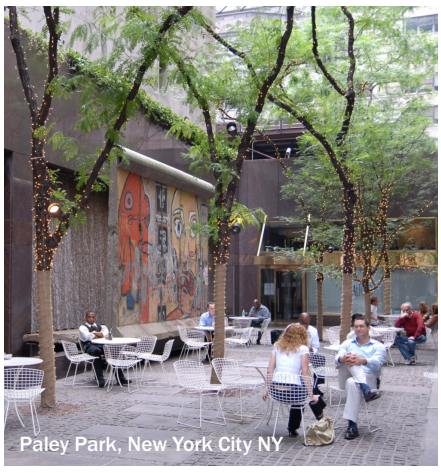
1. Context Integration

Generous landscape expression of connections along east-west streets and within open space.

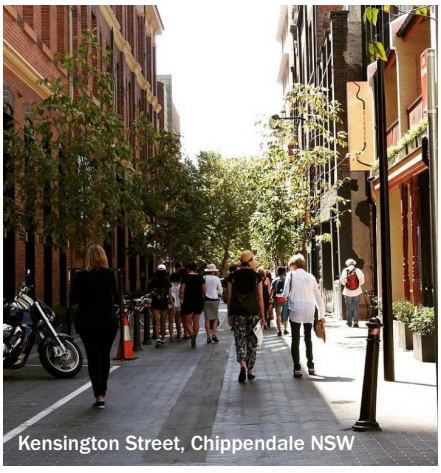
Design development:

Integration with site context through east/ west connectivity and connections to attractors along green walkable streets, with major attractors.




Paley Park, New York City NY


Active public space

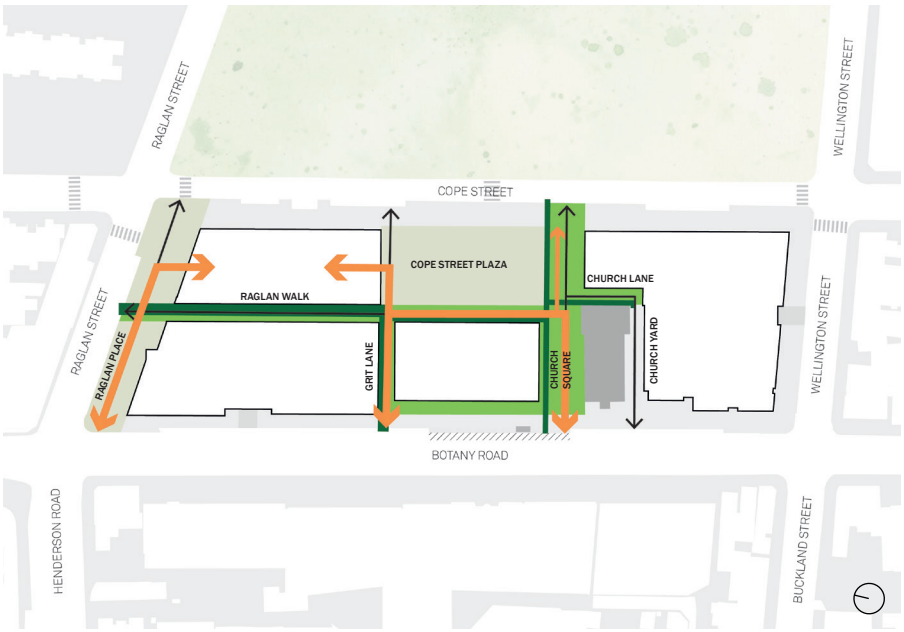

Kensington Street, Chippendale NSW

2. Pedestrian Movement

Clearly delineated, open and accessible public space and cross-site connections at the core of the site contributing to a site-wide network of connections of varying scale, character and access.

Design development:

Ease of movement across the site to enable an accessible and inviting place. Building ground floor uses to attract people to a variety of long and short-term uses and engagement.



KEY

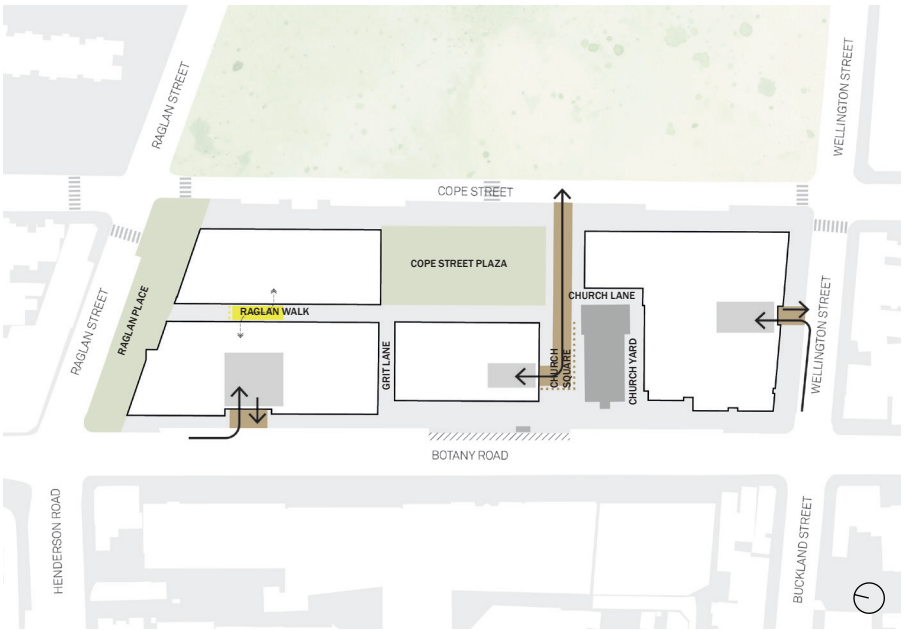
- Primary pedestrian movement
- Primary pedestrian access way
- Indicative clear-width location
- Public plazas

3. Vehicle Movement

A site-wide network of connections of varying scale, character and access.

Design development:

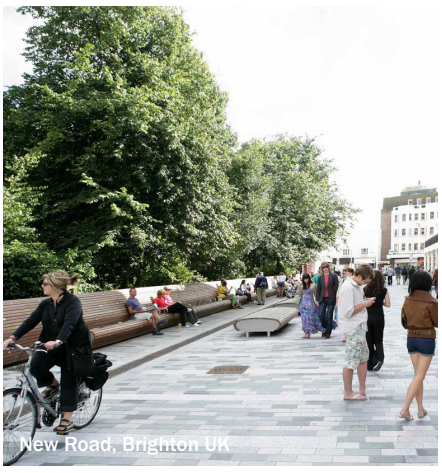
Vehicle movement could undermine access for other movement to and on site, therefore the design will need to consider vehicle movement control through consolidation, detailing and management to achieve a public place.



KEY

- Public plazas
- Vehicle access
- Direction of vehicle movement


Malop Street, Geelong VIC


New Road, Brighton UK



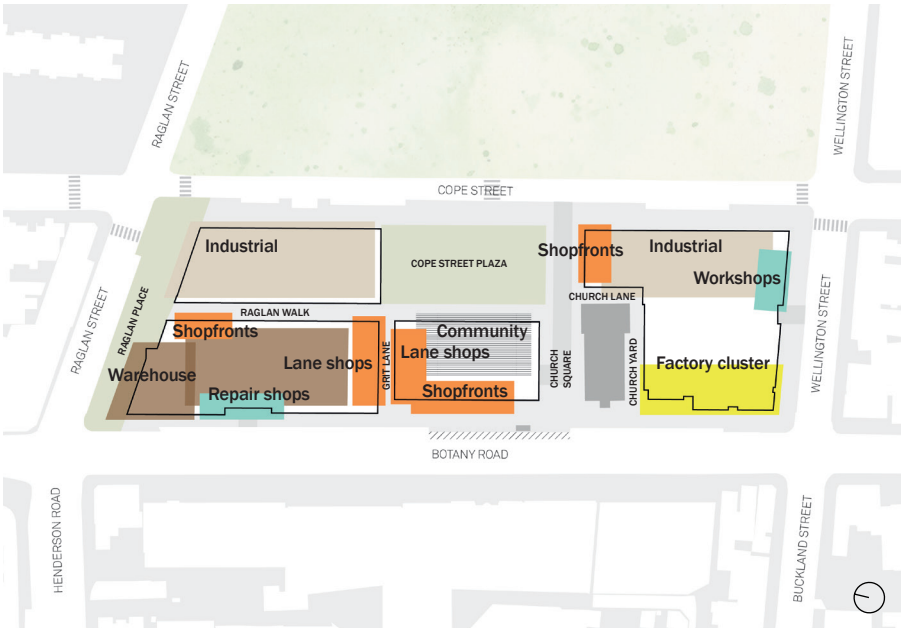
Botany Road, Waterloo NSW

4. Precinct Typologies

The precinct is an assembly of diverse typologies that are drawn from the surrounding context, from large industrial sheds to street-edge shop-fronts and repair yards.

Design development:

The site contrasts the urban grain of Botany Road with the scale and composition of transport architecture.

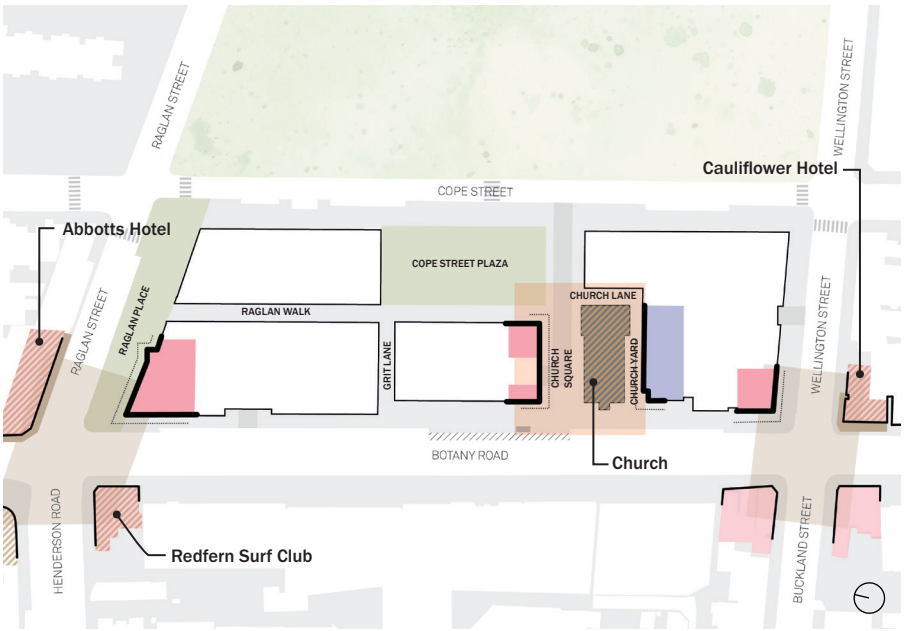


5. Heritage Response

Consistent street edge with expressed corners, setbacks to match church and insets at entry points.

Design development:

Adjacent north and south intersections are required to respond to a clustering of heritage buildings at these points.



KEY

- Heritage item
- Community interface
- Retail and commercial interface


Waterloo Congregational Church, Waterloo



Cauliflower Hotel, Waterloo NSW


Redfern Surf Club, Waterloo NSW

6. Entry and Address

Diversity of uses for expanded choice, complexity, interaction and round-the clock activation; different spaces to attract, hold and engage a highly pro-active, diverse community.

Design development:

An active and engaging built form edge response comprising of community spaces, retail, commercial, and lobbies; clearly delineating and characterising east-west streets and through-site connections.

KEY

- Active frontages
- Metro entry
- Community facilities
- Community retail uses
- Retail / active frontage
- Residential lobby
- Commercial lobby



7. Awnings

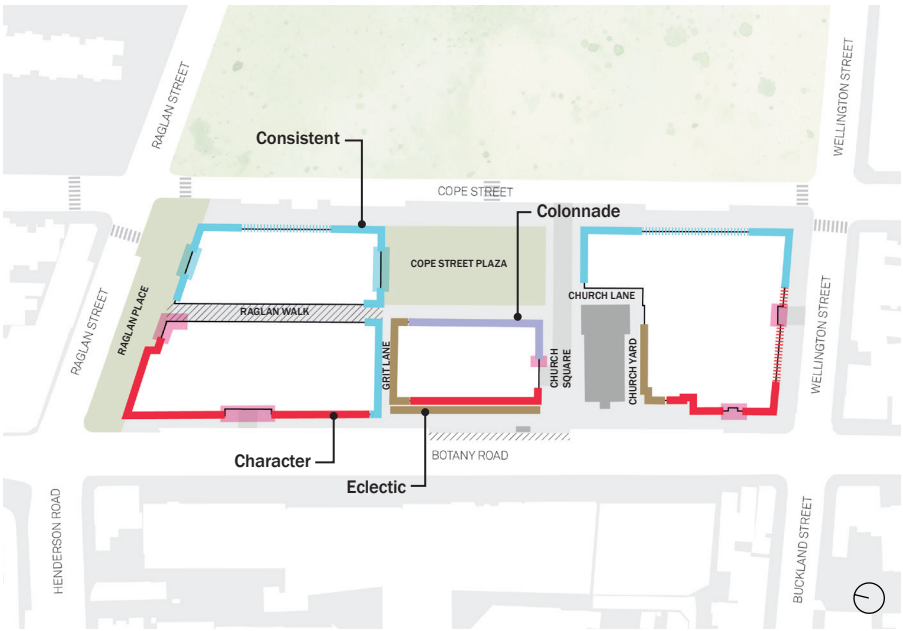
A site-wide network of connections of varying scale, character and access.

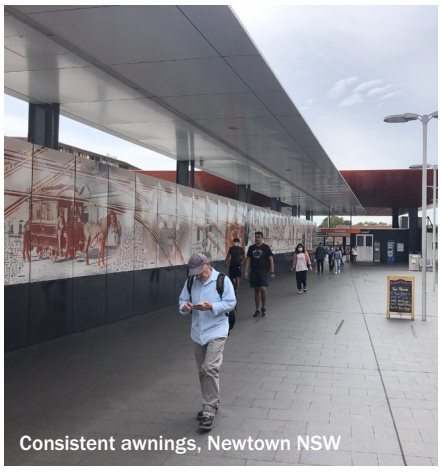
Design development:

Pedestrian comfort, engagement and experience delivered by weather protection strategy activation of edges and corners (retail/ community uses), and rich, textured materiality at lower levels of buildings.

KEY

- Consistent awning
- Character awning
- Eclectic awning
- Colonnade awning
- Pedestrian passageway




Consistent awnings, Newtown NSW



Eclectic awnings, Waterloo NSW


Character awning, Annandale NSW

8. Active Uses

Clustering of community uses, retail and commercial spaces around and adjacent to the main open space.

Design development:

Community uses and publicly accessible space across the site clustered at centre of site, adjacent to the main plaza with clear entry points, open façades and connectivity between inside/outside retail activation at corners.



KEY

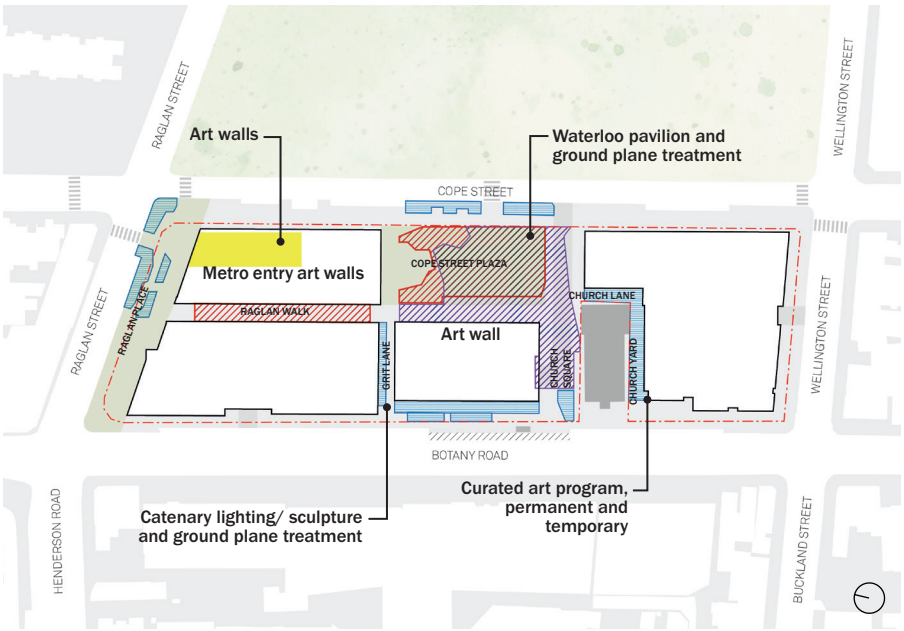
- Metro entry
- Community areas
- Retail / active frontage

9. Public Art

A cultural ecosystem throughout the site with many moments of expression and engagement, both large and small.

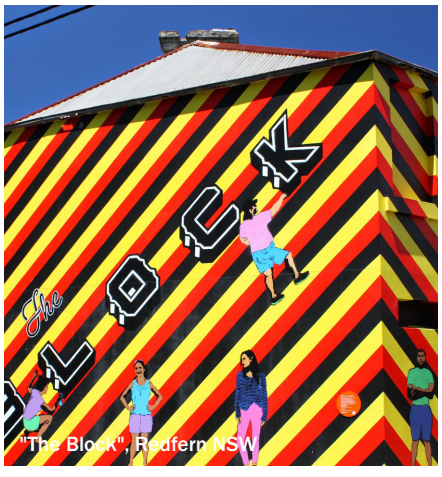
Design development:

Both permanent and temporary public art installations will contribute to providing engagement, light, shelter and spaces for community interaction, celebrating different aspects of Country, community, language, knowledge and innovation. The art works will connect new and existing communities with the important Indigenous histories of the site.



KEY

- Metro Station artwork
- Opportunity 1: Integrated two dimensional design or pattern
- Opportunity 2: Integrated text-based artworks
- Opportunity 3: Dynamic/suspended/sculptural artworks



"The Block", Redfern NSW


Integrated paving pattern

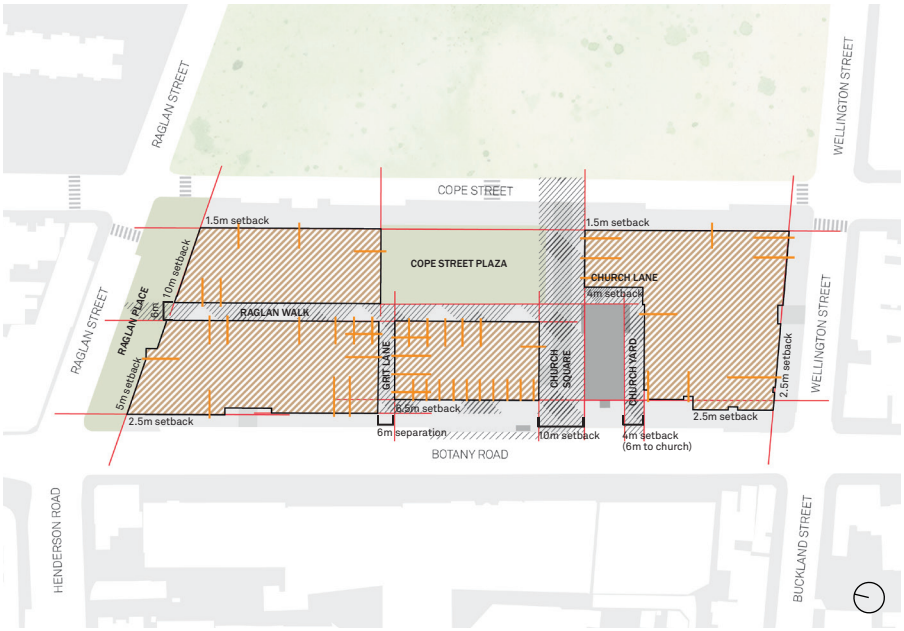

Cope Street, Waterloo NSW

10. Built Form (lower)

Buildings articulated at base, engaging at street level and responding to the finer urban grain of the context.

Design development:

Defined consistent street edge with expressed corners, setbacks to match Waterloo Congregational Church, and articulated street edges at site entry points. Increased through site connections to create a network of spaces, improving public amenity on and off site.



KEY

- Church
- Active frontage grain
- Ground floor
- Public plazas
- Primary pedestrian access way

11. Built Form (upper)

Buildings that respond to three distinct urban layers: the human, street and tower scale.

Design development:

Street buildings: Heights prescribed for north and south;

Building 1: Insets to break street wall length south east corner stepped down to reduce overshadowing to plaza;

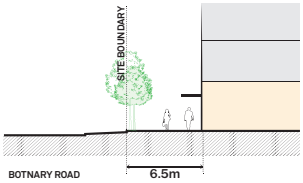
Building 3: Setback to reduce overshadowing to Wellington Street terraces

Building 1, 2, 3: Separation for ADG; located and scaled for solar access to adjacent public spaces; and, over-set on some façades.

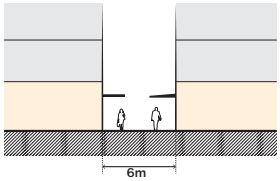


KEY

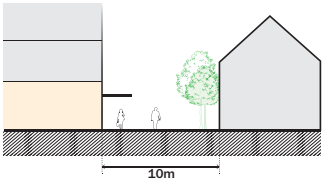
- Church
- Podium
- Mid-rise
- High-rise



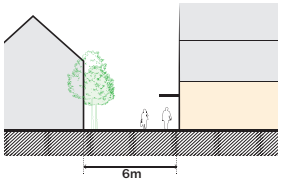
Botany Road Section



Grit Lane Section



Church Square Section



Church Yard Section

12. Building Materials

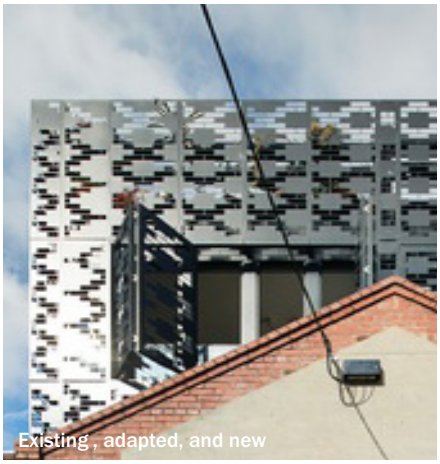
Building on and intensifying the richness of the local Waterloo vernacular.

Design development:

Buildings heavily articulated at base, to engage at street level by implementing a tactile, rich, rough and diverse material palette to reflect and respond to the urban grain of the context.


Adapted bulilt form, Waterloo NSW


Residential terrace detail, Waterloo NSW


Existing , adapted, and new


Tactile exterior surfaces


Apartments, Waterloo NSW


Industrial warehouse, Waterloo NSW


Tactile exterior surfaces

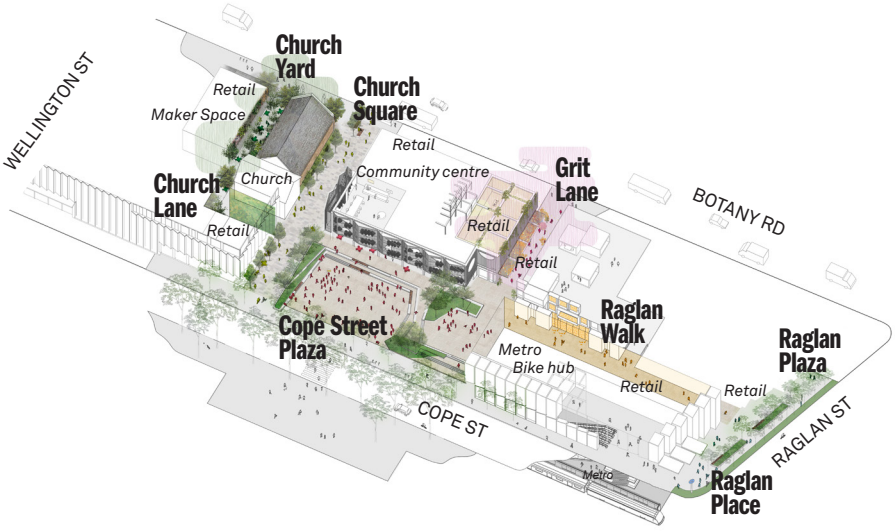
6.4
Design Objective Outcomes (precinct wide)

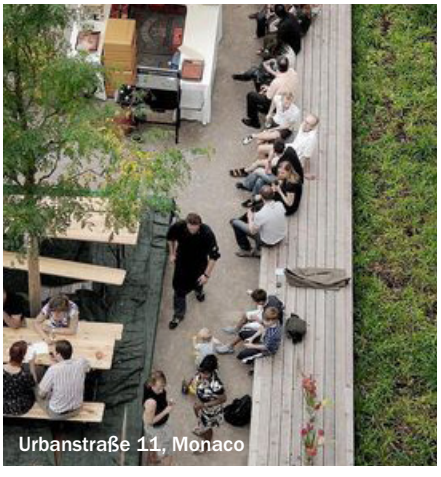
Integrated precinct outcomes

The urban design principles and strategies guide the creation of an integrated precinct-wide master plan, as well as the design of buildings, public domain and other elements.

Creating safe, accessible and meaningful public spaces is fundmental to making this a great place - one that the connects with and empowers the community.

Waterloo Metro Quarter wil be a place for all, a place of diversity, of unique character and experiences.



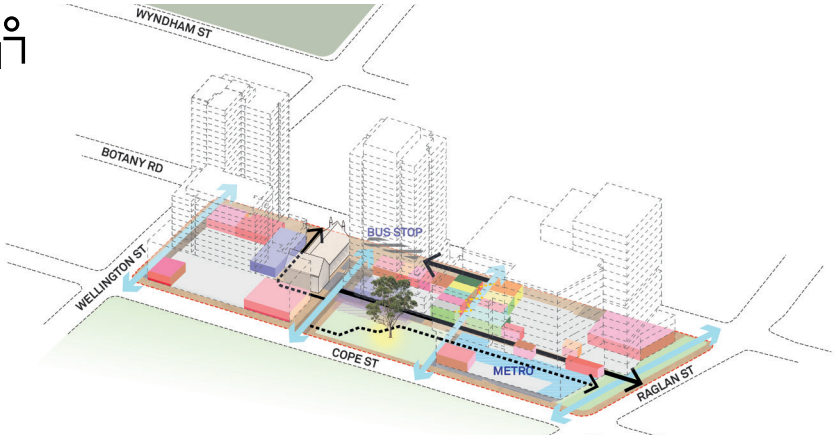

Urbanstraße 11, Monaco


Superkilen, Copenhagen DK

1. An authentically public place

Key points:

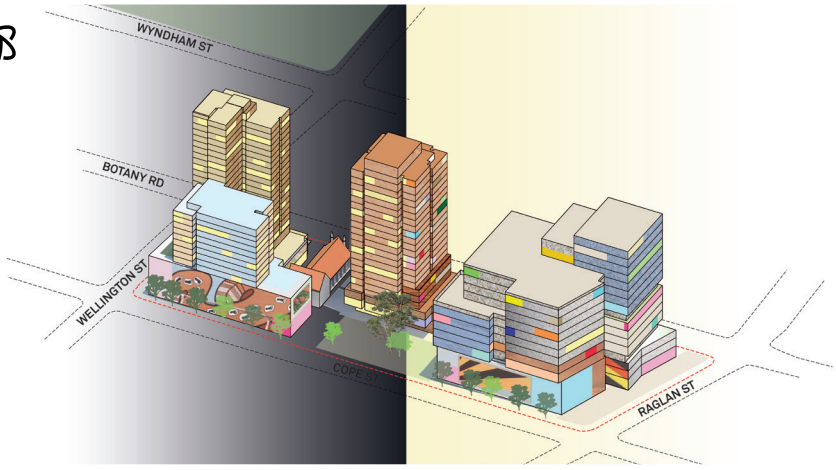
- → A precinct wide network of connections of varying scale, character and access
- → Clustering of community uses, retail and commercial spaces around and adjacent to the main open space.



2. Ultra diversity in use, form, and character

Key points:

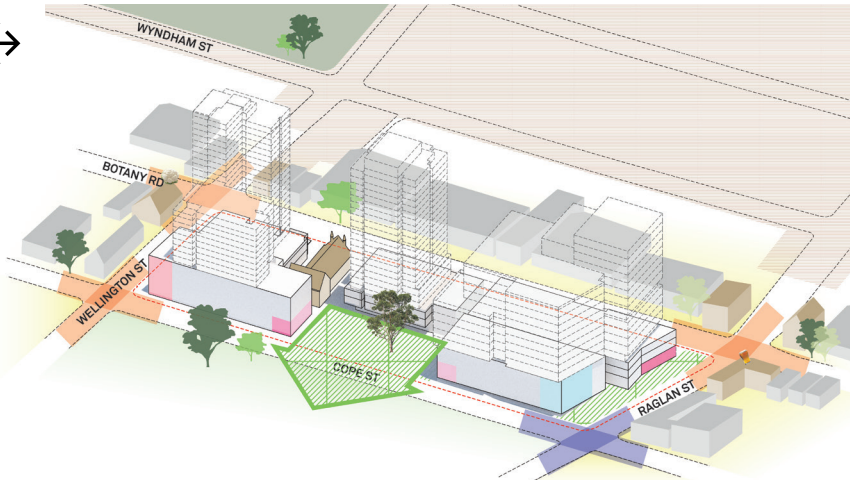
- → Diverse form and materiality through building on and intensifying the richness of the local Waterloo vernacular
- → Day and night activation
- → Diverse ecosystems with a contemporary planting strategy that reflects complexity of original natural systems



3. Responsive to a complex and changing context

Key points:

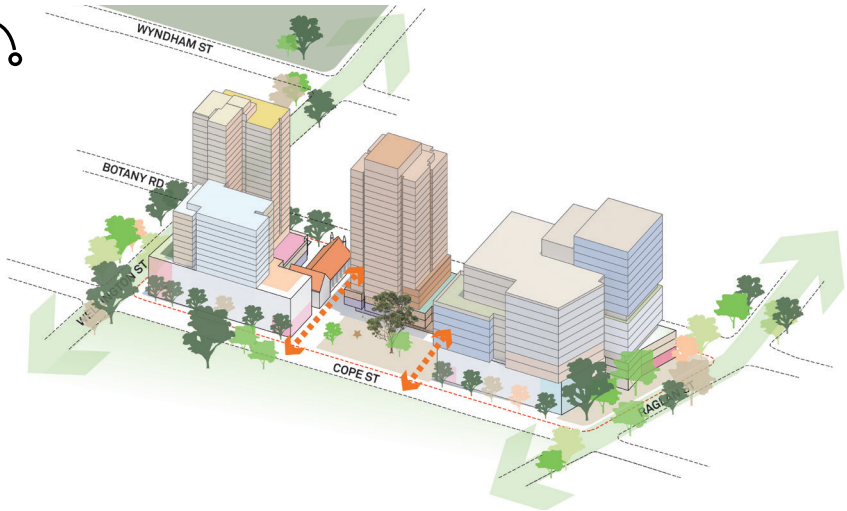
- → Street edge response through consistent street edge with expressed corners, setbacks to match church and insets at entry points.
- → Public amenity on and off site protected through placement and modulation of buildings.



4. A local neighbourhood network

Key points:

- → Landscape integration through generous landscape expression of connections along east-west streets and within open space.
- → Connections through the site create a network of distinct, engaging, surprising spaces.





Botany Road, Waterloo NSW

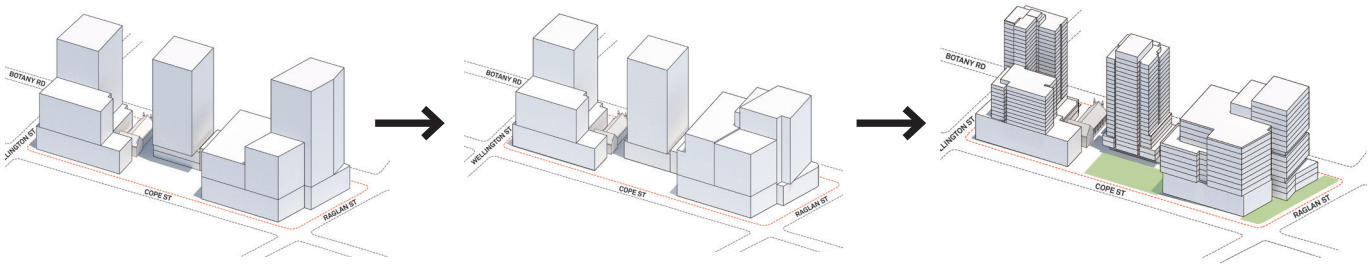

COLLEZIONE SANTINA
Haute Couture
HAPPY D'S
Sriracha
Key Chains

BUILT FORM AMENDMENTS

Approved Envelope

Amended Envelope

Current Reference Design



The proposed amendments to the envelope allow for expanded public space, a more balanced mix of uses and better integration of different elements - and therefore greater diversity, integration and activation across the WMQ precinct.

Over the past 12 months, the built form configuration of the site has been refined, based on

- → Analysis of the site, its immediate and broader context;
- → A design excellence process involving regular DRP (design review panel) presentations and interactions with key stakeholders
- → Architectural and public domain design development, including detailed studies of the form, character and relationship between different elements
- → Technical studies including solar, wind, transport and flooding strategies
- → Engagement with placemaking specialists, artists and local community members
- →

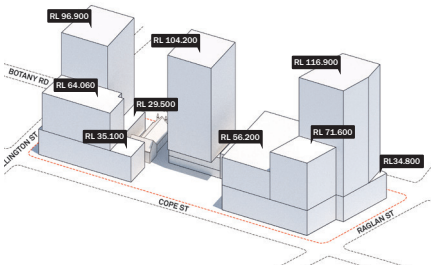
The proposed amendments to the envelope are outlined in this section. These amendments will bring a number of benefits (including greater diversity, integration and activation of the site), as well as reducing some overshadowing and visual amenity impacts.

An assessment of the amended envelope against the approved Design and Amenity Guidelines (part of the SSD 9393 approval) is also included.



View of Church Square and Waterloo Congregational Chapel from Botany Road, artist's impression

7.1 Evolution of Built Form

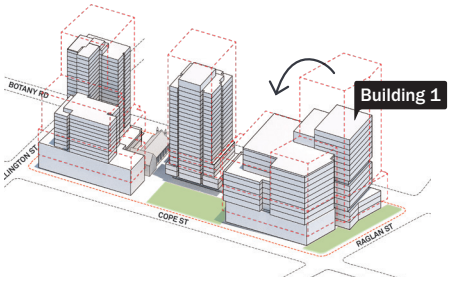


Approved envelope (under SSD9393)

The enveloped approved under SSD9393 defines

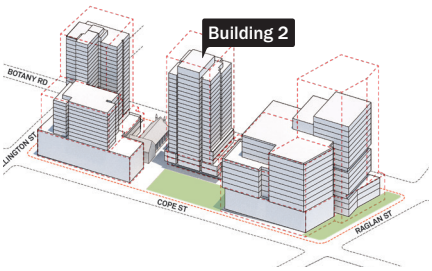
- → Three taller tower forms along Botany Road, ranging in height from RL96.900 to RL116.900 and proportioned to accommodate residential uses
- → Lower buildings ranging in hight from RL 29.500 to RL 64.060, and accommodating a mix of residential, commercial, retail and community uses, as well as the Metro station
- → A public plaza fronting Cope Street as well as other public connections through the site

Following the approval of this envelope, a WMQ Reference Design was developed, including the refinement of building uses, forms and relationships.



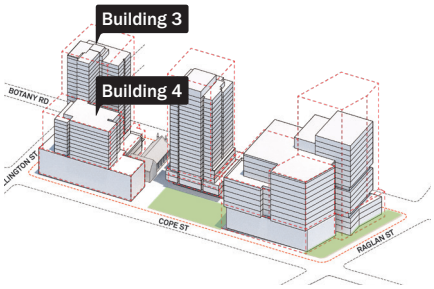
Northern precinct design refinement

Building 1 has been reconfigured to accommodate a greater proportion of flexible commercial floorplate. The floorspace of the corner tower has been reallocated to lower levels, reducing the overall height of the building. This reduces the area of overshadowing to the Alexandria Park heritage conservation area, while maintaining the required solar access to the main plaza.



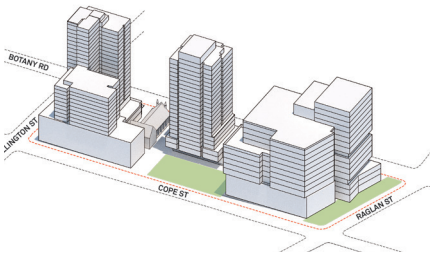
Central precinct design refinement

The residential tower of Building 2 has been designed to fit within the approved envelope. The podium levels of the building accommodate community, commercial and retail spaces that define and activate the surrounding public domain. These levels have been extended towards the plaza. A colonnade along this edge allows for a better interface between the tower and plaza and creates a protective, comfortable, human-scale space at the edge of the plaza.



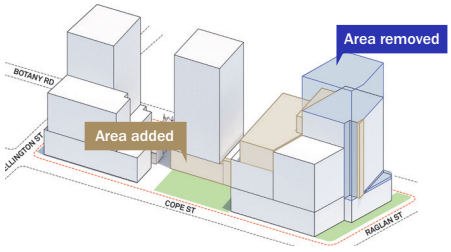
Southern precinct design refinement

The concept for Buildings 3 and 4 accommodates social and student housing, as well as supporting services and retail spaces. These buildings fit within the approved envelope.



Updated reference design

The Reference Design generally aligns with the approved envelope, with refinements that deliver greater diversity, use and activation of the site. An overview of the Reference Design is included in Section 8 of this report.



Amended envelope (proposed)

The amended envelope for WMQ is described on the following pages. The amendments to the approved envelope are assessed to ensure they align with the design principles of the project and do not create any additional impacts on the amenity of buildings and spaces on and around the site.

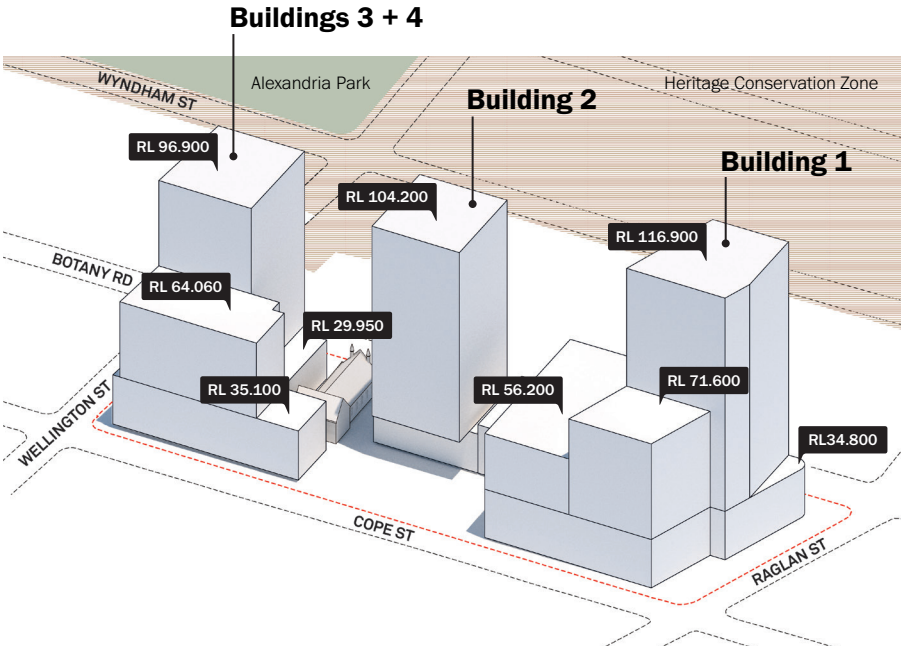
7.2 Envelope Comparison (precinct wide)

Approved envelope (under SSD 9393)

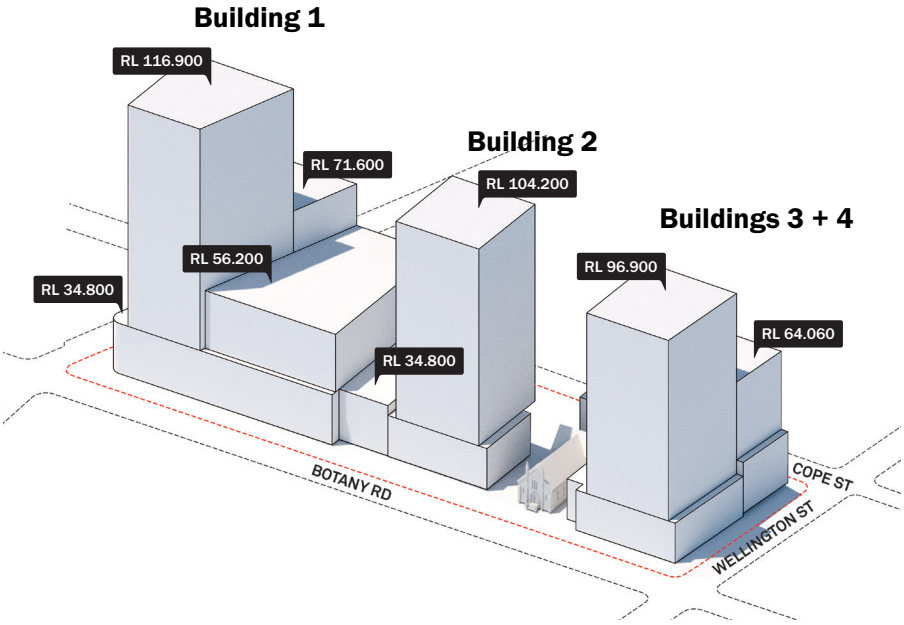
The approved envelope includes:

- → 3 towers on the Botany Road frontage of the site (to a height range of RL96.90 - RL16.90);
- → Street-scale buildings (ranging in height from RL29.50 - RL 56.20); and
- → Setbacks to minimise overshadowing and wind impact on open spaces, break down building mass and articulate tower and podium levels.

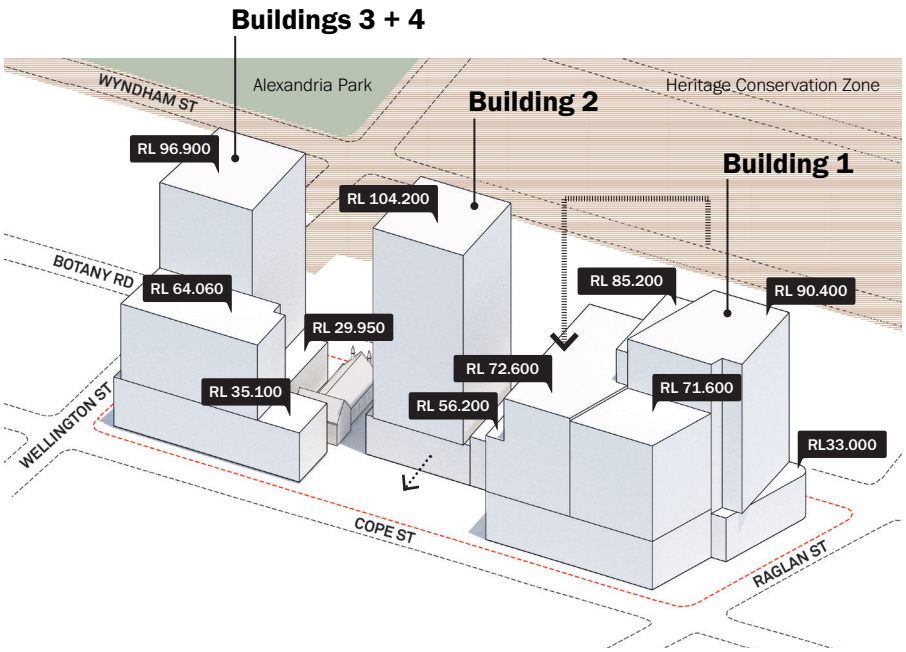
This envelope allows for the delivery of significant development opportunity, along with new open spaces and connections, while protecting the amenity of surrounding parks and residential buildings.



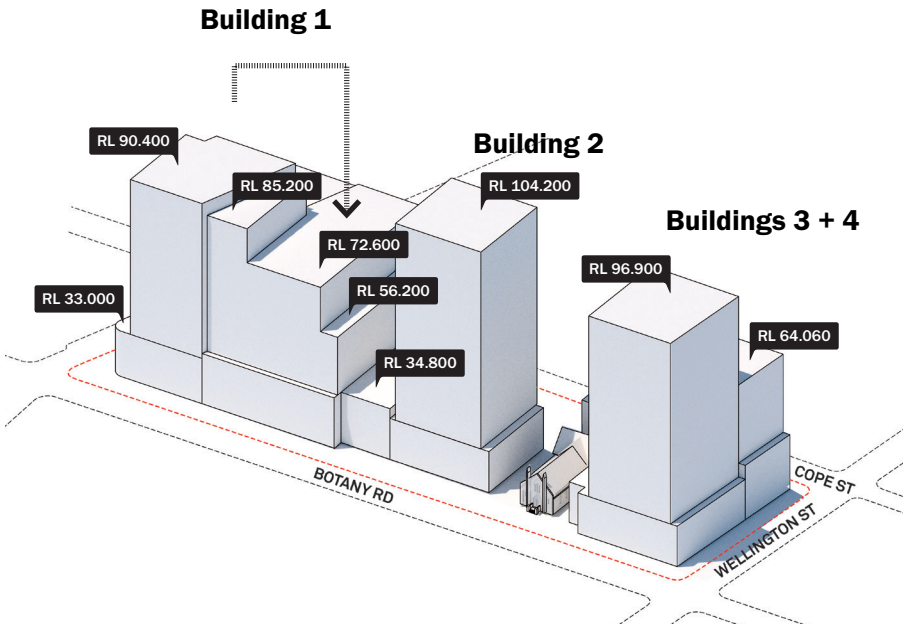
Approved envelope, view from north-east



Approved envelope, view from south-west



Amended envelope, view from north-east



Amended envelope, view from south-west

The amended envelope accommodates the design refinements described for the Northern and Central Precinct.

Building 1

The concept DA seeks to modify the approved building envelope for the northern precinct (previously comprising 'Building A', 'Building B', 'Building C' and 'Building D' under SSD 9393) through:

- → Increasing the maximum building height for the southern portion of the building envelope from RL56.2 to RL72.60.
- → Removing the 'tower component' of the northern precinct, reducing the overall height of the tower envelope, to enable the redistribution of floor space to commercial office floor plates.
- → Amending the description of development to refer to a mid-rise (approximately 16 storey) commercial office building, comprising approximately 34,125sqm of commercial office floor space within the northern portion of the site, rather than a third residential tower.

The amended envelope can accommodate a flexible office floorplate, improving diversity and activation on the site, as well as supporting broader government objectives for the Sydney Innovation Corridor. The lower form of this building reduces overshadowing to the adjacent heritage conservation zone and protects solar access to the proposed Cope Street plaza.

Building 2

The concept DA seeks to modify the central building approved building envelope (previously comprising 'Building E' under SSD 9393) through:

Modifying the eastern extent of the podium envelope.

This creates an improved, more human-scale relationship between the building and the plaza, and alignment with the proposed Raglan Walk through Building 1.

There are no proposed amendments to the approved envelope for Buildings 3 and 4.

7.3 Envelope Comparison (Northern Precinct)

A flexible commercial building

The more regular form of the amended envelope allows for a more flexible, feasible and higher performing commercial building.

The approved envelope is configured with a corner tower, proportioned to better suit a residential floorplate. This would sit above a commercial and retail podium, also containing service and loading spaces. Provision of separate lift cores and lobbies complicates the building configuration and results in reduced flexibility and feasibility for the commercial levels.

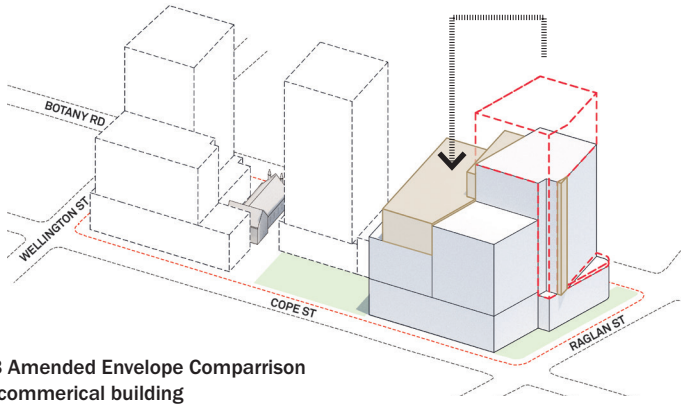
The Reference Design for the northern precinct is a 17 storey commercial building of approximately 30,000 sqm with retail, community and service space on the ground floor, as well as integration with the Metro station entry. Typical commercial levels have

- → a flexible and adaptable floorplate that can be occupied by one tenant or subdivided to accommodate a number of tenants
- → articulation of the form into four "quadrants", with spaces for amenity and vertical circulation between

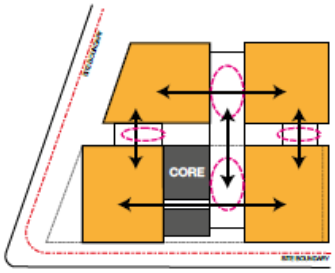
At the ground floor, reduced lobby, servicing and egress requirements (due to no residential uses) means more frontages can be occupied by active uses such as retail.

This scale and typology of commercial building is attractive within city fringe locations like Waterloo - and strategically, supports the government's Innovation Corridor plan. It will bring many people to site every day. supporting retail and other services, and activating the site during the day and evening.

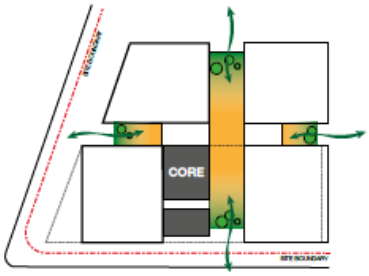




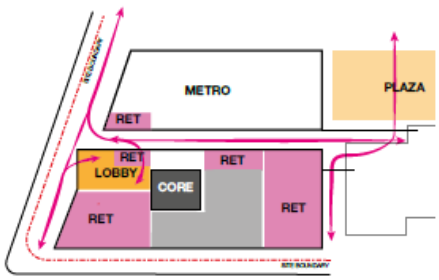
SSD 9393 Amended Envelope Comparrison
A flexible commerical building



A flexible and adaptable floorplate



Articulation for amenity and sustainability



Street level connectivity and activation

Reduced corner mass

The reallocation of floorspace within the amended envelope significantly reduces the height of the envelope at the corner of Botany Road and Raglan Street - by more than 25 metres. This reduces the visual bulk of the building when viewed from a number of different angles, including along Botany Road and from the adjacent housing estate. The lower form also reduces impact on views from the central precinct, where the proposed residential building will be able to enjoy wider views across the context and towards the Sydney city centre.

Reduced overshadowing

The amended envelope also significantly improves overshadowing to the surrounding context, particularly to the Alexandria Park heritage conservation zone (located west of Wyndham Street and containing a mix of residential, commercial and industrial buildings).

Solar analysis demonstrates that at 9am on 21 June, the amended envelope casts a significantly reduced shadow across the conservation zone, compared to the shadow cast by the approved envelope.

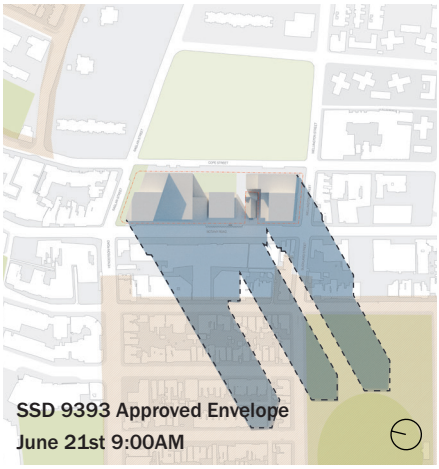
With regard to solar access to Cope Street Plaza, the amended envelope meets the requirements of the SSD 9393 approval, as illustrated within the overshadowing analysis.

KEY

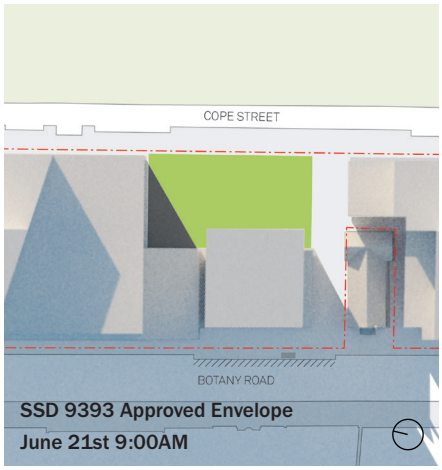
- Site boundary
- Cope Street Plaza
- Overshadowing
- Open space
- Heritage conservation zone



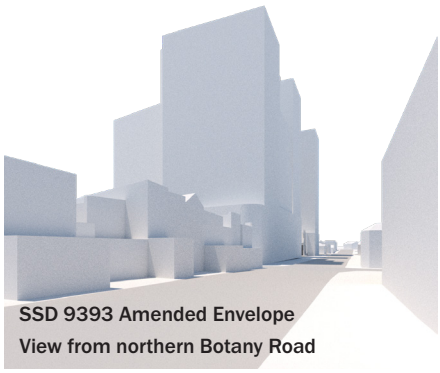
SSD 9393 Approved Envelope
View from northern Botany Road



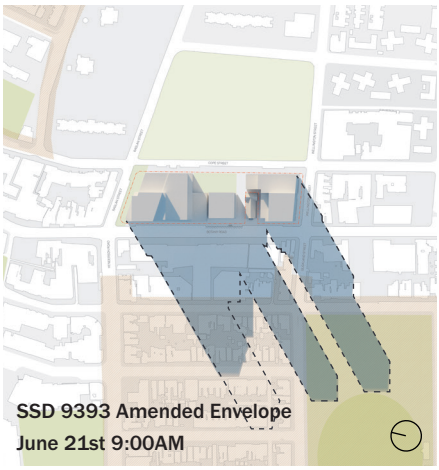
SSD 9393 Approved Envelope
June 21st 9:00AM



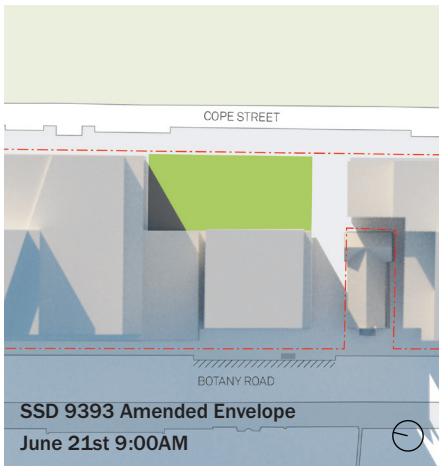
SSD 9393 Approved Envelope
June 21st 9:00AM



SSD 9393 Amended Envelope
View from northern Botany Road



SSD 9393 Amended Envelope
June 21st 9:00AM



SSD 9393 Amended Envelope
June 21st 9:00AM

7.4 Envelope Comparison (Central Precinct)

Integrated community building

Within the SSD 9393 approval, the community building is accommodated within the base of the central building (with the earlier Reference Design showing this as a free-standing building in the Cope Street Plaza). This has positive community benefits (better integration with other buildings) as well as creating a larger plaza.

The amended envelope proposes that the podium levels of the central building are extended towards the plaza. This provides greater opportunity for community uses without compromising the open space outcomes.

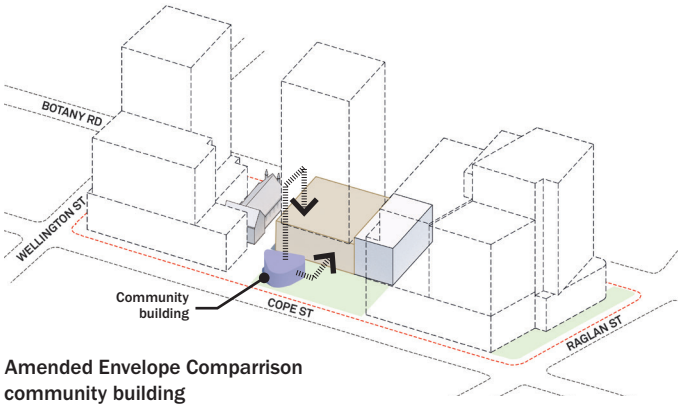
The residential building would now sit in line with (not project in front of) the community levels, giving the community building greater presence, identity and accessibility.

Improved pedestrian movement and amenity

The extension of the podium levels, and the creation of a colonnade space on the ground floor, provides better connectivity and integration with adjacent buildings and movement spaces.

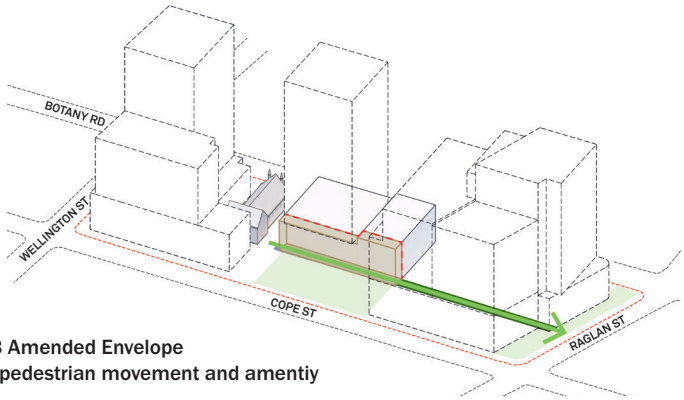
The colonnade space aligns directly with Raglan Walk, ensuring a clear and legible connection from Raglan Street to the community building and plaza. Continuous weather protection is provided, ensuring greater amenity and comfort for people moving around the site - especially between the community building, Metro Station entry and Botany Road bus stops.





SSD 9393 Amended Envelope Comparrison
Integrated community building





SSD 9393 Amended Envelope
Improved pedestrian movement and amentiy

Better interface of building and plaza

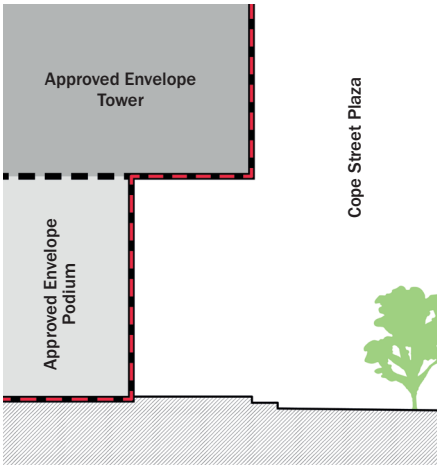
The amended envelope seeks to improve the interface between the central building tower and Cope Street Plaza - a highly visible and important part of the site.

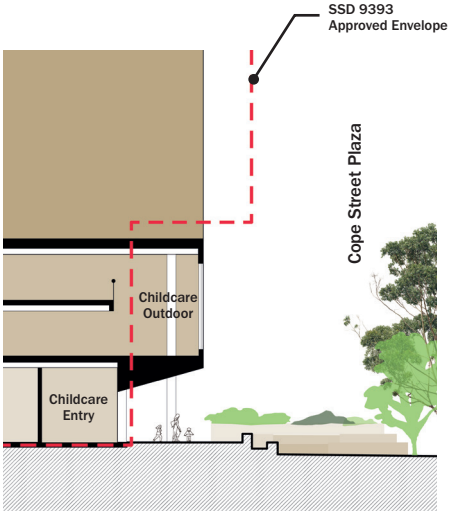
The approved envelope shows the tower form cantilevering over three podium levels, with the plaza extending to the building line of the podium levels. This configuration would result in emphasising the scale of the tower form, which could have an overbearing effect when viewed from the ground plane.

The amended envelope allows for a colonnade space to be created on the ground floor of the central building, with the levels above extending to the line of the tower. This colonnade space is of a human scale, providing a sense of enclosure and weather protection. It provides a better transition from the open plaza space to the community building entry - a space for circulation as well as dwelling.

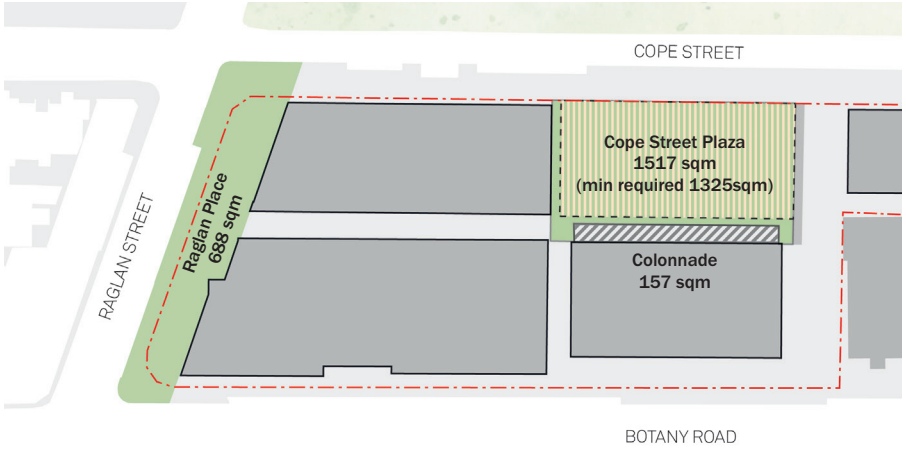
Compared to the approved envelope, the extent of publicly accessible space (ie from street edge to ground floor building line) is maintained.

The proposed plaza easily exceeds the minimum space required, with more than 1500 sqm provided (against a minimum requirement of 1325 sqm). The colonnade creates an additional public accessible area of at least 150sqm.









Open space required (across Raglan Place and Cope Street Plaza) is 2200 sqm. This is achieved in Reference Design with more than 1500 sqm within the plaza.

7.5 Design & Amenity Guidelines

Within the SSD 93939 approval, any development is required to align with project-specific Design and Amenity Guidelines. These guidelines outline "the desired design and place outcomes for the Metro Quarter and includes objectives and design criteria for the built form, public domain, amenity, movement, connectivity and interfaces between the station and over station development".

The Guideline includes:

- → Objectives that describe the desired design outcomes
- → Design criteria that provide measurable requirements for how an objective can be achieved
- → Design guidance that provides advice on how the objectives and design criteria can be achieved through appropriate design responses, or in cases where design criteria can not be met.

Development applications need to demonstrate how the objectives and design criteria are met. If it is not possible to satisfy the design criteria, applications must demonstrate how the objective has been achieved.

The following pages contain an assessment of the proposed envelope and reference design against the objectives of the Design and Amenity Guidelines. Proposed additions to these Guidelines - where enhanced urban design benefits can be delivered - are also proposed.

3A Design objectives

The design objectives for the Metro Quarter have been informed by the Waterloo State Significant Precinct vision and objectives. The design objectives are to:

- → Support the NSW Government's planning strategies and objectives including the Greater Sydney Region Plan (2018) and the Eastern City District Plan (2018)
- → Enable the development of a mixed use precinct at the site which caters to a range of different uses and works to create a fully integrated station precinct at Waterloo
- → Support a range of spaces that would cater for the social and economic needs of the local Waterloo community
- → Enhance the community's experience and the urban amenity through the development of an integrated design concept that ensures delivery of a quality public domain area with strong connections to the site's surroundings
- → Create an urban environment that drives high usage of the Sydney Metro network responding directly to the principle of transit oriented development
- → Enable a building form which maintains excellent solar access to public open spaces and nearby residential areas
- → Provide a harmonious relationship between the proposed development of the Metro Quarter and its surrounding heritage context
- → Achieve design excellence in the final integrated station development
- → Enable a new transport interchange that prioritises public and active transport
- → Establish new publicly accessible open space in the form of plazas that would provide access to the station entries, connect the Metro Quarter with surrounding streets and functions as spaces for passive recreation and social interaction
- → Embrace sustainability initiatives including lower levels of on-site car parking, stormwater re-use and water sensitive design and measures intended to improve the environmental performance of buildings
- → Support the provision of affordable and social housing and ensure the social housing will be tenure blind (i.e. visually indiscernible from the market and affordable housing).

3B Design approach

The following design principles have been adopted for the Metro Quarter to respond to the opportunities and constraints of the site and the surrounding urban context:

- → Development **integrated** with the station and public domain that delivers an active transport hub with seamless interchange, pedestrian priority and accessibility. Complementary interfaces between the station and development will be high performing and achieve activation ready functionality.
- → **Inclusive** integrated station development and public domain that provides accessible amenity, services and open space, shared democratic spaces for both the commuter and community, and creates places for social interaction and activities for all.
- → **Connected** integrated station development and public domain that is legible, safe and walkable day and night, acts as a gateway and community marker. The integrated station development stitches places into the surrounding context and has social connectedness and shared spaces.
- → **Diverse** mix and layering of uses and employment with extended hours, fine grain and active street edges. Adaptable mixes of dwelling types and living choices are provided and are architecturally distinctive with variance.
- → **Local** reflection of the proud community character and diversity in response to place and context. Local retail, business and services are fostered and embed the arts and local cultures.
- → **Liveable** community that creates micro–neighbourhoods and vertical villages, public and community facilities, access to food sources and everyday needs. The integrated station development is contextual, resilient, uses with green infrastructure and high quality materials and finishes.
- → **Culture** is respected in the integrated station development and public domain design by seeking endorsement and permission to use Aboriginal Creation and local stories that have been identified through the design phase.

3C Public domain

Objectives:

1. Provide publicly accessible plazas adjacent to the station entries that connect the Metro Quarter to the surrounding streets and neighbourhood.

2. Create a high quality, integrated, permeable and multifunctional public domain that caters for movement, recreation and social interaction.

3. Provide good levels of solar access and amenity to the public domain.

4. The design of the public domain is consistent with Crime Prevention Through Environmental Design principles.

5. Balance all forms of movement through creating a public domain which facilitates transport interchange.

Response:

Waterloo Metro Quarter will be a dynamic precinct within the broader surrounds of Waterloo comprised of public spaces including a neighbourhood square (Cope Street Plaza), laneways (Raglan Walk, Grit Lane and Church Square), a courtyard (Church Yard) and surrounding streetscapes with generous footpaths and planting areas.

The SSD requirement to achieve 2200m² of total public space between Cope Street Plaza and Raglan Place is achieved with 1517m² of Cope Street Plaza and 688m² of Raglan Place within the site boundary.

Clear pedestrian access has been considered throughout the site to maintain a safe and accessible journey for pedestrians. Clear widths have been adhered to and licensed seating zones are identified. Sightlines through the WMQ are direct and generous, with active uses along key movement paths, creating a safe environment throughout the day and evening.

The primary entry to the Metro Station is from Raglan Street, with a generous footpath containing street trees, low level planting and spaces to sit. Two new east-west pedestrian links (Grit Lane and Church Square) provide easy interchange from the bus stops on Botany Road to the station entry. Care has been taken with respect to providing safe paths of travel for people with a disability especially at the points at which the pedestrian paths of travel intersect respectively with the station entries.

Public domain spaces receive direct sunlight at different times of the day. Solar access to Cope Street Plaza exceeds the minimum requirement, with more than 57% of this space receiving at least 2 hours of direct sunlight between 9am and 3pm on 21 June.

Further details of the public domain, including assessment against design criteria, are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

3D Streets, lanes and footpaths

Objectives:

1. Provide high quality materials and finishes in the public domain that respond to the character of the local area.

2. Expand the public domain by considering the boundary interface with the Waterloo Congregational Church.

3. Create visual interest and reflect the character of the area through the selected materials for the public domain.

4. Material selection is to include consideration of the mass and/or sound insulation or absorption properties.

Response:

The materials throughout draw inspiration from the character of the surrounding neighbourhoods of Redfern and Waterloo. Drawing on the robustness and timelessness of concrete and brick, the landscape spaces utilise these materials with a preference for warm tones and variation in formats to create a fine-grained response to ground plane materials.

For the City of Sydney public domain areas, the Village Centre Activity Strip palette of materials will be used. This includes concrete unit pavers in charcoal colour. These footpath pavers are extended across the site boundary to the building facades to create a continuous and generous streetscape.

Contiguous publicly accessible space is created around all sides of the Waterloo Congregational Church. The proposed maker space on the northern facade of Building 3 will provide a community hub that opens into Church Yard. The space is kept open and clutter free and allows for loose furniture to be arranged informally. Interfacing with the heritage church is a densely planted garden bed with areas of seating, permeable paving and feature trees.

Further details of the public domain, including assessment against design criteria, are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

7.5 Design & Amenity Guidelines

3E Tree canopy cover

Objectives:

1. Mitigate the impacts of urban heat island effect through the provision of tree planting and soft surface areas.

2. Enhance the biodiversity of the site through providing a range of native species and opportunities for urban habitat.

Response:

The site has been designed to maximise opportunity for tree planting and landscape areas, to provide comfortable spaces for people to move through and enjoy.

Within streetscapes around the site, the tree canopy cover is 54.8% (exceeding the minimum requirement of 50%). The overall tree canopy cover is 25.3% (exceeding the minimum requirement of 23%).

Planting typology within the precinct varies within the landscape spaces. It is intended that all planting at ground level of the project, including the planting on City of Sydney public domain, is comprised of native plant species selected for edible/usable properties. This planting would be maintained by an indigenous owned landscape maintenance firm who will run educational tours as well as maintain the planting. Tree and understorey planting throughout the site will provide a rich diversity of endemic species. The palette has been developed to create urban ecologies which may provide habitat or food sources for native birds, bees and insects.

Further details of the public domain, including assessment against design criteria, are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

3F Tree planting specifications

Objectives:

1. To create a safe welcoming and healthy place to live, high quality public spaces, and a sustainable and adaptable urban environment.

2. Provide a resilient, healthy and diverse urban forest.

3. Provide an integrated long-term strategy that promotes trees as critical infrastructure and assets.

4. Retain and protect existing trees and canopy cover.

Response:

The site has been designed to maximise opportunity for tree planting and landscape areas, to provide comfortable spaces for people to move through and enjoy.

The basement has been designed to enable over 15% deep soil to be achieved within the site boundary (excluding the station box area), which allows maximisation of tree canopy height and spread. Further details on planting specifications will be provided in future Public Domain Plan submissions.

Existing trees are not retained. The landscape strategy allows for significant tree canopy to be established on the site, coordination of new trees with overhead and below ground infrastructure.

Further details of the public domain, including assessment against design criteria, are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

3G Wind

Objectives:

1. Mitigate potential wind impacts and ensure adequate levels of comfort are achieved in the public domain for intended activities.

2. Ensure the wind environment created by the development does not result in uncomfortable or unsafe wind conditions on publicly accessible open space.

Response:

Wind tunnel testing demonstrates a significant improvement in wind conditions when compared to the original reference design. These improvements resulted from changes to the configuration of built form, such as building setbacks, separation and articulation, as well as the relocation of the plaza pavilion. More detailed testing of wind mitigation elements, such as building awnings and tree planting, showed further improvement in ground-level comfort.

Minor non-compliances occur in locations where surrounding wind conditions cannot be entirely managed (for instance, street corners and within some areas of Cope Street Plaza) - however, these conditions will improve as trees along footpaths and within the plaza mature.

Further details are included in the Pedestrian Wind Environment report.

3H Building uses

Objectives:

1. Provide a diverse range of businesses and community activities that support a vibrant day and night-time economy and activate the public domain.

2. Provide a mixed use precinct with residential, retail, commercial and community uses, and where appropriate, entertainment uses.

3. Manage potential noise conflicts so that appropriate levels of residential amenity and non-residential activity are achieved.

Response:

The site will contain a diversity of different uses, including commercial, residential (student, affordable, social and market housing), retail and community uses. The amended envelope allows for the delivery of a greater proportion of commercial floorspace. This aligns with state and local policies through supporting the emerging Innovation Corridor and creating a precinct that has greater visitation, diversity and round-the-clock activation. A greater diversity of uses, along with new public spaces and a significant community building, will make this place a hub for surrounding neighbourhoods and precincts.

3I Street activation

Objectives:

1. Maximise active frontages through the ground plane and provide for a high quality pedestrian experience.

2. Locate uses at ground level that activate the public domain and provide a convenient experience for metro customers and local community.

3. Respond to site flooding constraints and ensure flood protection measures do not impact activation.

4. Activation of through-site links and laneway.

Response:

Open spaces and public connections will be activated by a mix of retail, commercial and community uses. The size of spaces varied across the site, with finer grain retail fronting Grit Lane and Raglan Walk, and larger tenancies around the edges of Cope Street Plaza.

A wider footpath is created at the Botany Road bus stops, with retail tenancies at footpath level.

The required active frontage of 60% (focused around Botany Road, Raglan Walk and east-west laneways) is exceeded, with approximately 74% active frontage proposed.

3J Podium and street wall

Objectives:

1. Minimise the visual bulk, scale and unbroken length of the podium.

2. The form, scale, massing and articulation responds to the local context.

3. Respect the Waterloo Congregational Church and enhance the setting for the heritage item.

Response:

The lower levels of buildings provide a diversity of scales, materiality, articulation and details. The architectural expression of buildings is inspired by contextual typologies such as the terrace house, main street shop, workshop and factory.

Minimum setbacks and separations (as outlined in the Design and Amenity Guidelines criteria) are all achieved.

Greater space is provided around the Waterloo Congregational Church, including a publicly accessible connection to the east of the church. This provides contiguous space around the church, improving safety and access to buildings and spaces. The proposed maker space activates and enlivens the public domain.

Further details of the architectural concepts, materiality and expression are provided within each of the supporting Development Applications.

7.5
Design & Amenity Guidelines

3K Built form above the podium

Objectives:

1. Provide architectural diversity in the built form above the podium.

2. Provide slender tower forms and reduce the visual bulk through articulation of the facades.

3. Minimise overshadowing impacts on Alexandria Park and the wider public domain.

Response:

The taller buildings on the site have a diversity of form and expression, reflecting the different uses of commercial, student, social and market housing.

Residential buildings (in the central and southern precincts) sit within the SSD 9393 approved envelope. An amendment to the northern building envelope allows for increased commercial floorspace, within a lower building form. This building is articulated to enhance its visual interest, amenity and environmental performance.

Technical assessments demonstrate the amended envelope can comply with Apartment Design Guide (ADG) requirements, as well as required solar access and wind mitigation criteria.

Further details of SEPP65/ADG, solar and wind impact are provided in relevant technical studies and the architectural report of each of the supporting Development Applications.

3L Residential amenity

Objectives:

1. Minimise the potential noise impacts primarily along the western edge of the site.

2. Minimise the wind impacts across the site.

3. Provide natural ventilation and solar amenity for residents of the apartment buildings.

4. Provide sufficient areas for communal and private open space.

Response:

Residential (social, affordable and market) buildings have been designed to deliver high quality, high amenity design outcomes. Solar amenity, acoustic and visual privacy, natural ventilation, communal and private open space have been key considerations.

While these buildings satisfy the principles of SEPP65, due to the existing site orientation and context, there are some minor ADG non-compliances. These are discussed further in the detailed architectural reports for each building.

3M Solar and amenity

Objectives:

1. Ensure solar access to the public domain on the site including Cope Street plaza and Raglan Street plaza.

2. Minimise overshadowing on Alexandria Park and the wider public domain.

Response:

The amended envelope results in improvements to the overshadowing impact to the surrounding context, especially the Alexandria Park Heritage Conservation Zone. This envelope provides the ability to also meet the key objectives of the Design and Amenity Guidelines - ensuring solar access to Cope Street Plaza and Raglan Street Plaza, as well as minimising overshadowing to Alexandria Park.

The reference design achieves the criteria required, including:

- → No additional overshadowing of Alexandria Park after 10am on 21 June;
- → No more than 30% of Alexandria Park overshadowed at any time after 9am on 21 June;
- → Protection of solar access to private open spaces and living rooms of adjacent residential properties.

Further details are provided in the solar assessment report .

3N Pedestrian and cycle network

Objectives:

1. Prioritise walking and cycling trips in and around the Metro Quarter over vehicles.

2. Manage potential conflict between cyclists and pedestrians through the design of the public domain and locations of bike parking.

3. Provide a pedestrian network that aligns with key pedestrian desirelines and is integrated with the active frontages.

Response:

The master plan prioritises the movement of cyclists and pedestrians, including those accessing public transport.

Clear lines of sight and movement are provided, connecting people across the site and to the surrounding context. Generous, shady footpaths, with areas for dwelling and sitting, run along street edges. Laneways are open to the sky, with activated edges, characterful shopfronts and awnings. Additional pedestrian connections are provided, including Raglan Walk.

Bicycle parking is provided within the station, as well as within residential and commercial buildings. Access to bike parking is located away from major circulation routes and entry points to buildings.

Further details of the public domain are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

3O Carparking access

Objectives:

1. Prioritise walking, cycling and public transport above private car use.

2. Provide safe, convenient and legible movement for the public.

3. Provide convenient access between different transport modes.

4. Encourage public transport use and minimise the amount of car parking provided within the development.

Response:

The master plan prioritises the movement of cyclists and pedestrians. Access to the station, and interchange with buses, is via accessible, weather-protected routes.

Vehicular access to loading areas is from Botany Road and Wellington Street, with the frontage of service areas minimised to reduce impact on pedestrian movement and the quality of building edges.

Vehicular access to the central precinct (including the church) is provided at the southern edge of Cope Street Plaza. This accessway has been designed to minimise visual impact and potential conflict with pedestrians, through clear delineation of movement paths, landscaped areas and bollards.

Lower parking rates have been applied to commercial and residential buildings.

Further details of the public domain are included in the Landscape and Public Domain Report for each of the supporting Development Applications.

3P Service vehicles and waste collection

Objectives:

1. Ensure that demand for transport generated by development is managed in a sustainable manner.

2. Locate servicing and loading at the site edges to minimise potential conflicts with pedestrians and cyclists.

Response:

Impacts of servicing and waste collection are minimised primarily through location of these areas at the street frontages of Botany Road and Wellington Street. Vehicles enter and exit these areas in a forward direction.

The width of servicing areas has been minimised to reduce impacts on pedestrian movement and safety, and to maximise active uses along these frontages.

7.5
Design & Amenity Guidelines

3Q Integration with the metro station

Objectives:

1. Integrate the design of the development with the metro station.

Response:

The northern building has been configured and designed to closely integrate with the new Metro station. The amended envelope allows for a commercial building (rather than a mixed use commercial/residential building) which optimises this integration at both podium and tower levels.

A new north-south connection, Raglan Walk, runs between Ragaln Street and Cope Street Plaza. This connection improves access into the site, as well as the Metro station, retail spaces and community uses.

Commercial uses extend over the Metro station entry, with materiality and detailing that integrates with the scale and character of the station.

The Metro services building sits below Building 4, containing social housing. Corners are activated by retail spaces. Within some sections of the facade, the architectural expression and materiality of the residential building continues to the ground, providing stronger integration between these two uses.

Further details of the design of the Northern and Southern Precincts, including integration with the Metro Station, are provided in the architectural report of Development Applications SSD-10437 and SSD-10440.

3R Sustainability

Objectives:

1.Create an integrated sustainable infrastructure network incorporating transport facilities, public domain, water systems and vegetation.

2. New development encourages sustainable water use practices.

3. Reduce energy consumption, emissions and urban heat island effect and improve air quality and the absorption of carbon.

Response:

The planning and design of the site enables an integrated approach to sustainability - from facilitating active transport, protecting solar access to key spaces and maximising tree canopy, to the detailed design of buildings.

A sustainability framework, based on the One Planet Living principles and incorporating the requirements of the rating tools, will be implemented to deliver national best practice sustainability outcomes against a range of environmental and social issues:

- → Zero Carbon Energy
- → Sustainable Water
- → Waste Minimisation
- → Materials and Supply Chain
- → Land and Nature
- → Travel and Transport
- → Sustainable Food
- → Climate Risk and Adaptation
- → Health and Wellbeing
- → Ethics and Equity
- → Community and Culture

Further details of this sustainability strategy are described in the ESD Report of each of the supporting Development Applications.

3S Stormwater and flooding

Objectives:

1. Improve water quality and reduce stormwater runoff.

2. Manage flooding impacts and provide design responses that are integrated with the public domain and ensure street activation.

Response:

A site-wide stormwater and flooding strategy has been prepared, with buildings and public domain designed to accommodate requirements of this strategy.

Further details are provided in the Stormwater Management Strategy and Flood Impact Assessment of each of the supporting Development Applications.

3T Waste management

Objectives:

1.Ensure that each dwelling has adequate space to manage waste and recycling.

2. Ensure that buildings provide appropriate facilities to manage waste and maximise recovery of resources.

3. Ensure that residential amenity is not impacted by waste systems and collection.

Response:

The sustainability strategy for the site includes consideration of waste minimisation. Each building has been designed to allow for adequate waste and recycling facilities.

Further details of this sustainability strategy are described in the ESD Report of each of the supporting Development Applications.

3U Culture

Objectives:

1. Reflect Waterloo's distinct culture in a design approach that respects and celebrates the area's significant heritage and contemporary cultural values.

2. Express Aboriginal cultural heritage values and narratives and integrate culture with the design of the built form, landscape and public art.

3. Embrace and respond to Transport for *NSW's Reconciliation Action Plan 2019-2021.*

Response:

A Place Story has been developed for the site, to provide strategic guidance to the project team and inform strategies for public art, wayfinding, retail, place naming and activation. The Place Story is summarised by a concise value proposition that is both memorable, and easily communicated.

The Place Story describes WMQ as a place of 'unconventional potential', an opportunity to bring diverse mindsets together, celebrate difference, and explore a new economic tomorrow. Four "place pillars" describe the unique attributes that the Waterloo ISD can 'own' - defined by their evolving stories. These pillars are drawn from an understanding that starts with 'the First Story, first'. The Waterloo-Redfern area is culturally and historically significant for the Aboriginal people of Sydney, New South Wales and the country. These, and the contemporary narratives that follow, provides a foundation for the place story we are writing today

Ongoing collaborations will generate a meaningful sense of ownership and belonging, whilst unlocking community potential.

3V Public art

Objectives:

1. Integrate public art in the urban environment to offer unique experiences and bring a diverse and changing community together.

2. Build an authentic sense of place through activating the site and enabling the creative voices of the local community and its artists to be embedded in the design.

3. Create opportunities to celebrate Aboriginal culture and voices within the context of the wider cultural narratives of Waterloo.

Response:

Heritage interpretation and public art strategies have been prepared for the whole site, informing the design of buildings and public spaces. Opportunities for specific artworks have been identified.

Four main themes have been identified for interpretation in the project:

→ Celebrating Country;
→ Celebrating Community & Language;
→ Celebrating Innovation & Knowledge;
→ Development of the Urban Landscape.

The first three themes will be incorporated into briefs for public artworks that will be commissioned for the project. The fourth theme will become a brief for a heritage interpretation consultant to design heritage interpretation elements.

Additional criteria for consideration

3C Public domain

Provide opportunities for seating in the public domain, especially at the edges of Cope Street Plaza, near Metro entries and bus stops.

Provide for a diversity of awning expressions, with scale, materiality and character related to context and use.

3D Streets, lanes and footpaths

East-west laneways open to the sky.

Create a 6m wide north-south public link between Raglan Street and Cope Street Plaza.

3J Podium and street wall

Consider the expression of contextual typologies (such as terrace houses, workshops and factories) in the form and expression of podium buildings.

Provide a richness of detailing and materiality in retail shopfronts.

To improve permeability and safety, provide a publicly accessible connection along the eastern side of the church.

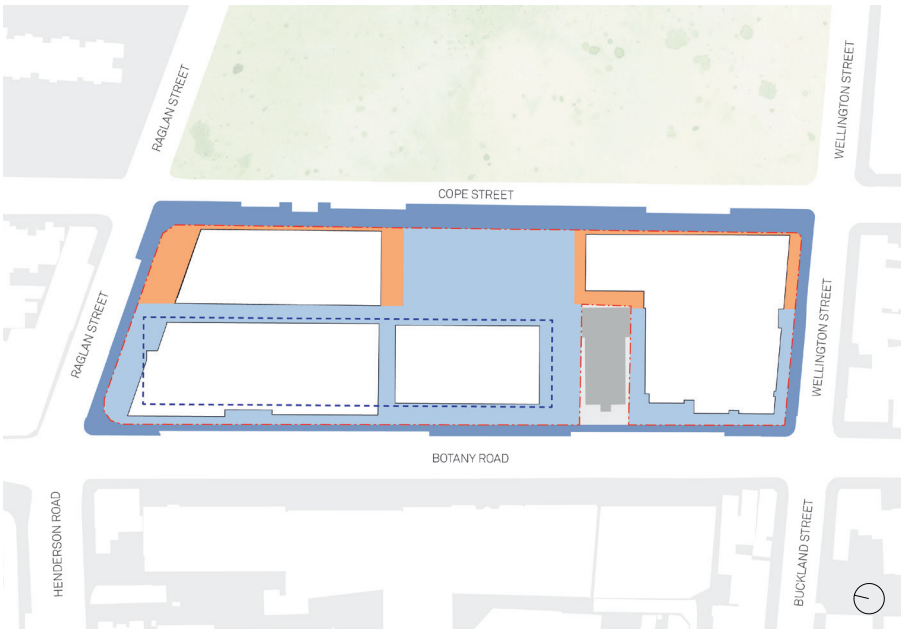
3K Built form above the podium

Articulate the upper levels of the northern building to break down the building mass, improve amenity and allow for flexibility for a range of tenants.

7.6
Land Ownership Plan

Land Ownership

Land ownership has been clearly demarcated to facilitate management and maintenance of the public domain.



Waterloo Metro Quarter land ownership plan

Note 1: Ownership subject to detailed design (final basement structures)
Note 2: Easement contemplated for public access to Metro Station overland in private ownership (subject to detailed design)

KEY

- Site boundary
- Basement boundary
- Public open space
- Publicly accessible private land (Sydney Metro)
- Publicly accessible private land (private ownership)



View of southern Waterloo Metro entry from Cope Street, artist's impression



View north-west toward Cope Street Plaza, artist impression


WATERL
Waterloo
COFFEESHOP

REFERENCE DESIGN PROPOSAL

Within the definition of the amended envelope, and with the application of the Design and Amenity Guidelines, a reference design has been developed for the Waterloo Metro Quarter.

Waterloo Metro Quarter provides a future vision for Waterloo, anticipating an intensification of residential and commercial development around the Waterloo Metro Station.

Waterloo's urban fabric has been shaped by a history of growth and renewal, with the resulting diverse mix of housing typologies reflecting evolving models for living. This narrative is reflected in the environment and comprises of a diverse mix of built form, fine grain and use adapted over time to meet changing housing and industry demands.

The reference design proposal seeks to respond to and contribute to the context of Waterloo both in its present state as well as the desired future character. Overlapping zones of differing density and height, the proposal responds to Waterloo's locality with a layered and diverse mix of built form typologies, with the grain and character of the proposal reflecting the identity and diversity of the surrounding context.

The reference design demonstrates how design excellence can be achieved on the site - delivering a diverse, engaging and people-focused place.

Within this section, an overview is provided of the design of the public domain and buildings in the Northern, Central and Southern precincts.

These proposals form Development Applications for the project, to be submitted concurrently with the Amending DA proposal.

These are:

- → Southern precinct SSD-10437,
- → Basement Car Park SSD-10438,
- → Central precinct SSD-10439, and
- → Northern precinct-SSD-10440.