

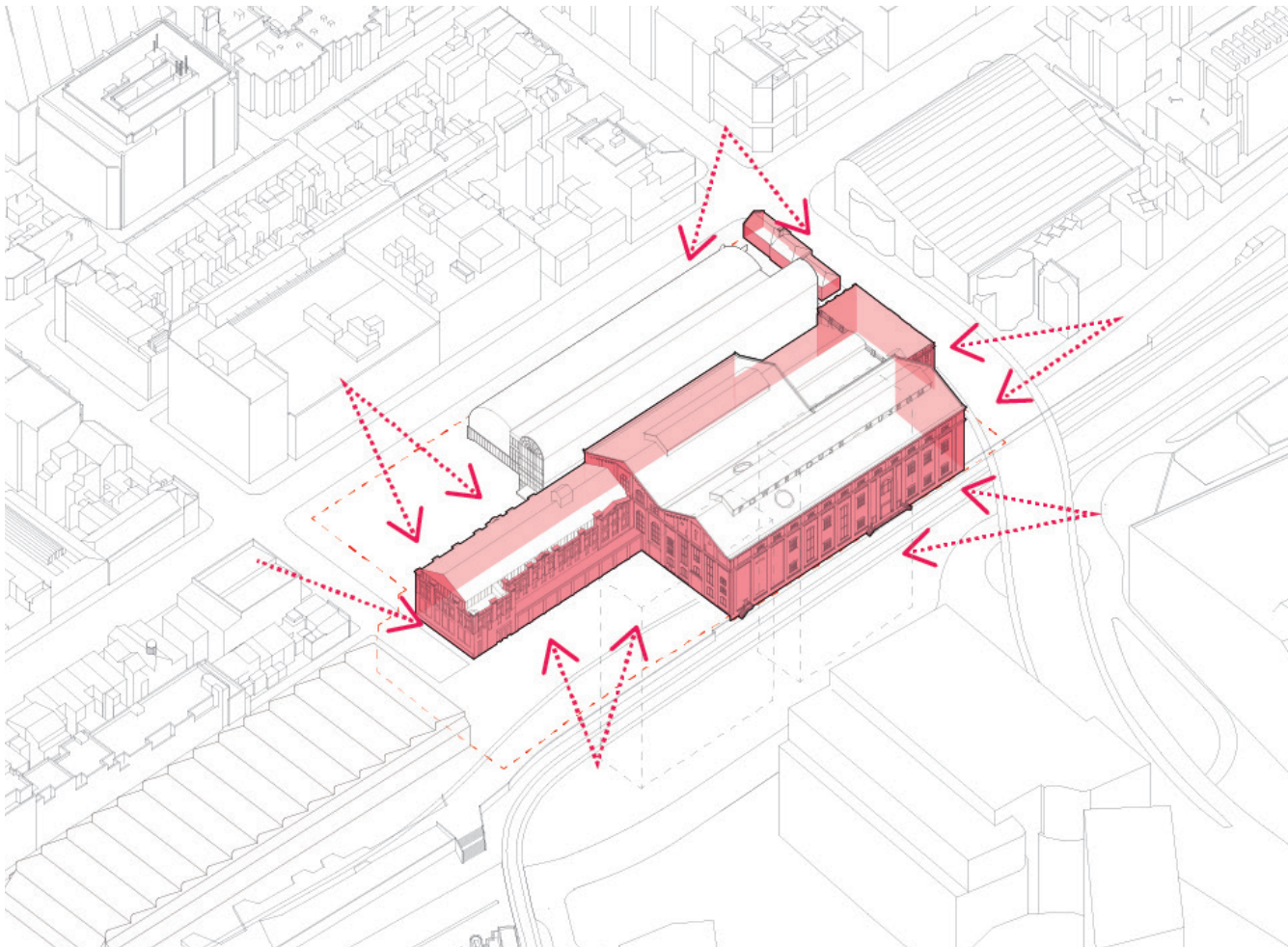
# 5.3 Heritage

## Principles

- Acknowledge the heritage significance of the State Heritage Listed buildings within the Powerhouse Ultimo site.
- Reveal and celebrate heritage fabric and spaces to the wider public domain network allowing improved access to, and appreciation for, these buildings and spaces.
- Enable better connections to and appreciation of significant built fabric.
- Allow for adaptive reuse, demonstrating and acknowledging the ongoing development of contemporary museum practice.

## Guidelines

- Appreciate and respond to the unique heritage fabric on site in accordance with the Powerhouse Ultimo Draft Conservation Management Plan 2022 and its policies.
- Refer to Design Guide for Heritage - Better Placed.



Reveal and celebrate important heritage fabric and spaces.



The Ultimo Power House soon after completion of the Turbine Hall  
Source: Ultimo Creative Industries Precinct MAAS Powerhouse Museum Final Business Case Heritage Planning Report Draft, 2018, p.4



The Ultimo Post Office c1905 (NSW State Archives)  
Source: Ultimo Creative Industries Precinct MAAS Powerhouse Museum Final Business Case Heritage Planning Report Draft, 2018, p.13



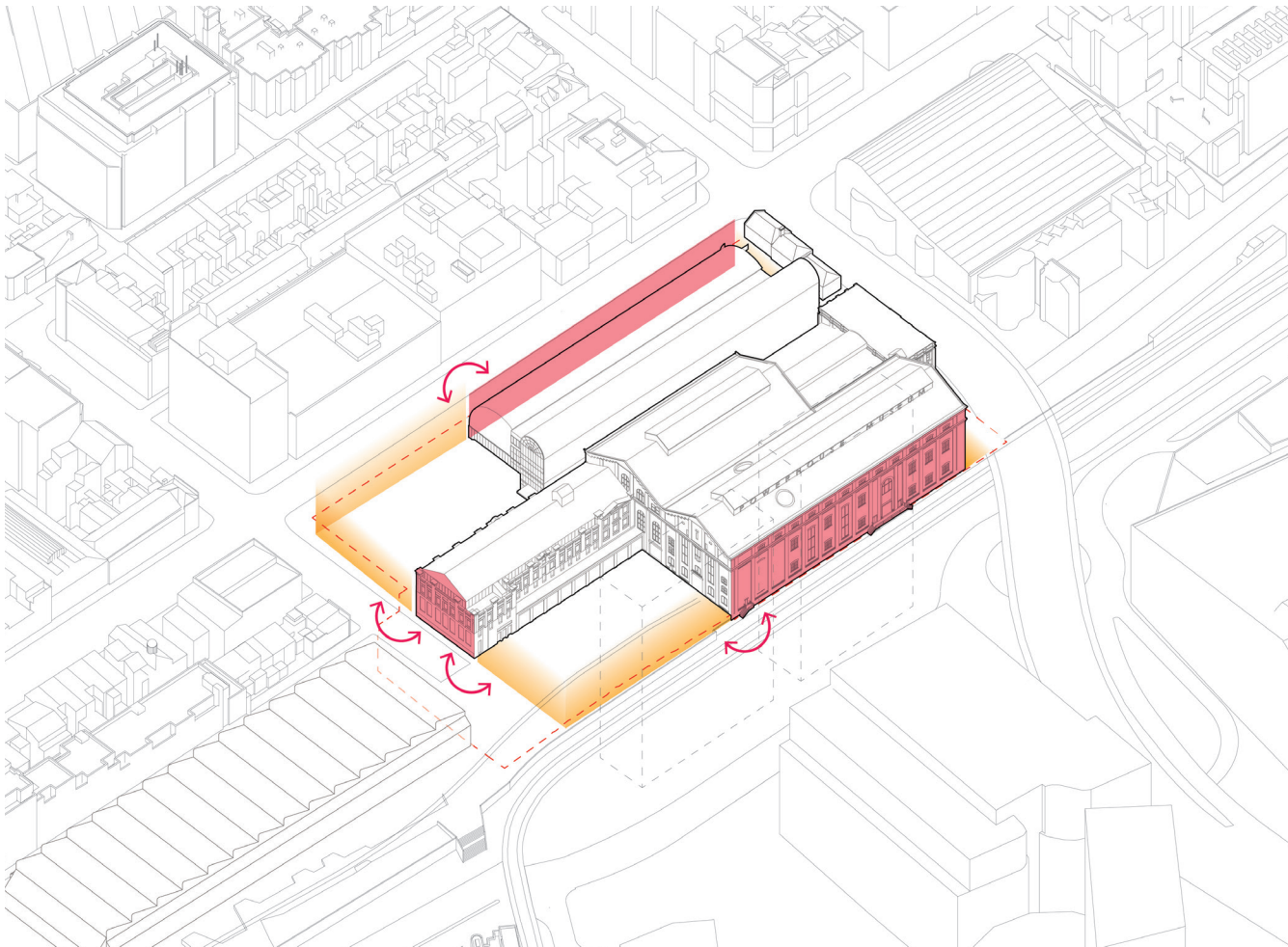
# 5.4 Setbacks

## Principles

- Arrange building alignments to be responsive to and integrated into their context.
- Renew the Museum’s address to Harris Street, Macarthur Street and the Goods Line and explore opportunities to increase pedestrian amenity and connectivity.

## Guidelines

- Building alignments should respect the value of Harris Street as the historic spine of the broader Pyrmont Peninsula.
- Any new built form should respond to and respect adjacent building alignments.
- Maximise opportunities for pedestrian connectivity and accessibility with space created by increased setbacks.



New built form should respond to and respect adjacent building alignments.



Current building alignment with Harris Street.  
Image credit: John Wardle Architects



Current building alignment with the light rail corridor.  
Image credit: John Wardle Architects



# 5.5 Architectural Expression

## Principles

- A contemporary response to the site and its context.
- Explore opportunities for adaptive heritage reuse.
- Creation of legible and connected public spaces to support museum utilisation and programming.
- Improve site connections - east-west links between Harris Street and Haymarket, Darling Square, Darling Harbour and Sydney CBD.

## Guidelines

- Integrate with the Powerhouse buildings and surrounding Ultimo context.
- Allow for an environmentally responsive design approach.
- Create active street frontages at ground level.
- Provide diversity in the elevations through articulation of the facade.



Boola Bardip Western Australian Museum, Hassell & OMA.  
Image credit: Peter Bennetts



Phoenix Central Park, John Wardle Architects & Durbach Block Jagers.  
Image credit: Trevor Mein



Ballarat GovHub, John Wardle Architects.  
Image credit: Peter Bennetts



ARC Building, Sydney, Koichi Takada Architects.  
Image Credit: Tom Ferguson Photography, Martin Siegner



British Museum, Foster and Partners.  
Image credit: Nigel Young



Tate Modern & the Switchhouse, Herzog de Meuron Architects.  
Image credit: Luv Boegly & Sergio Grazia



# 5.6 Material Selection

## Principles

- Quality, long lasting and low maintenance materials should be selected to maintain a high-quality appearance.
- Consistency across building and public domain so that it reads visually and materially as one precinct / or contrast to highlight and differentiate heritage with new built form.

## Guidelines

- Respond to the existing material palette of the site and its surrounds.
- Longevity and durability shall be considered in the choice of materials.
- Use materials that connect the building to its surrounds.



Existing Powerhouse Ultimo heritage listed buildings.  
Source: John Wardle Architects



Powerhouse Ultimo heritage listed building brickwork detail.  
Source: John Wardle Architects



Darling Square, Aspect Studio. Image credit: Brett Boardman



Powerhouse Ultimo heritage buildings facing north. Image credit: Katherine Lu



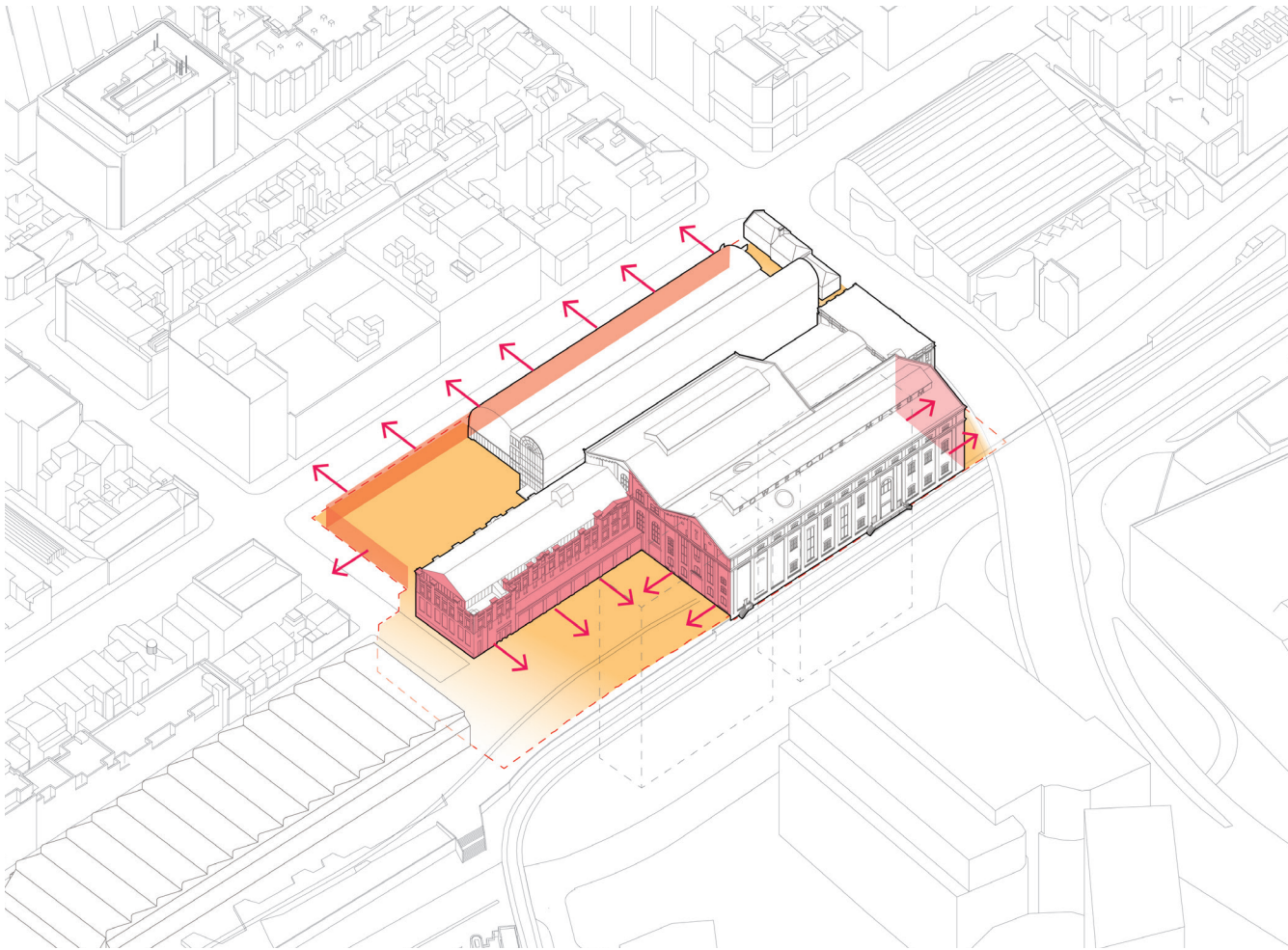
# 5.7 Activation

## Principles






- Deliver a highly operational precinct that contributes to the NSW visitor and night-time economies.
- Create spaces which encourage the local community to utilise the precinct.
- Concurrent utilisation of spaces and public domain operating across the day and into the night.
- Create a clear separation between front of house and back of house museum operations.
- Public Domain that supports audience of diverse abilities and perspectives.
- Public Domain and buildings focused on supporting intuitive circulation.

## Guidelines

- Allow for a diverse and concurrent utilisation and programming that supports large visitor numbers.
- Provide active edges to public spaces.
- Create cultural, creative and commercial opportunities that supports the Powerhouse program.
- Address primary and secondary connections.
- Consider uses that encourage day and night-time uses.



### Key

-  New Mass
-  Activation
-  Visual Connection
-  Interface
-  Site Boundary



High Line Park, New York, Diller Scofidio + Renfro.  
Image credit: Iwan Baan



Melbourne School of Design, John Wardle Architects.  
Image credit: Nils Koenning



5.8 Sustainability

Principles

- All aspects of the design, construction and ongoing operation of the precinct will seek opportunities to minimise negative environmental impacts.
- Triple bottom line approach to sustainability, which addresses environmental, economic and social sustainability impacts.
- Net Zero Operation and climate positive, low-carbon, high-performance precinct.

Guidelines

- Prioritise climate positive, low-carbon, high-performance outcomes.
- Target Green Star 6 Star Rating.
- Alignment with the following policies:
  - Pyrmont Peninsula Place Strategy.
  - NSW Government Resource Efficiency Policy.
  - NSW Climate Change Policy Framework.
  - National Carbon Offset Standards.
  - NABERS and NCC.
  - Sustainable Sydney 2030.



RESPONSIBLE

Collaborative design and construction  
Sustainable procurement  
Sustainable products  
Responsible construction practices  
Verification and monitoring  
Handover and tenant engagement



HEALTHY

Clean air  
Light quality  
Exposure to toxins  
Noise levels  
Amenity and comfort  
Mobility



RESILIENT

Climate change resilience  
Infrastructure dependency  
Resilience to other impacts  
Stakeholder engagement  
Community resilience  
Resilience communication and review



POSITIVE

Energy and peak demand  
Energy source and fossil fuels  
Other carbon sources  
Using water sustainably  
Carbon in materials  
Impacts from resources



PLACES

People movement  
Enjoyable places  
Access to amenity  
Contribution to place  
Goods movement



PEOPLE

Community engagement  
Culture and heritage  
Design for diversity  
Aesthetics  
Privacy



NATURE

Impacts to nature  
Human connection to nature  
Water pollution and runoff  
Habitat creation  
Nature connectivity  
Offsite restoration



LEADERSHIP

Exceptional performance  
Leadership in sustainability  
Innovation Challenges

Green Star categories that represent issues that will define the next decade of the built environment, Source: GBCA 2022



UTAS Cradle Coast green roof, John Wardle Architects  
Image credit: Adam Gibson



UTAS Inveresk Library recycled aluminium facade, John Wardle Architects  
Image Credit: Anjie Blair



UTAS Inveresk Library with CLT interior, John Wardle Architects  
Image Credit: Anjie Blair



Daramu House CLT Structure, Tzannes  
Image credit: Brett Boardman



# 5.9 Form, Massing and Scale

## Principles

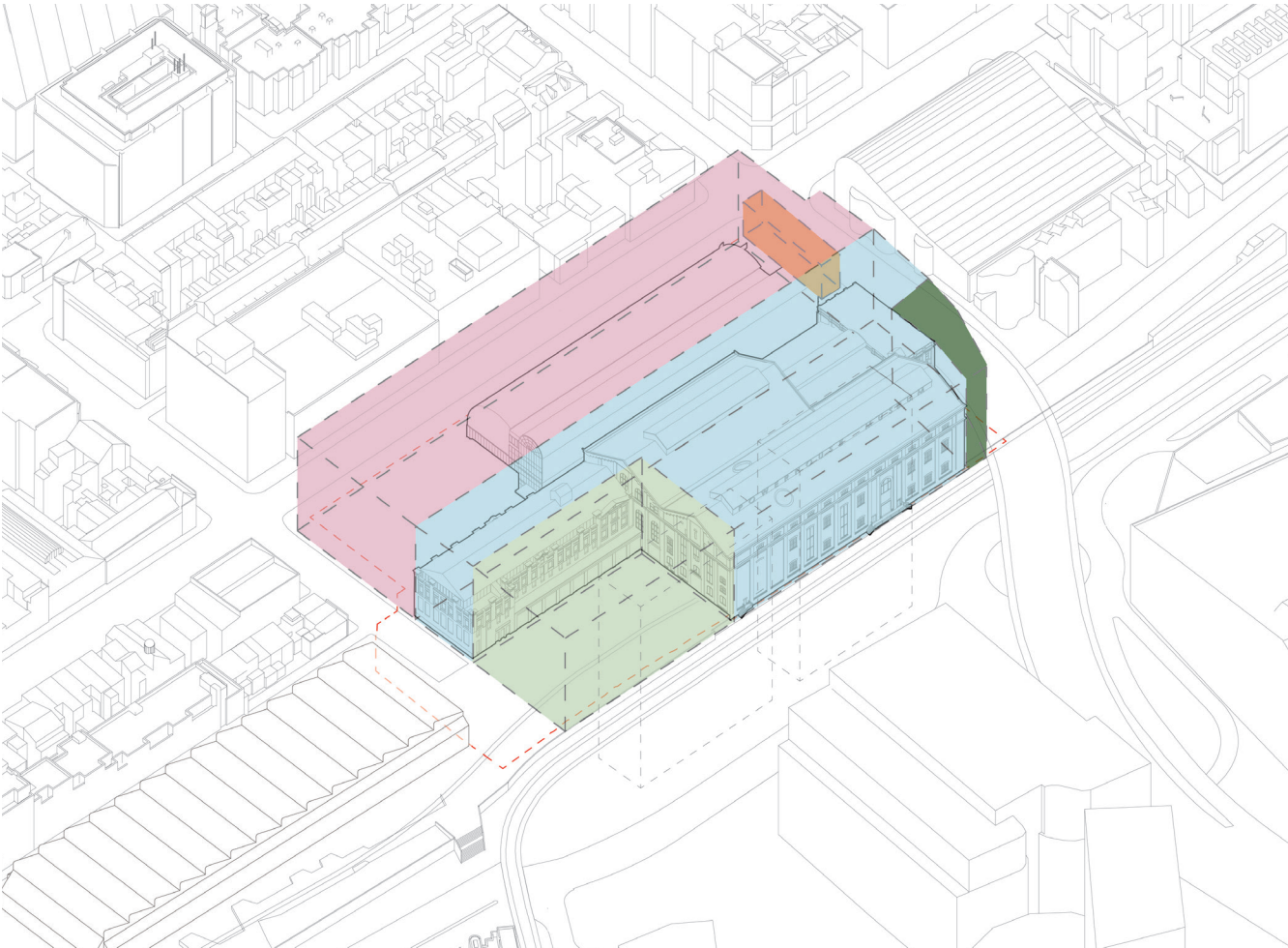
- Accommodate the functional requirements of a world-class museum that is responsive to site and integrated into its context.
- Flexible spaces that enable the delivery of dynamic utilisation and programming.
- Buildings and public domain to have the ability to operate at multiple scales of programming across the precinct.
- Create connected and engaging public domain spaces within the Powerhouse Ultimo Precinct.
- Intuitive circulation across precinct.

## Guidelines

- Future built form to be contained within the approved building envelope.
- Height and massing of any new built forms should be sensitive and responsive to the significance of the Powerhouse Ultimo building forms in accordance with Draft Powerhouse Conservation Management Plan (2022).
- Form and massing of new built forms should consider and provide appropriate relationships to the internal and functional requirements of the museum.
- New built forms are to respond to the surrounding scale and built environment of Ultimo and Pyrmont Peninsula.
- New built forms should respect and consider impacts to privacy, views, public open space and minimise negative impacts to local residential amenity.
- Create public spaces of civic importance.
- Be respectful of curtilage and the street patterns.
- Minimise overshadowing to public spaces.
- Improve connections to and around built form.

### Key

- Heritage Core
- Former Post Office
- Zone 1
- Zone 2
- Zone 3



Approved Building Envelope.



Public spaces of civic importance: Tumbalong Boulevard.  
Image credit: Aspect Studios



New built forms should be sensitive and responsive to the significance of the Powerhouse Ultimo building forms. Image credit: John Wardle Architects



# 5.10 Building Envelope

The proposed building envelope is designed to establish appropriate built form constraints as a guide for development while providing flexibility for the future design competition and subsequent Stage 2 SSDA to consider the appropriate location for public domain expansion/locations and new built form interventions. The maximum height of the envelope contemplates the need to accommodate possible future built form in addition to that which exists on the site.

The proposed building envelope comprises five key zones, in response to the varied conditions and adjacencies presented by different building types and spatial elements across the site. Each of these key zones is defined by its own guidelines, providing a site specific framework for the degree to which any new intervention is considered appropriate. The five key building envelope zones are:

- Heritage Core
- Former Post Office
- Zone 1
- Zone 2
- Zone 3

## Heritage Core:

- Any new external built form interventions (including equipment and plant) to comply with envelope height limit and Draft Powerhouse Conservation Management Plan (2022) (CMP).
- Consider greater physical and visual engagement with adjacent public open space and possible built form – eg Zones 1, 2 and 3.
- Consider opportunity to create a new ‘front door’ entry zone and threshold to the Heritage core via Zone 1.
- Any new built form intervention should not increase overshadowing to Zone 1 or 2.

## Former Post Office:

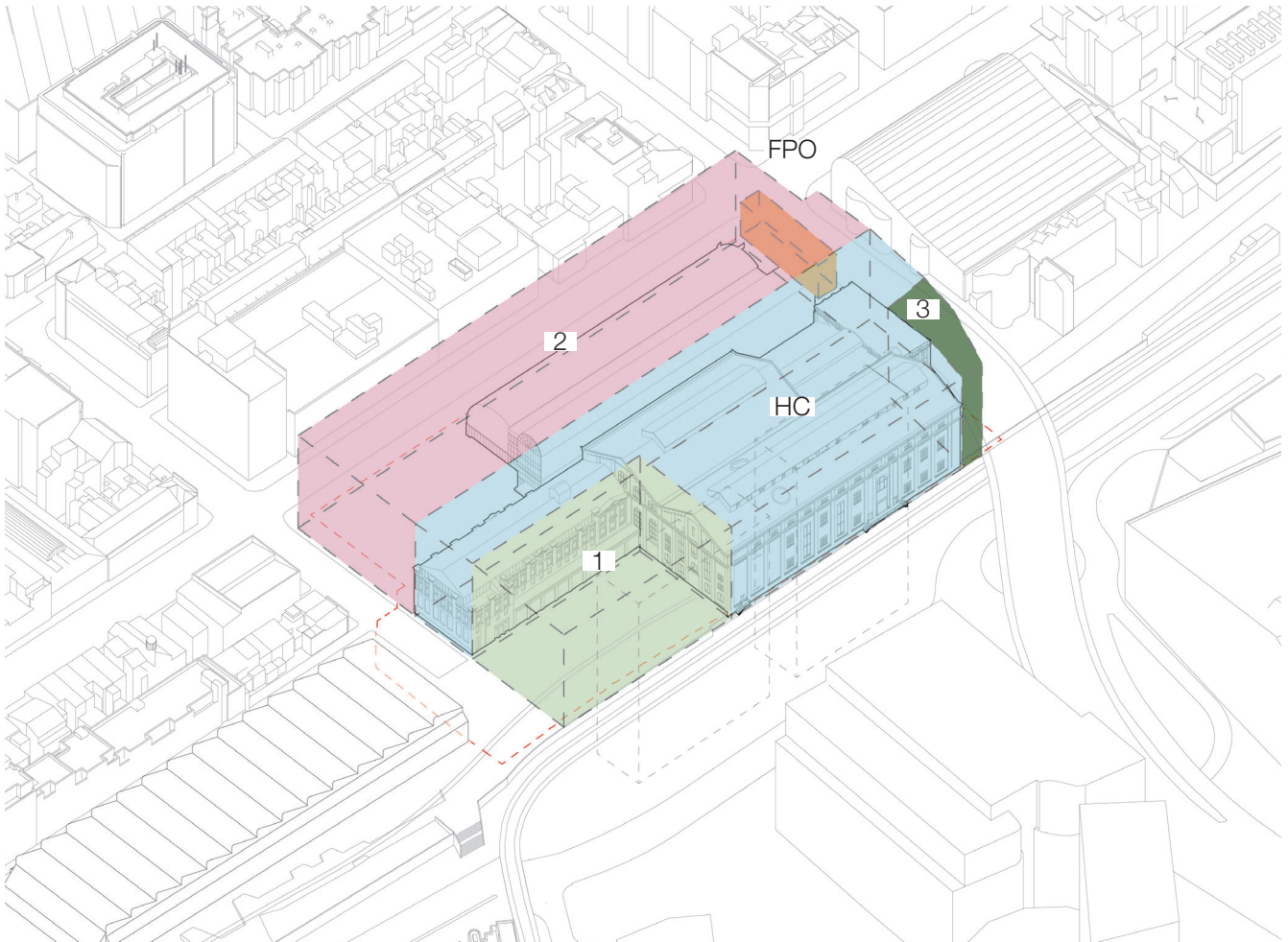
- Any new external built form interventions to comply with envelope height limit and CMP.
- Consider greater visual engagement with adjacent open space – eg Harris Street, Zone 2.
- Consider opportunities for physical connection and threshold to adjacent Zone 2.

## Zone 1:

- Any new external built form to comply with envelope height limit and CMP.
- No additional overshadowing of Zone 1 from adjacent built form within the site between 9am to 3pm on 21st June.

## Zone 2:

- Any new external built form interventions (including equipment and plant) building should comply with envelope height limit and CMP.



- Consider visual engagement to/from the museum with adjacent public and private open space – eg Harris Street, Former Post Office, within Zone 2 .
- Consider opportunities for greater physical connection between existing museum building and adjacent built form and open space.
- Any new external built form interventions within the existing Harris Street Forecourt should comply with envelope height limit and CMP.
- Explore opportunity for public connection integrated into any proposed built form within the existing Harris Street Forecourt to achieve accessible connection between Harris Street level (Level 3) and Powerhouse Ultimo civic space and Museum entrance (Level 1).
- Allow for articulation and alignment of any built form within the existing Harris Street Forecourt to respect adjacent heritage and other existing significant building fabric, as per CMP.



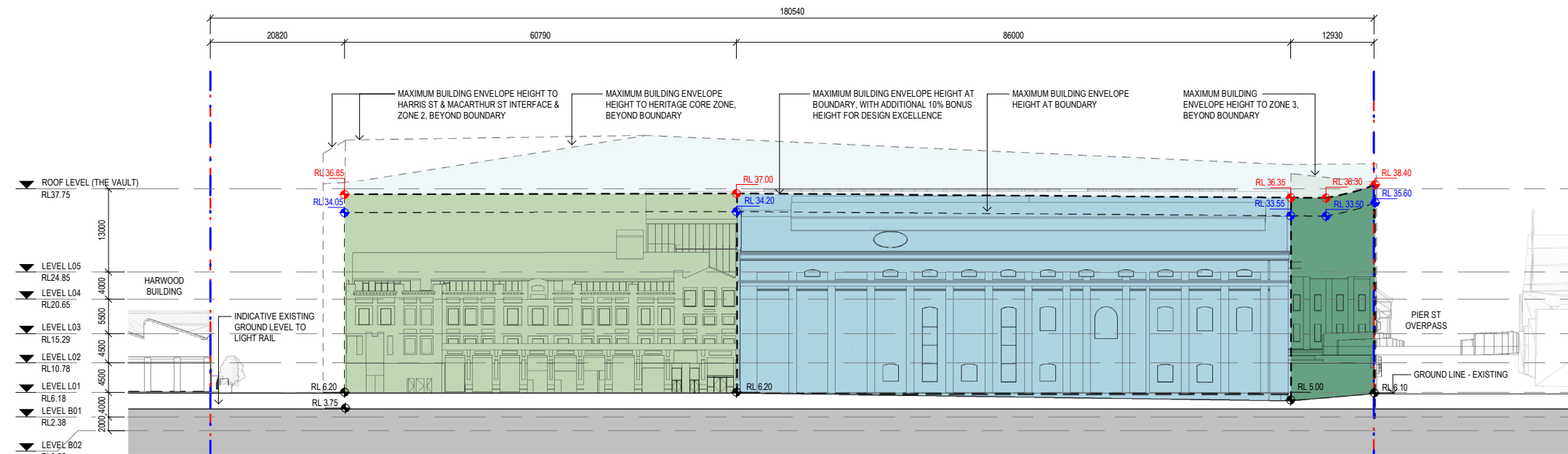
## 5.10 Building Envelope

### Zone 2 cont.

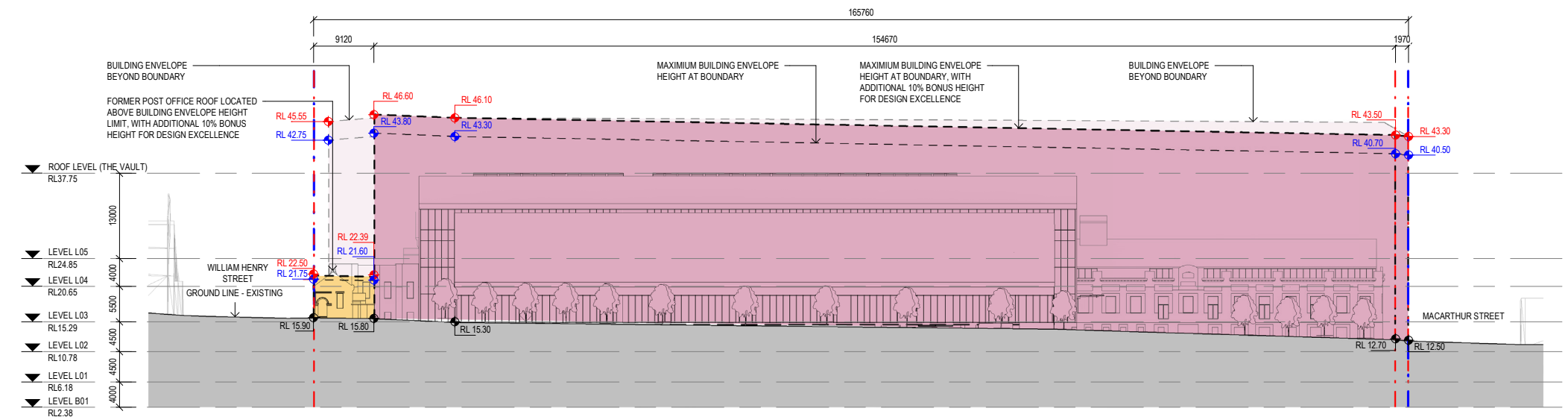
- Consider impact of any built form within the existing Harris Street Forecourt on Harris Street and Macarthur Street and opportunities to activate streetscape environment.
- Any new external built form interventions located near the Harris Street and Macarthur Street boundaries should comply with envelope height limit.
- Any ground level open space should be primarily publicly accessible.
- With any new built form provide appropriate setbacks (in height and width) to Harris Street and Macarthur Street.
- Consider visual impact and contribution to Harris Street and Macarthur Street streetscape environment.
- Consider overshadowing impact to nearby properties.
- Any new external built form interventions (including equipment and plant) with the Former Post Office shall comply with envelope height limit and CMP
- No additional overshadowing to Former Post Office courtyard, consider improving existing solar access where possible.

### Zone 3

- Any new external built form interventions to comply with envelope height limit and CMP.



Building Envelope - North East Elevation



Building Envelope - South West Elevation on Harris Street



## 6.0 Project Guidelines - Public Realm



# 6.1 Overview

The renewal of Powerhouse Ultimo provides a unique opportunity to create a vibrant, cultural precinct to the south of the Sydney CBD. Powerhouse Ultimo is well complemented by adjacent creative, educational and institutional uses, with the University of Technology, Sydney, TAFE NSW Ultimo Campus and the ABC. Drawing upon its rich, heritage and architectural fabric provides a strong foundation for the creation of a thriving public domain that can be a vital component to the ongoing cultural life of Sydney.

This section identifies a set of project principles and guidelines to inform beneficial public domain outcomes. It is not intended that these project principles and guidelines become a set of prescriptive design controls that must be rigidly followed by the project. Rather, the intention is to apply these principles and guidelines flexibly to encourage creativity and innovation in developing beneficial public domain outcomes through the design development of the project.



Image: The Goods Lines by Aspect Studios. Image credit: Florian Groehn.



# 6.2 Public Realm and Open Spaces - Overarching Guidelines and Principles

The following principles and guidelines are set out to inform beneficial public domain outcomes. These project principles and guidelines are not a set of prescriptive design controls that must be rigidly followed by the project. Rather, the intention is to apply these principles and guidelines flexibly to encourage creativity and innovation in developing beneficial public domain outcomes through the implementation of the project.

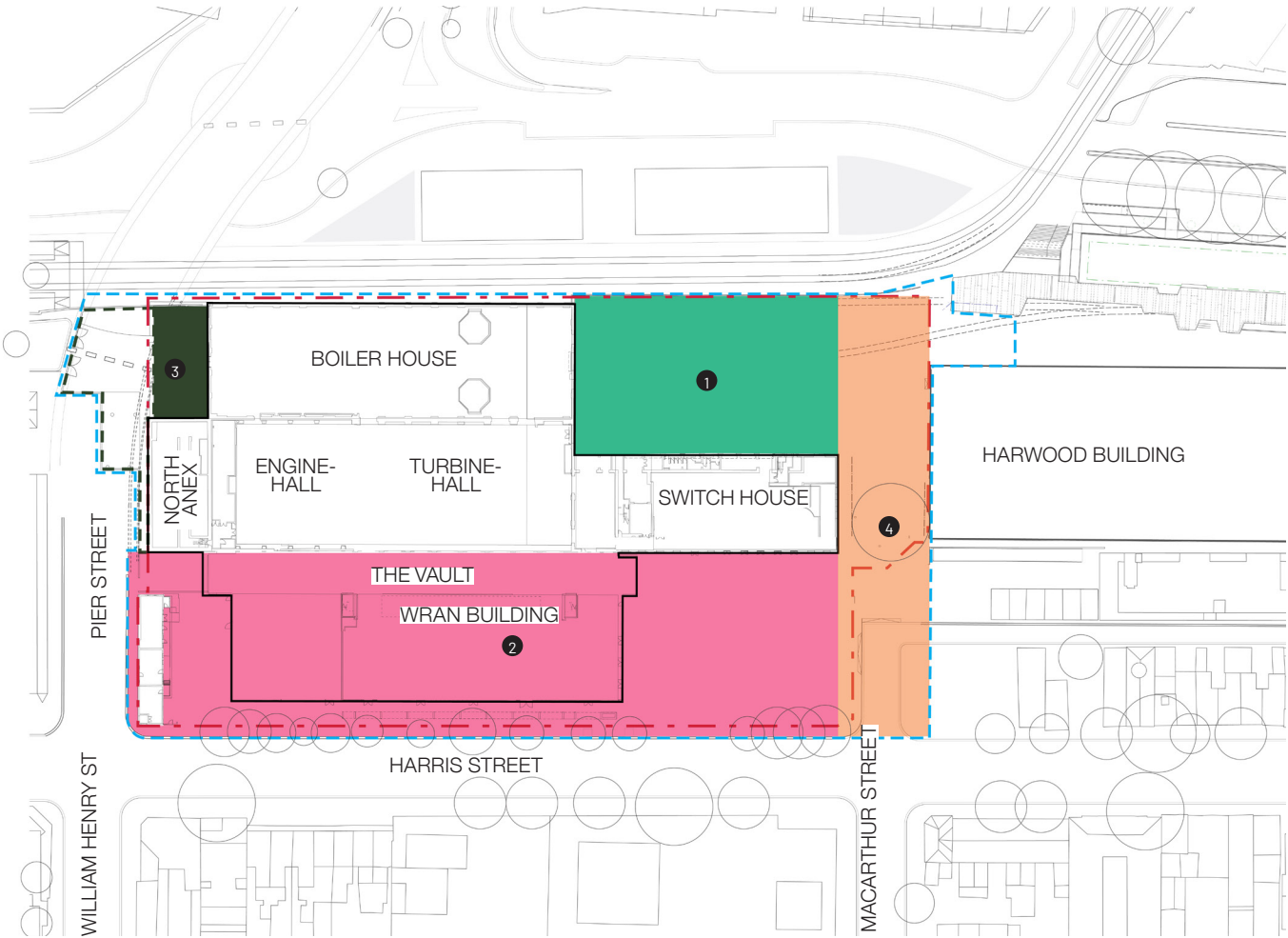
The following guidelines apply to all public open spaces across the site. The adjacent diagram shows the sites four public domain zones. The following principles and guidelines are provided to guide the future public domain design for the site.

## Principles

- Maintain or increase existing quantity of public domain on site.
- Enable concurrent activation with museum buildings and ability to operate across the day and into the night.
- Supports audiences of diverse abilities and perspectives.
- Be flexible to enable the delivery of dynamic utilisation and programming.
- Improve the quality of public space and celebrate its unique role within the city.
- Ensure the open space feels public and welcoming.
- Ensure public open space is meaningfully connected to the broader public domain.
- Ensure good solar access.
- Consider day/night activation.
- Consider the aspirations set out in the Pyrmont Peninsula Place Strategy
- Compliment and celebrate heritage.

## Guidelines

- No less than the existing provision of public open space shall be achieved across the site located within Zone 1 and/or Zone 2.
- Zone 4 is public open space (note the western portion of Macarthur Street is outside of the site boundary).
- Consider the how the heritage core and new build frames and helps activate the public spaces and street scape.
- At least one significant public space shall be connected at grade to an adjacent public space or pathway and allow gathering for events and programming.
- Provide a safe and accessible pedestrian experience.
- Minimise conflicts between public use and operational requirements, including loading and expected crowd movements.
- Demonstrate good solar access is achieved to public open spaces.
- Integrate day and night activation.
- Comply with and respond to the Conservation Management Plan (CMP).
- Respond appropriately to CPTED principles.
- Provide greener streets.
- Maximise the use of endemic plant species.
- Create clear and legible way finding and precinct circulation.
- Include feature and compliant lighting.

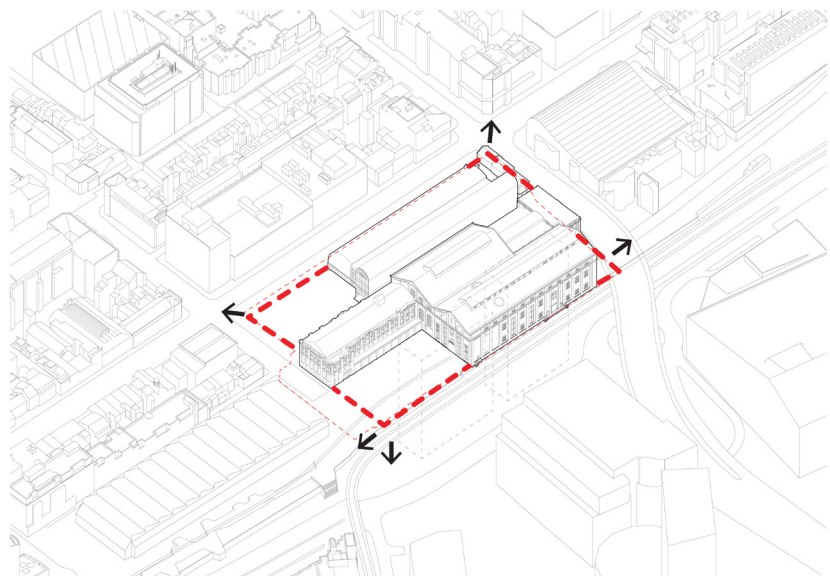


## Key

- - - - Site boundary
- - - - Zone of influence
- 1 Zone 1
- 2 Zone 2
- 3 Zone 3
- 4 Zone 4

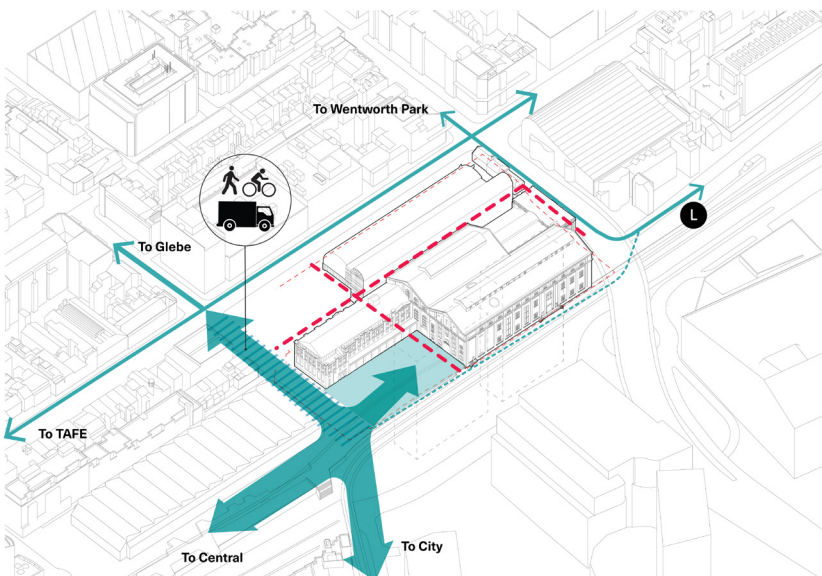


6.3 Public Realm and Open Space Considerations



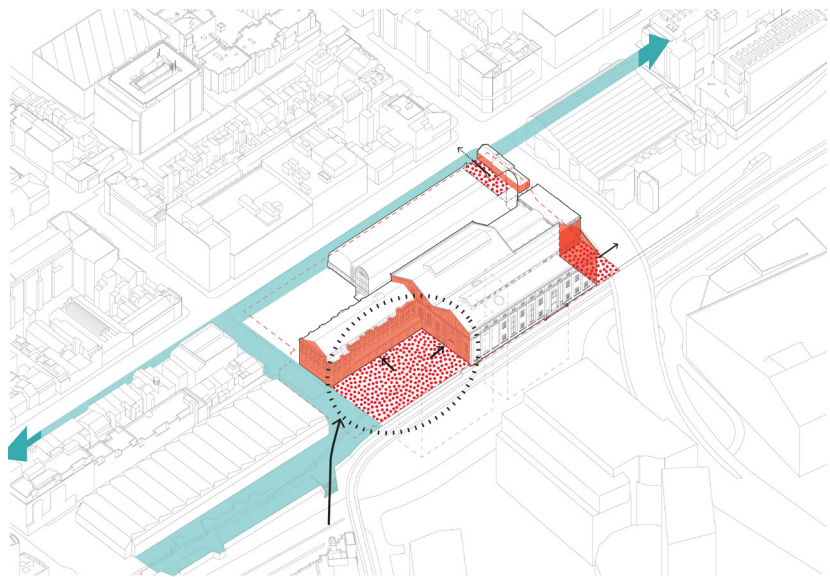
UNLOCK

Remove fences and obstructive structures, open the site to connect to adjacent public domain.



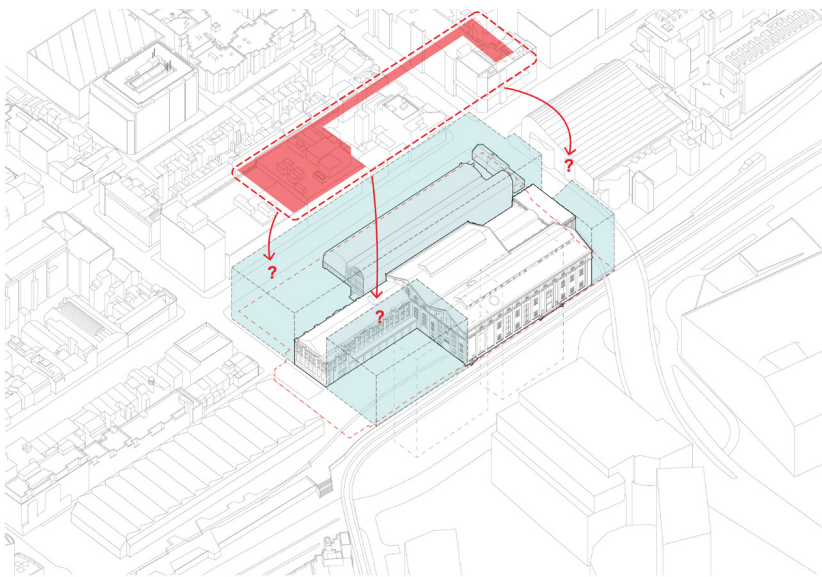
CONNECT

Strengthen connections to the surrounding precinct and public transport. Look for opportunities to integrate accessible connections into the site.



UNIQUE CHARACTER

Celebrate the unique architecture, character and role of each space. Enable museum programming as well as the open spaces in the wider context.



PUBLIC SPACE REQUIREMENTS

Maintain or increase the quality and quantity of public domain.



6.4 Public Domain Indicative Diverse Landscape Characters



Image 1. Zollhallen Plaza,  
Image credit: B Doherty: <<https://landezine.com/flood-zone-on-public-plaza-design-atelier-dreizeit-landscape-architecture/>>.  
Image 2. Quay Quarter Precinct by Aspect Studios,  
Image credit- Rory Gardiner.  
Image 3. Eyclight Lane by David Svensson,  
Image credit: unknown: <<https://laurenwillcox224357whitwhitkorero.wordpress.com/2017/04/07/eyelight-lane-by-david-svensson/>>.  
Image 4. Farum Midtpunkt by Ramboll Architecture and Urban Development: <<https://landezine.com/farum-midtpunkt-by-ramboll-architecture-and-urban-development/>>.  
Image 5. Darling Square by Aspect Studios,  
Image credit: Brett Boardman.



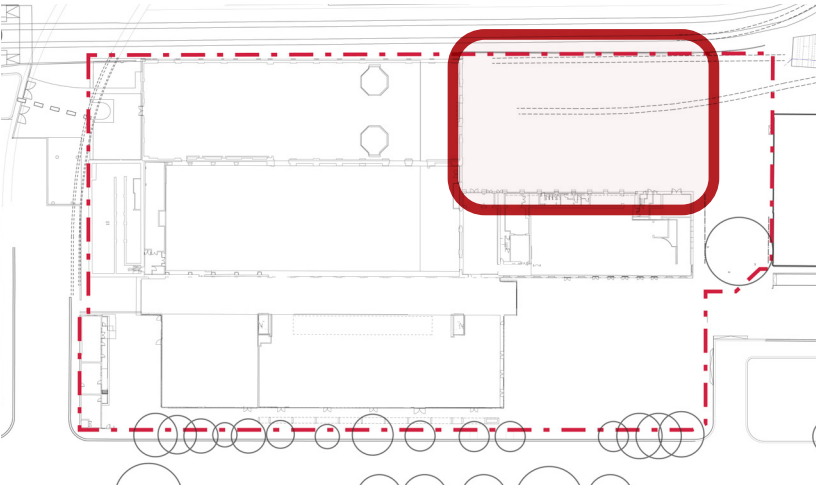
6.5 Zone 1

While public space may be distributed across the site, due consideration should be given to this area as it has been identified within the Pymont Peninsula Place Strategy (PPPS) as a key public space connecting the city to the Goods Line, through Hay Street and on to Darling Square and Chinatown.

The grand scale of the heritage architecture provides a frame for a unique public space which could provide an intuitive entry to the Powerhouse.

Opportunities for pedestrian connections along or over the rail corridor are not included in this project, however, any proposed work should not prejudice this being part of a future project.

Key Plan



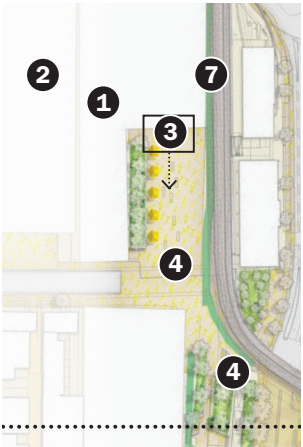
Principles

- Opportunity to provide an inviting and legible entrance to the Powerhouse Ultimo precinct.
- Responds to the Goods Line.
- Enable active edges for programming and civic events along with retail, food and beverage.
- Provide the opportunity for some degree of weather protection.
- Consider enhanced views to significant heritage facade.
- Respond to Pymont Peninsula Place Strategy principles.

Guidelines

- Celebrate and respect heritage architecture.
- Consider opportunities to create a buffer or threshold to the eastern edge condition adjacent to the light rail zone.
- Investigate the opportunity to facilitate or safeguard future potential pedestrian connections to the north.
- Comply with the Public Realm and Open Spaces - Overarching Guidelines and Principles.

Pymont Peninsula Place Strategy Extract



4. Give consideration to improve the relationship between the museum and the Goods Line, reorientating the museum towards the city

### 6.6 Zone 2

This area extends the length of the site fronting Harris Street, and includes the Former Post Office, the location of the Wran building and the existing public space on the corner of Harris and Macarthur Streets.

Opportunities for built form as well as public domain exist along the extent however key considerations should be observed- compliant with the CMP, building envelope and Public Realm and Open Spaces - Overarching Guidelines and Principles. This key civic building should have commensurate public spaces and active and/or engaging edges to the street.

Appropriate setbacks with generous, safe and intuitive pathways shall be provided.

Pathways need to enable bus connections and drop-offs as well as future pedestrian movements - both public and associated with Powerhouse programming.

It is challenging to achieve an accessible connection between Harris Street and Zone 1 area within the public domain (due to severe level changes) but would be of community benefit should it be provided within the building footprint.

Further opportunities exist to create a pedestrian connection consistent with the Pymont Peninsula Place Strategy (PPPS) (adjacent to the Former Post Office, under Pier Street and on to Convention Light Rail Stop) to improve east west connections as give better access to public transport.

Coordination with landholders and stakeholders will be necessary within the zone of influence for the street frontages, outside of the building envelope.

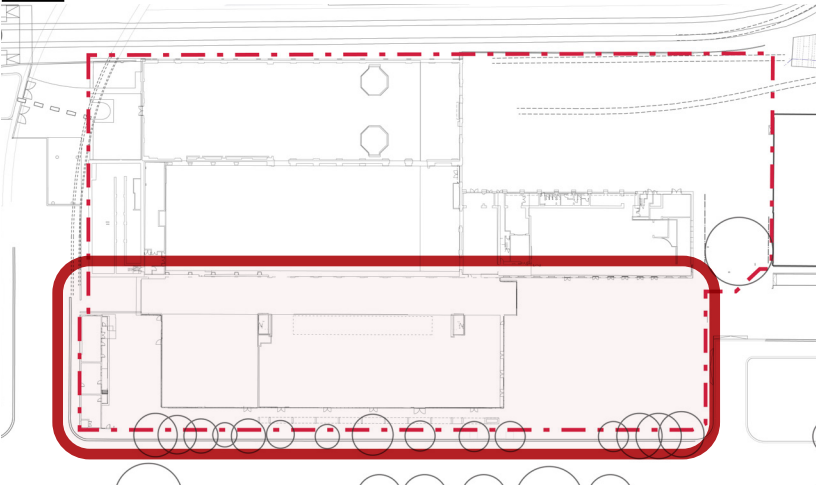
#### Principles

- Enable an active edge to Harris Street and consistent with Museum utilisation.
- Provide open space to compliment adaptive reuse of Heritage Post Office in accordance to the Powerhouse CMP.
- Maximise connectivity and public space opportunities.
- Consider street noise and its impact to museum presentation spaces and programming.
- Respond to City of Sydney requirements of footpath zone space requirements and material selection, as noted in Sydney Streets - Public Domain Design Codes 2021.

#### Guidelines

- Explore potential public access as described in the Pymont Peninsula Place Strategy (PPPS).
- Improve contribution to Harris Street environment.
- Consider potential for public space adjacent to Former Post Office.
- Provide appropriate setbacks with generous, safe and intuitive pathways.
- Integrate public transport drop off points (i.e Bus stop) as required.
- Improve accessible connections between Zone 1 and Zone 2 (integrate into built form where possible).
- Comply with the Public Realm and Open Spaces - Overarching Guidelines and Principles.

Key Plan





6.7 Zone 3

This site provides unexpected views of and connections to otherwise obscured heritage buildings. A new entry could provide quick access to and from the light rail and an extended path would increase permeability across the site.

A collection of unusual and more intimate spaces present opportunity for a landscaped space which may also allow a public connection to the adjacent light rail stop.

Coordination with landholders and stakeholders will be necessary within the zone of influence for the street frontages and land beneath the overpass, outside of the building envelope.

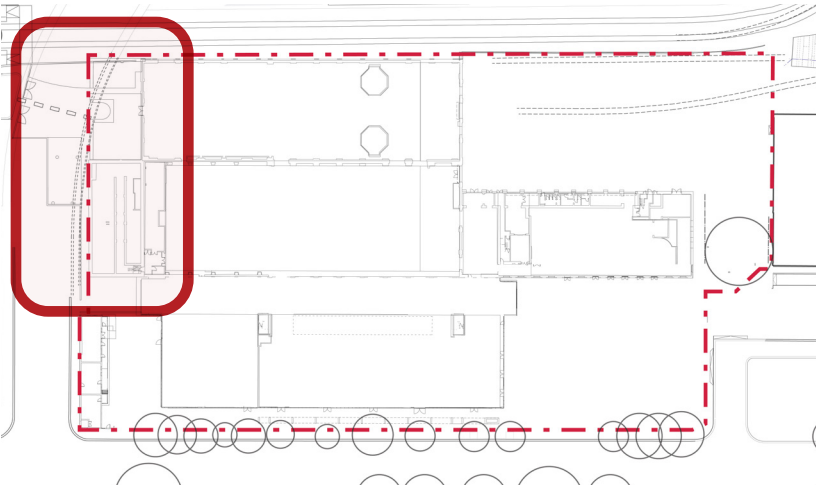
Principles

- Improve public connections.
- Celebrate currently unseen heritage facades.
- Make it more legible, porous and front facing.

Guidelines

- Consider access from under Pier Street to Boiler House and Northern Annex.
- Comply with the Public Realm and Open Spaces – Overarching Guidelines and Principles.

Key Plan





6.8 Zone 4

Macarthur Street is reconfigured to be a shared pedestrianised zone to assist the museum operations, whilst marking itself as a key benchmark of the east-west pedestrian connection between Harris Street Village and the Ultimo/Darling Harbour Precinct.

Create generous, intuitive and safe pedestrian paths with a clear separation between front of house and back of house operations.

Use shared way treatment and restrict/ slow vehicular movement while enabling local residents access as required.

Maximise pedestrian only spaces and retain existing trees where possible. Additional seating, planting and trees should be considered in the context of museum use and sympathetic to the precinct utilisation.

Coordination with landholders and stakeholders will be necessary within the zone of influence for street frontages, outside the building envelope.

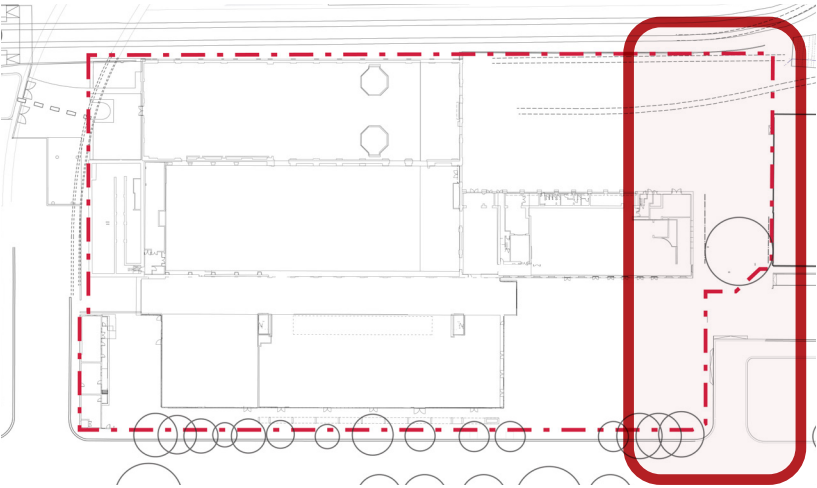
Principle

- Respect and reinforce street hierarchies and City of Sydney requirements.
- Provide improved pedestrian experience with safe, accessible and intuitive connections.
- Minimise overshadowing to significant public spaces.

Guidelines

- Paving and furniture along footpaths to comply with City of Sydney requirements.
- Street trees to enhance the existing canopy cover and mitigate urban heat increase.
- Soft landscape and street furniture to be encouraged.
- Consolidate new vehicular entries and present a considered architectural response to thresholds.
- Activate street frontages where possible.
- Consider accessible connection within building footprint to address DDA requirements.
- Comply with the Public Realm and Open Spaces - Overarching Guidelines and Principles.

Key Plan





# 6.9 Access and Movement

## Principle

- Enhance existing pedestrian connections, acknowledging the significance of the Goods Line and the east-west connection between Darling Harbour Precinct and Pyrmont.
- Create better connection to existing and proposed public transport, integrate with Pyrmont Peninsula Place Strategy (PPPS).
- Consider public use and operational requirements, including loading, tenants, local residents, visitors and the general public to ensure a safe and DDA accessible pedestrian experience.
- Provide improved and legible access to the Heritage core.

## Guidelines

- Consider Zone 1 forecourt design as a significant entrance to the site, a natural termination of The Goods Line, and as an urban anchor to the east-west connection.
- Improve the character of Harris Street public domain with consideration to the existing bus stop location and future connection to Pyrmont Metro stop.
- Explore space under Pier Street to provide a better connection to Exhibition Centre light rail stop.
- Pedestrianise the end of Macarthur Street adjacent to Powerhouse Ultimo, consider the implementation of street reconfiguration and shared zone to ensure a safe pedestrian experience.
- Increase permeability of the site through building set back and through-site-link.

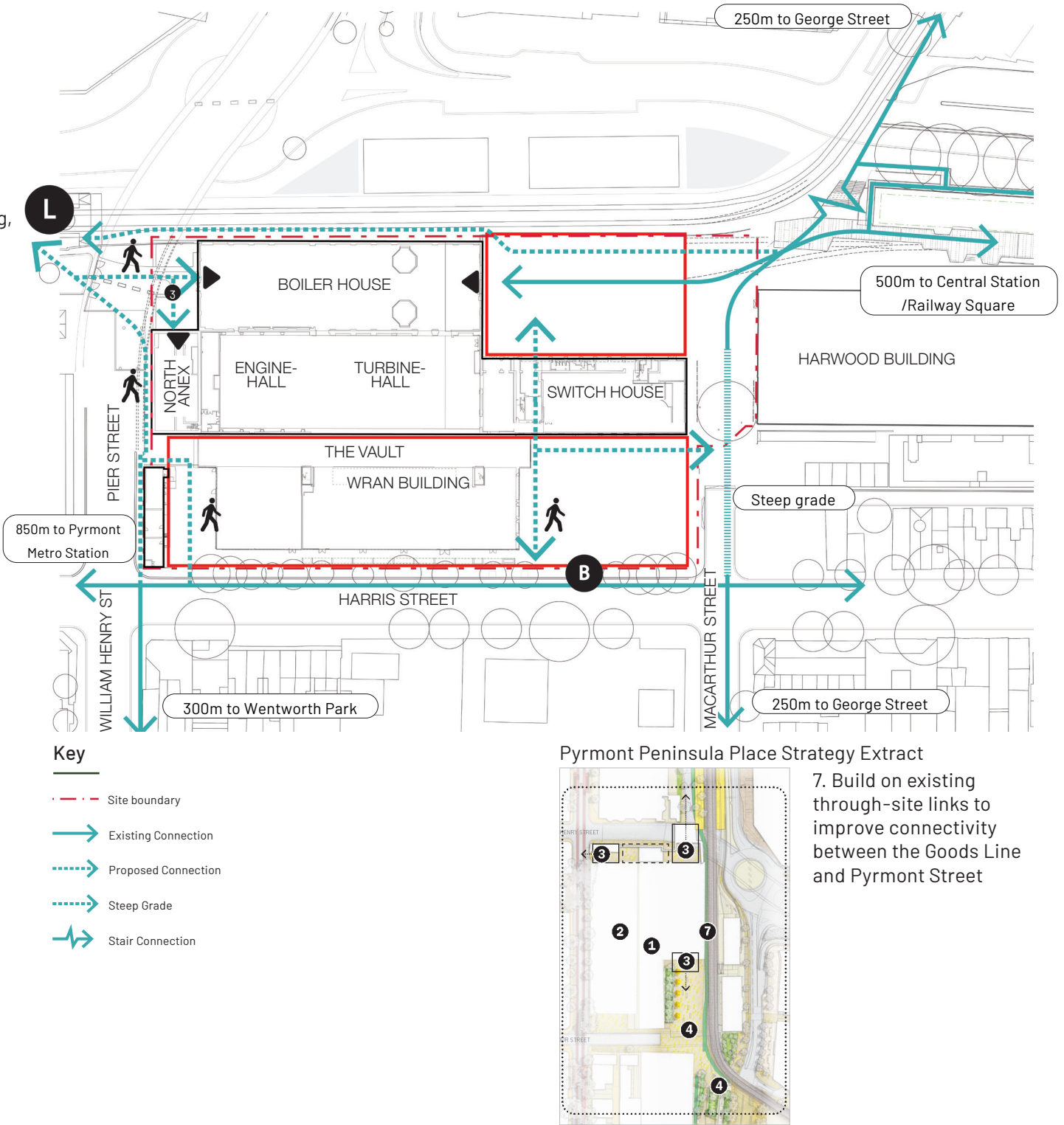
# 6.10 Active Transport

## Principle

- Promote and support active transport through connection to the broader network.

## Guidelines

- Provide a safe and comfortable street environment using soft landscaping and planting, to encourage pedestrian activity and active edges.
- Include provision for bicycle parking spaces.
- Ensure visibility and legibility of cycling routes and major pedestrian connections.
- Investigate future connectivity opportunities to the light rail.





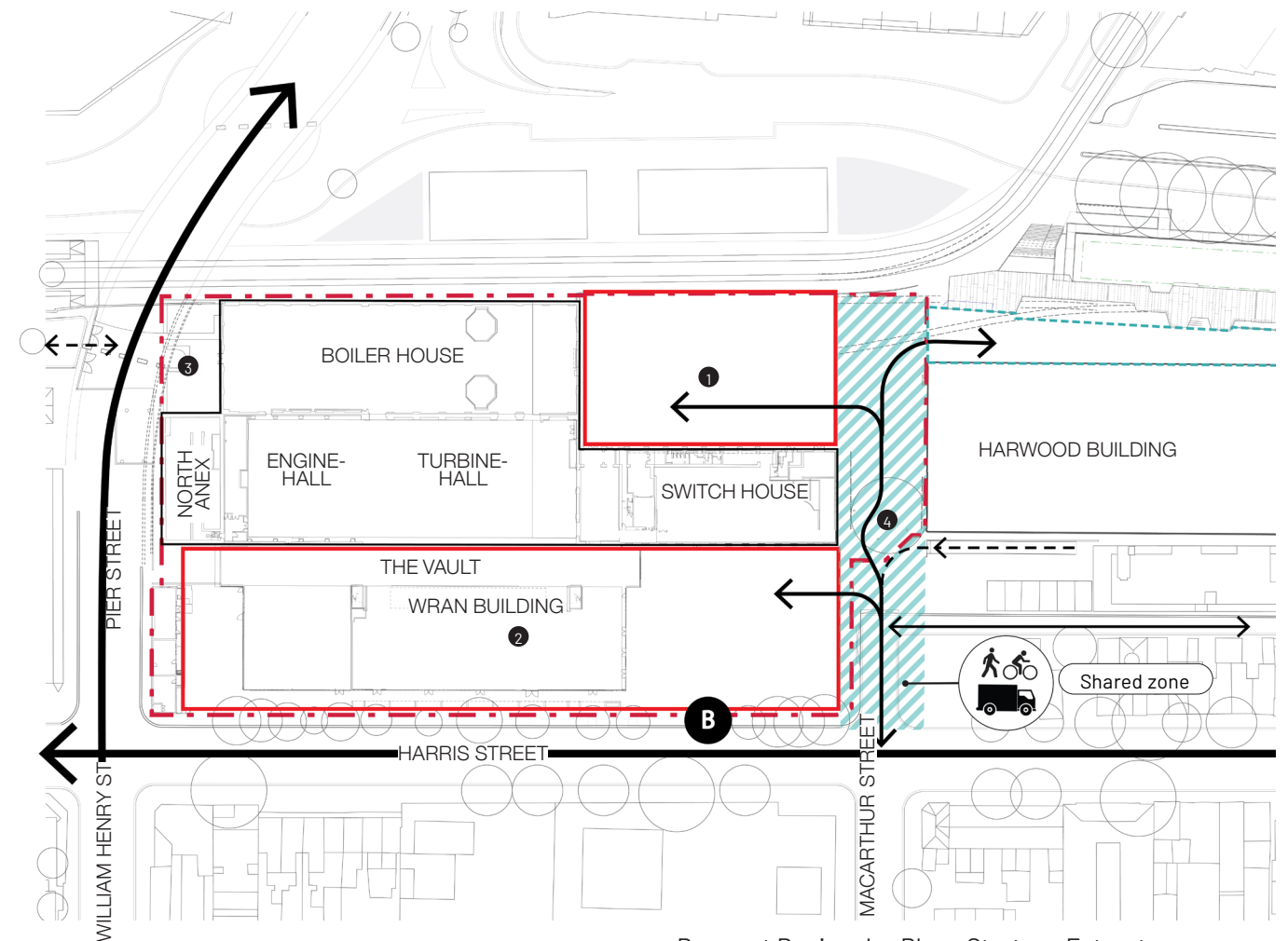
## 6.11 Vehicular Access and Servicing

## Principle

- Ensure vehicular access, loading and servicing fulfill the operational requirements of the Powerhouse.
- Consider any private vehicle access requirements or easements of adjacent properties.
- Minimise reliance on the public domain to provide loading access.
- Ensure public thoroughfares are maintained during loading.

## Guidelines

- Integrate efficient and adequate loading and services requirement to new build.
- Macarthur Street to be shared with controlled access strategy to reduce conflict with public users.
- Minimise footprint of loading and services access at Powerhouse forecourt.
- Integrate and minimise visual impact of vehicular entry points.
- Harris Street is a State Classified road and therefore any new direct vehicle access should be prioritised from other frontages wherever possible.
- Macarthur Street is a local street and provides an opportunity for access to an on-site loading area.
- To emphasise pedestrian priority and minimise conflicts on Macarthur Street, the vehicle access driveway should be designed to fully integrate with the adjoining footpath. This would all be at one continuous level, with an appropriate pavement treatment which is designed for pedestrians, across which vehicles can pass slowly.
- The future vehicle access point on Macarthur Street should be set back a minimum of 20m from the existing traffic lights on Harris Street so as to minimise impacts to traffic movements on this key road corridor.



## Pyrmont Peninsular Place Strategy Extract

## 2.5 HARRIS ST DEDICATED BUS ROUTE

There is potential for a revitalized local high street and dedicated bus route that, over time, creates a consistent, generous public realm which supports local retail within heritage buildings and ground floor. It will connect the Peninsula with the city centre, pedestrianize with active transport links and will reinforce Harris Street as the high street of the Peninsula, through prioritisation of public transport and pedestrian movement with enhanced streetcapes, pedestrian amenity, accessibility improvements and a diversity of community, commercial and retail uses.

Whilst a delivery mechanism is yet to be determined, it will improve regional and local connectivity to the interchange between Metro, light rail and bus services, and could be achieved through a staged approach over time as adjustments to the regional road network are implemented and Metro completed.

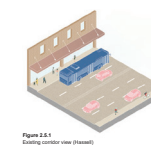
This initiative is subject to further development, scoping, business case, investment and procurement decisions.

EXISTING

- The existing corridor has both local and arterial road function and character.
- North of the Western Distributor, the corridor is primarily a local street with a single lane in each direction and parking allowed on both sides.
- South of the Western Distributor, the corridor is primarily a high-traffic environment, enabling movement corridor between the Western Distributor, Broadway and southern city centre.
- South of Ultime Road, the corridor is one way southbound with no on-street parking.

## POTENTIAL

- Reclassification of Harris Street as a local road with pedestrian and public transport priority.
- Transition to a single lane in each direction along the entire length of the corridor, with bus priority providing rapid connection between Railway Square and Pyrmont
- Investigate opportunities for Glebe Island Bridge to provide connection between Banksia Street/Bowman Street and Bays Water.
- Intermediate transport modes which connect to transport (Metro, light rail, bus and ferry) interchanges and key anchors including UTS, TAFE, the Powerhouse Museum, Ian Thorpe Aquatic Centre, Union Square and John Street Square.
- Widen footpaths through reallocation of parking and traffic lanes.
- Streetscape upgrade including street trees, furniture, lighting, active retail frontages and street driving.
- Future opportunities to extend the dedicated bus route to connect into the Innovation Corridor.






**Figure 2.5.1**  
Existing corridor view (Phase 1)



**Figure 2.5.2**  
Potential corridor view (plan)

### Key

-  Site boundary  
 Key vehicular connection on main streets  
 Controlled vehicular access to adjacent neighbours  
 Key vehicles/ loading access to Powerhouse



6.12 Street Furniture / Lighting

Principle

- Provide adequate and inclusive public amenities.
- Provide adequate and appropriate architectural lighting, ensure lighting design to enhance the safe experience at night.
- Integrated and precinct wide approach to lighting.

Guidelines

- Street furniture to follow City of Sydney Streets Code and comply with Australian Standards.
- Lighting design to respond to CPTED principles and Australian Standards.

6.13 Safety and Security

Principle

- Provide public spaces where people feel safe and secure, using passive means where possible.

Guidelines

- Large volumes of pedestrian traffic survey the Goods Line. Adjacent student accommodation and nearby residential towers provide some passive surveillance.
- Heavy vehicle mitigation (HVM) may be required and should be explored in further stages.
- Detailed analysis of sight lines, security, surveillance and lighting will be further explored in subsequent stages.
- A detailed CPTED report is provided in Stage 1 submissions.

6.14 Wayfinding

Principle

- Built form and landscape to provide clarity to visitors delivered through clear and intuitive way finding across the precinct.
- Provide signage strategy that respond to new access points and key connections.

Guidelines

- Intuitive precinct design with clear signage to accessible routes which are visible and safe 24/7.
- New signage to be reasonably consistent with the City of Sydney and Place Management New South Wales (PMNSW) standard signage in the area.
- Wayfinding to be consistent with requirements of the CMP.



## 7.0 Strategies and Indicative Design Response

The following indicative design response is one way of achieving the goals set out in stage 1 SSDA.

It is not intended that this work prohibits further exploration that will be undertaken in the design competition stage that follows. The purpose of this design response is to demonstrate that a scheme that is compliant with the building envelope and design guidelines can achieve the functional requirements of the project with acceptable environmental impacts, and to assist key stakeholders to understand the type of intended outcomes for the project during this conceptual stage of the planning assessment.



## 7.1 Overview

This section of the report outlines a series of urban and public domain strategies for the renewal of Powerhouse Ultimo. These strategies are not intended as prescriptive measures but instead are suggestive of an appropriate response to the design guidelines, with the expectation that a strategic framework is provided so that design teams are not constrained in their design process.

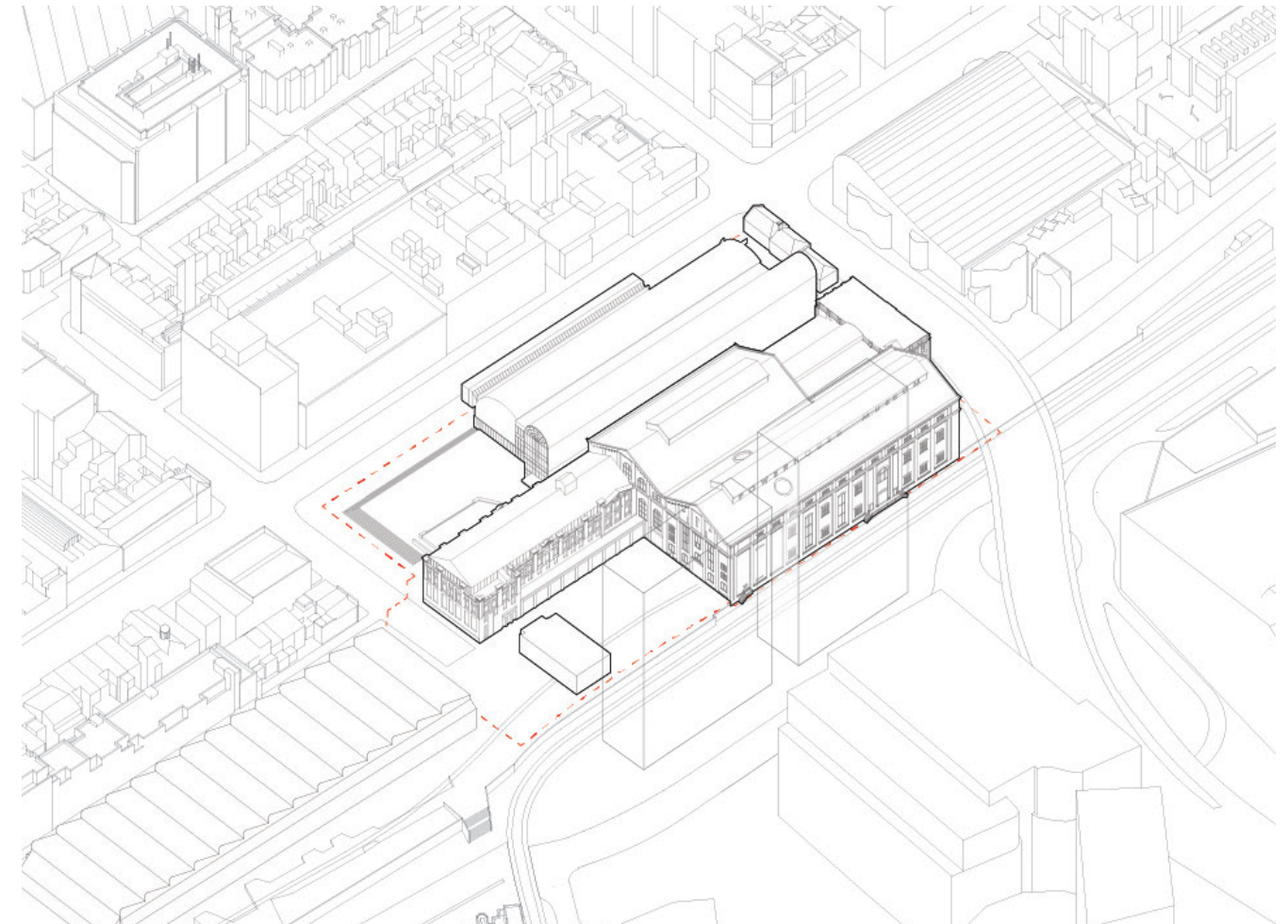
These strategies are also supported in this section by an Indicative Design Response the purpose of which is to demonstrate a hypothetical 'fit' with the guidelines and strategies. It is not intended that this response is a definitive solution. Instead, it is presented as only one of many possible outcomes which would embody an appropriate response to the design guidelines.

The Indicative Design Response assumes the retention and renewal of all key existing buildings on the Powerhouse Ultimo site in a form which responds to the Urban Design and Public Realm guidelines and strategies. It retains the existing heritage core of original Power House buildings including the Boiler House, Turbine Hall, Engine House, North Annexe, Switch House and the heritage listed Former Ultimo Post Office.

In this response the Museum re-orientates its address toward the Goods Line and the city via a new public square adjacent to the east side of the Switch House. At ground level the Switch House presents an opportunity for a retail and food and beverage offering, providing an active edge to the new public square.

The indicative response considers a new building on Harris St, to occupy the existing Harris Street forecourt. This new building would accommodate increased museum space over a number of levels (including new loading dock and back of house facilities below) as well as additional flexible presentation and learning space.

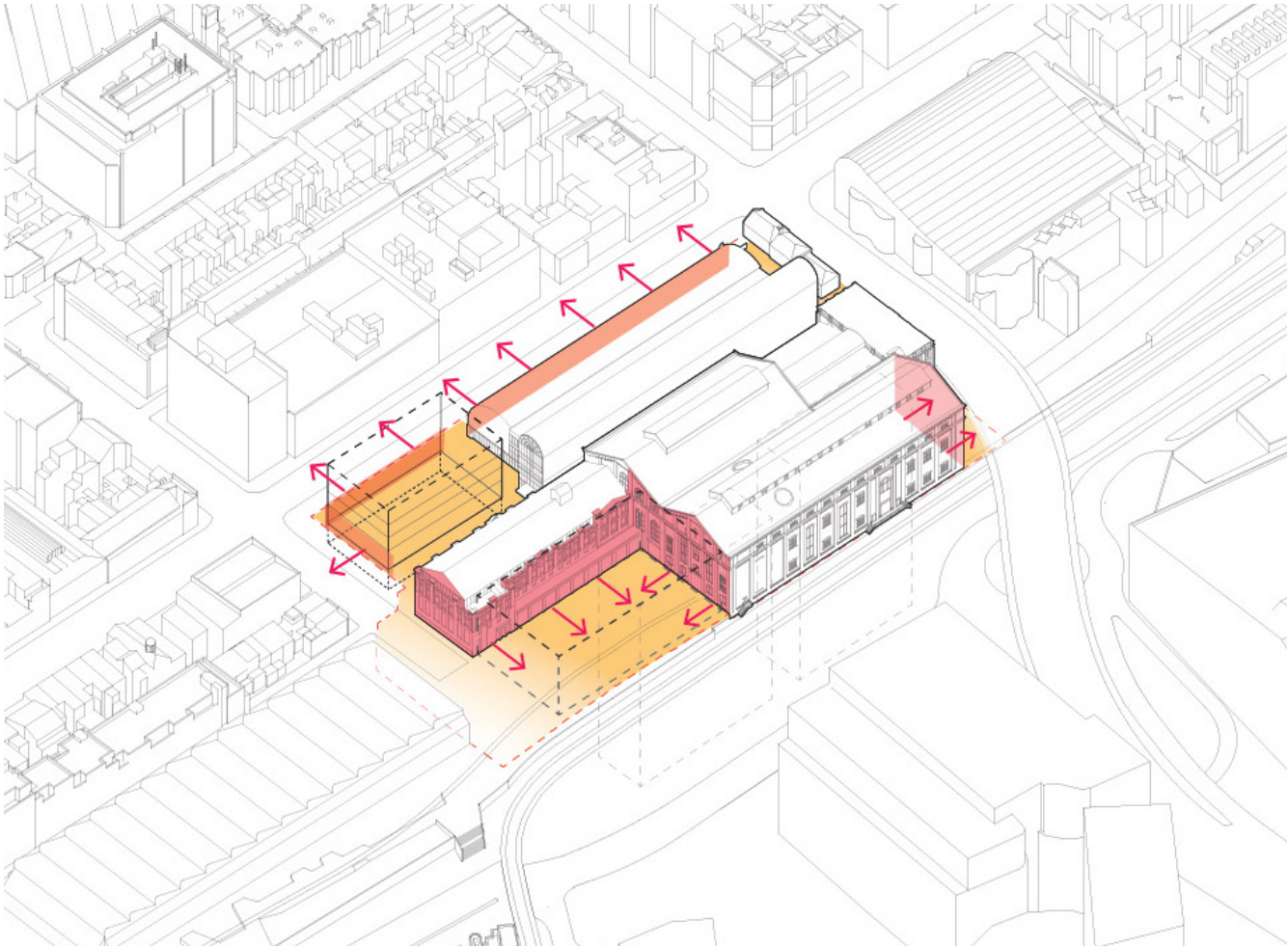
Additional ground level pedestrian connections are contemplated, providing access from Harris Street and Macarthur Street into the centre of the site. The north end of the Switch House within the Powerhouse buildings is suggested as a possible vertical and east-west connection through the museum. This connection provides an opportunity for a more direct pedestrian linkage between Harris Street, the new public square and the Goods Line.



## 7.2 Activation

The indicative design response proposes a new build addition located to the existing Harris Street forecourt, activating the Harris Street and Macarthur Street corner. The proposal enhances the Harris Street frontage by removing the existing colonnade to the Wran building to allow for improved visual connection, a more generous and improved pedestrian zone along Harris Street and a more transparent engagement between museum and street.

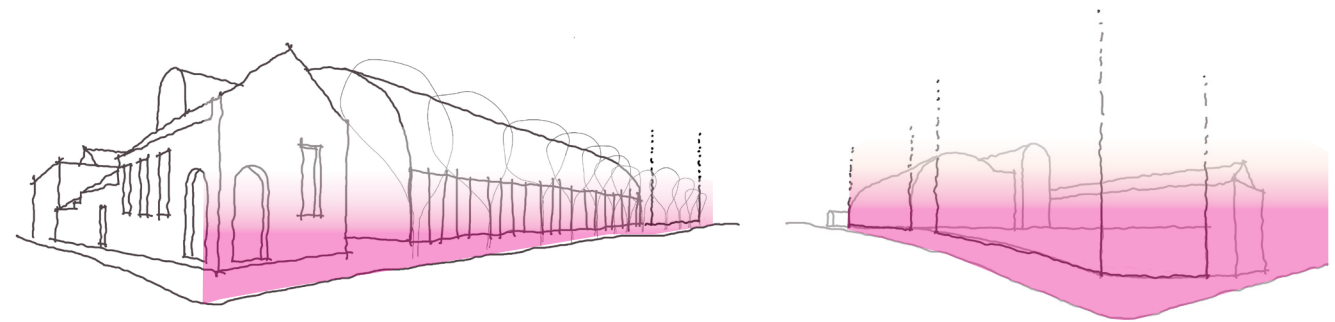
The external area to the south-east of the heritage listed Powerhouse Ultimo buildings has later additions and structures removed to allow the museum program to spill out into a new civic space and Museum entrance and engage with the public realm and The Goods Line.



Parklet 2.0 street furniture  
Image credit: Adam Stirling



Outdoor seating with integrated lighting  
Image credit: Kyle Caldwell Photography



Perspective sketches - 1 - Activated frontages to Harris Street, 2 - Activated frontage to corner of Harris Street and Macarthur Street

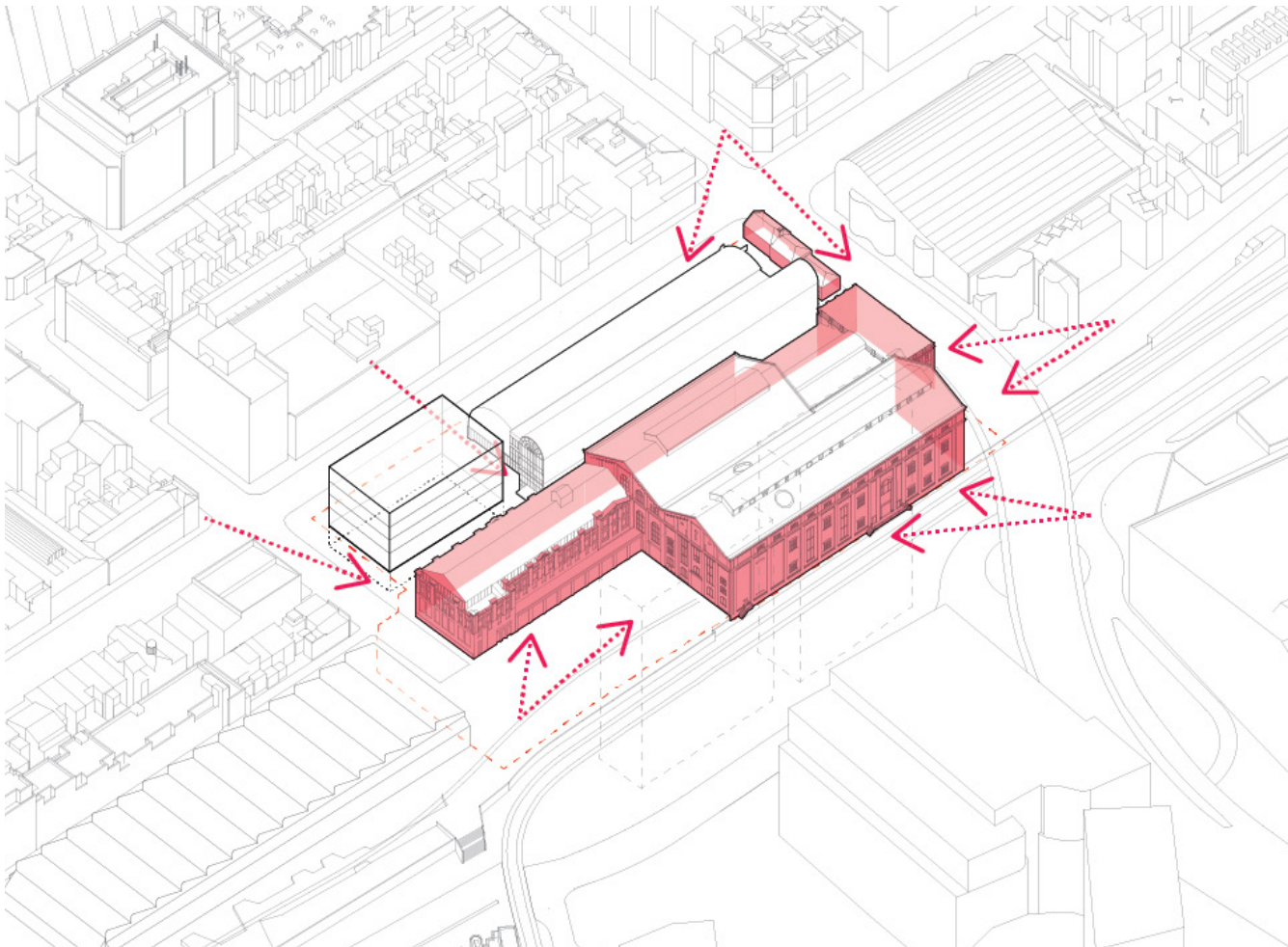


7.3 Heritage

Powerhouse Ultimo State heritage listed buildings includes the heritage core, which consists of the Switch House, the Boiler House, the Turbine Hall, the Engine House and the North Annex in addition to the Former Post Office building.

The proposed design response showcases the original heritage listed Powerhouse Ultimo buildings. With the removal of internal and external interventions of recent decades the fabric of the original Powerhouse Ultimo can be revealed and celebrated, enhancing the visual and physical engagement form within the museum and with the surrounding public realm around and beyond the site.

A new ‘front door’ may be created as the heritage buildings reorientate themselves towards the city and the Goods Line, creating new connections and opportunities for the public to engage with the heritage fabric of the site.



Western Australian Museum Boola Bardip, Hassell & OMA  
Image credit: Peter Bennetts



Joynton Avenue Creative Centre, Peter Stutchbury Architects  
Image credit: Michael Nicholson



Photo 1 & 2: Switch House & Turbine Hall facade  
Source: John Wardle Architects



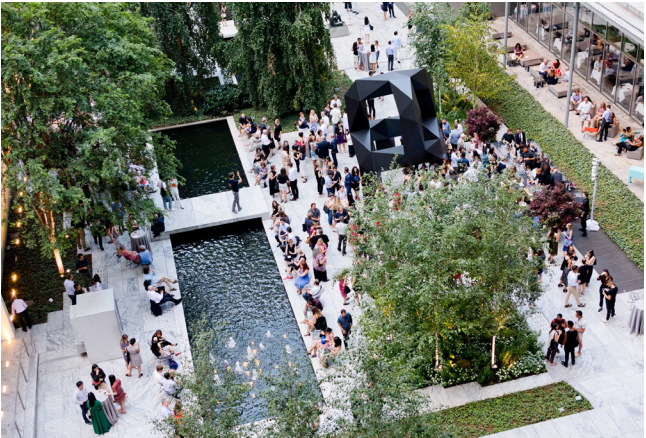
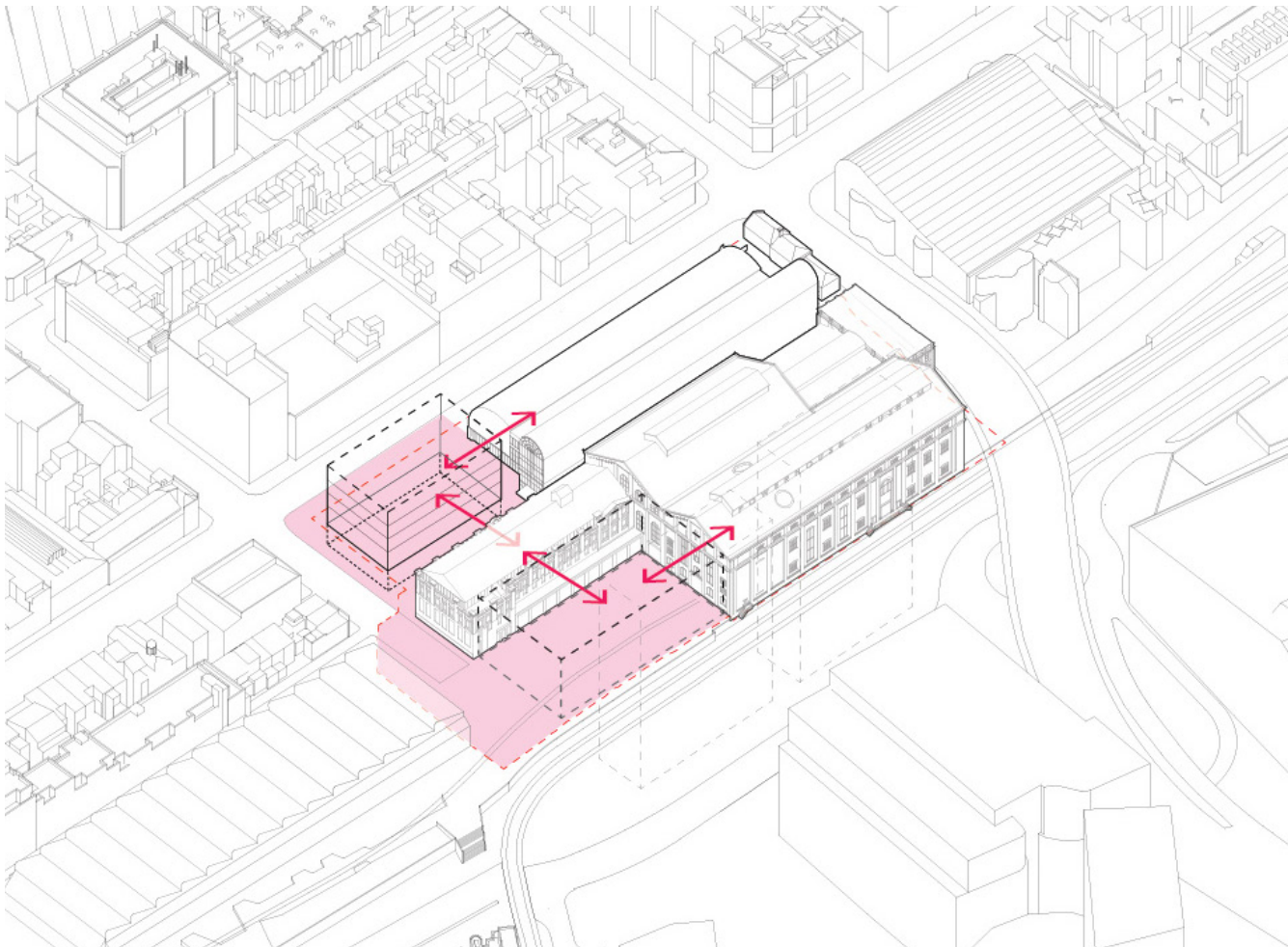
Photo 3 & 4: Original heritage stone detailing and Former Post Office building.  
Source: John Wardle Architects



# 7.4 Expanded Museum

The proposed design response expands the Powerhouse programming and utilisation both internally and externally. A new building to the Harris Street and Macarthur Street corner as well as improved interior spaces removed of additions provides opportunity for new Museum exhibitions, events and programming to occur.

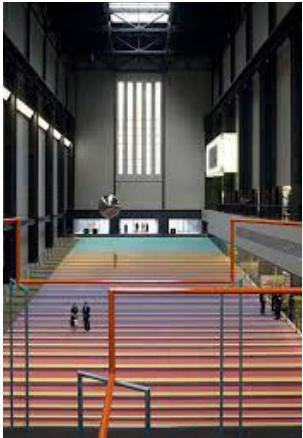
Externally the new civic space and Museum entrance to the south-east of the heritage Powerhouse Ultimo buildings allows the Museum program to spill outside and engage with the Goods Line and public realm of Ultimo and Haymarket beyond. This civic space and Museum entrance creates a new high quality, public space, which provides the opportunity for the Powerhouse to hold outdoor programs, engage with The Goods Line and wider community.



MoMA New York external museum space, Diller Scofidio + Renfro  
Sopurce: [https://rhchospitality.com/accredited\\_venues/museum-of-modern-art/](https://rhchospitality.com/accredited_venues/museum-of-modern-art/)



Tate Modern & the Switchhouse, Herzog de Meuron Architects.  
Image credit: Luv Boegly & Sergio Grazia



The Tate Modern Turbine Hall Interior 1  
Image credit: Marcus Leith, Tate, 2017



The Tate Modern Turbine Hall Interior 2  
Image credit: Richard Holt



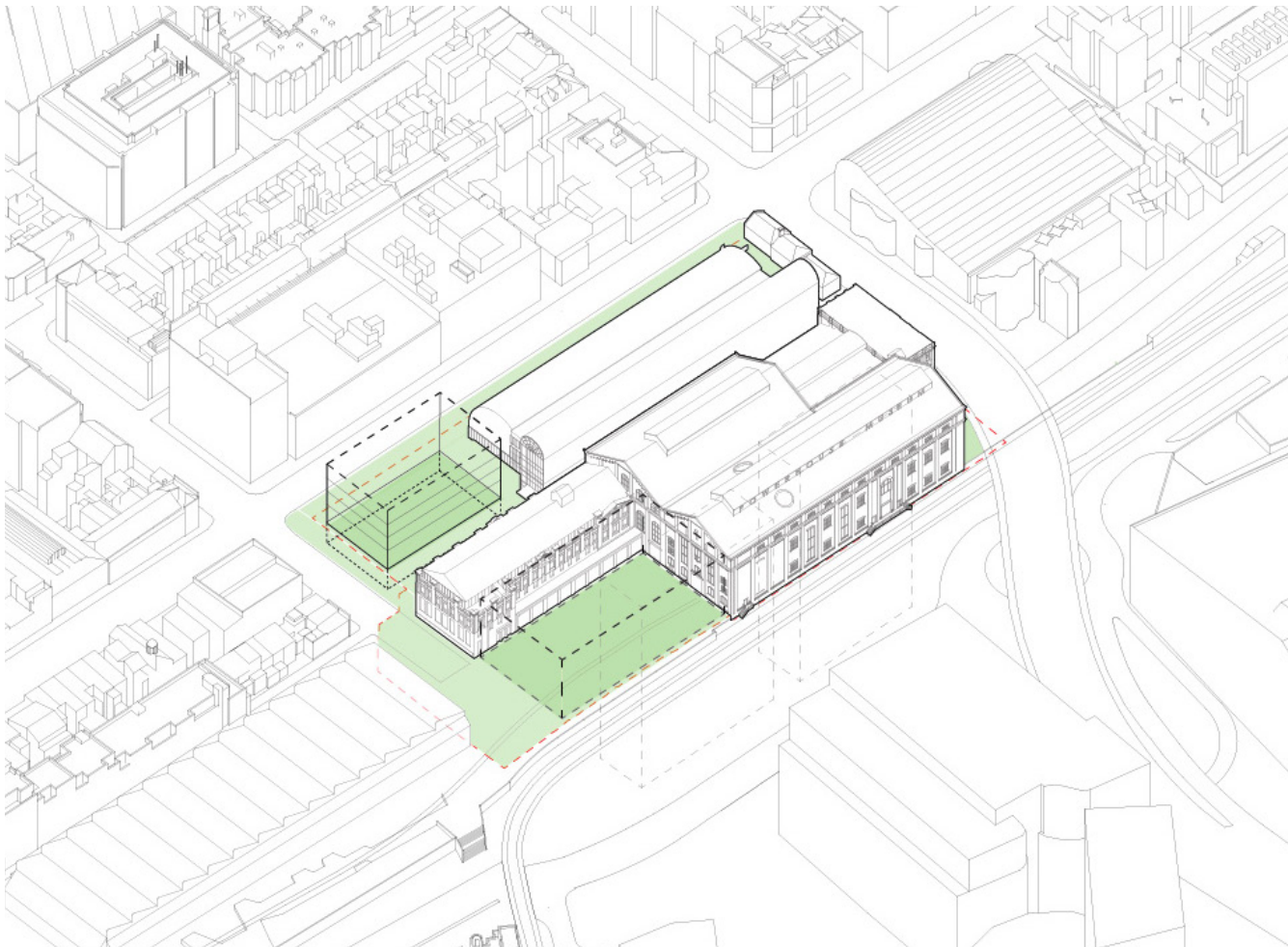
# 7.5 Public Space

A new civic space and Museum entrance to the south-east of the site reorientates Powerhouse Ultimo towards the city and provides improved connection and engagement with The Goods Line.

The new civic space and Museum entrance allows a generous space, which maintains a space of civic presence and provides improved visual connection with the heritage fabric of Powerhouse Ultimo. The new civic space and Museum entrance also provides a more protected public space away from Harris Street traffic and connects into existing pedestrian and cycling networks along The Goods Line.

Public space is maintained around the new museum building to allow greater museum engagement with Harris and Macarthur Streets and opportunities for access to the Powerhouse Ultimo at the upper level.

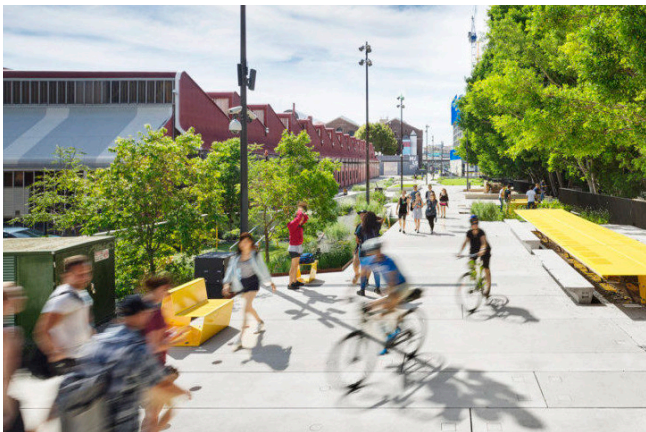
External spaces between the Former Post Office and the Wran building and adjacent to the Pier Street overpass create new opportunities for public connection into the site.



High Line Park, New York, Diller Scofidio + Renfro. Image credit: Iwan Baan



Integrated landscape and seating. Image credit: Streetlife



The Goods Line public realm looking north, Aspect Studios. Image credit: Florian Groehn

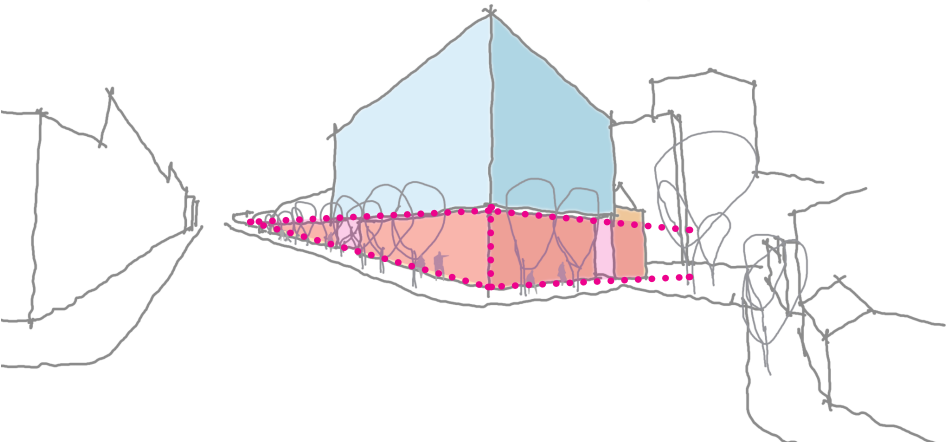
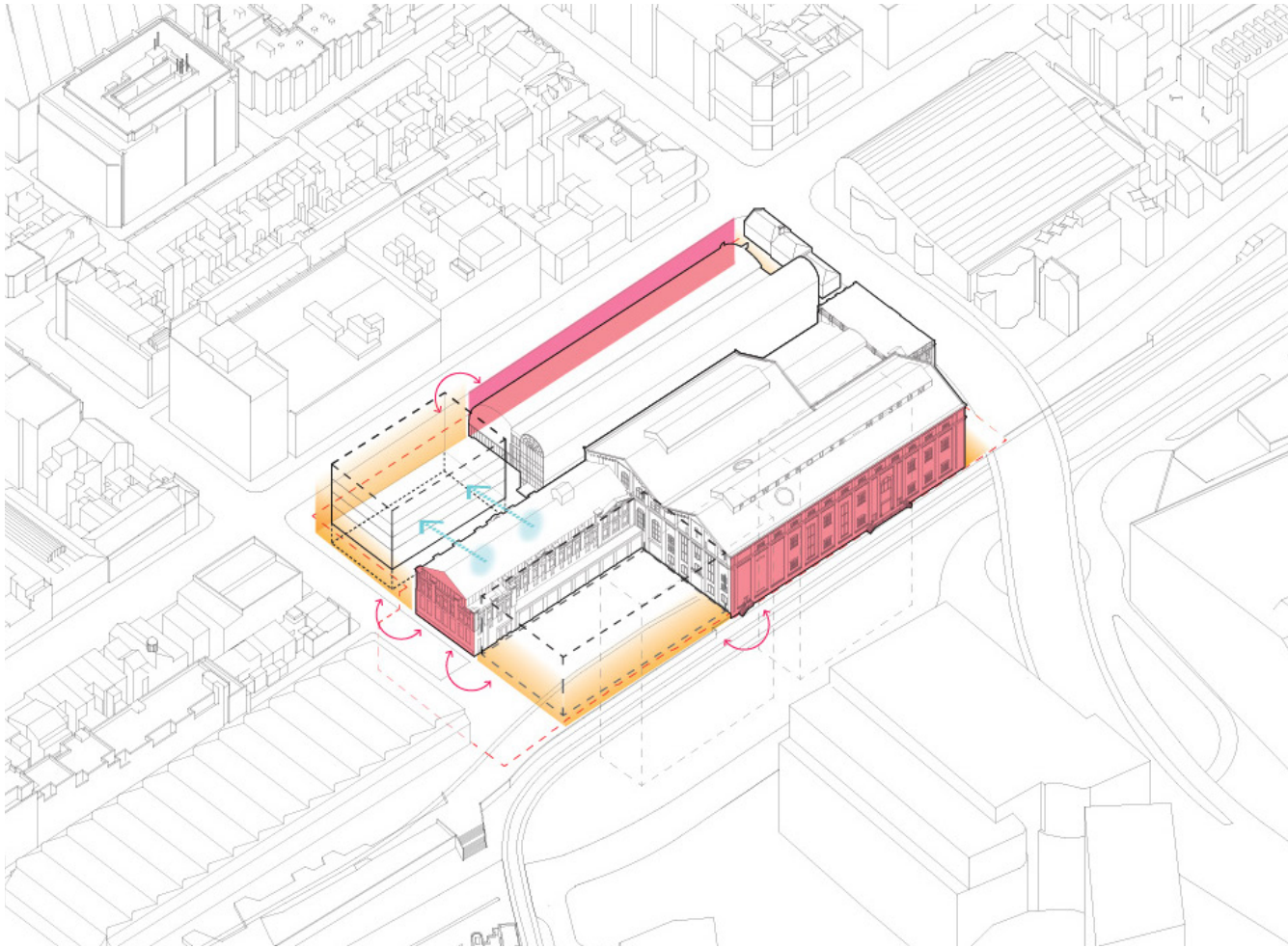


# 7.6 Setbacks

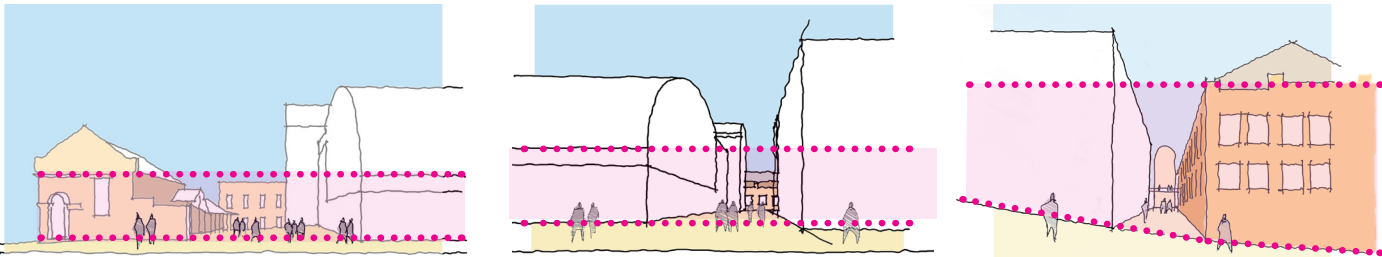
The proposed new museum addition to the corner of Harris Street and Macarthur Street is set back from ground level up to L03 to align with the existing Wran building facade along Harris Street and the southern Switch House facade along Macarthur Street. The new form projects towards the boundary to south and west frontages at upper levels to reinforce the corner presence for the museum and to enhance alignment with buildings along Harris Street and Macarthur Street to the south and west respectively.

In maintaining these setbacks to the new build proposal at ground level, the pedestrian zone along the Harris Street and Macarthur Street frontages are improved, providing for a more generous public realm at the corner.

These setbacks ensure that any new built forms are both responsive and respectful of the existing built form and streetscape character and alignment.



Perspective sketch: 1 - Setback alignment to proposed new building on corner of Harris Street & Macarthur Street



Perspective sketches: 2 -View to external space between former Post Office & north end of Wran building, 3 - View between potential new build and south end of Wran building, 4 - View between potential new build and Switch House

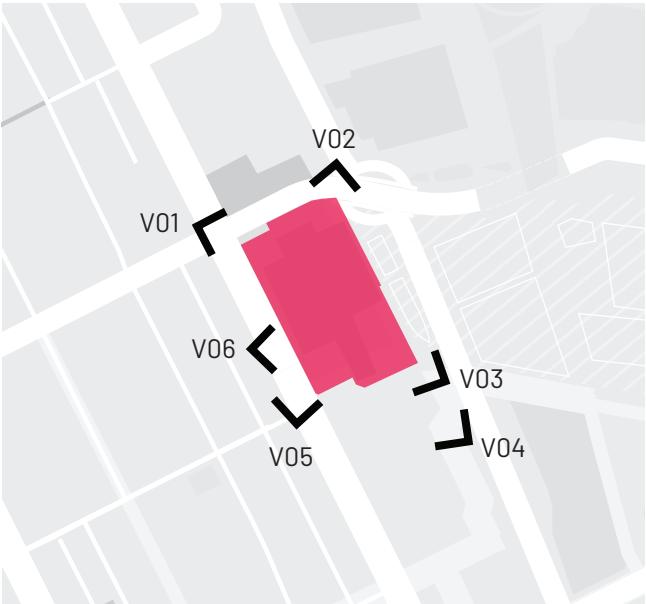


7.7 View Analysis - Proposed

This Visual and View Impact Assessment accompanying the Environmental Impact Statement (EIS), captures the visual impact of the building envelope, which extends over the existing Powerhouse heritage buildings and Wran building. It includes views of the indicative design response across key views within the immediate vicinity of the site and from further beyond the site.

The extent of the building envelope is shown diagrammatically in the adjacent views, and is visible from the view points immediately surrounding the site. It indicates a maximum height envelope, which new interventions or buildings could be proposed within, in accordance with the building envelope guidelines.

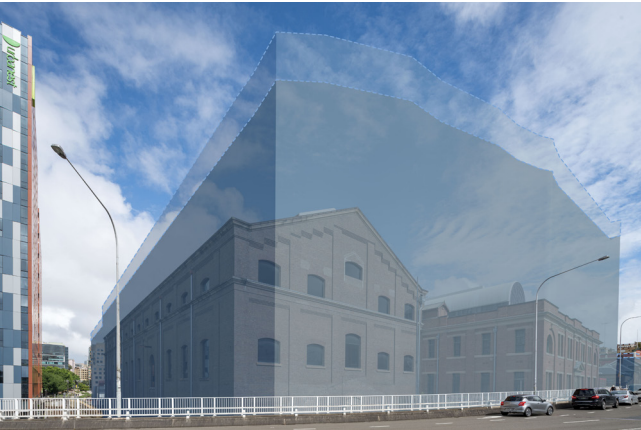
The indicative design response sits within the building envelope in the existing Harris Street forecourt. The indicative design response new build is visible from both south and north ends of Harris Street, and to the east from the Plaza looking north and Hay Street looking north west.



View Analysis Key



V01: NW corner of Harris Street and William Henry Street looking SE



V02: Pier Street northern footpath looking SW



V03: Goods Line and end of Macarthur Street looking NW



V04: Goods Line between Macarthur Street and Mary Ann Street looking NW



V05: SW corner of Harris Street and Macarthur Street looking NE



V06: Harris Street looking East



# 7.8 Overshadowing - Indicative Design Response

The maximum additional overshadowing to the context surrounding the site occurs during the winter solstice and autumn equinox. The impacted buildings to Harris Street and Macarthur Street includes several two storey Victorian residential terraces as well as a series of buildings, which vary from one to two storey hospitality venues to an eight storey commercial building on the corner of Macarthur and Harris Streets.

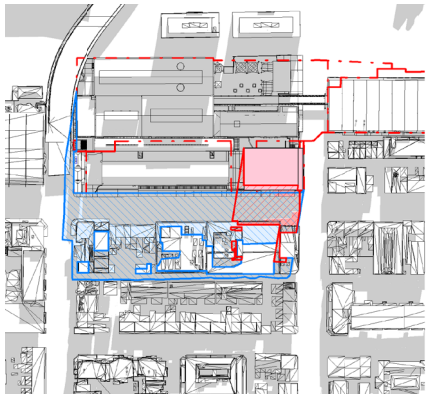
The proposed building envelope creates additional overshadowing during the winter solstice and autumn equinox to the buildings across the site, west of Harris Street. During the summer solstice and spring equinox overshadowing occurs from early morning until 10am, while during the winter solstice and autumn equinox overshadowing occurs from early morning until midday. Additional overshadowing occurs to the buildings opposite the site along Macarthur Street across the day during the winter solstice, and from mid-afternoon onwards during the spring and autumn equinox.

The indicative design response creates a lesser amount of overshadowing limited to the buildings across the existing Harris Street forecourt to the south-west of the site and to the buildings across Macarthur Street to the south of the site.

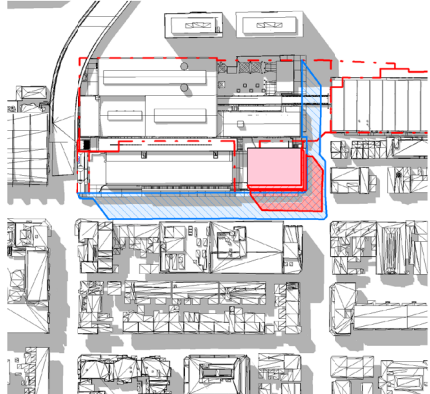
The indicative design response is not considered to have a significant adverse impact on the surrounding buildings as additional overshadowing occurs to a limited number of buildings and only partially during the day to the affected buildings, with the most impact occurring during the winter solstice.

- Legend
  - Lot boundaries
  - Indicative design response - New Build
  - Building Envelope Overshadowing
  - Indicative design response Overshadowing

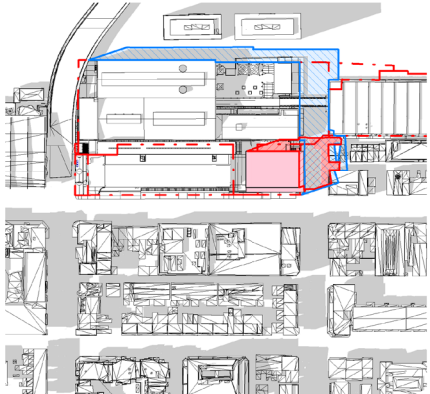
Shadow Diagrams - Autumn Equinox



21 March 2022 - 9am

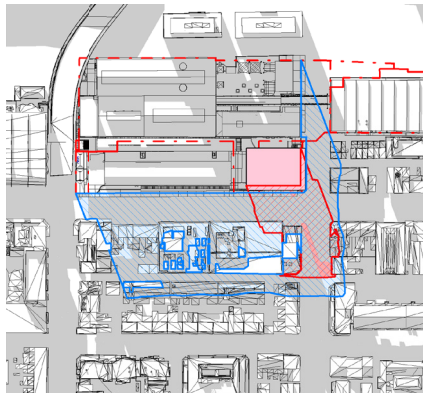


21 March 2022 - 12pm

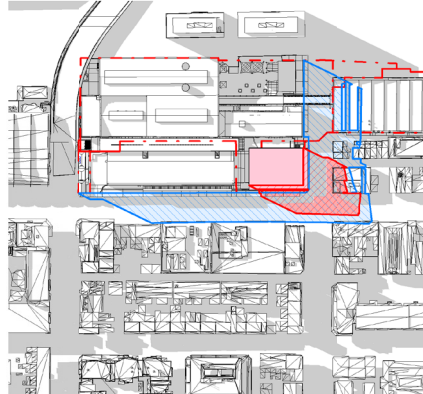


21 March 2022 - 3pm

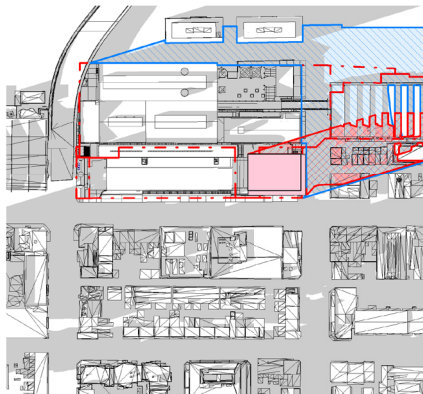
Shadow Diagrams - Winter Solstice



21 June 2022 - 9am

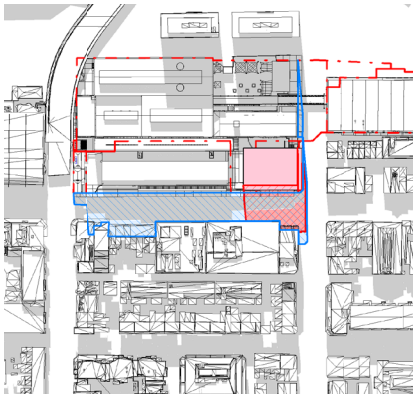


21 June 2022 - 12pm

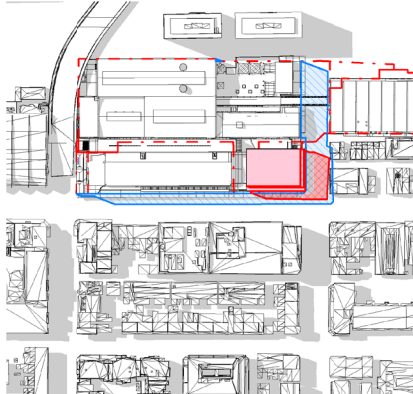


21 June 2022 - 3pm

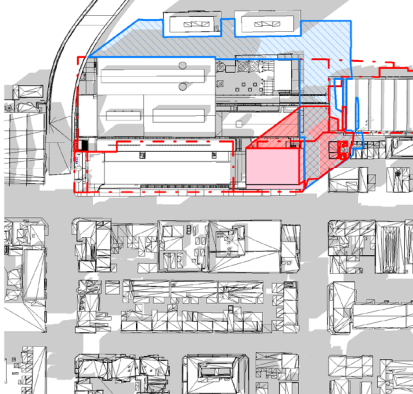
Shadow Diagrams - Spring Equinox



23 September 2022 - 9am

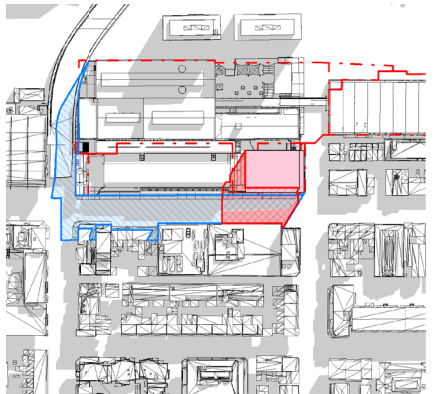


23 September 2022 - 12pm

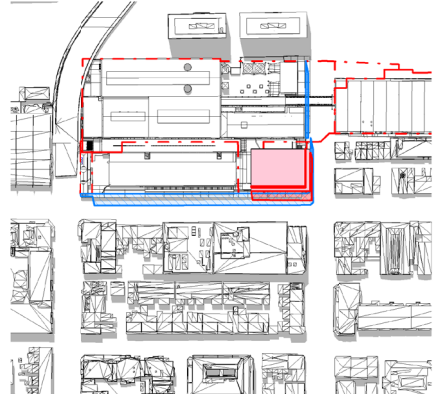


21 March 2022 - 3pm

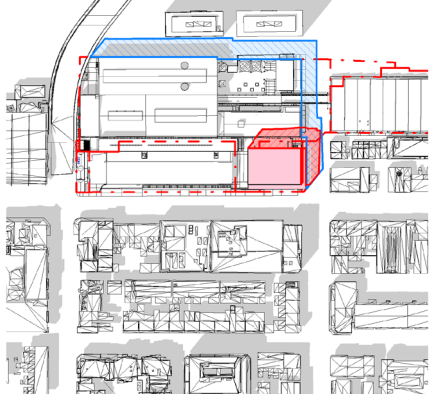
Shadow Diagrams - Summer Solstice



21 December 2022 - 9am



21 December 2022 - 12pm



21 December 2022 - 3pm



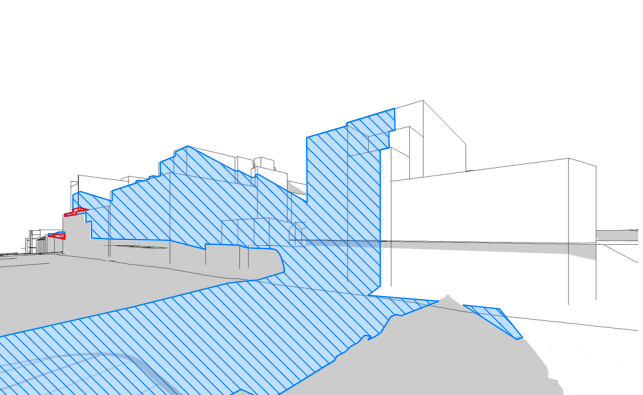
7.8 Overshadowing - Indicative Design Response

Photo 1 - Harris Street north end facing west



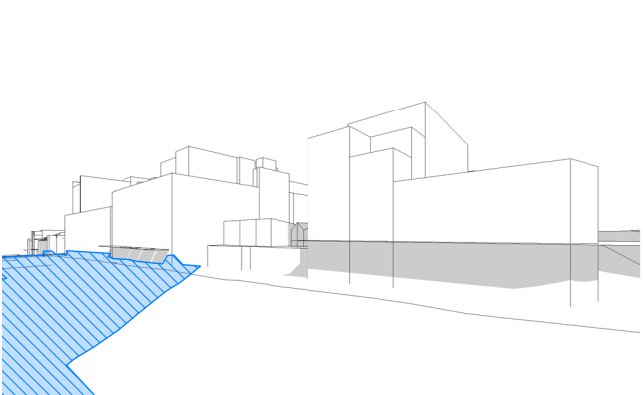
Source: John Wardle Architects

Street View 1 - Harris Street north end facing west



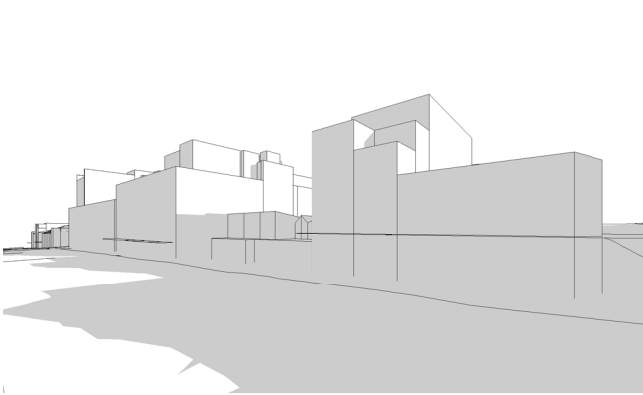
21 June 2022 - 9am

Overshadowing occurs early morning during the winter solstice from the building envelope to buildings west of Harris Street opposite the site. Overshadowing from the indicative design response is limited only to the buildings directly across from the existing Harris Street forecourt.



21 June 2022 - 12pm

Minimal additional overshadowing at winter solstice occurs from the building envelope to buildings west of Harris Street directly opposite the site. No overshadowing occurs at midday to surrounding buildings from the indicative design response.



21 June 2022 - 3pm

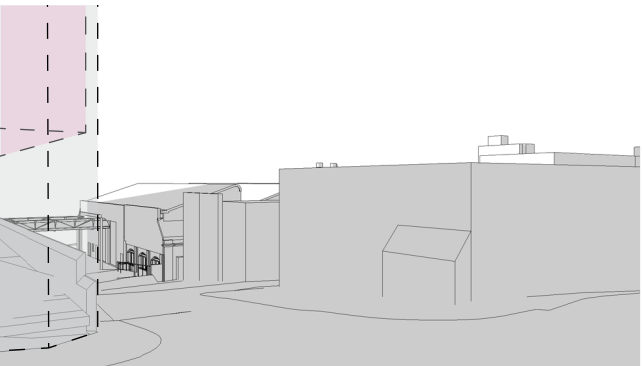
No additional overshadowing during the afternoon at winter solstice occurs from the building envelope or indicative design response to buildings west of Harris Street directly opposite the site. Overshadowing occurs from existing buildings to the west of the Powerhouse Ultimo site.

Photo 2 - Macarthur Street west end facing south



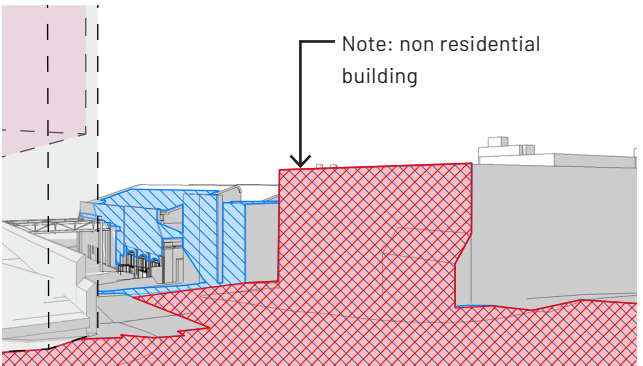
Source: John Wardle Architects

Street View 1 - Macarthur Street west end facing south



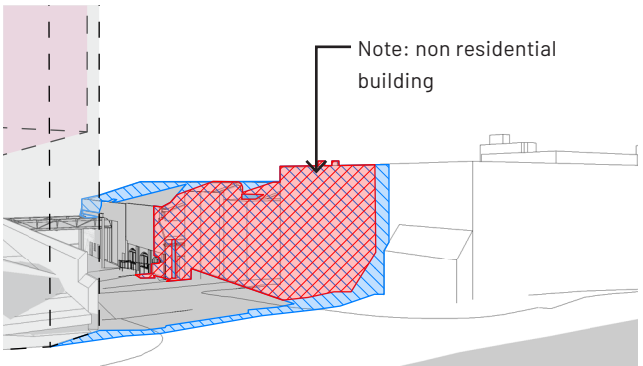
21 June 2022 - 9am

No additional overshadowing during the morning at winter solstice occurs from the building envelope or indicative design response to buildings south of Macarthur Street directly opposite the site. Existing overshadowing is predominantly from the Urbanest residential towers.



21 June 2022 - 12pm

Additional overshadowing at midday during winter solstice occurs from the building envelope and indicative design response to buildings south of Macarthur Street directly opposite the site. Overshadowing from the indicative design response is limited to the site directly across from the existing Harris Street forecourt.



21 June 2022 - 3pm

Additional overshadowing occurs in the afternoon during winter solstice from the building envelope and indicative design response to buildings south of Macarthur Street directly opposite the site.

Legend

- Lot boundaries
- Indicative design response - New Build
- Building Envelope Overshadowing
- Indicative design response Overshadowing



## 7.9 Public Domain Opportunities

The Powerhouse Ultimo Renewal is an opportunity to:

- Review the museum's address to Harris Street, Macarthur Street and the Goods Line and explore reorientating the entrance towards the City.
- Expand its connectivity to the Goods Line creating space for community events and Powerhouse programming and include increased flexibility in utilisation.
- Use the indicative design response as a starting point for a national design excellence process that encourages a wide range of creative and innovative architectural responses to the site and functional brief.
- Integrate a vibrant creative industries precinct, that connects with its surrounds, responds to the changed and changing urban environment and provides concurrent original and distinctive contemporary cultural experiences.
- Deliver a highly operational precinct that contributes to the NSW visitor and night-time economies.
- Provide a connected and integrated interface with surrounding precinct developments, including the The Goods Line, Harwood Building, Darling Square, UTS and Tech Central.



Image: Artist's impression, Powerhouse Ultimo. Source: MOGAMMA