



# **52 McLaren Street, North Sydney**

## Planning Proposal - Urban Design Report

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Architecture  
Interior Design  
Planning  
Urban Design  
Landscape Architecture

**GHD**  
Level 15/133 Castlereagh St  
Sydney, NSW 2000  
T: +61 2 9239 7100 F: +61 2 9475 0725 E: sydneyemail@ghd.com W: www.ghd.com

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The Greens  
North Sydney Club

North Sydney Oval

Ridge Street

Wenona School

Rydges North Sydney

Former 168 Walker Street  
29 Storey mixed use development  
under construction

The Independent Theatre

St Mary's Church

Miller Street

Stanton Library

Elliot Street

Wenona School

52 McLaren Street Site

Walker Street

45 McLaren St

39 McLaren St

237 Miller St

Civic Park

North Sydney Council

North Sydney Community Centre

Future Pedestrian Entry to Victoria Cross  
Station North



# 01 Introduction

## 1.1 Project overview and context

North Sydney is one of the state's most important economic centres and forms part of the Eastern Harbour City as identified within the Greater Sydney Region Plan, A Metropolis of Three Cities. It also forms part of the Eastern Economic Corridor, from Macquarie Park to Sydney Airport, providing one third of Greater Sydney's jobs. North Sydney's CBD is Sydney's second largest business district, hosting a wide range of commercial industries and home to a rapidly rising residential population who are able to utilise excellent transport links, its cultural and social infrastructure and proximity to Sydney Harbour.

The opening of Victoria Cross metro station in 2024 will attract an ever-increasing population to North Sydney as it becomes more accessible than ever. With connections to Barangaroo in 3 minutes, Martin Place in 5 minutes and Central Station in 9 minutes, North Sydney's CBD will become one of the most desirable locations in Sydney.

Adjacent to the northern entrance of Victoria Cross Station, 52 McLaren Street will play an important role in the transformation of North Sydney bringing positive social, economic and public benefit to the area.

Sydney Metro commissioned GHD as a multi-disciplinary technical advisor to assist with the preparation of a planning proposal for 52 McLaren Street. The proposal seeks to amend the North Sydney Local Environmental Plan 2013 (NSLEP 2013) as follows:

- amend the maximum building height from RL 110m to part RL 107m and part RL 156m
- apply a maximum Floor Space Ratio (FSR) of 5.3:1 on the site
- amend the minimum non-residential FSR from 0.5:1 to 1.1:1.

An indicative concept design scheme has been developed for the site as follows:

A mixed-use building, 24 storeys in height at the southern end of the site, and 8 storeys in height at the northern end. The residential uses are located at floors 3 to 23 inclusive, with commercial uses at floors 1 and 2. The scheme also includes retail floorspace, and an opportunity for the provision of a 900sqm childcare centre at ground level, as well as a through-site link to Elliot Street. Parking is provided over 3 basement levels beneath the building.

A detailed summary of the proposal is provided on page 12.

## 1.2 Purpose of this report

To describe the proposal, and the design principles underpinning it in sufficient detail to support a planning proposal that defines a new building envelope with amended maximum RL, maximum FSR for the site, and minimum non-residential FSR for the 52 McLaren Street site.

This report should be read in conjunction with the 52 McLaren Street planning proposal and associated specialist reports.



**Fig 1-1** The concept proposal viewed from McLaren Street



# 01 Introduction

## 1.3 Location

52 McLaren Street is located at the northern end of the North Sydney CBD within the North Sydney Local Government Area, immediately to the north of the Ward Street Precinct.

### North Sydney CBD Transformation

The North Sydney CBD is undergoing a major transformation with the vision of supporting a safe, active and connected network of urban spaces that promote city life. With an additional 20,000 workers expected in the CBD by 2036 and 16,000 arriving through the new Victoria Cross metro station in the morning peak the North Sydney CBD Public Domain Strategy responds to the evolution of North Sydney by establishing a framework to deliver public domain works to support the ever growing transport, commercial, residential and cultural infrastructure. The public domain will intertwine public transport hubs, civic infrastructure and commercial buildings to create an attractive and vibrant CBD.

The Ward Street Precinct Master Plan proposes a series of activated plazas, a Civic Hub and cultural facilities. It will realise the potential of laneway connections from Berry Street through a pedestrianised Faith Bandler Place to McLaren Street.

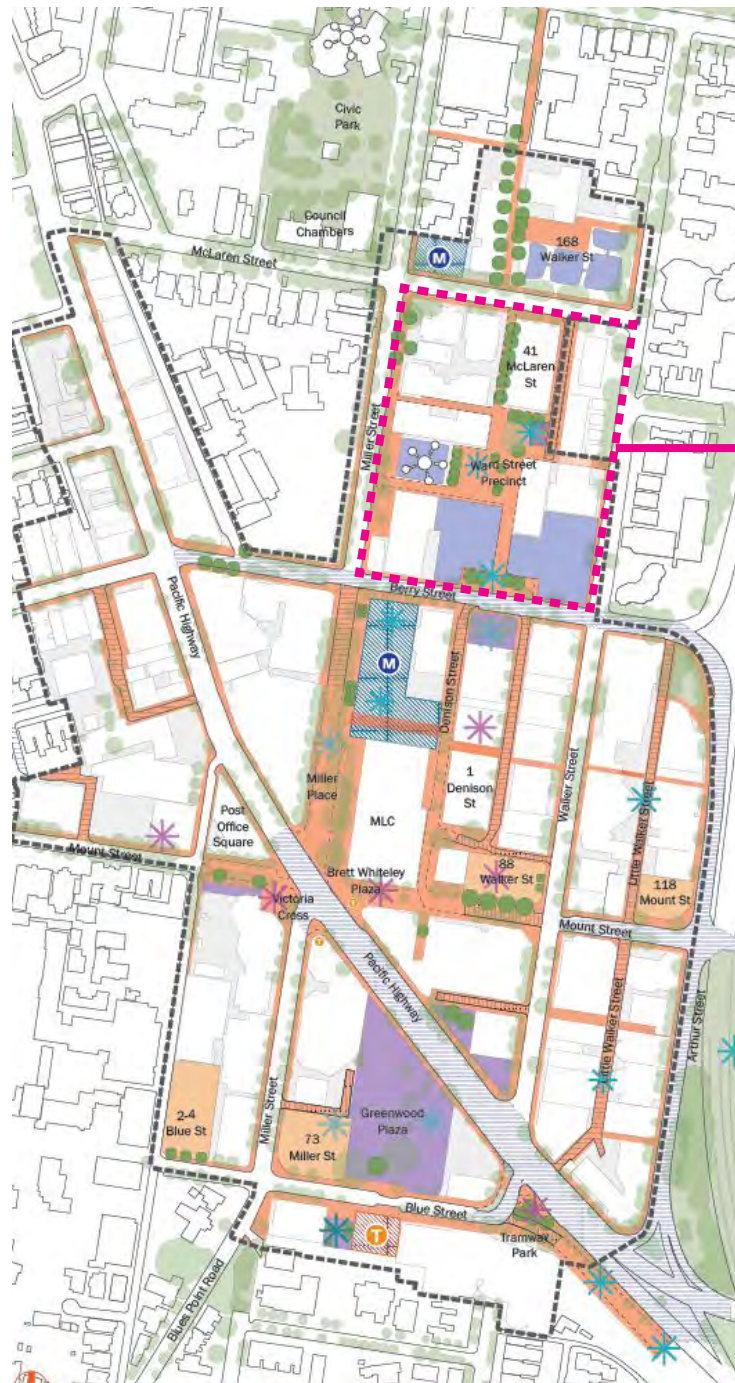
52 McLaren Street has been conceived with the intent to ensure the site is permeable with an activated through site link to realise the vision of a north south laneway network to St Leonards Park.



**Fig 1-2** Aerial view showing the site in relation to the North Sydney CBD, Ward Street Precinct, Civic Precinct, and nearby stations

North Sydney CBD   Ward Street Precinct   Civic Precinct   Victoria Cross metro station   North Sydney Station





**Fig 1-3** North Sydney CBD Public Domain Strategy



**Fig 1-4** Ward Street Precinct Master Plan



**Fig 1-6** St Leonards Park Master Plan



**Fig 1-7** North Sydney CBD Public Domain Strategy - Miller Place



**Fig 1-5** North Sydney CBD Public Domain Strategy - Berry Street



**Fig 1-8** Victoria Cross Metro Station



# 01 Introduction

## 1.4 Local context

52 McLaren Street is situated at the northern extent of the North Sydney CBD and skyline. The North Sydney Council’s Civic Precinct Planning Study (CPPS) states that development of the site should provide a “transition in height according to the surrounding context, with building height stepping down from the Ward Street Precinct toward the low-scale residential and educational uses to the north”. The site is located in a dynamic part of the North Sydney CBD where new developments are under construction along with the excellent connectivity and amenity that will be provided by the new Victoria Cross metro station.

Public transport is at the centre of this development, with the Metro providing very convenient connections to the key business areas of Barangaroo, Martin Place and Central Station, and to growing areas to the north west such as Macquarie Park. As the site is at the northern end of the North Sydney core, sun access will be excellent whilst views to the harbour may be limited to the southeast corner by adjacent development.

The site provides excellent amenity with a 5 minute walk to Ted Mack Civic Park, Stanton Library, North Sydney Oval and St Leonards Park with sports and playgrounds. Through existing and proposed pedestrian links a 10 minute walk provides access to retail, cafés, restaurants, gyms and health facilities located in North Sydney’s CBD.

To the south of the site is the proposed Ward Street Precinct Masterplan which aims to respond to the needs and priorities of the local community, and to increase place capital in North Sydney by providing a collaborative community hub and public domain. The main impact of this masterplan on the redevelopment of the 52 McLaren Street site are the proposed restrictions on overshadowing of the Central and Green Square in the centre of the precinct and the desired pedestrian connection between McLaren Street and Elliott Street to the north. Any future development on the 52 McLaren Street site should provide a through-site link and avoid overshadowing these areas.

## 1.5 Site context

The site is described formally as Lot 2 in DP 218407 and is known as 52 McLaren Street, North Sydney. The site has an area of approximately 3,197sqm. It is currently clear of development and being used to help assist the construction of the future Victoria Cross metro station northern portal adjacent to the site.

The site is bounded by:

North - Elliot Street which has buildings associated with Wenona School to the east and west. A footbridge across Elliot Street connects the school buildings

South - McLaren Street with apartment buildings and commercial development further south

East - 168 Walker Street, a development of new apartments (currently under construction), and Rydges Hotel at 54 McLaren Street



**Fig 1-9** Walking distances from the site and proximity to the proposed Ward Street Precinct open spaces

--- Site Boundary    --- Ward St Precinct    Proposed Ward St Open Space    M Victoria Cross metro station



West - Victoria Cross metro station northern entrance site on the corner of McLaren and Miller streets (currently under construction, with expected completion 2024). North of the metro site are 2-3 storey buildings with commercial and educational uses, including two heritage items at 243 and 255 Miller streets. Further west is a mix of civic, recreational, and educational development including North Sydney Council Chambers, Ted Mack Civic Park, and the Stanton Library.

Under North Sydney LEP 2013 (NSLEP 2013) the site is zoned B4 – Mixed Use, with a current maximum building height limit of RL 110m applying to the site.

### Nearby features

**Transport:** The site is immediately adjacent to north entrance of Victoria Cross metro station and a 850m walk to North Sydney Station. Major road connections including the Harbour Bridge, Pacific Highway and Lane Cove tunnel are in proximity to the site. Bus routes along Miller Street include 144N, 150X, 154X, and 202.

**Amenity:** The site is within close proximity to Ted Mack Civic Park, Stanton Library, North Sydney Oval and St Leonards Park, and adjacent to the future Ward Street Precinct and public open space, and is a short walk to retail, cafés, restaurants, gyms and health facilities in North Sydney’s CBD. Foreshore parks, golf courses and North Sydney Pool are within comfortable reach of the site.

**168 Walker St:** Adjacent to the east of the site is a DA-approved 29 storey mixed use development, with over 400 apartments, commercial floorspace, and ground floor retail.

**Education:** Wenona School, North Sydney Public, North Sydney Boys and Girls High Schools, and Monte Sant’ Angelo Mercy College on Miller Street, are within a 10 minute walk from the site.

**Ward St Precinct:** To the south of the site is the Ward Street Precinct Masterplan which proposes public open spaces, community facilities and opportunities for commercial and residential development.

**Rydges Hotel:** Adjacent to the east of the site is a 167 room four star hotel with conference and event facilities.



**Fig 1-10** The site and proximity to developments currently under construction and Wenona School

--- Site Boundary    
 --- Wenona School    
 --- Ward St Precinct    
 --- Under Construction    
 M Victoria Cross metro station

0 25m



01 Introduction

1.6 Development summary

Two residential buildings with a commercial podium and childcare facility at first floor.

Site Area	3,197 sqm	
Floor Area		
Residential GFA	13,487 sqm	
Commercial GFA	2,573 sqm	
Retail GFA	427 sqm	
Childcare GFA	460 sqm internal / 450 sqm external (excluded from GFA)	
Total GFA	16,947 sqm	
Non-Residential FSR	1.1:1	
Overall FSR	5.3	
Maximum Height	RL 156.0 m south building RL 106.2 m north building	
Storeys	24 storeys + rooftop plant (south building) 8 storeys + rooftop plant (north building)	
Residential Mix		
Studio apartments	21 (12%)	<i>** Note these numbers are subject to change and shall be finalised in the future detail DA stage assuming the same maximum overall FSR on site.</i>
1 Bed apartments	63 (37%)	
2 Bed apartments	62 (36%)	
3 Bed apartments	26 (15%)	
Total dwellings	172	
Parking		
Car Share	4	<i>** Parking provision is based on a 20% reduction from the NSDCP 2013 rate due to the site's high level of public transport accessibility.</i>
Residential	70	
Residential Accessible	34	
Childcare	5	
Childcare Accessible	1	<i>** Refer to the separate Traffic and Parking Impact Assessment by GHD for more information.</i>
Commercial/Retail	6	
Commercial/Retail Accessible	1	
Total	121	
Motorcycle	12	
Car wash	1	

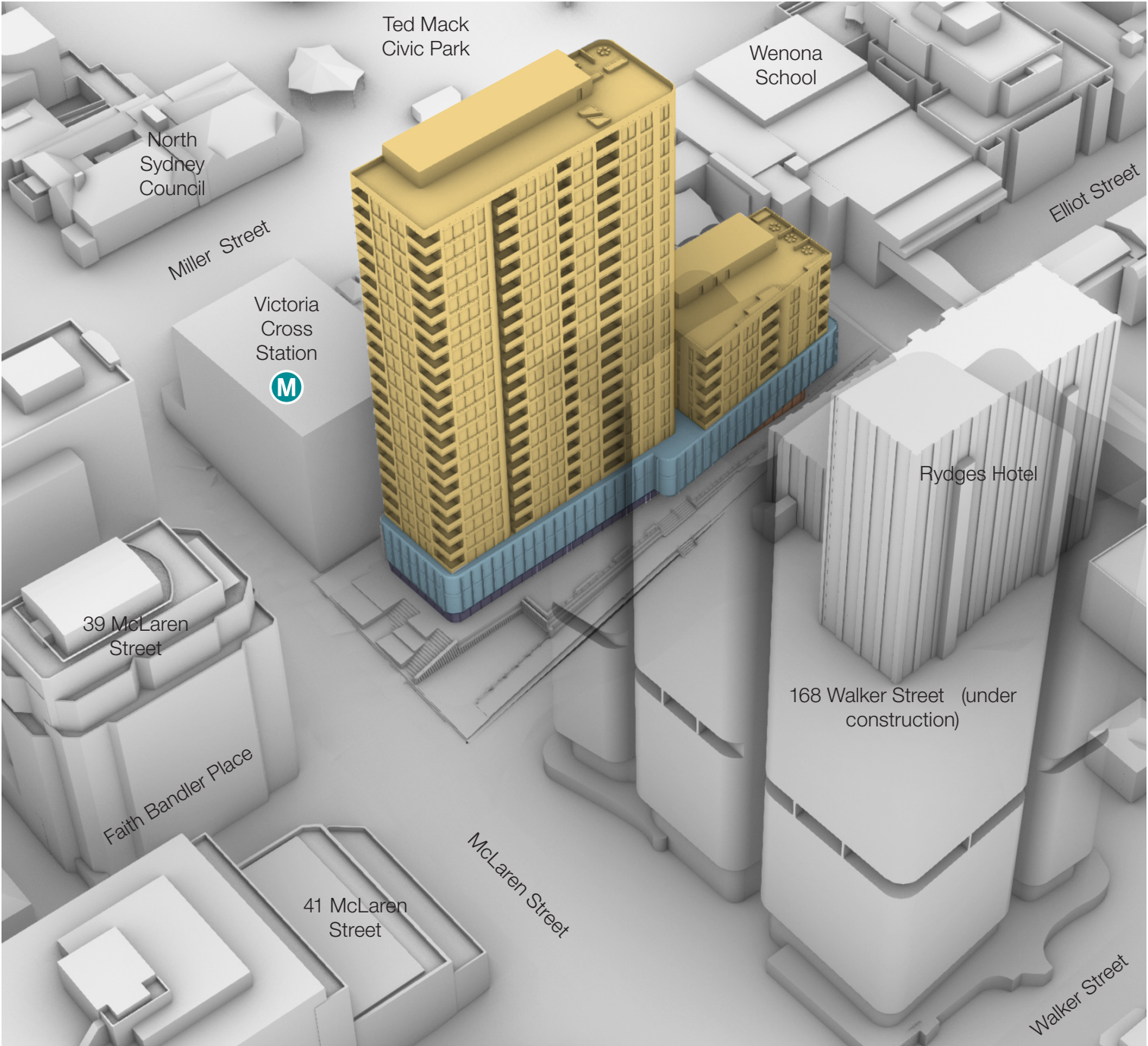


Fig 1-11 Proposed use distribution

Residential Commercial Retail / Lobby Childcare

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02 Planning and strategic framework

2.1 Current planning controls

Land use zoning

Under North Sydney LEP 2013 the site is zoned B4 Mixed Use zoning and a range of development and uses are permitted including but not limited to commercial premises, residential flat buildings, child care centres and community facilities.

The planning proposal is consistent with the land use zoning for a mixed use building and no change is proposed to the zoning.

Non-residential floor space ratio

The site has a minimum non-residential FSR of 0.5:1 and is not subject to a maximum floor space ratio control. The planning proposal seeks to amend this to a minimum of 1.1:1.

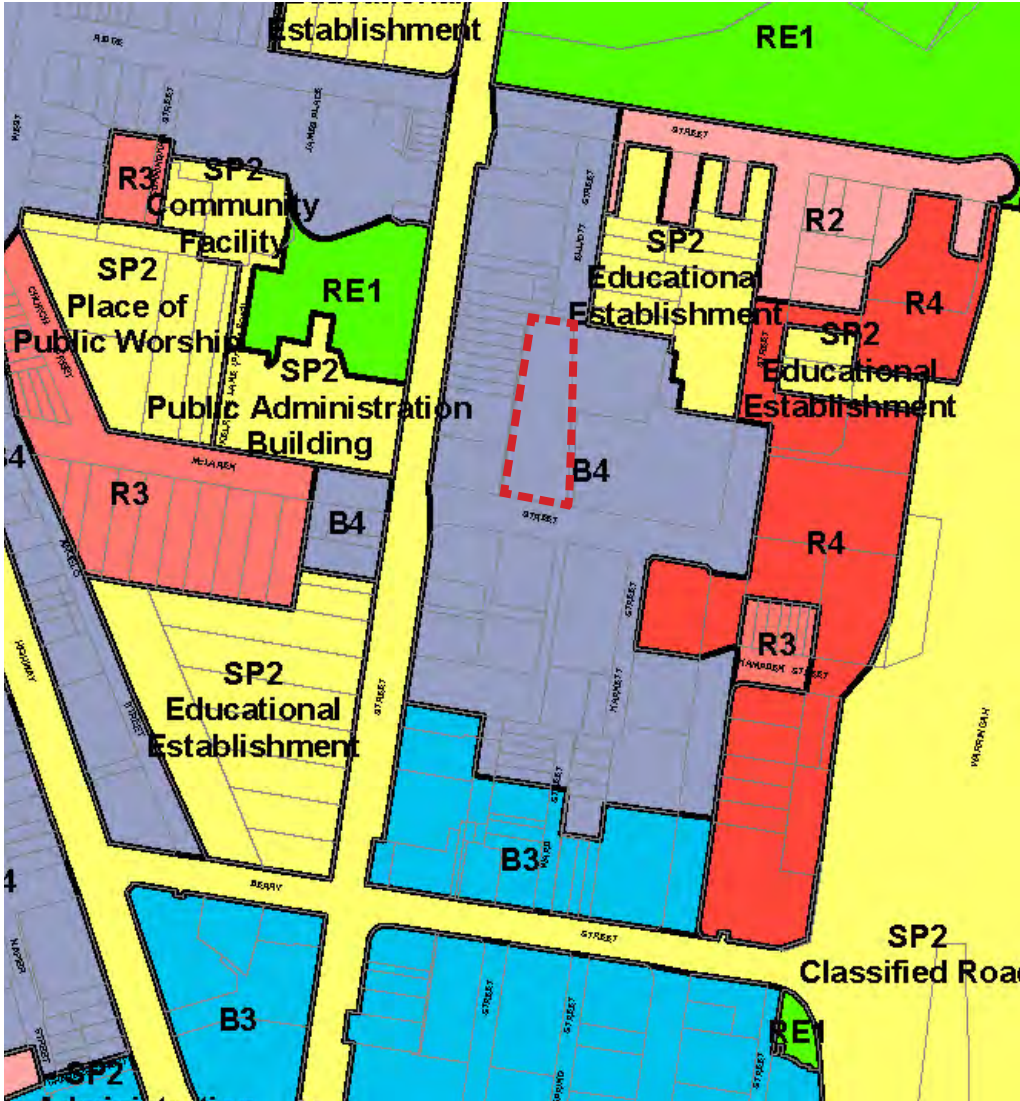


Fig 2-1 Land Use Zoning



Fig 2-2 Non-Residential FSR

Plans sourced from the North Sydney Council LEP, 2013



No part of the site is listed in the North Sydney LEP 2013 as a Heritage Item. However, items 10912 and 1098 adjacent on western boundary are general local heritage listed.



**Fig 2-3** Maximum building height



**Fig 2-4** Heritage Map

Plans sourced from the North Sydney Council LEP, 2013

Key - Maximum Building Height (m)

A 1	T2 26
I 8.5	U1 30
K 10	U2 33
L 11	W1 40
M 12	W2 42
N 13	X 49
O1 15	Y 50
O2 16	Z 56
Q1 19.15	AD 132
Q2 20	AF 180
S 24	
T1 25	

Key - Maximum Building Height (RL m)

☐ RL 0-20  
☐ RL 21-40  
☐ RL 41-60  
☐ RL 61-80  
☐ RL 81-100  
☐ RL 101-120  
☐ RL 121-140  
☐ RL 141-160  
☐ RL 161-180  
☐ RL 181-200  
☐ RL 200+





Fig 2-5 Aerial view from 52 McLaren Street towards Sydney Harbour



## 02 Planning and strategic framework

### 2.3 Ward Street Precinct Master Plan

The Ward Street Precinct Master Plan (WSPM) is bounded by Miller, McLaren, Walker and Berry streets in North Sydney and is approximately 3.2 ha in area. The WSPM was developed by North Sydney Council with the objective to provide significant uplift in FSR and building height to the area, strengthen the commercial centre and capitalising on the Sydney Metro City and Southwest investment.

The WSPM will also provide high amenity, open space and community facilities, with the Ward Street Plaza at the centre of the masterplan. This plaza will have a direct connection to McLaren Street by Faith Bandler Place.

The WSPM includes building heights of up to RL 285 metres, providing a significant built-up southern backdrop to the planning proposal site. The increased height and density in the precinct sets the precedent for taller building developments and higher-density nodes within close proximity to 52 McLaren Street.

The proposed development for 52 McLaren Street will compliment and enhance the WSPM by providing an integrated landscaped public ground plane connecting jobs and housing opportunities near the Victoria Cross metro station. This public space will also facilitate a through-site link providing direct access to the WSPM and St Leonards Park.

- Community
- Commercial
- Retail
- Open Space
- Ward Street Precinct Master Plan Area

Images sourced from the Ward Street Precinct Master Plan, 2019.

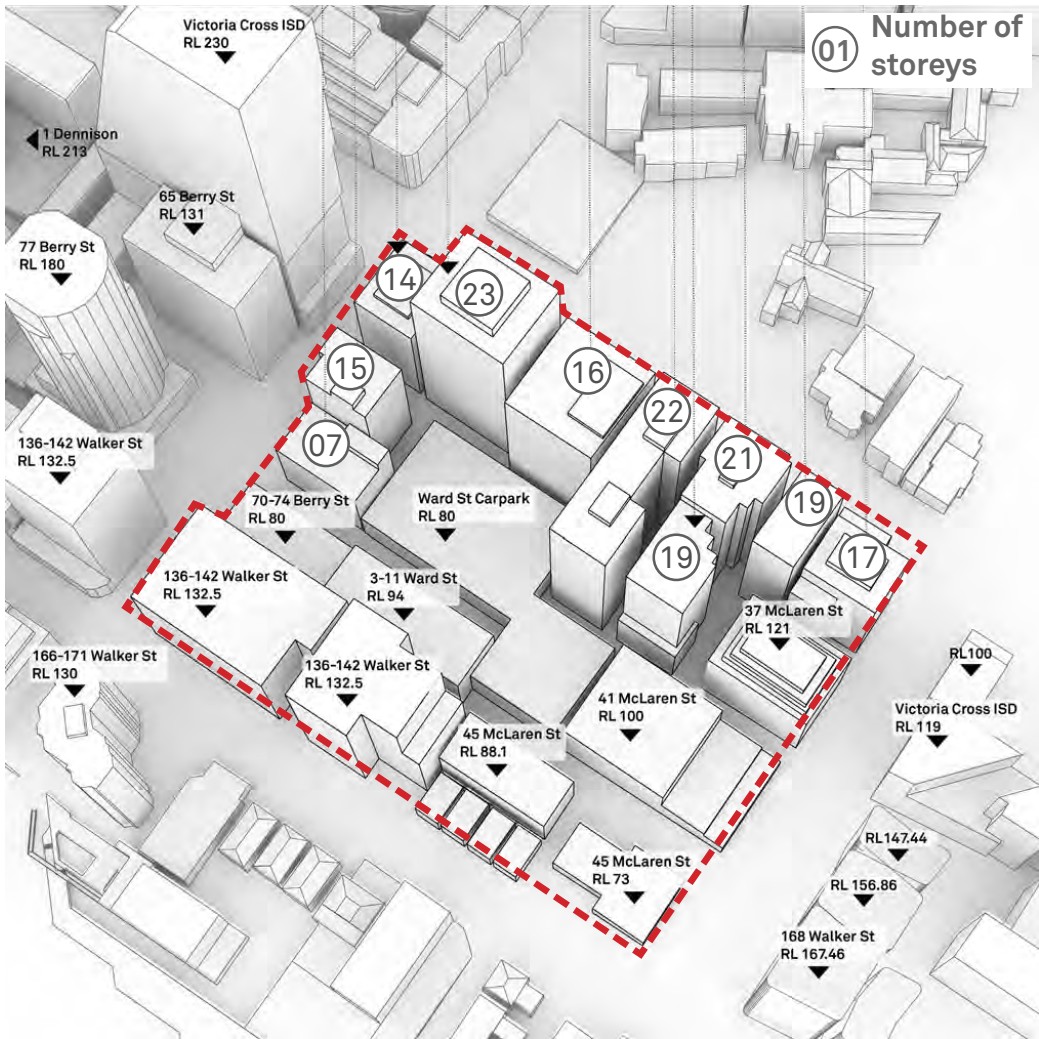


Fig 2-6 Existing

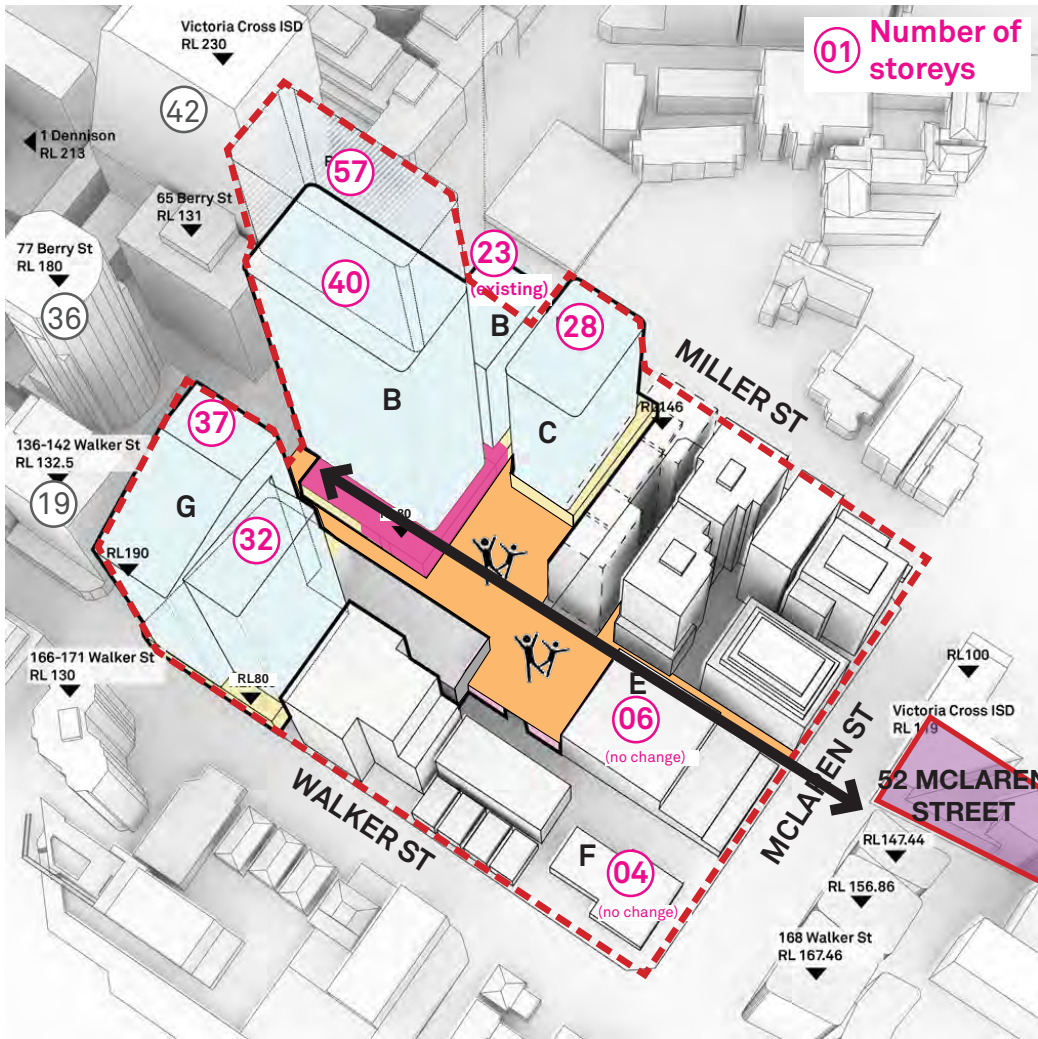


Fig 2-7 Proposed

## 02 Planning and strategic framework

## 2.4 Civic Precinct Planning Study

The Civic Precinct is located north of the North Sydney CBD and is an evolving part of North Sydney with civic, education and mixed-use areas. At the edges of the precinct, mixed-use areas will create transition zones between the CBD and the precinct, particularly along McLaren Street and the lower-rise conservation area to the north. The Civic Precinct Planning Study (CPPS) adopted by the North Sydney Council in 2020, identifies 52 McLaren Street as a site within a higher-density node with the potential to create more jobs and housing opportunities near the Victoria Cross metro station.

The CPPS objectives include maintaining the low-scale, tree-lined streets and connected public spaces character of the area and by providing height transition zones to protect the amenity and sunlight of existing and proposed public open space. The mixed-use transition zones along McLaren Street will complement both the CBD and the Civic Precinct.

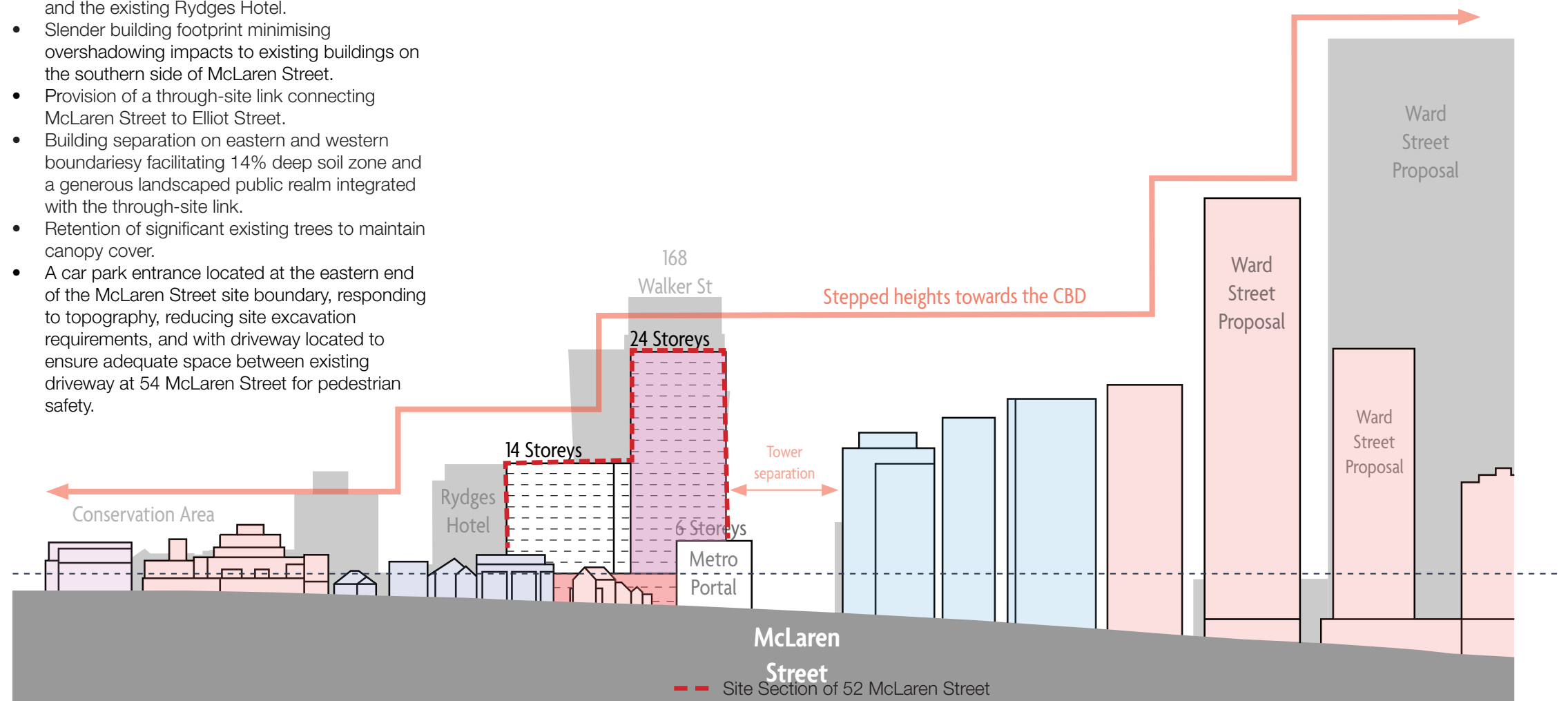
## Civic Precinct Planning Study key recommendations

As part of the CPPS the following recommendations were made as part of the finalisation report dated November 2020:

- a mixed use or commercial development
- a through-site link incorporating ground floor activation with retail, community and public uses at the lower levels
- maximum building heights transitioning down from 24 to 14-storeys
- building setback to McLaren Street aligned to the future 168 Walker Street development
- greater built form separation to residential towers south of McLaren Street
- minimisation of overshadowing impacts to existing buildings on the southern side of McLaren Street
- provision of vehicular access to the site from McLaren Street.

## How CPPS key recommendations are implemented with planning proposal

- A residential and commercial mixed-use development incorporating a child-care centre with retail and ground floor activation.
- A development with two buildings (24 and 8 storey) stepping down towards the low-scale residential and educational uses to the north.
- Building height datum responding to the approved development at 168 Walker Street and the existing Rydges Hotel.
- Slender building footprint minimising overshadowing impacts to existing buildings on the southern side of McLaren Street.
- Provision of a through-site link connecting McLaren Street to Elliot Street.
- Building separation on eastern and western boundaries facilitating 14% deep soil zone and a generous landscaped public realm integrated with the through-site link.
- Retention of significant existing trees to maintain canopy cover.
- A car park entrance located at the eastern end of the McLaren Street site boundary, responding to topography, reducing site excavation requirements, and with driveway located to ensure adequate space between existing driveway at 54 McLaren Street for pedestrian safety.



**Fig 2-8** Image sourced from North Sydney Civic Precinct Planning Study, 2020



2.5 Recent Development Applications

1. 168 Walker Street (Under Construction)

- 29 storey mixed use development
- Total GFA 51,863m2
- Max RL 167.51m

2. 225-265 Miller Street (Completed)

- Wenona School
- Entry adjacent to Elliot Street address
- Terrace learning area

3. 221 Miller Street (Completed)

- 23 storey mixed use development
- 180 residential apartments, 105 serviced apartments
- 180 basement car parking spaces

4. 54 McLaren Street (DA)

- Rydges Hotel Development Application
- Proposed increase in building height of convention centre to 3 storeys
- Blank wall treatment facing 52 McLaren Street

5. 189 Miller Street (Under Construction)

- 42 storey commercial over station development above Victoria Cross metro station
- Max RL 230m

6. 1 Denison Street (Completed)

- 39 storey commercial development
- 60,000m2 net lettable area



1. 168 Walker Street, North Sydney



2. 225-265 Miller Street, North Sydney



3. 221 Miller Street, North Sydney



4. 54 McLaren Street, North Sydney



5. 189 Miller Street, North Sydney



6. 1 Denison Street, North Sydney









03 Site analysis

3.1 Site photographs

McLaren Street is largely characterised by the mature trees that line both sides of the street, which give it a leafy, green quality that helps to soften the visual impact of the relatively large apartment blocks and commercial buildings that both exist, or are planned / under construction here.

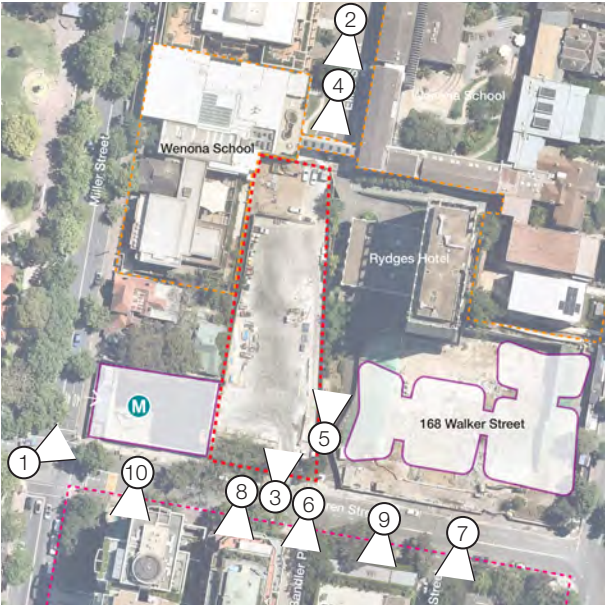
To the south of the site a key laneway, Faith Bandler Place, connects the site to the planned Ward Street Precinct. Elliot Street links the site to North Sydney Oval and St Leonards Park. A new footbridge structure crosses Elliot Street and connects the relatively low scale Wenona School buildings to both sides of the street.



1. View east from intersection with Miller Street towards 52 McLaren Street



3. Street frontage - Significant trees and driveway access from McLaren Street



Key to photographs



2. View south from Elliot Street towards 52 McLaren Street



4. View south from Elliot Street with Wenona School footbridge in foreground





5. 54 McLaren Street - Vehicular entrance to Rydges Hotel



7. 45 McLaren Street



9. 41 McLaren Street



6. Faith Bandler Place - Link to proposed Ward Street Precinct



8. 39 McLaren Street



10. 237 Miller Street - McLaren Street entrance



# 03 Site analysis

## 3.2 Topography

The area around the site is characterised by significant level changes with relatively steep gradients to the streets adjacent to the site and significant falls across the site itself in both directions.

The high point is at the northern end (RL77.8 at Elliot Street), with the ground level sloping down by 6.3m along the length of the site towards the south east corner (RL71.5 at McLaren Street). The existing driveway into the site is located at this point. From here, McLaren Street slopes up consistently towards Miller Street, with a 4.5m rise to the south east corner of the site (RL76.0).

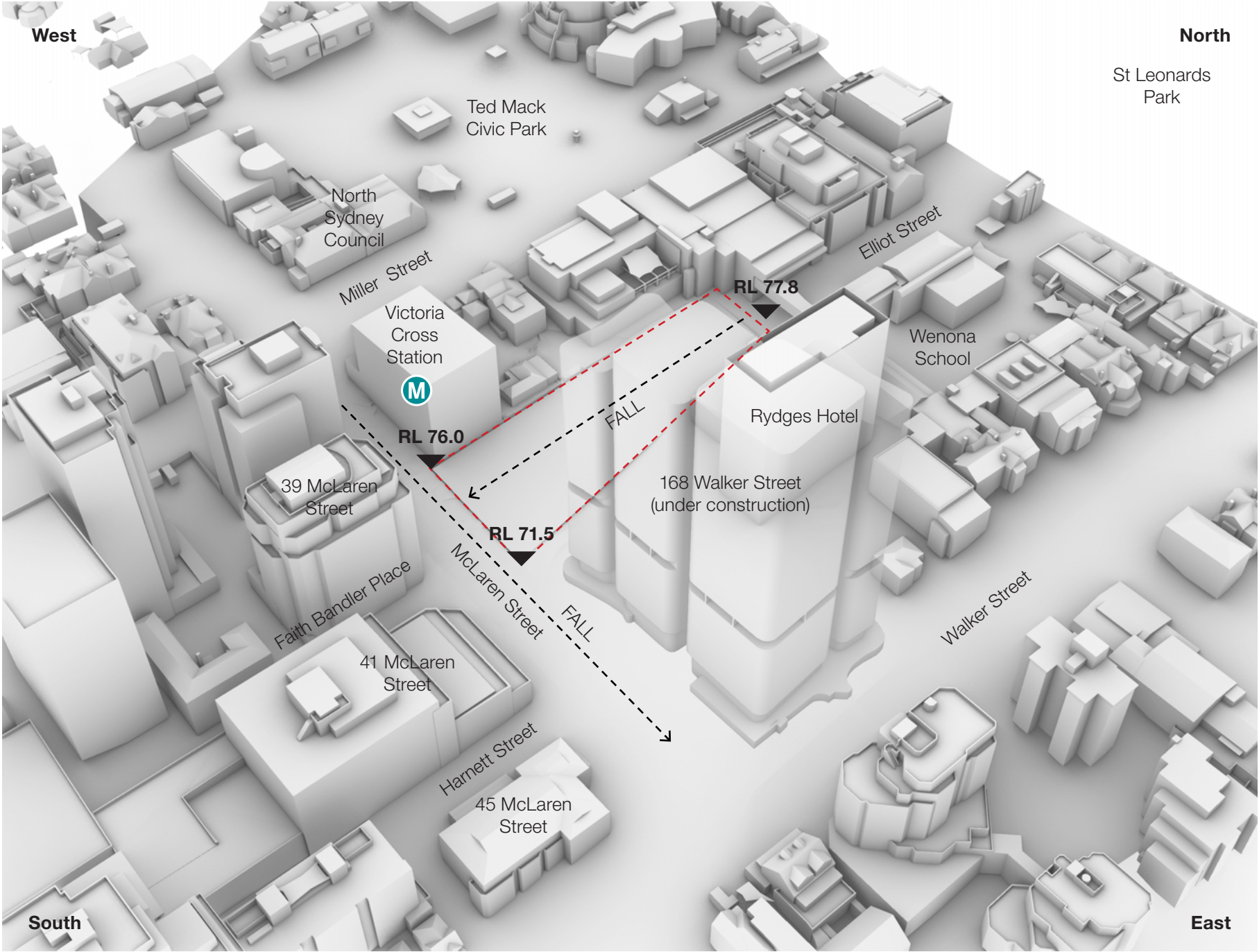


Fig 3-1 Site RL's and predominant falls

3.3 Solar orientation

The site is oriented in a north-south direction.

To the north of the site, buildings on both sides of Elliot Street range from two to four storeys in height, and to the west, buildings fronting Miller Street are of a similar scale. These low-scale volumes provide very good solar access to the site during the middle of the day and well into the afternoon. The Victoria Cross Station which is currently under construction adjacent to the site will slightly overshadow the south west corner of the site in the afternoon.

The 168 Walker Street development that is currently under construction will cause significant overshadowing of the southern part of the site first thing in the morning, but solar access will increase as the shadow from this development moves away from the site and by mid morning there will be a good level of solar access to the site. The main volume of the existing Rydges Hotel also causes some overshadowing in the morning, but by mid morning, the shadow has moved sufficiently to allow good sunlight penetration.

A development on this site will have overshadowing impacts to the developments on the southern side of McLaren Street. A future development will need to ensure the solar amenity is maintained (i.e. minimum 2 hours of sunlight as per the ADG). A slender building form will drive greater solar amenity, in particular an appropriate building setback from the 168 Walker St development.

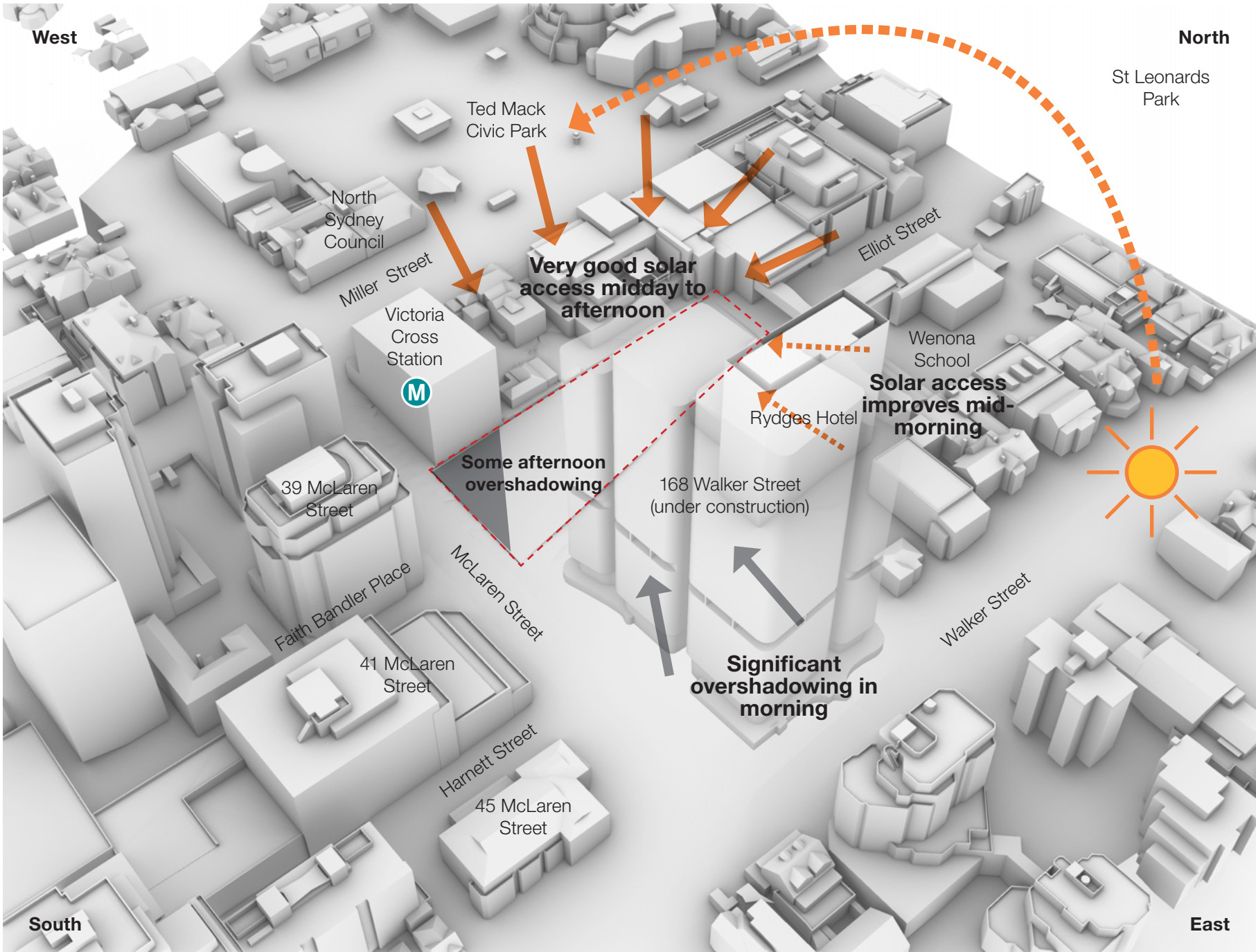


Fig 3-2 Solar access



03 Site analysis

3.4 Views

To the south east are views towards Sydney Harbour, and views of North Sydney CBD to the south and south west, some of which will change in the future due to planned developments in the area. To the north and north west are views towards St Leonards Park, St Leonards, and Chatswood CBD. Given the location of the site is at the northern most point of the North Sydney CBD, with RE1, R2 zones and educational establishments to the north and north west, these views to the north and north west are unlikely to be obstructed by future large-scale development.



Fig 3-3 Approximate view south east from level 24



Fig 3-4 Approximate view south east from level 8

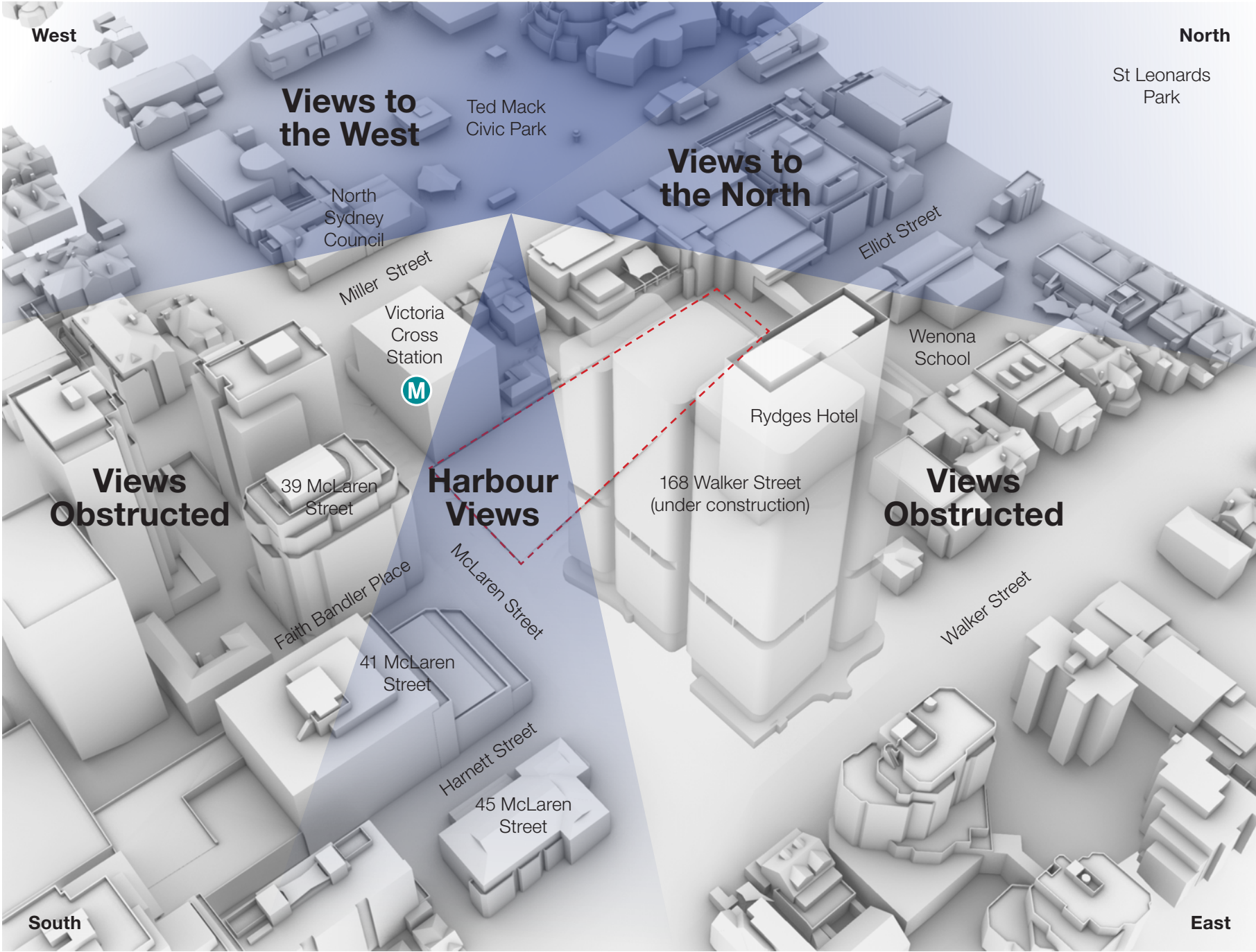


Fig 3-5 Views from the site



### 3.5 Pedestrian movement

Currently, the predominant pedestrian movements are along Miller Street.

The North Sydney CBD Public Domain Strategy 2020 (PDS) identifies a major laneway network connecting North Sydney Station to St Leonards Oval. The laneway network will become increasingly important:

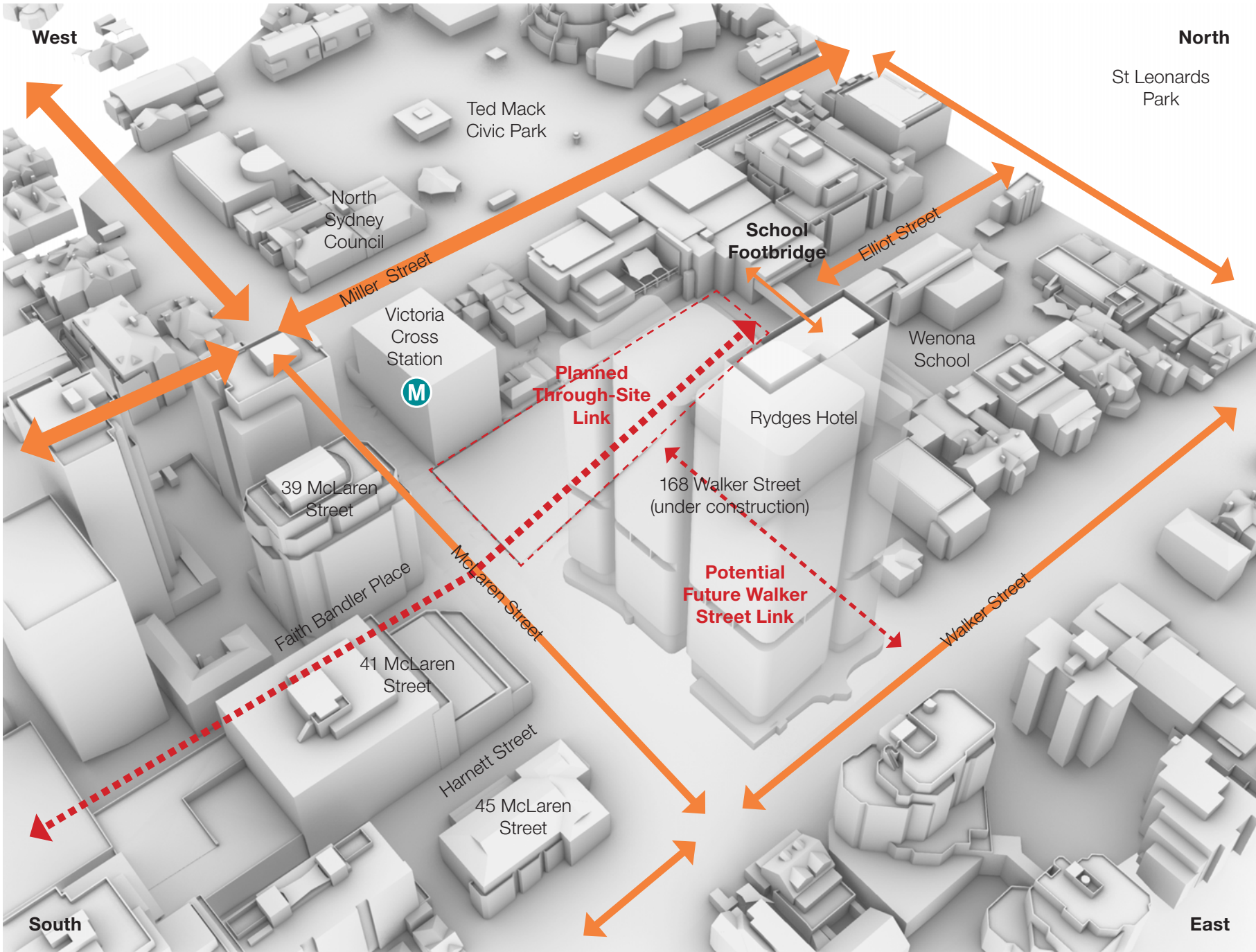
- once the Victoria Cross metro station becomes operational, commuters will exit onto Denison Street and use the laneway network to reach their jobs
- as the Ward Street Precinct is planned to support new open space, cultural venues and some of the largest office towers in the CBD
- as it offers an alternative, pedestrian focussed north-south link from transport infrastructure and an increasing concentration of jobs in the CBD to a major recreation area.

The PDS highlights the importance of providing a direct connection between Faith Bandler Place and Elliot Street as part of any proposed scheme for the 52 McLaren Street site.

The North Sydney Development Control Plan 2013 (NSDCP 2013) currently requires a north-south pedestrian link across 54 McLaren Street (Rydges Hotel), that ‘should be provided, retained and enhanced.’ The current through-site link is up the Rydges Hotel driveway and has poor safety, wayfinding, and amenity outcomes for pedestrians.

To deliver a wider and more direct pedestrian through-site link, the PDS specifies a shared pedestrian pathway along the boundary between 52 and 54 McLaren Street. The CPPS reinforces this requirement with a minimum 6-metre whole of building setback along the eastern boundary of 52 McLaren Street. The CPPS recommends that the link be activated with commercial, retail and public uses.

There is also potential for a pedestrian link from Walker Street to the planned through-site link.



**Fig 3-6** Pedestrian movement around and through the site



## 03 Site analysis

### 3.6 Vehicular movement

McLaren Street is a secondary route which connects to Miller Street which is the primary north-south vehicular route through North Sydney. To the north of the site, Elliot Street terminates at the northern site boundary, and does not connect through to McLaren Street. The planned through site link will connect Elliot Street and McLaren Street, but for pedestrians only.

Vehicular access to the site is via a driveway located at the south east corner, directly adjacent to the driveway to Rydges Hotel at 54 McLaren Street. The location of a new vehicular entrance to the site will need to be carefully considered to avoid conflict with the planned through-site link and existing significant trees, and also due to the relatively narrow frontage to McLaren and Elliot streets which restricts the number of options available for a new driveway.

Refer to the separate Traffic and Parking Impact Assessment for more information.

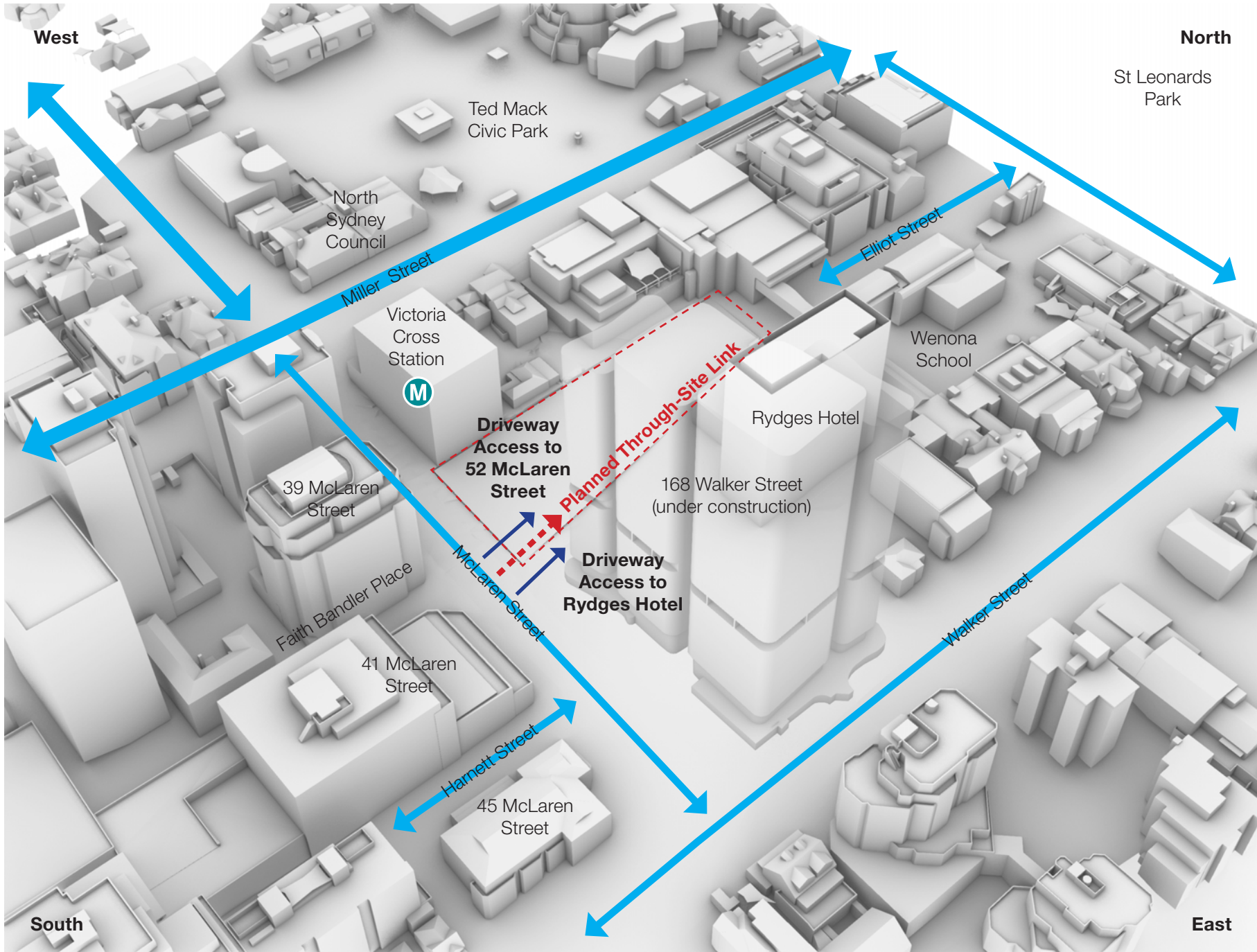


Fig 3-7 Vehicular routes and access



### 3.7 Street alignment and envelope

On the south side of McLaren Street there is a relatively consistent building setback from the kerb, with the building edges and/or boundary treatments to 237 Miller Street, 39, 41, and 45 McLaren Street defining a consistent footpath width between Miller and Walker Streets. The new Victoria Cross Station will have a similar setback to the buildings on the south side of McLaren Street, but the new development at 168 Walker Street is set further back than the predominant setback along McLaren Street.

Replicating the Victoria Cross Station setback on the 52 McLaren Street site would result in the loss of two significant mature trees, and therefore to avoid this a building setback that aligns more closely with the 168 Walker Street would be more appropriate. This is supported in the CPPS which states “Provide a whole of building setback to McLaren Street to align the future building with the adjacent development at 168 Walker Street, facilitate a more level public access to the pedestrian link and achieve greater built form separation to residential towers south of McLaren Street”.

To the south of McLaren Street, the urban scale is predominantly high rise with mostly tower blocks, whereas to the north of the site, the urban scale diminishes to low rise buildings of 2 to 3 storeys. A building envelope for 52 McLaren Street that responds to the scale of 168 Walker Street and the high density development to the south, whilst reducing to the north and potentially also referencing the scale of the Rydges Hotel would be appropriate for this site and would reconcile the varied urban scale adjacent to the site.

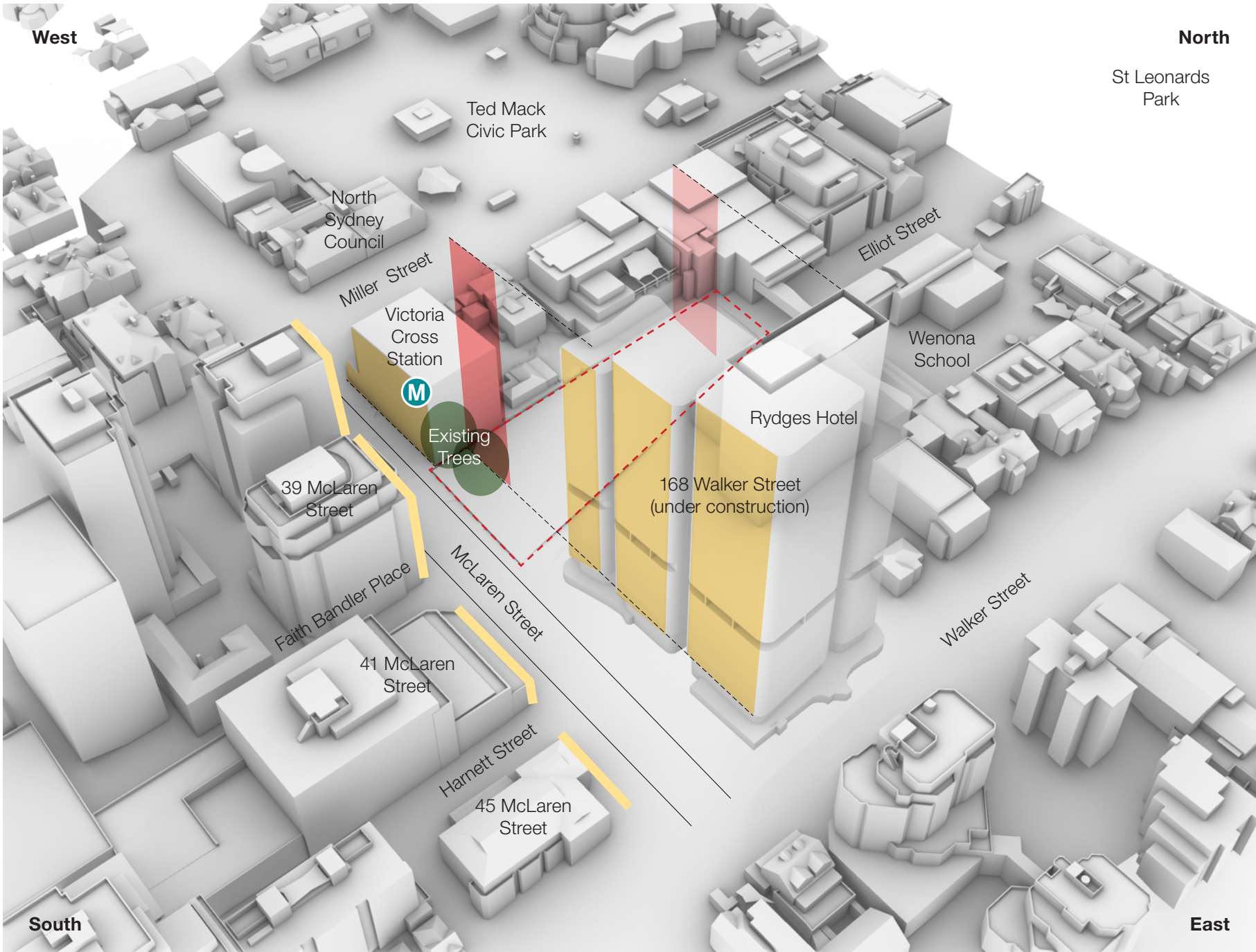


Fig 3-8 Existing street alignment and envelope parameters



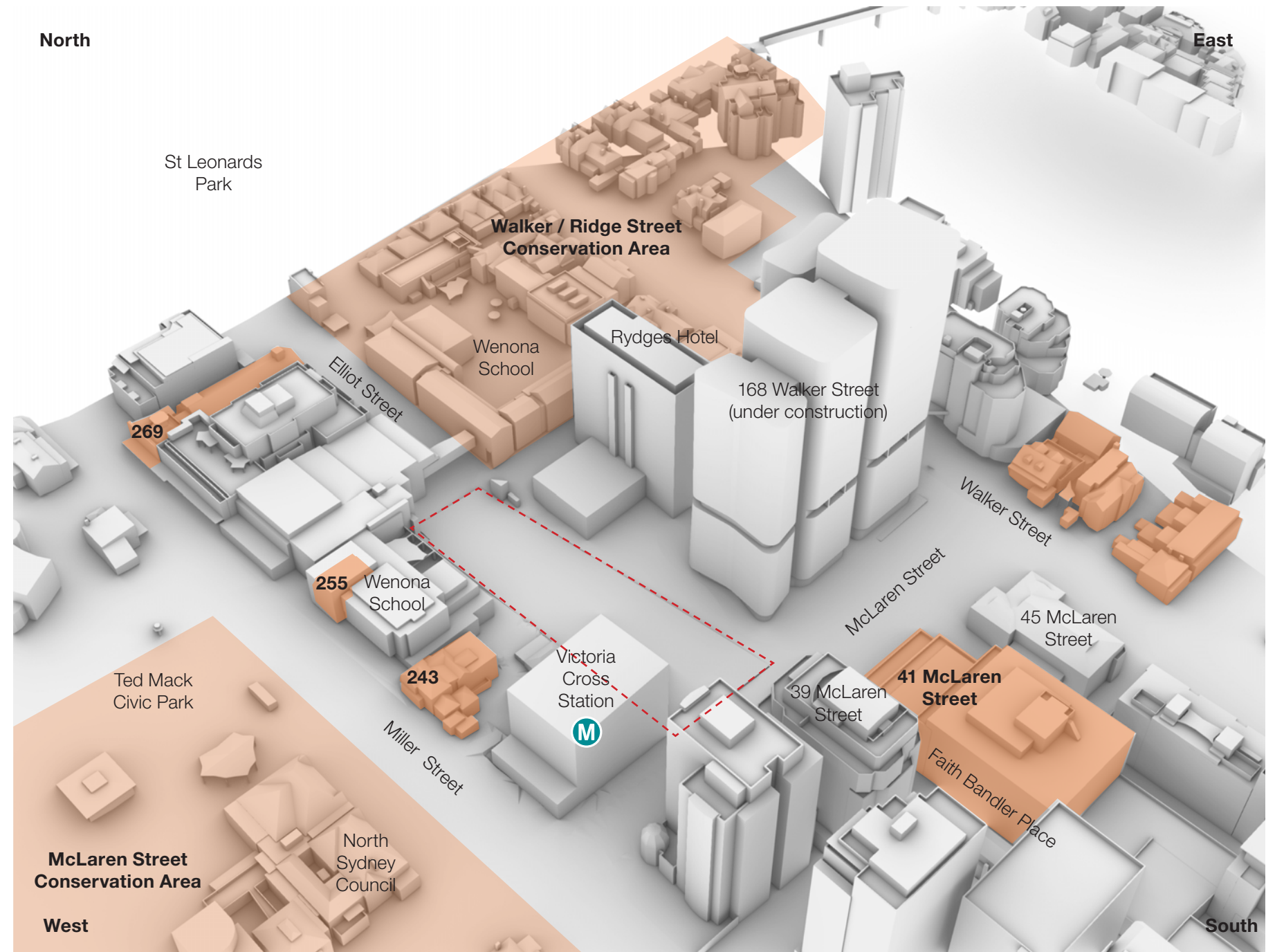
## 03 Site analysis

### 3.8 Heritage

There are two heritage items adjacent to the site. These are located at 243 and 255 Miller Street. There are also several heritage items in the vicinity of the site and two adjacent conservation areas – the McLaren Street conservation area to the west and the Walker / Ridge Street conservation area to the north east.

The Council's Conservation Planner advises that the following points should be considered with the design proposals at 52 McLaren Street:

- the juxtaposition of the new development behind the low-scale urban context of the Wenona School complex along Miller Street and including heritage items at 243 and 255 Miller Street, and the impact on the setting of these and the nearby conservation areas
- impact on views from various important cultural vantage points
- maintaining the relevant connection with the low scale and leafy character at the core of the Civic Precinct, particularly through the creation of the through-site link with Elliot Street that will connect with St Leonards Park
- the connectivity of the threshold area in front of the southern building facing McLaren Street in terms of its transitory function as the edge and link to the heart of the Civic Precinct through its through link to Elliot Street to the north and Faith Bandler Place to the south, and its relationship with the metro northern portal on the corner of the Miller Street/McLaren Street intersection
- achieving a successful threshold treatment with a contiguous gradient and treatment between Faith Bandler Place and the through link to Elliot Street is a crucial element for the proposal and one that will elevate the urban context and quality of the site and McLaren Street generally. The treatment of the through-site link as it connects with Elliot Street should be discernible in terms of its contemporary context from its link with the earlier street
- appropriate tree planting along the edges of McLaren Street and linking up with any tree planting programs along Walker Street to the War Memorial at St Leonards Park would 'connect' the periphery of the Civic Precinct Area with its leafy low scale core
- a Visual Impact study should be prepared to understand the impact of the proposals at 52 McLaren Street.



**Fig 3-9** Heritage items and conservation areas





**Fig 3-10** 243 Miller Street



**Fig 3-12** 255 Miller Street



**Fig 3-14** 41 McLaren Street



**Fig 3-11** 269 Miller Street



**Fig 3-13** McLaren Street Conservation Area



**Fig 3-15** Walker / Ridge Street Conservation Area



03 Site analysis

3.9 Site constraints

- 1. Site orientation and building separation:** North-south site orientation constrains the type of building footprint achievable, as well as proximity to neighbouring Wenona School, Rydges Hotel and new development at 168 Walker Street. In addition to this, the separation requirements are not equally shared between 168 Walker Street and 52 McLaren Street, meaning a large setback is required to meet required separation distances.
- 2. Overlooking to neighbours and solar access impacts:** Potential overlooking to Wenona School and development at 168 Walker St. Potential of reduced solar access to 168 Walker St and existing residential developments to the south.
- 3. Slope:** Change in levels across frontage of site is 4.5m and along through site link is 6.3m presenting challenges in achieving DDA compliance.
- 4. Access:** Pedestrian access to Wenona School and vehicular access to Rydges Hotel at the northern boundary reduces opportunity to create vehicle access to the northern boundary due to multiple conflicts. Mature trees at the southern boundary also limit the location of potential entries.
- 5. Overshadowing:** Potential for minor overshadowing of nearby Civic Park and Ward Street Precinct public open space. Level differences combined with the southern orientation of the McLaren Street frontage create the risk of lower daylight levels to the area fronting McLaren Street.
- 6. Heritage:** Multiple heritage items and conservation areas in the vicinity of the proposed development. Potential impacts to the setting of these.

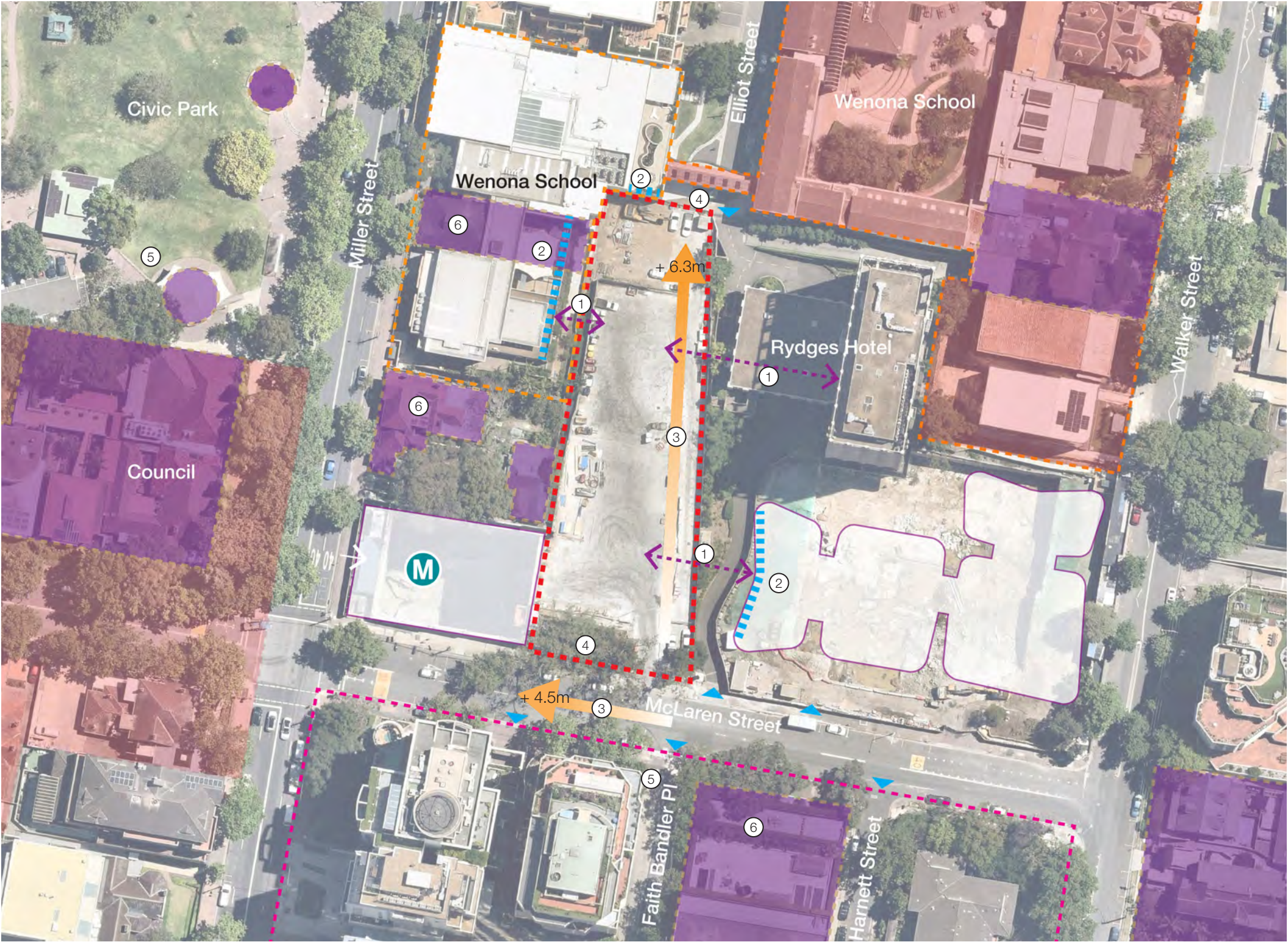
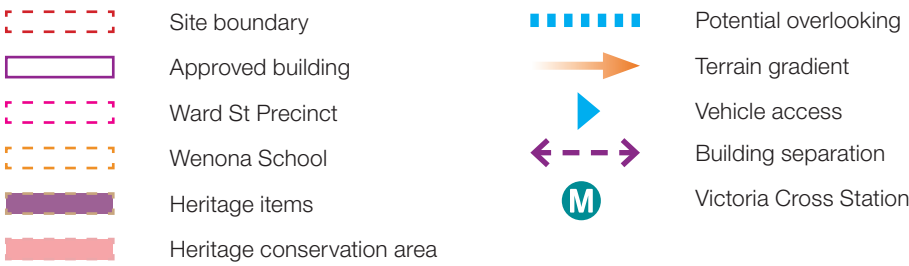


Fig 3-16 Site Constraints



### 3.10 Site opportunities

- 1. Public transport:** Immediately adjacent to north entrance of Victoria Cross metro station and a 850m walk to North Sydney Station.
- 2. Through site link:** Opportunity to provide an active through site link lined with retail and commercial frontages to connect Elliot Street with McLaren Street.
- 3. Views:** Potential for views to Sydney Harbour and North Sydney CBD to the south, south east and south west. Views to St Leonards and Chatswood CBD to north west and St Leonards park to the north.
- 4. Pedestrian link:** Multiple planned and existing pedestrian links to St Leonards Park and North Sydney CBD.
- 5. Amenity:** Close proximity to North Sydney Oval and St Leonards Park with sports and playgrounds. Adjacent to future Ward St precinct public open space and short walk to retail, cafés, restaurants, gyms and health facilities in North Sydney's CBD.

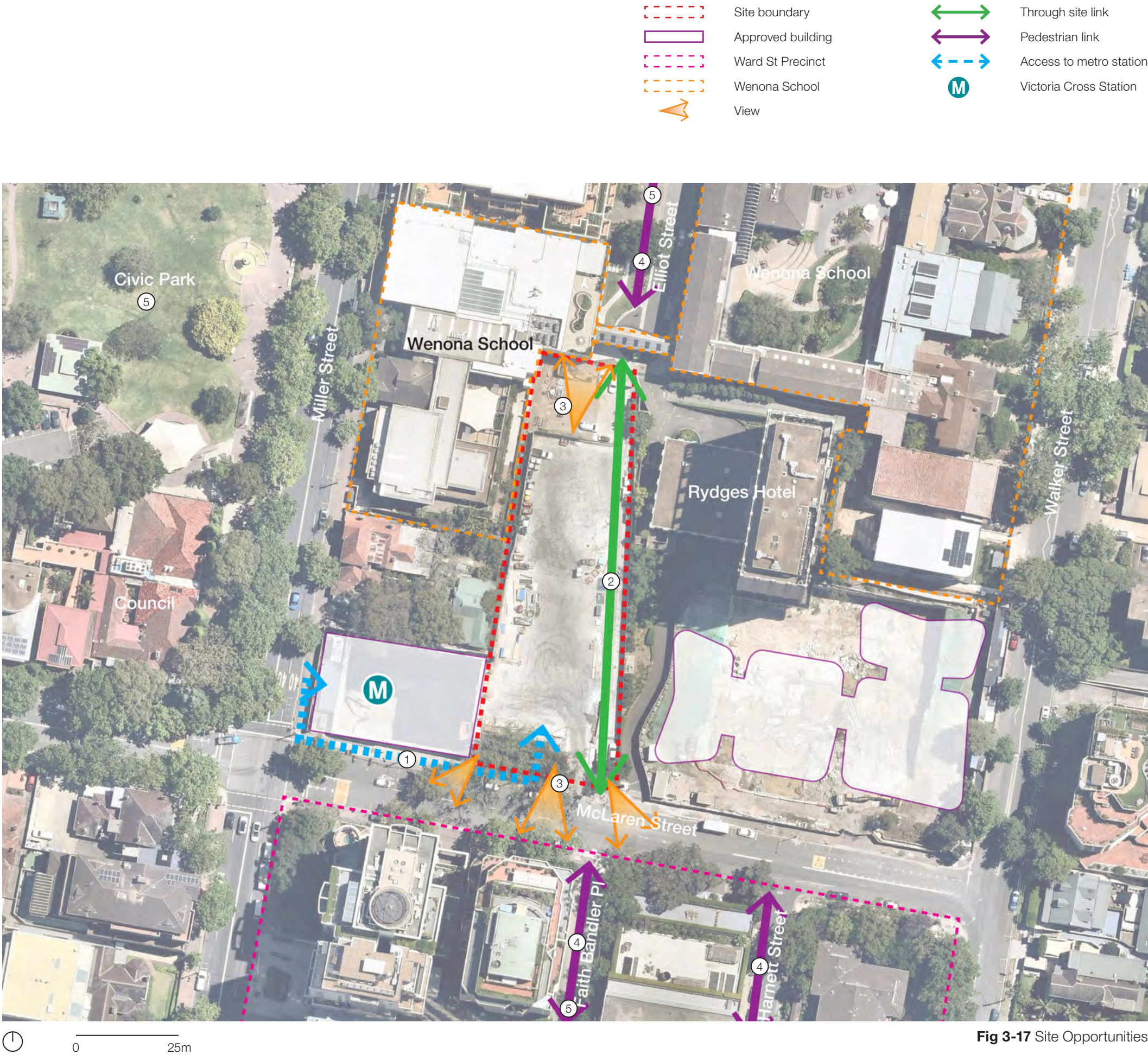


Fig 3-17 Site Opportunities











## 04 Design principles

### 4.1 Through site link

#### Connectivity and activation

The indicative concept design scheme has been developed with consideration to connectivity and activation in and around the site.

- ① Main DDA compliant through-site link along the site boundary between 52 and 54 McLaren Street.
- ② Through site link located alongside a new plaza with active frontage along the entire podium length.
- ③ Increased pedestrian permeability to the McLaren Street frontage providing stepped access from the footpath along McLaren Street up to the new activated frontage facing McLaren Street.
- ④ Alternative DDA compliant route providing a more direct path of travel from the Victoria Cross Station to the new plaza and Elliot Street beyond.
- ⑤ The edges of the new through site link to be softened through the use of landscaped terracing up to the plaza level, which also incorporates opportunities for seating at intervals along the through-site link.
- ⑥ Increased distance between new driveway and the existing driveway to 54 McLaren Street to create a safer environment for pedestrians.
- ⑦ New driveway positioning also considers the proximity to existing trees and avoids interfering with their rooting zones.
- ⑧ The new through site link also facilitates a potential future pedestrian link to Walker Street in the east.

Refer to Section 6 of this report for more detail on the through-site link and landscape plan for the entire public realm.

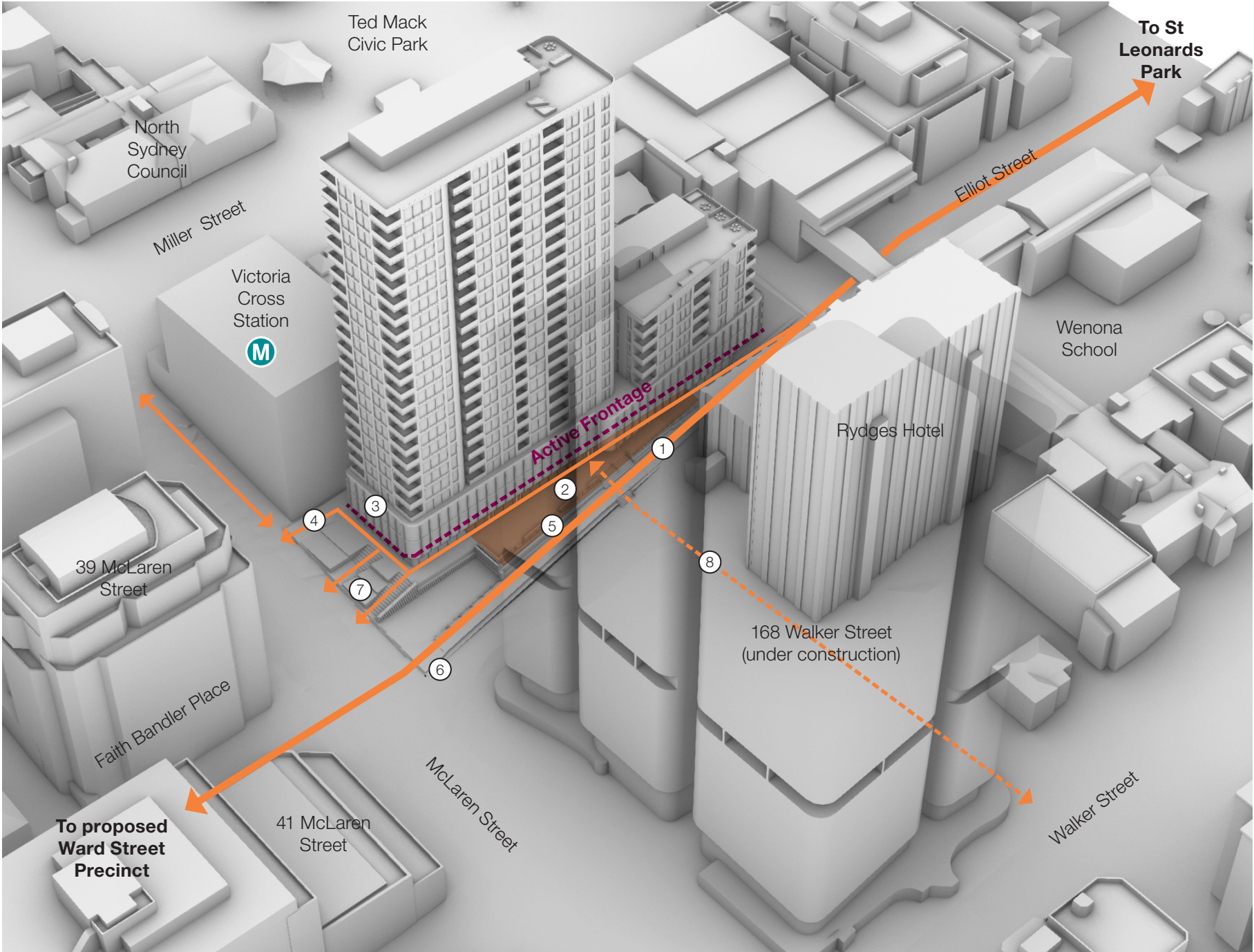
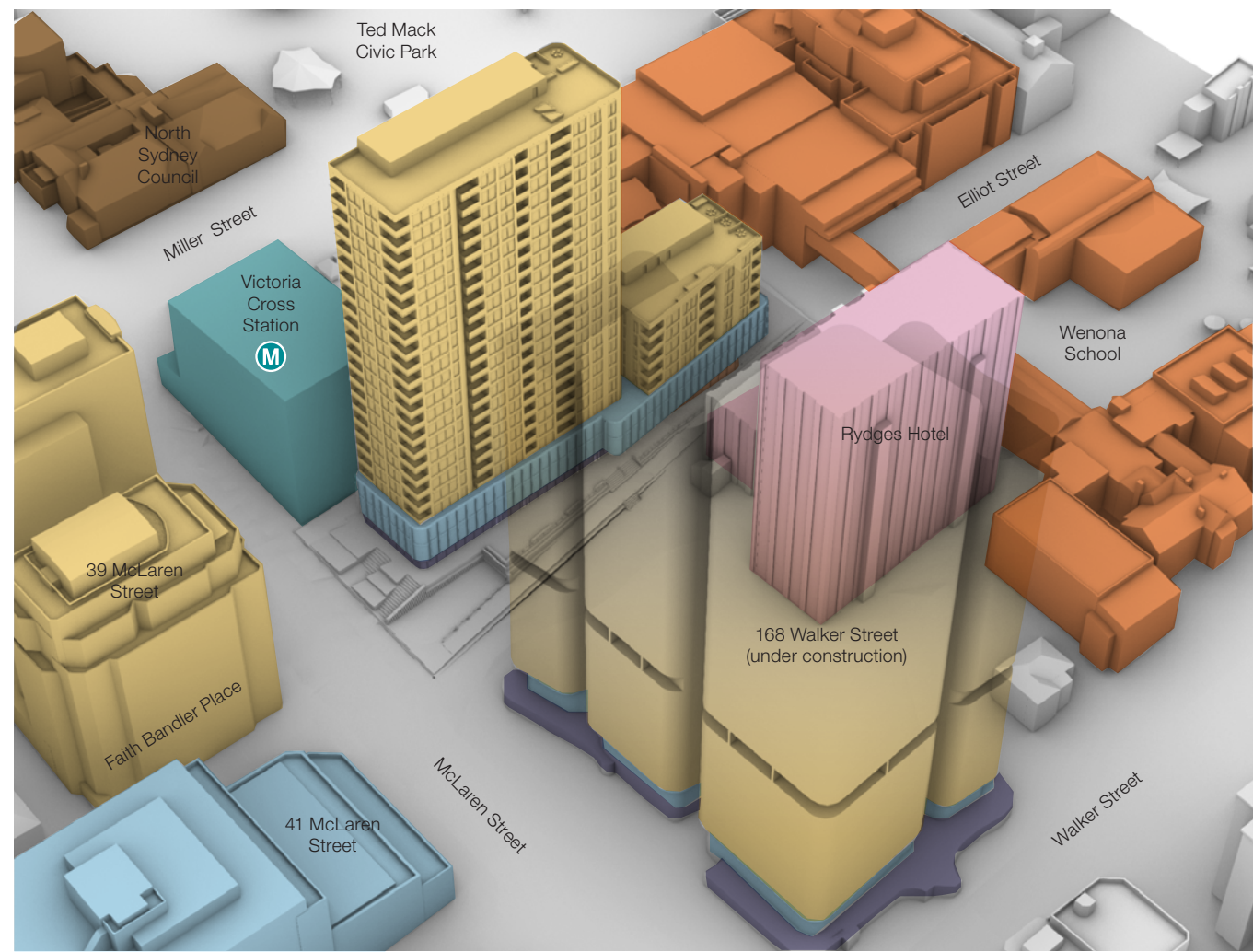


Fig 4-1 Through-site link design principles



#### 4.2 Building uses

The proposed arrangement of uses is consistent and compatible with existing adjacent uses. The commercial podium with retail uses at ground level creates active frontages onto the through-site link, with residential uses above, which is consistent with the existing and proposed buildings on McLaren Street. The childcare is located at ground level, adjacent to the existing school at the northern end of the site.



**Fig 4-2** Existing and proposed use distribution



## 04 Design principles

### 4.3 Street alignment and envelope

The proposal complies with the requirements of the North Sydney Civic Precinct Planning Study 2020 (CPPS) as follows:

- a maximum building height of 24 storeys on the southern half of the site and 14 storeys on the northern half of the site (current maximum height)
- a minimum 6-metre wide, whole of building setback along the eastern boundary to facilitate a through site link
- commercial podium fronting McLaren Street that appropriately responds to the scale of the northern metro entrance and approved development at 168 Walker Street (maximum 4 storeys)
- community uses incorporated into the podium at the northern end of the site (childcare centre provided at floor).

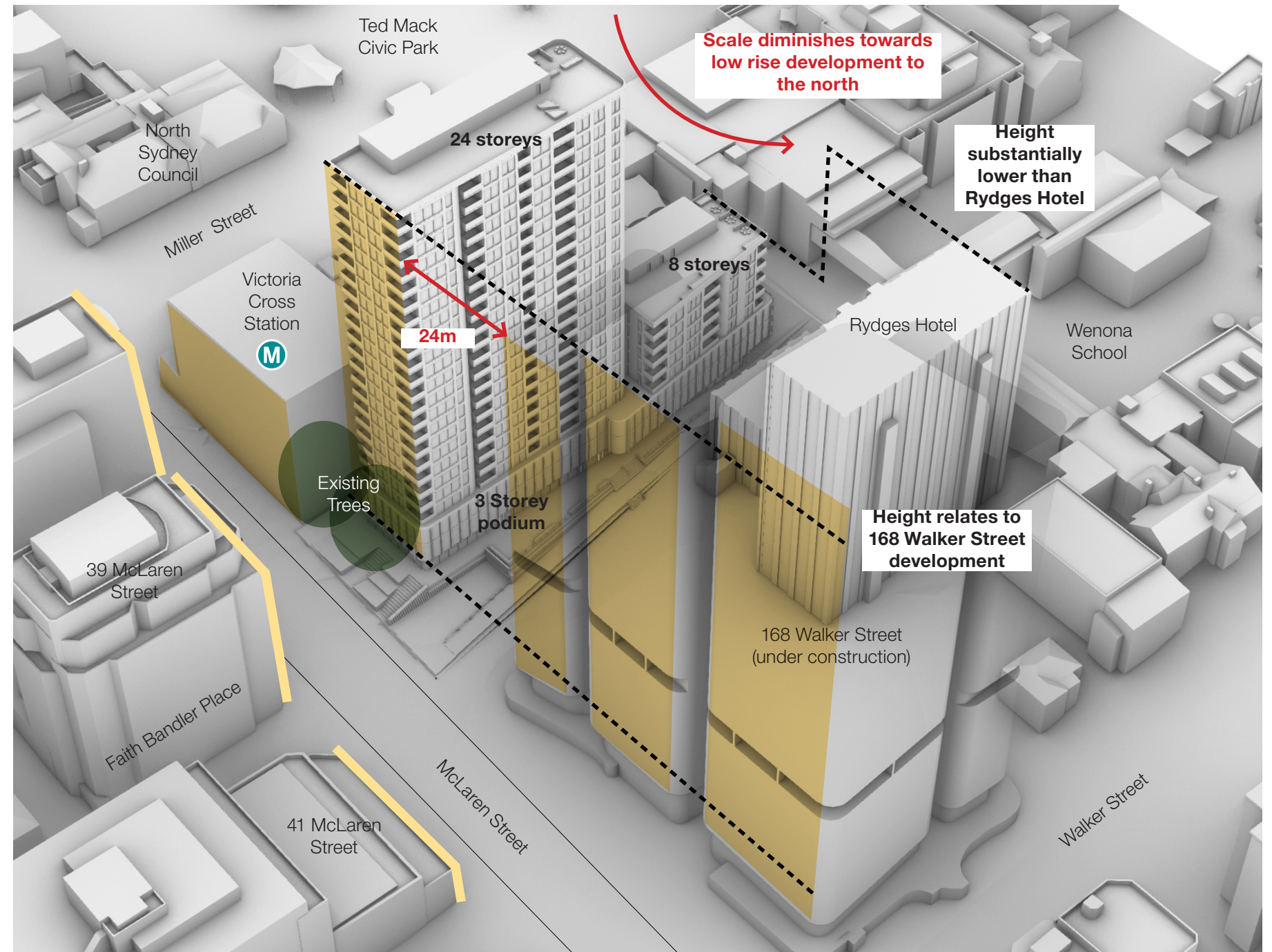


Fig 4-3 Street alignment and envelope design principles



#### 4.4 ADG building separation requirements

The ADG recommends that new development adjacent to existing buildings should provide adequate separation distances to the boundary in accordance with the design criteria. Generally one step in the built form as the height increases due to building separations is desirable.

The proposal complies with these requirements as follows:

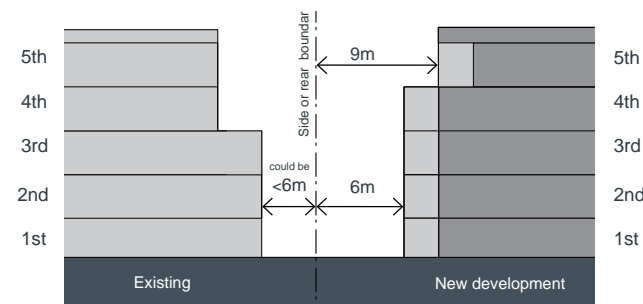
Minimum separation distances for buildings nine storeys and above (over 25m):

- 24m between habitable rooms/balconies
- 18m between habitable and non-habitable rooms
- 12m between non-habitable rooms.

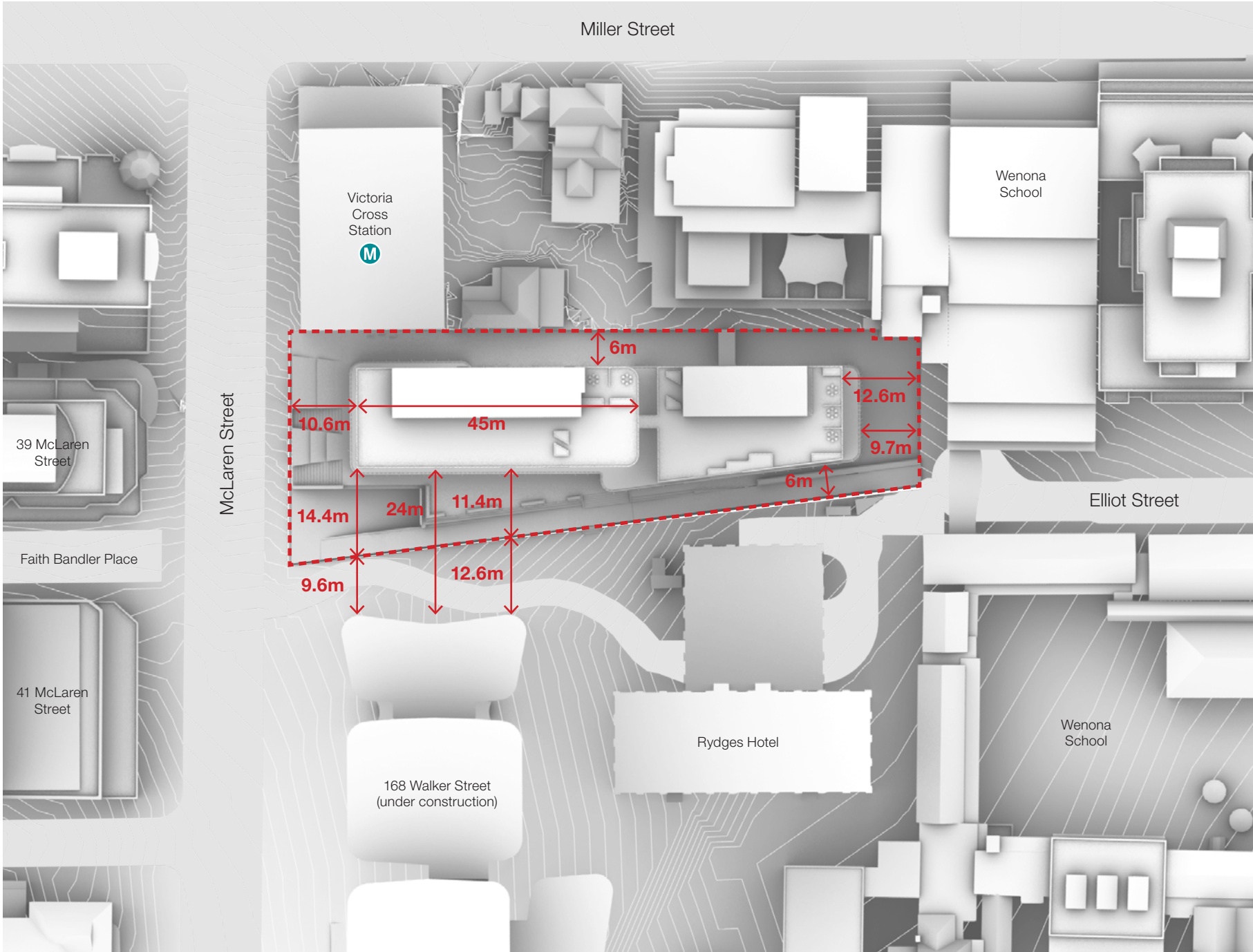
Minimum required separation distances from buildings to the side and rear boundaries, for buildings nine storeys and above (over 25m):

- 12m for habitable rooms and balconies
- 6m for non-habitable rooms.

Fig 4-5 illustrates the boundary setbacks for the proposed scheme



**Fig 4-4** ADG building separation requirements diagram



**Fig 4-5** Boundary setbacks



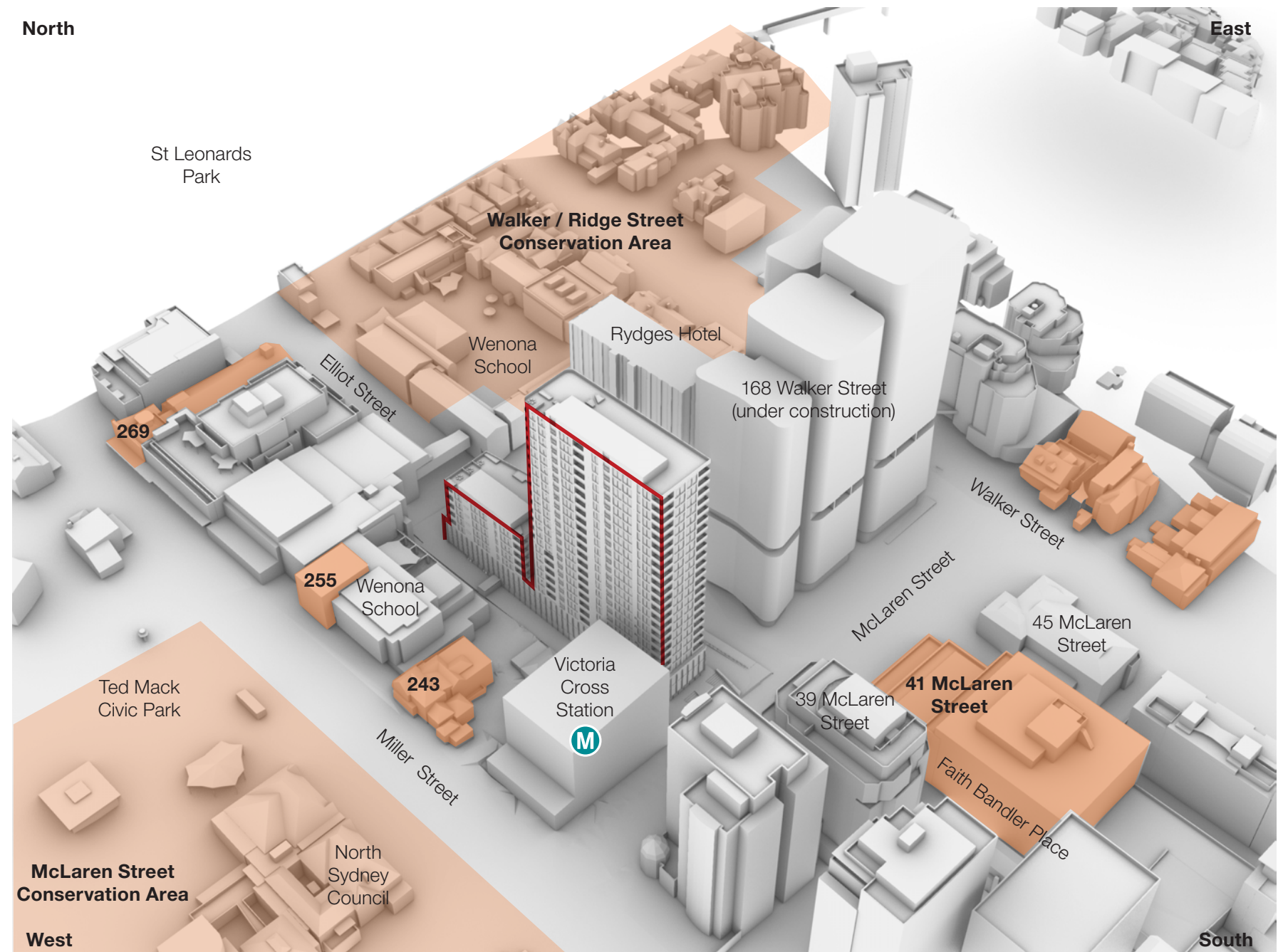
## 04 Design principles

### 4.5 Response to heritage

The main heritage impacts are to the setting of the heritage items at 243 and 255 Miller Street and the visual impact of the proposed development when viewed from the nearby conservation areas, with the view from Ted Mack Civic Park being of particular interest. The envelope and massing is designed and articulated so as to reduce these impacts in the following ways:

- building scale diminishes from 24 storeys to 8 storeys towards the existing low rise development to the north
- vertical articulation in the form of inset balconies and deep slots between the 24 storey mass and the 8 storey mass prevents a long monolithic facade
- appropriate facade articulation and fenestration gives a human scale to the elevations rather than having extremely tall singular elements such as blank cores etc
- balconies and other 'residential' building elements expressed adequately so as to humanise the buildings and avoid the appearance of a sleek monolithic office block
- the three storey podium is clearly defined architecturally as a distinct base to the building that relates to the lower scale development adjacent
- the 8 storey north block and 24 storey south block each has its own architectural treatment, creating a distinct identity and a richness in the streetscape
- retention of existing mature trees on McLaren Street, helps to soften the visual impact of the 24 storey building at ground level
- deep soil zone provided along the western boundary of the 52 McLaren Street site adjacent to 243 Miller Street, enabling tree planting that will help to screen and soften the transition between the development site and the heritage item

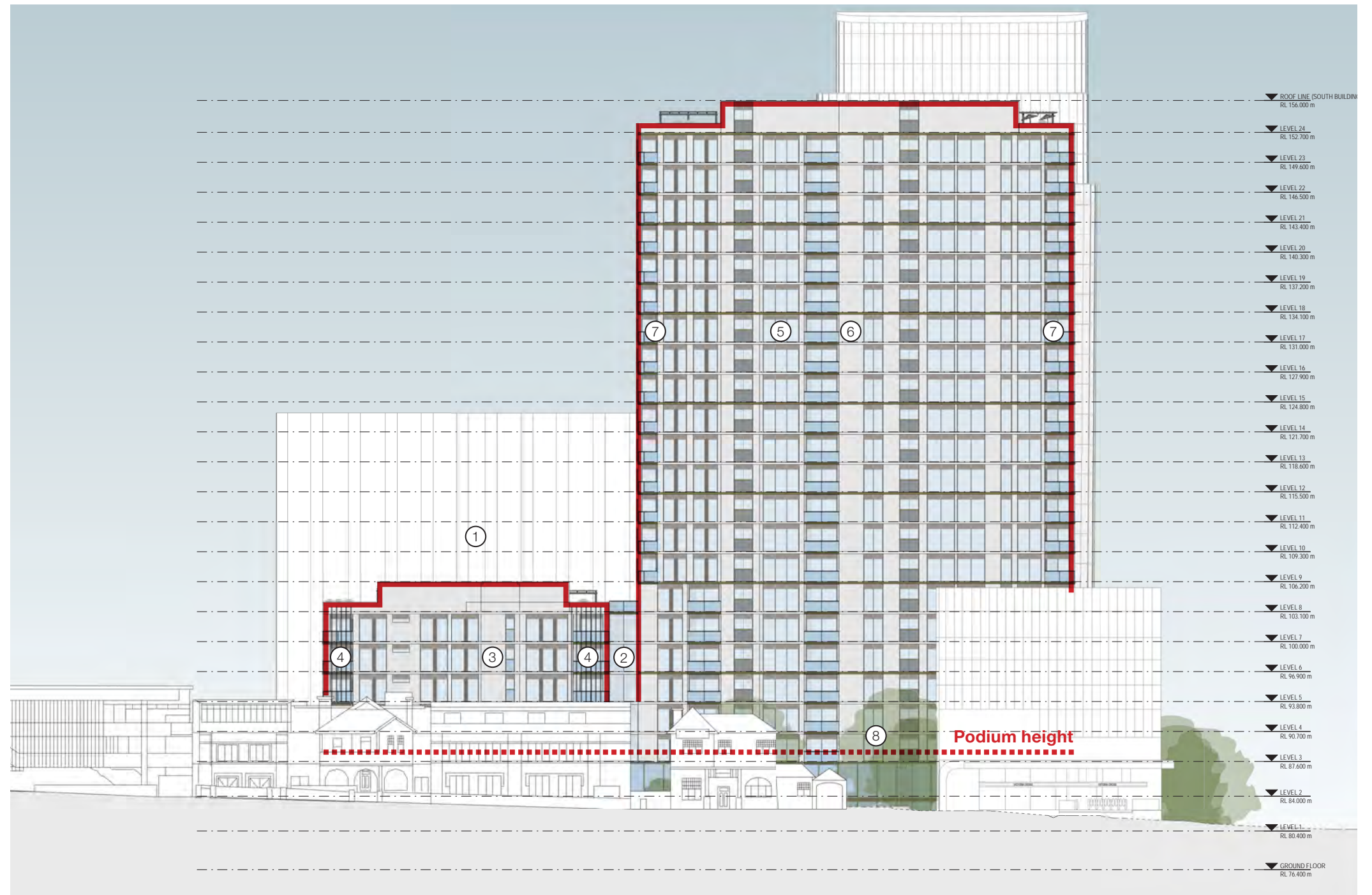
Refer to section 7.1 for a Visual Impact Assessment summary, and to the full Visual Impact Assessment by Ethos Urban for more information on the visual impact of the proposal.



**Fig 4-6** Design response to heritage items and conservation areas



1. Building scale diminishes towards the low rise development to the north.
2. Vertical recess to articulate building mass and prevent long monolithic facade.
3. Fenestration minimised to the west elevation to prevent overlooking of sensitive areas such as Wenona School, whilst still ensuring that façades are not 'blank' as this would be a poor urban outcome.
4. Screening devices can be used on balconies to further prevent overlooking whilst still permitting light and ventilation.
5. Selective vertical facade articulation and expression of 'solid' and 'transparent' areas to provide selective views, whilst preventing overlooking and 'blank' façades.
6. Appropriate horizontal fenestration to give a human scale and break up cores etc.
7. Balconies expressed adequately so as to humanise the buildings and respond to light and view opportunities that change at different heights.
8. Defined base that relates to the lower scale development adjacent.



**Fig 4-7** West elevation illustrating design response to heritage items and conservation areas











05 Concept scheme

5.1 Site plan

An indicative concept scheme has been designed to demonstrate and assess the appropriateness of a development with the proposed land uses and heights on site.

The proposal consists of the following elements:

- new through site link along the eastern boundary and new landscaped areas including a public plaza
- three storey commercial podium with ground floor retail uses and entrance lobbies
- a childcare facility at the northern end of the ground floor
- a residential building over floors 3 to 23, ranging in height from 8 storeys at the northern end of the site to 24 storeys at the southern end of the site
- building footprint set back on the McLaren Street frontage to allow the retention of two significant mature trees and to align with the adjacent 168 Walker Street development
- multi level underground car park, accessed from McLaren Street.



Fig 5-1 Site Plan 1:1000 Scale @ A3



### 5.2 Indicative ground level layout and public realm

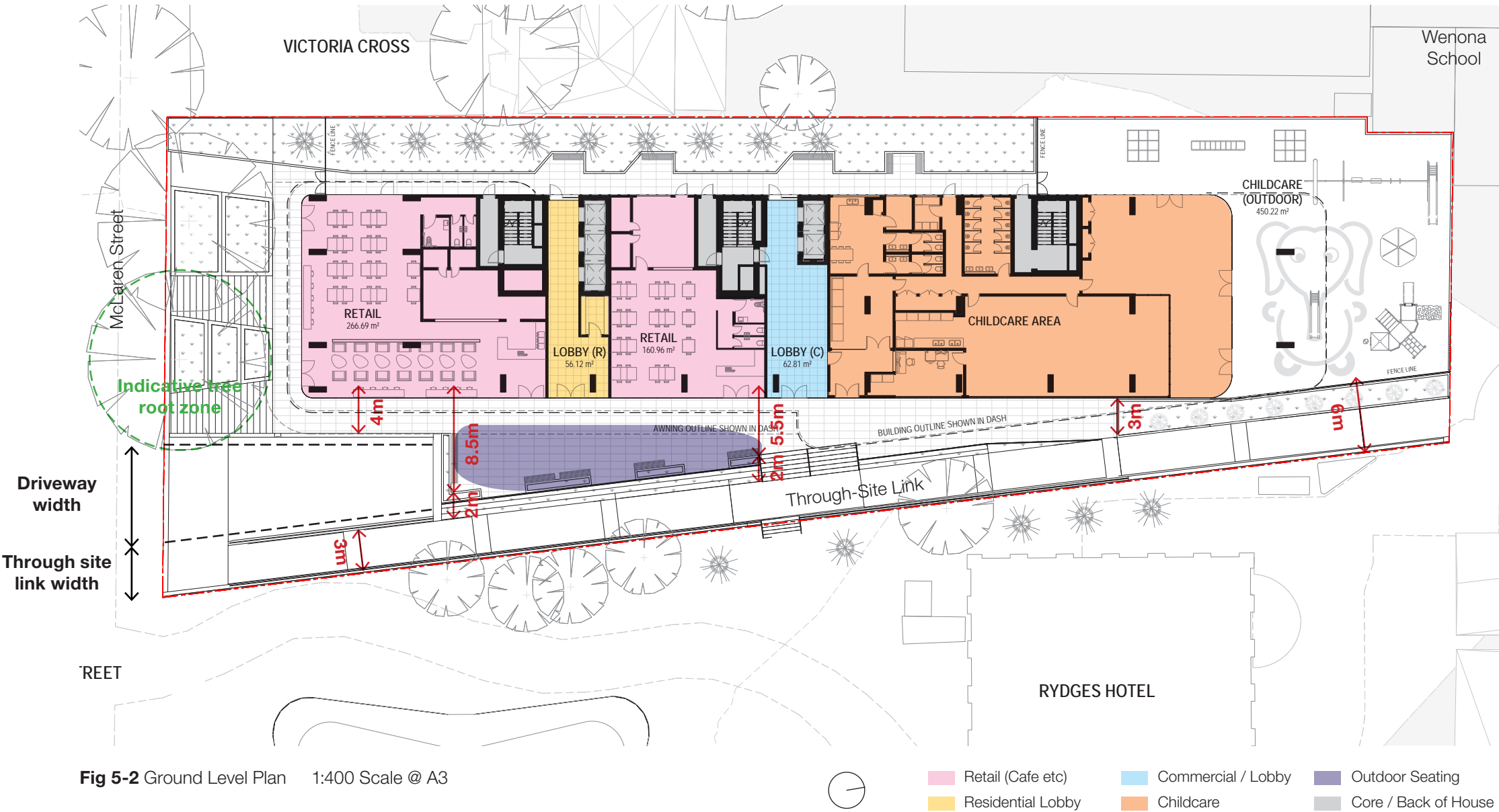
The proposal creates a continuous active frontage at ground level adjacent to the new through-site link and public plaza.

The ground floor consists of retail, cafe, and childcare uses, with lobby areas providing access to the residential and commercial tenancies above. The public plaza areas also provide opportunities for outdoor seating and al-fresco dining.

Structural columns are positioned internally, behind the glazing so as to not create physical and visual obstructions along the building frontage, with continuous awnings above providing shelter for pedestrians and building users.

Circulation cores and back of house areas are located on the western side of the building so as to not limit potential for active frontage along the western side of the building and also facilitates discreet service access and means of escape.

The vehicular entrance to the site has been sized and located in order to maximise the width of the through site link whilst ensuring sufficient clearance for vehicles and minimal encroachment upon existing tree root zones, so as to not compromise existing significant trees.





05 Concept scheme

5.3 Childcare facility

An area has been designated at the northern end of the ground floor of the building for a childcare facility. This public benefit is included in the CPPS and is supported by the Council.

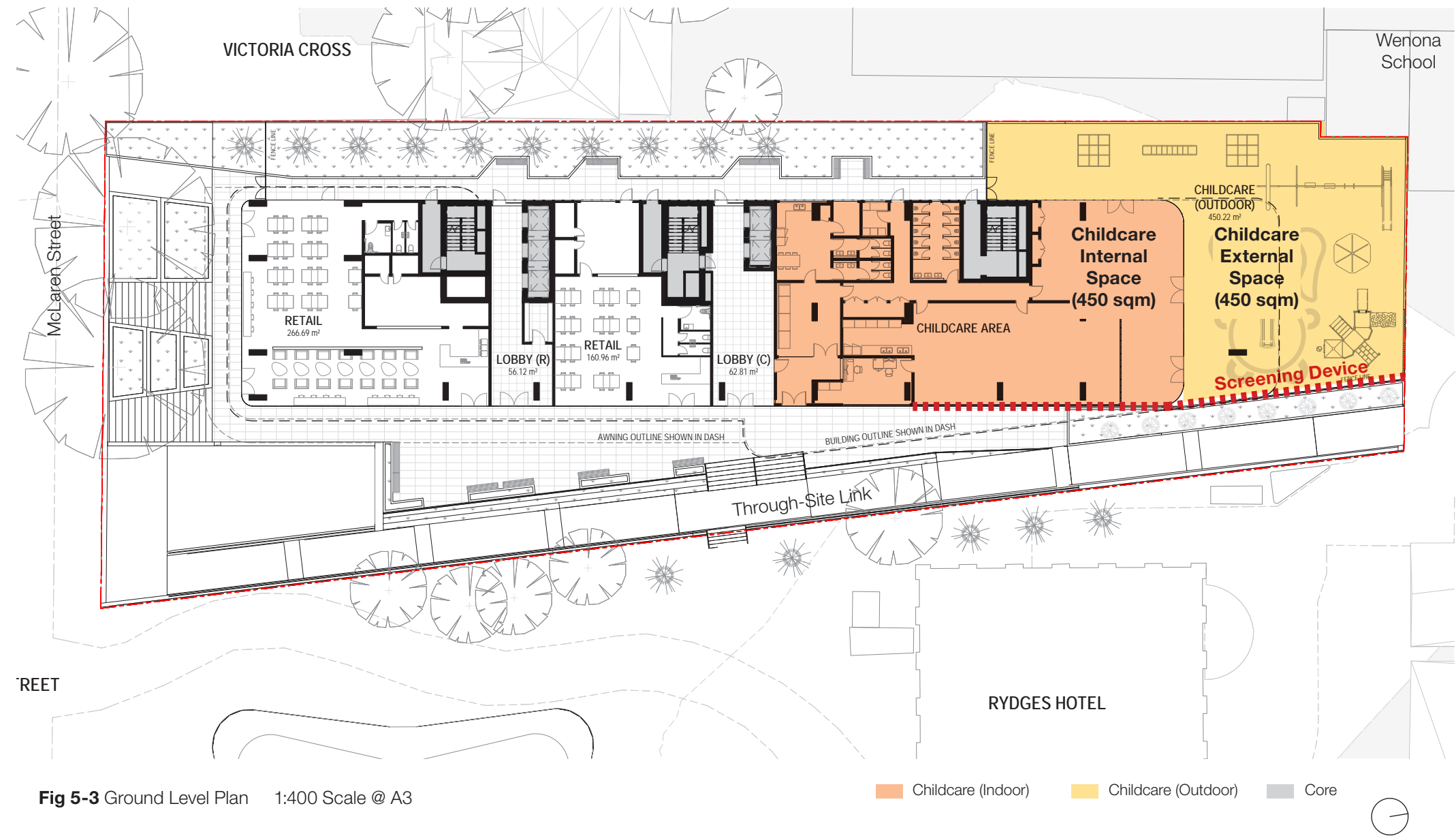
The childcare facility is comprises 450sqm of indoor space and 450sqm of outdoor space (900sqm total area). This facility being provided on a single floor means that there is a direct physical connection between the internal and external spaces, and facilitates a high degree of child supervision.

The childcare centre is located at the northern end of the site adjacent to the existing Wenona School to the north and west boundaries and is highly compatible with these adjacent uses. The external facade of the childcare facility will feature full height screening, louvres or other architectural treatments to restrict views into the facility whilst permitting daylight.

The predominantly north facing open space is mostly open to the sky, whilst also providing some outdoor covered area offering sun and rain protection when necessary.

To support the childcare facility, 2 x all-day designated car spaces for staff are provided at Basement 1 Level in accordance with Health and Work Safety requirements, as well as 4 x additional car spaces for drop off during the hours of 7:30 - 9:30 am and pick-up between 4:00 pm and 6:00 pm (with a 10 minute stop limit).

Please refer to the childcare facility summary table on the opposite page for more information.





Childcare Facility Requirement	Details of Compliance
Minimum 900m2 of dedicated space including 450m2 of outdoor space.	910m2 total space provided comprising: 460m2 indoor space 450m2 of outdoor space
Entire facility to be provided over one level ideally for ease of connection between indoor and outdoor spaces, increased supervision, and reduced staffing requirements.	Facility provided entirely at ground level including both indoor and outdoor spaces, with the plan layout promoting good visibility throughout the facility.
Outdoor space to be preferably one single consolidated area, rather than two separate areas.	Single north facing open space provided.
2 x all-day designated car spaces for staff (Health and Work Safety requirement) 4 x additional car spaces for drop off during the hours of 7:30-9:30am and pick-up between 4:00pm and 6:00pm (10 minute stop limit)	6 x spaces provided in total including 2 staff spaces and 4 spaces for drop off (Refer to Section 5.8 for parking details)

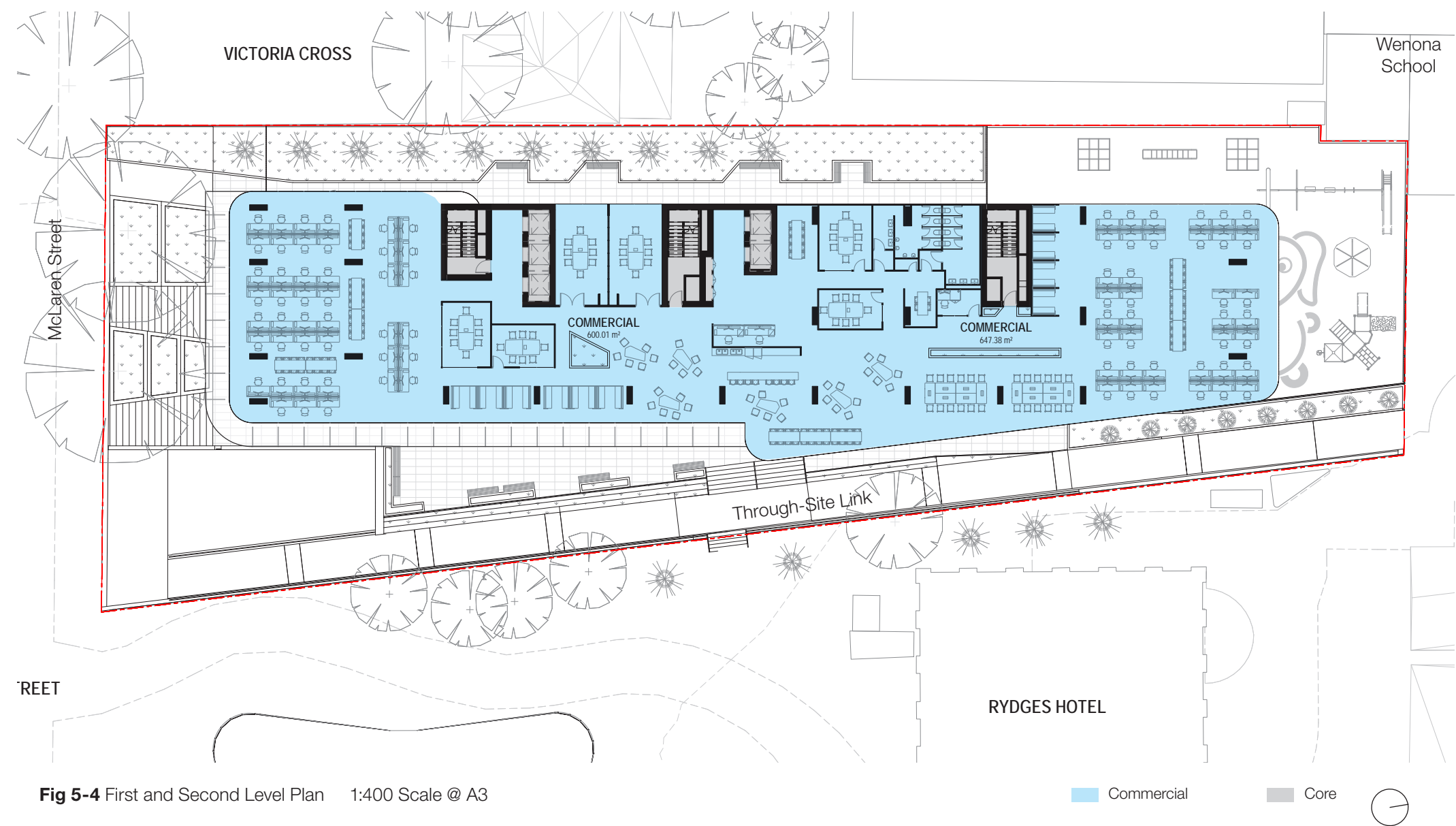


05 Concept scheme

5.4 Commercial podium

The proposal features a three storey podium that establishes a defined ‘base’ to the building with a human scale, creating a better ground plane experience that compliments the through-site link. The buildings above are set back from the podium edge to create articulation whilst still maintaining an appropriate level of slenderness to the building fronting McLaren Street, so that it appears as an elegant form when viewed from the south along the through site link.

Commercial uses are located on the first and second floors of the building, and are accessed via the commercial lobby at ground floor or from the basement carpark level 1.



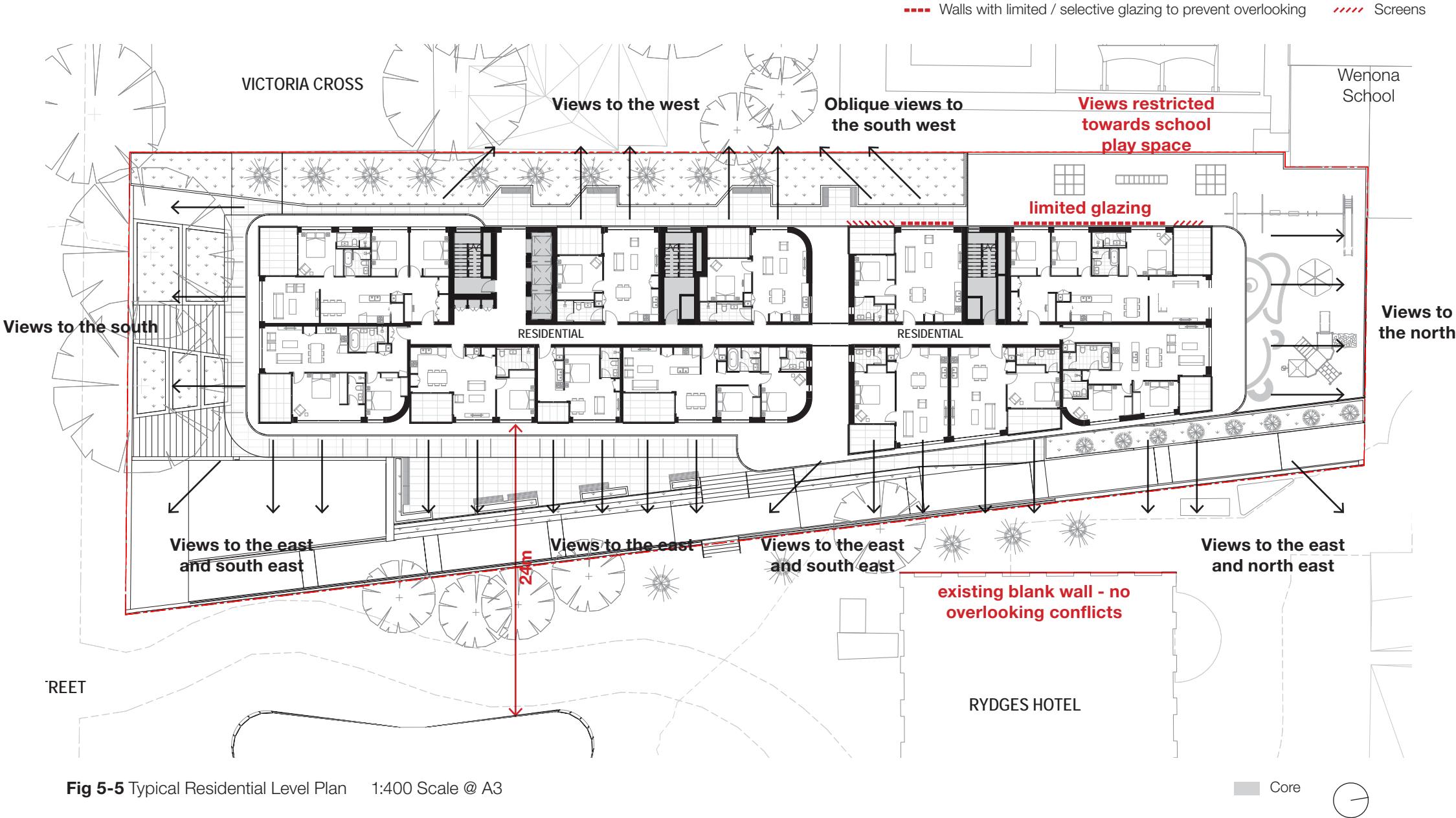


### 5.5 Residential floorspace

The typical residential level proposes the following building alignments and setbacks:

- 24m facade setback from 168 Walker Street development which is in line with ADG requirements, with an eastern boundary setback for 52 McLaren Street ranging from between 6m and 14.4m along its length.
- 6m setback from western boundary. Careful consideration around placement of cores, habitable rooms, windows, balconies, and screens to these façades prevents overlooking to the sensitive areas in the adjacent school, whilst ensuring dwellings receive adequate daylight and outlook.
- 9.7m setback from northern boundary to first floor podium, 12.6m setback from northern boundary to main building mass.

The Victoria Cross Station building restricts solar access to only three apartments that are directly adjacent, but these apartments still receive the required daylight hours for ADG compliance.





5.6 Typical apartment layouts



Fig 5-6 Typical Residential Level Plan 1:200 Scale @ A3



5.7 External amenity and shared facilities

Amenity space in the form of open balconies is provided to all apartments in accordance with the ADG requirements, generally located to maximise solar access and capitalise on view opportunities.

There are also opportunities for shared roof terraces at levels 8 and 24 depending on rooftop plant requirements. These would provide commanding views over the city, harbour and local district.

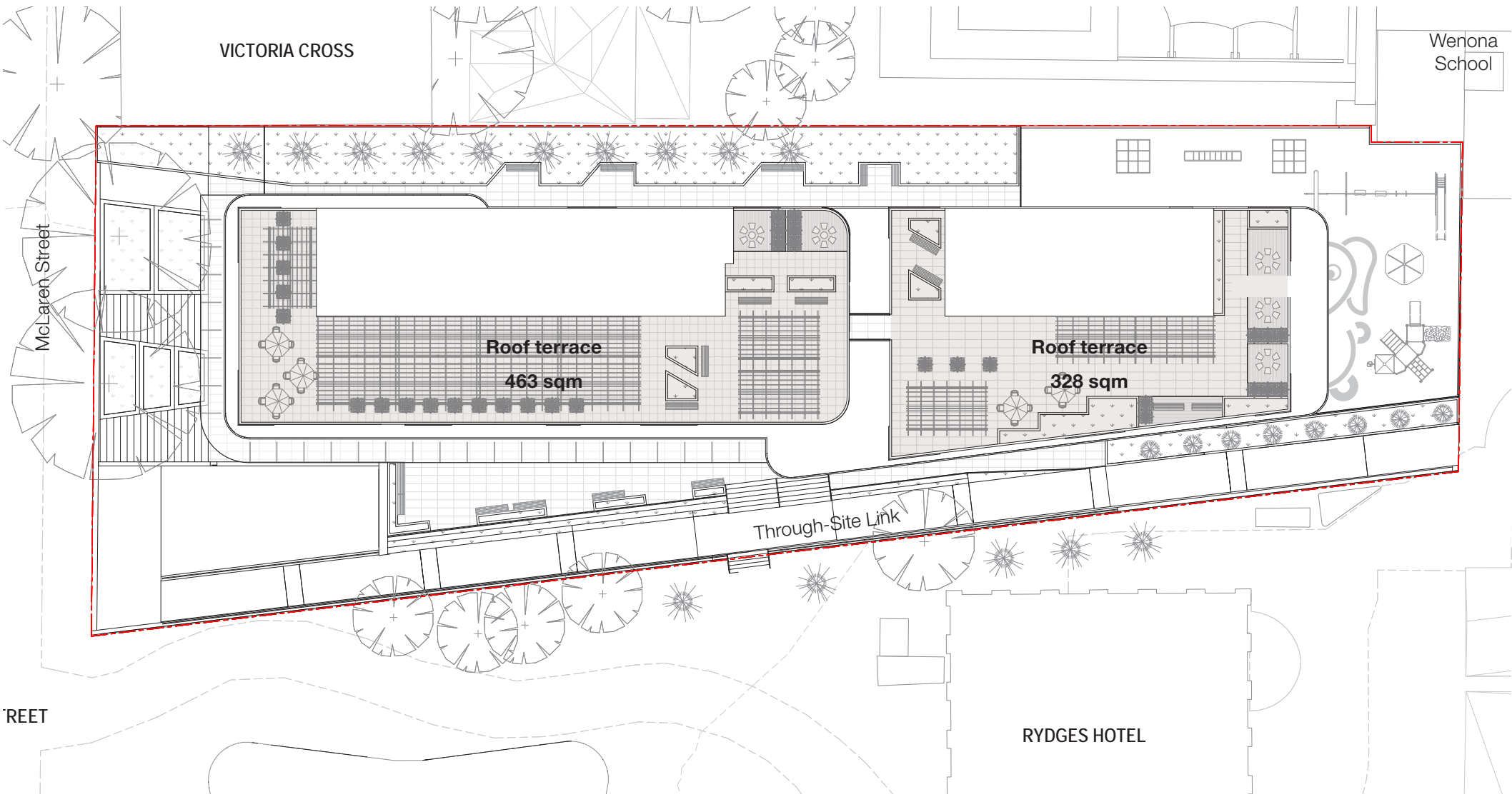


Fig 5-7 Roof Plan showing indicative roof terraces 1:400 Scale @ A3



05 Concept scheme

5.8 Basement and parking

Three levels of basement car parking is provided, with the number and distribution of spaces as follows:

Use / Type	No.
Car share	4
Residential	70
Residential accessible	34
Childcare	5
Childcare accessible	1
Commercial/retail	6
Commercial/retail accessible	1
<b>Total</b>	<b>121</b>
Motorcycle	12
Car wash	1

The parking is generally arranged with the childcare, commercial, and car share spaces located at B1 level, with the lower levels B2 and B3 for residential parking. Accessible spaces are located adjacent to the circulation cores.

Bicycle and general storage, as well as end of trip facilities is provided in line with ADG requirements.

A loading bay is provided centrally for refuse collection from a centralised waste storage area.

The vehicular entry has been located to the west of the current driveway, so as to allow sufficient space for the new through-site link, yet not being too close to existing tree root zones.

Refer to the separate Traffic and Parking Impact Assessment by GHD for more information.



Fig 5-8 Basement levels carparking distribution

- Residential
- Commercial
- Childcare
- Car Share



5.9 Area and accommodation schedule

Site area = 3,197 sqm

52 McLaren Street Area Schedule (GFA) Jul-22						
Level	South Building - Total Area (m²)			North Building - Total Area (m2)		
	Residential	Commercial	Retail	Residential	Commercial	Retail    Childcare (Int)    Childcare (Ext)
Basement -4						
Basement -3						
Basement -2						
Basement -1						
Ground	56	62	427			460      450
Level 1		607			649	
Level 2		607			649	
Level 3	546			396		
Level 4	546			396		
Level 5	546			396		
Level 6	546			396		
Level 7	546			396		
Level 8	546					
Level 9	545					
Level 10	545					
Level 11	545					
Level 12	545					
Level 13	545					
Level 14	545					
Level 15	545					
Level 16	545					
Level 17	545					
Level 18	545					
Level 19	545					
Level 20	545					
Level 21	545					
Level 22	545					
Level 23	545					
Level 24						
South Building - Total Area (m²)			North Building - Total Area (m2)			
Residential	Commercial	Retail	Residential	Commercial	Retail    Childcare (Int)    Childcare (Ext)	
11507	1275	427	1979	1298	0      460      450	
Overall - Total Area (m2)						
Residential	Commercial	Retail	Childcare (Int)	Childcare (Ext)		
13487	2573	427	460	450		
					Total Non-Residential GFA	3460
					Total GFA	16947

52 McLaren Street Accommodation Schedule								
Jul-22								
Level	South Building				North Building			
	Studio	1 Bedroom	2 Bedroom	3 Bedroom	Studio	1 Bedroom	2 Bedroom	3 Bedroom
Basement -4								
Basement -3								
Basement -2								
Basement -1								
Ground								
Level 1								
Level 2								
Level 3	1	3	2	1		3	1	1
Level 4	1	3	2	1		3	1	1
Level 5	1	3	2	1		3	1	1
Level 6	1	3	2	1		3	1	1
Level 7	1	3	2	1		3	1	1
Level 8	1	3	2	1				
Level 9	1	2	3	1				
Level 10	1	2	3	1				
Level 11	1	2	3	1				
Level 12	1	2	3	1				
Level 13	1	2	3	1				
Level 14	1	2	3	1				
Level 15	1	2	3	1				
Level 16	1	2	3	1				
Level 17	1	2	3	1				
Level 18	1	2	3	1				
Level 19	1	2	3	1				
Level 20	1	2	3	1				
Level 21	1	2	3	1				
Level 22	1	2	3	1				
Level 23	1	2	3	1				
Level 24								
South Building - Total Unit Numbers				North Building - Total Unit Numbers				
Studio	1 Bedroom	2 Bedroom	3 Bedroom	Studio	1 Bedroom	2 Bedroom	3 Bedroom	
21	48	57	21	0	15	5	5	
14%	33%	39%	14%	0%	60%	20%	20%	
Total				Total				
147				25				
Overall - Total Unit Numbers								
Studio	1 Bedroom	2 Bedroom	3 Bedroom					
21	63	62	26					
12%	37%	36%	15%					
				Total				
				172				











## 06 Landscape design

### 6.1 Strategic context overview

The landscape concept design for 52 McLaren Street has been informed by the following key North Sydney planning and strategy documents:

- North Sydney Public Domain Style Manual 2019
- Ward Street Precinct Master Plan 2019
- North Sydney Public Domain Strategy 2020
- North Sydney Civic Precinct Planning Study, 2020.

The documents provide an overarching framework to deliver a public domain that addresses and complements, the new public transport infrastructure and commercial developments, caters for the expected growth and by facilitating a spatially integrated North Sydney CBD. The key objectives, principles and design themes of these various documents that have informed the landscape plan include:

- improve legibility and identity and facilitate movement across the CBD
- connect all public open spaces into an integrated public domain network
- integrate the pedestrian and cycle network with the future Victoria Cross Station
- maximise the use and amenity of the inner block areas by creating new plazas, laneways and open spaces
- maximise the opportunities for the public realm to act as a hub of public life
- adopt planting strategies that include retaining existing trees to create a green and leafy public space
- ensure landscape design is sustainable and contributes to environmental outcomes
- reduce vehicular traffic where possible to create more pedestrian focused active streets.

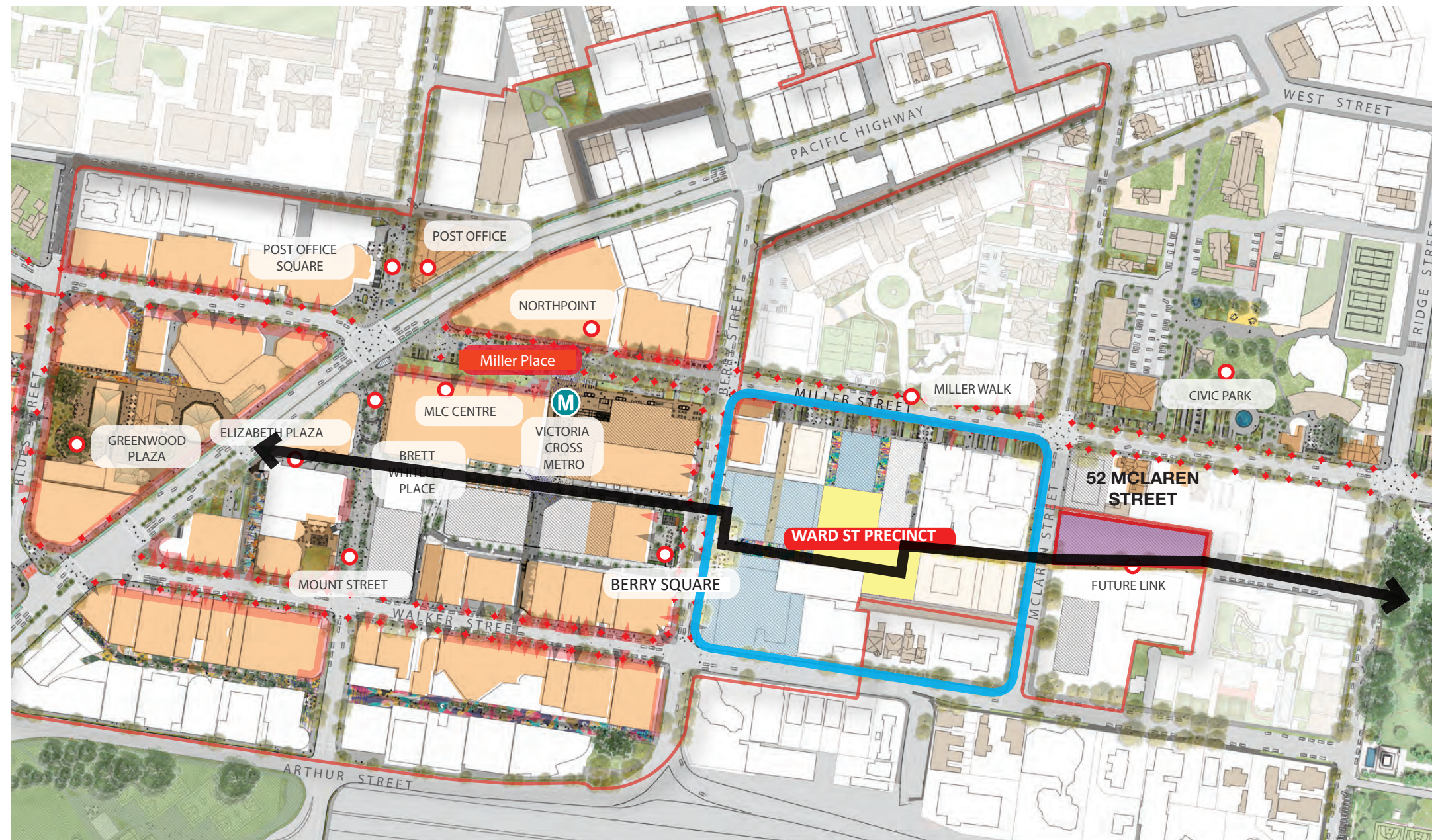


Fig 6-1 Ward Street Precinct Master Plan 2019



6.2 Green connections

The proposed development at 52 McLaren Street provides the opportunity to increase green open space within the North Sydney CBD. This opportunity is further enhanced through a network of parks and reserves surrounding the development.

St Leonards Park to the north is the largest parcel of green open space within the North Sydney LGA. This park houses the North Sydney Oval, The Greens, community facilities, playing fields, courts, a playground and a war memorial. St Leonards Park will connect with 52 McLaren Street via Elliot Street and a potential future connection off Walker Street.

Forsyth Park to the east is connected via a pedestrian bridge over the M1 Motorway and caters for both pedestrian and cyclists through a series of shared cycleways, ramps and stairs. This equitable access is continued through 52 McLaren Street, providing continuity in the green open space network.

The green connections will filter through 52 McLaren Street and will provide the following benefits:

- increase canopy cover through pedestrian and cycle links
- further enhance the existing green infrastructure throughout the surrounding road network
- increase permeability through deep soil planting
- improve the liveability of the area through shade provision, improved biodiversity and air quality.



Fig 6-2 Green Connections



6.3 Public domain opportunities

A key initiative of the Public Domain Strategy is the linking of existing and future planned pedestrian laneways in the CBD to create a safe and activated pedestrian environment.

Link to St Leonards Park

The laneway network will connect the CBD from south to north, from North Sydney train station all the way to St Leonards Park, linking some of the major urban spaces and plazas, such as Brett Whiteley Place, Greenwood Plaza or the proposed Civic Square.

The CBD vision for the laneway link from North Sydney Train Station to St Leonards Park requires a connection between McLaren Street and Ridge Street that ends at the entry to the park. This provides an opportunity to design a more generous and safer green laneway link along the eastern boundary of 52 McLaren Street, up into Elliot Street that will facilitate the following:

- reinforce connections to Ward St plaza, Victoria Cross, and to North Sydney Oval
- greater opportunities for public realm activation
- Increased landscaping, planting and open space
- opportunities for water sensitive urban design initiatives
- retention and extension of the tree canopy
- provision of consistent paving and materiality that creates a continuous and unified street network.

Images sourced from the North Sydney Public Domain Strategy, 2020

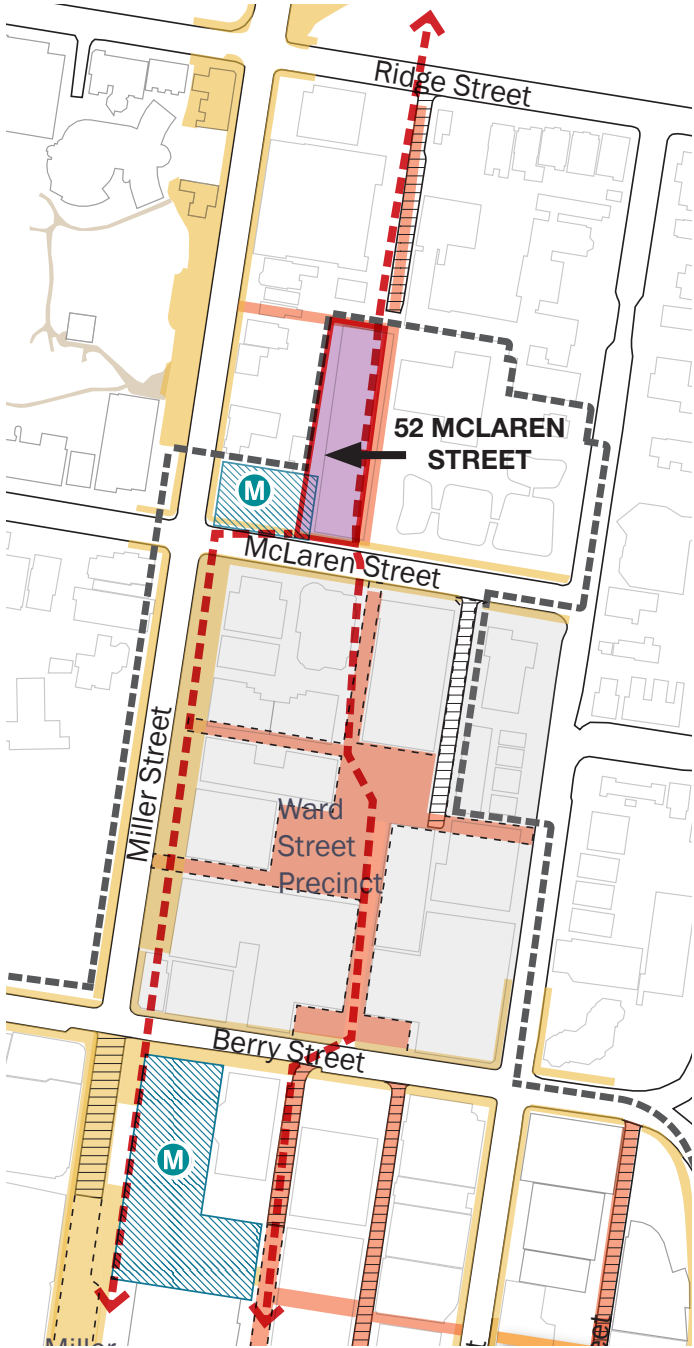


Fig 6-3 Continuous and unified street network

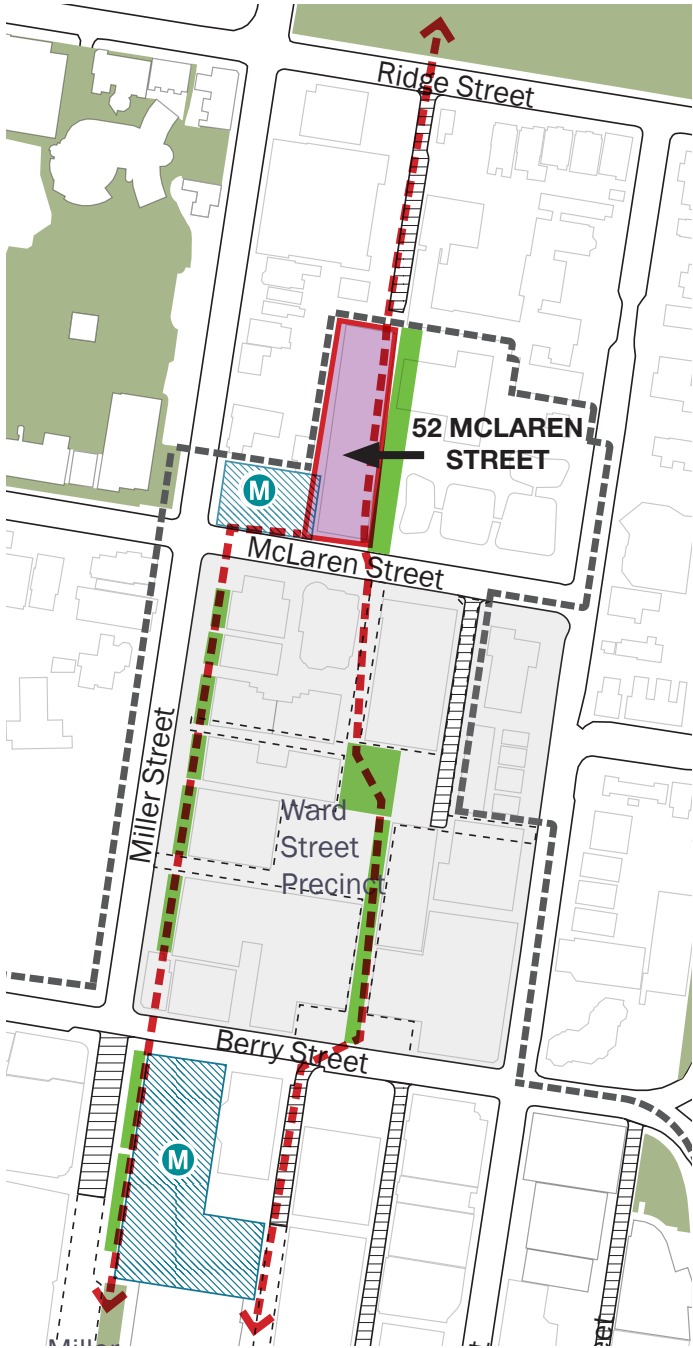


Fig 6-4 Increased planting and landscaping

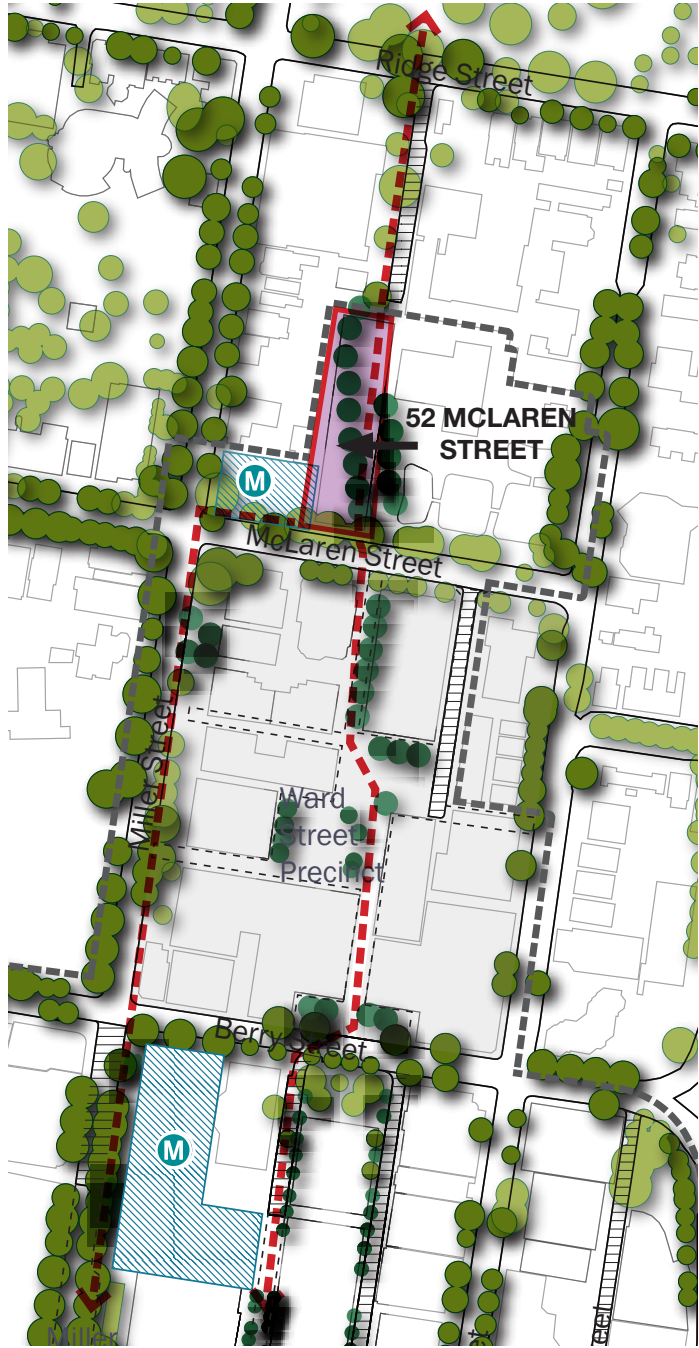


Fig 6-5 Retention and expansion of tree canopy

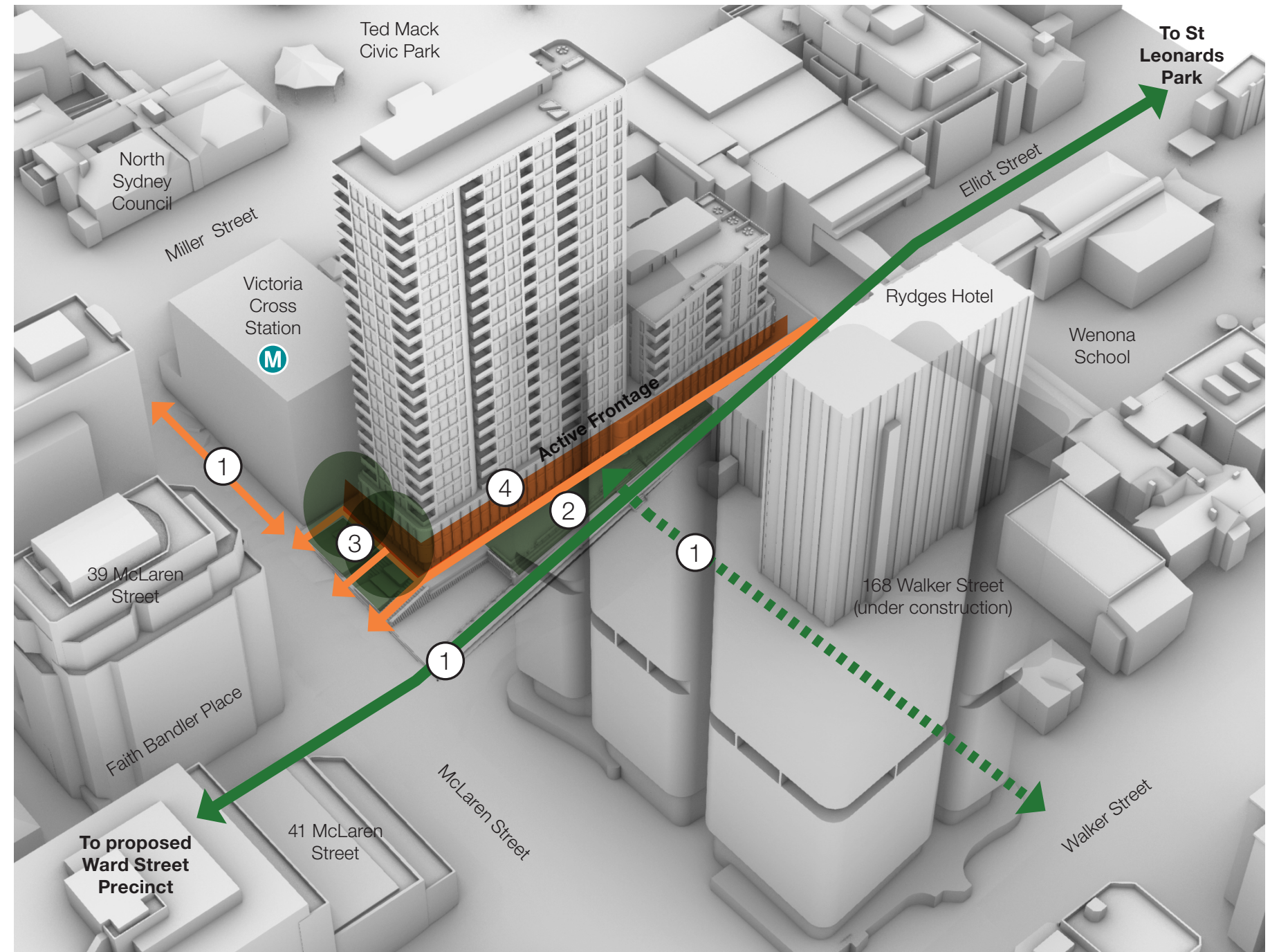


## 6.4 Public domain design principles

The proposed landscape design for 52 McLaren Street articulates a public realm framework that leverages its proximity to North Sydney 's CBD, Civic Spine, Victoria Cross Station and the implementation of a through-site link, all the while providing public and community benefit. The public domain framework is guided by four main principles.

- 1 **Strong and clear connections**, ensuring the site has a safe, well connected and legible public realm
- 2 **Amenity and inclusion**, ensuring all user groups are respected with both residents and the public benefiting from the proposal, through the creation of a better public domain experience by creating a levelled ground plane
- 3 **Responsive and sustainable landscape**, ensuring the landscape design is sustainable and contributes to environmental outcomes
- 4 **Activation**, ensuring the public realm and building edge provide opportunities for meeting, socialising and dwelling

52 McLaren Street has a variety of on-site and off-site conditions and the principles will guide the landscape plan response to the site and location, providing the foundation for its character and spatial definition.



**Fig 6-6** Public Domain Design Principles



06 Landscape design

6.5 Landscape character zones

The design principles have been used to inform the character and spatial arrangement of the landscape plan. The site is planned to maximise the public realm area surrounding the building and consists of the following key landscape zones:

- Public realm and a DDA compliant through site link along the eastern edge of the site connecting McLaren Street and Elliot Street, with a potential link to Walker Street.
- A staircase entrance with extensive landscaping at the McLaren Street end of the site.
- A building ground floor and public realm interface at a consistently flat grade, facilitating activation and DDA compliant access to the development from those travelling to/from the Victoria Cross Station.
- Private garden for resident use along the western edge of the site.
- Retention of existing significant trees to maintain canopy cover.
- An outdoor play space for the childcare facility at the northern end of the site.
- A car park entrance located on the eastern end of the 52 McLaren Street site boundary, responding to topography.

Landscape character zones

- ① McLaren Street entry, landscaping and retained trees
- ② Pedestrianised through site link
- ③ Ground plane / building interface activation
- ④ Private resident's garden
- ⑤ Car park entrance
- ⑥ Childcare outdoor play space
- ⑦ Adjacent Site (\*\* Note existing green and landscaping on the adjacent site not subject to this proposal)

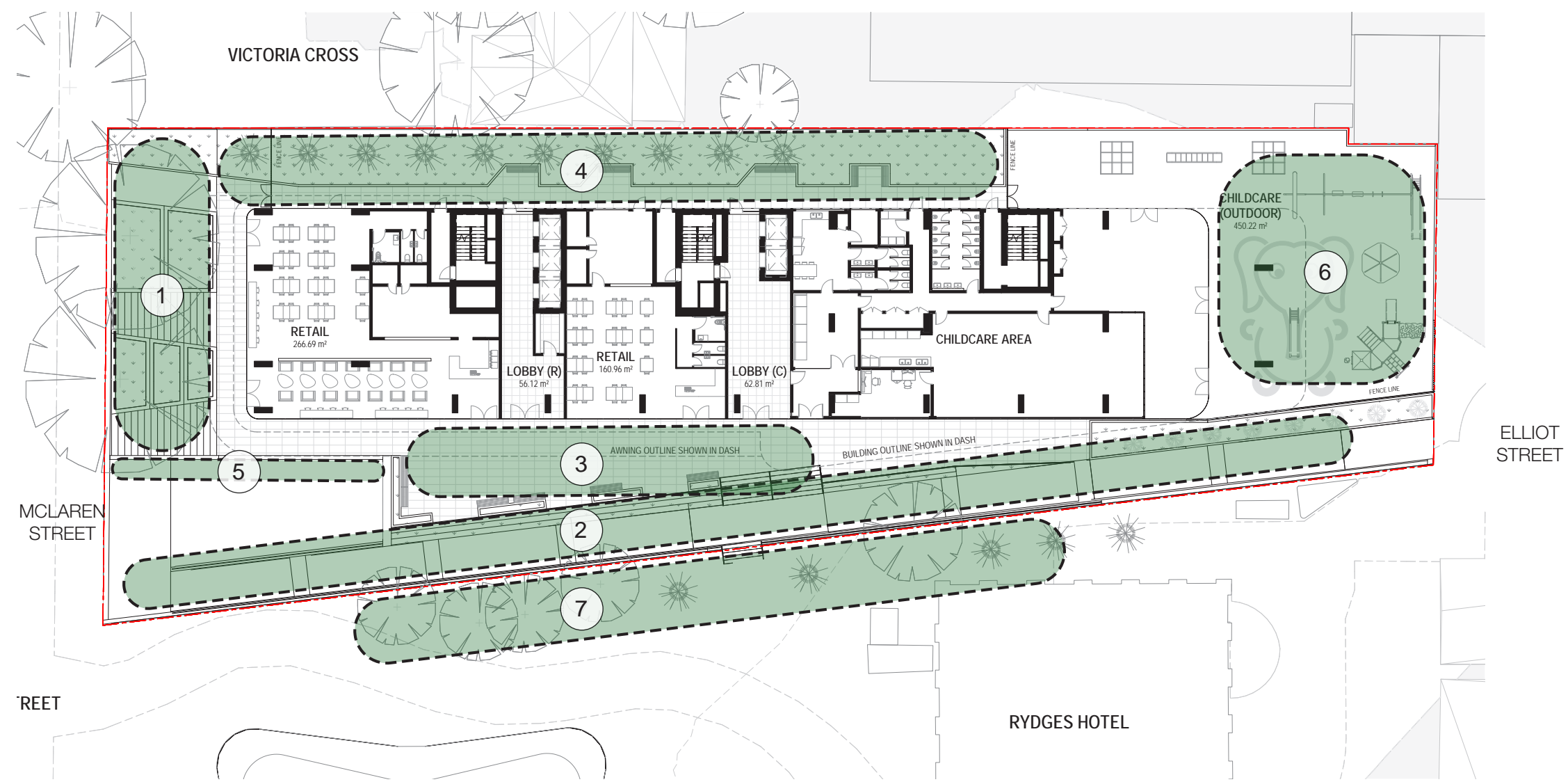


Fig 6-7 Landscape character zones 1:400 Scale @ A3

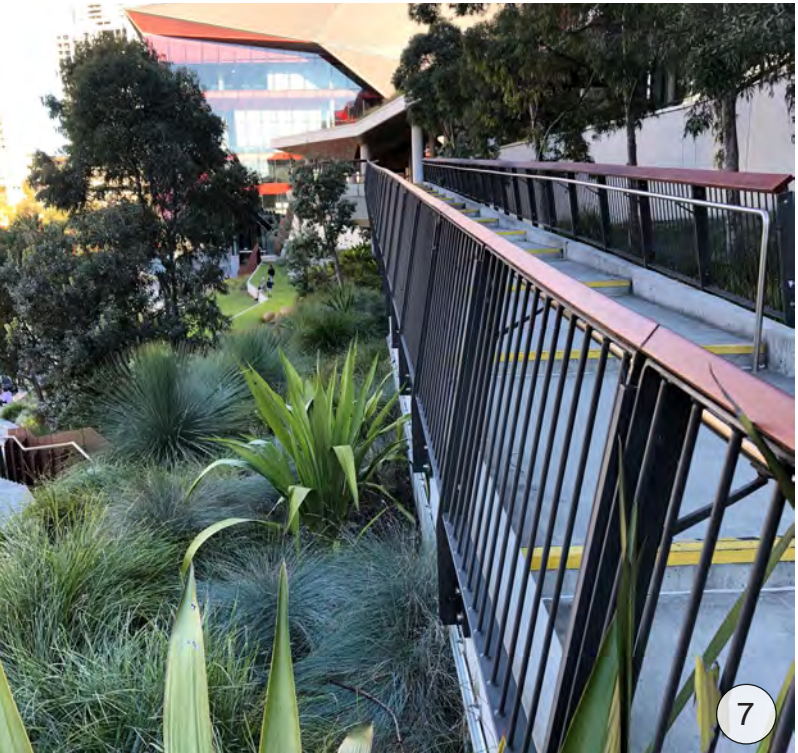
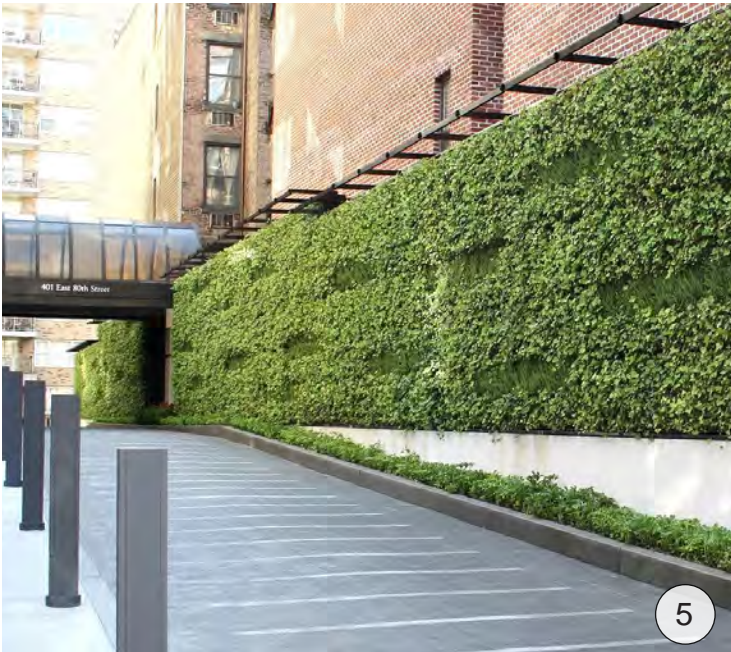
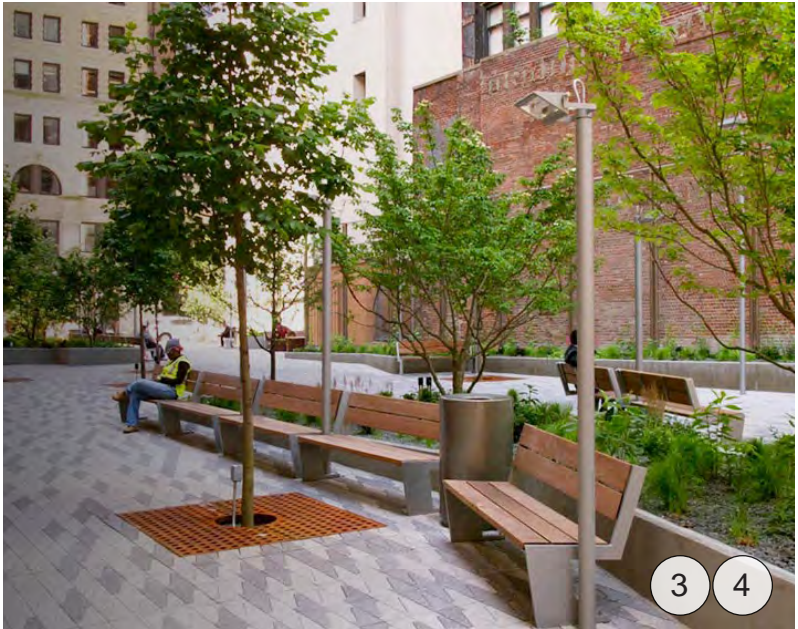
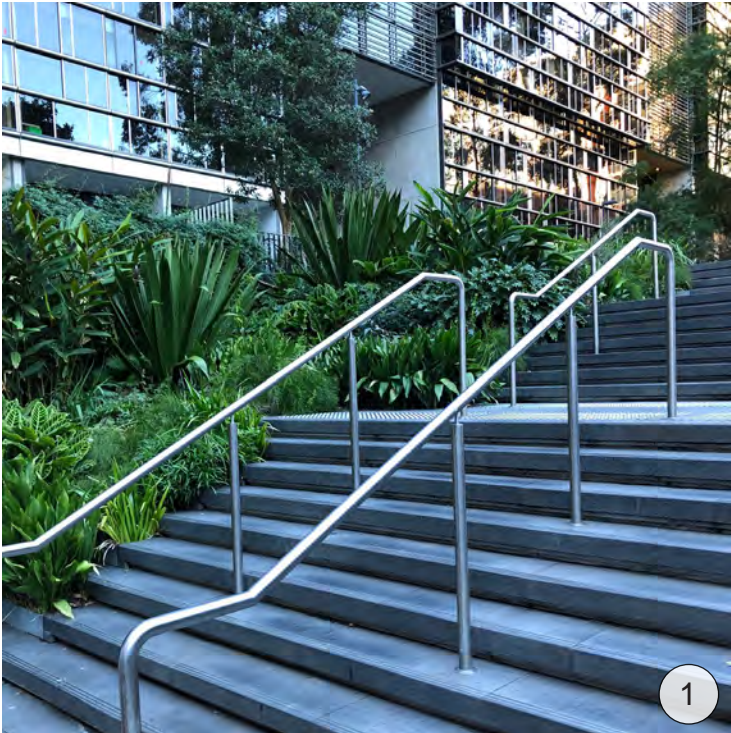




6.6 Landscape character zone precedents

The landscape zones within and surrounding the development will showcase a variety of planting typologies, tree arrangements, materiality and urban form. These combined elements are an extension to the building, folding into the public realm and blending seamlessly with the surrounding built environment.

The landscape zones will be anchored through a layered planting palette, providing a softness often missing from our urban centres. The retention of existing trees and provision of new tree planting will further enhance the landscape zones, creating movement and rhythm that carries the user from one node to the next.





06 Landscape design

6.7 Landscape concept plan

- 1 **McLaren Street entry**  
Steps lined with planting beds with retained trees lead up to the plaza from McLaren Street
- 2 **Pedestrianised through site link**  
DDA compliant ramp linking Elliot Street to McLaren Street
- 3 **Ground plane / Building interface**  
A combination of movement and gathering spaces adjacent to the active uses along the building frontages
- 4 **Childrens Play Space**  
North-facing, outdoor area with rubber play surfaces adjacent to existing school uses
- 5 **Carpark entry**  
Climbing plants lining the walls of the entry to soften transition from outside to the underground
- 6 **Adjacent site**  
Future potential as a pedestrian link and a continuation of planting (\*\*Note that the landscaping is documented as existing and this proposal does not propose any additional landscaping to the adjoining property)

- Softscaping
- Hardscaping
- Off-site footpaths
- Roads / Driveways
- Childcare Playspace
- Pedestrian Routes
- Fire Escape

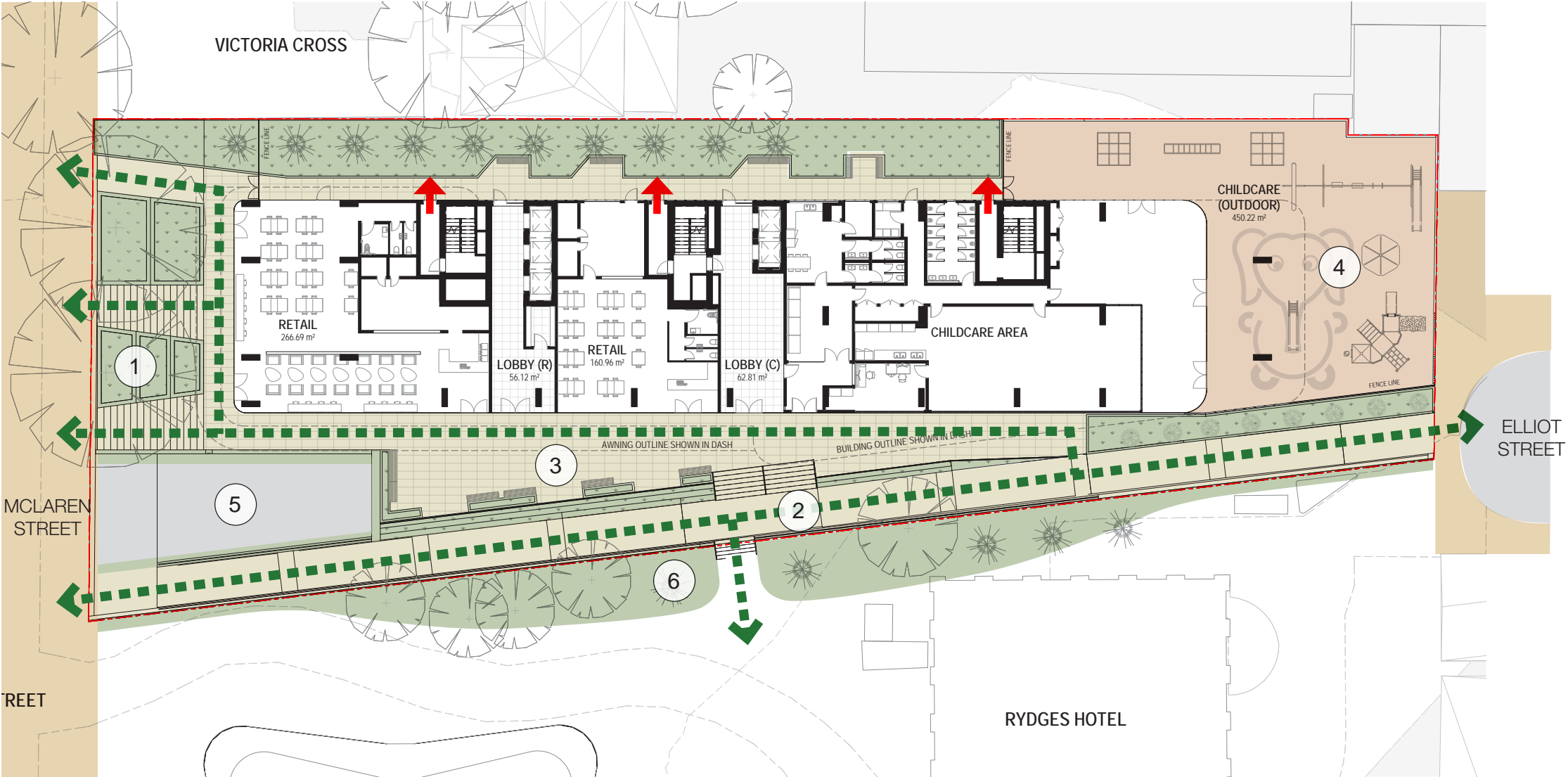


Fig 6-8 Landscape concept plan 1:400 Scale @ A3



6.8 Landscape concept design

The landscape concept for 52 McLaren Street has been developed in accordance with the North Sydney Public Domain Strategy and the North Sydney Public Domain Style Manual and Design Codes. The design has a strong focus on greening the public realm. This is achieved through the retention of large mature fig trees at the McLaren Street entry, high quality podium landscaping around the car park entry and active frontages, as well as the inclusion of deep soil zones along both the southern and western edges of the site. The deep soil zone along the western edge of the site also provides an opportunity for new trees which can help screen the development to the existing adjacent properties to the west.

Despite opportunities for deep soil zones being limited due to the highly constrained nature of the site, the proposal still achieves a substantial amount of deep soil area, with the total area of deep soil area provided being 450sqm, which represents 14% of the site area.

The existing fig trees at the McLaren Street entry are a key feature of the design. These significant trees will require careful consideration by a qualified arborist at the early design stages. This will help inform the design and ensure the optimal environment for their long term survival is achieved.

Podium landscaping will wrap around the development and provide a curtain to the car park entry. The design aims to maximise planting in all public domain areas, blurring the boundaries between nature and built form. This synergy will provide a dramatic backdrop to what will be an active and vibrant new precinct.



Fig 6-9 Through site link illustration (concept only - not to scale)



06 Landscape design

6.9 Landscape planting

The planting strategy focuses on maximising green outlook and defining spaces within the framework of built form, through-site link and entrance plazas. Greening and softening initiatives for the urban environment include:

- Climbing plants lining the walls and edges of the car park entrance, softening the transition from outside into the underground car park
- Retained existing trees to maintain canopy cover along McLaren Street
- Deep soil zone supporting retained and new trees
- Cascading under-storey planting along the McLaren Street frontage
- Diverse plant species along the through-site link and gathering areas to reduce heat island effect and create a more user friendly green space
- Terraced planters with small trees to soften car park edge along the through-site link
- Cascading planted area along the western edge of the through-site link
- A verdant, quiet garden environment for resident use along the western boundary
- Dynamic and interesting play surfaces to the childcare open space
- Potential for blank walls at the northern end of the site to be re-purposed as green walls.








-  Retained trees
-  Potential trees
-  Diverse understorey
-  Low understorey
-  Climbing plants
-  450sqm (14%) Deep Soil Zone
-  Potential off-site deep soil zone



Fig 6-10 Landscape planting plan 1:400 Scale @ A3

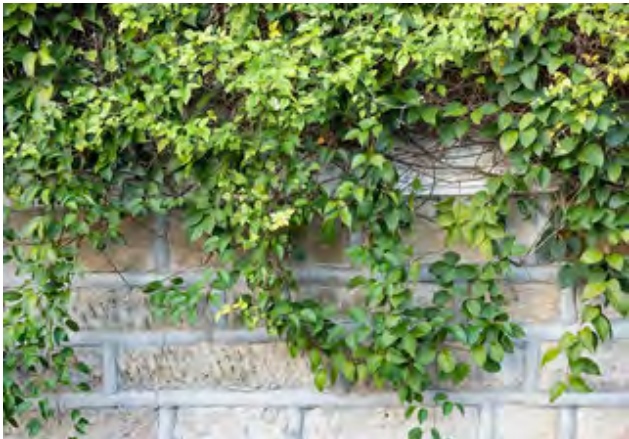




**6.10 Landscape character planting**

Planting will be a key element within each landscape zone, providing vegetated layers to the horizontal and vertical planes. Through a careful selection of native and exotic planting species, the landscape will provide visual interest through seasonal colour and variation in texture and form.

The layering of vegetation will help define each zone within the development and provide a human scale to the public domain.





06 Landscape design







6.11 Landscape materiality

The landscape strategy adopts a variety of surface finishes and paving choices to define and differentiate the various zones of movement, gathering and private spaces across the site. The landscape strategy focuses on creating a public realm which is accessible to all with:

- paved public domain, sitting steps and furniture along McLaren Street
- installation of a DDA approved ramp for the through-site link to allow for easy access for all users
- paved public domain wrapping around the eastern edge of the building connecting McLaren Street and Elliot Street
- a range of street furniture including seating to create spaces of gathering in the northern entry plaza and adjacent to the through site link.

The through site link will consist of a DDA approved ramp extending from north to south across the site, linking Elliot Street at the north, to McLaren Street to the south.

The link and the public domain wrapping around the building and gathering spaces will be paved and furnished in accordance with North Sydney Council style manual, 2019.

-  Paving Type 1 - Through site movement zones
-  Paving Type 2 - Plaza / steps / gathering zones
-  Rubber Surfaces to play areas
-  Concrete Surfaces - Car park access
-  Softscaping
-  Seating

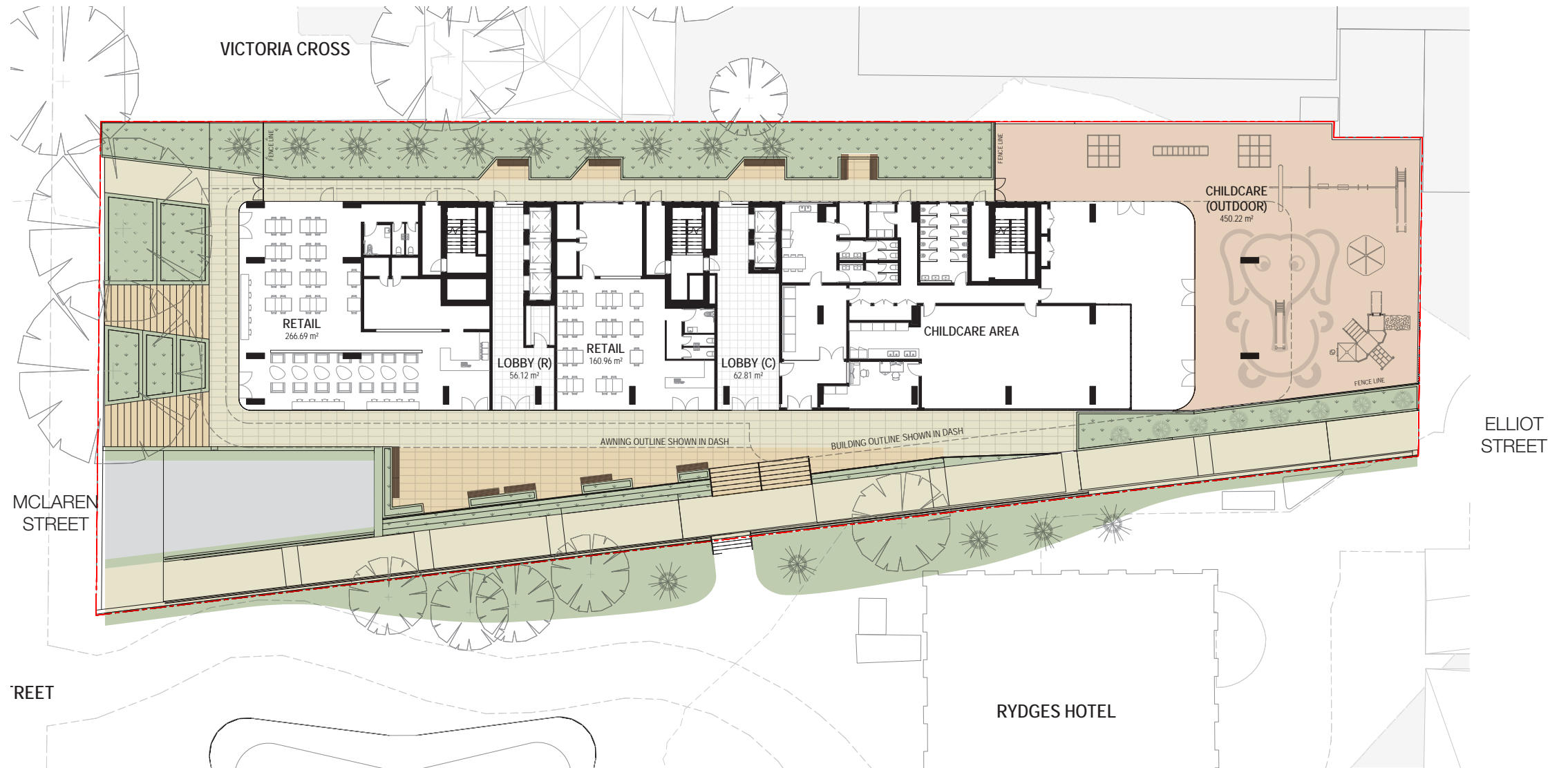


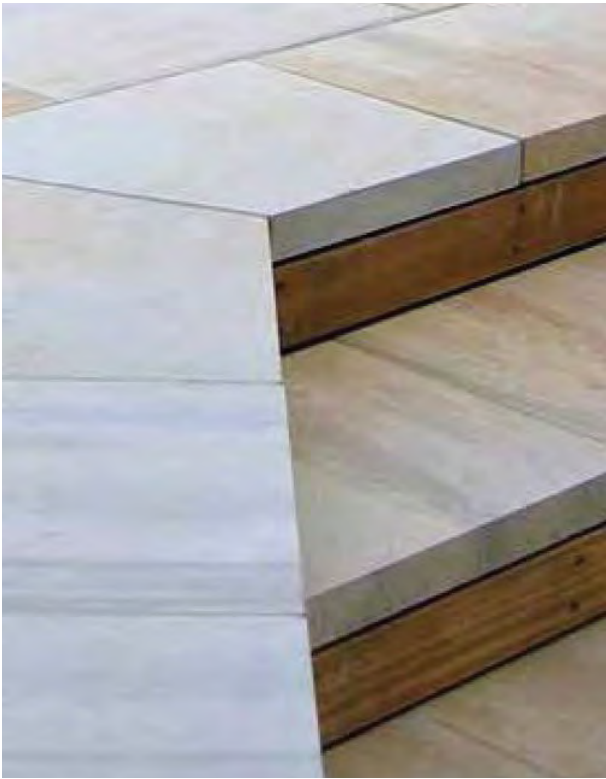
Fig 6-11 Landscape materiality plan 1:400 Scale @ A3



**6.12 Landscape character materiality**

The urban form and materiality for North Sydney is well documented in the public domain style guide and has been applied throughout the local government area. The development at 52 McLaren Street will utilise these high quality materials in such a way as to maximise their durability and aesthetic value.

The landscape will be balanced in texture, form and colour, working harmoniously with the building and surrounding environment. Utilising stone, concrete, timber, steel and soft landscaping throughout, the materials will work together to provide an inviting and comfortable space for people to use and move through on a daily basis.









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Key views, solar analysis  
and ADG compliance

07



07 Key views, solar analysis and ADG compliance

7.1 Key views

The selected street views demonstrate the ‘look and feel’ of the building and public realm interface demonstrating connectivity, visibility, activation and safety.

The open public space is contiguous on two sides of the building ground floor, wrapping down from Elliot Street along the eastern edge of the site extending through to McLaren Street.

The through site link is activated with retail uses and entrance lobbies to the commercial and residential tenancies above, with the childcare centre located at the northern end of the ground floor, and it’s open space directly adjacent to the existing school uses to the north and north west.

The lower three floors of the building project to define the podium base and create a human scale to the building at ground level. The structural columns sit behind the glass ensuring visual openness with no obstructions at ground level, whilst a cantilevered canopy runs around the base of the podium to offer rain protection for building users.

The 24 storey mass of the building drops to 8 storeys at the northern end, reducing in height to respond to the lower density development to the north, creating two distinct building identities, and preventing a monolithic appearance and mass.

Visual impact

The planning proposal is supported by a Visual Impact Assessment. The conclusions of this report are summarised below.

When considering the factors of sensitivity and magnitude, the proposal gives rise to moderate visual impact. However, these impacts are considered acceptable as the proposal:

- aligns with the strategic vision envisaged by Council in their Civic Precinct Planning Study
- results in an urban form outcome consistent with the planning intent for the Civic Precinct, in particular through contributing to the transition zone between the North Sydney CBD and the Civic Precinct
- does not block, occlude or otherwise adversely impact significant views obtained from the public domain to elements identified as being of high scenic value such as Sydney Harbour or the Sydney CBD skyline.

Please refer to the full Visual Impact Assessment for more information.



Fig 7-1 McLaren Street address and through site link (concept design only)





**Fig 7-2** The proposal viewed from Ted Mack Civic Park (concept design only)



**Fig 7-3** Aerial view of the proposal from the north (concept design only)



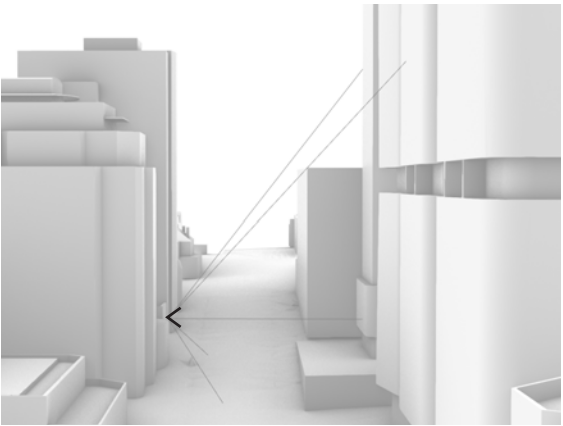
07 Key views, solar analysis and ADG compliance

7.2 View analysis - 39 McLaren Street

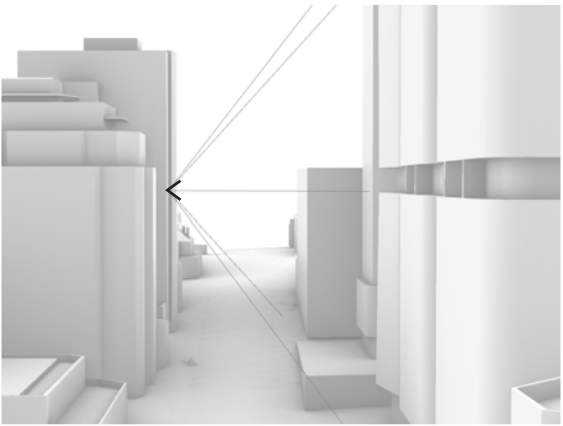
The following views demonstrate the visual impact of the proposed envelope when viewed at various heights from the existing apartment building at 39 McLaren Street, compared with the impact of an LEP compliant envelope, and the Uniting Aged Care Development Application envelope.

Whilst the proposed envelope is taller than both the LEP compliant envelope and the Uniting Aged Care Development Application envelope it is a more slender form and permits views through the gap between the proposed envelope and the 168 Walker Street envelope along the through site link, whereas the LEP compliant envelope and the Uniting Aged Care Development Application envelope do not.

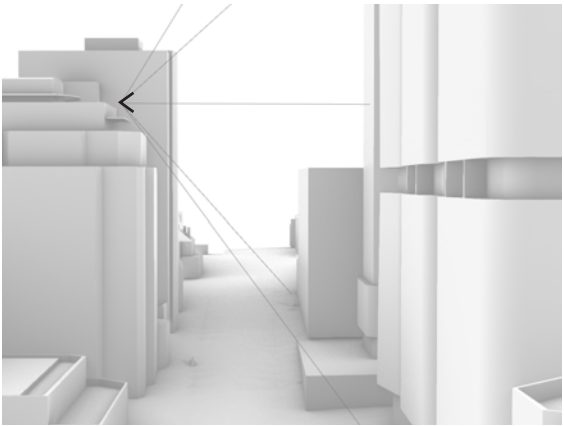
Camera position



View 1 camera position at first floor (RL 82.00)

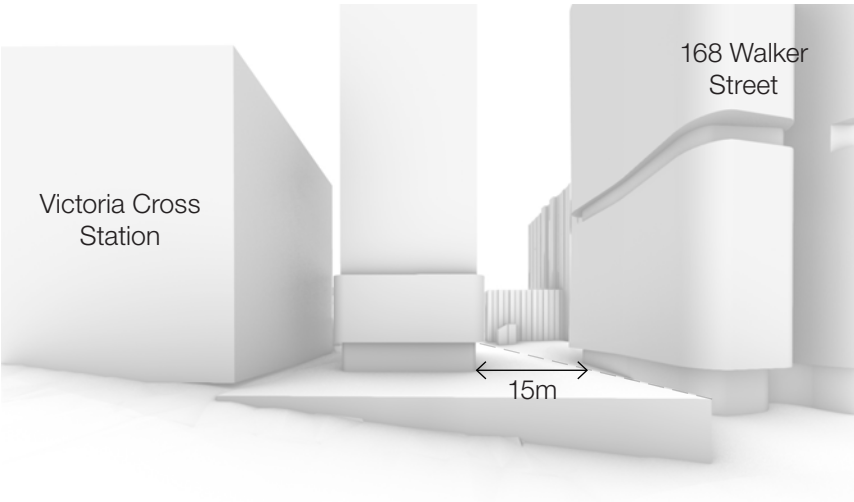


View 2 camera position at seventh floor (RL 102.00)

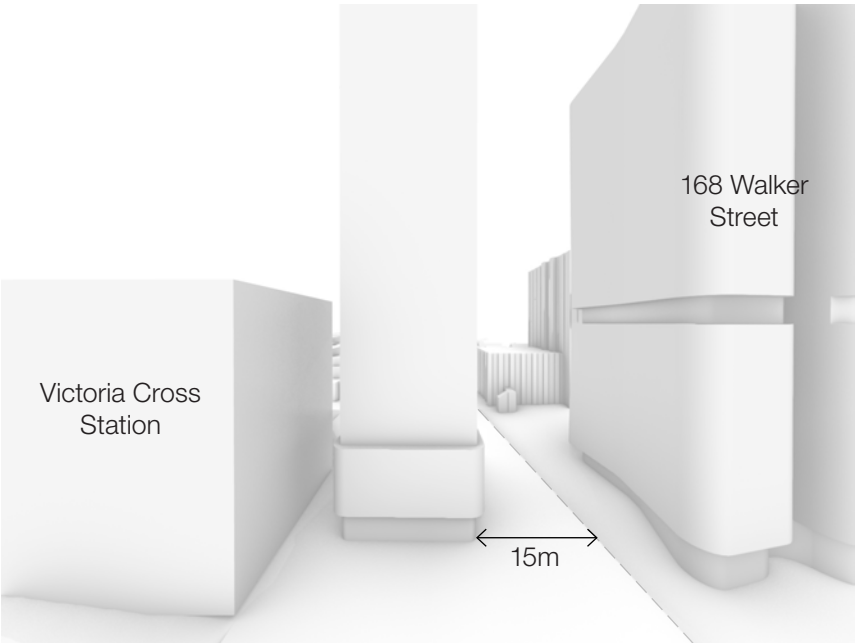


View 3 camera position at twelfth floor (RL 115.00)

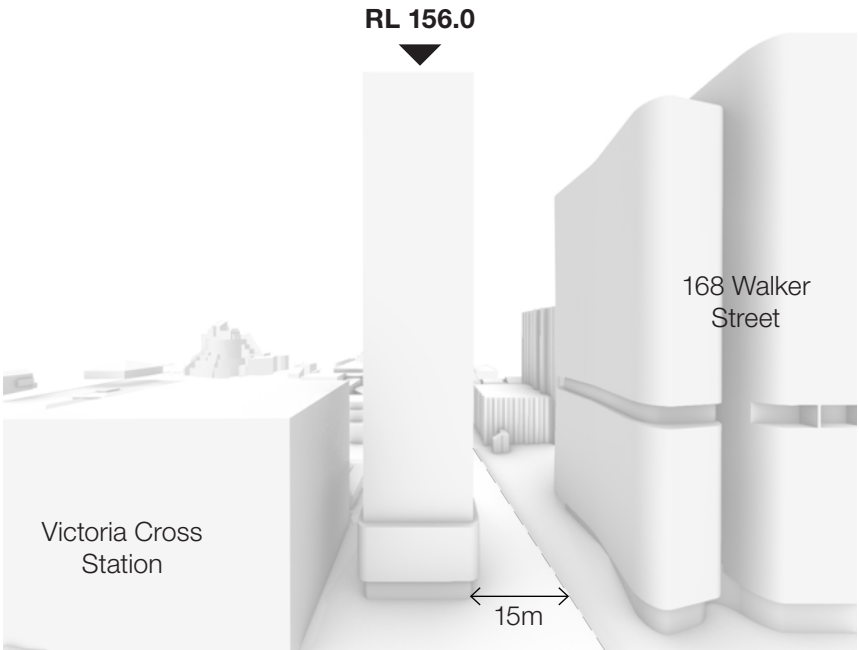
Proposed Envelope



View 1 from 39 McLaren Street looking north, taken from first floor (RL 82.00)



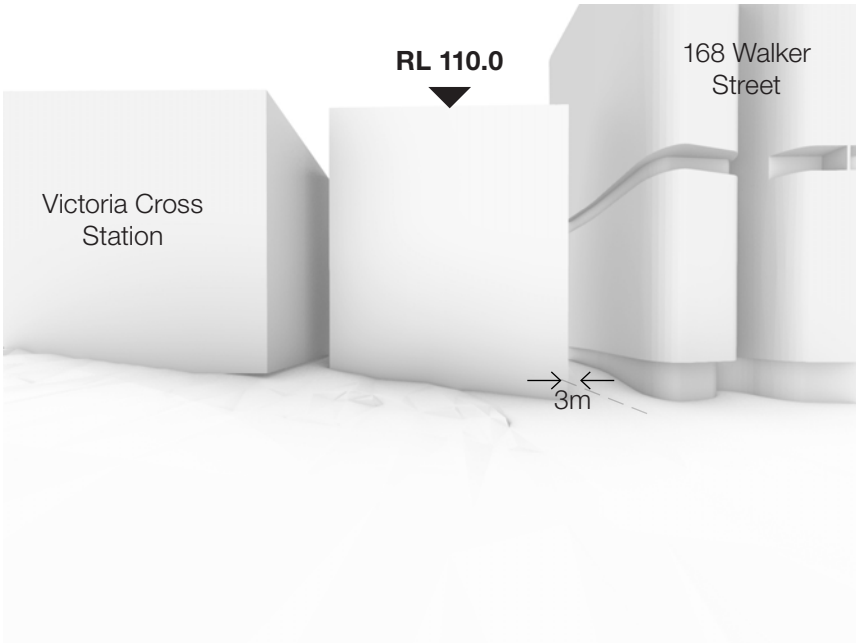
View 2 from 39 McLaren Street looking north, taken from seventh floor (RL 102.00)



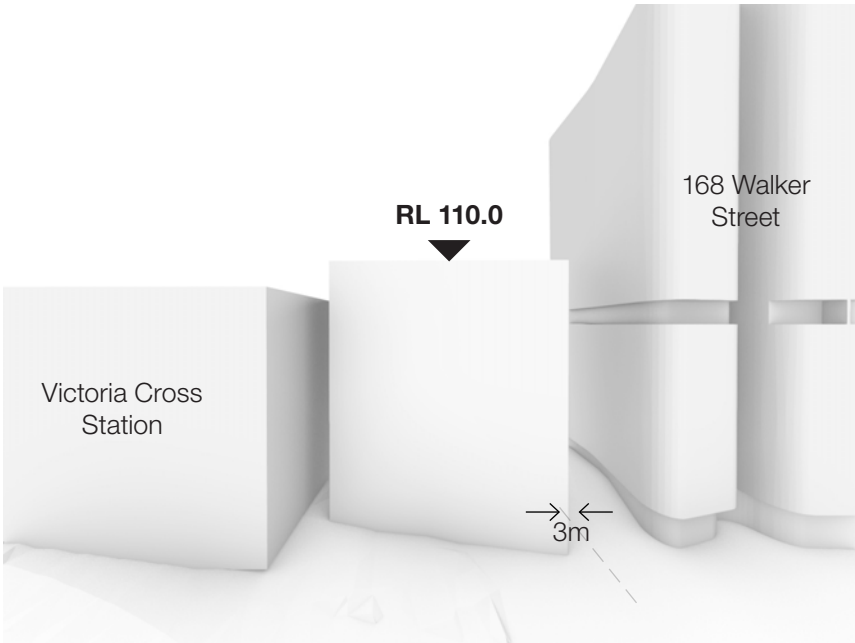
View 3 from 39 McLaren Street looking north, taken from twelfth floor (RL 115.00)



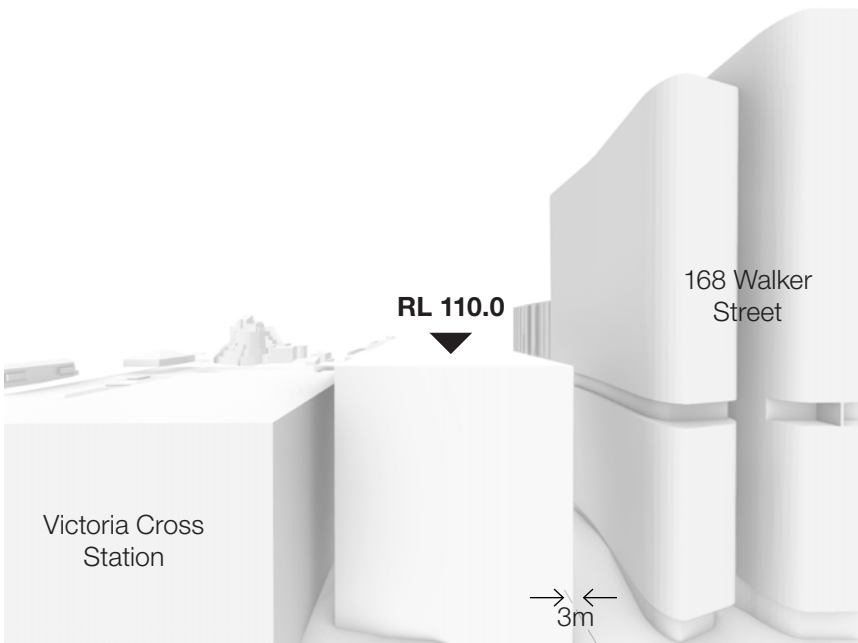
LEP Compliant Envelope



View 1 from 39 McLaren Street looking north, taken from first floor (RL 82.00)

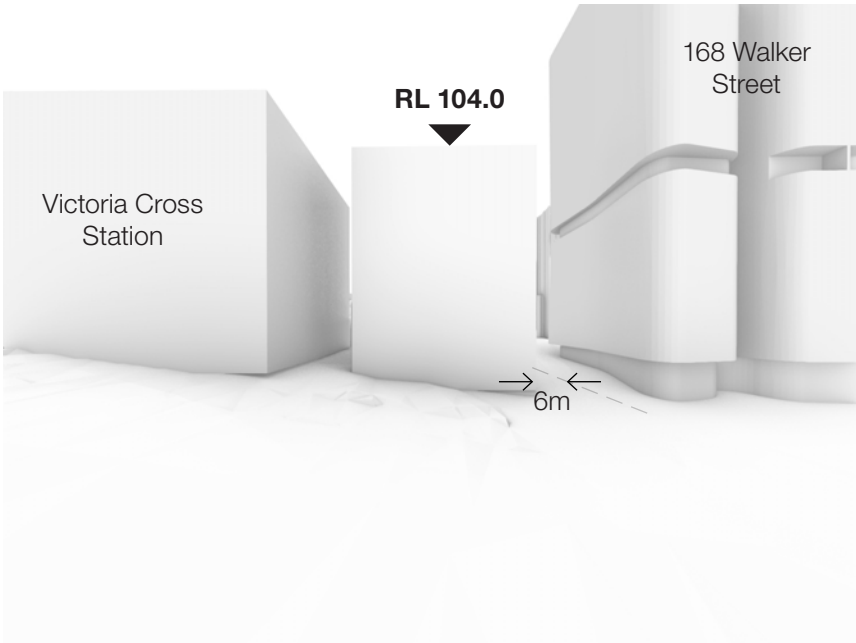


View 2 from 39 McLaren Street looking north, taken from seventh floor (RL 102.00)

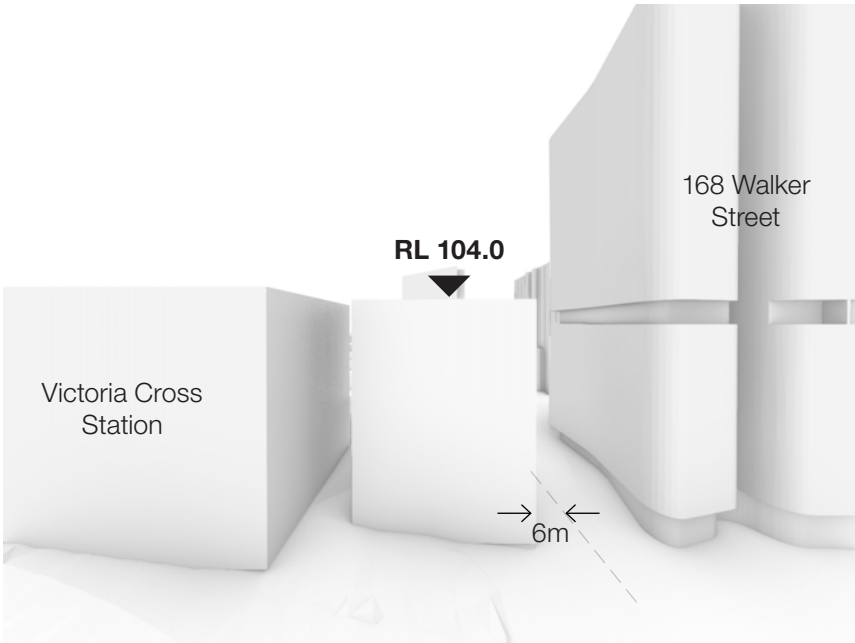


View 3 from 39 McLaren Street looking north, taken from twelfth floor (RL 115.00)

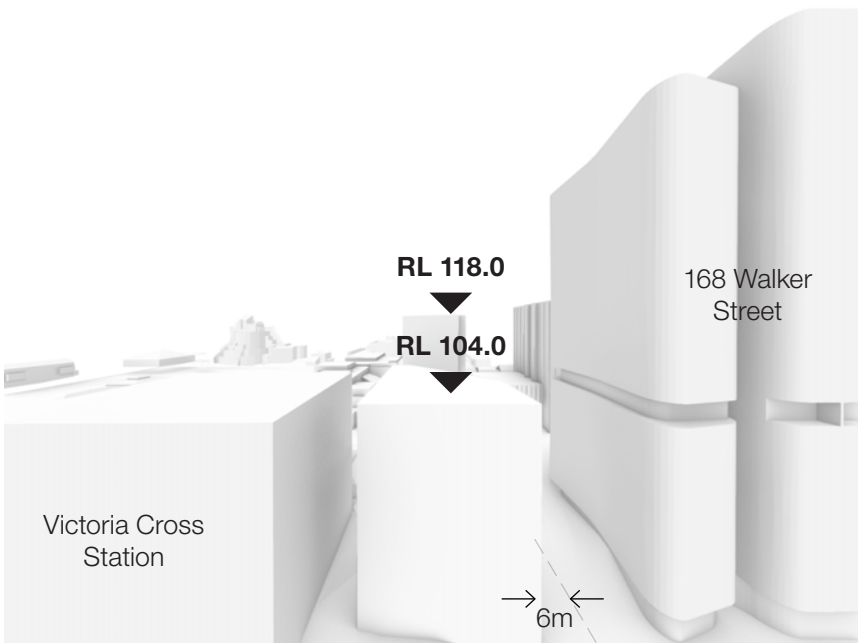
Uniting Aged Care Development Application



View 1 from 39 McLaren Street looking north, taken from first floor (RL 82.00)



View 2 from 39 McLaren Street looking north, taken from seventh floor (RL 102.00)



View 3 from 39 McLaren Street looking north, taken from twelfth floor (RL 115.00)



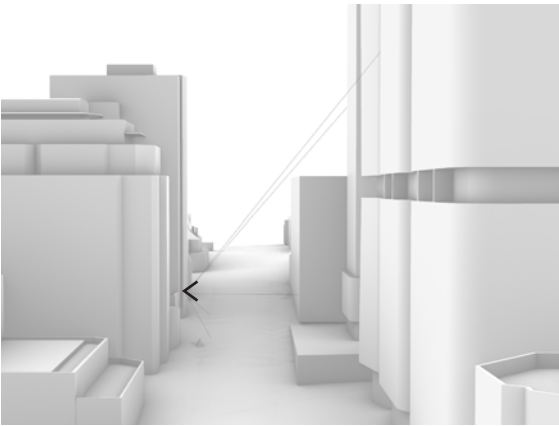
07 Key views, solar analysis and ADG compliance

7.2 View analysis - 237 Miller Street

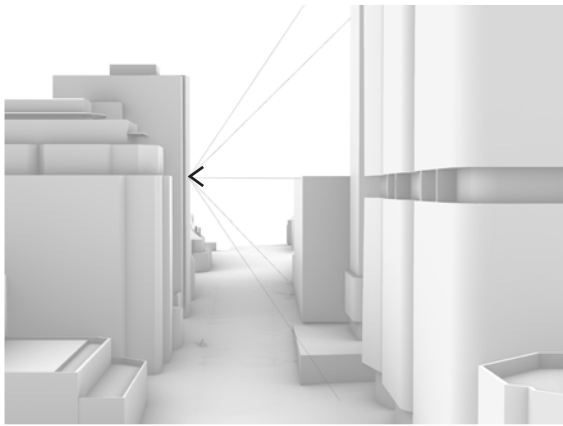
The following views demonstrate the visual impact of the proposed envelope when viewed at various heights from the existing apartment building at 237 Miller Street, compared with the impact of an LEP compliant envelope, and the Uniting Aged Care Development Application envelope.

Whilst the proposed envelope is taller than both the LEP compliant envelope and the Uniting Aged Care Development Application envelope it is a more slender form and permits views through the gap between the proposed envelope and the 168 Walker Street envelope along the through site link, whereas the LEP compliant envelope and the Uniting Aged Care Development Application envelope do not.

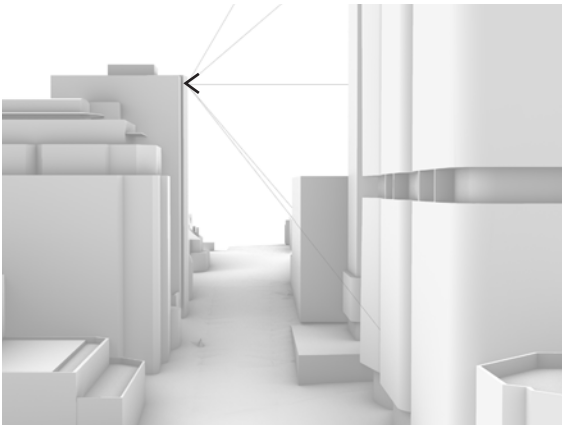
Camera position



View 1 camera position at first floor (RL 82.00)



View 2 camera position at eighth floor (RL 105.00)

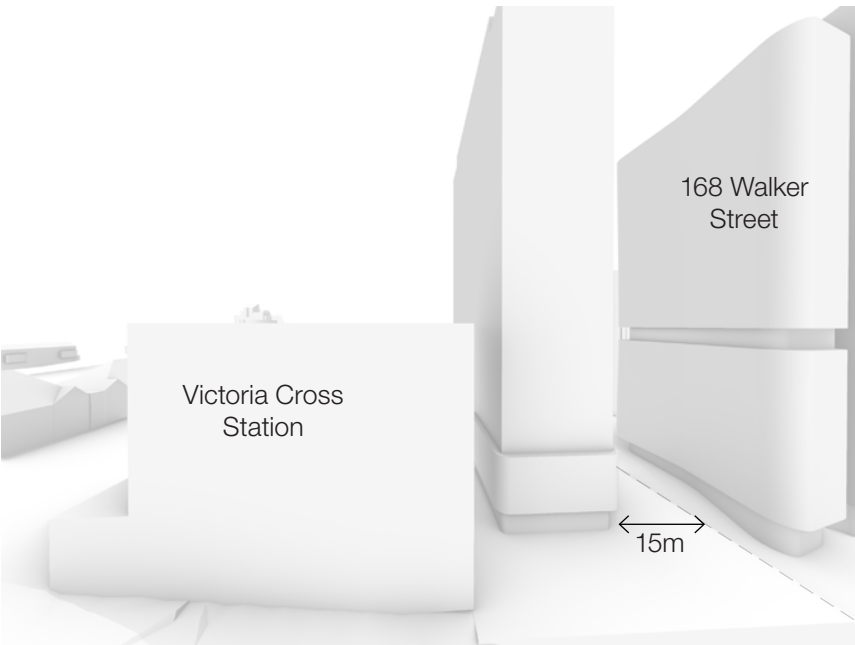


View 3 camera position at fifteenth floor (RL 124.00)

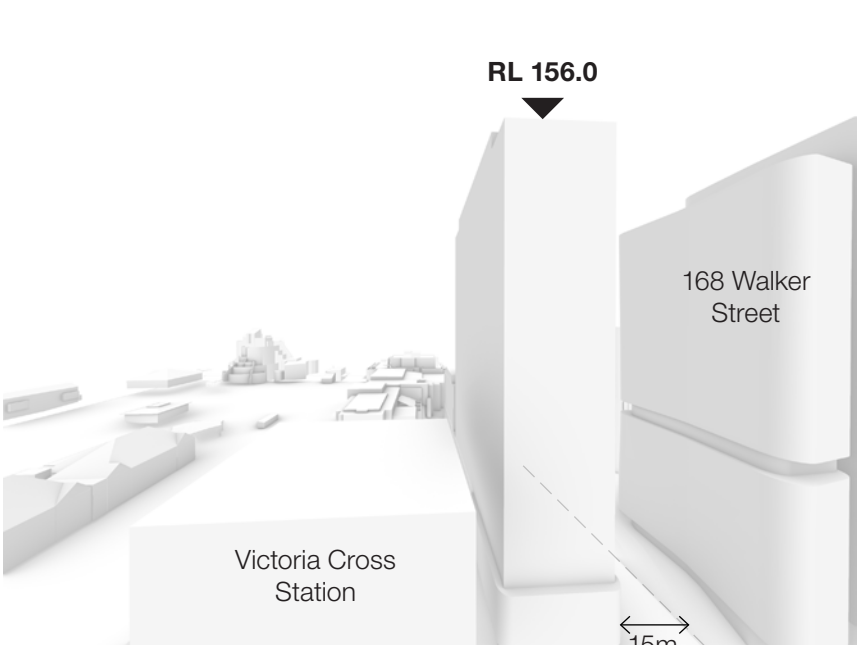
Proposed Envelope



View 1 from 237 Miller Street looking north, taken from first floor (RL 82.00)



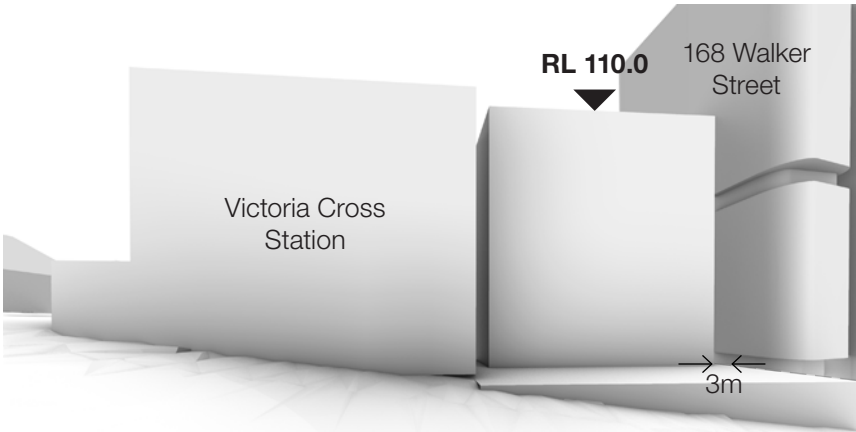
View 2 from 237 Miller Street looking north, taken from eighth floor (RL 105.00)



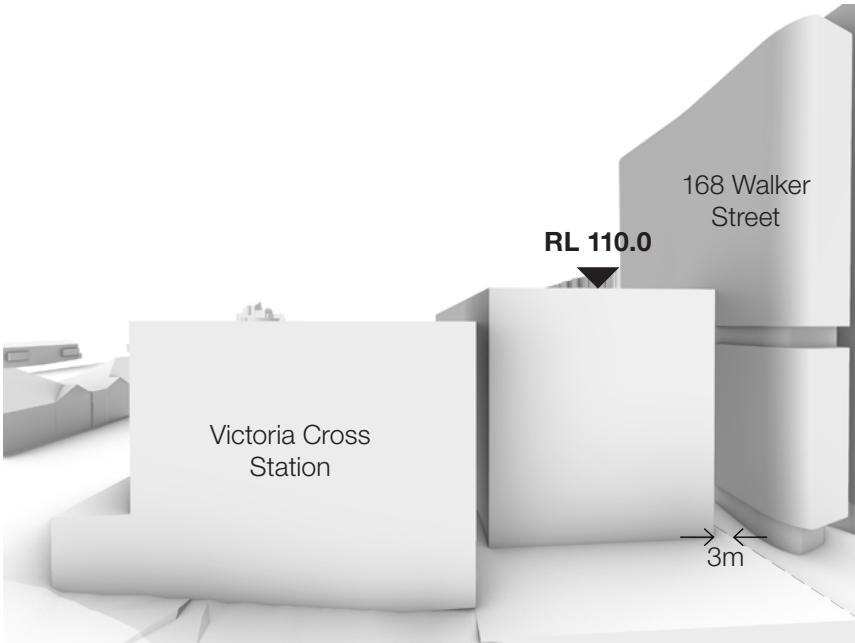
View 3 from 237 Miller Street looking north, taken from fifteenth floor (RL 124.00)



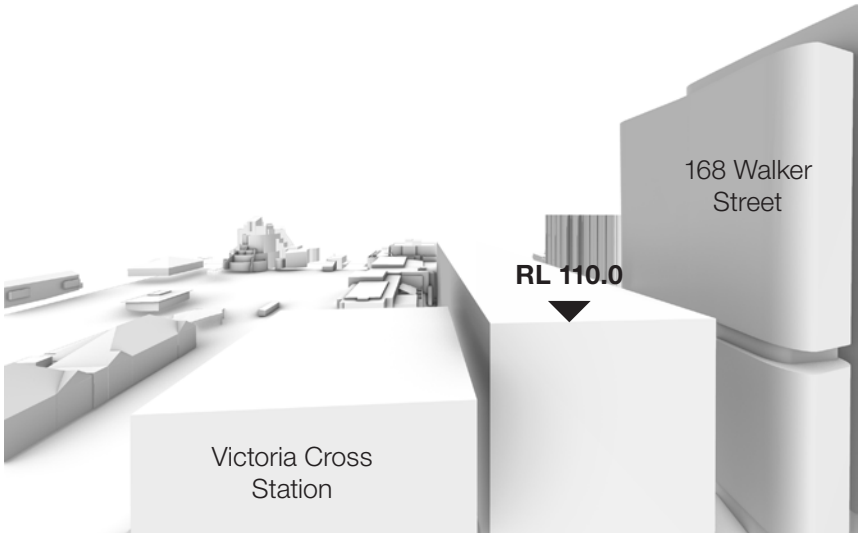
LEP Compliant Envelope



View 1 from 237 Miller Street looking north, taken from first floor (RL 82.00)

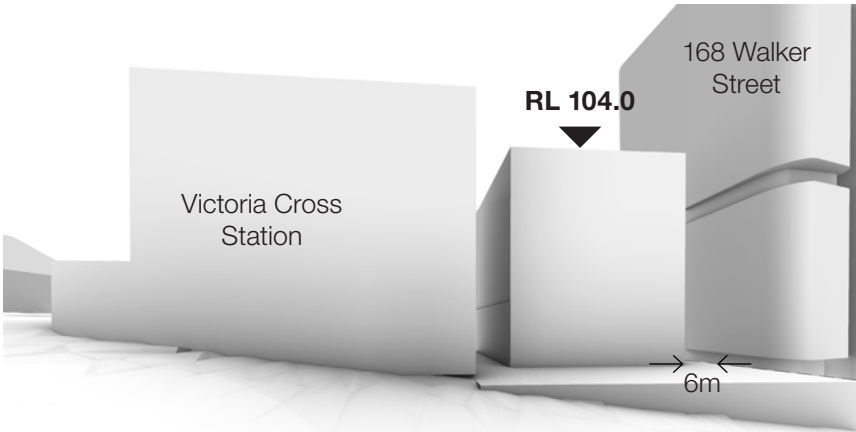


View 2 from 237 Miller Street looking north, taken from eighth floor (RL 105.00)

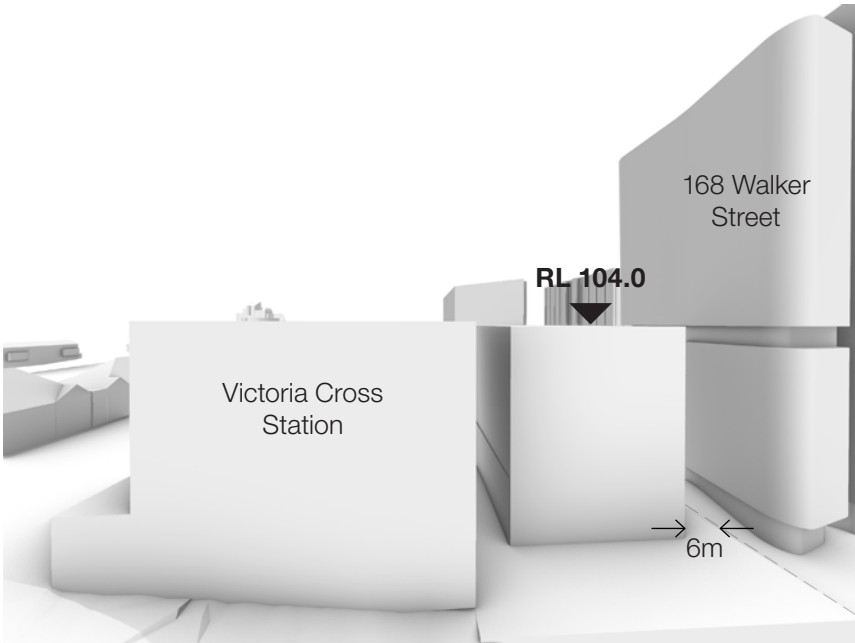


View 3 from 237 Miller Street looking north, taken from fifteenth floor (RL 124.00)

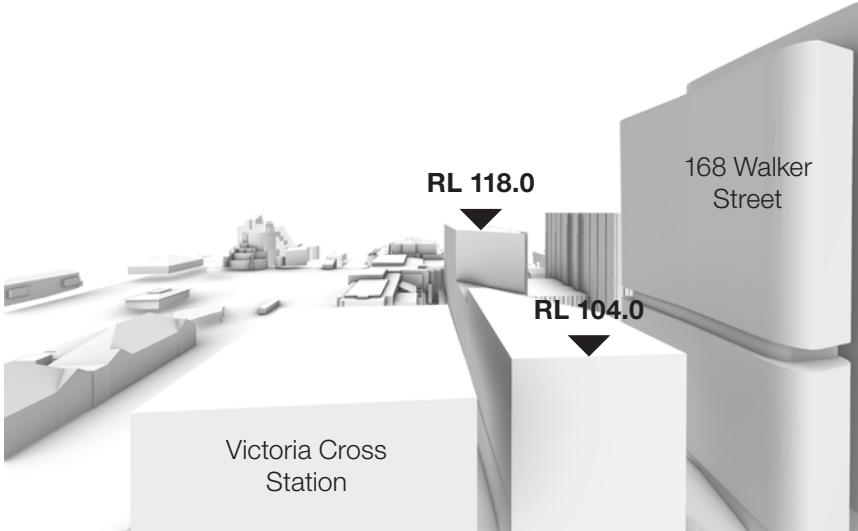
Uniting Aged Care Development Application



View 1 from 237 Miller Street looking north, taken from first floor (RL 82.00)



View 2 from 237 Miller Street looking north, taken from eighth floor (RL 105.00)



View 3 from 237 Miller Street looking north, taken from fifteenth floor (RL 124.00)



07 Key views, solar analysis and ADG compliance

7.3 Overshadowing analysis - Ward Street Precinct Masterplan

The Ward Street Precinct Masterplan identifies the need to maintain solar access to the two proposed public squares to be created within the Precinct. The CPPS similarly stipulates that building heights on site, including plant floors, are subject to no net increase in overshadowing year-round of planned public spaces identified in the Ward Street Masterplan and Doris Fitton Park.

The proposal has no impact on the Ward Street Precinct Masterplan area during the summer solstice or equinoxes. At the winter solstice, the proposal slightly impacts the northern extremity of the precinct on Faith Bandler Place from 12:00 pm to 2:00 pm, but there is no impact on any of the planned public spaces or to Doris Fitton Park.

The following shadow projections are taken at half hourly intervals between 11.00 am and 2.30 pm on June 21 and show the degree of overshadowing to the Ward Street Precinct Masterplan area.

Site Boundary      Overshadowing Impacts



Winter solstice 21 June 11:00am

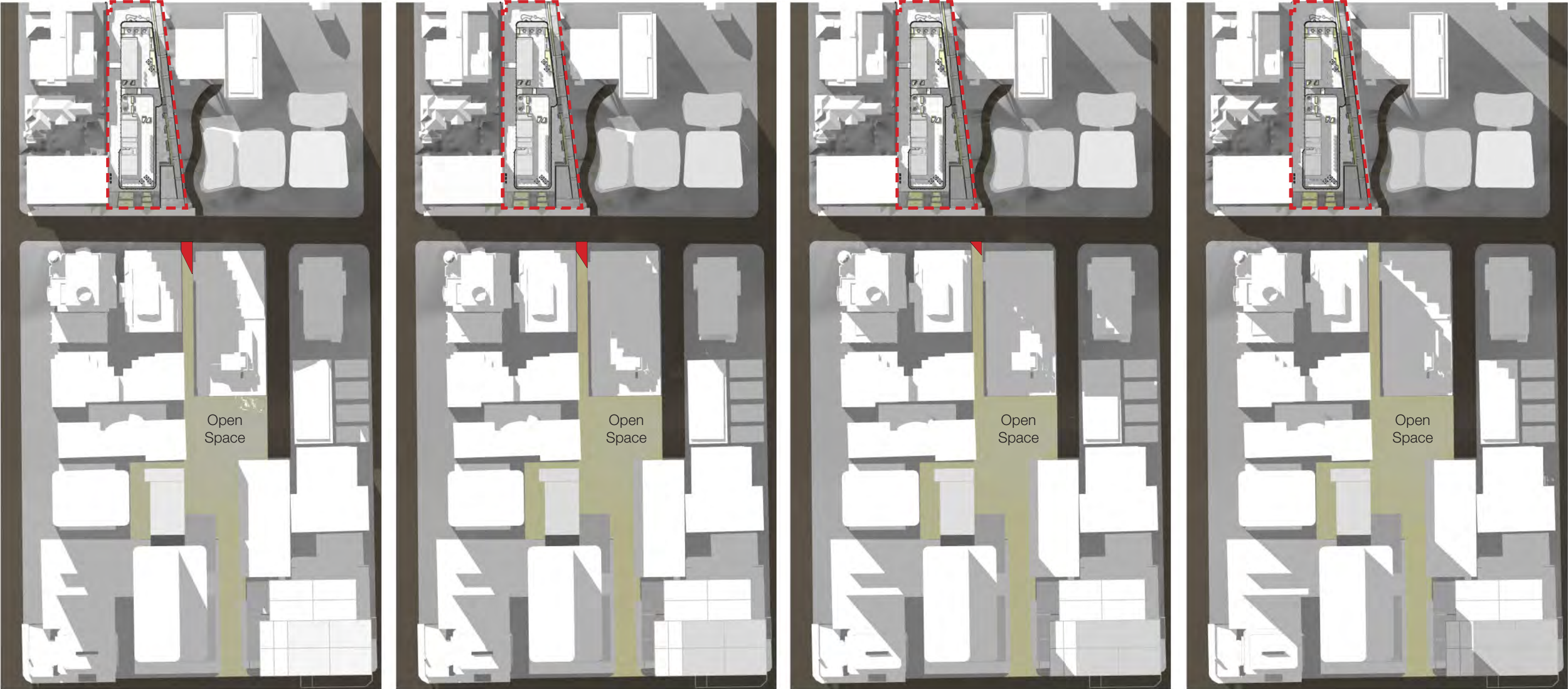
Winter solstice 21 June 11:30am

Winter solstice 21 June 12:00pm

Winter solstice 21 June 12:30pm



Site Boundary      Overshadowing Impacts



Winter solstice 21 June 1:00pm

Winter solstice 21 June 1:30pm

Winter solstice 21 June 2:00pm

Winter solstice 21 June 2:30pm



07 Key views, solar analysis and ADG compliance

7.4 Overshadowing analysis  
- 45 McLaren Street  
- Existing building

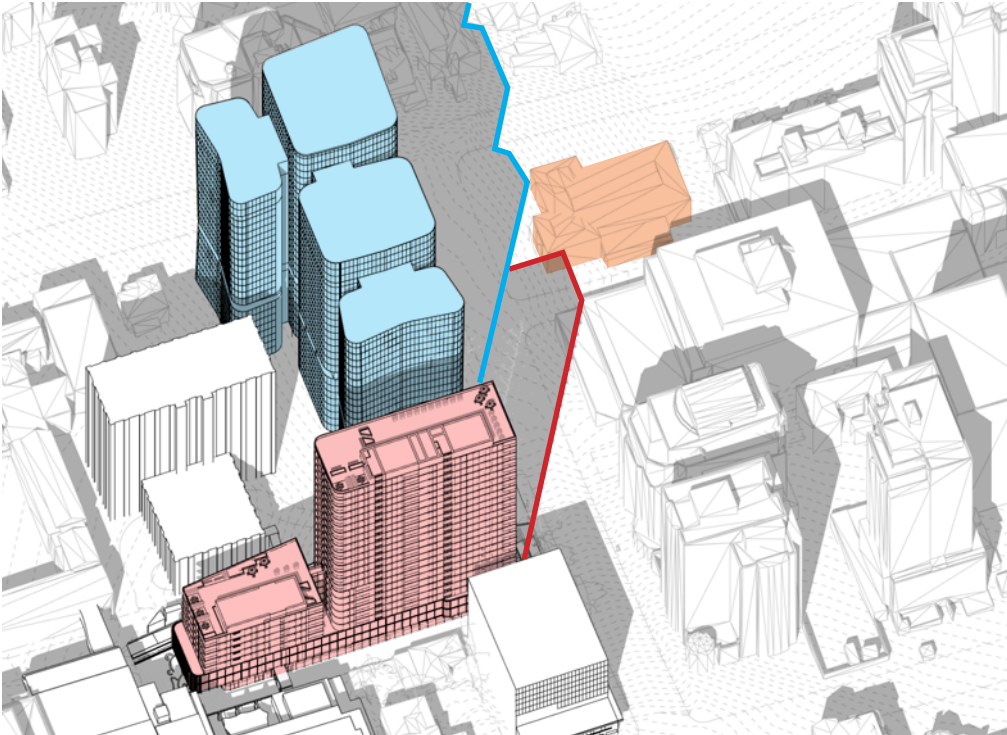
Extent of overshadowing

The proposed envelope at 52 McLaren Street does not cause any significant overshadowing of the existing building at 45 McLaren Street for the six month period running from the 21st of September through to the 20th of March.

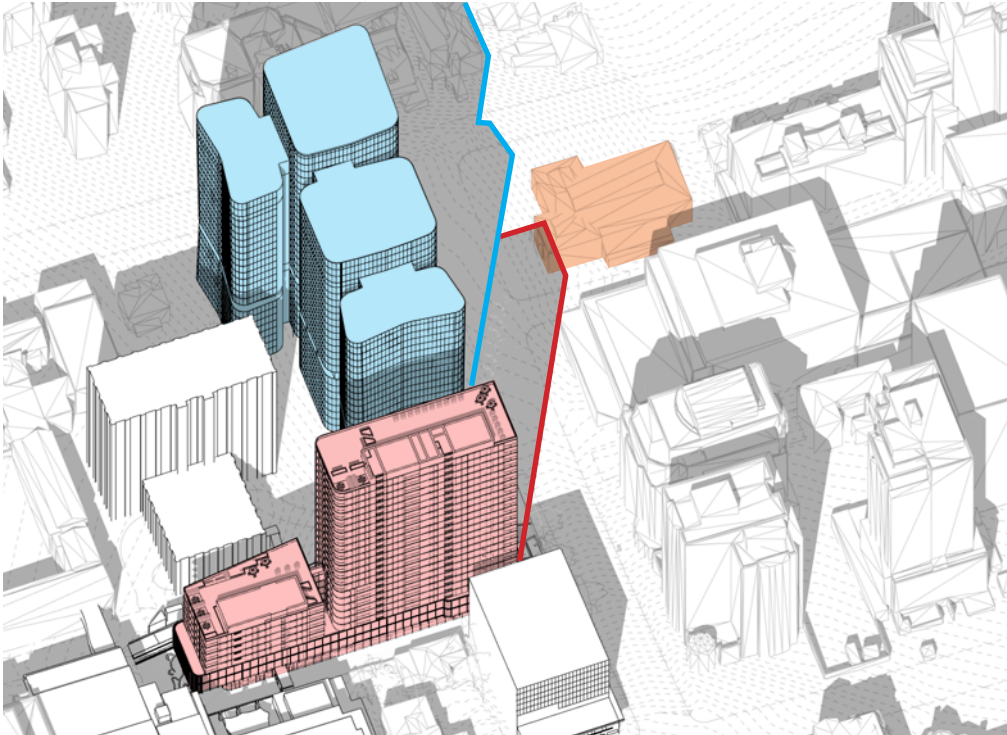
On the 21st of March the proposal begins to cause some overshadowing to the north west corner of the building from 2:15pm until 3pm.

The diagrams on this page illustrate the extent of overshadowing to 45 McLaren Street by 168 Walker Street (currently under construction) and the extent of additional overshadowing caused by the proposed envelope at 52 McLaren Street, at 15 minute intervals from 2:15pm until 3pm on the 21st of March.

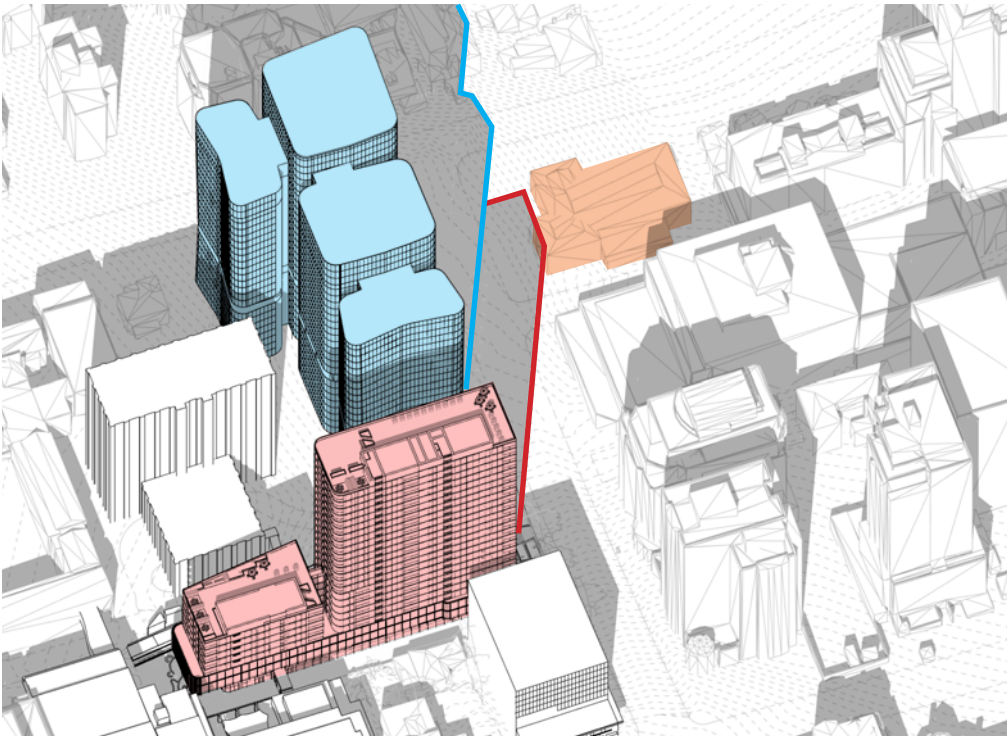
- 45 McLaren Street
- 168 Walker Street DA approved envelope  
168 Walker Street shadow profile
- 52 McLaren Street proposed envelope  
52 McLaren Street shadow profile



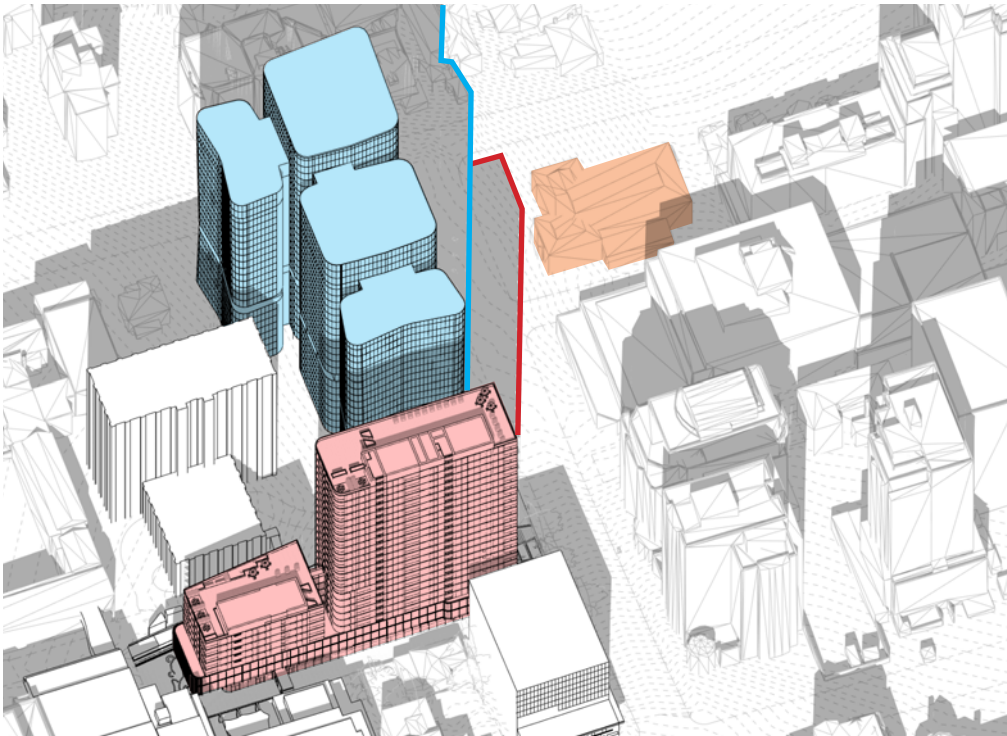
21st March - 2:15 pm



21st March - 2:30 pm



21st March - 2:45 pm



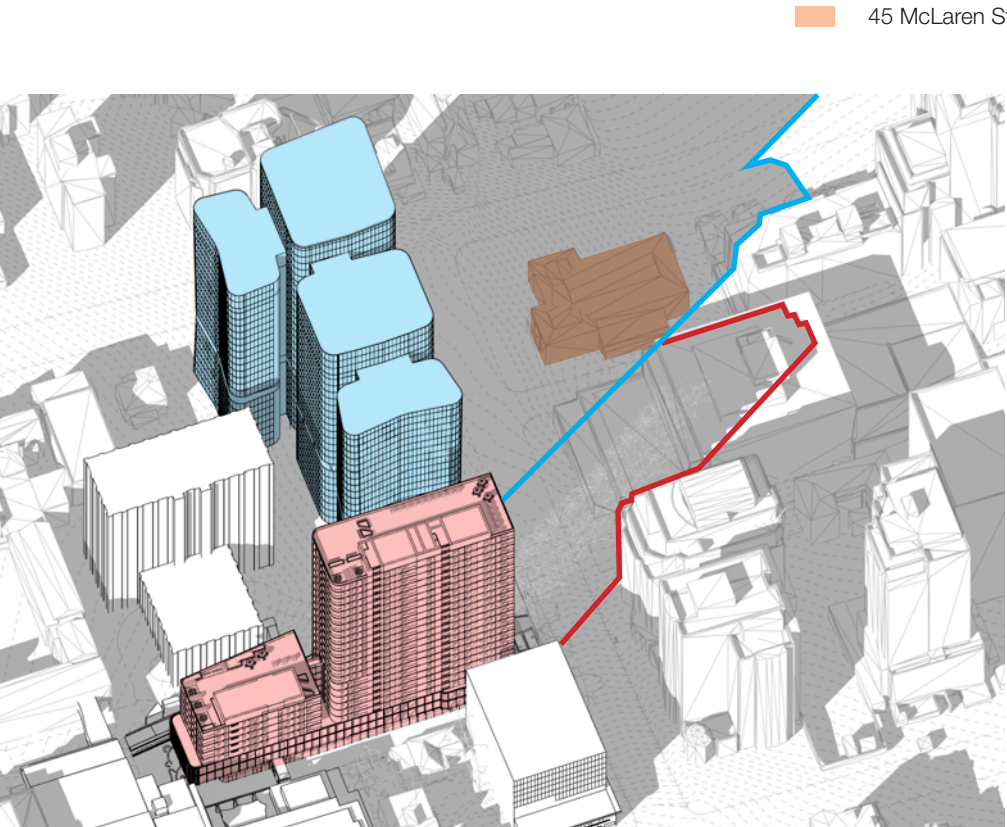
21st March - 3:00 pm



From the 21st of March onwards, the extent of overshadowing increases until the 21st of June.

The diagrams on this and the following page illustrate the extent of overshadowing to 45 McLaren Street by 168 Walker Street (currently under construction) and the extent of additional overshadowing caused by the proposed envelope at 52 McLaren Street, at 15 minute intervals from 1:15pm until 3pm on the 21st of June.

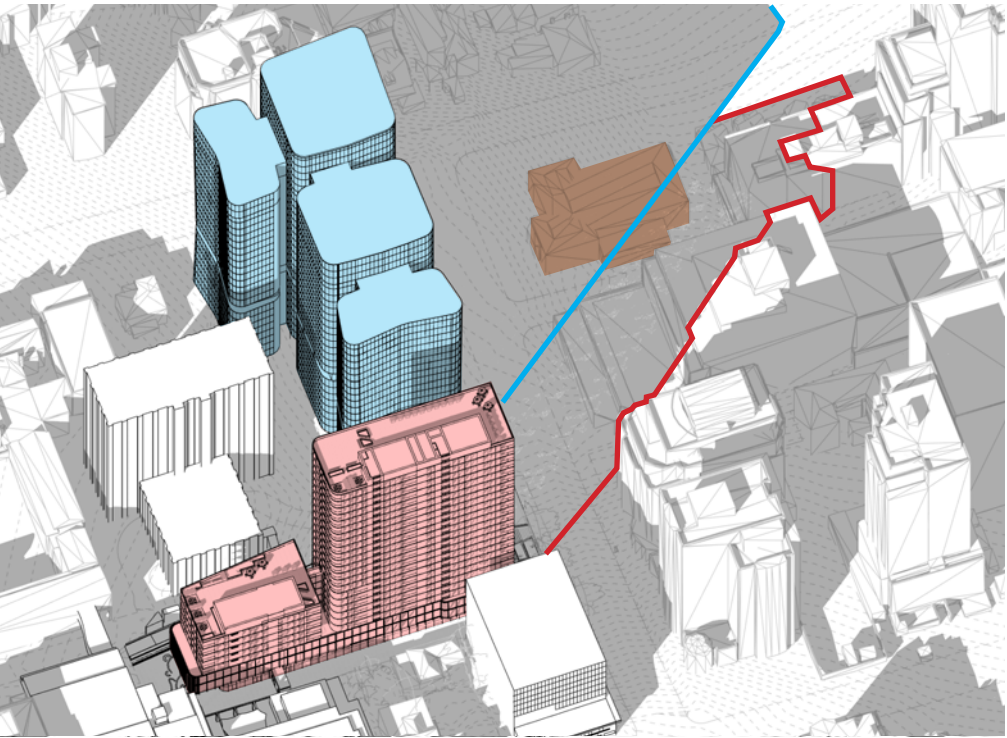
Up until 1:15pm the existing building at 45 McLaren Street is entirely overshadowed by 168 Walker Street. By 1:30pm, the shadow from the proposed envelope at 52 McLaren Street is beginning to overshadow the south west corner of the building.



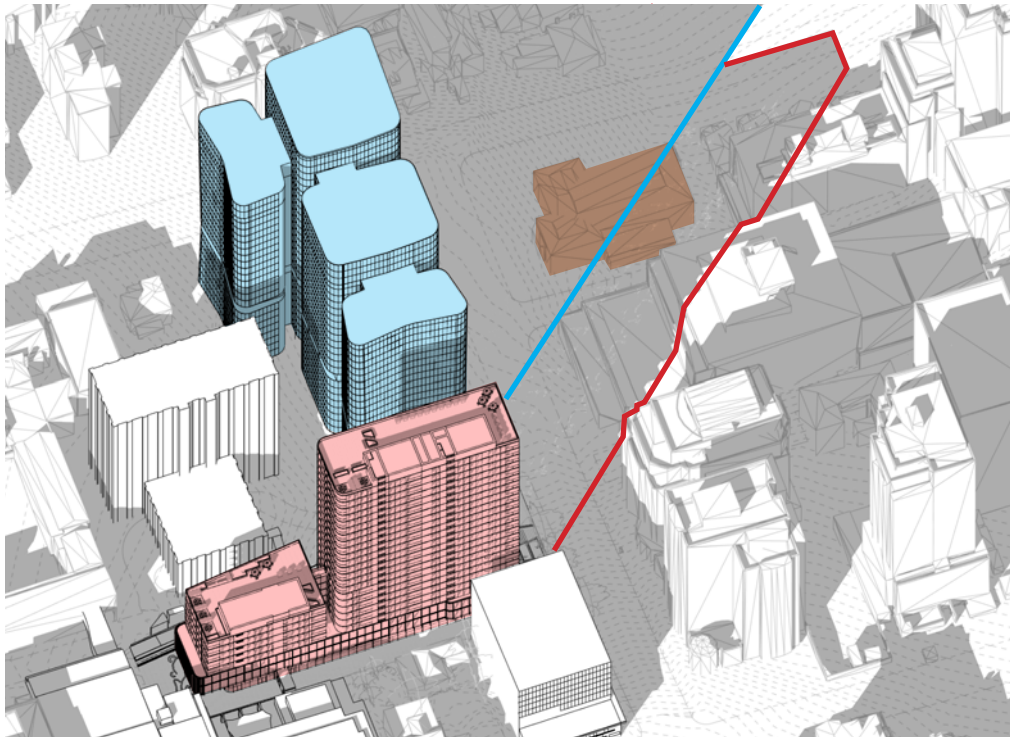
21st June - 1:15 pm



21st June - 1:30 pm



21st June - 1:45 pm



21st June - 2:00 pm

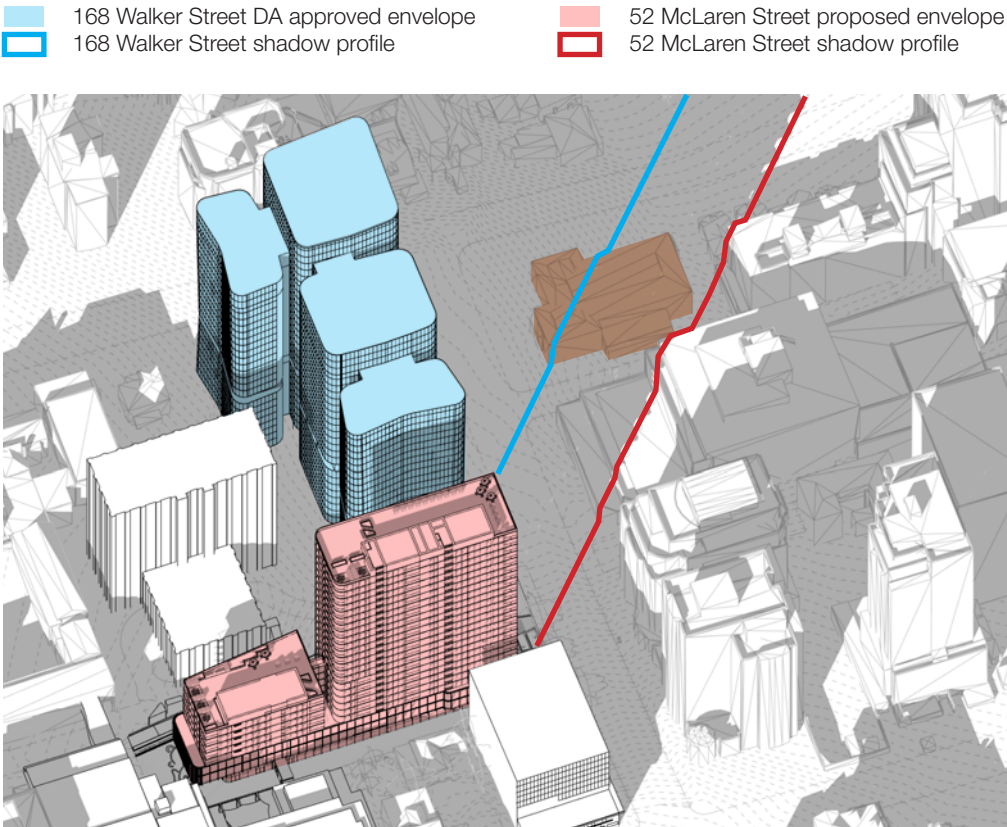


07 Key views, solar analysis and ADG compliance

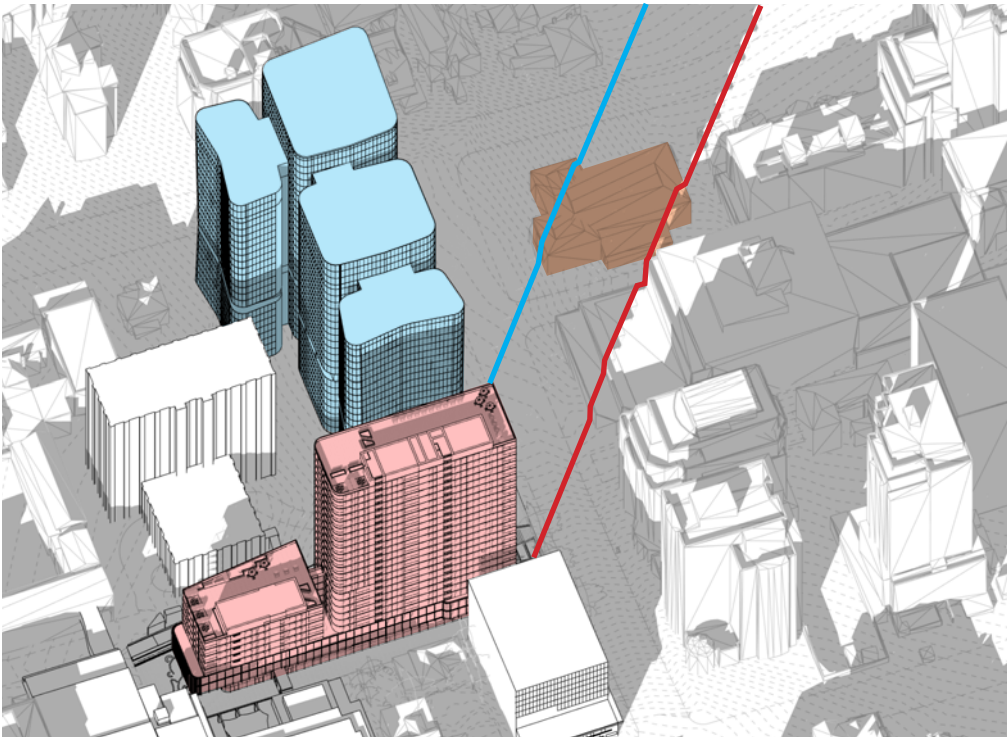
45 McLaren Street remains overshadowed by 168 Walker Street and 52 McLaren Street until 2:45pm, then by 3:00pm the south west corner of the building is beginning to receive direct light as the shadow continues to move across to the east.



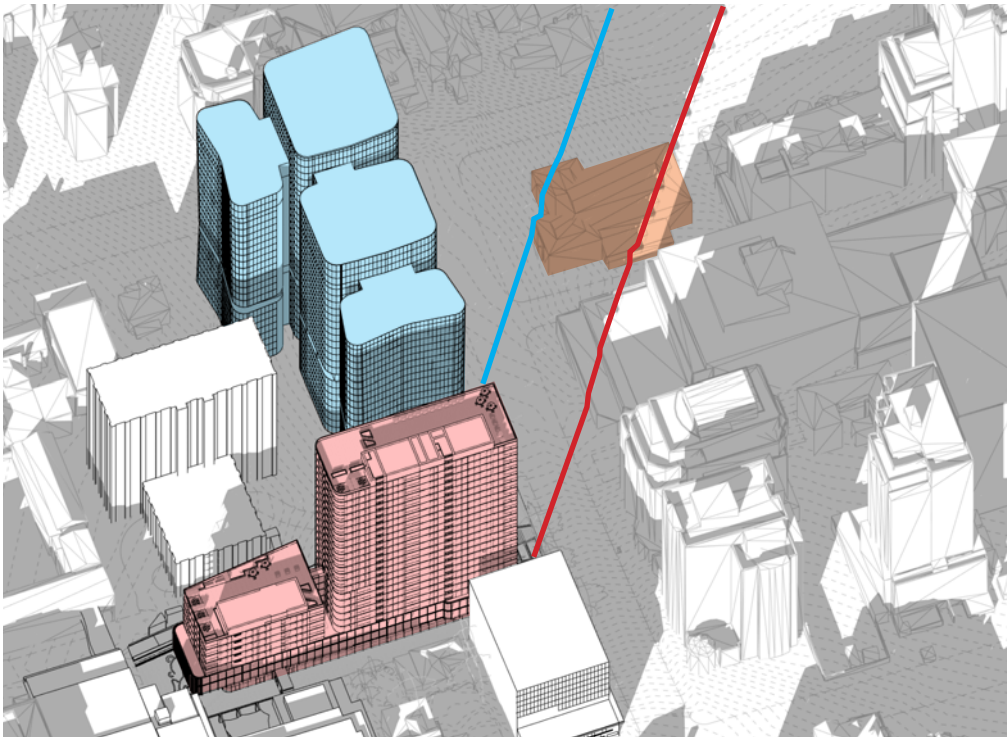
21st June - 2:15 pm



21st June - 2:30 pm



21st June - 2:45 pm



21st June - 3:00 pm

- 45 McLaren Street
- 168 Walker Street DA approved envelope
- 168 Walker Street shadow profile
- 52 McLaren Street proposed envelope
- 52 McLaren Street shadow profile



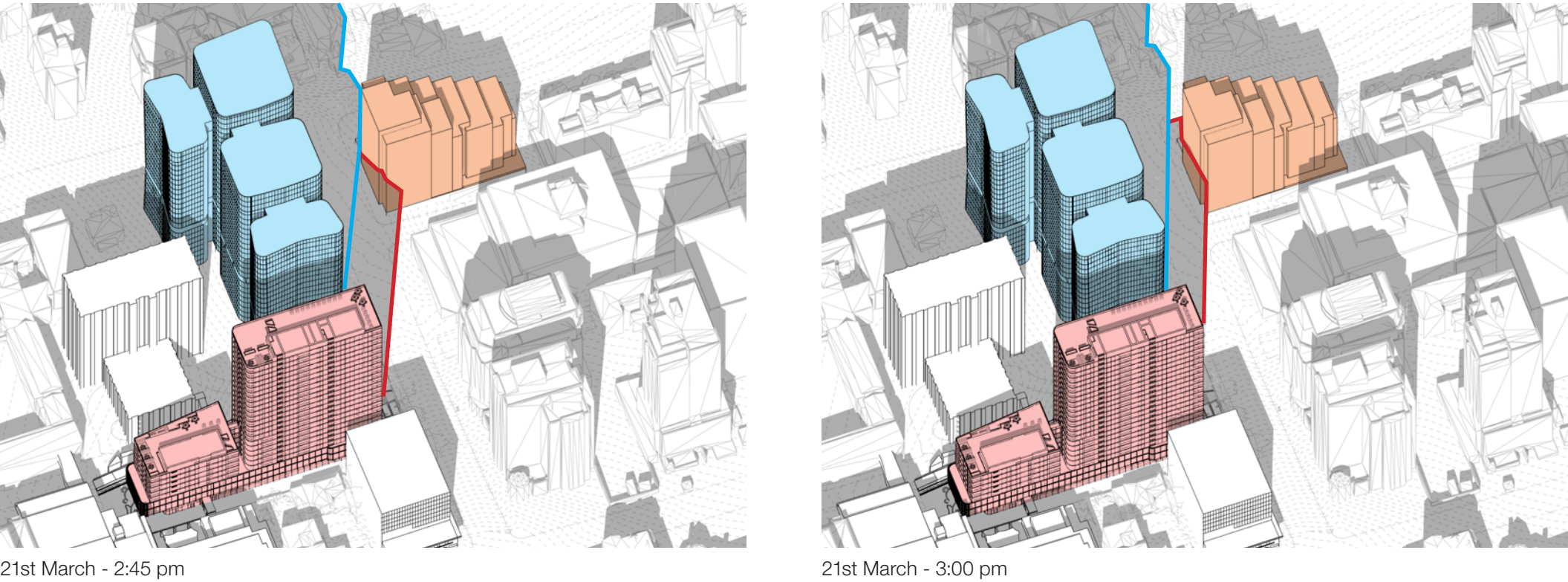
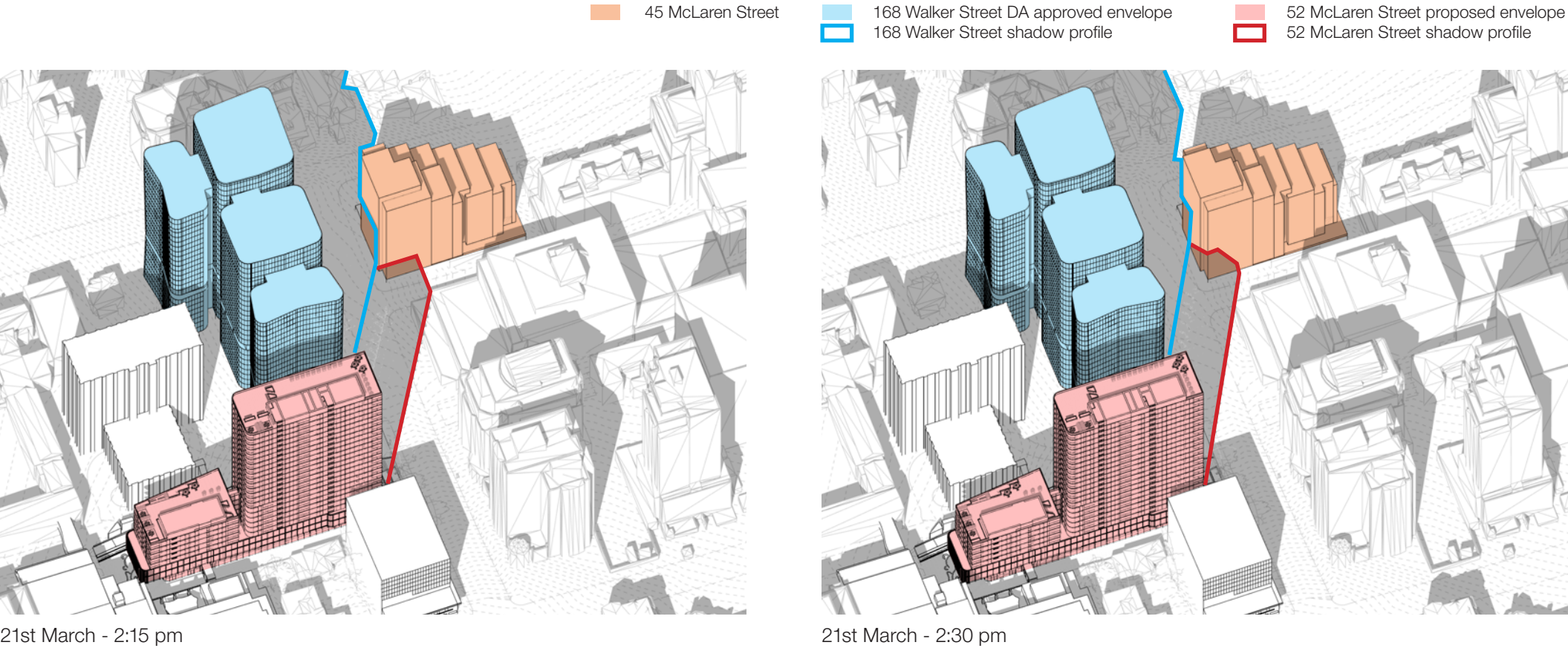
**7.5 Overshadowing analysis**  
**- 45 McLaren Street**  
**- Planning proposal scheme**

**Extent of overshadowing**

The proposed envelope at 52 McLaren Street does not cause any significant overshadowing of the planning proposal scheme at 45 McLaren Street for the six month period running from the 21st of September through to the 20th of March.

On the 21st of March the proposal begins to cause some overshadowing to the north west corner of the building from 2:15pm until 3pm.

The diagrams on this page illustrate the extent of overshadowing to 45 McLaren Street by 168 Walker Street (currently under construction) and the extent of additional overshadowing caused by the proposed envelope at 52 McLaren Street, at 15 minute intervals from 2:15pm until 3pm on the 21st of March.





# 07 Key views, solar analysis and ADG compliance

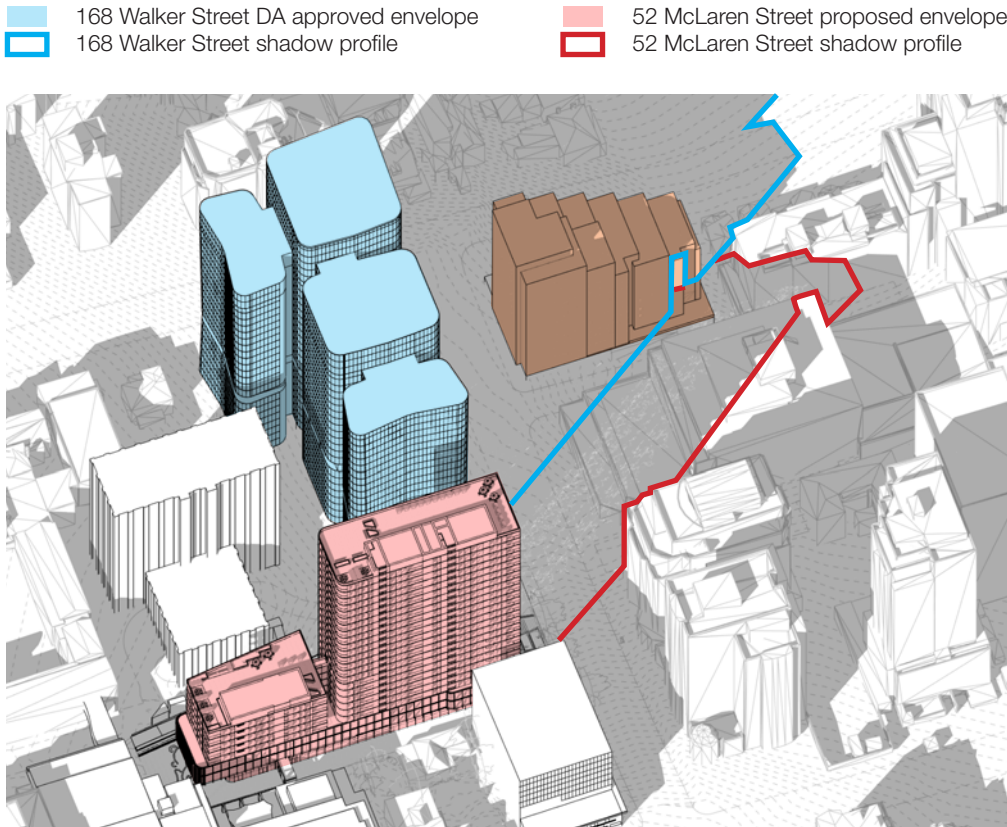
From the 21st of March onwards, the extent of overshadowing increases until the 21st of June.

The diagrams on this and the following page illustrate the extent of overshadowing to 45 McLaren Street by 168 Walker Street (currently under construction) and the extent of additional overshadowing caused by the proposed envelope at 52 McLaren Street, at 15 minute intervals from 1:15pm until 3pm on the 21st of June.

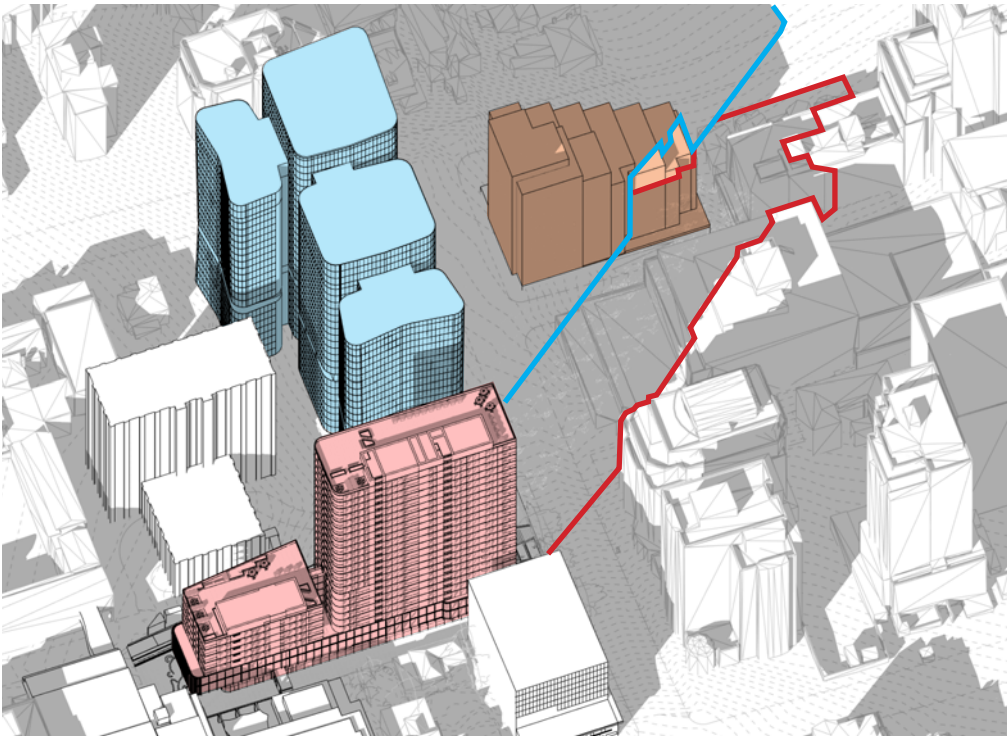
Up until 1:15pm the existing building at 45 McLaren Street is mostly overshadowed by 168 Walker Street, except for the south west corner of the building. By 1:30pm, the shadow from the proposed envelope at 52 McLaren Street is beginning to overshadow the lower portion of the south west corner of the building.



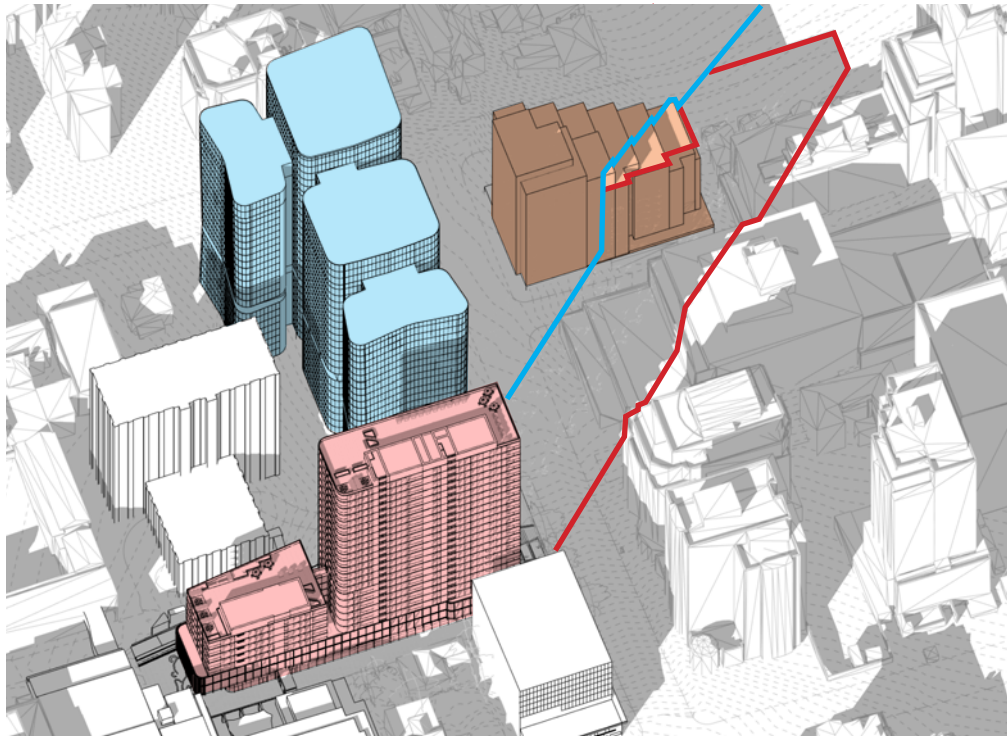
21st June - 1:15 pm



21st June - 1:30 pm



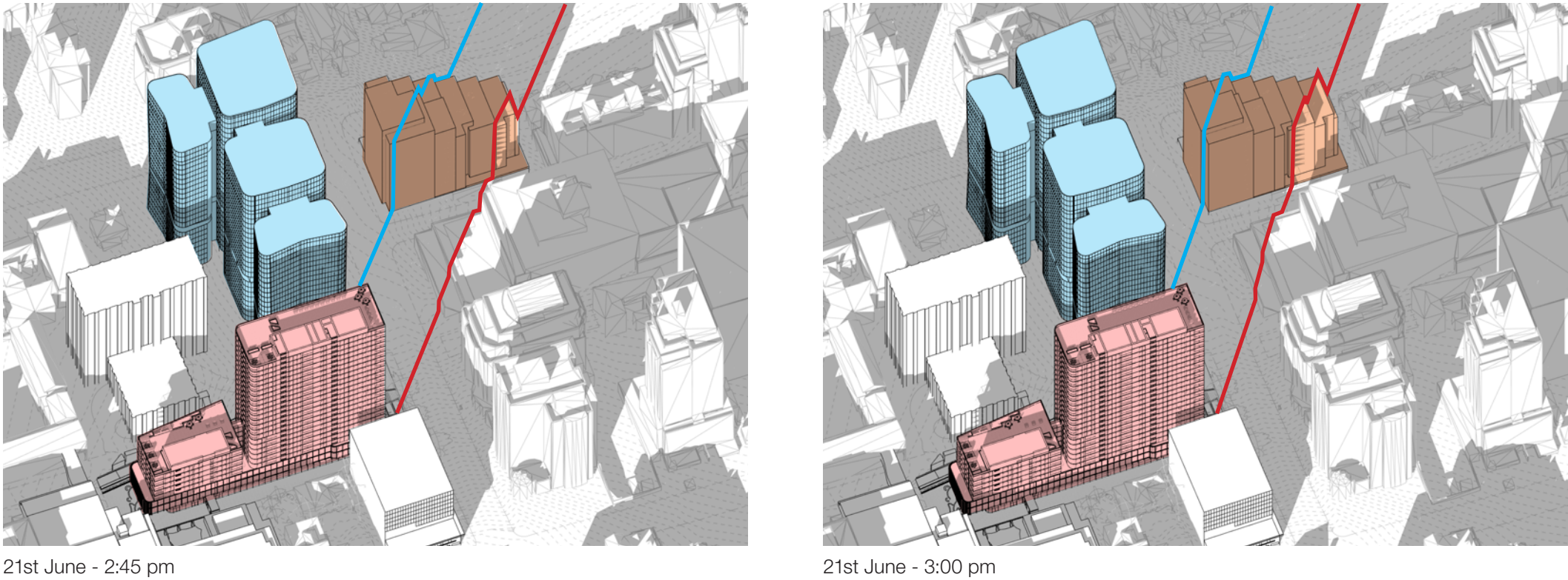
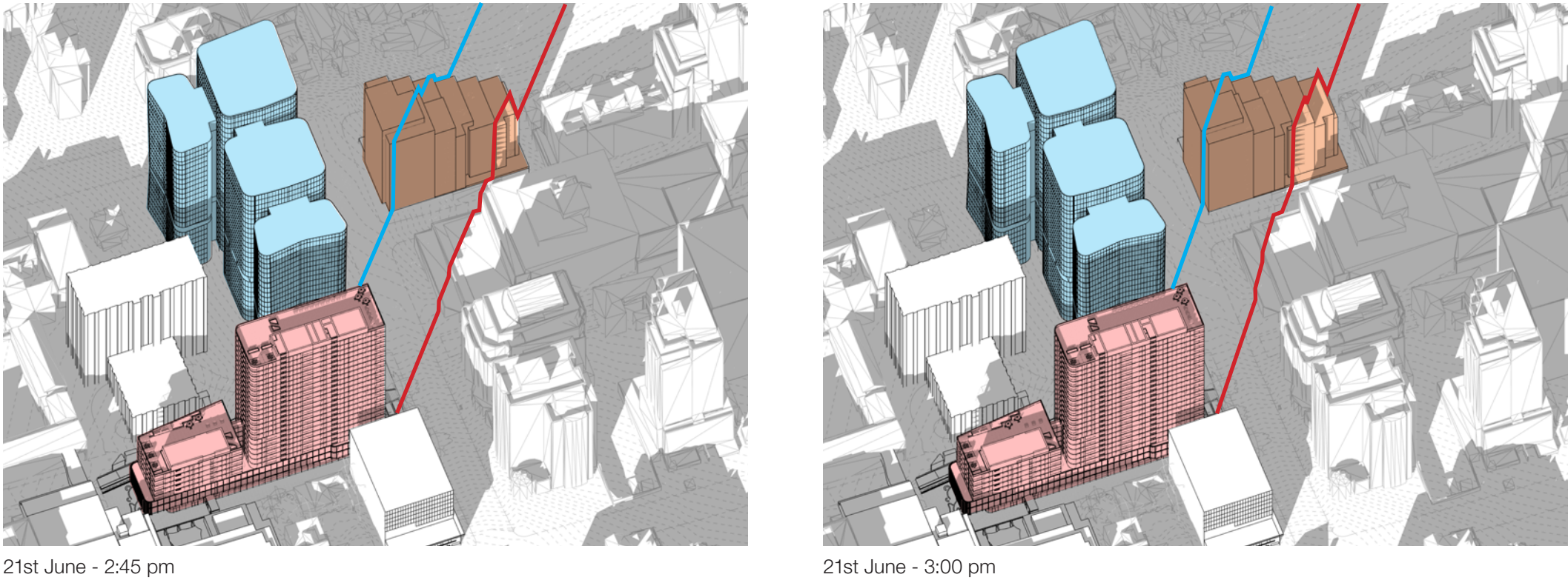
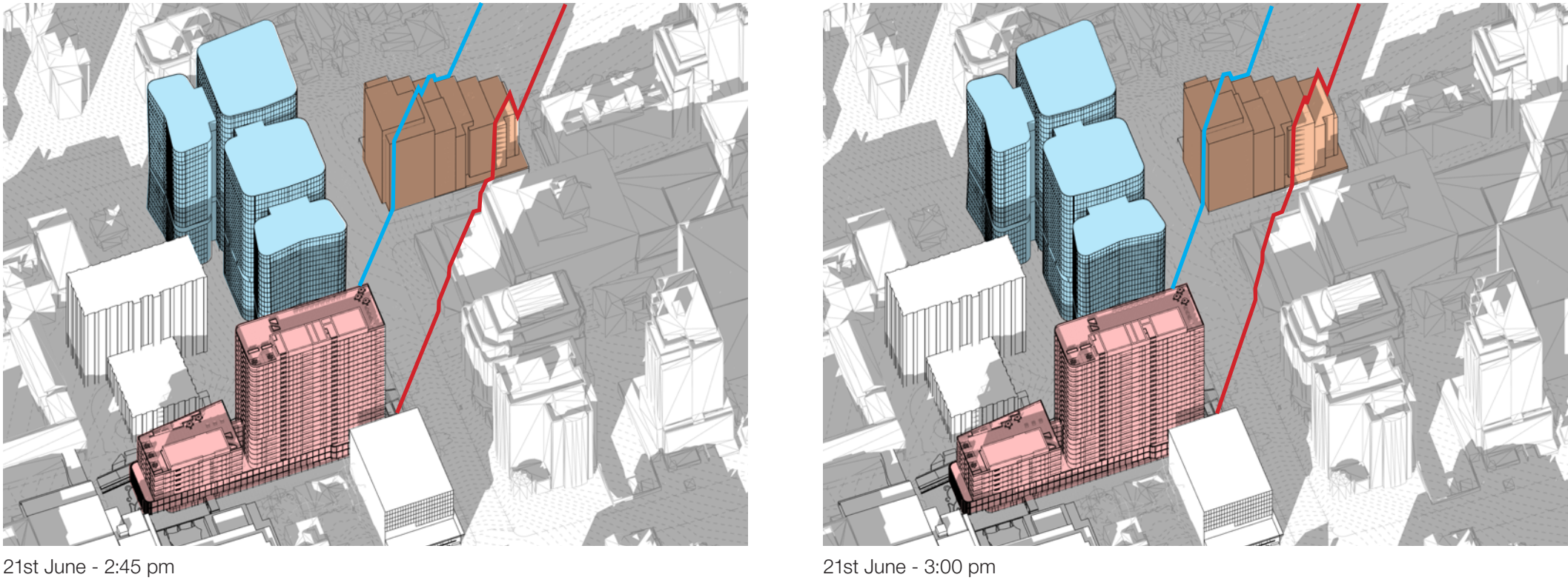
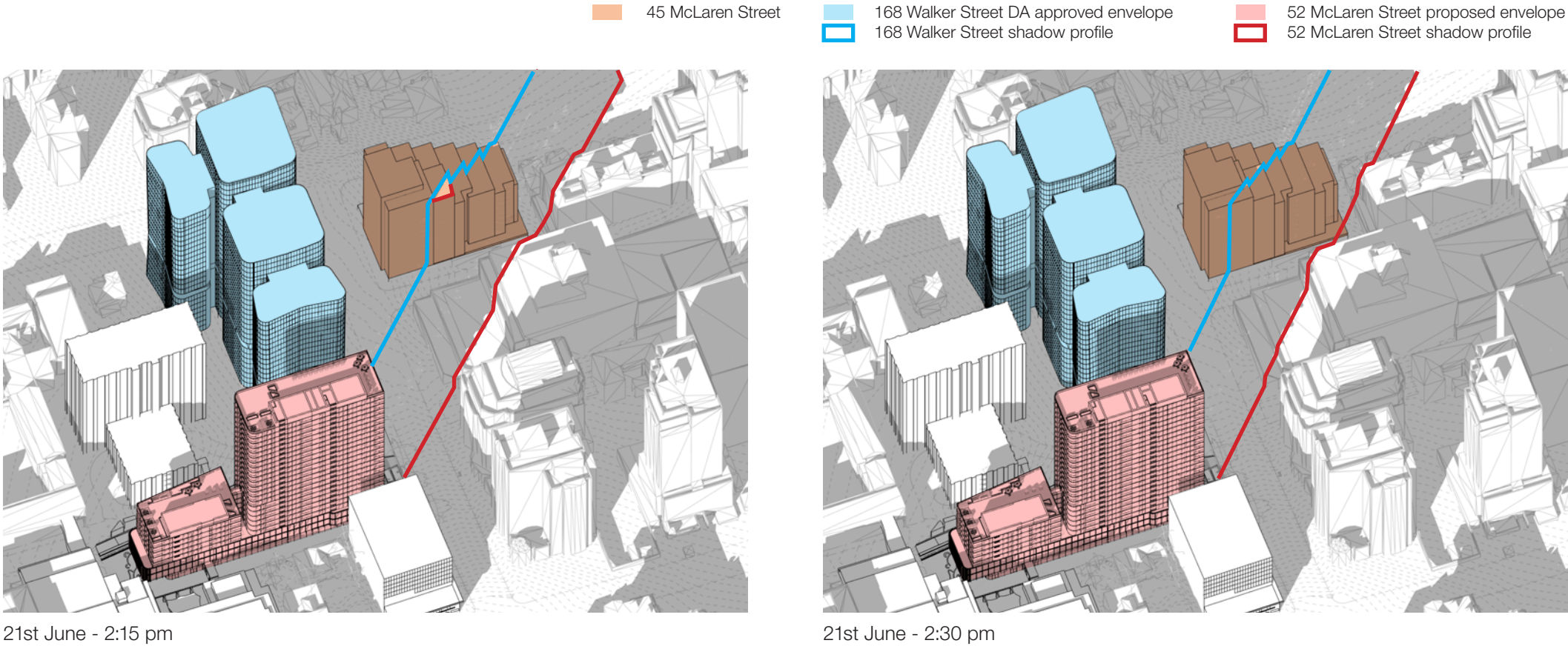
21st June - 1:45 pm



21st June - 2:00 pm



45 McLaren Street remains mostly overshadowed by 168 Walker Street and 52 McLaren Street until 2:45pm (with the exception of a few upper level apartments and roof terraces), then by 3:00pm the south west corner of the building is beginning to receive direct light as the shadow continues to move across to the east.





07 Key views, solar analysis and ADG compliance

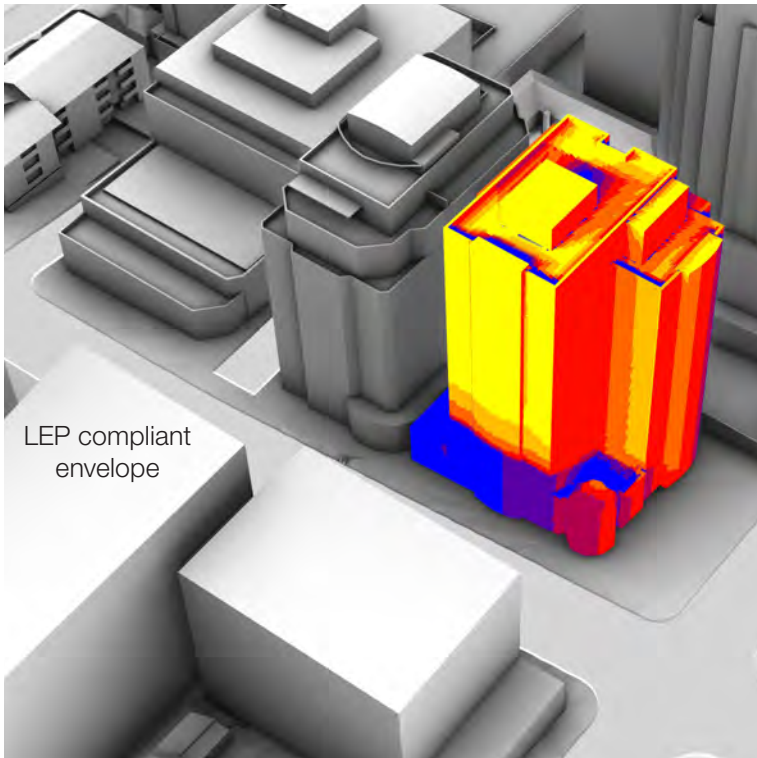
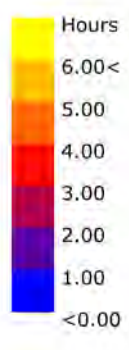
7.6 Solar analysis - 237 Miller Street

The following diagrams indicate the daylight hours received by the existing building at 237 McLaren Street.

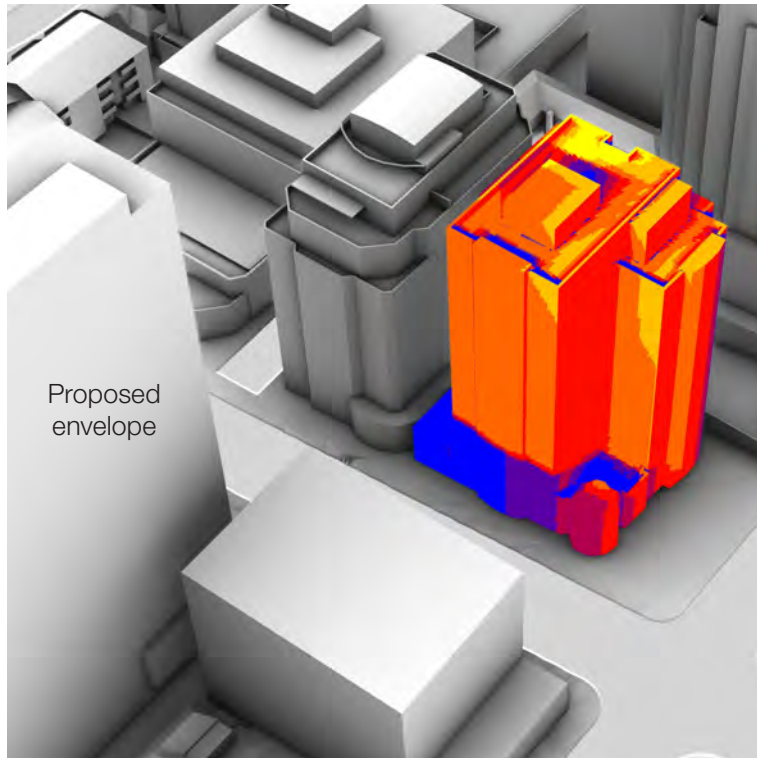
With an LEP compliant envelope, the upper level apartments receive in excess of 3 daylight hours, whereas the lower levels that are impacted by the LEP compliant envelope only receive 1 to 2 daylight hours.

Whilst the proposed scheme is significantly taller than the LEP compliant envelope, the slenderness of the proposed building means that the upper level apartments still generally receive in excess of 3 daylight hours, with the daylight hours to the lower level apartments remaining at 1 to 2 hours.

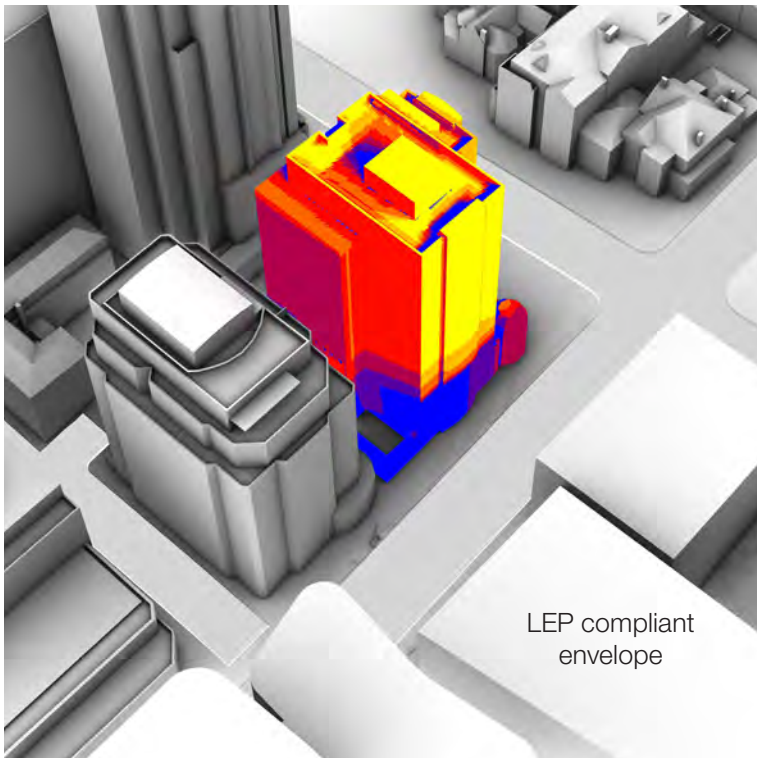
The analysis demonstrates that the majority of the building achieves solar access of greater than 2 hours between 9am and 3pm on June 21.



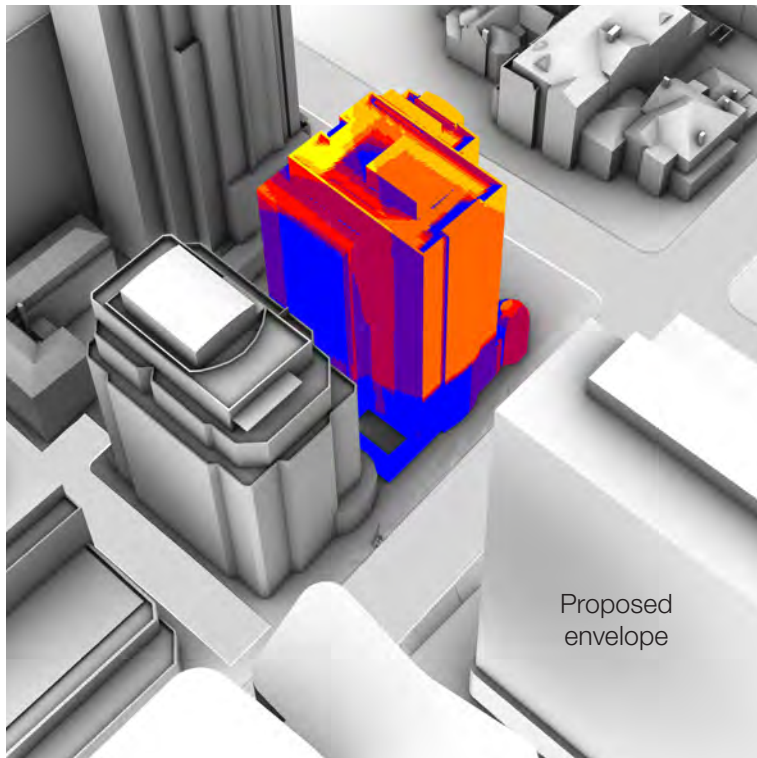
Daylight hours received by 237 Miller Street with LEP compliant envelope



Daylight hours received by 237 Miller Street with the proposed envelope



Daylight hours received by 237 Miller Street with LEP compliant envelope



Daylight hours received by 237 Miller Street with the proposed envelope



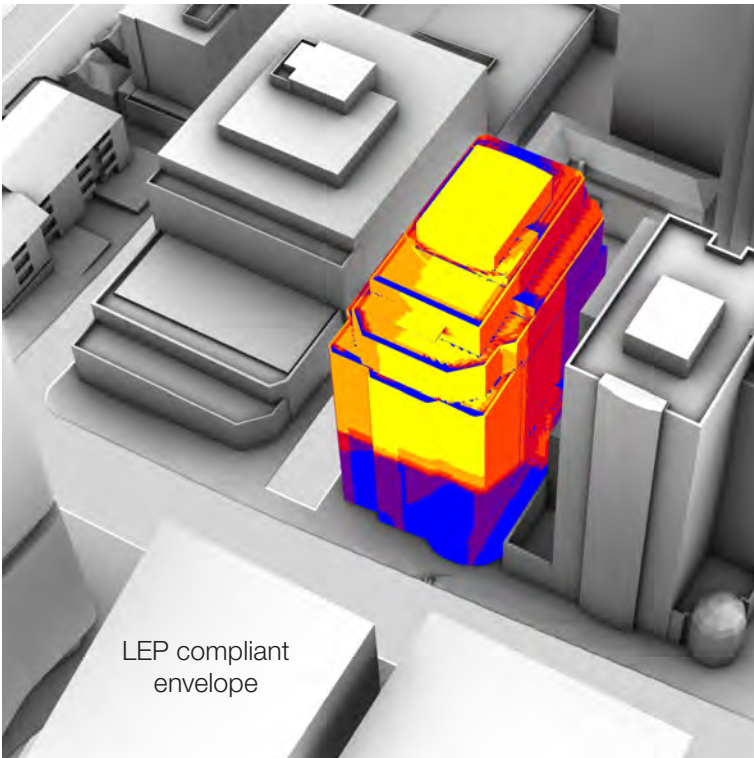
7.7 Solar analysis - 39 McLaren Street

The following diagrams indicate the daylight hours received by the existing building at 39 McLaren Street.

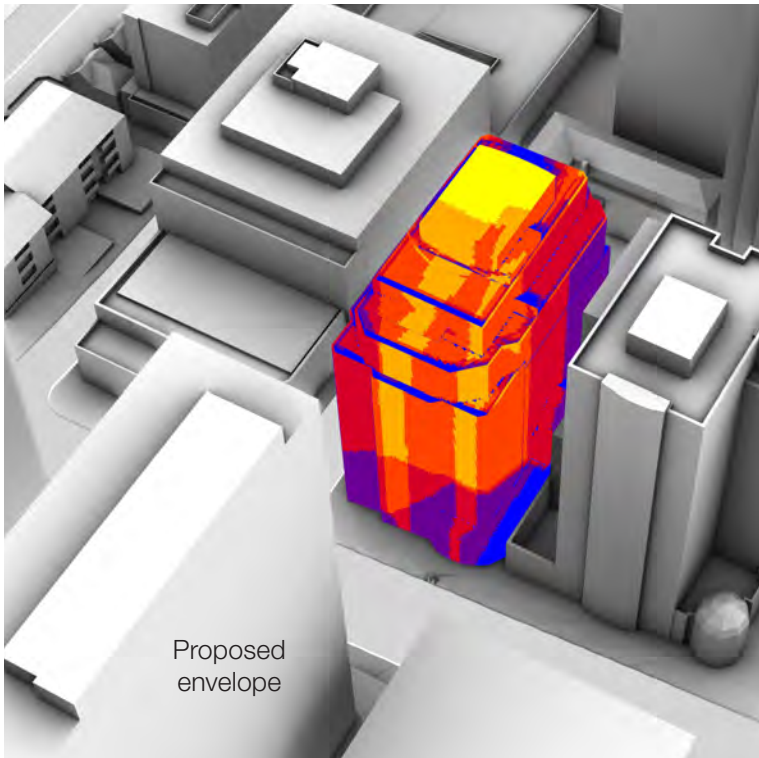
With an LEP compliant envelope, the upper level apartments receive in excess of 4 daylight hours, whereas the lower levels are impacted by the LEP compliant envelope and receive less than 2 daylight hours.

Whilst the proposed scheme is significantly taller than the LEP compliant envelope, the slenderness of the proposed building means that the upper level apartments still receive a minimum of 3 daylight hours, with the daylight hours to the lower level apartments actually increasing to 1.5 to 3 hours, when compared with the LEP compliant envelope.

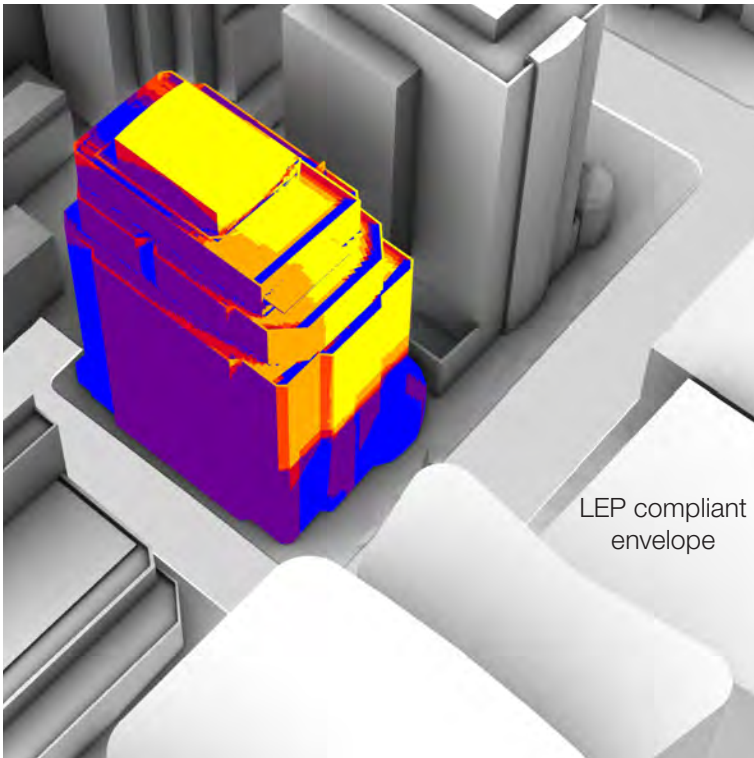
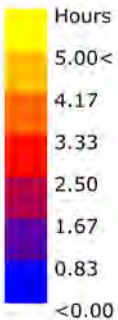
The analysis demonstrates that more apartments would receive solar access of greater than two hours between 9am and 3pm on June 21 with the proposed envelope than with the LEP compliant envelope.



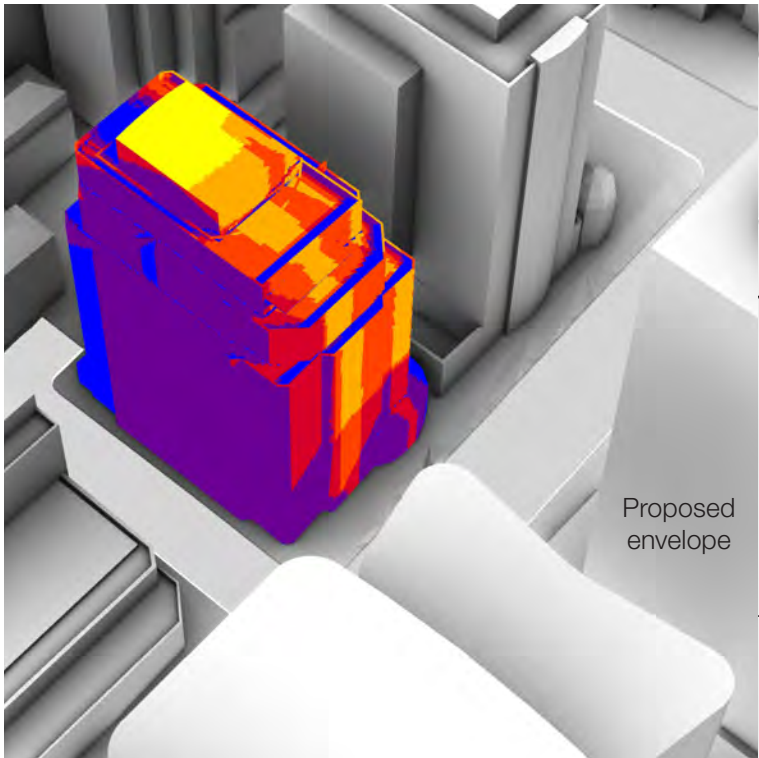
Daylight hours received by 39 McLaren Street with LEP compliant envelope



Daylight hours received by 39 McLaren Street with the proposed envelope



Daylight hours received by 39 McLaren Street with LEP compliant envelope



Daylight hours received by 39 McLaren Street with the proposed envelope



07 Key views, solar analysis and ADG compliance

7.8 Solar analysis - 45 McLaren Street - Existing building

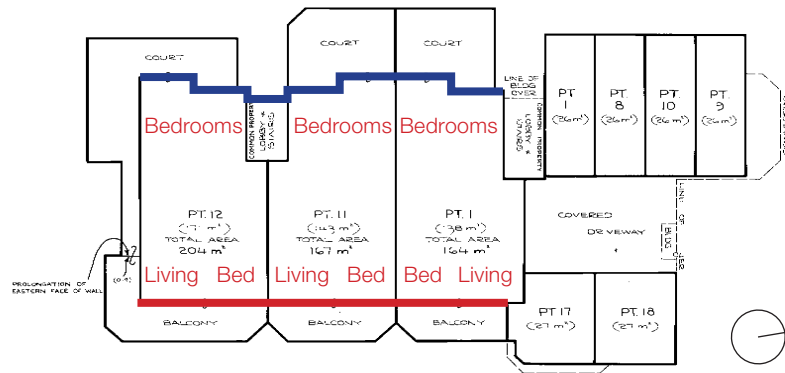
45 McLaren Street contains 18 dwellings. The internal layouts of these dwellings have been estimated based on real estate plans sourced online, and Strata Plans found in a Preliminary Site Investigation Report dated 14 October 2020, produced by EI Australia. Based on this information the following assumptions have been made:

- the three 'corner apartments' at the north east corner of the building have living, dining, kitchen areas, and balconies facing east and north, with bedrooms also facing north
- the three 'corner apartments' at the north west corner of the building have living rooms facing north, with kitchens and bedrooms facing west
- the 12 remaining dwellings are 'through apartments' and have living areas and balconies located on the eastern side of the building, with bedrooms on the western side.

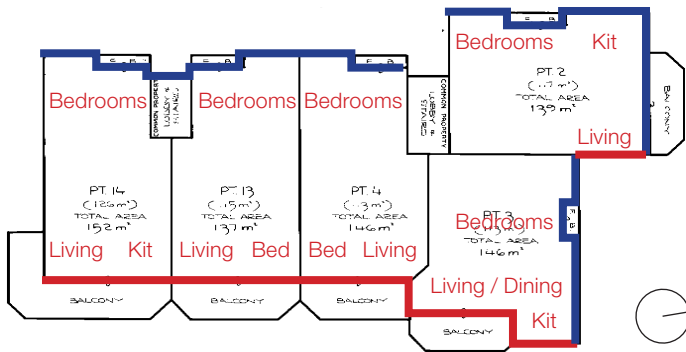
The following diagrams indicate the façades (and rooms) where it is possible for the proposed envelope at 52 McLaren Street to have any sort of overshadowing impact at any point during the day.

These diagrams demonstrate the following:

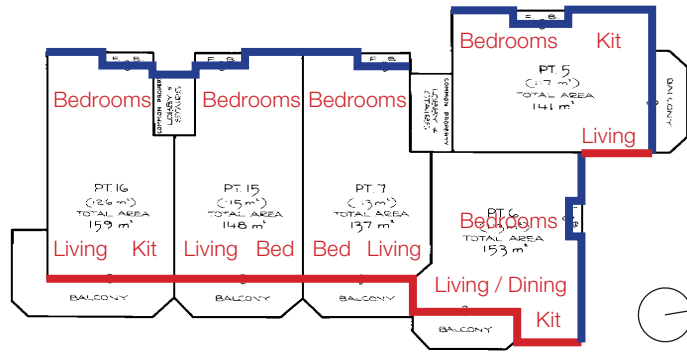
- it is not possible for the proposal to cause any reduction in daylight hours received by the living and balcony areas to any of the 12 'through apartments' as these all face east and are not subject to any overshadowing by the proposal
- it is not possible for the proposal to cause any reduction in daylight hours received by the living, kitchen, and balcony areas to any of the three 'corner apartments' at the north east corner of the building as these all face east with no windows to the north and are not subject to any overshadowing by the proposal. The dining room window does have the potential to be overshadowed by the proposal and an assessment of the extent of overshadowing is provided on the following page
- it is not possible for the proposal to cause any reduction in daylight hours received by the east facing living room window to any of the three 'corner apartments' at the north west corner of the building as these windows are not subject to any overshadowing from the proposal. The living, kitchen and balcony areas do have the potential to be overshadowed by the proposal and an assessment of the extent of overshadowing is provided on the following page.



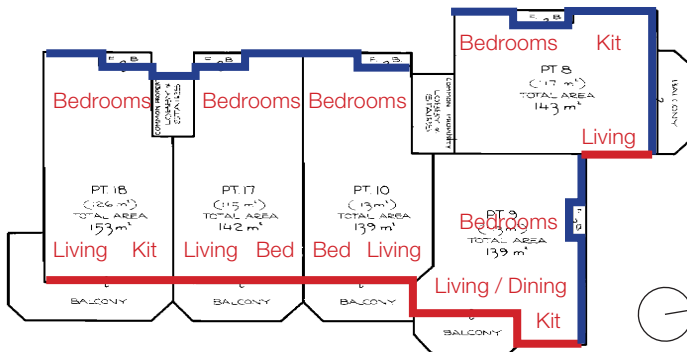
Level 2 Plan with assumed room locations shown



Level 3 Plan with assumed room locations shown



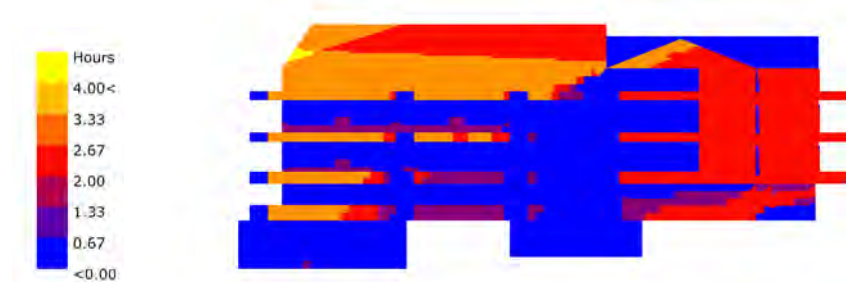
Level 4 Plan with assumed room locations shown



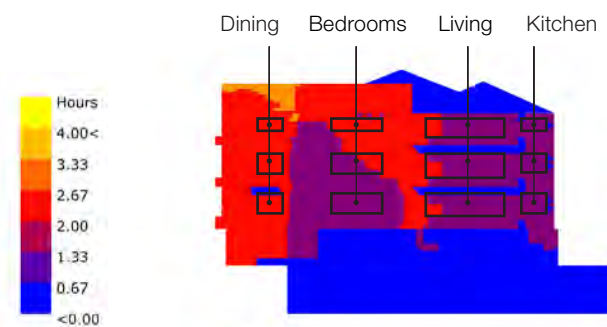
Level 5 Plan with assumed room locations shown

Facades with potential to be overshadowed by 52 McLaren Street proposal — Blue line  
Facade with no potential to be overshadowed by 52 McLaren Street proposal — Red line





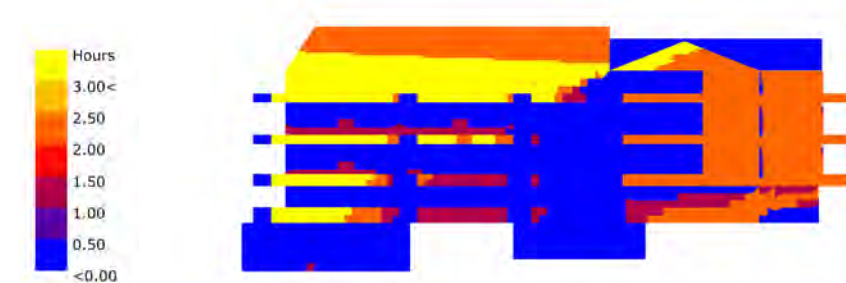
East elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme only.



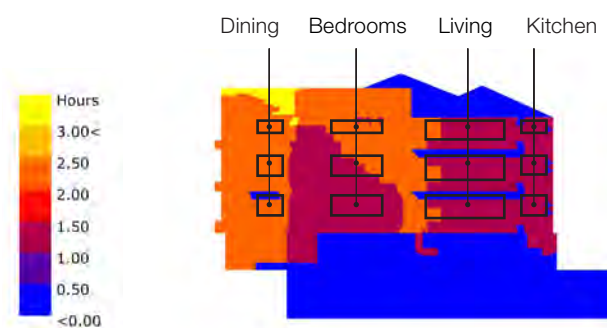
North elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme only.



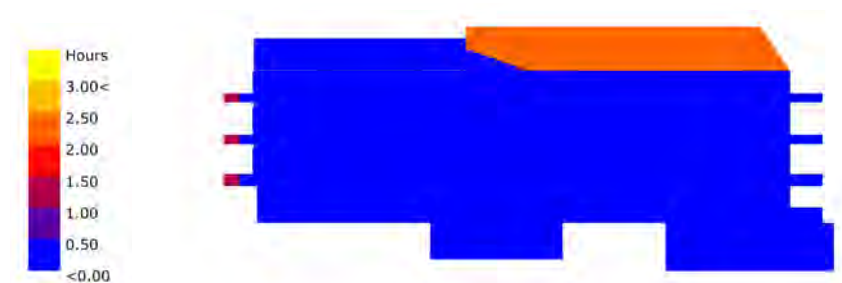
West elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme only.



East elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.



North elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.



West elevation - Daylight hours received by 45 McLaren Street with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.

The eastern facade of the building generally receives in excess of 2 daylight hours in mid winter, although due to the deep full width balconies, this light does not penetrate into the internal spaces. This is the existing condition, and the 52 McLaren Street proposals do not worsen this in any way.

The western side of the northern facade of the building will only receive slightly more than 1 daylight hour in mid winter, due to overshadowing caused by the 168 Walker Street DA scheme, whereas the eastern side of the northern facade of the building will receive in excess of 2 daylight hours. The 52 McLaren Street proposals slightly worsen this, but the north facing windows to the dining rooms of the north east corner apartments still receive in excess of 2 daylight hours, and therefore demonstrate ADG compliance. The three north west corner apartments are non-compliant even without the 52 McLaren Street proposals, although these living rooms do have secondary windows facing east and these windows do receive in excess of 2 daylight hours.

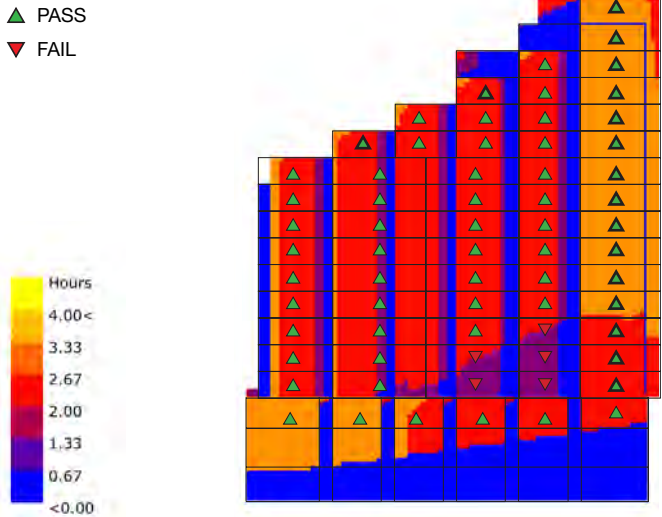
The western facade of the building will receive less than 2 daylight hours in mid winter, due to overshadowing caused by the 168 Walker Street DA scheme. With the 52 McLaren Street proposals this will reduce to less than 1 daylight hour. There are only bedrooms and kitchens located along the length of this elevation, therefore a reduction in solar access to these spaces does not result in non-compliance with the ADG requirements.

The ADG states that living rooms and private open spaces of at least 70% of apartments in a building should receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter.

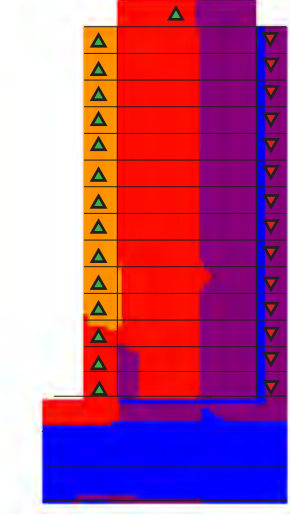
Based on this, only 3 dwellings (17%) are non-compliant due to overshadowing impacts from the 168 Walker Street DA scheme, with the 52 McLaren Street proposals slightly worsening this. Therefore the proposals demonstrate ADG compliance.



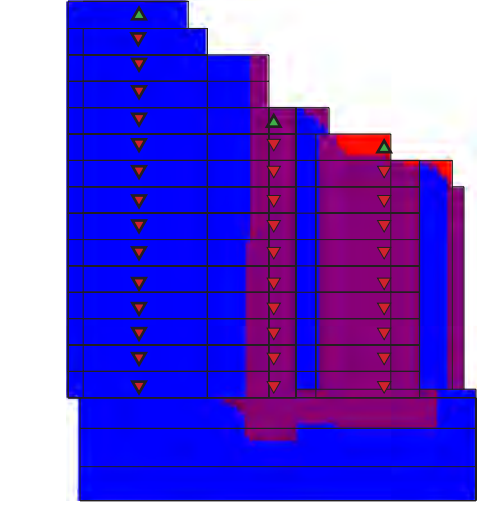
# 07 Key views, solar analysis and ADG compliance



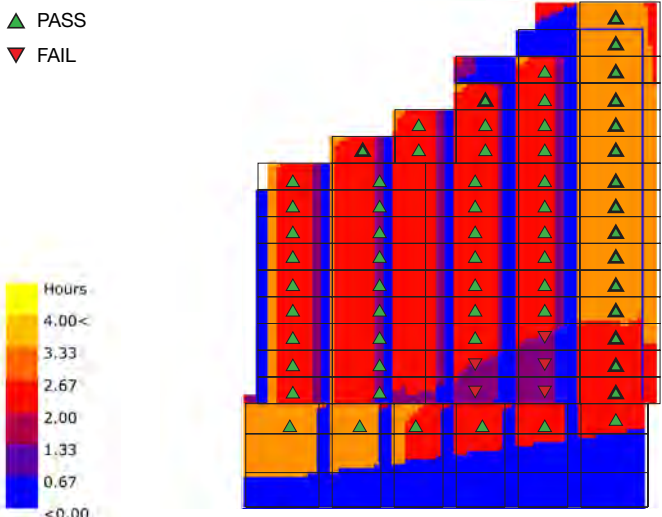
East elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme only.



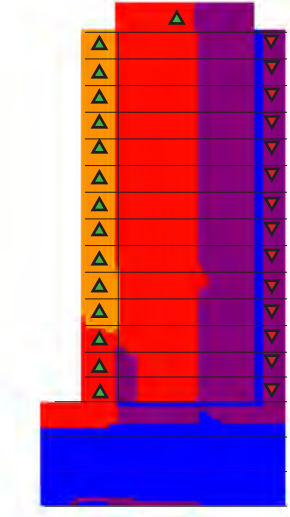
North elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme only.



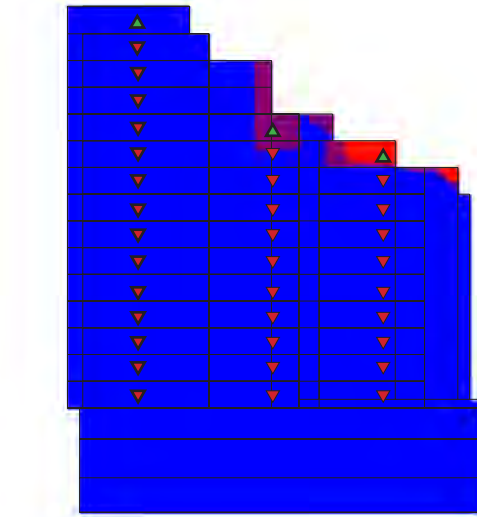
West elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme only.



East elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.



North elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.



West elevation - Daylight hours received by 45 McLaren Street planning proposal scheme with 168 Walker Street DA scheme and 52 McLaren Street proposed envelope.

## 7.9 Solar analysis - 45 McLaren Street - Planning proposal scheme

With the 168 Walker Street DA scheme only, the eastern facade of the building generally receives in excess of two daylight hours in mid winter, with only four of the east facing apartments receiving between one and two daylight hours. The 52 McLaren Street proposals do not worsen this in any way.

With the 168 Walker Street scheme only, the western side of the northern facade of the building will receive more than two daylight hours in mid winter, whereas the eastern side of the northern facade of the building will receive one to two daylight hours. The 52 McLaren Street proposals do not worsen this in any way.

With the 168 Walker Street scheme only, most of the western facade of the building will receive less than one daylight hour in mid winter, with some parts receiving between one and two daylight hours. With the 52 McLaren Street proposals this will reduce slightly to less than one daylight hour for the entire facade.

In summary, with the 168 Walker Street scheme only, 62 dwellings (62%) receive in excess of two hours direct sunlight between 9 am and 3 pm at mid winter, with 38 dwellings (38%) receiving less than two daylight hours. This is unchanged with the 52 McLaren Street proposals.



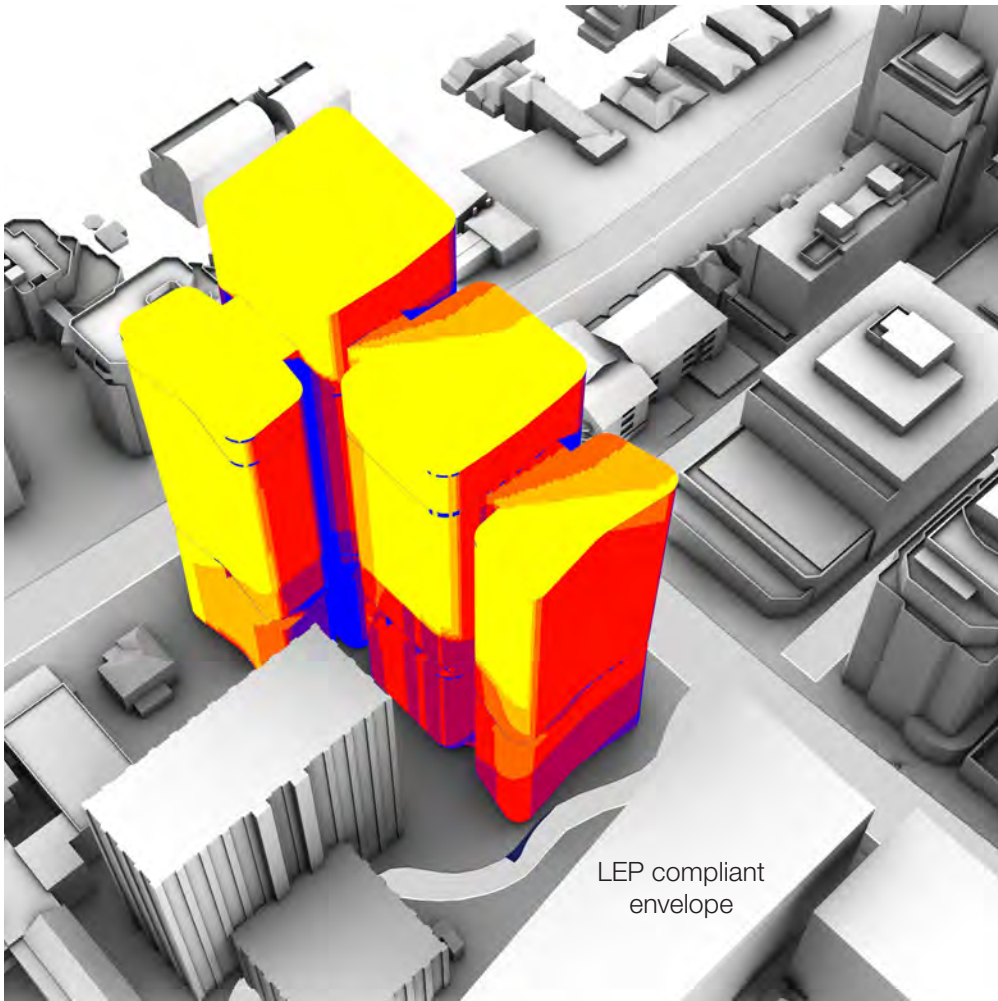
7.10 Solar analysis - 168 Walker Street

The following diagrams indicate the daylight hours received by the proposed building at 168 Walker Street.

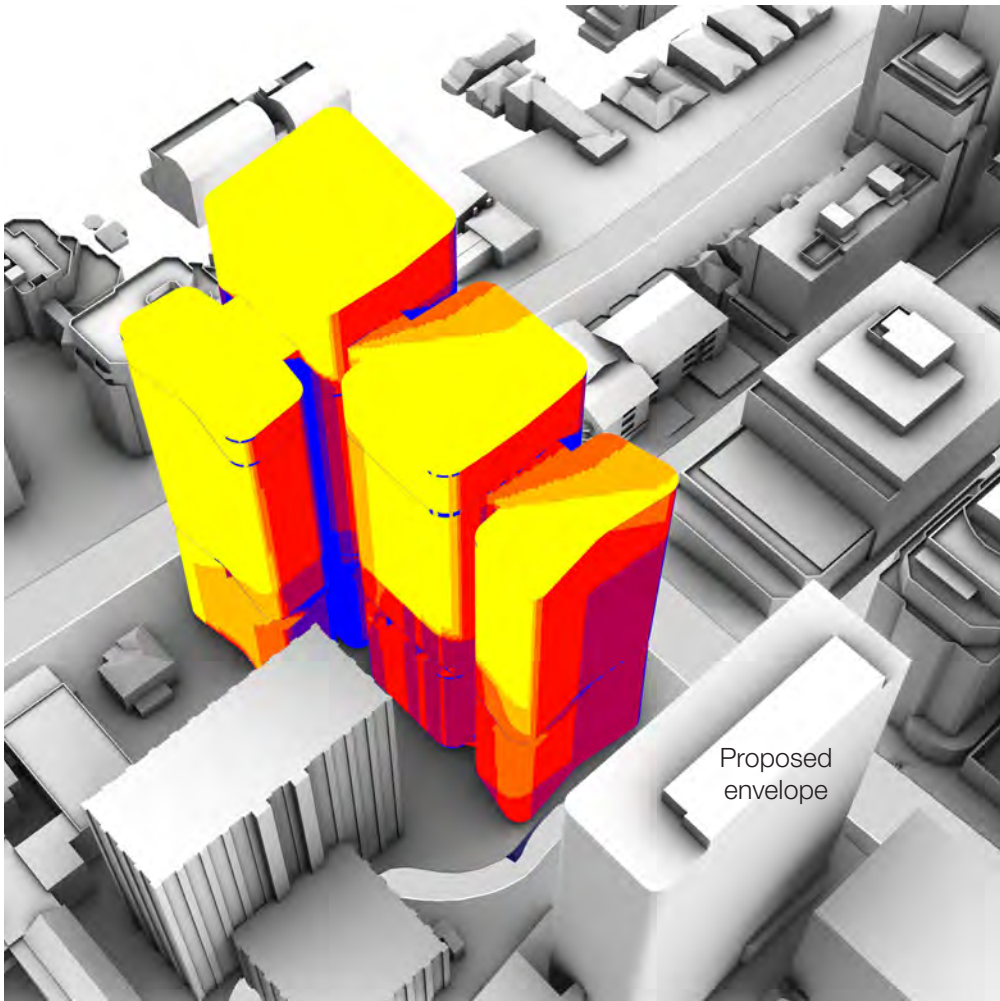
With an LEP compliant envelope, some of the lower level west facing apartments in the western building are impacted, with the worst of these still receiving in excess of two daylight hours. The upper level apartments generally receive in excess of three daylight hours.

These impacts increase slightly with the proposed envelope, with the worst of these again still receiving in excess of two daylight hours, and this only affects a relatively small proportion of the apartments in the building.

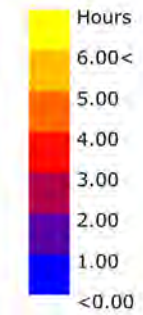
The analysis demonstrates that the majority of the building achieves solar access of greater than two hours between 9am and 3pm on June 21.



Daylight hours received by 168 Walker Street with LEP compliant envelope



Daylight hours received by 168 Walker Street with the proposed envelope





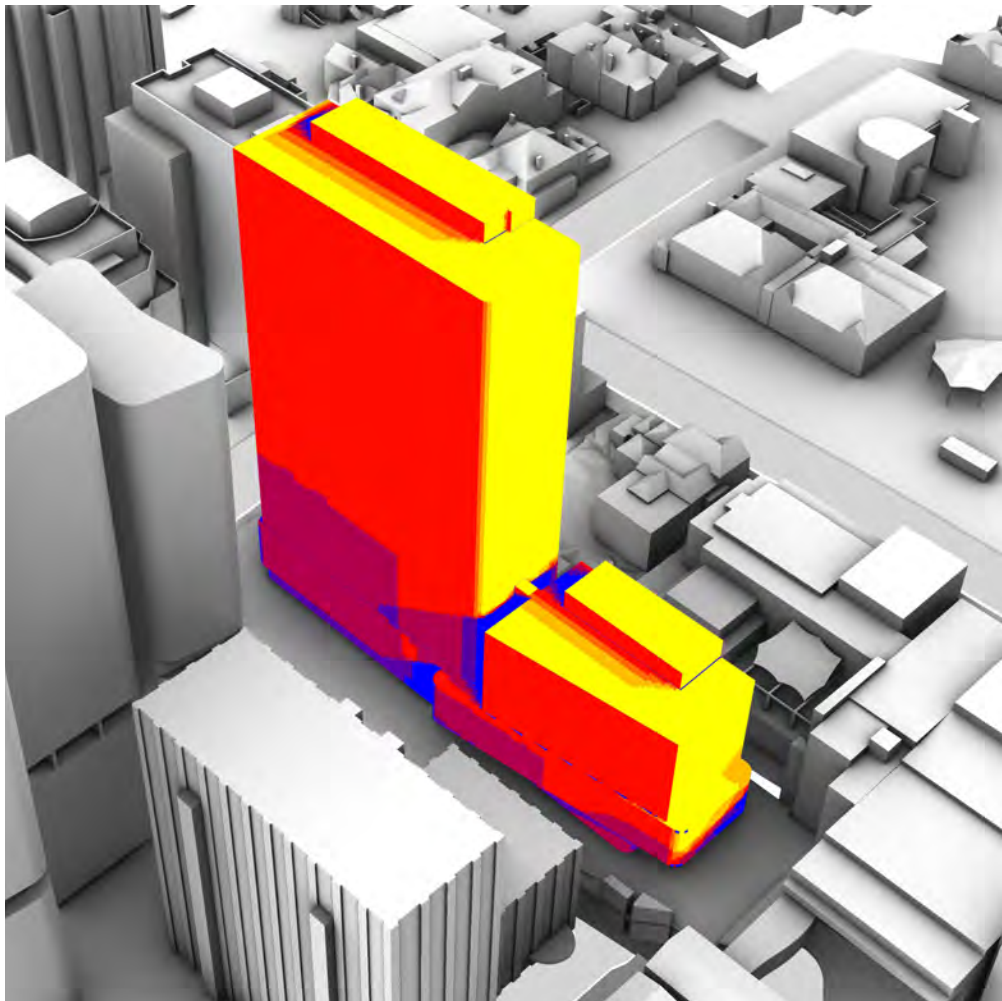
07 Key views, solar analysis and ADG compliance

7.11 Solar analysis  
- 52 McLaren Street proposal

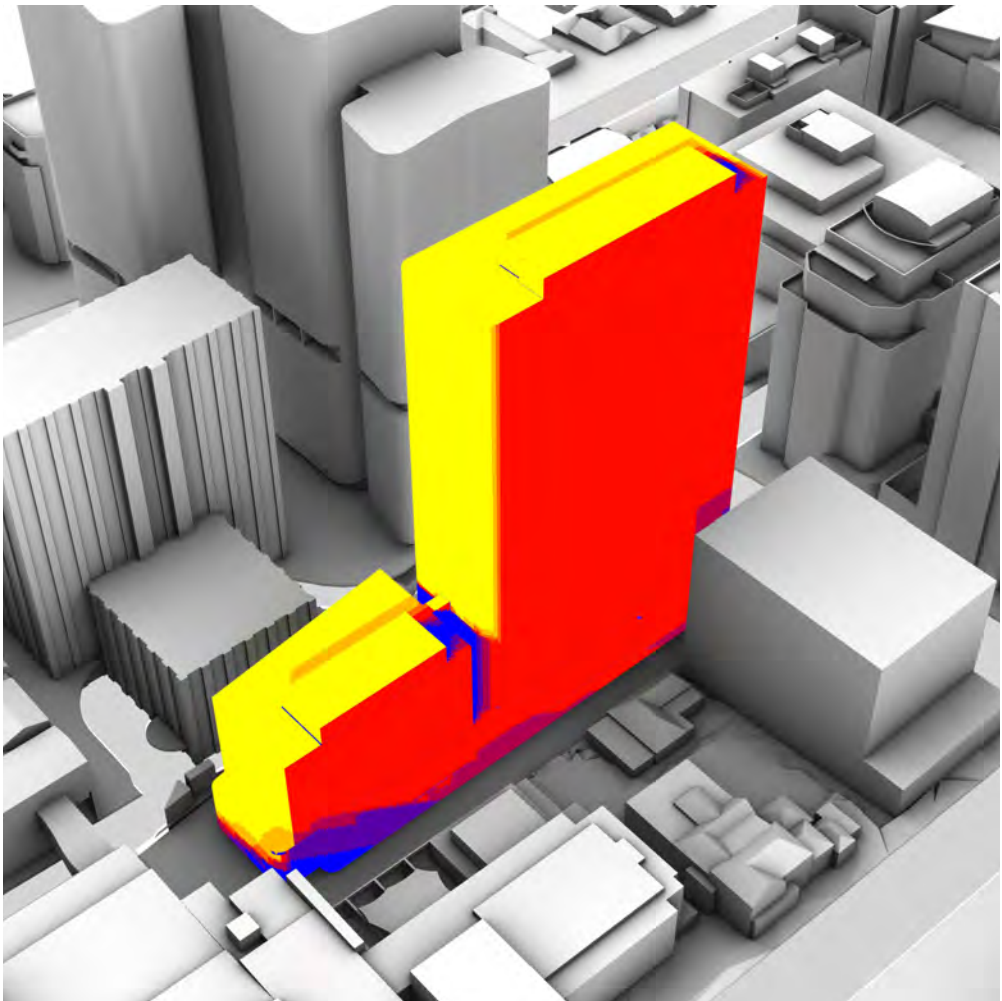
The following diagrams indicate the daylight hours received by the proposed envelope at 52 McLaren Street.

The ADG states that living rooms and private open spaces of at least 70% of apartments in a building should receive a minimum of two hours direct sunlight between 9 am and 3 pm at mid winter. A maximum of 15% of apartments in a building are permitted to receive no direct sunlight between 9 am and 3 pm at mid winter.

The analysis demonstrates that all of the apartments receive in excess of two daylight hours between 9am and 3pm at mid winter.

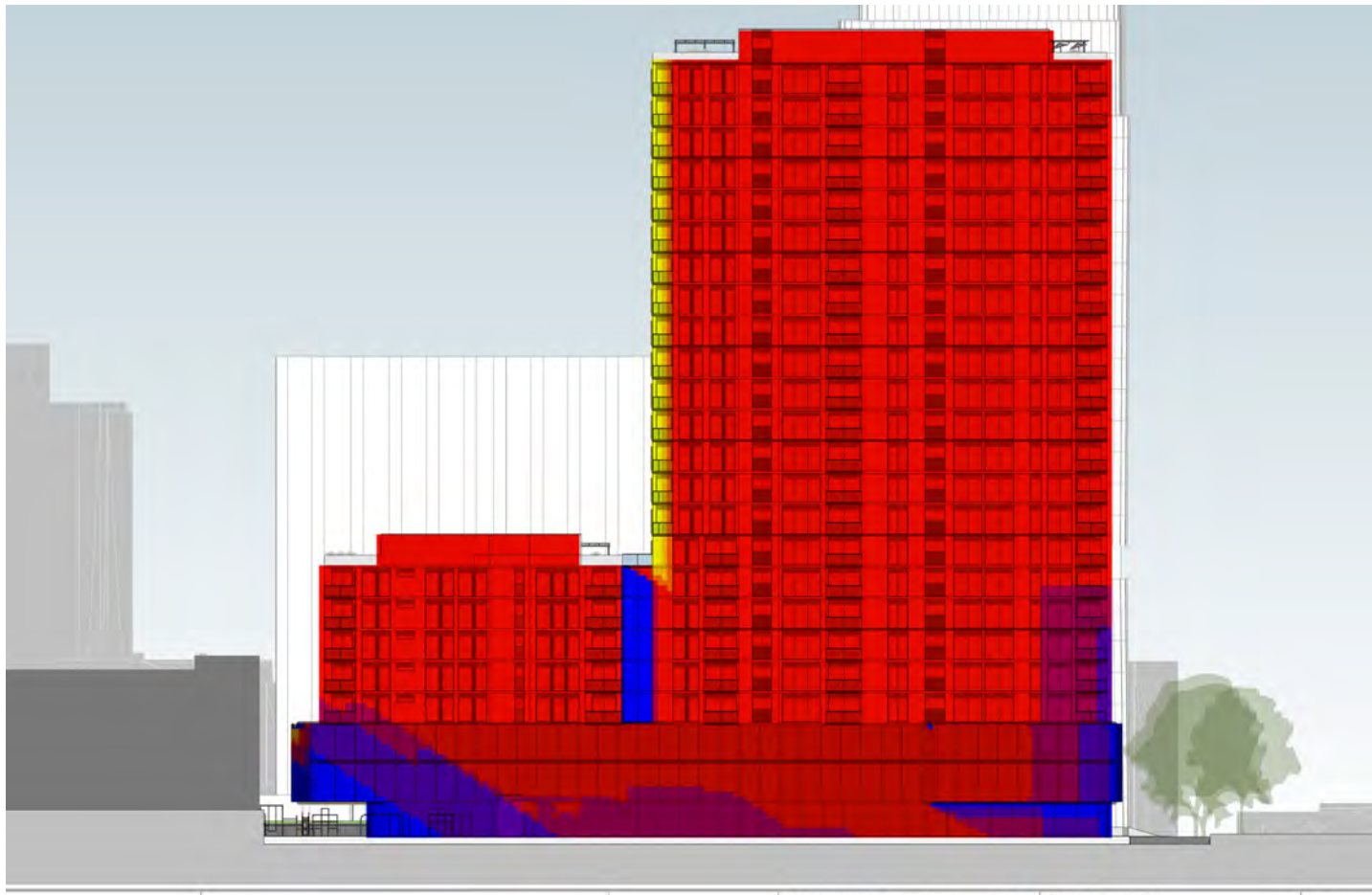


Daylight hours received by 52 McLaren Street - East elevation

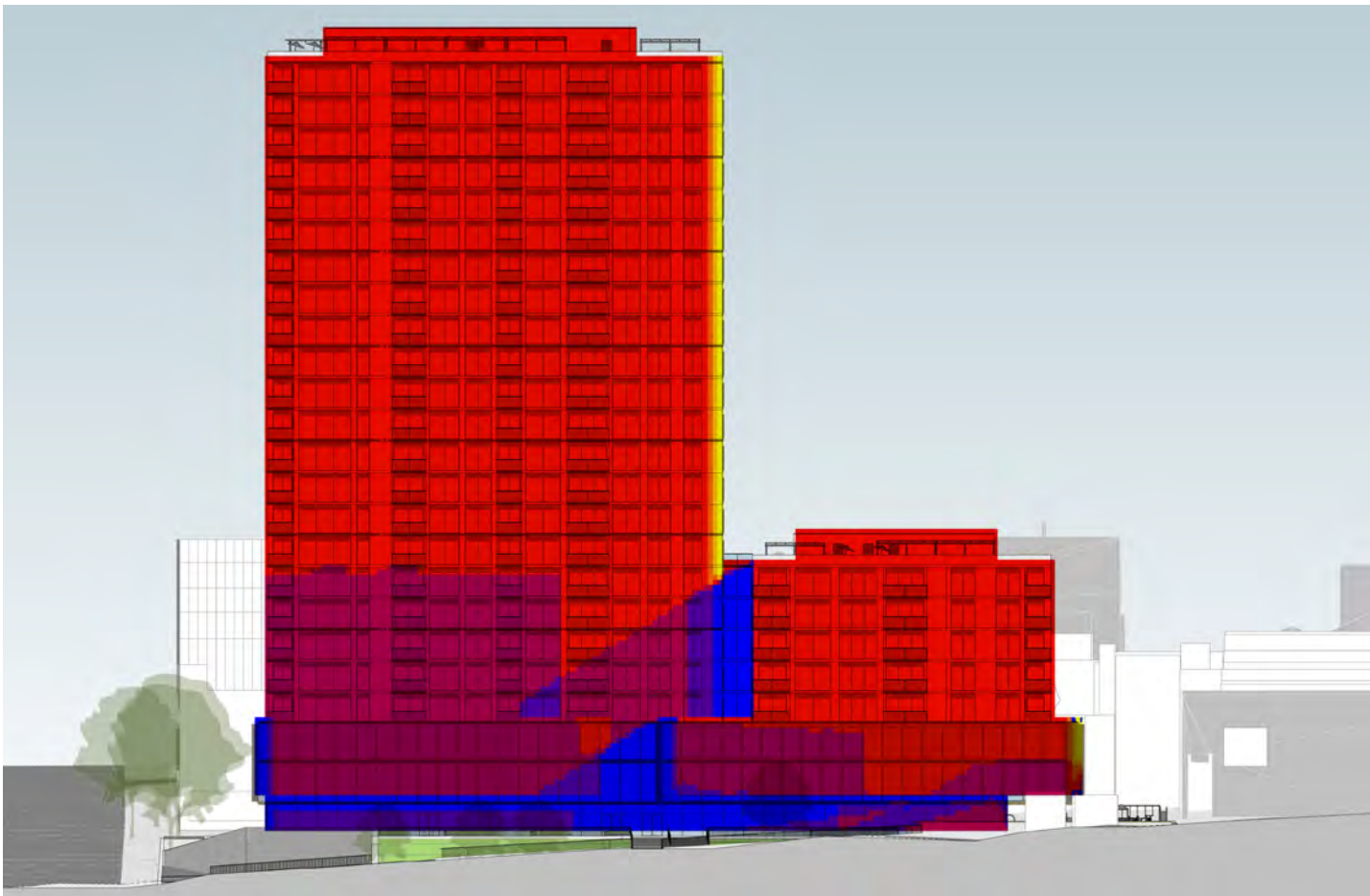


Daylight hours received by 52 McLaren Street - West elevation

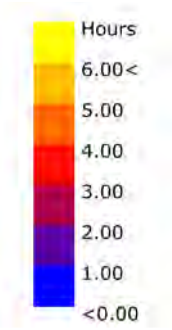




Daylight hours received by 52 McLaren Street - West elevation



Daylight hours received by 52 McLaren Street - East elevation





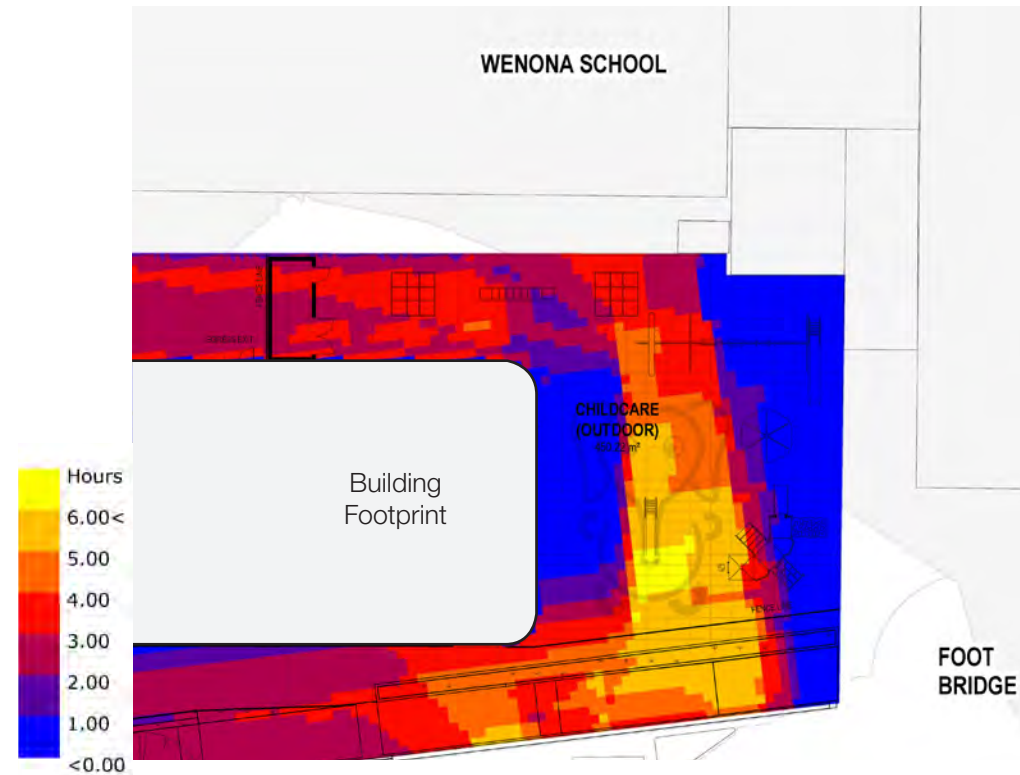
## 7.12 Solar analysis - Childcare open space

The following diagrams indicate the daylight hours received by the proposed Childcare Centre open space at 52 McLaren Street.

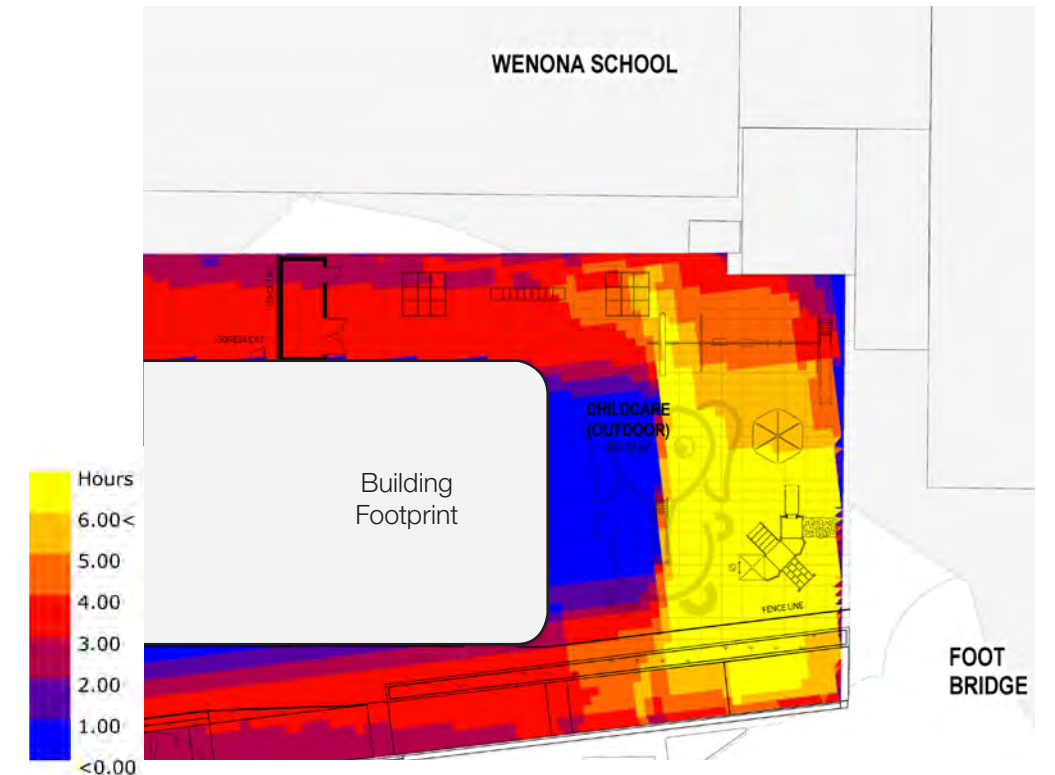
The analysis demonstrates that the main space which is open to the air (uncovered) receives in excess of four hours of direct sunlight between the hours of 9am and 3pm at mid summer.

At the equinoxes, approximately two-thirds of this area receives in excess of three hours of direct sunlight between the hours of 9am and 3pm, with the exception of the area adjacent to the northern site boundary which is overshadowed by the adjacent buildings.

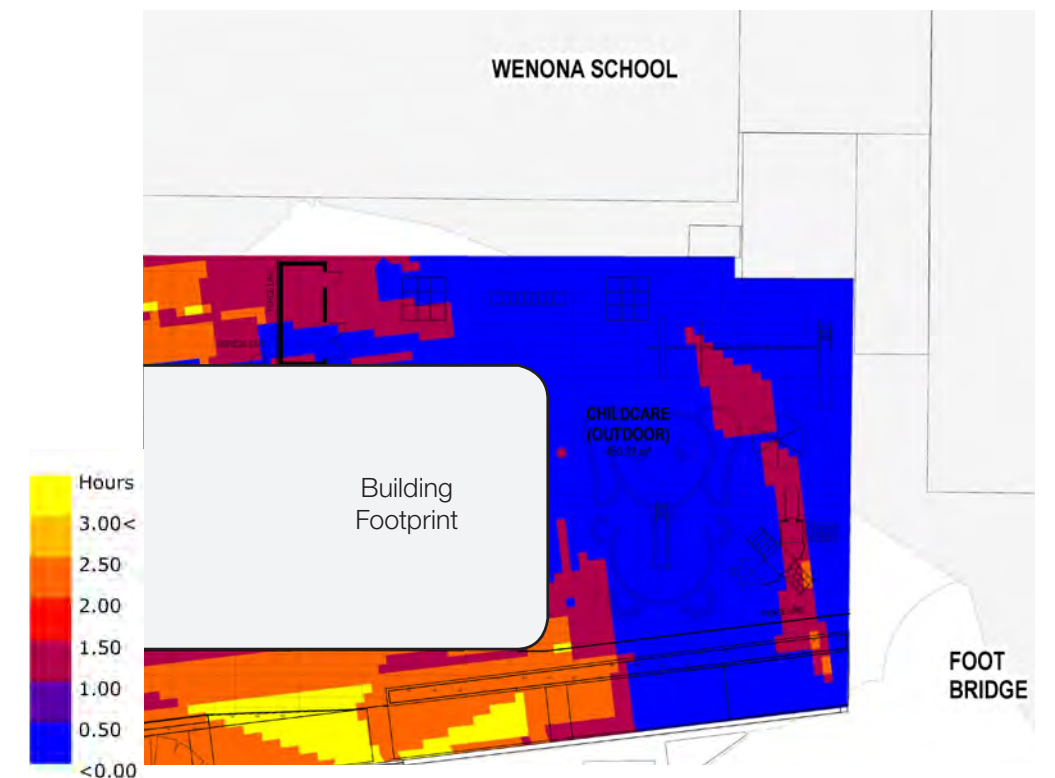
At mid winter, most of the outdoor space is overshadowed by adjacent buildings, with only a few small areas receiving up to 1.5 hours of direct sunlight between the hours of 9am and 3pm.



Equinox - Daylight hours received by the Childcare Centre open space



Mid summer - Daylight hours received by the Childcare Centre open space



Mid winter - Daylight hours received by the Childcare Centre open space

07 Key views, solar analysis and ADG compliance

7.13 ADG Compliance

The scheme has been assessed for compliance with key SEPP 65 / Apartment Design Guide criteria that are applicable for high rise residential apartment buildings as follows:

- visual privacy
- solar and daylight analysis
- natural ventilation
- ceiling heights
- apartment size and layout
- private open space and balconies
- communal open space
- common circulation and spaces
- storage.

A summary of compliance is provided in the following table:

ADG Criteria	Details of Compliance
<b>Visual privacy</b> Separation to windows and balconies is provided to ensure visual privacy is achieved.  Minimum required separation distance from buildings to the side and rear boundaries are as follows for habitable rooms and balconies: <ul style="list-style-type: none"><li>• Up to 12m (4 storeys) = 6m</li><li>• Up to 25m (5-8 storeys) = 9m</li><li>• Over 25m (9+ storeys) = 12m</li></ul> Minimum separation distances for buildings nine storeys and above (over 25m): <ul style="list-style-type: none"><li>• 24m between habitable rooms/balconies</li><li>• 18m between habitable and non-habitable rooms</li><li>• 12m between non-habitable rooms.</li></ul>	<b>Eastern boundary</b> <ul style="list-style-type: none"><li>• 24m separation between proposal and 168 Walker Street envelope.</li><li>• 10-13m separation between proposal and the blank western facade of the Rydges building, with 34-36m separation between the proposal and the main western facade of the Rydges building.</li></ul> <b>Western Boundary</b> <ul style="list-style-type: none"><li>• 23m separation between proposal and the rear facade of 243 Miller Street.</li><li>• 11-21m separation between the proposal and the rear facade of Wenona School.</li></ul> <b>Northern Boundary</b> <ul style="list-style-type: none"><li>• 17m separation between proposal and the facade of Wenona School.</li></ul>
<b>Solar access</b> Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter in Sydney Metropolitan Area.  A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter.	<ul style="list-style-type: none"><li>• All apartments receive at least 2 hours direct sunlight between 9am and 3pm at mid winter to living rooms and private open spaces.</li></ul>
<b>Natural ventilation</b> At least 60% of apartments are naturally ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balcony at these levels allow adequate natural ventilation and cannot be fully enclosed.	<ul style="list-style-type: none"><li>• 60% of apartments are naturally cross ventilated.</li></ul>
<b>Ceiling heights</b> Measured from finished floor level to finished ceiling level, minimum ceiling heights are 2700mm in habitable rooms.	<ul style="list-style-type: none"><li>• 2700mm ceiling heights provided to all apartments.</li></ul>

ADG Criteria	Details of Compliance
<b>Apartment size and layout</b> Apartments are required to have the following minimum internal areas: <ul style="list-style-type: none"><li>• Studio = 35sqm</li><li>• 1 Bedroom = 50sqm</li><li>• 2 Bedroom / 2 bathroom = 75sqm</li><li>• 3 Bedroom / 2 bathroom = 95sqm</li></ul>	<ul style="list-style-type: none"><li>• All apartments meet or exceed these minimum areas.</li></ul>
<b>Private open space and balcony</b> Apartments are required to have primary balconies as follows: <ul style="list-style-type: none"><li>• Studio = 4sqm</li><li>• 1 Bedroom = 8sqm</li><li>• 2 Bedroom = 10sqm</li><li>• 3 Bedroom = 12sqm</li></ul>	<ul style="list-style-type: none"><li>• All balconies meet or exceed these minimum areas.</li></ul>
<b>Communal open space</b> Communal open space has a minimum area equal to 25% of the site.  Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21 June (mid winter).	<ul style="list-style-type: none"><li>• A total of 791sqm of communal open space is provided in the form of roof terraces, which is equal to 25% of the site area. There is also a residents garden at ground floor.</li></ul>
<b>Common circulation and space</b> The maximum number of apartments off a circulation core on a single level is eight.  For buildings 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	<ul style="list-style-type: none"><li>• Floors 3-7: 12 apartments per floor. Served by 1 lift/ stair core (with 3 lifts) and 2 additional stair cores.</li><li>• Floors 8-23: 7 apartments per floor. Served by 1 lift/ stair core (with 3 lifts) and 1 additional stair core.</li><li>• 3 lifts provided.</li></ul>
<b>Storage</b> In addition to storage in kitchens, bathrooms, and bedrooms, the following storage is to be provided, with at least 50% of the required storage being located within the apartment: <ul style="list-style-type: none"><li>• Studio = 4sqm</li><li>• 1 Bedroom = 6sqm</li><li>• 2 Bedroom = 8sqm</li><li>• 3 Bedroom = 10sqm</li></ul>	<ul style="list-style-type: none"><li>• Storage provided that either meets or exceeds these minimum areas.</li></ul>



**GHD**

Level 15/133 Castlereagh St  
Sydney, NSW 2000

T: +61 2 9239 7100 F: +61 2 9475 0725 E: [sydneymail@ghd.com](mailto:sydneymail@ghd.com) W: [www.ghd.com](http://www.ghd.com)

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