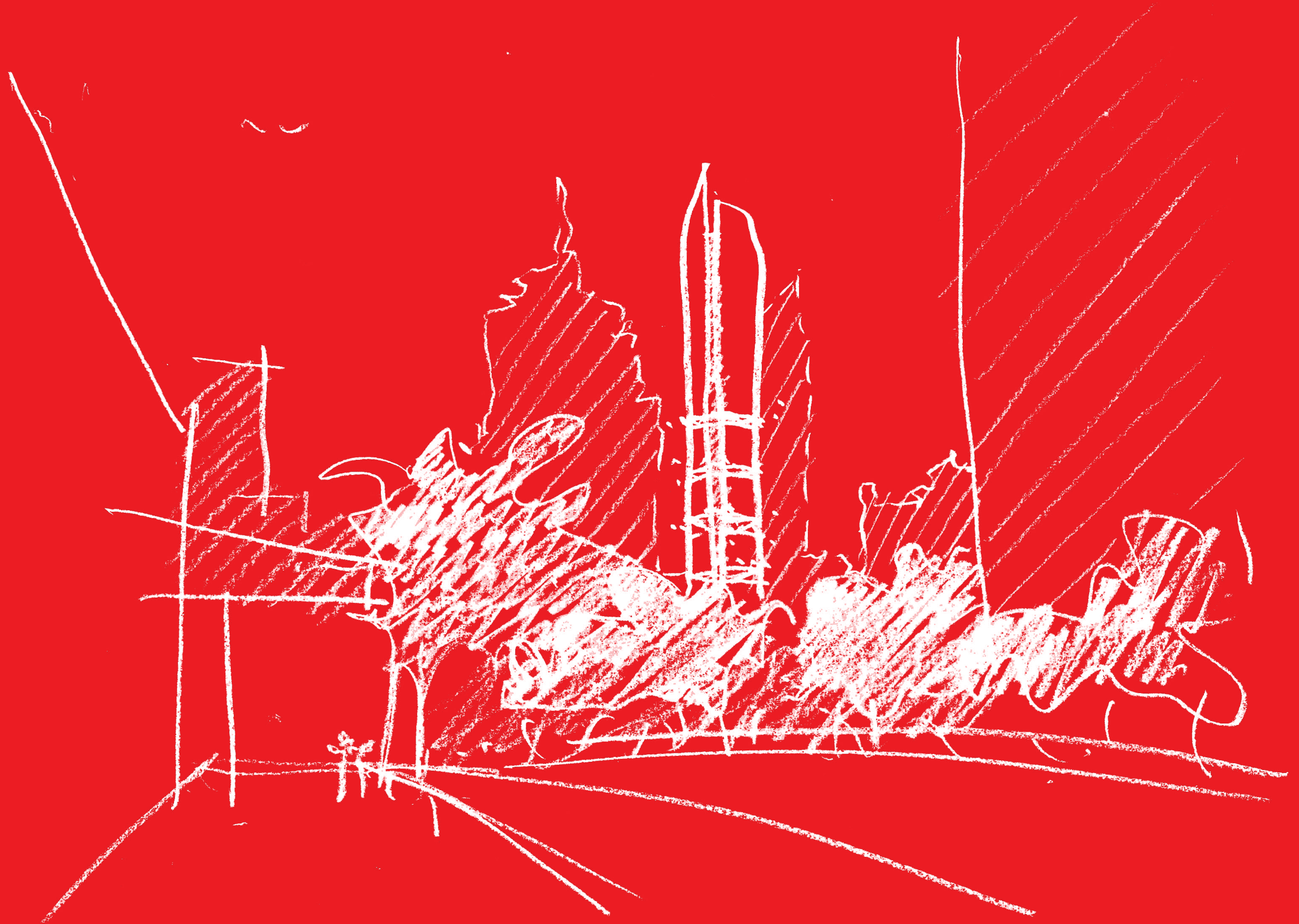






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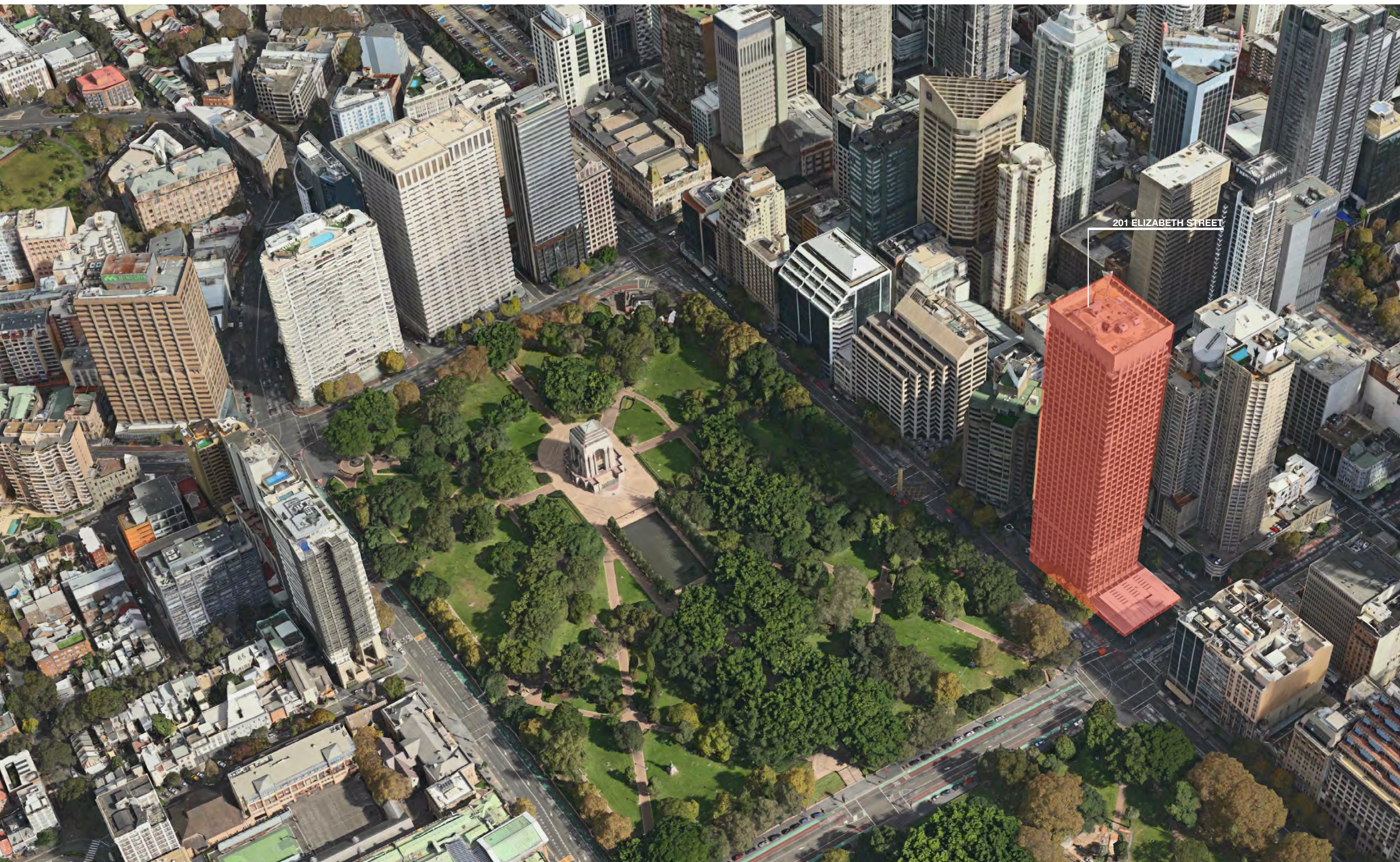
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201 ELIZABETH STREET

Introduction

The development of the envelope for the 201 Elizabeth Street site has been driven by the desire to create the best possible outcome for the site within the regulatory and urban planning compliance framework.

A series of key urban design issues have been identified and addressed. The addressing of these issues forms the underlying principles for the development envelope.

Relevant principles include:

- Height limits
- Reduction in overshadowing of Hyde Park
- Floor space
- Streetscape and Urban Character
- Ground level experience and Public Domain
- Use Mix
- Residential amenity

This report addresses the above key issues with the exception of floor space which is addressed in the Environmental Impact Statement.



Site Location

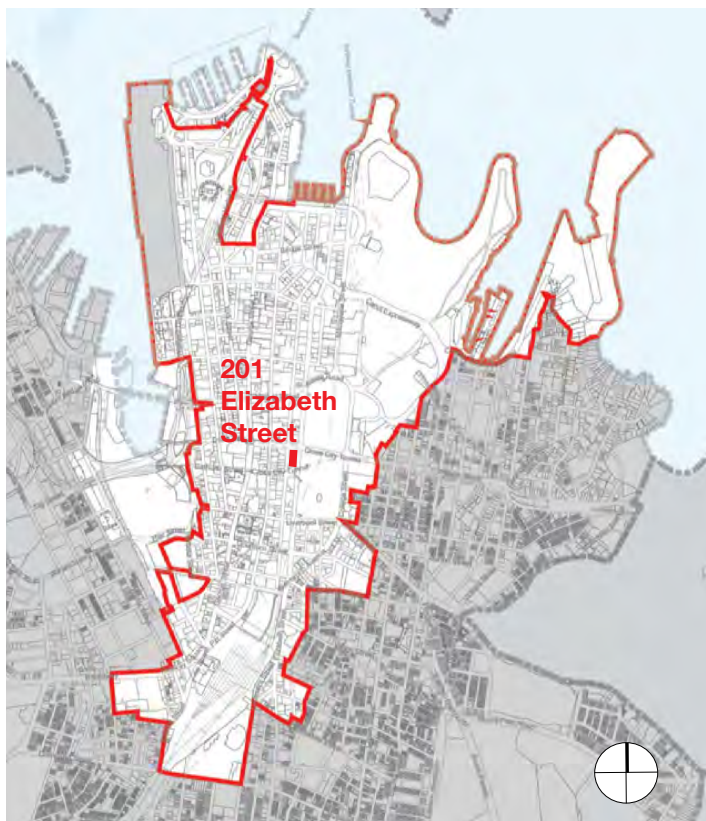
Site Location

The redevelopment of 201 Elizabeth Street replaces and ageing commercial building, which no longer meets the needs of today's workplaces, and is located on a key site with in the centre of the City of Sydney. On the western edge of Hyde Park the site will be highly visible for the eastern approaches of William Street and Park Street and Oxford Street as well as having a significant presence on Hyde Park.

Overshadowing of Hyde Park is significant with the regulatory control requiring at least a 50% reduction of overshadowing when compared to the existing building.

The location on Park Street is in the new civic precinct within the city which will come to be defined by the new Town Hall Square, a pedestrianised George Street with light rail the new Pitt Street Metro station and the existing underground Town Hall and Museum Railway Stations.

The three street frontages are significant ones within the city where the site has the opportunity to reinforce a strong existing character.



Site Analysis

Site Analysis

The site's predominant street frontage is to Elizabeth Street, which is one of the CBD's main arterial roads, running north-south linking the city through to Circular Quay and the harbour to the north.

Located at the middle of Sydney's CBD, 201 Elizabeth Street is within walking distance to a diverse mix of commercial, cultural, retail, entertainment facilities and public open space. 201 Elizabeth Street will benefit from a well established system of pedestrian routes and transport infrastructure.

The immediate area is characterised by a mix of commercial office and hotel uses with some ground level retail, restaurant, cafe and bar and residential uses. The tallest buildings in Sydney's CBD are clustered towards the northern and eastern areas of the city.

North

To the north west of the site is large shopping precinct along with Pitt Street Mall.

The Pitt Street Mall offers a large paved pedestrian walkway along with the activated retail frontages, cultural and entertainment facilities.

Immediately north of the site, across Park Street is an eleven storey mid rise commercial office building at 60 Park Street.

East

To the far south east of the site (approx 400m) is the edge of the city and the start of Darlinghurst / East Sydney.

One of the unique characteristics of the site is the adjacency to the west edge of Hyde Park. The existing 201 Elizabeth Street tower on the subject site is visually dominant in the views from East

Sydney, Park Street and Oxford Street.

Located with in Hyde Park is St James and Museum stations which are approximately 3 minutes walk from the site. Also several bus stops along the Elizabeth Street, Park Street and Castlereagh Street are available by less than 5 minutes walk.

South

South of the site heads towards Central Station. Currently the 'Urban transformation and Transport program' is planned by Urban Growth department of NSW for this precinct.

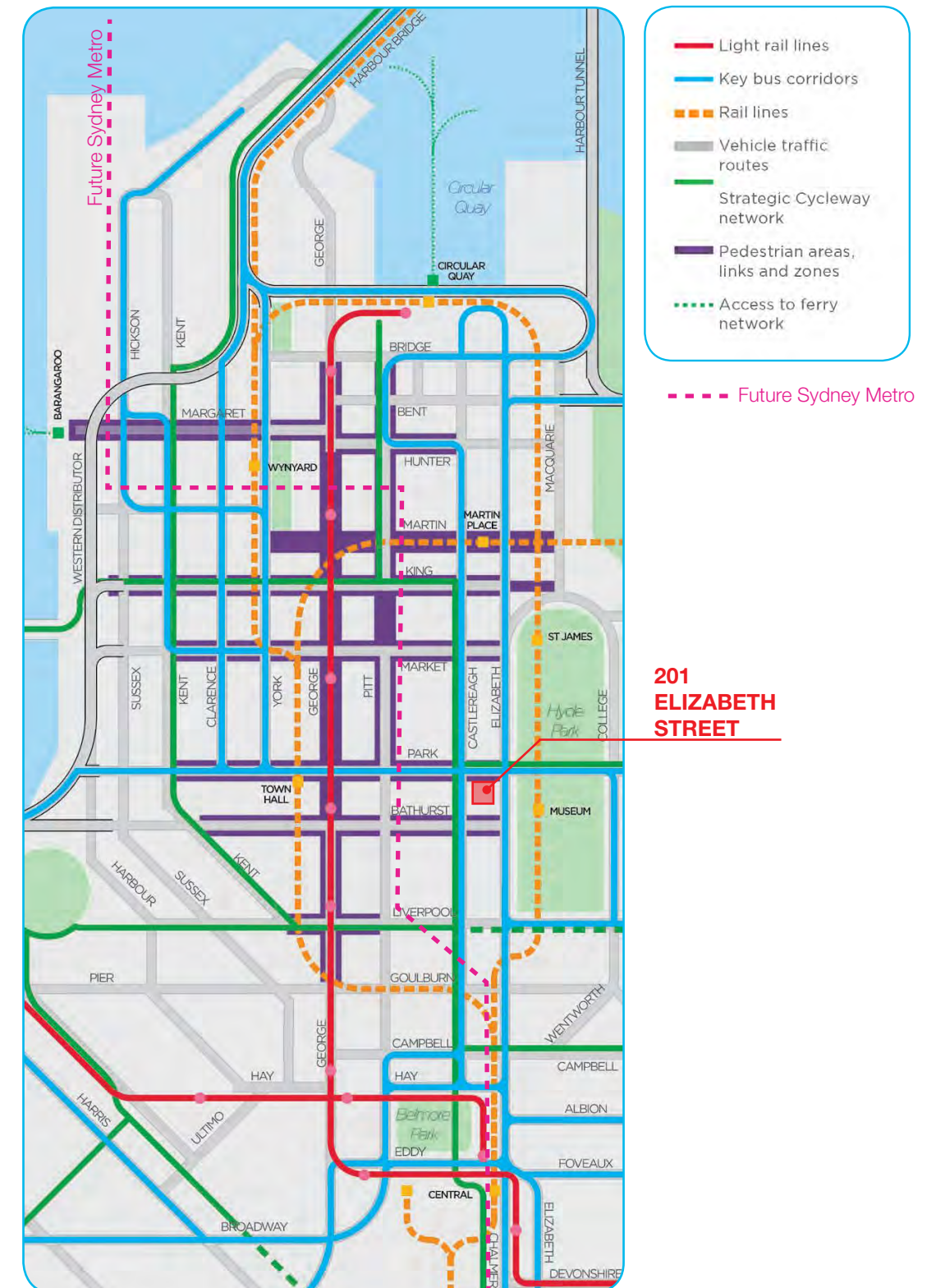
Eight to thirty stories building development will happen from South Eveleigh to Haymarket in the near future. The area is aiming to transform into Mid-town of the Sydney.

West

To the west of the site is Castlereagh Street.

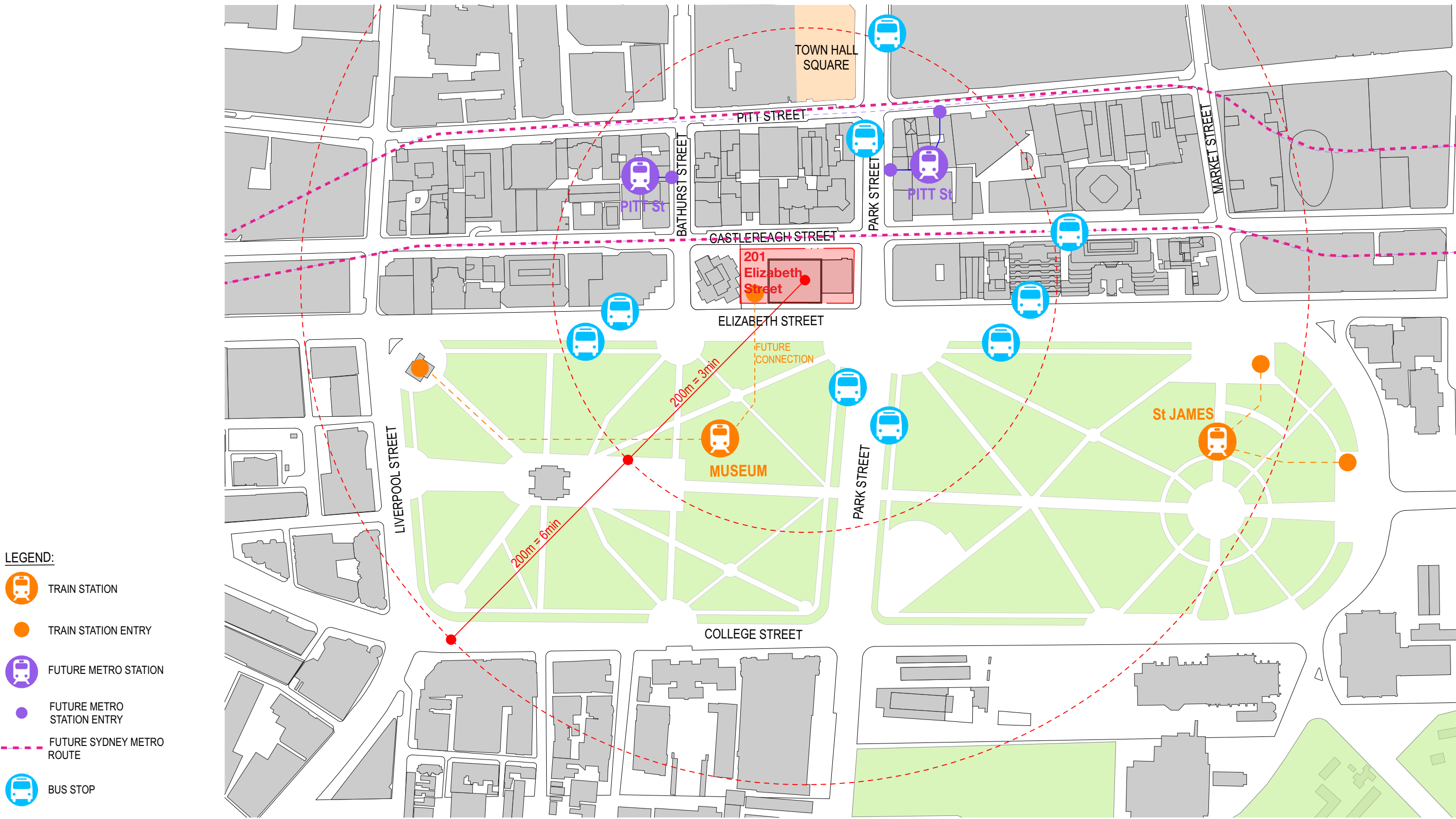
A metro network has been proposed to run along Castlereagh Street and Pitt Street. The future Pitt Street Metro station is planned at one block west of the site which is accessible within 3 minutes walk from the site.

The proposed Town Hall Square is located two blocks west of the site. It is introduced as an one of the three main square of the Sydney CBD in the "Sustainable Sydney 2030".



Sydney City Centre Access Strategy 2013 | 2031 City Centre Transport Network

Site Analysis



Detailed Survey

 Subject Site





Urban Design Controls & Key Issues

Sydney LEP | Sydney DCP | Apartment Design Guide | SEPP 65

5 Sun Access Planes - Hyde park west | Sydney LEP

Sun Access Planes LEP 2012

SYDNEY LOCAL ENVIRONMENTAL PLAN 2012

Clause 6.17 Sun access planes

(1) The objective of this clause are:

- (a) to ensure that buildings maximise sunlight access to the public places set out in this clause, and
- (b) to ensure sunlight access to the facades of sandstone buildings in special character areas to assist the conservation of the sandstone and to maintain the amenity of those areas.

.....

(3) Each of subclauses (5)–(19) describes a different sun access plane that is taken to extend over land. The front of each plane is a line between two specified points (X and Y) and the sides of the plane extend back from those points along a specified horizontal bearing (B) and vertical angle (V).

.....

(10) Hyde Park West

For the Hyde Park West 3 sun access plane:

(a) **X is a point at 34384E, 50064N, 70RL**, and

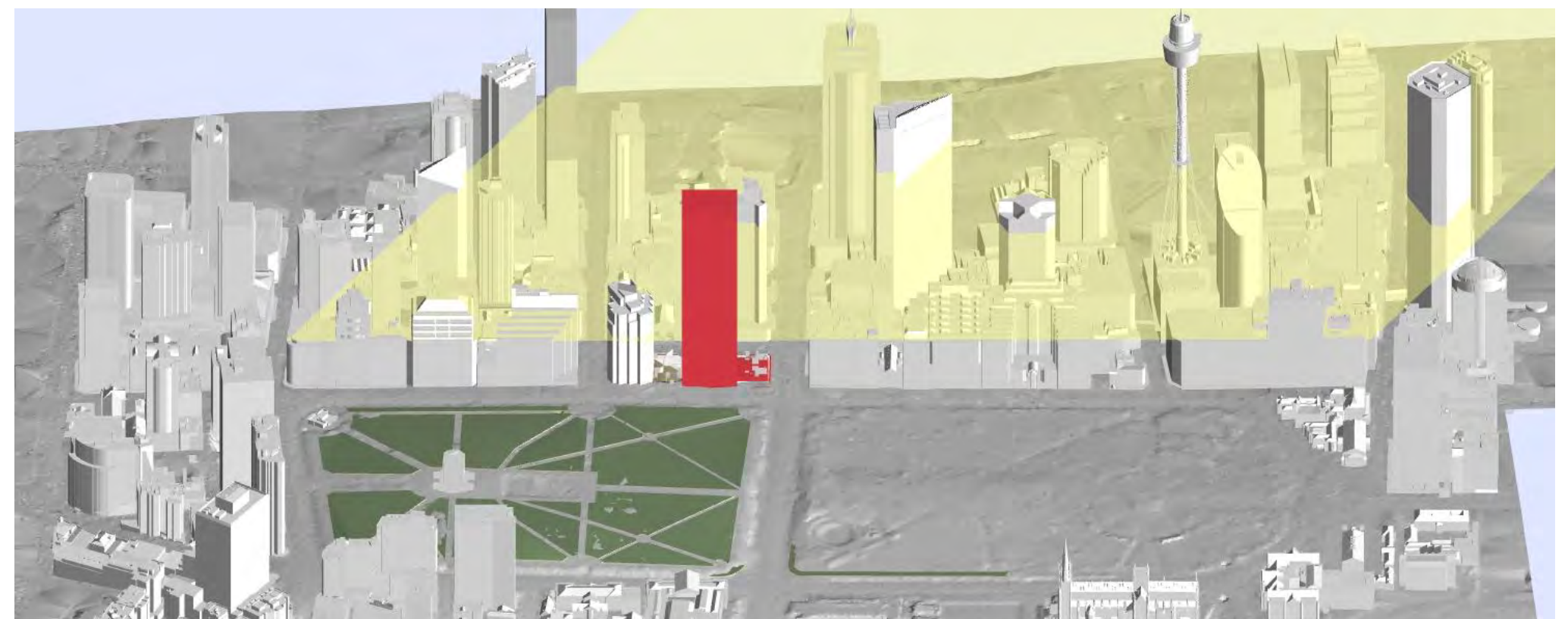
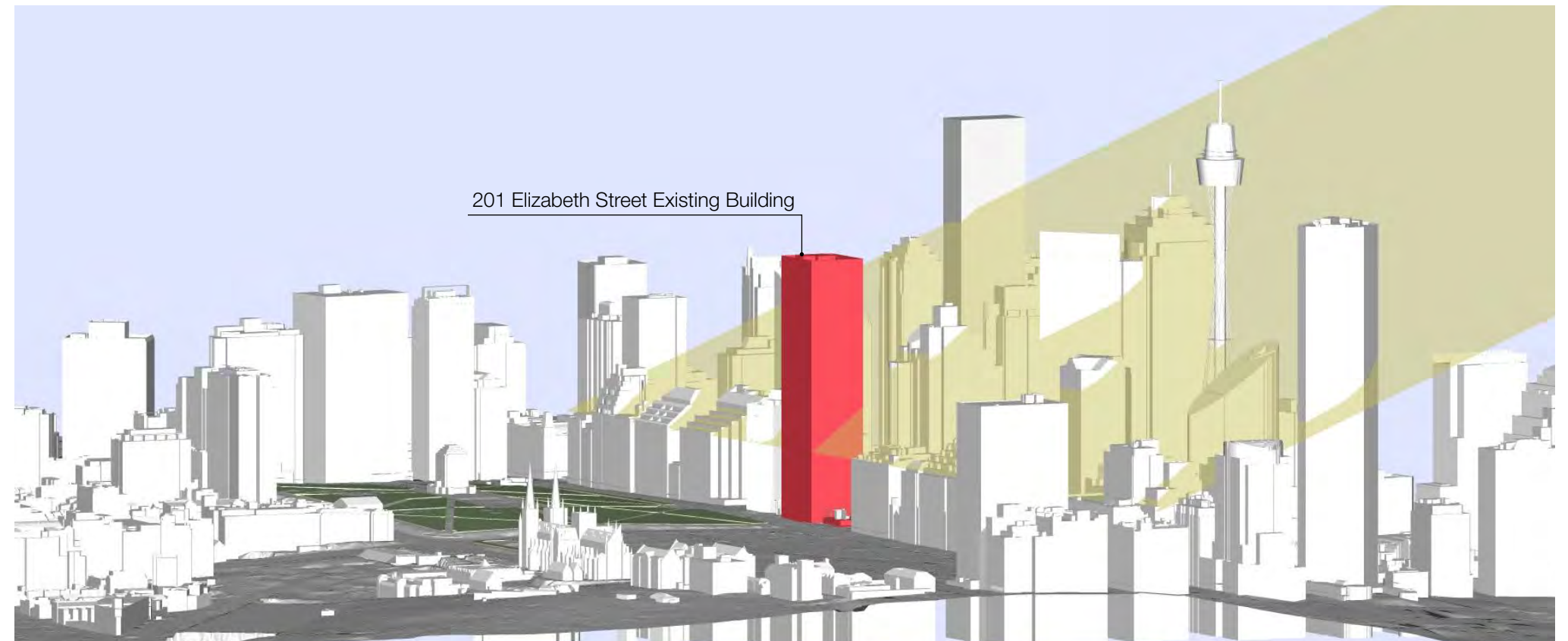
Note. Approximately 45 metres above the junction of the western alignment of Elizabeth Street and the northern alignment of Liverpool Street.

(b) **Y is a point at 34458E, 50900N, 71RL**, and

Note. Approximately 45 metres above the junction of the western alignment of Elizabeth Street and the southern alignment of King Street.

(c) **B is 328.6 degrees**, and

(d) **V is 25.6 degrees**.



Category A and Category B Land | Sydney LEP

Sun Access Protection Map | Category A Land

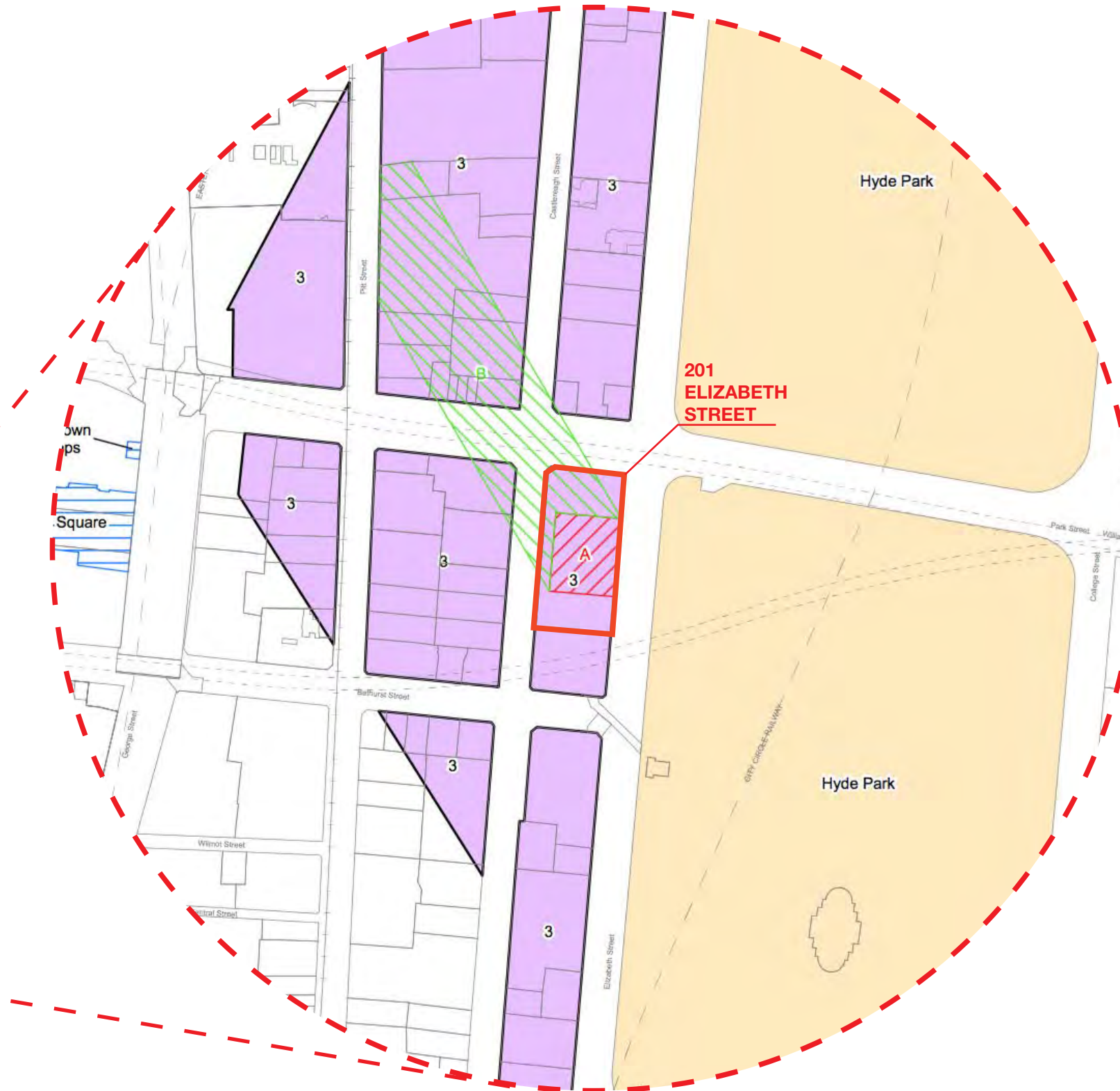
SYDNEY LOCAL ENVIRONMENTAL PLAN 2012 Clause 6.18 Exceptions to sun access planes

(b) the parts of the building that project higher than the sun access plane are on **category B land** that adjoins category A land and will **not exceed the height of an existing building** on the category A land,

(c) the parts of the building that project higher than the sun access plane are on **Category A land** and will result in **at least a 50% reduction in the overshadowing** on land at Belmore Park, Hyde Park or Wynyard Park (as shown on the Sun Access Protection Map) **between 12.00 and 14.00 on 21 June** in each year, caused by all buildings on the site of the proposed development.



Sun Access Protection Map - Sheet SAP_015



Land affected by Sun Access Planes

- 1A Belmore Park 1A
- 1B Belmore Park 1B
- 1C Belmore Park 1C
- 2A Hyde Park North 2A
- 2B Hyde Park North 2B
- 3 Hyde Park West 3
- 4 Macquarie Place 4
- 5A Martin Place 5A
- 5B Martin Place 5B
- 6A Pitt Street Mall 6A
- 6B Pitt Street Mall 6B
- 7 The Domain 7
- 8 Royal Botanic Gardens 8
- 9A Wynyard Park 9A
- 9B Wynyard Park 9B

Specified Sites

- Area Protected by Sun Access Plane
- Category A Land
- Category B Land
- No Additional Overshadowing

Cadastre

- Cadastre 02/10/2012 © City of Sydney

50% Overshadowing Reduction - Hyde Park | Sydney LEP

Measurement methods of existing “overshadowing on land” for Clause 6.18(c)

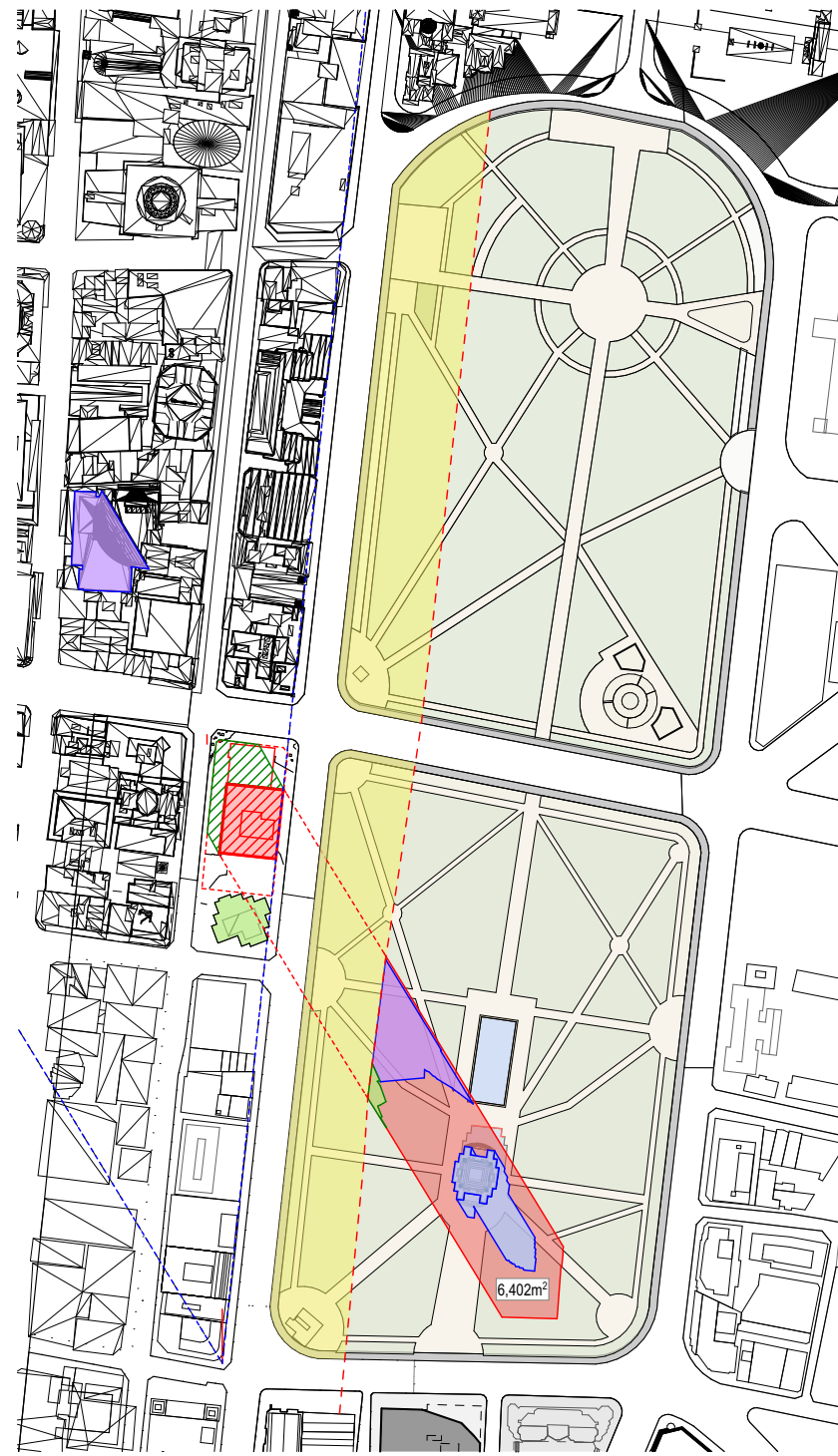
Method 1:

Net existing 201 Elizabeth Street Tower shadow. Deducting shadows cast by neighbouring buildings.

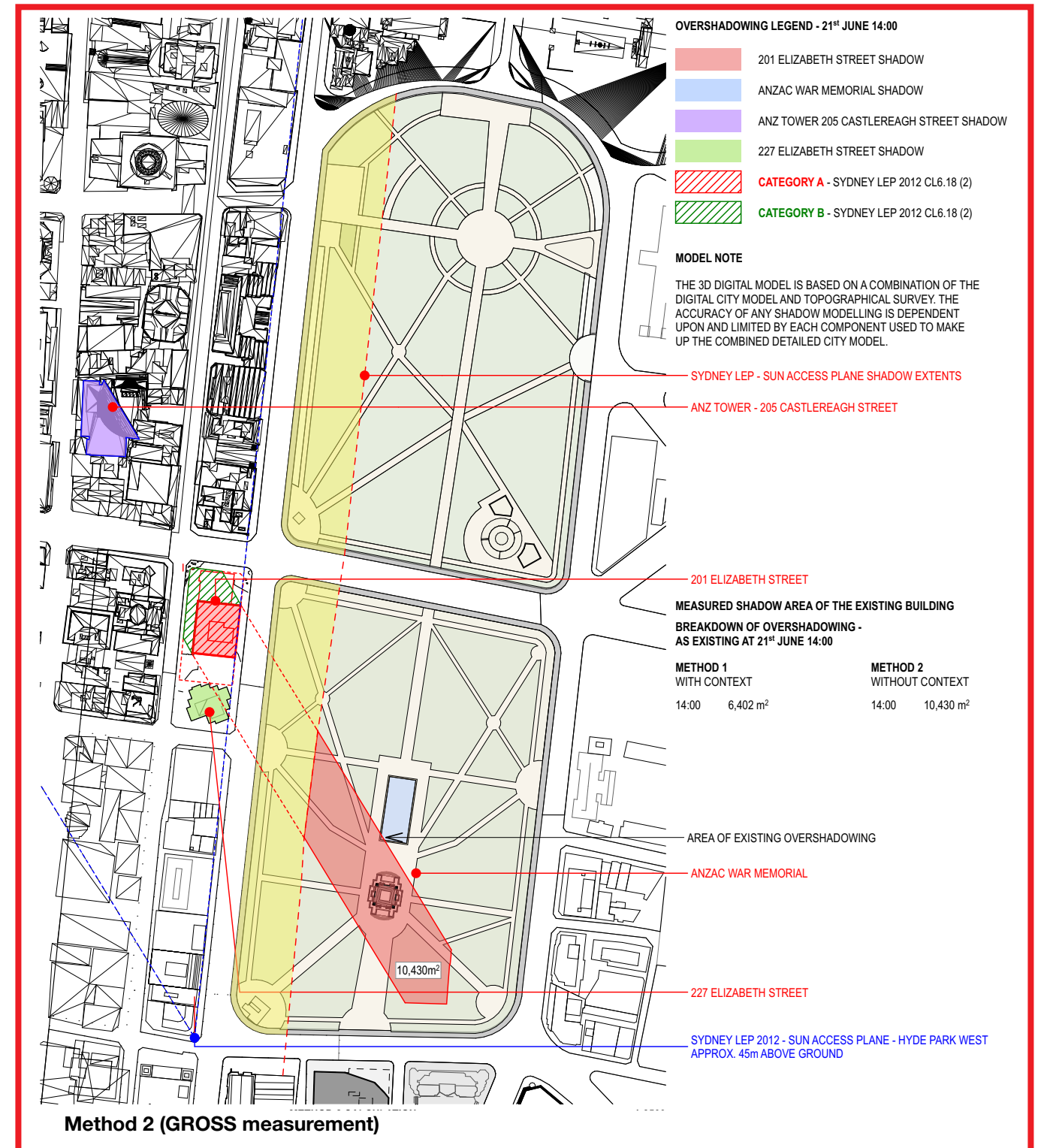
Method 2:

Gross existing 201 Elizabeth Street Tower shadow. Subject shadow taken in isolation.

The more **conservative Gross measure** was adopted by **Method 2**.



Method 1 (NET measurement)



Method 2 (GROSS measurement)

50% Overshadowing Reduction - Hyde park | Sydney LEP

In order to achieve the requirement of at least a 50% reduction in the overshadowing on land at Hyde Park between 12.00 and 14.00 on 21 June, 2 built form strategies have been investigated

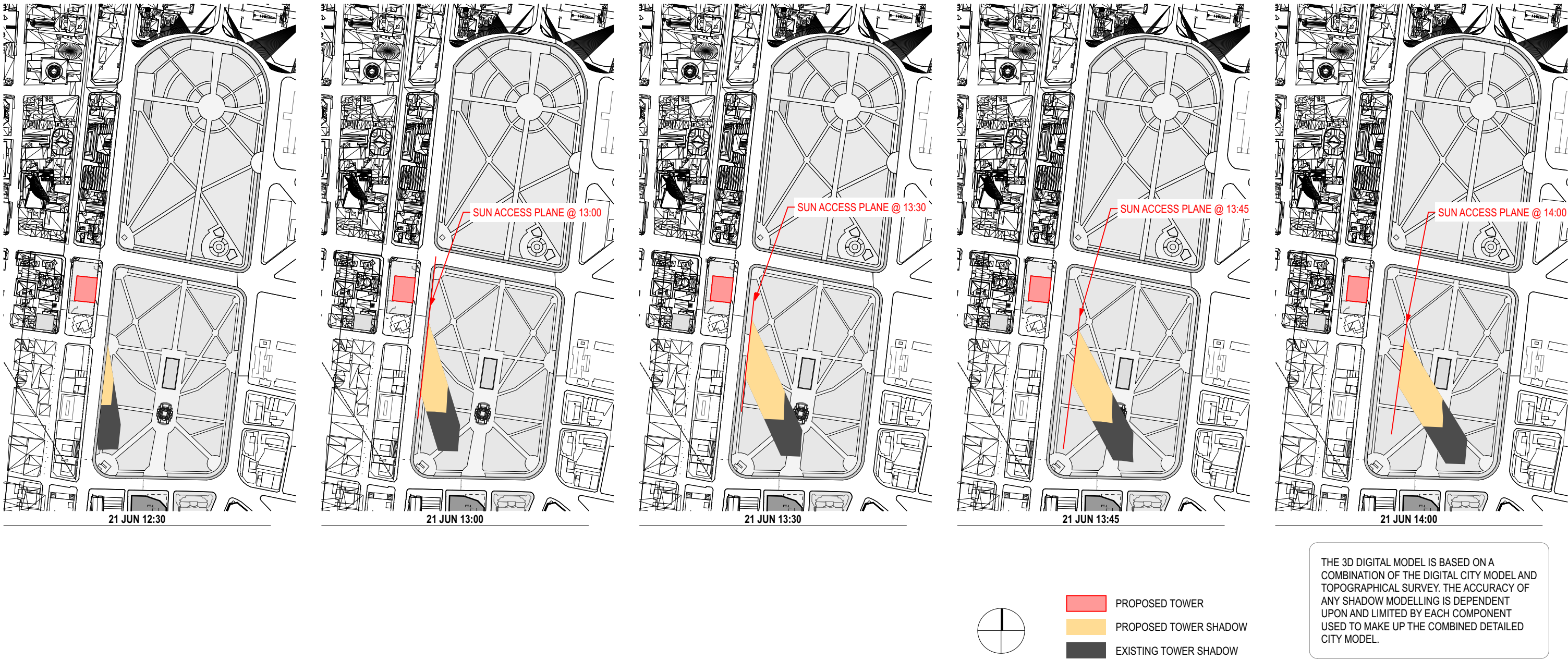
Strategy 1: Reduce the height of the Tower,

Strategy 2: Reduce the width of the tower.

Reducing the width of the tower, based on the position of the sun during the control period produces less impact of the shadow on the land in Hyde Park and accordingly strategy 2 has been adopted in this proposal.

Strategy 1 : Full Category A Land footprint with reduced heght

The overshadowing is reduced by 50% by reducing the tower height. The resulting shadow covers a wider area, and as a result areas in shadow remain in shadow for longer than strategy 2.



50% Overshadowing reduction - Hyde park | Sydney LEP

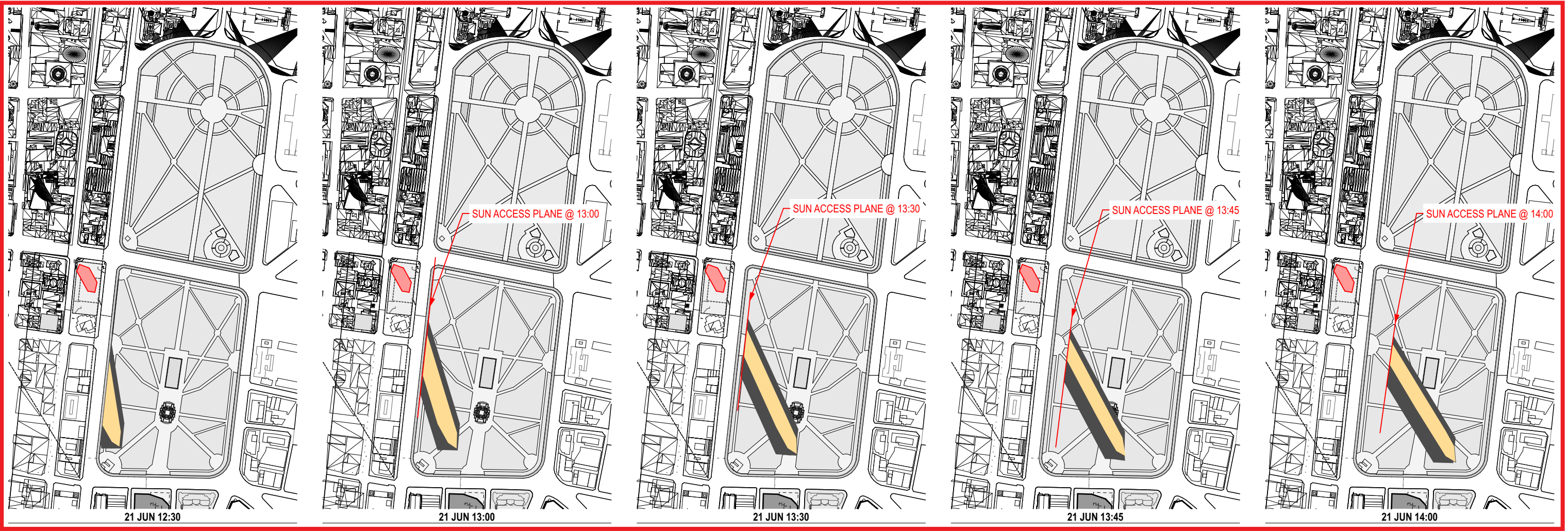
Analysis 2 : Full Height with reduced footprint

The overshadowing is reduced 50% by reducing the tower width. The resulting shadow is longer but thinner meaning that areas in shadow are in shadow for a shorter period.

While both strategies comply with the overshadowing requirements, strategy 2 results in an improved qualitative outcome for Hyde Park.

REDUCTION CALCULATION METHOD 2
WITHOUT CONTEXT

AGGREGATE SHADOW REDUCTION
BETWEEN 12:00 and 14:00
50 %



- PROPOSED TOWER
- PROPOSED TOWER SHADOW
- EXISTING TOWER SHADOW

THE 3D DIGITAL MODEL IS BASED ON A COMBINATION OF THE DIGITAL CITY MODEL AND TOPOGRAPHICAL SURVEY. THE ACCURACY OF ANY SHADOW MODELLING IS DEPENDENT UPON AND LIMITED BY EACH COMPONENT USED TO MAKE UP THE COMBINED DETAILED CITY MODEL.

8 Street Frontage Height | Sydney DCP / LEP

Street Frontage Height

Sydney Development Control Plan 2012,
Section 5.1.3

Street frontage heights and setbacks for Special
Character Areas

Sydney LEP 2012 identifies a number of special
character areas that significantly contribute
to the quality of the public domain and the
distinctiveness of Central Sydney....

Table 5.1: Street frontage heights and front
setbacks for Special Character Area

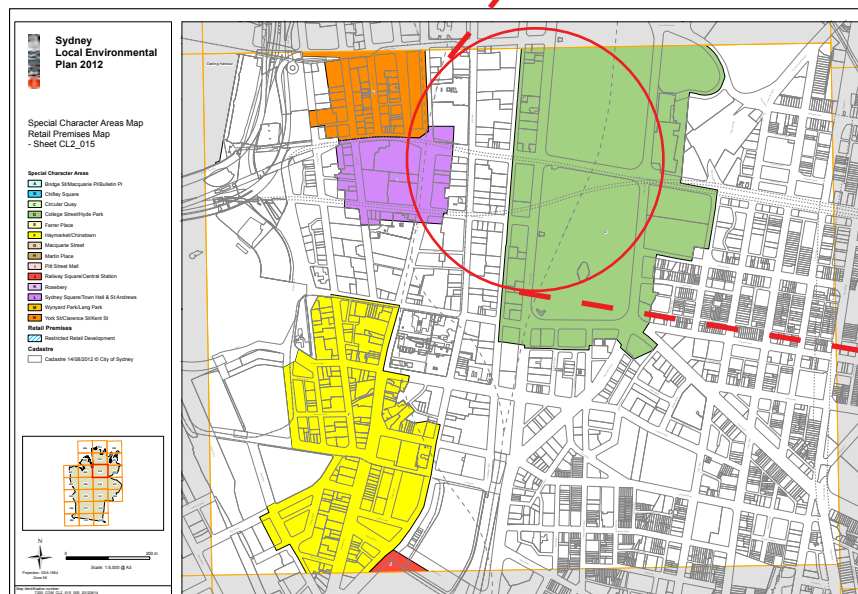
College Street Hyde Park

LEP map reference : **D**

Maximum street frontage height : **45m**

Minimum street frontage height :

The street frontage height of the nearest heritage
item within the same block and side of the
street to the subject site. Except for the Great
Synagogue at 187A Elizabeth Street which
cannot be used as a minimum.



Special Character Areas

- A** Bridge St/Macquarie Pl/Bulletin Pl
- B** Chifley Square
- C** Circular Quay
- D** College Street/Hyde Park
- E** Farrer Place
- F** Haymarket/Chinatown
- G** Macquarie Street
- H** Martin Place
- I** Pitt Street Mall
- J** Railway Square/Central Station
- K** Rosebery
- L** Sydney Square/Town Hall & St Andrews
- M** Wynyard Park/Lang Park
- N** York St/Clarence St/Kent St

Retail Premises

- R** Restricted Retail Development

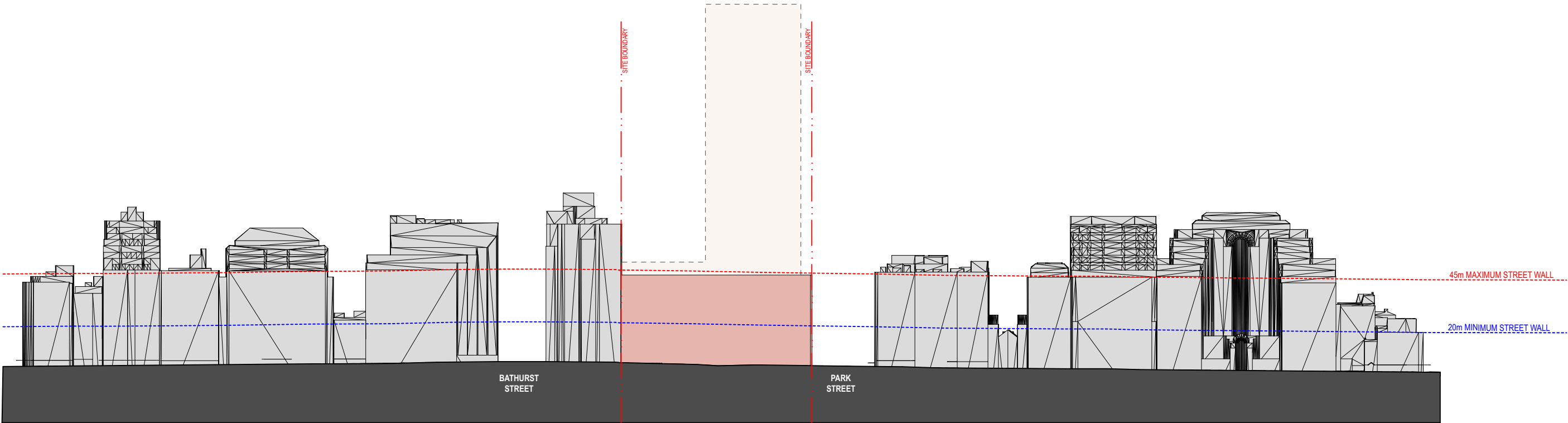
Cadastre

- C** Cadastre 14/08/2012 © City of Sydney

Special Character Areas Map - Sheet SAP_015

Street Frontage Height | Sydney DCP / LEP

Elizabeth Street Elevation



View Bathurst St intersection



View down north Elizabeth St



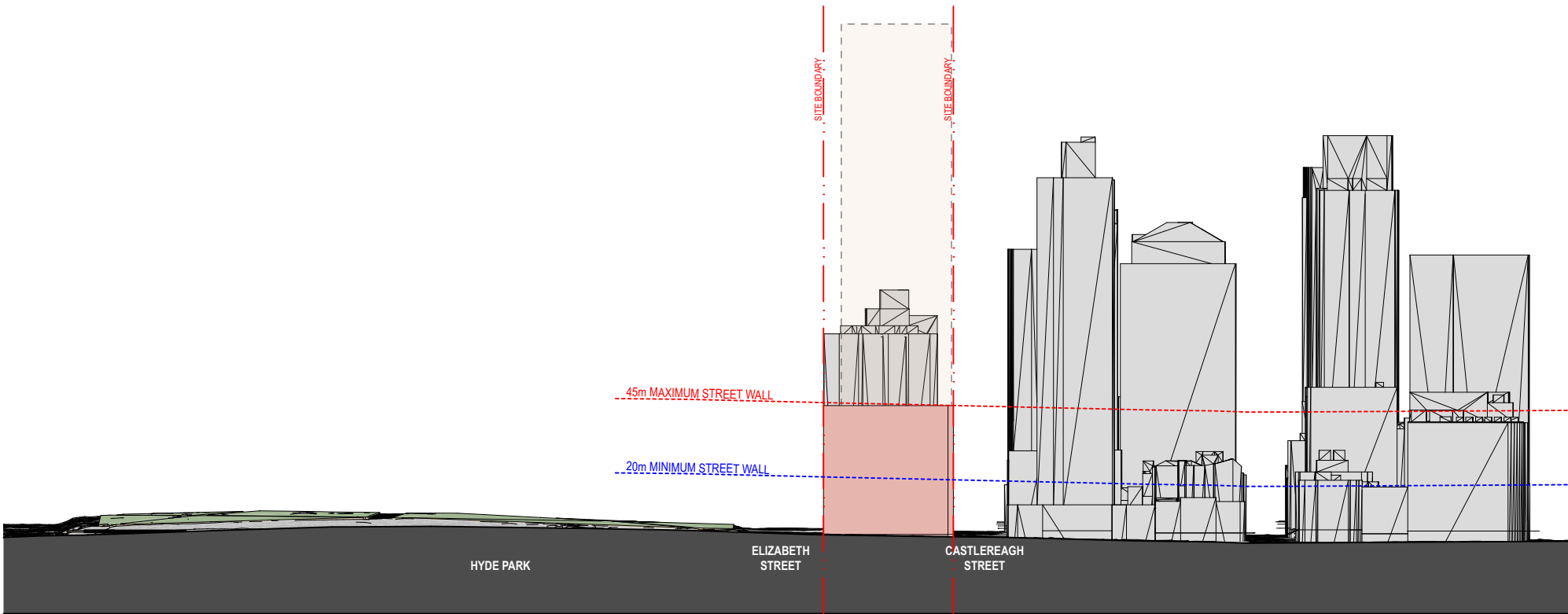
View down west Market St



View down north to Museum Station

Street Frontage Height | Sydney DCP / LEP

Park Street Elevation



View Hyde Park north



View Hyde Park south



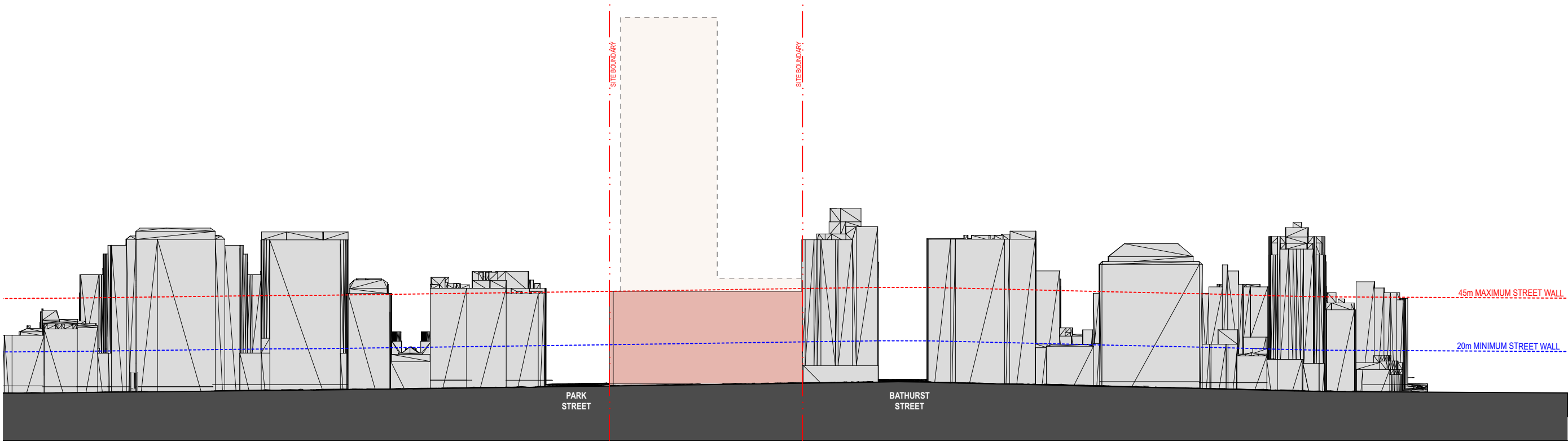
View down east Park Street



View down west Park Street

Street Frontage Height | Sydney DCP / LEP

Castlereagh Street Elevation



View down north Castlereagh Street



View down north Park Street intersection



View down north Castlereagh Street



View down north Intersection with Bathurst St

Options Considered

Options considered

In addition to the two overshadowing reduction strategies outlined in the previous section, a range of options have been considered for potential building forms on the site.

Maintain existing tower

- Maintains existing overshadowing

Reduced Height tower

- Reduces overshadowing 50%
- Poor qualitative outcome in terms of overshadowing
- Poor view sharing

Slender tower central

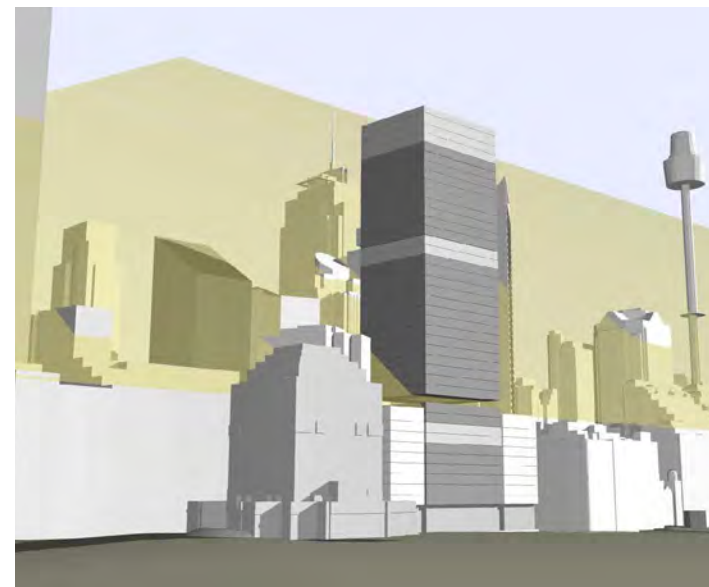
- Reduces overshadowing 50%
- Improved qualitative outcome in terms of overshadowing
- Improved view sharing

Slender tower north

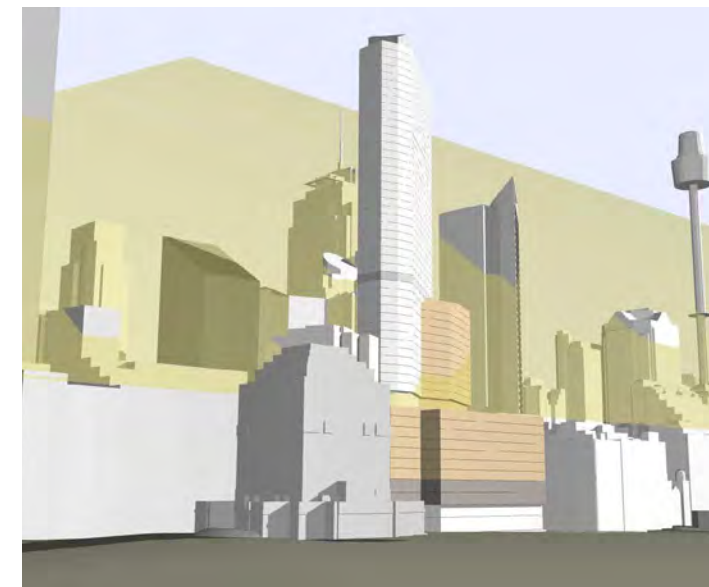
- Reduces overshadowing 50%
- Improved qualitative outcome in terms of - overshadowing
- Improved overshadowing outcome compared to central tower as the tower is further from the park
- Improved view sharing
- Improved urban design outcome with a corner tower on Park Street
- Frees the southern portion of the site for podium level commercial uses

Slender tower south

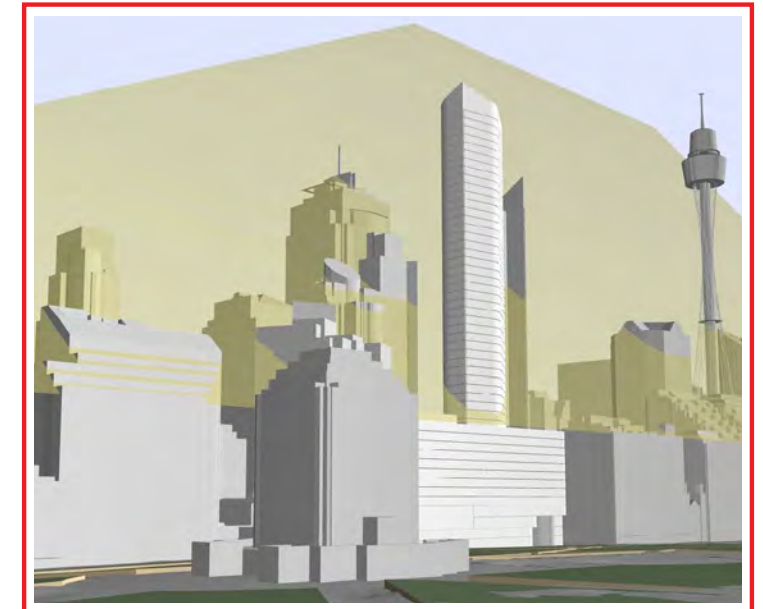
- Reduces overshadowing 50%
- Sits outside of Category A or B land and as a result does not reduce overshadowing when considered in conjunction with existing development such as ANZ Tower
- Improved view sharing



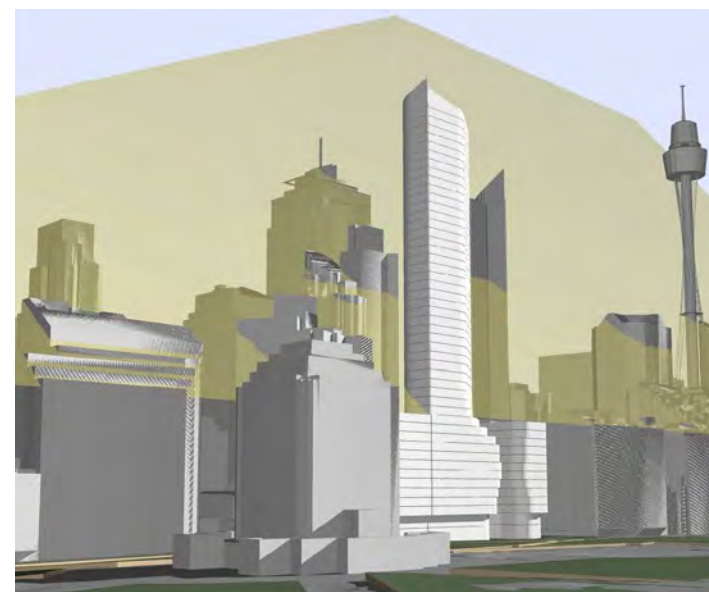
Existing Tower Refurbishment



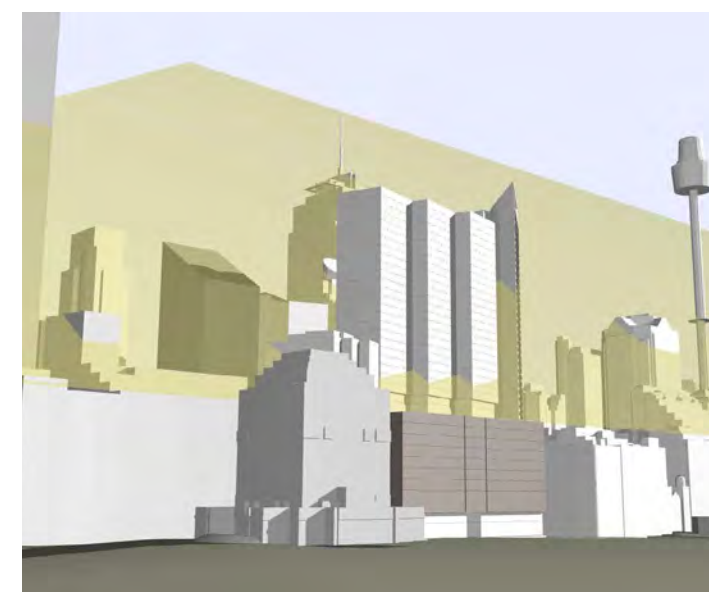
South Tower



North Tower (Proposed)



Central Tower

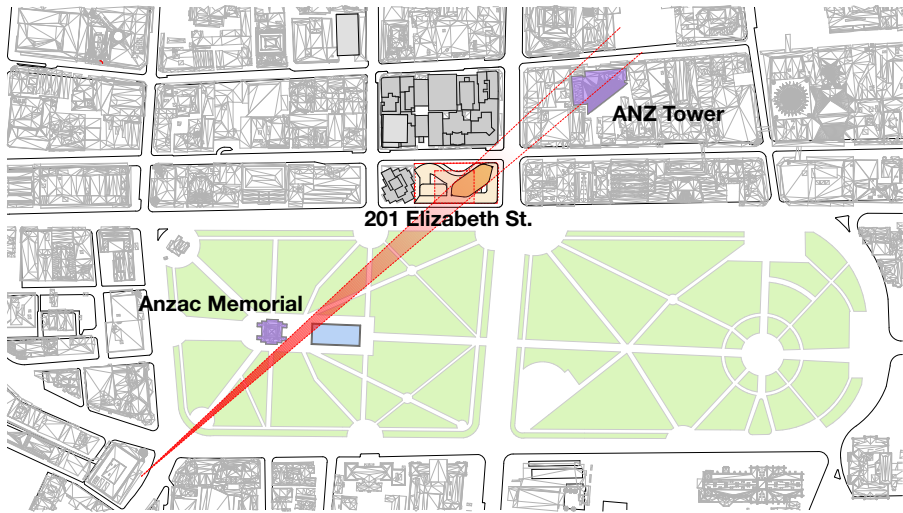


Short Tower

Options Considered

View study from Oxford Street

The following artists impressions indicate the relative visual impact for three of the options: existing, central tower and north tower when viewed from Whitlam square. The north tower option sits within the profile of the ANZ tower behind and presents its slender elevation along the axis from Whitlam square and through the Anzac Memorial.



Existing Tower



Central Tower

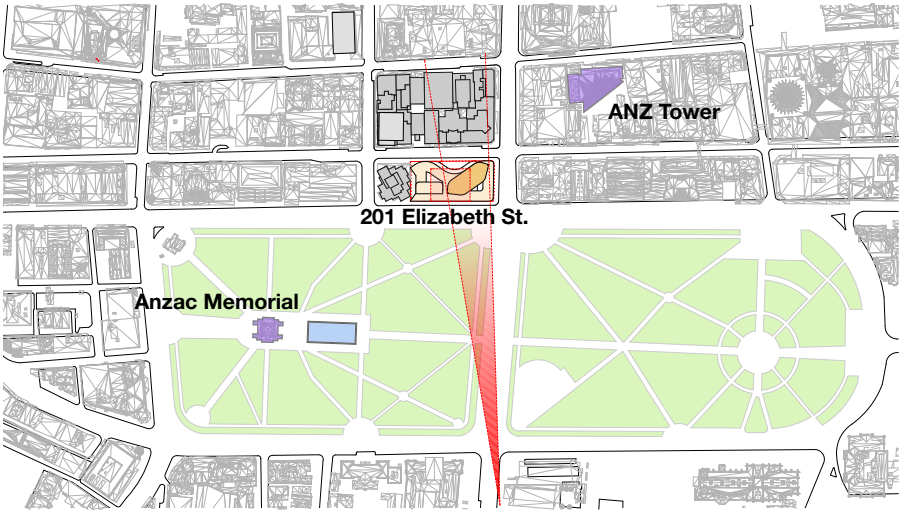


North Tower (Proposed)

Options Considered

View study from Park Street

The following artists impressions indicate the relative visual impact for three of the options: existing, central tower and north tower when viewed from William street. The corner tower provides an improved urban design response to this significant gateway into the City.



Existing Tower



Central Tower



North Tower (Proposed)

