

**48 Macquarie & 220 Church Street,
Parramatta**

Urban Design Analysis

20/04/2015



DRIVAS PROPERTY GROUP

INVESTIGATION & ANALYSIS

Opening Statement & Contents

This document contains architectural information required for a planning proposal. The concepts have been established through a rigorous analysis of the site, adjoining properties, planning controls, surrounding local context and the broader Parramatta City as a whole.

The envelope proposal has been developed in order to maximise flexibility and encourage innovation during the detailed design phase or competitive design process. It also takes into consideration existing surrounding amenity and attempts to improve on the potential development outcome that would occur under current applicable controls.

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Sydney Context

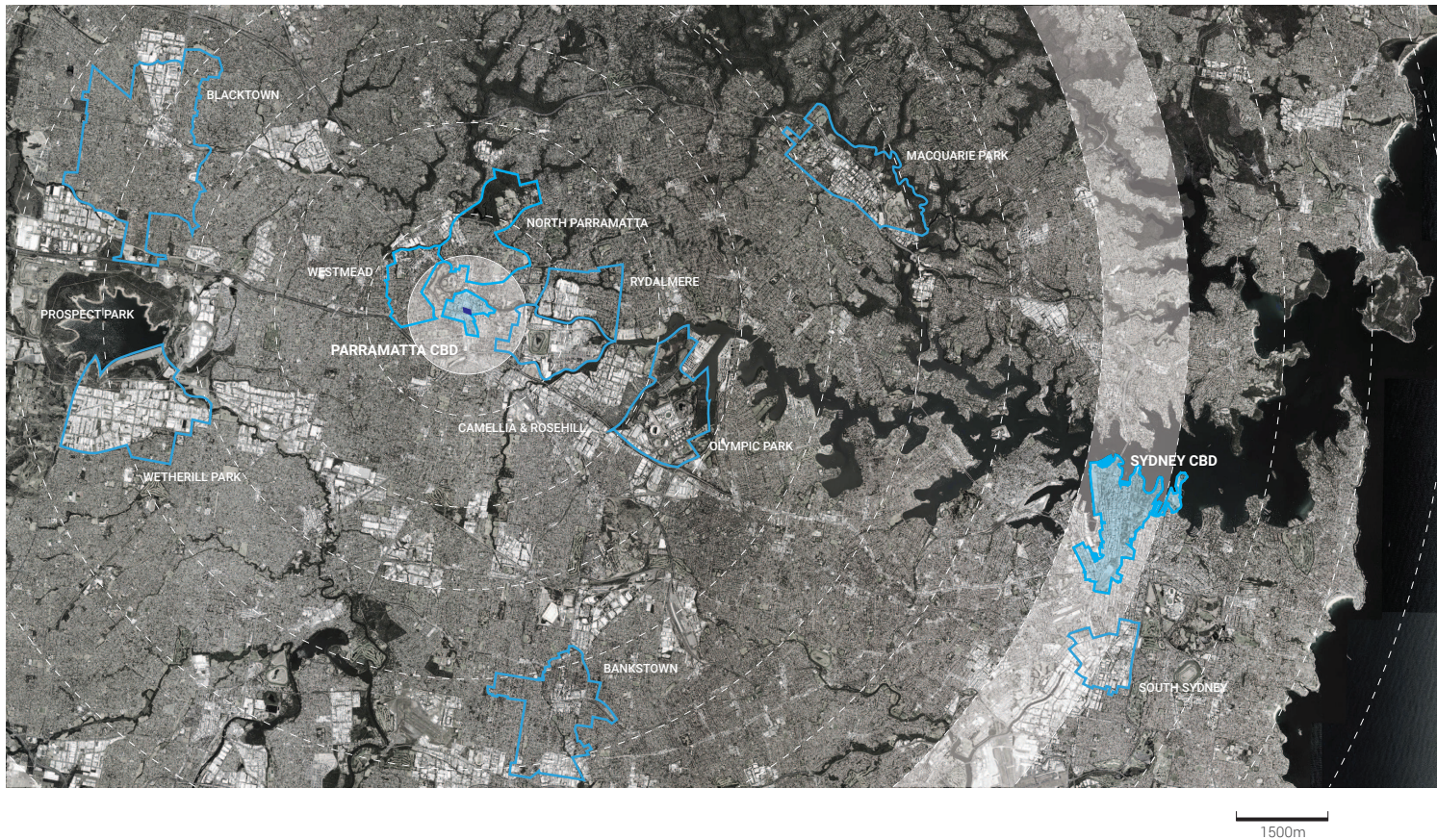
Parramatta was established 10 months after Sydney Cove in 1788, and was the furthest navigable position inland on the river at a point where saltwater became freshwater. It was essential in providing much needed food for a growing colony.

Today, Parramatta is a lively city, a hub of dining, shopping, commerce and entertainment. It is one of Australia's most important economic regions and is regarded as Sydney's second Central Business District.

Its location is as important today as it was in 1788, with the centre point of conjunction for major arterials located here.

- East to Sydney via Parramatta Road
- East to Sydney via Victoria Road
- North to Hornsby via Pennant Hills Road
- Northwest to the Hawkesbury River via Windsor Road
- Southwest to Liverpool and Camden via Woodville Road
- West to the Blue Mountains via the Great Western Road

Parramatta is in the prime position to capitalise on its important geographic and economic environment. New development can accommodate this through increased density and population and encourage further growth and prosperity.



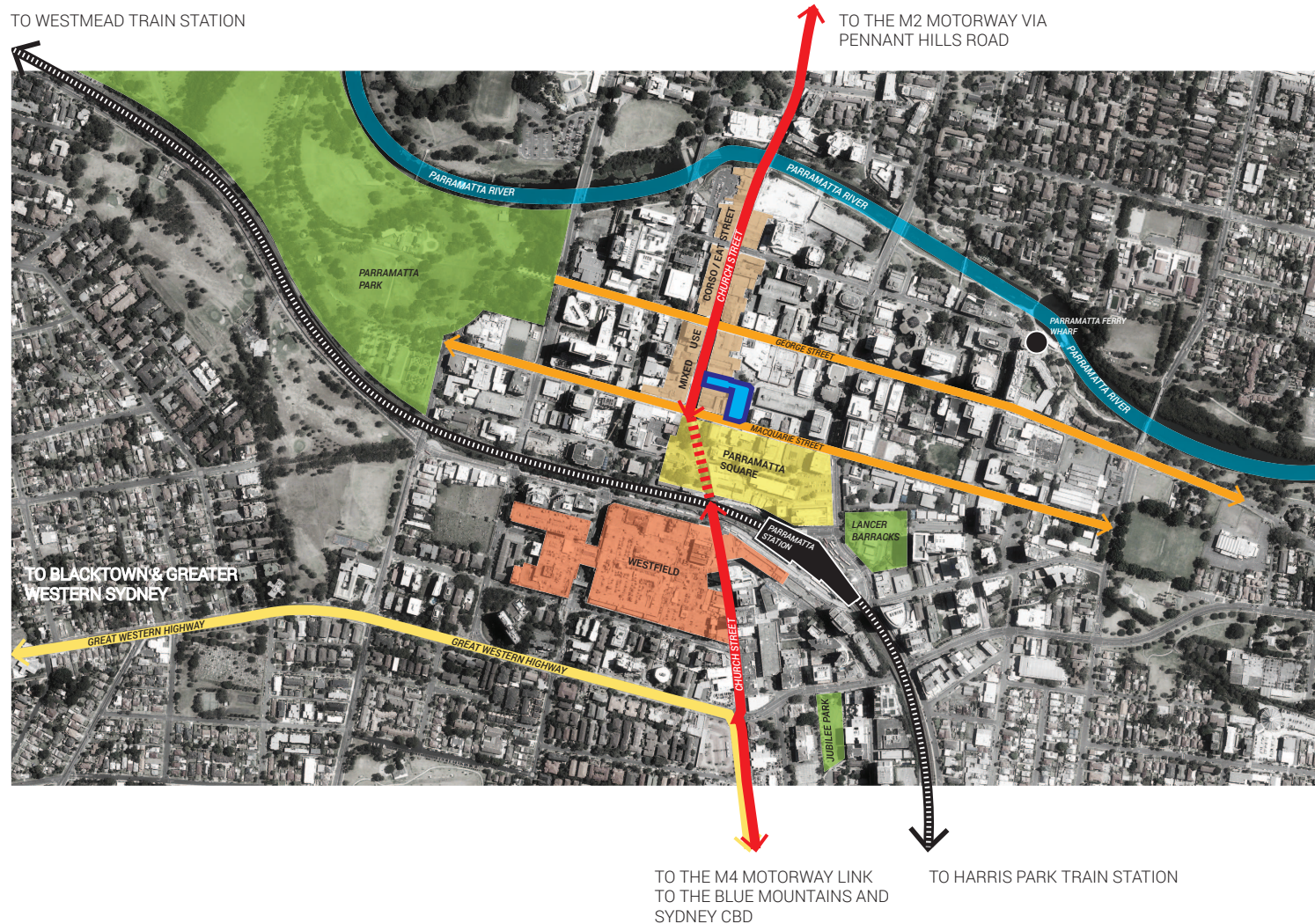
INVESTIGATION & ANALYSIS

Site Location Analysis

The subject site has the potential to capitalise on its prime location at the heart of the City Centre.

Having main frontages to both Church and Macquarie Street enables direct connection to the river, the rail / bus transport hub, major retail such as Westfield and Eat Street, and main arterial links to major surrounding suburbs.

The subject site also sits adjacent to Parramatta Square, the focus of a recent significant urban renewal proposal, and has the potential to compliment this development.

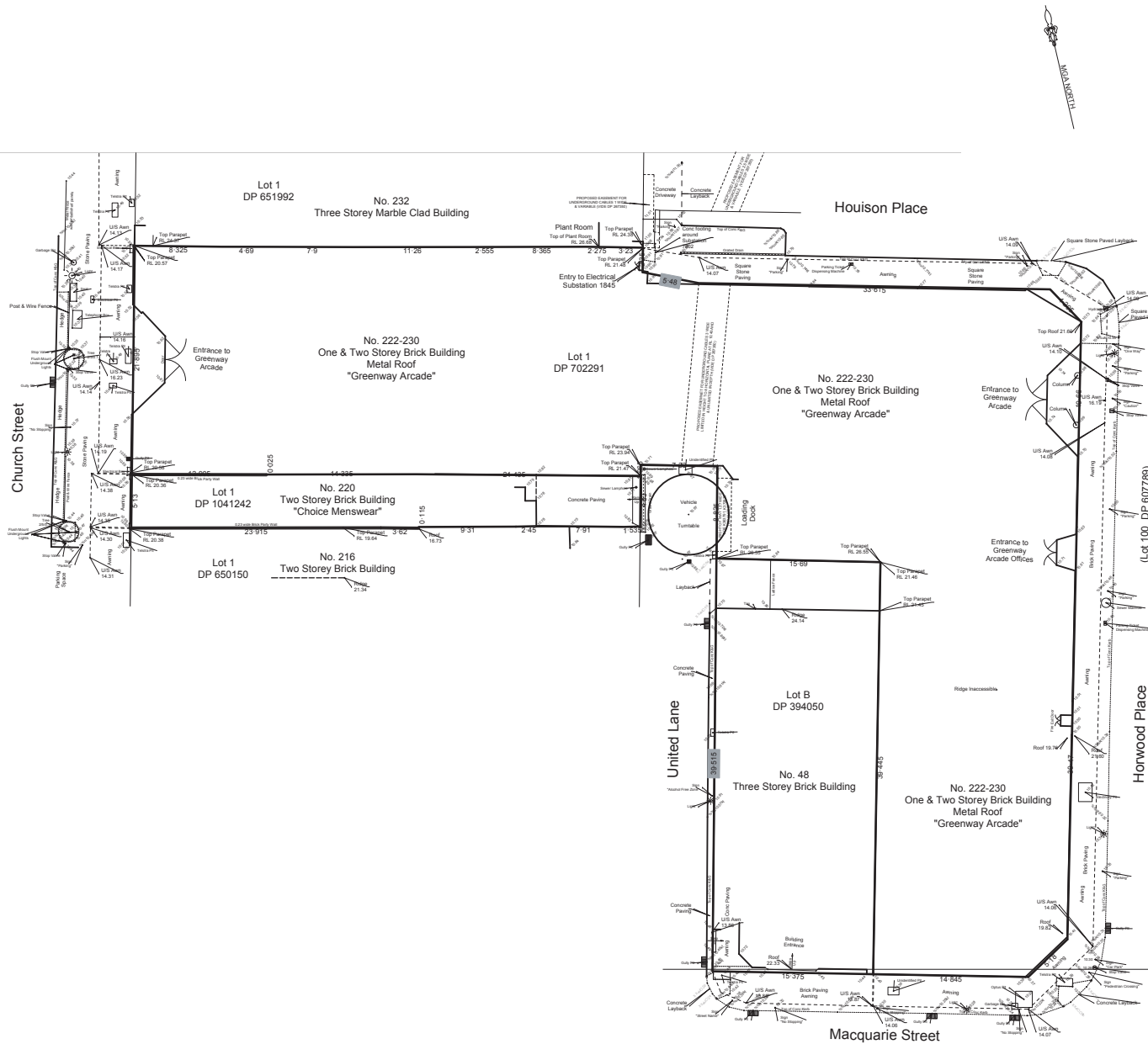


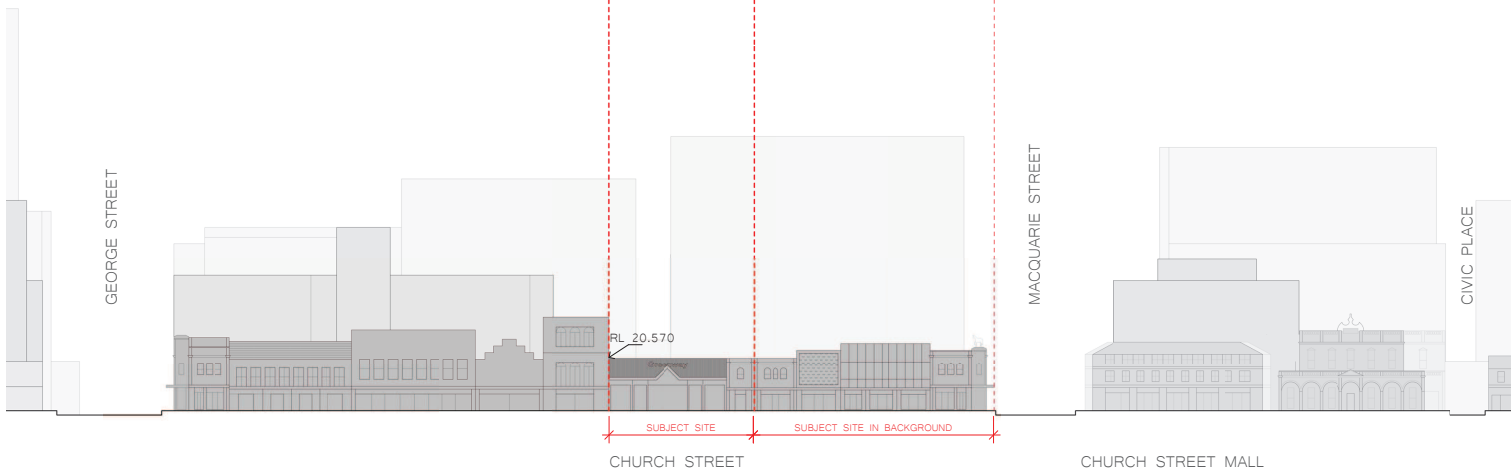
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Survey Plan

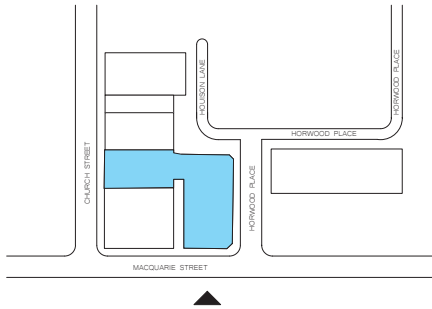
Drawn by Peter Bolan and Associates Pty Ltd, 2/4/09

Site Area 3,681m²





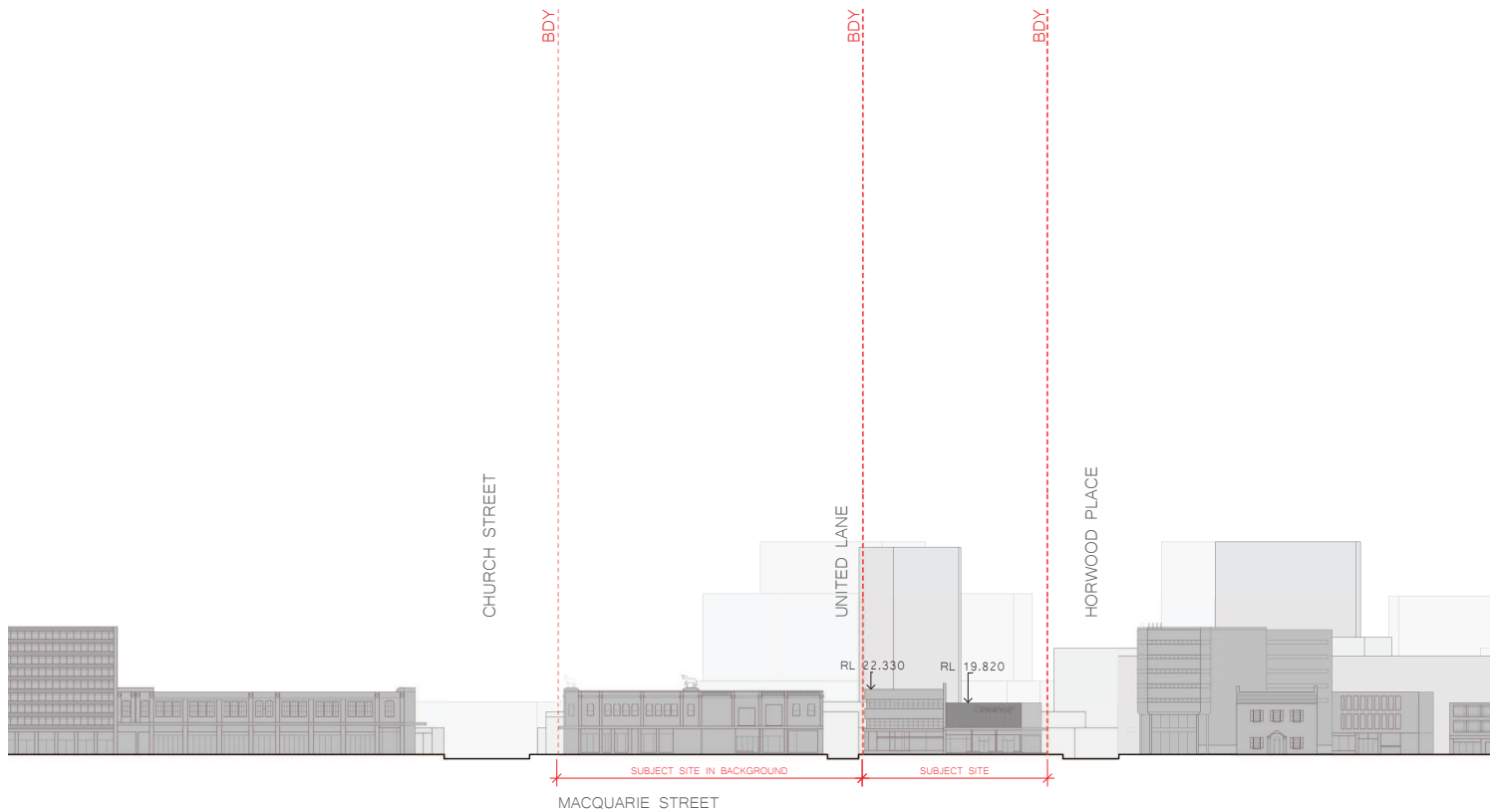
Existing Building Street Elevations

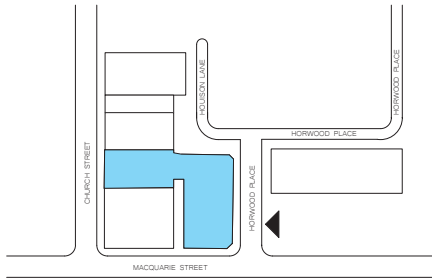


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Existing Building Street Elevations

South Elevation - Macquarie Street

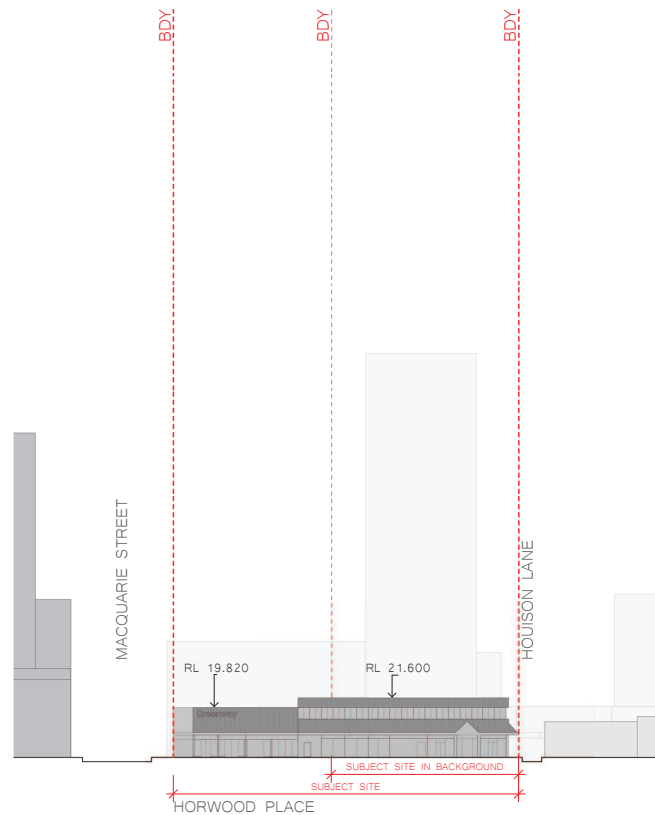


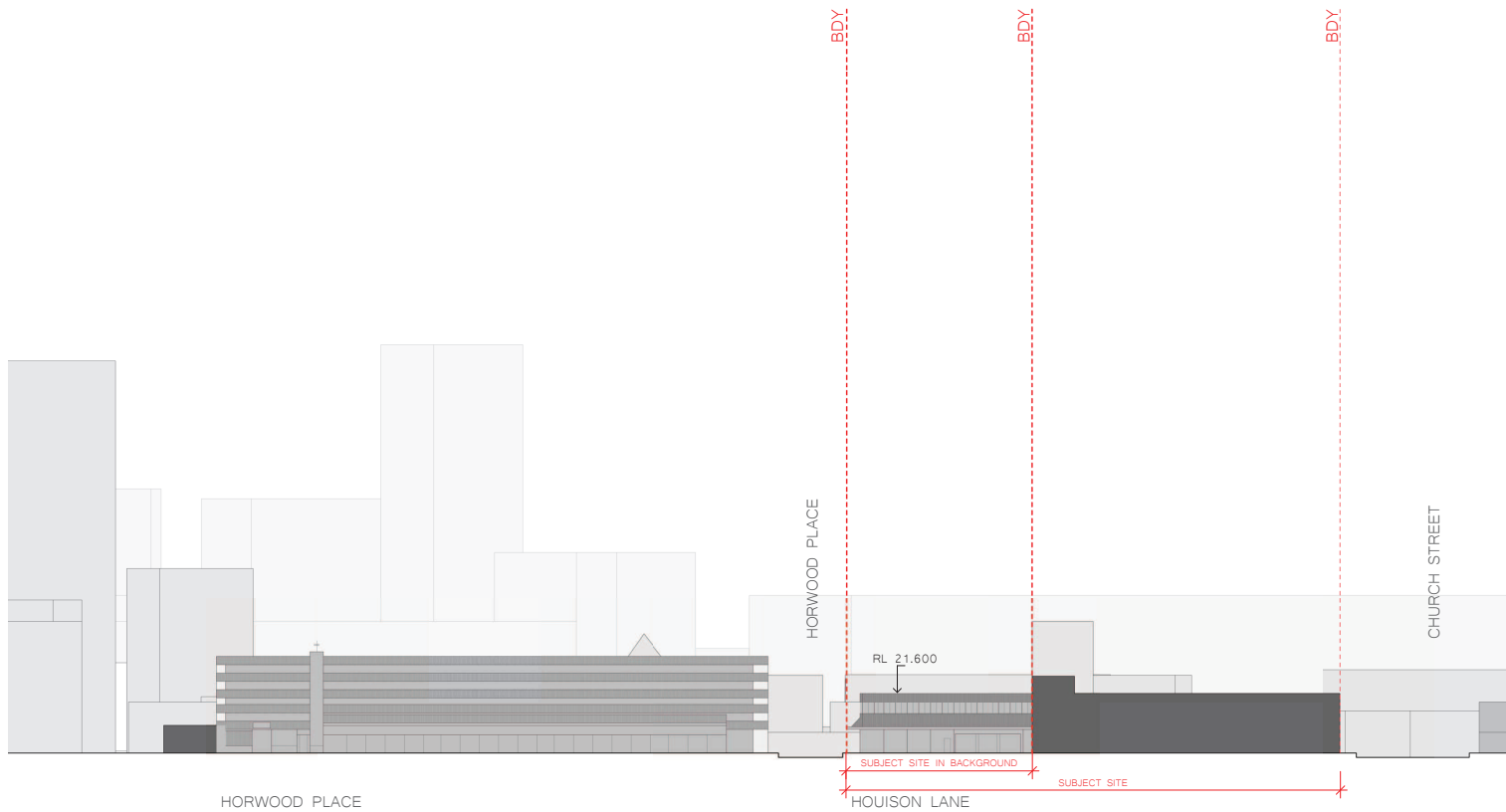


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Existing Building Street Elevations

East Elevation - Horwood Place





Existing Building Street Elevations

North Elevation - Houison Lane

INVESTIGATION & ANALYSIS

Planning Controls

Local Environment Plan

Parramatta City Centre LEP 2007

LAND ZONING MAP - SHEET LZN_001
B4 Mixed use

SPECIAL PROVISIONS AREA MAP - SHEET SPA_001

The maximum floor space ratio for any development that does not include residential accommodation on land identified as "Area 2" on the Special Provisions Area Map is as follows:

- (a) if the floor space ratio for all development on land identified as "Area 1" on that map does not exceed 2:1 – 11:1,
- (b) if the floor space ratio for all development on land identified as "Area 1" on that map exceeds 2:1 – 6:1.

FLOOR SPACE RATIO MAP - SHEET FSR_001

3:1 / 10:1 / 6:1

HEIGHT OF BUILDINGS MAP - SHEET HOB_001

12m (Church Street frontage)

Refer to Clause 29E:

- (1) The objective of this clause is to protect public open space in the vicinity of the Civic Place site, the Lancer Barracks site and Jubilee Park from overshadowing.
- (2) Despite any provision of Part 4, development is prohibited on land to which this Plan applies if the development results in any part of a building projecting above the sun access plane controls established for that land by the City Centre Development Control Plan.

CARPARKING

Commercial

A maximum of 1 parking space to be provided for every 100m² of gross floor area

Multi dwelling housing

1, 2 and 3 bedrooms:

A maximum of 1 parking space to be provided for every dwelling plus 1 parking space to be provided for every 5 dwellings for visitors

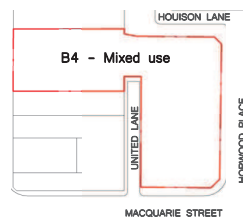
Shops

A maximum of 1 parking space to be provided for every 30m² of gross floor area

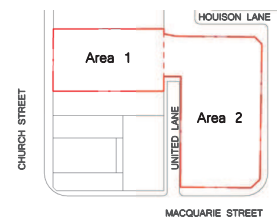
Proposed consolidation with Parramatta LEP 2011

DESIGN COMPETITION

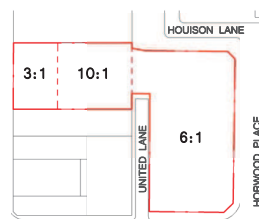
Developments that undergo a design competition and demonstrate design excellence may make an application to achieve a building height and FSR variation by up to 15%



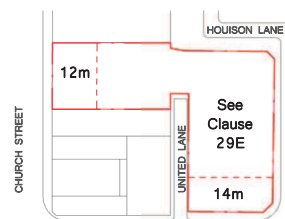
LAND ZONING



SPECIAL PROVISIONS



FLOOR SPACE RATIO



HEIGHT OF BUILDINGS



INVESTIGATION & ANALYSIS

Planning Controls

Development Control Plan

Parramatta DCP 2011

BUILDING SETBACKS

Podium

The site requires a continuous built edge to street alignment (See PDCP 2011, Part 4, Page 219, Figure 4.3.3.1.1)
Therefore, a 0m setback is required to both Macquarie Street and Church Street frontages.

Tower

Church and Macquarie Street requires a 18m and 6m setback respectively (See DCP 2011 4.3.3.1.4 & 4.3.3.1.5)

Horwood Place requires a 6m setback as a minimum (See DCP Figure 4.3.3.1.6)

United Lane requires a building separation of 3m to the Centre line of the laneway (See DCP Figure 4.3.3.1.12)

Houison Place requires no setback controls.

STREET FRONTAGE HEIGHT

Church Street	3 storeys / 12m. Any height above the street frontage height is to be setback a minimum of 18m
Macquarie Street	4 storeys / 14m. Any height above the street frontage height is to be setback a minimum of 6m
Horwood Place	4 storeys / 14m. Any height above the street frontage height is to be setback a minimum of 6m
United Lane	Variable, up to 26m max. Any height above the street frontage height is to be setback a minimum of 3m
Houison Place	No controls

PARRAMATTA SQUARE PUBLIC DOMAIN

Clause 4.3.3.7 states: 'For Parramatta Square (Control C.2), overshadowing is not to occur within the area outlined in red in Figure 4.3.3.7.3 between midwinter 12pm-2pm.'

DRAFT DCP AMENDMENT

Refer to Draft Parramatta DCP Amendments, publically exhibited from Wednesday 1 April 2015 to Friday 1 May 2015 which seek to "remove references to overshadowing of the public domain"
Please refer to accompanying Planning Proposal by JBA.

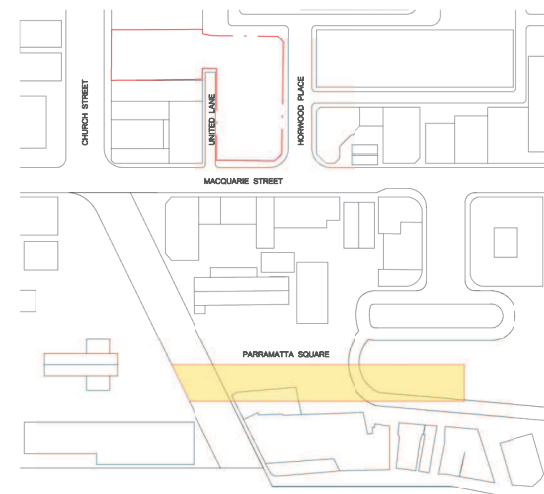
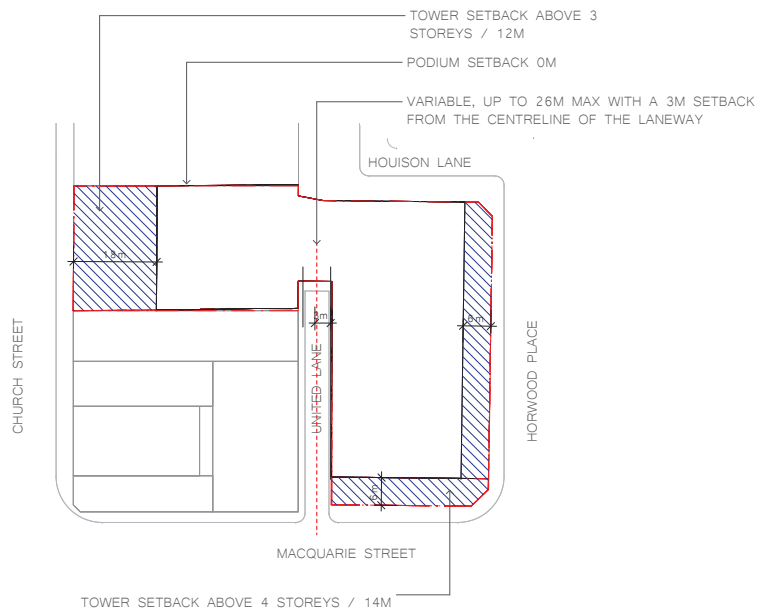


FIGURE 4.3.3.7.3





NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

Future Vision of Parramatta

Site Plan

There has been some major potential and proposed developments recently identified surrounding the subject site that will encourage increased population and economic growth.

SUBJECT SITE

POTENTIAL FUTURE DEVELOPMENTS

1. 7 Charles St - mixed use
2. 11 Hassall St - mixed use
3. 328 Church St - mixed use
4. 61B George St - commercial
5. 197 Church St - mixed use
6. 20 Macquarie St - mixed use
7. Erby Carpark - 87,000sqm Commercial
8. Horwood Carpark - 50,000sqm Commercial

RESIDENTIAL MIXED USE

10. Macquarie carpark, 189 Macquarie St - 425 apartments & 715 public car spaces
11. Riverbank precinct - 90,000sqm mixed use
12. Meriton, 330 Church St - mixed use, 640 apartments
13. Riverside Tower, 12-14 Phillip St - mixed use, 400 apartments
14. Aspire, Parramatta Square 2 - 500-700 apartments
15. V by Crown, 45 Macquarie St - 500 apartments
16. 22A O'Connell St - 22,000sqm mixed use
17. 109-113 George St
18. 5-7 Park St
19. 12 Hassall St

COMMERCIAL

22. 105 Phillip St - 20,000sqm
23. 89 George St - 13,000sqm
24. Eclipse, 60 Station St - 27,000sqm
25. Parramatta Square 1 - 27,000sqm
26. Parramatta Square 3 - 22,000sqm
27. Parramatta Square 5 & 6 - 100,000sqm
28. Westfield - 30,000sqm
29. Parramatta Square 4 - 5,000sqm

KEY PUBLIC FEATURES

31. Public events Square
32. Lennox Bridge portals
33. Riverside theatres masterplan
34. New public domain

INVESTIGATION & ANALYSIS

Future Vision of Parramatta

3D Massing

A portion of the proposed developments located within close proximity to the subject site are quite significant in height and floorspace.

SUBJECT SITE

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29. Parramatta Square 4 - 5,000sqm

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31. Public events Square
32. Lennox Bridge portals
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NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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FSR Analysis

FSR Control

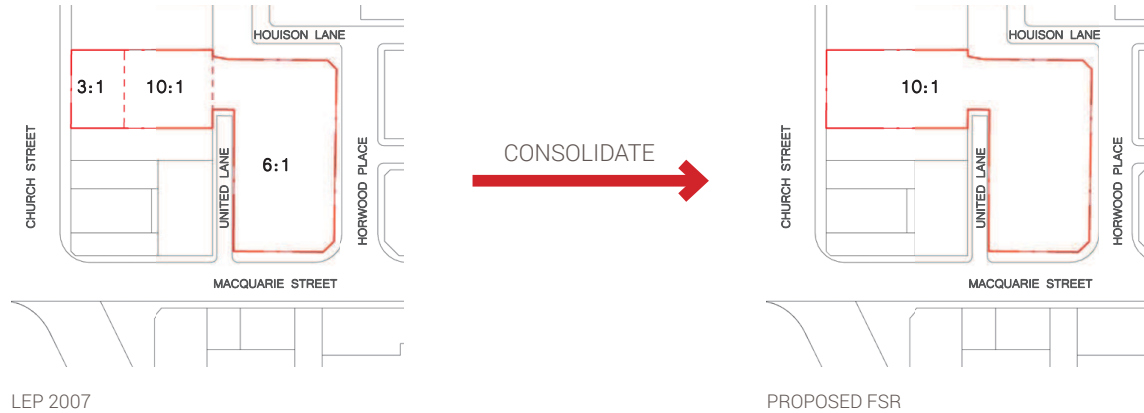
The application of the current LEP FSR controls across the site results in 3 varying FSR ratios. This adds difficulty and a level of complexity to any proposed development trying to achieve a singular form. Our proposal is to consolidate and extend the 10:1 FSR ratio across the entire site and hence achieve uniformity and eliminate potential multiplicities.

Architectus Proposal Planning Framework Study

Architectus recently undertook a "City Centre Planning Framework Study" on Parramatta, investigating several opportunities to increase density via amended FSR and Height Control.

A common theme in their studies focused around maximising development in the City Core via a broad 10:1 FSR ratio.

This aligns with the proposed FSR control across the subject site and will ensure concomitance with the future vision of Parramatta.



Architectus Scenario - Increased FSR, No Height Control

Scenario C as found in document Draft Parramatta City Centre Planning Framework Study prepared by Architectus, Item 9.4 - Attachment 1, Page 515

BASIS OF SCENARIO

FSR controls have been developed (see diagram right) which are comparable to (slightly less than) those of Central Sydney. These are reduced in outer, transitional areas to acknowledge neighbouring sensitive areas:

- No height control is provided
- No solar access control is assumed
- The existing Commercial Core is retained as the focus for commercial development

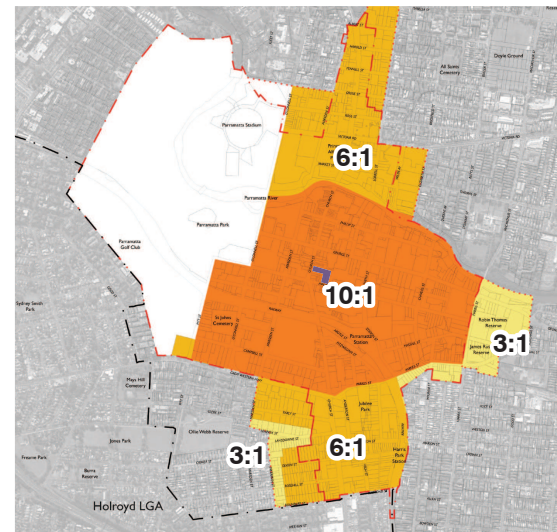
OPPORTUNITIES

- Consistent with floor space projections
- With no height control, towers are encouraged to be taller, slimmer and well separated
- Tall buildings with gaps between them - consistent with principles of Old Government House and Domain World Heritage site agreement
- Retains the core of the City Centre as the focus of activity

CHALLENGES

- Delivering appropriate mix of uses
- Sun access to open spaces

Assumed Floor Space Ratio



[Scenario C as found in document Draft Parramatta City Centre Planning Framework Study prepared by Architectus, Item 9.4 - Attachment 1, Page 515]



INVESTIGATION & ANALYSIS

Complying Massing Analysis

The following study analyses the massing potential of a complying FSR Scheme within the allowing height plane

COMPLYING MASSING SCHEME 1

This scheme looks at a strictly complying FSR scenario, with varying ratios across the site. This results in 2 relatively small towers atop a retail podium.

- Variable FSR across site - 3:1 / 10:1 / 6:1
- 6m setback from Macquarie Street
- 18m setback from Church Street
- 12m street wall heights

COMPLYING MASSING SCHEME 2

This scheme looks at averaging the 3 variable FSR ratios across the site into 1 consolidated value. This results in 2 slightly taller towers in comparison to scheme 1, but with smaller floorplates.

- Average FSR across site - 6.5:1
- 6m setback from Macquarie Street
- 18m setback from Church Street
- 12m street wall heights

COMPLYING MASSING SCHEME 3

This scheme looks at applying the larger portion of the complying FSR of 10:1 across the entire site. The outcome is similar to schemes 1 and 2, but in this case with larger floorplates.

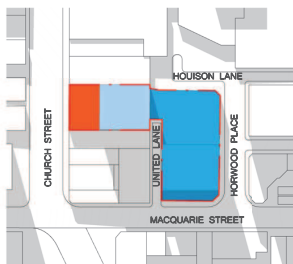
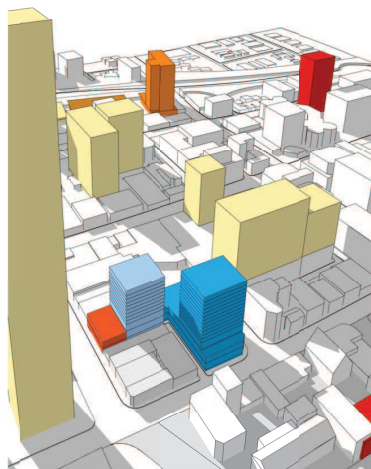
- Consolidated FSR across site - 10:1
- 6m setback from Macquarie Street
- 18m setback from Church Street
- 12m street wall heights

In order to maximise GFA and stay within the height plane, all options require a twin tower scenario. This in turn generates complications within the site itself, including;

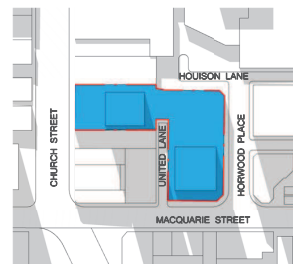
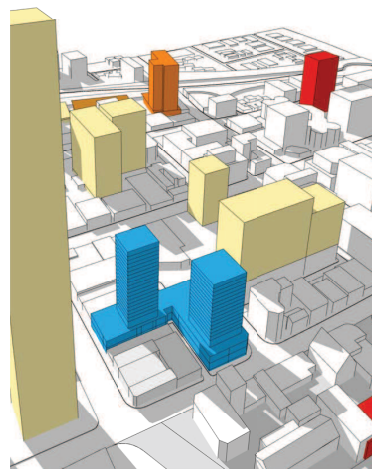
- Sepp 65 compliance
- Tower crowding
- Privacy
- View sharing & view loss
- Residential floor plate size appropriateness
- Mass overshadowing to local streets and lanes

A taller single tower solution will eliminate the majority of these issues.

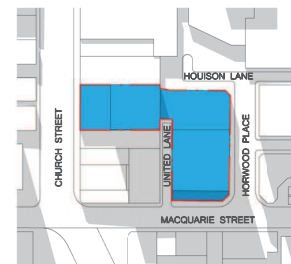
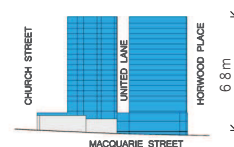
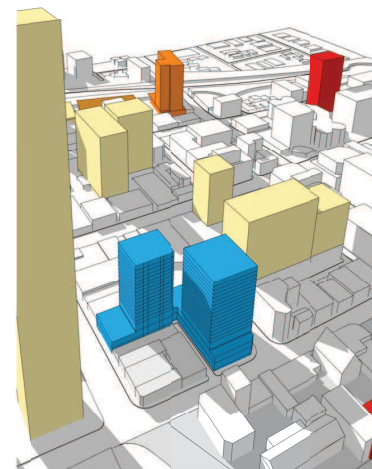
COMPLYING MASSING SCHEME 1



COMPLYING MASSING SCHEME 2



COMPLYING MASSING SCHEME 3



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

Complying Massing Analysis

Future Parramatta Context

When compared to the surrounding context of the future vision of Parramatta, a complying scheme on the subject site fails to capitalise on its prime location. Its proximity to the proposed revitalisation of Parramatta Square, including the public domain and civic heart, is also underutilised.

Tower proportionality and balance are key factors which will help drive the economic and social potential of the precinct. The subject site will play an important role to the success of this vision, and requires a development with an appropriate and complimentary mass beyond that allowed under the current controls.



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INVESTIGATION & ANALYSIS

Connectivity to Parramatta Hub

The urban renewal at Parramatta Square will rejuvenate the civic heart of the city, creating a vibrant central hub for visitors and businesses alike. The public space will be defined by the alignment of the surrounding towers, reinforcing the civic identity, economic importance and focus for the city. The space will serve the surrounding precinct as a gathering place and ceremonial centre for significant formal civic and cultural events.

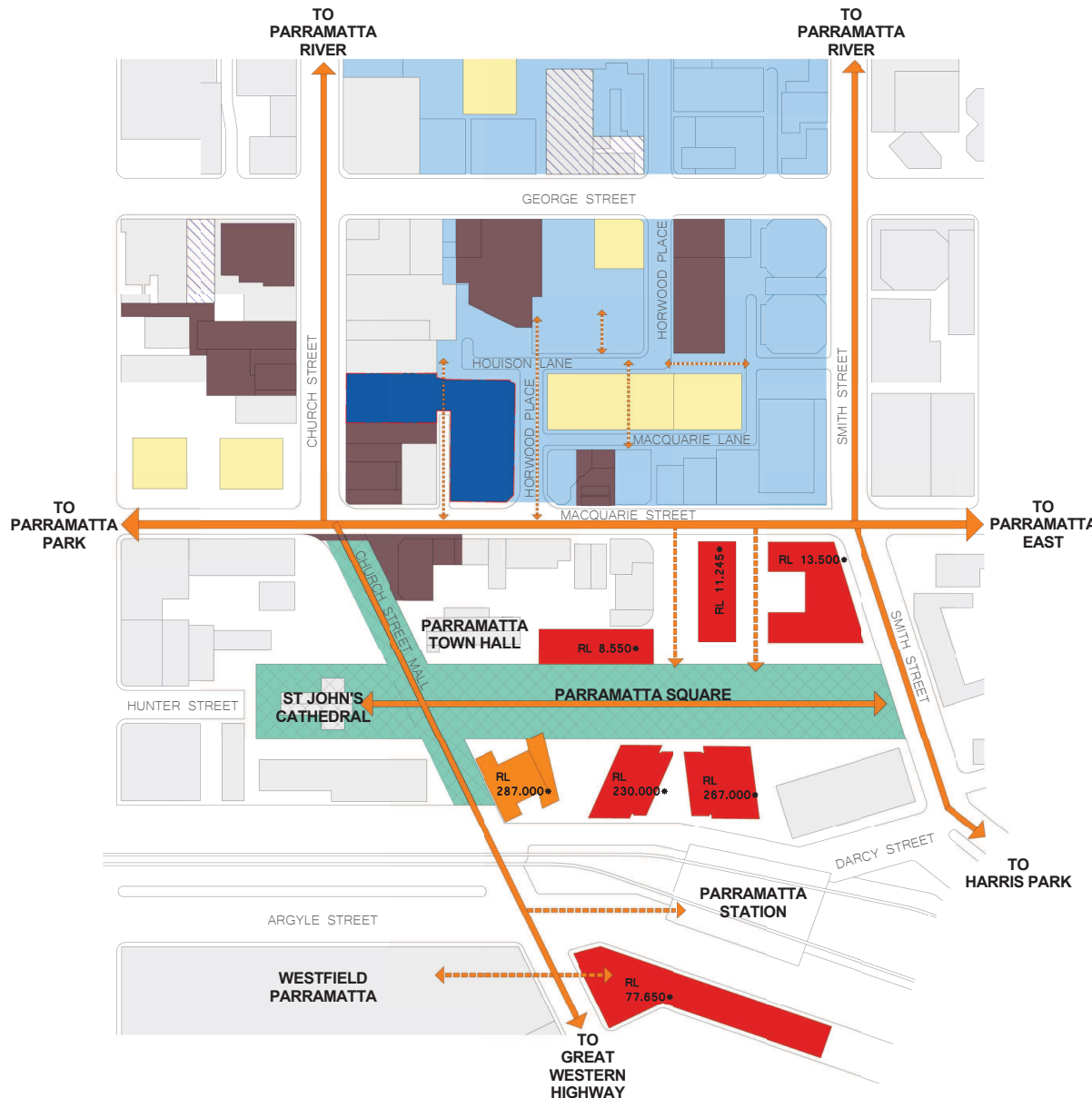
The mixed use nature of the precinct will be encouraging high quality commercial and residential developments as well as innovative public domains and space. The locality of the major public transport interchange further supplements the call for the pedestrian focused nature of the precinct. Active frontages and spill out activity will funnel pedestrian movement to liven and enhance the area.

The connections and links throughout the surrounding precinct will be vital to the even spread of activity and energy generated from the Square. Surrounding developments will need to capitalise on this activity and provide a population catchment that feeds and serves the increased economic and social density. Surrounding developments will also need to be carefully integrated into the proposed fine grain network of laneways and through site links in order to truly transform the nature of the precinct in accordance with the intentions of the city.

At the micro level, the site is located within a city block that is predominately zoned B3 commercial, and precludes any residential development. This will limit any complications associated with residential tower crowding, such as privacy and view loss. Heritage and strata sites surround the subject site and limit the potential for new tower development, and hence reduces the possibility of tower crowding even further.

- Subject Site
- Strata Listed Building
- Potential Future Development
- Future Residential Development
- Future Commercial Development
- Heritage Item
- Parramatta Square
- B3 Commercial Zone
- Potential Future Developments
- Potential Future Developments

*NOTE: RLs are approximate only



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

Design Principles

Urban

Parramatta City Centre is on the verge of great change and is undergoing a process of urban renewal. Parramatta Square, with its historic axis and surroundings, will form the Civic Heart of the City – the future public realm with amenity to transport, retail, commercial and residential. Future developments in the vicinity will all contribute to the framing of this Civic Place for Parramatta.

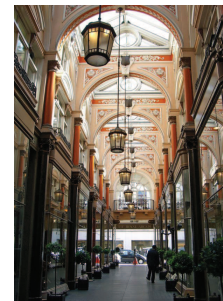
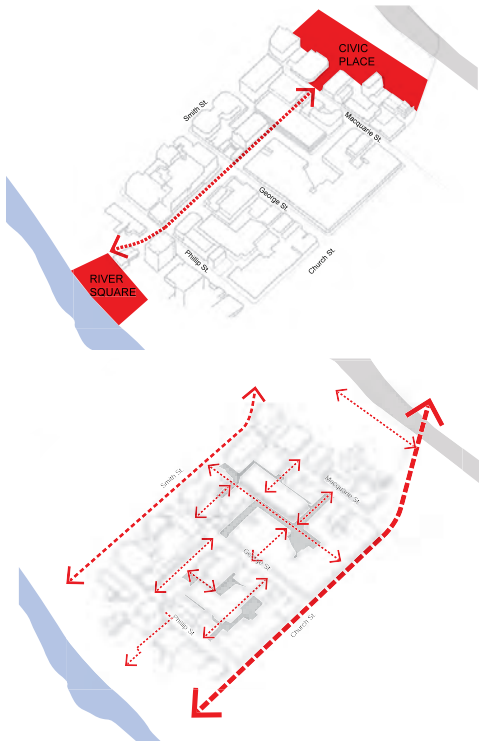
Parramatta River is another larger public space that is to be renewed – The River Square. The path between these two public spaces will be clear and further activated by a secondary network of fine grain laneways and through site links knitted into the existing cultural and heritage fabric of the city – creating a lively public domain with rich and active street life.

For any new development, specifically the subject site, the following urban design principles should be considered within the context of the broader Parramatta vision.

FRAMING OF THE CIVIC SPACE – respecting the public domain principles of the future Parramatta master plan, contributing and complimenting the context in scale and density. Providing relevant amenity to the primary public realm as well as the residents

CONNECTIVITY – contributing to the fine grain network of laneways & through site links along the primary corridors and links between the public spaces that frame the city centre. Pedestrian connectivity is a priority – an expanded and improved public domain. Connecting to future light rail plans.

HIERARCHY – supporting the historical and future context of connectivity and scale. Subtly applying social and economic layers through new development and use while maintaining a homage to Parramatta's historic fabric.



INVESTIGATION & ANALYSIS

Design Principles

Architectural

PODIUM

The podium is anchored by five frontages, two major and three minor, each requiring individual treatment driven by varying conditions.

Church Street forms one of the major podium frontages and is a pedestrian focused artery to Parramatta Square. Surrounded by a rich tapestry of diverse forms and scale, it requires a level openness to encourage high social interactivity.

Macquarie Street forms the other major frontage and is one of the main east west axial links through the city centre. It has been earmarked for future light rail development, and is more attune to a street retail composition.

The minor frontages will form secondary entrances and exits to the podium connected to the greater context that is the fine grain network of laneways, through site links and service laneways. These minor frontages have the potential to house smaller pockets of retail such as hole in the wall cafes and vendors.

TOWER

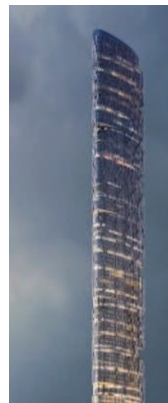
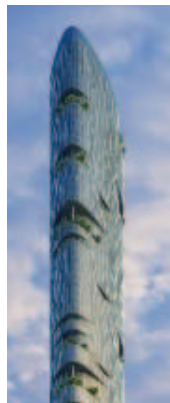
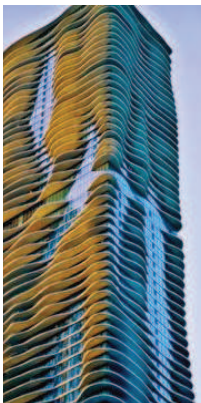
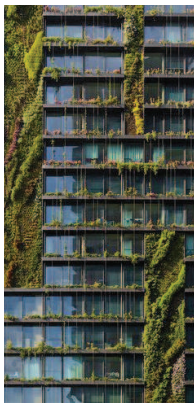
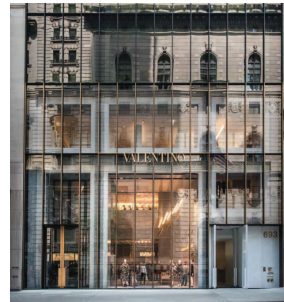
The height and placement of the tower is justified within the context of Parramatta's new vision for the city. All future developments have the opportunity to contribute to the renewed city centre and its edges.

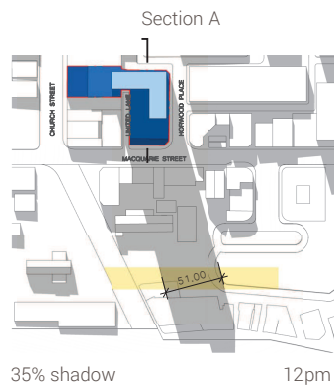
Efficiency and flexibility will need to be communicated through the slender articulated form of the tower, while maintaining permeability within the city skyline – the breathing space between the towers.

Improved internal amenity will bring natural light into the building, open and expose the residents to expansive views to Sydney CBD and the Blue Mountains, provide natural cross ventilation, and create communal and outdoor spaces that compliment inner city living. The planning is free, open and flexible to foster social wellbeing and balance.

The facade is intended to be androgenous to not deter commercial tower development nearby in the future.

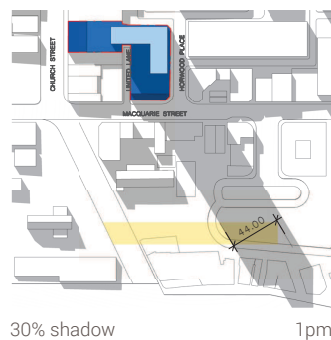
Residents will enjoy all the conveniences of inner city living – proximity to the work place, access to a vibrant city centre scattered with retail, cafes and restaurants, and modern comforts that come with living in a tower associated with the prestige of design excellence.





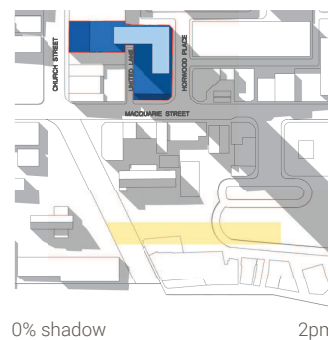
35% shadow

12pm



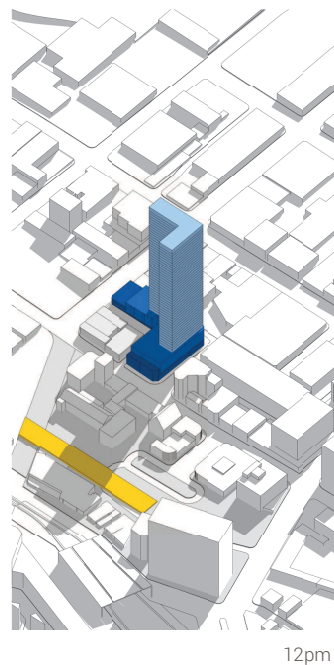
30% shadow

1pm

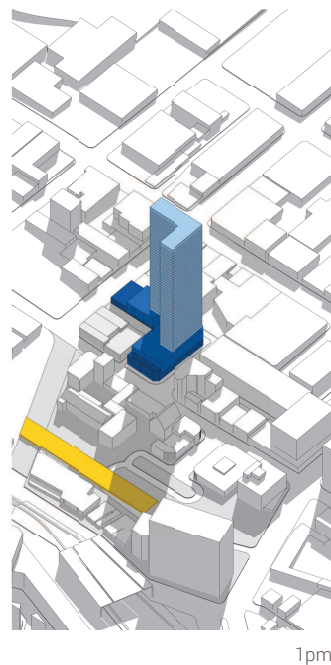


0% shadow

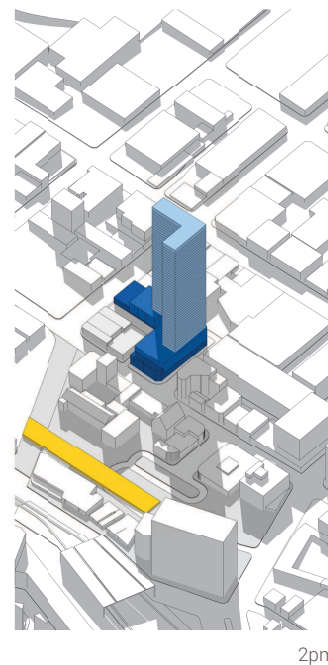
2pm



12pm



1pm



2pm

NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

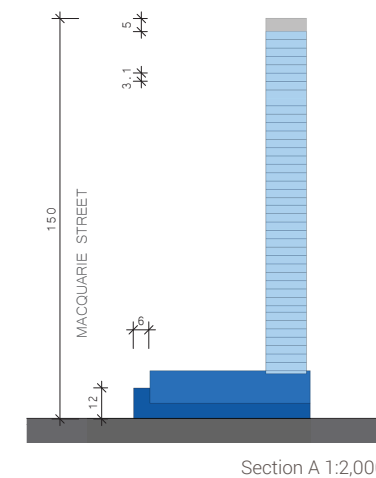
Tall Tower Envelope Study Impact on Parramatta Square

This study looks at varying tall tower masses in order to determine the most appropriate form that will have minimal overshadowing impact on Parramatta Square.

Massing Study 01

An L-shaped floorplan that addresses both Church and Macquarie Streets sits in the North-East corner of the site in order to limit overshadowing. Its large floorplate at maximum GFA results in a 150m high tower that affects approximately a third of Parramatta Square.

Site Area	3,681m ²
FSR	10:1 + 15%
	11.5
Allowable GFA	42,332m ²
Proposed GFA	42,219m ²
Floor Plate Levels	877m ²
	41



Section A 1:2,000

INVESTIGATION & ANALYSIS

Tall Tower Envelope Study Impact on Parramatta Square

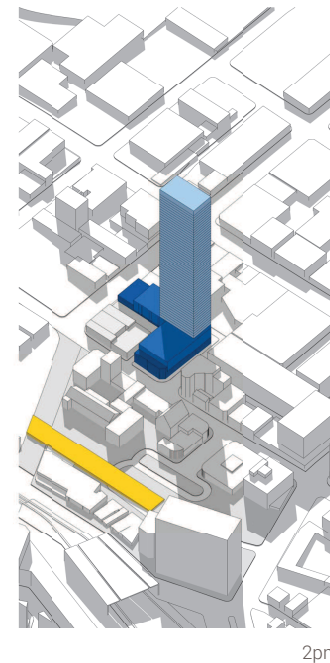
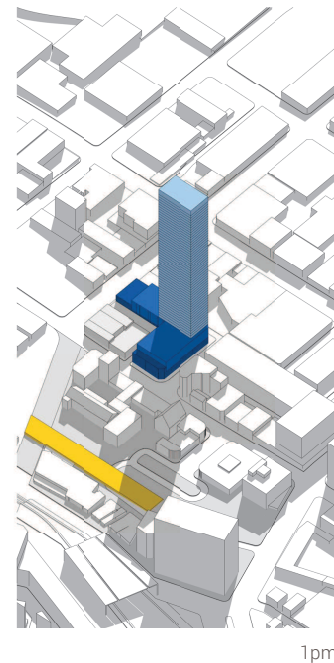
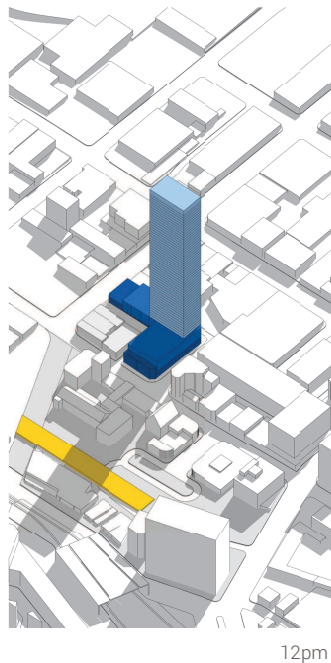
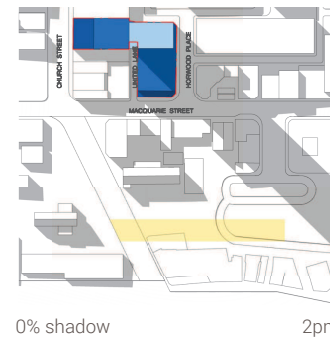
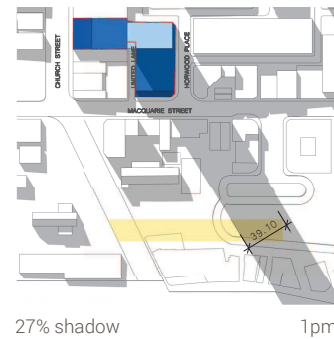
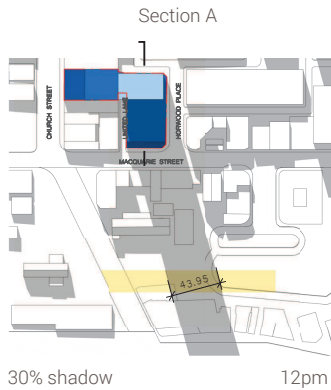
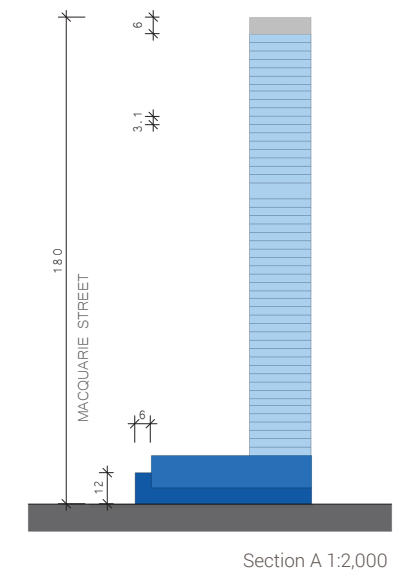
Massing Study 02

A simplified rectangular floorplate that addresses Church St and sits in the North-East corner of the site in order to limit overshadowing. Its medium sized floor plate at maximum GFA results in a 180m high tower. Its East –West orientation slightly reduces the overshadowing impact on Parramatta Square when compared to Massing 1.

Site Area	3,681m ²
FSR	10:1 + 15%
	11.5
Allowable GFA	42,332m ²

Proposed GFA 42,256m²

Floor Plate	692m ²
Levels	52



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

Tall Tower Envelope Study Impact on Parramatta Square

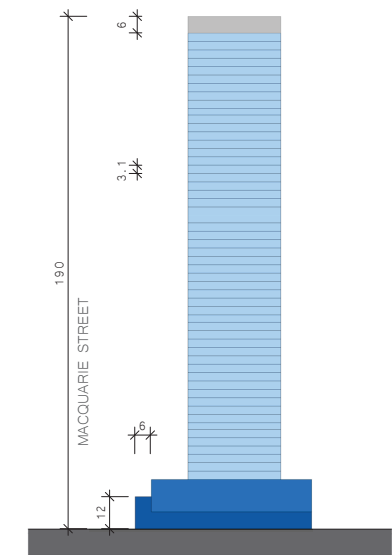
Massing Study 03

A simplified rectangular floorplate that addresses Macquarie St and sits towards the North-East corner of the site in order to limit overshadowing. Its medium sized floor plate at maximum GFA results in a 190m high tower. Its North - South orientation further reduces the overshadowing impact on Parramatta Square when compared to Massing 1 and 2.

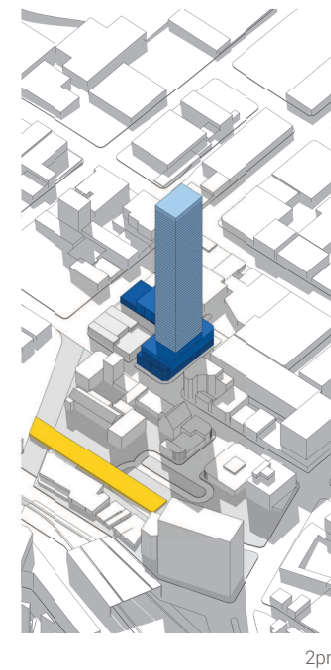
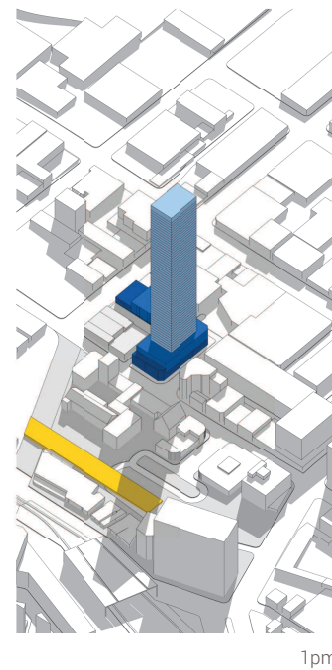
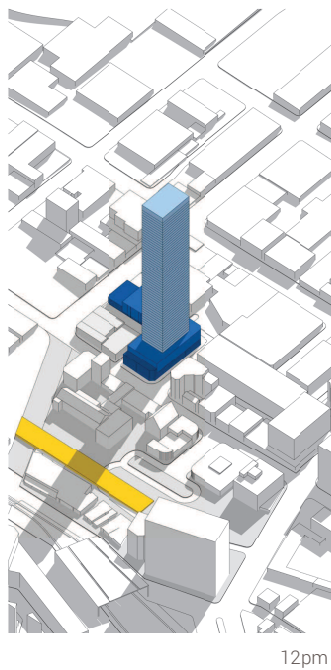
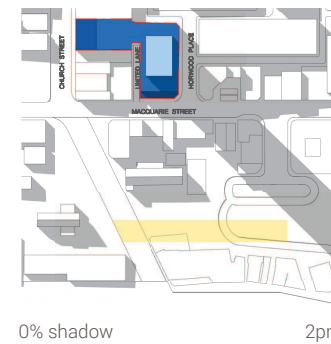
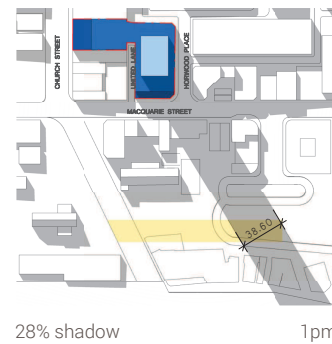
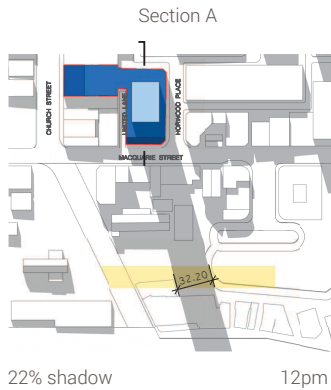
Site Area 3,681m²
FSR 10:1 + 15%
Allowable GFA 42,332m²

Proposed GFA 42,098m²

Floor Plate 651m²
Levels 55



Section A 1:2,000



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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INVESTIGATION & ANALYSIS

Tall Tower Envelope Study Impact on Parramatta Square

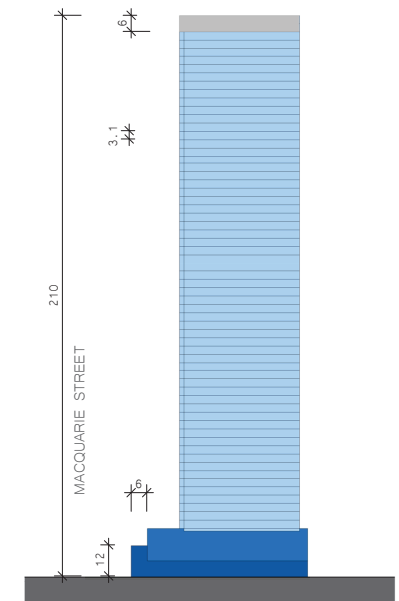
Massing Study 04

A simplified rectangular floorplate that addresses Macquarie St and sits towards the North-East corner of the site in order to limit overshadowing. Its slender sized floor plate at maximum GFA results in a 210m high tower. Its direct North - South orientation reduces the overshadowing impact on Parramatta Square even further when compared to all the previous massings.

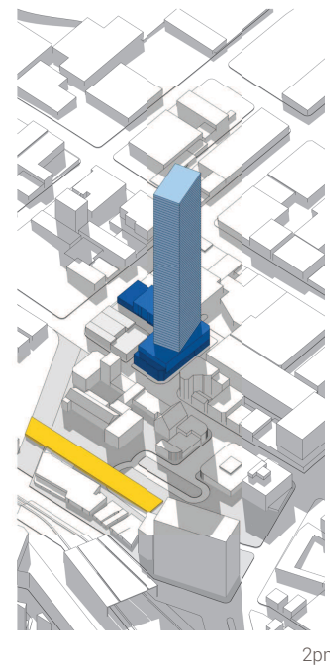
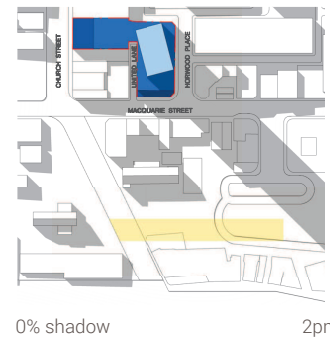
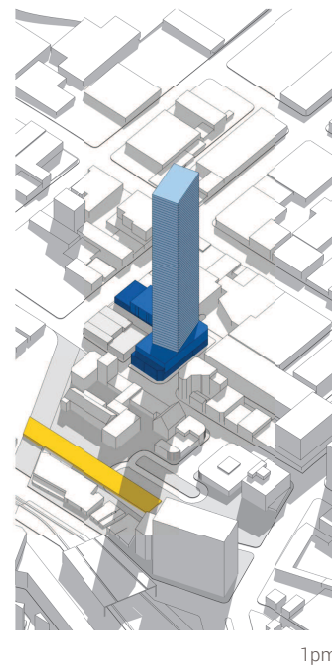
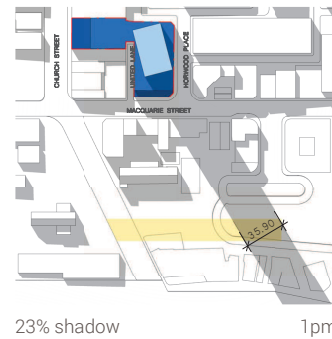
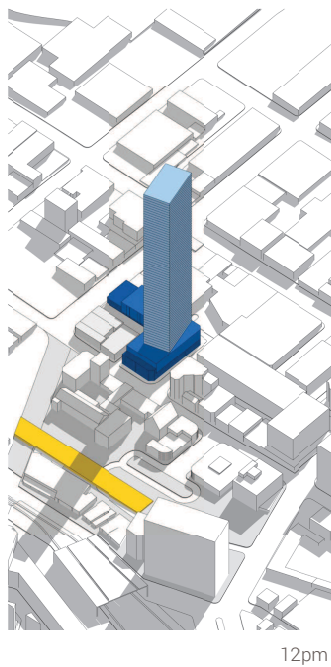
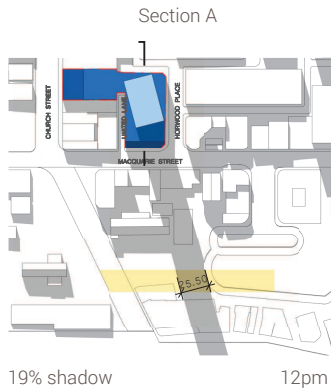
Site Area 3,681m²
FSR 10:1 + 15%
Allowable GFA 42,332m²

Proposed GFA 42,302m²

Floor Plate 700m²
Levels 57



Section A 1:2,000



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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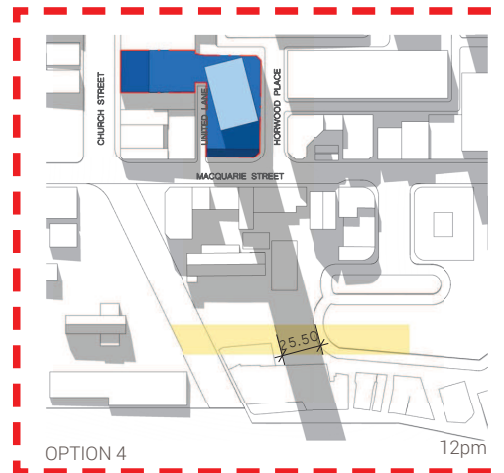
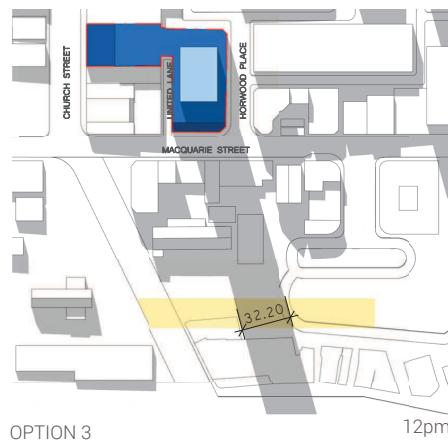
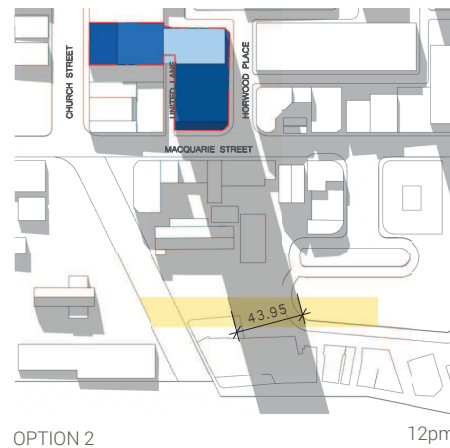
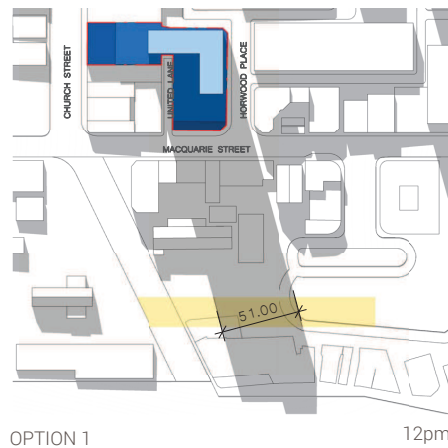
Tall Tower Envelope Study

Preferred Option Analysis

With each progressive tower massing option, the overshadowing effect on Parramatta Square is reduced, the aim being to develop a tall slender tower that produces a fast slender moving shadow.

Option 4 ultimately achieves this with less than 25% impact over the proposed Parramatta Square.

Moving forward, Option 4 will be adopted as the proposed envelope and further detailed analysis undertaken in order to determine its appropriateness.



PROPOSED ENVELOPE

NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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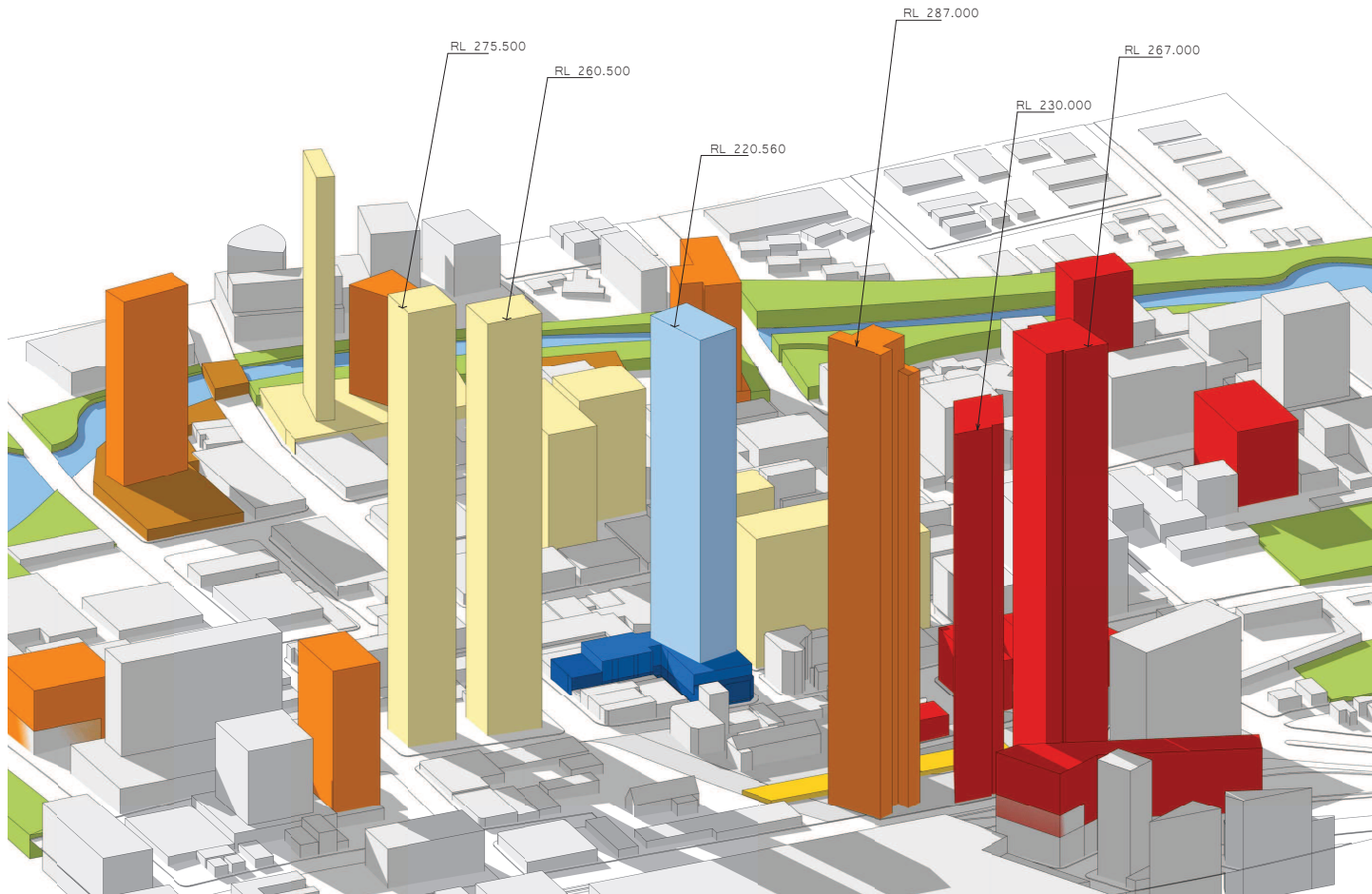
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INVESTIGATION & ANALYSIS

Proposed Envelope

Future Parramatta Context

A tall slender tower on the subject site is proportionately more attune with the proposed developments within and surrounding Parramatta Square. A more articulated urban form is achieved through the transitioning and variance of height and tower placement.



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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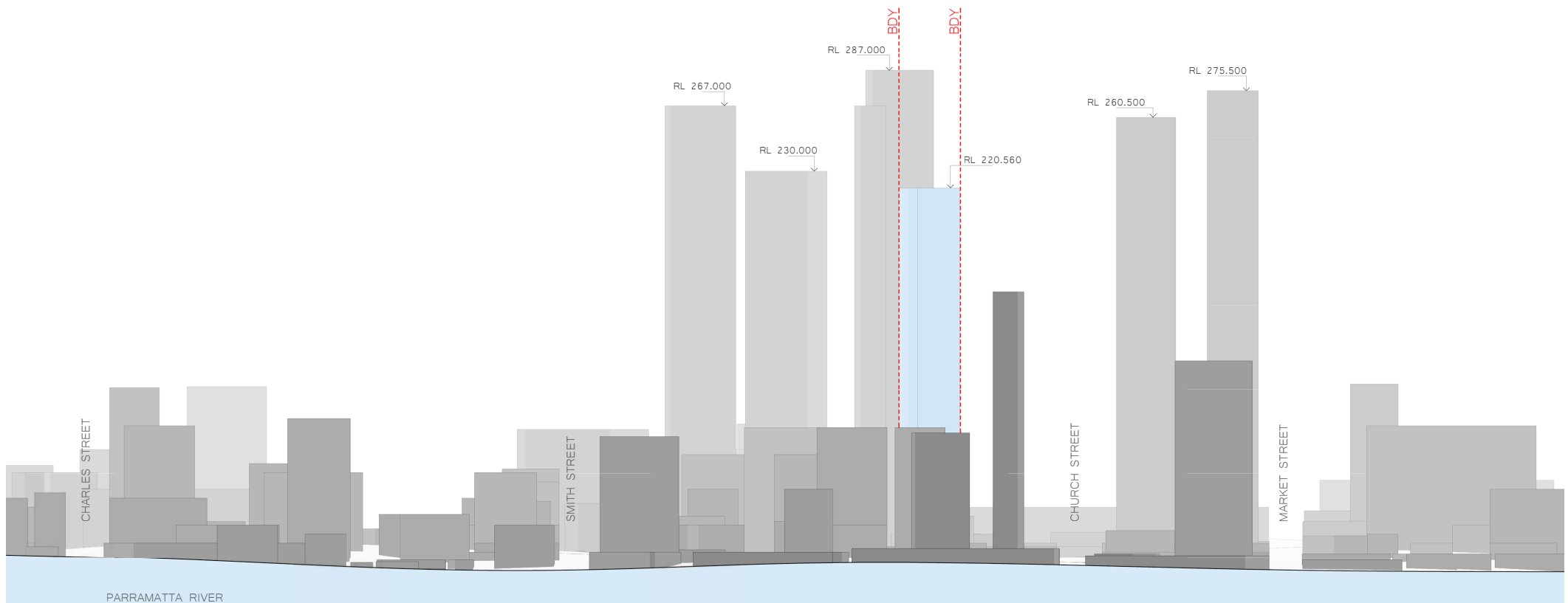
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INVESTIGATION & ANALYSIS

Proposed Envelope

City Skyline Analysis - Parramatta River

When a building of a substantial height is proposed, it's essential that a comparative analysis is undertaken across the city as a whole. The east-west sectional diagram below identifies the major proposed and existing buildings located between the river and Parramatta Square and reveals the potential density of the city skyline.



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

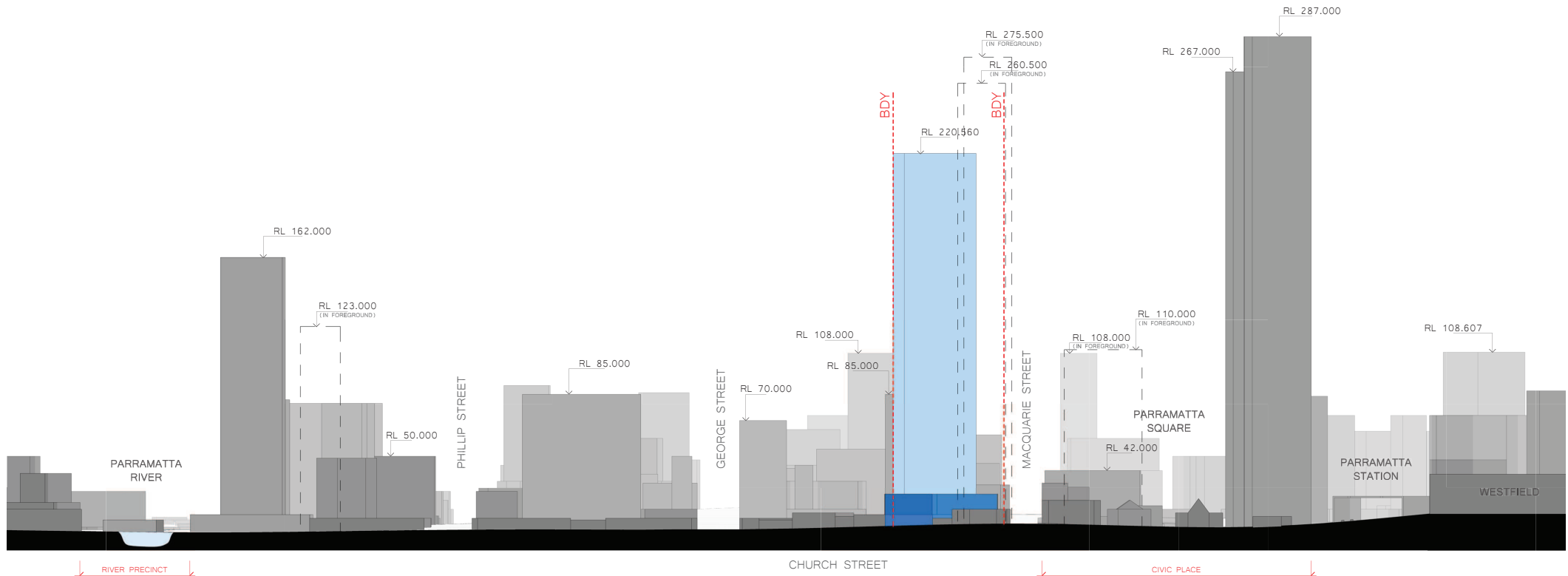
INVESTIGATION & ANALYSIS

Proposed Envelope

City Skyline Analysis - Church Street

The north-south sectional diagram below identifies the major proposed and existing buildings and reveals a stepping of tower height towards the river, with Parramatta Square being the focal point for height and density.

The proposed envelope on the subject site, indicated in blue, has a maximum height of RL 220.530m (210m tall), and presents a concomitant proportionality, balance and an appropriateness of place amongst other proposed tall towers across the city centre. It will make a positive contribution to the city skyline and potentially serve as a future landmark.



NOTE: Surrounding Building Information - Parramatta Future Generation, Investing in Western Sydney, Parramatta City Council, Nov 2014; The "Greenway" Arcade by Willana Associates; 11 Hassall Street Height Analysis, Apr 2014 by JBA.

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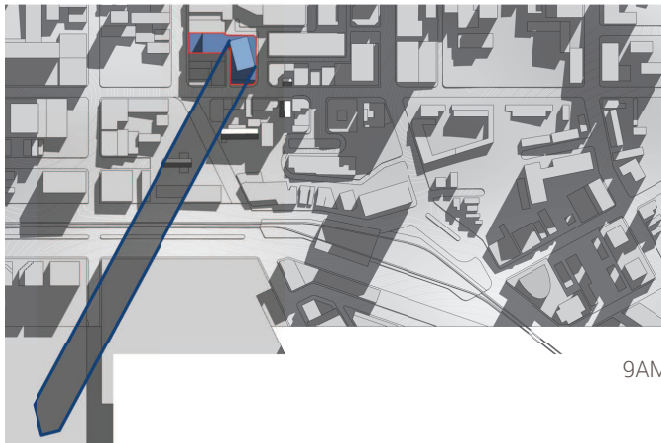
INVESTIGATION & ANALYSIS

Proposed Envelope

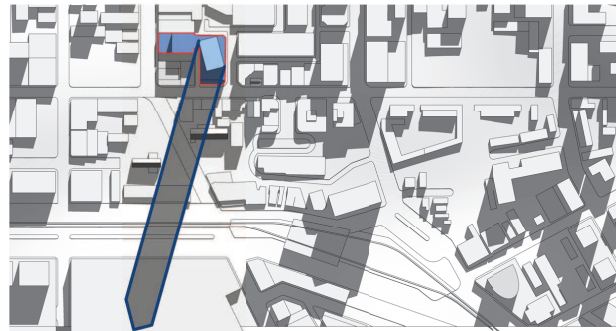
Winter Solstice Shadow Analysis

June 21 9am-3pm

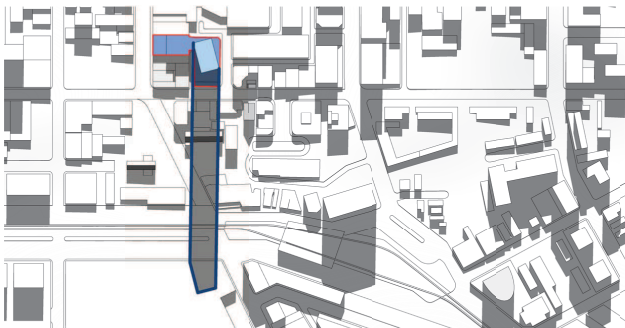
An analysis of the impact of a tall slender tower across the broader city during mid-winter has been undertaken to ensure no adverse impact occurs.



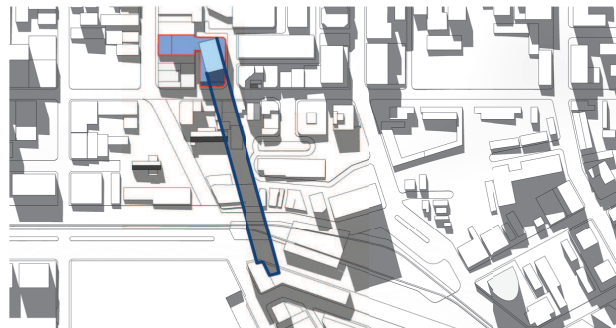
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10AM



11AM



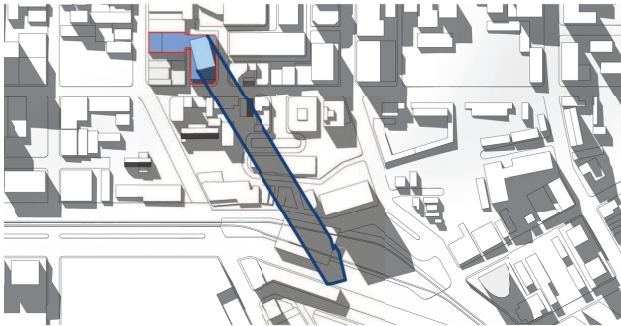
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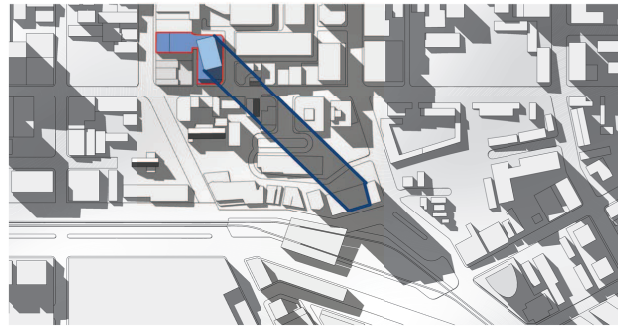
INVESTIGATION & ANALYSIS

Proposed Envelope

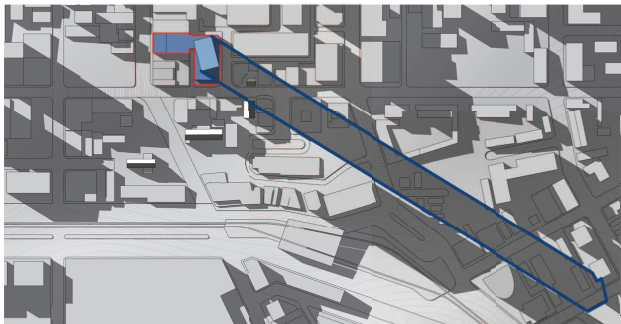
Winter Solstice Shadow Analysis
June 21 9am-3pm



1PM



2PM



3PM

