Summary Report - Final Draft

West Auto Alley Precinct Plan

For City of Parramatta

September 2019

Prepared by

olsson& associates architects PTY LTD

jila

HOWARD TANNER
ARCHITECT

DOCUMENT CONTROL

Title	Summary Report - Draft
Project	West Auto Alley Precinct Plan
Description	-
Key Contact	Russell Olsson

Prepared By	Olsson Associates and Architects PTY LTD
Address	Level 4 / 68-72 Wentworth Avenue Surry Hills NSW 2010
Email	russell@olssonassociates.com.au
Website	olssonassociates.com.au

Author	
Checked	
Authorised	

Revision History	Draft A	Draft B	Draft C	Draft D	Final
Issued To Date	06/03/19	18/04/19	30/08/19	13/09/19	27/09/19
Document Author	TC	TC	TC	TC	TC
Document checked	RO	RO	RO	RO	RO

Executive Summary

The West Auto Alley Precinct Plan responds to the City of Parramatta Councillors resolution of 22nd July 2019 that a study for the precinct be prepared which provides an independent recommendation as to the Heights and the Floor Space Ratios for the precinct. This precinct plan is to assist Council to address condition 1(k) of the Gateway determination issued by the Department of Planning, Industry and Environment in December 2018 for the draft Parramatta CBD Planning Proposal.

This precinct plan sets out a robust series of Urban Design principles which will achieve the best possible urban design and public domain outcomes and create an appropriate transition between the South Parramatta Heritage Conservation Area and the planned high rise development in Auto Alley along Church Street.

This West Auto Alley Precinct Plan enhances the public domain in the precinct with a range of initiatives including:

- Proposing a new public park following Clay Cliff Creek.
- Visually widening the existing relatively narrow streets in the precinct, with substantial landscaped front setbacks
- Providing extensive areas of deep soil to support landscape in front, side and rear setbacks
- Widening Dixon Street to enhance its function and amenity

The proposed tower and podium building typology creates pedestrian scale streets and minimises the environmental impact of the towers. Tower floorplates are developable due to their reasonably large size, while allowing compliance with the SEPP 65 Apartment Design Guide (ADG) in terms of building separation, building depth, solar access and ventilation.

The recommended development controls for Areas 1, 2 and 3 as shown in the adjacent diagram include an Incentive Floor Space Ratio (FSR) of 2:1 provided a minimum street frontage of 26 metres can be achieved, and an Incentive Height of Buildings Control of 24 metres. This will result in a built form of 4 Storey podium and 6 Storeys in total.

Additional bonus FSR and height is available for Areas 1 and 2 provided a minimum street frontage of 48m can be achieved. The bonus FSR and height is as follows:

For Area 1.

- bonus floor space of 2:1 is available for a total site FSR of 4:1. If Design Excellence bonus FSR is awarded to the site, a possible FSR of 4.6:1 could be achieved.
- bonus height of 31 metres for a total height of 55 metres. If Design Excellence bonus height is awarded to the site, a possible height 63 metres could be achieved.

For Area 2.

- bonus floor space of 1:1 is available for a total site FSR of 3:1. If Design Excellence bonus FSR is awarded to the site, a possible FSR of 3.45:1 could be achieved.
- bonus height of 56 metres for a total height of 80 metres. If Design Excellence bonus height is awarded to the site, a possible height 92 metres could be achieved.

These controls for Area 2 reflect the flood affectation over the rear of these sites that cannot be built upon.

The built form outcome of these design strategies that include bonus FSR and height (Inclusive of Design Excellence) for Area 1 will result in tower heights ranging from 14 to 19 storeys in Area 1, and 26 to 27 storeys in Area 2.

The South Parramatta Heritage Conservation Area (HCA) is protected in the plan by having an Incentive FSR of 1.4:1 and a height limit of 17m (5 Storeys) for the WAAP sites to the north of Lennox Street. This will avoid overshadowing and minimise the visual impact on the HCA.

The transition zone on Lansdowne and Inkerman Streets, (Area 5) is recommended to retain the existing FSRs of 0.8:1 or 1.2:1 and height of 11m or 14m. This provides a transition in scale of 2 storey buildings plus attic within a landscaped setting. This area is outside the draft Parramatta CBD Planning Proposal boundary and the West Auto Alley Precinct study area.

Map of The South Parramatta Conservation Area, The Transition Area and The West Auto Alley Precinct North 1:5000 @ A3

The proposed pattern of smaller developments at 2:1 FSR in the western part of the WAAP (Area 3), adjacent to tower developments at 4.6:1 or 3.45:1 FSR (Inclusive of design excellence) to the east of the study area will create a stepped urban form across the WAAP. This will result in a structured and sensitive transition between Church Street and the Heritage Conservation Area.

The recommendations, if adopted, should ensure that future development would occur in a form that protects and manages the city's heritage assets, achieves the design principles established for the West Auto Alley Precinct and demonstrates consistency with Division 9.1 Direction 2.3 of the Environmental Planning Act 1979. The recommendations in this study only relate to the precinct that is the subject of the study and do not apply to the broader Parramatta CBD.

0.1 Project Background

In 2014, Council exhibited separate draft framework plans for 'Auto Alley' and the 'City Centre' (Architectus Study) based on urban design, economic and planning considerations. The Architectus Study recommended an FSR of 6:1 for the West Auto Alley Precinct; and the Auto Alley Framework Plan recommended FSRs for the West Auto Alley Precinct that transitioned down to the Heritage Conservation Area (HCA). These draft framework plans were consolidated into a single Parramatta CBD Planning Strategy in 2015 and, together with technical studies, formed the basis for draft planning controls in the CBD PP. On 11 April 2016, Council adopted the CBD PP for the purpose of seeking a Gateway Determination.

During the assessment period of the PP Council has progressed further studies and made several amendments to the CBD PP Gateway Application. On 10 September 2018 a report was made to Council providing options to Councillors to consider when amending the CBD PP. Issue D of this meeting related to appropriate incentive FSRs for the West Auto Alley Precinct. Councillors considered four options to address this issue and resolved to adopt Option D3 which provided for an incentive FSR of 6:1 and no height limit and that supporting studies be commissioned to identify public domain opportunities and assess heritage impacts on the adjacent HCA, and that outcomes from the study be used to amend the CBD planning proposal accordingly.

On 13 December 2018, the Department of Planning and Environment (DPE) issued a conditional Gateway determination for the CBD PP. Condition 1(k) of required Council to '*...carry out further investigations of heritage interface areas and clearly identify where there are inconsistencies between the intended outcomes in the planning proposal and the heritage reports that have been prepared. Council to provide further information to identify where the inconsistencies exist, the extent of the inconsistencies ad how they are proposed to be addressed*'.

In January 2019 Olsson & Associates Architects as lead consultants were engaged to prepare a Precinct Plan for West Auto Alley and the precinct-based Heritage Study. Preliminary outcomes from the study were provided to the City of Parramatta Council, and on 25 March 2019 the Councillors resolved to not to progress the West Auto Alley Precinct Plan (with supporting heritage analysis) underway to support an FSR of 6:1.

On 22 July 2019 Councillors reconsidered the matter and resolved to '*... request the consultants that were undertaking the preparation of a Precinct Plan (with supporting heritage analysis) for the West Auto Alley Precinct to provide an independent recommendation (and Precinct Plan) as to the heights and FSRs for the precinct... so as to achieve the best possible urban design and public domain outcomes in particular, the provision of a sensitive built form transition from Church Street to the Heritage Conservation area.*'

This Precinct Plan for West Auto Alley and the precinct-based Heritage Study is the relevant response to the Council's resolution on 22 July 2019 to undertake further studies for the West Auto Alley Area. The outcomes from the earlier analysis have been used as the basis for establishing a series of recommended planning controls that can be easily incorporated in to the amended draft Parramatta CBD Planning Proposal.

ANALYSIS

1.0

1.1 Regional View

THE CITY OF PARRAMATTA

- Situated 20 kilometres west of the Sydney CBD, Greater Parramatta has been designated as the metropolitan city centre within the Central River City in the Metropolis of Three Cities 2018 Regional Plan prepared by the Greater Sydney Commission.
- The Central River City is made up of the Hills, Cumberland, Blacktown and Parramatta LGA's which form a network of centres and well connected transport infrastructure.
- Parramatta is a city which is undergoing a sustained period of significant change as it continues to develop its health, education and research institutes alongside its significant commercial sector.
- The city and its surrounds are designated as a priority growth area in the 2018 regional plan. Providing new, liveable housing that is appropriate for the projected population growth is a key objective of the Plan.
- The Parramatta CBD Planning Strategy adopted by Council 27 April 2015 contains a series of objectives and principles designed to grow Parramatta as Australias next great City

Parramatta CBD location plan

North *Not to scale*

1.1 Regional View

THE PARRAMATTA CBD

The Parramatta CBD Planning Strategy adopted by Council 27 April 2015 contains a series of objectives and principles designed to grow Parramatta as Australia's next great City.

The strategy proposed to expand the boundaries of the Parramatta CBD to incorporate the north Parramatta Urban Renewal Area, and to fully integrate the Auto Alley Planning Framework.

The vision and directions in the Parramatta CBD Planning Strategy informed the preparation of the draft Parramatta CBD Planning Proposal.

The West Auto Alley Precinct is the subject of this investigation.

Existing and Proposed Parramatta LEP CBD extent

North *Not to scale*

1.1 Regional View

SYDNEY'S GREEN GRID

Parramatta LGA sits within the West Central District of Sydney's Green Grid, with Parramatta CBD highlighted as the heart of the district.

The Sydney Green Grid provides a framework for increasing the amenity, use and accessibility of open space.

Parramatta is defined by the Parramatta River and its supporting tributaries. The West Auto Alley Precinct sits along one of these tributaries named Clay Cliff Creek, connecting Jones Park and Ollie Webb Reserve, through Jubilee Park all to the Parramatta River. Currently there are minimal open space connections along the creek, with its main function being as a stormwater culvert.

The Clay Cliff Creek catchment is identified in the adjacent diagram as a potential opportunity to create a series of connected open spaces of high hydrological, recreational and connectivity values.

Church Street is identified as being a Green Street connection, linking north towards Parramatta Square and south towards Holroyd and Granville.

Site within Sydney's Green Grid - Tyrell Studio and GANSW, 2017

North *Not to scale*

1.2 Local View

The West Auto Alley Precinct is within 600m of Parramatta train station, 400m of Harris Park train Station and 200m of Church street. It is within 600m of Jones park and 400m of Ollie Web Reserve.

North *1:5000 @ A3*

1.2 Local View

EXISTING PLANNING CONTROLS

The adjacent excerpts show the Current Holroyd LEP 2013 and Parramatta LEP 2011 maps which apply to the area since the LGA boundaries in 2016.

The existing controls generally only permit low density, low rise development throughout the Auto Alley Area. Within the West Auto Alley Precinct the following controls apply:

- FSR's of 0.8:1, 2.0:1 and 2.0:1 apply to the West Auto Alley precinct
- Maximum Height of building 11m, 12m.
- A mix of Zoning including R4 High Density Residential and B5 Business Development which Prohibits Residential Accommodation.

The South Parramatta Heritage Conversation Area is in close proximity to the West Auto Alley precinct.

Combined Holroyd LEP 2013 and Parramatta LEP 2011 Floor Space Ratio Map 1:10000 @ A3

North *Not to Scale*

Combined Holroyd LEP 2013 and Parramatta LEP 2011 Height of Building Map 1:10000 @ A3

North *Not to Scale*

1.2 Local View

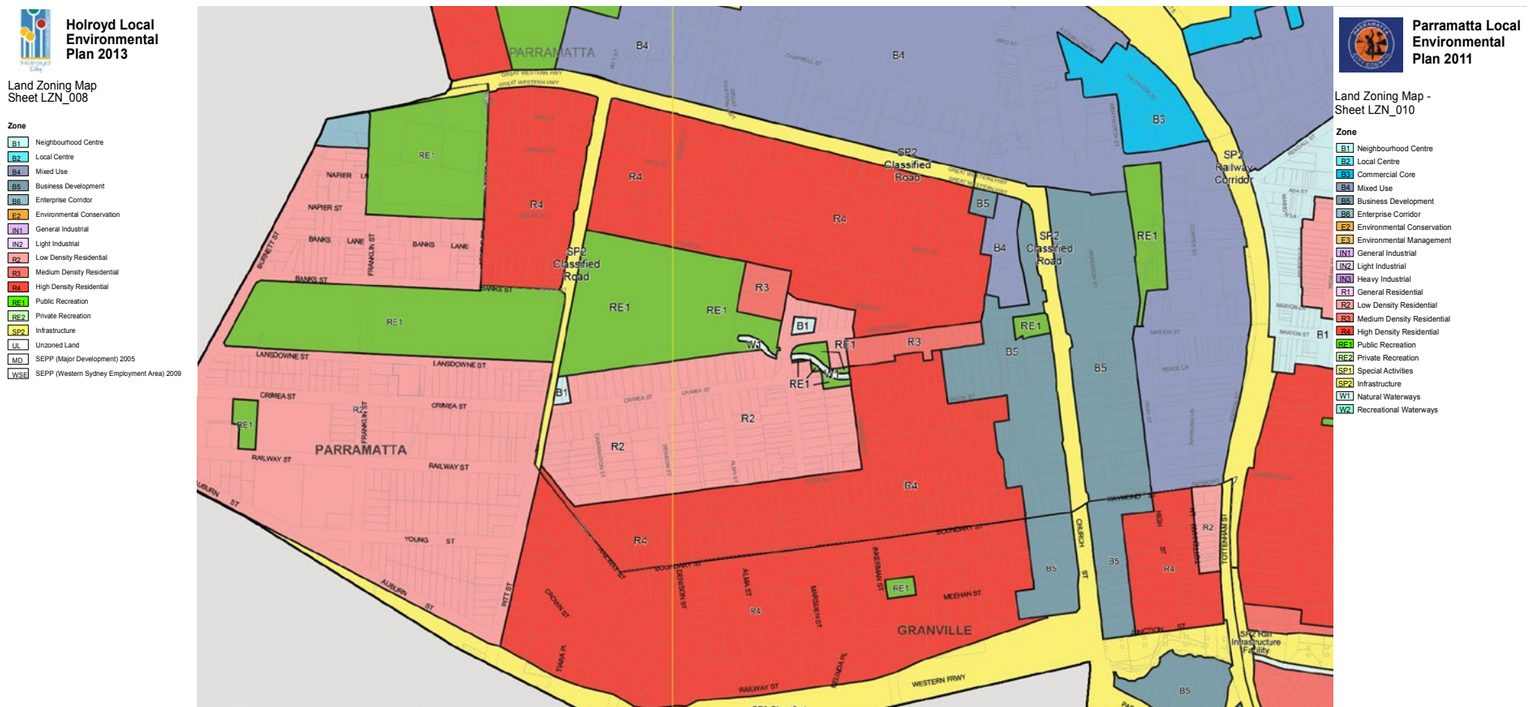
EXISTING PLANNING CONTROLS

- The Auto Alley and City Centre Framework Plans and background urban design studies were drafted.
  - Architectus Study promoted 6:1 FSR
  - Draft Auto Alley Planning Framework promoted 3:1

- Both reports will lead to more density in Auto Alley with Heights and FSR's much increase than those which currently apply to the West Auto Alley Precinct.

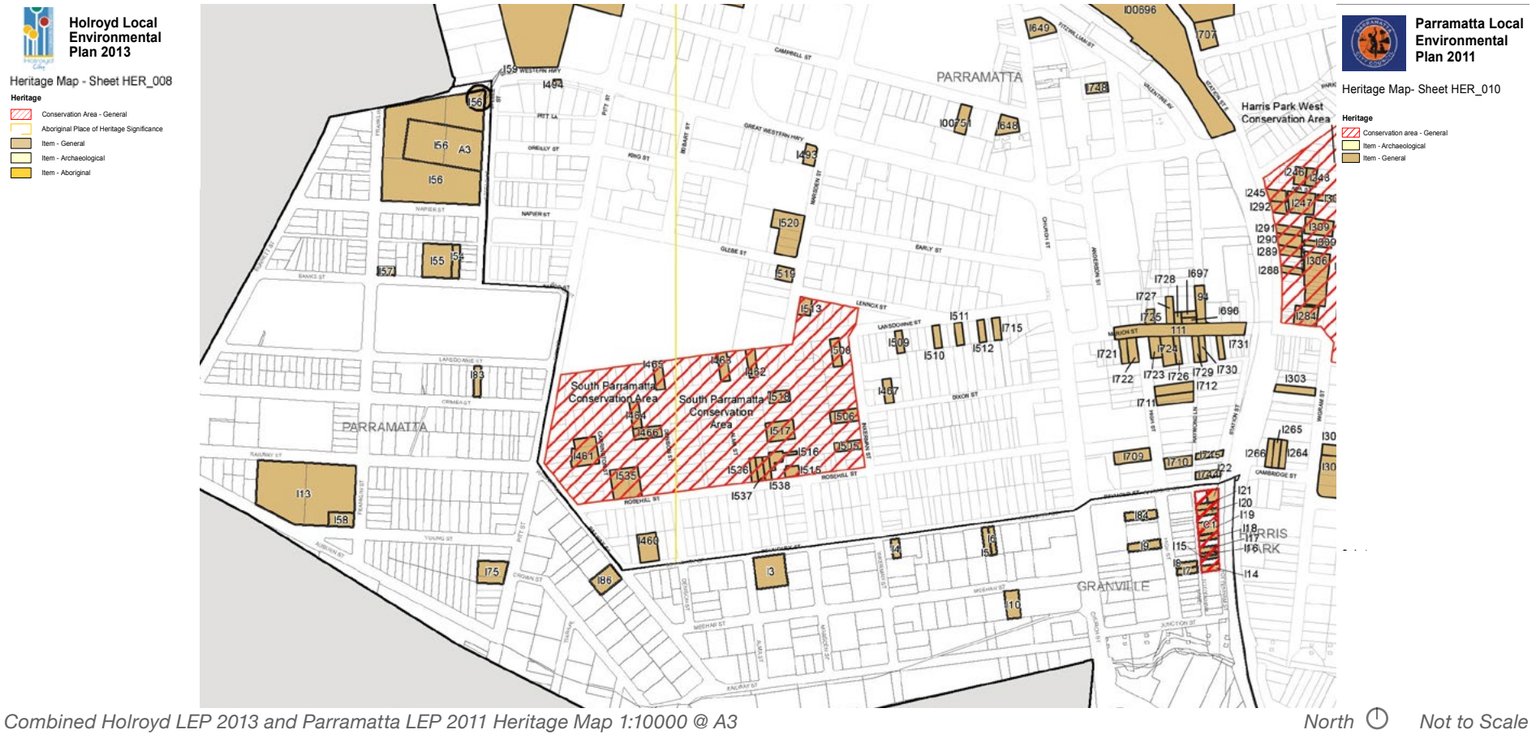
- The two draft framework plans were consolidated into a single Parramatta CBD Planning Strategy in 2015

- Together with technical studies, formed the basis for draft planning controls in the CBD PP which was submitted for Gateway Determination.



Combined Holroyd LEP 2013 and Parramatta LEP 2011 Land Zoning Map 1:10000 @ A3

North *Not to Scale*



Combined Holroyd LEP 2013 and Parramatta LEP 2011 Heritage Map 1:10000 @ A3

North *Not to Scale*

1.2 Local View

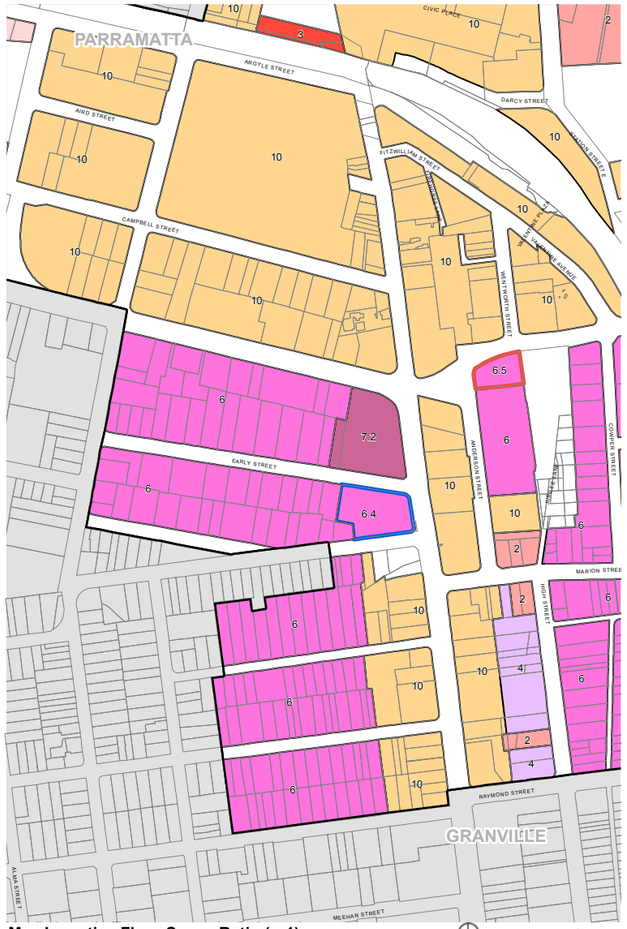
DRAFT PARRAMATTA LEP MAPS

The adjacent excerpts of the Draft Parramatta CBD Planning Proposal maps demonstrate the current draft controls for the West Auto Alley Precinct and the Parramatta CBD.

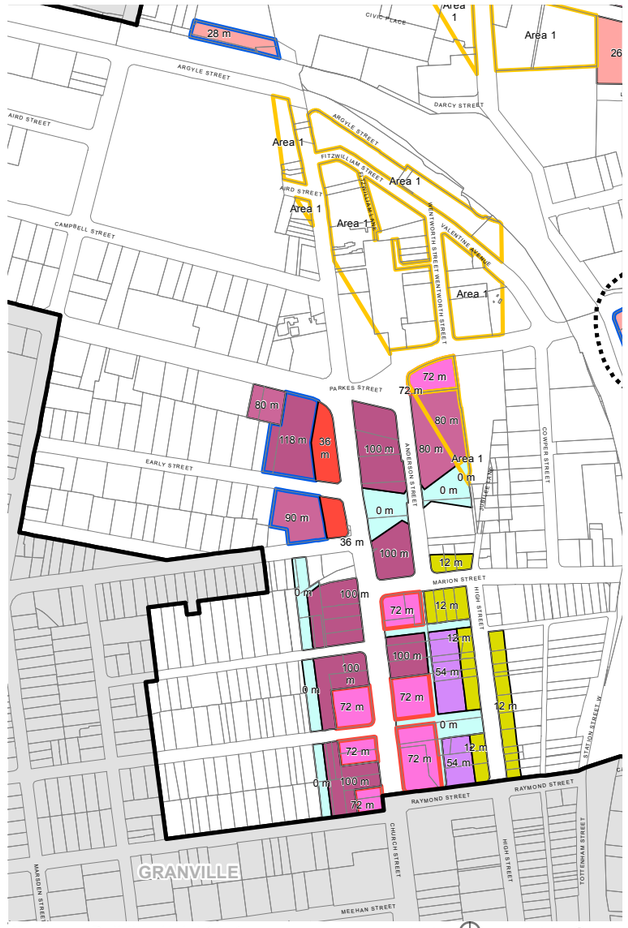
The current draft controls for the WAAP include an Incentive FSR of 6:1 and no height limit. However previous draft controls including those submitted for the gateway determination had Incentive FSR's of 2:1 and 3:1, and heights of 20m, 26m 40m and 80m Height Limits

The range of FSR's and heights previously proposed for the precinct demonstrate the difficulty of providing a set of appropriate development controls in a precinct bound by a low scale Heritage conservation area and a high rise commercial precinct.

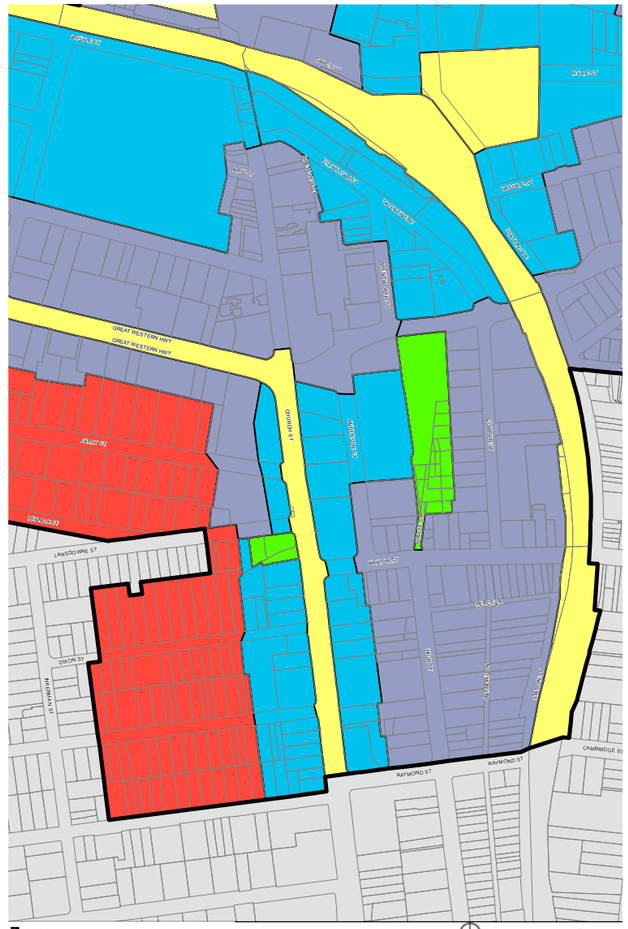
Whilst having regard for previous studies and recommendations for the WAAP this proposal rationalises the controls and provides an independent recommendation as to the Incentive FSR and Incentive Heights for the precinct.



Draft Parramatta LEP 2011 Incentive Floor Space Ratio Map



Draft Parramatta LEP 2011 Incentive Height of Building Map



Draft Parramatta LEP 2011 Land Zone Map

1.2 Local View

CLAY CLIFF CREEK CATCHMENT & HISTORIC MORPHOLOGY

The below excerpts of various maps provide a clear morphology of the Clay Cliff Creek catchment.

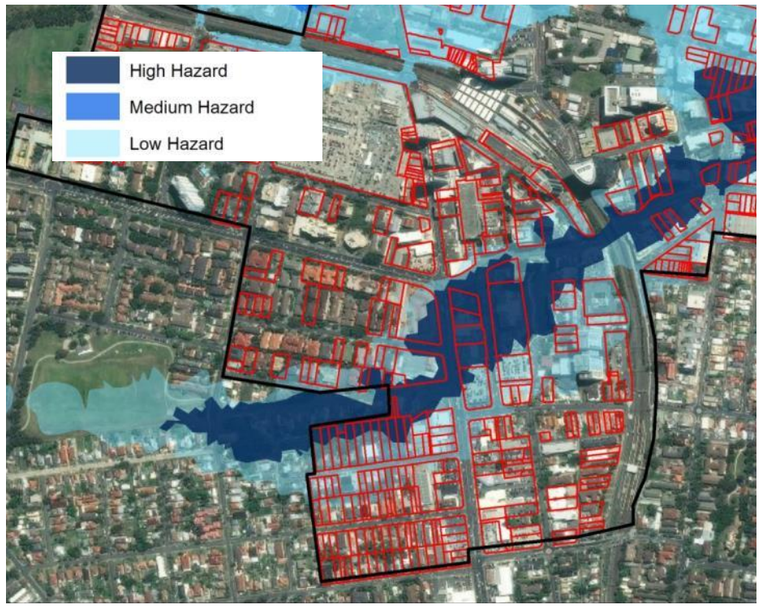
Early subdivision maps indicate that the portion of Clay Cliff Creek that bisects the subject area - the upper part of the tributary - was most probably quite ephemeral and transient (refer image A). We can make this assumption based on: its vague impression south of Sydney Road in the 1844 subdivision map; its position in the upper part of the catchment, and potentially as the land was used as a racecourse.

It was changed into a concrete lined culvert in the 1900s, like many other waterways around Parramatta, to deal with sewerage issues and an increase in stormwater runoff from development and clearing of vegetation (refer image B).

Clay Cliff Creek is now highly urbanised, and is described as having “quite severe” flood impacts, with flooding along Lansdowne Street recorded at a 1 in 20 year frequency.

Cumberland Plain creek example
Photo by JILA

Clay Cliff Creek - Photo by JILA



Flood Hazard Precincts - Parramatta Floodplain Risk Management Plans - Draft 2016

1844

1844 Subdivision Map of Parramatta
source: State Library of New South Wales

1899 - 1894

1889-1894 Subdivision Map of Parramatta
source: State Library of New South Wales

1942

1942 Aerial photo of Parramatta
source: SIX Map

2019

2019 Aerial photo of Parramatta
source: SIX Map

1.2 Local View

PUBLIC DOMAIN NETWORK

The current provision of open space in the local area relative to the subject site comprises a string of parks connected along a portion of Clay Cliff Creek (Jones Park, Ollie Webb Reserve, and Noller Park) providing active recreation and sports amenity. Jubilee Park is a local park providing play amenity as well as offering engagement with the concrete culvert of Clay Cliff Creek.

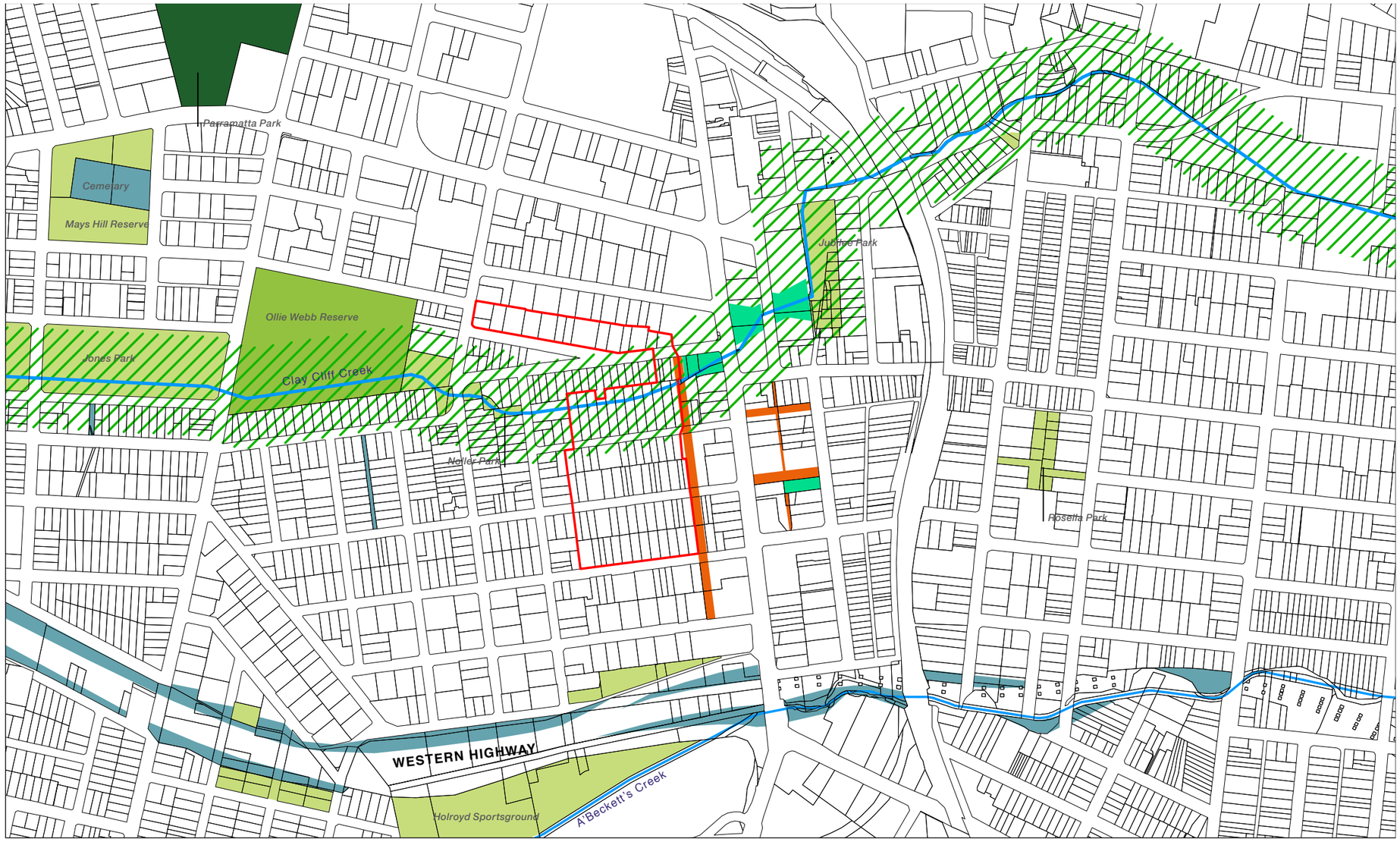
Ollie Webb Reserve is identified as being a district open space, due to its ability to host district sports events, as well as its playground.

Mays Hill Precinct of Parramatta Park is approximately a 1km walk from the centre of the subject site. Parramatta Park is of Regional and State significance for its heritage values, open space, and ecological provisions.

The western highway has some contributory green space on its fringes that would provide some minor habitat and visual amenity, however the highway itself is a massive barrier to pedestrian movement, creating furtive spaces under the carriageway.

Sydney Green Grid and Parramatta Ways documents both identify the potential high hydrological, recreation, and connectivity values for Clay Cliff Creek.

The Draft Auto Alley Planning Framework 2014 proposes a series of small urban parks along the stretch of Clay Cliff Creek between Jubilee Park and the West Auto Alley Precinct.



North 1:7500 @ A3

1.2 Local View

COMPARATIVE STUDY

When directly compared to other areas that are undergoing similar development across Sydney the need for additional open space to cope with increased residential and employment densities is highlighted.

Both Green Square and Rhodes Peninsula have a large proportion of local parks and numerous district parks, both areas will have a lower proposed population density than that proposed for the the West Auto Alley Precinct.

An increase in density should be balanced with an increase in public amenity. Rhodes Peninsula utilises its context by affording residents access to a public waterfront, allowing the visual openness of the Parramatta River to contribute to the perception of public open space.

Clay Cliff Creek canal presents an opportunity for public open space within the study area to connect up a series of parks along the waterway. The redevelopment of West Auto Alley Precinct should be accompanied by a greater provision of public open space.

West Auto Alley - Parramatta
Number of Local Parks: 5
District: 2
Regional: 1

Green Square
Number of Local Parks: 29
District: 3
Regional: 0

Rhodes Peninsula
Number of Local Parks: 15
District: 2
Regional: 0

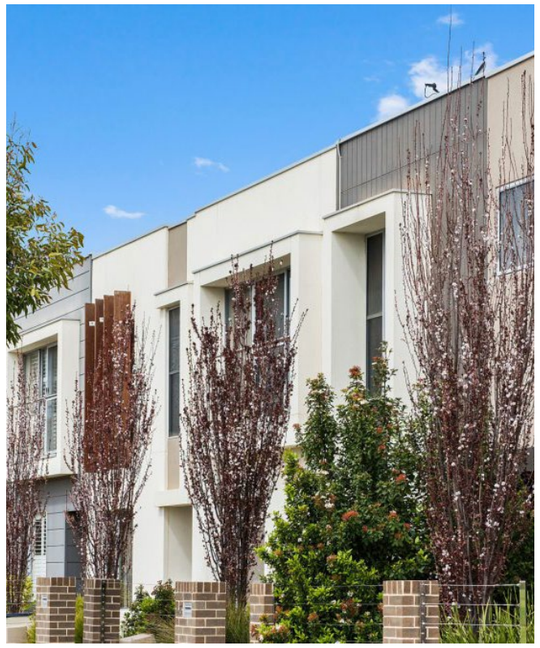
Regional Open Space
District Open Space
Local parks
Study Area

North *1:15000 @ A3*

1.2 Local View

REFERENCE IMAGES -TERRACE HOUSING

Low-rise medium density housing



Cheltenham Townhouses - Studio 9 Architects

Kew Townhouses - SJB Architects

Terrace Housing Example - Image from NSW Department of Planning, Industry and Environment

1.2 Local View

REFERENCE IMAGES - PERIMETER BLOCK DEVELOPMENT

Wellington on the Park - Fox Johnston Architects

Eve Apartments - DKO Architecture

Example of a well articulated Podium

1.2 Local View

URBAN DESIGN REFERENCE - MASCOT TOWN CENTRE

The development controls for Mascot Town Centre around the train station were developed by Olsson Associates for the Department of Planning and the City of Botany Bay. They have an FSR of 3.5:1 and a building height of 44m. Compliance with the then SEPP 65 Residential Flat Design Code was part of site testing in preparation of the LEP and DCP. The town centre has been largely built in the past decade in compliance with these controls.

Mascot has been developed as a high density environment with residential and mixed-use buildings with 4 storeys podiums and a 14 storeys maximum building height. Streets have substantial landscaped front setbacks. Traffic is one lane each way, with one parking lane, the same as proposed for West Auto Alley. The traffic calmed streets and wide landscaped front setbacks create a pedestrian environment with high amenity.

Mascot Town Centre Masterplan is developed around four leading strategies : 1- hierarchy of streets and pedestrian links, 2- public open space in built-up areas; 3- focus retail at mascot railway station and Bourke street ; 4- activation of areas around towers

Church Avenue, Mascot NSW (OAA Supplied Photo 2019)

Muller Lane, Mascot NSW (OAA Supplied Photo 2019)

1.3 Area View

STREET QUALITY

The study area is intersected by four parallel streets and one oblique street. These streets are currently of residential character and vary in width from 12-18m.

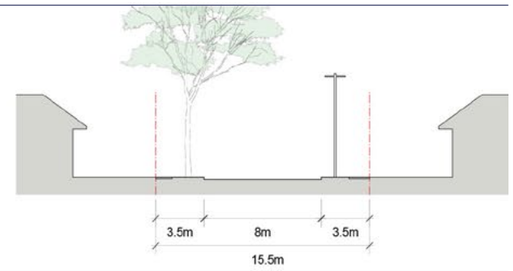
Street planting varies, as does the treatment of the verge. On street parking is common to all streets.

West Auto Alley existing streets

North *Not to Scale*

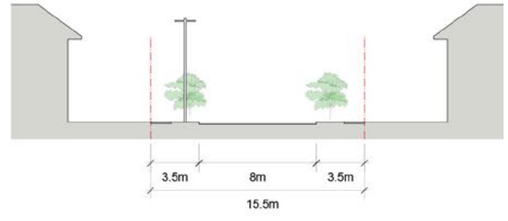
1. Boundary St

- Southern most street in the focus area
- One-way from west to east
- 15.5m wide
- Concrete footpath and turf verge on both sides of the street
- On-street parking on both sides of the street
- Power lines on northern side, with no street tree planting
- Irregular planting on southern side of Corymbia maculata



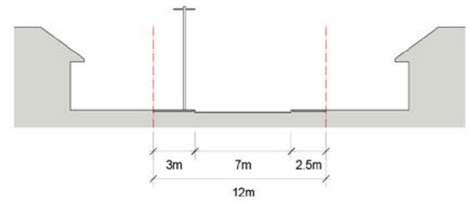
2. Rosehill St

- Two way street
- 15.5m wide
- Concrete footpath and turf verge on both sides of the street
- On-street parking on both sides of the street
- Power lines on southern side
- Semi-regular street tree planting of predominantly Photinia spp.



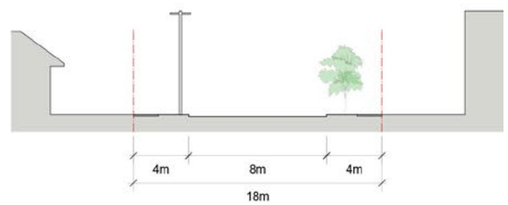
3. Dixon St

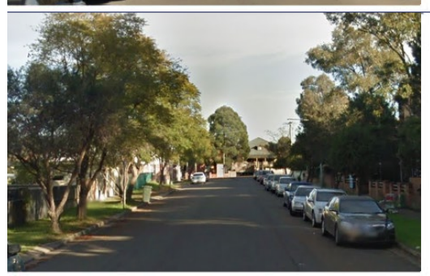
- Two way street
- 12m wide
- No verge - concrete/bitumen from kerb to property boundaries
- On-street parking on northern side of the street
- Power lines on southern side
- No street planting



4. Lansdowne St

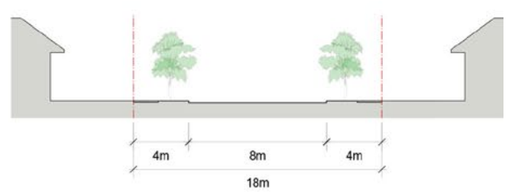
- Two way street
- 18m wide
- Concrete footpath and turf verge on both sides of the street
- On-street parking on both sides of the street
- Power lines on southern side
- Street tree planting is limited to northern side, sparse, irregular, and varying in species





5. Lennox St

- Two way street
- 18m wide
- Concrete footpath and turf verge on both sides of the street
- On-street parking on both sides of the street
- No power lines
- Street tree planting is along both sides of the street, comprising of Callistemon spp. and Caesalpinia ferra



Photos from Google Street View

North *Not to Scale*

1.3 Area View

EXISTING SITE

Clay Cliff Canal runs across the northern section of the study area from Inkerman St to Church St. It currently only serves to provide some carparking.

Residential lots back onto the canal from both sides. These lots contain clusters of mature trees that have the capacity to contribute to future public open space.

These pockets of mature growth can serve as clusters around which public domain links can be structured.

To the west the canal runs from Ollie Webb Reserve which is currently an open grassed sportsground and to the east the canal leads in the direction of Jubilee Park.

Existing Trees

Existing streets / public domain

Proposed new streets / public domain

Existing waterway

North *1:2000 @ A3*

DESIGN PRINCIPLES

2.0

2.1 Principles

1. IMPROVE THE PUBLIC DOMAIN NETWORK

Create a robust public domain characteristic of its location, that is well connected to the broader network and will structure the urban plan.

2. CREATE A NEW PUBLIC RESERVE

Provide new opportunities for recreation and outdoor life in a community setting through provision of new public open space amenity.

3. IMPROVE THE STREETSCAPE

Create activated streets that enhance the sense of place with high levels of pedestrian amenity that interface cohesively with the built edges, and contribute to the life and quality of the public domain network.

4. GENERATE EFFICIENT AND SUSTAINABLE BUILT FORM ENVELOPES

Establish efficient and economical lot amalgamations and building envelopes that will facilitate improvements in the extent and quality of the public domain.

5. INCREASE GREEN INFRASTRUCTURE

Create multi-functional landscapes that contribute environmental sustainability and amenity; contribute to air quality, and to enhance local microclimate.

6. DEEP SOIL

Provide extensive deep soil provision within the front and the rear of each block.

7. HERITAGE

Preserve and enhance the existing Heritage of the area by ensuring any environmental impacts, particularly on the adjoining HCA, are minimised.

8. TRANSITION

Create a transition of development density, building height, building type and landscape design between the high rise precinct and the HCA

North *1:2000 @ A3*

2.2 Design Concept

URBAN DESIGN CONCEPT

The urban design concept is to unify the range of building heights with a continuous perimeter block form in the lower building levels. A 4 storey continuous street frontage unifies the towers and 6 storey buildings shown in black. Terrace housing in Inkerman Street, opposite the HCA, also has a perimeter block form that connects to the 4 storey street frontage buildings in Dixon, Rosehill and Boundary Streets. The benefits of these perimeter block buildings include :

- creating unified built form at pedestrian level
- minimising visibility of towers as they are set back from the street frontage buildings
- maximising yield by building to side boundaries
- maximising deep soil with canopy trees in the 8m street setbacks and centre blocks

The 8m street frontage setbacks create building-to-building separation of 31m, with canopy tree planting in the front setbacks, to create pedestrian scaled streets in a landscaped setting.

North *1:2000 @ A3*

PROPOSAL

3.0

3.1 Built Form Masterplan

High density residential is proposed which takes into account existing ownership patterns as the basis for developing the building envelopes. The Masterplan enhances the public domain and proposes a linear park along Clay Cliff Creek, this will provide new recreational opportunities supporting a strong sense of community. The landscape character of the whole precinct is enhanced with substantial front setbacks to all buildings.

The focus of high density living is between Lansdowne street and Boundary street, east of the Inkerman Street transition zone. Towers are setback from 4 Storey Podiums to reduce the scale of the towers.

The mid-rise scale of the Sites North of Lennox Street and the sites adjacent to the Inkerman Street transition area relates to the existing scale of development in the area and ensures the HCA is not unduly impacted by future development.

All buildings comply with the ADG setbacks and the proposed envelopes, incorporating slender towers and low podiums and are highly developable.

The transition Zone along Inkerman and Lansdowne Street remain low rise, to separate the towers from the HCA and protect the existing small scale of the houses on Lansdowne Street.

The Key development controls are that:

- An Incentive FSR of 2:1 is provided for all sites within the Core development area and minimum street frontage for development is to be 26m
- FSRs of 4.6:1 and 3.45:1(including bonuses) are achievable if lots are amalgamated to have a minimum street frontage of 48m
- one or two lots are not permitted to be left isolated.

Lots are able to be amalgamated without there being a lot amalgamation pattern specified in the planning controls. This has the benefit of making lot amalgamation relatively unconstrained. The masterplan shows an amalgamation pattern where almost all sites are amalgamated in a rational pattern. The tower heights range from 14 to 27 residential storeys.

West Auto Alley South (Blocks A +B + C)			
Developable Site Area (ha)	4.80		
GFA (75%) (sqm)	168719		
Apartment Range	1985	-	2109
Apartment Range / ha	413	-	439
Population Range (2.3 / Apartment)	4565	-	4851
Population Range / ha	950.4	-	1010
Cars Range (0.7 /Apartment)	1389	-	1476

West Auto Alley North (Block D)			
Developable Site Area (ha)	1.27		
GFA (75%)	17798		
Apartment Range	209	-	222
Apartment Range / ha	164	-	175
Population Range (2.3 / Apartment)	482	-	512
Population Range / ha	378	-	402
Cars Range (0.7 /Apartment)	147	-	156

Total West Auto Alley Precinct			
Total WAAP Developable Site Area (ha)	6.08		
Total Residential GFA (sqm)	186516		
Total Apartment Range	2194	-	2331
Total Apartment Range / ha	361	-	384
Total Population Range (2.3 / Apt)	5047	-	5362
Total Population Range / ha	830	-	882
Total Cars Range (0.7 /Apt)	1536	-	1632

Heritage Conservation Area

Transition Area

Council LEP Heritage Item

15 *Proposed Building Footprint Height in storeys*

North *1:2000 @ A3*

3.2 Precinct Section

TRANSITION FROM CHURCH STREET TO THE SOUTH PARRAMATTA HCA

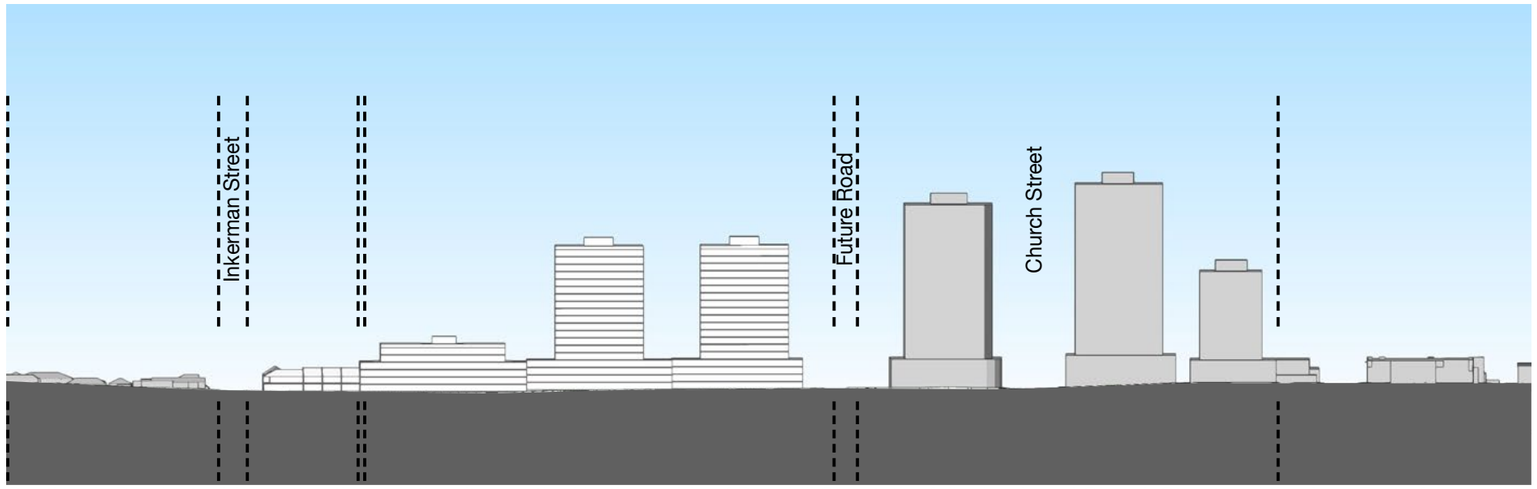
The transition from Church Street to the HCA is created by stepped building height. Building heights in Church Street are 100m or 72m. The adjacent heights in the WAAP, as demonstrated in Section A, result in buildings that are up to 24m and 55m high and range between 14 to 19 Storeys.

The centre of the WAAP is 6 Storey perimeter block buildings. Adjacent to the HCA terrace houses of 2 storeys plus attic relate to the low scale of the HCA.

The stepped form is demonstrated in the precinct-wide section, which shows the building envelopes of the WAAP sites on the northern side of Rosehill Street, the Fully developed Church street, and teh transition area HCA to the east of auto alley.

The built form concept is to create continuous perimeter block forms with 4 storey street frontages and terrace houses. In the 6 Storey transition area within the WAAP, the top 2 storeys are set back from the street frontage. All sites have landscaped front setbacks to visually widen the existing narrow streets.

The building heights also have some correlation with the draft building heights to the east of Church street. In High Street building heights of 12m relate to the HCA in Marion Street, and towers of 54m are set back from High Street.



Section A. Precinct-wide section through the sites on the Northern side of Rosehill Street, the fully developed Church Street and the Area East of Auto Alley

South Parramatta HCA | **Transition Area** | **West Auto Alley Precinct** | **Church Street Future Built Form**

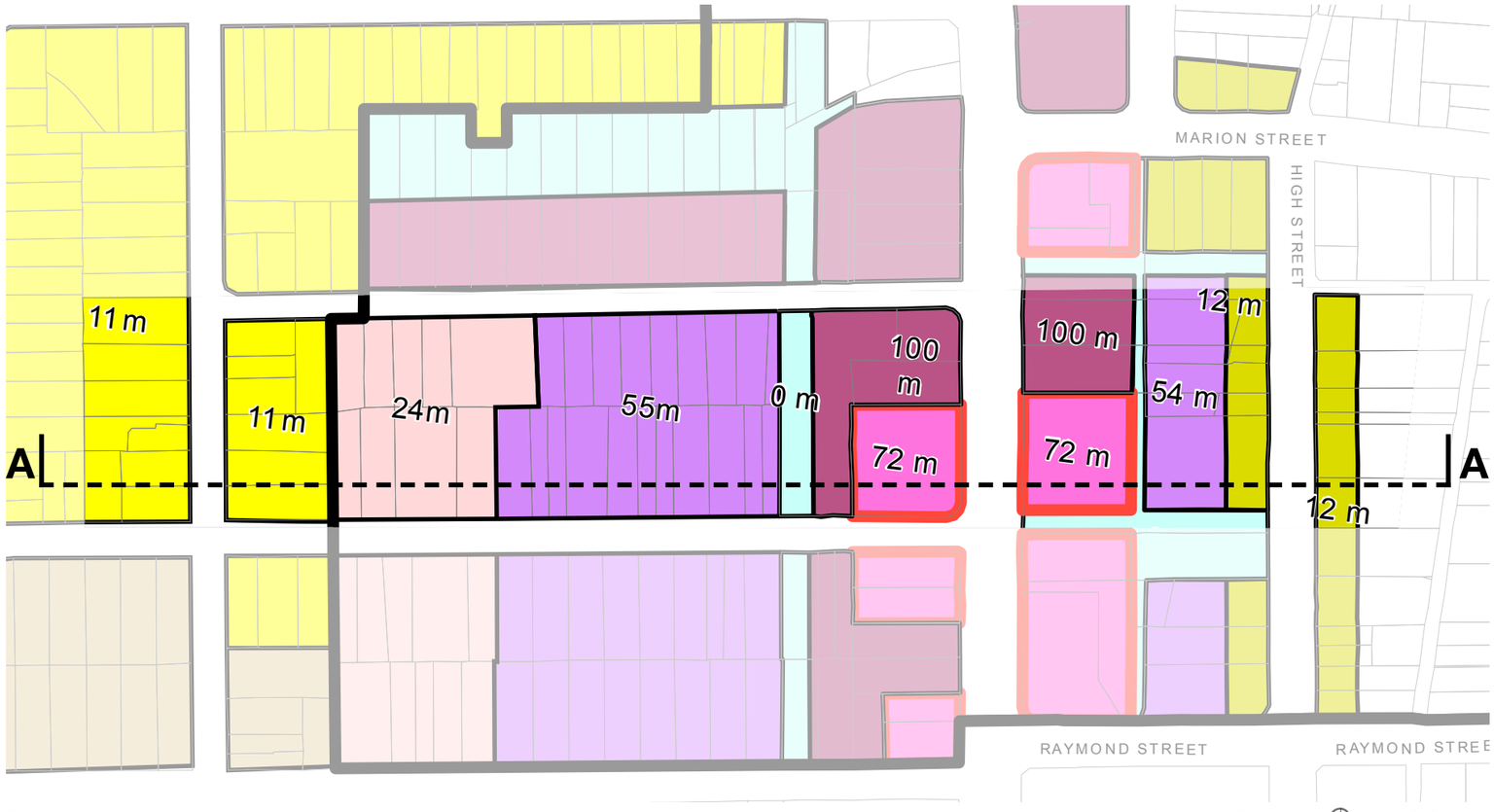
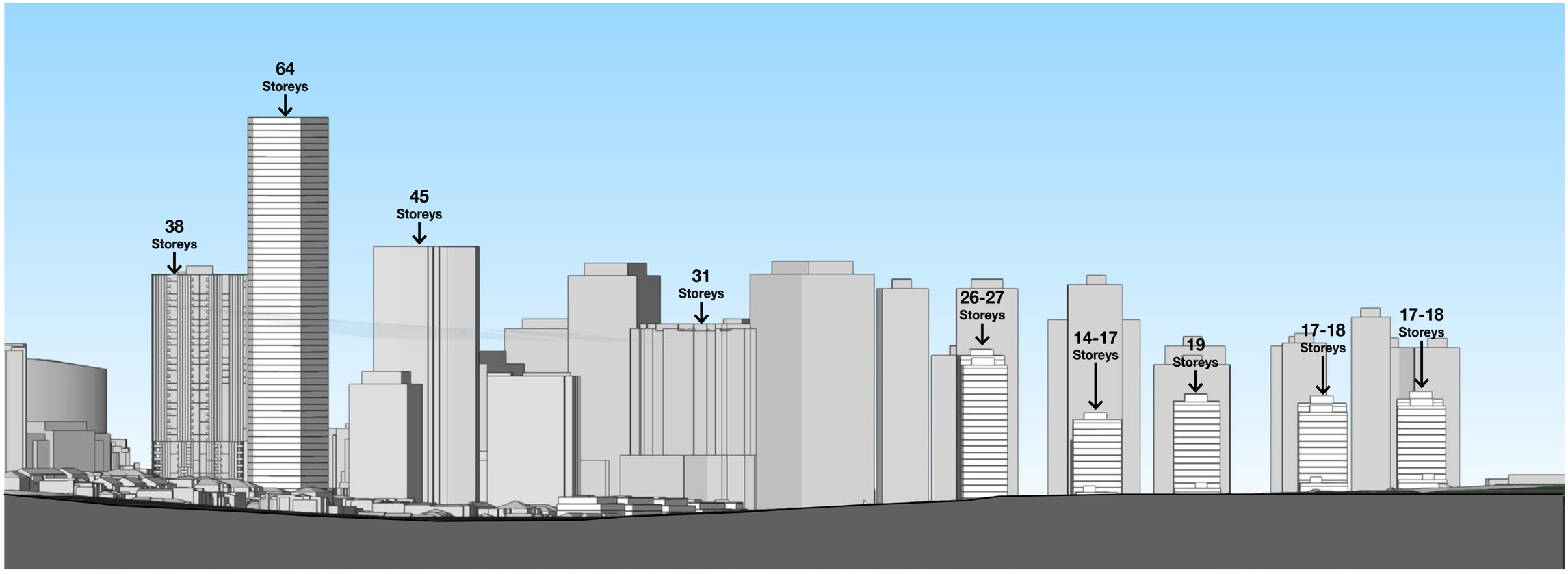


Diagram of Proposed Incentive Height of Buildings Including Bonus Height (exclusive of design excellence bonus) within the WAAP and the draft CBD PP Incentive Height of Buildings Control

North *NTS @ A3*

3.3 Precinct Elevation



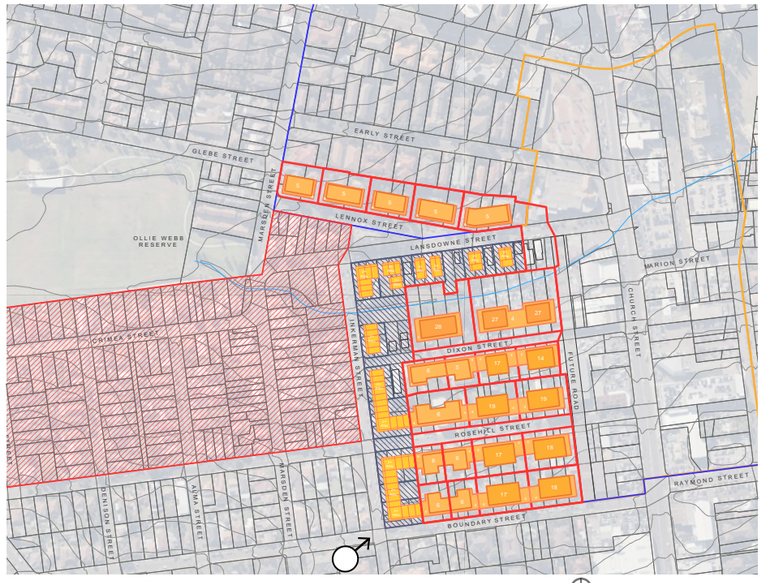
Precinct-Wide Elevation towards the fully developed West Auto Alley Precinct

North *1:2000 @ A3*

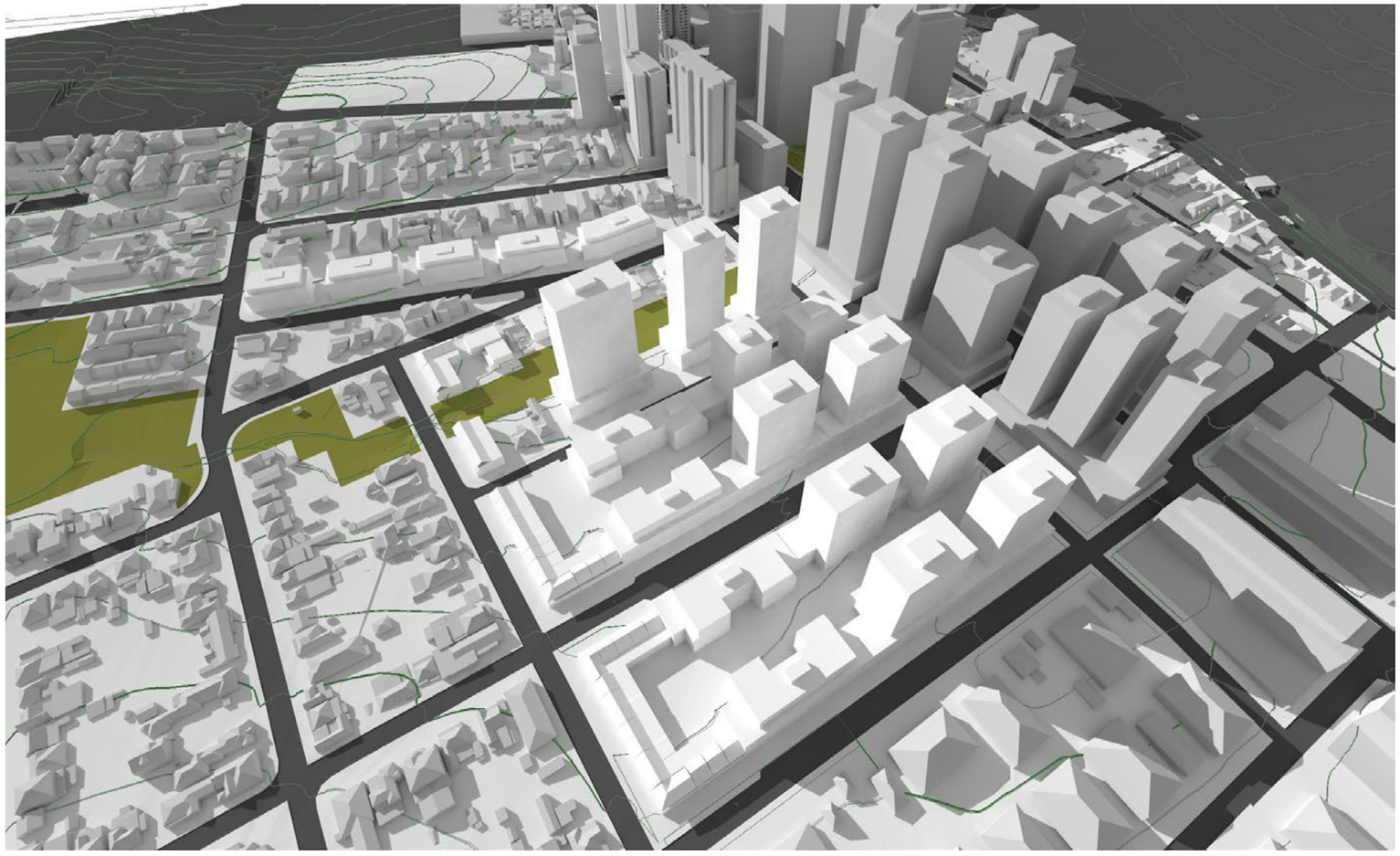
Existing and future tower developments in Church Street north of the West Auto Alley Precinct.

West Auto Alley Precinct South of Lansdowne Street

3.4 Masterplan Concept Images

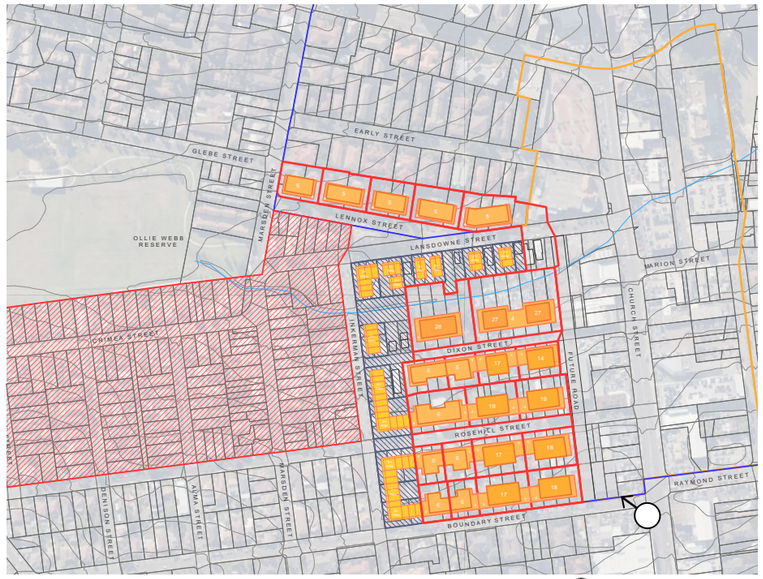


View Location Plan *North* *NTS*

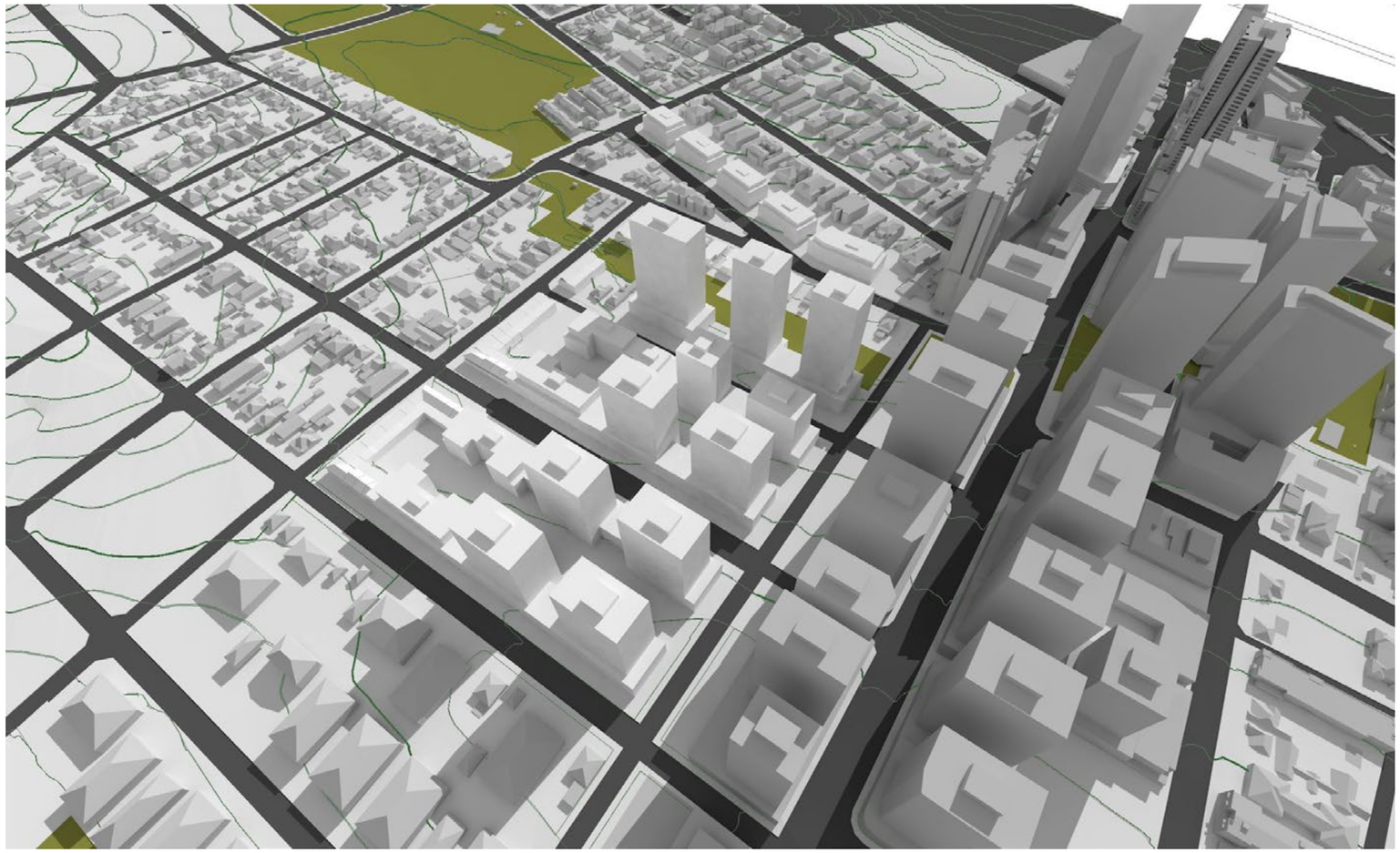


Birdseye view of the Masterplan outcome for the West Auto Alley Precinct

3.4 Masterplan Concept Images

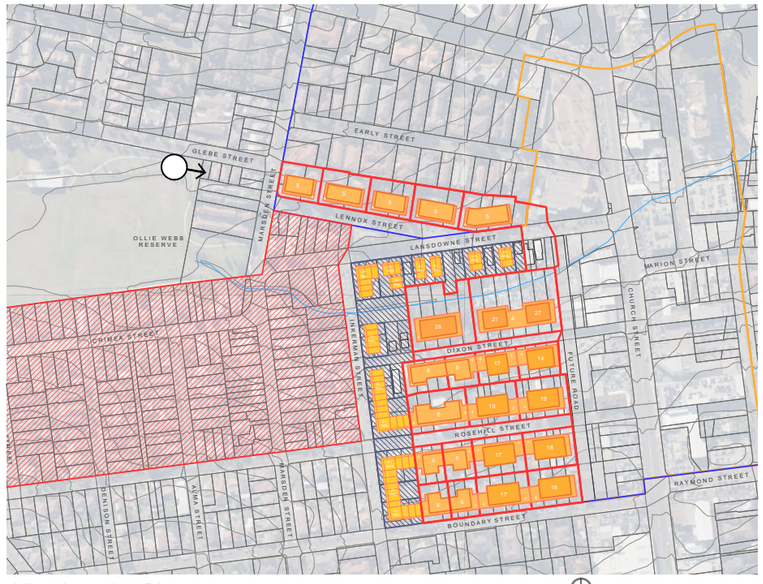


View Location Plan *North* *NTS*

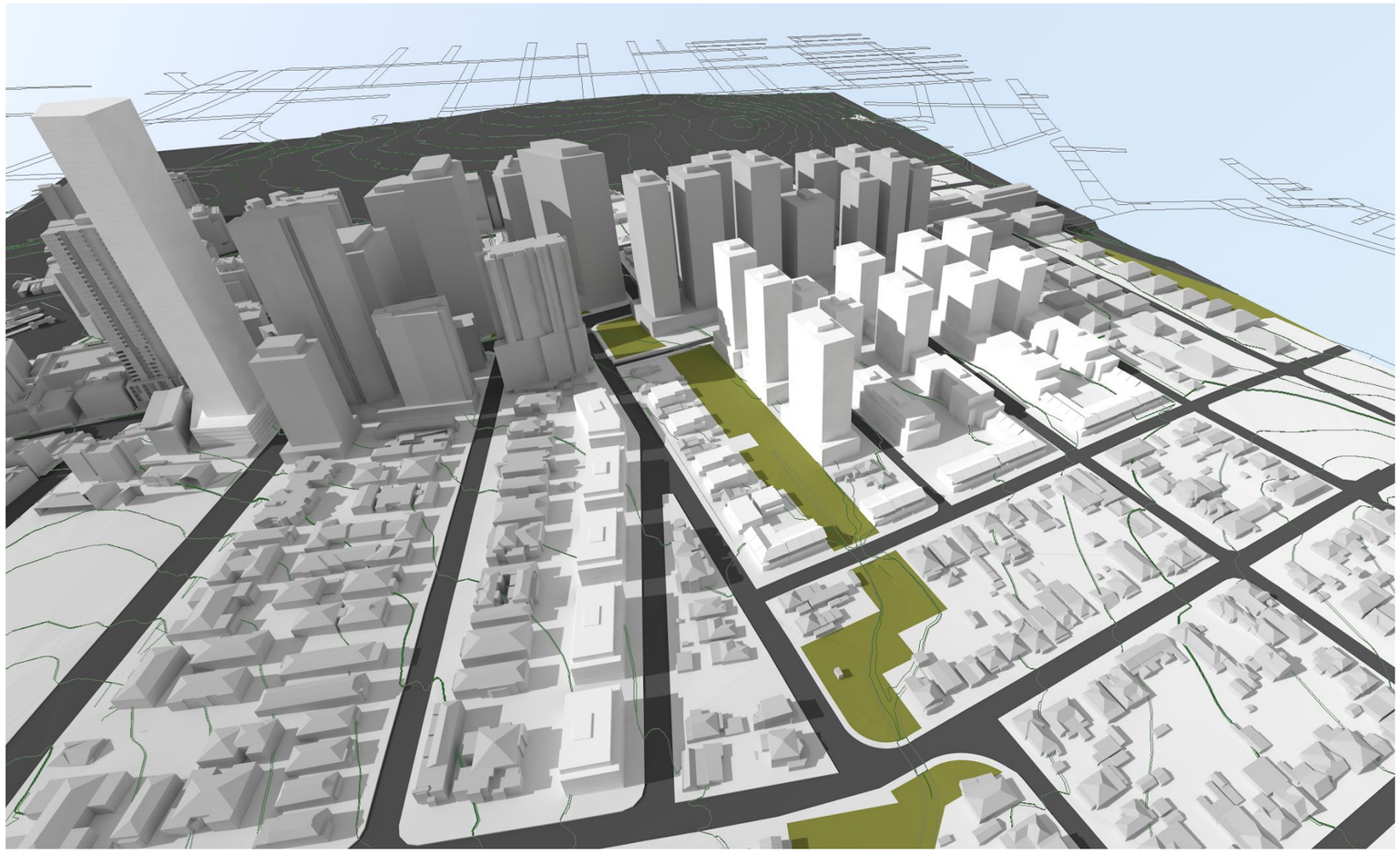


Birdseye view of the Masterplan outcome for the West Auto Alley Precinct

3.4 Masterplan Concept Images



View Location Plan *North* *NTS*



Birdseye view towards the Masterplan outcome for the West Auto Alley Precinct

3.5 Enhanced Public Domain Network

1. IMPROVE THE PUBLIC DOMAIN NETWORK

Extend the path and cycleway, implement passive stormwater and flooding management to the upper part of the catchment - improving biodiversity and relieving pressure on the lower part of the creek.

2. OLLIE WEBB RESERVE

Upgrade eastern pedestrian entry to Ollie Webb Reserve, with more planting and spatial definition, play, recreation and environmental educational opportunities.

3. NOLLER PARK

Retain Noller Park, provide better connections and street crossings. Habitat corridor and community garden opportunities.

4. NEW CLAY CLIFF CREEK RESERVE

Proposed naturalisation of existing culvert and provision of public open space amenity.

5. PEDESTRIAN CONNECTIONS

Create permeable blocks by making through-site links

6. AUTO ALLEY

Connect existing proposals for urban parks along Clay Cliff Creek.

7. JUBILEE PARK

Improve park connection to Clay Cliff Creek culvert. Encourage passive environmental education and awareness.

North 1:7500 @ A3

3.6 Streets

BOUNDARY STREET

Boundary Street is the southern most street in the precinct and bounds the study area of West Auto Alley.

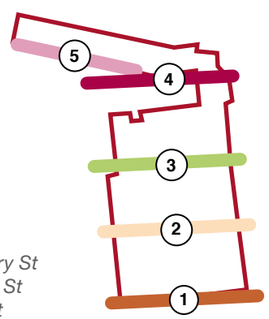
The proposal maintains the existing carriageway width, and the verge width on the northern side.

An 8m building setback allows 3m of private garden space for ground floor units, with 5m of communal open space providing a transition between public and private domain. The communal open space should supplement privacy to ground floor units and contribute to streetscape character.

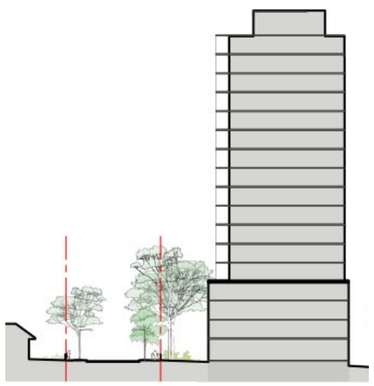
This space may allow some passive communal uses, but it too narrow for active uses or gathering spaces.

Street trees to be *Corymbia maculata* to match existing, or *Caesalpinia ferra* as per the Auto Alley character area established in the Parramatta CBD Street Tree Masterplan.

Due to the stepped future built form, the extent of shadowing within the street will vary from East to West. The location and extent of overshadowing is demonstrated in the shadow diagrams in Part 3.13 and Appendix B.

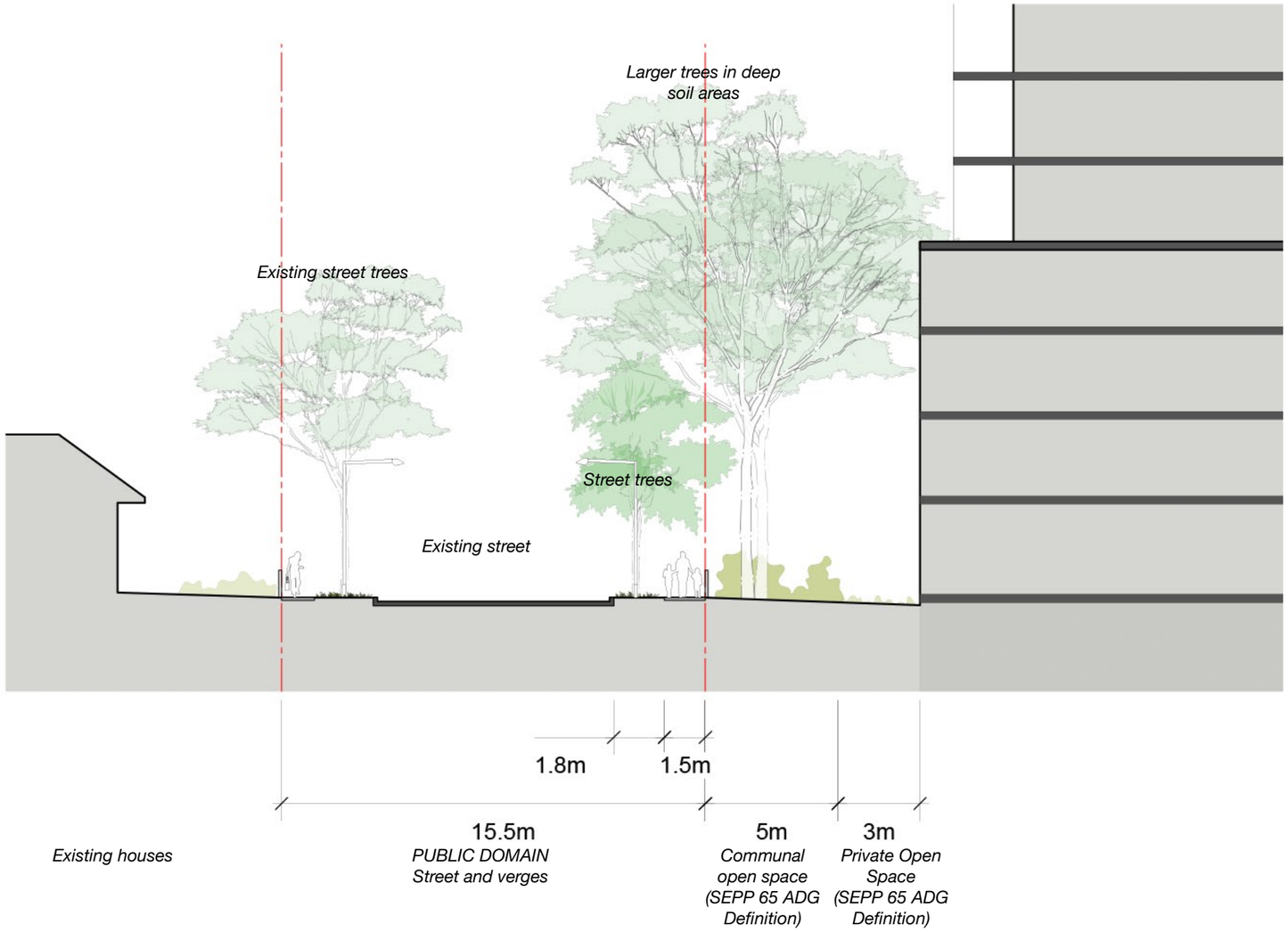


1. Boundary St
2. Rosehill St
3. Dixon St
4. Lansdowne St
5. Lennox St



Boundary Street relationship to built form

North ⊖ *1:1000 @A3*



Proposed Boundary Street condition

North ⊖ *1:200 @A3*

3.6 Streets

ROSEHILL STREET

Rosehill street is one of the two streets in the middle of the precinct.

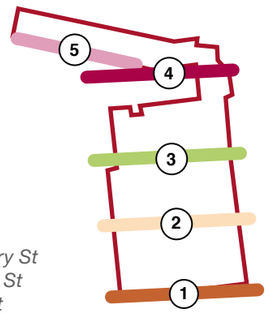
The proposal maintains the existing carriageway width, and the verge width on both sides.

An 8m building setback on both sides allows 3m of private garden space for ground floor units, with 5m of communal open space providing a transition between public and private domain. The communal open space should supplement privacy to ground floor units and contribute to streetscape character.

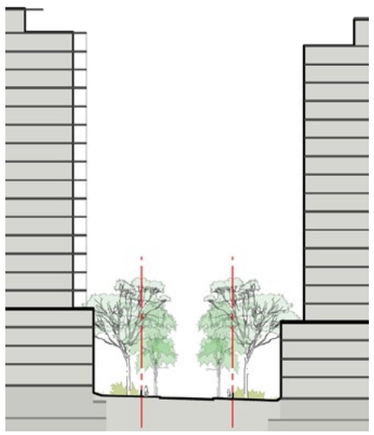
This space may allow some passive communal uses, but it too narrow for active uses or gathering spaces.

Street trees to be *Waterhousia floribunda* as per the Auto Alley character area established in the Parramatta CBD Street Tree Masterplan. Larger trees to be established in the deep soil zones in the frontages of the lots.

Due to the stepped future built form, the extent of shadowing within the street will vary from East to West. The location and extent of overshadowing is demonstrated in the shadow diagrams in Part 3.13 and Appendix B.

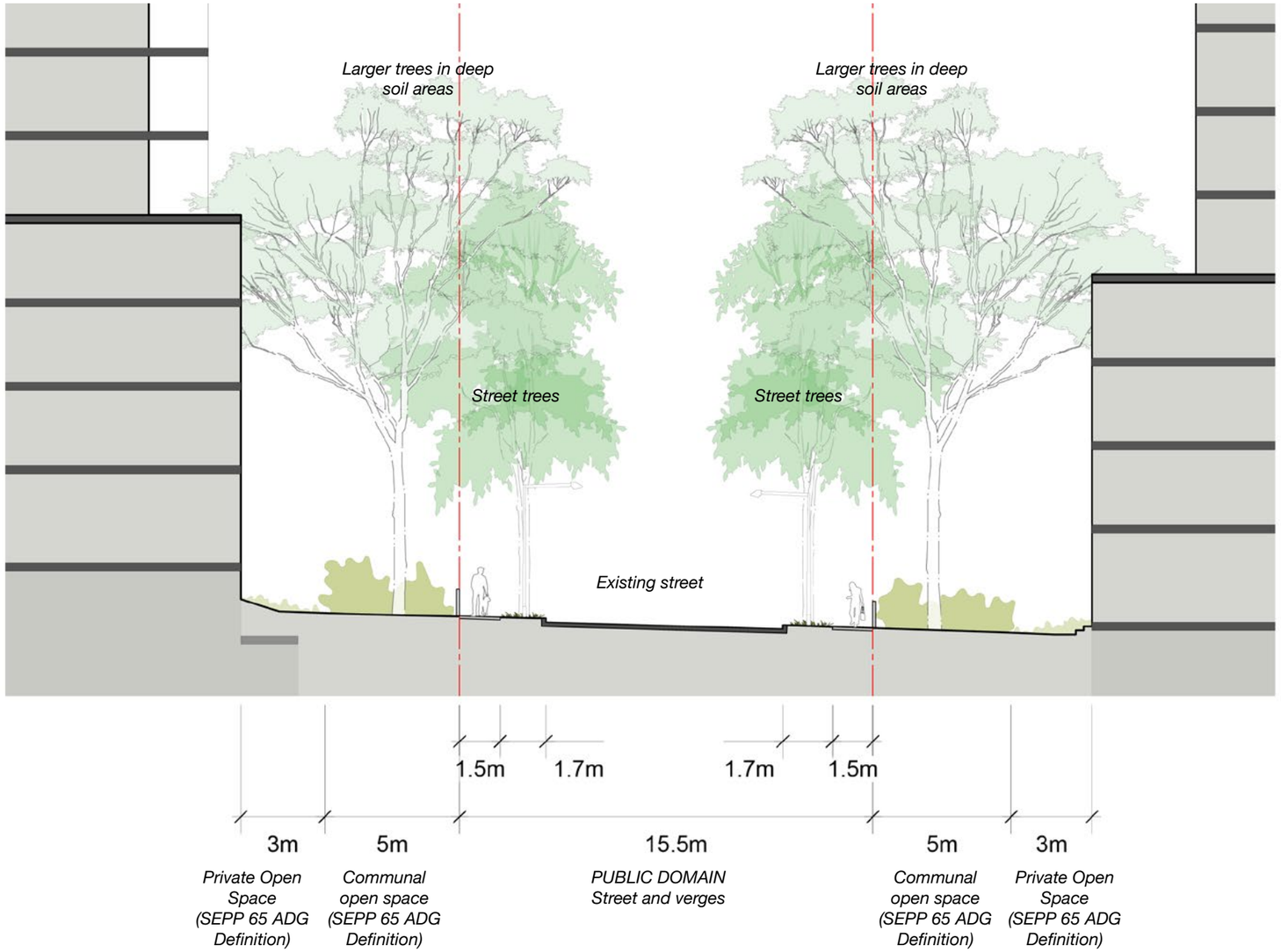


1. Boundary St
2. Rosehill St
3. Dixon St
4. Lansdowne St
5. Lennox St



Rosehill Street relationship to built form

North *1:1000 @ A3*



Proposed Rosehill Street condition

North *1:200 @A3*

3.6 Streets

DIXON STREET

Dixon Street is the narrowest street in the princinct, but would have the tallest developments next to them.

On the northern side of Dixon Street the proposal would establish an 11m building setback, with a 3m dedication to the public domain: extending the width of the verge, allowing for tall street tree planting.

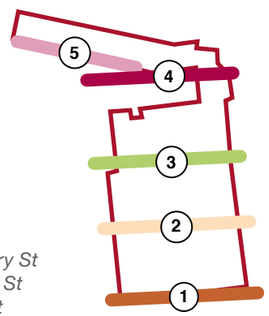
The remaining 8m building setback allows 3m of private garden space for ground floor units, with 5m of communal open space providing a transition between public and private domain. The communal open space should supplement privacy to ground floor units and contribute to streetscape character.

This space may allow some passive communal uses, but it too narrow for active uses or gathering spaces.

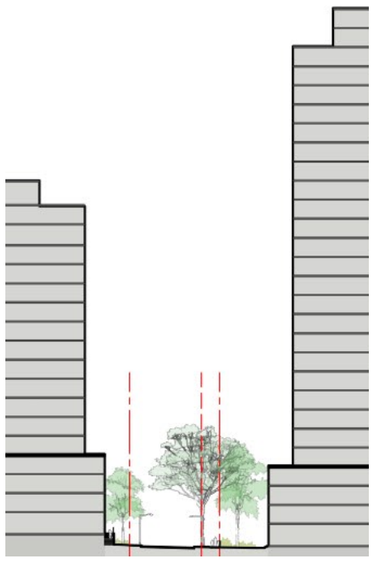
The 4m setback on the southern side should be taken up with private gardens at the ground floor.

Street trees to be *Flindersia australis* as per the Auto Alley character area established in the Parramatta CBD Street Tree Masterplan. Larger trees to be established in the deep soil zones in the frontages of the lots.

Due to the stepped the future built form, the extent of shadowing within the street will vary from East to West. The location and extent of overshadowing is demonstrated in the shadow diagrams in Part 3.13 and Appendix B.

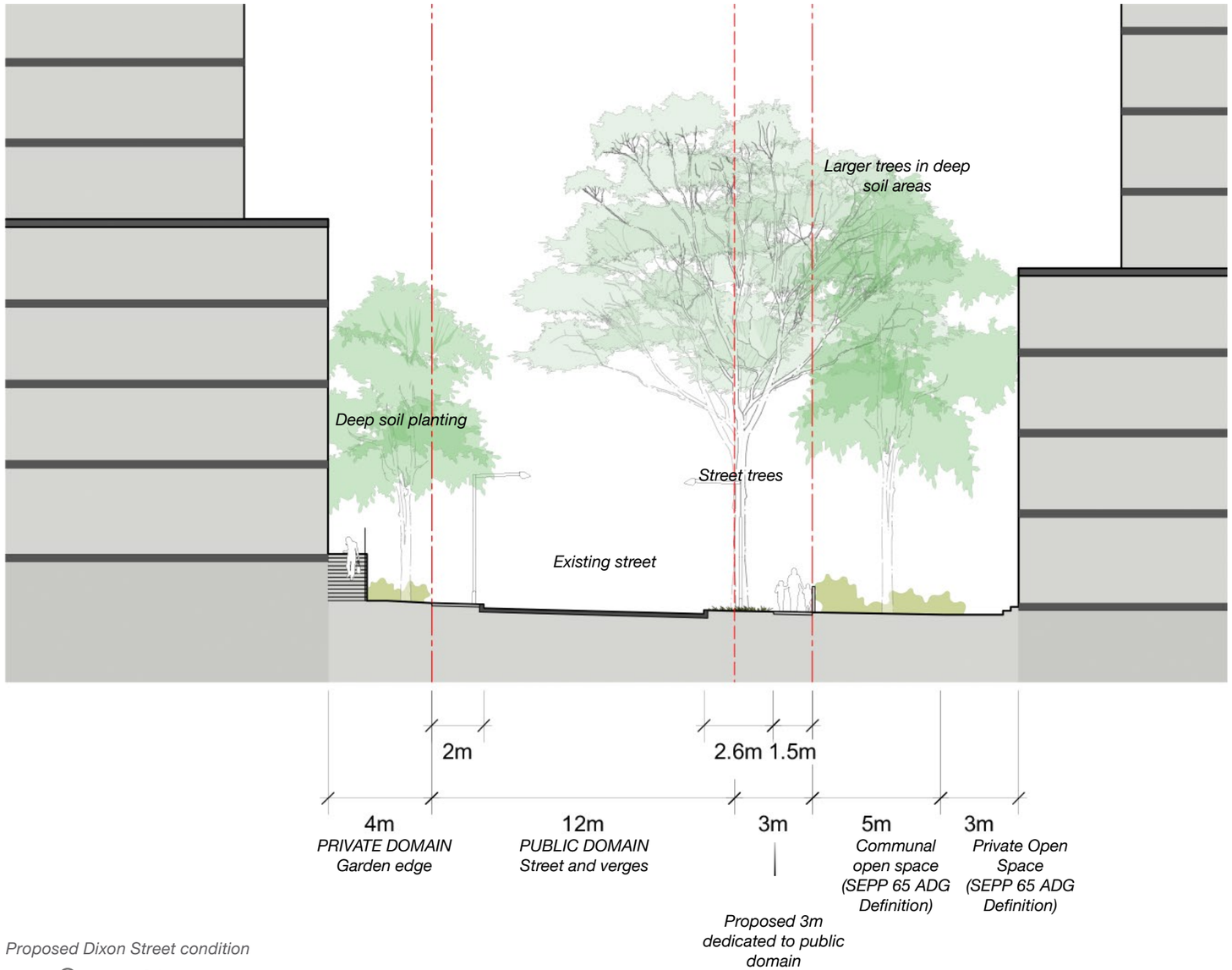


1. Boundary St
2. Rosehill St
3. Dixon St
4. Lansdowne St
5. Lennox St



Dixon Street relationship to built form

North ⊖ *1:1000 @A3*



Proposed Dixon Street condition

North ⊖ *1:200 @A3*

3.6 Streets

MATERIALITY + STREET TREES

The materiality and Street Tree planting of the West Auto Alley Precinct should extend the character established by the City of Parramatta's Public Domain Guidelines.

Paving of the footpaths along Lansdowne St, Dixon St, Rosehill St, and Boundary St should be the City of Parramatta's concrete paver. Refer Public Domain Guidelines for details and specifications.

Street Tree planting should be in keeping with the character area of Auto Alley established in the Public Domain Guidelines.

Lansdowne St should be *Waterhousia floribunda*.

Dixon St, with its proposed widening to the northern verge, should be planted with *Flindersia australis*.

Rosehill St should be *Waterhousia floribunda.*

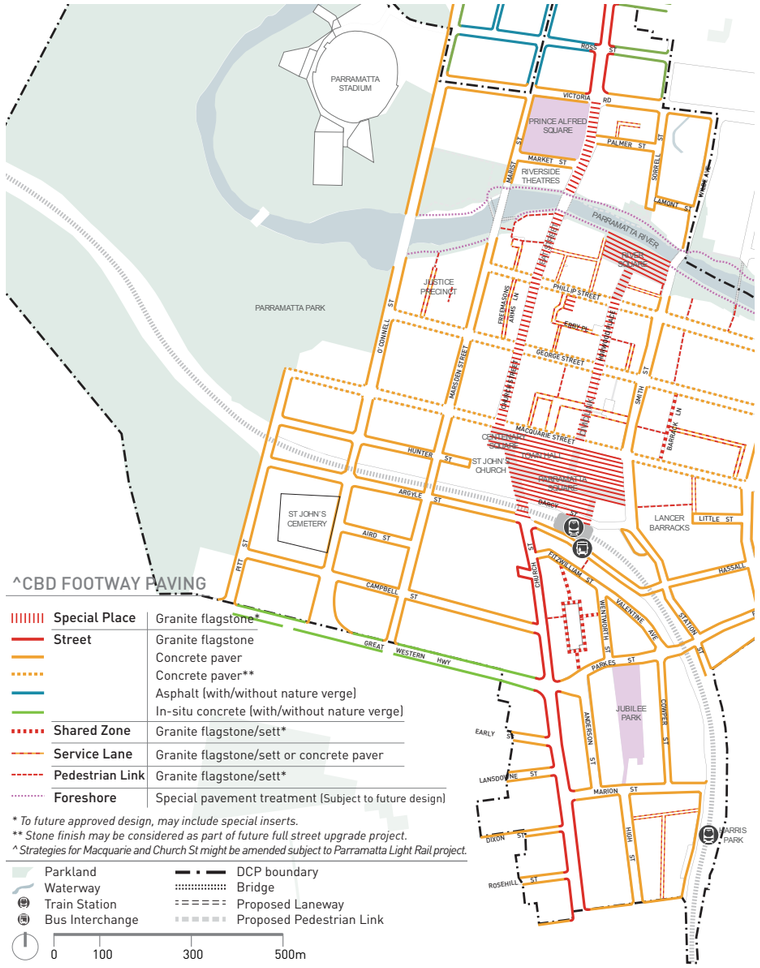
Boundary St should be planted with *Caesalpinia ferra* on the northern verge with *Corymbia maculata* on the southern verge to match the existing trees.

Flindersia australis

Waterhousia floribunda

Caesalpinia ferra

Corymbia maculata



Parramatta CBD Paving Strategy
Figure 4.2 in City of Parramatta Public Domain Guidelines 2017

Parramatta CBD Street Tree Strategy
Figure 4.4 in City of Parramatta Public Domain Guidelines 2017

3.7 Clay Cliff Creek Reserve

A NEW PUBLIC PARK

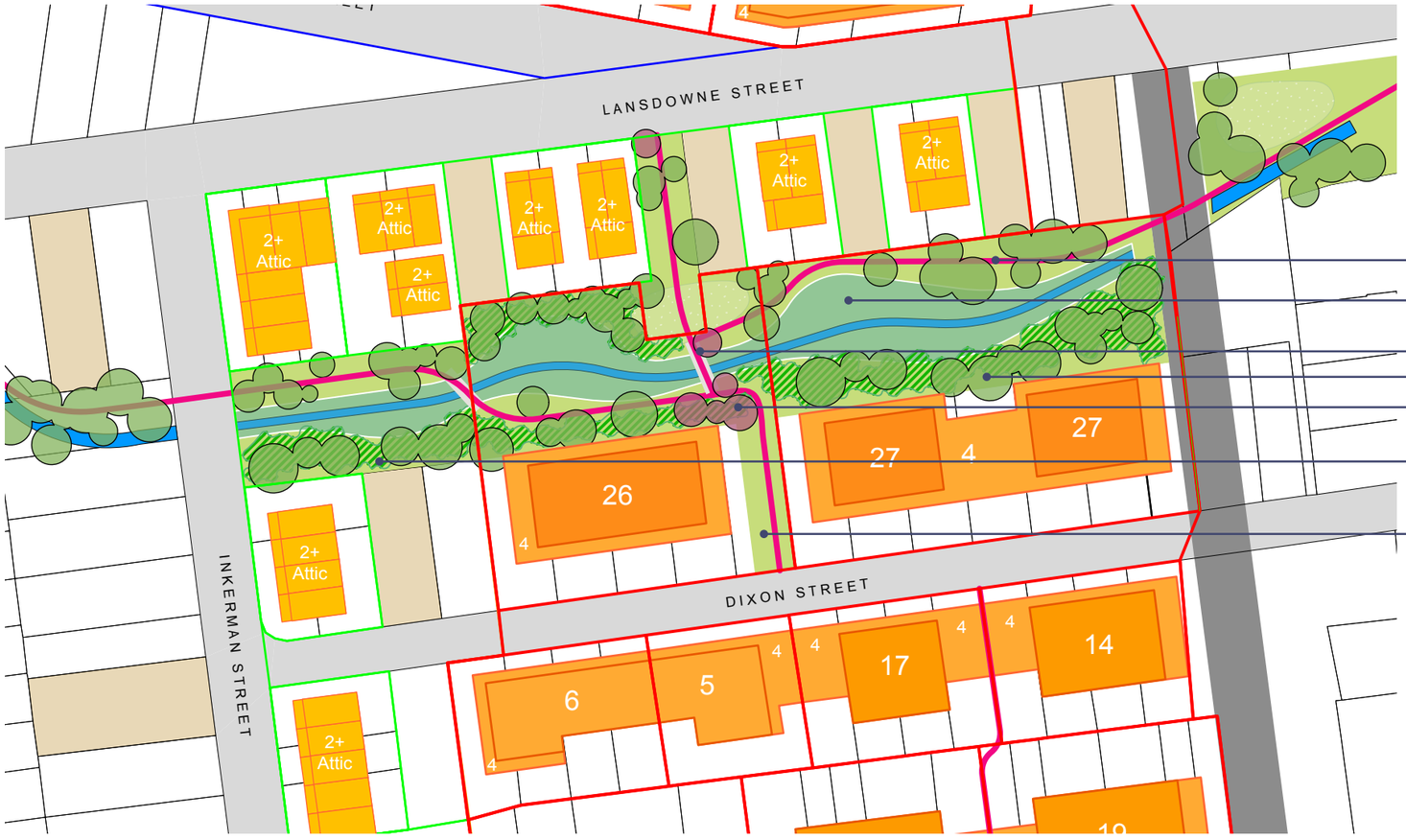
Clay Cliff Creek has considerable potential to become the link between Parramatta CBD and Ollie Webb Reserve's open fields.

Identified in Sydney's Green Grid, Parramatta Ways and Design Parramatta, Clay Cliff Creek canal is an unrealised asset in terms of linking up a series of existing well-used open spaces.

The proposal is to create a public reserve along the edge of the existing canal, with a degree of naturalisation or softening of its engineered form that is to be confirmed by detailed flood mapping and consultantion.

A cycleway and pedestrian path would snake along the length of the canal, crossing it at points to allow users to engage with the waterway, this would connect into through-site linkages within the West Auto Alley precinct.

Dense native planting will be balanced by open spaces with trees for passive recreation, without creating furtive areas. Planted inundation zones will be created along the edge of the water, to mediate stormwater impacts and reduce velocity of the water, as well as providing habitat opportunities to encourage biodiversity.



Indicative structure of future park

North *1:1000 @ A3*

River Aire Regeneration, Swtizerland

River Aire Regeneration, Swtizerland

Hassett Park urban creek, Canberra

Clear Paddock Creek, Fairfield

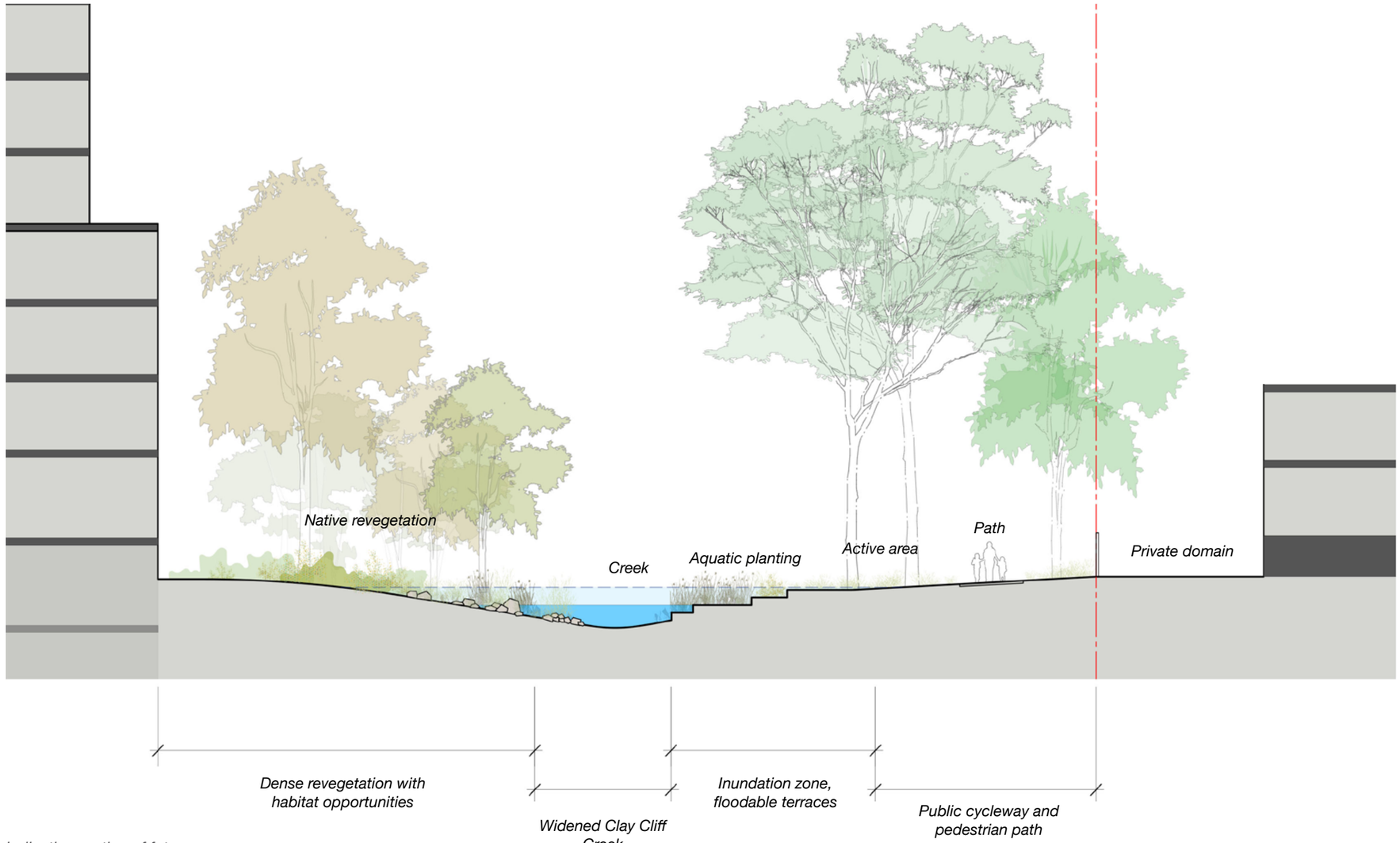
3.7 Clay Cliff Creek Reserve

SOFTENING THE ENGINEERED EDGE

Clay Cliff Creek has considerable potential to become the link between Parramatta CBD and Ollie Webb Reserve's open fields.

The typical section to the right, shows the intent of the future park. The degree of naturalisation to the creek edge can occur in a variety of ways, and would be dependant on a detailed design process, flood hazard analysis, and community consultation.

Ensuring a visual connection to the creek for users will be vital to the success of the linear park, allowing the community to passively engage with the environmental system and appreciate their urban ecology.



Indicative section of future pa

North *1:200 @ A3*

3.8 Public Domain Interface

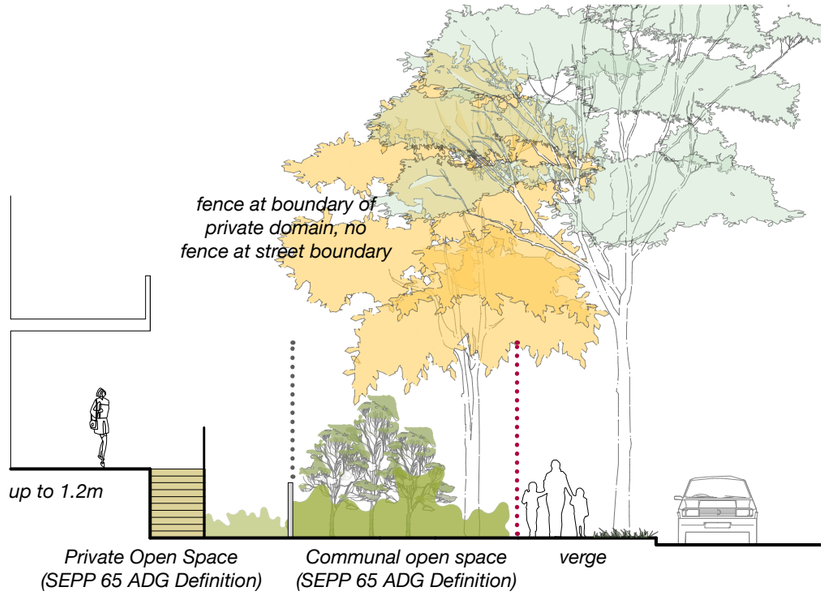
PUBLIC DOMAIN INTERFACES

The study site is in a flood prone area, which necessitates a freeboard of minimum 500mm throughout the new development zones. Due to the existing topography the ground floor level may be from 500mm to 1.2m above natural ground level. This can represent a challenge in the design of building interface and streets to ensure a visual relationship is maintained between them, allowing visual surveillance of the street and communal areas, while ensuring privacy to ground floor units. This level change can actually help to enhance the interface with public domain.

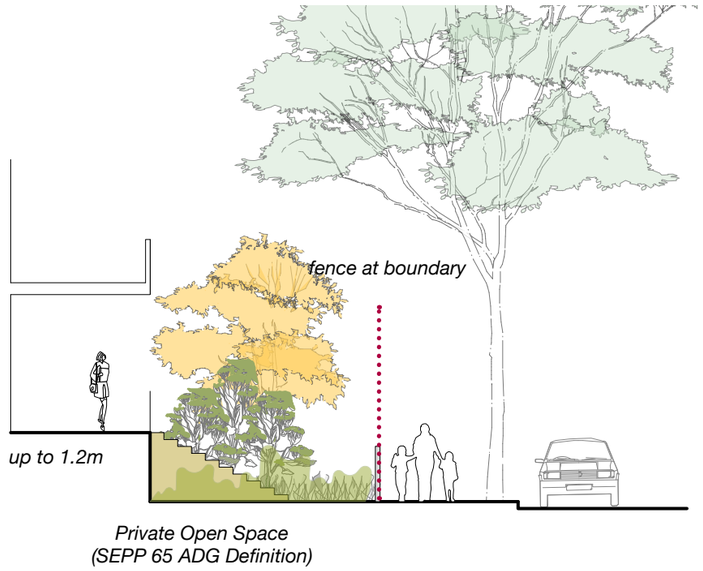
Privacy to ground floor units should generally be considered in the architectural design, as solutions such as high fences and hedges along the street front reduces casual surveillance of the street, and inhibits any sense of street activation provided by housing. A level change can actually help to enhance the interface with the public domain.

Street fronts with an eight metre setback allow for a small private garden for ground floor units, to accommodate change of level and some planting for privacy and gardening. The remaining communal open space enhances the visual separation from the street, without blocking views of the street. This landscape strip should have deep soil, to facilitate planting of tall growing trees to supplement street tree planting, and provide a comfortable scale at the street. Communal gardens should be visually accessible from both the public and private domain, enhancing the landscape character of the street.

A four metre setback should be taken up with private gardens at ground floor, to maximise privacy to those units.



Typical 8m building setback on Rosehill Street and the northern side of Boundary Street



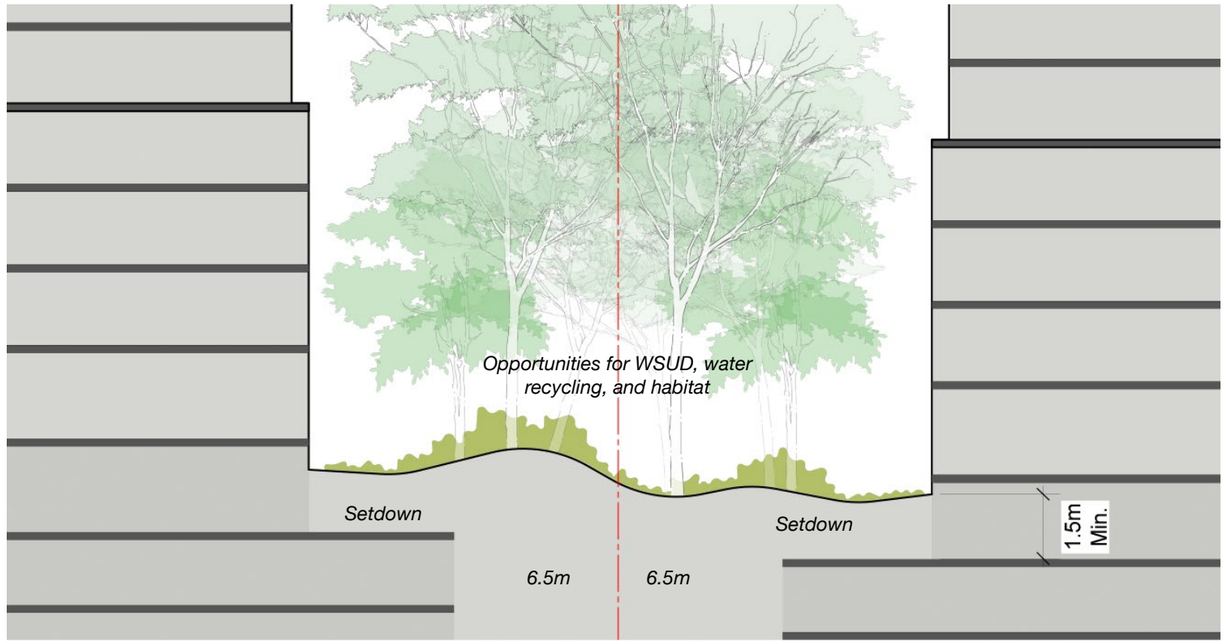
4m building setback on the southern side of Dixon Street

3.9 Private Domain

INTERLOT PRIVATE DOMAIN

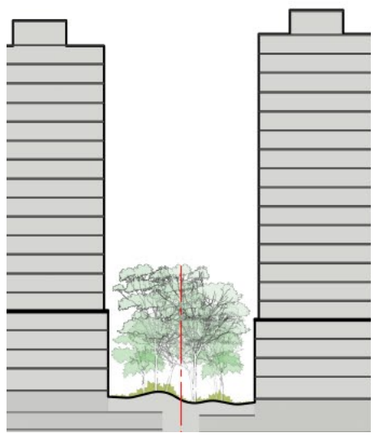
The space between the buildings in the private domain presents challenging conditions for creating usable communal open spaces or private gardens due to overshadowing. These spaces may best be used as a visual and environmental landscape space that may also provide separation between the lower floors of the buildings.

Space should be provided above the basements to facilitate planting of tall trees that may mitigate the scale of the buildings. These also present opportunities for water sensitive urban design, water recycling and biodiversity. Fencing between lots should remain light and open to maintain airflow.



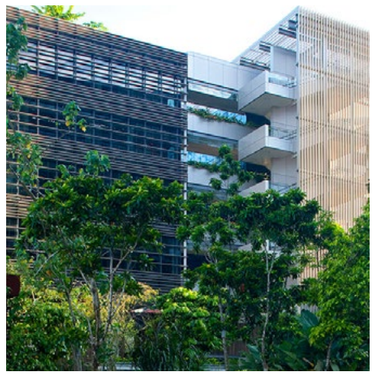
Proposed typical private open space condition

not to scale



Private domain relationship to built form

North ⊖ *1:1000 @A3*



Khoo Teck Puat Hospital, Singapore

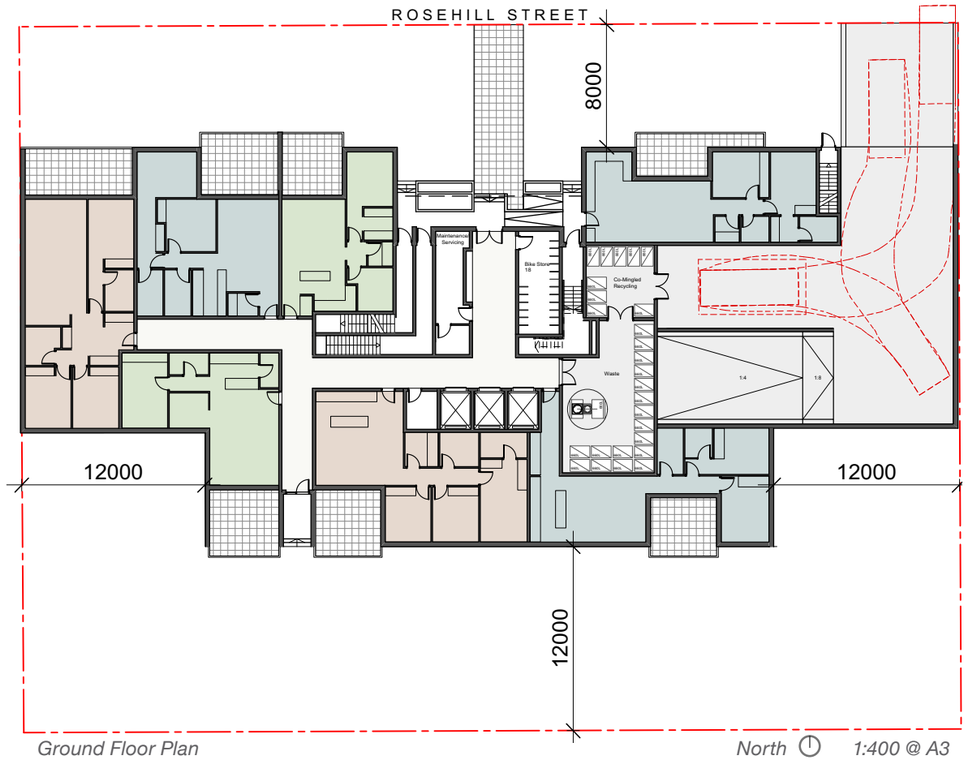
Jardin de la Bibliotheque Nationale, Paris

Jardin de la Bibliotheque Nationale, Paris

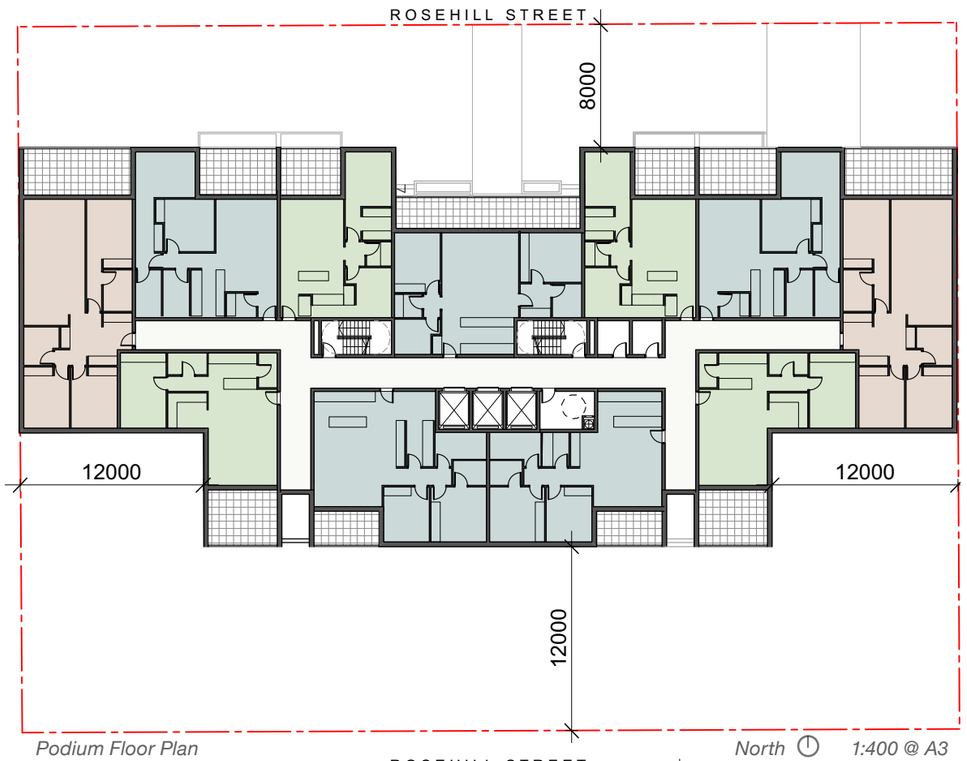
Western Harbour, Malmo

3.10 Developability

- We have tested a series of designs against the future planning controls to establish building envelopes that will appeal to the private sector, whilst also achieving the objectives of Council.
- The final apartment yield of this design is 144 apartments. This closely correlates with the results of the site-by-site envelop testing (Appendix A) which were based on an overall GFA efficiency of 75%.
- Detailed testing of this typical block demonstrates compliance with the SEPP 65 ADG controls including Solar access and Cross ventilation.
- Precinct wide testing for SEPP 65 Solar Access in Appendix C demonstrates that a high level of compliance can be achieved within the WAAP. Final compliance will be subject to the eventual pattern of development within the WAAP and the adjacent CBD Core.
- It is recommended that developments aim to maximise solar access and that development not meeting ADG guidelines provide environmental benefits such as greater floor-to-floor heights, particularly in podium levels, additional communal open spaces with good solar access and other measures that would enhance amenity.



Ground Floor Plan *North* *1:400 @ A3*



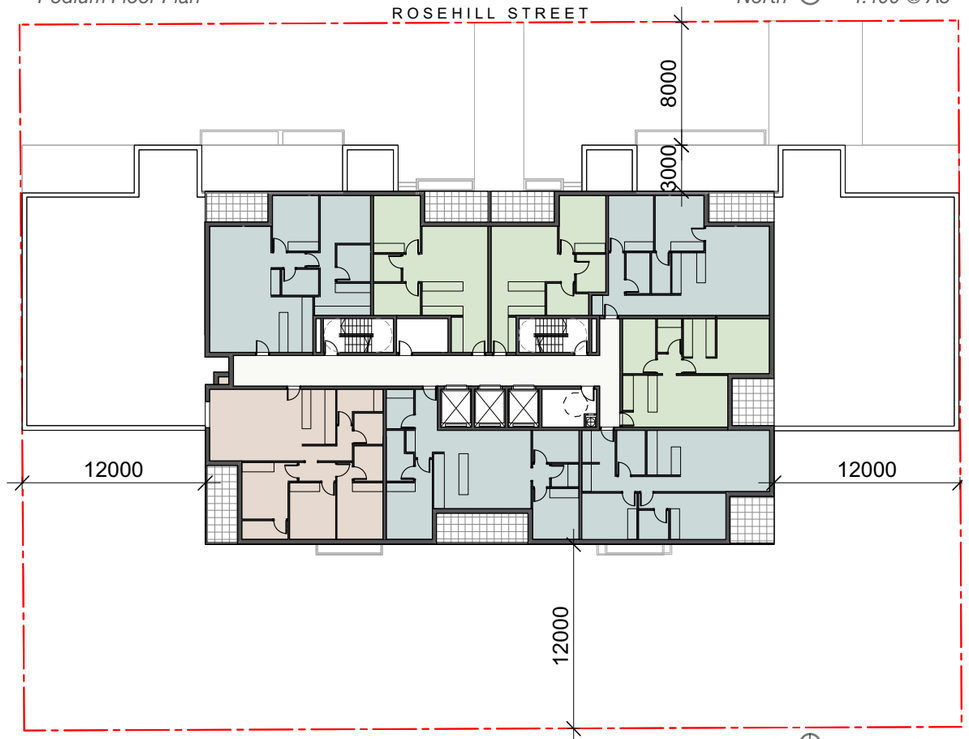
Podium Floor Plan *North* *1:400 @ A3*

Typical Block					
Site Area	2817				
	GFA/Floor (sqm)	Apart.s/Floor	No. Floors	Total GFA (sqm)	Total Apart.s
Ground Floor/L1	728	7	1	728	7
Level 2 - Level 4	1048	11	3	3144	33
Level 5 - Level 32	668	8	13	8684	104
		Total	17	12556	144
Total GFA (sqm)	12556				
FSR :1	**4.46**				
Apartments	144				
Storeys	17				
Height (m)	52.7				

Solar Compliance		
	2 hrs to Living	15 Mins min Solar
Ground Floor	1/7	5/7
Level 2 - Level 4	4/11	9/11
Level 5 - Level 17	84/ 104.	7/8
Total	101 / 144 **70%**	123 / 144 **14%** <u>without</u> Solar

Cross Ventilation	
Ground Floor	7/7.
Level 2 - Level 4	8/11.
Level 5 - Level 9	6/8.
Total =	49/79 **(62%)**

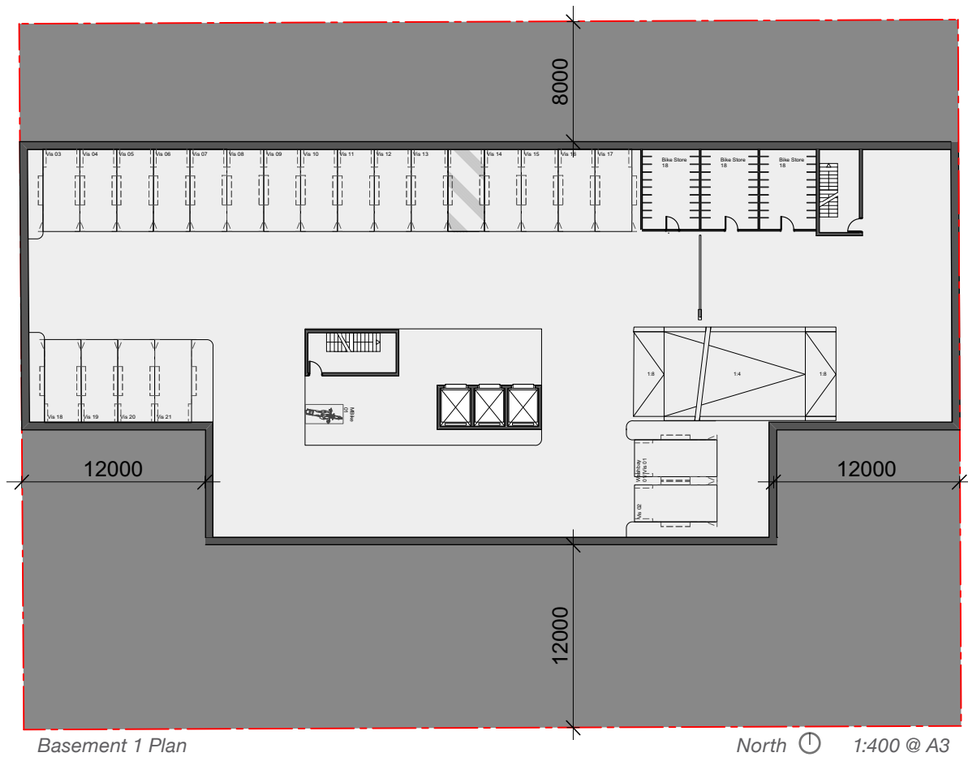
Apartment Mix		
1 Bed Apartments	54	37.5%
2 Bed Apartments	69	47.9%
3 Bed Apartments	21	14.6%
Total	144	100%

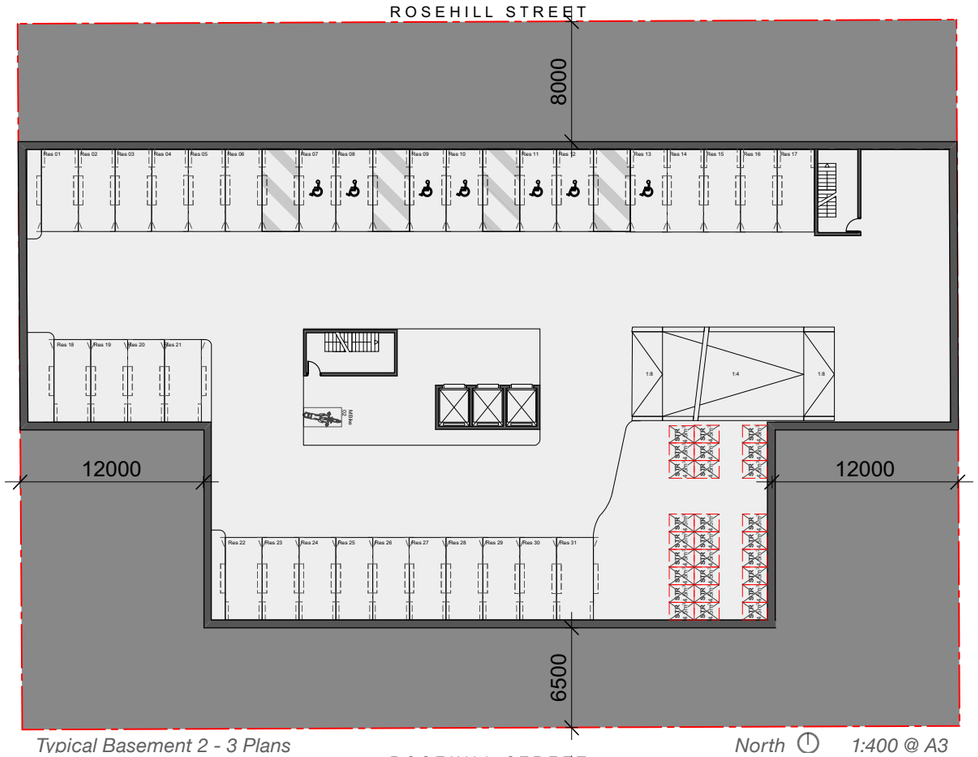


Tower Floor Plan *North* *1:400 @ A3*

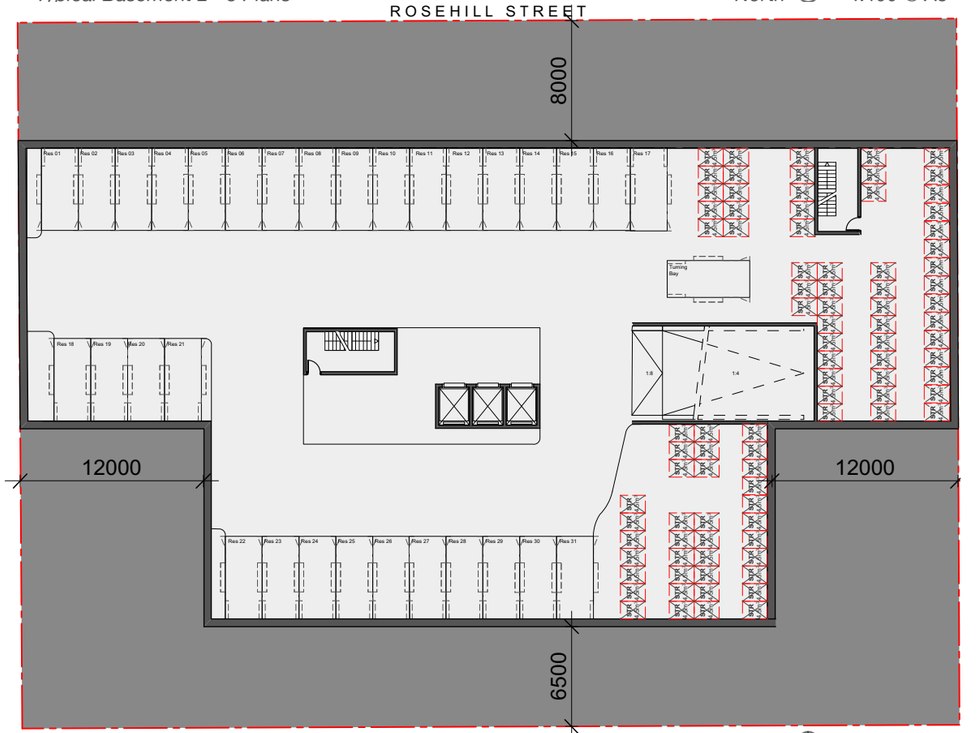
3.10 Developability

- The basement parking has been designed to be predominantly located within the building footprint, and basement 1 is entirely within the building footprint. This approach will minimise any additional bulk of the building at the ground level, and maximise opportunities for deep soil provision. This complies with the Parramatta DCP part 3.6.2 design principle P.13 for basement parking which requires parking to be predominantly located within the building footprint.
- The typical scheme allows for 42% of the site to be used as deep soil provision. This greatly exceeds the requirements set out in the ADG and will provide ample opportunity for extensive planting within the front and rear setbacks of the site.





Parking			
Units	Apartments	Parking Rate/ Apt	Total
1 Bed	54	0.4	21.6
2 Bed	69	0.7	48.3
3 Bed	21	1.2	25.2
Visitors		1park/7 units	**20.6**
Total Residential Car Parks			**115.7**
Motorbikes (DCP 4.3 - 81 C.6)		1/50 car Parks	2
Bicycles (DCP Part 3.6.2 - 76 C3)		1 / 2 dwellings	72
Washbay			1
Adaptable Car Park Provision		10.0%	14



3.11 Reccomended LEP Controls

FSR

Area 1, the sites south of Dixon street, either side of Rosehill Street, and the sites on the Northern Side of Boundary Street shown are recommended to have an Incentive FSR of 2:1 provided a minimum street frontage of 26 metres can be achieved. Additional bonus floor space of 2:1 is available provided a minimum street frontage of 48m can be achieved, resulting in a total site FSR of 4:1. If the Design Excellence bonus is awarded to these sites, a potential maximum FSR of 4.6:1 can be achieved.

Area 2 and Area 6, the sites on the northern side of Dixon Street, are recommended to have an Incentive FSR of 2:1 provided a minimum street frontage of 26 metres can be achieved. Additional bonus floor space of 1:1 is available provided a minimum street frontage of 48m can be achieved, resulting in a total site FSR of 3:1. If the Design Excellence bonus is awarded to these sites, a potential maximum FSR of 3.45:1 can be achieved.

Area 3, The sites south of Dixon street, either side of Rosehill Street, and the sites on the Northern Side of Boundary Street, should have an Incentive FSR of 2:1 provided a minimum street frontage of 26 metres can be achieved.

The sites on the Northern side of Lennox Street and Lansdowne Street shown as Area 4 should have a maximum Incentive FSR of 1.4:1.

The sites located in the transition zone being those sites to the South of Lansdowne Street, and the Eastern side of Inkerman shown as Area 5 which are subject to a FSR of 0.8:1 and 1.2:1 under the current Parramatta LEP 2011, and outside the study area boundary, should retain their current FSR.

HEIGHT OF BUILDINGS

The recommended development controls for Areas 1, 2 and 3 include an Incentive Height of Buildings control of 24 metres provided a minimum street frontage of 26 metres can be achieved.

Additional Bonus Height for site within Area 1 is available provided a minimum street frontage of 48m can be achieved. Bonus height of 31 metres for a total height of 55 metres. If Design Excellence bonus height is awarded to the site, a possible height 63 metres could be achieved for these sites.

Additional Bonus Height for site within Area 2 is available provided a minimum street frontage of 48m can be achieved. Bonus height of 56 metres for a total height of 80 metres. If Design Excellence bonus height is awarded to the site, a possible height 92 metres could be achieved.

1	Zone	R4		
	IFSR	2:1	IHOB	24m
	Bonus FSR	4:1	Bonus HOB	55m
2	Zone	R4		
	IFSR	2:1	IHOB	24m
	Bonus FSR	3:1	Bonus HOB	80m
3	Zone	R4		
	IFSR	2:1		
	IHOB	24m		
4	Zone	R4		
	IFSR	1.4:1		
	IHOB	17m		
5	Zone	R4/R3		
	FSR	1.4/0.8:1		
	HOB	14m/11m		
6	Public Reserve			
	HOB	0m		

North *1:2000 @ A3*

3.11 Reccomended LEP Controls

The sites in Area 4, the Northern side of Lennox Street and Lansdowne Street is recommended to have a maximum Height of 11m or 14m. (5 Storeys)

The transition zone on Lansdowne and Inkerman Streets, Area 5, is recommended to retain the existing FSRs of 0.8:1 or 1.2:1

Area 6 is recommended to have a 0m height limit which reflects the flood affectation over the rear of these site that cannot be built upon.

ZONING
It is recommended that all sites within the WAAP be Zoned R4, and the area shown as Area 6 be Zoned for a Public Reserve.

Lots within the transition zone should retain their existing zoning of R3 on Landsdowne Street, or R4 on Inkermann Street.

MINIMUM STREET FRONTAGE
For the area to be redeveloped there will be a need to amalgamate different lots into bigger sites to facilitate development that will have efficient and complying floorplates.

These will provide the opportunity for increased amenity through public domain and streetscape improvement, increased deep soil and green corridors, and the provision of a new park along the existing Clay Cliff Creek Canal.

For sites within the West Auto Alley Precinct to develop at an Incentive FSR of 2:1 and an Incentive HOB of 24m the following conditions should be met:
i) The minimum site frontage length is to be 26m
ii) Site amalgamation must not result in 1 lot being isolated.

For sites within the WAAP to benefit from the Bonus FSR and Bonus Height of Building controls the following conditions should be met:
i) The minimum site frontage length is to be 48m.
ii) Site amalgamation must not result in 1 or 2 lots being isolated.

1 Zone R4 | IFSR 2:1 | IHOB 24m | Bonus FSR 4:1 | Bonus HOB 55m

2 Zone R4 | IFSR 2:1 | IHOB 24m | Bonus FSR 3:1 | Bonus HOB 80m

3 Zone R4 | IFSR 2:1 | IHOB 24m

4 Zone R4 | IFSR 1.4:1 | IHOB 17m

5 Zone R4/R3 | FSR 1.4/0.8:1 | HOB 14m/11m

6 Public Reserve | HOB 0m

North *1:2000 @ A3*

3.12 Reccomended DCP Controls

FRONT BUILDING SETBACKS

1. The following suggested controls apply to the sites on the Northern side of Dixon Street:
i) Ground Floor podium setback 11m to widen the footpath and provide landscaped areas.
ii) Minimum setback of 3.5m above the podium level for the tower.

2. The following suggested controls apply to the sites on the Southern side of Dixon Street:
i) Ground Floor podium setback 4m to provide for new landscaped areas.
ii) Minimum setback of 2.5m above the podium level.

3. The following suggested controls apply to the sites on Rosehill Street, and the blocks on the Northern side of Boundary Street:
i) Ground Floor podium setback 8m to provide a landscaped area.
ii) Minimum setback of 3m above the podium level.

4. The following suggested controls apply to the sites on the Northern side of Lennox Street and Lansdowne Street:
i) Ground Floor podium setback of 5m to provide for new landscaped areas.
ii) Minimum setback of 2.5m above the podium for Level 5.

5. The following suggested controls apply to the sites located in the transition area to the Eastern side of Inkerman Street:
i) Ground Floor setback of 6m to provide for new landscaped areas.
ii) Where sites have a primary or secondary setback on to Dixon Street, Rosehill Street, or Boundary street, setback are to comply with the applicable front setback to the street.

REAR BUILDING SETBACKS

A. The following suggested control applies to the sites on the Northern side of Dixon Street:
i) Rear setback to comply with the existing flood controls and to allow for the provision of new social infrastructure, specifically a new public park along the Clay Cliff Creek Canal.

B. The following suggested control applies to the sites on the Southern side of Dixon Street:
i) 9m minimum setback from the rear of the site to the podium and tower to facilitate deep soil provision and to provide sufficient separation between buildings.

C. The following suggested control applies to the sites on the Northern Side of Rosehill Street:
i) 15m minimum setback from the rear of the site to the podium and tower to facilitate deep soil provision and to provide sufficient separation between buildings.

D. The following suggested control applies to the sites on the Southern side of Rosehill Street, and the blocks on the Northern side of Boundary Street:
i) 12m minimum setback from the rear of the site to the podium and tower to facilitate deep soil provision and to provide sufficient separation between buildings.

E. The following suggested controls apply to the sites on the Northern side of Lennox Street and Lansdowne Street:
i) Minimum rear setback to be whichever is the greater of the applicable Parramatta DCP rear setback control or the ADG building separation control.

North *1:2000 @ A3*

3.12 Recommended DCP Controls

SIDE BUILDING SETBACKS

1. The following suggested controls apply to the sites on either side of Dixon Street, the blocks on either side of Rosehill Street, and the blocks on the Northern side of Boundary Street.
i) 6m setback from the site boundary to the 4 Storey podium
ii) 12m setback from the side boundary to the tower levels above the podium.

2. The following suggested controls apply to the sites on the Southern Side of Dixon Street, the blocks on either side of Rosehill Street, and the blocks on the Northern side of Boundary Street.
i) 0m setback from the site boundary for the podium on the primary street frontage to create a continuous street wall.
ii) 6m setback from the site boundary for the podium on at the rear of the site, or secondary street frontage if applicable.
iii) Side setback controls for the tower above the podium to be as per the ADG building separation controls.

3. The following suggested controls apply to the sites on the Northern side of Lennox Street and Lansdowne Street.
i) Side setback controls to be as per the ADG building separation for residential flat buildings.

4. The following suggested controls apply to the sites located within the transition area on the southern side of Inkerman Street.
i) 3m minimum setback to side boundaries for 2 storey multi-residential development

5. The following suggested controls apply to the sites located in the transition area to the Eastern side of Inkerman Street.
i) 0m Setback to side boundaries for 2 storey multi-residential development
ii) 4m minimum side setback to sites with secondary street frontage to Dixon street.

PODIUM HEIGHT

Minimum 4 storey podiums for sites within the West Auto Alley Precinct.

SEPP 65 ADG COMPLIANCE

Our design approach showing a Typical podium and Tower is based on having design excellence and sustainable design principles at its core. We maximise solar access to apartments in the towers which will have a substantially northern orientation. The slender tower design allows for compliance with the ADG in terms of solar access and natural ventilation. The footprints provide for good mix of apartment types, and ample opportunity for landscaping and communal use.

If the WAAP is developed to the proposed Incentive FSR it will be easier for each future proposal to comply with the ADG Solar access controls when the adjoining sites are not yet built. The sites on the North side of Dixon Street and the sites on the North side of Lennox Street should be able to easily achieve solar compliance due to their aspect and location relative to Church Street. The sites along Rosehill Street and Boundary Street may have more difficulty achieving solar compliance, though ultimately this will depend on the timing of their development relative to the WAAP and the Auto Alley Precinct.

DEEP SOIL

As the proposal is designed to provide substantial areas of deep soil to support extensive landscaping, it is recommended that deep soil be provided in the range of 20-25% of the site area.

North *1:2000 @ A3*

3.13 Shadow Diagrams

OVERSHADOW IMPACT

The adjacent overshadow impact diagrams demonstrates the shadow impact on the area by the potential future development within the Parramatta CBD and Auto Alley along Church Street, including the shadows cast by the maximum future development masterplan within the WAAP, and the shadows from new buildings within the transition area.

KEY OBSERVATIONS

The WAAP will already be subject to substantial overshadow from the CBD and the adjacent precinct - mainly in the morning.

The HCA is free from shadow either from the CBD or within the WAPP by 10am in mid-winter. This is due to minimal shadow impact from the proposed mid-rise scale of the buildings within the WAAP north of Lennox street, and the low scale buildings within the transition area along Inkerman Street.

Clay Cliff Creek is subject to overshadowing from development within the CBD and the transition area. The future park is free from the most severe shadows by 1pm in mid-winter, though there is potential from some minimal overshaowing from the low rise transition area along Lansdowne Street.

The combined shadows generated from Auto Alley and within the WAAP show that some properties within the block directly south of the WAAP are unlikely to receive 2 hours of sunlight in mid-winter. However this outcome will be subject to the final development pattern of the precinct.

It is noted that the model does not include potential future building envelopes for the precinct directly to the north of the WAAP. This area has been zoned with an incentive FSR 6:1 in the Draft LEP. Given the potential scale of development, it is reasonable to assume additional overshadowing of the HCA and the future Clay Cliff Creek park will result from development in this area.

9:00 21 June *North* *1:7500 @ A3*

10:00 21 June *North* *1:7500 @ A3*

11:00 21 June *North* *1:7500 @ A3*

12:00 21 June *North* *1:7500 @ A3*

Potential Auto Alley and Parramatta CBD shadow extent

Future WAAP Shadow extent

Future Transition Area extent

3.13 Shadow Diagrams

13:00 21 June *North* *1:7500 @ A3*

14:00 21 June *North* *1:7500 @ A3*

15:00 21 June *North* *1:7500 @ A3*

Potential Auto Alley and Parramatta CBD shadow extent

Future WAAP Shadow extent

Future Transition Area extent

HERITAGE

4.0

4.1 Heritage Evaluation

A STATEMENT ABOUT THE CONSISTENCY OF THE WEST AUTO ALLEY DRAFT PLANNING CONTROLS AND PROPOSED PUBLIC DOMAIN IMPROVEMENTS (AS PER THE PRECINCT PLAN) WITH THE DIRECTIONS BY THE MINISTER (SECTION 9.1 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 RELATING TO HERITAGE).

The section to be considered is as follows:

2.3 Heritage Conservation

Objective

(1) The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance

Where this direction applies

(2) This direction applies to all relevant planning authorities

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal

What a relevant planning authority must do if this direction applies

(4) A planning proposal must contain provisions that facilitate the conservation of:

(a) Items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area.

(b) and (c) relate to aboriginal/indigenous matters and are outside the scope of this study.

Consistency

(5) A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that:

(a) The environment or indigenous significance of the item, area, object or place is conserved by existing or draft environmental planning instruments, legislation, or regulations that apply to the land, or

(b) The provisions of the planning proposal that are inconsistent are of minor significance.

RESPONSE

Howard Tanner's responsibility in this study is to appreciate the issues of the changes proposed within the study area – especially the premise of new, much taller building heights and larger volumes - and their impact on the South Parramatta Conservation Area.

- To the East
  Church Street will remain a significant entry road in the Parramatta CBD. It will be lined with very tall towers. At best it will become a grand boulevard, lined with handsome buildings, set behind wide pavements planted with large trees.

- To the West
  The South Parramatta Conservation Area offers a reasonably cohesive area of 19th and early 20th century housing. Its attractive character, allied with considered controls which ensure its ongoing well-being means that it has become a sought-after residential precinct. Council controls mean that acceptable uses, such as small-scale professional offices (such as doctors' rooms) or child-care facilities can occur in the Conservation Area. Traffic management will be important to stop large volumes of traffic from the new apartments and elsewhere compromising the character of this low-rise residential area. and planting controls, and ensuring a sophisticated and somewhat diverse outcome.

Map of The South Parramatta Conservation Area, The Transition Area and The West Auto Alley Precinct North 1:5000 @ A3

4.1 Heritage Evaluation

- Inkerman Street and the Interface Zone
  The west side of Inkerman Street comprises single storey houses within the South Parramatta Conservation Area. The east side of the street is within the study/redevelopment area. Apart from one very large eucalyptus tree, the east side of the street is suitable for redevelopment. To provide development of suitable scale in the interface zone, new linear row housing is proposed for the east side of Inkerman Street, being of 2 storeys plus an attic storey. The attic storey to have a traditional sloping roof to Inkerman Street, with dormer windows of contemporary design.

- General Character Proposed for the Study Area
  It is important that the new buildings at the west edge of the study area – where it fronts the Conservation Area - are of limited scale and impact, being allowable as 2 storeys plus attic. From this low scale, the allowable building heights and volumes in the study area will gradually increase towards the tall buildings on Church Street.

  The 1920s idealised solution of individual apartment tower blocks set in lawns with trees has not served Sydney well. I endorse the proposal for linear linked apartment blocks, which typically enable cross-ventilation and a sunny aspect.

- Heritage - Lansdowne Street
  This street contains a number of heritage-listed buildings. The evaluation of heritage significance in Lansdowne Street appears uneven. However, the area is severely flood affected, and thus the future of these properties must be viewed as uncertain.

- The Greening of the Area
  All the streets deserve street trees of suitable scale and character. The building set-backs with deep soil enable this. One remarkably fine individual eucalyptus tree is to be found on the street frontage between 43 and 45 Inkerman Street; it deserves retention under any scheme of development.

  The best opportunity for new landscaped open space appears to be along the drainage channel (Clay Cliff Creek) which links Noller Park and Church Street and which is lined with the only other substantial trees in the study area. Noller Park is an exemplar of an attractive well-maintained small suburban park, and its extension in similar character is recommended.

  Active recreational space for the study area is provided by the large acreage of the Ollie Webb Reserve. It would be much improved with more diverse recreational facilities and with landscape improvements, specifically more trees.

Traffic management might take the form of two small landscaped areas, being:
- Rosehill Street closure on the west side of the junction with Inkerman Street
- Lansdowne Street at its west end, where it meets Marsden Street

This will provide an enlargement of Noller Park, and a stronger connection with the Ollie Webb Reserve and the proposed Clay Cliff Creek landscaped open space.

The recommendations, if adopted, should ensure that future development would occur in a form that protects and manages the city's heritage assets, achieves the design principles established for the West Auto Alley Precinct and demonstrates consistency with Division 9.1 Direction 2.3 of the Environmental Planning Act 1979.

HOWARD TANNER
CONSULTANT ARCHITECT
25 SEPTEMBER 2019

Howard Tanner's appointments have included:
• Chair, Heritage Council of NSW
• Councillor, Australian Heritage Council
• National President, Australian Institute of Architects
• Chair, Australian Architecture Awards
• Principal Tanner Architects (now Tanner Kibble Denton Architects)

RECOMMENDATIONS AND CONCLUSION

5.0

5.1 Recommendations and Conclusion

RECOMMENDED CHANGES TO THE PARRAMATTA LEP

This section outlines the recommendations to be implemented through amendments to the Parramatta LEP 2011 and Parramatta DCP 2011 based on the West Auto Alley Precinct plan detailed in this report to Council.

LEP amendments are proposed for the Incentive FSR Maps and Incentive Height of Buildings Maps. These are shown on the adjacent diagrams and are as follows:

Incentive Floor Space Ratio Map

- An Incentive Floor Space Ratio of 2:1 provided a minimum street frontage of 26 metres can be achieved
- An Incentive Floor Space Ratio of 1.4 for the WAAP sites north of Lennox Street provided a minimum street frontage of 26 metres can be achieved

Incentive Height of Buildings Map

- An Incentive Height of Buildings Control of 24m provided a minimum street frontage of 26 metres can be achieved.
- An Incentive Height of Buildings Control of 17m for the WAAP sites north of Lennox Street provided a minimum street frontage of 26 metres can be achieved
- A 0m Height limit which reflects the flood affectation over the rear of the sites that cannot be built upon.

Additional bonus FSR and height is available for Areas 1 and 2 provided a minimum street frontage of 48m can be achieved. The bonus FSR and height is as follows.

For Area 1.

- bonus floor space of 2:1 is available for a total site FSR of 4:1.
- bonus height of 31 metres is available for a total height of 55 metres.

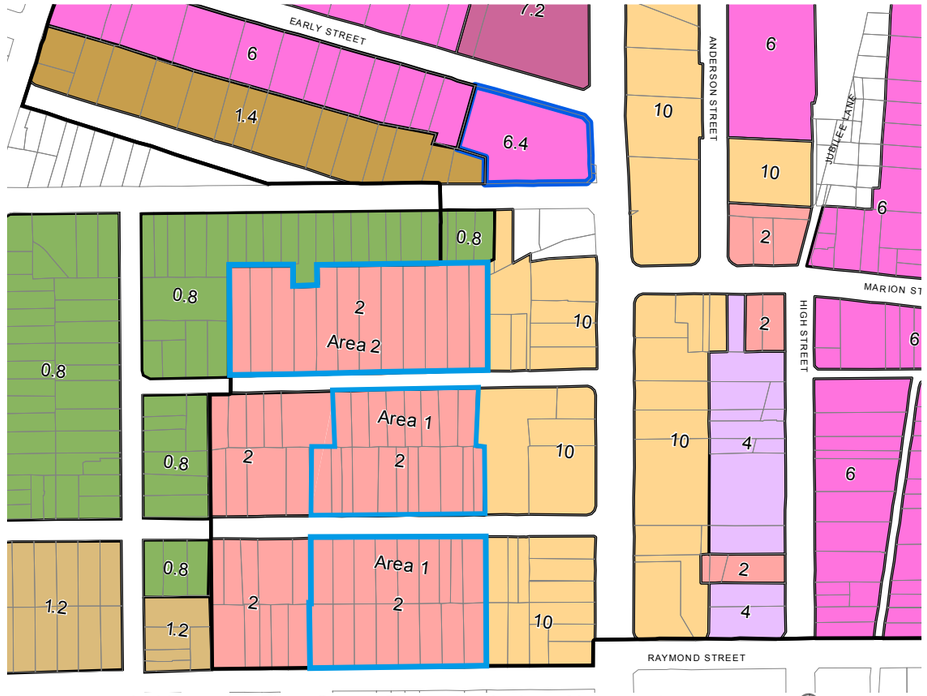
For Area 2.

- bonus floor space of 1:1 is available for a total site FSR of 3:1.
- bonus height of 56 metres is available for a total height of 80 metres.

LEP Design Excellence bonuses for FSR and height of building may be available to sites within Area 1 and Area 2. If awarded this will grant additional FSR and height to these sites.

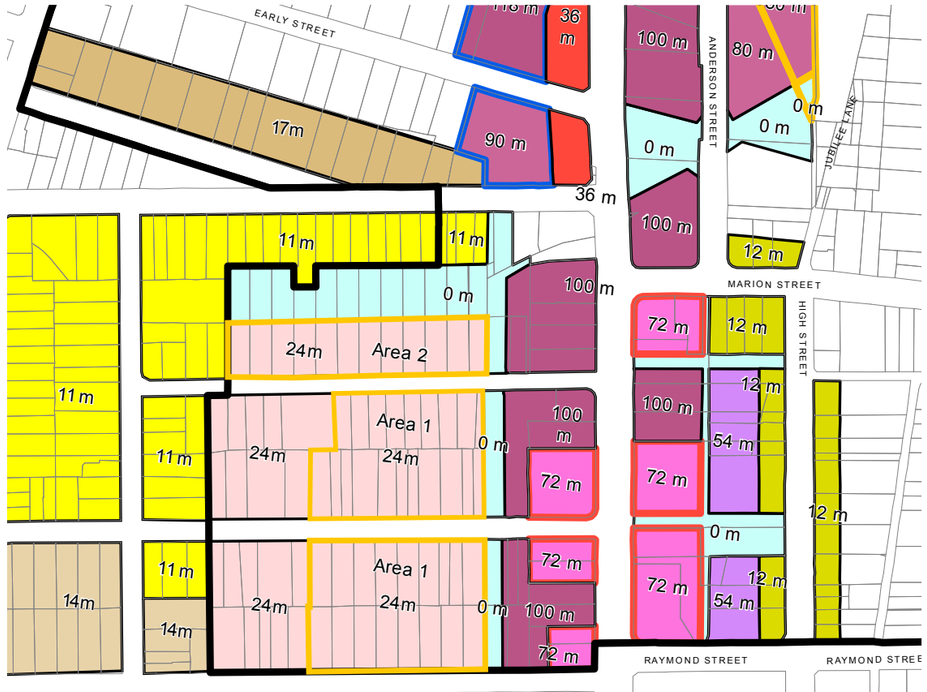
CONCLUSION

The recommendations in this report achieve the principles envisaged for the West Auto Alley precinct and are considered to satisfy the requirements of Section 9.1 Direction 2.3 Heritage Conservation of the Environmental Planning and Assessment Act 1979.



Recommended Incentive Floor Space Ratios (exclusive of bonuses) within the WAAP,, and the draft CBD PP Incentive Floor Space controls.

North NTS @ A3



Recommended Incentive Height of Building (exclusive of bonuses) within the WAAP, and the draft CBD PP Incentive Height of Building controls.

North NTS @ A3

APPENDIX –

DEVELOPMENT YIELD

A

A.1 Detailed Development Yield

DEVELOPMENT

Development Yield summary for the West Auto Alley Precinct and the Transition area.

Block A

Site	Site Area (sqm)	Podium Floor Plate (sqm)	Floors	Tower Floor Plate (sqm)	Tower Floors	Gross Floor Plates (sqm) (Podium+ Tower)	GFA (75%) (sqm)	FSR:1	Apartment Range	Building Height (Storeys)	Height (m) excl. rooftop services	Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
A1	5714	1532	4	910	22	26148	19611	3.43	231 - 245	26	80.6	531 - 564	162 - 172
A2	8009	2440	4	1186	23	37038	27779	3.47	327 - 347	27	83.7	752 - 799	229 - 243
Block Sub-total	13723					63186	47390		558 - 592			1282 - 1362	390 - 415

Block B

Site	Site Area (sqm)	Podium Floor Plate (sqm)	Floors	Tower Floor Plate (sqm)	Tower Floors	Gross Floor Plates (sqm) (Podium+ Tower)	GFA (75%) (sqm)	FSR:1	Apartment Range	Building Height (Storeys)	Height (m) excl. rooftop services	Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
B1	2004	983	4	747	2	5426	4070	2.03	48 - 51	6	18.6	110 - 117	34 - 36
B2	1444	836	4	579	1	3923	2942	2.04	35 - 37	5	15.5	80 - 85	24 - 26
B3	1967	1080	4	574	13	11782	8837	4.49	104 - 110	17	52.7	239 - 254	73 - 77
B4	2027	1188	4	731	10	12062	9047	4.46	106 - 113	14	43.4	245 - 260	75 - 79
B5	3363	1564	4	1039	2	8334	6251	1.86	74 - 78	6	18.6	169 - 180	51 - 55
B6	2933	1372	4	816	15	17728	13296	4.53	156 - 166	19	58.9	360 - 382	109 - 116
B7	2932	1298	4	815	15	17417	13063	4.46	154 - 163	19	58.9	353 - 376	108 - 114
Block Sub-total	16670					76672	57504		676.5 - 718.8			1556 - 1653	474 - 503.2

Block C

Site	Site Area (sqm)	Podium Floor Plate (sqm)	Floors	Tower Floor Plate (sqm)	Tower Floors	Gross Floor Plates (sqm) (Podium+ Tower)	GFA (75%) (sqm)	FSR:1	Apartment Range	Building Height (Storeys)	Height (m) excl. rooftop services	Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
C1	1551	775	4	510	2	4120	3090	1.99	36 - 39	6	18.6	84 - 89	25 - 27
C2	1669	820	4	550	2	4380	3285	1.97	39 - 41	6	18.6	89 - 94	27 - 29
C3	2817	1415	4	859	13	16827	12620	4.48	148 - 158	17	52.7	341 - 363	104 - 110
C4	2813	1351	4	860	14	17444	13083	4.65	154 - 164	18	55.8	354 - 376	108 - 114
C5	1582	771	4	506	2	4096	3072	1.94	36 - 38	6	18.6	83 - 88	25 - 27
C6	1570	759	4	499	2	4034	3026	1.93	36 - 38	6	18.6	82 - 87	25 - 26
C7	2852	1429	4	873	13	17065	12799	4.49	151 - 160	17	52.7	346 - 368	105 - 112
C8	2793	1329	4	844	14	17132	12849	4.60	151 - 161	18	55.8	348 - 369	106 - 112
Block Sub-total	17647					85098	63824		750.9 - 797.8			1727 - 1835	525.6 - 558.5

Block D

Site	Site Area (sqm)	Podium Floor Plate (sqm)	Floors	Tower Floor Plate (sqm)	Tower Floors	Gross Floor Plates (sqm) (Podium+ Tower)	GFA (75%) (sqm)	FSR:1	Apartment Range	Building Height (Storeys)	Height (m) excl. rooftop services	Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
D1	2128	838	4	619	1	3971	2978	1.40	35 - 37	5	15.5	81 - 86	25 - 26
D2	2519	1000	4	709	1	4709	3532	1.40	42 - 44	5	15.5	96 - 102	29 - 31
D3	2341	922	4	682	1	4370	3278	1.40	39 - 41	5	15.5	89 - 94	27 - 29
D4	2619	1021	4	789	1	4873	3655	1.40	43 - 46	5	15.5	99 - 105	30 - 32
D5	3133	1214	4	951	1	5807	4355	1.39	51 - 54	5	15.5	118 - 125	36 - 38
Block Sub-total	12740					23730	17798		209 - 222			482 - 512	147 - 156

West Auto Alley South

(Blocks A + B + C)	Developable Site Area (ha)	Population Range / ha		Gross Floor Plates (sqm)	Gross GFA (75%)		Apartment Range		Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
Total	4.80	950 - 1010		224956	168717		1985 - 2109		4565 - 4851	1389 - 1476

West Auto Alley North

Block D	Developable Site Area (ha)	Population Range / ha		Gross Floor Plates (sqm)	GFA (75%)		Apartment Range		Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
Total	1.27	378 - 402		23730	17798		209 - 222		482 - 512	147 - 156

Transition Area Landsdowne Street

Site	Site Area (sqm)	Podium Floor Plate (sqm)	Floors	Upper Floor Plate (sqm)	Upper Floors	Gross Floor Plates (sqm) (Podium+ Tower)	GFA (75%) (sqm)	FSR:1	Number of Residences	Building Height (Storeys)	Height (m) excl. rooftop services	Population Range (2.3 / Apartment)	Cars Range (0.7 / Apartment)
T2	1377	528	1	441	1.25	1079.25	809	0.59	5	2.25	6.975	12 - 0	4 - 0
T3	1345	558	1	495	1.25	1176.75	883	0.66	6	2.25	6.975	14 - 0	4 - 0
T4	899	343	1	286	1.25	700.5	525	0.58	3	2.25	6.975	7 - 0	2 - 0
T5	901	343	1	286	1.25	700.5	525	0.58	3	x	#VALUE!	7 - 0	2 - 0
Sub-total	4522					3657	2743		17			39 - 0	12 - 0

Transition Area - Inkerman Street

Site	Site Area (sqm)	Ground Floor (sqm)	Ground Floor	First Floor (sqm)	First Floor and Attic	Gross Floor Area	GFA (80%) (sqm)	FSR:1	Number of Residences	Building Height (Storeys)	Height (m)	Population Range (2.3 / Residence)	Cars Range (0.7 / Apartment)
T1	1396	769	1	618	1.25	1541.5	1233	0.88	6	2.25	9.3	14	4
T6	1203	577	1	490	1.25	1189.5	952	0.79	5	2.25	9.3	12	4
T7	1239	602	1	511	1.25	1240.75	993	0.80	5	2.25	9.3	12	4
T8	2093	1005	1	835	1.25	2048.75	1639	0.78	8	2.25	9.3	18	6
T9	1831	907	1	752	1.25	1847	1478	0.81	7	2.25	9.3	16	5
T10	999	356	1	302	1.25	733.5	587	0.59	3	2.25	9.3	7	2
T11	1433	765	1	631	1	1396	1117	0.78	6	2	9.3	14	4
Sub-total	10194					9997	7998		40			92	28

A.2 Comparative Densities in Parramatta LGA

DEVELOPMENT

Comparison of the Masterplan A West Auto Alley Precinct and yield against other sites within the Parramatta LGA.

Comparative Densities In Parramatta LGA				
Sites within the Parrammatta LGA	Site Area (ha)	Developable Site Area (ha)	Population (ha)	FSR (net)
Camellia (Master Plan Actual)*	40	14.07	1492	7.14:1
Melrose Park (Masterplan Actual)*	25	14.5	951	3.5:1
Melrose Park South*	19.01	9.5	1026	3.8:1
University of Western Sydney*	6.3	3.15	839	3.4:1
Carter Street (without Industrial)*	35	28	731	5.4:1
ADHC Site*	19	8.8	615	2.2:1
Wentworth Point (As Built)*	67	49	536	1.9:1
Wentworth Point @ Build Out*	69	34.5	962	3.5:1
WAAP				
West Auto Alley South		4.80	950	3.5:1
West Auto Alley North		1.27	378	1.4:1
Combined West Auto Alley Precinct		6.07	830	3.1:1

* Data from Parramatta City Council - Parramatta CBD Planning Proposal - Resolution of Certain Policy Issues *'Incentive FSR's for West Auto Alley Precinct'* 22.08.2018

Melrose Park Concept Image

Carter Street

Wentworth Point

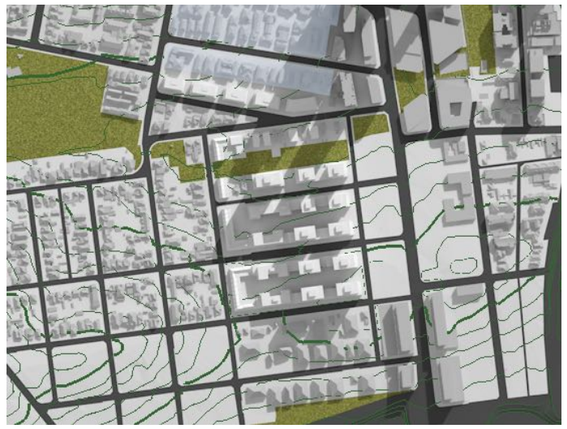
APPENDIX –

MASTERPLAN SHADOWS

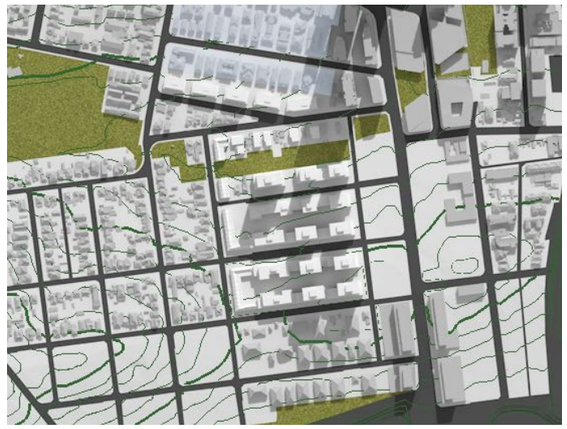
B

B.1 Shadow Diagrams Existing Context

9:00 21 June *North* *NTS*



10:00 21 June *North* *NTS*



11:00 21 June *North* *NTS*

12:00 21 June *North* *NTS*

9:30 21 June *North* *NTS*

10:30 21 June *North* *NTS*

11:30 21 June *North* *NTS*

12:30 21 June *North* *NTS*

EXISTING CONTEXT

The diagrams above show the shadows cast by the Parramatta. The context as modelled is an amalgamation of approved Tower DAs, Towers under construction, and the existing low-scale context along Church street

B.1 Shadow Diagrams Existing Context

13:00 21 June *North* *NTS*

14:00 21 June *North* *NTS*

15:00 21 June *North* *NTS*

13:30 21 June *North* *NTS*

14:30 21 June *North* *NTS*

EXISTING CONTEXT

The diagrams above show the shadows cast by the Parramatta. The context as modelled is an amalgamation of approved Tower DAs, Towers under construction, and the existing low-scale context along Church street

B.2 Shadow Diagrams Future Context

9:00 21 June *North* *NTS*

10:00 21 June *North* *NTS*

11:00 21 June *North* *NTS*

12:00 21 June *North* *NTS*

9:30 21 June *North* *NTS*

10:30 21 June *North* *NTS*

11:30 21 June *North* *NTS*

12:30 21 June *North* *NTS*

FUTURE CONTEXT

The diagrams above show the shadows cast by a potential future built form for the Parramatta CBD. The context as modelled is an amalgamation of approved Tower DAs, Towers under construction, and potential building envelopes on the sites adjacent Church Street which are based on the Draft LEP controls.

B.2 Shadow Diagrams Future Context

13:00 21 June *North* *NTS*

14:00 21 June *North* *NTS*

15:00 21 June *North* *NTS*

13:30 21 June *North* *NTS*

14:30 21 June *North* *NTS*

FUTURE CONTEXT

The diagrams above show the shadows cast by a potential future built form for the Parramatta CBD. The context as modelled is an amalgamation of approved Tower DAs, Towers under construction, and potential building envelopes on the sites adjacent Church Street which are based on the Draft LEP controls.

APPENDIX - MASTERPLAN

SOLAR ACCESS

C

C.1 WAPP Precinct Eye of the Sun

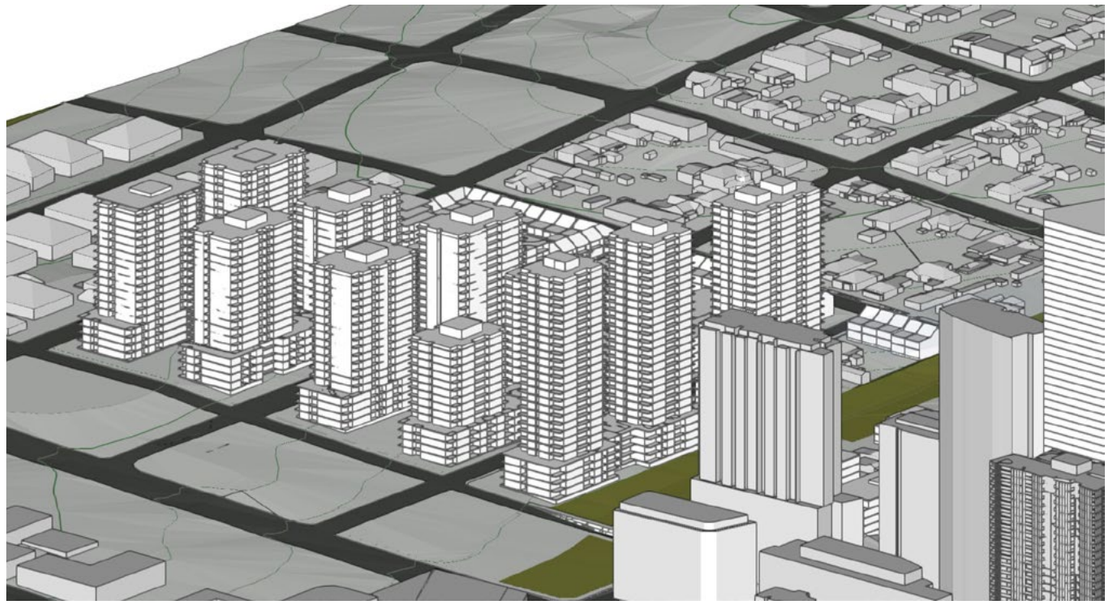
SOLAR ACCESS.

The Sun eye testing of the WAAP is based on a fully developed WAAP. The context as modelled is an amalgamation of approved Tower DAs, Towers under construction, and the existing low-scale context along Church street. The outcome of the testing shows that the precinct as a whole achieves a high level of compliance with the current SEPP 65 requirements of 2 hours Solar access to living rooms and Balconies in mid-winter. In this scenario only one of seventeen amalgamated sites does not achieve solar access. However the eventual pattern of development within the precinct means that solar compliance could be achieved on this site.

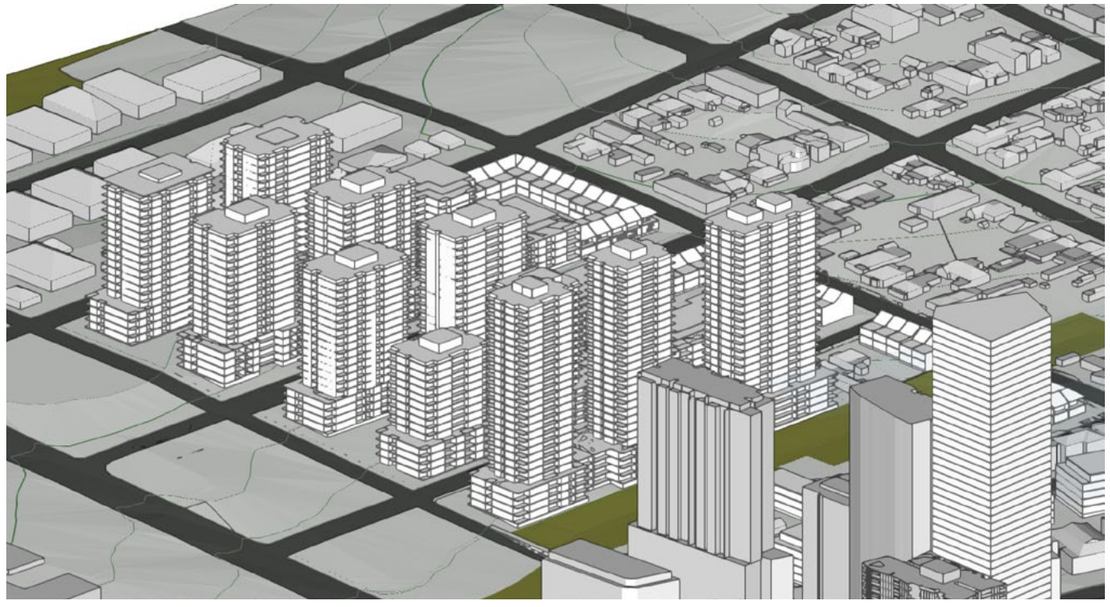
Block A							
Site	Podium Apartments (Total)	Podium Apartmetns with 2 Hours Solar 21 June	Tower Apartments (Total)	Tower Apartmetns with 2 Hours Solar 21 June	Total Apartments	Total Aprtemtns with 2hrs Solar	Percent
A1	44	36	176	132	220	168	76%
A2	80	56	230	225	310	281	91%

Block B							
Site	Podium Apartments (Total)	Podium Apartmetns with 2 Hours Solar 21 June	Tower Apartments (Total)	Tower Apartmetns with 2 Hours Solar 21 June	Total Apartments	Total Aprtemtns with 2hrs Solar	Percent
B1	32	24	14	10	46	34	74%
B2	27	19	6	4	33	23	70%
B3	32	20	52	39	84	59	70%
B4	36	28	60	40	96	68	71%
B5	48	32	20	16	68	48	71%
B6	44	0	105	71	149	71	48%
B7	40	16	120	97	160	113	71%

Block C							
Site	Podium Apartments (Total)	Podium Apartmetns with 2 Hours Solar 21 June	Tower Apartments (Total)	Tower Apartmetns with 2 Hours Solar 21 June	Total Apartments	Total Aprtemtns with 2hrs Solar	Percent
C1	24	16	10	10	34	26	76%
C2	24	16	12	10	36	26	72%
C3	40	16	104	85	144	101	70%
C4	44	20	112	91	156	111	71%
C5	24	16	10	8	34	24	71%
C6	24	16	10	8	34	24	71%
C7	38	16	98	79	136	95	70%
C8	44	22	112	95	156	117	75%

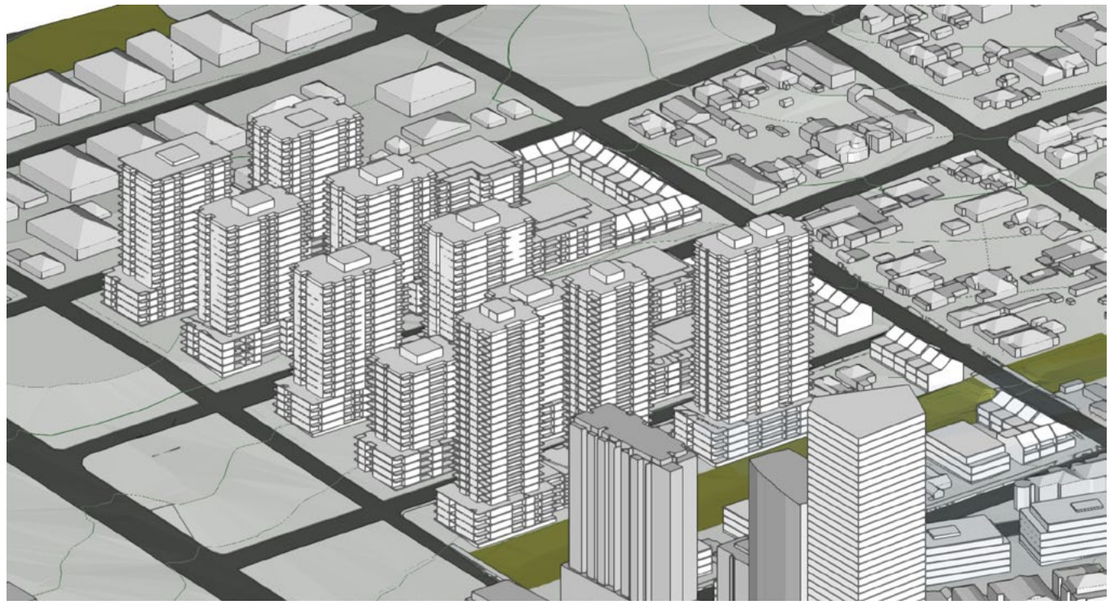


9:00 21 June

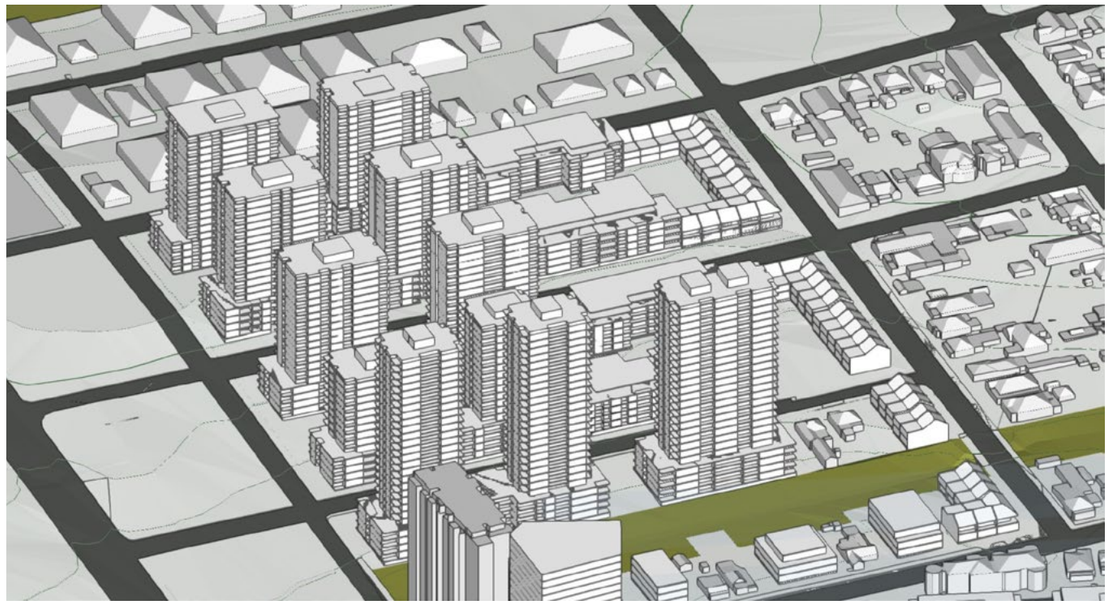


9:30 21 June

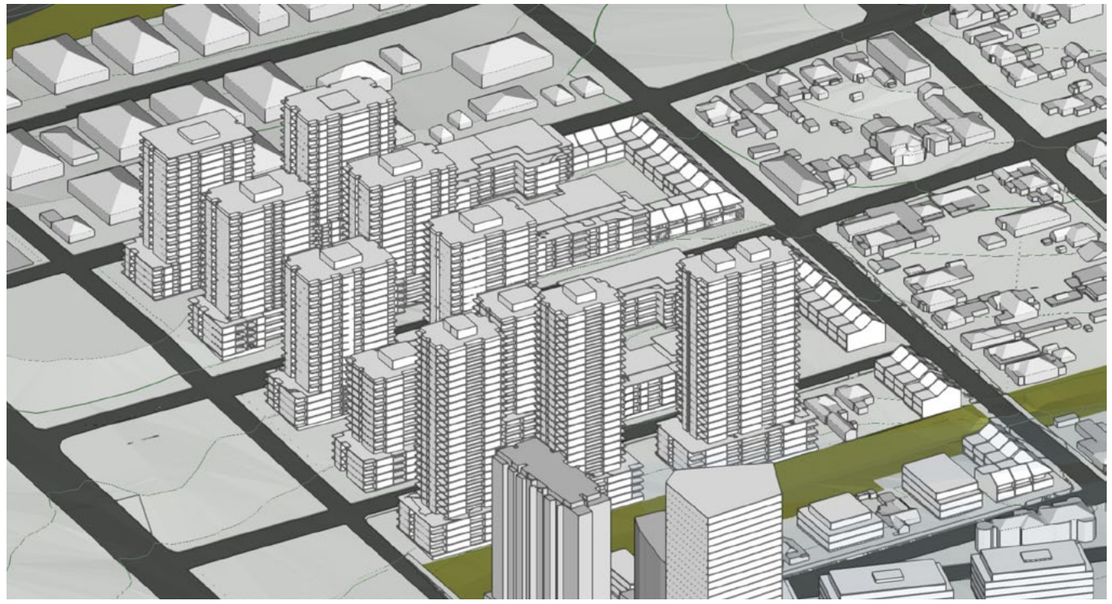
C.1 WAAP Eye of the Sun



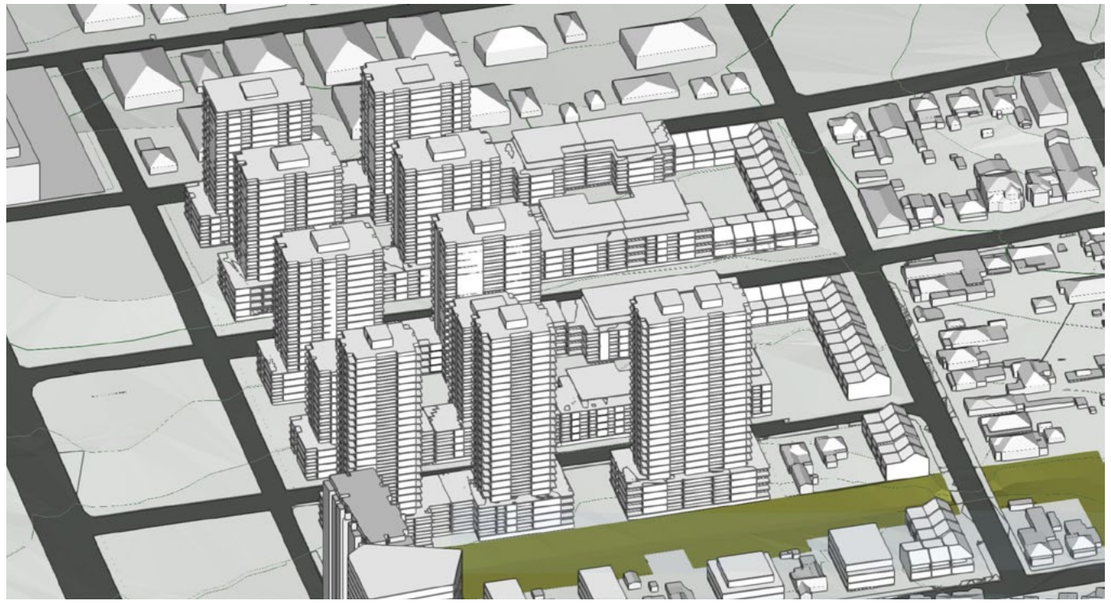
10:00 21 June



11:00 21 June



10:30 21 June



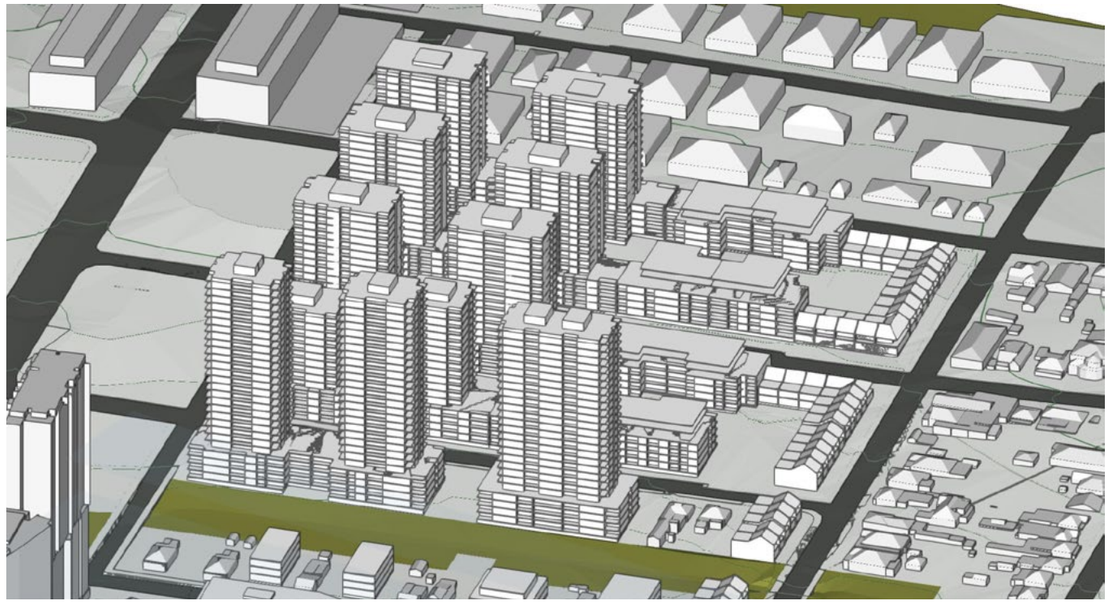
11:30 21 June

C.1 WAAP Eye of the Sun

12:00 21 June

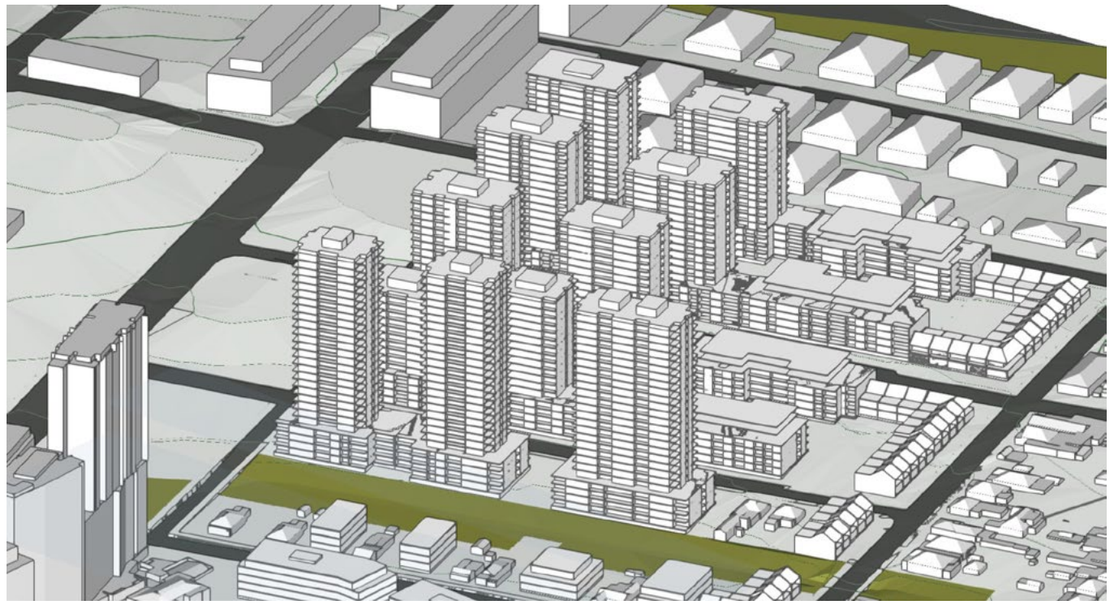
13:00 21 June

12:30 21 June

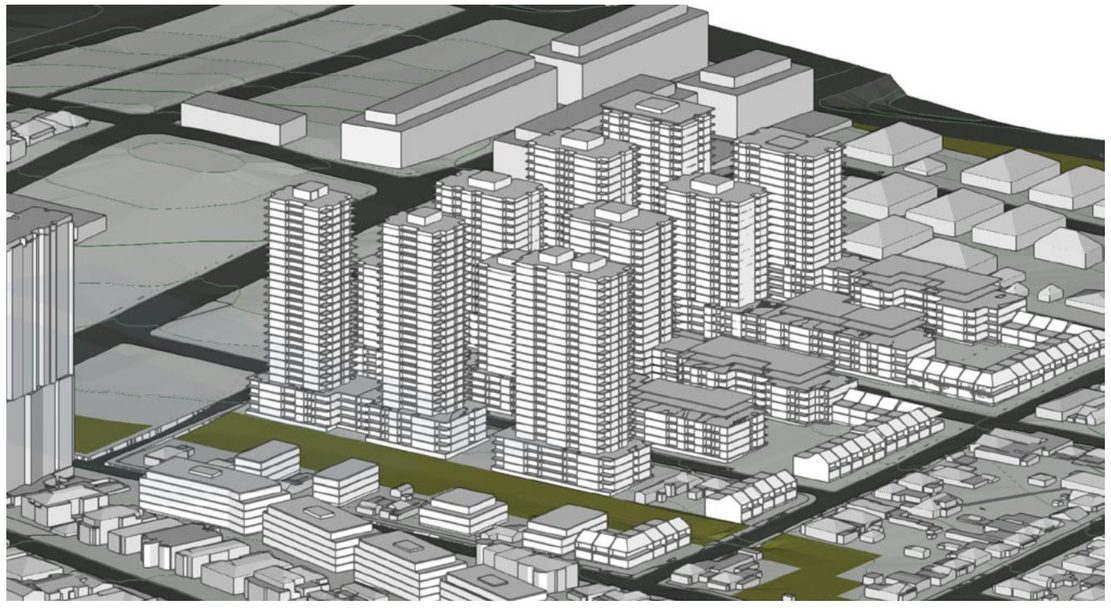


13:30 21 June

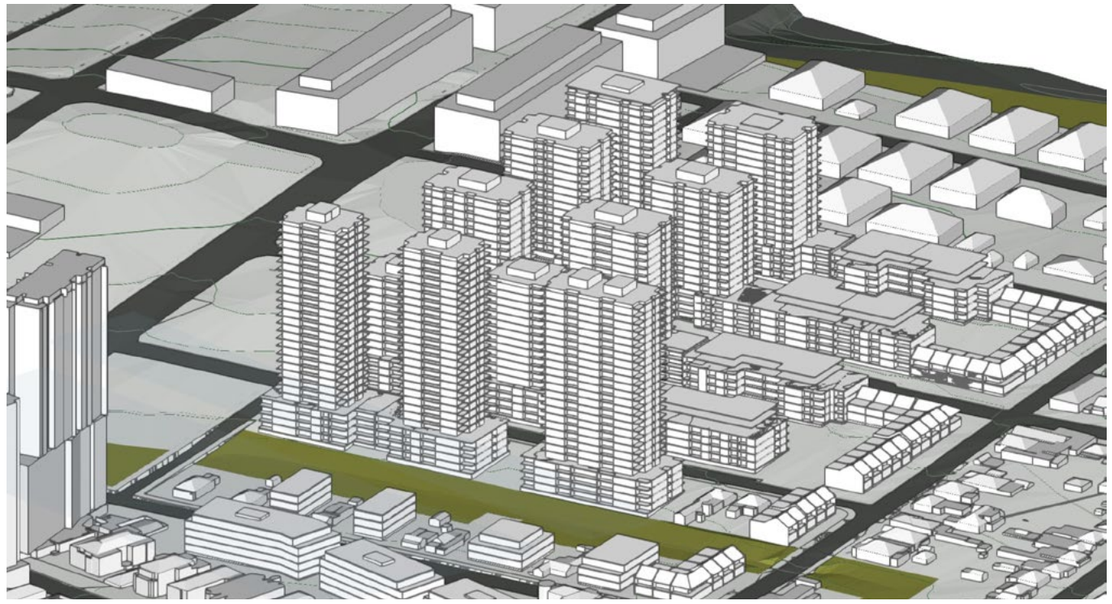
C.1 WAAP Eye of the Sun



14:00 21 June



15:00 21 June



14:30 21 June

Level 4,
68-72 Wentworth Avenue
Surry Hills NSW 2010
T: (02) 9281 0181
F: (02) 9281 3171
info@olssonassociates.com.au

olsson& associates architects PTY LTD