

# STATEMENT OF ENVIRONMENTAL EFFECTS

46-66 O'CONNELL  
STREET, CADDENS

24 JANUARY 2017  
PREPARED FOR CWG DEVELOPMENTS

**URBIS**

**URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:**

Director	Peter Strudwick
Associate Director	Sarah Houston
Project Code	SA6416
Report Number	Final

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# EXECUTIVE SUMMARY

This Statement of Environmental Effects (SEE) accompanies a Stage 1 Development Application lodged under Clause 83B of the *Environmental Planning and Assessment Act 1979*. The application seeks approval for a Concept Proposal specifically relating to land at 46-66 O'Connell Street, Caddens.

The Concept Plan has been prepared by Hill Thalys (refer Appendix B) following an extensive urban design analysis. In summary, the Concept Plan seeks approval for the following elements:

- 20 super lots consisting of:
  - 17 residential lots including two mixed use lots; and
  - Three public domain lots.
- Road layout and access points.
- Total residential yield.

This Stage 1 Development Application does not seek approval for any physical works. The application forms the first stage of a staged development process and approval for construction of development in accordance with the Concept Plan will be subject to subsequent (Stage 2) Development Applications.

The vision for the Concept Plan is to provide a new approach to housing which differs from the traditional detached estate model often found in urban release areas aiming to provide high quality housing design, functionality and affordability for young families and first home buyers. This will be achieved through future low-rise, medium sized homes including terraces, dual occupancies or secondary houses which demonstrate design excellence and assist in meeting the shortage for desired housing types and diversity for families.

This approach is entirely consistent with the intent of the Draft Medium Density Design Guide which were released in 2016 by facilitating terrace housing that is strata subdivided, affordable and demonstrate design excellence.

The significance of the site has previously been established through its inclusion in the Caddens Urban Release Area and:

- Is serviced by frequent public transport services and a road network which provide access to local and regional centres providing employment and services and facilities.
- Will benefit from the future development of the adjacent Caddens Town Centre which is anticipated to accommodate commercial uses which support the existing and new community.
- Is likely to benefit from additional future infrastructure linkages to the Western Sydney Airport, other local centres and the North West and South West Growth Centres.

The Concept Plan has been prepared in consultation with an extensive project group of specialist consultants. The Concept Plan has also been developed in consultation with Penrith Council development officers and the Design Review Panel and includes the following:

- A high level of amenity, a legible street network and a highly connected public domain. The Concept Plan provides a connective, open edged pattern of streets and open spaces that directly engages with surrounding land uses to benefit future residents, existing students and employees of TAFE and Western Sydney University.
- A variety of open space and passive and active recreational areas for the benefit of new residents including a Central Park/ Bushland Reserve, a linear park/square and a hill-top pocket park.
- Retention of 84.3% of an existing patch of Cumberland Plain Woodland community and replanting of 9.3% of CPW will be undertaken within the Woodland Park. This will result in 0.7ha of CPW being retained or re-created within the site which is a net gain of 0.06ha.
- Realises the potential of the site associated with its inclusion in the Caddens Urban Release Area and wider WELL Precinct.

- Minimal environmental impacts, all of which can be mitigated through the specialist consultant recommendations which will be incorporated into the future Stage 2 Development Applications.
- Demonstrates consistency with the relevant environmental planning instruments including strategic planning policy, State and local planning legislation, regulation and policies.

As such, for the reasons contained within this report, the accompanying documentation and having regard to the State and Local Planning Policy Framework, we consider the proposal has considerable merit and should be supported by Council.



# INTRODUCTION

## 1.1. OVERVIEW

This Statement of Environmental Effects (SEE) accompanies a Stage 1 Development Application lodged under Clause 83B of the *Environmental Planning and Assessment Act 1979*. The application seeks approval for a Concept Proposal (referred to herein as the 'Concept Plan') specifically relating to land at 46-66 O'Connell Street, Caddens (the site).

The proposed Concept Plan establishes the parameters for future development of the site and incorporates a road layout, super lots including public domain lots and total residential yield.

It should be noted that this Stage 1 Development Application does not seek approval for any physical works. The application forms the first stage of a staged development process and approval for construction of development in accordance with the Concept Plan will be subject to subsequent (Stage 2) Development Applications.

The Concept Plan provides a local street network, dwelling housing, public domain and recreational areas which:

- Realises the potential of the site associated with its inclusion in the Caddens Urban Release Area and wider WELL Precinct.
- Will provide a new urban community with innovative housing which provides a high level of integration and connectivity with surrounding employment, education and health hubs.
- Is serviced by frequent public transport services and a road network which provide access to local and regional centres providing employment and services and facilities.
- Will benefit from the future development of the adjacent Caddens Town Centre which is anticipated to accommodate commercial uses which support the existing and new community.
- Is likely to benefit from additional future infrastructure linkages to the Western Sydney Airport, other local centres and the North West and South West Growth Centres.

The Concept Plan aims to provide a new approach to housing which differs from the traditional detached estate model often found in urban release areas and aims to provide high quality housing design, functionality and affordability for young families and first home buyers.

The Concept Plan has been prepared following extensive urban design analysis undertaken by Hill Thalys to establish the vision for the site and the framework for future development. This is described in the Urban Design Report provided in Appendix B. In short, the Concept Plan focusses on:

- Facilitating low-rise, medium sized housing which demonstrate design excellence and incorporate a high level of amenity. This will be achieved through future strata subdivision of the super lots to provide medium sized homes such as terraces, dual occupancies and secondary homes.
- Quality public domain with a variety of useable open spaces including a Woodland Park incorporating a high level of retention of the existing Cumberland Plain Woodland community.
- Connective, open edged pattern of streets and open spaces that directly engages with surrounding land uses. This provides a clear and navigable public domain network of streets and parks that will benefit future residents, existing students and employees of TAFE and Western Sydney University.

## 1.2. THE CONCEPT PLAN

In summary, this application seeks consent for a Concept Plan which presents:

- 15 residential super lots.
- Two mixed use super lots for future commercial, retail uses and shop top housing.
- Three public domain lots.

- Total residential yield for the 17 residential lots of 320 dwellings (with 70 secondary dwellings).
- Internal road layout and road connections including main access from O'Connell Street.

Concept Housing Plans have been prepared by Hill Thalys to support the Concept Plan and are included in the Urban Design Report provided in Appendix B. These indicative plans:

- Illustrate the type of housing products which may be appropriately accommodated on the site.
- Provides the basis for development of the total proposed yield.
- Indicate how future development could be accommodated on the site with consideration to the sites attributes.

Subsequent Stage 2 Development Applications will be prepared and lodged with Council for development in accordance with the Concept Plan. This will include subdivision, site preparation and civil infrastructure works including construction of roads, public domain works and construction of dwelling houses.

### 1.3. THIS REPORT

This SEE provides the following:

- A site analysis including a description of the site and its local and regional context.
- Description of the strategic context of the site.
- Background to the project including consultation with Penrith City Council and adjoining land owners.
- The vision for the site and design principles which have guided preparation of the Concept Plan.
- Detailed description of the proposed Concept Plan.
- An assessment of the proposal against the applicable Federal, State and local planning framework.
- An impact assessment of the proposed Concept Plan and anticipated future development.
- Conclusion summarising the proposal and the outcomes of the planning assessment.

### 1.4. APPLICATION INPUTS

This application is supported by the following specialist consultant reports provided in the appendices of this report:

Table 1 – Specialist Consultant Inputs

Input	Consultant	Appendix
Survey Plan	LTS Lockley	A
Urban Design Report including Concept Plan and Concept Housing Plans	Hill Thalys	B
Landscape Concept Plan	Taylor Brammer	C
Concept Civil Engineering Plans	SMEC	D
Bushfire Protection Assessment	Travers	E
Transport Impact Assessment	The Traffic and Transport Planning Partnership	F
Traffic Peer Review	Traffix	
Preliminary Infrastructure Report	SMEC	G

<b>Input</b>	<b>Consultant</b>	<b>Appendix</b>
Stage 1 Preliminary Site Investigation	APP	H
Flora and Fauna Assessment	Travers	I
Vegetation Management Plan	Travers	J
Concept Waste Management Plan	GHD	K
Penrith DCP Compliance Table	Urbis	L

## 2. THE SITE

### 2.1. THE SUBJECT SITE

The site is located at 46-66 O'Connell Street, Caddens and is legally known as Lot 3 in DP1103503 and Lot 6 in DP593628. The site is a rectangular shape of approximately 12 hectares and is an un-fragmented land parcel in single ownership.

The site contains two dwelling houses, one located adjacent to O'Connell Street in the central western portion of the site and one in the central northern portion of the site. There is an existing private roadway which runs along the site boundary to the north identified as Lot 2 in DP 1217434.

The site was cleared of vegetation in 1943 and used as an orchard up until 2008. The site now contains scattered vegetation except for an area in the southern central of the site containing regrown Cumberland Plan Woodland which is identified as an endangered ecological community.

The site has varying topography and is generally steep falling predominantly towards the south-western corner. However, all four corners drain away in different directions. There is a ridge line running through the middle of the site from east to west which offers views towards the Blue Mountains to the west.

The site is mapped as bushfire prone land being identified as Vegetation Category 2.

Figure 1 – The Subject Site



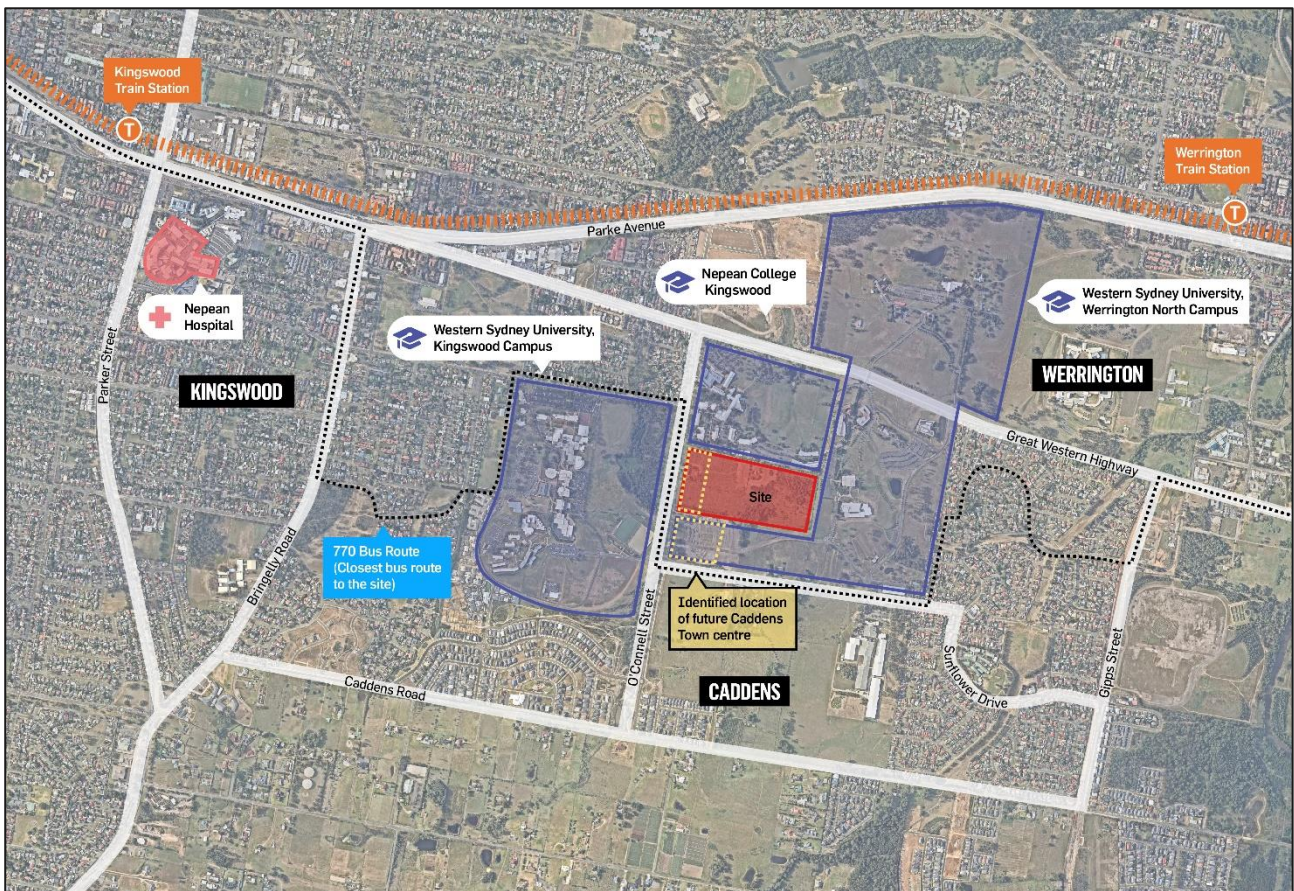
### 2.2. LOCAL CONTEXT

The site is surrounded by educational uses and University owned land consisting of:

- Nepean TAFE Kingswood Campus immediately to the north which adjoins the Great Western Highway and O'Connell Street.
- University of Western Sydney Kingswood Campus immediately to the west and south.
- University of Western Sydney Werrington Campus to the east and further to the south.

The land immediately to the south is owned by the University and forms the focal point for the future Caddens town centre.

Figure 2 – Site Analysis Plan



The site is in proximity to several transport networks and key centres including:

- The Northern and Western Railway Line runs parallel to the site to the north. Kingswood Station is located approximately 1.8km to the north west and Werrington Station approximately 2.3km to the north east.
- The Great Western Highway, a regional road connecting Penrith to Parramatta, runs parallel to the site approximately 500m to the north.
- Kent Road and Gipps Street to the east of the site is being upgraded to form the new Werrington Arterial Road. This will create an arterial north south road connection between the Great Western Highway and the M4 Motorway and increase its capacity and improve travel times.
- The town centres of St Marys (4km to the east), Werrington (3km to the north) and Kingswood (2km to the west).
- Penrith City Centre located approximately 4km to the north east.
- Penrith Nepean Hospital located 2.5km to the west.
- Potential future transport linkages associated with Western Sydney Rail and the Outer Sydney Orbital running parallel with the eastern site boundary.
- The site is serviced by Busways Route 770 running between Penrith and Mt Druitt railway stations via St Marys railway stations.
- Other bus routes within 250m of the site include route 774, 775 and 776.
- Western Sydney University also operate regular shuttle buses to Kingswood Station.

## 2.3. REGIONAL CONTEXT

The site is located approximately 50km to the west of Sydney CBD with Katoomba, Lithgow and the wider Blue Mountains region situated 80km to the north west.

There are several key employment areas within the western Sydney region:

- Western Sydney Employment Area located approximately 7km to the south east.
- Western Sydney Airport Precinct which located 23km to the south and will act as a catalyst for significant new investment in infrastructure and jobs.
- Marsden Park and the wider north west growth centre located approximately 20km to the north east.
- Leppington and wider South West Growth Centre located approximately 30km to the south.

### 3. STRATEGIC CONTEXT

The site lies within the Caddens Release Area, a 670ha area of land on which the NSW Government committed to boosting jobs and investment in Western Sydney and to developing prime land for provision of housing. The release area was established due to its proximity to Penrith City Centre, access to services and transport options.

The land was rezoned in 2009 for residential, mixed use, retail, open space and conservation areas. The subject site and surrounding area continues to be recognised as having strategic significance and is an important location for delivery of housing. The strategic significance of the site is further detailed further below.

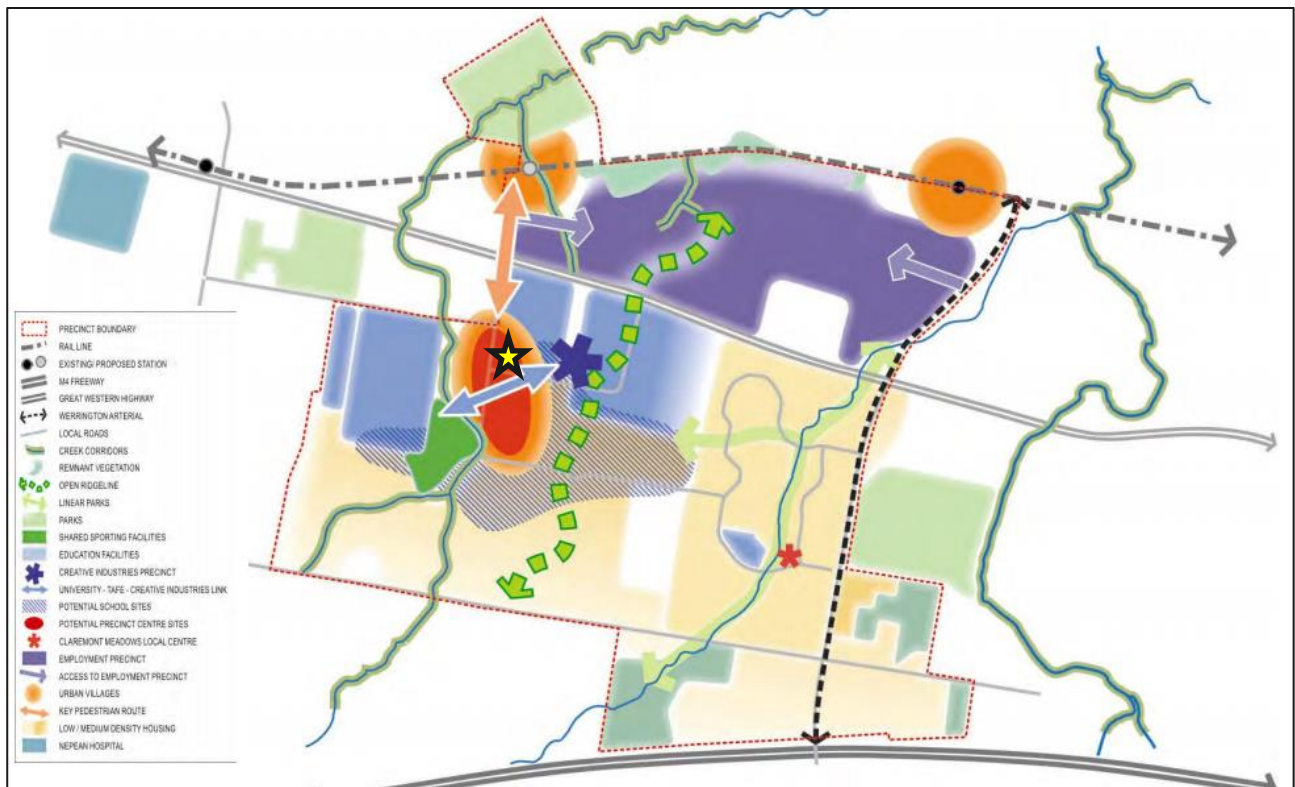
#### 3.1. KEY EMPLOYMENT AND LIVING PRECINCT


The site is located within the Werrington Enterprise Living and Learning precinct (WELL precinct), consisting of land either side of the Great Western Highway between Werrington and Kingswood stations. It includes land owned by the University of Western Sydney and TAFE which surrounds the subject site, former Defence land; UrbanGrowth NSW and private landowners.

The WELL precinct was identified for the development of a new urban community with *'integrated working, living and learning environments, innovative housing and a precinct centre'*. The design principles for the precinct focus on *'town meets gown'* by creating opportunities for learning environments to become more appropriately integrated with the community, existing and new businesses and new development.

The Concept Plan for the WELL precinct was prepared in 2004 and is shown in Figure 3. The subject site is located within the area identified for the potential precinct centre.

Figure 3 – WELL Precinct Concept Plan (WELL Precinct Strategy 2004)



 Indicative Site Location

## 3.2. CADDENS TOWN CENTRE

Consistent with the WELL Precinct Concept Plan, the western portion of the site forms the northern edge of the future Caddens town centre with the majority located on the University owned land immediately to the south of the site. The town centre is the planned focal point for the WELL Precinct where residential and employment uses are to integrate with the university, TAFE and research sectors. The Penrith DCP 2014 identifies the need for 10,000sqm of commercial development in the centre.

Key aims for the Caddens town centre are:

- To provide a high standard of residential amenity and urban and architectural design.
- To incorporate a diverse range of housing forms and densities to meet the needs of diverse age groups, family types and income levels.
- To facilitate links between open spaces, the town centre and adjacent residential areas.

Figure 5 shows the Caddens Structure Plan found in the Penrith DCP 2014. The DCP identifies the subject site for provision of 'mixed use, residential flat buildings and attached dwellings'. The vision for the proposed Concept Plan (as outlined in Section 4) is consistent with the aims of the Penrith DCP in relation to the Caddens town centre.

Figure 4 – Caddens Structure Plan



## 3.3. KEY EDUCATION AND HEALTH PRECINCT

A Plan for Growing Sydney (the Plan) identifies Penrith as a regional city centre and 'Penrith Education and Health precinct' is identified as a Strategic Centre. This recognises the importance of the educational facilities surrounding the site and the Nepean Hospital. Accordingly, Penrith is a focus for housing and jobs growth, particularly in health and education. The Plan is discussed in detail in Section 7.1.1.



### 3.4. POTENTIAL FUTURE TRANSPORT LINKS

Development of the subject site may benefit from the following future transport links which are currently being investigated. The NSW Government is investigating a north - south motorway and freight rail corridor to expand the future transport network and serve growth in Sydney's West known as the Outer Sydney Orbital. This will improve motorway and freight rail connectivity within Western Sydney and between regional centres. The Outer Sydney Orbital corridor will extend approximately 80km between Box Hill to the north of the site and the Hume Motorway at Menangle in the south. The exact location is currently being investigated.

The future Western Sydney Airport is identified as a catalyst for significant new investment in infrastructure and jobs in the West subregion. Along with new supporting transport infrastructure, the airport will enhance national and international connections. Western Sydney Rail Needs Scoping Study is being undertaken by Transport for NSW to review options for increasing transport options as an extension to the South West Rail Link. A north-south link of the T2 Inner West and South Line through to the T1 Western Line is identified as providing important north-south connectivity, and a useful connection between the proposed Western Sydney Airport and the existing rail network. The Needs Scoping Study identifies that this will 'open up' a large part of Western Sydney for further development including the Penrith Education and Health Precinct.

Figure 5 – Western Sydney Rail Needs Scoping Option 6 – Macarthur - Western Sydney Airport – St Marys - Schofields



 Indicative Site Location

## 4. VISION FOR THE SITE AND DESIGN PRINCIPLES

The Concept Plan has been prepared by Hill Thalys (refer Appendix B) following an extensive urban design analysis and ongoing consultation with Penrith Council development officers and the Design Review Panel.

The Concept Plan aims to provide a new approach to housing which differs from the traditional detached estate model often found in urban release areas and aims to provide high quality housing design, functionality and affordability for young families and first home buyers. This will be achieved through future strata subdivision of the super lots to provide medium sized homes such as terraces, dual occupancies and secondary homes. The vision for the site is to:

- Facilitate low-rise, medium sized homes including terraces, dual occupancies or secondary houses which demonstrate design excellence and assist in meeting the shortage for affordable housing solutions and diversity for families.
- Provide a high level of amenity, a legible street network and a highly connected public domain.
- Create a connective, open edged pattern of streets and open spaces that directly engages with surrounding land uses to benefit future residents, existing students and employees of TAFE and Western Sydney University.
- Facilitate residential development which is integrated into the future Caddens town centre which is to accommodate commercial and retail uses, services and facilities.

The key design principles which underpin the Concept Plan are provided in the Urban Design Report are set out in the table below.

Table 2 – Summary of Urban Design Principles - Hill Thalys.

Principle	Design Elements
<p><b>Streets and lanes:</b></p> <p><i>Providing a legible network of social spaces for walking, cycling, visitor carparking and servicing, providing address for all future residents and visitors</i></p>	<ul style="list-style-type: none"> <li>• Establishes a highly connective public realm.</li> <li>• Provides edge-streets to allow future connection to neighbouring proposals.</li> <li>• Predominantly retains the established Cumberland Plain Woodland.</li> <li>• Creates open vistas at the ends of all streets.</li> <li>• New streets: <ul style="list-style-type: none"> <li>– Are calibrated by their width and arrangement.</li> <li>– Given character and identity through landscaping.</li> <li>– Integrate Water Sensitive Urban Design.</li> </ul> </li> </ul>
<p><b>Parks and Squares:</b></p> <p><i>Defined and strategically located social spaces for the community, activity and rest, walking, cycling and environmental function</i></p>	<ul style="list-style-type: none"> <li>• Provides a new Central Park containing 84.3% of Cumberland Plain Woodland and additional 9.3% revegetation of the CPW and open spaces.</li> <li>• Create a new linear park/square at the termination of the Main Street, entering from O'Connell Street.</li> <li>• Create a hill-top pocket park parallel to the linear park and main street.</li> <li>• The proposed parks and squares are placed to provide complementary difference in character.</li> </ul>
<p><b>Transport:</b></p>	<ul style="list-style-type: none"> <li>• Create a slow speed street environment that allows easy and safe pedestrian and cycle movements.</li> </ul>

<b>Principle</b>	<b>Design Elements</b>
<i>Creating a connective city</i>	<ul style="list-style-type: none"> <li>• Provides a street network that is legible and provides options for connections to future public transport</li> </ul>
<p><b>Urban Blocks:</b></p> <p><i>The public space structure defines blocks that accommodate private urban form patterns</i></p>	<ul style="list-style-type: none"> <li>• Create a significant area of built form fronting or near green space for residents and the community to enjoy.</li> <li>• Block dimensions provide breathable built form with useable private open space whilst maintaining a fine grain walkable street network to promote health and wellbeing of the community.</li> </ul>
<p><b>Built Form:</b></p> <p><i>The private domain</i></p>	<ul style="list-style-type: none"> <li>• Balance public space amenity and denser building forms</li> <li>• Locate the tallest built form to the western blocks to create intensity to the main street and transition bulk and density</li> <li>• Protect street vistas terminated by open views to the sky and landscape</li> <li>• Promote building depths to articulate the plan and facade and provide visual diversity and experience for the public.</li> <li>• Coordinating off street parking within built form footprints to provide and facilitate ease of amenity for the community.</li> </ul>

## 5. BACKGROUND

### 5.1. CONSULTATION WITH COUNCIL AND THE DESIGN REVIEW PANEL

The project team has engaged with Penrith Council officers in a pre-Development Application meetings and two Design Review Panel (DRP) meetings including:

- Pre-DA meeting – 3 November 2016.
- DRP meeting – 5 October 2016 and 16 November 2016.

The pre-DA and DRP meetings have resulted in positive feedback on the Concept Plan vision and approach. A summary of key issues raised by the DRP in the initial meeting and the proposed design response is provided in the table below.

Table 3 – Design Review Panel Meeting Comments from 5 October 2016

Comments	Response
<b>Meeting on 5 October 2016</b>	
The Concept Plan significantly reduces (by half) the endangered communities on the site.	The Concept Plan was revised to ensure that 84.3% of the endangered community is retained and incorporated into the Woodland Park in accordance with DRP comments. A further 9% of the CPW is to be revegetated within the park.
A Flora and Fauna Report is required to be submitted with the application.	A Flora and Fauna Assessment has been prepared by Travers and is provided in Appendix I.
The proposed drainage works are located in an area which may compromise critical vegetation.	The proposed WSUD and drainage management system has been designed to minimise damage to the vegetation. A street with dry swale and stormwater detention has been incorporated along the southern boundary of the site.
The size, width and length of the proposed laneways requires consideration to ensure that they are wide enough to accommodate servicing, landscaping and activation.	New streets have been designed to accommodate servicing and where appropriate landscaping and activation.
Varying edge treatment provides flexibility to address future development potential on adjoining sites but requires consideration of fencing, landscaping, access and surveillance.	The Concept Plan provides edge-streets to allow future connection to neighbouring proposals and integrate with and contribute to the wider region. The street design also creates open vistas to connect to the broader locality. Further, a significant area of built form will front green space to increase amenity and outlook of development.
The concept housing plans should show how built form can respond to the topography and proposed finish ground levels. This should include section drawings.	The Concept Housing Plans have been prepared by Hill Thalys and provided in the Urban Design Report located in Appendix B.

In the second meeting with DRP, the amendments to the Concept Plan were generally endorsed particularly regarding the increased retention of the Cumberland Plain Woodland and the open edge-streets which allow for future connection to neighbouring proposals.

Ongoing consultation with Council has occurred throughout the preparation of the Concept Plan in relation to stormwater management. The following table provides a response to engineering comments received.

Table 4 – Summary of Council’s Engineering Comments

Issue	Comment	Response
<b>Comments received 30 November 2016</b>		
Onsite water detention	<ul style="list-style-type: none"> <li>• What is the quantity of water systems, are they above or below ground;</li> <li>• Where are the water detention areas located on site?</li> <li>• Which assets are dedicated to Council and what will be community scheme;</li> <li>• Provision of depths for access and maintenance;</li> <li>• How to comply with WSUD.</li> </ul>	A summary of the proposed onsite detention is provided in the Concept Civil Engineering Report provided in Appendix D.
WSUD / Onsite water detention	Provide proposal with detailed WSUD strategy. PCC believes that exemption or departure for a greenfield subdivision is not suitable. Consider WSUD measures that could be implemented for a catchment rather than the development site only.	A WSUD Strategy is provided in Appendix D.
Intersection Separation	PCC requests clarification on the 70m sight distance.	Sight distance is discussed in the Transport Impact Assessment provided in Appendix F.
Road Design	Site detail road design requirements to be incorporated.	Road design is included in the Concept Engineering Plans provided in Appendix D.
Bus Route	Bus routes and stops for discussion with Transport NSW. Suitable bus stop provision is usually required within 400m walking distance of a dwelling.	Bus routes are discussed in the Transport Impact Assessment provided in Appendix F.
Laneway Widths	<ul style="list-style-type: none"> <li>• Laneway standards not available in DCP.</li> <li>• Confirmation requested as to the laneways are dedicated to council or are community title.</li> <li>• 4.0m laneway is not suitable for 2-way movement for waste collection and if the</li> </ul>	Laneway design and use and swept paths are discussed in the Transport Impact Assessment provided in Appendix F.

Issue	Comment	Response
	<p>laneway is to be the point of collection to two sides of the laneway. 8.0m requested from wall to wall inclusive of verge setbacks.</p> <ul style="list-style-type: none"> <li>Swept paths also requested to demonstrate access into and out of garages as well as turning movements and servicing of waste truck.</li> </ul>	
Road Splays	Splay corners would be required to 4m x 4m minimum.	Noted.
Vehicle Straddle Across Two Lanes	All vehicles including waste collection vehicles are not permitted to cross the centre lines for turning.	Noted.
Open	<ol style="list-style-type: none"> <li>Dedication of open space supported, subject to embellishment and maintenance periods prior to handover.</li> <li>Clarify terms of use and maintenance required.</li> </ol>	Dedication of open space is discussed further in Section 7.5.
General	<p>PCC requests the following:</p> <ul style="list-style-type: none"> <li>Confirmation of assets dedicated to PCC and what will be community title;</li> <li>Preparation of WSUD strategy;</li> <li>Intended drainage strategy;</li> <li>Road hierarchy;</li> <li>Concept subdivision plan.</li> </ul>	<p>Confirmation of assets proposed to be dedicated to Council is discussed further in Section 7.5.</p> <p>WSUD strategy and drainage is provided in the Civil Engineering Report located in Appendix D.</p> <p>The road hierarchy and subdivision plan are provided in the Urban Design Report provided in Appendix B.</p>

## 5.2. CONSULTATION WITH ADJOINING LAND OWNER

Several meetings were held between the applicant and the University of Western Sydney (UWS) as owners of the land immediately to the south of the site during the early stages (September and October 2016) of the Concept Plan development. The applicant presented the preferred Concept Plan design for discussion and UWS indicated key elements of their future plans.

A number of opportunities for pedestrian connections between the subject site and the land to the south have been included in the Concept Plan. However, due to the topography of the site and particularly the level differences in the western corner, a shared north south road between the two sites cannot be accommodated. We understand that UWS are pursuing various development options with Council.

# 6. THE CONCEPT PROPOSAL

## 6.1. OVERVIEW OF THE CONCEPT PLAN

The Urban Design Report provided in Appendix B has been prepared by Hill Thalys and describes the proposal. Approval is sought for the 'Illustrative Master Plan' (A05) and the 'Public Domain Structure Plan'(A06). In summary, the Concept Plan seeks approval for the following elements:

- 20 super lots (including specified areas) consisting of:
  - 17 residential lots including two mixed use lots; and
  - Three public domain lots.
- Road layout and access points.
- Total residential yield.

Figure 6 – Proposed Concept Plan



## 6.2. SUPER LOTS SUBDIVISION

The Concept Plan includes 20 super lots as set out in Table 5 below.

Table 5 – Description of Proposed Super lots

Lot	Approximate Area sqm	Proposed Future Uses
A	9196.2	<ul style="list-style-type: none"> <li>Indicative mixed uses including commercial and shop top housing uses not included as part of this application.</li> </ul>
B	8,488	<ul style="list-style-type: none"> <li>Indicative mixed uses including commercial and shop top housing uses not included as part of this application.</li> </ul>
C	4250.2	Low density residential
D	3,840.7	
E	1,080.7	
F	1,080.7	
G	3,808.8	
H	3,795.5	
I	3,200.2	
J	3,242.4	
K	3,890.7	
L	3,749.9	
M	4,032.2	
N	1,080.7	
O	1,080.7	
P	4,034.5	
Q	4,034.5	
4	10,082	Recreational use: Woodland Park
5	1,884	Recreational use: Village Square
6	2,136	Recreational use: Ridge Park



## 6.3. TOTAL SITE YIELD

As part of the Concept Plan, consent is sought for an overall site yield of 320 dwellings to be accommodated across proposed super lots C – Q through a future strata subdivision arrangement with 70 additional garage top units. This yield is a maximum for the site and future yield will be determined through further design development for the site.

The super lot structure has been designed to enable a range of calibrations with a choice of housing types and lot sizes. The indicative arrangement is discussed in Section 8.1.1.

## 6.4. ROAD NETWORK

The road structure includes main access into the site from O’Connell Street.

The following table describes the proposed road network:

Table 6 – Proposed Street Widths

Street	Total Width	Dimensions
Main Street	21-24m (tapering)	<ul style="list-style-type: none"> <li>• 4.2m pavement</li> <li>• 2.3m parking bay</li> <li>• 3.3m carriageway</li> <li>• 2.1m median strip</li> <li>• 3.3m carriageway</li> <li>• 2.3m parking bay</li> <li>• 5m pavement</li> </ul>
Paired street	12m	<ul style="list-style-type: none"> <li>• 3m pathway and verge</li> <li>• 3.5m carriageway</li> <li>• 2.3m parking bay</li> <li>• 3.2m pathway and verge</li> </ul>
North South Streets	16m	<ul style="list-style-type: none"> <li>• 2.7m pathway</li> <li>• 2.3m parking bay</li> <li>• 6m carriageway</li> <li>• 2.3m parking bay</li> <li>• 2.7m pathway and verge</li> </ul>
North South Streets	21m	<ul style="list-style-type: none"> <li>• 2.7m pathway</li> <li>• 2.3m parking bay</li> <li>• 6m carriageway</li> <li>• 2.5m verge</li> <li>• 1.5m pathway</li> <li>• 4.5m green strip</li> </ul>

Street	Total Width	Dimensions
		<ul style="list-style-type: none"> <li>• 1.5m pathway</li> </ul>
South Edge Street	16m+	<ul style="list-style-type: none"> <li>• 5m verge</li> <li>• 6m carriage way</li> <li>• 2.3m parking bay</li> <li>• 2.7m pathway and verge</li> </ul>
North Edge Street	12m	<ul style="list-style-type: none"> <li>• 3.2m pathway and verge</li> <li>• 2.3m parking bay</li> <li>• 3m carriageway</li> <li>• 2.3m parking bay</li> <li>• 1.2m verge</li> </ul>
East Edge Street	12m	<ul style="list-style-type: none"> <li>• 3.5m pathway and verge</li> <li>• 2.3m parking bay</li> <li>• 3m carriageway</li> <li>• 2.3m parking bay</li> <li>• 0.9m verge</li> </ul>

## 6.5. PUBLIC DOMAIN ALLOCATION

As shown in Section 6.2, three public domain / open space lots are proposed (known as Lots 4, 5 and 6 in the Concept Plan) as follows:

- Woodland Park (10,082sqm) known as Lot 4. This includes retention of 84.3% of the Cumberland Plain Woodland and revegetation of 9.3%.
- Village Square (1,884sqm) known as Lot 5.
- Ridge Park (2,136sqm) known as Lot 6.

# 7. PLANNING FRAMEWORK ASSESSMENT

## 7.1. STRATEGIC PLANNING POLICY

### 7.1.1. A Plan for Growing Sydney

A Plan for Growing Sydney was released in December 2014 and establishes the NSW Government's direction to increase the provision of housing near centres that are serviced by public transport. The Plan forms the primary strategic consideration in planning for the growth and development of Sydney. The Plan states:

*'The most suitable areas for significant urban renewal are those areas best connected to employment and include in and around centres that are close to jobs and are serviced by public transport services that are frequent and capable of moving large numbers of people'*

The subject site forms part of the Caddens Urban Release Area having previously being identified as being strategically important for the provision of housing. As discussed in Section 3.3, A Plan for Growing Sydney identifies Penrith as a regional city centre and Penrith Education and Health precinct as a Strategic Centre. The key aims for Penrith include:

- Continue to grow Penrith as a strategic centre and regional city centre supporting surrounding communities.
- Improve transport connections between and within the major urban areas and destinations the Penrith to Blacktown urban corridor, Western Sydney Employment Area, Western Sydney Airport.

Penrith is considered to play an important role in servicing communities in the North West Growth Centre. The development which will be facilitated by the Concept Plan is consistent with A Plan for Growing Sydney by providing homes near:

- Employment areas associated with Penrith Nepean Hospital, the University of Western Sydney and Penrith CBD.
- Transport accessibility and in an area which is anticipated to benefit from additional future infrastructure linkages to Western Sydney Airport, other centres and the North West and South West Growth Centres.

The Concept Plan also facilitates affordable housing products which will assist in promoting Caddens and the wider Penrith as an attractive location for families.

### 7.1.2. Draft Towards our Greater Sydney 2056

Towards our Greater Sydney was released in November 2016 and is a draft amendment to the Plan for Growing Sydney which aligns with the Draft District Plans (refer Section 7.1.3) and provides an '*emerging new vision for Greater Sydney's future*'.

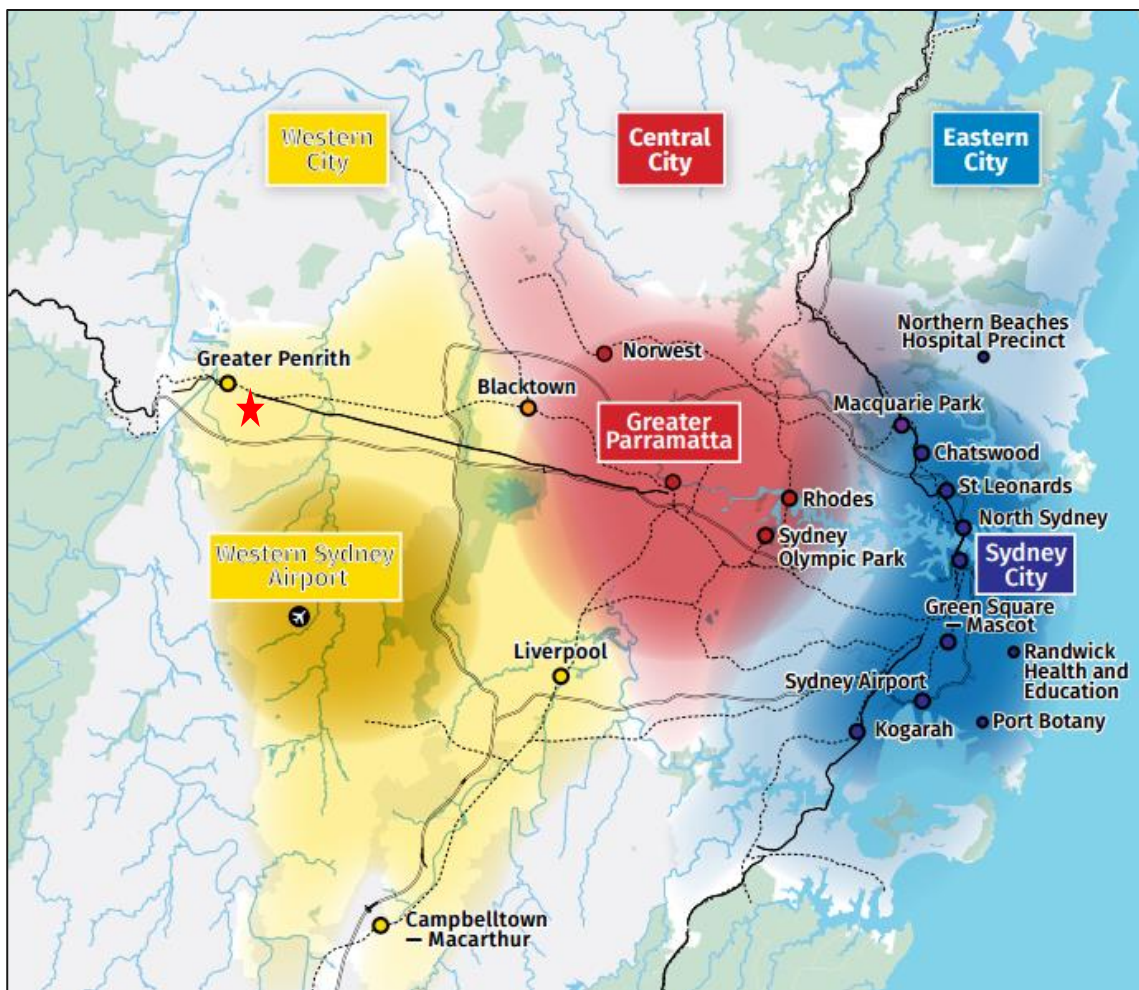
The draft document states that by 2056, the Western Sydney Airport will be the focus of the emerging 'Western City' (refer Figure 9) and will form a major catalyst to change the shape and structure of Greater Sydney. The emerging Western City will also offer the strategic advantage of creating a greater diversity of jobs and greater social opportunities for residents in centres such as Penrith.

Towards our Greater Sydney states that the Federal and State Governments will work with local Councils on the development of a Western Sydney City Deal. This will deliver approximately 100,000 jobs, more housing and better transport for outer Western Sydney in a planning and investment partnership. The purpose of the Western Sydney City Deal is to drive a new economy in the areas around the Western Sydney Airport, and the broader region to:

- *Target additional infrastructure investment to increase public transport.*
- *Deliver more jobs closer to homes and services.*
- *Increase housing through better planning and density done well.*

The subject site lies within Western Sydney and the Greater Penrith region. The Concept Plan will allow for additional housing in an area which is anticipated to benefit from additional infrastructure linking it to the Western Sydney Airport. The Concept Plan has been informed by an extensive urban design process to deliver housing in a way which appropriately responds to the constraints of the site and its strategic significance.

Figure 7 – Towards Our Greater Sydney 2056



★ Indicative Site Location

### 7.1.3. Draft District Plan – West Subregion

The Draft District Plans were released in November 2016 and establish opportunities, priorities and actions to achieve the aims of A Plan for Growing Sydney. Penrith LGA is located within the West Subregion and priorities for this subregion include:

- *Improve transport connections to provide better access between centres in the subregion and centres in other subregions, and particularly in the North West Growth Centre, and with regional NSW (including freight connections).*
- *Provide planning support in the investigation and potential delivery of the Outer Sydney Orbital transport corridor and the Bells Line of Road - Castlereagh Connection transport corridor.*

The Draft District Plan identifies Penrith as a focus for housing and jobs growth, particularly in professional services, health and education. The priorities for Penrith Health and Education Strategic Centre include:

- *Support education-related land uses and infrastructure around the University of Western Sydney.*
- *Investigate the potential to integrate Penrith Education and Health with a future northerly extension of the South West Rail Link.*

- *Work with council to provide capacity for additional mixed-use development in Penrith Education and Health including offices, retail, services and new homes.*

Penrith LGA has a five-year housing target of 6,600 dwellings. The Concept Plan has a total residential yield of 320 dwellings and will assist in achieving almost 5% of the housing targets for Penrith.

In contrast to A Plan for Growing Sydney, St Marys has been identified as a District Centre which is acknowledged as providing jobs, facilities and services that support district populations. Greater Penrith is identified as a Strategic Centre which will support the success of the Western City.

The Concept Plan will enable the organised development of land within an important strategic location adjacent to education land uses and previously identified for increased density. The potential improvements in infrastructure in proximity to the site will provide additional transport facilities and access to jobs.

#### **7.1.4. Draft Medium Density Design Guide**

The Draft Medium Density Design Guide dated October 2016 and prepared by the Department of Planning and Environment provides standards for low-rise, medium sized homes such as terraces, dual occupancies or townhouses which will assist in meeting the shortage for affordable housing solutions and diversity for families.

The design guide defines low rise medium density residential development as development which is less than 10m in height, contains more than one dwelling and includes terrace style housing on strata titled lots, dual occupancies and semi-detached dwellings. The approach for the Concept Plan is entirely consistent with the intent of the Draft Medium Density Design Guide by facilitating terrace housing that is strata subdivided, affordable and the Concept Housing Plans demonstrate how design excellence can be achieved on the site.

## **7.2. APPLICABLE ACTS**

### **7.2.1. Environmental Planning and Assessment Act 1979 (EP&A Act)**

#### Objectives of the EP&A Act

An assessment of the proposed development against the objectives of the EP&A Act is provided in Table 7.

Table 7 – Objectives of the EP&A Act

<b>Objectives</b>	<b>Response</b>
(a)(i) encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.	Specialist studies have been carried out in relation to contamination, ecology and stormwater. The Concept Plan addresses the outcomes of these studies and facilitates development which manages all identified impacts.  The Concept Plan establishes super lots and provides appropriate open space areas and road structure which facilitating development in an orderly manner.
(a)(ii) encourage the promotion and co-ordination of the orderly and economic use and development of land.	The Concept Plan establishes the vision for the site including the road layout, public domain, super lots and yield on the site to provide for orderly development of the site. The provision of housing is consistent with the inclusion of the site within the Caddens Urban Release Area and the Concept Plan promotes future affordable housing products.
(a)(iii) encourage the protection, provision and co-ordination of communication and utility services.	The Concept Plan has been informed by a Preliminary Infrastructure Report (Appendix G) which establishes how future dwellings will be connected to water, sewer, telecommunications and electricity.

Objectives	Response
(a)(iv) encourage the provision of land for public purposes.	The Concept Plan provides for public domain spaces for the benefit of the existing and future local community.
(a)(v) encourage the provision and co-ordination of community services and facilities.	The Concept Plan provides for future retail and business uses on the portion of the site zoned B2 which will provide facilities for future residents. Further the land immediately to the south forms the predominant portion of the precinct centre.
(a)(vi) encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	The Concept Plan has been designed to protect 84.3% of the Cumberland Plain Woodland (endangered community) in the Woodland Park. Additional revegetation is also proposed through the Vegetation Management Plan provided in Appendix J.
(a)(vii) encourage ecologically sustainable development.	The Concept Plan encourages ecologically sustainable development through: <ul style="list-style-type: none"> <li>• Retention of 84.3% of the Cumberland Plain Woodland community.</li> <li>• 9.3% revegetation of Cumberland Plain Woodland.</li> <li>• Water-sensitive urban design (WSUD) will be integrated into development to improve environment performance.</li> </ul>
(a)(viii) encourage the provision and maintenance of affordable housing.	The Concept Plan is consistent with the Draft Medium Density Design Guide by providing low density medium sized affordable housing products through strata subdivision of the proposed super lots.
(b) promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and	Future development applications will require consent from Penrith Council or the Joint Regional Planning Panel. In addition, public exhibition of each future Development Application on the site will be required.
(c) provide increased opportunity for public involvement and participation in environmental planning and assessment.	The proposal will be placed on exhibition for public comments in accordance with the requirements of the <i>Environmental Planning and Assessment Regulation 2000</i> .

### Staged Development Applications

Clause 83B of the EP&A Act relates to staged development applications and states:

- (1) *For the purposes of this Act, a staged development application is a development application that sets out concept proposals for the development of a site, and for which detailed proposals for separate parts of the site are to be the subject of subsequent development applications. The application may set out detailed proposals for the first stage of development.*

In accordance with Clause 82B it is requested that this application be treated as a Staged Development Application. The Concept Plan forms the 'concept proposal' for the development of the site.

It should be noted that the Stage 1 Development Application does not seek approval for any physical works. The application forms the initial stage of a staged development process and approval for construction of development in accordance with the Concept Plan will be subject to subsequent (Stage 2) Development Applications.

A total yield is provided to inform and validate potential quantity and intent of the Concept Plan. The actual yield may vary due to detailed design and market requirements. Approval for the yield will be sought through separate Development Applications.

#### Consent Authority

Schedule 4A of the EP&A Act states development for which regional panels are authorised to exercise consent authority functions of councils. This includes the following:

### **3. General development over \$20 million**

*Development that has a capital investment value of more than \$20 million.*

The proposed development has a capital investment of approximately \$210M and therefore the Sydney West Planning Panel will be the consent authority for this Development Application.

#### Integrated Development

Clause 91 of the EP&A Act lists development or works which constitute integrated development and require approval under other Acts. The proposed development will require approval under the Water Management Act and the Rural Fires Act 1997 as discussed below. Accordingly, the DA will be referred by Council to the NSW Office of Water and the NSW Rural Fire Service during assessment with a request for General Terms of Agreement.

## **7.2.2. Water Management Act 2000**

The *NSW Water Management Act 2000* provides the following definition of 'waterfront land':

**Waterfront land** means:

*(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or*

*(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or*

*(a2) the bed of any estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or*

*(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,*

*where the prescribed distance is 40 metres or (if the regulations prescribe a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into 2 or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.*

The site is located within 40 metres of the high-water mark of Werrington Creek. Accordingly, it is defined under the *NSW Water Management Act 2000* as 'waterfront land'.

Delivery of development under the Concept Plan (subject to future development applications) will require excavation works to accommodate the site infrastructure. These works are defined under the *NSW Water Management Act 2000* as a 'controlled activity' as follows:

**Controlled activity** means:

*(b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or*

*(c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or*

As a 'Controlled Activity' on 'Waterfront Land', the proposed works require a 'Controlled Activity Approval' as described in Clause 91 as follows:

**Clause 91 Activity approvals**

(2) A controlled activity approval confers a right on its holder to carry out a specified controlled activity at a specified location in, on or under waterfront land.

Subject to development consent, an application for a Controlled Activity Approval will be lodged with the NSW Office of Water.

**7.2.3. Rural Fires Act 1997**

The site is identified as being bush fire prone (bush fire vegetation category 2) under the Penrith LEP 2010. The proposed residential development will require assessment of the proposal against the provisions of *Planning for Bush Fire Protection 2006* from the NSW Rural Fire Service (RFS).

A Bushfire Protection Assessment has been prepared by Travers and included in Appendix E. This is discussed further in Section 8.8.

**7.3. ENVIRONMENTAL PLANNING INSTRUMENTS**

**7.3.1. State Environmental Planning Policy (Infrastructure) 2007**

The proposed development involves the subdivision of the site to provide new housing and access from the local road networks. A Transport Impact Assessment (refer Appendix F) has been prepared to address issues relating to access and traffic impacts of the proposed development. This is discussed further in Section 8.6.

**7.3.2. State Environmental Planning Policy 55 (Remediation of Land)**

In accordance with the requirements of SEPP 55, a Stage 1 Preliminary Site Investigation has been prepared by APP (provided in Appendix H) to assess the future works associated with the Concept Plan.

The Site Investigation identified low-moderate likelihood that contamination is present at the site low levels of contamination on the site and that further detailed site investigation is not warranted. This is discussed in full in Section 8.9.

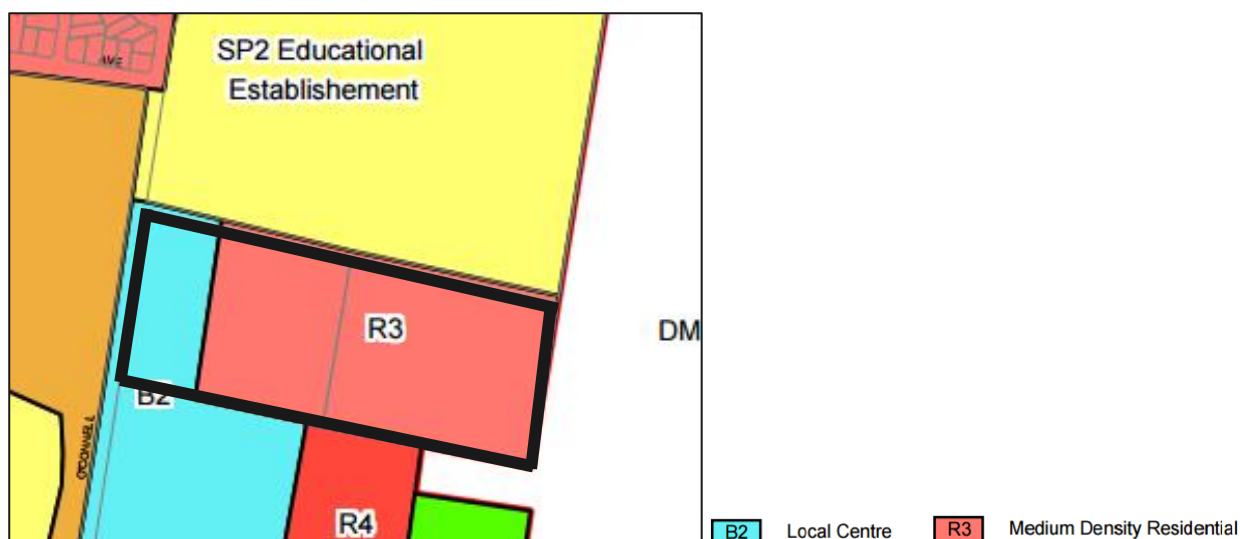
**7.3.3. Penrith Local Environmental Plan 2010**

The Penrith Local Environmental Plan 2012 is the key environmental planning instrument guiding development on the site.

Zoning

The site is zoned part R3 Medium Density Residential and part B2 Local Centre as shown in Figure 8.

Figure 8 – Extract of Penrith LEP 2010 Zoning Plan





The following uses are permissible with consent in the R3 zone:

**Attached dwellings;** Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; **Dual occupancies;** **Dwelling houses;** Emergency services facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Group homes; Home-based child care; Home businesses; Home industries; Information and education facilities; **Multi dwelling housing;** Neighbourhood shops; Places of public worship; Recreation areas; Respite day care centres; Roads; **Secondary dwellings;** **Semi-detached dwellings;** Seniors housing; **Shop top housing**

Any other development is prohibited in the R3 zone. The Concept Plan envisages the delivery of several housing products in the R3 zone which falls within the following definitions:

Table 8 – Penrith LEP 2010 Definitions

<b>LEP Definition</b>	<b>LEP Description</b>	<b>Indicative Housing Typology</b>
Dual occupancies	<i>Dual occupancy (attached) means 2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling.</i>	Park front dual occupancies
Multi dwelling housing	<i>Means 3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.</i>	Terrace housing with individual ground level access and varying strata lot sizes.
Secondary dwellings	<i>Means a self-contained dwelling that:</i> <i>(a) is established in conjunction with another dwelling (the principal dwelling), and</i> <i>(b) is on the same lot of land as the principal dwelling, and</i> <i>(c) is located within, or is attached to, or is separate from, the principal dwelling.</i>	Secondary houses provided in association with the terrace housing.
Semi-detached dwellings	<i>Means a dwelling that is on its own lot of land and is attached to only one other dwelling</i>	Single attached dwellings fronting the Woodland Park and paired housing on lot corners.

These uses are permissible with consent in the R3 zone. The Concept Plan is consistent with the objectives of the R3 zone as outlined in Table 9.

Table 9 – R3 Zone Objectives

<b>Objective</b>	<b>Response</b>
To provide for the housing needs of the community within a medium density residential environment	The Concept Plan provides for future development of prime land for housing consistent with the residential zoning and the sites inclusion within the Caddens Release Area.
To provide a variety of housing types within a medium density residential environment.	The Concept Plan facilitates multi dwelling houses and secondary houses with a variety of designs to respond to the topography of the site.

Objective	Response
To enable other land uses that provides facilities or services to meet the day to day needs of residents.	The Concept Plan includes public open space for the use of future residents. The proposed development in the R3 zone is designed to be integrated with the adjacent B2 land which will provide future commercial and retail uses.
To provide for a concentration of housing with access to services and facilities.	The site will provide a total yield of 320 dwellings which will have access to a wide range of services and facilities both on the site and in the wider local area as discussed in Section 2.2.
To enhance the essential character and identity of established residential areas.	The area is undergoing significant urbanisation and this Concept Plan will provide urban place making by generating a connective, open edged pattern of streets and open spaces that can be extended by future neighbouring proposals.
To ensure that a high level of residential amenity is achieved and maintained.	The Concept Plan provides a high level of residential amenity by providing: <ul style="list-style-type: none"> <li>• A variety of useable open spaces embedded within the site structure and providing a high level of amenity.</li> <li>• A significant area of built form fronting or near green space.</li> <li>• A high level of public space amenity to complement more urban built form densities.</li> </ul>
To ensure that development reflects the desired future character and dwelling densities of the area.	As discussed in Section 4, the vision of the site is to provide a new approach to housing which differs from the traditional detached estate model often found in urban release areas and aims to provide high quality housing design, functionality and affordability for young families and first home buyers. The Concept Plan has been designed to fully integrate with surrounding land uses, provide a high level of amenity for future residents and reflect the strategic significance of the site.

The western portion of the site is zoned B2 Local Centre. The following uses are permissible with consent in the B2 zone:

*Boarding houses; Building identification signs; Business identification signs; Car parks; Child care centres; **Commercial premises**; Community facilities; Educational establishments; Entertainment facilities; Flood mitigation works; Function centres; Home businesses; Home industries; Information and education facilities; Medical centres; Passenger transport facilities; Places of public worship; Public administration buildings; Recreation areas; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Service stations; **Shop top housing**; Tourist and visitor accommodation*

Any other development is prohibited in the B2 zone. The Concept Plan does not propose a yield or built form footprints as part of this application. However, this portion of the site forms the periphery of the Caddens town centre and future development is anticipated to consist of specialist commercial and business and

small scale retail uses with associated shop top housing. These uses are permissible with consent in the B2 zone and are anticipated by the Penrith DCP.

### Built Form Controls

An assessment of the Concept Plan against the applicable built form controls is provided in Table 10.

Table 10 – Built Form Controls Assessment

Control	Requirement	Comment
Clause 4.3: Height	<ul style="list-style-type: none"> <li>• 15m in B2 zone</li> <li>• 8.5m in R3 zone</li> </ul>	<p>The definition of existing height control under the LEP is:</p> <p><b><i>Building height (or height of building) means:</i></b></p> <p><i>(a) in relation to the height of a building in metres—the vertical distance from ground level (existing) to the highest point of the building, or</i></p> <p><i>(b) in relation to the RL of a building—the vertical distance from the Australian Height Datum to the highest point of the building,</i></p> <p><i>including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.</i></p> <p>A height control of 8.5m applies to the R3 zone under the LEP.</p> <p>The site has varying topography and is generally steep falling predominantly towards the south-western corner.</p> <p>To facilitate future development on the site, cut and fill is required across the site to facilitate an efficient and functional street network with appropriate stormwater management and dwelling houses which demonstrate urban design excellence. Indicative cut and fill is discussed in Section 8.5 and varies across the site with a minimum RL ranging from 0 – 5m.</p> <p>Concept housing plans have been prepared by Hill Thalix to demonstrate the indicative housing products envisaged on the site. When measured from the existing ground level prior, the topography of the site would result in a minor non-compliance with the 8.5m height limit in the R3 zone.</p> <p>However, the cut and fill works are fundamental to providing future dwellings on the site. These works will result in modification to the existing ground level. Based on the indicative future ground level, the housing is capable of complying with the 8.5m control. Further design development will allow built forms with legible transition in height from front to back, as well as articulation and privacy.</p> <p>The proposed cut and fill which will be subject to a Stage 2 Development Application. Any minor non-compliance with the height control will be the subject of a comprehensive</p>

Control	Requirement	Comment
		assessment and Clause 4.6 variation request as part of relevant future Stage 2 Development Applications.
Clause 4.1: Minimum Lot Size	<u>R3 Medium Density Zone</u> <ul style="list-style-type: none"> <li>• Minimum lot size 400sqm in R3 zone</li> <li>• Standard lot— minimum width of 12m, or</li> <li>• Battle-axe lot— minimum width of 15m and a minimum area of 450sqm.</li> </ul> <u>B2 Local Centre</u> Not specified in B2 zone.	These controls apply to Torrens title subdivision. The Concept Plan provides for super lots which will be subdivided by strata subdivision and therefore these controls do not apply.
Clause 4.1A: Minimum lot sizes for dual occupancies, multi dwelling housing and residential flat buildings	Multi dwelling housing in the R3 zone: <ul style="list-style-type: none"> <li>• 800 sqm for a standard lot</li> <li>• 900sqm for a battle axe lot</li> </ul>	The Concept Plan provides for super lots with strata titling of lots for dwelling houses and therefore this clause does not apply. All Torrens title lots are more than 900sqm and therefore complies with this clause.
Clause 5.10: Heritage Conservation	Western Sydney University Kingswood (UWS) listed as Heritage Item – General	The adjacent UWS Kingswood Campus is listed as a local heritage item under the Penrith LEP 2010. The heritage listing for the UWS Kingswood Campus relates to the ‘Kingswood Public School’ and ‘Teachers residence (former)’.  The subject site and future development under the Concept Plan will not impact on the adjacent heritage item with consideration of the following: <ul style="list-style-type: none"> <li>• The school and residence are located together adjacent to Second Avenue in the far north west of the University site.</li> <li>• Accordingly, the actual items to which the listing relates are located approximately 700m from the site</li> <li>• The site is separated from the heritage items by new development including a number of buildings which has occurred on the university site.</li> </ul>

Control	Requirement	Comment
		<ul style="list-style-type: none"> <li>Development on the subject site will not be viewed in context of the heritage items nor will it impact on the curtilage of the items.</li> <li>Construction on the site will not impact on the heritage items due to the significant separation.</li> </ul> <p>The site has previously been identified as being within the Caddens urban release area and therefore suitable for residential consistent with that which is proposed.</p>
Clause 7.12: Maximum gross floor area of commercial premises	46-66 O'Connell Street, Caddens (Lot 3 in DP1103503) and 14 Great Western Highway, Caddens (Lot 14 in DP850402): 10,000sqm	The Concept Plan does not seek consent for commercial floor space as part of this application.

## 7.4. DEVELOPMENT CONTROL PLANS

The following chapters of the Penrith Development Control Plan 2014 are applicable to the proposal:

- C1 Site Planning and Design Principles
- C2 Vegetation Management
- C3 Water Management
- C5 Waste Management
- C6 Landscape Design
- C7 Culture and Heritage
- C10 Transport, Access and Parking
- C11 Subdivision
- C13 Infrastructure and Services
- D2 Residential Development

As discussed in Section 4, the Concept Plan takes a new approach to housing which differs from the traditional detached estate model often found in urban release areas and aims to provide high quality housing design, functionality, diversity and affordability for young families and first home buyers. The design approach demonstrated in the Concept Plan has been discussed in consultation with Council officers and the DRP. The Concept Plan facilitates a more urban environment to assist with housing affordability while providing a high level of open space and amenity and future built form which can demonstrate design excellence. The provisions for residential development under the DCP relates predominantly to town houses which do not accurately reflect the indicative housing typologies presented as part of this application.

The purpose and status of development control plans (in accordance with the *Environmental Planning and Assessment Amendment Act 2012*) is to “provide guidance” to proponents and Councils in achieving land use zone objectives and facilitating permissible development under an environmental planning instrument. Furthermore, to assist in the assessment of DAs, the legislation states that where a proposal does not comply with DCP controls, the consent authority is to be “flexible in applying those provisions” and allow for

“reasonable alternative solutions” that achieve the objectives of those standards for dealing with that aspect of the development.

An assessment of the Concept Plan against the key development provisions in the DCP is provided in Appendix L. This relates to the Concept Plan and to the general ability of future housing to comply with the DCP parameters. The proposed design presents sound urban design principles and where it departs from certain controls, the design:

- Satisfies the objectives of the relevant control.
- Provides a more appropriate alternative with an optimal design outcome.
- Is satisfactory given the site attributes and constraints and surrounding context.
- Facilitates permissible development under the Penrith LEP 2010.

Minor non-compliances are discussed in Table 11 below.

Table 11 – DCP Non-Compliances

Provision	Non-compliance	Comment
Street Design	Parking lane dimension requirements are 2.5m. Parking lanes are proposed at 2.3m.	<p>The DCP notes the following:</p> <p><i>It is not intended that this table address all road configurations. The characteristics and requirements for other roads will be assessed on merit as part of any development proposal. Special consideration will need to be given to other road configurations such as laneways, access ways, commercial precincts and roads fronting schools.</i></p> <p>A key aim of the controls for road design is given as follows:</p> <ul style="list-style-type: none"> <li>• <i>To maintain flexibility to allow for future changes in land use patterns</i></li> <li>• <i>To incorporate appropriate traffic calming measures</i></li> </ul> <p>The implications of a reduced parking lane have been assessed in the Transport Impact Assessment provided in Appendix F. The noncompliance is considered to result in an optimal, more efficient and functional road design. The proposed street design has been organised within a hierarchy, which makes a coherent and open grid. Individually some streets vary from Council’s typical street types, as the design is premised on low density, detached estates. The street system proposed is more urban and reflects the context of the site.</p> <p>The Traffic Report prepared by Traffix states the following:</p> <p><i>AS2890.5 (1993) stipulates ordinarily that a minimum width of 2.3 metres is sufficient for a parallel parking space accommodating cars and light commercial vehicles under normal conditions. However, for restricted roadway widths and where parking of wide vehicles will be unlikely, a 2.1m width for parallel parking spaces is permissible under the standard if a continuously marked narrow parking lane is provided to aid traffic flow</i></p>

Provision	Non-compliance	Comment
Residential Built Form Controls	<ul style="list-style-type: none"> <li>The minimum lot size for a secondary dwelling is 135 to 187sqm</li> <li>Reduced front setback from 6m to 3m for terrace housing (multi dwelling housing)</li> <li>Reduced side setbacks from 5.5m to 1.2m on secondary frontages for corner lots</li> <li>0m setback proposed for park fronting lots.</li> </ul>	<p>As discussed in Section 7.4 of the SEE, the residential controls provided under D2 of the DCP do not anticipate the housing typologies considered appropriate for the site.</p> <p>In order for the approach to the Concept Plan to be affective and the smaller strata lot scheme to achieve a functional and appropriate built form with appropriate private open space and amenity, the following variations are envisaged as part of future housing on the site.</p> <ul style="list-style-type: none"> <li>Dwellings meet acceptable solar standards with dwellings achieving solar access to living areas and with minimal impact to existing neighbouring and proposed private open spaces.</li> <li>The reduced setback improves the design and external appearance of the building and the variation will not impact adversely on the amenity of an adjoining property.</li> <li>The provisions of the DCP relate to 'patterns of traditional development'. The housing typologies and indicative strata lot arrangements reflect a new approach.</li> <li>The Concept Plan includes a deep soil zone with "green corridor" of trees and shrubs as envisaged by the DCP.</li> </ul> <p>The housing typologies are discussed further in Section 8.1.</p>
Corner Splays	The Caddens DCP states that corner lots are to be splayed with the indent on both the primary and secondary street to be generally 5m. Splays of this dimension are not envisaged in the Concept Plan.	<p>No information is provided in the DCP in relation to the splays of kerbs at intersections. The Traffic Report prepared by Traffix states that:</p> <p><i>In accordance with Austroads Guide to Road Design it is desirable to minimise splay distances whilst still allowing for all intended vehicle movements. In this regard, the majority of intersections would only need to be designed to accommodate only a B99 vehicle, where additional widening is only considered necessary along the designated route of Council's waste collection vehicle, and to the extent of accommodating only the wheel path on the carriageway. That is, it is considered acceptable for waste collection vehicles to overhang the kerb, given the low frequency of these vehicles traversing the street network.</i></p>
Road widths	Varying road widths under the Caddens DCP	<p>Part E1 Caddens of the Penrith Development Control Plan (DCP) 2014 specifies carriageway widths for new roads within the Caddens Release Area, which vary according a street hierarchy.</p> <p>Based on the scale of the proposal that the future traffic generation will be less than 2,000 vehicles per day. these volumes are characteristic with those of an Access Street</p>

Provision	Non-compliance	Comment
		<p>under AMCORD, which requires a road width of 5.5 metres to 7.0 metres.</p> <p>The Traffic Report prepared by Traffic states the following:</p> <p><i>The roads proposed in the street network, aside from laneways, are therefore considered to be most comparable with a Minor Road and Avenue under the DCP's street hierarchy, which have a road width of 8.0 metres and 10.5 metres respectively, and are inclusive of parking lanes. The roads include a carriageway width of 5.5 metres, with nominated parking lanes of 2.5 metres in width considered to be excessive in light of the requirements of Australian Standards.</i></p> <p><i>Generally, the road widths in the master plan are 6.0 metres for a two-way street and at least 3.5 metres for a one-way street, which is considered appropriate having regard for Council's street hierarchy and AMCORD's criteria.</i></p>

## 7.5. WELL PRECINCT SECTION 94 DEVELOPMENT CONTRIBUTIONS PLAN

The Werrington Enterprise Living and Learning (WELL) Precinct Section 94 Development Contributions Plan applies to the site. Contributions are levied on a sub-precinct and a drainage catchment basis. As discussed in Section 6, this application does not seek consent for any development and is therefore not subject to any Section 94 contributions.

Separate Stage 2 development applications will be lodged to enable the development of the site including infrastructure works and development of the super lots created by the Concept Plan. Section 94 contributions would apply in these instances. The WELL Precinct Section 94 Plan imposes contributions for the following:

- Open space and recreation facilities contribution.
- Community facilities contribution.
- Transport management facilities contribution.
- Water cycle management facilities contribution.

The WELL Precinct TMAP establishes the transport infrastructure requirements for the WELL Precinct which were adopted in the WELL Precinct Section 94 Development Contributions Plan. Principles for apportionment given in the S94 Plan include:

- Developers should be required to contribute to the extent necessary to ameliorate the impacts generated by their development.
- Growth in the background levels of demand for facilities an infrastructure should be met by government and not by developers.

Development on the site will be the subject of Section 94 contributions for transport infrastructure as identified by the Section 94 Plan unless a Voluntary Planning Agreement is agreed upon.

The Concept Plan proposed several facilities which will benefit both the existing and future residents of the site and surrounding sites. These include:

- Stormwater management facilities.



- Public domain areas.
- Local roads.

At the current time, it is intended that these facilities be dedicated to Council and form part of a Voluntary Planning Agreement between the applicant and Penrith Council under Division 1A of the *Environmental Planning and Assessment Regulations 2000*. Preliminary discussions have been undertaken with Council in this regard.

A Draft Letter of Offer for a VPA will be included in a Stage 2 development application for civil and public domain works which is anticipated to include construction of the above facilities. The laneways will be retained in a community title arrangement.

# 8. IMPACT ASSESSMENT

## 8.1. BUILT FORM

The Concept Plan establishes the parameters for future development through provision of a cohesive and well-designed urban structure which includes the road and super lot layout. No built form or works are proposed as part of this application and future civil works and housing will be proposed in separate Stage 2 Development Applications.

Key elements of the Concept Plan which underpin future built form include:

- A high level of public open space amenity which supports the vision of an urban lot layout.
- Creates a significant area of built form fronting or near green space. This increases the amenity, outlook and economic value of the development.
- Block dimensions are calibrated to provide breathable built form with useable private open space whilst maintaining a fine grain walkable street network north-south, and east-west.
- Appropriately transitions height to the western blocks to mark the significance of the main street and respond to the sites topography.
- Provides street vistas terminated by open views to the sky and surrounding landscape.
- Promotes building depths which allows for future façade articulation with appropriate building separation and usable private outdoor spaces.

### 8.1.1. Yield and Housing Products

As part of the Concept Plan, consent is sought for an overall site yield of 320 dwellings (plus 70 secondary houses) to be accommodated across the proposed super lots through a future strata subdivision arrangement with 70 additional garage top units.

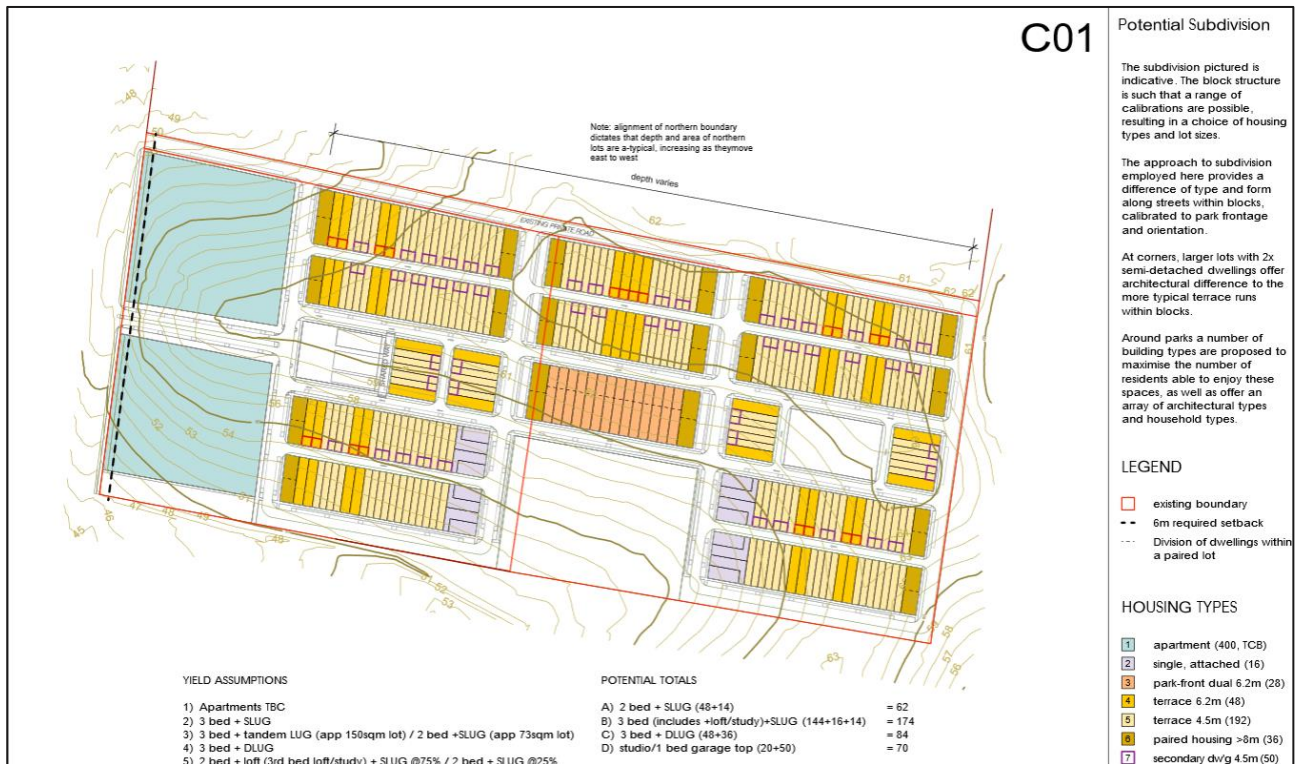
The super lot structure has been designed to enable a range of calibrations with a choice of housing types and lot sizes. The indicative arrangement summarised in Table 12 demonstrates how the proposed total site yield could be accommodated on the site. It should be noted that consent is sought for the total site yield rather than specific super lot yields or yield per housing type.

Table 12 – Breakdown of Total Site Yield.

Housing Product	Description	Yield
Duel Occupancies	Duel occupancies along the northern boundary of the park	28
Terraces (6.2m)	Terrace dwellings	48
Terraces (4.5m)	Terrace dwellings	192
Paired housing	Paired housing on the corner of lots	36
Secondary dwellings	Secondary dwellings of 4.5m on smaller terrace lots and 6.2m on larger terrace lots	70
Single attached dwellings	Single attached dwellings along the east and west boundaries of the park	16
<b>Total</b>	<b>320 + 70 secondary dwellings</b>	

Figure 9 shows how an indicative housing plan showing how the total site yield may be accommodated on the site.

Figure 9 – Indicative Housing Plan



The Concept Plan will facilitate a high level of urban design excellence for future dwelling houses with consideration of the following:

- The block structure facilitates a range of calibrations are possible, resulting in a choice of housing types and lot sizes.
- The approach to subdivision provides a difference of type and form along streets within blocks, calibrated to park frontage and orientation.
- At corners, larger lots with two semi-detached dwellings offer architectural difference to the more typical terrace runs within blocks.
- Around parks several building types are proposed to maximise the number of residents able to enjoy these spaces, as well as offer an array of architectural types and household type.

Figure 10 – Indicative Terrace Housing (4.5m)

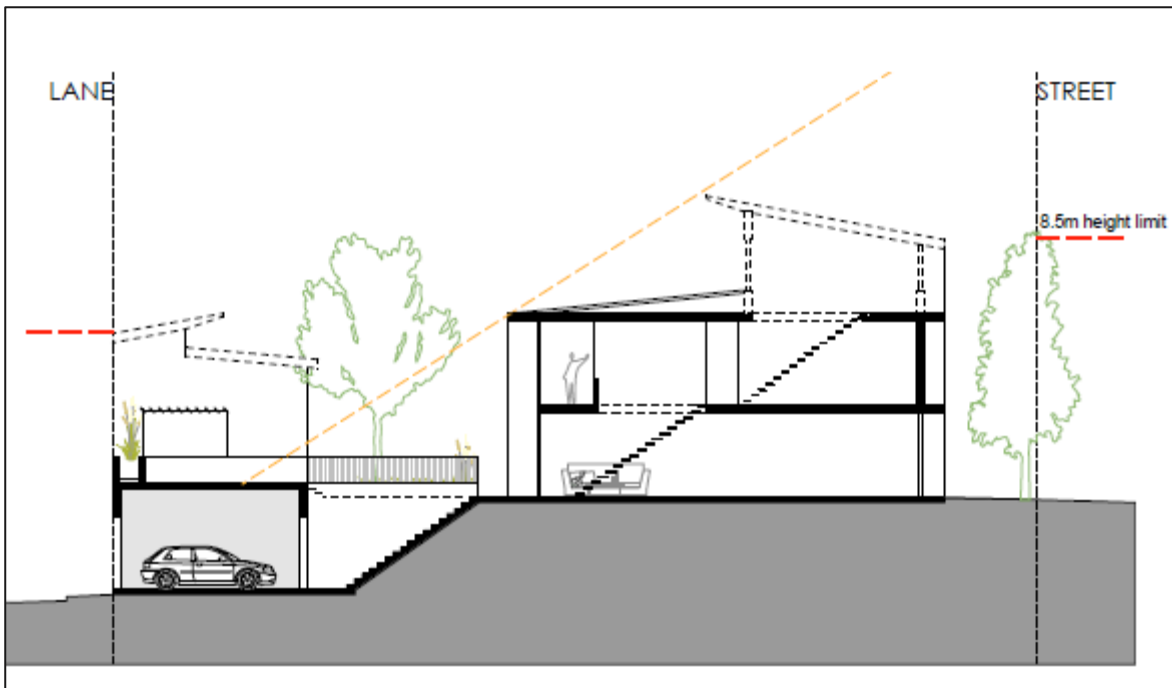
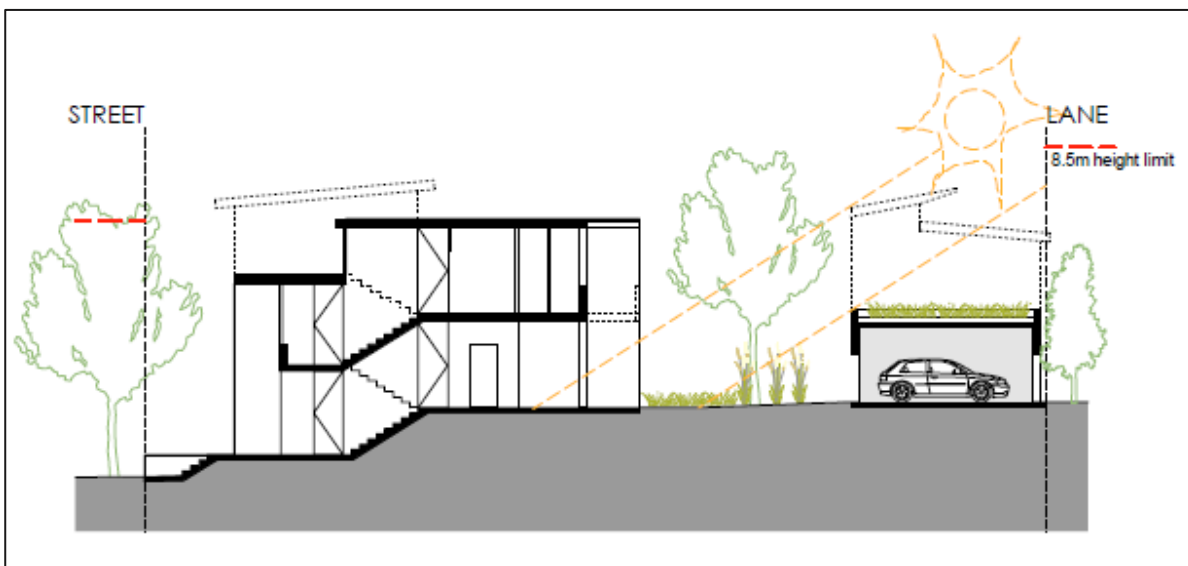


Figure 11 – Indicative Terrace Housing (6.2m)



### 8.1.2. Street Layout

The design of the street structure has been developed to provide the following:

- A highly connective public realm with edge-streets to allow future connections to development on land to the south and the wider WELL Precinct and Caddens Urban Release Area.
- Predominantly retains the established Cumberland Plain Woodland through the establishment of a Woodland Park.
- Creates open vistas at the end of all streets and maximises on views to the Blue Mountains.
- New streets have been calibrated by their width and arrangement. The north south streets respond to topography and allow for additional landscape links across the site.

- The street network is given character and identity through landscape and significant tree plantings, choosing robust native species and coordinating deciduous species on east-west streets to balance summer shade with winter sun penetration.
- New streets integrate Water Sensitive Urban Design to cleanse and detain runoff in an explicit and urban manner.
- A slow speed street environment that allows easy and safe pedestrian and cycle movements.
- A street network that is legible and provides options for connections to future public transport, including potential bus routes through the site.

### 8.1.3. Safety

While the Concept Plan does not seek approval for housing, the general principles of Crime Prevention through Environmental Design have been considered in preparing the Concept Plan. This is summarised in Table 13.

Table 13 – Consideration of CPTED Principles

CPTED Principles	Response
Natural Surveillance	<p>The Concept Plan aims to provide clear vistas along streets which provides effective surveillance. Housing is anticipated to be provided along the park fronts providing natural surveillance.</p> <p>Housing entries will be designed as part of future DAs but the Concept Plan anticipated housing with entryways which address the street and are clearly visible from the public domain. The streets provide clear sight lines between parks and private dwelling areas.</p>
Access Control	<p>The Concept Plan facilitates clear entry points to housing from the street. The proposed public spaces will be designed to attract and encourage people to gather there rather than in private spaces.</p> <p>Parking areas can be clearly identified by signage as part of future DAs.</p>
Territorial Reinforcement	<p>The Concept Plan has distinct boundaries between the public and private areas while encouraging surveillance through park front housing.</p> <p>The park areas are clearly defined as part of the overall lot layout and structure and while appropriate integrated into the Concept Plan, the proposed housing lots are separate and distinguished to express a sense of ownership and reduce illegitimate use/entry.</p> <p>The proposed public spaces will be designed to attract and encourage people to gather there rather than in private spaces.</p>
Space Management	<p>Future detailed DAs will consider the use of appropriate materials to discourage vandalism and ensuring an appropriate maintenance scheme.</p>

The Concept Plan provides a high level of safety when assessed against the CPTED principles. Further consideration will be included in detail design in future Development Applications for housing and civil works.

## 8.2. CONCEPT LANDSCAPING

A Concept Landscaping Strategy has been prepared by TaylorBrammer (refer Appendix D) alongside the Concept Plan. The design principles for the landscaping are to integrate the strong native vegetation character throughout the site through the creation of parkland settings, street tree planting, productive gardens and retention of existing trees.

Specifically, the Landscape Concept Plan:

- Provides a new Central Park containing retained Cumberland Plain Woodland as well as open spaces for active play and environmental rehabilitation.
- Creates a new linear park/square at the termination of the Main Street, entering from O'Connell Street, providing a dense green relief and open space for nearby apartments.
- Creates a hill-top pocket park parallel to the linear park and main street to complement the street geometry and offer prospect and potential community uses.
- The proposed parks and squares are placed to provide complementary difference in character and could be part of a greater sustainable water strategy across the site.
- Promotion of community integration of social interaction including fruiting trees and productive gardens.
- Use of deciduous trees for main streets to provide diverse seasonal interest and strong visual interest.
- The public domain promotes a suite of materials and plantings that are robust and accommodate pedestrian and cycle movement that is safe and legible.
- A pair of designated routes east-west and north-south would take advantage of the open space network, anticipating potential future street extensions.
- Landscape plantings should provide comfort and privacy to adjoining dwellings as well as maximise summer canopy cover to reduce the effects of urban heat island, particularly from large areas of hard surface such as the carriageway.

The Concept Landscaping Strategy includes the following key aspects:

- Village Square – Multi-purpose community facilities with shade trees and artworks. This is anticipated to include:
  - Entry plaza with feature paving;
  - Communal productive gardens;
  - Children's play area; and
  - Central water feature.
- Ridge Park – Pocket park with productive gardens promoting community interaction. This is anticipated to include:
  - Entry plaza with integrated public arts;
  - Communal productive gardens with BBQ; and
  - Rainwater garden.
- Woodland Park – Containing 83.4% remnant CPW and additional 9.3% revegetation with active plan and environmental rehabilitation.
- North - South Street trees with central evergreen spine.
- East - West Street trees with deciduous avenue.
- WSUD Integrated into development.

### 8.3. INDICATIVE DEVELOPMENT STAGING

This Stage 1 Development Application establishes the parameters for future development but does not seek approval for any physical works on the site. Development facilitated by the Concept Plan will be delivered in future detailed Stage 2 Development Applications and are anticipated to include the following:

- Subdivision and Civil works including super lot subdivision, civil works including construction of roads, stormwater detention, public domain works and public park land.
- Development of super lots anticipated to be as follows:
  - Stage 1: Super lots C, D, I, J, E, F, K;
  - Stage 2: Super lots L, M, N, O, P, Q;
  - Stage 3: Super lots G and H; and
  - Stage 4 and 5: Super lots A and B.

### 8.4. STORMWATER

Stormwater management is discussed in the Preliminary Civil Engineering Report prepared by SMEC and provided in Appendix D. The concept stormwater management across the site includes:

- The proposed drainage system will be a major/minor system.
- The pit and pipe network will be designed to safely convey the 20% AEP storm event whilst still complying with Penrith City Council's standards.
- The major system flows are to be catered for within proposed road reserves and are to be designed for a 1% AEP storm event.
- Preliminary stormwater calculations indicate that approximately 5,400m<sup>3</sup> will be required to be detained on site (1% AEP Storm Event), broken up into 4 sub catchments.
- it is recommended that an underground tank storage system for OSD is further investigated should Penrith City Council allow underground tank storage.
- Water quality measures will also be incorporated into the OSD basin/swale designs using Penrith City Council's guidelines.

### 8.5. CUT AND FILL

As discussed in Section 2.1, the existing topography of the site is generally steep. The steepest parts of the site fall towards the south-western corner.

Several road layout options were assessed throughout the masterplan review process with detailed analysis to determine the design and initial proposed cut/fill figures and typical road cross sections. The Engineering Report prepared by SMEC and included at Appendix D provides further detail on indicative engineering required to accommodate development on the site.

Figure 11 shows the indicative cut and fill requirements to accommodate the development envisaged by the proposed Concept Plan. The indicative cut is 100,485sqm and the indicative fill is 100485sqm. The cut and fill quantities will be reviewed in more detail at Stage 2 Development Application stage where site preparation and engineering work will be proposed.

Figure 12 – Indicative Cut and Fill Quantities



## 8.6. ACCESS, TRAFFIC AND PARKING

A Transport Impact Assessment (TIA) has been prepared by The Transport Planning Partnership and is provided in Appendix G. The TIA considers the impacts which may occur directly as a result of this proposal.

### 8.6.1. Traffic Generation, Access and Intersections

SIDRA testing has been undertaken to assess the existing and future traffic generation and intersection function and indicates that:

- O'Connell Street carries significantly higher peak period flows at the northern end compared to the southern end near the site.
- Nearby intersections on the local road network operate at a satisfactory level with minimum delays and significant spare capacity.

The traffic generation is estimated to be in the order of 380 additional peak hour trips to and from the site to the surrounding road network. The following access arrangements are proposed:

- Primary access at the centre of the site's frontage to O'Connell Street will be a priority controlled 3-way intersection permitting all turning movements.
- Secondary access is proposed at the existing private road intersection at O'Connell Street at the northern end of the site's frontage to O'Connell Street. It is envisaged that this will be restricted to left in / left out movements.

The proposed access arrangements and intersections have been modelled using SIDRA. The TIA finds that:

- The traffic generation resulting from the proposed development and the proposed site access intersection arrangements can satisfactorily accommodate WELL Precinct and proposed traffic generation.
- The local intersection arrangements along O'Connell Street within the vicinity of the site will have sufficient spare capacity to accommodate the future traffic generation with minimum delays and good levels of service.
- The internal road network includes roads on the northern, eastern and part of the southern boundary and would enable connections to future development on adjacent sites.

The findings of the TIA are that *'the proposed Concept Plan is considered acceptable with regard to traffic and transport'*.



### 8.6.2. Service Vehicle Access

The internal road layout has been designed to accommodate Council’s waste and recycling collection vehicles. This is discussed further in the Traffic Report prepared by Traffix and provided in Appendix F.

### 8.6.3. Parking

The TIA identifies the DCP requirements for carparking with regard to residential uses. The housing typologies on the site will vary and are likely to include a terraces, dual occupancies and secondary dwellings. It further states:

*In recognition of various State and Local Government strategic planning policies to reduce travel by private vehicles, it is recommended that suppressed on-site parking be provided for developments located within the CWG site and that the above DCP parking requirement set as the maximum permissible parking.*

A reduced parking provision across the site is considered appropriate in context of the proposal and the sites location as follows:

- The site is directly adjacent to potential employment areas including UWS and TAFE and the future development of the Caddens Town Centre, open space and new facilities and will reduce the demand for parking.
- The Northern and Western Railway Line runs parallel to the site to the north. Kingswood Station is located approximately 1.8km to the north west and Werrington Station approximately 2.3km to the north east.
- To potentially facilitate new bus service routes, the north south internal road network within the site has been designed to accommodate future bus service connections should they be required and / or warranted to facilitate broader Precinct improvements for public transport accessibility.
- The site is currently serviced by Busways Route 770 running between Penrith and Mt Druitt railway stations via St Marys railway station.
- Routes 774, 775 and 776 each operate between Penrith and St Marys Station via Second Avenue before dispersing to various routes. The bus stop at the O’Connell Street / Second Avenue intersection is approximately 250 metres walking distance to the proposed access at O’Connell Street.
- While the DCP does not specify on-street parking requirements, it is proposed to provide approximately 270 parking spaces in the road network as shown in the figure below.

Figure 13 – Indicative on Street Parking Provision



## 8.7. BIODIVERSITY AND VEGETATION MANAGEMENT

A Flora and Fauna Assessment has been prepared by Travers and is provided in Appendix I. The assessment finds that:

- The site provides potential habitat for threatened flora and fauna species. A seven-part test is included in the Flora and Fauna Assessment and determines that the proposal is unlikely to significantly impact on locally occurring threatened flora or fauna.
- The site contains remnant Cumberland Plains Woodland (CPW) which is listed as a Critically Endangered Community under the Threatened Species Act 1995. The proposed development proposes to remove approximately 0.1 ha (15.6%) of the CPW (being 7 trees) and retain approximately 0.54 ha (84.3%) of this vegetation community. A further 0.16 ha of CPW will be revegetated within the proposed Native Bushland Reserve. This will result in 0.7 ha of CPW being retained or re-created within the subject site which is a net gain of 0.06 ha.

The development includes establishment of a Native Bushland Reserve to be conserved, managed and improved via a Vegetation Management Plan (VMP). The flora and fauna assessment concludes that:

*After completion, the total area of CPW within the subject site will be 0.7h which is a 9.3% increase over the total original area of CPW within the site.*

*The proposal is unlikely to further fragment or isolate local wildlife corridors or patches, provided that the CPW vegetation within the site is largely retained and augmented by re-vegetated areas, all of which are to be managed and improved under a Vegetation Management Plan.*

It is considered that adequate mitigation measures are proposed to minimise the removal and augment areas of CPW within the site. Several mitigation measures are proposed which will be incorporated into the proposal at Stage 2 Detailed Development Application.

### 8.7.1. Vegetation Management

In accordance with the recommendations of the Flora and Fauna Assessment, a Vegetation Management Plan (VMP) has been prepared by Travers and provided in Appendix J.

The VMP requires several key vegetation management measures which are summarised in Table 14. These will be incorporated into the detailed design of the Native Bushland Reserve.

Table 14 – Summary of the Key Vegetation Management Measures

Heading	Heading
Site Preparation	<ul style="list-style-type: none"> <li>• A permanent post and rail fence is to be installed along the perimeter of the reserve.</li> <li>• Eight next boxes are to be installed within the native reserve.</li> <li>• Tree protection zones are to be implemented and protected for any retained tree in accordance with Australian Standards.</li> </ul>
Sediment and Erosion Control	<ul style="list-style-type: none"> <li>• Both the surface water detention basin and stormwater outlet will be fully stabilised and will be planted with suitable, native, locally-sourced species. Embankments will be planted at CPW densities with appropriate local CPW species to integrate the basin with the CPW reserve. Drainage guidelines and stormwater works will comply with NSW DPI – Office of Water <i>Guidelines for Controlled Activities on Waterfront Land – Guidelines for Outlet Structures 2012</i>.</li> <li>• Erosion and sediment control measures as outlined in the VMP are to be implemented during all phases of the development.</li> </ul>

Heading	Heading
Proposed Restoration Works	<ul style="list-style-type: none"> <li>• A minimum of 0.16h of CPW will be established as a bushland buffer as shown in Schedule 1 of the VMP.</li> <li>• A roadside strip park of 0.23h will be established to the north of the bushland revegetation buffer in line with APZ requirements.</li> <li>• All basin plantings will be planted with locally occurring species at a rate of 5 per sqm. Plantings should go to a depth of 40cm.</li> </ul>

## 8.8. BUSHFIRE HAZARD

The site is mapped as being bush fire prone land (bush fire vegetation category 2) in the Penrith LEP. A Bushfire Protection Assessment has been prepared by Travers Bushfire and Ecology and is provided in Appendix E. Specifically, the following bush fire prone areas have been assessed as having a potential impact on future development of the site:

- Land to the west of the site beyond O'Connell Street which consists of a mixture of forest and forested wetland vegetation.
- The southern portion of the site which currently contains Cumberland Plain Woodland vegetation.

The assessment concludes that the proposed development will provide compliance with *Planning for Bush Fire Protection 2006* in relation to Asset Protection Zones (APZ), building construction and design, access arrangements, water supply, landscaping and emergency management.

The bushfire risk posed to the development can be mitigated and managed in perpetuity. The following recommendations are included and will be complied with as part of future development on the site:

- Minimum APZ's are to be provided to the development being 26m along O'Connell Street and 21 – 26m along the parkland.
- Building construction standards for the proposed future dwellings are to be applied in accordance with AS3959 Construction of buildings in bushfire prone areas (2009).
- Access is to comply with the Bushfire Protection Assessment. Perimeter roads are to have a carriageway width of 8m. All other internal roads are to have a width of 6.5m.

## 8.9. CONTAMINATION

A Stage 1 Preliminary Site Investigation has been prepared by APP and provided in Appendix I. The report provides:

- An assessment of the potential for land contamination to be present at the site, because of past and present land use activities.
- Identifies areas of environmental concern (AEC) and associated contaminants of potential concern (COPC) at the site and the likelihood of those COPC being present on site.
- Recommendations for further investigation of the site as necessary.

It is understood that the site previously operated as an orchard / vineyard which ceased in 1980. The report identified the following AEC requiring further investigation:

- *Historic use of the site for agricultural purposes including potential application of OCP/OPP pesticides to crops; and*
- *Stockpiled building rubble and chemical containers identified in Lot 3 & 6.*

Based on this investigation, the report concludes that there is low-moderate likelihood that contamination is present at the site associated with the AECs and any impact is likely to be restricted to the surficial soils.

The report states that:

*These potentially impacted soils are likely to be removed as part of the site preparation works for the development. APP considers that further detailed site investigation is not warranted prior to the start of development works.*

As part of future development works APP recommends that the following be included in Construction Environmental Management Plan to identify and manage any potential contaminated material on site:

- An Unidentified Finds Procedure.
- A detailed Waste Classification and Materials Management plan.
- An Asbestos Management Plan.

The report concludes that the information presented within this report meets the Council's requirements for this application.

## 8.10. INFRASTRUCTURE SERVICES

A Services Infrastructure Report has been prepared by SMEC and provided in Appendix H. A summary of the findings of the report are provided in the following table:

Table 15 – Summary of Availability of Services

Services	Findings
Sewer	<p>An existing 450mm diameter Poly Pipe (PP) sewerage service is available in the south - western corner of the site. The size of this main is large enough to take the capacity of the proposed residential subdivision.</p> <p>However, due to the topography of the site, further investigation and detailed design would be required to conclude if the whole site could ultimately drain to this point.</p> <p>An existing 300mm (VC) sewerage service is available approximately 350m east of the site. Both connection points lie within UWS land and would require permission for lead – in -works.</p>
Potable Water	Existing potable water services are available adjacent to the western frontage of the site in O'Connell Street and is considered sufficient to service the proposed development subject to consultation with Sydney Water.
Electricity	The nearest electricity substation is at Claremont Meadows and was planned to cater for the bulk electrical supply for future development within the Caddens region. A further five substations may be required to service the proposed yield.
Telecommunications	There are several existing telecommunications utilities available within the vicinity of the site including Telstra, NBN, Nextgen and AARNet.
Gas	An existing 200mm secondary main runs underground adjacent to the site along the western verge of O'Connell Street. Future development would be able to utilise the existing 200mm main but would likely require a pressure reducing station subject to further advice from Jemena.

Accordingly, the site can be serviced with all appropriate infrastructure services subject to further investigation and refinement at detailed development application stage.

## **8.11. WASTE MANAGEMENT**

A Waste Management Plan (WMP) has been prepared by GHD and provided in Appendix K. The WMP is in accordance with the requirements of the Penrith DCP 2014 and provides indicative arrangements for waste storage and collection, waste quantities and handling. This has been discussed with Council officers during preparation of the Concept Plan.

## 9. CONCLUSION

This SEE has been prepared to assess the Concept which establishes the parameters for future development of the site at 46-66 O'Connell Street, Caddens including indicative super lots, residential yield, road layout, public domain locations and stormwater management principles.

The proposal has been designed following an extensive assessment of the opportunities and constraints of the site and urban design analysis. It is considered that the proposed development is appropriate with consideration of the following:

- The Concept Plan seeks approval for 320 dwellings and 90 garage top units on lots C - Q. Extensive site analysis demonstrates that the site can appropriately accommodate this density. An additional 400 units are anticipated as part of future development of lots A and B and will be subject to a separate application.
- The site is considered as suitable for the proposed works given its location in the Caddens Urban Release Area and the WELL Precinct and will result in public benefit through the provision of the following:
  - A new approach to housing which differs from the traditional detached estate model and aims to provide high quality housing design, functionality and affordability. The Concept Plan will facilitate low-rise, medium sized homes including terraces, dual occupancies or secondary houses which demonstrate design excellence and assist in meeting the shortage for affordable housing solutions and diversity for families and first home buyers.
  - Connective, open edged pattern of streets and open spaces that directly engages with surrounding land uses including employment, education and health. The Concept Plan provides a clear and navigable public domain network of streets and parks that will benefit future residents, existing students and employees of TAFE and University of Western Sydney.
  - Provides a variety of open space and passive and active recreational areas for the benefit of new residents including a Central Park/ Bushland Reserve, a linear park/square and a hill-top pocket park.
  - Retention of 84.3% of an existing patch of Cumberland Plain Woodland community and replanting of 9.3% of CPW will be undertaken within the Woodland Park. This will result in 0.7ha of CPW being retained or re-created within the site which is a net gain of 0.06ha.
  - The proposed works will enable future residential development and will result in positive economic impacts through the provision of direct and indirect employment (during both construction and operation).
- The Concept Plan is adjacent to the core Caddens Town Centre which is to accommodate commercial development, services and facilities to support the existing and new community.
- The site is strategically located in proximity to public transport and key road linkages connecting to key centres and local services and facilities. Further the site is anticipated to benefit from additional future infrastructure linkages to the future Western Sydney Airport, other local centres and the North West and South West Growth Centres. This will provide access to jobs within 30 minutes of home and increase access to services and facilities.
- The proposal will result in minimal environmental impacts, all of which can be mitigated through the specialist consultant recommendations which will be incorporated into the future Stage 2 Development Applications.
- The proposal demonstrates consistency with the relevant environmental planning instruments including strategic planning policy, State and local planning legislation, regulation and policies.

As such, for the reasons contained within this report and the accompanying documentation and having regard to the State and Local Planning Policy Framework, we consider the proposal has merit and should be supported by Council.

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# **APPENDIX A      SURVEY PLAN**



# **APPENDIX B      URBAN DESIGN REPORT INCLUDING CONCEPT PLAN AND CONCEPT HOUSING PLANS**

# APPENDIX C

# LANDSCAPE CONCEPT PLAN

# APPENDIX D

# CONCEPT CIVIL ENGINEERING PLANS

# APPENDIX E      BUSHFIRE PROTECTION ASSESSMENT

**APPENDIX F**

**TRANSPORT IMPACT ASSESSMENT AND  
TRAFFIC PEER REVIEW**

# APPENDIX G

# PRELIMINARY INFRASTRUCTURE REPORT

**APPENDIX H**

**STAGE 1 PRELIMINARY SITE  
INVESTIGATION**

# APPENDIX I

# FLORA AND FAUNA ASSESSMENT



# APPENDIX J

# VEGETATION MANAGEMENT PLAN

# APPENDIX K

# CONCEPT WASTE MANAGEMENT PLAN

# APPENDIX L

# PENRITH DCP COMPLIANCE TABLE



### **BRISBANE**

Level 7, 123 Albert Street  
Brisbane QLD 4000  
Australia  
T +61 7 3007 3800

### **MELBOURNE**

Level 12, 120 Collins Street  
Melbourne VIC 3000  
Australia  
T +61 3 8663 4888

### **PERTH**

Level 14, The Quadrant  
1 William Street  
Perth WA 6000  
Australia  
T +61 8 9346 0500

### **SYDNEY**

Level 23, Darling Park Tower 2  
201 Sussex Street  
Sydney NSW 2000  
Australia  
T +61 2 8233 9900

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**URBIS.COM.AU**