

STATEMENT OF ENVIRONMENTAL EFFECTS

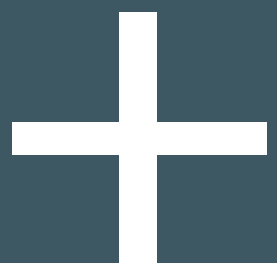
RESIDENTIAL SUBDIVISION

STAGES 7 & 8

PRECINCT G & H

GLENMORE PARK STAGE 2

April 2021
Revision C



RESIDENTIAL SUBDIVISION

PRECINCT G & H

GLENMORE PARK STAGE 2

APRIL 2021

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1 BACKGROUND

1.1 Introduction

On behalf of Vianello Holdings, this Statement of Environmental Effects has been prepared to support a Development Application which seeks approval for residential subdivision, bulk earthworks, construction of new roads and street landscaping, open space, including vegetation regeneration works in the remainder of the Surveyors Creek riparian corridor, stormwater management infrastructure and provision of services within the Glenmore Park Stage 2 release area.

The subject site is wholly located with the remaining undeveloped area of Precinct H within Glenmore Park Stage 2 and forms part of existing Lot 4 on DP 1240361 (refer Figure 1). The subject site represents Stages 7 and 8 of Precinct H development area, with the approved Stage 6 subdivision (DA18/0310) adjoining the subject site to the north.

The proposal seeks approval for subdivision of the subject site to deliver 88 residential allotments ranging in size from 311m² to 642m², two superlots that will enable future small lot subdivision, one open space lot and the extension of the riparian corridor that forms part of the Surveyors Creek corridor. The proposal also incorporates construction of local roads, stormwater infrastructure and provision of services. The proposed allotments incorporate a variety of lot widths that will facilitate diversity of housing and interesting streetscapes.

The proposed residential structure and road network is generally consistent with the Precinct G and H Concept Plan and achieves the objectives of the Glenmore Park Stage 2 DCP. The proposed subdivision layout delivers a legible and permeable layout with allotments that facilitate activated streetscapes and a range of lot types to encourage diversity of housing.

The proposed residential subdivision has been designed to achieve a seamless connection with the existing development to the north. The proposed residential structure and road network is generally consistent with the Precinct G and H Concept Plan and the Glenmore Park Stage 2 DCP. The proposal extends the existing Riverflat Drive to continue this collector road south adjacent to the Surveyors Creek open space corridor.

The proposal incorporates street landscaping, augmentation of stormwater infrastructure and the provision of services. A detailed description of all works proposed under this application is provided under Section 3.0 of this report. In order to achieve even grades suitable for the proposed residential subdivision and associated civil works, the proposal also seeks approval for earthworks as detailed within the Civil Engineering Plans enclosed with this report.

Glenmore Park Stage 2 was rezoned in May 2009 under the Penrith Local Environmental Plan (Glenmore Park Stage 2) 2010 (LEP) with the associated Glenmore Park Stage 2 Development Control Plan (DCP) adopted in October 2007.

The site is predominantly zoned R1 General Residential under the Penrith Local Environmental Plan. A portion of the subject site is located within land zoned E2 Environmental Conservation and the RE1 Public Recreation.

This report has been prepared pursuant to provisions of the Environmental Planning and Assessment Act 1979 (EPAA 1979) and the Environmental Planning and Assessment Regulation 2000. The report addresses the heads of consideration listed under Section 4.15 of the EPAA 1979 as relevant to the proposed development.

The proposed subdivision forms part of a large residential development that will assist housing affordability in Sydney and make substantial contributions to improvements to the environment, increasing the number of public recreation and open space assets in the locality and delivering a legible road hierarchy that creates a pedestrian friendly residential environment.

1.2 Site Location & Description

The subject site for the proposed residential subdivision (Stages 7 & 8) forms part of Precinct H within the Glenmore Park Stage 2 release area. The site occupies an area of approximately 6.72 hectares and forms part of a large rural land holding (refer to Figure 2). The subject site is located within existing Lot 4 on DP 1240361.

The subject site is located wholly within Precinct H. Existing residential development within Precinct E borders the subject site to the north, as well as existing development from Stage 6 of Precinct H. Land to the west and south comprises the existing rural landscape which is currently zoned RU2 Rural Landscape, however is subject to a Planning Proposal currently being considered by Council, which seeks to rezone the area for urban purposes. Land to the east comprises Stages 1, 2,3 and 4 of Precinct G, which is partially complete.

The existing Northern Road is located approximately 460m to the east, with the widening of this road currently under construction as part of the Northern Road upgrade. As part of The Northern Road upgrade, a new signalized intersection will be located south east of the subject site, with the collector road from this intersection forming the southern most road in the subject site, with the remainder of the road currently being considered as part of the Planning Proposal to rezone the balance of the Glenmore Park Release Area. The signalized intersection at the junction of Bradley Street and The Northern Road has been delivered, providing direct access to Riverflat Drive, which is to be extended south as part of this proposal, linking to the east west collector road in the south of the site.

Within the context of development envisioned for the area under the Precincts G and H Concept Plan, part of the western boundary of the subject site will be formed by the Surveyors Creek open space corridor.

The proposed development will facilitate a seamless extension of the existing residential development approved to the north and ensure that an integrated outcome is achieved with future stages of development. The proposed subdivision has considered the vision for Precincts G and H and ensures that residential development achieves a sensitive interface with the public domain including the Surveyors Creek open space corridor.

1.3 Glenmore Park Stage 2 Precinct G & H Concept Plan

A Concept Plan has been prepared for Precincts G and H and was submitted with the approved Stage 1 & 2 development application (DC 15/1469). The Concept Plan has been prepared in accordance with Clause 1.9 of the Glenmore Park Stage 2 DCP and provides a staged guide for the future urban development of Precincts G and H.

The Concept Plan addresses the urban structure, housing types, road hierarchy, open space, pedestrian and cycle paths, bus routes, view sheds from The Northern Road, staging and infrastructure delivery. A report and supporting documentation was also prepared which accompanies the Concept Plan.

The Concept Plan was endorsed by Penrith City Council at its Ordinary Meeting of 22 August 2016, subject to the requirement that footpaths be provided on both sides of all roads, apart from laneway verges and the road verges on the outer perimeter of Precincts G and H.

The proposed residential subdivision layout is generally consistent with the Concept Plan and Council report, achieving an integrated outcome with the existing development located to the north and ensuring the proposed subdivision can be connected to future Stages within Precincts G and H.

1.3.1 Vision & Design Philosophy

The vision for the site is to create a high-quality development in an environment that recognizes and interprets the landscape features of the site as well as the surrounding landscape. As demonstrated in the Concept Plan (**Figure 1**) and supporting documentation provided with this application, the proposed development is consistent with the vision for Precincts G and H which aims to deliver a high quality residential development as part of the Glenmore Park Stage 2 release area.

In keeping with the Concept Plan, the proposed subdivision incorporates a mix of lot types to respond to the diverse needs of the future community and create variety and interest in streetscapes. It has been sensitively designed to enable the continued protection of view sheds from The Northern Road, whilst maximising views from residential allotments within the site and across the lineal open space.

The proposed subdivision reflects the urban design principles set out in the Concept Plan for Precincts G & H and is consistent with the Glenmore Park Stage 2 release area and the development outcomes included in the Glenmore Park Stage 2 DCP. The following key urban design elements underpin the design of the proposed residential subdivision:

- Delivery of a clear, permeable and legible road network that integrates with both the existing and future surrounding development and promotes access to open space areas including the Surveyors creek open space corridor.
- Delivery of a modified grid layout that is integrated with other residential development within Glenmore Park and encourages walking and cycling within the development and accommodates a bus route in the most suitable location.
- Delivery of a site responsive urban design outcome, which seeks to retain the unique natural identity and topography of the site and protect local viewsheds from surrounding corridors.
- Promotion of the open space corridor by providing higher density development adjacent to this area of high amenity.
- Promotion of a diverse range of housing types to meet the needs of the anticipated future community.
- Provision of regular rectangular shaped residential lots that respond to the topography of the site to achieve a climate sensitive design.
- Provide larger lot frontages on street corners to allow development to address both street frontages.

Figure 1: Precinct G & H Concept Plan



1.4 Zoning

The Penrith LEP was gazetted on 22 September 2010 and rezoned the subject land to provide for future residential development. The subject area is zoned mostly R1 General Residential under Penrith Local Environmental Plan 2010. Part of the eastern boundary of the site is zoned RU2 Rural Landscape, with this area subject to a Planning Proposal currently being considered by Council, which seeks to rezone the remainder of the land for urban purposes. In relation to this application, the RU2 area only comprises road reserves, which are permissible in the zone.

A small portion of the subject site is located within land zoned E2 Environmental Conservation. The small portion of E2 land contains the intersection point of Riverflat Drive and the east-west collector road crossing Surveyors Creek in the south.

A small area of RE1 Public Recreation zone land is located in the north of the site and forms the remaining portion of Pinnacle Park, with its embellishment to form part of a future separate Development Application.

The zoning of the subject land holding is shown in **Figure 4**.

The proposed residential subdivision and associated works comply with the relevant standards under the LEP, as outlined under Section 5 of this report.

2 SITE ANALYSIS

2.1 Local Context

The subject site is located in the Penrith Local Government Area within the Glenmore Park Stage 2 release area (refer Figure 2).

The Glenmore Park Stage 2 release area is located within Western Sydney, approximately 6km from the Penrith CBD (refer Figure 2). The Nepean River is located 5km to the west and the Blue Mountains National Park is located to the west of that. The Mulgoa Nature Reserve is located to the north-west of the Glenmore Park Stage 2 release area, with rural land holdings to the east and south. The site is well serviced by existing regional infrastructure with the M4 motorway located to the north and Penrith train station is approximately 7km to the north.

The Glenmore Park Stage 2 Release area will be predominately residential, incorporating a neighbourhood centre, as well as active and passive open space. Surveyors Creek forms a major geographical feature of the Glenmore Park Stage 2 release area and will be rehabilitated and incorporated into accessible linear open space for the future community. The western tributary of Surveyors Creek runs between Precincts G and H and adjoins the subject site to the west. The Glenmore Park Stage 2 area will also incorporate several pocket parks and playing fields, providing additional amenity and visual relief.

The Stages 7 & 8 residential subdivision site are the remaining stages of Precinct H with existing development located within Precinct E directly to the north and the western tributary of Surveyors Creek, forming part of the western boundary of the subject site. The Northern Road is located approximately 460m to the east and Bradley Street is located 200m to the north of the subject site, with direct access provided via Riverflat Drive which will be extended south as part of this proposal.

2.2 Site Analysis

The Stages 7 & 8 residential subdivision site occupies an area of approximately 7.2 hectares and has been cleared of vegetation and highly modified as a result of previous grazing and agricultural uses. Specific detail and analysis is provided as follows:

Landform	The existing landform slopes from east to west throughout the subject site, with Surveyors Creek forming the topographical low point. A north-south ridge along the eastern boundary of the site.
Access	Access to the site will be provided via an extension of the existing road network to the north. This extension incorporates a continuation of the existing collector road, Riverflat Drive, as well as extension of the existing local roads, including Middlebrook Rise, Capstone Terrace, Highland Terrace and Greenlink Drive to provide additional access points for the proposed allotments.
Vegetation	The subject site occupies land which has been mostly cleared as a result of past grazing activities. No significant vegetation exists within the subject site. In addition to the Flora and Fauna Assessment undertaken as part of the initial rezoning of the Glenmore Park Stage 2 Release Area, an Ecological Assessment has been prepared for Precinct G and H and is enclosed with this report. The Assessment provides detail on the drainage and biodiversity works within the Surveyors Creek corridor. The proposed works are consistent with the recommendations of the Ecological Assessment.
Drainage	The site drains to the western tributary of the Surveyor's Creek corridor which runs in a north south direction to the west of the subject site. Precincts G and H form the upper extent of the drainage catchment flowing to Surveyor's Creek.

2.3 Land Capability

In 2001, URS prepared a Phase 2 Investigation Report, investigating the potential for site contamination. This formed part of the 2003 'Environment and Biodiversity LES Report' for the Glenmore Park Stage 2 urban release area. This included an assessment of the potential for the land to be contaminated and whether it was suitable for urban development.

No areas of environmental concern or contamination were identified within the subject site. A supplementary report by EDP Consultants Pty Ltd has been prepared and is included as Appendix 9 to this SEE. The assessment undertaken by EDP addresses matters raised by Council in relation to data gaps between previously prepared investigations and the area subject to this application. As part of the assessment, EDP reviewed the previous works as well as undertaking additional test bores. Based on their review and additional testing, EDP concluded that the former data gaps associated with the increased extent of the development footprint to be addressed and considered the investigation area suitable to be incorporated into the proposed development footprint for the proposed residential subdivision.

In 2015, a Geotechnical Assessment was undertaken for the Precinct G and H area by Geotechnique and applies to the subject site. The report includes erodibility, aggressivity and salinity assessments and concludes the subject site is suitable for residential development.

Details on site preparation works including recommendations for the soil management plan are provided in the report which is enclosed with this Development Application.

2.4 Cultural Heritage

Detailed European and Aboriginal Heritage investigations were undertaken during preparation of the Local Environmental Plan for the Glenmore Park Stage 2 release area, as part of the Cultural Heritage Assessment carried out by Navin Officer Heritage Consultants. These studies identified a limited number of archaeological sites located within the Glenmore Park Stage 2 development area.

No items of Environmental Heritage were identified within the development area.

2.5 Viewscapes

The Concept Plan Report for Precincts G and H and supporting documentation endorsed by Penrith City Council on 22 August 2016 incorporates a comprehensive analysis of local viewsheds from the Northern Road.

As detailed in the Concept Plan, a Viewscape Analysis was prepared as part of a Development Application (DA No. 080537) for mounding adjacent to The Northern Road. The Concept Plan includes indicative sight line cross sections and a photo montage demonstrating development within Precinct G and H will be adequately screened from The Northern Road.

The indicative sight line cross sections included in the Viewscape Analysis demonstrated there was no additional mounding to DA No. 080537 required to screen the development within Precincts G and H. Notwithstanding, additional view analysis was undertaken, which identified that the proposed the Stage 7 & 8 residential subdivision site would be viewable from a number of locations along The Northern Road. As a result, the mounding originally installed as part of the early phase of the development will be extended to ensure that Council's view shed objectives when viewing the site from The Northern Road. The engineering plans provide additional detail of the location and extent to which the mounding will be modified.

Figure 2: Locality Plan



Figure 3: Site Plan

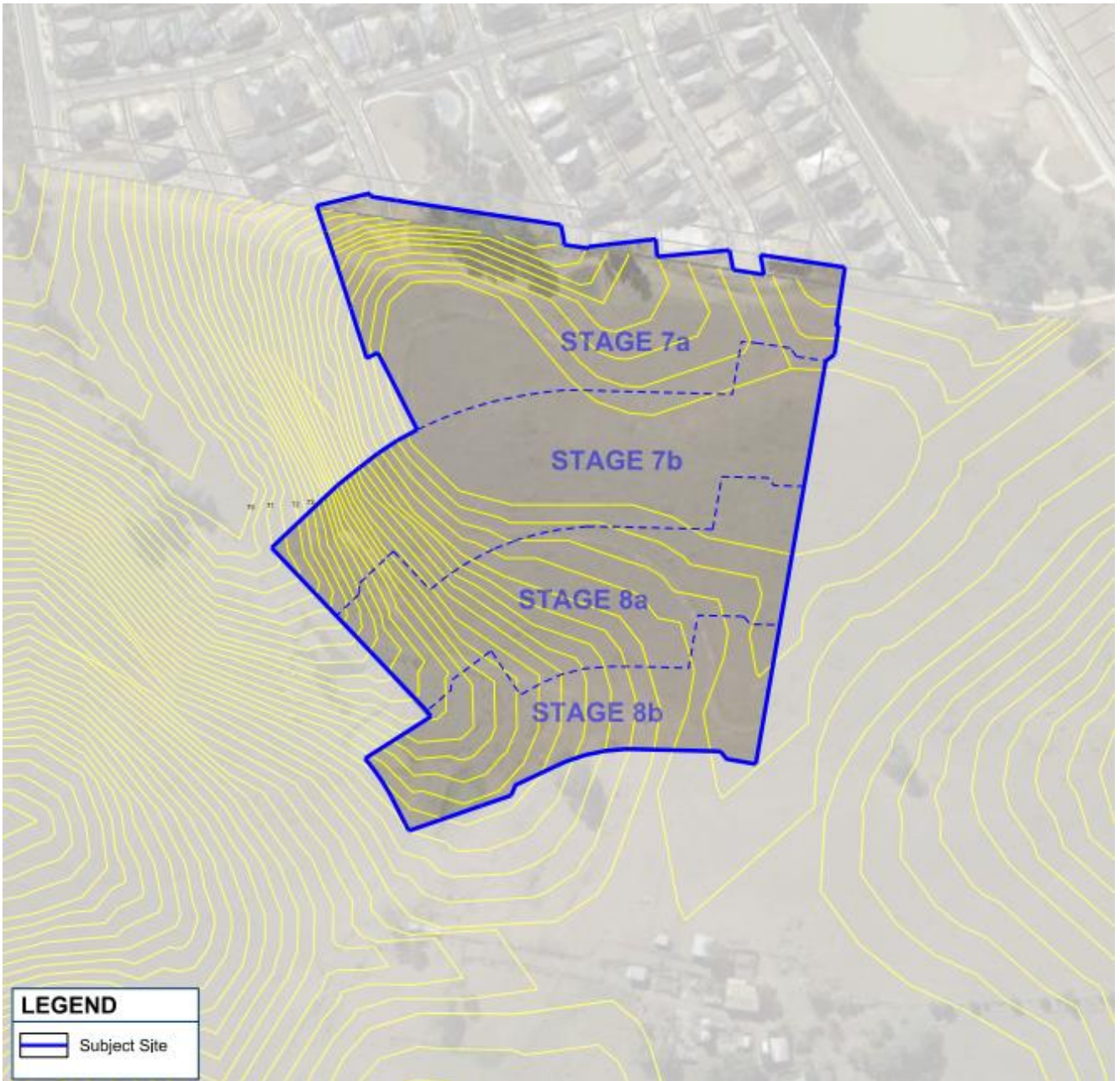
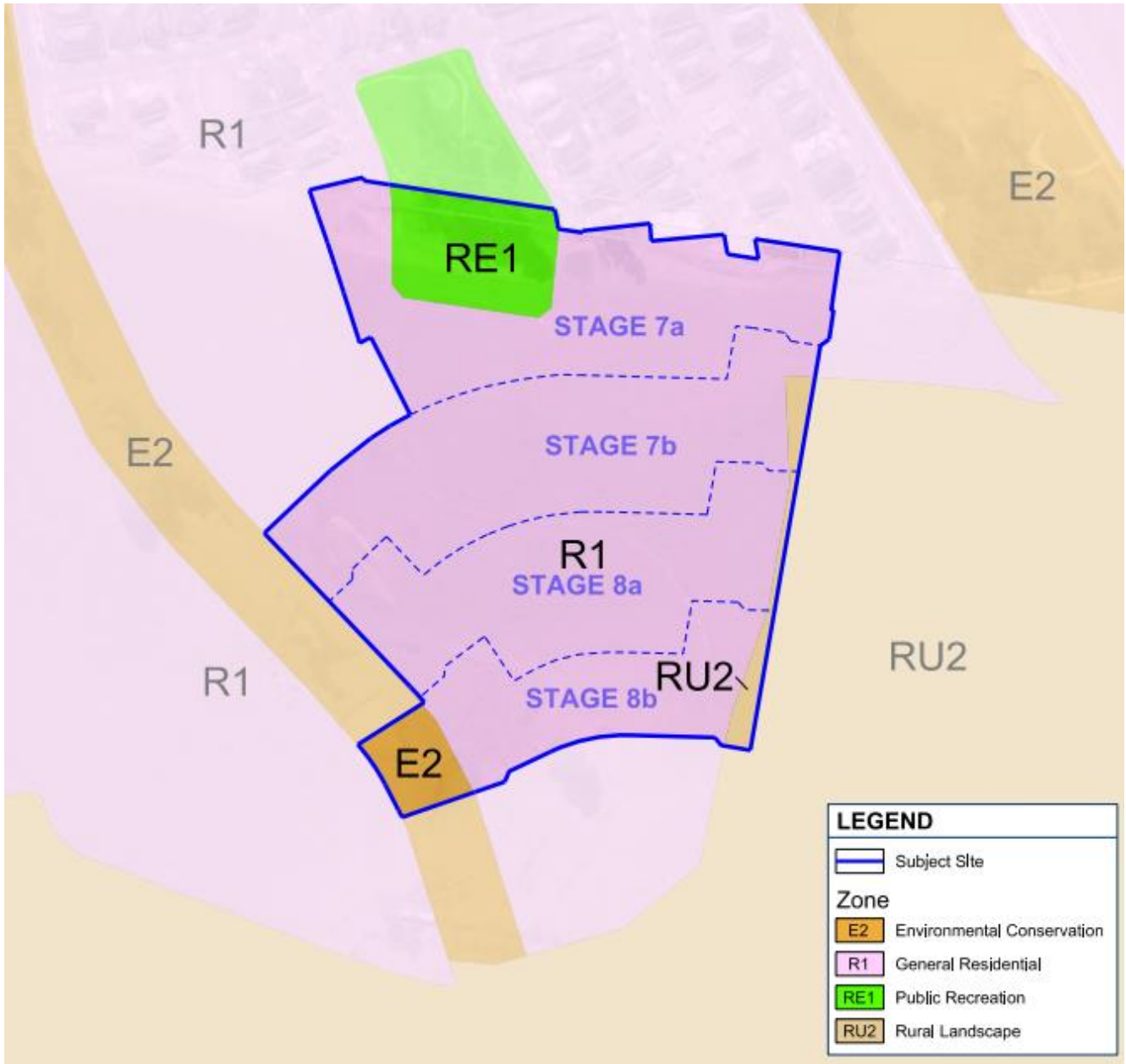


Figure 4: Zoning Plan



3 PROPOSED DEVELOPMENT

3.1 Proposal

The proposal seeks approval for a subdivision of existing Lot 4 on DP 1240361 within Precinct H of the Glenmore Park Stage 2 release area. The proposed residential subdivision of the site will create a total of 88 residential allotments. The DA Plan and Lot Mix Plan submitted with this report provide detail on the proposed allotment typologies as well as road locations and reserve widths.

Also enclosed with this report as a separate document are the Civil Engineering Plans which provide construction details for the proposed works. A summary of the proposed residential subdivision is provided below:

- Creation of 88 residential allotments, ranging between 311m² and 642m².
- Creation of 2 superlots for future small lot subdivision.
- Creation of an open space lot that will form part of Pinnacle Park (embellishment to be subject to a separate future DA).
- Earth works associated with the construction of roadways, servicing, stormwater devices and minor allotment grading (refer Civil Engineering Plans for extent of cut and fill).
- Construction of new roads.
- Delivery of stormwater management infrastructure including an east-west overland flow path as shown on the Engineering Drawings.
- Construction of retaining walls.
- Landscaping of streetscape areas.
- Provision of required services.
- Extension of exiting mounding providing additional protections of sightlines.
- Environmental restoration works associated with the Surveyors Creek riparian corridor and Pinnacle Park.
- Landscape embellishment of Surveyors Creek.

The proposed residential subdivision layout achieves an integrated outcome with the existing residential development to the north, continuing the established residential block structure and ensuring that an accessible and legible subdivision layout is delivered.

The proposed allotments are generally consistent with the Concept Plan and, in combination with future Stages of development within Precinct G and H will contribute to achieving the dwelling yield and diversity targets established in the Concept Plan and meet the objectives of the Glenmore Park Stage 2 DCP.

Key aspects of the proposal are discussed in further detail below and an assessment against the relevant planning controls is provided in Chapter 4 of this Statement of Environmental Effects.

3.2 Concept Plan Design Modifications

Consistent with the endorsed Concept Plan, the proposal incorporates extension of the Riverflat Drive to continue this collector road south adjacent to the Surveyors Creek open space corridor, providing a connection between Bradley Street in the north. Future subdivision of Stage 9 will facilitate connectivity to Precinct G and the future Glenmore Park Stage 3. Any future subdivision, post Stage 3 rezoning, will need to consider the Concept Plan and ensure that appropriate and safe road connections are provided. Continuation of the Riverflat Drive south allows for future bus services to access the area in accordance with the ultimate bus route plan submitted as part of the Concept Plan report.

There are a number of minor inconsistencies between the proposed subdivision and the Concept Plan. Many of these inconsistencies are a result of detailed design work and changes necessitated as a result of previous approvals. Further detail on the inconsistencies is provided below.

- **Concept Plan Road 11:** The north south road at the eastern boundary of the site, known as Road 11 on the Concept Plan, has been amended to incorporate a straighter alignment. The proposed alignment is considered to provide extended sight lines north and south, enabling safe vehicle turns from the east-west roads of the subdivision. Notwithstanding this minor departure, the proposed road alignment will still provide excellent road connectivity to the future residential community, as envisaged by the Concept Plan.
- **East West Road Alignments:** The street block arrangement in this application, proposes to implement a modified, curvilinear east-west street blocks. While this arrangement differs slightly from the Concept Plan, which proposed an L-shaped cell block alignment, it maintains the Concept Plan's east west connectivity between the Riverflat Drive collector extension and the eastern north-south (i.e. Road 11 in the Concept Plan).
- **Integration with Stage 6:** The Concept Plan envisaged an L-Shape cell block for the Stage 6 area. However, previous subdivision approvals within the Stage 6 area have resulted in an amended cell alignment. Specifically, the L-Shaped cell block has been removed and replaced with a more traditional grid pattern, with a T-intersection at Road 2 of the Concept Plan and Clearview Drive. This change in the design has required further design changes, particularly with the alignment of the east-west road (Road 2 in the Concept Plan) and connectivity of the north-south local road network, including Middlebrook Rise, Captstone Terrace and Highdale Terrace. Notwithstanding the need to amend the road alignment approved under the Concept Plan, north-south and east-west connectivity is maintained in line with principles of the Concept Plan.
- **Pinnacle Park:** The configuration of the southern portion of Pinnacle Park varies slightly from the Concept Plan. The reconfiguration has resulted in a variation in size has been necessitated by the already approved road network in the existing development to the north and east, specifically the alignments of Clearway Terrace, Middlebrook Rise, Capstone Terrace and Highdale Terrace. These approved roads have placed significant constraints on the ability to expand the park, without creating a poor movement network and urban outcome. These constrains are detailed below:
 - **Western Expansion Constraints:** There is no opportunity to increase the park to the west as the adjoining lots are already 25m deep. Decreasing lot dept to less that 25m will limit the ability to achieve a block size that would enable a reasonable housing product.
 - **Eastern Expansion Constraints:** Increasing the park to the east would create an intersection angles that would not provide a safe vehicular movement environment, in particularly, the alignment of intersections of Road 2 with Middlebrook Rise, Captstone Terrace and Highdale Terrace.
 - **Southern Expansion Constraints:** Increasing the park to the south would create a situation where Road 2 would not align with the road being constructed within Stage 6 to the west. As noted above, the approved road network that forms part of Stage 6 has necessitated a minor modification to the road network, particularly the east-west road to the south of Pinnacle Park (i.e. Road 2 on the Concept Plan)

The constraints identified above has resulted in the southern portion of Pinnacle Park having an area of 4,254m², a shortfall of 746m² from the 5,000m² identified in the Concept Plan. The existing northern portion of Pinnacle Park has an area of approximately 5,110m². Together with the proposed southern portion of Pinnacle Park, the total area of the open space will be approximately 9,364m². The RE1 zoning that represents Pinnacle Park, measures an area of approximately 10,072m². The proposed total area of Pinnacle Park is therefore, 708m², which represents a variation of only 7%. Notwithstanding, it is proposed that the southern portion of Pinnacle Park, proposed by this application, incorporate additional embellishment that is intended to facilitate the delivery of additional amenity within the park. It is proposed that the type and level of embellishment of the park will be undertaken in consultation with Council. As such, a separate application will be prepared for the embellishment of the park, enable appropriate consultation with Council to occur prior to the finalisation of the plans.

- **Terrace and Semi-Detached Lots:** The Concept Plan proposed two of the western street block ends, fronting the Surveyors Creek riparian corridor, to be allocated for terrace and semi-detached lot product between 6.5m to 10m in width. Additionally, these lots were identified as rear accessed. This application proposes the creation of two super lots that will accommodate small lot product as part of future subdivision applications. However, while small lot product is proposed, rear access has been removed to reflect a more conventional, front loaded, product that is more acceptable to the market and responsive to the topographical constraints of the site. It is considered that the proposed subdivision maintains the opportunity for small lot product fronting the Surveyors Creek riparian corridor, however, this has been done in a manner that is responsive to and reflective of market demand.

While a number of inconsistencies with the Concept Plan are identified above, the subject subdivision has been designed on the design principles established as part of the Concept Plan identified above. The proposed roads are generally consistent with the hierarchy endorsed by Council and have been designed in accordance with the configuration requirements set out under the Glenmore Park Stage 2 DCP and are discussed in further detail under Section 3.3 of this report.

The proposed residential subdivision is also generally consistent with the distribution of lot types in the Concept Plan. The proposed subdivision incorporates a variety of lot types to accommodate different forms of dwelling products and contributes to achieving the dwelling yield and diversity targets established by the Concept Plan and Glenmore Park Stage 2 DCP.

The proposed lot typology adjacent to the Surveyors Creek corridor achieves front loaded semi-detached and/or built to boundary outcome that ensures dwellings front the street and facilitate passive surveillance of the open space area. These allotments will also benefit from the amenity provided by Surveyors Creek.

The dwelling yield and diversity targets for Precinct G and H established in the Concept Plan and set out under the Glenmore Park Stage 2 DCP are discussed in further detail under Section 3.2 of this report.

3.3 Density & Lot Typology

The Concept Plan and supporting report endorsed by Penrith Council on 22 August 2016 provides detailed discussion on the dwelling yield and diversity targets for Precincts G and H.

In keeping with the Concept Plan, the proposed residential subdivision includes a variety of lot widths and sizes to encourage a diversity of housing types consistent with the intent of the Glenmore Park Stage 2 DCP.

The Concept Plan is generally consistent with the dwelling targets and lot mix identified in the DCP and incorporates a variety of lot types to meet market demand. The Concept Plan achieves a variety of allotment types to accommodate Terrace and Semi-attached dwellings, Built-to-Boundary dwellings and Detached dwellings. The Concept Plan achieves the intent of the DCP by providing a mix of lot types which can accommodate a range of different dwellings.

Table 1 –Precinct G & H: DCP, Concept Plan and Approved Dwelling Comparison

	Precinct	Apartments and Studios	Terraces/Live-Works and Semi-Detached	Built to Boundary	Detached	Precinct Total
DCP	G	4	21	45	102	172
	H	4	18	40	78	140
	Sub-Total	8	39	85	180	312
	TOTAL:					
Concept Plan	G	-	23	94	91	208
	H	-	16	88	60	164
	Sub-Total	-	39	182	151	372
	TOTAL:					
Proposed	G	-	28*	85	67	180
	H	-	21*	69	65	155
	Sub-Total		49*	154	132	335
	TOTAL:					

Notes:

* Yield based on dwelling yield in Table 2.

As demonstrated in the table above, the Concept Plan achieves a variety of allotment types to accommodate Terrace and Semi-attached dwellings, Built-to-Boundary dwellings and Detached dwellings. The Concept Plan achieves the intent of the DCP by providing a mix of lot types which can accommodate a range of different dwellings.

Table 1 indicates that the proposed dwelling yield for terrace and semi-detached dwellings is 10 dwellings over the Concept Plan yield. While this yield exceeds the Concept Plan yield, the terrace/semi-detached dwellings are proposed in location of high amenity, adjacent to open space. Table 1 also indicated that overall, the proposed dwelling yield is 37 dwelling short of the Concept Plan yield. It is anticipated that this yield will be met with the finalization of Stage 4 and part of Stage 7 of the overall development area.

Consistent with the Concept Plan and DCP, the proposal delivers a mix of allotments that can accommodate a range of dwelling types. Table 2 below shows the proposed lot mix for Stages 7 & 8 as well as the approved lot mix within Stages 1, 2, 3, 4 and 6 and indicative yield for Stage 9.

Table 2 – Proposed Stages 7 & 8 Lot Mix and Approved Stages 1, 2, 3, 4 & 6 Lot Mix

	Precinct	Apartments and Studios	Terraces/Live-Works and Semi-Detached	Built to Boundary	Detached	Total
Stage 1 & 2	G	0	1	44	30	75
Stage 3	G	0	6	16	17	39
Stage 4	G	0	21*	25	20	66
Stage 6	H	0	0	18	18	36
Stage 7	H	0	0	31	27	58*
Stage 8	H	0	14*	16	14	44*
Stage 9	H	0	7 ⁺	4 ⁺	6 ⁺	17 ⁺

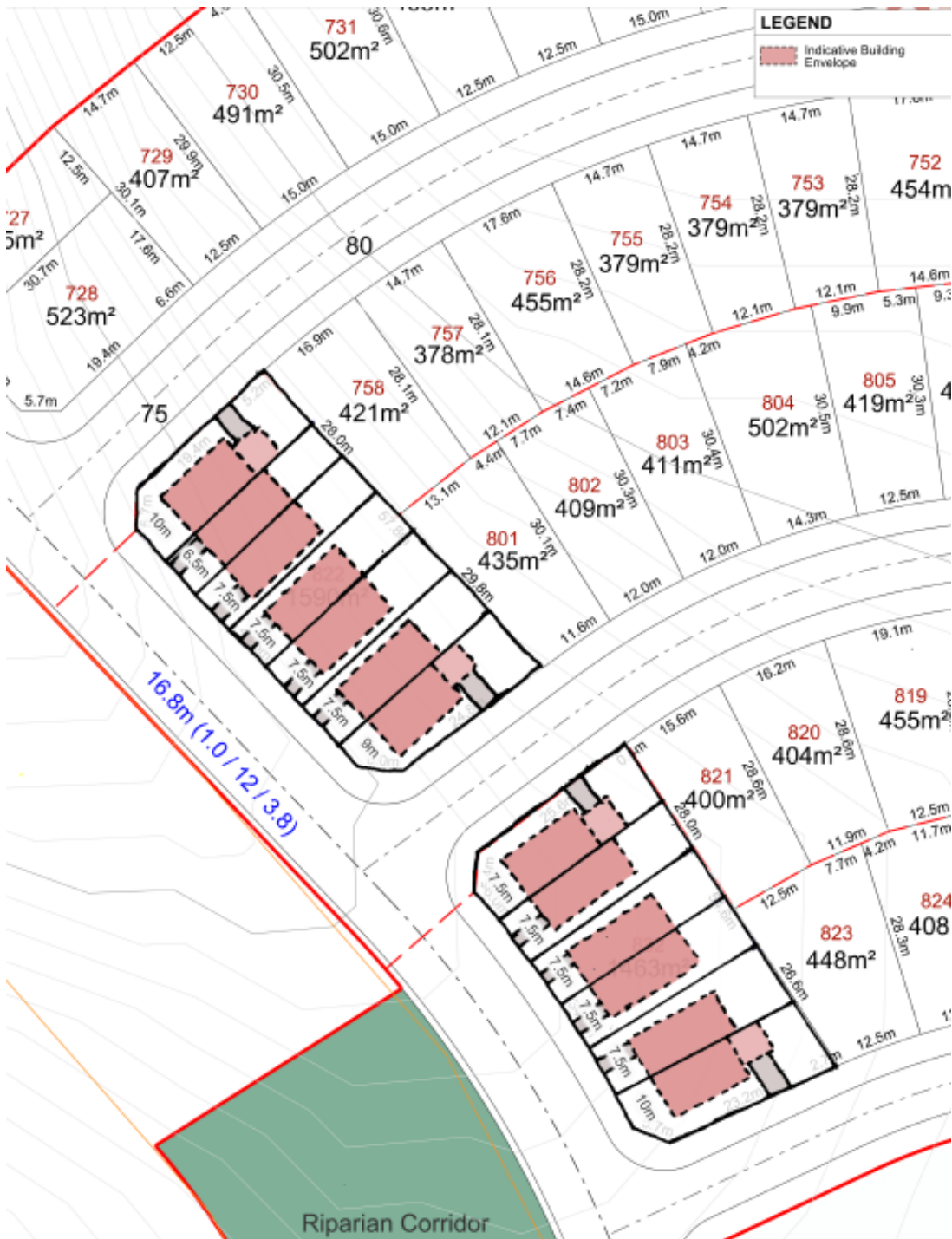
Notes:

* Yield subject to DA approval.

+ Yield indicative only and subject to DA approval.

As shown on the Lot Mix Plan submitted with this report, the proposed allotments have been categorised based on their frontage. Utilising the Glenmore Park Stage 2 Development Control Plan categorisation of development types, the subject subdivision will enable the delivery of a mix of dwelling types, including build to boundary dwellings and detached dwellings. Future subdivision of the two superlots will provide the opportunity to deliver attached style development product. However, while small lot product is proposed in these superlots, lots with rear access has been removed to reflect a more conventional, front loaded, product that is more acceptable to the market. It is considered that the proposed subdivision maintains the opportunity for small lot product fronting the Surveyors Creek riparian corridor, however, this has been done in a manner that is responsive to and reflective of market demand. An indicative subdivision layout has been prepared to determine the likely development yield. The concept lot layout at Figure 5 identifies that a potential 14 dwellings can be delivered through terrace/semi-detached development typology. As noted above, this is an indicative design with further detailed design and subject to Council approval.

Figure 5: Indicative Superlot Layout Plan



The built to boundary allotments are generally regular in shape and incorporate mostly 10m – 12.5m frontages, with some 12.5m – 15m wide allotments providing opportunity for a built to boundary outcome. These allotment types have been designed to accommodate the allotment requirements for built to boundary products as per the Concept Plan for Precincts G and H. In accordance with the endorsed Concept Plan, no studio or apartment style developments are proposed as part of this application.

The larger allotments will accommodate detached dwellings to achieve the lot mix targets for Precincts G and H. In accordance with the Glenmore Park Stage 2 DCP, these larger allotments have been located on street corners to allow for future dwellings to address both streets.

The proposal incorporates a mix of lot frontages that will contribute to encouraging diversity in housing and interesting streetscapes that balance consistency in lot shape with variety in size. The proposed subdivision layout ensures all allotments front the street, activating the public domain, including the interface with the Surveyors Creek open space corridor.

The proposed road layout and residential structure maintains the objectives of the Concept Plan, delivering allotments that front the Surveyors Creek open space area and facilitate passive surveillance of the open space area. These allotments will also benefit from the amenity provided by Surveyors Creek.

3.4 Movement Network & Traffic Impact

The Glenmore Park Stage 2 Development Control Plan was adopted by Penrith City Council on the 15th October 2007. This DCP outlined a clear road hierarchy and associated streetscape sections for the Glenmore Park Stage 2 development. The Council endorsed Precinct G and H Concept Plan refined the DCP Road Hierarchy based on a more detailed residential structure and urban layout.

The proposed road layout is consistent with the principals and key road provisions within the Glenmore Park Stage 2. The main point of access to the site will be achieved by extending the existing collector road adjacent to Surveyors Creek (Riverflat Drive) southwards. Additional access points will be provided through extension of the local roads from Precinct E to the north

The road network is based on a modified grid layout and has been designed to respond to the topography of the site and ensure appropriate grades are achieved along each road. The modified grid layout maximizes permeability and legibility for future residents providing connections for vehicles and pedestrians to open space within Precincts G and H and local services within Glenmore Park Stage 2 release area.

Riverflat Drive

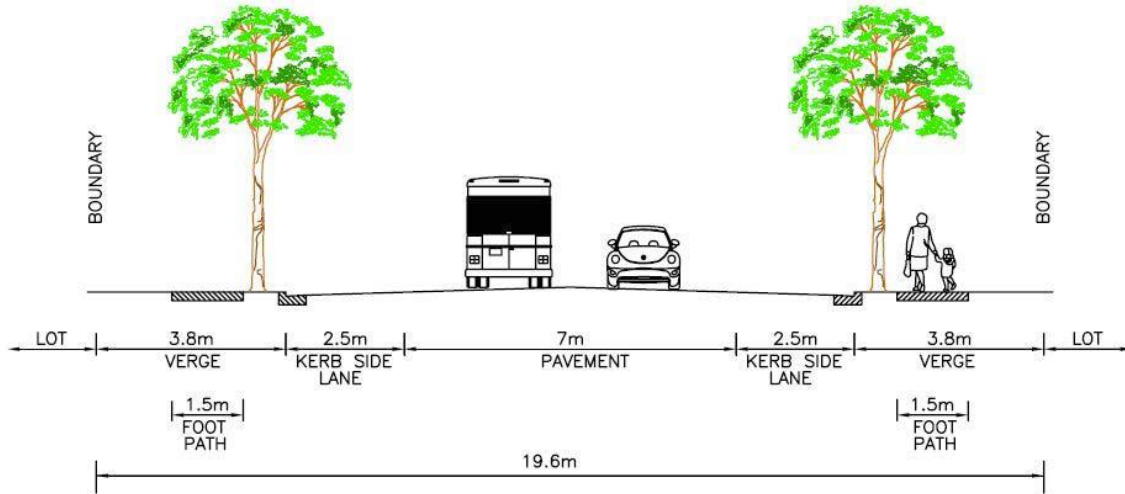
The proposed section of Riverflat Drive incorporates a carriageway width of 12m, a 3.8m verge on the residential side and a reduced verge of 1m on the Surveyors Creek side, with a total road reserve width of 16.8m. Refer to Appendix 2 for further detail on the Riverflat Drive collector road reserve design.

The proposed section of Riverflat Drive incorporates a reduced verge on the Surveyors Creek side as no services are required and this section of road does not form part of the sharepath network. Notwithstanding this, landscaping works within the Surveyors Creek open space corridor will incorporate the provision of a sharepath in accordance with figure E7.23 of the Glenmore Park Stage 2 DCP (refer to Figure 5 of this report).

In accordance with the cross section for a Collector Road, a 1.5m footpath is provided on the residential side within the 3.8m verge as well as landscaping and services. This configuration is also consistent with the existing section of this road to the north and the proposal ensures a seamless connection is achieved.

Riverflat Drive provides the main entry and exit point for the development and incorporates a bus capable carriageway. The most suitable location for a bus stop was identified in the Concept Plan, locating it within the Stage 6 area, at the Surveyors Creek riparian corridor crossing, located at the intersection of Randall Street and Riverflat Drive.

Figure 6 – DCP Collector Road Cross Section



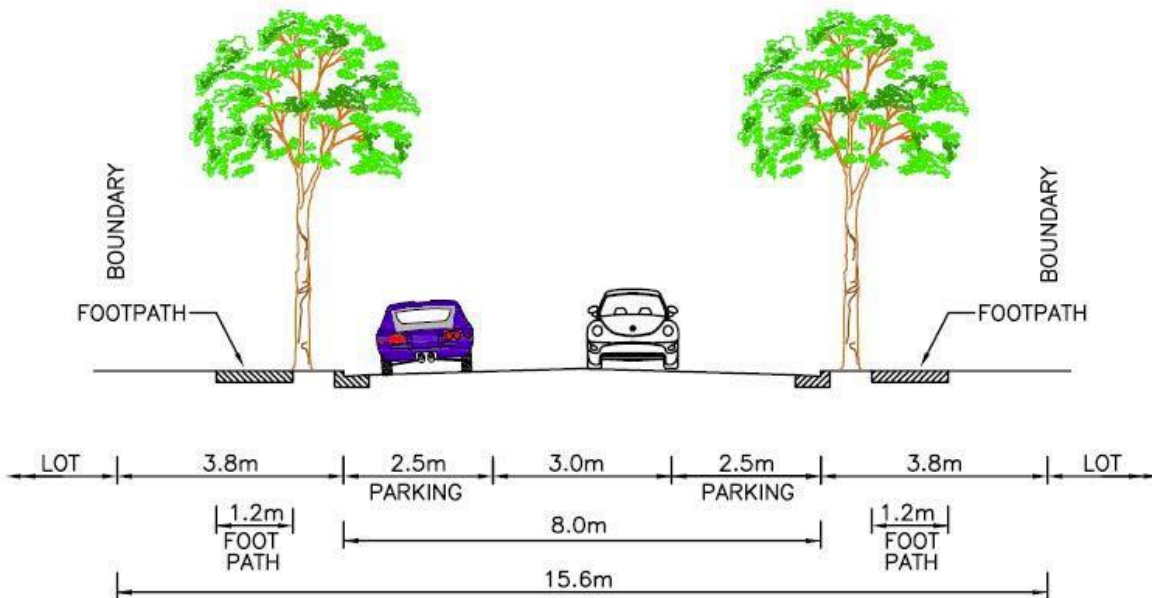
Minor Local Roads

The proposal incorporates extension of the existing minor local roads from Precinct E to provide additional access point for the subdivision area. Additional local roads will provide east west access through the Stage 7 & 8 development area, as well as the north south local road along the eastern boundary of the site.

The proposed minor local roads will facilitate a low-speed traffic environment within residential streets and ensure that roadways can operate as shared spaces encouraging pedestrian and cycle movements throughout the subdivision area. The proposed pedestrian pathways ensure that an integrated outcome is achieved with Riverflat Drive, Surveyors Creek.

As demonstrated in the enclosed Civil Engineering Plans, the proposed minor local roads are designed in accordance with the cross section shown under Figure E7.29 of the DCP (Figure 7 of this report), incorporating a pavement width of 8m, comprising parking and travel lanes and verge widths of 3.8m are provided. Refer to Appendix 2 for further detail on local road reserve design.

Figure 7 – DCP Minor Local Road Cross Section



Pedestrian and Cycle Networks

The proposal incorporates pedestrian pathways as an integrated element of the street network that promotes active and healthy transport options. The modified grid road layout aids the function of the proposed pedestrian paths, providing convenient and legible routes to share paths, open space and other key focal points within the release.

In accordance with the DCP cross sections for a collector road, the proposed works include a 1.5 metre foot path within the verge on the residential side and no footpath on the Surveyors Creek side as this section of road does not form part of the sharepath network. This configuration is also consistent with the existing section of this road to the north and the proposal ensures a seamless connection is achieved.

Notwithstanding this, landscaping works within the Surveyors Creek open space corridor will incorporate the provision of a sharepath in accordance with figure E7.23 of the Glenmore Park Stage 2 DCP.

Foot paths for the minor local road have been provided on both sides of the road in accordance with the DCP and outcomes of the Penrith Council Ordinary Meeting on 22 August 2016.

3.5 Landscaping

The proposal will deliver the street landscaping outcomes in accordance with the Street Tree Layout Masterplan submitted with the Council endorsed Concept Plan for Precinct G and H. Detailed tree locations will be submitted as part of the Construction Certificate application and in accordance with Penrith Development Control Plan 2014, the Construction Certificate Drawings will incorporate one (1) street tree for every 10m of lot frontage. It is acknowledged the Notice of Determination for this proposal will incorporate a condition of consent in relation to street tree requirements to be included in the Construction Certificate drawings.

A Vegetation Management Plan (VMP) has also been prepared for the Surveyors Creek corridor and Pinnacle Park (refer to Appendix 7). A landscape plan for embellishment works has been prepared for the Surveyors Creek riparian corridor and includes the installation of access paths, in addition to the regenerative works proposed (refer to Appendix 4). The VMP also includes details of vegetation management within Pinnacle Park. However, no landscape embellishment works within Pinnacle Park are proposed as part of this Application, with a separate application to be prepared as part of further discussions with Council regarding its embellishment.

3.6 Infrastructure Servicing Strategy

3.6.1 Drainage & Stormwater Strategy

A Stormwater Management Strategy for the Glenmore Park Stage 2 Precinct G & H development has been prepared to support the proposed Stages 7 & 8 development as well as the previously approved Stages within the Precinct G and H area. The Stormwater Management Strategy comprises a treatment train consisting on-lot treatment, street level treatment and subdivision / development treatment measures.

Provision of the water quality treatment devices included in the Stormwater Management Strategy will ensure that the post development stormwater discharges will meet Penrith City Councils' water quality objectives for the development.

The Stormwater Management Strategy details provision of WSUD elements within the development that will assist in minimising the impact of urbanisation on the waterway stability of Surveyors Creek. To this end, the vegetation restoration proposed in Surveyors Creek, together with the Stormwater Management Strategy will ensure consistency with SREP 20, as well as the planning agreement.

The Stormwater Management Strategy which has been prepared for Precincts G and H and which applies to the subject site provides a basis for the detailed design and development of the site to ensure that the environmental, urban amenity, engineering and economic objectives for stormwater management and site discharge are achieved.

The Civil Engineering plans and report submitted with this application (refer to Appendix 2) provide details on stormwater management for the proposed subdivision works, including the provision of an overland flow path for stormwater.

3.6.2 Water Reticulation

Water mains for the subject site can be extended from the existing residential development to the north. An application to Sydney Water will be made concurrently with this Development Application.

3.6.3 Sewerage

Low infiltration sewer reticulation can be extended from the existing residential development to the north located within Precinct E and the existing sewer network constructed in this area.

3.6.4 Electricity

To service the proposed subdivision, electrical network will be required to be expanded from the existing residential development to the north located within Precinct E.

3.6.5 Telecommunications

Telecommunications will be extended from the approved, and partially developed Stage 4 area, via the road/bridge cross that has been delivered.

3.6.6 Gas

Gas services will be extended from the existing residential development to the north of the subject site.

3.7 Community Facilities

3.7.1 Pinnacle Park

In accordance with the Voluntary Planning Agreement for the Glenmore Park Stage 2 release area, the Concept Plan incorporates an area of Neighbourhood Open Space to serve the future community. This application seeks to deliver the open space, which will be an extension of Pinnacle Park. The embellishment of the pen space lot will form part of a future separate Development application.

An area of approximately 5,000m² was nominated on the Concept Plan. The subdivision design in this area of the site has needed to consider a number of factors, including:

- The need to seamlessly connect to the approved and built road network to the north, specifically Clearview Terrace, Middlebrook Rise and Capstone Terrace;
- Creation of adequately sized lots fronting the southern extension of Pinnacle Park; and
- Location of the east-west local road at the south of the Pinnacle Park extension as a result of topographical and bulk earthwork considerations.

The open space lot proposed by this application measures a net area of 4,254m², which is marginally less than the 5,000m² identified in the Precinct G & H Concept Plan. Notwithstanding the minor inconsistency with the Concept Plan, the creation of the lot will facilitate the extension of Pinnacle Park, providing an overall open space area of approximately 9,353m².

The VPA requires that embellishment of Pinnacle Park is required prior to the issue of the Subdivision Certificate for the 120th lot or at a later time as agreed with Council. This application triggers the requirement for the embellishment of Pinnacle park. Discussions with Council have progressed in this regard, with a formal request to be submitted to Council seeking confirmation that a separate DA will be lodged. Additionally, given the shortfall in the overall provision of open space in this area, additional embellishment is proposed to ensure future resident have access to high quality open space. The separate application and landscape embellishment works will be prepared in consultation with Council to ensure the most appropriate open space outcome is achieved.

3.7.2 Surveyors Creek Riparian Corridor

The proposed central linear open space within the Surveyors Creek corridor provides a key community facility, significantly improving the amenity of the subdivision. Early works, including riparian revegetation works are proposed as part of this application, as well as embellishment works. A VMP has been prepared, as well as a landscape plan identifying the proposed works (refer to Appendix 7). The VMP and landscape plan identify a number of regenerative and embellishment works, including the addition of pathways to connect to the existing path network within Surveyors Creek.

It should be noted that the small remaining portion of the Surveyors Creek riparian corridor will be dealt with as part of a future separate application that will also include the subdivision of Stage 9 of Precinct H.

4 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

4.1 Section 4.10 – Designated Development

Section 4.10 of the Environmental Planning and Assessment Act 1979 (EP&A Act) provides that development is considered to be Designated Development where declared as such by any Environmental Planning Instrument or the Regulations.

Schedule 3 of the EP&A Regulations 2000 outlines the criteria for development which is classified as Designated Development. Development classed as 'designated' requires particular scrutiny because of its nature or potential environmental impacts. Designated development includes development that has a high potential to have adverse impacts because of their scale or nature or because of their location near sensitive environmental areas, such as wetlands and coastal areas.

The proposed development does not satisfy the criteria within Schedule 3 of the EP&A Regulations 2000 and is therefore not considered to be Designated Development as defined under the Regulations.

4.2 Section 4.46 – Integrated Development

Section 4.46 of the Environmental Planning & Assessment (EP & A) Act 1979 outlines development which is considered to be Integrated Development, requiring concurrence/approval under a variety of Acts.

The proposal constitutes Integrated Development under Section 4.46 of the EP & A Act 1979 as follows:

4.2.1 National Parks & Wildlife Act 1974

Detailed reports were prepared during rezoning of the Glenmore Park Stage 2 development area which reviewed and identified Aboriginal and European sites and artefacts.

The Cultural Heritage Assessment prepared by Navin Officer Heritage Consultants, dated July 2003 identified that no items of Environmental Heritage were identified within the subject site.

Accordingly, the proposed works are not classified as Integrated Development in this instance.

4.2.2 Water Management Act 2000

Under Section 91 of the EP&A Act 1979, a proposal is Integrated Development if approval is required to undertake a controlled activity on waterfront land under Section 91 of the Water Management Act 2000.

A controlled activity under the Water Management Act is defined as:

(a) the erection of a building or the carrying out of a work (within the meaning of the Environmental Planning and Assessment Act 1979), or

(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

(d) the carrying out of any other activity that affects the quantity or flow of water in a water source.

The proposed residential subdivision involves works within 40m of an identified creek line or riparian corridor. This identified creek line is the western tributary of Surveyors Creek. The proposed works primarily relate to riparian restoration and revegetation works. A VMP and accompanying landscape plan has been prepared for the Surveyors Creek corridor and is attached with this application (refer to Appendix 7). A Landscape Plan for Surveyors Creek is attached at Appendix 4.

Accordingly, the proposed works are integrated development and referral of this Development Application to the NSW Office of Water is required.

4.2.3 Rural Fires Act 1997

Section 91 of the EP & A Act identifies that residential subdivision of Bushfire Prone Land requires a Bush Fire Safety Authority is Integrated Development.

The site is identified as containing Bushfire Prone Land under Penrith Councils Bushfire Prone Land Map (November 2014).

A Bushfire Protection Review has been prepared to support the proposal and is submitted with this Development Application.

The review identified two bushfire vegetation classes occurring within the site:

- 'Low Hazard Vegetation' – which applies to the riparian style corridor; and
- 'Pasture' surrounding the site.

The Concept Plan has been designed in consideration of these findings and pursuant to the requirements set out in Planning for Bushfire Protection 2006.

Further review has been undertaken to determine the impact of the works proposed in the VMP and landscape plan for the Surveyors Creek corridor. The review has found that the proposed landscape works within Surveyors Creek corridor will not have an impact on the achievement of the APZ for this portion of the development, as it can still be met by Riverflat Drive.

Notwithstanding, the proposal is classified as Integrated Development and referral of this Development Application to the NSW Rural Fire Service is required.

4.3 Commonwealth and State Biodiversity Conservation Legislative Framework

Section 1.7 of the EP&A Act facilitates the protection of terrestrial and aquatic threatened species, populations and ecological communities, and their habitats through the Biodiversity Conservation Act 2016 and Fisheries Management Act 1994.

4.3.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act, any action (which includes a development, proposed development or activity) that is considered likely to have a significant impact on Matters of National Environmental Significance (MNES) must be referred to the Commonwealth Minister for the Environment.

The Biodiversity Development Assessment Report (BDAR) prepared by Australian Wetlands Consulting Pty Ltd (AWC) has undertaken an assessment of the MNES that may or may not occur within the site or in the vicinity of the site. The assessment has found no matters of MES are identified, with referral to the Federal Minister for the Environment unnecessary.

4.3.2 Biodiversity Conservation Act 2016 (BC Act)

The Biodiversity Conservation Act 2016 (BC Act) facilitates the protection and management of biodiversity and threatened species. The purpose of the BC Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The BDAR (refer to Appendix 6) has undertaken an assessment of the proposed development in accordance with the Biodiversity Assessment Methodology (BAM). The BDAR has identified plant community types within the site area, as well as a suite of recommendations in relation to the avoidance and mitigation of disturbance as a result of the development.

5 PLANNING CONTEXT (SECTION 4.15 EP&A ACT)

5.1 Environmental Planning Instruments

5.1.1 State Environmental Planning Policy (Major Development) 2005

State Environmental Planning Policy (Major Development) 2005 (Major Development SEPP) seeks to identify development projects of a scale which necessitate review and assessment by either the Minister for Planning or a Joint Regional Planning Panel.

Part 3 of the Major Development SEPP outlines the criteria for the types of Development Applications that are considered to be 'Major Development' of a scale which requires determination by a Joint Regional Planning Panel (JRPP). Under Clause 13B, subdivisions which seek approval to create more than 250 allotments are considered to be a 'Major Development', and are required to be determined by the relevant JRPP.

The proposal seeks approval for subdivision of the site to create a total of 104 residential allotments, and as such is not classified as Major Development.

5.1.2 State Environmental Planning Policy (Infrastructure) 2007

Traffic Generating Development

Schedule 3 of SEPP (Infrastructure) 2007 provides guidance on the circumstances when the Roads and Traffic Authority (RTA) should be made aware of and provided the opportunity to make a representation on Development Applications.

Schedule 3 lists the criteria for the types of Development Applications that are considered to be 'Traffic Generating Development' of a scale which requires referral to the RTA. Under Schedule 3, residential subdivisions which seek approval to create in excess of 200 allotments are required to be referred to the RTA.

The proposal seeks approval for subdivision of the site to create 92 residential allotments. As such, the application does not require referral to the RTA under Schedule 3 of the Infrastructure SEPP.

Noise Impacts

Clause 102 of the ISEPP provides requirements in relation to road noise for residential development. Accordingly, and given the site's proximity to the Northern Road, an Acoustic Assessment has been prepared (refer to Appendix 11). The Acoustic Assessment undertook a review of the potential noise impact on development within Stages 7 to 9 from The Northern Road, particularly since the road is undergoing upgrades.

Based on the assessment in accordance with the ISEPP criteria, the report found that the majority of the dwellings within the development area are predicted to meet the ISEPP internal noise criteria, with no specific acoustic facade treatment required. However, modelling did identify a number of dwellings located along the eastern extents of the subdivision will require some form of acoustic facade treatments to meet the ISEPP internal criteria. Accordingly, the relevant treatments have been identified in the Acoustic Assessment.

5.1.3 State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55)

SEPP 55 is a NSW-wide planning instrument relating to the remediation of contaminated land. When considering a Development Application, the consent authority must observe the requirements of SEPP 55.

Under Clause 7, a consent authority must not consent to the carrying out of any development on land unless:

- a) *It has considered whether the land is contaminated, and*

- b) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed to be carried out, and*
- c) If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

In 2001, URS prepared a Phase 2 Investigation Report, investigating the potential for site contamination. This formed part of the 2003 'Environment and Biodiversity LES Report' for the Glenmore Park Stage 2 urban release area. This included an assessment of the potential for the land to be contaminated and whether it was suitable for urban development.

A supplementary report by EDP Consultants Pty Ltd has been prepared is included in this SEE (refer to Appendix 9). The assessment undertaken by EDP addresses matters raised by Council in relation to data gaps between previously prepared investigations and the area subject to this application. As part of the assessment, EDP reviewed the previous works as well as undertaking additional test bores. Based on their review and additional testing, EDP concluded that the former data gaps associated with the increased extent of the development footprint to be addressed and considered the investigation area suitable to be incorporated into the proposed development footprint for the proposed residential subdivision.

5.1.4 Sydney Regional Environmental Plan No 20 (SREP 20)

SREP 20 applies to the entire Hawkesbury-Nepean River catchment and sets out policy framework to protect the environmental significance of the catchment. The relevant Section in SREP 20 is Clause 6 which includes policies and strategies that must be considered when considering development proposals within the catchment.

A detailed review of the proposal's compliance with SREP 20 is provided at Appendix 13 to this report.

5.1.5 Penrith Local Environmental Plan 2010

The Penrith LEP was gazetted on 22 September 2010. The subject area is zoned mostly R1 General Residential with a small portion E2 Environmental Conservation under Penrith Local Environmental Plan 2010. The proposed residential subdivision achieves the objectives of the R1 zone through the provision of a range of lot typologies and lot areas which will accommodate a variety of housing types and densities in residential areas.

Part of the eastern boundary of the site is zoned RU2 Rural Landscape, with this area subject to an active Planning Proposal (PP_2020_PENRI_002_00), seeking to rezone the remainder of the land for urban purposes. In relation to this application, the RU2 area only comprises road reserves, with roads permissible in the zone.

A small portion of the subject site is located within land zoned E2 Environmental Conservation. The small portion of E2 land contains the Surveyors Creek corridor along part of the site's western edge.

An area of RE1 Public Recreation zone land is located in the north of the site and forms the extension of Pinnacle Park, with its embellishment to form part of a future Development Application.

The proposed subdivision and associated land uses are consistent with the zoning boundaries and permissible land uses established under the Penrith LEP.

5.2 Penrith Development Control Plan (Glenmore Park Stage 2) 2014

Section 4.15 of the EP & A Act 1979 requires assessment of this Development Application under the provision of the Penrith Development Control Plan (Glenmore Park Stage 2) 2014 (the DCP). Table 3 below outlines design standards under the adopted DCP and the proposed design outcome:

With regard to Table 3, the proposed development achieves full compliance with the Penrith Development Control Plan 2014: Glenmore Park Stage 2.

Table 3 Compliance with DCP

DCP	Proposed	Complies
7.4.2.3 Dwelling Yield		
<ul style="list-style-type: none"> The Precinct H area has a dwelling target of 140. 	The proposed development incorporates a total of 116 residential allotments within the Precinct H area. The proposed residential subdivision will achieve the dwelling targets for Precinct H. The proposed subdivision has been designed to be generally consistent with the Concept Plan for Precinct G and H.	Yes, development of the balance of Precinct H will achieve the dwelling targets for Precinct H.
7.4.2.4 Dwelling Diversity		
<ul style="list-style-type: none"> Section 7.4.2.4 outlines dwelling diversity targets for Precinct H. 	The proposed lot layout and mix is generally consistent with the Dwelling Diversity requirements for Precinct H and refined as part of the Council endorsed Concept Plan for Precincts G and H which is addressed in detail under Section 3.2 of this SEE. The proposal includes a variety of lot sizes and housing options, as well as the opportunity for smaller lot product options in the future..	Yes. The proposed lot mix is consistent with the adopted DCP and Council endorsed Concept Plan.
7.4.3.1.1 Corridors		
<ul style="list-style-type: none"> Provide Corridors and widths in accordance with Figure E7.17 	The proposed subdivision layout ensures that a 40m corridor width is achieved for the western tributary of the Surveyors Creek corridor which adjoins the subject site to the west.	Yes, the proposed corridor complies with the DCP.
7.4.3.1.2 Bushfire Hazard Management		
<ul style="list-style-type: none"> The indicative location and widths of APZ's to be provided in accordance with NSW RFS requirements. 	The proposed residential subdivision design for Stages 7 and 8 achieves the APZ requirements for Low Hazard Vegetation through delivery of a collector road at the interface between the Surveyors Creek open space corridor and the proposed subdivision area.	Yes. The proposal complies with the DCP control.
7.4.3.1.4 Flood Management		
<ul style="list-style-type: none"> Flood waters are managed within Riparian Corridors. Preparation of a stormwater management plan 	The Civil Engineering Plans submitted with this application include details on stormwater management and demonstrate that flows are contained within drainage corridors. The Civil Engineering Plans are consistent with the Stormwater Management Strategy for the Glenmore Park Stage 2 Precinct G & H area.	Yes, the Civil Engineering Plans demonstrate compliance.
7.4.3.1.5 Trees		
<ul style="list-style-type: none"> Existing significant matured trees are maintained. 	As a result of the road layout, one isolated tree has been identified for removal (refer to Civil Engineering Plans).	No. However, the tree is not considered to have any significance given its isolation from surrounding vegetated areas.

7.4.3.1.6 The Northern Road View shed		
<ul style="list-style-type: none"> ● Roofline of dwellings to be located below the eastern ridgeline when viewed from The Northern Road 	<p>A Visual Analysis was been prepared and included with the Concept Plan for Precinct G and H and was submitted with the approved Stage 1 and 2 subdivision (DA 15/1469).</p> <p>The Visual Analysis demonstrates the residential subdivision area is not within an area of visual prominence. Further, the Visual Analysis demonstrates that mounding and urban design measures will ensure local viewsheds are protected as part of the Precinct G and H area. Notwithstanding, additional view analysis was undertaken, which identified that the proposed the Stage 7 & 8 residential subdivision site would be viewable from a number of locations along The Northern Road. As a result, the mounding originally installed as part of the early phase of the development will be extended to ensure that Council's view shed objectives when viewing the site from The Northern Road. The engineering plans provide additional detail of the location and extent to which the mounding will be modified.</p>	<p>The Visual Analysis submitted with the Concept Plan, together with the extension of the earth mounds will ensure compliance.</p>
7.4.3.2.1 Urban Structure		
<ul style="list-style-type: none"> ● Modified grid street network that facilitates walking and cycling and enables direct local vehicle trips to local activity points. ● Neighbourhood identity is reinforced by the location of mixed use and open space areas at focal points within convenient walking distance. 	<p>The proposal incorporates a modified grid layout as required in the DCP and promotes access and view corridors to the Surveyors Creek open space corridor as a focal point.</p> <p>The proposed residential subdivision design promotes a walkable neighbourhood via a permeable modified grid layout and legible road hierarchy incorporating pedestrian pathways on both sides of all minor local roads providing pedestrian connections to the sharepath network and bus routes.</p> <p>The proposed collector road has been designed as a bus capable road in accordance with the configuration requirements set out in the Glenmore Park Stage 2 DCP and the alignment is consistent with the Council endorsed Concept Plan.</p>	<p>Yes. The proposed street network and pedestrian linkages comply with the DCP and reflect the principles of design set out in the Concept Plan for Precincts G and H submitted with this Development Application.</p>
7.4.3.2.2 Vehicular Movement		
<ul style="list-style-type: none"> ● Street blocks have a maximum length of 300m and a maximum depth of 90m. ● Cul-de-sacs are discouraged. 	<p>Street blocks have a maximum length less than 300m. Block depths are less than 90m.</p> <p>The proposed residential subdivision design and road layout does not incorporate any cul-de-sacs.</p>	<p>The proposed street blocks comply with the endorsed Concept Plan the DCP.</p> <p>This clause is not applicable.</p>
7.4.3.2.3 Public Transport		
<ul style="list-style-type: none"> ● All dwellings within the Surveyors Creek catchment are within 400m distance from the designated bus route as shown in Figure E7.22. 	<p>The bus route plan submitted with the Concept Plan and DA 15/1469 demonstrates that all allotments within the Precinct G and H area are within 400 metres of a bus stop.</p>	<p>Yes. The proposal is consistent with the DCP requirements.</p>

7.4.3.2.4 Pedestrians and Cyclists		
<ul style="list-style-type: none"> ● A pathway network in accordance with Figure E7.23. ● The minimum width for footpaths provided as part of a road reserve is 1.2m. ● Pathways that form part of the open space network are a minimum of 2.5m. ● Footpaths are to be provided to both sides of all roads. 	<p>Plans and details submitted with the proposal demonstrate provision of footpaths on both sides of all minor local roads in accordance with the respective road section requirements.</p> <p>In accordance with the DCP cross sections for a collector road, the proposal includes a 1.5 metre foot path within the verge on the residential side and no footpath on the Surveyors Creek side as this section of road does not form part of the sharepath network and a sharepath will be provided within Surveyors Creek.</p>	<p>Yes. The proposal is consistent with the DCP requirements.</p>
7.4.3.3.1 Landscape Character		
<ul style="list-style-type: none"> ● Street trees are provided at a rate of one tree for every 10m of site frontage. ● Street trees are provided at minimum size of 75 litres and fitted with tree guards. ● Species selection is appropriate to the character and constraints of the locality. 	<p>A Landscape Masterplan has been prepared for the Precinct G and H Concept Plan and has been submitted with this Development Application. The Landscape Masterplan demonstrates the indicative location and species of street trees.</p> <p>The species detailed in the Landscape Masterplan have been selected from Council's Street Tree Planting list, with a mix of native and exotic species are used with a unique species for each street to assist with orientation and legibility of the neighbourhood. All species selected have been chosen for their size and form which is particularly important due to the verge widths, where large species will not be appropriate.</p> <p>Detailed tree locations will be submitted as part of the Construction Certificate application and in accordance with Penrith Development Control Plan 2014, the Construction Certificate Drawings will incorporate one (1) street tree for every 10m of lot frontage. It is acknowledged the Notice of Determination for this proposal will incorporate a condition of consent in relation to street tree requirements to be included in the Construction Certificate drawings.</p>	<p>Yes. The proposed streetscape and road sections are compliant with the DCP.</p>
7.4.3.3.3 Road Sections		
<ul style="list-style-type: none"> ● Collector Streets are constructed in accordance with Figure E7.27. ● Streets are constructed in accordance with the dimensions identified at Figure E7.29. 	<p>The proposed collector road has been designed in accordance with Figure E7.27 as demonstrated in the Civil Engineering Plans prepared for the proposed works.</p> <p>The proposed minor local roads road has been designed in accordance with Figure E7.27 as demonstrated in the DA Plan and the Civil Engineering Plans submitted with this proposal.</p> <p>Section 3.3 of this report addresses the proposed collector road and minor local roads against the DCP requirement E7.27 and E7.29.</p>	<p>Yes, the proposed subdivision has been designed in accordance with the road cross sections for a collector road and minor local roads.</p>

7.4.4.1 Subdivision		
<ul style="list-style-type: none"> • Higher density housing to be focussed around open space and areas of high amenity 	The proposed subdivision layout includes the creation of three superlots, which will enable the future subdivision for smaller lot product.	Yes. The proposed subdivision provides for the future subdivision of the superlots for small lot product.
<ul style="list-style-type: none"> • Provide larger lot frontages on corner blocks 	Corner blocks have been designed to provide wider frontages and address each of the roads adjoining the allotment.	Yes. Corner blocks have been designed with wider frontages.
<ul style="list-style-type: none"> • Lot sizes and dimensions to take account of site topography 	The subject application has been designed to provide lots in response to the topography and is generally consistent with the Concept Plan.	Yes, lot placement has given consideration to the site's topography.
<ul style="list-style-type: none"> • Lots fronting open space to provide passive surveillance 	The proposed residential subdivision layout incorporates allotments that front the Surveyors Creek corridor to ensure high levels of passive surveillance.	Yes. Higher density lots are situated adjacent to Surveyors Creek.
<ul style="list-style-type: none"> • Single dwelling lots are to be a minimum of 25m deep 	All lots exceed a minimum depth of 25m.	Yes. The proposed lots exceed 25m in depth.
<ul style="list-style-type: none"> • Lots with an east-west axis should be 12m wide or more 	The proposal is consistent with the control, with lots with a east west orientation having a frontage of 12.5m.	Yes.

5.3 Impacts of Development

Earthworks

This proposal incorporates earthworking across the subject site in relation to the construction of the Stages 7 & 8 subdivision and includes establishment of the final finished levels, road gradings and allotment gradings.

The proposed earthworks achieve an outcome that allows for future urban development to be delivered across land which is zoned for residential purposes whilst maintaining the existing characteristics of the landscape to achieve a site responsive design.

The Civil Engineering Plans submitted with this proposal (refer to Appendix 2) provide details on the proposed cut and fill, finished levels and include details on erosion and sediment control. Additional detail on the location and height of retaining walls is also provided, including cross sections in a number of key locations.

Salinity and Contamination

In 2001, URS prepared a Phase 2 Investigation Report, investigating the potential for site contamination. This formed part of the 2003 LES Report for the Glenmore Park Stage 2 urban release area and included an assessment of the potential for the land to be contaminated and whether it was suitable for urban development.

A supplementary report by EDP Consultants Pty Ltd has been prepared and is included as Appendix 9 to this SEE. The assessment undertaken by EDP addresses matters raised by Council in relation to data gaps between previously prepared investigations and the area subject to this application. As part of the assessment, EDP reviewed the previous works as well as undertaking additional test bores. Based on their review and additional testing, EDP concluded that the former data gaps associated with the increased extent of the development footprint to be addressed and considered the investigation area suitable to be incorporated into the proposed development footprint for the proposed residential subdivision.

No areas of environmental concern or contamination were identified within the site as part of the LES. A Site Validation Report has been attached to this application at Appendix 10.

Flooding and Hydrology

The Stormwater Management Strategy which has been prepared for Precincts G and H and which applies to the subject site provides a basis for the detailed design and development of the site to ensure that the environmental, urban amenity, engineering and economic objectives for stormwater management and site discharge are achieved (refer to Appendix 3).

The Civil Engineering plans and report submitted with this application provide details on stormwater management for the proposed subdivision works (refer to Appendix 2). The Plans also provide detail on the location of the drainage pits, gross pollutant trap and the proposed drainage pipes directing water into the existing stormwater basin approved as part of the Stage 1 and 2 works (DA 15/1469).

The proposed stream improvement works, including revegetation within the Surveyors Creek central drainage channel will ensure that the revegetation can establish prior to the formal embellishment of the reek corridor.

As detailed on the enclosed Civil Engineering Plans, erosion and sediment control measures will be implemented prior to and during construction.

Biodiversity

The site map indicates proposed works within a biodiversity values mapped area. Under the Biodiversity Conservation Act 2016 and Regulations 2017, a Biodiversity Assessment Report (BDAR) prepared by an accredited assessor must accompany this application.

Heritage

Detailed reports were prepared during rezoning of the Glenmore Park Stage 2 development area which reviewed and identified Aboriginal and European Heritage sites and artefacts. The Cultural Heritage Assessment prepared by Navin Officer Heritage Consultants, dated July 2003 did not identify any items of Environmental Heritage within the site.

5.4 Site Suitability

As outlined above, the subject site falls within the Glenmore Park Stage 2 release area at Mulgoa and is zoned R1 General Residential. As such, the site is suitable for urban development as proposed. The development generally complies with all State, regional and local Environmental Planning Instruments relevant to the site and also complies with the NSW Government's and Penrith Council's planning policies.

The site is appropriately zoned and the development area achieves the land use principles established under the Glenmore Park Stage 2 DCP through the provision of a variety of housing options and a safe and permeable street network.

Numerous environmental, economic and social studies and assessments have been conducted across the site as part of the LES prior to rezoning and in preparing the Concept Plan for Precinct G and H, as well as more detailed site investigations as part of this Development Application. The result of the studies and assessments demonstrate that the site is suitable and highly capable of being developed as promoted by this Development Application.

5.5 Public Interest

The proposed development meets the public interest. The site is within the Glenmore Park Stage 2 release area which has been comprehensively planned to accommodate urban growth and new housing in Greenfield areas.

Sydney has been experiencing high housing costs for many years which is mainly attributed to housing shortages caused by a shortfall in land for new housing. The proposal will prepare the site for future residential development that will expand the supply of housing in Sydney which will have a positive impact on housing affordability, and therefore, make home ownership more achievable for Sydney's residents.

The proposal forms part of a large development that will make substantial contributions to improvements to the environment, increasing the number of public recreation and open space assets in the locality, and the generation of employment and economic growth for Penrith and Western Sydney.

6 SUMMARY AND CONCLUSION

The Development Application seeks approval for a staged subdivision of existing Lot 4 on DP 1240361. The proposed residential subdivision of the site will create a total of 88 residential allotments and extend Riverflat Drive. The proposal also seeks approval for construction of stormwater infrastructure, streetscape landscaping and services. The proposed subdivision has been designed to achieve an integrated outcome with existing development to the north, extending the road network south and continuing the delivery of diverse low density residential allotments.

The proposed subdivision layout achieves the objectives of the Concept Plan for Precinct G and H which has been endorsed by Penrith City Council. The proposed development achieves a well-connected, site responsive urban design outcome that can be integrated with future stages of development within Precincts G and H.

The proposed works comply with all State and Local Environmental Planning Instruments relevant to the site, and largely complies with the NSW Government's and Camden Council's planning policies.

In light of the suitability of the development, we request that Penrith Council issue consent to this Development Application in a timely manner.

APPENDIX 1

Lot Layout and Lot Frontage Plan

APPENDIX 2

Engineering Plans

APPENDIX 3

Stormwater Management Strategy

APPENDIX 4

Street Tree and Surveyors Creek Landscape Plan

APPENDIX 5

Bushfire Report

APPENDIX 6

Biodiversity Development Assessment Report

APPENDIX 7

Vegetation Management Plan

APPENDIX 8

Geotech Report/ Salinity Management Plan

APPENDIX 9

Supplementary Site Investigation Report

APPENDIX 10

Site Validation Report

APPENDIX 11

Acoustic Assessment

APPENDIX 12

Waste Management Plan

APPENDIX 13

SREP 20 Review

Clause 6 - Specific planning policies and recommended strategies

(1) Total catchment management

Policy: Total catchment management is to be integrated with environmental planning for the catchment.

Strategies:

- (a) Refer the application or other proposal for comment to the Councils of each adjacent or downstream local government area which is likely to suffer a significant adverse environmental effect from the proposal.*
- (b) Consider the impact of the development concerned on the catchment.*
- (c) Consider the cumulative environmental impact of development proposals on the catchment.*

Response:

- (a) No downstream Local Government area will suffer any significant environmental impact.**
- (b) There will be minimal to no impact on the catchment from the development.**
- (c) There will be minimal to no cumulative impact on the catchment from the development.**

(2) Environmentally sensitive areas

Policy: The environmental quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and (where necessary) remediation of existing uses.

Note. Environmentally sensitive areas in the Hawkesbury-Nepean catchment are: the river, riparian land, escarpments and other scenic areas, conservation area sub-catchments, national parks and nature reserves, wetlands, other significant flora and fauna habitats and corridors, and known and potential acid sulphate soils.

Strategies:

- (a) Rehabilitate parts of the riverine corridor from which sand, gravel or soil are extracted so that attached aquatic plant beds are replaced and water quality and faunal habitats improved.*
- (b) Minimise adverse impacts on water quality, aquatic habitats, riverine vegetation and bank stability.*
- (c) Minimise direct and indirect impacts on land reserved or dedicated under the Forestry Act 1916 and conservation area sub-catchments in order to protect water quality and biodiversity.*
- (d) Protect wetlands (including upland wetlands) from future development and from the impacts of land use within their catchments.*
- (e) Consider the need to include buffer zones (such as adequate fire radiation zones) for proposals on land adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974 or the Forestry Act 1916.*

(f) Consider the views of the Director-General of National Parks and Wildlife about proposals for land adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974.

(g) Consideration should be given to the impact of the development concerned on the water table and the formation of acid sulphate soils.

(h) New development in conservation area sub-catchments should be located in areas that are already cleared.

Response:

(a) Not applicable.

(b) The proposal will not impact on water quality.

(c) Not applicable.

(d) Not applicable.

(e) Not applicable.

(f) Not applicable.

(g) The development will have a negligible impact.

(h) The site is not located within a conservation area and has been cleared of vegetation as a result of past agricultural uses.

(3) Water quality

Policy: Future development must not prejudice the achievement of the goals of use of the river for primary contact recreation (being recreational activities involving direct water contact, such as swimming) and aquatic ecosystem protection in the river system. If the quality of the receiving waters does not currently allow these uses, the current water quality must be maintained, or improved, so as not to jeopardise the achievement of the goals in the future. When water quality goals are set by the Government these are to be the goals to be achieved under this policy.

Note. Aquatic ecosystems and primary contact recreation have the same meanings as in the document entitled Australian Water Quality Guidelines for Fresh and Marine Waters, published in 1992 by the Australian and New Zealand Environment and Conservation Council.

Strategies:

(a) Quantify, and assess the likely impact of, any predicted increase in pollutant loads on receiving waters.

(b) Consider the need to ensure that water quality goals for primary contact recreation and aquatic ecosystem protection are achieved and monitored.

(c) Approve development involving primary contact recreation or the withdrawal of water from the river for human contact (not involving water treatment), such as showers, only in locations where water quality is suitable (regardless of water temperature).

(d) Do not carry out development involving on-site disposal of sewage effluent if it will adversely affect the water quality of the river or groundwater. Have due regard to the nature and size of the site.

(e) Develop in accordance with the land capability of the site and do not cause land degradation.

(f) Consider the need for an Erosion and Sediment Control Plan (to be in place at the commencement of development) where the development concerned involves the disturbance of soil.

(g) Minimise or eliminate point source and diffuse source pollution by the use of best management practices.

(h) Site and orientate development appropriately to ensure bank stability. Plant appropriate native vegetation along banks of the river and tributaries of the river, but not so as to prevent or inhibit the growth of aquatic plants in the river, and consider the need for a buffer of native vegetation.

(i) Consider the impact of the removal of water from the river or from groundwater sources associated with the development concerned.

(j) Protect the habitat of native aquatic plants.

Response:

(a) **There is no predicted increase in pollutant loads on receiving waters.**

(b) **Water quality goals will be established and monitored in accordance with consultant findings.**

(c) **Not applicable.**

(d) **On-site disposal of sewage or effluent will not be conducted.**

(e) **Development will not result in land degradation.**

(f) **Adequate erosion and sediment controls are to be implemented as part of the works.**

(g) **Best management practices are to be employed.**

(h) **Proposed lots and road works will not compromise bank stability.**

(i) **Not applicable.**

(j) **This will be done in accordance with consultant findings.**

(4) Water quantity

Policy: Aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface or groundwater in the catchment.

Strategies:

(a) *Future development must be consistent with the interim or final river flow objectives that are set for the time being by the Government.*

(b) *Ensure the amount of stormwater run-off from a site and the rate at which it leaves the site does not significantly increase as a result of development. Encourage on-site stormwater retention, infiltration and (if appropriate) reuse.*

(c) *Consider the need for restricting or controlling development requiring the withdrawal or impoundment of water because of the effect on the total water budget of the river.*

(d) *Consider the impact of development on the level and quality of the water table.*

Response:

- (a) Not applicable.
- (b) The development will not increase stormwater run-off from a site and is consistent with the stormwater management strategy prepared for the site.
- (c) Not applicable.
- (d) Not applicable.

- (5) Cultural Heritage

Policy: The importance of the river in contributing to the significance of items and places of cultural heritage significance should be recognised, and these items and places should be protected and sensitively managed and, if appropriate, enhanced.

Strategies:

- (a) *Encourage development which facilitates the conservation of heritage items if it does not detract from the significance of the items.*
- (b) *Protect Aboriginal sites and places of significance.*
- (c) *Consider an Aboriginal site survey where predictive models or current knowledge indicate the potential for Aboriginal sites and the development concerned would involve significant site disturbance.*
- (d) *Consider the extent to which heritage items (either identified in other environmental planning instruments affecting the subject land or listed in Schedule 2) derive their heritage significance from the river.*

Response:

As discussed in the main body of this report, a detailed site investigation relating to Aboriginal and European heritage issues has been previously undertaken. There are no such items within the site.



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