

# PENRITH CITY

## GLENMORE PARK STAGE 3 AT MULGOA

### DEVELOPMENT CONTRIBUTIONS PLAN 2021 – TECHNICAL DOCUMENT

(Under Section 7.11 of the Environmental Planning and Assessment Act, 1979 amended)

Adopted by council on xx xx 20xx  
Effective from on xx xx 20xx

**PENRITH**  
CITY COUNCIL

PENRITH

[penrithcity.nsw.gov.au](http://penrithcity.nsw.gov.au)

# CONTENTS

<b>1. DEMAND FOR INFRASTRUCTURE .....</b>	<b>2</b>
1.1 Existing Development .....	2
1.2 Expected development .....	2
1.2.1 Residential development .....	2
1.2.2 Population yield .....	3
1.3 Demand for local infrastructure .....	3
<b>2. INFRASTRUCTURE STRATEGIES .....</b>	<b>5</b>
2.1 Traffic and transport facilities .....	5
2.1.1 Needs assessment .....	5
2.1.2 Contribution formula for traffic and transport facilities .....	7
2.2 Stormwater management facilities .....	9
2.2.1 Needs assessment .....	9
2.2.2 Infrastructure provision strategy .....	9
2.2.3 Contribution formula for stormwater management facilities .....	10
2.3 Open space and recreation facilities .....	12
2.3.1 Needs assessment .....	12
2.3.2 Infrastructure provision strategy .....	12
2.3.3 Contribution formula for open space and recreational facilities .....	14
2.4 Contributions for plan administration .....	15
<b>3. INFRASTRUCTURE STAGING PRIORITIES .....</b>	<b>16</b>

Appendix A Transport and Traffic Management Designs and Costings  
Appendix B Water Cycle Management Designs and Costings  
Appendix C Open Space and Recreation Designs  
Appendix D Cumberland Plain Conservation Plan (CPCP) Overlay

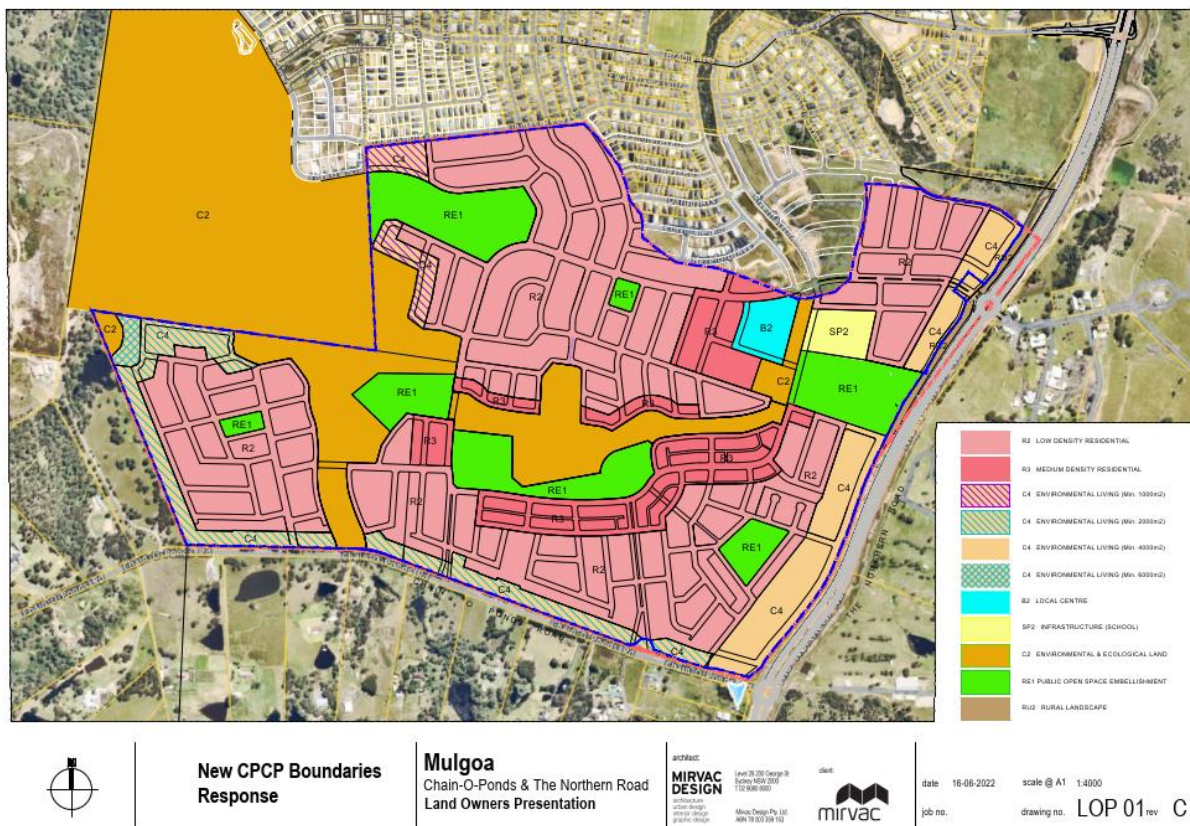


# 1. DEMAND FOR INFRASTRUCTURE

## 1.1 EXISTING DEVELOPMENT

*Glenmore Park Stage 3 at Mulgoa* is a predominantly rural and rural residential area of some 206ha that will become an urban environment with areas for housing, shops, school, open space, and environmental corridors. **Figure 1** shows the land to which the Contributions Plan applies outlined in blue.

**Figure 1 Glenmore Park Stage 3**



## 1.2 EXPECTED DEVELOPMENT

### 1.2.1 RESIDENTIAL DEVELOPMENT

Glenmore Park Stage 3 is proposed to provide a maximum total of 2,400 dwellings with a variety of dwelling types including:

- low density dwellings,
- medium density dwellings,
- large environmental conservation lots, and
- shop top and studio dwellings.

## 1.2.2 POPULATION YIELD

For the purposes of this plan, the assumed occupancy rates are derived from the ABS 2016 Census for the dwelling types in the suburb of Glenmore Park<sup>1</sup>. The proposed future population of the development area is shown in **Table 1**. The expected number of dwellings 2,400 has been multiplied by the corresponding occupancy rates (refer to Table 5 in Contributions Plan) expected within each dwelling type.

The expected future population growth is 6,934 people.

**Table 1 Population forecast – Glenmore Park Stage 3 at Mulgoa**

Dwelling type	No. of dwellings	Average occupancy rate	Expected population
Single lots <sup>a</sup>	1,783	3.1	5,527
Medium density dwellings <sup>*</sup>	487	2.4	1,169
Studio dwellings <sup>**</sup>	30	2.0	60
Shop top dwellings	100	2.4	240
Seniors living	0	1.5	0
Boarding house rooms	0	1.4 per room	0
<b>Total</b>	<b>2,400</b>		<b>6,996</b>
<b>Less Existing Dwellings</b>	<b>20</b>	<b>3.1</b>	<b>62</b>
<b>Additional Population</b>			<b>6,934</b>

Source: ABS 2016 Census Data for occupancy rates

Note: <sup>a</sup> Includes large lots. <sup>\*</sup> Medium density dwellings include townhouses, semi-detached or multi-dwelling housing in the R3 zone. <sup>\*\*</sup> Studio dwellings sit above rear garages facing a lane or road in the R3 zone.

## 1.3 DEMAND FOR LOCAL INFRASTRUCTURE

The new urban development will require investment in new and augmented public amenities and services.

Studies on future infrastructure requirements to which this Plan applies has identified the need to upgrade public services and public amenities as follows:

- upgraded intersections with The Northern Road and Chain-O-Ponds Road to link the development to the regional road network and new collector/local roads and cycleways for safe travel.
- stormwater management works as a result of the extra stormwater runoff generated by impervious surfaces associated with urban development.
- active and passive recreation facilities, such as recreation areas, sports fields, courts, playgrounds, walking trails and shared paths.

<sup>1</sup> The occupancy rates for dwelling type are determined using 2016 Census data for the suburb of Glenmore Park. The Social Impact and Infrastructure Assessment Study (Elton Consulting 2020) assumed an average occupancy rate of 3.0 per dwelling from 2016 Census data for Glenmore Park.



- increased demand for spaces that will foster community life and the development of social capital in the area, such as community facilities.

A range of public facilities and public amenities have been identified in this Plan that are required to address the need arising from the expected development, including:

- traffic and transport management facilities,
- stormwater management facilities, and
- open space and recreation facilities.

The next sections explain the need for the infrastructure in the Contributions Plan generated by the new development.

## 2. INFRASTRUCTURE STRATEGIES

### 2.1 TRANSPORT AND TRAFFIC MANAGEMENT FACILITIES

#### 2.1.1 NEEDS ASSESSMENT

The existing transport network serves the perimeter of the development site via The Northern Road and Chain-O-Ponds Road. The transition of the area to higher residential density will create additional vehicle trips on the existing road network. There is a high reliance on private vehicles for most travel. The new residential area is proposed to be provided with active transport links (cycleway and walking) to connect to Glenmore Park Stage 2 and the potential for future bus transportation.

The *Transport Impact Assessment* by TTPP (April 2022) identified works for access into the new development and the internal road and active transport network.

Access into the new residential development will be provided at:

- Entry boulevards at two points along Chain-O-Ponds Road and one on The Northern Road,
- A third access point along Chain-O-Ponds Road

The internal roads in the development are designed in accordance with the Glenmore Park Development Control Plan. The cost of land and works and a map showing the locations of works is provided in Appendix A of the Contributions Plan. Detailed information on the cost of intersections and other transport items is contained in Appendix A this technical document. **Figure 2** shows the road network through the development.

Pedestrian and cycling facilities are provided to encourage active and sustainable transport modes. The proposed active transport provision is shown in **Figure 3**.

#### Road Network

Collector roads provide a high level of accessibility for all road users including vehicles, bicycles and pedestrians. The lane width is sufficient to accommodate potential future bus services. A shared use path will generally be provided along one side.

Minor local roads are generally residential streets and will be designed to encourage low-speed traffic environments, discourage rat running and make the precinct pedestrian friendly.

**Figure 2 Indicative Road hierarchy**



Source: Mirvac Design, as produced in Traffic Impact Assessment

**Figure 3 Active transport Plan**



Source: Mirvac design, as produced in the Traffic Impact Assessment



This Contributions Plan applies the following apportionments to the proposed works and land.

**Table 2 Apportionment of the intersection and roads works**

Item	Description	Apportionment
T1	Chain-O-Ponds Road upgrade	Full
T2	Entry Boulevard	Full width
T3.1	Collector Road (adjacent to development on both sides)	Full width
T3.2	Collector Road (adjacent to riparian or open space on one side)	Full width
T3.3	Collector Road (adjacent to riparian one side, open space one side)	Full-width ½ collector on riparian and open space sides
T3.4	Collector Road (riparian crossing)	Full width ½ collector
T4.1	Minor Local Road (adjacent to riparian on one side)	Full width ½ local road on riparian or open space
T4.1	Minor Local Road (adjacent to open space on one side)	Full width ½ local road on riparian or open space
T4.2	Collector Road (riparian crossing)	Full width local road
T5	Perimeter Road (The Northern Road interface)	Full width on landscape buffer
<b>Intersections</b>		
INT1	Entry Boulevard / The Northern Road	Full
INT2	Chain-O-Ponds Rd / The Northern Road	Full
INT3	Chain-O-Ponds Road / Entry Boulevard (East)	Full
INT4	Chain-O-Ponds Road / Entry Boulevard (West)	Full
INT5	Chain-O-Ponds Road / Collector Road	Full
INT6	Collector Road / Local Road	Full
INT7	Collector Road / Entry Boulevard	Full

Where a road is adjacent to riparian or open space land, the cost of road is to be shared by the new population. In most cases, the cost to be shared is the extra-over cost to provide a higher order road, or half the width of the road.

### 2.1.2 CONTRIBUTION FORMULA FOR TRAFFIC AND TRANSPORT FACILITIES

This Plan determines contributions for traffic and transport facilities by first calculating the total required intersection and other road works for and dividing it by the proposed new residential population. The cost of land and works have been apportioned as described in Table 2.

The existing population together with the proposed local shops and school have been excluded for the contributions for upgraded intersections and roads as these will primarily attract local trips by private car, public transport and by linked active transport routes.

### Formula for residential development

The contribution formula for transport and traffic management is as follows:

$$\text{Contribution per resident} = \frac{\sum ( \$TINF )}{TP}$$

Where:

- \$TINF** = The apportioned estimated cost of providing each of the transport infrastructure items (refer to the works schedule in Appendix A of the contributions plan)
- P** = The expected persons that will generate the demand for the transport and traffic infrastructure (new growth population 6,934 people)

To determine the contribution rate per dwelling, multiply the contribution rate by the relevant assumed occupancy rate shown in Table 5 of the contributions plan.

## **2.2 WATERCYCLE MANAGEMENT FACILITIES**

### **2.2.1 NEEDS ASSESSMENT**

Urban areas experience an increase in stormwater runoff due to increased impervious areas which potentially exacerbate flooding issues and erode existing creek systems.

In addition to increased stormwater runoff, pollutants from urban areas reduce water quality. Therefore, stormwater drainage structures are required to detain and treat stormwater prior to it being discharged into the natural creek system.

To ensure that the future urban development manages these issues, J Wyndham Prince (JWP) prepared the *Water Cycle Management Strategy Report* (April 2022). This strategy identifies a package of stormwater infrastructure to ensure appropriate stormwater facilities are provided so that stormwater is discharged to the existing creek network at pre-development flows as well as being treated for pollutants.

The cost of land and works and a map showing the locations of works is provided in Appendix A of the Contributions Plan. Detailed information on the cost water cycle management items is contained in Appendix B this technical document.

### **2.2.2 INFRASTRUCTURE PROVISION STRATEGY**

The Water Cycle Management Strategy includes the construction or installation of the following:

- Proprietary GPT units at each stormwater discharge point,
- Bio-retention raingarden systems,
- Four (4) wet detention basins,
- One (1) dry detention basin and

**Figure 4** shows the indicative location of basins and raingardens.





## Formula for residential development

The contribution formula for water cycle management is as follows:

$$\text{Contribution per resident} = \sum \left( \frac{\$WINF}{P} \right)$$

Where:

- \$WINF** = The apportioned estimated cost of providing each of the watercycle management infrastructure items (refer to the works schedule in Appendix A of the contributions plan)
- P** = The expected persons that will generate the demand for the transport and traffic infrastructure (new growth population 6,934 people)

To determine the contribution rate per dwelling, multiply the contribution rate by the relevant assumed occupancy rate shown in Table 5 of the contributions plan.

## 2.3 Open space and recreation facilities

### 2.3.1 NEEDS ASSESSMENT

The new population of almost 6,934 residents will create demand for new open space and recreational facilities for future residents. A *Social Impact and Infrastructure Assessment – Glenmore Park Extension* (March 2020). The assessment was subsequently updated as an addendum by WSP (2022). This assessment was prepared with regard to Council's *Open Space and Recreation Facilities Strategy* and the NSW Government's Draft *Greener Places Design Guide*.

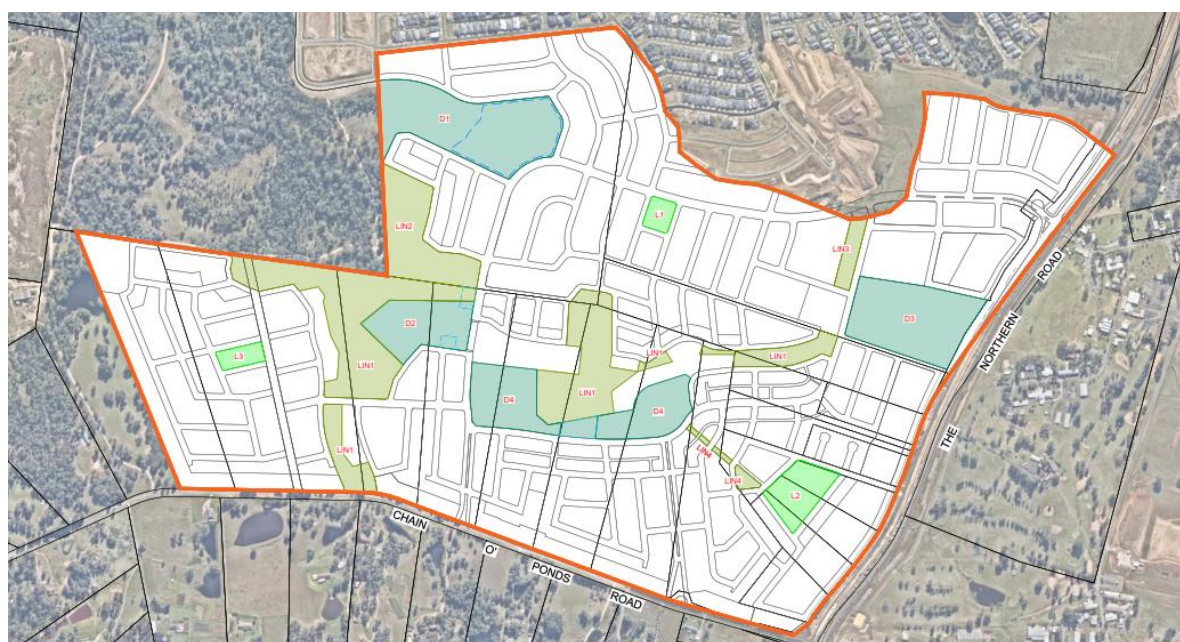
The aim is to provide accessible, walkable, vibrant, integrated and purposeful open space to cater for the various needs of the future community based on the following principles:

- Major linear corridors follow or extend on natural features such as creek lines and link areas of other open spaces or school and local shops. Detention basins and raingardens are integrated into these areas as well as interface treatment.
- Existing stands of Cumberland Plain Woodland (CPW) are maintained and preserved to be integrated into major open spaces and within environmental corridors.
- A range of active and passive connected recreational pursuits are provided for the new community.

### 2.3.2 INFRASTRUCTURE PROVISION STRATEGY

The open space areas proposed in Glenmore Park Stage 3 shown in **Figure 5**.

**Figure 5 Proposed open space in Glenmore Park Stage 3**



Source: ADWJ



The open space areas have been provided to meet Council's *Open Space and Recreation Facilities Strategy* as demonstrated in **Table 5**:

**Table 5 Open Space Facility Provision in Glenmore Park Stage 3 at Mulgoa**

Type of Open Space	Provided Approx area (ha)	Compliance with criteria
Local Parks Required 0.2ha/1,000 pop or 1.38ha Provided L1, L2 & L3	2.8	3 local parks of over 0.5ha. Additional local facilities provided in District Parks D1, D2, D3 & D4 ensuring access to all dwellings within 400m.
District Park - Passive Required 1.0ha/1,000 pop or 6.9ha Provided D1 & D2	9.7	D1 is 6.8ha and D2 is 2.9ha exceed the min area of 2ha and within the average range of 5ha-10ha. These are within 800m of all dwellings.
District Park – Sporting Required 1.4ha/1,000 pop or 9.7ha Provided D3 & D4	10.4	D3 is 5ha and D4 is 5.4ha, providing access to 2 spaces exceeding 10ha.
Total	22.9	

Additional land is being provided as linear open space. However, those lands are not being levied under this plan.

***All local parks will include the following level of embellishment:***

- A range of recreation opportunities spread across local parks and where incorporated into District Parks including local play spaces, exercise equipment, multipurpose courts, off leash dog exercise areas, community gardens etc
- Shade structures, picnic/BBQ areas
- Amenities (male/female and accessible), and
- Water bubblers, bins, seating and walking paths.

***District parks (passive) are proposed to include the following level of embellishment:***

- A range of recreation opportunities which could include exercise equipment, multipurpose courts, off leash dog exercise areas, kickabout spaces, youth recreation spaces

- Shade structures, picnic/BBQ areas
- District level play space (large, inclusive play space with equipment for a range of ages, providing a unique offer)
- Water bubblers, bins, seating and walking paths

### ***Active sporting spaces and recreation facilities***

- Up to 5 field for active organised sports including a village green.
- A sealed, line-marked parking lot (including adequate accessible parking) and associated movement with additional parking provided by bays within surrounding streets.
- Safe and functional spectator seating and/or standing areas adjacent to the playing field/s and players amenities.
- Irrigation system for the playing field/s and sports field lighting for D3 fields.
- Multi-ability playground
- Picnic facilities including shelter, tables, seating and electric BBQs
- Landscaping including lawn areas, mass planting and canopy tree species.
- Connected pedestrian and cycle path network

The cost of land and works and a map showing the locations of works is provided in Appendix A of the Contributions Plan. Detailed information on the cost of works items is contained in **Appendix C** this technical document.

### **2.3.3 CONTRIBUTION FORMULA FOR OPEN SPACE AND RECREATIONAL FACILITIES**

The open space and recreation infrastructure in this plan results from the demand created by the new population of Glenmore Park Stage 3.

This plan will levy the full cost of providing the land and works required for the development area.

#### **Formula for residential development**

The contribution formula for open space and recreation is as follows:

$$\text{Contribution per resident} = \sum \left( \frac{\$INF}{P} \right)$$

Where:

- \$INF** = The apportioned estimated cost of providing each of the open space and recreation infrastructure items (refer to the works schedule in Appendix A of the contributions plan)
- P** = The expected persons that will generate the demand for the transport and traffic infrastructure (new growth population 6,934 people)

To determine the contribution rate per dwelling, multiply the contribution rate by the relevant assumed occupancy rate shown in Table 5 of the contributions plan.

## 2.4 Contributions for plan administration

Councils incur significant costs in the preparation and administration of contributions plans. These include:

- The costs of Council staff time to prepare and review contributions plans, account for contributions receipts and expenditure, and coordinate the implementation of works programs, including involvement in negotiating works-in-kind and material public benefit agreements.
- The costs of consultant studies that are commissioned from time to time in order to determine the value of land to be acquired, the design and cost of works, as well as to review the development and demand assumptions in the contributions plan.
- The costs of Council engaging the services of legal professionals to provide advice on implementing the Plan.

As these costs arise directly as a result of the development in the areas covered by the Plan, it is reasonable that the costs associated with preparing and administering this Plan be recouped through section 7.11 contributions.

Costs associated with the ongoing administration and management of the contributions plan will be levied on all DAs and CDCs that are required to make a contribution under this Plan. The total costs are based on the Independent Pricing and Regulatory Tribunal (IPART) benchmark allowance equivalent to 1.5% of the cost of capital works identified in the respective works schedules in this Plan.

The 1.5% contribution appears as a line item in the works schedule and is incorporated into the contribution for each dwelling type.



### 3. INFRASTRUCTURE STAGING PRIORITIES

The staging and priority of infrastructure in Glenmore Park Stage 3 will generally occur with development. Development is likely to progress from the Entry Boulevards at Chain-O-Ponds Road and The Northern Road. Future subdivisions will expand out from these works.

## **APPENDIX A – TRANSPORT & TRAFFIC MANAGEMENT DESIGNS AND COSTINGS**

# GP3 S7.11 PLAN: INT1 (Entry Boulevard/TNR) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
<b>1</b>	<b>WAD ADMINISTRATION &amp; CONCEPT DESIGN</b>			<b>sub-total</b>	<b>\$120,000.00</b>	
1.1	RMS administration fees				\$60,000.00	
1.2	Detail Survey				\$20,000.00	
1.3	Concept Civil Design				\$40,000.00	
1.4	Review of Environmental Factors				\$0.00	Adopt that works assessed as part of DA
<b>2</b>	<b>DETAILED DESIGN ACCEPTANCE</b>			<b>sub-total</b>	<b>\$115,000.00</b>	
2.1	Geotechnical Investigation and Pavement Design				\$15,000.00	
2.2	Street Lighting Design				\$15,000.00	
2.3	TCS Design				\$7,500.00	
2.4	Detailed Civil Design				\$60,000.00	
2.5	Stage 3 Road Safety Audit				\$7,500.00	
2.6	Independent Design Verification				\$10,000.00	
<b>3</b>	<b>CONSTRUCTION APPROVAL</b>			<b>sub-total</b>	<b>\$65,000.00</b>	
3.1	Construction Commencement Approval				\$2,500.00	
3.2	Tender and Contracts				\$10,000.00	
3.3	Construction Superintendency				\$50,000.00	Adopt 20 weeks at \$2,500 per week
3.4	Verification and Monitoring Plan				\$2,500.00	
<b>4</b>	<b>POST CONSTRUCTION</b>			<b>sub-total</b>	<b>\$157,500.00</b>	
4.1	Independent Construction Verification				\$60,000.00	
4.2	Stage 4 Road Safety Audit				\$7,500.00	
4.3	RMS Capitalised TCS Maintenance Costs				\$90,000.00	Allowance for maintenance costs assuming relocation of existing signal poles
<b>5</b>	<b>CONSTRUCTION</b>			<b>sub-total</b>	<b>\$2,242,387.50</b>	
<b>5.1</b>	<b>General</b>			<b>sub-total</b>	<b>\$700,000.00</b>	
5.1.1	Establishment & Preliminaries	1	item	\$200,000.00	\$200,000.00	Assumed 20 week construction program
5.1.2	Survey and setout	1	item	\$50,000.00	\$50,000.00	
5.1.3	Geotechnical	1	item	\$50,000.00	\$50,000.00	
5.1.4	Service adjustments/relocation	0	item	\$0.00	\$0.00	Assumed none required as all works done inside footprint of TfNSW upgrade works
5.1.5	Traffic Control	1	item	\$400,000.00	\$400,000.00	Adopt \$4,000 per day for 20 weeks
<b>5.2</b>	<b>Earthworks</b>			<b>sub-total</b>	<b>\$143,537.50</b>	
5.2.1	Bulk earthworks	4672.5	m <sup>3</sup>	\$30.00	\$140,175.00	Allowance to undertake 1.0m cut to fill over new pavement areas
5.2.2	Trim subgrade	4672.5	m <sup>2</sup>	\$5.00	\$23,362.50	
<b>5.3</b>	<b>Roadworks</b>			<b>sub-total</b>	<b>\$895,900.00</b>	
5.3.1	Heavily Bound Pavement	4672.5	m <sup>2</sup>	\$120.00	\$560,700.00	
5.3.2	SA Type Kerb	340	m <sup>2</sup>	\$70.00	\$23,800.00	
5.3.3	SF Type Kerb	1065	m <sup>2</sup>	\$60.00	\$63,900.00	
5.3.4	Sawcut Existing Median and Pavement and dispose offsite	1065	m	\$150.00	\$159,750.00	
5.3.5	Replant median island	2125	m <sup>2</sup>	\$30.00	\$63,750.00	Allowance to replant median island
5.3.6	Shared Path	120	m	\$200.00	\$24,000.00	Allowance to provide shared path on W4.3 leg of intersection only
<b>5.4</b>	<b>Stormwater</b>			<b>sub-total</b>	<b>\$292,950.00</b>	
5.4.1	Reinforced concrete pipes	340	m	\$250.00	\$85,000.00	Allowance for stormwater under SA kerbs only
5.4.2	Stormwater Pits	9	ea	\$3,500.00	\$31,500.00	Allowance for one pit every 40m of SA kerb
5.4.3	Subsoil drainage (NFC)	1405	m	\$90.00	\$126,450.00	Allowance for subsoil drainage under sawcuts
5.4.4	Erosion and sediment control	1	item	\$50,000.00	\$50,000.00	Nominal allowance only
<b>5.5</b>	<b>Traffic facilities</b>			<b>sub-total</b>	<b>\$190,000.00</b>	
5.5.1	Linemarking and signposting	1	item	\$30,000.00	\$30,000.00	Nominal allowance only
5.5.2	Street lighting	4	ea	\$15,000.00	\$60,000.00	Allowance for 1 light every 60m on W4.3 leg only
5.5.3	Traffic signals	1	item	\$100,000.00	\$100,000.00	Allowance to relocate signals in central medians, and new signals on left turn slip lane
<b>6</b>	<b>CONTINGENCY</b>			<b>sub-total</b>	<b>\$718,466.25</b>	
6.1	Contingency on construction (TfNSW requirement)	30%	of	\$2,242,387.50	\$672,716.25	Nominal allowance only
6.2	Contingency on professional fees	10%	of	\$457,500.00	\$45,750.00	
<b>Total (ex GST)</b>					<b>\$3,418,353.75</b>	

## EXCLUSIONS / QUALIFICATIONS

- Construction cost estimate based on upgrade works in Appendix B of TTPP report ref: 17285 Version Draft01 dated 07 April 2022
- A nominal 3.5m lane width and 40m taper has been adopted for all upgrades
- Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-131 for details of upgrade works
- Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
- No allowance has been made for service relocation works due to works being within the existing TfNSW upgrade footprint
- No allowance has been made for structural design

# GP3 S7.11 PLAN: INT2 (Chain-O-Ponds Rd/TNR) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
1	WAD ADMINISTRATION & CONCEPT DESIGN			sub-total	\$120,000.00	
1.1	RMS administration fees				\$60,000.00	
1.2	Detail Survey				\$20,000.00	
1.3	Concept Civil Design				\$40,000.00	
1.4	Review of Environmental Factors				\$0.00	Adopt that works assessed as part of DA
2	DETAILED DESIGN ACCEPTANCE			sub-total	\$115,000.00	
2.1	Geotechnical Investigation and Pavement Design				\$15,000.00	
2.2	Street Lighting Design				\$15,000.00	
2.3	TCS Design				\$7,500.00	
2.4	Detailed Civil Design				\$60,000.00	
2.5	Stage 3 Road Safety Audit				\$7,500.00	
2.6	Independent Design Verification				\$10,000.00	
3	CONSTRUCTION APPROVAL			sub-total	\$55,000.00	
3.1	Construction Commencement Approval				\$2,500.00	
3.2	Tender and Contracts				\$10,000.00	
3.3	Construction Superintendency				\$40,000.00	Adopt 16 weeks at \$2,500 per week
3.4	Verification and Monitoring Plan				\$2,500.00	
4	POST CONSTRUCTION			sub-total	\$157,500.00	
4.1	Independent Construction Verification				\$60,000.00	
4.2	Stage 4 Road Safety Audit				\$7,500.00	
4.3	RMS Capitalised TCS Maintenance Costs				\$90,000.00	Allowance for maintenance costs assuming relocation of existing signal poles
5	CONSTRUCTION			sub-total	\$1,753,850.00	
5.1	General			sub-total	\$610,000.00	
5.1.1	Establishment	1	item	\$160,000.00	\$160,000.00	Assumed 16 week construction program
5.1.2	Survey and setout	1	item	\$40,000.00	\$40,000.00	
5.1.3	Geotechnical	1	item	\$40,000.00	\$40,000.00	
5.1.4	Service adjustments/relocation	1	item	\$50,000.00	\$50,000.00	Nominal allowance only for works on Chain O Ponds Road
5.1.5	Traffic Control	1	item	\$320,000.00	\$320,000.00	Adopt \$4,000 per day for 16 weeks
5.2	Earthworks			sub-total	\$132,300.00	
5.2.1	Bulk earthworks	3780	m3	\$30.00	\$113,400.00	Allowance to undertake 1m cut to fill over new pavement areas
5.2.2	Trim subgrade	3780	m²	\$5.00	\$18,900.00	
5.3	Roadworks			sub-total	\$637,900.00	
5.3.1	Heavily Bound Pavement	3780	m²	\$100.00	\$378,000.00	
5.3.2	SA Type Kerb	205	m²	\$70.00	\$14,350.00	
5.3.3	SF Type Kerb	755	m²	\$60.00	\$45,300.00	
5.3.4	Sawcut Existing Median and Pavement and dispose offsite	755	m	\$150.00	\$113,250.00	
5.3.5	Replant Median Island	2100	m²	\$30.00	\$63,000.00	Allowance to replant median island
5.3.6	Shared Path	120	m	\$200.00	\$24,000.00	Allowance to perovide shared path on Chain O Ponds Road Leg Only
5.4	Stormwater			sub-total	\$208,650.00	
5.4.1	Reinforced concrete pipes	205	m	\$250.00	\$51,250.00	Allowance for stormwater under SA kerbs only
5.4.2	Stormwater Pits	6	ea	\$3,500.00	\$21,000.00	Allowance for one pit every 40m of SA kerb
5.4.3	Subsoil drainage (NFC)	960	m	\$90.00	\$86,400.00	Allowance for subsoil drainage under sawcuts
5.4.4	Erosion and sediment control	1	item	\$50,000.00	\$50,000.00	Nominal allowance only
5.5	Traffic facilities			sub-total	\$165,000.00	
5.5.1	Linemarking and signposting	1	item	\$25,000.00	\$25,000.00	Nominal allowance only
5.5.2	Street lighting	4	item	\$15,000.00	\$60,000.00	Allowanc to replace street lights on Chain O Ponds Road
5.5.3	Traffic signals	1	item	\$50,000.00	\$50,000.00	Allowance to relocate signals in central medians
5.5.4	Driveway Reconstruction	1	item	\$30,000.00	\$30,000.00	Allowance to reoncstruct driveways on Chain O Ponds Road
6	CONTINGENCY			sub-total	\$570,905.00	
6.1	Contingency on construction (TfNSW requirement)	30%	of	\$1,753,850.00	\$526,155.00	Construction less third-party fees
6.2	Contingency on professional fees	10%	of	\$447,500.00	\$44,750.00	
Total (ex GST)					\$2,772,255.00	

## EXCLUSIONS / QUALIFICATIONS

- Construction cost estimate based on upgrade works in Appendix B of TTPP report ref: 17285 Version Draft01 dated 07 April 2022
- A nominal 3.5m lane width and 40m taper has been adopted for all upgrades
- Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-132 for details of upgrade works
- Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
- No allowance has been made for service relocation works based upon the works being within the existing TfNSW upgrade footprint
- No allowance has been made for structural design



GP3 S7.11 PLAN: INT6 (Collector Rd/Collector Rd) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
1	CONSTRUCTION			sub-total	\$142,120.00	
1.1	General			sub-total	\$0.00	
1.1.1	Establishment & Preliminaries	1	item	\$0.00	\$0.00	
1.1.2	Survey and setout	1	item	\$0.00	\$0.00	
1.1.3	Geotechnical	1	item	\$0.00	\$0.00	
1.1.4	Service adjustments/relocation	0	item		\$0.00	
1.1.5	Traffic Control	1	item	\$0.00	\$0.00	
1.1.6	Clearing & Demolition	1	item	\$0.00	\$0.00	
1.2	Earthworks			sub-total	\$9,820.00	
1.2.1	Topsoil Strip and Replace	220	m²	\$6.00	\$1,320.00	
1.2.2	Bulk earthworks	280	m3	\$25.00	\$7,000.00	Allowance to undertake 1.25m cut to fill over new pavement areas
1.2.3	Trim subgrade	300	m²	\$5.00	\$1,500.00	
1.3	Roadworks			sub-total	\$116,300.00	
1.3.1	Full depth flexible Pavement	220	m²	\$130.00	\$28,600.00	
1.3.2	SA Type Kerb	0	m²	\$70.00	\$0.00	
1.3.3	SF Type Kerb	160	m²	\$60.00	\$9,600.00	
1.3.4	Shared Path	150	m	\$250.00	\$37,500.00	
1.3.5	Driveway reconstruction	0	ea	\$5,000.00	\$0.00	
1.3.6	Coloured surface coating to R110 (Bus/Cycle)	0	m²	\$40.00	\$0.00	
1.3.7	Concrete traffic island	290	m²	\$140.00	\$40,600.00	
1.4	Stormwater			sub-total	\$0.00	
1.4.1	Reinforced concrete pipes	0	m	\$250.00	\$0.00	Allowance for stormwater under SA kerbs only
1.4.2	Stormwater Pits	0	ea	\$2,500.00	\$0.00	Allowance for one pit every 50m of SA kerb
1.4.3	Subsoil drainage (NFC)	0	m	\$50.00	\$0.00	Allowance for subsoil drainage under kerbs
1.4.4	Erosion and sediment control	1	item	\$0.00	\$0.00	Nominal allowance only
1.5	Traffic facilities			sub-total	\$6,000.00	
1.5.1	Linemarking and signposting	1	item	\$6,000.00	\$6,000.00	Nominal allowance only
1.5.2	Street lighting	0	ea	\$15,000.00	\$0.00	Allowance for 1 light every 60m
1.6	Landscaping			sub-total	\$10,000.00	
1.6.1	Landscaping	1	item	\$10,000.00	\$10,000.00	
6	CONTINGENCY			sub-total	\$28,424.00	
6.1	Contingency on construction	20%	of	\$142,120.00	\$28,424.00	
Total (ex GST)					\$170,544.00	

EXCLUSIONS / QUALIFICATIONS

1. These costs should be read in conjunction with plan set prepared by ADW Johnson, titled "GP3 Section 7.11 Plan Technical Drawings", revision A, dated 14/04/2022
2. Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
3. Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-136 for details of upgrade works
4. No allowance has been made for service relocation works
5. No allowance has been made for structural design

# GP3 S7.11 PLAN: INT3 (Chain-O-Ponds Rd/Entry Boulevard (East)) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
<b>1</b>	<b>CONSTRUCTION</b>			<b>sub-total</b>	<b>\$1,180,305.00</b>	
<b>1.1</b>	<b>General</b>			<b>sub-total</b>	<b>\$345,000.00</b>	
1.1.1	Establishment & Preliminaries	1	item	\$120,000.00	\$120,000.00	
1.1.2	Survey and setout	1	item	\$30,000.00	\$30,000.00	
1.1.3	Geotechnical	1	item	\$30,000.00	\$30,000.00	
1.1.4	Service adjustments/relocation	0	item		\$0.00	
1.1.5	Traffic Control	1	item	\$160,000.00	\$160,000.00	
1.1.6	Clearing & Demolition	1	item	\$5,000.00	\$5,000.00	
<b>1.2</b>	<b>Earthworks</b>			<b>sub-total</b>	<b>\$113,280.00</b>	
1.2.1	Topsoil Strip and Replace	5930	m²	\$6.00	\$35,580.00	
1.2.2	Bulk earthworks	2600	m³	\$25.00	\$65,000.00	Allowance to undertake 1.25m cut to fill over new pavement areas
1.2.3	Trim subgrade	2540	m²	\$5.00	\$12,700.00	
<b>1.3</b>	<b>Roadworks</b>			<b>sub-total</b>	<b>\$434,275.00</b>	
1.3.1	Full depth flexible Pavement	2080	m²	\$130.00	\$270,400.00	
1.3.2	SA Type Kerb	330	m²	\$70.00	\$23,100.00	
1.3.3	SF Type Kerb	265	m²	\$60.00	\$15,900.00	
1.3.4	Shared Path	164	m	\$250.00	\$40,875.00	
1.3.5	Driveway reconstruction	0	ea	\$5,000.00	\$0.00	
1.3.6	Coloured surface coating to R110 (Bus/Cycle)	0	m²	\$40.00	\$0.00	
1.3.7	Concrete traffic island	600	m²	\$140.00	\$84,000.00	
<b>1.4</b>	<b>Stormwater</b>			<b>sub-total</b>	<b>\$124,750.00</b>	
1.4.1	Reinforced concrete pipes	165	m	\$250.00	\$41,250.00	Allowance for stormwater under SA kerbs only
1.4.2	Stormwater Pits	13	ea	\$2,500.00	\$32,500.00	Allowance for one pit every 50m of SA kerb
1.4.3	Subsoil drainage (NFC)	620	m	\$50.00	\$31,000.00	Allowance for subsoil drainage under kerbs
1.4.4	Erosion and sediment control	1	item	\$20,000.00	\$20,000.00	Nominal allowance only
<b>1.5</b>	<b>Traffic facilities</b>			<b>sub-total</b>	<b>\$88,000.00</b>	
1.5.1	Linemarking and signposting	1	item	\$13,000.00	\$13,000.00	Nominal allowance only
1.5.2	Street lighting	5	ea	\$15,000.00	\$75,000.00	Allowance for 1 light every 60m
<b>1.6</b>	<b>Landscaping</b>			<b>sub-total</b>	<b>\$75,000.00</b>	
1.6.1	Landscaping	1	item	\$75,000.00	\$75,000.00	
<b>6</b>	<b>CONTINGENCY</b>			<b>sub-total</b>	<b>\$236,061.00</b>	
6.1	Contingency on construction	20%	of	\$1,180,305.00	\$236,061.00	
				<b>Total (ex GST)</b>	<b>\$1,416,366.00</b>	

## EXCLUSIONS / QUALIFICATIONS

1. These costs should be read in conjunction with plan set prepared by ADW Johnson, titled "GP3 Section 7.11 Plan Technical Drawings", revision A, dated 14/04/2022
2. Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
3. Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-133 for details of upgrade works
4. No allowance has been made for service relocation works
5. No allowance has been made for structural design

# GP3 S7.11 PLAN: INT4 (Chain-O-Ponds Rd/Entry Boulevard (Central)) - Works Cost Schedule

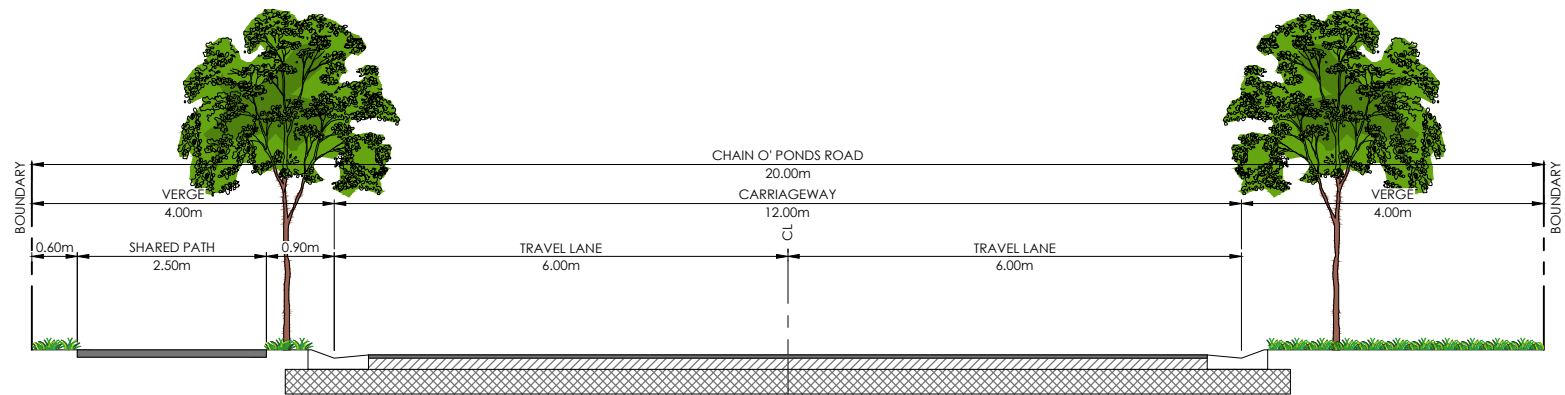
300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
<b>1</b>	<b>CONSTRUCTION</b>			<b>sub-total</b>	<b>\$1,539,620.00</b>	
<b>1.1</b>	<b>General</b>			<b>sub-total</b>	<b>\$345,000.00</b>	
1.1.1	Establishment & Preliminaries	1	item	\$120,000.00	\$120,000.00	
1.1.2	Survey and setout	1	item	\$30,000.00	\$30,000.00	
1.1.3	Geotechnical	1	item	\$30,000.00	\$30,000.00	
1.1.4	Service adjustments/relocation	0	item		\$0.00	
1.1.5	Traffic Control	1	item	\$160,000.00	\$160,000.00	
1.1.6	Clearing & Demolition	1	item	\$5,000.00	\$5,000.00	
<b>1.2</b>	<b>Earthworks</b>			<b>sub-total</b>	<b>\$194,420.00</b>	
1.2.1	Topsoil Strip and Replace	6470	m²	\$6.00	\$38,820.00	
1.2.2	Bulk earthworks	5270	m³	\$25.00	\$131,750.00	Allowance to undertake 1.25m cut to fill over new pavement areas
1.2.3	Trim subgrade	4770	m²	\$5.00	\$23,850.00	
<b>1.3</b>	<b>Roadworks</b>			<b>sub-total</b>	<b>\$666,700.00</b>	
1.3.1	Full depth flexible Pavement	4220	m²	\$130.00	\$548,600.00	
1.3.2	SA Type Kerb	550	m²	\$70.00	\$38,500.00	
1.3.3	SF Type Kerb	35	m²	\$60.00	\$2,100.00	
1.3.4	Shared Path	270	m	\$250.00	\$67,500.00	
1.3.5	Driveway reconstruction	1	ea	\$5,000.00	\$5,000.00	
1.3.6	Coloured surface coating to R110 (Bus/Cycle)	90	m²	\$40.00	\$3,600.00	
1.3.7	Concrete traffic island	10	m²	\$140.00	\$1,400.00	
<b>1.4</b>	<b>Stormwater</b>			<b>sub-total</b>	<b>\$215,500.00</b>	
1.4.1	Reinforced concrete pipes	540	m	\$250.00	\$135,000.00	Allowance for stormwater under SA kerbs only
1.4.2	Stormwater Pits	12	ea	\$2,500.00	\$30,000.00	Allowance for one pit every 50m of SA kerb
1.4.3	Subsoil drainage (NFC)	610	m	\$50.00	\$30,500.00	Allowance for subsoil drainage under kerbs
1.4.4	Erosion and sediment control	1	item	\$20,000.00	\$20,000.00	Nominal allowance only
<b>1.5</b>	<b>Traffic facilities</b>			<b>sub-total</b>	<b>\$88,000.00</b>	
1.5.1	Linemarking and signposting	1	item	\$13,000.00	\$13,000.00	Nominal allowance only
1.5.2	Street lighting	5	ea	\$15,000.00	\$75,000.00	Allowance for 1 light every 60m
<b>1.6</b>	<b>Landscaping</b>			<b>sub-total</b>	<b>\$30,000.00</b>	
1.6.1	Landscaping	1	item	\$30,000.00	\$30,000.00	
<b>6</b>	<b>CONTINGENCY</b>			<b>sub-total</b>	<b>\$307,924.00</b>	
6.1	Contingency on construction	20%	of	\$1,539,620.00	\$307,924.00	
				<b>Total (ex GST)</b>	<b>\$1,847,544.00</b>	

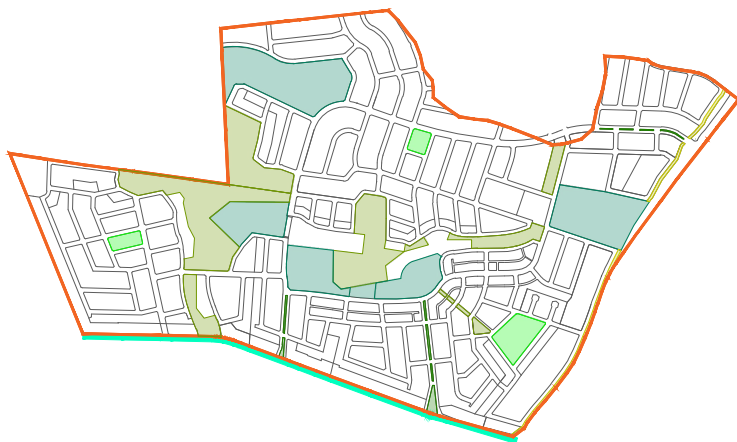
## EXCLUSIONS / QUALIFICATIONS

- These costs should be read in conjunction with plan set prepared by ADW Johnson, titled "GP3 Section 7.11 Plan Technical Drawings", revision A, dated 14/04/2022
- Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
- Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-134 for details of upgrade works
- No allowance has been made for service relocation works
- No allowance has been made for structural design

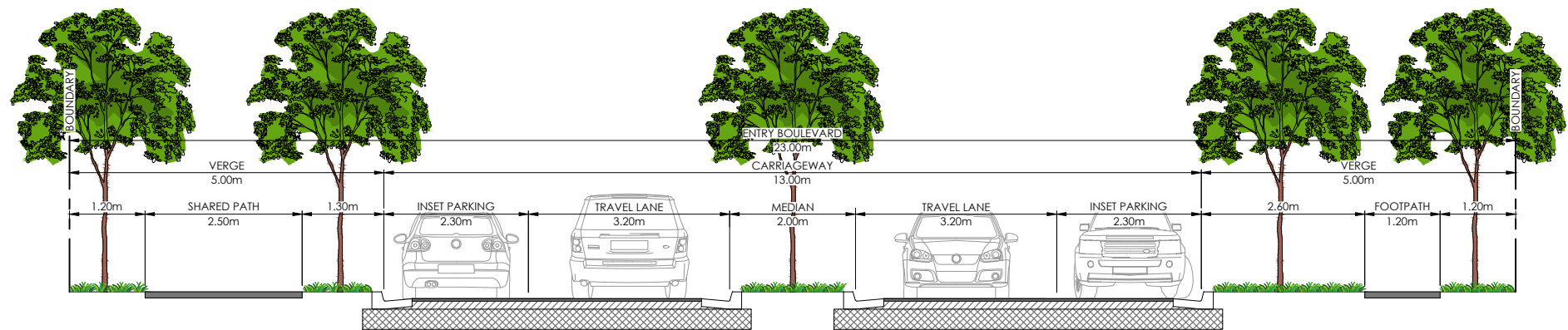
# GP3 S.7.11 PLAN: BASE ROAD SECTIONS



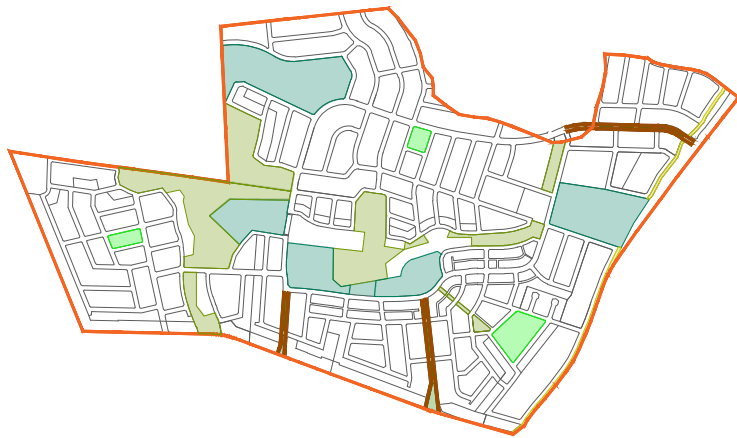
TYPICAL SECTION - CHAIN O' PONDS ROAD  
(4 - 12 - 4)



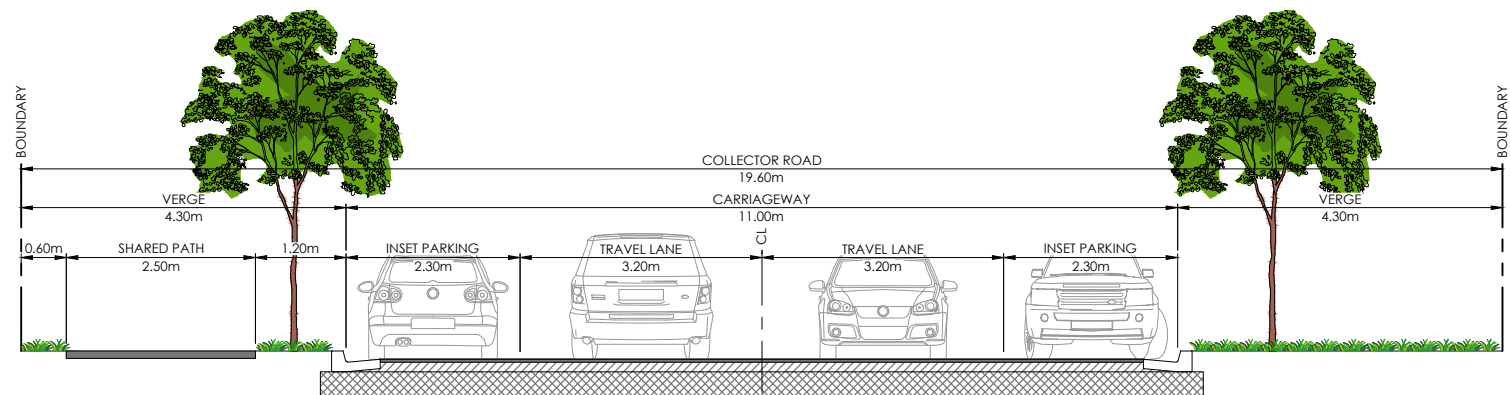
CHAIN O' PONDS ROAD



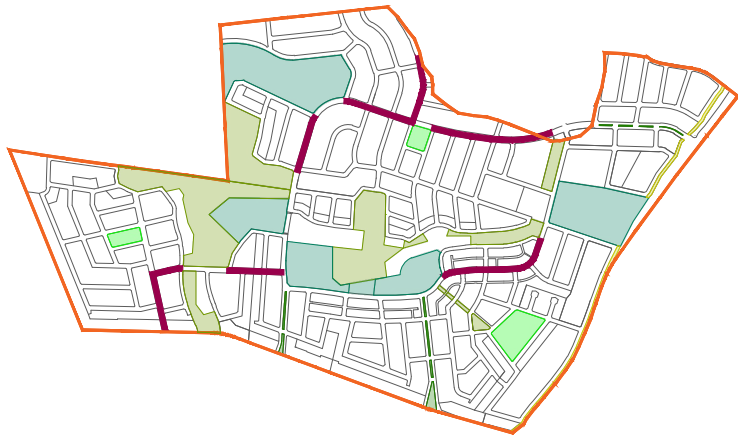
TYPICAL SECTION - ENTRY BOULEVARD  
(5 - 5.5 - 2 - 5.5 - 5)



ENTRY BOULEVARD



TYPICAL SECTION - COLLECTOR ROAD (ADJACENT TO DEVELOPMENT ON BOTH SIDES)  
(4.3 - 11 - 4.3)



COLLECTOR ROAD  
(ADJACENT TO DEVELOPMENT ON BOTH SIDES)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

drawing title:  
**BASE ROAD SECTIONS - SHEET 1**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-111

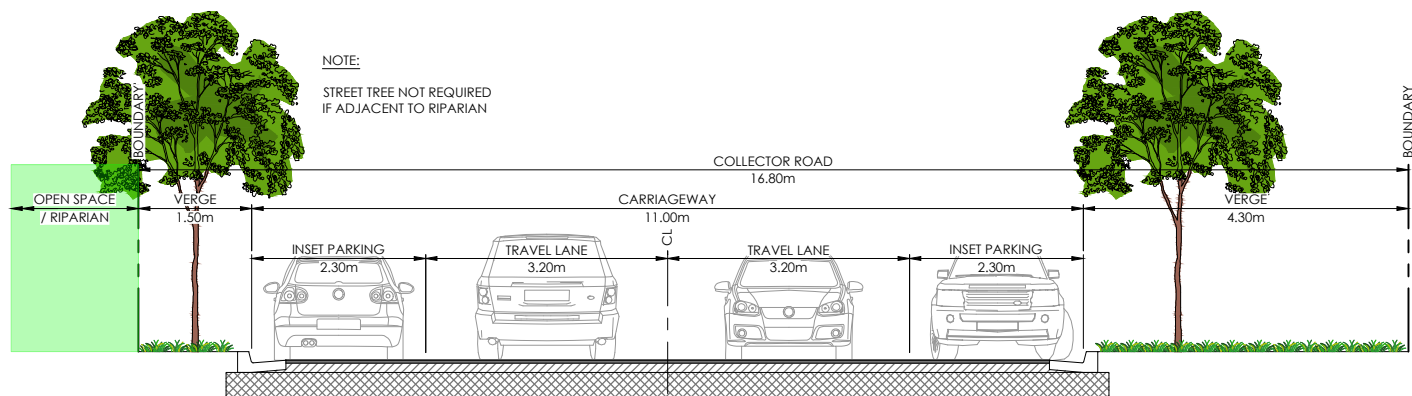
client:



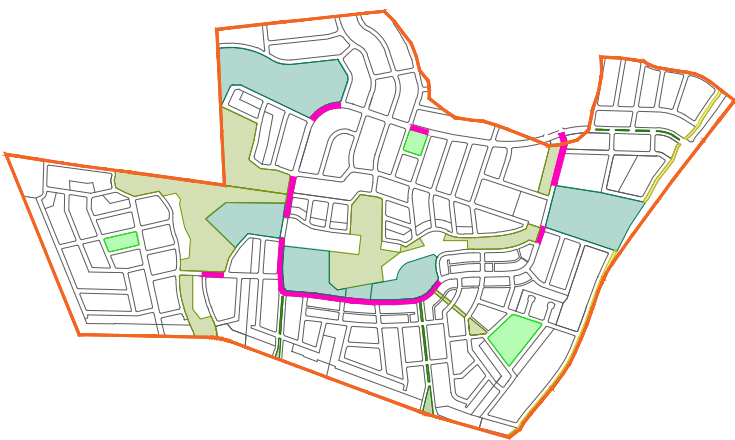
central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411  
www.adwjohanson.com.au



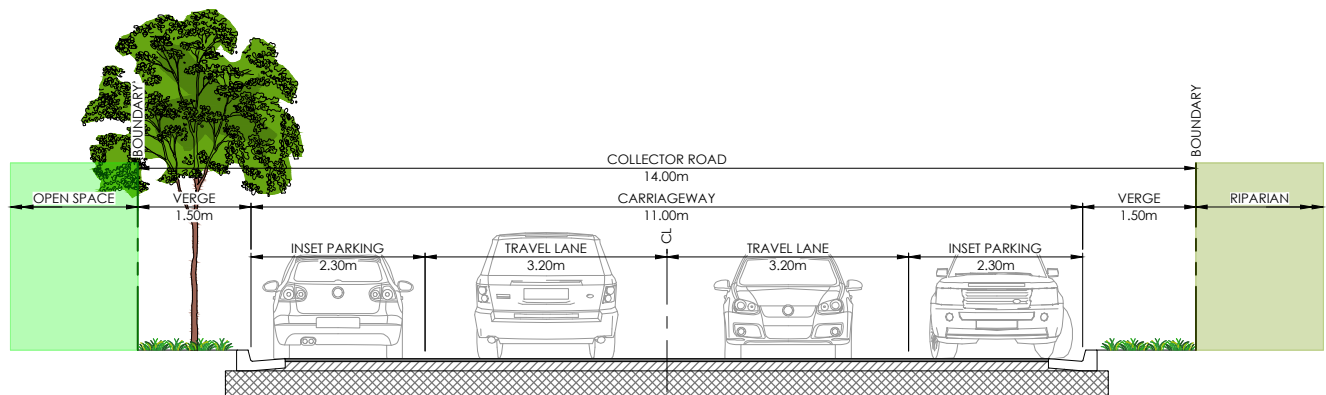
# GP3 S.7.11 PLAN: BASE ROAD SECTIONS



TYPICAL SECTION - COLLECTOR ROAD (ADJACENT TO RIPARIAN OR OPEN SPACE ON ONE SIDE)  
(1.5 - 11 - 4.3)



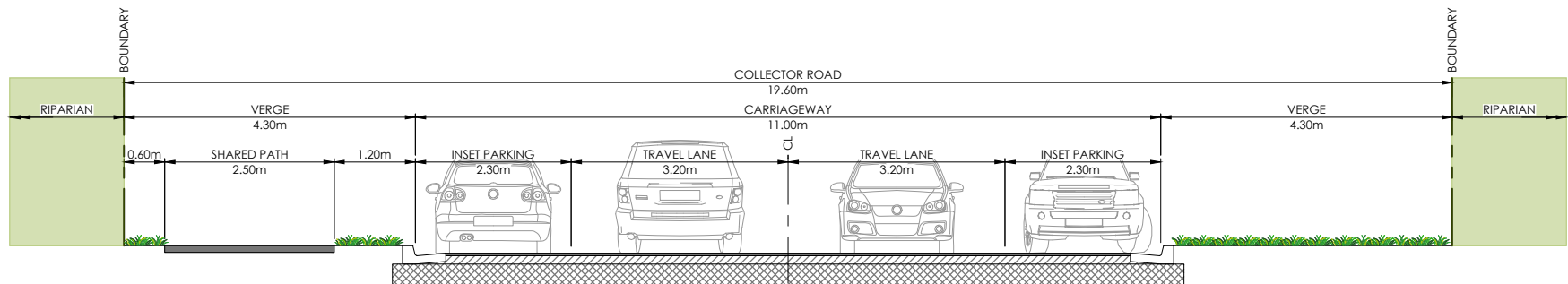
COLLECTOR ROAD (ADJACENT TO RIPARIAN OR OPEN SPACE ON ONE SIDE)



TYPICAL SECTION - COLLECTOR ROAD (ADJACENT TO RIPARIAN ONE SIDE, OPEN SPACE ONE SIDE)  
(1.5 - 11 - 1.5)



COLLECTOR ROAD (ADJACENT TO RIPARIAN ONE SIDE, OPEN SPACE ONE SIDE)



TYPICAL SECTION - COLLECTOR ROAD (RIPARIAN CROSSING)  
(1.5 - 11 - 1.5)



COLLECTOR ROAD (RIPARIAN CROSSING)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

• project management

• civil engineering

• infrastructure

• superintendency

• economic analysis

• social impact

• town planning

• surveying

• development feasibility

• visualisation

• urban design

drawing title:  
BASE ROAD  
SECTIONS - SHEET 2

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-112

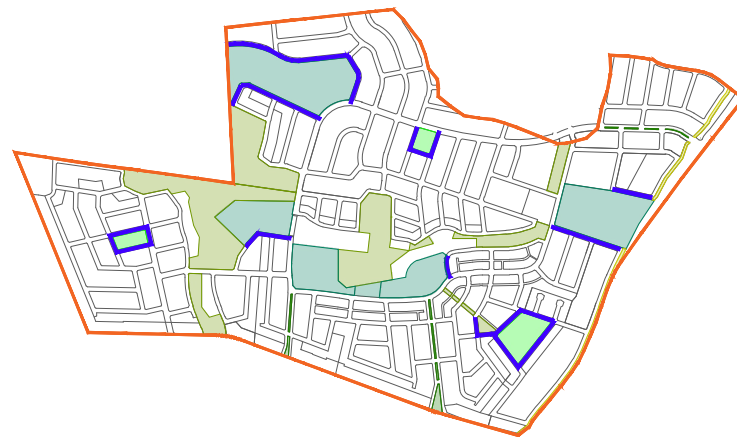
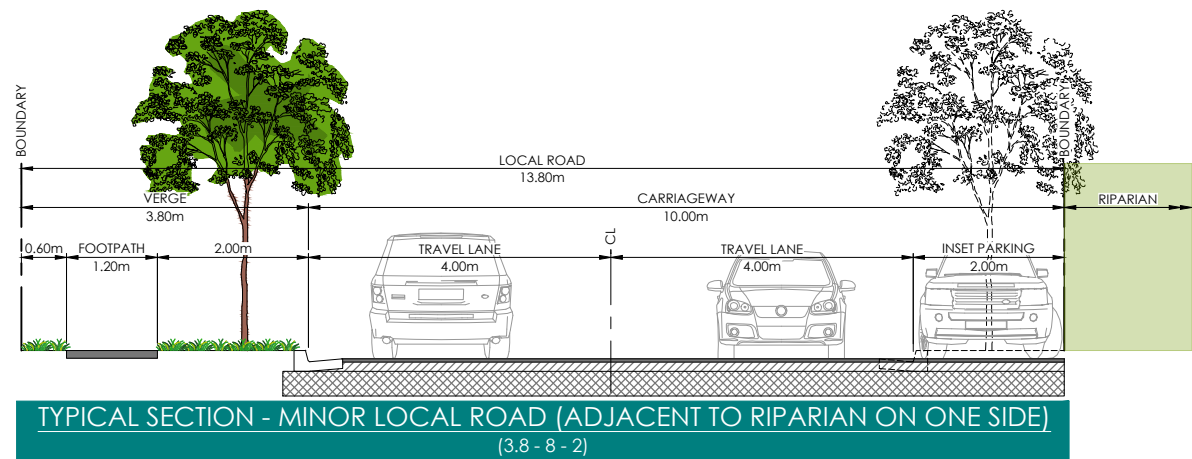
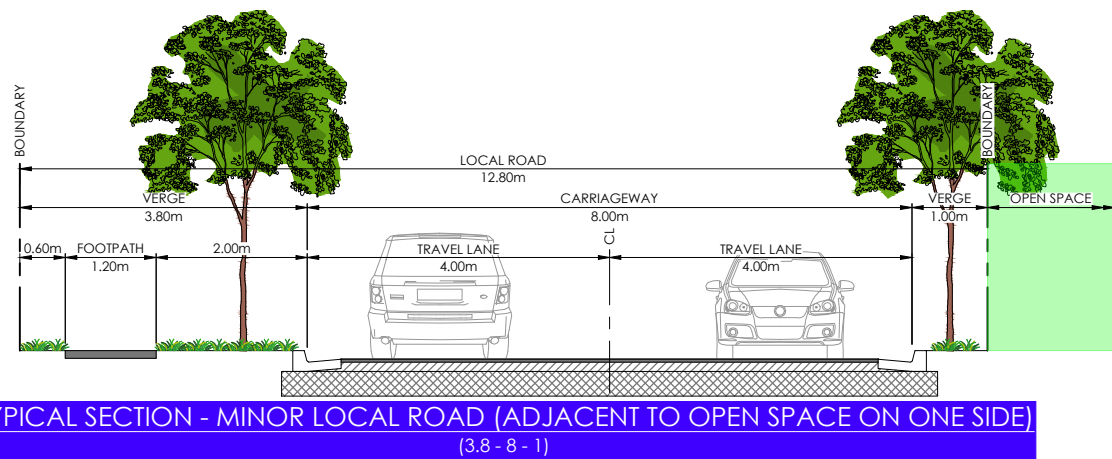
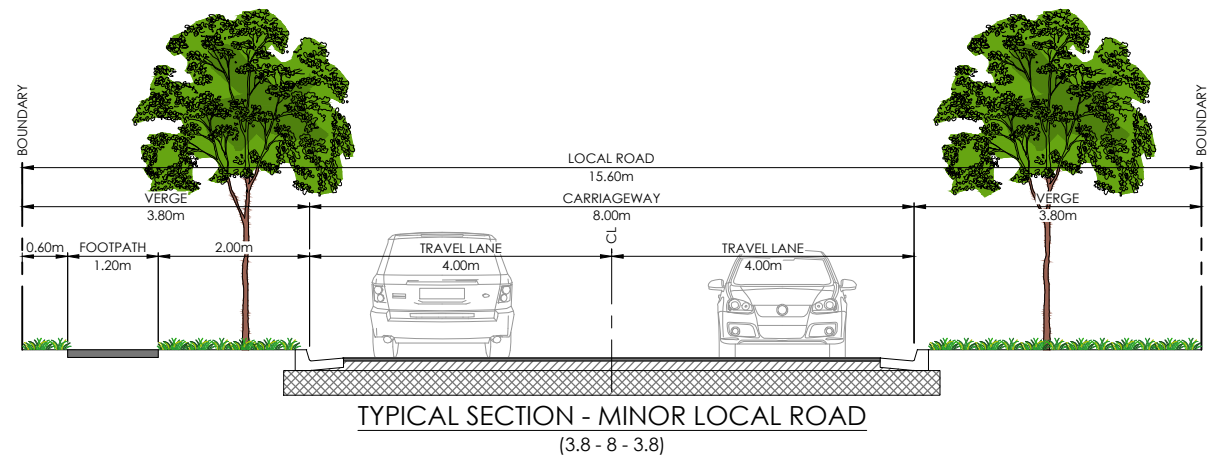
client:



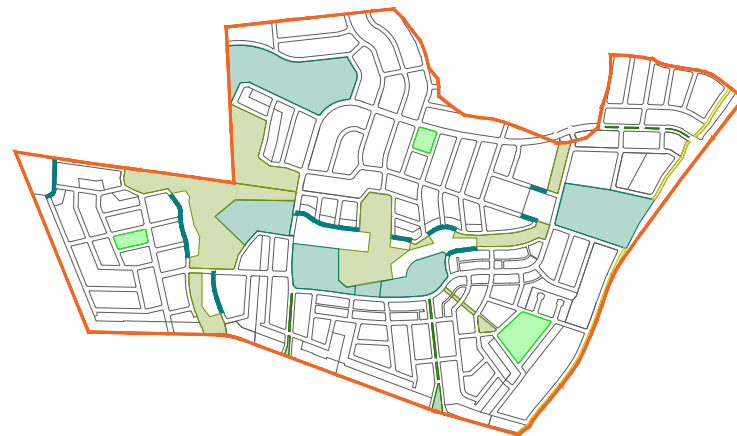
central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411  
www.adwjohnson.com.au



# GP3 S.7.11 PLAN: BASE ROAD SECTIONS



**MINOR LOCAL ROAD**  
(ADJACENT TO OPEN SPACE ON ONE SIDE)



**MINOR LOCAL ROAD**  
(ADJACENT TO RIPARIAN ON ONE SIDE)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

drawing title:  
**BASE ROAD SECTIONS - SHEET 3**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-113

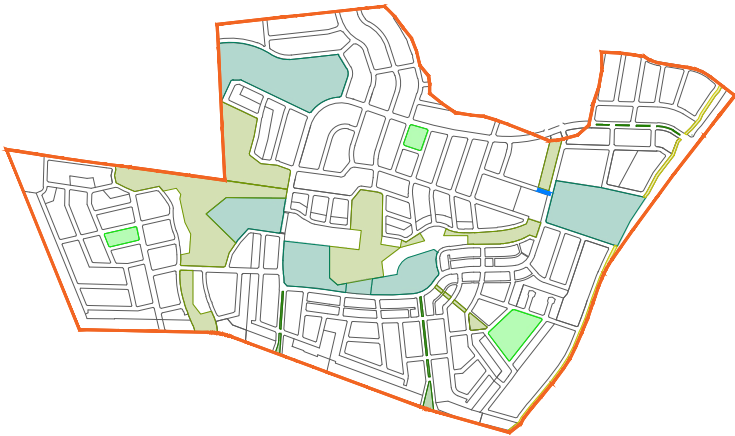
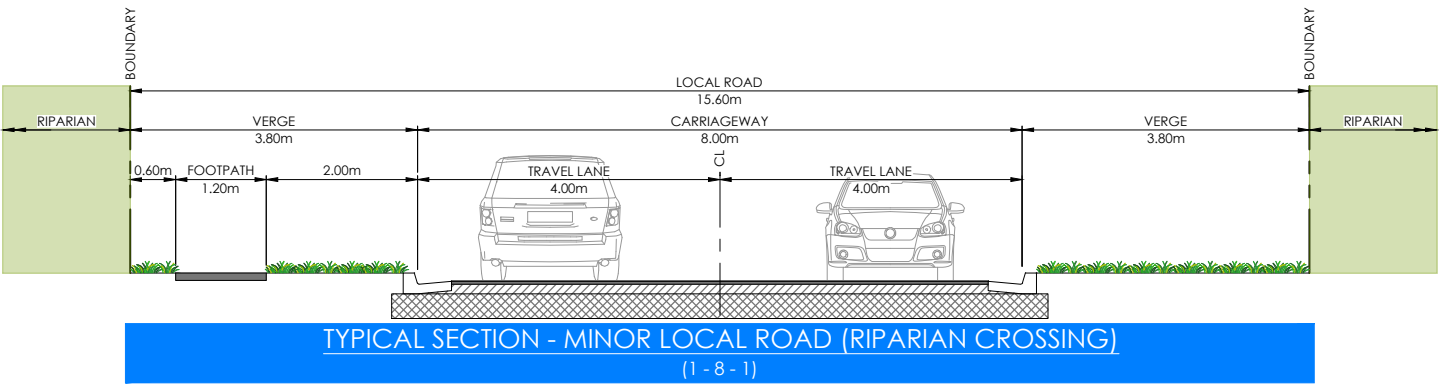
client:

**mirvac** **adw johnson**

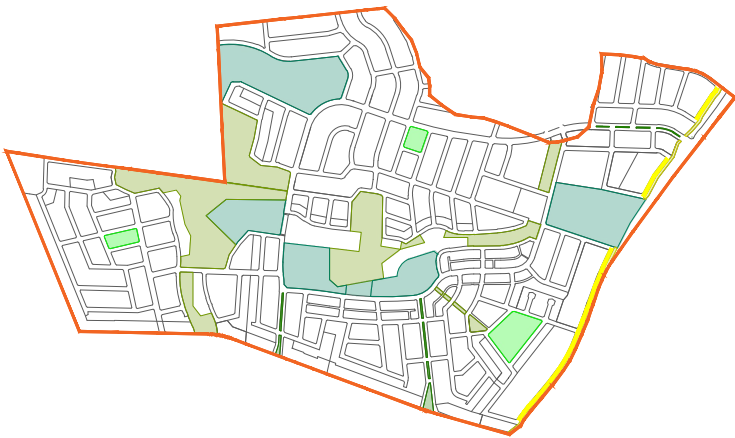
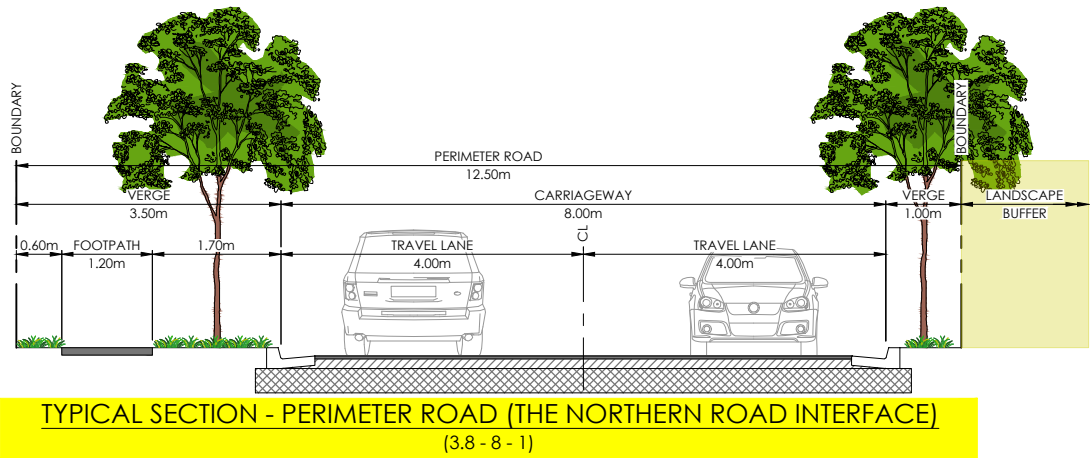
central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au

# GP3 S.7.11 PLAN: BASE ROAD SECTIONS



MINOR LOCAL ROAD (RIPARIAN CROSSING)



PERIMETER ROAD (THE NORTHERN ROAD INTERFACE)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	
• project management • civil engineering • infrastructure • superintendency • economic analysis • social impact • town planning • surveying • development feasibility • visualisation • urban design							

drawing title:

BASE ROAD  
SECTIONS - SHEET 4

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-114

client:

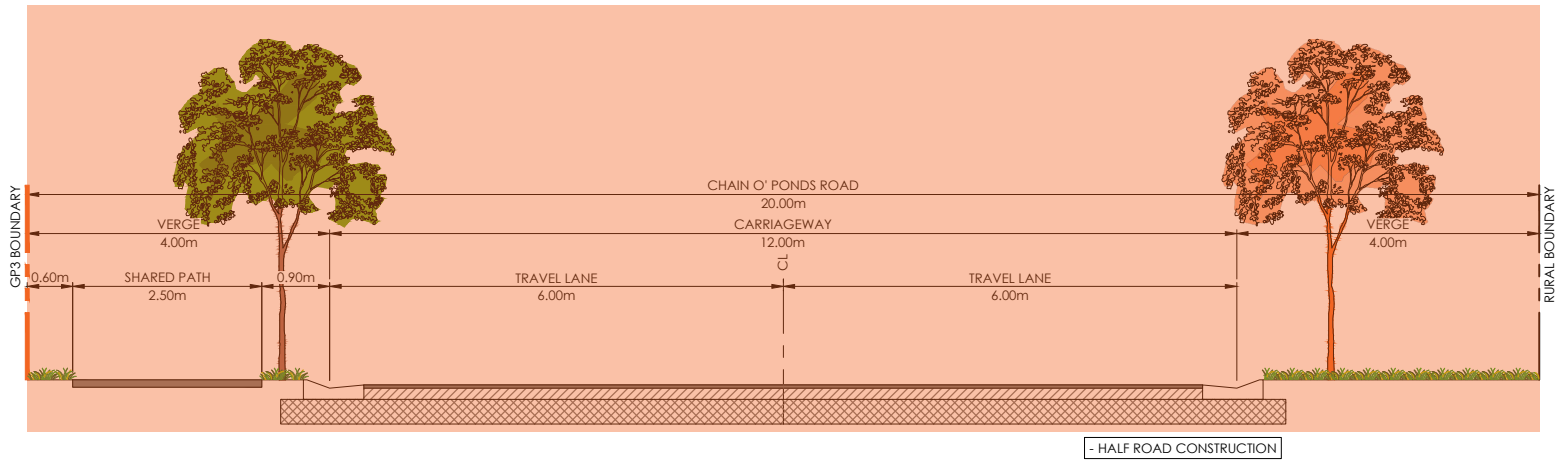


central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

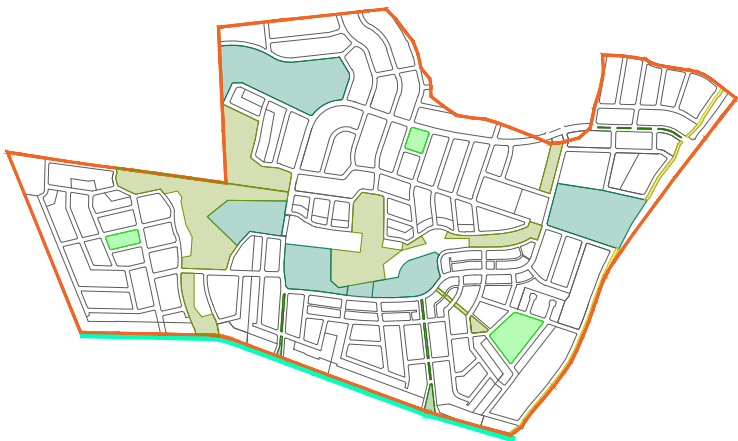
www.adwjohnson.com.au

# GP3 S.7.11 PLAN: ROAD SECTION WORKS ITEMS INCLUDED

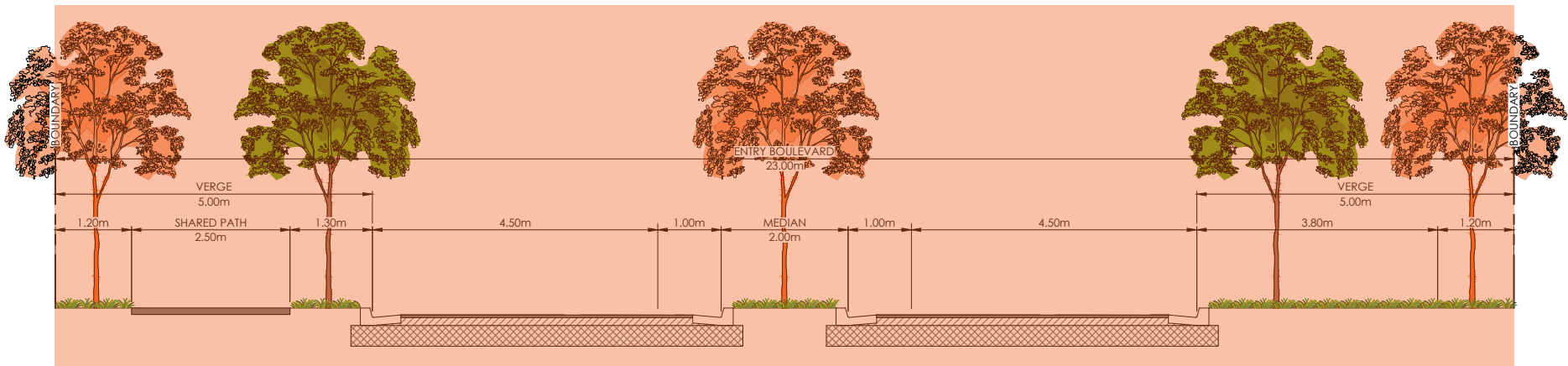
NOTE:  
DENOTES ITEMS INCLUDED  
IN WORKS SCHEDULE



T1 - CHAIN O' PONDS ROAD S.7.11 COSTS



CHAIN O' PONDS ROAD



- ADDITIONAL SHARED PATH  
- ADDITIONAL STREET TREE

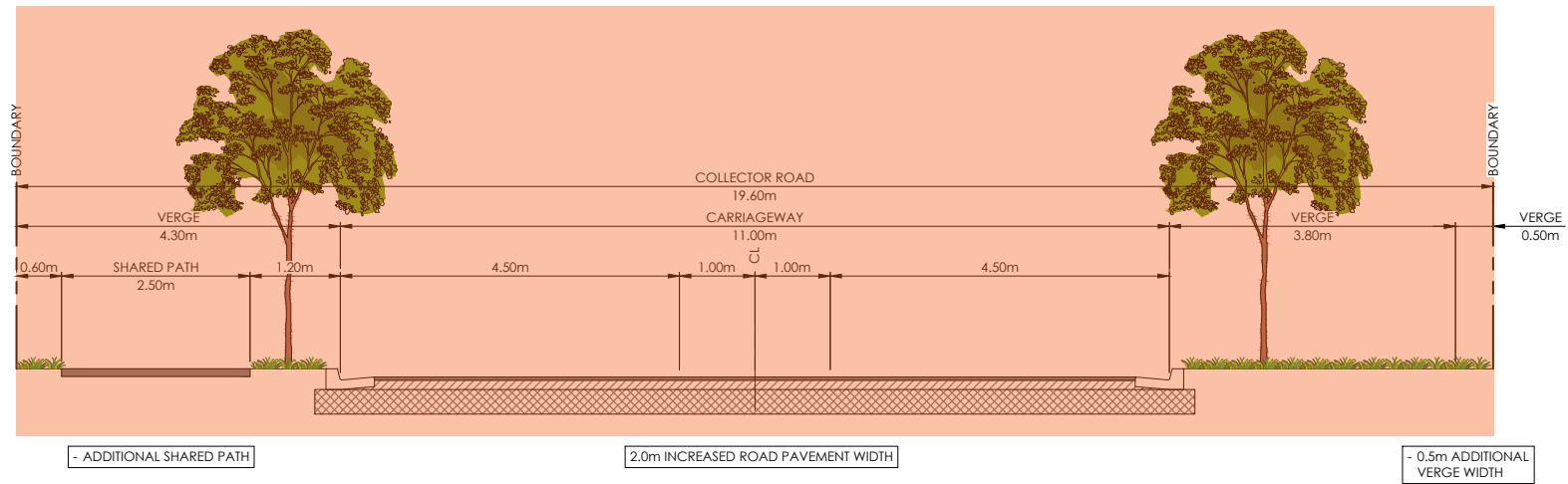
- 2.0m INCREASED ROAD PAVEMENT WIDTH  
- 2.0m MEDIAN WITH KERBS & PLANTING

- 1.2m ADDITIONAL VERGE  
WIDTH AND STREET TREE

T2 - ENTRY BOULEVARD S.7.11 COSTS



ENTRY BOULEVARD

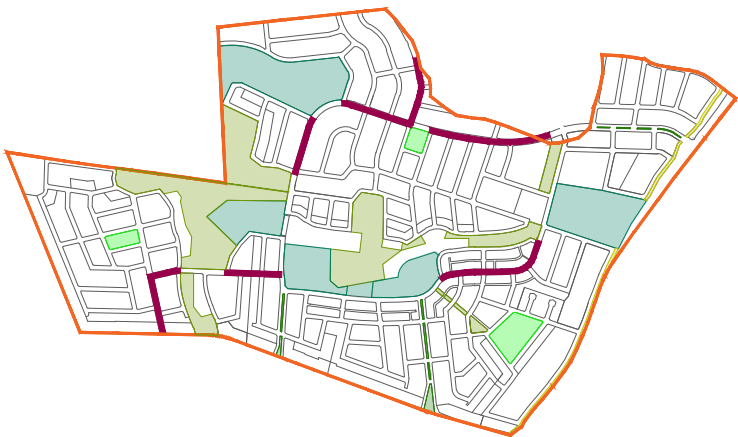


- ADDITIONAL SHARED PATH

2.0m INCREASED ROAD PAVEMENT WIDTH

- 0.5m ADDITIONAL  
VERGE WIDTH

T3.1 - COLLECTOR ROAD (ADJACENT TO DEVELOPMENT ON BOTH SIDES) S.7.11 COSTS



COLLECTOR ROAD (ADJACENT TO  
DEVELOPMENT ON BOTH SIDES)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

• project management • civil engineering • infrastructure • superintendency • economic analysis • social impact • town planning • surveying • development feasibility • visualisation • urban design

drawing title:

ROAD SECTION  
WORK ITEMS - SHEET 1

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-121

client:

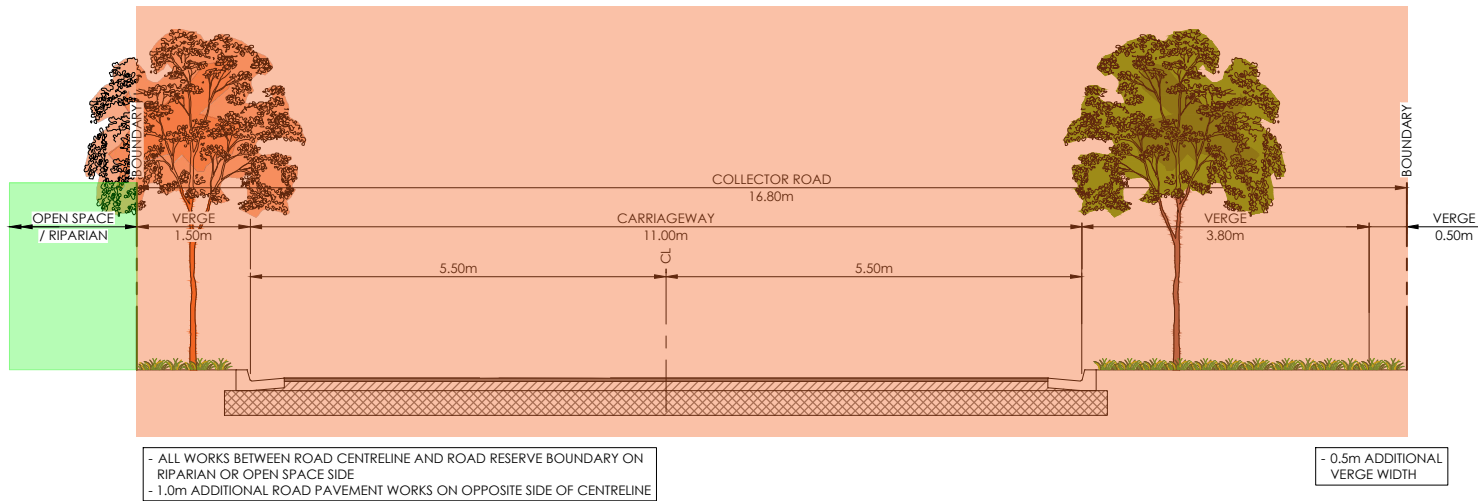


central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

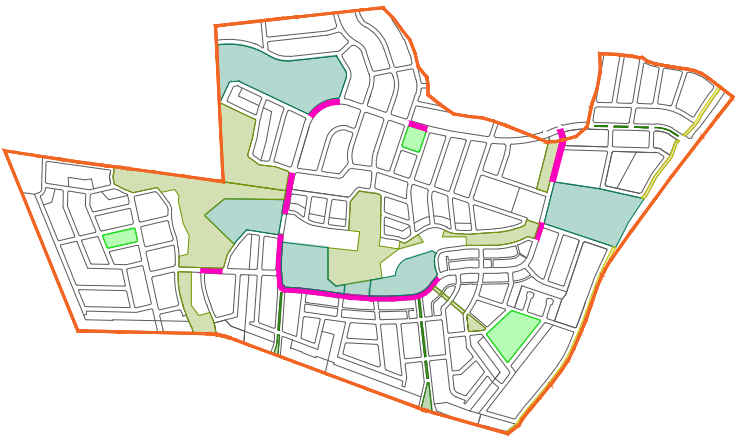
www.adwjohnson.com.au



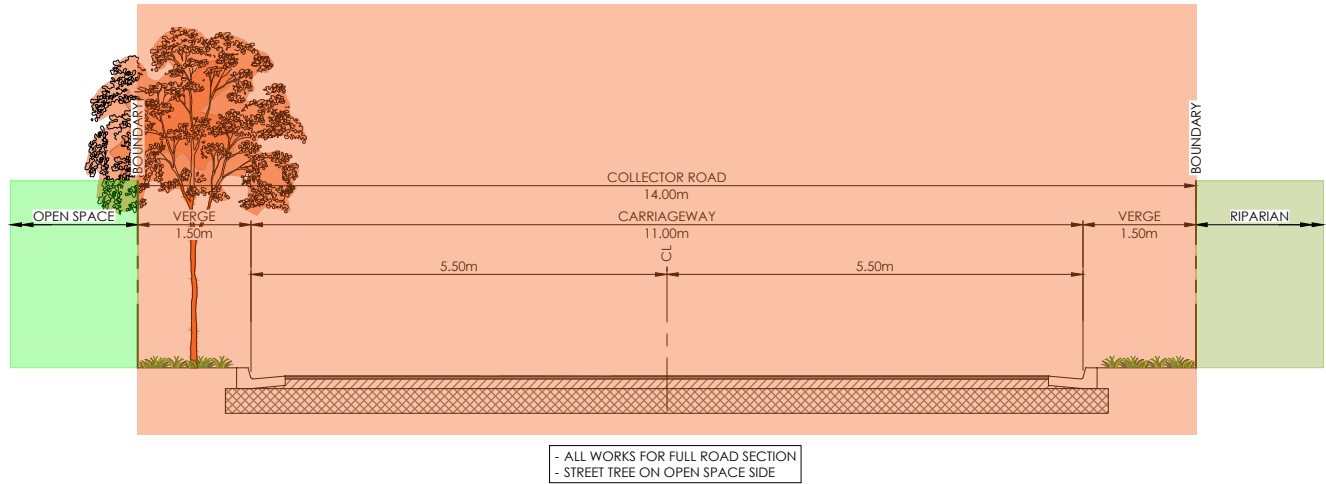
# GP3 S.7.11 PLAN: ROAD SECTION WORKS ITEMS INCLUDED



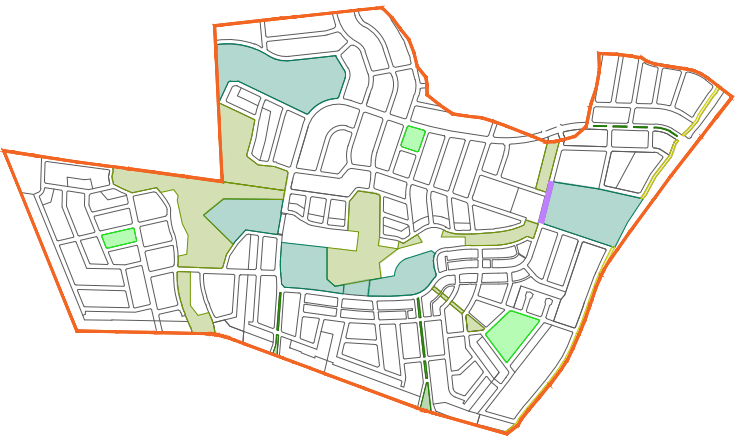
T3.2 - COLLECTOR ROAD (ADJACENT TO RIPARIAN OR OPEN SPACE ON ONE SIDE) S.7.11 COSTS



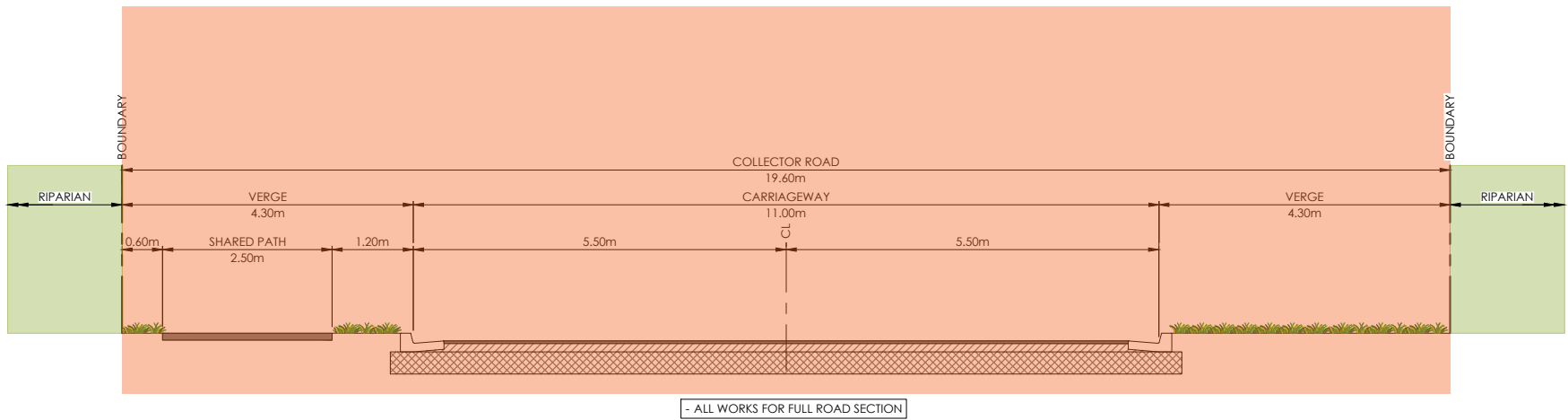
COLLECTOR ROAD (ADJACENT TO RIPARIAN OR OPEN SPACE ON ONE SIDE)



T3.3 - COLLECTOR ROAD (ADJACENT TO RIPARIAN ONE SIDE, OPEN SPACE ONE SIDE) S.7.11 COSTS



COLLECTOR ROAD (ADJACENT TO RIPARIAN ONE SIDE, OPEN SPACE ONE SIDE)



T3.4 - COLLECTOR ROAD (RIPARIAN CROSSING) S.7.11 COSTS



COLLECTOR ROAD (RIPARIAN CROSSING)

NOTE:  
DENOTES ITEMS INCLUDED  
IN WORKS SCHEDULE

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	
• project management • civil engineering • infrastructure • superintendency • economic analysis • social impact • town planning • surveying • development feasibility • visualisation • urban design							

drawing title:  
ROAD SECTION  
WORK ITEMS - SHEET 2

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-122

client:

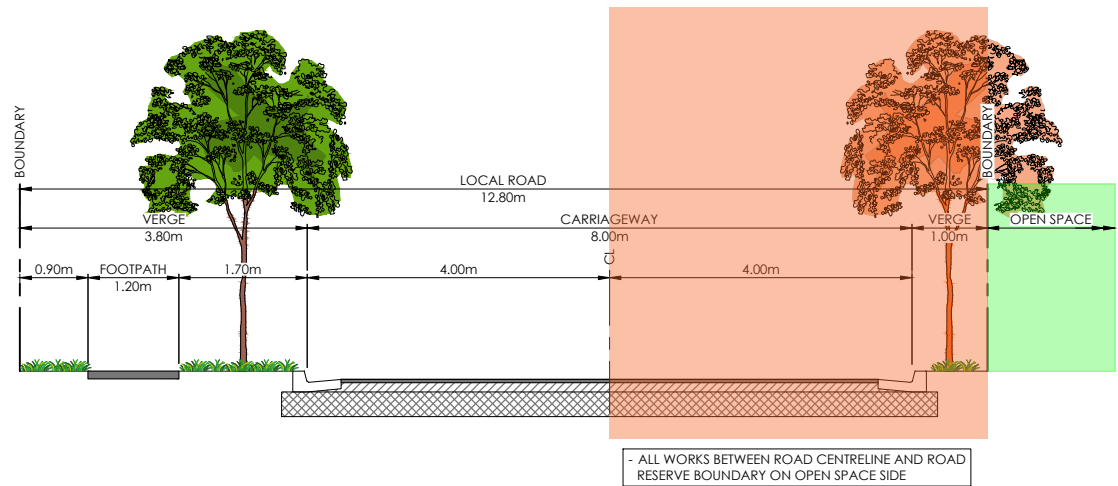


central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

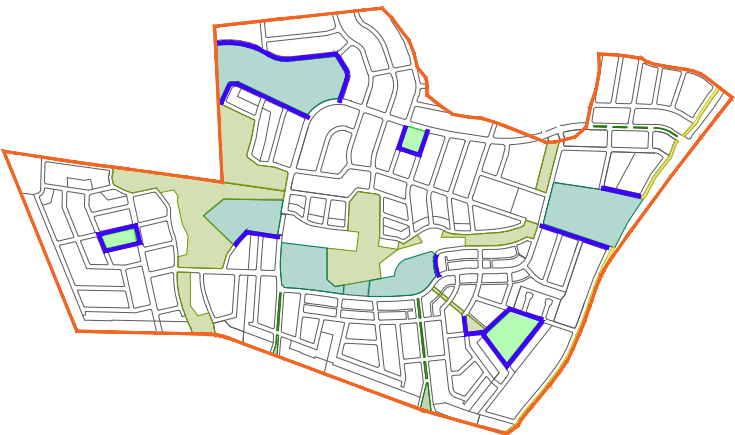
www.adwjohanson.com.au

# GP3 S.7.11 PLAN: ROAD SECTION WORKS ITEMS INCLUDED

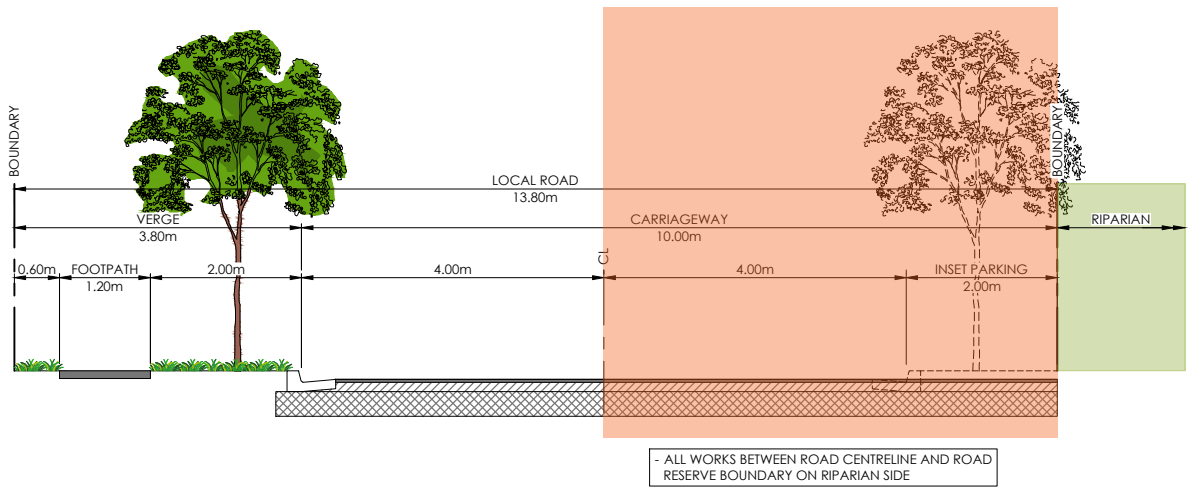
NOTE:  
DENOTES ITEMS INCLUDED  
IN WORKS SCHEDULE



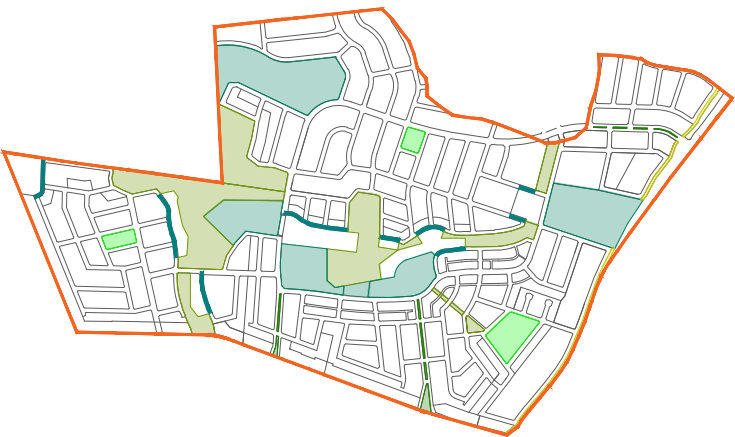
T4.1 - MINOR LOCAL ROAD (ADJACENT TO OPEN SPACE ON ONE SIDE) S.7.11 COSTS



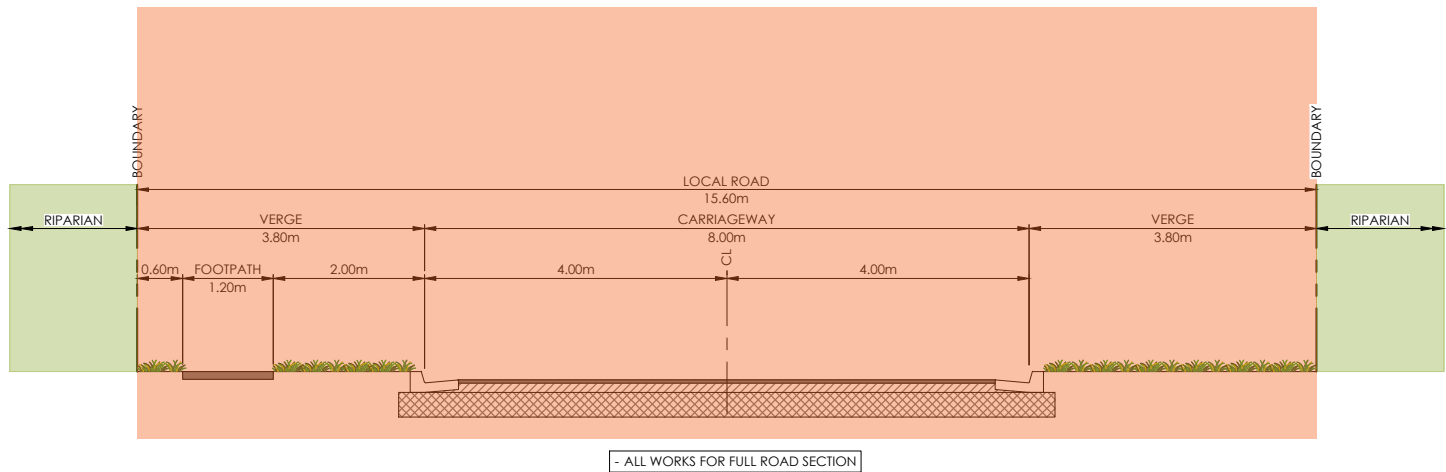
MINOR LOCAL ROAD  
(ADJACENT TO OPEN SPACE ON ONE SIDE)



T4.1 - MINOR LOCAL ROAD (ADJACENT TO RIPARIAN ON ONE SIDE) S.7.11 COSTS



MINOR LOCAL ROAD  
(ADJACENT TO RIPARIAN ON ONE SIDE)



T4.2 - MINOR LOCAL ROAD (RIPARIAN CROSSING) S.7.11 COSTS



MINOR LOCAL ROAD (RIPARIAN CROSSING)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
ROAD SECTION  
WORK ITEMS - SHEET 3

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-123

client:

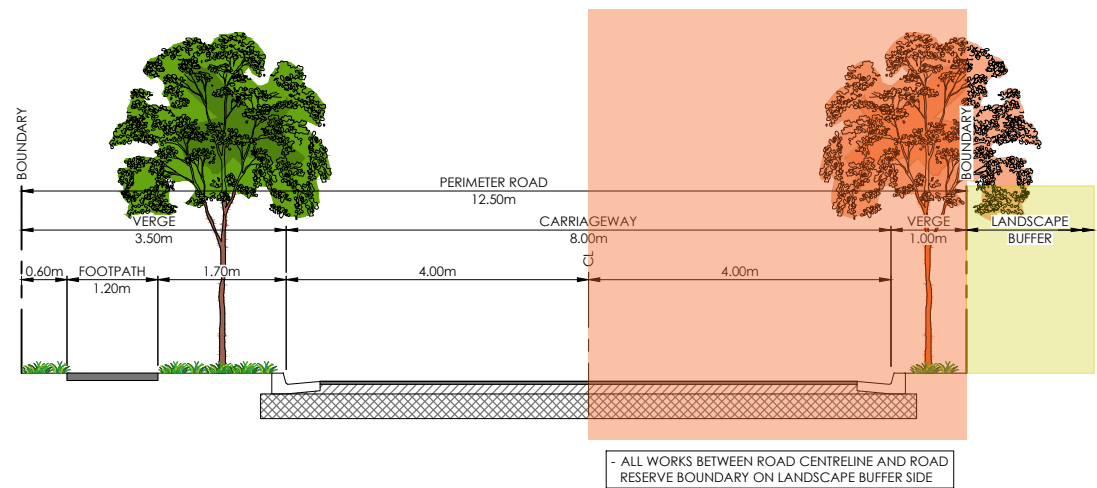


central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au



# GP3 S.7.11 PLAN: ROAD SECTION WORKS ITEMS INCLUDED



T5 - TYPICAL SECTION - PERIMETER ROAD (THE NORTHERN ROAD INTERFACE) S.7.11 COSTS



PERIMETER ROAD (THE NORTHERN ROAD INTERFACE)

NOTE:  
DENOTES ITEMS INCLUDED  
IN WORKS SCHEDULE

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:50 0 1.25 2.5 m A3 1:100	

• project management

• civil engineering

• infrastructure

• superintendency

• economic analysis

• social impact

• town planning

• surveying

• development feasibility

• visualisation

• urban design

drawing title:

ROAD SECTION  
WORK ITEMS - SHEET 4

location:

CHAIN-O-PONDS ROAD,  
MULGOA

council:

PENRITH CITY COUNCIL

dwg ref:

300070-PSK-124

client:

mirvac

adw  
johnson

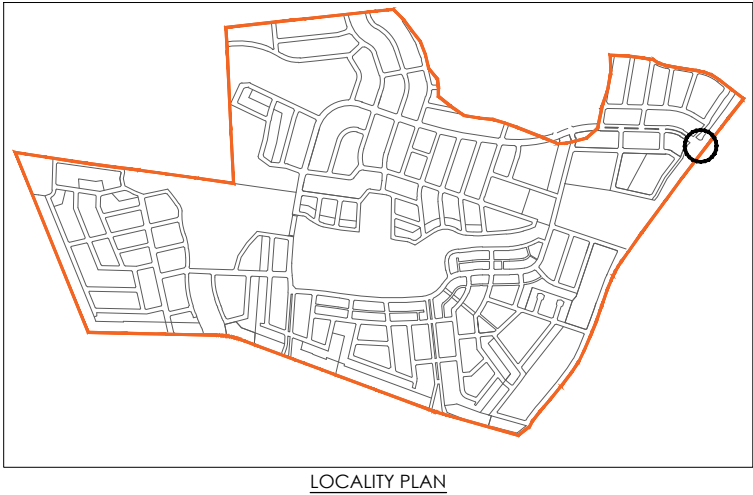
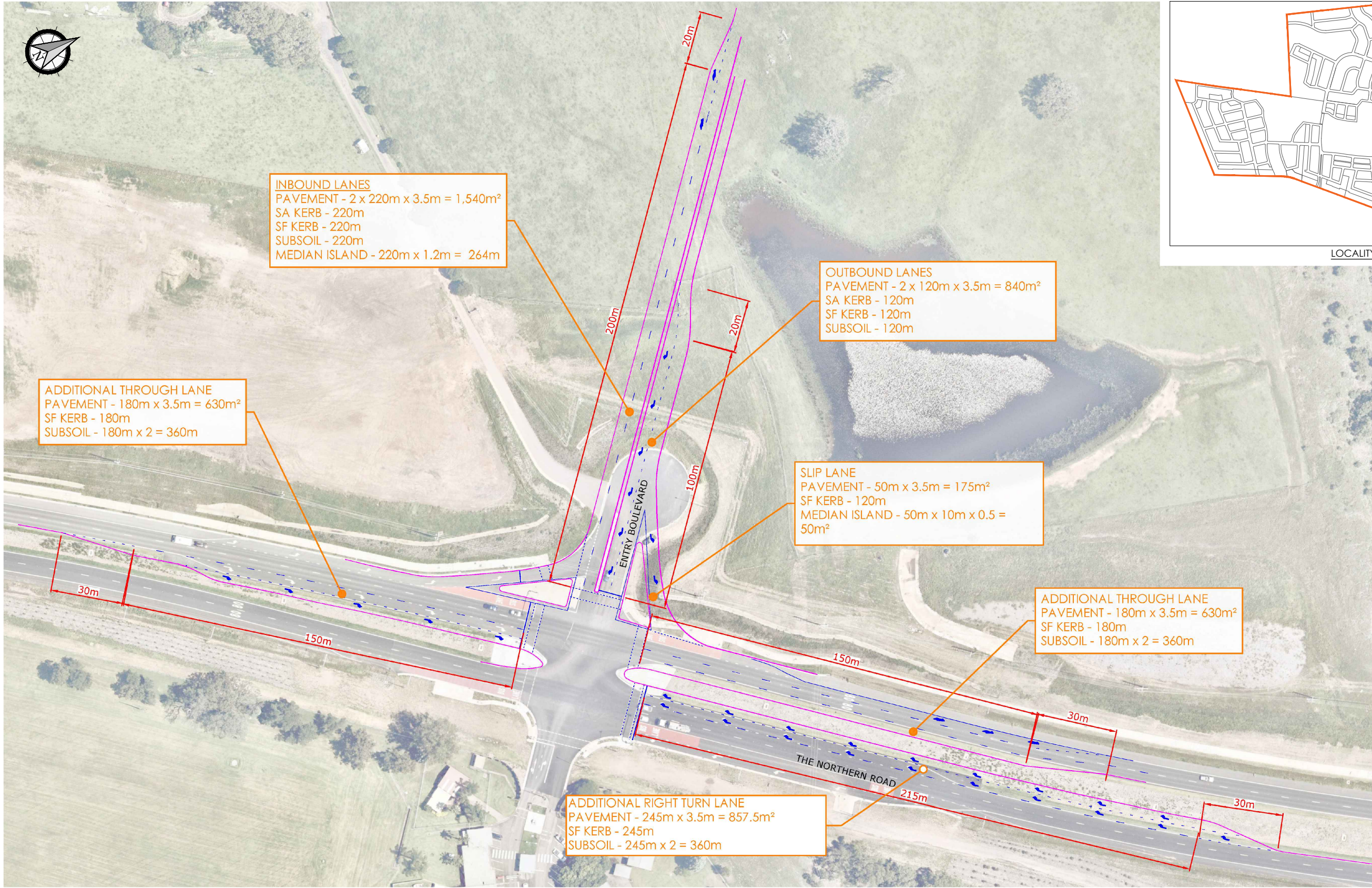
central coast office  
hunter office  
sydney office

ph: (02) 4305 4300  
ph: (02) 4978 5100  
ph: (02) 8046 7411

www.adwjohanson.com.au



# GP3 S.7.11 PLAN: INT1 WORKS



INTERSECTION No.1 - ENTRY BOULEVARD / THE NORTHERN ROAD

drawing title:  
**ROAD INTERSECTION No. 1**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-131

client:

**mirvac**  
central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411  
www.adwjohanson.com.au

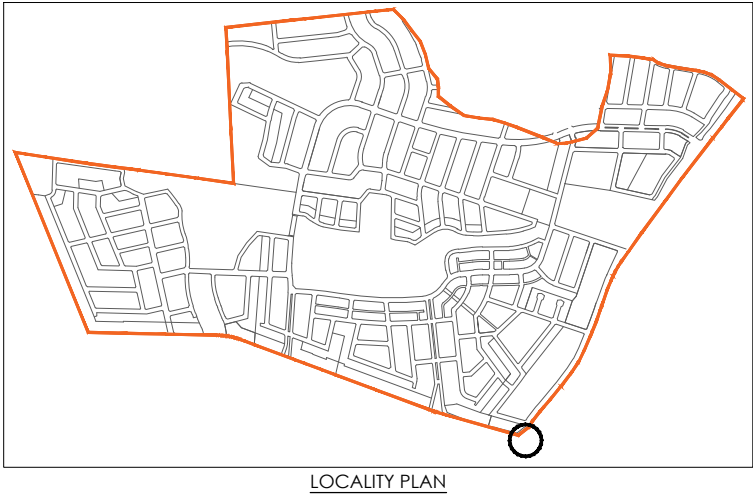
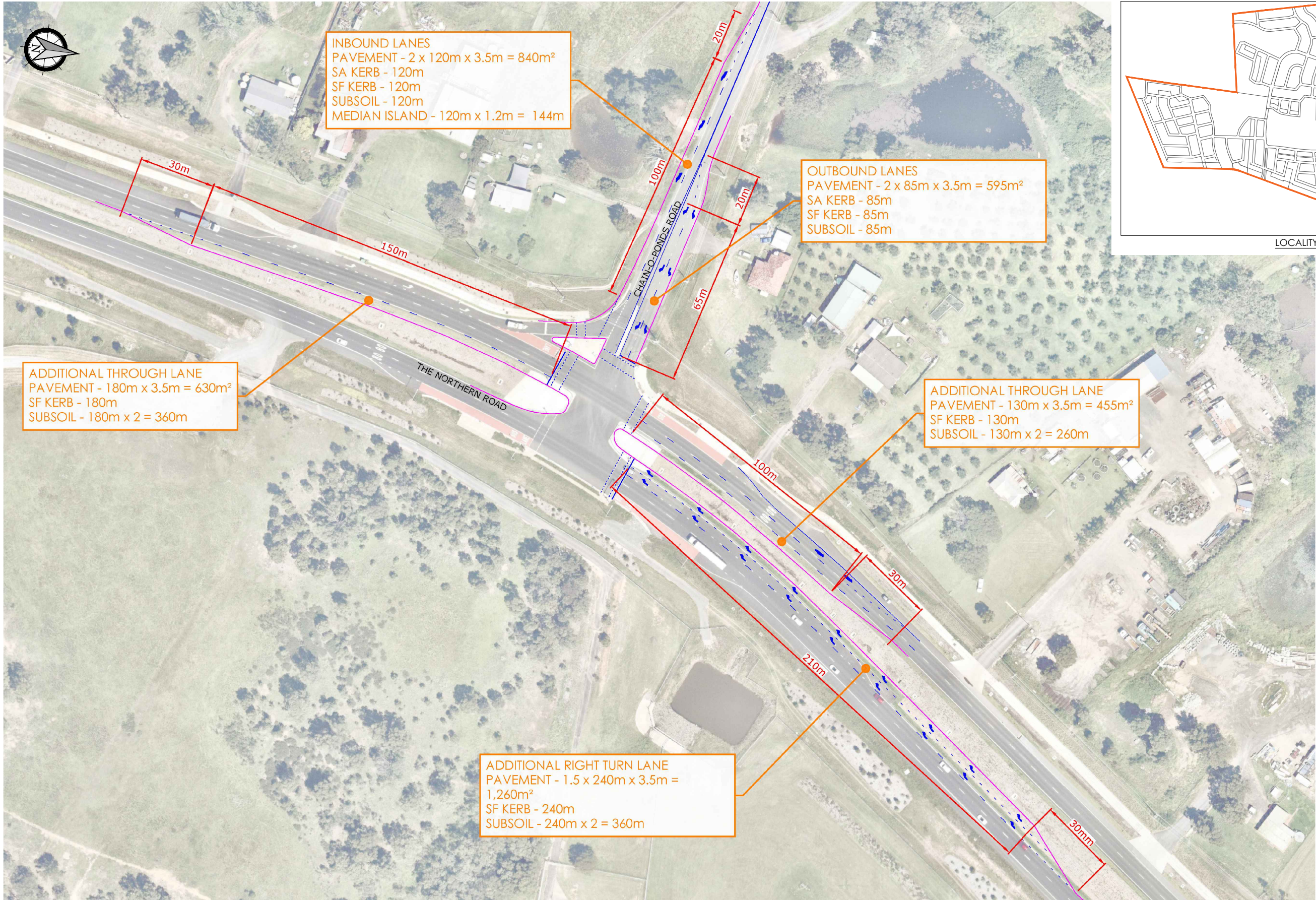
**adw johnson**

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:750 0 15.0 30.0 37.5m A3 1:1500	

• project management • civil engineering • infrastructure • superintendency • economic analysis • social impact • town planning • surveying • development feasibility • visualisation • urban design



# GP3 S.7.11 PLAN: INT2 WORKS



INTERSECTION No. 2 - CHAIN O' PONDS ROAD / THE NORTHERN ROAD

drawing title:  
**ROAD INTERSECTION No. 2**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-132

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411  
[www.adwjohanson.com.au](http://www.adwjohanson.com.au)

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:750 A3 1:1500	
• project management • civil engineering • infrastructure • superintendency • economic analysis • social impact • town planning • surveying • development feasibility • visualisation • urban design							



# GP3 S.7.11 PLAN: INT3 WORKS



Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:11 PM Cad File: \\UPSERVER06\DRAWING\300070\DRAWINGS\PLANNING\GP3 S711\300070-PSK-133.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

working beyond expectations

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:500 0 12.5 25.0m A3 1:1000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:

ROAD  
INTERSECTION No. 3

location:

CHAIN-O-PONDS ROAD,  
MULGOA

council:

PENRITH CITY COUNCIL

dwg ref:

300070-PSK-133

client:

mirvac

adwjohnson

central coast office

ph: (02) 4305 4300

hunter office

ph: (02) 4978 5100

sydney office

ph: (02) 8046 7411

www.adwjohson.com.au

"Copyright Notice" This plan and the information it contains are copyright and remain the property of ADW Johnson Pty Ltd. ADW Johnson Pty Ltd grants to the client named on this plan a license to use the information herein for the purpose for which we were engaged to perform the work. Use of the plan and information it contains for any other purpose is not permitted unless prior written approval has been obtained from ADW Johnson Pty Ltd.



# GP3 S.7.11 PLAN: INT4 WORKS



- INTERSECTION No. 4**
- Pavement: 4241m<sup>2</sup>
  - Concrete: 684m<sup>2</sup>
  - Edge Line: 867m
  - C1 Line: 95m
  - Kerb (SA): 550m
  - Kerb (SM): 34m
  - BB Line: 69m
  - Arrows: 3
  - Chevrons: 75m<sup>2</sup>
  - Landscaping Area: 32m<sup>2</sup>



LOCALITY PLAN

Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:18PM Cad File: \\UPSERVER06\DRAWING\300070\DRAWINGS\PLANNING\GP3 S711\300070-PSK-134.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:500 0 12.5 25.0m A3 1:1000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
**ROAD INTERSECTION No. 4**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-134

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au



# GP3 S.7.11 PLAN: INT5 WORKS



**INTERSECTION No. 5**

- Pavement: 4423m<sup>2</sup>
- Concrete: 735m<sup>2</sup>
- Edge Line: 958m
- TB Line: 9m
- Kerb (SA): 593m
- C1 Line: 95m
- BB Line: 84m
- Arrows: 3
- Chevrons: 73m<sup>2</sup>



LOCALITY PLAN

Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:24PM Cod File: \\UPSERVER06\DRAWINGS\PLANNING\GP3 S711\300070-PSK-135.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:500 0 12.5 25.0m A3 1:1000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:

ROAD  
INTERSECTION No. 5

location:

CHAIN-O-PONDS ROAD,  
MULGOA

council:

PENRITH CITY COUNCIL

dwg ref:

300070-PSK-135

client:

mirvac

adw johnson

central coast office

ph: (02) 4305 4300

hunter office

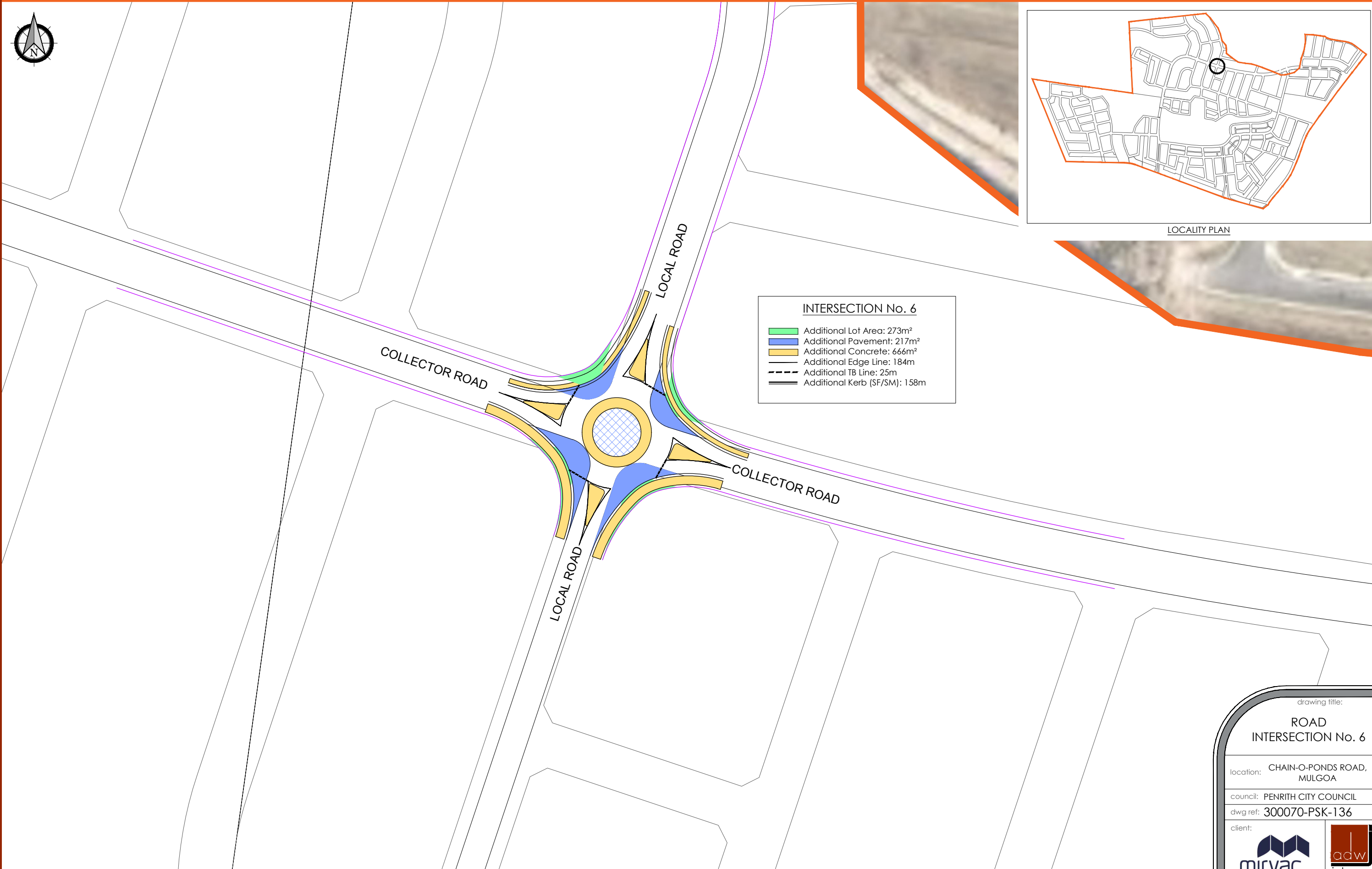
ph: (02) 4978 5100

sydney office

ph: (02) 8046 7411

www.adwjohanson.com.au

# GP3 S.7.11 PLAN: INT6 WORKS



Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:31PM Cad File: \\PSERVER06\DRAWINGS\PLANNING\GP3 S.7.11\300070-PSK-136.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:500 0 12.5 25.0m A3 1:1000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:

ROAD  
INTERSECTION No. 6

location:

CHAIN-O-PONDS ROAD,  
MULGOA

council:

PENRITH CITY COUNCIL

dwg ref:

300070-PSK-136

client:

central coast office

ph: (02) 4305 4300

hunter office

ph: (02) 4978 5100

sydney office

ph: (02) 8046 7411

www.adwjohanson.com.au

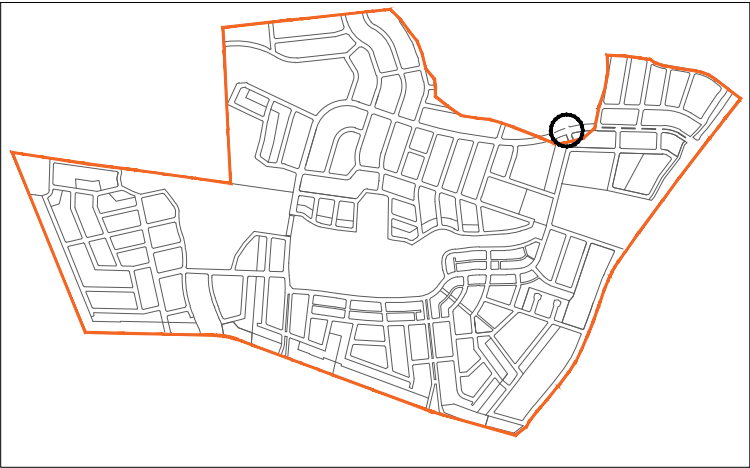


# GP3 S.7.11 PLAN: INT7 WORKS



**INTERSECTION No 7**

- Additional Lot Area: 295m<sup>2</sup>
- Additional Pavement: 242m<sup>2</sup>
- Additional Concrete: 764m<sup>2</sup>
- Additional Edge Line: 187m
- Additional TB Line: 25m
- Additional Kerb (SF/SM): 158m



LOCALITY PLAN

Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:42PM Cad File: \\UPSERVER06\DRAWINGS\PLANNING\GP3 S711\300070-PSK-137.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:500 0 12.5 25.0m A3 1:1000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
**ROAD  
INTERSECTION No. 7**

location: CHAIN-O-PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-137

client:



central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au

# GP3 S7.11 PLAN: INT5 (Chain-O-Ponds Rd/Entry Boulevard (West)) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
<b>1</b>	<b>CONSTRUCTION</b>			<b>sub-total</b>	<b>\$1,627,515.00</b>	
<b>1.1</b>	<b>General</b>			<b>sub-total</b>	<b>\$345,000.00</b>	
1.1.1	Establishment & Preliminaries	1	item	\$120,000.00	\$120,000.00	
1.1.2	Survey and setout	1	item	\$30,000.00	\$30,000.00	
1.1.3	Geotechnical	1	item	\$30,000.00	\$30,000.00	
1.1.4	Service adjustments/relocation	0	item		\$0.00	
1.1.5	Traffic Control	1	item	\$160,000.00	\$160,000.00	
1.1.6	Clearing & Demolition	1	item	\$5,000.00	\$5,000.00	
<b>1.2</b>	<b>Earthworks</b>			<b>sub-total</b>	<b>\$208,190.00</b>	
1.2.1	Topsoil Strip and Replace	6840	m²	\$6.00	\$41,040.00	
1.2.2	Bulk earthworks	5660	m³	\$25.00	\$141,500.00	Allowance to undertake 1.25m cut to fill over new pavement areas
1.2.3	Trim subgrade	5130	m²	\$5.00	\$25,650.00	
<b>1.3</b>	<b>Roadworks</b>			<b>sub-total</b>	<b>\$714,825.00</b>	
1.3.1	Full depth flexible Pavement	4530	m²	\$130.00	\$588,900.00	
1.3.2	SA Type Kerb	605	m²	\$70.00	\$42,350.00	
1.3.3	SF Type Kerb	0	m²	\$60.00	\$0.00	
1.3.4	Shared Path	302	m	\$250.00	\$75,375.00	
1.3.5	Driveway reconstruction	1	ea	\$5,000.00	\$5,000.00	
1.3.6	Coloured surface coating to R110 (Bus/Cycle)	80	m²	\$40.00	\$3,200.00	
1.3.7	Concrete traffic island	0	m²	\$140.00	\$0.00	
<b>1.4</b>	<b>Stormwater</b>			<b>sub-total</b>	<b>\$239,500.00</b>	
1.4.1	Reinforced concrete pipes	610	m	\$250.00	\$152,500.00	Allowance for stormwater under SA kerbs only
1.4.2	Stormwater Pits	14	ea	\$2,500.00	\$35,000.00	Allowance for one pit every 50m of SA kerb
1.4.3	Subsoil drainage (NFC)	640	m	\$50.00	\$32,000.00	Allowance for subsoil drainage under kerbs
1.4.4	Erosion and sediment control	1	item	\$20,000.00	\$20,000.00	Nominal allowance only
<b>1.5</b>	<b>Traffic facilities</b>			<b>sub-total</b>	<b>\$90,000.00</b>	
1.5.1	Linemarking and signposting	1	item	\$15,000.00	\$15,000.00	Nominal allowance only
1.5.2	Street lighting	5	ea	\$15,000.00	\$75,000.00	Allowance for 1 light every 60m
<b>1.6</b>	<b>Landscaping</b>			<b>sub-total</b>	<b>\$30,000.00</b>	
1.6.1	Landscaping	1	item	\$30,000.00	\$30,000.00	
<b>6</b>	<b>CONTINGENCY</b>			<b>sub-total</b>	<b>\$325,503.00</b>	
6.1	Contingency on construction	20%	of	\$1,627,515.00	\$325,503.00	
				<b>Total (ex GST)</b>	<b>\$1,953,018.00</b>	

## EXCLUSIONS / QUALIFICATIONS

- These costs should be read in conjunction with plan set prepared by ADW Johnson, titled "GP3 Section 7.11 Plan Technical Drawings", revision A, dated 14/04/2022
- Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
- Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-135 for details of upgrade works
- No allowance has been made for service relocation works
- No allowance has been made for structural design

# GP3 S7.11 PLAN: INT7 (Collector Rd/Entry Boulevard) - Works Cost Schedule

300070PM  
14/07/2022  
Revision E

Item	Description	Estimated Quantity	Unit	Estimated Rate	Estimated Cost (ex GST)	Comments
<b>1</b>	<b>CONSTRUCTION</b>			<b>sub-total</b>	<b>\$157,300.00</b>	
<b>1.1</b>	<b>General</b>			<b>sub-total</b>	<b>\$0.00</b>	
1.1.1	Establishment & Preliminaries	1	item	\$0.00	\$0.00	
1.1.2	Survey and setout	1	item	\$0.00	\$0.00	
1.1.3	Geotechnical	1	item	\$0.00	\$0.00	
1.1.4	Service adjustments/relocation	0	item		\$0.00	
1.1.5	Traffic Control	1	item	\$0.00	\$0.00	
1.1.6	Clearing & Demolition	1	item	\$0.00	\$0.00	
<b>1.2</b>	<b>Earthworks</b>			<b>sub-total</b>	<b>\$10,900.00</b>	
1.2.1	Topsoil Strip and Replace	250	m²	\$6.00	\$1,500.00	
1.2.2	Bulk earthworks	310	m³	\$25.00	\$7,750.00	Allowance to undertake 1.25m cut to fill over new pavement areas
1.2.3	Trim subgrade	330	m²	\$5.00	\$1,650.00	
<b>1.3</b>	<b>Roadworks</b>			<b>sub-total</b>	<b>\$130,400.00</b>	
1.3.1	Full depth flexible Pavement	250	m²	\$130.00	\$32,500.00	
1.3.2	SA Type Kerb	0	m²	\$70.00	\$0.00	
1.3.3	SF Type Kerb	160	m²	\$60.00	\$9,600.00	
1.3.4	Shared Path	188	m	\$250.00	\$47,000.00	
1.3.5	Driveway reconstruction	0	ea	\$5,000.00	\$0.00	
1.3.6	Coloured surface coating to R110 (Bus/Cycle)	0	m²	\$40.00	\$0.00	
1.3.7	Concrete traffic island	295	m²	\$140.00	\$41,300.00	
<b>1.4</b>	<b>Stormwater</b>			<b>sub-total</b>	<b>\$0.00</b>	
1.4.1	Reinforced concrete pipes	0	m	\$250.00	\$0.00	Allowance for stormwater under SA kerbs only
1.4.2	Stormwater Pits	0	ea	\$2,500.00	\$0.00	Allowance for one pit every 50m of SA kerb
1.4.3	Subsoil drainage (NFC)	0	m	\$50.00	\$0.00	Allowance for subsoil drainage under kerbs
1.4.4	Erosion and sediment control	1	item	\$0.00	\$0.00	Nominal allowance only
<b>1.5</b>	<b>Traffic facilities</b>			<b>sub-total</b>	<b>\$6,000.00</b>	
1.5.1	Linemarking and signposting	1	item	\$6,000.00	\$6,000.00	Nominal allowance only
1.5.2	Street lighting	0	ea	\$15,000.00	\$0.00	Allowance for 1 light every 60m
<b>1.6</b>	<b>Landscaping</b>			<b>sub-total</b>	<b>\$10,000.00</b>	
1.6.1	Landscaping	1	item	\$10,000.00	\$10,000.00	
<b>6</b>	<b>CONTINGENCY</b>			<b>sub-total</b>	<b>\$31,460.00</b>	
6.1	Contingency on construction	20%	of	\$157,300.00	\$31,460.00	
				<b>Total (ex GST)</b>	<b>\$188,760.00</b>	

## EXCLUSIONS / QUALIFICATIONS

1. These costs should be read in conjunction with plan set prepared by ADW Johnson, titled "GP3 Section 7.11 Plan Technical Drawings", revision A, dated 14/04/2022
2. Construction cost estimates based on works inside the road reserve boundary only - no acquisition costs allowed for
3. Refer to GP3 s7.11 plan set prepared by ADW Johnson ref: 300070-PSK-137 for details of upgrade works
4. No allowance has been made for service relocation works
5. No allowance has been made for structural design



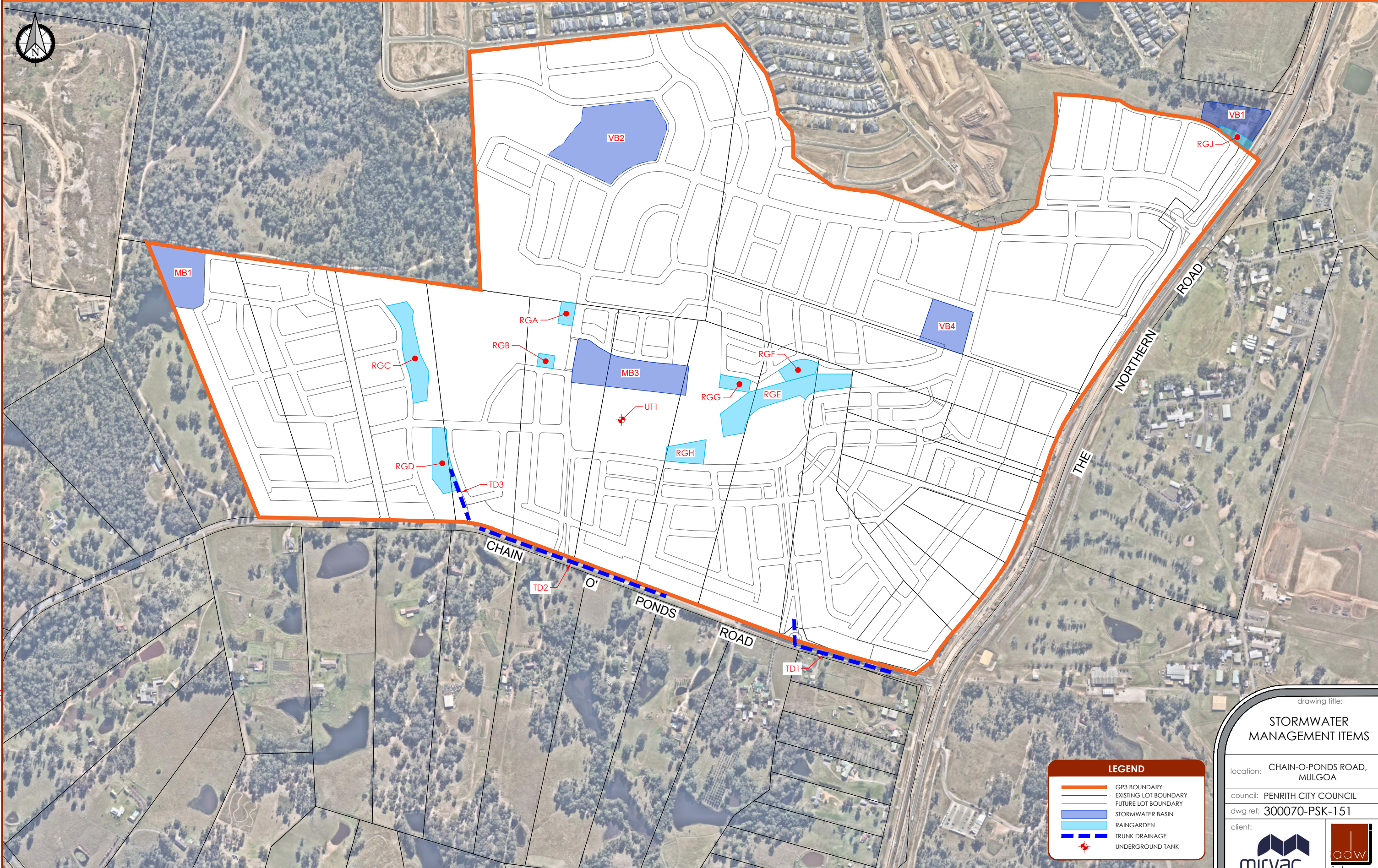
## **APPENDIX B – WATER CYCLE MANAGEMENT DESIGNS AND COSTINGS**



GP3 S.7.11 PLAN: STORMWATER MANAGEMENT ITEMS

300070-PSK-151

Plotted By: Jacob Jackson Plot Date: 11/07/22 3:41:58PM Cad File: \\UPSERVER06\DRAWINGS\PLANNING\GP3 S.7.11\300070-PSK-151.DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.



**LEGEND**

- GP3 BOUNDARY
- EXISTING LOT BOUNDARY
- FUTURE LOT BOUNDARY
- STORMWATER BASIN
- RAINGARDEN
- TRUNK DRAINAGE
- UNDERGROUND TANK

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
C	11.07.22	MINOR AMENDMENTS TO ADDRESS COUNCIL COMMENTS	JJ	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:4000 A3 1:8000	LOCATIONS AND SIZES OF STORMWATER MANAGEMENT FACILITIES SUBJECT TO REFINEMENT THROUGHOUT FUTURE DESIGN PHASES.

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
**STORMWATER MANAGEMENT ITEMS**

location: CHAIN-O-PONDS ROAD, MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-151

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411  
www.adwjohanson.com.au

working beyond expectations



**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3**

JWP Plan Number/Version: 110474-02/SK100-SK130

NO.	ITEM					AMOUNT
						Exc GST\$
		Main Device	Raingarden	GPTs	Contingency	
1	Basin VB1 & Raingarden J	\$868,000	\$933,000	\$160,000	\$589,000	\$2,550,000
2	Basin VB2	\$769,000		\$320,000	\$273,000	\$1,362,000
3	Basin VB4	\$1,675,000		\$175,000	\$463,000	\$2,313,000
4	Basin MB1	\$365,000		\$65,000	\$108,000	\$538,000
5	Basin MB3	\$534,000		\$110,000	\$161,000	\$805,000
	<b>SUBTOTAL</b>	<b>\$4,211,000</b>	<b>\$933,000</b>	<b>\$830,000</b>	<b>\$1,594,000</b>	<b>\$7,568,000</b>
6	Raingarden A	\$0	\$266,000	\$65,000	\$100,000	\$431,000
7	Raingarden B	\$0	\$142,000	\$55,000	\$60,000	\$257,000
8	Raingarden C	\$0	\$1,240,000	\$225,000	\$440,000	\$1,905,000
9	Raingarden D	\$0	\$691,000	\$65,000	\$227,000	\$983,000
10	Raingarden E	\$0	\$2,462,000	\$240,000	\$811,000	\$3,513,000
11	Raingarden F	\$0	\$460,000	\$110,000	\$171,000	\$741,000
12	Raingarden G	\$0	\$325,000	\$110,000	\$131,000	\$566,000
13	Raingarden H	\$0	\$632,000	\$145,000	\$234,000	\$1,011,000
	<b>TOTAL</b>	<b>\$4,211,000.00</b>	<b>\$7,151,000.00</b>	<b>\$1,845,000.00</b>	<b>\$3,768,000.00</b>	<b>\$16,975,000</b>

**CLARIFICATIONS**

This Preliminary Cost Estimate is based on the following clarifications and assumptions:

- This Preliminary Cost Estimate is based on J. Wyndham Prince's experience and judgment as a firm of practicing professional civil engineers familiar with the construction industry and that the cost estimate can not be guaranteed as we have no control over Contractor's prices, market forces, material supply costs, competitive bids from tenderers and specific site conditions that may be encountered but not yet investigated.
- This Preliminary Cost Estimate is based on the information supplied by the client prior to the date of preparation and is subject to traffic investigation and modelling, geotechnical investigation and design, hydrological and hydraulic investigation and design, utility impact assessment by Utility Authorities, concept and detail investigation and design of civil works.
- This Preliminary Cost Estimate is based on present day costs.
- This Preliminary Cost Estimate has been prepared for the purposes of identifying indicative Section 7.11 costs for elements within the proposed Precinct.
- Establishment Costs have been assumed to be approximately 5% of the Construction Works of the elements (including additional contingencies).
- Clearing Costs are indicative only and are based on assumptions after assessing recent aerial photography of the area
- Strip and Stockpile of the Topsoil is based on removing the upper 100mm to 150mm of ground and stockpiling for later use over the site.
- Respread of Topsoil is based on utilising the stockpiled material and spreading over the finished surface, excluding raingarden and riparian areas.
- Excavation and disposing of unsound material is the complete removal offsite of unsuitable material which is usually the result of desilting existing farm dams. Costs include disposal fees.
- Cut to Dispose off Site is the complete removal offsite of excess material which is otherwise suitable for construction or filling. Costs include disposal fees.
- General Planting includes the planting of endemic, low-maintenance species and up to two years maintenance of the basin/channel floor and embankments
- Spillway Weir is assumed to consist of a formed 300wx500d concrete edge strip along the full length of the weir for level control, cost rate excludes reinforced turfing for the remainder of the weir surface and batters to basin crest, which is included in the Spillway item
- Reinforced turf on spillway embankment assumed to be 20m long x spillway length
- Soil & Water Management costs have been assumed to be based on a general allowance involving generic erosion protection measures.
- Raingarden costs include the excavation, placement of subsoil drainage system, placement of drainage media and 600mm deep treatment filter media layer. Planting has been excluded from the general cost, but has been itemised in the following line item.
- GPT devices cost are based on CDS model and assumed to include supply and placement of device and also includes the provision for a diversion splitter pit and related pipework.
- Raingarden maintenance access assumes full perimeter of the raingarden and 4m wide access
- Main Outlet costs include the supply and placement of RC Box Culvert or Pipe drainage systems, including headwalls and wingwalls. RCBC costs include excavation, placing blinding layer, base slab, sealing and backfilling.
- Main Basin Outlet Structure costs is an allowance to provide a major reinforced concrete drainage structure.
- Rock Erosion Protection costs include placement of rock armouring downstream of the basin outlet into the channel. Includes rock ramps and energy dissipaters. Standard 50m<sup>2</sup> allowance.
- Headwall allowances assume 2m<sup>3</sup> of reinforced concrete per item
- No allowance has been made for bush revegetation of undisturbed areas i.e. Planting within basin disturbed footprint.
- 'Earthworks - Excavate and Dispose of Unsound Material' has been taken as an indicative 2% of the Cut Volume per Basin.
- Drainage Structure dimensions are based on indicative sizes determined through basin modelling; subject to change after relevant investigations have been completed.
- Material used in constructing the retaining walls is assumed to be 'Rock'; subject to change after relevant investigations have been completed.

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****VB1 & RGJ**

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
<b>1</b>	<b>BASIN</b>				
	Establishment (5%)	1	item	\$95,000.00	\$95,000.00
	Clearing (Allowance Only)	1	item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	7,000	sq.m.	\$1.50	\$10,500.00
	Respread topsoil	5,500	sq.m.	\$3.30	\$18,150.00
	Earthworks - Excavate and Dispose of Unsound Material	551	cu.m.	\$200.00	\$110,284.00
	Earthworks - Cut to Fill On Site	479	cu.m.	\$6.00	\$2,874.00
	Earthworks - Import material	0	cu.m.	\$15.00	\$0.00
	Earthworks - Cut, Dispose and Compact within 2 km	27,000	cu.m.	\$15.00	\$405,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$40.00	\$0.00
	Trim and Compact	7,000	sq.m.	\$1.50	\$10,500.00
	Planting (incl maintenance for 2 years)	2,000	sq.m.	\$26.00	\$52,000.00
	Spillway Weir - 300x500 concrete edge strip	40	ln. m.	\$150.00	\$6,000.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	800	sq.m.	\$25.00	\$20,000.00
	Soil & Water Management (Allowance Only)	1	item	\$25,000.00	\$25,000.00
				<b>SUBTOTAL</b>	<b>\$806,000.00</b>
<b>2</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	1,500	sq.m.	\$450.00	\$675,000.00
	Raingarden Planting	1,500	sq.m.	\$80.00	\$120,000.00
	Construction of Maintenance Access (230m)	920	sq.m.	\$150.00	\$138,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$160,000.00	\$160,000.00
				<b>SUBTOTAL</b>	<b>\$1,093,000.00</b>
<b>3</b>	<b>DRAINAGE / STRUCTURES</b>				
	Low Level Outlet Structure	1	item	\$5,000.00	\$5,000.00
	Main Basin Outlet Structure	1	item	\$15,000.00	\$15,000.00
	Main Basin Outlet Conduits	20	m	\$1,200.00	\$24,000.00
	Headwall (incl. supply and install of concrete headwall)	1	item	\$7,500.00	\$7,500.00
	Rock Erosion Protection / Energy Dissipator at Outlet	50	sq.m.	\$200.00	\$10,000.00
				<b>SUBTOTAL</b>	<b>\$62,000.00</b>
				<b>TOTAL FOR ITEMS 1, 2 &amp; 3</b>	<b>\$1,961,000.00</b>
<b>4</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$589,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$2,550,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3**

JWP Plan Number/Version: 110474-02/SK120

VB2

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
<b>1</b>	<b>BASIN</b>				
	Establishment (5%)	1	item	\$55,000.00	\$55,000.00
	Clearing (Allowance Only)	1	item	\$50,000.00	\$50,000.00
	Earthworks - Import material (allowance)	15,000	cu.m.	\$15.00	\$225,000.00
	Spillway Weir - 300x500 concrete edge strip	40	ln. m.	\$150.00	\$6,000.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	800	sq.m.	\$25.00	\$20,000.00
	Water Recirculation System Pond (Allowance Only)	5HP	item	\$60,000.00	\$60,000.00
	Trim, grade, compact base to basins (Pond)	10,000	sq.m.	\$3.00	\$30,000.00
	Lime Stabilisation below Permanent Water Level	10,000	sq.m.	\$20.00	\$200,000.00
	Soil & Water Management (Allowance Only)	1	item	\$25,000.00	\$25,000.00
				<b>SUBTOTAL</b>	<b>\$671,000.00</b>
<b>2</b>	<b>DRAINAGE / STRUCTURES</b>				
	Low Level Outlet Structure	1	item	\$5,000.00	\$5,000.00
	Main Basin Outlet Structure	1	item	\$15,000.00	\$15,000.00
	Main Basin Outlet Conduits	30	m	\$1,760.00	\$52,800.00
	Headwall (incl. supply and install of concrete headwall)	2	item	\$7,500.00	\$15,000.00
	GPT Device and Associated Drainage Infrastructure	3	item	\$106,666.67	\$320,000.00
	Rock Erosion Protection / Energy Dissipator at Outlet	50	sq.m.	\$200.00	\$10,000.00
				<b>SUBTOTAL</b>	<b>\$418,000.00</b>
				<b>TOTAL FOR ITEMS 1 &amp; 2</b>	<b>\$1,089,000.00</b>
<b>3</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	25% Plant & Contingency		item		\$273,000.00
				<b>TOTAL WITH 25% CONTINGENCY</b>	<b>\$1,362,000.00</b>

Note: Assumed batter embankments adjacent to the water device will be delivered as part of the subdivision



## PRELIMINARY COST ESTIMATE

**PROJECT: Glenmore Park Stage 3**

JWP Plan Number/Version: 110474-02/SK111

VB4

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
<b>1</b>	<b>BASIN</b>				
	Establishment (5%)	1	item	\$90,000.00	\$90,000.00
	Clearing (Allowance Only)	1	item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	10,000	sq.m.	\$1.50	\$15,000.00
	Respread topsoil	10,000	sq.m.	\$3.30	\$33,000.00
	Earthworks - Excavate and Dispose of Unsound Material	3,000	cu.m.	\$200.00	\$600,000.00
	Earthworks - Cut to Fill On Site	727	cu.m.	\$6.00	\$4,362.00
	Earthworks - Import material	0	cu.m.	\$15.00	\$0.00
	Earthworks - Cut, Dispose and Compact within 2 km	24,000	cu.m.	\$15.00	\$360,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$40.00	\$0.00
	Trim and Compact	10,000	sq.m.	\$1.50	\$15,000.00
	Planting	5,000	sq.m.	\$45.00	\$225,000.00
	Spillway Weir - 300x500 concrete edge strip	40	ln. m.	\$150.00	\$6,000.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	800	sq.m.	\$25.00	\$20,000.00
	Water Recirculation System Pond (Allowance Only)	3HP	item	\$54,000.00	\$54,000.00
	Trim, grade, compact base to basins (Pond)	5,200	sq.m.	\$3.00	\$15,600.00
	Lime Stabilisation below Permanent Water Level	5,200	sq.m.	\$20.00	\$104,000.00
	Soil & Water Management (Allowance Only)	1	item	\$25,000.00	\$25,000.00
				<b>SUBTOTAL</b>	<b>\$1,617,000.00</b>
<b>2</b>	<b>DRAINAGE / STRUCTURES</b>				
	Low Level Outlet Structure	1	item	\$5,000.00	\$5,000.00
	Main Basin Outlet Structure	1	item	\$15,000.00	\$15,000.00
	Main Basin Outlet Conduits	20	m	\$1,000.00	\$20,000.00
	Headwall (incl. supply and install of concrete headwall)	1	item	\$7,500.00	\$7,500.00
	GPT Device and Associated Drainage Infrastructure	2	item	\$87,500.00	\$175,000.00
	Rock Erosion Protection / Energy Dissipator at Outlet	50	sq.m.	\$200.00	\$10,000.00
				<b>SUBTOTAL</b>	<b>\$233,000.00</b>
				<b>TOTAL FOR ITEMS 1 &amp; 2</b>	<b>\$1,850,000.00</b>
<b>3</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	25% Plant & Contingency		item		\$463,000.00
				<b>TOTAL WITH 25% CONTINGENCY</b>	<b>\$2,313,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3**

JWP Plan Number/Version: 110474-02/SK130

MB1

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
<b>1</b>	<b>BASIN</b>				
	Establishment (5%)	1	item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	item	\$50,000.00	\$50,000.00
	Earthworks - Import material (allowance)	5,000	cu.m.	\$15.00	\$75,000.00
	Spillway Weir - 300x500 concrete edge strip	44	ln. m.	\$150.00	\$6,600.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	880	sq.m.	\$25.00	\$22,000.00
	Water Recirculation System Pond (Allowance Only)	1.5HP	item	\$40,000.00	\$40,000.00
	Trim, grade, compact base to basins (Pond)	2,000	sq.m.	\$3.00	\$6,000.00
	Lime Stabilisation below Permanent Water Level	2,000	sq.m.	\$20.00	\$40,000.00
	Soil & Water Management (Allowance Only)	1	item	\$25,000.00	\$25,000.00
				<b>SUBTOTAL</b>	<b>\$290,000.00</b>
<b>2</b>	<b>DRAINAGE / STRUCTURES</b>				
	Low Level Outlet Structure	1	item	\$5,000.00	\$5,000.00
	Main Basin Outlet Structure	1	item	\$15,000.00	\$15,000.00
	Main Basin Outlet Conduits	20	m	\$1,500.00	\$30,000.00
	Headwall (incl. supply and install of concrete headwall)	2	item	\$7,500.00	\$15,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$65,000.00	\$65,000.00
	Rock Erosion Protection / Energy Dissipator at Outlet	50	sq.m.	\$200.00	\$10,000.00
				<b>SUBTOTAL</b>	<b>\$140,000.00</b>
				<b>TOTAL FOR ITEMS 1 &amp; 2</b>	<b>\$430,000.00</b>
<b>3</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	25% Plant & Contingency		item		\$108,000.00
				<b>TOTAL WITH 25% CONTINGENCY</b>	<b>\$538,000.00</b>

Note: Assumed batter embankments adjacent to the water device will be delivered as part of the subdivision

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****JWP Plan Number/Version: 110474-02/SK101****MB3**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>BASIN</b>				
	Establishment (5%)	1	item	\$35,000.00	\$35,000.00
	Clearing (Allowance Only)	1	item	\$50,000.00	\$50,000.00
	Earthworks - Import material (allowance)	10,000	cu.m.	\$15.00	\$150,000.00
	Water Recirculation System Pond (Allowance Only)	3HP	item	\$54,000.00	\$54,000.00
	Trim, grade, compact base to basins (Pond)	6,600	sq.m.	\$3.00	\$19,800.00
	Lime Stabilisation below Permanent Water Level	6,600	sq.m.	\$20.00	\$132,000.00
	Soil & Water Management (Allowance Only)	1	item	\$25,000.00	\$25,000.00
				<b>SUBTOTAL</b>	<b>\$466,000.00</b>
<b>2</b>	<b>DRAINAGE / STRUCTURES</b>				
	Low Level Outlet Structure	1	item	\$5,000.00	\$5,000.00
	Main Basin Outlet Structure	1	item	\$15,000.00	\$15,000.00
	Main Basin Outlet Conduits	20	m	\$1,500.00	\$30,000.00
	Headwall (incl. supply and install of concrete headwall)	1	item	\$7,500.00	\$7,500.00
	GPT Device and Associated Drainage Infrastructure	2	item	\$55,000.00	\$110,000.00
	Rock Erosion Protection / Energy Dissipator at Outlet	50	sq.m.	\$200.00	\$10,000.00
				<b>SUBTOTAL</b>	<b>\$178,000.00</b>
				<b>TOTAL FOR ITEMS 1 &amp; 2</b>	<b>\$644,000.00</b>
<b>3</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	25% Plant & Contingency		item		\$161,000.00
				<b>TOTAL WITH 25% CONTINGENCY</b>	<b>\$805,000.00</b>

Note: Assumed batter embankments adjacent to the water device will be delivered as part of the subdivision

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden A**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	400	sq.m.	\$450.00	\$180,000.00
	Raingarden Planting	400	sq.m.	\$80.00	\$32,000.00
	Construction of Maintenance Access (90m)	360	sq.m.	\$150.00	\$54,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$65,000.00	\$65,000.00
				<b>SUBTOTAL</b>	<b>\$331,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$100,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$431,000.00</b>



**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden B**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	200	sq.m.	\$450.00	\$90,000.00
	Raingarden Planting	200	sq.m.	\$80.00	\$16,000.00
	Construction of Maintenance Access (60m)	240	sq.m.	\$150.00	\$36,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$55,000.00	\$55,000.00
				<b>SUBTOTAL</b>	<b>\$197,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$60,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$257,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden C**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	2,000	sq.m.	\$450.00	\$900,000.00
	Raingarden Planting	2,000	sq.m.	\$80.00	\$160,000.00
	Construction of Maintenance Access (300m)	1,200	sq.m.	\$150.00	\$180,000.00
	GPT Device and Associated Drainage Infrastructure	2	item	\$112,500.00	\$225,000.00
				<b>SUBTOTAL</b>	<b>\$1,465,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$440,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$1,905,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden D**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	1,100	sq.m.	\$450.00	\$495,000.00
	Raingarden Planting	1,100	sq.m.	\$80.00	\$88,000.00
	Construction of Maintenance Access (180m)	720	sq.m.	\$150.00	\$108,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$65,000.00	\$65,000.00
				<b>SUBTOTAL</b>	<b>\$756,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$227,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$983,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden E**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	4,000	sq.m.	\$450.00	\$1,800,000.00
	Raingarden Planting	4,000	sq.m.	\$80.00	\$320,000.00
	Construction of Maintenance Access (570m)	2,280	sq.m.	\$150.00	\$342,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$240,000.00	\$240,000.00
				<b>SUBTOTAL</b>	<b>\$2,702,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$811,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$3,513,000.00</b>



**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden F**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	720	sq.m.	\$450.00	\$324,000.00
	Raingarden Planting	720	sq.m.	\$80.00	\$57,600.00
	Construction of Maintenance Access (130m)	520	sq.m.	\$150.00	\$78,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$110,000.00	\$110,000.00
				<b>SUBTOTAL</b>	<b>\$570,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$171,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$741,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden G**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	500	sq.m.	\$450.00	\$225,000.00
	Raingarden Planting	500	sq.m.	\$80.00	\$40,000.00
	Construction of Maintenance Access (100m)	400	sq.m.	\$150.00	\$60,000.00
	GPT Device and Associated Drainage Infrastructure	1	item	\$110,000.00	\$110,000.00
				<b>SUBTOTAL</b>	<b>\$435,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$131,000.00
<b>TOTAL WITH 30% CONTINGENCY</b>					<b>\$566,000.00</b>

**PRELIMINARY COST ESTIMATE****PROJECT: Glenmore Park Stage 3****Bioretention Raingarden H**

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
<b>1</b>	<b>RAINGARDEN</b>				
	Media Bed constructions (incl. Earthworks, filter bed & subsoil drainage)	1,000	sq.m.	\$450.00	\$450,000.00
	Raingarden Planting	1,000	sq.m.	\$80.00	\$80,000.00
	Construction of Maintenance Access (170m)	680	sq.m.	\$150.00	\$102,000.00
	GPT Device and Associated Drainage Infrastructure	2	item	\$72,500.00	\$145,000.00
				<b>SUBTOTAL</b>	<b>\$777,000.00</b>
<b>2</b>	<b>PLANT &amp; CONTINGENCIES</b>				
	30% Plant & Contingency		item		\$234,000.00
				<b>TOTAL WITH 30% CONTINGENCY</b>	<b>\$1,011,000.00</b>



## **APPENDIX C – OPEN SPACE & RECREATION DESIGNS AND COSTINGS**



MASTERPLAN



- LEGEND**
- Stage boundary
  - Extent of works

- KEY**
- D1 District Park 1
  - D2 District Park 2
  - D3 District Park 3
  - D4 District Park 4
  - L1 Local Park 1
  - L2 Local Park 2
  - L3 Local Park 3
  - LIN1 Linear Park 1
  - LIN2 Linear Park 2
  - LIN3 Linear Park 3
  - LIN4 Linear Park 4
  - EB1 Entry Boulevard 1
  - EB2 Entry Boulevard 2
  - EB3 Entry Boulevard 3
  - LB1 Landscape Buffer 1
  - LB2 Landscape Buffer 2

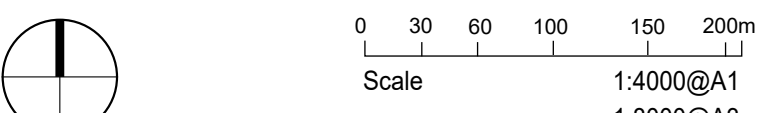
Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturnoble.com.au](http://www.sturnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
**GLENMORE PARK STAGE 3 NORTH**

CLIENT  
**MIRVAC / VIANELLO**

DRAWING  
**MASTERPLAN**

DRAWING No.	ISSUE	DRAWN	DATE
<b>CP-2109-000</b>	<b>C</b>	<b>jw / jc</b>	<b>13.04.2022</b>



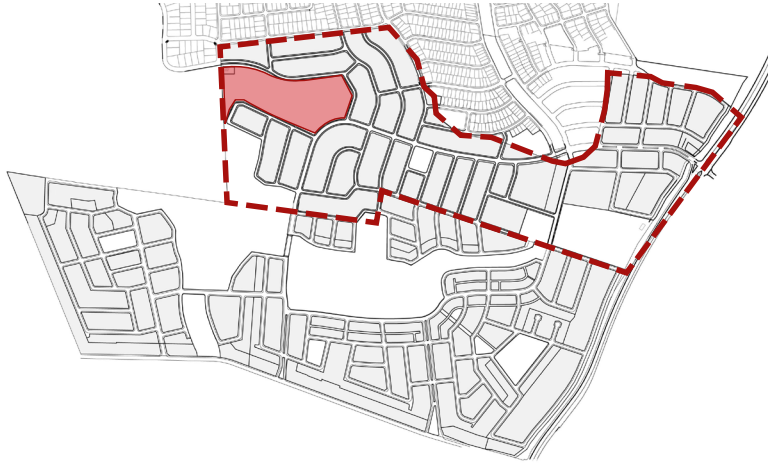
ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



DISTRICT PARK 01



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Water quality basin / wetland
- Paths / hardstand
- Informal paths
- Open lawn area
- Picnic area
- Wild play / nature play
- Landscape area
- Feature planting

NOTES

- 2.5m wide shared path
- On-street parking
- Bridge
- Informal stepping stone crossing
- Pumping station by others 40 x 25m
- Maintenance access track and spill way to basin
- Approximate location of existing watercourse

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturnoble.com.au](http://www.sturnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
DISTRICT PARK 1 (D1)

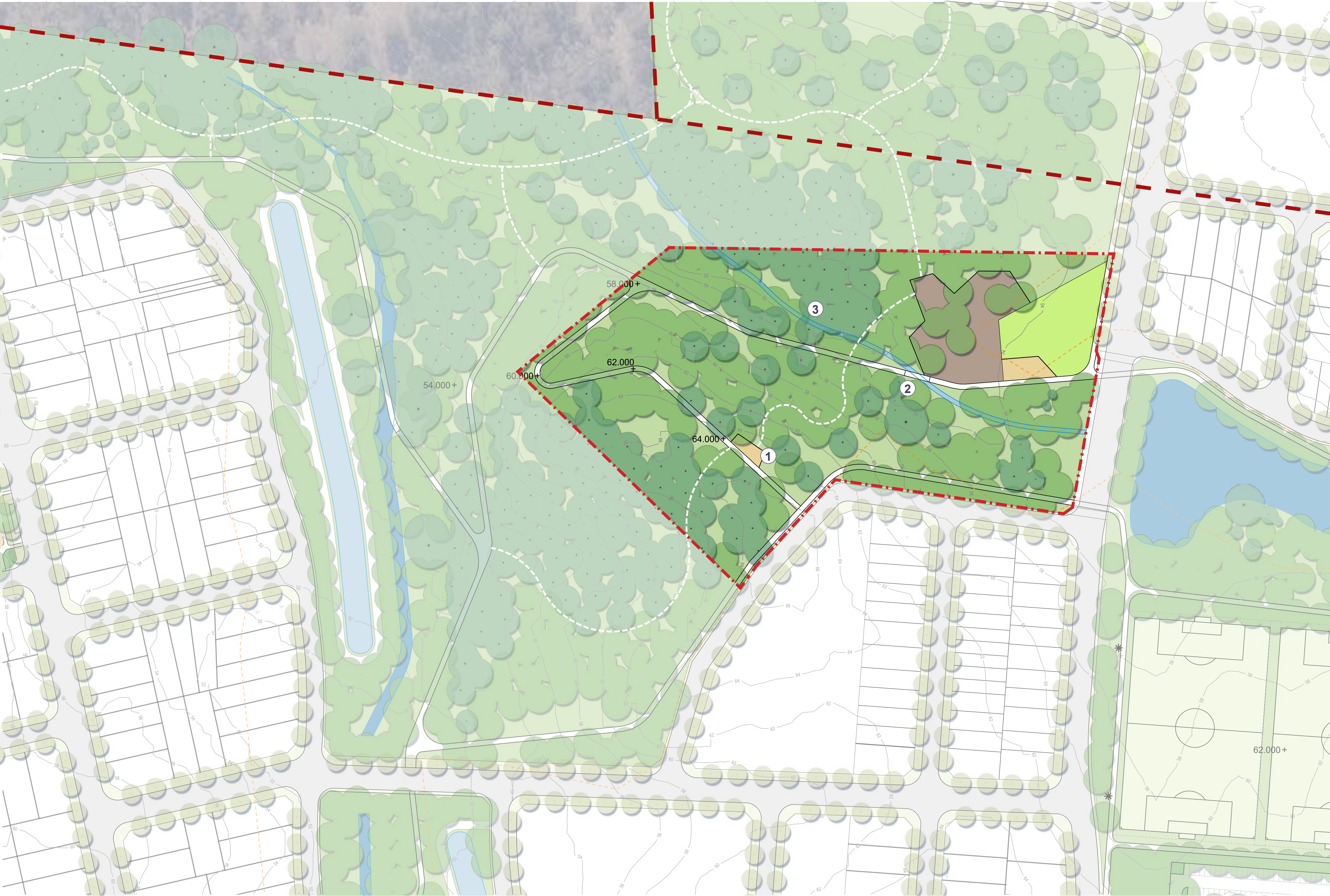
DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-001	C	jw / jc	13.04.2022

0 5 15 30 50m  
Scale  
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



DISTRICT PARK 2



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Informal paths
- Open lawn area
- Wild play / nature play
- Picnic area
- Landscape area

NOTES

- Views to wetland and beyond
- Bridge
- Approximate location of existing watercourse



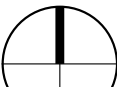
Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturt-noble.com.au](http://www.sturt-noble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 SOUTH

CLIENT  
MIRVAC

DRAWING  
DISTRICT PARK 2 (D2)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-002	C	jw / jc	13.04.2022



Scale

0 5 15 30 50m

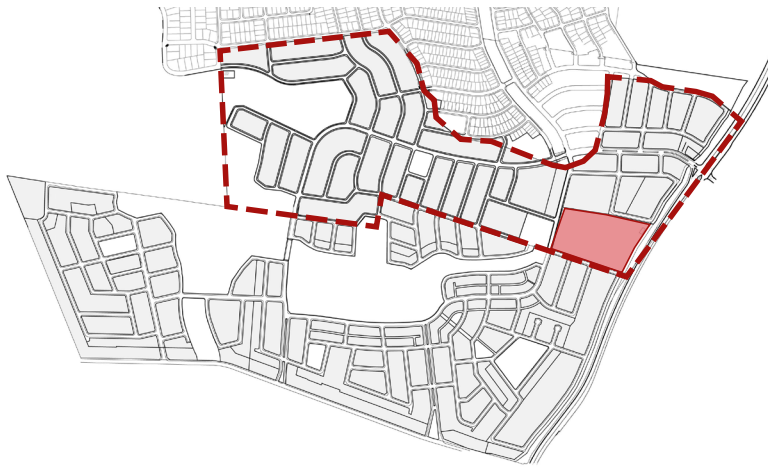
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



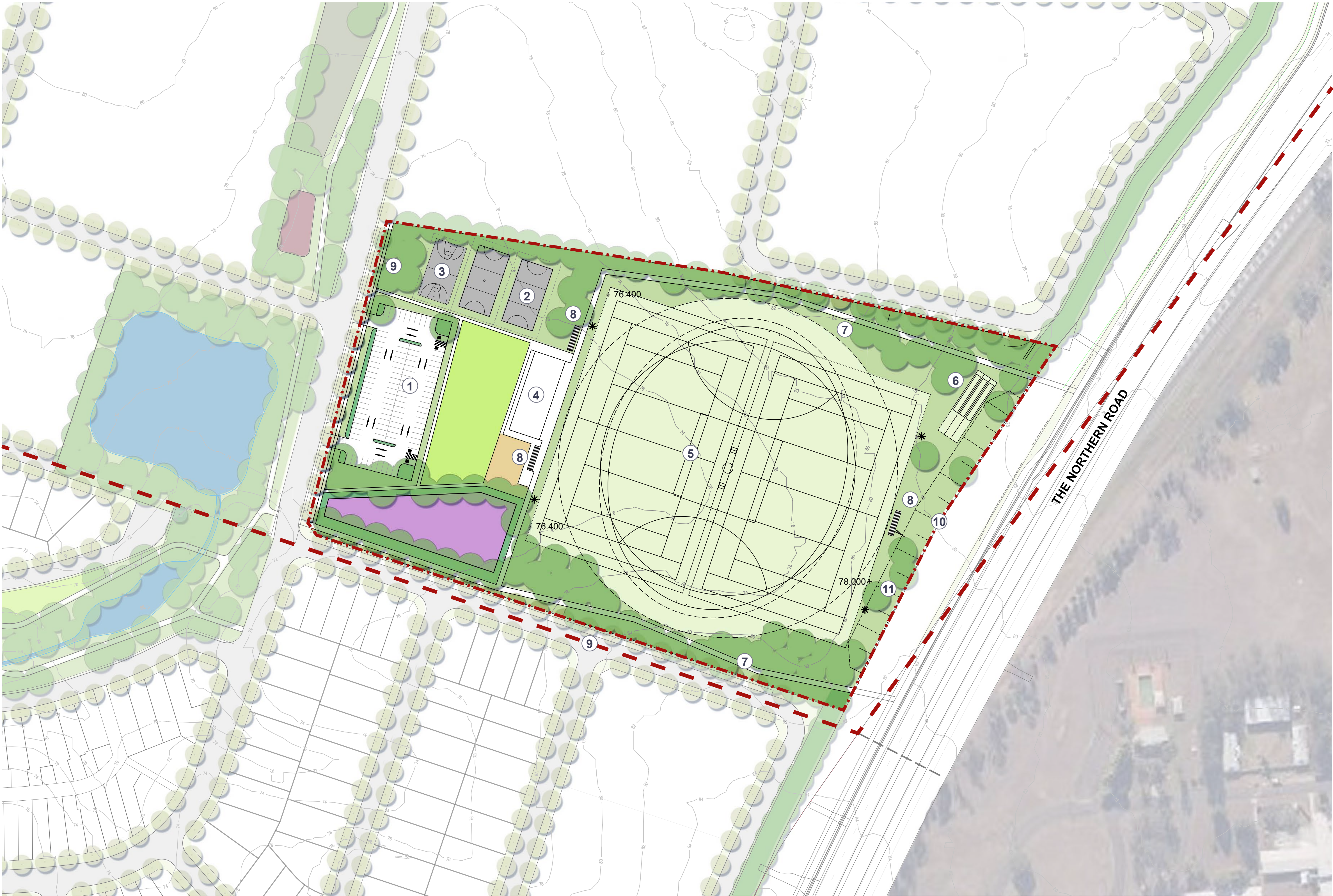
DISTRICT PARK 03

KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Sports fields
- Open lawn area
- Picnic area
- Mixed recreation space
- Landscape area
- Feature planting
- Indicative flood light location



NOTES

- Carpark with 98 spaces plus 4 accessible spaces
- Netball courts
- Basketball court
- Amenities building (39 x 16m)
- Community Cricket oval (120m dia with 20m runoff) / Small regional AFL field (135 x 100m with 4m run off) / 2 x rugby league fields (100 x 68m with 8m try lines and 5m runoff area)
- Cricket practice nets
- 2.5m wide shared path
- Bleacher seating
- On-street parking
- Clear sightlines through to Riley's Mountain
- Landscape bank

**Sturt Noble**  
Associates

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturtnoble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
DISTRICT PARK 3 (D3)

DRAWING No. CP-2109-003 C ISSUE DATE  
jw / jc 13.04.2022

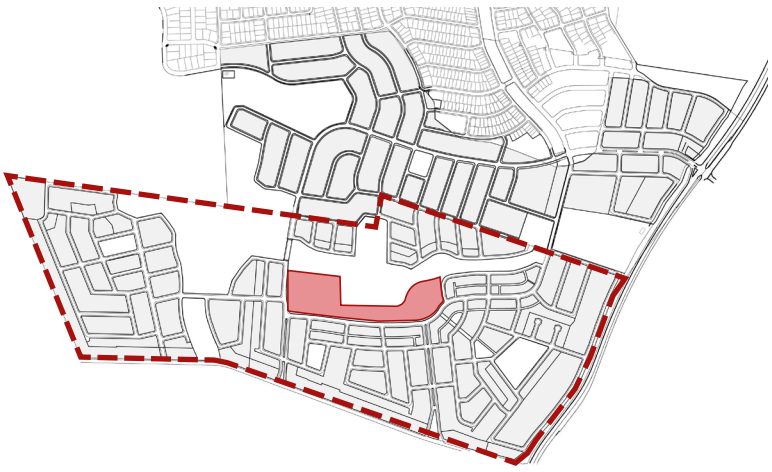
Scale 0 5 15 30 50m  
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



DISTRICT PARK 4

KEY PLAN



LEGEND

- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Informal paths
- Sports fields
- Open lawn area
- Picnic area
- District playground
- Landscape area
- Indicative flood light location



NOTES

- 2 x Soccer fields (100 x 64m with 3m runoff area around and a 5m technical area)
- Multi use tennis / basketball courts
- Amenities building and community centre (59 x 15m)
- Outdoor fitness node with dynamic and static equipment
- Car park with 64 spaces and 4 accessible spaces
- Car park with 48 spaces and 4 accessible spaces
- Village green / Cricket oval (110m dia) and junior AFL field (100 x 80m with a 5m run off area)
- Bleacher seating
- 2.5m wide shared path
- Fenced dog park

**Sturt Noble**  
Associates

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturt-noble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 SOUTH

CLIENT  
MIRVAC

DRAWING  
DISTRICT PARK 4 (D4)

DRAWING No. CP-2109-004 C ISSUE C DRAWN jw / jc DATE 13.04.2022

Scale 0 5 15 30 50m  
1:1000@A1  
1:2000@A3

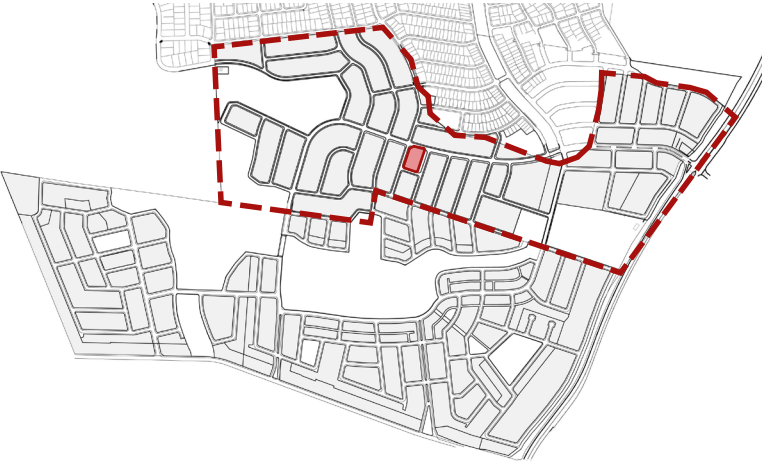
ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LOCAL PARK 1



KEY PLAN



LEGEND

- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Open lawn area
- Picnic area
- Playground
- Wild play / nature play
- Landscape area
- Feature planting

NOTES

- 1.5m wide path
- 2.5m wide shared path

**Sturt Noble Associates**

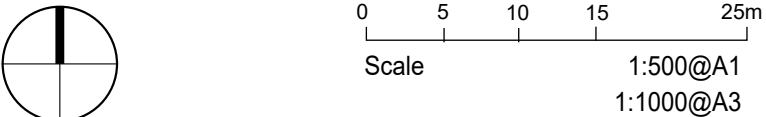
Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturtnoble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
LOCAL PARK 1 (L1)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-005	C	jw / jc	13.04.2022



ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LOCAL PARK 2



KEY PLAN



LEGEND

- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Sports courts
- Open lawn area
- Picnic area
- Wild play / nature play
- Landscape area
- Feature planting

NOTES

1. Half basketball court
2. On-street parking
3. 2.5m wide path

**Sturt Noble Associates**

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturtnoble.com.au](http://www.sturtnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
**GLENMORE PARK STAGE 3 SOUTH**

CLIENT  
**MIRVAC**

DRAWING  
**LOCAL PARK 2 (L2)**

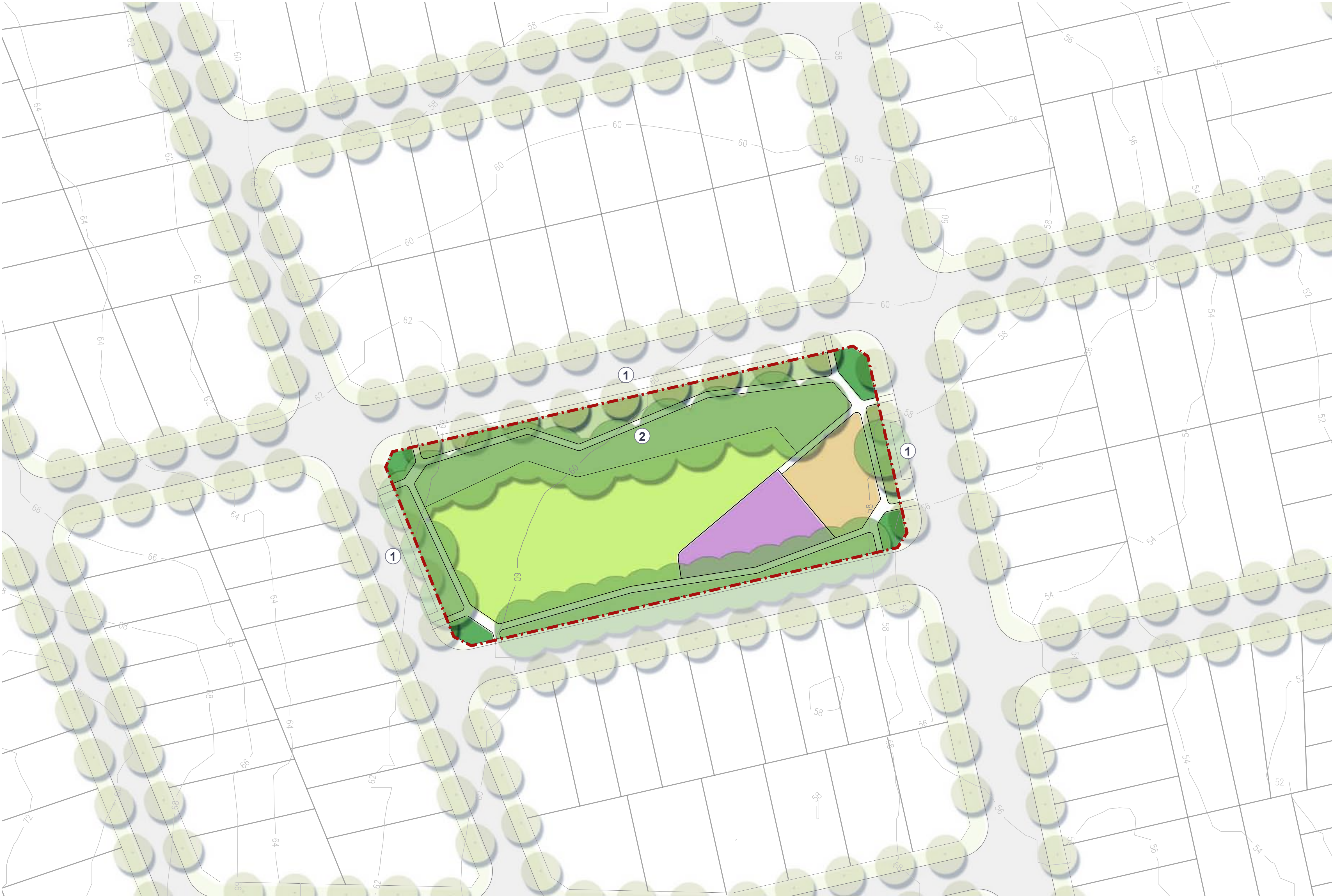
DRAWING No. CP-2109-006 C ISSUE DATE  
jw / jc 13.04.2022

Scale 0 5 10 15 25m  
1:500@A1  
1:1000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LOCAL PARK 3



KEY PLAN



LEGEND

- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Open lawn area
- Picnic area
- Playground
- Landscape area
- Feature planting

NOTES

- On-street parking
- 1.5m wide path

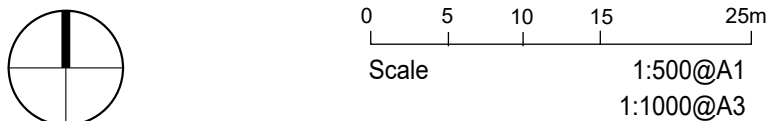
Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturt-noble.com.au](http://www.sturt-noble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 SOUTH

CLIENT  
MIRVAC

DRAWING  
LOCAL PARK 3 (L3)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-007	C	jw / jc	13.04.2022



ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LINEAR PARK 1



LEGEND

- Stage boundary
- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Water quality basin / wetland / channel
- Rain garden
- Paths / hardstand
- Informal paths
- Open lawn area
- Landscape area

NOTES

- 2.5m wide shared path
- Bridge
- Informal stepping stone crossing
- Approximate location of existing water course

KEY PLAN



**Sturt Noble Associates**

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturt-noble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
**GLENMORE PARK STAGE 3 SOUTH**

CLIENT  
**MIRVAC**

DRAWING  
**LINEAR PARK 1 (LIN1)**

DRAWING No. **CP-2109-008 C** ISSUE **1** DRAWN **jw / jc** DATE **13.04.2022**

Scale 0 15 30 50 75 100m  
1:2000@A1  
1:4000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LINEAR PARK 2



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Informal paths
- Landscape area

NOTES

- 2.5m wide shared path



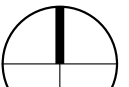
Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturt-noble.com.au](http://www.sturt-noble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
LINEAR PARK 2 (LIN2)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-009	C	jw / jc	13.04.2022



Scale

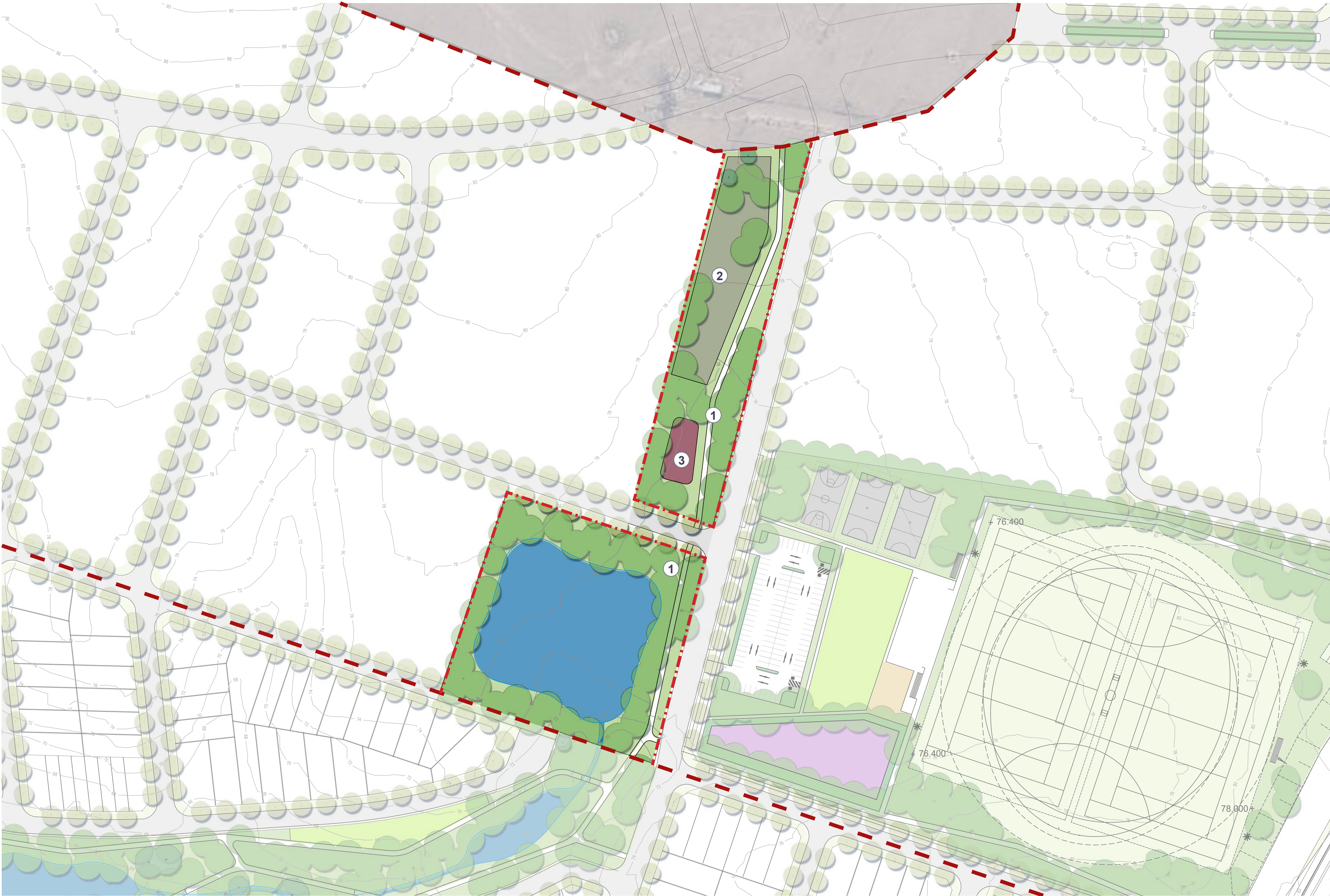
0 5 15 30 50m

1:1000@A1  
1:2000@A3

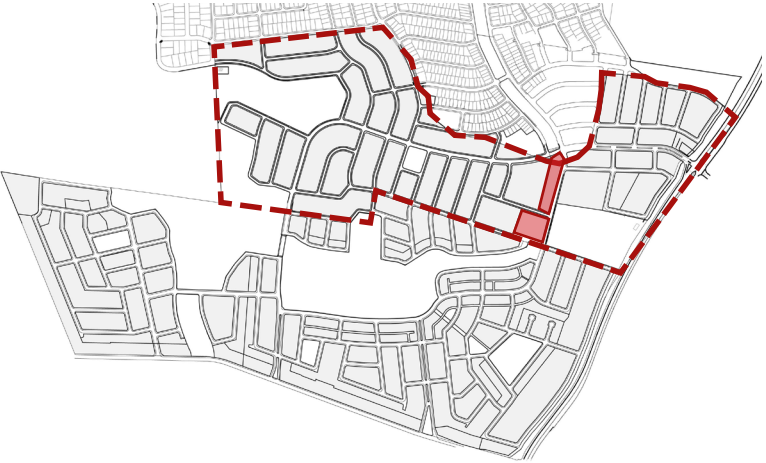
ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LINEAR PARK 3



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Extent of avoided land for Cumberland Plains Conservation
- Existing trees
- Proposed trees
- Street trees
- Water quality basin / wetland
- Paths / hardstand
- Landscape area

NOTES

- 2.5m wide shared path
- Fenced dog park
- Outdoor fitness node with dynamic and static equipment

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturtnoble.com.au](http://www.sturtnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
LINEAR PARK 3 (LIN3)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-010	C	jw / jc	13.04.2022

0 5 15 30 50m  
Scale  
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



ENTRY BOULEVARD 2 AND LINEAR PARK 4

KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Paths / hardstand
- Open lawn area
- Swale planting

NOTES

- Entry statement
- Swale with low planting and trees
- 2.5m wide shared path



**Sturt Noble Associates**

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturnoble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
**GLENMORE PARK STAGE 3 SOUTH**

CLIENT  
**MIRVAC**

DRAWING  
**ENTRY BOULEVARD 2 (EB2) AND  
LINEAR PARK 4 (LIN4)**

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-011	C	jw / jc	13.04.2022

Scale 0 5 15 30 50m  
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



ENTRY BOULEVARD 1



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Swale planting

NOTES

- Swale with low planting and trees

**Sturt Noble**  
Associates

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturtnoble.com.au](http://www.sturtnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 SOUTH

CLIENT  
MIRVAC

DRAWING  
ENTRY BOULEVARD 1 (EB1)

DRAWING No. CP-2109-012 C ISSUE DATE  
jw / jc 13.04.2022



Scale 0 5 15 30 50m  
1:1000@A1  
1:2000@A3

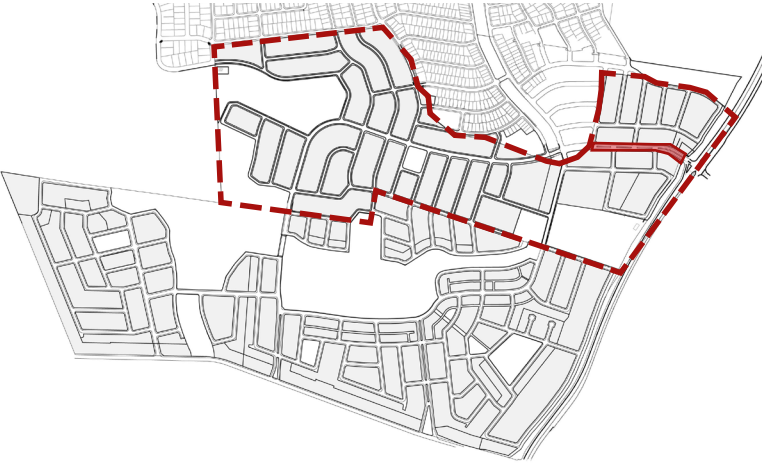
ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



ENTRY BOULEVARD 3



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Proposed trees
- Street trees
- Swale planting

NOTES

- Swale with low planting and trees

Suite 91, L5, 330 Wattle St  
 Ultimo NSW 2007  
 T. 02 9211 3744  
 W. [www.sturtnoble.com.au](http://www.sturtnoble.com.au)  
 landscape architecture  
 environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 NORTH

CLIENT  
VIANELLO

DRAWING  
ENTRY BOULEVARD 3 (EB3)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-013	C	jw / jc	13.04.2022

Scale

0 5 15 30 50m

1:1000@A1  
1:2000@A3

ACN: 164 245 514      ABN: 99 164 245 514  
 THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
 CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
 OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LANDSCAPE BUFFER 2



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Existing trees
- Proposed trees
- Street trees
- Landscape area

NOTES

- Buffer planting of trees, shrubs and groundcovers
- RMS planting area
- The Northern Road shared path

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. [www.sturtnoble.com.au](http://www.sturtnoble.com.au)  
landscape architecture  
environmental & urban design

PROJECT  
GLENMORE PARK STAGE 3 SOUTH

CLIENT  
MIRVAC

DRAWING  
LANDSCAPE BUFFER 2 (LB2)

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-014	C	jw / jc	13.04.2022

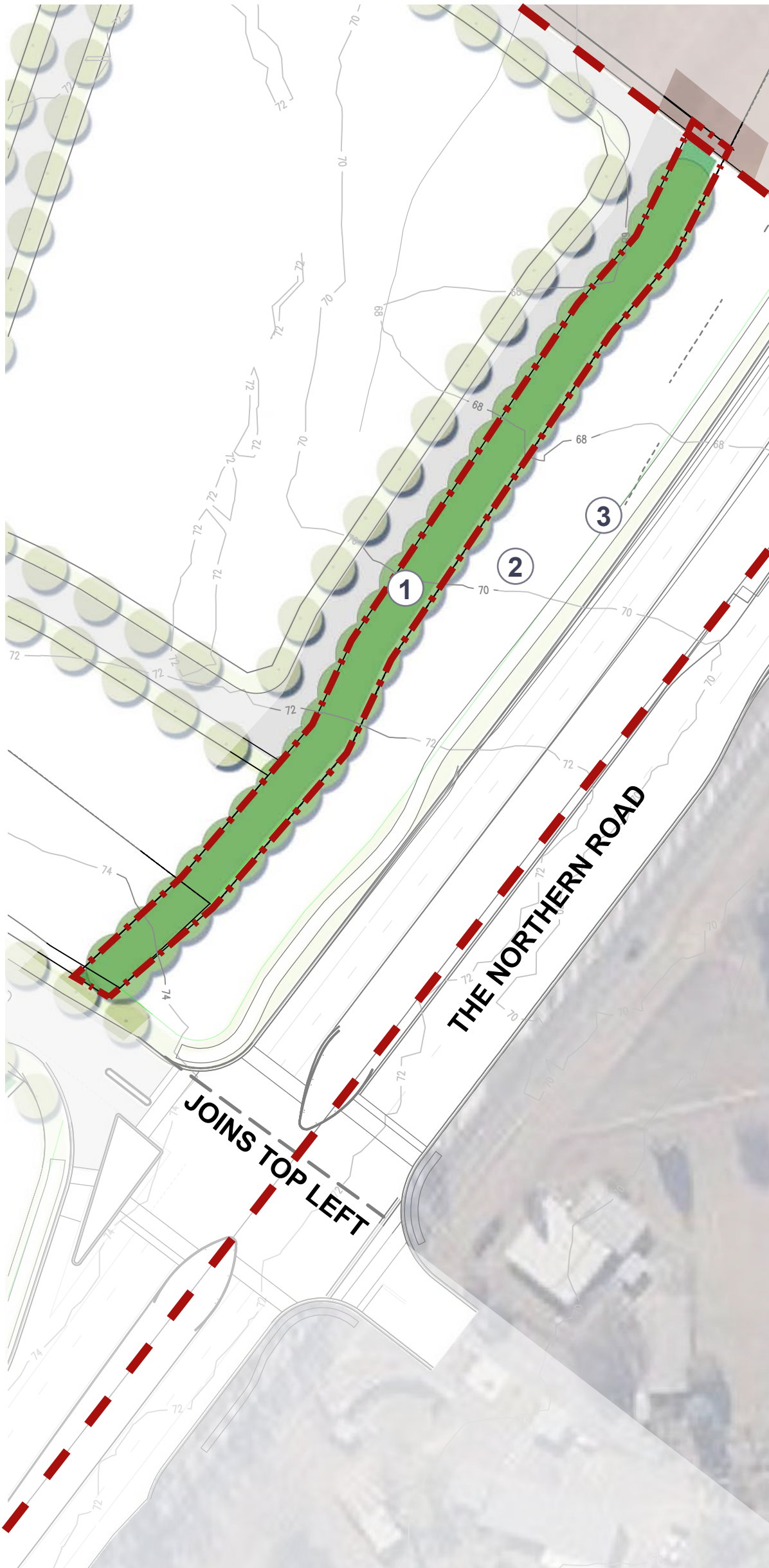
0 5 15 30 50m  
Scale

1:1000@A1  
1:2000@A3

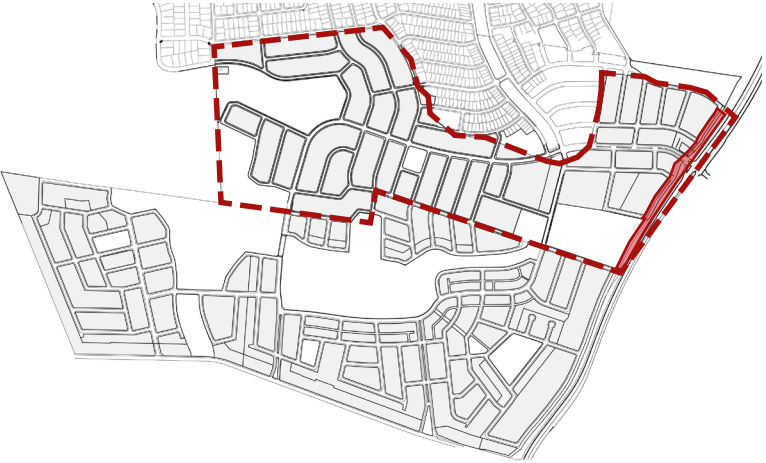
ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



LANDSCAPE BUFFER 1



KEY PLAN



LEGEND

- Stage boundary
- Extent of works
- Proposed trees
- Street trees
- Landscape area

NOTES

- Buffer planting of trees, shrubs and groundcovers
- RMS planting area
- The Northern Road shared path

**Sturt Noble**  
Associates

Suite 91, L5, 330 Wattle St  
Ultimo NSW 2007  
T. 02 9211 3744  
W. www.sturt-noble.com.au  
landscape architecture  
environmental & urban design

PROJECT  
**GLENMORE PARK STAGE 3 NORTH**

CLIENT  
**VIANELLO**

DRAWING  
**LANDSCAPE BUFFER 1 (LB1)**

DRAWING No.	ISSUE	DRAWN	DATE
CP-2109-015	C	jw / jc	13.04.2022

0 5 15 30 50m  
Scale  
1:1000@A1  
1:2000@A3

ACN: 164 245 514 ABN: 99 164 245 514  
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT  
CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS. COPYRIGHT  
OF THIS DRAWINGS IS VESTED IN STURT NOBLE ASSOCIATES PTY LTD.



# GLENMORE PARK STAGE 3

## OPEN SPACES SUMMARY

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-000 to 015

District Park 1	D1	\$3,573,866.53
District Park 2	D2	\$2,808,087.29
District Park 3	D3	\$12,268,963.80
District Park 4	D4	\$13,579,297.96
Local Park 1	L1	\$1,226,135.96
Local Park 2	L2	\$2,006,535.50
Local Park 3	L3	\$1,030,595.48
Linear Park 1	LIN1	\$5,843,412.34
Linear Park 2	LIN2	\$1,386,377.10
Linear Park 3	LIN3	\$1,388,593.94
Linear Park 4	LIN4	\$639,527.11
Entry Boulevard 1	EB1	\$188,048.52
Entry Boulevard 2	EB2	\$559,451.24
Entry Boulevard 3	EB3	\$138,811.20
Landscape Buffer 1	LB1	\$571,658.45
Landscape Buffer 2	LB2	\$949,009.05
<b>TOTAL</b>		<b>\$48,158,371.47</b>



# GLENMORE PARK STAGE 3

## DISTRICT PARK 1 (D1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-001

Site Area (m2):

67837

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse and access paths will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$8,650.00	\$8,650.00
1.02	Security fencing (allowance)	1310	m	\$28.00	\$36,680.00
1.03	Soil sediment and erosion control	1	allow	\$16,200.00	\$16,200.00
	<b>Establishment Total</b>				<b>\$61,530.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	15943	m2	\$6.50	\$103,629.50
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	15943	m2	\$6.00	\$95,658.00
	<b>Grading and Excavation Total</b>				<b>\$199,287.50</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	1400	m	\$60.00	\$84,000.00
3.02	Pipes, pits and connections (allowance)	6	each	\$1,620.00	\$9,720.00
	<b>Drainage Total</b>				<b>\$93,720.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	2972	m2	\$160.00	\$475,520.00
4.02	Footpaths (1.5m wide path)	222	m2	\$130.00	\$28,860.00
4.03	Walking trails (1m wide deco granite, no edging)	394	m2	\$78.00	\$30,732.00
4.04	Reflection spaces (3no. deco granite with edge)	75	m2	\$105.00	\$7,875.00
4.05	Fitness trail stations (equipment and softfall with edging)	8	Item	\$10,800.00	\$86,400.00
4.06	Picnic areas	548	m2	\$130.00	\$71,240.00
4.07	Basin access tracks (by others)	2881	m2		
	<b>Hardscape Total</b>				<b>\$700,627.00</b>
<b>5.00</b>	<b>PLAY AREA</b>				
5.01	Play area surfacing (loose fill, grass, planting)	700	m2	\$215.00	\$150,500.00
5.02	Play equipment	1	item	\$325,000.00	\$325,000.00
5.03	Shade structures (10 x 10m shade sails)	2	item	\$16,200.00	\$32,400.00
5.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$510,600.00</b>
<b>6.00</b>	<b>FURNITURE AND ELEMENTS</b>				
6.01	Picnic table	6	item	\$5,400.00	\$32,400.00
6.02	Seating (seats and benches)	12	item	\$2,700.00	\$32,400.00
6.03	Rubbish bin	3	item	\$2,150.00	\$6,450.00
6.04	Bike racks	16	item	\$920.00	\$14,720.00
6.05	Drinking fountain & connection	2	item	\$12,950.00	\$25,900.00
6.06	BBQ (including connections)	1	item	\$16,200.00	\$16,200.00
6.07	Shelter (small 4 x 4m)	2	item	\$12,950.00	\$25,900.00
6.08	Shelter (large 8 x 4m)	1	item	\$19,450.00	\$19,450.00
6.09	Bollards (timber along road edge at 1.5m spacings)	735	item	\$160.00	\$117,600.00
6.10	Bridge (pedestrian, cycle and maintenance access)	1	item	\$80,000.00	\$80,000.00
6.11	Bridge (pedestrian)	1	item	\$27,000.00	\$27,000.00
6.12	Informal pedestrian watercourse crossing (stepping stones)	2	each	\$2,500.00	\$5,000.00
6.13	Signage (directional finger post)	4	item	\$540.00	\$2,160.00
6.14	Signage entry	1	item	\$2,160.00	\$2,160.00



# GLENMORE PARK STAGE 3

## DISTRICT PARK 1 (D1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-001

Site Area (m2):

67837

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse and access paths will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
6.15	Distance marker signage (timber bollard marker)	5	item	\$800.00	\$4,000.00
	<b>Furniture and Elements Total</b>				<b>\$411,340.00</b>
<b>7.00</b>	<b>SOFTSCAPE</b>				
7.01	Existing grassland (slash and weed removal)	31688	m2	\$2.70	\$85,557.60
7.02	Open lawn area	10182	m2	\$23.80	\$242,331.60
7.03	Wetland planting (tubestock 6/m2 to perimeter)	965	m2	\$43.00	\$41,495.00
7.04	Bush regeneration (5m existing bushland along watercourse)	2300	m2	\$27.00	\$62,100.00
7.05	New bushland planting (cumberland plain reveg 4 tubes/m2)	6500	m2	\$32.50	\$211,250.00
7.06	Feature planting	850	m2	\$195.00	\$165,750.00
7.07	Tree planting (tube stock)	800	item	\$16.00	\$12,800.00
7.08	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$848,284.20</b>
<b>8.00</b>	<b>SERVICES</b>				
8.01	Hose cocks and connections	6	item	\$970.00	\$5,820.00
8.02	Services and connections	3	item	\$1,600.00	\$4,800.00
	<b>Services Total</b>				<b>\$10,620.00</b>
<b>9.00</b>	<b>Maintenance</b>				
9.01	Maintenance	12	month	\$9,800.00	\$117,600.00
	<b>Maintenance Total</b>				<b>\$117,600.00</b>
	<b>Total</b>				<b>\$2,953,608.70</b>
	Builders Margin 10%		allow		\$295,360.87
	Contingency 10%		allow		\$324,896.96
	<b>TOTAL ex GST</b>				<b>\$3,573,866.53</b>



# GLENMORE PARK STAGE 3

## DISTRICT PARK 2 (D2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-002

Site Area (m2):

29520

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$16,200.00	\$16,200.00
1.02	Security fencing (allowance)	750	m	\$28.00	\$21,000.00
1.03	Soil sediment and erosion control	1	allow	\$16,200.00	\$16,200.00
	<b>Establishment Total</b>				<b>\$53,400.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	6492	m2	\$6.50	\$42,198.00
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	6492	m2	\$6.00	\$38,952.00
	<b>Grading and Excavation Total</b>				<b>\$81,150.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	1000	m	\$60.00	\$60,000.00
3.02	Pipes, pits and connections (allowance)	3	each	\$1,620.00	\$4,860.00
	<b>Drainage Total</b>				<b>\$64,860.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	1731	m2	\$160.00	\$276,960.00
4.02	Walking trails (1m wide deco granite, no edging)	188	m2	\$78.00	\$14,664.00
4.03	Walking trail stairs and walls (allowance for steep grades)	1	allow	\$54,000.00	\$54,000.00
4.04	Reflection spaces (3no. deco granite with edge)	75	m2	\$105.00	\$7,875.00
4.05	Picnic areas	323	m2	\$130.00	\$41,990.00
	<b>Hardscape Total</b>				<b>\$395,489.00</b>
<b>5.00</b>	<b>PLAY AREA</b>				
5.01	Play area surfacing (loose fill, grass, planting)	2100	m2	\$215.00	\$451,500.00
5.02	Play equipment	1	item	\$540,000.00	\$540,000.00
5.03	Shade structures (10 x 10m shade sails)	2	item	\$16,200.00	\$32,400.00
5.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$1,026,600.00</b>
<b>6.00</b>	<b>FURNITURE AND ELEMENTS</b>				
6.01	Picnic table	3	item	\$5,400.00	\$16,200.00
6.02	Seating (seats and benches)	10	item	\$2,700.00	\$27,000.00
6.03	Rubbish bin	2	item	\$2,150.00	\$4,300.00
6.04	Bike racks	8	item	\$920.00	\$7,360.00
6.05	Drinking fountain & connection	1	item	\$12,950.00	\$12,950.00
6.06	BBQ (including connections)	1	item	\$16,200.00	\$16,200.00
6.07	Shelter (large 8 x 4m)	1	item	\$19,450.00	\$19,450.00
6.08	Bollards (timber along road edge at 1.5m spacings)	200	item	\$160.00	\$32,000.00
6.09	Bridge (pedestrian, cycle and maintenance access)	1	item	\$80,000.00	\$80,000.00
6.10	Informal pedestrian watercourse crossing (stepping stones)	1	each	\$2,500.00	\$2,500.00
6.11	Signage (directional finger post)	2	item	\$540.00	\$1,080.00
6.12	Signage entry	1	item	\$2,160.00	\$2,160.00
6.13	Distance marker signage (timber bollard marker)	3	item	\$800.00	\$2,400.00
	<b>Furniture and Elements Total</b>				<b>\$223,600.00</b>



# GLENMORE PARK STAGE 3

## DISTRICT PARK 2 (D2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-002

Site Area (m2):

29520

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>7.00</b>	<b>SOFTSCAPE</b>				
7.01	Existing grassland (slash and weed removal)	22609	m2	\$2.70	\$61,044.30
7.02	Open lawn area	1575	m2	\$23.80	\$37,485.00
7.03	Bush regeneration (along watercourse)	1980	m2	\$27.00	\$53,460.00
7.04	New bushland planting (cumberland plain reveg 4 tubes/m2)	4650	m2	\$32.50	\$151,125.00
7.05	Feature planting	500	m2	\$195.00	\$97,500.00
7.06	Tree planting (tube stock)	530	item	\$16.00	\$8,480.00
7.07	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$436,094.30</b>
<b>8.00</b>	<b>SERVICES</b>				
8.01	Hose cocks and connections	2	item	\$970.00	\$1,940.00
8.02	Services and connections	1	item	\$1,600.00	\$1,600.00
	<b>Services Total</b>				<b>\$3,540.00</b>
<b>9.00</b>	<b>Maintenance</b>				
9.01	Maintenance	12	month	\$3,000.00	\$36,000.00
	<b>Maintenance Total</b>				<b>\$36,000.00</b>
<b>Total</b>					<b>\$2,320,733.30</b>
	Builders Margin 10%		allow		\$232,073.33
	Contingency 10%		allow		\$255,280.66
	<b>TOTAL ex GST</b>				<b>\$2,808,087.29</b>



# GLENMORE PARK STAGE 3

## DISTRICT PARK 3 (D3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-003

Site Area (m2):

50400

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Includes sport field flood lighting but excludes amenity lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$8,650.00	\$8,650.00
1.02	Security fencing (allowance)	935	m	\$28.00	\$26,180.00
1.03	Soil sediment and erosion control	1	allow	\$10,800.00	\$10,800.00
	<b>Site Establishment Total</b>				<b>\$45,630.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation (done during bulk earthworks)	0	m2		\$0.00
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	44621	m2	\$6.00	\$267,726.00
	<b>Grading and Excavation Total</b>				<b>\$267,726.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	1250	m	\$60.00	\$75,000.00
3.02	Pipes, pits and connections (allowance)	6	each	\$1,620.00	\$9,720.00
	<b>Drainage Total</b>				<b>\$84,720.00</b>
<b>4.00</b>	<b>SPORTS FACILITIES AND BUILDINGS</b>				
4.01	Amenities building	1	m2	\$1,730,000.00	\$1,730,000.00
4.02	Turf sports fields (2 x Rugby / Cricket oval / AFL field)	22328	m2	\$110.00	\$2,456,080.00
4.03	Netball and basket ball courts and fencing	3	item	\$135,000.00	\$405,000.00
4.04	Cricket practice wickets	3	item	\$20,250.00	\$60,750.00
	<b>Sports Facilities and Buildings Total</b>				<b>\$4,651,830.00</b>
<b>5.00</b>	<b>HARDSCAPE</b>				
5.01	Shared path (2.5m wide path)	1588	m2	\$160.00	\$254,080.00
5.02	Footpaths (1.5m wide path)	640	m2	\$130.00	\$83,200.00
5.03	Hardstand	230	m2	\$130.00	\$29,900.00
5.04	Picnic areas	433	m2	\$130.00	\$56,290.00
5.05	Car park	2594	m2	\$125.00	\$324,250.00
5.06	Retaining walls (blockwork walls)	320	lm	\$410.00	\$131,200.00
	<b>Hardscape Total</b>				<b>\$878,920.00</b>
<b>6.00</b>	<b>MIXED RECREATIONAL SPACE</b>				
6.01	Surfacing (rubber, loose fill, grass, planting)	2012	m2	\$270.00	\$543,240.00
6.02	Play equipment, water play and other elements	1	allow	\$1,620,000.00	\$1,620,000.00
6.03	Shade structures (10 x 10m shade sails)	3	item	\$16,200.00	\$48,600.00
6.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$2,214,540.00</b>
<b>7.00</b>	<b>FURNITURE AND ELEMENTS</b>				
7.01	Picnic table	4	item	\$5,400.00	\$21,600.00
7.02	Seating (seats and benches)	20	item	\$2,700.00	\$54,000.00
7.03	Bleacher seating (3 tiers of seating, 6m long with canopy)	6	item	\$25,000.00	\$150,000.00
7.04	Rubbish bin	6	item	\$2,150.00	\$12,900.00
7.05	Bike racks	20	item	\$920.00	\$18,400.00
7.06	Drinking fountain & connection	2	item	\$12,950.00	\$25,900.00
7.07	BBQ (including connections)	2	item	\$16,200.00	\$32,400.00
7.08	Shelter (large 8 x 4m)	2	item	\$19,450.00	\$38,900.00
7.09	Bollards (timber along road edge at 1.5m spacings)	380	item	\$160.00	\$60,800.00



# GLENMORE PARK STAGE 3

## DISTRICT PARK 3 (D3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-003

Site Area (m2):

50400

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Includes sport field flood lighting but excludes amenity lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
7.10	Signage (directional finger post)	1	item	\$540.00	\$540.00
7.11	Signage entry	1	item	\$2,160.00	\$2,160.00
7.12	Distance marker signage (timber bollard marker)	4	item	\$800.00	\$3,200.00
	<b>Furniture and Elements Total</b>				<b>\$420,800.00</b>
<b>8.00</b>	<b>SOFTSCAPE</b>				
8.01	Existing grassland (slash and weed removal)	5779	m2	\$2.70	\$15,603.30
8.02	Open lawn area	2293	m2	\$23.80	\$54,573.40
8.03	Make good lawn around fields	6000	m2	\$24.00	\$144,000.00
8.04	Landscape bank	1880	m2	\$43.00	\$80,840.00
8.05	New bushland planting (cumberland plain reveg 4 tubes/m2)	1200	m2	\$32.50	\$39,000.00
8.06	Feature planting	1500	m2	\$195.00	\$292,500.00
8.07	Tree planting (tube stock)	430	item	\$16.00	\$6,880.00
8.08	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$660,396.70</b>
<b>9.00</b>	<b>SERVICES</b>				
9.01	Sports field lighting	4	item	\$75,600.00	\$302,400.00
9.02	Court lighting	8	item	\$37,800.00	\$302,400.00
9.03	Irrigation to sports fields	22328	m2	\$8.10	\$180,856.80
9.04	Hose cocks and connections	6	item	\$970.00	\$5,820.00
9.05	Services and connections	3	item	\$1,600.00	\$4,800.00
	<b>Services Total</b>				<b>\$796,276.80</b>
<b>10.00</b>	<b>Maintenance</b>				
10.01	Maintenance	12	month	\$9,900.00	\$118,800.00
	<b>Maintenance Total</b>				<b>\$118,800.00</b>
	<b>Total</b>				<b>\$10,139,639.50</b>
	Builders Margin 10%		allow		\$1,013,963.95
	Contingency 10%		allow		\$1,115,360.35
	<b>TOTAL ex GST</b>				<b>\$12,268,963.80</b>



# GLENMORE PARK STAGE 3

## DISTRICT PARK 4 (D4)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-004

Site Area (m2):

53824

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Includes sport field flood lighting but excludes amenity lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$16,200.00	\$16,200.00
1.02	Security fencing (allowance)	1515	m	\$28.00	\$42,420.00
1.03	Soil sediment and erosion control	1	allow	\$10,800.00	\$10,800.00
	<b>Site Establishment Total</b>				<b>\$69,420.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation (done during bulk earthworks)	0	m2		\$0.00
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	53824	m2	\$6.00	\$322,944.00
	<b>Grading and Excavation Total</b>				<b>\$322,944.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	2000	m	\$60.00	\$120,000.00
3.02	Pipes, pits and connections (allowance)	6	each	\$1,620.00	\$9,720.00
	<b>Drainage Total</b>				<b>\$129,720.00</b>
<b>4.00</b>	<b>SPORTS FACILITIES AND BUILDINGS</b>				
4.01	Amenities and change room building with Community Centre	1	m2	\$2,250,000.00	\$2,250,000.00
4.02	Tennis / Basketball courts and fencing (x2)	2	m2	\$135,000.00	\$270,000.00
4.03	Turf sports fields (2 x Soccer and Cricket oval / jr AFL field)	24253	m2	\$110.00	\$2,667,830.00
	<b>Sports Facilities and Buildings Total</b>				<b>\$5,187,830.00</b>
<b>5.00</b>	<b>HARDSCAPE</b>				
5.01	Shared path (2.5m wide path)	3203	m2	\$160.00	\$512,480.00
5.02	Walking trails (1m wide deco granite, no edging)	16	m2	\$78.00	\$1,248.00
5.03	Hardstand	778	m2	\$130.00	\$101,140.00
5.04	Fitness node (equipment and softfall with edging)	1	Item	\$151,200.00	\$151,200.00
5.05	Picnic areas	473	m2	\$130.00	\$61,490.00
5.06	Car park	2917	m2	\$125.00	\$364,625.00
5.07	Retaining walls (blockwork walls)	750	lm	\$410.00	\$307,500.00
	<b>Hardscape Total</b>				<b>\$1,499,683.00</b>
<b>6.00</b>	<b>PLAY AREA</b>				
6.01	Play area surfacing (rubber, loose fill, grass, planting)	1516	m2	\$215.00	\$325,940.00
6.02	Play equipment and water play	1	allow	\$1,188,000.00	\$1,188,000.00
6.03	Shade structures (10 x 10m shade sails)	3	item	\$16,200.00	\$48,600.00
6.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$1,565,240.00</b>
<b>7.00</b>	<b>FURNITURE AND ELEMENTS</b>				
7.01	Picnic table	4	item	\$5,400.00	\$21,600.00
7.02	Seating (seats and benches)	18	item	\$2,700.00	\$48,600.00
7.03	Bleacher seating (5 tiers of seating, 6m long with canopy)	4	item	\$35,000.00	\$140,000.00
7.04	Rubbish bin	4	item	\$2,150.00	\$8,600.00
7.05	Bike racks	20	item	\$920.00	\$18,400.00
7.06	Drinking fountain & connection	2	item	\$12,950.00	\$25,900.00
7.07	BBQ (including connections)	2	item	\$16,200.00	\$32,400.00
7.08	Shelter (large 8 x 4m)	3	item	\$19,450.00	\$58,350.00
7.09	Bollards (timber along road edge at 1.5m spacings)	540	item	\$160.00	\$86,400.00



# GLENMORE PARK STAGE 3

## DISTRICT PARK 4 (D4)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-004

Site Area (m2):

53824

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Includes sport field flood lighting but excludes amenity lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
7.10	Fence and gates to dog park	117	lm	\$160.00	\$18,720.00
7.11	Ball safety fence (post and net system)	65	lm	\$325.00	\$21,125.00
7.12	Village green aluminium fence	245	lm	\$160.00	\$39,200.00
7.13	Signage (directional finger post)	2	item	\$540.00	\$1,080.00
7.14	Signage entry	1	item	\$2,160.00	\$2,160.00
7.15	Distance marker signage (timber bollard marker)	5	item	\$800.00	\$4,000.00
	<b>Furniture and Elements Total</b>				<b>\$526,535.00</b>

<b>8.00</b>	<b>SOFTSCAPE</b>				
8.01	Existing grassland (slash and weed removal)	8728	m2	\$2.70	\$23,565.60
8.02	Open lawn area	1408	m2	\$23.80	\$33,510.40
8.03	Make good lawn around fields	4057	m2	\$24.00	\$97,368.00
8.04	Dog park lawn, planting area and paths	1477	m2	\$165.00	\$243,705.00
8.05	New bushland planting (cumberland plain reveg 4 tubes/m2)	3000	m2	\$32.50	\$97,500.00
8.06	Feature planting	2300	m2	\$195.00	\$448,500.00
8.07	Tree planting (tube stock)	600	item	\$16.00	\$9,600.00
8.08	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$980,749.00</b>

<b>9.00</b>	<b>SERVICES</b>				
9.01	Sports field lighting	8	item	\$75,600.00	\$604,800.00
9.02	Irrigation to sports fields	24253	m2	\$8.10	\$196,449.30
9.03	Hose cocks and connections	7	item	\$970.00	\$6,790.00
9.04	Services and connections	4	item	\$1,600.00	\$6,400.00
	<b>Services Total</b>				<b>\$814,439.30</b>

<b>10.00</b>	<b>Maintenance</b>				
10.01	Maintenance	12	month	\$10,500.00	\$126,000.00
	<b>Maintenance Total</b>				<b>\$126,000.00</b>

	<b>Total</b>				<b>\$11,222,560.30</b>
	Builders Margin 10%		allow		\$1,122,256.03
	Contingency 10%		allow		\$1,234,481.63
	<b>TOTAL ex GST</b>				<b>\$13,579,297.96</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 1 (L1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-005

Site Area (m2):

5099

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$4,320.00	\$4,320.00
1.02	Security fencing (allowance)	280	m	\$28.00	\$7,840.00
1.03	Soil sediment and erosion control	1	allow	\$2,700.00	\$2,700.00
	<b>Establishment Total</b>				<b>\$14,860.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	5099	m2	\$1.60	\$8,158.40
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	3040	m2	\$6.00	\$18,240.00
	<b>Grading and Excavation Total</b>				<b>\$26,398.40</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	300	m	\$60.00	\$18,000.00
3.02	Pipes, pits and connections (allowance)	3	each	\$1,620.00	\$4,860.00
	<b>Drainage Total</b>				<b>\$22,860.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	164	m2	\$160.00	\$26,240.00
4.02	Footpaths (1.5m wide path)	311	m2	\$130.00	\$40,430.00
4.03	Picnic areas	313	m2	\$130.00	\$40,690.00
	<b>Hardscape Total</b>				<b>\$107,360.00</b>
<b>5.00</b>	<b>PLAY AREA</b>				
5.01	Play area surfacing (rubber, loose fill, grass, planting)	669	m2	\$215.00	\$143,835.00
5.02	Play equipment	1	allow	\$378,000.00	\$378,000.00
5.03	Shade structures (10 x 10m shade sails)	2	item	\$16,200.00	\$32,400.00
5.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$556,935.00</b>
<b>6.00</b>	<b>FURNITURE AND ELEMENTS</b>				
6.01	Picnic table	3	item	\$5,400.00	\$16,200.00
6.02	Seating (seats and benches)	6	item	\$2,700.00	\$16,200.00
6.03	Rubbish bin	2	item	\$2,150.00	\$4,300.00
6.04	Bike racks	6	item	\$920.00	\$5,520.00
6.05	Drinking fountain & connection	1	item	\$12,950.00	\$12,950.00
6.06	Shelter (medium 6 x 4m)	2	item	\$16,200.00	\$32,400.00
6.07	Bollards (timber along road edge at 1.5m spacings)	185	item	\$160.00	\$29,600.00
6.08	Signage entry	1	item	\$2,160.00	\$2,160.00
	<b>Furniture and Elements Total</b>				<b>\$119,330.00</b>
<b>7.00</b>	<b>SOFTSCAPE</b>				
7.01	Existing grassland (slash and weed removal)	1895	m2	\$2.70	\$5,116.50
7.02	Feature planting	360	m2	\$195.00	\$70,200.00
7.03	New bushland planting (cumberland plain reveg 4 tubes/m2)	830	m2	\$32.50	\$26,975.00
7.04	Open lawn area	1387	m2	\$23.80	\$33,010.60
7.05	Tree planting (tube stock)	80	item	\$16.00	\$1,280.00
7.06	Feature trees (100L trees)	15	item	\$540.00	\$8,100.00
	<b>Softscape Total</b>				<b>\$144,682.10</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 1 (L1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-005

Site Area (m2):

5099

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>8.00</b>	<b>SERVICES</b>				
8.01	Hose cocks and connections	3	item	\$970.00	\$2,910.00
8.02	Services and connections	3	item	\$1,600.00	\$4,800.00
	<b>Services Total</b>				<b>\$7,710.00</b>
<b>10.00</b>	<b>Maintenance</b>				
10.01	Maintenance	12	month	\$1,100.00	\$13,200.00
	<b>Maintenance Total</b>				<b>\$13,200.00</b>
	<b>Total</b>				<b>\$1,013,335.50</b>
	Builders Margin 10%		allow		\$101,333.55
	Contingency 10%		allow		\$111,466.91
	<b>TOTAL ex GST</b>				<b>\$1,226,135.96</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 2 (L2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-006

Site Area (m2):

17450

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$4,320.00	\$4,320.00
1.02	Security fencing (allowance)	540	m	\$28.00	\$15,120.00
1.03	Soil sediment and erosion control	1	allow	\$3,800.00	\$3,800.00
	<b>Establishment Total</b>				<b>\$23,240.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	7745	m2	\$1.60	\$12,392.00
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	7745	m2	\$6.00	\$46,470.00
	<b>Grading and Excavation Total</b>				<b>\$58,862.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	1200	m	\$60.00	\$72,000.00
3.02	Pipes, pits and connections (allowance)	2	each	\$1,620.00	\$3,240.00
	<b>Drainage Total</b>				<b>\$75,240.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	1444	m2	\$160.00	\$231,040.00
4.02	Picnic areas	720	m2	\$130.00	\$93,600.00
4.03	Half basketball court	1	item	\$64,800.00	\$64,800.00
	<b>Hardscape Total</b>				<b>\$389,440.00</b>
<b>5.00</b>	<b>PLAY AREA</b>				
5.01	Play area surfacing (rubber, loose fill, grass, planting)	1425	m2	\$215.00	\$306,375.00
5.02	Play equipment	1	allow	\$325,000.00	\$325,000.00
5.03	Shade structures (10 x 10m shade sails)	1	item	\$16,200.00	\$16,200.00
5.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$650,275.00</b>
<b>6.00</b>	<b>FURNITURE AND ELEMENTS</b>				
6.01	Picnic table	4	item	\$5,400.00	\$21,600.00
6.02	Seating (seats and benches)	10	item	\$2,700.00	\$27,000.00
6.03	Rubbish bin	2	item	\$2,150.00	\$4,300.00
6.04	Bike racks	8	item	\$920.00	\$7,360.00
6.05	Drinking fountain & connection	1	item	\$12,950.00	\$12,950.00
6.06	Shelter (medium 6 x 4m)	2	item	\$16,200.00	\$32,400.00
6.07	Bollards (timber along road edge at 1.5m spacings)	360	item	\$160.00	\$57,600.00
6.08	Signage entry	1	item	\$2,160.00	\$2,160.00
	<b>Furniture and Elements Total</b>				<b>\$165,370.00</b>
<b>7.00</b>	<b>SOFTSCAPE</b>				
7.01	Existing grassland (slash and weed removal)	9420	m2	\$2.70	\$25,434.00
7.02	Open lawn area	3656	m2	\$23.80	\$87,012.80
7.03	Feature planting	500	m2	\$195.00	\$97,500.00
7.04	New bushland planting (cumberland plain reveg 4 tubes/m2)	1000	m2	\$32.50	\$32,500.00
7.05	Tree planting (tube stock)	340	item	\$16.00	\$5,440.00
7.06	Feature trees (100L trees)	25	item	\$540.00	\$13,500.00
	<b>Softscape Total</b>				<b>\$261,386.80</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 2 (L2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-006

Site Area (m2):

17450

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>8.00</b>	<b>SERVICES</b>				
8.01	Hose cocks and connections	4	item	\$970.00	\$3,880.00
8.02	Services and connections	3	item	\$1,600.00	\$4,800.00
	<b>Services Total</b>				<b>\$8,680.00</b>
<b>9.00</b>	<b>Maintenance</b>				
9.01	Maintenance	12	month	\$2,150.00	\$25,800.00
	<b>Maintenance Total</b>				<b>\$25,800.00</b>
	<b>Total</b>				<b>\$1,658,293.80</b>
	Builders Margin 10%		allow		\$165,829.38
	Contingency 10%		allow		\$182,412.32
	<b>TOTAL ex GST</b>				<b>\$2,006,535.50</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 3 (L3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-007

Site Area (m2):

5470

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$4,320.00	\$4,320.00
1.02	Security fencing (allowance)	320	m	\$28.00	\$8,960.00
1.03	Soil sediment and erosion control	1	allow	\$2,700.00	\$2,700.00
	<b>Establishment Total</b>				<b>\$15,980.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	3906	m2	\$1.60	\$6,249.60
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	3906	m2	\$6.00	\$23,436.00
	<b>Grading and Excavation Total</b>				<b>\$29,685.60</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	320	m	\$60.00	\$19,200.00
3.02	Pipes, pits and connections (allowance)	2	each	\$1,620.00	\$3,240.00
	<b>Drainage Total</b>				<b>\$22,440.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Footpaths (1.5m wide path)	532	m2	\$130.00	\$69,160.00
4.02	Picnic areas	386	m2	\$130.00	\$50,180.00
	<b>Hardscape Total</b>				<b>\$119,340.00</b>
<b>5.00</b>	<b>PLAY AREA</b>				
5.01	Play area surfacing (rubber, loose fill, grass, planting)	470	m2	\$215.00	\$101,050.00
5.02	Play equipment	1	allow	\$270,000.00	\$270,000.00
5.03	Shade structures (10 x 10m shade sails)	1	item	\$16,200.00	\$16,200.00
5.04	Playground certification	1	item	\$2,700.00	\$2,700.00
	<b>Playground Total</b>				<b>\$389,950.00</b>
<b>6.00</b>	<b>FURNITURE AND ELEMENTS</b>				
6.01	Picnic table	2	item	\$5,400.00	\$10,800.00
6.02	Seating (seats and benches)	7	item	\$2,700.00	\$18,900.00
6.03	Rubbish bin	1	item	\$2,150.00	\$2,150.00
6.04	Bike racks	5	item	\$920.00	\$4,600.00
6.05	Drinking fountain & connection	1	item	\$12,950.00	\$12,950.00
6.06	Shelter (medium 6 x 4m)	1	item	\$16,200.00	\$16,200.00
6.07	Bollards (timber along road edge at 1.5m spacings)	200	item	\$160.00	\$32,000.00
6.08	Signage entry	1	item	\$2,160.00	\$2,160.00
	<b>Furniture and Elements Total</b>				<b>\$99,760.00</b>
<b>7.00</b>	<b>SOFTSCAPE</b>				
7.01	Existing grassland (slash and weed removal)	1564	m2	\$2.70	\$4,222.80
7.02	Open lawn area	2118	m2	\$23.80	\$50,408.40
7.03	Feature planting	400	m2	\$195.00	\$78,000.00
7.04	New bushland planting (cumberland plain reveg 4 tubes/m2)	450	m2	\$32.50	\$14,625.00
7.05	Tree planting (tube stock)	80	item	\$16.00	\$1,280.00
7.06	Feature trees (100L trees)	15	item	\$540.00	\$8,100.00
	<b>Softscape Total</b>				<b>\$156,636.20</b>



# GLENMORE PARK STAGE 3

## LOCAL PARK 3 (L3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-007

Site Area (m2):

5470

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>8.00</b>	<b>SERVICES</b>				
8.01	Hose cocks and connections	2	item	\$970.00	\$1,940.00
8.02	Services and connections	1	item	\$1,600.00	\$1,600.00
	<b>Services Total</b>				<b>\$3,540.00</b>
<b>9.00</b>	<b>Maintenance</b>				
9.01	Maintenance	12	month	\$1,200.00	\$14,400.00
	<b>Maintenance Total</b>				<b>\$14,400.00</b>
	<b>Total</b>				<b>\$851,731.80</b>
	Builders Margin 10%		allow		\$85,173.18
	Contingency 10%		allow		\$93,690.50
	<b>TOTAL ex GST</b>				<b>\$1,030,595.48</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 1 (LIN1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-008

Site Area (m2):

192143

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$16,200.00	\$16,200.00
1.02	Security fencing (allowance)	4903	m	\$28.00	\$137,284.00
1.03	Soil sediment and erosion control	1	allow	\$27,000.00	\$27,000.00
	<b>Establishment Total</b>				<b>\$180,484.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	49864	m2	\$6.50	\$324,116.00
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	10122	m2	\$6.00	\$60,732.00
	<b>Grading and Excavation Total</b>				<b>\$384,848.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	2700	m	\$60.00	\$162,000.00
3.02	Pipes and connections (allowance)	20	m	\$1,620.00	\$32,400.00
	<b>Drainage Total</b>				<b>\$194,400.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	6542	m2	\$160.00	\$1,046,720.00
4.02	Footpaths (1.5m wide path)	452	m2	\$130.00	\$58,760.00
4.03	Walking trails (1m wide deco granite, no edging)	1805	m2	\$78.00	\$140,790.00
4.04	Basin access tracks (by others)	2744	m2		
	<b>Hardscape Total</b>				<b>\$1,246,270.00</b>
<b>5.00</b>	<b>FURNITURE AND ELEMENTS</b>				
5.01	Seating (seats and benches)	40	item	\$2,700.00	\$108,000.00
5.02	Bike racks	25	item	\$920.00	\$23,000.00
5.03	Bollards (timber along road edge at 1.5m spacings)	2000	item	\$160.00	\$320,000.00
5.04	Bridge (pedestrian, cycle and maintenance access)	4	item	\$80,000.00	\$320,000.00
5.05	Informal pedestrian watercourse crossing (stepping stones)	3	each	\$2,500.00	\$7,500.00
5.06	Signage (directional finger post)	8	item	\$540.00	\$4,320.00
5.07	Signage entry	3	item	\$2,160.00	\$6,480.00
5.08	Distance marker signage (timber bollard marker)	10	item	\$800.00	\$8,000.00
	<b>Furniture and Elements Total</b>				<b>\$797,300.00</b>
<b>6.00</b>	<b>SOFTSCAPE</b>				
6.01	Existing grassland (slash and weed removal)	161740	m2	\$2.70	\$436,698.00
6.02	Open lawn area	1323	m2	\$23.80	\$31,487.40
6.03	Wetland planting (tubestock 6/m2 to basin perimeter)	3528	m2	\$43.00	\$151,704.00
6.04	Bush regeneration (along watercourse)	13450	m2	\$27.00	\$363,150.00
6.05	New bushland planting (cumberland plain reveg 4 tubes/m2)	16170	m2	\$32.50	\$525,525.00
6.06	Tree planting (tube stock)	2000	item	\$16.00	\$32,000.00
6.07	Feature trees (100L trees)	500	item	\$540.00	\$270,000.00
	<b>Softscape Total</b>				<b>\$1,810,564.40</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 1 (LIN1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-008

Site Area (m2):

192143

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>7.00</b>	<b>SERVICES</b>				
7.01	Hose cocks and connections	20	item	\$970.00	\$19,400.00
7.02	Services and connections	10	item	\$1,600.00	\$16,000.00
	<b>Services Total</b>				<b>\$35,400.00</b>
<b>8.00</b>	<b>Maintenance</b>				
8.01	Maintenance	12	month	\$15,000.00	\$180,000.00
	<b>Maintenance Total</b>				<b>\$180,000.00</b>
	<b>Total</b>				<b>\$4,829,266.40</b>
	Builders Margin 10%		allow		\$482,926.64
	Contingency 10%		allow		\$531,219.30
	<b>TOTAL ex GST</b>				<b>\$5,843,412.34</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 2 (LIN2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-009

Site Area (m2):

37742

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$4,300.00	\$4,300.00
1.02	Security fencing (allowance)	1000	m	\$28.00	\$28,000.00
1.03	Soil sediment and erosion control	1	allow	\$4,300.00	\$4,300.00
	<b>Establishment Total</b>				<b>\$36,600.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	1887	m2	\$1.60	\$3,019.20
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	1887	m2	\$6.00	\$11,322.00
	<b>Grading and Excavation Total</b>				<b>\$14,341.20</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	490	m	\$60.00	\$29,400.00
3.02	Pipes and connections (allowance)	2	m	\$1,620.00	\$3,240.00
	<b>Drainage Total</b>				<b>\$32,640.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	1229	m2	\$160.00	\$196,640.00
4.02	Walking trails (1m wide deco granite, no edging)	658	m2	\$78.00	\$51,324.00
	<b>Hardscape Total</b>				<b>\$247,964.00</b>
<b>5.00</b>	<b>FURNITURE AND ELEMENTS</b>				
5.01	Seating (seats and benches)	4	item	\$2,700.00	\$10,800.00
5.02	Bike racks	6	item	\$920.00	\$5,520.00
5.03	Bollards (timber along road edge at 1.5m spacings)	320	item	\$160.00	\$51,200.00
5.04	Distance marker signage (timber bollard marker)	2	item	\$800.00	\$1,600.00
	<b>Furniture and Elements Total</b>				<b>\$69,120.00</b>
<b>6.00</b>	<b>SOFTSCAPE</b>				
6.01	Existing grassland (slash and weed removal)	35855	m2	\$2.70	\$96,808.50
6.02	New bushland planting (cumberland plain reveg 4 tubes/m2)	17945	m2	\$32.50	\$583,212.50
6.03	Tree planting (tube stock)	1100	item	\$16.00	\$17,600.00
	<b>Softscape Total</b>				<b>\$697,621.00</b>
<b>7.00</b>	<b>SERVICES</b>				
7.01	Hose cocks and connections	4	item	\$970.00	\$3,880.00
7.02	Services and connections	1	item	\$1,600.00	\$1,600.00
	<b>Services Total</b>				<b>\$5,480.00</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 2 (LIN2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-009

Site Area (m2):

37742

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Excludes lighting. Lighting of public spaces TBC by Council
- F Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>8.00</b>	<b>Maintenance</b>				
8.01	Maintenance	12	month	\$3,500.00	\$42,000.00
	<b>Maintenance Total</b>				<b>\$42,000.00</b>
	<b>Total</b>				<b>\$1,145,766.20</b>
	Builders Margin 10%		allow		\$114,576.62
	Contingency 10%		allow		\$126,034.28
	<b>TOTAL ex GST</b>				<b>\$1,386,377.10</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 3 (LIN3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-010

Site Area (m2):

17129

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$4,300.00	\$4,300.00
1.02	Security fencing (allowance)	845	m	\$28.00	\$23,660.00
1.03	Soil sediment and erosion control	1	allow	\$4,300.00	\$4,300.00
	<b>Establishment Total</b>				<b>\$32,260.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Site clearing and preparation	11951	m2	\$1.60	\$19,121.60
2.02	Fine grading, cut & fill to new levels (0.2m nom allowance)	4030	m2	\$6.00	\$24,180.00
	<b>Grading and Excavation Total</b>				<b>\$43,301.60</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	430	m	\$60.00	\$25,800.00
3.02	Pipes and connections (allowance)	4	m	\$1,620.00	\$6,480.00
	<b>Drainage Total</b>				<b>\$32,280.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	725	m2	\$160.00	\$116,000.00
4.02	Fitness node (equipment and softfall with edging)	1	Item	\$151,200.00	\$151,200.00
	<b>Hardscape Total</b>				<b>\$267,200.00</b>
<b>5.00</b>	<b>FURNITURE AND ELEMENTS</b>				
5.01	Seating (seats and benches)	8	item	\$2,700.00	\$21,600.00
5.02	Bike racks	8	item	\$920.00	\$7,360.00
5.03	Shelter (large 8 x 4m)	1	item	\$19,450.00	\$19,450.00
5.04	Bollards (timber along road edge at 1.5m spacings)	285	item	\$160.00	\$45,600.00
5.05	Fence and gates to dog park	255	lm	\$160.00	\$40,800.00
5.06	Signage (directional finger post)	1	item	\$540.00	\$540.00
5.07	Distance marker signage (timber bollard marker)	2	item	\$800.00	\$1,600.00
	<b>Furniture and Elements Total</b>				<b>\$136,950.00</b>
<b>6.00</b>	<b>SOFTSCAPE</b>				
6.01	Existing grassland (slash and weed removal)	6671	m2	\$2.70	\$18,011.70
6.02	Dog park lawn, planting area and paths	2480	m2	\$165.00	\$409,200.00
6.03	Wetland planting (tubestock 6/m2 to perimeter)	550	m2	\$43.00	\$23,650.00
6.04	New bushland planting (cumberland plain reveg 4 tubes/m2)	1250	m2	\$32.50	\$40,625.00
6.05	Feature planting	420	m2	\$195.00	\$81,900.00
6.06	Tree planting (tube stock)	200	item	\$16.00	\$3,200.00
6.07	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$603,586.70</b>
<b>7.00</b>	<b>SERVICES</b>				
7.01	Hose cocks and connections	4	item	\$970.00	\$3,880.00
7.02	Services and connections	3	item	\$1,600.00	\$4,800.00
	<b>Services Total</b>				<b>\$8,680.00</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 3 (LIN3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 13.04.2022

Based on the Landscape Contributions Plan CP-2109-010

Site Area (m2):

17129

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Basin civil / watercourse works will be undertaken in a separate budget
- C Bulk earthworks undertaken in a separate budget
- D No soil contamination remediation or capping works allowed for
- E No allowance for the removal of contaminated materials
- F Excludes lighting. Lighting of public spaces TBC by Council
- G Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>8.00</b>	<b>Maintenance</b>				
8.01	Maintenance	12	month	\$1,945.00	\$23,340.00
	<b>Maintenance Total</b>				<b>\$23,340.00</b>
	<b>Total</b>				<b>\$1,147,598.30</b>
	Builders Margin 10%		allow		\$114,759.83
	Contingency 10%		allow		\$126,235.81
	<b>TOTAL ex GST</b>				<b>\$1,388,593.94</b>



# GLENMORE PARK STAGE 3

## LINEAR PARK 4 (LIN4)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-011

Site Area (m2):

4094

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B No soil contamination remediation or capping works allowed for
- C No allowance for the removal of contaminated materials
- D Excludes lighting. Lighting of public spaces TBC by Council
- E Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (no fencing allowed for)	0	m	\$28.00	\$0.00
1.03	Soil sediment and erosion control	1	allow	\$2,160.00	\$2,160.00
	<b>Establishment Total</b>				<b>\$4,320.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	4094	m2	\$6.00	\$24,564.00
	<b>Grading and Excavation Total</b>				<b>\$24,564.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	158	m	\$60.00	\$9,480.00
3.02	Pipes and connections (allowance)	8	m	\$1,620.00	\$12,960.00
	<b>Drainage Total</b>				<b>\$22,440.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Shared path (2.5m wide path)	486	m2	\$160.00	\$77,760.00
	<b>Hardscape Total</b>				<b>\$77,760.00</b>
<b>5.00</b>	<b>FURNITURE AND ELEMENTS</b>				
5.01	Seating (seats and benches)	2	item	\$2,700.00	\$5,400.00
5.02	Bollards (timber along road edge at 1.5m spacings)	100	item	\$160.00	\$16,000.00
	<b>Furniture and Elements Total</b>				<b>\$21,400.00</b>
<b>6.00</b>	<b>SOFTSCAPE</b>				
6.01	Open lawn area	916	m2	\$23.80	\$21,800.80
6.02	Swale planting	1802	m2	\$70.00	\$126,140.00
6.03	Feature planting	890	m2	\$195.00	\$173,550.00
6.04	Feature trees (100L trees)	70	item	\$540.00	\$37,800.00
	<b>Softscape Total</b>				<b>\$359,290.80</b>
<b>7.00</b>	<b>SERVICES</b>				
7.01	Services and connections	4	item	\$1,600.00	\$6,400.00
	<b>Services Total</b>				<b>\$6,400.00</b>
<b>8.00</b>	<b>Maintenance</b>				
8.01	Maintenance	12	month	\$1,030.00	\$12,360.00
	<b>Maintenance Total</b>				<b>\$12,360.00</b>
	<b>Total</b>				<b>\$528,534.80</b>
	Builders Margin 10%		allow		\$52,853.48
	Contingency 10%		allow		\$58,138.83
	<b>TOTAL ex GST</b>				<b>\$639,527.11</b>



# GLENMORE PARK STAGE 3

## ENTRY BOULEVARD 1 (EB1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-012

Site Area (m2): 1342

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B No soil contamination remediation or capping works allowed for
- C No allowance for the removal of contaminated materials
- D Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (no fencing allowed for)	0	m	\$28.00	\$0.00
1.03	Soil sediment and erosion control	1	allow	\$2,160.00	\$2,160.00
	<b>Establishment Total</b>				<b>\$4,320.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	1342	m2	\$6.00	\$8,052.00
	<b>Grading and Excavation Total</b>				<b>\$8,052.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	205	m	\$60.00	\$12,300.00
3.02	Pipes and connections (allowance)	4	m	\$1,620.00	\$6,480.00
	<b>Drainage Total</b>				<b>\$18,780.00</b>
<b>4.00</b>	<b>SOFTSCAPE</b>				
4.01	Swale planting	1342	m2	\$70.00	\$93,940.00
4.02	Feature trees (100L trees)	32	item	\$540.00	\$17,280.00
	<b>Softscape Total</b>				<b>\$111,220.00</b>
<b>5.00</b>	<b>SERVICES</b>				
5.01	Services and connections	2	item	\$1,600.00	\$3,200.00
	<b>Services Total</b>				<b>\$3,200.00</b>
<b>6.00</b>	<b>Maintenance</b>				
6.01	Maintenance	12	month	\$820.00	\$9,840.00
	<b>Maintenance Total</b>				<b>\$9,840.00</b>
	<b>Total</b>				<b>\$155,412.00</b>
	Builders Margin 10%		allow		\$15,541.20
	Contingency 10%		allow		\$17,095.32
	<b>TOTAL ex GST</b>				<b>\$188,048.52</b>



# GLENMORE PARK STAGE 3

## ENTRY BOULEVARD 2 (EB2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-011

Site Area (m2): 3425

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B No soil contamination remediation or capping works allowed for
- C No allowance for the removal of contaminated materials
- D Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (no fencing allowed for)	0	m	\$28.00	\$0.00
1.03	Soil sediment and erosion control	1	allow	\$2,160.00	\$2,160.00
	<b>Establishment Total</b>				<b>\$4,320.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	3425	m2	\$6.00	\$20,550.00
	<b>Grading and Excavation Total</b>				<b>\$20,550.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	325	m	\$60.00	\$19,500.00
3.02	Pipes and connections (allowance)	8	m	\$1,620.00	\$12,960.00
	<b>Drainage Total</b>				<b>\$32,460.00</b>
<b>4.00</b>	<b>HARDSCAPE</b>				
4.01	Entry Statement	1	item	\$27,000.00	\$27,000.00
	<b>Hardscape Total</b>				<b>\$27,000.00</b>
<b>5.00</b>	<b>SOFTSCAPE</b>				
5.01	Open lawn area	378	m2	\$23.80	\$8,996.40
5.02	Swale planting	2147	m2	\$70.00	\$150,290.00
5.03	Feature planting	900	m2	\$195.00	\$175,500.00
5.04	Feature trees (100L trees)	50	item	\$540.00	\$27,000.00
	<b>Softscape Total</b>				<b>\$361,786.40</b>
<b>6.00</b>	<b>SERVICES</b>				
6.01	Services and connections	4	item	\$1,600.00	\$6,400.00
	<b>Services Total</b>				<b>\$6,400.00</b>
<b>7.00</b>	<b>Maintenance</b>				
7.01	Maintenance	12	month	\$820.00	\$9,840.00
	<b>Maintenance Total</b>				<b>\$9,840.00</b>
	<b>Total</b>				<b>\$462,356.40</b>
	Builders Margin 10%		allow		\$46,235.64
	Contingency 10%		allow		\$50,859.20
	<b>TOTAL ex GST</b>				<b>\$559,451.24</b>



# GLENMORE PARK STAGE 3

## ENTRY BOULEVARD 3 (EB3)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-013

Site Area (m2):

695

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B No soil contamination remediation or capping works allowed for
- C No allowance for the removal of contaminated materials
- D Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (no fencing allowed for)	0	m	\$28.00	\$0.00
1.03	Soil sediment and erosion control	1	allow	\$2,160.00	\$2,160.00
	<b>Establishment Total</b>				<b>\$4,320.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	695	m2	\$6.00	\$4,170.00
	<b>Grading and Excavation Total</b>				<b>\$4,170.00</b>
<b>3.00</b>	<b>DRAINAGE</b>				
3.01	Subsoil drainage	230	m	\$60.00	\$13,800.00
3.02	Pipes and connections (allowance)	8	m	\$1,620.00	\$12,960.00
	<b>Drainage Total</b>				<b>\$26,760.00</b>
<b>4.00</b>	<b>SOFTSCAPE</b>				
4.01	Swale planting	695	m2	\$70.00	\$48,650.00
4.02	Feature trees (100L trees)	27	item	\$540.00	\$14,580.00
	<b>Softscape Total</b>				<b>\$63,230.00</b>
<b>5.00</b>	<b>SERVICES</b>				
5.01	Services and connections	4	item	\$1,600.00	\$6,400.00
	<b>Services Total</b>				<b>\$6,400.00</b>
<b>6.00</b>	<b>Maintenance</b>				
6.01	Maintenance	12	month	\$820.00	\$9,840.00
	<b>Maintenance Total</b>				<b>\$9,840.00</b>
	<b>Total</b>				<b>\$114,720.00</b>
	Builders Margin 10%		allow		\$11,472.00
	Contingency 10%		allow		\$12,619.20
	<b>TOTAL ex GST</b>				<b>\$138,811.20</b>



# GLENMORE PARK STAGE 3

## LANDSCAPE BUFFER 1 (LB1)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-014

Site Area (m2): 4135

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (allowance)	960	m	\$28.00	\$26,880.00
1.03	Soil sediment and erosion control	1	allow	\$4,300.00	\$4,300.00
	<b>Establishment Total</b>				<b>\$33,340.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	4135	m2	\$6.00	\$24,810.00
	<b>Grading and Excavation Total</b>				<b>\$24,810.00</b>
<b>3.00</b>	<b>SOFTSCAPE</b>				
3.01	Buffer planting (8 tubes/m2 and 75L trees 1/20m2)	4135	m2	\$97.00	\$401,095.00
	<b>Softscape Total</b>				<b>\$401,095.00</b>
<b>4.00</b>	<b>Maintenance</b>				
4.01	Maintenance	12	month	\$1,100.00	\$13,200.00
	<b>Maintenance Total</b>				<b>\$13,200.00</b>
	<b>Total</b>				<b>\$472,445.00</b>
	Builders Margin 10%		allow		\$47,244.50
	Contingency 10%		allow		\$51,968.95
	<b>TOTAL ex GST</b>				<b>\$571,658.45</b>



# GLENMORE PARK STAGE 3

## LANDSCAPE BUFFER 2 (LB2)

Project Number: 2109



### OPINION OF PROBABLE COST

Revision C 11.04.2022

Based on the Landscape Contributions Plan CP-2109-015

Site Area (m2): 7035

#### Assumptions:

- A Streetscape work will be undertaken in a separate budget
- B Bulk earthworks undertaken in a separate budget
- C No soil contamination remediation or capping works allowed for
- D No allowance for the removal of contaminated materials
- E Servicing connections to site by Civil

	Item	Qty	Unit	Rate	Total
<b>1.00</b>	<b>SITE ESTABLISHMENT</b>				
1.01	Site establishment and preliminaries	1	item	\$2,160.00	\$2,160.00
1.02	Security fencing (allowance)	1550	m	\$28.00	\$43,400.00
1.03	Soil sediment and erosion control	1	allow	\$4,300.00	\$4,300.00
	<b>Establishment Total</b>				<b>\$49,860.00</b>
<b>2.00</b>	<b>GRADING AND EXCAVATION</b>				
2.01	Fine grading, cut & fill to new levels (0.2m nom allowance)	7035	m2	\$6.00	\$42,210.00
	<b>Grading and Excavation Total</b>				<b>\$42,210.00</b>
<b>3.00</b>	<b>SOFTSCAPE</b>				
3.01	Buffer planting (8 tubes/m2 and 75L trees 1/20m2)	7035	m2	\$97.00	\$682,395.00
	<b>Softscape Total</b>				<b>\$682,395.00</b>
<b>4.00</b>	<b>Maintenance</b>				
4.01	Maintenance	12	month	\$820.00	\$9,840.00
	<b>Maintenance Total</b>				<b>\$9,840.00</b>
	<b>Total</b>				<b>\$784,305.00</b>
	Builders Margin 10%		allow		\$78,430.50
	Contingency 10%		allow		\$86,273.55
	<b>TOTAL ex GST</b>				<b>\$949,009.05</b>



## **APPENDIX D - CUMBERLAND PLAIN CONSERVATION PLAN (CPCP) OVERLAY**



300070-PSK-044[A]

Plotted By: David Preston-Thomson Plot Date: 23/06/22 2:12:08PM Cad File: \\JPSERVER06\DRAWING\300070\DRAWINGS\PLANNING\300070-PSK-044[A].DWG  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.



LEGEND

GP3 BOUNDARY

CPCP BOUNDARY

ver.	date	comment	drawn	pm	level information	scale (A1 original size)	notes
A	23.06.22	INITIAL ISSUE	DPT	MO	DATUM: N/A CONTOUR INTERVAL: N/A	A1 1:4000 0 100 200m A3 1:8000	

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
GP3 MASTERPLAN  
WITH CPCP MAPPING  
OVERLAY

location: CHAIN O PONDS ROAD,  
MULGOA

council: PENRITH CITY COUNCIL

dwg ref: 300070-PSK-044

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohnson.com.au

working beyond expectations



## REFERENCES

Population and household forecasts, 2016 to 2036, prepared by id., the population experts, December 2017.

Social Impact and Infrastructure Assessment by Elton Consulting (March 2020)

Social Impact and Infrastructure Assessment Addendum by WSP (April 2022)

Transport Impact Assessment by The Transport Partnership (April 2022)

Water Cycle Management Strategy Report by J Wyndham Prince (April 2022)

Public Domain and Open Space Strategy by GLN Planning and Sturt Noble (July 2022)



