



Forrestfield / High Wycombe
Industrial Area Stage 1 –
Development Contribution Plan
Report 2020



Contents

- 1. Introduction.....4
 - 1.1 Background4
 - 1.2 Purpose of Development Contribution Plan5
 - 1.3 Status5
 - 1.4 Infrastructure Changes in Forrestfield / High Wycombe Industrial Area Stage 15
- 2. Infrastructure, Land and Other Items6
 - 2.1 Land Value6
 - 2.2 Roads / Intersections.....7
 - 2.2.1 Berkshire Road.....7
 - 2.2.3 Milner Road8
 - 2.2.4 Nardine / Ashby Close.....9
 - 2.2.5 Bonser Road (Previously known as Road 1)10
 - 2.2.6 Nardine Close Extension (Road 2A)11
 - 2.2.7 Sultana Road West (50% contribution)12
 - 2.2.8 Nardine Close / Milner Road Intersection.....12
 - 2.2.9 Ashby Close / Berkshire Road Intersection.....12
 - 2.2.10 Milner / Dundas / Berkshire Road Intersection12
 - 2.2.11 Bush Forever Fencing.....13
 - 2.3 Land for Road Reserve13
 - 2.4 Administrative Items14
 - 2.5 Estimated Cost.....15
- 3. Development Contribution Methodology.....16
 - 3.1 Cost Inputs.....16
 - 3.2 Area Inputs16
 - 3.3 Calculation16
- 4. Priority and Timing of Provision17
- 5. Period of Operation and Review18
- 6. Operational Matters19
 - 6.1 Principles19
- 7. Figures20
 - 7.1 Draft Forrestfield / High Wycombe Local Structure Plan (As Amended)20
- 8. Appendices21

8.1 Appendix A: Berkshire Road21

8.3 Appendix C: Nardine / Ashby Close.....27

8.4 Appendix D: Road 128

8.5 Appendix E: Nardine Road Extension (Road 2A)30

8.6 Appendix F: Sultana Road West35

8.10 Appendix J: Bush Forever Fencing39

8.11 Appendix K: Administrative Items40

1. Introduction

1.1 Background

The Forrestfield / High Wycombe development area is located within the City of Kalamunda (City) and is generally bounded by Maida Vale Road to the north, Roe Highway to the east, Berkshire Road to the south and Dundas Road to the west.

The Forrestfield / High Wycombe Local Structure Plan (the LSP) has been prepared to facilitate industrial subdivision and development within the area. Due to the nature of fragmented landownership, a Development Contribution Plan (DCP) has been prepared to coordinate the provision of common infrastructure required to cater for development. The area affected by the DCP is shown in Figure 1 below.

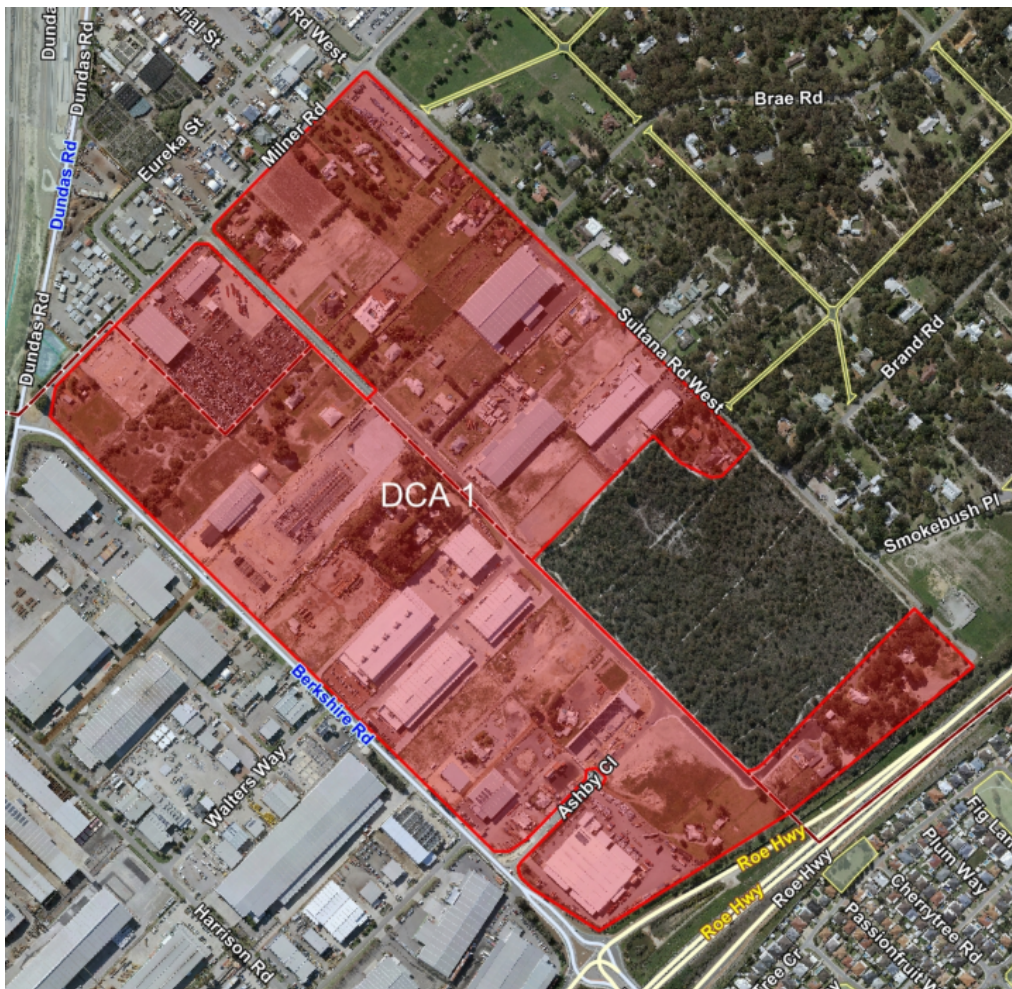


Figure 1 – Development Contribution Area 1 – Forrestfield Light Industrial Area – Stage 1

1.2 Purpose of Development Contribution Plan

This report has been prepared to set out in detail:

- a) The infrastructure, land and other items for which development contributions are to be collected;
- b) How land values are calculated, and the valuation methodology applied;
- c) A review of cost estimates of infrastructure and administrative items;
- d) A calculation of the cost contribution rate applicable;
- e) Principles for the priority and timing of infrastructure provision and land acquisition; and
- f) Various other operational matters.

1.3 Status

This DCP Report has been prepared pursuant to Clause 6.5.3 of the City's Local Planning Scheme No.3 (LPS3).

The DCP Report should be read in conjunction with Clause 6.5 and Schedule 12 of LPS3 and the Forrestfield / High Wycombe Local Structure Plan (LSP). This DCP Report does not form part of LPS3 but has been prepared generally in accordance with Schedule 12 of LPS3.

1.4 Infrastructure Changes in Forrestfield / High Wycombe Industrial Area Stage 1

Infrastructure included within the DCP is guided by Schedule 12 of the LPS3 and the LSP. In previous reviews of the DCP there have been modifications made by the City to infrastructure items to respond to changes in the planning framework in the area and submissions from landowners. This has resulted in modifications to relevant infrastructure items included in the DCP being adjusted at the annual DCP review. These modifications include but are not limited to:

- a) Modification of Berkshire / Milner Road from a cul-de-sac to a full movement intersection.
- b) Removal of upgrades to Dundas Road.
- c) Inclusion of the extension of Nardine Close (previously referred to as Road 2A) through to Lot 50 and 51 Sultana Road West.
- d) Demolition and compensation for an existing garage on Lot 51 to facilitate the Nardine Close extension (Road 2A).
- e) Relocation of Bonser Road to the southern boundary of Lot 547 (291) Berkshire Road, Forrestfield.
- f) Removal of an entry statement on Berkshire Road.
- g) Removal of carriageway widening to Berkshire Road.
- h) Updated administration costs.
- i) Revised utility relocation estimates (now within each relevant road cost estimate).
- j) Accounting for contributions received and land purchased.

2. Infrastructure, Land and Other Items

This section of the DCP Report identifies the infrastructure, land and other items for which development contributions will be collected. These items include:

- k) Land for roads and intersections;
- l) Roads and intersection construction requirements;
- m) Landscaping;
- n) Fencing treatment to Bush Forever; and
- o) Administration costs.

2.1 Land Value

Land is required to deliver the infrastructure outlined within the DCP. To determine the total cost of items, an estimate of land value needs to be identified. For the purposes of land acquisitions, the net land value is to be determined in accordance with the definition of "value" in LPS3 Clause 6.5.12.

LPS3 Amendment 88 introduced text into Clause 6.5.12 to read "Valuation methodology will be defined for each particular arrangement by the applicable Development Contribution Plan Report." In this case, the City has received advice that indicates that in the context of the nature of highly fragmented land ownership, static feasibility valuations will be undertaken for all land parcels; however, for the purposes of implementing a single land value for the DCP, a combination of the comparative sales approach, piecemeal approach and an average rate approach will be utilised.

This approach is consistent with previous versions of the DCP and is the most appropriate methodology for the purposes of the ongoing administration of the DCP.

Valuation reports undertaken July 2019 indicate a land value rate of \$240/m².

2.2 Roads / Intersections

Note: All service and utility relocation cost estimates and street lighting have been included as part of road or intersection upgrade estimates.

2.2.1 Berkshire Road

Berkshire Road is an existing road and borders a significant portion of the LSP area. Berkshire Road is required to be upgraded to service the future development envisaged by the LSP.

The following items are included in the DCP for Berkshire Road:

- Construction of a shared path along the north side of Berkshire Road to provide a continuous path between Milner Road and Roe Highway, including upgrading of the existing pedestrian path in this location.
- Adjusting a power line crossing to provide unrestricted clearance for RAV7 vehicles.

In January 2020, the City received State Government funding to undertake a design for shared paths on Berkshire and Dundas Road. Subject to the designs and construction estimates being finalised, construction funding is expected to follow. Subject to construction funding being provided for this project, the City will consider the removal of the shared path item from the DCP. While the shared path has been included for the purposes of the current review, its removal will be considered in future reviews at the time that other funding sources have been confirmed.

The future development cost for Berkshire Road is estimated at \$128,913.71

A detailed breakdown of the cost is provided in Appendix A.

2.2.3 Milner Road

Milner Road is an existing road and borders the northern boundary of the LSP area. Milner Road is required to be upgraded to service the future development envisaged by the LSP.

The following items are included in the DCP for Milner Road:

- Widen carriageway to provide a 10-metre-wide carriageway.
- Construction of a 2.5m shared path to provide connection between Berkshire Road and Sultana Road West.
- Remove existing pedestrian paths and reinstate the verge area.
- Install street lighting between Berkshire Road and Sultana Road West.
- Road upgrades to accommodate category RAV7 vehicles between Berkshire Road and Nardine Close.
- Road upgrades to accommodate category RAV4 between Nardine Close and Sultana Road West.

The future development cost for Milner Road is estimated at \$1,022,590.84

A detailed breakdown of the cost is provided in Appendix B.

2.2.4 Nardine / Ashby Close

Nardine / Ashby Close are existing roads providing the primary connection through the industrial area from Berkshire Road to Milner Road. The following Nardine / Ashby Close upgrades were completed in July 2019:

- Creation of new road reserve section between existing cul-de-sac and Ashby Close alignment.
- Construction of a new 10-metre wide road section from the existing cul-de-sac south to provide connection to Ashby Close.
- Widen existing carriageway to provide a 10-metre-wide carriageway. Road and intersection upgrades to accommodate category RAV7 vehicles.
- Construction of drainage swales along the road verge sections in accordance with the LSP.
- Construction of a shared path to provide connection between Milner Road and Ashby Close.

The following road modifications are proposed to be completed when Bonser Road has been completed to a RAV7 standard:

- Modifications to the Ashby Close and Berkshire Road intersection to restrict access to left in, left out only.

The development cost for Nardine / Ashby Close is \$1,613,941.60

A breakdown of expenses for this project is provided in Appendix C.

2.2.5 Bonser Road (Previously known as Road 1)

Bonser Road is a new road providing a connection between Nardine Close and Berkshire Road. This road is required to be created to service the future development envisaged by the LSP.

The following items are included in the DCP for Bonser Road:

- Creation of new road reserve section between Berkshire Road and Nardine Close.
- Construction of a new 10-metre wide road Berkshire Road to Nardine Close.
- Construction of drainage swales along the road verge sections in accordance with the LSP.
- Construction of a footpath along the north side to provide connection between Nardine Close and Berkshire Road.
- Road and intersection upgrades to accommodate category RAV7 vehicles.
- Supply and installation of street trees.

Bonser Road construction will be divided into two stages:

- 1) The construction of Bonser Road with the exception of road works (truncations) impacting Lots 16 and 17 Berkshire Road. This first stage would result in a road that is not to a standard suitable for a category RAV7 vehicle. The acquisition of truncations for Lots 16 and 17 Berkshire Road is required in order to facilitate the full construction of an intersection for RAV 7 vehicles.
- 2) Following the acquisition of truncations from Lots 16 and 17 Berkshire Road, upgrades to bring the intersections up to a standard suitable for category RAV7 vehicles will be undertaken.

The future development cost for Road 1 is estimated at \$587,657.45

A detailed breakdown of the cost, including a breakdown of the staging costs is provided in Appendix D.

2.2.6 Nardine Close Extension (Road 2A)

Nardine Close extension is a new road providing access to lots currently serviced by a series of battle-axe legs. Nardine Close extension is required to be created to service the future development envisaged by the LSP.

The following items are included in the DCP for the Nardine Close extension:

- Construction of a new 10-metre-wide section to service current battleaxe configured lots.
- Construction of drainage swales along the road verge sections in accordance with the Drainage Strategy.
- Roads will only be constructed to service current battleaxe configured lots if land assembly and consolidation processes do not provide the affected lands with access from gazetted and constructed public roads.
- Creation of a new 20 and 14 metre road reserve section as required.
- Demolition and compensation for an existing garage on Lot 51 Sultana Road West to facilitate road creation and construction.
- Associated service installation and relocation.

Nardine Close Extension is divided into two stages:

- Stage 1: The creation of a road reserve and road construction including a cul-de-sac up to the south-west boundary of Lot 51 (168) Sultana Road West. This stage was completed in July 2019.
- Stage 2: The creation of a road reserve and road construction including a cul-de-sac up to the south-west boundary of Lot 50 (170) Sultana Road West.

The development cost for Nardine Close Extension (Road 2A) is:

Stage 1: \$562,565.18 (Completed)

Stage 2: \$540,658.08 (Estimated)

Total: \$1,103,223.26

A detailed breakdown of the cost is provided in Appendix E.

With regard to Stage 2 of the Nardine Close extension (Road 2A), the City is currently considering a development application for a place of worship on Lot 50 Sultana Road West that would utilise Sultana Road West as access entirely, and would not require internal light industrial oriented access to the Forrestfield / High Wycombe Industrial area, via Nardine Close. It is therefore possible that, if this development proposal proceeds, Stage 2 of the Nardine Close extension will not be required. The City will consider, at the time the building has commenced construction, amending the Local Structure Plan and DCP to remove Stage 2, however will maintain an emergency access way for bushfire purposes. If Stage 2 is removed from the DCP, it will reduce the overall infrastructure and land acquisition costs and be another matter that is required to be settled as part of the reconciliation process.

2.2.7 Sultana Road West (50% contribution)

Sultana Road West is an existing road and borders a significant portion of the Forrestfield North Residential Precinct LSP area to the east. Sultana Road West is required to be upgraded to service the future development envisaged by the LSP. The DCP will fund 50% of any required modifications to Sultana Road

The following items are included in the DCP for Sultana Road West:

- Widen carriageway between Milner Road and Lot 222 (128) Sultana Road West (previously widening was proposed for the full length to Smokebush Place) to provide a 10-metre-wide carriageway.
- Construction of drainage swales along the road verge sections for stormwater disposal.
- Construction of a shared path to provide connection between Milner Road and Lot 222 (128) Sultana Road West.

The future development cost for Sultana Road West is estimated at:

Total: \$1,730,271

50% contribution from DCA1: \$865,135.61

A detailed breakdown of the estimated costs is provided in Appendix F.

2.2.8 Nardine Close / Milner Road Intersection

Milner Road and Nardine Close intersection is required to be upgraded to service the future development envisaged by the LSP.

The development cost for Nardine Close / Milner Road intersection is \$317,005

Construction works are still underway for this project. At the conclusion of the works, a summary of costs will be included within the DCP Report.

2.2.9 Ashby Close / Berkshire Road Intersection

Ashby Close / Berkshire Road intersection is required to be upgraded to service the future development envisaged by the LSP.

The development cost for Ashby Close / Berkshire Road intersection is \$271,312

Construction works are still underway for this project. At the conclusion of the works, a summary of costs will be included within the DCP Report.

2.2.10 Milner / Berkshire Road Intersection

Milner / Berkshire Road intersection is required to be upgraded to service the future development envisaged by the LSP. An \$80,000 contribution from the State Government to the upgrade of this intersection has been received, this has been accounted for in the costs included in the DCP.

The development cost for Milner Road / Dundas Road / Berkshire Road intersection is \$980,636

Construction works are still underway for this project. At the conclusion of the works, a summary of costs will be included within the DCP Report.

2.2.11 Bush Forever Fencing

The 'Bush Forever' site is located at the southern end of the site between Nardine Close and Sultana Road West. There is a requirement to fence off this section of 'Bush Forever'.

The fence type used for cost estimates consists of pine posts and rails with a chainmesh infill between posts.

The future development cost for Bush Forever Fencing is estimated at \$105,875.33.

A detailed breakdown of the cost is provided in Appendix G.

2.3 Land for Road Reserve

The DCP takes responsibility for acquiring DCP road reserve land where the existing reserve is widened or where the road is a new road.

See Section 2.1 for information on land valuation methodology.

The following table summarises the remaining road reserve acquisitions:

Property Address	Remaining Acquisition Area (m²)	Remaining Acquisition Cost
Lot 16 (285) Berkshire Road	132	\$31,680
Lot 17 (287) Berkshire Road	76	\$18,240
Lot 547 (291) Berkshire Road	7,479	\$1,794,960
Lot 200 (103) Milner Road	93	\$22,320
Lot 50 (170) Sultana Road West	670	\$160,800
Lot 51 (168) Sultana Road West	2,491	\$597,840
Lot 52 (166) Sultana Road West	1,100	\$264,000
Total	12,041	\$2,889,840

2.4 Administrative Items

Administrative items include all expended and estimated future costs associated with administration, planning and development of the LSP, DCP and any technical documents necessary for the implementation of the above, including:

- Planning studies;
- Road design costs;
- Legal costs associated with entering into agreements;
- Other related technical and professional studies; and
- Scheme Management Costs (including administration and management of the DCP).

The cost for administrative items is:

Administrative Costs to Date: \$562,328.55

Future Administrative Costs: \$405,000

Total: \$967,328.55

A detailed breakdown of the costs is provided in Appendix H.

2.5 Estimated Cost

The following table provides a summary of the estimated cost for all infrastructure, land and other items within the DCP.

Item	Actual as at 22/1/2020	Remaining	Total
Berkshire Road	\$0	\$128,913.71	\$128,913.71
Milner Road	\$0	\$1,022,590.84	\$1,022,590.84
Nardine/Ashby Close	\$1,613,941.60	\$0	\$1,613,941.60
Bonser Road	\$0	\$587,657.45	\$587,657.45
Nardine Close Extension (Road 2A) Stage 1	\$562,565.18	\$0	\$562,565.18
Nardine Close Extension (Road 2A) Stage 2	\$0	\$540,658.08	\$540,658.08
Sultana Road West	\$0	\$865,135.61	\$865,135.61
Nardine Close/Milner Road Intersection	\$289,400	\$27,605	\$317,005
Ashby Close/Berkshire Road Intersection	\$262,583	\$8,729	\$271,312
Berkshire/Milner Road Intersection	\$895,108	\$85,528	\$980,636
Bush Forever Fencing	\$0	\$105,875.33	\$105,875.33
Land for Roads	\$4,225,510.00	\$2,889,840.00	\$7,115,350.00
Subtotal – Infrastructure	\$7,849,107.78	\$6,262,533.01	\$14,031,640.79
Administration	\$562,328.55	\$405,000	\$967,328.55
Subtotal – Administration Items			\$967,328.55
Total			\$14,998,969.34

Gross / Net Variation**	\$0	-\$195,463.00	-\$195,463.00
-------------------------	-----	---------------	---------------

**Initial versions of the DCP calculated contributions based on a gross area (calculated based on total land area) and collected on a net area (deducting areas for road reservations). This resulted in a short fall of contributions of approximately \$195,463. Under the previous DCP calculation methodology, the short fall was proposed to be dealt with by Council at the end of the DCP. As a result of the most recent review and with all payments being considered interim until the conclusion of the DCP, the shortfall will no longer occur as all contributions will be reconciled to the final DCP amount. In this context, the deduction that was previously included has been removed from the calculation of the DCP rate.

3. Development Contribution Methodology

This section of the DCP Report sets out the methodology for determining the development contributions applicable. The development area is characterised by a single precinct and development contributions are made on a 'per square metre' basis.

Schedule 12 of LPS3 sets out the method for calculating contributions:

$$\text{Contribution rate} = \frac{\text{Cost of infrastructure items} + \text{cost of administrative items (\$)}}{\text{Net lot area of DCA (m}^2\text{)}}$$

3.1 Cost Inputs

Cost Input	\$/m²
Cost of infrastructure items	\$14,031,640.79
Cost of administrative items	\$967,328.55

3.2 Area Inputs

Area Input	Area
Contribution Area	690,411m ²
Area of Road Reserve	38,326.50m ²
Net lot area	652,084.50m²

3.3 Calculation

	Cost of infrastructure items		Cost of administrative items (\$)	
\$	14,031,640.79	+	\$	967,328.55
	Net lot area of DCA (m²)			
	652,084.50			
Contribution Rate	=	\$		23.00

4. Priority and Timing of Provision

The following key principles are utilised to guide the identification of priorities for the provision of infrastructure and land acquisition, including:

- a) Ensuring a constant turnover of funds – By managing the cash flow of the DCP, the City can optimise the use of funds between land acquisition and civil works and recoupment for developer pre-funding.
- b) Prioritising the purchase of land identified for public purposes that encompasses all of, or a substantial portion of, one landholding – such landholdings are essentially “quarantined” from subdivision and/or development and would be difficult to sell to a private buyer.
- c) Constructing infrastructure on an “as needs” basis to facilitate development – This is especially apparent in the context of road upgrades.
- d) Undertaking works and land acquisition in areas of fragmented ownership – this assists in the successful and coordinated development of these areas. In areas of consolidated ownership, most infrastructure and land is provided by the developer as offsets to cost contributions.
- e) Grant funding opportunities – the City will actively seek grant funding to assist in the provision of DCP infrastructure. In most instances, the use of grant funding is reliant on the City providing a matching or partial contribution. The City may utilise DCP funds and elevate the priority and timing of an infrastructure item to capitalise on grant funding opportunities. This approach is beneficial to the long- term financial viability of the DCP.

Subject to the availability of funding, the following items have been determined by the City as current priority items:

Completed Priorities (or under construction):

1. Nardine / Ashby Close design, land acquisition and construction;
2. Nardine Close / Milner Road intersection design and construction;
3. Ashby Close / Berkshire Road intersection design and construction;
4. Berkshire / Milner Road intersection design and construction; and
5. Nardine Close Extension (Road 2A: Stage 1) design and construction.

Scheduled Priorities:

1. Administration Costs, including designs to support detailed cost estimates (ongoing);
2. Bonser Road (previously referred to as Road 1), land acquisition, design and construction.
3. Nardine Close Extension (Road 2A: Stage 2) design, land acquisition and construction. In the event that Stage 2 is not required given land use changes in the area, this item will be replaced with the design, land acquisition and construction of an emergency accessway on the north-west side of Lots 50 and 51 Sultana Road West.
4. Milner Road construction; and
5. Sultana Road West construction.

The priorities have been identified in order of priority. The identification of priorities will be undertaken as part of the annual cost estimate review and associated DCP Report update.

5. Period of Operation and Review

The DCP will operate for a period of 10 years, being the date of gazettal of the related scheme amendment to incorporate the DCP into LPS3 as Schedule 12.

The DCP Scheme will be reviewed at least every 5 years from the date of gazettal or earlier when considered appropriate, having regard to the rate of subsequent development in the area since the last review and the degree of development potential still existing.

The DCP Report, incorporating cost estimates, will be reviewed at least annually, allowing for more frequent reviews to be completed on an as-required basis having regard to cost volatility and development priorities.

6. Operational Matters

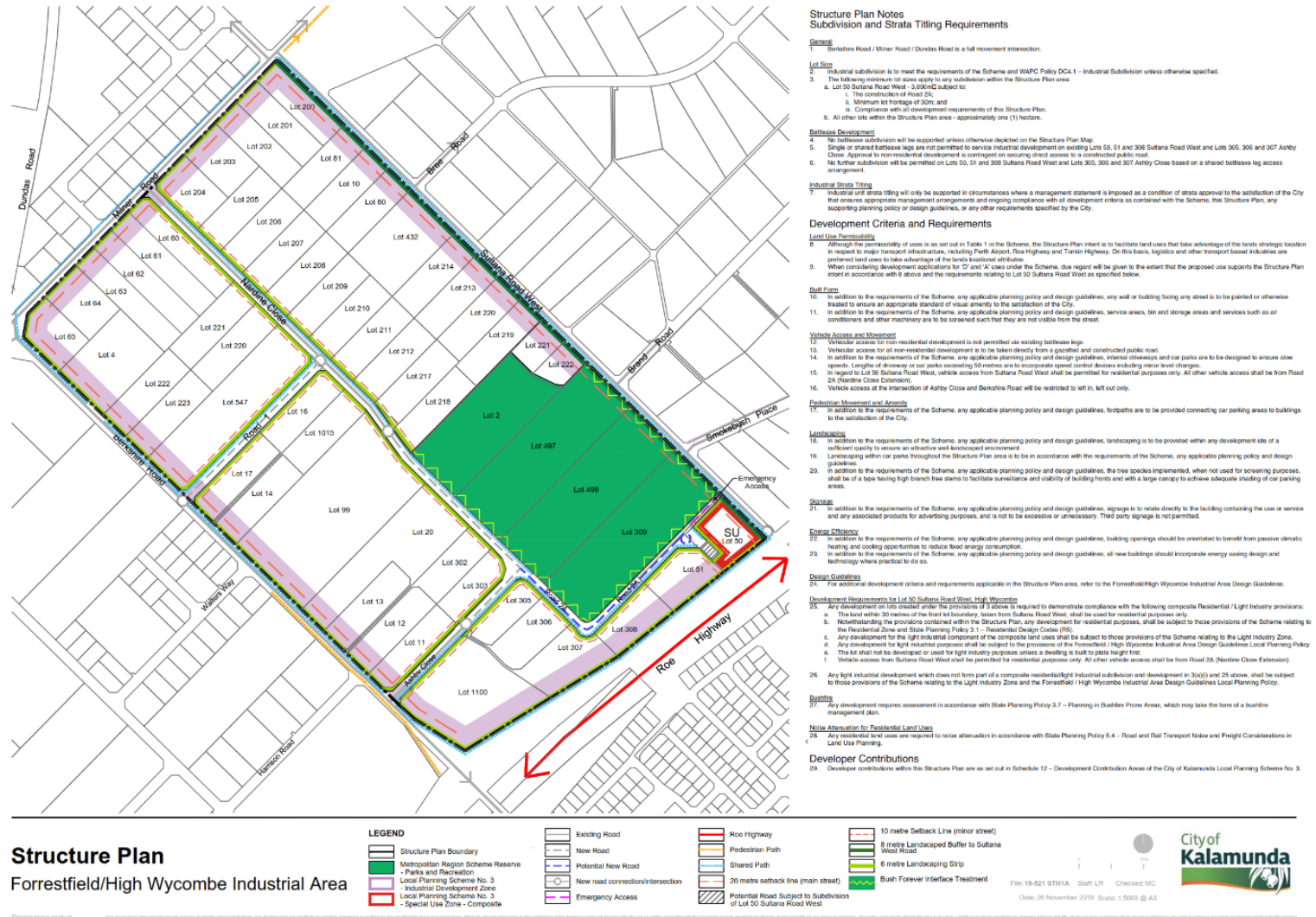
This section of the DCP Report addresses various operational matters associated with the DCP.

6.1 Principles

Refer Clause 6.5.6 of LPS3.

7. Figures

7.1 Forrestfield / High Wycombe Local Structure Plan (As Amended)



8. Appendices

8.1 Appendix A: Berkshire Road

Item	Description	PCE Quantity	PCE Rate	PCE Amount	PCE Subtotal
	No detailed design drawings have been prepared as the DCP scope is to widen the existing footpath by 0.7m to create a 2.5m wide path. And raise a power line crossing to provide unrestricted clearance for RAV7 vehicles				
1	Preliminaries				
1.1			6%	\$5,500	
	Subtotal - Preliminaries				\$5,500
2	Survey Control and Testing				
2.1	All Survey (Setout, As-Cons, Compaction Testing etc.)		5%	\$4,583	
	Subtotal - Survey Control and Testing				\$4,583
3	Clearing and Demolition				
3.1	Clear Large Trees inc Grubbing	-	\$246.00	\$ -	
3.2	Clear Small Trees inc Grubbing	-	\$179.00	\$ -	
3.3	Clear shrubs/grass	-	\$1.82	\$ -	
3.4	Demolish and Dispose redundant footpaths	81	\$20.00	\$1,620	
	Subtotal - Clearing and Demolition				\$1,620
4	Earthworks				
4.1	Remove 100mm Topsoil to spoil for footpath widening	630	\$3.00	\$1,890	
4.2	Cut to spoil for footpath widening	63	\$25.00	\$1,575	
	Subtotal - Earthworks				\$3,465
5	Roadworks				
5.1	Widen existing concrete footpaths (from 1.8m wide to 2.5m wide)	630	\$47.65	\$30,020	
5.2	Supply and Install Pram Ramps	4	\$550.00	\$2,200	
5.3	Install concrete path to replace the portion of existing damaged path	81	\$47.65	\$3,860	
	Subtotal - Roadworks				\$36,079
6	Miscellaneous				
6.1	Clean up	1	\$3,500.00	\$3,500	
6.2	Adjust Telstra Pit	1	\$3,000.00	\$3,000	
6.3	Adjust stay poles	1	\$5,000.00	\$5,000	
6.4	Adjust hydrant	1	\$3,000.00	\$3,000	
6.5	Provision for misc./unidentified service relocations	1	\$10,000.00	\$10,000	
6.6	Crossover adjustments and reinstatements - allow \$1500 per crossover.	4	\$1,500.00	\$6,000	

6.7	Adjusting a power line crossing to provide unrestricted clearance for Rav7 vehicles	1	\$20,000.00	\$20,000	
6.8	Supply and Install street lighting				
	Subtotal - Miscellaneous				\$50,500
7	Subtotal				
8.1	Construction Subtotal ex Prelims, Survey			\$91,664	
8.2	Construction Subtotal			\$101,747	
9	Allowances and Charges				
9.1	Traffic Management	5%		\$5,087	
9.2	BCITF Levy	0.2%		\$203	
9.3	Council Supervision	1.5%		\$1,526	
9.4	Design and Superintendence	10%		\$10,175	
9.5	Contingency	10%		\$10,175	
	Subtotal - Allowances and Charges				\$27,167
10	TOTAL			\$128,914	

8.2 Appendix B: Milner Road

Item	Description	PCE Quantity	PCE Rate	PCE Amount	PCE Subtotal
	No detailed design drawings have been prepared. However, a typical cross section for Milner Rd has been referred to, Drawing 1307024-502 Rev A				
1	Preliminaries				
1.1	All Preliminaries (Mobilisation, Supervision, Insurances, Safety etc.)		6%	\$43,626.82	
	Subtotal - Preliminaries				\$43,627
2	Survey Control and Testing				
2.1	All Survey (Setout, As-Cons, Compaction Testing etc.)		5%	\$36,355.68	
	Subtotal - Survey Control and Testing				\$36,356
3	Clearing and Demolition				
3.1	Clear Large Trees inc Grubbing	9	\$500.00	\$4,500.00	
3.2	Clear Small Trees inc Grubbing	6	\$250.00	\$1,500.00	
3.3	Clear shrubs/grass	5,040	\$1.82	\$9,172.80	
3.4	Demolish and Dispose redundant footpaths (assumed width 2m)	1,920	\$20.00	\$38,400.00	
3.5	Demolish and Dispose redundant kerbing	1,120	\$9.00	\$10,080.00	
3.6	Remove and Dispose redundant drainage pits	-	\$460.00	\$	
3.7	Remove and Dispose redundant pavements	112	\$20.00	\$2,240.00	
3.8	Remove and Dispose redundant pavements (Scarify existing pavement)	4,144	\$20.00	\$82,880.00	
	Subtotal - Clearing and Demolition				\$148,773
4	Earthworks				

4.1	Remove 100mm Topsoil to spoil	5,040	\$3.00	\$15,120.00	
4.2	Form, Shape, Compact Subgrade	1,680	\$4.00	\$6,720.00	
4.3	Form and Compact Embankment Foundation			\$	
4.4	Import Fill, Shape, Compact	1,100	\$30.00	\$33,000.00	
4.5	Cut to spoil	1,100	\$24.64	\$27,104.00	
4.6	Cut to spoil for boxout formation of widening.	538	\$24.64	\$13,246.46	
4.7	Dust Control	1	\$3,000.00	\$3,000.00	
	Subtotal - Earthworks				\$98,190
5	Roadworks				
5.1	Supply and Install 220mm limestone sub-base	370	\$50.00	\$18,480.00	
5.2	Supply and Install 100mm road base	168	\$85.00	\$14,280.00	
5.3	Supply and Install 7mm Primer Seal	1,680	\$2.60	\$4,368.00	
5.4	Supply and Install 30mm AC10	5,600	\$12.19	\$68,264.00	
5.5	Supply and Install FK			\$	
5.6	Supply and Install MK (refer note 8)			\$	
5.7	Supply and Install SMK (refer note 8)	1,120	\$20.48	\$22,937.60	
5.8	Reinstate existing Crossovers	640	\$90.00	\$57,600.00	
5.9	Supply and Install new concrete footpaths (2.5m wide)	-	\$38.12	\$	
5.9x	Supply and Install new concrete footpaths (1.5m wide)	840	\$38.12	\$32,020.80	
5.10	Supply and Install Pram Ramps	2	\$550.00	\$1,100.00	
5.11	Adjustments to existing crossovers	18	\$2,000.00	\$36,000.00	
	Subtotal - Roadworks				\$255,050
6	Drainage				
6.1	Supply and Install new 300dia culverts	-	\$2,000.00	\$	

6.2	Remove and Replace existing culverts	-	\$1,120.00	\$	
6.3	Convert Existing SEP's to Gully's	14	\$2,500.00	\$35,000.00	
6.4	Convert Existing SEP's to Manholes	-	\$2,000.00	\$	
6.5	Supply and Install new SEP's	-	\$3,000.00	\$-	
6.6	Supply and Install 375 dia. RCP	15	\$400.00	\$ 6,000.00	
	Subtotal - Drainage				\$41,000
7	Miscellaneous				
7.1	Supply and Install misc linemarking and Signage	1	\$5,000.00	\$5,000.00	
7.2	Supply and Install street lighting	560	\$110.00	\$61,600.00	
7.3	Supply and Install trees	-	\$450.00	\$	
7.4	Maintenance of trees and verges for a 2 year period	-	\$11,353.75	\$	
7.5	Supply and Install select fill for swales	-	\$30.00	\$	
7.6	Supply and Install gravel for swales	-	\$33.00	\$	
7.7	Clean up	1	\$2,500.00	\$2,500.00	
7.8	Adjust access chamber (sewer manhole) in road	5	\$5,000.00	\$25,000.00	
7.9	Provision for misc./unidentified service relocations	1	\$20,000.00	\$20,000.00	
7.10	High Pressure gas spotter (provisional)	1	\$50,000.00	\$50,000.00	
7.12	DCVG coating survey on HP gas main (Provisional)	1	item	\$5,000	
7.13	Western Power quote for interfacing works (Provisional)	1	\$ 15,000.00	\$15,000	
	Subtotal - Miscellaneous				\$184,100
8	Subtotal				
8.1	Construction Subtotal ex Prelims, Survey			\$727,114	

8.2	Construction Subtotal			\$807,096	
9	Allowances and Charges				
9.1	Traffic Management	5%		\$40,355	
9.2	BCITF Levy	0.2%		\$1,614	
9.3	Council Supervision	1.5%		\$12,106	
9.4	Design and Superintendence	10%		\$80,710	
9.5	Contingency	10%		\$80,710	
	Subtotal - Allowances and Charges				\$215,495
10	TOTAL			\$1,022,591	

8.3 Appendix C: Nardine / Ashby Close

Year	16/17	17/18	18/19	19/20	
Consulting	\$41,498	\$53,018	\$7,941		
Contract	\$430,803	\$548,240	\$436,142	\$91,420	
Other			\$4,880		
TOTAL	\$472,301	\$601,258	\$448,963	\$91,420	\$1,613,941.60

8.4 Appendix D: Bonser Road

BONSER ROAD (LOCATED BETWEEN BERKSHIRE ROAD AND NARDINE CLOSE)
 Revised Cost January 2020
 Approximate Length 350m

Item	Description		Notes
1	Preliminaries	\$44,974.14	Includes mobilisation, demobilisation, site establishment, supervision and management, survey and set out, construction water, traffic management, insurances, BCITF levy
2	Road Construction	\$312,247.82	
2.1	Clearing and Earthworks	\$21,397.85	Includes clearing and grubbing, topsoil removal, cut to fill, cut to spoil
2.2	Roadworks	\$213,625.49	Includes subgrade preparation, subbase 150mm limestone, basecourse roadbase, primer seal and asphalt
2.3	Kerbing and Footpath	\$71,053.03	Includes semi mountable kerb, flush edge beam, backfill behind kerbs, concrete footpath, pram ramps
2.4	Miscellaneous	\$6,171.45	includes pavement testing, kerb removal, footpath removal (Nardine), saw cut and remove asphalt
3	Stormwater	\$30,791.73	
3.1	Excavation and Pipework	\$4,460.12	Includes excavation and backfill
3.2	Concrete Pits	\$6,003.45	Includes gully pit, side entry pit over existing drainage line, replace existing pit cover with gully lid
3.3	Swale Drain	\$19,242.96	Includes excavation and trimming of swale, supply and install chip mulch, supply and install gravel media, plantings
3.4	Miscellaneous	\$1,085.20	Includes the removal of existing culvert
4	Street Lighting	\$42,822.86	
4.1	Excavation and Cabling	\$12,293.96	Includes excavation, supply, install and backfill for cable
4.2	Conduit	\$552.15	Includes supply and install of conduit, misc caps, nuts, bolts etc.
4.3	Street Lights	\$14,676.62	Supply and install street light poles
4.4	Miscellaneous	\$13,325.13	Liaison with Western Power, transport materials, testing and commissioning, under road boring.
4.5	Additional Electrical Design Costs due to Staging	\$1,975.00	Refer to RSA Engineering email 7.2.2020

Subtotal 1		\$430,836.55	Excludes Stage 2 separable portion
5	Stage 2 - Separable Portion	\$70,037.83	For construction of truncations once land is acquired from Lots 16 and 17 Berkshire Road.
5.1	Preliminaries	\$12,824.54	Includes mobilisation and demobilisation, site establishment, supervision, management, survey and setout, construction water, traffic management
5.2	Clearing and Earthworks	\$1,736.55	Includes clearing and grubbing, topsoil removal.
5.3	Roadworks	\$28,839.80	Includes subgrade preparation, subbase limestone, basecourse roadbase, primer seal and asphalt.
5.4	Kerbing and Footpath	\$6,669.72	Includes semi mountable kerb, backfill behind kerbs, concrete footpath, pram ramps.
5.5	Concrete Pits	\$3,730.11	Includes site entry pit over existing drainage line, replace existing pit cover with gully type lid.
5.6	Power Reticulation	\$9,688.49	
5.7	Miscellaneous	\$5,048.62	Includes pavement testing, removal of kerbs, removal of existing crossover, saw cut and remove asphalt.
5.8	Additional Electrical Design Costs due to Staging	\$1,500.00	Refer to RSA Engineering email 7.2.2020
Subtotal 2		\$500,874.38	Includes Stage 2 separable portion
6	Allowances and Charges		
6.1	Council Supervision	\$7,513.12	1.5% of subtotal 2
6.2	Design and Superintendence	\$39,200.00	includes \$39,200 of design costs to date
6.3	Superintendence	\$15,026.23	3% of subtotal 2
6.4	Contingency	\$25,043.72	5% of subtotal 2 - confirming with RW if this contingency is appropriate
Total		\$587,657.45	Includes Stage 2 and allowances/charges

8.5 Appendix E: Nardine Road Extension (Road 2A)

Stage 1

Item	Description	PCE Quantity	PCE Rate	PCE Amount	PCE Subtotal
1	Preliminaries				\$97,326.03
2	Clearing and Demolition				\$25,461.87
3	Earthworks & Retaining				\$29,047.50
5	Roadworks				\$193,864.36
6	Drainage				\$3,246.29
7	Miscellaneous				\$48,212.85
8	Services				\$99,119.28
9	Subtotal				
9.1	Construction Subtotal ex Prelims, Survey			\$398,952.15	
9.2	Construction Subtotal			\$496,278.18	
10	Allowances and Charges				
10.1	Traffic Management			included above	
10.2	BCITF Levy			included above	
10.3	Council Supervision			unknown.	
10.4	Design and Superintendence			\$66,287.00	
10.5	Contingency			included above	
	Subtotal - Allowances and Charges				\$66,287.00
11	TOTAL			\$562,565.18	

Stage 2

Item	Description	PCE Quantity	PCE Rate	PCE Amount	PCE Subtotal
1	Preliminaries				
1.1	All Preliminaries (Mobilisation, Supervision, Insurances, Safety etc.)		8%	\$34,822	
	Subtotal - Preliminaries				\$34,822
2	Survey Control and Testing				

2.1	All Survey (Setout, As-Cons, Compaction Testing etc.)		8%	\$34,822	
	Subtotal - Survey Control and Testing				\$34,822
3	Clearing and Demolition				
3.1	Clear all vegetation and inc Grubbing of trees	1	\$15,000.00	\$15,000	
3.2	Demolition and Reinstatement of Garage	1	\$100,000.00	\$100,000	
3.3	Demolish and Dispose redundant footpaths			\$	
3.4	Demolish and Dispose redundant kerbing			\$	
3.5	Remove and Dispose redundant drainage pits			\$	
3.6	Remove and Dispose redundant pavements	654	\$20.00	\$13,080	
3.	Demolition works within Lot 51 at CH 38(sheds, slabs, lean to's)	0	\$20,000.00	\$-	
	Subtotal - Clearing and Demolition				\$128,080
4	Earthworks & Retaining				
4.1	Remove 100mm Topsoil, stockpile and respread	3340	\$4.00	\$13,360	
4.2	Form, Shape, Compact Subgrade	2231	\$4.00	\$8,924	
4.3	Form and Compact Embankment Foundation	1,109	\$2.70	\$2,994	
4.4	Import Fill, Shape, Compact	0	\$30.00	\$	
4.5	Cut to spoil (cart offsite)	530	\$25.00	\$13,250	
4.6	Cut to fill	265	\$5.00	\$1,325	
4.7	Excavate, Form and Compact Swales	422	\$8.00	\$3,376	
4.8	Dust Control	1	\$4,500.00	\$4,500	
4.9	Post and Panel Wall 0 - 0.5m high				
4.10	Reinstate brick paving by the home of lot 52 following completion of new retaining wall				
	Subtotal - Earthworks & Retaining				\$47,729

5	Roadworks				
5.1	Supply and Install 200mm limestone sub-base	446	\$50.00	\$22,310	
5.2	Supply and Install 100mm road base	223	\$85.00	\$18,964	
5.3	Supply and Install 7mm Primer Seal	2,231	\$2.60	\$5,801	
5.4	Supply and Install 30mm AC10	2,231	\$12.19	\$27,196	
5.5	Supply and Install FK	127	\$55.20	\$7,027	
5.6	Supply and Install MK (refer note 8)	97	\$20.00	\$1,946	
5.7	Supply and Install SMK (refer note 8)	119	\$20.48	\$2,445	
5.8	Reinstate existing Crossovers	25	\$92.00	\$2,300	
5.9	Gravel driveway to lot 52	60	\$50.00	\$3,000	
5.10	Emergency vehicle crossover to lot 50	50	\$90.00	\$4,500	
	Swing gate to lot 50	1	\$1,000.00	\$1,000	
5.11	Supply and Install new concrete footpaths (2.5m wide)	531	\$40.00	\$21,252	
5.12	Supply and Install Pram Ramps	2	\$550.00	\$1,100	
5.13	Key kerbs	119	\$17.00	\$2,030	
	Subtotal - Roadworks				\$120,870
6	Drainage				
6.1	Supply and Install Rock Pitching - Weirs	3	\$1,000.00	\$3,000	
	Stone Pitching	4	\$180.00	\$720	

6.2	Supply and Install new 300dia culverts			\$	
6.2	Remove and Replace existing culverts			\$	
6.4	Convert Existing SEP's to Gully's			\$	
6.5	Covert Existing SEP's to Manholes			\$	
6.6	Supply and Install new SEP's			\$	
	Subtotal - Drainage				\$3,720
7	Miscellaneous				
7.1	Supply and Install street lighting	165	\$110.00	\$18,150	
7.2	Supply and Install misc linemarking and Signage	1	\$1,000.00	\$1,000	
7.3	Supply and Install vegetation for swales			\$	
7.4	Supply and Install trees			\$	
7.5	Maintenance of trees and verges for a 2 year period			\$	
7.6	Supply and Install select fill for swales			\$	
7.7	Supply and Install gravel for swales			\$	
7.8	Clean up	1	\$5,000.00	\$5,000	
7.9	Provision for misc./unidentified service relocations	1	\$5,000.00	\$5,000	
7.10	Fencing on Western Boundary of Lot 499 - Adjustments			\$	
7.11	Relocate leach drain for home in lot 52 if encountered (Provisional)			\$	
7.12	Adjust domestic services to lot 52 if encountered (Provisional)			\$	
	Subtotal - Miscellaneous				\$29,150
8	Services				
8.1	Underground Power (inc. in item 7.1)				
8.2	Western Power Energisation Fees	1	\$10,000.00	\$10,000	
8.3	Communications				
8.4	Gas Servicing				
8.5	Landscaping				
8.6	Water Reticulation (150 P-12)	250	\$130.00	\$32,500	
8.7	Bore watermain under Ashby Close (12m PE section)				
8.8	Reinstate footpath along Ashby Close as part of water retic works				
8.9	Reinstate the road pavement at Sultana Road west for the water main works	7	\$100.00	\$720	
8.10	Water Corporation Connection Fees	1	\$2,500.00	\$2,500	

	Subtotal - Services				\$45,720
9	Subtotal				
9.1	Construction Subtotal ex Prelims, Survey			\$435,269	
9.2	Construction Subtotal			\$504,912	
10	Allowances and Charges				
10.1	Traffic Management	2.5%		\$10,883	
10.2	BCITF Levy	0.2%		\$871	
10.3	Council Supervision	1.5%		\$6,530	
10.4	Design and Superintendence	10%		\$43,531	
10.5	Contingency	10%		\$43,531	
	Subtotal - Allowances and Charges				\$122,189
11	TOTAL			\$540,658	
12	Staging				
12.1	Staging Contingency				
13	TOTAL with Staging				

8.6 Appendix F: Sultana Road West

Item	Description	PCE Quantity	PCE Rate	PCE Amount	PCE Subtotal
	Based on drawings provided by the City to Porter's, 130724-307 Rev B, 308 Rev B, 407 Rev D, 408 Rev D, 501 Rev B, 502 Rev B, 503 Rev B, 504 Rev B, 505 Rev B, 807 Rev B, 808 Rev B,				
1	Preliminaries				
1.1	All Preliminaries (Mobilization, Supervision, Insurances, Safety etc.)		6%	\$76,851.42	
	Subtotal - Preliminaries				\$76,851
2	Survey Control and Testing				
2.1	All Survey (Setout, As-Cons, Compaction Testing etc.)		5%	\$64,042.85	
	Subtotal - Survey Control and Testing				\$64,043
3	Clearing and Demolition				
3.1	Clear Large Trees inc Grubbing	10	\$500.00	\$5,000	
3.2	Clear Small Trees inc Grubbing	27	\$250.00	\$6,750	
3.3	Clear shrubs/grass	1624	\$1.82	\$2,956	
3.4	Demolish and Dispose redundant footpaths	146	\$20.00	\$2,910	
3.5	Demolish and Dispose redundant kerbing	121	\$2.73	\$330	
3.6	Remove and Dispose redundant drainage pits	0	\$460.00	\$	
3.7	Remove and Dispose redundant pavements	830	20	\$16,600	
3.8	Demolish and Dispose redundant Flush kerbing	1536	6	\$9,216	
	Subtotal - Clearing and Demolition				\$43,762
4	Earthworks				

4.1	Remove 100mm Topsoil to spoil	11200	\$3.00	\$33,600	
4.2	Form, Shape, Compact Subgrade	4000	\$4.00	\$16,000	
4.3	Form and Compact Embankment Foundation	0		\$	
4.4	Import Fill, Shape, Compact	0		\$	
4.5	Cut to spoil	1770	\$24.64	\$43,608	
4.6	Dust Control	1	\$10,000.00	\$10,000	
	Subtotal - Earthworks				\$103,208
5	Roadworks				
5.1	Supply and Install 220mm limestone sub-base	880	\$50.00	\$44,000	
5.2	Supply and Install 100mm road base	400	\$85.00	\$34,000	
5.3	Supply and Install 7mm Primer Seal	4000	\$2.60	\$10,400	
5.4	Supply and Install 30mm AC10	4030	\$12.19	\$49,126	
5.5	Supply and Install FK	1529	\$55.20	\$84,401	
5.6	Supply and Install MK (refer note 8)	0		\$	
5.7	Supply and Install SMK (refer note 8)	115	\$35.00	\$4,025	
5.8	Reinstate existing Crossovers	1507	\$90.00	\$135,630	
5.9	Supply and Install new concrete footpaths (2.5m wide)	0	\$38.12	\$	

5.9x	Supply and Install new concrete footpaths (1.8m wide)	1557	\$38.12	\$59,353	
5.10	Supply and Install Pram Ramps	8	\$550.00	\$4,400	
5.11	Key kerbs	115	\$17.00	\$1,955	
	Subtotal - Roadworks				\$427,289
6	Drainage				
6.1	Supply and Install new 300dia culverts	316	150	\$47,400	
6.2	Remove and Replace existing culverts OR extend existing culvert	1	\$5,000.00	\$5,000	
6.3	Convert Existing SEP's to Gully's	0	\$2,500.00	\$	
6.4	Covert Existing SEP's to Manholes	1	\$2,000.00	\$2,000	
6.5	Supply and Install new SEP's	1	\$3,000.00	\$3,000	
6.6	Supply and Install 375 dia. RCP	5	\$400.00	\$2,000	
6.7	Headwalls	50	500	\$25,000	
	Subtotal - Drainage				\$84,400
7	Miscellaneous				
7.1	Supply and Install misc linemarking and Signage	1	\$5,000.00	\$5,000	
7.2	Supply and Install street lighting	800	\$110.00	\$88,000	
7.3	Supply and Install trees	54	\$450.00	\$24,300	
7.4	Maintenance of trees and verges for a 2 year period	2	\$16,948.86	\$33,898	
7.5	Supply and Install select fill for swales	0	\$30.00	\$	
7.6	Supply and Install gravel for swales	0	\$33.00	\$	
7.7	Clean up	1	\$5,000.00	\$5,000	
7.8	Relocation of power pole at Milner Road Intersection (based on Dundas/Milner/Berkshire Quote)	1	\$350,000	\$350,000	
7.9	Provision for misc./unidentified service relocations			\$20,000	
7.10	NBN pit to be relocated (Provisional)	1	\$10,000.00	\$10,000	

7.11	Telstra pits to be relocated (Provisional)	1	\$10,000.00	\$10,000	
7.12	Adjustment of Telstra or NBN lids to suit finished levels (Provisional)	1	\$10,000.00	\$10,000	
7.13	Working near high pressure gas by the Milner Rd/Sultana Road West intersection (Provisional)	1	\$15,000.00	\$15,000	
7.14	Working near underground 132kV transmission cable by Milner Rd/ Sultana Road west intersection (Provisional)	1	\$10,000.00	\$10,000	
7.15	Adjustment of Water Corp lids (valves, hydrants) to suit finished levels (Provisional)	11	\$2,000.00	\$22,000	
7.16	Relocate existing water valve (Provisional)	2	\$5,000	\$10,000	
7.17	Adjustment of proposed swale to suit existing power poles in the western verge which will be in middle of swale (Provisional)	18	\$500	\$9,000	
	Subtotal - Miscellaneous				\$622,198
8	Subtotal				
8.1	Construction Subtotal ex Prelims, Survey			\$1,280,857	
8.2	Construction Subtotal			\$1,421,751	
9	Allowances and Charges				
9.1	Traffic Management	5%		\$71,088	
9.2	BCITF Levy	0.2%		\$2,844	
9.3	Council Supervision	1.5%		\$21,326	
9.4	Design and Superintendence	10%		\$142,175	
9.5	Contingency	5%		\$71,088	
	Subtotal - Allowances and Charges				\$308,520
10	Subtotal - entire width, approx 800m length			\$1,730,271	
11	TOTAL to Scheme (50%)			\$865,136	

8.10 Appendix G: Bush Forever Fencing

Bush Forever Site	Length (m) =	1020
Nardine Close / Sultana Road West / New Road		
Description	Base Costs	Amount
Siteworks		\$14,420.00
Drainage		\$
Roads		\$
Fencing		\$75,400.00
Site supervision		\$1,347.30
Site Facilities		\$898.20
Civil, Geotechnical & Survey		\$13,809.83
SUB TOTAL		\$105,875.33

8.11 Appendix H: Administrative Items

Previous Admin Costs			
Financial Year	Actuals	Culmative Admin Costs	Comment
13/14	\$53,585.00	\$53,585.00	
14/15	\$123,321.00	\$176,906.00	
15/16	\$15,736.00	\$192,642.00	
16/17	\$137,098.30	\$329,740.30	
17/18	\$105,702.00	\$435,442.30	
18/19	\$102,046.09	\$537,488.39	
20/21 YTD	\$24,840.16	\$562,328.55	YTD as at 31.1.2020
Average Admin Cost	\$89,581.40		
Future Admin Costs			
Description	Annual (\$)	Years (# remaining on DCP)	Future (\$)
Legal / Land Admin	\$15,000.00	3	\$45,000.00
Agreements for future contributions	\$50,000.00	3	\$150,000.00
Infrastructure Cost Review	\$15,000.00	3	\$45,000.00
Land Valuation	\$5,000.00	3	\$15,000.00
Staffing Costs			
Planning / Engineering / Project Management	\$50,000.00	3	\$150,000.00
Total	\$135,000.00		\$405,000.00
Admin costs to date	\$562,328.55		
Future admin costs	\$405,000.00		
Total Actual and Future Admin Costs:	\$967,328.55		
Notes:			
1. Land valuation admin costs based on valuation quotes 2018 and 2019			
2. Infrastructure cost review based on quotes 2019			
3. Admin cost forecast above limited by duration of DCP (10 years)			
4. Estimated costs for future legal agreements and caveats based on estimated quote February 2020			