Shire of Serpentine Jarrahdale

Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan

Report

Report Revision 2

Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan Report

Revision Schedule

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1 Purpose

The purpose of this development contribution plan (DCP) report is to:

- enable the application of infrastructure contributions for the development of new, and the upgrade of existing infrastructure, which is required because of increased demand generated in the Development Contribution Area (DCA)
- provide for the equitable sharing of the costs of infrastructure and administrative items between owners.
- ensure that cost contributions are reasonably required because of the subdivision, and development of land in the DCA,
- coordinate the timely provision of infrastructure.

The following documents are relevant documents which coordinate the timely provision of the infrastructure items:

- Community Infrastructure Implementation Plan
- Corporate Business Plan
- Long Term Financial Plan
- Local Planning Strategy (LPS3)
- Mundijong District Structure Plan
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2 Development Contribution Area

The Development Contribution Area (DCA) for this DCP is known as DCA3. The DCA area is shown on the scheme map and included in Figure 1.

3 Period of the plan

15 years: From 23-May-2023 to 23-May-1938.

4 Operation of the DCP

The DCP and associated report have been prepared in accordance with the provisions of State Planning Policy 3.6 - Infrastructure Contributions (SPP 3.6).

The plan will operate in accordance with the provisions of the most recent DCP Amendment to LPS3 (being Amendment 2), and Part 5 clause 36A and Schedule 7.3 of LPS3.

5 Application requirements

Where an application for subdivision, strata subdivision, development or an extension of land use is lodged which relates to land to which this plan applies, the local government shall take the provisions of the plan into account in making a recommendation on, or determining, that application.

5.1 Items included in the Plan

This section of the DCP Report identifies the items for which development contributions will be collected in the DCA. Infrastructure items included in the DCP reflect the provisions of the latest Structure Plan(s). The Need and Nexus, as well as the scope for each of the infrastructure inclusions, is in Appendix A.

5.2 Estimated Costs

The costs allocated to this DCP have been derived based on the capital investment required for infrastructure and/or facilities generated by additional development in the DCA.

Initial cost estimates are undertaken by a suitably qualified professional and will be reviewed by a suitably qualified professional at each Major Review (as a minimum).

At each Minor Review the costs may be indexed using the previous year's annual escalation rate for "Road and Bridge Construction" in the latest WALGA Quarterly Economic Briefing available at the time the DCP Report is adopted. Where deemed pertinent, some items may be reviewed by a suitably qualified professional.

The associated costs for each DCP item *exclude*:

- Ongoing maintenance costs
- Demand for infrastructure that is generated by the current population
- Demand created by external usage (the proportion of the use drawn from outside the DCA)
- Future usage (the proportion of usage that will be generated by future development outside the development contribution plan timeframe).

Where there is more than one Precinct in the DCA, development within each precinct will be required to contribute to a certain set of infrastructure and land items based on the perceived need for, and use of, those items within the precinct.

This DCA is divided into 1 Precinct (Precinct A). Figure 4 provides a geographical representation of the DCP Precinct area(s).

Appendix B shows the DCP item(s) each precinct is contributing towards, and details of the cost apportionment can be seen in the Cost Apportionment Schedule in Appendix C.

The cost breakdown of all included items in this DCP are included in the appendices as follows:

Appendix F: Administration Costs

Appendix G: Infrastructure Costs

Appendix H**:** Land for Infrastructure

Appendix I: Land for Public Open Space and/or Drainage

Appendix J: Water Monitoring

Further context for the above cost appendices are provided within:

Appendix D: Example Contribution calculations

Appendix E: Capital Expenditure Plan (timing of anticipated delivery)

The Cost Review Reconciliation, which adjusts future costs based on historic development, is included in Appendix K.

Note: Grants or other external Funding shall be shown as a deduction against the applicable item in Appendix C: Cost Apportionment Schedule.

6 Infrastructure Items to be constructed or upgraded

The Need and Nexus, as well as the scope for each of the infrastructure inclusions, is in Appendix A.

6.1 Roads

It is noted that costs associated with land to be acquired for infrastructure items within this DCP are costed separately to construction costs, due to different indexation rates applied to the Construction component and the Land Value component.

The cost of Roads undertaking district functions is shared equally across the DCA.

All other road costs will be allocated to the Precinct in which they are located (where more than one Precinct exists within the DCA), being infrastructure envisaged to predominantly service that Precinct.

The amenity of urban areas can be substantially enhanced through public realm improvement works such as vegetation, hard landscaping, public art, and higher design standards of infrastructure. Road reserves provide significant opportunities for amenity enhancement, especially in the case of wider reserves such as distributor roads and in the instance of split-carriageways. There is, however, not a clear nexus between development in a new urban area and its associated increase in traffic, and the need for general road reserve improvements.

Nonetheless, it should be noted that most developers undertake works to provide attractive streetscapes as a marketing feature, especially in the context of distributor and connector roads leading into new estates. As such, road reserve improvements, such as hard and soft landscaping and higher design standards of infrastructure, are not included in the DCP. See Figure 2 for map.

6.2 District Open Space to be constructed or upgraded

The Shire's Community Infrastructure and Public Open Space Strategy (CIPOS) outlines the general approach and philosophy in planning for community infrastructure and public open space in the Shire of Serpentine Jarrahdale. It provides a guiding document for current and future development relevant to this purpose.

The types of community infrastructure include sport, recreation, community, emergency, tourism and Shire administration requirements. These facilities are to cater for the growing pressures on local clubs, community groups and service providers, where the increasing population increases service delivery requirements. See Figure 3 for map.

The scope of construction included in this DCP is confined to land and at/below surface works including drainage, irrigation and grassing. Further above ground works may be included within the Shire's Community Infrastructure Development Contribution Plan (CIDCP).

7 Non-Infrastructure Items Included within the DCP

7.1 Administration costs

Administrative costs of the DCP including:

- Costs to prepare and administer the DCP
- Costs associated with the annual review of cost estimates
- Costs associated with the review of the cost apportionment schedules based on land development undertaken since the last review
- Costs for undertaking valuations
- Fees for professional services directly linked to the preparation and implementation of the DCP.
- Costs for computer software and/or hardware upgrades necessary to enable DCP preparation.
- Proportion of staff salaries directly related to DCP administration.
- Financial institution fees and charges associated with the administration of DCP funds
- Interest charged on loans taken out to pre-fund items included in the DCP.

In general, Administration costs of the DCP are broken down into Legal Expenses, expenses associated with advertising & consultancy, and proportional salary allocations for overhead personnel whose are involved in the general operation of the DCP(s). This allocation is reflective of the percentage of time the employee is expected to spend on work associated with the general running of the DCP. This does not include time spent on specific DCP funded infrastructure projects, which is captured within the individual project costings).

The Technical Specialist Infrastructure Contributions (previously titled “DCP Coordinator”) is the only employee whose cost is 100% allocated across the DCPs.

It is noted that staff may also be required to spend time on specific DCP funded projects as part of the design and/or project delivery phase. Any such time/cost allocation is recorded separately and where allowable under the scope/costing for the project, will be recovered under those project costings.

Administration Costs are shared equally across the DCA.

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

7.2 Land

Many traditional infrastructure items include a land component. It is noted that costs associated with land to be acquired for infrastructure items within this DCP are costed separately, due to different indexation rates applied to the Construction and Land Value components.

7.2.1 Land for Infrastructure (Roads and/or District Open Space)

The DCP takes responsibility for acquiring land for District Open Space and Road Reserves (such as road widening or for new roads) associated with DCP infrastructure items.

The associated value of this land is credited to the DCP account of the landowner at the time of ceding. In respect of land for road reserves, DCP Credits only apply to the area in excess of the

standard 20m. For example, if the road is 30m wide, only 10m width will be compensated for through this Development Contribution Plan.

This approach ensures transparency, equity (particularly in instances of fragmented ownership) and simplicity of calculation.

The cost of land associated with road widening and/or district open space is shared equally across the DCA.

All land included within the DCP for Infrastructure Items (Roads and District Open Space), is detailed in Appendix H.

7.2.2 Land for Public Open Space and/or Drainage

Land will be provided within the DCA for Public Open Space and Drainage. This includes land required for: public open space and drainage where accessible to the general public (as prescribed within Liveable Neighbourhoods, drainage only and multiple-use corridors with a dual drainage and recreation function, community public open space, and district and neighbourhood-level playing fields including where provided to complement school playing fields.

The associated value of this land is credited to the DCP account of the landowner at the time of ceding. This approach ensures transparency, equity (particularly in instances of fragmented ownership) and simplicity of calculation.

A significant amount of detailed planning has been completed for the DCA, in the form of LSPs. This level of planning allows for the specific identification of land areas required for drainage and/or Public Open Space.

There are however areas within the DCA which have not yet been subject to the preparation of LSPs. To ensure that appropriate funds are collected to allow for the future purchase of land required for POS and drainage within these areas, it has been necessary to determine an estimated amount for some LSPs.

The following methodology has been applied:

1. A review of LSPs and spatial data has been undertaken to identify the total amount of land covered by each LSP and the total amount of land required for Public Open Space and drainage.
2. From these totals, the percentage of land required for Public Open Space and drainage has been calculated.
3. Spatial data has been used to identify the total land area of areas in the DCA for which LSPs have yet to be prepared.
4. The percentage identified in step 2 has then been applied to the total identified in step 3 to generate an estimated amount of land required for Public Open Space and drainage in these areas.

The Public Open Space and drainage land areas identified in steps 1 and 4 are then added to identify a total estimate of land required for POS and drainage within the DCA.

Costs associated with POS and Drainage are shared equally across the DCA.

Appendix I details the calculations for Public Open Space and Drainage land.

<u>POS Items not included</u>

State Policy provides a clear indication that the development of POS to a minimum standard, and maintenance for a minimum period, is at the developer's expense. As such, the development and

initial maintenance of Public Open Space is not included within the Development Contribution Plan and will be the responsibility of the subdivider.

In addition, land identified as having conservation value, for example Bush forever sites or protected Wetlands, is excluded from the Development Contribution Plan.

While the Development Contribution Plan includes land for drainage purposes, it does not include drainage works themselves (i.e. earthworks, drainage infrastructure such as piping, pits, mechanical treatments, water sensitive urban design treatments or similar). These are considered subdivisional works, generally required by local water management strategies and urban water management plans.

Such drainage works are very difficult to calculate given the varying nature of drainage infrastructure and developers may treat drainage works in various ways to benefit their development. The requirement to provide optimal certainty in costing Development Contribution Plan items to achieve equity between developers, reinforces the need to exclude drainage works.

7.2.3 Land Valuation

To determine the total cost of the items, an estimate of land value needs to be identified. Land to be acquired may be required for areas which can be categorised (through the land use zoning) as residential or non-residential. There is therefore a requirement for two separate rates; one for 'Residential' and one for 'Mixed Use/Non-Residential.

Residential (Standard and Non-Standard):

This rate is based on current valuation advice for an indicative residential zoned 5-hectare lot typical for the DCP area, with no servicing constraints.

Non-Residential and/or Mixed Use:

This rate is based on a Mixed Use R60 zoned area. It has been assumed the typical land parcel is a regular shaped 5-hectare area with no major servicing constraints and no major geotechnical/environmental issues.

The net land value is to be determined having general regard to the International Valuation Standards Committee's definition of market value as adopted by the Australian Property Institute. To account for the direct transfer of land, the fair market value does not include for standard marketing costs such as fees, commissions, and advertising cost. The estimated land value will be reviewed at least annually.

The rates for land are included in Appendix M.

7.3 Water Monitoring

The Shire has in place Drainage and Water Management Plans (DWMPs) which establish the framework for water management in the new urban development areas. This ensures that water quantity and quality design objectives can be achieved and that concerns and risks identified by the Department of Water (DoW) and the Water Corporation can be addressed. The DWMP reinforces the Shire's commitment to ensuring that water sensitive urban design principles are incorporated into new urban development.

The Shire will implement water quality and quantity monitoring within the DCA. The Sampling and Analysis Plan prepared for the Shire, identifies the sampling and analysis requirements and will

allow term trends in water quality and quantity to be identified and monitored as the DCA is developed. Suitable remediation works or structural controls may be implemented to rectify any identified problems.

It is likely that subdivision and development would not be approved within the area without the approval and ongoing implementation of the DWMP. As such, it is considered reasonable that all costs of, and associated with, the required water monitoring be funded by developers within the DCA.

Details of the Water Monitoring Plan and associated costs are contained within Appendix J.

8 Method of calculating contributions

Appendix B shows the DCP item(s) each precinct is contributing towards.

8.1 Calculating the Developable Potential of each Precinct

It is necessary to estimate the potential number of additional lots/dwellings to be created in each Precinct within the DCA. This estimate will be used to determine the development contribution rate(s). A review of LSPs and spatial data has been undertaken to identify the number of additional lots/dwellings estimated for each area covered by an LSP or approved subdivision application. As lots extinguish their liability to pay contributions, and/or an LSP is revised, the future lot count is updated accordingly at the next DCP Report Review.

The yield estimate calculated for mixed development is based on 15 lots per gross hectare to provide for infrastructure of subdivision works such as roads and drainage facilities to be transferred to the state / local government. Where individual lots do not require land to be transferred to the state / local government, 20 lots per gross hectare has been applied.

There are some instances where an LSP is not prepared for an area within the DCA. In those areas, the following approach has been taken to assess the lot yield and public open space considerations:

1. Due to the nature of infill development, lot/dwelling estimates in such areas have been made based on manual calculations of the subdivision/development potential of each lot. The yield has been discounted by 50% in recognition of the likelihood some existing lots may not be redeveloped.
2. Land for public purposes (i.e. Roads, Public Open Space, drainage and similar) is expected to be provided within non-structure planned areas. As such, a 40 percent deduction has been applied to the total site area of each precinct, other than areas where it is expected that no land will be provided for public purposes.
3. In the absence of finalised (or draft) LSPs depicting residential densities, an R25 code for Mundijong has been utilised to determine the lot/dwelling estimates for the Residential yield in non-structure planned areas.

See Appendix L for details on completed and remaining anticipated development at this DCP Report revision.

Using the Total Cost allocated per Precinct and dividing this figure by the estimated number of future lots per Precinct, gives the Contribution Per Lot Value for each Precinct in the DCA.

Allocated Cost (Precinct) / anticipated future Lots to be developed

= Precinct Contribution per Lot Value

The "Cost Apportionment Schedule" shows the split of costs by item and Precinct and shows the Contribution Per Lot value for each Precinct – See Appendix C**.**

8.2 Calculating the Contribution Rate between Cost Reviews

To ensure costs are current during the time between cost reviews, all costs will be escalated daily, calculated from the number of days since the last cost review (being the latest adopted DCP revision), using an annual escalation rate.

The annual escalation rates for Administration and Infrastructure reflect the forecasts in latest WALGA Quarterly Economic Briefing (the LGCI Forecasts table) available at the time the DCP Report is adopted.

- The Administration index reflects the LGCI Component "Employee Costs"
- The Infrastructure index reflects the LGCI Component "Road and Bridge Construction".
- The Land Value index is provided as part of the independent Land Valuation.

Escalation rates will separately apply to infrastructure costs, land costs and administration costs. The escalation rates will be set at each cost review.

Given that the contribution rate entails items with different escalation rates, it is necessary to calculate a weighted escalation rate as follows:

ER = (%IC/TC x IER)+ (%LV/TC x LVER) + (%AC/TC x AER), where for each precinct:

ER - is the weighted annual Escalation Rate

TC - is the Total Cost being AC + IC + LV

AC - is the estimated Administration and Water Monitoring Cost

AER - is the Administration Escalation Rate;

IC - is the estimated Infrastructure Cost

IER - is the Infrastructure Escalation Rate

LV - is the estimated Land Value

LVER - is the Land Value Escalation Rate

Using the annual Escalation Rate (ER) we can then break this down into a Daily Escalation Rate where DER = ER/365.

To ensure costs remain current between Cost Reviews, all costs will be calculated daily based upon an annual escalation rate to be established through the Cost Review. The start date for daily escalation is the approval date for the prevailing Cost Review.

The Contribution Rate is to be applied as follows where the DER is the daily escalation rate and D is the number of days since the last cost review:

Starting Contribution Rate x (D x DER) = Escalated Contribution Rate at a particular date.

The daily indexing of costs described above, means that at any point in time, the Precinct contribution per Lot value will vary according to the number of days since the last Cost Review.

8.3 Calculating the Contribution liability for Landowners/Developers

DCA3 is divided into 1 Precinct.

The Cost Contribution rate is to be calculated based on the remaining developable Lot in the Precinct. The remaining DCP cost is shared proportionally across the remaining Lot in the DCP Precinct as follows:

(Remaining Cost / Remaining Lot = $ contribution rate per Lot).

For simplicity of calculation, all Residential lots/dwellings will be calculated as an average R25 (350m2) lot.For Non-Residential subdivision or development, the actual lot area is used for the calculation.

A cost review is to be undertaken at least annually, at which time the Contribution rate will be reviewed based on the future value of remaining DCP items and remaining anticipated area to be developed.

Appendix D gives examples of the respective calculations for the below development types.

8.3.1 Residential subdivision or development:

The number of additional dwellings/lots being created at the time of subdivision/development, less the parent lot discount if applicable, multiplied by the applicable development contribution rate. Non-standard residential development (such as Lifestyle village, retirement village, caravan park, park home estate or similar) is treated the same as standard residential development, where each dwelling, residential unit or similar, is deemed to be a residential lot.

(Precinct contribution rate per lot/dwelling x DER x D x number of additional lots or dwellings being created = Required development contribution).

It is acknowledged that land within the DCA may be developed to a residential density lower than that envisaged within the yield calculations. Such development may however allow for additional subdivision and/or development in the future. In addition, should there be subsequent residential development above a non-residential development footprint; additional contribution liability will be incurred for the additional residential dwellings.

Contributions will be required for the creation of additional lots/dwellings post-initial development at the time that those additional lots/dwellings are created. Such additional contributions will be required in accordance with the Development Contribution Plan.

8.3.2 Mixed-use development

The development contribution calculation will be based on the R25 subdivision/development potential of the site OR the actual number of lots/dwellings being created at the time of subdivision/ development, whichever is the greater (less the parent lot discount if applicable), multiplied by the applicable development contribution rate.

Where based on dwelling potential:

(Precinct contribution rate per lot/dwelling x DER x D x subdivision/development potential of the site = Required contribution rate).

Where based on the actual number of dwellings:

(Precinct contribution rate per lot/dwelling x DER x D x actual number of residential lots/dwellings being created = Required development contribution).

8.3.3 Non-residential subdivision or development

A development contribution is required for the creation of non-residential lots based on the actual size and number of lots created, multiplied by the applicable development contribution rate. Where a subdivision creates a lot that accommodates an existing approved non-residential development, that lot shall be exempt from the requirement for a development contribution to be made. For clarity purposes, the area of the lot accommodating the existing approved non-residential development is to be subtracted from the overall subdivision area, before calculating the development contribution for the remaining balance of the subdivision area.

New non-residential development (including alterations and additions to existing non-residential development) will not be required to make a development contribution unless the new non-residential development results in increased traffic to the subject land, as identified by the information provided by the applicant in support of the development application for that new non-residential development. Where increased traffic is identified to occur, the applicable development contribution is to be calculated as follows:

Square metre rate x square metre size of land being developed = Required development contribution (less a one time, one lot discount for the Parent Lot)

It is important to note that where the land use is non-residential, the DCP liability will be incurred only once on any site area (footprint) provided the liability discharged is based on the full development potential of the lot. Subsequent non-residential development will not be liable for additional DCP contributions.

For example, multilevel non-residential development or ongoing development on the non-residential site will be exempt from further DCP liability; liability is based on the non-residential land footprint.

For new private education establishments and associated development, provided a shared use agreement for public access to district open space is agreed to the satisfaction of the Local Government, development contributions shall be levied at 0.3 percent of the total development costs of the site, as agreed with the Local Government based on the building licence application.

9 Priority and timing of infrastructure delivery

Details of the priority/timing of infrastructure items can be seen in the Capital Expenditure Plan in Appendix C.

Timelines are based on the forecast rate of development and expected DCP funds from forecast contributions to be paid. This is reviewed annually and may be adjusted depending upon the rate of development and available DCA funds.

Appendix N contains the Infrastructure Delivery Status Report, which details the planned timelines and any variation to these from the previous DCP revision.

10 Payment of contributions

An owner's liability to pay the owner's cost contribution to the local government arises on the earlier of:

1. the local government recommending its approval on the deposited plan or survey strata plan of the subdivision of the owner's land within the development contribution area (subdivision/strata clearance);
2. the commencement of any development on the owner's land within the development contribution area (typically triggered at Building Permit application); or
3. the approval of a change or extension of use by the local government on the owner's land within the development contribution area.

Where a subdivision is staged, the development contribution is payable only on those stages being cleared.

10.1 Form of Contributions

Conditions relating to development contribution requirements can, to the satisfaction of the Shire, be satisfied by:

4. Cheque or cash
5. Transferring to the local government or a public authority land in satisfaction of the cost contribution
6. The provision of physical infrastructure
7. Some other method acceptable to the local government, or
8. Any combination of these methods.

10.2 Exemptions

Clause 36A 5(c) of LPS3 details specific exemptions for which a development contribution is not required.

11 DCP Credits

11.1 DCP Credits to offset Contributions

A landowner may gain DCP credits for provision of DCP infrastructure items (known as "Pre-Funding") and/or land ceded for road widening, POS/Drainage, and DOS.

DCP Credits can be used to offset DCP Contributions (within the same DCA). Credits must be "banked" (through ceding land or completion of pre-funded infrastructure) before they can be used to offset Contributions.

DCP Credits will always be allocated to the registered landowner, as likewise, the liability for DCP Contributions is a liability of the landowner. Credits do not transfer upon sale of the land, unless a legal agreement between the seller, purchaser and the Shire is in place to enable this.

11.2 Credits for DCP Land Ceded

Credits are applicable for land included in the DCP for POS/Drainage, DOS and Road Reserves. The land value applied to credits, will be the land value published in the DCP Report Revision at the time the land is ceded (i.e. Subdivision Clearance).

11.3 Credits for Pre-Funding of DCP Infrastructure

11.3.1 Pre-Funding Agreement

The Shire will support pre-funding and delivery of the infrastructure, provided there are good reasons for doing so and in instances where:

- The works are necessary for the progression of an approved subdivision; or,
- The Developer wishes to undertake works specified in the DCP and the Shire does not hold enough DCP funds to undertake the works and/or has not prioritised such works.

By way of an exchange of letters, the Shire and the Developer will agree the extent, composition and timing of the infrastructure works to be pre-funded. Once agreed, the works become the Approved Works. The Approved Works must be identified sufficiently to ensure the cost and quantities of completed and remaining works in that item can be quantified.

11.3.2 Acceptance of Works

The Developer shall ensure the works are:

- Undertaken in a proper and workmanlike manner
- In accordance with plans and specifications constituting the Approved Works
- Completed within the agreed period.

Following written notification from the Developer, that the Approved Works are complete as above, the Shire will confirm the delivery of the Approved Works to its satisfaction.

The Shire can modify, accept, or reject the claim where justified, following review of standard and cost. Referral should be made to the Mundijong Industry Reference Group for comment, where rejection of the claim is proposed.

11.3.3 Principles for Cost Recoupment

The recoup is to be based on the current Cost Schedule in accordance with the latest revision of the DCP Report whereby the current cost estimate (including the applicable contingency allowance) as described in the prevailing DCP Report, shall constitute the maximum claimable amount for the completed Approved Works.

Once Approved, costs claimed by the Developer/Landowner for the pre-funded works will be independently verified by the Shire as reasonable and in line with DCP inclusions/exclusions. DCP credits will only be allocated once agreement is reached on the final claim value for such works after the independent review has occurred.

The value of DCP Credits allocated is *exclusive* of GST.

11.4 Repayment of DCP Credit Balance

Where a developer or landowner has completed all their developments within the DCA and has no further holdings in the DCA, any resulting credit balance amount is held by the local government as a credit to the developer or landowner until sufficient funds are available in the DCP fund to cover the credited amount, taking consideration of planned or committed expenditure at that time.

All credit balance repayment requests during the operation of the DCP, and which qualify for consideration (as per above), will be subject to a council report, and determined by Council. The credit is then reimbursed to the developer or landowner as soon as circumstances permit.

Requests for repayment of a credit balance, once development and landholdings applicable to that developer/landowner within the DCA are complete, should be made in writing to developmentcontributions@sjshire.wa.gov.au.

At the completion of the DCP, all credit balances are to be repaid no later than 90 days from the end date of the DCP.

12 Review

12.1 Major Review (5 Yearly)

In addition to the Annual Review provisions identified below, the Development Contribution Plan will be reviewed five years from the date of gazettal of the local planning scheme, or amendment to the local planning scheme to incorporate or amend the plan, or earlier should the local government consider it appropriate, having regard to the rate of development in the area and the degree of development potential still existing.

There is a statutory obligation for the Shire to advertise and seek comment on a major review of a DCP report. In addition to the statutory provisions, the Shire will consult with the Mundijong Industry Reference Group.

12.2 Annual (Minor) Review

The DCP Report which accompanies the Plan, is to be reviewed at least annually. The following contribution rate inputs will be revised as part of this review:

- Actual and remaining infrastructure and water monitoring costs
- Actual and remaining administration costs
- Actual and remaining lots and/or m2 developable area
- The latest Cost Review Reconciliation surplus or deficit
- Actual and remaining land acquisition costs

There is no statutory obligation for the Shire to advertise or seek comment on the minor annual review of a DCP report, however where the costing and details of the DCP Report are:

- revised based on accounting for completed works
- revised based on construction cost increases/decreases
- revised based on land value increases/decreases
- revised based on revisions to the anticipated undeveloped lot yield; and
- not subject to other material change

the Shire will consult with the Mundijong Industry Reference Group.

It is noted that SPP 3.6 requires an Annual Status Report to be prepared by the local government providing an overview of progress of the delivery of infrastructure specified in the DCP, which is to be published on the local government's website, within 6 months of Financial Year End. It therefore does not form part of this DCP Report.

The Annual Report will be available on the Shire's website for each respective DCP, by no later than end December of each Financial Year: Infrastructure Contributions » Shire of Serpentine Jarrahdale (sjshire.wa.gov.au).

12.2.1 Updates to Infrastructure Cost Estimates

Cost estimates will be updated annually. For the purposes of the cost reviews, infrastructure costs may be reviewed in full by an appropriately qualified person or may be indexed based on the Building Cost Index or other appropriate index.

The Cost Apportionment Schedule will identify and adjust/apportion any funding received/required from non-DCP sources (e.g. grants or any "Shire-Share" portion of costs).

12.2.2 Cost Review Reconciliation

The Cost Review Reconciliation is an adjustment made in each revision to adjust for any over-collection or under-collection of DCP contributions versus DCP expenditure. DCP contributions are always based on an estimate of future costs, whereas DCP expenditure is based on actual values. Any variance at the end of the prevailing DCP Report revision, is therefore adjusted on the "Reconciliation" line in the Cost Apportionment Spreadsheet, to assist the DCP in achieving the goal of breaking-even at its closure.

At each Cost Review, the net balance of contributions and expenditure will be calculated.

This net balance accounts for all contributions due from development in the previous development periods (no account is taken of contributions paid, i.e. cash received) and all expenditure (including credits earnt, whether reimbursed or held on account).

A Cost Review can result in a surplus or deficit at the date of review. A surplus means the total contributions arising from development has exceeded the total costs incurred at the review date. A deficit means that the total contributions arising from development were less than the total costs incurred at the review date.

Future Development Contribution Plan contribution rates account for this surplus or deficit, as well as future costs and lots yet to be developed.

Over the life of the Development Contribution Plan, the methodology employed should see the annual surpluses and deficits cancel out, to result in a break-even position for the DCP at the end of its lifespan.

Appendix K details the annual cost review outcomes from the latest review and any adjustment required for the following DCP Report period.

Figure 1 – Map of Development Contribution Area Boundary

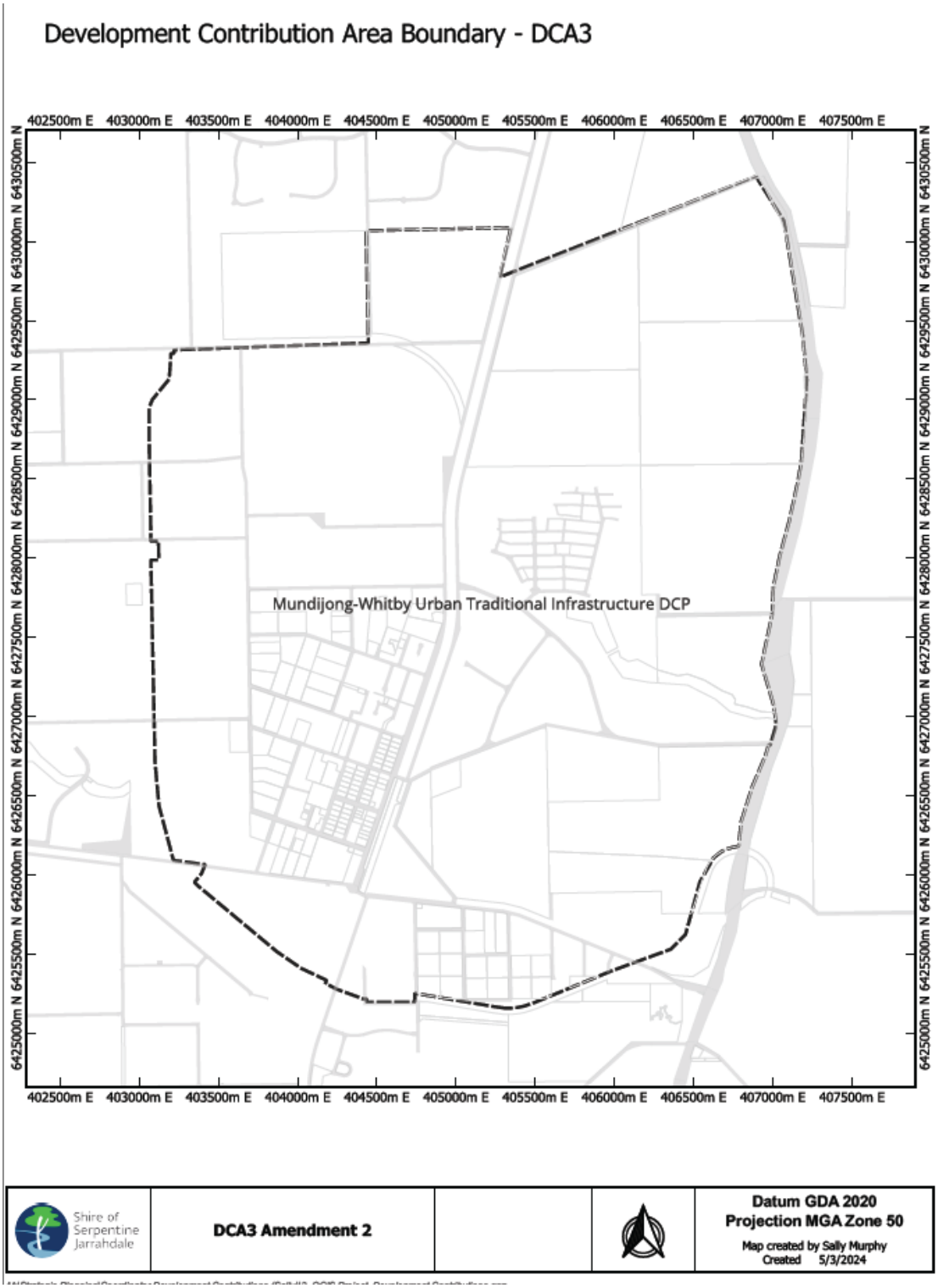

Figure 2 – Map of Roads to be constructed/upgraded

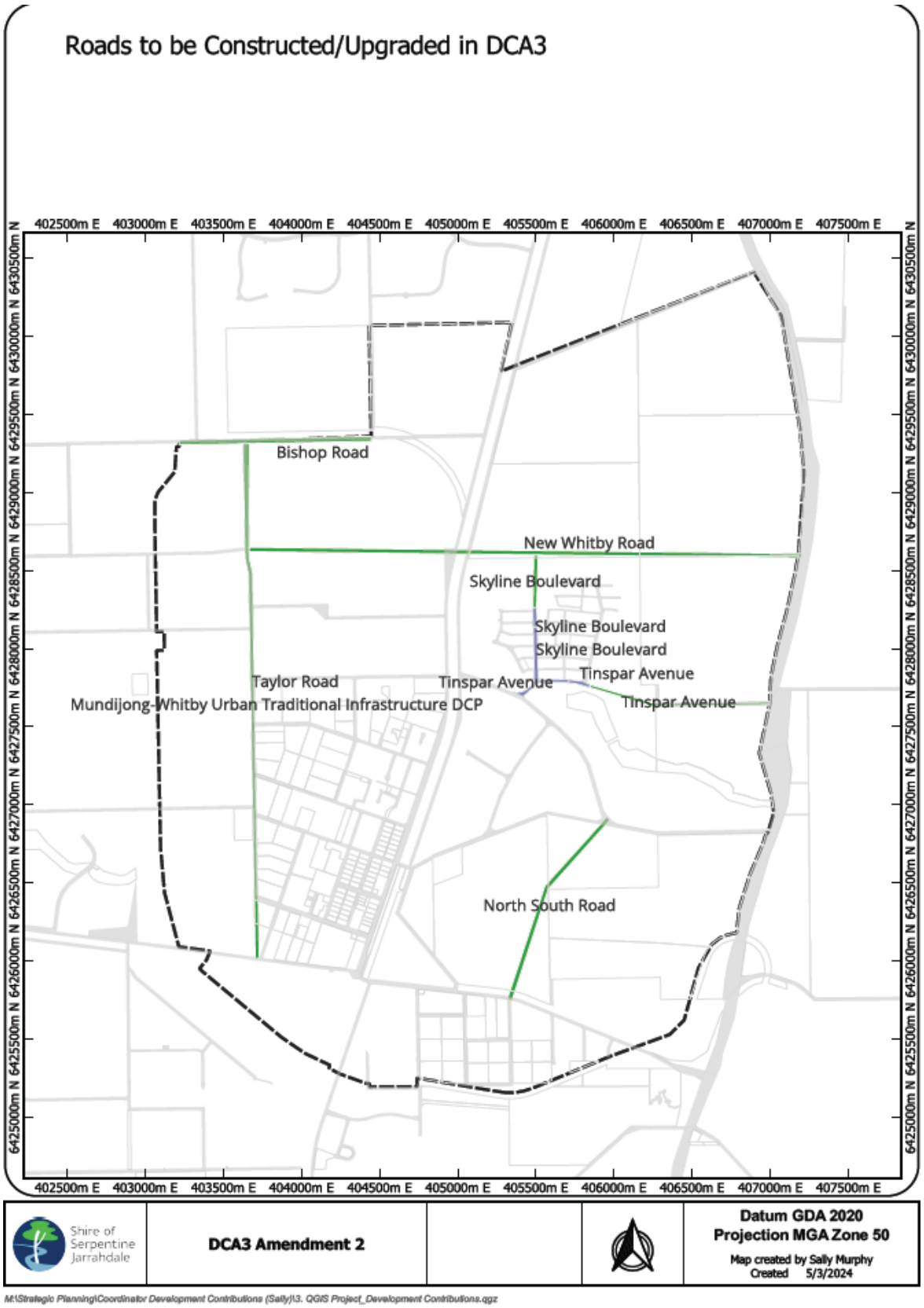

Figure 3 – Map of District Open Space to be constructed/upgraded

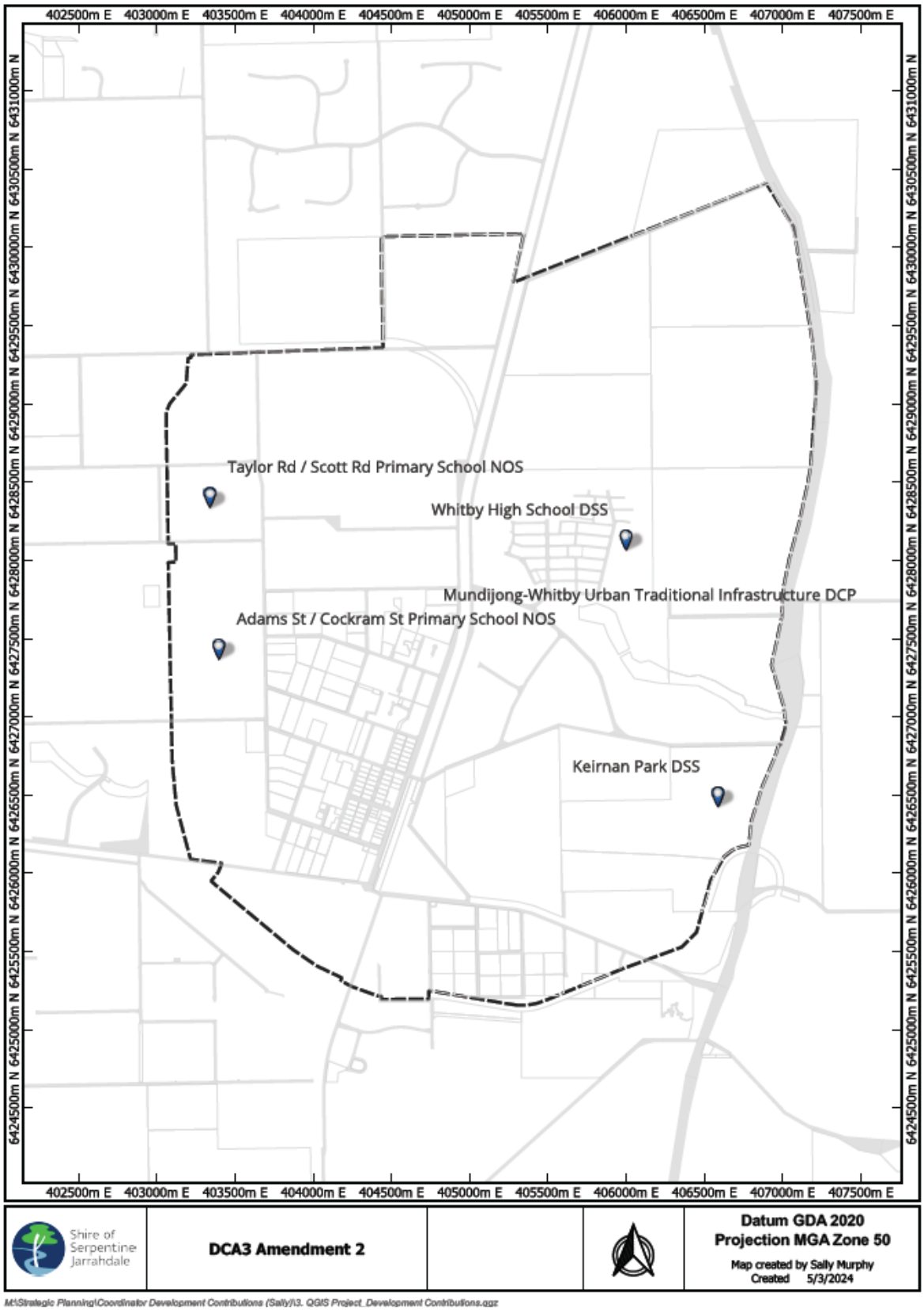

Figure 4 – Not applicable to this DCP

APPENDICES

Appendix A: Project Inclusions (Need & Nexus)

Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan Report

Appendix A

Project Inclusions - Need & Nexus

Bishop Road (East) (Integrator B) upgrade between Tonkin Highway reserve and Bett Road:

The road currently exists, but will require changes in width, alignment and configuration to support development envisaged under the Mundijong District Structure Plan. The road is also proposed to provide a direct connection to the future extension of Tonkin Highway. The width of Bishop Road will be 30 metres.

The following items are included in the Development Contribution Plan for Bishop Road (East):

- Land required in excess of a standard 20m reserve, to achieve a 30m wide road reserve, plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections;
    - Taylor Road (Roundabout)
    - Hopkinson Road (Roundabout)
    - Soldiers Road (Roundabout)
    - Bett Road (Roundabout)
- Earthworks for the whole road reserve;
- Complete road construction based on the Liveable Neighbourhoods Integrator B standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for Bishop Road (East):

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement;
- Any works carried out between Kargotich Road and the Tonkin Highway. This section of the road upgrade will be borne by the West Mundijong Industrial Development Contribution Plan; and
- Any intersection treatment with Tonkin Highway.

Taylor Road/Adams Street (Integrator B) upgrade between Bishop Road and Mundijong Road:

The road currently exists, but will require changes in width, alignment and configuration to support development envisaged under the Mundijong District Structure Plan. The width of Taylor Road will be 30m.

The following items are included in the Development Contribution Plan for Taylor Road:

- Land required in excess of a standard 20m reserve, to achieve a 30m wide road reserve, plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections;
    - Keirnan Street (Roundabout)
    - Mundijong Road (TBC)
- Earthworks for the whole road reserve;
- Complete road construction based on the Liveable Neighbourhoods Integrator B standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for Taylor Road:

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement.

Town Centre Distributor Road (Whitby New Road) (Integrator B) construction between Taylor Road and South Western Highway:

The road does not currently exist and will be required to support the development envisaged under the Mundijong District Structure Plan. The width of New Whitby Road will be 30 metres.

The following items are included in the Development Contribution Plan for New Whitby Road:

- Land required in excess of a standard 20m reserve, to achieve a 30m wide road reserve, plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections;
    - Taylor Road (Roundabout)
    - Soldiers Road (Roundabout)

  - South Western Highway (Channelised Intersection)
- Earthworks for the whole road reserve;
- Complete road construction based on the Liveable Neighbourhoods Integrator B standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Construction of one at-grade rail crossing;
- Costs associated with one rail crossing closure (Keirnan Street);
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for New Whitby Road:

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement.

Note: The construction of the at-grade crossing is subject to agreement between the Road Manager and Rail Infrastructure Manager. The Local Government is responsible to manage communications between all stakeholders, obtain the required approvals and arrange for an Australian Level Crossing Assessment Model (ALCAM) Report and a Rail Safety Report to be undertaken.

Construction of the at-grade crossing should not be considered prior to the freight rail being realigned away from the Mundijong Urban area.

In the event that an at-grade rail crossing is not approved, the local government is to apply any funds already collected to an approved alternate crossing or if no crossing is approved any collected funds shall be applied to the Town Centre Distributor Road item generally or other items in the DCP.

North-South Road (Integrator B) construction between Watkins Road and Galvin Road:

The road does not currently exist and will be created through subdivision to support the development envisaged under the Mundijong District Structure Plan. The width of the North–South Road will be 30 metres.

The following items are included in the Development Contribution Plan for North-South Road:

- Land required in excess of a standard 20m reserve, to achieve a 30m wide road reserve plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections;

  - Watkins Road (Roundabout)
  - Galvin Road (Roundabout)
- Earthworks for the whole road reserve;
- Complete road construction based on the Liveable Neighbourhoods Integrator B standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for North-South Road:

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement.

Skyline Boulevard (Neighbourhood Connector A) construction between Town Centre Distributor Road (Whitby New Road) and Tinspar Avenue:

This is a new road that will be required to support the development envisaged under the Mundijong District Structure Plan. The width of Skyline Boulevard will be 25 metres.

The following items are included in the Development Contribution Plan for Skyline Boulevard:

- Land required in excess of a standard 20m reserve, to achieve a 25m wide road reserve, plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections:
  - New Whitby Road (Roundabout)
  - Tinspar Avenue (Roundabout)
- Earthworks for the whole road reserve;
- Complete road construction based on the Liveable Neighbourhoods Connector A standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for Skyline Boulevard:

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement.

Tinspar Avenue (Neighbourhood Connector A) construction between Skyline Boulevard and South Western Highway:

This is a new road which will be required to support the development envisaged under the Mundijong District Structure Plan. The width of Tinspar Avenue will be 25 metres.

The following items are included in the Development Contribution Plan for Tinspar Avenue:

- Land required in excess of a standard 20m reserve, to achieve a 25m wide road reserve, plus additional land where necessary to accommodate channelization and/or roundabout construction at the following intersections:
    - Keirnan Street (Seagull Intersection)
    - South Western Highway (Channelised Intersection)
- Earthworks for the whole road reserve
- Complete road construction based on the Liveable Neighbourhoods Connector A standard;
- Associated drainage works including water sensitive urban design measures;
- Traffic control devices including intersection treatments and associated works;
- Shared paths;
- Utility removal, relocation and insertion; and
- Associated costs including design, administration and management.

The following items are not included in the Development Contribution Plan for Tinspar Avenue:

- Minor intersections treatments into the adjoining subdivisional road network. These will be subject to a standard truncation requirement.

Whitby High School District Sporting Space (Shared project with the CIDCP)

The Community Infrastructure and Open Space Strategy identifies a district sports oval to be co-located with the planned high school site in Precinct A of the Mundijong District Structure Plan. A shared-use agreement is anticipated between the Department of Education and the Shire for the use of the oval established on the High School site, to facilitate the District function.

All community buildings and clubroom facilities are funded separately through the CIDCP.

The single playing field is to be designed to a minimum dimension of 205m x 175m (3.6 hectares).

- Earthworks;
- Grassing;
- Irrigation; and
- Associated costs relating to construction including design and management.

Keirnan Park Stage 3 District Sporting Space (Shared project with the CIDCP)

At this DCP revision, it is anticipated that enough grant funds will be available for the construction of the first oval. This has been reflected within the costs.

The Community Infrastructure and Open Space Strategy identifies Reserve 4395 along Keirnan Street, Mundijong, as being suitable to be developed as a Sporting Complex.

The Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan includes for two senior-sized playing fields on site, as this will support a District function. The playing fields are to have a minimum dimension of 205m x 175m each (7.2 hectares).

The following items were included in the Development Contribution Plan:

- Earthworks;
- Grassing;
- Irrigation; and
- Associated costs relating to construction including design and management.

Taylor Road / Scott Road Primary School Neighbourhood Open Space

The Community Infrastructure Open Space Strategy identifies that this sporting space will be a senior sized AFL field. A shared use agreement is anticipated with the Department of Education.

The playing field will be accommodated wholly within a future Shire reserve, funded by the Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan.

The single playing field is to be designed to a minimum dimension of 205m x 175m (3.6 hectares).

The following items are included in the Development Contribution Plan

- Earthworks;
- Grassing;
- Irrigation; and
- Associated costs relating to construction including design and management.

Adams St / Cockram St Primary School Neighbourhood Open Space

The Community Infrastructure Open Space Strategy identifies that this sporting space will be a senior sized AFL field. A shared use agreement is anticipated with the Department of Education.

The playing field will be accommodated wholly within a future Shire reserve, funded by the Mundijong-Whitby Urban Traditional Infrastructure Development Contribution Plan.

The single playing field is to be designed to a minimum dimension of 205m x 175m (3.6 hectares).

The following items are included in the Development Contribution Plan:

- Earthworks;
- Grassing;
- Irrigation; and
- Associated costs relating to construction including design and management.

Appendix B: DCP Funded items by Precinct

DCP Funded Items by Precinct

DCA3_ **Mundijong-Whitby Urban Traditional Infrastructure DCP**
Revision **2**

DCA	A	B	C	D
Administration	X			
Water Monitoring	X			
Administration	X			
Whitby High School DSS (Reilly Rd)	X			
Taylor Rd/Scott Rd Primary School NOS	X			
Keirnan Park DSS - 1b: Ovals	X			
Bishop Road East	X			
Taylor Road/Adams St	X			
Town Centre Distributor Road	X			
North South Road	X			
Skyline Boulevard	X			
Tinspar Avenue	X			
Adams St/Cockram St Primary School NOS	X			

Appendix C: Cost Apportionment Schedule

Cost Apportionment Schedule DCA3 **Mundijong-Whitby Urban Traditional Infrastructure DCP** *Cross Check Match* ✔

Revision Number 2

Report Status Draft

Revision Date	30/01/2024
Ave Res Lot Size:	350
Land Value Residential:	$30.00
Land Value Non-Residential:	$30.00
Daily LVDER rate Residential:	$0.0020548
Daily LVDER rate Non-Residential	$0.0020548

	A	B	C	D	E	F	G
Contribution Per Lot (Res)	$17,339.50						
Variance from previous revision	▲*6122.34*						
Contribution per m2 (Non-Res)	$49.54						
Variance from previous revision	▲*17.49*						
Daily Index Value	$1.55						

WALGA Economic Briefing:	Jun-22
IER:	3.60%
LVER:	2.50%
AER:	4.00%

Gazetted Date	23/05/2023
End Date	23/05/2038
Remaining Years	14.31

Infrastructure Plan Estimates											**Dwelling Yields**		**Contribution Breakdown per Lot**							
Item Name	**Escalation Category**	**Precinct**	**Total Project Cost**	**Less Grants / Other**	**Less Shire Share**	**DCP Total Share**	**DCP Completed To Date**	**Remaining Project Cost this DCP Rev**	**Total Contributing Lots**	**Remaining Lots**	**By Item**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Totals			**$129,164,860**	**-$1,288,290**	**$0**	**$127,876,569**	**$4,367,397**	**$123,509,172**	**7,549**	**7,123**		**7,123**	**0**	**0**	**0**	**0**	**0**	**0**
Reconciliation		A	**$522,379**	$0	$0	$522,379	$0	**$522,379**	7,549	7,123	$73.34	$73.34						
Administration	AER	A	**$1,380,412**	$0	$0	$1,380,412	$703,183	**$677,229**	7,549	7,123	$95.08	$95.08						
Land for Open Space & Drainage	LVER	A	**$29,465,478**	$0	$0	$29,465,478	$964,950	**$28,500,528**	7,549	7,123	$4,001.20	$4,001.20						
Land for Infrastructure	LVER	A	**$6,905,670**	$0	$0	$6,905,670	$114,264	**$6,791,406**	7,549	7,123	$953.45	$953.45						
Adams St/Cockram St Primary School NOS	IER	A	**$4,328,000**	$0	$0	$4,328,000	$0	**$4,328,000**	7,549	7,123	$607.61	$607.61						
Bishop Road East	IER	A	**$11,415,959**	$0	$0	$11,415,959	$0	**$11,415,959**	7,549	7,123	$1,602.69	$1,602.69						
Keirnan Park DSS - 1b: Ovals	IER	A	**$4,295,984**	-$1,288,290	$0	$3,007,693	$0	**$3,007,693**	7,549	7,123	$422.25	$422.25						
North South Road	IER	A	**$6,822,168**	$0	$0	$6,822,168	$0	**$6,822,168**	7,549	7,123	$957.77	$957.77						
Skyline Boulevard	IER	A	**$4,054,156**	$0	$0	$4,054,156	$1,320,000	**$2,734,156**	7,549	7,123	$383.85	$383.85						
Taylor Rd/Scott Rd Primary School NOS	IER	A	**$4,328,000**	$0	$0	$4,328,000	$0	**$4,328,000**	7,549	7,123	$607.61	$607.61						
Taylor Road/Adams St	IER	A	**$25,384,673**	$0	$0	$25,384,673	$0	**$25,384,673**	7,549	7,123	$3,563.76	$3,563.76						
Tinspar Avenue	IER	A	**$7,416,575**	$0	$0	$7,416,575	$1,265,000	**$6,151,575**	7,549	7,123	$863.62	$863.62						
Town Centre Distributor Road	IER	A	**$17,485,755**	$0	$0	$17,485,755	$0	**$17,485,755**	7,549	7,123	$2,454.83	$2,454.83						
Water Monitoring	AER	A	**$1,031,650**	$0	$0	$1,031,650	$0	**$1,031,650**	7,549	7,123	$144.83	$144.83						
Whitby High School DSS (Reilly Rd)	IER	A	**$4,328,000**	$0	$0	$4,328,000	$0	**$4,328,000**	7,549	7,123	$607.61	$607.61						

Appendix D: Example Calculations

EXAMPLE CALCULATIONS: Note, for simplicity, daily indexing has not been applied to the below examples.

DCA: **DCA3**
Report Revision: **2**

Example 1
A residential subdivision creating 50 lots within Precinct A, with one existing parent lot:

Precinct	Development Contribution Rate per lot/dwelling	Number of additional lots/dwellings	Total development contribution	Calculation
A	$17,263.69	49	$845,920.69	$17,263.69 x (50 - 1) = $845,920.69

Example 2
A residential subdivision in Precinct A, creating 50 lots, with one existing parent lot AND providing 10,000 m2 of creditable public open space / drainage residential land.
Note: creditable land must be cleared before, or at the same time, as the lot clearance in order to be offset against contributions due. Credits that are not yet earnt/cleared cannot be

Precinct	Development Contribution Rate per lot/dwelling	Number of additional lots/dwellings	Total development contribution	Calculation
A	$17,263.69	49	$845,920.69	$17,263.69 x (50 - 1) = $845,920.69
Public open space credit	**m2 of land being provided**	**Land value per m2**	**Credit amount**	**Calculation**
	10,000	$30.00	$300,000.00	$10,000.00 x 30 = $300,000.00
		Total net development contribution	**$545,920.69**	$845,920.69 - $300,000.00 = $545,920.69

Example 3
A non-residential subdivision creating a 4000m² lot within Precinct A with no parent lot discount applicable.

Precinct	Development Contribution Rate per m2	Parent Lot Discount	Total development contribution	Calculation
A	$49.32	0	$197,280.00	($49.32 x 4,000m2)= $197,280.00

#REF!

Appendix E: Capital Expenditure Plan

Capital Expenditure Plan

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA DCA3

Revision 2

Item Name	FYE Start	FYE End
Skyline Boulevard	2019	2033
Tinspar Avenue	2019	2036
Keirnan Park DSS - 1b: Ovals	2025	2026
Taylor Road/Adams St	2026	2027
Bishop Road East	2027	2028
Town Centre Distributor Road	2027	2028
Water Monitoring	2028	2038
North South Road	2030	2031
Whitby High School DSS (Reilly Rd)	2031	2032
Adams St/Cockram St Primary School NOS	2032	2034
Taylor Rd/Scott Rd Primary School NOS	2033	2033

Appendix F: Administration Cost

Administration Costs

DCA	Precinct	Legal Expenses	Advertising, Promotion & Consultancy	DWMS Review	Wages Totals (see below allocations)	Total Annual Admin Cost
DCA1	A, B, C, D	$4,000	$3,000	$0	$80,651	$87,651
DCA2	A	$4,000	$3,000	$0	$13,441	$20,441
DCA3	A	$4,000	$3,000	$0	$40,326	$47,326
DCA4	A, B	$4,000	$3,000	$0	$134,418	$141,418

Salary allocations (% of FTE)	*DCA1*	*DCA2*	*DCA3*	*DCA4*	*Sum*
Technical Specialist Infrastructure Contributions (DC	*30.0%*	*5.0%*	*15.0%*	*50.0%*	*100%*
Director Development Services	*3.0%*	*0.5%*	*1.5%*	*5.0%*	*10%*
Coordinator Strategic Planning	*1.5%*	*0.3%*	*0.8%*	*2.5%*	*5%*
Manager Strategic Planning	*3.0%*	*0.5%*	*1.5%*	*5.0%*	*10%*
Manager Engineering Services	*0.6%*	*0.1%*	*0.3%*	*1.0%*	*2%*
Engineering Development Lead	*0.9%*	*0.2%*	*0.5%*	*1.5%*	*3%*
Engineering Design Lead	*0.6%*	*0.1%*	*0.3%*	*1.0%*	*2%*
Infrastructure Projects Lead	*0.6%*	*0.1%*	*0.3%*	*1.0%*	*2%*
Manager Major Projects	*0.6%*	*0.1%*	*0.3%*	*1.0%*	*2%*
Senior Project Engineer	*0.6%*	*0.1%*	*0.3%*	*1.0%*	*2%*
Manager Finance	*3.0%*	*0.5%*	*1.5%*	*5.0%*	*10%*
Management Accountant	*3.0%*	*0.5%*	*1.5%*	*5.0%*	*10%*
Financial Accountant	*6.0%*	*1.0%*	*3.0%*	*10.0%*	*20%*

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA	DCA3
Revision	2
Remaining Years	14.31
Remaining Total Cost	**$677,229.37**

Revision	Administration Costs	Interest Credited	Total
Totals	**-$703,183.09**	**$0.00**	**-$703,183.09**
1	-$703,183.09	$0.00	-$703,183.09
2	$0.00	$0.00	$0.00

Appendix G: Infrastructure Costs

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
A	**ROAD - BISHOP ROAD (EAST)**							
A.A	**Road Construction**							
A.A.A	Road Works							
	Earthworks and Site Preparation				$0			
A.A.A.1	Site Clearance (based on light shrubs)	37,761	m2	$4	$132,919			
A.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	37,761	m2	$2	$60,795			
A.A.A.3	Cut to Fill - General Earthworks	17,843	m3	$8	$146,848			
A.A.A.4	Detailed excavation - mill and profile	14,161	m2	$19	$268,776			
A.A.A.5	Imported Fill	0	m3	$30	Excl.			
A.A.A.6	Form swale	7,553	m2	$4	$28,626			
	Subgrade Preparation				$0			
A.A.A.7	Preparation, trim and compact	29,786	m2	$6	$163,823			
	Sub Base and Base Course				$0			
A.A.A.8	100mm thick crushed rock base course	32,853	m2	$8	$270,052			
A.A.A.9	250mm thick compacted limestone sub base	32,853	m2	$17	$574,270			
	Road Paving				$0			
A.A.A.10	50mm thick (AC14)	28,321	m2	$31	$884,748			
A.A.A.11	Extra over for 2% red oxide	5,665	m2	$6	$35,293			
A.A.A.12	Primer seal	28,321	m2	$4	$114,417			
	Kerbing				$0			
A.A.A.13	Mountable Kerb (MK)	3,777	m	$25	$96,087			
A.A.A.14	Kerb openings	189	no	$350	$66,150			
A.A.A.15	Semi Mountable Kerb (SMK)	3,777	m	$30	$111,988			
	Line Marking and Furniture				$0			
A.A.A.16	Line marking	7,553	m	$6	$47,886			
	Landscaping				$0			
A.A.A.17	Soft landscaping	10,699	m2	$0	Excl.			
A.A.A.18	Landscape mix	2,675	m3	$90	$240,750			
A.A.A.19	Rock pitching	630	m2	$155	$97,808			
A.A.A.20	Drainage layer	11,329	m2	$0	Excl.			
	Other							
A.A.A.21	Allow for connection to existing road		Item		$10,000			
	TOTAL Road Works		Item			$3,351,235		
A.A.B	Shared Paths							
	Earthworks and Site Preparation							
A.A.B.1	Site Clearance (based on light shrubs)	4,721	m2	$4	$16,618			
A.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	4,721	m2	$2	$7,601			
A.A.B.3	Cut to Fill - General Earthworks	1,417	m3	$8	$11,662			
A.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
A.A.B.5	Preparation, trim and compact	4,721	m2	$6	$25,966			
	Pathway							
A.A.B.6	100 thick concrete footpath with broomed finish	4,721	m2	$71	$334,436			
A.A.B.7	Sand fill below concrete footpath (100mm)	4,721	m2	$5	$25,777			
	TOTAL Shared Paths		Item			$422,058		
A.A.C	Street Lighting							
A.A.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	98	no	$3,442	$337,289			
A.A.C.2	6.5 DOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	49	no	$5,111	$250,438			
	TOTAL Street Lighting		Item			$587,727		
A.A.D	Road Drainage							
A.A.D.1	450dia reinforced concrete pipe including excavation and backfill	1,709	m	$233	$398,282			
A.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	1,709	m	$189	$322,317			

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A.A.D.3	Side entry pits including liner, cover, excavation, and associated works	0	no	$2,667	CESP mesured at intersections, RAB's			
A.A.D.4	Raised gully / bubble up pits including liner, cover, grate, excavation, rock pitching, and associated works	57	no	$3,021	$172,173			
	TOTAL Road Drainage		Item			$892,773		
A.A.E	Preliminaries and Project Costs							
A.A.E.1	Traffic Management	5.0000	%	$5,253,793	$262,690			
A.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$5,253,793	$788,069			
A.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$5,253,793	$394,034			
A.A.E.4	Risk Contingency Allowance	10.0000	%	$6,698,586	$669,859			
	TOTAL Preliminaries and Project Costs		Item			$2,114,652		
	TOTAL Road Construction						**$7,368,444**	
A.B	**Hopkinson Road (T-Junction)**							
A.B.A	Road Works							
	Earthworks and Site Preparation				$0			
A.B.A.1	Site Clearance (based on light shrubs)	1,611	m2	$4	$5,671			
A.B.A.2	Removal of topsoil 150mm and stockpile for later re-use	1,611	m2	$2	$2,594			
A.B.A.3	Cut to Fill - General Earthworks	484	m3	$8	$3,983			
A.B.A.4	Imported Fill	0	m3	$30	$0			
	Subgrade Preparation				$0			
A.B.A.5	Preparation, trim and compact	1,611	m2	$6	$8,861			
	Sub Base and Base Course				$0			
A.B.A.6	100mm thick crushed rock base course	1,563	m2	$8	$12,848			
A.B.A.7	250mm thick compacted limestone sub base	1,563	m2	$17	$27,321			
	Road Paving				$0			
A.B.A.8	50mm thick (AC14)	1,371	m2	$31	$42,830			
A.B.A.9	Extra over for 2% red oxide	180	m2	$6	$1,121			
A.B.A.10	Primer seal	1,371	m2	$4	$5,539			
	Kerbing				$0			
A.B.A.11	Mountable Kerb (MK)	24	m	$25	$611			
A.B.A.12	Semi Mountable Kerb (SMK)	101	m	$30	$2,995			
	Line Marking and Furniture				$0			
A.B.A.13	Line marking	140	m	$6	$888			
A.B.A.14	Street sign post	1	no	$122	$122			
A.B.A.15	Street name plate	2	no	$199	$398			
A.B.A.16	Chevron sign	0	no	$613	$0			
A.B.A.17	Traffic sign	2	no	$450	$900			
	Landscaping				$0			
A.B.A.18	Mulch to planter boxes (2m x 2m)	0	m2	$16	$0			
A.B.A.19	Trees (100l)	0	no	$506	$0			
A.B.A.20	Soft landscaping	0	m2	$0	$0			
A.B.A.21	Landscape mix	83	m3	$90	$7,470			
A.B.A.22	Rock pitching	15	m2	$155	$2,329			
A.B.A.23	Drainage layer	0	m2	$0	$0			
	Other							
A.B.A.24	Allowed for connection to Hopskins Road		item		$10,000			
	TOTAL Road Works		Item			$136,479		
A.B.B	Shared Paths							
	Earthworks and Site Preparation							
A.B.B.1	Site Clearance (based on light shrubs)	252	m2	$4	$887			
A.B.B.2	Removal of topsoil 150mm and stockpile for later re-use	252	m2	$2	$406			
A.B.B.3	Cut to Fill - General Earthworks	76	m3	$8	$625			
A.B.B.4	Detailed excavation - mill and profile	0	m3	$19	$0			
A.B.B.5	Imported Fill	0	m3	$30	$0			
	Subgrade Preparation							
A.B.B.6	Preparation, trim and compact	252	m2	$6	$1,386			
	Pathway							
A.B.B.7	100 thick concrete footpath with broomed finish	252	m2	$71	$17,852			

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A.B.B.8	Sand fill below concrete footpath (100mm)	252	m2	$5	$1,376			
A.B.B.9	Pram ramp	0	no	$670	$0			
A.B.B.10	Pram ramp including tactile	2	no	$973	$1,945			
	Line Marking and Furniture							
A.B.B.11	Line marking	0	m	$6	$0			
A.B.B.12	Street sign post	0	no	$122	$0			
A.B.B.13	Street name plate	0	no	$199	$0			
A.B.B.14	Chevron sign	0	no	$613	$0			
A.B.B.15	Traffic sign	3	no	$450	$1,350			
	Landscaping							
A.B.B.16	Mulch to planter boxes (2m x 2m)	0	m2	$16	$0			
A.B.B.17	Trees (100l)	0	no	$506	$0			
A.B.B.18	Soft landscaping	0	m2	$0	$0			
	TOTAL Shared Paths		Item			$25,827		
A.B.C	Street Lighting							
A.B.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
A.B.D	Road Drainage							
A.B.D.1	450dia reinforced concrete pipe including excavation and backfill	120	m	$233	$27,966			
A.B.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	0	m	$189	$0			
A.B.D.3	Side entry pits including liner, cover, excavation, and associated works	2	no	$2,667	$5,333			
	Drainage layer measured with landscaping		Note					
	TOTAL Road Drainage		Item			$33,299		
A.B.E	Preliminaries and Project Costs							
A.B.E.1	Traffic Management	5.0000	%	$209,372	$10,469			
A.B.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$209,372	$31,406			
A.B.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$209,372	$15,703			
A.B.E.4	Risk Contingency Allowance	10.0000	%	$266,949	$26,695			
	TOTAL Preliminaries and Project Costs		Item			$84,272		
	TOTAL Hopkinson Road (T-Junction)						**$293,644**	
A.C	**Taylor Road (T-Junction)**							
A.C.A	Road Works							
	Earthworks and Site Preparation				$0			
A.C.A.1	Site Clearance (based on light shrubs)	1,611	m2	$4	$5,671			
A.C.A.2	Removal of topsoil 150mm and stockpile for later re-use	1,611	m2	$2	$2,594			
A.C.A.3	Cut to Fill - General Earthworks	484	m3	$8	$3,983			
A.C.A.4	Imported Fill	0	m3	$30	$0			
	Subgrade Preparation				$0			
A.C.A.5	Preparation, trim and compact	1,611	m2	$6	$8,861			
	Sub Base and Base Course				$0			
A.C.A.6	100mm thick crushed rock base course	1,563	m2	$8	$12,848			
A.C.A.7	250mm thick compacted limestone sub base	1,563	m2	$17	$27,321			
	Road Paving				$0			
A.C.A.8	50mm thick (AC14)	1,371	m2	$31	$42,830			
A.C.A.9	Extra over for 2% red oxide	180	m2	$6	$1,121			
A.C.A.10	Primer seal	1,371	m2	$4	$5,539			
	Kerbing				$0			
A.C.A.11	Mountable Kerb (MK)	24	m	$25	$611			
A.C.A.12	Semi Mountable Kerb (SMK)	101	m	$30	$2,995			
	Line Marking and Furniture				$0			
A.C.A.13	Line marking	140	m	$6	$888			
A.C.A.14	Street sign post	1	no	$122	$122			
A.C.A.15	Street name plate	2	no	$199	$398			
A.C.A.16	Chevron sign	0	no	$613	$0			
A.C.A.17	Traffic sign	2	no	$450	$900			

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	Landscaping				$0			
A.C.A.18	Mulch to planter boxes (2m x 2m)	0	m2	$16	$0			
A.C.A.19	Trees (100l)	0	no	$506	$0			
A.C.A.20	Soft landscaping	0	m2	$0	$0			
A.C.A.21	Landscape mix	83	m3	$90	$7,470			
A.C.A.22	Rock pitching	15	m2	$155	$2,329			
A.C.A.23	Drainage layer	0	m2	$0	$0			
	Other							
A.C.A.24	Allowed for connection to Taylor Road		item		$10,000			
	TOTAL Road Works		Item			$136,479		
A.C.B	Shared Paths							
	Earthworks and Site Preparation							
A.C.B.1	Site Clearance (based on light shrubs)	252	m2	$4	$887			
A.C.B.2	Removal of topsoil 150mm and stockpile for later re-use	252	m2	$2	$406			
A.C.B.3	Cut to Fill - General Earthworks	76	m3	$8	$625			
A.C.B.4	Detailed excavation - mill and profile	0	m3	$19	$0			
A.C.B.5	Imported Fill	0	m3	$30	$0			
	Subgrade Preparation							
A.C.B.6	Preparation, trim and compact	252	m2	$6	$1,386			
	Pathway							
A.C.B.7	100 thick concrete footpath with broomed finish	252	m2	$71	$17,852			
A.C.B.8	Sand fill below concrete footpath (100mm)	252	m2	$5	$1,376			
A.C.B.9	Pram ramp	0	no	$670	$0			
A.C.B.10	Pram ramp including tactile	2	no	$973	$1,945			
	Line Marking and Furniture							
A.C.B.11	Line marking	0	m	$6	$0			
A.C.B.12	Street sign post	0	no	$122	$0			
A.C.B.13	Street name plate	0	no	$199	$0			
A.C.B.14	Chevron sign	0	no	$613	$0			
A.C.B.15	Traffic sign	3	no	$450	$1,350			
	Landscaping							
A.C.B.16	Mulch to planter boxes (2m x 2m)	0	m2	$16	$0			
A.C.B.17	Trees (100l)	0	no	$506	$0			
A.C.B.18	Soft landscaping	0	m2	$0	$0			
	TOTAL Shared Paths		Item			$25,827		
A.C.C	Street Lighting							
A.C.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
A.C.D	Road Drainage							
A.C.D.1	450dia reinforced concrete pipe including excavation and backfill	120	m	$233	$27,966			
A.C.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	0	m	$189	$0			
A.C.D.3	Side entry pits including liner, cover, excavation, and associated works	2	no	$2,667	$5,333			
	Drainage layer measured with landscaping		Note					
	TOTAL Road Drainage		Item			$33,299		
A.C.E	Preliminaries and Project Costs							
A.C.E.1	Traffic Management	5.0000	%	$209,372	$10,469			
A.C.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$209,372	$31,406			
A.C.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$209,372	$15,703			
A.C.E.4	Risk Contingency Allowance	10.0000	%	$266,949	$26,695			
	TOTAL Preliminaries and Project Costs		Item			$84,272		
	TOTAL Taylor Road (T-Junction)						**$293,644**	
A.D	**Bett Road (Roundabout)**							
A.D.A	Road Works							
	Earthworks and Site Preparation							
A.D.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			

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	Removal of topsoil 150mm and stockpile for later re-							
A.D.A.2	use	2,504	m2	$2	$4,031			
A.D.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
A.D.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
A.D.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
A.D.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
A.D.A.7	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
A.D.A.8	50mm thick (AC14)	1,518	m2	$31	$47,422			
A.D.A.9	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving		Item		$0			
A.D.A.10	80 thick brick pavers	333	m2	$100	$33,333			
A.D.A.11	30 thick compacted sand bed	180	m2	$2	$295			
A.D.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
A.D.A.13	170mm thick compacted limestone	180	m2	$11	$2,047			
A.D.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
A.D.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
A.D.A.16	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
A.D.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
A.D.A.18	Line marking	53	m	$6	$336			
A.D.A.19	Street sign post	1	no	$122	$122			
A.D.A.20	Street name plate	2	no	$199	$398			
A.D.A.21	Chevron sign	1	no	$613	$613			
A.D.A.22	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
A.D.A.23	Soft landscaping	227	m2	$0	Excl.			
A.D.A.24	Landscape mix	57	m3	$90	$5,130			
	TOTAL Road Works		Item			$192,847		
A.D.B	Shared Paths							
	Earthworks and Site Preparation							
A.D.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
	Removal of topsoil 150mm and stockpile for later re-							
A.D.B.2	use	356	m2	$2	$573			
A.D.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
A.D.B.4	Imported Fill	178	m3	$30	$5,340			
	Subgrade Preparation							
A.D.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							
A.D.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
A.D.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
	Pram ramp		no	$670				
A.D.B.8	Pram ramp including tactile	6	no	$973	$5,836			
A.D.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
A.D.B.10	Traffic sign	2	no	$450	$900			
	Landscaping							
	TOTAL Shared Paths		Item			$47,154		
A.D.C	Street Lighting							
	6.5 SOR Street Light Pole incl. all conduits, light							
A.D.C.1	cabling, excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
A.D.D	Road Drainage							
	450dia reinforced concrete pipe including excavation							
A.D.D.1	and backfill	130	m	$233	$30,297			
	Side entry pits including liner, cover, excavation, and							
A.D.D.2	associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
A.D.E	Preliminaries and Project Costs							
A.D.E.1	Traffic Management	5.0000	%	$294,730	$14,737			

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A.D.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$294,730	$44,210			
A.D.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$294,730	$22,105			
A.D.E.4	Risk Contingency Allowance	10.0000	%	$375,781	$37,578			
	TOTAL Preliminaries and Project Costs		Item			$118,629		
	TOTAL Bett Road (Roundabout)						**$413,359**	
A.E	**Utilitities**							
A.E.A	Power and Lighting (Western Power)							
A.E.A.1	Relocate 1120m of Overhead Power underground - Provisional Sum	1	PS	$1,777,985	$1,777,985			
	TOTAL Power and Lighting (Western Power)		Item			$1,777,985		
A.E.B	Communications (NBN / Telstra / Westnet / etc.)							
A.E.B.1	Relocate 1120m road length of communications related infrastructure about 20m from the current location - Provisional Sum	1	PS	$352,692	$352,692			
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$352,692		
A.E.C	Water and Sewer (Water Corporation)							
	No allowance has been made for Water Corporation diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Water and Sewer (Water Corporation)		Item			$0		
A.E.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		
A.E.E	Preliminaries and Project Costs							
A.E.E.1	Traffic Management	10.0000	%	$2,130,677	$213,068			
A.E.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$2,130,677	$319,602			
A.E.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$2,130,677	$106,534			
A.E.E.4	Risk Contingency Allowance	10.0000	%	$2,769,880	$276,988			
	TOTAL Preliminaries and Project Costs		Item			$916,191		
	TOTAL Utilitities						**$3,046,868**	
A.A.A.7	Estimated Imported Fill	6,750	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	21,239	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road - Bishop Road (East)		**Item**					**$11,415,959**

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Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
B	**ROAD - TAYLOR ROAD / Adams St**							
B.A	**Road Construction**							
B.A.A	Road Works							
	Earthworks and Site Preparation				$0			
B.A.A.1	Site Clearance (based on light shrubs)	25,275	m2	$4	$88,968			
B.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	25,275	m2	$2	$40,693			
B.A.A.3	Cut to Fill - General Earthworks	12,566	m3	$8	$103,418			
B.A.A.4	Detailed excavation - mill and profile	10,833	m2	$19	$205,610			
B.A.A.5	Imported Fill	0	m3	$30	Excl.			
B.A.A.6	Form swale	5,778	m2	$4	$21,899			
	Subgrade Preparation				$0			
B.A.A.7	Preparation, trim and compact	36,107	m2	$6	$198,589			
	Sub Base and Base Course				$0			
B.A.A.8	100mm thick crushed rock base course	25,131	m2	$8	$206,577			
B.A.A.9	250mm thick compacted limestone sub base	25,131	m2	$17	$439,290			
	Road Paving				$0			
B.A.A.10	50mm thick (AC14)	21,665	m2	$31	$676,815			
B.A.A.11	Extra over for 2% red oxide	4,333	m2	$6	$26,995			
B.A.A.12	Primer seal	21,665	m2	$4	$87,527			
	Kerbing				$0			
B.A.A.13	Mountable Kerb (MK)	2,889	m	$25	$73,496			
B.A.A.14	Kerb openings	145	no	$350	$50,750			
B.A.A.15	Semi Mountable Kerb (SMK)	2,889	m	$30	$85,659			
	Line Marking and Furniture				$0			
B.A.A.16	Line marking	5,778	m	$6	$36,633			
	Landscaping				$0			
B.A.A.17	Soft landscaping	8,184	m2	$0	Excl.			
B.A.A.18	Landscape mix	2,046	m3	$90	$184,140			
B.A.A.19	Rock pitching	482	m2	$155	$74,831			
B.A.A.20	Drainage layer	8,666	m2	$0	Excl.			
	TOTAL Road Works		Item			$2,601,887		
B.A.B	Shared Paths							
	Earthworks and Site Preparation							
B.A.B.1	Site Clearance (based on light shrubs)	9,441	m2	$4	$33,232			
B.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	9,441	m2	$2	$15,200			
B.A.B.3	Cut to Fill - General Earthworks	2,833	m3	$8	$23,316			
B.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
B.A.B.5	Preparation, trim and compact	9,441	m2	$6	$51,926			
	Pathway							
B.A.B.6	100 thick concrete footpath with broomed finish	9,441	m2	$71	$668,800			
B.A.B.7	Sand fill below concrete footpath (100mm)	9,441	m2	$5	$51,548			
B.A.B.8	Pram ramp		no	$670	Included with intersections			
	TOTAL Shared Paths		Item			$844,022		
B.A.C	Street Lighting							
B.A.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	83	no	$3,442	$285,663			
B.A.C.2	6.5 DOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	42	no	$5,111	$214,661			
	TOTAL Street Lighting		Item			$500,324		
B.A.D	Road Drainage							
B.A.D.1	450dia reinforced concrete pipe including excavation and backfill	1,445	m	$233	$336,757			

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B.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	1,445	m	$189	$272,527			
B.A.D.3	Raised gully / bubble up pits including liner, cover, grate excavation, rock pitching, and associated works	49	no	$3,021	$148,008			
B.A.D.4	6 x 500mm dia pipe culverts incl. headwall, excavation, backfill, etc.	30	m	$3,126	$93,765			
B.A.D.5	3 x 1200mm dia pipe culverts incl. headwall, excavation, backfill, etc.	30	m	$5,249	$157,470			
B.A.D.6	7300x800mm box culvert incl. headwall, excavation, backfill, etc.	30	m	$12,052	$361,554			
B.A.D.7	Remove existing culvert in preparation for new culvert (approximatley 7m wide)	1	LS	$9,823	$9,823			
B.A.D.8	Remove existing culvert in preparation for new culvert (approximatley 3m wide)	2	LS	$4,210	$8,420			
	TOTAL Road Drainage		Item			$1,388,325		
B.A.E	Preliminaries and Project Costs							
B.A.E.1	Traffic Management	5.0000	%	$5,334,558	$266,728			
B.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$5,334,558	$800,184			
B.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$5,334,558	$400,092			
B.A.E.4	Risk Contingency Allowance	10.0000	%	$6,801,561	$680,156			
	TOTAL Preliminaries and Project Costs		Item			$2,147,160		
	TOTAL Road Construction						**$7,481,717**	
B.B	**Keirnan Street (Roundabout)**							
B.B.A	Road Works							
	Earthworks and Site Preparation							
B.B.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			
B.B.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,504	m2	$2	$4,031			
B.B.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
B.B.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
B.B.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
B.B.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
B.B.A.7	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
B.B.A.8	50mm thick (AC14)	1,518	m2	$31	$47,422			
B.B.A.9	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving		Item		$0			
B.B.A.10	80 thick brick pavers	333	m2	$100	$33,333			
B.B.A.11	30 thick compacted sand bed	180	m2	$2	$295			
B.B.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
B.B.A.13	170mm thick compacted limestone	180	m2	$11	$2,047			
B.B.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
B.B.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
B.B.A.16	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
B.B.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
B.B.A.18	Line marking	53	m	$6	$336			
B.B.A.19	Street sign post	1	no	$122	$122			
B.B.A.20	Street name plate	2	no	$199	$398			
B.B.A.21	Chevron sign	1	no	$613	$613			
B.B.A.22	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
B.B.A.23	Soft landscaping	227	m2	$0	Excl.			
B.B.A.24	Landscape mix	57	m3	$90	$5,130			
	Other							
B.B.A.25	Allow for connection to Adams Street		item		$10,000			

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B.B.A.26	Allow for connection to Kiernan Street		item		$10,000			
	TOTAL Road Works		Item			$212,847		
B.B.B	Shared Paths							
	Earthworks and Site Preparation							
B.B.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
B.B.B.2	Removal of topsoil 150mm and stockpile for later re-use	356	m2	$2	$573			
B.B.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
B.B.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
B.B.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							
B.B.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
B.B.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
B.B.B.8	Pram ramp including tactile	6	no	$973	$5,836			
B.B.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
B.B.B.10	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$41,814		
B.B.C	Street Lighting							
B.B.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
B.B.D	Road Drainage							
B.B.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
B.B.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
B.B.E	Preliminaries and Project Costs							
B.B.E.1	Traffic Management	5.0000	%	$309,390	$15,470			
B.B.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$309,390	$46,409			
B.B.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$309,390	$23,204			
B.B.E.4	Risk Contingency Allowance	10.0000	%	$394,473	$39,447			
	TOTAL Preliminaries and Project Costs		Item			$124,530		
	TOTAL Keirnan Street (Roundabout)						**$433,920**	
B.C	**Utilities**							
B.C.A	Power and Lighting (Western Power)							
B.C.A.1	Relocate 1444m of Overhead Power underground - Provisional Sum	1	PS	$2,205,458	$2,205,458			
	TOTAL Power and Lighting (Western Power)		Item			$2,205,458		
B.C.B	Communications (NBN / Telstra / Westnet / etc.)							
B.C.B.1	Relocate 1444m road length of communications related infrastructure about 20m from the current location - Provisional Sum	1	PS	$435,589	$435,589			
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$435,589		
B.C.C	Water and Sewer (Water Corporation)							
	No allowance has been made for Water Corporation diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Water and Sewer (Water Corporation)		Item			$0		
B.C.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		
B.C.E	Preliminaries and Project Costs							
B.C.E.1	Traffic Management	10.0000	%	$2,641,047	$264,105			
B.C.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$2,641,047	$396,157			
B.C.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$2,641,047	$132,052			
B.C.E.4	Risk Contingency Allowance	10.0000	%	$3,433,361	$343,336			
	TOTAL Preliminaries and Project Costs		Item			$1,135,650		
	TOTAL Utilitities						**$3,776,697**	

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	Adams Street Section added (to be costed in the next formal revision) **Using the metre rate from the Taylor Road section**	**1780**	**m**	**$7,692**		$13,692,339	**$13,692,339**	
A.A.A.7	Estimated Imported Fill	6,885	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	16,258	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road - Taylor Road		**Item**					**$25,384,673**

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Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
C	**ROAD – TOWN CENTRE DISTRIBUTOR RD (NEW WHITBY ROAD)**							
C.A	**Road Construction**							
C.A.A	Road Works							
	Earthworks and Site Preparation				$0			
C.A.A.1	Site Clearance (based on light shrubs)	83,385	m2	$4	$293,515			
C.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	83,385	m2	$2	$134,250			
C.A.A.3	Cut to Fill - General Earthworks	29,018	m3	$8	$238,818			
C.A.A.4	Imported Fill	0	m3	$30	Excl.			
C.A.A.5	Form swale	13,342	m2	$4	$50,566			
	Subgrade Preparation							
C.A.A.6	Preparation, trim and compact	83,385	m2	$6	$458,618			
	Sub Base and Base Course							
C.A.A.7	100mm thick crushed rock base course	58,036	m2	$8	$477,056			
C.A.A.8	250mm thick compacted limestone sub base	58,036	m2	$17	$1,014,469			
	Road Paving				$0			
C.A.A.9	50mm thick (AC14)	50,031	m2	$31	$1,562,968			
C.A.A.10	Extra over for 2% red oxide	10,007	m2	$6	$62,344			
C.A.A.11	Primer seal	50,031	m2	$4	$202,125			
	Kerbing				$0			
C.A.A.12	Mountable Kerb (MK)	6,671	m	$25	$169,710			
C.A.A.13	Kerb openings	334	no	$350	$116,900			
C.A.A.14	Semi Mountable Kerb (SMK)	6,671	m	$30	$197,795			
C.A.A.15	Concrete flush edge beam		m	$67	$0			
	Line Marking and Furniture				$0			
C.A.A.16	Line marking	13,342	m	$6	$84,588			
	Landscaping				$0			
C.A.A.17	Soft landscaping	18,881	m2	$0	Excl.			
C.A.A.18	Landscape mix	4,721	m3	$90	$424,890			
C.A.A.19	Rock pitching	1,112	m2	$155	$172,638			
C.A.A.20	Drainage layer	20,013	m2	$0	Excl.			
	TOTAL Road Works		Item			$5,661,251		
C.A.B	Shared Paths							
	Earthworks and Site Preparation							
C.A.B.1	Site Clearance (based on light shrubs)	16,677	m2	$4	$58,703			
C.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	16,677	m2	$2	$26,850			
C.A.B.3	Cut to Fill - General Earthworks	5,004	m3	$8	$41,183			
C.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.A.B.5	Preparation, trim and compact	16,677	m2	$6	$91,724			
	Pathway							
C.A.B.6	100 thick concrete footpath with broomed finish	16,677	m2	$71	$1,181,399			
C.A.B.7	Sand fill below concrete footpath (100mm)	16,677	m2	$5	$91,056			
	TOTAL Shared Paths		Item			$1,490,915		
C.A.C	Street Lighting							
C.A.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	188	no	$3,442	$647,043			
C.A.C.2	6.5 DOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	94	no	$5,111	$480,432			
	TOTAL Street Lighting		Item			$1,127,475		
C.A.D	Road Drainage							
C.A.D.1	450dia reinforced concrete pipe including excavation and backfill	3,276	m	$233	$763,472			
C.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	3,276	m	$189	$617,854			

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C.A.D.3	Raised gully / bubble up pits including liner, cover, grate excavation, rock pitching, and associated works	110	no	$3,021	$332,264			
C.A.D.4	2500x800mm box culvert incl. headwall, excavation, backfill, etc.	30	m	$4,203	$126,103			
C.A.D.5	Remove existing culvert in preparation for new culvert (approximatley 3m wide)	1	LS	$4,210	$4,210			
	TOTAL Road Drainage		Item			$1,843,902		
C.A.E	Preliminaries and Project Costs							
C.A.E.1	Traffic Management	5.0000	%	$10,123,543	$506,177			
C.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$10,123,543	$1,518,532			
C.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$10,123,543	$759,266			
C.A.E.4	Risk Contingency Allowance	10.0000	%	$12,907,518	$1,290,752			
	TOTAL Preliminaries and Project Costs		Item			$4,074,726		
	TOTAL Road Construction						**$14,198,270**	
C.B	**Taylor Road (Roundabout)**							
C.B.A	Road Works							
	Earthworks and Site Preparation							
C.B.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			
C.B.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,504	m2	$2	$4,031			
C.B.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
C.B.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.B.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
C.B.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
C.B.A.7	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
C.B.A.8	50mm thick (AC14)	1,518	m2	$31	$47,422			
C.B.A.9	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving		Item		$0			
C.B.A.10	80 thick brick pavers	333	m2	$100	$33,333			
C.B.A.11	30 thick compacted sand bed	180	m2	$2	$295			
C.B.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
C.B.A.13	170mm thick compacted limestone	180	m2	$11	$2,047			
C.B.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
C.B.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
C.B.A.16	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
C.B.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
C.B.A.18	Line marking	53	m	$6	$336			
C.B.A.19	Street sign post	1	no	$122	$122			
C.B.A.20	Street name plate	2	no	$199	$398			
C.B.A.21	Chevron sign	1	no	$613	$613			
C.B.A.22	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
C.B.A.23	Soft landscaping	227	m2	$0	Excl.			
C.B.A.24	Landscape mix	57	m3	$90	$5,130			
	TOTAL Road Works		Item			$192,847		
C.B.B	Shared Paths							
	Earthworks and Site Preparation							
C.B.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
C.B.B.2	Removal of topsoil 150mm and stockpile for later re-use	356	m2	$2	$573			
C.B.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
C.B.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.B.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							

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C.B.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
C.B.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
C.B.B.8	Pram ramp including tactile	6	no	$973	$5,836			
C.B.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
C.B.B.10	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$41,814		
C.B.C	Street Lighting							
C.B.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
C.B.D	Road Drainage							
C.B.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
C.B.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
C.B.E	Preliminaries and Project Costs							
C.B.E.1	Traffic Management	5.0000	%	$289,390	$14,470			
C.B.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$289,390	$43,409			
C.B.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$289,390	$21,704			
C.B.E.4	Risk Contingency Allowance	10.0000	%	$368,973	$36,897			
	TOTAL Preliminaries and Project Costs		Item			$116,480		
	TOTAL Taylor Road (Roundabout)						**$405,870**	
C.C	**Soldiers Road (Roundabout)**							
C.C.A	Road Works							
	Earthworks and Site Preparation							
C.C.A.1	Site Clearance (based on light shrubs)	2,728	m2	$4	$9,603			
C.C.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,728	m2	$2	$4,392			
C.C.A.3	Cut to Fill - General Earthworks	819	m3	$8	$6,740			
C.C.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.C.A.5	Preparation, trim and compact	2,728	m2	$6	$15,004			
	Sub Base and Base Course							
C.C.A.6	100mm thick crushed rock base course	2,139	m2	$8	$17,583			
C.C.A.7	250mm thick compacted limestone sub base	2,139	m2	$17	$37,390			
	Road Paving							
C.C.A.8	50mm thick (AC14)	1,672	m2	$31	$52,233			
C.C.A.9	Primer seal	1,672	m2	$4	$6,755			
	Brick Paving		Item		$0			
C.C.A.10	80 thick brick pavers	393	m2	$100	$39,339			
C.C.A.11	30 thick compacted sand bed	240	m2	$2	$394			
C.C.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
C.C.A.13	170mm thick compacted limestone	240	m2	$11	$2,729			
C.C.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
C.C.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
C.C.A.16	Semi Mountable Kerb (SMK)	146	m	$30	$4,329			
C.C.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
C.C.A.18	Line marking	70	m	$6	$444			
C.C.A.19	Street sign post	1	no	$122	$122			
C.C.A.20	Street name plate	2	no	$199	$398			
C.C.A.21	Traffic sign	4	no	$450	$1,800			
	Landscaping				$0			
C.C.A.22	Soft landscaping	227	m2	$0	Excl.			
C.C.A.23	Landscape mix	57	m3	$90	$5,130			
	Other							

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C.C.A.24	Allow for connection to Soldiers Road (both directions)		Item		$20,000			
	TOTAL Road Works		Item			$232,043		
C.C.B	Shared Paths							
	Earthworks and Site Preparation							
C.C.B.1	Site Clearance (based on light shrubs)	364	m2	$4	$1,281			
C.C.B.2	Removal of topsoil 150mm and stockpile for later re-use	364	m2	$2	$586			
C.C.B.3	Cut to Fill - General Earthworks	110	m3	$8	$905			
C.C.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.C.B.5	Preparation, trim and compact	364	m2	$6	$2,002			
	Pathway							
C.C.B.6	100 thick concrete footpath with broomed finish	364	m2	$71	$25,786			
C.C.B.7	Sand fill below concrete path (100mm)	364	m2	$5	$1,987			
C.C.B.8	Pram ramp including tactile	8	no	$973	$7,781			
C.C.B.9	Tactile paving	13	m2	$325	$4,225			
	Line Marking and Furniture							
C.C.B.10	Traffic sign	4	no	$450	$1,800			
	TOTAL Shared Paths		Item			$46,354		
C.C.C	Street Lighting							
C.C.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
C.C.D	Road Drainage							
C.C.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
C.C.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
C.C.E	Preliminaries and Project Costs							
C.C.E.1	Traffic Management	5.0000	%	$333,126	$16,656			
C.C.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$333,126	$49,969			
C.C.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$333,126	$24,984			
C.C.E.4	Risk Contingency Allowance	10.0000	%	$424,736	$42,474			
	TOTAL Preliminaries and Project Costs		Item			$134,083		
	TOTAL Soldiers Road (Roundabout)						**$467,210**	
C.D	**South Western Highway (Channelised Intersection)**							
C.D.A	Road Works							
	Earthworks and Site Preparation				$0			
C.D.A.1	Site Clearance (based on light shrubs)	2,550	m2	$4	$8,976			
C.D.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,550	m2	$2	$4,106			
C.D.A.3	Cut to Fill - General Earthworks	765	m3	$8	$6,296			
C.D.A.4	Detailed excavation - mill and profile	1,800	m2	$19	$34,164			
C.D.A.5	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation				$0			
C.D.A.6	Preparation, trim and compact	2,550	m2	$6	$14,025			
	Sub Base and Base Course				$0			
C.D.A.7	100mm thick crushed rock base course	2,466	m2	$8	$20,271			
C.D.A.8	250mm thick compacted limestone sub base	2,466	m2	$17	$43,106			
	Road Paving				$0			
C.D.A.9	50mm thick (AC14)	1,980	m2	$31	$61,855			
C.D.A.10	Extra over for 2% red oxide	90	m2	$6	$561			
C.D.A.11	Primer seal	1,980	m2	$4	$7,999			
	Kerbing				$0			
C.D.A.12	Mountable Kerb (MK)	60	m	$25	$1,526			
C.D.A.13	Semi Mountable Kerb (SMK)	80	m	$30	$2,372			
	Line Marking and Furniture				$0			
C.D.A.14	Line marking	660	m	$6	$4,184			
C.D.A.15	Street sign post	1	no	$122	$122			
C.D.A.16	Street name plate	2	no	$199	$398			
C.D.A.17	Chevron sign	1	no	$613	$613			

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C.D.A.18	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
C.D.A.19	Soft landscaping	180	m2	$0	Excl.			
C.D.A.20	Landscape mix	42	m3	$90	$3,780			
C.D.A.21	Rock pitching	8	m2	$155	$1,242			
C.D.A.22	Drainage layer	180	m2	$0	Excl.			
	Other							
C.D.A.23	Allow for connection to SWH		item		$20,000			
	TOTAL Road Works		Item			$236,945		
C.D.B	Shared Paths							
	Earthworks and Site Preparation							
C.D.B.1	Site Clearance (based on light shrubs)	150	m2	$4	$528			
C.D.B.2	Removal of topsoil 150mm and stockpile for later re-use	150	m2	$2	$242			
C.D.B.3	Cut to Fill - General Earthworks	45	m3	$8	$370			
C.D.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.D.B.5	Preparation, trim and compact	150	m2	$6	$825			
	Pathway							
C.D.B.6	100 thick concrete footpath with broomed finish	150	m2	$71	$10,626			
C.D.B.7	Sand fill below concrete footpath (100mm)	150	m2	$5	$819			
C.D.B.8	Pram ramp including tactile	2	no	$973	$1,945			
	Line Marking and Furniture							
C.D.B.9	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$16,255		
C.D.C	Street Lighting							
	6.5 SOR Street Light Pole incl. all conduits, light cabling							
C.D.C.1	excavation, and related overheads	2	no	$3,442	$6,883			
	TOTAL Street Lighting		Item			$6,883		
C.D.D	Road Drainage							
	450dia reinforced concrete pipe including excavation							
C.D.D.1	and backfill	90	m	$233	$20,975			
	Side entry pits including liner, cover, excavation, and							
C.D.D.2	associated works	2	no	$2,667	$5,333			
	TOTAL Road Drainage		Item			$26,308		
C.D.E	Preliminaries and Project Costs							
C.D.E.1	Traffic Management	5.0000	%	$286,391	$14,320			
	Project Overheads and Preliminaries (Indirect							
C.D.E.2	Construction Costs)	15.0000	%	$286,391	$42,959			
C.D.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$286,391	$21,479			
C.D.E.4	Risk Contingency Allowance	10.0000	%	$365,148	$36,515			
	TOTAL Preliminaries and Project Costs		Item			$115,272		
	TOTAL South Western Highway (Channelised Intersection)						**$401,663**	
C.E	**At-grade rail crossing**							
C.E.A	Road Works							
	Earthworks and Site Preparation							
C.E.A.1	Site Clearance (based on light shrubs)	1,063	m2	$4	$3,742			
C.E.A.2	Removal of topsoil 150mm and stockpile for later re-use	1,063	m2	$2	$1,711			
C.E.A.3	Cut to Fill - General Earthworks	532	m3	$8	$4,378			
C.E.A.4	Dispose of material off site	532	cum	$10	$5,320			
C.E.A.5	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.E.A.6	Preparation, trim and compact	1,063	m2	$6	$5,847			
	Sub Base and Base Course							
C.E.A.7	100mm thick crushed rock base course	740	m2	$8	$6,083			
C.E.A.8	250mm thick compacted limestone sub base	740	m2	$17	$12,935			
	Road Paving							
C.E.A.9	50mm thick (AC14)	995	m2	$31	$31,084			
C.E.A.10	Primer seal	995	m2	$4	$4,020			
	Kerbing							
C.E.A.11	Semi Mountable Kerb (SMK)	65	m	$30	$1,927			
	Line Marking and Furniture							
C.E.A.12	Line marking	106	m	$6	$672			

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C.E.A.13	Line marking at crossing	995	sqm	$10	$9,950			
C.E.A.14	Traffic sign	4	no	$450	$1,800			
	TOTAL Road Works		Item			$89,469		
C.E.B	Shared Paths							
	Earthworks and Site Preparation							
C.E.B.1	Site Clearance (based on light shrubs)	213	m2	$4	$750			
C.E.B.2	Removal of topsoil 150mm and stockpile for later re-use	213	m2	$2	$343			
C.E.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
C.E.B.4	Dispose of material off site	107	m3	$10	$1,070			
C.E.B.5	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
C.E.B.6	Preparation, trim and compact	213	m2	$6	$1,172			
	Pathway							
C.E.B.7	100 thick concrete footpath with broomed finish	213	m2	$71	$15,089			
C.E.B.8	Sand fill below concrete path (100mm)	213	m2	$5	$1,163			
C.E.B.9	Pram ramp including tactile	4	no	$973	$3,891			
	Line Marking and Furniture							
C.E.B.10	Traffic sign	4	no	$450	$1,800			
	TOTAL Shared Paths		Item			$26,157		
C.E.C	Street Lighting							
C.E.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads (provisional allowance)	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
C.E.D	Road Drainage							
C.E.D.1	450dia reinforced concrete pipe including excavation and backfill	115	m	$233	$26,801			
C.E.D.2	Side entry pits including liner, cover, excavation, and associated works (provisional allowance)	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$37,467		
C.E.E	Level crossing at Whitby Road							
	Level crossing							
C.E.E.1	Allow for new level crossing at Orton Road	1	no	$632,500	$632,500			
	TOTAL Level crossing at Whitby Road		item			$632,500		
C.E.F	Preliminaries and Project Costs							
C.E.F.1	Traffic Management	10.0000	%	$799,360	$79,936			
C.E.F.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$799,360	$119,904			
C.E.F.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$799,360	$59,952			
C.E.F.4	Risk Contingency Allowance	10.0000	%	$1,059,152	$105,915			
	TOTAL Preliminaries and Project Costs		Item			$365,707		
	TOTAL At-grade rail crossing						**$1,165,067**	
C.F	**Bett Road (Roundabout future extension)**							
C.F.A	Road Works							
	Earthworks and Site Preparation							
C.F.A.1	Site Clearance (based on light shrubs)	2,728	m2	$4	$9,603			
C.F.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,728	m2	$2	$4,392			
C.F.A.3	Cut to Fill - General Earthworks	819	m3	$8	$6,740			
C.F.A.4	Detailed excavation - mill and profile	900	m2	$19	$17,082			
C.F.A.5	Imported Fill (Provisional)	1,316	m3	$30	$39,480			
	Subgrade Preparation							
C.F.A.6	Preparation, trim and compact	2,728	m2	$6	$15,004			
	Sub Base and Base Course							
C.F.A.7	100mm thick crushed rock base course	2,139	m2	$8	$17,583			
C.F.A.8	250mm thick compacted limestone sub base	2,139	m2	$17	$37,390			
	Road Paving							
C.F.A.9	50mm thick (AC14)	1,672	m2	$31	$52,233			
C.F.A.10	Primer seal	1,672	m2	$4	$6,755			
	Brick Paving		Item		$0			
C.F.A.11	80 thick brick pavers	393	m2	$100	$39,339			
C.F.A.12	30 thick compacted sand bed	240	m2	$2	$394			
C.F.A.13	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
C.F.A.14	170mm thick compacted limestone	240	m2	$11	$2,729			

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C.F.A.15	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
C.F.A.16	Mountable Kerb (MK)	70	m	$25	$1,781			
C.F.A.17	Semi Mountable Kerb (SMK)	146	m	$30	$4,329			
C.F.A.18	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
C.F.A.19	Line marking	70	m	$6	$444			
C.F.A.20	Street sign post	1	no	$122	$122			
C.F.A.21	Street name plate	2	no	$199	$398			
C.F.A.22	Traffic sign	4	no	$450	$1,800			
	Landscaping				$0			
C.F.A.23	Soft landscaping	227	m2	$0	Excl.			
C.F.A.24	Landscape mix	57	m3	$90	$5,130			
	Other							
C.F.A.25	Allow for connection to Soldiers Road (both directions)		Item		$20,000			
	TOTAL Road Works		Item			$288,605		
C.F.B	Shared Paths							
	Earthworks and Site Preparation							
C.F.B.1	Site Clearance (based on light shrubs)	364	m2	$4	$1,281			
C.F.B.2	Removal of topsoil 150mm and stockpile for later re-use	364	m2	$2	$586			
C.F.B.3	Cut to Fill - General Earthworks	110	m3	$8	$905			
C.F.B.4	Imported Fill	182	m3	$30	$5,460			
	Subgrade Preparation							
C.F.B.5	Preparation, trim and compact	364	m2	$6	$2,002			
	Pathway							
C.F.B.6	100 thick concrete footpath with broomed finish	364	m2	$71	$25,786			
C.F.B.7	Sand fill below concrete path (100mm)	364	m2	$5	$1,987			
C.F.B.8	Pram ramp including tactile	8	no	$973	$7,781			
C.F.B.9	Tactile paving	13	m2	$325	$4,225			
	Line Marking and Furniture							
C.F.B.10	Traffic sign	4	no	$450	$1,800			
	TOTAL Shared Paths		Item			$51,814		
C.F.C	Street Lighting							
C.F.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
C.F.D	Road Drainage							
C.F.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
C.F.D.2	Side entry pits including liner, cover, excavation, and associated works	6	no	$2,667	$15,999			
	TOTAL Road Drainage		Item			$46,296		
C.F.E	Preliminaries and Project Costs							
C.F.E.1	Traffic Management	5.0000	%	$400,481	$20,024			
C.F.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$400,481	$60,072			
C.F.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$400,481	$30,036			
C.F.E.4	Risk Contingency Allowance	10.0000	%	$510,614	$51,061			
	TOTAL Preliminaries and Project Costs		Item			$161,194		
	TOTAL Bett Road (Roundabout future extension)						**$561,675**	
C.G	**Utilities**							
C.G.A	Power and Lighting (Western Power)							
C.G.A.1	General Provisional Sum of $100,000 as it is not clear if diversions are requred	1	PS	$100,000	$100,000			
	TOTAL Power and Lighting (Western Power)		Item			$100,000		
C.G.B	Communications (NBN / Telstra / Westnet / etc.)							
C.G.B.1	General Provisional Sum of $100,000 as it is not clear if diversions are requred	1	PS	$100,000	$100,000			
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$100,000		

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QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

C.G.C	Water and Sewer (Water Corporation)							
	No allowance has been made for Water Corporation diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Water and Sewer (Water Corporation)		Item			$0		
C.G.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		
C.G.E	Preliminaries and Project Costs							
C.G.E.1	Traffic Management	10.0000	%	$200,000	$20,000			
C.G.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$200,000	$30,000			
C.G.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$200,000	$10,000			
C.G.E.4	Risk Contingency Allowance	10.0000	%	$260,000	$26,000			
	TOTAL Preliminaries and Project Costs		Item			$86,000		
	TOTAL Utilitities						**$286,000**	
A.A.A.7	Estimated Imported Fill	31,905	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	38,188	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road – New Whitby Road		**Item**					**$17,485,755**

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Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
D	**ROAD – NORTH-SOUTH ROAD**							
D.A	**Road Construction**							
D.A.A	Road Works							
	Earthworks and Site Preparation				$0			
D.A.A.1	Site Clearance (based on light shrubs)	30,970	m2	$4	$109,014			
D.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	30,970	m2	$2	$49,862			
D.A.A.3	Cut to Fill - General Earthworks	10,778	m3	$8	$88,703			
D.A.A.4	Imported Fill	0	m3	$30	Excl.			
D.A.A.5	Form swale	4,956	m2	$4	$18,783			
	Subgrade Preparation				$0			
D.A.A.6	Preparation, trim and compact	30,970	m2	$6	$170,335			
	Sub Base and Base Course				$0			
D.A.A.7	100mm thick crushed rock base course	21,555	m2	$8	$177,182			
D.A.A.8	250mm thick compacted limestone sub base	21,555	m2	$17	$376,781			
	Road Paving				$0			
D.A.A.9	50mm thick (AC14)	18,582	m2	$31	$580,502			
D.A.A.10	Extra over for 2% red oxide	3,717	m2	$6	$23,157			
D.A.A.11	Primer seal	18,582	m2	$4	$75,071			
	Kerbing				$0			
D.A.A.12	Mountable Kerb (MK)	2,478	m	$25	$63,040			
D.A.A.13	Kerb openings	124	no	$350	$43,400			
D.A.A.14	Semi Mountable Kerb (SMK)	2,478	m	$30	$73,473			
	Line Marking and Furniture				$0			
D.A.A.15	Line marking	4,956	m	$6	$31,421			
	Landscaping				$0			
D.A.A.16	Soft landscaping	7,020	m2	$0	Excl.			
D.A.A.17	Landscape mix	1,755	m3	$90	$157,950			
D.A.A.18	Rock pitching	413	m2	$155	$64,118			
D.A.A.19	Drainage layer	7,433	m2	$0	Excl.			
	TOTAL Road Works		Item			$2,102,793		
D.A.B	Shared Paths							
	Earthworks and Site Preparation							
D.A.B.1	Site Clearance (based on light shrubs)	6,194	m2	$4	$21,803			
D.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	6,194	m2	$2	$9,972			
D.A.B.3	Cut to Fill - General Earthworks	1,859	m3	$8	$15,300			
D.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
D.A.B.5	Preparation, trim and compact	6,194	m2	$6	$34,067			
	Pathway							
D.A.B.6	100 thick concrete footpath with broomed finish	6,194	m2	$71	$438,783			
D.A.B.7	Sand fill below concrete footpath (100mm)	6,194	m2	$5	$33,819			
	TOTAL Shared Paths		Item			$553,744		
D.A.C	Street Lighting							
D.A.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	71	no	$3,442	$244,362			
D.A.C.2	6.5 DOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	36	no	$5,111	$183,995			
	TOTAL Street Lighting		Item			$428,357		
D.A.D	Road Drainage							
D.A.D.1	450dia reinforced concrete pipe including excavation and backfill	1,239	m	$233	$288,749			
D.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	1,239	m	$189	$233,675			
D.A.D.3	Side entry pits including liner, cover, excavation, and associated works	0	no	$2,667	CESP mesured at intersections, RAB's			

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D.A.D.4	Raised gully / bubble up pits including liner, cover, grate, excavation, rock pitching, and associated works	42	no	$3,021	$126,864			
D.A.D.5	6500x600mm box culvert incl. headwall, excavation, backfill, etc.	30	m	$9,919	$297,583			
D.A.D.6	Remove existing culvert in preparation for new culvert (approximatley 7m wide)	1	LS	$9,823	$9,823			
	TOTAL Road Drainage		Item			$956,695		
D.A.E	Preliminaries and Project Costs							
D.A.E.1	Traffic Management	5.0000	%	$4,041,589	$202,079			
D.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$4,041,589	$606,238			
D.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$4,041,589	$303,119			
D.A.E.4	Risk Contingency Allowance	10.0000	%	$5,153,026	$515,303			
	TOTAL Preliminaries and Project Costs		Item			$1,626,740		
	TOTAL Road Construction						**$5,668,329**	
D.B	**Watkins Road (Roundabout)**							
D.B.A	Road Works							
	Earthworks and Site Preparation							
D.B.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			
D.B.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,504	m2	$2	$4,031			
D.B.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
D.B.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
D.B.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
D.B.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
D.B.A.7	200mm thick compacted limestone sub base		m2	$14	$0			
D.B.A.8	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
D.B.A.9	50mm thick (AC14)	1,518	m2	$31	$47,422			
D.B.A.10	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving		Item		$0			
D.B.A.11	80 thick brick pavers	333	m2	$100	$33,333			
D.B.A.12	30 thick compacted sand bed	180	m2	$2	$295			
D.B.A.13	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
D.B.A.14	170mm thick compacted limestone	180	m2	$11	$2,047			
D.B.A.15	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
D.B.A.16	Mountable Kerb (MK)	70	m	$25	$1,781			
D.B.A.17	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
D.B.A.18	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
D.B.A.19	Line marking	53	m	$6	$336			
D.B.A.20	Street sign post	1	no	$122	$122			
D.B.A.21	Street name plate	2	no	$199	$398			
D.B.A.22	Chevron sign	1	no	$613	$613			
D.B.A.23	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
D.B.A.24	Soft landscaping	227	m2	$0	Excl.			
D.B.A.25	Landscape mix	57	m3	$90	$5,130			
	Other							
D.B.A.26	Allow for connection to Watkins Road (both sides)		item		$20,000			
	TOTAL Road Works		Item			$212,847		
D.B.B	Shared Paths							
	Earthworks and Site Preparation							
D.B.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
D.B.B.2	Removal of topsoil 150mm and stockpile for later re-use	356	m2	$2	$573			
D.B.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			

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D.B.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
D.B.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							
D.B.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
D.B.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
D.B.B.8	Pram ramp including tactile	6	no	$973	$5,836			
D.B.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
D.B.B.10	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$41,814		
D.B.C	Street Lighting							
D.B.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
D.B.D	Road Drainage							
D.B.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
D.B.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
D.B.E	Preliminaries and Project Costs							
D.B.E.1	Traffic Management	5.0000	%	$309,390	$15,470			
D.B.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$309,390	$46,409			
D.B.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$309,390	$23,204			
D.B.E.4	Risk Contingency Allowance	10.0000	%	$394,473	$39,447			
	TOTAL Preliminaries and Project Costs		Item			$124,530		
	TOTAL Watkins Road (Roundabout)						**$433,920**	
D.C	**Galvin Road (Roundabout)**							
D.C.A	Road Works							
	Earthworks and Site Preparation							
D.C.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			
D.C.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,504	m2	$2	$4,031			
D.C.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
D.C.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
D.C.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
D.C.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
D.C.A.7	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
D.C.A.8	50mm thick (AC14)	1,518	m2	$31	$47,422			
D.C.A.9	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving							
D.C.A.10	80 thick brick pavers	333	m2	$100	$33,333			
D.C.A.11	30 thick compacted sand bed	180	m2	$2	$295			
D.C.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
D.C.A.13	170mm thick compacted limestone	180	m2	$11	$2,047			
D.C.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
D.C.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
D.C.A.16	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
D.C.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
D.C.A.18	Line marking	53	m	$6	$336			
D.C.A.19	Street sign post	1	no	$122	$122			
D.C.A.20	Street name plate	2	no	$199	$398			
D.C.A.21	Chevron sign	1	no	$613	$613			
D.C.A.22	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			

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D.C.A.23	Soft landscaping	227	m2	$0	Excl.			
D.C.A.24	Landscape mix	57	m3	$90	$5,130			
	Other							
D.C.A.25	Allow for connection to Galvin Road (both sides)		item		$20,000			
	TOTAL Road Works		Item			$212,847		
D.C.B	Shared Paths							
	Earthworks and Site Preparation							
D.C.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
D.C.B.2	Removal of topsoil 150mm and stockpile for later re-use	356	m2	$2	$573			
D.C.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
D.C.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
D.C.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							
D.C.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
D.C.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
	Pram ramp		no	$670				
D.C.B.8	Pram ramp including tactile	6	no	$973	$5,836			
D.C.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
D.C.B.10	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$41,814		
D.C.C	Street Lighting							
D.C.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling, excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
D.C.D	Road Drainage							
D.C.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
D.C.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
D.C.E	Preliminaries and Project Costs							
D.C.E.1	Traffic Management	5.0000	%	$309,390	$15,470			
D.C.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$309,390	$46,409			
D.C.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$309,390	$23,204			
D.C.E.4	Risk Contingency Allowance	10.0000	%	$394,473	$39,447			
	TOTAL Preliminaries and Project Costs		Item			$124,530		
	TOTAL Galvin Road (Roundabout)						**$433,920**	
D.D	**Utilitities**							
D.D.A	Power and Lighting (Western Power)							
D.D.A.1	General Provisional Sum of $100,000 as it is not clear if diversions are requred	1	PS	$100,000	$100,000			
	TOTAL Power and Lighting (Western Power)		Item			$100,000		
D.D.B	Communications (NBN / Telstra / Westnet / etc.)							
D.D.B.1	General Provisional Sum of $100,000 as it is not clear if diversions are requred	1	PS	$100,000	$100,000			
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$100,000		
D.D.C	Water and Sewer (Water Corporation)							
	No allowance has been made for Water Corporation diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Water and Sewer (Water Corporation)		Item			$0		
D.D.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		
D.D.E	Preliminaries and Project Costs							
D.D.E.1	Traffic Management	10.0000	%	$200,000	$20,000			
D.D.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$200,000	$30,000			
D.D.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$200,000	$10,000			
D.D.E.4	Risk Contingency Allowance	10.0000	%	$260,000	$26,000			

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	TOTAL Preliminaries and Project Costs		Item			$86,000		
	TOTAL Utilitities						**$286,000**	
A.A.A.7	Estimated Imported Fill	12,060	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	14,355	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road – North-South Road		**Item**					**$6,822,168**

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
E	**ROAD – SKYLINE BOULEVARD**							
E.A	**Road Construction**							
E.A.A	Road Works							
	Earthworks and Site Preparation				$0			
E.A.A.1	Site Clearance (based on light shrubs)	6,817	m2	$4	$23,996			
E.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	6,817	m2	$2	$10,975			
E.A.A.3	Cut to Fill - General Earthworks	2,231	m3	$8	$18,361			
E.A.A.4	Imported Fill	0	m3	$30	$0			
E.A.A.5	Form swale	620	m2	$4	$2,350			
	Subgrade Preparation				$0			
E.A.A.6	Preparation, trim and compact	6,817	m2	$6	$37,494			
	Sub Base and Base Course				$0			
E.A.A.7	100mm thick crushed rock base course	4,617	m2	$8	$37,952			
E.A.A.8	200mm thick compacted limestone sub base	4,617	m2	$14	$64,592			
	Road Paving				$0			
E.A.A.9	30mm thick (AC10)	3,486	m2	$18	$63,410			
E.A.A.10	Primer seal	3,486	m2	$4	$14,083			
	Kerbing				$0			
E.A.A.11	Mountable Kerb (MK)	620	m	$25	$15,773			
E.A.A.12	Kerb openings	31	no	$350	$10,850			
E.A.A.13	Semi Mountable Kerb (SMK)	620	m	$30	$18,383			
E.A.A.14	Concrete flush edge beam	155	m	$67	$10,393			
	Line Marking and Furniture				$0			
E.A.A.15	Line marking	620	m	$6	$3,931			
	Landscaping				$0			
E.A.A.16	Soft landscaping	878	m2	$0	Excl.			
E.A.A.17	Landscape mix	220	m3	$90	$19,800			
E.A.A.18	Rock pitching	52	m2	$155	$8,073			
E.A.A.19	Drainage layer	930	m2	$0	Excl.			
	Other							
E.A.A.20	Connection to existing		item		$10,000			
	TOTAL Road Works		Item			$370,415		
E.A.B	Shared Paths							
	Earthworks and Site Preparation							
E.A.B.1	Site Clearance (based on light shrubs)	1,550	m2	$4	$5,456			
E.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	1,550	m2	$2	$2,496			
E.A.B.3	Cut to Fill - General Earthworks	465	m3	$8	$3,827			
E.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
E.A.B.5	Preparation, trim and compact	1,550	m2	$6	$8,525			
	Pathway							
E.A.B.6	100 thick concrete footpath with broomed finish	1,550	m2	$71	$109,802			
E.A.B.7	Sand fill below concrete footpath (100mm)	1,550	m2	$5	$8,463			
	TOTAL Shared Paths		Item			$138,568		
E.A.C	Street Lighting							
E.A.C.1	6.5 DOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads (as per remainder of Skyline Blvd)	9	no	$5,111	$45,999			
	TOTAL Street Lighting		Item			$45,999		
E.A.D	Road Drainage							
E.A.D.1	450dia reinforced concrete pipe including excavation and backfill	310	m	$233	$72,246			
E.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	310	m	$189	$58,466			

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E.A.D.3	Side entry pits including liner, cover, excavation, and associated works	0	no	$2,667	CESP mesured at intersections, RAB's			
E.A.D.4	Raised gully / bubble up pits including liner, cover, grate excavation, rock pitching, and associated works	11	no	$3,021	$33,226			
	TOTAL Road Drainage		Item			$163,938		
E.A.E	Preliminaries and Project Costs							
E.A.E.1	Traffic Management	5.0000	%	$718,920	$35,946			
E.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$718,920	$107,838			
E.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$718,920	$53,919			
E.A.E.4	Risk Contingency Allowance	10.0000	%	$916,624	$91,662			
	TOTAL Preliminaries and Project Costs		Item			$289,365		
	TOTAL Road Construction						**$1,008,286**	
E.B	**New Whitby Road (Roundabout)**							
E.B.A	Road Works							
	Earthworks and Site Preparation							
E.B.A.1	Site Clearance (based on light shrubs)	2,504	m2	$4	$8,814			
E.B.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,504	m2	$2	$4,031			
E.B.A.3	Cut to Fill - General Earthworks	752	m3	$8	$6,189			
E.B.A.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
E.B.A.5	Preparation, trim and compact	2,504	m2	$6	$13,772			
	Sub Base and Base Course							
E.B.A.6	100mm thick crushed rock base course	1,983	m2	$8	$16,300			
E.B.A.7	250mm thick compacted limestone sub base	1,983	m2	$17	$34,663			
	Road Paving							
E.B.A.8	50mm thick (AC14)	1,518	m2	$31	$47,422			
E.B.A.9	Primer seal	1,518	m2	$4	$6,133			
	Brick Paving		Item		$0			
E.B.A.10	80 thick brick pavers	333	m2	$100	$33,333			
E.B.A.11	30 thick compacted sand bed	180	m2	$2	$295			
E.B.A.12	40 thick compacted sand bed (RAB)	153	m2	$2	$335			
E.B.A.13	170mm thick compacted limestone	180	m2	$11	$2,047			
E.B.A.14	250mm thick compacted limestone sub base	153	m2	$17	$2,674			
	Kerbing							
E.B.A.15	Mountable Kerb (MK)	70	m	$25	$1,781			
E.B.A.16	Semi Mountable Kerb (SMK)	143	m	$30	$4,240			
E.B.A.17	Barrier Kerb (BK)	54	m	$53	$2,869			
	Line Marking and Furniture							
E.B.A.18	Line marking	53	m	$6	$336			
E.B.A.19	Street sign post	1	no	$122	$122			
E.B.A.20	Street name plate	2	no	$199	$398			
E.B.A.21	Chevron sign	1	no	$613	$613			
E.B.A.22	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
E.B.A.23	Soft landscaping	227	m2	$0	Excl.			
E.B.A.24	Landscape mix	57	m3	$90	$5,130			
	TOTAL Road Works		Item			$192,847		
E.B.B	Shared Paths							
	Earthworks and Site Preparation							
E.B.B.1	Site Clearance (based on light shrubs)	356	m2	$4	$1,253			
E.B.B.2	Removal of topsoil 150mm and stockpile for later re-use	356	m2	$2	$573			
E.B.B.3	Cut to Fill - General Earthworks	107	m3	$8	$881			
E.B.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
E.B.B.5	Preparation, trim and compact	356	m2	$6	$1,958			
	Pathway							

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QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

E.B.B.6	100 thick concrete footpath with broomed finish	356	m2	$71	$25,219			
E.B.B.7	Sand fill below concrete path (100mm)	356	m2	$5	$1,944			
E.B.B.8	Pram ramp including tactile	6	no	$973	$5,836			
E.B.B.9	Tactile paving	10	m2	$325	$3,250			
	Line Marking and Furniture							
E.B.B.10	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$41,814		
E.B.C	Street Lighting							
E.B.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	4	no	$3,442	$13,767			
	TOTAL Street Lighting		Item			$13,767		
E.B.D	Road Drainage							
E.B.D.1	450dia reinforced concrete pipe including excavation and backfill	130	m	$233	$30,297			
E.B.D.2	Side entry pits including liner, cover, excavation, and associated works	4	no	$2,667	$10,666			
	TOTAL Road Drainage		Item			$40,963		
E.B.E	Preliminaries and Project Costs							
E.B.E.1	Traffic Management	5.0000	%	$289,390	$14,470			
E.B.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$289,390	$43,409			
E.B.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$289,390	$21,704			
E.B.E.4	Risk Contingency Allowance	10.0000	%	$368,973	$36,897			
	TOTAL Preliminaries and Project Costs		Item			$116,480		
	TOTAL New Whitby Road (Roundabout)						**$405,870**	
E.C	**Tinspar Avenue (Roundabout) - already constructed**							
E.C.A	Road Works							
E.C.A.1	Already Constructed				$0			
	TOTAL Road Works		Item			$0		
E.C.B	Shared Paths							
E.C.B.1	Already Constructed				$0			
	TOTAL Shared Paths		Item			$0		
E.C.C	Street Lighting							
E.C.C.1	Already Constructed				$0			
	TOTAL Street Lighting		Item			$0		
E.C.D	Road Drainage							
E.C.D.1	Already Constructed				$0			
	TOTAL Road Drainage		Item			$0		
E.C.E	Preliminaries and Project Costs							
E.C.E.1	Already Constructed				$0			
	TOTAL Preliminaries and Project Costs		Item			$0		
	TOTAL Tinspar Avenue (Roundabout) - already constructed						**$0**	
E.D	**Utilitities**							
E.D.A	Power and Lighting (Western Power)							
	No allowance has been made for Western Power diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Power and Lighting (Western Power)		Item			$0		
E.D.B	Communications (NBN / Telstra / Westnet / etc.)							
	No allowance has been made for Communications diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$0		
E.D.C	Water and Sewer (Water Corporation)							
	No allowance has been made for Water Corporation diversions as we do not see existing mains from our desktop study		Note					
	TOTAL Water and Sewer (Water Corporation)		Item			$0		
E.D.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		

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QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

E.D.E	Preliminaries and Project Costs							
E.D.E.1	Traffic Management	10.0000	%	$0	$0			
E.D.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$0	$0			
E.D.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$0	$0			
E.D.E.4	Risk Contingency Allowance	10.0000	%	$0	$0			
	TOTAL Preliminaries and Project Costs		Item			$0		
	TOTAL Utilitities						**$0**	
A.A.A.7	Estimated Imported Fill	2,640	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	3,555	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road (Remaining) – Skyline Boulevard		**Item**					**$1,414,156**
	Prefunded build completed prior to gazettal of the Amendment under DCP Condition							$1,320,000
	Total to be included in DCP1							**$2,734,156**

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
F	**ROAD – TINSPAR AVENUE**							
F.A	**Road Construction**							
F.A.A	Road Works							
	Earthworks and Site Preparation				$0			
F.A.A.1	Site Clearance (based on light shrubs)	26,701	m2	$4	$93,988			
F.A.A.2	Removal of topsoil 150mm and stockpile for later re-use	26,701	m2	$2	$42,989			
F.A.A.3	Cut to Fill - General Earthworks	8,739	m3	$8	$71,922			
F.A.A.4	Imported Fill	0	m3	$30	Excl.			
F.A.A.5	Form swale	2,428	m2	$4	$9,202			
	Subgrade Preparation				$0			
F.A.A.6	Preparation, trim and compact	26,701	m2	$6	$146,856			
	Sub Base and Base Course							
F.A.A.7	100mm thick crushed rock base course	15,050	m2	$8	$123,711			
F.A.A.8	200mm thick compacted limestone sub base	15,050	m2	$14	$210,550			
	Road Paving				$0			
F.A.A.9	30mm thick (AC10)	12,137	m2	$18	$220,772			
F.A.A.10	Primer seal	12,137	m2	$4	$49,033			
	Brick Paving		Item		$0			
F.A.A.11	80 thick brick pavers	3,035	m2	$100	$303,804			
F.A.A.12	30 thick compacted sand bed	3,035	m2	$2	$4,977			
F.A.A.13	170mm thick compacted limestone	3,035	m2	$11	$34,508			
	Kerbing				$0			
F.A.A.14	Mountable Kerb (MK)	2,428	m	$25	$61,768			
F.A.A.15	Kerb openings	122	no	$350	$42,700			
F.A.A.16	Semi Mountable Kerb (SMK)	2,428	m	$30	$71,990			
F.A.A.17	Concrete flush edge beam	1,214	m	$67	$81,399			
	Line Marking and Furniture				$0			
F.A.A.18	Line marking	2,428	m	$6	$15,394			
	Landscaping				$0			
F.A.A.19	Soft landscaping	3,439	m2	$0	Excl.			
F.A.A.20	Landscape mix	860	m3	$90	$77,400			
F.A.A.21	Rock pitching	203	m2	$155	$31,516			
F.A.A.22	Drainage layer	3,642	m2	$0	Excl.			
	TOTAL Road Works		Item			$1,694,477		
F.A.B	Shared Paths							
	Earthworks and Site Preparation							
F.A.B.1	Site Clearance (based on light shrubs)	6,069	m2	$4	$21,363			
F.A.B.2	Removal of topsoil 150mm and stockpile for later re-use	6,069	m2	$2	$9,771			
F.A.B.3	Cut to Fill - General Earthworks	1,821	m3	$8	$14,987			
F.A.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
F.A.B.5	Preparation, trim and compact	6,069	m2	$6	$33,380			
	Pathway							
F.A.B.6	100 thick concrete footpath with broomed finish	6,069	m2	$71	$429,928			
F.A.B.7	Sand fill below concrete footpath (100mm)	6,069	m2	$5	$33,137			
	TOTAL Shared Paths		Item			$542,565		
F.A.C	Street Lighting							
F.A.C.1	6.5 DOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads (as per remainder of Skyline Blvd)	35	no	$5,111	$178,884			
	TOTAL Street Lighting		Item			$178,884		
F.A.D	Road Drainage							
F.A.D.1	450dia reinforced concrete pipe including excavation and backfill	1,214	m	$233	$282,923			

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

F.A.D.2	150dia slotted PVC subsoil drainage pipe including aggregate, geofabric and porous sand	1,214	m	$189	$228,960			
F.A.D.3	Side entry pits including liner, cover, excavation, and associated works	0	no	$2,667	CESP mesured at intersections, RAB's			
F.A.D.4	Raised gully / bubble up pits including liner, cover, grate excavation, rock pitching, and associated works	41	no	$3,021	$123,844			
	TOTAL Road Drainage		Item			$635,727		
F.A.E	Preliminaries and Project Costs							
F.A.E.1	Traffic Management	5.0000	%	$3,051,653	$152,583			
F.A.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$3,051,653	$457,748			
F.A.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$3,051,653	$228,874			
F.A.E.4	Risk Contingency Allowance	10.0000	%	$3,890,858	$389,086			
	TOTAL Preliminaries and Project Costs		Item			$1,228,290		
	TOTAL Road Construction						**$4,279,944**	
F.B	**Kiernan Street (Seagull Intersection) - already constructed**							
F.B.A	Road Works							
F.B.A.1	Already Constructed				$0			
	TOTAL Road Works		Item			$0		
F.B.B	Shared Paths							
F.B.B.1	Already Constructed				$0			
	TOTAL Shared Paths		Item			$0		
F.B.C	Street Lighting							
F.B.C.1	Already Constructed				$0			
	TOTAL Street Lighting		Item			$0		
F.B.D	Road Drainage							
F.B.D.1	Already Constructed				$0			
	TOTAL Road Drainage		Item			$0		
F.B.E	Preliminaries and Project Costs							
F.B.E.1	Already Constructed				$0			
	TOTAL Preliminaries and Project Costs		Item			$0		
	TOTAL Kiernan Street (Seagull Intersection) - already constructed						**$0**	
F.C	**South Western Highway (Channelised Intersection)**							
F.C.A	Road Works							
	Earthworks and Site Preparation				$0			
F.C.A.1	Site Clearance (based on light shrubs)	2,550	m2	$4	$8,976			
F.C.A.2	Removal of topsoil 150mm and stockpile for later re-use	2,550	m2	$2	$4,106			
F.C.A.3	Cut to Fill - General Earthworks	765	m3	$8	$6,296			
F.C.A.4	Detailed excavation - mill and profile	1,800	m2	$19	$34,164			
F.C.A.5	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation				$0			
F.C.A.6	Preparation, trim and compact	2,550	m2	$6	$14,025			
	Sub Base and Base Course				$0			
F.C.A.7	100mm thick crushed rock base course	2,466	m2	$8	$20,271			
F.C.A.8	250mm thick compacted limestone sub base	2,466	m2	$17	$43,106			
	Road Paving				$0			
F.C.A.9	50mm thick (AC14)	1,980	m2	$31	$61,855			
F.C.A.10	Extra over for 2% red oxide	90	m2	$6	$561			
F.C.A.11	Primer seal	1,980	m2	$4	$7,999			
	Kerbing				$0			
F.C.A.12	Mountable Kerb (MK)	60	m	$25	$1,526			
F.C.A.13	Semi Mountable Kerb (SMK)	80	m	$30	$2,372			
	Line Marking and Furniture				$0			
F.C.A.14	Line marking	660	m	$6	$4,184			
F.C.A.15	Street sign post	1	no	$122	$122			
F.C.A.16	Street name plate	2	no	$199	$398			
F.C.A.17	Chevron sign	1	no	$613	$613			

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

F.C.A.18	Traffic sign	3	no	$450	$1,350			
	Landscaping				$0			
F.C.A.19	Soft landscaping	180	m2	$0	Excl.			
F.C.A.20	Landscape mix	42	m3	$90	$3,780			
F.C.A.21	Rock pitching	8	m2	$155	$1,242			
F.C.A.22	Drainage layer	180	m2	$0	Excl.			
	Other							
F.C.A.23	Allow for connection to SWH		item		$20,000			
	TOTAL Road Works		Item			$236,945		
F.C.B	Shared Paths							
	Earthworks and Site Preparation							
F.C.B.1	Site Clearance (based on light shrubs)	150	m2	$4	$528			
F.C.B.2	Removal of topsoil 150mm and stockpile for later re-use	150	m2	$2	$242			
F.C.B.3	Cut to Fill - General Earthworks	45	m3	$8	$370			
F.C.B.4	Imported Fill	0	m3	$30	Excl.			
	Subgrade Preparation							
F.C.B.5	Preparation, trim and compact	150	m2	$6	$825			
	Pathway							
F.C.B.6	100 thick concrete footpath with broomed finish	150	m2	$71	$10,626			
F.C.B.7	Sand fill below concrete footpath (100mm)	150	m2	$5	$819			
F.C.B.8	Pram ramp including tactile	2	no	$973	$1,945			
	Line Marking and Furniture							
F.C.B.9	Traffic sign	2	no	$450	$900			
	TOTAL Shared Paths		Item			$16,255		
F.C.C	Street Lighting							
F.C.C.1	6.5 SOR Street Light Pole incl. all conduits, light cabling excavation, and related overheads	2	no	$3,442	$6,883			
	TOTAL Street Lighting		Item			$6,883		
F.C.D	Road Drainage							
F.C.D.1	450dia reinforced concrete pipe including excavation and backfill	90	m	$233	$20,975			
F.C.D.2	Side entry pits including liner, cover, excavation, and associated works	2	no	$2,667	$5,333			
	TOTAL Road Drainage		Item			$26,308		
F.C.E	Preliminaries and Project Costs							
F.C.E.1	Traffic Management	5.0000	%	$286,391	$14,320			
F.C.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$286,391	$42,959			
F.C.E.3	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$286,391	$21,479			
F.C.E.4	Risk Contingency Allowance	10.0000	%	$365,148	$36,515			
	TOTAL Preliminaries and Project Costs		Item			$115,272		
	TOTAL South Western Highway (Channelised Intersection)						**$401,663**	
F.D	**Utilities**							
F.D.A	Power and Lighting (Western Power)							
F.D.A.1	General Provisional Sum of $50,000 as it is not clear if diversions are requred	1	PS	$50,000	$50,000			
	TOTAL Power and Lighting (Western Power)		Item			$50,000		
F.D.B	Communications (NBN / Telstra / Westnet / etc.)							
F.D.B.1	General Provisional Sum of $50,000 as it is not clear if diversions are requred	1	PS	$50,000	$50,000			
	TOTAL Communications (NBN / Telstra / Westnet / etc.)		Item			$50,000		
F.D.C	Water and Sewer (Water Corporation)							
F.D.C.1	Offset and sleeve approximatley 30m road length of water and sewer about 1m deeper from the current location - Provisional Sum	1	PS	$49,068	$49,068			
	TOTAL Water and Sewer (Water Corporation)		Item			$49,068		
F.D.D	Gas (ATCO)							
	No allowance has been made for ATCO diversions as we do not see existing valves from our desktop study		Note					
	TOTAL Gas (ATCO)		Item			$0		
F.D.E	Preliminaries and Project Costs							

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

F.D.E.1	Traffic Management	5.0000	%	$149,068	$7,453			
F.D.E.2	Project Overheads and Preliminaries (Indirect Construction Costs)	15.0000	%	$149,068	$22,360			
F.D.E.3	Project Owner's Cost (Planning and Design Costs)	5.0000	%	$149,068	$7,453			
F.D.E.4	Risk Contingency Allowance	10.0000	%	$186,335	$18,633			
	TOTAL Preliminaries and Project Costs		Item			$55,900		
	TOTAL Utilitities						**$204,968**	
A.A.A.7	Estimated Imported Fill	8,715	m3					
A.A.A.5	Total m3 of Cut to Fill - General Earthworks	11,370	m3					
	Less Cut to Filll costed	0	m3	$30	$0			
	Total Adjustment for Imported Fill (less Cut to Fill)	*See "Imported Fill" sheet at the end of these costings.*					**$0**	
	TOTAL Road – Tinspar Avenue		**Item**					**$4,886,575**
	Prefunded build completed prior to gazettal of the Amendment under DCP Condition							$1,265,000
	Total to be included in DCP1							**$6,151,575**

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
	DISTRICT OPEN SPACE – WHITBY HIGH SCHOOL							
G	**DISTRICT SPORTING SPACE**							
G.A	**Siteworks & Earthworks**							
G.A.A	Site Clearance (based on light shrubs)	46,000	m2	$4		$169,280		
G.A.B	Removal of topsoil 150mm and remove off-site	46,000	m2	$2		$77,234		
G.A.C	Cut to Fill - General Earthworks of 300mm across site	13,800	m3	$8		$113,471		
G.A.D	Levelling, grading and compaction to final design levels	46,000	m2	$3		$151,800		
G.A.E	Weed eradication	46,000	m2	$1		$26,910		
G.A.F	Excavation to 300 below finished levels	13,800	m2	$14		$190,440		
G.A.G	300 deep clean sand fill	13,800	m3	$30		$414,000		
G.A.H	Ggypsum soil conditioner	46,000	m2	$2		$77,740		
G.A.I	15 deep C-Wise Horticulture soil conditioner	46,000	m2	$5		$251,160		
G.A.J	100 thick imported turf sand	46,000	sqm	$5		$227,240		
G.A.K	Organic fertilizer to turf	46,000	sqm	$1		$53,820		
	TOTAL Siteworks & Earthworks						**$1,754,000**	
G.B	**Grassing & Irrigation**							
G.B.A	Supply and lay roll on turf including maintaining	46,000	sqm	$20		$920,000		
G.B.B	Irrigation	46,000	sqm	$8		$368,000		
G.B.C	Provisional sum allowance for pumps, bores and controls - no allowance for storage tank	1	Item	$80,000		$80,000		
	TOTAL Grassing & Irrigation						**$1,368,000**	
G.C	**Landscaping & Equipment**							
	Equipment							
G.C.A	AFL goal posts (set of 8) including sleeves, footings, cages and post padding	1	no	$7,406		$7,406		
G.C.B	Timber Bollards @1200 spacing	188	no	$121		$22,748		
G.C.C	Line marking to oval							
G.C.C.1	Allow 2 guys 1 day	16	hrs	$100	$1,600			
G.C.C.2	Equipment	1	no	$1,000	$1,000			
G.C.C.3	Profit				$260			
	TOTAL Line marking to oval	710	m	$4		$2,860		
	Provisional Sums							
G.C.D	Provisional sum allowance for signage	1	item	$5,000		$5,000		
	TOTAL Landscaping & Equipment						**$39,000**	
G.D	**Drainage**							
G.D.A	150 diameter pipe including excavation and backfill	1,310	m	$143		$186,675		
	TOTAL Drainage						**$187,000**	
G.E	**Preliminaries & Project Costs**							
G.E.A	Traffic Management	0.0000	%	$3,348,000		$0		
G.E.B	Project Overheads and Preliminaries (Indirect Construction Costs)	10.0000	%	$3,348,000		$334,800		
G.E.C	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$3,348,000		$251,100		
G.E.D	Risk Contingency Allowance	10.0000	%	$3,933,900		$393,390		
	TOTAL Preliminaries & Project Costs						**$980,000**	
	TOTAL District Open Space – Whitby High School District Sporting Space		**Item**					**$4,328,000**

Rawlinsons (W.A.)
QUANTITY SURVEYORS & CONSTRUCTION COST CONSULTANTS

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
	DISTRICT OPEN SPACE – TAYLOR ROAD/ SCOTT ROAD PRIMARY SCHOOL NEIGHBOURHOOD							
H	**OPEN SPACE**							
H.A	**Siteworks & Earthworks**							
H.A.A	Site Clearance (based on light shrubs)	46,000	m2	$4		$169,280		
H.A.B	Removal of topsoil 150mm and remove off-site	46,000	m2	$2		$77,234		
H.A.C	Cut to Fill - General Earthworks of 300mm across site	13,800	m3	$8		$113,471		
H.A.D	Levelling, grading and compaction to final design levels	46,000	m2	$3		$151,800		
H.A.E	Weed eradication	46,000	m2	$1		$26,910		
H.A.F	Excavation to 300 below finished levels	13,800	m2	$14		$190,440		
H.A.G	300 deep clean sand fill	13,800	m3	$30		$414,000		
H.A.H	Ggypsum soil conditioner	46,000	m2	$2		$77,740		
H.A.I	15 deep C-Wise Horticulture soil conditioner	46,000	m2	$5		$251,160		
H.A.J	100 thick imported turf sand	46,000	sqm	$5		$227,240		
H.A.K	Organic fertilizer to turf	46,000	sqm	$1		$53,820		
	TOTAL Siteworks & Earthworks						**$1,754,000**	
H.B	**Grassing & Irrigation**							
H.B.A	Supply and lay roll on turf including maintaining	46,000	sqm	$20		$920,000		
H.B.B	Irrigation	46,000	sqm	$8		$368,000		
H.B.C	Provisional sum allowance for pumps, bores and controls - no allowance for storage tank	1	Item	$80,000		$80,000		
	TOTAL Grassing & Irrigation						**$1,368,000**	
H.C	**Landscaping & Equipment**							
	Equipment							
H.C.A	AFL goal posts (set of 8) including sleeves, footings, cages and post padding	1	no	$7,406		$7,406		
H.C.B	Timber Bollards @1200 spacing	188	no	$121		$22,748		
H.C.C	Line marking to oval							
H.C.C.1	Allow 2 guys 1 day	16	hrs	$100	$1,600			
H.C.C.2	Equipment	1	no	$1,000	$1,000			
H.C.C.3	Profit				$260			
	TOTAL Line marking to oval	710	m	$4		$2,860		
H.C.D						$0		
H.C.E	Provisional Sums					$0		
H.C.F	Provisional sum allowance for signage	1	item	$5,000		$5,000		
	TOTAL Landscaping & Equipment						**$39,000**	
H.D	**Drainage**							
H.D.A	150 diameter pipe including excavation and backfill	1,310	m	$143		$186,675		
	TOTAL Drainage						**$187,000**	
H.E	**Preliminaries & Project Costs**							
H.E.A	Traffic Management	0.0000	%	$3,348,000		$0		
H.E.B	Project Overheads and Preliminaries (Indirect Construction Costs)	10.0000	%	$3,348,000		$334,800		
H.E.C	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$3,348,000		$251,100		
H.E.D	Risk Contingency Allowance	10.0000	%	$3,933,900		$393,390		
	TOTAL Preliminaries & Project Costs						**$980,000**	
	TOTAL District Open Space – Taylor Road/ Scott Road Primary School Neighbourhood Open Space		**Item**					**$4,328,000**

Shire of Serpentine Jarrahdale DCP
DCA 3 - Mundijong Whitby - Update

Code	Description	Quantity	UOM	Rate	Subtotal	Sub Section Total	Section Total	Road/ DOS Total
H	**DISTRICT OPEN SPACE – ADAMS ST/COCKRAM ST PRIMARY SCHOOL NEIGHBOURHOOD OPEN SPACE**							
H.A	**Siteworks & Earthworks**							
H.A.A	Site Clearance (based on light shrubs)	46,000	m2	$4		$169,280		
H.A.B	Removal of topsoil 150mm and remove off-site	46,000	m2	$2		$77,234		
H.A.C	Cut to Fill - General Earthworks of 300mm across site	13,800	m3	$8		$113,471		
H.A.D	Levelling, grading and compaction to final design levels	46,000	m2	$3		$151,800		
H.A.E	Weed eradication	46,000	m2	$1		$26,910		
H.A.F	Excavation to 300 below finished levels	13,800	m2	$14		$190,440		
H.A.G	300 deep clean sand fill	13,800	m3	$30		$414,000		
H.A.H	Ggypsum soil conditioner	46,000	m2	$2		$77,740		
H.A.I	15 deep C-Wise Horticulture soil conditioner	46,000	m2	$5		$251,160		
H.A.J	100 thick imported turf sand	46,000	sqm	$5		$227,240		
H.A.K	Organic fertilizer to turf	46,000	sqm	$1		$53,820		
	TOTAL Siteworks & Earthworks						**$1,754,000**	
H.B	**Grassing & Irrigation**							
H.B.A	Supply and lay roll on turf including maintaining	46,000	sqm	$20		$920,000		
H.B.B	Irrigation	46,000	sqm	$8		$368,000		
H.B.C	Provisional sum allowance for pumps, bores and controls - no allowance for storage tank	1	Item	$80,000		$80,000		
	TOTAL Grassing & Irrigation						**$1,368,000**	
H.C	**Landscaping & Equipment**							
	Equipment							
H.C.A	AFL goal posts (set of 8) including sleeves, footings, cages and post padding	1	no	$7,406		$7,406		
H.C.B	Timber Bollards @1200 spacing	188	no	$121		$22,748		
H.C.C	Line marking to oval							
H.C.C.1	Allow 2 guys 1 day	16	hrs	$100	$1,600			
H.C.C.2	Equipment	1	no	$1,000	$1,000			
H.C.C.3	Profit				$260			
	TOTAL Line marking to oval	710	m	$4		$2,860		
H.C.D						$0		
H.C.E	Provisional Sums					$0		
H.C.F	Provisional sum allowance for signage	1	item	$5,000		$5,000		
	TOTAL Landscaping & Equipment						**$39,000**	
H.D	**Drainage**							
H.D.A	150 diameter pipe including excavation and backfill	1,310	m	$143		$186,675		
	TOTAL Drainage						**$187,000**	
H.E	**Preliminaries & Project Costs**							
H.E.A	Traffic Management	0.0000	%	$3,348,000		$0		
H.E.B	Project Overheads and Preliminaries (Indirect Construction Costs)	10.0000	%	$3,348,000		$334,800		
H.E.C	Project Owner's Cost (Planning and Design Costs)	7.5000	%	$3,348,000		$251,100		
H.E.D	Risk Contingency Allowance	10.0000	%	$3,933,900		$393,390		
	TOTAL Preliminaries & Project Costs						**$980,000**	
	TOTAL District Open Space – Adams St / Cockram St Primary School Neighbourhood Open Space		**Item**					**$4,328,000**

M11b Keirnan Park DSS– 1b: Ovals

Updated Jun 2023

Costs undertaken internally by Shire Personnel - to be updated by external QS on final design.

$	3,007,693

KIERNAN PARK MASTERPLAN SCENARIOS		INDICATIVE SCENARIO 1A			
Item	Description	Quantity	Unit	Rate ($)	Total ($)
1.00	BUILDINGS				
1.01	Allowance for Recreation Centre		Note		Excluded
1.02	Allowance for Hockey/Soccer/Rugby Pavillion		Note		Excluded
1.03	Allowance for Baseball/Softball Pavillion		Note		Excluded
1.04	Allowance for Soccer Change Rooms		Note		Excluded
1.05	Allowance for AFL / Cricket Pavillion		m2		-
1.06	Allowance for Athletics Pavillion		Note		Excluded
1.07	Allowance for BMX Grandstand (basic tiered mound with shade cover)		Note		Excluded
1.08	Allowance for BMX Pavillion		Note		Excluded
	TOTAL BUILDING COST		-		-
2.00	External Works & Landscaping				
2.01	Allowance for Site Clearance		m2		-
2.02	Allowance for demolition of buildings / structures		Note		Not Applicable
2.03	Allowance for demolition / removal of hardstandings		Note		Not Applicable
2.04	Allowance for general cut to fill		m3		-
2.05	Allowance for imported fill material		m3		-
2.06	Allowance for removal of unsuitable cut		Note		Excluded
2.07	Allowance for formation of batters including fabric cover		m2		-
2.08	Allowance for retaining walls		Note		Excluded
2.09	Allowance for temporary battering / retaining to suit staging (no detailts)		P.Sum		-
2.10	Allowance for sub soil drainage		Note		Excluded
2.11	Allowance for ground remediation		Note		Excluded
2.12	Allowance for car parking complete		m2		-
2.13	Allowance for roads complete		m2		-
2.14	Allowance for cross overs complete		No		-
2.15	Allowance for bridge structures		No		-
2.16	Allowance for outdoor 50m pool and surrounds		Note		Excluded
2.17	Allowance for leisure pool		Note		Excluded
2.18	Allowance for Tennis Courts (9)		Note		Excluded
2.19	Allowance for Netball Courts (15)		Note		Excluded
2.20	Allowance for Soccer Pitches - Grass		Note		Excluded
2.21	Allowance for Hockey Pitches - Grass		Note		Excluded
2.22	Allowance for Hockey Pitches - Synthetic		Note		Excluded
2.23	Allowance for Rugby Pitches - Grass		Note		Excluded
2.24	Allowance for Baseball Diamonds - Grass		Note		Excluded
2.25	Allowance for Baseball pitch - Grass		Note		Included
2.26	Allowance for AFL Pitches - Grass (halved for 1 oval - see Stage 2)	32,000	m2	93	2,976,432
2.27	Extra over Soft Landscaping Allowance for Athletics Track - Grass including infill		Note	-	Excluded
2.28	Allowance for general grassed areas between playing surfaces (halved for 1 oval - see Stage 2)	26,600		50	1,319,552
2.29	Allowance for Cricket Pitch		No		-
2.30	Allowance for Cricket Pitch and Net		No		-
2.31	Allowance for Bowls - Grass / Lawn		Note		Excluded
2.32	Allowance for BMX Track		Note		Excluded
2.33	Allowance for Pump Track		Note		Excluded
2.34	Allowance for BMW Shade Structures		Note		Excluded
2.35	Allowance for fencing to BMX		Note		Excluded
2.36	Allowance for Mountain Bike Trail		Note		Excluded
2.37	Allowance for works to shrub areas		Note		Excluded
2.38	Allowance for works to stream		Sum		-
2.39	Allowance for formation of water treatment pond		Note		Excluded
2.40	E.O Allowance for feauture lagoon to above				Excluded
2.41	Allowance for hard landscaping / pavements generally (20% balance of site area)		P.Sum		-
2.42	Allowance for soft landscaping / shrubs generally (40% balance of site area)		P.Sum		-
2.43	Allowance for works to balance of site		Note		Excluded

2.44	Allowance for playground / equipment		Sum		-
2.45	Allowance for shelters etc		Sum		-
2.46	Allowance for fitments; bins, seats, furniture		Sum		-
2.47	Allowance for stepped seating				
2.48	Allowance for signage		Sum		-
2.49	Allowance for site fencing		Note		Excluded
2.50	Allowance for Main Contractors Preliminaries and Margin	8%	Sum	343,679	Excluded
	External Works & Landscaping Sub Total				**4,295,984**
3.00	**Site Services**				
3.01	Allowance for common service trench to each building		m		-
3.02	Allowance for services infrastructure to Recreation Centre		Note		Excluded
3.03	Allowance for services infrastructure to Hockey/Soccer/Rugby Pavillion		Note		Excluded
3.04	Allowance for services infrastructure to Baseball/Softball Pavillion		Note		Excluded
3.05	Allowance for services infrastructure to Soccer Change Rooms		Note		Excluded
3.06	Allowance for services infrastructure to AFL / Cricket Pavillion		P.Sum		-
3.07	Allowance for services infrastructure to Athletics Pavillion		Note		Excluded
3.08	Allowance for services infrastructure to BMX Pavillion		Note		Excluded
3.09	Allowance for lighting to car parks; 1 light per 400sqm		P.Sum		-
3.10	Allowance for lighting to roads; 1 light per 400sqm		P.Sum		-
3.11	Allowance for sports lighting to Tennis		Note		Excluded
3.12	Allowance for sports lighting to Netball		Note		Excluded
3.13	Allowance for sports lighting to Soccer		Note		Excluded
3.14	Allowance for sports lighting to Hockey		Note		Excluded
3.15	Allowance for sports lighting to Rugby		Note		Excluded
3.16	Allowance for sports lighting to Baseball / softball		Note		Excluded
3.17	Allowance for sports lighting to AFL		P.Sum		-
3.18	Allowance for sports lighting to Athletic Track		Note		Excluded
3.19	Allowance for sports lighting to Lawn Bowls		Note		Excluded
3.20	Allowance for sport lighting to BMX and Pump Track		Note		Excluded
3.21	Allowance for general CCTV coverage		P.Sum		-
3.22	Allowance for Main Contractors Preliminaries and Margin	8%	Sum	-	Excluded
	External Services Sub Total		-		-
	TOTAL CONSTRUCTION COSTS		-		**4,295,984**
4.01	Design Contingencies				-
4.02	Construction Contingencies				-
4.03	Headworks and Statutory Charges		P.Sum		-
4.04	Building Act Compliance		Note		Excluded
4.05	Percent for Public Art				-
4.06	Land Costs (if applicable)		Note		Excluded
4.07	Other Costs - FFE		Note		Excluded
4.08	Other Costs - ICT		Note		Excluded
4.09	Professional Fees				-
	On-Costs - Sub Total		-		-
	GROSS PROJECT COST		-		**4,295,984**
5.00	**Escalation**				
5.01	Base date of pricing - September 2020	177.00			
5.02	Escalation to Start of Construction				Excluded
	Escalation - Sub Total				-
	ESCALATED NET PROJECT COST				**4,295,984**
6.00	**Local Authority Managed Costs**				
6.01	Special Client Agency Provisions		Note		Excluded
6.02	Project Director / Professional Fees		Note		Excluded
6.03	Administration Fees		Note		Excluded
6.04	Commissioning, Relocation Costs and Disbursements		Note		Excluded
6.05	Land Acquisition & Native Title Compensation (if applicable)		Note		Excluded
6.06	Loose Furniture and Equipment		Note		Excluded
6.07	Computing Equipment and Services		Note		Excluded
6.08	Site Master Planning		Note		Excluded
6.09	Other Provisions		Note		Excluded
	Total Local Authority Costs				-
	Grand total before grant				**4,295,984**
					- **1,288,290**
	ESTIMATED GROSS PROJECT (COMMITMENT) TOTAL COST				**3,007,693**

DCP Roads - Imported Fill inputs		Average fill depth required before topsoil removal (mm)	Topsoil removal (mm)	Total Sand depth reqd (mm)	Length	Width	Vol	Total m3	Notes
DCA3	Bishop Road East	150	150	300	1500	15	0.3	6,750.0	Existing carriageway to be upgraded, no fill required, pavement to be upgraded. Full length new carriageway 150mm fill required
	Taylor Road	150	150	300	1530	15	0.3	6,885.0	Existing carriageway to be upgraded, no fill required, pavement to be upgraded. Full length new carriageway 150mm fill required
	Town Centre Distributor Road (Whitby New Road)	150	150	300	3545	30	0.3	31,905.0	150mm fill required to lift full length
	North South Road	150	150	300	1340	30	0.3	12,060.0	150mm fill required to lift full length
	Skyline Boulevard	150	150	300	352	25	0.3	2,640.0	150mm fill required to lift full length
	Tinspar Avenue	150	150	300	1162	25	0.3	8,715.0	150mm fill required to lift full length

Appendix H: Land for Infrastructure

Land For Infrastructure

Cross Check Match:

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA DCA3

Revision 2

Residential Land Value (this revision): $30.00

Non-Residential Land Value (this revision): $30.00

	ESTIMATED TOTAL Land m2			COMPLETED Land m2			REMAINING Land m2			REMAINING Land $		
Infrastructure Item:	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**
Totals:	230,189	0	**230,189**	3,809	0	**3,809**	226,380	0	**226,380**	$6,791,406	$0	**$6,791,406**
Adams St/Cockram St Primary School N	40,000	0	**40,000**	0	0	**0**	40,000	0	**40,000**	$1,200,000	$0	**$1,200,000**
Bishop Road East	12,450	0	**12,450**	0	0	**0**	12,450	0	**12,450**	$373,500	$0	**$373,500**
Keirnan Park DSS - 1b: Ovals	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
North South Road	13,000	0	**13,000**	0	0	**0**	13,000	0	**13,000**	$390,000	$0	**$390,000**
Skyline Boulevard	7,800	0	**7,800**	2,544	0	**2,544**	5,256	0	**5,256**	$157,686	$0	**$157,686**
Taylor Rd/Scott Rd Primary School NOS	40,000	0	**40,000**	0	0	**0**	40,000	0	**40,000**	$1,200,000	$0	**$1,200,000**
Taylor Road/Adams St	33,000	0	**33,000**	0	0	**0**	33,000	0	**33,000**	$990,000	$0	**$990,000**
Tinspar Avenue	8,275	0	**8,275**	1,265	0	**1,265**	7,010	0	**7,010**	$210,300	$0	**$210,300**
Town Centre Distributor Road	36,150	0	**36,150**	0	0	**0**	36,150	0	**36,150**	$1,084,500	$0	**$1,084,500**
Water Monitoring	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Whitby High School DSS (Reilly Rd)	39,514	0	**39,514**	0	0	**0**	39,514	0	**39,514**	$1,185,420	$0	**$1,185,420**

Appendix I: Land for Public Open Space & Drainage

Land For Public Open Space & Drainage

Cross Check Match:

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA DCA3

Revision 2

Residential Land Value (this revision): $30.00

Non-Residential Land Value (this revision): $30.00

	ESTIMATED TOTAL Land m2			COMPLETED Land m2			REMAINING Land m2			REMAINING Land $		
Infrastructure Item:	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**	Residential	Non-Residential	**Total**
Totals:	982,183	0	**982,183**	32,165	0	**32,165**	950,018	0	**950,018**	$28,500,528	$0	**$28,500,528**
Keirnan Street - Precinct B	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Keirnan Street - Precinct G2	33,500	0	**33,500**	0	0	**0**	33,500	0	**33,500**	$1,005,000	$0	**$1,005,000**
L9503 Mundijong Road - Precinct E3	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Lang Road - Precinct G3	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Lot 30 Soldiers Road	111,079	0	**111,079**	0	0	**0**	111,079	0	**111,079**	$3,332,358	$0	**$3,332,358**
Mundijong North - Precinct G1	421,700	0	**421,700**	0	0	**0**	421,700	0	**421,700**	$12,651,000	$0	**$12,651,000**
Mundijong Rd, Adams St, Taylor Rd, Scc	88,468	0	**88,468**	0	0	**0**	88,468	0	**88,468**	$2,654,040	$0	**$2,654,040**
Mundijong Town Centre - Precinct F	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Watkins Road North - Precinct C	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Watkins Road South - Precinct D	0	0	**0**	0	0	**0**	0	0	**0**	$0	$0	**$0**
Whitby Estate - Precinct A	327,436	0	**327,436**	32,165	0	**32,165**	295,271	0	**295,271**	$8,858,130	$0	**$8,858,130**

Appendix J: Water Monitoring

Shire of Serpentine Jarrahdale DCP Our Ref: E23/7712

DCA 3 - Mundijong-Whitby Urban Traditional Infrastructure

	DCP1		
Summary of Costs:	**Costed by**	**Date**	**Cost**
Water Monitoring	Urbaqua	Jun-22	$1,031,650
TOTAL (excl. GST)			**$1,031,650**

WATER MONITORING COSTS

Mundijong Whitby Urban Development Contribution Plan

Description	Hours Qty	People Qty	Salary $/hr	Sample No. Qty	Sample runs/yr Qty	Cost Per Sample $	Sites Qty	Rate $	Cost	Contingency 25%	Annual Cost (GST Excl)	Years	Total Cost (GST Excl)
Sampling Program Management													
Preparation of the RFQ/Tender, Tender Brief, Scope and Specification	120	1	$200						$24,000	$6,000	$30,000	1	$30,000
Preparation of Sample and Analysis Plan (SAP)	20	1	$100						$2,000	$500	$2,500	1	$2,500
Program management (incl updates to SAP as required)	50	1	$200						$10,000	$2,500	$12,500	10	$125,000
Data Management (site and program registration, data entry, validation)	40	1	$100						$4,000	$1,000	$5,000	10	$50,000
Preparation / assistance with report (Annual Report)	50	2	$100						$10,000	$2,500	$12,500	10	$125,000
Total - Sampling Program Management									**$50,000**	**$12,500**	**$62,500**		**$332,500**
Water Analysis (20 GW & 10 SW sites)													
Nitrogens (TN, TKN, NH4, NOx-N (NO3+NO2)) + TP + FRP				32	6	20	30		$3,840	$960	$4,800	10	$48,000
Dissolved Organic Nitrogen, DON				32	6	50	30		$9,600	$2,400	$12,000	10	$120,000
Total Dissolved Solids, TDS				32	6	25	30		$4,800	$1,200	$6,000	10	$60,000
Metals Set-up (Filtered)				32	1	12	30		$384	$96	$480	10	$4,800
Heavy Metals (Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Zn & Hg)				32	1	70	30		$2,240	$560	$2,800	10	$28,000
Total Recoverable Hydrocarbons (TRH)				32	1	40	30		$1,280	$320	$1,600	10	$16,000
Polycyclic Aromatic Hydrocarbons and BTEX				32	1	90	30		$2,880	$720	$3,600	10	$36,000
Total - Water Analysis									**$25,024**	**$6,256**	**$31,280**		**$312,800**
Sediment Analysis (10 sites)						-							
Total Recoverable Hydrocarbons (TRH) & BTEX				12	1	40	10		$480	$120	$600	10	$6,000
Polycyclic Aromatic Hydrocarbons (PAH)				12	1	90	10		$1,080	$270	$1,350	10	$13,500
Metals Set-up				12	1	14	10		$168	$42	$210	10	$2,100
Heavy Metals (Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Zn & Hg)				12	1	70	10		$840	$210	$1,050	10	$10,500
Moisture (no charge with metals)				12	1	0	10		$0	$0	$0	10	$0
Total - Sediment Analysis									**$2,568**	**$642**	**$3,210**		**$32,100**
Analysis - Other													
Troll 9500 Profiler XP (in-situ analysis)								$20,000	$20,000	$5,000	$25,000	1	$25,000
Consumables (incl. nitrile Gloves)					6			$100	$600	$150	$750	10	$7,500
Equipment hire (pumps etc)					6			$300	$1,800	$450	$2,250	10	$22,500
Courier fees					6			$40	$240	$60	$300	10	$3,000
Total - Analysis - Other									**$22,640**	**$5,660**	**$28,300**		**$58,000**
Superficial Groundwater Monitoring (20 sites)													
Installation of monitoring wells for superficial aquifer monitoring (average 3m depth, includes survey & development)							20	$4,000	$80,000	$20,000	$100,000	1	$100,000
Monitor local superficial aquifer groundwater levels (Monthly) - Labour incl travel between sites	0.25	1	200		12		20		$12,000	$3,000	$15,000	1	$15,000
Monitor local superficial aquifer groundwater quality (Quarterly) - Labour incl travel between sites	0.25	1	200		4		20		$4,000	$1,000	$5,000	10	$50,000
Monitor local superficial aquifer groundwater levels (Quarterly) - Labour incl travel between sites	0.25	1	200		4		20		$4,000	$1,000	$5,000	9	$45,000
Total - Superficial Groundwater Monitoring									**$100,000**	**$25,000**	**$125,000**		**$210,000**
Surface Water Monitoring													
Purchase & installation of surface water level loggers - 7 sites							7	$5,000	$35,000	$8,750	$43,750	1	$43,750
Monitor flows in Multiple Use Corridors - labour - 7 sites	0.25	1	200		4		7		$1,400	$350	$1,750	10	$17,500
Monitor quality in Multiple Use Corridors - labour - 10 sites	0.25	1	200		4		10		$2,000	$500	$2,500	10	$25,000
Total - Surface Water Level Monitoring									**$38,400**	**$9,600**	**$48,000**		**$86,250**
Total - Water Quality Management									**$238,632**	**$59,658**	**$298,290**		**$1,031,650**

Appendix K: Cost Review Reconciliation

Cost Review Reconciliation

DCA: **DCA3_**
Report Revision: **2**

Lots Cleared	426
Gross Contributions	**$3,845,018**
Land for Roads/DOS settled	($114,264)
Land for POS settled	($964,950)
Works settled	($2,585,000)
Administration Costs incurred	($703,183)
Total Costs	**($4,367,397)**
Net Contribution Surplus/Deficit for Review Period	**($522,379)**

This data reflects up to the end of the previous revision, does not include data from current revision or lots carried over (cleared under a pending Amendment) - see Appendix K for more details on lots carried over

The DCP is intended to be "break-even" at its ultimate closure, i.e. the net contribution at the end of the DCP life should be zero (monies collected equal monies expended). In order to support this end target of zero, the Surplus or Defecit present at the end of each revision, is used to adjust the contribution values in the next revision.

For example, a Surplus at the end of a revision would result in a "credit" (or cost reduction) in the next DCP Report revision - thus reducing the contribution value. Likewise a defecit would result in a cost increase (cost addition) to the next DCP Report, for the equivalent value - thus increasing the contribution value.

This can be seen in the Cost Apportionment Schedule, referenced as "Reconciliation".

The Net Contribution for this revision represents a DEFECIT in the DCP

This means that the Contributions collected for the DCP so far, are less than the monies spent (at the closure of the last DCP Revision).

This defecit value is included in the Cost Apportionment Schedule as a DEBIT to the costs of the DCP (i.e. additional cost) in the "Reconciliation" line, in order to bring the balance back towards zero.

Appendix L: Lots Completed & Remaining

Lots Completed & Remaining

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA DCA3

Revision 2

Infrastructure Item:	Estimated Total Units	Completed Lots	Remaining Units	Units Cleared under Amendment (to be carried over into this next revision)
Totals:	**7,549**	**426**	**7,123**	**0**
Keirnan Street - Precinct B	0	0	0	0
Keirnan Street - Precinct G2	230	0	230	0
L9503 Mundijong Road - Precinct E3	0	0	0	0
Lang Road - Precinct G3	0	0	0	0
Lot 30 Soldiers Road	800	0	800	0
Mundijong North - Precinct G1	2,910	0	2,910	0
Mundijong Rd, Adams St, Taylor Rd, Scott Rd (E1 & E	1,095	0	1,095	0
Mundijong Town Centre - Precinct F	1	1	0	0
Watkins Road North - Precinct C	0	0	0	0
Watkins Road South - Precinct D	0	0	0	0
Whitby Estate - Precinct A	2,512	425	2,087	0

Appendix M: Land Valuation

Executive Summary

Property Address:	Mundijong-Whitby Traditional Infrastructure DCP – Development Contribution Area 3 (DCA3).
General Description:	The subject of our valuation comprises notional englobo landholdings zoned as follows: 1) "Residential R25" 2) "Mixed Use / R60" Both scenarios assume the land comprises a 5.0ha parcel that requires servicing but is within close proximity to services so there are no major servicing constraints and no major geotechnical/environmental issues.
Purpose of Valuation:	Annual Scheme Contribution purposes.
Valuation:	"Residential R25" Land Rate - **$30.00/m²** "Mixed Use / R60 Land Rate - **$30.00/m²** The above values assume the land comprises a 5ha parcel that requires servicing but is within close proximity to services so there are no major servicing constraints and no major geotechnical/environmental issues. The above values are stated **inclusive of GST** and have considered a discount of 2.5% including GST, being an allowance for selling costs (sales commission, marketing and legal costs). Our valuation has assumed that there is no significant change in market conditions between the date of inspection and the date of valuation.
Date of Inspection:	25 November 2022.
Date of Valuation:	1 February 2023.
Senior Valuer:	**David Molony** AAPI, B.Com (Property & Finance) Certified Practising Valuer Licensed Valuer No. 44387 Western Australia

This Executive Summary is a brief synopsis of the property and our assessment of market value.

It is designed to provide a brief overview and must not be read in isolation, separate from our formal valuation report.

Definition of "Market Value":

The International Valuation Standards Council (and as adopted by the Australian Property Institute) defines Market Value in the *International Valuation Standards 2022* as:

> *"The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion."*

Assumptions, Conditions and Limitations:

- The market is being impacted by the uncertainty caused by the COVID-19 pandemic. As at the date of valuation we consider that there is market uncertainty resulting in significant valuation uncertainty.

  This valuation is therefore reported on the basis of 'significant valuation uncertainty'. As a result, less certainty exists than normal and a higher degree of caution should be attached to our valuation than normally would be the case. Given the unknown future impact that COVID-19 might have on markets, we recommend that the user(s) of this report review this valuation periodically.

  This valuation is current at the date of valuation only. The value assessed herein may change significantly and unexpectedly over a relatively short period of time (including as a result of factors that the valuer could not reasonably have been aware of as at the date of valuation). We do not accept responsibility or liability for any losses arising from such subsequent changes in value.

- The planning and cadastral details obtained from the Department of Planning, Lands & Heritage, Main Roads Western Australia, Landgate and Local Authority websites are current and correct.

- Adjoining land owners or community groups do not impede or restrain development as foreseen.

- We are not aware of any Notices currently issued against the property and we have made no enquiries in this regard.

- Our valuation assumes there is no asbestos contamination.

  We must point out however, that we are not experts in the detection or quantification of asbestos problems and accordingly, have not carried out a detailed investigation. Therefore, this valuation is made on the assumption that there are no actual or potential asbestos contamination issues affecting the subject property.

  Should a subsequent investigation undertaken by a suitably qualified expert show that the site is contaminated, we reserve the right to amend our valuation accordingly.

- The value and utility of land can be adversely affected by the presence of Aboriginal sacred sites and/or sites of Aboriginal heritage significance. We have made no investigations in this regard, as Aboriginal requirements can only be determined by the appointment of an appropriate expert.

  Under these circumstances, we cannot warrant that there are no such sites on the land and if it is subsequently determined that the realty is so affected, we reserve the right to review this valuation.

- The land is assumed to comprise topsoils which are relatively free draining, however as no geotechnical investigations have been either undertaken or commissioned, we are unable to report on the underlying nature of the site.

- This market valuation assumes there is no environmental contamination of the property.

- This market valuation assumes there is no encroachment of adjoining buildings onto the subject property.

- This market valuation assumes an unencumbered fee simple title to the property.

- If there are any encumbrances, encroachments, restrictions, leases or covenants which are not noted in this report, they may affect the assessment of market value. If any such matters are known or discovered, we should be advised and asked as to whether they affect our assessment of market value.

- We have assumed that all information supplied in conducting this market valuation consists of a full and accurate disclosure of all information that is relevant.

- It is assumed that no significant event occurs between the date of inspection and the date of valuation that would impact on the market value of the subject property.

- We have not obtained a Property Interest Report in providing our advice. A property-specific report will provide detailed information of property interests not listed on the Certificate of Title that may affect the use and enjoyment of the land.

  A report can be obtained from Landgate for a charge of $54.95 (incl. GST). If a subsequent Property Interest Report reveals any aspects of the property that may impact on its value, we reserve the right to review our market valuation.

If there is any variance/contradiction in any of the above assumptions, then we reserve the right to review this market valuation accordingly.

****

16.0 VALUATION CONCLUSIONS

In considering suitable lands rate for the subject hypothetical parcels, we are of the opinion the following factors require due regard in this instance.

- The properties comprise notional parent parcels of 5.00ha.
- It is assumed the land requires servicing but is within close proximity to services so there are no major servicing constraints.
- It is assumed there are no major geotechnical/environmental issues.
- The DCP Area is within its infant stages with limited urban development in the local area.
- The first scenario assumes a relatively low notional density coding of "Residential R25".
- The second scenario assumes a broader scope for development as "Mixed Use / R60".
- Whilst finished lot values have generally appreciated in recent years, civil development costs have escalated rapidly which is having an associated negative impact on project feasibility.
- The "Mixed Use / R60" product is untested in the subject location and in our opinion offers no significant premium above and beyond traditional residential densities. We anticipate this could change as the area develops and the catchment matures.

Value per m² for Standard Residential/Non-Standard Residential:

Based on our analysis we have adopted a rate of **$30.00/m²** including GST. This takes into consideration the 2.5% discount applicable for selling costs (sales commission, marketing and legal costs).

The above rate is current as at 1 February 2023.

Our valuation has assumed that there is no significant change in market conditions between the date of inspection and the date of valuation

Value per m² for Non-Residential:

Based on our analysis we have adopted a rate of **$30.00/m²** including GST. This takes into consideration the 2.5% discount applicable for selling costs (sales commission, marketing and legal costs).

The above rate is current as at 1 February 2023.

Our valuation has assumed that there is no significant change in market conditions between the date of inspection and the date of valuation

Land Value Escalation Rate:

Based on current market conditions, we believe an indicative growth rate of **2.5%** is reasonable for the next 12 months.

David Molony AAPI, B. Com (Property & Finance)
Certified Practising Valuer
Licensed Valuer No. 44387
Western Australia

Appendix N: Infrastructure Delivery Status Report

Infrastructure construction cost *Cross Check Match:*

Mundijong-Whitby Urban Traditional Infrastructure DCP

DCA DCA3

Revision 2

Infrastructure Item:	Total	Completed	Remaining
Totals:	$89,602,629	$2,585,000	$87,017,629
Adams St/Cockram St Primary School NOS	$4,328,000	$0	$4,328,000
Bishop Road East	$11,415,959	$0	$11,415,959
Keirnan Park DSS - 1b: Ovals	$3,007,693	$0	$3,007,693
North South Road	$6,822,168	$0	$6,822,168
Skyline Boulevard	$4,054,156	$1,320,000	$2,734,156
Taylor Rd/Scott Rd Primary School NOS	$4,328,000	$0	$4,328,000
Taylor Road/Adams St	$25,384,673	$0	$25,384,673
Tinspar Avenue	$7,416,575	$1,265,000	$6,151,575
Town Centre Distributor Road	$17,485,755	$0	$17,485,755
Water Monitoring	$1,031,650	$0	$1,031,650
Whitby High School DSS (Reilly Rd)	$4,328,000	$0	$4,328,000