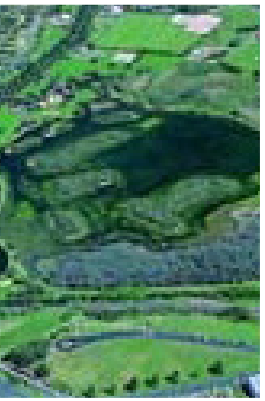
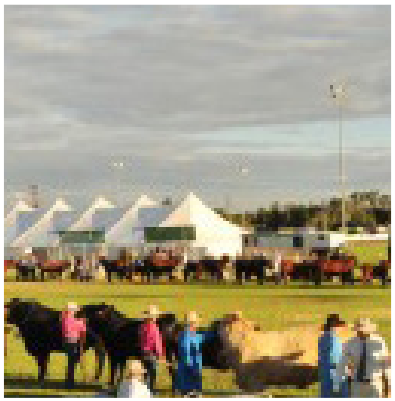
# NORTH DENNINGTON
## Development Contributions Plan



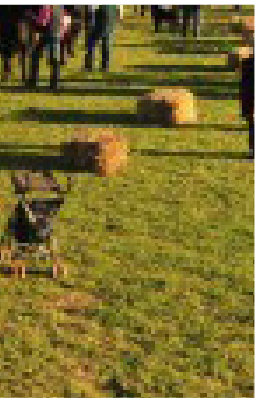




Prepared for
WARRNAMBOOL CITY COUNCIL

By
MESH PTY LTD

NOVEMBER 2014 - Approved Version

# NORTH DENNINGTON
## Development Contributions Plan





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mesh
liveable urban communities

PART 1

# 1.1 Introduction

The North Dennington Development Contributions Plan (NDDCP) has been prepared by Mesh Liveable Urban Communities with the assistance of the Warrnambool City Council and other major stakeholders.

The NDDCP has been prepared to enable the equitable and efficient delivery of a range of infrastructure to service planned growth within the North Dennington Structure Plan (NDSP) area. The NDSP area constitutes one of the Warrnambool growth areas that will provide for establishment of a new community of approximately 3,600 persons.

In general terms the NDDCP identifies the necessary infrastructure and establishes a framework to ensure that the cost of infrastructure is shared equitably by all development proponents and by the broader community where relevant. The NDDCP provides certainty for all developers and the future community by ensuring that all necessary infrastructure will be provided in a timely way and to a specified standard as development progressively takes place.

In addition to identifying necessary infrastructure and defining the means by which the cost of the infrastructure will be shared, the NDDCP includes an Implementation Strategy. The Implementation Strategy sets out the means by which the development process will be managed to ensure that necessary infrastructure is delivered in a timely and efficient way whilst also ensuring that Council is not exposed to unreasonable risk in managing the DCP into the future. Integral to the success of the implementation strategy will be a detailed understanding of the likely location and timing of development and adoption of a co-operative working relationship with developers.

# 1.2 Strategic Basis

The strategic basis for the NDDCP has been established by the State and Local sections of the Warrnambool Planning Scheme including the Municipal Strategic Statement (MSS). An important document that has provided direction regarding the location and structure of the Warrnambool Growth Areas Framework as set out in the MSS is the Warrnambool Land Use Review (2004). The Warrnambool Land Use Review identified the suitability of the North Dennington Area along with 4 other growth areas for residential developpent.

Following identification and designation of land in North Dennington as a growth area, the NDSP was prepared and first exhibited as Amendment C66 in 2008. Following a Panel Hearing in June 2009 Warrnambool Council engaged Hansen Partnership Pty Ltd to review the 2008 Connell Wagner NDSP in light of the Panel's recommendations. The NDDCP is the second of two key documents that will guide the development of the Dennington North growth area.

# 1.3 The Land to which this Contributions Plan Applies

The NDDCP applies to land that is subject of the NDSP, except for Dennington Rise (Property 53), which is subject to a separate Section 173 agreement regarding payment of development contributions.

The NDSP and NDDCP are part of the broader Warrnambool growth areas framework (see Figure 1).

The NDDCP area is generally bounded by the Merri River to the north and west, Harrington Road to the east and existing residential development to the south.

The NDDCP area comprises a total of 140 hectares which includes a total of 52 individual titles of varying sizes ranging from 0.11 ha to 13ha in area as set out in Figure 3 and Table 1.

Figure 1 **Warrnambool Growth Areas**

Figure 2 **North Dennington Growth Area**

Figure 3 **Land Title Plan**


Table 1 **Property Land Area**

| Property Number | Total Area (Hectares) |
|---|---|
| 1 | 8.81 |
| 2 | 4.28 |
| 3 | 3.67 |
| 4 | 3.69 |
| 5 | 2.50 |
| 6 | 2.28 |
| 6a | 0.10 |
| 7 | 3.23 |
| 8 | 1.20 |
| 9 | 4.44 |
| 10 | 4.96 |
| 11 | 5.60 |
| 12 | 5.07 |
| 13 | 4.68 |
| 14 | 4.39 |
| 15 | 3.83 |
| 16 | 4.26 |
| 17 | 3.52 |
| 18 | 2.88 |
| 19 | 5.24 |
| 20 | 4.04 |
| 21 | 4.01 |
| 22 | 2.79 |
| 23 | 1.83 |
| 24 | 1.00 |
| 25 | 3.25 |
| 26 | 4.99 |
| 27 | 0.61 |
| 28 | 0.20 |
| 29 | 8.88 |
| 30 | 1.79 |
| 31 | 0.40 |
| 32 | 1.49 |
| 33 | 4.09 |
| 34 | 0.07 |
| 35 | 0.07 |
| 36 | 0.07 |
| 37 | 0.07 |
| 38 | 0.07 |
| 39 | 0.87 |
| 40 | 0.14 |
| 41 | 0.38 |
| 42 | 1.52 |
| 43 | 5.24 |
| **TOTAL** | **126.53** |

Lot 44 (Dennington Rise) is not subject to the DCP

# 1.4

## Method of Preparing the Development Contributions Plan and Compliance with Statutory Requirements

The NDDCP has been prepared in accordance with part 3B of the Planning and Environment Act 1987 (the Act). This DCP addresses the requirements of the Act by:

- specifying the area to which the DCP applies;
- setting out the works, services and facilities to be funded through the plan, including the staging of the provision of those works, services or facilities;
- relating the need for the works, services and facilities to the proposed development of land in the area;
- specifying the estimated costs of each of the works, services and facilities;
- specifying the proportion of the total estimated cost of the works services and facilities which is to be funded by a development infrastructure levy;
- specifying the land in the area and the types of development in respect of which a levy is payable and the method for determining the amount of levy payable in respect of any development of land; and
- providing for the procedures for the collection of a development infrastructure levy in respect of any development for which a permit under the Act is not required.

The NDDCP is broadly based on the user-pays model proposed by the State Government's Development Contributions Review Steering Committee (Department of Sustainability and Environment, 2003) and the amended Development Contributions Guidelines (2003 and amended in 2007). The NDDCP also takes into account the structure and content of the most recent Development Contributions Plans that have been prepared for a number of Melbourne's growth areas.

This development contributions plan forms part of the Warrnambool Planning Scheme pursuant to section 46I of the Act and is an incorporated document listed under Clause 81 of the Warrnambool Planning Scheme.

# 1.5

## North Dennington Structure Plan

The NDDCP has been prepared taking into account the principles and objectives of the NDSP. In this regard it must be recognised from the outset that the need for infrastructure is based on the planned development outcome and vision as set out in the NDSP. In summary, the NDSP (see Figure 4) covers an area of approximately 140 hectares and will provide for an overall yield of approximately 1,250 lots or 3,600 persons.

The vision for the NDSP is:

*The Structure Plan for the North Dennington aims to create:*

*A residential community providing for diverse housing densities and lifestyle opportunities, with high quality and sustainable urban design outcomes that reflect the environmental assets and landscape attributes of the location abutting the Merri River.*

Given that DCPs are implementation based tools that are linked to the plan upon which they are based it is important to set out the specific development circumstances that apply that need to be taken into account in formulating the DCP. The development circumstances that are particular to the NDSP that need to be taken into account are:

- Location and Existing Facilities;
- Existing access;
- Fragmentation; and
- Frontage to the Merri River and flood prone land.

Figure 4 **North Dennington Structure Plan**

## Location and Existing Facilities

The NDSP occupies a location whereby an existing lower order road network currently serves the needs of existing residents, however will require to be upgraded in order to achieve a satisfactory level of access for future residents. The Merri River physically contains the growth area to the north and west and serves to reduce the number of available road based connections which results in limited through traffic. However, the River offers opportunities for enhanced levels of non-car based travel including walking and cycling.

The NDSP is located directly north of the Dennington Recreation Reserve, which has existing capacity to service the future needs of the new community. In addition, a Catholic primary school, St. Johns, is centrally located on Coghlans Road and provides an opportunity to co-locate a community centre and create a vibrant community hub for the new community.

**Strategic Issue:** The NDDCP will need to actively consider the timing and means to achieve the necessary upgrades to the existing transport network so that it can cope with the projected number of trips. The NDDCP will also need to actively consider the means by which an integrated shared pathway system can be delivered with provision for external connections to promote non car based travel options and to complement proposed vehicular connections.

The proximity and capacity of the Dennington Recreation Reserve, which was gifted to Council some time ago, presents as a significant advantage to the future NDSP community as there is no requirement to set aside additional privately owned developable land for active recreation.

The central location of the existing St. Johns Catholic Primary School (see section 2.4) provides an opportunity for Council to co-locate a community centre with the school, to create a vibrant community hub (use of school land to create the hub will be subject to negotiation between Council and the school).

## Existing Access

The NDSP area contains an existing grid based road network which services the current residents and businesses. However, the current state of these roads is unable to support planned future development and they are all required to be upgraded. Coghlans Road is planned to assume a collector road status whilst Station Street, Shannon and Harrington Roads will be access streets in accordance with the recommendations of the NDSP. Collector and access roads are not normally included within DCPs, however, given the level of land fragmentation within the growth area it is appropriate to include Coghlans Road, Station Street, Shannon Road and Harrington Road within this DCP.

This approach is viewed as the most equitable means of sharing the overall cost and ensuring that the upgrades are achieved. The roads funded by the DCP will provide direct access to the majority of land holdings in the NDSP area and existing residents will benefit from a high standard of road and access to public transport.

**Strategic Issue:** The NDDCP will need to ensure the upgrade of the key transport route comprising Coghlans Road, Station Street, Shannon Road and Harrington Road occurs in an orderly manner and doesn't delay the development of the future North Dennington community.

## Fragmentation

The NDDCP area is comprised of 43 land holdings of varying sizes from 0.07ha to 8.8ha in area. Fragmented land can cause difficulties in achieving coordinated outcomes particularly when the intentions of landowners differ. Notwithstanding that the growth area is comprised of 43 landholdings, the North Dennington growth area is well contained with clearly identifiable boundaries.

**Strategic Issue:** The NDDCP will need to actively consider how potential problems associated with fragmented land can be reduced or overcome by having detailed regard to the likely timing and sequence of development and delivery of necessary infrastructure.

**Frontage to the Merri River and extent of flood prone land**

The NDSP has a significant frontage to the Merri River and approximately 22ha of privately owned land that falls within a 1 in 100 year ARI flood event of the Merri River. In addition to being in multiple ownership, the frontage to the Merri River, and the extent of the undevelopable flood prone land, affects individual land holdings in a disproportionate way. Notwithstanding, the location and extent of the Merri River floodplain provides a significant passive open space opportunity. Use of the floodplain as passive open space is a significant advantage to the NDSP area as no additional privately developable land is required for passive open space.

**Strategic Issue**: The NDDCP seeks to 'equalise' the cost of setting aside the encumbered, undevelopable land by including the 22 ha as a discrete project in the DCP. The 22ha of encumbered land has been valued at $12,000 per hectare. This approach is viewed as equitable given the ability of the land to also be utilised for passive open space purposes.

In addition, due to variations in the flood line, a small amount of unencumbered land falls on river side of the edge road. The extent of this land has been minimised through alignment of the edge road where possible, and will be purchased at the encumbered land rate. The amount of land to be purchased through the DCP is fixed, and as such,will not be adjusted as a result of any alternations sought to the alignment of the edge road through planning permit applications.

Summary of benefits that developers will gain in the NDSP area: -

- No requirement to provide active open space due to existing capacity at the Dennington Recreation Reserve;
- No requirement to provide unencumbered passive open space given the extensive floodplain along the Merri River;
- No land required for arterial roads, all roads will be constructed within the existing road reserves except for Coghlans Road which will be widened only 5 metres to the north;
- The transfer of the floodplain land will benefit the wider community as it forms part of a larger regional park and will have an important passive open space function; and
- Potential to co-locate the community centre with the Catholic primary school to create a vibrant community hub. Purchase of land for the community centre from the school is subject to negotiation between Council and the school.

# 1.6

## Guiding Principles

In the course of the development of land within the NDSP area, there are various items of infrastructure which are clearly necessary. It is difficult to quantify all of these items with any degree of accuracy because the actual infrastructure will be somewhat dependent upon the detailed subdivision design proposed by developers at the planning permit stage. This development contributions plan has been prepared on the expectation that necessary site specific infrastructure will be provided by developers as they develop.

However, it is expected that in addition to these items of infrastructure that are usually provided by developers as they proceed with subdivision and development (e.g. local roads etc), there are other infrastructure items that are of a higher order and therefore easier to identify and quantify at this stage of the planning process. This development contributions plan deals only with these higher order infrastructure items for development infrastructure. There are two exceptions to this approach with regard to drainage infrastructure and the key transport route. Taking into account the role of the Warrnambool City Council as the authority that is responsible for drainage infrastructure (in conjunction with the Glenelg Hopkins Catchment Management Authority), this DCP includes the cost of necessary drainage infrastructure to service three sub-catchments within the NDSP area. Furthermore, the upgrade of the key transport route comprising of collector and access streets including Coghlans Road, Station Street, Shannon Road and Harrington Road have been included due to the high level of land fragmentation.

Taking into account the distinction between local and higher order infrastructure, the infrastructure projects that have been included in the NDDCP all have the following characteristics:

- They are essential to the health, safety and well-being of the community;
- They will be used by a broad cross- section of the community; and
- They reflect the vision and strategic aspirations as expressed in the NDSP.

The NDDCP takes into account the contained nature of the North Dennington growth area in determining internal infrastructure requirements and cost apportionment but also includes an assessment of the identifiable impacts of development principally on the surrounding road network. In summary, the NDDCP covers almost all internal projects and the wider community will fund the balance of projects beyond the NDDCP area.

# 1.7

## Infrastructure Project Justification

Table 7 – Infrastructure Project Justification (refer page 25) provides a detailed explanation of all higher order projects in the NDDCP. The location of infrastructure relating to key transport, open space, community facilities, pedestrian and cycle routes, and drainage infrastructure are shown in Figures 5, 6, 7, 8 and 9 respectively.

The NDDCP has been limited to non-recurrent capital project costs. The need for infrastructure has been determined according to the anticipated development scenario for the growth area as set out in the NDSP.

The majority of the projects and their costings that have been included in the DCP have been identified by the Warrnambool City Council during formulation of the NDDCP. Whilst Council identified the majority of the projects and their costings further substantiation for the projects can be found in the following documents:

- Open Space Strategy (Warrnambool City Council, Draft 2013);
- Warrnambool Recreation Plan 2007-2017;
- North Dennington Open Space Strategy (Warrnambool City Council 2008);
- Dennington Residential Growth Area, Traffic Impact Assessment, Warrnambool City Council (Connell Wagner, July 2008);
- North Dennington Structure Plan, Warrnambool, Transport Impact Assessment (GTA, November 2012);
- Warrnambool Development Areas Drainage Analysis – Report LJ5519 / RM2142 Ver1.0 FINAL; Cardno Lawson Treloar Pty Ltd, 29 January 2009.

Specifically with regard to open space, it is noted that the growth area has a significant frontage to the Merri River. The Merri River and its associated floodplain offers a significant recreation opportunity for the growth area and, if linked and properly developed, to the broader community. The NDDCP adopts the principle that whilst the community benefit could extend well beyond the North Dennington Growth Area so too does the extent of land and financial implications to Council extend well beyond the growth area.

In this context the NDDCP seeks to deliver a contribution to the Merri River encumbered parkland via direct provision of land (the cost of which will be shared equitably across the entire growth area) and some embellishment via funding from Clause 52.01. Whilst the primary purpose of the encumbered land is to protect the floodplain of the Merri River, the presence of the encumbered land offers a significant opportunity to reduce DCP charges within the growth area by avoiding the need to use unencumbered, developable land for active recreation and drainage purposes. In this regard there is a clear benefit or nexus between all of the developable land within the growth area sharing the cost of setting aside the flood prone land as a municipal reserve for drainage purposes and the cost of embellishing some of the land for passive recreation and drainage purposes. In addition, the NDDCP is very close to the Dennington Recreation Reserve. This reserve has capacity to provide for the active recreation needs of the future Dennington North community. Therefore, no additional land will be required for active open space, however, it is intended that the Dennington North future community will contribute to the embellishment of open space facilities generally through a Clause 52.01 requirement of 3%.

With regard to potential impacts on the surrounding road network it should be noted that whilst it can be reasonably anticipated that some traffic will find its way onto the surrounding existing road network it is equally reasonable to anticipate that some external traffic will flow through the growth area once the road network has been upgraded to an urban standard. This DCP adopts an important simple and practical approach with regard to the prospect of external usage. The first principle is that the detailed traffic modelling usage percentages have not been applied. This approach has been adopted for three reasons: - firstly, the roads contained within the DCP area are lower order roads that would not normally be included in a DCP, however, due to the level of fragmentation they have been included. Secondly, the roads included comprise the principle transport network that is able to cater for public transport in the future and lastly all local roads included in the DCP involve an existing road reservation being upgraded to an urban standard as a consequence of future development.

In addition to the strategic justification provided in the relevant background reports, the list of infrastructure projects has been reviewed, particularly with regard to timing, taking into account the extent to which infrastructure can be directly and efficiently provided by future developers.

The following infrastructure items and services are not included in the NDDCP, as they are not considered to be higher order items, but must be provided by developers as a matter of course:

- All internal local and collector roads (except Coghlans Road, Station Street, Shannon Road and Harrington Road) and associated traffic management measures;
- Local drainage systems not covered by the main drainage infrastructure specified in this DCP;
- Intersections connecting the development to the existing road network (except where specified in Table 2);
- Local site specific water, sewerage, underground power, gas, telecommunications services;
- Local pathways and connections to the shared pathway network;
- Shared pathways within road reservations (except where specified in Table 2);
- Basic levelling, water tapping and landscaping of open space;
- Council's plan checking and supervision fees.

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PART 2

# 2.1 Description of Projects

This section provides a general description of the infrastructure projects that have been included in the NDDCP.

# 2.2 Roads and Intersections

The key transport-related projects in the NDDCP are based on the transport network depicted in Figure 5. This plan was prepared taking into account the contained nature of the growth area and the strategic role that Coghlans Road, Station Street, Shannon Road and Harrington Road will play in providing access (including public transport access) to the majority of land holdings within the growth area. Road and intersection projects located outside the NDDCP area will become the responsibility of the Council and possibly future development.

In addition to the upgrade of Coghlans Road, Station Street, Shannon Road and Harrington Road in the growth area, the DCP includes the key intersections that will need to be constructed or upgraded in response to the planned extent of development. Specifically with regard to public transport, the NDDCP makes provision for two bus bays on Shannon Road and Harrington Road, while in addition Coghlans Street and Station Street will be designed to accommodate buses.

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Table 2 **Road Based Transport Projects**

| Project Number | Project Description |
|---|---|
| **RO01** | **Coghlans Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-01 ) |
| **RO02** | **Coghlans Road - Russell St to Station St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-02 ) |
| **RO03** | **Station Street - Coghlans Rd to Shannon Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-03 ) |
| **RO04** | **Shannon Road - Station St to Russell St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-04 ) |
| **RO05** | **Shannon Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-05 ) |
| **RO06** | **Harrington Road - North of Coghlans Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-06 ) |
| **RO07** | Coghlans Rd - Caramut Rd Roundabout (Council Project Cost Sheet ID: NDINT01) |
| **RO08** | Coghlans Road /Harrington Street Roundabout (Council Project Cost Sheet ID: NDINT02) |
| **RO09** | Coghlans Road/Russell Street Roundabout (Council Project Cost Sheet ID: NDINT03) |
| **RO10** | Russell Street - Drummond Street Roundabout (Council Project Cost Sheet ID: NDINT04) |
| **RO11** | Drummond Street, Lindsay Street, Station/Preston St & Rail Reserve Intersection Improvements<br>(Council Project Cost Sheet ID: NDINT05) |
| **RO12** | Bus Stop 1 - located on Shannons Road (Council Project Cost Sheet ID: NDCOM01) |
| **RO13** | Bus Stop 2 - located on Harrington Road (Council Project Cost Sheet ID: NDCOM02) |

Figure 5 **Roads and Intersections**

# 2.3

## Open Space

As set out previously, it is proposed that the Merri River floodplain (up to the 1 in 100 year ARI floodline) will be set aside as a municipal reserve. While the primary purpose of this land is to serve a drainage/floodplain function, the land will be available to be used for a range of other purposes, including for passive recreation (when the river is not in flood) and the cater for drainage infrastructure, such as wetlands and swales, to meet the needs of development. Given the floodplain serves an open space and drainage function that is of benefit to the entire Structure Plan area, and given the land affects land holders disproportionately, a decision has been taken to include purchase of the floodplain land in the DCP as a shared project. As the open space use of the land is secondary to the primary, floodplain use, the NDDCP treats the land as encumbered, and ascribes a land value recognising this encumbrance.

It is considered that this approach to treatment and purchase of the floodplain land will benefit the growth area as a whole given the absence of any need to utilise unencumbered land for passive open space and other purposes which the floodplain can accommodate.

The NDSP does not identify any large local parks and accordingly the DCP does not include funding for purchase of any unencumbered passive open space. The DCP does however factor in a 3% cash in lieu requirement under Clause 52.01 which may be directed towards the embellishment of either the Dennington Recreation Reserve and/or Merri River Floodplain Corridor. When compared with other growth areas the requirement for 3% is comparably low.

The NDSP benefits from the presence of existing the Dennington Recreation Reserve located immediately to the south of the North Dennington growth area. Given this facility has sufficient capacity to service the active recreation needs of the future North Dennington community there is no need to include funding for additional land and facilities in the NDDCP. Any future embellishment and upgrade of the Dennington Recreation Reserve will be a future Council and wider community liability. Council may choose to allocate some of the funds collected via Clause 52.01 towards this facility.

Table 3 **Passive Open Space Areas and Location**

| Project Number | Project Description |
|---|---|
| **OS01** | River Park - The Structure Plan nominates approximately 22ha of encumbered land for this park. The primary purpose of this land is as a floodplain and as such it will be zoned UFZ. However, parts will be able to be used for passive recreation purposes and drainage. |
| **OS02** | Provision of parking either on road or indented at specific locations along the Merri Loop road.<br>(Council Project Cost Sheet ID: NDCOM05) |
| **OS03** | Purchase of unencumbered land on river-side of edge road |

Figure 6 **Open space**

# 2.4

## Community Facilities

Based on an analysis of the projected population (both number and composition of the population), and the findings of the draft Community Services and Infrastructure Plan (September 2013) a neighbourhood-level community facility is required to service the planned community (see Figure 7).

There is an existing Catholic Primary School located centrally within the growth area and there is the opportunity to co-locate the community facility with the primary school in accordance with Government Policy. In this way the Catholic Primary School and the community facility will create a community focal point as supported by the NDSP.

While the exact services to be located in the community facility are yet to be determined, the NDDCP will collect contributions for both land and a partial contribution towards construction of the community facility. The NDSP area will ultimately house approximately 3,600 people, which constitutes a third of a catchment for a community centre. Accordingly, the NDDCP will fund approximately a third of the estimated total construction cost (based on an analysis of a similar scale facility at Brierly) Reserve, with the balance of the liability resting with Council and the broader community. Council has entered into preliminary discussions with the St John's Primary School regarding purchase of the land (funded through the DCP) and to discuss potential shared-use and delivery of facilities.

Table 4 **Community Facilities**

| Project Number | Project Description |
|---|---|
| **CO01** | Community Centre Land (0.5ha required). |
| **CO02** | Construction of a Neighbourhood-level Community Centre (possibly including a combination of some or all of the following as required to meet theneeds of North Dennington: a Maternal and Child Health Care, Kindergarten, Playgroup, Family Support, Outside School Hours Care) |

Figure 7 **Community Facilities**

# 2.5

## Off-Road Pedestrian and Cycle Trails

Building on the strategic importance of the Merri River as an open space asset and to promote non-car based modes of transport, it is proposed to construct an off road shared trail network. The network (see Table 5 and Figure 8) has been designed to promote movement along the Merri River Floodplain Corridor and to connect places of interest within the plan area. It is noted that the DCP provides funding for the shared path connection via Station Street, noting that the extending to the rear of the Fonterra Factory is not likely to be achieved in the foreseeable future.

Please note that Coghlans Road will also have an off-road shared path and is included in the associated road project sheets.

Table 5 **Off road pedestrian and cycle**

| Project Number | Project Description |
|---|---|
| **PC01** | Shared Loop Path along Merri River - 2m wide concrete path from Harrington Road to Coghlans Road<br>(Council Project Cost Sheet ID: NDCOM03) |
| **PC02** | Shared pathway connecting public open space / Merri River floodplain to community facilities (on road reserves) - 3m wide reinforced concrete path<br>(Council Project Cost Sheet ID: NDCOM04) |

Figure 8 **Off road pedestrian and cycle network**

# 2.6

## Drainage

Taking into account Council's role as the local drainage authority, this DCP includes the shared drainage infrastructure requirement to serve 3 drainage sub-catchments. The drainage sub-catchments are spread across the growth area and do not coincide with property boundaries (see Figure 9). Accordingly, the drainage requirements for sub-catchments A, B and C are charged equitably across the single charge area.

This DCP includes the shared components of the drainage systems that will be required to properly serve each of the sub-catchments. Facilities generally comprise main drainage systems, wetlands and swales. As most of the drainage facilities that have a land take component (aside from easements for drainage pipes) are proposed to be located within the floodplain area there is no need to include land costs for individual pieces of infrastructure.

The Merri River 1 in 100 year ARI flood extent land component has been included within the DCP with an associated encumbered land value the cost of which will be shared equitably throughout the DCP area (refer to open space projects).

Table 6 **Drainage Infrastructure**

| Project Number | Project Description |
|---|---|
| **DR01** | Drainage for Sub-Catchments A to C<br>(Council Project Cost Sheet ID: NDDRN-01) |

# 2.7

## Planning Costs

The cost of preparing the NDSP and this DCP have been included within the DCP.

Figure 9 **Drainage Infrastructure**

PART 3

# 3.1 Interpreting the Tables

As noted earlier, Table 7 provides a detailed description of and strategic justification for each item included within the DCP.

Table 8 – Calculation of Contributions and Table 9 Schedule of Contributions together represent the key component of the NDDCP. This section explains the workings of these tables.

# 3.2 Infrastructure Project Justification

The need for infrastructure included in the DCP has been determined according to the anticipated development of the NDSP.

Items can be included in the DCP if they will be used by the future community of an area, and if they have been assessed as having a relationship or nexus to the proposed development in the DCP area. While the NDSP area has a relationship with a range of internal and external projects (partial usage), this DCP seeks to simplify and rationalise the list of projects to enable priority projects to be delivered and funded through development of the NDSP, and to facilitate development in the challenging fragmented land ownership context. From this perspective, the DCP has utilised background technical reports, such as traffic reports to provide guidance on infrastructure needs only. Apportionment has been determined having regard for the above-mentioned land fragmentation challenges and the guiding principles contained in Chapter 1 of this document.

Funding for projects not funded in this DCP will be investigated from other sources, including from DCPs for future growth areas and State and Federal funding sources.

## Table 7 Infrastructure Project Justification Table

| Project Number | Project Description | Estimated Land Cost as at 2014 | 2013 Construction Cost | Total Cost of Project 2013 | Main Catchment Area (MCA) Determination | Indicative Provision Trigger | Strategic Justification |
|---|---|---|---|---|---|---|---|
| **ROADS & INTERSECTIONS** | | | | | | | |
| **RO01** | **Coghlans Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-01 ) | $35,263 | $985,230 | $1,020,493 | Coghlans Road is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Coghlans Road will serve as the primary east west connector road though the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO02** | **Coghlans Road - Russell St to Station St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-02 ) | $40,300 | $985,230 | $1,025,530 | Coghlans Road is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Coghlans Road will serve as the primary east west road though the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO03** | **Station Street - Coghlans Rd to Shannon Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-03 ) | $0 | $1,111,453 | $1,111,453 | Station Street is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Station Street forms part of the main internal road network within the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO04** | **Shannon Road - Station St to Russell St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-04 ) | $0 | $1,049,730 | $1,049,730 | Shannon Road is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Shannon Road forms part of the main internal road network within the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO05** | **Shannon Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-05 ) | $0 | $1,027,462 | $1,027,462 | Shannon Road is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Shannon Road forms part of the main internal road network within the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO06** | **Harrington Road - North of Coghlans Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-06 ) | $0 | $1,069,385 | $1,069,385 | Harrington Road is integral to the movement network of the entire ND Structure Plan area. | As development of adjacent land occurs | Harrington Road forms part of the main internal road network within the ND Structure Plan area. The existing condition of the road meets the requirements of the existing and external usage of this road. The development in the ND Structure Plan area triggers the need to upgrade this road to an urban standard. Due to the degree of land fragmentation within the ND Structure Plan area the upgrade of this road is fully funded by the DCP. |
| **RO07** | Coghlans Rd - Caramut Rd Signalised Intersection (Council Project Cost Sheet ID: NDINT01) | $0 | $707,388 | $707,388 | This intersection will be used by the ND Structure Plan area and future adjacent development. The ND Structure Plan only generates 40% demand for this intersection. Accordingly the remaining cost will be funded through a future DCP. | As required | Signalisation of this intersection is required as part of the upgrade of Coghlans Road to cater for increased traffic columns as a result of new development. The ND Structure Plan only contributes to 40% of the additional traffic increase and therefore the Council and broader community will pay for the balance of the intersection. |
| **RO08** | Coghlans Road /Harrington Street Roundabout (Council Project Cost Sheet ID: NDINT02) | $5,500 | $348,421 | $353,921 | This intersection will be used by the entire ND Structure Plan area. | As required | This intersection is required due to the upgrade of the local road network and increased traffic volumes which is triggered by the residential development of the ND Structure Plan area. |
| **RO09** | Coghlans Road/Russell Street Roundabout (Council Project Cost Sheet ID: NDINT03) | $5,500 | $348,421 | $353,921 | This intersection will be used by the entire ND Structure Plan area. | As required | This intersection is required due to the upgrade of the local road network and increased traffic volumes which is triggered by the residential development of the ND Structure Plan area. |
| **RO10** | Russell Street - Drummond Street Roundabout (Council Project Cost Sheet ID: NDINT04) | $0 | $241,923 | $241,923 | This intersection will be used by the entire ND Structure Plan area. | As required | This intersection is required due to the upgrade of the local road network and increased traffic volumes which is triggered by the residential development of the ND Structure Plan area. |
| **RO11** | Drummond Street, Lindsay Street, Station/Preston St & Rail Reserve Intersection Improvements (Council Project Cost Sheet ID: NDINT05) | $0 | $271,808 | $271,808 | This intersection will be used by the entire ND Structure Plan area. | As required | This intersection is required due to the upgrade of the local road network and increased traffic volumes which is triggered by the residential development of the ND Structure Plan area. |
| **RO12** | Bus Stop 1 - located on Shannons Road (Council Project Cost Sheet ID: NDCOM01) | $0 | $74,012 | $74,012 | Local facility to meet the needs of, and be used by the entire ND Structure Plan area. | As required | This infrastructure project is required as part of the delivery of public transport route to the ND Structure Plan area. |
| **RO13** | Bus Stop 2 - located on Harrington Road (Council Project Cost Sheet ID: NDCOM02) | $0 | $74,012 | $74,012 | Local facility to meet the needs of, and be used by the entire ND Structure Plan area. | As required | This infrastructure project is required as part of the delivery of public transport route to the ND Structure Plan area. |

Table 7 **Infrastructure Project Justification Table** - Continued

| Project Number | Project Description | Estimated Land Cost as at 2014 | 2013 Construction Cost | Total Cost of Project 2013 | Main Catchment Area (MCA) Determination | Indicative Provision Trigger | Strategic Justification |
|---|---|---|---|---|---|---|---|
| **Sub-Total** | | **$86,563** | **$8,294,475** | **$8,381,038** | | | |
| **COMMUNITY FACILITIES** | | | | | | | |
| **CO01** | Community Centre Land (0.5ha required). | $150,000 | $0 | $150,000 | This local facility will meet the needs of, and be used by the entire ND Structure Plan area and broader community. | Subject to negotiation with Catholic School | This infrastructure project is supported based on typical benchmarks for community and recreational facilities in newly developing areas. The ND DCP will fund the purchase of the 0.5ha site. |
| **CO02** | Construction of the Community Centre (part contribution). | $0 | $1,900,000 | $1,900,000 | This local facility will meet the needs of, and be used by the entire ND Structure Plan area and broader community. | When balance of funding is available | This infrastructure project is supported based on typical benchmarks for community and recreational facilities in newly developing areas. The ND DCP will only fund approximately 33% of the construction cost with the Council and broader community to fund the balance. |
| **Sub-Total** | | **$150,000** | **$1,900,000** | **$2,050,000** | | | |
| **OPEN SPACE** | | | | | | | |
| **OS01** | Meri River Floodplain - The Structure Plan nominates 22ha of encumbered land for a river parkland. The primary purpose of this land is as a floodplain and as such it will be zoned UFZ. However, parts will be able to be used for passive recreation purposes. | $267,248 | $0 | $267,248 | The floodplain will service the entire ND Structure Plan area in terms of its drainage and open space functions. | At time of subdivision | This infrastructure project is required to service the ND Structure Plan area with drainage infrastructure and a connected linear open space reserve as identified by Cardno Lawson Treloar Pty Ltd. |
| **OS02** | Provision of parking either on road or indented at specific locations along the Merri Loop road (Council Project Cost Sheet ID: NDCOM05) | $0 | $219,173 | $219,173 | Pedestrian/cycle network within the Merri River Park will be used by the entire ND Structure Plan area. | At time of subdivision | This infrastructure project is required to provide parking for the community to access Merri River Park. |
| **OS03** | Purchase of unencumbered open space on river side of edge road (purchased at encumbered land value) | $14,366 | $0 | $14,366 | The open space will service the entire ND Structure Plan area. | At time of subdivision | This infrastructure project is required to provide equity for landholders affected by the edge road. Open space (up to the amount shown in the Appendix) will be purchased through the DCP. Any additional land on the river-side of the road caused by realignment of the edge road at the planning permit stage, will not be credited through the DCP. |
| **Sub-Total** | | **$281,615** | **$219,173** | **$500,788** | | | |
| **OFF-ROAD PEDESTRIAN & CYCLE TRAILS** | | | | | | | |
| **PC01** | Shared Loop Path along Merri River - 2m wide concrete path from Harrington Road to Coghlans Road (Council Project Cost Sheet ID: NDCOM03) | $0 | $918,720 | $918,720 | Pedestrian/cycle network within the Merri River Park will be used by the entire ND Structure Plan area. | At time of subdivision | This infrastructure project is required to provide pedestrian and cycle access through the Merri River Park. |
| **PC02** | Shared pathway connecting public open space / Merri River floodplain to community facilities (on road reserves) - 3m wide reinforced concrete path (Council Project Cost Sheet ID: NDCOM04) | $0 | $429,000 | $429,000 | Pedestrian/cycle network within the Merri River Park will be used by the entire ND Structure Plan area. | At time of subdivision | This infrastructure project is required to provide pedestrian and cycle access through the Merri River Park. |
| **Sub-Total** | | **$0** | **$1,347,720** | **$1,347,720** | | | |
| **PLANNING COSTS** | | | | | | | |
| **PL01** | Precinct Structure Plan and Development Contributions Preparation costs | $0 | $197,000 | $197,000 | Preparation of the Structure Plan and Development Contributions Plan enables the entire ND Structure Plan area to develop. | Provided | This project is required to facilitate development of the ND Structure Plan area. |
| **Sub-Total** | | **$0** | **$197,000** | **$197,000** | | | |
| **DRAINAGE INFRASTRUCTURE** | | | | | | | |
| **DR01** | Drainage for Sub-Catchments A to C (Council Project Cost Sheet ID: NDDRN-01) | $0 | $3,428,326 | $3,428,326 | This drainage infrastructure forms part of the broader drainage strategy for the ND Structure Plan area. | At time of subdivision | This infrastructure project is required to service the ND Structure Plan area with drainage infrastructure as identified by Cardno Lawson Treloar Pty Ltd. |
| **Sub-Total** | | **$0** | **$3,428,326** | **$3,428,326** | | | |
| **TOTAL** | | **$518,177** | **$15,386,694** | **$15,904,871** | | | |

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# 3.3

## Calculation of Contributions Table

The first two columns in Table 8 describe each of the infrastructure projects that are included in the NDDCP. They are each assigned a project number and are grouped according to their broad infrastructure category. For each infrastructure project, a land and construction cost, where relevant, is specified. These are expressed in 2013 dollars and will be indexed annually on 1 July.

Council has prepared detailed project cost sheets for all projects included in the DCP, which are located in Appendix 1.

A design and contingency cost has been allocated to all construction items. It is important to note that Coghlans Road has been subject to detailed design and therefore the level of contingency has been reduced to 10% whereas all other projects have a contingency of 20% applied. This is due to the fact that the other projects haven't been subject to detailed design. The contingency amount also covers costs associated with site establishment and traffic management, which have not been specifically itemised in the project cost sheets.

After making adjustments for external usage it is possible to determine the total cost of each infrastructure project that is attributable to the 'main catchment area' (MCA). The MCA is the geographic unit from which a given item of infrastructure will draw most of its usage. In the NDDCP the cost of all items included in the DCP are proposed to be distributed evenly across the entire DCP area.

For the purposes of the NDDCP all developable land will contribute funds for particular infrastructure projects. For the purposes of the DCP developable land incorporates all developable land excluding:

- open space;
- the Merri River floodplain (up to the 1 in 100 ARI flood extent, and unencumbered land on the riverside of the edge road);
- higher order collector road reservations; and
- the school and community activity centre.

Development contributions will be gathered on the Net Developable Area as defined for each property in Table 11. The final two columns in Table 8 give, for each infrastructure project, the total number of net developable hectares in the MCA and the contribution per net developable hectare respectively.

It is important to note that the number of net developable hectares in the single MCA is based on the land budget provided in Table 10. The per hectare contributions payable will not be amended to respond to minor changes to land budgets that may result from the subdivision design process. In other words, the DCP is permanently linked to the Detailed Land Budget. For the purposes of the DCP, the number of developable hectares in the single MCA will only change if Council formally amends the Precinct and Detailed Land Budgets and associated Tables. Table 11 should be used to determine the number of developable hectares (for DCP purposes) on individual land parcels.

Table 8 **Calculation of Contributions Table**

| Project Number | Project Description | Estimated Land Cost as at 2014 | 2013 Construction Cost | Total Cost of Project 2013 | Estimated External Usage/External Funding % | Total Cost Attributable to Main Catchment Area | Main Catchment Area (MCA) | Development Types Making Contribution | Number of Net Developable Hectares in MCA | Contribution per Net Developable Hectare |
|---|---|---|---|---|---|---|---|---|---|---|
| **ROADS & INTERSECTIONS** | | | | | | | | | | |
| **RO01** | **Coghlans Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-01 ) | $35,263 | $985,230 | $1,020,493 | 0% | $1,020,493 | All | All | 98.21 | $10,391 |
| **RO02** | **Coghlans Road - Russell St to Station St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Construction is to include extending road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.<br>Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane). (Council Project Cost Sheet ID: NDRD-02 ) | $40,300 | $985,230 | $1,025,530 | 0% | $1,025,530 | All | All | 98.21 | $10,442 |
| **RO03** | **Station Street - Coghlans Rd to Shannon Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-03 ) | $0 | $1,111,453 | $1,111,453 | 0% | $1,111,453 | All | All | 98.21 | $11,317 |
| **RO04** | **Shannon Road - Station St to Russell St**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-04 ) | $0 | $1,049,730 | $1,049,730 | 0% | $1,049,730 | All | All | 98.21 | $10,689 |
| **RO05** | **Shannon Road - Russell St to Harrington Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-05 ) | $0 | $1,027,462 | $1,027,462 | 0% | $1,027,462 | All | All | 98.21 | $10,462 |
| **RO06** | **Harrington Road - North of Coghlans Rd**<br>The ultimate pavement is designed for High Traffic Volume & Bus<br>Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.<br>Standard footpaths both sides, shared on road provision for cyclists.<br>Assumes on road car parking possible with bus use as road is low volume access street.<br>(Council Project Cost Sheet ID: NDRD-06 ) | $0 | $1,069,385 | $1,069,385 | 0% | $1,069,385 | All | All | 98.21 | $10,889 |
| **RO07** | Coghlans Rd - Caramut Rd Roundabout (Council Project Cost Sheet ID: NDINT01) | $0 | $707,388 | $707,388 | 60% | $282,955 | All | All | 98.21 | $2,881 |
| **RO08** | Coghlans Road /Harrington Street Roundabout (Council Project Cost Sheet ID: NDINT02) | $5,500 | $348,421 | $353,921 | 0% | $353,921 | All | All | 98.21 | $3,604 |
| **RO09** | Coghlans Road/Russell Street Roundabout (Council Project Cost Sheet ID: NDINT03) | $5,500 | $348,421 | $353,921 | 0% | $353,921 | All | All | 98.21 | $3,604 |
| **RO10** | Russell Street - Drummond Street Roundabout (Council Project Cost Sheet ID: NDINT04) | $0 | $241,923 | $241,923 | 0% | $241,923 | All | All | 98.21 | $2,463 |
| **RO11** | Drummond Street, Lindsay Street, Station/Preston St & Rail Reserve Intersection Improvements<br>(Council Project Cost Sheet ID: NDINT05) | $0 | $271,808 | $271,808 | 0% | $271,808 | All | All | 98.21 | $2,768 |
| **RO12** | Bus Stop 1 - located on Shannons Road (Council Project Cost Sheet ID: NDCOM01) | $0 | $74,012 | $74,012 | 0% | $74,012 | All | All | 98.21 | $754 |
| **RO13** | Bus Stop 2 - located on Harrington Road (Council Project Cost Sheet ID: NDCOM02) | $0 | $74,012 | $74,012 | 0% | $74,012 | All | All | 98.21 | $754 |
| **Sub-Total** | | **$86,563** | **$8,294,475** | **$8,381,038** | | **$7,956,605** | | | | **$81,017** |

Table 8 **Calculation of Contributions Table** - Continued

| Project Number | Project Description | Estimated Land Cost as at 2014 | 2013 Construction Cost | Total Cost of Project 2013 | Estimated External Usage/External Funding % | Total Cost Attributable to Main Catchment Area | Main Catchment Area (MCA) | Development Types Making Contribution | Number of Net Developable Hectares in MCA | Contribution per Net Developable Hectare |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNITY FACILITIES** | | | | | | | | | | |
| **CO01** | Community Centre Land (0.5ha) | $150,000 | $0 | $150,000 | 0% | $150,000 | All | All | 98.21 | $1,527 |
| **CO02** | Construction of the Community Centre | $0 | $1,900,000 | $1,900,000 | 67% | $627,000 | All | All | 98.21 | $6,384 |
| **Sub-Total** | | **$150,000** | **$1,900,000** | **$2,050,000** | | **$777,000** | | | | **$7,912** |
| **RIVER PARK - ENCUMBERED PASSIVE OPEN SPACE** | | | | | | | | | | |
| **OS01** | Merri River Floodplain - 22ha of encumbered land for a river parkland. | $267,248 | $0 | $267,248 | 0% | $267,248 | All | All | 98.21 | $2,721 |
| **OS02** | Provision of parking either on road or indented at specific locations along the Merri Loop road (Council Project Cost Sheet ID: NDCOM05) | $0 | $219,173 | $219,173 | 0% | $219,173 | All | All | 98.21 | $2,232 |
| **OS03** | Purchase of unencumbered open space on river side of edge road (purchased at encumbered land value) | $14,366 | $0 | $14,366 | 0% | $14,366 | All | All | 98.21 | $146 |
| **Sub-Total** | | **$281,615** | **$219,173** | **$500,788** | | **$500,788** | | | | **$5,099** |
| **OFF-ROAD PEDESTRIAN & CYCLE TRAILS** | | | | | | | | | | |
| **PC01** | Shared Loop Path along Merri River - 2m wide concrete path from Harrington Road to Coghlans Road (Council Project Cost Sheet ID: NDCOM03) | $0 | $918,720 | $918,720 | 0% | $918,720 | All | All | 98.21 | $9,355 |
| **PC02** | Shared pathway connecting public open space / Merri River floodplain to community facilities (on road reserves) - 3m wide reinforced concrete path (Council Project Cost Sheet ID: NDCOM04) | $0 | $429,000 | $429,000 | 0% | $429,000 | All | All | 98.21 | $4,368 |
| **Sub-Total** | | **$0** | **$1,347,720** | **$1,347,720** | | **$1,347,720** | | | | **$13,723** |
| **PLANNING COSTS** | | | | | | | | | | |
| **PL01** | Precinct Structure Plan and Development Contributions Preparation costs | $0 | $197,000 | $197,000 | 0% | $197,000 | All | All | 98.21 | $2,006 |
| **Sub-Total** | | **$0** | **$197,000** | **$197,000** | | **$197,000** | | | | **$2,006** |
| **DRAINAGE INFRASTRUCTURE** | | | | | | | | | | |
| **DR01** | Drainage for Sub-Catchments A to C (Council Project Cost Sheet ID: NDDRN-01) | $0 | $3,428,326 | $3,428,326 | 0% | $3,428,326 | All | All | 98.21 | $34,909 |
| **Sub-Total** | | **$0** | **$3,428,326** | **$3,428,326** | | **$3,428,326** | | | | **$34,909** |
| **TOTAL** | **Per demand unit** | **$518,177** | **$15,386,694** | **$15,904,871** | | **$14,207,439** | | | | **$144,666** |
| | | | | | | | | | | |
| **Clause 52.01** | **3% of NDA required** | **$810,221.78** | **$0** | **$810,222** | 0% | **$810,222** | All | All | 98.21 | **$8,250** |
| **FOR INFORMATION PURPOSES, THE TOTAL DCP DEVELOPMENT LEVY PLUS CLAUSE 52.01 REQUIREMENT** | | | | | | | | | | **$152,916** |

Land value for open space (unencumbered)(estimate only, subject to revaluation at time of subdivision) **$275,000**
Land value 2014 (encumbered) per Ha **$12,000**

# 3.4

## Schedule of Contributions Table

Table 10 sets out the per hectare contribution that will be made from the MCA for each infrastructure project in the NDDCP. Table 9 sets out a summary of the per hectare charges for the MCA, broken down into each infrastructure Category. Table 9 also includes open space contributions levied in accordance with Clause 52.01 of the Planning Scheme (refer Part 4).

Table 9 **Schedule of Contributions by Catchment ($ per net developable ha)**

| Project Type | Total Cost to MCA | Per Ha Rate |
|---|---|---|
| ROADS & INTERSECTIONS | $7,956,605 | $81,017 |
| COMMUNITY FACILITIES | $777,000 | $7,912 |
| OPEN SPACE | $500,788 | $5,099 |
| OFF-ROAD PEDESTRIAN & CYCLE TRAILS | $1,347,720 | $13,723 |
| PLANNING COSTS | $197,000 | $2,006 |
| DRAINAGE INFRASTRUCTURE | $3,428,326 | $34,909 |
| **Total DCP** | **$14,207,439** | **$144,666** |
| Clause 52.01 OPEN SPACE CONTRIBUTION | $810,222 | $8,250 |
| **Total DCP and Open Space** | **$15,017,660** | **$152,916** |

PART 4

# 4.1

## Open Space Percentages and Funding

The NDDCP does not contain an open space equalisation scheme.

As set out previously it is proposed that the Merri River floodplain (up to the 1:100) will be set aside as a municipal reserve for drainage as its primary purpose. Notwithstanding that the primary purpose of the land is a floodplain, it is apparent that the land below the 1in 100 ARI flood extent has the potential to be utilised for other purposes including drainage (for wetlands/ retarding basins) and passive open space. As these uses are secondary to the primary purpose this land will be recorded as 'floodplain' with an associated encumbered land value in the NDDCP. Accordingly, it will not be necessary to separately identify any land within the floodplain that will be occupied by open space or other infrastructure. This approach will ensure that land is not double counted and will benefit the growth area as a whole given the absence of any need to utilise unencumbered land for active recreation and other purposes which the floodplain can accommodate.

The NDSP does not identify any large local parks and accordingly the DCP does not include funding for purchase of any unencumbered passive open space. The DCP does however factor in a 3% cash in lieu requirement under Clause 52.01 which Council may choose to direct  towards the embellishment of the Dennington Recreation Reserve and/or Merri River Floodplain Corridor.  When compared with other growth areas the requirement for 3% is comparably low.

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PART 5

# 5.1

## Net Developable Land

In the NDDCP contributions are payable on all net developable land on any given development site. For the purposes of this DCP net developable land is defined as all land with the exception of:-

- open space;
- the Merri River floodplain (up to the 1:100) and land on the riverside of the edge road;
- higher order collector road reservations;
- the school and the Community Activity Centre.

Note that while the Saleyards buffer has not been rezoned, it is anticipated that it will ultimately be developable (subject to negotiation with the EPA). As such, it is included in the NDA but the extent is shown as a seperate column in Table 11 for information purposes only.

The area of net developable land on a given land parcel is shown in Table 11. It should be noted that future plans of subdivision will not be used for calculating net developable areas for the purposes of administering the NDDCP. Development contributions will be payable according to the net developable area shown in the Land Budget, irrespective of whether land budget figures are modified as a result of detailed design during the subdivision design process.

Table 10 **Land Budget (ha)**

| | |
|---|---|
| **Total Precinct Area** | **140.69** |
| **Encumbered Land - Floodplain and wetlands** | 27.42 |
| **Unencumbered (on river side of edge road)** | 1.20 |
| **School** | 4.45 |
| **Road widening** | 0.39 |
| **Net Developable Area** | **107.23** |

Table 11 **Detailed Land Budget**

| Property Number | Total Area (Hectares) | Encumbered Land: Merri River (1:100 Floodway) | Gross Developable Area (GDA) | School | Road widening | River Open Space (unencumbered) | Net Developable Area (Hectares) |
|---|---|---|---|---|---|---|---|
| 1 | 8.81 | 3.62 | 5.19 | | | 0.091 | 5.0975 |
| 2 | 4.28 | 0.34 | 3.94 | | | 0.000 | 3.9412 |
| 3 | 3.67 | 0.68 | 2.98 | | | 0.051 | 2.9335 |
| 4 | 3.69 | 1.14 | 2.55 | | | 0.038 | 2.5129 |
| 5 | 2.50 | 0.39 | 2.11 | | | 0.005 | 2.1006 |
| 6 | 2.28 | 0.29 | 2.00 | | | 0.004 | 1.9940 |
| 6a | 0.10 | 0.10 | 0.00 | | | | 0.0000 |
| 7 | 3.23 | 1.49 | 1.74 | | | 0.004 | 1.7374 |
| 8 | 1.20 | 0.00 | 1.20 | | | | 1.2000 |
| 9 | 4.44 | 1.66 | 2.78 | | | 0.086 | 2.6958 |
| 10 | 4.96 | 2.33 | 2.63 | | | 0.098 | 2.5317 |
| 11 | 5.60 | 2.80 | 2.81 | | | 0.220 | 2.5863 |
| 12 | 5.07 | 0.98 | 4.09 | | | 0.097 | 3.9977 |
| 13 | 4.68 | 0.93 | 3.75 | | | 0.091 | 3.6630 |
| 14 | 4.39 | 1.55 | 2.84 | | | 0.026 | 2.8147 |
| 15 | 3.83 | 1.75 | 2.08 | | | 0.008 | 2.0770 |
| 16 | 4.26 | 0.48 | 3.79 | | | 0.095 | 3.6906 |
| 17 | 3.52 | 0.55 | 2.97 | | | 0.044 | 2.9221 |
| 18 | 2.88 | 0.00 | 2.88 | | | | 2.8830 |
| 19 | 5.24 | 0.00 | 5.24 | | | | 5.2358 |
| 20 | 4.04 | 0.00 | 4.04 | | | | 4.0366 |
| 21 | 4.01 | 0.00 | 4.01 | | | | 4.0148 |
| 22 | 2.79 | 0.21 | 2.58 | | | 0.066 | 2.5140 |
| 23 | 1.83 | 0.56 | 1.27 | | | 0.056 | 1.2103 |
| 24 | 1.00 | 0.42 | 0.58 | | | 0.118 | 0.4590 |
| 25 | 3.25 | 0.00 | 3.25 | | 0.07 | | 3.1813 |
| 26 | 4.99 | 0.00 | 4.99 | | 0.10 | | 4.8906 |
| 27 | 0.61 | 0.00 | 0.61 | | 0.02 | | 0.5911 |
| 28 | 0.20 | 0.00 | 0.20 | | 0.02 | | 0.1874 |
| 29 | 8.88 | 0.00 | 8.88 | | 0.20 | | 8.6738 |
| 30 | 1.79 | 0.00 | 1.79 | | | | 1.7937 |
| 31 | 0.40 | 0.00 | 0.40 | | | | 0.4020 |
| 32 | 1.49 | 0.00 | 1.49 | | | | 1.4935 |
| 33 | 4.09 | 0.00 | 4.09 | 4.09 | | | 0.0000 |
| 34 | 0.07 | 0.00 | 0.07 | 0.07 | | | 0.0000 |
| 35 | 0.07 | 0.00 | 0.07 | 0.07 | | | 0.0000 |
| 36 | 0.07 | 0.00 | 0.07 | 0.07 | | | 0.0000 |
| 37 | 0.07 | 0.00 | 0.07 | 0.07 | | | 0.0000 |
| 38 | 0.07 | 0.00 | 0.07 | 0.07 | | | 0.0000 |
| 39 | 0.87 | 0.00 | 0.87 | | | | 0.8657 |
| 40 | 0.14 | 0.00 | 0.14 | | | | 0.1445 |
| 41 | 0.38 | 0.00 | 0.38 | | | | 0.3778 |
| 42 | 1.52 | 0.00 | 1.52 | | | | 1.5204 |
| 43 | 5.24 | 0.00 | 5.24 | | | | 5.2374 |
| **TOTAL** | **126.53** | **22.27** | **104.26** | **4.45** | **0.40** | **1.197** | **98.21** |

Figure 10 **Land Budget Plan**


NOTE: Parcel Numbering differs from the land ownership plan in the North Dennington Structure Plan prepared by Hansen Partnership Pty Ltd.

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PART 6

# 6.1 Community and Development Infrastructure

In accordance with the Planning and Environment Act (1987) and the Ministerial Direction on Development Contributions, the NDDCP makes a distinction between "development" and "community" infrastructure. Furthermore, the timing of payment of contributions is linked to the type of infrastructure in question.

Contributions relating to development infrastructure are to be made by developers at the time of subdivision. For community infrastructure, contributions are to be made by the home-buyer at the time of building approval.

The NDDCP does not contain any infrastructure projects that have been categorised as community infrastructure. All infrastructure projects are considered to fall within the development infrastructure category contained in the Ministerial Direction on Development Contributions.

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PART 7

# 7.1 DCP Administration

## Demand Unit

One Demand Unit is one hectare of Net Developable Land. (Refer to Part 5.1)

## Land Values

In accordance with section 62(2)(e) of the Planning and Environment Act 1987, the compensation payable for any developable land included within this DCP that is required by the Warrnambool City Council for an infrastructure project identified in this DCP (incorporated plan) is fixed at $275,000 per hectare (land value). Similarly the flood plain of the Merri River is fixed at a rate of $9,500 per hectare. The fixed land values may only be adjusted for rises in the CPI (All Groups Melbourne) between June 2013 and the date on which the compensation is payable to the Owner.

## Works In Kind

For some infrastructure projects, it may be possible for developers to carry out works in lieu of making a cash contribution. However, this will only be possible where Council agrees to this and there is agreement reached on the standard and timing of the works.

When a developer opts to physically provide an infrastructure item, the situation may arise where the developer makes a contribution with a value that exceeds that required by the DCP. For example, an early-stage developer may be required to construct a large segment of a collector road such as Coghlans Road. In such a case the developer may be entitled to credits on other projects in the DCP to the extent that they "over-contributed" on Coghlans Road. Alternatively, a developer may seek a cash reimbursement where a significant over-contribution has been made on a particular infrastructure project.

The details of credits and reimbursements will need to be negotiated with, and agreed to by the Warrnambool City Council on a case-by-case basis. Council will consider whether it is appropriate for works to be provided in lieu of contributions having regard to the funds available in the DCP account and Council's assessment of likely development scenarios and infrastructure needs.

The administration of contributions made under the NDDCP will be transparent and demonstrate:-

- amount and timing of funds collected;
- the source of funds collected;
- amount and timing of expenditure;
- the purpose for which the expenditure was made;
- the account balances for individual infrastructure projects; and
- All transactions will be clearly identified in Council records and kept in accordance with the Local Government Act 1989.
- Capital costs of all infrastructure items except for land are in 2013 dollars and will be indexed by Council annually for inflation using the appropriate edition of Rawlinsons Australian Construction Handbook. Specific references utilised within Rawlinsons are as follows:-
- Civil Engineering, Composite Prices, City Highway with median strip and emergency lanes;
- Civil Engineering, Road works, Composite Prices. Country Highway with shoulders;
- Civil Engineering, Road works, Traffic Signals;
- Building Costs per Square Metre – Hospitals, Health – Ancillary – Family Centre;
- Building Costs per Square Metre – Entertainment – Theatre;
- Building Costs per Square Metre – Recreational – Grandstands – Ancillary Areas – Change Rooms – Attached Building at Rear; and
- Comparative Costs – Site works – Pavings – Insitu concrete paving with broomed finish – 125mm thick reinforced.

## Indexation of Project Costs

In order to ensure that the estimated cost of each infrastructure project that includes a land component remains reasonably accurate, the contribution (excluding land component) will be indexed annually according to the index recommended by Rawlinsons Australia Construction Handbook.

The NDDCP will operate for a period of 10 years, at which time it will be reviewed. It is expected that most infrastructure projects in the current DCP will be rolled-over into a subsequent DCP.

## 7.2

### Type of Development that is Subject to the Levy

The Development Levy payable under this contributions plan applies to subdivision and/or development of land whether or not a planning permit is required.

## 7.3

### Collecting Agency

The Collecting Agency is the Warrnambool City Council.

## 7.4

### Development Agency

The Development Agency is Warrnambool City Council. Council will be responsible for the provision of the works funded by this DCP except as otherwise stated.

# 7.5

## Payment of Contribution Levies and Timing

### For Subdivision of land

The following requirements apply where a permit is required for subdivision of land.

An infrastructure levy must be paid to the Collecting Agency for the land within the following specified time, namely after certification of the relevant plan of subdivision but not more than 21 days prior to the issue of a Statement of Compliance in respect of that plan.

Where the subdivision is to be developed in stages the infrastructure levy for the stage to be developed only may be paid to the Collecting Agency within 21 days prior to the issue of a Statement of Compliance in respect of that stage provided that a Schedule of Development Contributions is submitted with each stage of the plan of subdivision. This Schedule must show the amount of the development contributions payable for each stage and value of the contributions in respect of prior stages to the satisfaction of the Collecting Agency.

If the Collecting Agency agrees to works and/or provision of land in lieu of the payment of the infrastructure levy, the land owner must enter into an agreement under Section 173 of the Planning and Environment Act 1987 in respect of the proposed works and/or provision of land in lieu to specify implementation requirements.

### For development of land where no subdivision is proposed

The following requirements apply where a permit is required for buildings and works.

Provided a development contribution levy has not already been paid in respect of the land, an infrastructure levy must be paid to the Collecting Agency in accordance with the provisions of the approved Development Contributions Plan for each demand unit (net developable hectare) proposed to be developed prior to the commencement of any development (for example: development includes buildings, car park, access ways, landscaping and ancillary components).The Collecting Agency may require that contributions be made at either the planning or building permit stage for Development Infrastructure.

If the Collecting Agency agrees to works and/or provision of land in lieu of the payment of the development contribution levy, the land owner must enter into an agreement under Section 173 of the Planning and Environment Act or other suitable arrangement in respect of the proposed works and/or land in lieu.

### Where no planning permit is required

The following requirements apply where no planning permit is required.

The land may only be used and developed subject to the following requirements being met.

Unless some other arrangement has been agreed to by the Collecting Agency in a Section 173 agreement, prior to the commencement of any development, a development contribution levy must be paid to the Collecting Agency in accordance with the provisions of this approved Development Contribution Plan for the land.

If the Collecting Agency agrees to works and/or provision of land in lieu of the payment of the development contribution levy, the land owner must enter into an agreement under Section 173 of the Planning and Environment Act 1987 in respect of the proposed works or provision of land in lieu.

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APPENDIX 1

## Project Sheets

Project sheets prepared by Council's engineers for all road based projects are provided in this Appendix.

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**NDRDS-01 Coghlans Rd - Russell St to Harrington Rd**

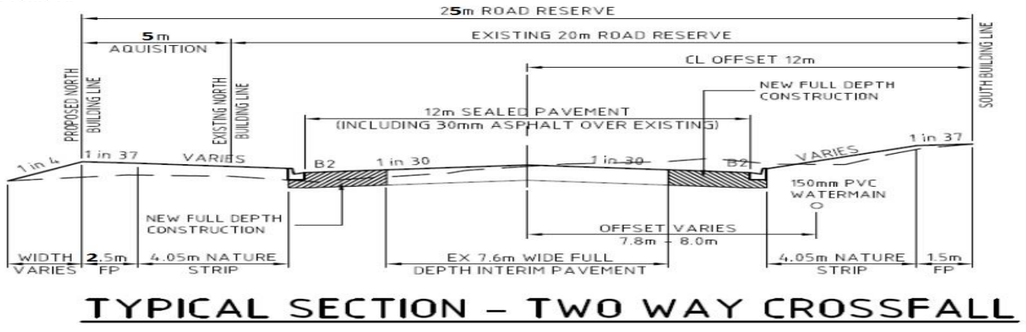
**Name of project and description:**

Length: 430 m
Collector Road - Level 1: Approx. 6300vpd - Bus Route
Recommended Treatment: Widen existing reserve from 20 to 25m.

**Description of main catchment area:**

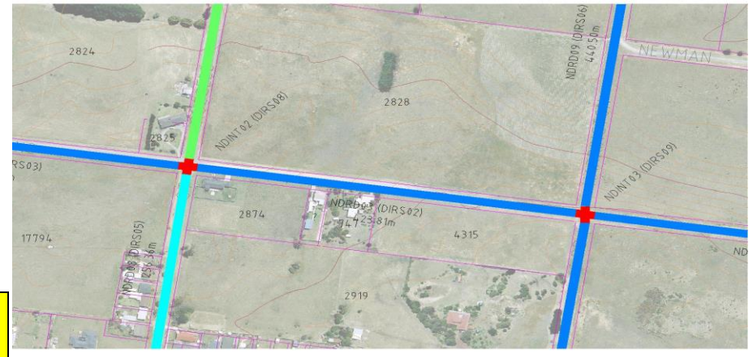
Road services growth area predominately
Existing traffic - 100vpd (2% of total future traffic)
DCP traffic - 6,200 (98% of total future traffic)

**Profile A:**




TYPICAL SECTION – TWO WAY CROSSFALL

**Location and main catchment plan**




**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus Extend road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side. Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane)

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$81,424** | | | **$0** | | **$0** | | **$0** | **100%** | **$81,424** | |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 3,870 | cm | $20 | $77,400 | Shaping - 0.5m Cut/Fill (430x18x0.5) | | $0 | | $0 | | $0 | 100% | $77,400 | OK |
| Drainage (375mm dia) | 495 | m | $220 | $108,900 | 430m + (5 crossings x 13m) | | $0 | | $0 | | $0 | 100% | $108,900 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Road Pavement - High Traffic | 2,150 | sqm | $80 | $172,000 | Extend to 12m pavement (5x430) | | $0 | | $0 | | $0 | 100% | $172,000 | OK |
| 40mm Asphalt Seal | 5,160 | sqm | $25 | $129,000 | Full asphalt overlay (12x430) | | $0 | | $0 | | $0 | 100% | $129,000 | OK |
| Kerb and Channel | 860 | m | $95 | $81,700 | Barrier Kerb | | $0 | | $0 | | $0 | 100% | $81,700 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Concrete Footpaths | 1,720 | sqm | $95 | $163,400 | 2.5m shared path & 1.5m wide path | | $0 | | $0 | | $0 | 100% | $163,400 | OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | | $0 | | $0 | | $0 | 100% | $45,000 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$782,340** | | | **$0** | | **$0** | | **$0** | | **$782,340** | |
| **Road landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Nature strips | 3,440 | sqm | $5 | $17,200 | Based on 4m naturestrips | | $0 | | $0 | | $0 | 100% | $17,200 | OK |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Tree planting | 42 | item | $350 | $14,700 | Based on 1 per 20m frontage | | $0 | | $0 | | $0 | 100% | $14,700 | OK |
| | | | | **$31,900** | | | **$0** | | **$0** | | **$0** | | **$31,900** | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Land Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Developable Land | 0.202 | ha | $275,000 | $55,413 | 5m x 403m (northern property) | | $0 | | $0 | | $0 | 100% | $55,413 | OK |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$55,413** | | | **$0** | | **$0** | | **$0** | | **$55,413** | |
| **Contingency** | | | | | | | | | | | | | | |
| **% of project costs** | | | **10%** | **$89,566** | | | **$0** | | **$0** | | **$0** | **100%** | **$89,566** | |
| **Total Cost** | | | | **$1,040,643** | | | **$0** | | **$0** | | **$0** | | **$1,040,643** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 100% | | | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDRDS-02 Coghlans Rd - Russell St to Station St**

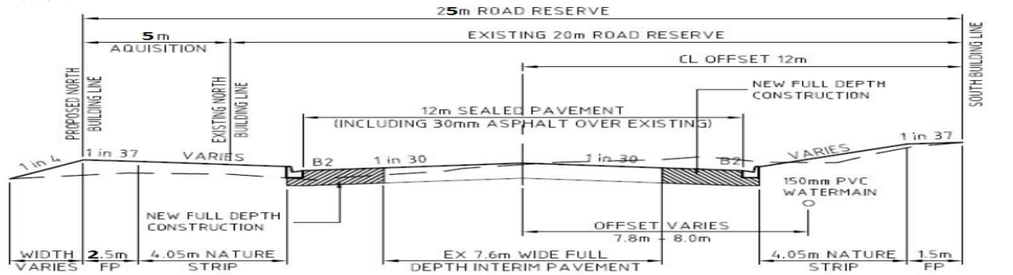
**Name of project and description:**

Length: 430 m
Collector Street - Level 1: Approx 4300vpd
Recommended Treatment: Widen existing reserve from 20m to 25m.

**Description of main catchment area:**

Road services growth area predominately
Existing traffic - 100vpd (2% of total future traffic)
DCP traffic - 6,200 (98% of total future traffic)

**Profile A:**




TYPICAL SECTION – TWO WAY CROSSFALL

**Location and main catchment plan**


**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus
Extend road pavement and seal to full constructed width of 12m. Widening of the road reserve to total of 25m on the Northern Side.
Footpaths both sides (one to be shared 2.5m path), on road provision for cyclists and on-street car parking both sides (shared parking / cycle lane)

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

**Apportionments**

| | Quantity | Units | Unit Rate | Amount | Notes | | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | | | | |
| % of project cost | | | 10% | $81,424 | | | $0 | | $0 | | $0 | 100% | $81,424 | |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 3,870 | cm | $20 | $77,400 | Shaping - 0.5m Cut/Fill (430x18x0.5) | | $0 | | $0 | | $0 | 100% | $77,400 | OK |
| Drainage (375mm dia) | 495 | m | $220 | $108,900 | 430m + (5 crossings x 13m) | | $0 | | $0 | | $0 | 100% | $108,900 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Road Pavement - High Traffic | 2,150 | sqm | $80 | $172,000 | Extend to 12m pavement (5x430) | | $0 | | $0 | | $0 | 100% | $172,000 | OK |
| 40mm Asphalt Seal | 5,160 | sqm | $25 | $129,000 | Full asphalt overlay (12x430) | | $0 | | $0 | | $0 | 100% | $129,000 | OK |
| Kerb and Channel | 860 | m | $95 | $81,700 | Barrier Kerb | | $0 | | $0 | | $0 | 100% | $81,700 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Concrete Footpaths | 1,720 | sqm | $95 | $163,400 | 2.5m shared path & 1.5m wide path | | $0 | | $0 | | $0 | 100% | $163,400 | OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | | $0 | | $0 | | $0 | 100% | $45,000 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$782,340** | | | **$0** | | **$0** | | **$0** | | **$782,340** | |
| **Road landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Nature strips | 3,440 | sqm | $5 | $17,200 | Based on 4m naturestrips | | $0 | | $0 | | $0 | 100% | $17,200 | OK |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Tree planting | 42 | item | $350 | $14,700 | Based on 1 per 20m frontage | | $0 | | $0 | | $0 | 100% | $14,700 | OK |
| | | | | **$31,900** | | | **$0** | | **$0** | | **$0** | | **$31,900** | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Land Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Developable Land | 0.202 | ha | $275,000 | $55,413 | 5m x 403m (northern property) | | $0 | | $0 | | $0 | 100% | $55,413 | OK |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$55,413** | | | **$0** | | **$0** | | **$0** | | **$55,413** | |
| **Contingency** | | | | | | | | | | | | | | |
| **% of project costs** | | | **10%** | **$89,566** | | | **$0** | | **$0** | | **$0** | **100%** | **$89,566** | |
| **Total Cost** | | | | **$1,040,643** | | | **$0** | | **$0** | | **$0** | | **$1,040,643** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 100% | | | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDRDS-03 Station St - Coghlans Rd to Shannon Rd**

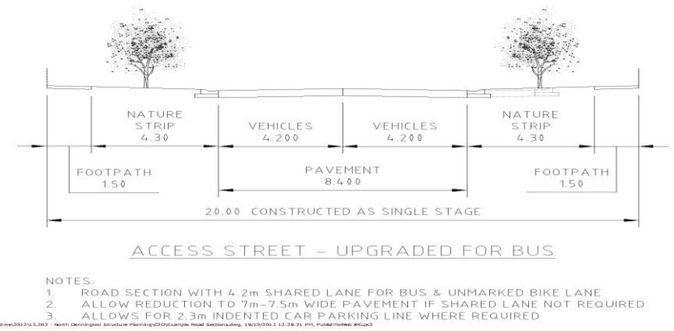
**Name of project and description:**

Length: 450m
Access Street: max. 2000vpd
Recommended Treatment: 20 metre (Existing reserve 20m)

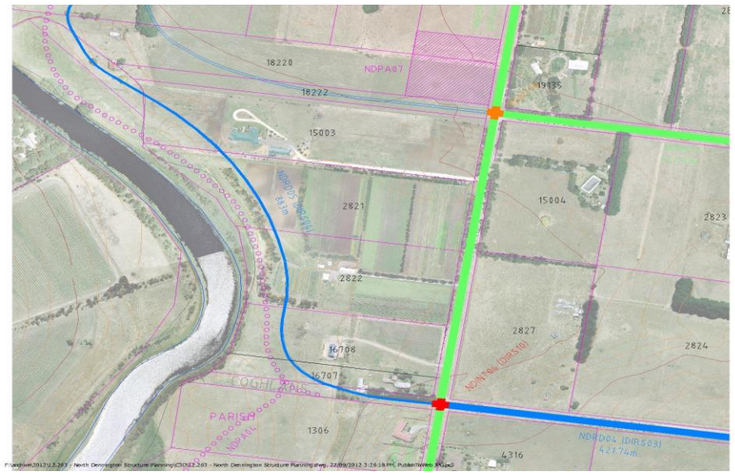
**Description of main catchment area:**

Some existing traffic, but all contained within growth area
Existing traffic - less than 300vpd (15%)
DCP traffic - 1700vpd (85% of total future traffic)

**Profile A:**




**Location and main catchment plan**




**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus
Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.
Standard footpaths both sides, shared on road provision for cyclists.
Assumes on road car parking possible with bus use as road is low volume access street.

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$84,201** | | | **$0** | **$0** | **$0** | **100%** | **$84,201** |
| **Roadworks** | | | | | | | | | | | |
| Excavation and trimming | 4,500 | cm | $20 | $90,000 | Shaping - 0.5m Cut/Fill (450x20x0.5) | | $0 | $0 | $0 | 100.0% | $90,000 OK |
| Drainage (375mm dia) | 486 | m | $220 | $106,920 | 450m + (9m x 4 crossing) | | $0 | $0 | $0 | 100% | $106,920 OK |
| Road Pavement - Low Traffic | 3,780 | sqm | $60 | $226,800 | 8.4m road pavement | | $0 | $0 | $0 | 100% | $226,800 OK |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | | $0 | $0 | $0 | | $0 |
| 40mm Asphalt Seal | 3,780 | sqm | $25 | $94,500 | 8.4m asphalt overlay | | $0 | $0 | $0 | 100% | $94,500 OK |
| Kerb and Channel | 900 | m | $95 | $85,500 | | | $0 | $0 | $0 | 100% | $85,500 OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | $0 | $0 | | $0 |
| Concrete Footpaths | 1,350 | sqm | $95 | $128,250 | 1.5m wide path (both sides) | | $0 | $0 | $0 | 100% | $128,250 OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | $0 | $0 | 100% | $2,940 OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | $0 | $0 | 100% | $2,000 OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | $0 | $0 | | $0 |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | | $0 | $0 | $0 | 100% | $45,000 OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | $0 | $0 | | $0 |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | $0 | $0 | | $0 |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | $0 | $0 | | $0 |
| | | | | **$781,910** | | | **$0** | **$0** | **$0** | | **$781,910** |
| **Road landscaping** | | | | | | | | | | | |
| Tree Clearing | 50 | m | $500 | $25,000 | Existing vegetation removal | | $0 | $0 | $0 | 100% | $25,000 OK |
| Nature strips | 3,870 | sqm | $5 | $19,350 | Based on 4.3m naturestrips | | $0 | $0 | $0 | 100% | $19,350 OK |
| Centre median | | sqm | $25 | $0 | | | $0 | $0 | $0 | | $0 |
| Tree planting | 45 | item | $350 | $15,750 | Based on 1 per 20m frontage | | $0 | $0 | $0 | 100% | $15,750 OK |
| | | | | **$60,100** | | | **$0** | **$0** | **$0** | | **$60,100** |
| **Traffic signals** | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | $0 | $0 | | $0 |
| | | | | **$0** | | | **$0** | **$0** | **$0** | | **$0** |
| **Land Acquisition** | | | | | | | | | | | |
| Unencumbered Developable Land | | ha | $275,000 | $0 | | | $0 | $0 | $0 | | $0 |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | | $0 | $0 | $0 | | $0 |
| | | | | **$0** | | | **$0** | **$0** | **$0** | | **$0** |
| **Contingency** | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$185,242** | | | **$0** | **$0** | **$0** | **100%** | **$185,242** |
| **Total Cost** | | | | **$1,111,453** | | | **$0** | **$0** | **$0** | | **$1,111,453 OK** |

| **Project Timing:** | **Yrs 1-3** | **Yrs 4-6** | **Yrs 7-9** | **Yrs 9-11** | **Yrs 12-15** | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | 100% | | | | 100% | OK |
| **OR** | **Yr 1** | **Yr 2** | **Yr 3** | **Yr 4** | **Yr 5** | **Yr 6** | **Yr 7** | **Yr 8** | **Yr 9** | **Yr 10** | **Yr 11** | **Yr 12** | **Yr 13** | **Yr 14** | **Yr 15** | | |
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |
| **OR** | **Start Year** | **End Year** | | | | | | | | | | | | | | | |
| Start year/end year | | | | | | | | | | | | | | | | | |

**NDRDS-04 Shannon Rd - Station St to Russell St**

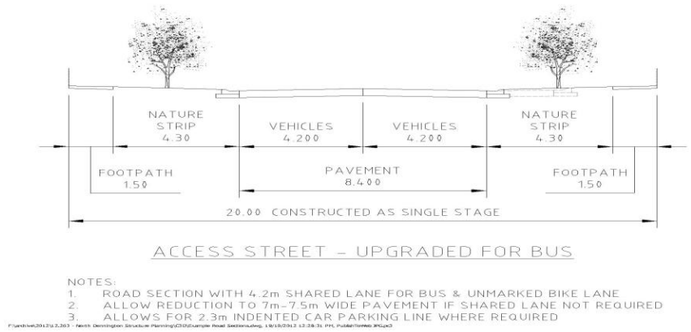
**Name of project and description:**

Length: 430m
Access Street: max. 3000vpd
Recommended Treatment: 20 metre (Existing reserve 20m)

**Description of main catchment area:**

Road services growth area only
Existing traffic - little to no traffic
DCP traffic - up to 3000vpd (100% of total future traffic)

**Profile A:**




**Location and main catchment plan**


**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus
Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.
Standard footpaths both sides, shared on road provision for cyclists.
Assumes on road car parking possible with bus use as road is low volume access street.

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

**Apportionments**

| | Quantity | Units | Unit Rate | Amount | Notes | | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$79,525** | | **$0** | | **$0** | **100%** | **$79,525** | |
| **Roadworks** | | | | | | | | | | | |
| Excavation and trimming | 4,300 | cm | $20 | $86,000 | Shaping - 0.5m Cut/Fill (430x20x0.5) | $0 | | $0 | 100.0% | $86,000 | OK |
| Drainage (375mm dia) | 475 | m | $220 | $104,500 | 430m + (9m x 4 crossing) | $0 | | $0 | 100% | $104,500 | OK |
| Road Pavement - Low Traffic | 3,612 | sqm | $60 | $216,720 | 8.4m road pavement | $0 | | $0 | 100.0% | $216,720 | OK |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | $0 | | $0 | | $0 | |
| 40mm Asphalt Seal | 3,612 | sqm | $25 | $90,300 | 8.4m asphalt overlay | $0 | | $0 | 100% | $90,300 | OK |
| Kerb and Channel | 860 | m | $95 | $81,700 | | $0 | | $0 | 100% | $81,700 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | $0 | | $0 | | $0 | |
| Concrete Footpaths | 1,290 | sqm | $95 | $122,550 | 1.5m wide path (both sides) | $0 | | $0 | 100% | $122,550 | OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | $0 | | $0 | 100% | $45,000 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | $0 | | $0 | | $0 | |
| | | | | **$751,710** | | **$0** | | **$0** | | **$751,710** | |
| **Road landscaping** | | | | | | | | | | | |
| Tree Clearing | 20 | m | $500 | $10,000 | Existing vegetation removal | $0 | | $0 | 100% | $10,000 | OK |
| Nature strips | 3,698 | sqm | $5 | $18,490 | Based on 4.3m naturestrips | $0 | | $0 | 100% | $18,490 | OK |
| Centre median | | sqm | $25 | $0 | | $0 | | $0 | | $0 | |
| Tree planting | 43 | item | $350 | $15,050 | Based on 1 per 20m frontage | $0 | | $0 | 100% | $15,050 | OK |
| | | | | **$43,540** | | **$0** | | **$0** | | **$43,540** | |
| **Traffic signals** | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Land Acquisition** | | | | | | | | | | | |
| Unencumbered Developable Land | | ha | $275,000 | $0 | | $0 | | $0 | | $0 | |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Contingency** | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$174,955** | | **$0** | | **$0** | **100%** | **$174,955** | |
| **Total Cost** | | | | **$1,049,730** | | **$0** | | **$0** | | **$1,049,730** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | 100% | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| Start Year | End Year |
|---|---|
| | |

Start year/end year

**NDRDS-05 Shannon Rd - Russell St to Harrington Rd**

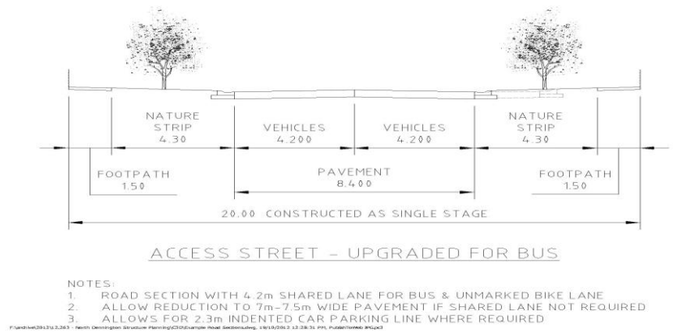
**Name of project and description:**

Length: 420m
Access Street: max. 3000vpd
Recommended Treatment: 20 metre (Existing reserve 20m)

**Description of main catchment area:**

Road services growth area only
Existing traffic - little to no traffic
DCP traffic - up to 3000vpd (100% of total future traffic)

**Profile A:**




**Location and main catchment plan**


**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.
Standard footpaths both sides, shared on road provision for cyclists.
Assumes on road car parking possible with bus use as road is low volume access street.

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
| **Design and project management** | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$77,838** | | | **$0** | | **$0** | | **$0** | **100%** | **$77,838** | |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 4,200 | cm | $20 | $84,000 | Shaping - 0.5m Cut/Fill (420x20x0.5) | | $0 | | $0 | | $0 | 100.0% | $84,000 | OK |
| Drainage (375mm dia) | 465 | m | $220 | $102,300 | 420m + (9m x 4 crossing) | | $0 | | $0 | | $0 | 100% | $102,300 | OK |
| Road Pavement - Low Traffic | 3,528 | sqm | $60 | $211,680 | 8.4m road pavement | | $0 | | $0 | | $0 | 100% | $211,680 | OK |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| 40mm Asphalt Seal | 3,528 | sqm | $25 | $88,200 | 8.4m asphalt overlay | | $0 | | $0 | | $0 | 100% | $88,200 | OK |
| Kerb and Channel | 840 | m | $95 | $79,800 | | | $0 | | $0 | | $0 | 100% | $79,800 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Concrete Footpaths | 1,260 | sqm | $95 | $119,700 | 1.5m wide path (both sides) | | $0 | | $0 | | $0 | 100% | $119,700 | OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | | $0 | | $0 | | $0 | 100% | $45,000 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$735,620** | | | **$0** | | **$0** | | **$0** | | **$735,620** | |
| **Road landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | 20 | m | $500 | $10,000 | Existing vegetation removal | | $0 | | $0 | | $0 | 100% | $10,000 | OK |
| Nature strips | 3,612 | sqm | $5 | $18,060 | Based on 4.3m naturestrips | | $0 | | $0 | | $0 | 100% | $18,060 | OK |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Tree planting | 42 | item | $350 | $14,700 | Based on 1 per 20m frontage | | $0 | | $0 | | $0 | 100% | $14,700 | OK |
| | | | | **$42,760** | | | **$0** | | **$0** | | **$0** | | **$42,760** | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Land Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Developable Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Contingency** | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$171,244** | | | **$0** | | **$0** | | **$0** | **100%** | **$171,244** | |
| **Total Cost** | | | | **$1,027,462** | | | **$0** | | **$0** | | **$0** | | **$1,027,462** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | 100% | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDRDS-06 Harrington Rd - North of Coghlans Rd**

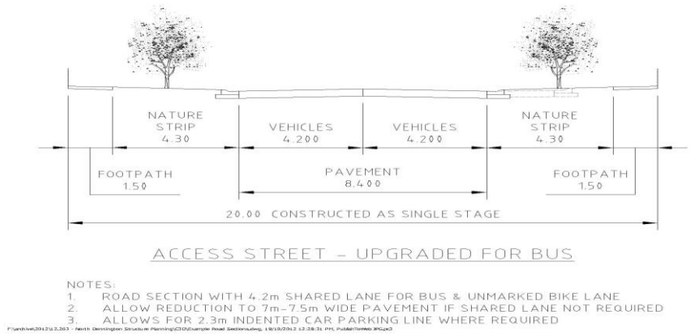
**Name of project and description:**

Length: 440 m
Access Street: max. 3100vpd
Recommended Treatment: 20 metre (Existing reserve 20m)

**Description of main catchment area:**

Road services growth area only
Existing traffic - little to no traffic
DCP traffic - up to 3100vpd (100% of total future traffic)

**Profile A:**




**Location and main catchment plan**


**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus Adopt 8.4m seal. Upgraded to shared lane status for unmarked cycle lane and buses.
Standard footpaths both sides, shared on road provision for cyclists.
Assumes on road car parking possible with bus use as road is low volume access street.

**Project justification:**

This road is within the DCP area, with total future traffic primarily generated by DCP Area. External imapct is considered negligible, and there is minor existing use. Road provides for public transport route that services DCP area.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
| **Design and project management** | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$81,014** | | | **$0** | | **$0** | | **$0** | **100%** | **$81,014** | |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 4,400 | cm | $20 | $88,000 | Shaping - 0.5m Cut/Fill (440x20x0.5) | | $0 | | $0 | | $0 | 100.0% | $88,000 | OK |
| Drainage (375mm dia) | 476 | m | $220 | $104,720 | 440m + (9m x 4 crossing) | | $0 | | $0 | | $0 | 100.0% | $104,720 | OK |
| Road Pavement - Low Traffic | 3,696 | sqm | $60 | $221,760 | 8.4m road pavement | | $0 | | $0 | | $0 | 100% | $221,760 | OK |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| 40mm Asphalt Seal | 3,696 | sqm | $25 | $92,400 | 8.4m asphalt overlay | | $0 | | $0 | | $0 | 100% | $92,400 | OK |
| Kerb and Channel | 880 | m | $95 | $83,600 | | | $0 | | $0 | | $0 | 100% | $83,600 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Concrete Footpaths | 1,320 | sqm | $95 | $125,400 | 1.5m wide path (both sides) | | $0 | | $0 | | $0 | 100% | $125,400 | OK |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | 6 | item | $7,500 | $45,000 | Mid-block category P lighting | | $0 | | $0 | | $0 | 100% | $45,000 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$765,820** | | | **$0** | | **$0** | | **$0** | | **$765,820** | |
| **Road landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | 20 | m | $500 | $10,000 | Existing vegetation removal | | $0 | | $0 | | $0 | 100% | $10,000 | OK |
| Nature strips | 3,784 | sqm | $5 | $18,920 | Based on 4.3m naturestrips | | $0 | | $0 | | $0 | 100% | $18,920 | OK |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Tree planting | 44 | item | $350 | $15,400 | Based on 1 per 20m frontage | | $0 | | $0 | | $0 | 100% | $15,400 | OK |
| | | | | **$44,320** | | | **$0** | | **$0** | | **$0** | | **$44,320** | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Land Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Developable Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Encumbered Undevelopable Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Contingency** | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$178,231** | | | **$0** | | **$0** | | **$0** | **100%** | **$178,231** | |
| **Total Cost** | | | | **$1,069,385** | | | **$0** | | **$0** | | **$0** | | **$1,069,385** | **OK** |

| **Project Timing:** | **Yrs 1-3** | **Yrs 4-6** | **Yrs 7-9** | **Yrs 9-11** | **Yrs 12-15** | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | 100% | | | 100% | OK |
| **OR** | **Yr 1** | **Yr 2** | **Yr 3** | **Yr 4** | **Yr 5** | **Yr 6** | **Yr 7** |
| Proportion of total project by year | | | | | | | |
| **OR** | **Start Year** | **End Year** | | | | | |
| Start year/end year | | | | | | | |

| **Yr 8** | **Yr 9** | **Yr 10** | **Yr 11** | **Yr 12** | **Yr 13** | **Yr 14** | **Yr 15** | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0% Chk |

**NDINT01 Coghlans Rd - Caramut Rd Signalisation**

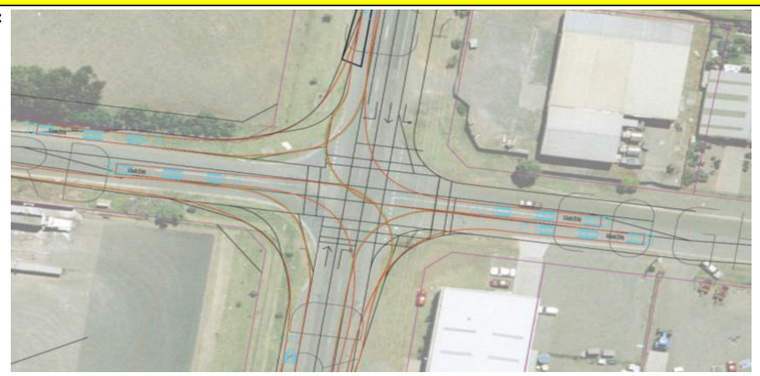
**Name of project and description:**

**Coghlans Rd - Caramut Rd**
**Recommended Treatment: Signalisation**

**Description of main catchment area:**

Existing - 50%, intersection used by east and west developed area, otherwise through traffic
Future DCP - 10%, potential additional traffic from undeveloped areas
DCP - 40%, primary connection to arterial road network

**Profile A:**



**Location and main catchment plan**


**Standard of construction:**

Preliminary signalised intersection based on Austroads Guide to Road Design and Vicroads requirements. Preliminary turn lane lengths based on deceleration requirements, not intersection capacity analysis.

**Project justification:**

Existing works required to this intersection to accommodate large vehicle turning movements not associated with the residential development. However the inclusion of the additional residential traffic, effectively doubling traffic through this intersection would exceed the capacity of a give way with turning lanes therefore intersection needs to be upgraded. Given constraints of the site, and existence of signalised intersections along Caramut Road, a signalised intersection may be more appropriate than

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | Exter. % | Extern. $ | DCP % | DCP $ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$67,586.00** | | | **$0** | | **$0** | **60%** | **$40,552** | **40%** | **$27,034** |
| **Roadworks** | | | | | | | | | | | | | |
| Excavation and trimming | 1,500 | cm | $20 | $30,000 | South & West legs, southbound lane widening | | $0 | | $0 | **60%** | $18,000 | **40%** | $12,000 |
| Drainage (375mm) | 200 | m | $220 | $44,000 | Drains at intersection, 50m each leg | | $0 | | $0 | **60%** | $26,400 | **40%** | $17,600 |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 |
| Road Pavement - High Traffic | 1,850 | sqm | $80 | $148,000 | lane widening +25% rehab (3.5x100x4 + 250m2) | | $0 | | $0 | **60%** | $88,800 | **40%** | $59,200 |
| 40mm Asphalt Seal | 2,600 | sqm | $25 | $65,000 | Existing + new areas (1000m2 + 1600m2) | | $0 | | $0 | **60%** | $39,000 | **40%** | $26,000 |
| Kerb and channel | 400 | m | $95 | $38,000 | 100m each approach (incl. returns) | | $0 | | $0 | **60%** | $22,800 | **40%** | $15,200 |
| Traffic island paving works | 60 | sqm | $285 | $17,100 | 15m long, 1m wide island each leg | | $0 | | $0 | **60%** | $10,260 | **40%** | $6,840 |
| Concrete Footpaths | | sqm | $95 | $0 | | | $0 | | $0 | | $0 | | $0 |
| DDA compliant pram/wheelchair crossin | 16 | each | $735 | $11,760 | | | $0 | | $0 | **60%** | $7,056 | **40%** | $4,704 |
| Linemarking and signage | 8 | item | $1,000 | $8,000 | | | $0 | | $0 | **60%** | $4,800 | **40%** | $3,200 |
| Major Road Lighting | 1 | item | $10,000 | $10,000 | Intersection approches Category V lighting | | $0 | | $0 | **60%** | $6,000 | **40%** | $4,000 |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 |
| Relocate Power Pole | 1 | item | $50,000 | $50,000 | SE corner | | $0 | | $0 | **60%** | $30,000 | **40%** | $20,000 |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 |
| | | | | **$421,860** | | | **$0** | | **$0** | | **$253,116** | | **$168,744** |
| **Landscaping** | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 |
| Nature strips | 800 | sqm | $5 | $4,000 | 2m behind kerb | | $0 | | $0 | **60%** | $2,400 | **40%** | $1,600 |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | | $0 |
| | | | | **$4,000** | | | **$0** | | **$0** | | **$2,400** | | **$1,600** |
| **Traffic signals** | | | | | | | | | | | | | |
| Supply and install | 1 | Item | $250,000 | $250,000 | | | $0 | | $0 | **60%** | $150,000 | **40%** | $100,000 |
| | | | | **$250,000** | | | **$0** | | **$0** | | **$150,000** | | **$100,000** |
| **Acquisition** | | | | | | | | | | | | | |
| Unencumbered Land | 0.010 | ha | $275,000 | $2,750 | 10m SW & NW corner splays | | $0 | | $0 | **60%** | $1,650 | **40%** | $1,100 |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 |
| | | | | **$2,750** | | | **$0** | | **$0** | | **$1,650** | | **$1,100** |
| **Contingency** | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$148,689** | | | **$0** | | **$0** | **60%** | **$89,214** | **40%** | **$59,476** |
| **Total Cost** | | | | **$894,885** | | | **$0** | | **$0** | | **$536,931** | | **$357,954** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 100% | | | | | 100% | OK |

| **OR** | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

| **OR** | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDINT02 Coghlans Road /Harrington Street Roundabout**

**Name of project and description:**

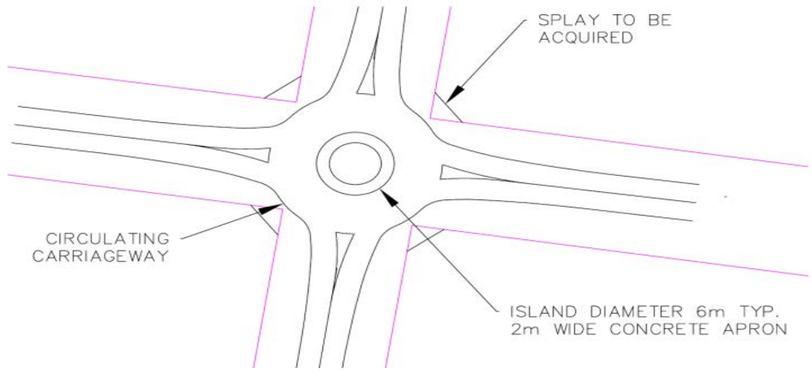
**Coghlans Road /Harrington Street Intersection**
**Recommended Treatment: Small Roundabout**

**Description of main catchment area:**

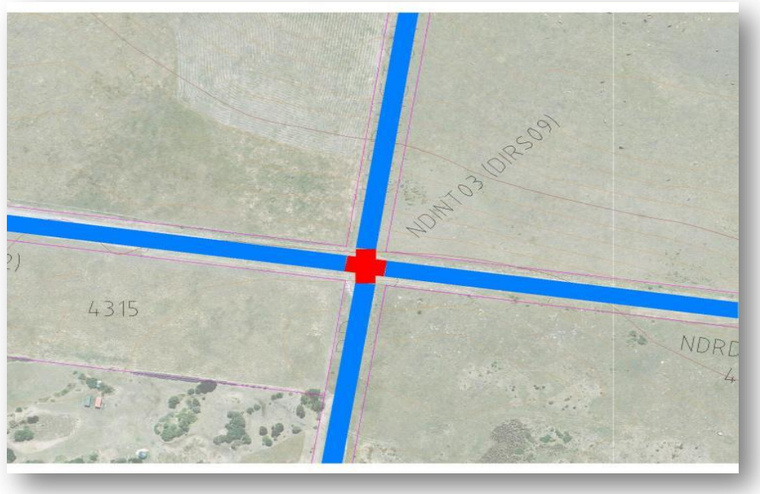
Existing - 0%
DCP - 100%

**Profile A:**

Approcahes - all single lane
Circulating aisle - 7.4m
Central Island Radius - 6m




**Location and main catchment plan**




**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus. 13.4 m outer radius, central island has 6 m radius with outer 2 m concrete apron

**Project justification:**

The Coghlans Road/ Harrington Street intersection is a four arm intersection. As unsignalised crossroads are generally not recommended a roundabout has been proposed. The provision of the roundabout would also act as a slow point reducing speeds along Coghlans Road. The recommended dimensions are suitable to allow a bus to manoeuvre through the intersection.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
| **Design and project management** | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$26,395.50** | | | **$0** | | **$0** | | **$0** | **100%** | **$26,396** | **OK** |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 565 | cm | $20 | $11,300 | Roundabout only (0.5m cut/fill) | | $0 | | $0 | | $0 | **100%** | $11,300 | OK |
| Drainage (375mm) | 52 | m | $220 | $11,440 | 4 crossings x 13m | | $0 | | $0 | | $0 | **100%** | $11,440 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Road Pavement - High Traffic | 805 | sqm | $80 | $64,400 | Roundabout + 15m N&S approaches | | $0 | | $0 | | $0 | **100%** | $64,400 | OK |
| 40mm Asphalt Seal | 805 | sqm | $25 | $20,125 | | | $0 | | $0 | | $0 | **100%** | $20,125 | OK |
| Kerb and channel | 182 | m | $95 | $17,290 | Roundabout + 15m N & S approaches | | $0 | | $0 | | $0 | **100%** | $17,290 | OK |
| Traffic island paving works | 182 | sqm | $285 | $51,870 | 6m long x 1m wide islands, incl. kerb | | $0 | | $0 | | $0 | **100%** | $51,870 | OK |
| Concrete Footpaths | 160 | sqm | $95 | $15,200 | 15m each corner, 70sq.m roundabout | | $0 | | $0 | | $0 | **100%** | $15,200 | OK |
| DDA compliant pram/wheelchair crossin | 8 | each | $735 | $5,880 | | | $0 | | $0 | | $0 | **100%** | $5,880 | OK |
| Linemarking and signage | 4 | item | $1,000 | $4,000 | | | $0 | | $0 | | $0 | **100%** | $4,000 | OK |
| Major Road Lighting | 1 | item | $10,000 | $10,000 | Intersection approches Category V lighting | | $0 | | $0 | | $0 | **100%** | $10,000 | OK |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | 1 | item | $50,000 | $50,000 | | | $0 | | $0 | | $0 | **100%** | $50,000 | OK |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$261,505** | | | **$0** | | **$0** | | **$0** | | **$261,505** | |
| **Landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Nature strips | 240 | sqm | $5 | $1,200 | 2m behind kerb returns | | $0 | | $0 | | $0 | **100%** | $1,200 | OK |
| Centre median | 50 | sqm | $25 | $1,250 | Centre of roundabout | | $0 | | $0 | | $0 | **100%** | $1,250 | OK |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$2,450** | | | **$0** | | **$0** | | **$0** | | **$2,450** | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | |
| **Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Land | 0.020 | ha | $275,000 | $5,500 | 10m splays on corners (all 4 corners) | | $0 | | $0 | | $0 | **100%** | $5,500 | OK |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | **$5,500** | | | **$0** | | **$0** | | **$0** | | **$5,500** | |
| **Contingency** | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$58,070** | | | **$0** | | **$0** | | **$0** | **100%** | **$58,070** | |
| **Total Cost** | | | | **$353,921** | | | **$0** | | **$0** | | **$0** | | **$353,921** | **OK** |

| **Project Timing:** | **Yrs 1-3** | **Yrs 4-6** | **Yrs 7-9** | **Yrs 9-11** | **Yrs 12-15** | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 100% | | | | | 100% | OK |
| **OR** | **Yr 1** | **Yr 2** | **Yr 3** | **Yr 4** | **Yr 5** | **Yr 6** | **Yr 7** | **Yr 8** | **Yr 9** | **Yr 10** | **Yr 11** | **Yr 12** | **Yr 13** | **Yr 14** | **Yr 15** | |
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% Chk |
| **OR** | **Start Year** | **End Year** | | | | | | | | | | | | | | |
| Start year/end year | | | | | | | | | | | | | | | | |

**NDINT03 Coghlans Rd/Russell St Roundabout**

**Name of project and description:**

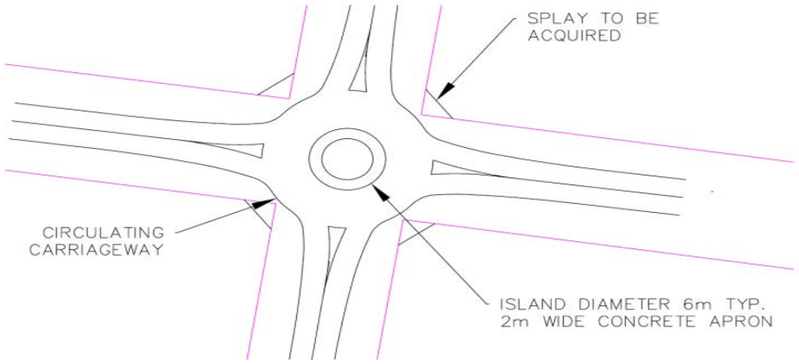
**Coghlans Rd/Russell St Intersection**
**Recommended Treatment: Small Roundabout**

**Description of main catchment area:**

Existing - 0%
DCP - 100%

**Profile A:**

Approcahes - all single lane
Circulating aisle - 7.4m
Central Island Radius - 6m




**Location and main catchment plan**


**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus. 13.4 m outer radius, central island has 6 m radius with outer 2 m concrete apron

**Project justification:**

The Coghlans Road/ Harrington Street intersection is a four arm intersection. As unsignalised crossroads are generally not recommended a roundabout has been proposed. The provision of the roundabout would also act as a slow point reducing speeds along Coghlans Road. The recommended dimensions are suitable to allow a bus to manoeuvre through the intersection.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$26,395.50** | | | **$0** | **$0** | **$0** | **100%** | **$26,396** | **OK** |
| **Roadworks** | | | | | | | | | | | |
| Excavation and trimming | 565 | cm | $20 | $11,300 | Roundabout + 15m approaches (0.5m cut/fill) | | $0 | $0 | $0 | **100%** | $11,300 | OK |
| Drainage (375mm) | 52 | m | $220 | $11,440 | 4 crossings x 13m + connections (40m) | | $0 | $0 | $0 | **100%** | $11,440 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | $0 | $0 | | $0 | |
| Road Pavement - High Traffic | 805 | sqm | $80 | $64,400 | Roundabout + 15m approaches | | $0 | $0 | $0 | **100%** | $64,400 | OK |
| 40mm Asphalt Seal | 805 | sqm | $25 | $20,125 | | | $0 | $0 | $0 | **100%** | $20,125 | OK |
| Kerb and channel | 182 | m | $95 | $17,290 | Roundabout + 15m approaches | | $0 | $0 | $0 | **100%** | $17,290 | OK |
| Traffic island paving works | 182 | sqm | $285 | $51,870 | 6m long x 1m wide islands, incl. kerb | | $0 | $0 | $0 | **100%** | $51,870 | OK |
| Concrete Footpaths | 160 | sqm | $95 | $15,200 | 15m each corner, 70sq.m roundabout | | $0 | $0 | $0 | **100%** | $15,200 | OK |
| DDA compliant pram/wheelchair crossin | 8 | each | $735 | $5,880 | | | $0 | $0 | $0 | **100%** | $5,880 | OK |
| Linemarking and signage | 4 | item | $1,000 | $4,000 | | | $0 | $0 | $0 | **100%** | $4,000 | OK |
| Major Road Lighting | 1 | item | $10,000 | $10,000 | Intersection approches Category V lighting | | $0 | $0 | $0 | **100%** | $10,000 | OK |
| Street Lighting | | item | $7,500 | $0 | | | $0 | $0 | $0 | | $0 | |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | $0 | $0 | | $0 | |
| Relocate Power Pole | 1 | item | $50,000 | $50,000 | | | $0 | $0 | $0 | **100%** | $50,000 | OK |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | $0 | $0 | | $0 | |
| | | | | **$261,505** | | | **$0** | **$0** | **$0** | | **$261,505** | |
| **Landscaping** | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | $0 | $0 | | $0 | |
| Nature strips | 240 | sqm | $5 | $1,200 | 2m behind kerb returns | | $0 | $0 | $0 | **100%** | $1,200 | OK |
| Centre median | 50 | sqm | $25 | $1,250 | Centre of roundabout | | $0 | $0 | $0 | **100%** | $1,250 | OK |
| Tree planting | | item | $350 | $0 | | | $0 | $0 | $0 | | $0 | |
| | | | | **$2,450** | | | **$0** | **$0** | **$0** | | **$2,450** | |
| **Traffic signals** | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | $0 | $0 | | $0 | |
| | | | | **$0** | | | **$0** | **$0** | **$0** | | **$0** | |
| **Acquisition** | | | | | | | | | | | |
| Unencumbered Land | 0.020 | ha | $275,000 | $5,500 | 10m splays on corners (all 4 corners) | | $0 | $0 | $0 | **100%** | $5,500 | OK |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | $0 | $0 | | $0 | |
| | | | | **$5,500** | | | **$0** | **$0** | **$0** | | **$5,500** | |
| **Contingency** | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$58,070** | | | **$0** | **$0** | **$0** | **100%** | **$58,070** | |
| **Total Cost** | | | | **$353,921** | | | **$0** | **$0** | **$0** | | **$353,921** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 100% | | | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDINT04 Russell St - Drummond St Intersection**

**Name of project and description:**

**Russell St/Drummond St Intersection**
**Recommended Treatment: Small Roundabout**

**Description of main catchment area:**

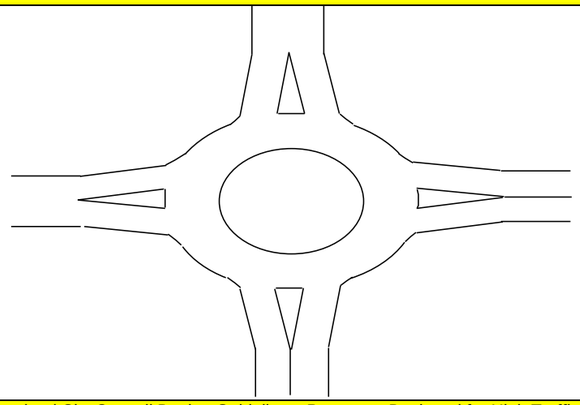
The intersection has existing use, but the trigger for the upgrade relates to the increase in traffic volume, specifically the turning movements
Traffic ratio - Existing - 56%; DCP - 44%

**Profile A:**

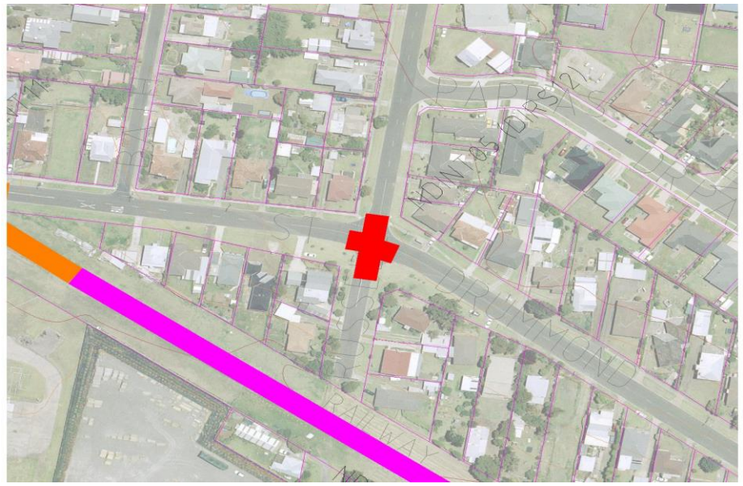
Approaches - all single lane

Circulating aisle - 7.4m

Central Island Radius - 6m



**Location and main catchment plan**




**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus. 13.4 m outer radius, central island has 6 m radius with outer 2 m concrete apron, works to utilise existing pavement where possible, although will require new pavement areas and asphalt overlay

**Project justification:**

The Russell Street/ Drummond Street intersection is a four arm intersection. As unsignalised crossroads are generally not recommended a roundabout has been proposed. The provision of the roundabout would also act as a slow point reducing speeds. The recommended dimensions are suitable to allow a bus to manoeuvre through the intersection.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | | |
| **Design and project management** | | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$18,327.50** | | | **$0** | | **$0** | | **$0** | **100%** | **$18,328** | **OK** | |
| **Roadworks** | | | | | | | | | | | | | | | |
| Excavation and trimming | 450 | cm | $20 | $9,000 | Excavate for kerb, roundabout + islands | | $0 | | $0 | | $0 | **100%** | $9,000 | OK | |
| Drainage (375mm) | 70 | m | $220 | $15,400 | 3 crossings x 13m + outfall connection | | $0 | | $0 | | $0 | **100%** | $15,400 | OK | |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Road Pavement - High Traffic | 250 | sqm | $80 | $20,000 | 25% to shape pavement | | $0 | | $0 | | $0 | **100%** | $20,000 | OK | |
| 40mm Asphalt Seal | 1,050 | sqm | $25 | $26,250 | Roundabout + 15m approaches (Overlay) | | $0 | | $0 | | $0 | **100%** | $26,250 | OK | |
| Kerb and channel | 241 | m | $95 | $22,895 | Roundabout + 15m approaches | | $0 | | $0 | | $0 | **100%** | $22,895 | OK | |
| Traffic island paving works | 40 | sqm | $285 | $11,400 | 4 x approaches | | $0 | | $0 | | $0 | **100%** | $11,400 | OK | |
| Concrete Footpaths | 60 | sqm | $95 | $5,700 | Connection to existing & new paths | | $0 | | $0 | | $0 | **100%** | $5,700 | OK | |
| DDA compliant pram/wheelchair crossin | 8 | each | $735 | $5,880 | | | $0 | | $0 | | $0 | **100%** | $5,880 | OK | |
| Linemarking and signage | 4 | item | $1,000 | $4,000 | | | $0 | | $0 | | $0 | **100%** | $4,000 | OK | |
| Major Road Lighting | 1 | item | $10,000 | $10,000 | Additional light to meet category V spec | | $0 | | $0 | | $0 | **100%** | $10,000 | OK | |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Relocate Power Pole | 1 | item | $50,000 | $50,000 | | | $0 | | $0 | | $0 | **100%** | $50,000 | OK | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$180,525** | | | **$0** | | **$0** | | **$0** | | **$180,525** | | |
| **Landscaping** | | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Nature strips | 300 | sqm | $5 | $1,500 | 2m behind kerb | | $0 | | $0 | | $0 | **100%** | $1,500 | OK | |
| Centre median | 50 | sqm | $25 | $1,250 | Centre of roundabout | | $0 | | $0 | | $0 | **100%** | $1,250 | OK | |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | **100%** | $0 | | |
| | | | | **$2,750** | | | **$0** | | **$0** | | **$0** | | **$2,750** | | |
| **Traffic signals** | | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | | |
| **Acquisition** | | | | | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | | |
| **Other Costs** | | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$40,321** | | | **$0** | | **$0** | | **$0** | **100%** | **$40,321** | | |
| **Total Cost** | | | | **$241,923** | | | **$0** | | **$0** | | **$0** | | **$241,923** | **OK** | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | 100% | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDINT05 Drummond St, Lindsay St, Station/Preston St & Rail Reserve**

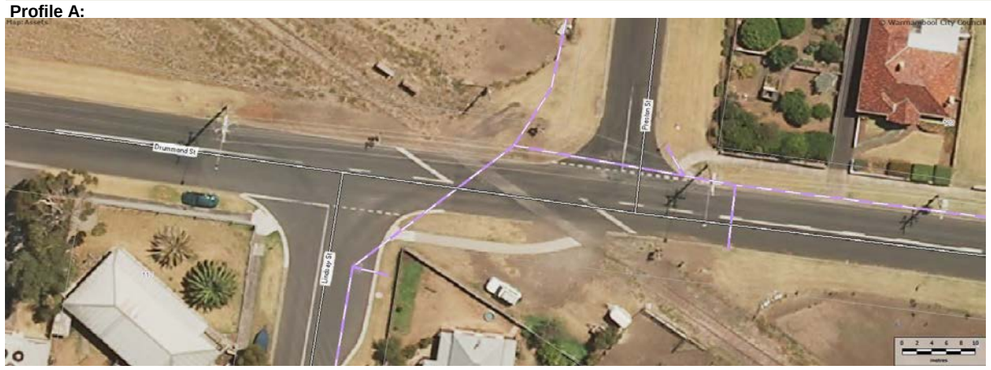
**Name of project and description:**

**Drummond St, Lindsay St, Station/Preston St & Rail Reserve intersection improvements**

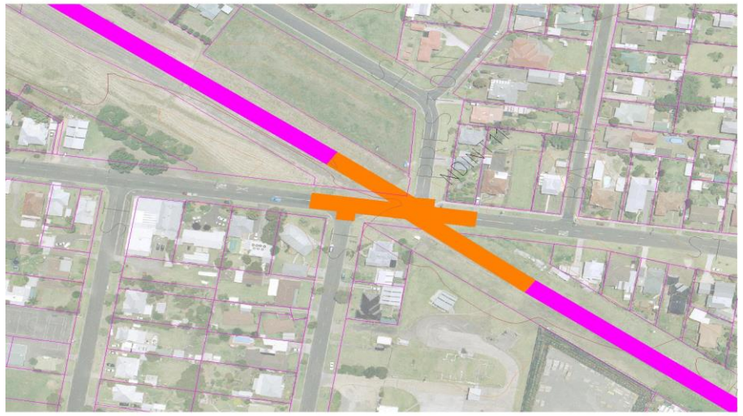
**Description of main catchment area:**

The intersection has existing use, but the trigger for the upgrade relates to the increase in traffic volume, specifically the turning movements
Traffic ratio - Existing - 55%; DCP - 45%

**Profile A:**




**Location and main catchment plan**



**Standard of construction:**

All works to be in accordance with Warrnambool City Council Design Guidelines. Pavement Designed for High Traffic Volume & Bus. Staggered T Intersection with traffic islands and turning lanes and footpath connections

**Project justification:**

The Lindsay Street / Station Street / Drummond Street intersection is a staggered 'T' type intersection. As unsignalised, this intersection will have a higher amount of conflicting turning movements that require traffic management. The provision channelisation, turning lanes and improved safety measures would also act as a slow point reducing speeds. The recommended dimensions are suitable to allow a bus to manoeuvre through the intersection

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | | |
| **Design and project management** | | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$20,591.50** | | | **$0** | | **$0** | | **$0** | **100%** | **$20,592** | **OK** | |
| **Roadworks** | | | | | | | | | | | | | | | |
| Excavation and trimming | 263 | cm | $20 | $5,260 | 150 m long x 3.5m wide 0.5 cut | | $0 | | $0 | | $0 | **100%** | $5,260 | OK | |
| Drainage (375mm) | 100 | m | $220 | $22,000 | Allow for cross draina and connections | | $0 | | $0 | | $0 | **100%** | $22,000 | OK | |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Road Pavement - High Traffic | 525 | sqm | $80 | $42,000 | 150m x 3.5 turning lane | | $0 | | $0 | | $0 | **100%** | $42,000 | OK | |
| 40mm Asphalt Seal | 525 | sqm | $25 | $13,125 | | | $0 | | $0 | | $0 | **100%** | $13,125 | OK | |
| Kerb and channel | 210 | m | $95 | $19,950 | Kerb replacement and connections | | $0 | | $0 | | $0 | **100%** | $19,950 | OK | |
| Traffic island paving works | 75 | sqm | $285 | $21,375 | 2 approaches, 2 x 30m taper islands | | $0 | | $0 | | $0 | **100%** | $21,375 | OK | |
| Concrete Footpaths | 135 | sqm | $95 | $12,825 | Match existing, complete connection | | $0 | | $0 | | $0 | **100%** | $12,825 | OK | |
| DDA compliant pram/wheelchair crossin | 8 | each | $735 | $5,880 | | | $0 | | $0 | | $0 | **100%** | $5,880 | OK | |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | **100%** | $2,000 | OK | |
| Major Road Lighting | 1 | item | $10,000 | $10,000 | Additional light to meet category V spec | | $0 | | $0 | | $0 | **100%** | $10,000 | OK | |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | **100%** | $0 | | |
| Relocate Power Pole | 1 | item | $50,000 | $50,000 | | | $0 | | $0 | | $0 | **100%** | $50,000 | OK | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$204,415** | | | **$0** | | **$0** | | **$0** | | **$204,415** | | |
| **Landscaping** | | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Nature strips | 300 | sqm | $5 | $1,500 | 2m behind widening | | $0 | | $0 | | $0 | **100%** | $1,500 | OK | |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$1,500** | | | **$0** | | **$0** | | **$0** | | **$1,500** | | |
| **Traffic signals** | | | | | | | | | | | | | | | |
| Alterations to signals for phase change | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | **100%** | $0 | | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | | |
| **Acquisition** | | | | | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | **$0** | | | **$0** | | **$0** | | **$0** | | **$0** | | |
| **Contingency** | | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$45,301** | | | **$0** | | **$0** | | **$0** | **100%** | **$45,301** | | |
| **Total Cost** | | | | **$271,808** | | | **$0** | | **$0** | | **$0** | | **$271,808** | **OK** | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | 100% | | | 100% | OK |

| **OR** | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

| **OR** | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDCOM01 Bus Stop 1**

**Name of project and description:**

**Bus Stop 1**

**Description of main catchment area:**

One of two bus stops located on the North Dennington service route

**Profile A:**

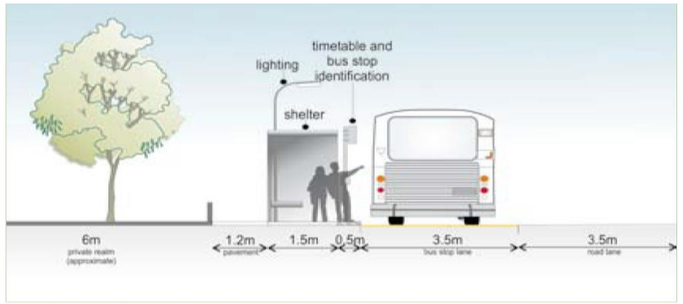
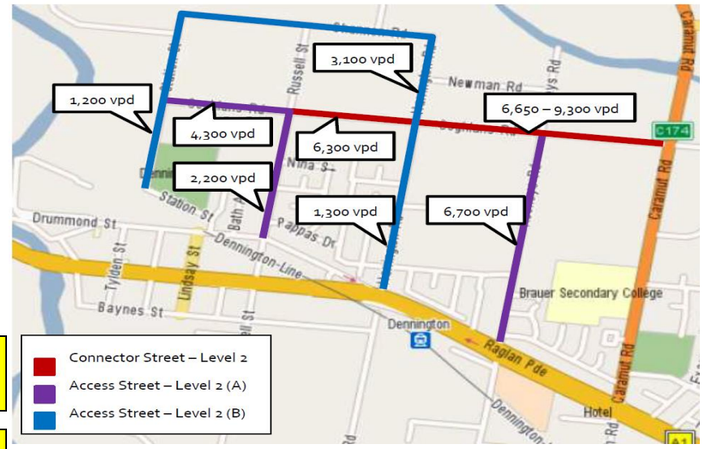



Figure 23: Bus passenger shelter requirements

**Location and main catchment plan**

Figure 6.7: Future Road Hierarchy




**Standard of construction:**

In accordance with Warrnambool City Council's Design Guidelines. Assume pavement depth 490mm. Refer Vicroads Standard Drawing No. 720261 and bus stop guidelines. 45m length (including entry and exit path) and 3m wide. Includes hardstand, lighting, shelter and signage.

**Project justification:**

Passenger shelters should be provided at all stops that are expected to be frequently used (eg. at activity centres, interchanges, community facilities, etc). Identify Coghlans Road as the primary bus route and expand public transport out to Station Street, Shannon Road and Harrington Road as the area develops.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | |
| % of project cost | 10% | | | $5,607 | | | $0 | 100% | $5,607 | OK |
| **Roadworks** | | | | | | | | | | |
| Excavation and trimming | 52 | c.m | $20 | $1,040 | 30m long bus bay x 3.5m wide (0.5m cut/fill) | | $0 | 100% | $1,040 | OK |
| Drainage (375mm dia) | 15 | m | $220 | $3,300 | Connection to drainage system (15m) | | $0 | 100% | $3,300 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | | $0 | |
| Road Pavement - High Traffic | 105 | sqm | $80 | $8,400 | | | $0 | 100% | $8,400 | OK |
| 40mm Asphalt Seal | 105 | sqm | $25 | $2,625 | | | $0 | 100% | $2,625 | OK |
| Kerb and Channel | 97 | m | $95 | $9,215 | B1 Kerb + spoon drain | | $0 | 100% | $9,215 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | |
| Concrete footpaths | 16 | sqm | $95 | $1,520 | hardstand area 2m x 8m x 125 mm | | $0 | 100% | $1,520 | OK |
| DDA compliant pram/wheelchair crossin | 2 | each | $735 | $1,470 | | | $0 | 100% | $1,470 | OK |
| Linemarking and signage | 1 | item | $1,000 | $1,000 | | | $0 | 100% | $1,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | 100% | $0 | |
| Street Lighting | 1 | item | $7,500 | $7,500 | | | $0 | 100% | $7,500 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | 100% | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | 100% | $0 | |
| Bus Shelters | 1 | item | $20,000 | $20,000 | | | $0 | 100% | $20,000 | OK |
| | | | | $56,070 | | | | | | |
| **Road landscaping** | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | |
| Nature strips | | sqm | $5 | $0 | | | $0 | | $0 | |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | |
| | | | | $0 | | | | | | |
| **Traffic signals** | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | |
| | | | | $0 | | | | | | |
| **Land Acquisition** | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | | $0 | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | |
| | | | | $0 | | | | | | |
| **Contingency** | | | | | | | | | | |
| % of project costs | 20% | | | $12,335 | | | $0 | 100% | $12,335 | OK |
| **Total Cost** | | | | **$ 74,012** | | | **$ -** | | **$ 74,012** | |

**Apportionments**

| | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|
| | **$0** | **$0** | **100%** | **$5,607** | **OK** |
| | **$0** | **$0** | **100%** | **$1,040** | **OK** |
| | **$0** | **$0** | **100%** | **$3,300** | **OK** |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | **100%** | **$8,400** | **OK** |
| | **$0** | **$0** | **100%** | **$2,625** | **OK** |
| | **$0** | **$0** | **100%** | **$9,215** | **OK** |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | **100%** | **$1,520** | **OK** |
| | **$0** | **$0** | **100%** | **$1,470** | **OK** |
| | **$0** | **$0** | **100%** | **$1,000** | **OK** |
| | **$0** | **$0** | **100%** | **$0** | |
| | **$0** | **$0** | **100%** | **$7,500** | **OK** |
| | **$0** | **$0** | **100%** | **$0** | |
| | **$0** | **$0** | **100%** | **$0** | |
| | **$0** | **$0** | **100%** | **$20,000** | **OK** |
| | | | | | |
| | | | | | |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | | **$0** | |
| | | | | | |
| | | | | | |
| | **$0** | **$0** | | **$0** | |
| | | | | | |
| | | | | | |
| | **$0** | **$0** | | **$0** | |
| | **$0** | **$0** | | **$0** | |
| | | | | | |
| | | | | | |
| | **$0** | **$0** | **100%** | **$12,335** | **OK** |
| | **$ -** | **$ -** | | **$ 74,012** | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | 100% | | | | 100% | OK | | | | | | | | | |
| **OR** | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | |
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% Chk |
| **OR** | Start Year | End Year | | | | | | | | | | | | | | |
| Start year/end year | | | | | | | | | | | | | | | | |

**NDCOM02 Bus Stop 2**

**Name of project and description:**

**Bus Stop 1**

**Description of main catchment area:**

One of two bus stops located on the North Dennington service route

**Profile A:**

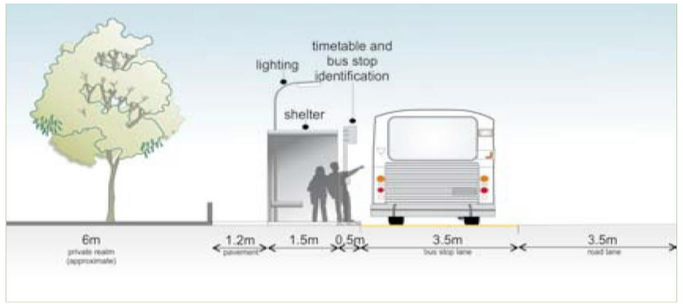
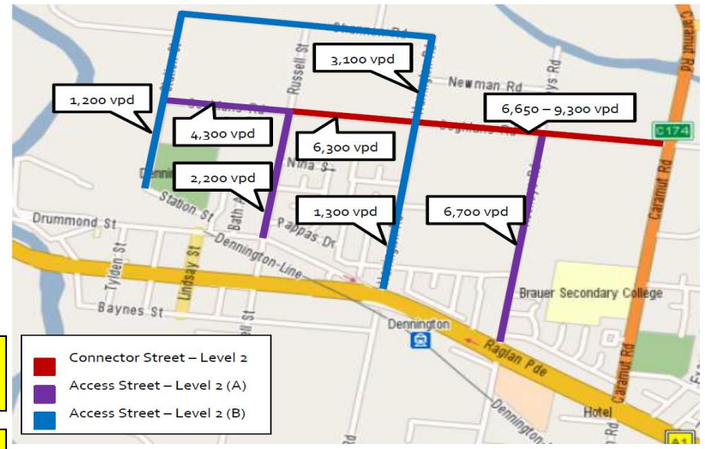



Figure 23: Bus passenger shelter requirements

**Location and main catchment plan**

Figure 6.7: Future Road Hierarchy




**Standard of construction:**

In accordance with Warrnambool City Council's Design Guidelines. Assume pavement depth 490mm. Refer Vicroads Standard Drawing No. 720261 and bus stop guidelines. 45m length (including entry and exit path) and 3m wide. Includes hardstand, lighting, shelter and signage.

**Project justification:**

Passenger shelters should be provided at all stops that are expected to be frequently used (eg. at activity centres, interchanges, community facilities, etc). Identify Coghlans Road as the primary bus route and expand public transport out to Station Street, Shannon Road and Harrington Road as the area develops.

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | |
| % of project cost | 10% | | | $5,607 | | | $0 | $0 | 100% | $5,607 | OK |
| **Roadworks** | | | | | | | | | | | |
| Excavation and trimming | 52 | c.m | $20 | $1,040 | 30m long bus bay x 3.5m wide (0.5m cut/fill) | | $0 | $0 | 100% | $1,040 | OK |
| Drainage (375mm dia) | 15 | m | $220 | $3,300 | Connection to drainage system (15m) | | $0 | $0 | 100% | $3,300 | OK |
| Road Pavement - Low Traffic | | sqm | $60 | $0 | | | $0 | $0 | $0 | $0 | |
| Road Pavement - High Traffic | 105 | sqm | $80 | $8,400 | | | $0 | $0 | $0 | $8,400 | OK |
| 40mm Asphalt Seal | 105 | sqm | $25 | $2,625 | | | $0 | $0 | $0 | $2,625 | OK |
| Kerb and Channel | 97 | m | $95 | $9,215 | B1 Kerb + spoon drain | | $0 | $0 | $0 | $9,215 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | $0 | $0 | $0 | |
| Concrete footpaths | 16 | sqm | $95 | $1,520 | hardstand area 2m x 8m x 125 mm | | $0 | $0 | $0 | $1,520 | OK |
| DDA compliant pram/wheelchair crossin | 2 | each | $735 | $1,470 | | | $0 | $0 | $0 | $1,470 | OK |
| Linemarking and signage | 1 | item | $1,000 | $1,000 | | | $0 | $0 | $0 | $1,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | $0 | $0 | $0 | |
| Street Lighting | 1 | item | $7,500 | $7,500 | | | $0 | $0 | $0 | $7,500 | OK |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | $0 | $0 | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | $0 | $0 | $0 | |
| Bus Shelters | 1 | item | $20,000 | $20,000 | | | $0 | $0 | $0 | $20,000 | OK |
| | | | | $56,070 | | | | | | | |
| **Road landscaping** | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | $0 | $0 | $0 | |
| Nature strips | | sqm | $5 | $0 | | | $0 | $0 | $0 | $0 | |
| Centre median | | sqm | $25 | $0 | | | $0 | $0 | $0 | $0 | |
| Tree planting | | item | $350 | $0 | | | $0 | $0 | $0 | $0 | |
| | | | | $0 | | | | | | | |
| **Traffic signals** | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | $0 | $0 | $0 | |
| | | | | $0 | | | | | | | |
| **Land Acquisition** | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | $0 | $0 | $0 | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | $0 | $0 | $0 | |
| | | | | $0 | | | | | | | |
| **Contingency** | | | | | | | | | | | |
| % of project costs | 20% | | | $12,335 | | | $0 | $0 | 100% | $12,335 | OK |
| **Total Cost** | | | | **$ 74,012** | | | **$ -** | **$ -** | | **$ 74,012** | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | | 100% | | 100% | OK |
| **OR** | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | |
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% Chk |
| **OR** | Start Year | End Year | | | | | | | | | | | | | | |
| Start year/end year | | | | | | | | | | | | | | | | |

**NDCOM03 Shared Loop Path along Merri - Harrington Road to Coghlans Road**

**Name of project and description:**

**e.g. Open space system along Merri River**
Shared pathway within public open space / Merri River floodplain

**Description of main catchment area:**

Use of path by North Dennington area, with minor external use

**Profile A:**

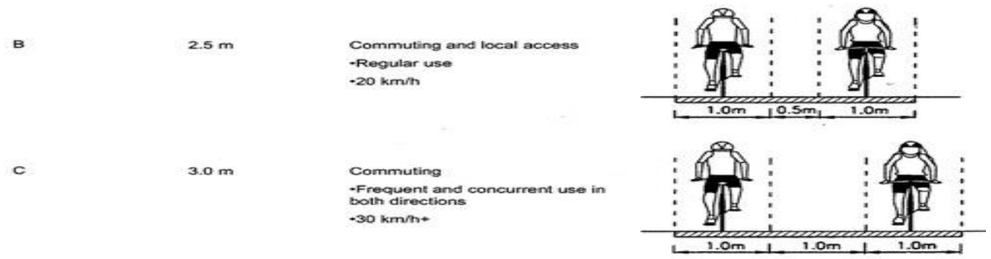
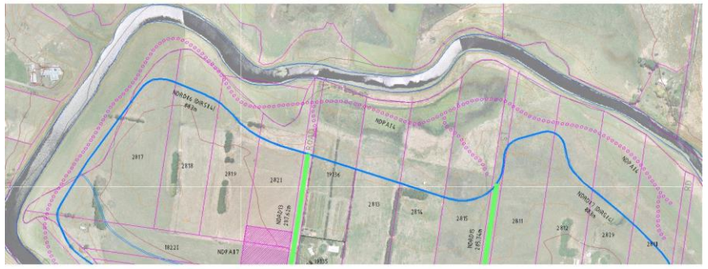



**Figure A 1: Bicycle path operation**

Source: Austroads (1999).

**Location and main catchment plan**



**Standard of construction:**

3000m length shared path 3 m wide gravel pavement in accordance with Warrnambool City Council design standards

**Project justification:**

Environmental use of floodplain (land acting as floodway in 1 in 100 year flood event). Improvement of riparian zone. Major linear open space to link up with other future land along the Merri river. Major community open space resource. Connection to concrete pathway network and community facilities (i.e. Dennington precinct and Dennington Recreation Reserve)

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | | |
| **Design and project management** | | | | | | | | | | | | | | | |
| % of project cost | 10% | | | $48,000 | | | $0 | | $0 | | $0 | 100% | $48,000 | OK | |
| **Roadworks** | | | | | | | | | | | | | | | |
| Excavation and trimming | 4,500 | c.m | $20 | $90,000 | 5m wide x 3000m long x 0.3m deep | | $0 | | $0 | | $0 | 100% | $90,000 | OK | |
| Drainage (375mm) spoon drain | | m | $220 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Road Pavement - Low Traffic | 9,000 | sqm | $40 | $360,000 | pavement reduced to $40/m2 for paths | | $0 | | $0 | | $0 | 100% | $360,000 | OK | |
| Road Pavement - High Traffic | | sqm | $80 | $0 | 3m wide x 3000m long | | $0 | | $0 | | $0 | | $0 | | |
| 40mm Asphalt Seal | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Kerb and channel | | m | $95 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Concrete footpaths | | sqm | $95 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Tactile Indicators | | each | $735 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Linemarking and signage | | item | $1,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Bus Shelter | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | $450,000 | | | | | | | | | | | |
| **Road landscaping** | | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Nature strips | 6,000 | sqm | $5 | $30,000 | 1m each side | | $0 | | $0 | | $0 | 100% | $30,000 | OK | |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | $30,000 | | | | | | | | | | | |
| **Traffic signals** | | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | $0 | | | | | | | | | | | |
| **Land Acquisition** | | | | | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | | |
| | | | | $0 | | | | | | | | | | | |
| **Contingency** | | | | | | | | | | | | | | | |
| % of project costs | 20% | | | $105,600 | | | $0 | | $0 | | $0 | 100% | $105,600 | OK | |
| **Total Cost** | | | | **$ 633,600** | | | **$ -** | | **$ -** | | **$ -** | | **$ 633,600** | | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | | 100% | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDCOM04 Shared Connection to Dennington - Coghlans Road toDrummond Street**

**Name of project and description:**

**e.g. Open space system along Merri River**
Shared pathway connecting public open space / Merri River floodplain to community facilities (on road reserves)

**Description of main catchment area:**

Use of path by North Dennington area, with minor external use

**Profile A:**

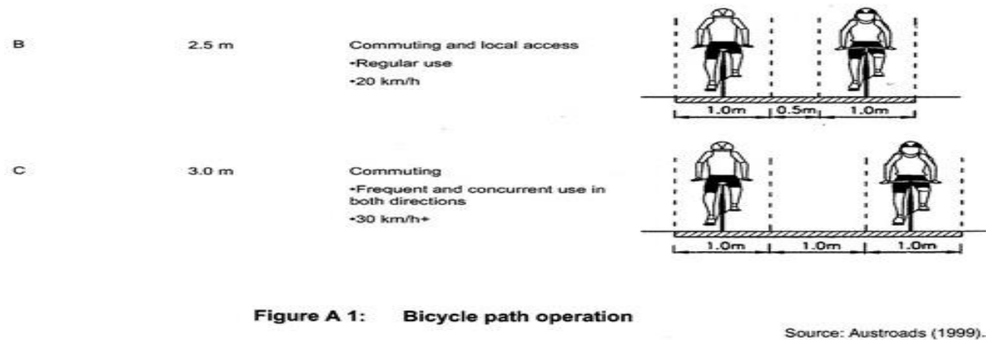
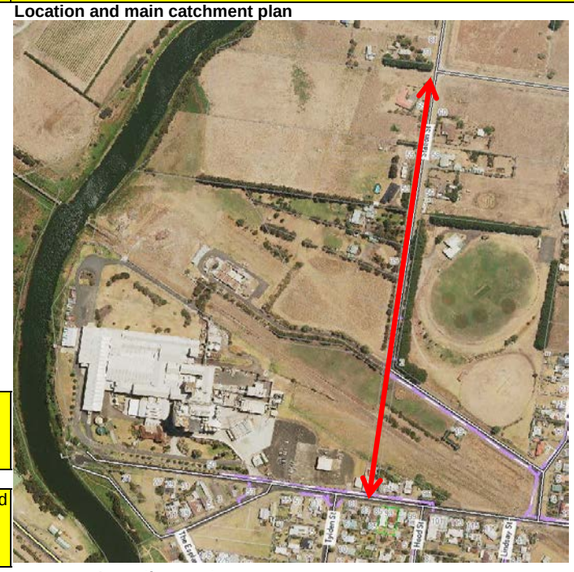



**Figure A 1: Bicycle path operation**

Source: Austroads (1999).

**Location and main catchment plan**



**Standard of construction:**

1000m length shared path 3 m wide reinforced concrete in accordance with Warrnambool City Council design standards

**Project justification:**

Connection to concrete pathway network and community facilities (i.e. Dennington precinct and Dennington Recreation Reserve), expected main pedestrian / cycle link to public open space / floodplain area, recreation and education activities

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Exter. % | Extern. $ | DCP % | DCP $ | | | |
| **Design and project management** | | | | | | | | | | | | | | | | |
| % of project cost | 10% | | | $32,500 | | | **$0** | | **$0** | | **$0** | **100%** | **$32,500** | **OK** | | |
| **Roadworks** | | | | | | | | | | | | | | | | |
| Excavation and trimming | 1,500 | c.m | $20 | $30,000 | 5m wide x 1000m long x 0.3m deep | | **$0** | | **$0** | | **$0** | **100%** | **$30,000** | **OK** | | |
| Drainage (375mm) spoon drain | | m | $220 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Road Pavement - Low Traffic | | sqm | $40 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| 40mm Asphalt Seal | | sqm | $25 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Kerb and channel | | m | $95 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Traffic island paving works | | sqm | $285 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Concrete footpaths | 3,000 | sqm | $95 | $285,000 | 3m wide x 1000m long x 0.125mm deep | | **$0** | | **$0** | | **$0** | **100%** | **$285,000** | **OK** | | |
| Tactile Indicators | | each | $735 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Linemarking and signage | | item | $1,000 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Bus Shelter | | item | $20,000 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Street Lighting | | item | $7,500 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| | | | | $315,000 | | | | | | | | | | | | |
| **Road landscaping** | | | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Nature strips | 2,000 | sqm | $5 | $10,000 | 1m each side | | **$0** | | **$0** | | **$0** | **100%** | **$10,000** | **OK** | | |
| Centre median | | sqm | $25 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Tree planting | | item | $350 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| | | | | $10,000 | | | | | | | | | | | | |
| **Traffic signals** | | | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| | | | | $0 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| **Land Acquisition** | | | | | | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| Encumbered Land | | ha | $9,500 | $0 | | | **$0** | | **$0** | | **$0** | | **$0** | | | |
| | | | | $0 | | | | | | | | | | | | |
| **Contingency** | | | | | | | | | | | | | | | | |
| % of project costs | 20% | | | $71,500 | | | **$0** | | **$0** | | **$0** | **100%** | **$71,500** | **OK** | | |
| **Total Cost** | | | | **$ 429,000** | | | **$ -** | | **$ -** | | **$ -** | | **$ 429,000** | | | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | | 100% | | 100% | **OK** |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | **Chk** |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

**NDCOM05 POS Parking**

**Name of project and description:**

**Provision for parking along public open space / river floodplain activity nodes**

**Description of main catchment area:**

Located along loop road servicing North Dennington area

**Profile A:**

**Location and main catchment plan**

**Standard of construction:**

In accordance with Warrnambool City Council's Design Guidelines. Widening of loop road by 2.5m to allow on-street or indented parking at locations suited to activities along the Merri River public open space / floodplain

**Project justification:**

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | Apportionments | | | | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | | | | |
| % of project cost | 10% | | | $16,604 | | | $0 | | $0 | | $0 | 100% | $16,604 | OK |
| **Roadworks** | | | | | | | | | | | | | | |
| Excavation and trimming | 450 | c.m | $20 | $9,000 | | | $0 | | $0 | | $0 | 100% | $9,000 | OK |
| Drainage (375mm dia) | 180 | m | $220 | $39,600 | | | $0 | | $0 | | $0 | 100% | $39,600 | OK |
| Road Pavement - Low Traffic | 900 | sqm | $60 | $54,000 | | | $0 | | $0 | | $0 | 100% | $54,000 | OK |
| Road Pavement - High Traffic | | sqm | $80 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| 40mm Asphalt Seal | 900 | sqm | $25 | $22,500 | | | $0 | | $0 | | $0 | 100% | $22,500 | OK |
| Kerb and Channel | 360 | m | $95 | $34,200 | | | $0 | | $0 | | $0 | 100% | $34,200 | OK |
| Traffic island paving works | | sqm | $285 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Concrete footpaths | | sqm | $95 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| DDA compliant pram/wheelchair crossin | 4 | each | $735 | $2,940 | | | $0 | | $0 | | $0 | 100% | $2,940 | OK |
| Linemarking and signage | 2 | item | $1,000 | $2,000 | | | $0 | | $0 | | $0 | 100% | $2,000 | OK |
| Major Road Lighting | | item | $10,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting | | item | $7,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Street Lighting Upgrade Only | | item | $2,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Relocate Power Pole | | item | $50,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Bus Shelters | | item | $20,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | $164,240 | | | | | | | | | | |
| **Road landscaping** | | | | | | | | | | | | | | |
| Tree Clearing | | m | $500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Nature strips | 360 | sqm | $5 | $1,800 | | | $0 | | $0 | | $0 | 100% | $1,800 | OK |
| Centre median | | sqm | $25 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Tree planting | | item | $350 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | $1,800 | | | | | | | | | | |
| **Traffic signals** | | | | | | | | | | | | | | |
| Supply and install | | Item | $250,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | $0 | | | | | | | | | | |
| **Land Acquisition** | | | | | | | | | | | | | | |
| Unencumbered Land | | ha | $275,000 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| Encumbered Land | | ha | $9,500 | $0 | | | $0 | | $0 | | $0 | | $0 | |
| | | | | $0 | | | | | | | | | | |
| **Contingency** | | | | | | | | | | | | | | |
| % of project costs | 20% | | | $36,529 | | | $0 | | $0 | | $0 | 100% | $36,529 | OK |
| **Total Cost** | | | | **$ 219,173** | | | **$ -** | | **$ -** | | **$ -** | | **$ 219,173** | |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by period | | | | 100% | | 100% | OK | | | | | | | | |
| **OR** | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 |
| Proportion of total project by year | | | | | | | | | | | | | | | 0% Chk |
| **OR** | Start Year | End Year | | | | | | | | | | | | | |
| Start year/end year | | | | | | | | | | | | | | | |

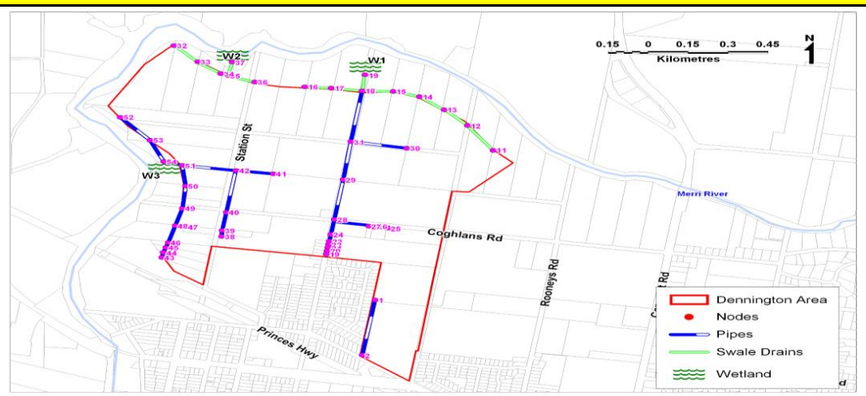
**NDDRN-01 Drainage for Sub-Catchment A to C**

**Name of project and description:**

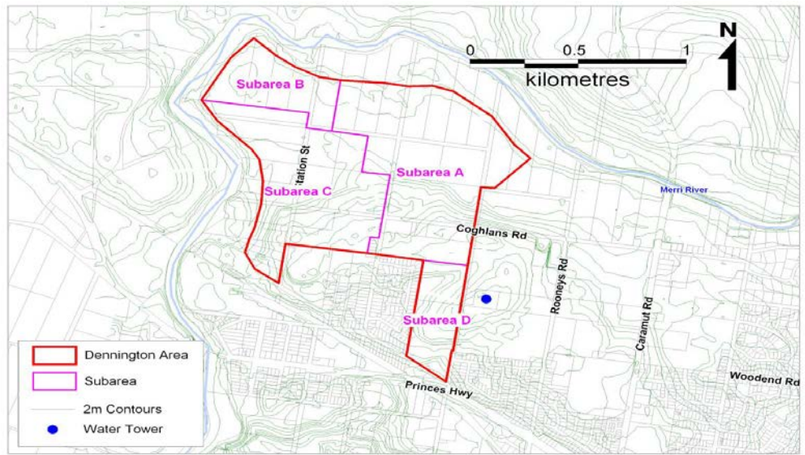
**Description of main catchment area:**

Drainage is for this area is separated into four sections. Sub-area A includes the north eastern portion of the site. Drainage for this sub-area is via pipes and swale drains to a wetland adjacent to the Merri River. Sub-area B includes the north-western portion of the site. Sub-area C includes the western portion of the site. Total catchment area is estimated at 116 ha.

**Profile A:**




**Location and main catchment plan**




**Standard of construction:**

The size of the three wetlands for the Dennington was based on the total catchment area flowing into the wetland. These computations were based on the Water Sensitive Urban Design (WSUD) Engineering Procedures for Stormwater (Melbourne Water 2005). The conceptual designs were then tested in MUSIC.

**Project justification:**

Refer to the Cardno 'Warrnambool Developing Areas Drainage Analysis Report' LJ5519 / RM2142 Verion 1.0 Final - January 2009

**Capital cost details:**

| | Quantity | Units | Unit Rate | Amount | Notes | | North % | North $ | South % | South $ | Exter. % | Extern. $ | DCP % | DCP $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Design and project management** | | | | | | | | | | | | | | | |
| **% of project cost** | | | **10%** | **$259,722** | | | | **$0** | | **$0** | | **$0** | **100%** | **$259,722** | |
| **Cardno Report - Version 1.0 Final (January 2009)** | | | | | | | | | | | | | | | |
| Drainage (300mm dia) | 153 | m | $178 | $27,253 | | | | $0 | | $0 | | $0 | 100% | $27,253 | OK |
| Drainage (375mm dia) | 148 | m | $218 | $32,283 | | | | $0 | | $0 | | $0 | 100% | $32,283 | OK |
| Drainage (450mm dia) | 197 | m | $278 | $54,791 | | | | $0 | | $0 | | $0 | 100% | $54,791 | OK |
| Drainage (525mm dia) | 676 | m | $296 | $200,265 | | | | $0 | | $0 | | $0 | 100% | $200,265 | OK |
| Drainage (600mm dia) | 773 | m | $306 | $236,731 | | | | $0 | | $0 | | $0 | 100% | $236,731 | OK |
| Drainage (675mm dia) | 134 | m | $331 | $44,388 | | | | $0 | | $0 | | $0 | 100% | $44,388 | OK |
| Drainage (750mm dia) | 466 | m | $416 | $193,973 | | | | $0 | | $0 | | $0 | 100% | $193,973 | OK |
| Drainage (825mm dia) | | m | $474 | $0 | | | | $0 | | $0 | | $0 | | $0 | |
| Drainage (900mm dia) | 293 | m | $534 | $156,572 | | | | $0 | | $0 | | $0 | 100% | $156,572 | OK |
| Drainage (975mm dia) | | m | $598 | $0 | | | | $0 | | $0 | | $0 | | $0 | |
| Drainage (1050mm dia) | 275 | m | $673 | $184,938 | | | | $0 | | $0 | | $0 | 100% | $184,938 | OK |
| | | | | **$1,131,192** | | | | **$0** | | **$0** | | **$0** | | **$1,131,192** | |
| **Swale Drain** | | | | | | | | | | | | | | | |
| Swale drain construction | 8,208 | cm | $25 | $205,200 | | | | $0 | | $0 | | $0 | 100% | $205,200 | OK |
| | | | | **$205,200** | | | | **$0** | | **$0** | | **$0** | | **$205,200** | |
| **Wetlands** | | | | | | | | | | | | | | | |
| Topsoil | 1,970 | cm | $35 | $68,950 | | | | $0 | | $0 | | $0 | 100% | $68,950 | OK |
| Wetland construction | 25,175 | cm | $25 | $629,375 | | | | $0 | | $0 | | $0 | 100% | $629,375 | OK |
| Wetland structures | 3 | Item | $100,000 | $300,000 | | | | $0 | | $0 | | $0 | 100% | $300,000 | OK |
| Wetland planting | 10,500 | sqm | $25 | $262,500 | | | | $0 | | $0 | | $0 | 100% | $262,500 | OK |
| | | | | **$1,260,825** | | | | **$0** | | **$0** | | **$0** | | **$1,260,825** | |
| **Contingency** | | | | | | | | | | | | | | | |
| **% of project costs** | | | **20%** | **$571,388** | | | | **$0** | | **$0** | | **$0** | **100%** | **$571,388** | |
| **Total Cost** | | | | **$3,428,326** | | | | **$0** | | **$0** | | **$0** | | **$3,428,326** | **OK** |

**Project Timing:**

| | Yrs 1-3 | Yrs 4-6 | Yrs 7-9 | Yrs 9-11 | Yrs 12-15 | | |
|---|---|---|---|---|---|---|---|
| Proportion of total project by period | 50% | 50% | | | | 100% | OK |

**OR**

| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 | Yr 8 | Yr 9 | Yr 10 | Yr 11 | Yr 12 | Yr 13 | Yr 14 | Yr 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proportion of total project by year | | | | | | | | | | | | | | | | 0% | Chk |

**OR**

| | Start Year | End Year |
|---|---|---|
| Start year/end year | | |

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