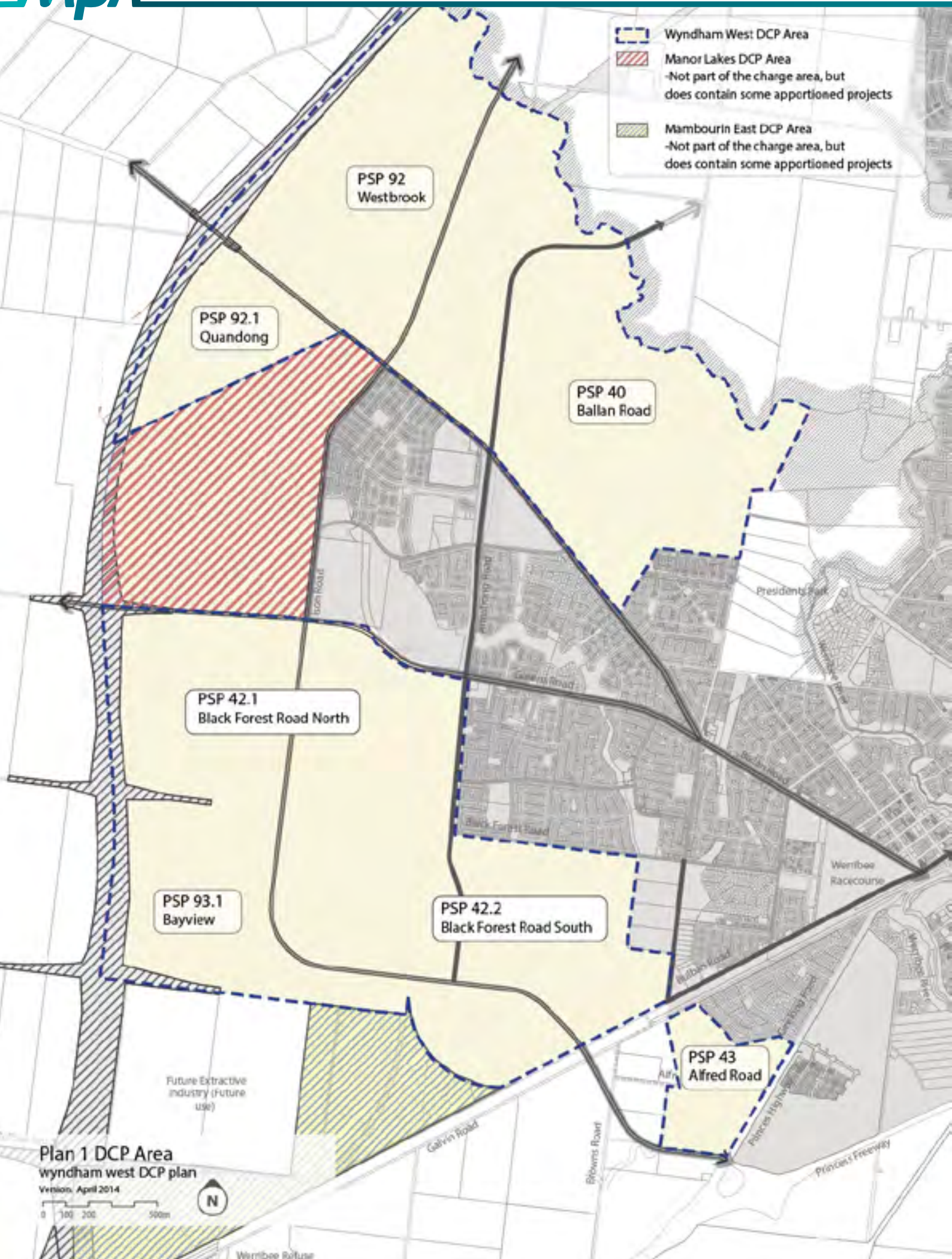




WYNDHAM WEST DEVELOPMENT CONTRIBUTIONS PLAN

April 2014 (Amended December 2023)



CONTENTS

1.0	SUMMARY OF CHARGES	5
2.0	INTRODUCTION	7
2.1	Report Structure	7
2.2	Strategic Basis	8
2.3	Planning and Environment Act 1987	8
2.4	Wyndham West Precinct Structure Plans	9
2.5	The Area to Which the Development Contributions Plan Applies	10
2.6	Related Infrastructure Agreements	10
2.7	Project Identification	10
3.0	INFRASTRUCTURE PROJECT JUSTIFICATION	11
3.1	Items Not Included in the Development Contributions Plan	11
3.2	Infrastructure Projects	13
Amended by GC75	3.3 Distinction between Development and Community Infrastructure	29
4.0	CALCULATION OF CONTRIBUTIONS	31
Amended by VC249	4.1 Calculation of Net Developable Area and Demand Units	31
	4.2 Calculation of Contribution Charges	33
5.0	DEVELOPMENT CONTRIBUTIONS PLAN ADMINISTRATION	40
5.1	Collecting Agency (Agency Responsible for Collecting Infrastructure Levy)	40
5.2	Development Agency (Agency Responsible for Works)	40
5.3	Payment of Contribution Levies and Payment Timing	40
5.4	Funds Administration	42
5.5	Construction and Land Value Costs Indexation	42
5.6	Development Contributions Plan Review Period	43
6.0	IMPLEMENTATION	45
6.1	Project Timing	45
6.2	Key Infrastructure Delivery Priorities	45
7.0	OTHER INFORMATION	47
7.1	Glossary	47
8.0	APPENDICES	51
8.1	Appendix 1 – Property Specific Land Budget	51
8.2	Appendix 2 – External Apportionment	56
8.3	Appendix 3 – Finance Adjustment	58
8.4	Appendix 4 – Cost Sheets	60

TABLES

Amended by GC75	Table 1	Summary of Charges	5
	Table 2	Charge Areas	10
	Table 3	Road Projects	15
	Table 4	Intersection Projects	17
	Table 5	Bridge & Culvert Projects	21
	Table 6	Recreation Projects	23
	Table 7	Community Facility Projects	27
	Table 8	Community Infrastructure Levy Projects	29
	Table 9a	Summary Land Use Budget	32
	Table 9b	Summary Open Space Contribution Budget	32
	Table 10a	Calculation of Costs (Development Infrastructure Levy)	36
Amended by GC75	Table 10b	Calculation of Costs (Community Infrastructure Levy)	39
	Table 11	Key Infrastructure Delivery Priorities	46
	Table 12	Property Specific Land Budget	52
	Table 13	External Apportionment	56

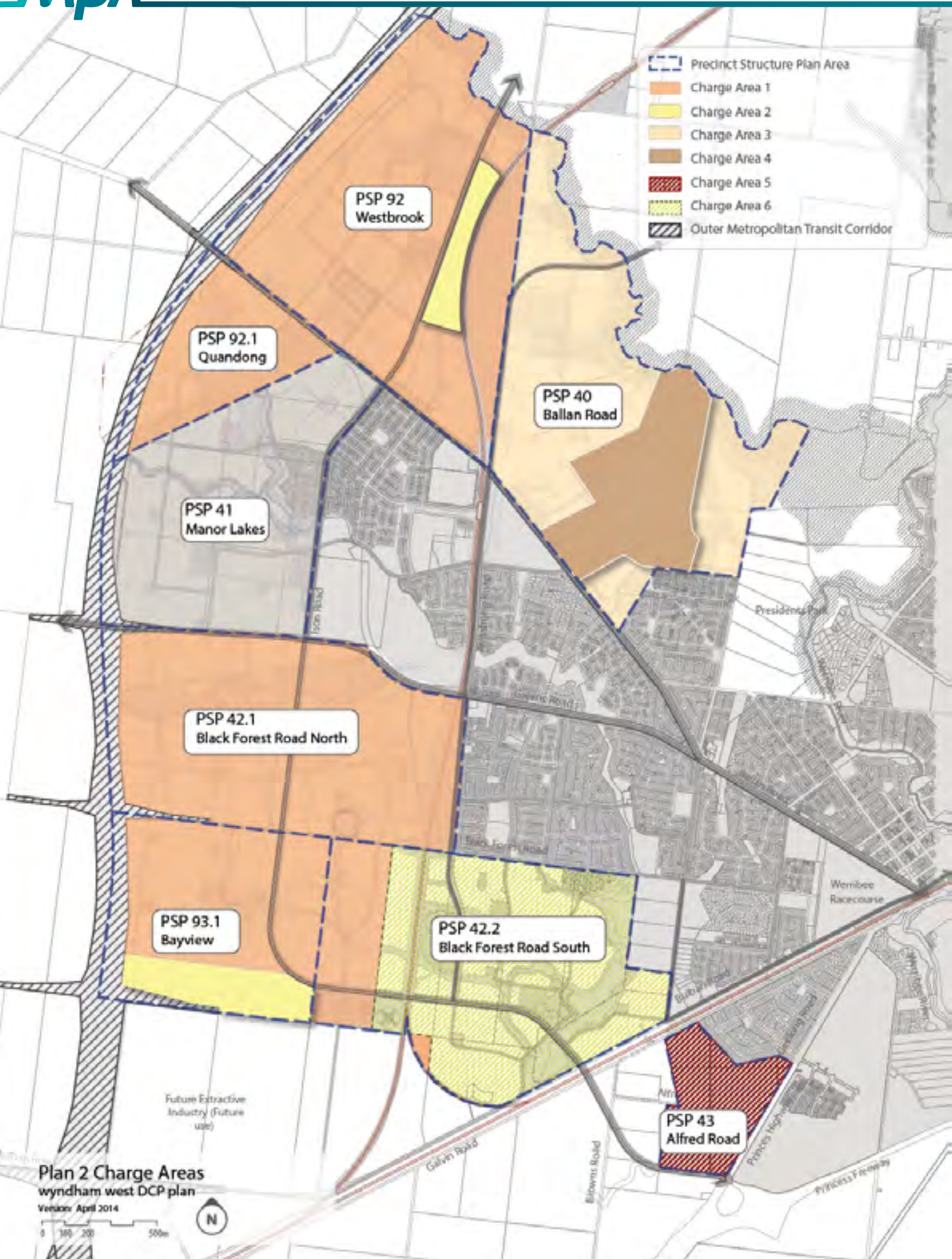
PLANS

Plan 1	Development Contributions Plan Area	ii
Plan 2	Charge Areas	4
Plan 3	Road Projects	14
Plan 4	Intersection Projects	16
Plan 5	Bridge and Culvert Projects	20
Plan 6	Active Recreation Projects	22
Plan 7	Community Facility Projects	26
Plan 8	Key Infrastructure Delivery Priorities	44

Version	Date	Incorporated into the planning scheme by amendment	Description of changes
1	July 2014	C177	N/A
2	July 2017	GC75	Incorporate changes associated with Community Infrastructure Levy (CIL) increase.
3	December 2023	VC249	Incorporate changes associated with small second dwelling exemption

ACRONYMS

'the Act'	Planning and Environment Act 1987
AHD	Australian Height Datum
AFL	Australian Football League ovals
CIL	Community Infrastructure Levy
DCP	Development Contributions Plan
DEECD	Department of Education & Early Childhood Development
DIL	Development Infrastructure Levy
DEPI	Department of Environment & Primary Industries
DTPLI	Department of Transport, Planning & Local Infrastructure
GAA	Growth Areas Authority (also known as the Metropolitan Planning Authority)
GDA	Gross Developable Area
Ha	Hectare
LTC	Local Town Centre
MCA	Main Catchment Area
MCH	Maternal & Child Health
MPA	Metropolitan Planning Authority (also known as the Growth Areas Authority)
MSS	Municipal Strategic Statement
MTC	Major Town Centre
NDA	Net Developable Area
NDAE	Net Developable Area Employment
NDAR	Net Developable Area Residential
NDHa	Net Developable Hectare
OMRTC	Outer Metropolitan Ring Transport Corridor
PAO	Public Acquisition Overlay
PPTN	Principle Public Transport Network
PSP	Precinct Structure Plan
PTC	Principle Town Centre
PTV	Public Transport Victoria
P-6	School Prep to Year 6
P-12	State School Prep to Year 12
Sqm	Square Metres
UGB	Urban Growth Boundary
UGZ	Urban Growth Zone
WTRC	Werribee Township Regional Park
Wyndham City	Wyndham City Council



1.0 SUMMARY OF CHARGES

The following table provides an overview of the project categories and charges included within this DCP. A more detailed explanation of apportionment, methods of calculation and the description and costs of individual projects are included within the body of the document.

Table 1 Summary of Charges

SUMMARY - DEVELOPMENT INFRASTRUCTURE LEVY BY CHARGE AREA			
CHARGE AREA	TOTAL COST OF CONTRIBUTION	HECTARES	CONTRIBUTION RATE PER NET DEVELOPABLE HECTARE (P/NDHA)
Charge Area 1 (residential)	\$224,546,985	960	\$233,986
Charge Area 2 (employment)	\$12,818,395	91	\$140,341
Charge Area 3 (residential)	\$56,066,560	225	\$249,353
Charge Area 4 (residential)	\$32,382,300	106	\$304,235
Charge Area 5 (residential)	\$21,213,693	78	\$273,237
Charge Area 6 (residential)	\$60,403,801	264	\$228,697
TOTAL	\$407,431,735	1,724	

SUMMARY - DEVELOPMENT INFRASTRUCTURE LEVY (EXCLUDING EXTERNAL APPORTIONMENT)		
PROJECTS	TOTAL COST OF PROJECTS	DEVELOPMENT TYPES CONTRIBUTING
Transport	\$246,817,471	Residential & Employment
Recreation	\$109,156,305	Residential
Community	\$43,737,693	Residential
Finance adjustment	\$7,720,266	Residential & Employment
TOTAL	\$407,431,735	

SUMMARY - BREAKDOWN OF DEVELOPMENT INFRASTRUCTURE LEVY		
PROJECT TYPE	BASE RESIDENTIAL (CHARGE AREA 1) (P/NDHA)	EMPLOYMENT (CHARGE AREA 2) (P/NDHA)
Land	\$43,476	\$14,937
Construction	\$185,221	\$120,116
Finance adjustment	\$5,288	\$5,288
TOTAL	\$233,986	\$140,341

SUMMARY - BREAKDOWN OF COMMUNITY INFRASTRUCTURE LEVY		
LEVY	ESTIMATED DWELLINGS	ESTIMATED TOTAL CONTRIBUTION
Capped at \$1,150 per dwelling	26,827	\$30,851,050

SUMMARY - TOTAL LEVIES TO BE COLLECTED			
LEVY	RESIDENTIAL	EMPLOYMENT	TOTAL
Development Infrastructure Levy	\$394,613,340	\$12,818,395	\$407,431,735
Community Infrastructure Levy	\$30,851,050	\$0	\$24,144,117
TOTAL	\$425,464,390	\$12,818,395	\$438,282,785

Amended
by GC75

This page has been intentionally left blank.

2.0 INTRODUCTION

The Wyndham West Development Contributions Plan (the 'DCP') has been prepared by the Metropolitan Planning Authority (MPA) with the assistance of Wyndham City, service authorities and major stakeholders.

The Wyndham West DCP:

- Outlines projects required to ensure that future residents, visitors and workers in the area can be provided with timely access to local infrastructure and services necessary to support a quality and affordable lifestyle.
- Establishes a framework for development proponents to make a financial contribution towards the cost of the identified infrastructure projects. It ensures that the cost of providing new infrastructure and services is shared equitably between various development proponents and the wider community.
- Provides the details of the calculation of financial contributions that must be made by future developments towards the nominated projects. In this way, it provides developers, investors and local communities with certainty about development contributions requirements and how these will be administered.

2.1 Report Structure

This document comprises five parts:

PART 1 - Strategic Basis

Section 2.0 clearly explains the strategic basis for the Development Contributions Plan, which includes information about the various Wyndham West Precinct Structure Plans. Section 3.0 provides justification for the various infrastructure projects included in the Development Contributions Plan.



PART 2 - Calculation of Contributions

Section 4.0 sets out how the development contributions are calculated and costs apportioned.



PART 3 - Development Contributions Plan Administration

Section 5.0 focuses on administration of the Development Contributions Plan.



PART 4 - Implementation

Section 6.0 focuses on implementation of the Development Contributions Plan and identifies infrastructure delivery priorities.



PART 5 - Other Information

Section 7.0 and Section 8.0 provide other supporting information .

NOTE: Any reference to the Metropolitan Planning Authority (MPA) in this document is a reference to the Growth Areas Authority (GAA).

2.2 Strategic Basis

The strategic basis for the DCP is established by the State and Local Planning Policy Framework of the Wyndham Planning Scheme. Key documents are the:

- Growth Corridor Plans
- Municipal Strategic Statement
- Werribee West Concept Plan (1996)
- Wyndham Infrastructure Financing Policy and Framework for Infrastructure Financing
- Ballan Road Precinct Structure Plan
- Black Forest Road North Precinct Structure Plan
- Black Forest Road South Precinct Structure Plan
- Alfred Road Precinct Structure Plan
- Westbrook Precinct Structure Plan
- Bayview Precinct Structure Plan (under preparation)
- Mambourin East Precinct Structure Plan (under preparation)
- Quandong Precinct Structure Plan (under preparation) and
- Precinct Structure Plan supporting documents.
- Relevant Section 173 agreements under the *Planning and Environment Act 1987*

These documents set out a broad, long term vision for the sustainable development of the Wyndham West DCP area and its surrounds.

The Growth Corridor Plans illustrate the planned extent of residential, employment and other development as well as the location of larger activity centres for each growth area. They also include key elements of infrastructure and services such as the regional open space network, metropolitan public transport networks, freeways and arterial roads.

2.3 Planning and Environment Act 1987

This DCP has been prepared in accordance with Part 3B of the *Planning and Environment Act 1987* (the Act) as well as other relevant legislation and has been developed in line with the State and Local Planning Policy Framework of the Wyndham Planning Scheme. This DCP is consistent with the Minister for Planning's Direction on Development Contributions made under section 46M(1) of the Act and has had regard to the Victorian Government's Development Contributions Guidelines (the 'DCP Guidelines').

The DCP provides for the charging of a Development Infrastructure Levy pursuant to section 46J(a) of the Act towards works, services and facilities. It also provides for the charging of a Community Infrastructure Levy pursuant to section 46J(b) of the Act as some items are classified as community infrastructure by reference to the Act, the Minister's Direction on Development Contributions and the DCP guidelines.

This DCP forms part of the Wyndham Planning Scheme pursuant to section 46I of the Act and is an incorporated document under Clause 81 of the Wyndham Planning Scheme.

The DCP is implemented in the Wyndham Planning Scheme through Schedule 11 to the Development Contributions Plan Overlay which applies to the area shown in Plan 1.

Strategic Planning for Wyndham West

The Wyndham West area includes approximately 2,700 hectares of land within the Urban Growth Boundary. Approximately 2,235ha of land is zoned Urban Growth Zone, while around 465ha is currently zoned Rural Conservation Zone but was identified for future development as part of the 2011 / 2012 Growth Corridor Plan process.

The proximity of the PSPs to each other and their location adjacent to existing development has allowed the strategic planning of Wyndham West to proceed on an integrated basis, with each PSP considering not only its individual needs, but also how it will integrate and relate to its neighbours. The transport, community and recreation needs of the future community have all been considered in terms of the whole of the Wyndham West area.

The need for the infrastructure included within this DCP has been determined according to the anticipated development scenario for Wyndham West. The DCP has been prepared in conjunction with the Precinct Structure Plans through a sub-corridor wide planning process. This process provided the rationale and justification for infrastructure items that have been

included. Accordingly, the DCP is an implementation based planning tool which identifies the infrastructure items required by the new community and apportions the cost of this infrastructure in an equitable manner across the plan area.

PSPs not completed at time of DCP publication

Where a Precinct Structure Plan was not available at the time of publication, the DCP makes reasonable assumptions for required infrastructure based on typical dwelling yields and population ratios as well as:

- Sub-corridor structure planning undertaken by the MPA for the Wyndham West area including:
 - A detailed NDA for each PSP based on a survey of encumbrances and a broad allocation of community facilities.
 - All road, intersection, bridge and culvert projects required to service the new community.
 - The provision ratio for sporting reserves, schools and community centres.
- Available draft structure plans in development.

While the DCP has determined the number and size of facilities required within each uncompleted precinct, the PSPs will determine the detailed configurations and locations of these elements. This detailed refinement in PSPs will not change the project list, nor the overall DCP rate.

2.4 Wyndham West Precinct Structure Plans

The various Wyndham West PSPs set out the vision for how land should be developed, illustrates the future urban structure and describes the objectives to be achieved by the future development. The PSPs also outline projects required to ensure that future residents, visitors and workers within the area are provided with timely access to services and transport infrastructure necessary to support a quality affordable lifestyle.

The PSPs enable urban development and the future urban structure of the new communities are depicted through a number of networks, including transport, open space and active recreation, social infrastructure, town centres, housing and places for local employment.

2.4.1 Ballan Road (PSP 40)

The Ballan Road PSP is expected to ultimately accommodate approximately 15,900 people and 5,680 dwellings. At the time of writing, this PSP is awaiting finalisation, following a Planning Panel process.

2.4.2 Black Forest Road North (PSP 42.1)

The Black Forest Road North PSP will ultimately accommodate approximately 16,500 people and 5,900 dwellings. At the time of writing, this PSP is still under development and is expected to be reviewed by Government Agencies and Council in 2014.

2.4.3 Black Forest Road South (PSP 42.2)

The Black Forest Road South PSP will ultimately accommodate approximately 14,900 people and 5,320 dwellings. The PSP was approved in August 2013.

2.4.4 Alfred Road (PSP 43)

The Alfred Road PSP will ultimately accommodate approximately 3,400 people and 1,200 dwellings. The PSP was approved in August 2013.

2.4.5 Westbrook (PSP 92)

The Westbrook PSP will ultimately accommodate approximately 16,200 people and 5,790 dwellings. At the time of writing, this PSP is awaiting finalisation, following a Planning Panel process.

2.4.6 Quandong (PSP 92.1)

The Quandong PSP will ultimately accommodate approximately 2,980 people and 1,065 dwellings. At the time of writing, the Quandong PSP has not yet commenced.

2.4.7 Bayview (PSP 93.1)

The Bayview PSP will ultimately accommodate around 7,300 people and 2,600 dwellings. At the time of writing, the Bayview PSP has not yet commenced.

2.5 The Area to Which the Development Contributions Plan Applies

In accordance with section 46K(1)(a) of the *Planning and Environment Act 1987* the Wyndham West DCP applies to land shown in Plan 1. The area is also shown as DCP011 on the Wyndham Planning Scheme maps.

The Wyndham West DCP applies to approximately 2,700 hectares of land (1,720 hectares of developable land) which is divided into six charge areas as shown in Plan 2.

Table 2 Charge Areas

CHARGE AREA	NET DEVELOPABLE AREA
Charge Area 1 (residential)	960
Charge Area 2 (employment)	91
Charge Area 3 (residential)	225
Charge Area 4 (residential)	106
Charge Area 5 (residential)	78
Charge Area 6 (residential)	264
TOTAL	1,724

The DCP clearly demonstrates the infrastructure required to service the broader development sub-corridor. In selecting items, consideration has been given to ensure they are not already wholly funded through another contribution mechanism, such as a mandatory infrastructure construction requirement of the PSPs, an existing local development contributions plan, an agreement under Section 173 of the Act or as a condition on an existing planning permit. Identified overlap in funding has been addressed through the apportionment of items or other suitable means provided for in the *Planning and Environment Act*.

2.6 Related Infrastructure Agreements

2.6.1 Section 173 Agreements & Other Development Contribution Plans

As part of the Werribee West Concept Plan (1996) a number of Section 173 agreements under the *Planning and Environment Act 1987* were entered into regarding a number of projects included in this DCP. In addition a number of projects are apportioned across other DCP areas such as Manor Lakes, Wyndham North and Mambourin East.

The apportionments listed in Table 10 have taken these agreements into consideration. Refer to Appendix 2 for detail of external apportionment.

2.6.2 Melbourne Water Development Services Schemes

Where there is a waterway crossing of an existing road that is covered by a Melbourne Water Development Services Scheme (DSS), the cost of upgrading the culvert crossing in that location is shared with the relevant DSS. The DSS will pay for the cost of the culvert crossing for the width of this existing road reserve, while the DCP will pay for any widening of the culvert resulting from widening of the road reserve. This is expressed in the DCP through the apportionment of the culvert project.

2.7 Project Identification

The project identification system used in the DCP has been designed to assist in understanding and navigating the DCP. Road, intersection, bridge, recreation and community facility projects use the identification system of project category and a sequential project number.

Project identification codes used are:

- RD – Roads
- BR – Bridges & Culverts
- IN – Intersections
- AR – Recreation
- CO – Community Facilities

3.0 INFRASTRUCTURE PROJECT JUSTIFICATION

The need for infrastructure included in this DCP has been determined according to the anticipated development of the Wyndham West sub-corridor.

Items can be included in a development contributions plan if they will be used by the future community of an area. New development does not have to trigger the need for new items in its own right. The development is charged in line with its projected share of use. An item can be included in a development contributions plan regardless of whether it is within or outside the DCP area.

Before inclusion in this DCP, all items set out in the DCP have been assessed to ensure they have a relationship or nexus to proposed development in the DCP area. The cost apportionment methodology adopted in this DCP relies on the nexus principle. A new development is deemed to have a nexus with an item if it is expected to make use of that item.

A summary of how each item is related to proposed development within the DCP area is set out below and individual item apportionments are identified in Table 10.

The items that have been included in the DCP all have the following characteristics, namely they:

- Are essential to the health, safety and well being of the community.
- Will be used by a broad cross-section of the community.
- Reflect the vision and objectives expressed in the Wyndham West PSPs.
- Are not recurrent items.
- Are the basis for the future development of an integrated network.

In selecting items for inclusion in the DCP, consideration has been given to ensure they are not already funded (in whole or part) through another contribution mechanism, such as a mandatory infrastructure construction requirement of the PSP, an existing local development contributions plan, an agreement under Section 173 of the Act or as a condition on an existing planning permit

Where a funding overlap has been identified or an item services a catchment much larger than the DCP area, the costs of the infrastructure have been appropriately apportioned (as detailed in Appendix 2)

3.1 Items Not Included in the Development Contributions Plan

Developer Works Items

The following items are not included in the DCP, as they are considered to be normal to the construction of a development and are not considered to warrant cost sharing arrangements beyond those set out in this DCP. These must be provided by developers as a matter of course and in implementing the PSPs unless they are items specified in this DCP:

- Internal streets and connector streets, creek and drainage line crossings and associated traffic management measures.
- Waterway management works and drainage systems (other than those covered by a Melbourne Water Development Services Scheme).
- Intersections connecting the development to the existing road network.
- Water, sewerage, underground power, gas and telecommunications services.
- Local pathways and connections to the regional and / or district pathway networks.
- Shared path networks, including required crossings of waterways.
- Basic levelling, water tapping and landscaping of local passive open space.
- Passive public open space reserve master plans and any agreed associated works required by the PSPs.
- Provision of biodiversity assets.
- Bus stops.

The items listed above may be further addressed and defined by an agreement under s173 of the Act and / or conditions in planning permits.

This page has been intentionally left blank.

State Items

The following items have not been included within the DCP as they are determined to be State Infrastructure items:

- Duplication of Ison Road from two to four lanes, and ultimate four to six lanes.
- Construction of northernmost Ison Road intersection in PSP 92 Westbrook.
- Duplication of Ballan Road from two to four lanes, and ultimate four to six lanes.
- Duplication of Greens Road from two to four lanes.
- Construction of the Ison Road bridge crossing of the Werribee River.
- Construction of the Ison Road bridge crossing of the Regional Rail Link.
- Construction of the Ison Road bridge crossing of the Melbourne-Geelong railway.
- Construction and duplication of the Ballan Road bridge crossing of the Regional Rail Link.
- Construction and duplication of the Greens Road bridge crossing of the Regional Rail Link.
- Construction of the Black Forest Road bridge crossing of the Regional Rail Link.
- Construction of the Ballan Road bridge crossing of the Regional Rail Link.

The delivery of the State Infrastructure items will be provided as warranted and as funds become available, which may include Growth Area Infrastructure Contribution Work in Kind projects.

Other

The following items have not been included within this DCP but have other identified funding sources:

- Construction of Greens Road between Armstrong Road and Ison Road (s173 agreement)
- Construction of Greens Road between Ison Road and Manor Lakes Boulevard (Manor Lakes DCP)
- Construction of Armstrong Road between Greens Road and Ballan Road (s173 agreements)
- Construction of Ison Road intersection with Browns Road (future Mambourin East DCP).

3.2 Infrastructure Projects

The following three types of projects are included in the DCP (refer to Plans 3-6):

- Transport
- Recreation
- Community.

3.2.1 Transport Projects

The transport related projects in the DCP are based on the transport network depicted in Plans 3, 4 and 5, which is supported by the West Growth Area Corridor Plan and the various Wyndham West Precinct Structure Plans. The transport projects include a combination of:

- Road construction (including land and waterway crossing requirements)
- Construction of major controlled intersections and associated works.

The road projects listed on the following pages and shown in Plan 3 are funded by the DCP:

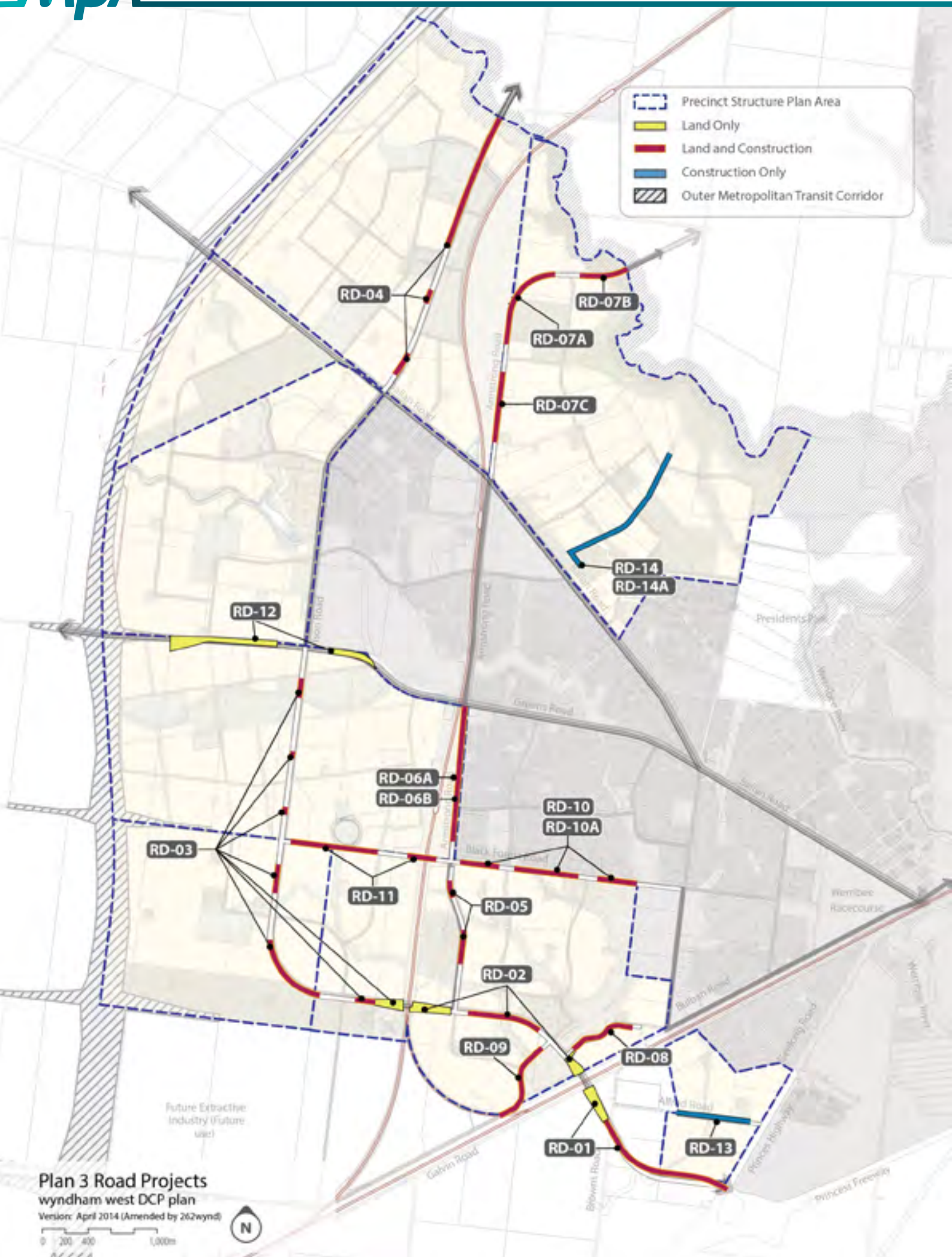
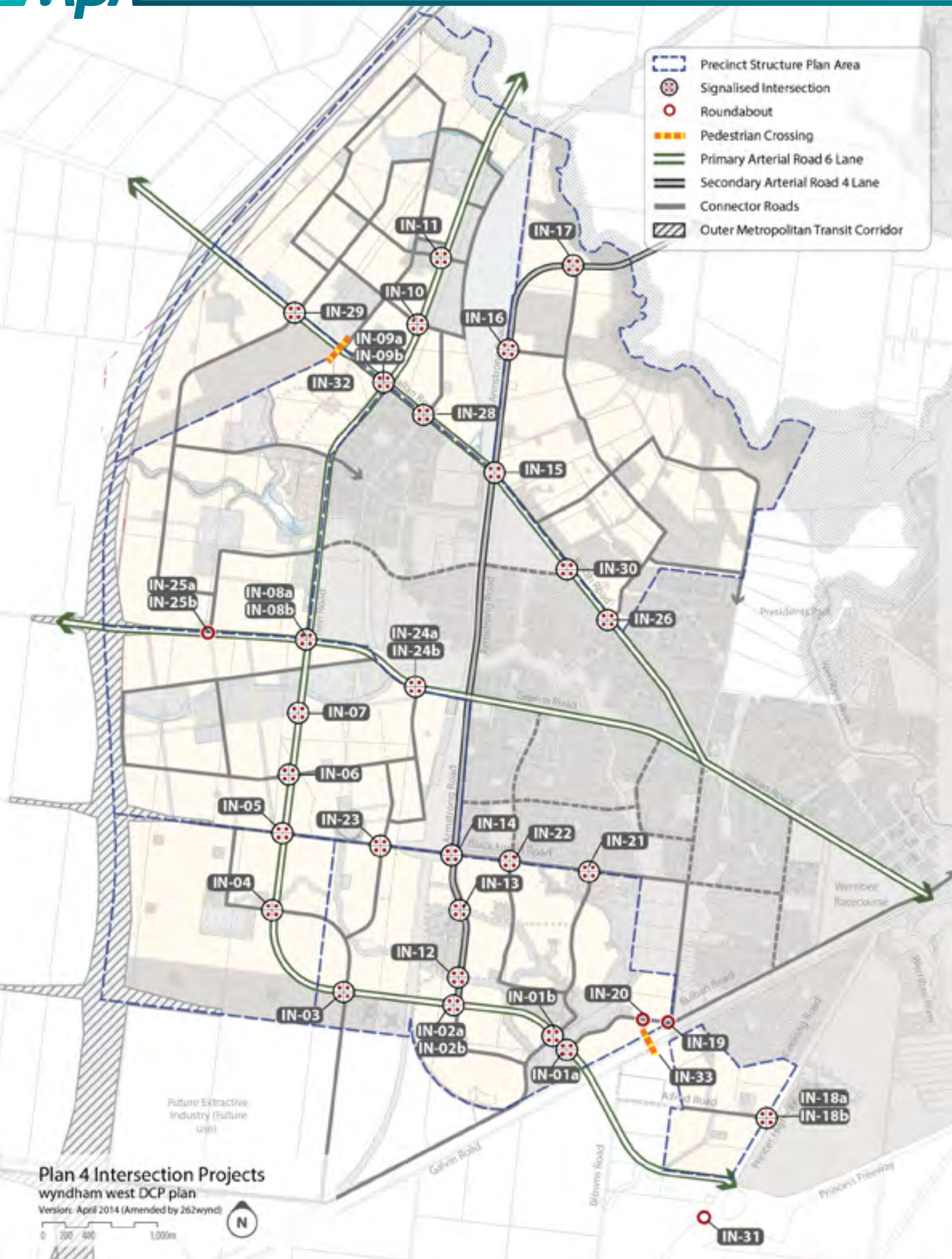


Table 3 Road Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
RD-01	Ison Road - Princes Highway to Melbourne-Geelong Rail Line	Purchase of land to create road reserve 41m wide (9.5873ha ultimate treatment) and construction of 2 lane carriageway for 1567m, excluding intersections (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-02	Ison Road - Melbourne-Geelong Rail Line to Regional Rail Link	Purchase of land to create road reserve 41m wide (6.7945ha ultimate treatment) and construction of 2 lane carriageway for 1098m, excluding intersections (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-03	Ison Road - Regional Rail Link to Greens Road	Purchase of land to create road reserve 41m wide (8.2904ha ultimate treatment) and construction of 2 lane carriageway for 1604m, excluding intersections (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-04	Ison Road - Ballan Road to the Werribee River	Purchase of land to create road reserve 41m wide (6.1199ha ultimate treatment) and construction of 2 lane carriageway for 1496m, excluding intersections (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-05	Armstrong Road - Ison Road to Black Forest Road	Purchase of land to create road reserve 34m wide and construction of 2 lane carriageway for 452m, excluding intersections (1.56ha ultimate treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-06A	Armstrong Road - Black Forest Road to Greens Road	Purchase of land to create road reserve 40m wide for 1162m (4.5154ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-06B	Armstrong Road - Black Forest Road to Greens Road	Construction of 2 lane carriageway 1162m, excluding intersections (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-07A	Armstrong Road - along existing Hobbs Road	Purchase of land to create road reserve 34m wide and construction of 2 lane carriageway for 1095m, excluding intersections (1.5151ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-07B	Armstrong Road - Hobbs Road to Werribee River	Purchase of land to create road reserve 34m wide and construction of 2 lane carriageway for 875m, excluding intersections (2.7879ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-07C	Offset cost estimate associated with removal of native vegetation.	Offset cost estimate associated with removal of native vegetation.	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-08	Bulban Road - Bend to Ison Road	Purchase of land to create road reserve 23.6m wide and construction of 2 lane carriageway for 597m, excluding intersections (1.4659ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-09	Bulban Road - Ison Road to Existing Alignment	Purchase of land to create road reserve 23.6m wide and construction of 2 lane carriageway for 586m, excluding intersections (1.4394ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-10	Black Forest Road - Lollypop Creek to Armstrong Road	Purchase of land to upgrade road reserve from 20m to 25m (0.6318ha ultimate treatment) and upgrade of existing carriageway for 1264m, excluding intersections (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-10a	Offset cost estimate associated with removal of native vegetation.	Offset cost estimate associated with removal of native vegetation.	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-11	Black Forest Road - Armstrong Road to Ison Road	Purchase of land to upgrade road reserve from 20m to 25m (0.2027ha ultimate treatment) and upgrade of existing carriageway for 1024m, excluding intersections (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-12	Greens Road - Bend to OMRTC PAO	Purchase of land to upgrade road reserve from 20m to 34m for 766m (1.5815ha ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
RD-13	Alfred Road	Upgrade of existing carriageway for 651m, excluding intersections (ultimate treatment).	Residential & Employment	Area 5	77.64	Refer to Section 6.1
RD-14	Wollahra Rise Realignment & Upgrade	Construction and upgrade of 2 lane carriageway for 1440m, excluding intersections (ultimate treatment).	Residential & Employment	Area 4	106.44	Refer to Section 6.1
RD-14a	Offset cost estimate associated with removal of native vegetation.	Offset cost estimate associated with removal of native vegetation.	Residential & Employment	Area 4	106.44	Refer to Section 6.1



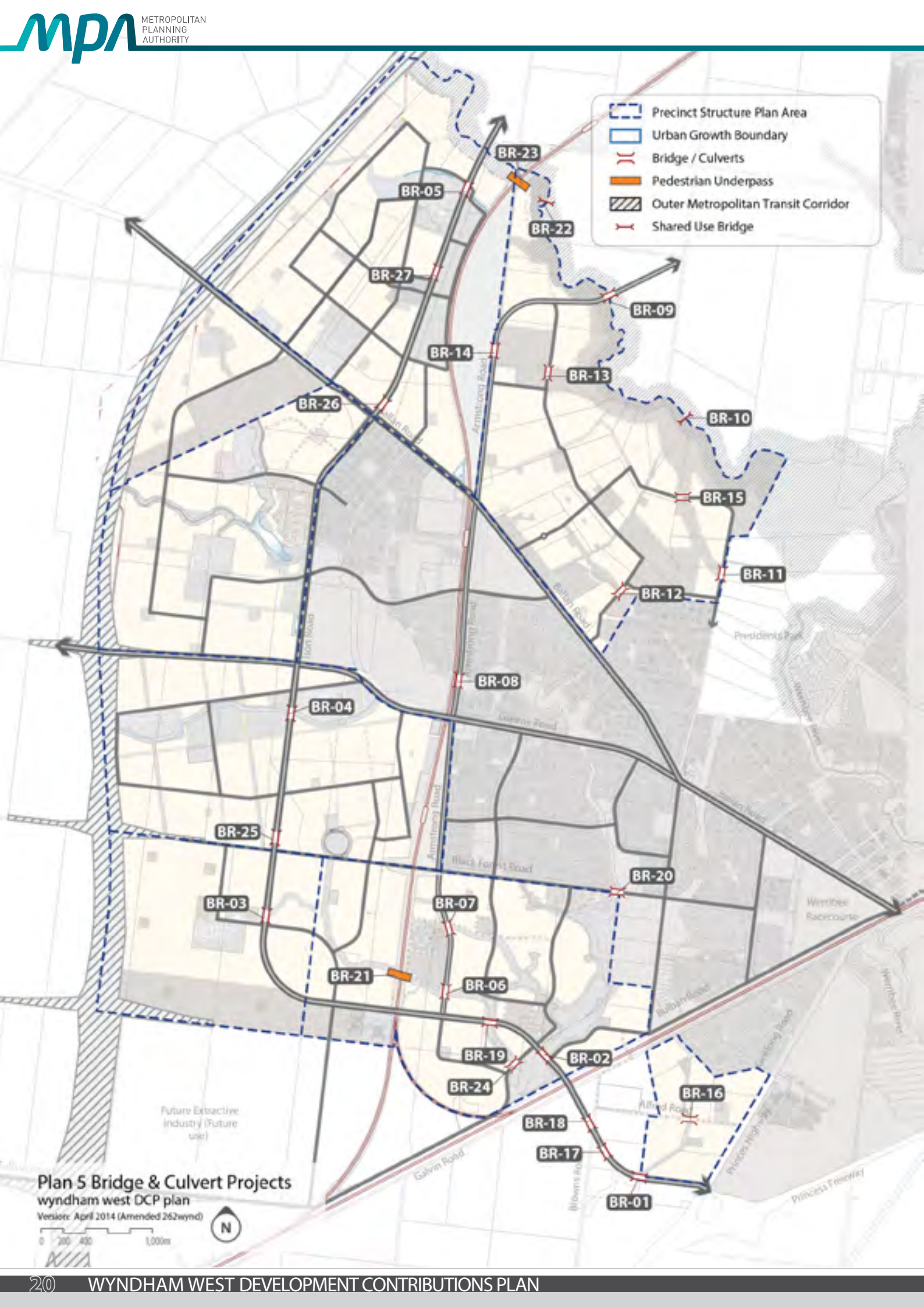
The intersections projects shown in Plan 4 and listed in the following table are funded by the DCP:

Table 4 Intersection Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-01A	Ison Road / New Bulban Road	Purchase of land for intersection totalling 1.1571ha (ultimate treatment) and construction of arterial to arterial signalised T intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-01B	Ison Road / North-South Connector 1 (within PSP 42.2)	Purchase of land for intersection totalling 1.3472ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-02A	Ison Road / Armstrong Road	Purchase of land for intersection totalling 1.3166ha (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-02B	Ison Road / Armstrong Road	Interim safety treatment, prior to construction of signalised intersection	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-03	Ison Road / North-South Connector 2 (within PSP 42.2)	Purchase of land for intersection totalling 2.7679ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-04	Ison Road / East-West Connector (within PSP 93.1)	Purchase of land for intersection totalling 2.3031ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-05	Ison Road / Black Forest Road	Purchase of land for intersection totalling 2.0009ha (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-06	Ison Road / East-West Connector 1 (within PSP 42.1)	Purchase of land for intersection totalling 2.3472ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-07	Ison Road / East-West Connector 2 (within PSP 42.1)	Purchase of land for intersection totalling 2.5224ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-08A	Ison Road / Greens Road	Purchase of land for intersection totalling 1.9739ha (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-08B	Ison Road / Greens Road	Construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-09A	Ison Road / Ballan Road	Purchase of land for intersection totalling 1.0173ha (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-09B	Ison Road / Ballan Road	Construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-10	Ison Road / East-West Connector 5 (within PSP 92)	Purchase of land for intersection totalling 2.4888ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-11	Ison Road / East-West Connector 6 (within PSP 92)	Purchase of land for intersection totalling 2.2119ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-12	Armstrong Road / East-West Connector (within PSP 42.2)	Purchase of land for intersection totalling 1.3487ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-13	Armstrong Road / East-West Connector (within PSP 42.2)	Purchase of land for intersection totalling 1.5106ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-14	Armstrong Road / Black Forest Road	Purchase of land for intersection totalling 1.0666ha (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-15	Armstrong Road / Ballan Road	Purchase of land for intersection totalling 1.3983ha as illustrated (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-16	Armstrong Road / East-West Connector (within PSP 40)	Purchase of land for intersection totalling 0.5861ha (ultimate treatment) and construction of arterial to connector signalised T intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1

This page has been intentionally left blank.

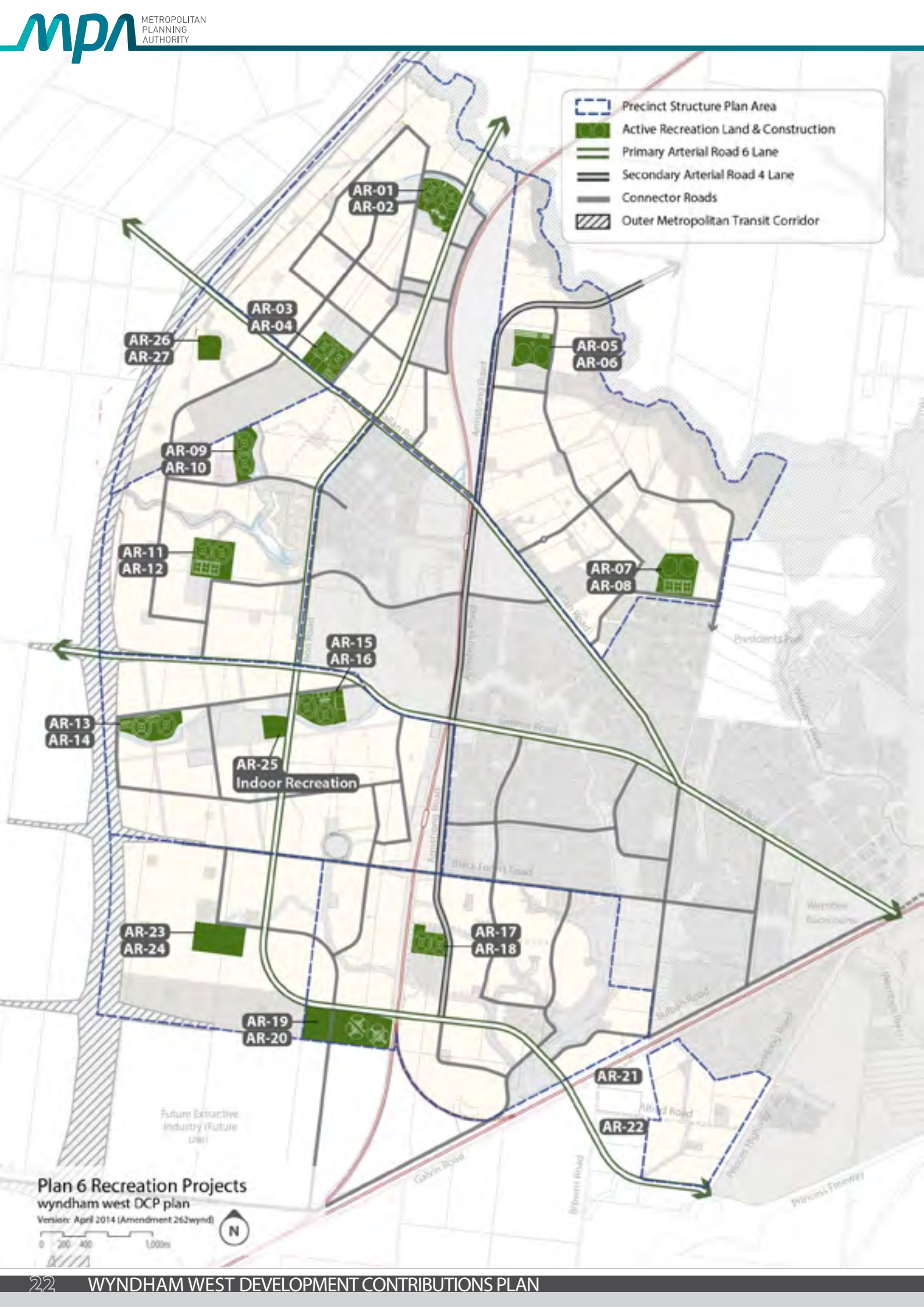
DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-17	Armstrong Road / North-South Connector (within PSP 40)	Purchase of land for intersection totalling 1.0156ha (ultimate treatment) and construction of arterial to connector signalised T intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-18A	Alfred Road / Princes Highway	Purchase of land for intersection totalling 0.0491ha (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-18B	Alfred Road / Princes Highway	Construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-19	Bulban Road / McGrath Road	Purchase of land for intersection totalling 0.4111ha (ultimate treatment) and construction of arterial to connector 3 way roundabout intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-20	Bulban Road / Galvin Road Extension	Purchase of land for intersection totalling 0.7647ha (ultimate treatment) and construction of arterial to connector 3 way roundabout intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-21	Black Forest Road / Harpley Boulevard (within PSP 42.2)	Purchase of land for intersection totalling 0.2627ha (ultimate treatment) and construction of arterial to connector 4-way signalised intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-22	Black Forest Road / Haines Drive (within PSP 42.2)	Purchase of land for intersection totalling 0.2103ha (ultimate treatment) and construction of arterial to connector 4-way signalised intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-23	Black Forest Road / North-South Connector (within PSP 42.1)	Purchase of land for intersection totalling 0.8826ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-24A	Greens Road / North-South Connector (within PSP 42.1)	Purchase of land for intersection totalling 0.1303ha (ultimate treatment) .	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-24B	Greens Road / North-South Connector (within PSP 42.1)	Construction of arterial to connector signalised T intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-25A	Greens Road / Manor Lakes Boulevard (within PSP 42.1)	Purchase of land for intersection totalling 0.3215ha (ultimate treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-25B	Greens Road / Manor Lakes Boulevard (between PSP 42.1 & 41)	Construction of arterial to connector 4-way roundabout intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-26	Ballan Road / Evergreen Drive (within PSP 40)	Purchase of land for intersection totalling 0.4023ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection(interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-27	Ballan Road / Connector (within PSP 40)	Purchase of land for intersection totalling 0.4023ha (ultimate treatment) and construction of north east connector leg of an arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-28	Ballan Road / Kinglake Drive (within PSP 92)	Purchase of land for intersection totalling 0.2206ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-29	Ballan Road / North-South Connector (within PSP 92)	Purchase of land for intersection totalling 0.3251ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-30	Ballan Road / Manor Lakes Boulevard (PSP 40)	Purchase of land for intersection totalling 0.4023ha (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment).	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-31	West's Road / Princes Highway	Construction of arterial to connector 4-way roundabout intersection (interim treatment)	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-32	Ballan Road Pedestrian Crossing	Construction of a pedestrian crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
IN-33	Galvin Road Crossing Pedestrian Upgrade	Addition of pedestrian crossing to existing at-grade rail crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1



The following bridge and culvert projects shown in Plan 5 are funded by the DCP:

Table 5 Bridge & Culvert Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
BR-01	Ison Road Culvert (adjacent PSP 43)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-02	Ison Road Lollypop Creek Bridge (within PSP 42.2)	Construction of 85m bridge	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-03	Ison Road Culvert (within PSP 93)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-04	Ison Road Culvert (within PSP 42.1)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-05	Ison Road Culvert (within PSP 92)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-06	Armstrong Road Culvert (within PSP 42.2 Southern)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-07	Armstrong Road Culvert (within PSP 42.2 Northern)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-08	Armstrong Road Lollypop Creek Bridge	Construction of 110m bridge	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-09	Armstrong Road Werribee River Bridge	Construction of 79m bridge	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-10	Werribee River Pedestrian Bridge	Construction of a shared use bridge	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-11	McGrath Road Culvert	Construction of a culvert crossing	Residential & Employment	Areas 3 & 4	331.29	Refer to Section 6.1
BR-12	Connector Culvert (within PSP 40)	Construction of a culvert crossing	Residential & Employment	Areas 3 & 4	331.29	Refer to Section 6.1
BR-13	Connector Culvert (within PSP 40)	Construction of a culvert crossing	Residential & Employment	Areas 3 & 4	331.29	Refer to Section 6.1
BR-14	Armstrong Road Culvert (within PSP 40)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-15	Connector Culvert (within PSP 40)	Construction of a culvert crossing	Residential & Employment	Areas 3 & 4	331.29	Refer to Section 6.1
BR-16	Alfred Road Culvert (within PSP 43)	Construction of a culvert crossing	Residential & Employment	Area 5	77.64	Refer to Section 6.1
BR-17	Ison Road Culvert (within Logical Inclusion Area)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-18	Ison Road Culvert (within Logical Inclusion Area)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-19	Ison Road Culvert (within PSP 42.2)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-20	Black Forest Road Culvert (within PSP 42.2)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-21	RRL pedestrian underpass (within PSP 42.2)	Construction of pedestrian / cycle underpass	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-22	Werribee River Pedestrian Bridge (near RRL)	Construction of a shared use bridge	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-23	Werribee River Shared Trail (under RRL)	Construction of shared path under RRL	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-24	Bulban Road Culvert (within PSP 42.2)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-25	Ison Road Culvert (within PSP 42.1)	Construction of two culvert crossings	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-26	Ison Road Culvert (within PSP 92)	Construction of two culvert crossings	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1
BR-27	Ison Road Culvert (within PSP 92)	Construction of a culvert crossing	Residential & Employment	Areas 1, 2, 3, 4, 5 & 6	1,724.05	Refer to Section 6.1



3.2.2 Recreation Facility Projects

The recreation projects include:

- Provision of land for sports reserves.
- Construction of sports facilities in each reserve.
- Construction of pavilions for future sports fields.
- Provision of land for regional indoor sport.

The recreation projects are based on the open space plan contained in the relevant Wyndham West PSP. Research undertaken by the Metropolitan Planning Authority, ASR Research and assessment by Wyndham City determined the requirement for the recreation facilities. The recreation facilities defined in these projects are the best estimate of the future requirements and specifications of the future Wyndham West community.

For each recreation project, a scope is defined in Table 6, while a detailed cost sheet and indicative concept plan is provided in Appendix 4. The detailed design and scope of each of the recreation projects may be reviewed by the Development Agency closer to the time of detailed design and / or constructed.

In reviewing the scope of the projects, the Development Agency will have regard to matters such as changing provision standards and models, the immediate needs of the community, current regulations and best practice and may seek to adjust and refine the scope of the projects to respond to these matters.

The Development Agency may also adjust and refine the scope of the projects to reflect the capacity of any non-DCP funds that can be made available (for example from rates, grants or other funding streams).

In adjusting and refining any final project scope, the Development Agency must ensure that the funds levied from developers / land owners do not exceed the value nominated in this DCP (inclusive of any indexing provisions as allowed for by the DCP).

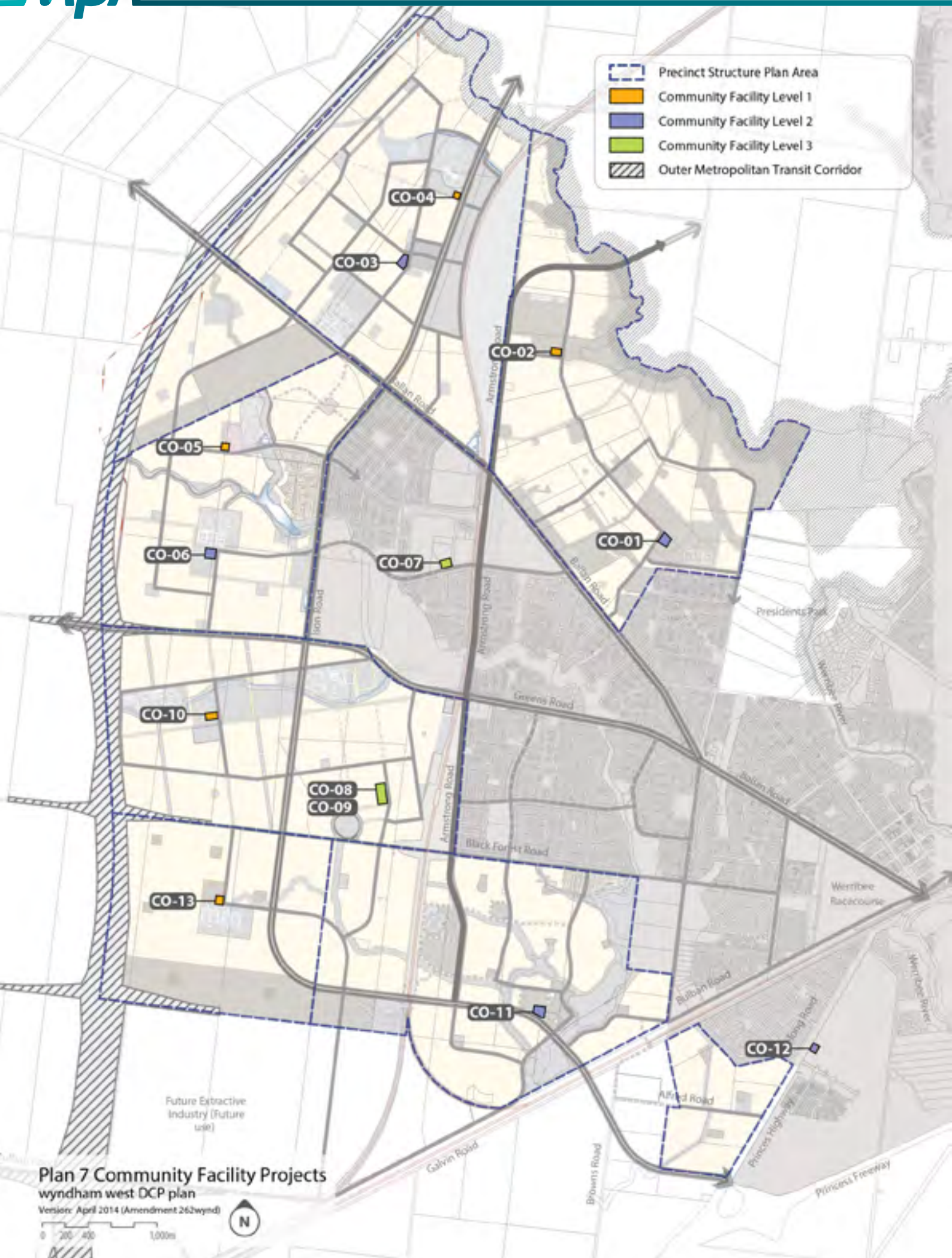
The following recreation projects shown on Plan 6 are funded by this DCP:

Table 6 Recreation Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
AR-01	Westbrook Active Recreation Reserve 1	Purchase of land (12.29ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-02	Westbrook Active Recreation Reserve 1	Construction of x4 senior baseball fields, x1 AFL / cricket pavilion and x1 baseball pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-03	Westbrook Active Recreation Reserve 2	Purchase of land (11.36ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x3 senior soccer pitches, x12 tennis courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-04	Westbrook Active Recreation Reserve 2	Construction of x1 AFL / cricket pavilion, x1 soccer pavilion and x1 tennis pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-05	Ballan Road Active Recreation Reserve 3	Purchase of land (10.57ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x4 netball courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-06	Ballan Road Active Recreation Reserve 3	Construction of x4 lawn bowls greens, x1 AFL / cricket pavilion, x1 lawn bowls pavilion and x1 netball pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-07	Ballan Road Active Recreation Reserve 4	Purchase of land (12.6282ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x3 senior soccer pitches and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
AR-08	Ballan Road Active Recreation Reserve 4	Construction of x1 AFL / cricket pavilion and x1 soccer pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-09	Manor Lakes Active Recreation Reserve 5	Construction of x2 senior AFL / cricket ovals and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-10	Manor Lakes Active Recreation Reserve 5	Construction of x1 AFL / cricket pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-11	Manor Lakes Active Recreation Reserve 6	Construction of x2 senior AFL / cricket ovals, x3 senior soccer pitches, x6 tennis courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-12	Manor Lakes Active Recreation Reserve 6	Construction of x1 AFL / cricket pavilion, x1 soccer pavilion and x1 tennis pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-13	Black Forest Road North Active Recreation Reserve 7	Purchase of land (11.45ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-14	Black Forest Road North Active Recreation Reserve 7	Construction of x1 AFL / cricket pavilion, x4 lawn bowls greens, x1 lawn bowls pavilion, x2 rugby union fields and x1 rugby pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-15	Black Forest Road North Active Recreation Reserve 8	Purchase of land (12.25ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x4 netball courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-16	Black Forest Road North Active Recreation Reserve 8	Construction of x1 AFL / cricket pavilion and x1 netball pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-17	Black Forest Road South Active Recreation Reserve 9	Purchase of land (7.5915ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-18	Black Forest Road South Active Recreation Reserve 9	Construction of x1 AFL / cricket pavilion	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-19	Black Forest Road South Active Recreation Reserve 10	Purchase of land (15.5526ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x3 senior soccer pitches, x12 tennis courts, x4 netball courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-20	Black Forest Road South Active Recreation Reserve 10	Construction of x8 senior softball fields, x1 softball pavilion, x1 AFL / cricket pavilion, x1 soccer pavilion, x1 tennis pavilion, x1 netball pavilion and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-21	Alfred Road Active Recreation Reserve 11	Purchase of land (5.4383ha) for active recreation reserve and construction of x2 senior AFL / cricket ovals, x4 netball courts and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-22	Alfred Road Active Recreation Reserve 11	Construction of x1 AFL / cricket pavilion and x1 netball pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-23	Bayview Active Recreation Reserve 12	Purchase of land (12.25ha) and construction of active sports fields and associated works.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-24	Bayview Active Recreation Reserve 12	Construction of sports pavilions.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
AR-25	Indoor Recreation	Purchase of land (6.2478ha) for indoor active recreation.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-26	Quandong Active Recreation Reserve 13	Purchase of land (4.51ha) for active recreation reserve and construction of sporting surfaces.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
AR-27	Quandong Active Recreation Reserve 13	Construction of sports pavilion.	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1



Plan 7 Community Facility Projects

wyndham west DCP plan

Version: April 2014 (Amendment 262wynd)

3.2.3 Community Facility Projects

The community facility projects include:

- Land and construction of Level 1 community centres incorporating a double kindergarten throughout the PSPs.
- Land and construction of Level 2 community centres incorporating a double kindergarten and maternal and child health centre throughout the PSPs.
- Land and construction of a Level 3 community centres incorporating a double kindergarten, maternal and child health centre, library and performing arts centre in the Black Forest Road North Precinct.

The community projects are based on the Community Facilities Plans contained in the relevant Wyndham West PSP. Research undertaken by the Metropolitan Planning Authority, ASR Research and Wyndham City determined the requirement for a range of community facilities. The community facilities defined in these projects are the best estimates of the future requirements and specifications of the future Wyndham West community.

The detailed design and scope of each of the identified community projects may be reviewed by the Development Agency closer to the time of detailed design and / or construction.

In reviewing the scope of the facilities, the Development Agency will have regard to matters such as changing provision standards and models, the immediate needs of the community, current regulations and best practice and may adjust and refine the scope of the facilities to respond to these matters.

The Development Agency may also adjust and refine the scope of the facilities to reflect the capacity of any non-DCP funds that can be made available (for example from a grant or some other funding stream).

In adjusting and refining any final project scope, the Development Agency must ensure that the funds levied from developers / land owners does not exceed the value nominated in this DCP (inclusive of any indexing provisions as allowed for by the DCP).

The following community projects shown in Plan 6 are funded by the DCP:

Table 7 Community Facility Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
CO-01	Ballan Road Level 2 Multi Purpose Community Centre	Purchase of land (0.80ha) for community centre and construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-02	Ballan Road Level 1 Children's Centre	Purchase of land (0.60ha) for community centre and construction of two kindergarten rooms attached to a government primary school	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-03	Westbrook Level 2 Multi Purpose Community Centre	Purchase of land (0.80ha) for community centre and construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-04	Westbrook Level 1 Children's Centre	Purchase of land (0.60ha) for community centre and construction of two kindergarten rooms attached to a government primary school	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION	DEVELOPMENT TYPES CONTRIBUTING	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
CO-05	Manor Lakes Level 1 Children's Centre	Construction of two kindergarten rooms attached to a government primary school	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-06	Manor Lakes Level 2 Multi Purpose Community Centre	Construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-07	Manor Lakes Level 3 Library	Construction of library	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-08	Black Forest Road North Level 3 Multi Purpose Community Centre	Purchase of land (1.50ha) for community centre and construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-09	Black Forest Road North Level 3 Library & Performing Arts Centre	Construction of library & performing arts centre	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-10	Black Forest Road North Level 1 Children's Centre	Purchase of land (0.60ha) for community centre and construction of two kindergarten rooms attached to a government primary school	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-11	Black Forest Road South Level 2 Multi Purpose Community Centre	Purchase of land (0.80ha) for community centre and construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-12	Riverwalk Level 2 Multi Purpose Community Centre	Construction of multipurpose community centre, including two kindergarten rooms and two maternal child health care rooms	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1
CO-13	Bayview Level 1 Children's Centre	Purchase of land (0.60ha) for community centre and construction of two kindergarten rooms attached to a government primary school	Residential	Areas 1, 3, 4, 5 & 6	1,632.71	Refer to Section 6.1

3.2.4 Finance Adjustment

This DCP contains a finance adjustment to assist in the early delivery of:

1. Ison Road between the Princes Highway and the Melbourne – Geelong rail line; and
2. Armstrong Road between Black Forest Road and the Werribee River.

The finance adjustment raises funds for the expected interest costs involved in delivering these priority projects in advance of collecting the associated DCP levies. For more detail on how the finance adjustment is calculated refer to Appendix 3.

3.3 Distinction between Development and Community Infrastructure

In accordance with the *Planning and Environment Act 1987* and the Ministerial Direction on Development Contributions, the DCP makes a distinction between ‘development’ and ‘community’ infrastructure.

The timing of payment of contributions is linked to the type of infrastructure in question.

The community infrastructure levy contributions are made by the home builder at the time of building approval (unless an alternative time is agreed between the collecting agency and a development proponent). Community infrastructure levy contributions will be paid for at a ‘per-dwelling’ rate. The *Planning and Environment Act 1987* currently stipulates that the amount that may be contributed under a community infrastructure levy is not more than \$1,500 per dwelling.

Variation to the Community Infrastructure Levy (CIL) payable under this Development Contributions Plan (DCP)

If the maximum amount of the CIL which may be collected under an approved DCP is varied under section 46L of the Planning and Environment Act 1987, the collecting agency may adjust the amount of the CIL payable under this DCP in accordance with section 46L of the Planning and Environment Act 1987.

The collecting agency must publish the adjusted amount of the CIL payable under this DCP on its website.

The projects listed in Table 8 are deemed to be community infrastructure levy projects.

Table 8 Community Infrastructure Levy Projects

DCP PROJECT NUMBER	PROJECT TITLE	PROJECT DESCRIPTION
CO-07	Manor Lakes Level 3 Library	Construction of library
CO-09	Black Forest Road North Level 3 Library & Performing Arts Centre	Construction of library & performing arts centre
AR-02	Westbrook Active Recreation Reserve 1	Construction of x4 senior baseball fields, x1 AFL / cricket pavilion and x1 baseball pavilion.
AR-04	Westbrook Active Recreation Reserve 2	Construction of x1 AFL / cricket pavilion, x1 soccer pavilion and x1 tennis pavilion.
AR-06	Ballan Road Active Recreation Reserve 3	Construction of x4 lawn bowls greens, x1 AFL / cricket pavilion, x1 lawn bowls pavilion and x1 netball pavilion.
AR-08	Ballan Road Active Recreation Reserve 4	Construction of x1 AFL / cricket pavilion and x1 soccer pavilion.
AR-10	Manor Lakes Active Recreation Reserve 5	Construction of x1 AFL / cricket pavilion.
AR-12	Manor Lakes Active Recreation Reserve 6	Construction of x1 AFL / cricket pavilion, x1 soccer pavilion and x1 tennis pavilion.
AR-14	Black Forest Road North Active Recreation Reserve 7	Construction of x1 AFL / cricket pavilion, x4 lawn bowls greens, x1 lawn bowls pavilion, x2 rugby union fields and x1 rugby pavilion.
AR-16	Black Forest Road North Active Recreation Reserve 8	Construction of x1 AFL / cricket pavilion and x1 netball pavilion.
AR-18	Black Forest Road South Active Recreation Reserve 9	Construction of x1 AFL / cricket pavilion
AR-20	Black Forest Road South Active Recreation Reserve 10	Construction of x8 senior softball fields, x1 softball pavilion, x1 AFL / cricket pavilion, x1 soccer pavilion, x1 tennis pavilion, x1 netball pavilion and associated works.
AR-22	Alfred Road Active Recreation Reserve 11	Construction of x1 AFL / cricket pavilion and x1 netball pavilion.
AR-24	Bayview Active Recreation Reserve 12	Construction of sports pavilions.
AR-27	Quandong Active Recreation Reserve 13	Construction of sports pavilion.

All other infrastructure projects are considered to be development infrastructure projects.

This page has been intentionally left blank.

4.0 CALCULATION OF CONTRIBUTIONS

The general cost apportionment method includes the following steps:

- Calculation of the Net Developable Area ('NDA') and demand units (refer Tables 9a and 12).
- Calculation of project costs (refer Tables 10a and 10b).
- Identification and allowance for external use (refer Tables 10a, 10b and 13).
- Cost apportionment and catchments (refer Tables 3 to 7, 10a, 10b, and 13).
- Identification of development types required to pay the levy (refer Tables 3 to 7).
- Summary of costs payable for each infrastructure project (refer Tables 10a and 10b).
- The development infrastructure charge per hectare for each development type and the community infrastructure levy per dwelling (refer Tables 10a and 10b).

4.1 Calculation of Net Developable Area and Demand Units

The following section sets out how NDA is calculated and outlines the development projections anticipated for the area. Calculations of NDA for each individual property are outlined in the property specific land budget located in Appendix 1.

4.1.1 Net Developable Area

In this DCP, all development infrastructure contributions are payable on the net developable area of land on any given development site.

For the purposes of this DCP the NDA is defined as the total amount of land within the precinct that is made available for development of housing and employment buildings, including lots, all connector and local streets. It is the total precinct area minus community facilities, schools and educational facilities and open space, encumbered land and arterial roads. Any additional small local parks defined at the subdivision stage are included in the NDA.

It is important to note that the number of Net Developable Hectares in each charge area is based on the land budgets in Tables 9a and 12.

The 'per Net Developable Hectare' contributions will not and must not be amended to respond to minor changes to land budgets that may result from the subdivision process. In other words, the DCP is permanently linked to the calculation of Net Developable Area set out in the detailed land budget in Table 12.

Table 9a Summary Land Use Budget

DESCRIPTION	WYNDHAM WEST TOTAL		
	HA	% OF TOTAL PSP	% OF NDA
TOTAL PRECINCT AREA (ha)	2,702.50	100.00%	
TRANSPORT			
6 Lane Arterial Road / Widening	54.07	2.00%	3.14%
4 Lane Arterial Road / Widening	17.30	0.64%	1.00%
Road Reserve Not Available for Development	34.22	1.27%	1.98%
Existing Road Reserve(Future OMR)	100.09	3.70%	5.81%
Railway Corridors / Easements	135.88	5.03%	7.88%
SUB-TOTAL	341.56	12.64%	19.81%
COMMUNITY & EDUCATION FACILITIES			
Community Facilities	6.30	0.23%	0.37%
Government Education	49.70	1.84%	2.88%
Non-Government Education	22.99	0.85%	1.33%
SUB-TOTAL	78.99	2.92%	4.58%
OPEN SPACE			
ENCUMBERED LAND AVAILABLE FOR RECREATION			
Power / Gas Easement	6.13	0.23%	0.36%
Waterway / Drainage Line / Wetland / Retarding	230.21	8.52%	13.35%
Waterway / Drainage Line / Wetland / Retarding (within WRTP)	26.55	0.98%	1.54%
Heritage (Aboriginal)	2.32	0.09%	0.13%
Conservation (Tree Protection)	0.09	0.00%	0.01%
Conservation Area (Werribee River Interface)	71.77	2.66%	4.16%
Conservation Area (Werribee River Interface within WRTP)	39.15	1.45%	2.27%
SUB-TOTAL ENCUMBERED LAND FOR RECREATION	376.23	13.92%	21.82%
UNENCUMBERED LAND AVAILABLE FOR RECREATION			
Active Open Space	109.23	4.04%	6.34%
Passive Open Space	51.02	1.89%	2.96%
SUB-TOTAL UNENCUMBERED LAND FOR RECREATION	160.25	5.93%	9.30%
OTHER LAND FOR RECREATION			
Werribee Regional Township Park (WRTP)	7.16	0.27%	0.42%
Other Open Space	8.00	0.30%	0.46%
Land for Indoor Sports	6.26	0.23%	0.36%
SUB-TOTAL OTHER LAND FOR RECREATION	21.42	0.79%	1.24%
SUB-TOTAL	557.91	20.64%	32.36%
NET DEVELOPABLE AREA (NDA) ha	1,724.05	63.79%	
NET DEVELOPABLE AREA - EMPLOYMENT (NDAE)	91.34	3.38%	5.30%
NET DEVELOPABLE AREA - RESIDENTIAL (NDAR)	1,632.71	60.41%	

Table 9b Summary Open Space Contribution Budget

DESCRIPTION	WYNDHAM WEST TOTAL	
	HA	% OF NDAR
RESIDENTIAL UNENCUMBERED OPEN SPACE EXPRESSED AS % OF NDAR		
Active Open Space *	109.23	6.69%
Passive Open Space	49.19	3.01%
	HA	% OF NDAE
EMPLOYMENT UNENCUMBERED OPEN SPACE EXPRESSED AS % OF NDAE		
Passive Open Space	1.83	2.00%

* Note: This figure does not include active open space to be delivered outside the DCP area.

4.1.2 Land Budget and Demand Units

Net developable hectare is the demand unit for all types of development in this DCP.

4.1.3 Property specific calculations

The NDA used to calculate the contributions within the DCP has been based on an assessment of individual property land budgets. The NDA for each property is listed in the property specific land budget located in Appendix 1. The property specific NDA and rates listed in this DCP determine the total contribution for each property.

4.1.4 Public Open Space Contributions

Overall public open space provision within the Wyndham West PSPs is 10% of NDA for residential areas and 2% of NDA for employment areas, in accordance with the Precinct Structure Planning Guidelines.

The 10% comprises 7% active open space (sporting reserves) and a 3% passive open space for neighbourhood parks in residential areas. Employment areas comprise 2% passive open space for local parks only.

This DCP funds only the acquisition of land for active open space (equal to 7% of NDA either within or proximate to the precinct area as per Alfred Road PSP) and construction of the four most common sporting surfaces (AFL / cricket, soccer, tennis and netball) on these reserves.

Works that a landowner must undertake prior to the handover of land to Council (as specified in the relevant Wyndham West PSP) can be considered to be eligible for a partial works in kind credit as per Section 5.3.3 where these works are not considered to be temporary works.

Passive open space is provided separately through Clause 52.01 of the Scheme and no contribution for passive open space is included in this DCP.

4.2 Calculation of Contribution Charges

4.2.1 Calculation of Costs

Each project has been assigned a land and / or construction cost. These costs are listed in Tables 10a and 10b. The costs are expressed in 2014 dollars.

4.2.2 Road Construction and Intersection Works

Meinhardt and SMEC have prepared the estimated costs for the transportation projects. The scope for intersection projects was established by a traffic report by GTA.

Road construction and intersection costs were derived from concept functional designs.

The intersection layout was agreed with the relevant road authority as were the scope of works. The general assumptions used were:

- No land acquisition costs have been allowed for unless stated (these are separately identified in each DCP project costing in Tables 10a and 10b).
- No trunk services have been allowed for.
- Drainage allowance is for 'road reserve or project land' areas i.e. no external catchments. However, major drainage such as culverts or bridges consistent with the Wyndham West PSPs have been included as separate projects.
- A standard excavation depth has been allowed for. Final pavement requirements will be determined at detailed design and construction stage responding to actual ground conditions.
- Where required an allowance has been made for existing services adjustment or relocation (e.g. electricity poles, water fittings, manholes etc).

Additional percentage based costs tailored to each individual project have been included for:

- Traffic management.
- Field survey and detail design fees.
- Construction overheads and supervision.
- Contingency.

The level of contingency for each project reflects the level of design resolution achieved at the time the DCP was prepared. The costs are fully detailed including, for example, street trees, road line marking, footpaths and street lighting.

With respect to road / intersection construction along existing road alignments (e.g. Black Forest Road):

- Most difficulties along the alignment will have been dealt with or built around due to the existing road, therefore upgrading of the pavement will have no effect or only a minor effect on in-ground or underground assets.
- Similar vertical alignments have been allowed for following natural terrain which reduces the possibility of extra earthworks being required.
- Higher levels of traffic management and service relocation have been allowed for.

With respect to road / intersection construction for green field alignments:

- Design generally follows natural terrain
- Existing service alterations have not been included
- Major cost items such as Melbourne Water drainage culverts have been allowed for as separate items

Where possible, arterial road works as funded by this DCP have been designed to minimise any redundant works that are required in the ultimate delivery of future arterial roads.

4.2.3 Recreation and Sports Building Projects

The indicative concepts and costings for each facility are based on cost estimates prepared by Spiire.

4.2.4 Community Centre Projects

The indicative concepts and costings for each facility are based on cost estimates prepared by CDCE.

4.2.5 Habitat Compensation Obligations

Habitat compensation obligations within existing road reserves of DCP projects have been calculated in accordance with the Biodiversity Conservation Strategy (BCS).

4.2.6 Temporary works

Temporary works are not allowed as costs against this DCP unless expressly listed in the DCP and unless to the satisfaction of the collecting agency.

4.2.7 Valuation of Land

The area of land to be acquired for each DCP project on each property was identified based on information drawn from the Wyndham West PSPs. A description of the area of land was provided to Urbis Valuations Pty Ltd as a registered valuer to prepare a valuation which determined the value for each area of land required by the DCP.

Each parcel where land is required for a DCP project was individually assessed using a 'before and after' methodology to ensure fair compensation for each affected land owner. These values have then been used to calculate the cost of the land component for all relevant projects included in this DCP.

4.2.8 Concept Designs and Cost Sheets

Concept designs and cost sheets have been prepared for each project. Supervision and project management allowances include an additional 1% for council supervision. This information is included in Appendix 4.

4.2.9 Cost Apportionment

The DCP apportions a charge to new development according to its projected share of use of identified infrastructure items. Since development contribution charges are levied 'up-front', a measure of actual use by individual development sites is not possible. Therefore costs must be shared in accordance with the estimated share of use.

This is expressed as a percentage in Tables 10a and 10b. Projects that are 100% apportioned to the DCP area are considered to be wholly required by the future development in the DCP area. Projects that are less than 100% apportioned to the DCP are shared with other areas and funding sources.

Alternative funding sources for the balance of the cost of the items not recovered under this DCP have been identified in Appendix 2.

4.2.10 Charge Areas

This DCP contains six charge areas.

Charge Area 1 applies to land where residential development is to be located under the future urban structure (refer Plan 2). This includes the Local Town Centres, Convenience Centres and associated commercial areas.

Charge Area 2 applies to land designated for dedicated employment use.

Charge Area 3 applies to land located within PSP 40 Ballan Road, except where adjacent to Wollahra Rise.

Charge Area 4 applies to land located within PSP 40 Ballan Road that is adjacent to Wollahra Rise.

Charge Area 5 applies to land located within PSP 43 Alfred Road.

Charge Area 6 applies to land located within PSP 42.2 Black Forest Road South and to be developed by Lendlease Pty Ltd.

The variation between the residential and employment charge areas rates reflects the fact that employment land does not contribute towards community and recreation items.

Charge Areas 3, 4 and 5 are included in the DCP separately as they contain projects that would ordinarily be considered as development works (connector roads and culverts on connector roads), however, these projects have been included in the DCP due to the fragmented land ownership of the associated PSPs which would otherwise make delivery of these projects difficult.

Charge Area 6 covers land controlled by Lendlease Pty Ltd. It has been excluded from contributing towards the finance cost due to the significant scale of priority early works (in kind) projects Lendlease Pty Ltd will undertake, and that will also facilitate timely development of PSPs within the broader Wyndham West area.

Should Lendlease Pty Ltd fail to commence or complete these projects as identified, this DCP will be amended. The amended DCP may include additional finance costs to cover early delivery of any priority works not delivered by Lendlease Pty Ltd. Calculation of these potential additional finance costs must use an equivalent methodology to that already included in the approved DCP.

Further, any such amendment to the DCP would also require Charge Area 6 to contribute towards the finance cost of these priority projects.

For each infrastructure project, the charge area that is to make the contribution is specified (refer Tables 3 to 7).

4.2.11 Non-Government Schools

The development of land for a non-government school is exempt from the requirement to pay a development infrastructure levy and a community infrastructure levy under this Development Contributions Plan.

4.2.12 Schedule of Costs

Tables 10a and 10b calculates the amount of contributions payable by each charge area for each infrastructure category.

4.2.13 Summary of Charges per Hectare

Tables 10a and 10b show the quantum of funds to be contributed by each charge area towards each infrastructure project. This adds up to the total amount of funds recoverable under the DCP.

Tables 10a and 10b set out a summary of costs for each charge area.

Amended
by VC249

4.2.14 Small Second Dwelling

The development of land for a small second dwelling is exempt from the requirement to pay a development infrastructure levy and a community infrastructure levy under this DCP.

Table 10a Calculation of Costs (Development Infrastructure Levy)

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	LAND AREA HA	ESTIMATED PROJECT COST: LAND	ESTIMATED PROJECT COST: CONSTRUCTION	TOTAL ESTIMATED PROJECT COST: LAND & CONSTRUCTION	% APPORTIONED TO DCP (INTERNAL USE)	TOTAL COST RECOVERED BY DCP	CHARGE AREA 1 CONTRIBUTION PER NDHA	CHARGE AREA 2 CONTRIBUTION PER NDHA	CHARGE AREA 3 CONTRIBUTION PER NDHA	CHARGE AREA 4 CONTRIBUTION PER NDHA	CHARGE AREA 5 CONTRIBUTION PER NDHA	CHARGE AREA 6 CONTRIBUTION PER NDHA
ROAD PROJECTS														
RD-01	Ion Road - Princes Highway to Melbourne-Geelong Rail Line	Development	9.59	\$4,375,000	\$6,550,000	\$10,925,000	90%	\$9,832,554	\$5,703	\$5,703	\$5,703	\$5,703	\$5,703	\$5,703
RD-02	Ion Road - Melbourne-Geelong Rail Line to Regional Rail Link	Development	6.78	\$2,240,512	\$4,389,640	\$6,630,152	90%	\$6,147,137	\$3,566	\$3,566	\$3,566	\$3,566	\$3,566	\$3,566
RD-03	Ion Road - Regional Rail Link to Greens Road	Development	8.29	\$2,409,971	\$6,704,720	\$9,114,691	90%	\$8,203,221	\$4,758	\$4,758	\$4,758	\$4,758	\$4,758	\$4,758
RD-04	Ion Road - Ballan Road to the Werribees River	Development	6.12	\$1,619,619	\$6,253,280	\$7,872,899	90%	\$7,085,609	\$4,110	\$4,110	\$4,110	\$4,110	\$4,110	\$4,110
RD-05	Armstrong Road - Ion Road to Black Forest Road	Development	1.56	\$393,336	\$1,762,348	\$2,155,684	100%	\$2,155,684	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
RD-06A	Armstrong Road - Black Forest Road to Greens Road	Development	4.52	\$1,806,160	\$0	\$1,806,160	50%	\$903,080	\$524	\$524	\$524	\$524	\$524	\$524
RD-06B	Armstrong Road - Black Forest Road to Greens Road	Development	0.00	\$0	\$10,771,923	\$10,771,923	57%	\$5,840,142	\$3,387	\$3,387	\$3,387	\$3,387	\$3,387	\$3,387
RD-07A	Armstrong Road - along existing Hobbs Road	Development	1.52	\$696,148	\$6,351,000	\$7,047,148	100%	\$7,047,148	\$4,088	\$4,088	\$4,088	\$4,088	\$4,088	\$4,088
RD-07B	Armstrong Road - Hobbs Road to Werribee River	Development	2.79	\$949,230	\$3,411,625	\$4,360,855	100%	\$4,360,855	\$2,529	\$2,529	\$2,529	\$2,529	\$2,529	\$2,529
RD-07C	Offset cost estimate associated with removal of native vegetation.	Development	0.00	\$0	\$34,688	\$34,688	100%	\$34,688	\$20	\$20	\$20	\$20	\$20	\$20
RD-08	Bulban Road - Bend to Ion Road	Development	1.47	\$659,655	\$3,313,350	\$3,973,005	100%	\$3,973,005	\$2,304	\$2,304	\$2,304	\$2,304	\$2,304	\$2,304
RD-09	Bulban Road - Ion Road to Existing Alignment	Development	1.44	\$632,168	\$2,543,240	\$3,175,408	90%	\$2,857,867	\$1,658	\$1,658	\$1,658	\$1,658	\$1,658	\$1,658
RD-10	Black Forest Road - Lillypop Creek to Armstrong Road	Development	0.63	\$222,543	\$7,495,520	\$7,718,063	100%	\$7,718,063	\$4,477	\$4,477	\$4,477	\$4,477	\$4,477	\$4,477
RD-11	Black Forest Road - Armstrong Road to Ion Road	Development	0.20	\$60,810	\$6,502,400	\$6,563,210	100%	\$6,563,210	\$3,807	\$3,807	\$3,807	\$3,807	\$3,807	\$3,807
RD-10a	Offset cost estimate associated with removal of native vegetation.	Development	0.00	\$0	\$9,972	\$9,972	100%	\$9,972	\$6	\$6	\$6	\$6	\$6	\$6
RD-12	Greens Road - Bend to OMRTC PAO	Development	1.58	\$571,555	\$0	\$571,555	100%	\$571,555	\$332	\$332	\$332	\$332	\$332	\$332
RD-13	Alfred Road	Development	0.00	\$0	\$2,962,050	\$2,962,050	100%	\$2,962,050					\$38,152	
RD-14	Wollahra Ree Realignment & Upgrade	Development	0.00	\$0	\$5,731,200	\$5,731,200	100%	\$5,731,200				\$53,845		
RD-14a	Offset cost estimate associated with removal of native vegetation.	Development	0.00	\$0	\$110,347	\$110,347	100%	\$110,347				\$1,037		
SUB-TOTAL			46.48	\$16,636,705	\$74,597,363	\$91,234,068		\$82,107,386	\$42,518	\$42,518	\$42,518	\$97,400	\$80,670	\$42,518
INTERSECTION PROJECTS														
IN-01A	Ion Road / New Bulban Road	Development	1.16	\$520,695	\$3,040,893	\$3,561,588	90%	\$3,205,429	\$1,859.25	\$1,859.25	\$1,859.25	\$1,859.25	\$1,859.25	\$1,859.25
IN-01B	Ion Road / North-South Connector 1 (within PSP 40.2)	Development	1.35	\$536,565	\$4,355,200	\$4,891,765	90%	\$4,402,589	\$2,553.64	\$2,553.64	\$2,553.64	\$2,553.64	\$2,553.64	\$2,553.64
IN-02A	Ion Road / Armstrong Road	Development	1.32	\$394,980	\$6,039,321	\$6,434,301	90%	\$5,790,871	\$3,358.89	\$3,358.89	\$3,358.89	\$3,358.89	\$3,358.89	\$3,358.89
IN-02B	Ion Road / Armstrong Road	Development	0.00	\$0	\$667,000	\$667,000	90%	\$600,300	\$348.19	\$348.19	\$348.19	\$348.19	\$348.19	\$348.19
IN-03	Ion Road / North-South Connector 2 (within PSP 40.2)	Development	2.77	\$784,210	\$5,407,251	\$6,211,461	90%	\$5,590,315	\$3,242.56	\$3,242.56	\$3,242.56	\$3,242.56	\$3,242.56	\$3,242.56
IN-04	Ion Road / East-West Connector (within PSP 93.1)	Development	2.30	\$575,775	\$5,237,000	\$5,812,775	90%	\$5,231,498	\$3,034.43	\$3,034.43	\$3,034.43	\$3,034.43	\$3,034.43	\$3,034.43
IN-05	Ion Road / Black Forest Road	Development	2.00	\$607,270	\$5,468,000	\$6,075,270	90%	\$5,467,743	\$3,171.46	\$3,171.46	\$3,171.46	\$3,171.46	\$3,171.46	\$3,171.46
IN-06	Ion Road / East-West Connector 1 (within PSP 42.1)	Development	2.35	\$867,190	\$5,221,000	\$6,088,190	90%	\$5,479,371	\$3,178.21	\$3,178.21	\$3,178.21	\$3,178.21	\$3,178.21	\$3,178.21
IN-07	Ion Road / East-West Connector 2 (within PSP 42.1)	Development	2.52	\$899,380	\$5,439,000	\$6,338,380	90%	\$5,704,542	\$3,308.81	\$3,308.81	\$3,308.81	\$3,308.81	\$3,308.81	\$3,308.81
IN-08A	Ion Road / Greens Road	Development	1.97	\$678,150	\$0	\$678,150	90%	\$610,335	\$354.01	\$354.01	\$354.01	\$354.01	\$354.01	\$354.01
IN-08B	Ion Road / Greens Road	Development	0.00	\$0	\$5,681,600	\$5,681,600	42%	\$2,386,272	\$1,384.11	\$1,384.11	\$1,384.11	\$1,384.11	\$1,384.11	\$1,384.11
IN-09A	Ion Road / Ballan Road	Development	1.02	\$305,190	\$0	\$305,190	90%	\$274,671	\$159.32	\$159.32	\$159.32	\$159.32	\$159.32	\$159.32
IN-09B	Ion Road / Ballan Road	Development	0.00	\$0	\$5,416,600	\$5,416,600	50%	\$2,708,300	\$1,570.90	\$1,570.90	\$1,570.90	\$1,570.90	\$1,570.90	\$1,570.90
IN-10	Ion Road / East-West Connector 5 (within PSP 92)	Development	2.49	\$684,420	\$5,341,000	\$6,025,420	90%	\$5,422,878	\$3,145.44	\$3,145.44	\$3,145.44	\$3,145.44	\$3,145.44	\$3,145.44
IN-11	Ion Road / East-West Connector 6 (within PSP 92)	Development	2.21	\$608,273	\$5,603,000	\$6,211,273	90%	\$5,590,145	\$3,242.46	\$3,242.46	\$3,242.46	\$3,242.46	\$3,242.46	\$3,242.46
IN-12	Armstrong Road / East-West Connector (within PSP 42.2)	Development	1.35	\$404,610	\$3,166,216	\$3,570,826	100%	\$3,570,826	\$2,071.19	\$2,071.19	\$2,071.19	\$2,071.19	\$2,071.19	\$2,071.19
IN-13	Armstrong Road / East-West Connector (within PSP 42.2)	Development	1.51	\$454,338	\$3,452,470	\$3,906,808	100%	\$3,906,808	\$2,266.07	\$2,266.07	\$2,266.07	\$2,266.07	\$2,266.07	\$2,266.07
IN-14	Armstrong Road / Black Forest Road	Development	1.07	\$397,853	\$4,310,000	\$4,707,853	100%	\$4,707,853	\$2,730.70	\$2,730.70	\$2,730.70	\$2,730.70	\$2,730.70	\$2,730.70
IN-15	Armstrong Road / Ballan Road	Development	1.40	\$559,320	\$8,017,000	\$8,576,320	100%	\$8,576,320	\$4,974.53	\$4,974.53	\$4,974.53	\$4,974.53	\$4,974.53	\$4,974.53
IN-16	Armstrong Road / East-West Connector (within PSP 40)	Development	0.59	\$249,093	\$3,346,696	\$3,595,788	100%	\$3,595,788	\$2,085.67	\$2,085.67	\$2,085.67	\$2,085.67	\$2,085.67	\$2,085.67
IN-17	Armstrong Road / North-South Connector (within PSP 40)	Development	1.02	\$457,020	\$3,271,762	\$3,728,782	100%	\$3,728,782	\$2,162.81	\$2,162.81	\$2,162.81	\$2,162.81	\$2,162.81	\$2,162.81
IN-18A	Alfred Road / Princes Highway	Development	0.05	\$28,835	\$0	\$28,835	100%	\$28,835	\$16.73	\$16.73	\$16.73	\$16.73	\$16.73	\$16.73
IN-18B	Alfred Road / Princes Highway	Development	0.00	\$0	\$4,811,000	\$4,811,000	50%	\$2,405,500	\$1,395.27	\$1,395.27	\$1,395.27	\$1,395.27	\$1,395.27	\$1,395.27
IN-19	Bulban Road / McGrath Road	Development	0.41	\$184,995	\$1,585,000	\$1,769,995	100%	\$1,769,995	\$1,026.65	\$1,026.65	\$1,026.65	\$1,026.65	\$1,026.65	\$1,026.65
IN-20	Bulban Road / Galvin Road Extension	Development	0.76	\$344,115	\$2,345,000	\$2,689,115	100%	\$2,689,115	\$1,559.77	\$1,559.77	\$1,559.77	\$1,559.77	\$1,559.77	\$1,559.77

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	LAND AREA HA	ESTIMATED PROJECT COST: LAND	ESTIMATED PROJECT COST: CONSTRUCTION	TOTAL ESTIMATED PROJECT COST: LAND & CONSTRUCTION	% APPORTIONED TO DCP (INTERNAL USE)	TOTAL COST RECOVERED BY DCP	CHARGE AREA 1 CONTRIBUTION PER NDHA	CHARGE AREA 2 CONTRIBUTION PER NDHA	CHARGE AREA 3 CONTRIBUTION PER NDHA	CHARGE AREA 4 CONTRIBUTION PER NDHA	CHARGE AREA 5 CONTRIBUTION PER NDHA	CHARGE AREA 6 CONTRIBUTION PER NDHA
IN-21	Black Forest Road / Harpley Boulevard (within PSP 42.2)	Development	0.26	\$118,215	\$2,358,106	\$2,476,321	100%	\$2,476,321	\$1,436.34	\$1,436.34	\$1,436.34	\$1,436.34	\$1,436.34	\$1,436.34
IN-22	Black Forest Road / Haines Drive (within PSP 42.2)	Development	0.21	\$67,898	\$2,358,106	\$2,426,003	100%	\$2,426,003	\$1,407.16	\$1,407.16	\$1,407.16	\$1,407.16	\$1,407.16	\$1,407.16
IN-23	Black Forest Road / North-South Connector (within PSP 42.1)	Development	0.88	\$314,798	\$4,083,000	\$4,397,798	100%	\$4,397,798	\$2,550.86	\$2,550.86	\$2,550.86	\$2,550.86	\$2,550.86	\$2,550.86
IN-24A	Greens Road / North-South Connector (within PSP 42.1)	Development	0.13	\$58,635	\$0	\$58,635	100%	\$58,635	\$34.01	\$34.01	\$34.01	\$34.01	\$34.01	\$34.01
IN-24B	Greens Road / North-South Connector (within PSP 42.1)	Development	0.00	\$0	\$4,075,000	\$4,075,000	70%	\$2,852,500	\$1,654.54	\$1,654.54	\$1,654.54	\$1,654.54	\$1,654.54	\$1,654.54
IN-25A	Greens Road / Manor Lakes Boulevard (within PSP 42.1)	Development	0.32	\$96,450	\$0	\$96,450	100%	\$96,450	\$55.94	\$55.94	\$55.94	\$55.94	\$55.94	\$55.94
IN-25B	Greens Road / Manor Lakes Boulevard (within PSP 42.1 & 41)	Development	0.00	\$0	\$1,250,800	\$1,250,800	50%	\$625,400	\$362.75	\$362.75	\$362.75	\$362.75	\$362.75	\$362.75
IN-26	Ballan Road / Evergreen Drive (within PSP 40)	Development	0.40	\$261,495	\$4,849,000	\$5,110,495	100%	\$5,110,495	\$2,964.25	\$2,964.25	\$2,964.25	\$2,964.25	\$2,964.25	\$2,964.25
IN-27	Ballan Road / Connector (within PSP 40)	Development	0.40	\$221,265	\$1,084,000	\$1,305,265	0%	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IN-28	Ballan Road / Kinglake Drive (within PSP 92)	Development	0.22	\$99,270	\$4,454,000	\$4,553,270	100%	\$4,553,270	\$2,641.04	\$2,641.04	\$2,641.04	\$2,641.04	\$2,641.04	\$2,641.04
IN-29	Ballan Road / North-South Connector (within PSP 92)	Development	0.33	\$112,695	\$3,963,000	\$4,075,695	100%	\$4,075,695	\$2,364.03	\$2,364.03	\$2,364.03	\$2,364.03	\$2,364.03	\$2,364.03
IN-30	Ballan Road / Manor Lakes Boulevard (PSP 40)	Development	0.40	\$221,265	\$4,849,000	\$5,070,265	100%	\$5,070,265	\$2,940.91	\$2,940.91	\$2,940.91	\$2,940.91	\$2,940.91	\$2,940.91
IN-31	Westons Road / Princes Highway	Development	0.00	\$0	\$1,844,000	\$1,844,000	90%	\$1,659,600	\$962.62	\$962.62	\$962.62	\$962.62	\$962.62	\$962.62
IN-32	Ballan Road Pedestrian Crossing	Development	0.00	\$0	\$262,598	\$262,598	50%	\$131,299	\$76.16	\$76.16	\$76.16	\$76.16	\$76.16	\$76.16
IN-33	Galvin Road Crossing Pedestrian Upgrade	Development	0.00	\$0	\$195,760	\$195,760	100%	\$195,760	\$113.55	\$113.55	\$113.55	\$113.55	\$113.55	\$113.55
SUB-TOTAL			35.17	\$12,114,260	\$132,868,380	\$144,982,640		\$127,174,572	\$73,765	\$73,765	\$73,765	\$73,765	\$73,765	\$73,765
BRIDGE PROJECTS														
BR-01	Ison Road Culvert (adjacent PSP 43)	Development	0.00	\$0	\$753,000	\$753,000	90%	\$677,700	\$393.09	\$393.09	\$393.09	\$393.09	\$393.09	\$393.09
BR-02	Ison Road Lollypop Creek Bridge (within PSP 42.2)	Development	0.00	\$0	\$5,571,000	\$5,571,000	90%	\$5,013,900	\$2,908.22	\$2,908.22	\$2,908.22	\$2,908.22	\$2,908.22	\$2,908.22
BR-03	Ison Road Culvert (within PSP 93.1)	Development	0.00	\$0	\$444,000	\$444,000	90%	\$399,600	\$231.78	\$231.78	\$231.78	\$231.78	\$231.78	\$231.78
BR-04	Ison Road Culvert (within PSP 42.1)	Development	0.00	\$0	\$1,694,000	\$1,694,000	90%	\$1,524,600	\$884.32	\$884.32	\$884.32	\$884.32	\$884.32	\$884.32
BR-05	Ison Road Culvert (within PSP 92)	Development	0.00	\$0	\$444,000	\$444,000	90%	\$399,600	\$231.78	\$231.78	\$231.78	\$231.78	\$231.78	\$231.78
BR-06	Armstrong Road Culvert (within PSP 42.2 Southern)	Development	0.00	\$0	\$1,201,000	\$1,201,000	100%	\$1,201,000	\$696.62	\$696.62	\$696.62	\$696.62	\$696.62	\$696.62
BR-07	Armstrong Road Culvert (within PSP 42.2 Northern)	Development	0.00	\$0	\$1,185,000	\$1,185,000	100%	\$1,185,000	\$687.34	\$687.34	\$687.34	\$687.34	\$687.34	\$687.34
BR-08	Armstrong Road Lollypop Creek Bridge	Development	0.00	\$0	\$13,254,390	\$13,254,390	53%	\$7,024,827	\$4,074.62	\$4,074.62	\$4,074.62	\$4,074.62	\$4,074.62	\$4,074.62
BR-09	Armstrong Road Weribee River Bridge	Development	0.00	\$0	\$10,255,866	\$10,255,866	40%	\$4,127,933	\$2,394.33	\$2,394.33	\$2,394.33	\$2,394.33	\$2,394.33	\$2,394.33
BR-10	Weribee River Pedestrian Bridge	Development	0.00	\$0	\$1,032,000	\$1,032,000	50%	\$516,000	\$299.30	\$299.30	\$299.30	\$299.30	\$299.30	\$299.30
BR-11	McGrath Road Culvert	Development	0.00	\$0	\$2,059,000	\$2,059,000	100%	\$2,059,000	\$6,215.16	\$6,215.16	\$6,215.16	\$6,215.16	\$6,215.16	\$6,215.16
BR-12	Connector Culvert (within PSP 40)	Development	0.00	\$0	\$750,000	\$750,000	100%	\$750,000	\$2,263.90	\$2,263.90	\$2,263.90	\$2,263.90	\$2,263.90	\$2,263.90
BR-13	Connector Culvert (within PSP 40)	Development	0.00	\$0	\$933,000	\$933,000	100%	\$933,000	\$2,816.29	\$2,816.29	\$2,816.29	\$2,816.29	\$2,816.29	\$2,816.29
BR-14	Armstrong Road Culvert (within PSP 40)	Development	0.00	\$0	\$789,000	\$789,000	41%	\$324,882	\$188.44	\$188.44	\$188.44	\$188.44	\$188.44	\$188.44
BR-15	Connector Culvert (within PSP 40)	Development	0.00	\$0	\$1,349,000	\$1,349,000	100%	\$1,349,000	\$4,072.00	\$4,072.00	\$4,072.00	\$4,072.00	\$4,072.00	\$4,072.00
BR-16	Alfred Road Culvert (within PSP 43)	Development	0.00	\$0	\$427,000	\$427,000	20%	\$85,400	\$1,099.97	\$1,099.97	\$1,099.97	\$1,099.97	\$1,099.97	\$1,099.97
BR-17	Ison Road Culvert (within Logical Inclusion Area)	Development	0.00	\$0	\$436,000	\$436,000	90%	\$392,400	\$227.60	\$227.60	\$227.60	\$227.60	\$227.60	\$227.60
BR-18	Ison Road Culvert (within Logical Inclusion Area)	Development	0.00	\$0	\$355,000	\$355,000	90%	\$319,500	\$185.32	\$185.32	\$185.32	\$185.32	\$185.32	\$185.32
BR-19	Ison Road Culvert (within PSP 42.2)	Development	0.00	\$0	\$1,448,000	\$1,448,000	90%	\$1,303,200	\$755.90	\$755.90	\$755.90	\$755.90	\$755.90	\$755.90
BR-20	Black Forest Road Culvert (within PSP 42.2)	Development	0.00	\$0	\$772,406	\$772,406	25%	\$193,101	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00
BR-21	RRL pedestrian underpass (within PSP 42.2)	Development	0.00	\$0	\$113,628	\$113,628	100%	\$113,628	\$65.91	\$65.91	\$65.91	\$65.91	\$65.91	\$65.91
BR-22	Weribee River Pedestrian Bridge (near RRL)	Development	0.00	\$0	\$1,032,000	\$1,032,000	50%	\$516,000	\$299.30	\$299.30	\$299.30	\$299.30	\$299.30	\$299.30
BR-23	Weribee River Shared Trail (under RRL)	Development	0.00	\$0	\$440,529	\$440,529	100%	\$440,529	\$255.52	\$255.52	\$255.52	\$255.52	\$255.52	\$255.52
BR-24	Bulban Road Culvert (within PSP 42.2)	Development	0.00	\$0	\$1,907,139	\$1,907,139	100%	\$1,907,139	\$1,106.20	\$1,106.20	\$1,106.20	\$1,106.20	\$1,106.20	\$1,106.20
BR-25	Ison Road Culvert (within PSP 42.1)	Development	0.00	\$0	\$1,697,302	\$1,697,302	100%	\$1,697,302	\$984.49	\$984.49	\$984.49	\$984.49	\$984.49	\$984.49
BR-26	Ison Road Culvert (within PSP 92)	Development	0.00	\$0	\$2,279,326	\$2,279,326	100%	\$2,279,326	\$1,322.08	\$1,322.08	\$1,322.08	\$1,322.08	\$1,322.08	\$1,322.08
BR-27	Ison Road Culvert (within PSP 92)	Development	0.00	\$0	\$801,946	\$801,946	100%	\$801,946	\$465.15	\$465.15	\$465.15	\$465.15	\$465.15	\$465.15
SUB-TOTAL			0.00	\$0	\$53,424,532	\$52,622,586		\$37,535,513	\$18,769	\$18,769	\$34,137	\$34,137	\$19,869	\$18,769

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	LAND AREA HA	ESTIMATED PROJECT COST: LAND	ESTIMATED PROJECT COST: CONSTRUCTION	TOTAL ESTIMATED PROJECT COST: LAND & CONSTRUCTION	% APPORTIONED TO DCP (INTERNAL USE)	TOTAL COST RECOVERED BY DCP	CHARGE AREA 1 CONTRIBUTION PER NDHA	CHARGE AREA 2 CONTRIBUTION PER NDHA	CHARGE AREA 3 CONTRIBUTION PER NDHA	CHARGE AREA 4 CONTRIBUTION PER NDHA	CHARGE AREA 5 CONTRIBUTION PER NDHA	CHARGE AREA 6 CONTRIBUTION PER NDHA
COMMUNITY CENTRES														
CO-01	Ballan Road Level 2 Multi Purpose Community Centre	Development	0.80	\$440,000	\$6,143,329	\$6,583,329	100%	\$6,583,329	\$4,032.15		\$4,032.15	\$4,032.15	\$4,032.15	\$4,032.15
CO-02	Ballan Road Level 1 Children's Centre	Development	0.60	\$255,000	\$3,393,965	\$3,648,965	100%	\$3,648,965	\$2,234.92		\$2,234.92	\$2,234.92	\$2,234.92	\$2,234.92
CO-03	Westbrook Level 2 Multi Purpose Community Centre	Development	0.80	\$220,000	\$6,143,329	\$6,363,329	100%	\$6,363,329	\$3,897.41		\$3,897.41	\$3,897.41	\$3,897.41	\$3,897.41
CO-04	Westbrook Level 1 Children's Centre	Development	0.60	\$165,000	\$3,393,965	\$3,558,965	100%	\$3,558,965	\$2,179.79		\$2,179.79	\$2,179.79	\$2,179.79	\$2,179.79
CO-05	Manor Lakes Level 1 Children's Centre	Development	0.00	\$240,000	\$3,180,968	\$3,420,968	18%	\$608,932	\$372.96		\$372.96	\$372.96	\$372.96	\$372.96
CO-06	Manor Lakes Level 2 Multi Purpose Community Centre	Development	0.00	\$480,000	\$5,226,667	\$5,706,667	18%	\$1,015,787	\$622.15		\$622.15	\$622.15	\$622.15	\$622.15
CO-08	Black Forest Road North Level 3 Multi Purpose Community Centre	Development	1.50	\$600,000	\$6,301,294	\$6,901,294	100%	\$6,901,294	\$4,226.90		\$4,226.90	\$4,226.90	\$4,226.90	\$4,226.90
CO-10	Black Forest Road North Level 1 Children's Centre	Development	0.60	\$180,000	\$3,393,965	\$3,573,965	100%	\$3,573,965	\$2,188.98		\$2,188.98	\$2,188.98	\$2,188.98	\$2,188.98
CO-11	Black Forest Road South Level 2 Multi Purpose Community Centre	Development	0.80	\$260,000	\$6,143,329	\$6,403,329	100%	\$6,403,329	\$3,921.91		\$3,921.91	\$3,921.91	\$3,921.91	\$3,921.91
CO-12	Riverwalk Level 2 Multi Purpose Community Centre	Development	0.00	\$0	\$6,143,329	\$6,143,329	25%	\$1,535,832	\$940.67		\$940.67	\$940.67	\$940.67	\$940.67
CO-13	Bayview Level 1 Children's Centre	Development	0.60	\$150,000	\$3,393,965	\$3,543,965	100%	\$3,543,965	\$2,170.61		\$2,170.61	\$2,170.61	\$2,170.61	\$2,170.61
SUB-TOTAL			6.30	\$2,990,000	\$52,858,106	\$55,848,106		\$43,737,693	\$26,788		\$26,788	\$26,788	\$26,788	\$26,788
ACTIVE RECREATION														
AR01	Westbrook Active Recreation Reserve 1	Development	12.29	\$3,656,750	\$5,648,742	\$9,305,492	100%	\$9,305,492	\$5,699.42		\$5,699.42	\$5,699.42	\$5,699.42	\$5,699.42
AR03	Westbrook Active Recreation Reserve 2	Development	11.36	\$3,326,500	\$9,356,875	\$12,683,375	100%	\$12,683,375	\$7,768.31		\$7,768.31	\$7,768.31	\$7,768.31	\$7,768.31
AR05	Ballan Road Active Recreation Reserve 3	Development	10.57	\$4,756,500	\$5,960,681	\$10,717,181	100%	\$10,717,181	\$6,564.05		\$6,564.05	\$6,564.05	\$6,564.05	\$6,564.05
AR07	Ballan Road Active Recreation Reserve 4	Development	12.63	\$7,094,730	\$7,639,484	\$14,734,214	100%	\$14,734,214	\$9,024.40		\$9,024.40	\$9,024.40	\$9,024.40	\$9,024.40
AR09	Manor Lakes Active Recreation Reserve 5	Development	0.00	\$0	\$4,155,663	\$4,155,663	18%	\$739,708	\$453.06		\$453.06	\$453.06	\$453.06	\$453.06
AR11	Manor Lakes Active Recreation Reserve 6	Development	0.00	\$0	\$7,704,517	\$7,704,517	25%	\$1,949,243	\$1,193.87		\$1,193.87	\$1,193.87	\$1,193.87	\$1,193.87
AR13	Black Forest Road North Active Recreation Reserve 7	Development	11.45	\$3,956,250	\$6,120,684	\$10,076,934	100%	\$10,076,934	\$6,171.92		\$6,171.92	\$6,171.92	\$6,171.92	\$6,171.92
AR15	Black Forest Road North Active Recreation Reserve 8	Development	12.25	\$4,382,500	\$5,304,716	\$9,687,216	94%	\$9,149,067	\$5,603.62		\$5,603.62	\$5,603.62	\$5,603.62	\$5,603.62
AR17	Black Forest Road South Active Recreation Reserve 9	Development	7.59	\$2,394,373	\$4,832,799	\$7,227,172	100%	\$7,227,172	\$4,426.49		\$4,426.49	\$4,426.49	\$4,426.49	\$4,426.49
AR19	Black Forest Road South Active Recreation Reserve 10	Development	15.55	\$4,751,050	\$7,599,610	\$12,350,660	100%	\$12,350,660	\$7,564.53		\$7,564.53	\$7,564.53	\$7,564.53	\$7,564.53
AR21	Alfred Road Active Recreation Reserve 11	Development	5.44	\$2,991,065	\$2,330,312	\$5,321,377	100%	\$5,321,377	\$3,259.23		\$3,259.23	\$3,259.23	\$3,259.23	\$3,259.23
AR23	Bayview Active Recreation Reserve 12	Development	12.25	\$3,062,500	\$5,838,329	\$8,900,829	100%	\$8,900,829	\$5,451.58		\$5,451.58	\$5,451.58	\$5,451.58	\$5,451.58
AR25	Indoor Recreation	Development	6.25	\$2,039,020	\$0	\$2,039,020	100%	\$2,039,020	\$1,248.86		\$1,248.86	\$1,248.86	\$1,248.86	\$1,248.86
AR26	Quandong Active Recreation Reserve 13	Development	4.51	\$2,029,500	\$1,932,535	\$3,962,035	100%	\$3,962,035	\$2,426.67		\$2,426.67	\$2,426.67	\$2,426.67	\$2,426.67
SUB-TOTAL DEVELOPMENT INFRASTRUCTURE PROJECTS			122.14	\$44,440,738	\$74,424,946	\$118,865,683		\$109,156,305	\$66,856		\$66,856	\$66,856	\$66,856	\$66,856
FINANCE COSTS														
FI-01	Finance Adjustment	Development				\$7,720,266	100%	\$7,720,266	5,288.13	5,288.13	5,288.13	5,288.13	5,288.13	\$0.00
SUMMARY														
TOTAL COST ALL DEVELOPMENT INFRASTRUCTURE LEVY PROJECTS				\$76,181,702	\$388,173,327	\$471,273,349		\$407,431,735	\$233,986	\$140,341	\$249,353	\$304,235	\$273,237	\$228,697
TOTAL DEVELOPMENT INFRASTRUCTURE LEVY PER NDHA														

Table 10b Calculation of Costs (Community Infrastructure Levy)

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	LAND AREA HA	ESTIMATED PROJECT COST: LAND	ESTIMATED PROJECT COST: CONSTRUCTION	TOTAL ESTIMATED PROJECT COST: LAND & CONSTRUCTION	% APPORTIONED TO DCP (INTERNAL USE)	TOTAL COST ATTRIBUTED TO DCP
COMMUNITY CENTRES								
CO-07	Manor Lakes Level 3 Library	Community	0.00	\$0	\$4,214,675	\$4,214,675	50%	\$2,107,337
CO-09	Black Forest Road North Level 3 Library & Performing Arts Centre	Community	0.00	\$0	\$9,564,483	\$9,564,483	100%	\$9,564,483
SUB-TOTAL COMMUNITY INFRASTRUCTURE PROJECTS				\$0	\$13,779,158	\$13,779,158		\$11,671,820
ACTIVE RECREATION								
AR02	Westbrook Active Recreation Reserve 1	Community	0.00	\$0	\$5,081,438	\$5,081,438	100%	\$5,081,438
AR04	Westbrook Active Recreation Reserve 2	Community	0.00	\$0	\$3,379,542	\$3,379,542	100%	\$3,379,542
AR06	Ballian Road Active Recreation Reserve 3	Community	0.00	\$0	\$4,327,835	\$4,327,835	100%	\$4,327,835
AR08	Ballian Road Active Recreation Reserve 4	Community	0.00	\$0	\$3,137,404	\$3,137,404	100%	\$3,137,404
AR10	Manor Lakes Active Recreation Reserve 5	Community	0.00	\$0	\$2,093,830	\$2,093,830	18%	\$372,702
AR12	Manor Lakes Active Recreation Reserve 6	Community	0.00	\$0	\$5,301,240	\$5,301,240	28%	\$1,484,347
AR14	Black Forest Road North Active Recreation Reserve 7	Community	0.00	\$0	\$2,415,400	\$2,415,400	91%	\$2,195,400
AR16	Black Forest Road North Active Recreation Reserve 8	Community	0.00	\$0	\$6,971,754	\$6,971,754	97%	\$6,743,848
AR18	Black Forest Road South Active Recreation Reserve 9	Community	0.00	\$0	\$1,623,331	\$1,623,331	100%	\$1,623,331
AR20	Black Forest Road South Active Recreation Reserve 10	Community	0.00	\$0	\$7,800,267	\$7,800,267	100%	\$7,800,267
AR22	Alfred Road Active Recreation Reserve 11	Community	0.00	\$0	\$1,623,331	\$1,623,331	100%	\$1,623,331
AR24	Bayview Active Recreation Reserve 12	Community	0.00	\$0	\$1,909,207	\$1,909,207	100%	\$1,909,207
AR27	Quandong Active Recreation Reserve 13	Community	0.00	\$0	\$1,623,331	\$1,623,331	100%	\$1,623,331
SUB-TOTAL				\$0	\$47,287,908	\$47,287,908		\$41,301,981
SUMMARY								
TOTAL COST ALL PROJECTS				\$0	\$61,067,066	\$61,067,066		\$52,973,802
TOTAL COMMUNITY INFRASTRUCTURE LEVY PER DWELLING								\$1,150
TOTAL ESTIMATED DWELLINGS								26,827
ESTIMATED COMMUNITY INFRASTRUCTURE LEVY RAISED VIA WYNDHAM WEST DCP								\$30,851,050

Amended
by GC75

Amended
by GC75

5.0 DEVELOPMENT CONTRIBUTIONS PLAN ADMINISTRATION

This section sets out how the DCP will be administered and includes the timing of payments, provision of works and land in kind and how the DCP fund will be managed in terms of reporting, indexation and review periods.

The Wyndham West DCP Development Infrastructure Levy applies to subdivision and / or development of land.

The Wyndham West Community Infrastructure Levy applies to the construction of dwellings and must be paid prior to the issue of a Building Permit.

5.1 Collecting Agency (Agency Responsible for Collecting Infrastructure Levy)

Wyndham City (also referred to as Council) is the Collecting Agency pursuant to section 46K(1)(fa) of the *Planning and Environment Act 1987* which means that it is the public authority to whom all levies are payable. As the Collecting Agency, Wyndham City is also responsible for the administration of this DCP and also its enforcement pursuant to Section 46QC of the Act.

5.2 Development Agency (Agency Responsible for Works)

Wyndham City (also referred to as Council) is the Development Agency and is responsible for the provision of all of the DCP projects identified in this DCP and the timing of all works.

5.3 Payment of Contribution Levies and Payment Timing

5.3.1 Development Infrastructure

For subdivision of Land

- A development infrastructure levy must be paid to Council 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 with respect to that plan under the *Subdivision Act 1988*.
- Where the subdivision is to be developed in stages, the infrastructure levy for the stage to be developed may only be paid to the Council within 21 days prior to the issue of a Statement of Compliance for that stage provided that a Schedule of Development Contributions is submitted with each stage of plan of subdivision. This Schedule must show the amount of the development contributions payable for each stage and the value of the contributions for prior stages to the satisfaction of the Council.

If Council agrees to works 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 or provision of land in lieu to specific requirements.

For development of land where no subdivision is proposed

- Provided a development infrastructure levy has not already been paid on subject land, an infrastructure levy must be paid to Council 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 (i.e. development includes buildings, car park, access ways landscaping and ancillary components). Council may require that contributions be made at either the planning or building permit stage for Development Infrastructure.

If Council agrees to works or provision of land in lieu of the payment of the infrastructure levy, the land owner must enter into an agreement or other suitable arrangement under Section 173 of the *Planning and Environment Act 1987* in relation to the proposed works 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 Council in a Section 173 agreement, prior to the commencement of any development, a development infrastructure levy must be paid to Council in accordance with the provision of this approved Development Contributions Plan for the land.

If Council agrees to works 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 or provision of land in lieu.

5.3.2 Community Infrastructure Levy

Contributions relating to community infrastructure are to be made by the home builder prior to the issue of a building permit. However, development proponents are encouraged to pay the levy prior to the issue of a statement of compliance to reduce the administrative burden of collection from individual home builders.

Levies for 'residential buildings' will be calculated at the rate for a single dwelling. In all other forms of accommodation, the dwelling is the individual unit (such as each dwelling in a residential village, retirement village, services apartment and so on). Corrective institutions are exempt.

A community infrastructure levy is not payable for a dwelling on a lot which was created prior to the date that this Development Contributions Plan was first incorporated into the Wyndham Planning Scheme.

5.3.3 Works in Kind

Under Section 46P of the Act, Council as the Collecting Agency may accept the provision of land, works, services or facilities by the applicant in part or in full in lieu of the amount of levy payable. This can be agreed with Council before or after the application for the permit is made or before the development is carried out. The agreement must include a list of the DCP infrastructure which Council has agreed in writing to allow to be provided as works in lieu providing that:

- The works constitute project(s) funded by this DCP;
- Council agrees that the timing of the works would be consistent with priorities in this DCP ;
- The works are defined and agreed in a Section 173 agreement;
- Works must be provided to a standard that accords with this Development Contributions Plan to the satisfaction of Council, unless an alternative is agreed;
- Detailed design must be approved by Council and must generally accord with the expectations outlined in this Development Contributions Plan unless an alternative is agreed;
- The construction of works must be completed to the satisfaction Council;
- There should be no negative financial impact on this Development Contributions Plan to the satisfaction of Council; and
- In particular, the works will only be accepted in lieu of a financial contribution required by this Development Contributions Plan to the extent that they constitute part or all of the design of the infrastructure item and reduce the cost to complete that design, to Council's satisfaction. Temporary works will not be accepted as works in kind.

Where Council agrees that works are to be provided by a development proponent in lieu of cash contributions (subject to the arrangements specified above):

- The credit for the works (land and / or construction) provided shall equal the cost of the works identified in this Development Contributions Plan, taking into account the impact of indexation;
- The value of the works provided in accordance with the principle outlined above, will be off-set against the development contributions liable to be paid by the development proponent; and
- Credit for the provision of works in kind shall be at a time to be negotiated between the development proponent and Council.

5.3.4 Credit for Over Provision

Where Council agrees that a development proponent can provide works in kind (either works and/or land) the situation may arise where the developer makes a contribution that exceeds that required by the Development Contributions Plan for the individual development.

In such a case the developer is entitled to a cash reimbursement for that amount that has been over contributed.

The details of credits and reimbursements will need to be negotiated with, and agreed to by Council.

5.3.5 Non Government Schools

Where land is subdivided or developed for the purpose of a non government school and the use of that land is subsequently for a purpose other than a non government school, the owner of that land must pay to Council development contributions in accordance with the provisions of this Development Contributions Plan. The development infrastructure levy and where applicable, the community infrastructure levy must be paid within 28 days of the date of the commencement of the construction of any buildings or works for that alternative use.

5.4 Funds Administration

The administration of the contributions made under this DCP will be transparent and development contributions charges will be held in accounts for each class of infrastructure until required for provision of items in that class. Details of funds received and expenditures will be held by Council as the Collecting Agency in accordance with the provisions of the *Local Government Act 1993* and the *Planning and Environment Act 1987*.

The administration of contributions made under this DCP will be transparent and demonstrate the:

- Amount and timing of funds collected.
- Source of the funds collected.
- Amount and timing of expenditure on specific projects.
- Project on which the expenditure was made.
- Account classes for individual project classes.
- Details of works-in-kind arrangements for project provision.
- Any pooling or quarantining of fund to deliver specific projects where applicable.

Council will provide for regular monitoring, reporting and review of the monies received and expended in accordance with this DCP.

Council will establish interest bearing accounts and all monies held in these accounts will be used solely for the provision of infrastructure as specified in this DCP, as required under Section 46Q(2) of the *Planning and Environment Act 1987*.

Should Council achieve savings on any project it delivers, the surplus funds collected for these items can be used for alternative works (where there may be a shortfall) in the same infrastructure class as specified in this DCP (i.e. savings on a transport project may be directed towards another transport project but not a recreation project).

The exception to this is the local projects included in Charge Areas 3, 4 and 5 as specified below:

- Charge Areas 3 & 4 – BR-11, BR-12, BR-13 and BR-15
- Charge Area 4 – RD-14 and RD-14a
- Charge Area 5 – RD-13 and BR-16

Should any savings be achieved for these projects, the savings must be returned to the land owners within the local charge areas either in the form of a cash reimbursement or a credit towards any future DCP obligations.

Should Council resolve not to proceed with any of the infrastructure projects listed in this DCP, the funds collected for these items can also be used for alternative works in the same infrastructure class as specified by this DCP. Such funds may also be used for the provision of additional works, services or facilities where approved by the Minister responsible for the *Planning and Environment Act*, or will be refunded to developers and / or owners of land subject to these infrastructure charges.

NOTE: For the purposes of funds administration the finance adjustment contained in this DCP is considered to be in the transport class of infrastructure.

5.5 Construction and Land Value Costs Indexation

Capital costs of all infrastructure items are in 2014 dollars and will be indexed by Council quarterly for inflation.

In relation to the costs associated with infrastructure items other than land and habitat compensation obligations, the cost must be adjusted according to the following methods:

- Roads, intersections and bridges – indexed in line with the Australian Bureau of Statistics Producer Price Indexes, Road and Bridge Construction Index, Victoria.
- All other infrastructure items - indexed in line with the Australian Bureau of Statistics Producer Price Indexes, Non-Residential Building Construction Index, Victoria.

Land values will be re-valued annually by a registered valuer based on a 'before and after' methodology for each lot that includes land for a DCP project.

Habitat compensation obligation prices may be reviewed by the Department of Environment and Primary Industries.

The finance adjustment will be indexed as per roads, intersections and bridges.

Within 14 days of the adjustments being made, Council will publish the amended capital costs for each infrastructure item on the Council's website.

The Community Infrastructure Levy projects are not indexed as the value of the contribution is set by the *Planning and Environment Act 1987*.

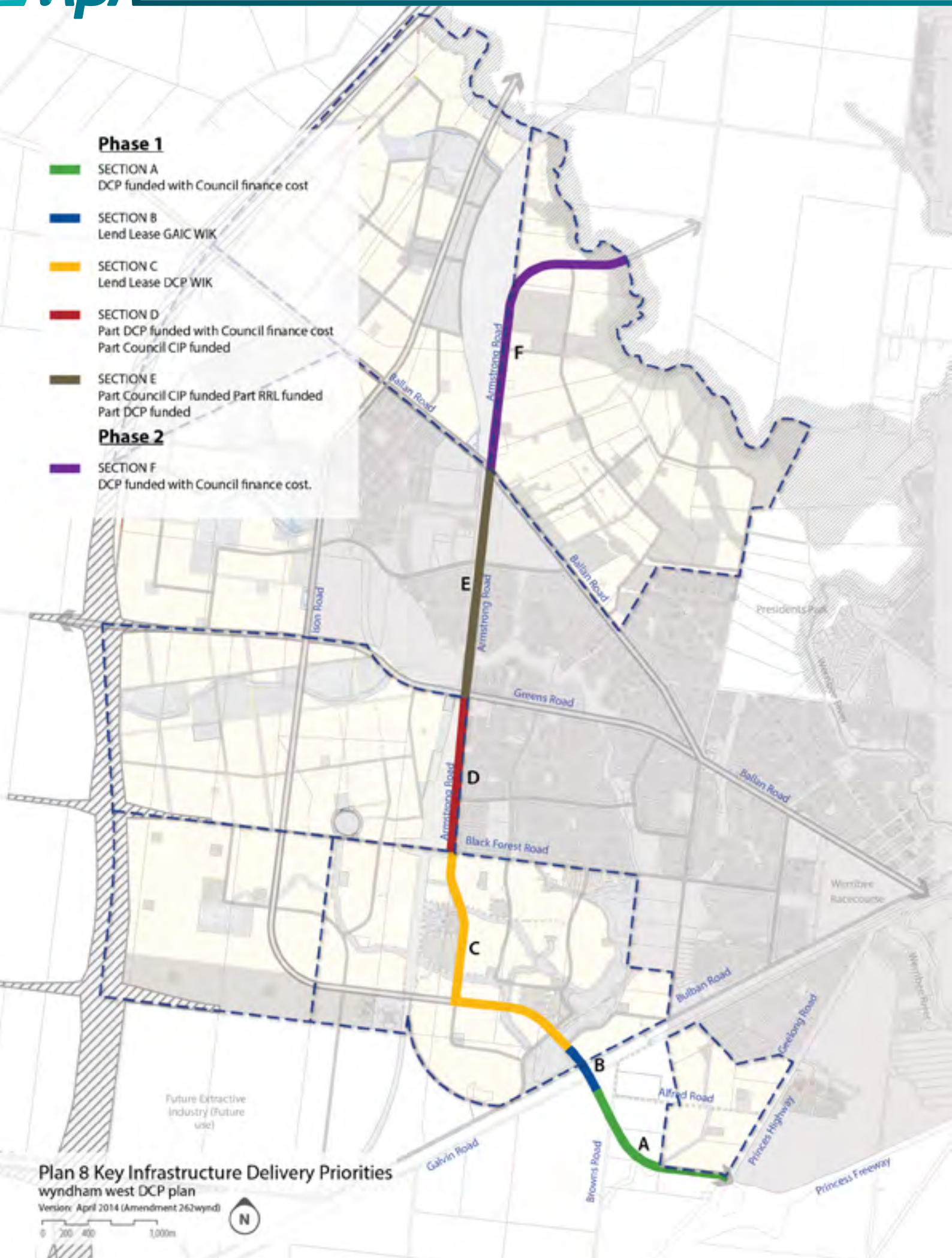
If in the future the Community Infrastructure Levy is amended, then the levy applicable to the release of any remaining dwellings may be adjusted in accordance with the revised legislative and regulatory approach as directed by the Minister for Planning.

5.6 Development Contributions Plan Review Period

This DCP adopts a long-term outlook for development. It takes into account planned future development in Wyndham West. A 'full development' horizon of land within the current Urban Growth Boundary to the year 2044 has been adopted for this DCP.

This DCP commenced on the date when it was first incorporated into the Wyndham Planning Scheme. This DCP will end when development within the DCP area is complete, which is projected to be 2044 or when the DCP is removed from the Planning Scheme.

The DCP is expected to be revised and updated every 5 years (or more frequently if required). This will require an amendment to the Wyndham Planning Scheme to replace this document with an alternative, revised document. Any review will need to have regard to any arrangements (for example an agreement under s173 of the Act) for the implementation of this DCP.



6.0 IMPLEMENTATION

This section provides further details regarding how Council intends to implement this DCP. Implementation has been formulated by:

- Assessing the Wyndham West PSPs.
- Having regard to the development context.
- Assessing the need for finance requirements – up front financing and pooling of funds.
- Agreeing the land value and indexing it appropriately (where possible).
- Identifying preferred implementation mechanisms to achieve the above outcomes and reducing the risk associated with the DCP to ensure that it will be delivered as intended.
- Provision of adequate resources to administer this DCP.

6.1 Project Timing

Development staging will largely be determined by the availability of essential services and subdivision proposals within the DCP area. Within this context the initial assumed provision trigger for each infrastructure item is at the time of subdivision.

To implement this DCP, Council should produce a DCP Project Implementation Programme (DCP PIP). This will be used to determine the appropriate priorities and timing of delivering all DCP projects.

As development proceeds Council will continue to monitor and amend as required the DCP PIP to respond to changes in development sequencing, works in kind projects and community priorities.

The DCP PIP must be based on:

- Delivering items in the DCP as soon as is practicable and as soon as sufficient contributions are available, consistent with Section 5.3, and acknowledging the overall infrastructure needs of the new community, Council's capital works program and the availability of DCP funds for the construction of individual projects.
- All items included in the DCP being provided within 30 years from the date upon which this DCP was first incorporated in to the Wyndham Planning Scheme.

Transport projects shall be prioritised to optimise the entry and exit capacity of the DCP area and to provide the internal roads that connect communities to entry and exit points.

Community projects shall be prioritised in the Wyndham West DCP area to provide the best achievable level of accessibility to the relevant services, consistent with the efficient use of DCP funds.

Key priority projects have been identified in Section 6.2.

Development proponents who wish to bring projects forward of the timing identified in the DCP PIP will need to discuss their proposal with the Development Agency. Where it considers it acceptable, Council may choose to amend the DCP PIP to bring forward delivery of the relevant project/s. Alternatively and where amending the DCP PIP is not an option, the development proponent and Council may enter into a works in kind agreement with the timing of any credit for works in kind to be negotiated between the parties.

6.2 Key Infrastructure Delivery Priorities

The following table provides the list of key DCP priority project over an initial 10 year period, to facilitate development across the broader Wyndham West area. These projects are considered a priority as they increase the capacity of the existing road network, improve access to land within the area and improve road safety. The table places projects into phase one and phase two priority categories. Projects in these categories are seen as important to enabling development in the Wyndham West area.

The projects shown in Table 11 and Plan 8 that are to be delivered by Wyndham City attract the financing adjustment as specified in Tables 10a and 10b and Appendix 3.

The purpose of the table is to provide Council and development proponents with a clear understanding of which projects should be prioritised.

Table 11 Key Infrastructure Delivery Priorities

Phase One	Description	Delivered by	DCP Project Nos
	Part A Construction of Ison Road between Princes Highway and Melbourne-Geelong Rail Line	Wyndham City	RD-01, IN-31, BR-01, BR-17, BR-18
	Part C Construction of Ison Road between Melbourne-Geelong Rail Line and Armstrong Road & construction of Armstrong Road between Ison Road and Black Forest Road	Lendlease Pty Ltd	RD-02, RD-05, IN-02B, IN-13, IN-14, BR-02, BR-06, BR-07, BR-19
	Part D Construction of Armstrong Road between Black Forest and Ballan Roads	Wyndham City	RD-06A, RD-06B, BR-08
	Part E Construction of Armstrong Road Lollypop Creek Bridge	Wyndham City	BR-08
Phase Two	Description	Delivered by	DCP Project Nos
	Part F Construction of Armstrong Road between Ballan Road and Werribee River	Wyndham City	RD-07, IN-15, IN-16, IN-17, BR-14, BR-09

7.0 OTHER INFORMATION

7.1 Glossary

Active Open Space

Land set aside for the specific purpose of formal/organised club based sports.

Activity Centre

See 'Town Centre'.

Arterial Road

A higher order road providing for moderate to high volumes at relatively high speeds typically used for inter-suburban journeys and linking to freeways, and identified under the Road Management Act 2004. All declared arterials are managed by the State Government.

'Before and After' Valuation Method

Land in the DCP has been valued based on the definition of market value as approved by the Australian Property Institute. The 'Before' value is determined ignoring any impact of the acquisition, in contrast the 'After' value takes into account all impacts favourable and unfavourable resulting from the Scheme of Acquisition being the Development Contributions Plan (DCP).

Co-Location

Adjoining land uses to enable complementary programs, activities and services and shared use of resources and facilities. For example, the co-location of schools and active open space.

Community Facilities

Infrastructure provided by government or non-government organisations for accommodating a range of community support services, programs and activities. This includes facilities for education and learning (e.g. government and non-government schools, universities, adult learning centres); early years (e.g. preschool, maternal and child health, childcare); health and community services (e.g. hospitals, aged care, doctors, dentists, family and youth services, specialist health services); community (e.g. civic centres, libraries, neighbourhood houses); arts and culture (e.g. galleries, museums, performance space); sport, recreation and leisure (e.g. swimming pools); justice (e.g. law courts); voluntary and faith (e.g. places of worship) and emergency services (e.g. police, fire and ambulance stations).

Connector Street

A lower order street providing for low to moderate volumes and moderate speeds linking local streets to the arterial network Managed by the relevant local council. (See Table C1 in clause 56)

Conventional Density Housing

Housing with an average density of 10 to 15 dwellings per net developable hectare.

Development Contributions Plan

Document that sets out the contributions expected from each individual landowner to fund infrastructure and services. Refer to Part 3B of the Planning and Environment Act 1987.

Encumbered Land

Land that is constrained for development purposes. Includes easements for power/transmission lines, sewers, gas, waterways, drainage, retarding basins/wetlands, landfill, conservation and heritage areas. This land may be used for a range of activities (e.g. walking trails, sports fields).

Freeway

A high speed and high volume road with the highest level of access control and typically used for longer distance journeys across the metropolitan area and country Victoria. All freeways are managed by VicRoads.

Growth Area

Areas on the fringe of metropolitan Melbourne around major regional transport corridors that are designated for large-scale change, over many years from rural to urban use. Melbourne has six growth areas called Casey-Cardinia; Hume; Melton-Caroline Springs; Whittlesea, Wyndham and Mitchell.

Growth Corridor Plan

Government document that sets long-term strategic planning direction to guide the creation of a more sustainable community in the growth areas.

High Density Housing

Housing with an average density of more than 30 dwellings per net developable hectare.

Housing Density (Net)

The number of houses divided by net developable area

Linear Open Space Network

Corridors of open space, mainly along waterways that link together, forming a network.

Land Budget Table

A table setting out the total precinct area, net developable area and constituent land uses proposed within the precinct.

Lot

A part (consisting of one or more pieces) of any land (except a road, a reserve, or common property) shown on a plan, which can be disposed of separately and includes a unit or accessory unit on a registered plan of strata subdivision and a lot or accessory lot on a registered cluster plan.

Lower Density Housing

Housing with an average density of less than 10 dwellings per hectare.

Major Employment Area

Areas identified on the Growth Corridor Plan for economic and employment growth.

Major Town Centre

Town centres that have similar characteristics to Principal Town Centres, but serve smaller catchment areas.

Medium Density Housing

Housing with an average density of 16 to 30 dwellings per net developable hectare.

Native Vegetation

Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses.

Net Developable Area

Total amount of land within the precinct that is made available for development of housing and employment buildings, including lots, local and connector streets. Total precinct area minus community facilities, schools and educational facilities and open space, arterial roads and encumbered land. Small local parks defined at subdivision stage are included in net developable area.

Net Developable Area - Employment

As per net developable area but excluding residential and town centre areas.

Net Developable Area - Residential

As per net developable area but excluding industrial employment areas.

Passive Open Space

Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.

Precinct Structure Plan

A statutory document that describes how a precinct or series of sites within a growth area will be developed over time. A precinct structure plan sets out the broad environmental, social and economic parameters for the use and development of land within the precinct.

Principal Public Transport Network

A high-quality public transport network that connects Principal and Major Activity Centres, and comprises the existing radial fixed-rail network, extensions to this radial network and new cross-town bus routes.

Public Open Space

Land that is set aside in the precinct structure plan for public recreation or public resort, or as parklands, or for similar purposes. Incorporates active and passive open space.

Town Centre

Provide the focus for services, commercial and retail based employment and social interaction. They are where people shop, work, meet, relax and live. They are well-served by public transport, they range in size and intensity of use. In the growth areas, these are referred to as principal activity centres, major activity centres, neighbourhood activity centres and local centres.

Urban Growth Boundary

A statutory planning management tool used to set clear limits to metropolitan Melbourne's urban development.

Urban Growth Zone

Statutory zone that applies to land that has been identified for future urban development. The UGZ has four purposes: (1) to manage transition of non-urban land into urban land; (2) to encourage development of well-planned and well-serviced new urban communities in accordance with an overall plan; (3) to reduce the number of development approvals needed in areas where an agreed plan is in place; and (4) to safeguard non-urban land from use and development that could prejudice its future urban development.

This page has been intentionally left blank.

8.0 APPENDICES

8.1 Appendix 1 – Property Specific Land Budget

Table 12 Property Specific Land Budget

PROPERTY NUMBER	TOTAL AREA (HECTARES)	TRANSPORT				COMMUNITY			ENCUMBERED LAND AVAILABLE FOR RECREATION								UNENCUMBERED LAND AVAILABLE FOR RECREATION						TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELT AREA % OF PRECINCT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		4 LANE ARTERIAL ROAD /WIDENING	6 LANE ARTERIAL ROAD /WIDENING	ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	EXISTING ROAD RESERVE(FUTURE OMR)	RAILWAY CORRIDORS / EASEMENTS	COMMUNITY FACILITIES	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY / DRAINAGE LINE / WETLAND / RETARDING	WATERWAY / DRAINAGE WITHIN WTRP	HERITAGE (ABORIGINAL)	CONSERVATION (TREE RESERVE)	CONSERVATION AREA (GROWLING GRASS FROG)	CONSERVATION AREA (GROWLING GRASS FROG) WITHIN WTRP	ACTIVE OPEN SPACE	PASSIVE OPEN SPACE	PROPOSED WTRP	ADDITIONAL OPEN SPACE	LAND FOR INDOOR SPORTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
PROPERTY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

PROPERTY NUMBER	TOTAL AREA (HECTARES)	TRANSPORT					COMMUNITY			ENCUMBERED LAND AVAILABLE FOR RECREATION								UNENCUMBERED LAND AVAILABLE FOR RECREATION						TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVT AREA % OF PRECINCT
		4 LANE ARTERIAL ROAD /WIDENING	6 LANE ARTERIAL ROAD /WIDENING	ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	EXISTING ROAD RESERVE(FUTURE OMR)	RAILWAY CORRIDORS / EASEMENTS	COMMUNITY FACILITIES	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY / DRAINAGE LINE / WETLAND / RETARDING	WATERWAY / DRAINAGE WITHIN WTRP	HERITAGE (ABORIGINAL)	CONSERVATION (TREE RESERVE)	CONSERVATION AREA (GROWLING GRASS FROG)	CONSERVATION AREA (GROWLING GRASS FROG) WITHIN WTRP	ACTIVE OPEN SPACE	PASSIVE OPEN SPACE	PROPOSED WTRP	ADDITIONAL OPEN SPACE	LAND FOR INDOOR SPORTS				
PROPERTY																									
421-01	5.20	5.20																					0.00	0.00%	
421-02	28.35					28.35																	0.00	0.00%	
421-03	35.88																	0.65					35.23	98.19%	
421-04	46.56			0.49			1.50		6.81		4.88							1.00					31.87	68.46%	
421-05	28.05		0.84								0.63							0.80					25.78	91.90%	
421-06	0.01																					0.01	100.00%		
421-07	35.02		0.73					3.50			4.71						0.95						25.13	71.75%	
421-08	50.73		4.91								3.26						11.25				3.29	28.02	55.23%		
421-09	18.20		3.25																			14.95	82.12%		
421-10	83.78		0.70					6.81	2.60		2.70						4.50	2.00		4.45	2.95	63.57	75.87%		
421-11	87.93		0.74		1.29		0.60	5.09			4.73						6.90	1.25				68.98	78.45%		
421-12	73.46				19.64						1.93											43.74	59.55%		
421-13	1.47				1.47																	0.00	0.00%		
SUB-TOTAL	494.65	5.20	11.18	0.49	22.39	28.35	2.10	15.40	9.41	0.00	22.84	0.00	0.00	0.00	0.00	0.00	23.60	10.15	0.00	0.00	6.25	337.28	67.46%		
ROAD RESERVE																									
R1 = Greens Road	2.37			2.37																			0.00		
R2 = Black Forest Road	2.92			2.92																			0.00		
SUB-TOTAL	5.29	0.00	0.00	5.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%		
TOTAL PRECINCT	499.94	5.20	11.18	5.78	22.39	28.35	2.10	15.40	9.41	0.00	22.84	0.00	0.00	0.00	0.00	0.00	23.60	10.15	0.00	0.00	6.25	337.28	67.46%		
PROPERTY																									
422-01	86.72		3.34	0.56							6.59						12.14	1.97		4.00		58.12	67.02%		
422-02	86.32	0.55	3.97	0.04		15.39		4.25			3.50						8.09	0.49		4.00		46.04	53.34%		
422-03	86.68	4.25	3.33	0.19		0.08		4.15	2.00		5.22						2.91	2.69				61.86	71.36%		
422-04	83.79		2.19	0.60			0.80	3.50			15.72		0.98		0.67			0.90				59.41	70.90%		
422-05	65.60			0.44							12.87				17.37			2.15				31.79	48.47%		
422-06	8.08										0.84				0.38						6.86	84.90%			
422-07	46.06		3.26	2.84							4.32				13.38			0.80			21.46	46.58%			
422-08	41.10			1.12		1.16					0.75				2.60			0.91			34.56	84.10%			
422-09	3.36					0.55															2.81	83.63%			
422-10	0.63					0.02															0.61	96.83%			
422-11	1.53																				1.53	100.00%			
SUB-TOTAL	509.87	4.80	16.10	5.78	0.00	17.20	0.80	11.90	2.00	0.00	49.81	0.00	0.98	0.00	34.40	0.00	23.14	9.91	0.00	8.00	0.00	325.05	63.75%		
TOTAL PRECINCT	509.87	4.80	16.10	5.78	0.00	17.20	0.80	11.90	2.00	0.00	49.81	0.00	0.98	0.00	34.40	0.00	23.14	9.91	0.00	8.00	0.00	325.05	63.75%		

PROPERTY NUMBER	TOTAL AREA (HECTARES)	TRANSPORT				COMMUNITY			ENCUMBERED LAND AVAILABLE FOR RECREATION							UNENCUMBERED LAND AVAILABLE FOR RECREATION					TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVP AREA % OF PRECINCT	
		4 LANE ARTERIAL ROAD / WIDENING	6 LANE ARTERIAL ROAD / WIDENING	ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	EXISTING ROAD RESERVE(FUTURE OMR)	RAILWAY CORRIDORS / EASEMENTS	COMMUNITY FACILITIES	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY / DRAINAGE LINE / WETLAND / RETARDING	WATERWAY / DRAINAGE WITHIN WTRP	HERITAGE (ABORIGINAL)	CONSERVATION (TREE RESERVE)	CONSERVATION AREA (GROWLING GRASS FROG)	CONSERVATION AREA (GROWLING GRASS FROG) WITHIN WTRP	ACTIVE OPEN SPACE	PASSIVE OPEN SPACE	PROPOSED WTRP	ADDITIONAL OPEN SPACE			LAND FOR INDOOR SPORTS
PROPERTY																							
43-0	0.08									0.00												0.08	100.00%
43-1	12.91									0.93												11.98	92.80%
43-2	12.91									0.93		0.57										11.40	88.37%
43-2A	0.77									0.00												0.77	100.00%
43-3	11.84			0.02						1.29								0.95				9.57	80.83%
43-4	9.13			0.02						1.82								0.70				6.58	72.12%
43-5	8.94									0.00												8.94	100.00%
43-6	11.85									1.45												10.40	87.79%
43-7	11.92									1.18		0.03						0.67				10.04	84.21%
43-8	9.00									1.13												7.87	87.41%
SUB-TOTAL	89.35	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	8.74	0.00	0.60	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00	77.64	86.90%
ROAD RESERVE																							
Alfred Road Reserve	1.47			1.47																		0.00	
SUB-TOTAL	1.47	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
TOTAL PRECINCT	90.82	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	8.74	0.00	0.60	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00	77.64	85.49%
PROPERTY																							
1092-01	19.42				10.63					0.03												8.76	45.11%
1092-02	10.82				3.50					0.01							0.50					6.81	62.94%
1092-03	13.28				3.90					0.04	1.30											8.04	60.56%
1092-04	18.94				4.98					0.09	0.11											13.76	72.66%
1092-05	14.45				3.87					0.79	1.24			3.45								5.10	35.31%
1092-06	1.34									1.34												0.00	0.00%
1092-07	94.38		0.22						2.15	1.28	3.00						1.30	3.00				83.43	88.39%
1092-08	99.08									2.03	10.19		0.09	9.86			1.19	3.30				72.42	73.09%
1092-09	58.72		5.96					0.19	1.29		1.50			3.24			15.50	0.00				31.04	52.87%
1092-10	100.46		7.84				1.40	3.31	5.56								5.66	2.50				74.19	73.85%
1092-11	50.70		2.21								4.00			3.16				1.00				40.34	79.56%
1092-12	27.00																	0.50				26.50	98.15%
1092-13	22.62					22.62																0.00	0.00%
1092-14	66.26					66.26																0.00	0.00%
SUB-TOTAL	597.47	0.00	16.23	0.00	26.88	88.88	1.40	3.50	9.00	5.61	21.32	0.00	0.00	0.09	19.71	0.00	23.65	10.80	0.00	0.00	0.00	370.39	61.99%
TOTAL PRECINCT	597.47	0.00	16.23	0.00	26.88	88.88	1.40	3.50	9.00	5.61	21.32	0.00	0.00	0.09	19.71	0.00	23.65	10.80	0.00	0.00	0.00	370.39	61.99%

PROPERTY NUMBER	TOTAL AREA (HECTARES)	TRANSPORT				COMMUNITY			ENCUMBERED LAND AVAILABLE FOR RECREATION								UNENCUMBERED LAND AVAILABLE FOR RECREATION					TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVP AREA % OF PRECINCT	
		4 LANE ARTERIAL ROAD / WIDENING	6 LANE ARTERIAL ROAD / WIDENING	ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	EXISTING ROAD RESERVE(FUTURE OMR)	RAILWAY CORRIDORS / EASEMENTS	COMMUNITY FACILITIES	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY / DRAINAGE LINE / WETLAND / RETARDING	WATERWAY / DRAINAGE WITHIN WTRP	HERITAGE (ABORIGINAL RESERVE)	CONSERVATION AREA (GROWLING GRASS FROG)	CONSERVATION AREA (GROWLING GRASS FROG) WITHIN WTRP	ACTIVE OPEN SPACE	PASSIVE OPEN SPACE	PROPOSED WTRP	ADDITIONAL OPEN SPACE	LAND FOR INDOOR SPORTS				
PROPERTY																								
10921-01	45.21										45.21											0.00	0.00%	
10921-02	45.48		0.10		0.81					0.41	4.32						4.51					35.34	77.70%	
10921-03					0.31																	0.00	0.00%	
10921-04	55.36				12.10					0.11	12.12							1.94				29.09	52.56%	
10921-05	1.78				1.78																	0.00	0.00%	
10921-06	4.86				3.88						0.97											0.00	0.00%	
SUB-TOTAL	153.00	0.00	0.10	0.00	18.88	0.00	0.00	0.00	0.00	0.52	62.61	0.00	0.00	0.00	0.00	0.00	4.51	1.94	0.00	0.00	0.00	64.43	42.11%	
ROAD RESERVE																								
R1 = Ballan Road	7.62			7.62																		0.00		
SUB-TOTAL	7.62	0.00	0.00	7.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
TOTAL PRECINCT	160.63	0.00	0.10	7.62	18.88	0.00	0.00	0.00	0.00	0.52	62.61	0.00	0.00	0.00	0.00	0.00	4.51	1.94	0.00	0.00	0.00	64.43	40.11%	
PROPERTY																								
10931-01	130.15		7.57								14.00						5.00	2.95				100.63	77.32%	
10931-02	130.03				6.13		0.60	3.50			9.00						6.13	3.00				101.67	78.19%	
10931-03	41.37				25.81																	15.56	37.62%	
SUB-TOTAL	301.55	0.00	7.57	0.00	31.93	0.00	0.60	3.50	0.00	0.00	23.00	0.00	0.00	0.00	0.00	0.00	11.13	5.95	0.00	0.00	0.00	217.87	72.25%	
ROAD RESERVE																								
R1 = Black Forest Road	1.92			1.92																		0.00		
SUB-TOTAL	1.92	0.00	0.00	1.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
TOTAL PRECINCT	303.47	0.00	7.57	1.92	31.93	0.00	0.60	3.50	0.00	0.00	23.00	0.00	0.00	0.00	0.00	0.00	11.13	5.95	0.00	0.00	0.00	217.87	71.79%	
TOTAL PSP AREA		2702.499	17.301	54.168	34.218	100.088	135.884	6.300	49.700	22.991	6.128	230.214	26.546	2.322	0.090	71.775	39.155	109.232	51.020	7.164	8.000	6.248	1723.96	63.79%

8.2 Appendix 2 – External Apportionment

Table 13 External Apportionment

DCP PROJECT NUMBER	MANOR LAKES DCP	WYNDHAM NORTH DCP	MAMBOURIN EAST DCP	MELBOURNE WATER DSS	PREVIOUS SECTION 173 AGREEMENTS / EXISTING COMMUNITY
RD-01			10%		
RD-02			10%		
RD-03			10%		
RD-04			10%		
RD-06A					50%
RD-06B					43%
RD-09			10%		
IN-01A			10%		
IN-01B			10%		
IN-02A			10%		
IN-02B			10%		
IN-03			10%		
IN-04			10%		
IN-05			10%		
IN-06			10%		
IN-07			10%		
IN-08A			10%		
IN-08B	42%				16%
IN-09A			10%		
IN-09B	50%				
IN-10			10%		
IN-11			10%		
IN-18B					50%
IN-24B					30%
IN-25B	50%				
IN-31			10%		
IN-32					50%
BR-01			10%		
BR-02			10%		
BR-03			10%		
BR-04			10%		
BR-05			10%		
BR-08	8%				39%
BR-09	10%	50%			
BR-10		50%			
BR-14				59%	
BR-16				80%	
BR-17			10%		
BR-18			10%		
BR-19			10%		
BR-20					75%

DCP PROJECT NUMBER	MANOR LAKES DCP	WYNDHAM NORTH DCP	MAMBOURIN EAST DCP	MELBOURNE WATER DSS	PREVIOUS SECTION 173 AGREEMENTS / EXISTING COMMUNITY
BR-22		50%			
CO-05	82%				
CO-06	82%				
CO-07	50%				
CO-12					75%
AR-09	82%				
AR-10	82%				
AR-11	75%				
AR-12	72%				
AR-14	9%				
AR-15	6%				
AR-16	3%				

8.3 Appendix 3 – Finance Adjustment

Wyndham West DPC Finance Charge

MPA

In order to assist with the timely provision of critical infrastructure items early in the life of the DCP It has been determined that a supplementary finance charge will be applied to the Wyndham West DCP in addition to the nominal Development Infrastructure Levy amounts for each Charge Area.

This finance charge neutralises the cost of borrowed funds required to provide for these critical infrastructure items early in the life of the DCP, at a time when funds for these items have not yet been fully collected for via levies.

The Wyndham City Council and MPA determined that the following items are to be designated as priority infrastructure items which generate the need for a finance charge. It is expected that each of these items would generally be delivered by Wyndham City Council. Where a developer provides one of these items as Works In Kind they will be eligible for the finance credit for that item.

TABLE 14: Priority Infrastructure Items

RD-01	IN-17
RD-06B	IN-31
RD-07A	BR-01
RD-07B	BR-08
RD-07C	BR-09
IN-15	BR-14
IN-16	BR-17
IN-16	BR-18

PROJECTING DCP INCOME AND EXPENDITURE

In order to estimate an appropriate finance charge a projection of both income and expenditure for the life of the DCP has been determined by Wyndham City Council and the MPA in consultation with Urban Enterprise.

A projection of DCP income has been determined by applying the nominal levy amount (before finance charge adjustment) to the projected demand units for each Charge Area based upon an indicative timeline of development. The indicative timeline of development for each Charge Area within the DCP is given in Table 15.

TABLE 15: Demand Units Developed

	TOTAL	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
CA 1	956.9	2.67	2.67	2.67	13.14	14.41	19.50	21.45	24.25	22.88	27.38	27.81	28.65
CA 2	91.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA 3	224.9	0.00	2.78	2.78	2.78	4.03	11.80	8.58	8.16	6.81	8.06	8.48	9.31
CA 4	106.4	0.00	0.00	2.67	2.67	10.70	12.89	9.55	6.47	3.22	1.09	1.28	1.64
CA 5	77.6	0.00	3.21	3.21	3.21	3.61	5.18	4.17	4.03	3.61	4.00	3.04	1.18
CA 6	266.9	9.41	9.41	12.54	15.68	15.68	18.82	21.95	21.95	21.95	21.95	21.95	21.95
Total	1724.1	12.08	18.08	23.89	37.49	48.44	68.18	65.71	64.86	58.47	62.48	62.57	62.73
		Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24

CA 1	28.65	28.65	36.96	40.92	47.03	48.12	48.12	48.12	49.03	49.43	48.15	48.15
CA 2	0.00	0.00	0.00	0.00	11.25	10.01	10.01	10.01	10.01	10.01	10.01	10.01
CA 3	9.31	9.31	9.16	13.05	10.34	6.23	6.23	6.23	5.46	7.48	6.23	6.23
CA 4	1.64	1.64	1.57	3.28	2.26	2.73	2.73	2.73	2.39	3.28	2.73	2.73
CA 5	1.18	1.18	1.14	2.37	1.63	1.97	1.97	1.97	1.73	2.37	1.97	1.97
CA 6	21.95	21.95	9.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	62.73	62.73	58.61	59.61	72.51	69.06	69.06	69.06	68.61	72.56	69.10	69.10

	Year 25	Year 26	Year 27	Year 28	Year 29
CA 1	48.15	50.11	51.23	39.07	39.46
CA 2	10.01	0.00	0.00	0.00	0.00
CA 3	6.23	4.99	6.38	15.35	23.06
CA 4	2.73	2.18	2.80	6.73	10.10
CA 5	1.97	1.58	2.02	4.86	7.29
CA 6	0.00	0.00	0.00	0.00	0.00
Total	69.10	58.86	62.43	66.01	79.92

Expenditure has been determined by projecting the likely provision date of each of the infrastructure items within the DCP. The projected timing of provision for each infrastructure item has been based on best estimates at this point in time, however these may change as per Section 6.1.

CALCULATION OF FINANCE ADJUSTMENT

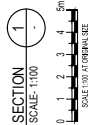
In determining the finance charge adjustment firstly the stream of levy income allocated to the finance charge designated items was separated from the stream of levy income allocated to non-finance charge designated items. These levy streams were allocated against the projected costs of infrastructure items for each year to determine an annual cash flow for both 'finance' and 'non-finance' categories of infrastructure.

It was then assumed that where projected expenditure for finance charge designated items exceeds the levy income available for finance charge designated items in a year; funds were to be borrowed at the standard rate of 6% per annum.

Where, and only where, the projected annual levy income stream for non-finance designated items is greater than the capital expenditure required for that year, the excess funds were to be re-allocated towards loan payments on finance charge designated items.

Modelling shows that using this method of reallocation of excess funds from non-finance charge designated items to pay down the interest costs of finance charge allocated items, the principle and interest is paid down on all finance charge designated items after approximately 15 years.

The total present value of the interest stream on finance charge designated items was then determined and divided by the total number of demand units within the DCP area to determine the finance charge required. This finance charge amount neutralises the loss of funds from the non-finance charge designated items, meaning that there is still the same relative level of funding for non-finance designated items as before the reallocation of excess funds to pay down the finance charge designated items.



NOTES

1. Allowable exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
4. Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Section 2, as per MT 18.12.2012.
5. Payment design is indicative only, subject to geotechnical investigation and detailed design.
6. Assume landscaping for the extent of road reserve excluding roads and pathways.

Traffic Management	5%	\$	205.72
Site Establishment	2.5%	\$	102.86
Survey and Design	5%	\$	205.72
Superintendence and Project Management	8%	\$	370.29
1% and plain concrete	0.75% (3.25%)	\$	133.72
Vic Roads fees	1%	\$	41.14
Contingency	5%	\$	617.16
Total Estimated Cost per Linear Meter (est. GST)		\$	5,000

Contingency 10%	\$ 617.16
Total Estimated Cost per Linear Meter (excl. GST)	\$ 5,800

[illegible]

Traffic Management 5%	\$ 190,931
Site Establishment 2.5%	\$ 58,465
Survey and Design 9%	\$ 19,093
Supervision and Project Management 9%	\$ 354,444
Council Fees (Supervision 1.5%, project management 1% and chainlink 0.25%) 3.25%	\$ 277,939
Vac Roads Fees 1%	\$ 39,238
Contingency 15%	\$ 300,724
Total Estimated Cost per Linear Meter (incl. GST)	\$ 5,650

NOTES

1. All costs
2. Costs of
3. No allo
4. Costing
5. Parvem
6. Assum

Supervision and Professional Fees (Supervision 15%, project management 1% and planning 1%)





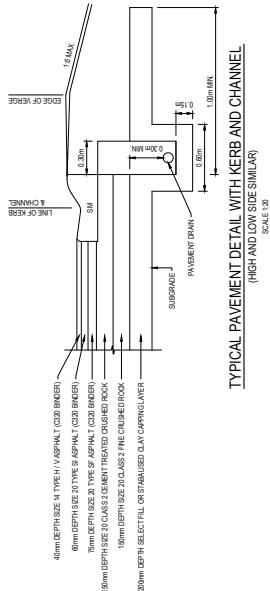
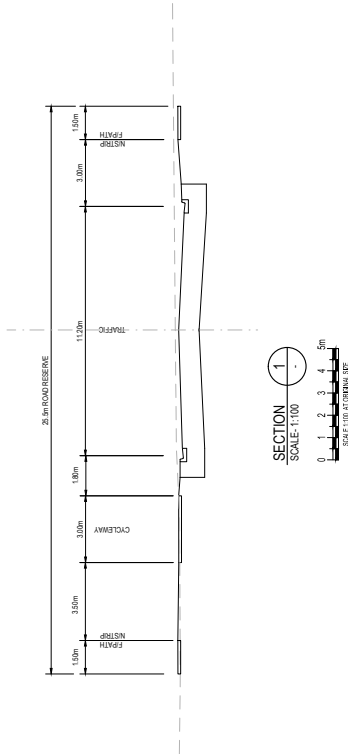
1. All costs exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
4. Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Section B, as per MIT email 19.12.2017
5. Pavement design is indicative only, subject to geotechnical investigation and detailed design.
6. Assume landscaping for the extent of road reserve excluding roads and pathways.

1. All costs exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
4. Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Section B, as per MIT email 19.12.2017
5. Pavement design is indicative only, subject to geotechnical investigation and detailed design.
6. Assume landscaping for the extent of road reserve excluding roads and pathways.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

MINOR INFRASTRUCTURE - SUMMARY OF COST					
R0111 Black Forest Road - West					
Item	Description	Quantity	Unit	Rate (burs)	Sub Total (\$ excl GST)
1.000 EARTHWORKS					
1.01	Excavate and replace off site	17.44	m3	50.00	\$ 872.00
1.02	Trim and prepare subgrade to receive sub-base	13.80	m2	160	\$ 2,208
1.03	Spread and Compact Fill Overlay	1.79	m3	8.00	\$ 15.79
1.04	Fill (Density etc.)	0.10	Item	140.00	\$ 14.00
2.000 CONCRETE WORKS					
2.01	Form & Concrete (SMA7 & SMA3)	2.00	Lm	52.00	\$ 104.00
2.02	Form & Concrete (SMA7 & SMA3)	2.00	Lm	52.00	\$ 104.00
2.03	Form & Concrete (SMA7 & SMA3)	2.00	Lm	52.00	\$ 104.00
2.04	Form & Concrete (SMA7 & SMA3)	2.00	Lm	52.00	\$ 104.00
2.05	Form & Concrete (SMA7 & SMA3)	2.00	Lm	52.00	\$ 104.00
3.000 PAVEMENT WORKS					
3.01	40mm Thick Asphalt (wearing course)	11.20	m2	18.10	\$ 202.72
3.02	60mm Thick Asphalt (intermediate course)	11.20	m2	31.70	\$ 355.04
3.03	70mm Thick Asphalt (base course)	11.20	m2	33.80	\$ 378.56
3.04	100mm Thick Asphalt (base course)	11.20	m2	35.80	\$ 399.36
3.05	150mm Thick Asphalt (base course)	13.80	m2	35.80	\$ 494.04
3.06	150mm Thick Asphalt (base course)	13.80	m2	35.80	\$ 494.04
3.07	200mm Thick Asphalt (base course)	13.80	m2	35.80	\$ 494.04
3.08	Subgrade Improvement (allow 20% of area)	2.70	m2	13.40	\$ 36.18
4.000 DRAINAGE WORKS					
4.01	400mm dia. 1000mm long	2.00	Lm	31.50	\$ 63.00
4.02	400mm dia. 1000mm long	2.00	Lm	31.50	\$ 63.00
4.03	275mm dia. RCP (graded rock, laid)	1.20	m	240.00	\$ 288.00
4.04	275mm dia. RCP (with head)	0.00	m	200.00	\$ -
4.05	Block-in and Connection to Existing Drainage	0.00	Item	1500.00	\$ -
5.000 SIGN AND LUMINAIRES					
5.01	Luminaire	4.00	Lum	175	\$ 700
5.02	Signpost	0.01	No.	400.00	\$ 4.00
6.000 ELECTRICAL WORKS					
6.01	Street Light poles @ 5m spacing	0.02	No.	6500.00	\$ 130.00
6.02	Street Light poles @ 5m spacing	1.00	Lum	80.00	\$ 80.00
7.000 LANDSCAPE WORKS					
7.01	Landscape (soil and mulch only)	8.30	m2	3.35	\$ 27.80
7.02	Landscape (soil and mulch only)	0.13	No.	300.00	\$ 39.00
8.000 SERVICE RELOCATION / PROTECTION					
8.01	Allowance for relocation of existing services	1.00	Lm	134.00	\$ 134.00
					Subtotal \$ 4,597
					Traffic Management 5% \$ 229.85
					Site Establishment 2.5% \$ 114.93
					Survey and Design 5% \$ 229.85
					Construction and Project Management 5% \$ 229.85
					Contingency 15% \$ 689.55
					Nil Road Fee 1% \$ 45.97
					Total Estimated Cost per Linear Metre (excl. GST) \$ 6,360

- NOTES
- Costs are indicative only.
 - Costs are based on typical construction rates from similar projects.
 - No allowance has been made for Community Liaison, Cultural Heritage, Fire and Rescue / Aid, Gain Office.
 - Costing based on GMA Black Forest Rd Precinct Structure Plan, Cross-Section 4, as per M1 email 19.12.2012
 - Pavement design is indicative only, subject to geotechnical investigation and detailed design.
 - Assume landscaped for the extent of road reserve excluding roads and pathways.



MPA METROPOLITAN PLANNING AUTHORITY

1/17/2013 11:57:13 AM - GMA Black Forest Rd Precinct Structure Plan, Cross-Section 4, as per M1 email 19.12.2012

1/17/2013 11:57:13 AM - GMA Black Forest Rd Precinct Structure Plan, Cross-Section 4, as per M1 email 19.12.2012

WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN (R0111)

INFRASTRUCTURE OPINION OF COST

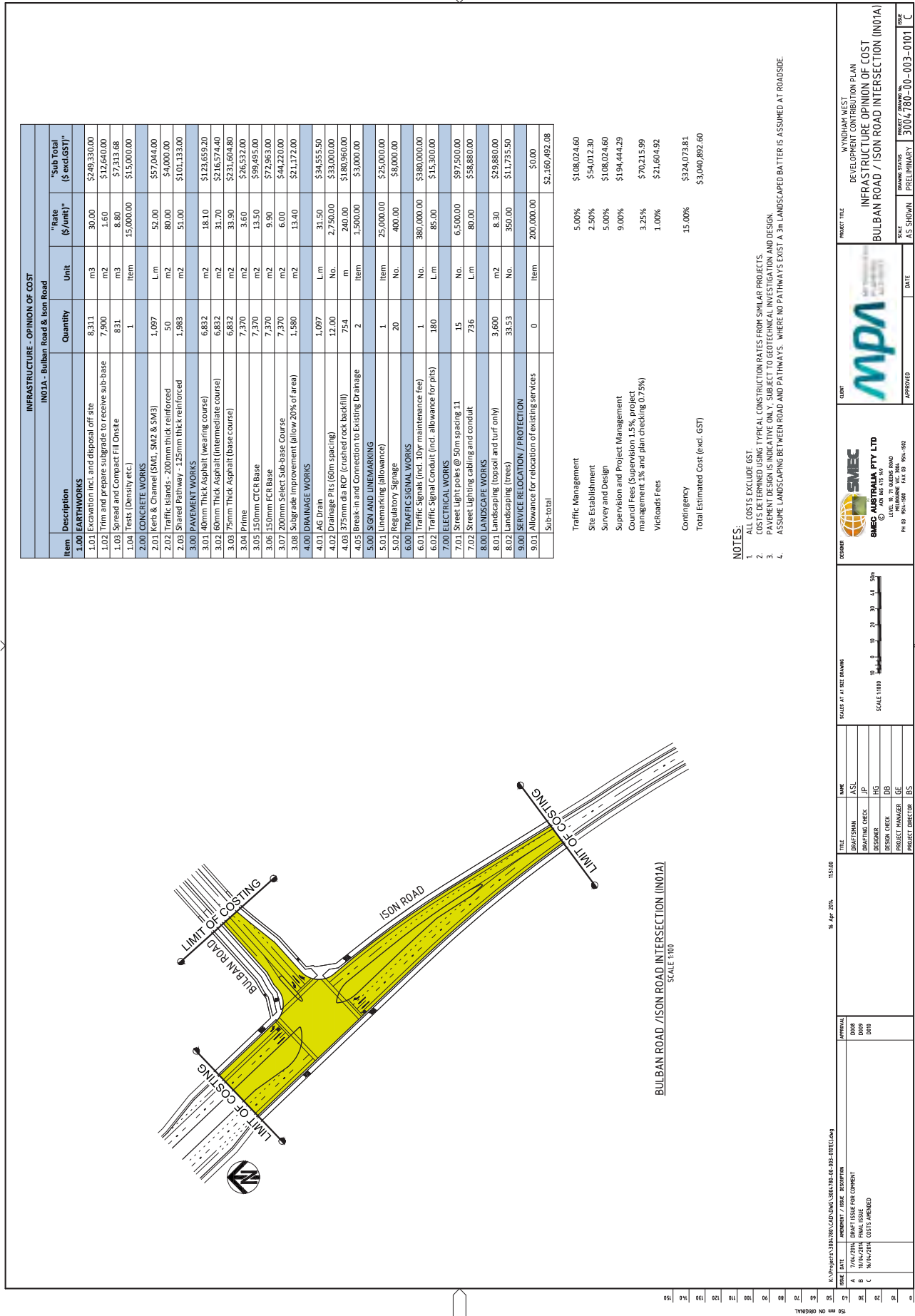
PRELIMINARY NOT FOR CONSTRUCTION

107563

MI-E-R11

A

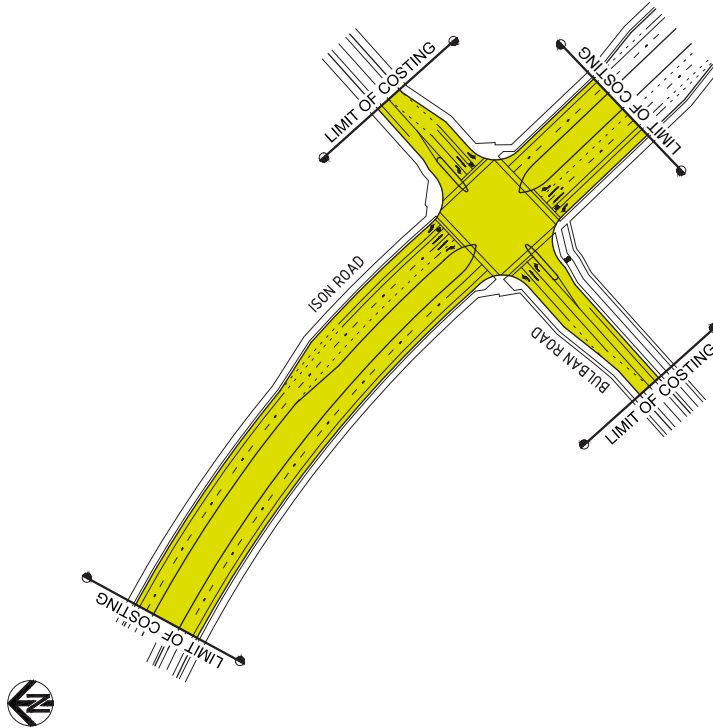
8.4.2 Intersection Cost Sheets



INFRASTRUCTURE - OPINION OF COST					
IN01B - Bulban Road & Ison Road					
Item	Description	Quantity	Unit	"Rate (\$/unit)"	"Sub Total (\$ excl GST)"
1.00 EARTHWORKS					
1.01	Excavation incl. and disposal off site	12,914	m ³	30.00	\$387,420.00
1.02	Trim and prepare subgrade to receive	11,677	m ²	1.60	\$18,683.20
1.03	Spread and Compact Fill Onsite	1,291	m ³	8.80	\$11,364.32
1.04	Tests (Density etc.)	1	Item	15,000.00	\$15,000.00
2.00 CONCRETE WORKS					
2.01	kerb & Channel (SM4, SM2 & SM3)	1,680	Lm	52.00	\$87,360.00
2.02	Traffic Islands - 200mm thick reinforced	100	m ²	80.00	\$8,000.00
2.03	Shared Pathway - 125mm thick reinforced	2,880	m ²	51.00	\$146,880.00
3.00 PAVEMENT WORKS					
3.01	40mm Thick Asphalt (wearing course)	10,873	m ²	18.10	\$196,801.30
3.02	60mm Thick Asphalt (intermediate course)	10,873	m ²	31.70	\$344,674.10
3.03	75mm Thick Asphalt (base course)	10,873	m ²	33.90	\$368,594.70
3.04	Prime	11,677	m ²	3.60	\$42,037.20
3.05	150mm CTCB Base	11,677	m ²	13.50	\$157,639.50
3.06	150mm PCR Base	11,677	m ²	9.90	\$115,602.30
3.07	200mm Select Sub-base Course	11,677	m ²	6.00	\$70,062.00
3.08	Subgrade Improvement (allow 20% of area)	2,335	m ²	13.40	\$31,284.36
4.00 DRAINAGE WORKS					
4.01	AG Drain	1,680	Lm	31.50	\$52,920.00
4.02	Drainage Pits (60m spacing)	19.00	No.	2,750.00	\$52,250.00
4.03	375mm dia RCP (crushed rock backfill)	1,100	m	240.00	\$264,000.00
4.05	Break-in and Connection to Existing Drainage	2	Item	1,500.00	\$3,000.00
5.00 SIGN AND LINE-MARKING					
5.01	Line-marking (allowance)	1	Item	35,000.00	\$35,000.00
5.02	Regulatory Signage	32	No.	400.00	\$12,800.00
6.00 TRAFFIC SIGNAL WORKS					
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	No.	380,000.00	\$380,000.00
6.02	Traffic Signal Conduit (incl. allowance for pits)	160	Lm	85.00	\$13,600.00
7.00 ELECTRICAL WORKS					
7.01	Street Light poles @ 50m spacing 11	22	No.	6,500.00	\$143,000.00
7.02	Street Lighting cabling and conduit	1,100	Lm	80.00	\$88,000.00
8.00 LANDSCAPE WORKS					
8.01	Landscaping (topsoil and turf only)	4,220	m ²	8.30	\$35,026.00
8.02	Landscaping (trees)	37.92	No.	350.00	\$13,272.00
9.00 SERVICE RELOCATION / PROTECTION					
9.01	Allowance for relocation of existing services	0	Item	200,000.00	\$0.00
	Sub-total				\$3,094,280.98
	Traffic Management			5.0%	\$154,714.05
	Site Establishment			2.5%	\$77,357.02
	Survey and Design			5.0%	\$154,714.05
	Supervision and Project Management			9.0%	\$278,485.29
	Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%)			3.25%	\$100,564.13
	Victrolads Fees			1.0%	\$30,942.81
	Contingency				
	Total Estimated Cost (excl. GST)			15.0%	\$464,142.15
					\$4,355,200.48

NOTES:

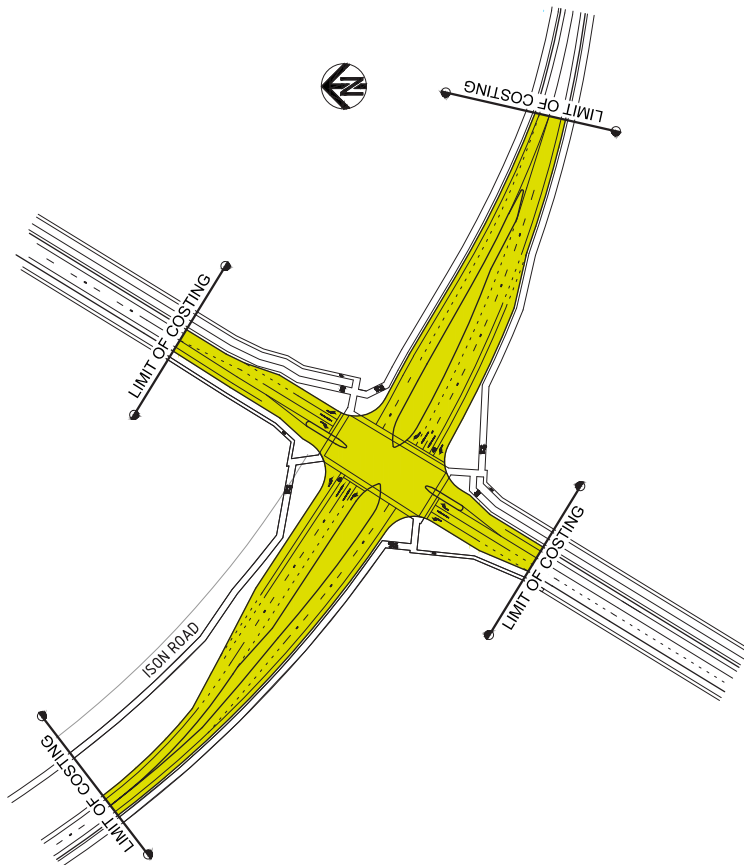
- ALL COSTS EXCLUDE GST.
- COSTS DETERMINED USING TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS.
- PAVEMENT DESIGN IS INDICATIVE ONLY, SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN.
- ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS, WHERE NO PATHWAYS EXIST. A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.



ISON ROAD/BULBAN ROAD INTERSECTION (IN01)

SCALE 1:100

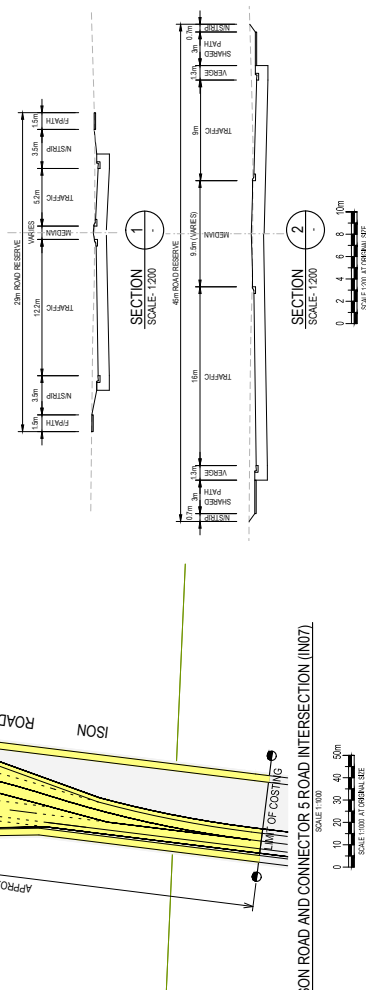
K:\Projects\BULBAN\CD\DMC\BULBAN-01-PROJ2C.dwg		15/1/14	14 Apr 2014					PROJECT TITLE WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN INFRASTRUCTURE OPINION OF COST ISON ROAD/ BULBAN ROAD INTERSECTION (IN01B)	DRAWING STATUS PRELIMINARY	PROJECT / DRAWING No. 3004-780-00-003-0102	SCALE AS SHOWN	DATE 14 Apr 2014	SHEET / DRAWING No. 3004-780-00-003-0102	DATE 14 Apr 2014
REVISION A 7/14/2014 B 10/14/2014 C 10/14/2014	REVISION / ISSUE DESCRIPTION DRAFT ISSUE FOR COMMENT FINAL ISSUE COSTS APPROVED	APPROVAL D088 D089 D010	TITLE ISON ROAD/BULBAN ROAD INTERSECTION (IN01)	NAME A.S.L. J.P. H.G. D.B. G.E. B.S.	SCALE AT A1 SIZE DRAWING SCALE 1:1000 10 0 10 20 30 40 50m	DESIGNED DRAFTSMAN CHECKER DESIGNED CHECKER PROJECT MANAGER PROJECT DIRECTOR	DRAWN CHECKED DESIGNED CHECKED PROJECT MANAGER PROJECT DIRECTOR	PROJECT TITLE WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN INFRASTRUCTURE OPINION OF COST ISON ROAD/ BULBAN ROAD INTERSECTION (IN01B)	DRAWING STATUS PRELIMINARY	PROJECT / DRAWING No. 3004-780-00-003-0102	SCALE AS SHOWN	DATE 14 Apr 2014	SHEET / DRAWING No. 3004-780-00-003-0102	DATE 14 Apr 2014



ROAD IN
SCALE 1-100

[illegible]



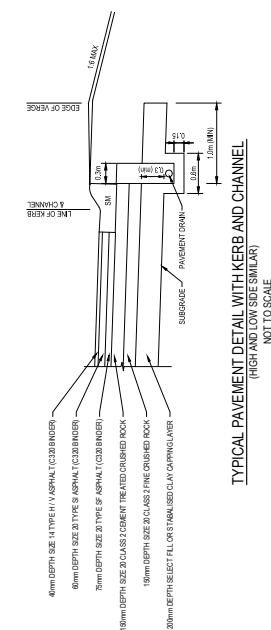


NOTES

1. All costs
2. Costs de
3. No allow
4. Costing
5. Paveme
6. Assume

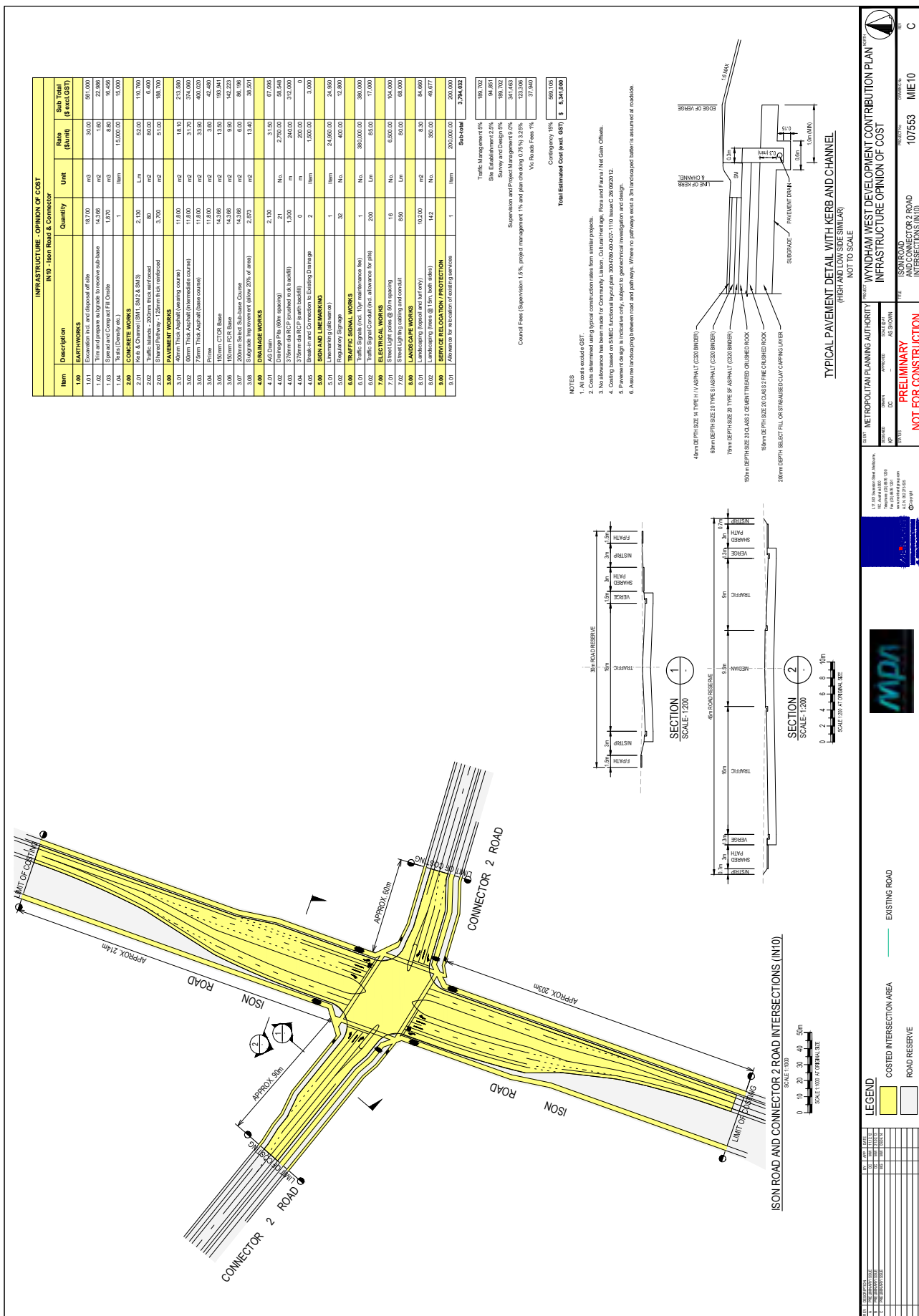
- e GST.
and used typical construction rates from similar projects.
has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
on S/NCC functional layout plan 300-4790-00-007: 1107 issued 26/09/2012.
sign is indicative only, subject to geotechnical investigation and design.
spacing between road and pathways. Where no pathways exist a 3m landscaped buffer is assumed at midline.

Traffic Management 5%	193,187
Site Establishment 2.5%	96,590
Survey and Design 5%	193,187
Supervision and Project Management 9.0%	347,330
Ground Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	125,571
VE Roadside Fees 1%	38,637
Contingency 15%	579,560
Total Estimated Cost (excl. GST)	\$ 4,439,100

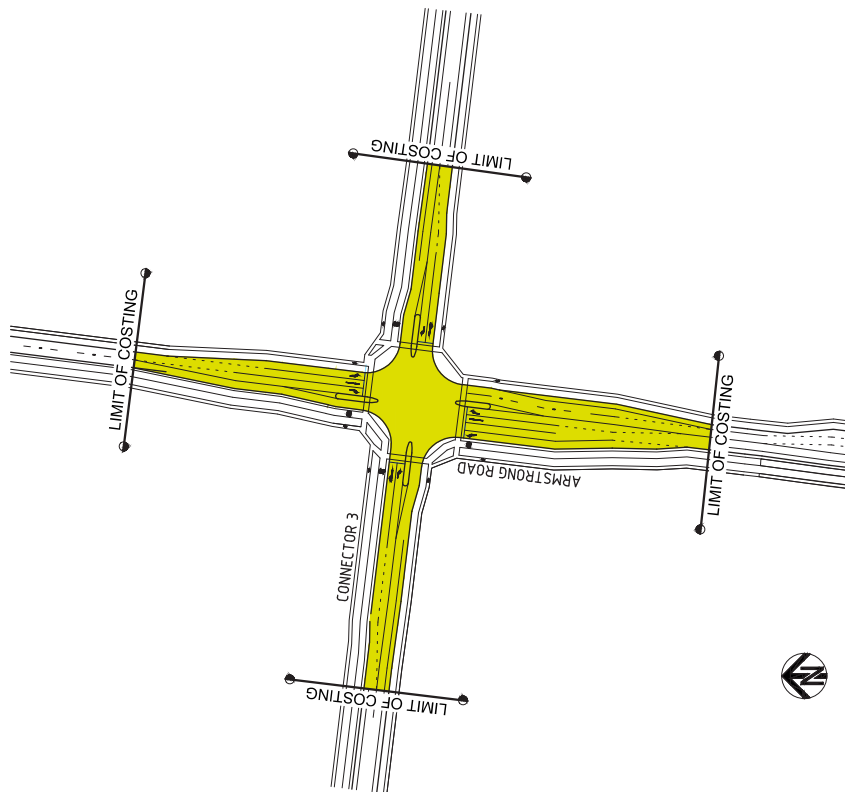


1.2m

TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)
NOT TO SCALE







ARMSTRONG ROAD/CONNECTOR ROAD INTERSECTION (IN12)

SCALE 1:100

INFRASTRUCTURE - OPINION OF COST					
IN12 - Armstrong Road & Connector					
Item	Description	Quantity	Unit	Rate (\$/unit)	"Sub Total (\$ excl GST)"
1.00. EARTHWORKS					
1.01	Excavation incl. and disposal off site	10,400	m3	30.00	\$312,000.00
1.02	Trim and prepare subgrade to receive sub-base	7,500	m2	1.60	\$12,000.00
1.03	Spread and Compact fill Onsite	1,040	m3	8.80	\$9,152.00
1.04	Tests (Density etc.)	1	Item	15,000.00	\$15,000.00
2.00. CONCRETEWORKS					
2.01	Kerb & Channel (SM1, SM2 & SM3)	1,140	Lm	52.00	\$59,280.00
2.02	Traffic Islands - 200mm thick reinforced	100	m2	80.00	\$8,000.00
2.03	Shared Pathway - 125mm thick reinforced	2,000	m2	51.00	\$102,000.00
3.00. PAVEMENT WORKS					
3.01	30.0mm Thick Asphalt (wearing course)	7,400	m2	18.10	\$133,940.00
3.02	60mm Thick Asphalt (intermediate course)	7,400	m2	31.70	\$234,580.00
3.03	75mm Thick Asphalt (base course)	7,400	m2	33.90	\$250,860.00
3.04	Prime	7,500	m2	3.60	\$27,000.00
3.05	150mm CTCR Base	7,500	m2	13.10	\$101,250.00
3.06	150mm FCR Base	7,500	m2	9.90	\$74,250.00
3.07	200mm Select sub-base Course	7,500	m2	6.00	\$45,000.00
3.08	Subgrade improvement (allow 20% of area)	1,500	m2	13.40	\$20,100.00
4.00. DRAINAGE WORKS					
4.01	AG Drain	1,140	Lm	31.50	\$35,910.00
4.02	Drainage Pits (60m spacing)	11.00	No.	2,750.00	\$30,250.00
4.03	375mm dia TGP (contracted rock backfill)	700	m	240.00	\$168,000.00
4.05	Break in & Connection to Existing Drainage	0	Item	1,500.00	\$0.00
5.00. SIGN AND LINEMARKING					
5.01	Line marking (allowance)	1	Item	25,000.00	\$25,000.00
5.02	Regulatory Signage	26	No.	400.00	\$10,400.00
6.00. TRAFFIC SIGNAL WORKS					
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	No.	380,000.00	\$380,000.00
6.02	Traffic Signal Conduit (incl. allowance for pits)	160	Lm	85.00	\$13,600.00
7.00. ELECTRICAL WORKS					
7.01	Street Light poles @ 50m spacing 11	12	No.	6,500.00	\$78,000.00
7.02	Street lighting cabling and conduit	650	Lm	80.00	\$52,000.00
8.00. LANDSCAPE WORKS					
8.01	Landscaping (topsoil and turf only)	4,700	m2	8.30	\$39,010.00
8.02	Landscaping (trees)	37.00	No.	350.00	\$12,950.00
9.00. SERVICE RELOCATION / PROTECTION					
9.01	Allowance for relocation of existing services	0	Item	200,000.00	\$0.00
	Sub-total				\$2,248,932.00

Note: the right turn lane on Connector Road south extends for 232m. Limits of intersection is 232m to the south

NOTES:

- NOTES:
1. ALL COSTS EXCLUDE GST.
 2. COSTS DETERMINED USING TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS.
 3. PAYMENT DESIGN IS INDICATIVE ONLY, SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN.
 4. ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS, WHERE NO PATHWAYS EXIST A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.

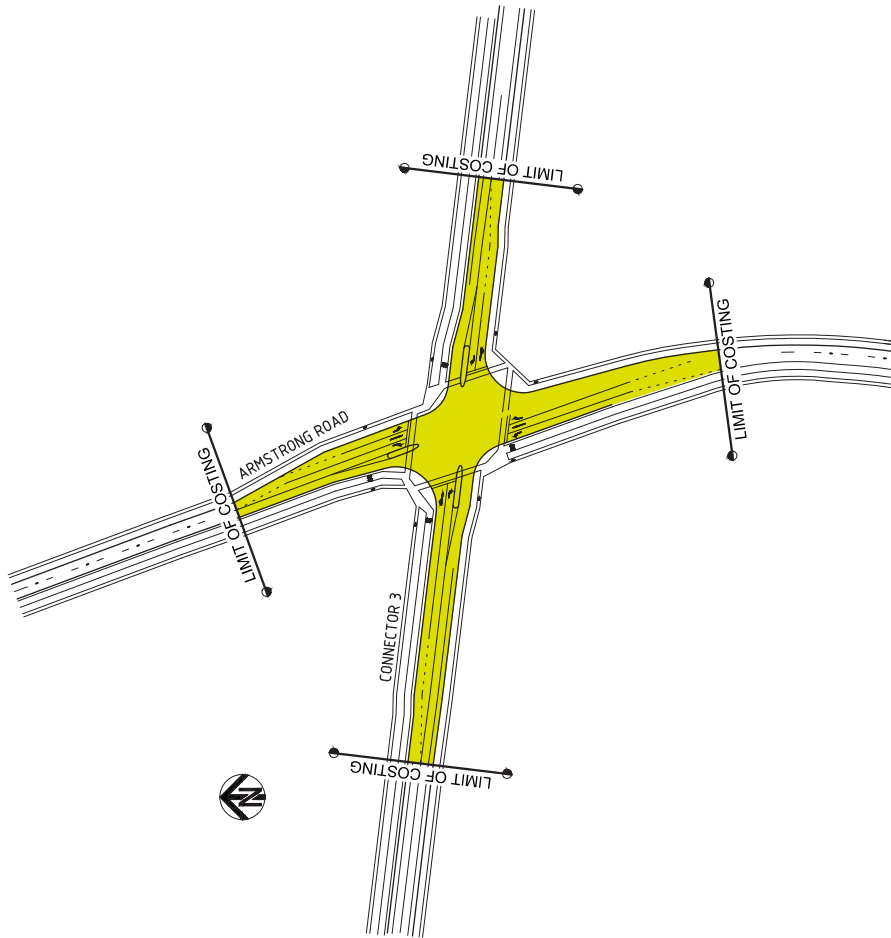
1	DATE	REVISION / ISSUE DESCRIPTION	APPROVAL	15/12/18 10:00 AM
2	A	17/11/2018 DRAFT ISSUE FOR COMMENT	DDMM	
3	B	16/11/2018 FINAL ISSUE	DDMM	
4	C	16/11/2018 COSTS AMENDED	DDMM	
5	01			

INFRASTRUCTURE - OPINION OF COST					
IN13 - Armstrong Road & Connector					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00 EARTHWORKS					
1.01	Excavation incl. and disposal off site	13,100	m3	30.00	\$393,000.00
1.02	Trim and prepare subgrade to receive sub-base	10,100	m2	1.60	\$16,160.00
1.03	Spread and Compact Fill Onsite	1,310	m3	8.80	\$11,528.00
1.04	Tests (Density etc.)	1	Item	15,000.00	\$15,000.00
2.00 CONCRETE WORKS					
2.01	Kerb & Channel (SM1, SM2 & SM3)	1,070	Lm	52.00	\$55,640.00
2.02	Traffic Islands - 200mm thick reinforced	160	m2	80.00	\$12,800.00
2.03	Shared Pathway - 125mm thick reinforced	2,900	m2	51.00	\$147,900.00
3.00 PAVEMENT WORKS					
3.01	40mm Thick Asphalt (wearing course)	7,051	m2	18.10	\$127,623.10
3.02	60mm Thick Asphalt (intermediate course)	7,051	m2	31.70	\$223,516.70
3.03	75mm Thick Asphalt (base course)	7,051	m2	33.90	\$239,028.90
3.04	Prime	7,800	m2	3.60	\$28,080.00
3.05	150mm CTCR Base	7,800	m2	13.50	\$105,300.00
3.06	150mm FCR Base	7,800	m2	9.90	\$77,220.00
3.07	200mm Select Sub-base Course	7,800	m2	6.00	\$46,800.00
3.08	Subgrade Improvement (allow 20% of area)	2,020	m2	13.40	\$27,068.00
4.00 DRAINAGE WORKS					
4.01	AG Drain	1,070	Lm	31.50	\$33,705.00
4.02	Drainage Pits (60m spacing)	10	No.	2,750.00	\$29,370.00
4.03	375mm dia RCP (crushed rock backfill)	700	m	240.00	\$168,000.00
4.04	375mm dia RCP (earth backfill)	0	m	200.00	\$0.00
4.05	Break-in and Connection to Existing Drainage	2	Item	1,500.00	\$3,000.00
5.00 SIGN AND UNEMARKING					
5.01	Unemarking (allowance)	1	Item	24,950.00	\$24,950.00
5.02	Regulatory Signage	32	No.	400.00	\$12,800.00
6.00 TRAFFIC SIGNAL WORKS					
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	No.	380,000.00	\$380,000.00
6.02	Traffic Signal Conduit (incl. allowance for pits)	180	Lm	85.00	\$15,300.00
7.00 ELECTRICAL WORKS					
7.01	Street Light poles @ 50m spacing 11	19	No.	6,500.00	\$123,500.00
7.02	Street Lighting cabling and conduit	1,000	Lm	80.00	\$80,000.00
8.00 LANDSCAPE WORKS					
8.01	Landscaping (topsoil and turf only)	5,200	m2	8.30	\$43,160.00
8.02	Landscaping (trees)	35	No.	350.00	\$12,460.00
9.00 SERVICE RELOCATION / PROTECTION					
9.01	Allowance for relocation of existing services	0	Item	200,000.00	\$0.00
Sub-total					\$2,452,909.70

Traffic Management	5.0%	\$122,645.49
Site Establishment	2.5%	\$61,322.74
Survey and Design	5.0%	\$122,645.49
Supervision and Project Management	9.0%	\$220,761.87
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%)	3.25%	\$79,719.57
VicRoads Fees	1.0%	\$24,529.10
Contingency		
Total Estimated Cost (excl. GST)	15.0%	\$367,936.46
		\$3,452,470.40

NOTES:

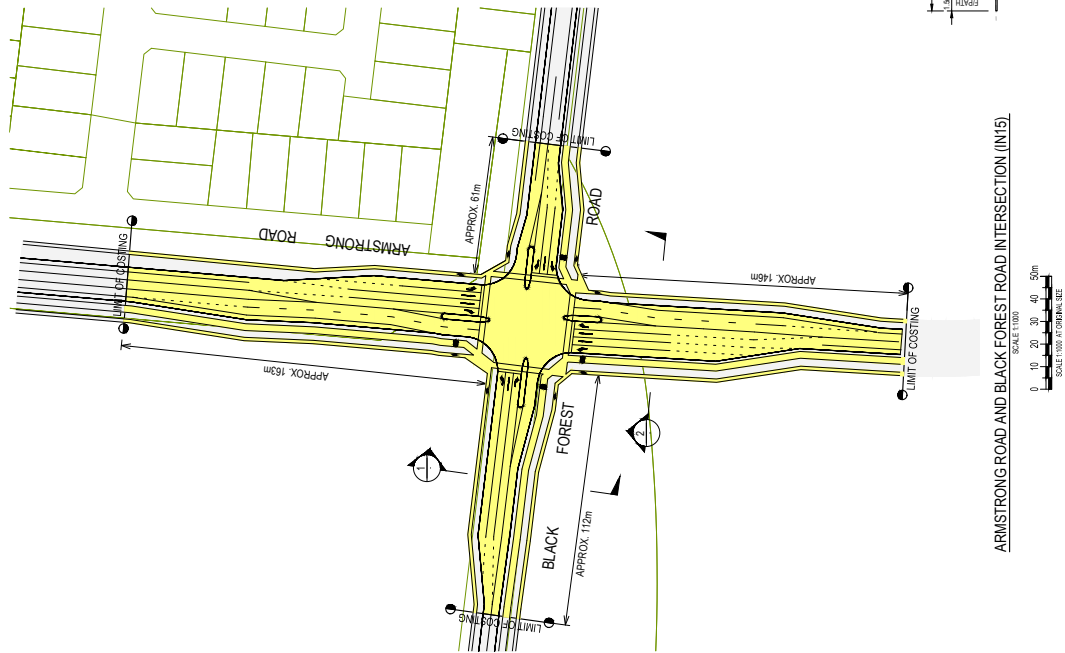
- ALL COSTS EXCLUDE GST.
- COSTS DETERMINED USING TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS.
- PAVEMENT DESIGN IS INDICATIVE ONLY. SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN.
- ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS, WHERE NO PATHWAYS EXIST A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.



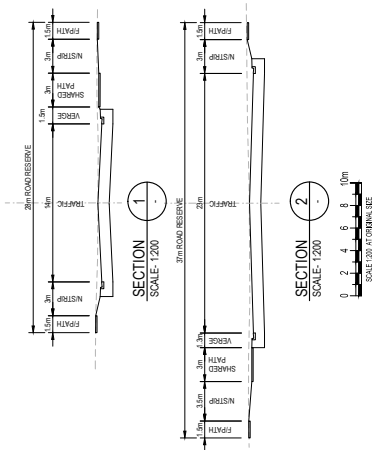
ARMSTRONG ROAD/CONNECTOR ROAD INTERSECTION (IN13)

SCALE 1:100

K:\Projects\3835\3835-00\Drawings\3835-00-013-0106.dwg		16 APR 2014		11:52 AM	
DATE	17/04/2014	AMENDMENT / ISSUE	DESCRIPTION	APPROVAL	
A	17/04/2014	DRAFT ISSUE FOR COMMENT		D008	
B	16/04/2014	FINAL ISSUE		D009	
C	16/04/2014	COSTS PREPARED			
DESIGNER		SCALE 1:100		SCALE 1:100	
TITLE		NAME		SCALE 1:100	
DRAFTSMAN		ASL		SCALE 1:100	
DRAFTING CHECK		JP		SCALE 1:100	
DESIGNER		HG		SCALE 1:100	
DESIGN CHECK		DB		SCALE 1:100	
PROJECT MANAGER		GE		SCALE 1:100	
PROJECT DIRECTOR		BS		SCALE 1:100	
DESIGNER		SMEC		SMEC AUSTRALIA PTY LTD	
CLIENT		MPA		MPA	
PROJECT TITLE		WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN		INFRASTRUCTURE OPINION OF COST	
PROJECT / DRAWING NO.		3004780-00-003-0106		C	
SCALE		AS SHOWN		PRELIMINARY	
DATE		16 APR 2014		11:52 AM	
APPROVED		16 APR 2014		11:52 AM	



ARMSTRONG ROAD AND BLACK FOREST ROAD INTERSECTION (IN15)



TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)

INFRA - Black Forest Road & Connector					
Item	Description	Quantity	Unit	Rate (\$ excl GST)	Sub Total (\$ excl GST)
1.00 EARTHWORKS					
1.01	Excavate and dispose of fill	14.40	m3	50.00	659.20
1.02	Fill and prepare subgrade to receive sub-base	11.073	m2	17.717	196.10
1.03	Spread and Compact Bit Crumb	1.440	m3	8.800	12.672
1.04	Finish (Density 46%)	1	Item	15,000.00	15,000.00
2.00 CONCRETE WORKS					
2.01	Kerb & Channel (SM1, SM2 & SM3)	1,180	L.m	52.00	60,320.00
2.02	Traffic Islands - 200mm thick reinforced	180	m2	80.00	14,400.00
2.03	Shoulder Pathway - 120mm thick reinforced	3,100	m2	51.00	158,100.00
3.00 PAVEMENT WORKS					
3.01	200mm Select Sub-base (course)	9,600	m2	18.00	172,800.00
3.02	40mm Thick Asphalt (wearing course)	9,600	m2	31.700	304,320.00
3.03	40mm Thick Asphalt (base course)	9,600	m2	25.800	247,680.00
3.04	Finish (Density 46%)	9,600	m2	30.400	291,840.00
3.05	150mm C100 Base	11,073	m2	13.50	149,485.50
3.06	150mm C100 Base	11,073	m2	9.60	106,298.40
3.07	200mm Select Sub-base (course)	11,073	m2	66.480	736,080.00
3.08	Subgrade improvement (fill 20% of area)	2,215	m2	13.40	29,681.00
4.00 DRAINAGE WORKS					
4.01	AD Drain	1,180	L.m	31.50	36,940.00
4.02	Drainage pits (30m spacing)	12	No.	2,750.00	33,000.00
4.03	200mm x 100mm x 100mm (backfill)	700	m	24.00	16,800.00
4.04	200mm x 100mm x 100mm (backfill)	700	m	24.00	16,800.00
4.05	200mm x 100mm x 100mm (backfill)	700	m	24.00	16,800.00
4.06	Reinforce and Connect to Existing Drainage	2	Item	14,000.00	28,000.00
5.00 SIGN AND LIGHTING WORKS					
5.01	Lighting (advance)	1	Item	24,500.00	24,500.00
5.02	Regulatory Signage	32	No.	400.00	12,800.00
6.00 TRAFFIC SIGNAL WORKS					
6.01	Traffic Signal (10y maintenance fee)	1	No.	300,000.00	300,000.00
7.00	Traffic Signal Control (incl. advance for sale)	160	L.m	66.00	10,560.00
7.00 ELECTRICAL WORKS					
7.01	Street Light poles (30m spacing)	20	No.	5,500.00	110,000.00
7.02	Street Light poles (30m spacing)	1,000	L.m	60.00	60,000.00
8.00 LANDSCAPE WORKS					
8.01	Landscaping (bushes and 1st year)	5,600	m2	3.00	16,800.00
8.02	Landscaping (trees @ 15m, both sides)	77	No.	3,500.00	269,750.00
9.00 SERVICE RELATIONS / PROTECTION					
9.01	Allowance for relocation of existing services	1	Item	200,000.00	200,000.00
				Subtotal	3,061,644
				Traffic Management 3%	153,082
				Site Supervision 2.5%	76,541
				Construction Insurance 1.5%	45,925
				Supervision and Project Management 1.5%	275,540
				Contingency 10%	306,164
				Grand Total	4,316,096

1. All assets exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna/Net Gain Offsets.
4. Costing based on SMEC functional layout 300478-00-007-115 Issue D 28/09/2012.
5. Pavement design is indicative only, subject to geotechnical investigation and design.
6. Assume landscaping between road and pathways. Where no pathways exist a 3m and-scape/buffer is assumed at roadside.

Traffic Management 6%	150,000
Site Establishment 2.5%	78,541
Survey and Design 0.5%	150,000
Supervision and Project Management 0.3%	270,586
Supervision 1%, project management 1% and plan checking 0.27%	90,503
Construction Fee 1%	30,010
Contingency 10%	400,247
Total Estimated Cost (est. \$571)	\$ 4,310,000

LEGEND

SYMBOL	DESCRIPTION
	COSTED INTERSECTION AREA
	EXISTING ROAD
	ROAD RESERVE

0 100 METRES

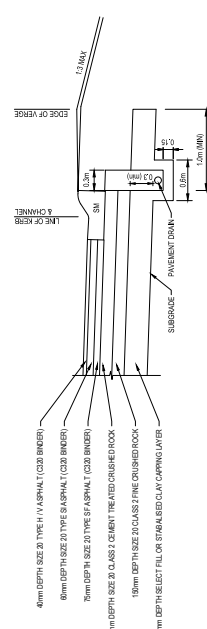
WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN
INFRASTRUCTURE OPINION OF COST

INFRASTRUCTURE - OPINION OF COST				
IN15 - Armstrong Road & Ballan Road				
Item	Description	Quantity	Unit	Sub Total (\$ excl GST)
1.00	EARTHWORKS			
1.01	Excavation and disposal of site	20,702	m ³	50.00
1.02	Trim and prepare subgrade to receive subbase	20,533	m ²	1.90
1.03	Subgrade and subbase fill	2,070	m ³	25.00
1.04	Subgrade and subbase fill	2,070	m ³	15.00
2.00	CONCRETE WORKS			
2.01	Kerb & Channel (S&T, S&T2 & S&T3)	2,050	Lm	62.00
2.02	Traffic Islands - 200mm thick reinforced	420	m ²	80.00
2.03	Shoulder Pathway - 120mm thick reinforced	2,200	m ²	51.00
3.00	PAVEMENT WORKS			
3.01	40mm Thick Asphalt (wearing course)	17,000	m ²	18.10
3.02	50mm Thick Asphalt (intermediate course)	17,000	m ²	31.70
3.03	50mm Thick Asphalt (base course)	17,000	m ²	58.90
3.04	150mm AC FCB Base	20,533	m ²	13.50
3.05	150mm AC FCB Base	20,533	m ²	20.20
3.06	150mm AC FCB Base	20,533	m ²	20.20
3.07	200mm Select Sub-base Course	20,533	m ²	6.00
3.08	Subgrade improvement (allow 20% of area)	4,107	m ²	13.40
4.00	DRAINAGE WORKS			
4.01	AD Drain	2,500	Lm	31.50
4.02	Drainage Pipe (60m spacing)	25	Nm	27.00
4.03	50mm dia PCP (forward rock locally)	1,000	m	240.00
4.04	50mm dia PCP (forward rock locally)	1,000	m	240.00
4.05	Signage and Channel (S&T2 & S&T3)	2	Nm	1,550.00
5.00	SIGN AND LINESMARKING			
5.01	Linesmarking (allowance)	1	Nm	24,000.00
5.02	Regulatory Signage	20	Nm	400.00
6.00	TRAFFIC SIGNAL WORKS			
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	Nm	380,000.00
6.02	Traffic Signal Control (incl. allowance for plan)	220	Lm	85.00
7.00	ELECTRICAL WORKS			
7.01	Street Light poles @ 20m spacing	25	Nm	6,500.00
7.02	Street Light poles @ 20m spacing	1,200	Lm	60.00
8.00	LANDSCAPE WORKS			
8.01	Landscaping (broad and art only)	15,400	m ²	8.30
8.02	Landscaping (broad and art only)	170	Nm	350.00
9.00	SERVICE RELLOCATION / PROTECTION			
9.01	Allowance for relocation of existing fibre optic cable and gas	1	Nm	1,000,000.00
				Sub Total
				\$ 8,077,680

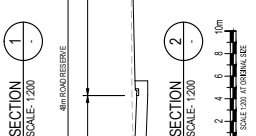
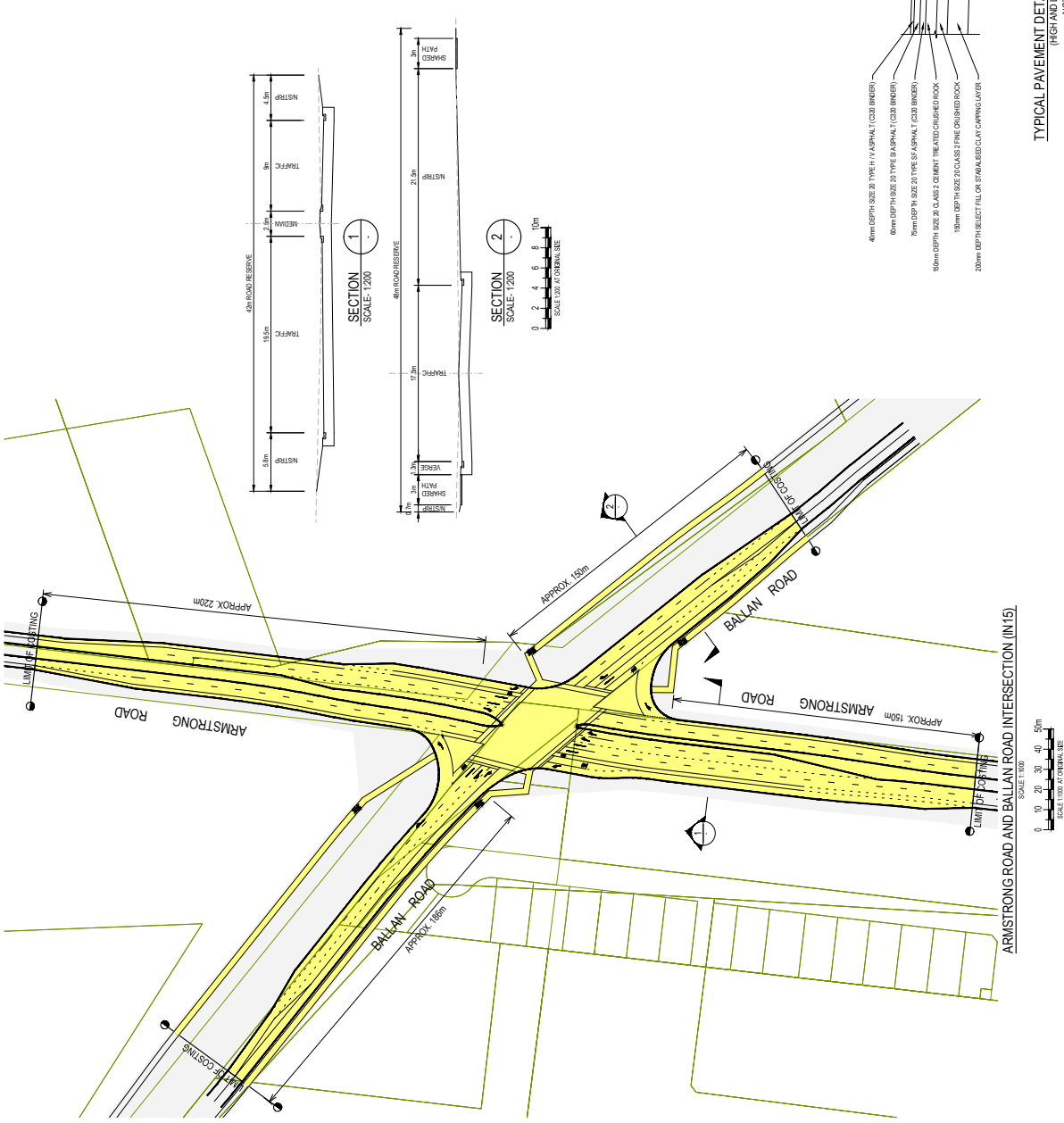
Traffic Management 5%	284,774
Site Establishment 2.5%	142,387
Survey and Design 8%	289,774
Supervision and Project Management 9.0%	512,584
Vic Roads Fees 1%	105,103
Contingency 10%	807,768
Total Estimated Cost (incl. GST) \$ 8,077,680	

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offset.
- Costing based on S&T2 functional layout plan 3004780-007-1116 Issue E 26/09/2012.
- Pavement design is indicative only, subject to geotechnical investigation and design.
- Assume landscaping between road and pathway. Where no pathways exist a 3m landscaped buffer is assumed of roadside.



TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)
NOT TO SCALE



MPA METROPOLITAN PLANNING AUTHORITY

WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN

INFRASTRUCTURE OPINION OF COST

ARMSTRONG ROAD AND BALLAN ROAD INTERSECTION (IN15)

107553 MIE15

PRELIMINARY

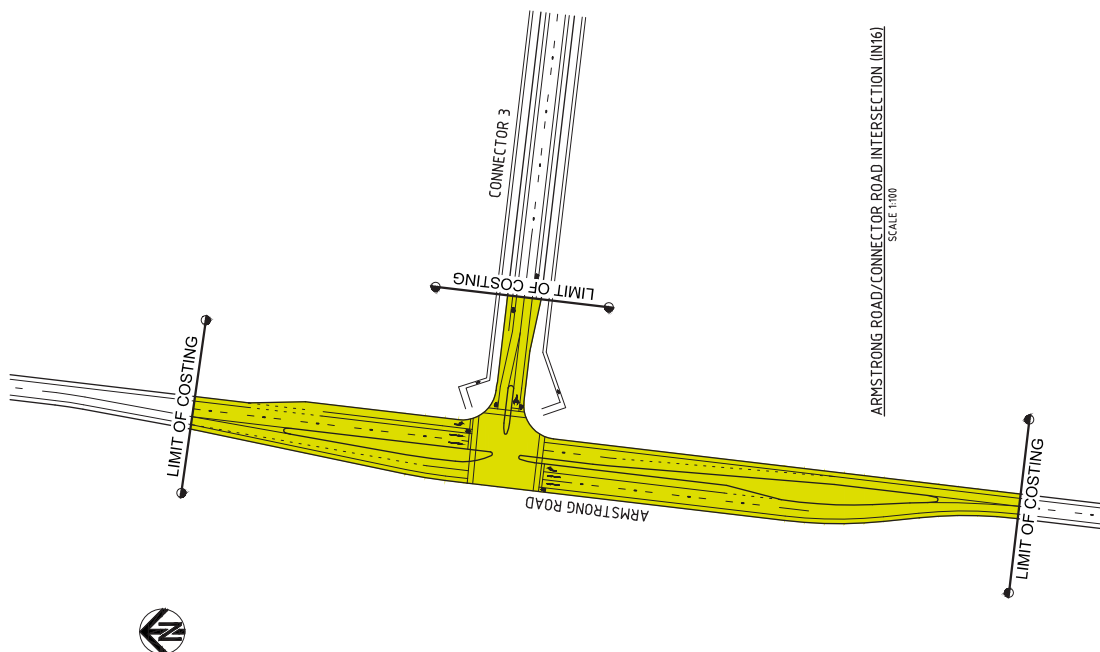
NOT FOR CONSTRUCTION

LEGEND

COSTED INTERSECTION AREA

EXISTING ROAD

ROAD RESERVE



INFRASTRUCTURE - OPINION OF COST					
IN1.6 - Armstronge Road & Connector					
	Description	Quantity	Unit	"Rate (\$/unit)"	"Sub Total (\$ excl GST)"
1.00	EARTHWORKS				
1.01	Excavation (incl. and disposal off site	9,600	m3	30.00	\$288,000.00
1.02	Trim and prepare subgrade to receive sub-base	9,848	m2	1.60	\$15,756.80
1.03	Spread and Compact Fill Onsite	960	m3	8.80	\$8,448.00
1.04	Ties (Densities etc.)	1	Item	15,000.00	\$15,000.00
2.00	CONCRETEWORKS				
2.01	Kerb & Channel (SM41, SM42 & SM43)	1,517	Lm	52.00	\$78,884.00
2.02	Traffic Islands - 200mm thick reinforced	280	m2	80.00	\$22,400.00
2.03	Shared Pathway - 125mm thick reinforced	300	m2	51.00	\$15,300.00
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	7,800	m2	18.10	\$141,180.00
3.02	60mm Thick Asphalt (intermediate course)	7,800	m2	31.70	\$247,260.00
3.03	75mm Thick Asphalt (base course)	7,800	m2	33.90	\$264,420.00
3.04	Prime	9,848	m2	3.60	\$35,452.80
3.05	150mm CTCR Base	9,848	m2	13.50	\$132,948.00
3.06	150mm FCR Base	9,848	m2	9.90	\$97,495.20
3.07	Subgrade Select Sub-base Course	9,848	m2	6.00	\$59,088.00
3.08	Subgrade Improvement (allow 20% of area)	1,970	m2	13.40	\$26,392.64
4.00	DRAINAGE WORKS				
4.01	AG Drain	1,517	Lm	31.50	\$47,785.50
4.02	Drainage Pits (60m spacing)	15.00	No.	2,750.00	\$41,250.00
4.03	375mm dia RCP (crushed rock bedfill)	940	m	240.00	\$225,600.00
4.05	Break-in and Connection to Existing Drainage	2	Item	1,500.00	\$3,000.00
5.00	SGN AND LINE MARKING				
5.01	Unmarking (allowance)	1	Item	35,000.00	\$35,000.00
5.02	Regulatory Signage	20	No.	400.00	\$8,000.00
6.00	TRAFFIC SIGNAL WORKS				
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	No.	380,000.00	\$380,000.00
6.02	Traffic Signal Conduit (incl. allowance for pits)	160	Lm	85.00	\$13,600.00
7.00	ELECTRICAL WORKS				
7.01	Street light poles @ 90m spacing 11	8	No.	6,500.00	\$52,000.00
7.02	Street Lighting cabling and conduit	940	Lm	80.00	\$75,200.00
8.00	LANDSCAPE WORKS				
8.01	Landscaping (topsoil and turf only)	4,220	m2	8.30	\$35,026.00
8.02	Landscaping (trees)	37.92	No.	350.00	\$13,272.00
9.00	SERVICE RELOCATION / PROTECTION				
	Allowance for relocation of existing services	0	Item	200,000.00	\$0.00
9.01	Sub-total				\$2,377,758.94

Traffic Management	
Site Establishment	
Survey and Design	
Supervision and Project Management	
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%)	
VicRoads Fees	
Contingency	
Total Estimated Cost (excl. GST)	

NOTES:

1. ALL COSTS EXCLUDE GST.
2. COSTS DETERMINED USING TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS.
3. PAVEMENT DESIGN IS INDICATIVE ONLY, SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN.
4. ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS, WHERE NO PATHWAYS EXIST. A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.

K:\Projects\2016\T16-001\DWG\STRUCTURE\DWG\DWG-010.dwg																																																																
W. Apr 2016																																																																
115214																																																																
<table><tr><td>DATE</td><td>DESCRIPTION</td><td>BY</td><td>CHECKED</td><td>SCALE</td><td>PROJECT FILE</td><td>CLIENT</td><td>DESIGNER</td><td>SCALE IN PL. SEE DRAWING</td><td>TITLE</td><td>NAME</td></tr><tr><td>01/01/2016</td><td>PROPOSED</td><td>JP</td><td>ASL</td><td></td><td>WYNHAM WEST DEVELOPMENT CONTRIBUTION PLAN</td><td>MPA</td><td> SMEC AUSTRALIA PTY LTD © AN 845 14 16</td><td> SCALE 1:1000 LEVEL: 90.71 QUEENSD ROAD PROJECT / DRAWING NO. AX 03 9516-1002 PH 03 9516-1002 FAX 03 9516-1002</td><td>SHOOTING CRACK DESIGNER DESIGN CHECK PROJECT MANAGER</td><td>SHOOTING CRACK JP HG DB UE</td></tr><tr><td>A</td><td>16/04/2016</td><td>PROPOSED</td><td>JP</td><td>ASL</td><td></td><td></td><td></td><td></td><td>SHOOTING CRACK</td><td>SHOOTING CRACK</td></tr><tr><td>B</td><td>16/04/2016</td><td>PROPOSED</td><td>JP</td><td>ASL</td><td></td><td></td><td></td><td></td><td>SHOOTING CRACK</td><td>SHOOTING CRACK</td></tr><tr><td>C</td><td>16/04/2016</td><td>PROPOSED</td><td>JP</td><td>ASL</td><td></td><td></td><td></td><td></td><td>SHOOTING CRACK</td><td>SHOOTING CRACK</td></tr></table>										DATE	DESCRIPTION	BY	CHECKED	SCALE	PROJECT FILE	CLIENT	DESIGNER	SCALE IN PL. SEE DRAWING	TITLE	NAME	01/01/2016	PROPOSED	JP	ASL		WYNHAM WEST DEVELOPMENT CONTRIBUTION PLAN	MPA	 SMEC AUSTRALIA PTY LTD © AN 845 14 16	 SCALE 1:1000 LEVEL: 90.71 QUEENSD ROAD PROJECT / DRAWING NO. AX 03 9516-1002 PH 03 9516-1002 FAX 03 9516-1002	SHOOTING CRACK DESIGNER DESIGN CHECK PROJECT MANAGER	SHOOTING CRACK JP HG DB UE	A	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK	B	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK	C	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK
DATE	DESCRIPTION	BY	CHECKED	SCALE	PROJECT FILE	CLIENT	DESIGNER	SCALE IN PL. SEE DRAWING	TITLE	NAME																																																						
01/01/2016	PROPOSED	JP	ASL		WYNHAM WEST DEVELOPMENT CONTRIBUTION PLAN	MPA	 SMEC AUSTRALIA PTY LTD © AN 845 14 16	 SCALE 1:1000 LEVEL: 90.71 QUEENSD ROAD PROJECT / DRAWING NO. AX 03 9516-1002 PH 03 9516-1002 FAX 03 9516-1002	SHOOTING CRACK DESIGNER DESIGN CHECK PROJECT MANAGER	SHOOTING CRACK JP HG DB UE																																																						
A	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK																																																						
B	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK																																																						
C	16/04/2016	PROPOSED	JP	ASL					SHOOTING CRACK	SHOOTING CRACK																																																						



Traffic Management	5.0%	\$116,226.00
Site Establishment	2.5%	\$58,113.01
Survey and Design	5.0%	\$116,226.02
Supervision and Project Management	9.0%	\$209,206.83
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%)	3.25%	\$75,546.91
VetRoads Fees	1.0%	\$23,245.20
Contingency	15.0%	\$348,678.05
Total Estimated Cost (excl. GST)		\$3,271,762.35

1. ALL COSTS EXCLUDE GST.
2. COSTS OF TERMINED USING TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS.
3. PAVEMENT DESIGN IS INDICATIVE ONLY, SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN.
4. ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS. WHERE NO PATHWAYS EXIST A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.

K:\Projects\3365-780-CD\DWG\3365-780-03-STRUC.dwg		14 Apr 2016		15:53:33	
DATE	SHEET	DESCRIPTION	APPROVAL	TITLE	
	A	AMENDMENT / ASSE		NAME	
	B	7/6/2016 DRAFT ISSUE FOR COMMENT		DRAFTSMAN	
	C	10/6/2016 FINAL ISSUE		DESIGNER	
		10/6/2016 COSTS AMENDED		DESIGN CHECK	
				PROJECT MANAGER	
				PROJECT DIRECTOR	



TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)
NOT TO SCALE

PROJECT CT NO	107553	PROJECT NO	107553	REV	C
					

CLIENT	METROPOLITAN PLANNING AUTHORITY			PROJECT	WYNDHAM WEST INFRASTRUCTURE
DESIGNED BY	NO	OWNER	DC	APPROVED	-
SCALE	AS SHOWN				
STATUS	PRELIMINARY NOT FOR CONSTRUCTION				
TITLE	BULBAN ROAD AND McGRATH ROAD INTERSECTION (WINDHAM)				

L.P. 551 Sound on Steel, Melbourne,
VIC, Australia 3000
Telephone 63 5075 5100
Fax 63 5075 5201
www.meritmag.com.au
A.C.N. 102 275 626
© 2009/08



LEGEND

	COSTED INTERSECTION AREA
	ROAD RESERVE
	EXISTING ROAD

[illegible]

PROJECT CT NO	107553	CD NUMBERING	MIE19	REV#	C
---------------	--------	--------------	-------	------	---

CLIENT	METROPOLITAN PLANNING AUTHORITY			PROJECT	WYNDHAM WEST INFRASTRUCTURE
DESIGNED BY	NO	DRAWN BY	DC	APPROVED BY	SCALE 1:1
STATUS					
PRELIMINARY					
NOT FOR CONSTRUCTION					
TITLE				BULBAN ROAD AND McGRATH ROAD INTERSECTION (PLAN)	

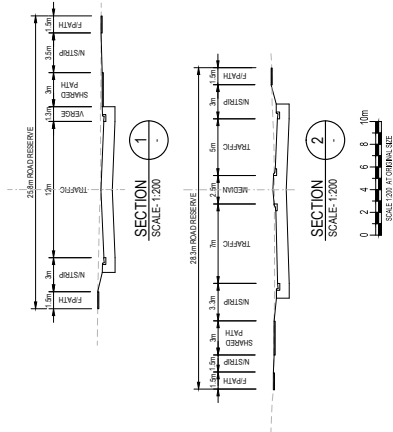
L.P. 551 Sound on Steel, Melbourne,
VIC, Australia 3000
Telephone 63 5075 5100
Fax 63 5075 5201
www.metalshop.com.au
A.C.N. 102 275 626
© 2009/08



LEGEND

	COSTED INTERSECTION AREA
	ROAD RESERVE
	EXISTING ROAD

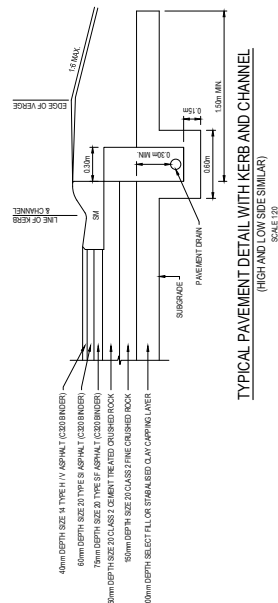
[illegible]



Traffic Management 5%	83,276
Site Establishment 2.5%	41,638
Survey and Design 0.5%	83,276
Supervision and Project Management 0.5%	14,687
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 2.25%	54,130
Vic Roads Fees 1%	16,665
Contingency 15%	240,829
Total Estimated Cost (incl. GST)	2,346,000

NOTES

1. All costs exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offset.
4. Costing based on SNEC functional layout plan 300/0400/007/1121 Issue C/2009/0212.
5. Assessment design is indicative only, subject to geotechnical investigation and design.
6. Planning and design between road and off-ramps. Where no off-ramps exist a 3m indicated barrier is assumed. All roadside.



TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)

LEGEND

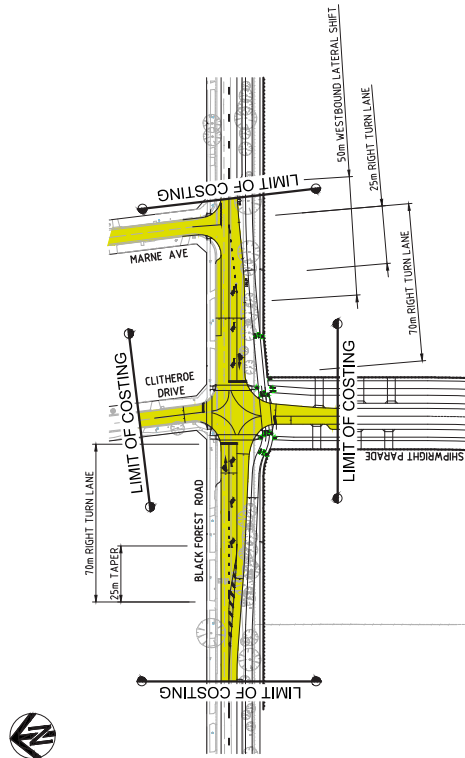
NO.	DESCRIPTION	AREA (sqm)	PERCENTAGE (%)
1	EXISTING ROAD	10,000	10.0
2	EXISTING ROAD	10,000	10.0
3	EXISTING ROAD	10,000	10.0
4	EXISTING ROAD	10,000	10.0
5	EXISTING ROAD	10,000	10.0
6	EXISTING ROAD	10,000	10.0
7	EXISTING ROAD	10,000	10.0
8	EXISTING ROAD	10,000	10.0
9	EXISTING ROAD	10,000	10.0
10	EXISTING ROAD	10,000	10.0
11	EXISTING ROAD	10,000	10.0
12	EXISTING ROAD	10,000	10.0
13	EXISTING ROAD	10,000	10.0
14	EXISTING ROAD	10,000	10.0
15	EXISTING ROAD	10,000	10.0
16	EXISTING ROAD	10,000	10.0
17	EXISTING ROAD	10,000	10.0
18	EXISTING ROAD	10,000	10.0
19	EXISTING ROAD	10,000	10.0
20	EXISTING ROAD	10,000	10.0
21	EXISTING ROAD	10,000	10.0
22	EXISTING ROAD	10,000	10.0
23	EXISTING ROAD	10,000	10.0
24	EXISTING ROAD	10,000	10.0
25	EXISTING ROAD	10,000	10.0
26	EXISTING ROAD	10,000	10.0
27	EXISTING ROAD	10,000	10.0
28	EXISTING ROAD	10,000	10.0
29	EXISTING ROAD	10,000	10.0
30	EXISTING ROAD	10,000	10.0
31	EXISTING ROAD	10,000	10.0
32	EXISTING ROAD	10,000	10.0
33	EXISTING ROAD	10,000	10.0
34	EXISTING ROAD	10,000	10.0
35	EXISTING ROAD	10,000	10.0
36	EXISTING ROAD	10,000	10.0
37	EXISTING ROAD	10,000	10.0
38	EXISTING ROAD	10,000	10.0
39	EXISTING ROAD	10,000	10.0
40	EXISTING ROAD	10,000	10.0
41	EXISTING ROAD	10,000	10.0
42	EXISTING ROAD	10,000	10.0
43	EXISTING ROAD	10,000	10.0
44	EXISTING ROAD	10,000	10.0
45	EXISTING ROAD	10,000	10.0
46	EXISTING ROAD	10,000	10.0
47	EXISTING ROAD	10,000	10.0
48	EXISTING ROAD	10,000	10.0
49	EXISTING ROAD	10,000	10.0
50	EXISTING ROAD	10,000	10.0
51	EXISTING ROAD	10,000	10.0
52	EXISTING ROAD	10,000	10.0
53	EXISTING ROAD	10,000	10.0
54	EXISTING ROAD	10,000	10.0
55	EXISTING ROAD	10,000	10.0
56	EXISTING ROAD	10,000	10.0
57	EXISTING ROAD	10,000	10.0
58	EXISTING ROAD	10,000	10.0
59	EXISTING ROAD	10,000	10.0
60	EXISTING ROAD	10,000	10.0
61	EXISTING ROAD	10,000	10.0
62	EXISTING ROAD	10,000	10.0
63	EXISTING ROAD	10,000	10.0
64	EXISTING ROAD	10,000	10.0
65	EXISTING ROAD	10,000	10.0
66	EXISTING ROAD	10,000	10.0
67	EXISTING ROAD	10,000	10.0
68	EXISTING ROAD	10,000	10.0
69	EXISTING ROAD	10,000	10.0
70	EXISTING ROAD	10,000	10.0
71	EXISTING ROAD	10,000	10.0
72	EXISTING ROAD	10,000	10.0
73	EXISTING ROAD	10,000	10.0
74	EXISTING ROAD	10,000	10.0
75	EXISTING ROAD	10,000	10.0
76	EXISTING ROAD	10,000	10.0
77	EXISTING ROAD	10,000	10.0
78	EXISTING ROAD	10,000	10.0
79	EXISTING ROAD	10,000	10.0
80	EXISTING ROAD	10,000	10.0
81	EXISTING ROAD	10,000	10.0
82	EXISTING ROAD	10,000	10.0
83	EXISTING ROAD	10,000	10.0
84	EXISTING ROAD	10,000	10.0
85	EXISTING ROAD	10,000	10.0
86			

INFRASTRUCTURE - OPINION OF COST					
Blackforest Road/Shipwright Pde intersection					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl GST)
1.00 EARTHWORKS					
1.01	Excavation incl. and disposal off site	5,300	m3	30.00	\$159,000.00
1.02	Trim and prepare subgrade to receive sub-base	3,800	m2	1.60	\$6,080.00
1.03	Spread and Compact Fill Onsite	530	m3	8.80	\$4,664.00
1.04	Tests (Density etc.)	1	Item	15,000.00	\$15,000.00
2.00 CONCRETE WORKS					
2.01	Kerb & Channel (S41, S42 & S43)	620	Lm	52.00	\$32,240.00
2.02	Traffic Islands - 200mm thick reinforced	0	m2	80.00	\$0.00
2.03	Shared Pathway - 125mm thick reinforced	1,100	m2	51.00	\$56,100.00
3.00 PAVEMENT WORKS					
3.01	40mm Thick Asphalt (wearing course)	3,500	m2	18.10	\$63,350.00
3.02	60mm Thick Asphalt (intermediate course)	3,500	m2	31.70	\$110,950.00
3.03	75mm Thick Asphalt (base course)	3,500	m2	33.90	\$118,650.00
3.04	Prime	3,800	m2	3.60	\$13,680.00
3.05	150mm CTCR Base	3,800	m2	13.50	\$51,300.00
3.06	150mm FCR Base	3,800	m2	9.90	\$37,620.00
3.07	200mm Select Sub-base Course	3,800	m2	6.00	\$22,800.00
3.08	Subgrade Improvement (allow 20% of area)	1,580	m2	13.40	\$21,172.00
4.00 DRAINAGE WORKS					
4.01	AG Drain	620	Lm	31.50	\$19,530.00
4.02	Drainage Pits (60m spacing)	700	No.	2,750.00	\$1,925,000.00
4.03	375mm dia RCP (crushed rock backfill)	640	m	240.00	\$153,600.00
4.05	Break-in and Connection to Existing Drainage	2	Item	1,500.00	\$3,000.00
5.00 SIGN AND LINEMARKING					
5.01	Linemarking (allowance)	1	Item	25,000.00	\$25,000.00
5.02	Regulatory Signage	10	No.	400.00	\$4,000.00
6.00 TRAFFIC SIGNAL WORKS					
6.01	Traffic Signals (incl. 10yr maintenance fee)	1	No.	380,000.00	\$380,000.00
6.02	Traffic Signal Conduit (incl. allowance for pits)	180	Lm	85.00	\$15,300.00
7.00 ELECTRICAL WORKS					
7.01	Street Light poles @ 50m spacing 11	8	No.	6,500.00	\$52,000.00
7.02	Street Lighting cabling and conduit	450	Lm	80.00	\$36,000.00
8.00 LANDSCAPE WORKS					
8.01	Landscaping (topsoil and turf only)	2,500	m2	8.30	\$20,750.00
8.02	Landscaping (trees)	21.00	No.	350.00	\$7,350.00
8.03	Removal of trees	27.00	No.	1,000.00	\$27,000.00
9.00 SERVICE RELOCATION / PROTECTION					
9.01	Allowance for relocation of existing services	1	Item	200,000.00	\$200,000.00
Sub-total					\$1,675,386.00

Traffic Management	5.0%	\$83,769.30
Site Establishment	2.5%	\$41,884.65
Survey and Design	5.0%	\$83,769.30
Supervision and Project Management	9.0%	\$150,784.74
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%)	3.25%	\$54,450.05
VicRoads Fees	1.0%	\$16,753.86
Contingency	15.0%	\$251,307.90
Total Estimated Cost (excl. GST)		\$2,358,105.80

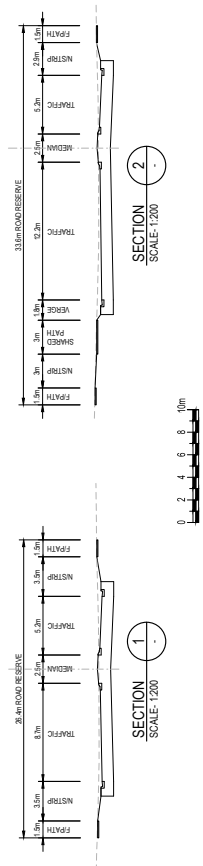
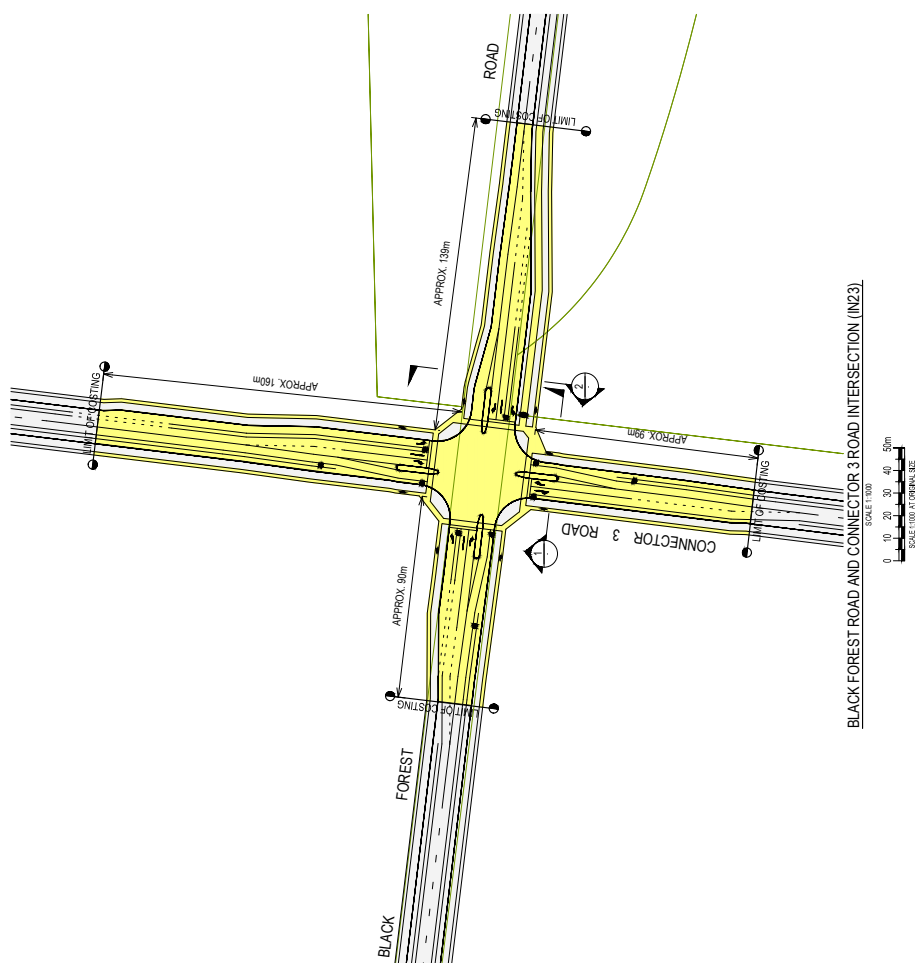
NOTES:

- ALL COSTS EXCLUDE GST
- COSTS OF CONSTRUCTION ARE BASED ON TYPICAL CONSTRUCTION RATES FROM SIMILAR PROJECTS
- PAVEMENT DESIGN IS INDICATIVE ONLY & SUBJECT TO GEOTECHNICAL INVESTIGATION AND DESIGN
- ASSUME LANDSCAPING BETWEEN ROAD AND PATHWAYS. WHERE NO PATHWAYS EXIST A 3m LANDSCAPED BATTER IS ASSUMED AT ROADSIDE.



DISCLAIMER:
THE DESIGN WAS UNDERTAKEN BY CARDNO.
COST ESTIMATES PREPARED BY SMEC.

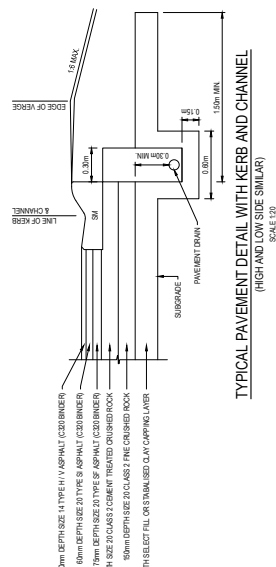
K:\Projects\3835\3835-CAD\DWG\3835-TB-00-00-1010B1.Dwg		16 APR 2014	11:53:13	SCALE AT A SIZE DRAWING		SCALE 1:1000		SCALE 1:1000		SCALE 1:1000	
DATE	DATE	DATE	DATE	TITLE	NAME	DESIGNER	DESIGNER	DESIGNER	DESIGNER	DESIGNER	DESIGNER
A	10/04/2014	FINAL ISSUE	0109	GRADING PLAN	ASL	GRADING CHECK	JP	GRADING CHECK	JP	GRADING CHECK	JP
B	16/04/2014	COSTS AMENDED	0110	DESIGNER	HG	DESIGNER	HG	DESIGNER	HG	DESIGNER	HG
				DESIGNER	DB	DESIGNER	DB	DESIGNER	DB	DESIGNER	DB
				PROJECT MANAGER	GE	PROJECT MANAGER	GE	PROJECT MANAGER	GE	PROJECT MANAGER	GE
				PROJECT DIRECTOR	BS	PROJECT DIRECTOR	BS	PROJECT DIRECTOR	BS	PROJECT DIRECTOR	BS
APPROVAL				CLIENT				DESIGNER			
BY				MPA				SMEC AUSTRALIA PTY LTD			
BY				WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN				SMEC AUSTRALIA PTY LTD			
BY				INFRASTRUCTURE OPINION OF COST				SMEC AUSTRALIA PTY LTD			
BY				SHIPWRIGHT PARADE/BLACK FOREST ROAD/CLUTHEROE DRIVE				SMEC AUSTRALIA PTY LTD			
BY				SCALE				PROJECT / DRAWING No.			
BY				AS SHOWN				3004780-00-003-0109			
BY				PRELIMINARY				DATE			
BY				B				PAGE			



INFRASTRUCTURE - OPINION OF COST						
1023 - Black Forest Road & Connector						
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub total (\$ excl GST)	
EARTHWORKS						
1.01	Excavation and fill, depend on site	13,800	m3	30.00	414,000	
1.02	Topsoil and topsoil substitute, across subbase	10,500	m2	1.60	16,800	
1.03	Topsoil and topsoil substitute, over subbase	1,900	m2	1.60	3,040	
1.04	Topsoil, 100mm thick, over subbase	1,900	m2	15.00	28,500	
2.00	CONCRETE WORKS	1	item		14,000	
2.01	Kerb & Channel (SI, S&2, S&3)	1,170	Lm	52.00	60,840	
2.02	Traffic Islands - 200mm thick reinforced	10,500	m2	1.60	16,800	
2.03	Shared Pathways - 150mm thick reinforced	2,100	m2	51.00	107,100	
3.00	PAVEMENT WORKS					
3.01	400mm Thick Asphalt (sewing course)	9,100	m2	18.10	164,710	
3.02	400mm Thick Asphalt (base course)	9,100	m2	31.20	283,920	
3.03	400mm Thick Asphalt (bedding course)	9,100	m2	31.20	283,920	
3.04	prime	9,100	m2	3.80	34,580	
3.05	150mm FCR Base	13,800	m2	13.50	186,300	
3.06	150mm FCR Base	10,500	m2	9.50	99,750	
3.07	200mm Select Sub-base Course	10,500	m2	63.30	66,465	
3.08	Subgrade Improvement (above 20% of steel)	212	m2	13.40	2,851	
4.00	DRAINAGE WORKS					
4.01	400mm Drain	1,170	Lm	31.50	36,855	
4.02	400mm Drain (grillage on edge)	1,170	Lm	31.50	36,855	
4.03	375mm dia RCP (concrete road shoulder)	0	m	240.00	0	
4.04	375mm dia RCP (concrete road shoulder)	70	m	200.00	14,000	
4.05	Breaker and Connection to Existing Drainage	2	item	1,500.00	3,000	
5.00	SIGCH AND LINEMARKING					
5.01	Linemarking (abovefoot)	1	item	24,500.00	24,500	
5.02	Regulatory Signage	32	item	400.00	12,800	
6.00	TRAFFIC SIGNAL WORKS					
6.01	Traffic Signal (Conventional, 4 phase, 8 ph)	1	item	300,000.00	300,000	
6.02	Signal Pole (Conventional, 4 phase, 8 ph)	1	item	85.00	85	
7.00	ELECTRICAL WORKS					
7.01	Street Lighting, 0m - 50m spacing	18	Nm	6,500.00	117,000	
7.02	Street Lighting, safety and control	800	Lm	80.00	64,000	
8.00	LANDSCAPE WORKS					
8.01	Landscaping (topsoil and subsoil)	70	m2	8.50	595	
8.02	Landscaping (lawn, 15m x 15m beds)	48	m2	30.00	1,440	
9.00	SERVICE RELOCATION / PROTECTION					
9.01	Remove & relocate a existing service	1	item	200,000.00	200,000	
9.02	Subtotal				2,884.41	

NOTES

All costs exclude GST.
Costs determined using typical construction rates from similar projects.
No allowance has been made for Community Liaison, Flora and Fauna / Net Gain Offset.
Costing based on SNEC functional layout plan 300/18800-007/1127 issued 26/09/2012.
Pavement design is indicative only, subject to geotechnical investigation and design.
Assume landscaping between road and pathways. Where no pathways exist a 3m landscaped buffer is assumed at roadside.



TYPICAL PAVEMENT DETAIL WITH KERB AND CHANNEL
(HIGH AND LOW SIDE SIMILAR)

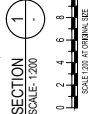
LEGEND

NO.	SYMBOL	DESCRIPTION
1	[Yellow Box]	PROPOSED DEVELOPMENT AREA
2	[Green Line]	EXISTING ROAD
3	[Grey Box]	ROAD RESERVE

WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN
INFRASTRUCTURE OPINION OF COST

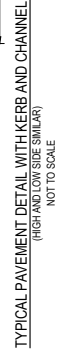
SCALE BAR
 0 10 20 30 40 50 60 70 80 90 100 METRES

NORTH ARROW

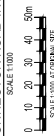


NOTES

1. All costs exclude GST.
2. Costs determined using typical construction rates for similar projects.
3. No allowance has been made to Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offset.
4. Costing based on SABC functional layout plan 300/49/00/00-007-1/12 Issue 2, 26/09/2012.
5. Payment design is indicative only, subject to geotechnical investigation and design.
6. Assume landscaping between road and pathways. Where no pathway exist, 3m landscaped barrier is assumed at roadside.



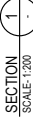
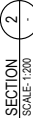
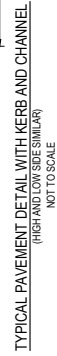
LEGEND		EXISTING ROAD		COSTED INTERSECTION AREA		ROAD RESERVE	
1. SITE	2. SITE	3. SITE	4. SITE	5. SITE	6. SITE	7. SITE	8. SITE
9. SITE	10. SITE	11. SITE	12. SITE	13. SITE	14. SITE	15. SITE	16. SITE
17. SITE	18. SITE	19. SITE	20. SITE	21. SITE	22. SITE	23. SITE	24. SITE
25. SITE	26. SITE	27. SITE	28. SITE	29. SITE	30. SITE	31. SITE	32. SITE
33. SITE	34. SITE	35. SITE	36. SITE	37. SITE	38. SITE	39. SITE	40. SITE
41. SITE	42. SITE	43. SITE	44. SITE	45. SITE	46. SITE	47. SITE	48. SITE
49. SITE	50. SITE	51. SITE	52. SITE	53. SITE	54. SITE	55. SITE	56. SITE
57. SITE	58. SITE	59. SITE	60. SITE	61. SITE	62. SITE	63. SITE	64. SITE
65. SITE	66. SITE	67. SITE	68. SITE	69. SITE	70. SITE	71. SITE	72. SITE
73. SITE	74. SITE	75. SITE	76. SITE	77. SITE	78. SITE	79. SITE	80. SITE
81. SITE	82. SITE	83. SITE	84. SITE	85. SITE	86. SITE	87. SITE	88. SITE
89. SITE	90. SITE	91. SITE	92. SITE	93. SITE	94. SITE	95. SITE	96. SITE
97. SITE	98. SITE	99. SITE	100. SITE	101. SITE	102. SITE	103. SITE	104. SITE
105. SITE	106. SITE	107. SITE	108. SITE	109. SITE	110. SITE	111. SITE	112. SITE
113. SITE	114. SITE	115. SITE	116. SITE	117. SITE	118. SITE	119. SITE	120. SITE
121. SITE	122. SITE	123. SITE	124. SITE	125. SITE	126. SITE	127. SITE	128. SITE
129. SITE	130. SITE	131. SITE	132. SITE	133. SITE	134. SITE	135. SITE	136. SITE
137. SITE	138. SITE	139. SITE	140. SITE	141. SITE	142. SITE	143. SITE	144. SITE
145. SITE	146. SITE	147. SITE	148. SITE	149. SITE	150. SITE	151. SITE	152. SITE
153. SITE	154. SITE	155. SITE	156. SITE	157. SITE	158. SITE	159. SITE	160. SITE
161. SITE	162. SITE	163. SITE	164. SITE	165. SITE	166. SITE	167. SITE	168. SITE
169. SITE	170. SITE	171. SITE	172. SITE	173. SITE	174. SITE	175. SITE	176. SITE
177. SITE	178. SITE	179. SITE	180. SITE	181. SITE	182. SITE	183. SITE	184. SITE
185. SITE	186. SITE	187. SITE	188. SITE	189. SITE	190. SITE	191. SITE	192. SITE
193. SITE	194. SITE	195. SITE	196. SITE	197. SITE	198. SITE	199. SITE	200. SITE
201. SITE	202. SITE	203. SITE	204. SITE	205. SITE	206. SITE	207. SITE	208. SITE
209. SITE	210. SITE	211. SITE	212. SITE	213. SITE	214. SITE	215. SITE	216. SITE
217. SITE	218. SITE	219. SITE	220. SITE	221. SITE	222. SITE	223. SITE	224. SITE
225. SITE	226. SITE	227. SITE	228. SITE	229. SITE	230. SITE	231. SITE	232. SITE
233. SITE	234. SITE	235. SITE	236. SITE	237. SITE	238. SITE	239. SITE	240. SITE
241. SITE	242. SITE	243. SITE	244. SITE	245. SITE	246. SITE	247. SITE	248. SITE
249. SITE	250. SITE	251. SITE	252. SITE	253. SITE	254. SITE	255. SITE	256. SITE
257. SITE	258. SITE	259. SITE	260. SITE	261. SITE	262. SITE	263. SITE	264. SITE
265. SITE	266. SITE	267. SITE	268. SITE	269. SITE	270. SITE	271. SITE	272. SITE
273. SITE	274. SITE	275. SITE	276. SITE	277. SITE	278. SITE	279. SITE	280. SITE
281. SITE	282. SITE	283. SITE	284. SITE	285. SITE	286. SITE	287. SITE	288. SITE
289. SITE	290. SITE	291. SITE	292. SITE	293. SITE	294. SITE	295. SITE	296. SITE
297. SITE	298. SITE	299. SITE	300. SITE	301. SITE	302. SITE	303. SITE	304. SITE
305. SITE	306. SITE	307. SITE	308. SITE	309. SITE	310. SITE	311. SITE	312. SITE
313. SITE	314. SITE	315. SITE	316. SITE	317. SITE	318. SITE	319. SITE	320. SITE
321. SITE	322. SITE	323. SITE	324. SITE	325. SITE	326. SITE	327. SITE	328. SITE
329. SITE	330. SITE	331. SITE	332. SITE	333. SITE	334. SITE	335. SITE	336. SITE
337. SITE	338. SITE	339. SITE	340. SITE	341. SITE	342. SITE	343. SITE	344. SITE
345. SITE	346. SITE	347. SITE	348. SITE				



NOTES

1. All costs
2. Costs
3. No allocation
4. Costing
5. Pavement
6. Assumptions

Contingency 15%	422,313
Total Estimated Cost (excl. GST)	\$ 3,963,000



EXISTING ROAD

CLIENT	METROPOLITAN PLANNING AUTHORITY		
DESIGNED BY	OWNER	APPROVED	SCALE @ 1"
MD	DC	-	AS SHOWN
STATUS	PRELIMINARY NOT FOR CONSTRUCTION		

**PRELIMINARY
NOT FOR CONSTRUCTION**

WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN INFRASTRUCTURE OPINION OF COST	PROJECT NO. 107553 DRAWING NO. MIE29
BALLAN ROAD AND CONNECTOR ROAD	

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD
BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL
EXISTING SERVICES ARE SHOWN.

bioRxiv preprint doi: <https://doi.org/10.1101/005483>; this version posted April 14, 2014. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

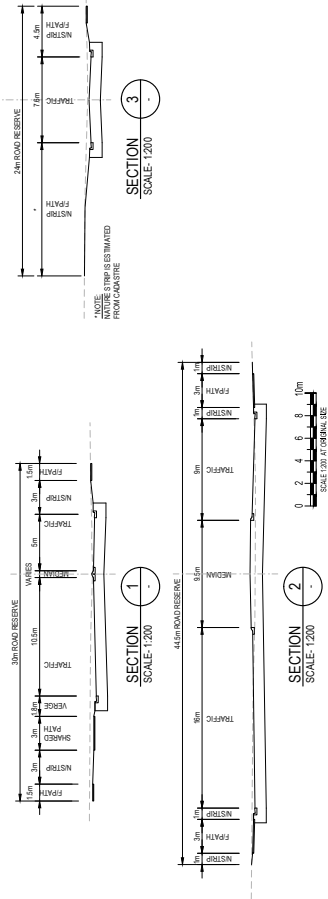
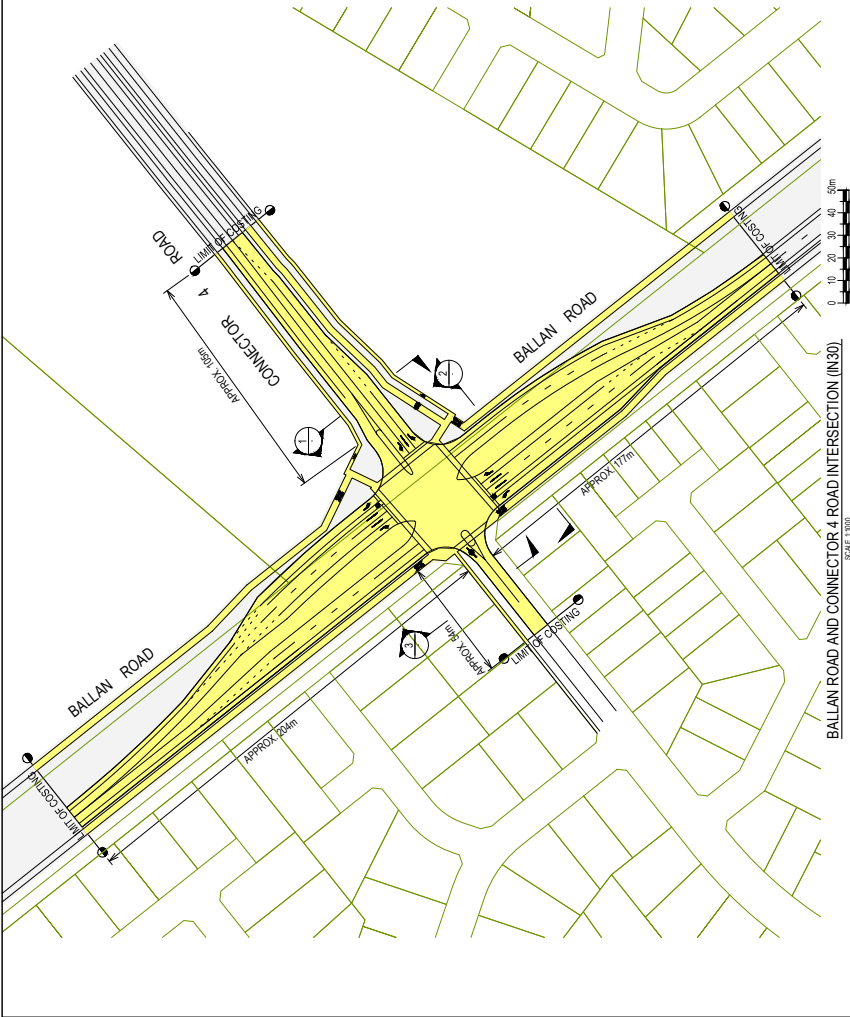
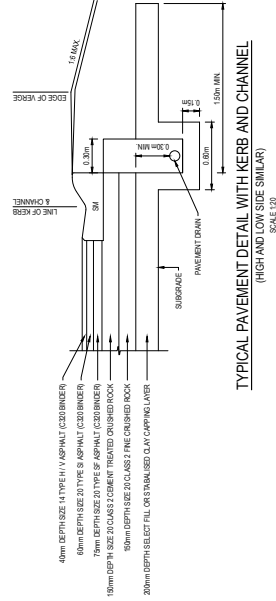
WARNING
BEWARE OF MANHOLES AND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD
BE PROVIDED BY THE APPROPRIATE UTILITY. ANY
EXISTING SERVICES ARE SHOWN.

INFRASTRUCTURE - OPINION OF COST					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl GST)
1.00 EARTHWORKS					
1.01	Excavation and disposal of fill	16.400	m3	30.00	492.000
1.02	Trim and prepare subgrade to receive sub-base	12.594	m2	1.90	23.929
1.03	Spread and Compact 20mm Gravel	1.640	m2	8.80	14.432
1.04	Fill (Locally etc.)	0	m3	15,000.00	0
2.00 CONCRETE WORKS					
2.01	Kerbs & Channel (SM1, SM2 & SM3)	1.930	Lin	22.00	42.660
2.02	40mm Thick Asphalt (20mm thick sub-base)	80	m2	80.00	6,400.000
2.03	40mm Thick Asphalt (40mm thick sub-base)	3.200	m2	51.00	163.200
3.00 PAVEMENT WORKS					
3.01	40mm Thick Asphalt (wearing course)	10.200	m2	18.10	184.620
3.02	40mm Thick Asphalt (intermediate course)	10.200	m2	31.70	323.340
3.03	75mm Thick Asphalt (base course)	10.200	m2	33.90	344.760
3.04	Prime	10.200	m2	3.00	30.600
3.05	100mm C18 Base	12.594	m2	13.90	175.056
3.06	100mm C18 Sub-base	12.594	m2	6.00	75.564
3.07	200mm Select Sub-base Course	2.519	m2	13.40	33.752
3.08	Sub-grade Improvement (allow 20% of area)	2.519	m2	13.40	33.752
4.00 DRAINAGE WORKS					
4.01	AG Drain	1.900	Lin	31.50	60.750
4.02	Drainage Pit (600 spacing)	10	No.	2,790.00	27,900.000
4.03	170mm dia RCP (cast iron road)	1.900	m	24.00	45.600
4.04	170mm dia RCP (cast iron road)	0	m	200.00	0
4.05	170mm dia RCP (cast iron road)	2	m	1,200.00	2,400.000
5.00 SIGN AND LANE MARKING					
5.01	Unmanned (allowance)	1	Item	24,900.00	24,900.000
5.02	Regulatory Signage	32	No.	400.00	12,800.000
6.00 TRAFFIC SIGNAL WORKS					
6.01	Traffic Signal (incl. 10yr maintenance fee)	1	No.	300,000.00	300,000.000
6.02	Traffic Signal Control (incl. allowance for pab)	100	Lin	85.00	8,500.000
7.00 ELECTRICAL WORKS					
7.01	Street Light poles @ 5m spacing	10	No.	6,000.00	60,000.000
7.02	Street Light poles @ 5m spacing	900	Lin	80.00	72,000.000
8.00 LANDSCAPE WORKS					
8.01	Landscaping (topsoil and 60% fertility)	9,300	m2	8.50	77,100.000
8.02	Landscaping (topsoil and 60% fertility)	128	No.	300.00	38,400.000
9.00 SERVICE RELOCATION / PROTECTION					
9.01	Allowance for relocation of existing services	1	Item	200,000.00	200,000.000
			Sub-total		3,444,828

Traffic Management 5%	172,241
Site Establishment 2.5%	86,121
Survey and Design 5%	1,722,414
Construction 10%	344,482
Contingency 15%	516,724
Total Estimated Cost (incl. GST)	\$ 4,844,000

Contingency 15%
Total Estimated Cost (incl. GST) \$ 4,844,000

- NOTES
- All costs include GST.
 - Costs estimated using typical construction rates from similar projects.
 - Costs are indicative only and should be used as a guide only.
 - Costing based on 2024/25 Financial Year (FY) 2024/25 (FY) 2024/25.
 - Costing based on 2024/25 Financial Year (FY) 2024/25 (FY) 2024/25.
 - Costing based on 2024/25 Financial Year (FY) 2024/25 (FY) 2024/25.
 - Costing based on 2024/25 Financial Year (FY) 2024/25 (FY) 2024/25.



MPA METROPOLITAN PLANNING AUTHORITY

WYNDHAM WEST DEVELOPMENT CONTRIBUTION PLAN

INFRASTRUCTURE OPINION OF COST

PRELIMINARY

NOT FOR CONSTRUCTION

107553 MIE30 A

IN-32 Ballan Road Pedestrian Operated Signals (POS) - Preliminary Cost Estimate

Description	ID	Detail	Unit	Rate	Qty	Amount
SIGNAL HARDWARE	1	New Signal Pedestal - 2B	each	\$ 3,500.00	6	\$ 21,000.00
	2	New Signal Pedestal Mastarm or JUP	each	\$ 5,000.00	2	\$ 10,000.00
	3	New Pedestal Foundation - 0.7m base	each	\$ 1,500.00	6	\$ 9,000.00
	4	New Pedestal Foundation - 3.0m base	each	\$ 4,000.00	2	\$ 8,000.00
	5	Lanterns - 3 aspect (LED)	each	\$ 1,100.00	8	\$ 8,800.00
	6	Lanterns - Pedestrian (LED)	each	\$ 800.00	4	\$ 3,200.00
	7	Audio Tactiles - Variable	each	\$ 1,900.00	4	\$ 7,600.00
	8	Conduit Pit (standard)	each	\$ 1,800.00	5	\$ 9,000.00
	9	Conduit - Open trench through footpath/paved area, supply & Install 2/100mm Underground Conduit, Backfill & Reinstate	m	\$ 400.00	10	\$ 4,000.00
	10	Conduit - Open trench through grassed/unpaved area, supply & Install 2/100mm Underground Conduit, Backfill & Reinstate	m	\$ 350.00	10	\$ 3,500.00
	11	Conduit - Bore under road, supply & Install 2/100mm Underground Conduit, Backfill & Reinstate	m	\$ 450.00	14	\$ 6,300.00
	12	Conduit - Open trench through footpath/paved area, supply & Install 1/50mm Underground Conduit, Backfill & Reinstate	m	\$ 250.00	20	\$ 5,000.00
	13	13 Core Cable	m	\$ 30.00	150	\$ 4,500.00
	14	Pillar Mounted Point of Supply	each	\$ 3,400.00	1	\$ 3,400.00
	15	Vicroads 10 year Maintenance Fee incl Prom & controller	item	\$ 75,000.00	1	\$ 75,000.00
	16	Concrete stand for new traffic controller	each	\$ 3,500.00	1	\$ 3,500.00
STREET LIGHTING	17	Brackets - Single	each	\$ 900.00	2	\$ 1,800.00
	18	Lamps (globes) - 150W	each	\$ 700.00	2	\$ 1,400.00
	19	Cable (supply and install)	m	\$ 30.00	50	\$ 1,500.00
	20	Conduit - Open trench through grassed/unpaved area, supply & Install 1/50mm Underground Conduit, Backfill & Reinstate	m	\$ 200.00	20	\$ 4,000.00
	21	Electrical Pit (standard)	each	\$ 1,800.00	3	\$ 5,400.00
CIVIL WORKS	22	Concrete Footpath	sq m	\$ 48.00	30	\$ 1,440.00
	23	Construct Kerb Ramp & Install TGSi	each	\$ 1,700.00	4	\$ 6,800.00
	24	Supply and Install stick down TGSi	m²	\$ 350.00	5	\$ 1,750.00
	25	Pedestrian Lines 150mm wide	m	\$ 15.00	28	\$ 420.00
	26	Stop Bars 600mm wide	m	\$ 65.00	14	\$ 910.00
	27	Removal of linemarking - with grit blasting	m²	\$ 60.00	4	\$ 240.00
	28	Pavement Overlay	m²	\$ 30.00	420	\$ 12,600.00
	29	Traffic Management	item	\$ 20,000.00	1	\$ 20,000.00
						Sub Total \$ 227,460.00
PROFESSIONAL FEES & CONTINGENCY	30	Vicroads/Council Fees 8% for cost of works	item	3.25%		\$ 7,392.45
	31	Professional Design Fees	item	2.00%		\$ 5,000.00
	32	Contingency	item	10.00%		\$ 22,746.00
					TOTAL	\$ 262,598.45
Assumptions/Comments	REF					
	9,13	Controller is located approximately 10m from the POS				
	12	Supply Point is located approximately 20m from Controller/signals. No information is available with respect to underground or above ground power availability				
	20	Street lighting will be connected to existing along the road via under ground conduit network. It is understood that existing power is overhead				
	28	Pavement overlay may be required depending on the condition of the road surface. Quantity has been calculated but no cost has been allocated to this estimate				
	27	Allowance for linemarking removal using grit blasting				
	29	Traffic Management allowance made on the assumption that the road is operating as an existing 4 lane divided carriageway				

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: Rail Pedestrian Crossing Upgrade
Drg Ref: n/a

Date: 19-Mar-14
By: M/VW
Revision: B



**Meinhardt Infrastructure &
Engineering Pty Ltd**
 A.B.N. 52 100 868 979

Level 12
 101 Bouverie Street
 Melbourne Victoria
 Australia 3000

www.meinhardtgroup.com
 Tel: 61 (0) 3 9578 1200
 Fax: 61 (0) 3 9578 1201

INFRASTRUCTURE - OPINION OF COST					
Rail Pedestrian Crossing Upgrade					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl. GST)
1.00	PAVEMENT				
1.01	Excavation and disposal	10	m3	30	300
1.02	Sub Course	50	m2	6	300
1.03	Asphalting	50	m2	34	1,695
1.04	Track Crossing Rubber Mats + Precast Edge Beam	3.6	m	7,375	26,550
1.05	Tactile Ground Surface Indicators	1	No	3,240	3,240
2.00	METAL WORK				
2.01	Fencing	50	m	150	7,500
2.02	Gates	8	No	1,000	8,000
3.00	ELECTRICAL				
3.01	Power Supply	1	No	5,000	5,000
3.02	Signalling / Sensors	1	No	20,000	20,000
3.03	Gate Actuator	4	No	1,000	4,000
4.00	MISCELLANEOUS				
4.01	Line Marking	50	m	4	175
4.02	Signage	4	No	400	1,600
4.03	Allowance for Standby Equipment	1	No	5,000	5,000
4.04	Working Lights (2 No.)	32	hrs	200	6,400
4.05	Rail Safety Team (4 People)	64	hrs	120	7,680
4.06	Track Occupation (+10%)	1	%	10%	9,744
4.07	Allowance for Night Work (+30%)	1	%	30%	29,232
Sub-total					136,416

Traffic Management 5%	6,821
Site Establishment 2.5%	3,410
Survey and Design 5%	6,821
Supervision and Project Management 9%	12,277
Council Fees 1%	1,364
Vic Roads Fees 1%	1,364

Contingency 20%	27,283
Total Estimated Cost per Linear meter (excl. GST)	195,760

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Pedestrian Crossing assumed to be have an 'Active' design layout as per Victorian Rail Industry Operators Group Standard VRIOGS-003-2-2006.
- Pedestrian Crossing is assumed to traverse 3 railway tracks requiring four sets of gates.
- Adequate electrical supply deemed to be available within 10m.

8.4.3 Bridge/Culvert Cost Sheets

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-01 - Alfred Road DSS
Drp Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



Meinhardt Infrastructure & Environment Pty Ltd
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.2m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	5
Total No of Culverts	75

INFRASTRUCTURE - OPINION OF COST					
BR-01 - Alfred Road DSS					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	252	m3	30.00	7,560
1.02	Trim and prepare subgrade for Slabs and foundations	405	m2	1.80	729
1.03	Spread and Compact Fill Onsite	392	m3	20.00	7,848
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	3060	m2	21.00	64,260
1.06	Select Fill	383	m3	30.00	11,475
2.00	CONCRETE WORKS				
2.01	Culvert	75	No.	3,699.20	277,440
2.02	Culvert Foundation Slab (300mm)	77	m3	250.00	19,125
2.03	Apron Slab (150mm)	150	m2	61.20	9,180
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	15	m2	455.00	6,825
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	270	m2	51.00	13,770
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	30	L.m	80.30	2,409
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	180	Lm	1.75	315
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	216	m2	8.30	1,793
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					516,000

Traffic Management 5%	25,800
Site Establishment 2.5%	12,900
Survey and Design 5%	25,800
Supervision and Project Management 9.0%	46,440
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	16,770
Vic Roads Fees 1%	5,160

Contingency 20%	103,200
Total Estimated Cost (excl. GST)	\$ 753,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on advice received from MT email 11.03.2014
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-02 - Ison Bridge Over Lollypop Creek
Drg Ref:

Date: 18-Mar-14
By: PH
Revision: C
Reviewer: MVW

MEINHARDT
 Meinhardt Infrastructure &
 Environment Pty Ltd
 A.B.N. 52 100 868 979

Level 12
 501 Swanston Street
 Melbourne Victoria
 Australia 3000

www.meinhardtgroup.com

Tel: 61 (03) 8676 1200
 Fax: 61 (03) 8676 1201

Bridge Geometry:

Length (m) = 85
 Width (m) = 17
 No. Spans = 4

INFRASTRUCTURE - OPINION OF COST BR-02 - Ison Bridge Over Lollypop Creek						
Item	Description	Quantity	Unit	Rate (\$/unit)	Rate (\$/m)	Sub Total (\$ excl.GST)
1.00	STRUCTURE					
1.01	Foundations (Piles, Footings)	5	No.	115,500.00		577,500
1.02	Sub-Structure (Abutments, Piers)	5	No.	168,000.00		840,000
1.03	Super-T Pre-stressed Beams	17	m2	1,155.00	19,635.00	1,668,975
1.04	Deck Slab and Footpaths/Kerb	17	m2	126.00	2,142.00	182,070
1.05	Asphalt Wearing Course	11	m2	21.00	231.00	19,635
2.00	BARRIERS					
2.01	Medium Level Containment Barrier (Steel)	2	m	1,470.00	2,940.00	249,900
2.02	Medium Level Off Structure Barrier	120	m	420.00		50,400
2.03	Guard Fence (incl. Terminals)	600	m	147.00		88,200
3.00	DRAINAGE AND MISCELLANEOUS WORKS					
3.01	Drainage Pits	5	No.	2,887.50		14,438
3.02	PE Drainage Pipe (suspended)	1	m	252.00	252.00	21,420
3.03	Services Conduits (incl. sand backfill)	4	m	136.50	546.00	46,410
3.04	Public Lighting	4	No.	15,750.00		63,000
3.05	Rock Beaching	2	No.	168.00		336
Sub-total						3,822,284
Traffic Management 5%						191,114
Site Establishment 2.5%						95,557
Survey and Design 5%						191,114
Supervision and Project Management 9.0%						344,006
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%						124,224
Vic Roads Fees 1%						38,223
Contingency 20%						764,457
Total Estimated Cost (excl. GST)						\$ 5,571,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-03 - Black Forest Road DSS, Ison Road, RB2 to W2
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



Meinhardt Infrastructure &
Environment Pty Ltd
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (2.1m) x Height (1.2m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	3
Total No of Culverts	45

INFRASTRUCTURE - OPINION OF COST					
BR-03 - Black Forest Road DSS, Ison Road, RB2 to W2					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	165	m3	30.00	4,950
1.02	Trim and prepare subgrade for Slabs and foundations	170	m2	1.80	306
1.03	Spread and Compact Fill Onsite	392	m3	20.00	7,848
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1285	m2	21.00	26,989
1.06	Select Fill	383	m3	30.00	11,475
2.00	CONCRETE WORKS				
2.01	Culvert	45	No.	2,901.20	130,554
2.02	Culvert Foundation Slab (300mm)	32	m3	250.00	8,033
2.03	Apron Slab (150mm)	63	m2	61.20	3,856
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	6	m2	455.00	2,867
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	218	m2	51.00	11,108
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTRC Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	13	L.m	80.30	1,012
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	145	Lm	1.75	254
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	174	m2	8.30	1,446
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					303,968

Traffic Management 5%	15,198
Site Establishment 2.5%	7,599
Survey and Design 5%	15,198
Supervision and Project Management 9.0%	27,357
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	9,879
Vic Roads Fees 1%	3,040

Contingency 20%	60,794
Total Estimated Cost (excl. GST)	\$ 444,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-04 - Ison Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.8m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	12
Total No of Culverts	180

INFRASTRUCTURE - OPINION OF COST					
BR-04 - Ison Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	462	m3	30.00	13,860
1.02	Trim and prepare subgrade for Slabs and foundations	972	m2	1.80	1,750
1.03	Spread and Compact Fill Onsite	653	m3	20.00	13,068
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	7344	m2	21.00	154,224
1.06	Select Fill	536	m3	30.00	16,065
2.00	CONCRETE WORKS				
2.01	Culvert	180	No.	4,139.54	745,117
2.02	Culvert Foundation Slab (300mm)	184	m3	250.00	45,900
2.03	Apron Slab (150mm)	360	m2	61.20	22,032
2.04	Wing Wall	42	m2	516.00	21,450
2.05	Wing Wall Foundation	22	m3	396.00	8,642
2.06	Concrete retaining wall on top of culverts (500mm)	36	m2	455.00	16,380
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	396	m2	51.00	20,196
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	72	L.m	80.30	5,782
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	264	Lm	1.75	462
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	475	m2	8.30	3,944
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					1,162,082

Traffic Management 5%	58,104
Site Establishment 2.5%	29,052
Survey and Design 5%	58,104
Supervision and Project Management 9.0%	104,587
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	37,768
Vic Roads Fees 1%	11,621
Contingency 20%	232,416
Total Estimated Cost (excl. GST)	\$ 1,694,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-05 - Ison Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (2.1m) x Height (1.2m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	3
Total No of Culverts	45

INFRASTRUCTURE - OPINION OF COST					
BR-05 - Ison Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	165	m3	30.00	4,950
1.02	Trim and prepare subgrade for Slabs and foundations	170	m2	1.80	306
1.03	Spread and Compact Fill Onsite	392	m3	20.00	7,848
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1285	m2	21.00	26,989
1.06	Select Fill	383	m3	30.00	11,475
2.00	CONCRETE WORKS				
2.01	Culvert	45	No.	2,901.20	130,554
2.02	Culvert Foundation Slab (300mm)	32	m3	250.00	8,033
2.03	Apron Slab (150mm)	63	m2	61.20	3,856
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	6	m2	455.00	2,867
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	218	m2	51.00	11,108
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	13	L.m	80.30	1,012
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	145	Lm	1.75	254
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	174	m2	8.30	1,446
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					303,968

Traffic Management 5%	15,198
Site Establishment 2.5%	7,599
Survey and Design 5%	15,198
Supervision and Project Management 9.0%	27,357
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	9,879
Vic Roads Fees 1%	3,040
Contingency 20%	60,794
Total Estimated Cost (excl. GST)	\$ 444,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-06 - Black Forest Road DSS, Armstrong Road, X2 to X3
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.8m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	8
Total No of Culverts	120

INFRASTRUCTURE - OPINION OF COST					
BR-06 - Black Forest Road DSS, Armstrong Road, X2 to X3					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	342	m3	30.00	10,260
1.02	Trim and prepare subgrade for Slabs and foundations	648	m2	1.80	1,166
1.03	Spread and Compact Fill Onsite	653	m3	20.00	13,068
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	4896	m2	21.00	102,816
1.06	Select Fill	536	m3	30.00	16,065
2.00	CONCRETE WORKS				
2.01	Culvert	120	No.	4,139.54	496,745
2.02	Culvert Foundation Slab (300mm)	122	m3	250.00	30,600
2.03	Apron Slab (150mm)	240	m2	61.20	14,688
2.04	Wing Wall	42	m2	516.00	21,450
2.05	Wing Wall Foundation	22	m3	396.00	8,642
2.06	Concrete retaining wall on top of culverts (500mm)	24	m2	455.00	10,920
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	324	m2	51.00	16,524
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	48	L.m	80.30	3,854
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	216	Lm	1.75	378
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	389	m2	8.30	3,227
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					823,614

Traffic Management 5%	41,181
Site Establishment 2.5%	20,590
Survey and Design 5%	41,181
Supervision and Project Management 9.0%	74,125
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	26,767
Vic Roads Fees 1%	8,236
Contingency 20%	164,723
Total Estimated Cost (excl. GST)	\$ 1,201,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-07 - Black Forest Road DSS, Armstrong Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.8m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	75
No of Culverts laid side to side	2
Total No of Culverts	150

INFRASTRUCTURE - OPINION OF COST BR-07 - Black Forest Road DSS, Armstrong Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	162	m3	30.00	4,860
1.02	Trim and prepare subgrade for Slabs and foundations	162	m2	1.80	292
1.03	Spread and Compact Fill Onsite	653	m3	20.00	13,068
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1224	m2	21.00	25,704
1.06	Select Fill	536	m3	30.00	16,065
2.00	CONCRETE WORKS				
2.01	Culvert	150	No.	4,139.54	620,931
2.02	Culvert Foundation Slab (300mm)	31	m3	250.00	7,650
2.03	Apron Slab (150mm)	60	m2	61.20	3,672
2.04	Wing Wall	42	m2	516.00	21,450
2.05	Wing Wall Foundation	22	m3	396.00	8,642
2.06	Concrete retaining wall on top of culverts (500mm)	6	m2	455.00	2,730
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	216	m2	51.00	11,016
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	12	L.m	80.30	964
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	144	Lm	1.75	252
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	259	m2	8.30	2,151
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					812,657

Traffic Management 5%	40,633
Site Establishment 2.5%	20,316
Survey and Design 5%	40,633
Supervision and Project Management 9.0%	73,139
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	26,411
Vic Roads Fees 1%	8,127
Contingency 20%	162,531
Total Estimated Cost (excl. GST)	\$ 1,185,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.



Werribee River Bridge Crossing

Growth Areas Authority

August 2012



www.smec.com

EXECUTIVE SUMMARY

SMEC has been engaged by the Growth Areas Authority (GAA) to review and refine the proposed crossing of the Werribee River as part of a proposed future extension to Hobbs Road which is situated within the Western Growth Corridor of Melbourne.

GAA's preferred river crossing option "Eastern Arterial Option 3" has been evaluated in conjunction with the hydrology and geotechnical information provided by the GAA and an updated bridge concept and construction estimate has been provided.

This report recommends a river crossing resulting in an approximate 30% reduction in bridge length from 115m to 79m. This has resulted in a revised cost estimate of approximately \$10.2M which is considerably less than previous estimates.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
1 INTRODUCTION	5
2 REVIEW OF EXISTING INFORMATION	6
2.1 Information Supplied By the Growth Areas Authority	6
2.2 Review of Existing Information	6
3 CONCEPT BRIDGE DESIGN	7
3.1 Current Preferred Bridge Concept Design	7
3.2 Refinement of the Concept Bridge Design	7
3.2.1 Discussion	7
3.3 Assumptions & Limitations	8
3.4 Geotechnical Interpretation and Concept Design	8
4 CONSTRUCTION ESTIMATE	10
4.1 Overview	10
4.1.1 Concept Bridge Estimate	11
4.1.2 Risk Items	11

LIST OF FIGURES

Figure 1 – Location Map.....	5
Figure 2 – Road Bridge Plan and Elevation.....	12
Figure 3 – Road Bridge Typical Section.....	13
Figure 4 – Estimated Cut and Fill Volumes.....	14

LIST OF TABLES

Table 1 – Summary of Bridge Concept Refinement.....	8
Table 2 – Concept Estimate	10

1 INTRODUCTION

SMEC has been engaged by the Growth Areas Authority to review and refine the concept bridge design for Hobbs Road over the Werribee River. The current preferred option is described as the “Eastern Arterial Option 3” which is proposed to cross the Werribee River just west of the extent of the existing section of Sayers Road in Tarneit, Melbourne.

The concept bridge design has been refined to include the geotechnical and hydrological inputs provided by the GAA and an updated cost estimate has also been provided.



Figure 1: Location Map

2 REVIEW OF EXISTING INFORMATION

2.1 Information Supplied By the Growth Areas Authority

The following data was supplied by the GAA for the purposes of this assignment:

- Werribee River Crossing Planning Feasibility Study Stage 2 Report (GHD 2011)
- Wyndham Vale – Sundry IWMP Tasks: PSP90, PSP 40, PSP42 North, PSP 42 South and PSP 43 (Alluvium 2012)
- Geotechnical Investigation for the Armstrong Bridge over Werribee River, Tarneit (VicRoads June 2012)
- LIDAR Information (GAA)

2.2 Review of Existing Information

SMEC undertook a review of the information supplied by GAA and extract the information relevant to this assignment.

The elements particularly useful for this assignment were:

- The 100 ARI and flow rates were not provided within the Alluvium report. SMEC scaled the 100 year flood level from the Planning and Feasibility Study (GHD 2011) given that this level was provided from Melbourne Water. SMEC has cross checked this information with independent information available on hand and the flood level adopted seems reasonable however additional investigation is recommended to achieve an appropriate level of confidence. SMEC notes that should the 100 year flood level scaled from the 'Planning and Feasibility Study' (GHD 2011) may not be accurate, a simple solution would be to increase the height of the columns so that Melbourne Waters 600mm freeboard requirement is maintained.
- SMEC contacted Melbourne Water to determine whether a 1:2000 ARI flood level was available to ensure that the bridge concept satisfied the serviceability requirement as per AS5100. Melbourne Water confirmed that this information was not available and hence has not been considered for this bridge concept.
- The geotechnical information is limited to the north eastern bank due to specific instruction. The report assumes that the geological conditions are likely to be similar on the south western bank. No investigation has been made with respect to groundwater levels and chemistry in this area to date.
- All alignment options proposed in The Planning and Feasibility Report (GHD 2011) cross through known Floodplain EVC (55), the Werribee River BioSite, through both Degraded Tree and Native Vegetation Habitat. Information on cultural heritage is limited however this is deemed as normal for a project in this early stage of development.
- The LIDAR information supplied by GAA was configured and utilised for the purposes of setting a horizontal and vertical alignment for the proposed bridge.

3 CONCEPT BRIDGE DESIGN

3.1 Current Preferred Bridge Concept Design

GAA's current preferred option namely the "Eastern Arterial Option 3" is referenced in the Planning and Feasibility Study (GHD 2011). For the purposes of this report, this will be referred to as the 'preferred option' from hereon.

The current preferred option consists of a 115m long 'Super T' structure that is 4 spans long that accommodates 4 lanes of traffic each 3.5 metres wide and two shared use paths at either edge of the bridge both at 3.0metres wide. The estimate for this bridge is in the order of \$9,700,000.

3.2 Refinement of the Concept Bridge Design

SMEC has reviewed the current preferred bridge design and provided an updated concept (Refer to Figure 2 and Figure 4). In preparation of this concept SMEC undertook the following tasks:

- Evaluated and compiled the available LIDAR data
- Established the proposed road 'Centre line' consistent with the current preferred option.
- Set up an MX model for existing ground data and design centre line
- Reviewed and optimised the number of proposed spans in the current preferred option
- Reviewed and optimised the span arrangements so that a more effective span arrangement could be achieved
- Preliminary design check to confirm that the bridge concept was achievable (i.e. checking of span to length ratio and checking of beam sizes).

3.2.1 Discussion

Our key objective was to determine opportunities to reduce the construction cost of the bridge. To achieve this SMEC has:

- Reduced the overall bridge length from 155 m to 79 m (30% reduction)
- Adjusted the span arrangement to eliminate the low headroom that was apparent in the current preferred option. This adjacent headroom would not serve any particular purpose (i.e. not high enough for an average person to access the underside of the bridge). This achieves a reduction in total spans from 4 to 3.
- Reduced the total number of beams required for construction as a result of the reduced number of spans and optimised typical cross section from 40 beams to 27 beams.
- The location of the piers have been repositioned to maximise the distance from the centre of the river bed as considerable benefits can be realised in doing so such as: increased safety during construction, minimising environmental impacts during construction, delays to construction due to seasonal impacts are minimised.

Table 1 below summarises the work SMEC has undertaken to refine the current preferred bridge concept design.

Item	Current Preferred Design Option	Refined Concept Design	Cost Benefit
Bridge Type	T-Roff (Super T)	T-Roff (Super T)	N/A
Bridge Length	115m	79m	30% reduction in bridge length
No. Spans	4 (max span 32.5m)	3 (max span 32.5)	1 less pier
No. Beams	40	27	32% reduction in no. of beams
No. Lanes	4 (2 No. Shared Use Paths)	4 (2 No. Shared Use Paths)	N/A

Table 1 – Summary of Bridge Concept Refinement

SMEC has in addition provided an alternative typical cross section than the one identified in the current preferred option (Figure 3).

This alternative cross section moves the traffic barriers from the edge of the structure to the edge of the traffic lanes (kerb line) and uses an additional pedestrian railing system for the shared use path. This separates the traffic lanes with the shared use path users and results in an overall safer solution. It also provides additional flexibility for urban designers and architects when selecting the aesthetic finish of the structures edge. Consideration needs to be given to the off structure barrier termination and how it interfaces with pedestrian movements and other site constraints.

3.3 Assumptions & Limitations

The following assumptions have been made in the development of the refined concept design:

- The 100 year flood level has not been calculated by SMEC. It has been adopted from the 'Planning and Feasibility Study Report' (GHD 2011). An accurate measure of the 100 year flood level was not part of the scope.
- The 2000 year flood level was not provided by Melbourne Water and as such was not considered for the purposes of this concept design
- Targeted flora and fauna and cultural heritage (European and Indigenous) survey information has not been considered in preparation of the concept bridge design as it has not been made available.

3.4 Geotechnical Interpretation and Concept Design

The available geotechnical information indicates that, for the preferred route option, the subsurface profile at the bridge abutments is likely to comprise approximately 1.5m of stiff to hard silty clay (residual soil to extremely weathered basalt) overlying distinctly weathered to slightly weathered medium to high strength basalt. The relevant boreholes in this area (B12-66837 and B12-66838) indicate the presence of an extremely to distinctly weathered zone at a depth of about 5.6m to 5.7m below the surface on the north eastern bank. This layer is 0.7m to 0.8m thick and is likely to be compressible.

It is considered that 600mm diameter bored piles would provide a suitable foundation for the proposed bridge. These bored piles should be founded in distinctly weathered or better quality basalt. The piles should be designed based on a side friction of 400kPa and an end bearing pressure of 8MPa (ultimate).

Given the relatively shallow soil cover in this area, there may be the potential to value add by constructing the bridge on spread/pad footings. This option could be explored further should GAA require.

It should be noted that these recommendations are based on limited geotechnical information and it is recommended that further investigations be undertaken to:

- Confirm that subsurface conditions are similar on the south western bank.
- Assess the presence and chemistry of groundwater within the foundation zone.
- Assess the presence of compressible zones up to 12m below the existing ground surface.

4 CONSTRUCTION ESTIMATE

4.1 Overview

A preliminary concept estimate for the construction of the bridge crossing is provided in Table 2. The concept design construction estimate has been developed using similar rates to those used during the planning and feasibility stage of the project to enable a broad comparison. Furthermore, SMEC's concept estimate makes allowance for additional items that should be included to better understand the cost of constructing the bridge as a standalone project and as such 'White collar costs' and other incidental items have been estimated. These include: Survey and design, supervision and project management, site establishment (mobilisation), traffic management and utility services relocation. These additional items have been estimated as a percentage of the capital construction costs and the percentages adopted are understood to be generally in line with the GAAs' generally accepted provisions.

A separate item of 20% of construction costs has been included as contingency.

Item	Unit	Rate	Quantity	Cost
Structure	m ²	4000	1627	\$ 6,508,000
Cut to Fill	m ³	34	660	\$ 22,440
Import to Fill	m ³	46	4233	\$ 194,718
Subtotal				\$ 6,725,158
Service Relocation	%	10		\$ 672,516
Survey & Design	%	5		\$ 336,258
Supervision & Project Management	%	10		\$ 672,516
Site Establishment	%	2.5		\$ 168,129
Traffic Management	%	5		\$ 336,258
Contingency	%	20		\$ 1,345,032
Total Estimated Cost				\$ 10,255,866

Table 2 – Concept Estimate

4.1.1 Concept Bridge Estimate

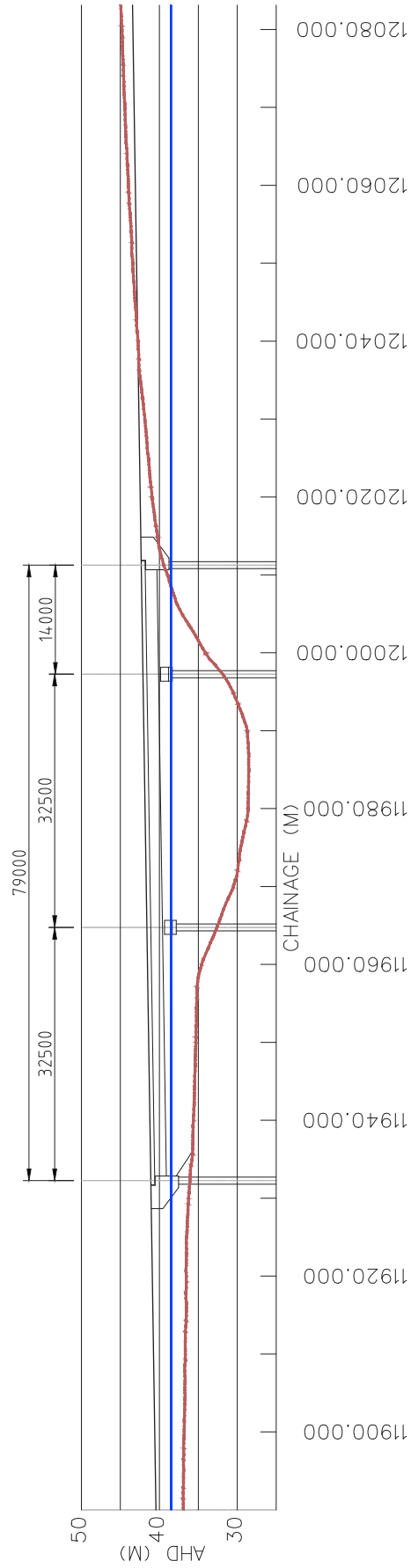
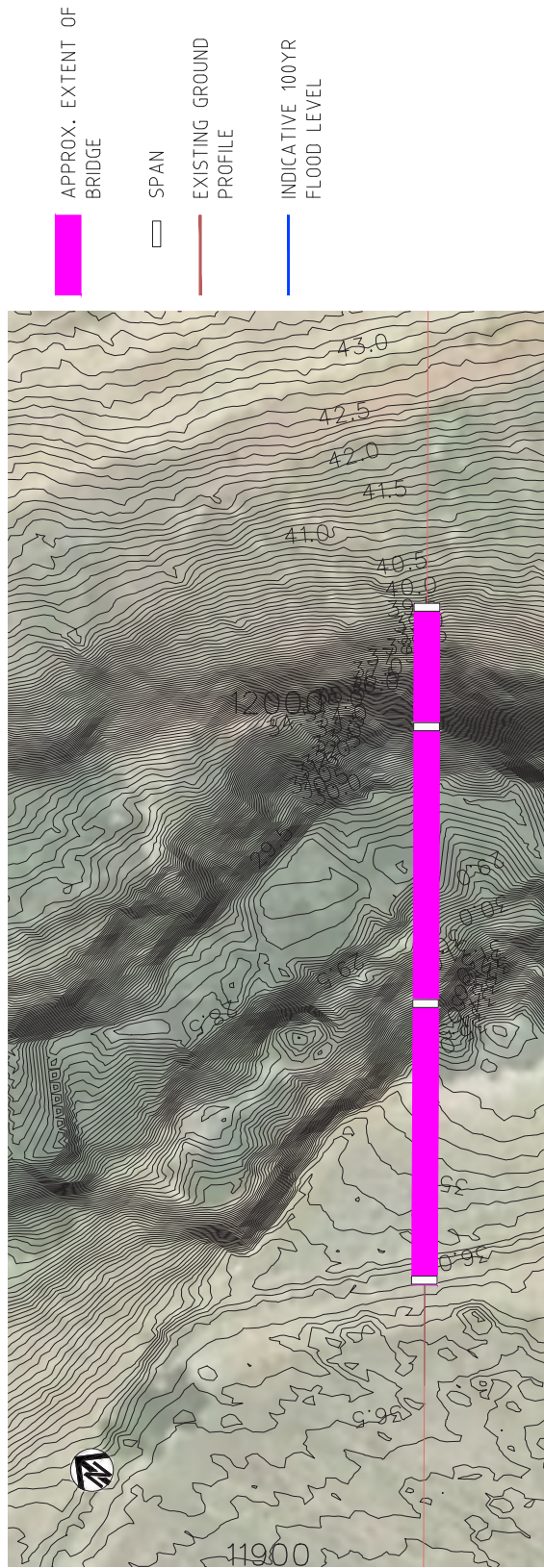
The 3 span 79metre structure over the Werribee River is considered as a moderately complex structure to construct in normal circumstances. Working within the confines of a waterway presents challenges that include environmental (flora/ fauna and cultural heritage), construction staging and in cases where there is an existing road network, managing traffic is an important consideration. All these issues can put upward pressure on the cost of construction. Adopting a deck area unit rate of \$4000/m² is considered appropriate for the purposes of estimating at this point in the projects life given the number of assumptions that require further investigation.

Additionally, it was considered prudent to include costs that are normally associated with a 'brown field' site and hence an allowance for traffic management and utility service relocation have been included however depending on when the project is constructed, these costs may not be relevant.

4.1.2 Risk Items

In preparing the estimate SMEC has made a number of assumptions which could influence the cost of the structure these include:

- An increase in the 100 year flood level will result in the bridge columns to be raised to accommodate the freeboard requirements imposed by Melbourne Water.
- The estimate considers the grade line to 80m either side of the structure
- Should the construction of bridge piers in the river be precluded, then the use of steel girders may be required to span a longer length. There will consequentially be an increase in the construction cost
- The majority of earthworks (fill) material will be imported
- No land acquisition costs have been included as it has been assumed a reservation has been set aside.
- Street lighting has not been included
- Signalised intersections are excluded
- General landscaping has been excluded
- Price indexation and escalation has not been included as the year of construction is not known



NOT FOR CONSTRUCTION

SCALE 1:500
AT A3 SIZE DRAWING

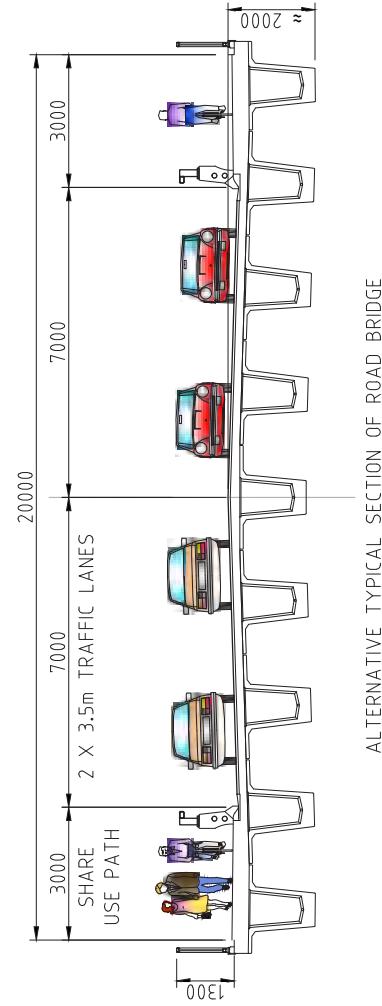
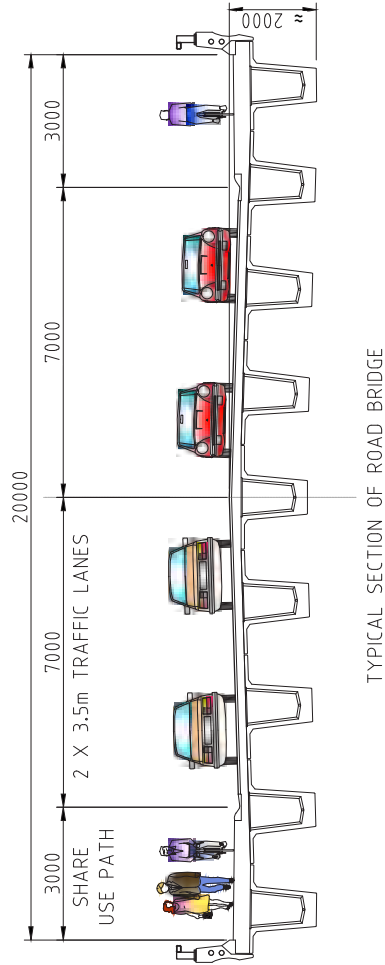
DRAWING FILE LOCATION / NAME
K:\Projects\3882\WER\CAD\Info_Sheet\3882\WER\3882-202007.dwg

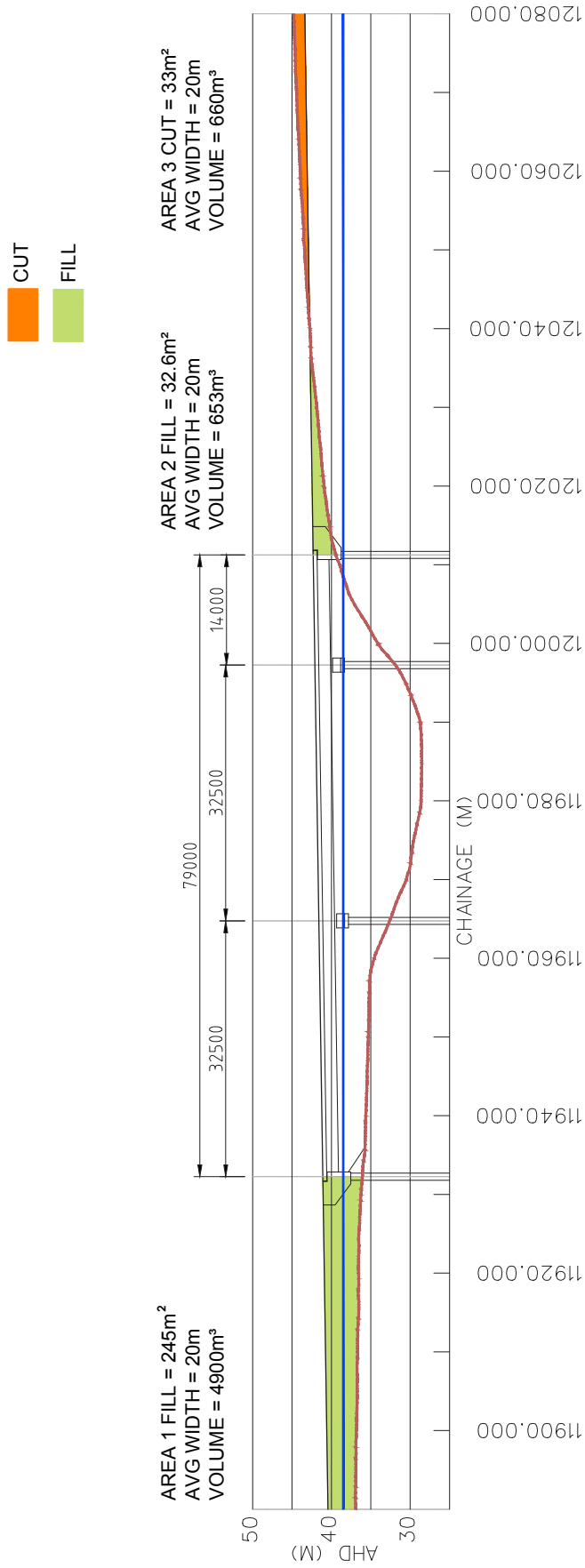


SMEC
SMEC AUSTRALIA PTY LTD
© 2020 SMEC AUSTRALIA PTY LTD
100/100 TORRENS ROAD
MELBOURNE VIC 3004
PH 03 95411000 FAX 03 95414066

**WERRIBEE RIVER CROSSING
ROAD BRIDGE PLAN AND ELEVATION**

INFORMATION DOCUMENT
3004780-ID-0001-20120807
FIGURE 2





NOT FOR CONSTRUCTION

SCALE 1:500
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20m
AT AS SIZE DRAWING

DRAWING FILE LOCATION / NAME
K:\Projects\3300\3300-1800-1\3300-1800-1-0003-20120807.dwg



WERRIBEE RIVER CROSSING
ESTIMATED CUT AND FILL VOLUMES

INFORMATION DOCUMENT
3004780-ID-0003-20120807
FIGURE 4

Document/Report Control Form

DOCUMENT / REPORT CONTROL FORM

File Location Name:	Werribee River Bridge Crossing
Project Name:	Wyndham West Functional Road Design Plans
Project Number:	3004780
Revision Number:	0

Revision History

Revision #	Date	Prepared by	Reviewed by	Approved for Issue by
DRAFT FOR COMMENT	7/8/2012	George Eleftheriadis	David Barton Ricky Tsui	Derrick Hitchins

Issue Register

Distribution List	Date Issued	Number of Copies
Growth Areas Authority	9/8/2012	1
SMEC Project File	9/8/2012	1

SMEC Company Details

Derrick Hitchins			
4/71 Queens Road, Melbourne VIC			
Tel:	+61 3 9514 1500	Fax:	+61 3 9514 1502
Email:	derrick.hitchins@smec.com	Website:	www.smec.com

The information within this document is and shall remain the property of Growth Areas Authority.

This report has been prepared by SMEC Australia Pty Ltd for the Growth Areas Authority. SMEC disclaim responsibility to any person other than the Growth Areas Authority arising from or in connection with this report.



Technical Note

Introduction

SMEC has been engaged by the Growth Areas Authority (GAA) to provide a high level preliminary cost estimate for a standalone pedestrian bridge structure.

Discussion

The below estimates are indicative only and it should be noted that the rates that have been selected can vary from project to project based on a number of factors. The estimated rates can only be refined upon better understanding of the specific project site conditions including; physical conditions (geological and hydraulic), environmental/ heritage constraints as well road alignment and geometric considerations.

SMEC considered a range of pedestrian bridge types and spans in order to provide the GAA an understanding of the effect on the estimated construction costs for each type. Indicative cross sections have been included within Attachment A.

To illustrate the range of options available, 3 different bridge types are considered in Table 1 below.

Item	Pedestrian Bridge No.1 Pre-Stressed Concrete Planks	Pedestrian Bridge No.2 Steel Box Beam Bridge	Pedestrian Bridge No.3 Super T (T-Roff) Beam
Bridge Span	80 m	60 m	120 m
Width	3.0 m	3.0 m	3.0 m
Span Length	20 m	60 m	40 m
No. Spans	4	1	3
Approximate Rate	\$4300/ m ²	\$3000/ m ² - \$5000/ m ²	\$3500/ m ² - \$4500/ m ²

Table 1 – Pedestrian Bridge Estimates

Pedestrian Bridge No.1

The first bridge type considered is a typical reinforced concrete T-Beam. In Victoria this type of pedestrian bridge is very common. The T-Beam has a typical maximum span of 20 metres and so may become cost prohibitive for longer spans as the construction of additional piers and foundations can outweigh the saving in the cost of producing this type of beam. For the purposes of this estimate, an estimate span of 80 metres is considered resulting in 4 spans each of 20 metres in length. The estimated cost for this is in the order of \$4300 per m² of deck area.



Risk Considerations

Considerations that should be given to adopting a pedestrian bridge are:

- An increase in river afflux (as a result of piers in the river) may result in an increase in flood levels upstream
- Construction cost can escalate depending on when the bridge is constructed (i.e. restricted work zone access during high river flow levels).
- River profile will govern the bridge pier dimensions and locations (Hence foundations are likely to occur within the river bed)

Pedestrian Bridge No.2

The second bridge type considered is a steel box beam bridge. These bridges are not as common in Victoria and this is mainly attributed to the comparatively higher material costs which make them cost prohibitive. They can provide significant benefits for longer span bridges where the construction of a bridge pier may not be required. For the purposes of this assessment we've taken a 60m long bridge. The estimated cost range for this would be between \$3000/ m² and \$5000/ m².

Risk Considerations

- The cost of materials (i.e. steel is more expensive than concrete). For each bridge type there is a 'tipping point' where the cost associated with the supply of the steel materials becomes more cost effective over concrete beams.
- The cost of maintaining a steel structure (e.g. periodic maintenance of protective coatings) is comparatively higher than that of a concrete beam structure.

Pedestrian Bridge No.3

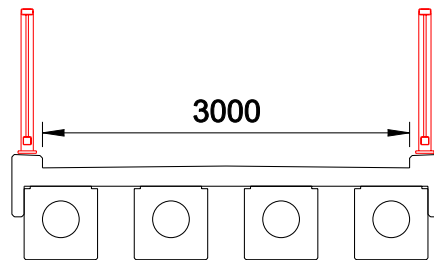
The third type of bridge considered is a 'Super T' concrete beam bridge. They are quite commonly used for pedestrian crossings and provide efficiency through the additional span length that can be achieved when compared to a simple concrete T- Beam. The estimated cost range for this type of pedestrian bridge is in the order of \$3500/ m² to \$4500/ m².

Risk Considerations

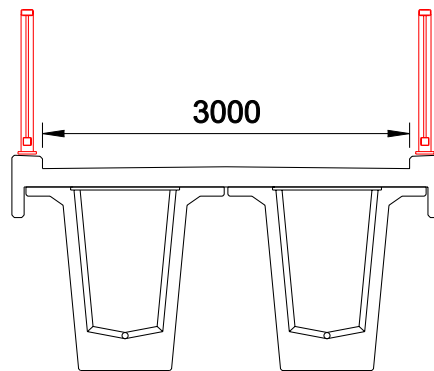
- River profile will govern the bridge pier dimensions and locations (Hence foundations are likely to occur within the river bank).



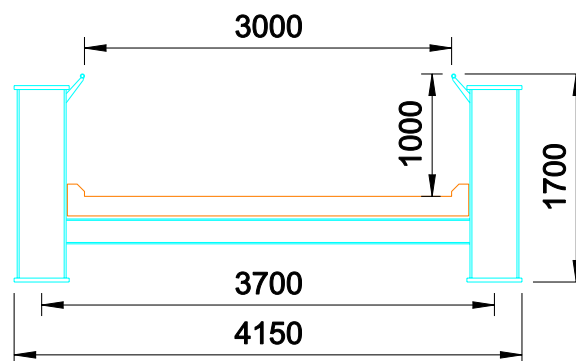
ATTACHMENT A



TYPICAL SECTION OF 20m SPAN FOOTBRIDGE
PRESTRESSED CONCRETE PLANKS



TYPICAL SECTION OF 40m SPAN FOOTBRIDGE
SUPER-T (T-ROFF) BEAMS



TYPICAL SECTION OF 60m SPAN FOOTBRIDGE
STEEL BOX BEAMS

ISSUE	DATE	AMENDMENT / ISSUE DESCRIPTION	PROJECT TITLE	SCALE	DRAWING STATUS	SKETCH No.	ISSUE
A	08/08/2012	CONCEPT ISSUE	WYNDHAM WEST WERRIBEE RIVER CROSSINGS GENERAL ARRANGEMENT FOOTBRIDGE TYPICAL SECTIONS	1:50	CONCEPT	3004780-S-SKT-002	A

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-11 - McGrath Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (4.2m) x Height (2.1m) x Length (1.2m)
Road Width (m)	13.4
No of Culverts laid end to end	12
No of Culverts laid side to side	13
Total No of Culverts	156

INFRASTRUCTURE - OPINION OF COST BR-11 - McGrath Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	528	m3	30.00	15,844
1.02	Trim and prepare subgrade for Slabs and foundations	1278	m2	1.80	2,300
1.03	Spread and Compact Fill Onsite	687	m3	20.00	13,734
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	4390	m2	21.00	92,187
1.06	Select Fill	482	m3	30.00	14,472
2.00	CONCRETE WORKS				
2.01	Culvert	156	No.	6,563.96	1,023,978
2.02	Culvert Foundation Slab (300mm)	219	m3	250.00	54,873
2.03	Apron Slab (150mm)	546	m2	61.20	33,415
2.04	Wing Wall	48	m2	516.00	25,025
2.05	Wing Wall Foundation	25	m3	396.00	10,083
2.06	Concrete retaining wall on top of culverts (500mm)	55	m2	455.00	24,843
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	254	m2	51.00	12,944
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	109	L.m	80.30	8,769
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	338	Lm	1.75	592
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	711	m2	8.30	5,898
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					1,412,165

Traffic Management 5%	70,608
Site Establishment 2.5%	35,304
Survey and Design 5%	70,608
Supervision and Project Management 9.0%	127,095
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	45,895
Vic Roads Fees 1%	14,122
Contingency 20%	282,433
Total Estimated Cost (excl. GST)	\$ 2,059,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-12 - PSP40 Connector
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (2.1m) x Height (1.2m) x Length (1.2m)
Road Width (m)	13.4
No of Culverts laid end to end	12
No of Culverts laid side to side	9
Total No of Culverts	108

INFRASTRUCTURE - OPINION OF COST BR-12 - PSP40 Connector					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	235	m3	30.00	7,061
1.02	Trim and prepare subgrade for Slabs and foundations	442	m2	1.80	796
1.03	Spread and Compact Fill Onsite	328	m3	20.00	6,552
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1520	m2	21.00	31,911
1.06	Select Fill	302	m3	30.00	9,045
2.00	CONCRETE WORKS				
2.01	Culvert	108	No.	2,901.20	313,330
2.02	Culvert Foundation Slab (300mm)	76	m3	250.00	18,995
2.03	Apron Slab (150mm)	189	m2	61.20	11,567
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	19	m2	455.00	8,600
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	147	m2	51.00	7,482
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	38	L.m	80.30	3,035
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	196	Lm	1.75	342
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	235	m2	8.30	1,948
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					513,934

Traffic Management 5%	25,697
Site Establishment 2.5%	12,848
Survey and Design 5%	25,697
Supervision and Project Management 9.0%	46,254
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	16,703
Vic Roads Fees 1%	5,139
Contingency 20%	102,787
Total Estimated Cost (excl. GST)	\$ 750,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-13 - PSP40 Connector
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.8m) x Length (1.2m)
Road Width (m)	13.4
No of Culverts laid end to end	12
No of Culverts laid side to side	8
Total No of Culverts	96

INFRASTRUCTURE - OPINION OF COST BR-13 - PSP40 Connector					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	277	m3	30.00	8,316
1.02	Trim and prepare subgrade for Slabs and foundations	562	m2	1.80	1,011
1.03	Spread and Compact Fill Onsite	556	m3	20.00	11,124
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1930	m2	21.00	40,522
1.06	Select Fill	422	m3	30.00	12,663
2.00	CONCRETE WORKS				
2.01	Culvert	96	No.	4,139.54	397,396
2.02	Culvert Foundation Slab (300mm)	96	m3	250.00	24,120
2.03	Apron Slab (150mm)	240	m2	61.20	14,688
2.04	Wing Wall	42	m2	516.00	21,450
2.05	Wing Wall Foundation	22	m3	396.00	8,642
2.06	Concrete retaining wall on top of culverts (500mm)	24	m2	455.00	10,920
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	162	m2	51.00	8,262
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	48	L.m	80.30	3,854
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	216	Lm	1.75	378
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	389	m2	8.30	3,227
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					639,783

Traffic Management 5%	31,989
Site Establishment 2.5%	15,995
Survey and Design 5%	31,989
Supervision and Project Management 9.0%	57,580
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	20,793
Vic Roads Fees 1%	6,398
Contingency 20%	127,957
Total Estimated Cost (excl. GST)	\$ 933,000

NOTES

1. All costs exclude GST.
2. Costs determined using typical construction rates from similar projects.
3. No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
4. Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
5. Pavement design is indicative only, subject to geotechnical investigation and detailed design.
6. Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-14 - Armstrong Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (2.1m) x Height (1.2m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	7
Total No of Culverts	105

INFRASTRUCTURE - OPINION OF COST BR-14 - Armstrong Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	249	m3	30.00	7,470
1.02	Trim and prepare subgrade for Slabs and foundations	397	m2	1.80	714
1.03	Spread and Compact Fill Onsite	392	m3	20.00	7,848
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	2999	m2	21.00	62,975
1.06	Select Fill	383	m3	30.00	11,475
2.00	CONCRETE WORKS				
2.01	Culvert	105	No.	2,901.20	304,626
2.02	Culvert Foundation Slab (300mm)	75	m3	250.00	18,743
2.03	Apron Slab (150mm)	147	m2	61.20	8,996
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	15	m2	455.00	6,689
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	268	m2	51.00	13,678
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	29	L.m	80.30	2,361
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	179	Lm	1.75	313
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	215	m2	8.30	1,781
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					540,940

Traffic Management 5%	27,047
Site Establishment 2.5%	13,523
Survey and Design 5%	27,047
Supervision and Project Management 9.0%	48,685
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	17,581
Vic Roads Fees 1%	5,409
Contingency 20%	108,188
Total Estimated Cost (excl. GST)	\$ 789,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-15 - PSP 40 Connector
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (4.2m) x Height (2.1m) x Length (1.2m)
Road Width (m)	13.4
No of Culverts laid end to end	12
No of Culverts laid side to side	8
Total No of Culverts	96

INFRASTRUCTURE - OPINION OF COST BR-15 - PSP 40 Connector					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	356	m3	30.00	10,678
1.02	Trim and prepare subgrade for Slabs and foundations	786	m2	1.80	1,415
1.03	Spread and Compact Fill Onsite	687	m3	20.00	13,734
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	2701	m2	21.00	56,730
1.06	Select Fill	482	m3	30.00	14,472
2.00	CONCRETE WORKS				
2.01	Culvert	96	No.	6,563.96	630,140
2.02	Culvert Foundation Slab (300mm)	135	m3	250.00	33,768
2.03	Apron Slab (150mm)	336	m2	61.20	20,563
2.04	Wing Wall	48	m2	516.00	25,025
2.05	Wing Wall Foundation	25	m3	396.00	10,083
2.06	Concrete retaining wall on top of culverts (500mm)	34	m2	455.00	15,288
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	191	m2	51.00	9,731
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	67	L.m	80.30	5,396
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	254	Lm	1.75	445
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	534	m2	8.30	4,434
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					925,112

Traffic Management 5%	46,256
Site Establishment 2.5%	23,128
Survey and Design 5%	46,256
Supervision and Project Management 9.0%	83,260
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	30,066
Vic Roads Fees 1%	9,251
Contingency 20%	185,022
Total Estimated Cost (excl. GST)	\$ 1,349,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-16 - Alfred Road DSS, Alfred Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (2.1m) x Height (0.6m) x Length (1.2m)
Road Width (m)	13
No of Culverts laid end to end	11
No of Culverts laid side to side	6
Total No of Culverts	66

INFRASTRUCTURE - OPINION OF COST BR-16 - Alfred Road DSS, Alfred Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	179	m3	30.00	5,364
1.02	Trim and prepare subgrade for Slabs and foundations	290	m2	1.80	522
1.03	Spread and Compact Fill Onsite	139	m3	20.00	2,772
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	983	m2	21.00	20,639
1.06	Select Fill	176	m3	30.00	5,265
2.00	CONCRETE WORKS				
2.01	Culvert	66	No.	2,110.40	139,286
2.02	Culvert Foundation Slab (300mm)	49	m3	250.00	12,285
2.03	Apron Slab (150mm)	126	m2	61.20	7,711
2.04	Wing Wall	14	m2	516.00	7,150
2.05	Wing Wall Foundation	7	m3	396.00	2,881
2.06	Concrete retaining wall on top of culverts (500mm)	13	m2	455.00	5,733
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	128	m2	51.00	6,518
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	25	L.m	80.30	2,024
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	170	Lm	1.75	298
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	102	m2	8.30	849
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					292,506

Traffic Management 5%	14,625
Site Establishment 2.5%	7,313
Survey and Design 5%	14,625
Supervision and Project Management 9.0%	26,326
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	9,506
Vic Roads Fees 1%	2,925
Contingency 20%	58,501
Total Estimated Cost (excl. GST)	\$ 427,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-17 - Alfred Road DSS, Ison Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.5m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	2
Total No of Culverts	30

INFRASTRUCTURE - OPINION OF COST BR-17 - Alfred Road DSS, Ison Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	162	m3	30.00	4,860
1.02	Trim and prepare subgrade for Slabs and foundations	162	m2	1.80	292
1.03	Spread and Compact Fill Onsite	518	m3	20.00	10,350
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	1224	m2	21.00	25,704
1.06	Select Fill	459	m3	30.00	13,770
2.00	CONCRETE WORKS				
2.01	Culvert	30	No.	3,923.60	117,708
2.02	Culvert Foundation Slab (300mm)	31	m3	250.00	7,650
2.03	Apron Slab (150mm)	60	m2	61.20	3,672
2.04	Wing Wall	35	m2	516.00	17,875
2.05	Wing Wall Foundation	18	m3	396.00	7,202
2.06	Concrete retaining wall on top of culverts (500mm)	6	m2	455.00	2,730
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	216	m2	51.00	11,016
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	12	L.m	80.30	964
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	144	Lm	1.75	252
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	216	m2	8.30	1,793
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					299,047

Traffic Management 5%	14,952
Site Establishment 2.5%	7,476
Survey and Design 5%	14,952
Supervision and Project Management 9.0%	26,914
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	9,719
Vic Roads Fees 1%	2,990
Contingency 20%	59,809
Total Estimated Cost (excl. GST)	\$ 436,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-18 - Alfred Road DSS, Ison Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (4.2m) x Height (1.2m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	1
Total No of Culverts	15

INFRASTRUCTURE - OPINION OF COST BR-18 - Alfred Road DSS, Ison Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	144	m3	30.00	4,320
1.02	Trim and prepare subgrade for Slabs and foundations	113	m2	1.80	204
1.03	Spread and Compact Fill Onsite	392	m3	20.00	7,848
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	857	m2	21.00	17,993
1.06	Select Fill	383	m3	30.00	11,475
2.00	CONCRETE WORKS				
2.01	Culvert	15	No.	5,694.80	85,422
2.02	Culvert Foundation Slab (300mm)	21	m3	250.00	5,355
2.03	Apron Slab (150mm)	42	m2	61.20	2,570
2.04	Wing Wall	28	m2	516.00	14,300
2.05	Wing Wall Foundation	15	m3	396.00	5,761
2.06	Concrete retaining wall on top of culverts (500mm)	4	m2	455.00	1,911
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	205	m2	51.00	10,465
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	8	L.m	80.30	675
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	137	Lm	1.75	239
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	164	m2	8.30	1,363
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					243,111

Traffic Management 5%	12,156
Site Establishment 2.5%	6,078
Survey and Design 5%	12,156
Supervision and Project Management 9.0%	21,880
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	7,901
Vic Roads Fees 1%	2,431
Contingency 20%	48,622
Total Estimated Cost (excl. GST)	\$ 355,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

Infrastructure Project - Opinion of Cost

Project: Melbourne Planning Authority - Wyndham Vale West DCP
MPA Ref: BR-19 - Black Forest Road DSS, Ison Road
Drg Ref: N/A

Date: 19-Mar-14
By: MVW
Revision: E



**Meinhardt Infrastructure &
Environment Pty Ltd**
A.B.N. 52 100 868 979

Level 12
501 Swanston Street
Melbourne Victoria
Australia 3000

www.meinhardtgroup.com
Tel: 61 (03) 8676 1200
Fax: 61 (03) 8676 1201

Culvert Geometry:

Culvert Dimensions:	Width (3m) x Height (1.8m) x Length (1.2m)
Road Width (m)	17
No of Culverts laid end to end	15
No of Culverts laid side to side	10
Total No of Culverts	150

INFRASTRUCTURE - OPINION OF COST BR-19 - Black Forest Road DSS, Ison Road					
Item	Description	Quantity	Unit	Rate (\$/unit)	Sub Total (\$ excl.GST)
1.00	EARTHWORKS				
1.01	Excavation and disposal off site	402	m3	30.00	12,060
1.02	Trim and prepare subgrade for Slabs and foundations	810	m2	1.80	1,458
1.03	Spread and Compact Fill Onsite	653	m3	20.00	13,068
1.04	Tests (Density etc.)	1	Item	15,000.00	15,000
1.05	Rip Rap + Geotextile	6120	m2	21.00	128,520
1.06	Select Fill	536	m3	30.00	16,065
2.00	CONCRETE WORKS				
2.01	Culvert	150	No.	4,139.54	620,931
2.02	Culvert Foundation Slab (300mm)	153	m3	250.00	38,250
2.03	Apron Slab (150mm)	300	m2	61.20	18,360
2.04	Wing Wall	42	m2	516.00	21,450
2.05	Wing Wall Foundation	22	m3	396.00	8,642
2.06	Concrete retaining wall on top of culverts (500mm)	30	m2	455.00	13,650
2.07	Concrete Kerb lead in/out	60	L.m	52.00	3,120
2.08	Shared Pathway - 125mm thick reinforced	360	m2	51.00	18,360
3.00	PAVEMENT WORKS				
3.01	40mm Thick Asphalt (wearing course)	0	m2	18.10	0
3.02	60mm Thick Asphalt (intermediate course)	0	m2	31.70	0
3.03	75mm Thick Asphalt (base course)	0	m2	33.90	0
3.04	Prime	0	m2	3.60	0
3.05	150mm CTCR Base	0	m2	13.50	0
3.06	150mm FCR Base	0	m2	9.90	0
3.07	200mm Select Sub-base Course	0	m2	6.00	0
3.08	Subgrade Improvement (allow 20% of area)	0	m2	13.40	0
3.09	Safety Barrier	60	L.m	80.30	4,818
4.00	DRAINAGE WORKS				
4.01	AG Drain	60	Lm	31.50	1,890
4.02	Drainage Pits (60m spacing)	0	No.	2,750.00	0
4.03	375mm dia RCP (crushed rock backfill)	0	m	240.00	0
4.04	375mm dia RCP (earth backfill)	0	m	200.00	0
4.05	Break-in and Connection to Existing Drainage	0	Item	1,500.00	0
4.06	Environmental controls and temporary diversion allowance	1	item	50,000.00	50,000
5.00	SIGN AND LINE MARKING				
5.01	Line marking	240	Lm	1.75	420
5.02	Regulatory Signage	8	No.	400.00	3,200
6.00	ELECTRICAL WORKS				
6.01	Street Light poles @ 50m spacing	0	No.	6,500.00	0
6.02	Street Lighting cabling and conduit	0	Lm	80.00	0
7.00	LANDSCAPE WORKS				
7.01	Landscaping (topsoil and turf only)	432	m2	8.30	3,586
7.02	Landscaping (trees)	0	No.	350.00	0
8.00	SERVICE RELOCATION / PROTECTION				
8.01	Note: No allowance for relocation of existing services in L.m rate				0
Sub-total					992,848

Traffic Management 5%	49,642
Site Establishment 2.5%	24,821
Survey and Design 5%	49,642
Supervision and Project Management 9.0%	89,356
Council Fees (Supervision 1.5%, project management 1% and plan checking 0.75%) 3.25%	32,268
Vic Roads Fees 1%	9,928
Contingency 20%	198,570
Total Estimated Cost (excl. GST)	\$ 1,448,000

NOTES

- All costs exclude GST.
- Costs determined using typical construction rates from similar projects.
- No allowance has been made for Community Liaison, Cultural Heritage, Flora and Fauna / Net Gain Offsets.
- Costing based on GAA Black Forest Rd Precinct Structure Plan, Cross-Sections, as per MT email 8.04.2013
- Pavement design is indicative only, subject to geotechnical investigation and detailed design.
- Road pavement excluded as included in road costing.

BR-20 Culvert Crossing of Lolly Pop Creek

Description	ID	Detail	Unit	Rate	Qty	Amount
Site Mobilisation & Preparation	1	General Ancillaries and removal of existing infrastructure	Item	\$ 20,000.00	1	\$ 20,000.00
Earthworks	2	Earthworks - Cut to Fill, used on site	m3 solid	\$ 35.00	1080	\$ 37,800.00
Structure	3	Culverts	m²	\$ 1,200.00	300	\$ 360,000.00
	4	Link Slabs	m2	\$ 200.00	300	\$ 60,000.00
	5	Wing Wall Construction	Item	\$ 3,000.00	4	\$ 12,000.00
Pavement	6	Construct granular pavement, including double application seal (550mm depth)	m²	\$ 80.00	2100	\$ 168,000.00
Barriers	7	Guardfence - Supply & Erect (Armco)	m	\$ 135.00	240	\$ 32,400.00
						Sub Total \$ 670,200.00
PROFESSIONAL FEES & CONTINGENCY	14	Vicroads/Council Fees	item	3.25%	1	\$ 21,781.50
	15	Professional Design Fees	item	2.00%	1	\$ 13,404.00
	16	Contingency	item	10.00%	1	\$ 67,020.00
						TOTAL \$ 772,405.50
Assumptions/Comments	REF					
	3	Design flow rate of 145 m3/sec as per Melbourne Waters 1-100 peak flow.				
	3	Culvert area is 75m long by 8m wide consisting of 13x 3m wide x 1.2m high x 2.4m long culverts and 11 x link slabs across a full width base slab.				
	4	Reconstruction of existing road for approximately 300m				
	Gen	No allowance has been made for traffic management				
	Gen	No allowance for ground improvement works.				

BR-21 Pedestrian Underpass along waterway (flood prevented upto 1:100 year flood) - Cost Estimate

Description	ID	Detail	Unit	Rate	Qty	Amount
Earthworks	1	Earthworks - Cut to Fill, used on site	m3 solid	\$ 45.00	300	\$ 13,500.00
	2	Concrete for structure	m3 solid	\$ 100.00	200	\$ 20,000.00
Structure	3	Reinforcement M20 @150	tonne	\$ 2,300.00	3	\$ 6,900.00
	4	Height clearance sign	no	\$ 350.00	2	\$ 700.00
Signage	5	continuity line	m	\$ 60.00	3	\$ 180.00
Linemarking	6	70W luminaire	no	\$ 800.00	1	\$ 800.00
	7	conduit	m	\$ 230.00	30	\$ 6,900.00
	8	cable	m	\$ 38.00	50	\$ 1,900.00
	9	Electrical Pit	no	\$ 2,000.00	2	\$ 4,000.00
	10	Sump/pit	m	\$ 3,000.00	1	\$ 3,000.00
Lighting	11	Pump	no	\$ 4,000.00	1	\$ 4,000.00
	12	Supply & Install Class 2 300mm dia RCP	m	\$ 350.00	10	\$ 3,500.00
	13	Rock beaching at the bottom of wall	m²	\$ 150.00	70	\$ 10,500.00
Sub Total						\$ 75,880.00
PROFESSIONAL FEES & CONTINGENCY	14	Vicroads/Council Fees	item	3.25%	1	\$ 2,466.10
	15	VicTrack assessment	item	approx.	1	\$ 3,000.00
	16	ARECON tech assessment for Victrack	item	approx.	1	\$ 5,000.00
	17	Victrack site access / occupation	item	approx.	1	\$ 3,000.00
	18	Professional Engineering Design Fees	item	2.00%	1	\$ 1,517.60
	16	Contingency	item	30.00%	1	\$ 22,764.00
TOTAL						\$ 113,627.70

Assumptions/Comments	REF	
	1	The Rail Structure needs to be assessed as the new path structure is aproximatelt 1m away from the piles. The stability of the bridge piles need to be checked
	13	Melbourne Water needs to be consulted as the opening for the creek is reduced due to the new path
	2,3	The design of the path is only an estimate as we have not done a design taking consideration of the ground conditions and stability of embankment
	17	No allowance made for employment of Lvl 3 Rail Safety Officer @ \$1000/day
	17	No allowance made for costs associated with complete rail line shutdown
	13	No fee determined for negotiation with or possible review by Melbourne Water

Note: As the above cost estimates are based on typical expected costs for each of the design attributes and not on a specific preliminary design, these costs may vary significantly and as such should only be considered indicative or "Ball Park" estimate

BR-23 Werribee River Shared Trail under RRL

Description	Structure				Barrier/Handrail		Construction Total	Survey & Design 5%	Traffic Management 5%	Council Fees 3.25%	Viceroads Fees 1.00%	Supervision & Project Management 9%	Site Establishment 2.5%	Contingency 20%	TOTAL
	LENGTH	WIDTH	Plan Area	Rate	Length	Rate									
	m	m	m2	\$/m2	m	\$/Lin.m									
Shared Use Path Footbridge under RRL bridge adjacent to Werribee River - Concrete Plank Construction	65	3	195	1450	130	150	\$ 302,250.00	\$ 15,112.50	\$ 15,112.50	\$ 9,823.13	\$ 3,022.50	\$ 27,202.50	\$ 7,556.25	\$ 60,450.00	\$ 440,529.38

BR-24 Bulban Road Culvert

Description	Number of culverts	Structure				Barrier (on and off structure)		Construction Total	Survey & Design	Traffic Management	Council Fees	Vicroads Fees	Supervision & Project Management	Site Establishment	Contingency	TOTAL
		LENGTH	WIDTH	Plan Area	Rate	Length	Rate									
		m	m	m ²	\$/m ²	m	\$/lin.m									
Crossing Bulban Road. 10 rows of culverts, 19 culverts per row, each culvert 3m(w)x1.2m(L)x1.8m(H).	190	23	30	690	1450	154	2000	\$ 1,308,500.00	\$ 65,425.00	\$ 65,425.00	\$ 42,526.25	\$ 13,085.00	\$ 117,765.00	\$ 32,712.50	\$ 261,700.00	\$ 1,907,138.75

BR-25 Ison Road Culvert

		Structure				Barrier (on and off structure)											
Culvert	Description	Number of culverts	LENGTH	WIDTH	Plan Area	Rate	Length	Rate	Construction Total	Survey & Design	Traffic Management	Council Fees	Vicroads Fees	Supervision & Project Management	Site Establishment	Contingency	TOTAL
			No	m	m	m2	\$/m2	m									
Road Culverts																	
C1	Crossing Ison Road. 3 rows of culverts, 7 culverts per row, each culvert 2.7m(W)x1.2m(H)x2.5m(L)	21	17	8	136	1450	142	2000	\$ 481,200.00	\$ 24,060.00	\$ 24,060.00	\$ 15,639.00	\$ 4,812.00	\$ 43,308.00	\$ 12,030.00	\$ 96,240.00	\$ 701,349.00
C2	Crossing Ison Road. 6 rows of culverts, 7 culverts per row, each culvert 2.7m(W)x1.2m(H)x2.5m(L)	42	17	16.2	275.4	1450	142	2000	\$ 683,330.00	\$ 34,166.50	\$ 34,166.50	\$ 22,208.23	\$ 6,833.30	\$ 61,499.70	\$ 17,083.25	\$ 136,666.00	\$ 995,953.48

BR-26 Ison Road Culvert

Culvert	Description	Number of culverts	Structure				Barrier (on and off structure)		Construction Total	Survey & Design	Traffic Management	Council Fees	Vicroads Fees	Supervision & Project Management	Site Establishment	Contingency	TOTAL
			LENGTH	WIDTH	Plan Area	Rate	Length	Rate									
			No	m	m	m ²	\$/m ²	m									
Road Culverts																	
C3	Crossing Ison Road. 9 rows of culverts, 7 culverts per row, each culvert 2.7m(W)x1.2m(H)x2.5m(L)	63	17	24.2	411.4	1450	142	2000	\$ 880,530.00	\$ 44,026.50	\$ 44,026.50	\$ 28,617.23	\$ 8,805.30	\$ 79,247.70	\$ 22,013.25	\$ 176,106.00	\$ 1,283,372.48
C4	Crossing Ison Road. 6 rows of culverts, 7 culverts per row, each culvert 2.7m(W)x1.2m(H)x2.5m(L)	42	17	16.2	275.4	1450	142	2000	\$ 683,330.00	\$ 34,166.50	\$ 34,166.50	\$ 22,208.23	\$ 6,833.30	\$ 61,499.70	\$ 17,083.25	\$ 136,666.00	\$ 995,953.48

BR-27 Ison Road Culvert

27 Ison Road Culvert																	
Culvert	Description	Number of culverts	Structure				Barrier (on and off structure)		Construction Total	Survey & Design	Traffic Management	Council Fees	Viceroads Fees	Supervision & Project Management	Site Establishment	Contingency	TOTAL
			LENGTH	WIDTH	Plan Area	Rate	Length	Rate									
		No	m	m	m ²	\$/m ²	m	\$/lin.m		5%	5%	3.25%	1.00%	9%	2.5%	20%	
Road Culverts																	
C5	Crossing Ison Road. 4 rows of culverts, 7 culverts per row, each culvert 2.7m(W)x1.2m(H)x2.5m(L).	28	17	10.8	183.6	1450	142	2000	\$ 550,220.00	\$ 27,511.00	\$ 27,511.00	\$ 17,882.15	\$ 5,502.20	\$ 49,519.80	\$ 13,755.50	\$ 110,044.00	\$ 801,945.65

8.4.4 Community Centre Cost Sheets

Community Centre Level 1

Name: Community Centre Level 1 Site 0.4ha

Scope of works: Double Kindergarten with carparking facilities

Detail: Double Kindergarten with community room and Carparking facilities

Notes: Costs based on estimate from previous community centres as provided by Wyndham City Council
Estimate based on normal earthworks on fairly level site

Item	Unit	Rate	area	comments	subtotal	Amount
Community Centre	subtotal		712 square metres			\$ 2,277,247
Building	m ²	\$ 2,721.00	100		\$ 272,100.00	
Community room	m ²	\$ 2,721.00	368	2 children rooms, Kitchen, Office/Admin, Storage internal & External, Children's toilets	\$ 1,001,328.00	
Kindergarten (double)	m ²	\$ 2,721.00	84	includes circulation space	\$ 228,564.00	
Central Management Offices	m ²	\$ 2,721.00	40		\$ 108,840.00	
Kitchen/Kiosk	m ²	\$ 2,439.00	61		\$ 148,779.00	
Storage	m ²	\$ 2,439.00	59		\$ 143,901.00	
Public amenities	m ²	\$ 2,721.00	71.2	allowance for wall thickness 10% of room areas	\$ 193,735.20	
Wall area	m ²	\$ 225.00	800	outdoor play space for kindergarten and 100m2 playgroups	\$ 180,000.00	
Playground	m ²	\$ 3,000.00	73	fixed cost	\$ 219,000.00	
Carpark works						\$ 246,500
Landscaping Level A	m ²	\$ 55.00	500	Level A	\$ 27,500.00	
Subtotal					\$ 2,523,747.20	
estimated total						\$ 2,523,747
Contingence			15%			\$ 378,562
Total + contingencies					\$ 2,902,309	
Services for buildings	Item					\$ 50,000
Survey and Design			5%			\$ 126,187
Overheads (supervision etc)			10%			\$ 252,375
Site establishment			2.5%			\$ 63,094
Total Estimated Cost						\$ 3,393,965
Adopted Cost						\$ 3,393,965

Estimate Prepared by: **CDCE**

Mar-14

Name: Community Centre Level 2 Site 0.8ha

Scope of works: Integrated Community Centre

Detail Double Kindergarten, 2 consulting rooms for Maternal & Child Health, Flexible activity rooms, Consulting rooms for visiting services

Community Hall, Public amenities, Central Management Office and carparking.

Notes: Costs based on estimate from previous community centres as provided by Wyndham City Council

Estimate based on normal earthworks on fairly level site

Item	Unit	Rate	area	comments	subtotal	Amount
Community Centre						
Building	subtotal		1381	square metres		\$ 4,278,503
Community Hall	m²	\$ 2,721.00	500	includes community rooms	\$ 1,360,500.00	
Kindergarten (double)	m²	\$ 2,721.00	368	2 children rooms, Kitchen, Office/Admin, Storage internal & External, Children's toilets	\$ 1,001,328.00	
Maternal & Child Health	m²	\$ 2,721.00	100	2 consulting rooms & consult/interview room, waiting room, separate consulting/waiting	\$ 272,100.00	
Visiting Services Consulting rms	m²	\$ 2,721.00	70	2 consulting rooms, waiting room	\$ 190,470.00	
Central Management Offices	m²	\$ 2,721.00	179	includes circulation space of 95m²	\$ 487,059.00	
Flexible Activity rooms	m²	\$ 2,439.00	25	youth space	\$ 60,975.00	
Kitchen/Kiosk	m²	\$ 2,721.00	40		\$ 108,840.00	
Storage	m²	\$ 2,439.00	40		\$ 97,560.00	
Public amenities	m²	\$ 2,439.00	59		\$ 143,901.00	
Wall thickness	m²	\$ 2,721.00	138.1	allowance for wall thickness 10% of room areas	\$ 375,770.10	
Playground	m²	\$ 225.00	800	outdoor play space for kindergarten and 100m² for playgroups	\$ 180,000.00	
Carpark works						
Landscaping Level A	subtotal	\$ 3,000.00	85	fixed cost	\$ 255,000.00	\$ 282,500
Subtotal	m²	\$ 55.00	500	Level A	\$ 27,500.00	
estimated total					\$ 4,561,003.10	\$ 4,561,003
Contingence			15%			\$ 684,150
Total + contingencies					\$ 5,245,154	\$ 100,000
Services for buildings	Item					\$ 228,050
Survey and Design			5%			\$ 456,100
Overheads (supervision etc)			10%			\$ 114,025
Site establishment			2.5%			\$ 6,143,329
Total Estimated Cost						\$ 6,143,329
Adopted Cost						

Notes: Costs based on estimate from previous community centres as provided by Wyndham City Council
Estimate based on normal earthworks on fairly level site

Item	Unit	Rate	area	comments	subtotal	Amount
Community Centre	subtotal		2409	square metres		\$ 4,689,928
Building	m ²	\$ 2,721.00	500	includes community rooms	\$ 1,360,500.00	
Community Hall	m ²	\$ 2,721.00	368	2 children rooms, Kitchen, Office/Admin, Storage internal & External, Children's toilets	\$ 1,001,328.00	
Kindergarten (double)	m ²	\$ 2,721.00	100	2 consulting rooms & consult/interview room, waiting room, separate consulting/waiting	\$ 272,100.00	
Maternal & Child Health	m ²	\$ 2,721.00	70	2 consulting rooms, waiting room	\$ 190,470.00	
Visiting Services Consulting rms	m ²	\$ 2,721.00	179	includes circulation space of 95m2	\$ 487,059.00	
Central Management Offices	m ²	\$ 2,439.00	54	youth consulting rooms & lounge	\$ 131,706.00	
Youth space	m ²	\$ 2,439.00	25		\$ 60,975.00	
Flexible Activity rooms	m ²	\$ 2,721.00	40		\$ 108,840.00	
Kitchen/Kiosk	m ²	\$ 2,439.00	40		\$ 97,560.00	
Storage	m ²	\$ 2,439.00	59		\$ 143,901.00	
Public amenities	m ²	\$ 2,721.00	240.9	allowance for wall thickness 10% of room areas	\$ 655,488.90	
Wall thickness	m ²	\$ 2,721.00	800	outdoor play space for kindergarden and 100m2 playgroups	\$ 180,000.00	
Playground	m ²	\$ 225.00		single level		\$ 2,634,462
Library	m ²	\$ 2,721.00	856		\$ 2,329,176.00	
Public Area	m ²	\$ 2,721.00	12		\$ 32,652.00	
Office	m ²	\$ 2,721.00	50		\$ 136,050.00	
Office open plan space	m ²	\$ 2,439.00	24		\$ 58,536.00	
Public Toilets	m ²	\$ 2,439.00	12		\$ 29,268.00	
Staff Room	m ²	\$ 2,439.00	7		\$ 17,073.00	
Staff toilet	m ²	\$ 2,439.00	13		\$ 31,707.00	
Storage	m ²	\$ 3,000.00	130	fixed cost	\$ 390,000.00	
Carpark works	subtotal	\$ 55.00	500	Level A	\$ 27,500.00	\$ 417,500
Landscaping Level A	m ²				\$ 7,741,889.90	
Subtotal						\$ 7,741,890
estimated total						\$ 1,161,283
Contingence			15%		\$ 8,903,173	
Total + contingencies						\$ 100,000
Services for buildings	Item		5%			\$ 387,094
Survey and Design			10%			\$ 774,189
Overheads (supervision etc)			2.5%			\$ 193,547
Site establishment						\$

Performing Arts Centre

Name: Performing Arts Centre

Scope of works: Performing Arts Centre (rehearsal facilities)

Detail 3 large rehearsal rooms, 4 practise rooms (3 medium, 1 small), Kitchen, foyer, office/admin, female & male change rooms, amenities storage rooms (secure) to each rehearsal and practise rooms, workshop for set creation and storage

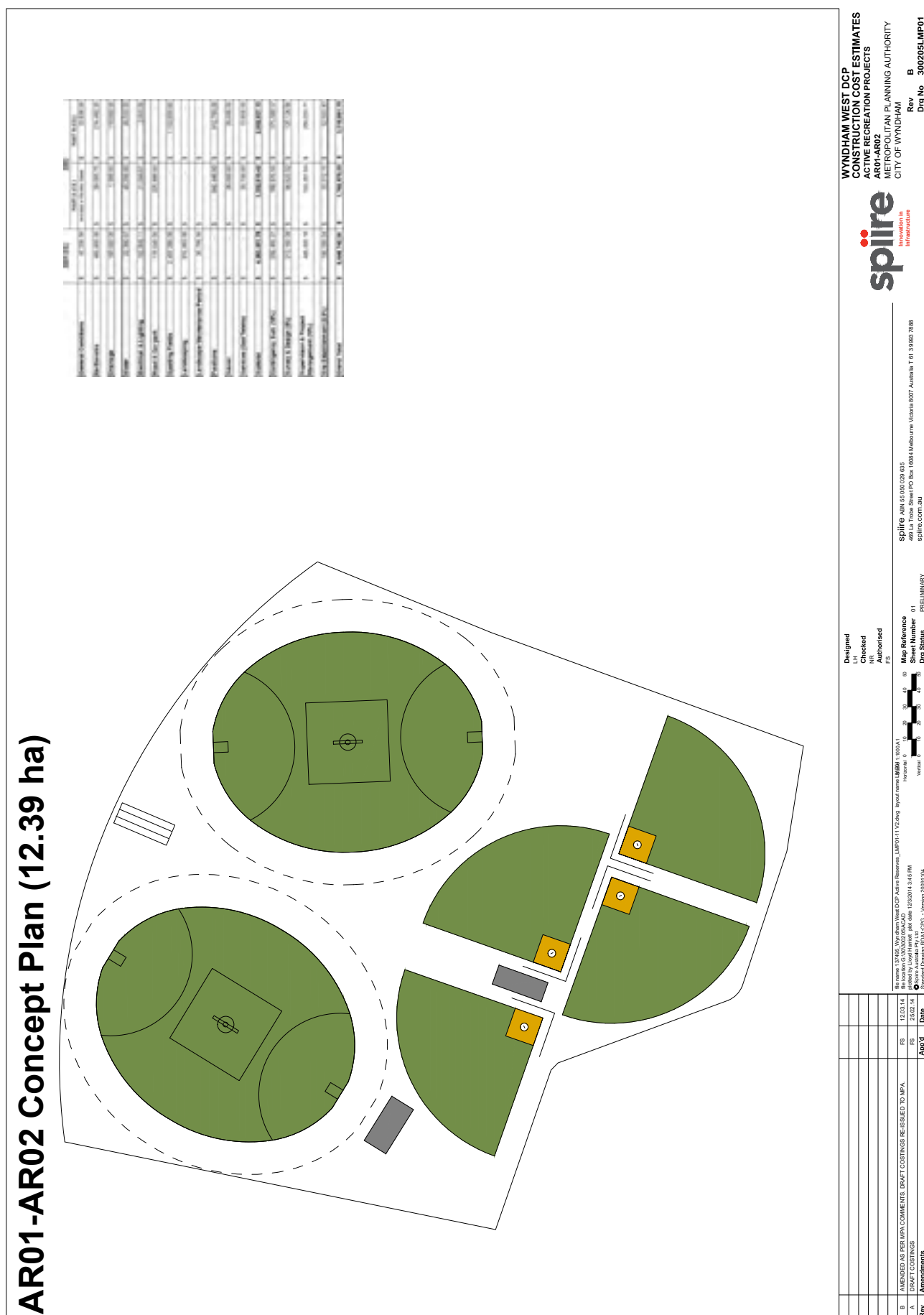
Notes: Costs based on being attached to Level three community centre estimate from previous community centres as provided by Wyndham City Council
Estimate based on normal earthworks on fairly level site

Item	Unit	Rate	area	comments	subtotal	Amount
Performing Arts Centre Building						
Rehearsal rooms	subtotal		1537	square metres		\$ 3,815,091
Practise rooms	m ²	\$ 3,370.00	456	3 large rooms recommended (19x8 each)	\$ 1,536,720.00	
Storage rooms	m ²	\$ 3,370.00	107	3 medium sized (4.5x6.5m) 1 small (4.2x4.6)	\$ 360,590.00	
Management Offices	m ²	\$ 2,925.00	129	3 separate rooms per rehearsal room each (3.2x4.5)	\$ 377,325.00	
Foyer	m ²	\$ 2,721.00	35		\$ 95,235.00	
Kitchen	m ²	\$ 2,721.00	90	required for large number of parents doing pick up and drop off	\$ 244,890.00	
Amenities	m ²	\$ 2,721.00	27		\$ 73,467.00	
Wall Thickness	m ²	\$ 2,439.00	105	includes male & female change rooms	\$ 256,095.00	
Workshop	m ²	\$ 3,370.00	153.7	allowance for wall thickness 10% of room areas	\$ 517,969.00	
	m ²	\$ 600.00	588	area let to groups to create and storage stage props etc.	\$ 352,800.00	
Carpark works	subtotal	\$ 3,000.00	65	fixed cost	\$ 195,000.00	\$ 222,500
Landscaping Level A	m ²	\$ 55.00	500	Level A	\$ 27,500.00	
Subtotal					\$ 4,037,591.00	
estimated total						\$ 4,037,591
Contingence			15%			\$ 605,639
Total + contingencies					\$ 4,643,230	
Survey and Design			5%			\$ 201,880
Overheads (supervision etc)			10%			\$ 403,759
Site establishment			2.5%			\$ 100,940
Total Estimated Cost						\$ 5,349,808
Adopted Cost						

Estimate Prepared by: **CDCE**

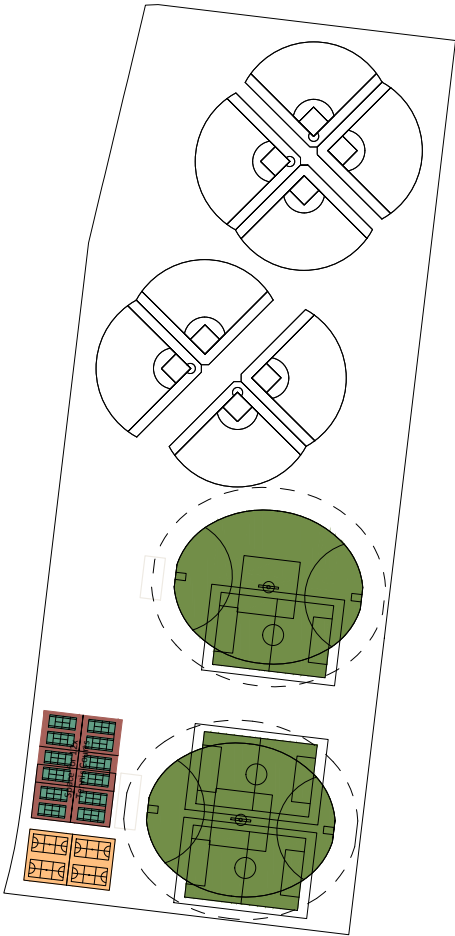
Mar-14

8.4.5 Active Recreation Cost Sheets



AR19-AR20 Concept Plan (23.55 ha)

BUDGET		2021-22	2022-23
General Services	\$	86,274.00	86,274.00
Administration	\$	35,780.00	35,780.00
Engineering	\$	10,170.00	10,170.00
Finance	\$	24,000.00	24,000.00
Health & Safety	\$	10,000.00	10,000.00
Human Resources	\$	10,000.00	10,000.00
Information Systems	\$	10,000.00	10,000.00
Legal Services	\$	10,000.00	10,000.00
Marketing	\$	10,000.00	10,000.00
Public Works	\$	10,000.00	10,000.00
Security	\$	10,000.00	10,000.00
Transportation	\$	10,000.00	10,000.00
Utilities	\$	10,000.00	10,000.00
Waste Management	\$	10,000.00	10,000.00
Water	\$	10,000.00	10,000.00
Other Services	\$	10,000.00	10,000.00
Total	\$	300,000.00	300,000.00



WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

WYNDHAM WEST DCP

CONSTRUCTION COST ESTIMATES

ACTIVE RECREATION PROJECTS

AR19-AR20

CONCEPT PLAN

CITY OF WYNDHAM

spire

spire architects

spire engineers

Rev	Amendments	Date	App'd	By
B	AMENDED AS PER MPA COMMENTS. DRAFT COSTINGS RE-ISSUED TO MPA.	12.03.14		
A	DRAFT COSTINGS	20.02.14		

AR23-AR24 (12.42 ha)

AR23: Development Infrastructure Levy (DIL)

[illegible]

AR24: Community Infrastructure Levy (CIL)

[illegible][illegible]

file name 137495_Wyndham We at DCP Active Reserves_LMP01-11 V2.dwg layout name LMP11B
file location G:\300\300205\AC\AO
plotted by Lloyd Harriott plot date 12/23/2014 3:46 PM
Spire Australia Pty Ltd
Standard Drawing RDA1-CPG - Version 20091104

splire ABN 55 050 029 635
469 La Trobe Street PO Box 10084 Melbourne Victoria 8007 Australia T 61 3 9963 7888
splire.com.au

**WYNDHAM WEST DCP
CONSTRUCTION COST ESTIMATES
ACTIVE RECREATION PROJECTS
AR23-AR24
METROPOLITAN PLANNING AUTHORITY
CITY OF WYNDHAM**

ASSUMPTIONS

ASSUMPTIONS

All costs are estimates only based upon schematic design layouts
All costs and rates are GST exclusive

General Conditions

General conditions are assumed to include securing the site at all times, setting out and establishing site sheds and compounds, liaison with Council and Superintendents, provision of securities and contract insurances, OH&S, PPE, etc. The following are assumed to be included in the General Conditions (Site security, establishment, insurances etc) will be required a each stage (Part A, B and C) and we have made preliminary assumptions for this stage on square meter areas

Earthworks

It is assumed sites will require preliminary establishment works to clear existing conditions, adjust levels and soft spots, remove existing vegetation on rubble, structures and unsuitable materials.

Preliminary site establishment and preparation includes cleaning up prior to start of works and excavation of existing channels/depressions to firm base.

Removal and disposal of trees, rubbish, structures, fences, rock, rubble, building rubbish and unsuitable material etc. will be undertaken as developer works.

Eligible materials will require to be to Level 1 supervision

Sub grade of sporting areas will require testing to ensure Australian Standards

Assume that additional fill material will be required to accommodate volume of rock removed from site sub grade and topsoil. We have allowed for additional 25% volume to areas other than designated for landscaping. Areas designated for landscaping will be source from off site or alternative location and require delivery and stock pile to site. Assume balance of cut and fill to be 0.3m and fill to 0.3m across the designated area. We have made preliminary assumptions based upon construction cut-to-diculate and fill rates for works in the Wyndham area and elsewhere across Melbourne area.

Drainage

All pipe rates to include excavation, supply of pipes, solays, lay, bed, joint, dewatering and backfill. All surplus spoil to be disposed of if not suitable for fill elsewhere.

base drainage layout using 450mm, 375mm and 300mm R.C. Class 2 pipe has not been undertaken at this stage and would require further investigation. The use of the existing drainage design for the proposed site is not recommended. The proposed site is located on a slope and the reduction of the reserve landscaping for more accurate design, specialised surface drainage (Soccer, Lawn, Bowls) has been included in the design. The proposed site is located on a slope and the reduction of the reserve landscaping for more accurate design, specialised surface drainage (Soccer, Lawn, Bowls) has been included in the design. The proposed site is located on a slope and the reduction of the reserve landscaping for more accurate design, specialised surface drainage (Soccer, Lawn, Bowls) has been included in the design.

No allowance has been made for the catchment, treatment or reuse of any water on site.

All services are assumed to have supply mains located along the site frontage for tapping/connection into.

No allowance has been made for pump stations.

Lighting/Electrical

The lighting conditions have been considered to one Naitai Court and one Lawn Bowls Park reserve only, and four Tennis Courts per site only. Lighting conditions will be allowed for Sports lighting to all AFL, Soccer and other sports grounds. The lighting conditions will be allowed for all other sports grounds. The lighting conditions will be allowed for all other sports grounds. The lighting conditions will be allowed for all other sports grounds.

Road and Car Parks

Construction assumes full base and kerb construction require to all areas, surface construction to be compacted FCR. Allowance has been made to include access roads to all pavilions.

Sporting Fields

All sporting fields to utilise warm season grass, and allow for 13 week establishment and maintenance period independent from the overall site maintenance period. Irrigation has been allowed for all sporting/playing areas.

We have assumed that irrigation pump and controls are housed in cabinets adjacent to the respective pavilions where possible.

Landscaping

High end landscaping allows for detailed and specialized landscaping including feature paving, walling, furniture and structures, garden beds, rockwork, established trees and instant turf. Standard landscaping rate allows for general landscaping works including basic pathways, trees and garden beds. Developer seeded turf areas and furniture items (base landscaping rate assumes minimal preparation and topsoil works) and application of hydro seeding only. Provision of playground equipment is assumed to be undertaken as hydro seeded works and has not been allowed for within the landscape rates.

Pavilions

Pavilion rates assume square meter rate applied across nominated footprints for constructed pavilions, inclusive of change and club rooms, kitchen, public toilets, change and shower facilities,

Square meter rates for pavilions has been taken from Rawlinsons Australian construction handbook section 11.2.2 - Clubhouse and change rooms.

Maintenance

No allowance has been made for maintenance beyond the initial 13 week establishment period (DLP).

Establishment maintenance has been considered for each sporting facility as part of the construction cost of that specific code.

andscape maintenance assumes all areas other than Sporting fields/pitches/courts, roads and car parks and Pavilion footprints.

No allowance has been made for additional watering over and above general establishment maintenance allowance. It is assumed that basic landscaping (sprigs, seeding) will per programmed such to take advantage of appropriate seasonal conditions to minimize requirements for additional watering.

Sewer

No allowance has been made for pump stations.

[illegible]

plotted by Lloyd Hamroff plot date 12/3/2014 3:46 PM
 file location G:\30\300205\ACAD
 Spine Australia Pty Ltd

Map Reference
Sheet Number 12

Spiire ABN 55 050 029 635
469 La Trobe Street PO Box 161
Melbourne VIC 3001
Tel: 03 9246 9246
www.spiire.com.au

This page has been intentionally left blank.

