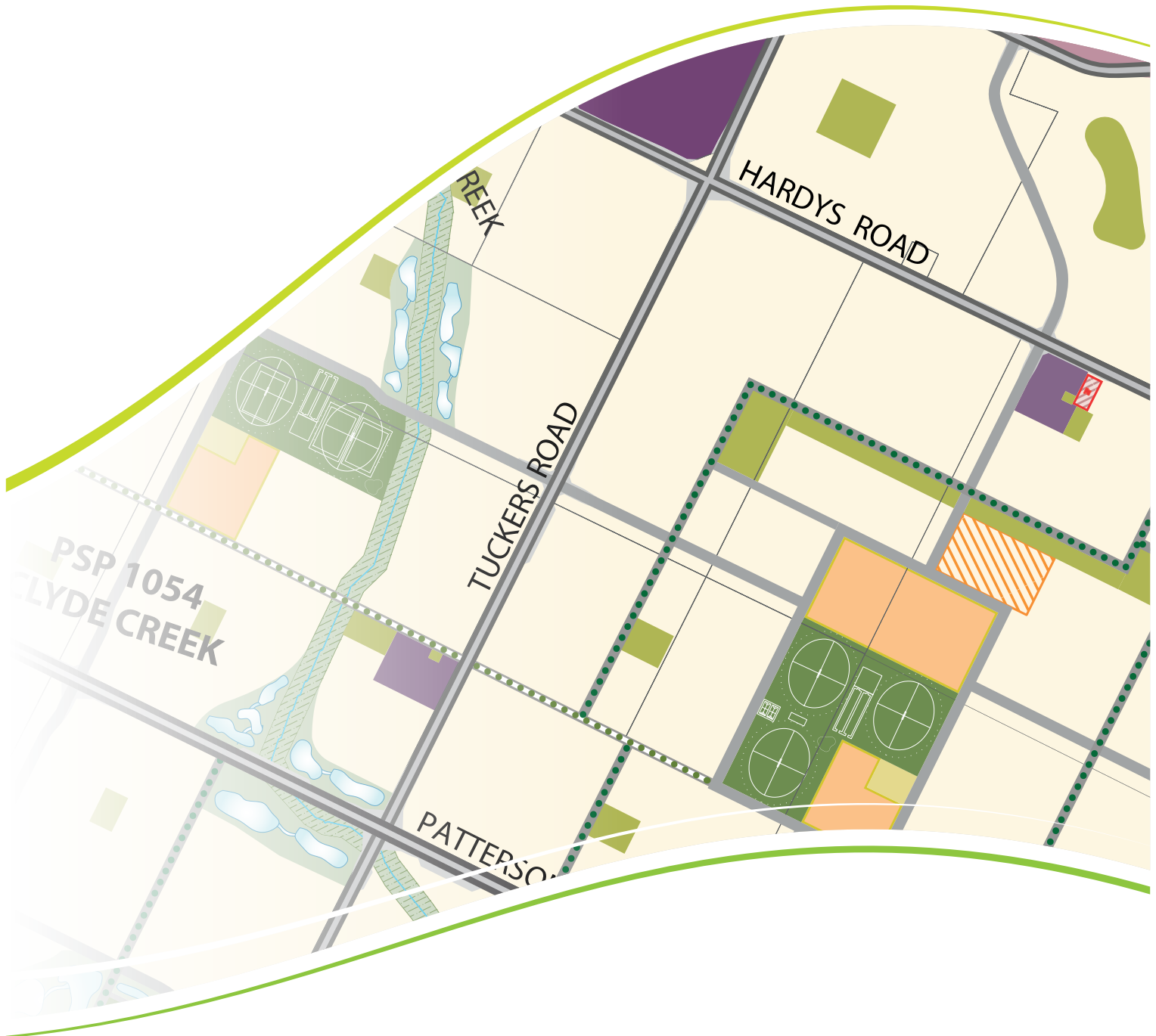


Clyde

Development Contributions Plan



October 2014
(Amended December 2023)



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Version	Date	Incorporated into the planning scheme by amendment	Description of changes
1	October 2014	Casey C187	N/A
2	October 2015	Casey C208	Update to land budget tables, costing sheets, land valuations and associated tables.
3	June 2017	GC75	Incorporated changes associated with Community Infrastructure Levy (CIL) increase.
4	December 2023	VC249	Incorporate changes associated with small second dwelling exemption.

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 is included within the document.

Amended by
C208

Table 1 Summary of Charges

Amended by GC75

SUMMARY - NET DEVELOPABLE AREA (NDA) BY CHARGE AREA		
CHARGE AREA	HECTARES	PROPORTION OF TOTAL
Residential (RNDA)	1,345	93%
Employment (ENDAs)	96	7%
Total	1,440	100%

SUMMARY - DEVELOPMENT INFRASTRUCTURE LEVY		
PROJECTS	TOTAL COST OF PROJECTS	CHARGE AREAS CONTRIBUTING
Transport	\$213,256,245	Residential & Employment
Recreation	\$99,484,158	Residential
Community	\$36,317,757	Residential
Total	\$349,058,161	

SUMMARY - DEVELOPMENT INFRASTRUCTURE LEVY BY CHARGE AREA		
CHARGE AREA	TOTAL COST OF CONTRIBUTION	CONTRIBUTION PER NET DEVELOPABLE HECTARE (NDHA)
Residential	\$334,904,085	\$249,051
Employment	\$14,154,076	\$148,062

SUMMARY - COMMUNITY INFRASTRUCTURE LEVY		
	ESTIMATED DWELLINGS	ESTIMATED TOTAL CONTRIBUTION
Capped at \$1,150 per dwelling	21,516	\$24,743,400

1.0 INTRODUCTION

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

The DCP:

- Outlines projects required to ensure that future residents, visitors and workers in the area can be provided with timely access to 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.

1.1 Report structure

PART 1

Part 1 describes the strategic basis for the Development Contributions Plan.



PART 2

Part 2 sets out the justification for the various infrastructure projects included in the Development Contributions Plan.



PART 3

Part 3 sets out how the development contributions are calculated and costs apportioned.



PART 4

Part 4 focuses on administration and implementation of the Development Contributions Plan.



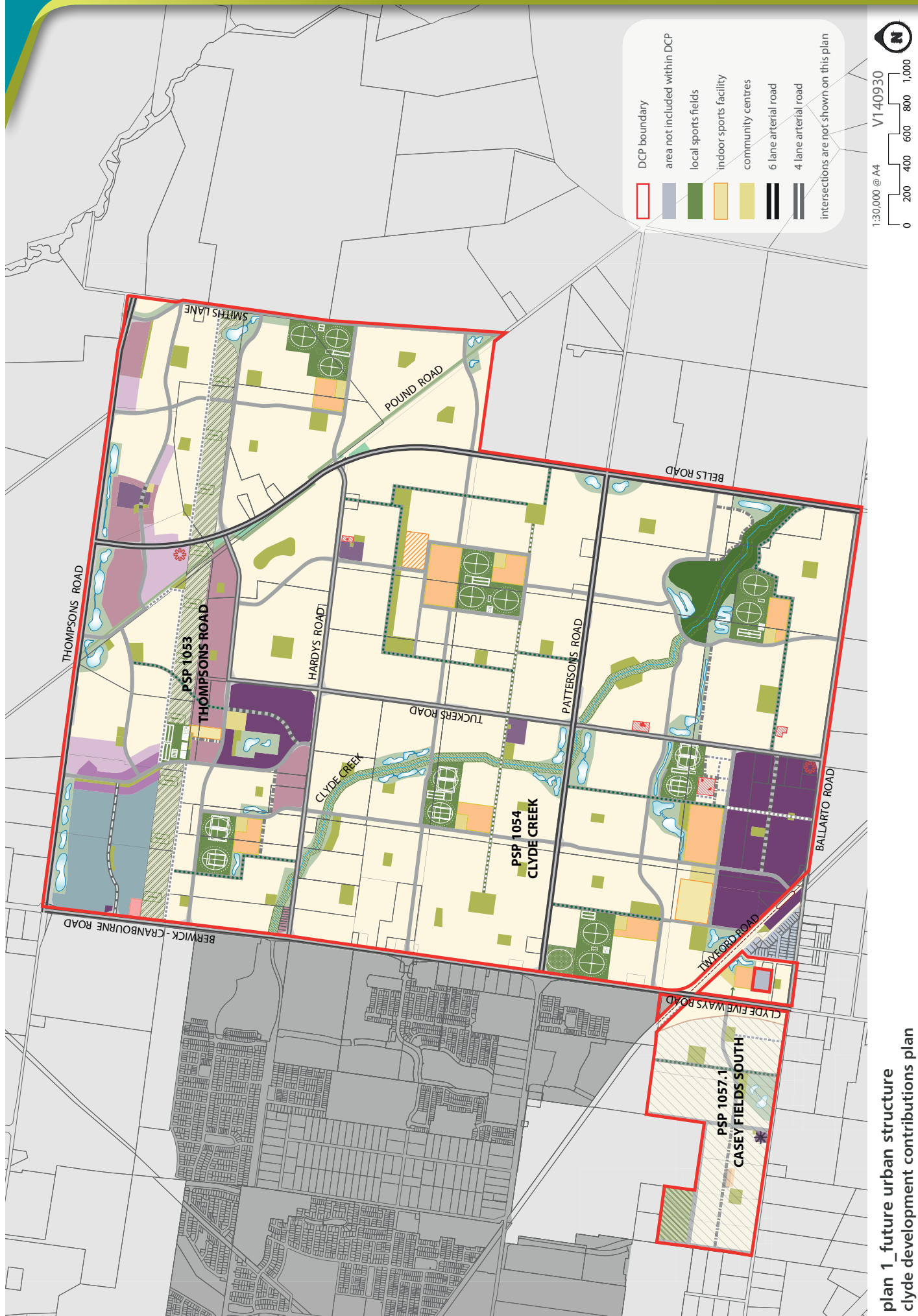
PART 5

Part 5 focuses on implementation of the Development Contributions Plan and identifies infrastructure delivery priorities.



PART 6 and 7

Parts 6 and 7 provide further information on projects, including cost estimate breakdowns, and appendices.



plan 1_future urban structure
clyde development contributions plan

1.2 Strategic basis

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

- Growth Corridor Plans.
- Municipal Strategic Statement.
- Thompsons Creek Precinct Structure Plan.
- Clyde Creek Precinct Structure Plan.
- Casey Fields South Precinct Structure Plan.

These documents set out a broad, long term vision for the sustainable development of the 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.

The DCP is implemented in the Casey Planning Scheme through Schedule 15 to the Development Contributions Plan Overlay.

1.3 Planning & Environment Act 1987

The 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 Casey Planning Scheme. It is consistent with the Minister for Planning's Directions on Development Contributions made under section 46M(1) of the Act and has 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.

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

Development Contributions Plan Overlay applies to the area shown in Plan 1.

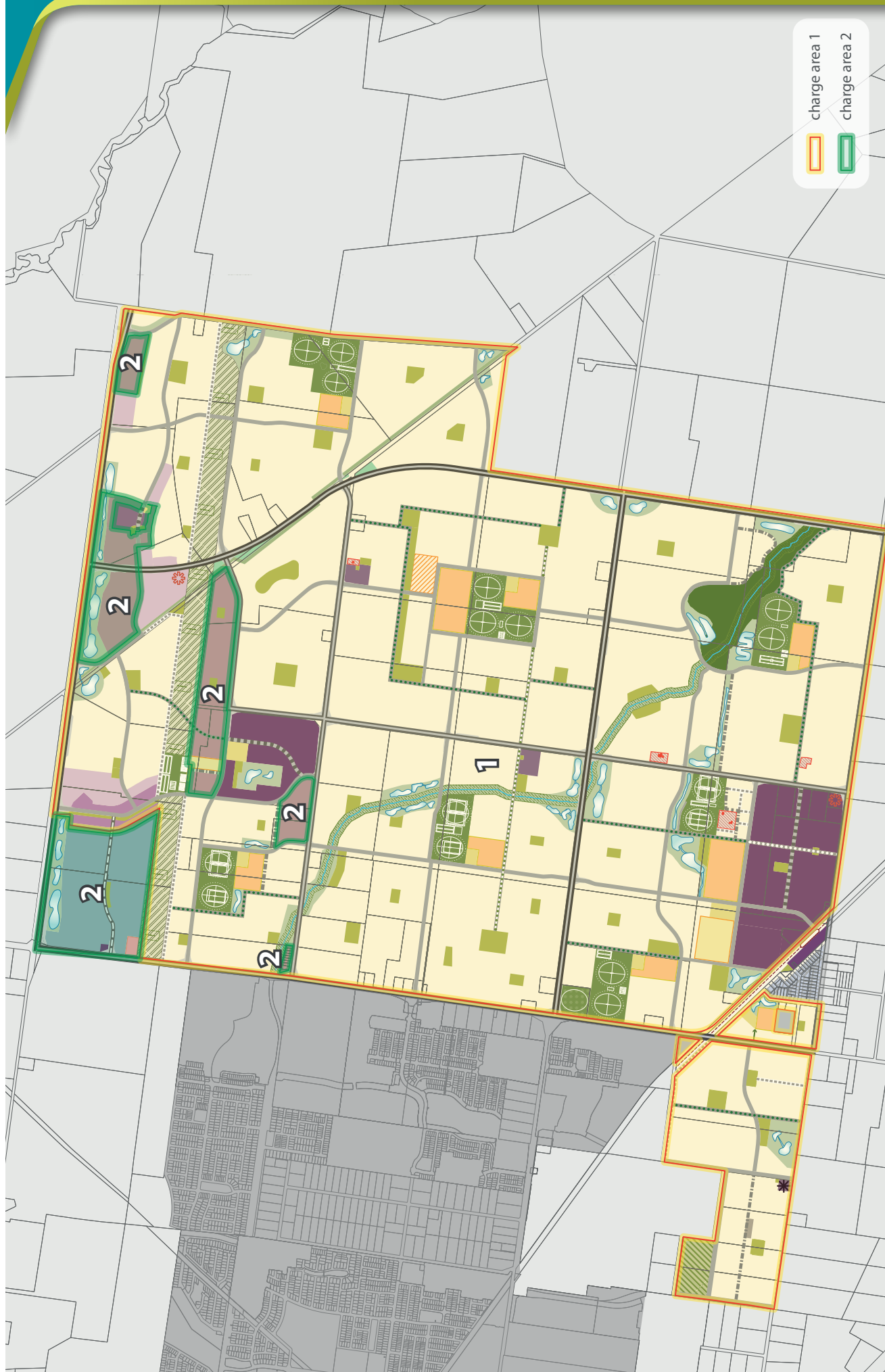
1.4 Strategic planning for Clyde

The area of Clyde covered by the DCP consists of 1,440 hectares of land in the Urban Growth Zone, which was rezoned as part of the 2010 Urban Growth Boundary change.

The proximity of the three Clyde precincts to each other and their location adjacent to existing development has allowed the strategic planning of this part of the sub-corridor to proceed on an integrated basis, with each PSP considering not only its individual needs, but also how it will integrate with and relate to adjoining areas. The transport, community and recreation needs of the future community have all been considered in terms of the whole sub-corridor.

The need for the infrastructure included within the DCP has been determined according to the anticipated development of the Clyde area. The DCP has been prepared in conjunction with the three Precinct Structure Plans which provide 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.

The Background Reports for the three precincts provide an overview of the planning process for the Clyde area (see relevant PSP).



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plan 2_charge area
clyde development contributions plan

1.5 Clyde Precinct Structure Plans

The three Clyde PSPs (the PSPs) set out the vision for how land should be developed, illustrate the future urban structure and describe the outcomes to be achieved by the future development. They also list 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 local sports fields, social infrastructure, town centres, housing and places for local employment.

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The Thompsons Road PSP will ultimately accommodate approximately 18,035 people and 6,441 dwellings. It is also proposed to deliver 95.60 net developable hectares for employment purposes (in addition to a major town centre), with the potential to deliver 8,900 jobs in the precinct.

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C208

The Clyde Creek PSP will ultimately accommodate approximately 38,109 people and 13,610 dwellings.

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C208

The Casey Fields South PSP will ultimately accommodate approximately 4,100 people and 1,464 dwellings.

The wider Clyde area planning process confirmed:

- A detailed NDA for each PSP based on a survey of encumbrances and a broad allocation of community facilities.
- All road, intersection, and bridge projects required to service the new community.
- The required number of sporting reserves, schools, and community centres.

The PSPs may refine the location and layout of some items included in this DCP but do not amend the project list nor the overall levies rates.

1.6 The area to which the Development Contributions Plan applies

In accordance with section 46K(1)(a) of the Planning and Environment Act 1987 the DCP applies to land shown in Plan 1. The area is also shown on Development Contributions Plan Overlay Schedule 15 in the Casey Planning Scheme.

Amended by C208 The DCP applies to approximately 1,440.31 Net Developable Hectares of land including two charge areas as shown in Plan 2.

Amended by C208 **Table 2** Charge Areas

	AREA	LABEL
Area 1	1,344.72	Residential
Area 2	95.60	Employment

The DCP clearly demonstrates the infrastructure required to service urban development in PSPs 1053, 1054 and 1057.1. Together, the two charge areas form the Main Catchment Area ('MCA') for the various infrastructure projects. The MCA is the geographic area from which a given item of infrastructure will draw most of its use.

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 Clyde 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, for example by adjusting other relevant development contributions plans or other suitable means provided for in the Planning and Environment Act.

1.7 Related infrastructure agreements

A number of projects are apportioned across the adjoining DCP area of Clyde North and to the Melbourne Water Development Services Scheme, and will in the future be apportioned across the DCP areas for Casey Central, Clyde East, Clyde South, and Casey Fields South Employment.

The apportionments listed in Table 12 have taken this into consideration. Refer to Appendix 2 for details of external apportionment.

1.8 Project & property identification

1.8.1 Project identification

The project identification system used in the DCP has been designed to assist in understanding of and navigation through the document. Road, bridge, intersection, and community facility projects have used the identification system of project category, PSP number, and a sequential project number. As an example, a road project in Thompsons Road (PSP 1053) will have the project identifier similar to RD-53-01. The text below provides a summary of the project categories:

- LS = local sports fields
- P = pavilion
- IR = indoor recreation
- RD = road projects
- IN = intersection projects
- CO = community facilities
- BR = bridges and culverts

1.8.2 Property identification

Property identifiers are similar to project identifiers. Each of the properties across the sub-corridor is given a unique identifier that reflects both the PSP and geographic area within that PSP. A property in the Thompsons Road (PSP 1053) may have a property identifier similar to 53-01.

2.0 INFRASTRUCTURE PROJECT JUSTIFICATION

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

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 the DCP, all items have been assessed to ensure they have a relationship or nexus to proposed development in the DCP area. The cost apportionment methodology adopted in the DCP relies on the nexus principle. A new development is deemed to have a nexus with an item if its future residents or employees are 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 8.

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

- They are essential to the health, safety and well being of the community.
- They will be used by a broad cross-section of the community.
- They reflect the vision and objectives expressed in the Clyde PSPs.
- They are not recurrent items.

2.1 Items not included in the Development Contributions Plan

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 and must be provided by developers as a matter of course and in implementing the PSPs:

- Internal streets and connector streets, creek, drainage line and utility easement crossings and associated traffic management measures (except where nominated in this DCP).
- Waterway management works and drainage systems.
- Intersections connecting the development to the existing road network, except where specified as development contributions plan projects.
- Water, sewerage, underground power, gas and telecommunications services.
- Local pathways and connections to the regional and / or district pathway network.
- Shared path networks, including required crossings of waterways.
- Basic levelling, provision of biodiversity offsets, water tapping and landscaping of local active and passive open space.
- Passive public open space reserve master plans and any agreed associated works required by the PSPs.
- Council's plan checking and supervision.
- Bus stops.

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

Construction of the following items has not been included within the DCP as they are determined to be State Infrastructure items:

- Subsequent carriageways of:
 - Thompsons Road;
 - Bells Road;
 - Pattersons Road;
 - Berwick-Cranbourne Road and Clyde-Five Ways Road;
 - Hardys Road;
 - Tuckers Road.
- Any grade-separated intersections.
- Clyde train station.
- Government primary or secondary schools.

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

Land for the following items has not been included within the DCP:

- Existing areas affected by the Public Acquisition Overlay in the Casey Planning Scheme for Thompsons Road, Berwick-Cranbourne Road and Clyde-Five Ways Road.
- Land required for any grade-separated intersections (will be acquired through a VicRoads PAO).
- Clyde train station.

If any roads not considered a State responsibility require duplication beyond that allowed for in this DCP, this would be undertaken by Council.

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plan 3_road & bridge / culverts projects
clyde development contributions plan

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2.2 Infrastructure projects

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

- Transport;
- Recreation;
- Community.

2.2.1 Transport projects

The transport related projects in the DCP are based on the transport network depicted in Plan 3 which is supported by the South East Growth Area Corridor Plan and the Clyde PSPs. The transport projects include a combination of:

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

The following road and bridge projects shown in Plan 3 are funded by the DCP:

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Table 3 Road and Bridge Projects

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	PROJECT LENGTH	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
RD- 53 -01A	Thompsons Road (Berwick-Cranbourne Road to Smiths Lane) Purchase of land to widen road reserve from 20m wide to 41m wide (ultimate treatment) and upgrade of existing carriageway for 760m, excluding intersections (interim treatment). Purchase of 0.369ha land from Clyde North \$480,000 for the interim road alignment.	Residential & Employment	760	1,440.31	At time of subdivision
RD- 53 -01B	Thompsons Road (Berwick-Cranbourne Road to Smiths Lane) - Employment Purchase of land to widen road reserve from 20m wide to 41m wide (ultimate treatment) and upgrade of existing carriageway for 1100m, excluding intersections (interim treatment). The total cost includes \$2,576,700 apportioned from the Clyde North DCP	Residential & Employment	1100	1,440.31	At time of subdivision
RD- 53 -02	Tuckers Road (Hardys Road to Bells Road) Purchase of land to widen road reserve from 20m wide to 34m wide (ultimate treatment) and upgrade of existing carriageway for 540m, excluding intersections (interim treatment)	Residential & Employment	540	1,440.31	At time of subdivision
RD- 53 -03A	Bells Road (Hardys Road to Thompsons Road) Purchase of land to widen road reserve from 20m wide to 41m wide (ultimate treatment) and upgrade of existing carriageway for 630m, excluding intersections (interim treatment)	Residential & Employment	630	1,440.31	At time of subdivision
RD-54-01	Hardys Road (Berwick-Cranbourne Road Road to Bells Road) Purchase of land to widen road reserve from 20m wide to 34m wide (ultimate treatment) and upgrade of existing carriageway for 1520m, excluding intersections (interim treatment)	Residential & Employment	1520	1,440.31	At time of subdivision

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	PROJECT LENGTH	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
RD-54-02	Pattersons Road (Berwick-Cranbourne Road to Bells Road/eastern boundary of PSP 1054) Purchase of land to widen road reserve from 20m wide to 41m wide (ultimate treatment) and upgrade of existing carriageway for 1900m, excluding intersections (interim treatment)	Residential & Employment	1900	1,440.31	At time of subdivision
RD-54-03	Tuckers Road (Ballarto Road to Hardys Road) Purchase of land to widen road reserve from 20m wide to 34m wide (ultimate treatment) and upgrade of existing carriageway for 1730m, excluding intersections (interim treatment)	Residential & Employment	1730	1,440.31	At time of subdivision
RD-54-04	Bells Road (Pattersons Road to Hardys Road) Purchase of land to widen road reserve to 41m wide (ultimate treatment) from Hardys Road to Heather Grove. Upgrade of existing carriageway for 555m, excluding intersections (interim treatment). Purchase of land to create road reserve from 0m to 20m wide (interim treatment) to join the existing road reserve from Heather Grove to Pattersons Road within the Clyde DCP area. Upgrade of existing carriageway for 550m, excluding intersections (interim treatment).	Residential & Employment	1105	1,440.31	At time of subdivision
RD-54-05	Valetta Road (Clyde township) Upgrade of existing carriageway for 357m and ultimate treatment	Residential & Employment	357	1,440.31	At time of subdivision
RD-54-06	Oroya Road (Clyde township) Upgrade of existing carriageway for 497m and ultimate treatment	Residential & Employment	497	1,440.31	At time of subdivision
RD-54-07	Railway Road (Clyde township) Upgrade of existing carriageway for 975m and ultimate treatment	Residential & Employment	975	1,440.31	At time of subdivision
RD-57.1-01	Ballarto Road (Clyde-Five Ways Road to Casey Fields Boulevard) Purchase of land to widen road reserve from 20m wide to 34m wide (ultimate treatment) and upgrade of existing carriageway for 1000m, excluding intersections (interim treatment)	Residential & Employment	1000	1,440.31	At time of subdivision
RD-57.1-02	Casey Fields Boulevard Purchase of land to widen road reserve from 0m wide to 32m wide (ultimate treatment) and upgrade of existing carriageway for 300m, excluding intersections (interim treatment)	Residential & Employment	300	1,440.31	At time of subdivision
BR-53-01	Thompson Road culvert over Ti Tree Creek Construction of the culvert from the current road reserve to the interim road alignment waterway crossings of Ti Tree Creek	Residential & Employment	0	1,440.31	At time of subdivision
BR-53-02	Thompson Road culvert over Ti Tree Creek Construction of the culvert from the current road reserve to the interim road alignment of Ti Tree Creek	Residential & Employment	0	1,440.31	At time of subdivision
BR-53-03	Bells Road culvert over Ti Tree Creek Construction of interim road alignment waterway of Ti Tree Creek	Residential & Employment	0	1,440.31	At time of subdivision

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
BR-53-04	Thompson Road culvert over Ti Tree Creek Construction of the culvert from the current road reserve to the interim road alignment waterway crossings of Ti Tree Creek	Residential & Employment	1,440.31	At time of subdivision
BR-53-05	Tuckers Road over desalination easement Construction of interim road alignment bridge crossing of desalination easement	Residential & Employment	1,440.31	At time of subdivision
BR-53-06	Bells Road over desalination easement Construction of interim road alignment bridge crossing of desalination easement	Residential & Employment	1,440.31	At time of subdivision
BR-54-01	Hardys Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-04	Hardys Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-05	Hardy Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-07	Tuckers Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-11	Pattersons Road culvert of drainage area Construction of the ultimate road alignment culvert crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-14	Tuckers Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision
BR-54-15	Bells Road crossing of drainage area over Clyde Creek Construction of the culvert from the current road reserve to the interim road alignment waterway crossings of Clyde Creek	Residential & Employment	1,440.31	At time of subdivision
BR-54-16	Tuckers Road crossing of drainage area Construction of the culvert from the current road reserve to the interim road alignment waterway crossings	Residential & Employment	1,440.31	At time of subdivision

Please note: Gaps in numbering are deliberate.



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plan 4_intersection projects
clyde development contributions plan

Amended by C208

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

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Table 4 Intersection Projects

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-53-01	Thompsons Road / Berwick-Cranbourne Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-02	Thompsons Road / north-south connector (West of Bells Road-West to Pound Road) Purchase of land for intersection(ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-03	Thompsons Road / north-south connector (West of Bells Road-East to old Pound road) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-04	Bells Road / Thompson Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-05	Thompsons Road / north-south connector (West of Bells Road-west) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-06	Thompsons Road / north-south connector (East of Bells Road-east) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-07	Berwick-Cranbourne Road / east-west industrial connector Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-08	Bells Road / East-west connector Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-09	Berwick-Cranbourne Road / East-west connector (North of Hardys Road) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision

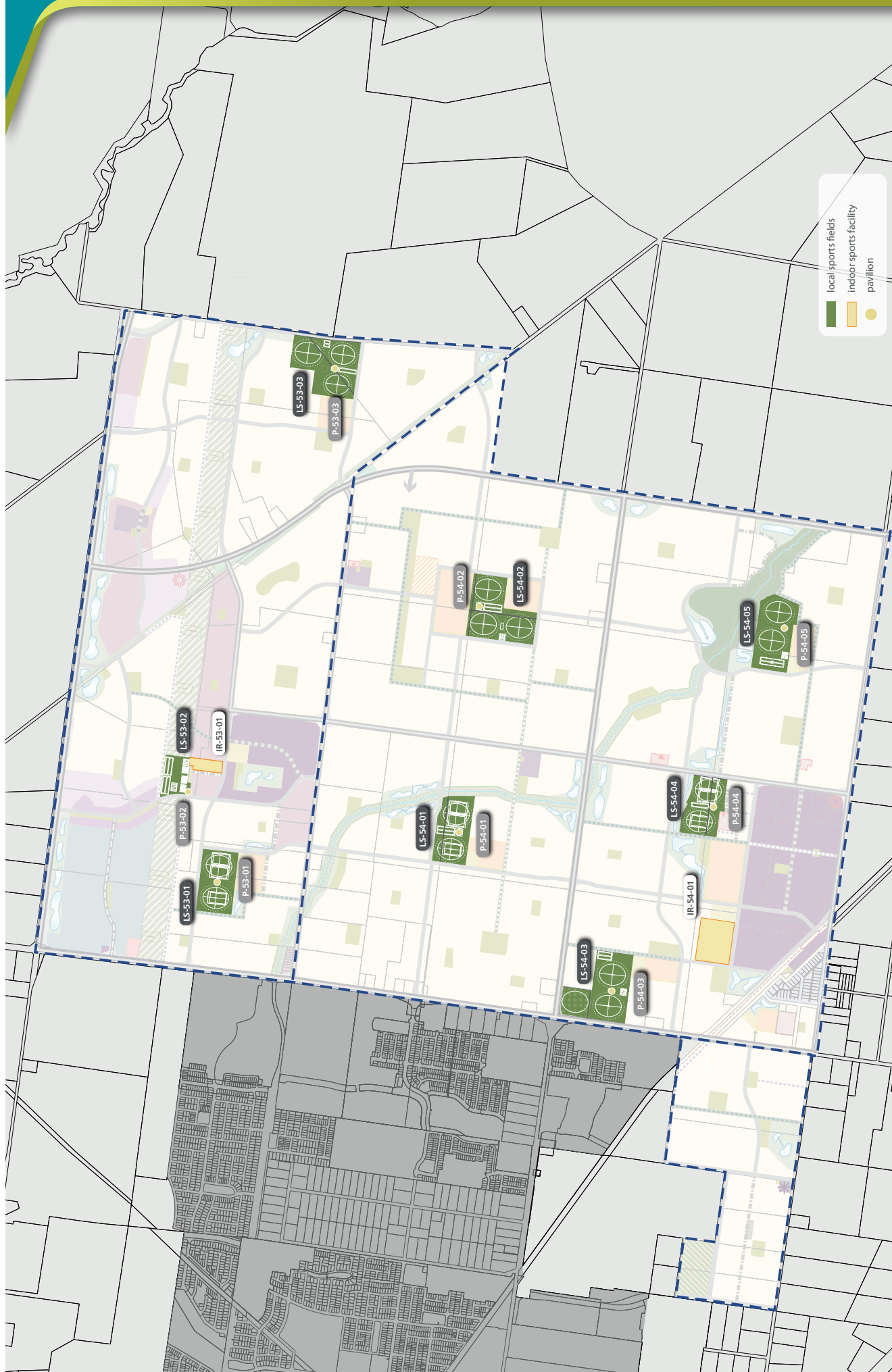
DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-53-10	Tuckers Road / east-west connector (east of Bells) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-11	Bells Road / Tuckers Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-12	Berwick-Cranbourne Road / Hardys Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-13	Hardys Road / North South connector (east of Berwick-Cranbourne Road) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-14	Hardys Road / Connector MTC Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-15	Tuckers Road / Hardys Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-16	Hardys Road / north-south connector (West of Bells road-West) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-17	Bells Road / Hardys Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-53-18	Tuckers Road / North-South connector Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised T intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-01	Berwick-Cranbourne Road/ Heather Grove Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-02	Tuckers Road / Heather Grove Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-54-03	Bells Road / Heather Grove Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-04	Berwick-Cranbourne Road / Pattersons Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-05	Pattersons Road / North-south connector Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-06	Tuckers Road / Patterson Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-07	Patterson Road / North-south (East of Tuckers Road) Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-08	Patterson Road / Bells Road Purchase of land for half of the intersection (ultimate treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-09	Berwick-Cranbourne Road / East-west (south of Pattersons Road) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-11	Tuckers Road / South connector (active open space AR-54-04) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-12	Bells Road / South connector Purchase of land for half of the intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-13	Tuckers Road / South connector (MTC) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
IN-54-14	Tuckers Road / South connector (Ballarto road MTC main street) Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-15	Berwick-Cranbourne Road / Ballarto Road Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-17	Ballarto Road / MTC connector Purchase of land for half of the intersection (ultimate treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-18	Tuckers Road / Ballarto Road Purchase of land for half of the intersection (ultimate treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-19	Ballarto Road / Connector East Purchase of land for half of the intersection (ultimate treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-54-20	Bells Road / Ballarto Road Purchase of land for quarter of the intersection (ultimate treatment) and construction of arterial to arterial signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-57.1-1	Berwick-Cranbourne Road / East-west connector Purchase of land for intersection (ultimate treatment) and construction of arterial to connector signalised T-intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-57.1-2	Ballarto Road / North-south connector Purchase of land for half of the intersection (ultimate treatment)) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-57.1-3	Casey fields / East-south connector Purchase of land for roundabout (ultimate treatment) and construction of arterial to connector roundabout (ultimate treatment)	Residential & Employment	1,440.31	At time of subdivision
IN-57.1-4	Casey fields BLVD / Ballarto Road Purchase of land for half of the intersection (ultimate treatment) and construction of arterial to connector signalised 4-way intersection (interim treatment)	Residential & Employment	1,440.31	At time of subdivision

Please note: Gaps in numbering are deliberate.

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2.2.2 Recreation facility projects

The recreation contributions include:

- Provision of land for local sports reserves and indoor recreation.
- Contribution towards construction of sports facilities and landscaping in open space reserves.
- Contribution towards construction of pavilions for future sports fields.

Amended
by C208

The DCP provides a contribution for the purchase of land equivalent to 5.77% of Residential Net Developable Area (NDAR) which equates to approximately 77.53 hectares across the three precincts.

The total land contribution comprises eight (8) individual reserves (three in PSP 1053, four in PSP 1054, and one in PSP 1057.1).

The DCP provides for the basic construction, surfacing, and landscaping of facilities for local sports reserves.

The detailed design and scope (as defined in Table 6) of each of the following community projects will be reviewed by the Development Agency closer to the time that they are constructed.

In reviewing the scope of the facility, 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 facility to respond to these matters.

The Development Agency may also adjust and refine the scope of the facility 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 will ensure that at least the same total cost of the project item (as indexed from time to time) is invested into the community facilities proposed.

The following recreation projects shown in Plan 5 are funded by the DCP:

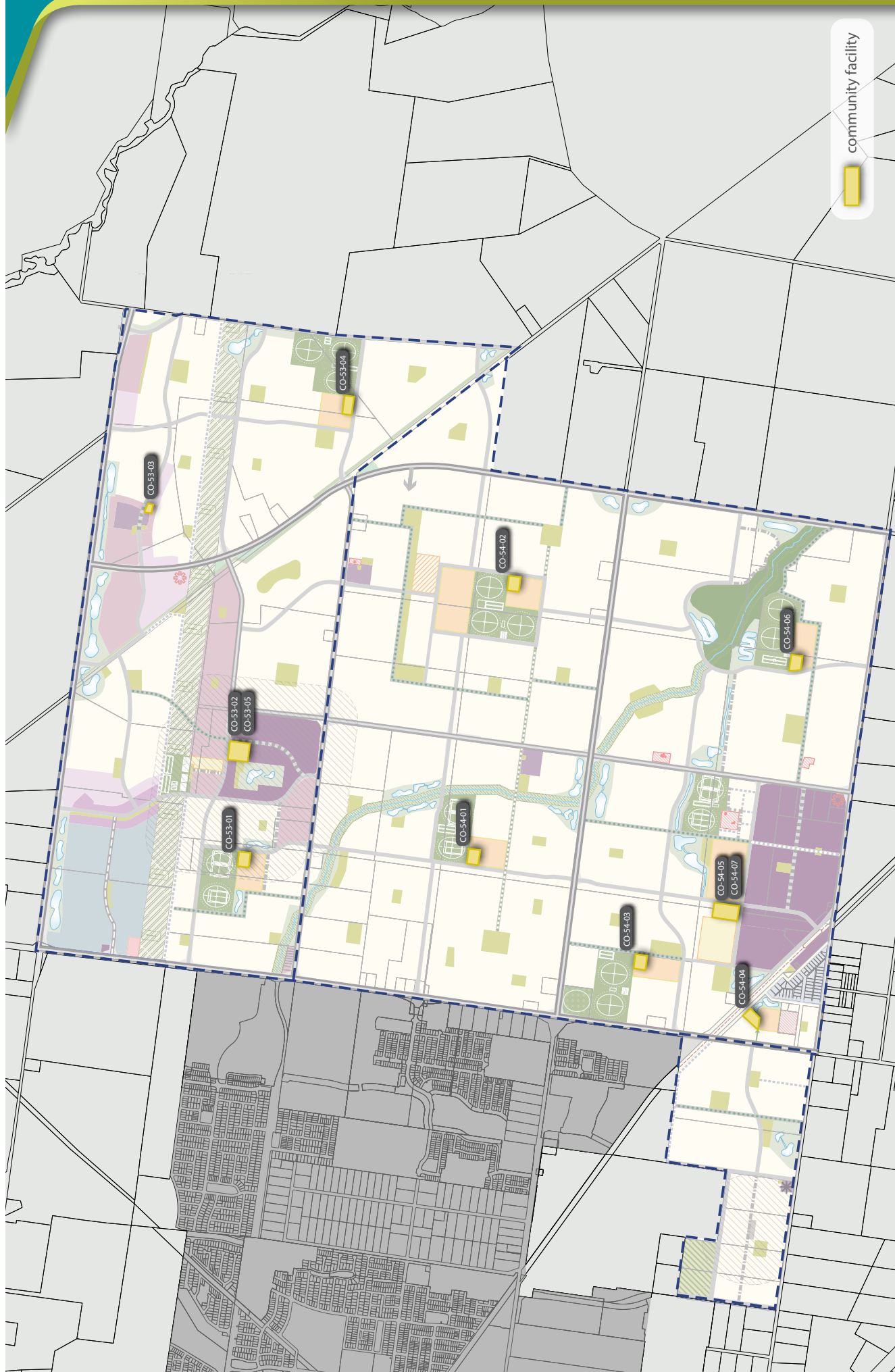
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by C208

Table 5 Local Sports Field Projects

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
LS-53-01	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 2 x cricket ovals (3 soccer fields overlaid) and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-53-02	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 4 netball, 6 tennis courts, lawn bowls and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-53-03	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 3 football ovals / cricket, 2 netball courts lawn bowls and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-54-01	Local sports reserve Purchase of land equivalent to 5.77% of total RND and standard per-hectare rate for construction of 2 cricket ovals (3 soccer fields overlaid) and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-54-02	Local sports reserve Purchase of land equivalent to 5.77% of total RND and standard per-hectare rate for construction of 3 football ovals / cricket, 2 netball courts and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-54-03	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 2 new + football ovals/cricket + netball. To create 3 football/cricket + 2 netball and basic landscaping.	Residential	1,344.72	At time of subdivision

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
LS-54-04	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 2 x cricket ovals (3 soccer fields overlaid) and basic landscaping.	Residential	1,344.72	At time of subdivision
LS-54-05	Local sports reserve Purchase of land equivalent to 5.77% of total RND and 2 x football / cricket 2 netball and basic landscaping.	Residential	1,344.72	At time of subdivision
P-53-01	Pavilions within active reserves Construction of sporting cricket / soccer pavilion	Residential	1,344.72	At time of subdivision
P-53-02	Pavilions within active reserves Construction of sporting tennis pavilion	Residential	1,344.72	At time of subdivision
P-53-03	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion	Residential	1,344.72	At time of subdivision
P-54-01	Pavilions within active reserves Construction of sporting cricket / soccer pavilion	Residential	1,344.72	At time of subdivision
P-54-02	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion	Residential	1,344.72	At time of subdivision
P-54-03	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion	Residential	1,344.72	At time of subdivision
P-54-04	Pavilions within active reserves Construction of sporting cricket / soccer pavilion	Residential	1,344.72	At time of subdivision
P-54-05	Pavilions within active reserves Construction of sporting cricket / football pavilion	Residential	1,344.72	At time of subdivision
Amended by C208 IR - 53	Indoor sports contribution Purchase of land for one indoor sports facilities.	Residential	1,344.72	At time of subdivision
Amended by C208 IR - 54	Indoor sports contribution Purchase of land for one indoor sports facilities.	Residential	1,344.72	At time of subdivision

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community facility

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clyde development contributions plan

Amended by C208

2.2.3 Community facility projects

The community projects include:

- Land and construction of Level 1 community centres incorporating a triple kindergarten throughout the PSPs.
- Land for Level 3 community centres

The community projects are based on the projections determined through the sub-corridor planning process, consistent with the range of facilities and provision ratio set out in research undertaken by the Metropolitan Planning Authority and City of Casey. The community facilities defined in these projects are the best estimates of the future requirements and specifications of the future Clyde community.

The detailed design and scope (as defined in Table 6) of each of the following community projects will be reviewed by the Development Agency closer to the time that they are constructed.

In reviewing the scope of the facility, 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 facility to respond to these matters.

The Development Agency may also adjust and refine the scope of the facility 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 will ensure that at least the same total cost of the project item (as indexed from time to time) is invested into the community facilities proposed.

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

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Table 6 Community Facilities Projects

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
CO-53-01	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-53-02	Level 3 Community Facilities - Branch Library & Community Centre Purchase of 1.51ha land for community centre	Residential	1,344.72	At time of subdivision
CO-53-03	Community Care Hub / Host Home Purchase of 0.2ha land for community centre	Residential	1,344.72	At time of subdivision
CO-53-04	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-53-05	Level 3 Community Facilities - Branch Library & Community Centre Construction of community centre with branch library	Residential	1,344.72	At time of subdivision
CO-54-01	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-54-02	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision

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DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION	CHARGE AREAS CONTRIBUTING	HECTARES CONTRIBUTING	INDICATIVE PROVISION TRIGGER
CO-54-03	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-54-04	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-54-05	Level 3 Community Facilities - Specialist Community Centre Purchase of 1.5a land for community centre	Residential	1,344.72	At time of subdivision
CO-54-06	Family and Children's Centre (Level 1) Purchase of 0.7ha land for community centre and construction of two kindergarten rooms and maternal child health care rooms attached to a government primary school	Residential	1,344.72	At time of subdivision
CO-54-07	Level 3 Community Facilities - Branch Library & Community Centre Construction of community centre with branch library	Residential	1,344.72	At time of subdivision

2.3 Project Timing

Each item in the DCP has an assumed indicative provision trigger specified in tables 3 to 6. The timing of the provision of the items is consistent with information available at the time that the DCP was prepared. The Council, as Development Agency, will monitor and assess the required timing for individual items and have regard to its capital works program, the staging of the PSPs and areas external to the DCP Area.

The Collecting Agency may consider alternatives to the priority delivery of works or land where:

- Infrastructure is to be constructed / provided by development proponents as works or land in kind, as agreed by the Collecting Agency.
- Network priorities require the delivery of works or land to facilitate broader road network connections.
- Community needs determine the delivery of works or land for community facilities or active open space.

All items in this DCP will be provided as soon as is practicable and as soon as sufficient contributions are available, consistent with Section 4.1 and acknowledging the Development Agency's capacities to provide the balance of funds not recovered by this DCP.

All items included in the DCP will be provided within 30 years from the date upon which this DCP was first incorporated in to the Casey Planning Scheme.

2.4 Distinction between Development and Community Infrastructure

Amended by GC75

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 no more than \$1,150 per dwelling.

Inserted by GC75

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.

Deleted by GC75

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

The projects listed in Table 7 are deemed to be community infrastructure levy projects.

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

Contributions relating to development infrastructure are to be made by developers at the time of subdivision. If subdivision is not applicable payments must be made prior to construction works.

Table 7 Community Infrastructure

DCP PROJECT ID	PROJECT TITLE PROJECT DESCRIPTION
P-53-01	Pavilions within active reserves Construction of sporting cricket / soccer pavilion
P-53-02	Pavilions within active reserves Construction of sporting tennis pavilion
P-53-03	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion
P-54-01	Pavilions within active reserves Construction of sporting cricket / soccer pavilion
P-54-02	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion
P-54-03	Pavilions within active reserves Construction of sporting football /cricket / netball pavilion
P-54-04	Pavilions within active reserves Construction of sporting cricket / soccer pavilion
P-54-05	Pavilions within active reserves Construction of sporting cricket / football pavilion
CO-53-05	Construction of community centre with branch library.
CO-54-07	Construction of community centre with branch library.

3.0 CALCULATION OF CONTRIBUTIONS

The general cost apportionment method includes the following steps:

- Calculation of the Net Developable Area ('NDA') and demand units (refer Table 8).
- Calculation of project costs (refer Tables 10 and 11).
- Identification and allowance for external apportionment (refer Table 12).
- Cost apportionment and catchments (refer Table 1).
- Identification of development types required to pay the levy (refer Table 2).
- Calculation of costs payable for each infrastructure project (refer Tables 10 and 11).
- The development infrastructure charge per hectare for each development type and the community infrastructure levy per dwelling (refer Table 14).

3.1 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 is outlined in the property-specific land budget included within the relevant PSP.

3.1.1 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, educational facilities, open space, encumbered land and arterial roads. Any additional small local parks defined at the subdivision stage are included in the NDA.

The NDA for the DCP has been calculated in Table 8 to ensure the levies are properly apportioned.

Further to assist with the property project apportionment, NDA levies being further broken down as Net Developable Area Employment (NDA-E) and Net Developable Area Residential (NDA-R). NDA-E and NDA-R added together equal the total NDA.

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Table 8 Summary Land Use Budget

DESCRIPTION	PSP 1053 THOMPSONS ROAD			PSP 1054 CLYDE CREEK			PSP 1057.1 CASEY FIELDS SOUTH - RESIDENTIAL			TOTALS 1053, 1054, 1057.1		
	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA
TOTAL PRECINCT AREA (ha)	695.33			1,153.90			110.06			1,959.29		
TRANSPORT												
PAO	3.59	0.52%	0.72%	6.39	0.55%	0.75%	0.00	0.00%	0.00%	9.98	0.51%	0.69%
DCP Arterial Roads / Widening	19.38	2.79%	3.89%	22.03	1.91%	2.59%	1.96	1.78%	2.14%	43.38	2.21%	3.01%
DCP Flaring for intersections	4.66	0.67%	0.93%	3.86	0.33%	0.45%	0.39	0.35%	0.43%	8.91	0.45%	0.62%
Existing Road Reserves	12.16	1.75%	2.44%	32.81	2.84%	3.86%	0.00	0.00%	0.00%	44.97	2.30%	3.12%
Tree Reserve	1.76	0.25%	0.35%	0.66	0.06%	0.08%	0.00	0.00%	0.00%	2.42	0.12%	0.17%
Railway Corridor / Easement	0.00	0.00%	0.00%	5.76	0.50%	0.68%	0.89	0.81%	0.97%	6.65	0.34%	0.46%
Sub-total Transport	41.55	5.98%	8.34%	71.51	6.2%	8.41%	3.24	2.9%	3.54%	116.30	5.94%	8.07%
COMMUNITY & EDUCATION												
DCP Community facilities	3.14	0.45%	0.63%	4.99	0.43%	0.59%	0.00	0.00%	0.00%	8.13	0.42%	0.56%
DCP Indoor Recreation facilities	1.60	0.23%	0.32%	6.06	0.53%	0.71%	0.00	0.00%	0.00%	7.66	0.39%	0.53%
Potential Government Education	7.02	1.01%	1.41%	30.76	2.67%	3.62%	0.00	0.00%	0.00%	37.78	1.93%	2.62%
Existing Government Education	0.00	0.00%	0.00%	1.80	0.16%	0.21%	0.00	0.00%	0.00%	1.80	0.09%	0.12%
Non-Government Education	0.00	0.00%	0.00%	3.50	0.30%	0.41%	0.00	0.00%	0.00%	3.50	0.18%	0.24%
Sub-total Education	11.76	1.69%	2.36%	47.12	4.08%	5.54%	0.00	0.00%	0.00%	58.87	3.00%	4.09%
OPEN SPACE												
SERVICE OPEN SPACE												
Power / Gas Easement	55.85	8.03%	11.21%	0.00	0.00%	0.00%	0.00	0.00%	0.00%	55.85	2.85%	3.88%
Waterway Corridor/Wetland / Retarding	35.25	5.07%	7.08%	62.45	5.41%	7.34%	4.60	4.18%	5.02%	102.30	5.22%	7.10%
Desalination Pipe Easement (+ gap between easement and road)	7.02	1.01%	1.41%	0.00	0.00%	0.00%	0.00	0.00%	0.00%	7.02	0.36%	0.49%
Heritage (Post Contract)	0.00	0.00%	0.00%	4.89	0.42%	0.57%	0.00	0.00%	0.00%	4.89	0.25%	0.34%
Heritage (Aboriginal)	0.00	0.00%	0.00%	0.00	0.00%	0.00%	0.00	0.00%	0.00%	0.00	0.00%	0.00%
Conservation (EPBC Category 1)	0.00	0.00%	0.00%	22.16	1.92%	2.60%	0.00	0.00%	0.00%	22.16	1.13%	1.54%
Sub-total Service Open Space	98.13	14.11%	19.70%	89.49	7.76%	10.52%	4.60	4.18%	5.02%	192.21	9.81%	13.35%
CREDITED OPEN SPACE												
Local Sportsfields	25.93	3.73%	5.21%	51.60	4.47%	6.07%	0.00	0.00%	0.00%	77.53	3.96%	5.38%
Local parks -Residential	17.10	2.46%	3.43%	33.91	2.94%	3.99%	3.67	0.32%	4.01%	54.67	2.79%	3.80%
Local parks -Employment	1.77	0.25%	0.36%	0.00	0.00%	0.00%	0.00	0.00%	0.00%	1.77	0.09%	0.12%
Sub-total Credited Open Space	44.80	6.44%	8.99%	85.50	7.41%	10.05%	3.67	3.33%	4.01%	133.97	6.84%	9.30%
OTHER OPEN SPACE												
Existing Local Sportfields	0.00	0.00%	0.00%	3.26	0.28%	0.38%	0.00	0.00%	0.00%	3.26	0.20%	0.23%
Regional Sportsfields	0.00	0.00%	0.00%	0.00	0.00%	0.00%	7.04	6.40%	7.69%	7.04	0.40%	0.49%
Sub-total Other Open Space	0.00	0.00%	0.00%	3.26	0.28%	0.38%	7.04	6.40%	7.69%	10.30	0.53%	0.72%
Total All Open Space	142.92	20.6%	28.69%	178.25	15.45%	20.96%	15.30	13.90%	16.72%	336.48	17.2%	23.36%

DESCRIPTION	PSP 1053 THOMPSONS ROAD			PSP 1054 CLYDE CREEK			PSP 1057.1 CASEY FIELDS SOUTH - RESIDENTIAL			TOTALS 1053, 1054, 1057.1		
	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA	HECTARES	% OF TOTAL PRECINCT	% OF NDA
OTHER												
Existing Clyde Township RZ1 Area	0.00	0.00%	0.00%	6.38	0.55%	0.75%	0.00	0.00%	0.00%	6.38	0.33%	0.44%
Substation	0.95	0.14%	0.19%	0.00	0.00%	0.00%	0.00	0.00%	0.00%	0.95	0.05%	0.07%
Sub-total	0.95	0.14%	0.19%	6.38	0.55%	0.75%	0.00	0.00%	0.00%	7.32	0.00	0.01
NET DEVELOPABLE AREA (NDA) Ha	498.15	71.64%		850.65	73.72%		91.52	83.15%		1,440.31	73.51%	
NET DEVELOPABLE AREA - RESIDENTIAL (NDA-R) Ha	402.56	57.89%		850.65	73.72%		91.52	83.15%		1,344.72	68.63%	
NET DEVELOPABLE AREA - EMPLOYMENT (NDA-E) Ha	95.60	13.75%		0.00	0.00%		0.00	0.00%		95.60	4.88%	

DESCRIPTION	PSP 1053 THOMPSONS ROAD		PSP 1054 CLYDE CREEK		PSP 1057.1 CASEY FIELDS SOUTH - RESIDENTIAL		TOTALS 1053, 1054, 1057.1	
	HECTARES	% OF NDAR	HECTARES	% OF NDAR	HECTARES	% OF NDAR	HECTARES	% OF NDAR
RESIDENTIAL LOCAL OPEN SPACE (EXPRESSED AS % OF NDAR)								
DCP Sportfields *	25.93	6.44%	51.60	6.07%	0.00	0.00%	77.53	5.77%
Local parks -Residential	17.10	4.25%	33.91	3.99%	3.67	4.01%	54.67	4.07%
Sub-total	43.03	10.69%	85.50	10.05%	3.67	4.01%	132.20	9.83%
EMPLOYMENT LOCAL OPEN SPACE (EXPRESSED AS % OF NDAE)								
Sub-Total	1.77	1.85%	0.00	0.00%	0.00	0.00%	1.77	1.85%
TOTAL OPEN SPACE	44.80	12.54%	85.50	10.05%	3.67	4.01%	133.97	

DESCRIPTION	PSP 1053 THOMPSONS ROAD			PSP 1054 CLYDE CREEK			PSP 1057.1 CASEY FIELDS SOUTH - RESIDENTIAL			TOTALS 1053, 1054, 1057.1		
	NDA (Ha)	DWELL / NDHa	DWELLINGS	NDA (Ha)	DWELL / NDHa	DWELLINGS	NDA (Ha)	DWELL / NDHa	DWELLINGS	NDA (Ha)	DWELL / NDHa	DWELLINGS
RESIDENTIAL												
TOTALS RESIDENTIAL YIELD AGAINST NDA	402.56	16	6,441	850.65	16	13,610	91.52	16	1,464	1,344.72	16	21,516
ANTICIPATED POPULATION @ 2.8 PERSONS PER DWELLING			18,035			38,109			4,100			60,243

* Note: When the area of the existing local sports field (3.26Ha) in the PSP1045 is added to the 77.53Ha for sports fields delivered by the DCP, the total amount of local sports field provision equals 6% of NDA-R.

3.1.2 Land Budget and Demand Units

Net developable hectare is the demand unit for this DCP.

Amended
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Based on the Clyde PSPs, there is one development type included in this DCP: Urban Development. Urban Development is defined broadly to include all forms of development, including residential subdivision, development within the local town centres, convenience centres and employment areas. Urban Development also includes any non-residential uses within the residential area such as a place of worship, education centre, retirement village, nursing home, child care centre, medical centre or convenience store or any other approved use. There is a total of 1440.31 Net Developable Hectares in the DCP area.

It is important to note that the number of Net Developable Hectares (that is the demand units) in each charge area is based on the land budgets in Table 8.

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 8.

For the purposes of the DCP, the number of developable hectares will only change if the Collecting Agency agrees to a variation to the Precinct and detailed land budget and associated tables.

3.1.3 Property Specific Calculations

The NDA in the summary land use budget (Table 8) used to calculate the contributions within the DCP has been based on an assessment of land use within individual properties. The property specific land budget included within each PSP should be used to determine the number of developable hectares (for DCP purposes) on individual parcels.

The property specific NDA and rates listed in this DCP determine the total contribution for each property.

3.1.4 Public Open Space Contributions

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Overall public open space for residential areas NDA-R is 9.83%, comprised of 5.77% as sporting fields and 4.07% NDA-R. Employment areas comprise 1.85% for local parks.

This DCP funds the acquisition of land for local sports fields of NDA-E and contributes towards the construction of sporting surfaces. Local parks are provided through Clause 52.01 of the Scheme and no contribution for local parks is included in this DCP.

Works that a landowner must undertake prior to the handover of land to Council (as specified in the relevant 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.

3.2 Calculations of Contributions Charges

3.2.1 Calculation of Costs

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Each project has been assigned a land and / or construction cost. These costs are listed in Table 10. The costs are expressed in September 2015 dollars and will be indexed in accordance with the indexation method specified in Section 4.3.

3.2.2 Road Construction and Intersection Works

Cardno Victoria have prepared the estimated costs for the transport projects within the DCP. The scope for intersection projects was established collaboratively with Vic Roads and the City of Casey in consideration of traffic advice provided by Aecom and Cardno Victoria.

Road construction and intersection costs were derived from concept functional designs which were overlaid onto topographical data and existing conditions in an AutoCAD system. This enables the provision of accurate and detailed component costing as shown on the data sheets in Section 7.0. A number of standardised intersections were developed in collaboration with the GAA, VicRoads and Council to be used in this DCP.

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Rates for the works have been established by using current road construction estimation rates as of April and August 2015.

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 Table 10).
- 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 Clyde PSPs have been included as separate projects.
- A standard excavation depth has been allowed for. Final pavement requirements will be determined at 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:

- 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.
- 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 been included and would be minimal.
- Major cost items such as Melbourne Water drainage culverts have been allowed for as separate items.

With respect to road / intersection construction along the existing alignment of Thompsons Road:

- The DCP will provide for the first carriageway to be delivered; the Clyde North DCP will contribute funding equivalent to a rural seal of Thompsons Road from Berwick-Cranbourne Road to Pound Road.

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.

3.2.3 Culvert works

Where there is a road crossing of a natural waterway the cost estimated for the culverts required has been prepared on a site by site basis.

3.2.4 Recreation works

Recreation cost estimates have been prepared on a per reserve basis. The per hectare rate has been derived from an analysis of previous recreation project cost estimates. The use of a per hectare rate allows Council a greater degree of flexibility to meet the needs of the future community.

3.2.5 Community Centre Projects

The concept and costing for level 1 facilities is based on cost estimates previously prepared by PQS for the DCP's in the Casey sub-corridor and applied to the Clyde DCP. Costing allowance for level 3 facilities is based on a level 1 cost and additional library cost from Wyndham West DCP.

3.2.6 Interim and Temporary works

Interim works are not (except in the case of interim and temporary community facility projects as identified in Table 9) allowed as costs against this DCP unless expressly listed in the DCP, and nor will temporary works unless to the satisfaction of the responsible authority.

3.2.7 Interim and temporary community facility projects

This DCP allows the Development Agency to meet the immediate needs of the community in advance of the delivery of the permanent community facility projects identified in this DCP by allowing the provision of listed interim and temporary works as costs against the DCP.

No additional allowance for the cost of these interim and temporary works has been made in the DCP.

Where possible, any required/planned interim and temporary works should constitute part of the design of a permanent community facility project funded by the DCP and reduce the cost to complete that design, or be reimbursable when the interim and temporary works are no longer required.

Where the provision of interim and temporary works does not reduce the cost of delivering a permanent community facility project funded by the DCP, non DCP funds (for example from the sale of a temporary asset, augmented from Council funds, a grant or some other funding stream) will be invested into the permanent project to ensure that at least the same total cost of the project item (as indexed from time to time) is invested into the project.

The Development Agency must ensure that the provision of interim and temporary works as costs against the DCP does not undermine the Development Agency's ability to provide the permanent community facility projects identified in this DCP as soon as is practicable.

The following interim and temporary works may be allowed with approval of the development agency as costs against this DCP:

Table 9 Interim and temporary community facility projects

PROJECT TITLE – INTERIM FACILITIES	PROJECT DESCRIPTION – INTERIM FACILITIES	INDICATIVE LIFESPAN FROM CONSTRUCTION
Community meeting space	Relocatable building or convertible building on Council or private land	5 years
Early childhood facility	Mobile maternal and child health service	5 years
Playgroup space	Fit out of future school classroom to enable use as a playgroup space	5 years
Community support facility	Building fit out to provide office space and consulting rooms for community support services	5 years

3.2.8 Valuation of Land

Land required for projects identified in this DCP has had an estimate of value prepared by Charter Keck Cramer using the 'Public Land Equalisation Method' or PLEM.

Under this methodology the average land obligation for DCP land projects in each PSP has been calculated as a percentage of Net Developable Area. For the Clyde DCP, this results in an obligation as follows:

- PSP 53 - 11.38% / NDA-R (residential)
- PSP 53 - 9.32% / NDA-E (employment)
- PSP 54 - 10.41% / NDA
- PSP 57.1 - 2.6% / NDA

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The land obligation for each property has been calculated against the PSP average as identified above. Obligations up to and including the average have an estimate of value on a per property broad hectare basis. Obligations above the average have an estimate of value on a site specific basis.

For the land obligation by each property that is 'under' and / or 'over' the average, refer to Table 13.

3.2.9 Concept designs and cost sheets

Concept designs and cost sheets have been prepared for each project. This information is included in the Appendices.

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3.3 Cost Apportionment

The DCP apportions a charge to new development according to its expected 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 DCP calculates what each development type (residential, industrial or commercial) should pay towards provision of the identified infrastructure items. This is the total cost of the item (after deducting other funding sources and making allowance for any external demand) divided by total demand units of the development type.

To support this approach, a charge area has been determined for each item.

The balance of the cost of the items not recovered under this DCP will be funded from alternative sources.

3.3.1 Charge Areas

The DCP contains two 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, Major Town Centres, Mixed Use and Active Mixed Use.

Charge Area 2 applies to land designated for dedicated employment land - commercial use (outside town centres) and industrial use.

The variation between the residential and employment (industrial and commercial) charge area rates reflects the fact that employment land does not contribute towards community and local sports field items.

For each infrastructure project, the charge area that is to make the contribution is specified (refer Table 9).

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3.3.2 Exemptions

The development of land for non-government school or a small second dwelling is exempt from the requirement to pay a development infrastructure levy and a community infrastructure levy under the DCP.

3.3.3 Schedule of Costs

Table 10 calculates the amount of contributions payable by each charge area for each infrastructure category.

3.3.4 Summary of Charges per Hectare

Table 10 shows 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.

Table 10 sets out a summary of costs for each charge area.

Table 1 provides a snapshot of the key costs and charges.

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Table 10 Infrastructure Project Timing and Calculation of Costs - Development Infrastructure Levy

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	PROJECT LENGTH (M)	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	RESIDENTIAL - CONTRIBUTION PER NDHA	EMPLOYMENT- CONTRIBUTION PER NDHA
Road Projects											
RD- 53 -01A	Thompsons Road (Berwick-Cranbourne Road to Smiths Lane)	Development	760	2.90	\$2,261,237	\$3,118,090	\$5,379,327	100%	\$5,379,327	\$3,735	\$3,735
RD- 53 -01B	Thompsons Road (Berwick-Cranbourne Road to Smiths Lane) - Employment	Development	1100	7.26	\$2,581,956	\$4,513,025	\$7,094,981	64%	\$4,540,788	\$3,153	\$3,153
RD- 53 -02	Tuckers Road (Hardys Road to Bells Road)	Development	540	4.53	\$2,399,840	\$2,219,992	\$4,623,906	100%	\$4,623,906	\$3,210	\$3,210
RD- 53 -03A	Bells Road (Hardys Road to Thompsons Road)	Development	630	4.70	\$2,730,899	\$2,604,733	\$5,339,734	100%	\$5,339,734	\$3,707	\$3,707
RD-54-01	Hardys Road (Berwick-Cranbourne Road Road to Bells Road)	Development	1520	4.27	\$2,797,669	\$6,212,571	\$9,014,314	100%	\$9,014,314	\$6,259	\$6,259
RD-54-02	Pattersons Road (Berwick-Cranbourne Road to Bells Road/eastern boundary of PSP 1054)	Development	1900	8.11	\$4,724,567	\$7,815,225	\$12,543,895	100%	\$12,543,895	\$8,709	\$8,709
RD-54-03	Tuckers Road (Ballarto Road to Hardys Road)	Development	1730	4.15	\$2,092,250	\$7,048,124	\$9,140,374	100%	\$9,140,374	\$6,346	\$6,346
RD-54-04	Bells Road (Pattersons Road to Hardys Road)	Development	1105	5.51	\$2,374,483	\$4,533,539	\$6,908,022	100%	\$6,908,022	\$4,796	\$4,796
RD-54-05	Valetta Road (Clyde township)	Development	357	0.00	\$-	\$1,943,108	\$1,943,108	100%	\$1,943,108	\$1,349	\$1,349
RD-54-06	Oroya Road (Clyde township)	Development	497	0.00	\$-	\$2,705,111	\$2,705,111	100%	\$2,705,111	\$1,878	\$1,878
RD-54-07	Railway Road (Clyde township)	Development	975	0.00	\$-	\$5,306,808	\$5,306,808	100%	\$5,306,808	\$3,684	\$3,684
RD-57.1-01	Ballarto Road (Clyde-Five Ways Road to Casey Fields Boulevard)	Development	1000	0.00	\$-	\$4,074,060	\$4,074,060	100%	\$4,074,060	\$2,829	\$2,829
RD-57.1-02	Casey Fields Boulevard	Development	300	1.96	\$1,620,646	\$1,632,864	\$3,253,510	100%	\$3,253,510	\$2,259	\$2,259
Sub-total road projects			12414	43.38	\$23,583,547	\$53,727,250	\$77,327,151		\$74,772,958	\$51,914	\$51,914
Intersection Projects											
IN-53-01	Thompsons Road / Berwick-Cranbourne Road	Development		0.18	\$45,750	\$8,227,299	\$8,273,049	50%	\$4,159,399	\$2,888	\$2,888
IN-53-02	Thompsons Road / North-south connector (West of Bells Road-West to Pound Road)	Development		0.32	\$147,837	\$4,603,976	\$4,751,813	100%	\$4,751,813	\$3,299	\$3,299
IN-53-03	Thompsons Road / North-south connector (West of Bells Road-East to old Pound road)	Development		0.28	\$111,552	\$4,270,344	\$4,381,897	100%	\$4,381,897	\$3,042	\$3,042
IN-53-04	Bells Road / Thompson Road	Development		0.28	\$106,646	\$6,129,078	\$6,235,725	100%	\$6,235,725	\$4,329	\$4,329
IN-53-05	Thompsons Road / north-south connector (West of Bells Road-west)	Development		0.35	\$192,895	\$3,698,176	\$3,891,071	100%	\$3,891,071	\$2,702	\$2,702
IN-53-06	Thompsons Road / north-south connector (East of Bells Road-east)	Development		0.36	\$175,590	\$3,938,444	\$4,114,034	100%	\$4,114,034	\$2,856	\$2,856
IN-53-07	Berwick-Cranbourne Road / East-west industrial connector	Development		0.30	\$217,836	\$4,437,766	\$4,655,602	100%	\$4,655,602	\$3,232	\$3,232
IN-53-08	Bells Road / East-west connector	Development		0.29	\$125,697	\$4,146,897	\$4,272,594	100%	\$4,272,594	\$2,966	\$2,966
IN-53-09	Berwick-Cranbourne Road / East-west connector (North of Hardys Road)	Development		0.27	\$180,225	\$3,363,945	\$3,544,170	100%	\$3,544,170	\$2,461	\$2,461
IN-53-10	Tuckers Road / East-west connector (east of Bells)	Development		0.38	\$233,803	\$3,022,305	\$3,256,108	100%	\$3,256,108	\$2,261	\$2,261
IN-53-11	Bells Road / Tuckers Road	Development		0.35	\$200,820	\$4,499,707	\$4,700,527	100%	\$4,700,527	\$3,264	\$3,264
IN-53-12	Berwick-Cranbourne Road / Hardys Road	Development		0.30	\$356,560	\$5,381,691	\$5,738,251	100%	\$5,738,251	\$3,984	\$3,984
IN-53-13	Hardys Road / North South connector (east of Berwick-Cranbourne Road)	Development		0.24	\$166,734	\$3,343,848	\$3,510,582	100%	\$3,510,582	\$2,437	\$2,437
IN-53-14	Hardys Road / Connector MTC	Development		0.16	\$19,934	\$3,008,176	\$3,028,111	100%	\$3,028,111	\$2,102	\$2,102
IN-53-15	Tuckers Road / Hardys Road	Development		0.88	\$549,123	\$5,068,839	\$5,617,962	100%	\$5,617,962	\$3,901	\$3,901
IN-53-16	Hardys Road / North-south connector (West of Bells road-West)	Development		0.24	\$106,100	\$3,765,275	\$3,871,375	100%	\$3,871,375	\$2,688	\$2,688
IN-53-17	Bells Road / Hardys Road	Development		0.15	\$74,890	\$4,152,494	\$4,227,384	100%	\$4,227,384	\$2,935	\$2,935
IN-53-18	Tuckers Road / North-South connector	Development		0.07	\$37,100	\$2,904,970	\$2,942,070	100%	\$2,942,070	\$2,043	\$2,043
IN-54-01	Berwick-Cranbourne Road/ Heather Grove	Development		0.21	\$242,002	\$1,213,569	\$1,455,571	100%	\$1,455,571	\$1,011	\$1,011
IN-54-02	Tuckers Road / Heather Grove	Development		0.15	\$84,371	\$3,250,780	\$3,335,150	100%	\$3,335,150	\$2,316	\$2,316
IN-54-03	Bells Road / Heather Grove	Development		0.16	\$60,061	\$3,327,073	\$3,387,133	100%	\$3,387,133	\$2,352	\$2,352
IN-54-04	Berwick-Cranbourne Road / Pattersons Road	Development		0.43	\$402,419	\$2,432,254	\$2,834,673	100%	\$2,834,673	\$1,968	\$1,968
IN-54-05	Pattersons Road / North-south connector	Development		0.18	\$179,247	\$3,464,748	\$3,643,994	100%	\$3,643,994	\$2,530	\$2,530
IN-54-06	Tuckers Road / Patterson Road	Development		0.39	\$225,901	\$4,890,591	\$5,116,492	100%	\$5,116,492	\$3,552	\$3,552

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	PROJECT LENGTH (M)	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	RESIDENTIAL - CONTRIBUTION PER NDHA	EMPLOYMENT- CONTRIBUTION PER NDHA
Intersection Projects											
IN-54-07	Patterson Road / North-south (East of Tuckers Road)	Development		0.12	\$78,338	\$3,276,775	\$3,355,112	100%	\$3,355,112	\$2,329	\$2,329
IN-54-08	Patterson Road / Bells Road	Development		0.22	\$121,813	\$-	\$121,813	100%	\$121,813	\$85	\$85
IN-54-09	Berwick-Cranbourne Road / East-west (south of Pattersons Road)	Development		0.15	\$131,148	\$3,026,352	\$3,157,500	100%	\$3,157,500	\$2,192	\$2,192
IN-54-11	Tuckers Road / South connector (active open space AR-54-04)	Development		0.09	\$51,640	\$3,171,846	\$3,223,486	100%	\$3,223,486	\$2,238	\$2,238
IN-54-12	Bells Road / South connector	Development		0.05	\$31,338	\$3,314,736	\$3,346,073	100%	\$3,346,073	\$2,323	\$2,323
IN-54-13	Tuckers Road / South connector (MTC)	Development		0.10	\$82,899	\$2,514,085	\$2,596,984	100%	\$2,596,984	\$1,803	\$1,803
IN-54-14	Tuckers Road / South connector (Ballarto road MTC main street)	Development		0.17	\$109,500	\$2,649,759	\$2,759,259	100%	\$2,759,259	\$1,916	\$1,916
IN-54-15	Berwick-Cranbourne Road / Ballarto Road	Development		0.29	\$208,521	\$6,595,201	\$6,803,723	50%	\$3,506,122	\$2,434	\$2,434
IN-54-17	Ballarto Road / MTC connector	Development		0.06	\$38,400	\$-	\$38,400	100%	\$38,400	\$27	\$27
IN-54-18	Tuckers Road / Ballarto Road	Development		0.26	\$205,148	\$-	\$205,148	100%	\$205,148	\$142	\$142
IN-54-19	Ballarto Road / Connector East	Development		0.06	\$30,748	\$-	\$30,748	100%	\$30,748	\$21	\$21
IN-54-20	Bells Road / Ballarto Road	Development		0.10	\$73,346	\$4,861,316	\$4,934,662	100%	\$4,934,662	\$3,426	\$3,426
IN-57.1-1	Berwick-Cranbourne Road / East-west connector	Development		0.10	\$62,100	\$3,270,840	\$3,332,940	100%	\$3,332,940	\$2,314	\$2,314
IN-57.1-2	Ballarto Road / North-south connector	Development		0.07	\$48,700	\$3,469,023	\$3,517,723	50%	\$1,783,212	\$1,238	\$1,238
IN-57.1-3	Casey fields / East-south connector	Development		0.07	\$61,188	\$2,631,917	\$2,693,104	100%	\$2,693,104	\$1,870	\$1,870
IN-57.1-4	Casey fields BLVD / Ballarto Road	Development		0.06	\$45,477	\$4,469,812	\$4,515,289	50%	\$2,280,383	\$1,583	\$1,583
Sub-total intersection projects				8.91	\$5,623,396	\$139,793,906	\$145,417,302		\$134,036,634	\$93,061	\$93,061
Bridge Projects											
BR-53-01	Thompson Road culvert over Ti Tree Creek	Development				\$160,983	\$160,983	100%	\$160,983	\$112	\$112
BR-53-02	Thompson Road culvert over Ti Tree Creek	Development				\$175,608	\$175,608	100%	\$175,608	\$122	\$122
BR-53-03	Bells Road culvert over Ti Tree Creek	Development				\$489,766	\$489,766	100%	\$489,766	\$340	\$340
BR-53-04	Thompson Road culvert over Ti Tree Creek	Development				\$492,626	\$492,626	100%	\$492,626	\$342	\$342
BR-53-05	Tuckers Road over desalination easement	Development				\$144,315	\$144,315	100%	\$144,315	\$100	\$100
BR-53-06	Bells Road over desalination easement	Development				\$144,315	\$144,315	100%	\$144,315	\$100	\$100
BR-54-01	Hardys Road crossing of drainage area	Development				\$525,109	\$525,109	100%	\$525,109	\$365	\$365
BR-54-04	Hardys Road crossing of drainage area	Development				\$286,925	\$286,925	100%	\$286,925	\$199	\$199
BR-54-05	Hardy Road crossing of drainage area	Development				\$352,722	\$352,722	100%	\$352,722	\$245	\$245
BR-54-07	Tuckers Road crossing of drainage area	Development				\$341,765	\$341,765	100%	\$341,765	\$237	\$237
BR-54-11	Pattersons Road culvert of drainage area	Development				\$446,250	\$446,250	100%	\$446,250	\$310	\$310
BR-54-14	Tuckers Road crossing of drainage area	Development				\$274,083	\$274,083	100%	\$274,083	\$190	\$190
BR-54-15	Bells Road crossing of drainage area over Clyde Creek	Development				\$167,185	\$167,185	100%	\$167,185	\$116	\$116
BR-54-16	Tuckers Road crossing of drainage area	Development				\$445,001	\$445,001	100%	\$445,001	\$309	\$309
Sub-total Bridge projects						\$4,446,653	\$4,446,653		\$4,446,653	\$3,087	\$3,087
Community facilities											
CO-53-01	Family and Children's Centre (Level 1)	Development		0.70	\$663,786	\$4,324,182	\$4,987,968	100%	\$4,987,968	\$3,709	
CO-53-02	Level 3 Community Facilities - Branch Library & Community Centre	Development		1.51	\$984,490	\$-	\$984,490	100%	\$984,490	\$732	
CO-53-03	Community Care Hub / Host Home	Development		0.23	\$128,755	\$-	\$128,755	100%	\$128,755	\$96	
CO-53-04	Family and Children's Centre (Level 1)	Development		0.70	\$557,258	\$4,324,182	\$4,881,440	100%	\$4,881,440	\$3,630	
CO-54-01	Family and Children's Centre (Level 1)	Development		0.70	\$461,425	\$4,324,182	\$4,785,607	100%	\$4,785,607	\$3,559	
CO-54-02	Family and Children's Centre (Level 1)	Development		0.70	\$388,152	\$4,324,182	\$4,712,334	100%	\$4,712,334	\$3,504	
CO-54-03	Family and Children's Centre (Level 1)	Development		0.70	\$591,072	\$4,324,182	\$4,915,254	100%	\$4,915,254	\$3,655	

DCP PROJECT NO.	PROJECT	INFRASTRUCTURE CATEGORY	PROJECT LENGTH (M)	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	RESIDENTIAL - CONTRIBUTION PER NDHA	EMPLOYMENT - CONTRIBUTION PER NDHA
Community facilities											
CO-54-04	Family and Children's Centre (Level 1)	Development		0.70	\$809,741	\$4,324,182	\$5,133,923	100%	\$5,133,923	\$3,818	
CO-54-05	Level 3 Community Facilities - Specialist Community Centre	Development		1.49	\$1,148,804	\$-	\$1,148,804	100%	\$1,148,804	\$854	
CO-54-06	Family and Children's Centre (Level 1)	Development		0.70	\$315,000	\$4,324,182	\$4,639,182	100%	\$4,639,182	\$3,450	
Sub-total community facilities				8.13	\$6,048,483	\$30,269,274	\$36,317,757		\$36,317,757	\$27,008	
Local sports reserves											
LS-53-01	Local sports reserve	Development		8.91	\$7,145,744	\$4,230,904	\$11,376,648	100%	\$11,376,648	\$8,460	
LS-53-02	Local sports reserve	Development		4.02	\$1,105,821	\$3,322,104	\$4,427,925	100%	\$4,427,925	\$3,293	
LS-53-03	Local sports reserve	Development		13.00	\$9,570,134	\$6,479,827	\$16,049,961	100%	\$16,049,961	\$11,936	
LS-54-01	Local sports reserve	Development		9.08	\$5,821,197	\$4,252,802	\$10,073,999	100%	\$10,073,999	\$7,492	
LS-54-02	Local sports reserve	Development		13.02	\$8,850,141	\$6,462,530	\$15,312,671	100%	\$15,312,671	\$11,387	
LS-54-03	Local sports reserve	Development		10.32	\$8,716,620	\$5,479,052	\$14,195,672	100%	\$14,195,672	\$10,557	
LS-54-04	Local sports reserve	Development		8.36	\$5,668,316	\$4,071,846	\$9,740,162	100%	\$9,740,162	\$7,243	
LS-54-05	Local sports reserve	Development		10.81	\$6,988,843	\$7,290,832	\$14,279,675	100%	\$14,279,675	\$10,619	
IR - 53	Indoor sports contribution	Development		1.60	\$1,575,734	\$-	\$1,575,734	66%	\$1,032,261	\$768	
IR - 54	Indoor sports contribution	Development		6.06	\$4,572,109	\$-	\$4,572,109	66%	\$2,995,183	\$2,227	
Sub-total active recreation development infrastructure projects)				85.19	\$60,014,660	\$41,589,897	\$101,604,557		\$99,484,158	\$73,981	
Summary											
Total cost development infrastructure projects									\$349,058,161		
Total Development Infrastructure Levy per NDA										\$249,051	\$148,062

Amended
by C208

Amended by GC75

Table 11 Infrastructure Project Timing and 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 RECOVERED BY DCP	RESIDENTIAL - CONTRIBUTION PER NDHA
CO-53-05	Level 3 Community Facilities - Branch Library & Community Centre	Community	0.00		\$8,538,857	\$8,538,857	100%	\$8,538,857	\$6,350
CO-54-07	Level 3 Community Facilities - Branch Library & Community Centre	Community	0.00		\$8,538,857	\$8,538,857	100%	\$8,538,857	\$6,350
P-53-01	Pavilions within active reserves	Community	0.00		\$1,435,896	\$1,435,896	100%	\$1,435,896	\$1,068
P-53-02	Pavilions within active reserves	Community	0.00		\$1,435,896	\$1,435,896	100%	\$1,435,896	\$1,068
P-53-03	Pavilions within active reserves	Community	0.00		\$2,122,313	\$2,122,313	100%	\$2,122,313	\$1,578
P-54-01	Pavilions within active reserves	Community	0.00		\$1,435,896	\$1,435,896	100%	\$1,435,896	\$1,068
P-54-02	Pavilions within active reserves	Community	0.00		\$3,520,440	\$3,520,440	100%	\$3,520,440	\$2,618
P-54-03	Pavilions within active reserves	Community	0.00		\$2,122,313	\$2,122,313	100%	\$2,122,313	\$1,578
P-54-04	Pavilions within active reserves	Community	0.00		\$1,435,896	\$1,435,896	100%	\$1,435,896	\$1,068
P-54-05	Pavilions within active reserves	Community	0.00		\$1,435,896	\$1,435,896	100%	\$1,435,896	\$1,068
Sub-total active recreation (community infrastructure levy)					\$32,022,260	\$32,022,260		\$32,022,260	\$23,813
Summary									
Total Community Infrastructure Levy per Dwelling								\$1,150	
Total Community Infrastructure Levy Estimated Raised Via Clyde DCP								\$24,743,400	

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4.0 DEVELOPMENT CONTRIBUTIONS PLAN ADMINISTRATION

This section sets out how this DCP will be administered and covers the timing of payment, provision of works and land in kind and how funds generated by this DCP will be managed in terms of reporting, indexation and review periods.

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

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

Council will be both the Collecting Agency and the Development Agency for the purposes of this DCP.

4.1 Payment of Contribution Levies and Payment Timing

4.1.1 Development Infrastructure

For subdivision of Land

- A development infrastructure levy must be paid to the Collecting Agency for the land within the following specified time, namely after certification of the relevant plan of subdivision but not more than 21 days prior to the issue of a Statement of Compliance with respect to that plan.
- Where the subdivision is to be developed in stages, the infrastructure levy for the stage to be developed may only be paid to the Collecting Agency 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 Collecting Agency.

If the Collecting Agency 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 the Collecting Agency in accordance with the provisions of the approved DCP 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). The Collecting Agency may require that contributions be made at either the planning or building permit stage for Development Infrastructure.

If the Collecting Agency agrees to works 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 otherwise agreed to by the Collecting Agency in a Section 173 agreement, a development infrastructure levy must be paid to the Collecting Agency prior to the commencement of any development in accordance with the provision of this approved Development Contributions Plan for the land.

If the Collecting Agency 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.

4.1.2 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, serviced apartment complexes 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 DCP was first incorporated into the Casey Planning Scheme.

4.1.3 Works in Kind

The Collecting Agency may permit development proponents to undertake works in lieu of cash payments, providing that:

- The works constitute project(s) funded by this DCP.
- The Collecting Agency 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 DCP to the satisfaction of the Development Agency, unless an alternative is agreed by both the Development Agency and the Collecting Agency.
- Detailed design must be approved by the Development Agency and the Collecting Agency and must generally accord with the expectations outlined in this DCP unless an alternative is agreed by both the Development Agency and the Collecting Agency.
- The construction of works must be completed to the satisfaction of the Development Agency and the Collecting Agency.
- There should be no negative financial impact on this DCP to the satisfaction of the Collecting Agency.
- In particular, the works will only be accepted in lieu of a financial contribution required by this DCP 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 the Collecting Agency's satisfaction. Temporary works will not be accepted as works in kind.

4.1.4 Credit for Over Provision

Where the Collection Agency agrees that a development proponent can physically provide an infrastructure item (either works and/or land) the situation may arise where the developer makes a contribution with a value that exceeds that required by the DCP for the individual project.

In such a case the developer may be entitled to credits against other projects in the DCP to the extent of the excess contribution. Alternatively, the developer may seek an agreement with the Collecting Agency to provide for a cash reimbursement where a significant over contribution has been made on a particular project.

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

4.1.5 Land uses exempt from contributions

Where land is subdivided or developed for the purpose of a government school, non government school or any other use that is partly or wholly exempt from development contributions and the land is subsequently used for a purpose other than as one of those exempt uses, the owner of that land must pay to the Collecting Agency development contributions in accordance with the provisions of the DCP. 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.

4.2 Funds Administration

The administration of the contributions made under this DCP will be transparent and the levy contribution mode under this Development contributions plan will be held by collecting agency until required for provision of the item. Details of funds received and expenditures will be held by 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.
- The sources of the funds collected.
- The amount and timing of expenditure on specific projects.
- The project on which the expenditure was made.
- The account classes or individual project classes.
- Details of any works-in-kind arrangements for project provision.
- Any pooling or quarantining of funds to deliver specific projects where applicable.

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

The Collecting Agency 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 46QB(2) of the Planning and Environment Act 1987.

Should the Collecting Agency achieve savings on any project, or resolve not to proceed with any of the infrastructure projects listed in this DCP, the funds collected for these items will 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.

4.3 Construction and Land Value Costs Indexation

Capital costs of all infrastructure items (with the exception of land) are in 2014 dollars and will be indexed by the Collecting Agency quarterly to take account of inflation.

In relation to the costs of infrastructure items other than land, the cost must be adjusted according to the following methods:

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

Amended by C208

Land values will be adjusted on 1 July every year following a revaluation by a registered valuer of properties with land required by the DCP. Within 14 days of the revaluation, the Collecting Agency will publish the amended contributions on the Collecting Agency's website.

Deleted by GC75

Inserted by GC75

If the maximum amount of the community infrastructure levy 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.

4.4 Development Contributions Plan Review Period

This DCP adopts a long-term outlook for development. It takes into account planned future development in the Clyde area. A 'full development' horizon of land within the current Urban Growth Boundary within 30 years of gazettal of this DCP has been adopted.

This DCP commences on the date of incorporation into the Casey Planning Scheme. This DCP will end when development within the DCP area is complete, which is projected to be 30 years after gazettal, 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 Casey 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.

4.5 Collecting Agency (Agency Responsible for Collecting Infrastructure Levy)

Casey City 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, Casey City Council is also responsible for the administration of this DCP and also its enforcement pursuant to Section 46QC of the Act.

4.6 Development Agency (Agency Responsible for Works)

Casey City Council is the Development Agency and is responsible for the provision of all of the DCP projects identified in this DCP.

5.0 IMPLEMENTATION STRATEGY

This section provides further details regarding how the Collecting Agency intends to implement this DCP. In particular, this section clearly identifies the rationale for the implementation strategy and the details the various measures that have been adopted to reduce the risk posed by this DCP to all parties.

5.1 Rationale for the Implementation Strategy

This implementation strategy has been incorporated into this DCP to provide certainty to the Collecting Agency and development proponents. The implementation strategy recognises the complexities associated with infrastructure provision and funding and seeks to minimise risk to the Collection Agency, Development Agency, development proponent and future community.

The implementation strategy has been formulated by:

- Precinct Structure Plans.
- Having regard to the development context.
- Assessing the need for finance requirements – up front financing and pooling of funds.
- Agreeing the land value .
- Seeking direct delivery of infrastructure and land be development proponents where appropriate.
- 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.

5.2 Implementation Mechanism

Under Section 46P of the Act, the Collecting Agency may accept (with the consent of the Development Agency where the Collecting Agency is not also the Development Agency), the provision of land, works, services or facilities by the applicant in part of full satisfaction of the amount of levy payable. This can be agreed with the Collecting Agency before or after the application for the permit is made or before the development is carried out.

To coordinate the provision of infrastructure, it is proposed that the owner of all properties enter into an agreement under s173 of the Act to provide for provision of works in kind.

Through the approval of these agreements Casey City Council (acting as the Collecting Agency) will consider if and what infrastructure should be provided as in-kind works under this DCP in accordance with Section 46P of the Act. The agreement must include a list of the DCP infrastructure which the Collecting Agency has agreed in writing to allow to be provided as works in kind.

Amended
by C208

Table 12 External Apportionment

(Detailed information on infrastructure delivery priorities will be included in the Clyde DCP following agency review, for public exhibition.)

DCP PROJECT NO.	PROJECT	% APPORTIONED TO DCP (INTERNAL USE)	CLYDE NORTH DCP PSP (13)	FUTURE CLYDE EAST DCP PSP (1055) / FUTURE CASEY FIELDS SOUTH EMPLOYMENT DCP PSP (1057.2) / FUTURE CLYDE SOUTH DCP PSP (1056)	CRANBOURNE NORTH DCP
RD- 53 -01B	Thompsons Road (Berwick-Cranbourne Road to Smiths Lane) - Employment	64%	36%		
IN-53-01	Thompsons Road / Berwick-Cranbourne Road	50%		50%	
IN-54-08	Patterson Road / Bells Road			100%	
IN-54-15	Berwick-Cranbourne Road / Ballarto Road	50%		50%	
IN-54-17	Ballarto Road / MTC connector			100%	
IN-54-18	Tuckers Road / Ballarto Road			100%	
IN-54-19	Ballarto Road / Connector East			100%	
IN-57.1-2	Ballarto Road / North-south connector	50%		50%	
IN-57.1-4	Casey fields BLVD / Ballarto Road	50%		50%	
IR - 53	Indoor sports contribution	66%		34%	
IR - 54	Indoor sports contribution	66%		34%	

* 100% of land cost for intersection flarings has been provided within the Clyde DCP area.

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Table 13 Land valuation

PSP 53- THOMPSONS ROAD					LAND VALUATIONS			
PSP PROPERTY ID	TOTAL AREA (Ha)	TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	EMPLOYMENT 'UNDER' PROVISION	EMPLOYMENT 'OVER' PROVISION	RESIDENTIAL 'UNDER' PROVISION	RESIDENTIAL 'OVER' PROVISION
Property								
53-01 Residential	0.55	0.43	0.43				0.05	0.07
53-01 Industrial	37.36	23.73		23.73	1.38	0.00		
53-02 Residential	23.13	13.12	13.12				0.45	0.00
53-02 Industrial	20.73	17.78		17.78	0.88	0.00		
53-03 Residential	39.53	29.76	29.76				3.39	2.07
53-03 Commercial	0.15	0.05		0.05	0.00	0.00		
53-04 Residential	41.26	24.37	24.37				0.05	0.00
53-04 Commercial	0.92	0.92		0.92	0.00	0.00		
53-05 Residential	17.98	13.43	13.43				1.35	0.00
53-05 Commercial	22.04	11.38		11.38	1.06	1.32		
53-06 Residential	28.75	26.36	26.36				0.50	0.00
53-06 Commercial	11.27	6.35		6.352	0.59	2.00		
53-07 Residential	41.65	29.34	29.34				1.34	0.00
53-07 Commercial	7.06	4.99		4.99	0.46	1.01		
53-08	0.63	0.63	0.63				0.00	0.00
53-09	42.67	23.47	23.47				2.16	0.00
53-10	1.00	0.88	0.88				0.10	0.01
53-11	0.96	0.85	0.85				0.10	0.01
53-12	48.32	42.30	42.30				0.73	0.00
53-13	30.25	16.79	16.79				1.91	6.31
53-14	39.74	29.87	29.87				3.40	2.08
53-15 Residential	38.73	31.64	31.64				2.79	0.00
53-15 Commercial	4.64	4.34		4.34	0.00	0.00		
53-16 Residential	38.05	33.14	33.14				2.96	0.00
53-16 Commercial	9.64	9.34		9.34	0.00	0.00		
53-17	0.40	0.40	0.40				0.00	0.00

53-18 Residential	32.13	24.15	24.153				2.75	0.60
53-18 Commercial	8.40	8.27		8.27	0.13	0.00		
53-19 Residential	0.78	0.01	0.01				0.00	0.56
53-19 Commercial	3.36	3.36		3.36	0.00	0.00		
53-20 Residential	15.72	14.86	14.86				0.00	0.00
53-20 Commercial	1.65	1.65		1.65	0.00	0.00		
53-21 Residential	1.42	1.39	1.39				0.03	0.00
53-21 Commercial	2.64	2.59		2.59	0.05	0.00		
53-22	14.57	7.79	7.79				0.89	3.38
53-23	32.58	22.02	22.02				2.51	2.88
53-24	15.27	11.82	11.82				0.31	0.00
53-25 Residential	0.22	0.00	0.00				0.00	0.08
53-25 Commercial	0.12	0.12		0.12	0.00	0.00		
53-26 Commercial	0.13	0.12		0.12	0.01	0.00		
53-27 Commercial	0.10	0.09		0.09	0.01	0.00		
53-28 Commercial	0.08	0.08		0.08	0.01	0.00		
53-29 Commercial	0.08	0.08		0.08	0.00	0.00		
53-30 Commercial	0.07	0.07		0.07	0.00	0.00		
53-31 Commercial	0.07	0.07		0.07	0.00	0.00		
53-32 Commercial	0.07	0.07		0.07	0.00	0.00		
53-33 Commercial	0.07	0.07		0.07	0.00	0.00		
53-33a Commercial	0.07	0.07		0.07	0.00	0.00		
SUB-TOTAL	677.03	494.43	398.83	95.60	4.57	4.33	27.74	18.06
Road reserve								
53-34 (pound road)	6.88	2.56	2.56					
53-35(tuckers road reserve)	1.69	0.68	0.68					
53-36 (thompsons rd) plus triangle	7.79	0.48	0.48					
53-37(berwick cranbourne rd)	1.93	0.00	0.00					
SUB-TOTAL	18.30	3.72	3.72	0.00				
TOTAL	695.33	498.15	402.56	95.60				

PSP 54 - CLYDE CREEK					LAND VALUATIONS			
PSP PROPERTY ID	TOTAL AREA (Ha)	TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT (HECTARES)	EMPLOYMENT 'UNDER' PROVISION	EMPLOYMENT 'OVER' PROVISION	RESIDENTIAL 'UNDER' PROVISION	RESIDENTIAL 'OVER' PROVISION
Property								
54-1	8.39	7.11	7.11				0.41	0.00
54-2	8.49	7.00	7.00				0.30	0.00
54-3	8.51	6.55	6.55				0.39	0.00
54-4	7.64	4.22	4.22				0.21	0.00
54-5	0.86	0.70	0.70				0.07	0.09
54-6	18.26	13.57	13.57				0.70	0.00
54-7	16.13	15.42	15.42				0.71	0.00
54-8	0.40	0.32	0.32				0.00	0.00
54-9	0.62	0.50	0.50				0.00	0.00
54-10	8.81	8.72	8.72				0.00	0.00
54-11	7.43	7.25	7.25				0.06	0.00
54-12	0.61	0.46	0.46				0.02	0.00
54-13	0.61	0.43	0.43				0.04	0.01
54-14	0.60	0.43	0.43				0.04	0.01
54-15	14.55	14.04	14.04				0.00	0.00
54-16	34.60	26.59	26.59				2.02	0.00
54-17	33.56	30.00	30.00				1.72	0.00
54-18	34.07	28.06	28.06				0.78	0.00
54-19	1.00	0.87	0.87				0.09	0.04
54-20	97.65	78.60	78.60				4.83	0.00
54-21	0.20	0.14	0.14				0.01	0.00
54-22	65.88	60.15	60.15				0.19	0.00
54-23	0.68	0.44	0.44				0.04	0.00
54-24	1.00	0.98	0.98				0.02	0.00
54-25	69.29	47.07	47.07				4.90	3.25
54-26	51.34	48.50	48.50				1.24	0.00
54-27	17.43	10.53	10.53				1.10	5.80
54-28	69.89	55.06	55.06				5.73	2.23
54-29	1.00	0.96	0.96				0.04	0.00
54-30	1.00	1.00	1.00				0.00	0.00
54-31	4.05	0.01	0.01	-			0.00	0.51
54-32	31.93	15.63	15.63				1.63	10.05
54-33	1.00	0.74	0.74				0.02	0.00
54-34	28.43	25.41	25.41				0.75	0.00
54-35	66.49	47.53	47.53				4.95	3.10
54-36	64.74	46.92	46.92				3.21	0.00
54-37	36.21	23.28	23.28				0.96	0.00
54-38	33.90	30.08	30.08				0.97	0.00
54-39	35.07	23.37	23.37				2.43	4.58
54-40	0.65	0.65	0.65				0.00	0.00
54-41	1.11	1.11	1.11				0.00	0.00

54-42	35.24	18.01	18.01				1.87	1.96
54-43	26.12	25.36	25.36				0.06	0.00
54-44	0.12	0.12	0.12				0.00	0.00
54-45	0.08	0.08	0.08				0.00	0.00
54-46	2.03	2.03	2.03				0.00	0.00
54-47	2.00	1.90	1.90				0.09	0.00
54-48	2.01	2.00	2.00				0.01	0.00
54-49	1.00	0.99	0.99				0.01	0.00
54-50	0.96	0.84	0.84				0.09	0.04
54-51	69.19	57.33	57.33				4.47	0.00
54-52	5.42	0.43	0.43				0.00	0.00
54-53	15.48	7.78	7.78				0.34	0.00
54-54	46.76	32.61	32.61				3.39	5.07
54-55	8.34	3.63	3.63				0.38	0.35
54-56	1.64	0.00	0.00					
54-57	0.22	0.22	0.22				0.00	0.00
54-58	0.33	0.33	0.33				0.00	0.00
54-59	2.93	2.24	2.24				0.16	0.00
54-60	0.04	0.04	0.04				0.00	0.00
54-61	6.38	0.00	0.00				0.00	
SUB-TOTAL	1110.36	846.37	846.37				51.46	37.07

Road reserve

HARDYS ROAD	6.48	0.00	0.00
CLYDE FIVE WAYS ROAD	6.58	0.00	0.00
TUCKERS ROAD	7.11	0.00	0.00
PATTERSONS ROAD	6.55	0.00	0.00
BELLS ROAD	3.63	1.22	1.22
RAILWAY ROAD	2.15	0.00	0.00
VALETTA ROAD	0.79	0.00	0.00
OROYA GROVE	0.63	0.00	0.00
POUND ROAD	1.52	1.23	1.23
RAIL CORRIDOR	5.76	0.00	0.00
TWYFORD ROAD	2.35	1.83	1.83
SUB-TOTAL	43.54	4.28	4.28
TOTAL	1153.90	850.65	850.65

PSP 57.1- CASEY FIELDS SOUTH					LAND VALUATIONS			
PSP PROPERTY ID	TOTAL AREA (Ha)	TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	EMPLOYMENT 'UNDER' PROVISION	EMPLOYMENT 'OVER' PROVISION	RESIDENTIAL 'UNDER' PROVISION	RESIDENTIAL 'OVER' PROVISION
57-1	11.96	6.70	6.70				0.17	1.92
57-2	11.94	7.67	7.67				0.00	0.00
57-3	9.71	9.37	9.37				0.00	0.00
57-4	9.61	9.53	9.53				0.04	0.00
57-5	24.39	20.55	20.55				0.03	0.00
57-6	40.47	36.60	36.60				0.19	0.00
57-7	1.09	1.09	1.09				0.00	0.00
rail corridor	0.89	0.00	0.00				0.00	0.00
TOTALS	110.06	91.52	91.52				0.43	1.92

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*Note - totals for these columns will not necessarily match those in Table 8 (Summary Land Use Budget) as this table does not include certain items as relevant such as existing road and rail reserves.

6.0 OTHER INFORMATION

6.1 Acronyms

'the Act'	<i>Planning and Environment Act 1987</i>
AHD	Australian Height Datum
AFL	Australian Football League ovals
CAD	Central Activities District
CIL	Community Infrastructure Levy
DCP	Development Contributions Plan
DEECD	Department of Education & Early Childhood Development
DIL	Development Infrastructure Levy
DPCD	Department of Planning & Community Development
DoT	Department of Transport
DSE	Department of Sustainability & Environment
ENDA	Employment Net Developable Area
GAA	Growth Areas Authority
GDA	Gross Developable Area
Ha	Hectare
LTC	Local Town Centre
MCA	Main Catchment Area
MCH	Maternal & Child Health
MSS	Municipal Strategic Statement
MTC	Major Town Centre
NDA	Net Developable Area
NDHa	Net Developable Hectare
PPTN	Principle Public Transport Network
PSP	Precinct Structure Plan
PTC	Principle Town Centre
P-6	School Prep to Year 6
P-12	State School Prep to Year 12
RNDA	Residential Net Developable Area
Sqm	Square Metres
UGB	Urban Growth Boundary
UGZ	Urban Growth Zone

6.2 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.

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 (eg. 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)

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 / Service Open Space

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).

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 - Residential (NDA-R)

As per net developable area but excluding dedicated employment land.

Net Developable Area - Employment (NDA-E)

The net developable area of dedicated employment land but excluding dedicated residential land.

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.



7.0 APPENDICES

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Table 14 ...

7.2 Property Specific Land Budget

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PSP 53- Thompsons Road																													
PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY FACILITIES					SERVICE OPEN SPACE						CREDITED OPEN SPACE			OTHER OPEN SPACE		OTHER		TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		PAO TOTALS	ARTERIAL ROADS / WIDENINGS TOTALS	DCP FLARING FOR INTERSECTIONS TOTALS	EXISTING ROAD RESERVES	TREE RESERVE	RAILWAY CORRIDOR / EASEMENT	DCP COMMUNITY FACILITIES	DCP INDOOR RECREATION FACILITIES	POTENTIAL GOVERNMENT EDUCATION	EXISTING GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY CORRIDOR/ WETLAND / RETARDING	DESALINATION PIPE EASEMENT (+ GAP BETWEEN EASEMENT AND ROAD)	HERITAGE (POST CONTRACT)	HERITAGE (ABORIGINAL)	CONSERVATION (EPBC CATEGORY 1)	LOCAL SPORTSFIELDS	LOCAL PARKS		EXISTING LOCAL SPORTFIELDS	REGIONAL SPORTSFIELDS	EXISTING CLYDE TOWNSHIP RZ1 AREA	SUBSTATION				
																				LOCAL PARKS -RESIDENTAL	LOCAL PARKS -EMPLOYMENT								
53-01 Residential	0.55	0.00	0.00	0.12	0.00			0.00	0.00										0.00							0.43	0.43		78.50%
53-01 Industrial	37.36	0.58	1.01	0.36	0.00			0.00	0.00				7.16	3.17					0.00		0.40				0.95	23.73		23.73	63.51%
53-02 Residential	23.13	0.00	0.28	0.18	0.00			0.00	0.00				8.24	0.37					0.00	0.95						13.12	13.12		56.72%
53-02 Industrial	20.73	0.00	0.76	0.12	0.00			0.00	0.00					2.07					0.00							17.78		17.78	85.77%
53-03 Residential	39.53	0.06	1.51	0.02	0.00			0.00	0.05				3.41	0.23					3.87	0.61						29.76	29.76		75.29%
53-03 Commercial	0.15	0.00	0.00	0.00	0.00			0.00	0.00										0.00		0.10					0.05		0.05	34.90%
53-04 Residential	41.26	0.02	0.05	0.00	0.00			0.00	0.00				13.23	2.07					0.00	1.53						24.37	24.37		59.06%
53-04 Commercial	0.92	0.00	0.00	0.00	0.00			0.00	0.00										0.00							0.92		0.92	100.00%
53-05 Residential	17.98	0.00	1.29	0.06	0.00			0.00	0.00				1.91	0.23	1.01				0.00	0.05						13.43	13.43		74.71%
53-05 Commercial	22.04	0.69	1.79	0.59	0.00			0.00	0.00					6.85	0.74				0.00							11.38		11.38	51.62%
53-06 Residential	28.75	0.00	0.04	0.23	0.00			0.23	0.00					1.72					0.00	0.18						26.36	26.36		91.68%
53-06 Commercial	11.27	0.51	2.39	0.21	0.00			0.00	0.00					1.72					0.00		0.09					6.35		6.35	56.37%
53-07 Residential	41.65	0.00	1.03	0.32	0.00	0.21		0.00	0.00				6.21	3.04					0.00	1.50						29.34	29.34		70.45%
53-07 Commercial	7.06	0.00	1.31	0.17	0.00	0.02		0.00	0.00										0.00		0.58					4.99		4.99	70.57%
53-08	0.63	0.00	0.00	0.00	0.00			0.00	0.00										0.00							0.63	0.63		100.00%
53-09	42.67	0.00	1.81	0.34	0.00	0.35		0.00	0.00				15.17	0.06	0.29				0.00	1.16						23.47	23.47		55.01%
53-10	1.00	0.00	0.12	0.00	0.00			0.00	0.00										0.00							0.88	0.88		88.50%
53-11	0.96	0.00	0.11	0.00	0.00			0.00	0.00										0.00							0.85	0.85		88.59%
53-12	48.32	0.00	0.66	0.07	0.00	0.31		0.00	0.00	1.81					1.35				0.00	1.81						42.30	42.30		87.55%
53-13	30.25	0.00	0.00	0.00	0.00			0.70	0.00	1.70				2.54					7.52	1.00						16.79	16.79		55.50%
53-14	39.74	0.00	0.00	0.00	0.00			0.00	0.00					1.23	2.16				5.48	1.00						29.87	29.87		75.17%
53-15 Residential	38.73	0.00	2.58	0.20	0.00	0.16		0.00	0.00					0.08	1.35				0.00	2.72						31.64	31.64		81.70%
53-15 Commercial	4.64	0.00	0.00	0.00	0.00			0.00	0.00										0.00		0.30					4.34		4.34	93.54%
53-16 Residential	38.05	0.00	2.65	0.31	0.00			0.00	0.00										0.00	1.95						33.14	33.14		87.10%
53-16 Commercial	9.64	0.00	0.00	0.00	0.00			0.00	0.00										0.00		0.30					9.34		9.34	96.89%
53-17	0.40	0.00	0.00	0.00	0.00			0.00	0.00										0.00							0.40	0.40		100.00%
53-18 Residential	32.13	0.00	0.00	0.70	0.00			1.51	1.13					4.03					0.00	0.61						24.15	24.15		75.16%
53-18 Commercial	8.40	0.00	0.00	0.13	0.00			0.00	0.00										0.00							8.27		8.27	98.49%
53-19 Residential	0.78	0.00	0.00	0.00	0.00			0.00	0.41										0.15	0.21						0.01	0.01		1.37%
53-19 Commercial	3.36	0.00	0.00	0.00	0.00			0.00	0.00										0.00							3.36		3.36	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY FACILITIES					SERVICE OPEN SPACE						CREDITED OPEN SPACE			OTHER OPEN SPACE		OTHER		TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		PAO TOTALS	ARTERIAL ROADS /WIDENINGS TOTALS	DCP FLARING FOR INTERSECTIONS TOTALS	EXISTING ROAD RESERVES	TREE RESERVE	RAILWAY CORRIDOR / EASEMENT	DCP COMMUNITY FACILITIES	DCP INDOOR RECREATION FACILITIES	POTENTIAL GOVERNMENT EDUCATION	EXISTING GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY CORRIDOR/ WETLAND / RETARDING	DESALINATION PIPE EASEMENT (+ GAP BETWEEN EASEMENT AND ROAD)	HERITAGE (POST CONTRACT)	HERITAGE (ABORIGINAL)	CONSERVATION (EPBC CATEGORY 1)	LOCAL SPORTSFIELDS	LOCAL PARKS									
																				LOCAL PARKS - RESIDENTAL	LOCAL PARKS -EMPLOYMENT								
53-20 Residential	15.72	0.00	0.00	0.00	0.00			0.00	0.00				0.56					0.00	0.30							14.86	14.86		94.53%
53-20 Commercial	1.65	0.00	0.00	0.00	0.00			0.00	0.00									0.00								1.65		1.65	100.00%
53-21 Residential	1.42	0.00	0.00	0.03	0.00			0.00	0.00									0.00								1.39	1.39		97.82%
53-21 Commercial	2.64	0.00	0.00	0.05	0.00			0.00	0.00									0.00								2.59		2.59	98.22%
53-22	14.57	0.00	0.00	0.04	0.00			0.70	0.00	2.00			0.52					3.52								7.79	7.79		53.44%
53-23	32.58	0.00	0.00	0.00	0.00			0.00	0.00	1.50			3.16					5.39	0.51							22.02	22.02		67.59%
53-24	15.27	1.57	0.00	0.31	0.00			0.00	0.00				1.08					0.00	0.50							11.82	11.82		77.37%
53-25 Residential	0.22	0.14	0.00	0.08	0.00			0.00	0.00									0.00								0.00	0.00		0.00%
53-25 Commercial	0.12	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.12		0.12	100.00%
53-26 Commercial	0.13	0.00	0.00	0.01	0.00			0.00	0.00									0.00								0.12		0.12	92.89%
53-27 Commercial	0.10	0.00	0.00	0.01	0.00			0.00	0.00									0.00								0.09		0.09	91.48%
53-28 Commercial	0.08	0.00	0.00	0.01	0.00			0.00	0.00									0.00								0.08		0.08	93.99%
53-29 Commercial	0.08	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.08		0.08	95.63%
53-30 Commercial	0.07	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.07		0.07	99.86%
53-31 Commercial	0.07	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.07		0.07	100.00%
53-32 Commercial	0.07	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.07		0.07	100.00%
53-33 Commercial	0.07	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.07		0.07	100.00%
53-33a Commercial	0.07	0.00	0.00	0.00	0.00			0.00	0.00									0.00								0.07		0.07	97.99%
SUB-TOTAL	677.03	3.57	19.38	4.66	0.00	1.06	0.00	3.14	1.60	7.02	0.00	0.00	55.32	34.73	6.90	0.00	0.00	0.00	25.93	16.57	1.77	0.00	0.00	0.00	0.95	494.43	398.83	95.60	73.03%
Road Reserve																													
53-34 (Pound Road)	6.88	0.02	0.00	0.00	1.91	0.70		0.00	0.00				0.53	0.53	0.12				0.00	0.53						2.56	2.56		37.20%
53-35 (Tuckers Road reserve)	1.69	0.00	0.00	0.00	1.01			0.00	0.00									0.00								0.68	0.68		40.29%
53-36 (Thompsons Rd) plus triangle	7.79	0.00	0.00	0.00	7.31			0.00	0.00									0.00								0.48	0.48		6.19%
53-37 (Berwick Cranbourne Rd)	1.93	0.00	0.00	0.00	1.93			0.00	0.00									0.00								0.00	0.00		0.00%
SUB-TOTAL	18.30	0.02	0.00	0.00	12.16	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.53	0.12	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	3.72	3.72	0.00	20.36%
TOTALS PSP 1053	695.33	3.59	19.38	4.66	12.16	1.76	0.00	3.14	1.60	7.02	0.00	0.00	55.85	35.25	7.02	0.00	0.00	0.00	25.93	17.10	1.77	0.00	0.00	0.00	0.95	498.15	402.56	95.60	71.64%

PSP 54 - Clyde Creek

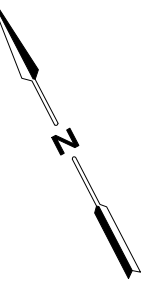
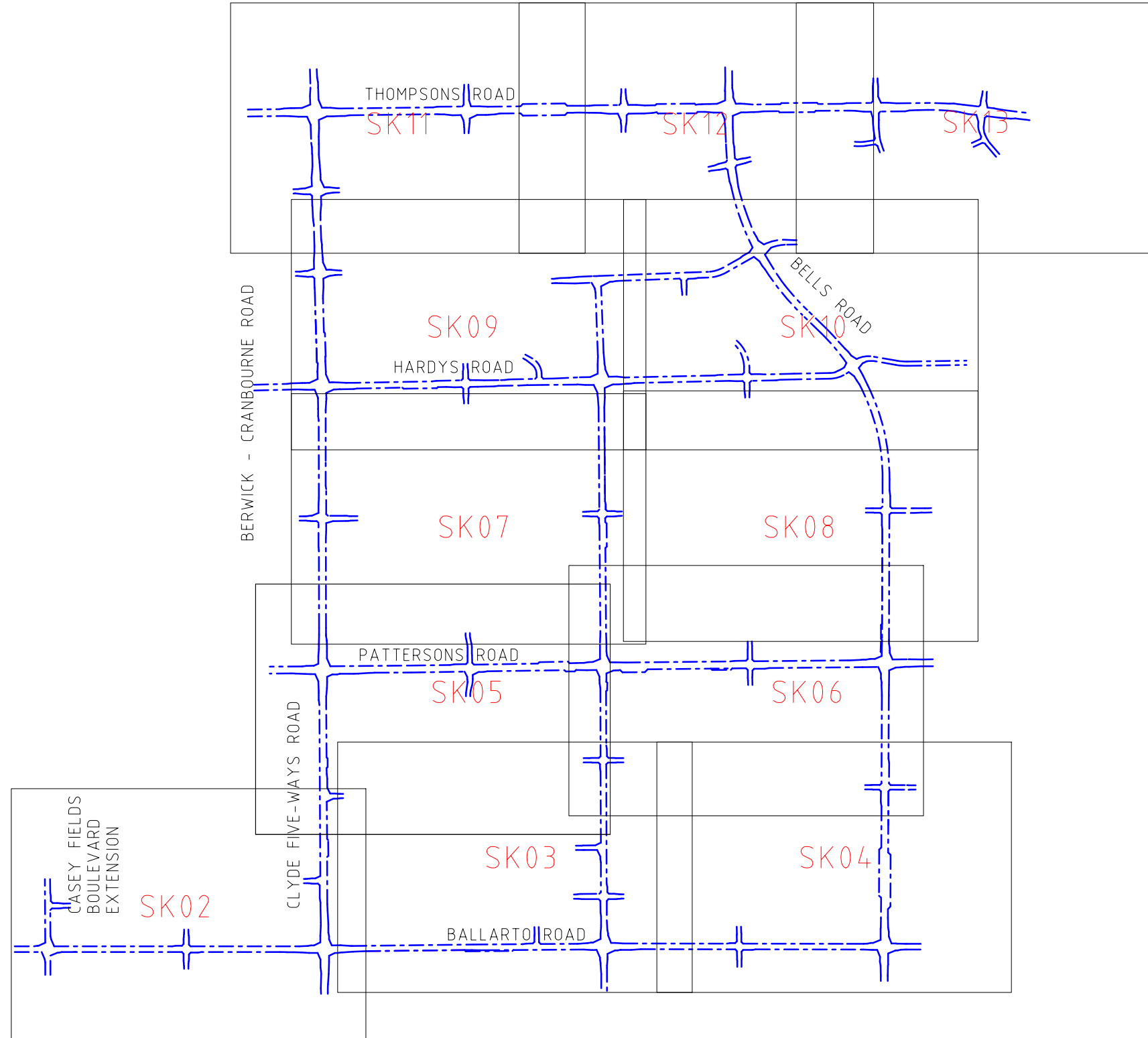
PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY FACILITIES					SERVICE OPEN SPACE						CREDITED OPEN SPACE			OTHER OPEN SPACE		OTHER		TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		PAO TOTALS	ARTERIAL ROADS / WIDENINGS TOTALS	DCP FLARING FOR INTERSECTIONS TOTALS	EXISTING ROAD RESERVES	TREE RESERVE	RAILWAY CORRIDOR / EASEMENT	DCP COMMUNITY FACILITIES	DCP INDOOR RECREATION FACILITIES	POTENTIAL GOVERNMENT EDUCATION	EXISTING GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY CORRIDOR/ WETLAND / RETARDING	DESALINATION PIPE EASEMENT (+ GAP BETWEEN EASEMENT AND ROAD)	HERITAGE (POST CONTRACT)	HERITAGE (ABORIGINAL)	CONSERVATION (EPBC CATEGORY 1)	LOCAL SPORTSFIELDS	LOCAL PARKS		EXISTING LOCAL SPORTFIELDS	REGIONAL SPORTFIELDS	EXISTING CLYDE TOWNSHIP RZ1 AREA	SUBSTATION				
																				LOCAL PARKS - RESIDENTIAL	LOCAL PARKS -EMPLOYMENT								
54-1	8.39	0.87	0.26	0.15	0.00			0.00	0.00									0.00							7.11	7.11		84.76%	
54-2	8.49	0.00	0.30	0.00	0.00			0.00	0.00									0.00	1.20						7.00	7.00		82.40%	
54-3	8.51	0.00	0.39	0.00	0.00			0.00	0.00				1.57					0.00							6.55	6.55		77.01%	
54-4	7.64	0.00	0.21	0.00	0.00			0.00	0.00				2.03					0.00	1.17						4.22	4.22		55.34%	
54-5	0.86	0.00	0.15	0.01	0.00			0.00	0.00									0.00							0.70	0.70		81.47%	
54-6	18.26	0.00	0.60	0.11	0.00			0.00	0.00				2.99					0.00	0.99						13.57	13.57		74.32%	
54-7	16.13	0.00	0.54	0.17	0.00			0.00	0.00									0.00							15.42	15.42		95.58%	
54-8	0.40	0.08	0.00	0.00	0.00			0.00	0.00									0.00							0.32	0.32		79.76%	
54-9	0.62	0.12	0.00	0.00	0.00			0.00	0.00									0.00							0.50	0.50		80.09%	
54-10	8.81	0.09	0.00	0.00	0.00			0.00	0.00									0.00							8.72	8.72		99.00%	
54-11	7.43	0.13	0.00	0.06	0.00			0.00	0.00									0.00							7.25	7.25		97.53%	
54-12	0.61	0.12	0.00	0.02	0.00			0.00	0.00									0.00							0.46	0.46		76.44%	
54-13	0.61	0.12	0.00	0.06	0.00			0.00	0.00									0.00							0.43	0.43		70.12%	
54-14	0.60	0.12	0.00	0.05	0.00			0.00	0.00									0.00							0.43	0.43		70.78%	
54-15	14.55	0.01	0.00	0.00	0.00			0.00	0.00									0.00	0.50						14.04	14.04		96.46%	
54-16	34.60	0.00	0.00	0.07	0.00			0.00	0.00				5.48					1.95	0.50						26.59	26.59		76.86%	
54-17	33.56	0.00	1.48	0.24	0.00			0.00	0.00									0.00	1.84						30.00	30.00		89.42%	
54-18	34.07	0.00	0.53	0.01	0.00			0.00	0.00	3.45								0.23	1.79						28.06	28.06		82.36%	
54-19	1.00	0.00	0.13	0.00	0.00			0.00	0.00									0.00							0.87	0.87		87.20%	
54-20	97.65	0.00	4.19	0.26	0.00	0.47		0.00	0.00	4.91		3.50		0.67		0.32		0.38	4.35						78.60	78.60		80.49%	
54-21	0.20	0.05	0.00	0.01	0.00			0.00	0.00									0.00							0.14	0.14		69.99%	
54-22	65.88	1.47	0.00	0.19	0.00			0.00	0.00									0.00	4.07						60.15	60.15		91.30%	
54-23	0.68	0.20	0.00	0.04	0.00			0.00	0.00									0.00							0.44	0.44		64.95%	
54-24	1.00	0.00	0.00	0.02	0.00			0.00	0.00									0.00							0.98	0.98		98.00%	
54-25	69.29	0.00	0.16	0.16	0.00			0.70	0.00	3.50				9.31				7.13	1.27						47.07	47.07		67.93%	
54-26	51.34	0.00	1.14	0.10	0.00			0.00	0.00									0.00	1.60						48.50	48.50		94.46%	
54-27	17.43	0.00	0.00	0.00	0.00			0.00	0.00									6.90							10.53	10.53		60.43%	
54-28	69.89	0.00	1.60	0.15	0.00			0.70	0.00	3.50				1.65				5.52	1.72						55.06	55.06		78.78%	
54-29	1.00	0.00	0.00	0.04	0.00			0.00	0.00									0.00							0.96	0.96		95.71%	
54-30	1.00	0.00	0.00	0.00	0.00			0.00	0.00									0.00							1.00	1.00		100.00%	
54-31	4.05	0.40	0.32	0.19	0.00			0.00	0.00									0.00			3.13				0.01	0.01		0.36%	
54-32	31.93	0.99	0.50	0.15	0.00			0.70	0.00	3.50								10.32			0.13				15.63	15.63		48.96%	
54-33	1.00	0.24	0.00	0.02	0.00			0.00	0.00									0.00							0.74	0.74		73.65%	
54-34	28.43	0.00	0.75	0.00	0.00			0.00	0.00									0.00	2.27						25.41	25.41		89.39%	
54-35	66.49	0.00	2.59	0.27	0.00			0.00	0.00					9.98				5.19	0.93						47.53	47.53		71.48%	
54-36	64.74	0.00	3.06	0.15	0.00			0.00	0.00					9.02		0.90		2.53	0.00	2.15					46.92	46.92		72.48%	
54-37	36.21	0.00	0.90	0.05	0.00			0.00	0.00					2.12				9.86	0.00						23.28	23.28		64.28%	
54-38	33.90	0.00	0.83	0.14	0.00			0.00	0.00					1.85				0.00	1.00						30.08	30.08		88.73%	

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY FACILITIES					SERVICE OPEN SPACE						CREDITED OPEN SPACE		OTHER OPEN SPACE		OTHER		TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY	
		PAO TOTALS	ARTERIAL ROADS / WIDENINGS TOTALS	DCP FLARING FOR INTERSECTIONS TOTALS	EXISTING ROAD RESERVES	TREE RESERVE	RAILWAY CORRIDOR / EASEMENT	DCP COMMUNITY FACILITIES	DCP INDOOR RECREATION FACILITIES	POTENTIAL GOVERNMENT EDUCATION	EXISTING GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY CORRIDOR/WETLAND / RETARDING	DESALINATION PIPE EASEMENT (+ GAP BETWEEN EASEMENT AND ROAD)	HERITAGE (POST CONTRACT)	HERITAGE (ABORIGINAL)	CONSERVATION (EPBC CATEGORY 1)	LOCAL SPORTSFIELDS	LOCAL PARKS		EXISTING LOCAL SPORTFIELDS	REGIONAL SPORTSFIELDS	EXISTING CLYDE TOWNSHIP RZ1 AREA					SUBSTATION
																				LOCAL PARKS - RESIDENTIAL	LOCAL PARKS -EMPLOYMENT								
54-39	35.07	0.16	0.00	0.00	0.00			0.94	6.06					2.78				0.00	1.75						23.37	23.37		66.64%	
54-40	0.65	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.65	0.65		100.00%	
54-41	1.11	0.00	0.00	0.00	0.00			0.00	0.00									0.00							1.11	1.11		100.00%	
54-42	35.24	0.00	0.00	0.10	0.00			0.55	0.00	8.40				2.72		1.65		3.18	0.63						18.01	18.01		51.11%	
54-43	26.12	0.00	0.00	0.06	0.00			0.00	0.00									0.00	0.69						25.36	25.36		97.10%	
54-44	0.12	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.12	0.12		100.00%	
54-45	0.08	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.08	0.08		100.00%	
54-46	2.03	0.00	0.00	0.00	0.00			0.00	0.00									0.00							2.03	2.03		100.00%	
54-47	2.00	0.00	0.00	0.09	0.00			0.00	0.00									0.00							1.90	1.90		95.37%	
54-48	2.01	0.00	0.00	0.01	0.00			0.00	0.00									0.00							2.00	2.00		99.35%	
54-49	1.00	0.00	0.00	0.01	0.00			0.00	0.00									0.00							0.99	0.99		99.30%	
54-50	0.96	0.00	0.00	0.12	0.00			0.00	0.00									0.00							0.84	0.84		87.06%	
54-51	69.19	0.00	1.06	0.23	0.00			0.70	0.00	0.58				4.23		0.38		0.01	2.47	2.19					57.33	57.33		82.87%	
54-52	5.42	0.00	0.00	0.00	0.00			0.00	0.00					1.40				3.59	0.00						0.43	0.43		7.89%	
54-53	15.48	0.00	0.34	0.00	0.00			0.00	0.00					2.96				4.39	0.00						7.78	7.78		50.30%	
54-54	46.76	0.00	0.00	0.13	0.00			0.00	0.00	2.92								1.77	8.33	1.00					32.61	32.61		69.73%	
54-55	8.34	0.99	0.00	0.03	0.00			0.70	0.00		1.80			1.19				0.00							3.63	3.63		43.48%	
54-56	1.64	0.00	0.00	0.00	0.00			0.00	0.00							1.64		0.00							0.00	0.00		0.00%	
54-57	0.22	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.22	0.22		100.00%	
54-58	0.33	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.33	0.33		100.00%	
54-59	2.93	0.22	0.00	0.16	0.00			0.00	0.00									0.00	0.30						2.24	2.24		76.50%	
54-60	0.04	0.00	0.00	0.00	0.00			0.00	0.00									0.00							0.04	0.04		100.00%	
54-61	6.38	0.00	0.00	0.00	0.00			0.00	0.00									0.00					6.38		0.00	0.00		0.00%	
SUB-TOTAL	1110.36	6.39	22.03	3.85	0.00	0.47	0.00	4.99	6.06	30.76	1.80	3.50	0.00	61.95	0.00	4.89	0.00	22.16	51.60	33.91	0.00	3.26	0.00	6.38	0.00	846.37	846.37	0.00	76.22%
Road Reserve																													
Hardys Road	6.48	0.00	0.00	0.00	6.48			0.00	0.00									0.00							0.00	0.00		0.00%	
Clyde Five Ways Road	6.58	0.00	0.00	0.00	6.58			0.00	0.00									0.00							0.00	0.00		0.00%	
Tuckers Road	7.11	0.00	0.00	0.00	7.11			0.00	0.00									0.00							0.00	0.00		0.00%	
Pattersons Road	6.55	0.00	0.00	0.00	6.55			0.00	0.00									0.00							0.00	0.00		0.00%	
BELLS Road	3.63	0.00	0.00	0.00	2.41			0.00	0.00									0.00							1.22	1.22		33.71%	
Railway Road	2.15	0.00	0.00	0.00	2.15			0.00	0.00									0.00							0.00	0.00		0.00%	
Valetta Road	0.79	0.00	0.00	0.00	0.79			0.00	0.00									0.00							0.00	0.00		0.00%	
Oroya Grove	0.63	0.00	0.00	0.01	0.61			0.00	0.00									0.00							0.00	0.00		0.00%	
Pound Road	1.52	0.00	0.00	0.00	0.00	0.18		0.00	0.00					0.11				0.00							1.23	1.23		80.56%	
Rail Corridor	5.76	0.00	0.00	0.00	0.00		5.76	0.00	0.00									0.00							0.00	0.00		0.00%	
Twyford Road	2.35	0.00	0.00	0.00	0.13			0.00	0.00					0.39				0.00							1.83	1.83		77.85%	
SUB-TOTAL	43.54	0.00	0.00	0.01	32.83	0.18	5.76	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	4.28	0.00	9.82%	
TOTALS PSP 1054	1153.90	6.39	22.03	3.86	32.81	0.66	5.76	4.99	6.06	30.76	1.80	3.50	0.00	62.45	0.00	4.89	0.00	22.16	51.60	33.91	0.00	3.26	0.00	6.38	0.00	850.65	850.65	0.00	73.72%

PSP 57.1- Casey Fields South

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY FACILITIES					SERVICE OPEN SPACE						CREDITED OPEN SPACE		OTHER OPEN SPACE		OTHER		TOTAL NET DEVELOPABLE AREA (HECTARES)	TOTAL NET DEVELOPABLE AREA RESIDENTIAL (HECTARES)	TOTAL NET DEVELOPABLE AREA EMPLOYMENT(HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY	
		PAO TOTALS	ARTERIAL ROADS / WIDENINGS TOTALS	DCP FLARING FOR INTERSECTIONS TOTALS	EXISTING ROAD RESERVES	TREE RESERVE	RAILWAY CORRIDOR / EASEMENT	DCP COMMUNITY FACILITIES	DCP INDOOR RECREATION FACILITIES	POTENTIAL GOVERNMENT EDUCATION	EXISTING GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	POWER / GAS EASEMENT	WATERWAY CORRIDOR/WETLAND / RETARDING	DESALINATION PIPE EASEMENT (+ GAP BETWEEN EASEMENT AND ROAD)	HERITAGE (POST CONTRACT)	HERITAGE (ABORIGINAL)	CONSERVATION (EPBC CATEGORY 1)	LOCAL SPORTSFIELDS	LOCAL PARKS		EXISTING LOCAL SPORTFIELDS	REGIONAL SPORTSFIELDS	EXISTING CLYDE TOWNSHIP RZ1 AREA					SUBSTATION
																				LOCAL PARKS -RESIDENTAL	LOCAL PARKS -EMPLOYMENT								
57-1	11.96	0.00	1.96	0.13	0.00			0.00	0.00									0.00				3.17			6.70	6.70		84.76%	
57-2	11.94	0.00	0.00	0.00	0.00			0.00	0.00									0.00	0.40			3.87			7.67	7.67		82.40%	
57-3	9.71	0.00	0.00	0.00	0.00			0.00	0.00									0.00	0.34						9.37	9.37		77.01%	
57-4	9.61	0.00	0.00	0.04	0.00			0.00	0.00									0.00	0.04						9.53	9.53		55.34%	
57-5	24.39	0.00	0.00	0.03	0.00			0.00	0.00					3.28				0.00	0.53						20.55	20.55		81.47%	
57-6	40.47	0.00	0.00	0.19	0.00			0.00	0.00		0.00			1.32				0.00	2.36						36.60	36.60		74.32%	
57-7	1.09	0.00	0.00	0.00	0.00			0.00	0.00									0.00							1.09	1.09		95.58%	
rail corridor	0.89	0.00	0.00	0.00	0.00		0.89	0.00	0.00									0.00							0.00	0.00		79.76%	
TOTALS PSP 1057.1	110.06	0.00	1.96	0.39	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	4.60	0.00	0.00	0.00	0.00	3.67	0.00	0.00	7.04	0.00	0.00	91.52	91.52	0.00	83.15%	
TOTALS ALL PRECINCTS	1959.29	9.98	43.38	8.91	44.97	2.42	6.65	8.13	7.66	37.78	1.80	3.50	55.85	102.30	7.02	4.89	0.00	22.16	77.53	54.67	1.77	3.26	7.04	6.38	0.95	1440.31	1344.72	95.60	73.51%

7.3 Ultimate land takes for road and intersections



VICROADS PAO
APPROX. 1145 SQM

CLYDE - FIVE WAYS ROAD

(4.1m ROAD RESERVE)

APPROX.
450 SQM

IN-57.1-01

92.7

APPROX.
585 SQM

100.0

115.9

VICROADS PAO
APPROX. 9925 SQM

APPROX.
290 SQM
APPROX.
120 SQM

APPROX.
885 SQM

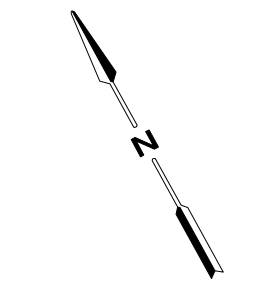
IN-54-15

139.6

VICROADS PAO
APPROX. 465 SQM
VICROADS PAO
APPROX. 2220 SQM
APPROX.
1625 SQM

APPROX.
2195 SQM
APPROX.
2000 SQM
APPROX.
3755 SQM

APPROX.
1110 SQM



BALLARTO ROAD

(34m ROAD RESERVE)

APPROX.
265 SQM

IN-57.1-02

89.2

76.4

APPROX.
895 SQM

APPROX.
350 SQM

APPROX.
2450 SQM

94.6

APPROX.
425 SQM

71.2

APPROX.
430 SQM

APPROX.
1880 SQM

APPROX.
1110 SQM

655.3

APPROX.
2470 SQM

APPROX.
1040 SQM

APPROX.
2400 SQM

APPROX.
1295 SQM

APPROX.
570 SQM

64.6

57.1

APPROX.
815 SQM

APPROX.
550 SQM

61.0

APPROX.
525 SQM

APPROX.
1895 SQM

APPROX.
3340 SQM

59.7

APPROX.
290 SQM

85.4

IN-57.1-03

APPROX.
4610 SQM

64.0

APPROX.
450 SQM

478.6

APPROX.
9755 SQM

APPROX.
2085 SQM

APPROX.
3685 SQM

CASEY FIELDS BOULEVARD EXTENSION

(34m ROAD RESERVE)

CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

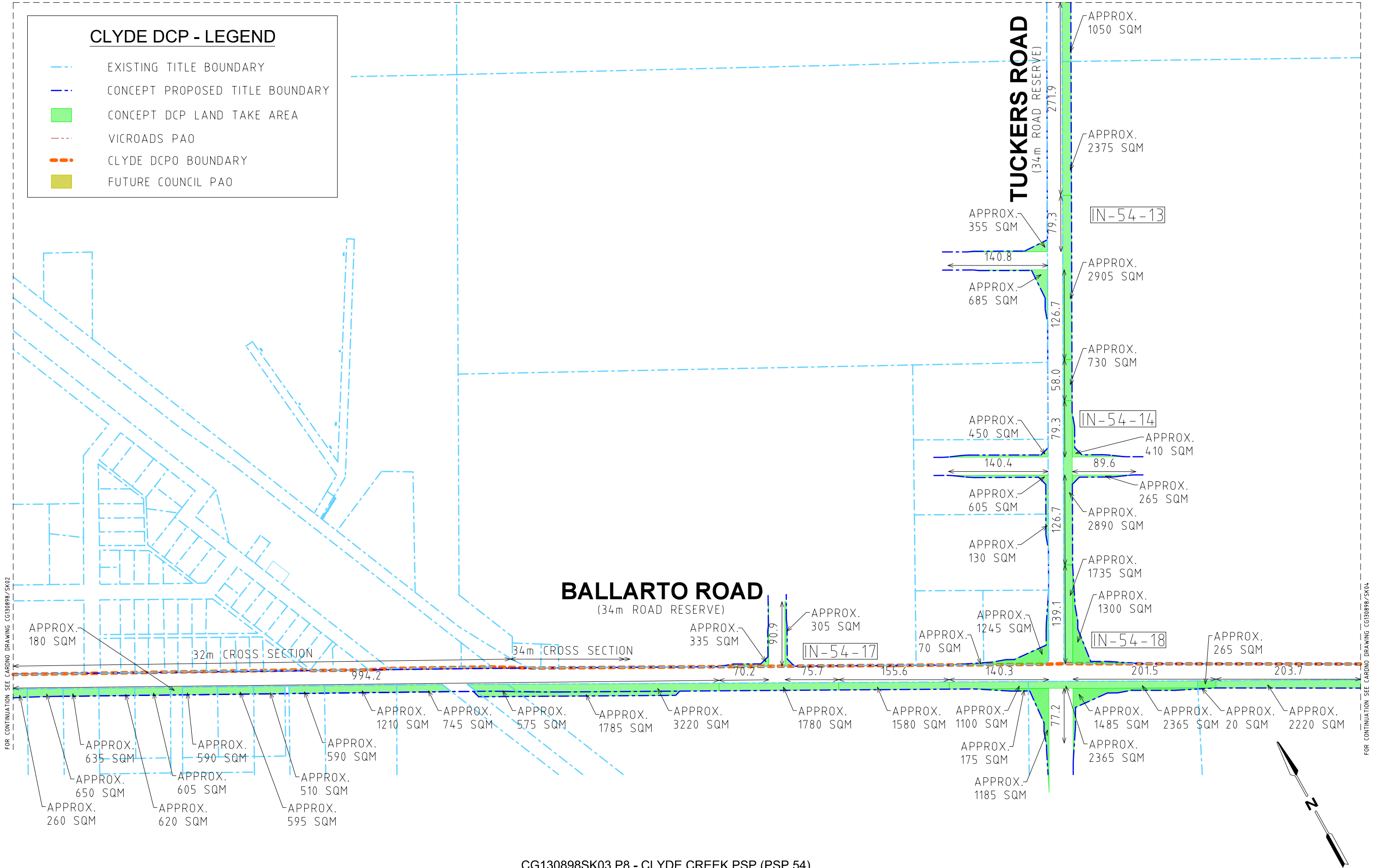
CG130898SK02 P11 - CASEY FIELDS SOUTH PSP (PSP 57.1)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

SCALE - 1:5000 @ A3 DATE - 02.06.15

FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK06

CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

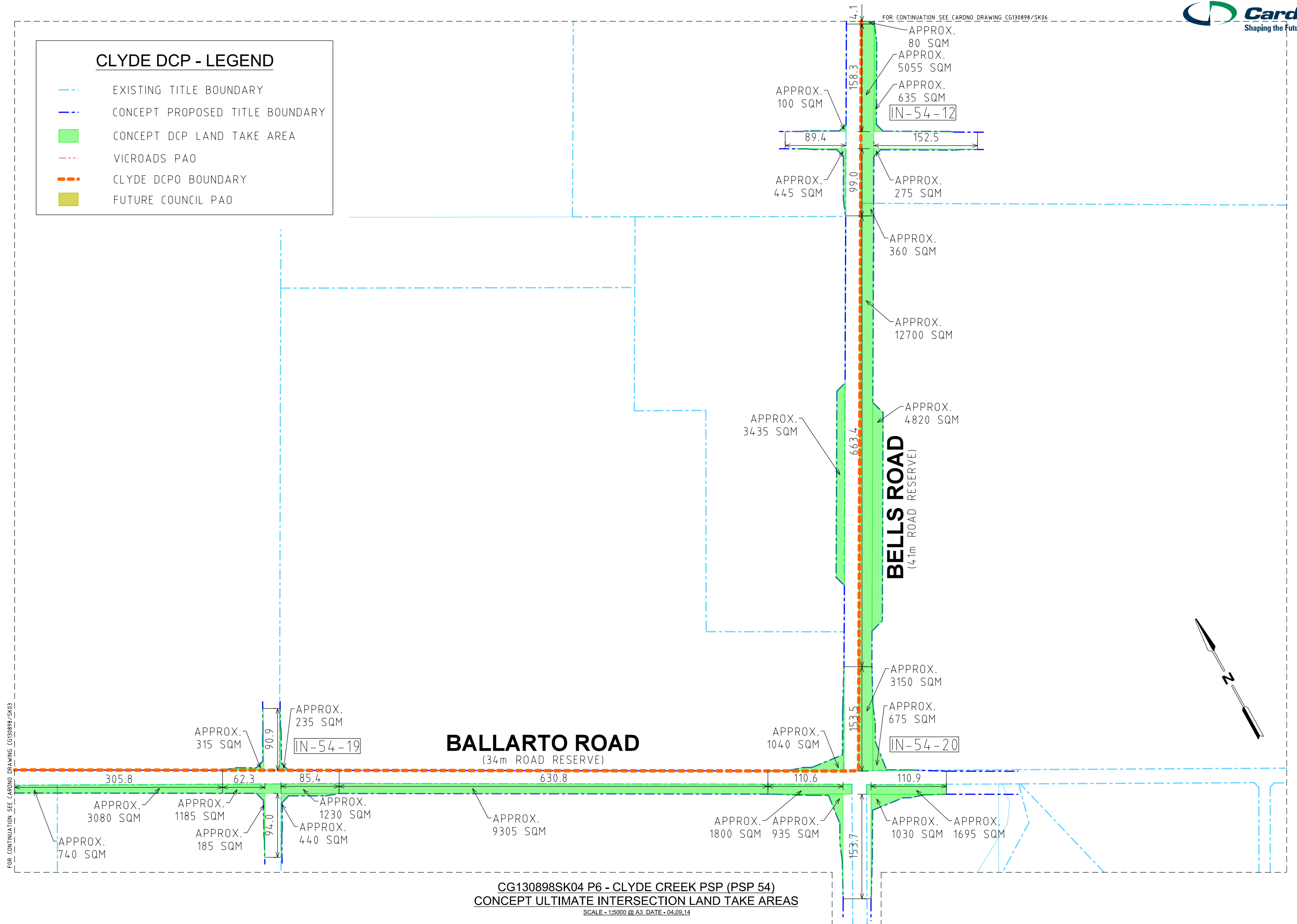


CG130898SK03 P8 - CLYDE CREEK PSP (PSP 54)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

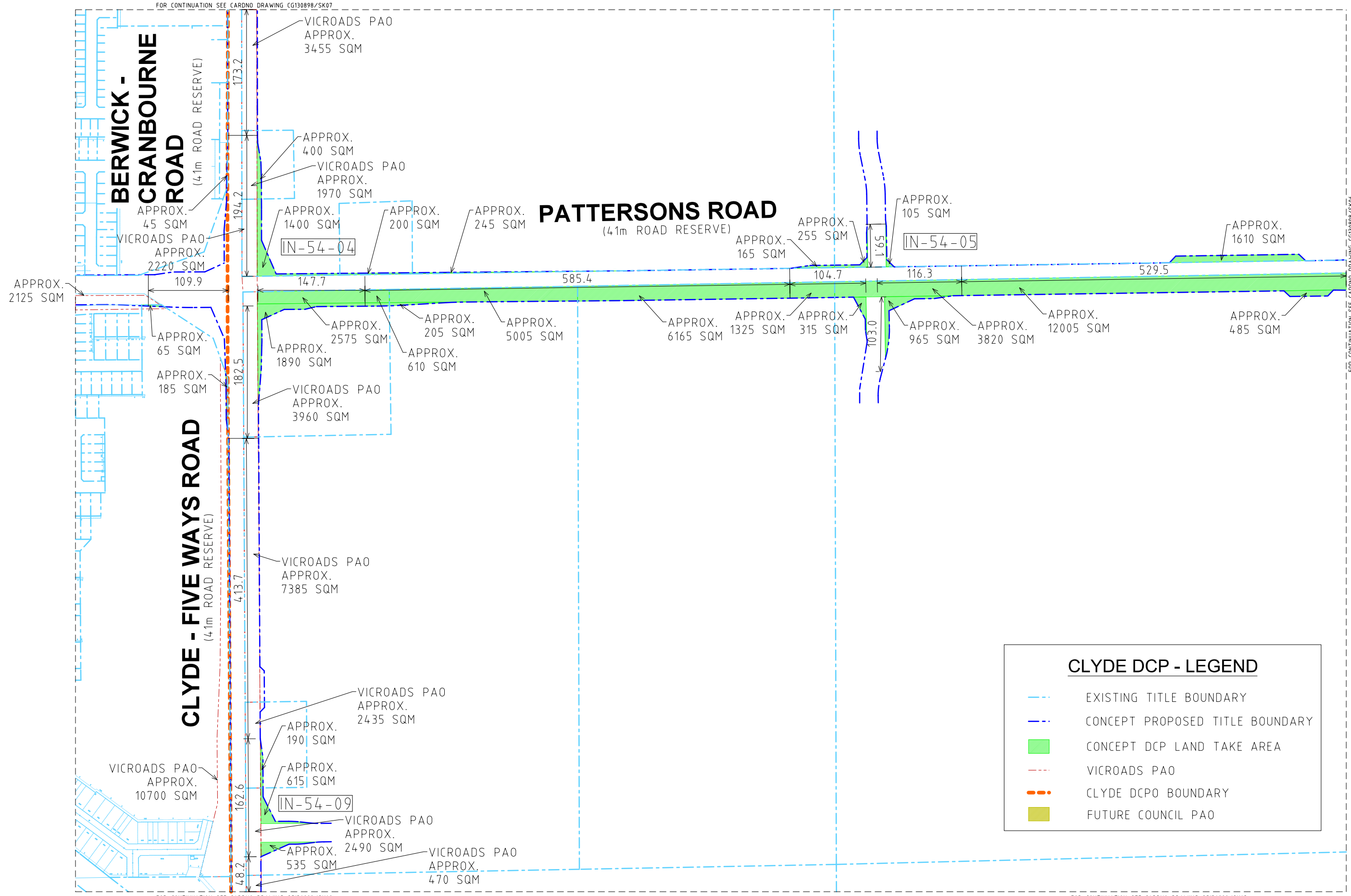
SCALE - 1:5000 @ A3 DATE - 07.04.15

CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO



FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK07



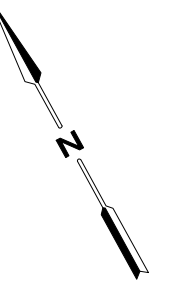
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FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK02

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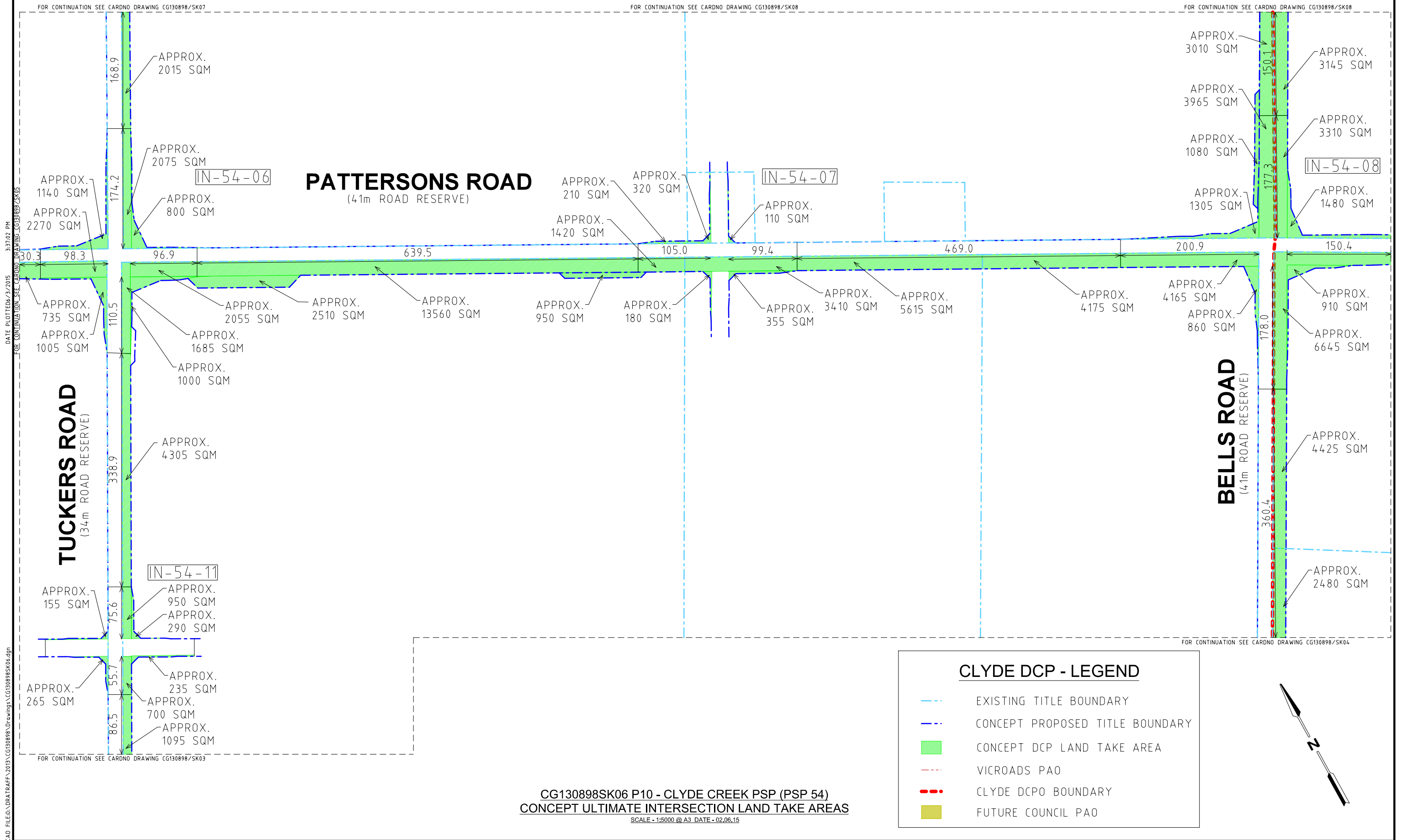
CG130898SK05 P13 - CLYDE CREEK PSP (PSP 54)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

SCALE - 1:5000 @ A3 DATE - 03.06.15



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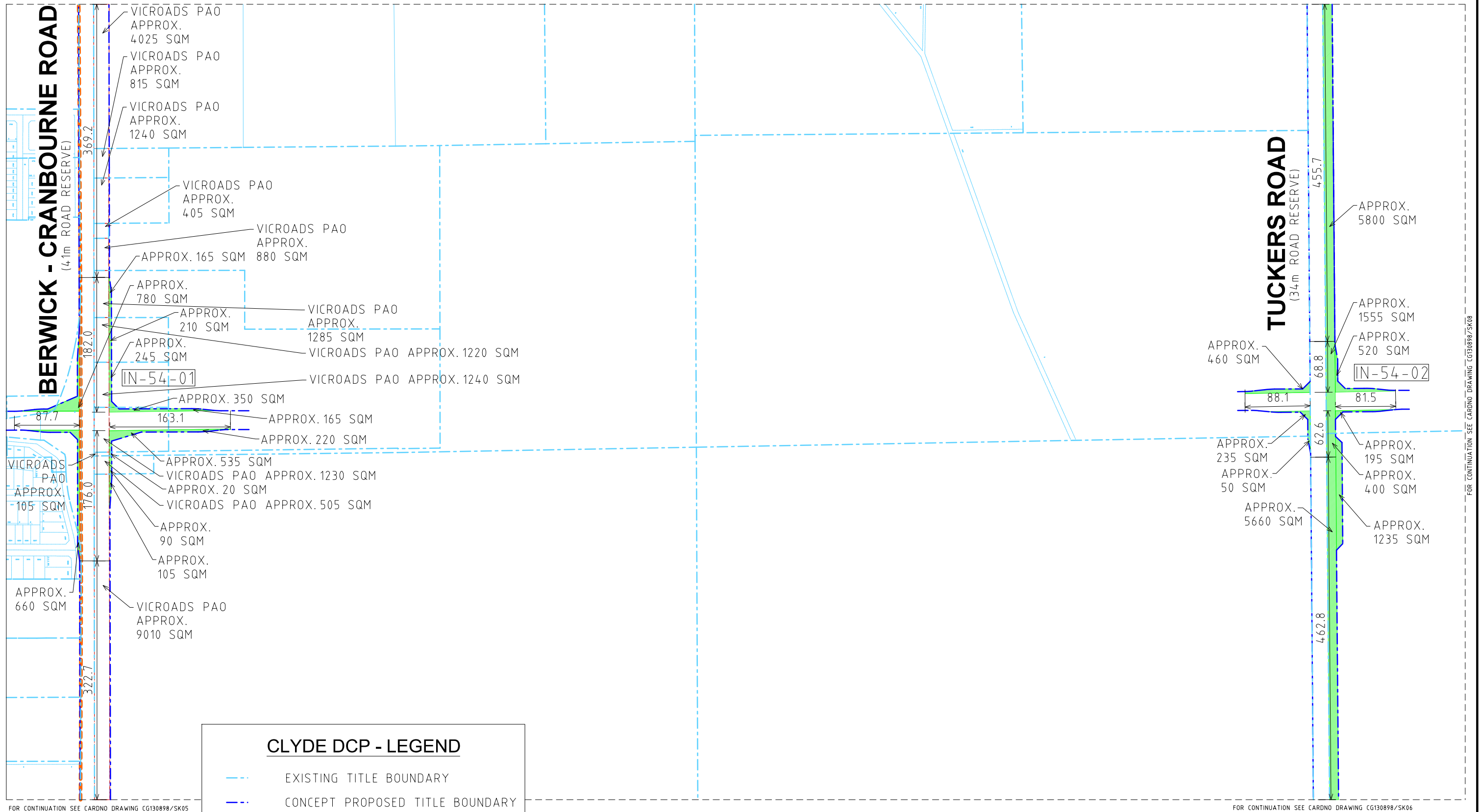
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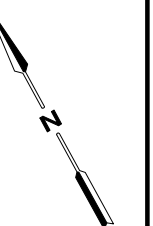
CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

CG130898SK07 P11 - CLYDE CREEK PSP (PSP 54)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

SCALE - 1:5000 @ A3 DATE - 16.04.15

FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK06



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FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK10

APPROX.
16465 SQM

APPROX.
6640 SQM

APPROX.
105 SQM

APPROX.
610 SQM

[N-54-03]

89.5

179.8

APPROX.
405 SQM

APPROX.
190 SQM

APPROX.
1635 SQM

APPROX.
295 SQM

APPROX.
3695 SQM

APPROX.
7760 SQM

BELLS ROAD
(41m ROAD RESERVE)

APPROX.
6265 SQM

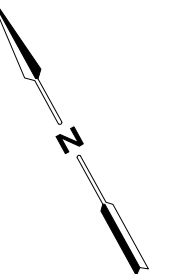
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FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK06

CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

CG130898SK08 P8 - CLYDE CREEK PSP (PSP 54)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS
SCALE - 1:5000 @ A3 DATE - 07.04.15



FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK11

FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK12

CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPD BOUNDARY
- FUTURE COUNCIL PAO

BERWICK - CRANBOURNE ROAD
(41m ROAD RESERVE)

CONNECTOR STREET
(25.5m ROAD RESERVE)

TUCKERS ROAD
(34m ROAD RESERVE)

HARDYS ROAD
(34m ROAD RESERVE)

TUCKERS ROAD
(34m ROAD RESERVE)

APPROX. 750 SQM
APPROX. 1650 SQM
IN-53-09

APPROX. 1020 SQM
APPROX. 625 SQM

APPROX. 1860 SQM
VICROADS PAO APPROX. 15665 SQM

VICROADS PAO APPROX. 1365 SQM

APPROX. 405 SQM
APPROX. 840 SQM
APPROX. 95 SQM
APPROX. 85 SQM
APPROX. 501 SQM
APPROX. 35 SQM
APPROX. 15 SQM
APPROX. 1 SQM

IN-53-12
APPROX. 800 SQM
APPROX. 260 SQM
APPROX. 1480 SQM
APPROX. 1485 SQM
VICROADS PAO APPROX. 4665 SQM

APPROX. 60 SQM
APPROX. 5 SQM
APPROX. 2920 SQM
APPROX. 2610 SQM

APPROX. 3045 SQM
APPROX. 830 SQM
APPROX. 495 SQM

APPROX. 415 SQM
APPROX. 310 SQM
APPROX. 470 SQM
APPROX. 560 SQM
APPROX. 1280 SQM
APPROX. 135 SQM
APPROX. 100 SQM
APPROX. 80 SQM
APPROX. 415 SQM
APPROX. 340 SQM

IN-53-13
APPROX. 2635 SQM
APPROX. 740 SQM
APPROX. 595 SQM

IN-53-14
APPROX. 1270 SQM

APPROX. 305 SQM
APPROX. 1425 SQM

APPROX. 1375 SQM
APPROX. 255 SQM

APPROX. 2070 SQM

APPROX. 255 SQM

APPROX. 715 SQM
APPROX. 355 SQM
APPROX. 365 SQM

APPROX. 2565 SQM
APPROX. 1700 SQM

IN-53-15
APPROX. 1560 SQM
APPROX. 2605 SQM
APPROX. 1655 SQM
APPROX. 2035 SQM

CG130898SK09 P10 - THOMPSONS ROAD PSP (PSP 53)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

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DATE PLOTTED 06/03/2015 3:37:44 PM

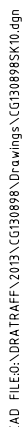
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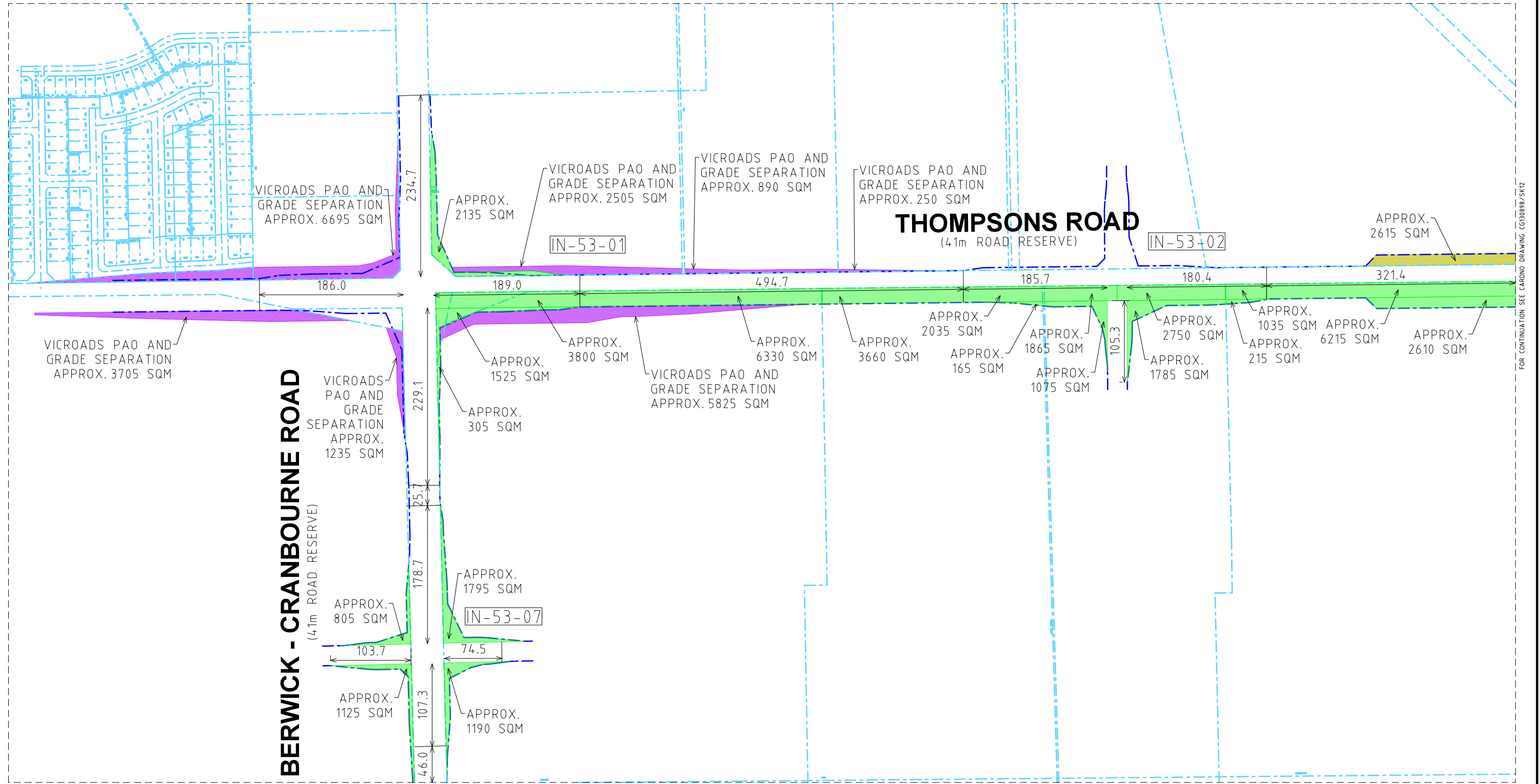
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FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK10

FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK10

FOR CONTINUATION SEE CARDNO DRAWING CG130898/SK10





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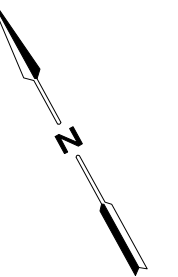
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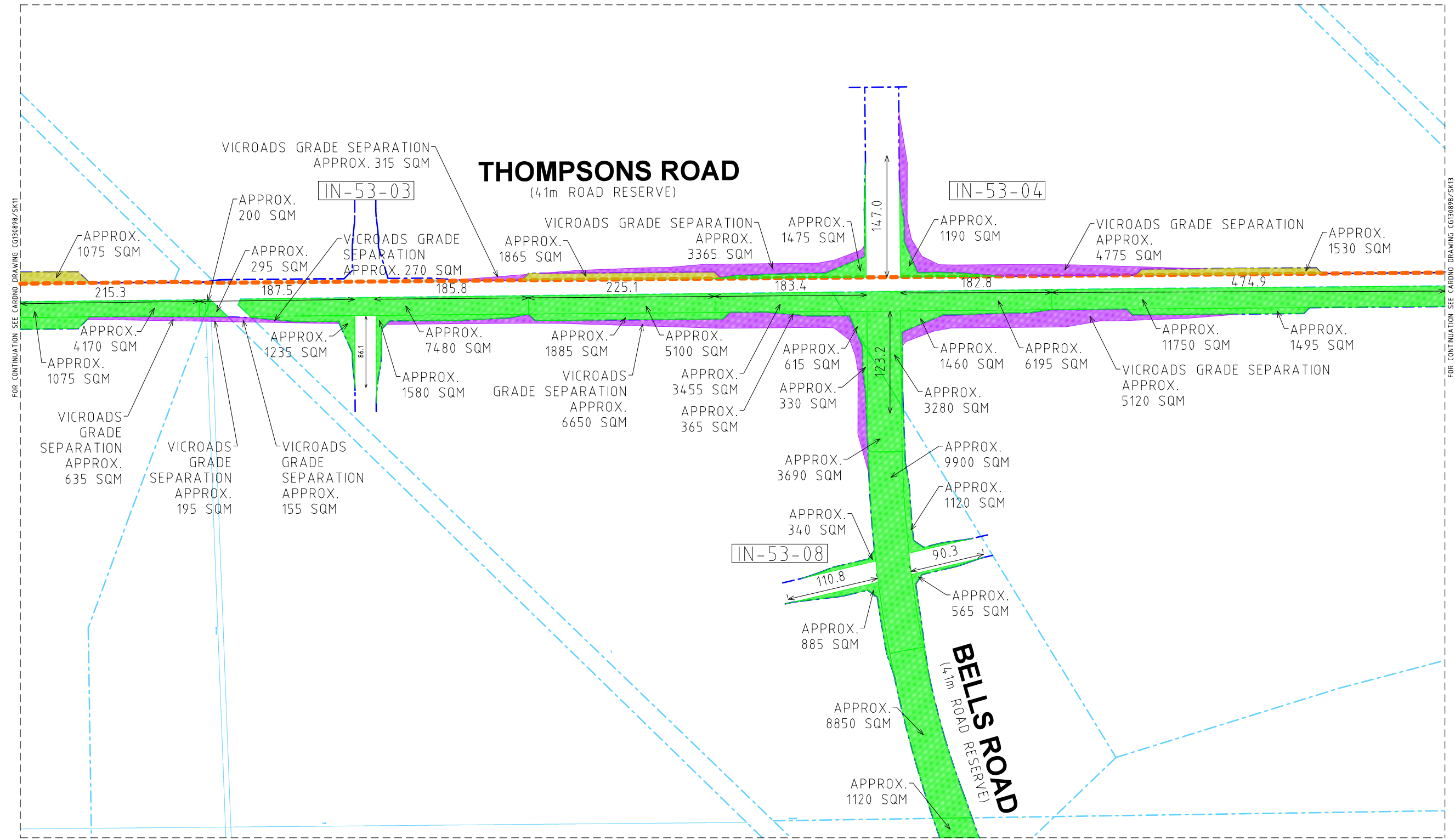
CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

CG130898SK11 P10 - THOMPSONS ROAD PSP (PSP 53)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

SCALE - 1:5000 @ A3 DATE - 02.06.15

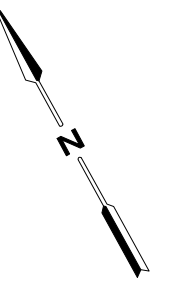


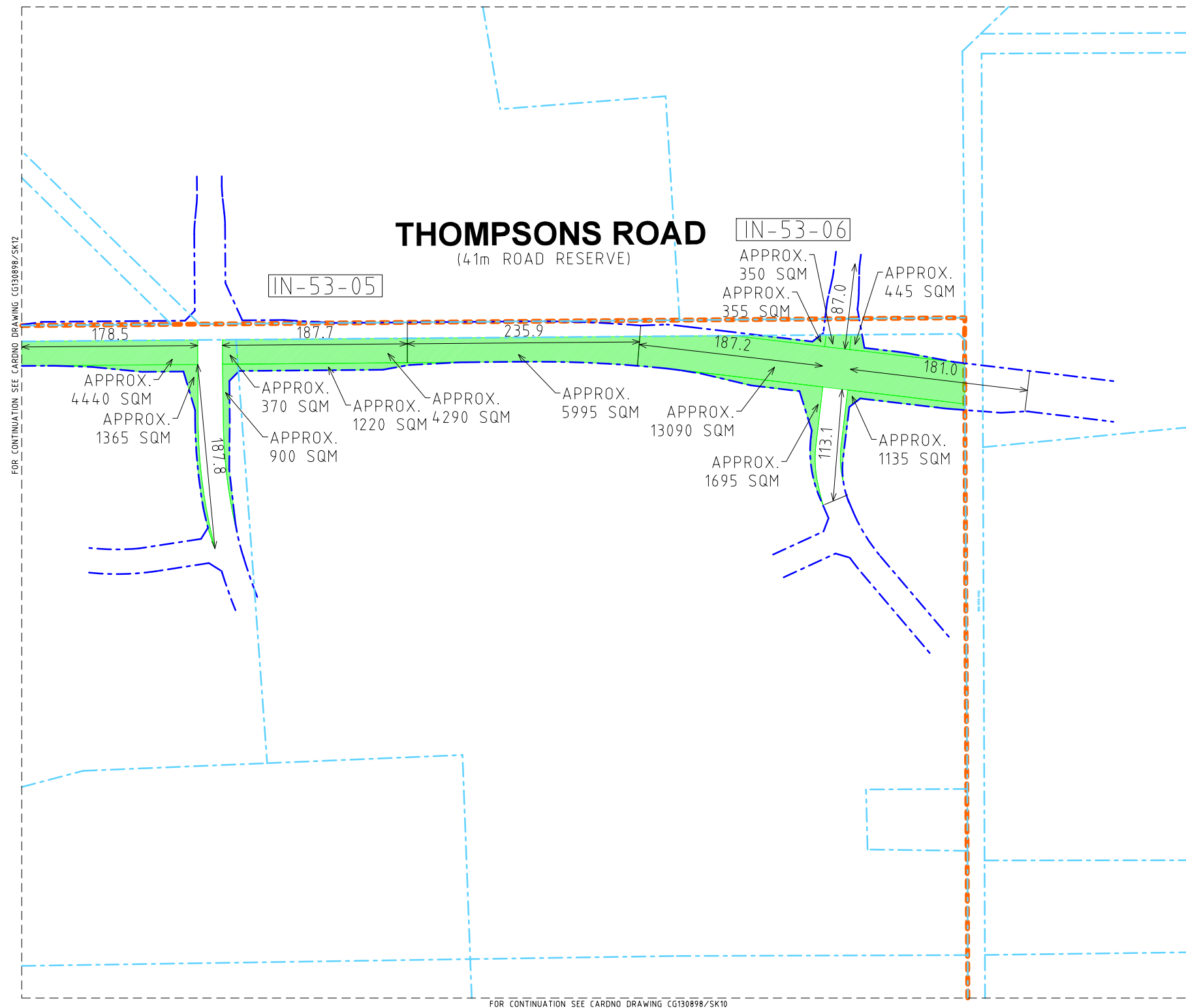


CLYDE DCP - LEGEND

- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

CG130898SK12 P10 - THOMPSONS ROAD PSP (PSP 53)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS
SCALE - 1:5000 @ A3 DATE - 03.06.15



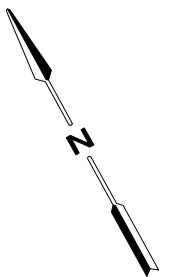


CLYDE DCP - LEGEND

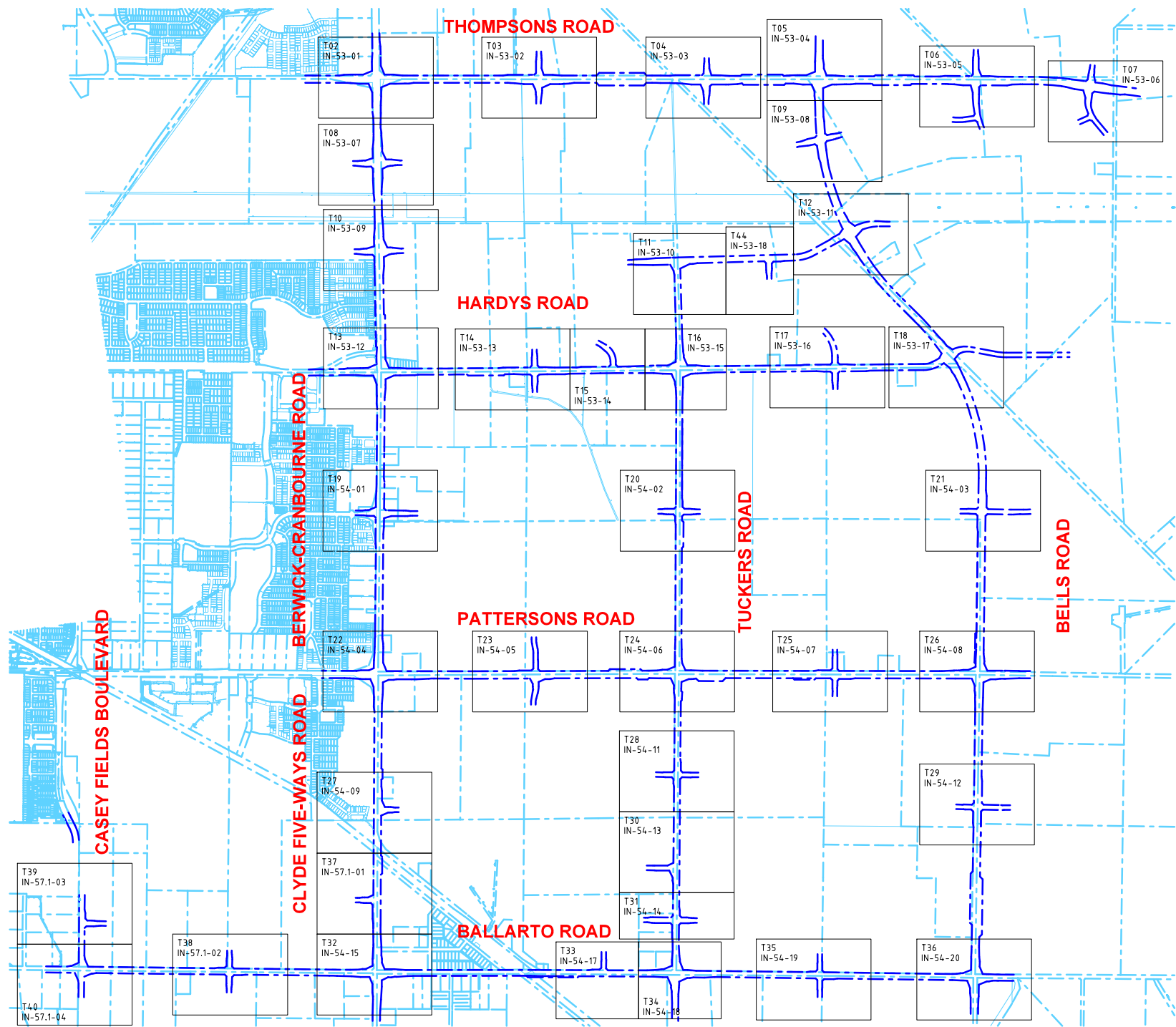
- EXISTING TITLE BOUNDARY
- CONCEPT PROPOSED TITLE BOUNDARY
- CONCEPT DCP LAND TAKE AREA
- VICROADS PAO
- CLYDE DCPO BOUNDARY
- FUTURE COUNCIL PAO

CG130898SK13 P8 - THOMPSONS ROAD PSP (PSP 53)
CONCEPT ULTIMATE INTERSECTION LAND TAKE AREAS

SCALE - 1:5000 @ A3 DATE - 29.09.14



7.4 Interim intersection designs



GENERAL NOTES

1. CROSS SECTIONS BASED ON AMENDED MPA CROSS SECTIONS AS SUPPLIED BY MPA
2. PROPOSED TITLE BOUNDARIES ARE INDICATIVE BASED ON CONCEPTUAL DESIGN
3. EXISTING OR FUTURE SERVICES HAVE NOT BEEN CONSIDERED
4. LINEMARKING IS DIAGRAMMATICA TO REPRESENT FUNCTIONALITY
5. CADASTRAL TITLE BOUNDARY INFORMATION SUPPLIED BY VICMAP

SPEED ZONES

ULTIMATE
PRIMARY ARTERIAL: 80km/h
SECONDARY ARTERIAL: 60km/h
CONNECTOR STREET: 50km/h

INTERIM
PRIMARY ARTERIAL: 60km/h
SECONDARY ARTERIAL: 60km/h
CONNECTOR STREET: 50km/h

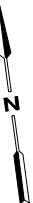
ROAD CLASSIFICATION

PRIMARY ARTERIAL
- THOMPSONS ROAD
- PATTERSONS ROAD
- BERWICK-CRANBOURNE ROAD
- CLYDE FIVE-WAYS ROAD
- BELLS ROAD

SECONDARY ARTERIAL
- HARDYS ROAD
- BALLARTO ROAD
- TUCKERS ROAD

LEGEND

- PROPOSED CONCEPT TITLE BOUNDARY
- CADASTRAL TITLE BOUNDARY
- ULTIMATE LAYOUT
- INTERIM LAYOUT



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	18.08.14	GENERAL AMENDMENTS	COB	CB
P1	04.06.14	ISSUED FOR INFORMATION	COB	RBH

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0 150 300 600
1:30000 @ A3

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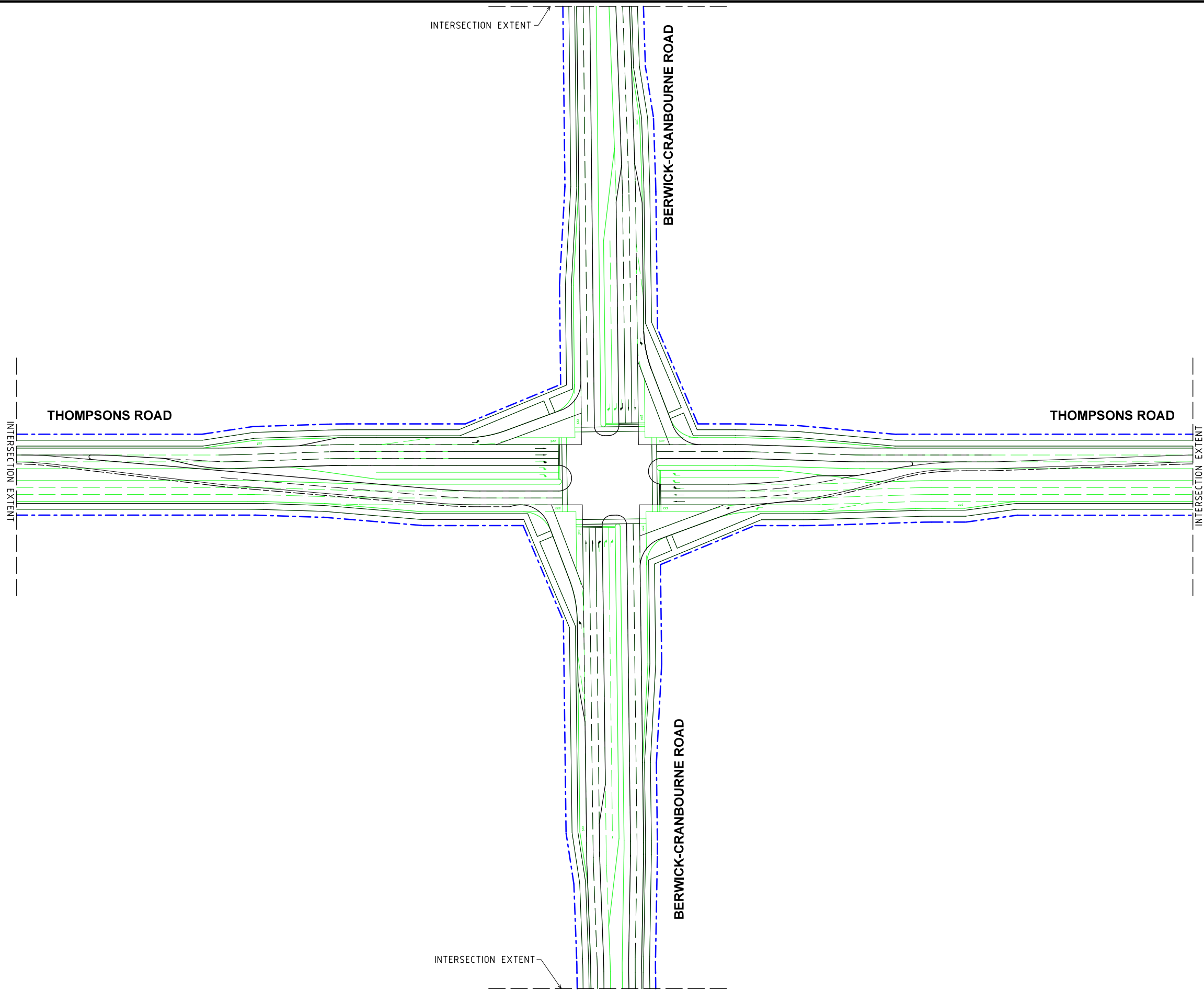
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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client **METROPOLITAN PLANNING AUTHORITY**

Project **CLYDE DCP - CLYDE PSP 53,54 AND 57.1
CLYDE**

Title **ULTIMATE AND INTERIM INTERSECTIONS
CONCEPT LAYOUT PLANS
TITLE PAGE**

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	04.06.14	Scale	30000
Project Number	CG130898	Sheet Number	T 01
		Revision	P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	06.06.14	ISSUED FOR INFORMATION	COB	RBH

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1:2000 @ A3

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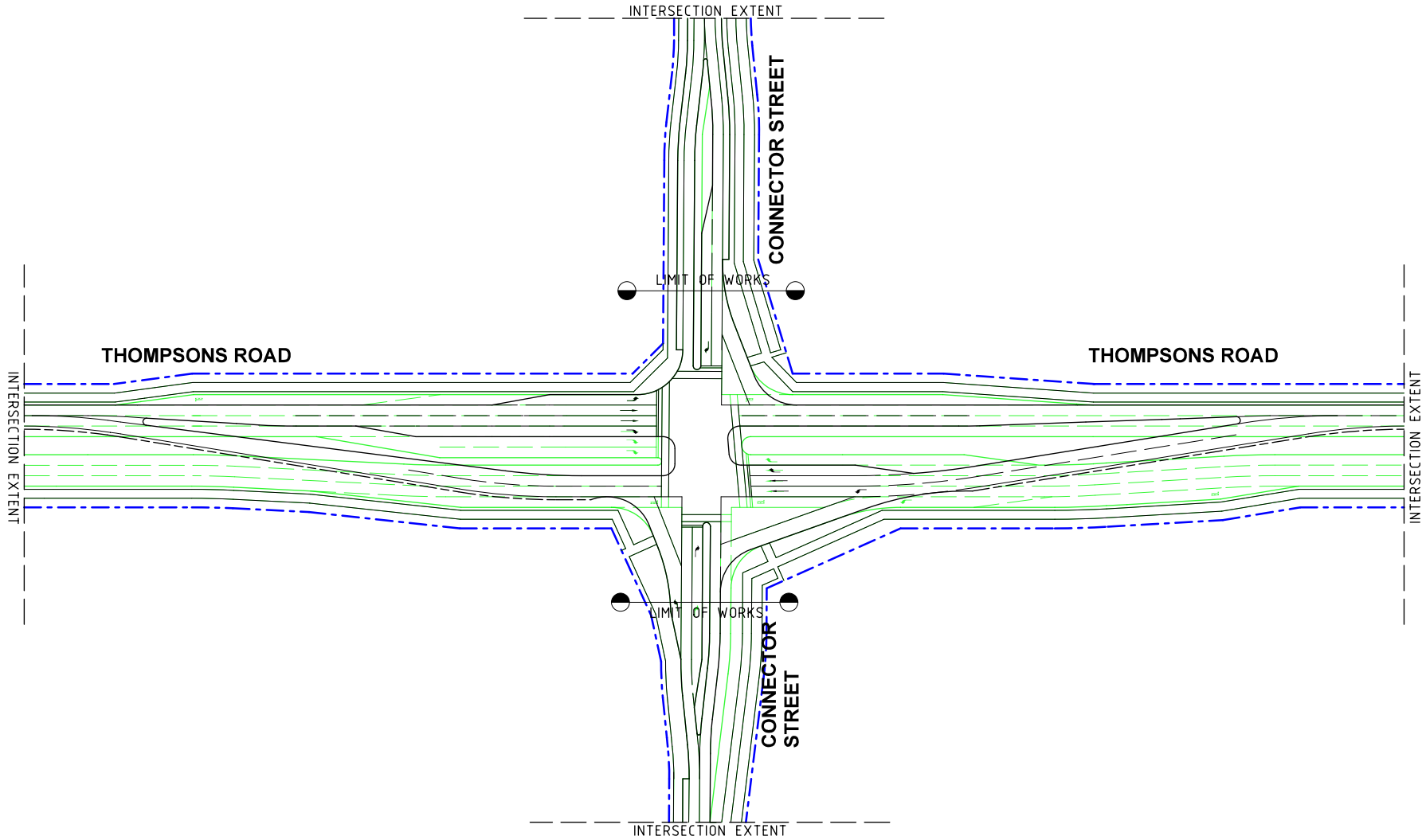
SPEED ZONES
ULTIMATE
BERWICK-CRANBOURNE ROAD: 80km/h
THOMPSONS ROAD: 80km/h
INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
THOMPSONS ROAD: 60km/h

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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client METROPOLITAN PLANNING AUTHORITY			
Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Date 06.06.14	Scale 1:2000	Size A3	
Project Number CG130898	Sheet Number T 02	Revision P3	
Title ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-01			



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	06.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
THOMPSONS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
THOMPSONS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

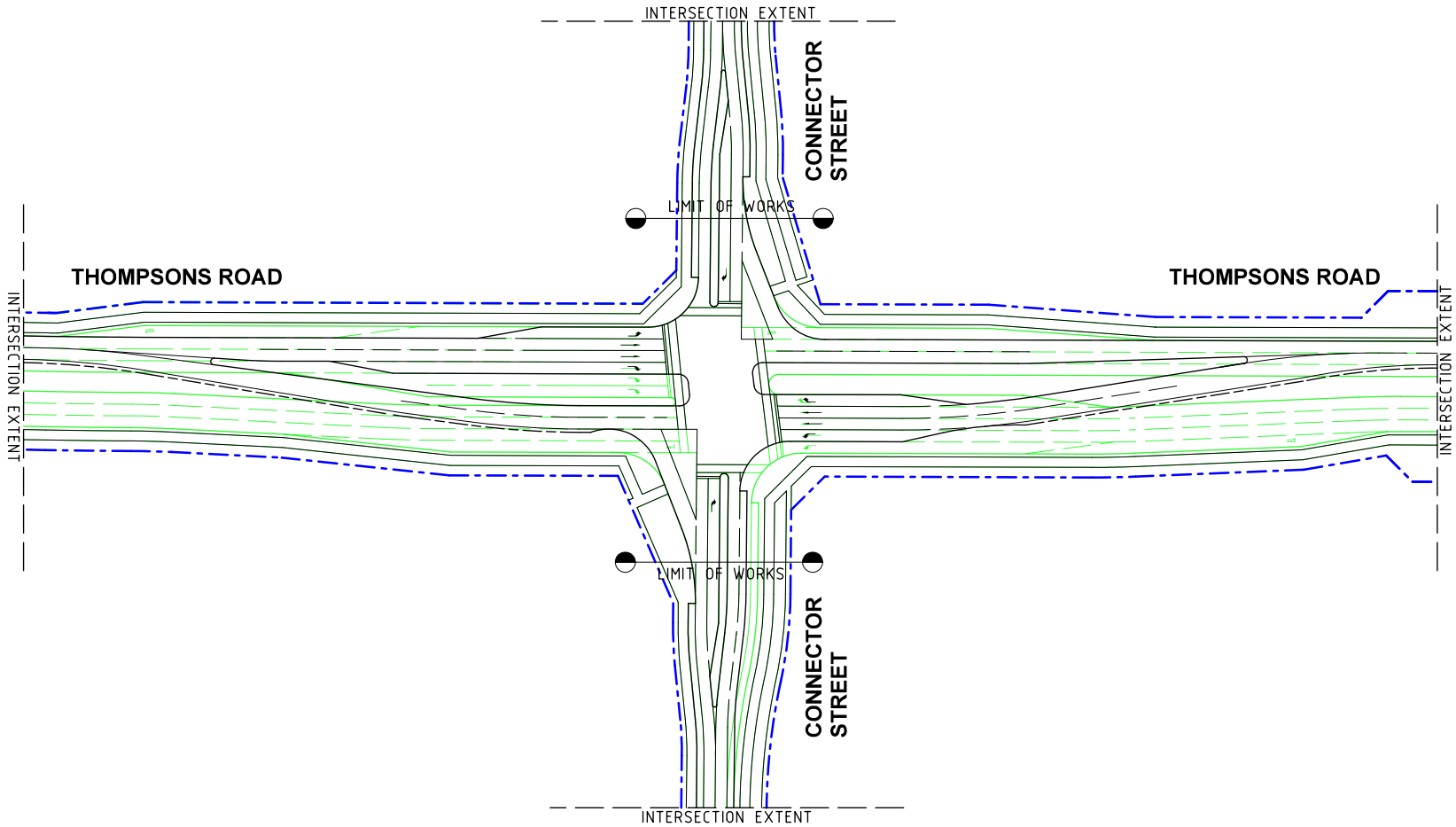


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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	06.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 03
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-02	Revision	P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	10.06.14	ISSUED FOR INFORMATION	COB	RBH

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0 10 20 40
1:2000 @ A3

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SPEED ZONES
ULTIMATE
THOMPSONS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h

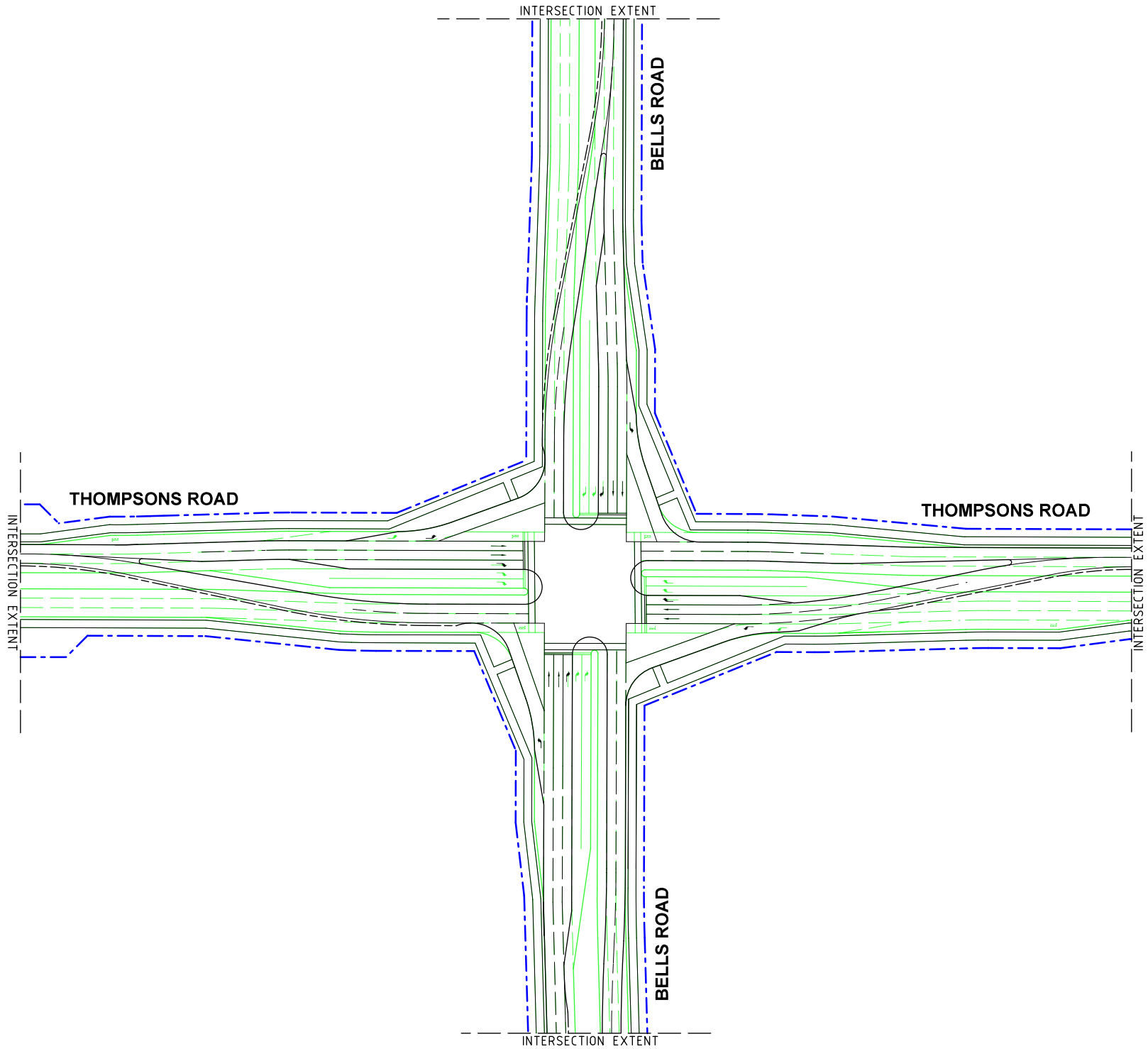
INTERIM
THOMPSONS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



Drawn	COB
Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-03		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	10.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 04
Revision			P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	10.06.14	ISSUED FOR INFORMATION	COB	RBH

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1:2000 @ A3

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SPEED ZONES
ULTIMATE
THOMPSONS ROAD: 80 km/h
BELLS ROAD: 80 km/h
INTERIM
THOMPSONS ROAD: 60 km/h
BELLS ROAD: 60 km/h



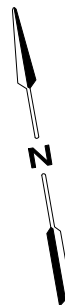
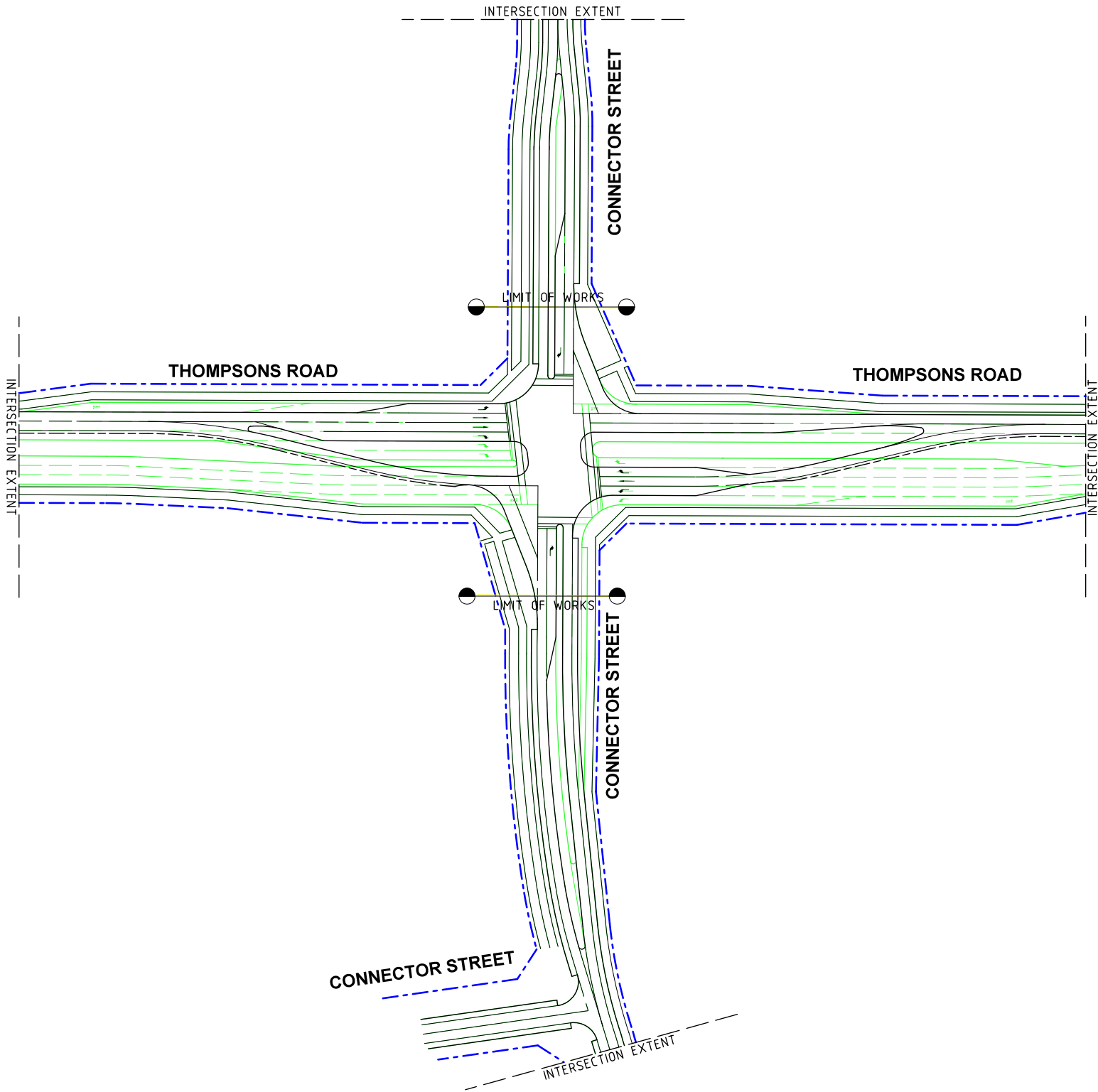
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Designed	COB/TCW/BH/AY
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Client	METROPOLITAN PLANNING AUTHORITY
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-04

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	10.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 05
Revision			P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	10.06.14	ISSUED FOR INFORMATION	COB	RBH

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1:2000 @ A3

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SPEED ZONES
ULTIMATE
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CONNECTOR STREET: 60 km/h

INTERIM
THOMPSONS ROAD: 60 km/h
CONNECTOR STREET: 60 km/h

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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

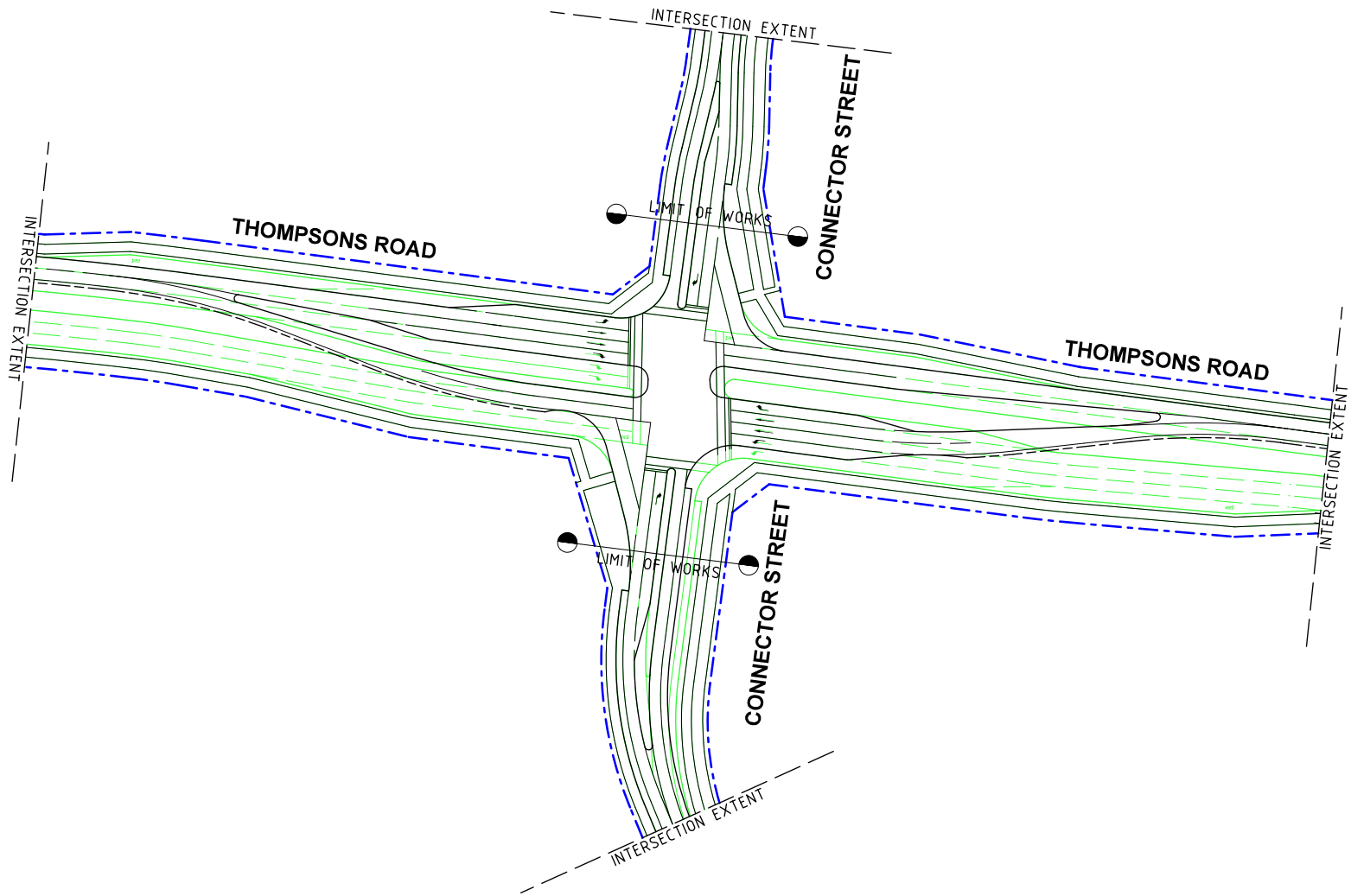
Client **METROPOLITAN PLANNING AUTHORITY**

Project **CLYDE DCP - CLYDE PSP 53, 54 AND 57.1
CLYDE**

Title **ULTIMATE AND INTERIM INTERSECTIONS
CONCEPT LAYOUT PLANS
IN-53-05**

Status **PRELIMINARY**
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Date	10.06.14	Scale	1:2000	Size	A3
Project Number	CG130898	Sheet Number	T 06	Revision	P3



Rev	Date	Description	Drawn	Appr.
P4	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P3	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P2	16.06.14	MODIFIED SOUTHERN LEG INTERSECTION EXTENT	COB	RBH
P1	10.06.14	ISSUED FOR INFORMATION	COB	RBH

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0 10 20 40
1:2000 @ A3

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SPEED ZONES
ULTIMATE
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CONNECTOR STREET: 60 km/h

INTERIM
THOMPSONS ROAD: 60 km/h
CONNECTOR STREET: 60 km/h



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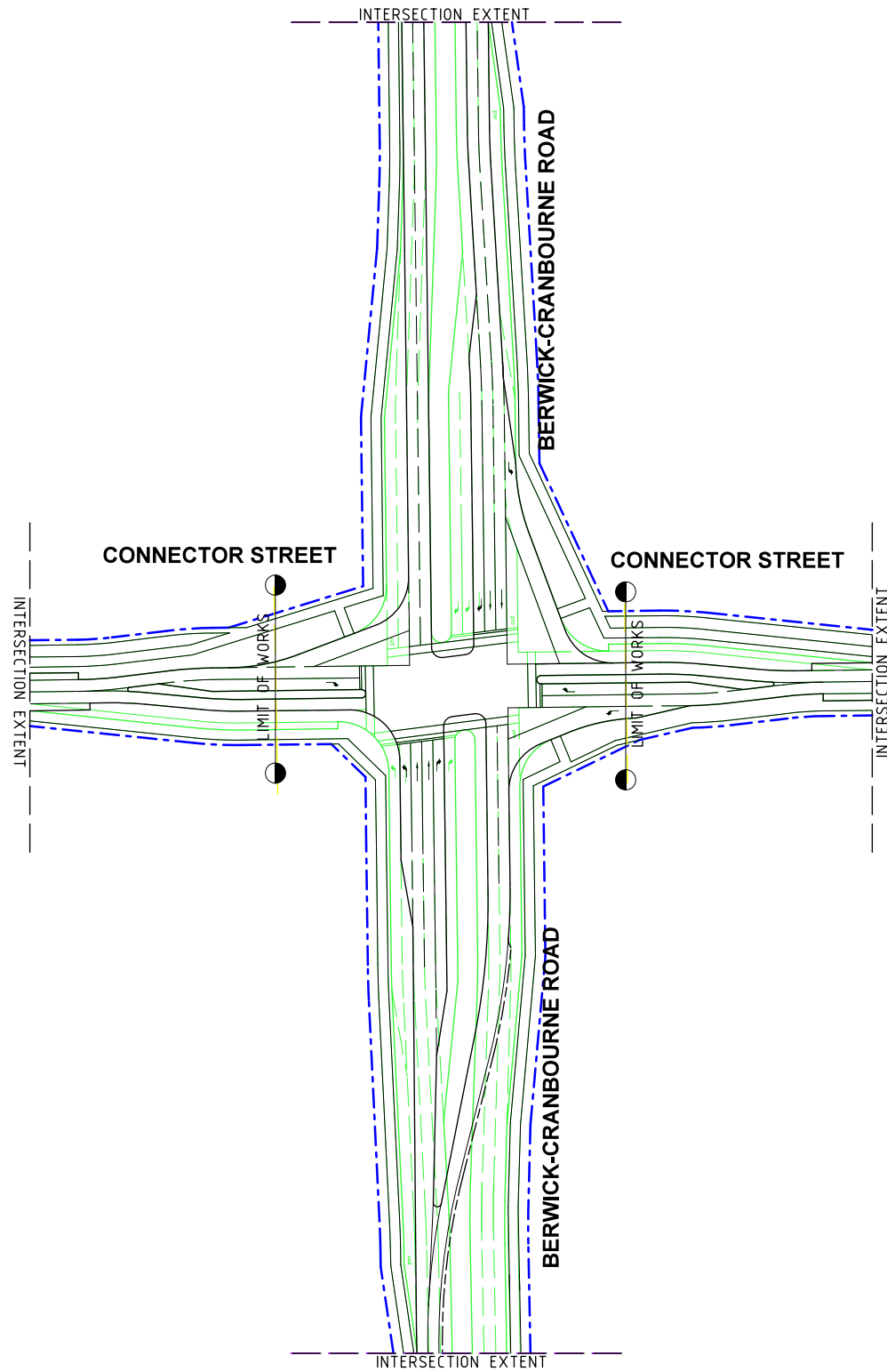
Client METROPOLITAN PLANNING AUTHORITY

Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1
CLYDE

Title ULTIMATE AND INTERIM INTERSECTIONS
CONCEPT LAYOUT PLANS
IN-53-06

Status **PRELIMINARY**
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Date	10.06.14	Scale	1:2000	Size	A3
Project Number	CG130898	Sheet Number	T 07	Revision	P4



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	12.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
BERWICK-CRANBOURNE ROAD: 80km/h
CONNECTOR STREET: 50km/h
INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
CONNECTOR STREET: 50km/h

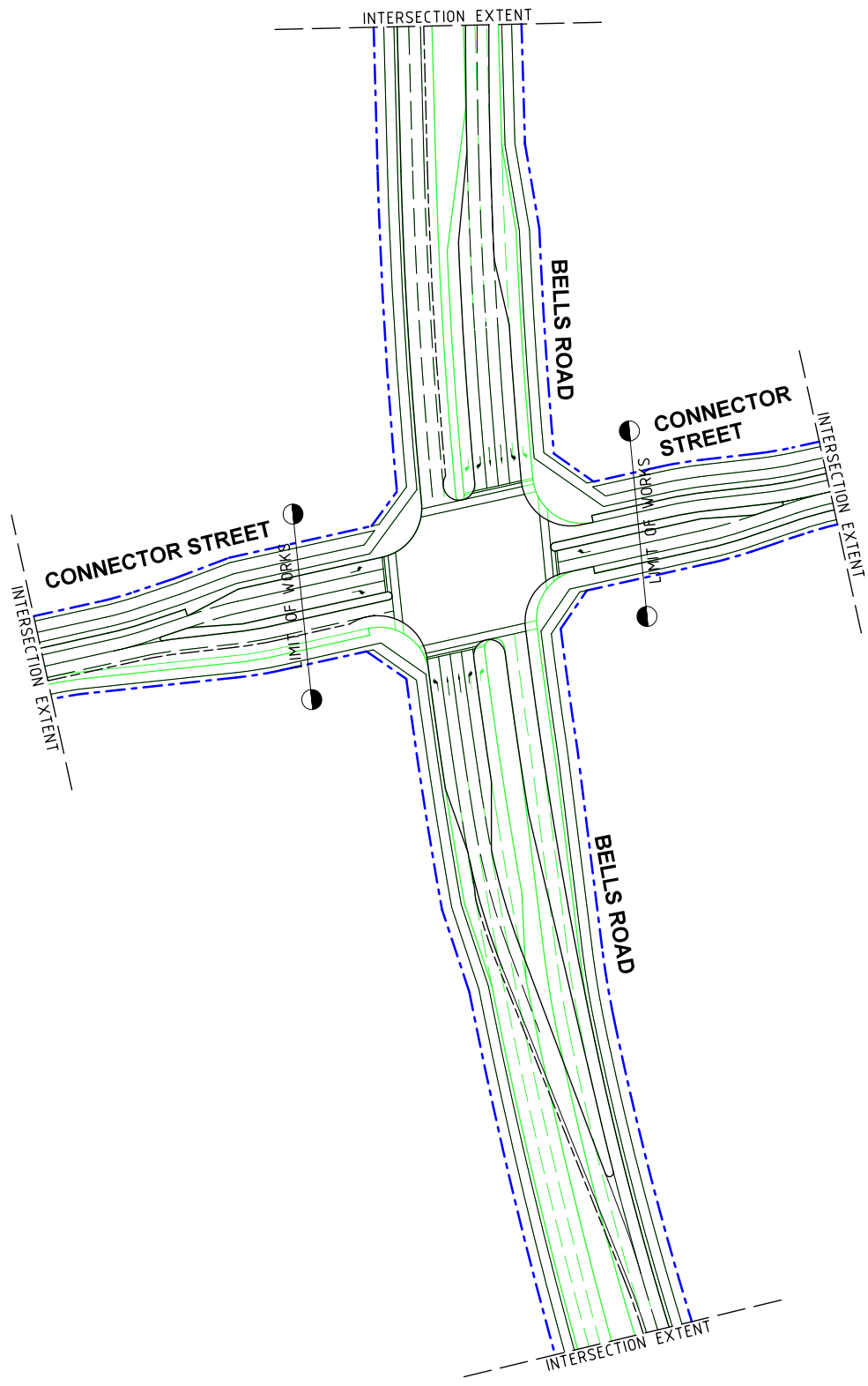


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Designed	COB/TCW/BH/AY
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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	12.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 08
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-07	Revision	P3



Rev	Date	Description	Drawn	Appr.
P4	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P3	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P2	16.06.14	MODIFIED NORTHERN LEG INTERSECTION EXTENT	COB	RBH
P1	13.06.14	ISSUED FOR INFORMATION	COB	RBH

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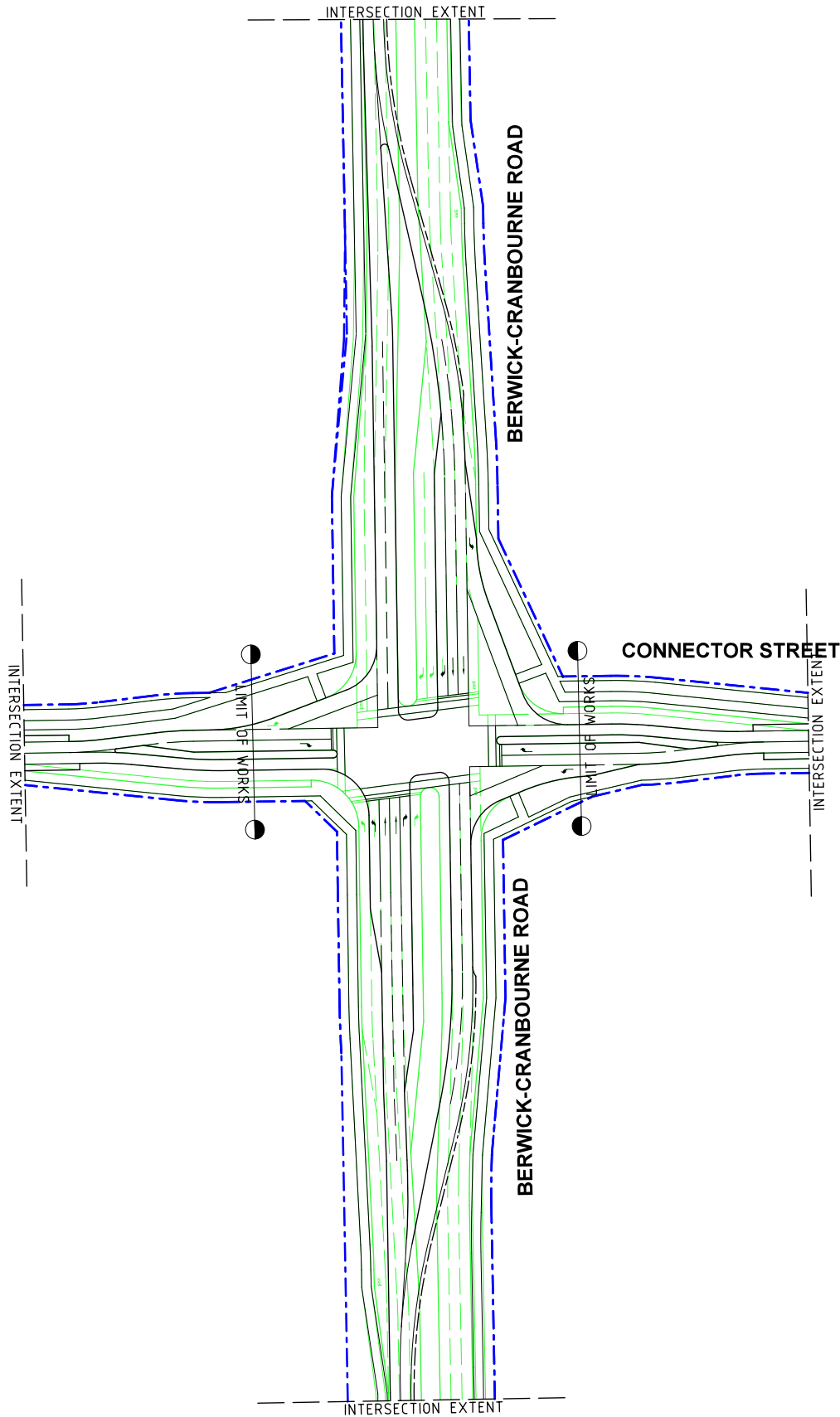
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SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BELLS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	13.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 09
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-08	Revision	P4



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
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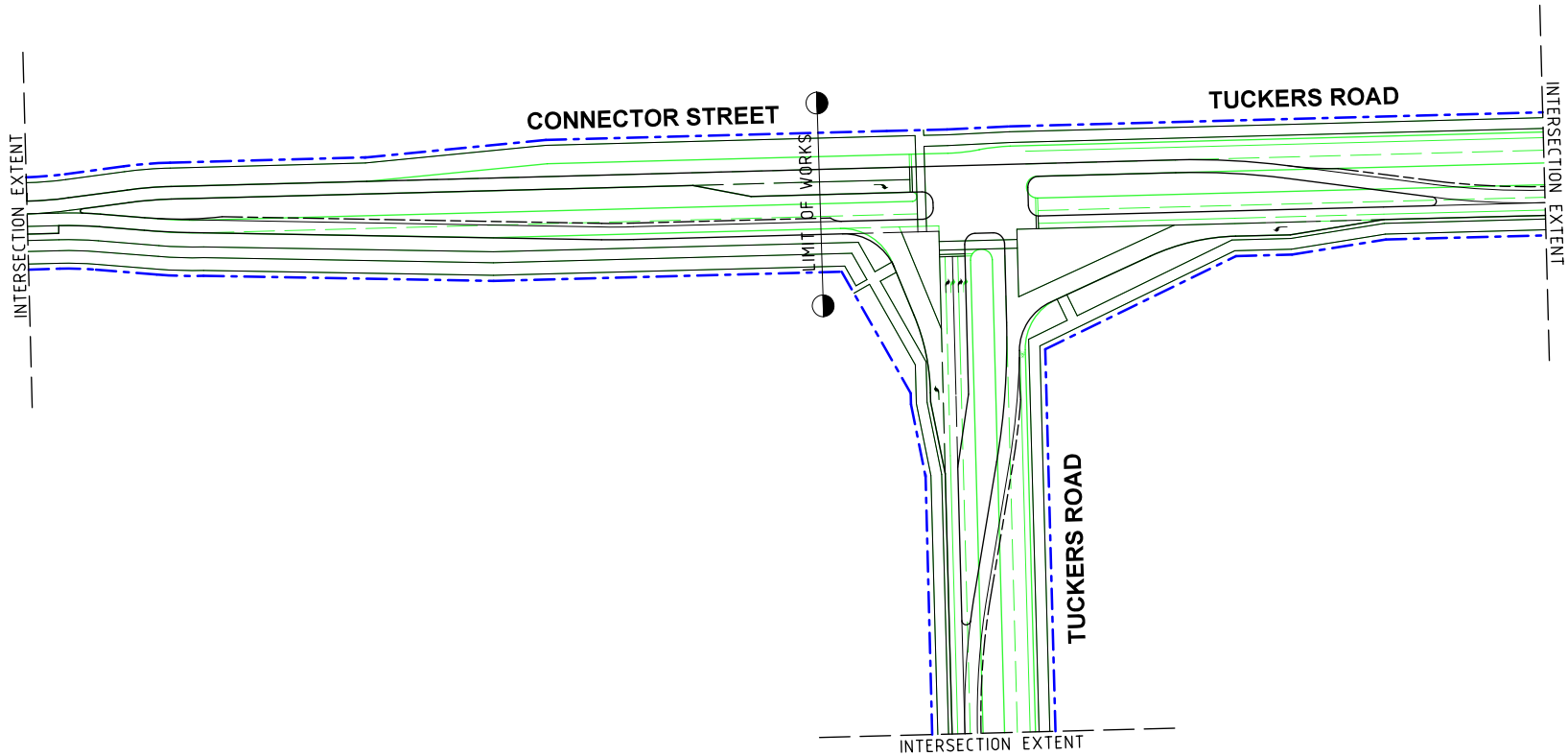
SPEED ZONES
ULTIMATE
BERWICK-CRANBOURNE ROAD: 80km/h
CONNECTOR STREET: 50km/h
INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
CONNECTOR STREET: 50km/h



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Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-09		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	12.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 10
Revision			P3



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P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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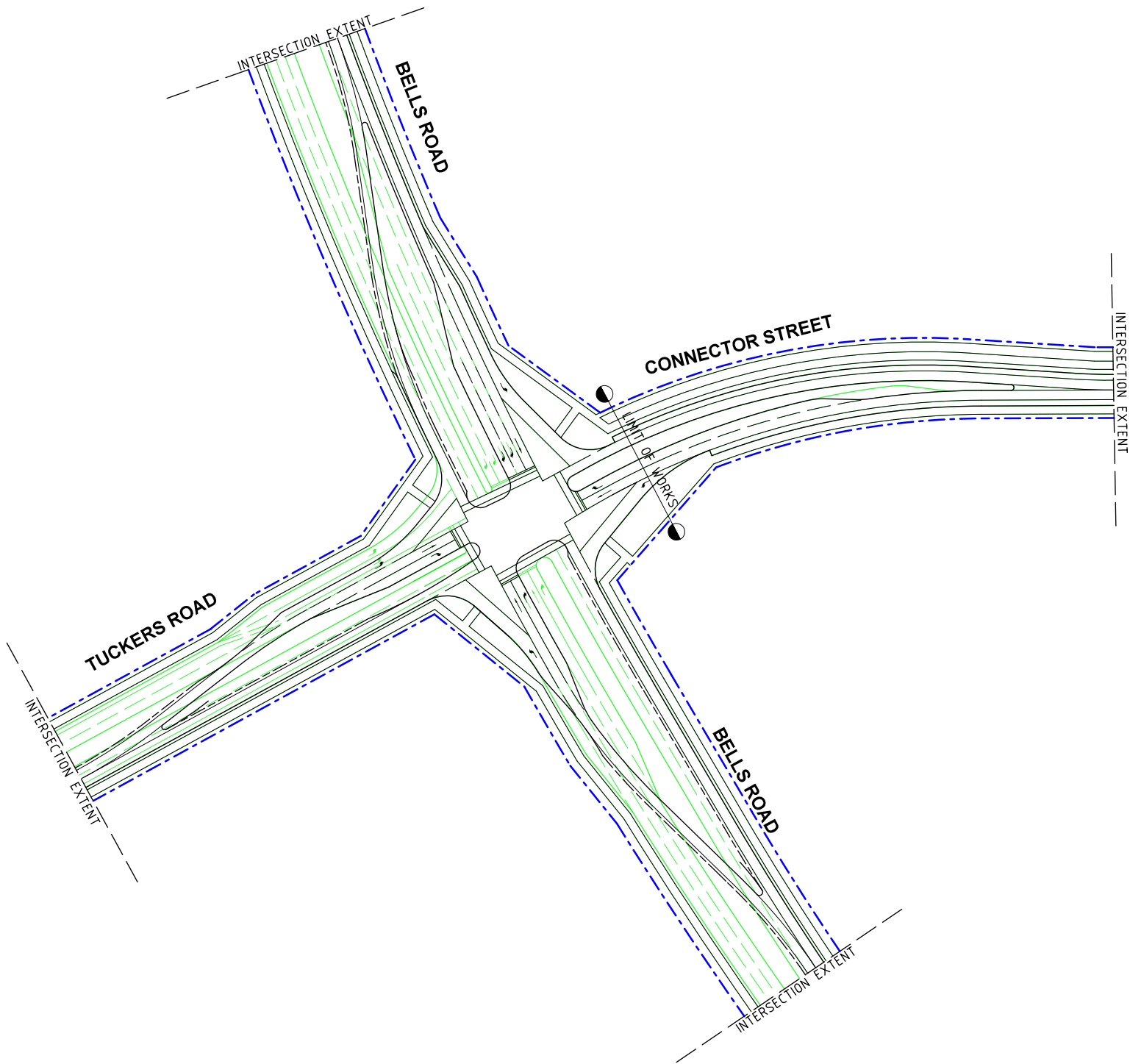
SPEED ZONES
ULTIMATE
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

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Date 14.06.14	Scale 1:2000	Size A3	
Project Number CG130898	Sheet Number T 11	Revision P3	
Title ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-10			



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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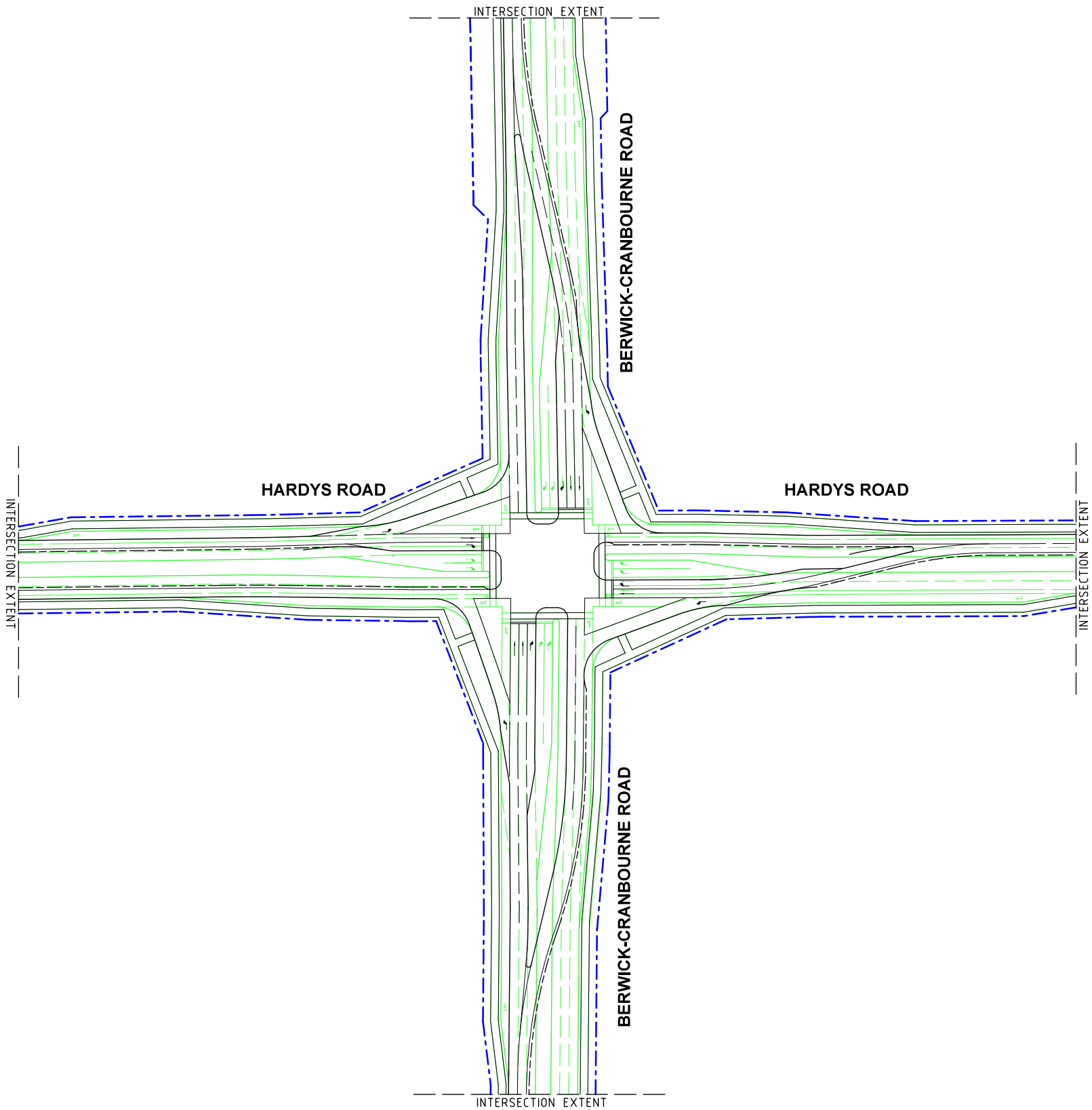
SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BELLS ROAD: 60 km/h
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

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Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-11		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	13.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 12
Revision			P3



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P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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ULTIMATE
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HARDYS ROAD: 60km/h

INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
HARDYS ROAD: 60km/h



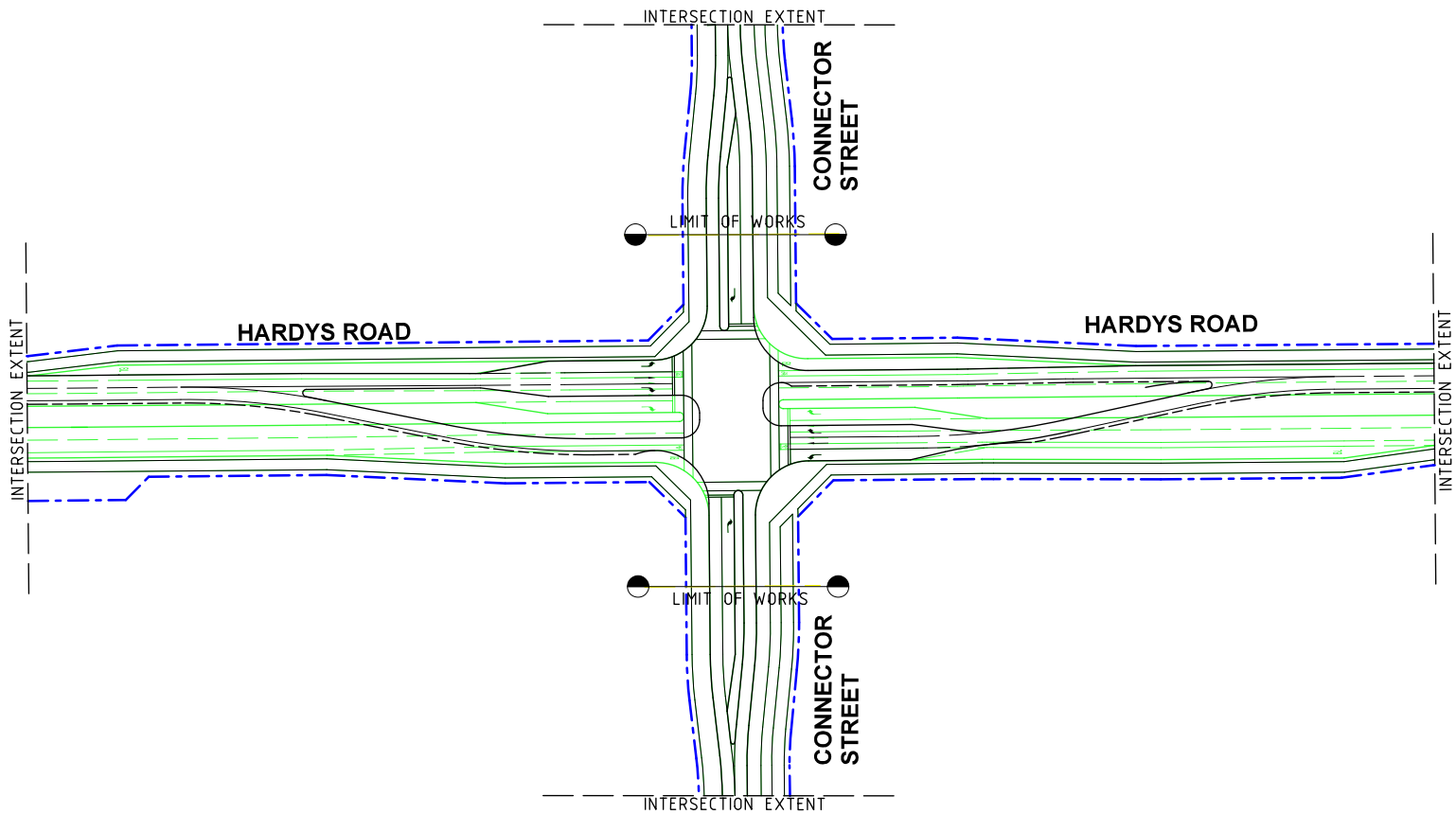
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Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-12		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	12.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 13
Revision			P3



P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB	
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SPEED ZONES
ULTIMATE
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

INTERIM
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

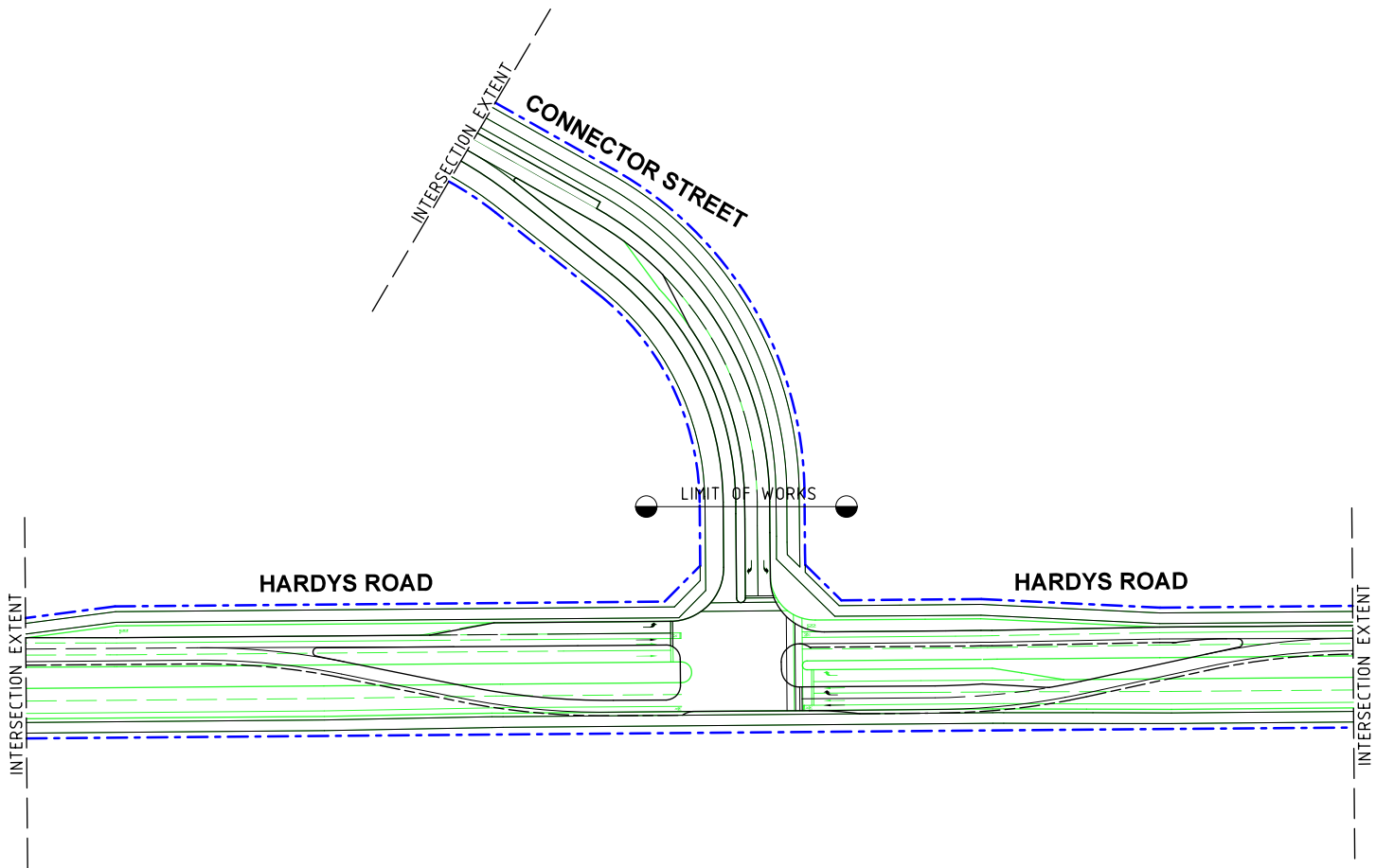
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Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-13		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 14
		Revision	A3 P2



P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB	
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ULTIMATE
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

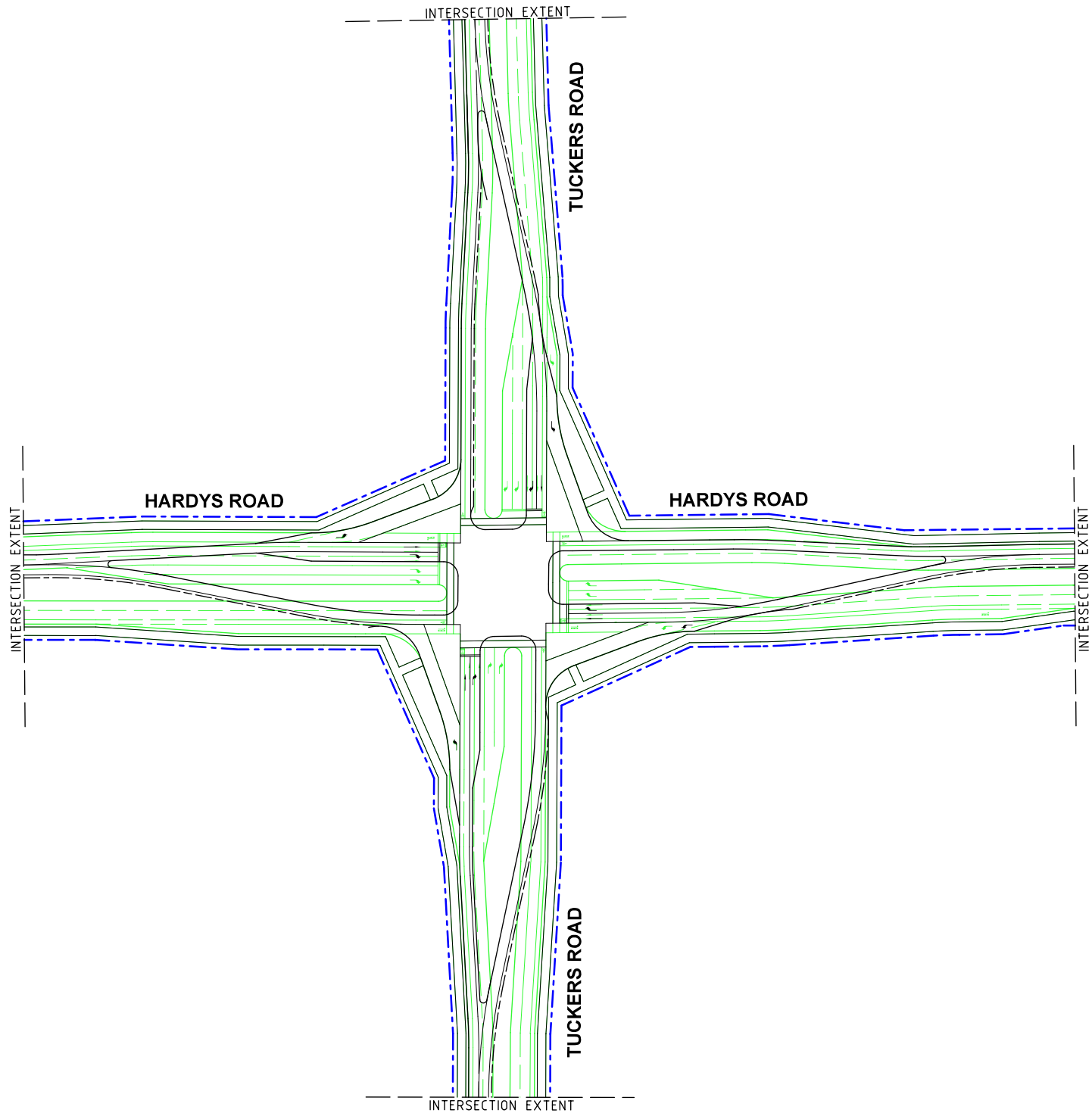


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Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
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Title ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-14			



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P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
HARDYS ROAD: 60 km/h
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



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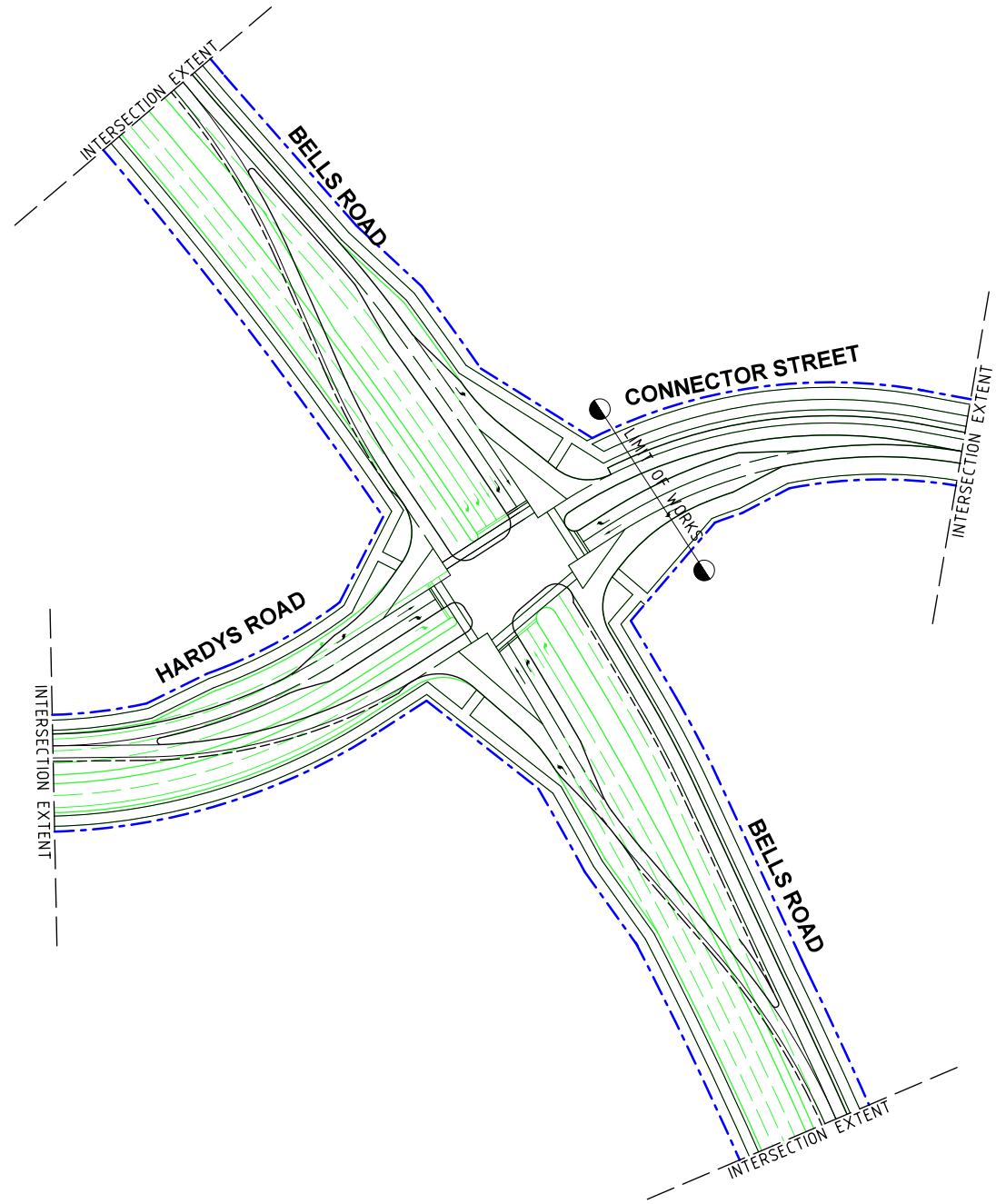
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Client	METROPOLITAN PLANNING AUTHORITY		
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Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-15		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
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Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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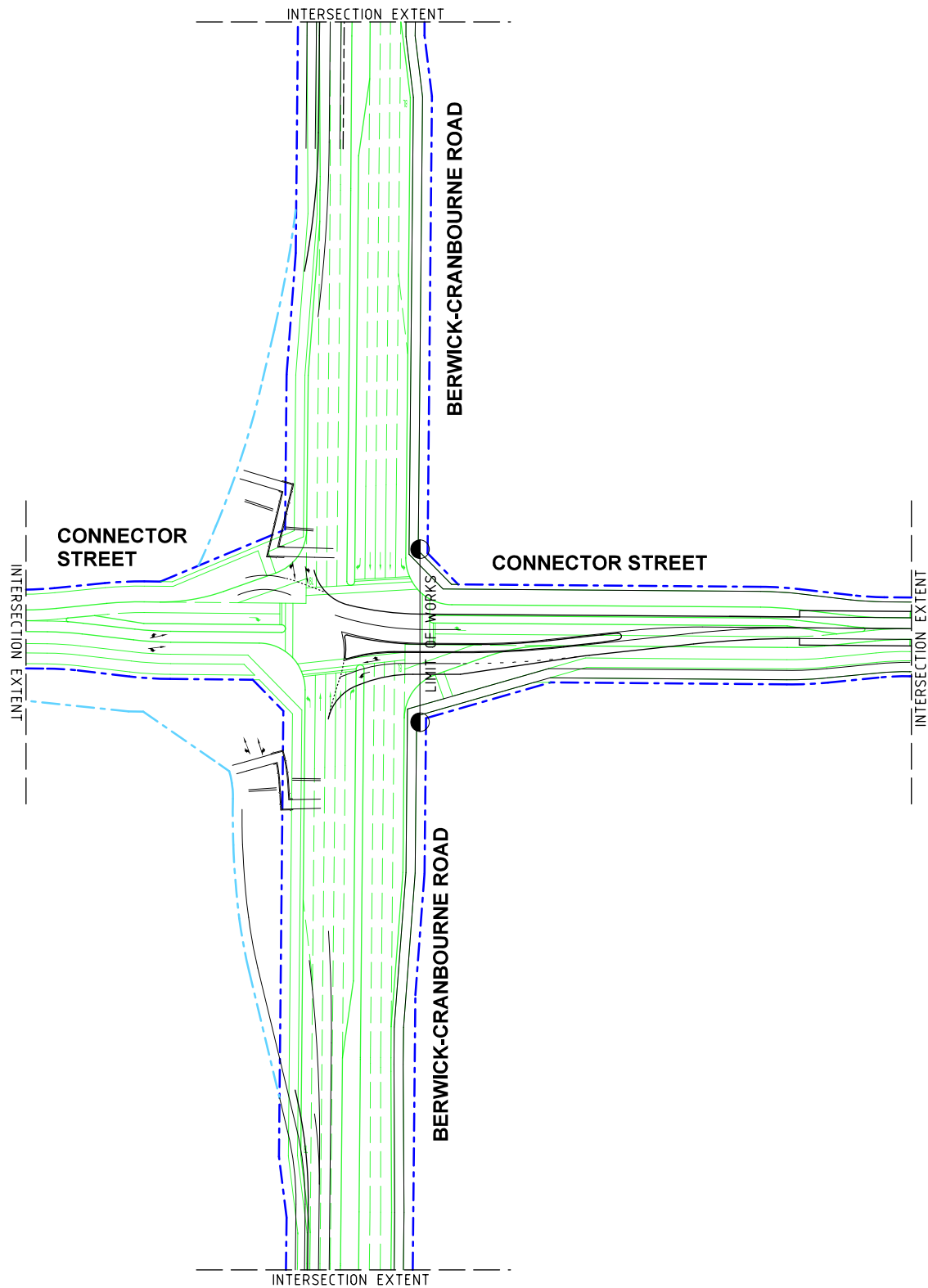
SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BELLS ROAD: 60 km/h
HARDYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



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Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-53-17		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 18
		Revision	P3



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P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB	
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ULTIMATE
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INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
CONNECTOR STREET: 50km/h

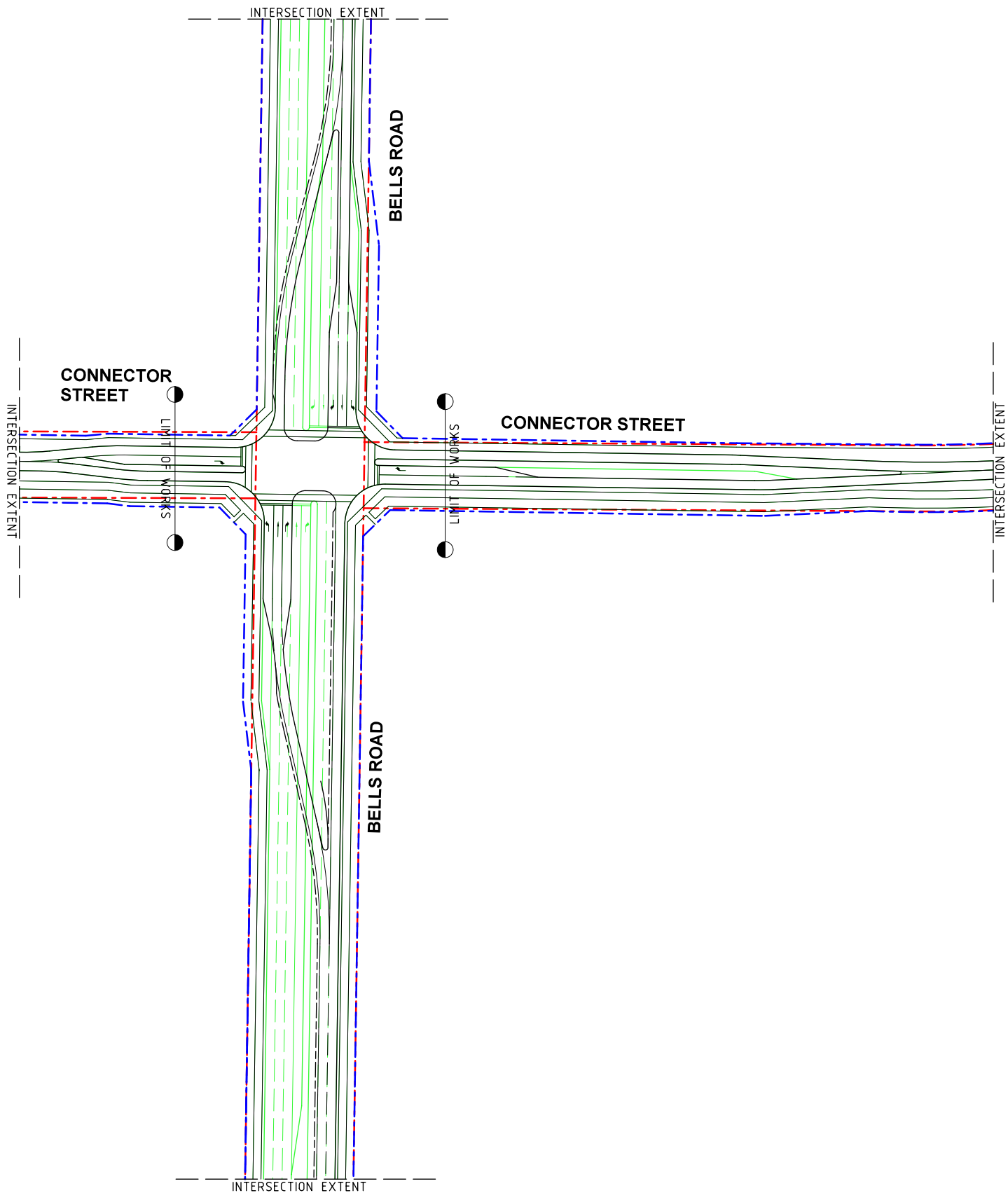
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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-01		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	12.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 19
Revision			P3

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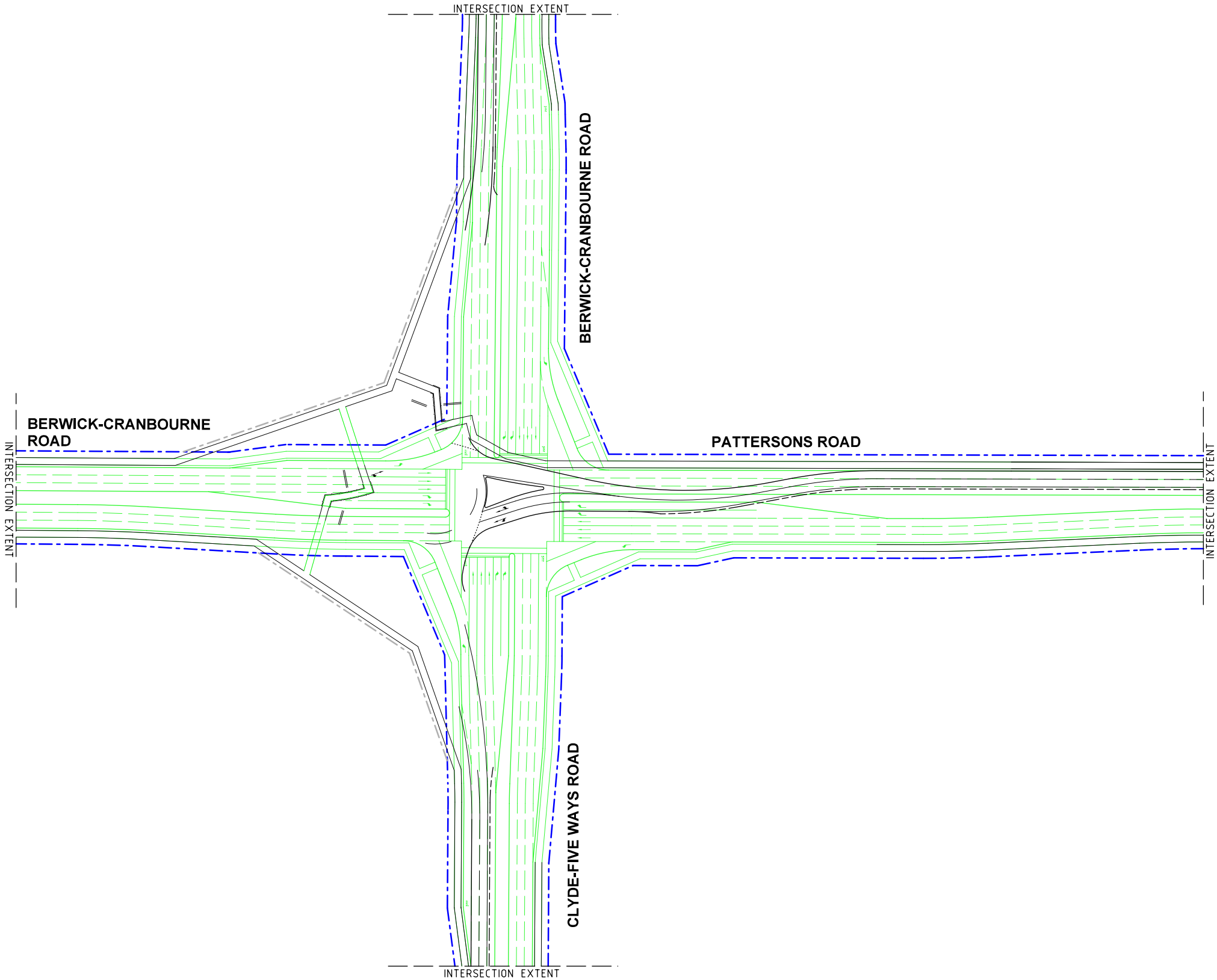
SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BELLS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-03		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 21
Revision			P2



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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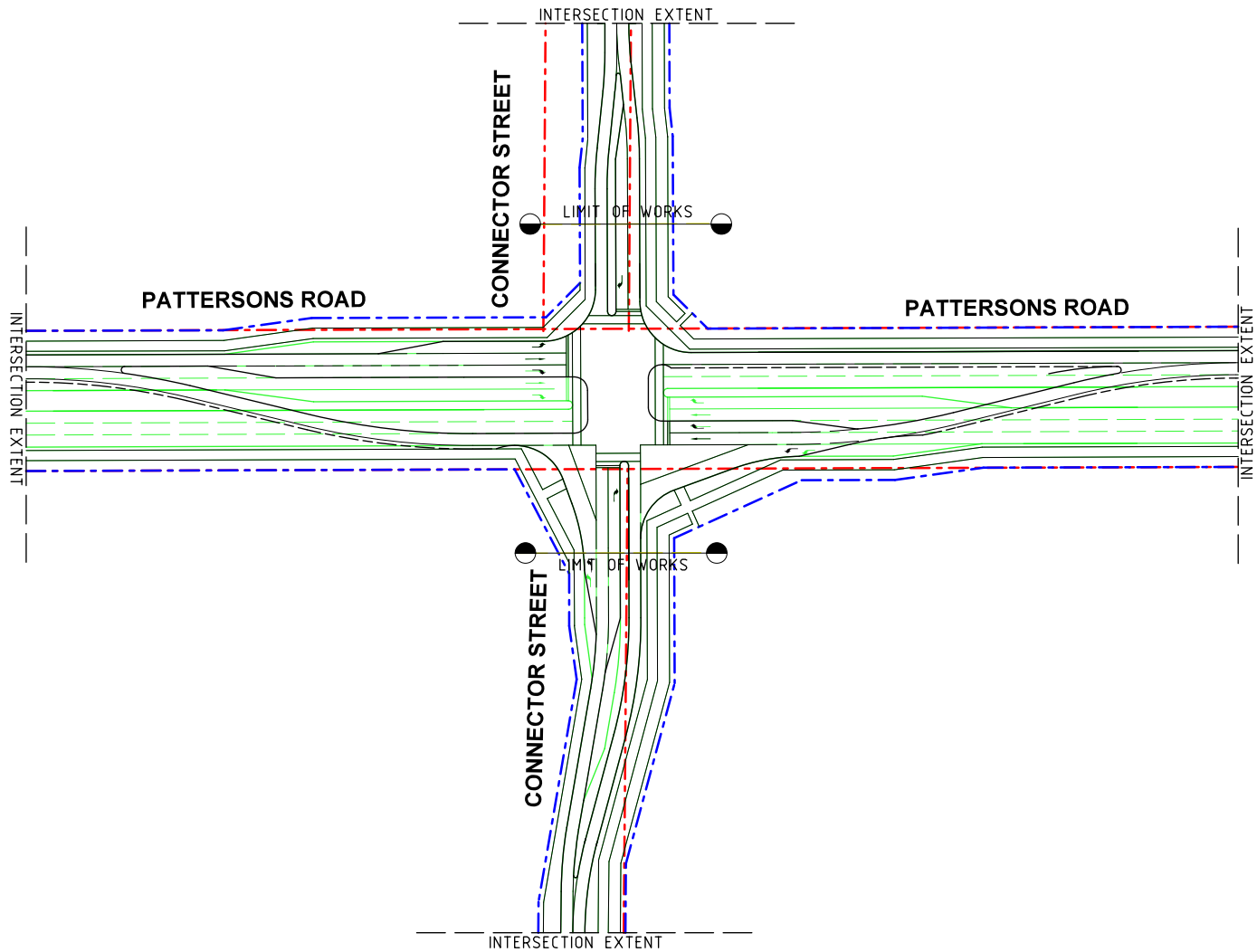
SPEED ZONES
ULTIMATE
BERWICK-CRANBOURNE ROAD: 80km/h
CLYDE-FIVE WAYS ROAD: 80km/h
PATTERSONS ROAD: 80km/h
INTERIM
BERWICK-CRANBOURNE ROAD: 60km/h
CLYDE-FIVE WAYS ROAD: 60km/h
PATTERSONS ROAD: 60km/h

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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-04		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	13.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 22
Revision			P3



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
PATTERSONS ROAD: 80km/h
CONNECTOR STREET: 50km/h
INTERIM
PATTERSONS ROAD: 60km/h
CONNECTOR STREET: 50km/h



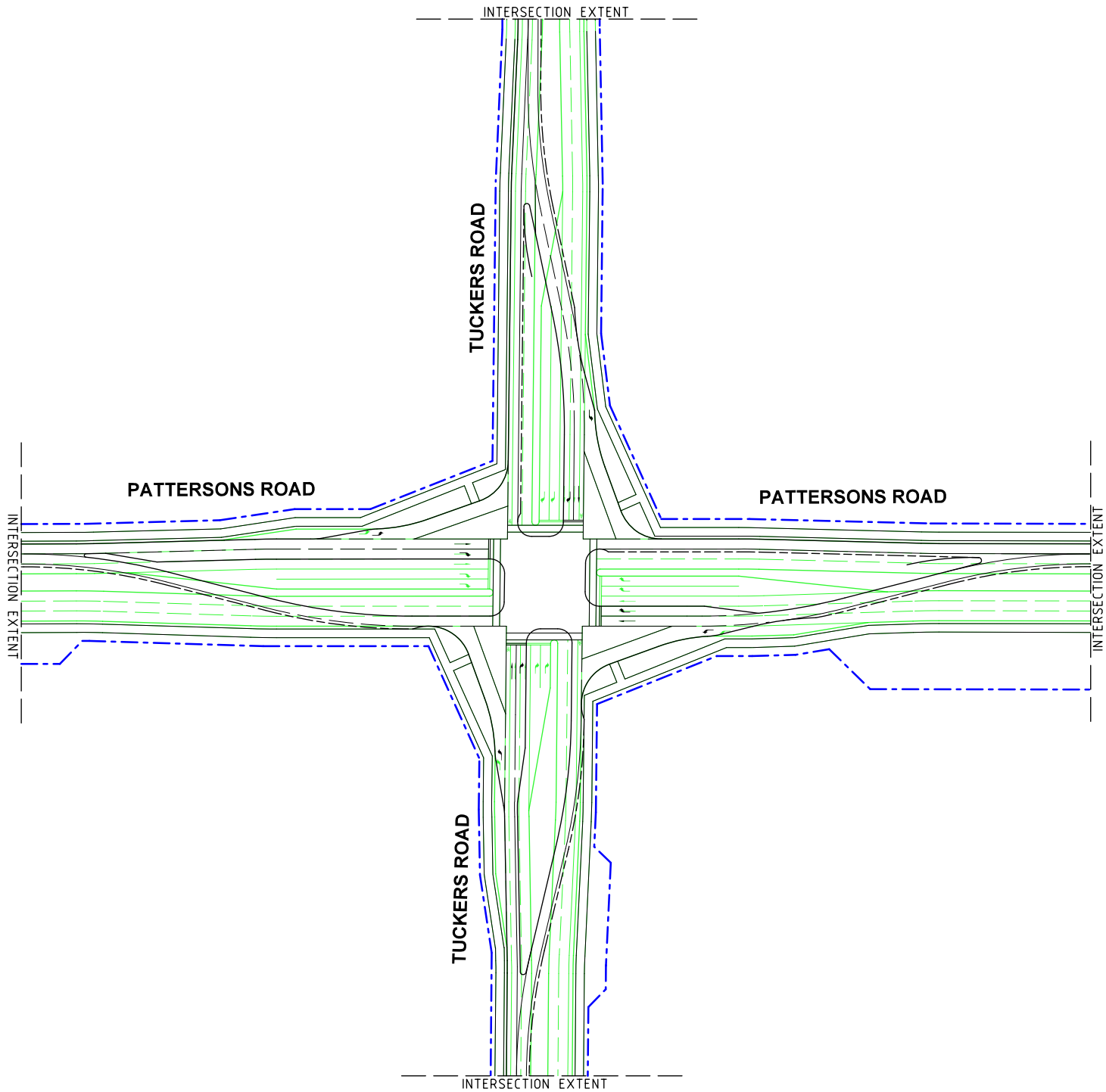
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Designed	COB/TCW/BH/AY
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Client	METROPOLITAN PLANNING AUTHORITY
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-05

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 23
Revision			P2



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
PATTERSONS ROAD: 80km/h
TUCKERS ROAD: 60km/h
INTERIM
PATTERSONS ROAD: 60km/h
TUCKERS ROAD: 60km/h

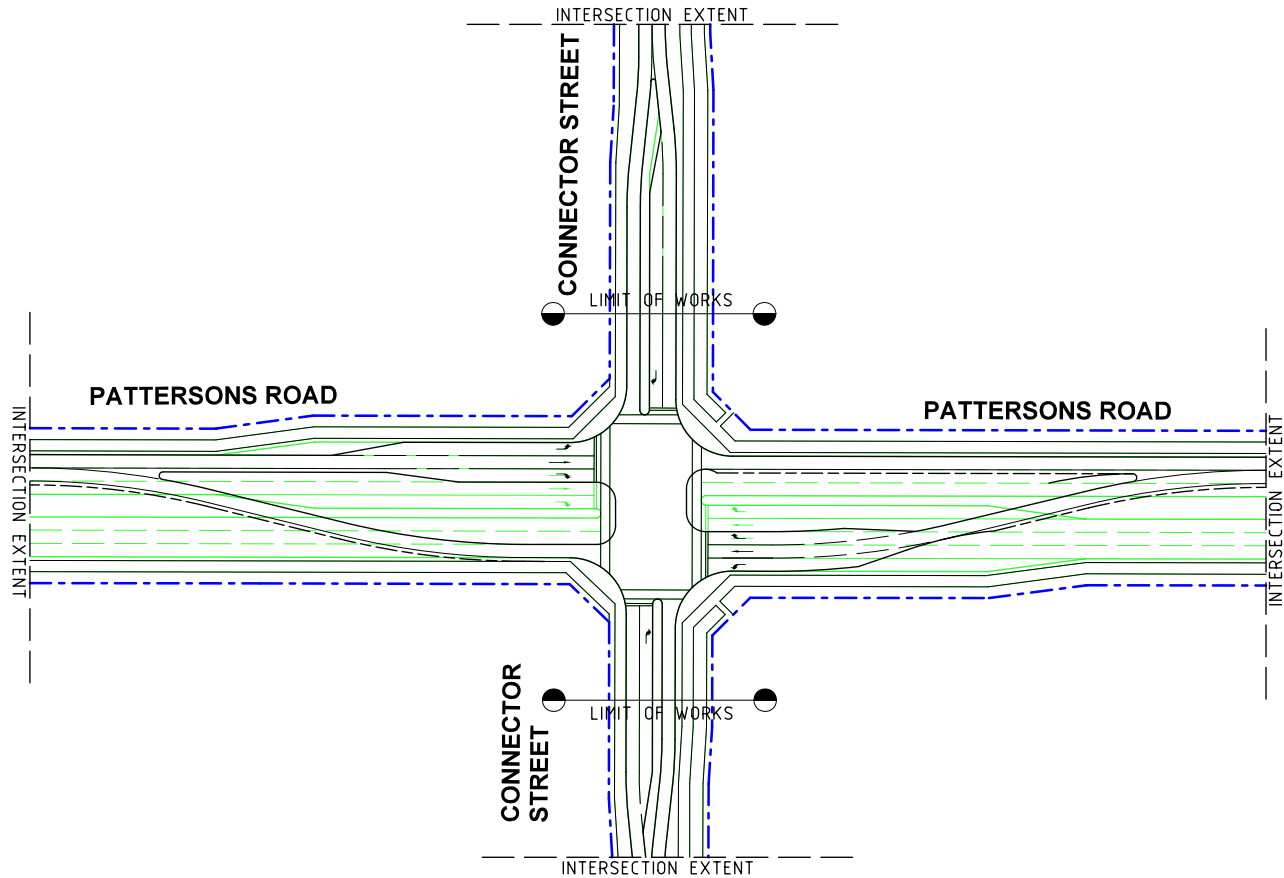


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Client METROPOLITAN PLANNING AUTHORITY			
Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Date 14.06.14	Scale 1:2000	Size A3	
Project Number CG130898	Sheet Number T 24	Revision P2	



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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1:2000 @ A3

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SPEED ZONES
ULTIMATE
PATTERSONS ROAD: 80km/h
CONNECTOR STREET: 50km/h
INTERIM
PATTERSONS ROAD: 60km/h
CONNECTOR STREET: 50km/h



Drawn	COB
Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

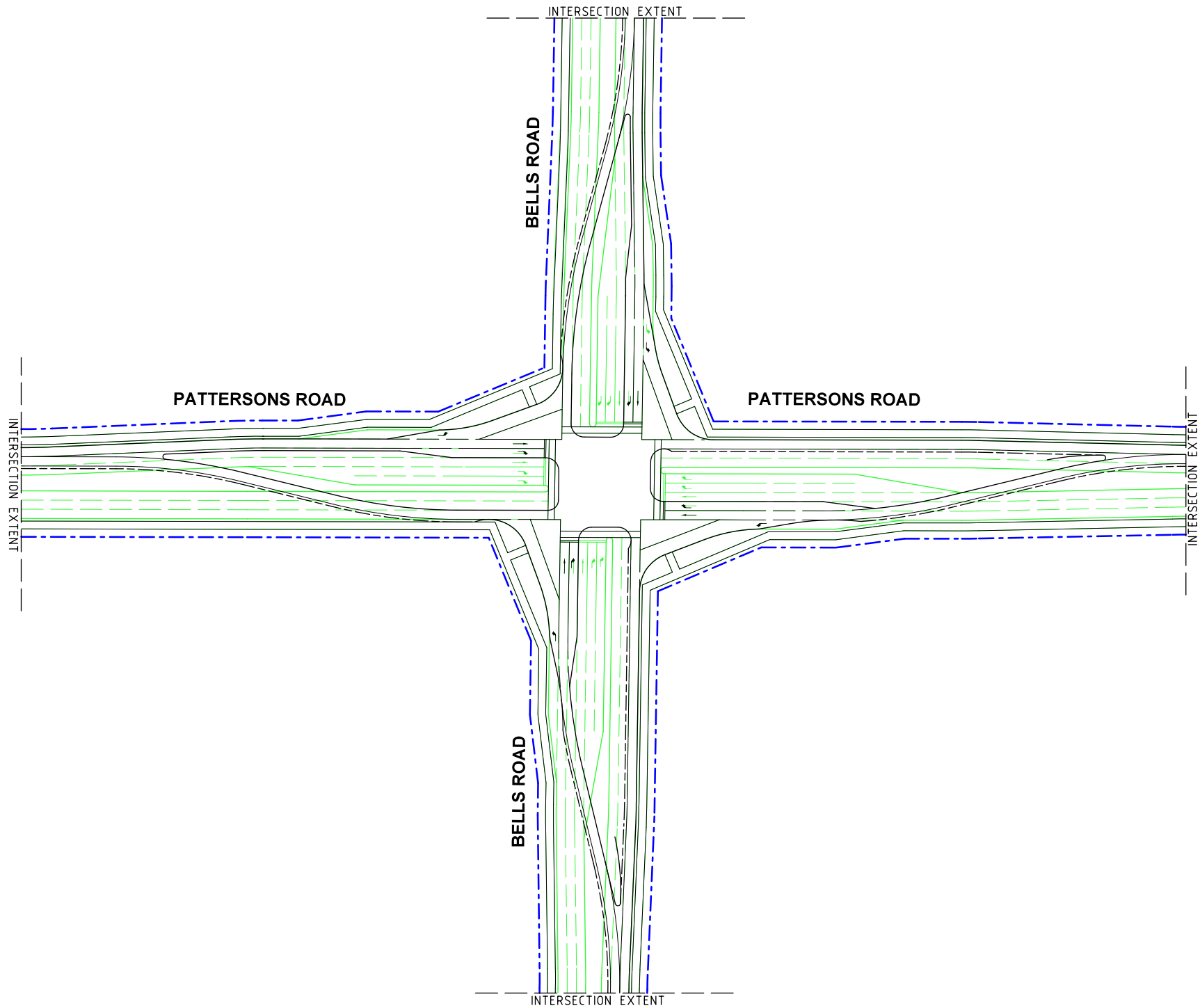
Client METROPOLITAN PLANNING AUTHORITY

Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1
CLYDE

Status **PRELIMINARY**
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Title ULTIMATE AND INTERIM INTERSECTIONS
CONCEPT LAYOUT PLANS
IN-54-07

Date	14.06.14	Scale	1:2000	Size	A3
Project Number	CG130898	Sheet Number	T 25	Revision	P2



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
PATTERSONS ROAD: 80 km/h
BELLS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h

INTERIM
PATTERSONS ROAD: 60 km/h
BELLS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

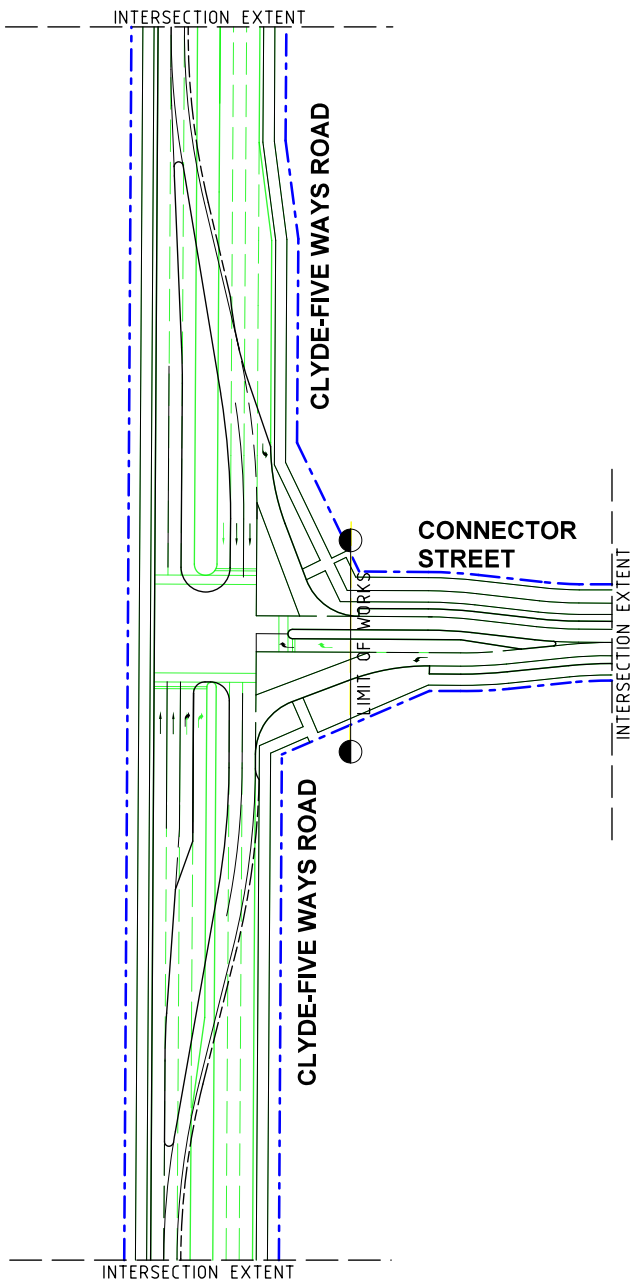
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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-08		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 26
Revision			P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	13.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
CLYDE-FIVE WAYS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
CLYDE-FIVE WAYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

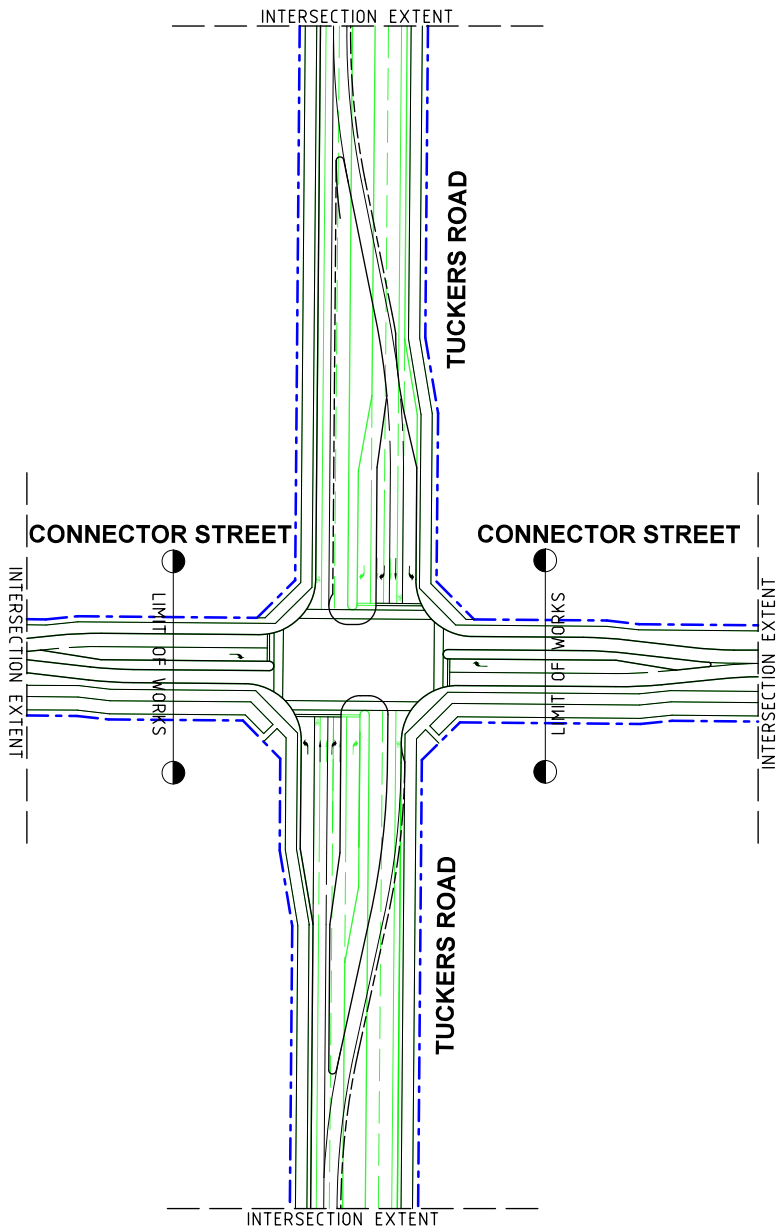


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Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	13.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 27
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-09	Revision	P3



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

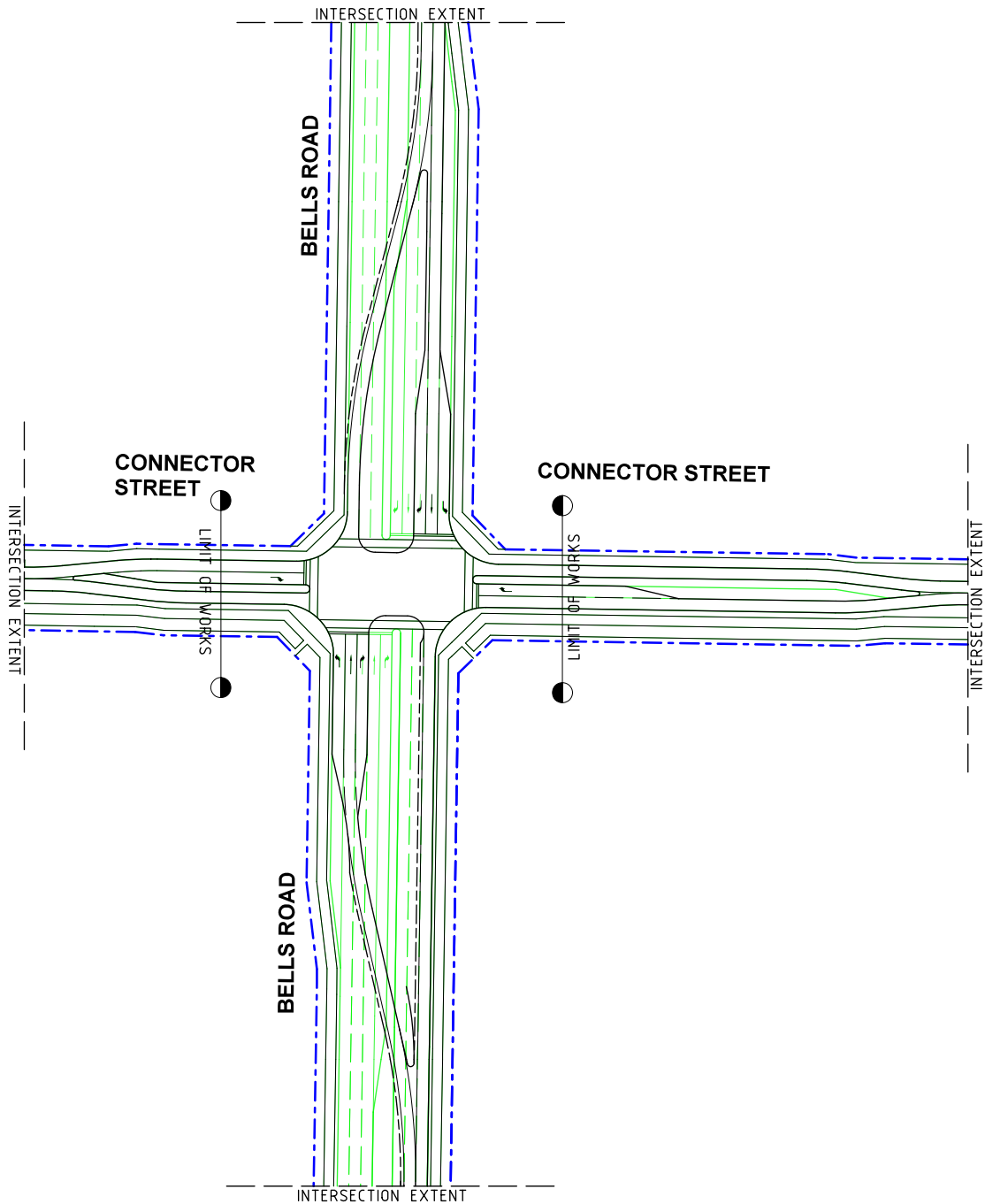


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Checked	RBH
Authorised	

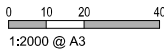
Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 28
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-11	Revision	P2



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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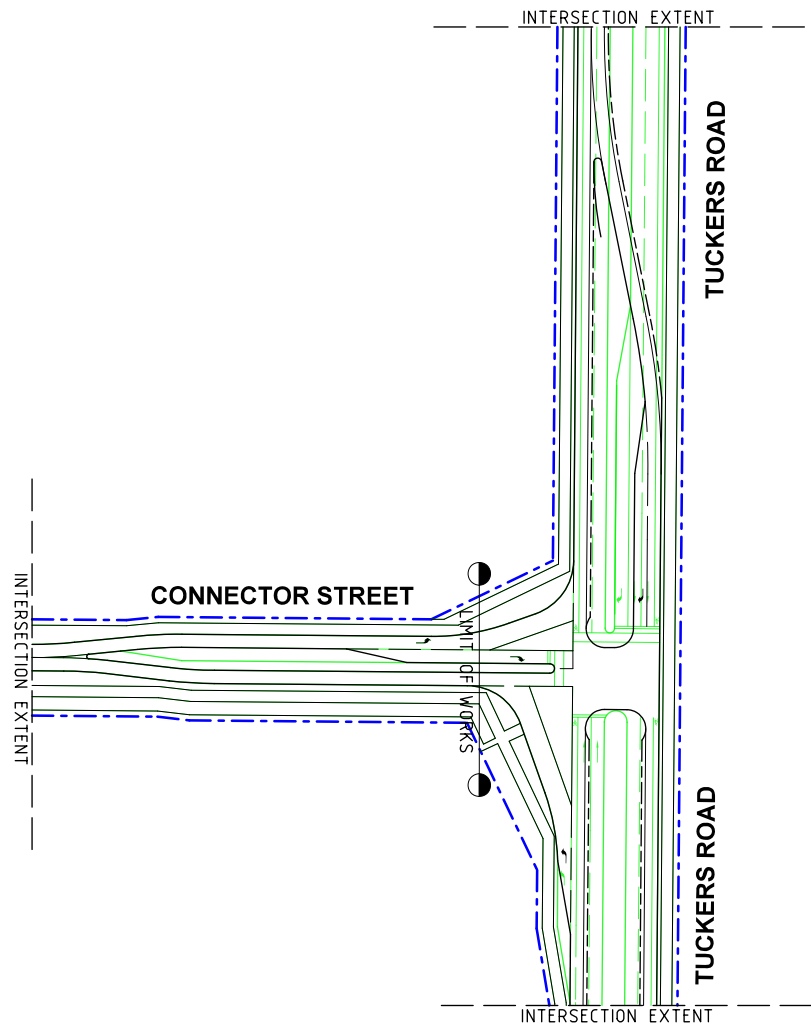
SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BELLS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



Drawn	COB
Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-12

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 29
Revision			P2



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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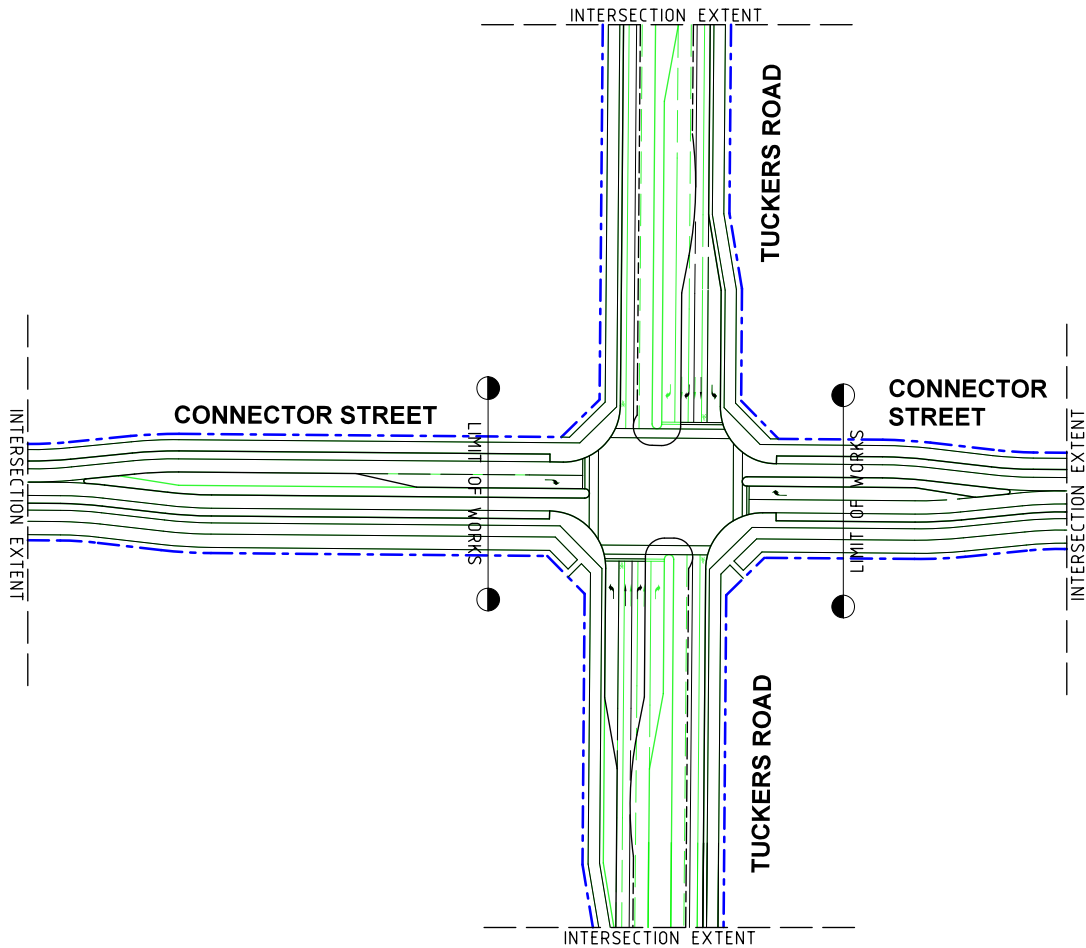
SPEED ZONES
ULTIMATE
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-13		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 30
Revision			P2



Rev	Date	Description	Drawn	Appr.
P3	04.09.14	ADDED EASTERN LEG AT MPA REQUEST	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



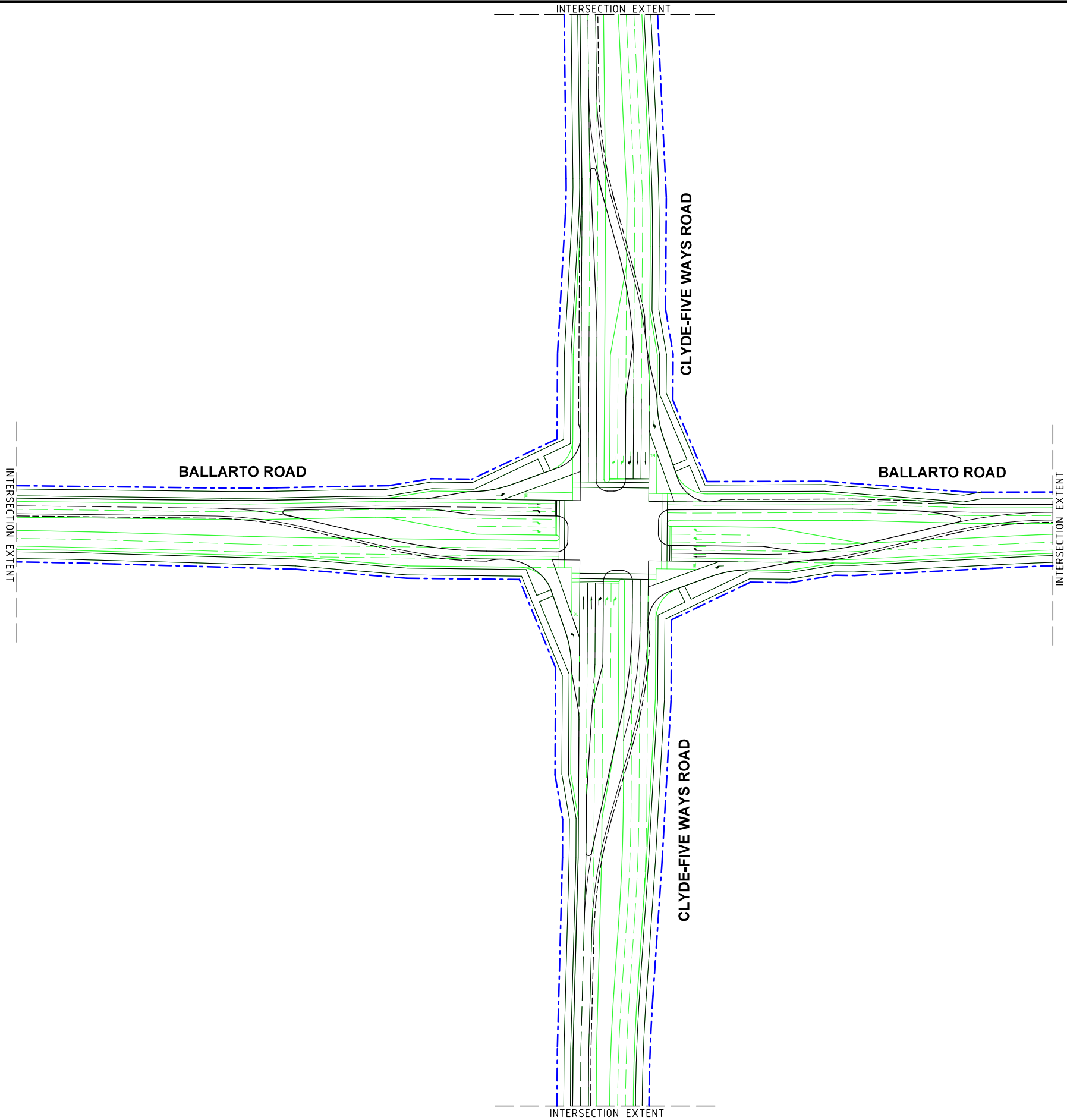
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Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-14		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 31
Revision			P3



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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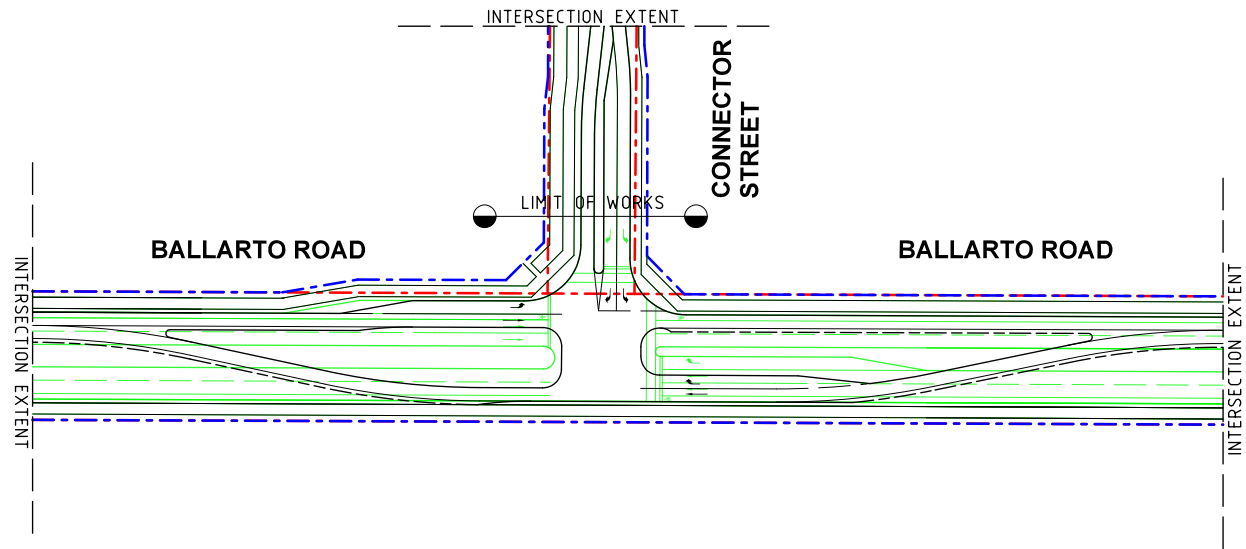
SPEED ZONES
ULTIMATE
CLYDE-FIVE WAYS ROAD: 80km/h
BALLARTO ROAD: 60km/h
INTERIM
CLYDE-FIVE WAYS ROAD: 60km/h
BALLARTO ROAD: 60km/h

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Client	METROPOLITAN PLANNING AUTHORITY
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-15

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 32
Revision			P3



Rev	Date	Description	Drawn	Appr.
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P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
BALLARTO ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BALLARTO ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

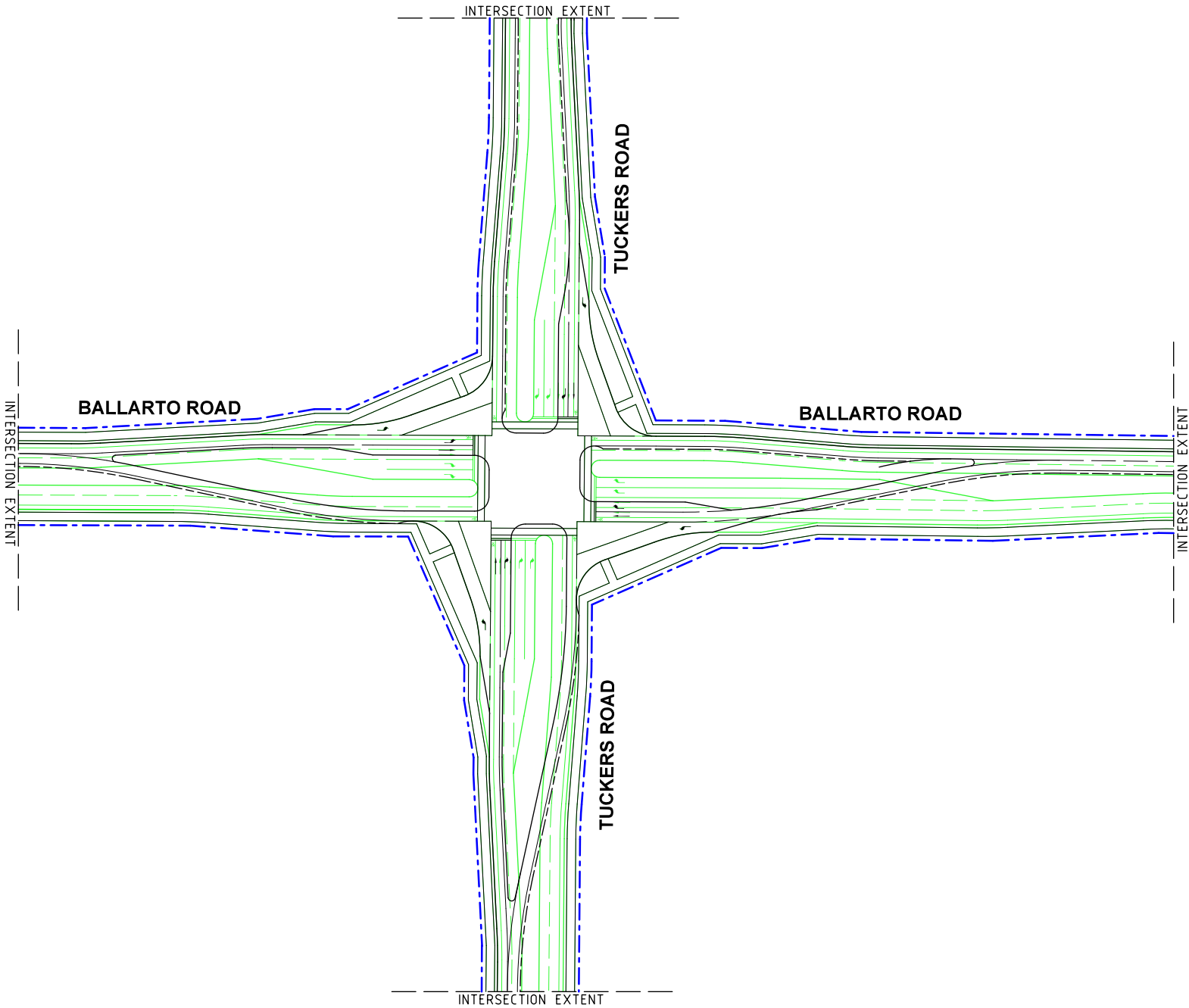


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Checked	RBH
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Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 33
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-17	Revision	P2



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
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P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
BALLARTO ROAD: 60km/h
TUCKERS ROAD: 60km/h
INTERIM
BALLARTO ROAD: 60km/h
TUCKERS ROAD: 60km/h

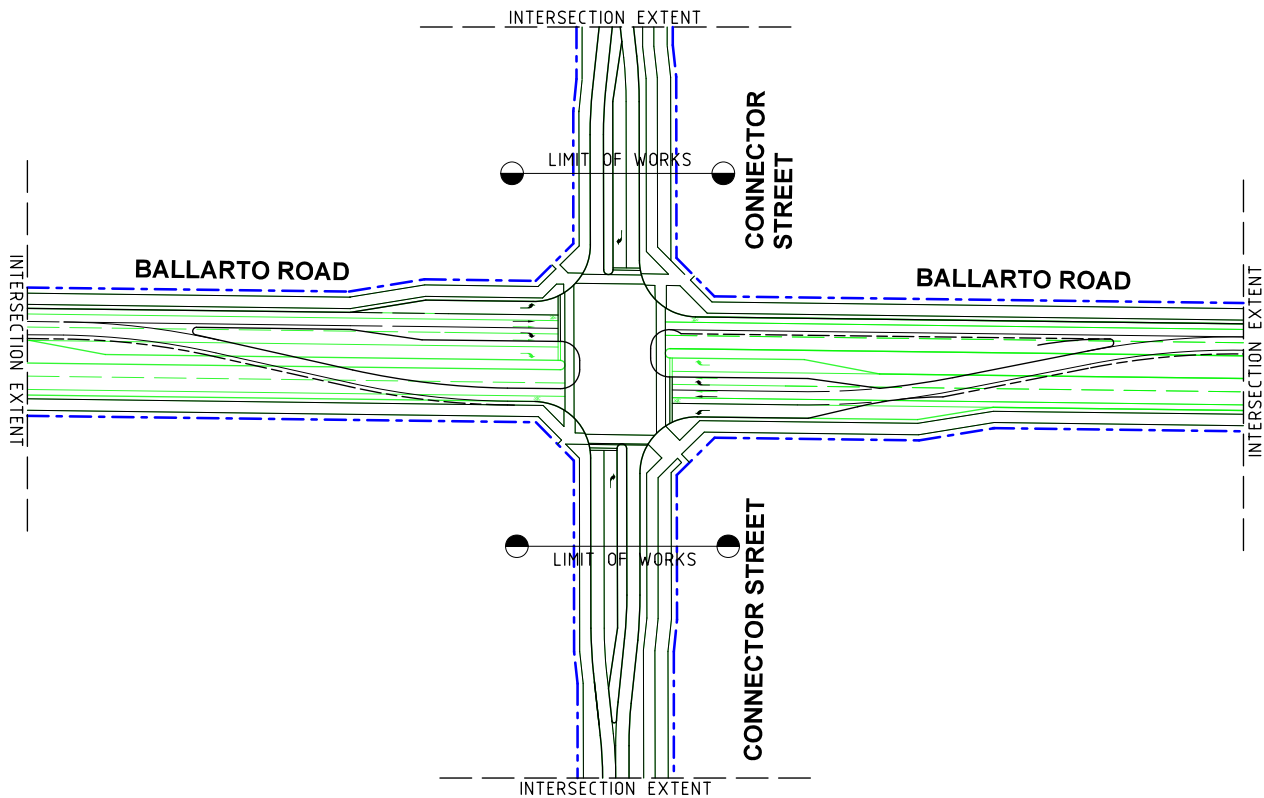
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Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-18		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 34
Revision			P3



Rev	Date	Description	Drawn	Appr.
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SPEED ZONES
ULTIMATE
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CONNECTOR STREET: 50km/h
INTERIM
BALLARTO ROAD: 60km/h
CONNECTOR STREET: 50km/h

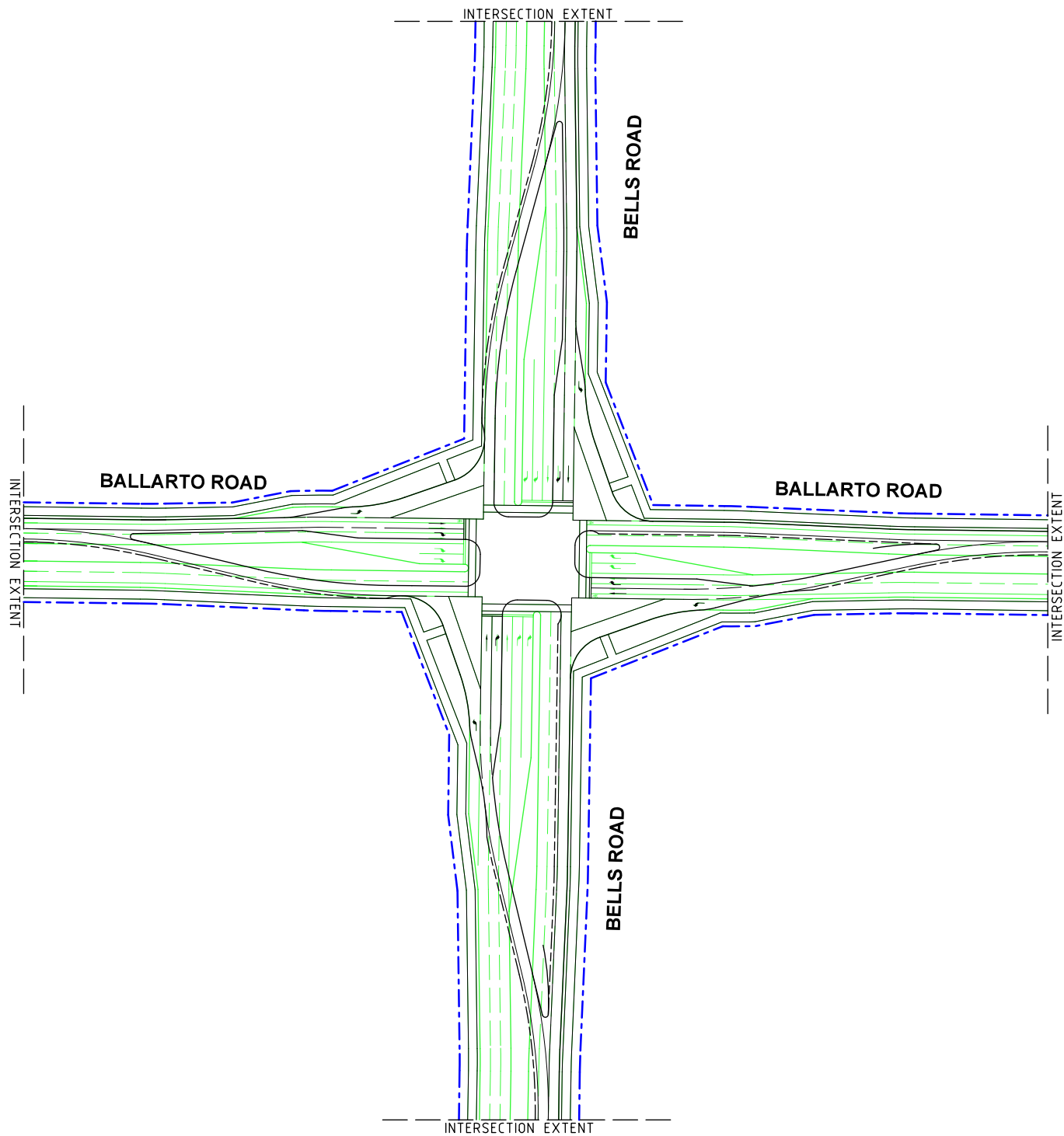


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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client METROPOLITAN PLANNING AUTHORITY			
Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Date 14.06.14	Scale 1:2000	Sheet Number T	Size A3
Project Number CG130898	Sheet Number T	Revision 35	Revision P2
Title ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-54-19			



P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB	
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH	
Rev	Date	Description	Drawn	Appr.	

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WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE.

SPEED ZONES
ULTIMATE
BELLS ROAD: 80 km/h
BALLARTO ROAD: 60 km/h

INTERIM
BELLS ROAD: 60 km/h
BALLARTO ROAD: 60 km/h

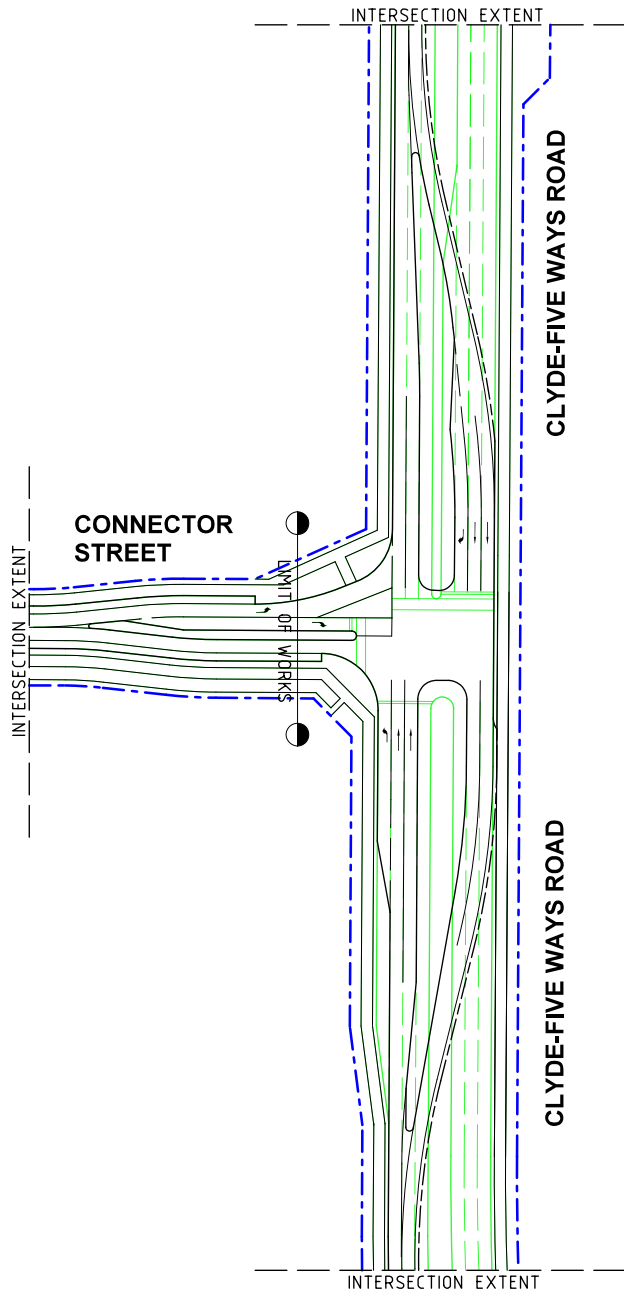


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Drawn	COB
Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client METROPOLITAN PLANNING AUTHORITY			
Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Date 14.06.14	Scale 1:2000	Size A3	
Project Number CG130898	Sheet Number T 36	Revision	P2



Rev	Date	Description	Drawn	Appr.
P3	17.10.14	MPA/MICROADS COMMENTS	COB	CB
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	13.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
CLYDE-FIVE WAYS ROAD: 80 km/h
CONNECTOR STREET: 50 km/h
INTERIM
CLYDE-FIVE WAYS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



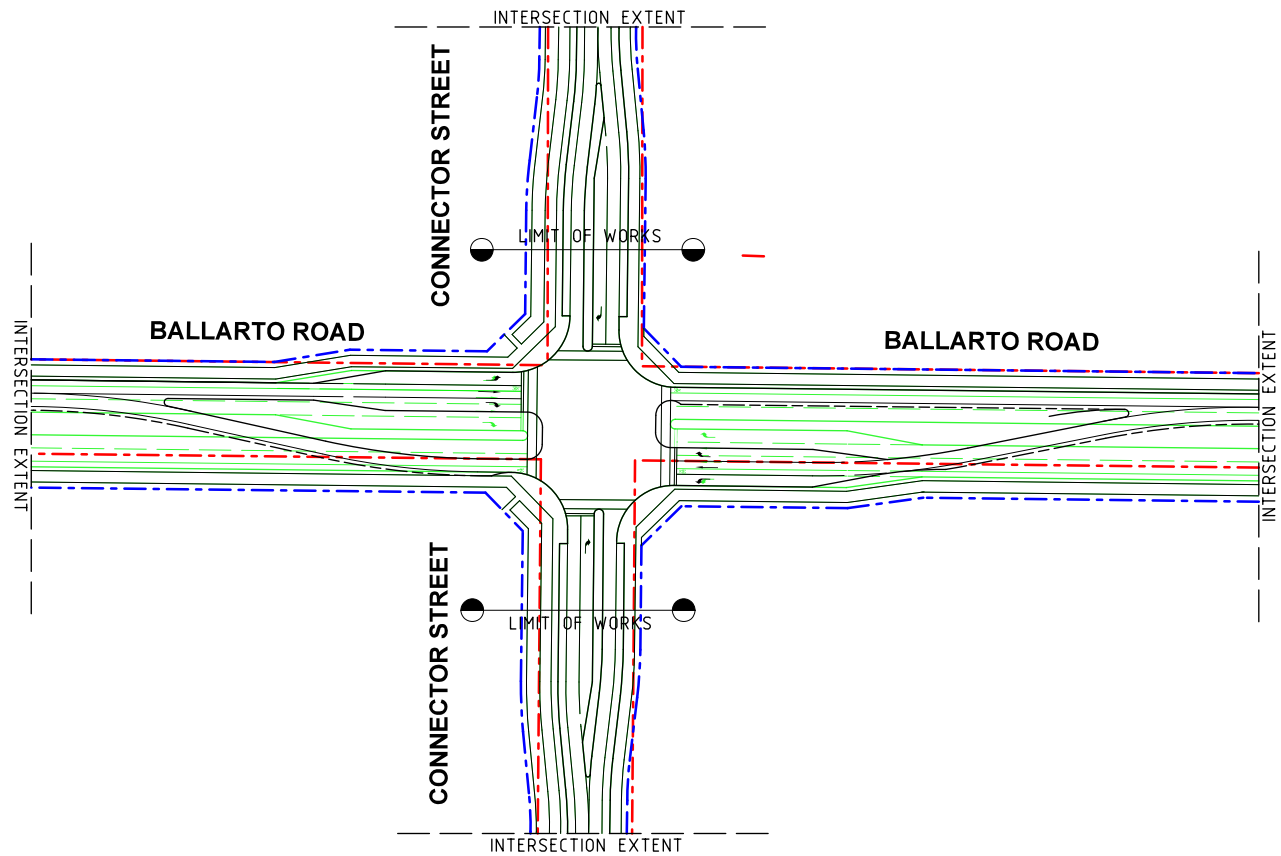
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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-57.1-01		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	13.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 37
Revision			P3



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
BALLARTO ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
BALLARTO ROAD: 60 km/h
CONNECTOR STREET: 50 km/h

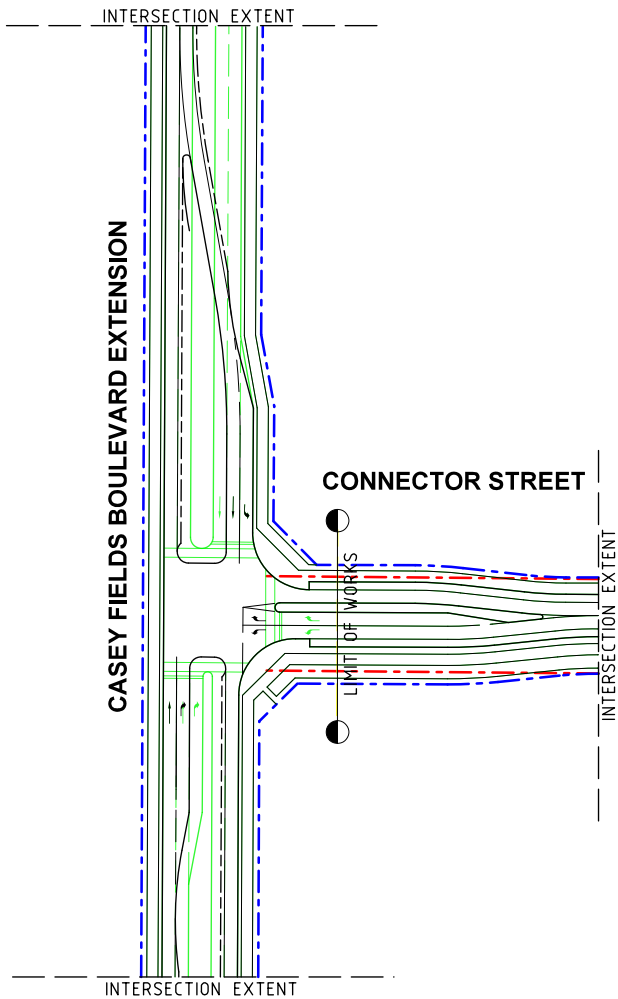


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Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 38
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-57.1-02	Revision	P2



P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB	
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH	
Rev	Date	Description	Drawn	Appr.	

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SPEED ZONES
ULTIMATE
CASEY FIELDS BOULEVARD EXTENSION: 60km/h
CONNECTOR STREET: 50km/h
INTERIM
CASEY FIELDS BOULEVARD EXTENSION: 60km/h
CONNECTOR STREET: 50km/h

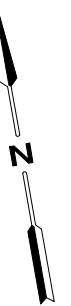
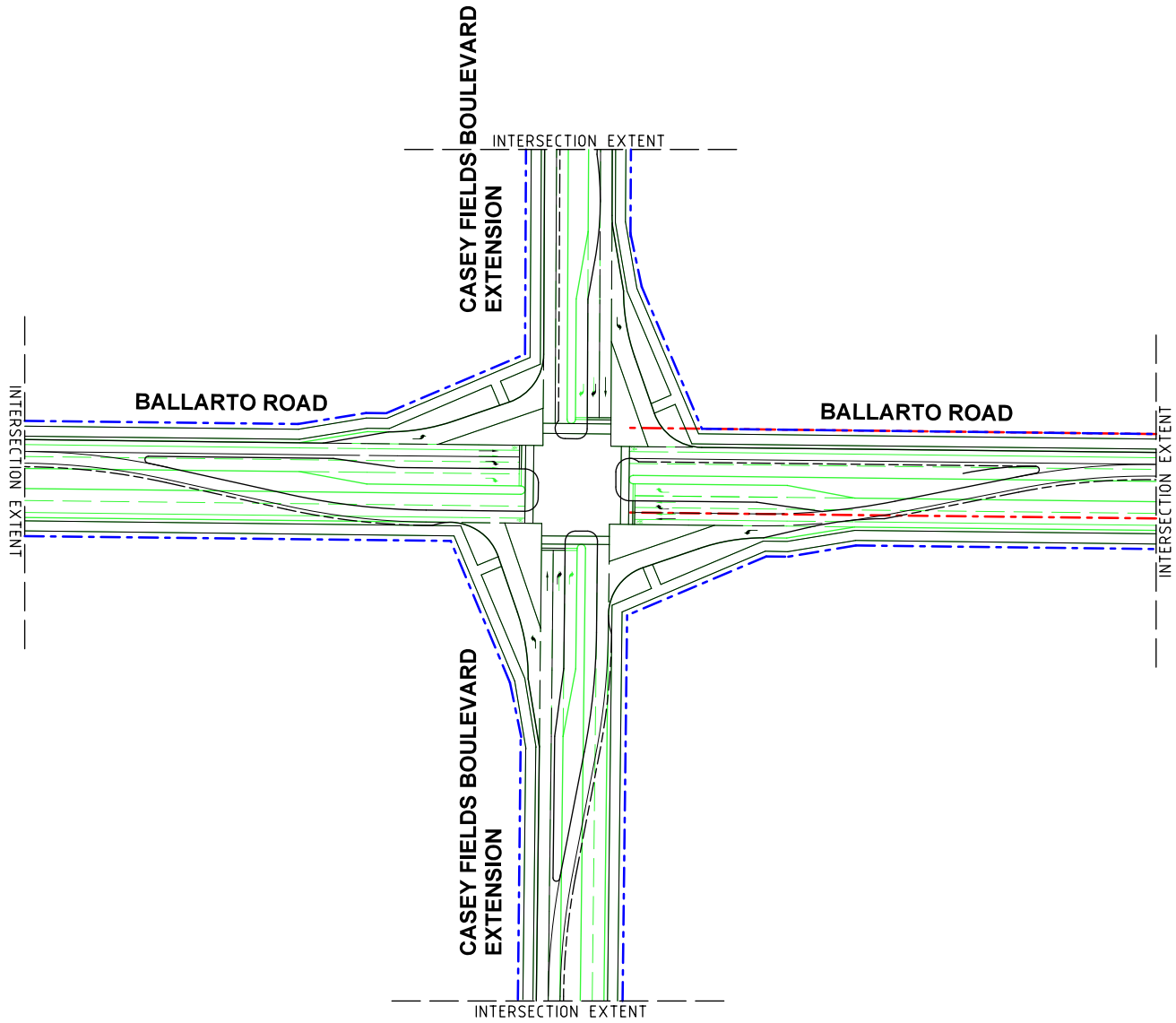


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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 39
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-57.1-03	Revision	P2



Rev	Date	Description	Drawn	Appr.
P2	01.08.14	COUNCIL/MICROADS/MPA COMMENTS	BR	CB
P1	14.06.14	ISSUED FOR INFORMATION	COB	RBH

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SPEED ZONES
ULTIMATE
BALLARTO ROAD: 60km/h
CASEY FIELDS BOULEVARD EXTENSION: 60km/h
INTERIM
BALLARTO ROAD: 60km/h
CASEY FIELDS BOULEVARD EXTENSION: 60km/h

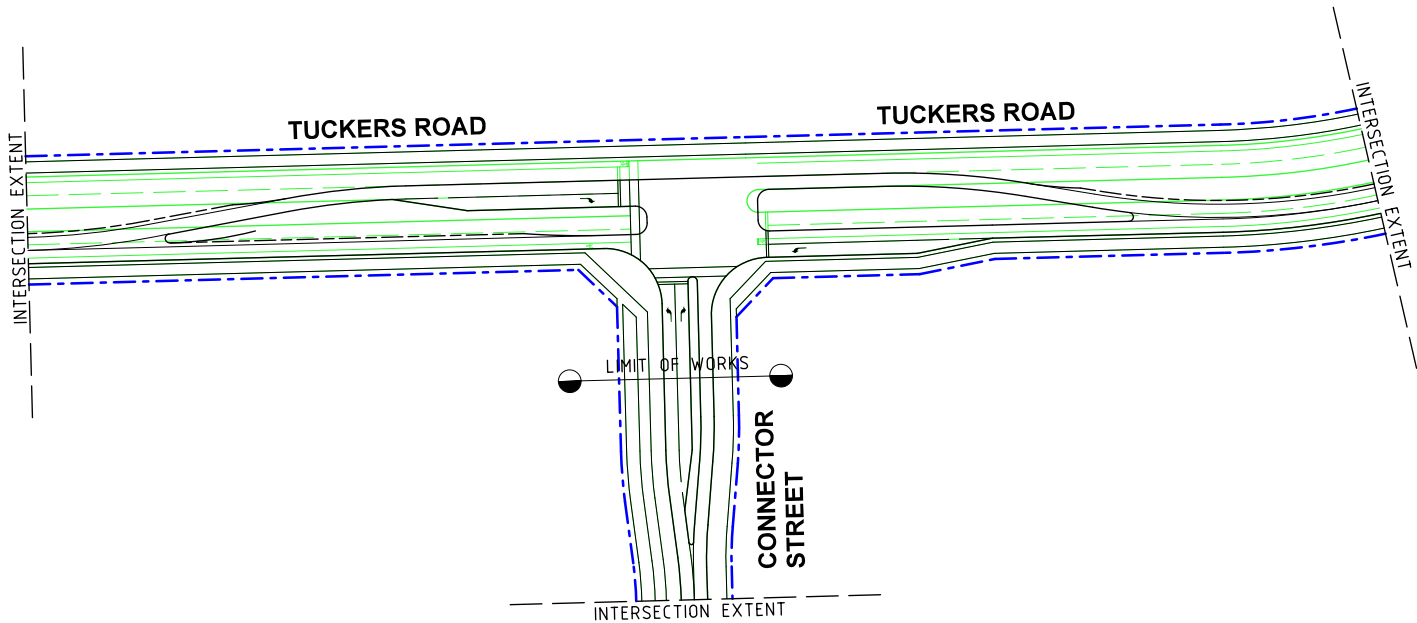
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Designed	COB/TCW/BH/AY
Checked	RBH
Authorised	

Client	METROPOLITAN PLANNING AUTHORITY		
Project	CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		
Title	ULTIMATE AND INTERIM INTERSECTIONS CONCEPT LAYOUT PLANS IN-57.1-04		

Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	14.06.14	Scale	1:2000
Project Number	CG130898	Sheet Number	T 40
Revision			P2



Rev	Date	Description	Drawn	Appr.
P1	17.10.14	ISSUED FOR INFORMATION	COB	CB

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SPEED ZONES
ULTIMATE
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h
INTERIM
TUCKERS ROAD: 60 km/h
CONNECTOR STREET: 50 km/h



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Drawn	COB
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Authorised	

Client METROPOLITAN PLANNING AUTHORITY			
Project CLYDE DCP - CLYDE PSP 53, 54 AND 57.1 CLYDE		Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Date 17.10.14	Scale 1:2000	Sheet Number T	Size A3
Project Number CG130898	Sheet Number 44	Revision P1	

7.5 Interim intersection costing sheets

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
SUMMARY SHEET
CG130898
Clyde PSP - Intersection Cost Estimate
20 August 2015
Version 8.1

ITEM	DESCRIPTION	IN-53-01	IN-53-02	IN-53-03	IN-53-04	IN-53-05	IN-53-06	IN-53-07	IN-53-08	IN-53-09	IN-53-10
	DRAWING SHEET REFERENCE	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11
A	Project and Program Management (5%)	\$ 316,435	\$ 177,076	\$ 164,244	\$ 235,734	\$ 142,238	\$ 151,479	\$ 170,683	\$ 159,496	\$ 129,382	\$ 116,242
B	Design and Investigation (10%)	\$ 632,869	\$ 354,152	\$ 328,488	\$ 471,468	\$ 284,475	\$ 302,957	\$ 341,367	\$ 318,992	\$ 258,765	\$ 232,485
C	Construction including Final Design	\$ 6,328,692	\$ 3,541,520	\$ 3,284,880	\$ 4,714,676	\$ 2,844,751	\$ 3,029,572	\$ 3,413,667	\$ 3,189,921	\$ 2,587,650	\$ 2,324,850
TOTAL A - C		\$ 7,277,995	\$ 4,072,748	\$ 3,777,612	\$ 5,421,877	\$ 3,271,463	\$ 3,484,008	\$ 3,925,716	\$ 3,668,409	\$ 2,975,797	\$ 2,673,577
D	CONTINGENCY										
	Contingency (15% of C)	\$ 949,304	\$ 531,228	\$ 492,732	\$ 707,201	\$ 426,713	\$ 454,436	\$ 512,050	\$ 478,488	\$ 388,147	\$ 348,727
E	PROJECT BUDGET										
	Total Estimate	\$ 8,227,299	\$ 4,603,976	\$ 4,270,344	\$ 6,129,078	\$ 3,698,176	\$ 3,938,444	\$ 4,437,766	\$ 4,146,897	\$ 3,363,945	\$ 3,022,305

Notes:

Shown thus	Intersection affected by Aboriginal Cultural heritage sensitivity model										
	Intersection with associated culverts		BR-53-01	BR-53-02	BR-53-03		BR-53-04				

Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Where applicable, existing road conditions based on limited crushed rock roads assumed to be of no consequence to works
- 10 Where applicable, existing asphalt roads to be demolished as part of intersection works

AUTHOR: Harrendran Mohan
Date: 14/10/2014

REVIEWER: Rob Henry
Date: 14/10/2014

**PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
SUMMARY SHEET
CG130898
Clyde PSP - Intersection Cost Estimate
20 August 2015
Version 8.1**

ITEM	DESCRIPTION	IN-53-11	IN-53-12	IN-53-13	IN-53-14	IN-53-15	IN-53-16	IN-53-17	IN-53-18	IN-54-01	IN-54-02
	DRAWING SHEET REFERENCE	T12	T13	T14	T15	T16	T17	T18	T41	T19	T20
A	Project and Program Management (5%)	\$ 173,066	\$ 206,988	\$ 128,610	\$ 115,699	\$ 194,955	\$ 129,837	\$ 159,711	\$ 111,730	\$ 46,676	\$ 125,030
B	Design and Investigation (10%)	\$ 346,131	\$ 413,976	\$ 257,219	\$ 231,398	\$ 389,911	\$ 259,674	\$ 319,423	\$ 223,459	\$ 93,351	\$ 250,060
C	Construction including Final Design	\$ 3,461,313	\$ 4,139,762	\$ 2,572,191	\$ 2,313,982	\$ 3,899,107	\$ 2,596,741	\$ 3,194,226	\$ 2,234,592	\$ 933,515	\$ 2,500,600
TOTAL A - C		\$ 3,980,510	\$ 4,760,726	\$ 2,958,020	\$ 2,661,079	\$ 4,483,973	\$ 389,511	\$ 3,673,360	\$ 2,569,781	\$ 1,073,542	\$ 2,875,690
D	CONTINGENCY										
	Contingency (15% of C)	\$ 519,197	\$ 620,964	\$ 385,829	\$ 347,097	\$ 584,866	\$ 3,375,764	\$ 479,134	\$ 335,189	\$ 140,027	\$ 375,090
E	PROJECT BUDGET										
	Total Estimate	\$ 4,499,707	\$ 5,381,691	\$ 3,343,848	\$ 3,008,176	\$ 5,068,839	\$ 3,765,275	\$ 4,152,494	\$ 2,904,970	\$ 1,213,569	\$ 3,250,780

Notes:

Shown thus	Intersection affected by Aboriginal Cultural heritage sensitivity model										
	Intersection with associated culverts	BR-53-05				BR-54-04	BR-54-05	BR-53-06			BR-54-07

Due to flat topography of the area, no major cut/fill works have been included for

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

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Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

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- 8 Based on preliminary information

Roads

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- 10 Where applicable, existing asphalt roads to be demolished as part of intersection works

AUTHOR: Harrendran Mohan
Date: 14/10/2014

REVIEWER: Rob Henry
Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
SUMMARY SHEET
CG130898
Clyde PSP - Intersection Cost Estimate
20 August 2015
Version 8.1

ITEM	DESCRIPTION	IN-54-03	IN-54-04	IN-54-05	IN-54-06	IN-54-07	IN-54-09	IN-54-11	IN-54-12	IN-54-13	IN-54-14
	DRAWING SHEET REFERENCE	T21	T22	T23	T24	T25	T27	T28	T29	T30	T31
A	Project and Program Management (5%)	\$ 127,964	\$ 93,548	\$ 133,260	\$ 188,100	\$ 126,030	\$ 116,398	\$ 121,994	\$ 127,490	\$ 96,696	\$ 101,914
B	Design and Investigation (10%)	\$ 255,929	\$ 187,096	\$ 266,519	\$ 376,199	\$ 252,060	\$ 232,796	\$ 243,988	\$ 254,980	\$ 193,391	\$ 203,828
C	Construction including Final Design	\$ 2,559,287	\$ 1,870,964	\$ 2,665,190	\$ 3,761,993	\$ 2,520,596	\$ 2,327,963	\$ 2,439,882	\$ 2,549,797	\$ 1,933,911	\$ 2,038,276
TOTAL A - C		\$ 2,943,180	\$ 2,151,609	\$ 3,064,969	\$ 4,326,292	\$ 2,898,685	\$ 2,677,158	\$ 2,805,864	\$ 2,932,266	\$ 2,223,998	\$ 2,344,018
D	CONTINGENCY										
	Contingency (15% of C)	\$ 383,893	\$ 280,645	\$ 399,779	\$ 564,299	\$ 378,089	\$ 349,194	\$ 365,982	\$ 382,470	\$ 290,087	\$ 305,741
E	PROJECT BUDGET										
	Total Estimate	\$ 3,327,073	\$ 2,432,254	\$ 3,464,748	\$ 4,890,591	\$ 3,276,775	\$ 3,026,352	\$ 3,171,846	\$ 3,314,736	\$ 2,514,085	\$ 2,649,759

Notes:

Shown thus	Intersection affected by Aboriginal Cultural heritage sensitivity model										
	Intersection with associated culverts							BR-54-14			

Due to flat topography of the area, no major cut/fill works have been included for

- Substations**
- Preliminaries**
- Subsoil Drain**
- Side Entry Pits**
- Tactile Pavers**
- Signing**
- Pavement**
- Tree Removal**
- Roads**
- 1 No allowance for substations
 - 2 Based on nominal rates
 - 3 Assume same as kerb and channel
 - 4 Based on 50 m intervals
 - 5 Assume hazard TGS's (no directional)
 - 6 Nominal rate
 - 7 Assume deep lift asphalt pavement
 - 8 Based on preliminary information
 - 9 Where applicable, existing road conditions based on limited crushed rock roads assumed to be of no consequence to works
 - 10 Where applicable, existing asphalt roads to be demolished as part of intersection works

AUTHOR: Harrendran Mohan
Date: 14/10/2014

REVIEWER: Rob Henry
Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
SUMMARY SHEET
CG130898
Clyde PSP - Intersection Cost Estimate
20 August 2015
Version 8.1

ITEM	DESCRIPTION	IN-54-15	IN-54-20	IN-57.1-01	IN-57.1-02	IN-57.1-03	IN-57.1-04	Total Precinct
	DRAWING SHEET REFERENCE	T32	T36	T37	T38	T39	T40	Cost
A	Project and Program Management (5%)	\$ 253,662	\$ 186,974	\$ 125,802	\$ 133,424	\$ 101,228	\$ 171,916	\$ 5,361,707
B	Design and Investigation (10%)	\$ 507,323	\$ 373,947	\$ 251,603	\$ 266,848	\$ 202,455	\$ 343,832	\$ 10,723,415
C	Construction including Final Design	\$ 5,073,232	\$ 3,739,474	\$ 2,516,031	\$ 2,668,479	\$ 2,024,551	\$ 3,438,317	\$ 107,234,150
TOTAL A - C		\$ 5,834,216	\$ 4,300,395	\$ 2,893,435	\$ 3,068,751	\$ 2,328,234	\$ 3,954,065	\$ 120,722,531
D	CONTINGENCY							
	Contingency (15% of C)	\$ 760,985	\$ 560,921	\$ 377,405	\$ 400,272	\$ 303,683	\$ 515,748	\$ 19,071,375
E	PROJECT BUDGET							
	Total Estimate	\$ 6,595,201	\$ 4,861,316	\$ 3,270,840	\$ 3,469,023	\$ 2,631,917	\$ 4,469,812	\$ 139,793,906

Notes:

Shown thus	Intersection affected by Aboriginal Cultural heritage sensitivity model							
	Intersection with associated culverts							

Due to flat topography of the area, no major cut/fill works have been included for

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

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AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T02

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 316,435
	Project Management		3.00%	0.00%	\$ 189,861	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 126,574	
B	Design and Investigation (10%)					\$ 632,869
	Traffic Investigations		0.85%	0.00%	\$ 53,794	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 75,944	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 75,944	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 268,969	
	Construction Management		2.50%	0.00%	\$ 158,217	
					0%	
C	Construction				\$ 6,328,692	\$ 6,328,692
1	PRELIMINARIES					\$ 325,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 160,000	\$ 160,000	
1.2	Site management & supervision including QA	26	wks	\$ 2,500	\$ 65,000	
1.3	Provision for traffic	1	Item	\$ 100,000	\$ 100,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 156,078
2.1	Trees	150	No	\$ 500	\$ 75,000	
2.2	Plane existing asphalt	13,513	m ²	\$ 6	\$ 81,078	
3	EARTHWORKS					\$ 477,746
3.1	Stripping topsoil (100mm)	10,527	m ²	\$ 6	\$ 63,162	
3.2	Excavation and removal	11,793	m ³	\$ 30	\$ 353,775	
3.3	Stockpile reclaimed FCR	4,054	m ³	\$ 15	\$ 60,809	
4	PAVEMENT					\$ 2,978,800
4.1	Deep lift asphalt 195 mm	19,900	m ²	\$ 85	\$ 1,691,500	
4.2	Subbase course - 250 mm 3% CTCR	23,585	m ²	\$ 45	\$ 1,061,325	
4.3	Shoulder - full depth pavement	455	m ²	\$ 145	\$ 65,975	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 160,000	\$ 160,000	
5	DRAINAGE					\$ 527,025
5.1	Subsoil drains 100mm dia - screenings	3,685	Lm	\$ 30	\$ 110,550	
5.2	Subsoil drains 100mm dia - no fines conc	455	Lm	\$ 45	\$ 20,475	
5.3	375 RCP (class 2)	1,800	Lm	\$ 170	\$ 306,000	
5.4	Side entry pits	36	No	\$ 2,500	\$ 90,000	
6	CONCRETE WORKS					\$ 629,575
6.1	Kerb & channel	3,685	Lm	\$ 50	\$ 184,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	2,010	Lm	\$ 130	\$ 261,300	
6.3	Laybacks and tactile pavers	22	No	\$ 850	\$ 18,700	
6.4	Concrete island infill	1,345	m ²	\$ 85	\$ 114,325	
6.5	10m concrete maintenance area	600	m ²	\$ 85	\$ 51,000	
7	TRAFFIC SIGNAL WORKS					\$ 300,000
7.1	General items	1	Item	\$ 30,000	\$ 30,000	
7.2	Conduits	1	Item	\$ 24,000	\$ 24,000	
7.3	Pedestals	1	Item	\$ 60,000	\$ 60,000	
7.4	Lanterns	1	Item	\$ 24,000	\$ 24,000	
7.5	Controller	1	Item	\$ 90,000	\$ 90,000	
7.6	Detectors	1	Item	\$ 12,000	\$ 12,000	
7.7	Cabling & connections	1	Item	\$ 48,000	\$ 48,000	
7.8	Clean-up	1	Item	\$ 12,000	\$ 12,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 405,000
9.1	Light pole (1-way) and luminous lights	30	No	\$ 8,000	\$ 240,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	12	No	\$ 4,000	\$ 48,000	
9.4	JUP lighting dual	-	No	\$ 5,000	\$ -	
9.5	Cabling, conduits and pits	1	Item	\$ 50,000	\$ 50,000	
9.6	Electrical connection	1	Item	\$ 13,000	\$ 13,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T02

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 96,968
10.1	Topsoiling seeding	11,408	m ²	\$ 8.50	\$ 96,968	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 7,277,995	\$ 7,277,995
D	Contingency					
	Contingency (15% of C)				15%	\$ 949,303.73
E	PROJECT BUDGET					
	Total Estimate					\$ 8,227,299

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 9 Crushed rock reclaimed from existing pavements to be reused

8

- 10 Based on preliminary information

9

- 10 Assume all existing asphalt roads to be demolished and FCR stockpiled
Option of the 28,550 m² pavement, there is 7,140 m² of the existing pavement that may be able to be retained; this is not priced
- 13 Assume crushed rock pavement will be removed as part of general earthworks

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-02

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T03

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 177,076
	Project Management		3.00%	0.00%	\$ 106,246	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 70,830	
B	Design and Investigation (10%)					\$ 354,152
	Traffic Investigations		0.85%	0.00%	\$ 30,103	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 42,498	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 42,498	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 150,515	
	Construction Management		2.50%	0.00%	\$ 88,538	
C	Construction				\$ 3,541,520	\$ 3,541,520
1	PRELIMINARIES					\$ 196,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 90,000	\$ 90,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 30,000
2.1	Trees	60	No	\$ 500	\$ 30,000	
3	EARTHWORKS					\$ 193,110
3.1	Stripping topsoil (100mm)	7,010	m ²	\$ 6	\$ 42,060	
3.2	Excavation and removal	5,035	m ³	\$ 30	\$ 151,050	
4	PAVEMENT					\$ 1,573,050
4.1	Deep lift asphalt 195 mm	8,380	m ²	\$ 105	\$ 879,900	
4.2	Subbase course - 250 mm 3% CTCR	10,070	m ²	\$ 55	\$ 553,850	
4.3	Shoulder - full depth pavement	340	m ²	\$ 145	\$ 49,300	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 90,000	\$ 90,000	
5	DRAINAGE					\$ 308,000
5.1	Subsoil drains 100mm dia - screenings	1,690	Lm	\$ 30	\$ 50,700	
5.2	Subsoil drains 100mm dia - no fines conc	340	Lm	\$ 45	\$ 15,300	
5.3	375 RCP (class 2)	1,100	Lm	\$ 170	\$ 187,000	
5.4	Side entry pits	22	No	\$ 2,500	\$ 55,000	
6	CONCRETE WORKS					\$ 300,250
6.1	Kerb & channel	1,690	Lm	\$ 50	\$ 84,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	960	Lm	\$ 130	\$ 124,800	
6.4	Laybacks and tactile pavers	18	No	\$ 850	\$ 15,300	
6.5	Concrete island infill	570	m ²	\$ 85	\$ 48,450	
6.5	10m concrete maintenance area	320	m ²	\$ 85	\$ 27,200	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 195,500
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-02

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T03

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 38,110
10.1	Topsoiling seeding	4,484	m ²	\$ 8.50	\$ 38,110	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,072,748	\$ 4,072,748
D	Contingency					
	Contingency (15% of C)				15%	\$ 531,227.96
E	PROJECT BUDGET					
	Total Estimate					\$ 4,603,976

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T04

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 164,244
	Project Management		3.00%	0.00%	\$ 98,546	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 65,698	
B	Design and Investigation (10%)					\$ 328,488
	Traffic Investigations		0.85%	0.00%	\$ 27,921	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 39,419	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 39,419	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 139,607	
	Construction Management		2.50%	0.00%	\$ 82,122	
C	Construction				\$ 3,284,880	\$ 3,284,880
1	PRELIMINARIES					\$ 189,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 83,000	\$ 83,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 10,000
2.1	Trees	20	No	\$ 500	\$ 10,000	
3	EARTHWORKS					\$ 177,525
3.1	Stripping topsoil (100mm)	6,400	m ²	\$ 6	\$ 38,400	
3.2	Excavation and removal	4,638	m ³	\$ 30	\$ 139,125	
4	PAVEMENT					\$ 1,456,475
4.1	Deep lift asphalt 195 mm	7,815	m ²	\$ 105	\$ 820,575	
4.2	Subbase course - 250 mm 3% CTCR	9,275	m ²	\$ 55	\$ 510,125	
4.3	Shoulder - full depth pavement	295	m ²	\$ 145	\$ 42,775	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 83,000	\$ 83,000	
5	DRAINAGE					\$ 266,075
5.1	Subsoil drains 100mm dia - screenings	1,460	Lm	\$ 30	\$ 43,800	
5.2	Subsoil drains 100mm dia - no fines conc	295	Lm	\$ 45	\$ 13,275	
5.3	375 RCP (class 2)	950	Lm	\$ 170	\$ 161,500	
5.4	Side entry pits	19	No	\$ 2,500	\$ 47,500	
6	CONCRETE WORKS					\$ 256,500
6.1	Kerb & channel	1,460	Lm	\$ 50	\$ 73,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	895	Lm	\$ 130	\$ 116,350	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	375	m ²	\$ 85	\$ 31,875	
6.5	10m concrete maintenance area	255	m ²	\$ 85	\$ 21,675	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 195,500
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	
10	LANDSCAPING WORKS					\$ 26,305
10.1	Topsolling seeding	3,095	m ²	\$ 8.50	\$ 26,305	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Clyde PSP - Intersection Cost Estimate

Version 8.1

Intersection Ref: IN-53-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T04

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,777,612	\$ 3,777,612
D	Contingency					
	Contingency (15% of C)				15%	\$ 492,732.06
E	PROJECT BUDGET					
	Total Estimate					\$ 4,270,344

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-04

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T05

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 235,734
	Project Management		3.00%	0.00%	\$ 141,440	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 94,294	
B	Design and Investigation (10%)					\$ 471,468
	Traffic Investigations		0.85%	0.00%	\$ 40,075	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 56,576	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 56,576	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 200,374	
	Construction Management		2.50%	0.00%	\$ 117,867	
C	Construction				\$ 4,714,676	\$ 4,714,676
1	PRELIMINARIES					\$ 236,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 120,000	\$ 120,000	
1.2	Site management & supervision including QA	24	wks	\$ 2,500	\$ 60,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 75,000
2.1	Trees	150	No	\$ 500	\$ 75,000	
3	EARTHWORKS					\$ 301,590
3.1	Stripping topsoil (100mm)	12,625	m ²	\$ 6	\$ 75,750	
3.2	Excavation and removal	7,528	m ³	\$ 30	\$ 225,840	
4	PAVEMENT					\$ 2,221,525
4.1	Deep lift asphalt 195 mm	12,906	m ²	\$ 105	\$ 1,355,130	
4.2	Subbase course - 250 mm 3% CTCR	15,056	m ²	\$ 45	\$ 677,520	
4.3	Shoulder - full depth pavement	475	m ²	\$ 145	\$ 68,875	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 120,000	\$ 120,000	
5	DRAINAGE					\$ 354,415
5.1	Subsoil drains 100mm dia - screenings	2,150	Lm	\$ 30	\$ 64,500	
5.2	Subsoil drains 100mm dia - no fines conc	475	Lm	\$ 45	\$ 21,375	
5.3	375 RCP (class 2)	1,212	Lm	\$ 170	\$ 206,040	
5.4	Side entry pits	25	No	\$ 2,500	\$ 62,500	
6	CONCRETE WORKS					\$ 476,600
6.1	Kerb & channel	2,150	Lm	\$ 50	\$ 107,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,355	Lm	\$ 130	\$ 176,150	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	1,500	m ²	\$ 85	\$ 127,500	
6.5	10m concrete maintenance area	530	m ²	\$ 85	\$ 45,050	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 276,500
9.1	Light pole (1-way) and luminous lights	10	No	\$ 8,000	\$ 80,000	
9.2	Light pole (2-way) and luminous lights	11	No	\$ 9,000	\$ 99,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-04

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T05

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 65,546
10.1	Topsoiling seeding	7,711	m ²	\$ 8.50	\$ 65,546	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 5,421,877	\$ 5,421,877
D	Contingency					
	Contingency (15% of C)				15%	\$ 707,201.34
E	PROJECT BUDGET					
	Total Estimate					\$ 6,129,078

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

- 11 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-05

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T06

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 142,238
	Project Management		3.00%	0.00%	\$ 85,343	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 56,895	
B	Design and Investigation (10%)					\$ 284,475
	Traffic Investigations		0.85%	0.00%	\$ 24,180	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 34,137	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 34,137	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 120,902	
	Construction Management		2.50%	0.00%	\$ 71,119	
C	Construction				\$ 2,844,751	\$ 2,844,751
1	PRELIMINARIES					\$ 170,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 72,000	\$ 72,000	
1.2	Site management & supervision including QA	17	wks	\$ 2,500	\$ 42,500	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 10,000
2.1	Trees	20	No	\$ 500	\$ 10,000	
3	EARTHWORKS					\$ 137,589
3.1	Stripping topsoil (100mm)	4,794	m ²	\$ 6	\$ 28,764	
3.2	Excavation and removal	3,628	m ³	\$ 30	\$ 108,825	
4	PAVEMENT					\$ 1,130,100
4.1	Deep lift asphalt 195 mm	5,980	m ²	\$ 105	\$ 627,900	
4.2	Subbase course - 250 mm 3% CTCR	7,255	m ²	\$ 55	\$ 399,025	
4.3	Shoulder - full depth pavement	215	m ²	\$ 145	\$ 31,175	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 72,000	\$ 72,000	
5	DRAINAGE					\$ 245,925
5.1	Subsoil drains 100mm dia - screenings	1,275	Lm	\$ 30	\$ 38,250	
5.2	Subsoil drains 100mm dia - no fines conc	215	Lm	\$ 45	\$ 9,675	
5.3	375 RCP (class 2)	900	Lm	\$ 170	\$ 153,000	
5.4	Side entry pits	18	No	\$ 2,500	\$ 45,000	
6	CONCRETE WORKS					\$ 222,175
6.1	Kerb & channel	1,275	Lm	\$ 50	\$ 63,750	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	725	Lm	\$ 130	\$ 94,250	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	275	m ²	\$ 85	\$ 23,375	
6.5	10m concrete maintenance area	320	m ²	\$ 85	\$ 27,200	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 195,500
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-05

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T06

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 25,462
10.1	Topsoiling seeding	2,996	m ²	\$ 8.50	\$ 25,462	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,271,463	\$ 3,271,463
D	Contingency					
	Contingency (15% of C)				15%	\$ 426,712.61
E	PROJECT BUDGET					
	Total Estimate					\$ 3,698,176

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-06

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T07

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 151,479
	Project Management		3.00%	0.00%	\$ 90,887	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 60,591	
B	Design and Investigation (10%)					\$ 302,957
	Traffic Investigations		0.85%	0.00%	\$ 25,751	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 36,355	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 36,355	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 128,757	
	Construction Management		2.50%	0.00%	\$ 75,739	
C	Construction				\$ 3,029,572	\$ 3,029,572
1	PRELIMINARIES					\$ 178,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 77,000	\$ 77,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 15,000
2.1	Trees	30	No	\$ 500	\$ 15,000	
3	EARTHWORKS					\$ 157,242
3.1	Stripping topsoil (100mm)	5,957	m ²	\$ 6	\$ 35,742	
3.2	Excavation and removal	4,050	m ³	\$ 30	\$ 121,500	
4	PAVEMENT					\$ 1,265,000
4.1	Deep lift asphalt 195 mm	6,740	m ²	\$ 105	\$ 707,700	
4.2	Subbase course - 250 mm 3% CTCR	8,100	m ²	\$ 55	\$ 445,500	
4.3	Shoulder - full depth pavement	240	m ²	\$ 145	\$ 34,800	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 77,000	\$ 77,000	
5	DRAINAGE					\$ 249,600
5.1	Subsoil drains 100mm dia - screenings	1,360	Lm	\$ 30	\$ 40,800	
5.2	Subsoil drains 100mm dia - no fines conc	240	Lm	\$ 45	\$ 10,800	
5.3	375 RCP (class 2)	900	Lm	\$ 170	\$ 153,000	
5.4	Side entry pits	18	No	\$ 2,500	\$ 45,000	
6	CONCRETE WORKS					\$ 236,230
6.1	Kerb & channel	1,360	Lm	\$ 50	\$ 68,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	771	Lm	\$ 130	\$ 100,230	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	390	m ²	\$ 85	\$ 33,150	
6.5	10m concrete maintenance area	250	m ²	\$ 85	\$ 21,250	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 195,500
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-06

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T07

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 25,500
10.1	Topsoiling seeding	3,000	m ²	\$ 8.50	\$ 25,500	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,484,008	\$ 3,484,008
D	Contingency					
	Contingency (15% of C)				15%	\$ 454,435.80
E	PROJECT BUDGET					
	Total Estimate					\$ 3,938,444

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W and N-S assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-07

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T08

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 170,683
	Project Management		3.00%	0.00%	\$ 102,410	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 68,273	
B	Design and Investigation (10%)					\$ 341,367
	Traffic Investigations		0.85%	0.00%	\$ 29,016	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 40,964	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 40,964	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 145,081	
	Construction Management		2.50%	0.00%	\$ 85,342	
C	Construction				\$ 3,413,667	\$ 3,413,667
1	PRELIMINARIES					\$ 211,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 86,000	\$ 86,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 75,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 51,420
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,745	m ²	\$ 16	\$ 43,920	
3	EARTHWORKS					\$ 222,960
3.1	Stripping topsoil (100mm)	6,785	m ²	\$ 6	\$ 40,710	
3.2	Excavation and removal	4,703	m ³	\$ 30	\$ 141,075	
3.3	Stockpile reclaimed FCR	2,745	m ³	\$ 15	\$ 41,175	
4	PAVEMENT					\$ 1,430,950
4.1	Deep lift asphalt 195 mm	7,710	m ²	\$ 105	\$ 809,550	
4.2	Subbase course - 250 mm 3% CTCR	9,405	m ²	\$ 55	\$ 517,275	
4.3	Shoulder - full depth pavement	125	m ²	\$ 145	\$ 18,125	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 86,000	\$ 86,000	
5	DRAINAGE					\$ 254,475
5.1	Subsoil drains 100mm dia - screenings	1,695	Lm	\$ 30	\$ 50,850	
5.2	Subsoil drains 100mm dia - no fines conc	125	Lm	\$ 45	\$ 5,625	
5.3	375 RCP (class 2)	900	Lm	\$ 170	\$ 153,000	
5.4	Side entry pits	18	No	\$ 2,500	\$ 45,000	
6	CONCRETE WORKS					\$ 291,850
6.1	Kerb & channel	1,695	Lm	\$ 50	\$ 84,750	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	815	Lm	\$ 130	\$ 105,950	
6.3	Laybacks and tactile pavers	18	No	\$ 850	\$ 15,300	
6.4	Concrete island infill	730	m ²	\$ 85	\$ 62,050	
6.5	10m concrete maintenance area end of all islands	280	m ²	\$ 85	\$ 23,800	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 200,000
9.1	Light pole (1-way) and luminous lights	-	No	\$ 8,000	\$ -	
9.2	Light pole (2-way) and luminous lights	12	No	\$ 9,000	\$ 108,000	
9.3	JUP lighting single	3	No	\$ 4,000	\$ 12,000	
9.4	JUP lighting dual	5	No	\$ 5,000	\$ 25,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-07

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T08

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 43,512
10.1	Topsoiling seeding	5,119	m ²	\$ 8.50	\$ 43,512	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C						\$ 3,925,716 \$ 3,925,716
D	Contingency					
	Contingency (15% of C)				15%	\$ 512,049.98
E	PROJECT BUDGET					
	Total Estimate					\$ 4,437,766

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

9

- 8 Based on preliminary information

10

- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-08

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T09

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 159,496
	Project Management		3.00%	0.00%	\$ 95,698	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 63,798	
B	Design and Investigation (10%)					\$ 318,992
	Traffic Investigations		0.85%	0.00%	\$ 27,114	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 38,279	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 38,279	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 135,572	
	Construction Management		2.50%	0.00%	\$ 79,748	
C	Construction				\$ 3,189,921	\$ 3,189,921
1	PRELIMINARIES					\$ 184,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 81,000	\$ 81,000	
1.2	Site management & supervision including QA	19	wks	\$ 2,500	\$ 47,500	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 4,000
2.1	Trees	8	No	\$ 500	\$ 4,000	
3	EARTHWORKS					\$ 195,510
3.1	Stripping topsoil (100mm)	9,510	m ²	\$ 6	\$ 57,060	
3.2	Excavation and removal	4,615	m ³	\$ 30	\$ 138,450	
4	PAVEMENT					\$ 1,455,600
4.1	Deep lift asphalt 195 mm	7,870	m ²	\$ 105	\$ 826,350	
4.2	Subbase course - 250 mm 3% CTCR	9,230	m ²	\$ 55	\$ 507,650	
4.3	Shoulder - full depth pavement	280	m ²	\$ 145	\$ 40,600	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 81,000	\$ 81,000	
5	DRAINAGE					\$ 273,400
5.1	Subsoil drains 100mm dia - screenings	1,360	Lm	\$ 30	\$ 40,800	
5.2	Subsoil drains 100mm dia - no fines conc	280	Lm	\$ 45	\$ 12,600	
5.3	375 RCP (class 2)	1,000	Lm	\$ 170	\$ 170,000	
5.4	Side entry pits	20	No	\$ 2,500	\$ 50,000	
6	CONCRETE WORKS					\$ 211,200
6.1	Kerb & channel	1,360	Lm	\$ 50	\$ 68,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	840	Lm	\$ 130	\$ 109,200	
6.4	Laybacks and tactile pavers	8	No	\$ 850	\$ 6,800	
6.5	Concrete island infill	135	m ²	\$ 85	\$ 11,475	
6.5	10m concrete maintenance area	185	m ²	\$ 85	\$ 15,725	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 165,000
9.1	Light pole (1-way) and luminous lights	2	No	\$ 8,000	\$ 16,000	
9.2	Light pole (2-way) and luminous lights	7	No	\$ 9,000	\$ 63,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-08

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T09

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 30,711
10.1	Topsoiling seeding	3,613	m ²	\$ 8.50	\$ 30,711	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,668,409	\$ 3,668,409
D	Contingency					
	Contingency (15% of C)				15%	\$ 478,488.08
E	PROJECT BUDGET					
	Total Estimate					\$ 4,146,897

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-09

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T10

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 129,382
	Project Management		3.00%	0.00%	\$ 77,629	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 51,753	
B	Design and Investigation (10%)					\$ 258,765
	Traffic Investigations		0.85%	0.00%	\$ 21,995	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 31,052	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 31,052	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 109,975	
	Construction Management		2.50%	0.00%	\$ 64,691	
C	Construction				\$ 2,587,650	\$ 2,587,650
1	PRELIMINARIES					\$ 185,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 66,000	\$ 66,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 74,000	\$ 74,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 43,400
2.1	Trees	10	No	\$ 500	\$ 5,000	
2.2	Plane existing asphalt	2,400	m ²	\$ 16	\$ 38,400	
3	EARTHWORKS					\$ 146,439
3.1	Stripping topsoil (100mm)	3,689	m ²	\$ 6	\$ 22,134	
3.2	Excavation and removal	2,944	m ³	\$ 30	\$ 88,305	
3.3	Stockpile reclaimed FCR	2,400	m ³	\$ 15	\$ 36,000	
4	PAVEMENT					\$ 929,060
4.1	Deep lift asphalt 195 mm	4,857	m ²	\$ 105	\$ 509,985	
4.2	Subbase course - 250 mm 3% CTCR	5,887	m ²	\$ 55	\$ 323,785	
4.3	Shoulder - full depth pavement	202	m ²	\$ 145	\$ 29,290	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 66,000	\$ 66,000	
5	DRAINAGE					\$ 182,990
5.1	Subsoil drains 100mm dia - screenings	1,030	Lm	\$ 30	\$ 30,900	
5.2	Subsoil drains 100mm dia - no fines conc	202	Lm	\$ 45	\$ 9,090	
5.3	375 RCP (class 2)	650	Lm	\$ 170	\$ 110,500	
5.4	Side entry pits	13	No	\$ 2,500	\$ 32,500	
6	CONCRETE WORKS					\$ 207,935
6.1	Kerb & channel	1,030	Lm	\$ 50	\$ 51,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	660	Lm	\$ 130	\$ 85,800	
6.4	Laybacks and tactile pavers	18	No	\$ 850	\$ 15,300	
6.5	Concrete island infill	381	m ²	\$ 85	\$ 32,385	
6.5	10m concrete maintenance area end of all islands	270	m ²	\$ 85	\$ 22,950	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 200,000
9.1	Light pole (1-way) and luminous lights	-	No	\$ 8,000	\$ -	
9.2	Light pole (2-way) and luminous lights	12	No	\$ 9,000	\$ 108,000	
9.3	JUP lighting single	3	No	\$ 4,000	\$ 12,000	
9.4	JUP lighting dual	5	No	\$ 5,000	\$ 25,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-09

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T10

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 22,826
10.1	Topsoiling seeding	2,685	m ²	\$ 8.50	\$ 22,826	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C						\$ 2,975,797
D	Contingency					
	Contingency (15% of C)				15%	\$ 388,147.49
E	PROJECT BUDGET					
	Total Estimate					\$ 3,363,945

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

9

- 8 Based on preliminary information

10

- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-10

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T11

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 116,242
	Project Management		3.00%	0.00%	\$ 69,745	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 46,497	
B	Design and Investigation (10%)					\$ 232,485
	Traffic Investigations		0.85%	0.00%	\$ 19,761	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 27,898	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 27,898	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 98,806	
	Construction Management		2.50%	0.00%	\$ 58,121	
C	Construction				\$ 2,324,850	\$ 2,324,850
1	PRELIMINARIES					\$ 155,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 59,000	\$ 59,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 2,500
2.1	Trees	5	No	\$ 500	\$ 2,500	
3	EARTHWORKS					\$ 110,070
3.1	Stripping topsoil (100mm)	5,350	m ²	\$ 6	\$ 32,100	
3.2	Excavation and removal	2,599	m ³	\$ 30	\$ 77,970	
4	PAVEMENT					\$ 767,820
4.1	Deep lift asphalt 195 mm	3,818	m ²	\$ 105	\$ 400,890	
4.2	Subbase course - 250 mm 3% CTCR	5,198	m ²	\$ 55	\$ 285,890	
4.3	Shoulder - full depth pavement	152	m ²	\$ 145	\$ 22,040	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 59,000	\$ 59,000	
5	DRAINAGE					\$ 213,240
5.1	Subsoil drains 100mm dia - screenings	1,380	Lm	\$ 30	\$ 41,400	
5.2	Subsoil drains 100mm dia - no fines conc	152	Lm	\$ 45	\$ 6,840	
5.3	375 RCP (class 2)	750	Lm	\$ 170	\$ 127,500	
5.4	Side entry pits	15	No	\$ 2,500	\$ 37,500	
6	CONCRETE WORKS					\$ 236,725
6.1	Kerb & channel	1,380	Lm	\$ 50	\$ 69,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	620	Lm	\$ 130	\$ 80,600	
6.4	Laybacks and tactile pavers	12	No	\$ 850	\$ 10,200	
6.5	Concrete island infill	545	m ²	\$ 85	\$ 46,325	
6.5	10m concrete maintenance area	360	m ²	\$ 85	\$ 30,600	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 144,000
9.1	Light pole (1-way) and luminous lights	-	No	\$ 8,000	\$ -	
9.2	Light pole (2-way) and luminous lights	7	No	\$ 9,000	\$ 63,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	1	No	\$ 5,000	\$ 5,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-10

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T11

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 25,495
10.1	Topsoiling seeding	2,999	m ²	\$ 8.50	\$ 25,495	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,673,577	\$ 2,673,577
D	Contingency					
	Contingency (15% of C)				15%	\$ 348,727.49
E	PROJECT BUDGET					
	Total Estimate					\$ 3,022,305

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-11

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T12

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 173,066
	Project Management		3.00%	0.00%	\$ 103,839	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 69,226	
B	Design and Investigation (10%)					\$ 346,131
	Traffic Investigations		0.85%	0.00%	\$ 29,421	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 41,536	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 41,536	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 147,106	
	Construction Management		2.50%	0.00%	\$ 86,533	
C	Construction				\$ 3,461,313	\$ 3,461,313
1	PRELIMINARIES					\$ 199,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 88,000	\$ 88,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 2,500
2.1	Trees	5	No	\$ 500	\$ 2,500	
3	EARTHWORKS					\$ 184,215
3.1	Stripping topsoil (100mm)	8,940	m ²	\$ 6	\$ 53,640	
3.2	Excavation and removal	4,353	m ³	\$ 30	\$ 130,575	
4	PAVEMENT					\$ 1,372,275
4.1	Deep lift asphalt 195 mm	6,905	m ²	\$ 105	\$ 725,025	
4.2	Subbase course - 250 mm 3% CTCR	8,705	m ²	\$ 55	\$ 478,775	
4.3	Shoulder - full depth pavement	555	m ²	\$ 145	\$ 80,475	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 88,000	\$ 88,000	
5	DRAINAGE					\$ 342,975
5.1	Subsoil drains 100mm dia - screenings	1,800	Lm	\$ 30	\$ 54,000	
5.2	Subsoil drains 100mm dia - no fines conc	555	Lm	\$ 45	\$ 24,975	
5.3	375 RCP (class 2)	1,200	Lm	\$ 170	\$ 204,000	
5.4	Side entry pits	24	No	\$ 2,500	\$ 60,000	
6	CONCRETE WORKS					\$ 341,900
6.1	Kerb & channel	1,800	Lm	\$ 50	\$ 90,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,055	Lm	\$ 130	\$ 137,150	
6.4	Laybacks and tactile pavers	22	No	\$ 850	\$ 18,700	
6.5	Concrete island infill	630	m ²	\$ 85	\$ 53,550	
6.5	10m concrete maintenance area	500	m ²	\$ 85	\$ 42,500	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 291,500
9.1	Light pole (1-way) and luminous lights	12	No	\$ 8,000	\$ 96,000	
9.2	Light pole (2-way) and luminous lights	9	No	\$ 9,000	\$ 81,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	5	No	\$ 5,000	\$ 25,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-11

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T12

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 56,948
10.1	Topsoiling seeding	6,700	m ²	\$ 8.50	\$ 56,948	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,980,510	\$ 3,980,510
D	Contingency					
	Contingency (15% of C)				15%	\$ 519,196.93
E	PROJECT BUDGET					
	Total Estimate					\$ 4,499,707

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-12

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T13

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 206,988
	Project Management		3.00%	0.00%	\$ 124,193	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 82,795	
B	Design and Investigation (10%)					\$ 413,976
	Traffic Investigations		0.85%	0.00%	\$ 35,188	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 49,677	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 49,677	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 175,940	
	Construction Management		2.50%	0.00%	\$ 103,494	
C	Construction				\$ 4,139,762	\$ 4,139,762
1	PRELIMINARIES					\$ 235,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 105,000	\$ 105,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 75,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 53,800
2.1	Trees	10	No	\$ 500	\$ 5,000	
2.2	Plane existing asphalt	3,050	m ²	\$ 16	\$ 48,800	
3	EARTHWORKS					\$ 262,530
3.1	Stripping topsoil (100mm)	8,530	m ²	\$ 6	\$ 51,180	
3.2	Excavation and removal	5,520	m ³	\$ 30	\$ 165,600	
3.3	Stockpile reclaimed FCR	3,050	m ³	\$ 15	\$ 45,750	
4	PAVEMENT					\$ 1,770,675
4.1	Deep lift asphalt 195 mm	9,335	m ²	\$ 105	\$ 980,175	
4.2	Subbase course - 250 mm 3% CTCR	11,040	m ²	\$ 55	\$ 607,200	
4.3	Shoulder - full depth pavement	540	m ²	\$ 145	\$ 78,300	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 105,000	\$ 105,000	
5	DRAINAGE					\$ 295,450
5.1	Subsoil drains 100mm dia - screenings	1,705	Lm	\$ 30	\$ 51,150	
5.2	Subsoil drains 100mm dia - no fines conc	540	Lm	\$ 45	\$ 24,300	
5.3	375 RCP (class 2)	1,000	Lm	\$ 170	\$ 170,000	
5.4	Side entry pits	20	No	\$ 2,500	\$ 50,000	
6	CONCRETE WORKS					\$ 467,800
6.1	Kerb & channel	1,705	Lm	\$ 50	\$ 85,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,635	Lm	\$ 130	\$ 212,550	
6.4	Laybacks and tactile pavers	22	No	\$ 850	\$ 18,700	
6.5	Concrete island infill	1,195	m ²	\$ 85	\$ 101,575	
6.5	10m concrete maintenance area	585	m ²	\$ 85	\$ 49,725	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 283,000
9.1	Light pole (1-way) and luminous lights	14	No	\$ 8,000	\$ 112,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-12

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T13

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 64,007
10.1	Topsoiling seeding	7,530	m ²	\$ 8.50	\$ 64,007	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,760,726	\$ 4,760,726
D	Contingency					
	Contingency (15% of C)				15%	\$ 620,964.32
E	PROJECT BUDGET					
	Total Estimate					\$ 5,381,691

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

9

- 8 Based on preliminary information

10

- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-13

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T14

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 128,610
	Project Management		3.00%	0.00%	\$ 77,166	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 51,444	
B	Design and Investigation (10%)					\$ 257,219
	Traffic Investigations		0.85%	0.00%	\$ 21,864	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,866	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,866	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 109,318	
	Construction Management		2.50%	0.00%	\$ 64,305	
C	Construction				\$ 2,572,191	\$ 2,572,191
1	PRELIMINARIES					\$ 166,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 65,000	\$ 65,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 2,500
2.1	Trees	5	No	\$ 500	\$ 2,500	
3	EARTHWORKS					\$ 112,575
3.1	Stripping topsoil (100mm)	5,125	m ²	\$ 6	\$ 30,750	
3.2	Excavation and removal	2,728	m ³	\$ 30	\$ 81,825	
4	PAVEMENT					\$ 875,075
4.1	Deep lift asphalt 195 mm	4,395	m ²	\$ 105	\$ 461,475	
4.2	Subbase course - 250 mm 3% CTCR	5,455	m ²	\$ 55	\$ 300,025	
4.3	Shoulder - full depth pavement	335	m ²	\$ 145	\$ 48,575	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 65,000	\$ 65,000	
5	DRAINAGE					\$ 318,475
5.1	Subsoil drains 100mm dia - screenings	1,060	Lm	\$ 30	\$ 31,800	
5.2	Subsoil drains 100mm dia - no fines conc	335	Lm	\$ 45	\$ 15,075	
5.3	375 RCP (class 2)	1,230	Lm	\$ 170	\$ 209,100	
5.4	Side entry pits	25	No	\$ 2,500	\$ 62,500	
6	CONCRETE WORKS					\$ 194,200
6.1	Kerb & channel	1,060	Lm	\$ 50	\$ 53,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	635	Lm	\$ 130	\$ 82,550	
6.4	Laybacks and tactile pavers	12	No	\$ 850	\$ 10,200	
6.5	Concrete island infill	320	m ²	\$ 85	\$ 27,200	
6.5	10m concrete maintenance area	250	m ²	\$ 85	\$ 21,250	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 172,000
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-13

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T14

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 23,866
10.1	Topsoiling seeding	2,808	m ²	\$ 8.50	\$ 23,866	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,958,020	\$ 2,958,020
D	Contingency					
	Contingency (15% of C)				15%	\$ 385,828.63
E	PROJECT BUDGET					
	Total Estimate					\$ 3,343,848

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-14

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T15

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 115,699
	Project Management		3.00%	0.00%	\$ 69,419	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 46,280	
B	Design and Investigation (10%)					\$ 231,398
	Traffic Investigations		0.85%	0.00%	\$ 19,669	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 27,768	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 27,768	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 98,344	
	Construction Management		2.50%	0.00%	\$ 57,850	
C	Construction				\$ 2,313,982	\$ 2,313,982
1	PRELIMINARIES					\$ 154,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 58,000	\$ 58,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 12,500
2.1	Trees	25	No	\$ 500	\$ 12,500	
3	EARTHWORKS					\$ 82,992
3.1	Stripping topsoil (100mm)	2,427	m ²	\$ 6	\$ 14,562	
3.2	Excavation and removal	2,281	m ³	\$ 30	\$ 68,430	
4	PAVEMENT					\$ 750,735
4.1	Deep lift asphalt 195 mm	3,690	m ²	\$ 105	\$ 387,450	
4.2	Subbase course - 250 mm 3% CTCR	4,562	m ²	\$ 55	\$ 250,910	
4.3	Shoulder - full depth pavement	375	m ²	\$ 145	\$ 54,375	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 58,000	\$ 58,000	
5	DRAINAGE					\$ 263,035
5.1	Subsoil drains 100mm dia - screenings	872	Lm	\$ 30	\$ 26,160	
5.2	Subsoil drains 100mm dia - no fines conc	375	Lm	\$ 45	\$ 16,875	
5.3	375 RCP (class 2)	1,000	Lm	\$ 170	\$ 170,000	
5.4	Side entry pits	20	No	\$ 2,500	\$ 50,000	
6	CONCRETE WORKS					\$ 201,100
6.1	Kerb & channel	872	Lm	\$ 50	\$ 43,600	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	695	Lm	\$ 130	\$ 90,350	
6.4	Laybacks and tactile pavers	10	No	\$ 850	\$ 8,500	
6.5	Concrete island infill	370	m ²	\$ 85	\$ 31,450	
6.5	10m concrete maintenance area	320	m ²	\$ 85	\$ 27,200	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 157,000
9.1	Light pole (1-way) and luminous lights	5	No	\$ 8,000	\$ 40,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	1	No	\$ 5,000	\$ 5,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

10	LANDSCAPING WORKS					\$	22,620
10.1	Topsoiling seeding	2,661	m ²	\$ 8.50	\$ 22,620		
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$	7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$	25,000
13	SERVICE RELOCATION					\$	300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000		
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000		
14	MISCELLANEOUS					\$	-
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$	-
TOTAL A - C					\$ 2,661,079	\$	2,661,079
D	Contingency						
	Contingency (15% of C)				15%	\$	347,097.27
E	PROJECT BUDGET						
	Total Estimate					\$	3,008,176

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGS's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-15

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T16

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 194,955
	Project Management		3.00%	0.00%	\$ 116,973	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 77,982	
B	Design and Investigation (10%)					\$ 389,911
	Traffic Investigations		0.85%	0.00%	\$ 33,142	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 46,789	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 46,789	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 165,712	
	Construction Management		2.50%	0.00%	\$ 97,478	
C	Construction				\$ 3,899,107	\$ 3,899,107
1	PRELIMINARIES					\$ 229,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 99,000	\$ 99,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 60,000
2.1	Trees	120	No	\$ 500	\$ 60,000	
3	EARTHWORKS					\$ 181,110
3.1	Stripping topsoil (100mm)	5,135	m ²	\$ 6	\$ 30,810	
3.2	Excavation and removal	5,010	m ³	\$ 30	\$ 150,300	
4	PAVEMENT					\$ 1,578,575
4.1	Deep lift asphalt 195 mm	8,090	m ²	\$ 105	\$ 849,450	
4.2	Subbase course - 250 mm 3% CTCR	10,020	m ²	\$ 55	\$ 551,100	
4.3	Shoulder - full depth pavement	545	m ²	\$ 145	\$ 79,025	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 99,000	\$ 99,000	
5	DRAINAGE					\$ 405,625
5.1	Subsoil drains 100mm dia - screenings	1,930	Lm	\$ 30	\$ 57,900	
5.2	Subsoil drains 100mm dia - no fines conc	545	Lm	\$ 45	\$ 24,525	
5.3	375 RCP (class 2)	1,460	Lm	\$ 170	\$ 248,200	
5.4	Side entry pits	30	No	\$ 2,500	\$ 75,000	
6	CONCRETE WORKS					\$ 437,550
6.1	Kerb & channel	1,930	Lm	\$ 50	\$ 96,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,270	Lm	\$ 130	\$ 165,100	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	930	m ²	\$ 85	\$ 79,050	
6.5	10m concrete maintenance area	900	m ²	\$ 85	\$ 76,500	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 225,000
9.1	Light pole (1-way) and luminous lights	-	No	\$ 8,000	\$ -	
9.2	Light pole (2-way) and luminous lights	16	No	\$ 9,000	\$ 144,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 15,000	\$ 15,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-15

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T16

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 74,747
10.1	Topsoiling seeding	8,794	m ²	\$ 8.50	\$ 74,747	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,483,973	\$ 4,483,973
D	Contingency					
	Contingency (15% of C)				15%	\$ 584,866.03
E	PROJECT BUDGET					
	Total Estimate					\$ 5,068,839

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S and E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-16

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T17

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Design and Investigation (10%)					\$ 129,837
	Project Management		3.00%	0.00%	\$ 77,902	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 51,935	
B	Construction including Final Design					\$ 259,674
	Traffic Investigations		0.85%	0.00%	\$ 22,072	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 31,161	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 31,161	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 110,362	
	Construction Management		2.50%	0.00%	\$ 64,919	
C	Construction				\$ 2,746,741	\$ 2,596,741
1	PRELIMINARIES					\$ 171,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 65,000	\$ 65,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 70,300
2.1	Trees	60	No	\$ 500	\$ 30,000	
2.2	base.	1	Item	\$ 25,000	\$ 25,000	
2.3	Excavation of dam sludge and stockpiling on site to dry	510	m³	\$ 30	\$ 15,300	
3	EARTHWORKS					\$ 125,526
3.1	Stripping topsoil (100mm)	3,620	m²	\$ 6	\$ 16,671	
3.2	Excavation and removal	2,779	m³	\$ 30	\$ 83,355	
3.4	Filling (type A) and level 1 compaction of existing dams	2,550	m³	\$ 10	\$ 25,500	
4	PAVEMENT					\$ 893,730
4.1	Deep lift asphalt 195 mm	4,522	m²	\$ 105	\$ 474,810	
4.2	Subbase course - 250 mm 3% CTCR	5,557	m²	\$ 55	\$ 305,635	
4.3	Shoulder - full depth pavement	333	m²	\$ 145	\$ 48,285	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 65,000	\$ 65,000	
5	DRAINAGE					\$ 275,335
5.1	Subsoil drains 100mm dia - screenings	1,035	Lm	\$ 30	\$ 31,050	
5.2	Subsoil drains 100mm dia - no fines conc	333	Lm	\$ 45	\$ 14,985	
5.3	375 RCP (class 2)	1,040	Lm	\$ 170	\$ 176,800	
5.4	Side entry pits	21	No	\$ 2,500	\$ 52,500	
6	CONCRETE WORKS					\$ 218,025
6.1	Kerb & channel	1,035	Lm	\$ 50	\$ 51,750	
6.2	MPA)	720	Lm	\$ 130	\$ 93,600	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	350	m²	\$ 85	\$ 29,750	
6.5	10m concrete maintenance area	265	m²	\$ 85	\$ 22,525	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 272,500
9.1	Light pole (1-way) and luminous lights	10	No	\$ 8,000	\$ 80,000	
9.2	Light pole (2-way) and luminous lights	11	No	\$ 9,000	\$ 99,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-16

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T17

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	
10	LANDSCAPING WORKS					\$ 12,825
10.1	Topsoiling seeding	1,509	m ²	\$ 8.50	\$ 12,825	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 150,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,136,252	\$ 2,986,252
D	Contingency					
		0			15%	\$ 389,511.18
E	PROJECT BUDGET					
	Total Estimate					\$ 3,375,764
E	PROJECT BUDGET					
	Total Estimate					\$ 3,765,275

- 2
- 3 No allowance for substations
- 3
- 4 Based on nominal rates
- 4
- 5 Assume same as kerb and channel
- 5
- 6 Based on 50 m intervals
- 6
- 7 Assume hazard TGSIs (no directional)
- 7
- 8 Nominal rate
- 8
- 9 Assume deep lift asphalt pavement
- 9
- 10 Based on preliminary information
- Roads**
- 11 Harrendran Mohan
- Earthworks**
- 7/10/2014
- 12 Works on existing dams based on preliminary assessment only
- 13 Excavated earth derived from existing dams assumed to be non-contaminated

AUTHOR: Harrendran Mohan
Date: 14/10/2014

REVIEWER: Rob Henry
Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-17

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T18

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 159,711
	Project Management		3.00%	0.00%	\$ 95,827	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 63,885	
B	Design and Investigation (10%)					\$ 319,423
	Traffic Investigations		0.85%	0.00%	\$ 27,151	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 38,331	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 38,331	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 135,755	
	Construction Management		2.50%	0.00%	\$ 79,856	
C	Construction				\$ 3,194,226	\$ 3,194,226
1	PRELIMINARIES					\$ 208,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 81,000	\$ 81,000	
1.2	Site management & supervision including QA	19	wks	\$ 2,500	\$ 47,500	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 22,500
2.1	Trees	45	No	\$ 500	\$ 22,500	
3	EARTHWORKS					\$ 151,785
3.1	Stripping topsoil (100mm)	5,585	m ²	\$ 6	\$ 33,510	
3.2	Excavation and removal	3,943	m ³	\$ 30	\$ 118,275	
4	PAVEMENT					\$ 1,220,675
4.1	Deep lift asphalt 195 mm	6,275	m ²	\$ 105	\$ 658,875	
4.2	Subbase course - 250 mm 3% CTCR	7,885	m ²	\$ 55	\$ 433,675	
4.3	Shoulder - full depth pavement	325	m ²	\$ 145	\$ 47,125	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 81,000	\$ 81,000	
5	DRAINAGE					\$ 282,925
5.1	Subsoil drains 100mm dia - screenings	1,610	Lm	\$ 30	\$ 48,300	
5.2	Subsoil drains 100mm dia - no fines conc	325	Lm	\$ 45	\$ 14,625	
5.3	375 RCP (class 2)	1,000	Lm	\$ 170	\$ 170,000	
5.4	Side entry pits	20	No	\$ 2,500	\$ 50,000	
6	CONCRETE WORKS					\$ 337,575
6.1	Kerb & channel	1,610	Lm	\$ 50	\$ 80,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,000	Lm	\$ 130	\$ 130,000	
6.4	Laybacks and tactile pavers	22	No	\$ 850	\$ 18,700	
6.5	Concrete island infill	645	m ²	\$ 85	\$ 54,825	
6.5	10m concrete maintenance area	630	m ²	\$ 85	\$ 53,550	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 215,500
9.1	Light pole (1-way) and luminous lights	1	No	\$ 8,000	\$ 8,000	
9.2	Light pole (2-way) and luminous lights	12	No	\$ 9,000	\$ 108,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-17

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T18

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 47,266
10.1	Topsoiling seeding	5,561	m ²	\$ 8.50	\$ 47,266	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,673,360	\$ 3,673,360
D	Contingency					
	Contingency (15% of C)				15%	\$ 479,133.96
E	PROJECT BUDGET					
	Total Estimate					\$ 4,152,494

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W and NW-SE assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-18

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T41

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 111,730
	Project Management		3.00%	0.00%	\$ 67,038	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 44,692	
B	Design and Investigation (10%)					\$ 223,459
	Traffic Investigations		0.85%	0.00%	\$ 18,994	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 26,815	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 26,815	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 94,970	
	Construction Management		2.50%	0.00%	\$ 55,865	
C	Construction				\$ 2,234,592	\$ 2,234,592
1	PRELIMINARIES					\$ 159,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 58,000	\$ 58,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 2,500
2.1	Trees	5	No	\$ 500	\$ 2,500	
3	EARTHWORKS					\$ 105,393
3.1	Stripping topsoil (100mm)	5,183	m ²	\$ 6	\$ 31,098	
3.2	Excavation and removal	2,477	m ³	\$ 30	\$ 74,295	
4	PAVEMENT					\$ 769,905
4.1	Deep lift asphalt 195 mm	3,868	m ²	\$ 105	\$ 406,140	
4.2	Subbase course - 250 mm 3% CTCR	4,953	m ²	\$ 55	\$ 272,415	
4.3	Shoulder - full depth pavement	230	m ²	\$ 145	\$ 33,350	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 58,000	\$ 58,000	
5	DRAINAGE					\$ 213,800
5.1	Subsoil drains 100mm dia - screenings	1,085	Lm	\$ 30	\$ 32,550	
5.2	Subsoil drains 100mm dia - no fines conc	230	Lm	\$ 45	\$ 10,350	
5.3	375 RCP (class 2)	770	Lm	\$ 170	\$ 130,900	
5.4	Side entry pits	16	No	\$ 2,500	\$ 40,000	
6	CONCRETE WORKS					\$ 181,645
6.1	Kerb & channel	1,085	Lm	\$ 50	\$ 54,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	740	Lm	\$ 130	\$ 96,200	
6.4	Laybacks and tactile pavers	6	No	\$ 850	\$ 5,100	
6.5	Concrete island infill	67	m ²	\$ 85	\$ 5,695	
6.5	10m concrete maintenance area	240	m ²	\$ 85	\$ 20,400	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 114,000
9.1	Light pole (1-way) and luminous lights	1	No	\$ 8,000	\$ 8,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-53-18

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T41

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 18,349
10.1	Topsoiling seeding	2,159	m ²	\$ 8.50	\$ 18,349	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,569,781	\$ 2,569,781
D	Contingency					
	Contingency (15% of C)				15%	\$ 335,188.86
E	PROJECT BUDGET					
	Total Estimate					\$ 2,904,970

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T19

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 46,676
	Project Management		3.00%	0.00%	\$ 28,005	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 18,670	
B	Design and Investigation (10%)					\$ 93,351
	Traffic Investigations		0.85%	0.00%	\$ 7,935	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 11,202	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 11,202	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 39,674	
	Construction Management		2.50%	0.00%	\$ 23,338	
C	Construction				\$ 933,515	\$ 933,515
1	PRELIMINARIES					\$ 115,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 25,000	\$ 25,000	
1.2	Site management & supervision including QA	10	wks	\$ 2,500	\$ 25,000	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 65,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 22,735
2.1	Trees	10	No	\$ 500	\$ 5,000	
2.2	Foot paths	550	m ²	\$ 10	\$ 5,500	
2.3	Concrete Driveways	235	m ²	\$ 25	\$ 5,875	
2.4	Laybacks and tactile pavers	6	m ²	\$ 250	\$ 1,500	
2.5	Line marking	1	item	\$ 1,500	\$ 1,500	
2.6	Plane existing asphalt	210	m ²	\$ 16	\$ 3,360	
3	EARTHWORKS					\$ 17,283
3.1	Stripping topsoil (100mm)	823	m ²	\$ 6	\$ 4,938	
3.2	Excavation and removal	412	m ³	\$ 30	\$ 12,345	
3.3	Stockpile reclaimed FCR	-	m ³	\$ 15	\$ -	
4	PAVEMENT					\$ 143,030
4.1	Deep lift asphalt 195 mm	693	m ²	\$ 105	\$ 72,765	
4.2	Subbase course - 250 mm 3% CTR	823	m ²	\$ 55	\$ 45,265	
4.3	Shoulder - full depth pavement	-	m ²	\$ 145	\$ -	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 25,000	\$ 25,000	
5	DRAINAGE					\$ 20,800
5.1	Subsoil drains 100mm dia - screenings	130	Lm	\$ 30	\$ 3,900	
5.2	Subsoil drains 100mm dia - no fines conc	-	Lm	\$ 45	\$ -	
5.3	375 RCP (class 2)	70	Lm	\$ 170	\$ 11,900	
5.4	Side entry pits	2	No	\$ 2,500	\$ 5,000	
6	CONCRETE WORKS					\$ 70,545
6.1	Kerb & channel	130	Lm	\$ 50	\$ 6,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	390	Lm	\$ 130	\$ 50,700	
6.4	Laybacks and tactile pavers	6	No	\$ 850	\$ 5,100	
6.5	Concrete island infill	97	m ²	\$ 85	\$ 8,245	
6.5	10m concrete maintenance area inc above	-	m ²	\$ 85	\$ -	
7	TRAFFIC SIGNAL WORKS					\$ 118,300
7.1	General items	1	Item	\$ 2,000	\$ 2,000	
7.2	Conduits	1	Item	\$ 5,000	\$ 5,000	
7.3	Signal Pedestals	8	No	\$ 4,500	\$ 36,000	
7.4	Lanterns	9	No	\$ 2,200	\$ 19,800	
7.5	Controller	1	Item	\$ 42,000	\$ 42,000	
7.6	Detectors	1	Item	\$ 2,000	\$ 2,000	
7.7	Cabling & connections	1	Item	\$ 10,000	\$ 10,000	
7.8	Clean-up	1	Item	\$ 1,500	\$ 1,500	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 65,000	\$ 65,000	\$ 65,000
9	POWER & LIGHTING					\$ 45,000
9.1	Light pole (1-way) and luminous lights	2	No	\$ 8,000	\$ 16,000	
9.2	Light pole (2-way) and luminous lights	1	No	\$ 9,000	\$ 9,000	
9.5	Cabling, conduits and pits	1	Item	\$ 15,000	\$ 15,000	
9.6	Electrical connection	1	Item	\$ 5,000	\$ 5,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T19

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 1,322
10.1	Topsoiling seeding	156	m ²	\$ 8.50	\$ 1,322	
11	SIGNING	1	item	\$ 4,500	\$ 4,500	\$ 4,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 10,000	\$ 10,000	\$ 10,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 1,073,542	\$ 1,073,542
D	Contingency					
	Contingency (15% of C)				15%	\$ 140,027.21
E	PROJECT BUDGET					
	Total Estimate					\$ 1,213,569

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road
- Demolition of existing structures /buildings etc within current properties not included

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

9

- 8 Based on preliminary information

10

- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-02

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T20

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 125,030
	Project Management		3.00%	0.00%	\$ 75,018	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 50,012	
B	Design and Investigation (10%)					\$ 250,060
	Traffic Investigations		0.85%	0.00%	\$ 21,255	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,007	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,007	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 106,275	
	Construction Management		2.50%	0.00%	\$ 62,515	
C	Construction				\$ 2,500,600	\$ 2,500,600
1	PRELIMINARIES					\$ 164,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 63,000	\$ 63,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 12,500
2.1	Trees	25	No	\$ 500	\$ 12,500	
3	EARTHWORKS					\$ 122,910
3.1	Stripping topsoil (100mm)	6,085	m ²	\$ 6	\$ 36,510	
3.2	Excavation and removal	2,880	m ³	\$ 30	\$ 86,400	
4	PAVEMENT					\$ 924,625
4.1	Deep lift asphalt 195 mm	4,740	m ²	\$ 105	\$ 497,700	
4.2	Subbase course - 250 mm 3% CTCR	5,760	m ²	\$ 55	\$ 316,800	
4.3	Shoulder - full depth pavement	325	m ²	\$ 145	\$ 47,125	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 63,000	\$ 63,000	
5	DRAINAGE					\$ 165,715
5.1	Subsoil drains 100mm dia - screenings	1,020	Lm	\$ 30	\$ 30,600	
5.2	Subsoil drains 100mm dia - no fines conc	325	Lm	\$ 45	\$ 14,625	
5.3	375 RCP (class 2)	547	Lm	\$ 170	\$ 92,990	
5.4	Side entry pits	11	No	\$ 2,500	\$ 27,500	
6	CONCRETE WORKS					\$ 213,630
6.1	Kerb & channel	1,020	Lm	\$ 50	\$ 51,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	741	Lm	\$ 130	\$ 96,330	
6.4	Laybacks and tactile pavers	12	No	\$ 850	\$ 10,200	
6.5	Concrete island infill	375	m ²	\$ 85	\$ 31,875	
6.5	10m concrete maintenance area	285	m ²	\$ 85	\$ 24,225	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 205,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	12	No	\$ 4,000	\$ 48,000	
9.4	JUP lighting dual	-	No	\$ 5,000	\$ -	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-02

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T20

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 21,720
10.1	Topsoiling seeding	2,555	m ²	\$ 8.50	\$ 21,720	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,875,690	\$ 2,875,690
D	Contingency					
	Contingency (15% of C)				15%	\$ 375,089.94
E	PROJECT BUDGET					
	Total Estimate					\$ 3,250,780

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T21

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 127,964
	Project Management		3.00%	0.00%	\$ 76,779	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 51,186	
B	Design and Investigation (10%)					\$ 255,929
	Traffic Investigations		0.85%	0.00%	\$ 21,754	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,711	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,711	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 108,770	
	Construction Management		2.50%	0.00%	\$ 63,982	
C	Construction				\$ 2,559,287	\$ 2,559,287
1	PRELIMINARIES					\$ 165,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 7,500
2.1	Trees	15	No	\$ 500	\$ 7,500	
3	EARTHWORKS					\$ 125,919
3.1	Stripping topsoil (100mm)	6,259	m ²	\$ 6	\$ 37,554	
3.2	Excavation and removal	2,946	m ³	\$ 30	\$ 88,365	
4	PAVEMENT					\$ 944,105
4.1	Deep lift asphalt 195 mm	4,788	m ²	\$ 105	\$ 502,740	
4.2	Subbase course - 250 mm 3% CTCR	5,891	m ²	\$ 55	\$ 324,005	
4.3	Shoulder - full depth pavement	368	m ²	\$ 145	\$ 53,360	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
5	DRAINAGE					\$ 181,650
5.1	Subsoil drains 100mm dia - screenings	1,103	Lm	\$ 30	\$ 33,090	
5.2	Subsoil drains 100mm dia - no fines conc	368	Lm	\$ 45	\$ 16,560	
5.3	375 RCP (class 2)	600	Lm	\$ 170	\$ 102,000	
5.4	Side entry pits	12	No	\$ 2,500	\$ 30,000	
6	CONCRETE WORKS					\$ 203,020
6.1	Kerb & channel	1,103	Lm	\$ 50	\$ 55,150	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	464	Lm	\$ 130	\$ 60,320	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	500	m ²	\$ 85	\$ 42,500	
6.5	10m concrete maintenance area	370	m ²	\$ 85	\$ 31,450	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 193,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T21

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 31,093
10.1	Topsoiling seeding	3,658	m ²	\$ 8.50	\$ 31,093	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,943,180	\$ 2,943,180
D	Contingency					
	Contingency (15% of C)				15%	\$ 383,892.99
E	PROJECT BUDGET					
	Total Estimate					\$ 3,327,073

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-04

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T22

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 93,548
	Project Management		3.00%	0.00%	\$ 56,129	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 37,419	
B	Design and Investigation (10%)					\$ 187,096
	Traffic Investigations		0.85%	0.00%	\$ 15,903	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 22,452	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 22,452	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 79,516	
	Construction Management		2.50%	0.00%	\$ 46,774	
C	Construction				\$ 1,870,964	\$ 1,870,964
1	PRELIMINARIES					\$ 165,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 48,000	\$ 48,000	
1.2	Site management & supervision including QA	15	wks	\$ 2,500	\$ 37,500	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 75,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 144,696
2.1	Trees	120	No	\$ 500	\$ 60,000	
2.2	Plane existing asphalt	14,116	m ²	\$ 6	\$ 84,696	
3	EARTHWORKS					\$ 121,212
3.1	Stripping topsoil (100mm)	2,860	m ²	\$ 6	\$ 17,160	
3.2	Excavation and removal	1,351	m ³	\$ 30	\$ 40,530	
3.3	Stockpile reclaimed FCR	4,235	m ³	\$ 15	\$ 63,522	
4	PAVEMENT					\$ 446,005
4.1	Deep lift asphalt 195 mm	2,157	m ²	\$ 105	\$ 226,485	
4.2	Subbase course - 250 mm 3% CTCR	2,702	m ²	\$ 55	\$ 148,610	
4.3	Shoulder - full depth pavement	158	m ²	\$ 145	\$ 22,910	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 48,000	\$ 48,000	
5	DRAINAGE					\$ 100,460
5.1	Subsoil drains 100mm dia - screenings	545	Lm	\$ 30	\$ 16,350	
5.2	Subsoil drains 100mm dia - no fines conc	158	Lm	\$ 45	\$ 7,110	
5.3	375 RCP (class 2)	350	Lm	\$ 170	\$ 59,500	
5.4	Side entry pits	7	No	\$ 2,500	\$ 17,500	
6	CONCRETE WORKS					\$ 277,700
6.1	Kerb & channel	545	Lm	\$ 50	\$ 27,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	730	Lm	\$ 130	\$ 94,900	
6.4	Laybacks and tactile pavers	8	No	\$ 850	\$ 6,800	
6.5	Concrete island infill	1,750	m ²	\$ 85	\$ 148,750	
6.5	10m concrete maintenance area	-	m ²	\$ 85	\$ -	
7	TRAFFIC SIGNAL WORKS					\$ 118,300
7.1	General items	1	Item	\$ 2,000	\$ 2,000	
7.2	Conduits	1	Item	\$ 5,000	\$ 5,000	
7.3	Signal Pedestals	8	No	\$ 4,500	\$ 36,000	
7.4	Lanterns	9	No	\$ 2,200	\$ 19,800	
7.5	Controller	1	Item	\$ 42,000	\$ 42,000	
7.6	Detectors	1	Item	\$ 2,000	\$ 2,000	
7.7	Cabling & connections	1	Item	\$ 10,000	\$ 10,000	
7.8	Clean-up	1	Item	\$ 1,500	\$ 1,500	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 65,000	\$ 65,000	\$ 65,000
9	POWER & LIGHTING					\$ 110,500
9.1	Light pole (1-way) and luminous lights	5	No	\$ 8,000	\$ 40,000	
9.2	Light pole (2-way) and luminous lights	3	No	\$ 9,000	\$ 27,000	
9.5	Cabling, conduits and pits	1	Item	\$ 35,000	\$ 35,000	
9.6	Electrical connection	1	Item	\$ 8,500	\$ 8,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-04

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T22

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 4,091
10.1	Topsoiling seeding	481	m ²	\$ 8.50	\$ 4,091	
11	SIGNING	1	item	\$ 5,500	\$ 5,500	\$ 5,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 12,000	\$ 12,000	\$ 12,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,151,609	\$ 2,151,609
D	Contingency					
	Contingency (15% of C)				15%	\$ 280,644.67
E	PROJECT BUDGET					
	Total Estimate					\$ 2,432,254

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Demolition of existing structures /buildings etc within current properties not included

Substations

1 No allowance for substations

Preliminaries

2 Based on nominal rates

Subsoil Drain

3 Assume same as kerb and channel

Side Entry Pits

4 Based on 50 m intervals

Tactile Pavers

5 Assume hazard TGS's (no directional)

Signing

6 Nominal rate

Pavement

7 Assume deep lift asphalt pavement

9 Crushed rock reclaimed from existing pavements to be reused

10 Based on preliminary information

10 Assume all existing asphalt roads to be demolished

Option of the 21,815 m² pavement, there is 13,663 m² of the existing pavement that may be able to be retained; this is not priced

13 Assume crushed rock pavement will be removed as part of general earthworks

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-05

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T23

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 133,260
	Project Management		3.00%	0.00%	\$ 79,956	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 53,304	
B	Design and Investigation (10%)					\$ 266,519
	Traffic Investigations		0.85%	0.00%	\$ 22,654	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 31,982	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 31,982	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 113,271	
	Construction Management		2.50%	0.00%	\$ 66,630	
C	Construction				\$ 2,665,190	\$ 2,665,190
1	PRELIMINARIES					\$ 168,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 67,000	\$ 67,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 5,000
2.1	Trees	10	No	\$ 500	\$ 5,000	
3	EARTHWORKS					\$ 120,735
3.1	Stripping topsoil (100mm)	4,235	m ²	\$ 6	\$ 25,410	
3.2	Excavation and removal	3,178	m ³	\$ 30	\$ 95,325	
4	PAVEMENT					\$ 1,004,320
4.1	Deep lift asphalt 195 mm	5,094	m ²	\$ 105	\$ 534,870	
4.2	Subbase course - 250 mm 3% CTCR	6,355	m ²	\$ 55	\$ 349,525	
4.3	Shoulder - full depth pavement	365	m ²	\$ 145	\$ 52,925	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 67,000	\$ 67,000	
5	DRAINAGE					\$ 200,605
5.1	Subsoil drains 100mm dia - screenings	1,261	Lm	\$ 30	\$ 37,830	
5.2	Subsoil drains 100mm dia - no fines conc	365	Lm	\$ 45	\$ 16,425	
5.3	375 RCP (class 2)	655	Lm	\$ 170	\$ 111,350	
5.4	Side entry pits	14	No	\$ 2,500	\$ 35,000	
6	CONCRETE WORKS					\$ 255,125
6.1	Kerb & channel	1,261	Lm	\$ 50	\$ 63,050	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	840	Lm	\$ 130	\$ 109,200	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	440	m ²	\$ 85	\$ 37,400	
6.5	10m concrete maintenance area	375	m ²	\$ 85	\$ 31,875	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 169,500
9.1	Light pole (1-way) and luminous lights	4	No	\$ 8,000	\$ 32,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-05

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T23

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 34,405
10.1	Topsoiling seeding	4,048	m ²	\$ 8.50	\$ 34,405	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,064,969	\$ 3,064,969
D	Contingency					
	Contingency (15% of C)				15%	\$ 399,778.57
E	PROJECT BUDGET					
	Total Estimate					\$ 3,464,748

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-06

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T24

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 188,100
	Project Management		3.00%	0.00%	\$ 112,860	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 75,240	
B	Design and Investigation (10%)					\$ 376,199
	Traffic Investigations		0.85%	0.00%	\$ 31,977	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 45,144	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 45,144	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 159,885	
	Construction Management		2.50%	0.00%	\$ 94,050	
C	Construction				\$ 3,761,993	\$ 3,761,993
1	PRELIMINARIES					\$ 234,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 94,000	\$ 94,000	
1.2	Site management & supervision including QA	22	wks	\$ 2,500	\$ 55,000	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 15,000
2.1	Trees	30	No	\$ 500	\$ 15,000	
3	EARTHWORKS					\$ 162,546
3.1	Stripping topsoil (100mm)	4,036	m ²	\$ 6	\$ 24,216	
3.2	Excavation and removal	4,611	m ³	\$ 30	\$ 138,330	
4	PAVEMENT					\$ 1,615,550
4.1	Deep lift asphalt 195 mm	8,760	m ²	\$ 105	\$ 919,800	
4.2	Subbase course - 250 mm 3% CTCR	9,222	m ²	\$ 55	\$ 507,210	
4.3	Shoulder - full depth pavement	652	m ²	\$ 145	\$ 94,540	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 94,000	\$ 94,000	
5	DRAINAGE					\$ 345,360
5.1	Subsoil drains 100mm dia - screenings	1,984	Lm	\$ 30	\$ 59,520	
5.2	Subsoil drains 100mm dia - no fines conc	652	Lm	\$ 45	\$ 29,340	
5.3	375 RCP (class 2)	950	Lm	\$ 170	\$ 161,500	
5.4	Side entry pits	38	No	\$ 2,500	\$ 95,000	
6	CONCRETE WORKS					\$ 403,830
6.1	Kerb & channel	1,984	Lm	\$ 50	\$ 99,200	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	982	Lm	\$ 130	\$ 127,660	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	1,122	m ²	\$ 85	\$ 95,370	
6.5	10m concrete maintenance area	800	m ²	\$ 85	\$ 68,000	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 225,000
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	6	No	\$ 5,000	\$ 30,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 15,000	\$ 15,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-06

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T24

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 53,207
10.1	Topsoiling seeding	6,260	m ²	\$ 8.50	\$ 53,207	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,326,292	\$ 4,326,292
D	Contingency					
	Contingency (15% of C)				15%	\$ 564,299.02
E	PROJECT BUDGET					
	Total Estimate					\$ 4,890,591

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S and E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-07

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T25

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 126,030
	Project Management		3.00%	0.00%	\$ 75,618	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 50,412	
B	Design and Investigation (10%)					\$ 252,060
	Traffic Investigations		0.85%	0.00%	\$ 21,425	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,247	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,247	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 107,125	
	Construction Management		2.50%	0.00%	\$ 63,015	
C	Construction				\$ 2,520,596	\$ 2,520,596
1	PRELIMINARIES					\$ 164,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 63,000	\$ 63,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 10,000
2.1	Trees	20	No	\$ 500	\$ 10,000	
3	EARTHWORKS					\$ 108,261
3.1	Stripping topsoil (100mm)	3,831	m ²	\$ 6	\$ 22,986	
3.2	Excavation and removal	2,843	m ³	\$ 30	\$ 85,275	
4	PAVEMENT					\$ 908,100
4.1	Deep lift asphalt 195 mm	4,615	m ²	\$ 105	\$ 484,575	
4.2	Subbase course - 250 mm 3% CTCR	5,685	m ²	\$ 55	\$ 312,675	
4.3	Shoulder - full depth pavement	330	m ²	\$ 145	\$ 47,850	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 63,000	\$ 63,000	
5	DRAINAGE					\$ 184,850
5.1	Subsoil drains 100mm dia - screenings	1,070	Lm	\$ 30	\$ 32,100	
5.2	Subsoil drains 100mm dia - no fines conc	330	Lm	\$ 45	\$ 14,850	
5.3	375 RCP (class 2)	620	Lm	\$ 170	\$ 105,400	
5.4	Side entry pits	13	No	\$ 2,500	\$ 32,500	
6	CONCRETE WORKS					\$ 198,250
6.1	Kerb & channel	1,070	Lm	\$ 50	\$ 53,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	440	Lm	\$ 130	\$ 57,200	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	500	m ²	\$ 85	\$ 42,500	
6.5	10m concrete maintenance area	370	m ²	\$ 85	\$ 31,450	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 211,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-07

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T25

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 28,135
10.1	Topsoiling seeding	3,310	m ²	\$ 8.50	\$ 28,135	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,898,685	\$ 2,898,685
D	Contingency					
	Contingency (15% of C)				15%	\$ 378,089.40
E	PROJECT BUDGET					
	Total Estimate					\$ 3,276,775

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-08

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T26

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 201,172
	Project Management		3.00%	0.00%	\$ 120,703	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 80,469	
B	Design and Investigation (10%)					\$ 402,343
	Traffic Investigations		0.85%	0.00%	\$ 34,199	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 48,281	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 48,281	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 170,996	
	Construction Management		2.50%	0.00%	\$ 100,586	
C	Construction				\$ 4,023,433	\$ 4,023,433
1	PRELIMINARIES					\$ 230,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 103,000	\$ 103,000	
1.2	Site management & supervision including QA	19	wks	\$ 2,500	\$ 47,500	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 22,500
2.1	Trees	45	No	\$ 500	\$ 22,500	
3	EARTHWORKS					\$ 231,105
3.1	Stripping topsoil (100mm)	11,520	m ²	\$ 6	\$ 69,120	
3.2	Excavation and removal	5,400	m ³	\$ 30	\$ 161,985	
4	PAVEMENT					\$ 1,735,885
4.1	Deep lift asphalt 195 mm	8,899	m ²	\$ 105	\$ 934,395	
4.2	Subbase course - 250 mm 3% CTCR	10,799	m ²	\$ 55	\$ 593,945	
4.3	Shoulder - full depth pavement	721	m ²	\$ 145	\$ 104,545	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 103,000	\$ 103,000	
5	DRAINAGE					\$ 353,445
5.1	Subsoil drains 100mm dia - screenings	1,900	Lm	\$ 30	\$ 57,000	
5.2	Subsoil drains 100mm dia - no fines conc	721	Lm	\$ 45	\$ 32,445	
5.3	375 RCP (class 2)	1,200	Lm	\$ 170	\$ 204,000	
5.4	Side entry pits	24	No	\$ 2,500	\$ 60,000	
6	CONCRETE WORKS					\$ 441,450
6.1	Kerb & channel	1,900	Lm	\$ 50	\$ 95,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,475	Lm	\$ 130	\$ 191,750	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	705	m ²	\$ 85	\$ 59,925	
6.5	10m concrete maintenance area	875	m ²	\$ 85	\$ 74,375	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 215,500
9.1	Light pole (1-way) and luminous lights	1	No	\$ 8,000	\$ 8,000	
9.2	Light pole (2-way) and luminous lights	12	No	\$ 9,000	\$ 108,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-08

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T26

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 85,548
10.1	Topsoiling seeding	10,064	m ²	\$ 8.50	\$ 85,548	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,626,948	\$ 4,626,948
D	Contingency					
	Contingency (15% of C)				15%	\$ 603,514.92
E	PROJECT BUDGET					
	Total Estimate					\$ 5,230,463

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S and E-W assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-09

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T27

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 116,398
	Project Management		3.00%	0.00%	\$ 69,839	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 46,559	
B	Design and Investigation (10%)					\$ 232,796
	Traffic Investigations		0.85%	0.00%	\$ 19,788	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 27,936	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 27,936	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 98,938	
	Construction Management		2.50%	0.00%	\$ 58,199	
C	Construction				\$ 2,327,963	\$ 2,327,963
1						\$ 184,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 60,000	\$ 60,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 74,000	\$ 74,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 49,340
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,615	m²	\$ 16	\$ 41,840	
3	EARTHWORKS					\$ 101,228
3.1	Stripping topsoil (100mm)	2,610	m²	\$ 6	\$ 15,660	
3.2	Excavation and removal	2,460	m³	\$ 30	\$ 73,800	
3.3	Stockpile reclaimed FCR	785	m³	\$ 15	\$ 11,768	
4	PAVEMENT					\$ 785,900
4.1	Deep lift asphalt 195 mm	3,915	m²	\$ 105	\$ 411,075	
4.2	Subbase course - 250 mm 3% CTR	4,920	m²	\$ 55	\$ 270,600	
4.3	Shoulder - full depth pavement	305	m²	\$ 145	\$ 44,225	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 60,000	\$ 60,000	
5	DRAINAGE					\$ 155,675
5.1	Subsoil drains 100mm dia - screenings	1,005	Lm	\$ 30	\$ 30,150	
5.2	Subsoil drains 100mm dia - no fines conc	305	Lm	\$ 45	\$ 13,725	
5.3	375 RCP (class 2)	540	Lm	\$ 170	\$ 91,800	
5.4	Side entry pits	8	No	\$ 2,500	\$ 20,000	
6	CONCRETE WORKS					\$ 210,625
6.1	Kerb & channel	1,005	Lm	\$ 50	\$ 50,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	655	Lm	\$ 130	\$ 85,150	
6.3	Laybacks and tactile pavers	10	No	\$ 850	\$ 8,500	
6.4	Concrete island infill	385	m²	\$ 85	\$ 32,725	
6.5	10m concrete maintenance area end of all islands	400	m²	\$ 85	\$ 34,000	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 144,000
9.1	Light pole (1-way) and luminous lights	3	No	\$ 8,000	\$ 24,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	1	No	\$ 5,000	\$ 5,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 15,000	\$ 15,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-09

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T27

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 27,196
10.1	Topsoiling seeding	3,200	m²	\$ 8.50	\$ 27,196	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,677,158	\$ 2,677,158
D	Contingency					
	Contingency (15% of C)				15%	\$ 349,194.49
E	PROJECT BUDGET					
	Total Estimate					\$ 3,026,352

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

1 No allowance for substations

Preliminaries

2 Based on nominal rates

Subsoil Drain

3 Assume same as kerb and channel

Side Entry Pits

4 Based on 50 m intervals

Tactile Pavers

5 Assume hazard TGSIs (no directional)

Signing

6 Nominal rate

Pavement

7 Assume deep lift asphalt pavement

8 Based on preliminary information

9 Assume all existing asphalt roads to be demolished and FCR stockpiled

10 Assume crushed rock pavement will be removed as part of general earthworks

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-11

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T28

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 121,994
	Project Management		3.00%	0.00%	\$ 73,196	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 48,798	
B	Design and Investigation (10%)					\$ 243,988
	Traffic Investigations		0.85%	0.00%	\$ 20,739	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 29,279	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 29,279	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 103,695	
	Construction Management		2.50%	0.00%	\$ 60,997	
C	Construction				\$ 2,439,882	\$ 2,439,882
1	PRELIMINARIES					\$ 162,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 61,000	\$ 61,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 15,000
2.1	Trees	30	No	\$ 500	\$ 15,000	
3	EARTHWORKS					\$ 101,217
3.1	Stripping topsoil (100mm)	3,147	m ²	\$ 6	\$ 18,882	
3.2	Excavation and removal	2,745	m ³	\$ 30	\$ 82,335	
4	PAVEMENT					\$ 884,165
4.1	Deep lift asphalt 195 mm	4,535	m ²	\$ 105	\$ 476,175	
4.2	Subbase course - 250 mm 3% CTCR	5,489	m ²	\$ 55	\$ 301,895	
4.3	Shoulder - full depth pavement	311	m ²	\$ 145	\$ 45,095	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 61,000	\$ 61,000	
5	DRAINAGE					\$ 159,025
5.1	Subsoil drains 100mm dia - screenings	954	Lm	\$ 30	\$ 28,620	
5.2	Subsoil drains 100mm dia - no fines conc	311	Lm	\$ 45	\$ 13,995	
5.3	375 RCP (class 2)	523	Lm	\$ 170	\$ 88,910	
5.4	Side entry pits	11	No	\$ 2,500	\$ 27,500	
6	CONCRETE WORKS					\$ 177,500
6.1	Kerb & channel	954	Lm	\$ 50	\$ 47,700	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	410	Lm	\$ 130	\$ 53,300	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	450	m ²	\$ 85	\$ 38,250	
6.5	10m concrete maintenance area	290	m ²	\$ 85	\$ 24,650	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 211,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-11

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T28

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 21,975
10.1	Topsoiling seeding	2,585	m ²	\$ 8.50	\$ 21,975	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,805,864	\$ 2,805,864
D	Contingency					
	Contingency (15% of C)				15%	\$ 365,982.24
E	PROJECT BUDGET					
	Total Estimate					\$ 3,171,846

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-12

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T29

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 127,490
	Project Management		3.00%	0.00%	\$ 76,494	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 50,996	
B	Design and Investigation (10%)					\$ 254,980
	Traffic Investigations		0.85%	0.00%	\$ 21,673	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,598	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,598	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 108,366	
	Construction Management		2.50%	0.00%	\$ 63,745	
C	Construction				\$ 2,549,797	\$ 2,549,797
1	PRELIMINARIES					\$ 165,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 77,500
2.1	Trees	155	No	\$ 500	\$ 77,500	
3	EARTHWORKS					\$ 102,372
3.1	Stripping topsoil (100mm)	3,357	m ²	\$ 6	\$ 20,142	
3.2	Excavation and removal	2,741	m ³	\$ 30	\$ 82,230	
4	PAVEMENT					\$ 896,120
4.1	Deep lift asphalt 195 mm	4,577	m ²	\$ 105	\$ 480,585	
4.2	Subbase course - 250 mm 3% CTCR	5,482	m ²	\$ 55	\$ 301,510	
4.3	Shoulder - full depth pavement	345	m ²	\$ 145	\$ 50,025	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
5	DRAINAGE					\$ 187,095
5.1	Subsoil drains 100mm dia - screenings	905	Lm	\$ 30	\$ 27,150	
5.2	Subsoil drains 100mm dia - no fines conc	345	Lm	\$ 45	\$ 15,525	
5.3	375 RCP (class 2)	526	Lm	\$ 170	\$ 89,420	
5.4	Side entry pits	22	No	\$ 2,500	\$ 55,000	
6	CONCRETE WORKS					\$ 191,525
6.1	Kerb & channel	905	Lm	\$ 50	\$ 45,250	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	455	Lm	\$ 130	\$ 59,150	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	500	m ²	\$ 85	\$ 42,500	
6.5	10m concrete maintenance area	365	m ²	\$ 85	\$ 31,025	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 193,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Clyde PSP - Intersection Cost Estimate

Version 8.1

Intersection Ref: IN-54-12

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T29

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 29,185
10.1	Topsoiling seeding	3,434	m ²	\$ 8.50	\$ 29,185	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,932,266	\$ 2,932,266
D	Contingency					
	Contingency (15% of C)				15%	\$ 382,469.51
E	PROJECT BUDGET					
	Total Estimate					\$ 3,314,736

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-13

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T30

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 96,696
	Project Management		3.00%	0.00%	\$ 58,017	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 38,678	
B	Design and Investigation (10%)					\$ 193,391
	Traffic Investigations		0.85%	0.00%	\$ 16,438	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 23,207	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 23,207	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 82,191	
	Construction Management		2.50%	0.00%	\$ 48,348	
C	Construction				\$ 1,933,911	\$ 1,933,911
1	PRELIMINARIES					\$ 145,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 49,000	\$ 49,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 7,500
2.1	Trees	15	No	\$ 500	\$ 7,500	
3	EARTHWORKS					\$ 66,150
3.1	Stripping topsoil (100mm)	1,765	m ²	\$ 6	\$ 10,590	
3.2	Excavation and removal	1,852	m ³	\$ 30	\$ 55,560	
4	PAVEMENT					\$ 623,845
4.1	Deep lift asphalt 195 mm	3,036	m ²	\$ 105	\$ 318,780	
4.2	Subbase course - 250 mm 3% CTCR	3,704	m ²	\$ 55	\$ 203,720	
4.3	Shoulder - full depth pavement	361	m ²	\$ 145	\$ 52,345	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 49,000	\$ 49,000	
5	DRAINAGE					\$ 123,945
5.1	Subsoil drains 100mm dia - screenings	668	Lm	\$ 30	\$ 20,040	
5.2	Subsoil drains 100mm dia - no fines conc	361	Lm	\$ 45	\$ 16,245	
5.3	375 RCP (class 2)	398	Lm	\$ 170	\$ 67,660	
5.4	Side entry pits	8	No	\$ 2,500	\$ 20,000	
6	CONCRETE WORKS					\$ 139,600
6.1	Kerb & channel	668	Lm	\$ 50	\$ 33,400	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	320	Lm	\$ 130	\$ 41,600	
6.4	Laybacks and tactile pavers	9	No	\$ 850	\$ 7,650	
6.5	Concrete island infill	400	m ²	\$ 85	\$ 34,000	
6.5	10m concrete maintenance area	270	m ²	\$ 85	\$ 22,950	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 143,000
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	1	No	\$ 9,000	\$ 9,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 14,000	\$ 14,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-13

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T30

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 24,871
10.1	Topsoiling seeding	2,926	m ²	\$ 8.50	\$ 24,871	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 15,000	\$ 15,000	\$ 15,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,223,998	\$ 2,223,998
D	Contingency					
	Contingency (15% of C)				15%	\$ 290,086.71
E	PROJECT BUDGET					
	Total Estimate					\$ 2,514,085

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-14

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T31

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 101,914
	Project Management		3.00%	0.00%	\$ 61,148	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 40,766	
B	Design and Investigation (10%)					\$ 203,828
	Traffic Investigations		0.85%	0.00%	\$ 17,325	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 24,459	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 24,459	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 86,627	
	Construction Management		2.50%	0.00%	\$ 50,957	
C	Construction				\$ 2,038,276	\$ 2,038,276
1	PRELIMINARIES					\$ 148,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 52,000	\$ 52,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 7,500
2.1	Trees	15	No	\$ 500	\$ 7,500	
3	EARTHWORKS					\$ 83,205
3.1	Stripping topsoil (100mm)	2,535	m ²	\$ 6	\$ 15,210	
3.2	Excavation and removal	2,267	m ³	\$ 30	\$ 67,995	
4	PAVEMENT					\$ 691,170
4.1	Deep lift asphalt 195 mm	3,503	m ²	\$ 105	\$ 367,815	
4.2	Subbase course - 250 mm 3% CTCR	4,533	m ²	\$ 55	\$ 249,315	
4.3	Shoulder - full depth pavement	152	m ²	\$ 145	\$ 22,040	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 52,000	\$ 52,000	
5	DRAINAGE					\$ 147,740
5.1	Subsoil drains 100mm dia - screenings	1,030	Lm	\$ 30	\$ 30,900	
5.2	Subsoil drains 100mm dia - no fines conc	152	Lm	\$ 45	\$ 6,840	
5.3	375 RCP (class 2)	500	Lm	\$ 170	\$ 85,000	
5.4	Side entry pits	10	No	\$ 2,500	\$ 25,000	
6	CONCRETE WORKS					\$ 150,800
6.1	Kerb & channel	1,030	Lm	\$ 50	\$ 51,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	450	Lm	\$ 130	\$ 58,500	
6.3	Laybacks and tactile pavers	12	No	\$ 850	\$ 10,200	
6.4	Concrete island infill	135	m ²	\$ 85	\$ 11,475	
6.5	10m concrete maintenance area end of all islands	225	m ²	\$ 85	\$ 19,125	
7	TRAFFIC SIGNAL WORKS					\$ 207,000
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 9,500	\$ 9,500	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 158,500
9.1	Light pole (1-way) and luminous lights	6	No	\$ 8,000	\$ 48,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	3	No	\$ 4,000	\$ 12,000	
9.4	JUP lighting dual	1	No	\$ 5,000	\$ 5,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-14

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T31

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 21,861
10.1	Topsoiling seeding	2,572	m ²	\$ 8.50	\$ 21,861	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 15,000	\$ 15,000	\$ 15,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,344,018	\$ 2,344,018
D	Contingency					
	Contingency (15% of C)				15%	\$ 305,741.42
E	PROJECT BUDGET					
	Total Estimate					\$ 2,649,759

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

Roads

- 9 Existing road conditions based on limited crushed rock roads running N-S assumed to be of no consequence to works

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-15

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T32

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 253,662
	Project Management		3.00%	0.00%	\$ 152,197	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 101,465	
B	Design and Investigation (10%)					\$ 507,323
	Traffic Investigations		0.85%	0.00%	\$ 43,122	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 60,879	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 60,879	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 215,612	
	Construction Management		2.50%	0.00%	\$ 126,831	
C	Construction				\$ 5,073,232	\$ 5,073,232
1	PRELIMINARIES					\$ 299,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 129,000	\$ 129,000	
1.2	Site management & supervision including QA	24	wks	\$ 2,500	\$ 60,000	
1.3	Provision for traffic	1	Item	\$ 105,000	\$ 105,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 101,828
2.1	Trees	25	No	\$ 500	\$ 12,500	
2.2	Plane existing asphalt	7,444	m ²	\$ 12	\$ 89,328	
3	EARTHWORKS					\$ 371,931
3.1	Stripping topsoil (100mm)	7,531	m ²	\$ 6	\$ 45,186	
3.2	Excavation and removal	7,170	m ³	\$ 30	\$ 215,085	
3.3	Stockpile reclaimed FCR	7,444	m ³	\$ 15	\$ 111,660	
4	PAVEMENT					\$ 2,263,460
4.1	Deep lift asphalt 195 mm	11,939	m ²	\$ 105	\$ 1,253,595	
4.2	Subbase course - 250 mm 3% CTCR	14,339	m ²	\$ 55	\$ 788,645	
4.3	Shoulder - full depth pavement	636	m ²	\$ 145	\$ 92,220	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 129,000	\$ 129,000	
5	DRAINAGE					\$ 505,620
5.1	Subsoil drains 100mm dia - screenings	2,400	Lm	\$ 30	\$ 72,000	
5.2	Subsoil drains 100mm dia - no fines conc	636	Lm	\$ 45	\$ 28,620	
5.3	375 RCP (class 2)	1,500	Lm	\$ 170	\$ 255,000	
5.4	Side entry pits	60	No	\$ 2,500	\$ 150,000	
6	CONCRETE WORKS					\$ 435,905
6.1	Kerb & channel	2,400	Lm	\$ 50	\$ 120,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,310	Lm	\$ 130	\$ 170,300	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	798	m ²	\$ 85	\$ 67,830	
6.5	10m concrete maintenance area	675	m ²	\$ 85	\$ 57,375	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 319,000
9.1	Light pole (1-way) and luminous lights	20	No	\$ 8,000	\$ 160,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	12	No	\$ 4,000	\$ 48,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-15

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T32

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 68,988
10.1	Topsoiling seeding	8,116	m ²	\$ 8.50	\$ 68,988	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C						\$ 5,834,216
D	Contingency					
	Contingency (15% of C)				15%	\$ 760,984.76
E	PROJECT BUDGET					
	Total Estimate					\$ 6,595,201

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-17

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T33

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 113,129
	Project Management		3.00%	0.00%	\$ 67,878	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 45,252	
B	Design and Investigation (10%)					\$ 226,259
	Traffic Investigations		0.85%	0.00%	\$ 19,232	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 27,151	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 27,151	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 96,160	
	Construction Management		2.50%	0.00%	\$ 56,565	
C	Construction				\$ 2,262,586	\$ 2,262,586
1	PRELIMINARIES					\$ 182,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 57,000	\$ 57,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 40,360
2.1	Trees	10	No	\$ 500	\$ 5,000	
2.2	Plane existing asphalt	2,210	m ²	\$ 16	\$ 35,360	
3	EARTHWORKS					\$ 112,485
3.1	Stripping topsoil (100mm)	2,435	m ²	\$ 6	\$ 14,610	
3.2	Excavation and removal	2,158	m ³	\$ 30	\$ 64,725	
3.3	Stockpile reclaimed FCR	2,210	m ³	\$ 15	\$ 33,150	
4	PAVEMENT					\$ 707,575
4.1	Deep lift asphalt 195 mm	3,480	m ²	\$ 105	\$ 365,400	
4.2	Subbase course - 250 mm 3% CTCR	4,315	m ²	\$ 55	\$ 237,325	
4.3	Shoulder - full depth pavement	330	m ²	\$ 145	\$ 47,850	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 57,000	\$ 57,000	
5	DRAINAGE					\$ 143,950
5.1	Subsoil drains 100mm dia - screenings	835	Lm	\$ 30	\$ 25,050	
5.2	Subsoil drains 100mm dia - no fines conc	330	Lm	\$ 45	\$ 14,850	
5.3	375 RCP (class 2)	465	Lm	\$ 170	\$ 79,050	
5.4	Side entry pits	10	No	\$ 2,500	\$ 25,000	
6	CONCRETE WORKS					\$ 196,580
6.1	Kerb & channel	835	Lm	\$ 50	\$ 41,750	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	681	Lm	\$ 130	\$ 88,530	
6.4	Laybacks and tactile pavers	8	No	\$ 850	\$ 6,800	
6.5	Concrete island infill	380	m ²	\$ 85	\$ 32,300	
6.5	10m concrete maintenance area	320	m ²	\$ 85	\$ 27,200	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 187,500
9.1	Light pole (1-way) and luminous lights	9	No	\$ 8,000	\$ 72,000	
9.2	Light pole (2-way) and luminous lights	3	No	\$ 9,000	\$ 27,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	3	No	\$ 5,000	\$ 15,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-17

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T33

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 22,136
10.1	Topsoiling seeding	2,604	m ²	\$ 8.50	\$ 22,136	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,601,974	\$ 2,601,974
D	Contingency					
	Contingency (15% of C)				15%	\$ 339,387.92
E	PROJECT BUDGET					
	Total Estimate					\$ 2,941,362

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-18

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T34

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 189,173
	Project Management		3.00%	0.00%	\$ 113,504	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 75,669	
B	Design and Investigation (10%)					\$ 378,346
	Traffic Investigations		0.85%	0.00%	\$ 32,159	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 45,402	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 45,402	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 160,797	
	Construction Management		2.50%	0.00%	\$ 94,587	
C	Construction				\$ 3,783,461	\$ 3,783,461
1	PRELIMINARIES					\$ 230,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 95,000	\$ 95,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 85,000	\$ 85,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 52,300
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,800	m ²	\$ 16	\$ 44,800	
3	EARTHWORKS					\$ 235,050
3.1	Stripping topsoil (100mm)	7,575	m ²	\$ 6	\$ 45,450	
3.2	Excavation and removal	4,920	m ³	\$ 30	\$ 147,600	
3.3	Stockpile reclaimed FCR	2,800	m ³	\$ 15	\$ 42,000	
4	PAVEMENT					\$ 1,575,825
4.1	Deep lift asphalt 195 mm	8,210	m ²	\$ 105	\$ 862,050	
4.2	Subbase course - 250 mm 3% CTCR	9,840	m ²	\$ 55	\$ 541,200	
4.3	Shoulder - full depth pavement	535	m ²	\$ 145	\$ 77,575	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 95,000	\$ 95,000	
5	DRAINAGE					\$ 303,525
5.1	Subsoil drains 100mm dia - screenings	1,630	Lm	\$ 30	\$ 48,900	
5.2	Subsoil drains 100mm dia - no fines conc	535	Lm	\$ 45	\$ 24,075	
5.3	375 RCP (class 2)	915	Lm	\$ 170	\$ 155,550	
5.4	Side entry pits	30	No	\$ 2,500	\$ 75,000	
6	CONCRETE WORKS					\$ 371,325
6.1	Kerb & channel	1,630	Lm	\$ 50	\$ 81,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,095	Lm	\$ 130	\$ 142,350	
6.3	Laybacks and tactile pavers	20	No	\$ 850	\$ 17,000	
6.4	Concrete island infill	735	m ²	\$ 85	\$ 62,475	
6.5	10m concrete maintenance area end of all islands	800	m ²	\$ 85	\$ 68,000	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 245,000
9.1	Light pole (1-way) and luminous lights	5	No	\$ 8,000	\$ 40,000	
9.2	Light pole (2-way) and luminous lights	12	No	\$ 9,000	\$ 108,000	
9.3	JUP lighting single	8	No	\$ 4,000	\$ 32,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 30,000	\$ 30,000	
9.6	Electrical connection	1	Item	\$ 15,000	\$ 15,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-18

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T34

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 62,936
10.1	Topsoiling seeding	7,404	m ²	\$ 8.50	\$ 62,936	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 4,350,980	\$ 4,350,980
D	Contingency					
	Contingency (15% of C)				15%	\$ 567,519.17
E	PROJECT BUDGET					
	Total Estimate					\$ 4,918,499

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-19

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T35

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 127,686
	Project Management		3.00%	0.00%	\$ 76,612	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 51,074	
B	Design and Investigation (10%)					\$ 255,372
	Traffic Investigations		0.85%	0.00%	\$ 21,707	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,645	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,645	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 108,533	
	Construction Management		2.50%	0.00%	\$ 63,843	
C	Construction				\$ 2,553,722	\$ 2,553,722
1	PRELIMINARIES					\$ 189,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
1.2	Site management & supervision including QA	18	wks	\$ 2,500	\$ 45,000	
1.3	Provision for traffic	1	Item	\$ 80,000	\$ 80,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 53,740
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,890	m ²	\$ 16	\$ 46,240	
3	EARTHWORKS					\$ 143,274
3.1	Stripping topsoil (100mm)	2,919	m ²	\$ 6	\$ 17,514	
3.2	Excavation and removal	2,747	m ³	\$ 30	\$ 82,410	
3.3	Stockpile reclaimed FCR	2,890	m ³	\$ 15	\$ 43,350	
4	PAVEMENT					\$ 877,415
4.1	Deep lift asphalt 195 mm	4,434	m ²	\$ 105	\$ 465,570	
4.2	Subbase course - 250 mm 3% CTCR	5,494	m ²	\$ 55	\$ 302,170	
4.3	Shoulder - full depth pavement	315	m ²	\$ 145	\$ 45,675	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
5	DRAINAGE					\$ 174,575
5.1	Subsoil drains 100mm dia - screenings	1,060	Lm	\$ 30	\$ 31,800	
5.2	Subsoil drains 100mm dia - no fines conc	315	Lm	\$ 45	\$ 14,175	
5.3	375 RCP (class 2)	580	Lm	\$ 170	\$ 98,600	
5.4	Side entry pits	12	No	\$ 2,500	\$ 30,000	
6	CONCRETE WORKS					\$ 192,450
6.1	Kerb & channel	1,060	Lm	\$ 50	\$ 53,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	445	Lm	\$ 130	\$ 57,850	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	500	m ²	\$ 85	\$ 42,500	
6.5	10m concrete maintenance area	300	m ²	\$ 85	\$ 25,500	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 193,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-19

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T35

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 22,268
10.1	Topsoiling seeding	2,620	m ²	\$ 8.50	\$ 22,268	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,936,780	\$ 2,936,780
D	Contingency					
	Contingency (15% of C)				15%	\$ 383,058.28
E	PROJECT BUDGET					
	Total Estimate					\$ 3,319,838

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

20 August 2015

CG130898

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-20

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T36

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 186,974
	Project Management		3.00%	0.00%	\$ 112,184	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 74,789	
B	Design and Investigation (10%)					\$ 373,947
	Traffic Investigations		0.85%	0.00%	\$ 31,786	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 44,874	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 44,874	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 158,928	
	Construction Management		2.50%	0.00%	\$ 93,487	
C	Construction				\$ 3,739,474	\$ 3,739,474
1	PRELIMINARIES					\$ 244,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 94,000	\$ 94,000	
1.2	Site management & supervision including QA	24	wks	\$ 2,500	\$ 60,000	
1.3	Provision for traffic	1	Item	\$ 85,000	\$ 85,000	
1.4	Cultural Heritage contingency	1	Item	\$ 5,000	\$ 5,000	
2	DEMOLITION					\$ 52,300
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,800	m ²	\$ 16	\$ 44,800	
3	EARTHWORKS					\$ 224,526
3.1	Stripping topsoil (100mm)	5,716	m ²	\$ 6	\$ 34,296	
3.2	Excavation and removal	4,941	m ³	\$ 30	\$ 148,230	
3.3	Stockpile reclaimed FCR	2,800	m ³	\$ 15	\$ 42,000	
4	PAVEMENT					\$ 1,558,675
4.1	Deep lift asphalt 195 mm	8,773	m ²	\$ 105	\$ 921,165	
4.2	Subbase course - 250 mm 3% CTCR	9,882	m ²	\$ 55	\$ 543,510	
4.3	Shoulder - full depth pavement	-	m ²	\$ 145	\$ -	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 94,000	\$ 94,000	
5	DRAINAGE					\$ 287,600
5.1	Subsoil drains 100mm dia - screenings	2,620	Lm	\$ 30	\$ 78,600	
5.2	Subsoil drains 100mm dia - no fines conc	-	Lm	\$ 45	\$ -	
5.3	375 RCP (class 2)	950	Lm	\$ 170	\$ 161,500	
5.4	Side entry pits	19	No	\$ 2,500	\$ 47,500	
6	CONCRETE WORKS					\$ 358,660
6.1	Kerb & channel	2,620	Lm	\$ 50	\$ 131,000	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	828	Lm	\$ 130	\$ 107,640	
6.4	Laybacks and tactile pavers	16	No	\$ 850	\$ 13,600	
6.5	Concrete island infill	452	m ²	\$ 85	\$ 38,420	
6.5	10m concrete maintenance area	800	m ²	\$ 85	\$ 68,000	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 243,500
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	6	No	\$ 9,000	\$ 54,000	
9.3	JUP lighting single	12	No	\$ 4,000	\$ 48,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-54-20

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T36

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 62,713
10.1	Topsoiling seeding	7,378	m ²	\$ 8.50	\$ 62,713	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C						\$ 4,300,395 \$ 4,300,395
D	Contingency					
	Contingency (15% of C)				15%	\$ 560,921.10
E	PROJECT BUDGET					
	Total Estimate					\$ 4,861,316

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T37

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 125,802
	Project Management		3.00%	0.00%	\$ 75,481	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 50,321	
B	Design and Investigation (10%)					\$ 251,603
	Traffic Investigations		0.85%	0.00%	\$ 21,386	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 30,192	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 30,192	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 106,931	
	Construction Management		2.50%	0.00%	\$ 62,901	
C	Construction				\$ 2,516,031	\$ 2,516,031
1	PRELIMINARIES					\$ 180,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
1.2	Site management & supervision including QA	17	wks	\$ 2,500	\$ 42,500	
1.3	Provision for traffic	1	Item	\$ 74,000	\$ 74,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 46,960
2.1	Trees	20	No	\$ 500	\$ 10,000	
2.2	Plane existing asphalt	2,310	m ²	\$ 16	\$ 36,960	
3	EARTHWORKS					\$ 146,256
3.1	Stripping topsoil (100mm)	3,841	m ²	\$ 6	\$ 23,046	
3.2	Excavation and removal	2,952	m ³	\$ 30	\$ 88,560	
3.3	Stockpile reclaimed FCR	2,310	m ³	\$ 15	\$ 34,650	
4	PAVEMENT					\$ 944,495
4.1	Deep lift asphalt 195 mm	4,952	m ²	\$ 105	\$ 519,960	
4.2	Subbase course - 250 mm 3% CTCR	5,904	m ²	\$ 55	\$ 324,720	
4.3	Shoulder - full depth pavement	247	m ²	\$ 145	\$ 35,815	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 64,000	\$ 64,000	
5	DRAINAGE					\$ 182,675
5.1	Subsoil drains 100mm dia - screenings	952	Lm	\$ 30	\$ 28,560	
5.2	Subsoil drains 100mm dia - no fines conc	247	Lm	\$ 45	\$ 11,115	
5.3	375 RCP (class 2)	650	Lm	\$ 170	\$ 110,500	
5.4	Side entry pits	13	No	\$ 2,500	\$ 32,500	
6	CONCRETE WORKS					\$ 134,835
6.1	Kerb & channel	952	Lm	\$ 50	\$ 47,600	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	350	Lm	\$ 130	\$ 45,500	
6.4	Laybacks and tactile pavers	9	No	\$ 850	\$ 7,650	
6.5	Concrete island infill	121	m ²	\$ 85	\$ 10,285	
6.5	10m concrete maintenance area	280	m ²	\$ 85	\$ 23,800	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 190,500
9.1	Light pole (1-way) and luminous lights	9	No	\$ 8,000	\$ 72,000	
9.2	Light pole (2-way) and luminous lights	3	No	\$ 9,000	\$ 27,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	2	No	\$ 5,000	\$ 10,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-01

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T37

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 19,810
10.1	Topsoiling seeding	2,331	m ²	\$ 8.50	\$ 19,810	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,893,435	\$ 2,893,435
D	Contingency					
	Contingency (15% of C)				15%	\$ 377,404.60
E	PROJECT BUDGET					
	Total Estimate					\$ 3,270,840

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-02

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T38

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 133,424
	Project Management		3.00%	0.00%	\$ 80,054	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 53,370	
B	Design and Investigation (10%)					\$ 266,848
	Traffic Investigations		0.85%	0.00%	\$ 22,682	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 32,022	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 32,022	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 113,410	
	Construction Management		2.50%	0.00%	\$ 66,712	
C	Construction				\$ 2,668,479	\$ 2,668,479
1	PRELIMINARIES					\$ 189,500
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 67,000	\$ 67,000	
1.2	Site management & supervision including QA	19	wks	\$ 2,500	\$ 47,500	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 75,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 49,100
2.1	Trees	15	No	\$ 500	\$ 7,500	
2.2	Plane existing asphalt	2,600	m ²	\$ 16	\$ 41,600	
3	EARTHWORKS					\$ 146,118
3.1	Stripping topsoil (100mm)	3,708	m ²	\$ 6	\$ 22,248	
3.2	Excavation and removal	2,829	m ³	\$ 30	\$ 84,870	
3.3	Stockpile reclaimed FCR	2,600	m ³	\$ 15	\$ 39,000	
4	PAVEMENT					\$ 951,765
4.1	Deep lift asphalt 195 mm	4,565	m ²	\$ 105	\$ 479,325	
4.2	Subbase course - 250 mm 3% CTCR	5,658	m ²	\$ 55	\$ 311,190	
4.3	Shoulder - full depth pavement	650	m ²	\$ 145	\$ 94,250	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 67,000	\$ 67,000	
5	DRAINAGE					\$ 188,090
5.1	Subsoil drains 100mm dia - screenings	1,093	Lm	\$ 30	\$ 32,790	
5.2	Subsoil drains 100mm dia - no fines conc	650	Lm	\$ 45	\$ 29,250	
5.3	375 RCP (class 2)	565	Lm	\$ 170	\$ 96,050	
5.4	Side entry pits	12	No	\$ 2,500	\$ 30,000	
6	CONCRETE WORKS					\$ 221,850
6.1	Kerb & channel	1,093	Lm	\$ 50	\$ 54,650	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	750	Lm	\$ 130	\$ 97,500	
6.4	Laybacks and tactile pavers	12	No	\$ 850	\$ 10,200	
6.5	Concrete island infill	400	m ²	\$ 85	\$ 34,000	
6.5	10m concrete maintenance area	300	m ²	\$ 85	\$ 25,500	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 191,000
9.1	Light pole (1-way) and luminous lights	8	No	\$ 8,000	\$ 64,000	
9.2	Light pole (2-way) and luminous lights	4	No	\$ 9,000	\$ 36,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	4	No	\$ 5,000	\$ 20,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-02

Amended design as per VicRoads and MPA comments SEP 2014

Sheet Ref: T38

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 23,556
10.1	Topsoiling seeding	2,771	m ²	\$ 8.50	\$ 23,556	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C						\$ 3,068,751 \$ 3,068,751
D	Contingency					
	Contingency (15% of C)				15%	\$ 400,271.92
E	PROJECT BUDGET					
	Total Estimate					\$ 3,469,023

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSIs (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement
- 8 Based on preliminary information
- 9 Assume all existing asphalt roads to be demolished and FCR stockpiled
- 10 Assume crushed rock pavement will be removed as part of general earthworks

13

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

20 August 2015

Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T39

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 101,228
	Project Management		3.00%	0.00%	\$ 60,737	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 40,491	
B	Design and Investigation (10%)					\$ 202,455
	Traffic Investigations		0.85%	0.00%	\$ 17,209	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 24,295	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 24,295	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 86,043	
	Construction Management		2.50%	0.00%	\$ 50,614	
C	Construction				\$ 2,024,551	\$ 2,024,551
1	PRELIMINARIES					\$ 147,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 51,000	\$ 51,000	
1.2	Site management & supervision including QA	16	wks	\$ 2,500	\$ 40,000	
1.3	Provision for traffic	1	Item	\$ 56,000	\$ 56,000	
1.4	Cultural Heritage contingency	1	Item	\$ -	\$ -	
2	DEMOLITION					\$ 22,500
2.1	Trees	45	No	\$ 500	\$ 22,500	
3	EARTHWORKS					\$ 71,970
3.1	Stripping topsoil (100mm)	4,070	m ²	\$ 6	\$ 24,420	
3.2	Excavation and removal	1,585	m ³	\$ 30	\$ 47,550	
4	PAVEMENT					\$ 609,950
4.1	Deep lift asphalt 195 mm	2,420	m ²	\$ 105	\$ 254,100	
4.2	Subbase course - 250 mm 3% CTCR	3,170	m ²	\$ 55	\$ 174,350	
4.3	Shoulder - full depth pavement	900	m ²	\$ 145	\$ 130,500	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 51,000	\$ 51,000	
5	DRAINAGE					\$ 151,000
5.1	Subsoil drains 100mm dia - screenings	750	Lm	\$ 30	\$ 22,500	
5.2	Subsoil drains 100mm dia - no fines conc	900	Lm	\$ 45	\$ 40,500	
5.3	375 RCP (class 2)	400	Lm	\$ 170	\$ 68,000	
5.4	Side entry pits	8	No	\$ 2,500	\$ 20,000	
6	CONCRETE WORKS					\$ 155,890
6.1	Kerb & channel	750	Lm	\$ 50	\$ 37,500	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	538	Lm	\$ 130	\$ 69,940	
6.4	Laybacks and tactile pavers	10	No	\$ 850	\$ 8,500	
6.5	Concrete island infill	250	m ²	\$ 85	\$ 21,250	
6.5	10m concrete maintenance area	220	m ²	\$ 85	\$ 18,700	
7	TRAFFIC SIGNAL WORKS					\$ 237,500
7.1	General items	1	Item	\$ 23,000	\$ 23,000	
7.2	Conduits	1	Item	\$ 18,000	\$ 18,000	
7.3	Pedestals	1	Item	\$ 45,000	\$ 45,000	
7.4	Lanterns	1	Item	\$ 18,000	\$ 18,000	
7.5	Controller	1	Item	\$ 75,000	\$ 75,000	
7.6	Detectors	1	Item	\$ 9,500	\$ 9,500	
7.7	Cabling & connections	1	Item	\$ 40,000	\$ 40,000	
7.8	Clean-up	1	Item	\$ 9,000	\$ 9,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 186,500
9.1	Light pole (1-way) and luminous lights	10	No	\$ 8,000	\$ 80,000	
9.2	Light pole (2-way) and luminous lights	2	No	\$ 9,000	\$ 18,000	
9.3	JUP lighting single	4	No	\$ 4,000	\$ 16,000	
9.4	JUP lighting dual	3	No	\$ 5,000	\$ 15,000	
9.5	Cabling, conduits and pits	1	Item	\$ 40,000	\$ 40,000	
9.6	Electrical connection	1	Item	\$ 17,500	\$ 17,500	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-03

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T39

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
10	LANDSCAPING WORKS					\$ 19,741
10.1	Topsoiling seeding	2,323	m ²	\$ 8.50	\$ 19,741	
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 15,000	\$ 15,000	\$ 15,000
13	SERVICE RELOCATION					\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 2,328,234	\$ 2,328,234
D	Contingency					
	Contingency (15% of C)				15%	\$ 303,682.69
E	PROJECT BUDGET					
	Total Estimate					\$ 2,631,917

Notes:

- Due to flat topography of the area, no major cut/fill works have been included for road

Substations

- 1 No allowance for substations

Preliminaries

- 2 Based on nominal rates

Subsoil Drain

- 3 Assume same as kerb and channel

Side Entry Pits

- 4 Based on 50 m intervals

Tactile Pavers

- 5 Assume hazard TGSI's (no directional)

Signing

- 6 Nominal rate

Pavement

- 7 Assume deep lift asphalt pavement

Tree Removal

- 8 Based on preliminary information

9

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS
CG130898

20 August 2015
Version 8.1

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-04

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T40

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
A	Project and Program Management (5%)					\$ 171,916
	Project Management		3.00%	0.00%	\$ 103,150	
	Project scoping, planning, scheduling, monitoring, reporting and commissioning					
	Management of preconstruction activities, development of tender documents and management of contracts					
	Managing external interfaces, including community liaison, environmental issues, traffic issues etc					
	Records management					
	Program Administration		2.00%	0.00%	\$ 68,766	
B	Design and Investigation (10%)					\$ 343,832
	Traffic Investigations		0.85%	0.00%	\$ 29,226	
	Cadastral and Engineering Survey		1.20%	0.00%	\$ 41,260	
	Geotechnical investigations Pavement Investigations and Design		1.20%	0.00%	\$ 41,260	
	Environmental Investigations			0.00%	\$ -	
	Landscape Design			0.00%	\$ -	
	Preliminary and Final Design		4.25%	0.00%	\$ 146,128	
	Construction Management		2.50%	0.00%	\$ 85,958	
C	Construction				\$ 3,438,317	\$ 3,438,317
1	PRELIMINARIES					\$ 194,000
1.1	Site establishment (2.5% of total construction cost)	1	Item	\$ 69,000	\$ 69,000	
1.2	Site management & supervision including QA	20	wks	\$ 2,500	\$ 50,000	
1.3	Provision for traffic	1	Item	\$ 75,000	\$ 75,000	
1.4	Cultural Heritage contingency	1	Item		\$ -	
2	DEMOLITION					\$ 97,500
2.1	Trees	25	No	\$ 500	\$ 12,500	
2.2	Plane existing asphalt	1	Item	\$ 85,000	\$ 85,000	
3	EARTHWORKS					\$ 187,665
3.1	Stripping topsoil (100mm)	5,840	m ²	\$ 6	\$ 35,040	
3.2	Excavation and removal	3,748	m ³	\$ 30	\$ 112,425	
3.3	Stockpile reclaimed FCR	2,680	m ³	\$ 15	\$ 40,200	
4	PAVEMENT					\$ 1,266,150
4.1	Deep lift asphalt 195 mm	6,060	m ²	\$ 105	\$ 636,300	
4.2	Subbase course - 250 mm 3% CTCR	7,495	m ²	\$ 55	\$ 412,225	
4.4	Shoulder - full depth pavement	1,025	m ²	\$ 145	\$ 148,625	
4.4	Subgrade Improvement (2.5% of total construction cost)	1	Item	\$ 69,000	\$ 69,000	
5	DRAINAGE					\$ 282,925
5.1	Subsoil drains 100mm dia - screenings	1,435	Lm	\$ 30	\$ 43,050	
5.2	Subsoil drains 100mm dia - no fines conc	1,025	Lm	\$ 45	\$ 46,125	
5.3	375 RCP (class 2)	875	Lm	\$ 170	\$ 148,750	
5.4	Side entry pits	18	No	\$ 2,500	\$ 45,000	
6	CONCRETE WORKS					\$ 327,425
6.1	Kerb & channel	1,435	Lm	\$ 50	\$ 71,750	
6.2	Footpath/Shared Path (125 mm, residential, as per MPA)	1,035	Lm	\$ 130	\$ 134,550	
6.4	Laybacks and tactile pavers	24	No	\$ 850	\$ 20,400	
6.5	Concrete island infill	685	m ²	\$ 85	\$ 58,225	
6.5	10m concrete maintenance area	500	m ²	\$ 85	\$ 42,500	
7	TRAFFIC SIGNAL WORKS					\$ 275,000
7.1	General items	1	Item	\$ 27,500	\$ 27,500	
7.2	Conduits	1	Item	\$ 22,000	\$ 22,000	
7.3	Pedestals	1	Item	\$ 55,000	\$ 55,000	
7.4	Lanterns	1	Item	\$ 22,000	\$ 22,000	
7.5	Controller	1	Item	\$ 82,500	\$ 82,500	
7.6	Detectors	1	Item	\$ 11,000	\$ 11,000	
7.7	Cabling & connections	1	Item	\$ 44,000	\$ 44,000	
7.8	Clean-up	1	Item	\$ 11,000	\$ 11,000	
8	SIGNAL MAINTENANCE (10 YEARS) by Road Authority	1	item	\$ 100,000	\$ 100,000	\$ 100,000
9	POWER & LIGHTING					\$ 330,000
9.1	Light pole (1-way) and luminous lights	18	No	\$ 8,000	\$ 144,000	
9.2	Light pole (2-way) and luminous lights	8	No	\$ 9,000	\$ 72,000	
9.3	JUP lighting single	6	No	\$ 4,000	\$ 24,000	
9.4	JUP lighting dual	7	No	\$ 5,000	\$ 35,000	
9.5	Cabling, conduits and pits	1	Item	\$ 44,000	\$ 44,000	
9.6	Electrical connection	1	Item	\$ 11,000	\$ 11,000	
10	LANDSCAPING WORKS					\$ 45,152
10.1	Topsoiling seeding	5,312	m ²	\$ 8.50	\$ 45,152	

PRELIMINARY ESTIMATE OF DEVELOPMENT COSTS

CG130898

Clyde PSP - Intersection Cost Estimate

Intersection Ref: IN-57.1-04

Amended design as per VicRoads and MPA comments Sep 2014

Sheet Ref: T40

20 August 2015

Version 8.1

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	SUBTOTAL
11	SIGNING	1	item	\$ 7,500	\$ 7,500	\$ 7,500
12	LINEMARKING (Thermoplastic)	1	item	\$ 25,000	\$ 25,000	\$ 25,000
13	(Overhead electrical)	1	Item			\$ 300,000
13.1	Water, gas, telstra (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
13.2	Overhead electrical (adopted allowance)	1	Item	\$ 150,000	\$ 150,000	
14	MISCELLANEOUS					\$ -
15	PROVISIONAL SUM - DAYWORK		item		\$ -	\$ -
TOTAL A - C					\$ 3,954,065	\$ 3,954,065
D	Contingency					
	Contingency (15% of C)				15%	\$ 515,747.55
E	PROJECT BUDGET					
	Total Estimate					\$ 4,469,812

- Substations**
- 1 Service relocation / alterations have not been allowed for in the estimate
- 1 No allowance for water, gas, telstra, sewer
- Preliminaries**
- 2 No allowance for substations
- Subsoil Drain**
- 3 Based on nominal rates
- Side Entry Pits**
- 4 Assume same as kerb and channel
- Tactile Pavers**
- 5 Based on 50 m intervals
- Signing**
- 6 Assume hazard TGSIs (no directional)
- Pavement**
- 7 Nominal rate
- Tree Removal**
- 8 Assume deep lift asphalt pavement
- Roads**
- 9 Based on preliminary information
- 11 Assume all existing asphalt roads to be demolished

AUTHOR: Harrendran Mohan

Date: 14/10/2014

REVIEWER: Rob Henry

Date: 14/10/2014

7.6 Interim road costings