

DPO5.01 STAGE 2 AND 3 KEYSBOROUGH SOUTH**

1. ORIGINAL DEVELOPMENT PLAN APPROVED 27 JUNE 2011;
2. ADDENDUM 1 (G19 CHANDLER ROAD, KEYSBOROUGH) APPROVED 29 AUGUST 2018;
3. ADDENDUM 2 (KEYSBOROUGH SOUTH NEIGHBOURHOOD ACTIVITY CENTRE CONCEPT PLAN DATED 17 OCTOBER 2019) APPROVED BY VCAT 13 DECEMBER 2019.

**PLEASE NOTE THAT THE ORIGINAL DEVELOPMENT PLAN SHOULD BE READ IN CONJUNCTION WITH THE APPROVED ADDENDUM.

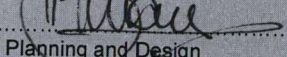


image source: Google Earth

Revised Keysborough South Stages 2 & 3 – Development Plan

Pursuant to Clause 43.04 Schedule 5 of the Greater Dandenong Planning Scheme this is a copy of the Revised Development Plan (Revised June 2011) for the land defined as DPO5 on the planning scheme map and particularly as the Keysborough South Development Plan – Stages 2 & 3 shown in the Outline Development Plan in Clause 43.04 Schedule 5 of the Greater Dandenong Planning Scheme.

This Revised Development Plan amends Section 10.3 – Neighbourhood Activity Centre to make reference to the Keysborough South Neighbourhood Activity Centre (NAC) Concept Plan (dated 6 December 2010) and the Schedule to the Business 1 Zone, according which the layout of the NAC and final composition and retail floor areas will be regulated. This Revised Development Plan has been prepared to the satisfaction of the responsible authority.

Signed..........and dated 27 June 2011
by Manager Planning and Design
City of Greater Dandenong

Keysborough South Development Plan
Stages 2 and 3
For Intrapac Projects Pty Ltd and
Keysborough South Development Group
Revised June 2011

This document has been made available for the purposes
as set out in the Planning and Environment Act 1987.
The information must not be used for any other purpose.



SJB Planning

INTRAPAC
Intelligent Development

SJB Planning

Keysborough South Development Plan Stages 2 & 3

prepared
for

**Intrapac Projects Pty Ltd and
Keysborough South Development Group**

SJB Planning
Planning and Development Consultants
Level 1, 80 Dorcas Street
SOUTHBANK VIC 3006
T 03 8648 3500
F 03 8648 3599

Date: 12 December 2008
Revision: 3 June 2011



This document has been made available for the purposes
as set out in the Planning and Environment Act 1987.
The information must not be used for any other purpose.

Contents

Part A Introduction and Background

1.0	Development Plan
1.1	Purpose and Content
1.2	Keysborough South Development Plan - Stages 2 and 3
2.0	Keysborough South
2.1	Regional Context
2.2	Keysborough South Stages 2 and 3
3.0	Intrapac Pty Ltd and Keysborough South Development Group
4.0	Background
4.1	Aboriginal Heritage
4.2	European Heritage
4.3	Natural Environment
4.3.1	Geology and Topography
4.3.2	Flora
4.3.3	Fauna
4.4	Existing Land Use and Development
4.5	Existing Traffic Volumes
4.6	Development Controls and Policies

Part B Development Principles and Objectives

5.0	Development Principles
6.0	Urban Design Guidelines and Planning Objectives
6.1	Physical Design Objectives
6.2	Environmental Design Objectives
6.3	Visual and Social Design Objectives
6.4	Lot Layout and Subdivision Objectives
6.5	Physical Infrastructure Principles

Part C Development Plan Map

7.0	Development Program
8.0	The Development Plan Map Described
9.0	Lots, Housing and Population
10.0	Community Facilities
10.1	Public Open Space & Public Open Space Plan
10.2	Landscape Masterplan & Remnant Vegetation
10.3	Neighbourhood Activity Centre
10.4	Schools
10.5	Other Social Infrastructure
11.0	Accessibility, Traffic and Transport
11.1	Road Network, Traffic Management and Road Construction Standards.
12.0	Heritage and Environment
12.1	Heritage
12.2	Flora, Fauna and Biodiversity
12.3	Buffers
13.0	Engineering Services

Part D Implementation

14.0	Special Controls
14.1	Environmental Management
14.2	Stormwater Management Plan
15.0	Development Contributions Plan
16.0	Development Approvals Process
17.0	Stages and Timing

Part E Appendices

Appendix 1	Public Open Space Policy
Appendix 2	Recommended Road cross-sections
Appendix 3	Traffic Distribution Assumptions
Appendix 4	Total Traffic Volume Estimates - 2015 with Full Development
Appendix 5	Potential Bus Network
Appendix 6	Keysborough South Neighborhood Activity Centre Concept Plan

Part A
Introduction and Background

Part A - Introduction and Background

1.0 Development Plan

1.1 Purpose and Content

A Development Plan is a plan / map and supporting report (including possible separate supplementary material) which provides an outline of the way an area is intended to be developed.

A Development Plan proposes housing areas, road layouts and the locations of open space, community, retail and other land uses and facilities for a comprehensively planned development of land. This outline is detailed at subdivision and development stages, generally following the adoption of the Development Plan. The detail may vary or 'fine tune' a Development Plan without changing its general intent (unless to the satisfaction of the responsible authority).

Objectives for the development of land and guidelines relating to the provision of infrastructure, facilities and services and other matters, may form part of a Development Plan.

1.2 Keysborough South Development Plan – Stages 2 and 3

The Keysborough South Development Plan (Stages 2 and 3) is a comprehensive report and map based on detailed investigations over several years. These investigations included:

- urban design;
- biodiversity;
- flora and fauna
- environmental management
- landscape;
- traffic;
- engineering;
- stormwater management;
- surveying;
- strategic and statutory planning;
- heritage assessments.

Two main parts comprise the Development Plan:

- the plan / map – depicting a broad layout including residential, commercial and community land use, a road layout, open space networks and other elements;
- the report – summarising existing conditions at Keysborough South and describing the plan and its implementation.



2.0 Keysborough South

2.1 Regional Context

Keysborough South is situated approximately 30 kilometres south east of Melbourne within the City of Greater Dandenong (refer **Regional Context Plan**).

The land is within an area broadly referred to as the South East Corridor that comprises both land that is either developed or committed to urban development. In addition to this, there are non-urban areas located within the surrounding locality (outside the Urban Growth Boundary) commonly referred to as the South East Non Urban Area (or 'Green Wedge').

Keysborough South benefits from a number of locational advantages within the South East Corridor given its proximity to established residential areas and associated infrastructure. This includes:

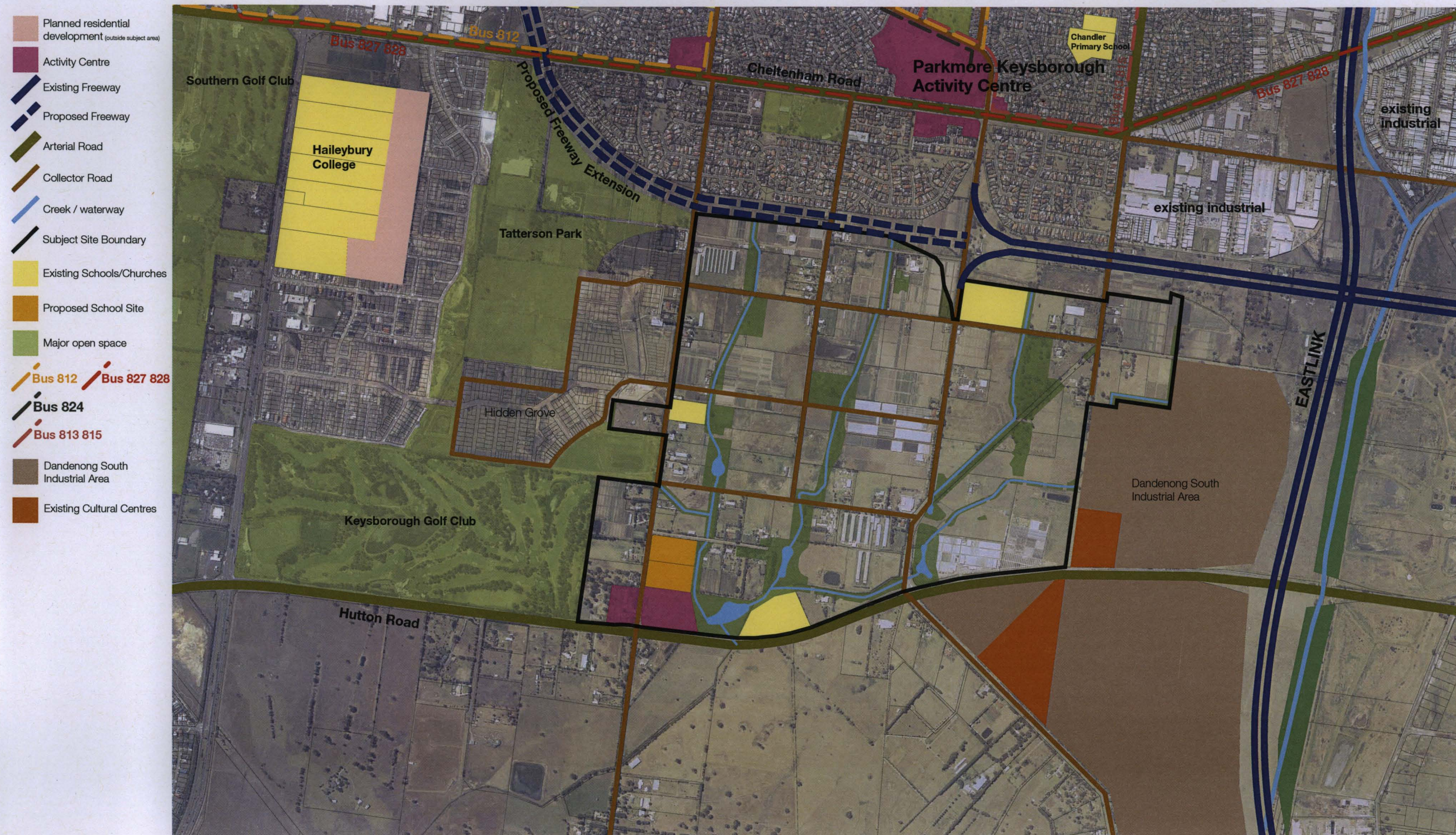
- the long established residential suburb of Keysborough to the immediate north (beyond the Dandenong Bypass / Dingley Freeway);
- the already largely developed residential area to the west of Chapel Road that comprises Stage 1 of the Keysborough South area;
- the proposed extension to the South Dandenong Industrial Area between the Eastlink Freeway and the eastern boundary of the Keysborough South Development Plan area;
- Tatterson Regional Park to the west of Chapel Road;
- the Parkmore Keysborough Shopping Centre ('Major Activity Centre' under Melbourne 2030) located approximately 600 metres north;
- the Keysborough Golf Club to the immediate west;
- the existing road network and Eastlink Freeway approximately 800 metres to the east;
- the existing public transport network (bus routes) that service the wider area.

2.2 Keysborough South Stages 2 and 3

The Keysborough South Development Plan (Stages 2 and 3) consists of approximately 247 hectares of land (net of existing roads) generally bounded:

- to the north by the Dandenong Bypass / Dingley Freeway reservation;
- to the west by Chapel Road and Keysborough Golf Club;
- to the south by Hutton Road and Greens Road; and
- to the east by Chandler Road and the proposed extension to the Dandenong South industrial area.

This area is known as Stages 2 and 3 of the South Keysborough Local Planning Policy Area (refer **Urban Context Plan** over the page).



Keysborough South Stages 2 and 3 Development Plan:

Urban Context Plan

0 100 500 1000m



3.0 Intrapac Projects PtyLtd and Keysborough South Development Group

Intrapac Projects Pty Ltd is a highly successful private property development business with a 25-year track record of delivering quality, value-added, award winning projects.

Over and above Intrapac's ability to successfully identify and acquire strategic land holdings, Intrapac has also garnered a reputation for managing the development and delivery of quality and often award winning projects. Intrapac prides itself on a best practice approach to urban design and planning insisting that communities it develops are differentiated through an appreciable difference in quality.

As at November 2008, Intrapac is working on residential projects in semi rural, coastal and metropolitan locations across Victoria, New South Wales and Queensland. In addition to these residential projects, Intrapac has also undertaken a number of industrial developments in south east Melbourne and has developed and designed several large office buildings in Malvern and St Kilda.

Intrapac continues to enjoy partnership arrangements with several of its core investors which span in excess of 25 years. The Keysborough South Development Group represents one of these partnerships, with Intrapac as the overwhelming majority landholder partnering with a number of existing, individual land owners within the area to form the Keysborough South Development Group. (Refer **Ownership Plan** on following page).





Keysborough South Stages 2 and 3 Development Plan:

Ownership Plan

4.0 Background

4.1 Aboriginal Heritage

The identity of the Aboriginal people who traditionally occupied the Keysborough South area is open to discussion however the contemporary group with statutory authority in this area is the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc.

The following provides a summary of the previous Aboriginal archaeology within the Keysborough area generally based upon previous archaeological research.

- Scarred River Red Gum trees are the most common Aboriginal site types. Stone artefacts may also occur in very low densities.
- Most of the known Aboriginal sites are found on farmland south of Hutton Road, external to the Development Plan area. This is probably due to differences in land-use history, with the farmland having experienced relatively less disturbance than the areas to the north of Hutton Road, which have been used extensively for market gardens.
- Parts of the subject land and adjacent land north of Hutton Road have been previously surveyed for Aboriginal archaeological sites by Presland and Webb and none were found (with the exception of scarred trees on the Keysborough Golf Club land), in spite of good ground visibility.
- Stone artefacts, representing former camp sites, and possibly burials may be found in sandy rises adjacent to the former Carrum Carrum Swamp.

The extensive, more recent history of market gardens being located on the subject land has contributed significantly to the process of destruction and disturbance of Aboriginal heritage sites through the effective removal of River Red Gums that may have contained scars of Aboriginal origin and the severe disruption of any camp sites identified by stone artefact scatters through large-scale soil cultivation.

The assessment of the known archaeology of the subject land indicates a low probability of sites occurring on this land.

Section 12 of this Development Plan outlines how cultural heritage matters are dealt with as part of the development of the land.

More detailed information on the Aboriginal heritage of the site and surrounding area can be found in the TerraCulture Pty Ltd reports 'Keysborough South Development Plan, Stages 2 & 3 Aboriginal Archaeological Assessment – June 2002.' 'An Archaeological Investigation - Intrapac Property, Keysborough – 2006' and 'Archaeological Subsurface Testing - Intrapac property: Island, Perry and Greens Road, Keysborough - 2007.

4.2 European Heritage

According to Webb (1995), Marshall (1996), Marshall (1998) and Webb and Marshall (2000), Hovell crossed the Carrum Carrum Swamp in 1827 and effectively opened the area between Port Phillip Bay and Western Port Bay for settlement. The most significant archaeological events to follow were the draining of the swamps and the felling of trees, both of which allowed more land to become available for farming and grazing. Drainage works and burning of the associated tea-tree scrub began in the 1870s. The felling of River Red Gums began at the time of European settlement and continues to the present day.

The subject land has long been extensively used for market gardening, a land-use continuing to the present day. Historic sites may relate to the farming history of the area. As with Aboriginal sites, these will be mostly located south of Hutton Road (external to the Development Plan area). Any significant historic sites north of Hutton Road are likely to have been destroyed through intensive cultivation.

4.3 Natural Environment

4.3.1 Geology and Topography

The subject land is located to the east of Port Phillip Bay, in an area close to the northern extent of the previous Carrum Carrum Swamp. It is gently undulating and slopes slightly towards the south.

Geologically, it is located on the fringe of the Port Phillip Sunkland, above the Selwyn Fault. The site's topography is relatively flat and is traversed by two major waterways known as Sheltons Drain West and East Branches. The geology underlying most of the site consists of Quaternary (mostly Holocene) lagoon and swamp deposits of silt and clay. Tertiary (Pliocene to Miocene) fluvial deposits of gravel, sand and silt are present along areas associated with the channels flowing through the southwestern and southeastern parts of the site (DNRE 1997a,b). Soils are fertile and poorly-drained, and consist of a duplex of sand and silt or loam over clay, typical of the soils utilised by market gardeners in the Keysborough area.

Keysborough South Development Plan Stages 2 & 3
Part A - Introduction and Background

4.3 Natural Environment cont.

4.3.2 Flora

The subject land is located within the Gippsland Plain bioregion. Prior to European influences, the site's Ecological Vegetation Class (EVC) would have comprised Plains Grassy Woodland (EVC 55), as indicated in DSE mapping (2003a) and the floristic composition of remnants.

Due to a long history of market gardening, there is very little or no remnant vegetation remaining in the area. Adjacent areas that retain some remnant vegetation (such as the Keysborough Golf Club and Braeside Park) are dominated by River Red Gums (*Eucalyptus camaldulensis*) and to a lesser extent in lower-lying areas by Tea-tree. (*Melaleuca ericifolia*). This indicates that the pre-European vegetation of the subject land was largely characterised by River Red Gum forest and Tea-tree swamp.

No flora species of national or state conservation significance were recorded in the study area. Seven species of regional significance were recorded.

The remnant trees are considered to have high local significance for conservation. They make a significant contribution to flora and fauna conservation in the Keysborough area, which has been extensively cleared and drained for agricultural, residential and other development.

River Red Gum (*Eucalyptus camaldulensis*) once dominated extensive grassy woodlands on the plains south-east of Melbourne but extremely little remains. Two substantial stands of River Red Gum occur within the study area – northeast and south-west. These are larger and more intact than any other stands and scattered trees within the study area. They have considerable rehabilitation potential. The exotic understorey of the Plains Grassy Woodland remnants throughout the study area precludes a higher significance rating, however they are particularly important in the local context.

The remainder (and large majority) of the area has low conservation value, due to a long history of intensive agricultural land use.

More detailed information on the flora of the site and surrounding area can be found in the report 'Keysborough South Stages 2 & 3 Flora and Fauna Assessment 2002' prepared by Biosis Research Pty Ltd and 'Flora and Fauna Issues for Greater Dandenong Planning Scheme Amendment C36, Keysborough South, Victoria, March 2005' prepared by Practical Ecology Pty Ltd.

4.3.3 Fauna

Four habitat types occur within the study area: remnant trees, planted trees and shrubs, introduced pasture and wetlands (artificial). Biosis Research concluded that three of these habitat types were of low fauna habitat value and that the fourth (Remnant woodland and trees) was of medium fauna habitat value.

Twenty-eight vertebrate fauna species (20 native and eight introduced) were recorded in the 2002 assessment. No fauna species of national, state or regional conservation significance was recoded during the survey and, in terms of significant species previously recorded in the wider area, few are likely to utilise resources within the subject site.

More detailed information on the fauna of the site and surrounding area can be found in the report 'Keysborough South Stages 2 & 3 Flora and Fauna Assessment 2002' prepared by Biosis Research Pty Ltd and 'Flora and Fauna Issues for Greater Dandenong Planning Scheme Amendment C36, Keysborough South, Victoria, March 2005' prepared by Practical Ecology Pty Ltd.

4.4 Existing Land Use and Development

The subject land is within the Urban Growth Boundary and is currently used for a range of uses including agriculture, market gardening, plant nurseries, rural residential, cultural and community facilities (fire station, church, school, social club), dog boarding kennels and rural industry.

Existing lot sizes vary considerably, ranging from a few isolated residential lots of around 600 square metres to much larger rural properties of 10 or 12 hectares.

The Keysborough South area is effectively an infill development area surrounded by fully constructed arterial roads and bordering the Dingley Freeway reservation and the Dandenong Southern Bypass constructed as part of Eastlink.

There are several roads that provide access to the subject land. The most notable of these are:

- Chapel Road is a local road which runs south from Cheltenham Road over Hutton Road to Keys Road. South of Cheltenham Road, Chapel Road has a 20.1 metre reservation containing a single centrally located carriageway of 12.1 metres providing for a single traffic lane in each direction. At its southern end, Chapel Road has a rural cross-section providing a 6 metre sealed pavement with gravel shoulder. The road widens at Hutton Road and Cheltenham Road to provide turning lanes at the signalised intersection.
- Perry Road is a connector road which runs between Cheltenham Road and Hutton Road. Between Cheltenham Road and Church Road, in conjunction with Eastlink, the road has been constructed with a four lane divided carriageway with the Dandenong South Bypass terminating as a signalised intersection T junction at Perry Road. South of Church Road, Perry Road remains a two lane road with a 6 metre wide sealed pavement and gravel shoulders. Widening and channelisation has been undertaken between Island Road and Greens Road to provide for a divided carriageway, turning lanes at Island Road and Tyers Lane and flaring on the approach to the traffic signals at Greens Road.

- The Dandenong Bypass is a four lane divided arterial road running east from Perry Road to intersect with Eastlink and provides a direct connection through to the South Gippsland Highway south of Princess Highway. The proposed Dingley Freeway, when built, will link up the Dandenong Bypass with Westall Road.
- Cheltenham Road is a primary arterial road running in an east-west direction between Springvale Road, Keysborough and Foster Street in Dandenong. Through Keysborough, the road provides for three traffic lanes in each direction separated by a central median with recent works undertaken as part of the Eastlink project providing a third traffic lane in a west bound direction between Chandler Road and Springvale Road. Signalised intersections are located at Chapel Road / Corrigan Road, Perry Road / Kingsclere Avenue and Chandler Road. Additional turn lanes were provided at Perry Road and Chandler Road in conjunction with Eastlink.
- Hutton Road / Greens Road is a primary, a four lane divided arterial route running east-west and connecting Springvale Road, the Eastlink Freeway, the Frankston Dandenong Road and the South Gippsland Highway. This route runs along the southern boundary of the land included in the proposed amendment. A full diamond interchange is provided at Eastlink with an off-ramp interchange also controlled by signals.
- Chandler Road is a connector road that links south from Cheltenham Road to Church Road. An at-grade intersection with the Dandenong Bypass is controlled by traffic signals.

4.5 Existing Traffic Volumes

Estimates of 2005 'existing' pre-Eastlink traffic volumes were compiled by TTM Consulting as published in its report on the Keysborough South area in July 2006. These volumes were accepted by the Panel convened to consider Amendment C36 as appropriate 'base' volumes for the purpose of analysis. These adopted daily volumes for the existing road network are found in Table 1 below.

Road Link	Existing Volume TTM 2005 Estimate (vehicles per day)
Cheltenham Road	24500
Hutton Road	12500
Greens Road	13600
East Link	0
Corrigan Road	13000
Chandler Road	11000
Chapel Road	9000
Perry Road	11000
Church Road	400
East West Road	0
Tyers Lane	100
Stanley Road	100

Table 1: Adopted Base Volumes 2005 (Source TTM Consulting July 2006)

Eastlink and the Dandenong Bypass were opened to the public on 29 June 2008 and operated without tolls for the first month.

Analysis undertaken for the Amendment C36 Panel considered the likely impact on volumes of roads in the area due to the redistributions of traffic, relying on estimates of changes in volumes expected to occur following the opening of Eastlink.

Table 2 over shows estimated percentage volume changes on roads in the area published by SEITA prior to the opening and adopted for analysis.

Road	Estimated Increase
Cheltenham Road	10 – 20% increase
Hutton Road	No Change
Greens Road	10 – 20% decrease
Corrigan Road	10 – 20% decrease
Chandler Road	No Change
Chapel Road	No Change
Perry Road, South of Cheltenham Road	> 30% increase
Perry Road, North of Cheltenham Road	> 30% decrease

Table 2: Volume Change Estimates Following Eastlink (source SEITA June 2005).

In order to ascertain the impact of Eastlink on local roads within the Keysborough South area, traffic volume surveys were commissioned over the week commencing 21 August 2008. The results of these surveys are summarised below in Table 3.

Road	Average Weekly Volume (2 way)	2005 Estimate (TTM Consulting)
Perry Road, north of Greens Road	10,788vpd	8,000vpd
Perry Road, south of Cheltenham Road	20,981vpd	11,000vpd
Chapel Road, south of Cheltenham Road	4,984vpd	9,000vpd
Chandler Road, south of Cheltenham Road	7,961vpd	5,000vpd

Table 3: Traffic Volumes August 2008 Following Eastlink Opening.

Volumes on Perry Road have increased by approximately 35% north of Greens Road, which is comparable to the SEITA estimates however, south of Cheltenham Road, volumes have increased by 90% indicating that the traffic is being attracted to the Dandenong Southern Bypass from Cheltenham Road via Perry Road.

Traffic volumes on Chapel Road have decreased by approximately 40%, reflecting that no connection is available to the Dandenong Southern Bypass and a general shift to Perry Road.

Chandler Road south of Cheltenham Road has increased by 60%, again reflecting the connection to the Dandenong Southern Bypass.

For the purposes of both the 'Keysborough South Development Plan - Stages 2 & 3 Traffic Management Plan October 2008' and this Development Plan, modelling of future traffic volumes and road network requirements has been undertaken utilising the SEITA estimates of redistribution of traffic resulting from Eastlink. For Perry Road, Chapel Road and Chandler Road, volume data collected in August 2008 has been adopted to reflect base conditions.

More detailed information on the existing road networks and traffic volumes can be found in the report 'Keysborough South Development Plan - Stages 2 & 3 Traffic Management Plan October 2008' prepared by Cardno Grogan Richards.



Keysborough South Stages 2 and 3 Development Plan:
Heritage Overlay Areas

4.6 Development Controls and Policies

Keysborough South (Stages 2 and 3) is contained within a Residential 1 Zone (R1Z) under the Greater Dandenong Planning Scheme.

The purpose of this Zone includes:

- "To provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households.
- To encourage residential development that respects the neighbourhood character.
- In appropriate locations, to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs".

A Development Plan Overlay: Schedule 5 – Keysborough South Development Plan – Stages 2 and 3 (DPO5) also applies to the land (Clause 43.04). A Development Plan is required to be prepared to the satisfaction of the responsible authority before a permit may be issued to use or subdivide land, construct a building or construct or carry out works associated with the future urban development intended for this area.

A permit may be granted for the following before a Development Plan has been prepared to the satisfaction of the responsible authority:

- for building or works associated with the use of the land for agriculture;
- for extensions or alterations to an existing building or works;
- for the use and development of any social, community or educational facility;
- for the replacement of an existing dwelling;
- for subdivision of land to realign boundaries, create a road reserve or a subdivision which does not create an additional lot.

The Development Plan may consist of plans or other documents and may be prepared and implemented in stages. The Development Plan may be amended to the satisfaction of the responsible authority.

Development Plan Overlay: Schedule 5 – Keysborough South Development Plan – Stages 2 and 3 details the information that the Development Plan must include.

A permit granted must be generally in accordance with the approved Development Plan and include any conditions or requirements specified in Schedule 5.

An Environmental Audit Overlay (EAO) affects parts of the land whilst a Development Contributions Plan Overlay (DCPO) affects the entire land. A Heritage Overlay (HO) applies to three properties within the subject land including (Refer to **Heritage Overlay Areas** Plan on previous page):

- 115 Chapel Road, Keysborough – HO5 Foster Farm House;
- 170 Chapel Road, Keysborough – HO6 former Keysborough State School;
- 176 Chapel Road, Keysborough – HO7 former Keysborough Methodist Church.

There is a high degree of State and local planning policy supporting future urban development of the subject land. In terms of the State Planning Policy Framework, this includes:

- Metropolitan Development (Clause 12);
- Settlement (Clause 14);
- Environment (Clause 15);
- Housing (Clause 16);
- Infrastructure (Clause 18); and
- Subdivision (Clause 19.01).

In essence, these policies seek to encourage better management of metropolitan growth and to contain urban development within the established Urban Growth Boundary (UGB) so that we achieve a more compact city with improved access to infrastructure services and transport.

In terms of Local Planning Policy support in the Greater Dandenong Planning Scheme, this includes the following.

- Clause 21.03 Strategic Framework Plan.
- Clause 21.04-4 of the Municipal Strategic Statement dealing with Keysborough South and the 'Keysborough South Residential Green Vision'.

Planning for the locality has consistently emphasised that urban conversion would occur and that it must realise the 'Green Vision' for the area, with the public realm having the primary role in delivering a range of beneficial environmental, landscape and recreation outcomes. More intensive forms of development would be supported in the private realm within this 'green' environment.

Part B
Development Principles and
Objectives

5.0 Development Principles

The Keysborough South Development Plan (Stages 2 and 3) embraces the following 'development principles' as outlined in Schedule 5 to the Development Plan Overlay.

- To create a network of wetlands, flora and fauna habitat corridors and generous areas of linked open space.
- To integrate landscape/open space with the design and layout of the residential development.
- To create a sense of entry to the adjacent non-urban area.
- To protect and reintroduce indigenous vegetation.
- To enhance flood storage capacity.
- To improve urban storm water quality.

The Development Plan has been prepared taking into consideration the Keysborough South Outline Development Plan.

6.0 Urban Design Guidelines and Planning Objectives

6.1 Physical Design Objectives

The physical design objectives for Keysborough South (Stages 2 and 3) are as follows.

- To provide living and working environments which are functional, safe and attractive.
- To promote visibility, legibility and accessibility through street alignment, block shape and size.
- To create compact neighbourhoods that are oriented around easy walking distances to activity centres, schools and community facilities, public open space and public transport.
- To maximise choice of transport mode and route, in accessing residential areas, activity centres, public transport and community facilities.
- To provide attractive, safe, legible walking and cycling routes.
- To encourage walking and cycling on arterial and collector roads, through designated cycle lanes, attractive street environments, high quality surfaces and landscaping and safe road design.

6.2 Environmental Design Objectives

The environmental design objectives for Keysborough South (Stages 2 and 3) are as follows:

- To provide sufficient, high quality, safe public open spaces to support a range of uses for the whole community.
- To provide public open space that is attractive and accessible to the full range of potential users.
- To utilise and incorporate the natural features of the site, including topography, views, water features and vegetation, in public open space where appropriate and without damaging natural values.
- To promote and encourage environmental sustainability through building design and construction.
- To promote and encourage environmental sustainability through suburban layouts which support sustainable transport and energy efficiency in built form.
- To implement Water Sensitive Urban Design techniques.
- To maximise sustainability and minimise environmental impacts and energy and water consumption, through infrastructure design and implementation.
- To provide for the retention and incorporation of remnant trees into the development (where appropriate and professionally assessed as being worthy of retention) and consideration of Net Gain requirements where trees are to be removed.

6.3 Visual and Social Design Objectives

The visual and social design objectives for Keysborough South (Stages 2 and 3) are as follows.

- To establish or contribute to a sense of place and local identity, and to develop and enhance neighbourhood character.
- To provide, where market demand exists, a diverse range of housing types to accommodate a variety of household types and sizes, now and into the future.
- To establish residential development patterns which support the viability of local activity centres, community facilities and public transport and services.
- To develop suburban layouts which support healthy lifestyles by encouraging walking, cycling and social interaction in the public realm.
- To promote safety through landscape design.
- To encourage high quality landscaping (via a Landscape Master Plan) which provides amenity, comfort (shade, visibility) and aesthetic appreciation.
- To consider tree reserves and the extent of Melbourne Water Corporation responsibilities in terms of wetlands/open water bodies and Council responsibilities within open space areas.
- To respond to local character and environmental issues.
- To promote visibility and legibility through landscape design.
- To provide opportunities for social interaction.
- To provide social facilities within walking and cycling distance of all residential areas.
- To encourage recreation and community events and activities through provision of facilities and gathering spaces.
- To provide 'gateway' treatments that identify new neighbourhoods in a site sensitive manner.

6.4 Lot Layout and Subdivision Objectives

The lot layout and subdivision objectives for Keysborough South (Stages 2 and 3) are as follows.

- To ensure that the layout and design of subdivisions is consistent with and implements any relevant objective, policy, strategy or plan for the area.
- To ensure that subdivision applications are based on a site and context description that takes into account (where relevant or necessary):
 - site shape, size, dimensions and orientation;
 - levels and contours;
 - natural features including trees and other significant vegetation, drainage lines, water courses, wetlands ridgelines and hill tops;
 - the siting and use of existing buildings and structures;
 - street frontage features;
 - access points;
 - location of drainage and other utilities;
 - easements;
 - any identified natural or cultural features of the site;
 - significant views to and from the site;
 - noise and odour or other external influences;
 - soil conditions, including land affected by contamination, erosion, salinity, acid sulphate soils or fill;
 - any other notable features of characteristics of the site;
 - adjacent uses;
 - any other factor affecting the capacity to develop the site including whether the site is affected by inundation;
 - the location, distance and type of any nearby public open space and recreational facilities;
 - direction and distances to local shops and community facilities;
 - directions and walking distances to public transport routes and stops;
 - direction and walking distances to existing activity centres and major employment areas;
 - existing transport routes, including freeways, arterial roads and street connecting neighbourhoods;

- local street network including potential connections to adjacent subdivisions;
- traffic volumes and movements on adjacent streets;
- pedestrian, bicycle and shared paths identified whether their primary role is neighbourhood or regional access;
- any places of cultural significance;
- proximity of any fire threats;
- pattern of ownership of adjoining lots.
- To provide an acceptable financial return to the landowners.

6.5 Physical Infrastructure Principles

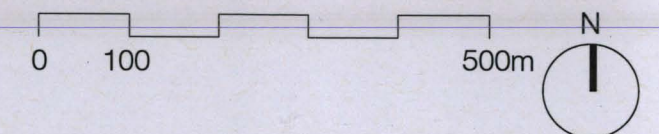
Servicing of the land will occur in stages, with upgrading of existing infrastructure occurring, where required, in consultation with the various servicing authorities.

- To provide efficient services infrastructure.
- To provide a road hierarchy incorporating a trunk collector road network and collector road network including identification of public transport routes and stops.
- To provide infrastructure in a staged and sequential manner in consultation with the various servicing authorities.
- To implement noise reduction measures (where necessary) in relation to residential use and development in proximity to main roads.

Part C
Development Plan Map



Keysborough South Stages 2 and 3 Development Plan: Development Plan Map



7.0 Development Program

It is anticipated that Keysborough South (Stages 2 and 3) will be developed over approximately 10 years and that:

- the maximum population of about 6000 persons will be reached in about 2018;
- Keysborough South (Stages 2 and 3) will consist of approximately 2225 households following the development and occupation of all lots;
- development stages will consist of between approximately 30-50 lots;
- the supply of essential services such as telephone, gas, electricity, water, sewerage, drainage and community facilities will be provided as required to service new stages, lots and dwellings.

The above represents an estimation only and will be influenced by a range of factors including market conditions and the desire of land owners (other than Intrapac) to proceed with development of their land.

8.0 The Development Plan Map Described

The Keysborough South Development Plan (Stages 2 and 3) Map which forms part of this Development Plan is reproduced in reduced form on the opposite page.

The Development Plan Map is characterised by:

- opportunity for (where market demand exists) a variety of lot sizes that allow for medium density, terrace / cottage type densities and conventional density housing;
- substantial areas of public open space;
- special design considerations for overland drainage / stormwater management, sensitive interfaces and tree reserves;
- a proposed neighbourhood activity centre in the south-west corner of the site at the intersection of Hutton and Chapel Roads (subject to a further enabling planning scheme amendment);
- a future primary school and pre-school located adjacent to the neighbourhood activity centre;
- existing community facilities including schools, churches and community centres;
- opportunities for a network of safe walking / cycling paths that will integrate with public open space;
- a hierarchy of main, collector and local roads;
- improved access to and from the surrounding area.

This configuration of uses, networks, spaces and areas was developed from comprehensive studies and consultation.

More specifically, the Development Plan has responded to certain opportunities and constraints.

- Drainage. The Development Plan proposes to provide for reticulated sewerage and overland stormwater flows throughout an extensive network of linear public open space. This integrated approach to drainage and open space planning uses open swales, retarding basins and wetlands is central to the 'Green Vision' underpinning the conversion of this locality to urban use.

- Interface to proposed future industrial area to the east. The Development Plan recognises the potential future use of the land to the east for industrial purposes. The plan allows for a tree reserve along part of the eastern boundary with the proposed industrial area as part of an integrated interface treatment.

9.0 Lots, Housing and Population

It is proposed to develop approximately 2225 households lots at Keysborough South (Stages 2 and 3) over a 10 year period. The lots proposed at this time can be categorised as:

- conventional – lots generally ranging from 450 to 1000 square metres;
- medium density – consisting of multi-dwelling development sites that will typically be in the range of 200 to 300 square metres.

It is proposed that these lot types will be mixed and integrated throughout Keysborough South (Stages 2 and 3) with a strong focus on medium density development (where market demand exists) within proximity to the proposed neighbourhood activity centre, main roads and public transport routes.

The aim of the proposed mix is to meet market expectations but also encourage building streetscape outcomes that deliver a subtle sense of common neighbourhood design, providing visual interest and diversity across the development.

Based on an average of the average household sizes (AHS) for the surrounding local government areas (Greater Dandenong 2.8 AHS, Kingston 2.5 AHS, Frankston 2.5 AHS, Casey 3.0 AHS), the likely occupancy rate for dwellings at Keysborough South (Stages 2 and 3) will be 2.7 persons per household. This will provide a potential resident population (on completion) in the order of 6000 persons.

The actual provision of residential lots will be determined by expected market demand at the detailed planning of each stage of subdivision.

The actual development yield will be determined through the assessment of planning permit applications for subdivision or development. Applications will be assessed against the Scheme, the development objectives and other provisions of this Development Plan. The number and approximate sizes, densities and distribution of lots may vary as a consequence of this process. In particular, development yield will be determined by physical constraints on the site and the need to meet the environmental criteria including buffer areas, public open space provision and final determination of the design of the drainage system.

Compliance of development with Clause 56 of the Scheme and the Design Guidelines contained within this Development Plan will ensure that conventional density housing, particularly in areas of design or environmental importance, is developed appropriately.

The development of any medium density housing will comply with Clause 55 of the Scheme and any relevant statutory planning policies and controls.



10.0 Community Facilities

10.1 Public Open Space and Public Open Space Plan

The 'Green Vision' underpins planning policy for the locality, seeking to promote improved environmental outcomes and the creation of a unique character for the area. These outcomes are to be achieved through:

- The creation of a network of wetlands, flora and fauna habitat corridors and generous areas of linked open space.
- Protecting and reintroducing indigenous vegetation.
- Introducing development requirements to achieve energy efficient outcomes.
- Incorporating generous levels of public open space provision and creating visual corridors to the wider non-urban area.
- Low-key design and land-extensive uses along major roads and at key entry points.

The **Open Space Concept Plan** on the adjoining page provides a general outline of how and where public open space will be provided throughout the Development Plan area.

The public realm has the primary role in the implementation of the 'Green Vision' and generous provision of public open space is central to that vision. The schedule to Clause 52.01 of the Greater Dandenong Planning Scheme establishes a mandatory public open space contribution of 20% for the Development Plan area. The 20% public open space contribution will be provided as a 16.7% land contribution and 3.3% cash in lieu for improvement of regional open space (refer **Public Open Space Policy** and **Public Open Space Plan** in Appendix 1 for a more detailed summary of how public open space is to be provided throughout the Development Plan area).

Consistent with the 'Green Vision', public open space is located in a linked, linear fashion throughout the Development Plan area. These linear spaces accommodate drainage lines, retarding basins and tree reserves and create visual corridors to the surrounding non-urban area.

The following summarises the public open space allocation for the Development Plan area.

	Usable Open Space (ha)	Unusable Open Space (carries up to 1 in 5 ARI storm run-off) (ha)	Total usable and unusable (ha)	Proportion of total open space in Development Plan area
Retarding basins	6.44	2.56	9.00	21.8%
Drainage swales	8.71	6.17	14.88	36.0%
Tree reserves	10.4	0.00	10.4	25.2%
Other open space	7.00	0.00	7.00	17.0%
Totals	32.55	8.73	41.29	100.00%

The Keysborough South Open Space Policy attached as Appendix 1 to this Development Plan contains an Equalisation Table and Public Open Space Plan. The Equalisation Table identifies the proportion of each parcel of land (making up the Development Plan area) which is to be provided as public open space.

The Public Open Space Plan and Equalisation Table can be amended to the satisfaction of Council. In proposing any amendments to these components of the Development Plan, consideration should be given to the impacts on the ability of Council to fund payments to landowners who are required to provide more than 20% of their land area as public open space.

The local parks and walking / cycling links are located to enable local community access and enjoyment and will complement the other extensive open space opportunities in the immediate area such as Tatterson Park and Keysborough Golf Club.

Within a number of the more significant public open space areas, wetlands will be provided comprising a series of meandering water bodies. These will include permanent water features which, when combined with planting, will provide greatly improved water quality in line with current best practice (Refer Tract **Landscape Masterplan** over the page).

It is possible that temporary retarding basins may be required in order to control storm water discharge from staged development areas within the catchment being developed, up to a point in time when 25 % of the contributing catchment is developed. Once 25 % of the contributing catchment has been developed, Melbourne Water will require the construction of the permanent retarding basins identified in Melbourne Water's drainage scheme.

The temporary retarding basins will provide a valuable function during the construction of the infrastructure (and dwelling) works, which will act as siltation ponds. These temporary retarding basins / siltation ponds will require regular inspection and maintenance (silt removal) to ensure that the basin is able to perform its retarding function.

The appropriate sitting and design of the temporary retarding basins will provide a basis for the temporary works to be converted into landscaped wetlands, ponds, or swale features, once the permanent retarding basins have been constructed and are operational.

Melbourne Water will be responsible for the maintenance of the main drainage elements within identified open space areas which are associated with the function of the main drainage conveyance or related water quality and treatment aspects, to the extent of the 1 in

5 year ARI flood event (generally in accordance with the guidelines provided in Melbourne Water publication 'Construction and Maintenance Requirements for Water Bodies and Wetlands' or any subsequent equivalent document).

Council will own the public open space and areas occupied by the main drainage elements and will be responsible for the maintenance of the public open space elements and treatments outside the extent of the normal drainage conveyance requirements above the 1 in 5 year ARI flood event.

In relation to the detail responsibility for the Water Sensitive Urban Design treatment train elements which are to be included in the development of he following will apply:

Wetlands (Water Bodies and Retarding Basins)

Melbourne Water will be responsible for the maintenance of the wetlands within the 1 in 5 year ARI zone (refer to the 'Stormy Water Report'), which includes:

- associated gross pollutant traps (inspection, cleaning, rubbish and silt removal and maintenance)
- the inlet zone (inspection, cleaning, silt removal and plant maintenance)
- ephemeral zone (inspection, cleaning and plant maintenance)
- flow spreader (inspection, cleaning and rock maintenance)
- vegetation bands (inspection, cleaning and plant maintenance)
- open water (inspections, cleaning and plant maintenance)
- the outlet (inspection and cleaning).

Council will be responsible for the public open space areas above the 1 in 5 year ARI zone surrounding the wetlands from the outer edge of the wetland planting and or water body.

Swales (Vegetated Swales, Bio-retention and other features).

Melbourne Water will be responsible for the maintenance of the swales which includes inspection, cleaning, mowing, weeding, removal of rubbish, silt and plant maintenance, and all up to and including the 1 in 5 year ARI zone / channel.

Council will be responsible for the maintenance of the public open space areas surrounding the swales, from the edge of the swales, coinciding with the top of the 1 in 5 year ARI zone and extending to the boundaries of the public open space areas.

Section 10.2 below outlines how public open spaces areas will be landscaped, including consideration for how remnant trees will be incorporated into the development.

Tract



LEGEND

- ENTRY AVENUE TREES**
Formal stands of high profile exotic/native species to major east-west axis, such as:
Fraxinus pennsylvanica 'Cimmaron' - Ash
Pyrus calleryana 'Aristocrat' - Ornamental Pear
Ginkgo biloba
Brachychiton acerifolius - Flame Tree
Quercus coccinea - Oak
- STREET TREES**
Up-right and compact exotic tree species planted in lawn nature strips punctuated by ornamental garden beds at nodal points, such as:
Acer campestre 'Evelyn' - Queen Elizabeth - Maple
Fraxinus pennsylvanica 'Urbdel' - Urbanite - Ash
Gleditsia triacanthos var. inermis 'Elegantissima' - Lime
Tilia cordata 'PNI 6025' - Greenspire - Lime
Olea europea 'Svan Hill' - Olive
Quercus palustris 'Pringreen' - Green Pillar
Ulmus parvifolia - Elm
Malus ioensis 'Plena' - Crabapple
Zelkova serrata 'Green Vase'
Lagerstroemia indica - Crepe Myrtle
- RESERVE TREES/ BOUNDARY TREES**
Clusters of high profile indigenous/native tree species planted within gardenbed such as:
e.g.
Corymbia maculata - Spotted Gum
Eucalyptus scoparia - Wallangarra White Gum
Brachychiton acerifolius - Flame Tree
Allocasuarina verticillata - Drooping Sheoak
- EXISTING TREES**
Eucalyptus camaldulensis - River Red Gum
- EXOTIC STYLISED GARDEN BEDS**
A mix of colourful exotic perennials, annuals, vegetables & herbs planted in rows to celebrate the site's historic market garden and horticulture heritage, such as:
Arcotis sp. - Daisy
Cineraria sp.
Asteraceae sp. - Daisy
Marigolds
Rosa sp.
Beta - Silver Beet
Erigeron 'Seaside Daisy'
Brassica - Kale, Cabbage
Petroselinum - Parsley
- NATIVE STYLISED GARDEN BEDS**
A mix of muted colour native shrubs planted in rows to compliment the existing native vegetation, such as:
Acacia 'Limelight' - Ornamental Wattle
Leucophyta brownii - Cushion Bush
Lomandra longifolia 'Tanika' - Spiny-headed Mat-rush
Anigozanthos sp. - Kangaroo Paw
Poa 'Kingsdale' - Tussock Grass
- SHARED/ PEDESTRIAN FOOTPATH**
- VIEWING DECKS ADJACENT TO WATER BODIES/WETLAND**
- TIMBER BOARDWALK**
- PERMANENT WATER BODY/ WETLANDS**
- EPHEMERAL CREEK BED**
Rocklined creek bed planted with native strappy leaf plants to capture and retain water runoff, such as:
Lomandra longifolia - Spiny-headed Mat-rush
Dianella longifolia - Flax Lily
Isoplepis nodosa - Nobby Club-rush
Carex sp. - Sedge
Juncus sp. - Spiny Rush
- LAND OWNED BY OTHERS**
- PROPOSED DEVELOPMENT ON LAND OWNED BY THE INTRAPAC/BRENCORP GROUP**
- OPEN SPACE ON LAND OWNED BY OTHERS**
- OPEN SPACE ON LAND OWNED BY THE INTRAPAC/BRENCORP GROUP**

10.2 Landscape Master Plan and Remnant Vegetation

The landscape vision for the Development Plan area is to create a new, diverse, contemporary and sustainable community that celebrates and connects to the natural environment, historic market gardens and horticultural heritage of the area.

The overall landscape design philosophy seeks to:

- respond to the existing landscape character of the site in the development of landscape themes, such as the incorporation of formal, lineal patterns;
- create local neighbourhoods though varied local landscape character, and by providing close and easy access to local parks within walking distance;
- providing park facilities that encourage local community interaction, such as a dog-off-leash park and community gardens;
- retain existing indigenous trees within open space for habit enhancement purposes, and to engage the community with the local indigenous ecology;
- establish the framework for an environmentally sustainable community through the landscape treatment.

Neighbourhood street tree planting will generally comprise avenue planting of tree species selected from City of Greater Dandenong's recommended tree planting list. Selection of tree species will be guided by provision of shade canopy, consistency with the neighbourhood character and drought tolerance. Deciduous trees will be preferred to provide seasonal variety and solar access during winter.

Generous tree reserves will be provided adjacent to existing main roads (north-south and east-west) through and adjacent to the site. These reserves will provide shared paths with a canopy of native trees planted in copses.

Open spaces will be designed to be useable and liveable outdoor spaces with an emphasis on local community. Residents will have easy access to core facilities that may include BBQ and picnic shelters, playgrounds of various sizes, pedestrian and cycling networks, basket ball courts.

An extensive tree canopy will keep reserves cool in summer. Nodal spaces will include deciduous trees for maximum solar access in winter.

Landscape details such as garden bed and paving design will reference the local existing site uses, such as through strong linear patterning.

The three main floodway reserves that cross the site from north to south will act both for drainage functionality and as linear open space. A shared path network will be structured along these reserves creating strong connections north-south through the Development Plan area.

Small meeting places will be provided along the shared path route. These are likely to include elements such as seating, exercise stations or artworks to provide a variety of uses and variety of experiences along the route. The reserves will also provide an opportunity for points of interest along the main east-west roads. Elements such as open water bodies, feature 'gardens' or shelter structures may also serve as entry statements inviting people into the open space network.

Open space areas will generally be laid out to connect and expand from these drainage reserves, allowing more useable open space to be associated with the linear reserves.

A number of flood retention basins and wetlands will form part of the stormwater management within the Development Plan area (refer Section 10.1 above and Section 14.2 of this Development Plan for further information on stormwater management). Locally indigenous species will be selected to best treat the water and provide wildlife habitat.

A large stand of remnant Eucalyptus camaldulensis (River Red Gum) will be protected as part of a large open space area in the north-east of the site. The primary purpose of this reserve will be for the retention of the existing trees and regeneration of the indigenous vegetation. To protect existing trees and promote regeneration, public access to this area will be restricted and recreation facilities (such as paths and structures) kept to a minimum. Pedestrian movement through the site will be limited to paths only, with the possible use of boardwalks. Prior to construction commencing in adjacent areas, the reserve will be fenced. Some revegetation will be carried out in key landscape areas of the reserve but large areas will be left to regenerate naturally.

For individual trees retained outside this reserve in the north-east of the site, Tree Protection Zones (TPZ) will be established to minimise damage to the root system, canopy and trunk and to avoid compaction of soil. A TPZ will be established around the subject tree at either the drip line or at a distance from the trunk equal to half the tree height (whichever is greater) and enclosed by a sturdy fence. The extent of the TPZ will be mulched to 100 millimetres depth.

Further information on the retention and protection of existing remnant vegetation is outlined in Section 12.2 (Flora, Fauna and Biodiversity) of this Development Plan.

Pedestrian movement through the site will be carefully controlled to minimise impact on natural regeneration.

The drainage reserve passing to the west of the site may provide the opportunity to continue natural flooding regimes to the existing Red Gums.

Formal and linear planting beds of native and indigenous species will be incorporated at the edge of the reserves to continue the Development Plan area landscape themes and reference the existing site uses.

It is noted that the above Landscape Master Plan principles specifically apply to land owned or controlled by Intrapac. All public open space will be landscaped to a standard determined in consultation with Council. This will be detailed for each stage of subdivision or development generally in accordance with the Landscape Master Plan (for the Intrapac land).

10.3 Neighbourhood Activity Centre

The Development Plan identifies the northern corners of Chapel Road and Hutton Road as the future location for a Neighbourhood Activity Centre. The need for this activity centre was established in the report 'Retail Needs Analysis: Waterways and Keysborough South (December 2004), Charter Keck Cramer.

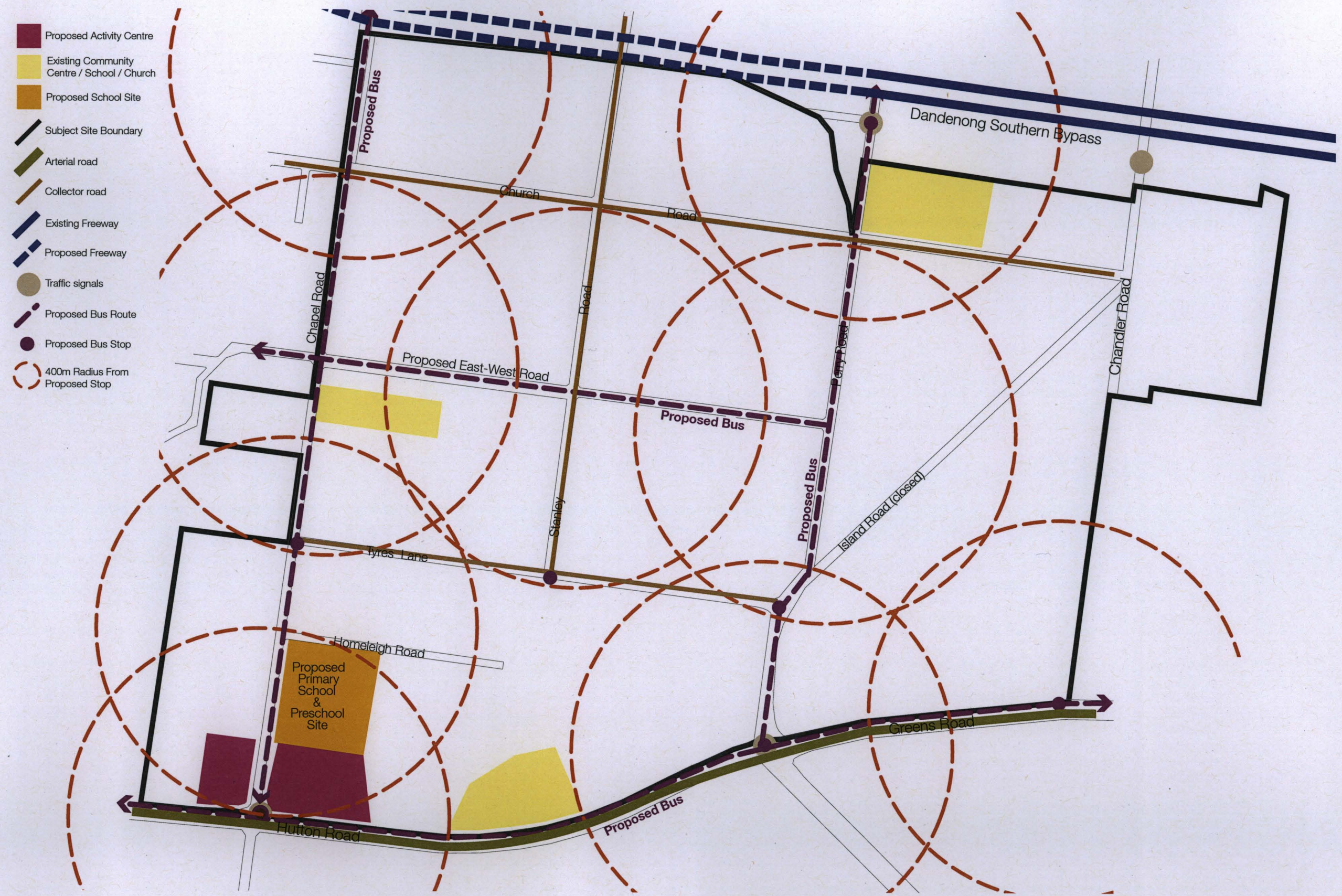
The site for the centre is consistent with the 'Activity Centre' objective at Clause 56.03-2, being located at the junction of two major roads with proposed future public transport services (bus) with potential to be serviced by the neighbourhood cycling network. The location provides a focal point for co-located community facilities such as the proposed primary school and prescribed sites directly to the north.

The centre is expected to accommodate in the order of 6,000 square metres of retail floor space and is likely to include a supermarket and speciality shops. The land on the western corner is likely to accommodate a range of second order retail and / or commercial uses in addition to the possibility of some community based facilities.

The design of the centre will be subject to the relevant policy considerations within the Greater Dandenong Planning Scheme and the relevant aspects of Schedule 5 to the Development Plan Overlay at Clause 43.04.

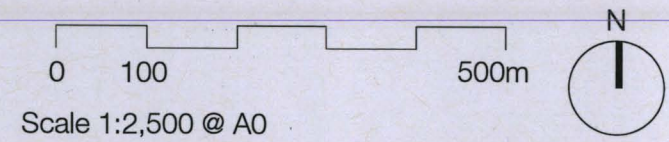
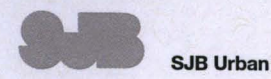
Layout of the centre will generally be in accordance with the Keysborough South Neighborhood Activity Centre Concept Plan dated 6 December 2010 which is included in Appendix 6.

The final composition and retail floor areas will be subject to the schedule of the Business 1 Zone in the Greater Dandenong Planning Scheme.



Keysborough South Stages 2 and 3 Development Plan:

Transport Plan



Keysborough South Development Plan Stages 2 & 3
Part C - Development Plan Map

10.4 Schools

As noted above, a Department of Education and Early Childhood Development (DEECD) Primary School and Early Years Centre are proposed to be located immediately to the north of the Neighbourhood Activity Centre on the eastern side of Chapel Road. It is expected that the Primary School will have an approximate area of 3.5 hectares and the Early Years Centre will have an approximate area of 0.5 hectares.

The final layout and design of the Primary School and Early Years Centre will be subject to input from DEECD and Council.

The proposed school will complement existing education facilities at Isik College Primary School, located further to the north along Chapel Road.

10.5 Other Social Infrastructure

The Keysborough South (Stages 2 and 3) Development Plan area is well-served with existing community facilities / social infrastructure including:

- the Vietnamese Community Centre;
- the Serbian Orthodox Church; and
- the nearby (outside the Development Plan area) Turkish Cultural Centre.

New community facilities within the Neighbourhood Activity Centre and the Primary School site are expected to include a Neighbourhood Community Centre; an infant welfare centre; a pre-school (as noted above) and a child minding centre. Upgraded sporting facilities are also proposed for nearby Tattersson Park.

These facilities will be funded partly by a Development Infrastructure Levy and partly by a Community Levy as set out in the DCP. The final location of the infant welfare centre, pre-school and child minding centre will be determined as part of detailed design work yet to be completed for Neighbourhood Activity Centre. The final location of the sporting facilities will be determined as part of the detailed design for the open space areas.

11.0 Accessibility, Traffic and Transport

11.1 Road Network, Traffic Management and Road Construction Standards.

An arterial and connector road street network is shown on the Keysborough South Development Plan (Stages 2 and 3) Map that, where possible, utilises the existing road network surrounding and through the site. It also provides new roads to supplement the network and ensure that a suitable road hierarchy is established (refer Road Hierarchy Plan in the 'Keysborough South Development Plan - Stages 2 & 3 Traffic Management Plan October 2008' prepared by Cardno Grogan Richards).

The road network is designed to:

- create a clear, legible framework;
- provide adequate road capacity for safe and efficient movement of public and private transport;
- distribute road traffic appropriately and evenly;
- ensure that Keysborough South Stages 2 and 3 is integrated with the existing road network.

The road network was designed following an assessment of the site and surrounding area by the consultant team.

The existing road network will be upgraded in conjunction with the development of the area, with improvement works proposed to be funded by means of a Development Contributions Plan (DCP).

The following summarises the internal road network, traffic management works and external management works and costs identified in the DCP.

Road	Standard	Road Cost	Land Cost	% to DCP	Total
New East West Road	13.3m pavement	\$3.85M	\$5.64M	100%	\$9.49M
Perry Road	9.4m pavement	\$2.41M	-	100%	\$2.41M
Chapel Road	9.4m pavement	\$3.45M	-	100%	\$3.45M
Stanley Road	7.5m pavement	\$2.37M	-	100%	\$2.37M
Chandler Road	13.8m pavement	\$0.74M	-	100%	\$0.74M
Church Road	13.8m pavement	\$4.90M	-	100%	\$4.90M
Tyers Lane	7.5m pavement	\$2.55M	-	100%	\$2.55M
Total					\$25.92M
Contribution / hectare					\$139,726
Contribution / Lot					\$11,644

Table 4: Internal Roads

Roundabout	Cost	Proportion	Total
Chapel / East West	\$231,500	100%	\$231,500
Perry / East West	\$463,000	100%	\$463,000
Chapel / Church	\$231,500	100%	\$231,500
Perry / Church	\$370,000	100%	\$370,000
Chapel / Homeleigh	\$150,000	100%	\$150,000
Sub Total			\$1.45M
Bus Stops	\$176,000	100%	\$176,000
Total			\$1.62M
Contribution / Hectare			\$8747/ha
Contribution / Lot			\$729

Table 5: Internal Traffic Management Works

Intersection	Description of Works	Proportion of costs attributable to development (%)	Total (\$)
Cheltenham Road / Chapel Rd	Additional right turn land from Chapel Rd to Cheltenham Rd	100%	\$500,000
Cheltenham Road / Chandler Rd	Additional through lane on Chandler Road (southbound) with 50 metres storage lane on northern approach and 140m merge lane on southern departure	100%	\$420,000
Total			\$920,000
Contribution / Hectare			\$4960
Contribution / Lot			\$413

Table 6: Estimated Traffic Management Works

It is expected that the existing arterial road network will cater comfortably for additional traffic generated by the development of Keysborough South Stages 2 and 3.

The local road network will consist of a series of access streets, connector roads and secondary arterials which will have capacity to carry between 2500 to 20000 vehicles per day. The standards required for these roads will cater for the 2015 projected volumes and have been assessed based on the guidelines specified in Clause 56 of the Greater Dandenong Planning Scheme and in particular Clause 56.06-08 and Table C1 Design of Roads and Neighbourhoods.

The recommended internal road construction standards are shown below in Table7.

Category	Volume	Design Standard	Road Link
Access Street Level 1	2,000 to 3,000 vpd	7.5 metre pavement	Stanley Road
Connector Road Level 1	3,000 to 4,000 vpd	6.5 metre pavement with indented parking	New EastWest Road Tyers Lane
Connector Road Level 2	3,000 to 7,000 vpd	7.0 metre pavement with indented parking and on road bicycle lanes	Chandler Road: Church Street to Bypass
			Church Road: Chapel to Chandler
Secondary Arterial	7,000 to 20,000 vpd	7.0 metre pavement with on road bicycle lanes	Perry Road: Bypass to Greens Road
			Chapel Road: Cheltenham to Hutton

Table 7: Recommended Internal Road Construction Standards. Refer also Appendix 2 of this document.

11.0 Accessibility, Traffic and Transport cont.

11.1 Road Network, Traffic Management and Road
Construction Standards cont.

The recommended road cross-sections are shown in Appendix 2. The cross-sections have been prepared and reviewed in consultation with Council and agreed that they provide appropriate standards to meet the future requirements of the area, including external regional traffic growth.

Details of traffic management treatments will be provided when required in association with the submission of road designs for each stage.

Further information on the road network, traffic management and road construction standards can be found in the 'Keysborough South Development Plan - Stages 2 & 3 Traffic Management Plan October 2008' prepared by Cardno Grogan Richards.

11.2 Traffic Generation and Distribution

11.2.1 Traffic Generation

A traffic model has been set up and calibrated to allow assessment of the traffic generation of Keysborough South Stages 2 and 3 and the resultant distribution of traffic to the network.

For analysis purposes, it has been assumed that Development Plan area will contain 2225 dwellings generating traffic at a rate of 10 vehicle movements per household per day. In total, approximately 22 250 vehicle movements per day are expected to be generated by the development.

11.2.2 Traffic Distribution and Traffic Volumes

A traffic distribution assessment has been undertaken based on the following broad 'distribution by purpose' categories:

• work	36%
• shopping	34%
• personal business / recreation	25%
• education / school	5%

Traffic distribution assumptions analysing each of these categories and estimated volumes generated from the development are included in Appendix 3.

In addition to the development of the Development Plan area and traffic redistribution as a result of the Eastlink project, traffic on connective roads in the area can also be expected to increase as regional traffic increases.

For analysis purposes, a rate of 2% external growth per annum has been assumed or a 24.3% overall increase from 2005 to 2015.

As outlined in Section 4.5 of this Development Plan report, SEITA estimates for redistribution of traffic resulting from the development of Eastlink have been adopted to model future traffic volumes on the road network in the Keysborough South area. For Perry Road, Chapel Road and Chandler Road, volume data collected in August 2008 and summarised in Section 4.3.5 of this Development Plan has been adopted to reflect base conditions.

Estimates of total traffic volumes and the proportion attributable to Keysborough South Stages 2 and 3 have been prepared by adding component increases to 2005 base volumes as outlined above.

Appendix 4 details the results of this assessment, with total volumes and estimated traffic generated from Keysborough South Stages 2 and 3 shown in the accompanying diagram. This analysis has shown that, by 2015 with full development:

- Chapel Road is expected to accommodate approximately 9600 vehicle movements per day where it traverses the Dandenong Southern Bypass reservation and approximately 11500 vehicle movements per day at its intersection with Hutton Road;
- Perry Road is expected to accommodate approximately 24900 vehicle movements per day immediately south of its intersection with the Dandenong Southern Bypass and approximately 15100 vehicle movements per day immediately north of its intersection with Hutton / Greens Road;
- Hutton Road is expected to accommodate approximately 16700 vehicle movements per day immediately west of its intersection with Chapel Road;
- Greens Road is expected to accommodate approximately 15500 vehicle movements per day immediately east of its intersection with Perry Road.

Further information on traffic generation and distribution can be found in the 'Keysborough South Development Plan - Stages 2 & 3 Traffic Management Plan October 2008' prepared by Cardno Grogan Richards.

11.3 Parking Restrictions

With the exception of Chapel Road, all roads within the Development Plan area will be designed to incorporate on-street kerbside parking. As such, restrictions on parking are unlikely to be required except in certain, specific circumstances that would be determined in association with the submission of road designs for each stage.

Chapel Road will not have direct property frontage and / or such parking will not be required. The adopted cross-section does not allow for kerbside parking and parking restrictions will apply. Should parking be required in specific locations, indented parking will be provided.

The adopted recommended cross-section for Perry Road specifies a 2.2 metre wide parking lane along each kerb, clear of traffic and bicycle lanes.

However, it is proposed that properties abutting Perry Road will not have direct access or frontage and accordingly there will be no demand for kerbside parking. As such, it is appropriate that parking lanes not be constructed along Perry Road with kerbside parking controlled by 'No Standing' restrictions and this was recommended by the independent Panel in its report on Amendment C36.

11.4 Public Transport

It is anticipated that public transport provision for the Development Plan area will be provided in the form of bus services which will utilise proposed connector roads to provide convenient access to local residential neighbourhoods.

It is anticipated that future services within the Development Plan area will be a combination of extended or deviated existing routes and the possible establishment of new routes.

A future bus route may be introduced into the Stage 1 area of Keysborough South (outside the ambit of this Development Plan), possibly running along Keylana Drive between Springvale Road and Lakeview Road and then along Lakeview Road to Cheltenham Road. The planning framework also anticipates future bus routes along Hutton Road, the future East-West Road and Perry Road if these routes become attractive to operators.

A potential bus route network for the Development Plan area (based on the above principles) is shown in Appendix 5.

The proposed construction standards for connector roads within the Development Plan area has specifically been recommended to ensure that bus services will be able to operate along all connector roads with exact routes dependant on assessment of the catchments and likely demands by relevant bus companies and the Department of Transport.

Every effort will be made to establish arrangements with Council, Department of Transport and bus operators to enable early provision of bus services. These arrangements will need to consider routes, stop locations, service frequencies connections to Dandenong Station (and possibly Noble Park Station) and school bus services.

11.5 Walking / Cycling Network

A comprehensive network of walking / cycling paths will be provided throughout Keysborough South Stages 2 and 3, primarily by the local street network and open space networks.

Footpaths will be provided on both sides of access streets (level 2), connector roads and arterial roads. On-road bicycle lanes will be provided on Chandler Road (Church Street to Bypass), Church Road (Chapel Road to Chandler Road), Perry Road (Bypass to Greens Road) and Chapel Road (Cheltenham Road to Hutton Road). Walking / cycling paths will, where possible, provide links with surrounding networks to maintain or improve access to key pedestrian destinations and active and passive open space areas.

The Landscape Master Plan at Section 10.1 demonstrates excellent opportunities for the provision of walking / cycling paths within the extensive linear open space network that traverses the site. These linear open space links combined with walking and cycling opportunities within road reserves will provide for a highly legible and comprehensive pedestrian network.

It is noted that the number and exact locations of walking / cycling paths throughout the site will be determined following further consultation with relevant parties and detailed design completed as part of each stage of the development.

12.0 Heritage and Environment

12.1 Heritage

In accordance with Schedule 5 of the Development Plan Overlay, archaeological heritage assessments and management reports detailing the findings of site specific archaeological investigations have been prepared to support and accompany the Development Plan. These include:

- 'Keysborough South Development Plan Stages 2 & 3 Aboriginal Archaeological Assessment, 2002 prepared by Terraculture Pty Ltd;
- 'An Archaeological Investigation - Intrapac Property, Keysborough', 2006 prepared by Terraculture Pty Ltd
- 'Archaeological Subsurface Testing - Intrapac Property: Island, Perry and Greens Road, Keysborough', 2007 prepared by Terraculture Pty Ltd.

The report 'Keysborough South Development Plan Stages 2 & 3 Aboriginal Archaeological Assessment – June 2002' prepared by Terraculture Pty Ltd reached the following conclusions.

- There is no requirement for any further survey for historic (non-aboriginal) sites within the study area.
- A single Aboriginal stone artefact and a possible scarred tree were located during the survey.
- Given the disturbance resulting from the historic use of the area in the form of drainage works, livestock grazing and market gardening, the potential for in situ Aboriginal archaeological sites is very low.
- There is no requirement for any further archaeological survey (aboriginal) within the study area of Stages 2 & 3 of the Keysborough South Development Plan. However, the proponent should provide the opportunity for a suitably qualified archaeologist to undertake an inspection of, report on and register any additional archaeological material that is uncovered during any development.

Since the publication of the report referred to above, significant change in Aboriginal heritage legislation has occurred. The Aboriginal Heritage Act 2006 and Aboriginal Heritage Regulations 2007 must be considered in the context of the Development Plan area.

The Aboriginal Heritage Act 2006 prescribes in regulations, the circumstances in which a Cultural Heritage Management Plan (CHMP) is required prior to an application for use and/or development of land. A large proportion of the Development Plan area is shown within an area of cultural heritage sensitivity as specified in Division 3, Part 2, Aboriginal Heritage Regulations 2007.

Transition provisions apply under the Aboriginal Heritage Act 2006 and Aboriginal Heritage Regulations 2007. Where the existing archaeological assessments completed for the subject land (as outlined above) satisfy the relevant transition provisions, no CHMP is required. In instances where it is determined that a CHMP is required, this should be prepared in accordance with the relevant provision of the Aboriginal Heritage Act and Aboriginal Heritage Regulations 2007.

In accordance with the Act, should the archaeological sites identified in the Aboriginal Archaeological Assessment be directly impacted as a result of development works, a 'permit to disturb' will be required from Aboriginal Affairs Victoria.

The Development Plan area also contains the following sites of heritage significance affected by Heritage Overlays:

- 115 Chapel Road, Keysborough – HO5 Foster Farm House;
- 170 Chapel Road, Keysborough – HO6 former Keysborough State School;
- 176 Chapel Road, Keysborough – HO7 former Keysborough Methodist Church.

These sites have been indicated on the 'Keysborough South Stages 2 and 3 Heritage Overlay Sites' map on page 16 of this Development Plan.

At this stage, the future use and development of buildings within heritage overlays is unknown. The development and use of these buildings will be subject to further consideration as part of the detailed design of the relevant stages of subdivision. Development within proximity to these sites and any alterations and additions proposed to buildings within heritage overlay areas will also be subject to a separate consideration as part of a planning permit application process.

12.2 Flora, Fauna and Biodiversity

As noted previously in this document, there is very little or no remnant vegetation remaining in the area due to the long history of market gardening within the area.

The DPO5 requires that the Development Plan be accompanied by a flora and fauna assessment to be undertaken for the entire area covered by the Development Plan. Two reports were prepared in response to this requirement, the first by Biosis Research in June 2002 (Flora and Fauna Assessment of Keysborough South Stages 2 & 3) and the second prepared by Practical Ecology in March 2005 (Flora and Fauna Issues for Greater Dandenong Planning Scheme Amendment C36, Keysborough South, Victoria)

Biosis Research Recommendations

1. Survey the indigenous trees for precise location in relation to proposed public open space and wetland areas.
2. Retain as many indigenous eucalypts as possible within public open space, with stands/groups of trees having the highest priority.
3. Estimate the number of indigenous eucalypts that would not be retained, to enable an assessment of off-sets that would be required for the project to meet State biodiversity policy of 'no net loss' or 'net gain' whichever is applicable.
4. Plan sufficient space for (1) maturation of River Red-gums, (2) possible recruitment of more trees to the existing population, (3) placement of infrastructure and passive recreation areas away from trees.
5. Temporarily fence remnant trees during construction activity, allowing sufficient buffer distance to avoid damage to the trees and their root systems (at least beyond the drip zone).
6. Use indigenous species in landscaping within public open space. Use of locally collected seed is essential. Use understorey species from Plains Grassy Woodland EVC in areas where this would naturally have occurred. A list of indigenous species that could be used in plantings within the Keysborough South area is provided in the Appendix to this Biosis report).
7. Avoid planting River Red-gums within the seed throw of existing trees (approximately 25 metres) to maintain a natural population rather than a plantation.
8. Plant other indigenous vegetation, particularly shrubs to provide bird habitat.
9. Design and construct the new wetlands taking into consideration the design guidelines presented here.
10. Use indigenous wetland species in landscaping the new wetlands.

12.2 Flora, Fauna and Biodiversity cont.

Practical Ecology Recommendations

Key management recommendations from the more recent Practical Ecology report are:

The proposed Water Sensitive Urban Design (WSUD) system incorporates most of the existing drainage lines and what there is of in-stream aquatic vegetation and habitat. Plains Grassy Woodland remnants on site have also mostly been incorporated into the WSUD reserves.

WSUD reserves can be designed to retain and enhance on-site habitat, and to help establish more effective habitat corridors through the local area.

The upper reaches of the site's drainage scheme, dependent upon the projected volume of runoff, should incorporate flora suitable to the Gippsland Plain bioregion Creekline Grassy Woodlands EVC.

The lower reaches of the drainage scheme, dependent upon the projected volume of runoff, should incorporate flora suitable to the Gippsland Plain bioregion Swamp Scrub EVC.

Melbourne Water's preference for retarding basin wetland treatment systems is to establish an Aquatic Herbfield EVC within the wetland, with an emphasis on hardy, rapidly establishing flora.

Outside of the actual waterways and waterlogged areas of the WSUD zones, Plains Grassy Woodland is the EVC best suited and most appropriate for revegetation of the site.

Additional recommendations:

Prior to lodgement of planning permit applications for each stage of subdivision, it will need to be determined (to the satisfaction of the responsible authority) whether the following additional recommendations will need to be considered and / or studies be completed. This will need to be considered on a case-by-case basis where relevant and / or appropriate.

It is necessary to integrate the WSUD reserves and the open space network with that proposed for the industrial development immediately to the east of this site.

It is important therefore that a detailed Schedule of works be developed for each phase of the development.

Blackberry (**Rubus fruticosus* spp. agg.) and Gorse (**Ulex europaeus*) are found throughout the study area and will require targeted weed control using sprays and 'drill and frill' methods. Tradescantia (**Tradescantia fluminensis*) and Drain Flat-sedge (**Cyperus eragrostis*) will need to be controlled within the drain age channels and newly established wetlands.

Further studies:

More detailed flora and fauna assessments will be required for each stage of the development.

More detailed habitat-hectare assessments and calculation of Net Gain offsets will be required for each stage of the development.

An arborist's report, detailing all mature trees on site and their surveyed location, will be required for the detailed design of the development.

Aboriginal Affairs Victoria (AAV) will need to be contacted before the commencement of works.

In accordance with these recommendations and as part of the detailed design for each stage of subdivision, a further assessment of flora and fauna within the relevant stage will be completed to ensure that the most up-to-date information is available to determine the health and viability of flora and fauna habitat.

The detailed design will also consider the need to suitably integrate the biodiversity values and protection techniques for the Development Plan area with those of existing or proposed development on adjacent land. These considerations will include:

- responding to the relevant components of the Ecological Vegetation Classes outlined in the Practical Ecology report;
- incorporation of Water Sensitive Urban Design (WSUD) techniques to minimise impacts to adjacent properties and maximise integration;
- utilisation of the natural features of the site including topography and vegetation;
- retention (where appropriate) of existing native vegetation;
- provision of additional tree planting that integrates and links with appropriate tree planting schemes on adjacent land.

In terms of arboricultural assessments, if a certain existing tree is identified as being unsafe or inappropriate in the context of its location, then appropriate evidence will have to be provided to justify its removal. It is acknowledged that where Council agrees (at the time of planning permit approval) that a tree or trees may be removed, this may be subject to a condition that appropriate off-sets are provided at an appropriate location. The number, species, maturity and location of planting required will be determined having regard to the circumstances of the tree removal approved and the opportunities for benefits from supplementary planting in the particular stage or elsewhere in the Development Plan area.

It is noted that the Development Plan has sought, where possible, to retain existing native vegetation / trees within future open space / public land.

Habitat values as well as landscape and aesthetic values will be considered when assessing whether trees are to be retained or removed within stages of subdivision. Information will be provided as part of the planning permit application for subdivision demonstrating how habitat values have been considered and reconciled with other design considerations in the subdivision and development layouts.

Trees to be retained will be afforded the appropriate protection via a variety of methods outlined by the selected arborist. These methods will include:

- the establishment of Tree Protection Zones and Critical Root Zones around trees depending on their significance and location;
- temporary fencing to protect trees during construction periods.

The final form and method of tree protection for trees to be retained will be determined relative to the situation, consultation with the arboricultural consultant, design of the subdivision and be to the satisfaction of Council (as part of the planning permit issued for each stage of subdivision).

12.3 Buffers

The Development Plan has been prepared with consideration for existing, potentially ‘conflicting’ land uses within the Development Plan area and non-residential land uses on adjacent properties outside the Development Plan area.

In this regard, the interface of the Development Plan area to the proposed industrial area to the east has been recognised with the Development Plan map providing a 5 metre wide tree reserve along part of the eastern boundary with the remainder being 15 metres to the proposed industrial area, as part of an integrated interface treatment.

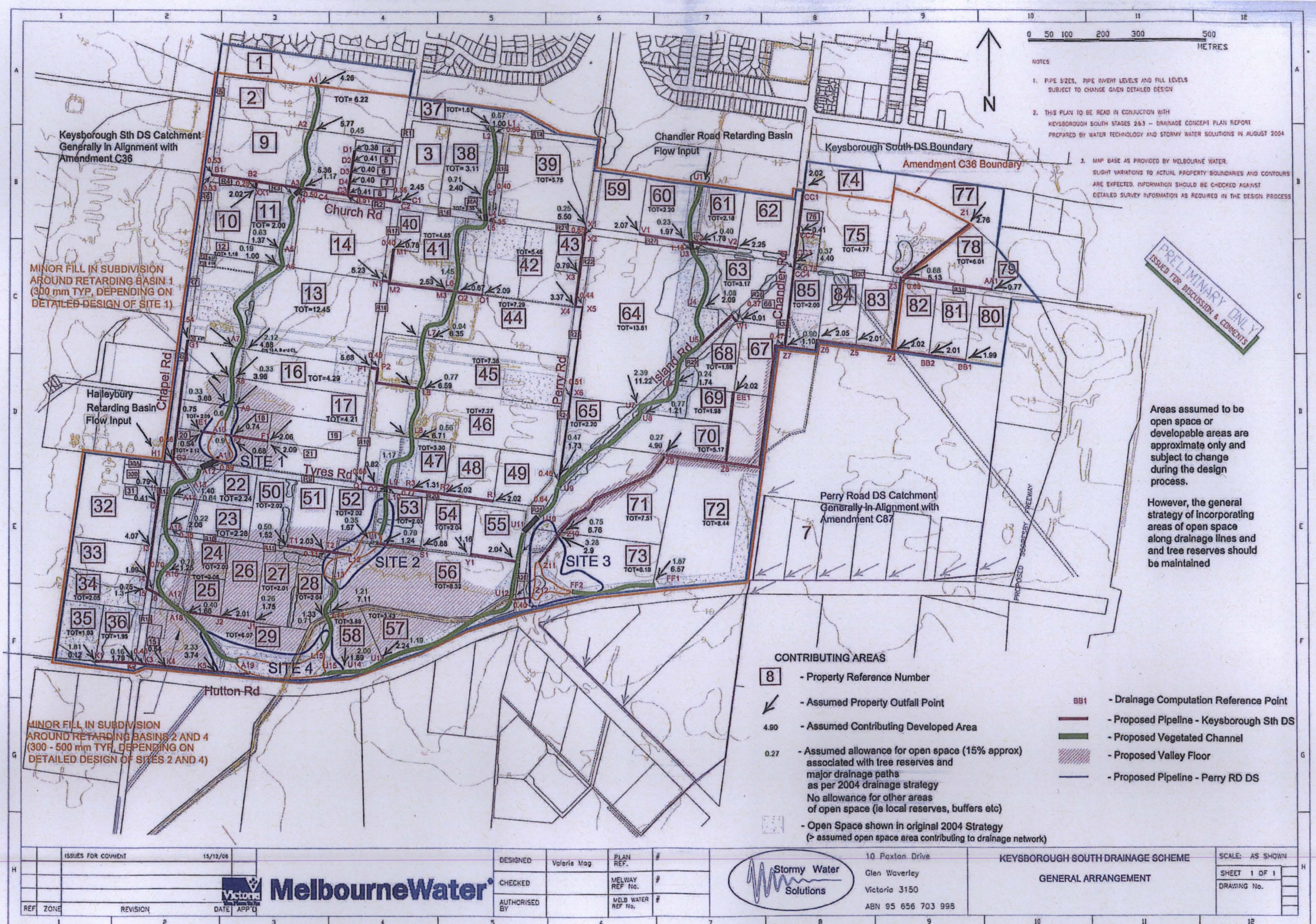
13.0 Engineering Services

Servicing requirements have been determined by Paroissien Grant and Associates (in association with various authorities) following an assessment of existing conditions, the capacity of available services and likely demands created by full development of the Development Plan area.

Land within the Development Plan area will be serviced by the extension of engineering infrastructure existing in the surrounding area. Services including drainage, water supply, sewerage, gas, electricity and telecommunications will be provided to all lots as required. The following provides a summary of how physical services will be provided.

- Land within the Development Plan area will be serviced by a combination of extensions to existing engineering infrastructure in surrounding areas and the upgrading or provision of specific facilities to deal with expected demands.
- All services including sewerage, water supply, drainage, gas, electricity and telecommunications will be provided to all lots, in accordance with authority requirements and appropriate standards.
- A variety of engineering features will aid in the regulation of drainage within the Development Plan area including the provision of gross pollutant traps overland drainage systems, retarding basins and water quality treatment areas (see Section 14.2 of this report for further information on stormwater management).
- Sewer pumping stations and detention facilities will be incorporated where required to ensure minimal pressure on existing catchments and to provide sufficient capacity in the system.
- The provision of services will correspond to the rate of development within the Development Plan area to ensure the timely and cost effective delivery of infrastructure.
- Where supply facilities are to be upgraded to service the wider region, costs to complete infrastructure works will be apportioned among the various land owners / developers and the relevant servicing authority.

Part D
Implementation



14.0 Special Controls

14.1 Environmental Management

The protection of environmental values is a key imperative in the future development of the Development Plan area.

As already noted, Practical Ecology has conducted an assessment of flora and fauna issues within the Development Plan area. The report identifies the location and extent of indigenous vegetation remnants in the Development Plan area, provides an estimation of the likely habitat-hectare values and outlines the Net Gain requirements and principles that would apply if any clearing of native vegetation was to occur as a result of urbanisation. The report also provides guidelines for the retention, preservation and enhancement of the indigenous vegetation remnants.

Brett Lane and Associates Pty Ltd has subsequently prepared an Environmental Management Plan (EMP) in accordance with the requirements of the DPO5. This is titled 'Island Road Keysborough Environmental Management Plan, 2008.

Goals and objectives

The goals and objectives of this EMP are to:

- provide guidance for the management of erosion and siltation during adjacent construction works to reduce negative impacts on biodiversity values within conservation reserves;
- provide guidance for restricting access to conservation reserves during periods when construction works are being undertaken;
- provide a management basis for the ongoing conservation of native vegetation within the study area with the goal of improving biodiversity values;
- provide recommendations for ongoing weed controls within the study area;
- provide recommendations for the rehabilitation of conservation reserves to increase their biodiversity values.

Vegetation management plan

Remnant vegetation and trees have been identified as valuable biodiversity and a landscape asset within the Development Plan area. Remnant vegetation within the Development Plan area will be protected within conservation reserves.

Section 4 of the EMP incorporates the Vegetation Management Plan and outlines:

- vegetation management goals;
- weeds present and their management; and

- guidelines for conservation reserve rehabilitation (including seed collection);
- vegetation management actions for bushland contractors, biomass and nutrients, conservation reserves, drainage lines and pest animals; and
- monitoring of management works.

Disturbance to native flora and fauna and restriction of access

In previous assessments of vegetation in the Development Plan area, no flora of national or State conservation significance were recorded or determined likely to be present. There is however, the opportunity to reintroduce some of the more threatened flora back into the conservation reserves. In terms of fauna, previous reports indicate that that four significant fauna species are likely to be present (with all of these species being wetland birds. The EMP deals with the minimisation of disturbance to native flora and fauna and the restriction of access to assist in protecting biodiversity values of the conservation areas. This includes recommendations dealing with:

- buffer areas;
- fencing;
- signage and flagging advising of 'no go' areas;
- integration with future Construction and Environmental Management Plans (CEMP) (done as part of relevant stages of subdivision).

Erosion and siltation control

Erosion and siltation impacts on the environment can be minimised through the use of preventative measures and control measures.

The EMP deals with this and provides recommended preventative measures that should be undertaken and incorporated into future CEMPs including consideration of:

- diversion of flows entering construction sites;
- soil stabilisation methods;
- appropriate location of stockpiles away from drainage lines and conservation areas;
- minimising and stabilising site access points;
- fencing and buffers around conservations areas.

Protection of reserve areas

Future reserve areas to be vested in Council will need to be protected during construction, prior to their development and rehabilitation.

The EMP provides a range of recommended techniques to provide this interim protection that is largely provided by a range of measures (outlined above) including fencing, buffer areas, signage and flagging.

It is noted that individual detailed EMPs and CEMPs will be prepared (where necessary) prior to subdivision and development in any given stage / land area using the 'Master EMP' to deal with site / stage specific conditions.

Further details regarding the EMP provisions can be found in the 'Island Road Keysborough Environmental Management Plan, 2008 prepared by Brett Lane and Associates.

14.2 Stormwater Management Plan

A Drainage Concept Plan titled 'Keysborough South Stages 2 & 3 – Drainage Concept Plan' has been prepared by Water Technology Pty Ltd for the Development Plan area.

This report provides the foundation for preparation of a detailed Stormwater Management Plan in accordance with the requirements of DPO5. The report outlines the watercourse rehabilitation, retarding basin and wetland works required within the Development Plan area boundary to mitigate the increased stormwater volumes and pollutant loads to Shelton Drain (East and West branch). The report demonstrates the feasibility of combining four retarding basin/wetland systems with an extensive network of vegetated open watercourses to mitigate the effects of development of the Development Plan area on downstream landowners, waterways and aquatic habitats.

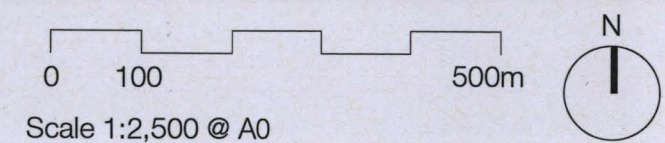
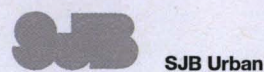
The above elements are diagrammatically displayed in the 'Keysborough South Drainage Scheme – General Arrangement' plan prepared for the Development Plan area by Water Technology and Melbourne Water (Refer to plan on facing page).

The extensive network of public open space areas will be aligned along the existing drainage lines. These drainage lines will be enhanced and vegetated to maximise the flood storage characteristics of the catchment and pollutant removal.



Keysborough South Stages 2 and 3 Development Plan:

Staging Plan



SJB Planning

Keysborough South Development Plan Stages 2 & 3

Part D - Implementation

The retarding basins and open waterway systems have been aligned and sited in consideration of the preliminary landscape plan for the development area.

Retarding basins have been sited so as to maximise the contributing catchment areas and hence optimise their flow reduction benefits.

All retarding basins will contain wetland systems. All wetlands will likely be ephemeral in nature (incorporating shallow marsh only) to minimise “cut” construction and the impact of groundwater levels on retarding basin and wetland design.

The above report is supplemented by Melbourne Water’s Keysborough South Drainage Scheme General Arrangement. The plan depicting the drainage scheme shows the location of proposed pipelines, vegetated channels and assumed property outfall points. The plan also shows the assumed contributing developed area and assumed allowance for open space associated with tree reserves and major drainage paths for each property within the Development Plan area.

A detailed, catchment-based Stormwater Management Plan will be required to be prepared prior to development or works commencing in a stage of subdivision or development. This detailed Stormwater Management Plan will be prepared as in accordance with Best Practice, the drainage scheme guidelines and Council requirements to provide an integrated development approach directed at:

- managing the volume, rate and quality of catchment run-off
- protecting the aquatic habitats of accepting waterways
- providing the safe conveyance of stormwater flows for typical and flood events
- providing and promoting stormwater elements as an integral part of the urban form
- identification of maintenance responsibilities for the open waterway systems and abutting public open space areas and their demarcation.

Construction and maintenance requirements for water bodies and wetlands

The design of the Water Sensitive Urban Design (WSUD) treatment elements including wetlands, swales, bio-retention features, water bodies, retarding basins and gross pollutant traps will include consideration to the operation and maintenance of these features in accordance with the ‘Water Sensitive Urban Design Engineering Procedures: Stormwater’ manual 2005 and the requirements and guidelines of Melbourne Water and Council.

A stormwater maintenance plan covering the proposed WSUD treatment elements to be constructed in each catchment or sub-catchment will be prepared with the engineering documentation for the subdivision on a staged basis, to the approval of Council and Melbourne Water.

As part of the planning for the operation and maintenance of these elements, suitable access provisions for maintenance vehicles will be provided. These accesses may be integrated with bike/pedestrian paths in open space areas.

Appropriate hardstand areas will also be provided abutting sedimentation ponds to facilitate access for cleaning/excavation machinery and trucks.

The water bodies and wetlands will be designed and include facilities that will allow the drawdown of the water for clearing and maintenance purposes and all control structures will be fitted with appropriate lids and access provisions that meet the requirements of the maintaining authority.

Due to the nature of the runoff entering the stormwater and to ensure the sustainable operation of the WSUD treatment train, a maintenance program must be included in the Stormwater Management Plan.

The maintenance program will identify the maintenance tasks, the frequency and the responsible party which will complete the maintenance. This will be achieved by the inclusion of a clearly labelled plan including a legend and necessary text identifying all areas that are subject to the maintenance agreement. In conjunction with the drawing, a schedule will be prepared which sets out the areas requiring maintenance (referenced on the drawing), a description of the maintenance task, frequency of the maintenance tasks and identify the responsible authority.

In general, the responsible authority for the various maintenance tasks associated with the function of the water body, wetland or swale is Melbourne Water. General landscape and open space areas are generally the responsibility of Council.

Details of stormwater management measures

The detailed planning and design processes will be executed in an integrated approach to stormwater system management, including WSUD design on a catchment basis and taking into consideration development staging impacts and proposals for interim stormwater management measures where required.

The specific measures relating to the provision of water quality treat-

ment facilities for the catchment are detailed in the ‘Keysborough South – Stages 2 & 3 – Drainage Concept Plan Report No. J131/R01 Final’.

As part of the proposed development of the site, the planned drainage mitigation and improvement works include the construction of water quality treatment trains in the form of three existing main drainage lines to be reconstructed as vegetated swale open channels and one main drainage line as an underground pipeline along the existing north – south water tributaries of the Shelton Drain West, Branch 01 and Shelton Drain East, Branch 02a, 02b, 02c.

The drainage scheme allows also for the inclusion of flows from external catchments, namely the Haileybury Retarding basin on the western boundary, the Chandler Road Retarding basin on the northern boundary and the Perry Road Drainage Scheme Catchment on the eastern boundary.

The three proposed vegetated swale open channels will be designed to accommodate the 1 in 5 year ARI flood and also larger events up to 1 in 100 year ARI. The typical vegetated channel will consist of a base flow channel with an invert and batters based on Melbourne Water design requirements, to convey the normal flows within a 1 in 5 year ARI channel. The combined channel will be vegetated to the specifications and approval of Melbourne Water.

The three vegetated channels will be contained within linear open space areas, which will provide the additional capacity, required to safely convey the 1 in 100 year ARI flood event.

The vegetated channels will serve as principal water quality elements in that the channels will slow flows and the vegetation will act to provide nutrient removal.

The under ground pipeline (Shelton Drain East -2c) will, in general, be required to convey the 1 in 10 year ARI flood event and be located within a proposed “valley floor” which could be along a road reservation or open space.

In addition to the three vegetated open channels and the underground pipeline, the Melbourne Water Drainage Scheme includes four retaining basins which will mitigate the stormwater drainage floods through the site such that when the flows exit the site the quantity will be equivalent to the pre developed flows.

The four retarding basins will include wetlands which will provide the Water Quality function to ensure that the system achieves Best Practice.

The proposed vegetated channels and pipelines will be constructed progressively with the staged development and as warranted by the timing and needs of development; it is noted that temporary works such as temporary retarding basins and open channel drains may be required to provide outfall from each of the stages of work through the subject land, however this will depend on the timing of the development.

How development will comply with best practice environmental management for urban stormwater

The development will comply with the Best Practice for Environmental Management for Urban Stormwater by adopting the planned water sensitive urban design strategies of the Melbourne Water Keysborough South Drainage Scheme that are designed to meet the Victorian Urban Stormwater Quality Management Objectives for pollutant reduction.

The detailed design of the various WSUD components including the vegetated channels, the swales, the retarding basins and the wetlands are based on MUSIC (Model for Urban Stormwater Improvement Conceptualization, CRCCH 2004) modelling and analysis to ensure that the treatment train is achieving the specified reduction targets required under Best Practice guidelines.

The construction of the components will be completed with Best Practice techniques and procedures which will include the preparation of a SEMP (Site Environmental Management Plan) that identifies all the potential risks associated with the construction of the works and provides solutions and methodologies to address those risks.

The maintenance of the completed works is critical to the sustainability of the treatment train therefore a maintenance program or plan will be prepared, during the design process which will identify the various areas or components requiring maintenance, the frequency and the authority responsible for the maintenance.

15.0 Development Contributions Plan

The Development Contribution Plan (DCP) prepared by DLA Phillips Fox sets out the basis for the provision and funding of infrastructure to facilitate the development of the Development Plan area.

The purpose of the DCP is to provide a fair distribution of costs for works and services, including roads, traffic management works and community facilities to allow the proper servicing of the area.

Landowners within the DCP area are required to contribute in relation to:

- Arterial roadworks (both internal and external to the Development Plan area)
- Traffic management works
- Drainage and retarding basins
- Open space and open space improvements
- Community facilities
- The cost of preparing the DCP and strategic planning associated with Amendment C36 to the Greater Dandenong Planning Scheme

Because it is considered unlikely that land used for religious, recreational and educational purposes as at the date of the introduction of this DCP will be developed, the DCP assumes land used for:

- Isik College Primary School
- St Stephen Serbian Orthodox Church
- Vietnamese Community Centre and Church
- Uniting Church, Chapel Road
- Parkmore Soccer Club; and
- Land to be developed by DEECD for a primary school;

will not be developed. If in the future this land is subdivided, the Council must collect a development contribution from the owner when the landowner develops the land in a manner that would otherwise be caught by the DCP.

Development contributions will be made in accordance with the approved DCP (separate to this Development Plan) that will be incorporated into the Greater Dandenong Planning Scheme.

Contributions will be provided by either carrying out the works and services or by providing a financial contribution at the discretion of Council. The provision of open space and drainage will be provided outside the

16.0 Development Approvals Process

A permit is required to subdivide land. Any planning permit application for subdivision must be generally in accordance with the approved Development Plan.

A permit may be granted however, before a Development Plan has been prepared to the satisfaction of the responsible authority:

- for buildings and works associated with the use of the land for agriculture;
- for extensions or alterations to an existing building or works;
- for the use and development of any social, community or educational facility;
- for the replacement of an existing dwelling;
- for subdivision of land to realign boundaries, create a road reserve or a subdivision which does not create an additional lot.

Subdivision applications and plans may relate to the whole or to only parts of the land.

17.0 Stages and Timing

It is anticipated that Keysborough South (Stages 2 and 3) will be developed over about ten years and that:

- development will commence in 2008 with a population of approximately 6000 people will occur around 2018/2019;
- Keysborough South (Stages 2 and 3) will consist of up to 2225 households following the construction and occupation of all lots / dwellings.

The indicative sequence of development will commence from two development fronts – the north-west (on Chapel Road) and the south-east - and then progress towards the centre of the site before returning to the south-west in proximity to the activity centre.

This sequence and timing may vary depending on market conditions and the development intentions of individual land owners.

Part E
Appendices

Appendix 1
Public Open Space Policy

Keysborough South Public Open Space Policy

11 December 2008

Status of Document

This Public Open Space Policy (**Policy**) has been prepared to outline the provision of public open space within Stages 2 and 3 of the Keysborough South Residential Development, being the land subject to the Development Plan Overlay 5 (**DPO5**) of the Greater Dandenong Planning Scheme (**Scheme**).

Introduction

DPO5 requires a development plan to be prepared for the land subject to DPO5 (**Amendment Area**), including a public open space equalisation table that:

- 1 Identifies the proportion of each parcel of land which is to be provided for open space and/or drainage purposes.
- 2 States:
 - 2.1 Where the area of land shown as Public Open Space on the Equalization Table is less than 16.7% in respect of any particular land parcel, the shortfall in the public open space contribution up to 16.7% must be paid in cash as a percentage of the site value of that land in the subdivision.
 - 2.2 Where the area of land shown as Public Open Space on the Equalization Table exceeds 16.7% in respect of any particular land parcel, the owner of that land will be entitled to be reimbursed or credited by Council (at the owner's option) the site value of that land in the subdivision to the extent of the excess.
- 3 Provides for the offsetting of Public Open Space Contributions between stages where an owner owns land in more than one stage.

This policy complies with these requirements of DPO5. In particular:

- 1 It shows the land to be set aside as public open space for the purposes of DPO5 and the categorisation of that public open space (including whether the public open space is land required by Melbourne Water for lineal drainage reserves and retarding basins (**Melbourne Water Reserves**)) on the plan attached to this policy as Schedule 1 (**Public Open Space Plan**).
- 2 The proportion of land within each lot to be set aside as public open space, and the categorisation of that public open space is shown on the table attached as Schedule 2 (**Equalisation Table**).

Melbourne Water Compensation

Council also requires other works to be undertaken to the Amendment Area, such as improvements to internal and external roads and improvements to public open space. These costs are to be recovered through the Keysborough South Development Contributions Plan. This Policy only deals with the provision of public open space.

Melbourne Water will pay compensation to those landowners who provide more than 20% public open space in respect of any particular land parcel, and which is required for a retarding basin. Melbourne Water will recover the cost of acquiring the land through drainage scheme contributions.

Ahead of sequence development

Melbourne Water may have to acquire land for a retarding basin or drainage reserve if the retarding basin or drainage reserve is required to be provided earlier than otherwise planned, and to service upstream developments. This is a matter for Melbourne Water and the landowner to address. Council is not obliged to provide any funds for the acquisition or construction of such a retarding basin or reserve.

Public open space equalisation

Public open space (which includes the Melbourne Water Reserves) will be provided in accordance with the requirements of the Scheme and Melbourne Water requirements. The public open space requirement under clause 52.01 of the Scheme is 20% of the land to be subdivided. Overall, an average of 16.7% of the Amendment Area is to be set aside for public open space, comprising approximately 9.7% Melbourne Water Reserves and 7.0% other public open space, with an additional 3.3% provided as a cash in lieu contribution.

Open space is not required to be provided on all land. Therefore some landowners will be required to provide less than 20% of any particular land parcel as public open space and some landowners more than 20% of any particular land parcel as public open space.

Cash in lieu contributions (or compensation for public open space provided in excess of 20%) will be calculated as follows:

- 1 Where the area of land shown as public open space on the Public Open Space Plan and in the Equalisation Table is less than 20% in respect of any particular land parcel, the shortfall in the public open space contribution up to 20% must be paid in cash as a percentage of the site value of that the particular land parcel.¹
- 2 Where the area of land shown as public open space on the Public Open Space Plan and in the Equalisation Table exceeds 20% in respect of any particular land parcel, the owner of that land will be entitled to be reimbursed or credited by Council (at the owner's option) the site value of the particular land parcel to the extent of the excess.
- 3 Council will not credit or compensate landowners for public open space provided which is not shown as public open space on the Public Open Space Plan or in the Equalisation Table.
- 4 Where cash is paid in lieu of public open space being provided, or as compensation for public open space provided above 20%, then, subject to paragraph 5 below, the cash payment will be based on the average site value of the particular land parcel determined in accordance with Section 19 of the Subdivision Act 1988.
- 5 If a landowner is obtaining a credit for providing public open space, and, immediately before 25 September 2008, the land was subject to a development constraint other

¹ Where between 16.7% - 20% of a particular land parcel is provided as public open space, then Council agrees to offset the amount provided above 16.7% against the 3.3% cash in lieu contribution. Hence this paragraph and paragraphs 2 - 4 below, refer to the 20% figure.

than by reason of Amendment C36 to the Greater Dandenong Planning Scheme,² then that development constraint shall be taken into account in assessing the credit provided for that parcel of public open space, and the site value of the land for the purposes of Section 19 of the Subdivision Act 1988.

Amending the Equalisation Table or Public Open Space Plan

The Public Open Space Plan and Equalisation Table can be amended to the satisfaction of Council. In considering whether to approve any amendments to the Public Open Space Plan or Equalisation Table, Council may consider the impact on Council's ability to fund payments to landowners who are required to provide more than 20% of any particular land parcel as public open space.

Where Council is paying a landowner an amount for providing more than 20% public open space under the equalisation scheme, Council will not be required pay the relevant amount to the landowner until Council has received sufficient funds from the subdivision of the Stage 2 and 3 area to cover the cost of making the payment.

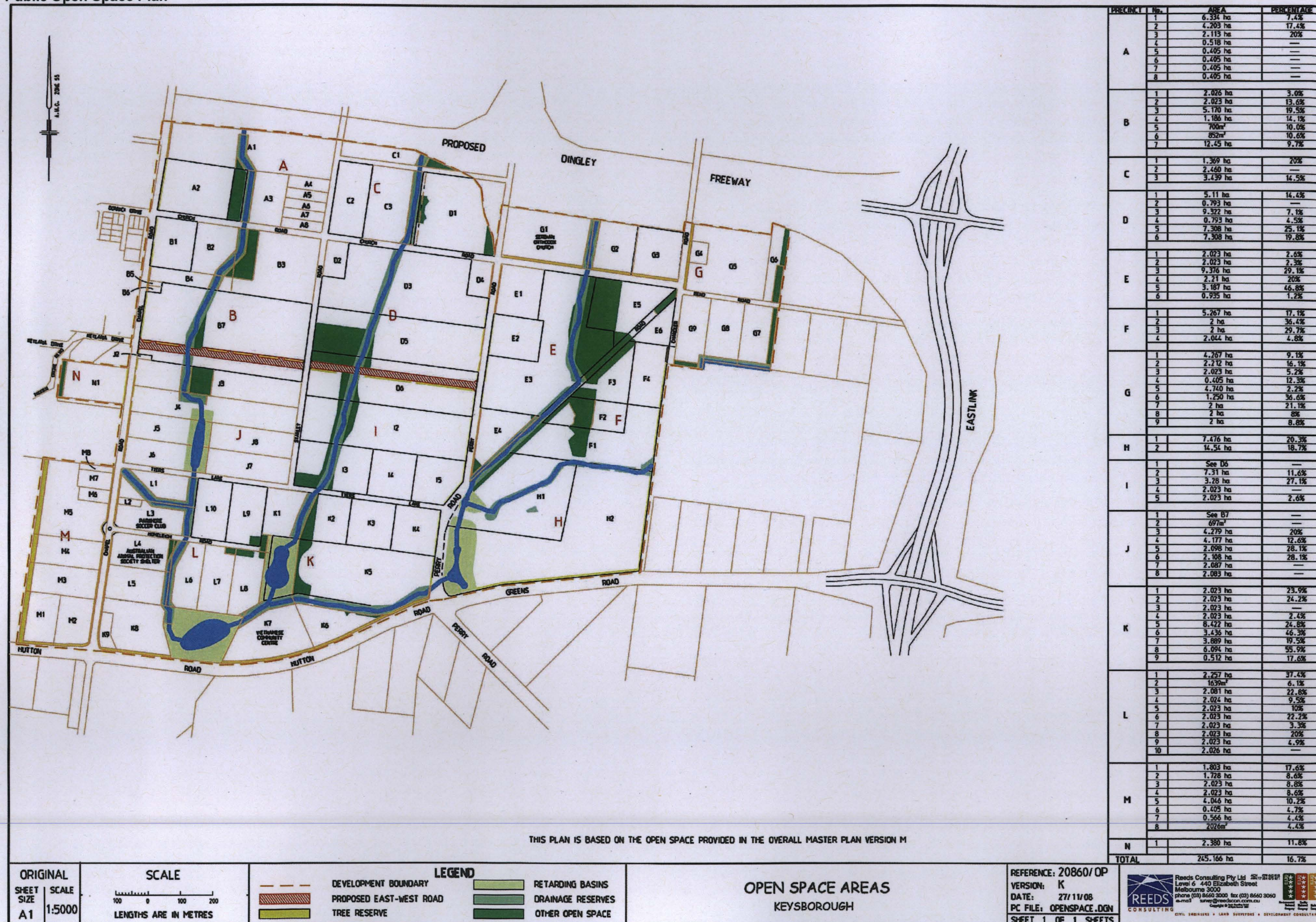
Section 173 Agreements

Where a landowner owns more than one parcel of land, and proposes to develop the land in stages, the landowner and the Council may enter into Section 173 Agreement providing for the offsetting of public open space between stages, with the payment of the cash in lieu of public open space contribution (if any) or the receipt of the payment for provision of excess public open space (if any) made at stages or at a time agreed between the landowner and the Council.

² For example, the land was encumbered by a drainage easement or subject to flooding or inundation and that encumbrance existed before 25 September 2008

Schedule 1

Public Open Space Plan



Schedule 2

Equalisation Table

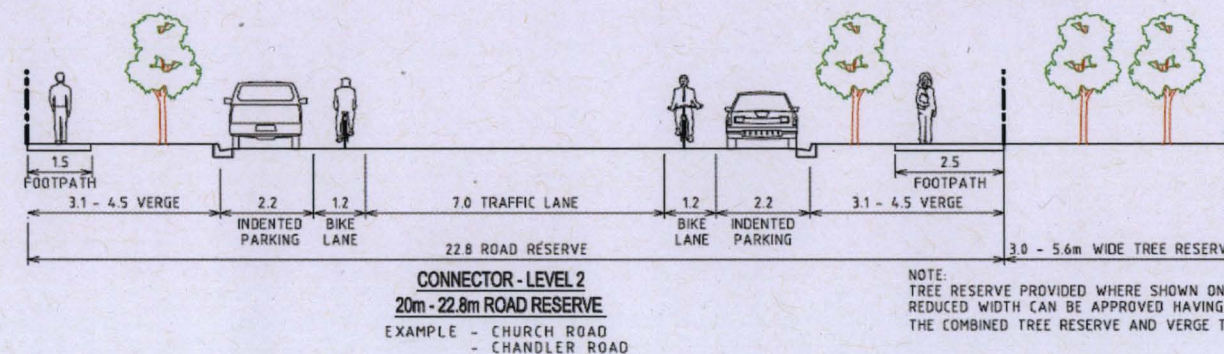
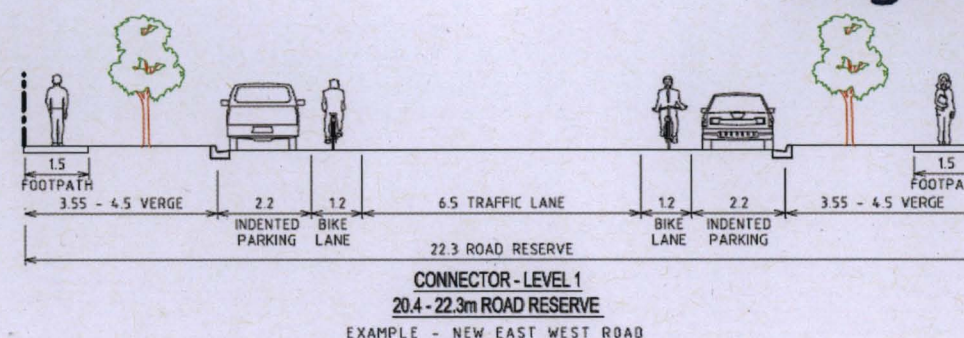
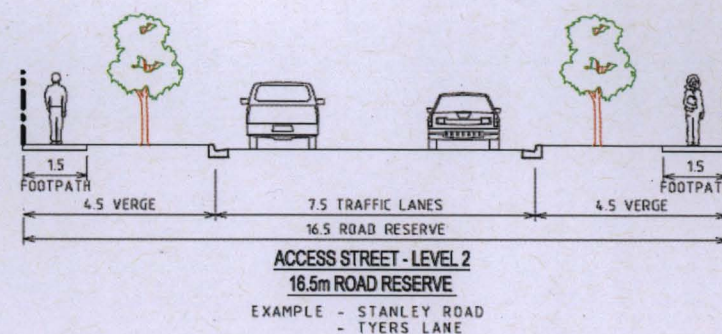
REF: 20860

SCHEDULE OF OPEN SPACE AREAS BASED ON MASTER PLAN VERSION M

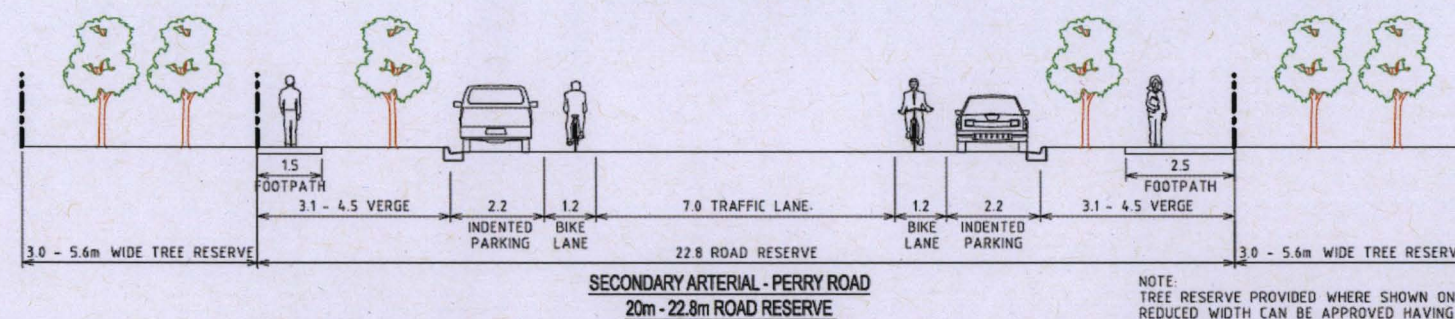
PARCEL	OWNER	PARCEL No.	PARCEL AREA (ha)	RETARDING BASIN (ha)	DRAINAGE RESERVE (ha)	PLANTATION RESERVE (ha)	OPEN SPACE (ha)	TOTAL OPEN SPACE (ha)	% OPEN SPACE	RETARDING BASIN (ha)	RETARDING BASIN DRY AREA (ha)	RETARDING BASIN WET AREA (ha)	RETARDING BASIN DRY AREA %	DRAINAGE RESERVE (ha)	DRAINAGE RESERVE DRY AREA(ha)	DRAINAGE RESERVE WET AREA(ha)	DRAINAGE RESERVE DRY AREA %
A1	SANTO SPIRITO		6.334		0.36	0.053	0.056	0.469	7.4					0.36	0.216	0.144	60
A2	LOTUS OAKS	1	4.203		0.065	0.075	0.59	0.73	17.4					0.065	0.065	0	100
A3	AUSMOSA		2.113		0.422			0.422	20.0					0.422	0.227	0.195	54
A4	PLAVETIC		0.518					0	0.0								
A5	MILLS		0.405					0	0.0								
A6	TRAN		0.405					0	0.0								
A7	CHUDLEIGH		0.405					0	0.0								
A8	ABELA		0.405					0	0.0								
B1	SETTINERI	2	2.026			0.06		0.06	3.0								
B2	DELL'AQUILA	26	2.023		0.226		0.05	0.276	13.6					0.226	0.137	0.089	61
B3	G.BREWER & L.BREWER	27	5.17		0.296		0.712	1.008	19.5					0.296	0.174	0.122	59
B4	WETERING	28	1.186		0.146	0.021		0.167	14.1					0.146	0.088	0.058	60
B5	LOCATA & MOLICA		0.07			0.007		0.007	10.0								
B6	LOCATA & MOLICA		0.0852			0.009		0.009	10.6								
B7	J.COCHRANE & G.COCHRANE (PT)	3	12.45		0.696	0.327	0.184	1.207	9.7					0.696	0.414	0.282	59
C1	LOWE		1.369		0.109		0.165	0.274	20.0					0.109	0.066	0.043	61
C2	GROSSI	25	2.46					0	0.0								
C3	ALLAN & WERRETT	36	3.439		0.497			0.497	14.5					0.497	0.25	0.247	50
D1	NORTHROP KING	24	5.11		0.344		0.39	0.734	14.4					0.344	0.178	0.166	52
D2	DENNIS		0.793					0	0.0								
D3	A.SCHOORMANS & A.SCHOORMANS	4	9.322		0.636	0.026		0.662	7.1					0.636	0.378	0.258	59
D4	SCHOORMANS		0.793			0.036		0.036	4.5								
D5	ALLAN & WERRETT	29	7.308		0.426	0.042	1.363	1.831	25.1					0.426	0.256	0.17	60
D6	VAN WYK (PART)	5	7.308		0.365	0.334	0.745	1.444	19.8					0.365	0.218	0.147	60
E1	WERRETT	35	2.023			0.052		0.052	2.6								
E2	GENERAL LAW	34	2.023			0.046		0.046	2.3								
E3	WAKELAM	17	9.376		1.145	0.049	1.533	2.727	29.1					1.145	0.745	0.4	65
E4	VALENTI	30	2.21		0.283	0.08	0.08	0.443	20.0					0.283	0.231	0.052	82
E5	WAKELAM & WILLIAMS	18	3.187				1.49	1.49	46.8								
E6	M.COCHRANE	19	0.935				0.0115	0.0115	1.2								
F1	BLACK SUN	14	5.267		0.193	0.0766	0.631	0.9006	17.1					0.193	0.135	0.058	70
F2	NGUYEN & TRAN	33	2				0.728	0.728	36.4								
F3	L.COCHRANE	21	2				0.593	0.593	29.7								
F4	J.COCHRANE & G.COCHRANE	20	2.044			0.096	0.0015	0.0975	4.8								
G1	POPOVIC, PANIC & OTHERS		4.267		0.206	0.184		0.39	9.1					0.206	0.151	0.055	73
G2	DE FAZIO		2.212		0.264	0.093		0.357	16.1					0.264	0.131	0.133	50
G3	G.WADE & HARLAND HOLDINGS P/L		2.023			0.105		0.105	5.2								
G4	A.LOWE		0.405			0.05		0.05	12.3								
G5	R.LOWE		4.74			0.104		0.104	2.2								
G6	R.LOWE (PART)		1.25				0.457	0.457	36.6								
G7	GARAPIC		2		0.154		0.268	0.422	21.1					0.154	0.094	0.06	61
G8	OUK & CHEA		2		0.159			0.159	8.0					0.159	0.108	0.051	68
G9	SUKKARI		2		0.063		0.112	0.175	8.8					0.063	0.045	0.018	71
H1	MANIATIS	12	7.476	0.6	0.668		0.251	1.519	20.3	0.6	0.54	0.06	90	0.668	0.286	0.382	43
H2	FLORIANA	13	14.54	1.901	0.287	0.5288		2.7168	18.7	1.901	1.561	0.34	82	0.287	0.105	0.182	37

PARCEL	OWNER	PARCEL No.	PARCEL AREA (ha)	RETARDING BASIN (ha)	DRAINAGE RESERVE (ha)	PLANTATION RESERVE (ha)	OPEN SPACE (ha)	TOTAL OPEN SPACE (ha)	% OPEN SPACE	RETARDING BASIN (ha)	RETARDING BASIN DRY AREA (ha)	RETARDING BASIN WET AREA (ha)	RETARDING BASIN DRY AREA %	DRAINAGE RESERVE (ha)	DRAINAGE RESERVE DRY AREA (ha)	DRAINAGE RESERVE WET AREA (ha)	DRAINAGE RESERVE DRY AREA %
I2	VAN WYK	6	7.31		0.421	0.049	0.377	0.847	11.6					0.421	0.253	0.168	60
I3	MAGEE	15	3.28		0.452		0.436	0.688	27.1					0.452	0.272	0.18	60
I4	SCAUNICH	7	2.023					0	0.0								
I5	SCAUNICH	8	2.023			0.053		0.053	2.6								
J2	COUNTRY FIRE AUTHORITY		0.0697					0	0.0								
J3	SELIIMIYE FOUNDATION		4.279		0.25	0.031	0.573	0.854	20.0					0.25	0.149	0.101	60
J4	HONG CHI CHANG		4.177	0.241	0.267	0.029		0.527	12.6	0.241	0.194	0.047	80	0.267	0.172	0.085	67
J5	TAMARIX		2.098	0.549		0.04		0.589	28.1	0.549	0.315	0.234	57				
J6	LIPARI		2.108	0.558		0.034		0.592	28.1	0.558	0.335	0.223	60				
J7	SALIB		2.087					0	0.0								
J8	GOONEWARDENE		2.083					0	0.0								
K1	CATALANO	31	2.023	0.08	0.288		0.116	0.484	23.9	0.089	0.089	0	100	0.288	0.12	0.168	42
K2	CLEGHORN	18	2.023		0.16		0.33	0.49	24.2					0.16	0.1	0.06	63
K3	SCAUNICH	9	2.023					0	0.0								
K4	SCAUNICH	10	2.023			0.048		0.048	2.4								
K5	SCAUNICH	11	8.422	1.598		0.032	0.462	2.092	24.8	1.598	0.918	0.68	57				
K6	MUIRHEAD	32	3.438		1.226	0.305	0.059	1.59	46.3					1.226	0.72	0.506	59
K7	ROMAN CATHOLIC TRUST		3.889		0.539	0.218		0.757	19.5					0.539	0.329	0.21	61
K8	BASRA HEATH HOLDINGS & OTHERS		6.094	3.091	0.171	0.146		3.408	55.9	3.091	2.091	1	88	0.171	0.101	0.07	59
K9	RAKO		0.512			0.09		0.09	17.6								
L1	ANASTASIO		2.257		0.81	0.033		0.843	37.4					0.81	0.465	0.345	57
L2	SOUTH EAST WATER		0.1639			0.01		0.01	6.1								
L3	GYARMARTI, FARKAS & OTHERS		2.081		0.447	0.028		0.475	22.8					0.447	0.271	0.176	61
L4	AUST. ANIMAL PROTECTION SOCIETY		2.024		0.068	0.04	0.087	0.183	9.5					0.068	0.043	0.023	65
L5	NGUYEN, NGUYEN, NGUYEN & TRAN		2.023		0.158	0.045		0.203	10.0					0.158	0.095	0.063	60
L6	P.CHUA, J.CHUA & C.CHUA		2.023		0.425		0.025	0.45	22.2					0.425	0.255	0.17	60
L7	DENEREAZ		2.023				0.067	0.067	3.3								
L8	BAINES		2.023	0.23	0.018		0.156	0.404	20.0	0.23	0.21	0.02	91	0.018	0.018	0	100
L9	HILI	22	2.023				0.0894	0.0894	4.9								
L10	BOYCE	23	2.026					0	0.0								
M1	AMANAT HOLDINGS		1.803			0.317		0.317	17.6								
M2	GAZE		1.728			0.148		0.148	8.6								
M3	DAY		2.023			0.179		0.179	8.8								
M4	CHIHDER SHANCHAN GROUP		2.023			0.174		0.174	8.6								
M5	SCHOORMANS		4.048			0.414		0.414	10.2								
M6	UNITING CHURCH PROPERTY TRUST		0.405			0.019		0.019	4.7								
M7	D.PATEN, L.PATEN & L.PATEN		0.568			0.025		0.025	4.4								
M8	PATEN		0.2026			0.009		0.009	4.4								
N1	BENETTI		2.38			0.053	0.228	0.281	11.8								
TOTAL			245.504	8.848	13.698	5.0234	13.4264	40.9958	16.7	8.857	6.253	2.604	71	13.698	8.061	5.637	59

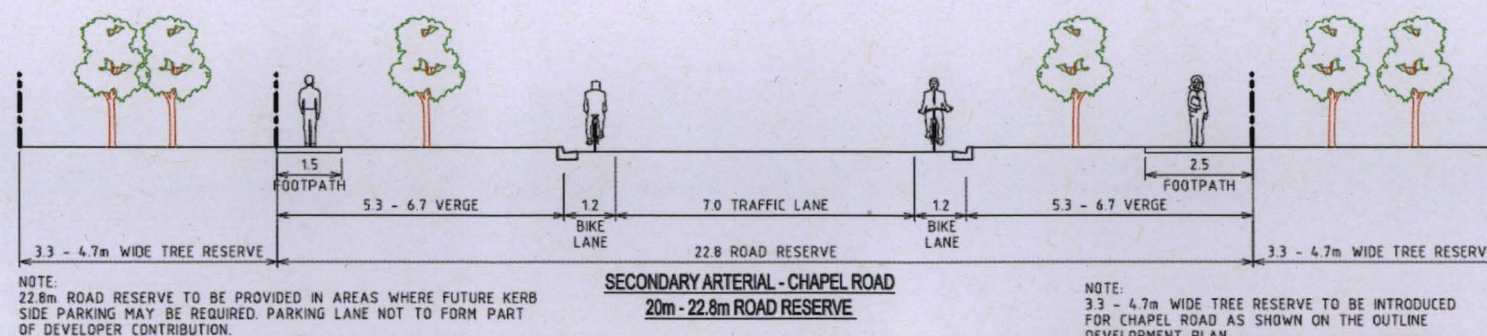
Appendix 2
Recommended Road cross-sections



NOTE:
TREE RESERVE PROVIDED WHERE SHOWN ON THE OUTLINE DEVELOPMENT PLAN.
REDUCED WIDTH CAN BE APPROVED HAVING REGARD TO FACTORS LISTED IN DP05.
THE COMBINED TREE RESERVE AND VERGE TO BE NOT LESS THAN 7.5m - 8.7m WIDE.



NOTE:
TREE RESERVE PROVIDED WHERE SHOWN ON THE OUTLINE DEVELOPMENT PLAN.
REDUCED WIDTH CAN BE APPROVED HAVING REGARD TO FACTORS LISTED IN DP05.
THE COMBINED TREE RESERVE AND VERGE TO BE NOT LESS THAN 7.5m - 8.7m WIDE.



NOTE:
22.8m ROAD RESERVE TO BE PROVIDED IN AREAS WHERE FUTURE KERB
SIDE PARKING MAY BE REQUIRED. PARKING LANE NOT TO FORM PART
OF DEVELOPER CONTRIBUTION.

NOTE:
3.3 - 4.7m WIDE TREE RESERVE TO BE INTRODUCED
FOR CHAPEL ROAD AS SHOWN ON THE OUTLINE
DEVELOPMENT PLAN.
THE COMBINED TREE RESERVE AND VERGE TO BE NOT LESS THAN 10.0m WIDE.

AMENDMENT C36 - KEYSBOROUGH SOUTH DEVELOPMENT AREA RECOMMENDED CROSS SECTIONS FOR HIGHER ORDER INTERNAL ROADS

Appendix 3
Traffic Distribution Assumptions

Traffic Distribution Assumptions

<i>Work</i>		<i>Of Total</i>	<i>Shopping</i>		<i>Of Total</i>
Internal	0.0%	0.0%	Internal	25.0%	6.3%
Parkmore/ Keysborough	5.0%	1.8%	Parkmore/ Keysborough	50.0%	12.5%
W Cheltenham	25.0%	9.0%	W Cheltenham	10.0%	2.5%
N Corrigan	0.0%	0.0%	N Corrigan	0%	0.0%
N Chandler	3.0%	1.1%	N Chandler	0%	0.0%
E Cheltenham	10.0%	3.6%	E Cheltenham	10%	2.5%
E Eastlink	35.0%	12.6%	E Eastlink	5%	1.3%
E Greens	10.0%	3.6%	E Greens	0%	0.0%
SE Perry	2.0%	0.7%	SE Perry	0%	0.0%
W Hutton	10.0%	3.6%	W Hutton	0%	0.0%
	100%	36.0%		100%	25.0%

<i>Recreation</i>		<i>Of Total</i>	<i>Education</i>		<i>Of Total</i>
Internal	20.0%	6.8%	Internal	35.0%	1.8%
Parkmore/ Keysborough	20.0%	6.8%	Parkmore/ Keysborough	20.0%	1.0%
W Cheltenham	10.0%	3.4%	W Cheltenham	5.0%	0.3%
N Corrigan	3%	1.0%	N Corrigan	0%	0.0%
N Chandler	2%	0.7%	N Chandler	20%	1.0%
E Cheltenham	10%	3.4%	E Cheltenham	0%	0.0%
E Eastlink	20%	6.8%	E Eastlink	15%	0.8%
E Greens	5%	1.7%	E Greens	0%	0.0%
SE Perry	5%	1.7%	SE Perry	0%	0.0%
W Hutton	5%	1.7%	W Hutton	5%	0.3%
	100%	34.0%		100%	5.0%

Keysborough South - Overall Trip Distribution Percentage & Volumes

Internal	15.3%	3393
Parkmore/ Keysborough	24.8%	5518
W Cheltenham	15.2%	3371
N Corrigan	0.8%	167
N Chandler	2.6%	574
E Cheltenham	9.5%	2114
E Eastlink	20.1%	4461
E Greens	4.9%	1079
SE Perry	2.0%	438
W Hutton	5.1%	1135
	100.0%	22,250

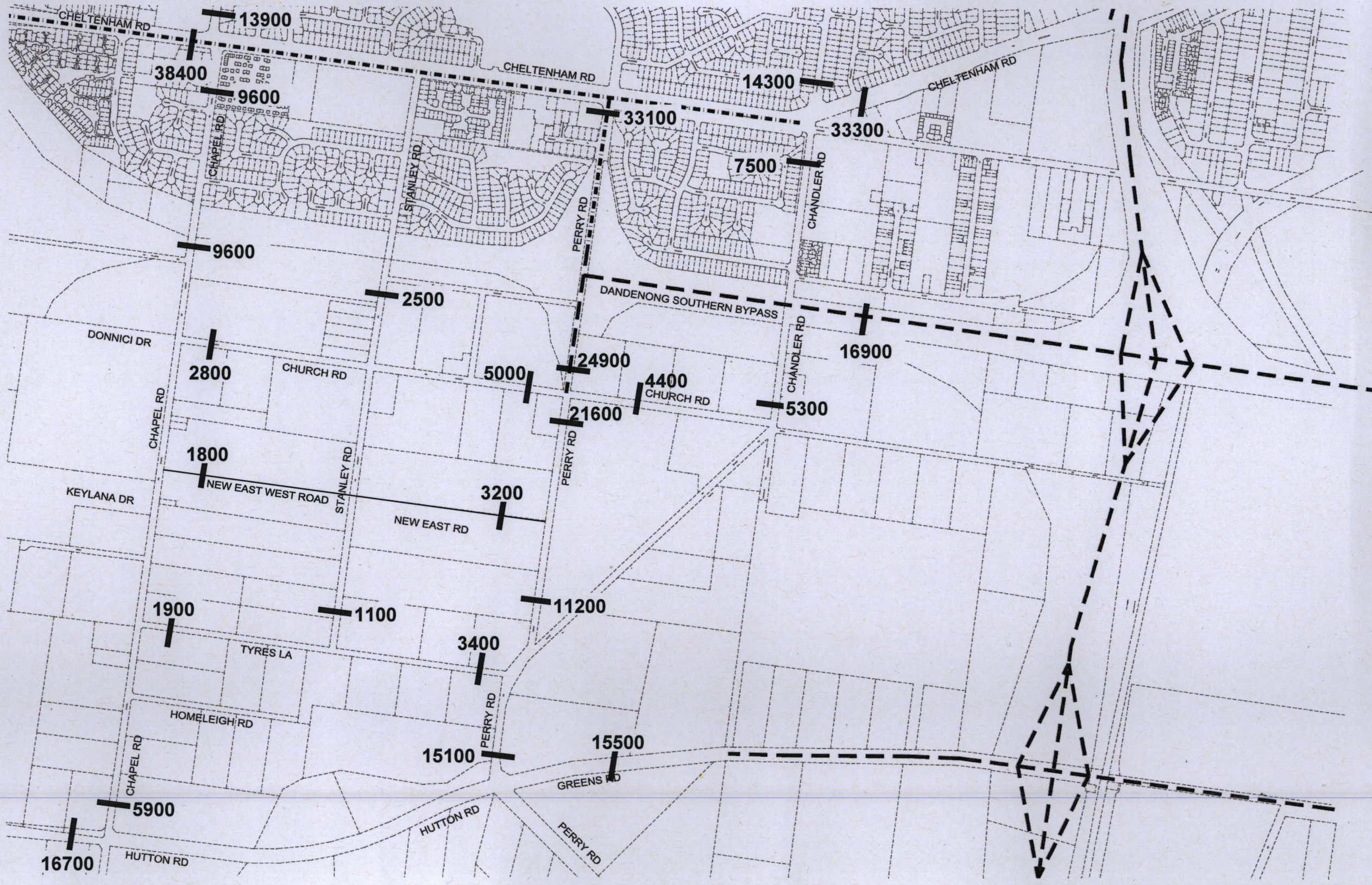
Appendix 4
Total Traffic Volume Estimates - 2015 with Full Development

Keysborough South Stages 2 & 3 Traffic Volume Estimates - 2015 with Full Development

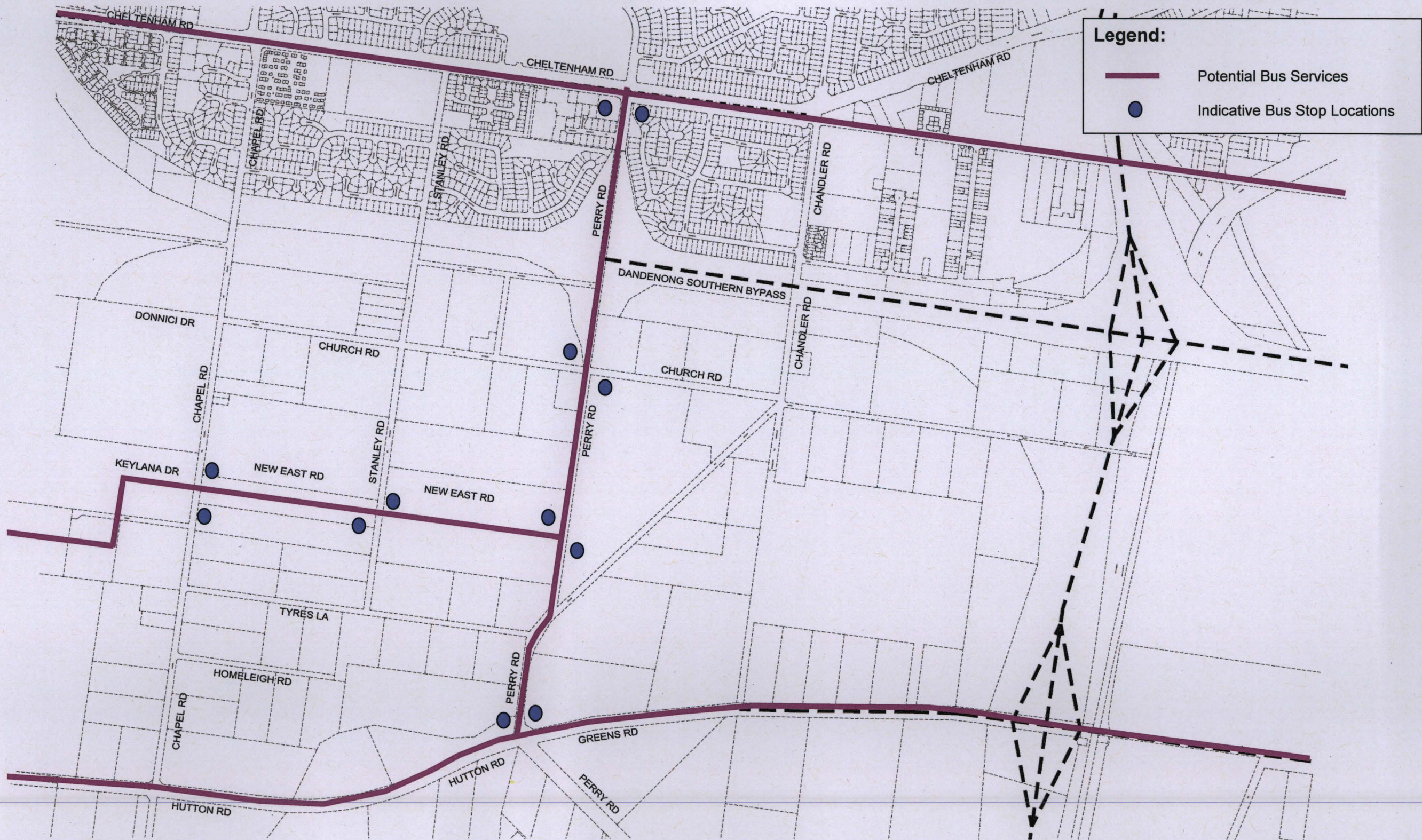
Road Link		TTM 2005 Estimate	% Change With Eastlink	Change	Vols Estimate Eastlink	2015 Volumes Including 2% External Growth per annum (24.3% total)	Modelled Keysborough Vols	Total Vols	% Keysborough
Cheltenham Road	West of Chapel Road	24500	15%	3675	28175	35030	3371	38401	9%
	East of Chandler Road	21800	15%	3270	25070	31170	2114	33283	6%
Hutton Road	West of Chapel Road	12500	0%	0	12500	15541	1135	16676	7%
Greens Road	East of Perry Road	13600	-15%	-2040	11560	14373	1079	15452	7%
East Link	East of Chandler Road	0	0%	0	10000	12433	4461	16894	26%
Corrigan Road	North of Cheltenham Road	13000	-15%	-1950	11050	13738	167	13905	1%
Chandler Road	North of Cheltenham Road	11000	0%	0	11000	13676	574	14250	4%
Chapel Road	South of Cheltenham Road	9000	0%	0	5000	6217	3407	9624	35%
	North of Church Road	8500	0%	0	5000	6217	3407	9624	35%
Perry Road	North of Hutton Road	8500	0%	0	4000	4973	946	5920	16%
	South of Cheltenham Road	11000			21000	26109	6991	33100	21%
	North of Church Road	10000			12000	14920	10011	24931	40%
	South of Church Road	9000			11500	14298	7293	21591	34%
	North of Tyers Lane	8500			11000	13676	3825	17501	22%
	North of Hutton Road	8000			10800	13428	1706	15133	11%
Chandler Road	South of Cheltenham Road	5000			5000	6217	1346	7562	18%
	North of Church Road	4000			2000	2487	2786	5273	53%
Church Road	East of Chapel Road	400			400	497	2305	2802	82%
	West of Perry Road	400			400	497	4519	5016	90%
	East of Perry Road	400			400	497	3884	4382	89%
	West of Chandler Road	2700			2700	3357	2786	6143	45%
East West Road	East of Chapel Road	0			0	0	1749	1749	100%
	West of Perry Road	0			0	0	3238	3238	100%
Tyers Lane	East of Chapel Road	100			100	124	1757	1881	93%
	West of Perry Road	100			100	124	3290	3415	96%
Stanley Road	North of Church Road	100			100	124	2334	2459	95%
	North of Tyers Lane	50			50	62	1012	1074	94%

Note: Post Eastlink volumes for internal roads derived from counts undertaken in August 2008

Estimated Total Traffic Volumes - 2015



Appendix 5
Potential Bus Network



Potential Bus Network

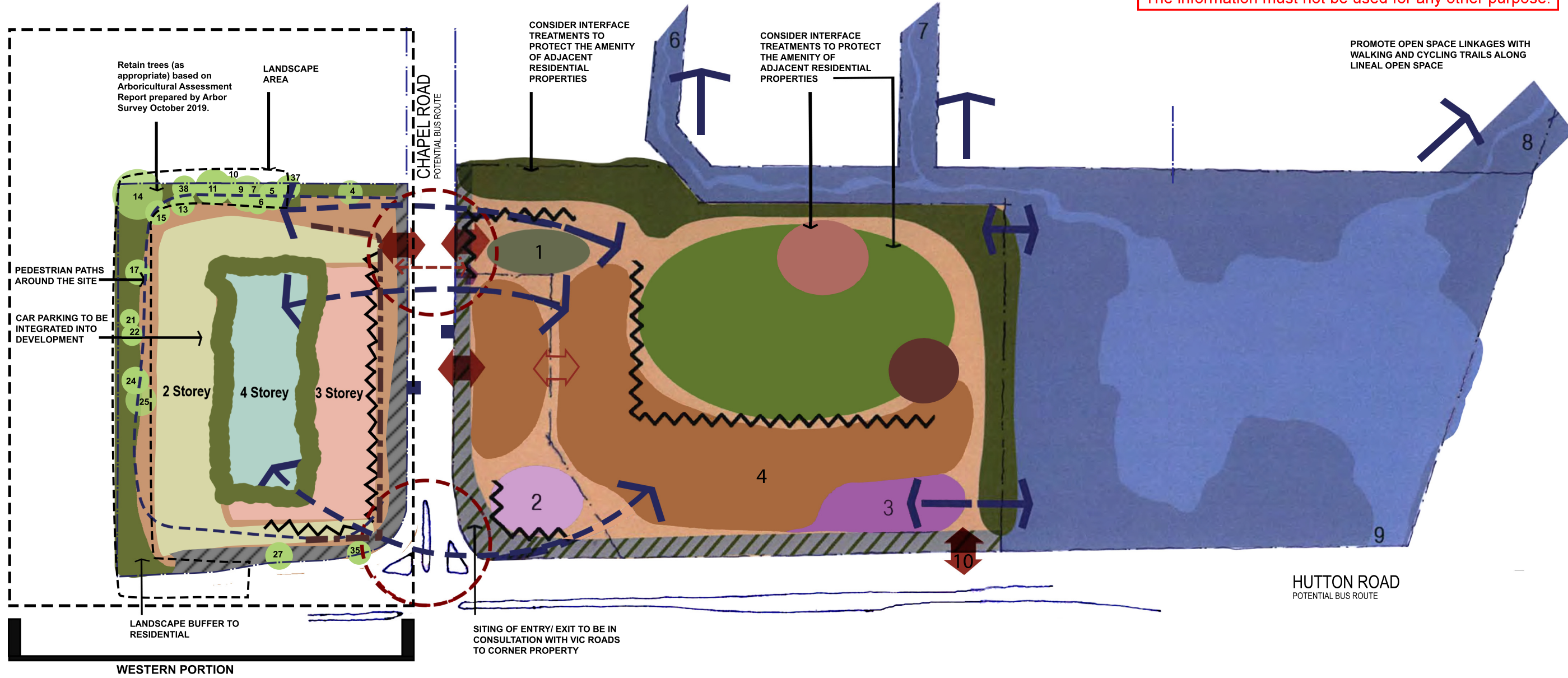
ADDENDUM 2 (KEYSBOROUGH SOUTH NEIGHBOURHOOD ACTIVITY CENTRE CONCEPT PLAN DATED 17 OCTOBER 2019) APPROVED BY VCAT 13
DECEMBER 2019.

PLANNING & ENVIRONMENT ACT 1987
GREATER DANDENONG PLANNING SCHEME
Pursuant to Clause 43.04, Schedule 5 of the Greater Dandenong Planning Scheme,
this is a copy of the Development Plan for part of the land defined as
220 Chapel Road, Keysborough South
and particularly with reference to Keysborough South Neighbourhood Activity Centre.
This Development Plan DPO 5.01 has been prepared to the satisfaction
of the Responsible Authority. Once the Development Plan has been approved by
Council, Council retains the sole right to amend the Development Plan.
Council Delegate: Brett Jackson, Manager - Planning & Design
Date: 24/01/2020 Total pages: 70
Greater Dandenong City Council

This document has been made available for the purposes as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose.

Design Guidelines for Keysborough South Neighbourhood Activity Centre (Western Portion)

- Provide a mix of commercial, retail and residential uses
- Commercial floor area on the subject land to be approximately 1,000 square metres;
- Built form of 2 storeys can be provided adjacent to north and west boundaries with 3 storeys presenting to Chapel Road and the intersection of Hutton Road and Chapel Road;
- Built form of 4 storeys to be centralised on the site and obscured by surrounding 2 and 3 storey development
- Transition in built form from Chapel Road and Hutton Road interfaces to lower form in proximity to the north and west interfaces.
- Development to include integrated medium density housing;
- Car parking to be located, where practical, behind active edges or below built form;
- Active frontages to be provided to Chapel Road and the corner to Chapel Road and Hutton Road;
- Consideration to be given to the provision of publicly accessible open spaces
- Consideration to be given to the retention of other low and medium retention value (based on advice in Arboricultural Assessment Report prepared by Arbor Survey October 2019) trees where practicable;
- Provision of landscape areas as buffer to residential element; and
- Provision of pedestrian circulation paths around the subject land.



COLOUR LEGEND:	SYMBOL LEGEND:	NUMERIC LEGEND:	NOTES:
<div></div> POTENTIAL NEIGHBOURHOOD CENTRE - RETAIL CORE	<div></div> POTENTIAL BUS STOP	<div>1</div> MIXED COMMERCIAL	A LANDSCAPE CONCEPT PLAN IS TO BE PREPARED TO THE SATISFACTION OF THE R.A., AND SUBMITTED PRIOR TO THE ISSUE OF THE PLANNING PERMIT. THE DETAILS OF THE PLAN WILL INCLUDE PAVING MATERIALS AND STREET FURNITURE.
<div></div> POTENTIAL SERVICE AREA / LOADING DOCK	<div></div> TREE RESERVE AREA / URBAN STREET INTERFACE	<div>2</div> MIXED COMMERCIAL USE/ RETAIL USE	
<div></div> POTENTIAL PUBLIC COURT LOCATION	<div></div> SIGNALIZED INTERSECTION	<div>3</div> POTENTIAL FUTURE MINOR DEVELOPMENT SITE TO BE INTEGRATED INTO THE URBAN DESIGN OF THE CENTRE	ADVERTISING SIGNS TO CONFORM WITH DESIGN GUIDELINES APPROVED BY COUNCIL.
<div></div> POTENTIAL FUTURE DEVELOPMENT SITE / POTENTIAL BUILDING LOCATIONS	<div></div> VEHICULAR ENTRY / EXIT LOCATION IN CONSULTATION WITH VIC ROADS	<div>4</div> PARKING LOCATION AVOIDS VISUAL DOMINANCE OF STREETSCAPES	
<div></div> RETARDING BASIN - 30,000sqm LAND AREA	<div></div> POTENTIAL VEHICULAR CONNECTIONS	<div>5</div> RETAIN SIGNIFICANT VEGETATION IN LANDSCAPE BUFFER	
<div></div> ACTIVITY CENTRE	<div></div> PEDESTRIAN / BICYCLE MOVEMENT PATHS	<div>6</div> EXISTING INFLOW	
<div></div> INTEGRATED CARPARKING AREA	<div></div> BICYCLE MOVEMENT PATH	<div>7</div> PROPOSED INFLOW	
<div></div> POTENTIAL LANDSCAPE BUFFERS TO SURROUNDING AREAS / LANDSCAPED BOULEVARD TREATMENT ALONG ABUTTING ROADS	<div></div> HIGH EXPOSURE FRONTAGES BUILT FORM INTENSIFICATION	<div>8</div> EASTERN INFLOW	
	<div></div> ACTIVE EDGES / FRONTAGES	<div>9</div> OUTFLOW VIA EXISTING CONDUITS BELOW HUTTON ROAD	
	<div>14</div> TREES TO BE RETAINED BASED ON ARBORICULTURAL ASSESSMENT REPORT PREPARED BY ARBOR SURVEY OCTOBER 2019	<div>10</div> TRUCK ENTRY / EXIT	
		<div>11</div> MIXED COMMERCIAL / RETAIL / RESIDENTIAL USE (2-4 STOREYS)	

KEYSBOROUGH SOUTH NEIGHBOURHOOD ACTIVITY CENTRE CONCEPT PLAN
17 OCT 2019

Amendments		
No.	Date	Notes

KLM Spatial

Addendum to DPO5.01 - Keysborough South Development Plan Stages 2 & 3

Pursuant to Clause 43.04 Schedule 5 of the Greater Dandenong Planning Scheme, this is a copy of the Development Plan for part of the land defined as DPO5 and particularly with reference to the Keysborough South Development Plan – Stages 2 & 3.

This Development Plan Addendum (No. 5) has been prepared to the satisfaction of the Responsible Authority. Once Council has approved the Development Plan Addendum, Council retains the sole right to amend the Development Plan.

Signed:  Date: 29 August 2018

By Director City Planning, Design and Amenity
City of Greater Dandenong

Appendix 7

Extension of Development Plan Area – 619 Chandler
Road, Keysborough

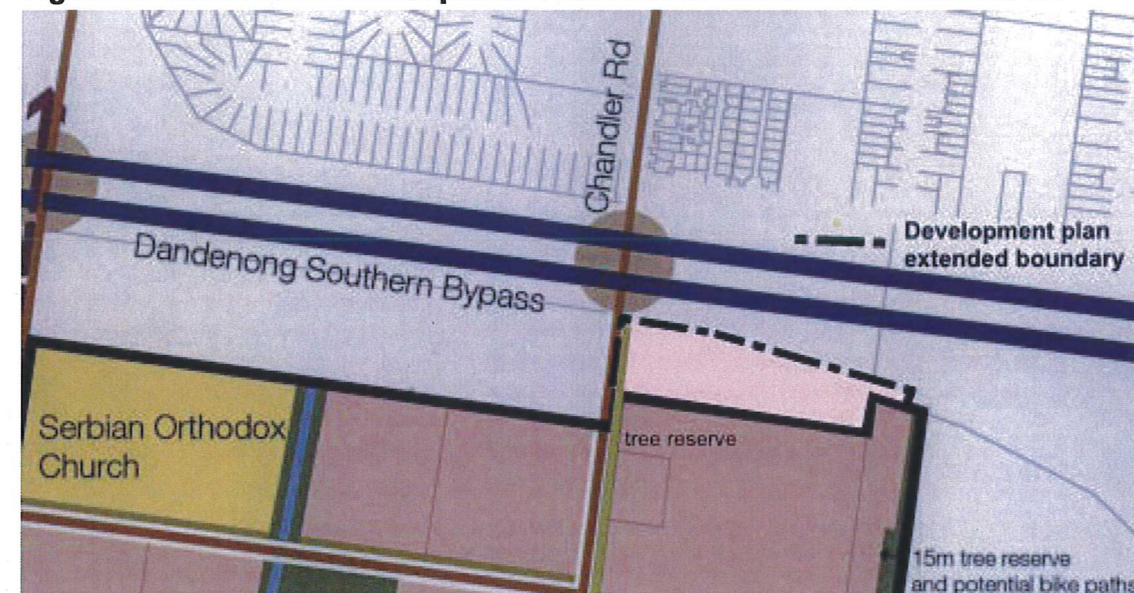
The *Keysborough South Development Plan Stages 2 and 3* study area is extended to include the following land:

- 619 Chandler Road known as Lot 1 PS 748334X Certificate of Title Volume 11885 Folio 542 and Part Lot 1 TP 137309R described in Certificate of Title Volume 9781 and Folio 860 (Lot 1 PS816200T unregistered).

This land was excluded from the study area, despite being located within the area of the Development Plan Overlay – Schedule 5, due to its ownership by VicRoads. The land is to be sold by VicRoads and can be logically developed as an extension of the Keysborough South residential area.

The land is located on the east side of Chandler Road immediately south of the Dandenong Bypass. It has an area of approximately 1.56ha and has been used for many years as part of a market garden. The land does not contain any established vegetation and slopes gently towards the west.

Figure 1: Extension of Development Plan area to include 619 Chandler Rd



This land shown in pink is now identified as part of the Development Plan area as suitable for residential development purposes.

A Tree Reserve is to be provided along the western boundary of the land adjacent to Chandler Road, continuing the Tree Reserve along Chandler Road shown in the Open Space Concept Plan of the Development Plan. The Tree Reserve is to be landscaped generally in accordance with the Landscape Concept Masterplan with local indigenous species. A shared path will be provided within the Tree Reserve.

Notation: The subdivision of the subject site for residential purposes will require provision of the relevant contributions under Clause 45.06 and Clause 53.01 Schedule 1.

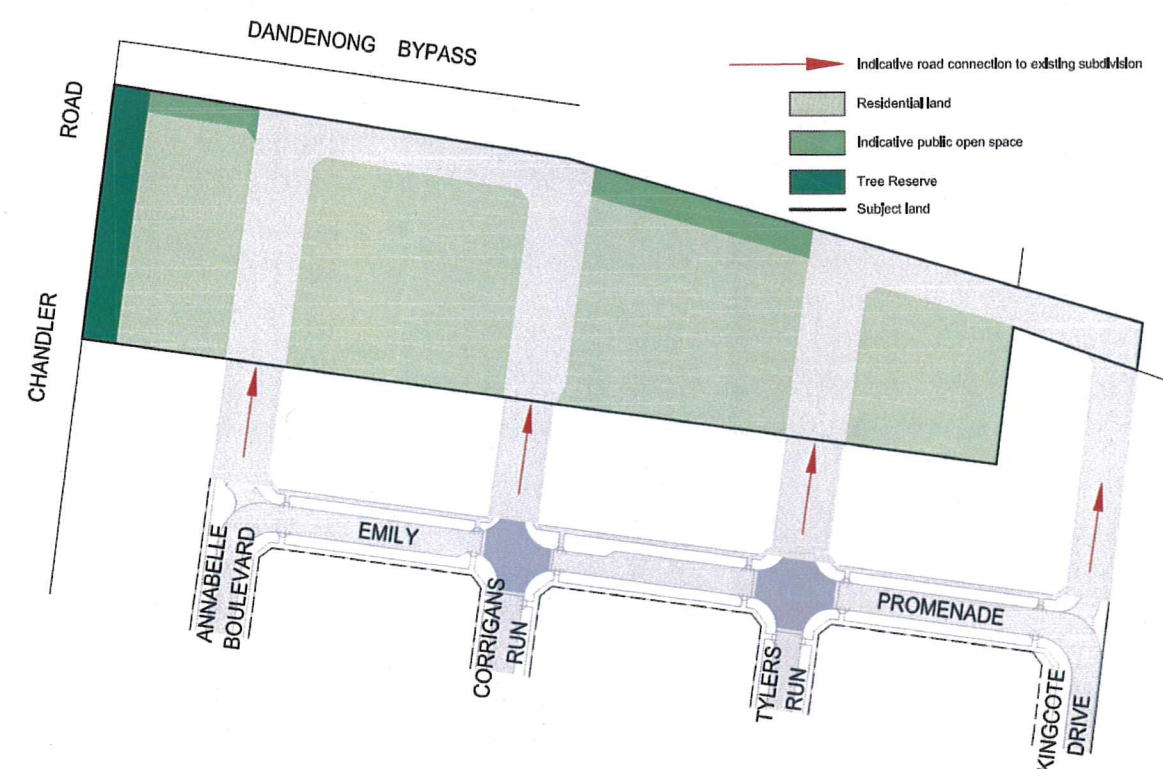
An acoustic report prepared by ARUP, *24 Bend Road Proposed Subdivision Acoustic Assessment R00, Job no 82275*, dated 25 July 2017, proposes an acoustic barrier adjacent to the northern boundary of the land within the Dandenong Bypass Reservation. The Acoustic Assessment shows the location of building envelopes within the land, south of the proposed acoustic barrier. VicRoads approved this acoustic assessment by correspondence dated 9th April 2018, thereby addressing the 20m setback requirement from the road reservation for building envelopes, as is otherwise required in Schedule 5 to the Development Plan Overlay.

The Acoustic Assessment may be amended from time to time subject to the approval of VicRoads. The VicRoads advice referenced above is contained as an attachment.

A conceptual layout for the development of the subject land is provided in Figure 2 below showing a high level integration with the existing subdivision to the south. Four road connections to the land are indicatively shown, along with the Tree Reserve adjacent to Chandler Road. Public open space is notionally indicated providing further opportunity for pedestrian linkages within the site.

The subdivision plan will be required to be compatible with surrounding subdivision layouts, with lots in a range of 350m² to 500m² in extent. The road design will accommodate two passing cars, and where practical include indented parallel parking spaces, and be in compliance with Clause 56.06 of the Greater Dandenong Planning Scheme

Figure 2: Indicative Land Use Concept Plan



F

Attachment 1: VicRoads advice dated 9/4/18



Mr Ryan Hay
Team Leader Statutory Planning
City of Greater Dandenong
PO BOX 200
DANDENONG VIC 3175

9 April 2018

Dear Mr Hay

PLANNING APPLICATION No.: PLN17/0661
VicRoads REFERENCE NO: PPR 23452/17
PROPERTY ADDRESS: 619 CHANDLER ROAD KEYSBOROUGH

Thank you for your letter dated 27 October 2017 referring details of the above application to the Roads Corporation (VicRoads) pursuant to Section 55 of the Planning and Environment Act 1987.

The application is for a 39 lot subdivision.

VicRoads understands the proposal will combine the following additional aspects:

- re-subdivision of some land which previously formed part of the Bentley Park Estate, under City of Greater Dandenong planning permit 15/0578, and
- inclusion of a 399 square metre parcel of land (part of Lot 1 on TP137309R), within the overall subdivision area. It is understood this parcel of land has been recently declared as surplus with activities being undertaken to capture the 399sm within the subject site.

VicRoads further understands a formal Amendment to the Keysborough South Development Plan Area Stage 2 and 3, will be required in order to incorporate the above additions.

Notwithstanding the above, VicRoads' interests in this matter will be restricted to the developer's obligation to provide an acoustic treatment along the northern boundary of the site (Dingley Freeway Reservation – Dandenong By Pass), this being in accordance with Clause 2.0 of Schedule 5 to Clause 43.04 of the Development Plan Overlay for the Keysborough South Development Plan.

With respect to the provision of an acoustic treatment, VicRoads acknowledges the earlier receipt of an acoustic report, referenced on page 15 of the KLM Spatial report that accompanied the referral material. As noted, VicRoads has approved the Arup prepared acoustic report, referenced as R001, Job number 822576 dated 25 July 2017.

VicRoads can further advise that structural drawings for the acoustic treatment (noise wall), prepared by Greg Schofield & Associates Pty Ltd, and referenced as Job number 18013 revision A and dated September 2017, have been received and approved by VicRoads.

A copy of the Acoustic Report and Structural Design for the noise wall are attached for your information.

In light of the above, if Council regards the proposed development favourably, VicRoads would require that the following conditions be included in any Notice of Decision to issue a Planning Permit or Planning Permit:

1. Unless otherwise agreed in writing by VicRoads, prior to the issue of Statement of Compliance of any Plan of Subdivision under the Subdivision Act 1988, for any lots that fall within 100 metres of the Dingley Arterial Reservation/Dandenong By Pass the following must be constructed to VicRoads satisfaction:

- (a) A noise barrier generally in accordance with the Greg Schofield & Associates Pty Ltd prepared design, Job number 18013, Revision A and dated September 2017.
2. Subsequent to the construction of the approved noise barrier, the developer must arrange for the following:
 - (a) An independent VicRoads pre-qualified proof engineering consultant to undertake an assessment of the works and forward a Certificate of Compliance to VicRoads confirming that works have been completed in accordance with the approved structural details.
 - (b) Noise measurements to be taken at the subject site by an independent VicRoads pre-qualified acoustic consultant. Where the measurements demonstrate that the approved noise levels are exceeded, the applicant must arrange for additional noise attenuation measures to be installed to the satisfaction of the Responsible Authority and VicRoads to ensure the noise level objectives are not exceeded.
3. The permit applicant is to provide VicRoads with a payment for 10 years maintenance costs of any noise attenuation measures required to be maintained by VicRoads to the satisfaction of Council and VicRoads.
4. Unless agreed otherwise in writing by VicRoads, prior to the commencement of the use of the development hereby approved, all requirements and works as specified in VicRoads conditions above must be carried out at no costs to and to the satisfaction of VicRoads.

Once Council makes its decision, please forward a copy of the decision to VicRoads as required under Section 66 of the Planning and Environment Act 1987.

Should you have any enquiries regarding this matter, please contact Jeremy Beaver on telephone number 9881 8084 or mseplanning@roads.vic.gov.au.

Yours sincerely

JEREMY BEAVER
SENIOR STATUTORY REFERRAL OFFICER