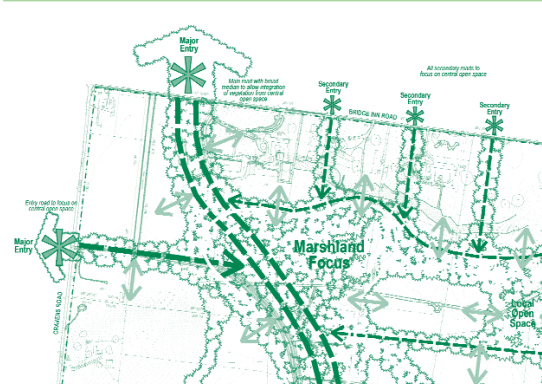
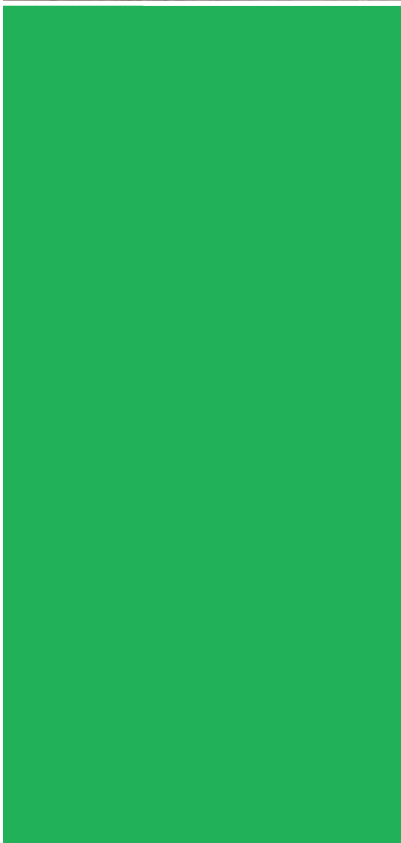




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plenty valley



revised development plan
august 2004



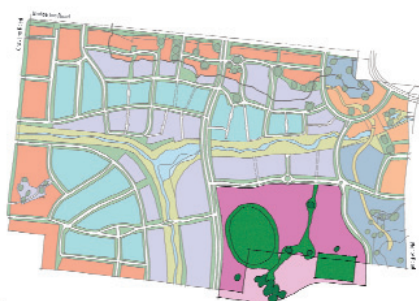
prepared for elderslie land trust

Preamble

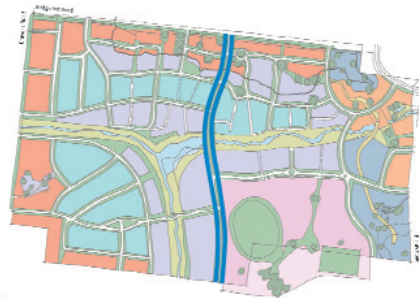
“Why a Revised Development Plan?”

As a result of the City of Whittlesea (internal Planning Approvals Team [PAT]) review of the Plenty Valley Development Plan of March 2004, and in consultation with the Department of Employment, Education and Training (DEET), Stockland, Metricon, Central Equity and Yarra Valley Water, Elderslie Land Trust has made urban design and landscape amendments and revisions to the initial plan.

The Revised Development Plan now incorporates the following features.



① The proposed P-12 school, on approximately 9.0 hectares of land



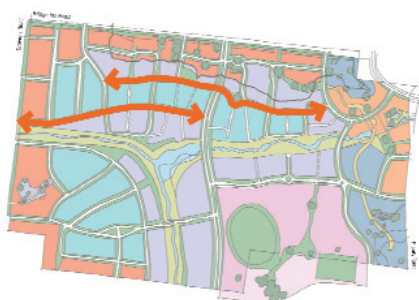
② An amended road network that realigns the north-south sub-arterial, to accord with the Morinda Strategy Plan, providing direct connections at Bridge Inn Road to 'Morinda Villages' at the north



③ An amended road network that introduces a 'more direct' north-south link parallel to Plenty Road, connecting to the 'town centre Main Road' and defining the CD7 precinct



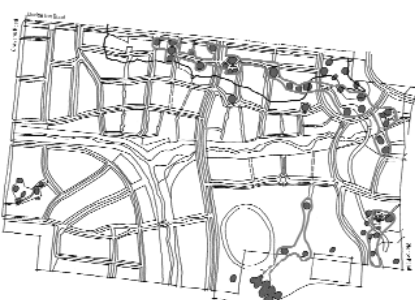
④ An amended road network that creates a southern perimeter road to the P-12 school, as part of the Koukouras development



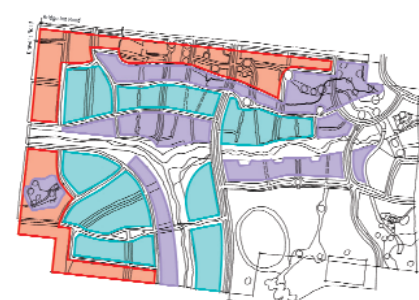
⑤ An amended road network that provides a clear east-west connection at the 'loc of existing bulbar'



⑥ Southern integration to Metricon, Central Equity and Koukouras properties.



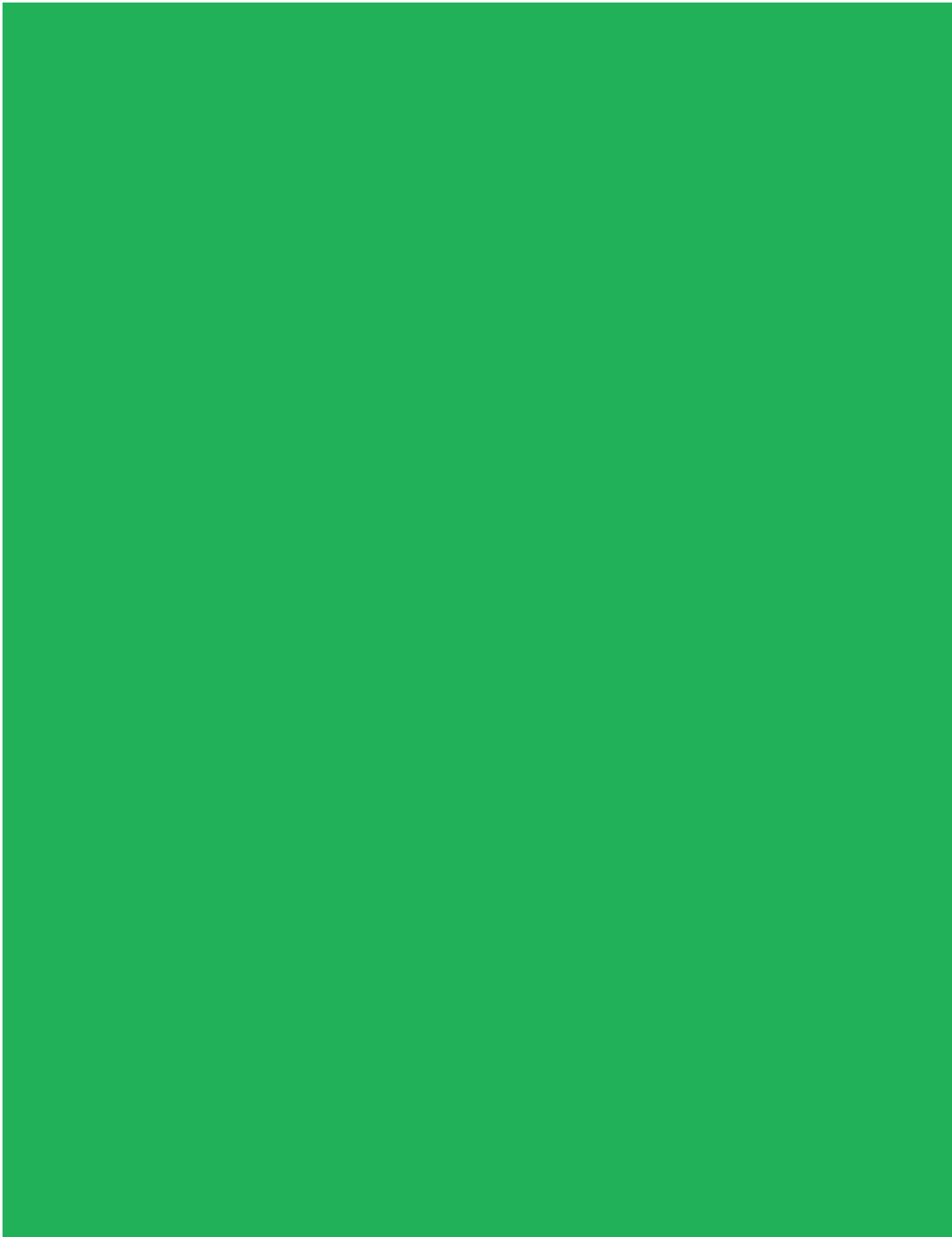
⑦ As a result of detail design in the Northern sectors (stage one), further clarity and greater physical definition of the remnant trees, using interconnected public reservations.



⑧ A clearer 'Residential Development Hierarchy' incorporating conventional/standard, village green and integrated housing within the broader urban landscape framework.



⑨ As in the initial development plan, the central major open space with connecting 'landscaped fingers'.



Contents

- 1) Introduction
- 2) The site
- 3) Development plan
- 4) Planning and policy considerations
- 5) Development plan assessment
- 6) Compliance with precinct plan 4
- 7) Assessment against the DPO
- 8) Development plan drawings

1) introduction

This Revised Development Plan has been prepared by UrbisJHD on behalf of Clough Limited and Elderslie Property Investments and/or their nominees (anticipated to be Elderslie Land Trust) in accordance with the requirements of Clause 43.04 of the Whittlesea Planning Scheme.

The Development Plan applies to land bounded by Plenty Road, Bridge Inn Road, Cravens Road and the Metricon landholding to the south. In the context of the Mernda Strategy Plan the land extends west from the Mernda Town Centre across the northern half of Precinct 4.

The Development Plan provides an urban framework for integrated residential development of the Elderslie Land Trust land. The Development Plan has evolved in response to the key planning principles of the Mernda Strategy Plan and seeks to facilitate the strategic intent of the Precinct 4 plan.

Following Council's comprehensive review of the Development Plan submitted in March 2004, by the Planning Approvals Team (PAT), together with discussions with the Department of Employment Education and Training (DEET) and adjoining land owners, the initial Development Plan has been revised.

Revised development plan

The major changes featured in this revised Development Plan can be summarised as follows :

- Identification and incorporation of the proposed P-12 School site
- Realignment of the major north-south arterial to link to the new configuration proposed on the Stockland land north of Bridge Inn Road
- Incorporation of a new north-south road link which now defines the interface between the CDZ and the residential precincts beyond
- Extension of the Development Plan to integrate land to the immediate south
- Greater definition and protection provided to remnant trees in the northern part of the subject site creating a clear heirachy of inter linked 'pocket parks' will provide residents with additional open space opportunities and the ability to traverse 'green' areas between their residences and the Mernda Town Centre.

1.1 Key Physical Elements

Within the context of the Plenty River Corridor and proposed Mernda Township, the key physical elements informing and influencing the site development are:-

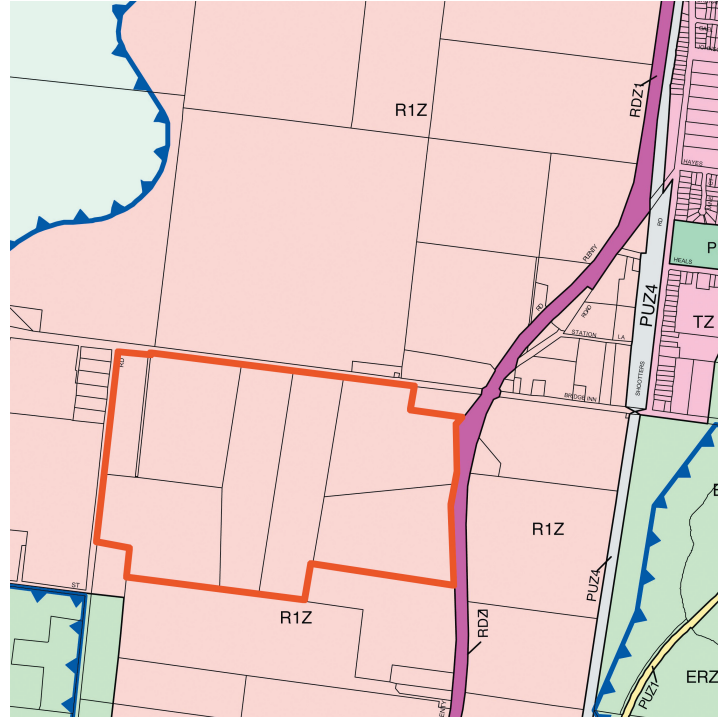
- The site area of 77 hectares (approximately 200 acres).
- The physical proximity of the site to the abutting new town centre, offering major opportunities for physical integration and functional diversity.
- A perimeter existing road network, including Plenty Road and Bridge Inn Road, which connect to the Hume Freeway and Ring Road to the west and south.
- An established watercourse and drainage line.
- A predominantly flat topography with some localised knolls and high points.
- A distinctive 'ruralesque' landscape quality containing distinctive remnant trees.

1.2 Design Philosophy

The design philosophy underpinning the Development Plan is premised upon:

- An expansive network of landscape/open space corridors which the form the 'backbone' of the neighbourhood layout.
- An urban form nestling into the existing landform and topography
- A residential layout capable of accommodating a range of residential typologies, bringing new innovations to the living experiences on offer in Mernda.
- A layered housing composition in which neighbourhood cells are both connected to the communal open space, and 'enveloped' by localised open space.
- A highly permeable and pedestrian oriented access system.
- A layout that is distinguished by its richness and diversity of landscape experiences.
- An adaptable neighbourhood structure which allows for innovation in design and density outcomes through the life of the project.
- A development that will create the idea of a neighbourhood unit that encourages a sense of community as against one of isolation.
- A community that embraces the pedestrian and includes planning strategies that allow for a sustainable environmental fabric to evolve so that living, working, schooling and leisure can all take place within walking or cycling distances.

This design philosophy will underscore all of the future detailed site design.



1) introduction

1.3 Plenty Valley Development Plan

The Plenty Valley Development Plan comprises:-

- Contextual Analysis.
- A Concept Plan, Landscape Masterplan and other supporting plans.
- Supporting Technical Analysis.
- Assessment of the Development Plan in terms of its compliance with the relevant strategic and statutory frameworks.

This revised Development Plan proposes a development yield in the order of 1,050 - 1,200 residential dwellings.

This can be contrasted to the Development Plan submitted to Council in March 2004 that allowed for a development yield in the order of 1,250 - 1,500 dwellings. The likely site yield has been varied as a result of the inclusion of the P-12 School site on the Elderslie land, together with changes in the road network and further refinement to the residential layout.

The Development Plan adopts a 'cell based' residential layout which can be adapted to achieve varied density outcomes in different parts of the site, in response to future changes in market demand and housing preferences. At this stage the final development yield for the project is expected to lie somewhere within the range of 1,050 - 1,200 dwellings, depending on market expectations and conditions.

1.4 Capability

1.4.1 Elderslie Land Trust

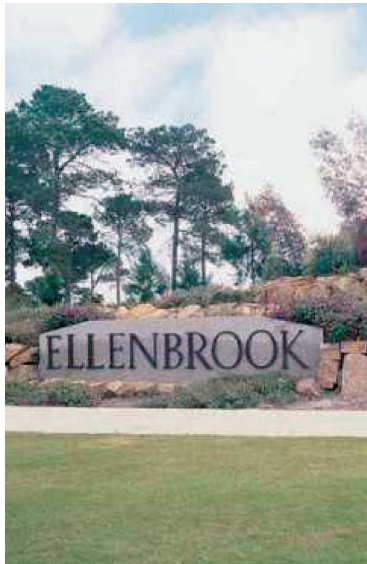
Elderslie Land Trust is a development entity that has been formed through a partnership of Elderslie Property Investments (a division of the Elderslie Finance Group), and Clough Property Investments (a division of Clough Limited).

Elderslie Finance Corporation Limited is an Australian owned, diversified finance and investment group. Adopting an innovative and flexible approach to customer needs, Elderslie is among Australia's leading financial services groups. Elderslie Finance is headquartered in Sydney with State offices in Melbourne and Perth.

Clough Limited is one of Australia's leading engineering and construction contractors. Since 1919, the company has evolved from a small, privately owned Western Australian building business, to a diversified public company with an international reputation. Clough Limited is listed on the Australian Stock Exchange and is headquartered in Perth, WA.

Independently, Elderslie Property Investments and Clough have been involved in the delivery of a number of major residential development projects around Australia, currently including:-

- **Wyndham Waters Estate** in the City of Wyndham, a 450 lot subdivision bounded by Greens road and the Lollypop Creek, estimated value \$45million.
- **Point Cook Village** Point Cook Rd, in the city of Wyndham, a 100 unit integrated housing village. Estimated value \$28 million
- **Dolphin Point** In the Shoalhaven Shire of NSW, a 350 lot coastal/tourist related subdivision, with estimated gross value of \$50 million.
- **Springfield Meadows** Pacific Highway Milton on the NSW South Coast, yielding a total of 100 prime building lots with estimated value \$25million.
- **Mandalay Peninsula Private Estate** in Airlie Beach, Queensland, which involved the application of an environmental covenant to the land to protect its environmental integrity.
- **Ellenbrook Estate** in Ellenbrook, Western Australia, which is an ongoing project with development value in the order of \$1 billion. Upon completion, the Ellenbrook will comprise some 10,500 residential lots within a traditional village environment, offering a full complement of retail, social and commercial infrastructure. The project has attained significant industry recognition and is the recipient of the UDIA National Award for Excellence in Best Residential Subdivision and the Western Australian UDIA Award for Excellence in Residential Subdivisions.
- **Mindarie Keys Harbour Estate** in Western Australia, which involves the development of a new residential community around a magnificent inland marina and beach environment. The development comprises a diversity of living options including detached houses, apartments and townhouses and retirement village.



1) introduction

1.4.2 Commitment to Design Excellence

Elderslie Land Trust has the experience and capability to deliver an outcome of the highest standard of neighbourhood design. The project developer understands the objectives of the Mernda Strategy Plan and has sought to embed sustainability principles in all aspects of the site design and neighbourhood layout.

Elderslie Land Trust is equally committed to the achievement of Design Excellence in the future built form of the site. Elderslie Land Trust understands that this level of design quality can only be assured if an appropriate level of control is maintained over the siting and design of built product on the site. To this end, Elderslie Land Trust intend to publish a package of Design Guidelines which will form part of the contractual sale documentation for each allotment within the estate.

In addition, Elderslie Land Trust intend to establish a Design Review Panel for the estate (comprising Architectural and Town Planning expertise). The principal role of the Design Review Panel will be to evaluate proposed dwelling designs against the requirements of the design guidelines, and more broadly against the objectives of ResCode and the Whittlesea Planning Scheme. As far as possible, this process of independent design scrutiny will ensure that Council's resources are not unnecessarily tied up in the review and approval of individual house designs in the estate.

1.4.3 Project Delivery

Elderslie Land Trust intends to develop the land over an 8-10 year horizon, commencing construction in 2005. Future staging of the project is expected to evolve in line with the Staging Plan shown in Plan 7.

urbis_{JHD}

marchese⁺popov



BIOSIS RESEARCH



PEYTON WAITE
CONSULTING LAND SURVEYORS & TOWN PLANNERS



tree^{••}logic

UrbisJHD

UrbisJHD is a multi-disciplinary property advisory firm focusing on the built, economic and social environments. UrbisJHD is the lead planning and urban design consultant for Elderslie Land Trust and has provided high level strategic and design input to the project since its inception. UrbisJHD will continue to perform a central leadership role in guiding the project through all stages of its implementation.

Marchese Popov

Marchese Popov are a dynamic firm of architects involved in diverse and varied projects ranging from luxury residential apartment buildings through to masterplanned estates.

Marchese Popov will play a major role in the design and delivery of key elements of the built form product, and will also oversee the design and theming of the residential estate.

LandDesign Partnership

LandDesign Partnership has been involved in developing the design approach to the public realm areas of the development, including the open spaces and road reserves. The office has worked closely with the Urban Design unit of Urbis-JHD to ensure that an integrated approach was taken to defining the development form. LandDesign Partnership will continue to be involved in detailed design of the public realm through to implementation plans, to ensure that the development concepts are fully realised "on the ground".

Peyton Waite

Peyton Waite has been responsible for providing topographic modelling of the site and for title boundary definition for the Plenty Valley Development. Peyton Waite's key role has been to provide detailed examination and testing of concept designs to ensure sustainable, socially responsive and environmental sound design solutions are achieved.

Peyton Waite will be closely involved in the implementation of the Development Plan, preparing detailed subdivision designs for permit applications and preparing of plans of subdivision.

Bonacci

Bonacci has been responsible for providing civil engineering advice to Elderslie Land Trust since the inception of the project. Bonacci have sought preliminary servicing information and undertaken consultation with the servicing authorities including Melbourne Water, Yarra Valley Water, Origin Energy, TXU and Telstra. Their advice has been particularly important in developing the staging program for the development.

Bonacci will continue to provide professional advice in relation to the more detailed subdivision design.

Biosis Research

Biosis Research was engaged by Elderslie Land Trust to undertake a flora and fauna assessment and archaeological/cultural heritage assessment of the Plenty Valley landholding. The findings of their investigations have strongly guided the Development Plan response. Biosis Research will continue to be involved in providing specialist advice to Elderslie Land Trust through the project regarding the conservation of key cultural/heritage places and vegetation of significance on the land.

Tree Logic

Retention of remnant trees on the site is an integral part of the design philosophy for the Plenty Valley site. Tree Logic was engaged to provide a specialist arboricultural assessment of the significant trees. Tree Logic's recommendations regarding appropriate tree protection zones will form part of subsequent subdivision applications.

Parson's Brinckerhoff

Parson's Brinckerhoff has been engaged by Elderslie Land Trust to provide specialist advice on the application of Water Sensitive urban Design principles to the Plenty Valley estate. Parson's Brinckerhoff provided preliminary input to the design concept.

Dr Peter Coombes

Dr. Peter Coombes is currently a Senior Fellow in Integrated Water Cycle Management in the School of Environmental and Life Sciences at the University of Newcastle. He is also a chief investigator on wastewater, source control in urban water cycle management and health implications of rainwater and wastewater reuse research projects. He is also a Director of the consulting company Urban Water Cycle Solutions. In addition to his inputs regarding development of a water philosophy for the entire site, Dr Coombes will be intensively involved in the detailed design of each subdivisional stage to ensure that opportunities for the application of Water Sensitive Urban Design principles are advanced wherever possible.

Golder Associates

Golder Associates have provided geotechnical investigations of the Plenty Valley landholdings. Their investigations have included geological testing including for the presence of groundwater on site. Golder's investigations and recommendations will form an important input into the subdivision stages.

1) introduction

1.6 Consultation

In consultation with the City of Whittlesea the project team has undertaken a major phase of site investigation and analysis over the past 11 months, including:-

- Detailed physical analysis of the topographical, visual, landscape and vegetation features of the site;
- Opportunities and Constraints analysis to confirm the design possibilities for the site;
- Servicing investigations involving liaison with Yarra Valley Water and Melbourne Water.
- Strategic planning workshop with key Council stakeholders to establish the fundamental design parameters for the site
- Continued dialogue with Council officers to refine issues of detailed design
- Submission of Development Plan in March 2004
- Subsequent refinement based on discussions with Council's Planning Approvals Team (PAT), Department of Employment, Education and Training and adjoining major land owners abutting the site including Stockland to the north and Metricon/Central Equity to the south.

The Plenty Valley Development Plan is responsive to the layout of proposed residential neighbourhoods on these adjoining lands, and will facilitate a seamless integration with all adjacent communities at each of the key site boundaries.

1.7 Project Vision

The Elderslie Land Trust property has inherent potential to deliver a neighbourhood planning outcome of the highest quality. The proximity of the land to the historic Bridge Inn Hotel and its relationship to the Mernda Town Centre serve to reinforce this strategic potential.

The project vision adopted by Elderslie Land Trust seeks to fulfil this potential through all aspects of the site design, and in doing so, satisfy the aspirations of both the Mernda Strategy Plan and Melbourne 2030 for better neighbourhood outcomes.

Elderslie Land Trust's adopted project vision is encapsulated in the following key objectives:-

- to create an environment of landscape distinction
- to embrace sustainability principles as a hallmark of the design
- to achieve a high quality public realm that promotes social interaction and community safety.
- to achieve a neighbourhood design which is functional, vibrant and integrated
- to achieve a layout which works in harmony with the natural site environment.

Flexibility

Flexibility in the Design Framework

The Plenty Valley Development Plan adopts an **inherently flexible neighbourhood layout**.

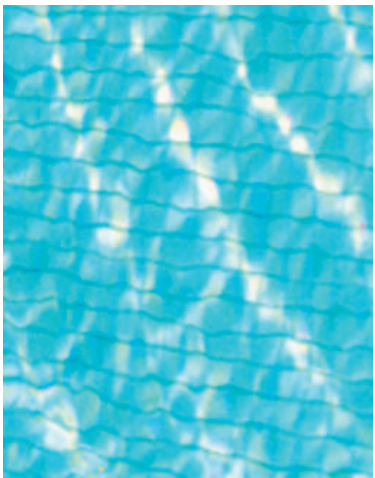
Flexibility has been a fundamental requirement of the design brief from the outset, to ensure that the Development Plan can respond to changing market imperatives over the life of the project. Flexibility is also desired to modify the types of living opportunities offered within the site (perhaps in response to changing demographic trends), and where appropriate, to enable new design innovations to be applied to the built form and landscape design.

By retaining flexibility over the life of the project, the housing options offered within the site can continue to adapt to new ideas in the market place and adopt the latest environmental design and construction technologies. Importantly, this kind of flexibility has been built in to the design scheme submitted by Elderslie Land Trust, such that future design iterations can be accommodated without substantially altering the design integrity of the neighbourhood layout.

The Plenty Valley project is expected to be staged over the next 8-10 years. Given that the implementation of the Development Plan may span over a decade, it is imperative that there is flexibility to improve and refine the plan over the life of the project in response to changes in market circumstances, government policy or buyer expectations. **To this end, Elderslie Land Trust reserves the right to seek Council approval for future modifications to the Development Plan as required over the life of the project.**

Flexibility in Yield

The development is expected to yield up to 1,200 dwellings, with around 47% proposed to be developed for integrated housing (medium density). This yield estimate is based on the current development scenario and may vary subject to future market conditions. It is important that there is sufficient flexibility in the approved planning framework for the site to alter the development mix and yield in future, such that the end product is responsive to local conditions.





2) the site

The Plenty Valley site occupies much of the northern portion of Precinct 4 of the Mernda Strategy Plan. The land is bounded by Plenty Road in the west, Bridge Inn Road to the north, Cravens Road to the east and various property boundaries to the south.

2.1 Context Analysis

2.1.1 Regional Context

The Mernda growth corridor marks a key frontier between urban and rural Victoria. The significance of this urban-rural interface has been paramount in the design process for the site, challenging the project team to conceive a design scheme which embraces the best of both of these realms.

In a strategic sense the land enjoys a reasonably central location within the Plenty Valley growth corridor, immediately adjacent to the planned Mernda Town Centre. The land affords excellent strategic links to the proposed town centre and is ideally positioned to fulfil a range of commercial and medium density housing opportunities which maximise the potential for synergy between these precincts.

Whilst the Plenty Valley Strategic Plan (1991) was prepared over a decade ago, it nevertheless remains an important strategic reference for this analysis as it puts the Mernda Strategy Plan within a clear regional growth framework. Implementation of the Plenty Valley Strategic Plan has not necessarily occurred in the manner first envisaged, however its core principles of creating livable neighbourhoods, facilitating employment growth opportunities, and preserving the intrinsic natural and open space assets of the Plenty Valley corridor remain highly legitimate and valid today.

More recently, Melbourne 2030 has established a new metropolitan framework for urban growth, which supercedes previous planning strategies for the corridor. The major policy thrust of Melbourne 2030 is to realise a more efficient utilisation of land and infrastructure within what is now a defined urban growth boundary.

This policy directive applies particularly in greenfield areas and around activity centres, where there is significant potential to achieve more compact and sustainable urban development. To this end, the policy framework introduced by Melbourne 2030 places a heightened focus on the way in which urban land and supporting infrastructure is utilised, and more particularly on the efficiency and sustainability of its built form.

The location of the subject land immediately adjacent to the Mernda Town Centre affords key opportunities to realise a more efficient, higher density utilisation of land than might be appropriate elsewhere in the corridor. This potential is recognised in the Mernda Strategy Plan and has been reinforced by Council officers.

Opportunities also exist to integrate more intensive residential/commercial use and development particularly around the Bridge Inn Hotel and proposed Town Centre node on the south-west corner of Plenty Road and Bridge Inn Road, given the strategic potential of these areas to add vitality to the activities available within the Town Centre.

2.1.2 Local Context

The Plenty River and its associated floodplain form the dominant topographical feature within the local context of the site. The subject site in fact lies within the floodplain of the river corridor, sitting at the northern end of the broad north-south ridge which divides the Darebin Creek catchment and the Plenty River catchment. This ridge extends beyond the subject site to the northwest. The landform of this ridge creates an important backdrop to the subject site, dominating views to the south and southwest and providing a general sense of containment to the site.

Land to the east (on the eastern side of Plenty Road) continues the generally flat landform of the site, so that views from the site are generally longer to the east, than to the south and west. The Plenty River valley itself is the defining feature of this landscape, with the Plenty Gorge Parklands forming a significant open space and conservation resource for the northeast region of Melbourne. The river and its associated parklands are located less than 1km from the subject site, and so will form an important component of the recreational experience for future residents of the site. Despite this proximity, the incised nature of the Plenty River means that, visually, it is virtually anonymous from the site. The opportunity to provide an open space connection between the subject site and the Plenty Gorge Parklands remains, however, an important consideration in the preparation of an appropriate development plan.

The specific landscape character, both on the site and adjoining it, is of generally open pasture land, with a scattering of individual trees, or groups of trees. While the subject site itself is largely devoid of trees, where these do occur, they are often of significant age and size, and so make a significant and valuable contribution to the character of the area.

The built form character of the site and immediate surrounds could be described as 'ruralesque' in nature. The historic Bridge Inn Hotel contributes strongly to this character experience, along with other local buildings (e.g. the Mechanics Institute Hall and the Mayfield Presbyterian Church) and rural infrastructure (e.g. water tanks and sale yards), which are a further reference of the area's rural history.

2) the site

2.2 Precinct Analysis

The subject property extends across the northern section of Precinct 4 in the Mernda Strategy Plan. The key elements of the Precinct 4 Plan which are directly relevant to the Elderslie Land Trust landholding are as follows:-

- a town centre/commercial precinct which wraps around the Bridge Inn Hotel and extends southward along Plenty Road;
- medium density residential precincts which flank the town centre precinct and extend inwards into the site;
- a central open space corridor which bisects the site along the main drainage line;
- a sub-arterial link road which forms part of a broader ring road network encircling the town centre and connecting each of the major residential precincts.
- significant River Redgums in the north-east of the precinct in particular, which are encouraged to be protected within the subdivision design.
- a limited area in the eastern section of the site which is designated as an 'Environmentally Sensitive Design Area' due to the existence of River Redgums.
- a proposed P-12 school facility in the central part of Precinct 4.

The site does not contain any key conservation areas, hilltop protection areas or visually sensitive areas as identified in the Mernda Strategy Plan.

MERENDA STRATEGY PLAN
City Of Whittlesea
Plan 3.6
Precinct 4 Plan

ADOPTED
VERSION

*Fashoda' homestead to be protected in future subdivision.

Visually sensitive areas to be protected by limiting building height and mass. Building materials and colours should reflect local landscape and environmental character.

Low density residential buffer to protect rural landscape and provide buffer to Quarry Hills and surrounding rural land uses.

Linear link along drainage reserve. May need to be supplemented with open space if drainage reserve is not sufficiently wide to allow pedestrian and cyclist movement.

Low density residential lots create open character near the edge of the plan area. Mirrored by corresponding development on northside of Bridge Inn Road.

Precinct centre comprising retail, commercial and community land uses integrated with school sites and open space. Supported by medium density lots.

Linear open space connection to Mernda town centre

Note:
The land-use and design concepts provided on this plan should be read in conjunction with the key objectives and strategic responses detailed in the Mernda Strategy Plan document. Refinement of Precinct Plans may occur in the preparation of detailed development plans.

Development around the Mernda town centre should incorporate key heritage places such as the Bridge Inn Hotel and Saleyards. Designs should maintain connections with the Mernda's rural history.

River Red Gums should be protected through appropriate subdivision design. Trees may be incorporated into large lots, road reservations or pocket parks. These trees form part of a canopy habitat corridor. Refer to Figure 3.15 for design requirements.

Active open space to contain two football/cricket ovals and associated facilities.

Truncate existing road and enhance tree-lined avenue.

High amenity gateway treatment to be provided at the southern entrance to the Mernda growth area. Design to be representative of local environmental and rural character.

New subdivision should capture elements of the historical layout of 'Separation Township'. Heritage items should feature in designs. Local road network should be based on original subdivision plan.

Key conservation area and hilltop protected in open space.

Potential rezoning to extend Residential 1 boundary to align with Cravens Road

Foreground views from Hunters Lane to be partially protected with low density development and active open space.

Key conservation area. Red Gums included in open space with links to Quarry Hills.

- PRECINCT BOUNDARY
- MERENDA TOWN CENTRE COMPREHENSIVE DEVELOPMENT ZONE
- RETAIL/MIXED USE
- PRECINCT ACTIVITY CENTRE
- LOCAL CONVENIENCE CENTRE
- SCHOOL: GOVERNMENT P-12
- RESIDENTIAL:**
 - LOW DENSITY (LOT SIZE: >700 SQ.M.)
 - STANDARD DENSITY (LOT SIZE: 450-700 SQ.M.)
 - MEDIUM DENSITY (LOT SIZE: 200-450 SQ.M.)
- ROADS:**
 - PRIMARY BUS ROUTE
 - PRIMARY ARTERIAL
 - SUB-ARTERIAL
 - COLLECTOR
- BICYCLE / PEDESTRIAN TRAILS:**
 - OFF-ROAD
 - WITHIN ROAD RESERVATION (FOOTPATH WIDENED TO 2.0M MINIMUM)
- VISUALLY SENSITIVE DESIGN AREA**
- ENVIRONMENTALLY SENSITIVE DESIGN AREA**
- OPEN SPACE:**
 - PASSIVE / CONSERVATION BUSHLAND
 - ACTIVE RECREATION
 - DRAINAGE RESERVE
 - RETARDING BASIN / WETLAND (APPROXIMATE AREAS ONLY - DETAILS TO BE CONFIRMED WITH MELBOURNE WATER)



Pelham Design Studio 3/2/04

2) the site

2.3 Site Analysis

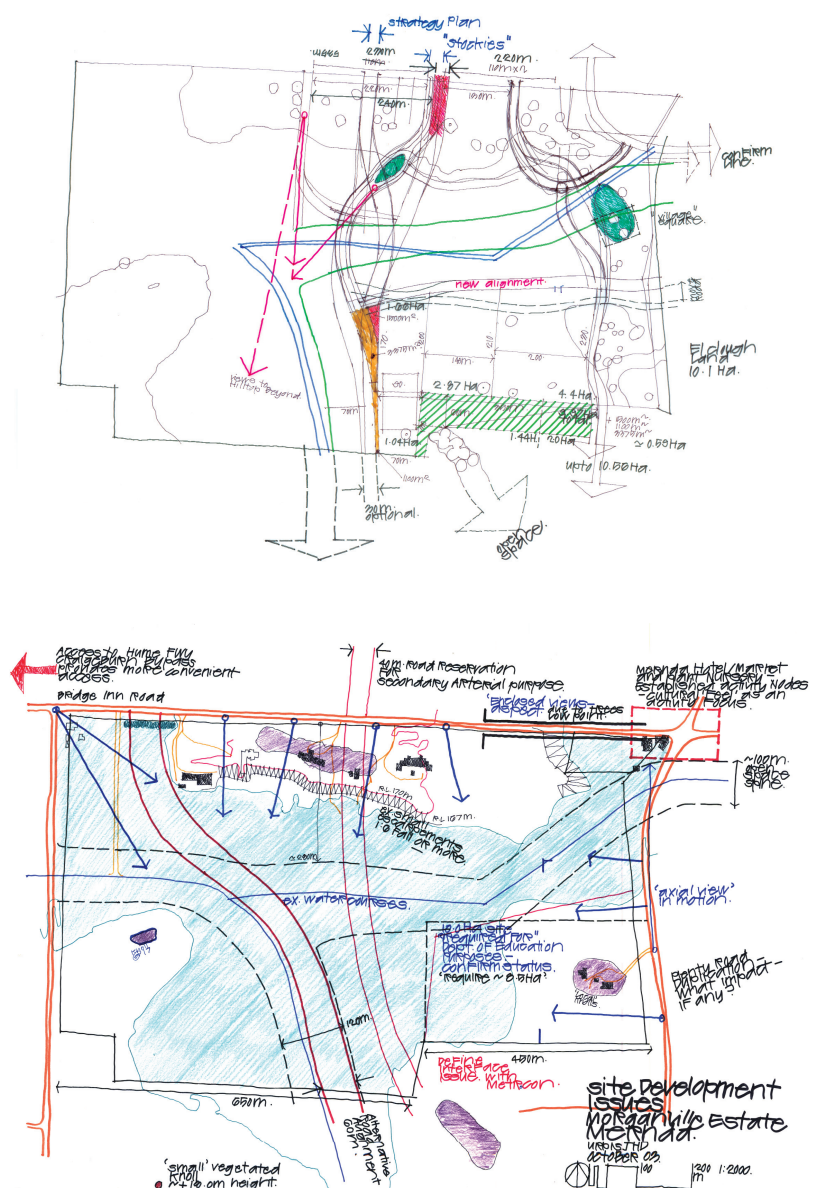
2.3.1 Topography

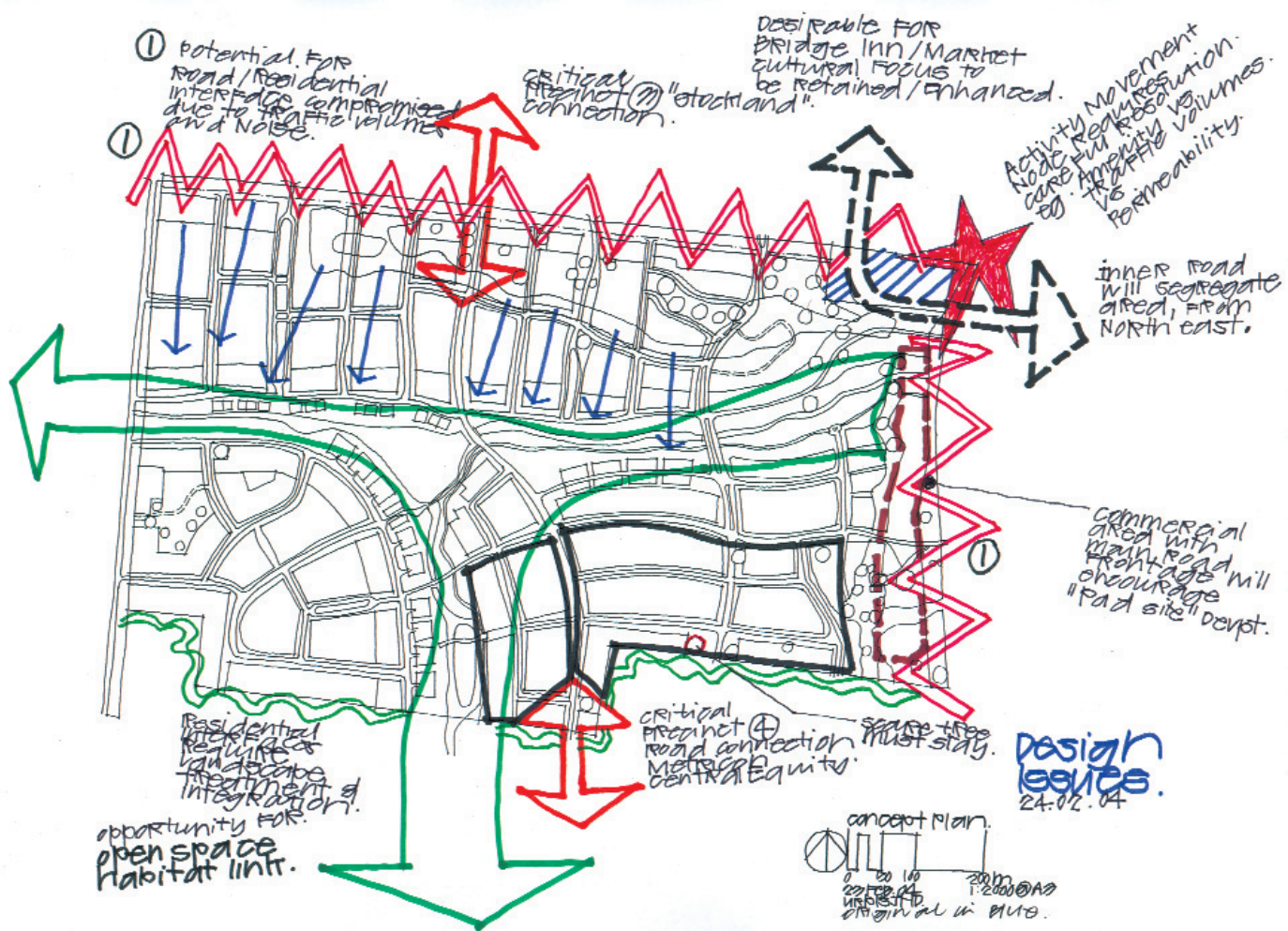
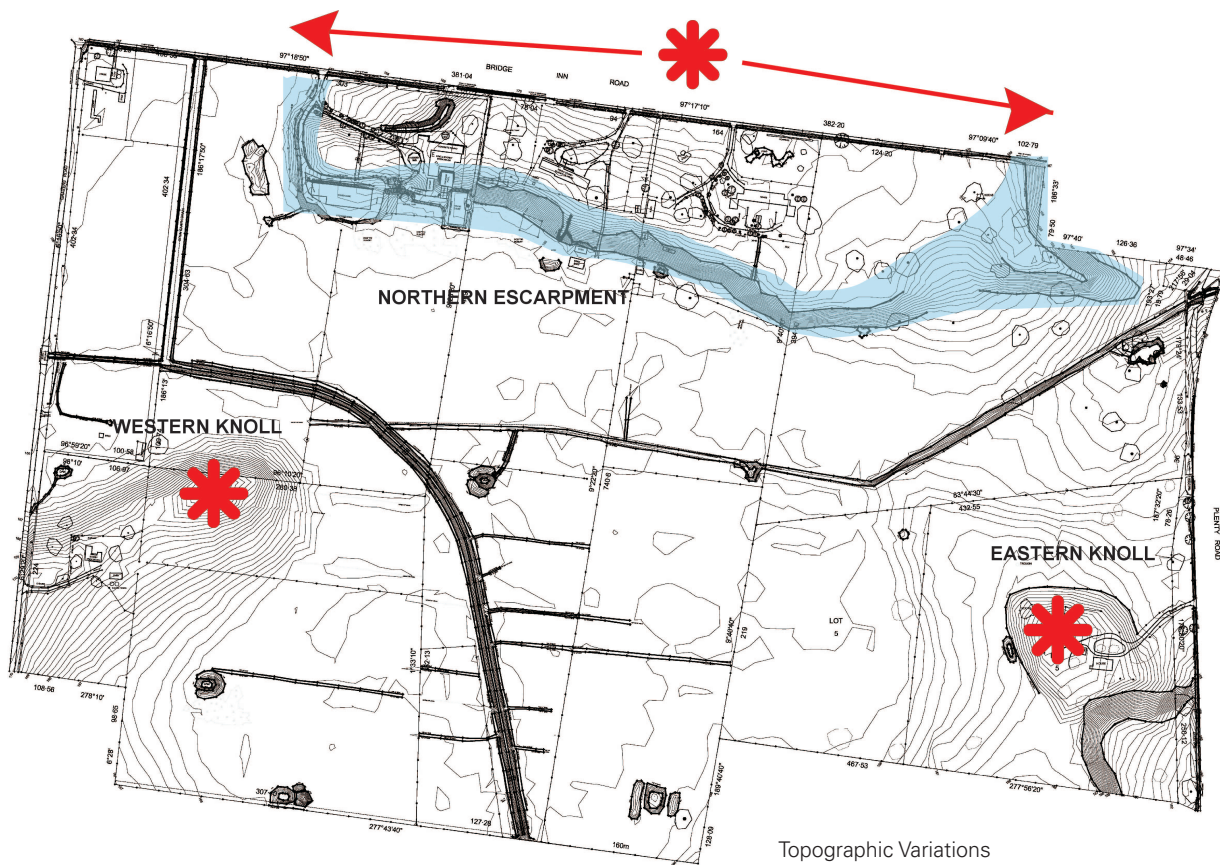
As noted above, the majority of the subject site is flat and low-lying, consisting of alluvial soil deposits. These characteristics indicate that the original landscape of the site would have seen periodic inundation, with vegetation suited to a high water table and, generally, high soil moisture. This original drainage regime of the site has been modified significantly through the construction of drainage channels. Nevertheless the original “marshland” character of the site is an important reference of the site’s true natural land form.

Within this generally flat nature of the site landscape, there are three notable topographic variations, as described below:

- a **ridgeline** of between 3 and 4 m elevation runs approximately parallel to the Bridge Inn Road boundary and defines a platform of higher land which currently houses a number of residential and agricultural buildings. This escarpment represents the edge of the basalt plains extending to the north and west of the site. It is an important topographic feature of the site, providing a vantage point for views to the south, separating the higher areas from the “wetter” lower levels of the site, and providing a element which can be incorporated in to the development in a positive sense.
- a **knoll** near the south-western corner of the site, rising almost 5m above the general lower level of the land. This knoll represents part of the north-eastern edge of the Silurian hills extending north from Mill Park, and provides a vantage for views over the site to the north and east. The hills beyond this knoll to the south are also an important visual backdrop to the site, when viewed from the north.
- a **local knoll** near the eastern (Plenty Road) boundary of the site. Similar to the northern escarpment, this knoll is a local highpoint formed on the underlying basalt located at the edge of the low lying alluvial soils which make up the majority of the site. As with the south western knoll, this highpoint is an important visual feature, providing a sense of visual containment along the eastern edge of the site.

The topographic pattern of flat, generally low lying land with local intrusions of higher land creates a recognisable form across the site. Importantly, the topographic high points create a sense of visual containment for the site, providing it with a definable spatial character and form. Recognising and responding to this form is important in determining an appropriate and site-responsive development plan for the site.





2) the site

2.3.2 Drainage Characteristics

As noted above, the combination of a generally flat landform and alluvial soils means that the site in its original form would have been poorly drained, and characterised by boggy or moist areas. Anecdotally, this is reflected in local references to the site as “the marsh.”

This characteristic of the site has, however, been modified by the creation of two main drainage channels, as described below:

- the first, and largest of the two channels runs into the site from half way along the Cravens Road, before turning south to leave the site along its southern boundary. This channel is fed by a number of smaller channels which drain adjacent paddocks. The main channel is located within a current drainage easement which will play a key role in influencing the form of the open space to run through the proposed development.
- the second channel runs from the north-eastern corner of the site, between the basalt escarpment along the northern edge of the site and the basalt knoll on the eastern edge of the site, before entering the main channel described above.

These channels are now a prominent part of the landscape character of the site.

2.3.3 Visual Characteristics

As indicated above, the topographic characteristics of the site are important in defining the visual and spatial characteristics. These are summarised as follows:

- views from the internal, lower lying areas of the site are generally contained due to the higher land which is located around the edges of the site.
- views overlooking the site can be obtained from each of the high points discussed above, although these are generally constrained by the topographic variation already discussed
- views off the site to south and west are generally focussed on the backdrop hills extending to Mill Park
- views off the site to east are generally shortened by the formation of Plenty Road as well as development on the eastern edge of Plenty Road. Some distant longer views are available to the hills beyond the Plenty Valley
- long views to the north and north-east are focussed on the hills associated with the Kinglake National Park.

2.3.4 Vegetation

Vegetation across the subject site primarily consists of introduced pasture species.

Remnant indigenous trees (all Eucalyptus spp.) are scattered across the northern, eastern and western boundaries of the site, generally confined to the higher elevations in these areas. While broadly spaced, rather than massed, these mature trees are of significant size (generally between 15 and 20m canopy diameter) and make a substantial visual impact upon the site.

Importantly, they also represent an important (and defining) element of the regional landscape character. Incorporation of these trees into the character of the proposed development (and particularly into the public realm) will be important in creating a site responsive development.

Despite the desire to retain all remnant trees, the results of the investigations undertaken by Tree Logic suggest that there are a number of trees that should be considered for removal as they are displaying characteristics that cannot be arboriculturally retained.

The condition of individual trees varies throughout the site from poor to good, in terms of tree health, and it is recognised that as River Red Gums are well known for shedding large limbs, tree protection zones will be necessary to protect people and property.

The Tree Logic report makes the following recommendations of particular relevance to treatment of retained trees :

- *“Retained trees will require tree protection management to ensure their successful retention. The allocated tree protection zones for these trees is to be developed utilising the British Standard (5837 1991) Guide for Trees in relation to construction in conjunction with the Whittlesea Planning Scheme - River Red Gum Protection Policy (22.10). This approach will allocate appropriate space for the trees as well as cater for the asymmetric form often developed by maturing River Red Gums.”*
- Allocated tree protection zones for retained trees will be drawn onto a 'Tree Protection Plan' for each stage of the subdivision.
- Subdivision should also follow general tree protection requirements as detailed by Tree Logic.

Non-indigenous trees have been planted in association with residential properties on the northern, eastern and western edges of the site, however, these do not make a significant contribution to the overall character of the site.

In relation to the variation in vegetation quality across the site, the Biosis report indicated that the condition of native vegetation, including the remnant Plains Grassy Woodland, is considered to be poor. The majority of the site has been modified by a history of clearing, cultivation and grazing.

In relation to on site vegetation, the following should be considered :

- Several areas were mapped as Plains Grassy Woodland Ecological Vegetation Class (EVC). The largest area, in the north-west corner, contains a small number of native understorey species. The structure of this EVC is highly modified. There are no tree or shrub species present, there is a high cover of weed species and the vegetation is in poor condition.
- For remaining areas of Plains Grassy Woodland there was no intact native understorey present. These groups of trees should be retained as groups in open space wherever possible.
- The remainder of the site supports a scattered, sparse cover of a few native species, but contained predominantly introduced vegetation. It has negligible significance for conservation.



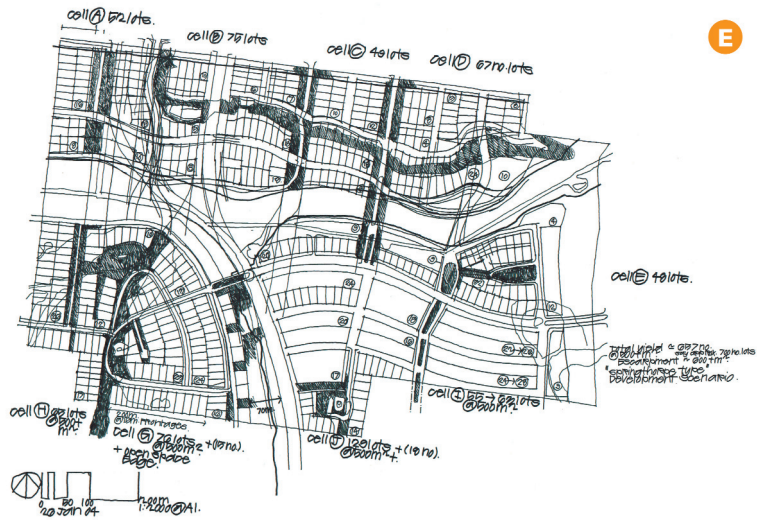
- A targeted search for Matted Flax-lily *Dianella amoena* has been conducted. No plants were located during the survey and the species is not expected to occur within the site.
- A further flora assessment is recommended for the north-western Plains Grassy Woodland area to clarify its ecological value and also the need for a habitat hectare assessment. Late spring would be the optimal time for flora survey.

It is the developer's intention that the further flora assessment as proposed by Biosis will be undertaken and that the recommendations regarding time of year will be followed. Clarification of the design intent for the north western corner of the subject site may be required following results of the additional investigations.

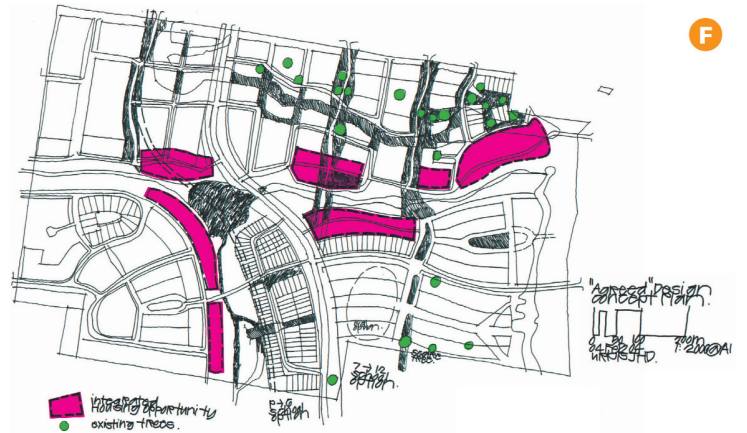
2.4 Development Principles

From the analysis above, the following Development Principles have emerged:-

- development should aim to capitalise on views available from the high points identified on the northern western and eastern boundaries of the site.
- development should take advantage of the beneficial building conditions provided on the high points located around the site
- development should respect the location of existing remnant trees, and allow for the further extension of the character of these trees where possible.
- development should recognise the original drainage regime of the site by directing stormwater to treatment areas (i.e. wetlands) located at the lowest points of the site. This will in turn allow for some return of the original landscape character of the site.
- open space areas should be integrated with drainage reserves, so that wetlands and marshes become the focus of the open space character of the site. In this way the original "marsh" character of the site will also become the future landscape character associated with the site.
- the design of proposed open space should be integrated with the design of the development areas, in order to:
 - create a visual focus for the entire area of the development
 - create a continuous parkland setting for the site
 - to contribute to a co-ordinated cycle and pedestrian network connecting with the Mernda Town Centre
 - provide for future links to the Plenty Gorge parklands.
- internal roads should be designed to:
 - direct views to the central open space focus of the development
 - incorporate "Water Sensitive Urban Design" initiatives
 - provide generous space for planting, allowing the character of the central open space to insinuate itself into the residential streets
 - maximise frontage of residential blocks onto the public realm, particularly the central open space (i.e. rear fences should be avoided)
 - provide for lot layouts which maximise solar access and respond to viewing opportunities.



E



F



G



H

3) development plan

3.1 The Elderslie Land Trust Land

The Plenty Valley Development Plan applies to land in the ownership of Elderslie Land Trust, comprising most of the northern section of Precinct 4 of the Mernda Strategy Plan.

Whilst primarily dealing with the Elderslie Land Trust landholding, the Development Plan appropriately shows the location of the school site on both the Elderslie Land Trust land and land to the immediate south. The Development Plan has been extended to include the land to the immediate south of the Elderslie Land Trust site, as directed by council. It must be noted that the extent of detail/investigation regarding this land has been limited to a desk-top design exercise.

As none of the consultant technical reports to this Development Plan address this separate landholding it will be necessary for the owner of this land to undertake all required technical assessments prior to the developing of this land.

The Plenty Valley land is comprised in seven (7) titles, the details of which are as follows:-

Title	Property Address	Title Particulars
1	1395 Plenty Road	Volume 10333 Folio 432
2	1405 Plenty Road	Volume 9655 Folio 966
3	490 Bridge Inn Road	Volume 9655 Folio 964
4	440 Bridge Inn Road	Volume 9449 Folio 556
5	460 Bridge Inn Road	Volume 9655 Folio 963
6	55 Cravens Road	Volume 9655 Folio 969
7	500 Bridge Inn Road	Volume 9655 Folio 965

The total area of the Elderslie Land Trust landholding is approximately 77ha, however this includes land along the Plenty Road frontage of the site which does not form part of this Development Plan.

This eastern most portion of the site is included within a Comprehensive Development Zone (CDZ) associated with the Mernda Town Centre, and is subject to the requirements of the “Mernda Town Centre Comprehensive Development Plan”. The layout of development within this part of the site is planned to be generally consistent with the access network shown on the approved Comprehensive Development Plan. It is understood that more detailed site planning for this part of the site will occur in conjunction with the preparation of a more resolved Town Centre plan.

The revised Development Plan foreshadows a future reconfiguration of the CDZ to align with the new north-south link through the Plenty Valley site. We believe there is significant potential to review the extent of commercial or mixed use development in the vicinity of the Hotel to achieve an improved configuration, but acknowledge this will ultimately be undertaken as part of the Development Plan for the Mernda Town Centre.

The new north-south road now provides the interface between the CDZ and other uses. We consider this to be a superior outcome as it minimises the potential for conflict between various land use types (i.e. commercial and residential).

Whilst design work will be required to address the interface treatment between the proposed commercial area, the school, adjacent open space and residential precincts, this will be undertaken as part of the preparation of a Development Plan for the CDZ area.

3.2 Development Plan Requirements

According to the Precinct 4 Plan, some 3.86ha of the Plenty Valley site is required to be set aside for public open space purposes and a further 3ha as a drainage encumbrance. Other key imperatives of the Precinct 4 Plan include:-

- medium density residential precincts, particularly adjacent to the mixed use areas
- central open space corridor
- a sub-arterial link road
- retention of significant River Redgums in the north-east of the site
- a proposed P-12 school facility.

3) development plan

3.3 Evolution of the Development Plan

The Development Plan has evolved following an intensive enquiry by design process, which commenced in June 2003. During this period the project team has completed a major phase of site investigations to test the physical opportunities and constraints of the site and to confirm its inherent environmental, archaeological and landscape values.

The key site values have been discussed and confirmed with Council officers at the strategic planning workshop held in November 2003.

The workshop confirmed the following:

- the new town centre will create a communal hub for Mernda, that should be enhanced by our development
- a clearly defined movement hierarchy exists, as part of the Strategic Plan
- opportunities exist to create a residential model with density diversity due to the above attributes
- the development model for the site should be based on a flexible framework and residential yield of up to 1500 dwellings.

The conclusions arising from this workshop have subsequently informed the more detailed site design process.

Assessment and commentary provided by Whittlesea Council officers following the submission of the Development Plan (March 2004), together with negotiations with the Department of Employment, Education and Training has resulted in a revised and considered response.

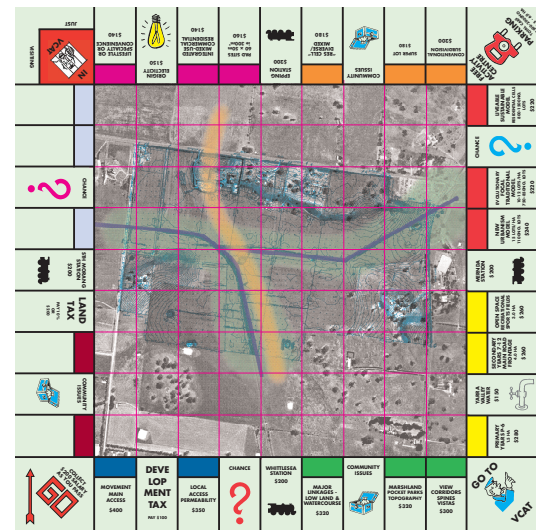
In a departure from a conventional site design approach, the project team has adopted a strong 'outward looking' focus from the very earliest stages of the site design process. Indeed, Elderslie Land Trust recognises that the quality of the site's external relationships is critical to the design integrity of the project and the social integration of the new community with surrounding urban precincts. To this end, the design team have spent considerable time exploring how the site can best fulfil its relationship with adjacent urban precincts, from a social, cultural and physical planning perspective.

The Mernda Strategy Plan in fact highlights the failure of past development in growth areas to adopt an 'outward' looking focus or to give sufficient consideration to issues which lie beyond the boundaries of each estate. The result of this approach is often a collection of disparate residential estates which lack basic cohesion and which are inevitably missing many of the ingredients that are essential to good neighbourhood planning. The outcome for the community is equally poor, with each estate comprising its own discrete character, identity, and localised open space, and offering little potential for social integration.

The project team is cognisant of such failures in growth area planning and has continually sought to challenge the design concept with respect to its ability to form meaningful connections to adjacent urban precincts. Elderslie Land Trust is confident that the Revised Development Plan now submitted is capable of fulfilling such connections in a positive and engaging manner.

3.4 Consultation

The project team has engaged with a wide range of stakeholders throughout the development planning process. A summary of the consultation undertaken by the team is provided opposite.



Design Issue	Consultation	Key issues identified through consultation	Development plan response
Neighbourhood Design	City of Whittlesea	Support for dwelling densities to be higher than the 8 lots per ha average for Mernda growth area	Achieved – dwelling densities are higher than proposed elsewhere.
		Requirement for lots to front all external roads.	Achieved
		Support for adaptable neighbourhood design	Achieved – innovative residential cell layout adopted
		Requirement for smooth integration with surrounding urban precincts	Strong integration with surrounding precincts achieved
		Active surveillance of central open space encouraged	Achieved – integrated housing will cleverly interface with all open space areas
Local Access Network	City of Whittlesea Vic Roads	Requirement for highly permeable, grid based layout	Achieved – grid layout adopted, except in south-west corner due to topographical constraints
		Sub arterial to provide between 5,000 and 10,000 vpd	Achieved – 30m road carriageway proposed.
Vegetation Protection	City of Whittlesea	Desire to retain all mature River Redgums	Achieved – existing River Redgums where they can be arboriculturally sustained are proposed to be retained in public open space, road reserves or lots as appropriate
Archaeological/ Cultural Heritage Issues	Aboriginal Affairs Victoria Heritage Victoria	Retention of Scar Tree and Quarry	Achieved - Scar Tree to be located on school site
Proposed Education Facility	Department of Education, Employment and Training	New P-12 School facility to be accommodated on the site	Achieved - new school site to be primarily located on Elderslie Land Trust landholding but also to extend onto land immediately south.
Servicing Issues	Yarra Valley Water Melbourne Water	substantial trunk infrastructure will be required to be extended to site boundaries	Agreement is in place to ensure this takes place
		WSUD opportunities may reduce the need for infrastructure identified in the Drainage Scheme	Development plan adopts WSUD opportunities

ADOPTED
VERSION

"Fashoda" homestead to be protected in future subdivision.

Visually sensitive areas to be protected by limiting building height and mass. Building materials and colours should reflect local landscape and environmental character.

Low density residential buffer to protect rural landscape and provide buffer to Quarry Hills and surrounding rural land uses.

Linear link along drainage reserve. May need to be supplemented with open space if drainage reserve is not sufficiently wide to allow pedestrian and cyclist movement.

Low density residential lots create open character near the edge of the plan area. Mirrored by corresponding development on northside of Bridge Inn Road.

Precinct centre comprising retail, commercial and community land uses integrated with school sites and open space. Supported by medium density lots.

Linear open space connection to Mernda town centre

Note:
The land-use and design concepts provided on this plan should be read in conjunction with the key objectives and strategic responses detailed in the Mernda Strategy Plan document. Refinement of Precinct Plans may occur in the preparation of detailed development plans.

- PRECINCT BOUNDARY
- MERENDA TOWN CENTRE COMPREHENSIVE DEVELOPMENT ZONE
- RETAIL/MIXED USE
- PRECINCT ACTIVITY CENTRE
- LOCAL CONVENIENCE CENTRE
- SCHOOL: GOVERNMENT P-12
- RESIDENTIAL:**
 - LOW DENSITY (LOT SIZE: >700 SQ.M.)
 - STANDARD DENSITY (LOT SIZE: 450-700 SQ.M.)
 - MEDIUM DENSITY (LOT SIZE: 200-450 SQ.M.)
- PRIMARY BUS ROUTE
- ROADS:**
 - PRIMARY ARTERIAL
 - SUB-ARTERIAL
 - COLLECTOR
- BICYCLE / PEDESTRIAN TRAILS:**
 - OFF-ROAD
 - WITHIN ROAD RESERVATION (FOOTPATH WIDENED TO 2.0M MINIMUM)
- VISUALLY SENSITIVE DESIGN AREA
- ENVIRONMENTALLY SENSITIVE DESIGN AREA
- OPEN SPACE:**
 - PASSIVE / CONSERVATION BUSHLAND
 - ACTIVE RECREATION
 - DRAINAGE RESERVE
 - RETARDING BASIN / WETLAND (APPROXIMATE AREAS ONLY - DETAILS TO BE CONFIRMED WITH MELBOURNE WATER)

New subdivision should capture elements of the historical layout of 'Separation Township'. Heritage items should feature in designs. Local road network should be based on original subdivision plan.

Key conservation area and hilltop protected in open space.

Potential rezoning to extend Residential 1 boundary to align with Cravens Road

Foreground views from Hunters Lane to be partially protected with low density development and active open space.

Key conservation area. Red Gums included in open space with links to Quarry Hills.

Active open space to contain two football/cricket ovals and associated facilities.

Truncate existing road and enhance tree-lined avenue.

High amenity gateway treatment to be provided at the southern entrance to the Mernda growth area. Design to be representative of local environmental and rural character.



- 1** The abutting town centre
- 2** A clearly defined movement system and hierarchy
- 3** Diversity of residential types
- 4** The comprehensive open space network and linkages
- 5** The "complementary" village node
- 6** P 12 school

3) development plan

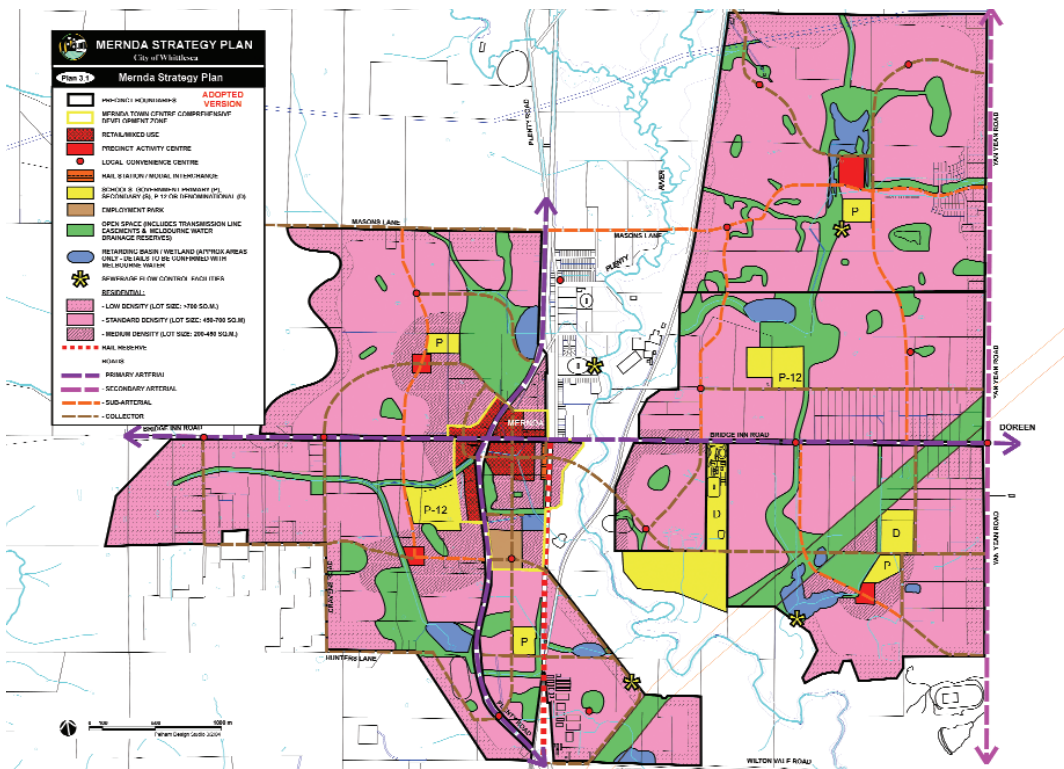
3.5 Integration

The Plenty Valley Development Plan has abutted to four (4) discrete Development Plans, being:-

- Stockland Development Plan for land north of Bridge Inn Road (Precinct 3)
- Development Plan for residential land west of Cravens Road (Precinct 4)
- Central Equity/Metricon Development Plan for land to the south (Precinct 4), known as Woodland Waters
- Mernda Town Centre Comprehensive Development Plan

The Plenty Valley Development Plan has been designed to achieve positive integration with the neighbourhood layout of the adjacent Development Plans. Specifically, the design concept provides for direct orientation of lots to Bridge Inn Road and Cravens Road to match our understanding of the urban design response proposed on the Stockland development to the north and the adjacent Development Plan to the west of the site.

The concept also incorporates several local access roads which connect directly into the Metricon/Central Equity landholdings to the south, to encourage good north-south permeability through the balance of Precinct 4.



3.6 Departures from Precinct 4 Plan

The City of Whittlesea recently provided Elderslie Land Trust with an amended access strategy for Precinct 4. This plan does not conform to the adopted Precinct 4 Plan and includes an additional north-south connection over the open space reserve between the north-south arterial and Craven's Road.

Such a link was not required in the original versions of the Mernda Strategy Plan. It is our understanding that during the discussions to resolve the location of the north/south sub arterial Council indicated that the additional north-south connection through the central open space (towards Cravens Road) is not required. Our revised Development Plan is based on this understanding.

The second additional north-south road is located to the west of Plenty Road. This road and its alignment has been adopted for this Development Plan.



3) development plan

3.7 Development Plan components

The Plenty Valley Development Plan comprises the following plans and information:-

1. The Development Plan
2. Urban Framework
3. Residential Hierarchy
4. Landscape Master Plan
5. Public Open Space Plan
6. Tree Retention Plan
7. Indicative Staging Plan
8. Typical Road Sections

Supporting technical reports prepared by the project team are included at Appendices 1-8. These reports are submitted to satisfy the requirements of schedule 5 to the Development Plan Overlay. Compliance with the DPO requirements is addressed in detail in Section 5 of this report.

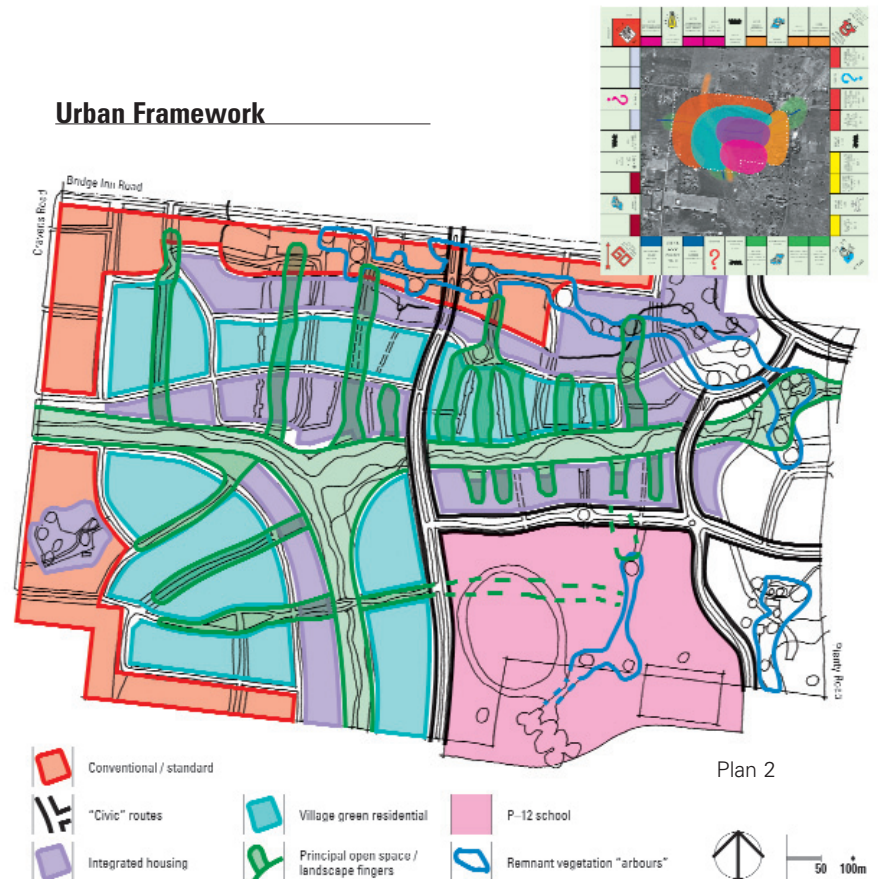
3.8 Development Plan Overview

The Development Plan is an exemplar of the site responsive design approach – an approach which begins with a robust examination of the site in all of its contexts, and then arrives at an appropriate design outcome, derived from first principles. In this case, the elements which have most strongly informed the design outcome are the topographical form of the site and its landscape expression. This is clearly evidenced in the Urban Structure Plan at Plan 3.

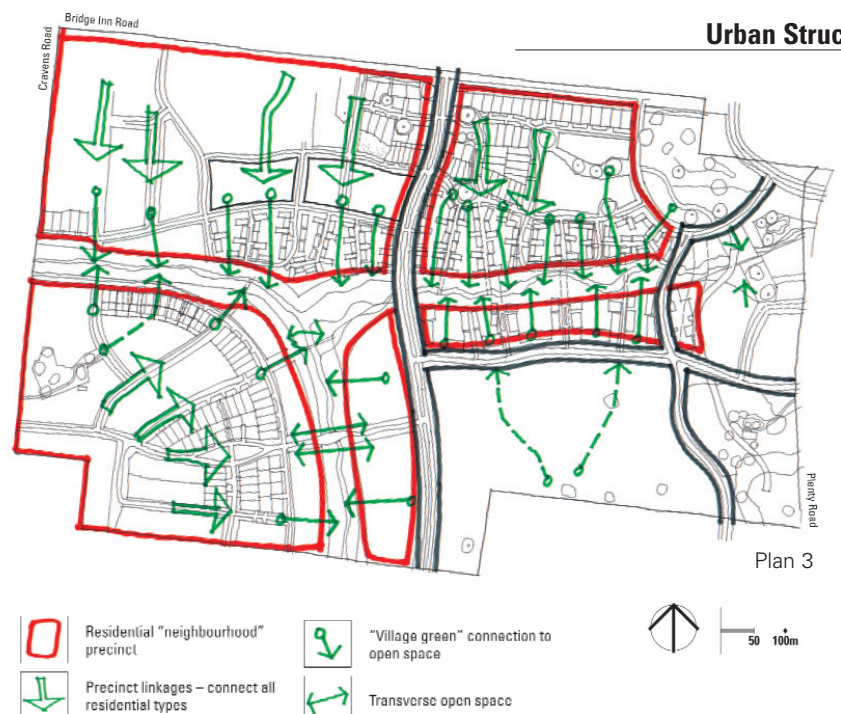
The Development Plan itself is shown in Plan 1.

In many respects the Development Plan creates a new residential paradigm, in which innovative housing forms are assembled within a predominantly 'ruralesque' setting, but at compact urban densities. Within this paradigm there are at least three residential typologies proposed, as illustrated on the Urban Framework Plan at Plan 2.

Urban Framework



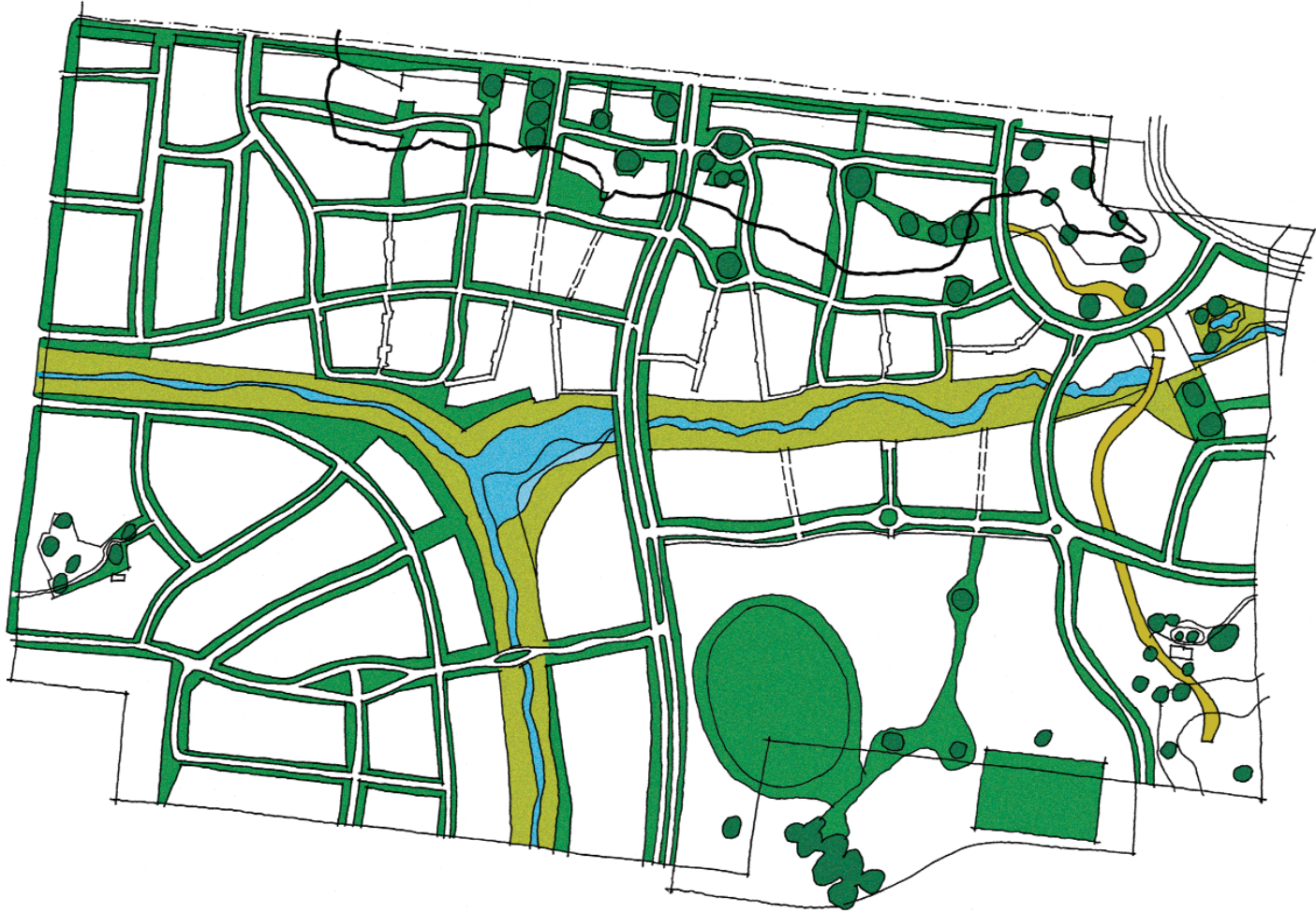
Urban Structure



Development Plan



Public Open Space



Plan 5

3) development plan

Other key elements of the Development Plan are as follows:-

3.8.1 Open space

- a layout which is distinguished by the strength and clarity of its open space network
- a central open space corridor extending across the site, designed to reflect the former 'marshland' character of the site
- a series of landscape 'fingers' forms the 'secondary open space' extending outward from the central marshland to continue to the open space experience within each of the residential neighbourhoods on the site.

In general, it is envisaged that this 'secondary open space' will be in common property and managed through a body corporate.

3.8.2 Environment

- retention of all existing mature River Redgums within publicly accessible and permeable open space 'arbours'
- retention of places of identified cultural significance
- integration of landscape and drainage swales for bio-retention in local streets.



Plan 6



Plan 4

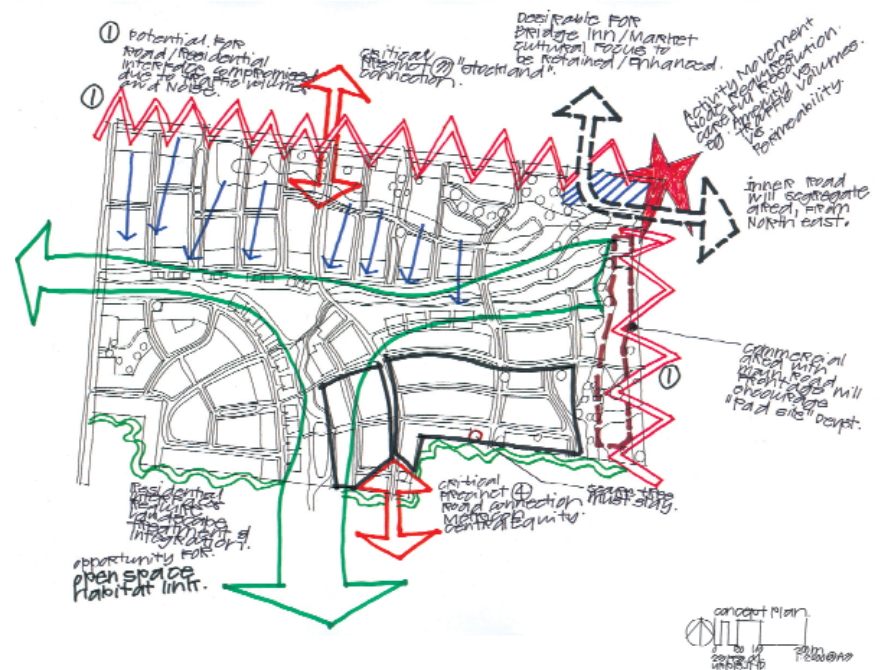
3) development plan

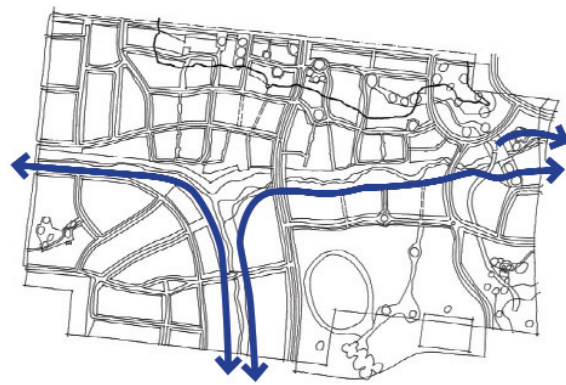
3.8.3 Access

- a road and street system which is subservient to the natural topography of the land and works in harmony with the natural landscape
- local access streets which are of such generous dimension to host a range of Water Sensitive Urban Design initiatives and which perform an extension of the open space character of the site
- an extensive and highly permeable pedestrian access network formed around the central open space, affording excellent internal and external pedestrian connections.

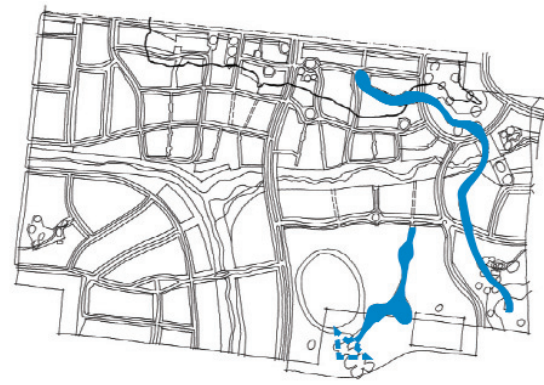
3.8.4 Neighbourhood Design

- a neighbourhood structure which connects and integrates to the new Town Centre in accordance with the strategy plan
- adiverse residential layout which incorporates opportunities for integrated housing, Village Green housing and conventional lot development
- a neighbourhood structure comprising a network of residential 'cells', which can be interchanged to accommodate a variety of residential typologies and density outcomes
- clusters of integrated housing cells around the central public open space, along the northern escarpment and in areas of higher landscape quality, such that the natural environment is shared rather than privatised
- Village Green precincts which are predicated on an entirely new urban model in which buildings are assembled within a predominantly landscaped context
- residential allotments with frontage to Bridge Inn Road, presenting an active face to the boundary of the development and taking advantage of northern orientation for these properties (access to property driveways will be from within the development, rather than directly from Bridge Inn Road).

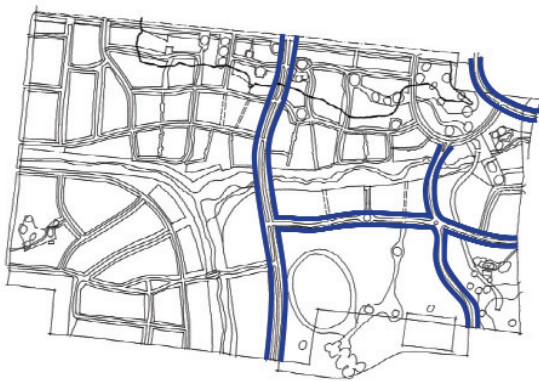




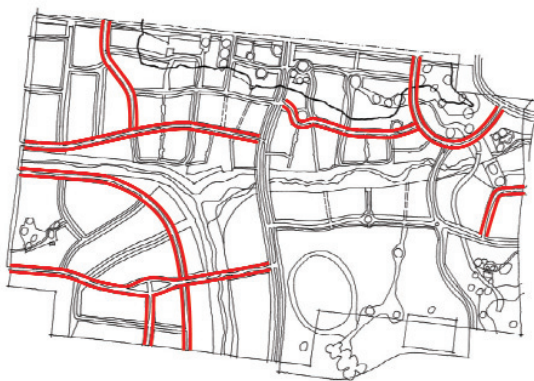
"Principal" open space links



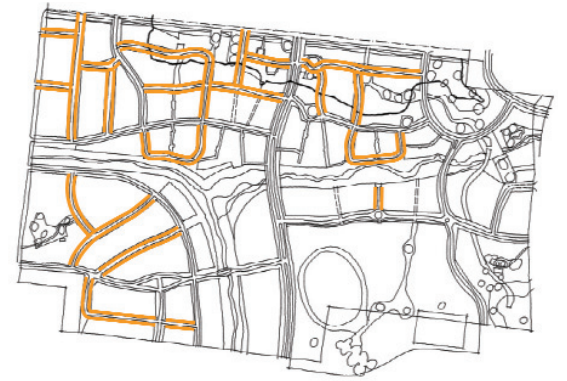
Key linkages



"Civic" through routes



"Neighbourhood" precinct access road



Local street - footpath network

3) development plan

3.9 Key Components

3.9.1 Land Use

The Development Plan envisages residential, community (school) and open space uses across the majority of the site. The specific breakdown of use and development on the site is as follows:-

Total Site Area	77ha
Public Open Space	3.86
Drainage Encumbrance	3.06
'Embellishment' open space	4.25
School site	9.0ha

The ultimate site development will include commercial use and development in the area surrounding the Bridge Inn Hotel, with further commercial opportunities adjacent to Plenty Road.

3.9.2 Residential Opportunities

The Development Plan incorporates a wide range of residential living opportunities, many of which have the potential to afford quite unique view experiences in terms of their relationship within and overlooking the open space features of the site.

An indicative breakdown of dwelling types and densities is offered below.

Lot Type	No.	%
Integrated Housing < 300m ²	565	47.0
Village Green 300m ² - 400m ²	440	37.0
Standard Lot > 400m ²	195	16.0
TOTAL	1,200	100%

The indicative breakdown above reflects the current Development Plan layout. Both the layout and indicative yield may alter in response to future changes in market conditions.

Within the network of neighbourhood cells there are essentially three (3) different residential typologies proposed, being:-

- Integrated Housing
- Village Green
- standard allotments.

These typologies are explained in further detail below.

Integrated Housing

Integrated Housing refers to housing which is consciously located in areas of higher landscape quality where the housing is integrated with its environment. In essence this enables the environment to be shared by all dwellings rather than privatised. The Integrated Housing lots will be developed for innovative medium density housing, at development densities generally less than 1 dwelling per 300m².

The Development Plan proposes integrated housing in a number of key locations:

- at some edges of the central open space
- along the northern ridgeline, particularly in order to take advantage of the elevated views to the south
- amongst the scattered remnant trees along the eastern boundary of the development
- on the local knoll near the southwestern corner of the site.

In each of these areas, the integrated housing approach will not only allow for public interaction with the landscape, but will also provide flexibility in the siting and design of dwellings to allow the special qualities of the landscape in these areas to be retained.

In the PAT Review, Whittlesea Council queried the means of access to the western most integrated housing sites situated above the ridgeline. We confirm that the design allows for a number of lots for which access will be provided off a local street to the north. This will result in the backyards for these dwellings integrating with the ridgeline. Functional and visual frontage to these dwellings will be from the northern frontage of the lots.

Village Green

The 'Village Green' concept advances a new and exciting model of urban form, which seeks to return to traditional notions of village living.

The Marchese Popov scheme seeks to achieve the following aims :

- To provide a recognisable framework and neighbourhood structure, which define streets and individual precinct zones
- Provide a pedestrian friendly environment
- Dwellings are to maintain street address - front door and street entry
- All living areas and courtyards to have northerly aspect and focus into the central courtyards
- Allow inner courtyards and precincts to bleed into each other, ultimately connecting them with the main public green space
- Main links are to provide hard/soft landscape, shared pedestrian and vehicular zones
- Maintain privacy between inner courtyard and private living/courtyard spaces through hard and soft landscape features
- Encourage active central spaces for private use and thereby enhance security
- Provide a sustainable environment through innovative and well designed dwellings, which collect and reuse resources.

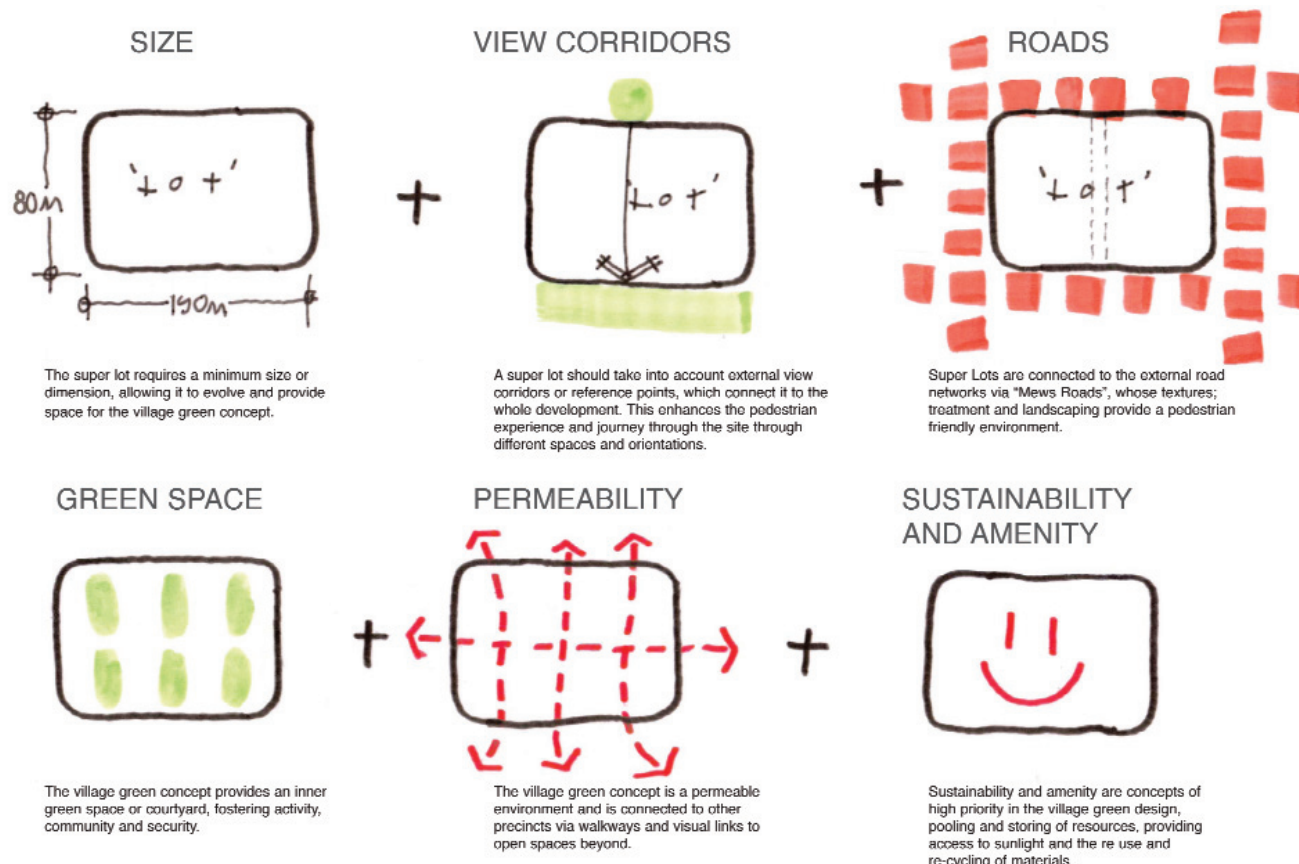
The concept is based on a series of discrete local 'villages,' in which houses are arranged around a large central garden space. The design intent is to enable the landscape to prevail as the defining element of local character, removing the traditional vernacular of fencing, roads and physical infrastructure which typically make up the urban structure of local neighbourhoods. In place of roads and infrastructure, the village green precincts provide a centralised open space, in which pedestrians (rather than cars) are given absolute priority to move freely within and through the precinct. To this end, the design seeks to contain vehicle access and movement towards the external edges of the precinct, enabling the interior to be developed for communal open space and pedestrian access. The village itself thus sits within a relatively unstructured, landscape context, encouraging shared use of the interior gardens by residents.

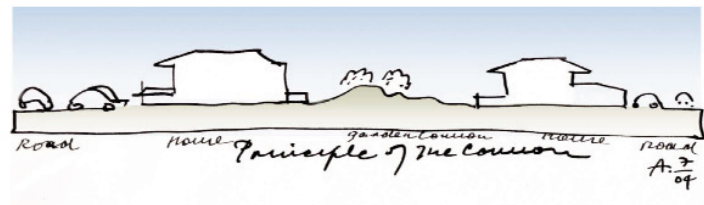
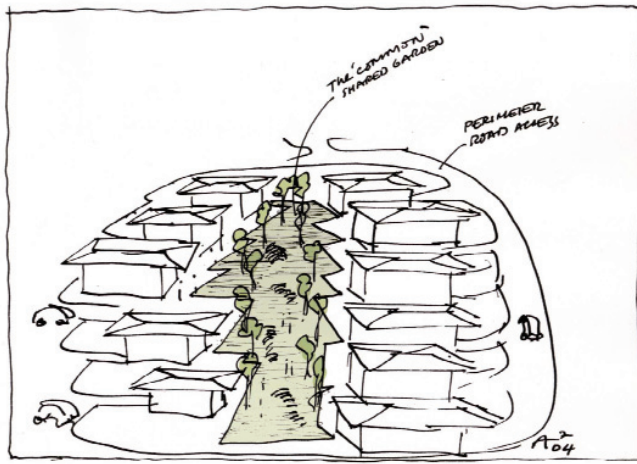
Landscape devices (as opposed to fencing) will be used throughout each village green precinct to demarcate the boundaries between the public and private realms. At the edge of each precinct, these internalised landscape areas will merge into the central open space, such that the transition between the public space and each neighbourhood cell becomes blurred. This urban format is very much designed to give priority to the pedestrian, and accordingly will encourage a higher degree of pedestrian activity both within and through each precinct.

Standard Allotments

Towards the periphery of the site a more conventional residential allotment layout is proposed. This design response will match the pattern of neighbourhood development on surrounding estates, ensuring there is a degree of consistency in neighbourhood character at each of the key site interfaces.

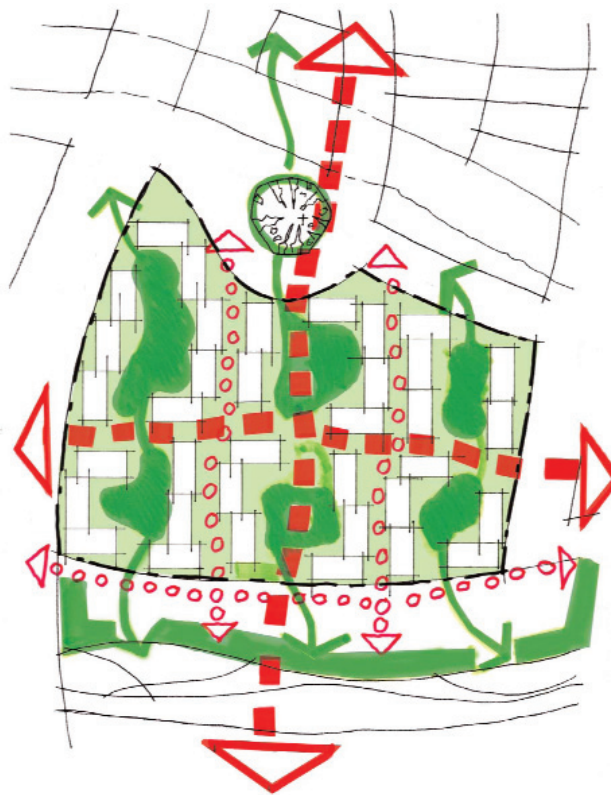
We note that Council has suggested there may be opportunities for higher density housing to be developed immediately west of the Hotel site. Elderslie Land Trust is happy to further explore options for medium density housing formats in this area as part of the Stage 1 subdivision process.



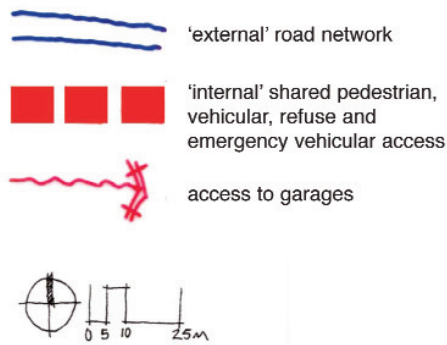


PEDESTRIAN LINKS

- ○ ○ ○ 'external' road network
- ■ ■ pedestrian links
- access to green spaces



INTERNAL ROADS AND
PEDESTRIAN NETWORK





3.9.3 Movement

The access strategy presented in the Development Plan is highly permeable and adopts a predominantly grid street layout in response to the land form and topography of the site. This street network has been designed to reflect the principles of 'new urbanism' embraced in the Mernda Strategy Plan, and establishes a legible, pedestrian oriented movement network.

Importantly the access framework specifically avoids cul-des-sacs and other road typologies which potentially constrain the legibility of access through the site.

The specific character of each road will depend upon its location within the development, and will be reflective of the landscape context of that location. For instance, primary local roads at lower topographic levels on the site will be treated as seamless extension of the central open space. Indigenous species will reach into the street space in informal naturalistic groupings reflective of their arrangement within the open space.

As a rule, internal roads will generally be designed to:

- direct views to the central open space focus of the development
- incorporate “Water Sensitive Urban Design” initiatives
- provide generous space for planting, allowing the character of the central open space to insinuate itself into the residential streets
- maximise frontage of residential blocks onto the public realm, particularly the central open space (i.e. rear fences should be avoided)
- provide for lot layouts which maximise solar access and respond to viewing opportunities
- retain existing trees in road reservation.

3.9.4 Landscape

The proposed landscape character of the development will be characterised by the use of indigenous vegetation wherever possible and appropriate. This will include strong tree planting themes along roads and throughout open space areas, where wetlands and water bodies, reflective of the original marshes of the site, will also be a key feature.

Lower level plantings will also be undertaken in some areas, such as around bio-retention zones in residential streets, and around wetland areas. These will also be characterised by the use of the indigenous flora, providing not only a unique landscape character, but also valuable habitat.

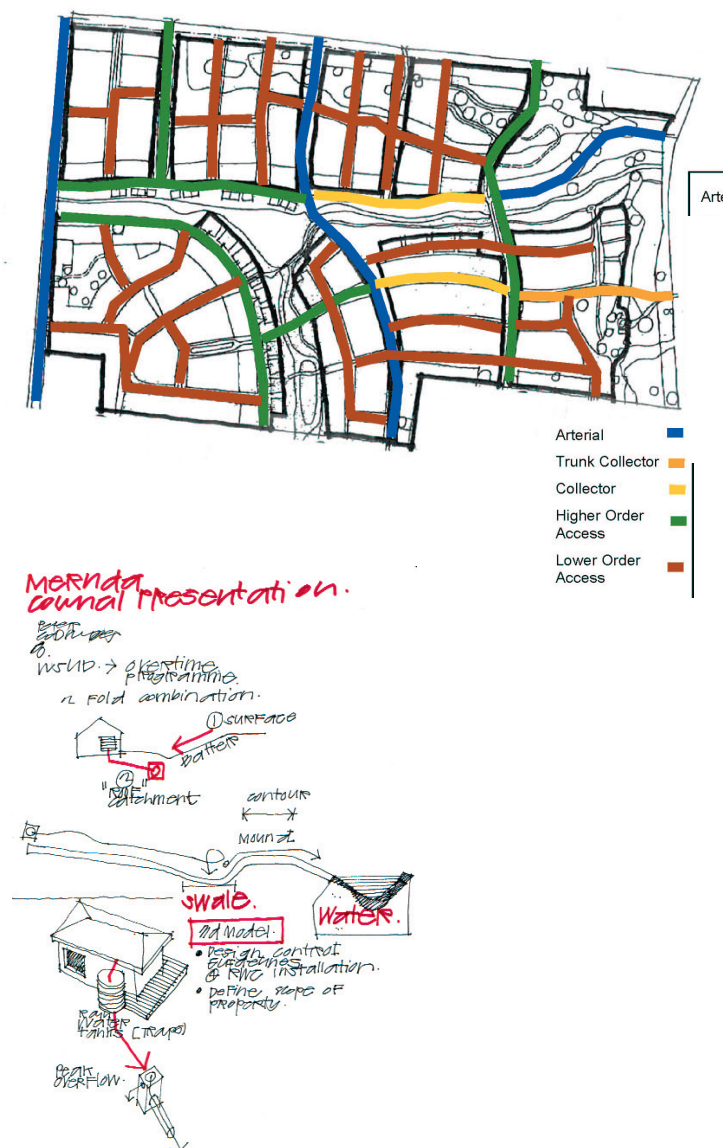
Hard landscape materials, where used, will also reflect the local landscape. Such material will include basalt (bluestone) and “rural” timber.

3.9.5 Built Form

Whilst the Development Plan does not show any proposed built form on the site, it is nevertheless important that the neighbourhood structure of the Development Plan is capable of fulfilling a wide range of housing types and living opportunities, consistent with the objectives of the Mernda Strategy Plan. We submit that the Development Plan does precisely that.

Future built form on the site will be regulated through assessment against a set of agreed Design Guidelines which will form part of the contractual sale documentation for each allotment within the estate.

In addition, a Design Review Panel will be established for the estate (comprising Architectural and Town Planning expertise). The principal role of the Design Review Panel will be to evaluate proposed dwelling designs against the requirements of the design guidelines, and more broadly against the objectives of ResCode and the Whittlesea Planning Scheme.



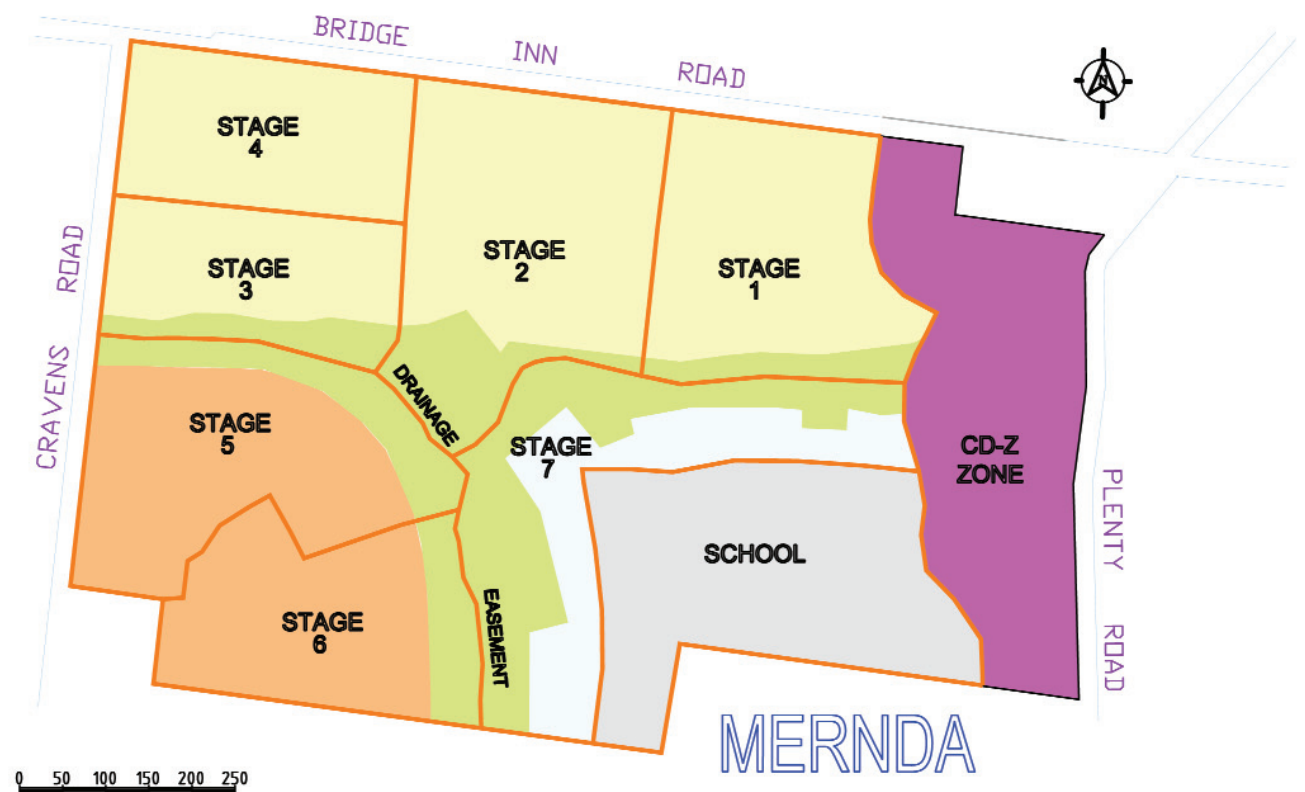
3) development plan

3.9.6 Staging

The Development Plan is proposed to be staged generally in accordance with the Staging Plan shown opposite. The first stage of development is planned to occur off Bridge Inn Road, west of Plenty Road.

Subsequent stages of development are planned to occur from east to west and north to south across the site. The CDZ area is planned to be developed in the earlier stages of the project.

Indicative Staging Plan



STAGING PLAN

- STAGE BOUNDARY
- DEVELOPMENT BOUNDARY

Plan 7

4) planning & policy considerations

4.1 Policy framework

4.1.1 State

Victoria's State Planning Policy Framework (SPPF) provides the overriding principles guiding the strategic issues which must be considered when land use decisions are made. In respect to Settlement, the policy seeks to "... ensure a sufficient supply of land and is available for residential, commercial, industrial, recreational, institutional and other public uses" and to "...facilitate the orderly development of urban areas".

Whilst there are a number of components detailed under the SPPF as being integral in the development of urban areas, specific detail with respect to development within metropolitan Melbourne is provided in Melbourne 2030.

4.1.2 Melbourne 2030

Melbourne 2030 is the long term vision and strategic plan for the Melbourne metropolitan area and its immediate surrounds. It is a document which has been prepared to manage growth and change throughout Melbourne.

Melbourne 2030 is underpinned by nine key policy directions which are listed below. Each of these directions is supported by specific implementation plans.

- A more compact city
- A fairer city
- Better management
- A greener city of metropolitan growth
- Networks with the regional
- Better transport links cities
- A more prosperous city
- Better planning decisions, careful management
- A great place to be

Whilst a number of these directions are of relevance to the Plenty Valley proposal, Direction 2- Better Management of Metropolitan Growth is the most significant of these.

There are essentially four policies which Melbourne 2030 identifies as critical to the achievement of managed urban growth:

- 2.1 "Establish an urban growth boundary to set clear limits to metropolitan Melbourne's outward development
- 2.2 Concentrate urban expansion into growth areas that are served by high-capacity public transport
- 2.3 Manage the sequence of development in growth areas so that services are available from early in the life of new communities

2.4 Protect the green wedges of metropolitan Melbourne from inappropriate development" (Melbourne 2030, October 2002, page 59)

Melbourne 2030 designates five growth areas into which future development on the city's outer edges will be channelled. Importantly, Whittlesea is one of the five growth designated growth areas.

Of particular relevance to this Development Plan, Melbourne 2030 identifies a set of key principles that should drive neighbourhood planning and the creation of liveable communities in fringe locations:

- an urban structure where networks of neighbourhoods are clustered to support larger activity centres on the Principal Public Transport Network
- compact neighbourhoods that are oriented around walkable distances between activities and where neighbourhood centres provide access to services and facilities to meet day-to-day needs
- reduced dependence on car use because public transport is easy to use, there are safe and attractive spaces for walking and cycling, and subdivision layouts allow easy movement through and between neighbourhoods
- a range of lot sizes and of housing types to satisfy the needs and aspirations of different groups of people
- integration of housing, workplaces, shopping, recreation and community services, to provide a mix and level of activity that attracts people, creates a safe environment, stimulates interaction and provides a lively community focus
- a range of open spaces to meet a variety of needs, with links to open space networks and regional parks where possible
- a strong sense of place created because neighbourhood development emphasises existing cultural heritage values, attractive built form and landscape character
- environmentally friendly development that includes improved energy efficiency, water conservation, local management of stormwater and waste water treatment, less waste and reduced air pollution
- protection and enhancement of native habitat and discouragement of the spread and planting of noxious weeds (Melbourne 2030, October 2002, page 102).

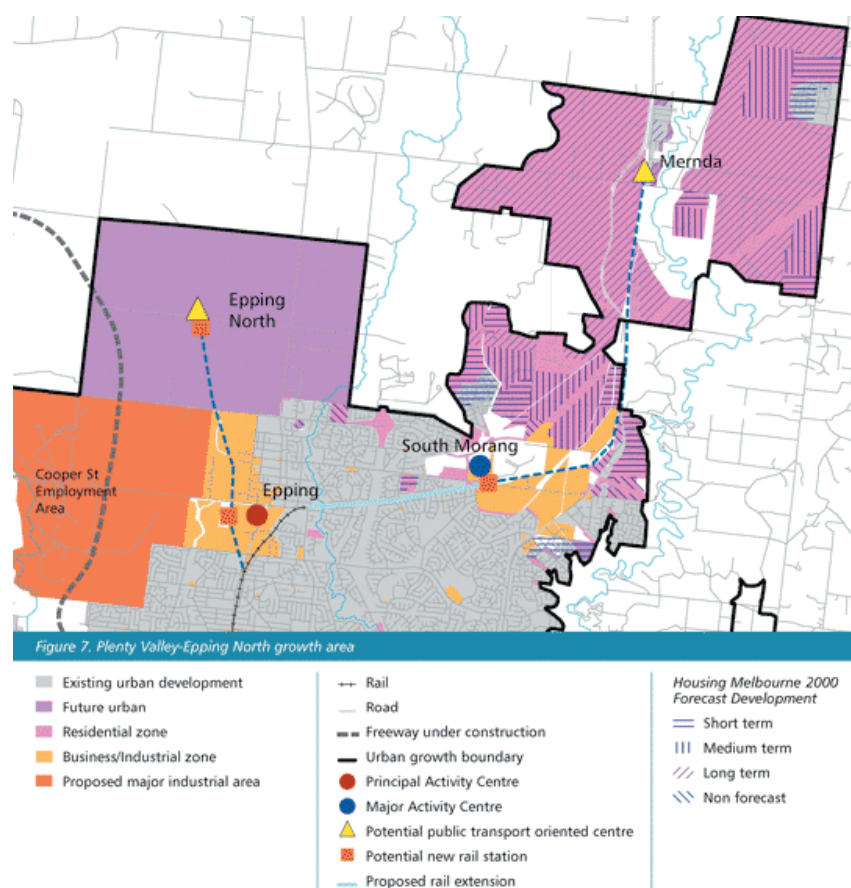
The identification of Whittlesea and particularly the Plenty Valley as a major growth corridor within metropolitan Melbourne is not a new concept. Significant planning for longer-term residential development within this corridor has been the subject of Ministerial Directions since the 1980s.

Whilst 2030 recognises the important role that growth areas have played over time in shaping Melbourne's urban history, the Strategy seeks to alter this role into the future by re-directing a greater share of urban growth to established urban areas. Of the growth that will continue to occur on the urban fringe, government has sought to impose a better framework for managing this growth, requiring higher standards of neighbourhood planning and design, and earlier delivery of key physical and transport infrastructure, and social and community services.



The development of new Growth Area plans for each of the major residential growth fronts has been identified as key implementation action arising from Melbourne 2030. The aims of the new Growth Area Plans include:

- direct development to growth areas that can be provided with public transport and other local and regional infrastructure in coordination with the preferred sequence of land release and development
- reduce the overall proportion of new dwellings in greenfield sites from the current figure of 38 per cent to 22 per cent by 2030
- maintain 15 years supply of broad hectare land zoned for residential purposes in growth areas, to limit upward pressure on prices
- establish a five-year cycle for development sequencing in growth areas, up to a threshold of 15 years
- achieve a gradual but significant increase in housing densities in growth areas, from the current average of 10 dwellings per hectare to around 15 dwellings per hectare, with the highest densities located in or close to activity centres and the Principal Public Transport Network (PPTN)
- increase the choice of housing types provided, to meet the needs of all groups in the community
- create a network of mixed-use activity centres focused on the PPTN
- direct a substantial proportion of new development to activity centres that have good access to the PPTN
- increase the availability of sustainable forms of travel, with more use of public transport and more opportunities for walking and cycling
- develop an urban form based on the Neighbourhood Principles
- structure urban areas to provide interconnected neighbourhoods that are clustered to support Principal or Major Activity Centres
- introduce community safety design principles in order to reduce opportunities for crime, improve perceptions of safety and increase levels of community involvement
- provide opportunities for growth in local employment
- inside the UGB, restrict rural residential development that would compromise future development at higher densities
- protect and manage natural resources and areas of heritage, cultural and environmental significance, and achieve significant savings in energy and water consumption (Melbourne 2030, Implementation Plan 2 – Growth Areas, October 2002, page 7)..



The Mernda Growth Area specifically and this development site have the potential to fulfil the aims detailed above.

The majority of the aims detailed above are embodied either specifically or in some form in the Mernda Structure Plan. Later sections of this report will demonstrate how this development proposal responds to and achieves, the structure plan objectives.

4) planning & policy considerations

4.2 Local Policies

The City of Whittlesea has prepared a comprehensive Strategy Plan to guide future growth in the Mernda corridor. The Mernda Strategy Plan enshrines a preferred land use and development framework for the whole of this growth corridor, and clearly articulates Council's expectations with respect to how new development should unfold.

In addition to the policy direction set out in the MSP, Clause 21.04 of the local planning policy framework of the Whittlesea scheme provides further insight into Council's vision for community planning. The policy framework offers specific directions with respect to:-

- residential growth areas
- managing urban growth
- housing provision
- employment and economic development
- transport and accessibility
- activity centres
- infrastructure provision
- leisure recreation and tourism
- heritage and culture
- environmental assets
- rural land use and development
- image and appearance

For the purpose of this assessment it has been assumed that the policy objectives contained within the Mernda Strategy Plan serve to build upon the policy directions above, offering a more detailed and locally specific set of planning aspirations.

Accordingly, Section 5 of this report will examine the compliance of the Plenty Valley Development Plan with the policy intent and requirements of the Mernda Strategy Plan, and more particularly the land use framework established for Precinct 4.

4.3 Zoning

The subject land is currently zoned Residential 1 Zone (R1Z), the purpose of which is described in the Whittlesea Scheme as follows:

- to implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies
- 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.

All subject land is within the defined Urban Growth Boundary (UGB).

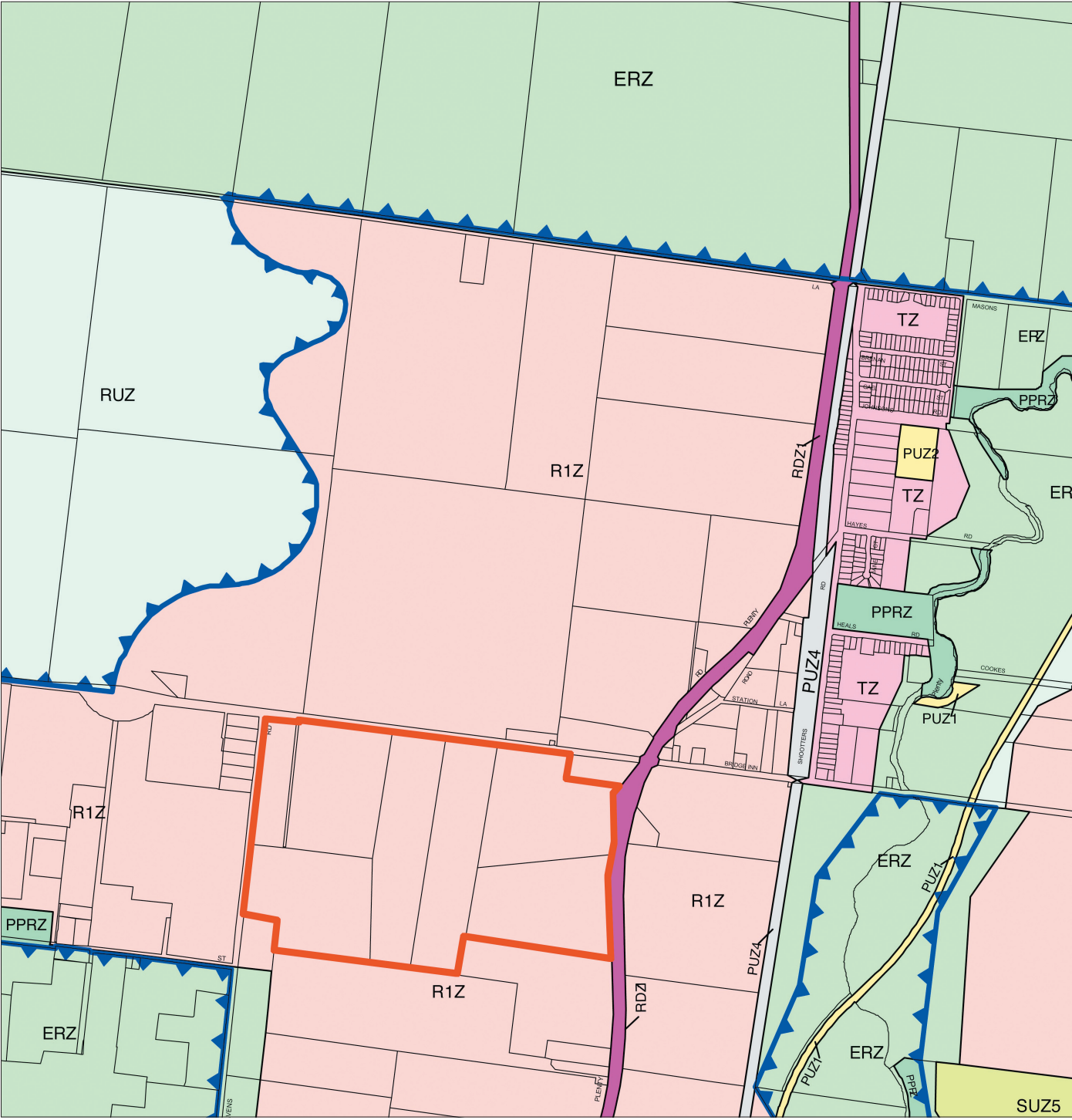
As noted earlier, the eastern section of the Plenty Valley site and areas around the proposed Mernda Activity Centre are covered by a Comprehensive Development Zone. A separate Development Plan for this land is required to be prepared under the requirements of the Comprehensive Development Zone.

Land to the north, south and west is also included in a Residential 1 Zone.

4.4 Overlays

The Elderslie Land Trust land is covered by the following overlays:

- Incorporated Plan Overlay (Schedule 1)
- Development Plan Overlay (Schedule 5)
- Design and Development Overlay (Schedule 4)
- Vegetation Protection Overlay (Schedule 1)



 the site

4) planning & policy considerations

4.4.1 Incorporated Plan Overlay

All of the subject land is covered by an Incorporated Plan Overlay (IPO).

The IPO is a planning instrument used to identify areas which require:

- *the form and conditions of future use and development to be shown on an incorporated plan before a permit can be granted to use or develop the land*
- *a planning scheme amendment before the incorporated plan can be changed. To exempt an application from notice and review if it is generally in accordance with an incorporated plan.*

Amendment C30, introduces the Mernda Strategy Plan, as Schedule 1 to the Incorporated Plan Overlay, in the Whittlesea Planning Scheme.

Section 5 of this report deals specifically with the conformity of this Development Plan with the key objectives and required strategic responses outlined in the Mernda Strategy Plan.

4.4.2 Development Plan Overlay

The Mernda Strategy Plan requires that a Development Plan be prepared for each major precinct within the growth corridor prior to the commencement of any development or subdivision. Clause 43.04 of the Whittlesea Planning Scheme sets out the specific requirements to be addressed in the preparation of a Development Plan.

The information required in the Development Plan is detailed in Section 5 of this report.

Schedule 5 to the Development Plan Overlay (Mernda Development Plan) indicates that the Responsible Authority may grant a permit for subdivision, use or development prior to approval of a development plan provided that the Responsible Authority is satisfied that the subdivision, use or development will not prejudice the future use or development of the land for the purpose of the zone or any other aspect of the Municipal Strategic Statement.

4.4.3 Design and Development Overlay

The Elderslie Land Trust land is covered by the Mernda/Doreen Residential Areas Design and Development Overlay (DDO). It is an objective of the DDO to *"...recognise, protect and enhance the special character of the broader Plenty Valley cultural landscape."*

The DDO stipulates that a planning permit is required for all building and works carried out on the land, except for residential buildings which meet all of the following requirements:

- do not exceed a maximum height of 3.6 metres
- are not more than 40 square metres in area
- are located with the rear half of a lot and not more than 5 metres to a street frontage
- are within the building envelope forming part of the approved Design and Development Plan
- occupy not more than 10% of the site area.

In addition, the following controls apply:

"Prior to the issue of a planning permit for the construction of a building or the carrying out of works on individual allotments contained within the relevant subdivision stage plans, a 'Design and Development Plan' must be approved by the responsible authority. The plan may include a written report or plans or a combination thereof and must address the design objectives and requirements regarding the following elements:

- *building setbacks*
- *building heights*
- *maximum site coverage*
- *building envelopes*
- *external materials and finishes*
- *methods for the protection of native vegetation where appropriate*
- *building energy efficiency ratings*
- *domestic water re-use and conservation"*

As indicated earlier, Elderslie Land Trust intends to publish a package of design guidelines which will form part of the contractual sale documentation for each allotment within the estate.

In addition, Elderslie Land Trust will establish a Design Review Panel (comprising Architectural and Town Planning expertise), whose principal function will be to evaluate all proposed dwelling designs against the requirements of the design guidelines. More detail on the intended role and function of the Design Review Panel will be provided as part of the Design and Development Plan required above.

4.4.4 Vegetation Protection Overlay (Schedule 1)

The subject land is covered by a Vegetation Protection Overlay, the objectives of which include:-

- to protect areas of significant vegetation
- to ensure that development minimises loss of vegetation
- to preserve existing trees and other vegetation
- to recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance
- to maintain and enhance habitat and habitat corridors for indigenous fauna
- to encourage the regeneration of native vegetation.

Schedule 1 to the Vegetation Protection Overlay provides the following statement describing the nature and significance of the vegetation to be protected :

Native vegetation in the Plenty Valley and surrounding areas of Mernda, Doreen and South Morang play an important role in the maintenance of the environmental and rural character providing areas of natural habitat for flora and fauna and assisting with minimising soil erosion and maintaining soil qualities. Vegetation within the Redgum Grassy Woodlands of particular significance includes; River Red Gum, Black Box, White Box and Grey Box, Yellow Box and various native grasses.

The schedule indicates that no permit is required to remove, destroy or lop any vegetation which is not native vegetation. A planning permit is required however for the removal, destruction or lopping of any native vegetation, as detailed in Clause 52.17 – Native Vegetation.

As confirmed in the following section, this Development Plan provides for the protection and enhancement of all existing significant native vegetation on the land. The design seeks to retain all existing significant trees, either within public open space, road reservations or private open space as appropriate.

Arboriculture assessments have been completed for all of the identified significant trees (refer appendices).



4.5 Future Overlay

The P-12 School site is required to be covered by a Public Acquisition Overlay (PAO), to provide for its future acquisition by DEET.

The purpose of a PAO under the planning scheme is as follows :

- To identify land which is proposed to be acquired by a public authority.
- To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.

Any land included in a Public Acquisition Overlay is reserved for a public purpose within the meaning of the Planning and Environment Act 1987, the Land Acquisition and Compensation Act 1986 or any other act.

Elderslie Land Trust request that Council initiate a planning scheme amendment to introduce the PAO to the relevant portion of the site as a matter of priority. The PAO will identify the purpose of acquisition as “Department of Education, Construction of a primary school or a secondary school or a combination of both”.



5) development plan assessment

5.1 Compliance with Mernda Strategy Plan

The Development Plan presented on behalf of Elderslie Land Trust is considered to be highly consistent with the policy intent and key design objectives of the Mernda Strategy Plan.

The response of the Development Plan to each of the key objectives of the Mernda Strategy Plan is explained in detail below.

5.1.1 Community Planning And Design

To create an interconnected series of attractive neighbourhoods that foster social participation, economic advancement, and are capable of adapting to change.

Precinct-based Planning

The Plenty Valley Development Plan provides a highly interconnected urban structure. The structure essentially comprises a network of neighbourhood cells which radiate outwards from a central open space corridor. Each neighbourhood cell is linked to the central open space via a system of pedestrian networks, to encourage a high level of pedestrian activity and social interaction through the estate. Whilst the design intent is to draw pedestrians inwards to the open space, the design philosophy equally strives to extend the open space experience outwards to permeate into the neighbourhood cells.

Within the network of neighbourhood cells there are essentially three (3) different residential typologies proposed, being:-

- integrated housing
- Village Green
- standard allotments

These typologies are explained in further detail below.

Integrated Housing

Integrated Housing refers to housing which is consciously located in areas of higher landscape quality where the housing integrated with its environment. In essence this enables the environment to be shared by all dwellings rather than privatised. The Integrated Housing lots will be developed for innovative medium density housing, at development densities generally less than 1 dwelling per 300m².

The Development Plan proposes integrated housing in a number of key locations:

- at some edges of the central open space;
- along the northern escarpment, particularly in order to take advantage of the elevated views to the south;
- amongst the scattered remnant trees along the eastern boundary of the development;
- on the local knoll near the southwestern corner of the site.

In each of these areas, the integrated housing approach will not only allow for public interaction with the landscape, but will also provide flexibility in the siting and design of dwellings to allow the special qualities of the landscape in these areas to be retained.

Village Green

The Village Green precincts essentially frame the central open space. The 'Village Green' concept advances a new and exciting model of urban form, which seeks to return to traditional notions of village living.

The concept is based on a series of discrete local 'villages,' in which houses are arranged around a large central garden space. The design intent is to enable the landscape to prevail as the defining element of local character, removing the traditional vernacular of fencing, roads and physical infrastructure which typically make up the urban structure of local neighbourhoods. In place of roads and infrastructure, the village green precincts provide a centralised open space, in which pedestrians (rather than cars) are given absolute priority to move freely within and through the precinct.

To this end, the design seeks to contain vehicle access and movement towards the external edges of the precinct, enabling the interior to be developed for communal open space and pedestrian access. The village itself thus sits within a relatively unstructured, landscape context, encouraging shared use of the interior gardens by residents.

Landscape devices (as opposed to fencing) will be used throughout each village green precinct to demarcate the boundaries between the public and private realms. At the edge of each precinct, these internalised landscape areas will merge into the central open space, such that the transition between the public space and each neighbourhood cell becomes quite blurred. This urban format is very much designed to give priority to the pedestrian, and accordingly will encourage a higher degree of pedestrian activity both within and through each precinct.

Standard Allotments

Towards the periphery of the site a more conventional residential allotment layout is proposed. This design response will match the pattern of neighbourhood development on surrounding estates, ensuring there is a degree of consistency in neighbourhood character at each of the key site interfaces.

External Connections

The design layout affords excellent pedestrian and vehicular connections to key destinations external to the site. Pedestrian paths to be developed through the central open space will provide residents with a direct connection into the Mernda Town Centre to the east, and to the primary school and regional open space node located further to the south in Precinct 4.

Adaptability to Change

The design layout is highly adaptable such that future changes in development density can be contemplated without altering the overall neighbourhood structure. Internally, each residential cell shown on the Development Plan is capable of accommodating any of the three residential typologies proposed (ie: integrated housing, village green, or standard lots), without requiring any change to the basic structure of the local road network. This will ensure that Elderslie Land Trust has the necessary flexibility to alter its product offering in response to market demand, without necessitating changes to the Development Plan.

Residential Design and Density

Density

The Mernda Strategy Plan assumes a net density of 8 dwelling lots equivalent per hectare (lot E/ha) across the plan area, reflecting the need to preserve environmental assets through generous open space allocations and the application of rural-style residential development in sensitive areas or as buffers alongside rural land.

As explained above, the Plenty Valley Development Plan provides for a range of development densities and housing types across the site, including:-

- standard allotments (between 400 – 700m²)
- Village Green lots (generally 300 – 400m²)
- integrated Housing (less than 300m²)

The breakdown below is notional only and reflects the current Development Plan layout. Both the layout and indicative yield may alter in response to future changes in market conditions.

Lot Type	No.	%
Integrated Housing < 300m ²	565	47.0
Village Green 300m ² - 400m ²	440	37.0
Standard Lot > 400m ²	195	16.0
TOTAL	1,200	100%

The overall development yield is expected to be in the order of 1,050 to 1,200 dwellings, which is anticipated to result in a residential population in the order of 3,400 to 3,850 persons (assuming a household occupancy of 3.2 persons per dwelling as per the assumptions of the Mernda Strategy Plan).

The average household occupancy for the Plenty Valley site may be slightly below the 3.2 persons per household estimated by Council for all of the Strategy Plan area. A lower household occupancy would be consistent with the estimated proportion of dwellings to be integrated housing/medium density for the development.

It is accepted that the densities proposed exceed the average net residential density of 8 lots per hectare envisaged across the Mernda Strategy Plan area. In this instance we consider a departure from the average density is warranted particularly in the context of the Panel's direction to provide opportunities for medium and higher density development in areas that are:

- "...within walking radius to the town centre or precinct activity centre;
- within walking radius of the station/public transport interchange;
- within a feasible cycle commute of the town centre, station/public transport interchange where an attractive and well designed link is provided;
- offering higher than average visual amenity; and
- abutting or close to public open space and or water sensitive urban design drainage reserves, where these form attractive landscaped links" (AM C30 to the Whittlesea Planning Scheme Panel Report, p130).

The subject site fulfils all of the above criteria. We note that the MSP provides further support for an increase in density on the Elderslie Land Trust land, suggesting that:

"On sites close to the Mernda town centre, the dimensions of residential lots and the siting of buildings should enable future intensification – which may be appropriate following the introduction of rail based public transport. " (p.50; MSP).

For these reasons, it is considered appropriate and indeed, strategically desirable that the development density on the Elderslie Land Trust land exceed the standard 8 lots per hectare.

The Strategy Plan contemplates a gentle gradation of development densities outwards from the town centre. The Plenty Valley Development Plan is responsive to this general philosophy but incorporates additional opportunities for integrated medium density development around specific landscape and open space features.



5) development plan assessment

Residential Design

One of the key innovations which will contribute to the creation of a complete and unified environment at Mernda will be the Village Green and Integrated Housing components.

Both of these housing types will bring a new type of living experiences to Mernda. All aspects of the site design process in these precincts will be carefully controlled by the project developer (including house designs, landscaping and public realm design), to ensure high quality outcomes prevail.

An indicative layout of a typical Village Green precinct is illustrated in Section 3. Marchese Popov have articulated their vision for the 'village housing' as follows :

"....to strike a balance between the rigidity of the subdivision grid, the open green spaces and an assemblage of buildings which allows the green spaces to bleed and become the connector"

The principal design innovations which underpin this layout include:

- orientation of dwellings to the external street network to provide an 'active' residential interface;
- concentration of garages/vehicle access points around the perimeter of each neighbourhood cell to preserve the balance of the interior for pedestrian path networks, landscaping and communal space.
- orientation of main living rooms and windows onto the central landscape space to afford maximum opportunities for surveillance of this space;
- use of landscape devices/low hedges to subtly delineate the public and private realms around each dwelling.

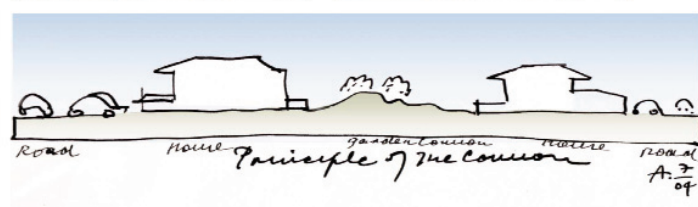
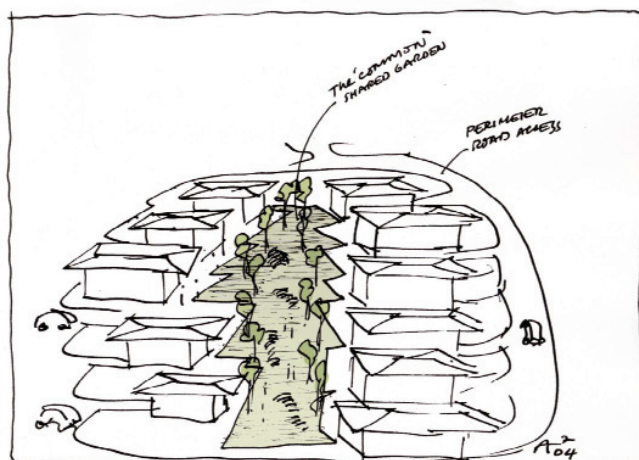
Section 3 also provides an indicative layout for a typical Integrated Housing cell. Similar design principles will apply to these layouts, to ensure issues of access, surveillance, community safety and functionality are carefully addressed in the design.

Mixed Use and Employment Areas

Whilst the land covered by the Plenty Valley Development Plan does not include any sites for mixed use and employment, the subject site interfaces with land covered by the Mernda Town Centre Comprehensive Development Zone.

Particular attention will be paid to the layout of housing adjacent to the areas proposed for mixed use/commercial development on the west side of Plenty Road and around the Bridge Inn Hotel node.

As previously noted, the revised Development Plan foreshadows a future reconfiguration of the CDZ to align with the new north-south link through the Elderslie Land Trust site. A road interface should minimise the potential for conflict between the various land use types (i.e. commercial, community and residential).



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5) development plan assessment

Visually Sensitive Design Areas

Within the generally flat nature of the site landscape, there are three notable topographic variations, as described below:

- an ridgeline of between 3 and 4m elevation runs approximately parallel to the Bridge Inn Road boundary and defines a platform of higher land which currently houses a number of residential and agricultural buildings. This escarpment represents the edge of the basalt plains extending to the north and west of the site. It is an important topographic feature of the site, providing a vantage point for views to the south, separating the higher areas from the “wetter” lower levels of the site, and providing a element which can be incorporated in to the development in a positive sense.
- a knoll near the south-western corner of the site, rising almost 5m above the general lower level of the land. This knoll represents part of the north-eastern edge of the Silurian hills extending north from Mill Park, and provides a vantage for views over the site to the north and east. The hills beyond this knoll to the south are also an important visual backdrop to the site, when viewed from the north.
- a local knoll near the eastern (Plenty Road) boundary of the site. Similar to the northern escarpment, this knoll is a local highpoint formed on the underlying basalt located at the edge of the low lying alluvial soils which make up the majority of the site. As with the south western knoll, this highpoint is an important visual feature, providing a sense of visual containment along the eastern edge of the site.

As indicated above, the topographic characteristics of the site are important in defining the visual and spatial characteristics. These can be summarised as follows:-

- views from the internal, lower lying areas of the site are generally contained due to the higher land which is located around the edges of the site.
- views overlooking the site can be obtained from each of the high points discussed above, although these are generally constrained by the topographic variation already discussed.
- views off the site to south and west are generally focussed on the backdrop hills extending to Mill Park.
- views off the site to east are generally shortened by the formation of Plenty Road as well as development on the eastern edge of Plenty Road. Some distant longer views are available to the hills beyond the Plenty Valley.
- long views to the north and north-east are focussed on the hills associated with the Kinglake National Park

The Integrated Housing areas respond specifically to the view opportunities and topographic features highlighted above. The siting and design of medium density dwellings within the Integrated Housing precincts will work around these features and where appropriate, will ensure that they remain a key part of the ‘public domain,’ for ongoing enjoyment and use by all residents of the site.

Summary Statement of Compliance

The Plenty Valley Development Plan will facilitate the development of a major residential estate, characterised by discrete but interconnected neighbourhoods where the provision of housing styles and development densities will be adaptable to meet changing household conditions and respond to the market’s requirements for housing.

An expansive network of landscape/open space corridors form the ‘backbone’ of the neighbourhood layout. The highly permeable and pedestrian oriented access system creates opportunities for social interaction.

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to Community Planning and Design.

Transportation System

To put in place an efficient, equitable and environmentally sustainable transportation system that reduces car dependence, encourages walking and cycling for local trips, and contributes to the economic competitiveness of the municipality.

The Road Hierarchy

Plenty Road, which is a declared main road, forms the principal road connection through the north eastern areas of Melbourne through the Plenty Corridor to Whittlesea.

In the vicinity of the subject site the road is contained within a minimum road reserve of approximately 40 metres and currently comprises an undivided 8 metre wide road pavement providing a single traffic lane with sealed shoulders in each direction.

The Mernda Transport Strategy foresees a significant increase in traffic volumes on Plenty Road as a result of development within the Plan area. Accordingly, the Strategy concludes that Plenty Road south of Bridge Inn Road will ultimately require duplication to provide 2 x 10.5 metre carriageways within a 40 metre road reservation. To the north of Bridge Inn Road the plan anticipates that Plenty Road will comprise 2 x 8 metre carriageways also within a 40 metre road reservation.

The desire of Vic Roads for limited cross intersections to Plenty Road is well appreciated. The Development Plan proposes two access points onto Plenty Road, one via the loop road to the south of the Bridge Inn Hotel site. We confirm that Grogan Richards are providing traffic engineering advice for a number of development proposals along Plenty Road and are currently in the process of preparing a composite plan indicating all accesses and how they interact with one another. This plan will consider both the ultimate layout, as contemplated in the Mernda Strategy Plan and interim, works to facilitate access proper to the duplication of Plenty Road.

Bridge Inn Road is classified as a primary arterial road to the east of Plenty Road and a secondary arterial road abutting the site to the west of Plenty Road. West of Plenty Road, the road caters for approximately 3100 vehicles per day and comprises a single 7 metre carriageway within a 20.1 metre road reserve.

Under the Mernda Transport Strategy it is anticipated that Bridge Inn Road to both the east and west of Plenty Road will be upgraded to provide 2 x 8.0 metre carriageways within a 36 metre road reservation.

It is proposed that 'Type C' treatments will be included at all intersections with Plenty Road and Bridge Inn Road within the interim scenario and that major access points to the subdivision will be up graded to signal intersections with the duplication of Bridge Inn Road and Plenty Road whilst minor access points will be down graded to left in left out intersections.

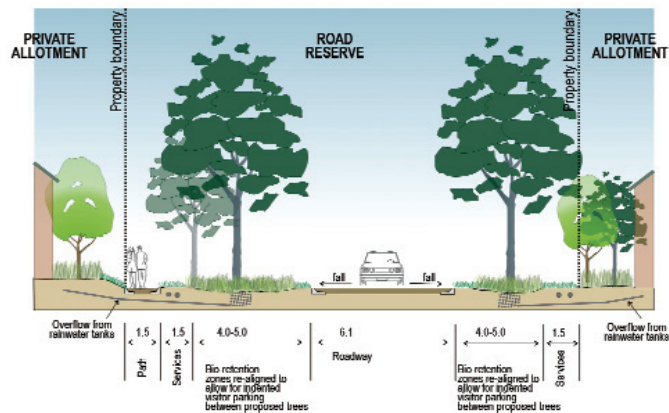
Cravens Road provides the western boundary of the Plenty Valley site and is currently designated as a local street that serves abutting rural developments. Existing traffic volumes on Cravens Road are estimated to be less than 500 vehicles per day. It is anticipated that ultimately Cravens Road will be upgraded to sub arterial or collector street status and as such will comprise an 8 to 10.5 metre carriageway within a 20 metre road reservation, in accordance with the Strategy Plan for the area.

(a) arterial and collector roads

Vehicular access to the subdivision will be as follows: -

To the north and Bridge Inn Road	One direct major connection: • central arterial Four minor connections: • local roads
To the east and Plenty Road	Two major connections: • north of the school site
To the south	Two major connections: • arterial north of school site • central arterial • arterial east of school site Two minor connections: • between local roads in adjoining subdivisions
To the west	Five major connections and local roads

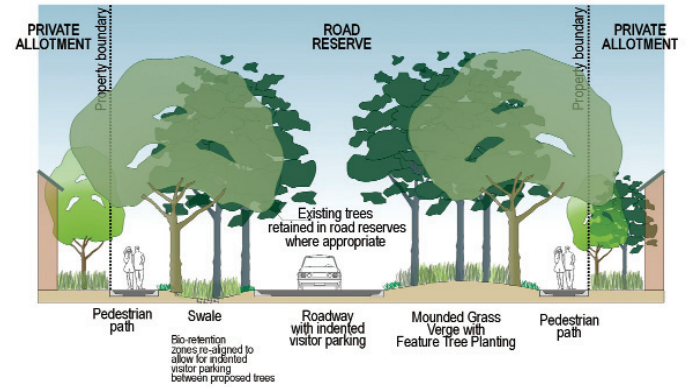
The development will be traversed in a north-south direction by a collector road (Central Arterial) connecting Bridge Inn Road with land to the south of the development. This road will be located within a generous road reserve of at least 20m (in accordance with the requirements of the Mernda Strategy Plan).



SECTION AA

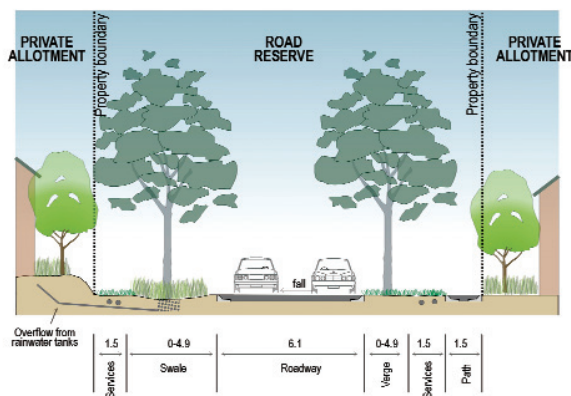
Typical 20m wide road reserve (with grassed verge)

- pavement meanders
- indented parking
- flush edges (no kerb)
- path one side only



Typical 20m wide road reserve (existing trees retained)

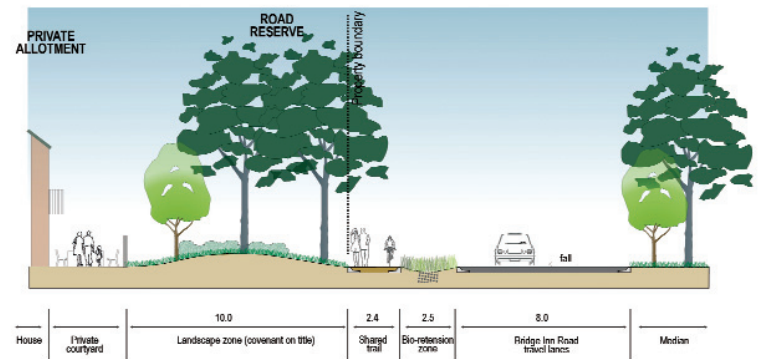
- Informal landscape in Road Reserves
- Extension of Parkland Character



SECTION DD

Typical 16m wide road reserve

- pavement meanders
- indented parking
- flush edges, no kerb
- path one side only.

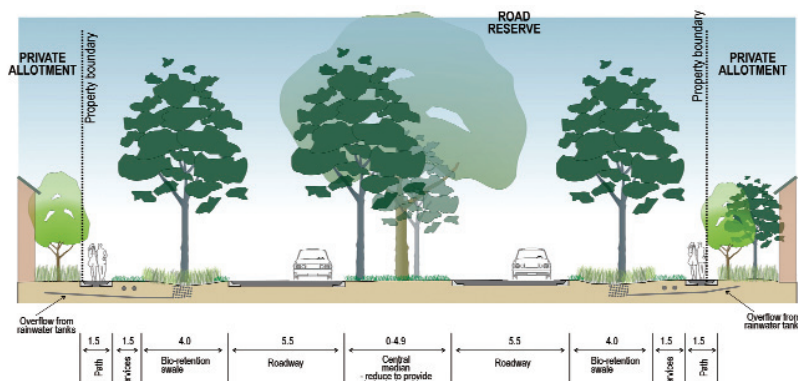


SECTION GG

Typical Bridge Inn Road interface

Alternative options:

- reduce shared path (2.5m) to footpath only (1.2m) to accommodate swale
- provide bicycle lane with 8.0m pavement or allow bicycle circulation through subdivision
- provide kerb blockouts if kerbs needed by Council (to allow WSUD approach).



SECTION II

Typical 30m wide road reserve (with central median)

- 2 x 5.5m lanes (use 2 x 4.0 if < 5000 vpd)
- flush edges (use kerbs with block-outs if required by council)
- park both sides
- vary median/landscape zones to protect remnant trees as required
- maybe increase path to 2.5m if shared path required.

5) development plan assessment

The road reserve will not only provide for clear and legible vehicle movement through the site but will also incorporate wide verges for the incorporation of pathways, large trees and where appropriate, drainage swales. The specific Water Sensitive Urban Design measures that may be pursued within the road network are explained in further detail in Section 5.1.8 of this Development Plan.

Where the road crosses the central open space corridor, the landscape of the road will be integrated with the adjacent parkland / wetland character.

The proposed new central arterial road is expected to also cater for traffic from neighbouring subdivisions. Total flows on these links are anticipated to be in the order of 5,500 vehicles per day, consistent with estimates in the Mernda Strategy Plan.

Traffic volumes on roads heading into the town centre are anticipated to be in the order of 3,000-4,000 vehicles per day, which reflects its local and town centre access function.

The Grogan Richards assessment, based on the indicative breakdown of 255 conventional lots and 945 integrated, village green or medium density dwellings, indicates the Elderslie Land Trust development will generate approximately 13,000 vehicle movements per day.

The residential traffic generation rate has utilised a rate of 10 vehicle movements per day. Based on our understanding of the proposed size of dwellings, likely car ownership rates and household types of persons attracted to the development, it is considered that this traffic generation rate is very conservative.

(b) local streets and laneways

The street network presented is highly permeable and adopts a predominantly grid street layout in response to land form and topography of the site. The development does not include cul-de-sac. This street network adheres to the principles of 'new urbanism' discussed in the Mernda Strategy Plan.

The road network proposed seeks to place through traffic on the major north-south arterial (Central Arterial) rather than smaller, local streets.

Subsequent stages of detailed design may seek to incorporate use of laneways to provide rear access to dwellings within the integrated housing/ Village Green components.

Streetscape Themes

Primary local roads are those which connect the perimeter of the development with the central open space corridor. As with the collector road, primary local road reserves will be generally 20m in width, and wider where necessary to preserve and incorporate remnant trees. The landscape character of primary local roads will make a significant contribution to the overall landscape character of the development.

The specific character of each road will depend upon its location within the development, and will be reflective of the landscape context of that location. For instance, primary local roads at lower topographic levels on the site will be treated as seamless extension of the central open space. Indigenous species will reach into the street space in informal naturalistic groupings reflective of their arrangement within the open space.

On higher land, such as on the northern escarpment, indigenous species will again be used, but in a more controlled manner, with more regular spacing. The result will be a network of primary roads all with a similar character derived from the central open space (and hence from the natural landscape), but with subtle variation reflective of the essential topographic form of the "parent" landscape.

Secondary streets are those which provide access within local neighbourhoods, and generally don't have a "through route" function. These streets will have a 16 metre road reserve, enabling substantial landscape treatments and tree planting, allowing a recognisable streetscape character to be developed and accommodating other local landscape features such as swales.

All roads will incorporate appropriate measures to manage speed and will include clearly defined pedestrian crossing points in order to reinforce connectivity throughout the residential neighbourhoods to the central open space.

Cross sections have been developed to assist Council's understanding of the constituent elements for each typical road typology (30m wide, 20m wide, 16m wide) as well as the Bridge Road Inn interface. These cross sections have been developed with input from engineering, landscape architecture and WSUD and are found in Appendix 1.

Council have requested that non-standard design elements are to be identified. Whilst we consider this is generally an issue for resolution at the more detailed subdivision stage, we provide the following comments in relation to design intent :

- The streetscape of the Plenty Valley development will incorporate a range of necessary elements, including lighting, signs, bollards and other barriers, pavement materials, kerbs and drainage and so on. While the specific approach to each of the other elements has not yet been determined, and will be the subject of detailed design as part of Stage 1 of the sub-division, the principle of establishing a clearly integrated relationship between development precincts (while not necessarily utilising identical elements) is agreed. The elements to be used within the Plenty Valley development will be presented to Council for approval prior to commencing work on Stage 1 site.

5) development plan assessment

- One area in which it can be confirmed that non-standard elements will be used is in the area of street drainage, where Water Sensitive Urban Design elements, such as flush pavement edges, swales, re-charge cells etc will be incorporated. These elements are discussed in further detail elsewhere in this plan and in the accompanying consultant reports.

The proposed landscape character will feature a predominance of small to medium, indigenous street trees. These plantings will contribute to the development of visual continuity and connectivity along these secondary movement corridors, as well as extending, at a local scale, the defining character of the open space corridor. A small, rather than large palette of species will be used, concentrating on consistent use of species within neighbourhoods in order to create a distinct streetscape character within each.

Internal roads will generally be designed to:

- direct views to the central open space focus of the development;
- incorporate “Water Sensitive Urban Design” initiatives
- provide generous space for planting, allowing the character of the central open space to insinuate itself into the residential streets;
- maximise frontage of residential blocks onto the public realm, particularly the central open space (i.e. rear fences should be avoided);
- provide for lot layouts which maximise solar access and respond to viewing opportunities
- retain existing trees in road reservation
- planting theme provides an indigenous expression

Walking

The development plan incorporates a network of pedestrian paths throughout the subdivision. The major open space node will be connected to each neighbourhood via a series of paths to achieve excellent north-south permeability for pedestrians through the site.

Whilst the detailed design of the footpaths/linear trails will be resolved as part of the detailed subdivision design, the following principles are to be applied :

- paths to be predominantly bordered by residential development to achieve a high level of active surveillance.

Elderslie Land Trust accept the philosophy of safe pedestrian access through residential neighbourhoods and believe the location of walking paths and their provision (whether they be on both sides of the street or one side only) should be addressed through detailed design of each subdivision stage.

Various cross sections showing the proposed street treatments are provided in Appendix 1, which confirm that ample space has been provided to ensure appropriately dimensioned walking paths, and where appropriate combined walking/cycling paths.

The Mernda Strategy Plan identifies a bicycle/pedestrian trail network which extends through the major open space corridor on the Plenty Valley land. This link will provide a direct connection into the town centre or to the regional open space located further south in Precinct 4. In addition, the Development Plan provides a series of lower-order east/west paths that allow for linkages between the residential neighbourhoods.

Cycling

As indicated above, the central open space will feature a high quality off-road cycle and pedestrian network connecting with the Mernda Town Centre. The dimensions and detailed design of bicycle paths will be resolved through the subdivision design process.

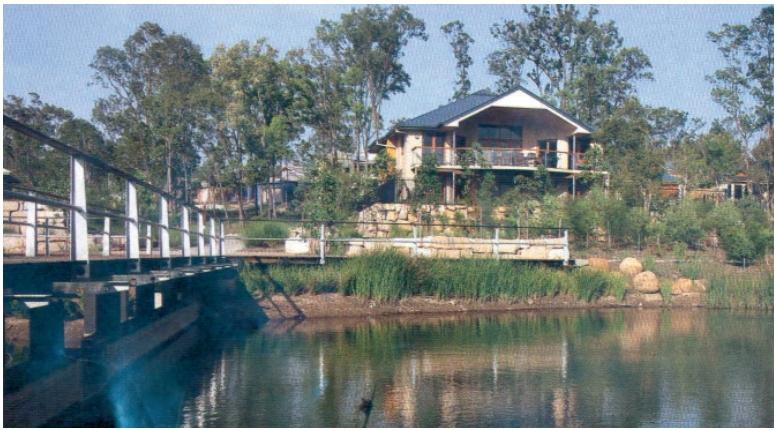
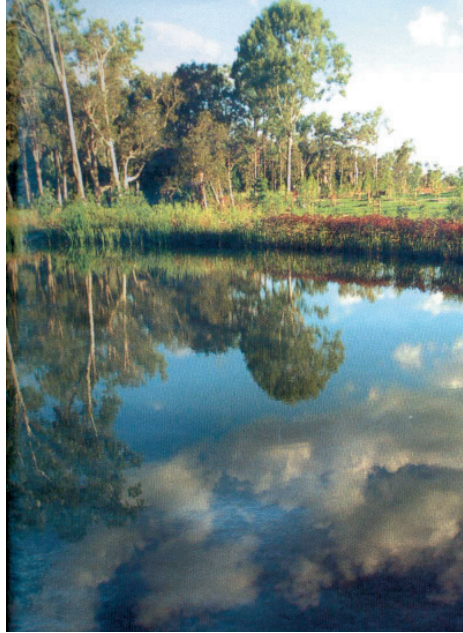
Local street system will facilitate safe and comfortable cycle access as a result of the generous road reservations. It has been recommended that an on-road cycleway is provided as part of the Central sub-arterial road.

For lower order roads, the traffic report recommends the shared footway/footpaths of between 1.5-2.0 metres in width.

Public Transport

The Mernda Strategy Plan (Figure 5.8 – Roads and Public Transport) proposes a bus route through the subject site via the proposed north-south sub-arterial. Road widths and likely treatments for this road have been designed with the expectation that the route will be utilised for public bus services. The proposed north-south arterial (typical 30m wide road reserve) includes lanes of 5.5m in width. This road dimension clearly satisfies the Department's cross section requirements of 3.5m where no separate on road bike path is provided. This will ensure all residents within the site are within convenient walking distance of public transport.

The proposed fixed rail route is located some distance from Plenty Road.



5) development plan assessment

Summary Statement of Compliance:

The Plenty Valley Development Plan seeks to encourage pedestrian and bicycle access both within the residential estate and to key external destinations including the Mernda Town Centre and the open space node to the south, through the provision of a network of shared pedestrian/bicycle trails.

The achievement of a legible and permeable vehicle access network has been a key design objective from the outset. The desire to impart a memorable landscape experience within the local street network has also been at the forefront of the design process. These objectives have resulted in a local road system which will be distinguished by its generous carriageways, median planting and overall landscape quality.

The sub-arterial north-south road alignment links to the Stockland subdivision to the north and the proposed Metricon development to the south. We consider this alignment will achieve Council's objectives with respect to access and integration between precincts.

The opportunities for use of the road system as part of the water sensitive urban design scenarios for the site will form part of the next stage of the application process.

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to the Transportation System.

5.1.3 Environmental Conservation

To protect and enhance environmental character and ecological integrity through a habitat-focused approach to the protection of environmental values, and the application of sustainable development principles.

We note Council's support for a pre-construction Environmental Management Plan and confirm this concept will be applied to the proposed development. We have also noted Council's requirement for a Land Management Plan.

Indigenous Vegetation and Habitat

Vegetation across the subject site primarily consists of introduced pasture species as all properties within the Elderslie Land Trust landholdings are currently used for agricultural purposes.

Whilst the original vegetation over much of the study area has been modified to varying extents, the subject site currently supports remnants of one ecological vegetation class (Plains Grassy Woodland). Remnant indigenous trees (all Eucalyptus spp.) are scattered across the northern, eastern and western boundaries of the site, generally confined to the higher elevations in these areas. While broadly spaced, rather than massed, these mature trees are of significant size (generally between 15 and 20m canopy diameter) and make a substantial visual impact upon the site.

Importantly, the remnant trees also represent an important (and defining) element of the regional landscape character. Incorporation of these trees into the character of the proposed development (and particularly into the public realm) will be an important element in creating a site responsive development on the site.

Non-indigenous trees have been planted in association with residential properties on the northern, eastern and western edges of the site, however, these do not make a significant contribution to the overall character of the site.



5) development plan assessment

The Biosis Report (Appendix 3) makes a number of recommendations regarding the indigenous vegetation and habitat. These recommendations have been adopted by Elderslie Land Trust and will be progressively implemented prior to and during the proposed site works phase as required. The key Biosis recommendations are reproduced below:

Pre-construction

- (c) A net gain assessment should be conducted to determine net gain requirements in accordance with the Native Vegetation Management Framework (2002). All indigenous trees with a DBH (diameter at breast height) of greater than 60 cm will need to be assessed and the area of Plains Grassy Woodland in the north west property (Figure 2) may require a habitat hectare assessment. However, grazing pressure should be removed and the vegetation allowed to grow before an assessment is conducted, to enable accurate identification of species and estimate of cover. This assessment would be best conducted in late spring/early summer.
- (d) A targeted survey for Matted Flax-lily is recommended in the north eastern property (containing remnant Plains Grassy Woodland) and the areas mapped as rocky rise (Figure 2). This assessment could be conducted at the same time as the Net Gain assessment.
- (e) A Construction Environmental Management Plan should be developed prior to commencement of construction and environmental management issues should be incorporated into the workforce induction program.
- (f) All areas of native vegetation planned for retention should be protected. These areas should be fenced prior to commencement of construction works. The ground within the drip line of all retained trees should be protected to prevent damage to the tree's root system.
- (g) There may be opportunities to reduce (mitigate) potential impacts through alterations to the design or management following review of this flora and fauna report and the net gain assessment. It is recommended, as a minimum, that all of the large trees in the north east of the study area be retained and, where possible, incorporated into public open space. Other scattered native trees throughout the study area should be retained wherever possible.

Construction

- (h) Introduction and/or spread of weeds should be avoided. Given the weedy nature of the site, care should be taken to ensure that weeds (particularly Serrated Tussock, Chilean Needle-grass and Patterson's Curse) are not spread beyond the site, or into areas that are going to be retained.
- (i) Disturbance of native vegetation should be kept to a minimum. No equipment or vehicles should be parked within tree retention areas.
- (j) Construction methods and machinery should be selected with the aim of avoiding direct disturbance to vegetation and fauna habitat. Clearing prior to construction should be done carefully to prevent mechanical damage to retained vegetation through falling trees and branches, or other damage such as fuel spills. No soil or other debris should be pushed into retained.
- (k) Material stockpiles, construction buildings, sediment dams, drains and other infrastructure and access roads should be placed on cleared land, and not within areas of native vegetation.
- (l) Any trees which are removed or lopped as part of the proposed development should be incorporated into reserves, constructed artificial wetlands or retarding basins where they can continue to provide fauna habitats. Any required tree lopping should be conducted by a qualified arborist. Tree limbs should be removed with appropriate equipment, and not snapped.
- (m) Sub-surface rock or piles of rock disturbed during construction should be used to provide habitat within reserves established as part of the development.
- (n) Retarding basins should be constructed so as to enhance aquatic habitats throughout the site. Design and construction should follow the Melbourne Water document 'Constructed Wetland Systems, Design Guidelines for Developers' (available over the internet). Best practice sedimentation and drainage management should be adopted to ensure that drainage water carrying sediment and other pollutants from any works area does not enter any nearby watercourses.

Post-construction

- (o) *Use of site indigenous native species for landscape and wetland plantings will enhance the natural values of the study area. Plantings should contain species of local provenance and appropriate for Plains Grassy Woodland and Plains Grassy Wetland (for any proposed wetland areas).*
- (p) *Barriers should be erected surrounding retained River Red-gums to protect existing trees and encourage future regeneration. The barrier (e.g. fencing, bollards, placement of rocks) should be erected around the drip-line of the retained trees (as a minimum area) to prevent damage to the root systems by vehicular access under the trees. Any biomass control works undertaken within these areas should be undertaken with care to avoid any seedlings.*
- (q) *An additional area may be required to be fenced for recruitment of trees, depending on the outcome of the net gain assessment.*

Areas Requiring Environmental Protection

Specific areas within the Elderslie Land Trust landholdings requiring environmental protection are detailed above. In particular, the areas requiring specific environmental protection generally are those areas with retained River Red-gums. It is envisaged that the majority of recommendations detailed above would be addressed via permit conditions for future subdivision applications for the site.

Tree Logic undertook an inspection of the significant trees on site and collected information on the species, dimensions, health and structure of the trees and assessed their appropriateness for retention. Tree Logic found that the remnant tree population is generally aging with the majority of specimens displaying some form of previous decline or varying degrees of structural faults. Whilst the developer has indicated a commitment to retain remnant trees the Tree Logic assessment has indicated a number of trees that should be removed during the design process given their current condition and the hazard they could create.

Summary Statement of Compliance:

The Plenty Valley Development Plan embraces the natural landscape as the basis for the subdivision design.

The design provides for the retention of all arboriculturally sustainable remnant trees, either within public open space, road reserves or the integrated housing superlots. Biosis surveys confirmed that Matted Flax Lilies are not present on the subject site. The development of the site is therefore unlikely to trigger provisions of the EPBC Act or require referral to the Commonwealth Minister for Environment and Heritage. The recommendations made by Biosis can be addressed via permit conditions for future subdivision applications.

The Tree Logic report makes specific recommendations as to specific trees that should be considered for removal. These recommendations be taken on board in the subsequent subdivision design and application phases.

Whilst not proposed at the Development Plan stage, it is proposed that tree protection zones for retained trees will be drawn onto a 'Tree Protection Plan' for each stage of the development as part of the subdivision approval process.

We consider the Development Plan achieves the objectives of the Mernda Strategy Plan with respect to Environmental Conservation.

4.1.4 Activity Centres

To establish a hierarchy of diverse and highly accessible activity centres comprising pedestrian orientated precinct and local centres arranged around a traditional mixed-use town centre.

Activity Centre Hierarchy

The Mernda Strategy Plan provides a hierarchy of retail centres where the Mernda Town Centre is the major business/commercial centre for the region. Smaller convenience/neighbourhood centres are also proposed.

The location of the lower order centres has been determined on a precinct basis. The Plenty Valley Development Plan covers the northern part of Precinct 4. Whilst no retail or community centres have been planned with the Elderslie Land Trust land holdings, residents will have relatively convenient pedestrian and vehicular access to both the Mernda Town Centre and also the planned Precinct 4 centre, located within the Metricon landholdings.

Employment and Economic Development

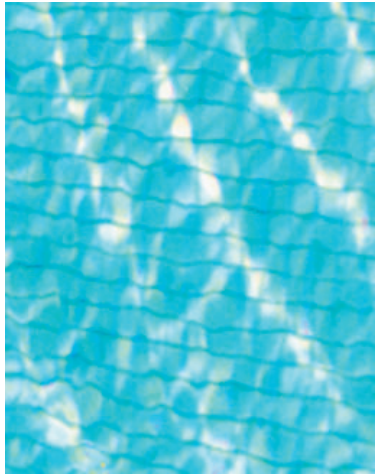
The proposed mixed-use nature of the town centre, may result in opportunities for local residents to work close to home.

Activity Centre Design

The Mernda Strategy Plan provides for an area of highway-commercial development on the Plenty Road frontage of the subject property, as a peripheral component of the Mernda Town Centre. Whilst the land fronting Plenty Road is not covered by this Development Plan, there is a need to ensure that the interface between the town centre land uses and the residential areas are treated appropriately.

The revised Development Plan indicates a future reconfiguration of the CDZ to align with the new north-south link through the Elderslie Land Trust site. This road interface should minimise the potential for conflict between the various land use types (i.e. commercial, community and residential).

In addition, the Development Plan proposes Integrated Housing adjacent to the proposed Comprehensive Development Zone. This response is consistent with the broad intent of the MSP, which promotes a gradation of densities across the Plan area, with medium density housing opportunities concentrated in the first instance around the town centre.



5) development plan assessment

Summary Statement of Compliance:

Whilst the subject site does not contain a local neighbourhood centre, the road network together with the proposed pedestrian and bicycle trails will provide residents with excellent access to the Mernda Town Centre and other local centres in the hierarchy.

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to Activity Centres.

Social Infrastructure

To facilitate the timely provision of a range of community and recreation facilities to meet the needs of local residents, and promote community health and cohesion.

Provision and Design of Social Infrastructure

Residents of the proposed subdivision will have convenient access to the major community and recreation facilities proposed by the Mernda Strategy Plan. In particular, Plenty Valley residents will enjoy convenient pedestrian, cycle and vehicular access to the town centre and the higher order recreation facilities proposed within Precinct 3.

The major open space network provided to Plenty Valley residents will also connect directly with the open space and community sporting fields provided within the southern section of Precinct 4.

The Mernda Strategy Plan provides for the development of a combined Government Primary School and Government Secondary College, also known as Prep Year 12 (P-12) on land straddling the southern boundary of the Elderslie Land Trust landholdings.

Consultation with the Department of Employment, Education and Training (DEET) has progressed significantly since the lodgement of the initial Development Plan and we are pleased to confirm to Council that the proposed P-12 government school will be primarily located on the Elderslie Land Trust site, as envisaged by the revised Precinct 4 plan.

The school site provides the following characteristics, all of which meet or exceed the requirements of DEET :

- Provides 4 road frontages
- Provides optimal site configuration/maximum flexibility
- Provides majority of required space on Elderslie Land Trust land with remainder on land to the south
- Provides flexibility in relation to staging of development
- School site does not front Plenty Road
- Provides excellent open space linkages into the estate to the south

Pedestrian access paths will be provided for movement of primary and secondary school students through the central open space corridor to the Mernda Town Centre. Whilst not immediately adjacent to the Town Centre, we consider that the location of the school site and the proposed movement network will allow for fairly direct connectivity.

The location of the P-12 school on the southern boundary of the site will also provide residents with access to additional passive and active open space.

In line with philosophy for WSUD across the subject site, we consider that the school site is an integral part of the overall WSUD approach. Just as settlement of the residential lots will require specific conditions in relation to WSUD, the school site and other non-residential uses will also be subject to conditions.

Community Development

Whilst the Mernda Strategy Plan does not make allowances for any specific community facilities within the Elderslie Land Trust component of Precinct 4, it is considered that the layout of the subdivision will foster community interaction. The walking/cycling paths in particular will provide excellent access to facilities outside the Elderslie Land Trust landholdings. It is also envisaged that the school will form a major focus for the residential community within Precinct 4.

Summary Statement of Compliance:

The Mernda Strategy Plan proposes the development of a combined Primary and Secondary school facility within Precinct 4 on land primarily held by Elderslie Land Trust. Following numerous discussions the site location and configuration has been accepted by the Department of Education, Employment and Training as appropriate for their requirements.

The Development Plan, in making provision for the proposed school facility in a location acceptable to DEET has therefore achieved the objectives of the Mernda Strategy Plan in relation to social infrastructure on the Elderslie Land Trust site.



5) development plan assessment

5.1.5 Housing

To provide a mix of lot sizes and housing forms to cater for a broad range of household types. The design of dwellings should be site-responsive, energy efficient, and contributory to the formation of local identity.

Housing Diversity and Design

Elderslie Land Trust is committed to achieving design innovation and excellence in every aspect of the project design. Elderslie Land Trust's objectives for the design of built product on the site are closely aligned with the strategic intent of the Mernda Strategy Plan, which strives to achieve liveable, sustainable neighbourhood environments.

The Development Plan seeks to fulfil the objectives of the Strategy Plan for more sustainable, integrated housing development. In doing so it makes provision for a wide range of lot sizes and housing types and styles, including:-

- Standard Residential Allotments
- Village Green Housing
- Integrated Housing

To ensure the highest quality built form outcomes are achieved within the new residential environment, Elderslie Land Trust has engaged one of Australia's leading architectural practices, Marchese Popov, to provide design leadership through the delivery of the built form product. In particular Marchese Popov will play a major role in the design and delivery of the Village Green housing, and will oversee the design and theming of housing in the balance of the estate.

Elderslie Land Trust is also committed to the preparation of Design Guidelines for the estate, which will encapsulate the design intent and philosophy confirmed by Marchese Popov in the Village Green precincts. A Design Review Panel will also be established (lead by Marchese Popov and Urbis JHD), to ensure there is universal design quality and synergy in all housing product on the site.

Energy Efficiency/Sustainability Measures

As required by the Mernda Strategy Plan, all residential development within the estate will achieve at least a five star energy rating, and will meet the requirements of the Energy Smart Estates programme administered by the Sustainable Energy Authority.

Principles of energy efficiency have also been embraced in the Development Plan design. Local streets are predominately aligned north-south and east-west and the dominant lot configuration is rectangular.

The consultant team have been investigating a range of 'sustainability' measures that will be incorporated within the development. Subdivision orientation and energy efficient housing as detailed above are but two measures to be incorporated. We consider that the WSUD initiatives to be incorporated will represent a major sustainability measures across the total development.

The philosophy for the WSUD seeks to manage outflows within each residential cell/village green super lot. Each of these cells will ultimately have an outfall to the open space network.

In relation to the conditions of sale for each lot, it is the developer's intention to not only specify design parameters (building envelopes, design etc) but also to incorporate requirements for WSUD. Covenants will provide certainty of an on going commitment to the philosophy of WSUD and other environmental measures that will be required to be continued through subsequent land owners.

The built form development of the site will allow for a range of sustainability benefits. Some of the initiatives which are likely to be considered in detailed design include:

- Design, layout, orientation and built form of dwellings to allow passive solar design principles. Orientation of dwellings to allow maximum controlled seasonal penetration of sunlight.
- Dwellings to be designed to have cross ventilation.
- Visual connection from dwellings to internal courtyards. Landscaping appropriate to optimise useability, privacy and social opportunity.
- Water saving initiatives at the individual house design level may include on site storm water retention and re-use for irrigation. Water saving appliances will also be actively encouraged.
- Energy efficiencies will be enhanced through selection of appropriate and sustainable materials, for example, use of harvested plantation timbers in construction on external claddings.
- Residential housing insulation criteria reviewed to increase building energy rating.

Appropriate landscape development of the site will also allow for a range of sustainability benefits. Some of the initiatives which are likely to be considered in detailed design include:

- The use of plantation timbers, rather than old-growth material
- The use of indigenous species of local provenance
- The use of recycled materials, such as recycled concrete and asphalt
- Designing the landscape to require low applied water usage
- Re-use of site materials, such as topsoil, wherever possible, rather than importing materials
- The use of local vegetative materials, for mulching, if available.

We consider the location of driveways within lots to be a matter of detailed design that will be addressed at the subdivision stage. In addition, the Design Review Panel will encourage the adoption of energy efficient design principles for all individual house designs within the estate.

5) development plan assessment

Residential Density

Development densities across the estate are expected to range from as high as 1:180 square metres for some areas of Integrated Housing, to 1: 500 square metres within areas proposed for standard residential development. The housing types provided on these lots will include attached, semi-detached and detached dwellings, catering for a range of market segments and household types.

Whilst the development densities proposed within the site are somewhat higher than the average density of 8 lots per ha specified in the MSP, this is entirely appropriate in the context of the location and physical attributes of the Plenty Valley land. Moreover, we consider that it is strategically desirable with respect to the objectives of the Strategy Plan which seek to achieve more compact urban development immediately adjacent to the Mernda Town Centre.

Response to key interfaces

Bridge Inn Road interface

We are well aware of Council's requirement that the development presents active frontages to Bridge Inn Road. The interface between the proposed development and Bridge Inn Road incorporates the following key elements (as illustrated conceptually on the attached Sections) :

- Widening of the Bridge Inn Road reserve by 4,900mm, as required by the Mernda Strategy Plan. This zone will incorporate low level landscape and a shared pathway (we note that the zone will not be wide enough to provide the necessary 'clear zones' for trees). The southern edge of the road reserve will form the northern property boundary of adjacent residential lots.
- A landscape zone along the northern edge of the adjacent residential lots, within the residential property boundary. This zone will vary in size in response to the natural topography but be up to 10,000mm wide at certain points. This zone will include significant landscape treatments including tall trees (being outside required clear zones), mounding, low level indigenous planting consistent with the treatment established within the road reserve, and some fencing for privacy and acoustic benefits. This zone will be established and planted by the developer and will be the subject of a covenant on the title of each lot.
- Site specific building designs which provide for visual address to Bridge Inn Road, while also allowing for functional address (servicing, access etc) from a local road to the south of each lot. This will achieve the dual objectives of an active interface with Bridge Inn Road, as well as direct access from the local street system. Emergency access to these lots will be provided from the rear.
- The combination of these elements will create a visual interface with Bridge Inn Road where houses with north facing living area are viewed through a consistent and substantial landscape edge.

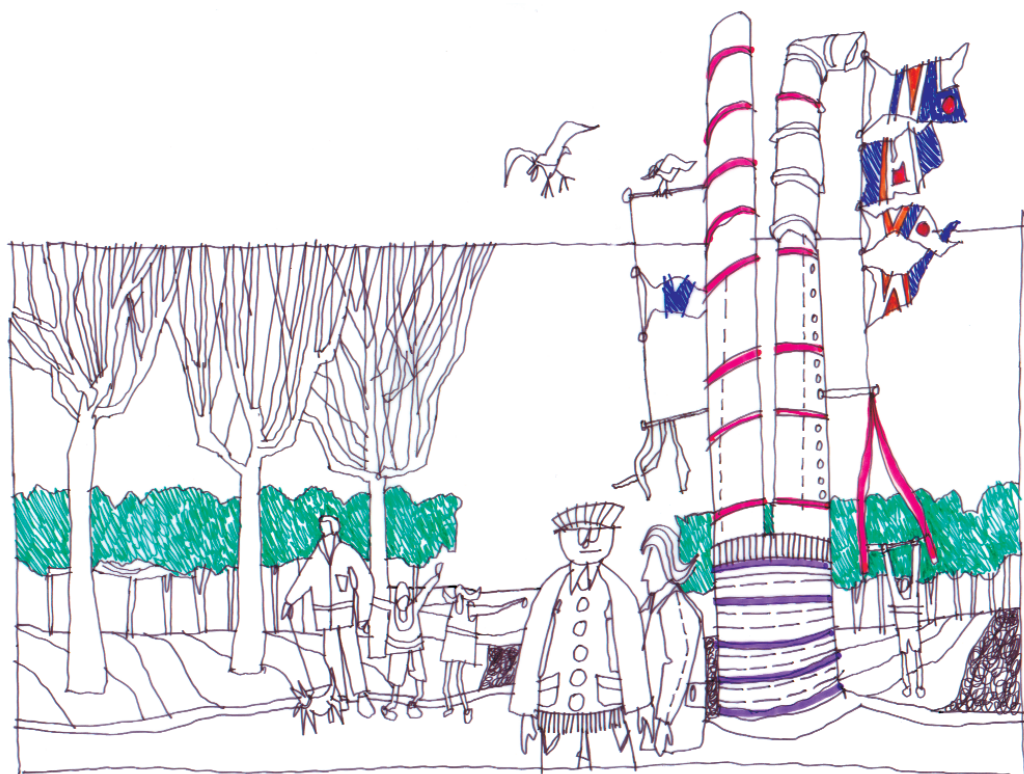
- Discussions between Grogan Richards and Vic Roads canvassed the issue of service roads along Plenty Road. It is our understanding is that while service roads provide an acceptable access solution, these will not be necessary because vehicle access can be provided by local streets to the south. Access from the south is considered preferable in that it will significantly reduce the number of intersections that need to be accommodated along the arterial network.

CDZ interface

Although outside the scope of this Development Plan the commercial/residential interface requires careful consideration to ensure a positive design outcome. As an overriding principle, the key objective will be to create a 'seamless' transition between what will ultimately be a mix of land uses. Consequently, the design approach is to create a landscaped buffer along the road reservation that will provide a clearly defined 'line of separation'.

Statement of Compliance:

We consider the Development Plan satisfies objectives of the Mernda Strategy Plan with respect to Housing.



5) development plan assessment

5.1.6 Open Space Network

To establish an integrated open space network that maintains ecological integrity and environmental character as well as offering a wide range of passive and active recreation opportunities for all user-groups.

Open Space Provision

The distinguishing feature of the Plenty Valley Development Plan is the central open space corridor. This forms the basic skeleton around which the design response has unfolded.

The open space corridor provides a strong response to the topographic characteristics of the site, being situated on its lower lying alluvial areas, between the higher Silurian and basalt intrusions. The corridor will have a “natural” landscape character incorporating both the two main drainage channels (in a modified form) as well as new water bodies and wetlands. These wetlands will provide opportunities for passive recreational pursuits along with creating a valuable fauna habitat.

The open space will also incorporate:

- some areas of open grassland providing informal active recreation opportunities
- a path network connecting both open grassland and wetland areas with the residential street network
- decks and boardwalks associated with the wetland areas and connected with the path network.

A proportion of the major open space provision within the subject site is encumbered land (drainage reserve). However, the design augments the required open space provision by providing an area of greater dimension to ensure the open space is of an apt scale.

Trees and lower vegetation to be established within the open space will be locally indigenous, building upon the existing character provided by the remnant trees already found on the site.

In addition to the central corridor, the residential areas of the development will feature smaller, more localised areas of open space. In keeping with the nature of the development as a whole, the local open space areas will project an indigenous character, through the planting of local trees, native grasses and natural stone. The location and design of local open space to particularly retain remnant trees will be an important means of projecting this character.

In all cases, these areas will be surrounded by the frontages of residential blocks, ensuring that surveillance is retained and activity is generated within each area.

In addition to the central open space corridor, the philosophy of retaining the significant native trees on site has resulted in the location of a number of 'pocket parks'. These are particularly numerous in the northern section of the estate. The pedestrian network will seek to link the series of parks such that residents will have access to informal areas without the need to travel to the major open space.

In relation to the distance between the drainage reserve and the integrated housing sites, we note that the development plan has 'embellished' the drainage reserve significantly with additional public open space along its length. We envisage that the integrated housing will 'sit' within the general open space context, and that the height and bulk of the dwellings will not unreasonably encroach upon the width of public open space.

In addition to the POS statutorily required, we consider that the 'landscape fingers', the retention of remnant trees, the school's sporting fields and the design proposals for the 'village green' housing will all contribute to an environment enriched with both communal and public open space.

We would also note that the configuration of the 'village' housing lots will achieve site coverage generally less than 50%, with the balance developed as green space and path networks (i.e. with limited hard stand areas).

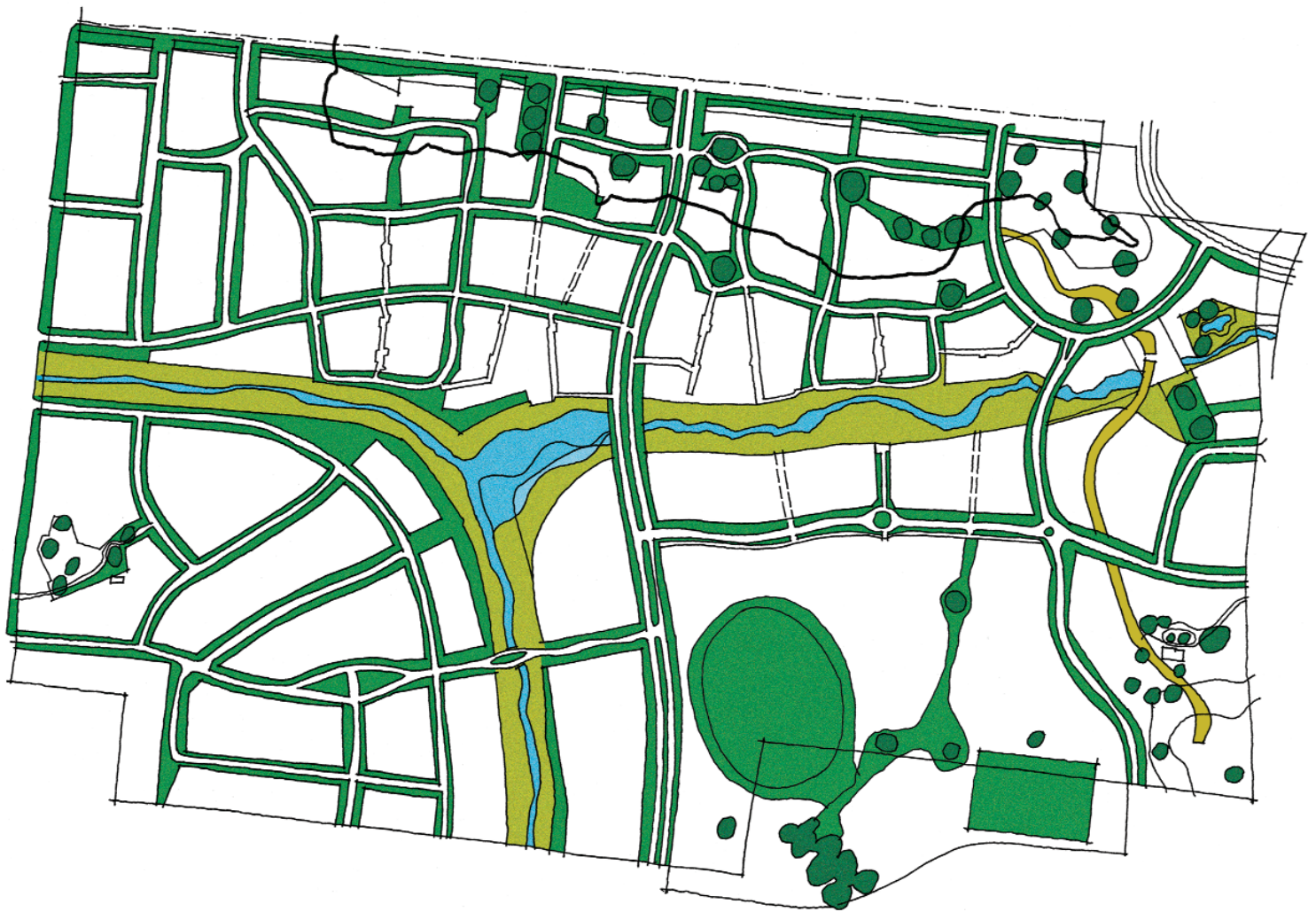
Specifically, discrete local open space areas are located:

- in association with the northern escarpment, especially in the north-eastern corner of the site
- between Cravens Road and the on the local knoll, near the western boundary of the site
- around selected existing trees, especially on upper levels above the northern escarpment, and the local high point near the eastern edge of the site.

The Development Plan incorporates the minimum 3.86ha of encumbered and unencumbered public open space as required under the Mernda Strategy Plan. In addition, it includes provision for additional 'embellishment' open space in other parts of the site to complement the core communal space.

Open space	Area	%of total site area
Unencumbered Public Open Space as required by the Mernda Strategy Plan	3.86ha	5.0%
'Embellishment' open space	4.23ha	5.4%
TOTAL	8.09ha	10.4%

Public Open Space



Plan 5

5) development plan assessment

Open Space

Whilst we recognise Council's desire to gain a greater appreciation for the amount of unencumbered and secondary public open space to be provided, we consider that at the development plan stage the provision of tabulated specific areas (sq.m.) is too detailed. In relation to the remnant trees for example, whilst the arborist has identified the trees of particular interest, tree protection zones have not been determined for individual trees. We consider this to be a level of detail to be canvassed for the subdivision application.

It is submitted that the total site will enjoy excellent provision of public, communal and 'embellishment' open space. Council have questioned the distance between the drainage reserve and the integrated housing sites. The development plan has 'embellished' the drainage reserve significantly with additional public open space along its length. We envisage that the integrated housing will 'sit' within the general open space context, and that the height and bulk of the dwellings will not unreasonably encroach upon the width of public open space.

In addition to the POS statutorily required, we consider that the 'landscape fingers', the retention of remnant trees, the school's sporting fields and the design proposals for the 'village green' housing will all contribute to an environment enriched with both communal and public open space.

We would also note that the configuration of the village housing lots will achieve site coverage generally less than 50%, with the balance developed as green space and path networks (i.e. with limited hard stand areas).

Access and Integration

The design of proposed open space will be integrated with the design of the residential development, such that it will:

- create a visual focus for the entire area of the development
- create a continuous parkland setting for the site
- contribute to a co-ordinated cycle and pedestrian network connecting with the Mernda Town Centre
- provide for future links to the Plenty Gorge parklands.

Drainage Functions

The open space network will play a significant role in the drainage functions for the estate. The following principles have been taken into account in the layout design and incorporated into the Development Plan:

- development should recognise the original drainage regime of the site by directing stormwater to treatment areas (i.e. wetlands) located at the lowest points of the site. This will in turn allow for some return of the original landscape character of the site.

- open space areas should be integrated with drainage reserves, so that wetlands and marshes become the focus of the open space character of the site. In this way the original "marsh" character of the site will also become the future landscape character associated with the site.
- The main water body shown in the centre of the site is proposed as a shallow lake surrounded by deep marsh planting. Because of the inconsistent supply of stormwater through the site, the water body will be ephemeral in nature with the water level varying and perhaps drying entirely during extreme drought conditions.
- The waterbody would be designed in accordance with Melbourne Water's "Guidelines for Shallow Lake Systems". Some smaller ephemeral water bodies may also be located along the drainage reserve as part of the landscape and WSUD solution.

Management

The use of the indigenous flora, particularly within road reserves, will not only make a significant contribution to the landscape character of the development, but will also be focused on reducing on-going maintenance, as well as ongoing water use. This will not only be reflected in the species chosen, but also in the form of planting areas, which will particularly work towards reducing managed lawn areas.

Statement of Compliance:

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to the Open Space Network.

5.1.7 Heritage And Culture

To protect Aboriginal and European heritage sites, and to heighten community understanding and appreciation of this heritage through cultural responsive design practices.

Aboriginal Archaeological Sites

The archaeological study of the subject area was undertaken by natural & cultural heritage consultants, Biosis Research and their report is attached at Appendix 3. The Biosis report comments that previous archaeological studies have resulted in a large number of Aboriginal sites being recorded in the Mernda area. These are generally scarred trees, isolated artefacts, artefact scatters or stone procurement sites.

The site prediction model developed by Ellender (1996) for the South Morang - Mernda area suggests that scarred trees, isolated artefacts and artefact scatters are the most likely site types that could be expected to occur in the study area.

During the archaeological and cultural heritage survey of the Plenty Valley site, no previously unrecorded Aboriginal sites were located, although one site had been recorded previously on Lot 5 Plenty Road. This site is a scarred tree (AAV7922/0787).

The key recommendations arising from the Biosis report with respect to Aboriginal Sites are identified below, together with Elderslie Land Trust's proposed response: -

Recommendation 1

- (a) *It is recommended that a program of sub-surface testing is carried out on areas identified as potentially sensitive for Aboriginal sites. These include the stony rises in the Salce, Quattrocchi, Davey, Petersen, Lot 4 and Lot 5 properties. Sub-surface testing should take the form of shovel probe holes that would be dug in a grid pattern across the area of sensitivity. This technique is less invasive than using a backhoe, and less destructive of sub-surface deposits. The testing should be carried out by a qualified archaeologist and a representative of the Wurundjeri.*
- (b) *In addition, Allan Wandin (Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc.) recommended that sub-surface testing using a backhoe should be carried out across the depression in the south eastern corner and around the house at the Lot 5 property, in order to determine whether any archaeological material is present there. Although the rise on which the house is located has been heavily disturbed through clearance, building and landscaping, Allan considers that there is the possibility of archaeological material being present.*
- Sub-surface testing would involve using a backhoe to dig a small number of sample transects across the south eastern corner and around the house to a depth of approximately 30 centimetres.*
- (c) *Soil from sub-surface testing would be sieved and any artefacts found would be recorded, mapped, analysed and photographed. Artefacts would then be returned to their original position and the site would be registered with AAV. Further recommendations would then be made regarding the management of any sites.*
- (d) *Prior to testing, a permit to excavate needs to be obtained from the Minister for Aboriginal Affairs, the Hon. Gavin Jennings, and a separate permit, under Section 22 of the Aboriginal and Archaeological Relics Protection Act 1972, from Aboriginal Affairs Victoria. The study area is located in the legislative area of the Coranderrk Koorie Co-operative, however this organisation is now defunct. All matters pertaining to cultural heritage are therefore referred to the Minister, who consults with the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc., as the Mernda area is part of traditional Wurundjeri lands.*

Response to Recommendations:

The recommendations detailed above with respect to the further testing of land will be undertaken by Elderslie Land Trust following approval of the Development Plan, and prior to the commencement of site works. Should any artefacts be recovered, the appropriate processes will followed.

We note that the Development Plan design may require modification pending outcomes of further archaeological and cultural heritage survey assessments.

Further assessments will occur prior to the lodgement of subdivision applications. If Aboriginal archaeological sites are found during the sub surface testing program, the subdivision design will be amended as required in order to protect the sites.

Recommendation 2

If development is to take place in the north western section of the Quattrocchi property, it is recommended that a program of archaeological monitoring is carried out in the vicinity of the River Red Gums. Monitoring would involve having a backhoe scrape grass and topsoil to a depth of approximately 20 centimetres, in 5 centimetre layers. The scraped area would then be examined by a representative from the Wurundjeri and a qualified archaeologist. Any artefacts found would be recorded and analysed, and subsequently collected by the community representative and placed in a location deemed appropriate by the Wurundjeri community. Permits to disturb any sites that were found would need to be obtained from the Minister for Aboriginal Affairs, who will consult with the Wurundjeri. There is some possibility that Aboriginal archaeological material is present beneath the ground surface as this area has undergone little disturbance, as it is a basalt outcrop.

Response to Recommendations:

Development is proposed to occur in the north western section of the Quattrocchi property. Archaeological testing of this land will be undertaken by Elderslie Land Trust following approval of the Development Plan as part of the subsequent Subdivision Application process. Should any artefacts be recovered, appropriate processes will be followed. The subdivision design will be amended if required in order to protect Aboriginal archaeological sites if found.

Recommendation 3

It is recommended that the scarred tree on Lot 5 (AAV7922/0787) is preserved and protected by placing public open space around it. Scarred trees are a site type that is non-renewable and are dying out. It is recommended that no development take place within the diameter of the tree canopy drip line, and that the tree is fenced off during construction to prevent vehicular damage to the tree.

If it is not possible to retain the tree, a Permit to Destroy will need to be obtained from the Minister for Aboriginal Affairs, the Hon. Gavin Jennings. The Minister will consult the local Aboriginal community, the Wurundjeri, and it is likely that the community will recommend that the tree is retained, based on discussions with Mark Wandin (representative for the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc.).

Response to Recommendations:

The scar tree will be retained as a landscape feature on the P-12 site with the Development Plan suggesting it provides the focus of a secondary open space link. Given the recommendations of Biosis, it is considered likely that DEET would seek to retain the tree.

5) development plan assessment

Heritage buildings and Structures

Historical sites that have been recorded in the Mernda area reflect early farming practices, transport routes and domestic activities. Historical sites that could be expected to occur are similarly likely to be related to early farming activities, and may include remains of dwellings or farm buildings, dry stone walls, farm machinery or wells.

One non-Aboriginal historical sites was recorded during the survey, being a bluestone quarry, Quinzy H1 (D7922-0291). Heritage Victoria have assigned a D-listing to the quarry site which means that a Consent to Disturb will not be required if the site cannot be retained, although Heritage Victoria request that they are notified in writing when disturbance occurs in order to update their records.

The key recommendations arising from the Biosis report with respect to Historical Sites are identified below, together with Elderslie Land Trust's proposed response: -

Recommendation 5

It is recommended that historical site Quinzy H1 (D7922-0291), the basalt quarry, is incorporated into public open space. It may be possible to provide interpretation material explaining the site.

Heritage Victoria have assigned a D-listing to the quarry site which means that a Consent to Disturb will not be required if the site cannot be retained, although Heritage Victoria request that they are notified in writing when disturbance occurs in order to update their records.

Response to Recommendations:

It is intended that the basalt quarry will be located within the public open space.

Recommendation 6

It is recommended that a suitably qualified conservation architect inspects the Federation style house on Lot 5, and provides a significance assessment. The house dates from around 1910, and Federation style houses are relatively uncommon in the Mernda area.

Response to Recommendations:

Elderslie Land Trust intend to seek advice from an appropriately qualified heritage architect to confirm whether the house on Lot 5 has any local historic significance. It is noted that the house is not identified within the Whittlesea Heritage Study.

Statement of Compliance:

The Development Plan is respectful of the limited areas of Aboriginal heritage identified on the site and seeks to ensure that they are appropriately protected and conserved within the subdivision design. The Scarred Tree will form a landscape feature on the school site whilst the Basalt Quarry is proposed to be integrated into the public open space.

We consider the recommendations detailed above can be addressed via to conditions on future subdivision permits.

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to Heritage and Culture.

5.1.8 Servicing and Drainage

To minimise any negative impact on natural land and aquatic systems by ensuring that all development accords with the servicing and drainage strategies devised by Yarra Valley Water and Melbourne Water respectively.

Sewage and Water

Bonacci have prepared a report detailing the servicing requirements for the Elderslie Land Trust landholdings.

In relation to water supply, the subject development will ultimately be serviced by a high level supply tank south of the site with trunk water main extensions up to 600mm diameter along Cravens Road and Bridge Inn Road to connect to the existing main east of Plenty Road.

This arrangement differs from the supply method on Plan 3.7 of the Mernda Strategy Plan which shows a supply tank to the north of the development rather than south. Yarra Valley Water has determined the changed location following property acquisition negotiations. These works are expected to be complete by 2007.

To supply water to the early stages of this development, Yarra Valley water advises that a Melbourne water pumping station is to be upgraded to allow the existing main in Bridge Inn Road, east of Plenty Road to be extended west along Bridge Inn Road. An extension south along Plenty Road from Bridge Inn Road would be required should development commence along this frontage.

The final development will be serviced by a high level supply tank south of the Elderslie Land Trust land with trunk water main extensions along Cravens Road and Bridge Inn Road to connect to the existing main east of Plenty Road.

Sewage requirements for the subject development will be provided by Yarra Valley Water under their Mernda / Doreen Local Catchment Plan. The scheme remains consistent with plan 3.6 of the Mernda Strategy Plan.

To service the full development of the Elderslie Land Trust land, trunk gravity sewers varying from 375mm diameter to 600mm diameter, rising mains, three flow control facilities and Mernda Pumping Station and Doreen South Pumping Stations will be required.

To allow the initial stages of the development to proceed, Elderslie Land Trust is entering into an agreement with the Stockland Group, AV Jennings, Central Equity and Metricon Homes, to fund the construction of the first stage of this major infrastructure extension. The agreement will provide for gravity sewer construction which will be incorporated into the final infrastructure and also some temporary rising main works. The temporary works will be constructed with the co-operation of Yarra Valley Water and will be totally within the property of the developers who are party to the agreement or within road reserves, which will avoid delays in negotiating access with third parties or in acquiring land for facilities. Earth-Tech Engineering Consultants will act as the point of contact with Yarra Valley Water on behalf of the 5 developers to co-ordinate the trunk sewer works.

Drainage

The Plenty Valley development is located relatively high in the catchment (as is described in the Draft Mernda Drainage Scheme, Section 2.2.2). Consequently, run-off flows during storm events are not large. This creates good opportunities for the successful incorporation of WSUD treatments on-site and at a precinct level in open space networks.

Melbourne Water have advised that the development will be covered by the Mernda Drainage Scheme. It is acknowledged that the drainage scheme is in preliminary form but is understood to require construction of gross pollutant traps, sedimentation basins, open channels and culverts and main drains.

The drainage scheme encourages the use of Water Sensitive Urban Design techniques in consultation with Council. The scheme is in preliminary form only at this time and the Water Sensitive Urban Design techniques adopted in the final design may alter the extent of works such as sedimentation basins and open channels required under the Drainage Scheme.

Water Sensitive Urban Design

Water Sensitive Urban Design at this site will involve managing stormwater runoff to maximise aesthetic outcomes while improving water quality and controlling flooding. The WSUD measures to be incorporated into the development will comply with the aims of Clauses 2.2.1 (f), 5.7.4 and 5.9.2 of the Mernda Strategy Plan. The open channel proposed will at times carry substantial overland flows as mentioned in clause 3.3.2 of the Mernda Strategy Plan. The 50 metre wide drainage reserve shown can adequately cater for flows of this magnitude. The drainage easement will play a key role in influencing the form of the open space to run through the proposed development.

The proposed WSUD system relies on retarding flows by means of rainwater tanks, swales, bio-retention trenches, rainwater gardens and filter strips. Where it can be avoided, flows will not aggregated as they proceed down the catchment. Suspended solids and nutrients will be progressively removed with the aim of stormwater leaving the site meeting a target of 45 / 45 / 80 standard for nitrogen / phosphorous / suspended solids.

The need for gross pollutant traps in addition to these measures will be considered as part of the final design solution, with the most likely area needing this treatment being the commercial area of the CDZ zone.

The main water body shown in the centre of the site is proposed as a shallow lake surrounded by deep marsh planting. Because of the inconsistent supply of stormwater through the site, the water body will be ephemeral in nature with the water level varying and perhaps drying entirely during extreme drought conditions. The waterbody would be designed in accordance with Melbourne Water's "Guidelines for Shallow Lake Systems". Some smaller ephemeral water bodies may also be located along the drainage reserve as part of the landscape and WSUD solution.

The waterbody's top water level will be controlled as part of the hydraulic design of the drainage channel to maintain an adequate freeboard clearance to floor levels of housing sites along the channel and surrounding the waterbody. The Golder Associates geotechnical report indicates that the geology of the area is suited to the provision of a lake / wetland system provided that suitable topsoil lining is provided to the underlying clays to prevent them drying out and shrinking. The report further advises that adequate topsoil is available for this purpose as topsoil is abnormally deep in this area.

In addition to the specific role to be played by the open space network, the following specific WSUD initiatives are expected to be incorporated into the development:

- modified curbs to allow on-site retention of stormwater
- Swale drainage and retention systems in nature and median strips
- Swale/bioretention systems located within the road reserves of key access routes and main north-south road alignments.
- pervious pavements, on-site retention and swale/bioretention systems in large paved areas such as carparks, court bowls, communal court yards etc.
- diversion of roof run off to gardens excess flow diversion to street swales, no direct connection to traditional stormwater pipes
- wetland and sediment ponds treatments at drainage connections into main drainage channels
- use of paths through principal open space to provide maintenance access to waterways and drainage features
- use of information boards to educate residents about the WSUD elements of their neighbourhood

5) development plan assessment

Further detail regarding the means by which these Water Sensitive Urban Design techniques will be incorporated are proposed to be provided at the Subdivision Application stage. It is noted that the final design may alter the extent of works such as sedimentation basins and open channels required under the Drainage Scheme.

Construction of drainage and other infrastructure elements will be carried out under the control of an Environmental Management Plan which will be prepared and reviewed prior to the commencement of construction.

Other Services

Gas services will be made available to the development along Plenty Road during 2004. Whilst development along the Bridge Inn Road frontage will require a gas main extension, it is proposed that this could share a common trench with the required water main construction.

TXU advises that an existing overhead three phase 22 kV high voltage, feeder rated power line is available in the development area and is situated along Plenty Road. This line is adequate for the development and requires no augmentation.

TXU further advise that a three phase overhead (O/H) rural line exists in Bridge Inn Road, west of Plenty Road. This is not suitable in its present form to cater for the development and would need to be upgraded to supply lots along the Bridge Inn Road frontage. Upgrading of this main would proceed as development warrants along Bridge Inn Road in conjunction with gas and water upgrading works and the widening of Bridge Inn Road.

With respect to Telecommunications, Telstra have advised that for supply to the site, an extension of cable from the Mernda Exchange is required. This extension would be at the cost of Telstra and timing of the extension would be to suit the rate of development. Subsequent requirements to supply the development site would be in accordance with standard development arrangements with supply of cable via shared trenching and conduits by the developer. The design and layout of the telecommunications infrastructure and conduits will be in accordance with Clause 2.2.2 (d) of the Mernda Strategy Plan and will facilitate the efficient installation of broad band telecommunications services.

Statement of Compliance:

We consider the Development Plan clearly achieves the objectives of the Mernda Strategy Plan with respect to Servicing and Drainage.

5.1.9 Infrastructure Charges

To put in place an equitable funding framework that will ensure the timely provision of infrastructure that is essential to the establishment of a new sustainable community.

Elderslie Land Trust accept that infrastructure charges will be payable at the time of subdivision of the land (prior to the issue of Statement of Compliance), in accordance with the amended Precinct Land Budgets for Infrastructure Charges set out in the adopted Mernda Strategy Plan. Elderslie Land Trust further understands that works may be carried out in lieu of a cash payment for specific infrastructure projects. Elderslie Land Trust reserves the right to discuss these options further with Council over the coming months.

Based on discussions with Council officers our current understanding of Council Development Contributions is as follows:

- The gross developable area is calculated by deducting the area set aside for drainage and retarding purposes and the 16 metre strip to be acquired for widening Bridge Inn Road from the total site area, leaving 72.00 hectares.
- Contributions are to be applied at the residential rate of \$102,764 per hectare for 66.64 hectares, at the commercial rate of \$15,058 per hectare for 5.36 hectares and no contributions payable for the unencumbered open space.
- Council requires the developer to provide land equal 9.9% of Gross Developable Area as unencumbered open space. The 3.91 hectares available equates to 5.4%. The difference of 4.5% of gross developable area will be payable to Council at the rate of \$642,065
- Credits at the rate of \$642,065 per hectare will be allowed for the 3.91 hectares of available unencumbered open space and for the 1.54 hectares to be acquired for Bridge Inn Road widening.
- The school site will be treated as Gross Residential Developable Area and the contributions payable for the school site will be taken into account when negotiating a valuation for the acquisition of this site.

Statement of Compliance:

Elderslie Land Trust has reviewed the Infrastructure Charges Plan set out in the adopted Mernda Strategy Plan and will achieve compliance with its objectives.

6) compliance with precinct plan 4

It is noted that Precinct 4 plan is broader than the Elderslie Land Trust landholdings. Those objectives which have specific application to the Plenty Valley land are as follows:

- “Red River Gums should be protected through appropriate subdivision design. Trees may be incorporated into large lots, road reservations or pocket parks. These trees form part of a canopy habitat corridor”
- “Linear open space connection to Mernda town centre and the recreation hub in Precinct 3”

	Precinct 4	Plenty Valley Development Plan
Total Precinct Area	330.6Ha	76.99Ha
• Encumbered Land – Drainage Reserve	18.9Ha	3.06Ha
Gross Developable Area	312Ha	73.93Ha
• Unencumbered Open Space	31Ha	3.86Ha
Net Developable Area	281Ha	61.29Ha
• Residential	259.8Ha	52.63Ha
• Precinct Activity Centre	6.9Ha	-
• Mernda Town Centre	9.6Ha	8.66Ha
• School sites	11.9Ha	8.79Ha
Approximate Residential Lot Yield @ Gross Residential density of 8 lots per hectare	2,444 Lots	Approx yield of 1,050-1,200 dwellings (density > 8 lots per ha)
Unencumbered Open Space -% of Gross Developable Area (inclusive of mandatory 5% contribution)	10%	10.4%
Unencumbered Open Space -% of Gross Developable Area (inclusive of mandatory 5% contribution)	10.9%	-

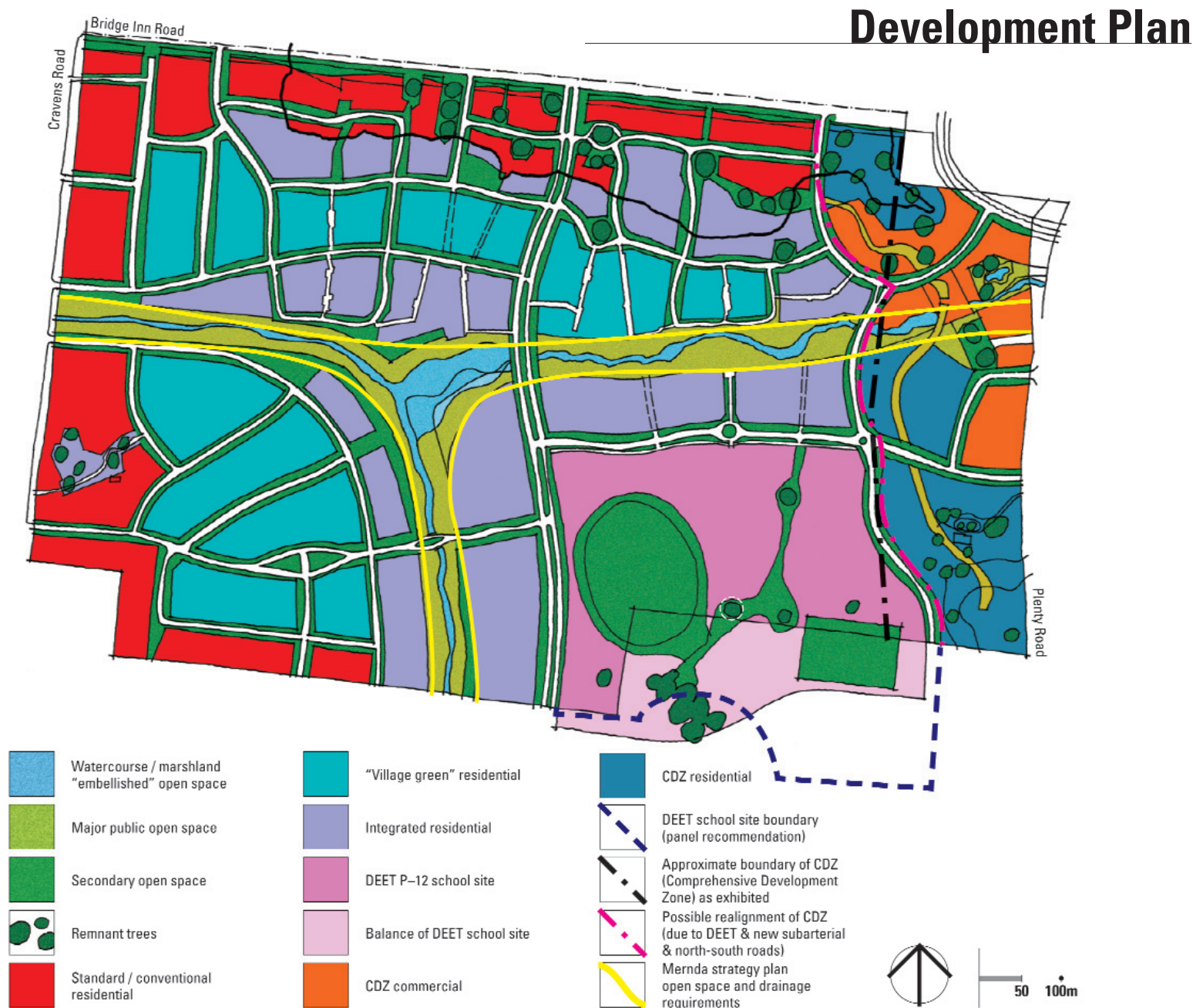
7) assessment against the dpo

The following table identifies the key requirements set out in the schedule to the Development Plan Overlay, together with Elderslie Land Trust’s response to these requirements.

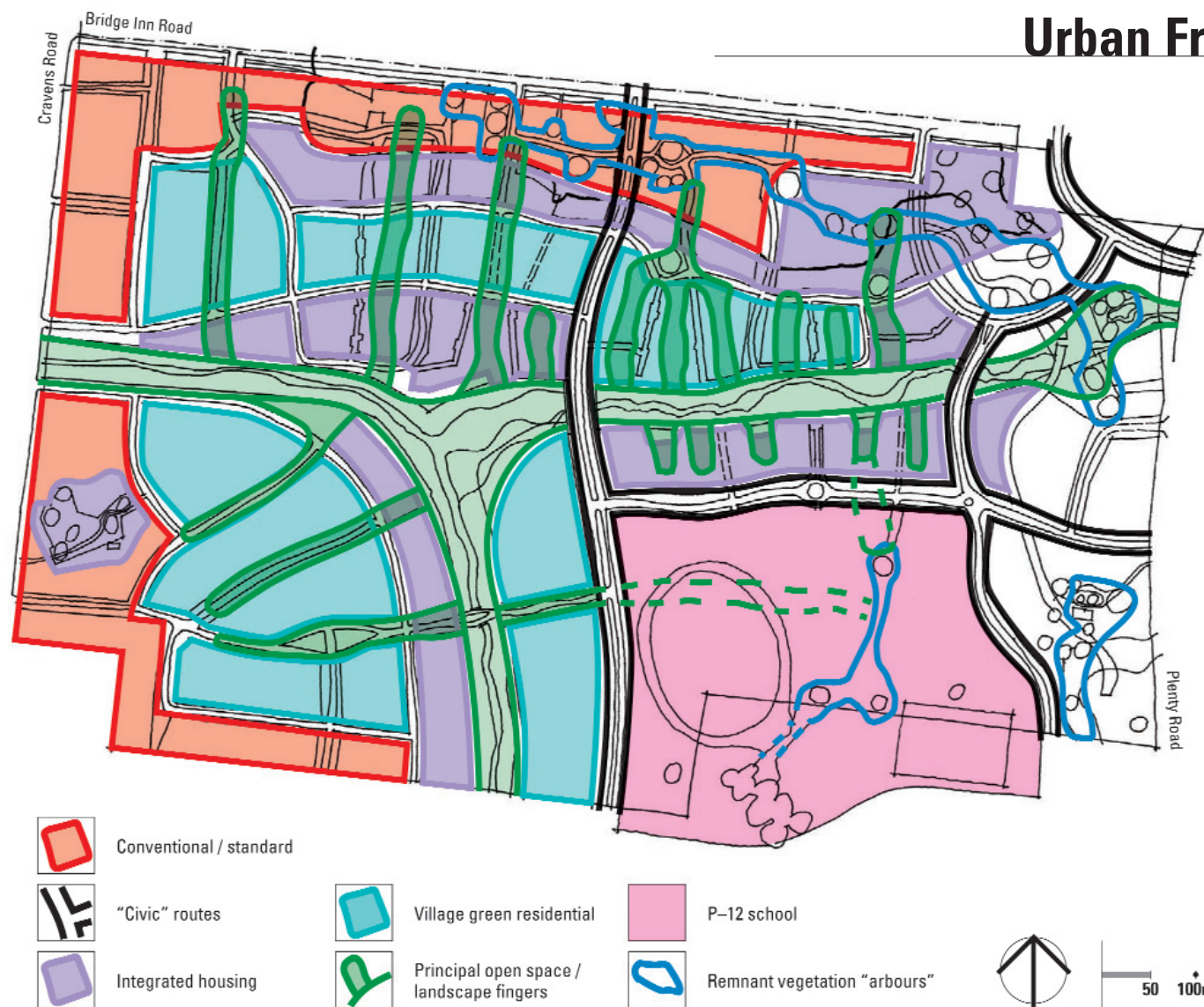
Requirement	Response	Reference
General consistency with the Mernda Strategy Plan and associated precinct plans. A written report must be submitted addressing how the Development Plan responds to and applies the design principles and key objectives of relevant plans.	The Plenty Valley Development Plan is consistent with the Mernda Strategy Plan and the Precinct 4 plan.	Sections 1-5 Appendices
Protection and enhancement of identified conservation areas. An environmental assessment of the flora, fauna and habitat significance of the land must be submitted which includes recommended actions for management, revegetation and restoration of conservation and vegetation protection areas and links between such areas. The assessment should be guided by the broader environmental assessment recommendations completed as part of the Mernda Strategy Plan	An environmental assessment of the flora, fauna and habitat significance of the land has been prepared by Biosis. This report includes a number of recommendations regarding conservation and vegetation protection areas and links between such areas.	Appendix 3
Retention and integration of individual and stands of mature trees, particularly indigenous River Red Gums. An arboricultural survey of all existing trees on the land and their condition, health and integrity must be submitted including appropriate measures for the long term preservation of the tree(s) having regard to their proposed open space or development context. A tree protection system must also be submitted to ensure that trees (including canopy and root system) are not damaged during construction.	It is the developer's to retain remnant trees in road reserves and other public space wherever possible, recognising the role such trees have in defining local landscape character. An arboricultural survey of all existing trees has been undertaken. We consider it appropriate that the recommendations of the flora and fauna report, together with the results of the arboricultural survey will form requirements of the subdivision approval process.	Appendix 4
Recognition of important landscape views and vistas. A visual impact assessment must be submitted for those areas identified as 'visually sensitive' in the Precinct Plans forming part of the Mernda Strategy Plan. The assessment must provide design and siting measures to enhance or promote the landscape character objectives for the area and reduce the impact of the proposed subdivision on significant views.	An assessment of the topographic characteristics of the site and visual impact assessment has been prepared by LandDesign Partnership.	Appendix 1
Provision of appropriate transition and interface design treatments between designated land uses identified in the Mernda Strategy Plan. Design concept plans for the interface between residential areas and the following land uses must be submitted: - the Plenty Gorge Parklands, the proposed Quarry Hills regional parklands and key conservation areas identified as part of the Mernda Strategy Plan - adjacent or opposite land zoned Rural and Environmental Rural. - high voltage transmission line easements - Mernda town centre and other precinct activity centres - the existing rail reserve and Melbourne Water 'pipe track' reservation - identified cultural heritage places - low density residential areas - Primary and Secondary arterial roads - major open space reserves	- not applicable - not applicable - not applicable - interface issues have been considered - not applicable - cultural heritage places will be retained - not applicable - treatments to the sub-arterial have been developed - treatments to the major open space reserve have been developed	

Requirement	Response	Reference
Conservation and protection of Aboriginal and European cultural heritage places. A detailed archaeological survey and heritage assessment must be submitted for the land which includes recommendations for the protection, restoration and interpretation of significant individual sites and, where appropriate, design measures to sensitively integrate sites into the proposed subdivision or open space network.	An assessment of the archaeological and cultural heritage of the subject site was prepared by Biosis. As required, this report includes recommendations for the protection, restoration and interpretation of significant individual sites. If Aboriginal archaeological sites are found during the sub surface testing program, when it is undertaken, the subdivision design will be amended as required in order to provide the sites the appropriate level of protection.	Appendix 5
Application of the principles of water sensitive urban design. A stormwater management plan must be prepared and submitted which provides for the protection of natural systems, integration of stormwater treatment into the landscape, protection of water quality (particularly in relation to the Plenty River and its tributaries), and reduction of run-off and peak flows.	Parson's Brinkerhoff and Dr Coombes have undertaken a review of the potential for integration of Water Sensitive Urban Design into the development. Dr Coombes will provide detailed input into the most appropriate WSUD applications for the site including the use of sophisticated modelling at the subdivision application stage.	Appendix 6
Opportunities for a diverse range of allotment densities and dwelling types. A statement of housing outcomes, population and lot yield targets must be submitted.	The development plan allows for flexibility in relation to allotment densities and dwelling types. Refer to Sections 5.1.1 and 5.1.6 for yield estimates, future population estimates and statement of housing outcomes.	
Provision of a road network providing a high degree of connectivity and external and internal permeability. A functional road layout plan must be submitted showing typical road cross sections and integration with the existing and proposed arterial road network. The plan should further provide for any public bus network which may be required within the Development Plan area; the provision of land for road widening where identified in the Mernda Strategy Plan; and a bicycle and pedestrian network plan (which includes links to adjoining land and networks).	The reports prepared by Grogan Richards and Land Design Partnership respond to these requirements.	Appendices 1 and 7
A landscape concept plan for all open space areas	Refer to Urban Design and Landscape Report	Appendix 1
A street tree concept plan	Refer to Urban Design and Landscape Report	Appendix 1
Precinct activity centre design concept plans	N/A	
A conduit network concept plan to facilitate the future installation of advanced telecommunications services through optical fibre cabling.	Refer to Servicing Report	Appendix 6
A development contributions plan and open space land budget.	Refer to Section 5.1.9 and Section 6 of the Development Plan	
	An environmental audit identifying any environmental hazards or contamination on the land and proposed	treatments, if
any; or a qualified statement indicating the absence of such hazards or contamination.	Refer to Golder Associates Report	Appendix 8
The location of any detention tanks, drainage retarding basins or other utility infrastructure required to service the	neighbourhood.	Appendix 6

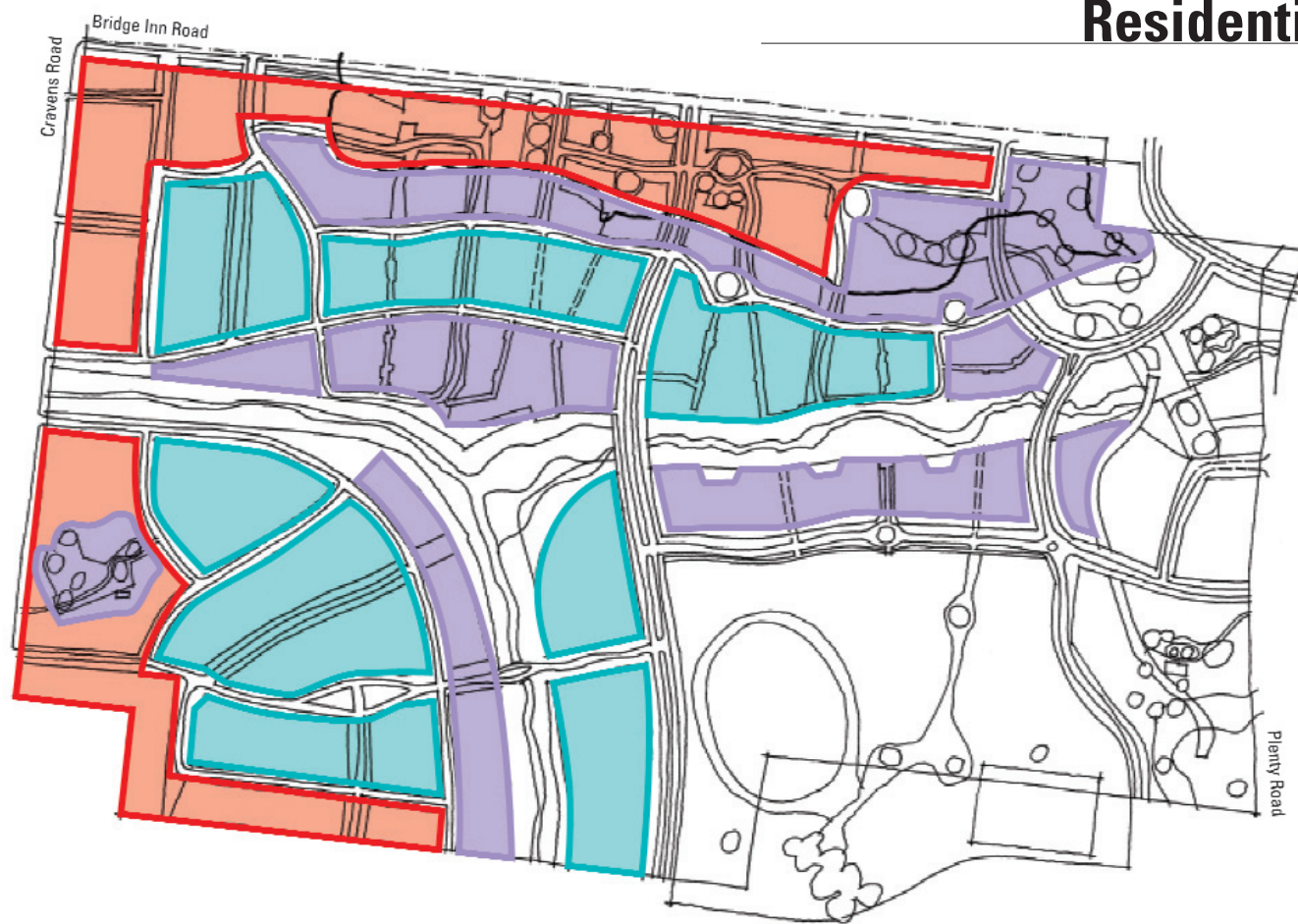
8) development plan drawings



Urban Framework



Residential Hierachy



Conventional / standard



Village green residential



Integrated housing

Landscape Master Plan



LEGEND

- Potential ephemeral Wetland zone
- Primary open space areas
- Secondary open space areas
- Wetlands / drainage ways
- Residential cells
- School site
- Remnant trees to be retained
- Open Space: Mixed indigenous trees extending from open space into adjacent streets
- Local Streets: Indigenous street tree mix
- Local Pedestrian through ways: Indigenous trees (species 1)
- Boulevard: Indigenous street trees (species 2)
- Local Streets: Indigenous street trees (species 3)
- Civic Street: Indigenous street trees (species 4)
- Bridge Inn Road: Indigenous street trees (species 5) & indigenous raised buffer planting

Plenty Valley Properties
Mernda Development
Landscape Master Plan

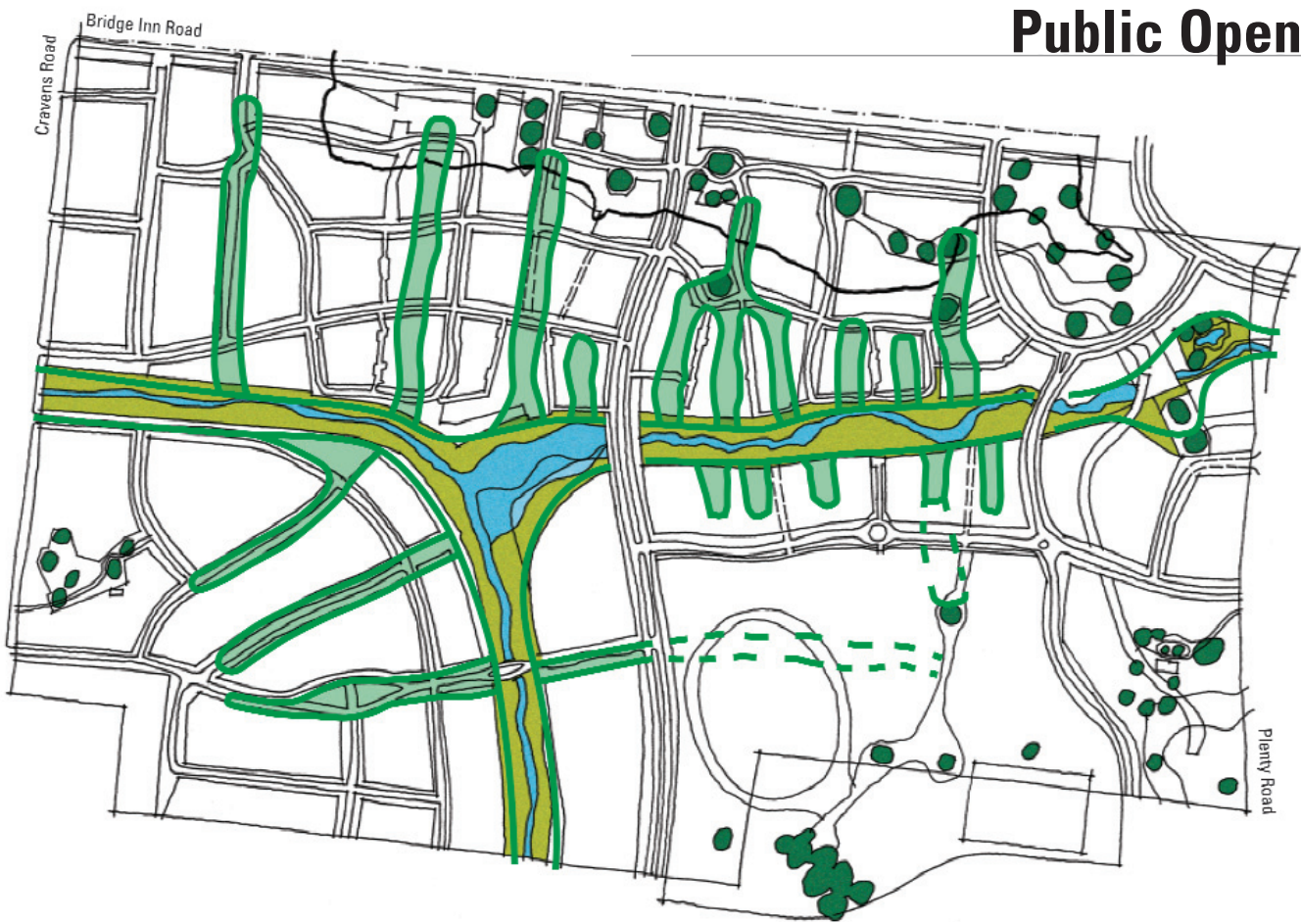


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Date: 27 July 2004

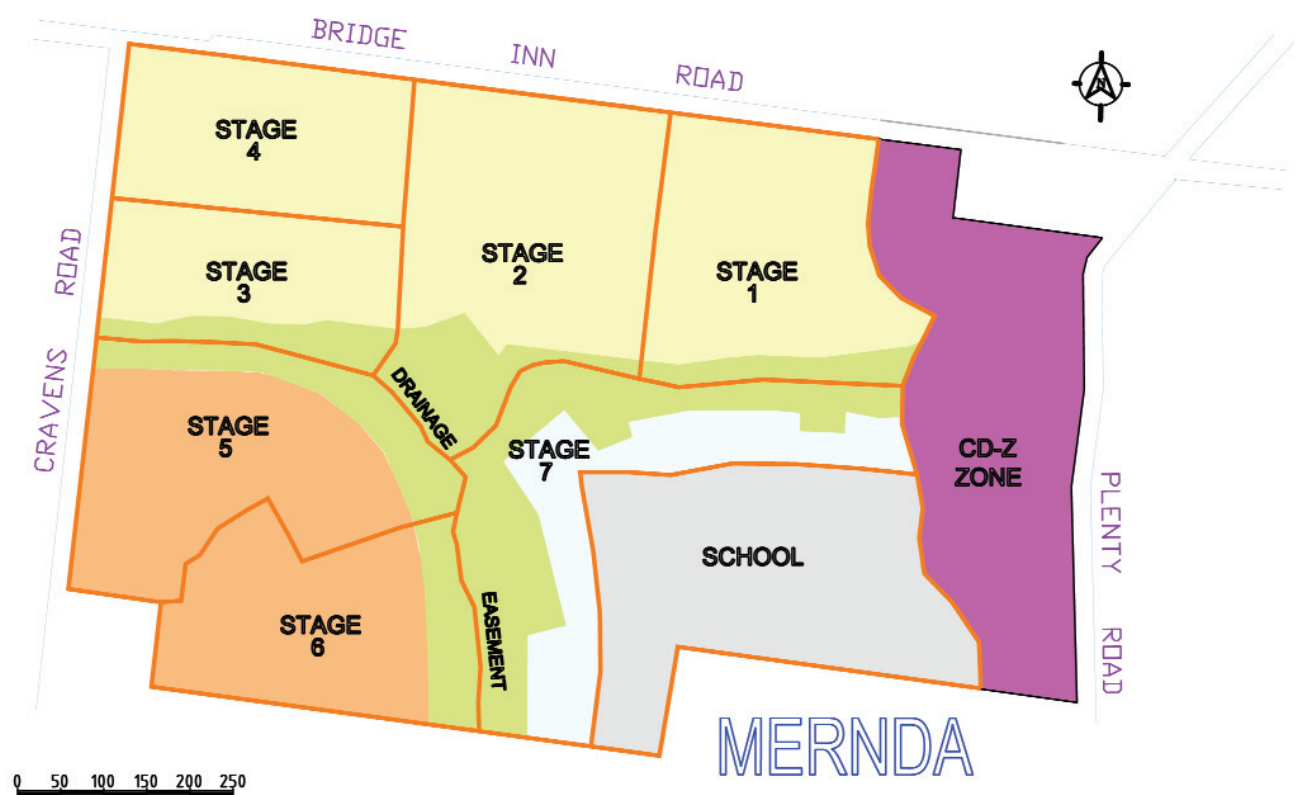
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Public Open Space



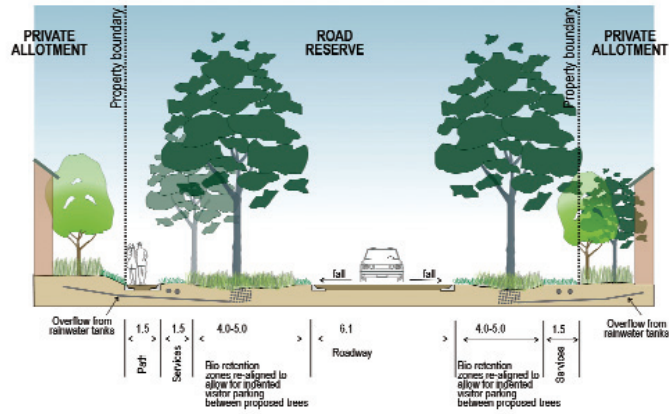
Indicative Staging Plan



STAGING PLAN

— STAGE BOUNDARY

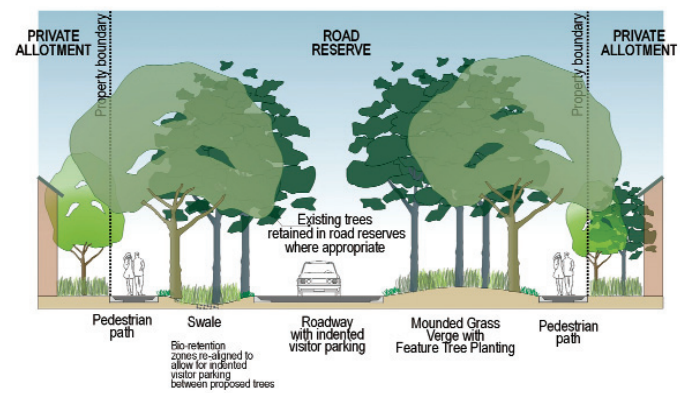
Typical Road Sections



SECTION AA

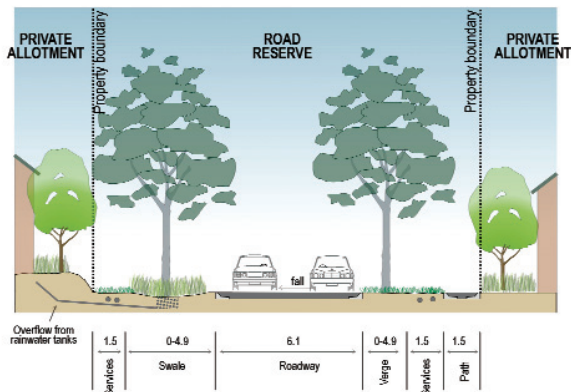
Typical 20m wide road reserve (with grassed verge)

- pavement meanders
- indented parking
- flush edges (no kerb)
- path one side only



Typical 20m wide road reserve (existing trees retained)

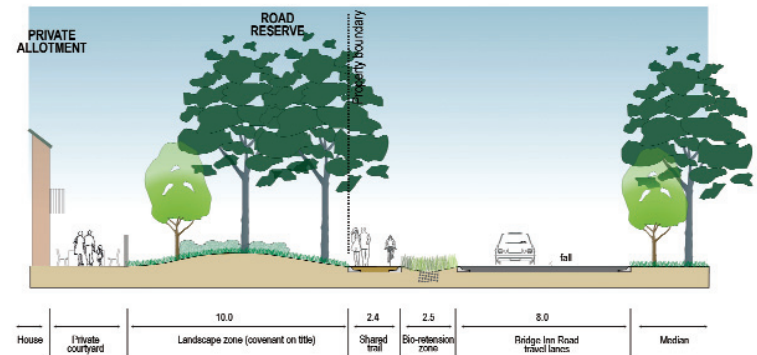
- Informal landscape in Road Reserves
- Extension of Parkland Character



SECTION DD

Typical 16m wide road reserve

- pavement meanders
- indented parking
- flush edges, no kerb
- path one side only

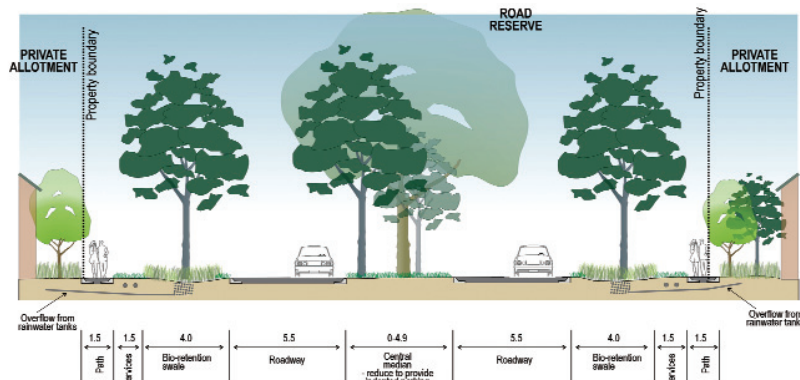


SECTION GG

Typical Bridge Inn Road interface

Alternative options:

- reduce shared path (2.5m) to footpath only (1.2m) to accommodate swale
- provide bicycle lane with 8.0m pavement or allow bicycle circulation through subdivision
- provide kerb blockouts if kerbs needed by Council (to allow WSUD approach)



SECTION II

Typical 30m wide road reserve (with central median)

- 2 x 5.5m lanes (use 2 x 4.0 if < 5000 vpd)
- flush edges (use kerbs with block-outs if required by council)
- park both sides
- vary median/landscape zones to protect remnant trees as required
- maybe increase path to 2.5m if shared path required.

